
© Copyright 2015 Jacobs U.K. Limited. The concepts and information contained in this document are the property of Jacobs. Use or copying of this document in whole or in part without the written permission of Jacobs constitutes an infringement of copyright.

Limitation: This report has been prepared on behalf of, and for the exclusive use of Jacobs' Client, and is subject to, and issued in accordance with, the provisions of the contract between Jacobs and the Client. Jacobs accepts no liability or responsibility whatsoever for, or in respect of, any use of, or reliance upon, this report by any third party.

## A90/A96 Haudagain Improvement

DMRB Stage 3 Environmental Statement
Volume 2: Technical Appendices

## Contents

## Volume 2: Technical Appendices

This document supports Volume 1 (Main Report) of the A90/A96 Haudagain Improvement Environmental Statement.

## 4 The Proposed Scheme <br> A4.1 Construction Information

## 6 Consultation and Scoping

A6.1 List of Consultees
A6.2 Summary of Consultation Responses
A6.3 Record of Determination (RoD)

## $7 \quad$ Community and Private Assets

A7.1 Residential Land-take for the Proposed Scheme

## $9 \quad$ Road Drainage and the Water Environment

A9.1 Flood Risk
A9.2 Water Quality Calculations

10 Ecology and Nature Conservation
A10.1 Legislation and Conservation Status
A10.2 Detailed Terrestrial Ecology Methods
A10.3 Confidential - Badger and Otter
A10.4 Bat Survey Results

11 Landscape and Visual
A11.1 Urban Character Areas (UCAs)
A11.2 Built and Outdoor Receptor Assessment Tables
A11.3 Urban Design Objectives

12 Cultural Heritage
A12.1 Gazetteer

13 Air Quality
A13.1 Air Quality Methodology

14 Noise and Vibration
A14.1 Acoustical Technical Definitions
A14.2 Baseline Noise Monitoring Results
A14.3 Assumed Construction Plant and Scenarios
A14.4 Operational Noise Monitoring Results

17 Policies and Plans
A17.1 Planning Policy Context for Environmental Assessment
A17.2 Assessment of Development Plan Policy Compliance

## A90/A96 Haudagain Improvement

DMRB Stage 3 Environmental Statement
Volume 2: Technical Appendices

## A4.1: Construction Information

## 1 Introduction

1.1.1 This appendix provides an overview of a potential construction scenario for the construction of the proposed scheme. This information was prepared based on the Design Manual for Roads and Bridges (DMRB) Stage 3 design to provide a set of assumptions for the purposes of assessing potential construction impacts as reported in the Environmental Statement (ES).
1.1.2 It should be noted that the detailed design of the proposed scheme, and the construction programme and methodology, will be determined by the appointed design \& build (D\&B) Contractor, within the constraints of the contract and the requirements of the ES (i.e. to achieve the stated residual impacts).
1.1.3 Information is set out under the following headings:

- General Site Operations.
- Construction Programme and Phasing.
- Typical Construction Methods.
- Land Requirements.
- Public Access, Site Access, and Traffic Management.
1.1.4 Plant likely to be involved in the construction of the proposed scheme are typical for infrastructure projects of this type, and are likely to include:
- excavators;
- piling rigs;
- tracked vehicles, bulldozers and dump trucks;
- Heavy Goods Vehicles (HGVs) and concrete wagons;
- hand-operated machinery including compacting plant;
- portable generators for temporary lighting, pumps and similar;
- cranes and other lifting equipment; and
- motorised graders and pavement (road surface) rollers;


## 2 General Site Operations

### 2.1 Site Layout

2.1.1 For construction purposes, it has been assumed that the site would be broken down into three main areas:

- New dual carriageway link road
- Reconfiguration of local road network
- Tie-ins to existing trunk road network at Auchmill Road and Great Northern Road


### 2.2 Safety and Security

2.2.1 Throughout the course of the works the Contractor will manage the Health and Safety of the site in accordance with the requirements and principles of all current applicable Health and Safety legislation, including the Construction (Design and Management) Regulations 2015, the Health and

Safety at Work etc. Act 1974, the Management of Health and Safety at Work Regulations 1999, and the Workplace (Health, Safety and Welfare) Regulations 1992, and will ensure the safety of the public, site personnel, site operators, and visitors.

### 2.3 Working Hours

2.3.1 Anticipated 'typical' working hours of the Contractor will be agreed with Transport Scotland (TS) and the Aberdeen City Council (ACC) Environmental Health Officer, but for the purposes of assessment are assumed to be as set out below:

- 07:00 to 19:00 on weekdays (Monday to Friday);
- 07:00 to 13:00 on Saturdays; and
- no Sunday working.
2.3.2 The above range applies to summer hours, when it is likely to be necessary to maximise the available good weather conditions for carrying out earthworks activities, as poor weather can adversely affect the condition of the material being used and the condition of haul routes. Winter hours will generally be shorter, due to the seasonal restrictions on activities that can be carried out efficiently and the length of daylight available.
2.3.3 It is anticipated that some work will be required outside the normal working hours for exceptional activities, such as those that can only take place when traffic flows are low, subject to agreement with TS and ACC. These include:
- weekend/overnight work to complete critical phases of road construction and surfacing; and
- implementing changes to temporary traffic management layouts.


### 2.4 Site Lighting

2.4.1 Temporary site lighting during construction will generally be required as follows:

- at Contractor's compounds for security and safe movement of staff during winter mornings and evenings;
- along temporary access roads;
- at locations where there is currently no lighting, but lighting is required as a safety measure under temporary traffic management (e.g. at carriageway crossovers, contraflows etc); and
- for night time activities or winter afternoon activities.
2.4.2 Maintenance of road lighting at locations where the layout is to be changed will be provided by mobile lighting towers or by use of columns in temporary locations.


## 3 Construction Programme and Phasing

### 3.1 Construction Programme

3.1.2 The indicative construction programme is broken down into six phases (the advance works and the five main contracts works) to reduce the impact on road users and neighbouring communities. The indicative phasing of the construction works is as follows:

- Advance Works - Establish work area and set-up traffic management which may include temporary road closures and diversion of traffic to facilitate the demolition process. Undertake site clearance, demolition works and service diversions.
- Main Contracts Works Phase 1 - Reconfiguration of traffic management. Undertake service diversions. Construction of detention basin, outfall to Scatter Burn Culvert and section of the existing Manor Avenue. Commence construction of sections of the dual carriageway link road including construction of tie-ins to A90(T) North Anderson Drive.
- Main Contracts Works Phase 2 - Reconfiguration of traffic management. Undertake service diversions. Continue construction of new link road, Logie Avenue (East and West) including bus turning area
- Main Contracts Works Phase 3 - Reconfiguration of traffic management. Undertake service diversions. Continue construction of new link road.
- Main Contracts Works Phase 4 - Reconfiguration of traffic management. Undertake service diversions. Complete construction of new link road including construction of tie-ins to A96(T) Auchmill Road. Construct Realigned Manor Avenue and Access to Manor Avenue.
- Main Contracts Works Phase 5 - Reconfiguration of traffic management. Undertake pavement works on A96(T) Auchmill Road and A90(T) North Anderson Drive.


## 4 Typical Construction Methods

### 4.1 Establishment of Construction Compounds

4.1.1 Preliminary activities include the setting up of the site compounds and offices. This also includes cabins, stores, welfare facilities and car parking. The Contractor will determine the location of the site compound and seek all necessary approvals for its design and construction.
4.1.2 Preparatory works for the temporary site establishments will involve some site clearance work, earthworks operations to level the site, drainage and pavement works for the car park and services installation (e.g. electrical, communications, water and sewerage). The site compound will be erected, maintained and subsequently removed in a manner that will aim to avoid or reduce impacts on the locality.
4.1.3 The initial actions will involve the construction of site access and egress points. Wherever practicable, haul routes will also be established to ensure that construction traffic is contained within the confines of the site, as far as possible. However, since the route intersects main roads, local roads and other obstructions, the limited use of other public roads is likely to be required and approval for this will be sought by the Contractor with the relevant authorities.

### 4.2 Temporary and Permanent Fencing

4.2.1 The land area to be occupied by the construction works will be identified accurately on the ground, by surveying and installing appropriate pegs and posts, prior to the works commencing. The area defined will be the land acquired for the permanent works and any other areas that the Contractor has acquired by agreement to facilitate construction of the works.
4.2.2 Due to the urban nature of the proposed scheme is likely that the majority of permanent fencing required will be accommodation works fencing at residential and community properties. Permanent fencing at features such as detention basins may also be required for safety reasons. Additionally, acoustic fencing will be required to mitigate the effects of noise from the proposed scheme, further information of this can be found in Chapter 14: Noise and Vibration.

Other specific fencing that may be required temporarily will include higher security fences at compounds or where additional security of the works is required.

### 4.3 Site Clearance and Demolition

4.3.1 Site clearance and demolition works (which may be the subject of an advance work contract) typically include the following:

- general clearance;
- demolition of buildings;
- removal of pipelines, public and privately owned services or supplies; and
- tree felling and removal of stumps, removal of fencing, walls, hedges, bushes and undergrowth.
4.3.2 Any material to be reused in the permanent works will be stockpiled or taken to store. Surplus and unsuitable materials arising from the site clearance operations will be recycled, or, if they cannot be recycled, disposed of at an appropriate, approved disposal facility in the area. Burning of materials on site will not be permitted, except when specifically required for which approvals will be required.
4.3.3 Materials for off-site recycling or disposal will be transported in appropriate wagons along prescribed main road routes, which are likely to include the A90 and A96. Prescribed routes will be included in the contract documents. The Contractor will be required to seek approval from the relevant authority should they wish to use any other routes.
4.3.4 The Contractor will be responsible for the timing of demolition and site clearance activities and will be required to take account of seasonal restrictions, such as bird breeding seasons and relocation of any species in the works programme. The detailed timetable for ecological constraints will comply with any requirements of the ES.


### 4.4 Contaminated Materials

4.4.1 The treatment of any hazardous materials encountered in site clearance will comply with specific contract requirements and will require an assessment in accordance with current health and safety regulations including the Control of Substances Hazardous to Health Regulations (COSHH) Regulations. Contaminated materials may have to be disposed of at licensed sites.

### 4.5 Temporary and Permanent Surface Water Outfalls

4.5.1 Temporary arrangements will be made to control surface water run-off during construction, where surface water could affect the works or the environmental performance of mitigation measures. Measures implemented may include temporary settlement ponds which will allow sediment to settle before clean water is discharged via a temporary outfall pipe or ditch to receiving watercourses.
4.5.2 During the construction period, and particularly the earthworks construction phase, water will be directed to settlement ponds using temporary cut off ditches. Construction of the ponds will involve earthworks operations including excavation, placement of fill and compaction. Temporary ponds will require to be maintained to remove sediment and silt for example, and ensure that the ponds operate as intended. Measures will also be undertaken to prevent in the ingress of groundwater.
4.5.3 Other options for disposal of water include discharging to sewers if they have sufficient capacity, or taking water off site in bowsers or tankers for disposal. It is likely that the permanent drainage basins and ponds will be constructed and used during construction. These will be cleaned and maintained following the main construction works for incorporation into the final drainage network.

### 4.6 Service Diversions

4.6.1 In advance of property demolition private service supplies will require to be stopped up. It is possible that some additional service diversions will be undertaken in advance of the main
construction works. However, other diversions are only likely to be possible once construction has reached a certain stage.
4.6.2 Existing services may require temporary diversions as a result of disruption to apparatus during the construction of the works. These temporary diversions will be in place to minimise any disruption to the services being affected by the proposed scheme.

### 4.7 Topsoil Stripping and Storage

4.7.1 Where appropriate, topsoil will be stripped off over the full area to be occupied by the roads, cuttings, embankments and associated structures to depths defined for each particular location. The topsoil will be removed if surplus to requirements or stockpiled outwith working areas, until such time as it is required for reuse. Measures such as cut-off ditches may be required around stockpiles to transfer any contaminated run-off to temporary settlement ponds.
4.7.2 The plant potentially used for topsoil stripping includes rubber-tyred motorised scrapers, excavators etc, though more controlled procedures may be required in environmentally sensitive zones using smaller plant. Limits will be imposed on the maximum distance from the zone of excavation to the point of deposition of the topsoil to control invasive plant species and ensure that topsoil is reused close to the location it was stripped.

### 4.8 Pre-Earthworks Drainage

4.8.1 Pre-earthworks drainage generally comprises excavation of filter drains constructed at the top of cutting slopes or toe of embankments where required by the design to prevent surface or ground water entering the works. When placed at the top of cuttings, surface water carried by the preearthworks drainage is clean and can be transferred directly to watercourses unless the rate of discharge has to be controlled. When placed at the toe of embankments, surface water carried by the pre-earthworks drainage may contain sediment from run-off from the embankments being constructed and will be required to discharge water to temporary settlement ponds prior to it being discharged to a watercourse.
4.8.2 The material arising from the excavation of the pre-earthwork drainage will be transported for reuse within the works or off-site, or ultimately disposal off-site.

### 4.9 Earthworks

4.9.1 The principal earthworks process involves layered excavations of soils in cuttings and transportation of the excavated soil to neighbouring zones where embankments are required. Deposition in the fill areas will be built up by depositing the material and using bulldozers to place it in layers which are then compacted by rollers. This process is repeated until embankments are built to the road formation level.
4.9.2 Generally, it is preferred to achieve a cut/fill balance and have short haul distances to minimise transport of earthworks materials along the site between cuttings where they are excavated and embankments where they are placed. Indicative lorry loads are shown in Table 4.1.

Table 4.1: Indicative Lorry Loads - Earthworks

| Lorry Loads for Earthworks | Volume/Number/Timescales |
| :--- | :---: |
| Potential import $\left(\mathrm{m}^{3}\right)$ | 18,200 |
| Potential disposal $\left(\mathrm{m}^{3}\right)$ | 31,700 |
| Potential Total Lorry Loads | 4,990 |
| Potential duration of main earthworks activities (months) | 5 |
| Estimated weekly average lorry loads during main <br> earthworks activities | 250 |

4.9.3 The study area sits on the north facing slopes of the River Don valley. To the south of the river the areas of Northfield, Cummings Park and Rosehill sit at the top of an evenly rising hill. The gradient briefly plateaus along the A96 corridor, before dropping steeply towards the flat valley floor. The topography rises again to the north of the flood plain across the generally gentle slopes of the Hill of Danestone. The topography of the site and alignment standards to be provided complicate achievement of an earthworks quantities balance and long hauls of material may be required.
4.9.4 Excavations in cutting will include the removal of the top layers of material which are likely to be unacceptable for use in the main road embankments and transport of this material to stock piles to be reused as landscaping earthworks mitigation at a later date. The lower layers of the cuttings are likely to comprise material that is more acceptable for use in the main road embankments and this will be transported and compacted as described above.
4.9.5 The likelihood of intercepting bedrock during excavations is predicated to be low (see Chapter 8: Geology, Soils, Contaminated Land and Groundwater). If encountered, rock may be ripped using a bulldozer with a blade attached to the rear. Another option where ripping of rock material is not feasible includes using a hydraulic breaker (also known as a rock hammer or pecker). Blasting is not expected for the removal of rock.

### 4.10 Drainage, Service Ducts and Chambers

4.10.1 Construction of carriageway drainage will involve laying filter drains, carrier drains and outfalls to transport surface water run-off from side slopes, carriageways and other paved areas. Drainage products will include pipes, gully pots, cover gratings, graded gravel for pipe bedding, gravel filter material, and other stone pieces for balancing ponds and open channels. Manholes and chambers will be built with in-situ concrete bases, precast concrete ring or brickwork walls and iron cover on precast concrete caps.
4.10.2 Construction of carriageway drainage will involve excavation of the drain, with material being deposited adjacent to the drain in the road verge or transported for reuse or disposal. Gravel bedding and filter material (crushed rock) is delivered to the works from either a local quarry or a source on site if extracted rock quality is suitable. The bedding material is placed at the bottom of the excavated trench and the drainage pipes are placed on top before being covered with the filter material. Some filter drains may also have a geotextile surround to prevent sediment ingress into the filter material, and if the drainage pipe crosses the road carriageway, it may have a concrete surround which will be transported to the site and placed around the pipe in the trench.
4.10.3 A detention basin will be constructed to provide a permanent treatment and attenuation facility as part of the Sustainable Drainage Systems (SUDS) strategy, although a temporary pond could be re-used if it was designed and built for the permanent situation. An outflow pipe will transfer runoff from the carriageway drainage network to the detention basin, and to the receiving watercourse following treatment/attenuation. It is envisaged that the connection to the receiving watercourse will be made at a depth of approximately 6.5 m . Due to the proximity of property and Manor Drive at the tie in point a detailed construction methodology will require to be developed by the Contractor. It is envisaged that the temporary works will include the use of sheet piling and a localised diversion of the watercourse.
4.10.4 Service ducts and chambers are constructed in a similar manner as carriageway drainage and catchpits/manholes. However, service chambers may be brick built involving transport of materials and on site manufacture and use of mortar.

### 4.11 Topsoiling and Seeding

4.11.1 Topsoiling and seeding will be undertaken as soon as possible after earthworks construction is completed. This will enable the subsoil to be sealed preventing sediment run-off. As described previously, topsoil will have been stripped and stored adjacent to the works. The topsoil will be transported from the topsoil storage locations to the works and will be placed by an excavator.

Grass seeding may be by hand or by machine spreading, undertaken in the relevant areas specified in the landscape design.

### 4.12 Pavement Construction

4.12.1 Pavement construction involves building the pavement up in layers.
4.12.2 The bottom layer (sub-base) is a crushed rock aggregate which will be delivered to the site from local quarries or crushed and graded on site from excavated rock, as described previously. Indicative lorry loads required for pavement construction are shown in Table 4.2. The material is deposited and then pushed into place and compacted.
4.12.3 The upper pavement layers will be specified in accordance with the requirements of the contract and will involve transport of material to the site either from local sources or from a batching plant on site.

Table 4.2: Pavement Construction

| Parameter | Estimate |
| :--- | :---: |
| Estimated total lorry loads | 2,900 |
| Potential length of pavement construction <br> activities (months) | 12 |
| Estimated weekly average lorry loads during <br> pavement construction | 56 |

### 4.13 Roadworks Finishes

4.13.1 Following pavement construction, safety barriers will be installed. Posts and barriers are delivered to the site and safety barrier installation then involves driving steel posts into the ground or excavating small footings and placing concrete into which the posts are set. The barriers are bolted to the posts and fixed to small concrete anchorages.
4.13.2 Sign installation will involve excavation for the concrete foundations, and setting the posts. The sign faces are then fixed to the sign posts. Some signs may be lit and will require cabling to be passed through the service ducts installed as described previously.

Road markings will be applied to the road surface using specialist lorry-mounted equipment.

### 4.14 Accommodation Works

4.14.1 Accommodation works may include, access roads, fences and walls or other ancillary items agreed with landowners. Construction methods will be similar to those described for these items in this outline methodology.

### 4.15 Structures

4.15.1 Typical construction methods for retaining walls are described below and apply to most retaining walls to be constructed as part of the proposed scheme.

## Retaining Walls

4.15.2 The Stage 3 design incorporates a number of retaining walls. These retaining walls are required to support soil where differences in ground levels are expected to exist.

Retaining walls may be constructed by excavating to the required level whilst temporarily supporting the material to be retained. The retaining walls may be pre-cast or cast in-situ.

Alternatively, contiguous piles may be installed to form the retaining wall before excavation to the required level.

## 5 Land Requirements

### 5.1 Land Required During Construction

5.1.1 Land required during construction may be in addition to that required for the footprint of the permanent works. The main requirements are described below.

## Site Compounds for the Contractor and Others

5.1.2 Where possible these would be located close to the proposed works where there is suitable access. They would be used to accommodate offices for the Contractor as well as workshops, stores, welfare facilities, etc. and parking for cars and plant.

## Additional Works Areas

5.1.3 Land may be required to allow the Contractor to gain safe access to the permanent works. This is usually where access is very restricted or where the works are adjacent to a live carriageway, such as when carrying out online widening works.

## Temporary Diversions

5.1.4 In order to maintain traffic flows when undertaking works on the existing highway, such as carriageway tie-ins, it may be necessary to provide a temporary diversion or temporary road closure should a temporary diversion not be practicable

## Clearance of Site on Completion

5.1.5 Clearance of the site on completion of the works will normally involve small dumpers, excavator/loaders and lorries to gather up and dispose of surplus material and generally tidy up.

### 5.2 Permanent Land

5.2.1 The main requirements for permanent land are as follows:

- land associated with the footprint of the proposed scheme, including earthworks (i.e. land required to build embankments or excavate cuttings);
- land to allow adequate drainage of the road and the area through which it passes. This includes land required for diversion of watercourses, drainage outfalls and SuDS features and arrangements for maintenance access;
- land required for other environmental mitigation, such as landscape planting.
5.2.2 Other land not required for the permanent works may also be permanently acquired by the highway authority due to it becoming unusable or impractical to use as a direct result of the works.


## 6 Public Access, Site Access and Traffic Management

### 6.1 Access Routes for Construction Traffic

6.1.1 The proposed works are generally located on the existing local road network. Therefore, the Contractor may be restricted as to the extent and purpose that he can use lengths of local road not directly affected by the proposed works for construction purposes. While it is desirable that all construction related access should be via the A90 and A96 Trunk Roads it will be necessary to
provide some access from the side road network. Routes not available to the Contractor will be as agreed with the relevant authority and stipulated in the contract.

### 6.2 Traffic Management Requirements

## Introduction

6.2.1 During construction, temporary traffic management will be required to undertake the works, whilst minimising disruption to users of the active road network.
6.2.2 Temporary traffic management will be put in place during construction at works close to or on existing roads, and at site access and egress points. Examples of measures include traffic cones, temporary signs and lighting, temporary speed restrictions, temporary diversions and contraflows.

## Lane Requirements

6.2.3 In general, construction phasing and temporary traffic management proposals have been prepared on the basis of keeping the existing Haudagain Roundabout and associated approach roads fully functioning at peak times except for specific short term restrictions. Where considered appropriate, the Contractor will be required to provide a vehicle recovery service to promptly remove any broken down vehicles within the temporary traffic management areas.
6.2.1 For the A90 and A96 Trunk Roads, it is envisaged that short lengths of the central reserve will require to be reconfigured as temporary running lanes or crossover locations and used in conjunction with narrow lanes to facilitate construction.
6.2.2 The proposals in this appendix have been prepared on the basis of keeping all routes and accesses open throughout the works wherever feasible. In some cases it may be necessary to effect temporary road closures, during which time diversionary routes will be signposted.

## Works Restrictions

6.2.3 It is generally proposed that the network connection works be constructed within the typical working hours as set out in Section 2.3 (Working Hours). Likely exceptions to this would be for activities such as utility diversions and critical works on the A90 and A96 Trunk Roads. Traffic management or alternative diversion routes will be set up during such night time works, together with advance warning and publicity to help drivers to avoid these locations/dates if possible.
6.2.4 Road closures and diversions are likely to require a Temporary Traffic Order and be subject to approval by TS, ACC, Police Scotland, and the Maintaining Authority.
6.2.5 As the proposed scheme is located in a residential area, methods of construction should be adopted that keep noise levels to a practicable minimum.

## Temporary or Permanent Road Closures or Diversions

6.2. $\quad$ Temporary road closures and diversions will be arranged through the Overseeing Organisation following discussions with TS, ACC, Police Scotland and the Maintaining Agents. A Temporary Traffic Order giving the requisite notice will be prepared and a statutory notice placed in local newspapers.
6.2.7 Permanent road closures that occur as a consequence of the phasing for the construction of new alignments, supported by the appropriate legal Orders, will be implemented following discussions with relevant parties and agreement of any temporary traffic arrangements.

## Temporary Carriageway

6.2.8 Under the traffic management proposals in this appendix, there may be a requirement to construct some sections of temporary carriageway. The need for these will be dependent on the Contractor's detailed design and his construction and traffic management methodology. Appropriate geometric and pavement construction standards for the design of temporary diversions will be set out in the contract.

## Approvals

6.2.9 The Contractor's detailed proposals for traffic management will only be confirmed after discussions with TS, ACC, Police Scotland and the Maintaining Agents.

The Contractor will be required to appoint a Traffic Safety Officer who be responsible for submitting traffic management layout drawings, method statements, etc. within the requisite notice period for discussion at regular traffic management meetings. The Traffic Safety Officer will be responsible for ensuring that temporary traffic management operations are monitored and maintained.

## 7 References

Department of Transport (2009). Traffic Signs Manual. Chapter 8, Roadworks and Temporary Situations.

## A6.1: List of Consultees

This appendix contains a summary of the information provided through the DMRB Stage 2 and Stage 3 environmental consultations (as described in Chapter 6: Consultation and Scoping).

| Consultee | Information Provided |
| :---: | :---: |
| Statutory Consultees |  |
| Aberdeen City Council | Meetings, correspondence and response to Stage 2 and Stage 3 consultation letters received information and feedback on: Sites and Monument Records (SMR); water environment; contaminated land; fuel tanks; pollution prevention; local paths and cycle routes; ecology and nature conservation; air quality and noise and vibration assessment methodology; Candidate Noise Management Areas (CNMAs); and recommended photomontage viewpoints. |
| Historic Scotland | Response to Stage 2 and Stage 3 consultation letter - baseline information. |
| Scottish Environment Protection Agency (SEPA) | Meetings, correspondence and response to Stage 2 and Stage 3 consultation letter - received information and feedback on: flood risk; surface water drainage; water quality; contaminated land; pollution prevention and environmental management; CAR licencing; and Water Framework Directive (WFD) classifications and designations. |
| Scottish Natural Heritage (SNH) | Response to Stage 2 and Stage 3 consultation letters - provided information on suggested organisations to contact for baseline data. |
| Non-Statutory Consultees |  |
| Aberdeen and Grampian Chamber of Commerce | Responded to Stage 3 consultation letter - commented on economic benefits of proposed scheme, but noted appropriate consideration of environmental impacts is required. |
| Aberdeen Cycle Forum | Meeting - provided information on design specifications in relation to cyclists and potential locations where upgrades would be desirable. |
| Aberdeen Friends of the Earth | Responded to Stage 3 consultation letter - commented on the following: cycling; buses; air quality; road traffic reduction; built and natural environment; noise; and community severance. |
| Aberdeen Taxis | Sent a Stage 2 consultation letter - no response received. |
| Aberdeen Wheelers | Sent a Stage 3 consultation letter - no response received. |
| Archaeology Scotland | Sent a Stage 2 consultation letter - no response received. |
| British Horse Society | Responded to Stage 3 consultation letter - commented on equestrian usage in the area and path requirements. |
| Centre for Ecology and Hydrology | Sent a Stage 2 consultation letter - no response received. |
| Confederation of Passenger Transport | Sent a Stage 2 consultation letter - no response received. |
| Cycle Touring Club (Scotland) (CTC) | Meeting - provided information on design specifications in relation to cyclists and potential locations where upgrades would be desirable. |
| First Group | Sent a Stage 2 consultation letter - no response received. <br> Meeting - provided input into proposed public transport proposals (16/07/14). |
| Freight Transport Association | Sent a Stage 2 consultation letter - no response received. |
| Grampian Red Squirrel Group | Sent a Stage 2 consultation letter - no response received. |
| Middlefield Area Regeneration and Action Group (MARAG) | Meeting - provided feedback on landscape and noise mitigation proposals. |
| Nestrans | Sent a Stage 2 consultation letter - no response received. |
| Network Rail | Sent a Stage 2 consultation letter - no response received. Meeting held with Network Rail on $20^{\text {th }}$ August 2014 to discuss drainage design and modelling, flood risk assessment and existing culverts. |
| North East Scotland Bat Group (formerly the Aberdeen Bat Group) | Sent a Stage 2 and Stage 3 consultation letter - no response received for either. |
| North East Scotland Biological Records Centre (NESBReC) | Responded to both the Stage 2 and Stage 3 consultation letter - provided information on species of conservation interest, ancient woodlands and sites of conservation interest. |
| Northfield Community Council | Sent a Stage 2 consultation letter - no response received. |
| Police Scotland | Meeting - provided input to landscape proposals and creating a safer and more secure environment through design. |
| River Don Trust | Sent a Stage 2 and Stage 3 consultation letter - no response received for either. |
| Road Haulage Association | Sent a Stage 2 consultation letter - no response received. |

## A90/A96 Haudagain Improvement

DMRB Stage 3 Environmental Statement
Appendix A6.1: List of Consultees

| Consultee | Information Provided |
| :--- | :--- |
| Scottish Badgers | Responded to both the Stage 2 and Stage 3 consultation letter - provided information on <br> badger presence and road kills. |
| Scotways | Responded to Stage 3 consultation letter - highlighted that there are no rights of way in the <br> study area. |
| Scottish Wildlife Trust | Sent a Stage 2 and Stage 3 consultation letter - responded to Stage 3 consultation noting that <br> a formal response could not be provided due to lack of capacity. |
| Stagecoach | Meeting - provided input into proposed public transport proposals (16/07/14). |
| SUSTRANS | Sent a Stage 2 and Stage 3 consultation letter - responded to Stage 3 consultation providing <br> information on cycle routes and non-motorised user counts. |
| The Garden History Society in <br> Scotland | Sent a Stage 2 and Stage 3 consultation letter - no response received for either. |

*Please note that the above table relates to consultation concerned with environmental issues. Additional consultation may have taken place with the above mentioned organisations and Jacobs' design team.

## A6.2: Summary of Consultation Responses

This appendix contains a summary of the key environmental input provided by consultees through the consultation process described in Chapter 6 (Consultation and Scoping). A full list of consultees is provided in Appendix A6.1 with a summary of the information provided.

| Consultee | Summary of Consultee Feedback | Response |
| :---: | :---: | :---: |
| Statutory Consultees |  |  |
| Aberdeen City Council | Baseline Information <br> - Information on planning applications within 500m of the proposed scheme provided, along with Development Land Allocations outlined in the Aberdeen Local Development Plan (Aberdeen City Council, 2012). <br> - Information received on potentially contaminated land sites and petroleum register localities. <br> - Provided information on locality and use of one potentially contaminated land site. <br> - Supplied sewerage and watercourse mapping to support the drainage assessment. <br> - Confirmed no Tree Preservation Orders (TPOs) within 500m of the proposed scheme. <br> - The Aberdeen City Council Historic Environment Record (HER) provided information on undesignated heritage assets and GIS shapefiles for the Sites and Monument Record (SMR). <br> - Provided information on 2 Candidate Noise Management Areas (cNMAs) immediately adjacent to the proposed scheme on the A90 (T) North Anderson Drive and A96 Great Northern Road. <br> - Provided information on adopted and proposed Core Paths, local paths and cycle routes. | Baseline Information <br> - Baseline information used to inform assessments reported in the following chapters: <br> - Chapter 7 (Community and Private Assets); <br> - Chapter 8 (Geology, Contaminated Land and Groundwater); <br> - Chapter 9 (Road Drainage and the Water Environment); <br> - Chapter 11 (Landscape and Visual); <br> - Chapter 12 (Cultural Heritage); <br> - Chapter 14 (Noise and Vibration); and <br> - Chapter 15 (Effects on All Travellers). |
|  | Landscape and Visual <br> - Suggested viewpoints for the preparation of photomontages provided to inform the Landscape and Visual assessment. Viewpoints provided are as follows: <br> - Auchmill Road Junction looking south east (a few vantage points in this area); <br> - North Anderson Drive (as above with Hilton Drive, Clifton Road and opposite new junction); <br> - Manor Avenue (both directions); <br> - Logie Place (both directions); <br> - Manor Drive (both directions); and <br> - Logie Avenue/Logie Gardens. <br> - Urban Design Objectives, detailed in Appendix 11.3, have been developed in consultation with Aberdeen City Council (ACC) to help meet the overall scheme objectives and mitigate the potential environmental impacts of the scheme. | Landscape and Visual <br> - Suggested viewpoints accepted and included within Landscape and Visual assessment (refer to Chapter 11: Landscape and Visual). |
|  | Air Quality <br> - Agreement on Air Quality assessment methodology with the Council's Environmental Health Officer (EHO). <br> - Requested that consideration be given to guidance prepared by Environmental Protection UK, 'Development Control: Planning for Air Quality' (2010 update) to describe the magnitude and significance of air quality impact for the operational phase. | Air Quality <br> - Methodology adopted and reported in Chapter 13 (Air Quality). <br> - Consideration has been given to the Environmental Protection UK guidance; however it was established through further discussions with the EHO that DMRB |


| Consultee | Summary of Consultee Feedback | Response |
| :---: | :---: | :---: |
|  |  | Interim Advice Note 174/13 (Highways Agency et al., 2013) was more appropriate for describing the magnitude of change and significance of impact. Aberdeen City Council EHO agreed to this approach. |
| Aberdeen City Council continued | Noise and Vibration <br> - Agreement on Noise and Vibration assessment methodology and baseline noise monitoring locations with the Council's EHO. | Noise and Vibration <br> - Methodology adopted and reported in Chapter 14 (Noise and Vibration). Results of baseline noise surveys provided in Section 14.3 (Baseline Information). |
|  | Effects on all Travellers <br> - Advised contacting Scotways for information on rights of way (RoW) within the study area. <br> - Confirmed proposed re-routing of National Cycle Route (NCR) 1 to the north of the River Don, noting that it is likely to come into effect post-2018. <br> - Agreement on labelling / naming of undesignated local paths for the purpose of the Effects on all Travellers assessment. <br> Meeting on 5 August 2014 regarding cycling provisions <br> - Advised that the horizontal radii on the shared cycleway/footway in the vicinity of the proposed signalised crossroads appeared to be too tight and queried whether they could be increased. | Effects on all Travellers <br> - Scotways were contacted as part of the consultation process noting that no RoWs are present within 500 m of the proposed scheme. Refer to note on Scotways below. <br> - Proposed re-routing of NCR1 acknowledged and reported in Chapter 15 (Effects on all Travellers). <br> - Undesignated local paths labelled as agreed and provided in Section 15.3 (Baseline Information). <br> Meeting on 05 August 2014 regarding cycling provisions <br> - Advised they would review against Cycling by Design and also investigate positioning to the back of the verge in order to achieve a smoother alignment (subject to other constraints and location of street furniture etc.). |
|  | General | General |
|  | - Discussions held regarding bat surveys. | - Bat survey results included in Chapter 10 (Ecology and Nature Conservation). |
|  | Meeting on 02 October 2013 regarding the compensation process. <br> - ACC highlighted the precedent set by the AWPR project with regard to advance purchase by agreement and | Meeting on 02 October 2013 regarding the compensation |
|  | ACC highlighted the precedent set by the AWPR project with regard to advance purchase by agreement and requested that discussions commence given the requirement for a CPO <br> - Meeting to discuss compensation in advance of Compensation Paper being prepared. | process. <br> - TS explained that advance purchase agreements on AWPR were only entered into following the publishing of the Draft Road Orders, which on this project is likely to be summer 2015 <br> - TS noted that the paper will be issued in the next few weeks. |
|  | Meeting on 04 March 2014, $3^{\text {rd }}$ Stakeholder and Community Engagement Working Group <br> - Update on DMRB stage 2 process. <br> - Preparation for public exhibition on 24 and 25 April 2014 | Meeting on 04 March 2014, $3^{\text {rd }}$ Stakeholder and Community Engagement Working Group <br> - DMRB Stage 2 was in the process of completion, information of which would be presented at public |


| Consultee | Summary of Consultee Feedback | Response |
| :---: | :---: | :---: |
|  | Meeting on 19 June 2014, $4^{\text {th }}$ Stakeholder and Community Engagement Working Group <br> - Update on DMRB stage 2 process. <br> - Confirmation that works were currently being undertaken to establish a redevelopment masterplan for the Haudagain triangle. <br> - It was noted that asbestos survey is still underway. | exhibition. <br> - JUK to provide approximately 15 exhibition boards <br> Meeting on 19 June 2014, $4^{\text {th }}$ Stakeholder and Community Engagement Working Group <br> - DMRB Stage 2 Assessment Report had now been completed and moving on to DMRB Stage 3 Assessment. <br> - Updates were requested, when available, as to the progress of the masterplan. <br> - Further surveys may be considered if the information received is not sufficiently wide ranging. It was also noted that Noise and Ground studies were due for commencement. |
|  | Meeting on 26 August 2014, $5^{\text {th }}$ Stakeholder and Community Engagement Working Group <br> - Discussions regarding design fix <br> - Update on Land Ownership details, primarily regarding details of borehole positioning. | Meeting on 26 August 2014, 5 th Stakeholder and Community Engagement Working Group <br> - Stated that the initial design fix has now been completed. It was also noted that the final design fix would be December with the final report due June/July 2015. |
|  | Meeting on 20 November 2014, $6^{\text {th }}$ Stakeholder and Community Engagement Working Group <br> - Process of rehousing tenants has begun with the intention to move out all tenants under the line of the road. <br> - Feedback was requested on properties that were identified as potentially requiring demolition due to various impacts. | Meeting on 20 November 2014, $6^{\text {th }}$ Stakeholder and Community Engagement Working Group <br> - It was noted that a close liaison with ACC was necessary in advance of publishing the Draft Compulsory Purchase Order. <br> - An update was also provided as to the progress of the Gl works and Section 140 Notices, which had been issued to residents. <br> - In regards to demolitions, it was agreed postpone discussions until the Environmental and Planning Working group meeting on 02 December 2014. |
|  | Meeting on 28 January 2015, $6^{\text {th }}$ Stakeholder and Community Engagement Working Group <br> - Information was provided to ACC relating to the latest design fix and most recent updated, including the bus turning circle on the realigned Logie avenue and car parking provision. <br> - it was advised that ACC were offering short term lets for vacant properties within the area but these could be | Meeting on 28 January 2015, $6^{\text {th }}$ Stakeholder and Community Engagement Working Group <br> - Confirmation that, since the completion of ground investigation works, no public complaints were received |



| Consultee | Summary of Consultee Feedback | Response |
| :---: | :---: | :---: |
| Historic Scotland | - Noted that there are no historic environment assets of national importance within the study area, and therefore the proposed scheme falls outwith their remit for EIA consultations. <br> - Advised contacting Aberdeen City Council Archaeology service to determine the potential impact on undesignated archaeology or sites of regional and local importance in the area. | - Acknowledged that no historic assets of national importance are located within the study area, as reported in Chapter 12 (Cultural Heritage). <br> - Aberdeen City Council Archaeological service were contacted as part of the consultation phase and provided information on undesignated assets in the area. |
| Scottish <br> Environment Protection Agency (SEPA) | Baseline Information <br> - Provided information on surface water abstraction/ discharges from and to watercourses in the study area, including details on Controlled Activities Regulations (CAR) licensed sites in the study area. <br> - Licenced sites in the study area under the Pollution Prevention Control (PPC) Regulations. <br> - Information on classification of surface waterbodies within the study area, and pressures acting upon those waterbodies relating to the Water Framework Directive (WFD). <br> - Noted the proposed scheme is located in the Inverurie groundwater body which currently (2013) has an overall classification of Good. | Baseline Information <br> - Baseline information used to inform assessments reported in Chapter 8 (Geology, Soils, Contaminated Land and Groundwater) and Chapter 9 (Road Drainage and the Water Environment). |
| Scottish <br> Environment Protection Agency (SEPA) continued | Drainage Design and Water Quality Assessment <br> Meeting on 02 October 2013 <br> - Advised road improvements incorporating new lengths of road, such as the proposed scheme, would usually require two levels of Sustainable Drainage Systems (SUDS) treatment. However, explained that this may be reduced to one level if appropriate justification for doing so can be provided, for example due to overriding spatial and engineering constraints or by quantitative water quality calculations. <br> - Confirmed that the Highways Agency Water Risk Assessment Tool (HAWRAT) may help to demonstrate that provision of one level of SUDS would be adequate to protect the receiving watercourse (River Don) from a water quality/ecological perspective. <br> Meeting on 19 August 2014 <br> - Queried whether the proposed detention basin accepted runoff from new and existing catchment areas. <br> - Advised to ensure adequate mitigation of water quality impacts and it is preferable to have an additional SuDS measure, not just a detention basin. <br> - Suggested $250 \mathrm{~m}-300 \mathrm{~m}$ of culverted watercourse will have insufficient impact on water quality impacted by sediment. | Drainage Design and Water Quality Assessment <br> Meeting on 02 October 2013 <br> - Noted that the provision of two levels of treatment may not be feasible for the following reasons: <br> - Given the urban setting, the provision of SUDS features with large surface areas were likely to result in the demolition of additional residential and/or commercial properties. <br> - Filter drains were unlikely to be practical for maintenance and safety reasons, given the requirement for kerbs and gullies associated with the presence of pedestrian footways. <br> - HAWRAT assessment undertaken and reported in Appendix 9.2 (Water Quality). <br> Meeting on 19 August 2014 <br> - Noted that the detention basin would accept runoff from the sections of new carriageway only. Existing surface water run-off is mostly incorporated within combined surface/foul drainage system would have to be diverted around the proposed road layout. <br> - Advised that there may be the potential for putting a swale in at the very end of the drainage system, just before the basin, in addition to the detention basin. Following the meeting, investigation by Jacobs determined that it was not feasible to provide an end |


| Consultee | Summary of Consultee Feedback | Response |
| :---: | :---: | :---: |
|  | Options Report, 12 September 2014 <br> - Subsequent to meeting on 19/08 an 'Options Report' for three SUDS treatment options was requested by SEPA. <br> - The three options for discussion were a filter drain below detention basin (option 1), swale prior to detention basin (option 2) and a vortex separator prior to detention basin (option 3). <br> Correspondence, 30 October 2014 <br> - SEPA accept in principle the SUDS design proposed for this site, including the proprietary vortex separator. Noted that it must be understood that the proposed scheme is not considered to set precedent for any other site and accept design to help preserve existing buildings, with considerable site constraints including the levels, and on the basis that the vortex separator will provide the required water quality treatment as claimed by the manufacturer as well as the Local Authority agreeing to its suitability in terms of ongoing maintenance. | treatment swale at this location due to spatial constraints. <br> Options Report, 12 September 2014 <br> - Based on the HAWRAT assessment, all three options would ensure that the quality of discharge to the Scatter Burn was within the required pollutant and spillage thresholds and therefore are considered to have no adverse effects on the Scatter burn or downstream River Don. <br> - Given the various spatial constraints and urban nature of the site, Jacobs are proposing a vortex separator and detention basin (option 3) in series to achieve the required flow detention and water quality treatment prior to outfall. The combined treatment efficiencies of these SUDS is considered to be approximately $70 \%$, which would meet the required sediment reduction based on the HAWRAT assessment results. <br> - Response submitted to SEPA 15 September 2014. |
| Scottish <br> Environment Protection Agency (SEPA) continued | Flood Risk <br> - Noted that the hydraulic modelling will also be used to assess existing capacities of the culverts. <br> - Requested analysis of flood risk at the site must be undertaken using up to date methods form the Flood Estimation Handbook (FEH) to derive design flows. Recommended more than one method used for comparison. <br> - Stated Flood Risk Assessment (FRA) should take into account flooding from all sources. Noted flood maps be generated including for the 1 in 200 ( $0.5 \%$ AEP) event for both pre- and post- development conditions. Recommend that the 1 in 1000 year ( $0.1 \%$ annual probability) flood event is also considered depending on the vulnerability of the existing development i.e. educational establishments; residential care homes. <br> - Noted FRA methods proposed are likely to be acceptable however should take a precautionary approach and undertake more detailed analysis in vulnerable areas if required. <br> - With regards to sensitivity analysis, appropriate analysis should be carried out to determine the sensitivity of design water levels to key model parameters, e.g. design flow, roughness, downstream boundary. Where culverts/ bridges exist, the risk of potential blockage also needs to be considered (i.e. the model should be run with full and/or partial blockage to better understand the impact of such processes). <br> - Reference should be given to the document "Technical Flood Risk Guidance for Stakeholders" version 8 (SEPA, 2014) as it provides generic requirements for undertaking Flood Risk. <br> - Requested SEPA FRA checklist should be completed and attached within the front cover of any FRAs issued in support of a development proposal which may be at risk of flooding. | Flood Risk <br> - Requests and requirements have been incorporated into the FRA and reported in Chapter 9 (Road Drainage and the Water Environment). |
| Scottish Natural Heritage (SNH) | - Noted that they do not hold any specific records of protected species in this area. Recommended contacting North East Scotland Biological Records Centre (NESBReC) for protected species and invasive non-native species. <br> - Advised contacting the River Don Trust for aquatic survey information, who have undertaken habitat and electrofishing surveys. | - NESBReC were contacted during the consultation phase providing information on designated species. <br> - River Don Trust was contacted during the consultation phase; no response received. |


| Consultee | Summary of Consultee Feedback | Response |
| :---: | :---: | :---: |
| Non-Statutory Consultees |  |  |
| Aberdeen and Grampian Chamber of Commerce | - The Chamber recognises that the economic benefits of a transport proposal must be balanced by consideration for the environmental impact of the plans. <br> - Chamber members fully support the proposed scheme as it will ease congestion in this part of the city and make journey times more reliable. <br> - Noted that by limiting the level of queuing which currently happens around the existing Haudagain roundabout, there will be a reduction in emissions around this area. | - The environmental impact of the proposed scheme has been fully assessed following DMRB and other relevant guidance as reported within this Environmental Statement. <br> - Comments regarding traffic congestion easing and reliable journey times acknowledged. <br> - NOx, PM10, carbon dioxide (CO2) and Hydrocarbons (HC) emissions for opening year (2018) and design year (2033) of the proposed scheme assessed and reported in Chapter 13 (Air Quality). |
| Aberdeen Cycle Forum | Meeting on 05 August 2014 <br> - Suggested that additional priority be provided by incorporating the following measures into the design: <br> - Provide cyclists with priority over general traffic at the signalised crossing point on the realigned Logie Avenue, i.e. a green light for cyclists at the crossing point until a car approaches. <br> - Provision of a raised table at the crossing point on the realigned Logie Avenue. <br> - Confirmed that they were content that the detail of the proposed scheme was being designed in accordance with Cycling by Design 2010 (Transport Scotland, 2011). | Meeting on 05 August 2014 <br> - Points raised by the Aberdeen Cycle Forum have been taken into consideration throughout the design process and proposed mitigation measures reported in Chapter 16 (Effects on all Travellers). |
| Aberdeen Friends of the Earth | Community and Private Assets <br> - Raised concern about potential community severance, especially for residents located in properties along Logie Avenue. | Community and Private Assets <br> - Measures to minimise community severance such as adequate routes and crossing points for pedestrians, cyclist and other vulnerable users have being considered as part of the proposed scheme design. |
|  | Water Environment <br> - Noted they were not clear as to what type SUDS are to be used and how attractive and safe they would be for wildlife and residents. <br> - Queried whether the design of the proposed SUDS is adequate to both reduce the water run-off based pollution entering the River Don and reduce ponding risks on the road? <br> - Stated that wider SUDS plans could reduce a considerable amount more polluted water reaching river/streams in the area. | Water Environment <br> - A detention basin has been proposed in order to both attenuate and treat road run-off from the proposed scheme. Consultation with SEPA has been ongoing to ensure that the proposed scheme meets the relevant water quality standards. Detention basins do not have a permanent pool volume and as such are considered to present less of a health and safety risk than retention ponds. |
|  | Air Quality <br> - Recommended that a baseline study of air quality take place along the new and existing stretches of roadway and well into the surrounding housing areas. <br> - Concern that the proposed scheme will result in an increase in air pollution and $\mathrm{CO}_{2}$ emissions. | Air Quality <br> - A detailed modelling study of the existing (baseline) air quality and future years, with and without the proposed scheme is reported in Chapter 13 (Air Quality). This includes all roads and receptors which could potentially |


| Consultee | Summary of Consultee Feedback | Response |
| :---: | :---: | :---: |
|  |  | experience significant local air quality impacts. <br> - The proposed scheme has been designed to improve traffic movement and reduce congestion through the Haudagain roundabout junction in anticipation of planned growth from local committed development. The traffic data used in the assessment included committed developments for the opening year of the scheme, and therefore potential growth in traffic flows have been incorporated as part of the assessment. |
| Aberdeen Friends of the Earth continued | Noise <br> - Concern regarding noise impacts resulting from the proposed scheme. <br> - Stated that road noise is known to affect the educational attainment of children and cause stress in the adult population. <br> - Queried whether appropriate glazing will be a planning requirement, and will existing homes benefit from such enhancements? | Noise <br> - The noise assessment, as reported in Chapter 14 (Noise and Vibration), has taken into consideration the noise impacts associated with the proposed scheme. Where significant adverse noise impacts have been predicted, noise mitigation measures will be considered and assessed where feasible/practical as detailed in Section 14.5 (Mitigation). <br> - As well as residential housing, consideration has been given to noise impacts at other sensitive properties, including schools and other educational establishments. Where significant adverse noise impacts have been predicted for other sensitive receptors, noise mitigation measures will again be considered. Noise Insulation is available for existing residential properties that satisfy the eligibility criteria detailed in the Noise Insulation (Scotland) Regulations, 1975. |
|  | Effects on all Travellers <br> - Stated the current Haudagain roundabout has been the site of many accidents involving cyclists over the years and could not see any improvements proposed at that area itself. <br> - Noted that expected increased throughput as a result of the changes in increased traffic speed with no toucan crossing or lanes would seem to put cyclists at risk. <br> - Queried whether the new pavements are wide and shared use in design? Further noting that it is not clear if the signalised crossings are toucan style. <br> - Noted there are opportunities to make the proposed scheme safer for cyclists and encourage modal shift. <br> - Highlighted that signalising the existing roundabout with toucans or placing some clear cycle lanes through the junction may be helpful. <br> - Stated that redesigning and signalising the existing Haudagain roundabout is still desirable with the addition of the new dual carriageway section. <br> - Commented that priority should be given to bus transportation to ensure easy access to the city centre/airport, especially through the existing Haudagain roundabout. | Effects on all Travellers <br> - Provision for cyclists has been considered in accordance with Transport Scotland's Cycling by Design guidance document. <br> - A new off-carriageway shared footway/cycleway has been proposed adjacent to the southbound carriageway of the proposed dual-carriageway link road. . <br> - Signalised crossings are proposed where shared footway/cycleways cross existing and proposed roads ensuring connectivity between the existing and proposed routes. <br> - No works are proposed at the existing Haudagain roundabout as part of the proposed scheme. |

## A90/A96 Haudagain Improvement

DMRB Stage 3 Environmental Statement
Appendix A6.2: Summary of Consultation Responses

| Consultee | Summary of Consultee Feedback | Response |
| :---: | :---: | :---: |
| Aberdeen Taxis | - No response. | - $\mathrm{n} / \mathrm{a}$ |
| Aberdeen Wheelers | - No response. | - $\mathrm{n} / \mathrm{a}$ |
| Archaeology Scotland | - No response. | - n/a |
| British Horse Society | - Noted that no equestrian interests would be affected as a result of the proposed scheme. However, requested that path surfaces be non-slip and wide enough for equestrian usage. | - The paths proposed have been designed for pedestrian and where required, cyclist use. The path surfaces are compliant with the Disability Discrimination Act (DDA) requirements which include non-slip specifications. |
| Centre for Ecology and Hydrology | - No response. | - $\mathrm{n} / \mathrm{a}$ |
| Confederation of Passenger Transport | - No response. | - $\mathrm{n} / \mathrm{a}$ |
| Cycle Touring Club (Scotland) (CTC) | Meeting on 05 August 2014 <br> - Queried if a grade separated option (for vehicular traffic) had been considered incorporating a 'flyover' from North Anderson Drive to Mugiemoss Road. <br> - Asked if grade separation had been considered as an alternative to at-grade signalised crossing points (for cyclists), suggesting that grade separated crossing points for cyclists may reduce the amount of delay experienced by cyclists crossing the roads within the proposed scheme. <br> - CTC advised that their preference would be for on-carriageway facilities and that this would consist of a cycle lane along the entire length of the northbound and southbound carriageways of the proposed dual carriageway link road. | Meeting on 05 August 2014 <br> - Advised that grade separated options were considered during the DMRB Stage 2 sifting process and that these were generally discounted on cost, environmental impact and engineering complexity. <br> - Advised that based on understanding of desire lines there is no requirement for grade separated routes for NMUs. <br> - Highlighted that the current proposals were based on the link specification guide within Cycling by Design and that given the very high traffic flows this pointed to an offcarriageway facility being most appropriate on safety grounds. |
| First Group (FG) | Meeting on 16 July 2014 <br> - FG raised concerns that buses travelling eastbound and westbound along Auchmill Road would be delayed by the proposed signalised junction and queried whether bus priority could be provided on Auchmill Road to mitigate this. <br> - FG advised that they were content with the location of the bus laybys and advised that a bus stop may be beneficial on the realigned section of Manor Avenue (northbound) to replace the bus stop lost from the existing section of Manor Avenue that is to be removed from the route. | Meeting on 16 July 2014 <br> - Advised that additional bus priority measures would be considered in the development of the scheme design. <br> - Advised that replacement bus stops at this would be considered in the development of the scheme design. |
| Freight Transport Association | - No response. | - $\mathrm{n} / \mathrm{a}$ |
| Grampian Red Squirrel Group | - No response. | - $\mathrm{n} / \mathrm{a}$ |
| Middlefield Area Regeneration Action Group (MARAG) | Meeting on 02 February 2015 <br> - MARAG raised queries regarding change in vehicular access as a result of the proposed scheme. | Meeting on 02 February 2015 <br> - Comments provided by MARAG considered within the |

## DMRB Stage 3 Environmental Statement

Appendix A6.2: Summary of Consultation Responses

| Consultee | Summary of Consultee Feedback | Response |
| :---: | :---: | :---: |
|  | - MARAG provided comments on landscape planting. | design of the proposed scheme. |
| Nestrans | - No response. | - $\mathrm{n} / \mathrm{a}$ |
| Network Rail | Drainage and Culvert Survey <br> Meeting on 20 August 2014 <br> - Advised that their preference would be for the discharge rate to be attenuated to the pre-development rate, however they also advised that an increase above the pre-development rate may also be acceptable subject to the findings of the modelling work and FRA. <br> - Noted that a routine inspection of the culverts was to be undertaken and would inform Jacobs when cleaning/maintenance of the culverts is completed. | Drainage and Culvert Survey <br> Meeting on 20 August 2014 <br> - Comments acknowledged and considered following the completion of the FRA (refer to Chapter 9: Road Drainage and the Water Environment). |
| North East Scotland Bat Group | - No response. | - n /a |
| North East Scotland Biological Records Centre (NESBReC) | - Provided the following ecological information within 500m of the proposed scheme: Bat records; Designated Species; Ancient Woodland Inventory; Forestry Commission National Forest Inventory Interpretation Forest Types 2012; Local Nature Conservation Sites; and Integrated Habitat System (2004-2007). | - Information provided has been used to inform the baseline considered in the assessment. Refer to Chapter 10 (Ecology and Nature Conservation). |
| Northfield Community Council | - No response. | - $\mathrm{n} / \mathrm{a}$ |
| Police Scotland (National Architectural Liaison Officer Stuart Ward) | Landscape and Visual <br> Meeting on 4 December 2014 <br> - The 'Secure By Design' police initiative was highlighted. This is an initiative to encourage the building industry to adopt crime prevention measures in the design of developments to assist in reducing the opportunity for crime and the fear of crime, creating a safer and more secure environment. <br> - Generally content with the conceptual landscape proposals. Agreed that the concept of formal hedgerows, clear stem trees with only grass seeding and no shrub planting, would facilitate good visibility throughout. Confirmed good visibility would help to deter criminal activity. <br> - Advised planting trees with a minimum clear stem of 2.2 m and include requirements for crown lifting to ensure clearance is maintained in the long term. <br> - Advised to consider the availability of local community surveillance opportunities when developing landscape proposals. Example ensuring views of open space from surrounding tenements remain uninterrupted by proposed mitigation planting. <br> - Agreed in principal to the proposed position of the playground off Logie Avenue. However advised to reconsider the need for the playground. Highlighted that playgrounds can become areas of anti-social behaviour at night and responding to problems at numerous playgrounds within a town or city can become problematic for the local police | Landscape and Visual <br> Meeting on 4 December 2014 <br> - 'Secure By Design' initiative guidelines have been considered during the development of the design proposals. <br> - All the points raised during the meeting have been taken into consideration when developing the landscape proposals in line with the landscape and visual mitigation requirements (refer to Chapter 11 (Landscape and Visual). |


| Consultee | Summary of Consultee Feedback | Response |
| :---: | :---: | :---: |
|  | forces. Are there existing playgrounds in close proximity? <br> - Carefully consider existing and anticipated patterns of movement. Ensure key movement routes are appropriately illumined with a uniform, even distribution of light. Note that it is not always appropriate to provide lighting in parks and open spaces as this can encourage anti-social behaviour. <br> - Consider limiting the number of access points to parks and parks to discourage use for criminal behaviour due to lack of escape routes. Consider proposing overlapping hedgerows to prevent the creation of desire lines. <br> - Consider proposing dense prickly species or hedgerow planting and creating uneven rough ground conditions, to act as deterrents to people accessing potentially unsafe areas example the SUDs and its surroundings. . <br> - Reconsider position of proposed paths in close proximity to properties example at Logie Avenue. Paths in these locations could be seen a good surveillance opportunities for prospective criminals to go unnoticed. |  |
| River Don Trust | - No response. | - $\mathrm{n} / \mathrm{a}$ |
| Road Haulage Association | - No response. | - $\mathrm{n} / \mathrm{a}$ |
| Scottish Badgers | - Indicated that there is a badger presence within the study area, although a location and record type was not provided. Furthermore, provided a badger road traffic accident was recorded west of Haudagain roundabout in August 2007. <br> - Recommended that a survey appropriate in scope and size to the site is carried out to inform as to whether or not there are badgers within the project footprint and whether if present they would be impacted by the proposed scheme. | - Information provided has been used to inform the baseline considered in the assessment, as reported in Chapter 10 (Ecology and Nature Conservation). <br> - A badger survey was undertaken on 14 August 2014 and results are provided in Section 10.3 (Baseline Information). |
| Scotways | - Confirmed that the National Catalogue of Rights of Way (ROW) does not record any ROWs that would be affected by the proposed scheme, other than those that may be formed by public roads. <br> - Noted that because there are no definitive records of ROWs in Scotland, there may be routes that meet the criteria to be ROWs but have not yet been recorded. | - Information used to inform the baseline considered in the assessment; refer to Chapter 15 (Effects on all Travellers). |
| Scottish Wildlife Trust | - No comments. | - n/a |
| Stagecoach (SC) | Meeting on 16 July 2015 <br> Major concerns in relation to the lack of bus priority measures proposed on Auchmill Road and North Anderson Drive. SC suggested that the following measures would reduce the amount of delay incurred by buses as a result of Scheme: <br> - Provision of a bus gate on Auchmill Road (lane 1 - eastbound) at the proposed junction with new link road to allow the existing bus lane to be continued through to its existing termination point at Haudagain Roundabout. <br> - Provision of a bus lane on Auchmill Road (lane 1 - westbound) from Haudagain Roundabout to the new link road. SC suggested that the existing eastbound bus lane could be truncated to facilitate provision of a new westbound bus lane. <br> - Provision of a bus lane on North Anderson Drive (lane 1 - northbound) from the new link road to Haudagain Roundabout. | Meeting on 16 July 2015 <br> - Advised that SC's concerns and suggestions would be considered in the development of the scheme design. |
| SUSTRANS | - Provided GIS shapefiles relating to the cycle routes in and around the Haudagain roundabout. <br> - Manual count information for National Cycle Network Route (NCN) 1 north of the proposed scheme provided. | - Information provided has been used to inform the baseline considered in the assessment, as reported in Chapter 15 (Effects on all Travellers). |

A90/A96 Haudagain Improvement
DMRB Stage 3 Environmental Statement
Appendix A6.2: Summary of Consultation Responses

| Consultee | Summary of Consultee Feedback | Response |
| :--- | :--- | :--- |
| The Garden History <br> Society in Scotland | $\bullet$ No response | $\bullet \mathrm{n} / \mathrm{a}$ |
| Transport Scotland <br> Trunk Road and Bus <br> Operations | $\bullet$ No response | $\bullet \mathrm{n} / \mathrm{a}$ |
| Transport Scotland's <br> Standards Branch | $\bullet$ No response | $\bullet \mathrm{n} / \mathrm{a}$ |
| Transport Scotland's <br> Technical Analysis <br> Branch | $\bullet$ No response | $\bullet \mathrm{n} / \mathrm{a}$ |
| Trunk Road <br> Operating Company | $\bullet$ No response | $\bullet \mathrm{n} / \mathrm{a}$ |

## A6.3: Record of Determination (RoD)

## EC DIRECTIVE 97/11 <br> ENVIRONMENTAL IMPACT ASSESSMENT (SCOTLAND) REGULATIONS 1999 (as amended) <br> Roads (Scotland) Act 1984

## RECORD OF DETERMINATION

## Name of Project:

A90/A96 Haudagain Improvement

## Location:

North-west of Aberdeen city centre. Haudagain roundabout is the main junction between the A90 and A96 trunk roads.

## Description of Project:

The project involves the development of an improvement at Haudagain roundabout, the junction between the A90 and A96 trunk roads in Aberdeen. The roundabout is currently operating over its capacity leading to congestion and unreliable journey times. Previous work which led to the identification of a preferred option was undertaken by Aberdeen City Council (ACC) as part of a study commissioned by a steering group comprising Transport Scotland (TS), Nestrans and ACC. The study was undertaken using STAG methodology and a report published on Nestrans' website in July 2008. Option 5 which proposes the construction of a new dual carriageway link road through the Middlefield area of Aberdeen was identified as the preferred option based on the STAG work. ACC and Nestrans have expressed their support for Option 5.

The STAG report was revisited by TS in 2013/2014 to ensure that Option 5 worked most effectively with the new development proposals for the area, as put forward by ACC. The 41 route options, originally identified within the STAG report, along with a further 8 route options, were assessed in accordance with the Design Manual for Roads and Bridges (DMRB), Volume 5, Section 1, Part 2, TD 37 'Scheme Assessment Reporting' (TD37/93). In accordance with the DMRB guidance an Options Sifting Report (Jacobs, 2014a) was produced with the results identifying three options that were considered most likely to meet the objectives of the scheme. The three options were taken forward to DMRB Stage 2 and subject to engineering/economic, traffic and environmental assessments, reported in the Stage 2 Report (Jacobs, 2014b). The assessments concluded that Option 5 would remain the preferred option for the scheme. Option 5 will be developed and taken forward to DMRB Stage 3 assessment as the proposed scheme. The location and current design of Option 5 is shown in Figure 1 of Appendix 1.

## Description of Local Environment

The sections below provide brief descriptions of the local environment within a study area of 500 m from the preferred option (Option 5). The baseline information is based on review of currently available information; primarily the findings of the A90/A96 Haudagain Improvement DMRB Stage 2 Scheme Assessment Report - Part 2: Environmental Assessment (Jacobs, 2014b) hereafter referred to as the Stage 2 assessment. Identified environmental constraints are shown in Figure 2 of Appendix 1; community facilities and land are shown in Figure 3 of Appendix 1.

## Community and Private Assets

There are multiple community facilities located in the proximity of Haudagain roundabout, including schools, a nursery, health clinic, community centre, post office and sports facilities as shown in Figure 3. The land use within the study area predominantly comprises residential properties and retail units. No farming interests or businesses were identified within 500 m of the proposed scheme.

## Geology, Soils, Contaminated Land and Groundwater

No designated Geological Receptors or Geological Conservation Review sites are located within the Stage 2 assessment study area for geology.

Solid geology at the site is composed of the Aberdeen Pluton Granite and superficial geology in the study area is composed of made ground, alluvium, river terrace deposits, Devensian aged glacial till and sands and gravels.

27 potential contamination sources were identified within the study area. Significant contamination sources were identified at Stage 2, including various petrol stations and the gas holder locations associated with the former Denhead gas works.

SEPA's River Basin Management Plans (RBMP) show that the study area falls within a Drinking Water Protected Area.

Groundwater in both bedrock and superficial deposit aquifers was found to be highly vulnerable to pollution from surface activities. The area is also designated as a Nitrate Vulnerable Zone. However, SEPA's RBMP 2008 classification for groundwater, classifies both bedrock and superficial deposit aquifers as Good.

## Road Drainage and the Water Environment

Three surface water features have been identified within the study area: River Don, Scatter Burn and Woodside Burn as shown in Figure 2. The Scatter Burn and Woodside Burn are located to the north-west and north-east of the proposed scheme. Both of these watercourses discharge into the River Don.

The fluvial flood extent at the River Don does not extend up to the proposed scheme. The River Don is classified as salmonid waters. The reach of the River Don was classified by SEPA as of overall 'Moderate' status in 2008 with overall ecological status of Moderate and overall chemical status of Fail.

Some surface water flooding extent (low and medium likelihood) is shown along both culverted and open sections of Scatter Burn as well as in the vicinity of the existing Haudagain roundabout and along the A96. Previous studies undertaken by Halcrow in 2008 and 2009, on behalf of Aberdeen City Council, indicated that water quality is poor within the Scatter Burn.

Some surface water (pluvial) flooding extent (low and medium likelihood) is shown along the downstream reaches of Woodside Burn and the A96, which naturally drains to the watercourse.

## Ecology and Nature Conservation

There are a number of species of conservation interest confirmed in the area comprising the following. Their presence within the study area is variable:

- badgers;
- otters;
- bats (various species);
- red squirrel;
- a number of bird species (including breeding birds, kingfisher and peregrine);
- Atlantic salmon;
- trout;
- European eel; and
- lamprey (all species).

No statutory designated sites are present within 500 m of the proposed scheme. Local designated sites within the study area include:

- Aberdeen - Inverness Railway Line District Wildlife Site (DWS);
- River Don Corridor (DWS); and
- Manor Park Community Gardens.

These designated sites are shown in Figure 2.
Habitats of significance to conservation in the study area include:

- grassland, amenity;
- grassland, poor semi-improved;
- woodland, semi-natural (excluding Woodside);
- woodland, plantation; and
- scattered trees.

Invasive plants are extensive in the River Don corridor, especially adjacent to the river itself. The species are of national importance and include invasive non-native species/genera (INNS) such as Giant hogweed, Himalayan balsam and Japanese knotweed.

## Landscape and Visual

The study area is set within an urban environment and the landform is predominantly dictated by the River Don valley.

Within the high density urban areas around the $\mathrm{A} 90(\mathrm{~T})$ North Anderson Drive and the Haudagain roundabout vegetation comprises well maintained mass ornamental shrub and tree planting. Planting within public and communal space comprise a variety of densely planted well established shrubs and occasional small trees.

Eight distinct Urban Character Areas (UCAs) were identified within the study area in the Stage 2 assessment as shown in Figure 2.

The areas surrounding Haudagain roundabout are mixed in character and use including; residential areas, industrial and commercial units, a cemetery and a memorial garden, a small modern housing estate, sport facilities and a retirement home.

The Stage 2 visual assessment identified five outdoor receptors and 27 built receptors to Option 5. The outdoor receptors include Heathryfold Allotment Gardens and Manor Park, Manor Terrace Park, the A96, A90(T) North Anderson Drive, and $\mathrm{A} 90(\mathrm{~T})$ Mugiemoss Road. Built receptors include Manor Park caravan park, Middlefield Church, commercial units, and various housing.

## Cultural Heritage

No archaeological remains assessed to be of High or Medium sensitivity were identified within the study area.
Due to the urban nature of the study area and its widespread and continuing development, the potential for unknown archaeological remains was assessed to be Low.

The Stage 2 assessment identified a total of 22 Historic Buildings were located within the study area for Option 5. No historic buildings were assessed to be of High sensitivity and 15 historic buildings were assessed to be of Low Value within the study area.

No archaeological remains assessed to be of High or Medium sensitivity were identified within the study area for Option 5. A total of 36 archaeological remains of Low or Negligible sensitivity and one asset of Unknown Sensitivity were identified within the study area.

Four historic buildings of Medium sensitivity were identified within the study area for Option 5, all of which are Category B Listed as shown in Figure 2. The Medium sensitivity assets are: Persley Castle (Asset 9), Boundary Marker 49 (Asset 17), Persley Bridge (Asset 18) and Boundary Marker 48 (Asset 53).

Based on the Historic Landscape Type (HLT) data provided by RCAHMS and supplemented by map regression and walkover survey, a total of 13 HLTs were identified.

One HLT; Designed Landscape, 17th-19th Century Policies and Parkland, assessed to be of Medium sensitivity was identified within the study area. Two HLTs assessed to be of Low sensitivity were identified within the study area. The remaining HLTs were assessed to be of negligible sensitivity.

## Air Quality

Anderson Drive Air Quality Management Area (AQMA) is located within the study area and shown in Figure 2. This AQMA as declared by ACC, extends from the Bridge of Dee, including Haudagain roundabout, part of the A96 Great Northern Road (GNR) to A96(T) Auchmill Road and part of A96(T) Auchmill Road from GNR to the junction with Howes Road.

ACC operates six automatic monitoring stations and maintains a network of diffusion tubes across the city. There are no continuous analysers within the study area, but eight diffusion tubes were identified and selected for use in the model verification process.

The Stage 2 assessment identifies no designated sites of ecological importance, such as Ramsar, SAC, SSSI or SPA, within 200 m of 'affected' roads as defined by the study area. An ecological assessment of $\mathrm{NO}_{\mathrm{x}}$ concentrations is therefore not required.

The Stage 2 assessment identified 27 sensitive receptors. These receptors have been selected on the basis that they are likely to experience the largest changes in pollutant concentrations.

## Noise and Vibration

The Stage 2 assessment states that the scheme is situated within a heavily populated urban area on the outskirts of Aberdeen and the existing noise environment is likely to be largely dominated by road traffic noise at many locations.

A review of the Draft Transportation Action Plan (Scottish Government, 2013) was undertaken during the Stage 2 assessment and no Candidate Noise Management Areas (CNMAs) were identified within the study area.

## Effects on All Travellers

The Stage 2 assessment identifies a number of core paths and one aspirational core path within the study area.
Two key off road local footpaths (LP) were identified within the study area:

- LP1 which leads from Logie Avenue to the local shop on the A96(T) Auchmill Road, providing a shortcut though the estate for Non-Motorised Users (NMUs); and
- LP2 which leads from the Middlefield estate to the A90(T) North Anderson Drive in the east.

The National Cycle Route 1 (NCR1) is located to the north of the proposed scheme as shown in Figure 2. This route provides access to the banks of the River Don in the west of the study area.

With regard to driver stress, for roads intersecting at the existing Haudagain roundabout the Stage 2 assessment noted that:

- in the AM peak period all driver stress values were assessed as High with the exception of the A96 Great Northern Road which was assessed as Moderate; and
- in the PM peak period all driver stress values were assessed as Moderate with the exception of the A90(T) Mugiemoss Road coming out as High.


## Description of the main environmental impacts of the project and proposed mitigation

This section provides an overview of the main anticipated environmental impacts, based on the Stage 2 assessment. General mitigation measures are outlined in the Stage 2 assessment. Additional mitigation measures will be developed in conjunction with the Stage 3 design and as part of the Stage 3 EIA process.

## Community and Private Assets

Based on the Stage 2 assessment the proposed scheme would result in temporary disruption to travel and access arrangements during construction. The proposed scheme would also result in the demolition of a number of community and private assets in addition to access alteration and community severance in Middlefield. Mitigation to reduce disruptions and maintain accesses are proposed. The loss of all or part of residential and commercial properties or land, land owners would be entitled to claim for compensation.

Significant residual impacts identified for Option 5 remaining following the implementation of mitigation measures comprise:

- demolition of 125 residential properties, and four community facilities spanning six main doors (Middllefield Community Project Office, Middlefield Community Nursery, Logie Neighbourhood Services and Logie Health Clinic);
- land-take in development land;
- severance and access issues to community facilities/land; and
- travel disruption and access issues to residential/commercial properties and community facilities/ and during the construction period.


## Geology, Soils, Contaminated Land and Groundwater

Based on the Stage 2 assessment superficial deposits within the study area are likely to be impacted by the proposed construction and associated earthworks of the proposed scheme. Given the moderately vulnerable nature of all aquifers to surface pollution, the potential magnitude of impact from accidental spillages is considered to be medium on drift groundwater and low on bedrock. Two road cuttings and the Sustainable Drainage System (SuDS) detention basin have the potential to intercept groundwater within the superficial deposits for the proposed scheme. The construction of embankments may result in localised compaction of superficial deposits. Impaired groundwater quality as a result of cuttings has the potential to indirectly impact on the quality of surface water for the River Don and Scatter Burn. Potential pollution sources, migration pathways and potential receptors may also be at risk as a result of the proposed scheme.

At the DMRB Stage 2 assessment stage, the detailed design had not been developed and therefore the mitigation detail could not be accurately defined. Through appropriate mitigation measures (e.g. ground investigation to support detailed design and management of contaminated sources) impacts on the areas of soil and geology would be minimised. No significant residual impacts are expected following the implementation of mitigation.

## Road Drainage and the Water Environment

Based on the Stage 2 assessment surface water from the construction footprint could result in an increase in runoff to the surface water drainage system and potential increase in flow in the Scatter Burn and/or Woodside Burn. An increase in flows could increase the risk of flooding in the Scatter Burn. The scheme is unlikely to result in significant changes to water quality.

Mitigation measures will be considered at Stage 3, including input to the design to inform aspects such as provision of SuDS. A range of best practice measures will also be required during construction to avoid or reduce potential for impacts on the water environment. No significant residual impacts are expected following the implementation of mitigation.

## Ecology and Nature Conservation

Based on the Stage 2 assessment the main impacts on ecology and nature conservation are anticipated to be habitat loss (particularly with regard to bats), and potential pollution to the River Don which could alter water quality and result in direct mortality to a number of species including kingfishers and otters.

Mitigation measures will be considered at Stage 3, and are likely to include habitat replacement, due consideration for seasonal constraints and adherence to standard best practice and guidelines to mitigate potential pollution incidents. After the implementation of mitigation, no residual impacts from the proposed scheme are anticipated.

## Landscape and Visual

Due to the scale of demolition and construction works associated with the proposed scheme, potential impacts on landscape character and visual amenity are likely. Impacts include, but are not limited to:

- damage to vegetation and private garden ground;
- vehicles moving machinery and materials to and from the site;
- traffic management measures;
- machinery, potentially including heavy excavators and earth moving plant;
- exposed bare earth over the extent of the proposed works;
- structures, earthworks, road surfacing and ancillary works during construction;
- temporary site compound areas including site accommodation and parking;
- temporary soil storage heaps and stockpiles of construction materials;
- lighting associated with night-time working and site accommodation; and
- traffic congestion during work.

Based on the Stage 2 assessment during operation, it is anticipated that Option 5 would have a direct impact on three Urban Character Areas (UCA) and would have an effect upon a total of 27 built and five outdoor visual receptor groups.

Mitigation measures will be considered at Stage 3, and are likely to include:

- retention of existing trees and vegetation wherever possible and incorporation with new planting proposals in order to enhance the experience of travelling along the road;
- enhancement of biodiversity through use of native species which are adapted to local conditions;
- planting to replace trees lost during the construction of the proposed route options;
- planting to provide screening to reduce visual impacts of the road, structures and lighting;
- high quality hard landscaping and street furniture and environmental barrier design to enhance townscape; and
- reinstatement/replacement of open space areas lost or severed by the route.

An urban design strategy will be developed in consultation with Aberdeen City Council to supplement the Stage 3 assessment and help integrate the proposals with the planned regeneration of the Middlefield area.

Based on the Stage 2 assessment significant residual impacts remaining following the implementation of mitigation measures comprise:

- Substantial landscape impact on North Middlefield UCA;
- Moderate landscape impact for South Middlefield UCA;
- Substantial visual impact on 11 built receptors;
- Moderate/Substantial impact on four built receptors; and
- Moderate impact on four built receptors and one outdoor receptor.


## Cultural Heritage

Based on the Stage 2 assessment the proposed scheme will result in land-take and, as a result, a number of impacts on potential archeological remains, historic landscape elements and on the footprint and setting of cultural heritage assets.

Mitigation measures will be considered at Stage 3 in consultation with Aberdeen City Council.
No significant residual impacts are expected following the implementation of mitigation.

## Air Quality

Based on the Stage 2 assessment the construction phase of this development has the potential to lead to dust nuisance associated with construction activities and haul routes. Based on guidance within IAN 174/13 no significant local air or global air quality impacts are predicted as a result of the proposed scheme. During construction, mitigation measures are likely to be required, following best practice for aspects such as dust control.

## Noise and Vibration

There is the potential for temporary noise and vibration impacts to occur during the construction phase of the scheme, both at residential properties and other sensitive receptors alongside each of the alignments considered.

During operation, the proposed scheme would have short and long-term adverse impacts on a number of noise and vibration receptors.

During construction, mitigation measures are likely to be required, such as use of 'best practicable means', the use of temporary noise screens around particularly noisy activities and switching off plant and equipment when it is not in use for longer periods of time.

Consideration will also be given to incorporating noise mitigation measures into the proposed scheme design to reduce predicted adverse noise impacts during operation.

Based on the Stage 2 assessment significant residual impacts remaining for Option 5 following the implementation of mitigation measures comprise:

- potential for significant short-term temporary adverse noise and vibration impacts during the construction period;
- short-term Daytime Impacts (on Scheme opening): 80 receptors experiencing Large/Very Large or Moderate/Large adverse impacts, and 46 receptors experiencing Large/Very Large or Moderate/Large beneficial impacts;
- long-term Daytime Impacts: 683 receptors experiencing Large/Very Large or Moderate/Large adverse impacts; and
- long-term Night-time Impacts: 67 receptors experiencing Large/Very Large or Moderate/Large adverse impacts.


## Effects on All Travellers

Based on the Stage 2 assessment for Option 5 here would likely be disruption to NMU provisions during both construction and operation.

Views from the road would be altered by the proposed scheme and the severing or realignment of Logie Avenue, Logie Place, Manor Avenue, Manor Drive, Manor Terrace and Manor Place. Other views from the road are not considered likely to be significantly affected.

With regard to driver stress both increases and decreases were recorded in the 2033 AM peak period in comparison to the Do-Minimum scenario, whilst in the PM scenario driver stress levels are considered comparable.

Mitigation measures will be considered at Stage 3, and will include; consideration for the timing of construction works; maintaining and improving access for NMUs through various provisions; high quality hard landscaping, street furniture and environmental barrier design; and traffic management.

No significant residual impacts are expected following the implementation of mitigation.

## Materials

Based on the Stage 2 assessment potential impacts on materials may include:

- site remediation / preparation impacts (e.g. depletion of finite natural resources);
- demolition impacts resulting in the generation of waste; and
- site construction impacts including disturbance of contaminated soils, potential flooding impacts, creation of nuisance, and the poor management of materials.

No significant residual impacts are expected following the implementation of mitigation.

## Policies and Plans

Compliance with individual policies and plans will be considered at Stage 3. Due to potential significant impacts noted above there is potential for non-compliance with elements of the Aberdeen Local Development Plan (2012) policy in regard to demolitions, localised noise, townscape and visual impacts.

## Extent of EIA work undertaken and details of consultation

To date, the preferred option; Option 5, has been identified following a DMRB Stage 2 assessment, including consideration of potential environmental impacts. DMRB Stage 3 design and full EIA is due to commence. Environmental screening and scoping has been undertaken in accordance with the framework set out in the Environmental Impact Assessment (Scotland) Regulations 2011 under amendments to the Roads (Scotland) Act 1984 and is reported in the Environmental Screening and Scoping Report (Jacobs, 2014c).

Public and statutory consultations have been previously undertaken during the DMRB Stage 2 assessment, as reported in the A90/A96 Haudagain Improvement DMRB Stage 2 Scheme Assessment Report - Part 2: Environmental Assessment (Jacobs, 2014b). Consultation is due to get underway as part of the DMRB Stage 3 process. Consultation letters to inform the Stage 3 assessment are due to be issued to a range of consultees.

Statement of case in support of a Determination that a formal EIA and Environmental Statement is required:

## Screening Determination:

The proposed scheme is considered to constitute a relevant project falling within Annex II of the EIA (Scotland) Regulations 2011 since the works require an area of land greater than 1ha (approximately 6.7 ha ), and that the nature of the proposed works are considered likely to have one or more significant environmental effects.

Therefore, the conclusion of the screening exercise is that the proposed scheme will require an EIA.

## Key elements of the works:

- New dual carriageway link road approximately 500 m in length.
- Three new signal-controlled junctions would connect the new link road to the existing road network.
- Manor Avenue would be realigned to tie-in to the new link road.
- Logie Avenue would be realigned to tie-in to the new link road.
- Logie Place would be closed and stopped up at its eastern extent.
- Logie Terrace would be closed and stopped up at its southern extent.
- Manor Terrace would be closed and stopped up.
- A new junction would connect Wilkie Avenue to Fowler Avenue to maintain access to Manor Avenue.

Location of the scheme: The Haudagain roundabout is located to the north-west of Aberdeen city centre and is the main junction between the A90 and A96 trunk roads in the city.

## References of supporting documentation:

Aberdeen City Council (2012). Aberdeen Local Development Plan.
Halcrow (2008). Aberdeen City Council Middlefield Hydrogeological Study: Supporting Studies.
Halcrow (2009). Aberdeen City Hydrogeological Study: Integrated Summary Report.
Jacobs (2014a). A90/A96 Haudagain Improvement Option Sifting Report.
Jacobs (2014b). A90/A96 Haudagain Improvement DMRB Stage 2 Scheme Assessment Report.
Jacobs (2014c). A90/A96 Haudagain Improvement Environmental Screening and Scoping Report.
Scottish Government (2013). Draft Transportation Noise Action Plan.

I have determined, following discussions with the MTRIPS Project Manager that an EIA/ ES is required for this project.

SIGNATURE Transport Scotland Environmental Advisor $\qquad$ Date

Authorisation to publish Notice of Determination
SIGNATURE Director, MTRIPs $\qquad$

Date

## Appendix 1: Figures



A90/A96 Haudagain Improvement
DMRB Stage 3 Environmental Statement
Appendix A6.3: Record of Determination



## A7.1: Residential Land-take for the Proposed Scheme

This appendix highlights permanent land-take and demolitions required from residential land interests as a result of the proposed scheme. Land-take information is provided in Table 1 displayed below.

Table 1: Land-take from Residential land-interests

| Land Interest | Loss of Land |  | Sensitivity | Magnitude | Significance |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Area lost (ha) | \% Area lost |  |  |  |
| 549 North Anderson | $\mathrm{n} / \mathrm{a}$ - demolition | 100 | High | High | Substantial |
| 2 Manor Avenue | $\mathrm{n} / \mathrm{a}$ - demolition | 100 | High | High | Substantial |
| 4 Manor Avenue | $\mathrm{n} / \mathrm{a}$ - demolition | 100 | High | High | Substantial |
| 6 Manor Avenue | $\mathrm{n} / \mathrm{a}$ - demolition | 100 | High | High | Substantial |
| 8 Manor Avenue | $\mathrm{n} / \mathrm{a}$ - demolition | 100 | High | High | Substantial |
| 10 Manor Avenue | $\mathrm{n} / \mathrm{a}$ - demolition | 100 | High | High | Substantial |
| 12 Manor Avenue | $\mathrm{n} / \mathrm{a}$ - demolition | 100 | High | High | Substantial |
| 14 Manor Avenue | n /a - demolition | 100 | High | High | Substantial |
| 18 Manor Avenue | $\mathrm{n} / \mathrm{a}$ - demolition | 100 | High | High | Substantial |
| 20 Manor Avenue | $\mathrm{n} / \mathrm{a}$ - demolition | 100 | High | High | Substantial |
| 22A Manor Avenue | n/a - demolition | 100 | High | High | Substantial |
| 22B Manor Avenue | $\mathrm{n} / \mathrm{a}$ - demolition | 100 | High | High | Substantial |
| 22C Manor Avenue | $\mathrm{n} / \mathrm{a}$ - demolition | 100 | High | High | Substantial |
| 22D Manor Avenue | $\mathrm{n} / \mathrm{a}$ - demolition | 100 | High | High | Substantial |
| 24A Manor Avenue | $\mathrm{n} / \mathrm{a}$ - acquisition | 100 | High | High | Substantial |
| 24BManor Avenue | $\mathrm{n} / \mathrm{a}$ - acquisition | 100 | High | High | Substantial |
| 24C Manor Avenue | n/a - acquisition | 100 | High | High | Substantial |
| 24D Manor Avenue | $\mathrm{n} / \mathrm{a}$ - acquisition | 100 | High | High | Substantial |
| 24E Manor Avenue | $n / a-$ acquisition | 100 | High | High | Substantial |
| 24F Manor Avenue | n/a - acquisition | 100 | High | High | Substantial |
| 30A Manor Avenue | $\mathrm{n} / \mathrm{a}$ - acquisition | 100 | High | High | Substantial |
| 30B Manor Avenue | n/a - acquisition | 100 | High | High | Substantial |
| 30C Manor Avenue | $n / a-$ acquisition | 100 | High | High | Substantial |
| 30D Manor Avenue | n/a - acquisition | 100 | High | High | Substantial |
| 1 Logie Avenue | $\mathrm{n} / \mathrm{a}$ - demolition | 100 | High | High | Substantial |
| 3 Logie Avenue | $\mathrm{n} / \mathrm{a}$ - demolition | 100 | High | High | Substantial |
| 5 Logie Avenue | $\mathrm{n} / \mathrm{a}$ - demolition | 100 | High | High | Substantial |
| 7 Logie Avenue | $\mathrm{n} / \mathrm{a}$ - demolition | 100 | High | High | Substantial |
| 4 Logie Avenue | $\mathrm{n} / \mathrm{a}$ - demolition | 100 | High | High | Substantial |
| 4a Logie Avenue | $\mathrm{n} / \mathrm{a}$ - demolition | 100 | High | High | Substantial |
| 6 Logie Avenue | $\mathrm{n} / \mathrm{a}$ - demolition | 100 | High | High | Substantial |
| 8 Logie Avenue | $\mathrm{n} / \mathrm{a}$ - demolition | 100 | High | High | Substantial |
| 1 Logie Place | $\mathrm{n} / \mathrm{a}$ - demolition | 100 | High | High | Substantial |
| 3 Logie Place | $\mathrm{n} / \mathrm{a}$ - demolition | 100 | High | High | Substantial |
| 5 Logie Place | $\mathrm{n} / \mathrm{a}$ - demolition | 100 | High | High | Substantial |
| 7 Logie Place | $\mathrm{n} / \mathrm{a}$ - demolition | 100 | High | High | Substantial |
| 9 Logie Place | $\mathrm{n} / \mathrm{a}$ - demolition | 100 | High | High | Substantial |
| 11 Logie Place | $\mathrm{n} / \mathrm{a}$ - demolition | 100 | High | High | Substantial |
| 13 Logie Place | $\mathrm{n} / \mathrm{a}$ - demolition | 100 | High | High | Substantial |
| 15 Logie Place | $\mathrm{n} / \mathrm{a}$ - demolition | 100 | High | High | Substantial |
| 17 Logie Place | n /a - demolition | 100 | High | High | Substantial |


| Land Interest | Loss of Land |  | Sensitivity | Magnitude | Significance |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Area lost (ha) | \% Area lost |  |  |  |
| 19 Logie Place | $\mathrm{n} / \mathrm{a}$ - demolition | 100 | High | High | Substantial |
| 21 Logie Place | n/a - demolition | 100 | High | High | Substantial |
| 23 Logie Place | n/a - demolition | 100 | High | High | Substantial |
| 25 Logie Place | n/a - demolition | 100 | High | High | Substantial |
| 27 Logie Place | n/a - demolition | 100 | High | High | Substantial |
| 2C Logie Place | n/a-demolition | 100 | High | High | Substantial |
| 4B Logie Place | n/a - demolition | 100 | High | High | Substantial |
| 4C Logie Place | n/a - demolition | 100 | High | High | Substantial |
| 4D Logie Place | n/a - demolition | 100 | High | High | Substantial |
| 4E Logie Place | n/a - demolition | 100 | High | High | Substantial |
| 4F Logie Place | n/a - demolition | 100 | High | High | Substantial |
| 6A Logie Place | n/a - demolition | 100 | High | High | Substantial |
| 6B Logie Place | n/a - demolition | 100 | High | High | Substantial |
| 6C Logie Place | n/a - demolition | 100 | High | High | Substantial |
| 6D Logie Place | n/a-demolition | 100 | High | High | Substantial |
| 6E Logie Place | n/a - demolition | 100 | High | High | Substantial |
| 6F Logie Place | n/a - demolition | 100 | High | High | Substantial |
| 10 Logie Place | n/a-demolition | 100 | High | High | Substantial |
| 12 Logie Place | n/a - demolition | 100 | High | High | Substantial |
| 14 Logie Place | n/a - demolition | 100 | High | High | Substantial |
| 16 Logie Place | n/a - demolition | 100 | High | High | Substantial |
| 9 Logie Avenue | n/a-demolition | 100 | High | High | Substantial |
| 11 Logie Avenue | n/a - demolition | 100 | High | High | Substantial |
| 13 Logie Avenue | n/a - demolition | 100 | High | High | Substantial |
| 15 Logie Avenue | n/a-demolition | 100 | High | High | Substantial |
| 17 Logie Avenue | n/a - demolition | 100 | High | High | Substantial |
| 19 Logie Avenue | n/a - demolition | 100 | High | High | Substantial |
| 5A Logie Gardens | n/a - demolition | 100 | High | High | Substantial |
| 5B Logie Gardens | n/a - demolition | 100 | High | High | Substantial |
| 5C Logie Gardens | n/a - demolition | 100 | High | High | Substantial |
| 5D Logie Gardens | n/a - demolition | 100 | High | High | Substantial |
| 5E Logie Gardens | n/a - demolition | 100 | High | High | Substantial |
| 5F Logie Gardens | n/a - demolition | 100 | High | High | Substantial |
| 27A Logie Avenue | n/a - demolition | 100 | High | High | Substantial |
| 27B Logie Avenue | n/a - demolition | 100 | High | High | Substantial |
| 27C Logie Avenue | n/a - demolition | 100 | High | High | Substantial |
| 27D Logie Avenue | n/a - demolition | 100 | High | High | Substantial |
| 27E Logie Avenue | n/a - demolition | 100 | High | High | Substantial |
| 27F Logie Avenue | n/a - demolition | 100 | High | High | Substantial |
| 29A Logie Avenue | n/a - demolition | 100 | High | High | Substantial |
| 29B Logie Avenue | n/a - demolition | 100 | High | High | Substantial |
| 29C Logie Avenue | n/a - demolition | 100 | High | High | Substantial |
| 29D Logie Avenue | n/a - demolition | 100 | High | High | Substantial |
| 29E Logie Avenue | n/a - demolition | 100 | High | High | Substantial |
| 29F Logie Avenue | n/a - demolition | 100 | High | High | Substantial |
| 31A Logie Avenue | n/a - demolition | 100 | High | High | Substantial |
| 31B Logie Avenue | n/a - demolition | 100 | High | High | Substantial |


| Land Interest | Loss of Land |  | Sensitivity | Magnitude | Significance |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Area lost (ha) | \% Area lost |  |  |  |
| 31C Logie Avenue | $\mathrm{n} / \mathrm{a}$ - demolition | 100 | High | High | Substantial |
| 31D Logie Avenue | $\mathrm{n} / \mathrm{a}$ - demolition | 100 | High | High | Substantial |
| 31E Logie Avenue | $\mathrm{n} / \mathrm{a}$ - demolition | 100 | High | High | Substantial |
| 31F Logie Avenue | n/a-demolition | 100 | High | High | Substantial |
| 34A Logie Avenue | $\mathrm{n} / \mathrm{a}$ - demolition | 100 | High | High | Substantial |
| 34B Logie Avenue | $\mathrm{n} / \mathrm{a}$ - demolition | 100 | High | High | Substantial |
| 34C Logie Avenue | n/a-demolition | 100 | High | High | Substantial |
| 34D Logie Avenue | $\mathrm{n} / \mathrm{a}$ - demolition | 100 | High | High | Substantial |
| 34E Logie Avenue | $\mathrm{n} / \mathrm{a}$ - demolition | 100 | High | High | Substantial |
| 34F Logie Avenue | n/a-demolition | 100 | High | High | Substantial |
| 36A Logie Avenue | $\mathrm{n} / \mathrm{a}$ - demolition | 100 | High | High | Substantial |
| 36B Logie Avenue | $\mathrm{n} / \mathrm{a}$ - demolition | 100 | High | High | Substantial |
| 36C Logie Avenue | $\mathrm{n} / \mathrm{a}$ - demolition | 100 | High | High | Substantial |
| 36D Logie Avenue | $\mathrm{n} / \mathrm{a}$ - demolition | 100 | High | High | Substantial |
| 36E Logie Avenue | n/a-demolition | 100 | High | High | Substantial |
| 36F Logie Avenue | $\mathrm{n} / \mathrm{a}$ - demolition | 100 | High | High | Substantial |
| 20 Manor Drive | $\mathrm{n} / \mathrm{a}$ - demolition | 100 | High | High | Substantial |
| 22 Manor Drive | n/a-demolition | 100 | High | High | Substantial |
| 24 Manor Drive | n/a - demolition | 100 | High | High | Substantial |
| 26 Manor Drive | $\mathrm{n} / \mathrm{a}$ - demolition | 100 | High | High | Substantial |
| 28 Manor Drive | n/a-demolition | 100 | High | High | Substantial |
| 30 Manor Drive | n/a-demolition | 100 | High | High | Substantial |
| 873 Great Northern Road | n/a-demolition | 100 | High | High | Substantial |
| 875 Great Northern Road | $\mathrm{n} / \mathrm{a}$ - demolition | 100 | High | High | Substantial |
| 877 Great Northern Road | n/a-demolition | 100 | High | High | Substantial |
| 879 Great Northern Road | n/a-demolition | 100 | High | High | Substantial |
| 881 Great Northern Road | $\mathrm{n} / \mathrm{a}$ - demolition | 100 | High | High | Substantial |
| 883 Great Northern Road | $\mathrm{n} / \mathrm{a}$ - demolition | 100 | High | High | Substantial |
| 885 Great Northern Road | n/a-demolition | 100 | High | High | Substantial |
| 887 Great Northern Road | $\mathrm{n} / \mathrm{a}$ - demolition | 100 | High | High | Substantial |
| 889 Great Northern Road | n/a-demolition | 100 | High | High | Substantial |
| 891 Great Northern Road | n/a-demolition | 100 | High | High | Substantial |
| 893 Great Northern Road | n/a-demolition | 100 | High | High | Substantial |
| 895 Great Northern Road | n/a-demolition | 100 | High | High | Substantial |
| 897 Great Northern Road | $n / \mathrm{a}$ - demolition | 100 | High | High | Substantial |
| 899 Great Northern Road | n/a-demolition | 100 | High | High | Substantial |
| 901 Great Northern Road | n/a-demolition | 100 | High | High | Substantial |
| 903 Great Northern Road | n/a - demolition | 100 | High | High | Substantial |
| 905 Great Northern Road | $\mathrm{n} / \mathrm{a}$ - demolition | 100 | High | High | Substantial |
| 907 Great Northern Road | n/a-demolition | 100 | High | High | Substantial |
| 909 Great Northern Road | n/a-demolition | 100 | High | High | Substantial |
| 911 Great Northern Road | n/a-demolition | 100 | High | High | Substantial |
| 913 Great Northern Road | $\mathrm{n} / \mathrm{a}$ - demolition | 100 | High | High | Substantial |
| 915 Great Northern Road | n/a-demolition | 100 | High | High | Substantial |
| 917 Great Northern Road | $\mathrm{n} / \mathrm{a}$ - demolition | 100 | High | High | Substantial |
| 919 Great Northern Road | $\mathrm{n} / \mathrm{a}$ - demolition | 100 | High | High | Substantial |
| 24-32 (even) Logie Avenue | 0.2502 | 56 | Medium | High | Moderate /Substantial |

Appendix A7.1: Residential Land-take for the Proposed Scheme

| Land Interest | Loss of Land |  | Sensitivity | Magnitude | Significance |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Area lost (ha) | \% Area lost |  |  |  |
| (land-take of communal garden) |  |  |  |  |  |
| 1 Logie Gardens and 21-25 Logie Avenue (land-take of communal garden) | 0.0823 | 100 | Medium | High | Moderate /Substantial |
| 10 Logie Avenue <br> Flat A to F <br> (land-take of communal front garden) | 0.0218 | 80 | Medium | High | Moderate /Substantial |
| 26 - 28 (even) Manor Avenue (including two community facilities: <br> Pathways Services Limited and Middlefield Community Project Youth Flat) <br> (land-take of communal garden) | 0.1604 | 70 | Medium | High | Moderate /Substantial |
| 539 \& 541 North Anderson Drive (land-take of communal garden) | 0.0221 | 46 | Medium | Medium | Moderate |
| 535 \& 537 North Anderson Drive (land-take of communal garden) | 0.0122 | 32 | Medium | Medium | Moderate |
| 531 \& 533 North Anderson Drive (land-take of communal garden) | 0.0107 | 33 | Medium | Medium | Moderate |
| 14-22 (even) Logie Avenue (land-take of communal garden) | 0.0640 | 19 | Medium | Medium | Moderate |
| 543 \& 545 North Anderson Drive (land-take of communal garden) | 0.0099 | 21 | Medium | Medium | Moderate |
| 12 Logie Avenue <br> Flat A to F <br> (land-take of communal garden) | 0.0021 | 24 | Medium | Medium | Moderate |
| 17 \& 19 Manor Avenue (land-take of communal garden) | 0.0068 | 18 | Medium | Medium | Moderate |
| 9-15 (odd) Manor Avenue (land-take of communal garden) | 0.0098 | 17 | Medium | Medium | Moderate |
| 1-7 (odd) Manor Avenue (land-take of communal garden) | 0.0087 | 15 | Medium | Medium | Moderate |
| 10-12 (even) Logie Avenue and 551-559 North Anderson Drive (land-take of communal back garden) | 0.0087 | 40 | Medium | Medium | Moderate |

## A90/A96 Haudagain Improvement

DMRB Stage 3 Environmental Statement
Appendix A7.1: Residential Land-take for the Proposed Scheme

| Land Interest | Loss of Land |  | Sensitivity | Magnitude | Significance |
| :--- | :---: | :---: | :--- | :--- | :--- |
|  | Area lost (ha) | \% Area <br> lost |  | Medium | Low |
| $551 \& 553$ North <br> Anderson Drive (land-take <br> of communal front <br> garden) | 0.0019 | 12 | Slight |  |  |

## A9.1: Flood Risk

## 1 Introduction

### 1.1 Background

1.1.1 This appendix provides additional information relating to the Flood Risk Assessment (FRA) associated with the proposed scheme, as reported in Chapter 9 (Road Drainage and the Water Environment).
1.1.2 Three watercourses exist local to the development site; the River Don to the north, Scatter Burn to the west and Woodside Burn to the east. Both the Scatter Burn and Woodside Burn are considered to be minor watercourses and both drain into the River Don. Both catchments are predominantly urban in nature and are significantly culverted along their urbanised route, including the reach local to the development site. The proposed scheme does not involve any direct construction/modification work on the Scatter Burn or Woodside Burn; however, a drainage outfall is proposed via a connection to the Scatter Burn culverted reach in the vicinity of the A96 crossing, to discharge the controlled outflow from the proposed surface water drainage system.
1.1.3 A layout plan of the proposed scheme together with the development area and alignment of the River Don, Scatter Burn and Woodside Burn is shown on Figure A. 1 (Annex A) of this appendix. The site is bounded by the A96 to the north, A90 to the east, Manor Avenue to the south and Manor Drive to the west and covers an area of approximately 3.3ha. The topography of the site is generally falling towards the River Don to the north. The topography requires both excavations and embankments to accommodate the proposed scheme.

### 1.2 Methodology

1.2.1 The FRA has been undertaken with reference to Scottish Planning Policy (SPP) (Scottish Government, 2014) and adopts the methodology presented in the Scottish Environment Protection Agency (SEPA) report titled 'Technical Flood Risk Guidance for Stakeholders', Version 8, February 2014 (SEPA, 2014a). The FRA also follows Methods E and F (Assessing Flood Impacts) in DMRB Volume 11, Section 3, Part 10 HD 45/09 'Road Drainage and the Water Environment' (Highways Agency et al., 2009).
1.2.2 SPP sets out the Scottish Government's planning policy on new development and flooding. For fluvial (river) flooding it uses a risk-based framework that characterises areas for planning purposes by their annual probability of flooding. Based on the probability of flood risk, a site is classified into the following three categories:

- 'Little or No Risk Area' i.e. the site is at less than $0.1 \%$ Annual Exceedance Probability (AEP) ( 1 in 1000-year) chance of flooding. The typical planning response to such sites is "There are no general constraints to development of such sites with respect to flood risk".
- 'Low to Medium Risk Area' i.e. the site is at risk of flooding for events between the $0.5 \%$ AEP and $0.1 \%$ AEP events ( 1 in 200-year and 1 in 1000-year). The typical planning response for such areas is "They are suitable for most development but generally not suitable for civil infrastructure. Where civil infrastructure must be located in these areas or is being substantially extended, it should be designed to be capable of remaining operational and accessible during extreme flood events".
- 'Medium to High Risk Area' i.e. the site is at risk of flooding for events more frequent than the $0.5 \%$ AEP event ( 1 in 200-year). The typical planning response for such areas is 'If the area is local to a built up area with existing flood prevention measures, most brownfield development should be acceptable except essential civil infrastructure. Undeveloped and sparsely developed areas are generally not suitable for most development'.


### 1.2.3 SPP (2014) sets out the following with respect to surface water (pluvial) flooding:

- Infrastructure and buildings should generally be designed to be free from surface water flooding in rainfall events where the AEP of occurrence is greater than $0.5 \%$ (1 in 200).
- Surface water drainage measures should have a neutral or better effect on the risk of flooding both on and off the site, taking account of rain falling on the site and run-off from adjacent areas.
1.2.4 The FRA is based on a review of SEPA Flood Maps (SEPA, 2014b), review of the previous flood studies and flood records in the area (Halcrow, 2008 and 2009) and a review of the proposed drainage strategy for the scheme.
1.2.5 In addition, an assessment of discharge capacity was undertaken for the A90 and railway culverts on the Scatter Burn and the railway culvert on the Woodside Burn, through the modelling of open channel reach of the two watercourses from downstream of the A96 to their confluence with the River Don. The approach to flood risk modelling has been informed by guidance from SEPA (SEPA response to flood risk scope, letter reference PCS/135310, dated 28 August 2014) (Annex B).


## 2 Flood Risk Assessment

### 2.1 Fluvial (River) Flood Risk

2.1.1 Following a review of SEPA Flood Maps (SEPA, 2014b), the proposed development site is considered outwith the $0.1 \%$ AEP (1 in 1000-year) fluvial flood extent of the River Don.
2.1.2 The two minor watercourses (Scatter Burn and Woodside Burn) local to the development site are culverted for almost their entire reach and drain an upstream piped surface water drainage system. Some intermittent open channel sections exist downstream of the A96 crossing and at their confluence with the River Don (refer to Figure A. 1 in Annex A). The open channel reach of Scatter Burn incorporates two culverts; the Aberdeen to Inverness railway culvert [1.9m W x 2.4 m H ] and the downstream A90 culvert [ 3.2 m arch section reduced to 1.25 m section] followed by a 1.25 m diameter pipe up to its outfall to the River Don. Similarly, the open channel reach of the Woodside Burn incorporates the railway culvert $[0.9 \mathrm{~m} \mathrm{~W} \times 1.6 \mathrm{~m} \mathrm{H}]$ followed by a 900 mm diameter pipe to the River Don. The SEPA Flood Maps (SEPA, 2014b) do not show any fluvial flood risk associated with these two watercourses local to the development site.
2.1.3 The Scatter Burn is culverted at the A96 crossing by a 1050 mm diameter pipe and has a sufficient flow capacity to convey the design $0.5 \%$ AEP event plus $20 \%$ allowance for climate change. The 1050 mm pipe culvert continues further upstream, extending beyond the proposed development site. Similarly, the Woodside Burn is also culverted adjacent to the proposed development site and the culverted reach extends further upstream (refer to hatched lines partially delineating the culvert extents on Figure A. 1 in Annex A).
2.1.4 In the event of an extreme flood event occurring within these two catchments, it is considered likely that the upstream culvert system would be surcharged. It is considered unlikely that any surface water flooding upstream would impact the proposed development site.
2.1.5 Therefore, in accordance with the SPP Risk Framework, as described in Section 1.2, the proposed development site is categorised to be at 'Little or No Risk' of fluvial flooding.
2.1.6 The hydraulic capacity of the channel reach downstream of the development site, and associated bridge crossings, has been evaluated for both watercourses using a one dimensional (1-D) hydraulic model. The model has been constructed to represent the open channel reach of both watercourses downstream of the A96 to their confluence with the River Don. The models have been constructed using ISIS v3.7 river modelling software and surveyed channel cross-sections.
2.1.7 The modelling results show that for the pre-development condition, the railway culvert on the Scatter Burn passes the design 0.5\% AEP (1 in 200-year) event plus 20\% allowance for climate
change flow in a 'free flowing' condition with an estimated freeboard of 1.25 m , below the soffit level of the 2.4 m high railway culvert.
2.1.8 The Woodside Burn railway culvert is predicted to be surcharged at its entrance during the 0.5\% AEP (1 in 200-year) design event plus 20\% allowance for climate change, although upstream water level is not predicted to be 'out-of-bank'.
2.1.9 The 1250mm diameter pipe culvert beneath the A90 road (Scatter Burn) and 900mm diameter pipe culvert downstream of the railway embankment (Woodside Burn) are both surcharged during the $0.5 \%$ AEP (1 in 200-year) design event plus $20 \%$ allowance for climate change. However, the upstream water level in both watercourses is not predicted to be 'out of bank' during this design event, therefore not impacting the railway or the A90 road (refer to Figure A. 2 in Annex A).

Any increase in peak flow in the Scatter Burn or Woodside Burn due to increased surface water runoff from the development site would further exacerbate this surcharging and may result in an increased flood risk. As a consequence, the design approach has been that surface water runoff from the development site is attenuated, such that the peak pre-development flow within the Scatter Burn and Woodside Burn is not increased for the design event.

Following consultation with SEPA (drainage design consultation meetings held on 2 October 2013 and 19 August 2014), it is proposed to incorporate a new sustainable drainage system (SUDS) as part of the proposed development. Surface water runoff from the new road network would drain via a vortex separator into a detention basin prior to draining into the Scatter Burn. The detention basin is designed to attenuate the post-development peak flow to a pre-development peak flow associated with the $50 \%$ AEP ( 1 in 2 -year) rainfall event. Adopting this approach is considered to result in a negligible impact on the existing fluvial flood regime.
2.1.12 The total development area is approximately 3.3ha, of which approximately 2.3 ha is located in the Woodside Burn catchment and 1.Oha in the Scatter Burn catchment. The proposed development site would have approximately 2.3 ha of impervious road area and 1.0ha of pervious area. Of the total 2.3 ha of impervious area, 1.5 ha is already impervious. Thus the proposed development results in an additional impervious area of 0.8ha; of which 0.2ha is located in the Scatter Burn catchment and 0.6 ha is located in the Woodside Burn catchment. The detention basin is designed to receive all surface runoff from the development area prior to discharge into the Scatter Burn.
2.1.13 The pre- and post-development 50\% AEP (1 in 2-year) and 0.5\% AEP (1 in 200-year) peak flows in the Scatter Burn and Woodside Burn at their outfalls to the River Don are presented in Table 2.1 below.

Table 2.1: Pre- and post-development flows in the Scatter Burn and Woodside Burn at their outfalls to the River Don

| Watercourse | Pre-development |  | Post-development with mitigation |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Flow $\left(\mathrm{m}^{3} / \mathrm{s}\right)$ <br> $(50 \% A E P)$ | Flow $\left(\mathrm{m}^{3} / \mathrm{s}\right)$ <br> $(0.5 \% \mathrm{AEP})$ | Flow $\left(\mathrm{m}^{3} / \mathrm{s}\right)$ <br> $(50 \% \mathrm{AEP})$ | Flow $\left(\mathrm{m}^{3} / \mathrm{s}\right)$ <br> $(0.5 \% \mathrm{AEP})$ |
|  | 1.22 | 4.31 | 1.23 | 4.29 |
| Woodside <br> Burn | 1.02 | 3.61 | 1.00 | 3.53 |

2.1.14 It is observed from Table 2.1 that there is a slight increase (less than 1\%) in the 50\% AEP (1 in 2year) peak flow in the Scatter Burn for the post-development scenario. This is due to the fact that part of the proposed development site is currently located in the Woodside Burn catchment and would be discharged into the Scatter Burn during the post-development scenario. However, as a result of the surface water runoff attenuation provided by the detention basin, the predicted peak $0.5 \%$ AEP post-development flow in the Scatter Burn is slightly less than the pre-development condition. Conversely, the post-development flow in the Woodside Burn is slightly decreased for both the $50 \%$ AEP ( 1 in 2-year) and $0.5 \%$ AEP ( 1 in 200-year) events, due to the small reduction of catchment area (2.3ha) which is proposed to drain into the Scatter Burn detention basin.

### 2.2 Pluvial (Surface Water) Flood Risk

2.2.1 The SEPA Flood Maps (SEPA, 2014b) indicate that some areas within Middlefield are at risk of surface water flooding. A previous hydrogeological study of this area also supports this view (Halcrow, 2008 and 2009). The area of Middlefield is known to experience widespread groundwater and surface water flooding as a result of poor drainage during the autumn and winter months. The previous Middlefield hydrogeological study also identified 15 areas known to be at risk of surface water flooding (refer to Figure A.3, Annex A). In particular, three of these areas are within the development site:

- Location 1: Logie Place/Logie Avenue Junction.
- Location 5: Manor Avenue, Opposite Logie Terrace.
- Location 7: Logie Place, Opposite House No. 14.
2.2.2 According to the Middlefield hydrogeological study (Halcrow, 2008 and 2009), flooding at Logie Place (Locations 1 and 7) was attributed to surface water runoff from adjacent higher land flooding property basements. Similarly, the flooding at Manor Avenue (Location 5) was attributed to surface water runoff from adjacent grassed areas flooding the road adjacent to the properties. The localised surface water flooding was considered predominantly to be a result of insufficient coverage/capacity of the existing surface water drainage network in the area.
2.2.3 It is considered likely that the proposed incorporation of SUDS would not exacerbate surface water flooding within the development area and hence the impact of the proposed scheme on surface water flooding is considered to be negligible.


### 2.3 Mitigation Measures / Flood Management

As the proposed scheme, including the provision of SUDS, does not impact upon existing flood risk, no further mitigation or flood management measures are proposed.

## 3 Summary and Conclusion

3.1.1 The proposed development site is categorised in accordance with the SPP Risk Framework to be at 'Little or No Risk' of fluvial flooding, i.e. the development site lies outwith the predicted $0.1 \%$ AEP (1 in 1000-year) fluvial flood extent of the River Don. The two adjacent small watercourses are culverted adjacent to the proposed development site, and the culverted reach extends further upstream of the site. It is considered unlikely that any potential flooding in the upstream culvert system would impact the proposed development site.
3.1.2 The proposed development would incorporate a SUDS system, including a detention basin. This would capture surface water runoff from the development site and attenuate flow into the receiving watercourse (Scatter Burn). Adopting this approach results in no impact on the flood risk for the $0.5 \%$ AEP (1 in 200-year) design event, plus 20\% allowance for climate change.

## 4 References

Halcrow (2008). Aberdeen City Council Middlefield Hydrogeological Study: Supporting Studies. May 2008.

Halcrow (2009). Aberdeen City Hydrogeological Study: Integrated Summary Report. January 2009.
Highways Agency et al. (2009). HD 45/09: Design Manual for Roads and Bridges (DMRB), Volume 11, Section 3, Part 10, Road Drainage and the Water Environment, 2009. The Highways Agency, Scottish Executive Developmental Department, The National Assembly for Wales and The Department of Regional Development Northern Ireland.

Scottish Government (2014). Scottish Planning Policy.

SEPA (2014a). Technical Flood Risk Guidance for Stakeholders, Version 8, February 2014.
SEPA (2014b). Flood Maps (Scotland). Available at:
http://www.sepa.org.uk/flooding/flood extent maps/view the map.aspx.

## Annex A: Figures



Figure A.1: Layout of the proposed A90/A96 Haudagain Improvements Scheme


Figure A.2: The 200 year flood inundation extents at the open channel reach of the two watercourses


Figure A.3: Surface water flooding locations in the vicinity of the proposed development site (Halcrow, 2008)

## Annex B: SEPA Response to Flood Risk Modelling Scope

 Protection AgencyOur ref: PCS/135310
Your ref:
If telephoning ask for:
Clare Pritchett

By email only to: Jonathan.Moore@jacobs.com
28 August 2014

Dear Mr Moore

## A90/A96 Haudagain Improvement Scheme - Flood Risk Modelling Scope

Thank you for your email of 5 August 2014 with flood risk modelling scope attached. Please note the advice provided below. Apologies for the delay in responding to you, our flood risk hydrologists are still dealing with a backlog following the recent flood events in Scotland.

## Advice for the applicant

## 1. Flood risk

1.1 Thank you for providing a Flood Risk Modelling Scope for comment. We note that it is intended to model the flood risk from the Scatter and Woodside Burns, both of which are culverted at several locations.
1.2 It is stated that channel survey data and LiDAR data will be used to create a 1-dimensional hydraulic model for each burn using ISIS software. We note that the hydraulic modelling will also be used to assess existing capacities of the culverts.
1.3 The applicant should provide their own analysis of flood risk at the site using up to date methods form the Flood Estimation Handbook (FEH) to derive design flows. It's generally best to use more than one method for comparison.
1.4 Any FRA should take into account flooding from all sources. We note that it proposed to generate flood maps including for the 1 in $200(0.5 \%$ AEP) event for both pre- and postdevelopment conditions. We would recommend that the 1 in 1000 year ( $0.1 \%$ annual probability) flood event is also considered depending on the vulnerability of the existing development i.e. educational establishments; residential care homes.
1.5 The methods proposed are likely to be acceptable however the applicant should take a precautionary approach and undertake more detailed analysis in vulnerable areas at their own discretion if required.
1.6 With regards to sensitivity analysis, appropriate analysis should be carried out to determine the sensitivity of design water levels to key model parameters, e.g. design flow, roughness, downstream boundary. Where culverts/ bridges exist, the risk of potential blockage also needs to be considered (i.e. the model should be run with full and/or partial blockage to better understand the impact of such processes).

Chairman David Sigsworth

# 1.7 We refer the applicant to the document entitled: "Technical Flood Risk Guidance for Stakeholders". This document provides generic requirements for undertaking Flood Risk Assessments and can be downloaded from www.sepa.org.uk/flooding/planning flooding.aspx. Please note that this document should be read in conjunction with Policy 41 (Part 2). <br> 1.8 Our Flood Risk Assessment checklist should be completed and attached within the front cover of any flood risk assessments issued in support of a development proposal which may be at risk of flooding. The document will take only a few minutes to complete and will assist our review process. It can be downloaded from www.sepa.org.uk/flooding/planning flooding/fra checklist.aspx 

If you have any queries relating to this letter, please contact me by telephone on 01224266609 or e-mail at planning.aberdeen@sepa.org.uk

Yours sincerely
Clare Pritchett
Senior Planning Officer
Planning Service

[^0]
## A9.2: Water Quality Calculations

## 1 Introduction

1.1.1 This appendix provides additional information on the calculations used to inform the water quality and drainage assessment of the proposed scheme, as reported in ES Chapter 9 (Road Drainage and Water Environment).
1.1.2 As part of the water quality assessment, routine runoff and accidental spillage risk to the watercourses proposed to receive road drainage were assessed using the Highways Agency's Water Risk Assessment Tool (HAWRAT), in line with Design Manual for Roads and Bridges (DMRB) HD 45/09 guidance (Highways Agency et al. 2009a). The approach and methods used in these assessments are described in Section 2 and the HAWRAT inputs/outputs are provided in Section 3.

## 2 Methodology

## Routine Runoff Calculations

HAWRAT was developed primarily for use on non-urban trunk roads and motorways in England and has been adapted to reflect conditions within Wales, Scotland and Northern Ireland. HAWRAT has been developed to assess the magnitude of potential short-term impacts of routine runoff of surface waters. Runoff Specific Thresholds (RSTs) have been devised by the Highways Agency and the Environment Agency (EA); two thresholds have been developed to protect aquatic ecology in watercourses, which relate to the intermittent nature of road runoff (i.e. contaminants washed off the road surface in a rainfall event), including over a typical exposure period of six hours (RST 6 hour) and for a worst-case scenario of 24 hours (RST 24 hour). Dissolved copper and dissolved zinc are used as indicators of the level of impact as they can result in particularly acute toxic effects to aquatic life in certain concentrations. Table 1 summarises the RSTs for dissolved copper and dissolved zinc used within HAWRAT.

Table 1: RSTs for short-term exposure (WRc, 2007 cited within Highways Agency et al., 2009a)

|  |  | Zinc ( $\boldsymbol{\mu g} / \mathrm{I}$ ) Hardness |  |  |
| :--- | :--- | :---: | :---: | :---: |
| Threshold | Copper ( $\mu \mathrm{g} / \mathrm{I}$ ) | Low <br> (<50mg CaCO3/l) | Medium <br> (50mg to 200mg <br> CaCO3/I) | High <br> (>200mg CaCO3/I) |
| RST 24 hour | 21 | 60 | 92 | 385 |
| RST 6 hour | 42 | 120 | 184 | 770 |

HAWRAT also assesses chronic impacts associated with sediment-bound pollutants on aquatic ecology within watercourses. Two standards have been devised for metal and polycyclic aromatic hydrocarbon (PAH) concentrations within sediment; namely Threshold Effects Levels (TELs) (i.e. the concentration below which toxic effects are extremely rare) and Probable Effects Levels (PELs) (i.e. the concentration above which toxic effects are observed on most occasions). Table 2 summarises some of the key sediment-bound pollutant thresholds used within HAWRAT.

Table 2: Sediment Concentrations TELs and PELs (Gaskell et al., 2008 cited within Highways Agency et al., 2009a)

| Parameter | TEL (units are in $\mathbf{~ m g / k g}$ <br> unless stated otherwise) | PEL (units are in $\mathbf{~ m g} / \mathbf{k g}$ <br> unless stated otherwise) |
| :--- | :--- | :--- |
| Copper | 35.7 | 197 |
| Zinc | 123 | 315 |
| Cadmium | 0.6 | 3.5 |


| Total PAH | $1,684 \mu \mathrm{~g} / \mathrm{kg}$ | $16,770 \mu \mathrm{~g} / \mathrm{kg}$ |
| :--- | :--- | :--- |

2.1.3 As well as short-term impacts, HAWRAT also estimates in-river annual average concentrations for soluble pollutants (dissolved copper and dissolved zinc), which includes the contribution from road runoff. These concentrations can be compared with published Environmental Quality Standards (EQS) values to assess whether there is likely to be a long-term impact on ecology, as shown in Table 3. These figures have been taken from the DMRB HD 45/09 guidance (Highways Agency et al., 2009a), where it is noted that the figures for dissolved zinc are only provisional.

Table 3: EQS for the Protection of all Freshwater Life

| Parameter | Hardness Range (mg/l $\mathrm{CaCO} 3)$ | Freshwater EQS ( $\mu \mathrm{g} / \mathrm{I}$ ) (annual average) |
| :---: | :---: | :---: |
| Dissolved Copper | 0-50 | 1 |
|  | >50-100 | 6 |
|  | >100-250 | 10 |
|  | >250 | 28 |
| Dissolved Zinc | 0-50 | 7.8 |
|  | >50-100 |  |
|  | >100-250 |  |
|  | >250 |  |

2.1.4 HAWRAT uses a three-stage tiered approach to assessing the impacts of both soluble pollutants and sediment-bound pollutants. Each pollutant type is given a status of 'Pass' or 'Fail' depending on whether the risk is within or exceeds the published thresholds. The impact of routine runoff to each receiving watercourse is summarised by a 'traffic light' reporting, whereby:

- Red = unacceptable impact (i.e. one or more pollutant concentrations exceed thresholds and therefore incur a Fail result) or a need to carry out further stages of assessment.
- Green $=$ no significant impact (i.e. pollutant concentrations are within thresholds and therefore incur a Pass result) with no need for further assessment.
- Amber = for assessment of sediment-bound pollutants, where the assessment would otherwise indicate a Pass result, the tool produces an 'Alert' result indicating that the presence of protected nature sites and/or a downstream structure impacting on flow velocity may require further site-specific consideration.
2.1.5 Where a given scenario produces a 'Fail' result for one or more of the pollutant types, the next step is required based on increasing levels of input parameters and assessment. The three step approach is summarised below:
- Step 1: Runoff Quality (predicts the concentrations of pollutants in untreated and undiluted highway runoff prior to any treatment and dilution in a water body). This is the 'worst case' scenario.
- Step 2: In-River Impacts (predicts the concentrations of pollutants after mixing within the receiving water body). At this stage, the ability of the receiving watercourse to disperse sediments is considered and, if sediment is predicted to accumulate, the potential extent of sediment coverage (i.e. the deposition index, DI ) is also considered.
- Step 3: In-River Impacts with mitigation. Steps 1 and 2 assume that the road drainage system incorporates no mitigation measures to reduce the risk. Step 3 includes mitigation, in the form of sustainable drainage systems (SUDS), which takes into account the risk reduction associated with any existing measures or any proposed new measures. SUDS are a requirement under the Water Environment (Controlled Activities) (Scotland) Amendment Regulations 2013 (CAR) for new development, even if the risks in HAWRAT are shown to be acceptable, i.e. 'Pass', prior
to any mitigation. Refer to ES Chapter 9 (Road Drainage and the Water Environment) for details on SUDS measures for the proposed scheme.
2.1.6 Step 2 also incorporates two 'tiers' of assessment for sediment accumulation, based on different levels of input parameters. If one or more risks are defined as unacceptable at Tier 1, i.e. 'Fail', then a more detailed Tier 2 assessment is undertaken, which requires further parameters relating to the physical dimensions of the receiving watercourse, including bed width, Manning's ' $n$ ', bank slope and channel gradient.


## Spillage Risk Calculations

2.1.7 Along any road, there is a risk of vehicular collision that could result in the spillage of fuels, oils or chemicals, particularly if tankers are involved. A risk assessment of a serious spillage causing a pollution incident was undertaken using the methodology outlined in the DMRB HD 45/09 (Highways Agency et al., 2009a).
2.1.8 The risk is calculated assuming that an accident involving spillage of pollutants onto the carriageway would occur at an assumed frequency, expressed as annual probabilities, based on calculated traffic volumes and the type of road/junction (Table 4). The annual probability of a serious accidental spillage leading to a serious pollution incident also depends upon the emergency services response time. A risk factor is applied depending on the location and likely response time and the type of receiving water body (Table 5).

Table 4: Serious Accidental Spillages per Billion HGV (km/year)

|  | Motorways | Rural Trunk Roads | Urban Trunk Roads |
| :--- | :--- | :--- | :--- |
| No Junction | 0.36 | 0.29 | 0.31 |
| Slip Road | 0.43 | 0.83 | 0.36 |
| Roundabout | 3.09 | 3.09 | 5.35 |
| Crossroad | n/a | 0.88 | 1.46 |
| Side Road | n/a | 0.93 | 1.81 |

Source: DMRB HD 45/09 (Highways Agency et al., 2009a).
Note: Risk factor applies to all road lengths within 100 m of these junction types.
Table 5: Probability of a Serious Accidental Spillage Leading to a Serious Pollution Incident

| Receiving Waterbody | Urban (response <br> time to site $\mathbf{< 2 0}$ mins) | Rural (response time <br> to site $\boldsymbol{< 1}$ hour) | Remote (response <br> time to site $\boldsymbol{> 1}$ hour) |
| :--- | :--- | :--- | :--- |
| Surface Watercourse | 0.45 | 0.6 | 0.75 |
| Groundwater | 0.3 | 0.3 | 0.5 |

Source: DMRB HD 45/09 (Highways Agency et al., 2009a).
2.1.9 The probability of a serious accidental spillage was calculated as follows:
$P_{S P L}=R L \times S S \times\left(A A D T \times 365 \times 10^{-9}\right) \times(\% H G V \div 100)$
Where:

- $P_{\text {SPL }}=$ probability of a serious accidental spillage in one year over a given road length.
- $R L=$ road length in kilometres.
- $S S=$ serious spillage rates from Table 4 of this appendix (or local data if available).
- AADT = Annual Average Daily Traffic (in design year 2033).
- \%HGV = percentage of Heavy Goods Vehicles (in design year 2033).
2.1.10 The probability that a spillage would cause a pollution incident is calculated thus:
$P_{I N C}=P_{S P L} \times P_{P O L}$
Where:
- $P_{\text {pol }}=$ the risk reduction factor, dependent upon emergency services response times, which determines the probability of a serious spillage leading to a serious pollution incident (Table 5).
2.1.11 In line with the DMRB (Highways Agency et al., 2009a), where spillage risk is calculated as less than 1\% Annual Exceedance Probability (AEP) or less frequent than 1 in 100 years, the spillage falls within acceptable limits and no further spillage prevention measures would be required. Where assessed to be greater than 1\% AEP (more frequent than 1 in 100 years), the risk is unacceptable and mitigation would be required to reduce the risk of an impact occurring.


## 3 Routine Runoff Assessment - HAWRAT Output Sheets (Location Details, User Parameters and Results)

3.1.1 The site characteristics at the outfall location and assessment parameters for the routine runoff assessment undertaken in HAWRAT are provided in Table 6 and Table 7, respectively. Table 8 includes the detailed assessment result from HAWRAT.

Table 6: Location Details: Scatter Burn

| Assessment Type | Non-cumulative assessment (single outfall) |  |
| :--- | :--- | :--- |
| Receiving watercourse | Scatter Burn |  |
| OS grid reference of assessment point (m) | Easting | 391059 |
|  | Northing | 809177 |
| OS grid reference of outfall structure (m) | Easting | 391059 |
|  | Northing | 809177 |
| Outfall number | Scatter Burn outfall |  |
| List of outfalls in cumulative assessment | n/a |  |

Table 7: Assessment Parameters: Scatter Burn

| Parameter | Units | Value used | Notes/Sources |
| :---: | :---: | :---: | :---: |
| Runoff Risk Assessments |  |  |  |
| AADT | vpd | $\begin{aligned} & >10000 \quad \text { and } \\ & <50000 \end{aligned}$ | Design year 2033 <br> Source: ASAM4A Traffic model (January 2015) |
| Climatic Region | - | Colder Dry | Source: HAWRAT Help v1.0 (Highways Agency, 2009b) |
| Rainfall Site | - | Edinburgh <br> (SAAR 676mm) | Source: HAWRAT Help v1.0 (Highways Agency. 2009b) |
| 95\%ile River Flow | $\mathrm{m}^{3} / \mathrm{s}$ | $\begin{aligned} & 0.0038 \\ & 0.0024 \\ & \text { (sensitivity test - } \\ & \text { approx. 60\% of } \\ & \text { estimated Q95) } \end{aligned}$ | Source: Q95 in Scatter Burn was estimated from analysis of flow data of most hydrologically similar low flow estimate (LFE) gauges in Hydrometric Areas 9-13. <br> Sensitivity analysis undertaken ( $40 \%$ reduction of Q95 estimate) due to the high uncertainty associated with the Q95 flow estimate (highly urbanised catchment and various inputs from the drainage network). |
| Baseflow Index | - | 0.61 | Source: FEH CD-ROM (CEH, 2009) |
| Impermeable road area drained | ha | 2.2907 | Source: Scheme information |
| Permeable area | ha | 0.3841 | Source: Scheme information |


| draining to outfall |  |  | This area makes up the remaining portion of <br> 'Interior Catchment' such as verges, adjacent <br> cuttings and embankments which are assumed to <br> be free from highway-derived pollutants. |
| :--- | :--- | :--- | :--- |
| Is the discharge in or <br> within 1km upstream of <br> a protected site for <br> conservation? | - | Yes | Scatter Burn flows into the River Don, which is <br> classified as salmonid waters under WFD. |
| Is there a downstream <br> structure, lake, pond or <br> canal that reduces the <br> velocity within 100m of <br> the point of discharge? | - | No |  |
| Hardness | - | Low |  |
| CaCO |  |  |  |

Table 8: Detailed Results - Scatter Burn


## 4 Accidental Spillage Risk Assessment - Calculation Tables

4.1.1 The Spillage Risk Assessment inputs and results are shown in Tables 9 and 10.

Table 9: Inputs to spillage risk assessment: Scatter Burn

| Parameter | Units | Value used | Notes/Sources |  |  |
| :--- | :--- | :--- | :--- | :---: | :---: |
| Spillage Risk Assessment |  |  |  |  |  |
| Water Body Type | - | Surface <br> watercourse | Surface watercourse or Groundwater |  |  |
| Length of road <br> draining to outfall | m | 1077 m | Source: scheme information. |  |  |
| Road Type (A-road or <br> motorway) | - | A-road |  |  |  |
| Junction Type | - | No junction; 1 <br> side road | Source: scheme information |  |  |
| Location | - | $<20$ minutes | Urban location |  |  |
| Traffic flow (AADT <br> two way) | - | 41,924 <br> (mainline) <br> 5,947 (side <br> roads) | Design year 2033 <br> Source: ASAM4A Traffic model (January 2015) |  |  |
| \%HGV |  | 4.31 (mainline) <br> 1.49 (side roads) |  |  |  |
| Spillage factor | - | 0.31 (mainline) <br> 1.81 (side roads) | Source: DMRB HD 45/09, Table D1.1 |  |  |

A90/A96 Haudagain Improvement
DMRB Stage 3 Environmental Statement
Appendix A9.2: Water Quality Calculations

Table 10: Spillage Risk Assessment - Scatter Burn


## 5 References

Centre for Ecology and Hydrology (CEH) (2009). Flood Estimation Handbook (FEH) Version 3 and associated software. Wallingford.

Highways Agency (2009a). Design Manual for Roads and Bridges (DMRB) HD 45/09: Volume 11, Section 3, Part 10, Road Drainage and the Water Environment. The Highways Agency, Transport Scotland, Welsh Assembly Government and The Department for Regional Development Northern Ireland.

Highways Agency (2009b). Water Risk Assessment Tool (HAWRAT) version 1.0. November 2009.

## A10.1: Legislation and Conservation Status

## 1 International Conventions and Directives

The Convention on Biological Diversity (CBD) (1992)

The CBD provides a legal framework for biodiversity conservation. Contracting Parties are required to create and enforce national strategies and action plans to conserve, protect and enhance biological diversity. The UK Government published the UK Biodiversity Action Plan (UKBAP) in 1994, and to compliment the UKBAP, the Scottish Biodiversity Strategy was launched in 2004.
In 2010 the Contracting Parties adopted a revised and updated Strategic Plan for Biodiversity, including the Aichi Biodiversity Targets, for the 2011-2020 period. The Aichi Biodiversity Targets have five strategic goals, relating generally to addressing biodiversity loss, improving biodiversity status, and enhancing implementation of measures. Each strategic goal has a number of targets associated with it adding up to a total of 20 targets. Full details can be found at http://www.cbd.int/sp/targets/default.shtml.

The Conservation of European Wildlife and Natural Habitats (the Bern Convention) (1979)
1.1.3 The Convention on the Conservation of European Wildlife and Natural Habitats (the Bern Convention) imposes legal obligations on EU member States and non-member States (as appropriate) to ensure conservation and protection of wild plant and animal species listed within the Convention. Special attention is given to endangered and vulnerable species, including endangered and vulnerable migratory species specified in appendices. The convention was adopted in Bern, Switzerland in 1979 and was ratified by the UK in 1982. It was implemented in the UK in 1982 through the Wildlife and Countryside Act 1981 (as amended) and the Nature Conservation (Scotland) Act 2004 (as amended).

## The Convention on Conservation of Migratory Species of Wild Animals (the Bonn Convention) (1979)

The Bonn Convention was adopted in 1979 and came into force in 1985. Signatories work together to conserve migratory species and their habitats by providing strict protection for endangered migratory species (listed in Appendix I of the Convention), concluding multilateral agreements for the conservation and management of migratory species which require or would benefit from international cooperation (listed in Appendix II), and by undertaking cooperative research activities. The Convention aims to achieve the effective management of migratory species across national or jurisdictional boundaries. In the UK, the legal requirement for the strict protection of Appendix I species is provided by the Wildlife and Countryside Act 1981 (as amended).

## European Council Directive (79/409/EEC) on the Conservation of Wild Birds (the Birds Directive) (1979)

1.1.5 The Directive is a primary tool for delivering EU obligations under the CBD (1979), the Ramsar and the Bonn Convention (1979). The Birds Directive requires Member States to protect all bird species, their sites and their habitats. Article 4 of the Directive makes provision for the identification and classification of Special Protection Areas (SPAs) for rare or vulnerable species listed in Annex I of the Directive, as well as for all regularly occurring migratory species, paying particular attention to the protection of wetlands of international importance. Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 is the codified version of Directive 79/409/EEC (as amended) (the Birds Directive (2009)).

## European Council Directive (92/43/EEC) on the Conservation of Natural Habitats and Wild Fauna and Flora (the Habitats Directive) (1992)

1.1.6 The EC Directive ( $92 / 43 /$ EEC) on the Conservation of Natural Habitats and of Wild Fauna and Flora (the Habitats Directive, 1992) is the means by which Member States meet obligations made as a signatory of the Bern Convention. The main aim of the Directive is to promote the
maintenance of biodiversity by requiring Member States to take measures to maintain or restore natural habitats and wild species at a favourable conservation status, introducing robust protection for those habitats and species of European importance. Each Member State is required to prepare and propose a national list of sites for evaluation in order to form a European network of Sites of Community Importance (SCIs). Once adopted, these are designated by Member States as Special Areas of Conservation (SACs).
1.1.7 Article 3 of the Directive requires that designated sites contribute to a coherent European ecological network of protected sites under the title Natura 2000. In addition, the Article requires that SPAs are also included in this network. Member States should also endeavour to improve the ecological coherence of the Natura 2000 network by maintaining, and where appropriate developing, features of the landscape which are of major importance for wild fauna and flora.
1.1.8 The Directive was amended in 1997 and 2003 due to the enlargement of the European Union, with a consolidated version issued in 2007.

## European Council Directive (2000/60/EC) Water Framework Directive (WFD) (2000)

1.1.9 In October 2000 Directive 2000/60/EC established a framework for Community action in the field of water policy (Water Framework Directive or WFD) and came into force in December 2000. The Directive requires that all inland and coastal watercourses in Europe do not deteriorate from their current condition and reach at least 'good' ecological status by 2015. Under the WFD, the ecological status of watercourses is now the focus of river management and impact assessment. Transposition into national law occurred through the Water Environment and Water Services (Scotland) Act 2003 (WEWS Act).

## European Council Directive (2006/44/EC) Freshwater Fish Directive (2006)

The Freshwater Fish Directive sought to protect freshwater bodies identified by Member States as waters suitable for sustaining fish populations. The Directive was repealed on 22 December 2013 when waters designated under the Freshwater Fish Directive became protected areas under the Water Framework Directive.

## European Council Regulation (No.: 1100/2007) Establishing measures for the recovery of the stock of European eel (2007)

1.1.11 In response to the decline of European eels the EU proposed an Eel Management Plan. Each Member State is required to create separate management plans for each river basin district.

## 2 National Legislation

## The Wildlife and Countryside Act 1981 (WCA) (as amended in Scotland)

2.1.1 The WCA is the principal mechanism for wildlife protection in the UK. Its aim is to implement the requirements of the Bern Convention and the Birds Directive. The statutory designation of Sites of Special Scientific Interest (SSSI) is the main site protection measure in the UK established under the WCA.
2.1.2 The WCA has undergone a number of amendments, the latest being via the Wildlife and Natural Environment (Scotland) Act 2011; see below for further details.

## The Conservation (Natural Habitats, \&c.) Regulations 1994 (as amended in Scotland)

2.1.3 The Conservation (Natural Habitats, \&c.) Regulations 1994 (as amended in Scotland) transpose the EC Habitats Directive into national law. The Regulations provide for the designation and protection of 'European sites', the protection of 'European protected species', and the adaptation of planning and other controls for the protection of European sites.
2.1.4 Under the Regulations it is an offence (subject to exceptions) to deliberately capture, kill, disturb, or trade in the animals listed in Schedule 2 of the Regulations, or pick, collect, cut, uproot, destroy, or trade in the plants listed in Schedule 4. However, these actions can be made lawful through the granting of licenses by the appropriate authorities. Licenses may be granted for a number of
purposes (such as science and education, conservation, preserving public health and safety), but only after the appropriate authority is satisfied that there are no satisfactory alternatives and that such actions will have no detrimental effect on the conservation status of the species concerned.

## Nature Conservation (Scotland) Act (NCSA) 2004

This Act requires Scottish Ministers to publish a list of habitats and species considered to be of principal importance for biodiversity. The Scottish Biodiversity List is intended to be a tool for public bodies and an important source of information and guidance for all.

## Wildlife and Natural Environment (Scotland) Act (WANE) 2011

2.1.6 The Wildlife and Natural Environment (Scotland) Act 2011 amended a number of other pieces of legislation including the Wildlife and Countryside Act 1981 and the Deer (Scotland) Act 1996. The Act introduces new wildlife related offences, including 'vicarious liability'. It abolishes the designation of 'areas of special protection' under the Wildlife and Countryside Act 1981, adds further regulation of snaring practice, further regulates invasive and non-native species, ensures that badger licensing is consistent with that of other protected species, amends current arrangements for deer management and deer stalking, strengthens protection of badgers, changes how moor burn can be practised and makes operational changes to the management of SSSIs.
2.1.7 The act also changed the approach to dealing with invasive non-native species and aims to prevent the release and spread of non-native animal and plant species into areas where they can cause damage to native species and habitats and to economic interests. This act seeks to ensure a rapid response to new populations can be undertaken, and effective control and eradication measures can be carried out when problem situations arise.
2.1.8 A Code of Practice, issued under new section 14C of the Wildlife and Countryside 1981 Act, helps people who manage land containing non-native plants and animals or are involved in the keeping of non-native plants and animals to understand their legal responsibilities. It also provides a licensing means to derogate offences against species protected by the WCA 1981 in certain circumstances.

## Environmental Protection Act 1990

2.1.9 This Act aims to provide protection and conservation of the natural environment. A number of provisions are set out within this Act that includes provision for the improved control of pollution arising from certain industrial and other processes.

## Surface Waters (Fishlife) (Classification) (Scotland) Amendment Regulations 2007

2.1.10 These Regulations prescribe a system for classifying and monitoring the quality of inland waters in Scotland which need protection or improvement to support fish-life.

## Salmon and Freshwater Fisheries (Consolidation) (Scotland) Act 2003

2.1.11 This Act affords protection through a number of orders to which planning authorities must adhere. Under this any person who knowingly takes, injures or destroys; or obstructs the passage of, any smolt, parr, salmon fry or alevin shall be guilty of an offence. Additionally, any person knowingly injuring or disturbing salmon spawn; or disturbs any spawning bed or any bank or shallow in which the spawn of salmon may be, shall be guilty of an offence.

## Water Environment and Water Services (Scotland) Act 2003 (WEWS)

2.1.12 The WEWS implements the WFD in Scotland but it is now augmented by the Controlled Activities Regulations (CAR).

## Water Environment (Controlled Activities) (Scotland) Regulations 2005 (CAR)

2.1.13 This act is the implementation in Scotland of the WFD. The Regulations apply to inland waters and wetlands linking to lochs or rivers (although they may be extended to cover all wetlands).

## UK Biodiversity Framework

All four governments in the UK (England, Northern Ireland, Scotland and Wales) work together through the Four Countries Biodiversity Group and they have agreed a framework of priorities for UK-level work for the Global Convention on Biological Diversity (CBD) 1992.

Previously most of this work was carried out under the UKBAP which resulted in the development of individual action plans for priority habitats and some of the UK's most threatened and endangered species. These Habitat and Species Action Plans (HAPs and SAPs, respectively) were developed to guide conservation action and promote biodiversity.

Devolution in 1998 led the four countries of the UK to develop their own country strategies. But a shared framework for UK biodiversity conservation was agreed by all parties, the 'UK Post-2010 Biodiversity Framework' (JNCC and Defra (on behalf of the Four Countries' Biodiversity Group), 2012). This succeeds the UKBAP and forms the UK Government's response to the new strategic plan of the CBD, published in 2010 at a meeting in Nagoya, Japan.
2.1.17 Although no longer operating, the UKBAP lists of priority species and habitats remain important and valuable reference sources and they have been used to draw up statutory lists of priorities.

## Scottish Biodiversity List (2005)

In Scotland, the UKBAP has been replaced by the Scottish Biodiversity List (SBL). This is a list of animals, plants and habitats that Scottish Ministers consider to be of principal importance for biodiversity conservation in Scotland and was developed to meet the requirements of the NCSA (2004). The list provides a guide to empower decision-makers to further the conservation of biodiversity in Scotland. It was published in 2005 and has since been updated to take account of changes to the UKBAP priorities list, the most recent version being 22 April 2013. SNH is currently preparing a version of the SBL to take into account the 'Categories for Action' which relate to the different types of activities that public bodies carry out to deliver their biodiversity duty.

## Local Biodiversity Action Plans (LBAPs)

2.1.19 LBAPs integrate the conservation measures provided in the UKBAP to enhance biodiversity at the local and regional level. LBAPs are implemented through planning policy, identifying habitats and species of particular value or endangerment at the local or regional level. The Aberdeen City Council area is covered by the regional North East LBAP which is under development.

## Locally Important Sites

2.1.20 District Wildlife Sites (DWS), Local Wildlife Sites (LWS), Sites of Importance for Nature Conservation (SINC) and Sites of Interest to Natural Science (SINS) are sites of local conservation interest designated by local planning authorities. Such sites are afforded a measure of protection in local development plans (see Chapter 17: Policies and Plans).

## 3 Non-Statutory Guidance

## International Union for Conservation of Nature

3.1.1 The International Union for Conservation of Nature (IUCN) was founded in 1948 following an international conference in France. The IUCN aims to deliver conservation and sustainability at both the global and local level through science, delivery of conservation projects and influencing international environmental conventions, policies and law.
3.1.2 The IUCN has produced the IUCN Red List of Threatened Species® (IUCN, 2013) as a comprehensive and objective global approach for evaluating the conservation status of plant and animal species. The goal of the Red List is to provide information and analyses on the status, trends and threats to species in order to inform and catalyse action for biodiversity conservation. Species are classified into the following categories according to their extinction risk: Extinct; Extinct in the Wild; Critically Endangered; Endangered; Vulnerable; Near Threatened; Least Concern; and Data Deficient.

## Scottish Biodiversity Strategy

The Scottish Biodiversity Strategy (Scottish Executive, 2004) placed a duty of care on public bodies to further the conservation of biodiversity in Scotland, the execution of which is implemented through the LBAPs. The strategy has been revised in light of new International and European agreements, the European Union's Biodiversity Strategy for 2020 and the 'Aichi Biodiversity Targets'. The new document, "2020 Challenge for Scotland's Biodiversity", was launched on 19 June 2013 (Scottish Government, 2013, formerly the Scottish Executive). The 2020 Challenge is a supplement to the 2004 Strategy and the two together comprise the Scottish Biodiversity Strategy.

## Scottish Planning Policy

3.1.4 The Scottish Planning Policy is the statement of the Scottish Government's policy on nationally important land use planning matters. This document supersedes a number of documents including National Policy Planning Guideline (NPPG) 14 Natural Heritage (The Scottish Government, 1999). It outlines planning guidance in relation to Landscape and Natural Heritage providing planning authorities with advice on how to address the maintenance and enhancement of biodiversity.

## Planning Advice Note (PAN) 60: Planning for Natural Heritage

3.1.5 Planning Advice Note (PAN) 60 provides guidance on good practice in relation to conservation and natural heritage in Scotland. It covers the protection of biodiversity, designated sites and the wider natural heritage, with the provision that all development effects can be material considerations in the planning process.

## 4 Individual Receptors

## Terrestrial Habitats

4.1.1 Semi-natural habitats may be protected under the Conservation (Habitats, \&c.) Regulations 1994 (as amended in Scotland), WCA 1981 (as amended), NCSA 2004 and Habitats Directive 1992.
4.1.2 The WCA 1981 (as amended in Scotland) and NCSA 2004 makes it an offence (subject to exceptions) to intentionally pick, uproot or destroy any wild plant listed in Schedule 8 of the WCA; or any seed of spore attached to any such wild plant.
4.1.3 The WCA 1981 (as amended in Scotland) also contains measures for preventing the establishment of non-native species which may be detrimental to native wildlife.
4.1.4 The SBL includes 232 species of flowering plant, 12 species of fern, seven species of stonewort, 210 species of moss and liverwort and 240 species of alga. This includes species of aquatic as well as terrestrial habitats.
4.1.5 The North East Scotland Local Biodiversity Action Plan (NES LBAP) is in the process of being updated. The new LBAP will be organised into five main ecosystem groups: freshwater and wetland, lowland and farmland, marine, urban communities, and woodland. No further information is currently available.

## Badger

4.1.6 The Protection of Badgers Act 1992 (PBA 1992) legally protects badgers (Meles meles) from intentional cruelty (such as badger-baiting) and from the results of lawful human activities (such as housing, road or other developments). Badgers are also protected under the NCSA 2004 and WCA 1981 (as amended), both of which are summarised in Section 1 of this ES appendix.
4.1.7 Derogations under the PBA 1992 in respect to the destruction and disturbance of badger setts can only be undertaken under licence through consultation with SNH (the licensing authority).
4.1.8 Badgers are not listed on the SBL.

## Bats

4.1.9 The Agreement on the Conservation of Populations of European Bats (EUROBATS) came into force in 1994 under the auspices of the Convention on Conservation of Migratory Species of Wild

|  | Animals 1979 (Bonn Convention). The agreement recognises that endangered migratory-species can only be properly protected if activities are carried out over the entire migratory range of the species, and it aims to protect all 45 species of bats identified in Europe through legislation, education, conservation measures and international co-operation. |
| :---: | :---: |
| 4.1.10 | All British bat species and their roosts are also protected under the Bern Convention (with the exception of common pipistrelle (Pipistrellus pipistrellus)) 1979 (Appendix II); Bonn Convention 1979; Habitats Directive 1992 (Annex IV); Conservation (Natural Habitats, \&c.) Regulations 1994 (as amended in Scotland) and NCSA 2004. |
| 4.1.11 | Derogations under the Conservation (Natural Habitats, \&c.) Regulations 1994 (as amended in Scotland) in respect to destruction and disturbance of bat roosts can only be undertaken under licence through consultation with SNH. |
| 4.1.12 | The WCA 1981 (as amended) and NCSA 2004 taken together make it an offence to intentionally/recklessly kill or injure any bat species. |
| 4.1.13 | Nine species of bats are listed on the SBL. |
|  | Breeding Birds |
| 4.1.14 | Resident and migratory bird populations within the UK are protected under the Conservation (Habitats, \&c.) Regulations 1994 (as amended in Scotland), WCA 1981 (as amended in Scotland) and NCSA 2004. They are also protected under the Birds Directive 2009 (originally 1979) and Habitats Directive 1992. |
| 4.1.15 | The WCA 1981 (as amended) and NCSA 2004 taken together ensure that all wild birds, their nests and eggs are protected, which makes it an offence to intentionally or recklessly kill, injure or take any wild bird; take, damage or destroy the nest of any wild bird while it is in use or being built; take or destroy the egg of any wild bird; and disturb any wild bird listed on Schedule 1 while it is nest building or is at (or near) a nest with eggs or young; or disturb the dependent young of such a bird. The Acts additionally provide protection for SSSIs, in particular those that are designated for the presence of wild bird populations. |
| 4.1.16 | The SBL includes 105 bird species. |
|  | Reptiles |
| 4.1.17 | Common lizard (Zootoca vivipara), slow-worm (Anguis fragilis) and adder (Vipera berus) are common and widespread in Britain and receive limited protection under the NCSA 2004 and WCA 1981 (as amended), which taken together make it an offence to intentionally/recklessly kill or injure these reptile species. |
| 4.1.18 | Common lizard, slow-worm and adder are all listed on the SBL. |
|  | Red Squirrel |
| 4.1.19 | In the UK red squirrel (Sciurus vulgaris) is protected under the WCA 1981 (as amended in Scotland), NCSA 2004 and WANE Act (2011). This legislation makes it an offence to intentionally or recklessly kill or injure red squirrel, disturb or destroy a place of shelter, and take or sell the species |
| 4.1.20 | Red squirrel is listed on the SBL. |
|  | Otter |
| 4.1.21 | Otter (Lutra lutra) is classed as a European Protected Species and is protected under the Conservation (Habitats, \&c.) Regulations 1994 (as amended in Scotland), WCA 1981 (as amended in Scotland), and NCSA 2004. Otters are also protected under the Habitats Directive. |
| 4.1.22 | This legislation prevents the deliberate or reckless killing or injury of an otter, disturbance or obstruction of an otter or its place of shelter or resting or breeding place. Certain activities can be carried out under licence from SNH. |
| 4.1.23 | Otter is listed on the SBL. |

## Fish

Fish species are afforded protection under one or more of the Conservation (Habitats, \&c.) Regulations 1994 (as amended), European Eel (Council Regulation (EC) No 1100/2007); Salmon and Freshwater Fisheries Act (Consolidation) (Scotland) 2003, and Surface Waters (Fishlife) (Classification) (Scotland) Amendment Regulations 2007.
4.1.25 The WFD, through the aim of preventing the ecological status of watercourses from deteriorating from existing conditions is likely to benefit fish species.

All freshwater fish species are protected under the Salmon and Freshwater Fisheries (Consolidation) (Scotland) Act (2003). Atlantic salmon (Salmo salar), bullhead (Cottus gobio), sea lamprey (Petromyzon marinus), river lamprey (Lampetra fluviatilis) and brook lamprey (L. planeri) are all listed in Annex II of the EC Habitats Directive which requires the designation of SAC. Atlantic salmon and river lamprey are also listed on Annex V of the EC Habitats Directive which lists species whose taking in the wild and exploitation may be subject to management measures.

## References

Conservation (Habitats, \&c.) Regulations 1994 (as amended).
http://www.opsi.gov.uk/legislation/scotland/ssi2008/ssi_20080017_en_1
Convention on Biological Diversity (1992). http://www.cbd.int/convention/about.shtml
EC Freshwater Fish Directive (2006/44/EC). http://eur-
lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:264:0020:0031:EN:pdf.
European Commission (1992). Council Directive (92/43/EEC) Conservation of natural habitats and wild flora and fauna.
http://www.eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31992L0043:EN:HTML.
European Commission (2007). Council Regulation (1100/2007/EC) Establishing measures for the recovery of the stock of European eel. http://eur-
lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2007:248:0017:0023:EN:PDF.
Environment Protection Act (1990) (c. 43).
http://www.opsi.gov.uk/acts/acts1990/Ukpga_19900043_en_1.htm.
European Union (2009). Council Directive 2009/147/EC on the conservation of wild birds. http://eur lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2010:020:0007:0025:EN:PDF.

IUCN (2013). The IUCN Red List of Threatened Species. http://www.iucnredlist.org.
Joint Nature Conservation Committee and Defra (on behalf of the Four Countries' Biodiversity Group). (2012). UK Post-2010 Biodiversity Framework. July 2012. From:
http://jncc.defra.gov.uk/page-6189.
Natura (2000). http://www.coastalwiki.org/spicosa/Birds_Directive, Habitats_Directive,_NATURA_2000.

Nature Conservation (Scotland) Act (2004). HMSO, London.
Protection of Badgers Act (1992) (c. 51).
http://www.opsi.gov.uk/ACTS/acts1992/ukpga_19920051_en_1
Ramsar Convention. http://www.ramsar.org/.
Salmon and Freshwater Fisheries (Consolidation) (Scotland) Act (2003). ISBN 0105900575. The Stationery Office Limited.
Scottish Biodiversity List (2005). http://www.scotland.gov.uk/Topics/Environment/WildlifeHabitats/16118/Biodiversitylist/SBL 22 April 2013 version [Accessed August 2014].

Scottish Executive (2004). Scotland's Biodiversity: It's in Your Hands - A strategy for the conservation and enhancement of biodiversity in Scotland.
http://scotland.gov.uk/Publications/2004/05/19366/37250

Scottish Government (2000). Planning for Natural Heritage: Planning Advice Note (PAN) 60. http://www.scotland.gov.uk/Publications/2000/08/pan60-root/pan60.
Scottish Government (2013). 2020 Challenge for Scotland's Biodiversity - A Strategy for the conservation and enhancement of biodiversity in Scotland. Scottish Government, Edinburgh. http://www.scotland.gov.uk/Publications/2013/06/5538.
Scottish Government. Scottish Planning Policy (2014).
Surface Waters (Fishlife) (Classification) (Scotland) Amendment Regulations (2007) Scottish Statutory Instruments 178 2007. ISBN 9780110719696. The Stationery Office Limited.

The Agreement on the Conservation of Populations of European Bats (EUROBATS) (1994). http://www.jncc.gov.uk/page-1385

The Bern Convention (1979). The Convention on the Conservation of European Wildlife \& Natural Habitats. Appendix II, Strictly Protected Fauna Species.
http://conventions.coe.int/Treaty/EN/Treaties/Html/104.htm.
The Bonn Convention on Conservation of Migratory Species of Wild Animals (1979). http://www.cms.int/pdf/convtxt/cms_convtxt-english.pdf

Water Environment (Controlled Activities) (Scotland) Regulations (2005). The Stationery Office Limited.

Water Environment and Water Services (Scotland) Act (WEWS) (2003).
http://www.legislation.gov.uk/asp/2003/3/contents.
Water Framework Directive (WFD) (2000/60/EC). http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32000L0060:EN:HTML.

Wildlife and Countryside Act (1981) (as amended). HMSO, London.
Wildlife and Natural Environment (Scotland) Act (2011).
http://www.legislation.gov.uk/asp/2011/6/contents.

## A10.2: Detailed Terrestrial Ecology Methods

## 1 Introduction

1.1.1 This appendix provides the detailed methodologies used to obtain and evaluate baseline information for the terrestrial Ecological Impact Assessment (EcIA) of the proposed scheme. Given the limited nature of the proposed scheme and the outcomes of the Stage 2 assessment (Jacobs UK Limited, 2014), it was considered that formal surveys of aquatic receptors and breeding birds were not required.
1.1.2 Information for the EclA was collected through field surveys, a desk study, consultation and by reference to the results of the Design Manual for Roads and Bridges (DMRB) Stage 2 Environmental Assessment Report (Jacobs UK Limited, 2014). Field survey methods are explained below.
1.1.3 Surveys for all ecological receptors for the DMRB Stage 2 assessment were undertaken within a 500 m buffer zone around the proposed options to fully characterise the area. For the DBRM Stage 3 assessment surveys for receptors were targeted to those areas where the Stage 2 assessment had indicated the potential presence of effects pathways (a zone of influence) (Table 1).

Table 1: Study area and zones of influence for ecological receptors

| Receptor | Study Area (Stage 2) | Zone of Influence (Stage 3) |
| :--- | :--- | :--- |
| Habitats and plants (not including invasive non- <br> native plants) | 500 m | 500 m (as necessary where habitat <br> changes had occurred) |
| Invasive non-native plants | 500 m | 50 m |
| Badger | 500 m | 100 m |
| Bats | 500 m | All properties/trees under the footprint of <br> the proposed scheme |
| Otter | 500 m | $250 \mathrm{~m}^{1}$ |
| Red Squirrel | 500 m | Not applicable ${ }^{2}$ |
| All other receptors | 500 m | Not applicable |

${ }^{1}$ Suitable otter habitat was $>250 \mathrm{~m}$ from the proposed scheme.
${ }^{2}$ Nearest woodland habitat 240 m from the proposed scheme.

## 2 Habitats and Plants

2.1.1 Terrestrial habitats information was collected through an extended Phase 1 habitat survey (Handbook for Phase 1 habitat survey - A technique for environmental audit; Joint Nature Conservation Committee (JNCC), 2010). The survey also collected information on other features of potential value for protected species and species of ecological interest. Target notes were made where applicable; the abundance of plant species was noted using the DAFOR scale ( $D=$ dominant; $\mathrm{A}=$ abundant; $\mathrm{F}=$ frequent; $\mathrm{O}=$ occasional; $\mathrm{R}=$ rare).
2.1.2 Aerial photographs, Ordnance Survey (OS) maps, information such as the Ancient Woodland Inventory (AWI), the Native Woodland Survey of Scotland (Forestry Commission, 2014) and lists of designated sites were studied to identify potential habitat areas of nature conservation importance within the study area.
2.1.3 An extended Phase 1 habitat survey was undertaken on 29 August 2013. Update surveys were undertaken June - September 2014.

## 3 Bats

### 3.1 General

3.1.1 Survey methods followed the recommendations set out in the Design Manual for Roads and Bridges DMRB (The Highways Agency et al., 2001a), Hundt (2012) and Cowan (2003). Activity surveys were informed by an initial habitat and building and/or structures survey of the area of proposed works.
3.1.2 Roost assessments and activity surveys were carried out in the Middlefield area between June and September 2014.

### 3.2 Preliminary Survey

3.2.1 During the 2013 extended Phase 1 habitat survey, a preliminary survey was undertaken to identify features (structures and trees) which might have potential as a bat roost. Such features were recorded but not classified for their potential as per guidelines (see Tables 2 and 3 below).

### 3.3 Roost Assessment Surveys

3.3.1 Roost assessment surveys were carried out during daylight hours between $2^{\text {nd }}$ and $4^{\text {th }}$ June 2014.
3.3.2 The aim of roost assessment surveys was to identify bat roosts and suitable roosting habitat in built structures and trees. The surveys were conducted to look for signs of bat presence including droppings, urine staining, insect remains, grease marks, smoothing or a lack of cobwebs at potential access/egress points and the presence of dead/live bats (Mitchell-Jones, 2004). During these surveys potential access points for bats were assessed using binoculars, including loose bark, splits, holes, cracks, gaps in masonry, tiles and woodwork, and spaces around doors and windows.
3.3.3 The results of the roost assessment surveys were used to categorise the built structures and trees into a roost potential category (Tables 1 and 2).
3.3.4 Roost emergence/re-entry surveys were undertaken at features which were considered likely to support roosting bats and which were likely to be directly affected by the proposed works, i.e. under the scheme footprint (Section 3.3).

Table 2: Tree Roost Category (Source: Cowan, 2003)

| Category | Category Description |
| :--- | :--- |
| $1^{*}$ | Capable of supporting large roosts |
| 1 | Potential for use by small numbers of bats |
| 2 | No obvious potential from ground survey |
| 3 | No potential to support bats |

Table 3: Roost and Potential Roost Category (adapted from Mitchell-Jones, 2004)

| Main <br> Category | Sub <br> Category | Category description <br> (Trees) | Category Description <br> (Structures) | Indicator |
| :--- | :--- | :--- | :--- | :--- |
| 1 (Roost) | A | Trees with evidence of <br> current or historic use <br> by bats. | Buildings/man-made <br> structures with evidence of <br> current or historic use by <br> bats. | Sighting/sound of bats (including <br> emergence/swarming). <br> Presence of fresh or old <br> droppings, staining, smoothing <br> and lack of cobwebs. |
|  | B | Trees with anecdotal <br> evidence of current or <br> historical use by bats. | Buildings/man-made <br> structures with anecdotal <br> evidence of current or <br> historical use by bats. | Roosts identified by personal <br> communication from reliable <br> source (e.g. property owner) or <br> unconfirmed roost identified |


| Main <br> Category | Sub <br> Category | Category description <br> (Trees) | Category Description <br> (Structures) | Indicator |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  |  | during field surveys. |
| 2 (Potential <br> Roost) | A | Trees with high <br> potential for use as <br> roost. | Buildings/man-made <br> structures with high <br> potential for use as roost. | Presence of cracks, splits, knot <br> holes, loose bark, woodpecker <br> holes, snag ends and other <br> hollows in trees |
|  | B | Trees with some <br> potential for use as <br> roost (medium <br> potential). | Buildings/man-made <br> structures with some <br> potential for use as roost. | Presence of dense ivy cover, <br> dead wood or other features with <br> lower potential as roost sites. |
| 3 (No <br> potential) | Trees with no or low <br> potential for use as <br> roost. | Buildings/man-made <br> structures with low <br> potential for use as roost. | No such features. Isolated from <br> foraging or commuting routes. |  |

### 3.4 Roost Emergence/Re-entry Surveys

3.4.1 The aim of roost emergence/re-entry surveys was to confirm the presence of roosts in suitable features and to identify roost type and species of bat. Dusk emergence surveys began 20-30 minutes before sunset and ended 90 minutes after sunset. Dawn re-entry surveys began 90 minutes before dawn and ended up to 20-30 minutes after sunrise. Exact survey times were determined by prevailing weather conditions, time of sunset and known activity patterns of the species likely to be encountered. Surveys were undertaken at least 24 hours apart as indicated by best practice guidance (Hundt, 2012).
3.4.2 Ecologists were positioned around the building(s) and/or trees to be observed and they recorded any bat activity using dual mode bat detectors (Batbox Duet). Details of the time, species and number of bats emerging and/or re-entering the roost were noted. Other information about the roosts, their location and distinguishing bat behaviour observed were also recorded.
3.4.3 Surveys commenced in July 2014 and were completed in September 2014.
3.4.4 A full list of buildings that were subject to emergence/re-entry surveys and the results of these surveys are included in Chapter 10 Ecology and Nature Conservation. Health and safety constraints prevented second surveys being undertaken at 1-7 Logie Place, 9-11 Logie Place, 2230 Manor Avenue and 873-895 Great Northern Road. In addition, access was not taken to the roof spaces of buildings as it was not possible to ascertain the presence, if any, of asbestos or any other hazardous substance.

## 4 Badger

4.1.1 The study area was checked for field signs of badger as part of the Extended Phase 1 habitat survey in June 2013. The survey corridor comprised a 500 m zone around the proposed scheme. Surveys were undertaken following DMRB guidance (The Highways Agency et al., 1997) and Harris et al. (1989). The survey corridor was searched for evidence of badgers including their setts, latrines, trails, footprints and hair, and focused in particular on field boundaries, broadleaved woodland and scrub.
4.1.2 Update surveys in 2014 were limited to a buffer area of 100 m around the proposed scheme. Additional assessments of a location outwith this area were undertaken on receipt of anecdotal evidence of badger activity.

## 5 Otter

Otter (Lutra lutra) surveys were undertaken in accordance with otter survey guidelines (Scottish Natural Heritage (SNH), 2013; Chanin, 2003 and Strachan, 2007). Watercourses or other water
features, and areas within 50 m of these features, were surveyed within the survey corridor. Signs indicative of otter presence (lying-up sites, prints, feeding signs and spraints) were recorded.
5.1.2 Update surveys for otter were not undertaken in 2014 as the Haudagain roundabout was more than 400 m from any suitable otter habitat.

## 6 References

Chanin, P. (2003). Ecology of the European otter. Conserving Natura. (2000). Rivers Ecology Series No 10. Peterborough, English Nature.

Cowan, A. (2003). Trees and Bats. Arboricultural Association Guidance Note 1 (Second Edition). Arboricultural Association, Hanks.

Forestry Commission Scotland (2014). Scotland's Native Woodlands, Results from the Native Woodland Survey of Scotland. Forestry Commission Scotland, Edinburgh. Report released on 3 February 2014.

Harris, S., Cresswell, P. and Jefferies, D. (1989). Surveying Badgers. The Mammal Society, Occasional Publication No.9. The Mammal Society.

Hundt, L (2012). Bat Conservation Trust. Bat surveys - Good practice guidelines, $2^{\text {nd }}$ Edition. Bat Conservation Trust, London.

Jacobs UK Limited (2014). A90/A96 Haudagain Improvement DMRB Stage 2 Assessment, Part 2 : Environmental Assessment.

Joint Nature Conservation Committee (2010). Handbook for Phase 1 habitat survey - a technique for environmental audit. JNCC, Peterborough, UK. http://jncc.defra.gov.uk/page-2468

Mitchell-Jones, AJ (2004). Bat Mitigation Guidelines. English Nature, Peterborough.
Scottish Natural Heritage (2013). Assessing the impacts of developments.
http://www.snh.gov.uk/about-scotlands-nature/wildlife-and-you/otters/assessing/ [Accessed August June 2014]

Strachan, R. (2007). National survey of otter Lutra lutra distribution in Scotland 2003-04. Scottish Natural Heritage Commissioned Report No. 211.

The Highways Agency et al. (1997). Design Manual for Roads and Bridges (DMRB) Volume 10, Section 4, Part 2 (HA59/92): Nature Conservation - Mitigating Against Effects on Badgers. Highways Agency, Scottish Executive Development Department, The National Assembly for Wales and The Department of Regional Development Northern Ireland.

The Highways Agency et al. (2001a). Design Manual for Roads and Bridges (DMRB) Volume 10, Section 4, Part 3 (HA80/99): Nature Conservation Advice in Relation to Bats. Highways Agency, Scottish Executive Development Department, The National Assembly for Wales and The Department of Regional Development Northern Ireland.

The Highways Agency et al. (2001b). Design Manual for Roads and Bridges (DMRB) Volume 10, Section 4, Part 4 (HA80/99): Nature Conservation Advice in Relation to Otters. Highways Agency, Scottish Executive Development Department, The National Assembly for Wales and The Department of Regional Development Northern Ireland.

## A10.3: Confidential - Badger and Otter

## 1 Introduction

1.1.1 This appendix provides the results of the assessment of baseline conditions with regard to badger and otter. The appendix is prepared as a confidential appendix, submitted to SNH and Scottish Government, and not included within the published Environmental Statement (ES).
1.1.2 A request for a copy of the appendix may be made in writing to:

Transport Scotland
Major Transport Infrastructure Projects (MTRIPS)
Buchanan House
58 Port Dundas House
Glasgow
G40HF

## A10.4: Bat Survey Results

## 1 Introduction

1.1.1 This appendix provides the results of the habitat assessment and activity surveys with regard to bats.

## 2 Tree and Structure Assessments

2.1.1 One tree was assessed at Category 1 for its potential to support roosting bats (Table 1 and Figure 10.3).

Table 1: Bat Tree Assessment Results

| Tree <br> ID | Grid Reference | Tree Species | Roost <br> Category | Survey Results |
| :--- | :--- | :--- | :--- | :--- |
| 1 | NJ 9111609113 | Common lime (Tilia x <br> europaea) | 1 | Hole on trunk approximately 2m up tree. <br> Potentially other features further upon tree. |

Roost assessment surveys were carried out in June 2014 on 22 blocks of properties within the proposed area of works which may be potentially impacted. All properties were assessed to have medium potential (category 2b) to support roosting bats (Table 2 and Figure 10.3) (Mitchell-Jones, 2004). Emergence/re-entry surveys were subsequently undertaken on these structures (see Section 3).

Table 2: Assessments of Structures for Potential for Roosting Bats

| Grid Reference and Property Name | Potential Roost Category | Property Description and Key Features | Date of Assessment |
| :---: | :---: | :---: | :---: |
| NJ 9137408946 <br> 2 Manor Avenue / 549 <br> North Anderson Drive | 2b | Semi-detached two-storey brick built property with rendering. Pitched tiled roof with dormer windows and hanging slates. Missing slates, multiple gaps along ridge. | 02.06.14 |
| NJ 9135508938 <br> 4-10 Manor Avenue | 2 b | Block of flats, granite block built, two-storey property with a pitched slate roof. <br> Missing and broken slates, multiple gaps along ridge. | 02.06.14 |
| NJ 9133108934 <br> 12-14 Manor Avenue | 2 b | Semi-detached two-storey brick built property with rendering. Pitched tiled roof with dormer windows and hanging slates. Missing slates, multiple gaps along ridge. | 02.06.14 |
| NJ 9131508951 <br> 4-8 Logie Avenue | 2 b | Block of flats, granite block built, two-storey property with a pitched slate roof. <br> Missing and broken slates, multiple gaps along ridge. | 02.06.14 |
| NJ 9128008947 <br> 1-7 Logie Avenue | 2 b | Two storey block of flats, brick built with rendering and a pitched slate roof. <br> Gaps between roof and wall head, missing slates, multiple gaps along ridge. | 02.06.14 |
| NJ 9127508923 <br> 18-20 Manor Avenue | 2 b | Semi-detached two-storey brick built property with rendering and a pitched slate roof. <br> Missing and lifted slates around windows. | 02.06.14 |
| NJ 9120808898 22-30 Manor Avenue | 2 b | Building consisting of five adjoining blocks of flats. Two-storey and three-storey brick built structure with a pitched slate roof. Missing and lifted slates, multiple gaps along ridge. | 02.06.14 |
| NJ 9125408959 1-7 Logie Place | 2 b | Two-storey block of flats, brick built with rendering and a pitched slate roof. <br> Multiple gaps along ridge, lifted slates. | 02.06.14 |
| NJ 9122808948 9-11 Logie Place | 2 b | Semi-detached two-storey brick built property with pitched tiled roof. <br> Missing tiles over roof and hips, gaps along ridge. | 03.06.14 |
| NJ 9121008940 | 2 b | Semi-detached two-storey brick built property with pitched | 03.06.14 |


| Grid Reference and Property Name | Potential <br> Roost <br> Category | Property Description and Key Features | Date of Assessment |
| :---: | :---: | :---: | :---: |
| 13-15 Logie Place |  | tiled roof. <br> Missing tiles over roof and hips. |  |
| NJ 9118608934 17-19 Logie Place | 2b | Semi-detached two-storey brick built property with pitched tiled roof. <br> Slipped and missing tiles, gaps along ridge. | 03.06.14 |
| NJ 9116008927 <br> 21-27 Logie Place | 2b | Two-storey block of flats, brick built with rendering and a pitched slate roof. <br> Missing slates on one hip ridge, multiple missing slates across roof. | 03.06.14 |
| NJ 9121408980 <br> 2-8 Logie Place | 2b | Building consisting of four adjoining blocks of flats, a nursery and neighbourhood services. Two-storey and three-storey brick built structure with a pitched slate roof. <br> Missing and lifted slates, multiple gaps along ridge, gaps between roof and wall head. | 02.06.14 |
| NJ 9115008960 10-12 Logie Place | 2b | Semi-detached two-storey brick built property with rendering. Pitched slate roof with dormer windows and hanging slates. Missing and lifted tiles on roof and hips, multiple gaps along ridge. | 03.06.14 |
| NJ 9124609016 <br> 9-15 Logie Avenue | 2b | Two-storey block of flats, brick built with rendering and a pitched slate roof. <br> Missing slates, holes in ridge. | 03.06.14 |
| $\begin{aligned} & \text { NJ } 9122509029 \\ & \text { 17-19 Logie Avenue } \end{aligned}$ | 2b | Semi-detached two-storey brick built property with rendering. Missing and cracked slates, multiple gaps along ridge. | 03.06.14 |
| NJ 9112309045 <br> 5 Logie Gardens / 27- <br> 31 Logie Avenue | 2b | Building consisting of four adjoining blocks of flats. Three storey brick property with rendering and a pitched slate roof. One block is derelict. <br> Cracked windows in derelict block, missing slates, multiple gaps along ridge, exposed brickwork through render. | 03.06.14 |
| NJ 9109609093 34-36 Logie Avenue | 2b | Building consisting of two adjoining three-storey blocks of flats, brick built with rendering and a pitched slate roof. <br> Gaps around gutter, missing slates, multiple gaps along ridge. | 03.06.14 |
| NJ 9108609133 <br> 20-30 Manor Avenue | 2b | Three-storey block of flats, brick built with render and a pitched tiled roof. <br> Gaps where tiles meet wall on gable ends, multiple gaps along ridge. | 03.06.14 |
| NJ 9111609144 897-919 Great Northern Road | 2b | Three storey block of flats, brick built with render and a pitched tiled roof. <br> Missing tiles, multiple gaps along ridge, gaps in soffit boards. | 03.06.14 |
| NJ 9116109147 873-895 Great Northern Road | 2b | Three storey block of flats, brick built with render and a pitched tiled roof. <br> Missing tiles, multiple gaps along ridge. | 03.06.14 |
| NJ 9119109124 <br> 871 Great Northern Road | 2b | Two-storey detached cottage, stone built with slate roof and dormer windows. <br> Lifted slates, gaps where slates meet wall head. | 03.06.14 |

## 3 Emergence/Re-entry Surveys

3.1.1 Bat surveys (emergence/re-entry) for the tree assessed in Section 2 were carried out in August 2014. Two dusk surveys were carried out following best practice guidance (Table 3), which states that surveys should be at least 24 hours apart (Hundt, 2012). The surveys confirmed that the tree was not currently being used as a roost.

Table 3: Bat Tee Emergence/Re-entry Survey Results

| Survey | Survey Results | Peak Bats Counts <br> at Identified <br> Roosts $^{*}$ | Survey Type, Date and Weather Conditions |
| :--- | :--- | :--- | :--- |
| 1 | No bat activity. | $\mathrm{n} / \mathrm{a}$ | Emergence $06 / 08 / 2014$ <br> Start time: $20: 41$ <br> End time: $22: 41$ <br> Dry, light air, $16.4^{\circ} \mathrm{C}$ dropping to $14.8^{\circ} \mathrm{C}, 10 \% \mathrm{CC}$ <br> rising to $75 \% \mathrm{CC}$. |
| 2 | No bat activity. | $\mathrm{n} / \mathrm{a}$ | Emergence $13 / 08 / 2014$ <br> Start time: $20: 24$ <br> End time: $22: 24$ <br> Dry, moderate breeze, $14.9^{\circ} \mathrm{C}$ dropping to $12.5^{\circ} \mathrm{C}$, <br> $100 \%$ CC dropping to $30 \% \mathrm{CC}$. |

3.1.2 Results for the bat surveys of structures (emergence/re-entry) are presented in Table 4. Common and soprano pipistrelles (Pipistrellus pipistrellus and $P$. pygmaeus) were recorded during the surveys, but no confirmed bat roosts were reported.
3.1.3 Low bat activity was recorded for all of the properties surveyed (Figure 10.4). There were no more than five recorded passes in one survey.

Table 4: Structure Bat Emergence/Re-entry Survey Results

| Property <br> Name | Roost <br> Category | Survey Results | Survey Type, Date and Weather <br> Conditions |
| :--- | :--- | :--- | :--- |
| 2 Manor <br> Avenue / 549 <br> North <br> Anderson <br> Drive | 2 b | No bat activity. | Emergence $31 / 07 / 2014$ <br> Start time: $21: 00$ <br> End time: $22: 55$ <br> Dry with initial moderate rain, calm, |


| Property Name | Roost Category | Survey Results | Survey Type, Date and Weather Conditions |
| :---: | :---: | :---: | :---: |
| Avenue |  |  | Start time: 03:37 <br> End time: 05:07 <br> Dry, calm, $12.3^{\circ} \mathrm{C}$ dropping to $11.2^{\circ} \mathrm{C}$, $70 \%$ CC rising to $80 \%$ CC. |
|  |  | Recorded pass of a single soprano pipistrelle and a single common pipistrelle. | Emergence 12/08/25014 <br> Start time: 20:28 <br> End time: 22:28 <br> Intermittent light rain, light air, temperature not determined (N/D), average $100 \%$ CC. |
| 1-7 Logie Avenue | 2b | Two separate recorded passes of a common pipistrelle and a pipistrelle species. | Emergence 03/09/2014 <br> Start time: 19:30 <br> End time: 21:30 <br> Dry, light air, $18.1^{\circ} \mathrm{C}$ dropping to $16.4^{\circ} \mathrm{C}$, average $100 \%$ CC. |
|  |  | Single recorded pass of a pipistrelle species. | Re-entry 12/09/2014 <br> Start time: 05:02 <br> End time: 06:32 <br> Dry with mist, light air, $15.9^{\circ} \mathrm{C}$ dropping to $12^{\circ} \mathrm{C}$, average $100 \% \mathrm{CC}$. |
| 18-20 Manor Avenue | 2b | Single recorded pass of a common pipistrelle. | Emergence 03/09/2014 <br> Start time: 19:30 <br> End time: 21:30 <br> Dry, calm, $18.1^{\circ} \mathrm{C}$ dropping to $16.6^{\circ} \mathrm{C}$, <br> average $100 \%$ CC. |
|  |  | Single recorded pass of a common pipistrelle. | Re-entry 12/09/2014 <br> Start time: 05:02 <br> End time: 06:32 <br> Dry with mist, $15.9^{\circ} \mathrm{C}$ dropping to $12^{\circ} \mathrm{C}$, <br> $100 \%$ CC dropping to $10 \%$ CC. |
| 22-30 Manor Avenue | 2b | Five separate recordings of common pipistrelle (three commuting and two foraging in the communal gardens). | Emergence 04/09/2014 <br> Start time: 19:28 <br> End time: 21:28 <br> Dry, c alm, $17.3^{\circ} \mathrm{C}$ dropping to $14.6^{\circ} \mathrm{C}$, <br> $100 \%$ CC dropping to $50 \%$ CC. |
|  |  | N/A | N/A |
| 1-7 Logie Place | 2b | Single recorded pass of a soprano pipistrelle. | Emergence 12/08/2014 <br> Start time: 20:27 <br> End time: 22:27 <br> Intermittent light rain, light air, temperature $N / D$, average $90 \%$ CC. |
|  |  | N/A | N/A |
| $\begin{aligned} & \text { 9-11 Logie } \\ & \text { Place } \end{aligned}$ | 2b | Single recorded pass of a pipistrelle species. | Emergence 14/08/2014 <br> Start time: 20:30 <br> End time: 22:30 <br> Dry, light air, $15.2^{\circ} \mathrm{C}$ dropping to $11.1^{\circ} \mathrm{C}$, <br> $40 \%$ CC dropping to $10 \%$ CC. |
|  |  | N/A | N/A |
| $\begin{aligned} & \text { 13-15 Logie } \\ & \text { Place } \end{aligned}$ | 2b | No bat activity. | Emergence 14/08/2014 <br> Start time: 20:22 <br> End time: 22:22 <br> Dry, light air, $15.2^{\circ} \mathrm{C}$ dropping to $11.1^{\circ} \mathrm{C}$, <br> 20\% CC dropping to 0\% CC. |
|  |  | No bat activity. | Re-entry 10/09/2014 <br> Start time: 04:58 <br> End time: 06:28 <br> Dry, calm, $12.4^{\circ} \mathrm{C}$ dropping to $8.9^{\circ} \mathrm{C}$, |


| Property Name | Roost Category | Survey Results | Survey Type, Date and Weather Conditions |
| :---: | :---: | :---: | :---: |
|  |  |  | 0\% CC increasing to 50\% CC. |
| 17-19 Logie Place | 2b | No bat activity. | Re-entry 15/08/2014 <br> Start time: 04:10 <br> End time: 05:34 <br> Dry, light air, $11.2^{\circ} \mathrm{C}$ dropping to $10.3^{\circ} \mathrm{C}$, $20 \%$ CC increasing to $30 \%$ CC. |
|  |  | No bat activity. | Emergence 08/09/2014 <br> Start time: 19:30 <br> End time: 21:15 <br> Dry, calm, $12.5^{\circ} \mathrm{C}$ dropping to $10.1^{\circ} \mathrm{C}$, $20 \%$ CC increasing to $100 \%$ CC. |
| 21-27 Logie Place | 2 b | No bat activity. | Re-entry 15/08/2014 <br> Start time: 04:04 <br> End time: 05:34 <br> Dry, light air, $11.2^{\circ} \mathrm{C}$ dropping to $10.3^{\circ} \mathrm{C}$, $5 \%$ CC increasing to $60 \%$ CC. |
|  |  | No bat activity. | Emergence 08/09/2014 <br> Start time: 19:30 <br> End time: 21:16 <br> Dry, light air, $12.5^{\circ} \mathrm{C}$ dropping to $10.1^{\circ} \mathrm{C}$, $10 \%$ CC increasing to $85 \%$ CC. |
| 2-8 Logie Place | 2 b | Two recorded passes of pipistrelle species. | Emergence 11/08/2014 <br> Start time: 20:30 <br> End time: 22:30 <br> Dry, light air, $13.4^{\circ} \mathrm{C}$ dropping to $10.7^{\circ} \mathrm{C}$, $80 \%$ CC dropping to $30 \%$ CC. |
|  |  | No bat activity. | Re-entry 04/09/2014 <br> Start time: 04:46 <br> End time: 06:16 <br> Dry, light air, $15.1^{\circ} \mathrm{C}$ dropping to $13.8^{\circ} \mathrm{C}$, average $100 \%$ CC. |
| 10-12 Logie Place | 2 b | One recorded pass of a common pipistrelle. | Re-entry 04/08/14 <br> Start time: 04:46 <br> End time: 06:16 <br> Dry, light air, $15.1^{\circ} \mathrm{C}$ dropping to $13.8^{\circ} \mathrm{C}$, average $100 \%$ CC. |
|  |  | Two recorded passes of common pipistrelles. | Emergence 09/09/2014 <br> Start time: 19:14 <br> End time: 21:14 <br> Dry, calm, $13.3^{\circ} \mathrm{C}$ dropping to $7.8^{\circ} \mathrm{C}$, 25\% CC dropping to 0\% cloud cover. |
| 17-19 Logie Avenue | 2 b | Three recorded passes of pipistrelle species. | Re-entry 06/08/2014 <br> Start time: 03:46 <br> End time: 05:16 <br> Light shower turning dry, $16.3^{\circ} \mathrm{C}$ dropping to $15.9^{\circ} \mathrm{C}$, average $100 \%$ CC. |
|  |  | One recorded pass of a soprano pipistrelle. | Emergence 10/09/2014 <br> Start time: 19:10 <br> End time: 21:10 <br> Dry, light air, $18.6^{\circ} \mathrm{C}$ dropping to $13.0^{\circ} \mathrm{C}$, $10 \%$ cloud cover rising to $30 \%$ CC. |
| 5 Logie Gardens/2731 Logie Avenue | 2 b | One recorded unidentified species pass.* | Re-entry 07/08/2014 <br> Start time: 03:48 <br> End time: 05:18 <br> Dry, light air, $14.9^{\circ} \mathrm{C}$ dropping to $13.0^{\circ} \mathrm{C}$, average $95 \%$ CC. |


| Property Name | Roost Category | Survey Results | Survey Type, Date and Weather Conditions |
| :---: | :---: | :---: | :---: |
|  |  | No bat activity. | Re-entry 11/09/2014 <br> Start time: 05:00 <br> End time: 06:30 <br> Dry, light air, $14.1^{\circ} \mathrm{C}$ dropping to $11.0^{\circ} \mathrm{C}$, $90 \%$ CC dropping to $40 \%$ CC. |
| $\begin{aligned} & \text { 34-36 Logie } \\ & \text { Avenue } \end{aligned}$ | 2 b | One recorded pass of pipistrelle species. | Emergence 06/08/2014 <br> Start time: 20:41 <br> End time: 22:41 <br> Dry, light air, $16.4^{\circ} \mathrm{C}$ dropping to $14.8^{\circ} \mathrm{C}$. <br> $20 \%$ CC rising to $70 \%$ CC. |
|  |  | One recorded pass of common pipistrelle. | Re-entry 14/08/2014 <br> Start time: 04:02 <br> End time: 05:40 <br> Dry turning to light rain, light air, $13.0^{\circ} \mathrm{C}$ dropping to $11.5^{\circ} \mathrm{C}, 40 \% \mathrm{CC}$ rising to $100 \%$. |
| $\begin{aligned} & \text { 20-30 Manor } \\ & \text { Drive } \end{aligned}$ | 2 b | One recorded pass of soprano pipistrelle. | Re-entry 05/09/2014 <br> Start time: 04:48 <br> End time: 06:18 <br> Dry night, calm, $15.1^{\circ} \mathrm{C}$ dropping to $14.0^{\circ} \mathrm{C}$, average $100 \%$ CC. |
|  |  | No bat activity recorded. | Re-entry 11/09/2014 <br> Start time: 19:10 <br> End time: 21:10 <br> Dry night, light air, $13.2^{\circ} \mathrm{C}$ dropping to $12.4^{\circ} \mathrm{C}, 5 \% \mathrm{CC}$ rising to $40 \% \mathrm{CC}$. |
| 897-919 <br> Great <br> Northern <br> Road | 2 b | One recorded pass of common pipistrelle. | Re-entry 13/08/2014 <br> Start time: 04:00 <br> End time: 05:35 <br> Dry night with some light showers, light air, temperature $\mathrm{N} / \mathrm{D}, 50 \% \mathrm{CC}$ rising to $100 \%$ C. |
|  |  | No bat activity recorded. | Emergence 11/09/2014 <br> Start time: 19:10 <br> End time: 21:10 <br> Dry night, light air, $13.2^{\circ} \mathrm{C}$ dropping to $12.4^{\circ} \mathrm{C}, 20 \% \mathrm{CC}$ rising to $90 \%$. |
| 873-895 <br> Great <br> Northern <br> Road | 2 b | One recorded pass of common pipistrelle. | Re-entry 13/08/2014 <br> Start time: 04:00 <br> End time: 05:35 <br> Dry night with some light showers, light air, temperature N/D, $50 \%$ CC rising to $100 \%$ C. |
|  |  | N/A | N/A |
| 871 Great Northern Road | 2 b | No bat activity recorded. | Emergence 13/08/2014 <br> Start time: 20:24 <br> End time: 22:24 <br> Dry night, light air, temperature $N / D$, average $100 \%$ CC. |
|  |  | One recorded pass of pipistrelle species. | Re-entry 09/09/2014 <br> Start time: 04:56 <br> End time: 06:26 <br> Dry night, light air, $14.1^{\circ} \mathrm{C}$ dropping to $10.8^{\circ} \mathrm{C}$. |
| 9-15 Logie Avenue | 2b | One recorded pass of soprano pipistrelle. | Re-entry 06/08/2014 <br> Start time: 03:46 <br> End time: 05:16 |


| Property <br> Name | Roost <br> Category | Survey Results | Survey Type, Date and Weather <br> Conditions |
| :--- | :--- | :--- | :--- |
|  |  |  | Dry night, light air, $16.3^{\circ} \mathrm{C}$ dropping to <br>  |
|  |  | Two recorded passes of pipistrelle species. | Emergence $10 / 09 / 2014$ |
|  |  |  |  |
|  |  |  | Start time: $19: 10$ |
|  |  |  | End time: $21: 10$ |
|  |  |  | Dry night, light air, $18.6^{\circ} \mathrm{C}$ dropping to |
|  |  |  | $12.5^{\circ} \mathrm{C}, 20 \% \mathrm{CC}$ rising to $90 \% \mathrm{CC}$. |

*Although unidentified, it is considered likely that this would be pipistrelle species.

## 4 References

Hundt L (2012). Bat Surveys: Good Practice Guidelines, $2^{\text {nd }}$ Edition, Bat Conservation Trust.
Mitchell-Jones, A.J. (2004). Bat Mitigation Guidelines. English Nature, Peterborough.

## A11.1: Urban Character Areas (UCAs)

## 1 Introduction

1.1.1 This appendix supports Chapter 11 (Landscape and Visual) of the ES, and sets out the baseline townscape character using Urban Character Areas (UCAs) to describe the study area for the proposed scheme. For each UCA the description includes townscape quality (conditions), scenic quality, rarity, representativeness, conservation/ cultural interest, recreational value, perceptual aspects and associations.
1.1.2 The location of the UCAs and photograph viewpoint locations are shown on Figure 11.1 of the ES. Corresponding viewpoint photographs are shown on Figures 11.1a-e.

## 2 Baseline Conditions

2.1.1 The UCAs within the study area are listed and described below, including a breakdown of their value assessment.

## Urban Character Areas UCAs

2.1.2 Within the study area the urban pattern has been largely dictated by the main roads and the local roads interlinking residential areas. The A90 provides the main north to south route through Aberdeen connecting to the A96 at Haudagain Roundabout and provides the road link between Aberdeen and Inverness.
2.1.3 The urban character areas are represented by the residential character and distinguished through the structure of the urban patterns with the following areas identified:

- North Middlefield UCA;
- South Middlefield UCA;
- Auchmill Road UCA;
- Great Northern Road UCA; and
- Haudagain Commercial and Industrial UCA.
2.1.4 The urban character areas are in close proximity within distinctive residential areas predominantly located to the south-west of Haudagain Roundabout. The natural topography in these areas slopes from south to north towards the River Don valley. Two of the urban character areas are predominantly residential, the remaining three vary from residential to commercial and industrial but are dominated by the presence of the A96 running west and east of the Haudagain Roundabout.


## North Middlefield UCA

2.1.5 North Middlefield UCA is the largest of the five identified urban character areas, and is situated south of Manor Avenue and North of Manor Avenue. The extents of this character area is defined to the west by the caravan park boundary wall and change in architectural design of the residential properties on Manor Avenue to the south and the A90 North Anderson Drive to the east. The A96 forms the boundary to the north.
2.1.6 The architecture is composed of pre-WWII residential tenements designed around central semipublic communal courtyards. The overall urban texture and colour varies with differing scales and styles and the built form is repetitive with a geometric linear layout. Dwellings vary from 3 storey high flats around central semi-public communal courtyards, 2 storey cottage flats and red brick semi-detached housing with private gardens. A number of properties are in poor condition, derelict, vacant and boarded up.
2.1.7 Local minor roads such as Manor Drive, Logie Place and Logie Avenue run centrally through the area linking the majority of the houses.
2.1.8 The natural topography of the area slopes from south to north and dwellings will be directly affected or located in close proximity to the proposed development. The existing structure is relatively compact with few views out apart from distant views north from the higher, southern reaches of the UCA. Open spaces are made up of small public parks, communal gardens and play parks created following the demolition of a tenement block. Existing tree and scrub vegetation is found sporadically throughout the area but amenity grass dominates. The main mature vegetation can be found in the small adjacent parks between Logie Place and Manor Avenue and in private gardens.
2.1.9 The majority of the semi-detached or terrace houses have private, well-maintained gardens with ornamental and shrub vegetation which creates well screened, safe private gardens.
2.1.10 In the context of the surrounding townscape out with the UCA, recreational areas comprise of a football ground, playing fields and allotment gardens. Manor Park Caravan Park is located on the edge of the character area with potentially limited visibility of the proposed scheme due to screening by intermittent properties, the existing boundary wall and vegetation. The public parks at Manor Terrace, a community park at Logie Gardens and two storey housing blocks converted into community facilities form the recreational facilities within this UCA.

Table 1: Value Assessment of North Middlefield UCA

| UCA Attribute | Description |
| :---: | :---: |
| Townscape Quality (Condition) | - Situated south-west of Haudagain Roundabout, south of the Aberdeen to Inverness railway line. <br> - Predominantly composed of pre-WWII (1935) tenements. <br> - Residential housing designed around central semi-public communal courtyards. <br> - Comprising of diverse scales and styles of pre-war housing. <br> - A number of tenements in poor condition, vacant and boarded, particularly at Logie Gardens. <br> - The natural topography of the area slopes down from south to north. <br> - Small number of semi-detached red brick houses on Logie Place. <br> - Extensive open spaces, smaller roads and some dwellings with front and back garden which help diversify the residential pattern. <br> - Built form largely comprises of regular geometric patterns including linear, rectangular and curved patters with 3 storey high flats. <br> - Some properties with designated off street parking allows areas of the road to be clear of parked cars specifically on Logie Place. |
| Scenic Quality | - Low scenic quality. <br> - Topography and residential layout creates a relatively compact structure. <br> - There are limited views out with the area towards the surrounding townscape. <br> - Distant views of rural landscape to the north can be gained from the higher ground on the southern extents of the UCA. <br> - Higher storey buildings appear to discourage residents' engagement with their surrounding communal gardens, which appear sparse and unused. <br> Only notable vegetation apart from grass is located in private gardens and in the parks between Logie Place and Manor Avenue. |
| Rarity | No notable rare elements, features or townscapes. |
| Representativeness | - Some well-maintained private gardens. <br> - Well-maintained parks with mature established hedgerow and tree park boundary. <br> - Limited unstructured shrub planting within residential areas. <br> - Repetitive structured layout focused around communal open space. |
| Conservation/ Cultural Interest | Nothing notable |
| Recreation Value | - Football ground, playing fields and allotment gardens are located in close proximity but out with character area. <br> - A community play park at Logie Gardens. <br> - Green open recreational areas are located at Logie Gardens and Manor Terrace. <br> - A number of smaller two storey tenement blocks have been converted into community facilities. |
| Perceptual Aspects | Communal space around dwellings can appear sparse and exposed due to the limited vegetation amount of tree and scrub vegetation. The scale and geometric form of the larger tenements appears imposing and due to the presence of boarded up properties there is the perception of dereliction and being unwelcoming and slightly unsafe. |


| Associations | No relevant associations with notable figures. |
| :--- | :--- |
| The UCA is considered to be of low value |  |

## South Middlefield UCA

2.1.11 The South Middlefield UCA is situated south of Manor Avenue and comprises varying scales and styles of pre-war housing. The properties are located on the rising slope and along with communal space and mix of building scales combines to create a relatively diverse residential townscape. The area is relatively tidy with no litter and communal space is well-maintained.
2.1.12 Narrow access roads, off street parking and well-maintained front and back gardens add to the diversity of the townscape pattern. Travelling west along Manor Avenue the majority of properties are two storey block of flats with open sparsely vegetated front gardens. To the east properties tend to have gardens with more established well-maintained planting creating sense of private ownership and a perception increase value.
2.1.13 On Fairlie Street, to the west of the A90 North Anderson Drive, a liner group of three four storey tenements face on to the street in contrast to the semi-detached properties opposite. Their presence, along with the high rise block of flats at Smithfield Court, slightly detracts from the quality of the area due to their imposing scale and stark architecture. To the east of North Anderson Drive where Clifton Road meets the A90, the style of housing changes again however the change in topography, angle of road alignment and position of existing vegetation combine to partially screen it from the A90 and properties opposite.
2.1.14 The South Middlefield UCA is located on the higher reaches of the rising topography which allows distant views over the townscape to the northern hills beyond. Linear geometric urban form consists of semi-detached red brick housing and granite two storey flats.
2.1.15 There are a number of community properties located in the UCA, Middlefield Parish Church and a community hall. They appear heavily secured with bars on the windows and steel shuttering covering the doors. The obvious concern with security in this location has the effect of detracting from the overall townscape value of the UCA.

Table 2: Value Assessment of South Middlefield UCA

| UCA Attribute | Description |
| :---: | :---: |
| Townscape Quality (Condition) | - Residential housing of a varying scales and styles. Mix of semi-detached, two, three and four storey houses and tenements and high rise flats. <br> - Diverse residential townscape including combinations of open communal space, smaller roads and private and public housing with private off street parking. <br> - Mature well-maintained shrub planting in localised areas and gardens, hedgerows garden boundaries and some specimen trees. |
| Scenic Quality | - Linear geometric building forms dominated by granite two storey flats and largely red brick built pitched roofs. <br> - Medium to low scenic quality. |
| Rarity | None |
| Representativeness | - Properties with well-maintained, established, private gardens. <br> - Well-maintained communal space. <br> - Distant views to the rural landscape to the north. |
| Conservation/ Cultural Interest | None |
| Recreation Value | Presence of Middlefield Parish Church and a church community hall. Appear heavily secured so appear not to be freely open to the community. |
| Perceptual Aspects | - Presence of well-maintained gardens and communal space gives the perception of private ownership and pride of place. <br> - Scale of high density housing can appear imposing by comparison. <br> - Perception of security concerns due to the heavy protection measures visible on community properties. |
| Associations | No relevant associations with notable figures. |
| The UCA is considered to be of low to medium value |  |

## Auchmill Road UCA

2.1.16 Auchmill Road UCA comprises of semi-detached granite villas facing directly on to the A96(T) Auchmill Road. The properties are a variety of interesting architectural styles with narrow well maintained front gardens. All have large back gardens or yards and private off the road parking. Stone walls border the majority of the houses. Properties look out on to well-maintained and matured trees with glimpsed and open view out towards the distant rural landscape to the north.

Table 3: Value Assessment of Auchmill Road UCA

| UCA Attribute | Description |
| :--- | :--- |
| Townscape Quality <br> (Condition) | - Well-maintained semi-detached villas facing directly on to A96(T) Auchmill Road. <br> - Private well-maintained front and back gardens and designated car parking. <br> - Properties look out on to the busy A96, mature vegetation with distant views of the rural <br> landscape to the north. |
| Scenic Quality | - Distant views north to the rural landscape. <br> - Well established shrubs and mature trees along northern boundary. <br> - In close proximity to Aberdeen to Inverness railway link. <br> - Interesting granite architecture building styles. |
| Representativeness | None <br> - Properties of a variety of grey granite architectural styles with narrow gardens and stone <br> boundary walls. All face out on to the A96 with glimpsed views of the rural landscape <br> beyond. |
| Conservation/ <br> Cultural Interest | All the buildings are constructed of granite with varying architectural styles. |
| Recreation Value | None |
| Perceptual Aspects | Private granite properties of varying architectural styles with well-maintained narrow front <br> gardens. The busy A96 can give a sense of exposure for pedestrians using the roadside <br> footpaths. However clear visibility from the road creates a sense of safety \& security. |
| Associations | No relevant associations with notable figures. |
| The UCA is considered to be of medium value |  |

## Great Northern Road UCA

2.1.17 Great Northern Road UCA contains predominantly high density housing blocks situated along the busy A96 directly to the east of the Haudagain Roundabout. On the higher levels the properties will have views overlooking the townscape on all sides. However due to the intermediate properties, views of the proposed route are anticipated to be limited. Communal open/green space around the blocks is limited, car parking takes priority. The A96, Haudagain Roundabout and the retail park to the south dominates the sense of place at ground level.

Table 4: Value Assessment of Great Northern Road UCA

| UCA Attribute | Description |
| :---: | :---: |
| Townscape Quality (Condition) | - Predominantly high density housing blocks located along the busy A96 Great Northern Road. <br> - Built form largely comprises geometric blocks with flat or angled roofs. <br> - Private car parking takes priority over open/ communal green space. <br> - A96, the Haudagain Roundabout and Retail Park tend to dominate at ground level. |
| Scenic Quality | - Limited high density busy urban environment dominated by traffic movement and retails facilities. <br> - Scenic quality limited. |
| Rarity | None |
| Representativeness | - Small amounts of communal space but car parking and road infrastructure take priority. |
| Conservation/ Cultural Interest | None |
| Recreation Value | None |


| Perceptual Aspects | Dominated by the busy A96. |
| :--- | :--- |
| Associations | No relevant associations with notable figures. |
| The UCA is considered to be of low value |  |

## Haudagain Commercial and Industrial UCA

2.1.18 Haudagain Commercial and Industrial UCA includes commercial premises and retail units around Haudagain Roundabout including, a number of retail units along the busy A96(T) Auchmill Road and a petrol station is located close to the existing roundabout. Commercial properties are a mix of one storey high modern commercial units to the west and to the east there are traditional brick and granite properties with accommodation in the upper floors. There is limited tree and scrub vegetation.

Table 5: Value Assessment of Haudagain Commercial and Industrial UCA

| UCA Attribute | Description |
| :--- | :--- |
| Townscape Quality <br> (Condition) | - Modern commercial units primarily one storey with few or no views out. <br> - Various commercial premises located in traditional properties, some derelict or requiring <br> refurbishment, a few containing residential accommodation on the upper floors. These <br> properties tend to be more intertwined with the surrounding fabric of the traditional <br> townscape character. <br> - Limited planting provides slight softening to the hard build environment. |
| Scenic Quality | None |
| Rarity | None |
| Representativeness | - Tradition granite stone commercial properties intermixed with more modern generic retail <br> units. |
| Conservation/ Commercial properties located on both sides of the A96 in linear groupings. <br> Cultural Interest | None |
| Recreation Value | None |
| Perceptual Aspects | - Area dominated by the busy A96 and Haudagain Roundabout, sense of being located in on <br> the outskirts well away from the main retail centre. |
| Associations | No relevant associations with notable figures. |
| The UCA is considered to be of low value |  |

## A11.2: Built and Outdoor Receptor Assessment Tables

1.1.1 Table 1 provides the assessment of built receptors, and Table 2 provides an assessment of outdoor receptors. This information supports the assessment presented in Chapter 11 (Landscape and Visual) of the ES.
1.1.2 A key to abbreviations is provided below.

## Key to Abbreviations

| Table Column | Abbreviations Used |
| :---: | :---: |
| Type and Number | $\begin{aligned} & \mathrm{dw}=\text { dwellings } \\ & \mathrm{I}=\text { industrial } \\ & \mathrm{c}=\text { commercial } \\ & \mathrm{rd}=\text { road } \\ & \mathrm{o}=\text { other } \end{aligned}$ |
| Existing view | $\begin{aligned} & u=\text { urban } \\ & r=\text { rural } \\ & r d=\text { road } \\ & i=\text { industrial } \\ & d=\text { derelict } \end{aligned}$ |
| Sensitivity of Receptor | $\begin{aligned} & \mathrm{h}=\text { high } \\ & \mathrm{m}=\text { medium } \\ & \mathrm{I}=\text { low } \end{aligned}$ |
| Elements of Proposed Scheme Visible | $\begin{aligned} & \text { rs = road surface } \\ & v=\text { vehicles } \\ & I=\text { lighting } / \text { traffic lights } \\ & s=\text { signs } \\ & e=\text { earthworks } \\ & d=\text { change in view due to demolition } \\ & \text { su }=\text { SUDS basin } \\ & n b=\text { noise barriers } \end{aligned}$ |
| Magnitude of Change | $\begin{aligned} & \mathrm{h}=\text { high } \\ & \mathrm{m}=\text { medium } \\ & \mathrm{l}=\text { low } \end{aligned}$ |
| Impact Significance | $\begin{aligned} & \mathrm{n}=\text { negligible } \\ & \mathrm{sl}=\text { slight } \\ & \mathrm{sl} / \mathrm{m}=\text { slight } / \text { moderate } \\ & \mathrm{m}=\text { moderate } \\ & \mathrm{m} / \mathrm{s}=\text { moderate/ substantial } \\ & \text { sub }=\text { substantial } \end{aligned}$ |

Table 1: Built Receptor Assessment Table

| Receptor Group No. <br> Location | Type and Number (Approx.) | Existing view | Sensitivity of receptor | Winter Year of Opening |  |  |  | Summer 15 Years after opening |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Description of mitigation measures | Elements of proposed scheme visible | Magnitude of change | Impact | Description of mitigation measures | Elements of proposed scheme visible | Magnitude of change | Impact |
| 1 <br> Manor Drive | 0 <br> (Caravan <br> Park) <br> 10no. | u, rd | m | Partial screening and enhancement from individual tree groups, avenue tree and hedgerows planting. <br> Amenity grass seeding to assist enhancement and integration of an amenity open space, area surrounding SUDS and cuttings. Wildflower seeding of SUDS to increase biodiversity and visual enhancement. <br> Climbing species planted on both sides of the proposed noise barriers. | $\begin{aligned} & \text { rs, v, l, s, } \\ & \text { e, d, su, } \\ & \text { nb } \end{aligned}$ | m | m | Increased enhancement and screening provided by established tree planting, hedgerows, climbing plants and increased integration through establishment of grass seeding. | ```rs, v, l, s, e, d, su, nb``` | I/m | $\mathrm{sl} / \mathrm{m}$ |


| Receptor Group No. <br> Location | Type and Number (Approx.) | Existing view | Sensitivity of receptor | Winter Year of Opening |  |  |  | Summer 15 Years after opening |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Description of mitigation measures | Elements of proposed scheme visible | Magnitude of change | Impact | Description of mitigation measures | Elements of proposed scheme visible | Magnitude of change | Impact |
| 2 <br> A96 <br> Auchmill <br> Road | dw 6no. | u, r, rd | m | Partial screening and enhancement from individual tree groups, avenue tree and hedgerows planting. <br> Sensitive replacement of hard surfacing including reinstatement of footpaths and associated roadside furniture to the front of dwellings to tie-in with existing elements. <br> Amenity grass seeding to assist enhancement and integration of amenity open space, area surrounding SUDS and cuttings. Wildflower seeding of SUDS to increase biodiversity and visual enhancement. <br> Climbing species planted on both sides of the proposed noise barriers. | $\begin{aligned} & \text { rs, v, l, s, } \\ & \text { e, d, su, } \\ & \text { nb } \end{aligned}$ | I/m | $\mathrm{sl} / \mathrm{m}$ | Increased enhancement and screening provided by established tree planting, hedgerows, climbing plants and increased integration through the establishment of grass seeding. | $\begin{aligned} & \text { rs, v, l, s, } \\ & \text { e, d, su, } \\ & \text { nb } \end{aligned}$ | I | sl |


| Receptor Group No. <br> Location | Type and Number (Approx.) | Existing view | Sensitivity of receptor | Winter Year of Opening |  |  |  | Summer 15 Years after opening |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Description of mitigation measures | Elements of proposed scheme visible | Magnitude of change | Impact | Description of mitigation measures | Elements of proposed scheme visible | Magnitude of change | Impact |
| 3 <br> Manor Drive | dw 12 no. | $\mathrm{u}, \mathrm{rd}$ | m | Partial screening and enhancement from individual tree group planting on landscape earthworks and from avenue tree planting. <br> Amenity grass seeding to assist enhancement and integration of amenity open space, area surrounding SUDS basin and cuttings. Wildflower seeding of SUDS basin to increase biodiversity potential and enhance open space. <br> Climbing species planted on both sides of the proposed noise barriers. | $\begin{aligned} & \text { rs, v, l, s, } \\ & \text { e, d, su, } \\ & \text { nb } \end{aligned}$ | $\mathrm{m} / \mathrm{h}$ | $\mathrm{m} / \mathrm{s}$ | Increased enhancement and screening provided by established tree planting, hedgerows, climbing plants and increased integration through the establishment of grass seeding. | $\begin{aligned} & \mathrm{rs}, \mathrm{v}, \mathrm{l}, \mathrm{~s}, \\ & \mathrm{e}, \mathrm{~d}, \mathrm{nb} \end{aligned}$ | m | m |
| 4 <br> Manor Drive and Manor Walk | dw 12no. | u, rd | m | Partial screening and enhancement from individual tree group planting on landscape earthworks and from avenue tree planting. <br> Amenity grass seeding to assist enhancement and integration of amenity open space, landscape earthworks and cuttings. | $\begin{aligned} & \text { rs, v, I, s, } \\ & e, d \end{aligned}$ | m | m | Increased enhancement and screening provided by established tree planting, hedgerows and increased integration through the establishment of grass seeding. | rs, v, l, s, d, | I/m | $\mathrm{sl} / \mathrm{m}$ |


| Receptor Group No. <br> Location | Type and Number (Approx.) | Existing view | Sensitivity of receptor | Winter Year of Opening |  |  |  | Summer 15 Years after opening |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Description of mitigation measures | Elements of proposed scheme visible | Magnitude of change | Impact | Description of mitigation measures | Elements of proposed scheme visible | Magnitude of change | Impact |
| $5$ <br> Manor Drive | dw <br> 4no. | $\mathrm{u}, \mathrm{rd}$ | m | Partial screening and enhancement from individual tree group planting on landscape earthworks and from avenue tree planting. <br> Enhancement from reinstatement of park boundary with hedgerow if required and tree planting along Logie Place. <br> Amenity grass seeding to assist enhancement and integration of amenity open space, landscape earthworks and cuttings. | rs, v, I, s, e | m/l | $\mathrm{sl} / \mathrm{m}$ | Increased enhancement and screening provided by established tree planting, hedgerows and increased integration through the establishment of grass seeding. | v , I | I | sl |
| 6 <br> Manor Drive | $\begin{aligned} & \mathrm{dw} \\ & 3 \mathrm{no} . \end{aligned}$ | u, rd | m | Partial screening and enhancement from individual tree group planting on landscape earthworks and from avenue tree planting. <br> Enhancement from reinstatement of park boundary with hedgerow if required and tree planting along Logie Place. <br> Amenity grass seeding to assist enhancement and integration of amenity open space, landscape earthworks and cuttings. | rs, v, l, s,e, d | m | m | Increased enhancement and screening provided by established tree planting, hedgerows and increased integration through to establishment of grass seeding. | rs, v, I, d | I/m | $\mathrm{sl} / \mathrm{m}$ |


| Receptor Group No. <br> Location | Type and Number (Approx.) | Existing view | Sensitivity of receptor | Winter Year of Opening |  |  |  | Summer 15 Years after opening |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Description of mitigation measures | Elements of proposed scheme visible | Magnitude of change | Impact | Description of mitigation measures | Elements of proposed scheme visible | Magnitude of change | Impact |
| $7$ <br> Logie Place | dw 3no. | $\mathrm{u}, \mathrm{rd}$ | m | Partial screening and enhancement from individual tree group planting on landscape earthworks and park boundary hedgerow and tree planting. <br> Enhancement from reinstatement of park boundary with hedgerow if required and tree planting along Logie Place. <br> Amenity grass seeding to assist enhancement and integration of amenity open space, landscape earthworks and cuttings. | rs, v, l, s, e | I/m | $\mathrm{sl} / \mathrm{m}$ | Increased enhancement and screening provided by established tree and hedgerow planting and increased integration through the establishment of grass seeding. | $\mathrm{v}, \mathrm{l}, \mathrm{s}, \mathrm{e}$ | I | sl |
| 8 <br> Logie <br> Terrace | dw 9no. | $\mathrm{u}, \mathrm{rd}$ | m | Partial screening from park boundary hedgerow and tree planting. <br> Enhancement from reinstatement of park boundary with hedgerow and tree planting along linking road between Logie Place and Manor Avenue. <br> Amenity grass seeding to assist enhancement and integration of amenity open space, landscape earthworks and cuttings. | $\begin{aligned} & \text { rs, v, l, s, } \\ & e, d \end{aligned}$ | $\mathrm{m} / \mathrm{h}$ | $\mathrm{m} / \mathrm{s}$ | Increased enhancement and screening provided by established tree hedgerow planting and increased integration through the establishment of grass seeding. | rs, v, I, s, e | m | m |


| Receptor Group No. <br> Location | Type and Number (Approx.) | Existing view | Sensitivity of receptor | Winter Year of Opening |  |  |  | Summer 15 Years after opening |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Description of mitigation measures | Elements of proposed scheme visible | Magnitude of change | Impact | Description of mitigation measures | Elements of proposed scheme visible | Magnitude of change | Impact |
| 9 <br> Manor <br> Avenue | dw <br> 7no. | u, rd | m | Amenity grass seeding to assist enhancement and integration of amenity space, and cuttings. <br> Enhancement from reinstatement of park boundary with hedgerow and tree planting. <br> Enhancement from tree group planting. | rs, v, l, s, e | I/m | $\mathrm{sl} / \mathrm{m}$ | Increased enhancement and screening provided by established tree and hedgerow planting and increased integration through the establishment of grass seeding. | rs, v, I, s, e | I | s |
| 10 <br> Manor <br> Avenue | dw <br> 8no. | u, rd | m | Amenity grass seeding to assist enhancement and integration of amenity space and cuttings. <br> Enhancement from reinstatement of park boundary with hedgerow and tree planting. <br> Enhancement from tree group planting. | rs, v, l, s, e | m | m | Increased enhancement and screening provided by established tree and hedgerow planting and increased integration through the establishment of grass seeding. | rs, v, I, s, e | I/m | $\mathrm{sl} / \mathrm{m}$ |
| 11 <br> Manor <br> Avenue | 0 (Church and communi ty hall) | u. rd | I | Amenity grass seeding to assist enhancement and integration of amenity space and cuttings. <br> Enhancement from reinstatement of park boundary with hedgerow and tree planting. <br> Enhancement from tree group planting. | $\begin{aligned} & \text { rs, v, l, s, } \\ & \text { e, d } \end{aligned}$ | $\mathrm{m} / \mathrm{h}$ | $\mathrm{sl} / \mathrm{m}$ | Increased enhancement and screening provided by established tree and hedgerow planting and increased integration through the establishment of grass seeding. | $\begin{aligned} & \text { rs, v, I, s, } \\ & e, d \end{aligned}$ | m | sl |


| Receptor Group No. <br> Location | Type and Number (Approx.) | Existing view | Sensitivity of receptor | Winter Year of Opening |  |  |  | Summer 15 Years after opening |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Description of mitigation measures | Elements of proposed scheme visible | Magnitude of change | Impact | Description of mitigation measures | Elements of proposed scheme visible | Magnitude of change | Impact |
| $12$ <br> Manor Drive | dw 9no. | u, r, rd | m | Partial screening and enhancement from individual tree group planting and park boundary hedgerow and tree planting. <br> Amenity grass seeding to assist enhancement and integration of amenity space and cuttings. | $\begin{aligned} & \text { rs, v, l, s, } \\ & e, d \end{aligned}$ | h | sub | Increased enhancement and screening provided by established tree and hedgerow planting and increased integration through the establishment of grass seeding. | $\begin{aligned} & \mathrm{rs}, \mathrm{v}, \mathrm{l}, \mathrm{~s}, \\ & \mathrm{e}, \mathrm{~d} \end{aligned}$ | $\mathrm{m} / \mathrm{h}$ | $\mathrm{m} / \mathrm{s}$ |
| 13 <br> Manor <br> Avenue | dw 22no. | u, r, rd | m | Partial screening and enhancement from individual tree group planting on landscape earthworks and from avenue tree planting. <br> Amenity grass seeding to assist enhancement and integration of amenity space and cuttings. <br> Climbing species planted on both sides of the proposed noise barriers. | $\begin{aligned} & \text { rs, v, l, s, } \\ & \text { e, d, nb } \end{aligned}$ | h | sub | Increased enhancement and screening provided by established tree and hedgerow planting, climbing plants and increased integration through the establishment of grass seeding. | $\begin{aligned} & \text { rs, v, l, s, } \\ & \text { e, d, nb } \end{aligned}$ | $\mathrm{m} / \mathrm{h}$ | $\mathrm{m} / \mathrm{s}$ |


| Receptor Group No. <br> Location | Type and Number (Approx.) | Existing view | Sensitivity of receptor | Winter Year of Opening |  |  |  | Summer 15 Years after opening |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Description of mitigation measures | Elements of proposed scheme visible | Magnitude of change | Impact | Description of mitigation measures | Elements of proposed scheme visible | Magnitude of change | Impact |
| 14 <br> Wilkie Avenue | dw 4no. | u, rd | m | Partial screening and enhancement from individual tree group planting. <br> Enhancement from reinstatement of park boundary with hedgerows and tree planting. <br> Amenity grass seeding to assist enhancement and integration of amenity space and cuttings. | rs, v, I, s, e | I/m | $\mathrm{sl} / \mathrm{m}$ | Increased enhancement and screening provided by established tree and hedgerow planting and increased integration through the establishment of grass seeding. | rs, v, I, s, e | I | sl |
| 15 <br> Wilkie <br> Avenue and Fowler Avenue | dw 8no. | u, rd | m | Amenity grass seeding to assist enhancement and integration of amenity space and cuttings. | I, e | I | sl | Increased enhancement establishment of grass seeding. | I, e | I | n |
| 16 <br> Manor Avenue | dw 8no. | u, rd | m | Partial screening and enhancement from individual tree group planting and landscape earthworks and avenue trees and hedgerow planting. | $\begin{aligned} & \text { rs, v, l, s, } \\ & \text { e, d } \end{aligned}$ | $\mathrm{m} / \mathrm{h}$ | $\mathrm{m} / \mathrm{s}$ | Increased enhancement and screening provided by established tree and hedgerow planting and increased integration through the establishment of grass seeding. | $\begin{aligned} & \text { rs, v, I, s, } \\ & e, d \end{aligned}$ | m | m |


| Receptor Group No. <br> Location | Type and Number (Approx.) | Existing view | Sensitivity of receptor | Winter Year of Opening |  |  |  | Summer 15 Years after opening |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Description of mitigation measures | Elements of proposed scheme visible | Magnitude of change | Impact | Description of mitigation measures | Elements of proposed scheme visible | Magnitude of change | Impact |
| 17 <br> Manor <br> Avenue | dw 12no. | $\mathrm{u}, \mathrm{rd}$ | m | Partial screening and enhancement from avenue tree planting, individual tree group planting and hedgerow planting. <br> Amenity grass seeding to assist enhancement and integration of landscape earthworks on amenity space and on embankments. | $\begin{aligned} & \text { rs, v, l, s, } \\ & \text { e, d, nb } \end{aligned}$ | h | sub | Increased enhancement and screening provided by established tree and hedgerow planting and increased integration through the establishment of grass seeding. | $\begin{aligned} & \mathrm{rs}, \mathrm{v}, \mathrm{l}, \mathrm{~s}, \\ & \mathrm{e}, \mathrm{~d}, \mathrm{nb} \end{aligned}$ | $\mathrm{m} / \mathrm{h}$ | $\mathrm{m} / \mathrm{s}$ |
| 18 <br> Manor <br> Avenue and A90 North Anderson Drive | dw 15no. | u, rd | m | Partial enhancement from avenue tree planting and hedgerow planting. <br> Reinstatement of footpath and amenity grass seeding to assist enhancement and integration of realigned verges. <br> Reinstatement of garden grass seeding and boundary treatment. <br> Amenity grass seeding to assist enhancement and integration of amenity space and cuttings. <br> Climbing species planted on both sides of the proposed noise barriers. | $\begin{aligned} & \text { rs, v, l, s, } \\ & \text { e, d, nb } \end{aligned}$ | h | sub | Increased enhancement provided by established tree and hedgerow planting, climbing plants and increased integration through the establishment of grass seeding. | $\begin{aligned} & \mathrm{rs}, \mathrm{v}, \mathrm{l}, \mathrm{~s}, \\ & \mathrm{e}, \mathrm{~d}, \mathrm{nb} \end{aligned}$ | h | sub |


| Receptor Group No. <br> Location | Type and Number (Approx.) | Existing view | Sensitivity of receptor | Winter Year of Opening |  |  |  | Summer 15 Years after opening |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Description of mitigation measures | Elements of proposed scheme visible | Magnitude of change | Impact | Description of mitigation measures | Elements of proposed scheme visible | Magnitude of change | Impact |
| 19 <br> Fowler <br> Avenue | dw 21no. | u, rd | m | Reinstatement of footpath and amenity grass seeding to assist enhancement and integration of realigned verges. <br> Reinstatement of garden grass seeding and boundary treatment. | e, s, I | 1 | sl | Increased enhancement provided through establishment of grass seeding. | e, s, I | I | n |
| 20 <br> Fowler Avenue | dw 13no. | u, rd | m | Partial screening and enhancement from avenue tree planting, individual tree group planting and hedgerow planting. <br> Amenity grass seeding to assist enhancement and integration of landscape earthworks, amenity space, cuttings and embankments. | v, I, e | I/m | $\mathrm{sl} / \mathrm{m}$ | Increased enhancement and screening provided by established tree and hedgerow planting and increased integration through the establishment of grass seeding. | e | I | sl |
| $21$ <br> Hilton Drive | dw 8no. | u, rd | m/l | Reinstatement of footpath and amenity grass seeding to assist enhancement and integration of realigned verges. <br> Partial enhancement from avenue tree planting and hedgerow planting. | rs, v, I, s, e | I | $\mathrm{n} / \mathrm{sl}$ | Increased enhancement and screening provided by established tree and hedgerow planting and increased integration due to establishment of grass seeding. | rs, v, I, s, e | I | n |
| 22 <br> A90 North Anderson Drive and Clifton Road | dw <br> 6no. \& 22no. | u, rd | m/l | Reinstatement of footpath and amenity grass seeding to assist enhancement and integration of realigned verges. <br> Partial enhancement from avenue tree planting and | rs, v, l, s | I | sl | Increased enhancement provided by established tree and hedgerow planting and increased integration through the establishment of grass | rs, v, I, s | I | $\mathrm{n} / \mathrm{sl}$ |


| Receptor Group No. <br> Location | Type and Number (Approx.) | Existing view | Sensitivity of receptor | Winter Year of Opening |  |  |  | Summer 15 Years after opening |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Description of mitigation measures | Elements of proposed scheme visible | Magnitude of change | Impact | Description of mitigation measures | Elements of proposed scheme visible | Magnitude of change | Impact |
|  |  |  |  | hedgerow planting. |  |  |  | seeding. |  |  |  |
| 23 <br> Hilton Drive and A90 North Anderson Drive | $\begin{aligned} & \text { dw } \\ & 22 \text { no. } \end{aligned}$ | $u, \mathrm{r}$ | m | Partial enhancement from avenue tree planting and hedgerow planting. <br> Reinstatement of footpath and amenity grass seeding to assist enhancement and integration of realigned verges. | $\begin{aligned} & \text { rs, v, l, s, } \\ & \text { e, d } \end{aligned}$ | I/m | $\mathrm{sl} / \mathrm{m}$ | Increased enhancement provided by established tree and hedgerow planting and increased integration due to establishment of grass seeding. | rs, $\mathrm{v}, \mathrm{l}, \mathrm{s}, \mathrm{e}$ | I | sl |
| 24 <br> Smithfield <br> Drive and Fairlie Street | dw 58no. | $\mathrm{u}, \mathrm{rd}$ | m | Enhancement from avenue tree planting, individual tree group planting and hedgerow planting. <br> Amenity grass seeding to assist enhancement and integration of landscape earthworks amenity space and embankments. <br> Climbing species planted on both sides of the proposed noise barriers. | $\begin{aligned} & \mathrm{rs}, \mathrm{v}, \mathrm{l}, \mathrm{e}, \\ & \mathrm{nb} \end{aligned}$ | I/m | $\mathrm{sl} / \mathrm{m}$ | Increased enhancement provided by established tree and hedgerow planting, climbing plants and increased integration through the establishment of grass seeding. | $\begin{aligned} & \mathrm{rs}, \mathrm{v}, \mathrm{I}, \mathrm{e}, \\ & \mathrm{nb} \end{aligned}$ | I | sl |
| 25 <br> A90 North <br> Anderson Drive | dw 6no. | u, rd | m | Partial screening and enhancement from avenue tree planting, individual tree group planting and hedgerow planting. <br> Amenity grass seeding to assist enhancement and integration of landscape earthworks amenity space and embankments. <br> Climbing species planted on both sides of the proposed noise barriers. | $\begin{aligned} & \text { rs, v, l, s, } \\ & \text { e, d, nb } \end{aligned}$ | h | sub | Increased enhancement and screening provided by established tree and hedgerow planting, climbing plants and increased integration through the establishment of grass seeding. | $\begin{aligned} & \text { rs, v, l, s, } \\ & \text { e, d, nb } \end{aligned}$ | $\mathrm{m} / \mathrm{h}$ | $\mathrm{m} / \mathrm{s}$ |


| Receptor Group No. <br> Location | Type and Number (Approx.) | Existing view | Sensitivity of receptor | Winter Year of Opening |  |  |  | Summer 15 Years after opening |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Description of mitigation measures | Elements of proposed scheme visible | Magnitude of change | Impact | Description of mitigation measures | Elements of proposed scheme visible | Magnitude of change | Impact |
| 26 <br> A90 North <br> Anderson Drive | dw 15no. | u, rd | m | Partial screening and enhancement from avenue tree planting and hedgerow planting. <br> Amenity grass seeding to assist enhancement and integration of amenity space and on embankment. <br> Climbing species planted on both sides of the proposed noise barriers. | $\begin{aligned} & \text { rs, v, l, s, } \\ & \text { e, d, nb } \end{aligned}$ | $\mathrm{m} / \mathrm{h}$ | m/s | Increased enhancement provided by established tree and hedgerow planting climbing plants and increased integration due to establishment of grass seeding. | $\begin{aligned} & \text { rs, v, l, s, } \\ & \text { e, d, nb } \end{aligned}$ | m | m |
| 27 <br> Logie <br> Avenue | dw 9no. | u, rd | m | Partial screening and enhancement from avenue tree planting and hedgerow planting. <br> Amenity grass seeding to assist enhancement and integration of landscape earthworks on amenity space and on embankments. <br> Climbing species planted on both sides of the proposed noise barriers. | $\begin{aligned} & \text { rs, v, l, s, } \\ & \text { e, d, nb } \end{aligned}$ | h | sub | Increased enhancement provided by established tree and hedgerow planting, climbing plants and increased integration through the establishment of grass seeding, | $\begin{aligned} & \text { rs, v, l, s, } \\ & \text { e, d, nb } \end{aligned}$ | $\mathrm{m} / \mathrm{h}$ | $\mathrm{m} / \mathrm{s}$ |
| 28 <br> A90 North <br> Anderson Drive | dw 6no. | u, rd | m | Partial enhancement from avenue tree planting and hedgerow planting <br> Amenity grass seeding to assist enhancement and integration of landscape earthworks on amenity space and on embankments. | rs, v, l, el | I/m | $\mathrm{sl} / \mathrm{m}$ | Increased enhancement provided by established tree and hedgerow planting and increased integration through the establishment of grass seeding. | rs, v, I, e | I | sl |


| Receptor Group No. <br> Location | Type and Number (Approx.) | Existing view | Sensitivity of receptor | Winter Year of Opening |  |  |  | Summer 15 Years after opening |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Description of mitigation measures | Elements of proposed scheme visible | Magnitude of change | Impact | Description of mitigation measures | Elements of proposed scheme visible | Magnitude of change | Impact |
| 29 <br> Logie <br> Avenue | dw $9 n o$. | u, rd | m | Partial enhancement from avenue tree planting and hedgerow planting. <br> Amenity grass seeding to assist enhancement and integration of landscape earthworks on amenity space and on embankments. <br> Climbing species planted on both sides of the proposed noise barriers. | $\begin{aligned} & \text { rs, v, I, s, } \\ & \text { e, d, nb } \end{aligned}$ | $\mathrm{m} / \mathrm{h}$ | $\mathrm{m} / \mathrm{s}$ | Increased enhancement provided by established tree and hedgerow planting, climbing plants and increased integration through the establishment of grass seeding. | $\begin{aligned} & \text { rs, v, l, s, } \\ & \text { e, d, nb } \end{aligned}$ | m | m |
| 30 <br> Logie <br> Avenue | dw 21 no. | $\mathrm{u}, \mathrm{rd}$ | m | Partial enhancement from individual tree groups, avenue tree planting and hedgerow planting. <br> Amenity grass seeding to assist enhancement and integration of landscape earthworks on amenity space and on embankments. <br> Climbing species planted on both sides of the proposed noise barriers. | rs, v, I, s, <br> e, d, nb | h | sub | Increased enhancement and screening provided by established tree and hedgerow planting, climbing plants and increased integration through the establishment of grass seeding. | $\begin{aligned} & \mathrm{rs}, \mathrm{v}, \mathrm{l}, \mathrm{~s}, \\ & \mathrm{e}, \mathrm{~d}, \mathrm{nb} \end{aligned}$ | $\mathrm{h} / \mathrm{m}$ | m/s |
| 31 <br> A96 <br> Auchmill Road | dw <br> 2no. \& 1 no. | u, rd | m | Partial screening and enhancement from hedgerow boundary planting and individual tree planting to boundary of SUDS. <br> Amenity grass and wildflower seeding to assist | $\mathrm{I}, \mathrm{e}, \mathrm{d}, \mathrm{su}$ | I | sl | Increased enhancement and screening provided by established tree and hedgerow planting, and increased integration through the establishment of grass seeding. | $\mathrm{l}, \mathrm{e}, \mathrm{d}$ | I | $\mathrm{n} / \mathrm{sl}$ |


| Receptor Group No. <br> Location | Type and Number (Approx.) | Existing view | Sensitivity of receptor | Winter Year of Opening |  |  |  | Summer 15 Years after opening |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Description of mitigation measures | Elements of proposed scheme visible | Magnitude of change | Impact | Description of mitigation measures | Elements of proposed scheme visible | Magnitude of change | Impact |
|  |  |  |  | enhancement and integration SUDS and surrounding area. |  |  |  |  |  |  |  |
| 32 <br> Logie <br> Avenue | dw 36no. | u, rd | m | Partial enhancement from individual tree groups, avenue tree planting and hedgerow planting. <br> Amenity grass seeding to assist enhancement and integration of landscape earthworks, amenity space and cuttings. <br> Amenity grass and wildflower seeding to assist enhancement and integration of SUDS and surrounding area. <br> Climbing species planted on both sides of the proposed noise barriers. | $\begin{aligned} & \text { rs, v, l, s, } \\ & \text { e, d, nb } \end{aligned}$ | h | sub | Increased enhancement and screening provided by established tree and hedgerow planting, climbing plants and increased integration through the establishment of grass seeding. | $\begin{aligned} & \text { rs, v, l, s, } \\ & \text { e, d, nb } \end{aligned}$ | h | sub |
| 33 <br> A96 <br> Auchmill <br> Road | C 5no. | $\mathrm{u}, \mathrm{rd}$ | I | Partial screening and enhancement from hedgerow boundary planting and individual tree planting to boundary of SUDS. <br> Partial enhancement from avenue tree planting and hedgerow planting. <br> Amenity grass and wildflower seeding to assist enhancement and integration of SUDS and | $\begin{aligned} & \mathrm{rs}, \mathrm{v}, \mathrm{I}, \mathrm{~s}, \\ & \mathrm{e}, \mathrm{~d}, \mathrm{~s}, \mathrm{I}, \mathrm{e} \end{aligned}$ | m | sl | Increased enhancement and screening provided by established tree and hedgerow planting and increased integration through the establishment of grass seeding. | $\begin{aligned} & \mathrm{rs}, \mathrm{v}, \mathrm{I}, \mathrm{~s}, \\ & \mathrm{e}, \mathrm{~d} \end{aligned}$ | m | $\mathrm{n} / \mathrm{sl}$ |


| Receptor Group No. <br> Location | Type and Number (Approx.) | Existing view | Sensitivity of receptor | Winter Year of Opening |  |  |  | Summer 15 Years after opening |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Description of mitigation measures | Elements of proposed scheme visible | Magnitude of change | Impact | Description of mitigation measures | Elements of proposed scheme visible | Magnitude of change | Impact |
|  |  |  |  | surrounding area. |  |  |  |  |  |  |  |
| $34$ <br> Manor Drive | dw 6no. | u, rd | m | Partial screening and enhancement from individual tree groups, avenue tree planting and hedgerow planting. <br> Amenity grass seeding to assist enhancement and integration of landscape earthworks, amenity space and cuttings. <br> Climbing species planted on both sides of the proposed noise barriers. | $\begin{aligned} & \text { rs, v, l, s, } \\ & \text { e, d, nb } \end{aligned}$ | h | sub | Increased enhancement and screening provided by established tree and hedgerow planting, climbing plants and increased integration through the establishment of grass seeding. | $\begin{aligned} & \text { rs, v, l, s, } \\ & \text { e, d, nb } \end{aligned}$ | h | $\mathrm{m} / \mathrm{s}$ |
| $35$ <br> Logie Place | $\begin{aligned} & \mathrm{dw} \\ & 12 \mathrm{no} . \end{aligned}$ | u, rd | m | Partial screening and enhancement from individual tree groups and park planting, avenue tree planting and hedgerow planting. <br> Amenity grass seeding to assist enhancement and integration of landscape earthworks and amenity space. | $\begin{aligned} & \text { rs, v, I, e, } \\ & \text { d } \end{aligned}$ | I | sl | Increased enhancement and screening provided by established tree and hedgerow planting and increased integration through the establishment of grass seeding. | $\begin{aligned} & \mathrm{rs}, \mathrm{v}, \mathrm{l}, \mathrm{e}, \\ & \mathrm{~d} \end{aligned}$ | I | $\mathrm{n} / \mathrm{sl}$ |
| 36 <br> A96 <br> Auchmill <br> Road | $\begin{aligned} & \mathrm{dw} \\ & 1 \mathrm{no} . \end{aligned}$ | u, r, rd | 1 | Partial screening and enhancement from individual tree groups around the SUDS, avenue tree planting and hedgerow planting <br> Amenity grass seeding to assist enhancement and integration of amenity | $\begin{aligned} & \text { rs, v, l, s, } \\ & \text { e, d } \end{aligned}$ | I | sl | Increased screening and enhancement provided by established tree and hedgerow planting and increased integration due to establishment of grass seeding. | rs, v, l, s, d | I | $\mathrm{n} / \mathrm{sl}$ |


| Receptor Group No. <br> Location | Type and Number (Approx.) | Existing view | Sensitivity of receptor | Winter Year of Opening |  |  |  | Summer 15 Years after opening |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Description of mitigation measures | Elements of proposed scheme visible | Magnitude of change | Impact | Description of mitigation measures | Elements of proposed scheme visible | Magnitude of change | Impact |
|  |  |  |  | space. |  |  |  |  |  |  |  |
| 37 <br> Manor <br> Avenue | dw 35no. | u, rd | m | Enhancement from individual tree groups, avenue tree planting and hedgerow planting. <br> Amenity grass seeding to assist enhancement and integration of amenity space and cuttings. | rs, v, I, s, e | I/m | sl | Increased enhancement provided by established tree and hedgerow planting and increased integration through the establishment of grass seeding. | rs, v, I, s, e | I | $\mathrm{n} / \mathrm{sl}$ |
| 38 <br> Manor <br> Avenue | dw 18no. | u, rd | m | Enhancement from individual tree groups, avenue tree planting and hedgerow planting. <br> Amenity grass seeding to assist enhancement and integration of amenity space and cuttings. | rs, I, s | I/m | sl | Increased enhancement provided by established tree and hedgerow planting and increased integration through the establishment of grass seeding. | rs, I, s | I | $\mathrm{n} / \mathrm{sl}$ |
| $39$ <br> Clifton Road | dw <br> 2no. | u, rd | m | Reinstatement of footpath and amenity grass seeding to assist enhancement and integration of realigned verges. <br> Partial screening and enhancement from avenue tree planting and hedgerow planting. | $\mathrm{v}, \mathrm{e}$, | I | sl | Increased enhancement and screening provided by established tree and hedgerow planting and increased integration through the establishment of grass seeding. | v,e | I | n/sl |
| $40$ <br> Clifton Road | $\begin{aligned} & \hline \mathrm{c} \\ & 2 \mathrm{no} \end{aligned}$ | u, rd | I | Reinstatement of footpath and amenity grass seeding to assist enhancement and integration of realigned verges. | v, e | I | n/sl | Increased enhancement and screening provided by established tree and hedgerow planting and | v, e | m | n |


| Receptor Group No. <br> Location | Type and Number (Approx.) | Existing view | Sensitivity of receptor | Winter Year of Opening |  |  |  | Summer 15 Years after opening |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Description of mitigation measures | Elements of proposed scheme visible | Magnitude of change | Impact | Description of mitigation measures | Elements of proposed scheme visible | Magnitude of change | Impact |
|  |  |  |  | Partial screening and enhancement from avenue tree planting and hedgerow planting. |  |  |  | increased integration through to establishment of grass seeding. |  |  |  |
| 41 <br> Fullerton Court | dw 20no. | $\mathrm{u}, \mathrm{rd}$, | m | Enhancement from individual tree groups, avenue tree planting and hedgerow planting <br> Amenity grass seeding to assist enhancement and integration of landscape earthworks, amenity space and cuttings. <br> Amenity grass and wildflower seeding to assist enhancement and integration of SUDS and surrounding area. | $\mathrm{I}, \mathrm{s}, \mathrm{d}, \mathrm{su}$ | m/l | $\mathrm{sl} / \mathrm{m}$ | Increased enhancement provided by established tree and hedgerow planting and increased integration through the establishment of grass seeding. | $\mathrm{l}, \mathrm{s}, \mathrm{d}$ | I | sl |
| $42$ <br> Fullerton Court and A96 Great Northern Road | dw 10no. | r, rd | m | Enhancement from individual tree groups and hedgerow planting around SUDS. <br> Amenity grass and wildflower seeding to assist enhancement and integration of SUDS and surrounding area. | $\mathrm{l}, \mathrm{s}, \mathrm{d}$ | I | sl | Increased enhancement provided by established tree and hedgerow planting and increased integration through the establishment of grass seeding. | $\mathrm{l}, \mathrm{s}, \mathrm{d}$ | I | n |
| 43 <br> Fullerton Court and A96 Great Northern Road | dw 10no. | r, rd | m | Enhancement from individual tree groups and hedgerow planting around SUDS. <br> Amenity grass and wildflower seeding to assist enhancement and integration of SUDS and surrounding area. | $\mathrm{l}, \mathrm{s}, \mathrm{d}$ | I | sl | Increased enhancement provided by established tree and hedgerow planting and increased integration through the establishment of grass seeding. | $\mathrm{l}, \mathrm{s}, \mathrm{d}$ | I | $\mathrm{n} / \mathrm{s}$ l |

Table 2: Outdoor Receptor Assessment Table

| Receptor No. <br> House or road name | Type | Existing view | Sensitivity of receptor | Winter Year of Opening |  |  |  | Summer 15 Years after opening |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Description of mitigation measures | Elements of proposed scheme visible | Magnitude of change | Impact | Description of mitigation measures | Elements of proposed scheme visible | Magnitude of change | Impact |
| O1 <br> Park <br> Logie <br> Terrace | rd+o | u | m | Partial screening and enhancement from park tree and hedgerow planting. <br> Amenity grass seeding to assist enhancement and integration of landscape earthworks and amenity space. | $\begin{aligned} & \text { rs, v, I, s, } \\ & e, d \end{aligned}$ | h | sub | Increased screening and enhancement provided by established tree and hedgerow planting and increased integration through the establishment of grass seeding. | $\mathrm{v}, \mathrm{l}, \mathrm{s}, \mathrm{d}$ | m | m |
| O2 <br>  <br> Footpath <br> Manor <br> Avenue | rd \& 0 | u | I | Partial screening and enhancement from individual tree groups and park planting, avenue tree planting and hedgerow planting. <br> Amenity grass seeding to assist enhancement and integration of landscape earthworks and amenity space. | $\begin{aligned} & \text { rs, v, I, s, } \\ & e, d \end{aligned}$ | h | $\mathrm{m} / \mathrm{s}$ | Increased screening and enhancement provided by established tree and hedgerow planting and increased integration through the establishment of grass seeding. | $\begin{aligned} & \text { rs, v, I, s, } \\ & e, d \end{aligned}$ | m/l | m |
| O3 <br>  <br> Footpath <br> Logie Place | rd \& o | u | I | Partial screening and enhancement from individual tree groups and park tree and hedgerow planting. <br> Amenity grass seeding to assist enhancement and integration of landscape earthworks and amenity space. | $\begin{aligned} & \text { rs, v, I, s, } \\ & e, d \end{aligned}$ | h | $\mathrm{m} / \mathrm{s}$ | Increased screening and enhancement provided by established tree and hedgerow planting and increased integration through the establishment of grass seeding. | $\begin{aligned} & \text { rs, v, I, s, } \\ & e, d \end{aligned}$ | m/l | m |


| Receptor No. <br> House or road name | Type | Existing view | Sensitivity of receptor | Winter Year of Opening |  |  |  | Summer 15 Years after opening |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Description of mitigation measures | Elements of proposed scheme visible | Magnitude of change | Impact | Description of mitigation measures | Elements of proposed scheme visible | Magnitude of change | Impact |
| O4 <br> Road \& Footpath <br> Manor Drive | rd + 0 | u | I | Partial screening and enhancement from individual tree groups, avenue tree and hedgerow planting, SUDS individual tree planting and hedgerow boundary planting. <br> Amenity grass and wildflower seeding to assist enhancement and integration of landscape earthworks, amenity areas, SUDS and surrounding area. <br> Climbing species planted on both sides of the proposed noise barriers. | $\begin{aligned} & \mathrm{rs}, \mathrm{v}, \mathrm{l}, \mathrm{~s}, \\ & \mathrm{e}, \mathrm{~d}, \mathrm{nb} \end{aligned}$ | m | m | Increased screening and enhancement provided by established tree and hedgerow planting, climbing plants and increased integration through the establishment of grass seeding. | $\begin{aligned} & \mathrm{rs}, \mathrm{v}, \mathrm{l}, \mathrm{~s}, \\ & \mathrm{e}, \mathrm{~d}, \mathrm{nb} \end{aligned}$ | I | sl |
| O5 <br>  <br> Footpath <br> A96 <br> Auchmill <br> Road and <br> A96 Great <br> Northern <br> Road | rd + 0 | u | I | Partial screening and enhancement from hedgerow boundary planting and individual tree planting to boundary of SUDS. <br> Partial enhancement from avenue tree planting and hedgerow planting. <br> Amenity grass and wildflower seeding to assist enhancement and integration of landscape earthworks, amenity areas, SUDS and surrounding area. | $\begin{aligned} & \text { rs, v, l, s, } \\ & e, d \end{aligned}$ | I | sl | Increased screening and enhancement provided by established tree and hedgerow planting and increased integration through the establishment of grass seeding. | $\begin{aligned} & \text { rs, v, I, s, } \\ & e, d \end{aligned}$ | I | n |


| Receptor No. <br> House or road name | Type | Existing view | Sensitivity of receptor | Winter Year of Opening |  |  |  | Summer 15 Years after opening |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Description of mitigation measures | Elements of proposed scheme visible | Magnitude of change | Impact | Description of mitigation measures | Elements of proposed scheme visible | Magnitude of change | Impact |
| O6 <br> Road \& Footpath <br> A90 North <br> Anderson Drive | rd + 0 | u | I | Enhancement from avenue tree and hedgerow planting. Reinstatement of footpath and amenity grass seeding to assist enhancement and integration of realigned verges. | $\begin{aligned} & \text { rs, v, I, s, } \\ & e, d \end{aligned}$ | I | sl | Increased enhancement provided by established tree and hedgerow planting and increased integration through the establishment of grass seeding. | $\begin{aligned} & \text { rs, v, I, s, } \\ & e, d \end{aligned}$ | I | n |
| O7 <br> Road \& Footpath <br> Manor <br> Avenue | rd + 0 | u | I | Enhancement from individual tree groups, avenue tree and hedgerow planting and park boundary planting. <br> Amenity grass seeding to assist enhancement and integration of amenity space and cuttings. | rs, v, I, s, e | I | sl | Increased enhancement provided by established tree and hedgerow planting and increased integration through the establishment of grass seeding. | rs, v, I, s, e | $\mathrm{sl} / \mathrm{n}$ | n |

## A11.3: Urban Design Objectives

## Respect the character and sensitivities of the surrounding area and integrate the road into the townscape

- By integration with the existing urban landscape patterns such as street layouts, vegetation patterns and landform.
- By route alignment to provide the best possible landform fit and minimise impacts on important features, using retaining elements/slope steepening where appropriate.
- By designing the shape and orientation of drainage Sustainable Drainage Systems (SuDS).basins/ponds for the best landscape fit as well as to be part of a soft landscape setting to the wider area.


## Enhance 'sense of place'

- By using distinctive planting (appropriate to the location).
- By using a consistent and distinctive palette of hard landscape (and street furniture) elements.
- By using a, consistent design approach throughout, sympathetic to context to create a clear identity.


## Provide varied and interesting views

- By creation of a varied and interesting sequence of views from the road.
- By maximising opportunities to gain views of notable features in the townscape/landscape.
- By manipulation of planting and screening elements to create new vistas.
- By creating attractive, interesting short range views within the road corridor.


## Mitigate environmental impacts on the land, people, water and wildlife

- By avoiding adverse impacts where practicable.
- By integration with the townscape.
- By providing an analysis of the built form and open space remaining after construction to inform the development of the emerging masterplan for the Logie/Manor area of Middlefield.
- By providing screening measures such as planting, earth mounding and fencing where appropriate.
- By careful design of any noise attenuation measures and consideration of adverse visual or townscape impacts.


## Maintain access and connectivity for Non-Motorised Users (NMUs) within and between communities

- By minimising traffic-induced severance on the local community.
- By providing routes along desire lines for NMUs.
- By providing safe pedestrian crossings, with desire lines in mind to maintain the best connectivity possible for the community.
- By provision of cycle lanes.

Provide a Design that can contribute to the council's regeneration aims by complementing the proposed future redevelopment of the Logie/Manor area of Middlefield whilst remaining sensitive to the needs of the surrounding communities

- By early engagement and continued liaison with Aberdeen City Council's master-planning team and the masterplanning team engaged by Aberdeen City Council Housing Investment and Regeneration.
- By using a flexible approach which allows for integration with a range of future land uses.
- By creation of an attractive welcoming, useable environment.


## Provide a Design that is safe and supports crime prevention

- By creation of a safe, pleasant well lit environment with the incorporation of security measures where necessary.
- By avoiding creation of 'leftover', poorly functioning spaces that are likely to be underused.


## Use resources wisely

- By minimising waste.
- By taking opportunities to recycle/reuse materials where practicable.
- By careful consideration of longer term maintenance requirements in the design and specification.


## A12.1: Gazetteer

| Site No. | Site Name | Site Type | Sub Topic | NGR | NMRS/HER No. | Source | Condition | Designation | Sensitivity | Description |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 19 | Boundary Marker 49 | Stone | Historic Building | $\begin{aligned} & \text { NJ9093 } \\ & 0945 \end{aligned}$ | 211400, <br> NJ90NW 0432 | RCAHMS, SMR | Good | None | Low | This granite boundary stone is situated immediately E of the public road at the S end of Persley Bridge (NJ 9090 0945) and is a relatively modern replacement of the late-18th-early-19th-century stone (NJ90NW 143), which stood at the confluence of the Scatterburn and the River Don (NJ 9095 0945) some 50 m to the E. Rectangular in section, the stone measures 0.34 m in breadth by 0.23 m transversely and 0.4 m in height; the top of the W face is bevelled and bears the incised letters ABD below the number 49. <br> The earlier stone is depicted at its original location on the 1st edition of the OS 6-inch map (Aberdeenshire 1869, sheet lxxv), but it is not shown on the 2nd edition of the map (1902, sheet Ixxv.NW). A photograph showing the stone was published in 1929, but it may have been taken at a much earlier date. <br> Visited by RCAHMS (JRS, ATW), 18 March 1997. <br> J Cruickshank and D B Gunn 1929. |
| 20 | Persley Bridge Pillbox | Pillbox | Historic Building | NJ9089 0944 | 81847, <br> NJ90NW 0271 | RCAHMS, SMR | Good | None | Low | (GRC 271: NJ 9089 0944). This pillbox is situated on the S bank of the River Don on the SW side of the Persley Bridge (NJ90NW 339) on a World War Two caravan site. Measuring about 10 feet in width, built of concrete, six sided with one door, the five loopholes have been blocked up. <br> (GRC 272: NJ 9098 0946: NJ90NW 325). About 70 m E of the bridge down a track on the $S$ bank there is a brick and concrete loophole built into an old |


| Site <br> No. | Site Name | Site Type | Sub Topic | NGR | NMRS/HER <br> No. | Source | Condition | Designation | Sensitivity |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | | Description |
| :--- |

Appendix A12.1: Gazetteer

| Site No. | Site Name | Site Type | Sub Topic | NGR | NMRS/HER No. | Source | Condition | Designation | Sensitivity | Description |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  | edition. |
| 26 | Mugiemoss Road Stone (1) | Stone | Archaeological Remains | $\begin{aligned} & \text { NJ } 9110 \\ & 0939 \end{aligned}$ | $\begin{aligned} & \text { NJ90NW } \\ & 0447 \end{aligned}$ | SMR/Walkover Survey | Destroyed | None | Negligible | Boundary Stone. No Further Information - SMR During the walkover survey this Asset could not be located. |
| 27 | Persley Railway Station | Station | Archaeological Remains | $\begin{aligned} & \text { NJ } 9118 \\ & 0924 \end{aligned}$ | $\begin{aligned} & \text { NJ90NW } \\ & 0773 \end{aligned}$ | SMR | Unknown | None | Low | Railway Station opened in 1903. Used as a private dwelling in 1955. No longer extant. |
| 28 | Mugiemoss Road Stone (2) | Stone | Archaeological Remains | $\begin{aligned} & \text { NJ } 9128 \\ & 0922 \end{aligned}$ | $\begin{aligned} & \text { NJ90NW } \\ & 0446 \end{aligned}$ | SMR/Walkover Survey | Destroyed | None | Negligible | No Further Information - SMR. <br> During the walkover survey this Asset could not be located. |
| 29 | The Colwyn, 868 Great Northern Road | House | Archaeological Remains | $\begin{aligned} & \text { NJ } 9130 \\ & 0918 \end{aligned}$ | $\begin{aligned} & \text { 20451, } \\ & \text { 149560, } \\ & \text { NJ90NW } \\ & 0326 \end{aligned}$ | Historic <br> Scotland, <br> RCAHMS, SMR | Destroyed | None | Negligible | Early C19th house, recorded prior to demolition. <br> Information from RCAHMS (CS) 2006. <br> Style of John Smith c.1830. 2-storey villa, harled with margins and consoled cornices to ground floor openings; octagonal corner tower slightly higher; broad eaved low-pitched roofs. <br> Listed 12. Jan. 1967. (HB No. 20451). Information from Historic Scotland. |
| 30 | Fullerton Court | Tower Block | Historic Building | $\begin{aligned} & \text { NJ } 9150 \\ & 0915 \end{aligned}$ | 174622 | RCAHMS | Good | None | Low | A development of two ten-storey tower blocks built as public housing along the A96 Great Northern Road for Aberdeen Borough Council. The development was one of several in this area. This particular contract was 'Great Northern Rd 'A'. Phase 2'. The two blocks contain a total of 112 dwellings. The Contractor for the development was Alexander Hall \& Son (Builders) Ltd. Construction began in 1974. <br> Glendinning and Methusius 1994. |
| 31 | Great <br> Northern <br> Road 'A' <br> Phase 2 | Tower Block | Historic Building | $\begin{aligned} & \text { NJ } 9153 \\ & 0914 \end{aligned}$ | 300072 | RCAHMS | Good | None | Low | A development of two ten-storey tower blocks built as public housing along the A96 Great Northern Road for Aberdeen Borough Council. The development was one of several in this |


| Site <br> No. | Site Name | Site Type | Sub Topic | NGR | NMRS/HER No. | Source | Condition | Designation | Sensitivity | Description |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  | area. This particular contract was 'Great Northern Rd 'A'. Phase 2'. The two blocks contain a total of 112 dwellings. The Contractor for the development was Alexander Hall \& Son (Builders) Ltd. Construction began in 1974. Glendinning and Methusius 1994. |
| 32 | Murray Court | Tower Block | Historic Building | $\begin{aligned} & \text { NJ9155 } \\ & 0913 \end{aligned}$ | 174621 | RCAHMS | Good | None | Low | A development of two ten-storey tower blocks built as public housing along the Great Northern Road for Aberdeen Borough Council. The development was one of several in this area. This particular contract was 'Great Norther Rd 'A'. Phase 2'. The two blocks contain a total of 112 dwellings. The contractor for the development was Alexander Hall \& Son (Builders) Ltd. Construction began in 1974. Glendinning and Methusius 1994. |
| 38 | Aberdeenshi re Canal | Canal | Archaeological Remains |  | NJ81SE18b | SMR | Unknown | None | Low | The Aberdeenshire Canal was operational between 1805 and 1854 and ran from Waterloo Quay to Port Elphinstone. In 1854 the canal was bought by the Great North of Scotland Railway and much of route was redeveloped for the railway line |
| 39 | Heathryfold <br> Farmstead <br> (2) | Farmstead | Archaeological Remains | $\begin{aligned} & \text { NJ9073 } \\ & 0921 \end{aligned}$ | $\begin{aligned} & \text { NJ90NW } \\ & 0994 \end{aligned}$ | SMR / Map regression | Unknown | None | Low | Appears on the 1867 OS map. No longer extant - SMR. <br> On the 1st edition map the farmsteading is depicted as a single rectilinear building. By the time of the 2nd edition a second smaller building has been built to the west - Map regression. |
| 40 | Heathryfold <br> Farmstead <br> (1) | Farmstead | Archaeological Remains | $\begin{aligned} & \text { NJ } 9089 \\ & 0920 \end{aligned}$ | $\begin{aligned} & \text { NJ90NW } \\ & 0993 \end{aligned}$ | SMR/Map regression | Unknown | None | Low | Appears on the 1867 OS map. No longer extant - SMR. <br> The steading comprised five buildings with the main range $U$-shaped in plan with the wings towards the A96 Great Northern Road - Map regression. |

Appendix A12.1: Gazetteer

| Site No. | Site Name | Site Type | Sub Topic | NGR | NMRS/HER No. | Source | Condition | Designation | Sensitivity | Description |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 41 | Denhead Gas Works | Gas Works | Archaeological Remains | $\begin{aligned} & \text { NJ } 9102 \\ & 0913 \end{aligned}$ | $\begin{aligned} & \text { NJ90NW } \\ & 0992 \end{aligned}$ | SMR/Map regression | Unknown | None | Low | No Further Information - SMR. <br> Depicted on both the 1st and 2nd edition Ordnance Survey 6 " to the mile map - Map regression. |
| 42 | Middlefield <br> Buildings (1) | Buildings | Archaeological Remains | $\begin{aligned} & \text { NJ } 9113 \\ & 0914 \end{aligned}$ | $\begin{aligned} & \text { NJ90NW } \\ & 0991 \end{aligned}$ | SMR/Map regression | Unknown | None | Low | No Further Information - SMR <br> Depicted on the 1st and 2nd edition Ordnance Survey 6" to the mile map. There are six buildings of varying size depicted. Map regression has identified that the partial remains of two buildings may have survived the redevelopment of the A96 Great Northern Road and the construction of Logie Avenue in the pre and post war periods. |
| 43 | Middlefield <br> Buildings (2) | Buildings | Archaeological Remains | $\begin{aligned} & \text { NJ } 9113 \\ & 0914 \end{aligned}$ | $\begin{aligned} & \text { NJ90NW } \\ & 0991 \end{aligned}$ | SMR/Map regression | Unknown | None | Low | No Further Information - SMR <br> Depicted on the 1st and 2nd edition Ordnance Survey 6" to the mile map. There are six buildings of varying size depicted. Map regression has identified that the partial remains of two buildings may have survived the redevelopment of the A96 Great Northern Road and the construction of Logie Avenue in the pre and post war periods. |
| 44 | Middlefield Cottage | Cottage | Historic Building | $\begin{aligned} & \text { NJ } 9118 \\ & 0912 \end{aligned}$ | $\begin{aligned} & \text { NJ90NW } \\ & 0990 \end{aligned}$ | SMR/Map regression | Good | None | Low | No Further Information - SMR. <br> Depicted on both the 1st and 2nd edition Ordnance Survey 6" to the mile map - Map regression. |
| 45 | Upper <br> Middlefield <br> Boundary <br> Stone 10 | Boundary Stone | Archaeological Remains | $\begin{aligned} & \text { NJ } 9127 \\ & 0913 \end{aligned}$ | 226624 | RCAHMS | Destroyed | None | Negligible | This boundary stone has been removed and its site is now occupied by the junction of the A947 and the A96 Great Northern Road. The stone marked part of the boundary of the burgh of Woodside, a description of which is given by Morgan, who details the line that the boundary followed and notes that it was marked by stones bearing an incised W, standing for |


| Site <br> No. | Site Name | Site Type | Sub Topic | NGR | NMRS/HER No. | Source | Condition | Designation | Sensitivity | Description |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  | Woodside, and a number. The number on this stone, which is depicted on the 2nd edition of the Ordnance Survey 6" to the mile map (Aberdeenshire, 1902, sheet Ixxv.NW), was 10. <br> Visited by RCAHMS (JRS), 20 May 2002. |
| 46 | Upper <br> Middlefield <br> Boundary <br> Stone 11 | Boundary Stone | Archaeological Remains | $\begin{aligned} & \text { NJ } 9131 \\ & 0913 \end{aligned}$ | 226623 | RCAHMS | Destroyed | None | Negligible | This boundary stone has been removed and its site is now occupied by the junction of the A947 and the A96 Great Northern Road. The stone marked part of the boundary of the burgh of Woodside, a description of which is given by Morgan, who details the line that the boundary followed and notes that it was marked by stones bearing an incised W , standing for Woodside, and a number. The number on this stone, which is depicted on the 2nd edition of the Ordnance Survey 6" to the mile map (Aberdeenshire, 1902, sheet Ixxv.NW), was 11. <br> Visited by RCAHMS (JRS), 20 May 2002. |
| 47 | Great Northern Road Inn | Inn | Archaeological Remains | $\begin{aligned} & \text { NJ } 9134 \\ & 0911 \end{aligned}$ | $\begin{aligned} & \text { NJ90NW } \\ & 1011 \end{aligned}$ | SMR/Walkover Survey | Unknown | None | Low | No Further Information - SMR. <br> This asset stood on land that has been developed for retail units. No evidence of this Asset was discerned during the walkover survey - Walkover Survey. |
| 48 | Denhead Gas Works Boundary Walls | Wall | Historic Building | $\begin{aligned} & \text { NJ } 9144 \\ & 0665 \end{aligned}$ | $\begin{aligned} & \text { NJ90NW } \\ & 0534 \end{aligned}$ | SMR | Good | None | Low | No Further Information. |
| 49 | Woodside <br> Spearhead Findspot | Findspot | Archaeological Remains | $\begin{aligned} & \text { NJ } 91 \\ & 09 \end{aligned}$ | $\begin{aligned} & \text { NJ90NW } \\ & 0069 \end{aligned}$ | RCAHMS, SMR | Lost | None | Negligible | A bronze spear-head from Woodside (NJ 91 09) Aberdeen, formed part of the collection of D Anderson, Aberdeen, which was sold by S Shaw, Auctioneers, Aberdeen in 1898. <br> Shaw Auctioneers 1898; D Anderson |

## DMRB Stage 3 Environmental Statement

Appendix A12.1: Gazetteer

| Site No. | Site Name | Site Type | Sub Topic | NGR | NMRS/HER No. | Source | Condition | Designation | Sensitivity | Description |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  | 1898. <br> The present whereabouts of this spearhead, which was sold at auction in 1898, is not known. <br> Information from RCAHMS (JRS), 9 May 1997. |
| 54 | Middlefield Parish Church and Church Hall | Church | Historic Building | $\begin{aligned} & \text { NJ } 9110 \\ & 0878 \end{aligned}$ | 148726 | RCAHMS | Good | None | Low | No Further Information. |
| 55 | Middlefield Boundary Stone 9 | Boundary Stone | Archaeological Remains | $\begin{aligned} & \text { NJ } 9125 \\ & 0886 \end{aligned}$ | 226626 | RCAHMS | Destroyed | None | Negligible | This boundary stone has been removed and its site is now lies beneath a modern housing estate (Manor Avenue). The stone marked part of the boundary of the burgh of Woodside, a description of which is given by Morgan, who details the line that the boundary followed and notes that it was marked by stones bearing an incised W, standing for Woodside, and a number. The number on this stone, which, unlike some of the other stones in the sequence, is not depicted on the 2nd edition of the Ordnance Survey 6" to the mile map (Aberdeenshire, 1902, sheet lxxv.NW), was 9. <br> Visited by RCAHMS (JRS), 20 May 2002. |
| 56 | Middlefield <br> Boundary <br> Stone 7 | Boundary Stone | Archaeological Remains | $\begin{aligned} & \text { NJ } 9141 \\ & 0889 \end{aligned}$ | 226627 | RCAHMS | Destroyed | None | Negligible | This boundary stone has been removed and its site now lies beneath a modern housing estate (A90(T) North Anderson Drive/ Manor Avenue). The stone marked part of the boundary of the burgh of Woodside, a description of which is given by Morgan, who details the line that the boundary followed and notes that it was marked by stones bearing an incised W, standing for Woodside, and a number. The number on this stone, |



| $\begin{aligned} & \text { Site } \\ & \text { No. } \end{aligned}$ | Site Name | Site Type | Sub Topic | NGR | NMRS/HER No. | Source | Condition | Designation | Sensitivity | Description |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  | Council. The block contains 58 dwellings. The Contractor for the development was Alexander Hall \& Son (Builders) Ltd. Construction started in 1971. Glendinning and Methusius 1994. |
| 59 | Upper Middlefield Boundary Stone 6 | Boundary Stone | Archaeological Remains | $\begin{aligned} & \text { NJ } 9159 \\ & 0892 \end{aligned}$ | 226628 | RCAHMS | Destroyed | None | Negligible | This boundary stone has been removed and its site is now occupied by a modern housing estate (Clifton Road). The stone marked part of the boundary of the burgh of Woodside, a description of which is given by Morgan (1886, 251-2), who details the line that the boundary followed and notes that it was marked by stones bearing an incised W , standing for Woodside, and a number. The number on this stone, which unlike some of the other stones in the sequence is not depicted on the 2nd edition of the Ordnance Survey 6" to the mile map (Aberdeenshire, 1902, sheet Ixxv.NW), was 6. <br> Visited by RCAHMS (JRS), 20 May 2002. |
| 60 | Smithfield Farmstead | Farmstead | Archaeological Remains | $\begin{aligned} & \text { NJ9174 } \\ & 0874 \end{aligned}$ | NJ90NW 0988, 210351 | SMR, RCAHMS | Unknown | None | Low | Appears on 1867 OS map - SMR Nothing is visible of this farmsteading, which stood on land that has since been developed as part of a housing estate (Hilton Drive). As depicted on both the 1st and 2nd editions of the OS 6-inch map (Aberdeenshire, 1869, sheet Ixxv and 1902, sheet Ixxv.NW), the farmstead comprised two opposing L-shaped ranges enclosing a central yard with entrances on the NW and SE respectively. A detached building immediately to the S may have been a cottage, since it stood on the N side of a garden, and a mill pond lay immediately $W$ of the garden. On the 2nd edition of the map the pond is |

Appendix A12.1: Gazetteer

| Site No. | Site Name | Site Type | Sub Topic | NGR | NMRS/HER No. | Source | Condition | Designation | Sensitivity | Description |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  | labelled 'Smithfield Reservoir (Aberdeen Water Works)'. <br> Visited by RCAHMS (JRS), 19 April 2002 - RCAHMS. |
| 62 | Upper <br> Middlefield <br> Private <br> Lunatic <br> Asylum | Asylum | Archaeological Remains | $\begin{aligned} & \text { NJ } 9142 \\ & 0866 \end{aligned}$ | $\begin{aligned} & 210350, \\ & \text { NJ90NW } \\ & 0987 \end{aligned}$ | RCAHMS, SMR | Unknown | None | Low | Nothing is visible of Upper Middlefield Private Lunatic Asylum, which was probably originally built as a private country house, and stood on land that has since been developed as part of a housing estate. Its site lies in the Middlefield district of Aberdeen between Newton Road to the west and Smithfield Drive to the east. The house and its large garden, together with what were probably four cottages immediately to the east, are depicted on both the 1st and 2nd editions of the Ordnance Survey 6 " to the mile map (Aberdeenshire, 1869, sheet Ixxv and 1902, sheet Ixxv.NW), but it is only annotated as an asylum on the earlier map. <br> Visited by RCAHMS (JRS), 19 April 2002. |
| 66 | Gatelodge to Woodside House (site of) | Gatelodge | Archaeological Remains | $\begin{aligned} & \text { NJ9113 } \\ & 0927 \end{aligned}$ | $\begin{aligned} & \text { NJ90NW } \\ & 0325 \end{aligned}$ | SMR | Poor | None | Low | Gatelodge to Woodside House identified by SMR |
| HLT 1 | Designed <br> Landscape, 1 <br> 7th-19th <br> Century <br> Policies and Parkland |  | Historic Landscape |  |  | RCAHMS, Map regression, Walkover Survey | Good | None | Medium | 17th -19th Century Policies and Parkland comprise elements of woodland and parkland associated with Woodside House that was built in 1769 and extended from 1840 to 1850. This type is characterised by tree lined avenues and footpaths and includes the formal walled garden (Asset 24). Views to the north are restricted by the mature planting along the edge of the River Don. Views to the south are somewhat restricted by the tree lined avenues and the land as it rises towards the A96 Great Northern Road. |

Appendix A12.1: Gazetteer

| Site No. | Site Name | Site Type | Sub Topic | NGR | NMRS/HER No. | Source | Condition | Designation | Sensitivity | Description |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  | In consideration of its historic interest as part of a designed landscape this type has been assessed to be of Medium sensitivity. |
| HLT 2 | 18th CenturyPresent Cemetery |  | Historic Landscape |  |  | RCAHMS, Map regression, Walkover Survey | Good | None | Low | 18th Century-Present Cemetery: this type is characterised by the formal and ordered regular layout of the burial plots. There are good views to the north and Persley Bridge, views to the south are restricted by the land as it rises towards the A96 Great Northern Road. This historic landscape type has some historic legibility and interest. This type has been assessed to be of Low sensitivity. |
| HLT 3 | Recreation <br> Area, 20th <br> Century- <br> Present, <br> Allotments <br> and Sports <br> Fields |  | Historic Landscape |  |  | RCAHMS, Map regression, Walkover Survey | Good | None | Negligible | This type has been identified in the west of the study area, its main characteristics are a series of allotments, bounded to the east by the pitch and associated buildings of Sunnybank FC and to the south by playing fields and parkland. All round views are dominated by housing. In consideration of its limited time depth and lack of rarity this type has been assessed to be of negligible sensitivity. |
| HLT 4 | Built-up Area, Late 20th Century |  | Historic Landscape |  |  | RCAHMS, Map regression, Walkover Survey | Good | None | Negligible | Built-up Area Late 20th Century comprises late 20th Century housing units of both detached and semidetached houses and blocks of flats of both public and private stock. The main characteristics of this type are the restricted views afforded from the properties and the uniformity of the design of the units. In consideration of its limited time depth and lack of rarity this type has been assessed to be of negligible sensitivity. |
| HLT 5 | Built-up Area, Mid to Late 20th |  | Historic Landscape |  |  | RCAHMS, Map regression, Walkover | Good | None | Negligible | To the south of the study area is Builtup Area, Mid to Late 20th Century comprising pre and post war developments of housing units usually |


| $\begin{aligned} & \text { Site } \\ & \text { No. } \end{aligned}$ | Site Name | Site Type | Sub Topic | NGR | NMRS/HER No. | Source | Condition | Designation | Sensitivity | Description |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Century |  |  |  |  | Survey |  |  |  | comprising blocks of four flats over two storeys. Developed in the middle of the 20th century as affordable public housing stock the main characteristics of this type are the restricted views afforded from the properties and the uniformity of the design. In consideration of its limited time depth and lack of rarity this type has been assessed to be of negligible sensitivity. |
| HLT 6 | Late 20th <br> Century- <br> Present <br> Woodland <br> Plantation |  | Historic Landscape |  |  | RCAHMS, Map regression, Walkover Survey | Good | None | Negligible | Late 20th Century-Present Woodland Plantation is to be found to the northwest of the study area and comprises an area of shrub planting that borders a golf course and is crossed by paths both formally and informally created and used as a public amenity area. In consideration of its limited time depth and lack of rarity this type has been assessed to be of negligible sensitivity. |
| HLT 7 | 19th <br> Century- <br> Present <br> Industrial <br> and <br> Commercial <br> Area, <br> Commercial Units |  | Historic Landscape |  |  | RCAHMS, Map regression, Walkover Survey | Good | None | Negligible | Towards the north of the study area strung out along the A96 Great Northern Road and A90(T) Mugiemoss Road are a series of commercial units. The main characteristics of this type are the restricted views afforded from the units, the uniformity of construction material (predominately) brick and the frontage of the units onto A96 Great Northern and A90(T) Mugiemoss Road and potential customers. In consideration of its limited time depth and lack of rarity this type has been assessed to be of negligible sensitivity. |
| HLT 8 | 19th <br> Century- <br> Present <br> Railway |  | Historic Landscape |  |  | RCAHMS, Map regression, Walkover Survey | Good | None | Negligible | 19th Century-Present Railway. Originally depicted on the 1st edition Ordnance Survey 6" to the mile map annotated as the Great North of Scotland Railway and now known as the Aberdeen to Inverness line. This type is characterised by the linear |

## A90/A96 Haudagain Improvement

DMRB Stage 3 Environmental Statement
Appendix A12.1: Gazetteer

| $\begin{aligned} & \text { Site } \\ & \text { No. } \end{aligned}$ | Site Name | Site Type | Sub Topic | NGR | NMRS/HER No. | Source | Condition | Designation | Sensitivity | Description |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  | its limited time depth and lack of rarity this type has been assessed to be of negligible sensitivity. |
| HLT 9 | 20th <br> Century- <br> Present <br> Industrial <br> and <br> Commercial <br> Area, <br> Industrial <br> Estate |  | Historic Landscape |  |  | RCAHMS, Map regression, Walkover Survey | Good | None | Negligible | To the north west of the study area on the south bank of the River Don are a series of Industrial Units servicing industry. The main characteristic of this type is the large size of the units, restricted views afforded from the units and the uniformity of construction material, predominately corrugated aluminium. |

## A13.1: Air Quality Methodology

## 1 Introduction

1.1.1 This appendix provides supplementary information to support Chapter 13 (Air Quality).

## 2 Construction

### 2.1 Traffic

2.1.1 Environmental Protection UK (EPUK, 2010) guidance recommends that the local air quality assessment includes construction traffic for those large, long-term construction sites that would generate large Heavy Goods Vehicle (HGV) flows (>200 movements per day) over a period of a year or more, or would affect annual average daily traffic flows ( $>5-10 \%$ ).
2.1.2 Based on the site size and the type of construction works and duration of activities that are anticipated, emission impacts from construction traffic have therefore not been considered further in this assessment.

### 2.2 Dust

2.2.1 Construction dust assessments have tended to be risk based, focusing on the appropriate measures to be used to keep dust impacts at an acceptable level. The Design Manual for Roads and Bridges (DMRB) HA207/07 (Highways Agency et al., 2007) guidance is non-prescriptive in its approach to the assessment of construction dust impacts and states that the locations of any sensitive receptors within 200 m of a construction site should be clearly identified ... so that mitigation measures to reduce dust emissions can be rigorously applied'. The approach to assessment has continued to evolve over recent years and has been complemented by the recently updated Institute of Air Quality Management Guidance on the Assessment of Dust from Demolition and Construction (IAQM, 2014).

### 2.3 Institute of Air Quality Management (IAQM) Assessment Methodology

2.3.1 The IAQM guidance aims to estimate the impacts of both particulate matter $\left(\mathrm{PM}_{10}\right)$ and nuisance dust together, through a single risk-based assessment procedure. The IAQM guidance provides a methodological framework, but notes that professional judgement is required to assess impacts. This assessment does not consider the air quality impacts of dust from any contaminated land or buildings. If contamination is identified in the vicinity of the proposed scheme, the impacts will be assessed in other technical discipline reports.
2.3.2 The IAQM guidance categorises the likely magnitude of the dust sources during demolition, earthworks, construction and track-out. These dust emission classes are based on the size of the building(s), method of construction and the materials used.
2.3.3 These example classifications have been combined with details of the period of construction activities to provide a ranking for the source magnitude, set out in Table 1.

Table 1: Magnitude of Dust Impacts examples

| Features of the source of dust emissions | Dust Magnitude |
| :--- | :---: |
| Demolition - building over $50,000 \mathrm{~m}^{3}$. Potentially dusty construction material (e.g. <br> concrete), on-site crushing and screening. Demolition activities $>20 \mathrm{~m}$ above ground <br> level. |  |
| Earthworks - total site area over $10,000 \mathrm{~m}^{2}$ (potentially dusty soil type (e.g. clay); $>10$ <br> Heavy earth moving vehicles active at any one time, formation of bunds $>8 \mathrm{~m}$ high, total <br> material moved $>100,000$ tonnes. |  |
| Construction - total building volume over $100,000 \mathrm{~m}^{3}$, activities include piling, on-site <br> concrete batching, sand-blasting. |  |
| Period of construction activities more than two years. | Large |
| Track-out $->50$ HGV $(>3.5 \mathrm{t})$ movements (one way) in any one day, potentially dusty |  |


| Features of the source of dust emissions | Dust Magnitude |
| :---: | :---: |
| surface material (e.g. high clay content), unpaved road length $>100 \mathrm{~m}$. |  |
| Demolition - Total building volume between 20,000 to $50,000 \mathrm{~m}^{3}$; potentially dusty construction material, demolition activities $10-20 \mathrm{~m}$ above ground level. <br> Earthworks - total site area between 2,500 to $10,000 \mathrm{~m}^{2}$. Moderately dusty soil type, $5-$ 10 heavy earth moving vehicles active at any one time, formation of bunds $4 m-8 m$ in height, total earth moved 20,000 - 100,000 tonnes. <br> Construction - total building volume between 25,000 and $100,000 \mathrm{~m}^{3}$, use of potentially dusty construction material (e.g. concrete) activities include on-site concrete batching. <br> Period of construction activities between one and two years. <br> Track-out - 10-50 HGV (>3.5t) movements (one way) in any one day, moderately dusty surface material (e.g. high clay content), unpaved road length $50-100 \mathrm{~m}$. | Medium |
| Demolition - Total building volume less than $20,000 \mathrm{~m}^{3}$. Construction material with low potential for dust release (e.g. metal cladding or timber), demolition activities $<10 \mathrm{~m}$ above ground, demolition during wetter months. <br> Earthworks - total site area less than 2,500m2, $<5$ heavy earth moving vehicles active at any one time, formation of bunds $<4 \mathrm{~m}$ in height, total material moved $<20,000$ tonnes, earthworks during wetter months. <br> Construction - total building volume below $25,000 \mathrm{~m}^{3}$, use of construction materials with low potential for dust release (e.g. metal cladding or timber). <br> Period of construction activities less than one year. <br> Track-out - <10 HGV ( $>3.5$ t) outward movements in any one day, surface material with low potential for dust release, unpaved road length $<50 \mathrm{~m}$. | Small |

2.3.4 The IAQM guidance includes a category for track-out, defined as the transport of dust and dirt from the construction/demolition site onto the public road network, where it may be deposited and then resuspended by vehicles using the network.

### 2.4 Receptors

2.4.1 The methodology used to assess the proposed scheme has categorised the sensitivity of the identified receptors, as set out in Table 2. There are no statutory or non statutory ecological designations within the assessed study area and no further consideration is made in this assessment.

Table 2: Receptor Sensitivities Guidance (Box 6, Box 7 and Box 8: IAQM, 2014)

| Sensitivity | Sensitivities of |  |  |
| :---: | :---: | :---: | :---: |
|  | People to Dust Soiling Effects | People to Health Effects of PM 10 | Receptors to Ecological Effects ${ }^{\text {c }}$ |
| High | - Users can reasonably expect ${ }^{a}$ a enjoyment of a high level of amenity; or <br> - The appearance, aesthetics or value of their property would be diminished by soiling; and the people or property would reasonably be expected to be present continuously, or at least regularly for extended periods, as part of the normal pattern of use of the land. <br> - Indicative examples include dwellings, museums and other culturally important collections, medium and long tern car parks and car showrooms. | - Locations where members of the public are exposed over a time period relevant to the air quality objective for $\mathrm{PM}_{10}$ (in the case of the 24-hour objectives, a relevant location would be one where individuals may be exposed for eight hours or more in a day ${ }^{\text {b }}$. <br> - Indicative examples include residential properties. Hospitals, schools and residential care homes should also be considered as having equal sensitivity to residential areas for the purposes of this assessment. | - Locations with an international or national designation and the designated features may be affected by dust soiling; or <br> - Locations where there is a community of a particularly dust sensitive species such as vascular species included in the Red Data List for Great Britainb. <br> - Indicative examples include a Special Area of Conservation (SAC) designated for acid heathlands or a local site designated for lichens adjacent to the demolition of a large site containing concrete (alkali) buildings. |
| Medium | - Users would expect to enjoy a reasonable level of amenity, but would not reasonably expect to enjoy | - Locations where the people exposed are workers ${ }^{\text {d }}$, and exposure is over a time period relevant to the air quality | - Locations where there is a particularly important plant species, where its dust sensitivity is uncertain or |


| Sensitivity | Sensitivities of |  |  |
| :---: | :---: | :---: | :---: |
|  | People to Dust Soiling Effects | People to Health Effects of $\mathbf{P M}_{10}$ | Receptors to Ecological Effects ${ }^{\text {c }}$ |
|  | the same level of amenity as in their home; or <br> - The appearance, aesthetics or value of their property could be diminished by soiling; or <br> - The people or property wouldn't reasonably be expected ${ }^{\text {a }}$ to be present here continuously or regularly for extended periods as part of the normal pattern of use of the land. | objective for $\mathrm{PM}_{10}$ (in the case of the 24 -hour objectives, a relevant location would be one where individuals may be exposed for eight hours or more in a day). <br> - Indicative examples include office and shop workers, but would generally not include workers occupationally exposed to $\mathrm{PM}_{10}$, as protection is covered by Health and Safety at Work legislation. | unknown; or <br> - Locations with a national designation where the features may be affected by dust deposition. <br> - Indicative example is a Site of Special Scientific Interest (SSSI) with dust sensitive features. |
| Low | - The enjoyment of amenity would not reasonably be expected ${ }^{\text {a }}$, or <br> - Property would not reasonably be expected to be diminished in appearance, aesthetics or value by soiling; or <br> - There is transient exposure, where the people or property would reasonably be expected to be present only for limited periods of time as part of the normal pattern of use of the land. <br> - Indicative examples include playing fields, farmland (unless commercially sensitive horticultural), footpaths, short term car parks and roads. | - Locations where human exposure is transient ${ }^{\mathrm{e}}$. <br> - Indicative examples include public footpaths, playing fields, parks and shopping streets. | - Locations with a local designation where the features may be affected by dust deposition. <br> - Indicative example is a local Nature Reserve with dust sensitive features. |

${ }^{\text {a }}$ People's expectations would vary depending on the existing dust deposition in the area.
${ }^{\mathrm{b}}$ This follows the Department for Environment, Food and Rural Affairs (Defra, 2009) guidance as set out in LAQM.TG(09).
${ }^{c}$ Only if there are habitats that might be sensitive to dust. A Habitat Regulation Assessment of the site may be required as part of the planning process, if the site lies close to an internationally designated site i.e. Special Conservation Areas (SACs), Special Protection Areas (SPAs) designated under the Habitats Directive ( $92 / 43 / E E C$ ) and RAMSAR sites.
${ }^{\text {d }}$ Notwithstanding the fact that the air quality objectives and limit values do not apply to people in the workplace, such people can be affected to exposure of $\mathrm{PM}_{10}$. However, they are considered to be less sensitive than the general public as a whole because those most sensitive to the effects of air pollution, such as young children are not normally workers. For this reason workers have been included in the medium sensitivity category.
${ }^{e}$ there is no standards that apply to short-term exposure, e.g. one or two hours, but there is still a risk of health impacts, albeit less certain.
2.4.2 The IAQM guidance advises consideration of the risk associated with the nearest receptors to each phase of work.
2.4.3 Where there are multiple receptors in a single location, a worst case representative receptor location is considered and the highest risk applicable is allocated.

### 2.5 Sensitivity of the Area

2.5.1 Tables 3, 4 and 5 show how the sensitivity of the area may be determined for dust soiling, ecosystem impacts and human health respectively. It is noted that distances are to the dust source and so a different area may be affected by trackout than by on-site works.

Table 3: Sensitivity of the Area to Dust Soiling Effects on People and Property

| Receptor <br> Sensitivity | Number of <br> Receptors | Distance from the Source (m) ${ }^{\mathbf{a}}$ |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  | $>\mathbf{< 2 0}$ | <50 | $<\mathbf{1 0 0}$ | <350 |  |
| High | $>100$ | High | High | Medium | Low |
|  | $10-100$ | High | Medium | Low | Low |
|  | $1-10$ | Medium | Low | Low | Low |
| Medium | $>1$ | Medium | Low | Low | Low |
| Low | $>1$ | Low | Low | Low |  |

${ }^{\text {a }}$ For trackout, the distances should be measured from the side of the roads used by construction traffic. Without site specific mitigation, trackout may occur from roads up to 500 m from large sites, 200 m from medium sites and 50 m from small sites, as measured from the site exit.

Table 4: Sensitivity of the Area to Ecological Impacts

| Receptor <br> Sensitivity | Number of <br> Receptors | Distance from the Source $(\mathbf{m})_{\mathbf{a}}$ |  |
| :--- | :--- | :--- | :--- |
|  | $\mathbf{< 2 0}$ | $<\mathbf{5 0}$ |  |
| High | $>100$ | High | High |
| Medium | $10-100$ | High | Medium |
| Low | $1-10$ | Medium | Low |

2.5.2 There are no designated sites of ecological importance that require consideration in this assessment. The ecological assessment is screened out of the assessment for construction dust impacts.

Table 5: Sensitivity of the Area to Human Health Impacts

| Receptor Sensitivity | Annual Mean $\mathrm{PM}_{10}$ concentration $\left(\mu \mathrm{g} / \mathrm{m}^{3}\right)$ | Number of Receptors | Distance from the Source (m) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | <20 | <50 | <100 | <200 | <350 |
| High | >18 | >100 | High | High | High | Medium | Low |
|  |  | 10-100 | High | High | Medium | Low | Low |
|  |  | 1-10 | High | Medium | Low | Low | Low |
|  | 16-18 | >100 | High | High | Medium | Low | Low |
|  |  | 10-100 | High | Medium | Low | Low | Low |
|  |  | 1-10 | High | Medium | Low | Low | Low |
|  | 14-16 | >100 | High | Medium | Low | Low | Low |
|  |  | 10-100 | High | Medium | Low | Low | Low |
|  |  | 1-10 | Medium | Low | Low | Low | Low |
|  | <14 | >100 | Medium | Low | Low | Low | Low |
|  |  | 10-100 | Low | Low | Low | Low | Low |
|  |  | 1-10 | Low | Low | Low | Low | Low |
| Medium | - | $>10$ | High | Medium | Low | Low | Low |
|  | - | 1-10 | Medium | Low | Low | Low | Low |
| Low | - | >1 | Low | Low | Low | Low | Low |

### 2.6 Assessment Criteria and Significance

2.6.1 The evaluation of significance is based on the IAQM, 2014 guidance and professional judgement, taking into account the overall pattern of potential dust risk impact (having established the 'Dust Emission Magnitude' and 'Area Sensitivity'). The dust impact matrices for each construction activity are presented in Tables 6 to 9 and enable a summary of the site dust risk, which is used to determine the site specific mitigation required.

Table 6: Risk of Dust Impacts - Demolition

| Sensitivity of <br> Surrounding Area |  |  |  |
| :--- | :--- | :--- | :--- |
|  | Last Emission Magnitude | Medium | Small |
| High | High Risk | Medium Risk | Medium Risk |
| Medium | High Risk | Medium Risk | Low Risk |
| Low | Medium Risk | Low Risk | Negligible |

Table 7: Risk of Dust Impacts - Earthworks

| Sensitivity of <br> Surrounding Area | Dust Emission Magnitude |  |  |
| :--- | :--- | :--- | :--- |
|  | Large | Medium | Small |
| High | High Risk | Medium Risk | Low Risk |
| Medium | Medium Risk | Medium Risk | Low Risk |
| Low | Low Risk | Low Risk | Negligible |

Table 8: Risk of Dust Impacts - Construction

| Sensitivity of <br> Surrounding Area | Dust Emission Magnitude |  |  |
| :--- | :--- | :--- | :--- |
|  | Large | Medium | Small |
| High | High Risk | Medium Risk | Low Risk |
| Medium | Medium Risk | Medium Risk | Negligible |
| Low | Low Risk | Low Risk | Nisk |

Table 9: Risk of Dust Impacts - Trackout

| Sensitivity of <br> Surrounding Area | Dust Emission Magnitude |  |  |
| :--- | :--- | :--- | :--- |
|  | Large | Medium | Small |
| High | High Risk | Medium Risk | Low Risk |
| Medium | Medium Risk | Low Risk | Negligible |
| Low | Low Risk | Now Risk | Neglible |

## 3 Operation - Local Air Quality - Human Health

### 3.1 Relevant Legislation, Plans, Policies and Background

3.1.1 The assessment considers the relevant air quality legislation and the process of Local Air Quality Management (LAQM). The pollutants relevant to this assessment are nitrogen dioxide $\left(\mathrm{NO}_{2}\right)$ and $\mathrm{PM}_{10}$.
3.1.2 $\quad \mathrm{NO}_{2}$ is a colourless, odourless gas which has been shown to have adverse health effects including causing respiratory irritation in asthmatics. There is believed to be a threshold above which it has an impact. It is formed principally from the oxidation of nitric oxide ( NO ) through the action of ozone in the atmosphere. Combustion in air forms mainly NO and with some $\mathrm{NO}_{2}$ (collectively termed ' $\mathrm{NO}_{x}$ ') from the combination of atmospheric nitrogen and oxygen. $\mathrm{NO}_{x}$ emitted from internal combustion engines as well as other forms of combustion and formed from natural sources such as lightning. $\mathrm{NO}_{\mathrm{x}}$ is a precursor to $\mathrm{PM}_{10}$.
3.1.3 $\mathrm{PM}_{10}$ is the fraction of particulate matter (dust) in the air with an average aerodynamic diameter of less than $10 \mu \mathrm{~m}$. This size range of particulate matter can penetrate deep into the lungs and has been shown to have a range of adverse health effects. These include a causal association with cardiovascular and respiratory illnesses. According to the Air Quality Strategy (AQS) (Defra, 2007), it is not currently possible to discern a threshold concentration below which there are no effects on the whole population's health'. That is to say, scientific research cannot say whether any concentration of $\mathrm{PM}_{10}$ at all does no harm. There is no proven safe threshold. In terms of harm, economically $\mathrm{PM}_{10}$ is costed as being many times as harmful as $\mathrm{NO}_{2}$. $\mathrm{PM}_{10}$ is formed from both manmade and natural sources. Primary $\mathrm{PM}_{10}$ is formed from the incomplete combustion of fuel (e.g. soot from diesel exhausts), sea-salt and wind-blown dust. Secondary $\mathrm{PM}_{10}$ is formed in the atmosphere from other pollutants such as $\mathrm{NO}_{x}$ and sulphur oxides, and in certain circumstances in photochemical smogs. $\mathrm{PM}_{10}$ has a residence time of several days in the atmosphere, so pollution events occur in southern England when polluted air is blown from the continent.

The majority of Scotland's Air Quality Management Areas (AQMAs) have been declared for $\mathrm{NO}_{2}$ concentrations, mostly as a result of road traffic. Where there are significant local sources of $\mathrm{PM}_{10}$ or $\mathrm{SO}_{2}$, there have been AQMAs declared for these pollutants also.
3.1.5 The AQS introduces measures to control exposure to $\mathrm{PM}_{2.5}$ (the fraction of particulate matter with an average aerodynamic diameter less than $2.5 \mu \mathrm{~m}$ ). This is intended to be done at national level, so the control of $\mathrm{PM}_{2.5}$ concentrations has not been incorporated into LAQM, and authorities have no statutory obligation to review and assess against them. The objective value of $12 \mu \mathrm{~g} / \mathrm{m}^{3}$ is designed to deliver a minimum level of protection everywhere.

### 3.2 Methodology

## Introduction

This assessment identifies the potential air quality impacts by predicting the changes in air quality which would result from the combination of background concentrations with the contributions from the roads in the defined study area, including the proposed scheme.
3.2.2 This assessment conforms to the standard practice of environmental impact assessment, whereby the baseline is established, and then the situation with the option in place (Do Something (DS)) is compared with the situation without it (Do Minimum (DM)).
3.2.3 The air quality situation is related to the national emissions inventory, which in turn is affected by year-on-year changes in the composition of, and the emissions from, the national vehicle fleet. The changes in emissions into the future are predicted on behalf of the government. For this reason, air quality for road schemes is normally assessed for a baseline year (in the recent past) and for the opening year with and without the proposed scheme in place.
3.2.4 The impact of the proposed scheme has been assessed using the Design Manual for Roads and Bridges air quality assessment methodology (DMRB) and LAQM TG(09) (Defra, 2009). DMRB allows for either a 'detailed' or 'simple' assessment. For the proposed scheme, a detailed assessment has been carried out, which takes into account diurnal changes in traffic flows using a dispersion model.
3.2.5 Regarding the operational phase of the proposed development, the UK AQS identifies the pollutants associated with road traffic emissions and local air quality as $\mathrm{NO}_{x}, \mathrm{PM}_{10}$, carbon monoxide (CO), 1, 3-butadiene and benzene. Emissions of CO and benzene associated with road traffic are no longer considered to be a significant issue in the UK and are not included within the current version of the DMRB methodology.
3.2.6 Emissions of total $\mathrm{NO}_{x}$ from motor vehicle exhausts comprise of NO and $\mathrm{NO}_{2}$. NO oxidises in the atmosphere to form $\mathrm{NO}_{2}$. Currently, Air Quality Management Areas (AQMAs) designated in the UK attributable to road traffic emissions are associated with high concentrations of $\mathrm{NO}_{2}$ and $\mathrm{PM}_{10}$.
3.2.7 The local air quality assessment focuses on changes in $\mathrm{NO}_{2}$ and $\mathrm{PM}_{10}$ concentrations associated with the proposed scheme.

## Assessment Methodology

3.2.8 Traffic data for the modelling scenarios has been provided by Jacobs' traffic consultants. The base year air quality model uses traffic data and pollution measurements from 2012.
3.2.9 The Local air quality assessment study area or 'affected' road network is defined by qualifying criteria published in DMRB HA207/07 paragraph 3.12 (Highway's Agency et al., 2007), based on changes between the 'without scheme' and 'with scheme' scenarios

- Road alignment will change by 5 m or more.
- Daily traffic flows (2way) will change by $>=1,000$ Annual Average Daily Traffic (AADT).
- Heavy Duty Vehicle (HDV) flows (2way) will change by >=200 AADT.
- Daily average speed will change by $>=10 \mathrm{kph}$.
- Peak hour speed will change by $>=20 \mathrm{kph}$.
3.2.10 EPUK 2010 guidance for significant change stipulates a flow change of $+-5 \%$ is appropriate for traffic in an AQMA.
3.2.11 The qualifying criteria for the regional air quality assessment is outlined in paragraph 3.20, based on changes between the 'without scheme' and 'with scheme' scenarios:
- a change of more than $10 \%$ in AADT; or
- a change of more than $10 \%$ HDVs; or
- a change in daily average speed of more than 20 kph .


## Dispersion Model

The assessment of the potential air quality impacts of the proposed scheme has been undertaken using the ADMS-Roads Atmospheric Dispersion Modelling System (ADMS-Roads).

ADMS-Roads has been developed by Cambridge Environmental Research Consultants Ltd and is a version of an atmospheric modelling system that focuses on road traffic as a source of pollutant emissions. It is based on a Gaussian model of plume dispersion and is known as a new generation model, as it includes complex descriptions of the atmospheric boundary layer taking into account the physical and chemical processes involved in the transport, dispersion, transformation and deposition of pollutants.
3.2.14 The assessment of air quality has been undertaken using ADMS-Roads v3.2 (October 2013). This is a formally validated model widely used both by regulatory authorities and commercially to assist in decisions related to air quality and traffic management, urban planning and public health in many countries around the world. The latest developments in LAQM Technical Guidance (TG)09 and updated national mapped background pollution concentrations have been taken into account.

Predictions of current and future pollutant concentrations arising from vehicle emissions, both with and without the proposed scheme, were made using ADMS-Roads and added to relevant background concentrations. Annual-mean $\mathrm{NO}_{2}$ concentrations have been derived from the modelled road-related annual-mean $\mathrm{NO}_{x}$ concentration using the LAQM " $\mathrm{NO}_{x}$ to $\mathrm{NO}_{2}$ calculator v4.1 (Defra, 2014d). Where appropriate adjustment factors have been applied to modelled the Road contribution $\mathrm{NO}_{\mathrm{x}}$ in accordance with $\mathrm{TG}(09)$.
3.2.16 It should be noted that dispersion models provide an estimate of concentrations arising from input emissions and historical meteorological data. The estimates produced, while appropriately representing the complex factors involved in atmospheric dispersion, are subject to uncertainty. Whilst the predictions provided by the models should not be regarded as definitive statements of
concentrations that would arise in the future, they are the most reasonable, robust and representative estimates available. The estimates are composed of calculations made at a single point on each selected residential property.

## Meteorological Data

The effect of meteorological conditions on dispersion is included within the model. The most significant factors in the dispersion of emitted pollutants are wind speed and direction. The meteorological data site considered to be most representative of conditions across the study area is Aberdeen Airport, Dyce for 2012, which is approximately 4.8 km north-west of the study area.

LAQM TG(09) states that 'In the case of annual mean concentrations, the choice of one year against another usually has only a small effect on modelled concentrations from local sources, and can largely be ignored' and recommends that 'the year of meteorological data (and year of baseline assessment) should not be more than five years old.'

## Vehicle Emissions

The modelling has been undertaken using Defra's 2014 Emission Factor Toolkit (EFT version 6.0.2) (Defra, 2014b) which draws on emissions generated by the European Environment Agency (EEA) COPERT 4 (v10.0) emission calculation tool and includes new $\mathrm{NO}_{x}$ emission factor assumptions for Euro 5 and 6 diesel cars and LGVs.

These emissions are vehicle-weighted averaged emissions for the national vehicle fleet. Emissions factors are defined by year to represent the predicted vehicle fleet, and the range of vehicle types and EURO emissions standards present across the fleet. The modelling system takes into account the emissions produced by Light Duty Vehicles (LDV, less than 3.5 tonnes) and HDVs, travelling at a certain speed along a section of road over an average hour, and predicts the dispersion of these emissions.

The EFT projects to 2030. Therefore the emission factors for the design year (2033) will be set at 2030 and is a conservative approach, using higher emission rates.

## Receptors

The air quality assessment predicts the impacts at locations that could be sensitive to any changes. Such sensitive receptors should be selected where the public is regularly present and likely to be exposed over the averaging period of the objective.

LAQM TG(09) Box 1.4 provides examples of exposure locations and where air quality objectives should/ should not apply.

Sensitive receptors fronting onto affected roads and in areas of relevant exposure have been included in the modelling. Building usage was determined using Ordnance Survey Address Base dataset, and calculations were made at the façades expected to experience, the maximum air quality concentrations. Whilst all of the modelled receptors are presented in the figures, only a subset is reported in the tables. These were selected to enable a description of the representative spatial variation of the maximum impacts of the proposed scheme. The long and short-term objectives apply at the façades of all the properties identified of relevant exposure

For model verification purposes, grid references for relevant local authority diffusion tubes were included within the model setup.

## Long term Pollutant Concentrations

Annual-mean road-related contributions of $\mathrm{NO}_{x}$ and $\mathrm{PM}_{10}$ have been combined with urban background concentrations. Annual-mean $\mathrm{NO}_{2}$ concentrations have been derived from the modelled annual-mean $\mathrm{NO}_{x}$ concentration using the LAQM TG(09) calculator after appropriate adjustments have been applied.

# Short term Pollutant Concentrations 

1 Hour Mean $\mathrm{NO}_{2}$ Objective

Research undertaken in support of LAQM.TG(09) has indicated that the hourly-mean limit value and objective for $\mathrm{NO}_{2}$ is unlikely to be exceeded at a roadside location where the annual-mean $\mathrm{NO}_{2}$ concentration is less than $60 \mu \mathrm{~g} / \mathrm{m}^{3}$. In May 2008, a re-analysis of the relationship between annual and hourly-mean $\mathrm{NO}_{2}$ concentrations was undertaken using data collated between 2003 and 2007 (AEAT, 2008). The conclusions and recommendations of that report are:
'Analysis shows that statistically, on the basis of the dataset available here, the chance of measuring an hourly nitrogen dioxide objective exceedence whilst reporting an annual mean $\mathrm{NO}_{2}$ of less than $60 \mu \mathrm{~g} / \mathrm{m}^{3}$ is very low....It is therefore recommended that local authorities continue to use the threshold of $60 \mu \mathrm{~g} / \mathrm{m}^{3} \mathrm{NO}_{2}$ as the guideline for considering a likely exceedence of the hourly-mean nitrogen dioxide objective.'

Following the above recommendation, the 1 hour mean objective was not considered further as the annual mean $\mathrm{NO}_{2}$ concentration was predicted to be less than $60 \mu \mathrm{~g} / \mathrm{m}^{3}$.

## 24 Hour Mean PM $_{10}$ Objective

The number of exceedences of the 24 hour mean air quality objective for $\mathrm{PM}_{10}$, of $50 \mu \mathrm{~g} / \mathrm{m}^{3}$ may be estimated using the relationship set out in LAQM.TG(09).

Number of Exceedences of Daily Mean of $50 \mu \mathrm{~g} / \mathrm{m}^{3}=-18.5+0.00145^{*}$ (Predicted Annual-mean $\left.\mathrm{PM}_{10}\right)^{3}+206 /\left(\right.$ Predicted Annual-mean $\mathrm{PM}_{10}$ Concentration).

This relationship suggests that the 24 hour mean air quality objective for $\mathrm{PM}_{10}$ is likely to be met, if the predicted annual-mean $\mathrm{PM}_{10}$ concentration is $22.4 \mu \mathrm{~g} / \mathrm{m}^{3}$ or less, based on the Scottish AQO, which allows 7 exceedences per year. The Air Quality Strategy Volume 2 (Defra, 2007) evidence base states, that an annual-mean $\mathrm{PM}_{10}$ concentration of $22.4 \mu \mathrm{~g} / \mathrm{m}^{3}$ is approximately equivalent to the 24 hour mean air quality objectives.

The $\mathrm{PM}_{10} 24$ hour mean air quality objectives is not considered further as the annual-mean $\mathrm{PM}_{10}$ concentration was predicted to be less than $22.4 \mu \mathrm{~g} / \mathrm{m}^{3}$.

## Fugitive $\mathbf{P M}_{10}$ Emissions

Fugitive emissions of particulates from road transport include brake dust, tyre wear and resuspended road dust. Improvements in vehicle technologies are reducing $\mathrm{PM}_{10}$ exhaust emissions. Therefore, the relative importance of fugitive $\mathrm{PM}_{10}$ emissions is increasing. Current emission factors for particulate matter include brake dust and tyre wear. A value for re-suspended brake dust and tyre wear is provided in the background maps published by Defra.

## Background Concentrations

'Background' air quality is a concept used to enable assessments of the impacts of particular emissions sources, without the need for all sources in the area to be considered explicitly. For the purposes of this assessment, the background air quality is the boundary condition of the road emissions pollution model. The road derived pollution is added to the background pollution concentrations.

Defra provides empirically-derived national background maps, which provide estimates of background pollutant concentrations on a $1 \mathrm{~km} \times 1 \mathrm{~km}$ grid square resolution. This model relates the National Atmospheric Emissions Inventory to the national network of pollution measurements.

Ricardo-AEA on behalf of the Scottish Government and as part of the Scottish Air Quality Database (SAQD) project provides mapped concentrations on a $1 \mathrm{~km} \times 1 \mathrm{~km}$ square grid basis (Ricardo-AEA, 2014). These annual mean pollutant maps combine Scottish pollutant measurement data with the
spatially disaggregated emissions information from the UK's National Atmospheric Emissions Inventory (NAEI) to provide estimated pollutant concentrations for the whole of Scotland.

There are now sufficient monitoring sites in the SAQD for mapping to be undertaken for $\mathrm{NO}_{\mathrm{x}}, \mathrm{NO}_{2}$ and $\mathrm{PM}_{10}$ for Scotland using Scottish only monitoring data. The UK Pollution Climate Mapping (PCM) methodology has been applied to provide pollutant maps of Scotland for the Scottish Government for 2011 using measurements exclusively from Scottish air quality monitoring sites and Scottish meteorology (from RAF Leuchars) to create the Scotland-specific model.

The background map data for the Base Year were compared against the available representative background monitoring data, an $\mathrm{NO}_{2}$ diffusion tube location close the scheme, and the mapping showed good agreement with the measured data.

To avoid double counting of emissions during the modelling process. Background concentrations have been adjusted in accordance with LAQM TG(09) and Defra guidance (Defra, 2014a). The $\mathrm{NO}_{2}$ background maps are then adjusted in proportion to the reductions in $\mathrm{NO}_{x}$ as a result of removing the specific source sectors. The latest version (v4.0) of the $\mathrm{NO}_{2}$ Adjustment for $\mathrm{NO}_{\mathrm{x}}$ Sector Removal has been used (Defra, 2014c).

The 'in-grid square' contribution from trunk ' $A$ ' road, primary ' $A$ ' road and minor road sectors have been removed from the background annual mean $\mathrm{NO}_{x}$ and $\mathrm{PM}_{10}$ concentration estimates, and background annual mean $\mathrm{NO}_{2}$ estimates have been corrected. This process has been undertaken to avoid double counting of road traffic emissions that are represented in the air quality model. The predicted background pollutant concentrations in the study area are significantly below the AQOs.

## Prediction of Environmental Concentrations including Adjustment for Long Term Trends in $\mathrm{NO}_{\mathrm{x}}$ and $\mathrm{NO}_{2}$

The model is used to predict the road traffic contributions to $\mathrm{NO}_{x}$ and $\mathrm{PM}_{10}$ concentrations at specified sensitive receptors. Adjustments are applied to the model predictions based on a comparison against measured air quality concentrations, in a process known as model verification and adjustment. The modelled road contributions of $\mathrm{NO}_{\mathrm{x}}, \mathrm{NO}_{2}$ and $\mathrm{PM}_{10}$ were adjusted to correct them against measured road components derived from monitoring data, following an adjustment method set out in LAQM TG(09). $\mathrm{NO}_{x}$ and $\mathrm{NO}_{2}$ concentrations were calculated using the $\mathrm{NO}_{\mathrm{x}}$ from $\mathrm{NO}_{2}$ calculator (version 4.1) available on the Defra website. A total environmental concentration is then produced by addition of the adjusted road contribution to the background concentration. Further detail on the verification process is provided in the model verification, verification methodology and verification summary sections of this appendix.

As noted in Chapter 13 (Air Quality), $\mathrm{NO}_{2}$ concentrations have stabilised with little to no reduction between 2004 and 2012. As a result of this, there is a gap between current projected vehicle emission reductions and projections on the annual rate of improvements in ambient air quality, which is built into the vehicle emission factors, the projected background maps and the $\mathrm{NO}_{\mathrm{x}}$ to $\mathrm{NO}_{2}$ calculator.

The Highways Agency (HA) has developed the Gap Analysis methodology to adjust model predictions based on the method in LAQM TG(09) to account for the long term $\mathrm{NO}_{\mathrm{x}}$ and $\mathrm{NO}_{2}$ profiles. This uses the relationship between the Base year vehicle emission rates and the Opening year vehicle emission rates, and the measured trends in roadside air quality concentrations to uplift opening year predicted concentrations to align them better with the long term trends of $\mathrm{NO}_{\mathrm{x}}$ and $\mathrm{NO}_{2}$.

The current trends in air quality are based on measurements of emissions from the existing vehicle fleet. New vehicles would need to comply with the more stringent Euro 6/VI emissions standards from September 2014 onwards. Vehicles complying with the Euro 6/VI emissions standard have not been on the road network long enough for their performance to be present in the long term air quality monitoring trends. If the Euro $6 / \mathrm{VI}$ fleet emissions perform as predicted, then this should lead to substantial reductions in predicted future roadside air quality concentrations.

However, because the likely effects of Euro 6/VI vehicles on air quality are yet to be fully understood, the HA's advice is that a long term trend based on the existing fleet should be used (i.e. doesn't
capture the Euro 6/VI benefits) into the future. The Euro 6/VI penetration in the Scottish fleet mix is approximately $50 \%$ for LDVs and $75 \%$ for HGVs in the opening year based on the EFT v6.0.2 for an urban road.
3.2.46 The Gap Analysis methodology (IAN 170/12v1) (Highways Agency, 2012) used in this assessment does not incorporate the Euro 6/VI improvements and as such, modelled predictions would be higher than those predicted by the EFT alone. This is a conservative approach.
3.2.47 The Gap Analysis method is not applied to $\mathrm{PM}_{10}$ predictions, and the results based on the LAQM $\mathrm{TG}(09)$ method are the final predicted concentrations throughout the assessment.
3.2.48 When forming a judgement on the significance of the effects, both the LAQM TG(09) results and the results adjusted using the Gap Analysis method (to reflect Long Term Trends (LTT) should be provided. Predictions for $\mathrm{NO}_{2}$ using the LAQM TG(09) method, which are lower, can also be used in the final assessment to provide context for the uncertainty in model predictions. Full results including both LAQM TG(09) and LTT results are presented in Section 2.4, only the LTT results are presented in the ES chapter.

The DMRB regional air quality assessment methodology is completed for the study area. This is an estimate of the change in total emissions of $\mathrm{PM}_{10}, \mathrm{NO}_{x}$, carbon dioxide $\left(\mathrm{CO}_{2}\right)$ and hydrocarbons $(\mathrm{HC})$ per year from all vehicles on the affected roads. The predicted concentrations have been calculated using the EFT v6.0.2 tool kit and following the methodology outlined within DMRB HA 207/07 (Highways Agency et al, 2007).

## Model Output and Significance Criteria

3.2.50 The model results are used to assess whether there any significant effects as a result of the proposed scheme.
3.2.51 The HA's approach to evaluating significant air quality effects, is set out in two Interim Advice Notes (IANs) (Highways Agency et al., 2013a; 2013b) published in June 2013. These IANs are intended to reflect the change in national planning policy associated with the National Planning Policy Framework 2012 (NPPF). Scotland's more recent National Planning Framework 3 (NPF3), implemented in January 2014, is not considered to be dis-similar in relation to the requirements for air quality.
3.2.52 Table 10 provides an extract of the criteria provided for describing the change in magnitude of pollutant concentrations as a result of the operation of the proposed scheme.

Table 10: Descriptors for changes in Magnitude of Predicted Pollutant Concentration

| Magnitude of change in <br> Concentration | Value of Change in Annual Average <br> $\mathbf{N O}_{\mathbf{2}}$ | Value of Change in Annual Average PM $\mathbf{1 0}_{\mathbf{1 0}}$ |
| :--- | :--- | :--- |
| Large | $>10 \%$ of $\mathrm{AQO}\left(>4.0 \mu \mathrm{gm}^{-3}\right)$ | $\left(>1.8 \mu \mathrm{gm}^{-3}\right)$ |
| Small | $5-10 \%$ of $\mathrm{AQO}\left(>2.0-4.0 \mu \mathrm{gm}^{-3}\right)$ | $5-10 \%$ of $\mathrm{AQO}\left(>0.9-1.8 \mu \mathrm{gm}^{-3}\right)$ |
| Medium | $1-5 \%$ of $\mathrm{AQO}\left(>0.4-2.0 \mu \mathrm{gm}^{-3}\right)$ | $1-5 \%$ of $\mathrm{AQO}\left(>0.18-0.9 \mu \mathrm{gm}^{-3}\right)$ |
| Imperceptible | $<1 \%$ of AQO $\left(<0.4 \mu \mathrm{gm}^{-3}\right)$ | $<1 \%$ of AQO $\left(<0.18 \mu \mathrm{gm}^{-3}\right)$ |

Source: Highways Agency et al. (2013a) Table 2.1: Magnitude of Change Criteria p7.

When describing the air quality impact at a sensitive receptor, the change in magnitude of the concentration should be considered in the context of the absolute concentration at the sensitive receptor. The change is focussed on only those receptors exceeding the air quality thresholds in either the 'DM' scenario and / or 'DS' scenario.
3.2.54 The significance of impacts for the proposed scheme as a whole is approached by banded property numbers and magnitude of change (as illustrated in Table 13.3 of the ES). The IAN 174/13 (Highways Agency et al, 2014a) guidance advocates that 'where the results reside between the lower and upper guideline bands for any of the magnitude criteria, then the scheme effects could be significant and a judgement is required taking into account all six categories. This judgement is
based on the technical knowledge and experience of the air quality professional.' To assist this judgement, consideration should be given to (but not limited to) the following:

Scheme effects are more likely to be significant where:

- There are no/few receptors with any improvements.
- $\mathrm{PM}_{10}$ annual averages are also affected by small, medium or large deteriorations.
- Short term exceedences may be caused or worsened by the Scheme for either $\mathrm{NO}_{2}$ or $\mathrm{PM}_{10}$.

Scheme effects are more likely not to be significant where:

- There are receptors with small, medium or large improvements.
- $\mathrm{PM}_{10}$ annual averages are not affected by small, medium or large deteriorations.
- Short term exceedences are not caused or worsened by the Scheme for either $\mathrm{NO}_{2}$ or $\mathrm{PM}_{10}$.

The upper and lower bands presented are guidelines and not absolutes. On occasions when the number of properties affected is above the upper guideline band, then consideration should be given to all the evidence that may support or detract from a conclusion of a significant impact when coming to a concluding view. The further above the upper guideline band the more likely it is that local air quality impacts would be significant.

## Compliance Risk

The proposed scheme study area contains a number of roads which form part of Defra's assessment for the European Commission on the status of air quality in the UK. The Compliance Risk Road Network (CRRN) relevant to this study area is presented in Figure 13.1 of the ES. The modelling used for the local air quality assessment is combined with Defra's Pollution Climate Mapping (PCM) model dataset to determine whether the proposed scheme may effect compliance with the EU directive on ambient air quality.

The results in Table 11 are based on the opening year scenario in 2018, being the A90 with a speed limit of 40 mph and the A96 with a speed limit of 50 mph . The PCM concentrations for 2033 are forecasted to reduce from 2018. Consequently, the effect of the proposed scheme in the opening year captures the maximum risk for this assessment.

The values reported by Defra based on the PCM model are all below the EU limit values for the CRRN in 2018, and the impact of the proposed scheme would not lead to increases in concentrations sufficient to alter these conclusions.

The PCM model dataset used in this assessment is the 2009 validated dataset, as issued by Defra. The dataset is currently being updated, but this was unavailable at the time of assessment.

The latest Defra PCM results are projected from a base year of 2011 (issued July 2014 http://ukair.defra.gov.uk/assets/documents/no2ten/140708_N02_projection_tables_FINAL.pdf),(Defra 2014e), but these are not publicly available. However, zonal level information has been published. This indicates that the maximum concentrations in the zone (North East Scotland) are comparable with those used in this assessment and that the predicted year of compliance is still 2020. Therefore, it is concluded that the overall risk rating for compliance with the EU Air Quality Directive is Iow.

A90/A96 Haudagain Improvement
DMRB Stage 3 Environmental Statement
Appendix A13.1: Air Quality Methodology
Table 11: Compliance Risk Assessment Analysis Results


### 3.3 Dispersion Model Set-up and Model Verification

3.3.1 The ADMS-Roads model has been developed by Cambridge Environmental Research Consultants Ltd (CERC) and is a version of an atmospheric modelling system that focuses on road traffic as a source of pollutant emissions. Version 3.2.4 has been used for this study.
3.3.2 The modelling system takes into account the emissions produced by light duty and HDVs travelling at a certain speed along a section of road over an average hour and predicts the dispersion of these emissions using appropriate historical meteorological data. The effect of meteorological conditions on dispersion is included within the model. The most significant factors are wind speed and direction and the boundary layer height which is the calculated mixing depth of the troposphere.

## Model Scenarios and Parameters

Modelling has been undertaken for the base year (2012) for verification purposes and the first year in which the proposed scheme is expected to be fully operational (2018), with and without the proposed scheme. These are termed the 'Do-Something' and 'Do-Minimum' scenarios respectively.

## Road Links

3.3.4 ADMS-Roads requires lengths of road of equal width (and height if specified as a canyon) to be input into the model. Roads can be split into several 'links' to allow for bends and curves in the road layout. Road alignment and width were determined using the Ordnance Survey Mastermap 1:1250 scale data.

## Traffic Emissions

The traffic flow data for the model was prepared by Jacobs. Emission rates representing links in the traffic model were calculated based on the traffic flow, HDV composition, speed and road type with the UK EFT v6.0.2.

## Meteorological Data

3.3.6 In order to assess the impact of the development upon local air quality using a dispersion model, it is important to use representative meteorological data. In simple terms, meteorology is the next most significant factor in determining ambient pollutant levels, after emissions.
3.3.7 Meteorological data for the dispersion modelling assessment was taken from Aberdeen Airport, Dyce, which is considered to be the most representative source for the study area. The windrose for 2012 is shown in Diagram 1. The study area is on the outskirts of an urban area, and is densely populated. Aberdeen airport is regarded as less densely built. A meteorological data site surface roughness of 0.3 m was selected and a dispersion site surface roughness length of 1.0 m was used in this assessment.

Diagram 1: Meteorological Windrose at Aberdeen Airport, Dyce - 2012


## Monin Obukhov Length

3.3.8 ADMS models use the Monin Obukhov length as a parameter to describe the turbulent length scale which is dependent on meteorological conditions. Given the nature of the majority of the study area tends to be developed, a Monin Obukhov length of 30 m was set for the study area which is appropriate for cities and large towns.

## Terrain Data

3.3.9 The terrain has an effect on the flow field in the air above it. It is recommended that the effect of terrain is incorporated into ADMS-Roads where gradients of greater than $10 \%$ exist within the modelled area, or a short way outside of it. Therefore, it has not been necessary to include the effect of terrain in the assessment.

## Street Canyons

3.3.10 'Street canyons' in air pollution science are roads with continuous high buildings on either side. This arrangement tends to impede the dispersion of pollutants from the road, particularly when the wind is at right angles to it, since a vortex is created in the 'street canyon', retaining the pollution.
3.3.11 No road links were identified as being 'street canyons'. This feature was therefore not included within the modelling assessment.

## Model Verification

3.3.13 For the verification and adjustment of $\mathrm{NO}_{x}$ and $\mathrm{NO}_{2}$ concentrations, a representative adjustment factor of all locations modelled was applied and in accordance with LAQM TG(09). Appropriate verification sites selected for this assessment are presented on Figure 13.1.

Modelled results may not compare well with monitoring data for a number of reasons. Model verification investigates the discrepancies between modelled and measured concentrations, which
can arise due to the presence of inaccuracies and/or uncertainties in model input data, modelling and monitoring data assumptions. Examples of potential causes of such discrepancy are:

- estimates of background pollutant concentrations;
- meteorological data uncertainties;
- traffic data uncertainties;
- model input parameters, such as 'roughness length'; and
- overall limitations of the dispersion model.
3.3.15 Sensitive receptors can have different surrounding environments which influence the concentrations of pollutants. The sensitive receptors in this assessment have been adjusted using a single verification zone.


## Model Precision

Residual uncertainty may remain after systematic error or 'model accuracy' has been accounted for in the final predictions. Residual uncertainty may be considered synonymous with the 'precision' of the model predictions, i.e. how wide the scatter or residual variability of the predicted values compare with the monitored true value, once systematic error has been allowed for. The quantification of model precision provides an estimate of how the final predictions may deviate from true (monitored) values at the same location over the same period.

## Model Performance

3.3.17 An evaluation of model performance has been undertaken to establish confidence in model results. LAQM.TG (09) identifies a number of statistical procedures that are appropriate to evaluate model performance and assess uncertainty. The statistical parameters used in this assessment are:

- Root mean square error (RMSE).
- Fractional bias (FB).
- Correlation coefficient (CC).
3.3.18 A brief explanation of each statistic is provided in Table 12 and further details can be found in LAQM.TG(09) Box A3.7.

Table 12: Model Performance Statistics

| Statistical Parameter | Comments | Ideal Value |
| :--- | :--- | :--- |
| Root Mean Squared <br> Error <br> (RMSE) | RMSE is used to define the average error or uncertainty of the model. <br> The units of RMSE are the same as the quantities compared. <br> If the RMSE values are higher than $25 \%$ of the objective being assessed, <br> it is recommended that the model inputs and verification should be <br> revisited in order to make improvements. <br> For example, if the model predictions are for the annual mean $\mathrm{NO}_{2}$ <br> objective of $40 \mu \mathrm{~g} / \mathrm{m}^{3}$, if an RMSE of $10 \mu \mathrm{~g} / \mathrm{m}^{3}$ or above is determined for <br> a model it is advised to revisit the model parameters and model <br> verification. <br> Ideally an RMSE within $10 \%$ of the air quality objective would be derived, <br> which equates to $4 \mu \mathrm{~g} / \mathrm{m}^{3}$ for the annual mean NO objective. | 0.01 |
| Fractional Bias | FB is used to identify if the model shows a systematic tendency to over <br> or under predict. <br> FB values vary between +2 and -2 and have an ideal value of zero. <br> (FB) | Negative values suggest a model over-prediction and positive values <br> suggest a model under-prediction. |
| CC is used to measure the linear relationship between predicted and <br> observed data. A value of zero means no relationship and a value of 1 <br> means absolute relationship. | 0.00 |  |
| Correlation Coefficient | This statistic can be particularly useful when comparing a large number <br> of model and observed data points. | 1.00 |

3.3.19 These parameters estimate how the model results agree or diverge from the observations. These calculations have been carried out prior to, and after adjustment and provide information on the improvement of the model predictions as a result of the application of the verification adjustment factors.

The verification process compares modelled pollutant concentrations against corresponding monitoring data to determine how well the air quality model has performed. An adjustment is applied to the modelled results depending on the outcome of the verification process.
3.3.21 The acceptable limits of model verification performance are set out in LAQM TG(09) (Defra, 2009).
3.3.22 These calculations have been carried out prior to, and after adjustment and provide information on the improvement of the model predictions as a result of the application of the verification adjustment factors.

## Air Quality Monitoring Data

The air quality monitoring data collected as part of this assessment as detailed in Chapter 13 (Air Quality) was reviewed to determine the suitability of each of the monitoring locations for inclusion in the model verification process. The criteria used to determine the suitability of the monitoring data for inclusion into the verification process are outlined below:

- monitoring location required to be on roads of similar nature to those where modelled receptors are located; and
- monitoring data capture in 2012 required to be $>=90 \%$.


## $\underline{\text { Verification Methodology }-\mathrm{NO}_{2}} / \mathrm{NO}_{2}$

The verification method followed the process detailed in LAQM TG(09). An initial comparison of the modelled versus monitored results indicated that the model tended to under-predict against the monitored concentrations. Additionally, there was a high degree of uncertainty or scatter in the model predictions. Model verification adjustment therefore, focussed on reducing the underprediction and uncertainty associated with the modelled results.
3.3.25 The first stage of verification was undertaken by comparing the modelled versus monitored Road $\mathrm{NO}_{\mathrm{x}}$. Road $\mathrm{NO}_{\mathrm{x}}$ measured at the diffusion tubes were calculated using the latest Defra $\mathrm{NO}_{\mathrm{x}}$ to $\mathrm{NO}_{2}$ calculator, as diffusion tubes only measure $\mathrm{NO}_{2}$ and do not directly measure $\mathrm{NO}_{x}$.
3.3.26 Once the modelled Road $\mathrm{NO}_{x}$ component had been adjusted, this value was used in the Defra $\mathrm{NO}_{x}$ to $\mathrm{NO}_{2}$ calculator, and the calculated Road $\mathrm{NO}_{2}$ component was adjusted following comparison with the monitored Road $\mathrm{NO}_{2}$.

Verification Summary - $\mathrm{NO}_{\underline{2}} \underline{N O}_{\underline{2}}$
A review was undertaken of the modelled versus monitoring performance across the whole study area. In total 4 sites were used in the model verification process (as shown on Figure 13.1 and presented in Table 13.4 of the air quality chapter). Table 13 provides the justification for the site exclusion from the verification process.

Table 13: Nitrogen Dioxide Measurement Sites within the Assessment Area

| Tube ID | Tube Location | Exclusion from Verification Process |
| :--- | :--- | :--- |
| ACC_1 | Bucksburn Primary School, Inverurie Road | Inconsistent with nearby site ACC_24. ACC_24 is <br> retained and is a façade location and higher <br> concentration. |
| ACC_2 | 885 Gt Northern Rd | Included |
| ACC_3 | 549 N Anderson Dr | Data capture <90\%; measures lower concentrations <br> than other sites |
| ACC_23 | 785 Gt Northern Rd | Included |
| ACC_24 | 40 Auchmill Rd | Included |
| ACC_39 | 819 Gt Northern Rd | Data capture <90\% |
| ACC_40 | 852 Fullerton Ct (facade) | Included |
| ACC_41 | 852 Fullerton Ct (roadside) | Inconsistent with AAC_40. Site ACC_40 is retained <br> and is a façade location and higher concentration |

Scatter plots showing the unadjusted and adjusted $\mathrm{Rd} \mathrm{NO}_{x}$, and Total $\mathrm{NO}_{2}$ following adjustment are presented in Graphs 1, 2 and 3, respectively.

## Graph 1 - Unadjusted Modelled $\mathrm{NO}_{\mathrm{x}}$ Road Contribution ( $\mu \mathrm{g} . \mathrm{m}^{-3}$ )



## Graph 2 - Adjusted Modelled NOx Road Contribution ( $\mu \mathrm{g} \cdot \mathrm{m}^{-3}$ )



Graph 3 - Modelled $\mathrm{NO}_{2}$ Total ( $\mu \mathrm{g} \cdot \mathrm{m}^{-3}$ )

3.3.29 The summary results and model performance statistics defined in LAQM.TG(09) are provided in Table 14.

Table 14: Verification Zone Model Performance Statistics - $\mathbf{N O}_{\mathbf{2}}$

| Parameter | No adjustment | With adjustment |
| :--- | :--- | :--- |
| No. of monitoring sites | 4 | 4 |


| Parameter | No adjustment | With adjustment |
| :--- | :--- | :--- |
| $\mathrm{NO}_{x}$ road adjustment factor | - | 1.543 |
| $\mathrm{NO}_{2}$ road adjustment factor | - | 0.995 |
| RMSE (Root Mean Square Error) | 9.2 | 5.2 |
| FB (Fractional Bias) | 0.2 | 0.0 |
| CC (Correlation Coefficient) | 0.24 | 0.23 |
| No. sites within $+/-25 \%$ | 3 | 4 |

The statistics support the methodology adopted. The statistics show that the RMSE and FB are improved when model adjustment is applied, when compared to the RMSE and FB for results unadjusted across the whole study area.

In the absence of $\mathrm{PM}_{10}$ monitoring data for model verification, the $\mathrm{NO}_{\mathrm{x}}$ road adjustment has also been applied to the modelled $\mathrm{PM}_{10}$ road contributions, following guidance in LAQM TG(09).

### 3.4 Local Air Quality - Specific Receptor Modelled Results

Table 15: Modelled and Adjusted $\mathrm{NO}_{2}$ Results at all Receptors

| Rec_ID | Easting | Northing | Base <br> Adj <br> RD <br> $\mathrm{NO}_{x}$ | 2012 <br> B'grd $\mathrm{NO}_{\mathrm{x}}$ | 2012 <br> B'grd $\mathrm{NO}_{2}$ | Base $\mathrm{NO}_{2}$ Total | LTT <br> Adj <br> RD <br> $\mathrm{NO}_{x}$ | 2018 <br> B'grd <br> $\mathrm{NO}_{\mathrm{x}}$ | 2018 <br> B'grd <br> $\mathrm{NO}_{2}$ | Projected <br> $\mathrm{NO}_{2}$ <br> Total | DM <br> Adj <br> RD <br> $\mathrm{NO}_{x}$ | 2018 <br> B'grd <br> $\mathrm{NO}_{x}$ | 2018 <br> B'grd <br> $\mathrm{NO}_{2}$ | DM Tot <br> $\mathrm{NO}_{2}$ <br> 2018 <br> (LAQM) | DS <br> Adj <br> RD <br> $\mathrm{NO}_{x}$ | DS Tot <br> $\mathrm{NO}_{2}$ <br> 2018 <br> (LAQM) | LTT <br> DM <br> $\mathrm{NO}_{2}$ <br> Adj <br> 2018 | LTT <br> DS <br> $\mathrm{NO}_{2}$ <br> Adj <br> 2018 | Chng <br> LTT <br> Adj <br> (DS- <br> DM) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 391239 | 808907 | 6.6 | 23.5 | 17.0 | 20.3 | 4.3 | 19.9 | 14.7 | 16.9 | 3.5 | 19.9 | 14.7 | 16.5 | 6.5 | 18.0 | 19.0 | 20.7 | 1.7 |
| 2 | 391422 | 808986 | 28.6 | 23.5 | 17.0 | 30.5 | 18.0 | 19.9 | 14.7 | 23.6 | 13.7 | 19.9 | 14.7 | 21.6 | 13.1 | 21.3 | 26.7 | 26.4 | -0.4 |
| 3 | 390986 | 808813 | 2.5 | 20.2 | 15.0 | 16.2 | 1.6 | 17.0 | 12.8 | 13.6 | 1.6 | 17.0 | 12.8 | 13.6 | 2.4 | 14.0 | 15.5 | 16.0 | 0.5 |
| 4 | 391364 | 809156 | 47.7 | 19.6 | 14.5 | 36.0 | 29.9 | 16.4 | 12.4 | 26.8 | 24.2 | 16.4 | 12.4 | 24.2 | 21.0 | 22.7 | 31.1 | 29.2 | -1.9 |
| 5 | 391163 | 809153 | 42.0 | 19.6 | 14.5 | 33.7 | 25.6 | 16.4 | 12.4 | 24.9 | 18.6 | 16.4 | 12.4 | 21.6 | 20.2 | 22.4 | 28.0 | 29.0 | 1.0 |
| 6 | 391388 | 808909 | 19.0 | 23.5 | 17.0 | 26.2 | 12.3 | 19.9 | 14.7 | 20.9 | 9.4 | 19.9 | 14.7 | 19.5 | 12.7 | 21.1 | 23.4 | 25.3 | 1.9 |
| 7 | 391102 | 808826 | 4.5 | 23.5 | 17.0 | 19.3 | 3.0 | 19.9 | 14.7 | 16.3 | 2.9 | 19.9 | 14.7 | 16.2 | 3.2 | 16.4 | 18.4 | 18.6 | 0.2 |
| 8 | 391367 | 808971 | 35.6 | 23.5 | 17.0 | 33.4 | 22.9 | 19.9 | 14.7 | 25.9 | 16.7 | 19.9 | 14.7 | 23.0 | 15.5 | 22.4 | 28.4 | 27.7 | -0.7 |
| 9 | 391421 | 808904 | 32.1 | 23.5 | 17.0 | 32.0 | 20.5 | 19.9 | 14.7 | 24.8 | 14.9 | 19.9 | 14.7 | 22.1 | 19.4 | 24.3 | 27.3 | 30.0 | 2.7 |
| 10 | 391299 | 809135 | 103.8 | 19.6 | 14.5 | 55.1 | 65.5 | 16.4 | 12.4 | 41.1 | 51.7 | 16.4 | 12.4 | 35.9 | 36.9 | 29.8 | 46.1 | 38.3 | -7.8 |
| 11 | 391138 | 808956 | 5.6 | 23.5 | 17.0 | 19.8 | 3.6 | 19.9 | 14.7 | 16.6 | 2.9 | 19.9 | 14.7 | 16.2 | 6.7 | 18.1 | 18.5 | 20.7 | 2.2 |
| 12 | 391556 | 808796 | 20.6 | 23.5 | 17.0 | 26.9 | 12.5 | 19.9 | 14.7 | 21.0 | 9.7 | 19.9 | 14.7 | 19.6 | 9.4 | 19.5 | 24.1 | 23.9 | -0.1 |
| 13 | 391689 | 809105 | 18.3 | 19.6 | 14.5 | 23.5 | 10.9 | 16.4 | 12.4 | 17.9 | 8.6 | 16.4 | 12.4 | 16.8 | 9.1 | 17.0 | 21.1 | 21.4 | 0.3 |
| 14 | 391722 | 809076 | 30.9 | 19.6 | 14.5 | 29.1 | 18.5 | 16.4 | 12.4 | 21.6 | 13.5 | 16.4 | 12.4 | 19.2 | 14.8 | 19.8 | 24.8 | 25.6 | 0.8 |
| 15 | 391048 | 809181 | 47.6 | 19.6 | 14.5 | 36.0 | 29.1 | 16.4 | 12.4 | 26.4 | 22.7 | 16.4 | 12.4 | 23.5 | 30.6 | 27.1 | 30.7 | 35.4 | 4.7 |
| 16 | 390851 | 809415 | 25.6 | 22.9 | 16.6 | 28.8 | 17.1 | 19.1 | 14.2 | 22.6 | 13.6 | 19.1 | 14.2 | 20.9 | 13.7 | 21.0 | 25.5 | 25.6 | 0.1 |
| 17 | 391052 | 808853 | 4.6 | 23.5 | 17.0 | 19.4 | 3.2 | 19.9 | 14.7 | 16.4 | 3.2 | 19.9 | 14.7 | 16.4 | 3.8 | 16.7 | 18.6 | 18.9 | 0.3 |
| 18 | 390884 | 809379 | 27.6 | 22.9 | 16.6 | 29.6 | 18.4 | 19.1 | 14.2 | 23.3 | 15.2 | 19.1 | 14.2 | 21.7 | 15.4 | 21.8 | 26.4 | 26.5 | 0.1 |
| 19 | 389776 | 809664 | 18.2 | 19.8 | 14.7 | 23.6 | 11.6 | 16.6 | 12.6 | 18.4 | 8.5 | 16.6 | 12.6 | 16.9 | 8.1 | 16.7 | 20.8 | 20.5 | -0.2 |
| 20 | 389752 | 809576 | 41.0 | 19.8 | 14.7 | 33.5 | 25.0 | 16.6 | 12.6 | 24.8 | 20.1 | 16.6 | 12.6 | 22.5 | 20.0 | 22.5 | 29.1 | 29.1 | 0.0 |
| 21 | 389741 | 809606 | 58.5 | 19.8 | 14.7 | 40.3 | 35.3 | 16.6 | 12.6 | 29.4 | 26.9 | 16.6 | 12.6 | 25.7 | 26.7 | 25.6 | 33.8 | 33.6 | -0.1 |
| 22 | 390202 | 809515 | 53.4 | 22.9 | 16.6 | 40.1 | 32.4 | 19.1 | 14.2 | 29.6 | 27.5 | 19.1 | 14.2 | 27.4 | 27.2 | 27.3 | 35.6 | 35.4 | -0.1 |
| 23 | 390599 | 809259 | 40.2 | 22.9 | 16.6 | 34.9 | 23.9 | 19.1 | 14.2 | 25.8 | 19.5 | 19.1 | 14.2 | 23.8 | 19.9 | 24.0 | 30.8 | 31.1 | 0.3 |

A90/A96 Haudagain Improvement
DMRB Stage 3 Environmental Statement
Appendix A13.1: Air Quality Methodology

| Rec_ID | Easting | Northing | Base <br> Adj <br> RD <br> $\mathrm{NO}_{x}$ | 2012 <br> B'grd $\mathrm{NO}_{x}$ | 2012 <br> B'grd <br> $\mathrm{NO}_{2}$ | Base $\mathrm{NO}_{2}$ Total | LTT <br> Adj <br> RD <br> $\mathrm{NO}_{x}$ | 2018 <br> B'grd <br> $\mathrm{NO}_{\mathrm{x}}$ | 2018 <br> B'grd $\mathrm{NO}_{2}$ | Projected <br> $\mathrm{NO}_{2}$ <br> Total | DM <br> Adj <br> RD <br> $\mathrm{NO}_{x}$ | 2018 <br> B'grd $\mathrm{NO}_{x}$ | 2018 <br> B'grd $\mathrm{NO}_{2}$ | DM Tot <br> $\mathrm{NO}_{2}$ <br> 2018 <br> (LAQM) | DS <br> Adj <br> RD <br> $\mathrm{NO}_{x}$ | DS Tot <br> $\mathrm{NO}_{2}$ <br> 2018 <br> (LAQM) | LTT <br> DM <br> $\mathrm{NO}_{2}$ <br> Adj <br> 2018 | LTT <br> DS <br> $\mathrm{NO}_{2}$ <br> Adj <br> 2018 | Chng <br> LTT <br> Adj <br> (DS- <br> DM) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 24 | 389508 | 809627 | 36.9 | 19.8 | 14.7 | 31.8 | 22.1 | 16.6 | 12.6 | 23.5 | 17.0 | 16.6 | 12.6 | 21.1 | 17.0 | 21.0 | 27.4 | 27.2 | -0.1 |
| 25 | 389830 | 809635 | 29.3 | 19.8 | 14.7 | 28.6 | 18.3 | 16.6 | 12.6 | 21.7 | 14.6 | 16.6 | 12.6 | 19.9 | 13.9 | 19.6 | 25.1 | 24.7 | -0.4 |
| 26 | 389904 | 809600 | 49.5 | 19.8 | 14.7 | 36.9 | 29.9 | 16.6 | 12.6 | 27.0 | 25.7 | 16.6 | 12.6 | 25.1 | 25.3 | 24.9 | 32.9 | 32.6 | -0.3 |
| 27 | 389737 | 809745 | 11.2 | 19.8 | 14.7 | 20.3 | 7.3 | 16.6 | 12.6 | 16.3 | 5.3 | 16.6 | 12.6 | 15.3 | 5.1 | 15.2 | 18.3 | 18.1 | -0.1 |
| 28 | 389911 | 809852 | 16.6 | 19.8 | 14.7 | 22.8 | 10.8 | 16.6 | 12.6 | 18.1 | 3.2 | 16.6 | 12.6 | 14.2 | 2.8 | 14.0 | 17.1 | 16.9 | -0.2 |
| 29 | 390191 | 809843 | 8.8 | 22.9 | 16.6 | 21.0 | 6.0 | 19.1 | 14.2 | 17.2 | 23.5 | 19.1 | 14.2 | 25.6 | 23.3 | 25.5 | 29.9 | 29.8 | -0.1 |
| 30 | 392824 | 807788 | 8.2 | 27.6 | 19.6 | 23.6 | 5.7 | 23.7 | 17.2 | 20.0 | 5.5 | 23.7 | 17.2 | 19.9 | 5.0 | 19.7 | 22.5 | 22.3 | -0.2 |
| 31 | 391513 | 807874 | 17.0 | 26.4 | 18.9 | 27.0 | 10.4 | 23.1 | 16.8 | 22.0 | 8.8 | 23.1 | 16.8 | 21.2 | 8.8 | 21.2 | 24.9 | 24.9 | 0.0 |
| 32 | 392021 | 808034 | 7.9 | 26.2 | 18.7 | 22.6 | 5.4 | 22.1 | 16.2 | 18.9 | 4.9 | 22.1 | 16.2 | 18.7 | 4.3 | 18.4 | 21.4 | 21.1 | -0.3 |
| 33 | 391245 | 807670 | 16.0 | 26.4 | 18.9 | 26.6 | 9.9 | 23.1 | 16.8 | 21.7 | 8.3 | 23.1 | 16.8 | 20.9 | 8.3 | 20.9 | 24.5 | 24.5 | 0.0 |
| 34 | 391627 | 808551 | 16.6 | 23.5 | 17.0 | 25.1 | 10.1 | 19.9 | 14.7 | 19.8 | 8.2 | 19.9 | 14.7 | 18.9 | 8.0 | 18.8 | 23.0 | 22.8 | -0.1 |
| 35 | 390781 | 808743 | 4.0 | 20.2 | 15.0 | 17.0 | 2.7 | 17.0 | 12.8 | 14.2 | 3.0 | 17.0 | 12.8 | 14.3 | 2.9 | 14.3 | 16.4 | 16.4 | 0.0 |
| 36 | 391181 | 807519 | 18.4 | 26.4 | 18.9 | 27.7 | 11.4 | 23.1 | 16.8 | 22.4 | 9.6 | 23.1 | 16.8 | 21.6 | 9.6 | 21.6 | 25.6 | 25.6 | 0.0 |
| 37 | 391547 | 808026 | 15.0 | 23.5 | 17.0 | 24.4 | 9.1 | 19.9 | 14.7 | 19.4 | 7.6 | 19.9 | 14.7 | 18.6 | 7.6 | 18.6 | 22.4 | 22.4 | 0.0 |
| 38 | 391727 | 808177 | 21.5 | 23.5 | 17.0 | 27.3 | 14.1 | 19.9 | 14.7 | 21.8 | 12.3 | 19.9 | 14.7 | 20.9 | 11.4 | 20.5 | 25.1 | 24.6 | -0.5 |
| 39 | 392360 | 807846 | 14.0 | 27.6 | 19.6 | 26.3 | 9.9 | 23.7 | 17.2 | 22.1 | 8.9 | 23.7 | 17.2 | 21.6 | 8.2 | 21.2 | 24.6 | 24.2 | -0.5 |
| 40 | 392445 | 807805 | 32.1 | 27.6 | 19.6 | 34.3 | 22.4 | 23.7 | 17.2 | 27.9 | 21.1 | 23.7 | 17.2 | 27.3 | 20.0 | 26.8 | 32.2 | 31.6 | -0.6 |
| 41 | 393095 | 807790 | 16.2 | 31.3 | 21.8 | 29.5 | 10.1 | 26.7 | 19.0 | 24.0 | 12.0 | 26.7 | 19.0 | 24.9 | 12.4 | 25.1 | 29.3 | 29.6 | 0.2 |
| 42 | 393103 | 808281 | 27.2 | 26.9 | 19.1 | 31.8 | 16.9 | 22.6 | 16.4 | 24.7 | 20.8 | 22.6 | 16.4 | 26.5 | 21.4 | 26.8 | 32.7 | 33.1 | 0.4 |
| 43 | 393076 | 808030 | 10.9 | 26.9 | 19.1 | 24.5 | 6.6 | 22.6 | 16.4 | 19.7 | 7.9 | 22.6 | 16.4 | 20.4 | 8.1 | 20.5 | 24.3 | 24.4 | 0.1 |
| 44 | 393072 | 808415 | 20.0 | 26.9 | 19.1 | 28.7 | 12.2 | 22.6 | 16.4 | 22.5 | 12.3 | 22.6 | 16.4 | 22.5 | 12.7 | 22.7 | 27.5 | 27.7 | 0.2 |
| 45 | 392808 | 808549 | 27.9 | 26.2 | 18.7 | 31.7 | 16.5 | 22.1 | 16.2 | 24.3 | 15.0 | 22.1 | 16.2 | 23.6 | 15.8 | 24.0 | 29.5 | 30.0 | 0.5 |
| 46 | 392419 | 808913 | 24.8 | 26.2 | 18.7 | 30.4 | 14.7 | 22.1 | 16.2 | 23.4 | 12.6 | 22.1 | 16.2 | 22.5 | 13.9 | 23.1 | 28.0 | 28.8 | 0.7 |
| 47 | 392719 | 808716 | 21.0 | 26.2 | 18.7 | 28.7 | 12.6 | 22.1 | 16.2 | 22.5 | 11.8 | 22.1 | 16.2 | 22.1 | 12.3 | 22.3 | 27.0 | 27.3 | 0.2 |

A90/A96 Haudagain Improvement
DMRB Stage 3 Environmental Statement
Appendix A13.1: Air Quality Methodology
Table 16: Modelled and Adjusted $\mathrm{PM}_{10}$ Results at all Receptors

| Rec_ID | Easting | Northing | Base Adj RD $\mathrm{PM}_{10}$ | 2012 <br> B'grd <br> PM 10 | $\begin{aligned} & \text { Base } \\ & 2012 \text { PM }_{10} \\ & \text { Total } \end{aligned}$ | DM Adj RD $\mathrm{PM}_{10}$ | 2018 <br> B'grd $\mathrm{PM}_{10}$ | DM 2018 PM ${ }_{10}$ Total | $\begin{aligned} & \text { DS Adj } \\ & \text { RD } \text { PM }_{10} \end{aligned}$ | 2018 <br> B'grd <br> $\mathrm{PM}_{10}$ | DS 2018 <br> PM ${ }_{10}$ Total | Chng DSDM |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 391239 | 808907 | 0.5 | 12.5 | 12.9 | 0.3 | 11.9 | 12.2 | 0.6 | 11.9 | 12.5 | 0.3 |
| 2 | 391422 | 808986 | 2.0 | 12.5 | 14.5 | 1.4 | 11.9 | 13.3 | 1.1 | 11.9 | 13.0 | -0.3 |
| 3 | 390986 | 808813 | 0.2 | 11.9 | 12.0 | 0.1 | 11.3 | 11.5 | 0.2 | 11.3 | 11.5 | 0.0 |
| 4 | 391364 | 809156 | 2.8 | 12.6 | 15.4 | 1.9 | 12.1 | 13.9 | 1.6 | 12.1 | 13.7 | -0.2 |
| 5 | 391163 | 809153 | 2.6 | 12.6 | 15.2 | 1.9 | 12.1 | 13.9 | 1.4 | 12.1 | 13.5 | -0.4 |
| 6 | 391388 | 808909 | 1.3 | 12.5 | 13.8 | 0.9 | 11.9 | 12.8 | 1.1 | 11.9 | 13.0 | 0.2 |
| 7 | 391102 | 808826 | 0.3 | 12.5 | 12.8 | 0.3 | 11.9 | 12.2 | 0.3 | 11.9 | 12.2 | 0.0 |
| 8 | 391367 | 808971 | 2.4 | 12.5 | 14.9 | 1.6 | 11.9 | 13.5 | 1.3 | 11.9 | 13.2 | -0.3 |
| 9 | 391421 | 808904 | 2.2 | 12.5 | 14.7 | 1.5 | 11.9 | 13.4 | 1.5 | 11.9 | 13.4 | 0.0 |
| 10 | 391299 | 809135 | 5.9 | 12.6 | 18.5 | 4.0 | 12.1 | 16.0 | 2.8 | 12.1 | 14.8 | -1.2 |
| 11 | 391138 | 808956 | 0.4 | 12.5 | 12.8 | 0.3 | 11.9 | 12.2 | 0.6 | 11.9 | 12.5 | 0.3 |
| 12 | 391556 | 808796 | 1.6 | 12.5 | 14.1 | 1.1 | 11.9 | 13.0 | 1.1 | 11.9 | 13.0 | 0.0 |
| 13 | 391689 | 809105 | 1.3 | 12.6 | 13.9 | 1.0 | 12.1 | 13.0 | 1.0 | 12.1 | 13.1 | 0.1 |
| 14 | 391722 | 809076 | 2.2 | 12.6 | 14.8 | 1.5 | 12.1 | 13.6 | 1.7 | 12.1 | 13.7 | 0.1 |
| 15 | 391048 | 809181 | 3.2 | 12.6 | 15.8 | 2.3 | 12.1 | 14.4 | 2.5 | 12.1 | 14.6 | 0.2 |
| 16 | 390851 | 809415 | 1.8 | 13.4 | 15.2 | 1.3 | 12.7 | 14.0 | 1.3 | 12.7 | 14.0 | 0.0 |
| 17 | 391052 | 808853 | 0.3 | 12.5 | 12.8 | 0.3 | 11.9 | 12.2 | 0.3 | 11.9 | 12.2 | 0.0 |
| 18 | 390884 | 809379 | 1.8 | 13.4 | 15.1 | 1.3 | 12.7 | 14.0 | 1.3 | 12.7 | 14.0 | 0.0 |
| 19 | 389776 | 809664 | 1.4 | 13.0 | 14.3 | 0.9 | 12.4 | 13.2 | 0.8 | 12.4 | 13.2 | 0.0 |
| 20 | 389752 | 809576 | 3.0 | 13.0 | 15.9 | 2.0 | 12.4 | 14.4 | 2.0 | 12.4 | 14.3 | -0.1 |
| 21 | 389741 | 809606 | 4.1 | 13.0 | 17.1 | 2.7 | 12.4 | 15.1 | 2.7 | 12.4 | 15.0 | -0.1 |
| 22 | 390202 | 809515 | 3.8 | 13.4 | 17.2 | 2.8 | 12.7 | 15.5 | 2.8 | 12.7 | 15.5 | 0.0 |
| 23 | 390599 | 809259 | 3.0 | 13.4 | 16.4 | 2.2 | 12.7 | 15.0 | 2.2 | 12.7 | 14.9 | -0.1 |
| 24 | 389508 | 809627 | 2.6 | 13.0 | 15.5 | 1.7 | 12.4 | 14.0 | 1.7 | 12.4 | 14.0 | 0.0 |
| 25 | 389830 | 809635 | 2.1 | 13.0 | 15.0 | 1.4 | 12.4 | 13.8 | 1.4 | 12.4 | 13.7 | -0.1 |
| 26 | 389904 | 809600 | 3.5 | 13.0 | 16.5 | 2.6 | 12.4 | 14.9 | 2.5 | 12.4 | 14.9 | 0.0 |
| 27 | 389737 | 809745 | 0.9 | 13.0 | 13.9 | 0.6 | 12.4 | 12.9 | 0.5 | 12.4 | 12.9 | 0.0 |

A90/A96 Haudagain Improvement
DMRB Stage 3 Environmental Statement
Appendix A13.1: Air Quality Methodology

| Rec_ID | Easting | Northing | Base Adj RD PM ${ }_{10}$ | 2012 <br> B'grd <br> $\mathrm{PM}_{10}$ | $\begin{aligned} & \text { Base } \\ & 2012 \text { PM }_{10} \\ & \text { Total } \end{aligned}$ | DM Adj RD $\mathrm{PM}_{10}$ | 2018 B'grd $\mathrm{PM}_{10}$ | DM 2018 PM ${ }_{10}$ Total | $\begin{aligned} & \text { DS Adj } \\ & \text { RD PM } 10 \end{aligned}$ | 2018 <br> B'grd <br> PM 10 | $\begin{aligned} & \text { DS } 2018 \\ & \text { PM }_{10} \text { Total } \end{aligned}$ | Chng DSDM |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 28 | 389911 | 809852 | 1.4 | 13.0 | 14.3 | 0.3 | 12.4 | 12.7 | 0.3 | 12.4 | 12.6 | -0.1 |
| 29 | 390191 | 809843 | 0.7 | 13.4 | 14.1 | 2.0 | 12.7 | 14.7 | 1.9 | 12.7 | 14.7 | 0.0 |
| 30 | 392824 | 807788 | 0.7 | 12.9 | 13.6 | 0.6 | 12.2 | 12.8 | 0.5 | 12.2 | 12.7 | -0.1 |
| 31 | 391513 | 807874 | 1.4 | 13.1 | 14.5 | 1.0 | 12.5 | 13.5 | 1.0 | 12.5 | 13.5 | 0.0 |
| 32 | 392021 | 808034 | 0.7 | 12.7 | 13.4 | 0.6 | 12.1 | 12.7 | 0.5 | 12.1 | 12.6 | -0.1 |
| 33 | 391245 | 807670 | 1.2 | 13.1 | 14.3 | 0.9 | 12.5 | 13.4 | 0.9 | 12.5 | 13.4 | 0.0 |
| 34 | 391627 | 808551 | 1.4 | 12.5 | 13.9 | 1.0 | 11.9 | 12.9 | 0.9 | 11.9 | 12.8 | -0.1 |
| 35 | 390781 | 808743 | 0.3 | 11.9 | 12.2 | 0.3 | 11.3 | 11.6 | 0.3 | 11.3 | 11.6 | 0.0 |
| 36 | 391181 | 807519 | 1.4 | 13.1 | 14.5 | 1.0 | 12.5 | 13.5 | 1.0 | 12.5 | 13.5 | 0.0 |
| 37 | 391547 | 808026 | 1.2 | 12.5 | 13.7 | 0.9 | 11.9 | 12.8 | 0.9 | 11.9 | 12.8 | 0.0 |
| 38 | 391727 | 808177 | 1.5 | 12.5 | 13.9 | 1.0 | 11.9 | 13.0 | 1.0 | 11.9 | 12.9 | -0.1 |
| 39 | 392360 | 807846 | 1.1 | 12.9 | 14.0 | 0.8 | 12.2 | 13.1 | 0.8 | 12.2 | 13.0 | -0.1 |
| 40 | 392445 | 807805 | 2.2 | 12.9 | 15.1 | 1.7 | 12.2 | 13.9 | 1.6 | 12.2 | 13.8 | -0.1 |
| 41 | 393095 | 807790 | 1.1 | 13.5 | 14.6 | 1.0 | 12.9 | 13.9 | 1.1 | 12.9 | 13.9 | 0.0 |
| 42 | 393103 | 808281 | 1.6 | 13.1 | 14.7 | 1.5 | 12.5 | 14.0 | 1.6 | 12.5 | 14.1 | 0.1 |
| 43 | 393076 | 808030 | 0.8 | 13.1 | 13.8 | 0.7 | 12.5 | 13.2 | 0.8 | 12.5 | 13.2 | 0.0 |
| 44 | 393072 | 808415 | 1.2 | 13.1 | 14.3 | 0.9 | 12.5 | 13.4 | 1.0 | 12.5 | 13.5 | 0.1 |
| 45 | 392808 | 808549 | 1.9 | 12.7 | 14.6 | 1.4 | 12.1 | 13.6 | 1.5 | 12.1 | 13.6 | 0.0 |
| 46 | 392419 | 808913 | 1.7 | 12.7 | 14.4 | 1.2 | 12.1 | 13.3 | 1.4 | 12.1 | 13.5 | 0.2 |
| 47 | 392719 | 808716 | 1.3 | 12.7 | 14.0 | 1.0 | 12.1 | 13.1 | 1.0 | 12.1 | 13.1 | 0.0 |

## 4 References

AEAT (2008). UK Emissions of Air Pollutants 1970 to 2006, AEA Group, Harwell, Oxfordshire, UK.
Defra (2007).The Air Quality Strategy for England, Scotland, Wales and Northern Ireland, The Stationery Office, July 2007.

Defra (2009). Local Air Quality Management. Technical Guidance LAQM.TG(09).
Defra (2014a). Air Pollution Background Concentration Maps: A user Guide for Local Authorities. June 2014. www.gov.uk/defra.

Defra (2014b). Emission Factor Toolkit (version 6.0.2). www.laqm.defra.gov.uk/review-andassessment/tools/emissions.html\#eft.

Defra (2014c). NO2 Background Sector Tool - for Source Apportioned Background NOx v4.0. http://laqm.defra.gov.uk/tools-monitoring-data/no-calculator.html.

Defra (2014d). NOx- NO2 Calculator v4.1.
Defra (2014e). PCM Projected Results, July 2014 - http://uk-
air.defra.gov.uk/assets/documents/no2ten/140708_N02_projection_tables_FINAL.pdf).
Environmental Protection UK (EPUK), 2010. Development Control: Planning for Air Quality (2010 Update).

Highways Agency et al. (2007). Design Manual for Roads and Bridges (DMRB), Volume 11, Section 3, Part 1 Air Quality, HA207/07. Highways Agency, Scottish Executive, The National Assembly for Wales and The Department of Regional Development Northern Ireland.

Highways Agency et al. (2013a). Interim Advice Note 174/13 - Updated air quality advice for evaluating significant local air quality impacts; for users of Design Manual for Roads and Bridges (DMRB) Volume 11, Section 3, Part 1, June 2013. Highways Agency, Scottish Government, The National Assembly for Wales and The Department of Regional Development Northern Ireland

Highways Agency et al. (2013b). Interim Advice Note 175/13 - Updated air quality advice on risk assessment related to compliance with the EU Directive on ambient air quality and on the production of Scheme Air Quality Action Plans for user of Design Manuals for Roads and Bridges (DMRB) Volume 11, Section 3, Part 1, June 2013. Highways Agency, Scottish Government, The National Assembly for Wales and The Department of Regional Development Northern Ireland.

Highways Agency et al. (2012) Interim Advice Note 170/12v1 - Updated air quality advice on the assessment of future NOx and NO2 projections for users of Design Manual for Roads and Bridges (DMRB) Volume 11, Section 3, Part 1, June 2013. Highways Agency, Scottish Government, The National Assembly for Wales and The Department of Regional Development Northern Ireland.

Institute of Air Quality Management (IAQM), 2012. Guidance on Air Quality Monitoring in the Vicinity of Demolition and Construction Sites, February 2012.

Institute of Air Quality Management (IAQM), 2014. Guidance on the Assessment of Dust from Demolition and Construction, February 2014.

Ricardo-AEA (2014). Scottish Air Quality Database project, Mapped Background Pollutant Concentrations (2011 source data). http://www.scottishairquality.co.uk/data/mapping?view=data.

Scottish Government (2014). The National Planning Framework 3 (NPF3).

## A14.1: Acoustical Technical Definitions

## 1 Introduction

1.1.1 This appendix provides definitions of some of the terms used in the noise and vibration chapter to aid understanding.
1.1.2 The sound wave travelling through the air is a regular disturbance in ambient atmospheric pressure. These pressure fluctuations, when of frequencies within the audible range, are detected by the human ear which passes nerve responses to the brain, producing the sensation of hearing. Noise has been defined in a variety of ways and is very much dependant on factors such as the listener's attitude to the source of the sound and their environment, but is essentially any sound that is unwanted by the recipient.
1.1.3 It is impossible to measure the degree of nuisance caused by noise directly, as this is essentially a subjective response of the listener, but it is possible to measure the 'loudness' of that noise. Loudness is related to both the sound pressure (the magnitude of the maximum excursion of the pressure wave around the ambient atmospheric pressure) and the frequency, both of which can be measured.
1.1.4 The human ear is sensitive to a wide range of sound levels; the sound pressure level of the threshold of pain is over a million times that of the quietest audible sound. In order to reduce the relative magnitude of the numbers involved, a logarithmic scale of decibels (dB) based on a reference level of the lowest audible sound is used.
1.1.5 Also, the response of the human ear is not constant over all frequencies. It is therefore usual to weight the measured frequency to approximate human response. This is achieved by using filters to vary the contribution of different frequencies to the measured level. The ' $A$ ' weighting network is the most commonly used and has been shown to correlate closely to the non-linear and subjective response of humans to sound. The use of this weighting is denoted by a capital $A$ in the unit abbreviation (i.e. LAmax, LAeq, LA90 etc.) or a capital A in brackets after a dB level (i.e. $3 \mathrm{~dB}(\mathrm{~A})$ ).

## 2 Technical Definitions

## Sound Pressure Level

1.1.6 The sound pressure level ( $L_{p}$ or $S P L$ ) is the instantaneous acoustic pressure and is measured in dB. Since the ear is sensitive to variations in pressure, rather than source power or intensity, the measurement of this parameter gives an indication of the impact on people. The SPL is defined as:

$$
S P L=10 \log _{10}\left(\frac{p^{2}}{p_{\text {ref }}^{2}}\right)_{\text {or }} S P L=20 \log _{10}\left(\frac{p}{p_{\text {ref }}}\right)
$$

1.1.7 Where $p$ is the root mean square (rms) pressure of the sound in question (in pascals) and $p_{\text {ref }}$ is the reference sound pressure, defined as the limit of human audibility $\left(2 \times 10^{-5} \mathrm{~Pa}\right)$.

## Sound Power Level

Where $W$ is the sound power of the source (in watts) and $W_{0}$ is the reference sound power ( $10^{-12}$ watts).
$\mathrm{L}_{\text {eq }}$
1.1.10 The $\mathrm{L}_{\mathrm{eq}}$ is defined as the equivalent continuous sound level and is the most widely used parameter for assessing environmental noise. Since this descriptor is a type of average level, it must by definition have an associated time period over which the measurement is referring to. This is often included in the abbreviation in the form $\mathrm{L}_{\text {eq, }, \text {, where }} \mathrm{T}$ is the time period (i.e. $\mathrm{L}_{\text {Aeq } 5 \text { min }}$ ). The formula for calculating the $\mathrm{L}_{\text {eq }}$ is:

$$
L_{e q}=10 \log _{10}\left(\frac{1}{t_{2}-t_{1}} \int_{t_{1}}^{t_{2}} \frac{p^{2}}{p_{r e f}^{2}} . d t\right)
$$

1.1.11 In practice, since most modern sound level meters are digital and hence take periodic samples of the sound pressure level, the $\mathrm{L}_{\text {eq }}$ will be the logarithmic average of all the SPL samples taken in the measurement period.

## $\mathrm{L}_{\text {max }}$

1.1.12 The $L_{\text {max }}$ is defined as the maximum rms level recorded during a measurement period.
$\mathrm{L}_{\mathrm{n}}$
1.1.13 The $L_{n}$ is a statistical descriptor and refers to the level that is exceeded for $n \%$ of the time during a particular measurement period. Again, the measurement period that the descriptor refers to is often included in the abbreviation in the format Ln, T. Two of the most commonly used statistical descriptors used for environmental noise assessments are the L90 and the L10. These are described in more detail below.
$\mathrm{L}_{10}$
1.1.14 The $L_{10}$ refers to the level exceeded for $10 \%$ of the measurement period and is commonly used in assessing road traffic noise as it has been found to give a good indication of the subjective human response to this type of noise.
$\mathrm{L}_{90}$
1.1.15 The $\mathrm{L}_{90}$ refers to the level exceeded for $90 \%$ of the measurement period and is widely considered to represent background sound levels, or the underlying sound in an area between noisy events (such as cars passing etc.).

## Free-Field

1.1.16 The term Free-Field refers to sound levels that have been measured or predicted in the absence of any influence of reflections from nearby surfaces. In practice, a measurement is considered to be free-field if it was taken at a distance of over 3.5 m from any reflecting surfaces.

Façade Level
1.1.17 Façade levels refer to levels taken at a distance of between 1 and 3.5 m of the façade of a building. The difference between the façade and free-field level will depend on the distance from the reflecting surface, but is generally accepted to be approximately $2.5 \mathrm{~dB}(\mathrm{~A})$.
$L_{\text {night }}$
1.1.18 The $L_{\text {night }}$ is a façade noise index derived from the $L_{A 10,18 \text { h }}$ index using TRL conversion method.
$L_{\text {night,outside }}$
1.1.19 The $L_{\text {night,outside }}$ is defined as the free-field A-weighted long-term average sound level of the 8 -hour night-time period determined over all nights of a year outside a property.

## A14.2: Baseline Noise Monitoring Results

## 1 Introduction

1.1.1 This appendix details the results of the baseline noise monitoring undertaken for the proposed scheme. The noise survey was undertaken to provide a basis for the validation of noise modelling undertaken for the Do Minimum situation in the baseline year and to indicate the existing noise climate at representative noise sensitive receptors.
1.1.2 Measurements were undertaken at seven locations, using class 1 sound level meters (Cirrus 811B). At five of the locations monitoring was undertaken to the Calculation of Road Traffic Noise 1988 (CRTN) shortened measurement procedure. Longer term noise monitoring over a two day period was undertaken at the remaining two locations.
1.1.3 At each noise monitoring location the instrument was set up in a free field location at a height of approximately 1.5 m above ground level. Instrumentation was calibrated at the start of each survey and checked at the end. There were no significant changes in calibration.

## 2 Monitoring Results

## ST1 - Green Space opposite 3 Logie Terrace

2.1.1 During the survey, noise sources noted included, road traffic, helicopter movements, a dog barking, power washers, and an ambulance siren. Weather conditions were dry, cloudy with a light wind. Weather conditions were dry, overcast with a light wind.

Table 1: Noise Monitoring Results - Green space opp. 3 Logie Terrace (Thursday 25 September 2014)

| Period | Measured Noise Level dB |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | $\mathbf{L}_{\text {Aeq }}$ | $\mathbf{L}_{\text {Amax }}$ | $\mathbf{L}_{\mathbf{A} 1}$ | $\mathbf{L}_{\text {A10 }}$ | $\mathbf{L}_{\text {A90 }}$ |
| $14: 00-15: 00$ | 58.9 | 77.1 | 67.4 | 62.2 | 48.9 |
| $15: 00-16: 00$ | 58.7 | 76.7 | 67.8 | 62.3 | 48.6 |
| 16:00-17:00 | 61.1 | 79.9 | 70.5 | 63.8 | 51.9 |
| Averaged Day Levels | $\mathbf{6 0}$ | $\mathbf{7 8}$ | $\mathbf{6 8}$ | $\mathbf{6 3}$ | $\mathbf{5 0}$ |
| 18-hr $\mathrm{L}_{\text {A10 }}$ | - | - | - | $\mathbf{6 2}$ | - |

1) 15-minute period between 16:15 and 16:30 affected by member of public shouting into microphone. This period has been omitted from the averages presented within the table.
2.1.2 With the measurement between 16:15 and 16:30 omitted, measured noise levels were reasonably consistent over the period of the noise survey, with LA10 noise levels varying between 62 and 64 dB .

## ST2 - Grass verge opposite 548 Clifton Road

2.1.3 During the survey, noise sources noted included, road traffic noise, aeroplane and helicopter movements, sirens, and children playing. Weather conditions were dry, overcast, and slight to moderate winds with gusts.

Table 2: Noise Monitoring Results - Grass verge opp. 548 Clifton Road (Friday 26 September 2014)

| Period | Measured Noise Level $d B$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathbf{L}_{\text {Aeq }}$ | $\mathbf{L}_{\text {Amax }}$ | $\mathbf{L}_{\mathbf{A 1}}$ | $\mathbf{L}_{\mathbf{A} 10}$ | $\mathbf{L}_{\mathbf{A 9 0}}$ |
| $13: 30-14: 30$ | 58.8 | 75.4 | 68.8 | 61.4 | 52.4 |
| $14: 30-15: 30$ | 60.0 | 75.2 | 70.1 | 63.7 | 52.3 |
| $15: 30-16: 30$ | 58.4 | 73.7 | 69.1 | 62.1 | 50.8 |
| Averaged Day Levels | $\mathbf{5 9}$ | $\mathbf{7 5}$ | $\mathbf{6 9}$ | $\mathbf{6 2}$ | $\mathbf{5 2}$ |


| Period | Measured Noise Level dB |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | $\mathrm{L}_{\text {Aeq }}$ | $\mathrm{L}_{\text {Amax }}$ | $\mathrm{L}_{\mathrm{A} 1}$ | $\mathrm{~L}_{\mathrm{A} 10}$ | $\mathrm{~L}_{\mathrm{A} 90}$ |
| $18-\mathrm{hr} \mathrm{L}_{\mathrm{A} 10}$ | - | - | - | 61 | - |

1) 15-minute period between $15: 30$ and 15:45 affected by children shouting close to microphone. This period has been omitted from the averages presented within the table.
2.1.4 With the measurement between 15:30 and 15:45 omitted, measured noise levels were reasonably consistent for the periods monitored, with LA10 noise levels varying between 61 and 64 dB .

## ST3 - 51 Manor Avenue

2.1.5 During the survey, noise sources noted included, road traffic noise from light traffic on Manor Avenue, though this did not dominate the acoustic environment. Additional sources included grass cutting, aeroplane and helicopter movements and a dog barking. Weather conditions were dry, overcast with a moderate wind.

Table 3: Noise Monitoring Results - 49/ 51 Manor Avenue (Wednesday 24 September 2014)

| Period | Measured Noise Level dB |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | $\mathbf{L}_{\text {Aeq }}$ | $\mathbf{L}_{\text {Amax }}$ | $\mathbf{L}_{\mathbf{A 1}}$ | $\mathbf{L}_{\text {A10 }}$ | $\mathbf{L}_{\text {A90 }}$ |
| $13: 58-14: 58$ | 60.2 | 74.3 | 69.8 | 64.3 | 51.2 |
| $14: 58-15: 58$ | 61.4 | 74.5 | 70.3 | 66.2 | 51.0 |
| $15: 58-16: 58$ | 62.5 | 75.4 | 70.7 | 66.8 | 50.9 |
| Averaged Day Levels | $\mathbf{6 1}$ | $\mathbf{7 5}$ | $\mathbf{7 0}$ | $\mathbf{6 6}$ | $\mathbf{5 1}$ |
| 18-hr $\mathbf{L}_{\text {A10 }}$ | $\mathbf{-}$ | - | - | $\mathbf{6 5}$ | $\mathbf{-}$ |

2.1.6 Measured noise levels were reasonably consistent for the periods monitored, with LA10 noise levels varying between 64 and 67 dB .

## ST4 - Grass Verge opposite Logie Place, between 10 and 16 Logie Avenue

2.1.7 During the survey steady traffic on the A90 (east of the monitoring location) was observed and was considered fairly dominant throughout the survey. Additional sources included aeroplane and helicopter movements, people talking and a dog barking. Weather conditions were dry, cloudy with a light wind and moderate gusts.

Table 4: Noise Monitoring Results - Grass verge opp. Logie Place (Friday 26 September 2014)

| Period | Measured Noise Level dB |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | $\mathbf{L}_{\text {Aeq }}$ | $\mathbf{L}_{\text {Amax }}$ | $\mathbf{L}_{\mathbf{A} 1}$ | $\mathbf{L}_{\mathbf{A} 10}$ | $\mathbf{L}_{\mathbf{A} 90}$ |
| $10: 00-11: 00$ | 56.1 | 76.2 | 63.1 | 57.5 | 52.0 |
| $11: 00-12: 00$ | 55.2 | 73.7 | 61.7 | 57.5 | 51.6 |
| 12:00-13:00 | 56.5 | 71.4 | 64.8 | 57.8 | 51.9 |
| Averaged Day Levels | $\mathbf{5 6}$ | $\mathbf{7 4}$ | $\mathbf{6 3}$ | $\mathbf{5 8}$ | $\mathbf{5 2}$ |
| 18-hr $\mathbf{L}_{\text {A10 }}$ | - | - | - | $\mathbf{5 7}$ | - |

1) Two 15-minute periods between 10:45 and 11:00, and 11:15 and 11:30, were affected by the microphone blowing over due to a strong gust of wind and voices of nearby members of the public.
2.1.8 With the measurements between 10:45 and 11:00 and 11:15 and 11:30 omitted, measured noise levels were consistent for the periods monitored and there was little variation in the LA10 noise levels recorded.

## ST5 - Centre of grass verge on Logie Gardens

2.1.9 During the survey, noise sources noted included, road traffic noise was audible but not a dominant source of noise, airplane and helicopter movements were audible, as were distant sirens, a refuse collection vehicle, crow calling, idle car, and birdsong. Weather conditions were overcast and dry.

Table 5: Noise Monitoring Results - Centre of grass verge on Logie Gardens (Thursday 25 September 2014)

| Period | $\mathbf{M e a s u r e d ~ N o i s e ~ L e v e l ~ d B ~}$ |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | $\mathbf{L}_{\text {Aeq }}$ | $\mathbf{L}_{\text {Amax }}$ | $\mathbf{L}_{\mathbf{A 1}}$ | $\mathbf{L}_{\text {A10 }}$ | $\mathbf{L}_{\mathbf{A 9 0}}$ |
| $10: 00-11: 00$ | 54.7 | 72.5 | 63.5 | 55.7 | 49.8 |
| $11: 00-12: 00$ | 50.9 | 67.7 | 58.2 | 53.0 | 46.9 |
| $12: 00-13: 00$ | 51.2 | 69.7 | 57.8 | 53.0 | 47.7 |
| Averaged Day Levels | $\mathbf{5 3}$ | $\mathbf{7 0}$ | $\mathbf{6 0}$ | $\mathbf{5 4}$ | $\mathbf{4 8}$ |
| 18-hr $\mathbf{L}_{\text {A10 }}$ | - | - | - | $\mathbf{5 3}$ | $\mathbf{-}$ |

1) 15-minute period between $12: 15$ and $12: 30$ affected by a car idling close to microphone. This period has been omitted from the averages presented within the table.
2.1.10 With the measurement between 12:15 and 12:30 omitted, measured noise levels were reasonably consistent for the periods monitored, with LA10 noise levels varying between 53 and 56 dB .

## LT1-12 Manor Drive

2.1.11 Local road traffic noise, and distant road traffic noise from the A90 and A96, dominated at this monitoring location. Weather conditions were dry and overcast, with slight to moderate wind.

Table 6: Noise Monitoring Results - 12 Manor Drive (Wednesday 24 to Friday 26 September 2014)

| Period | Measured Noise Level dB |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathrm{L}_{\text {Aeq }}$ | $\mathrm{L}_{\text {Amax }}$ | $\mathrm{L}_{\text {A1 }}$ | $\mathrm{L}_{\text {A10 }}$ | $\mathrm{L}_{\text {A90 }}$ |
| Weekday Averages |  |  |  |  |  |
| $\begin{gathered} \text { Day } \\ (07: 00-19: 00) \end{gathered}$ | 55 | 77 | 63 | 54 | 44 |
| $\begin{gathered} \text { Evening } \\ (19: 00-23: 00) \end{gathered}$ | 50 | 73 | 59 | 50 | 39 |
| $\begin{gathered} \text { Night } \\ (23: 00-7: 00) \end{gathered}$ | 46 | 66 | 52 | 43 | 33 |
| $\begin{gathered} 18-\mathrm{hr} \\ (06: 00-00: 00) \end{gathered}$ | - | - | - | 52 | - |
| Wednesday 24 September 2014 |  |  |  |  |  |
| 13:29-14:00 | 54.9 | 85.5 | 60.8 | 53.1 | 45.8 |
| 14:00-15:00 | 54.7 | 80.9 | 63.4 | 53.8 | 45.3 |
| 15:00-16:00 | 51.8 | 77.1 | 61.0 | 53.5 | 44.3 |
| 16:00-17:00 | 51.2 | 74.4 | 60.4 | 53.5 | 43.4 |
| 17:00-18:00 | 52.9 | 77.4 | 61.1 | 53.1 | 42.3 |
| 18:00-19:00 | 51.3 | 75.4 | 61.3 | 52.7 | 42.6 |
| 19:00-20:00 | 49.3 | 71.2 | 59.4 | 51.0 | 41.9 |
| 20:00-21:00 | 47.9 | 67.9 | 58.5 | 50.0 | 39.6 |
| 21:00-22:00 | 45.8 | 66.7 | 56.0 | 48.5 | 37.7 |
| 22:00-23:00 | 44.2 | 69.1 | 54.5 | 45.3 | 35.8 |
| 23:00-00:00 | 40.6 | 67.1 | 51.6 | 40.7 | 31.4 |
| Thursday 25 September 2014 |  |  |  |  |  |
| 00:00-01:00 | 37.4 | 63.6 | 47.7 | 36.3 | 29.6 |
| 01:00-02:00 | 39.0 | 62.9 | 46.7 | 41.0 | 30.2 |
| 02:00-03:00 | 34.4 | 57.4 | 43.5 | 35.8 | 28.6 |
| 03:00-04:00 | 39.1 | 61.4 | 50.5 | 39.6 | 29.8 |
| 04:00-05:00 | 41.3 | 59.7 | 52.0 | 43.0 | 33.2 |


| Period | Measured Noise Level dB |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathrm{L}_{\text {Aeq }}$ | $\mathrm{L}_{\text {Amax }}$ | $\mathrm{L}_{\text {A1 }}$ | $\mathrm{L}_{\text {A10 }}$ | $\mathrm{L}_{\text {A90 }}$ |
| 05:00-06:00 | 46.3 | 71.5 | 56.4 | 48.4 | 37.3 |
| 06:00-07:00 | 53.9 | 79.7 | 62.7 | 53.6 | 42.9 |
| 07:00-08:00 | 60.6 | 81.6 | 73.8 | 60.6 | 47.6 |
| 08:00-09:00 | 59.3 | 78.8 | 68.1 | 62.1 | 48.2 |
| 09:00-10:00 | 54.6 | 79.4 | 65.0 | 55.3 | 45.6 |
| 10:00-11:00 | 56.8 | 85.1 | 66.5 | 54.9 | 43.9 |
| 11:00-12:00 | 49.4 | 65.8 | 59.2 | 52.9 | 40.5 |
| 12:00-13:00 | 50.8 | 74.1 | 60.9 | 52.3 | 40.2 |
| 13:00-14:00 | 55.9 | 82.1 | 62.9 | 54.1 | 39.5 |
| 14:00-15:00 | 49.7 | 66.6 | 57.7 | 52.7 | 42.3 |
| 15:00-16:00 | 51.3 | 78.1 | 60.6 | 52.2 | 39.8 |
| 16:00-17:00 | 55.5 | 81.6 | 68.2 | 54.8 | 42.7 |
| 17:00-18:00 | 54.3 | 79.8 | 62.1 | 52.8 | 42.1 |
| 18:00-19:00 | 56.4 | 83.7 | 68.4 | 56.4 | 42.9 |
| 19:00-20:00 | 53.3 | 74.3 | 62.7 | 55.4 | 42.7 |
| 20:00-21:00 | 51.6 | 77.5 | 63.4 | 52.2 | 40.5 |
| 21:00-22:00 | 50.8 | 81.0 | 61.7 | 49.1 | 38.6 |
| 22:00-23:00 | 44.3 | 74.2 | 53.3 | 44.5 | 37.4 |
| 23:00-00:00 | 40.5 | 62.1 | 51.0 | 41.1 | 33.5 |
| Friday 26 September 2014 |  |  |  |  |  |
| 00:00-01:00 | 37.1 | 62.9 | 48.3 | 35.9 | 30.1 |
| 01:00-02:00 | 42.6 | 75.6 | 52.9 | 43.2 | 32.6 |
| 02:00-03:00 | 42.8 | 69.0 | 53.4 | 44.7 | 32.6 |
| 03:00-04:00 | 39.4 | 62.7 | 49.4 | 40.5 | 32.0 |
| 04:00-05:00 | 41.6 | 65.5 | 52.8 | 42.7 | 32.2 |
| 05:00-06:00 | 46.5 | 65.9 | 57.3 | 48.8 | 37.0 |
| 06:00-07:00 | 50.9 | 76.2 | 58.7 | 53.3 | 42.5 |
| 07:00-08:00 | 53.1 | 76.1 | 59.2 | 54.9 | 48.4 |
| 08:00-09:00 | 51.7 | 76.6 | 59.7 | 53.9 | 45.5 |
| 09:00-10:00 | 52.4 | 79.9 | 62.2 | 53.2 | 44.8 |
| 10:00-11:00 | 51.0 | 72.0 | 61.2 | 53.1 | 43.6 |
| 11:00-12:00 | 50.3 | 68.1 | 59.5 | 53.0 | 44.1 |
| 12:00-13:00 | 55.3 | 81.8 | 66.4 | 53.6 | 44.6 |
| 13:00-13:10 | 52.2 | 78.4 | 58.6 | 52.9 | 45.3 |

2.1.12 An average daytime (07:00 - 19:00) LA10 noise level of 54 dB was determined for this location with evening (19:00 - 23:00) and night time (23:00 - 07:00) averaged levels of 50dB and 43dB respectively. A level of 52dB LA10 was determined for the 06:00 to midnight 18 hour period.

## LT2-17 Logie Place

2.1.13 Local road traffic noise, and distant road traffic noise from the A90 and A96, dominated at this monitoring location. Weather conditions were dry, overcast, with slight to moderate wind.

Table 7: Noise Monitoring Results - 17 Logie Place (Wednesday 24 to Friday 26 September 2014)

| Period | Measured Noise Level dB |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathrm{L}_{\text {Aeq }}$ | $\mathrm{L}_{\text {Amax }}$ | $\mathrm{L}_{\mathrm{A} 1}$ | $\mathrm{~L}_{\mathrm{A} 10}$ | $\mathrm{~L}_{\mathrm{A} 90}$ |  |
| Weekday Averages | 54 | 76 | 64 | 55 | 47 |  |
| Day <br> $(07: 00-19: 00)$ | 50 | 72 | 59 | 50 | 42 |  |
| Evening <br> $(19: 00-23: 00)$ | 46 | 63 | 52 | 44 | 36 |  |
| Night <br> $(23: 00-7: 00)$ | - | - | 53 | - |  |  |
| $18-\mathrm{hr}$ <br> $(06: 00-00: 00)$ | - |  |  |  |  |  |


| Period | Measured Noise Level dB |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathrm{L}_{\text {Aeq }}$ | $\mathrm{L}_{\text {Amax }}$ | $\mathrm{L}_{\text {A1 }}$ | $\mathrm{L}_{\text {A10 }}$ | $\mathrm{L}_{\text {A90 }}$ |
| Wednesday 24 September 2014 |  |  |  |  |  |
| 13:06-14:00 | 55.7 | 80.2 | 63.9 | 60.2 | 48.3 |
| 14:00-15:00 | 53.9 | 79.6 | 63.2 | 53.6 | 47.1 |
| 15:00-16:00 | 51.2 | 66.9 | 59.5 | 53.7 | 47.1 |
| 16:00-17:00 | 51.8 | 75.9 | 63.1 | 52.9 | 45.8 |
| 17:00-18:00 | 52.4 | 75.4 | 63.4 | 53.1 | 45.0 |
| 18:00-19:00 | 52.2 | 76.0 | 63.0 | 53.1 | 45.4 |
| 19:00-20:00 | 50.2 | 72.1 | 58.1 | 52.0 | 46.3 |
| 20:00-21:00 | 51.0 | 71.3 | 62.1 | 52.1 | 44.7 |
| 21:00-22:00 | 46.8 | 70.9 | 55.6 | 48.8 | 42.3 |
| 22:00-23:00 | 45.8 | 69.3 | 54.2 | 47.3 | 40.4 |
| 23:00-00:00 | 43.6 | 70.5 | 52.7 | 43.2 | 35.1 |
| Thursday 25 September 2014 |  |  |  |  |  |
| 00:00-01:00 | 38.4 | 56.4 | 45.9 | 40.5 | 31.9 |
| 01:00-02:00 | 37.9 | 52.1 | 45.4 | 39.6 | 32.7 |
| 02:00-03:00 | 36.6 | 58.3 | 46.9 | 37.0 | 28.7 |
| 03:00-04:00 | 37.9 | 59.5 | 47.6 | 39.7 | 30.1 |
| 04:00-05:00 | 40.1 | 60.7 | 49.0 | 41.4 | 33.3 |
| 05:00-06:00 | 45.0 | 69.3 | 55.5 | 46.4 | 37.3 |
| 06:00-07:00 | 53.2 | 77.7 | 63.5 | 52.5 | 44.5 |
| 07:00-08:00 | 60.4 | 79.8 | 72.9 | 61.8 | 50.3 |
| 08:00-09:00 | 56.1 | 77.5 | 68.0 | 56.5 | 48.9 |
| 09:00-10:00 | 54.2 | 77.5 | 64.9 | 54.9 | 47.4 |
| 10:00-11:00 | 57.5 | 81.4 | 66.2 | 61.1 | 48.2 |
| 11:00-12:00 | 52.9 | 73.4 | 63.6 | 55.5 | 44.9 |
| 12:00-13:00 | 50.1 | 72.7 | 59.6 | 51.1 | 43.8 |
| 13:00-14:00 | 54.4 | 78.3 | 65.2 | 51.2 | 43.3 |
| 14:00-15:00 | 49.7 | 72.6 | 59.8 | 51.9 | 43.0 |
| 15:00-16:00 | 51.9 | 77.2 | 63.0 | 52.1 | 43.7 |
| 16:00-17:00 | 54.3 | 76.2 | 67.2 | 54.1 | 45.6 |
| 17:00-18:00 | 56.3 | 87.8 | 62.4 | 52.1 | 44.0 |
| 18:00-19:00 | 52.2 | 72.1 | 63.6 | 54.6 | 43.8 |
| 19:00-20:00 | 51.6 | 75.9 | 62.6 | 52.2 | 43.4 |
| 20:00-21:00 | 50.8 | 74.2 | 61.9 | 52.4 | 42.7 |
| 21:00-22:00 | 50.8 | 78.1 | 61.7 | 47.5 | 39.8 |
| 22:00-23:00 | 43.3 | 62.6 | 51.8 | 45.7 | 38.0 |
| 23:00-00:00 | 42.2 | 62.9 | 51.3 | 44.4 | 35.8 |
| Friday 26 September 2014 |  |  |  |  |  |
| 00:00-01:00 | 37.2 | 58.8 | 45.7 | 39.1 | 32.0 |
| 01:00-02:00 | 44.0 | 66.4 | 54.4 | 46.7 | 35.5 |
| 02:00-03:00 | 46.5 | 63.7 | 55.9 | 49.7 | 37.2 |
| 03:00-04:00 | 42.4 | 60.0 | 52.3 | 45.5 | 35.0 |
| 04:00-05:00 | 41.5 | 65.2 | 50.2 | 44.3 | 34.5 |
| 05:00-06:00 | 45.1 | 59.3 | 52.3 | 47.3 | 39.7 |
| 06:00-07:00 | 50.8 | 63.0 | 56.8 | 53.4 | 46.1 |
| 07:00-08:00 | 53.5 | 73.0 | 61.1 | 55.0 | 50.7 |
| 08:00-09:00 | 53.3 | 76.6 | 61.9 | 55.0 | 48.9 |
| 09:00-10:00 | 52.9 | 74.6 | 62.5 | 53.8 | 48.0 |
| 10:00-11:00 | 52.9 | 77.6 | 64.1 | 53.2 | 47.2 |
| 11:00-12:00 | 54.4 | 74.5 | 63.4 | 57.1 | 48.6 |
| 12:00-12:54 | 53.4 | 75.9 | 64.2 | 53.6 | 47.9 |

2.1.14 An average daytime (07:00 - 19:00) LA10 noise level of 55 dB was determined for this location with evening (19:00 - 23:00) and night time (23:00-07:00) averaged levels of 50 dB and 44 dB respectively. A level of 53dB LA10 was determined for the 06:00 to midnight 18 hour period.

## A14.3: Assumed Construction Plant and Scenarios

## 1 Introduction

1.1.1 This appendix provides information on likely construction scenarios. The Noise and Vibration chapter considered three construction scenarios, which were selected as worst-case examples of noise and vibration construction impacts likely to result from the proposed scheme.

## 2 Scenarios

2.1.1 The construction scenarios modelled as part of the assessment include:

- Demolition.
- Earthworks and drainage.
- Piling.
2.1.2 A principal construction contractor had not been appointed at the time of undertaking this assessment. As such, a number of assumptions on likely construction activities and plant were made. The source data used within the models is shown in Table 1, while details of the scenarios are shown in Table 2.

Table 1: Sound Power Level Data Used Within Construction Noise Models

| Name of Plant Item or Noise Source | OBCF Noise Level (Hz), dB |  |  |  |  |  |  |  |  |  | Source |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 32 | 63 | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dBA |  |
| Demolition |  |  |  |  |  |  |  |  |  |  |  |
| Breaker mounted on wheeled backhoe | - | 107 | 110 | 109 | 110 | 114 | 114 | 114 | 113 | 120.5 | $\begin{aligned} & \text { BS5228-1, } \\ & \text { Table C.1. } \end{aligned}$ |
| Wheeled backhoe loader | - | 102 | 94 | 92 | 92 | 91 | 88 | 87 | 78 | 95.9 | $\begin{aligned} & \text { BS5228-1, } \\ & \text { Table C.2.8 } \end{aligned}$ |
| Tracked excavator (205 kW / 40T) | - | 109 | 108 | 108 | 111 | 110 | 107 | 104 | 101 | 114.4 | $\begin{gathered} \text { BS5228-1, } \\ \text { Table C 1.13 } \end{gathered}$ |
| Wheeled excavator ( $90 \mathrm{~kW} /$ 18T) | - | 92 | 88 | 91 | 92 | 90 | 85 | 79 | 73 | 94.0 | $\begin{aligned} & \text { BS5228-1, } \\ & \text { Table C } 4.10 \end{aligned}$ |
| Skips being collected and dropped off (i.e. 1 complete trip) | 62 | 70 | 72 | 79 | 86 | 93 | 92 | 82 | 71 | 96.3 | Measured source data |
| Skip wagon ${ }^{1)}$ | - | 110 | 112 | 106 | 103 | 99 | 98 | 93 | 87 | 105.8 | $\begin{aligned} & \text { BS5228-1, } \\ & \text { Table C8.21 } \end{aligned}$ |
| Hand-held circular saw (petrol) cutting concrete slabs (3kW/ 300 mm diameter/ 9.2 kg ) | - | 112 | 114 | 106 | 106 | 105 | 106 | 110 | 108 | 114.6 | $\begin{aligned} & \text { BS5228-1, } \\ & \text { Table C5.36 } \end{aligned}$ |
| Groundworks and Drainage |  |  |  |  |  |  |  |  |  |  |  |
| Tracked excavator (205 kW / 40T) | - | 109 | 108 | 108 | 111 | 110 | 107 | 104 | 101 | 114.4 | $\begin{aligned} & \text { BS5228-1, } \\ & \text { Table C 1.13 } \end{aligned}$ |
| Wheeled excavator ( $90 \mathrm{~kW} /$ 18T) | - | 92 | 88 | 91 | 92 | 90 | 85 | 79 | 73 | 94.0 | $\begin{aligned} & \text { BS5228-1, } \\ & \text { Table C 4.10 } \end{aligned}$ |
| Tracked excavator (102 kW / 22T) | - | 108 | 111 | 104 | 101 | 100 | 98 | 97 | 94 | 105.9 | $\begin{aligned} & \text { BS5228-1, } \\ & \text { Table C } 2.3 \end{aligned}$ |
| Articulated dump truck (187 kW / 23T) | - | 113 | 115 | 105 | 103 | 104 | 101 | 97 | 90 | 108.5 | $\begin{aligned} & \text { BS5228-1, } \\ & \text { Table C } 2.33 \end{aligned}$ |


| Name of Plant Item or Noise Source | OBCF Noise Level ( Hz ), dB |  |  |  |  |  |  |  |  |  | Source |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 32 | 63 | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dBA |  |
| Articulated dump truck ( 187 kW 23T) tipping fill | - | 108 | 104 | 101 | 98 | 97 | 94 | 91 | 86 | 102.0 | $\begin{aligned} & \text { BS5228-1, } \\ & \text { Table C2.32 } \end{aligned}$ |
| Site dumpers $(81 \mathrm{~kW} / 7 \mathrm{~T})^{1)}$ | - | 112 | 109 | 102 | 101 | 100 | 96 | 89 | 81 | 104.3 | $\begin{aligned} & \hline \text { BS5228-1, } \\ & \text { Table C } 4.3 \end{aligned}$ |
| Site Dumper (75kW / 9T) idlling | - | 101 | 92 | 83 | 83 | 88 | 84 | 78 | 71 | 90.9 | $\begin{aligned} & \text { BS5228-1, } \\ & \text { Table C4.5 } \end{aligned}$ |
| Vibratory Roller <br> (Trench compactor <br> (12kW / 1.5T)) | - | 110 | 108 | 104 | 101 | 98 | 98 | 91 | 87 | 104.5 | $\begin{aligned} & \text { BS5228-1, } \\ & \text { Table C 5.28 } \end{aligned}$ |
| Piling |  |  |  |  |  |  |  |  |  |  |  |
| Vibratory piling rig, sheet steel piling (52T) | - | 111 | 110 | 107 | 110 | 112 | 110 | 105 | 95 | 115.9 | $\begin{aligned} & \text { BS5228-1 } \\ & \text { Table C.3.8 } \end{aligned}$ |
| Piling rig power pack | - | 108 | 103 | 97 | 95 | 89 | 83 | 77 | 71 | 96.0 | $\begin{gathered} \text { BS5228-1 } \\ \text { Table C.3.10 } \end{gathered}$ |

1) A weighted Octave Band Spectrum, drive-by maximum sound level

OBCF Octave Band Centre Frequency
Table 2: Sources Included Within Construction Modelling Scenarios

| Name of Plant Item or Noise Source | $\mathrm{L}_{\text {wa }}$ | \% on-site | No. |
| :---: | :---: | :---: | :---: |
| Demolition |  |  |  |
| Breaker Mounted on a Wheeled backhoe | 120.5 | 80 | 2 |
| Hand-held circular saw (petrol) (3kW/ 300 mm diameter/ 9.2 kg ) | 114.6 | 40 | 6 |
| Skip dropping and collecting | 96.3 | $18^{2)}$ | 1 |
| Wheeled excavator ( $90 \mathrm{~kW} / 18 \mathrm{~T}$ ) | 94.0 | 80 | 4 |
| Tracked excavator (205 kW/ 40T) | 114.4 | 80 | 4 |
| Wheeled backhoe loader | 95.9 | 80 | 2 |
| Skip wagon on haul route ${ }^{1)}$ | 105.8 | 6 movements per hour per vehicle | 1 |
| Groundworks and Drainage |  |  |  |
| Articulated dump truck ( $187 \mathrm{~kW} / 23 \mathrm{~T}$ ) tipping fill | 102.0 | 50 | 2 |
| Site Dumper (75kW / 9T) idling | 90.9 | 50 | 1 |
| Tracked excavator (102 kW / 22T) | 105.9 | 80 | 1 |
| Tracked excavator (205 kW / 40T) | 114.4 | 80 | 3 |
| Vibratory Roller (Trench compactor (12kW / 1.5T)) | 104.5 | 80 | 1 |
| Wheeled excavator (90 kW / 18T) | 94.0 | 80 | 1 |
| Articulated dump trucks ( $187 \mathrm{~kW} / 23 \mathrm{~T})^{\text {1) }}$ | 108.5 | 6 circuits per hour per vehicle | 2 |
| Site dumper (81kW / 7T) ${ }^{1)}$ | 104.3 | 6 circuits per hour per vehicle | 1 |
| Piling |  |  |  |
| Vibratory piling rig, sheet steel piling (52T) | 115.9 | 80 | 1 |
| Piling rig power pack | 96.0 | 80 | 1 |

1) Modelled as a moving point source (line source)
2) Proportion of time spent collecting and dropping skips, when assuming a combined drop and collect time of 3.5 minutes (based on observations)

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 <br> Lnight,outside | DM33 Lnight,outside | DS33 <br> Lnight,outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1, ALEXANDER DRIVE | Deeling | 46.6 | 47.3 | 46.6 | 0.0 | No Change | 47.5 | 0.9 | Negigigle Adverse | 35.7 | 36.3 | 36.5 |
| 10, ALLEXANDER DRIVE | Dwelling | $\frac{48.0}{47.3}$ | 48.8 48.0 | 47.9 47.2 | -0.1 .0 .1 | $\frac{\text { Negligible Beneficial }}{\text { Negligibl } \text { Beneficial }}$ | $\frac{49.0}{48.3}$ | 1.0 | Negligile Adverse | ${ }^{36.9} 3$ | 37.7 36.9 | 37.8 37.2 |
| 12, ALEXANDER DRIVE | Dwelling | 48.2 | 49.0 | 48.1 | ${ }_{-0.1}$ | Negligible Beneficioial | 49.2 | 1.0 | Neoligible Adverse | 37.1 | ${ }^{37.8}$ | 38.0 |
| 13, ALEXANDER DRIVE | Dwelling | 48.2 | 48.9 | 48.2 | 0.0 | No Change | 49.2 | 1.0 | Negligible Adverse | 37.1 | 37.7 | 38.0 |
| 14, ALEXANDER DRIVE | Dwelling | 48.8 | 49.6 | 48.7 | -0.1 | Negligible Beneficial | 49.8 | 1.0 | Negigigible Adverse | 37.7 | 38.4 | 38.6 |
| 15, ALEXANDER DRIVE | Dwelling | 47.8 | 48.5 | 47.7 | -0.1 | Negligible Beneficical | 48.6 | 0.8 | Negligible Adverse | 36.8 | 37.4 | 37.5 |
| 16, ALEXANDER DRIVE | Dwelling | 48.5 | 49.4 | 48.4 | -0.1 | Negligible Beneficical | 49.5 | 1.0 | Negilibile Adverse | 37.4 | 38.2 | 38.3 |
| 17, ALEXANDER DRIVE | Deelling | 47.6 | 48.4 | 47.6 | 0.0 | No Change | 48.5 | 0.9 | Negigiolib Adverse | ${ }^{36.6}$ | 37.3 | 37.4 |
| 18, ALEXANDER DRIVE | Deelling | 48.5 | 49.4 | 48.3 | -0.2 | Negligible Beneficial | 49.5 | 1.0 | Negligible Adverse | 37.4 | 38.2 | 38.3 |
| 19, ALEXANDER DRIVE | Dewling | 47.6 474 | 48.4 | ${ }_{47.5}^{47}$ | -0.1 | Negligible Beneficial | 48.5 484 | 0.9 | Negigigli Adverse | 36.6 364 | ${ }_{37,3}^{37.1}$ | 37.4 373 |
|  | Oweiling | $\stackrel{48.4}{48.6}$ | ${ }_{49.5}^{48.2}$ | 48.5 | -0.1 | Negiligiole Beneitical | ${ }_{49.6}^{48.4}$ | 1.0 | Negigigibe Adverse | 36.4 37.5 | ${ }_{38.3}$ | 37.4 |
| 21,ALEXANDER DRIVE | Dwelling | 47.7 | 48.5 | 47.6 | . 0.1 | Negligible Beneficial | 48.5 | 0.8 | Negigiolile Adverse | 36.7 | 37.4 | 37.4 |
| $\frac{\text { 22, ALLXANDER DRIVE }}{23, \text { LLEXANDER DRIVE }}$ | Dwelling | 48.9 48.4 | 49.8 49.6 | 48.7 48.2 | -0.2 -0.2 | $\frac{\text { Negligible Beneficial }}{\text { Neglioble }}$ | 49.8 49.5 | 0.9 1.1 | Negiligile Adverse Nefigiole Adverse | 37.7 37.3 | 38.6 38.4 | 38.6 38.3 |
| 24, ALEXANDER DRIVE | Dwelling | 49.2 | 50.3 | 49.1 | -0.1 | Negligible Beneficicial | 50.2 | 1.0 | Negiligible Adverse | 38.0 | 39.0 | 38.9 |
| 25, ALEXANDER DRIVE | Dwelling | 48.6 | 49.8 | 48.4 | -0.2 | Negligible Beneficial | 49.6 | 1.0 | Negiligile Adverse | 7.5 |  | 8.4 |
| 26, ALEXANDER DRIVE | Dwelling | 48.0 | 49.3 | 47.8 | -0.2 | Negligible Beneficical | 49.1 | 1.1 | Negigioble Adverse | 36.9 | 38.1 | 37.9 |
| 27, ALEXANDER DRIVE | Dweling | 46.5 | 47.7 | 46.4 | -0.1 | Negligible Beneficial | 47.6 | 1.1 | Negigioble Adverse | 35.6 | 36.7 | 36.6 |
| 28, ALEXANDER DRIVE | Dweling | 47.9 | 49.2 | ${ }_{4}^{47.7}$ | -0.2 | Negiligiole Beneficial | 49.0 | 1.1 | Negiligile Adverse | 36.8 3 3 | 38.0 | $\begin{array}{r}37.8 \\ 3.8 \\ \hline\end{array}$ |
| 29, ALLEXANDER DRIVE | Swelling | 46.3 | ${ }_{47,6}^{47}$ | ${ }_{46.7}^{46.1}$ | -0.2 <br> .0 .1 |  | ${ }_{477}^{47,3}$ | 1.0 | Negigigle Adverse | 35.4 35.9 | 36.6 36.4 | 36.3 36.7 |
| 30, ALEXANDER DRIVE | Dwelling | 48.0 | 49.4 | 47.8 | -0.2 | Negligible Beneficicial | 49.2 | 1.2 | Negiligile Adverse | 36.9 | 38.2 | 38.0 |
| 31, ALEXANDER DRIVE | Dwelling | 47.3 | 48.5 | 47.1 | -0.2 | Negligible Beneficial | 48.4 | 1.1 | Negigigible Adverse | 36.3 | 37.4 | 37.3 |
| 32, ALEXANDER DRIVE | Deelling | 48.5 | 49.8 | 48.2 | -0.3 | Negligible Beneficical | 49.6 | 1.1 | Negigioble Adverse | 37.4 | 38.6 | 38.4 |
| -33, ALLXANDERDRIVE | Dwelling | ${ }_{48,7}^{47.4}$ | 49.0 50.1 | ${ }_{48.5}^{47.0}$ | -0.4 | $\frac{\text { Negligible Benenicial }}{\text { Neglioble }}$ | ${ }_{49,7}^{489}$ | ${ }_{1}^{1.3}$ | Negligible Adverse | 36.4 376 | 37.8 <br> 38.8 | 37.6 386 |
| 35, ALEXANDER DRIVE | Dwelling | 46.2 | 48.2 | 45.5 | -0.7 | Negligible Beneficioal | 47.7 | 1.5 | Negiligile Adverse | 35.3 | 37.1 | 36.7 |
| 36, ALEXANDER DRIVE | Wwelling | 48.1 | 49.8 | 47.7 | -0.4 | Negligible Beneficial | 49.4 | 1.3 | Negligible Adverse | 37.0 | 38.6 | 38.2 |
| 37, ALEXANDER DRIVE | welling | 46.2 | 48.2 | 45.5 | -0.7 | Negligible Beneficial | 47.7 | 1.5 | Negigigile Adverse | 35.3 | 37.1 | 36.7 |
| 38, ALEXANDER DRIVE | Oweling | 48.2 | 50.0 | 47.7 | -0.5 | Negligible Beneficicial | 49.5 | 1.3 | Negiligibe Adverse | 37.1 | 38.7 | 38.3 |
| 39, ALEXANDER DRIVE | welling | 46.2 | 48.2 | 45.5 | -0.7 | Negligitie Beneficial | 47.7 | 1.5 | Negiligie Adverse | 35.3 | 37.1 37 | ${ }^{36,7}$ |
| 4, ALEXANDER DRRVE |  |  | ${ }^{48.4}$ |  |  | No change |  |  | Negiquibe Adverse |  |  |  |
| 40, ALLXANDER DRIVE | Oweling | ${ }_{46.1}^{48.1}$ | 50.1 48.2 | ${ }_{45.5}^{47.5}$ | $\stackrel{-0.7}{ }$ | Negiligile Benenticial | ${ }_{47.7}^{49.5}$ | 1.4 <br> 1.5 | Negigigib Adverse | 37.0 35.3 | ${ }_{37,1}^{38.8}$ | ${ }_{36.7}$ |
| 42, ALEXANDER DRIVE | Dwelling | 48.9 | 50.8 | 48.3 | -0.6 | Negligible Beneficial | 50.2 | 1.3 | Negligible Adverse | 37.7 | 39.5 | 38.9 |
| 43, ALEXANDER DRIVE | Dwelling | 46.2 | 48.2 | 45.5 | -0.7 | Negligible Beneficial | 47.7 | 1.5 | Negligible Adverse | 35.3 | 37.1 | 36.7 |
| 44, ALEXANDER DRIVE | Deelling | 49.4 | 51.2 | 48.8 | -0.6 | Negligible Beneficial | 50.7 | 1.3 | Negiligibe Adverse | 38.2 | 39.8 | 39.4 |
| 45, ALEXANDER DRIVE | Dwelling | 46.2 | 48.2 | 45.5 | -0.7 | Negligible Beneficial | 47.7 | 1.5 | Negligible Adverse | 35.3 | 37.1 |  |
| 46, ALLXAADERDRIVE | Dwelling | 55.1 46.2 | 57.2 48.2 | ${ }^{54.1}$ | -1.0 -0.7 | Meginoribile Beneiticalicial | 56.6 47.7 | 1.5 1.5 | Negigigle Adverse | ${ }_{35.3}^{43.3}$ | ${ }_{35.1}^{45.2}$ | ${ }_{36.7}^{44.7}$ |
| 48, ALEXANDER DRIVE | Dwelling | 54.9 | 57.3 | 53.6 | 1.3 | Minor Beneficial | 56.5 | 1.6 | Negigigile Adverse | 43.1 | 45.3 | 44.6 |
| 49, ALEXANDER DRIVE | Dewling | 46.2 | 48.2 | 45.5 | -0.7 | Negligible Beneficical | 477 | 1.5 | Negligible Adverse | ${ }_{35.3}^{35}$ | 37.1 3.1 | 36.7 36 |
| 5, ALEXANDER DRIVE | Dwelling | $\stackrel{46.2}{55.0}$ | 47.0 57.6 | 46.2 53.7 | - ${ }_{-1.3}^{0.0}$ |  | 47.2 56.7 | 1.0 1.7 | Negigiobe Adverse | 35.3 43.2 | 36.0 45.6 | 36.2 44.8 |
| 51, ALEXANDER DRIVE | Delling | ${ }_{45.7}^{44}$ | 46.5 | 44.2 | -0.5 | Negligible Beneficial | ${ }_{56.0}^{46}$ | 1.3 | Negligible Adverse | 34.0 | 35.6 | 35.1 |
| 52, ALLXANDER DRIVE | Dwelling | 55.3 44.7 | 58.0 46.5 | 53.9 44.2 | - $\begin{array}{r}-1.4 \\ -0.5\end{array}$ | Megnor Beneficicial | 57.1 46.0 | 1.8 1.3 | $\frac{\text { Negigigle Adverse }}{\text { Neoligible Adverse }}$ | ${ }_{34.0}^{43.5}$ | ${ }_{35.6}^{45.9}$ | ${ }_{35.1}^{45.1}$ |
| 54, ALEXANDER DRIVE | Dwelling | 55.4 | 58.2 | 54.0 | -1.4 | Minor Beneficial | 57.3 | 1.9 | Negiligibe Adverse | 43.6 | 46.1 | 45.3 |
| 55, ALEXANDER DRIVE |  |  |  |  |  | Negiqioble Benenicial |  |  | Negigigle Adverse |  |  |  |
| 57, ALEXANDER DRIVE | Dwelling | 44.7 | 46.5 | 44.2 | -0.5 | Negligible Beneficial | 46.0 | 1.3 | Negiligible Adverse | 34.0 | 35.6 | 35.1 |
| 58, ALEXANDER DRIVE | Deelling | 55.6 | 58.5 | 54.0 | -1.6 | Minor Beneficial | 57.6 | 2.0 | Negiligibe Adverse | 43.8 | 46.4 | 45.6 |
| 59, ALEXANDER DRIVE | Dwelling | 44.7 | 46.5 | 44.2 | -0.5 | Negligible Beneficial | 46.0 | 1.3 | Negigigile Adverse | 34.0 | ${ }^{35.6}$ | 35.1 |
| 6, ALEXANDER DRIVE | Dwelling | 47.9 523 | 48.7 <br> 551 | $\frac{47.8}{508}$ | - -1.1 | Negiligile Beneficial | $\frac{48.9}{543}$ | $\stackrel{1.0}{20}$ | Negigigle Adverse | 36.8 40.8 | 37.6 433 | 37.7 |
| 60, ALLXAADERDRIVE | Dwelling | 44.7 | 46.5 | 44.2 | --.5 | Neginigible Eeneneficial | ${ }^{54.3} 4$ | ${ }_{1.3}^{2.0}$ | Neogigioble Adverse | ${ }^{40.8}$ | ${ }_{35.6}^{43.3}$ | $\stackrel{42.6}{35.1}$ |
| 62, ALEXANDER DRIVE | Deelling | 49.8 | 52.2 | 48.7 | -1.1 | Minor Beneficial | 51.5 | 1.7 | Negiligile Adverse | 38.6 | 40.7 | 40.1 |
| 63, ALEXANDER DRIVE | Dwelling | 44.7 | 46.5 | 44.2 | -0.5 | Negligible Beneficial | 46.0 | 1.3 | Negiligile Adverse | 34.0 | 35.6 | 35.1 |
| 64, ALLXAADER DRIVE | Dwelling | $\stackrel{51.1}{44.7}$ | 53.7 46.5 | 49.8 44.2 | -1.3 | Megnorioible Beneficicicicial | 53.0 46.0 | 1.9 1.3 | $\frac{\text { Negigigle Adverse }}{\text { Neligiole Adverse }}$ | 39.7 34.0 | $\stackrel{42.1}{35.6}$ | $\stackrel{41.4}{35.1}$ |
| 67, ALEXANDER DRIVE | Dwelling | 43.8 | 45.3 | 43.4 | -0.4 | Negligible Beneficial | 45.0 | 1.2 | Negiligibe Adverse | 33.2 | 34.5 | 34.2 |
| 69, ALEXANDER DRIVE | Dwelling | 43.8 46.7 | 45.3 47.4 | 43.4 46.7 | -0.4 <br> 0.0 <br>  | Negligible Beneticial | 45.0 | 1.2 1.0 | $\frac{\text { Negligible Adverse }}{\text { Nefligible Adverse }}$ | 33.2 <br> 35.8 | 34.5 36.4 | 34.2 36.7 |
| 71, ALEXANDER DRIVE | Dwelling | 43.8 | 45.3 | 43.4 | -0.4 | Negligible Beneficial | 45.0 | 1.2 | Negiligible Adverse | 33.2 | 34.5 | 34.2 |
| 73, ALEXANDER DRIVE | Dwelling | 43.8 | 45.3 | 43,4 | -0.4 | Negligible Beneficial | 45.0 | 1.2 | Negiligible Adverse | 33.2 | 34.5 | 34.2 |
| 75, ALEXANDER DRIVE | Dweling | 43.8 4.8 | 45.3 <br> 153 | 43.4 4.4 | -0.4 | $\frac{\text { Negiligiole Beneficial }}{\text { Negligible }}$ Beneficial | 45.0 | $\frac{1.2}{12}$ | $\frac{\text { Negigigio Adverse }}{\text { Negilible Adverse }}$ | -33.2 | 34.5 | $\begin{array}{r}34.2 \\ \hline \text { 3,2 }\end{array}$ |
| 79,ALEXANDER DRIVE | Dwelling | 43.8 | 45.3 | 43.4 | -0.4 | Negligible Benenicicial | 45.0 | 1.2 | Negiligible Adverse | 33.2 | 34.5 | 34.2 |
| 8, ALEXANDER DRIVE | Dwelling | 47.8 | 48.6 | ${ }_{4}^{47.7}$ | -0.1 | Negilibile Benenitial | 48.8 | 1.0 | Negiligile Adverse | $\begin{array}{r}36.8 \\ 3.2 \\ \hline\end{array}$ | 37.5 | 37.7 |
| 87, ALEXAANDER DRIVE | ${ }^{\text {Duelling }}$ | 43.9 | 45.6 | ${ }_{43.5}^{43.5}$ | -0.4 | Negegiogible Beneneicial | 45.1 | 1.2 | Neoligigibe Adverse | ${ }^{33.2}$ | 34.8 | ${ }_{34.3}$ |
| 85, ALEXANDER DRIVE | Dwelling | 43.9 | 45.6 | 43.5 | -0.4 | Negligible Beneficial | 45.1 | 1.2 | Negiligible Adverse | 33.2 | 34.8 | 34.3 |
| 87, ALEXANDER DRIVE | Dwelling | 43.9 | 45.6 | 43.5 | -0.4 | Negligible Beneficial | 45.1 | 1.2 | Negiligile Adverse | 33.2 | 34.8 | 34.3 |
| 89, ALEXAANDER DRRIVE | Dwelling | 43.9 | ${ }_{4}^{47.6}$ | 43.5 | -0.4 <br> -0.1 | Negiligie Beneficial | ${ }_{45.1}^{45.2}$ | 1.2 0.9 | $\frac{\text { Negligible Adverse }}{\text { Negligible Adverse }}$ | 33.2 35.4 | 34.8 36.1 | 34.3 36.2 |
| 91, ALLXANDER DRIVE | Dwelling | 43.9 4.9 | ${ }_{4}^{45.6}$ | 43.5 4.5 | -0.4 | Negligible Beneficial | 45.1 451 | 1.2 | Negiligile Adverse | 33.2 332 | 34.8 348 | 34.3 34 |
| 93, ALLXAADER DRIVE | Dweliling | 43.9 | ${ }_{45.6}^{45.6}$ | ${ }_{43.5}^{43.5}$ | -.0 .4 <br> -0.4 | Negoligible eeneficicial | 45.1 | 1.2 | Neogioigile Adverse | 33.2 33.2 | 34.8 | ${ }_{34.3}$ |
| 97, ALEXANDER DRIVE | Welling | ${ }_{4}^{43.9}$ | 45.6 46.4 | 43.5 44. | -0.4 | Negligible Beneficial | 45.1 460 | 1.2 | Negiligil Adverse | 33.2 34.1 | 34.8 3.8 | 34.3 |
| ILAAT A, 2, ALEXANDER I ERRACE, HAATON | Dwelling | ${ }_{44.8}^{44.8}$ | $\frac{46.4}{46.4}$ | 44.4 | -0.4 -0.4 | Negiligie Beneficial | 46.0 46.0 | 1.2 | Negigible Adverse | 34.1 | 35.5 | 35.1 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 <br> Lnight,outside | DM33 Lnight,outside | DS33 Lnight,outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| FLAT C, 2, ALEXANDER TERRACE, HAYTON | Dwelling | 44.8 | 46.4 | 44.4 | ${ }^{0.4}$ | Negligible Beneficial | 46.0 | 1.2 | Negligible Adverse | 34.1 | 35.5 | 35.1 |
| FLAT D, 2, ALEXANDER TERRACE, HAYTON | Oweling | 44.8 | 46.4 | 44.4 | 0.4 | Negligible Beneficical | 46.0 | 1.2 | Negligible Adverse | 34.1 | 35.5 | 35.1 |
| FLAT E, , , ALEXANDER TERRACE, HAYTON | Dwelling | 44.8 | 46.4 | 44.4 | -0.4 | Negligible Beneficial | 46.0 | 1.2 | Negiligile Adverse | 34.1 | 35.5 | 35.1 |
| FLAT F, , , ALEEXANDER TERRACE, HATTON | Oweling | ${ }_{4}^{4.8}$ | 46.4 | 44.4 | -0.4 | Negligible Beneficical | 46.0 | 1.2 | Negigigle Adverse | 34.1 <br> 35 | 35.5 <br> 358 | 35.1 359 |
| FLAT A, 3, ALEXANSER TERRACE, HAYTON | Deeling | 45.9 | ${ }_{46.7}$ | 45.8 | -0.1 | Negligible Beneficical | 46.9 | 1.0 | Negligible Adverse | 35.0 | 35.8 3.8 | 35.9 |
| FLAA B , 3, ALEXANSER T TeRRACE, HAYTON | Delling | 45.9 | ${ }^{46.7}$ | 45.8 | -0.1 | Negligible Beneficicial | 46.9 | 1.0 | Negligible Adverse | 35.0 | 35.8 3.8 | 35.9 |
| FLAT C, 3, ALEXANDER TERRACE, HAYTON | Deelling | 45.9 | 46.7 | 45.8 | -0.1 | Negligible Beneficical | 46.9 | 1.0 | Negligible Adverse | 35.0 | 35.8 | 35.9 |
| FLAT D, 3, ALEXANDER TERRACE, HAYTON | Dewling | 45.9 | 46.7 | 45.8 458 | -0.1 | Negliable Beneficial | 46.9 | 1.0 | Negiligibe Adverse | 35.0 350 | 35.8 <br> 3.8 | 35.9 359 |
| FLAT F, 3, ALEXANDER TERAACE, HAYTON | ${ }^{\text {Duediling }}$ | 45.9 | ${ }_{46.7}^{46.7}$ | 45.8 | -0.1 -0.1 | Negiligie Beneificial | 46.9 | 1.0 1.0 | Negigigibe Adverse | 35.0 35.0 | 35.8 <br> 35.8 | 35.9 35.9 |
| FLAT A, 4, ALEXANDER TERRACE, HAYTON | Dwelling | 44.3 | 45.3 | 44.2 | -0.1 | Negligible Beneficial | 45.3 | 1.0 | Negiligile Adverse | 33.6 | 34.5 | 34.5 |
| FLAT B, 4, ALEXANDER TERRACE, HAYTON | Welling | 44.3 | 45.3 | 44.2 | -0.1 | Negligible Beneficial | 45.3 | 1.0 | Negligible Adverse | 33.6 | 34.5 | 34.5 |
| FLAT C, 4, ALEXANDER TERRACE, HAYTON | welling | 44.3 | 45.3 | 44.2 | -0.1 | Negligible Beneficial | 45.3 | 1.0 | Negigigibe Adverse | 33.6 | 34.5 | 34.5 |
| FLAT D, 4, ALEXANDER TERRACE, HAYTON | welling | 44.3 | 45.3 | 44.2 | -0.1 | Negligible Beneficial | 45.3 | 1.0 | Negiligibie Adverse | ${ }^{33.6}$ | 34.5 | 34.5 <br> 345 |
| ( LLAAE, 4, ALEXANDER TRRACE, HAATON | Dwelling | ${ }_{44.3}^{44.3}$ | ${ }_{45.3}^{45.3}$ | 44.2. | -0.1 -0.1 | $\frac{\text { Negiligiole Beneficial }}{\text { Negligibe }}$ Beneficial | ${ }_{45.3}^{45.3}$ | 1.0 | Negigiobie Adverse | 33.6 <br> 33.6 | 34.5 34.5 | 34.5 34.5 |
| FLAT A, 5, ALEXANDER TERRACE, HAYTON | Dwelling | 45.8 | 46.5 | 45.7 | -0.1 | Negligible Beneficioial | 46.7 | 0.9 | Neogigioble Adverse | 35.0 | ${ }^{35.6}$ | 35.8 |
| FLAT B, 5, ALEXANDER TERRACE, HAYTON | elling | 45.8 | 46.5 | 45.7 | -0.1 | Negligible Beneficial | 46.7 | 0.9 | Negigigibe Adverse | 35.0 | 35.6 | 5.8 |
| FLAT C, 5, ALEXANDER TERRACE, HAYTON | Dwelling | 45.8 | 46.5 | 45.7 | -0.1 | Negligible Beneficial | 46.7 | 0.9 | Negigioble Adverse | 35.0 | 35.6 | 35.8 |
| FLAT D, 5, ALEXANDER TERRACE, HAYTON | Oweling | 45.8 | 46.5 | 45.7 | -0.1 | Negligible Beneficial | 46.7 | 0.9 | Negiligibe Adverse | 35.0 | 35.6 | 35.8 |
| FLAA E,5, ALEXANDER TERRACE, HAYTON | weling | 45.8 | 46.5 | ${ }_{45.7}$ | -0.1 | Negiligiole Beneilical | 46.7 | 0.9 | Negiligie Aaverse | 35.0 350 | 35.6 3.6 | 35.8 <br> 3.8 <br> 5.8 |
|  | weling | 45.8 | 46.5 | 45.7 | -0.1 | Negligible Beneficial | 46.7 | 0.9 | Negligible Aaverse | 35.0 | ${ }^{35.6}$ | 35.8 |
| FLAT A, 6, ALEEXANDER ITRRACE, HAYTON | Dweling | 43.9 | 45.0 | ${ }^{43.8}$ | -0.1 | Negligible Beneficial | 45.0 | 1.1 | Negiligble Adverse | 33.2 | 34.2 | 34.2 |
| FLLATC. 6, ALLEXANDEER TERRACE, HAYTON | Dwelling | $\stackrel{43.9}{43.9}$ | 45.0 | 43.8 43.8 | -0.1 .0 .1 |  | ${ }_{45.0}$ | ${ }_{1.1}$ | Negigigibe Adverse | 33.2 33.2 | 34.2 34.2 | 34.2 34.2 |
| FLAT D, 6, ALEXANDER TERRACE, HAYTON | Dwelling | 43.9 | 45.0 | 43.8 | -0.1 | Negligible Beneficicial | 45.0 | 1.1 | Neogioigile Adverse | 33.2 | 34.2 | 34.2 |
| FLAT E, 6, ALEXANDER TERRACE, HAYTON | Dwelling | 43.9 | 45.0 | 43.8 | -0.1 | Negligible Beneficial | 45.0 | 1.1 | Negiligile Adverse | 33.2 | 34.2 | 34.2 |
| FLAT F. , , ALEXANDER TERRACE, HAYTON | welling | 43.9 | 45.0 | 43.8 | -0.1 | Negligible Beneficial | 45.0 | 1.1 | Negigigibe Adverse | 33.2 | 34.2 | 34.2 |
| FLAT A, 7, ALEXANDER TERRACE, HAYTON | welling | 44.6 | 45.4 | 44.6 | 0.0 | No Change | 45.3 | 0.7 | Negigigibe Adverse | 33.9 | 34.6 | 34.5 |
| FLAT B, 7, ALEXANDER TERRACE, HAYTON | welling | 44.6 | 45.4 | 44.6 | 0.0 | No Change | 45.3 | 0.7 | Negigiolie Adverse | 33.9 | 34.6 | 34.5 |
| FLAT C, 7, ALEXANDER TERRACE, HAYTON | welling | 44.6 | 45.4 | 44.6 | 0.0 | No Change | 45.3 | 0.7 | Negiligibe Adverse | 33.9 | 34.6 | 34.5 |
| FLAT D, 7, ALEXANDER TERRACE, HAYTON | Deelling | 44.6 | 45.4 | 44.6 | 0.0 | No Change | 45.3 | 0.7 | Negiligibe Adverse | 33.9 | 34.6 | 34.5 |
| (LLAAE, , , ALEXANDER TRRACE, HAATON | Dwelling | $\stackrel{44.6}{44.6}$ | 45.4.4 | 44.6 | 0.0 | $\frac{\text { No C Cange }}{\text { No Change }}$ | ${ }_{45.3}^{45.3}$ | 0.7 | Negigigib Adverse | 33.9 33.9 | 34.6 34.6 | 34.5 <br> 34.5 |
| FLAT A, 8, ALEXANDER TERRACE, HAYTON | Dwelling | 44.7 | 45.7 | 44.6 | -0.1 | Negligible Beneficial | 45.7 | 1.0 | Negligible Adverse | 34.0 | 34.9 | 34.9 |
| FLAT B, 8, ALEXANDER TERRACE, HAYTON |  | 44.7 | 45.7 | 44.6 | -0.1 | Negligible Beneficial | 45.7 | 1.0 | Negligibl Adverse | 34.0 |  |  |
| FLAT C, 8, ALEXANDER TERRACE, HAYTON | Dwelling | 44.7 | 45.7 | 44.6 | -0.1 | Negligible Beneficial | 45.7 | 1.0 | Negiligibe Adverse | 34.0 | 34.9 | 34.9 |
| FLAT D, 8, ALEXANDER TERRACE, HAYTON | welling | 44.7 | 45.7 | 44.6 | -0.1 | Negligible Beneficial | 45.7 | 1.0 | Negigioble Adverse | 34.0 | 34.9 | 34.9 |
| FLAA E, \%, ALEXANDER TERRACE, HAYTON | Oweling | 44.7 | 45.7 | ${ }_{4}^{44.6}$ | -0.1 | Negiligiole Beneficial | 45.7 | 1.0 | Negiligile Adverse | $\begin{array}{r}34.0 \\ 34 \\ \hline\end{array}$ | 34.9 | 34.9 34 |
| FLAAT, 8, ALEXANDER TERRACE, HATTON | Dweling | 44.7 | 45.7 | ${ }_{4}^{44.6}$ | -0.1 | Neogigible Beneficial | ${ }_{454}^{45.7}$ | 1.0 | Negiquibe Adverse | 34.0 339 | 34.9 347 | ${ }^{34.9}$ |
| FLAT A,9, ALEXANDER TERRACE, HAYTON | Oweling | ${ }_{44.6}^{44}$ | 45.5 | ${ }^{44.7}$ | 0.1 | Negigigie Adverse | 45.4 | 0.8 | Negiligile Adverse | 33.9 339 | 34.7 3.7 | ${ }^{34.6}$ |
| FLAT C, 9, ALLEXADNDER TERAACE, HAYTON | Dweliling | ${ }_{44.6}^{44.6}$ | 45.5 | ${ }_{44.7}^{44.7}$ | ${ }_{0}^{0.1}$ | Negigible Adverse | 45.4. | 0.8 | Negigible Adverse | 33.9 33.9 | 34.7 34.7 | 34.6 34.6 |
| FLAT D, 9, ALEXANDER TERRACE, HAYTON | Dwelling | 44.6 | 45.5 | 44.7 | 0.1 | Negligible Adverse | 45.4 | 0.8 | Negligible Adverse | 33.9 | 34.7 | 34.6 |
| FLAT E, 9, ALEXANDER TERRACE, HAYTON | Wwelling | 44.6 | 45.5 | 44.7 | 0.1 | Negiligile Adverse | 45.4 | 0.8 | Negigiolie Adverse | 33.9 | 34.7 | 34.6 |
| FLAT F, 9, ALEXANDER TTERRACE, HATTON | Owelling | ${ }^{44.6}$ | 45.5 | ${ }^{44.7}$ | 0.1 | Negigigibe Adverse | 45.4 | 0.8 | Negigigible Adverse | 33.9 | 34.7 | 34.6 |
| FLAT A, 10, ALEXANDER TERRACE, HAYTON | Dwelling | ${ }_{45.3}^{45}$ | 46.4 | ${ }_{45.3}$ | 0.0 | No Change | 46.3 <br> 463 | 1.0 | Negigigle Adverse | 34.5 345 | 35.5 35 | $\begin{array}{r}35.4 \\ 354 \\ \hline\end{array}$ |
| FLAT C, 10, ALEXANDER TERRACE, HAMTON | Dwelling | 45.3 | 46.4 | 45.3 | 0.0 | No Change | 46.3 | 1.0 | Negligible Adverse | 34.5 | 35.5 | 35.4 |
| FLAT D, 10, ALEXANDER TERRACE, HAYTON | Owelling | 45.3 | 46.4 | 45.3 | 0.0 | No Change | 46.3 | 1.0 | Negligible Adverse | 34.5 | 35.5 | 35.4 |
| FLATE E, 1, ALEXANDER TERRACE, HAYTON | Oweling | 45.3 | 46.4 | ${ }^{45.3}$ | 0.0 | No Change | ${ }^{46.3}$ | 1.0 | Negigigio Adverse | 34.5 |  | $\begin{array}{r}35.4 \\ 3.4 \\ \hline\end{array}$ |
| FLAT F, 10, ALEXANDER TERRACE, HAYTON | Dwelling | 45.3 46.7 | 46.4 48.2 | 45.3 46.5 | 0.0 -0.2 | ${ }_{\text {Negligible }}^{\text {Nenge }}$ (icial | 46.3 47.8 | ${ }_{1}^{1.0}$ | Negligibl Adverse | 34.5 35.8 | 35.5 37.1 | 35.4 36.8 |
| FLAT B, 12, ALEXANDER TERRACE, HAYTON | veling | 46.7 | 48.2 | 46.5 | 0.2 | Negligible Beneficial | 47.8 | 1.1 | Negligible Adverse | 5.8 | 7.1 |  |
| FLAT C, 12, ALEXANDER TERRACE, HAYTON | Dwelling | 46.7 | 48.2 | 46.5 | -0.2 | Negligible Beneficial | 47.8 | 1.1 | Negligible Adverse | 35.8 | 37.1 | 36.8 |
| FLAT D, 12, ALEXANDER TERRACE, HAYTON | Dwelling | 46.7 | 48.2 | 46.5 | -0.2 | Negligible Beneficial | 47.8 | 1.1 | Negigioble Adverse | 35.8 | 37.1 | 36.8 |
| FLATAT, 12, ALEXANDEER TERAACE, HATTON | Dweliling | ${ }^{46.7}$ | ${ }^{48.2}$ | 46.5 | -0.2 | Negiligible eeneneficial | ${ }^{47.8}$ | ${ }_{1.1}^{1.1}$ | Negligigile Adverse | 35.8 <br> 35.8 | $\begin{array}{r}37.1 \\ \hline 37.1\end{array}$ | 36.8 36.8 |
| FLAT A, 14, ALEXANDER TERRACE, HAYTON | Deelling | 46.6 | 48.0 | 46.4 | -0.2 | Negligible Beneficial | 47.6 | 1.0 | Negligible Adverse | 35.7 | 36.9 | 36.6 |
| FLAT B, 14, ALEXANDER TERRACE, HAYTON | Dwelling | 46.6 | 48.0 | 46.4 | -0.2 | Negligible Beneficial | 47.6 | 1.0 | Negiligile Adverse | 35.7 | 36.9 | 36.6 |
| FLAT C, 14, ALEXANDER TERRACE, HAYTON | Dwelling | $\xrightarrow[46.6]{46.6}$ | 48.0 48.0 | 46.4 46.4 | -0.2 | Negiligie Beneficial | $\stackrel{47.6}{47.6}$ | 1.0 1.0 | $\frac{\text { Negigigle Adverse }}{\text { Neligiole Adverse }}$ | 35.7 35.7 | 36.9 36.9 | 36.6 36.6 |
| FLAT E, 14, ALEXANDER TERRACE, HAYTON | Dwelling | 46.6 | 48.0 | 46.4 | -0.2 | Negligible Beneficial | 47.6 | 1.0 | Negigioibe Adverse | 35.7 | 36.9 | 36.6 |
| FLAT F, 14, ALEXANDER TERRACE, HAYTON | Dwelling | 46.6 46.6 | 48.0 47.9 | 46.4 46.5 | -0.2 -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ Beneficial | 47.6 47.6 | 1.0 1.0 | $\frac{\text { Negligible Adverse }}{\text { Nefligible Adverse }}$ | 35.7 35.7 | 36.9 36.8 | 36.6 36.6 |
| FLAT B, 16, ALEXANDER TERRACE, HAYTON | Dwelling | 46.6 | 47.9 | 46.5 | -0.1 | Negligible Beneficial | 47.6 | 1.0 | Negiligible Adverse | 35.7 | 36.8 | 36.6 |
| FLAT C, 16, ALEXANDER TERRACE, HAYTON | Dwelling | 46.6 46.6 | 47.9 47.9 | 46.5 46.5 | -0.1 .0 .1 | $\frac{\text { Negliable Beneficial }}{\text { Negligible }}$ | 47.6 47.6 | 1.0 1.0 | Negligibl Adverse | 35.7 35.7 | 36.8 36.8 | 36.6 36.6 |
| FLAT E, 16, ALEXANDER TERRACE, HAYTON | Dwelling | 46.6 | 47.9 | 46.5 | -0.1 | Negligible Beneficial | 47.6 | 1.0 | Negigioible Adverse | 35.7 | 36.8 | 36.6 |
| FLAT F, 16, ALEXANDER TERRACE, HAYTON | Dwelling | 46.6 | 47.9 46.7 | 46.5 45.2 | $\stackrel{-0.1}{-0.2}$ | $\frac{\text { Negligible Beneficial }}{\text { Neglioibl }}$ Beneficial | $\stackrel{47.6}{46.4}$ | 1.0 1.0 | $\frac{\text { Negigigle Adverse }}{\text { Negligible Adverse }}$ | $\begin{array}{r}35.7 \\ 34.6 \\ \hline\end{array}$ | 36.8 35.8 | 36.6 35.5 |
| FLAT B, 18, ALEXANDER TERRACE, HAYTON | Dwelling | 45.4 | 46.7 | 45.2 | -0.2 | Negligible Benenicial | 46.4 | 1.0 | Negligible Adverse | 34.6 | 35.8 | 35.5 |
| FLAT C, 18, ALEXANDER TERRACE, HAYTON | Deelling | 45.4 | 46.7 | 45.2 | -0.2 | Negligible Beneficial | 46.4 | 1.0 | Negigioble Adverse | 34.6 | 35.8 | 35.5 |
| FLAT | Dwelling | 45.4 | 46.7 46.7 | 45.2 | -0.2 | Negiligiole Beneficical | 46.4 | 1.0 1.0 | Negigigil Adverse | 34.6 <br> 34.6 | 35.8 <br> 35.8 | 35.5 <br> 35.5 |
| FLAT F, 18, ALEXANDER TERRACE, HAYTON | Dwelling | 45.4 451 | 46.7 459 | - 45.2 | -0.2 0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negiolible Adverse }}$ | 46.4 458 | 1.0 0.7 | Negligile Adverse | 34.6 343 | 35.8 <br> 350 | $\begin{array}{r}35.5 \\ 350 \\ \hline\end{array}$ |
| FLAT P, O2, ALEXAANDER TERAACE, HAYTON | Dwelling | ${ }_{45.1}^{45.1}$ | 45.9 | 45.2 | 0.1 | Neoligioble Adverse | 45.8 | 0.7 | Negligibile Adverse | ${ }^{34.3}$ | 35.0 35.0 | 35.0 350 |
| LAATC, 20, ALLEXANDER TERRACE, HAYTON | Dwelling | 45.1 | 45.9 | 45.2 | 0.1 | Negiligile Adverse | 45.8 | 0.7 | Negiligile Adverse | ${ }^{34.3}$ | 35.0 35 | 35.0 350 |
| FLLT D, 20, ALEXANDER TERRACE, HAYTON | Oweling | $\frac{45.1}{45.1}$ | $\frac{45.9}{45.9}$ | $\frac{45.2}{45.2}$ | 0.1 | $\frac{\text { Negiligibe Adverse }}{\text { Negigiole Adverse }}$ | 45.8 45.8 | 0.7 0.7 | $\frac{\text { Negligiole Adverse }}{\text { Negligible Adverse }}$ | 34.3 34.3 | 35.0 35.0 | 35.0 35.0 |
| FLLT F, 20, ALEXANDER TERRACE, HAYTON | Dewling | ${ }_{4}^{45.1}$ | 45.9 47 | 45.2 | 0.1 | Negligible Adverse | 45.8 | 0.7 | Negligible Adverse | 34.3 <br> 35 | 35.0 360 | 35.0 350 |
| FLAT A, 22, ALEXANDER TERRACE, HAYTON | weiling | 46.1 | 47.0 | 46.2 |  | Negigigile Adverse | 46.8 | 0.7 | Negigigile Adverse |  | 36.0 | 35.9 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 <br> Lnight,outside | DS33 Lnight,outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| FLAT B, 22, ALEXANDER TERRACE, HAYTON | Dwelling | 46.1 | 47.0 | 46.2 | 0.1 | Negigiolie Adverse | 46.8 | 0.7 | Negigiolie Adverse | 35.2 | 36.0 | 35.9 |
| FLAT C, 22, ALEXANDER TERRACE, HAYTON | Dwelling | 46.1 | 47.0 | 46.2 | 0.1 | Negigioble Adverse | 46.8 | 0.7 | Negiligile Adverse | 35.2 | 36.0 | 35.9 |
| FLAT D, 22, ALLXANDER TERRACE, AAYTON | Dweling | 46.1 46.1 | 47.0 47.0 | ${ }_{46.2}^{46.2}$ | ${ }_{0}^{0.1}$ | Negigiole Adverse | 46.8 46.8 | 0.7 0.7 | $\frac{\text { Negiligio Adverse }}{\text { Negiloble Adverse }}$ | 35.2 35.2 | 36.0 36.0 | 35.9 35.9 |
| FLAT F, 2, 2, ALEXANDER TERRACE, HAYTON | ${ }^{\text {Duelilig }}$ Oweling | ${ }_{46.1}$ | 47.0 | 46.2 | 0.1 | Negigigibe Adverse | 46.8 | 0.7 | Negigigible Adverse | ${ }^{35.2}$ | 36.0 | ${ }^{35.9}$ |
| FLAT A, 24, ALEXANDER TERRACE, HAYTON | Dwelling | 45.9 | 46.7 | 46.0 | 0.1 | Negigiolie Adverse | 46.6 | 0.7 | Negigiolie Adverse | 35.0 | 35.8 | 35.7 |
| FLAT B, 24, ALEXANDER TERRACE, HAYTON | Dwelling | 45.9 | 46.7 | 46.0 | 0.1 | Negligible Adverse | 46.6 | 0.7 | Negligiole Adverse | 35.0 | 35.8 | 35.7 |
| FLAT C, 24, ALEXANDER TERRACE, HAYTON | Dwelling | 45.9 | 46.7 | 46.0 | 0.1 | Negligible Adverse | 46.6 | 0.7 | Negiligile Adverse | 35.0 | 35.8 | 35.7 |
| FLAT D, 24, ALEXANDER TERRACE, HAYTON | Delling | 45.9 | 46.7 | 46.0 | 0.1 | Negligible Adverse | 46.6 | 0.7 | Negligible Adverse | 35.0 | 35.8 3.8 | 35.7 357 |
| FLAAT E, 24, ALEXANDER TERRACE, HAYTON | Delling | 45.9 | 46.7 | 46.0 | 0.1 | Negigigile Adverse | 46.6 | 0.7 | Negigigile Adverse | 35.0 | 35.8 | ${ }^{35.7}$ |
| FLAT F, 24, ALEXANDER TERRACE, HAYTON | Delling | 45.9 | ${ }^{46.7}$ | 46.0 | 0.1 | Negigigibe Adverse | 46.6 | 0.7 | Negiligile Adverse | 35.0 | 35.8 | 35.7 4.7 |
| WAYSIDE COTTAGE, 2, ANDERSON AVENUE | Dwelling | 56.6 | 59.4 | 57.5 | 0.9 | Negligible Adverse | 60.1 | 3.5 | Minor Adverse | 44.7 | 47.2 | 47.8 |
| 10, ANDERSONAVENUE | Dwelling | 48.3 | 49.9 | 48.5 | 0.2 | Negligible Adverse | 49.9 | 1.6 | Negligible Adverse | 37.2 | 38.6 | 38.6 |
| 100. ANDERSSON AVENUE | Deelling | 49.6 | 50.7 | 49.6 | 0.0 | No Change | 50.6 | 1.0 | Negligible Adverse | 38.4 | 39.4 | 39.3 |
| 101, ANDERSSONAVENUE | Dwelling | 50.3 | 51.1 | 50.3 | 0.0 | No Change | 51.1 | 0.8 | Negiligiole Adverse | 39.0 | 39.7 | 39.7 |
| 103, ANDERSONAVENUE | Dwelling | 50.3 | 51.1 | 50.3 | 0.0 | No Change | 51.1 | 0.8 | Negiligible Adverse | 39.0 | 39.7 | 39.7 |
| 11, ANDERSONAVENUE | Dwelling | 50.8 | 52.1 | 51.0 | 0.2 | Negligible Adverse | 52.5 | 1.7 | Negligiole Adverse | 39.5 | 40.6 | 41.0 |
| 12, ANDERSON AVENUE | Dwelling | 48.3 | 49.9 | 48.5 | 0.2 | Negligible Adverse | 49.9 | 1.6 | Negligible Adverse | 37.2 | 38.6 | 38.6 |
| 13, ANDERSON AVENUE | Dwelling | 50.7 | 51.9 | 50.8 | 0.1 | Negligible Beneficial | 52.2 | 1.5 | Negiligile Adverse | 39.4 | 40.4 | 40.7 |
| 14, ANDERSON AVENUE | Dwelling | $\frac{48.4}{50.7}$ | 49.9 | 48.6 50.8 | 0.2 0.1 | Negiogiole Adverse | - 49.9 | 1.5 1.5 | $\frac{\text { Negigiolie Adverse }}{\text { Negiloible Adverse }}$ | 37.3 <br> 39,4 | 38.6 40.4 | 38.6 40.7 |
| 16, ANDERSON AVENUE | Dwelling | 48.4 | 49.9 | 48.6 | 0.2 | Negligiole Adverse | 49.9 | 1.5 | Negligiole Adverse | 37.3 | 38.6 | 38.6 |
| 17, ANDERSOSON A VENUE | Deelling | 50.6 | 51.7 | 50.7 | 0.1 | Negligible Adverse | 52.0 | 1.4 | Negigioble Adverse | 39.3 | 40.3 | 40.5 |
| 18, ANDERSONAVENUE | Deelling | 48.9 | 50.3 | 49.0 | 0.1 | Negigigile Adverse | 50.3 | 1.4 | Negigioble Adverse | 37.7 |  | 39.0 |
| 19, ANDERSON AVENUE | Dwelling | 50.6 489 | 51.7 | 50.7 | 0.1 | Negiligile Adverse | 52.0 | 1.4 | Negiligile Adverse | 33.3 | 40.3 | 40.5 |
| 20, ANDERSON AVENUE | Dwelling | 48.9 | 50.3 | $\frac{49.0}{50 .}$ | 0.1 | Negligible Adverse | 50.3 <br> 515 <br> 15 | 1.4 | Negligible Adverse | 37.7 387 | 39.0 397 | 39.0 401 |
| $\frac{\text { 21, ANDERSON AVENUE }}{\text { 22, ANDERSONAVENUE }}$ | Dwelling | 50.0 49.2 | ¢51.1 | 50.1 49.3 | ${ }_{0}^{0.1}$ | Negligiole Adverse | 51.5 50.5 | 1.5 1.3 | $\frac{\text { Negligiole Adverse }}{\text { Negligible Adverse }}$ | 38.7 38.0 | 39.7 39.3 | 40.1 39.2 |
| 23, ANDERSON AVENUE | Dwelling | 49.8 | 51.0 | ${ }_{50.0}$ | 0.2 | Negligioble Adverse | 51.4 | 1.6 | Negigigible Adverse | ${ }^{38.6}$ | 39.6 | 40.0 |
| 24, ANDERSON AVENUE | Dwelling | 49.2 | 50.6 | 49.3 | 0.1 | Negligible Beneficial | 50.5 | 1.3 | Negiligile Adverse | 38.0 | 39.3 | 39.2 |
| 25, ANDERSON AVENUE | Dwelling | 48.3 | 49.6 | 48.4 | 0.1 | Negigigile Adverse | 49.7 | 1.4 | Negigioble Adverse | 37.2 | 38.4 | 38.5 |
| 26, ANDERSOON AVENUE | Deelling | 49.4 | 50.8 | 49.5 | 0.1 | Negligible Adverse | 50.7 | 1.3 | Negligible Adverse | 38.2 | 39.5 | 39.4 |
| 27,ANLERSONAVENUE | Dwelling | 49.4 | 50.8 | 49.5 | 0.1 | Neoligioile Adverse | ${ }_{50.7}$ | 1.3 | Neoligioble Adverse | ${ }^{38.2}$ | ${ }_{39.5}^{38.5}$ | ${ }_{39.4}$ |
| 29, AND ERSON AVENUE | Dwelling | 49.5 | 50.5 | 49.5 | 0.0 | No Change | 50.7 | 1.2 | Negiligiole Adverse | 38.3 | 39.2 | 39.4 |
| $\frac{30, \text { ANDERSON AVENUE }}{}$ | Dwelling | 48.8 | 50.2 | 48.8 | 0.0 | No C Cange | 50.0 | 1.2 | Negiligib Adverse | 37.7 <br> 30. | 38.9 39 | 38.7 39. |
| 31, ANDERSONAVENUE | Dwelling | 49.5 | 50.5 50.2 | 49.5 | 0.0 0.0 | $\frac{\text { No Change }}{\text { No Change }}$ | 50.7 50.0 | ${ }_{1}^{1.2}$ | Negigigle Adverse | 38.3 377 | 39.2 38.9 | 39.4 38.7 |
| 33, ANDERSONAVENUE | Dwelling | 48.8 | 50.0 | 48.9 | 0.1 | Negigiolie Adverse | 50.1 | 1.3 | Negligiole Adverse | 37.7 | 38.7 | 38.8 |
| 34, ANDERSON AVENUE | Deelling | 48.5 | 49.9 | 48.6 | 0.1 | Negigigibe Adverse | 49.8 | 1.3 | Negigigile Adverse | 37.4 | 38.6 | 38.6 |
| 35, ANDERSONAVENUE | Owelling | 48.8 | 50.0 | 48.9 | 0.1 | Negigigibe Adverse | 50.1 | 1.3 | Negigigibe Adverse | 37.7 | 38.7 | 38.8 |
| 36, ANDERSON AVENUE | Dwelling | ${ }_{493}^{48.5}$ | 49.9 50.3 | 48.5 493 | 0.0 0.0 | No Change | 49.7 50.4 | 1.2 11 | Negiligile Adverse | 37.4 38.1 | 38.6 390 | 38.5 39.1 |
| 38, ANDERSON AVENUE | Dwelling | 51.7 | 53.0 | 51.8 | 0.1 | Negligible Beneficical | 52.8 | 1.1 | Neoligiole Adverse | 40.3 | 41.4 | 41.3 |
| 39, ANDERSON AVENUE | Dwelling | 49.3 | 50.3 | 49.3 | 0.0 | No Change | 50.4 | 1.1 | Negiligile Adverse | 38.1 | 39.0 | 39.1 |
| 4, ANDERSSNAVENUE | Deelling | 48.5 | 50.4 | 48.8 | 0.3 | Negigioile Adverse | 50.7 | 2.2 | Negigiolie Adverse | 37.4 | 39.1 | 39.4 |
| 40, ANDERSON AVENUE | Dwelling | 51.7 | 53.0 50.1 | 51.8 | 0.1 | Negligible Beneficial | $\begin{array}{r}52.8 \\ 50 \\ \hline 0.2\end{array}$ | 1.1 | Negiligile Adverse | 40.3 | 41.4 388 | 41.3 389 |
| 41, ANDERSON AVENUE | Dwelling | $\frac{49.0}{52.7}$ | 50.1 53.9 | 49.1 52.7 | 0.1 | Negiligile Adverse | 50.2 53.7 | $\frac{1.2}{1.0}$ | $\frac{\text { Negligiole Adverse }}{\text { Negligible Adverse }}$ | 37.8 41.2 | 38.8 42.2 | 38.9 42.1 |
| 43, ANDERSON AVENUE | Dwelling | 49.1 | 50.2 | 49.1 | 0.0 | No Change | 50.2 | 1.1 | Negligiole Adverse | 37.9 | 38.9 | 38.9 |
| 44, ANDERSOON AVENUE | Deelling | 52.6 | 53.8 | 52.6 | 0.0 | No Change | 53.6 | 1.0 | Negigigile Adverse | 41.1 | 42.2 | 42.0 |
| 45, ANDERSON AVENUE | Dwelling | 49.1 54.4 | 50.1 55.6 | 49.1 54.4 | 0.0 0.0 | $\frac{\text { No Change }}{\text { No Change }}$ | $\begin{array}{r}50.2 \\ 55.4 \\ \hline\end{array}$ | 1.1 1.0 | Negligibl Adverse | 37.9 42.7 | 38.8 43.8 | 38.9 43.6 |
| 46, ANDERSON AVENUE | Dwelling | 49.1 | ${ }_{50.1}^{50.6}$ | ${ }^{54.1}$ | 0.0 | No Change | 50.2 | 1.1 | Neoligioble Adverse | ${ }_{37.9}$ | ${ }_{38.8}$ | ${ }_{38.9}$ |
| 48, ANDERSON AVENUE | Dwelling | 54.4 | 55.6 | 54.4 | 0.0 | No Change | 55.4 | 1.0 | Negigiolie Adverse | 42.7 | 43.8 | 43.6 |
| 49, ANDERSON AVENUE | Dwelling | 51.0 | 52.0 | 51.1 | 0.1 | Negigioble Adverse | 52.0 | 1.0 | Negiligile Adverse | 39.6 | 40.5 | 40.5 |
| 50, ANDERSONAVENUE | Dwelling | 55.4 | 56.6 | 55.5 | 0.1 | Negiligibe Adverse | 56.4 | 1.0 | Negiligibe Adverse | 43.6 | 44.7 | 44.5 |
| 51, ANDERSON AVENUE | Dweling | 51.0 | 52.0 | 55.1 | 0.1 | Negigigile Adverse | 52.0 | 1.0 | Negigigio Adverse | 39.6 | 40.5 | 0.5 |
| (52, ANDERSON AVENUE | Dwelling | 55.4 <br> 51.8 | 56.6 52.8 | 55.5 51.9 | ${ }_{0}^{0.1}$ | Negigible Adverse | 56.4 52.8 | 1.0 1.0 | $\frac{\text { Negigible Adverse }}{\text { Negligiole Adverse }}$ | 43.6 40.4 | 44.7 41.3 | 44.5 41.3 |
| 54, ANDERSON AVENUE | Dwelling | 57.4 | 58.6 | 57.5 | 0.1 | Negigioble Adverse | 58.4 | 1.0 | Negigioble Adverse | 45.4 | 46.5 | 46.3 |
| 55, ANDERSON AVENUE | Dwelling | 51.9 | 52.8 | 51.9 | 0.0 | No Change | 52.8 | 0.9 | Negigiole Adverse | 40.4 | 41.3 | 41.3 |
| 56, ANDERSON AVENUE | Dwelling | 57.4 535 53 | 58.6 54.4 | 57.5 535 53 | 0.1 | Negligigile Adverse | 58.4 <br> 543 | 1.0 | Negligile Adverse | 45.4 4.19 | 46.5 427 | 46.3 |
| 57, ANDERSONAVENUE | Dwelling | 53.5 59.1 | 54.4 | 53.5 | 0.0 | Negligiotie Adverse | 54.3 60.1 | 1.0 | Negligioble Advverse | 46.9 | ${ }_{48.0}^{48.7}$ | ${ }_{47}^{42.6}$ |
| 59, ANDERSON AVENUE | Dwelling | 53.5 | 54.4 | 53.5 | 0.0 | No Change | 54.3 | 0.8 | Negigiolie Adverse | 41.9 | 42.7 | 42.6 |
| 6, ANDERSONAVENUE | Deelling | 48.2 | 49.9 | 48.5 | 0.3 | Neoligible Adverse | 50.0 | 1.8 | Negligible Adverse | 37.1 | 38.6 | 38.7 |
| 60, ANDERSON AVENUE | Deelling | 59.17 | ${ }^{60.3}$ | 59.2 | 0.1 | Negligible Adverse | 60.1 56 | 1.0 | Negligible Adverse | 46.9 | 48.0 | 47.8 |
| -61, ANDERSONAVENUE | Dwelling | ${ }^{54.7}$ | ${ }_{653.7}^{63.7}$ | ${ }^{54.8} 62$ | 0.1 | ${ }^{\text {Negegigioble }}$ Benenitical | ${ }_{653.6}$ | 0.9 | Negigigiole Advverse | 430.2 | $\stackrel{4}{51.1}$ | $\stackrel{43.0}{51.0}$ |
| 63, ANDERSON AVENUE | Dwelling | 54.7 | 55.6 | 54.8 | 0.1 | Negligible Beneficial | 55.5 | 0.8 | Negigiolie Adverse | 43.0 | 43.8 | 43.7 |
| 64, ANDERSON AVENUE | Dewling | 62.7 56.7 | 63.7 57 | 62.8 5.7 | 0.1 | Negligible Beneficial | 63.6 | 0.9 | Negigigibe Adverse | 50.2 | 51.1 | 51.0 |
| 65, ANDERSON AVENUE | Oweling | 56.7 | 57.6 | 56.7 | 0.0 | No Change |  | 0.8 | Negigigio Adverse | 44.8 | 45.6 | 45.5 |
| 66, ANDERSON AVENUE | Oweling | ${ }_{6}^{62.7}$ | ${ }^{63,7}$ | ${ }_{6}^{62.8}$ | 0.1 | Negligible Beneficial | 63.6 | 0.9 | Negiligio Adverse | 50.2 | 51.1 | 51.0 |
| 67, ANDERSRSON AVENE | Dweeling | ${ }_{62.7}$ | ${ }_{63.7}$ | ${ }_{62.8}$ | 0.1 | Neglioible Benenicicial | ${ }_{63.6}$ | 0.9 | Neoligigiole Adverse | ${ }_{50.2}^{44.8}$ | ${ }_{51.1}^{45.6}$ | ${ }_{51.0}^{45.5}$ |
| 69, ANDERSON AVENUE | Dwelling | 58.6 | 59.5 | 58.6 | 0.0 | No Change | 59.5 | 0.9 | Negligible Adverse | 46.5 | 47.3 | 47.3 |
| 70, ANDERSONAVENUE | Oweling | 58.4 | 59.5 595 | 58.4 | 0.0 | No Change | 59.2 | 0.8 | Negiligible Adverse | 46.3 | 47.3 | 47.0 |
| 7, A, ANDERSSON AVENUE | Dwelling | 58.6 | 59.5 | 58.6 | 0.0 | ${ }^{\text {No }}$ No Changene | 59.2 | 0.8 | Neoligioble Adverse | ${ }_{46.3}^{46.5}$ | ${ }_{47.3}$ | ${ }^{47.0}$ |
| 73, ANDERSON AVENUE | Dwelling | 62.8 58.4 | 63.9 59.5 | 62.9 58.9 | 0.1 | Negligiolie Adverse | 63.8 <br> 9.8 <br> 9 | 1.0 | Negligiole Adverse | 50.3 463 | 51.2 473 | 51.2 470 |
| 75, ANDERSON AVENUE | Dwelling | ${ }^{56.8}$ | 63.9 | 56.9 | 0.1 | Negigigile Adverse | ${ }^{53.8}$ | 1.0 | Negigigibe Adverse | ${ }_{50.3}$ | 51.2 | 51.2 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 <br> Lnight,outside | DM33 Lnight,outside | $\begin{gathered} \text { DS33 } \\ \text { Lnight,outside } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 76, ANDERSON AVENUE | Dwelling | 58.4 | 59.5 | 58.4 | 0.0 | No Change | 59.2 | 0.8 | Negligible Adverse | 46.3 | 47.3 | 47.0 |
| 77, ANDERSON AVENUE | Dwelling | 62.8 | 63.9 | 62.9 | 0.1 | Negigioble Adverse | 63.8 | 1.0 | Negligible Adverse | 50.3 | 51.2 | 51.2 |
| 78, ANDERSON AVENUE | Dwelling | 50.9 | 52.0 | 50.8 | -0.1 | Negligible Beneficial | 51.7 | 0.8 | Negiligibe Adverse | 39.5 | 40.5 | 40.3 |
| 79, ANDERSON AVENUE | Oweling | 62.8 | 63.9 | 62.9 | 0.1 | Negigigibe Adverse | $\stackrel{63.8}{5.8}$ | 1.0 | Negigigle Adverse | 50.3 | 51.2 | 51.2 |
| 8, ANDERSONAVENUE | Dwelling | 48.2 | 49.9 | 48.5 508 | 0.3 | Negligible Adverse | 50.0 517 | 1.8 | Negligibl Adverse | $\begin{array}{r}37.1 \\ 395 \\ \hline\end{array}$ | 38.6 4.5 | 38.7 403 |
| 80, ANDERSOSN AVENUE | Delling | 50.9 | 52.0 | 50.8 | -0.1 | Negligible Beneficial | $\begin{array}{r}51.7 \\ 59 \\ \hline 9\end{array}$ | 0.8 | Negigigle Adverse | 39.5 464 | 40.5 47 | 40.3 |
| 81, ANDERSON AVENUE | Deelling | 58.5 | 59.4 | 58.5 | 0.0 | No Change | 59.2 | 0.7 | Negiligible Adverse | 46.4 | 47.2 | 47.0 |
| 82, ANDERSON AVENUE | Dwelling | 50.9 | 52.0 | 50.8 | -0.1 | Negligible Beneficial | 51.7 | 0.8 | Negiligible Adverse | 39.5 | 40.5 | 40.3 |
| 83, ANDERSON AVENUE | Deelling | 58.5 | 59.4 | 58.5 | 0.0 | No Change | 59.2 | 0.7 | Negligible Adverse | 46.4 | 47.2 | 47.0 |
| 84, ANDERSON AVENUE | Deelling | 50.9 | 52.0 | 50.8 | -0.1 | Negligible Beneficial | 51.7 | 0.8 | Negigigible Adverse | 39.5 464 | ${ }_{40.5}^{472}$ | ${ }_{40.3}^{47}$ |
| 85, ANDERSON AVENUE | Dewling | 58.5 | 59.4 | 58.5 | 0.0 | No Change | 59.2 507 | 0.7 | Negligibl Adverse | 46.4 38. | 47.2 39 | 47.0 394 |
| 86, ADLERSONAVENE | Dwelling | ${ }_{58.5}^{49.8}$ | $\stackrel{51.0}{59.4}$ | ${ }_{58.5}^{49.7}$ | 0.0 | Negligiole Beneicical | ${ }_{59.2}^{50.7}$ | 0.7 | Negigigibe Adverse | 38.6 46.4 | ${ }^{39.6} 47$ | 39.4 47.0 |
| 88, ANDERSON AVENUE | Dwelling | 49.8 | 51.0 | 49.7 | -0.1 | Negligible Beneficial | 50.7 | 0.9 | Negligible Adverse | 38.6 | 39.6 | 39.4 |
| 89, ANDERSON AVENUE | welling | 51.4 | 2.1 | 51.3 | -0.1 | Negligible Beneficial | 52.1 | 0.7 | Negligible Adverse | 40.0 |  | 40.6 |
| 9, ANDERSONAVENUE | Welling | 50.8 | 52.1 | 51.0 | 0.2 | Negigigibe Adverse | 52.5 | 1.7 | Negiligible Adverse | 39.5 | 40.6 |  |
| 90, ANDERSOSN AVENUE | Deelling | 49.8 | 51.0 |  | -0.1 | Negligible Benenitical |  | 0.9 | Negiligible Adverse | 38.6 | 39.6 | 39.4 |
| 91, ANDERSON AVENUE | Oweling | 51.4 |  | 51.3 | -0.1 | Neegigibie Benenicial | 52.1 | 0.7 | Negligigile Adverse | 40.0 |  |  |
| 92, ANDERSONAVENE | Oweling | 59.1 | 51.0 | 49.1 | -0.1 | Negiligiole Beneficial | 5 | 0.9 | Negiqigie Adverse | 38.6 | 39.6 | 39.4 |
| 93. ANDERSONAVENUE | Dweling | 51.4 | 52.1 | 51.3 | -0.1 | Negligible Beneficial | 52.1 | 0.7 | Negiligile Adverse | 40.0 | 40.6 | 40.6 303 |
| 94, ANDERSONAVENUE | weling | ${ }_{5}^{49.6}$ | 50.7 | ${ }_{5}^{49.6}$ | 0.0 | No change | 50.6. | 1.0 | Negiligie Aaverse | 38.4 | 39.4 | 39.3 40.6 |
| 95, ANDERSOSNAVENUE | weling | 51.4 | 52.1 | 51.3 | -0.1 | Negligiole Beneificial | 52.1 | 0.7 | Negligibe Adverse | ${ }_{30.0}$ | ${ }_{30.6}$ | ${ }_{30.6}^{493}$ |
| 96, ANDERSONAVENUE | Dweling | 49.6 50.3 | 50.7 | ${ }_{59.6}^{49}$ | 0.0 | No Change | 50.6 | 1.0 | Negigigibile Adverse | 38.4 300 | 39.4 | 39.3 |
| 97, ANDERSONAVENUE | Oweling | 50.3 | 51.1 | 50.3 | 0.0 | No Change | 51.1 | 0.8 | Negigigibe Adverse | 39.0 38.4 | 39.7 | 39.7 |
| 98, ANDERSONAVENE | Dweling | ${ }^{49.6}$ | 50.7 | 49.6. | 0.0 0.0 | $\frac{\text { No C Cange }}{\text { No Change }}$ | 50.6 51.1 | 1.0 0.8 | Negigigle Adverse | 38.4 39.0 | 39.4 39.7 | 39.3 39.7 |
| 1,ANDERSONLANE | Dwelling | 45.8 | 47.4 | 46.0 | 0.2 | Negigioile Adverse | 47.5 | 1.7 | Negiligile Adverse | 35.0 | 36.4 | ${ }^{36.5}$ |
| 2, ANDERSONLANE | welling | 45.5 | 47.1 | 45.7 | 0.2 | Negiligile Adverse | 47.2 | 1.7 | Negiligible Adverse | 34.7 | 36.1 | 36.2 |
| 3, ANDERSONLANE | Dweling | 45.4 | 46.9 | 45.5 4 4 | ${ }_{0}^{0.1}$ | Negiligile Adverse | 47.0 | ${ }^{1.6}$ | Negiligib Adverse | $\begin{array}{r}34.6 \\ 345 \\ \hline\end{array}$ | 35.9 | ${ }^{36.0}$ |
| 5, ANDERSONLANE | Owelling | 45.1 | 46.6 | 45.2 | 0.1 | Neogigigile Adverse | 46.7 | 1.6 | Neoligible Adverse | 34.3 | 35.7 | ${ }_{35.8}$ |
| 1, ANDERSON ROAD | Dwelling | 65.4 | 67.4 | 65.8 | 0.4 | Negiligile Adverse | 67.6 | 2.2 | Negiligile Adverse | 52.6 | 54.4 | 54.6 |
| 17, ANDERSON ROAD | welling | 61.3 | 62.4 | 61.3 | 0.0 | hange | 62.9 | 1.6 | Negigioble Adverse | 8.9 | 49.9 | 0.3 |
| 19, ANDERSON ROAD | Welling | 61.3 | 62.4 | 61.3 | 0.0 | No Change | 62.9 | 1.6 | Negiligible Adverse | 48.9 | 49.9 | 50.3 |
| 20, ANDERSOS ROAD | welling | 58.5 | 59.5 | 58.6 |  | Negiligibe Adverse | 60.0 | 1.5 |  | 46.4 |  |  |
| 21, ANDERSON ROAD | weling | 61.3 59 | $\begin{array}{r}62.4 \\ 5 \\ \hline\end{array}$ | 61.3 | 0.0 | No Change |  | 1.6 | Negiligile Adverse | 8.9 | 49.9 |  |
| 22,ANDERSONROAD | Oweling | 58.5 | 59.5 | 58.6 | 0.1 | Negiquible Adverse | 60.0 | 1.5 | Negiqigile Adverse | 46.4 | 4.3 | 4.1 |
| 23, ANDERSONROAD | Dweling | 51.7 <br> 59 | 52.5 <br> 59 | 51.8 | 0.1 | Negiligiole Beneficial | 53.0 | 1.3 | Negiligile Adverse | 40.3 | 41.0 | 41.4 |
| 25, ANDERSON ROAD | Owelling | $\stackrel{51.7}{ }$ | 52.5 | 51.8 | 0.1 | Negligible Beneficial | 53.0 | 1.3 | Neoligible Adverse | 40.3 | 41.0 | 41.4 |
| 26, ANDERSON ROAD | Dwelling | 58.5 517 | 59.5 <br> 5.5 | 58.6 <br> 518 <br> 18 | 0.1 | Negiligib Adverse | 60.0 5 5 | 1.5 13 | Negligile Adverse | 46.4 | 47.3 | 47.7 414 |
| $\frac{27, \text { ANDERSSON }}{28 \text { A ANDEAS }}$ | Dwelling | ${ }_{51.7}^{54.2}$ | ${ }_{52.5}^{55.0}$ | 51.8 54.2 | 0.1 | Negigigle Beneficial | 53.0 | ${ }_{1}^{1.3}$ | Negigible Adverse | ${ }_{40.3}^{42.5}$ | 41.0 | 41.4 |
| 29, ANDERSON ROAD | Dwelling | 51.7 | 52.5 | 51.8 | 0.1 | Negligible Beneficial | 53.0 | 1.3 | Negilibile Adverse | 40.3 | 41.0 | 41.4 |
| 3, ANDERSON ROAD | Dwelling | 64.8 54.2 | 67.0 55.0 | 65.3 54.2 | 0.5 0.0 | Negigigile Adverse | 67.2 55.4 | 2.4 1.2 | Negiligile Adverse | 52.1 42.5 | 54.0 43.2 | 54.2 43.6 |
| 31, ANDERSON ROAD | Dwelling | 51.4 | 52.1 | 51.4 | 0.0 | No Change | 52.6 | 1.2 | Negligible Adverse | 40.0 | 40.6 | 41.1 |
| 32, ANDERSON ROAD | Wwelling | 54.2 | 55.0 | 54.2 | 0.0 | No Change | 55.4 | 1.2 | Negligible Adverse | 42.5 | 43.2 | 43.6 |
| 33, ANDERSSON ROAD | Dwelling | 51.4 54.2 | 52.1 55.0 | 51.4 54.2 | 0.0 0.0 | $\frac{\text { No Change }}{\text { No Change }}$ | 52.6 <br> 55.4 | 1.2 | Negligible Adverse Negioible Adverse | 40.0 | 40.6 432 | ${ }_{4}^{41.1}$ |
| 35, ANDERSON ROAD | Dwelling | 51.4 | 52.1 | 51.4 | 0.0 | No Change | 52.6 | 1.2 | Negiligile Adverse | 40.0 | 40.6 |  |
| 36, ANDERSSN ROAD | Dwelling | 51.8 <br> 51.4 | 52.5 52.1 | 51.9 51.4 | $\stackrel{0.1}{0.0}$ | Negoligile Adverse | 53.0 52.6 | 1.2 | Negligible Adverse | 40.4 40.0 | 41.0 40.6 | 41.4 41.1 |
| 38, ANDERSON ROAD | Dwelling | 51.8 | 52.5 | 51.9 | 0.1 | Negigigile Adverse | 53.0 | 1.2 | Negigigile Adverse | 40.4 | 41.0 | 41.4 |
| 39, ANDERSON ROAD | Dwelling | 51.8 | 52.3 | 51.8 | 0.0 | No Change | 52.9 | 1.1 | Negigigile Adverse | 40.4 | 40.8 | 41.3 |
| 40, ANDERSON ROAD | Wwelling | 51.8 | 52.5 | 51.9 | 0.1 | Negigioble Adverse | 53.0 | 1.2 | Negigible Adverse | 40.4 | 41.0 | 41.4 |
| 44.4 A4, ANDERRSON | Dweliling | 51.8 | 52.5 51.7 | 51.0 | 0.0 | Negigiole Adverse | 53.0 52.1 | ${ }_{1.1}^{1.2}$ | Neoligigile Adverse | ${ }^{40.4}$ | 40.3 | ${ }_{40}^{41.6}$ |
| 46, ANDERSON ROAD | Deelling | 51.0 | 51.7 | 51.0 | 0.0 | No Change | 52.1 | 1.1 | Negigiole Adverse | 39.6 | 40.3 | 40.6 |
| 48, ANDERSON ROAD | Dwelling | 51.0 | 51.7 | 51.0 | 0.0 | No Change | 52.1 | 1.1 | Negigigle Adverse | 39.6 | 40.3 | 40.6 |
| 5, ANDERSON ROAD | Dwelling | 64.0 51.0 | $\stackrel{66.7}{51.7}$ | 64.5 51.0 | 0.5 0.0 | Negigigle Adverse | $\stackrel{66.7}{52.1}$ | 2.7 1.1 | $\frac{\text { Negigigle Adverse }}{\text { Neligiole Adverse }}$ | 51.3 | 53.8 40.3 | 53.8 40.6 |
| 52, ANDERSON ROAD | Dwelling | 50.6 | 51.4 | 50.6 | 0.0 | No Change | 51.8 | 1.2 | Negiligile Adverse | 39.3 | 40.0 | 40.4 |
| 54, ANDERSSON ROAD | Dwelling | 50.6 | 51.4 51.4 | 50.6 50.6 | 0.0 0.0 | $\frac{\text { No Change }}{\text { No Change }}$ | 51.8 51.8 | 1.2 1.2 | $\frac{\text { Negligible Adverse }}{\text { Negigible Adverse }}$ | 39.3 39.3 | 40.0 40.0 | 40.4 40.4 |
| 58, ANDERSON ROAD | Dwelling | 50.6 | 51.4 | 50.6 | 0.0 | No Change | 51.8 | 1.2 | Negigigile Adverse | 39.3 | 40.0 | 40.4 |
| 7. ANDERSON ROAD | ${ }^{\text {Pwelling }}$ Alloments | 64.3 50.2 | 66.8 50.9 | 64.8 50.1 | 0.5 <br> 0.1 | Negligibl Adverse | 66.9 51.1 | 2.6 0.9 | Negligile Adverse | 51.6 38.9 | 53.9 39.5 | ${ }_{39.9}^{59.9}$ |
| AUXILIARY CADET FORCE HQ HALL, ANDERSON ROAD | Hall | 51.9 | 550 | 51.9 | 0.0 | - | 53.0 | 1.1 | Negiligile Adverse | 40.4 | 1.4 | 41.4 |
| GRANGE COTTAGE, 158, AUCHMIL ROAD | Deeling | 73.3 | 73.3 | ${ }^{73.3}$ | 0.0 | No Change | 73.8 | 0.5 | Negigigibe Adverse | 59.7 | 59.7 | 60.2 |
| GRANGE COTTAGE, 1600 AUCHMILL ROAD | Dweling | 73.3 | 73.3 | 77.3 | 0.0 | No Change | 73.8 | 0.5 | Negiligibe Adverse |  | 59.7 | 60.2 |
|  | Oweiling | $\xrightarrow{73.4}$ | 73,4 | ${ }_{7} 7.4$ | 0.0 | No Change | 73.9 | 0.5 | Negigigile Adverse | 59.8 | ${ }_{59}^{59.8}$ | 60.2 |
| CLAT A . 256. AUCHMUILL ROAD | Oweliling | 56.9 | 56.3 | ${ }_{56.7}$ | -0. | Negrigiole Beneicical | 72.0 | 0.3 | Negigiole Adverse | 58.3 | 484.0 | 58.5 |
| FLAT T, 256, AUCHMLLL ROAD | Dwelling | 56.9 | 56.3 | 56.7 | -0.2 | Negligible Beneficical | 57.0 | 0.1 | Negiligile Adverse | 44.9 | 44.4 | 45.0 |
| FLATC, 256, AUCHMILL ROAD | Dwelling | 56.9 | 56.3 | 56.7 | -0.2 | Negligible Beneficical | 57.0 | 0.1 | Negligible Adverse | 44.9 | 44.4 | 45.0 |
| FLAAT ${ }^{\text {FL, 256, 256, AUCHCHMLLL }}$ ROAD | ${ }^{\text {Dwelling }}$ Dowiling | 56.9 | ${ }_{56.3}^{56.3}$ | ${ }_{56.7}^{56.7}$ | -0.2 -0.2 | Negiligie Beneficial | 57.0 | ${ }_{0}^{0.1}$ | $\frac{\text { Negigible Adverse }}{\text { Neoligible Adverse }}$ | 44.9 | 44.4 44.4 | 45.0 |
| FLAT F, 256, AUCHMLL ROAD | Dwelling | 56.9 | 56.3 | 56.7 | -0.2 | Negligible Beneficial | 57.0 | 0.1 | Negigigile Adverse | 44.9 | 44.4 | 45.0 |
|  | Dweling | 56.9 | 㐌56.3 | 56.7 | -0.2 | $\frac{\text { Negilibile Beneficical }}{\text { Negligible }}$ Beneficial | 57.0 57.0 | ${ }_{0}^{0.1}$ | $\frac{\text { Negiligile Adverse }}{\text { Nealigiole Adverse }}$ | $\frac{44.9}{449}$ | $\frac{44.4}{44.4}$ | 45.0 45.0 |
| LLAT A, 258, AUCHMILL ROAD | Dwelling | 56.9 | 56.3 | 56.7 | -0.2 | Negligible Beneficial | 57.1 | 0.2 | Negigiole Adverse | 44.9 | 44.4 | 45.1 |
| LAT B, 258, AUCHMILL ROAD | welling | 56.9 | 56.3 | 56.7 | -0.2 | Negligible Beneficial | 57.1 | 0.2 | Negigigile Adverse | 44.9 | 44.4 | 45.1 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 <br> Lnight,outside | DM33 <br> Lnight,outside | DS33 <br> Lnight,outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\frac{\text { FLATC, } 258, \text { AUCHMILL ROAD }}{\text { FLAT D. } 258 . \text { AUCHMILL ROAD }}$ | Dwelling | 56.9 | 56.3 | 56.7 | -0.2 | Negligible Beneficical | 57.1 | 0.2 | Negiligile Adverse | 44.9 | 44.4 | 45.1 |
| FLAA D, 258, AUCHMLL R ROAD | Dwelling | ${ }_{56.9}^{56.9}$ | ${ }_{56.3}^{56.3}$ | ${ }^{56.7}$ | -0.2 | Negligible Beneticical | 57.1 57.1 | 0.2 | $\frac{\text { Negigigle Adverse }}{\text { Neoligiole Adverse }}$ | 44.9 | $\frac{44.4}{44.4}$ | ${ }_{45.1}^{45.1}$ |
| FLAT F, 258, AUCHMILL ROAD | Dwelling | 56.9 | 56.3 | 56.7 | -0.2 | Negligible Beneficial | 57.1 | 0.2 | Negiligible Adverse | 44.9 | 44.4 | 45.1 |
| FLAT G, 258, AUCHMILL ROAD | Dwelling | 56.9 | 56.3 | 56.7 | -0.2 | Negligible Beneficial | 57.1 | 0.2 | Negligible Adverse | 44.9 | 44.4 | 45.1 |
|  | welling | 56.9 | 56.3 | 56.7 55.3 | -0.2 | $\frac{\text { Negilibile Beneficial }}{\text { Negligible }}$ | 57.1 55.8 | 0.2 | Negiligile Adverse | ${ }_{4}^{44.9}$ | ${ }_{4}^{44.4}$ | 45.1 44.0 |
| FLAT B . 260, AUCHMLL R ROAD | Dwelling | ${ }_{55.5}$ | ${ }_{55.4}$ | ${ }_{55.3}$ | -0.2 | Negligiole Benenificial | ${ }_{55.8}$ | ${ }_{0} .3$ | Neogioioble Adverss | 43.7 | 43.6 | 44.0 |
| FLATC. 260, AUCHMILL ROAD | Dwelling | 55.5 | 55.4 | 55.3 | -0.2 | Negligible Beneficicial | 55.8 | 0.3 | Negiligible Adverse | 43.7 | 43.6 | 44.0 |
| FLAT D, 260, AUCHMILL ROAD |  | 55.5 | 55.4 | 55.3 | -0.2 | Negligible Beneficial | 55. | 0.3 | Negiligile Adverse | 43.7 | 43.6 | 44.0 |
| FLATE, 260, AUCHMIL ROAD | welling | 55.5 | 55.4 | 55.3 | -0.2 | Negligible Beneficial | 55.8 | 0.3 | Negiligile Adverse | 43.7 | 43.6 | 44.0 |
| FLAT F. 26, AUCHMLL ROAD | Dwelling | 55.5 | 55.4 | 55.3 | -0.2 | Negligible Beneficial | 55.8 | 0.3 | Negiligile Adverse | 43.7 | 43.6 | 44.0 |
| FLAT G, 260, AUCHMLL ROAD | Deelling | 55.5 | 55.4 | 55.3 | -0.2 | Negligible Beneficical | 55.8 | 0.3 | Negigioble Adverse | 43.7 | 43.6 | 44.0 |
| FLAT H, 260, AUCHMILL ROAD | Dwelling | 55.5 | 55.4 | 55.3 | -0.2 | Negligible Beneficial | 55.8 | 0.3 | Negigioble Adverse | 43.7 | 43.6 | 44.0 |
| FLAT A, 262, AUCHMMLL ROAD | Dwelling | 56.1 | 55.9 | 55.8 | -0.3 | Negiligiole Beneficial | 56.4 | ${ }_{0} .3$ | Negigiobio Adverse | 44.2 | 44.0 | 44.5 |
| L-AA B, 262, AUCHMLLL ROAD | Oweling | 56.1 | 55.9 | 55.8 <br> 55 | -0.3 | Negiligiole Beneficial | 56.4 | ${ }^{0.3}$ | Negigigibe Adverse | ${ }_{442}^{44.2}$ | 44.0 | 44.5 |
| LLAIC, 262, AUCHMILL ROAD | Oweling | 56.1 | 55.9 | 55.8 <br> 55 | -0.3 | Negiligiole Beneficial | 56.4 | ${ }^{0.3}$ | Negigigibe Adverse | ${ }_{44.2}^{44}$ | 44.0 | 44.5 |
| FLAT E. 262, AUCHMMLL | Dweling | ${ }_{56.1}^{56.1}$ | 55.9 | ${ }_{55.8}^{55.8}$ | -0.3 |  | 56.4 56.4 | 0.3 | Neogigigibe Adverse | $\frac{44.2}{44.2}$ | 44.0 44.0 | 44.5 44.5 |
| FLAT F. 262, AUCHMILL ROAD | Dwelling | 56.1 | 55.9 | 55.8 | -0.3 | Negligible Beneficicial | 56.4 | 0.3 | Negiligiole Adverse | 44.2 | 44.0 | 44.5 |
| FLAT G, 262, AUCHMILL ROAD | Dwelling | 56.1 | 55.9 | 55.8 | -0.3 | Negligible Beneficial | 56.4 | 0.3 | Negiligibe Adverse | 44.2 | 44.0 | 44.5 |
| FLAT H, 262, AUCHMMLL ROAD | Dwelling | ${ }_{56.1}$ | 55.9 | 55.8 5.8 | ${ }^{-0.3}$ | Negligible Beneficial | 56.4 | ${ }_{0}^{0.3}$ | Negiligible Adverse | 44.2 | 44.0 | 44.5 |
| FLAT B. 264, AUCHMILL ROAD | Dwelling | 57.1 | 56.5 | 55.8 | ${ }_{-0.3}$ | Negligible Beneficicial | 57.2 | 0.1 | Negigigibe Adverse | 45.1 | 44.6 | 45.2 |
| FLAT C, 264, AUCHMILL ROAD | Dwelling | 57.1 | 56.5 | 56.8 | -0.3 | Negligible Beneficial | 57.2 | 0.1 | Negiligile Adverse | 45.1 | 44.6 | 45.2 |
| FLAT D. 264, AUCHMILL ROAD | Dwelling | 57.1 | 56.5 | 56.8 | -0.3 | Negligible Beneficial | 57.2 | 0.1 | Negigioble Adverse | 45.1 | 44.6 | 45.2 |
| FLATE, 264, AUCHMILL ROAD | Dwelling | 57.1 | 56.5 | 56.8 | -0.3 | Negligible Beneficical | 57.2 | 0.1 | Negiligible Adverse | ${ }^{45.1}$ | 44.6 | 45.2 |
| FLAT F, 264, AUCHMILL ROAD | Deelling | 57.1 | 56.5 | 56.8 |  | Negligible Beneficicial |  |  |  | 45.1 | 44.6 |  |
| FLAT G, 264, AUCHMILL ROAD | Deelling | 57.1 | 56.5 |  | -0.3 | Negligible Beneficial | 57.2 | 0.1 | Negigigibe Adverse | 45.1 | 44.6 | 4.2 |
| CAIRN VIEW, 268 . AUCHMILL ROAD | ${ }^{\text {Oweiling }}$ Oweling | 77.12 | ${ }_{776}$ | 56.8 77.1 | -0.3 | Negrigiole Benentical | 77.2 | 0.4 | Negigigbe Adverse | ${ }_{63.2}$ | ${ }_{63.6}^{44.6}$ | ${ }_{63.6}^{45.6}$ |
| CUSHNIE VILLA, 286, AUCHMIL R ROAD | Dwelling | 60.6 | 60.2 | 60.4 | -0.2 | Negligible Beneficial | 60.7 | 0.1 | Negiligible Adverse | 48.3 | 47.9 | 48.4 |
| DRUMALLOCHE, 344, AUCHMIL ROAD | Dwelling | 71.7 | 72.0 | 71.4 | -0.3 | Negligible Beneficial | 71.9 | 0.2 | Negigioble Adverse | 58.3 | 58.5 | 58.4 |
| TORNAVEEN, 36, AUCHMILL ROAD | Dwelling | 71.6 | 72.0 | 71.2 | -0.4 | Negligible Beneficial | 72.1 | 0.5 | Negiligible Adverse | 58.2 | 58.5 | 58.6 |
| BADENOCH, 370, AUCHMILL ROAD | Dwelling | 71.6 71.4 | 71.9 71.6 | 71.2 70.9 | -0.4 -0.5 -0 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ Beneficial | 72.0 71.7 | 0.4 0.3 | $\frac{\text { Negigigble Adverse }}{\text { Negilible Adverse }}$ | 58.2 58.0 | $\begin{array}{r}58.4 \\ 58 \\ \hline 8\end{array}$ | 58.5 |
| LONACH, 300, AUCHMILL ROAD | Dwelling | 71.0 | 70.8 | 70.1 | -0.9 | Negligible Beneficioial | 71.0 | 0.0 | No Change | 57.6 | 57.5 | 57.6 |
| CORRYBEG, 394, AUCHMIL ROAD | welling | 72.2 | 71.8 | 71.3 | -0.9 | Negligible Benenicial | 72.0 | -0.2 | Negligible Beneficial | 58.7 | 58.4 | 58.5 |
| CRAIGMYLE, 398, AUCHMILL ROAD | Welling | 72.4 | 71.7 | 71.4 | -1.0 | Minor Beneficial | 72.0 | -0.4 | Negligible Beneficial | 58.9 | 58.3 | 58.5 |
| 164, AUCHMILL ROAD | welling | 73.4 | 73.4 | ${ }^{73.4}$ | 0.0 | No Change | 73.9 | 0.5 | Negligible Adverse | 59.8 | 59.8 | 60.2 |
| $\frac{166, \text { AUCHMIL R ROAD }}{168 .}$ | Dweling | ${ }^{73,4}$ | 73.4 73 | 73.4 735 | 0.0 | No Change | ${ }_{7}^{73.9}$ | 0.5 | Negiligible Adverse | 59.8 | 59.8 | 60.2 |
| 168. | Dwelling | ${ }_{73.6}$ | ${ }_{73.6}$ | ${ }_{73.6}$ | -0.0 | Negligibe Beneficial | 74.0 | 0.4 | Neogigiole Adverse | 60.0 | 60.0 | 60.3 |
| 172, AUCHMILL ROAD | Dwelling | 73.6 | 73.5 | 73.5 | -0.1 | Negligible Beneficial | 74.0 | 0.4 | Negilioible Adverse | 60.0 | 59.9 | 60.3 |
| 174. AUCHMILL ROAD | Dwelling | 73.6 | ${ }^{73.6}$ |  |  | No Change |  |  | Negiligible Adverse |  |  |  |
| $1{ }^{176, \text { AUCHMIL R ROAD }}$ |  |  | ${ }^{73.6}$ | ${ }^{73.6}$ | -0.1 | Negligible Beneficial | 74.1 | 0.4 | Negligibe Adverse | 60.1 | 60.0 | 60.4 |
| $\frac{178, \text { AUCHMILL ROAD }}{180, A U C H M L L L ~ R O A D ~}$ | Oweling | ${ }_{73,7}^{73.7}$ | ${ }_{73,6}^{736}$ | ${ }_{73,7}^{73.7}$ | 0.0 0.0 | No Change | 74.1 74.1 | 0.4 | Negligibe Adverse | 60.1 60.1 | 60.0 | 60.4 |
| 182 , AUCHMILL ROAD | Dwelling | 73.7 | 73.6 | 73.6 | -0.1 | Negligible Beneficial | 74.1 | 0.4 | Negiligile Adverse | 60.1 | 60.0 | 60.4 |
| 186, AUCHMILL ROAD | Dwelling | 71.7 | 71.4 | 71.6 | -0.1 | Negligible Beneficial | 72.0 | 0.3 | Negiligible Adverse | 58.3 | 58.0 | 58.5 |
| 188, AUCHMILL ROAD | Dwelling | 72.0 | 71.7 | 71.9 | -0.1 | Negligible Beneficial | 72.2 | 0.2 | Negiligibe Adverse | 58.5 | 58.3 | 58.7 |
| 190. AUCHMLLL ROAD | Dwelling | 72.0 | 71.7 | 71.9 | ${ }_{-0.1}$ | Negligible Beneficial | 72.21 | 0.2 | Negiligibe Adverse | 58.5 58.6 | 58.3 <br> 58 <br> 8.4 | 58.7 |
| $1{ }^{194, A U C H M L L ~ R O A D ~}$ | Dwelling | ${ }^{72.1}$ | 71.8 | ${ }_{72.0}$ | -0.1 | Negiligible Beneneiticial | ${ }^{72.3}$ | 0.2 | Negiligibe Avverse | 58.6 | 58.4 58.4 | 58.8 |
| 200, AUCHMILL ROAD | Dwelling | 72.1 | 71.8 | 72.0 | -0.1 | Negligible Beneficial | 72.3 | 0.2 | Negiligile Adverse | 58.6 | 58.4 | 58.8 |
| 202, AUCHMILL ROAD | Deelling | 72.2 | 72.0 | 72.1 | -0.1 | Negligible Beneficical | 72.5 | 0.3 | Negiligible Adverse | 58.7 | 58.5 | 59.0 |
| $\frac{206, ~ A U C H M I L L ~ R O A D ~}{\text { 20, }}$ | Dwelling | ${ }_{72.3}^{72.2}$ | 72.0 72.0 | 72.1 72.2 | -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ Beneficial | 72.5 72.5 | 0.3 | $\frac{\text { Negiligibe Adverse }}{\text { Negigiole Adverse }}$ | 58.7 58.8 | 58.5 | $\begin{array}{r}59.0 \\ 590 \\ \hline 9\end{array}$ |
| 212, AUCHMILL ROAD | Dwelling | 72.3 | 72.0 | 72.2 | -0.1 | Negligible Beneficial | 72.5 | 0.2 | Negligible Adverse | 58.8 | 58.5 | 59.0 |
| 214, AUCHMILL ROAD | Dwelling | 72.3 | 72.0 | 72.2 | -0.1 | Negligible Beneficical | 72.5 | 0.2 | Negligible Adverse | 58.8 | 58.5 | 59.0 |
| 216, AUCHMILL ROAD | Dwelling | 72.2 | 71.9 | 72.1 | -0.1 | Negligible Beneficicial | 72.5 | 0.3 | Negigigile Adverse | 58.7 | 58.4 | 59.0 |
|  | Dwelling | 77.2 <br> 74.4 | 77.6 <br> 74.6 | 77.1 74.1 | $\stackrel{-0.1}{-0.3}$ | $\frac{\text { Negligiole Beneficial }}{\text { Negligile }}$ Beneficial | 77.6 <br> 74.6 | 0.4 | $\frac{\text { Negigigble Adverse }}{\text { Negigiole Adverse }}$ | 63.2 | 630.6 | 63.6 60.9 |
| 284, AUCHMILL ROAD | Dwelling | 74.4 | 74.6 | 74.1 | -0.3 | Negligible Beneficial | 74.6 | 0.2 | Negiligile Adverse | 60.7 | 60.9 | 60.9 |
| 286, AUCHMILL ROAD | Dwelling | 77.2 | 77.5 | 76.9 | -0.3 | Negligible Beneficical | 77.4 | 0.2 | Negiligile Adverse | 63.2 | 63.5 | 63.4 |
| 288, AUCHMILL ROAD | Deeling | 77.1 | 77.4 | 76.8 | -0.3 | Negligible Beneficial | 77.4 | 0.3 | Negigigibe Adverse | 63.1 | 63.4 | 63.4 |
| 290, AUCHMLL ROAD | Dwelling | 76.9 70.9 | 77.1 71.2 | 76.5 70.6 | $\stackrel{-0.2}{-0.3}$ | $\frac{\text { Negligible Beneficiol }}{\text { Neglioibl }}$ Beneficial | 77.0 71.1 | 0.3 | Negigible Adverse | 62.8 57.5 | 63.1 57.8 | 63.0 57.7 |
| 330, AUCHMILL ROAD | Deelling | 71.3 | 71.6 | 71.0 | -0.3 | Negligible Beneficical | 71.5 | 0.2 | Negigioble Adverse | 57.9 | 58.2 | 58.1 |
| 332. AUCHMLLL ROAD | Dwelling | 71.7 | 72.0 | 71.3 | -0.4 | Negligible Beneficical | 71.9 | 0.2 | Negiligibe Adverse | 58.3 | 58.5 | 58.4 |
|  | Dwelling | 71.9 72.0 | 72.1 72.3 | 71.5 71.7 | -0.4 -0.3 | $\frac{\text { Negligible Beneficial }}{\text { Negligibl }}$ Beneficial | 72.1 72.2 | 0.2 0.2 | $\frac{\text { Negligible Adverse }}{\text { Negigiole Adverse }}$ | 58.4 <br> 58.5 | 58.6 <br> 58.8 | 58.6 58.7 |
| 338, AUCHMILL ROAD | Dwelling | 72.1 | 72.4 | 71.7 | -0.4 | Negligible Beneficial | 72.3 | 0.2 | Negigiolie Adverse | 58.6 | 58.9 | 58.8 |
| 340, AUCHMILL ROAD | Dwelling | 71.9 | 72.2 | 71.6 | -0.3 | Negligible Beneficial | 72.2 | 0.3 | Negiligile Adverse | 58.4 | 58.7 | 58.7 |
| 342, AUCHMILL ROAD | Dwelling | 71.8 | 72.1 | 71.5 | -0.3 | Negligible Beneficicial | 72.1 | 0.3 | Negiligible Adverse | 58.4 | 58.6 | 58.6 |
| $\frac{346, \text { AUCHMILL ROAD }}{348, ~ A U C H M I L L ~ R O A D ~}$ | Dwelling | ${ }_{71.7}^{71.8}$ | 72.0 72.1 | 71.4 71.5 | -0.3 -0.3 | $\frac{\text { Negligible Beneficial }}{\text { Negligibl }}$ | 72.0 72.0 | 0.3 | Negligile Adverse | 58.3 58.4 | 58.5 58.6 | 58.5 58.5 |
| 350, AUCHMILL ROAD | Dwelling | 71.8 | 72.2 | 71.6 | -0.2 | Negligible Beneficial | 72.1 | 0.3 | Negigioble Adverse | 58.4 | 58.7 | 58.6 |
| ${ }^{352, \text { AUCHMILL ROAD }}$ | Dwelling | 72.0 | 72.4 | 71.8 | -0.2 | Negligible Beneficial | 72.3 | 0.3 | Negligible Adverse | 58.5 | 58.9 | 58.8 |
| 354. AUCHMILL ROAD | $\frac{\text { Dwelling }}{\text { Dueling }}$ | 72.0 72.1 | 72.5 72.5 | 71.8 <br> 71.8 | -0.2 | $\frac{\text { Negligiole Beneficial }}{\text { Negligile }}$ Beneficial | 72.4 72.4 | 0.4 0.3 | $\frac{\text { Negigigibe Adverse }}{\text { Negigiole Adverse }}$ | 58.5 58.6 | 59.0 59.0 | 58.9 58.9 |
| 358, AUCHMILL ROAD | Dwelling | 72.1 | 72.6 | 71.9 | -0.2 | Negligible Beneficial | 72.5 | 0.4 | Negiligibe Adverse | 58.6 | 59.1 | 59.0 |
| 360, AUCHMLL ROAD | welling | 72.0 | 72.5 | 71.8 | -0.2 | Negligible Beneficial | 72.4 | 0.4 | Negligible Adverse | 58.5 | 59.0 | 58.9 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 <br> Lnight,outside | DM33 Lnight,outside | DS33 Lnight,outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3 362, AUCHMILL ROAD | Dwelling | 71.6 | 72.0 | 71.3 | -0.3 | Negligible Beneficial | 72.0 | 0.4 | Negigigible Adverse | 58.2 | 58.5 | 58.5 |
| 364, AUCHMILL ROAD | Oweling | 70.4 | 70.8 | 70.1 | -0.3 | Negligible Beneficical | 70.9 | 0.5 | Negigioble Adverse | 57.1 | 57.5 | 57.5 |
| 368, AUCHMILL ROAD | Dwelling | 71.9 | 72.2 | 71.4 | -0.5 | Negligible Beneficial | 72.3 | 0.4 | Negiligibe Adverse | 58.4 | 58.7 | 58.8 |
| 374, AUCHMLLL ROAD | Oweling | 71.2 | 71.4 710 | 70.6 | -0.6 | Negligible Beneficical | 71.5 711 | 0.3 | Negiligibl Adverse | $\stackrel{57.8}{57}$ | $\stackrel{58.0}{57}$ | ${ }_{58.1}^{57}$ |
| 376, AUCHMILL ROAD | Delling | 71.0 | 71.0 | 70.3 | -0.7 | Negligible Beneficical | 77.1 | 0.1 | Negligible Benefitial | 57.6 <br> 575 | 57.6 <br> 575 | 57.7 575 |
| 378, AUCHMILL ROAD | Delling | 70.8 | 70.8 | 70.1 | -0.7 | Negligible Beneficicial | 70.9 | 0.1 | Negigigibe Adverse | 57.5 57 | 57.5 | 57.5 573 |
| 380, AUCHMILL ROAD | Deelling | 70.5 | 70.5 | 69.8 | -0.7 | Negligible Beneficical | 70.6 | 0.1 | Negligible Beneficial | 57.2 | 57.2 | 57.3 |
| 382, AUCHMILL ROAD | Dwelling | 70.1 | 70.1 | 69.4 | -0.7 | Negligible Beneficical | 70.2 | 0.1 | Negiligibe Adverse | 56.8 5 | $\begin{array}{r}56.8 \\ 5 \\ \hline\end{array}$ | 56.9 |
| 384, AUCHMILL ROAD | Deelling | 64.3 | 64.2 | 63.5 | -0.8 | Negligible Beneficial | 64.3 | 0.0 | No Change | 51.6 | 51.5 | 51.6 |
| 386, AUCHMILL ROAD | Deelling | ${ }_{7} 7.1$ | ${ }_{712.0}$ | 71.3 | -0.8 | Negligible Beneficical | ${ }^{72.1}$ | 0.0 | No Change | 58.6. | 58.5 58.1 | 㐌5.6. |
| $\frac{388, ~ A U C H M L L L ~ R O A D ~}{\text { 39, }}$ | Dweling | 71.6 750 | 71.5 74.8 | 70.8 74.1 | -0.8 | Negligible Beneficial | 71.6 749 | 0.0 | ${ }^{\text {No Co Change }}$ | 58.2 612 | 58.1 6.11 | 58.2 |
| 392, AUUCHMLL ROAD | Oweiling | ${ }_{72.5}^{75.5}$ | 74.8 71.8 | ${ }_{71.5}$ | --.9 | $\frac{\text { Negligiober Beneicical }}{\text { Minor Beneficial }}$ | 77.1 | -0.4 | ${ }_{\text {Negiligile Beneficial }}^{\text {Negigile }}$ Beneficial | ${ }_{59.0}^{66.1}$ | ${ }_{58.4}^{66.1}$ | ${ }_{58.6}^{66.1}$ |
| 400. AUCHMIL ROAD | Dwelling | 72.5 | 71.7 | 71.3 | -1.2 | Minor Beneficial | 71.9 | 0.6 | Negligible Beneficial | 59.0 | 58.3 | 58.4 |
| 418, AUCHMILL ROAD | Wwelling | 72.6 | 72.0 | 71.2 | -1.4 | Minor Beneficial | 71.9 | 0.7 | Negligible Beneficial | 59.1 | 58.5 | 58.4 |
| 420. AUCHMILL ROAD | Welling | 72.5 | 72.0 | 71.2 | -1.3 | Minor Beneficical | 71.9 | -0.6 |  | 59.0 | 58.5 | 58.4 |
| 422, AUCHMILL ROAD | welling | ${ }_{7}^{73.1}$ | 72.7 | 71.6 | -1.5 | Minor Beneficicial | 72.3 | -0.8 | Negligible Beneficicial | 59.5 | 59.2 | 58.8 |
| 424, AUCHMILL ROAD | weling | 13.1 | ${ }^{72.7}$ |  | -1.4 | Minor Beneiticial | 72.4 |  | Negligible Beneitical | . 5 |  | 58.9 |
| 426, AUCAMIL ROAD | Oweiling | 69.9 | 69.9 | 65.2 |  | Mnor Beneitical | 69.1 | -0.8 | Negligble Benenical | 56.6 | 56.1 | 55.9 |
| 430, AUCHMIL ROAD | Dweling | $\begin{array}{r}65.2 \\ \hline 752\end{array}$ | 64.4 77 | 65.2 773 | 0.0 | No Change | ${ }_{66.1}$ | 0.9 | Negiligibe Adverse | 52.4 | 51.7 | 53.2 |
| 434, AUCHMILL ROAD | Dwelling | 75.2. | ${ }_{75.3}^{75.3}$ | 73.3 <br> 7.3 | -1.9 | Minor Beneneficicial | ${ }_{74.1}$ | $\stackrel{-1.1}{-1.1}$ | Negigigble Benentical | 61.4 | ${ }_{61.5}^{615}$ | 60.4 |
| 434, AUCHMILL ROAD | Dwelling | 75.2 | 75.3 | ${ }^{73.3}$ | -1.9 | Minor Beneficial | 74.1 | -1.1 | Negligible Beneficical | 61.4 | 61.5 | 60.4 |
| 434, AUCHMILL ROAD | Dwelling | 75.2 | 75.3 | ${ }^{73.3}$ | -1.9 | Minor Beneficial | 74.1 | -1.1 | Negligible Beneficial | 61.4 | 61.5 | 60.4 |
| 434, AUCHMILL ROAD | Deelling | 75.2 | 75.3 | ${ }^{73.3}$ | -1.9 | Minor Beneficial | 74.1 | -1.1 | Negligible Beneficical | 61.4 | 61.5 | 60.4 |
| $\frac{434, \text { AUCHMILL ROAD }}{438}$ | Dwelling | 75.2 | 75.3 | ${ }^{73.3}$ | -1.9 | Minor Beneficical | ${ }_{74.1}^{74.6}$ | $\stackrel{-1.1}{1.1}$ | Neogigible Beneficial | $\frac{61.4}{619}$ | 61.5 | 60.4 |
| 440, AUCHMILL ROAD | Dwelling | 72.4 | 71.7 | 71.4 | -1.0 | Minor Beneficial | 72.0 | -0.4 | Negligible Beneficial | 58.9 | 58.3 | 58.5 |
| 440, AUCHMILL ROAD | Wwelling | 72.4 | 71.7 | 71.4 | -1.0 | Minor Beneficial | 72.0 | -0.4 | Negligible Beneficial | 58.9 | 58.3 | 58.5 |
| ${ }^{\text {1, AUCOCHMLLL }}$ TERRACE, BUCKSBURN | Dwelling | ${ }_{59.6}$ | ${ }_{59.4}$ | 71.4 59.4 | -1.0 | Negnigibibe Benenenicicial | $\stackrel{72.0}{59.8}$ | -0.4 | Negoligioibe Advericarse | ${ }^{587.9} 4$ | ${ }^{58.3} 47$ | ${ }_{48.6}$ |
| 10. AUCHMILL TERRACE, BUCKSBURN | Dwelling | 58.4 | 58.0 | 58.2 | .0.2 | Negligible Bene | 58.6 | 0.2 | Negiliable Adverse | 46.3 | 45.9 | 46.5 |
| 11, AUCHMILL TERRACE, BUCKSBURN | Welling | 59.0 | 58.6 | 58.7 | -0.3 | Negligible Beneficical | 59.2 | 0.2 | Negigioibe Adverse | 46.8 | 46.5 | 47.0 |
| 14, AUCHMLLL TERRACE, BUCKSBURN | Welling | 59.1 |  |  | -0.2 | Negligible Beneficicial | 59.3 |  | Negiligible Adverse | 46.9 |  |  |
| 15, AUCHMLLL TERRACE, BUCKSBURN | welling | 59.3 | 59.0 | 59.1 |  | Negigigile Beneificial |  | 0.2 | Negigigibe Adverse |  | 6.8 | 47.1 |
|  | Oweling | 59.3 | 58.9 59.1 | 58.91 | -0.2 | ${ }^{\text {Negegigiole }}$ Benenitical | ${ }_{59} 59.6$ | 0.3 | Neogigioble Adverse | 471 | 46.9 | 474 |
| 18, AUCHMILL TERRACE, BUCKSBURN | Dwelling | 59.5 | 59.4 | 59.3 | -0.2 | Negligible Beneficial | 59.8 | 0.3 | Negigioble Adverse | 47.3 | 47.2 | 47.6 |
| 19, AUCHMILL TERRACE, BUCKSBURN | Dwelling | 59.8 | 59.7 | 59.5 | -0.3 | Negligible Beneficial | 60.1 | 0.3 | Negiligibe Adverse | 47.6 | 47.5 | 47.8 |
| 2, AUCHMIL TERAACE, BUCKSBURN | Oweling | 57.8 | 57.3 | 57.6 5 59 | -0.2 | Negligible Benefitial | 58.0 | 0.2 | Negiligibe Adverse | 45.8 | ${ }_{45.3}^{478}$ | 45.9 |
|  | Dwelling | 60.2 60.0 | 60.1 59.9 | ${ }_{59.8}^{59.8}$ | -0.2 | Negegligible Beneneficial | ${ }_{60.3}$ | 0.3 | Neogigiole Adverse | ${ }_{47.7}$ | 47.6 | 48.2 |
| 22, AUCHMILL TERRACE, BUCKSBURN | Dwelling | 60.3 | 60.2 | 60.0 | -0.3 | Negligible Beneficial | 60.6 | 0.3 | Negiligile Adverse | 48.0 | 47.9 | 48.3 |
| 23, AUCHMILL TERRACE, BUCKSBURN | welling | 60.5 | 60.4 | 60.2 | -0.3 | Negligible Beneficial | 60.8 | 0.3 | Negligible Adverse | 48.2 | 48.1 | 48.5 |
| 24, AUCHMILL TERRACE, BUCKSBURN | Deeling | 60.6 | 60.7 | 60.4 | -0.2 | Negligible Beneficial | 61.0 | 0.4 | Negigioble Adverse | 48.3 | 48.4 | 48.6 |
| 25, AUCHMLL TERRACE, BUCKSBURN | Dwelling | 61.4 | 61.4 54.3 | $\frac{61.2}{54.1}$ | -0.2 0.0 | Negligible Beneficial | 61.9 54.9 | ${ }_{0}^{0.5}$ | $\frac{\text { Negigigble Adverse }}{\text { Negilible Adverse }}$ | 49.0 42.4 | 49.0 | 49.4 |
| 27, AUCHMILL TERRACE, BUCKSBURN | Dwelling | 53.9 | 54.0 | 53.6 | -0.3 | Negligible Beneficial | 54.4 | 0.5 | Negiligile Adverse | 42.2 | 42.3 | 42.7 |
| 28, AUCHMIL L TERRACE, BUCKSBURN | Dwelling | 54.2 | 54.5 | 53.9 | -0.3 | Negligible Beneficial | 54.6 | 0.4 | Negiligile Adverse | 42.5 | 42.8 | 42.9 |
| 29, AUCHMILL TERRACE, BUCKSBURN | Deeling | 53.3 | 53.4 | 52.9 | -0.4 | Negligible Beneficical | ${ }_{53,6}^{57}$ | 0.3 | Negaligible Adverse | 41.7 | 41.8 | 42.0 |
| 3, AUCHMLL TERRACE, BUCKSEURN | Dweling | ${ }_{5}^{53.1}$ | ${ }_{53.2}^{56.9}$ | ${ }_{52.7}^{5}$ | $\stackrel{-0.4}{-0.1}$ | Negiligiole Beneilicial | ${ }_{55.5}^{53.5}$ | ${ }_{0}^{0.4}$ | Neogigiole Adverse | 41.5 | 41.6 | 41.9 |
| 31, AUCHMIL L TERRACE, BUCKSBURN | Dwelling | 53.4 | 53.4 | 53.0 | -0.4 | Negligible Benenicicial | 53.7 | 0.3 | Negiligible Adverse | 41.8 | 41.8 | 42.1 |
| 32, AUCHMILL TERRACE, BUCKSBURN | Dweling | 52.7 | 52.8 | 52.3 | -0.4 | Negligible Beneficical | 53.0 |  | Negiligile Adverse | 41.2 | 41.3 | 41.4 |
|  | Oweiling | ${ }_{5}^{52.5}$ | 52.7 | 52.1 | -0.4 | Negligibie Benenicical | 52.9 | 0.4 | Negigigibe Adverse | 41.0 | 4.2 | 4.3 |
| 34, AUCHMILL TERRACE, BUCKSBURN | Dwelling | 53.2 | ${ }^{53.4}$ | ${ }^{52.8}$ | -0.4 | Negegiogible Beneficioial | ${ }^{53.5}$ | 0.3 | Neogigioble Adverse | 41.6 | 41.7 | 41.9 |
| 36, AUCHMILL TERRACE, BUCKSBURN | Deelling | 53.6 | 53.8 | 53.3 | -0.3 | Negligible Beneficial | 54.0 | 0.4 | Negiligibe Adverse | 42.0 | 42.2 | 42.3 |
| 37, AUCHMILL TERRACE, BUCKSBURN | Dwelling | 56.0 | 55.1 | 55.8 | -0.2 | Negligible Beneficial | 56.1 | 0.1 | Negligible Adverse | 44.1 | 43.3 | 44.2 |
| 38, AUCCMMLL Leritace, Buckssurn | Dwelling | 52.3 52.4 | 52.5 52.5 | 52.0 52.1 | -0.3 | Negiligie Beneficial | 52.7 52.7 | 0.4 0.3 | $\frac{\text { Negigible Adverse }}{\text { Neoligible Adverse }}$ | 40.8 | 41.0 | $\frac{41.2}{41.2}$ |
| 4. AUCHMILL TERRACE, BUCKSBURN | Dwelling | 57.3 | 56.7 | 57.1 | -0.2 | Negligible Beneficial | 57.5 | 0.2 | Negligible Adverse | 45.3 | 44.8 | 45.5 |
| 40, AUCHMIL L TERRACE, BUCKSBURN | Dwelling | 54.6 56.2 | 54.2 55.3 | 54.4 56.1 | -0.2 -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negligibe }}$ Beneficial | 54.9 56.4 | 0.3 | Negigiobe Adverse | 42.9 4 | $\stackrel{42.5}{43.5}$ | $\stackrel{43.1}{44.5}$ |
| 42, AUCHMILL TERRACE, BUCKSBURN | Dwelling | 56.1 | 55.2 | 55.9 | -0.2 | Negligible Beneficial | 56.2 | 0.1 | Negiligible Adverse | 44.2 | 43.4 | 44.3 |
| 43, AUCHMLL TERRACE, BUCKSBURN | Dwelling | 53.2 54.9 | 53.3 54.4 | 52.9 54.7 | -0.3 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ Beneficial | 53.5 55.2 | 0.3 0.3 | $\frac{\text { Negligible Adverse }}{\text { Negligible Adverse }}$ | 41.6 43.1 | $\frac{41.7}{42.7}$ | 41.9 43.4 |
| 45, AUCHMILL TERRACE, BUCKSBURN | Dwelling | 56.1 | 55.2 | 55.9 | -0.2 | Negligible Beneficial | 56.2 | 0.1 | Negligible Adverse | 44.2 | 43.4 | 44.3 |
| 46, AUCHMLLL TERRACE, BUCKSBURN | Dwelling | 56.2 |  | 56.0 | -0.2 | Neogigibie Beneficial |  | ${ }_{0}^{0.1}$ | Negiligile Benenitial | ${ }_{44.3}$ | 43.5 | 44.4 |
| 47, AUCHMILL TERRACE, BUCKSBURN | weling | 56.2 | 55.4 | 55.1 | -0.1 | Negligibe Beneticial | 56.3 | 0.1 | Negligbie Benenical | 44.1 | 43.6 | 44.4 |
| 49, AUCHMILL TERRACE, BUCKSBURN | Dwelling | ${ }_{53.2}$ | 53.2 | ${ }_{53.0}$ | -0.2 | Negiligibe Benenificial | ${ }_{53.5}^{52.9}$ | 0.3 | Neogigiole Adverse | 41.6 | ${ }_{41.6}^{44}$ | 41.9 |
| 5, AUCHMILL TERRACE, BUCKSBURN | Dwelling | 52.6 | 53.1 | 52.4 | -0.2 | Negligible Beneficial | 53.2 | 0.6 | Negiligile Adverse | 41.1 | 41.5 | 41.6 |
| 50, AUCHMILL TERRACE, BUCKSBURN | Deelling | 53.9 | 53.9 | 53.7 | -0.2 | Negligible Beneficial | 54.2 | 0.3 | Negigioble Adverse | 42.2 | 42.2 | 42.5 |
| 51, AUCCMMILL Lerrace, ibcksbuin | Dwelling | 54.4 <br> 54.4 | 54.2 54.2 | 54.1 54.1 | -0.3 | Negegigigibe Beneneficioial | 54.6 | 0.2 | Neogigioble Adverse | ${ }_{42.7}^{42.6}$ | ${ }^{42.5}$ | ${ }_{42.9}^{42.8}$ |
| 53, AUCHMILL TERRACE, BUCKSBURN | Deeling | 54.5 | 54.3 | 54.3 | -0.2 | Negligible Beneficial | 54.7 | 0.2 | Negiligile Adverse | 42.8 | 42.6 | 43.0 |
|  | Dwelling | 58.5 58.5 | 58.1 58.1 | 58.3 58.3 | -0.2 -0.2 | $\frac{\text { Negligible Benenicial }}{\text { Negligibl }}$ Beneficial | 58.7 58.7 | 0.2 | $\frac{\text { Negigigble Adverse }}{\text { Negilible Adverse }}$ | 46.4 46.4 | 46.0 46.0 | 46.6 46.6 |
| 56, AUCHMILL TERRACE, BUCKSBURN | Dwelling | 58.9 | 58.6 | 58.7 | -0.2 | Negligible Beneficial | 59.1 | 0.2 | Negligiole Adverse | 46.7 | 46.5 | 46.9 |
| 57, AUCHMILL TERRACE, BUCKSBURN | welling | 59.3 | 58.9 | 59.0 59.5 | ${ }^{-0.3}$ | Negligible Beneficicial | 59.4 | ${ }_{0}^{0.1}$ | Negligible Adverse | 47.1 | 46.7 | ${ }^{47.2}$ |
| 58, AUCCMMLL LeRRACE, BGCKSBURN | Dwelling | ${ }_{59}^{59.9}$ | ${ }^{59.5}$ | ${ }^{59.5}$ | $-02$ | Negligigibe Beneneficicial | 59.1 | 0.2 | Negligigibe Adverse | ${ }_{50.3}^{47.5}$ | ${ }_{50.3}$ | ${ }_{50.5}$ |

A90/A96 Haudagain Improvement

## DMRB Stage 3 Environmental Statement

## Appendix A14.4: Operational Noise Modelling Results

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Receptor Name \& Receptor Description \& \[
\begin{gathered}
\text { DM18 } \\
\text { LA10,18hr }
\end{gathered}
\] \& \[
\begin{gathered}
\text { DM33 } \\
\text { LA10,18hr }
\end{gathered}
\] \& \[
\begin{gathered}
\text { DS18 } \\
\text { LA10,18hr }
\end{gathered}
\] \& Short-term Daytime Noise Change (dB) \& Magnitude of Change \& \[
\begin{gathered}
\text { DS33 } \\
\text { LA10,18hr }
\end{gathered}
\] \& Long-term Daytime Noise Change (dB) \& Magnitude of Change \& DM18 Lnight,outside \& \begin{tabular}{l}
DM33 \\
Lnight,outside
\end{tabular} \& DS33 Lnight,outside \\
\hline 6, AUCHMILL TERRACE, BUCKSBURN \& Dwelling \& 54.7 \& 54.4 \& 54.7 \& 0.0 \& No Change \& 55.1 \& 0.4 \& Negligible Adverse \& 43.0 \& 42.7 \& 43.3 \\
\hline \(\frac{7}{7}\) 7 AUCHMILL TERRACE, BUCKSBURN \& \(\frac{\text { Dwelling }}{\text { Dweling }}\) \& 56.3
58.0 \& 55.5
57.5 \& 56.3
57.8 \& 0.0
-0.2 \& \(\xrightarrow{\text { Nogo Change }}\) \& 56.6
58.2 \& 0.3 \& Negligible Adverse \& \(\frac{44.4}{45.9}\) \& 43.7
45.5 \& 44.7
46.1 \\
\hline 9, AUCHMILL TERRACE, BUCKSBURN \& Dwelling \& 58.3 \& 57.8 \& 58.1 \& -0.2 \& Negiligible Beeneficioial \& 58.2
58.5 \& 0.2 \& Neogigiole Adverse \& 46.2 \& \({ }_{45.8}^{45.5}\) \& \({ }^{46.1}\) \\
\hline 1, BAKER ROAD \& Dwelling \& 52.2 \& 55.5 \& 52.5 \& 0.3 \& Negligible Adverse \& 54.6 \& 2.4 \& Negigigile Adverse \& 40.7 \& 43.7 \& 42.9 \\
\hline 11, BAKER ROAD \& Dwelling \& 46.3 \& 48.6 \& 46.4 \& 0.1 \& Negiligile Adverse \& 48.0 \& 1.7 \& Negigigile Adverse \& 35.4 \& 37.5 \& 36.9 \\
\hline 15, BAKER ROAD \& Deelling \& 46.3 \& 48.6 \& 46.4 \& 0.1 \& Negligible Adverse \& 48.0 \& 1.7 \& Negigiolie Adverse \& 35.4 \& 37.5 \& 36.9 \\
\hline 17, BAKER ROAD \& Dwelling \& 46.3 \& 48.6 \& 46.4 \& 0.1 \& Negligible Adverse \& 48.0 \& 1.7 \& Negigigibe Adverse \& 35.4 \& 37.5 \& 36.9 \\
\hline \(\frac{19, ~ B A K E R ~ R O A D ~}{\text { a }}\) \& Deelling \& \({ }_{56.3}^{46.3}\) \& \({ }_{48.6}^{4.4}\) \& 46.4
5.5 \& 0.1 \& Neoligigile Adverse \& \({ }^{48.0}\) \& 1.7 \& Negiligile Adverse \& 35.4 \& \(\begin{array}{r}37.5 \\ \hline 19\end{array}\) \& 36.9
48.0 \\
\hline  \& Dwelling \& 55.7
46.3 \& 62.4
48.6 \& 55.5
46.4 \& -0.2
0.1 \& \(\frac{\text { Negligible Beneficial }}{\text { Nefligible Adverse }}\) \& 60.3
48.0 \& \(\stackrel{4.6}{1.7}\) \& Neanor Adverse \& 43.9
35.4 \& \(\stackrel{49.9}{37.5}\) \& \(\stackrel{48.0}{36.9}\) \\
\hline 23, BAKER ROAD \& Dwelling \& 46.3 \& 48.6 \& 46.4 \& 0.1 \& Negligible Adverse \& 48.0 \& 1.7 \& Negiligile Adverse \& 35.4 \& 37.5 \& 36.9 \\
\hline 25, BAKER ROAD \& Dwelling \& 46.3 \& 48.6 \& 46.4 \& 0.1 \& Negigigile Adverse \& 48.0 \& 1.7 \& Negigigile Adverse \& 35.4 \& 37.5 \& 36.9 \\
\hline 27, BAKER ROAD \& Accommodation/Short Term Let \& 45.2 \& 47.4 \& 45.3 \& 0.1 \& Negligible Beneficial \& 46.9 \& 1.7 \& Negigigile Adverse \& 34.4 \& 36.4 \& 35.9 \\
\hline \& Holiday \& \& \& \& \& \& \& \& \& \& \& \\
\hline \& Let/Accommodation/Short- \& \& \& \& \& Negligible Beneficial \& \& \& Negligible Adverse \& \& \& \\
\hline 3, BAKER ROAD \& Dwelling \& 52.2 \& 55.5 \& 52.5 \& 0.3 \& Negiligibe Adverse \& 54.6 \& 2.4 \& Negligible Adverse \& 40.7 \& 43.7 \& 42.9 \\
\hline \& Holiday \& \& \& \& \& \& \& \& \& \& \& \\
\hline 31, BAKER ROAD \& Let/Accommodation/Sh Term Let \& 45.2 \& 47.4 \& 45.3 \& 0.1 \& Negligible Eeneficial \& 46.9 \& 1.7 \& Negligible Adverse \& 34.4 \& \& 35.9 \\
\hline 33, BAKER ROAD \& Dwelling \& 46.3 \& 48.6 \& 46.4 \& 0.1 \& Negligible Adverse \& 48.0 \& 1.7 \& Negigiole Adverse \& 35.4 \& 37.5 \& 36.9 \\
\hline 35, BAKER ROAD \& Dwelling \& 46.3 \& 48.6 \& 46.4 \& 0.1 \& Negligible Adverse \& 48.0 \& 1.7 \& Negigiole Adverse \& 35.4 \& 37.5 \& 36.9 \\
\hline 37, BAKER ROAD \& welling \& 46.3 \& 48.6 \& 46.4 \& 0.1 \& Negiligibe Adverse \& 48.0 \& 1.7 \& Negigigile Adverse \& 35.4 \& 37.5 \& 36.9 \\
\hline 39, BAKER ROAD \& Dwelling \& 45.4 \& 47.3 \& 45.4 \& 0.0 \& No Change \& 46.8 \& 1.4 \& Negigigile Adverse \& 34.6 \& 36.3 \& 35.9 \\
\hline 4, BAKER ROAD \& Dwelling \& 52.1. \& \({ }_{56.2}^{473}\) \& 52.3
4.4 \& 0.2 \& Negligible Adverse \& 55.0 \& \(\stackrel{2.9}{14}\) \& Negiligibe Adverse \& \({ }_{30.6}^{3.6}\) \& 44.3 \& \begin{tabular}{l} 
43.2 \\
3 \\
\hline 15
\end{tabular} \\
\hline \(4{ }^{\text {4, BAKER ROAD }}\) \& Dwelling \& 45.4
45.4 \& \({ }_{47.3}^{47}\) \& 45.4.
45.4 \& 0.0 \& \(\frac{\text { No Change }}{\text { No Change }}\) \& 46.8
46.8 \& \({ }_{1.4}^{1.4}\) \& Negigigle Adverse \& \(\stackrel{34.6}{34.6}\) \& 36.3
36.3 \& 35.9
35.9 \\
\hline 5, BAKER ROAD \& welling \& 52.2 \& 55.5 \& 52.5 \& 0.3 \& Negigigile Adverse \& 54.6 \& 2.4 \& Negigigile Adverse \& 40.7 \& 43.7 \& 42.9 \\
\hline 7, BAKER ROAD \& Dwelling \& 52.2 \& 55.5 \& 52.5 \& 0.3 \& Negigibile Adverse \& 54.6 \& 2.4 \& Negigiole Adverse \& 40.7 \& 43.7 \& 42.9 \\
\hline 9, BAKER ROAD \& Dwelling \& 46.3 \& 48.6 \& 46.4 \& 0.1 \& Negligible Adverse \& 48.0 \& 1.7 \& Negigigile Adverse \& 35.4 \& 37.5 \& 36.9 \\
\hline 10, BALGOWNIE DRIVE, BRIDGE OF DON \& Deeling \& 68.6 \& 69.4 \& 68.5 \& -0.1 \& Negligible Beneficial \& 69.9 \& 1.3 \& Negigiolie Adverse \& 55.5 \& 56.2 \& 6.6 \\
\hline 11, BALGOWNIE DRIVE, BRIDGE OF DON \& Dwelling \& 68.6 \& 69.4 \& \& -0.1 \& Negligible Beneficial \& 69.9 \& 1.3 \& Negligible Adverse \& 55.5 \& 56.2 \& 56.6 \\
\hline 12 , BALGOWNIE DRIVE, RRIIDGE OF DON \& Owelling \& 68.6 \& 69.4 \& 68.5 \& 0.1 \& Negligible Beneficial \& 69.9 \& 1.3 \& Negigigile Adverse \& 55.5 \& 56.2 \& \\
\hline 13.8 BALGOWNIE DRIVE, BRIIDGE OF DON \& Owelling \& 68.6 \& 69.4 \& 68.5 \& 0.1 \& Negligible Benenitical \& 69.9 \& 1.3 \& Negigigble Adverse \& 5 5 \& \& 56 \\
\hline 14, BALGOWNIE DRIVE, BRIDGE OF DON \& Dwelling \& 68.6 \& 69.4 \& 68.5 \& 0.1 \& Negligibe Benenitical \& 69.9 \& 1.3 \& Negiligibe Adverse \& 55.5 \& \& 6.6 \\
\hline 15, BALGOWNIE DRIVE, BRIIGGE OF DON \& Dwelling \& 68.6 \& 69.4 \& 68.5 \& 0.1 \& Negligible Beneficical \& 69.9 \& 1.3 \& Negigigibe Adverse \& 55.5 \& 56.2 \& 56.6 \\
\hline 16.8 BALGOWNIE DRIVE, BRIIIGE OF DON \& Dwelling \& 68.6 \& 69.4 \& 68.5 \& 0.1 \& Negligible Beneficial \& 69.9 \& \begin{tabular}{|l}
1.3 \\
1.3
\end{tabular} \& Negiligile Adverse \& \(\begin{array}{r}55.5 \\ \hline 9.5 \\ \hline\end{array}\) \& 56.2 \& -56.6 \\
\hline 17, BALGOWNIE DRIVE, BRIDGE OF DON \& Dwelling \& 61.6
68.6 \& 62.4
69.4 \& 61.5
68.5 \& -0.1
0.1

0.1 \& $\frac{\text { Negligible Benenitical }}{\text { Neglioibe eeneficial }}$ \& 62.9
69.9 \& 1.3
1.3
1 \& Negligile Adverse \& 49.2
55.5 \& 49.9
56.2 \& 50.3
56.6 <br>
\hline 8, BALGOWNIE DRIVE, BRIDGE OF DON \& Dwelling \& 68.6 \& 69.4 \& 68.5 \& -0.1 \& Negligible Beneficioal \& 69.9 \& 1.3 \& Neoligiole Adverse \& ${ }_{55.5}$ \& 56.2 \& 56.6 <br>
\hline 9, BALGOWNIE DRIVE, BRIDGE OF DON \& Dwelling \& 68.6 \& 69.4 \& 68.5 \& -0.1 \& Negligible Beneficial \& 69.9 \& 1.3 \& Negigigile Adverse \& 55.5 \& 56.2 \& 56.6 <br>
\hline PLAYING FIELDS, BALGOWNIE DRIVE, BRIIGE OF DON \& Playing Field \& 57.0 \& 57.1 \& 57.0 \& 0.0 \& No Change \& 58.4 \& 1.4 \& Negigigile Adverse \& 45.0 \& 45.1 \& 46.3 <br>
\hline 1 14, BANK STREET, FERRYHILL \& Dwelling \& ${ }_{61.2}^{612}$ \& 61.9 \& 61.4 \& 0.2 \& Negigigle Adverse \& 62.0 \& 0.8 \& Negligiole Adverse \& 48.8 \& 49.4 \& 49.5
49.5 <br>
\hline 12, BANK STREET, WOODSIDE \& Dwelling \& 61.2 \& 61.9 \& 61.4 \& 0.2 \& Negligible Adverse \& 62.0 \& 0.8 \& Negigigile Adverse \& 48.8 \& 49.4 \& 49.5 <br>
\hline 12, BANK STREET, WOODSIDE \& Dwelling \& 61.2 \& 61.9 \& 61.4 \& 0.2 \& Negligible Adverse \& 62.0 \& 0.8 \& Negigigile Adverse \& 48.8 \& 49.4 \& 49.5 <br>
\hline 14, BANK STREET, WOODSIDE \& Dwelling \& 61.2 \& 61.9 \& 61.4 \& 0.2 \& Negigibile Adverse \& 62.0 \& 0.8 \& Negigibile Adverse \& 48.8 \& 49.4 \& 49.5 <br>
\hline 14, BANK STREET, WOODSIDE \& Dwelling \& 61.2 \& 61.9 \& 61.4 \& 0.2 \& Negigigile Adverse \& 62.0 \& 0.8 \& Negigigile Adverse \& 48.8 \& 49.4 \& 49.5 <br>
\hline 14, BANK STREET, WOODSIIE \& Dwelling \& 61.2 \& 61.9 \& 61.4 \& 0.2 \& Negigigile Adverse \& 62.0 \& 0.8 \& Neoligiole Adverse \& 48.8 \& 49.4 \& 49.5 <br>
\hline 14, BANK STREET, WOODSIIDE \& Dwelling \& 61.2 \& 61.9 \& 61.4 \& 0.2 \& Negigigile Adverse \& 62.0 \& 0.8 \& Negigigibe Adverse \& 48.8 \& 49.4 \& 49.5 <br>
\hline 14, BANK STREET, WOODSIDE \& Dwelling \& 61.2 \& 61.9 \& 61.4 \& 0.2 \& Negigigile Adverse \& 62.0 \& 0.8 \& Negigigile Adverse \& 48.8 \& 49.4 \& 9.5 <br>
\hline 6, BANK STREET, WOODSIDE \& Oweling \& 66.2 \& 66.9 \& 66.4 \& 0.2 \& Negligile Aaverse \& 67.1 \& 0.9 \& Negigigile Adverse \& 53.3 \& 5.9 \& 54.1 <br>
\hline 6, BANK STREET, WOODSIDE \& Swelling \& ${ }_{66.1}^{66.1}$ \& 66.9 \& ${ }_{66.3}^{66}$ \& ${ }_{0}^{0.2}$ \& Negligible Adverse \& ${ }^{67.0}$ \& 0.9 \& Neogigible Adverse \& ${ }_{53,2}^{532}$ \& 53.9
539 \& 54.0
54.0 <br>
\hline 6, BANK STREET, WOODSIDE \& Dwelling \& 66.1 \& 66.9 \& 66.3 \& 0.2 \& Negligible Adverse \& 67.0 \& 0.9 \& Negiligile Adverse \& 53.2 \& 53.9 \& 54.0 <br>
\hline 6 6, BANK STREET, WOODSIDE \& Dwelling \& 66.1 \& 66.9 \& 66.3 \& 0.2 \& Negigigile Adverse \& 67.0 \& 0.9 \& Negigigile Adverse \& 53.2 \& 53.9 \& 54.0 <br>
\hline 7, BANK STREET, WOODSIDE \& Dwelling \& 73.8 \& 74.6 \& 73.9 \& 0.1 \& Negligible Adverse \& 74.6 \& 0.8 \& Negligible Adverse \& 60.2 \& 60.9 \& 60.9 <br>
\hline 8, BANK STREET, WOODSIIE \& Dwelling \& 66.1 \& 66.9 \& 66.3 \& 0.2 \& Negligible Adverse \& 67.0 \& 0.9 \& Negligible Adverse \& 53.2 \& 53.9 \& 54.0 <br>
\hline 8, B, BANK STREET, WOODSIDE \& Dwelling \& 66.1
66.1 \& 66.9
66.9 \& ${ }_{66.3}^{66.3}$ \& 0.2 \& Negligibe Adverse \& 67.0
67.0 \& 0.9
0.9 \& Negiligio Adverse \& 53.2 \& 53.9

53.9 \& | 54.0 |
| :--- |
| 54.0 | <br>

\hline 9, BANK STREET, WOODSIDE \& Dwelling \& 57.2 \& 57.9 \& 57.4 \& 0.2 \& Negligible Adverse \& 58.0 \& 0.8 \& Negiligile Adverse \& 45.2 \& 45.8 \& 45.9 <br>
\hline FLAT A, 1, BARRON STREET \& Dwelling \& 59.8 \& 60.1 \& 60.0 \& 0.2 \& Negligible Adverse \& 60.1 \& 0.3 \& Negigigile Adverse \& 47.6 \& 47.8 \& 47.8 <br>
\hline FLAT B, 1, BARRON STREET \& Dwelling \& 59.8 \& 60.1 \& 60.0 \& 0.2 \& Negligible Adverse \& 60.1 \& 0.3
0.3 \& Negligibl Adverse \& ${ }_{47}^{47.6}$ \& 47.8 \& 47.8 <br>
\hline FLAT C, 1, BARRONSTREET \& Dwelling \& 59.8
59.8 \& $\frac{60.1}{60.1}$ \& 60.0 \& 0.2 \& Negigigle Adverse \& ${ }_{60.1}^{60.1}$ \& ${ }_{0}^{0.3}$ \& Negigigle Adverse \& 47.6 \& 47.8 \& 47.8 <br>
\hline FLAT E, 1, BARRON STREET \& Dwelling \& 59.8 \& 60.1 \& 60.0 \& 0.2 \& Negigigile Adverse \& 60.1 \& 0.3 \& Negiligile Adverse \& 47.6 \& 47.8 \& 47.8 <br>
\hline FLAT F, 1, BARRONSTREET \& Dwelling \& 59.8 \& 60.1 \& 60.0 \& 0.2 \& Negligible Adverse \& 60.1 \& 0.3 \& Negigigibe Adverse \& 47.6 \& 47.8 \& 47.8 <br>
\hline FLAT A, 2, BARRONSTREET \& Oweling \& 60.8 \& ${ }^{61.0}$ \& 60.9 \& 0.1 \& Negiligibe Adverse \& 61.1 \& ${ }^{0.3}$ \& Negiligibe Adverse \& 48.5 \& 48.6 \& 48.7 <br>
\hline FLATC,, 2, BARRON STREET \& Dwelling \& 60.8 \& 61.0 \& 60.9 \& 0.1 \& Negiligile Adverse \& 61.1 \& 0.3 \& Negiligile Adverse \& 48.5 \& 48.6 \& 48.7 <br>
\hline FLAT D, 2, BARRON STREET \& Dwelling \& 60.8 \& 61.0 \& 60.9 \& 0.1 \& Negigigibe Adverse \& 61.1 \& 0.3 \& Negligible Adverse \& 48.5 \& 48.6 \& 48.7 <br>
\hline  \& Dweling \& 60.8 \& 61.0 \& 60.9 \& 0.1 \& Negigigie Adverse \& 61.1 \& 0.3 \& Negiquible Adverse \& 48.5 \& 48.6 \& 48.7 <br>
\hline ${ }^{\text {FLAT F, } 2, ~ \text { BARRON STREET }}$ \& Dwelling \& ${ }_{55.6}^{65.8}$ \& $\stackrel{61.0}{57.4}$ \& ${ }_{55.5}^{60.9}$ \& -0.1 \& Negiligible Adverse \& ${ }^{66.1} 5$ \& 0.3
1.3

1. \& Negigigie Adverse \& +48.5 \& ${ }_{45.4}^{48.6}$ \& $\stackrel{48.7}{44.9}$ <br>
\hline 11, BIRCH ROAD \& Dwelling \& 53.1 \& 54.5 \& 53.1 \& 0.0 \& No Change \& 54.1 \& 1.0 \& Negigigile Adverse \& 41.5 \& 42.8 \& 42.4 <br>
\hline 3 3, BIRCH ROAD \& Dwelling \& 54.6 \& 56.4
5.5 \& 54.5
54 \& -0.1 \& Negligible Beneficical \& 55.9 \& ${ }_{1}^{1.3}$ \& Negligible Adverse \& 42.9 \& 44.5 \& 44.0 <br>
\hline  \& Diseling \& 54.6
54.9 \& ${ }_{56.5}^{56.7}$ \& 54.5
54.8 \& -0.1
-0.1 \& Negiligile Beneiticial \& 56.0 \& 1.4
1.3
1 \& Negigible Adverse \& 43.1 \& ${ }_{44.6}^{44.8}$ \& $\stackrel{44.1}{44.3}$ <br>
\hline $\frac{9, \mathrm{BIRCH}}{1}$ ROAD \& Dwelling \& 54.4
56.3 \& $\stackrel{56.2}{56.6}$ \& 54.3
563 \& -0.11 \& Negligible Beneficial \& $\stackrel{55.7}{56.6}$ \& ${ }^{1.3}$ \& Negigible Adverse \& $\frac{42.7}{44.4}$ \& $\stackrel{44.3}{447}$ \& $\stackrel{43.9}{447}$ <br>
\hline \& \& \& \& \& \& \& \& \& Negiligile Adverse \& \& \& <br>
\hline
\end{tabular}

A90/A96 Haudagain Improvement

## DMRB Stage 3 Environmental Statement

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 <br> Lnight,outside | DS33 <br> Lnight,outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 10, BLACKTHORN CRESCENT | Dwelling | 51.1 | 51.8 | 51.0 | ${ }^{0.1}$ | Negligible Beneficial | 51.7 | 0.6 | Negiligibe Adverse | 39.7 | 40.4 | 40.3 |
| 11, BLACKTHORN CRESCENT | $\frac{\text { Dwelling }}{\text { Owelling }}$ | 54.4 51.3 | 55.0 52.0 | 54.4 51.2 | 0.0 <br> 0.1 | $\xrightarrow{\text { Negligible }}$ Seneneficial | 54.9 51.9 | 0.5 | Negligible Adverse | 42.7 39.9 | $\frac{43.2}{40.5}$ | $\frac{43.1}{40.4}$ |
| 13, BLACKTHORN CRESCENT | Dwelling | 52.0 | 52.8 | 52.0 | 0.0 | Nogigo Change | 52.7 | 0.7 | Neogigigile Adversse | 40.5 | 41.3 | 41.2 |
| 14, BLACKTHORN CRESCENT | Dwelling | 50.6 | 51.2 | 50.6 | 0.0 | No Change | 51.2 | 0.6 | Negligible Adverse | 39.3 | 39.8 | 39.8 |
| 15, BLACKTHORN CRESCENT | Deelling | 51.8 | 52.7 | 51.8 | 0.0 | No Change | 52.5 | 0.7 | Negiligile Adverse | 40.4 | 41.2 | 41.0 |
| 16, BLACKTHORN CRESCENT | Dwelling | 53.1 | 54.5 | 53.1 | 0.0 | No Change | 54.2 | 1.1 | Negiligile Adverse | 41.5 | 42.8 | 42.5 |
| 17, BLACKTHORN CRESCENT | Dwelling | 51.7 | 52.7 | 51.7 | 0.0 | No Change | 52.5 | 0.8 | Negligible Adverse | 40.3 | 41.2 | 41.0 |
| $\frac{18, \text { BLACKTHORN CRESCENT }}{\text { 19 BLACKTHORN CRESCENT }}$ | Dwelling | $\begin{array}{r}53.2 \\ 51.7 \\ \hline\end{array}$ | 54.5 <br> 52.7 | 53.1 51.7 | -0.1 0.0 | Neglioible Beneficial | 54.2 <br> 52.5 | 1.0 0.8 | Negiligib Adverse | 41.6 40.3 | 42.8 41.2 | 42.5 41.0 |
| 2, BLACKTHORN CRESCENT | Dwelling | 55.0 | 56.3 | 56.1 | 0.1 | Negigiolie Adverse | 56.4 | 0.4 | Negiligible Adverse | 44.1 | 44.4 | 44.5 |
| 20, BLACKTHORN CRESCENT | Dwelling | 年3.22 | 54.5 <br> 528 | $\begin{array}{r}53.1 \\ 518 \\ \hline 18\end{array}$ | -0.1 | Negligible Beneficial | 54.2 | 1.0 | Negiligib Adverse | 41.6 4.4 | 42.8 413 | 42.5 415 |
| 21, BLACKTHORN CRESCENT | Dwelling | 51.8 53.5 | 52.8 54.8 | 51.8 53,4 | 0.0 | Nocligible Bene ${ }^{\text {a ficial }}$ | 52.6 54.5 | ${ }_{0}^{0.8}$ | Negligible Adverse | $\frac{40.4}{419}$ | ${ }_{41.3}^{43.1}$ | 41.1 |
| 23,BLACKTHORN CRESCENT | Dwelling | 52.0 | 53.0 | 51.9 | -0.1 | Negligible Beneficioal | 52.8 | 0.8 | Negiligile Adverse | 40.5 | 41.4 | 41.3 |
| 24, BLACKTHORN CRESCENT | Dwelling | 54.0 | 55.1 | 53.9 | -0.1 | Negligible Beneficial | 54.9 | 0.9 | Negigigibe Adverse | 42.3 | 43.3 | 43.1 |
| 25, BLACKTHORN CRESCENT | Deelling | 52.2 | 53.2 | 52.2 | 0.0 | No Change | 53.0 | 0.8 | Negigigibe Adverse | 40.7 | 41.6 | 41.4 |
| 26, BLACKTHORN CRESCENT | Dwelling | 56.8 496 | 57.6 | 56.8 495 | . 0.0 | No Change | 57.6 50.5 | 0.8 | Negiligib Adverse | 44.9 38.4 | 45.6 395 | 45.6 392 |
| 28, BLACKTHORN CRESCENT | Dwelling | $\begin{array}{r}52.7 \\ \hline\end{array}$ | 54.2 | 52.7 | 0.0 | No Change | 53.8 | 1.1 | Neogigioble Adverse | 41.2 | 42.5 | 42.2 |
| 29, BLACKTHORN CRESCENT | Dwelling | 54.3 | 55.9 | 54.3 | 0.0 | No Change | 55.5 | 1.2 | Negigiolib Adverse | 42.6 | 44.0 | 43.7 |
| 3, BLACKTHORN CRESCENT | welling | 55.9 | 56.3 | 55.9 | 0.0 | No Change | ${ }_{56.3}^{5}$ | 0.4 | Negiligibe Adverse | 44.0 | 44.4 | 44.4 |
| 30, BLACKTHORN CRESCENT | Dwelling | 54.2 53.4 | 55.5 54.8 | 54.2 53.3 | 0.0 -0.1 | Neglicione ${ }^{\text {No }}$ Senefeficial | 55.2 54.4 | 1.0 1.0 | $\frac{\text { Negiligib Adverse }}{\text { Negigible Adverse }}$ | 42.5 41.8 | 43.7 43.1 | 43.4 427 |
| $\frac{3}{32, \text { BLACKTHORN CRESCENT }}$ | Dwelling | ${ }_{54.7}^{55.7}$ | ${ }_{56.1}$ | 54.6 | -0.1 | Negegigible Beneficioil | 55.7 | 1.0 | Neogigigile Adverse | 43.0 | ${ }_{44.2}^{43 .}$ | ${ }_{43.9}$ |
| 33, BLACKTHORN CRESCENT | Dwelling | 55.7 | 57.3 | 55.6 | -0.1 | Negligible Beneficial | 56.9 | 1.2 | Negiligible Adverse | 43.9 | 45.3 | 44.9 |
| 34, BLACKTHORN CRESCENT | Welling | 55.1 | 56.6 | 55.0 | -0.1 | Negligible Beneficial | 56.2 | 1.1 | Negigiole Adverse | 43.3 | 44.7 | 44.3 |
| 35, BLACKTHORN CRESCENT | welling | 56.9 | 58.5 | 56.8 | -0.1 | Negligible Beneficial | 58.1 | 1.2 | Negigigibe Adverse | 44.9 | 46.4 | 46.0 |
| ${ }^{\text {36, BLACKTHORN }}$ (RESCENT | Dwelling | 56.0 59.2 | 57.6 61.1 | 56.0 59.1 | 0.0 -0.1 | Neglioible Eengeneficial | 57.2 60.6 | 1.2 1.4 | Negligibe Adverse | 44.1 47.0 | 45.6 48.7 | 45.2 48.3 |
| 38, BLACKTHORN CRESCENT | Dwelling | 57.0 | 58.5 | 56.9 | -0.1 | Negligible Beneficicial | 58.1 | 1.1 | Negligible Adverse | 45.0 | 46.4 | 46.0 |
| 4. BLACKTHORN CRESCENT | ealling | 53.0 | 53.4 | 53.0 | 0.0 | No Change | 53.4 | 0.4 | Negligible Adverse | 41.4 | 41.8 | 41.8 |
| 40, BLACKTHORN CRESCENT | Dwelling | 57.7 | 59.4 |  |  | No Change | 58.9 | 1.2 | Negigigibe Adverse | 45.7 | 47.2 | 46.7 |
| 42, BLACKTHORN CRESCENT | Dwelling | 59.3 | 61.0 | 59.2 | -0.1 | Negligible Beneficial | 60.5 | 1.2 | Negligible Adverse | 47.1 | 48.6 | 48.2 |
| 5, BLACKHORN CRESCENT | weiling | 55.6 | 55.1 | 55.6 | 0.0 | No Change | 56.1 | 0.5 | Negigigio Adverse | ${ }^{43.8}$ | ${ }^{44.2}$ | 44.2 |
| 7, BLACKTHORN CRESCENT | ${ }^{\text {Dowelling }}$ | ${ }_{55.1}$ | ${ }_{55.6}$ | ${ }_{55.0}$ | -0.1 | Negligible Eeneficicial | ${ }_{55.5}$ | 0.5 | Neogigigie Adverse | ${ }_{43.3}$ | ${ }_{43.8}$ | 43.8 |
| 8, BLACKTHORN CRESCENT | Dwelling | 50.9 | 51.6 | 50.9 | 0.0 | No Change | 51.5 | 0.6 | Negligible Adverse | 39.5 | 40.2 | 40.1 |
| 9, BLACKTHORN CRESCENT | Dwelling | 53.2 | 53.9 | 53.2 | 0.0 | No Change | 53.9 | 0.7 | Negigigile Adverse | 41.6 | 42.2 | 42.2 |
| BRAEFOOT COTTAGE, 2, GRANDHOLM COTTAGES, GRANDHOLM | Dwelling | 51.5 | 52.0 | 51.3 | -0.2 | Negligible Beneficial | 52.6 | 1.1 | Negigigile Adverse | 40.1 | 40.5 | 41.1 |
| BRAEFOOT COTTAGE, 3, GRANDHOLM COTTAGES, GRANDHOLM | Dwelling | 51.7 | 52.2 | 51.5 | 0.2 | Negligible Beneficial | 52.7 | 1.0 | Negligible Adverse | 40.3 | 40.7 | 41.2 |
| BRAEFOOT COTTAGE, 4 , GRandholm Cottages, Grandholm | Dwelling | 51.2 | 51.7 | 51.1 | -0.1 | Negligible Beneficial | 52.4 | 1.2 | Negligible Adverse | 39.8 | 40.3 | 40.9 |
| 1, BRAMBLELE BRAE, CUMMINGS PARK | Deeling | 63.9 | 65.4 | 64.0 | 0.1 | Negigioble Adverse | 65.4 | 1.5 | Negigigle Adverse | 51.2 | ${ }_{5}^{52.6}$ | ${ }_{52.6}^{51}$ |
| 2, BRAMBLL ERAE, CUMMMGS PARK | Dwelling | -62.1 | 63.6 605 | 62.2. | ${ }_{0}^{0.1}$ | $\frac{\text { Negligible Adverse }}{\text { Negligible Adverse }}$ | 63.6 60.5 | 1.5 1.4 | Negligibe Adverse | 49.6 46.9 | 51.0 48.2 | 51.0 |
| 4 4, BRAMBLE BRAE, CUMMINGS PARK | Owelling | 62.1 | 63.6 | 62.2 | 0.1 | Negigigile Adverse | 63.6 | 1.5 | Negigigile Adverse | 49.6 | 51.0 | 51.0 |
| 5 , BRAMBLE BRAE, CUMMINGS PARK | Dwelling | 57.4 | 58.8 | 57.5 | 0.1 | Negiligile Adverse | 58.8 | 1.4 | Negigigile Adverse | 45.4 | 46.7 | 46.7 |
| 6 6, BRAMBLE BRAE, CUMMINGS PARK | Dwelling | 57.7 | 59.2 | 57.8 | 0.1 | Negligible Beneficicial | 59.2 | 1.5 | Negigigile Adverse | 45.7 | 47.0 | 47.0 |
| 7, BRAMBLE ERAE, CUMMINGS PARK | Deelling | 56.5 | 57.7 | 56.5 | 0.0 | No Change | 57.8 | 1.3 | Negigioble Adverse | 44.6 | 45.7 | 45.8 |
| 8 8, BRAMBLE BRAE, CUMMINGS PARK | Oweling |  | 59.1 |  |  | Negiligibe Adverse |  |  | Negligibe Adverse | ${ }^{45.6}$ |  |  |
| 1, BRANDER PLACE, DANESTONE | Dweling | 557 | 56.5 | 55.4 | -0.3 | Neotigiobie Beneficial | 570 | 1.4 | Neoligiobe Adverse | ${ }_{43,3}$ | 44.6 | 450 |
| 2, BRANDER PLACE, DANESTONE | Dwelling | 59.4 | 60.2 | 5 | -0.2 | Negligible Beneficial | 0 | 1.2 | Negligible Adverse | 47.2 | 47.9 |  |
| 3, BRANDER PLACE, DANESTONE | Dwelling | 64.2 | 65.1 | 64.0 | -0.2 | Negligible Beneficial | 65.5 | 1.3 | Negigigile Adverse | 51.5 | 52.3 | 52.7 |
| 4 , BRANDER PLACE, DANESTONE | Dwelling | 67.2 | 68.1 | 66.9 | -0.3 | Negligible Beneficial | 68.6 | 1.4 | Negigigile Adverse | 54.2 | 55.0 | 55.5 |
| 5, BRANDER PLACE, DANESTONE | Dwelling | 63.6 | 64.5 | 63.3 | -0.3 | Negligible Beneficial | 64.9 | 1.3 | Negigigile Adverse | 51.0 | 51.8 | 52.1 |
| $\frac{6,{ }^{\text {a }} \text {, BRANDER PLACE, DANESTONE }}{7}$ | Dwelling | $\stackrel{68.2}{59.8}$ | ${ }_{60.7}^{69.7}$ | $\stackrel{67.9}{59.6}$ | $\stackrel{-0.3}{-0.2}$ | ${ }^{\text {Negaligible Benenitical }}$ Negiole | ${ }^{69.6}$ | 1.4 1.3 | $\frac{\text { Negigigle Adverse }}{\text { Neoligible Adverse }}$ | 55.1 47.6 | 55.9 48.4 | 56.4 48.7 |
| 8, BRANDER PLACE, DANESTONE | Dwelling | 58.8 | 59.6 | 58.5 | -0.3 | Negligible Beneficial | 60.1 | 1.3 | Negiligile Adverse | 46.7 | 47.4 | 47.8 |
| 9, BRANDER PLACE, DANESTONE | Deeling | 56.7 | 57.5 | 56.5 | -0.2 | Negligible Beneficial | 58.0 | 1.3 | Negigigile Adverse | 44.8 | 45.5 | 45.9 |
| 1, BRiDGGESTRET, Woobsioe | Dweling | - 50.9 | ${ }_{5}^{54.1}$ | ¢50.8 | -0.1 -0.1 | Negiligible Aenereficiol | - ${ }_{51.6}^{51.6}$ | ${ }_{0}^{0.7}$ | Negigigibe Adverse | ${ }_{39.5}^{42.2}$ | $\stackrel{42.4}{40.2}$ | $\stackrel{42.9}{40.2}$ |
| 21, BROWN STREET | Dwelling | 58.6 | 59.8 | 58.8 | 0.2 | Negligible Adverse | 59.6 | 1.0 | Negigioble Adverse | 46.5 | 47.6 | 47.4 |
| $\frac{23, \text { BROW STREET }}{24, \text { BROWN STREET }}$ | Dwelling | 54.1 48.8 | 55.2 51.3 | 54.3 49.0 | 0.2 0.2 | $\frac{\text { Negigigib Adverse }}{\text { Negigiole Adverse }}$ | 55.0 50.7 | 1.9 <br> 1 | $\frac{\text { Negigigle Adverse }}{\text { Neoligible Adverse }}$ | ${ }^{42.4}$ | ${ }_{39.9}^{43.4}$ | 43.2 39.4 |
| 25, BROWN STREET | Dwelling | 52.9 | 54.0 | 53.1 | 0.2 | Negigiolie Adverse | 53.9 | 1.0 | Negigigile Adverse | 41.3 | 42.3 | 42.2 |
| 26, BROWN STREET | Deelling | 48.8 | 51.3 | 48.9 | 0.1 | Negigigibe Adverse | 50.7 | 1.9 | Negigigile Adverse | 37.7 | 39.9 | 39.4 |
| 27, BROWNSTREET | Oweling | 51.8 <br> 5.2 | 52.9 53 | 52.0 | 0.2 | Negigigio Adverse | $\begin{array}{r}52.7 \\ 5.7 \\ \hline\end{array}$ | 0.9 | Negiligile Adverse | 40.4 | 41.3 | 41.2 |
| 3, 31, BROW NTREET | Dwelling | ${ }_{50.8}^{52.8}$ | ${ }_{51.9}$ | ${ }_{51.0}^{52.4}$ | 0.2 | Neogigigie Adversse | ${ }_{51.8}^{51.8}$ | 1.0 | Neoligible Adverse | 39.5 | 40.4 | 40.4 |
| 33, BROW N STREET | Dwelling | 49.7 | 50.9 | 49.9 | 0.2 | Negligible Adverse | 50.8 | 1.1 | Negligible Adverse | 38.5 | 39.5 | 39.5 |
| 35, BROWN STREET | Dwelling | 49.8 | 51.0 | 50.0 | 0.2 | Negigigile Adverse | 50.9 | 1.1 | Negigigile Adverse | 38.6 | 39.6 | 39.5 |
| ${ }^{\text {37, }}$ 39, BROWN STREEET | Dwelling | ${ }_{49.7}^{49.3}$ | 50.9 | 50.0 | ${ }_{0}^{0.3}$ | Negigigibe Adverse | 50.4 | ${ }_{1.1}^{1.1}$ | Negigigie Adverse | ${ }^{38.1}$ | 39.2 39.5 | ${ }_{39.5}^{39.1}$ |
| 9, BROWN STREET | Dwelling | ${ }^{62.0}$ | 63.1 | 62.1 | 0.1 | Negigigibl Adverse | 62.9 | 0.9 | Negigigle Adverse | ${ }^{49.5}$ | 50.5 | 50.3 |
| 10, BYYOON CRESCEENT | Dwelling | ${ }_{42.0}^{43.0}$ | ${ }_{42.7}^{43.1}$ | 42.9 | -0.1 | Negiligiole Beneficioal | ${ }_{4}^{43.8}$ | 0.6 | Negigigib Adverse | ${ }^{32.4}$ | ${ }^{32.5} 3$ | ${ }^{33.0}$ |
| 4 4, BYYON CRESCENT | Delling | 42.0 | 42.5 | 41.9 | -0.1 | Negligible Beneficial | 42.7 | 0.7 | Negigigile Adverse | 31.5 | 32.0 | 32.2 |
| $\frac{6, \text { BYOON CRESCENT }}{8,8 \text { BROO CRESCENT }}$ | Dwelling | ${ }_{43.2}^{43.2}$ | ${ }_{43.1}^{43.0}$ | 43.9 | $\stackrel{0.0}{0.1}$ | Negligible ${ }^{\text {Nengeneficial }}$ | ${ }_{43.6}^{43.8}$ | 0.6 | Negigible Adverse | ${ }^{32.6}$ | ${ }_{32.5}^{32.4}$ | ${ }^{33.2}$ |

## Appendix A14．4：Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short－term Daytime Noise Change（dB） | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long－term Daytime Noise Change（dB） | Magnitude of Change | DM18 Lnight，outside | DM33 Lnight，outside | $\begin{gathered} \text { DS33 } \\ \text { Lnight,outside } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1，CAIRNCRY AVENUE | Dweling | 55.3 | 56.8 | 55.0 | ${ }^{-0.3}$ | Negligible Beneficial | 56.3 | 1.0 | Negigigle Adverse | 43.5 | 44.9 | 44.4 |
| 10，CAIRNCRY AVENUE | Dwelling | $\frac{48.1}{505}$ | $\frac{48.9}{52}$ | 47．9 | －0．2 | Negliaible Beneficial | $\frac{48.8}{517}$ | $\frac{0.7}{12}$ | Negiligil Adverse | 37.0 39.2 | 37.7 40.7 | 37.7 40.3 |
| 11，CAIRNCRY AVENUE | Dweling | 50.5 49.2 | 52．2 | 50．4 49.0 | －0．1 | $\frac{\text { Negligible Benentical }}{\text { Negligibl }}$ Beneficial | 51.7 49.8 | $\stackrel{1.2}{0.6}$ | $\frac{\text { Negigigie Adverse }}{\text { Negligible Adverse }}$ | 39.2 38.0 | ${ }^{40.7}$ | 40.3 38.6 |
| 13，CAIRNCRY AVENUE | Dwelling | 50．1 | 51.7 | 49.9 | －0．2 | Negiligible Beneneficial | 49．2 | 1.1 1.1 | Negifigible Adverse | ${ }^{38.8}$ | ${ }^{380.3}$ | ${ }_{39.8}$ |
| 14，CAIRNCRY AVENUE | Dwelling | 49.1 | 49.9 | 49.0 | －0．1 | Negligible Beneficial | 49.8 | 0.7 | Negigigile Adverse | 37.9 | 38.6 | 38.6 |
| 15，CAIRNCRY AVENUE | Dwelling | 48.4 | 50.0 | 48.3 | －0．1 | Negligible Beneficial | 49.6 | 1.2 | Negigigile Adverse | 37.3 | 38.7 | 38.4 |
| 16，CAIRNCRY AVENUE | Deelling | 48.2 | 49.0 | 48.0 | －0．2 | Negligible Beneficical | 48.9 | 0.7 | Negigiole Adverse | 37.1 | 37.8 | 37.7 |
| 17，CAIRNCRY AVENUE | Deeling | 49.5 | 51.2 | 49.4 | －0．1 | Negligible Beneficial | 50.7 | 1.2 | Negigigibe Adverse | ${ }^{38.3}$ | 39.8 | 39.4 |
| 18，CAIRNCRY AVENUE | Dwelling | $\frac{48.2}{49.7}$ | $\frac{49.0}{51.3}$ | 48.0 | -0.2 -0.2 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ Beneficial | 48.9 50.8 | 0.7 1.1 | $\frac{\text { Negiligibe Adverse }}{\text { Negigiole Adverse }}$ | 37.1 38.5 | 37.8 39.9 | 37.7 39.5 |
| 2，CAIRNCRY AVENUE | Dwelling | 49.4 | 50.5 | 49.1 | ${ }^{0.3}$ | Negligible Beneficial | 50.2 | 0.8 | Negiligible Adverse | 38.2 | 39.2 | 38.9 |
| 20，CAIRNCRY AVENUE | Dwelling | 48.1 | 49.0 | 47.9 | －0．2 | Negligible Beneficioil | 48.8 | 0.7 | Neoligiole Adverse | ${ }^{37.0}$ | ${ }_{37.8}$ | ${ }_{37.7}$ |
| 21，CAIRNCRY AVENUE | welling | 50.1 | 51.7 | 50.0 | 0.1 | Negligible Beneficial | 51.3 | 1.2 | Negigiole Adverse | 38.8 | 40.3 | 39.9 |
| 22，CAIRNCRY AVENUE | Dwelling | 47.9 | 48.8 | 47.8 | 0.1 | Negligible Benefiticial | 48.6 | 0.7 | Negligiole Adverse | 36.8 | 37.7 | 37.5 |
| $\frac{\text { 23，CAIRNCRY AVENUE }}{24, C \text { alin }}$ | $\frac{\text { Dwelling }}{\text { Dwelling }}$ | 50.1 49.0 | 51.7 49.9 | 50.0 48.9 | -0.1 -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Neglioibl }}$ Beneficial | 51．2 49.7 | 1.1 0.7 | Negigible Adverse | 38.8 37.8 | 40.3 38.6 | 39.8 38.5 |
| 25，CAIRNCRY AVENUE | Dwelling | 48.7 | 50.3 | 48.6 | －0．1 | Negligible Beneficial | 49.8 | 1.1 | Negiligile Adverse | 37.6 | 39.0 | 38.6 |
| 26，CAIRNCRY AVENUE | Dwelling | 47.5 | 48.5 | 47.3 | 0.2 | Negligible Beneficial | 48.3 | 0.8 | Negiligile Adverse | 36.5 | 37.4 | 37.2 |
| 27，CAIRNCRY AVENUE | Dwelling | 48.7 | 50.3 | 48.6 | ． 0.1 | Negligible Beneficial | 49.8 | 1.1 | Negligible Adverse | 37.6 | 39.0 | 38.6 |
| 29，CAIRNCRY AVENUE | Dwelling | 52.2 | 53.8 | 52.0 | －0．2 | Negligible Beneficial | 53.3 | 1.1 | Negiligile Adverse | 40.7 | 42.2 | 41.7 |
| 3，CAIRNCRY AVENUE | welling | 52.9 | 54.7 | 52.8 | －0．1 | Negligible Beneficial | 54.1 | 1.2 | Neoligible Adverse | 41.3 | 43.0 | 42.4 |
| 31，CAIRNCRY AVENUE | Dweling | 52.2 | 53.9 | 52.1 | －0．1 | Negligible Beneficial | 53.4 | 1.2 | Neoligible Adverse | 40.7 | 42.2 | 41.8 |
| 33，CAIRNCRY AVENUE | Dwelling | ${ }_{50.5}^{52.3}$ | 52.2 54.1 | 50．3 | -0.2 -0.1 | Negiligile Beneiticial | ${ }_{51.7}^{53.5}$ | ${ }_{1}^{1.2}$ | Negigible Adverse | ${ }^{39.2} 40$ | ${ }_{40.7}^{42.4}$ | 40.3 41.9 |
| 4．CAIRNCRY AVENUE | Dwelling | 48.9 | 49.7 | 48.7 | －0．2 | Negligible Beneficial | 49.5 | 0.6 | Negigiole Adverse | 37.7 | 38.5 | 38.3 |
| 5，CAIRNCRY AVENUE | Deeling | 51.8 | 53.5 | 51.6 | －0．2 | Negligible Beneficicial | 53．0 | 1.2 | Negigigibe Adverse | 40.4 | 41.9 | 41.4 |
| C，CAIRNCRYAVVNUE | Dweling | ${ }_{5}^{49.4}$ | ${ }_{50}^{537}$ | －49．2 | －0．2 | $\frac{\text { Negligible Beneficial }}{\text { Negligibl }}$ Beneficial | 50．0 | ．${ }^{1.6}$ | Negiligio Adverse | 38.2 405 | 38.9 | 38.7 |
| 8，CAIRNCRY AVENUE | Dwelling | 48.1 | 49.0 | 47.9 | －0．2 | Negligible Beneficioal | 48.8 | 0.7 | Negiligible Adverse | 37.0 | ${ }^{37.8}$ | 37.7 |
| 9，CAIRNCRY AVENUE | Dwelling | 51.1 | 52.8 | 51.0 | －0．1 | Negligible Beneficial | 52.3 | 1.2 | Negigigile Adverse | 39.7 | 41.3 | 40.8 |
| 1，CAIRNCRY CRESCENT | Dwelling | 59.6 | 61.1 | 59.4 | －0．2 | Negligible Beneficial | 60.7 | 1.1 | Negiligibe Adverse | 47.4 | 48.7 | 48.4 |
| 2，CAARNCRY CRESCENT | Dweling | 58.5 57.7 | 60．3 | 58．4 <br> 57.4 | －0．1 |  | 59.8 58.7 | 1.3 1.0 | $\frac{\text { Negigigibe Adverse }}{\text { Negilible Adverse }}$ | ${ }_{45.7}^{46.4}$ | $\stackrel{48.0}{46.9}$ | $\stackrel{47.6}{46.6}$ |
| $4 . \mathrm{CAARNCRY} \mathrm{CRESCENT}$ | Dwelling | 57.3 | 59.0 | 57.2 | －0．1 | Negligible Beneficial | 58.5 | 1.2 | Negligible Adverse | 45.3 | 46.8 | 46.4 |
| 5，CAIRNCR C CRESCENT |  |  |  |  |  |  |  |  |  |  |  |  |
| 6，CAIRNCRY CRESCENT | Dwelling | 55.7 | 56.9 | 55.4 | －0．3 | Negligibe Beneiticial | 56.5 | 0.8 | Negiligile Adverse | 43.9 | 44.9 | 44.6 |
| 8，CAARNCRY CRESSCENT | Dweling | 57．1 | 58．2 | 年50．7 | －0．4 | Negligibe Beneficial | 年5178 | 0.7 | $\frac{\text { Negiligibe Adverse }}{\text { Neoligible Adverse }}$ | 45.1 30.8 | 46.1 | 45.8 |
| 8，CAIRNCRY CRESCENT | Dweling | 51．2． | 52．0 | 50.8 | －0．4 | Negligiole Benenitial | 51．7 |  | Negiligie Adverse | 39.8 46.1 | 40.5 | 40.3 |
|  | Dwelling | 580．5 | 年72．4 | 70．4 | -0.4 <br> -0.1 | Negiligible Beneneficialial | ${ }^{58.9}$ | ${ }_{1}^{1.4}$ | Negligiobe Adverse | ${ }_{56.1}^{46.2}$ | $\stackrel{47.0}{58.9}$ | ${ }_{58.4}^{46.4}$ |
| 102，CAIPNCRY ROAD | Dwelling | 70.5 | 72.4 | 70.4 | －0．1 | Negligible Beneficical | 71.8 | 1.3 | Negligible Adverse | 57.2 | 58.9 | 58.4 |
| 104，CAIRNCRY ROAD | Dwelling | 70.7 | 72.5 | 70.6 | －0．1 | Negligible Beneficial | 72.0 | 1.3 | Negligible Adverse | 57.4 | 59.0 | 58.5 |
| 106, CAIRNCRY ROAD | Dwelling | 70.7 | 72.5 | 70.6 | －0．1 | Negligible Beneficial | 72.0 | 1.3 | Negligible Adverse | 57.4 | 59.0 | 58.5 |
| $\frac{44, \text { CAIRNCRY ROAD }}{46, \mathrm{CARIRNCRY} \text { ROAD }}$ | Dweling | 71.9 72.0 | 73.9 74.0 | 71.8 71.9 | -0.1 -0.1 | Negligible Beneficioal | 73.3 73.4 | 1.4 1.4 1 | $\frac{\text { Negigigile Adverse }}{\text { Negigiole Adverse }}$ | 58．4 58.5 | 60．2 | ${ }_{59.8}^{59.7}$ |
| 48, CAIRNCRY ROAD | Dwelling | 71.7 | 73.7 | 71.6 | －0．1 | Negligible Beneniticial | 73.1 | 1.4 | Negiligible Adverse | ${ }_{58.3}$ | 60.1 | 59.5 |
| 50, CAIRNCAY ROAD | Dwelling | 71.2 | 73.2 | 71.1 | －0．1 | Negligible Beneficial | 72.5 | 1.3 | Neoligible Adverse | 57.8 | 59.6 | 59.0 |
| 55，CAIRNCRY ROAD | Dwelling | 70.6 | 72.6 | 70.4 | －0．2 | Negligible Benenitical | 72.0 | 1.4 | Negigigibe Adverse | 57.3 | 59.1 | 58.5 |
| 54，CAIRNCRY ROAD | Dwelling | 70.3 | 72.3 | 70.2 | －0．1 | Negilibile Benenicial | 71.7 717 | 1.4 | Negligiole Adverse | 57．0 | 58．8 | 58．3 |
| 5 58，CAIRNCRY ROAD | Dwelling | 70.3 | ${ }_{72.3}^{72.4}$ | 70.2 | ${ }_{-0.1}^{-0.1}$ |  | ${ }_{71.7}^{7.7}$ | ${ }_{1}^{1.4}$ | Neoligigibele Adverse | ${ }_{57}^{57.0}$ | ${ }_{58.8}^{58.9}$ | ${ }_{58.3}^{58.3}$ |
| 60，CAIRNCRY ROAD | Dwelling | 70.3 | 72.3 | 70.2 | －0．1 | Negligible Beneficial | 71.7 | 1.4 | Negligible Adverse | 57.0 | 58.8 | 58.3 |
| 62，CAIRNCRY ROAD | Dweling |  | ${ }^{12,3}$ | 70.2 |  | Negligible Benenicical |  |  | Negiligile Adverse | 57.0 |  |  |
| 66，CAIRNCRY ROAD | ${ }^{\text {Dweling }}$ | 70.3 | 72．4 | 70.3 | －0．1 | Negligible Benenificial | 71.7 | ${ }_{1.4}^{1.4}$ | Neoligioble Adverse | 57.0 | 58.9 | ${ }_{58.3}$ |
| 68, CAIRNC RY ROAD | Dwelling | 70.4 | 72.4 | 70.3 | －0．1 | Negligible Beneficial | 71.8 | 1.4 | Negligible Adverse | 57.1 | 58.9 | 58.4 |
| 70, CAIRNCAY ROAD | Dwelling | 70.3 | 72.4 | 70.3 | 0.0 | No Change | 71.8 | 1.5 | Negiligibe Adverse | 57.0 | 58.9 | 58.4 |
| 77，CAIRNCCYY ROAD | Dwelling | 70.4 | 72．4 | 70.3 703 | －0．1 | Negligible Beneficial | 71．8 | 1.4 1.5 | Negligible Adverse | 57.1 57.1 | 58.9 | 58.4 |
| 76，CAARNCRY ROAD | Dwelling | 70.4 | 72.5 | 70.3 | －0．1 | Negoligible Beneficioil | 71.8 | 1.4 | Negigigible Adverse | 57.1 | 59.0 | ${ }_{58.4}$ |
| 78，CAIRNCRY ROAD | Dwelling | 70.4 | 72.4 | 70.3 | ． 0.1 | Negligible Beneficial | 71.8 | 1.4 | Negligible Adverse | 57.1 | 58.9 | 58.4 |
| 80，CAIRNCRY ROAD | Dwelling | 70.4 | 72.4 | 70.3 | －0．1 | Negligible Beneficial | 71.8 | 1.4 | Negligible Adverse | 57．1 | 58.9 | 58.4 |
| 88，CAIRNCRY ROAD | Dweling | ${ }_{70.3}^{70.3}$ | 72.4 724 | 70.2 70.3 | －0．1 | Negligible Beneticial | 71.8 718 | 1.5 1.5 | $\frac{\text { Negligible Adverse }}{\text { Negligible Adverse }}$ | 57.0 57.0 | 58．9 | 58．4 58.4 |
| 88，CAIRNC RY ROAD | Dwelling | 70.3 | 72.3 | 70.2 | －0．1 | Negligible Beneficial | 71.7 | 1.4 | Neogigigle Adverse | 57.0 | 58.8 | 58.3 |
| 88, CAIRNCRY ROAD | Dwelling | 70.3 | 72.3 | 70.2 | －0．1 | Negligible Beneficial | 71.7 | 1.4 | Negigigile Adverse | 57.0 | 58.8 | 58.3 |
| 90，CAIRNCRY ROAD | Dwelling | 70.3 | 72.3 | 70.2 | 0.1 | Negligible Beneficical | 71.7 | 1.4 | Negligible Adverse | 57.0 | 58.8 | 58.3 |
| 92，CAIRNCRY ROAD | Dweling | ${ }_{6}^{66.7}$ | ${ }_{7}^{68.7}$ |  | －0．1 | Negiligibe Benenitial |  | ${ }_{1.4}^{1.4}$ | Negligigle Adverse |  |  | 55．0 |
| 94，CAIRNCRY ROAD | Dweling | 70.5 | 72.2 | 70.0 | －0．2 | Negligible Benenitial | 7． 5 | 1.3 | Negligiole Aaverse | 56.9 | 58.7 | 58.1 |
| 988，CAIRNCRY ROAD | Dwelling | 70.5 | ${ }_{72.4}$ | 70.5 | 0.0 | Negligiole Benetical | 71.9 | ${ }_{1}^{1.4}$ | Neoligioble Adverse | 57.2 | 58．9 | 58．4 |
| 10，CAIRNCRY TERRACE | Dwelling | 52.4 | 54.0 | 52.2 | －0．2 | Negligible Beneficial | 53.5 | 1.1 | Negligible Adverse | 40.9 | 42.3 | 41.9 |
| 12，CAIPNCAY TERRACE | Dwelling | 52.4 | 53．6 | 52.1 | －0．3 | Negligible Beneficial | 53.3 | 0.9 | Negigioble Adverse | 40.9 | 42.0 | 41.7 |
| 14，CAARNCCMY TERRACE | Dwelling | 55.1 56.7 | 55.7 57.3 | 54.6 56.2 | －0．5 | Negiligible eeneneficial | 55.5 57.1 | 0.4 | Neogigiole Adverse | ${ }_{44.8}^{43.8}$ | ${ }_{45.3}$ | 43.1 45 |
| 2，CAIRNCRY TERRACE | Dwelling | 58.7 | 60.6 | 58.6 | －0．1 | Negligible Beneficial | 60.0 | 1.3 | Negigiolie Adverse | 46.6 | 48.3 | 47.7 |
| 4，CAIRNNCRY TERRACE | Dweling | $\begin{array}{r}57.1 \\ 543 \\ \hline\end{array}$ | 58．9 | 57．0 | ${ }_{-0.1}^{-0.1}$ | Negliable Beneficial | $\begin{array}{r}58.3 \\ 55 \\ \hline 5\end{array}$ | 1.2 13 | Negligible Adverse | 45.1 | 46.7 | 46.2 |
|  | ${ }^{\text {Dwelling }}$ Dweling | 54．3 53.5 | －${ }_{\text {56．2 }}^{56.3}$ | 54．2 53.4 | －0．1 | Negiligiole Beneiticial | 55．6 54.7 | 1.3 1.2 | Negligioble Adverse | 41.9 | ${ }_{43.5}^{44.5}$ | 43.0 |
| 14，CAIRNFFIEL CR CRESCENT | Delling | 55．4 | 54．6 | ${ }_{55.3}^{55}$ | －0．1 | Negligible Beneficical | 55．7 | 0.3 | Negigigible Adverse | 43.6 | 42.9 | 43.9 |
| $\frac{16, \text { CAIRNFIELL CRESCENT }}{18, ~ C A I R N F I E L D ~ C R E S C E N T ~}$ | Dwelling | ${ }_{55.6}^{55.7}$ | ${ }_{54.9}^{54.8}$ | ${ }_{55.6}^{55.5}$ | $\xrightarrow{-0.1} \begin{aligned} & -0.1\end{aligned}$ | Negligible Beneticial | $\stackrel{56.0}{55.9}$ | 0.3 0.3 | Negigible Adverse | 43.9 43.8 | ${ }_{43.1}^{43.1}$ | 44.0 |

## Appendix A14．4：Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short－term Daytime Noise Change（dB） | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long－term Daytime Noise Change（dB） | Magnitude of Change | DM18 Lnight，outside | DM33 night，outside | $\begin{gathered} \text { DS33 } \\ \text { Lnight,outside } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CARAVAN PARK，1，CAIRNFIELD GARDENS | Dweling | 52.4 | 52.0 | 52.3 | ${ }^{0.1}$ | Negligible Beneficial | 52.8 | 0.4 | Negigigile Adverse | 40.9 | 40.5 | 41.3 |
| CARAVAN PARK，2，CAIRNFIELLD GARDENS | Oweling | 54．1 | 53．1 | 54.0 | －0．1 | Negligible Beneficical | 54.4 | 0.3 | Negligible Adverse | 42.4 | 41.5 | 42.7 |
| CARAVAN PARK，2，CAIRNFIELD GARDENS | Dwelling | 53.0 | 52.5 | 52.9 | －0．1 | Negligible Beneficial | 53.4 | 0.4 | Negiligile Adverse | 41.4 | 41.0 | 41.8 |
| CARAVAN PARK，3，CAIRNFIELL GARDENS | Oweling | 54.0 5.0 | 55．1 | 53.9 | －0．1 | Negligible Beneficical | ${ }_{54.3}^{54}$ | 0.3 | Negigigle Adverse | 42.3 | 41.5 39 | 42.6 |
| CARAVAN PARK，4，CAIRNFIELLD GARDENS | Deeling | 51．3 | 50．9 | 51.2 54.5 | －0．1 | Negligible Beneficical | 51．7 | 0.4 | Negligible Adverse | 39.9 | 39.5 | 40.3 |
| CARAVAN PARK，5，CAIRNFIELL GARDENS | Delling | 54.6 54 | 53．7 | 54.5 | ${ }^{0.1}$ | Negligible Beneficical | 54.9 <br> 54. | 0.3 | Negiligile Adverse | 42.9 | $\frac{42.1}{416}$ | 43.1 4.7 |
| CARAVAN PARK，6，CAIRNFIELLD GARDENS | Dwelling | 54.2 | 53.2 | 54.1 | －0．1 | Negligible Benenitical | 54.4 |  |  | 42.5 | 41.6 | 42.7 |
| CARAVAN PARK，7，CAIRNFIELD GAADENS | Oweling | $\begin{array}{r}54.5 \\ 54.3 \\ \hline\end{array}$ | 53．5 | 54．4 | ${ }^{-0.1}$ | Negligibe Benenicial | ${ }^{54.8} 5$ | ${ }_{0}^{0.3}$ | Negigioble Adverse | 42．8 | $\frac{41.9}{422}$ | $\frac{43.1}{42.9}$ |
| CARAVAN PARK， 10, CAIRNFIELD G GARDENS | ${ }^{\text {Duediling }}$ | ${ }_{54.6}^{54.6}$ | ${ }_{54.2}^{54.8}$ | ${ }_{54.6}^{54.6}$ | 0.0 | Negiquile Beneitical | ${ }_{54.0}^{55}$ | ${ }_{0} 0.4$ | Neogigiole Adversse | ${ }_{42.9}$ | ${ }_{42.5}^{42.5}$ | 43.2 |
| CARAVAN PARK，11，CAIRNFIELD GARDENS | Dwelling | 54.0 | 53.5 | 53.8 | －0．2 | Negligible Beneficial | 54.3 | 0.3 | Negiligible Adverse | 42.3 | 41.9 | 42.6 |
| CARAVAN PARK，12，CAIRNFIELD GARDENS | welling | 56.1 | 55.7 | 56.0 | －0．1 | Negligible Beneficial | 56.4 | 0.3 | Negiligible Adverse | 44.2 | 43.9 | 44.5 |
| CARAVAN PARK，13，CAIINFIILD GARDENS | welling | 53.7 | 53.2 | 53.5 | －0．2 | Negligible Beneficial | 54.0 | 0.3 | Negigigibe Adverse | 42.1 | 41.6 | 42.3 |
| CARAVAN PARK，17，CAIRNFIELD GARDENS | Wwelling | 53.8 | 53.4 | 53.7 | －0．1 | Negligible Beneficial | 54.1 | 0.3 | Negigioble Adverse | 42.2 | 41.8 | 42.4 |
| CARAVAN PARK，22，CAIRNFIELD GARDENS | veling | 54.3 | 53.9 | 54．2 | ${ }^{-0.1}$ | Negligible Beneficical | 54.6 | 0.3 | Negiligible Adverse | ${ }_{42.6}^{42}$ | ${ }^{42.2}$ | 42.9 |
| CARAVAN PARK，26，CAIRNFIELL GARDENS | Deelling | 54.3 |  |  | －0．1 | Negligible Benenitical | 54.6 |  | Negiligible Adverse | ${ }^{42.6}$ | 42.2 |  |
| CARAVAN PARK，28，CAIRNFIELO GARDENS | weling | 54.8 | 54.3 53 | $\begin{array}{r}54.7 \\ 54.2 \\ \hline\end{array}$ | －0．1 | Benenicial |  | 0.2 | Negiligile Aaverse | 43.1 |  | 43.2 |
| CAIRNIELD GARDENS |  |  |  | 54.2 | －0．1 | Negigigile Beneficial | 54.6 |  | Negligible Adverse |  | ${ }^{42.1}$ | 42.9 |
|  | Oweiling | 53.8 | 53.3 | 5．7 | －0．1 | Negiligile Beneificial |  |  | Negligle Avverse | 42. |  | 42.3 |
| CARNFIELD GARDENS | weling | 55．6 | 55．1 | 55．5 | －0．1 | Negiligiole Beneficial | 55.8 <br> 54.1 | 0.2 | Negiligile Adverse | 43.8 | 43.3 | 44.0 |
| CAIRNFLID GARDENS | Oweling | 年3．8 | 53．4． | －${ }_{51.2}^{51.2}$ | －0．1 | Negiligiole Beneficial | － 54.1 | ${ }_{0}^{0.4}$ | Negigigib Adverse | ${ }^{42.2}$ | ${ }_{39,5}^{41.8}$ | ${ }_{40.3}^{42.4}$ |
| CAIRNFIELD GARDENS | Dwelling | 54.0 | 53.5 | 53.9 | －0．1 | Negligible Beneficial | 54.3 | 0.3 | Negligiole Adverse | 42.3 | 41.9 | 42.6 |
| CAIRNFIELD GARDENS | Deelling | 53.9 | 53.4 | 53.7 | －0．2 | Negligible Beneficial | 54.2 | 0.3 | Negiligibe Adverse | 42.2 | 41.8 | 42.5 |
| Carinfiel gardens | Owelling | 51.3 | 50.9 | 51.2 | －0．1 | Negligible Beneficial | 51.7 | 0.4 | Negigigble Adverse | 39.9 | 39.5 | 40.3 |
| CAIRNFIELD GARDENS | welling | 54.9 | 54.5 | 54.8 | ． 0.1 | Negligible Beneficial | 55.1 | 0.2 | Negigioble Adverse | 43.1 | 42.8 | 43.3 |
| CAIRNFIELD GARDENS | welling | 54.7 | 54.3 | 54.6 | －0．1 | Negligible Beneficial | 55.1 | 0.4 | Negigigile Adverse | 43.0 | 42.6 | 43.3 |
| CAIRNFIELD GARDENS | welling | 54.4 | 54.0 | 54.3 | －0．1 | Negligible Beneficial | 54.7 | 0.3 | Negigigibe Adverse | ${ }^{42.7}$ | 42.3 | 43.0 |
| CARNFIELD GARDENS | Dwelling | 54.2 | 53．6 | 54.1 49 | －0．1 | Negiligio Beneficial | 54.4 <br> 50.4 | 0.2 | Negiligile Adverse | ${ }^{42.5}$ | ${ }^{42.0}$ | ${ }^{42.7}$ |
| 10，CAIRNVIEW CRESCENT | Dwelling | 49.4 | 50.2 | 49.2 | －0．2 | Negligible Beneficioil | ${ }_{50.1}$ | 0.7 | Neoligible Adverse | 38.2 | 38.9 | 33.8 |
| 11，CAIRNVIEW CRESCENT | Dwelling | 50.8 | 51.9 | 50.7 | －0．1 | Negligible Beneficial | 51.6 | 0.8 | Negiligile Adverse | 39.5 | 40.4 | 40.2 |
| 13，CAIRNVIEW CRESCENT | Dwell | 50.7 | 51.7 | 50.6 | －0．1 | Negligible Beneficial | 51.4 |  | Negigioble Adverse | 39.4 | 40.3 | 40.0 |
| 15，CAIRNVIEW CRESCENT |  | 50.4 |  | 50.3 | －0．1 | Negligible Beneficial | 51.0 | 0.6 | Negiligible Adverse | 39.1 |  | 39.6 |
| 17，CAIRNVIEW CRESCENT | Oweling | 50.4 | 51.2 |  | －0．1 | Neegigibie Beneilical | 51.1 |  |  |  | 39.8 |  |
| 2，CAIRNVIEW CRESCENT | Oweling | 40．4 | ${ }_{49} 5$ | ${ }_{48.2}$ | －0．2 | Negequigiole Benenitioal | ${ }_{49.9}$ | 0.6 | Negigigie Adverse | ${ }_{373}$ | 39.6 <br> 8.1 | ${ }_{379}$ |
| 21，CAIRNVIEW CRESCENT | Dwelling | 50.3 | 51.1 | 50.3 | 0.0 | No Change | 51.0 | 0.7 | Negligible Adverse | 39.0 | 39.7 | 39.6 |
| 23，CAIRNVIEW CRESCENT | Dwelling | 50.2 | 51.0 | 50.2 | 0.0 | No Change | 50.9 | 0.7 | Negigioble Adverse | 38.9 | 39.6 | 39.5 |
| 25，CARRVIEW CRESCENT | Dwelling | 50．4 50.2 | 51.1 50.9 | 知0．3 | -0.1 -0.1 |  | 51．0 | 0.6 | $\frac{\text { Negligible Adverse }}{\text { Negligibe Adverse }}$ | 39.1 38.9 | ${ }_{39,5}^{39,7}$ | 39.6 39.5 |
| 29，CAIRNVIEW CRESCENT | Dwelling | 50.4 | 51.1 | 50.2 | －0．2 | Negligible Beneficial | 51.0 | 0.6 | Negligible Adverse | 39.1 | 39.7 | 39.6 |
| 3，CAIRNVIEW CRESCENT | Dwelling | 56.1 | 58.0 | 56.0 | －0．1 | Negligible Beneficial | 57.4 | 1.3 | Negigigile Adverse | 44.2 | 45.9 | 45.4 |
| 31，CAIRNVIEW CRESCENT | Dwelling | 50.6 <br> 50.8 | 51.4 51.5 | 50.5 50.6 | -0.1 -0.2 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ Beneficial | 年 $\begin{array}{r}\text { 51．3 } \\ 51.4\end{array}$ | 0.7 | $\frac{\text { Negigioble Adverse }}{\text { Negligiole Adverse }}$ | 39.3 39.5 | $\frac{40.0}{40.1}$ | 39.9 40.0 |
| 35，CAIRNVIEW CRESCENT | Deelling | 51.3 | 52.0 | 51.1 | －0．2 | Negligible Beneficial | 51.9 | 0.6 | Negigiolile Adverse | 39.9 | 40.5 | 40.4 |
| $\frac{\text { 37，CARRVIEW CRESCENT }}{}{ }^{\text {39，CAIRNVIEW CRESCENT }}$ | Dwelling | 51.6 52.4 | 52.3 53.0 | 51.4 52.1 | -0.2 -0.3 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ | 52.3 52.9 | 0.7 | Negligible Adverse Nefigiole Adverse | 40.2 40.9 | 40.8 41.4 | 40.8 41.3 |
| 4 4，CAIRNVIEW CRESCENT | Dwelling | 49.4 | 50.2 | 49.2 | －0．2 | Negligible Beneficial | 50.1 | 0.7 | Neoligible Adverse | 38．2 | 38.9 | 38.8 |
| 5．CAIRNVIEW CRESCENT | Dwelling | 54.3 | 56．1 | 54.2 | －0．1 | Negligible Beneficicial | 55.5 | 1.2 | Negiligible Adverse | ${ }_{32.6}$ | ${ }^{44.2}$ | 43.7 |
| 6．CARAVVEW CRESCENT |  |  |  |  |  | Negiligiole Beneficial |  |  | Negiligie Adverse |  |  |  |
| 7，CAARNVIEW CRESCENT | Dwelling | 52.5 | 54.2 | ${ }_{52.4}$ | －0．1 | Negligible Beneficioial | 54．7 | 1.2 | Neoligibile Adverse | 41.0 | 42.5 | 42.1 |
| 8，CAIRNVIEW CRESCENT | ueling | 511 | 518 | 50.9 | －0．2 | Negligible Beneficial | 51.7 | 0.6 | Negiligile Adverse | 39.7 | 40.4 | 40.3 |
| 9，CAIRNVIEW CRESCENT | Dwelling | 51.1 | 52.3 | 51.1 | 0.0 | No Change | 52.0 | 0.9 | Negligible Adverse | 39.7 | 40.8 | 40.5 |
| 2，CANAL STREET，WOODSIDE | Dwelling | 53．1 | 54.4 | 52.9 | －0．2 | Negligible Beneficial | 54.1 | 1.0 | Negigioble Adverse | 41.5 | 42.7 | 42.4 |
| 2， 2 ，CANALALSTREET，WOOODSIDE | Dwelling | 53.1 53.1 | 54.4 <br> 54.4 | 52.9 52.9 | －0．2 | Negegigigibe Beneneficioial | 54．1 | 1.0 | Negligigile Adverse | 41.5 | ${ }_{42.7}^{42.7}$ | ${ }^{42.4} 4$ |
| 2，CANAL STREET，WOODSIDE | Deelling | 53.1 | 54.4 | 52.9 | －0．2 | Negligible Beneficial | 54.1 | 1.0 | Negiligile Adverse | 41.5 | 42.7 | 42.4 |
| 2，CANAL STREET，WOODSIDE | Dwelling | 53.1 | 54.4 | 52.9 | －0．2 | Negligible Beneficial | 54.1 | 1.0 | Negiligile Adverse | 41.5 | 42.7 | 42.4 |
| 2，CANAL STREET，WOODSIDE | Dwelling | ${ }_{\text {53，}}^{53.1}$ | $\stackrel{54.4}{54.4}$ | 52．9 52.9 | －0．2 | Negiligie Beneficial | ${ }_{5}^{54.1}$ | 1.0 1.0 | $\frac{\text { Negigigle Adverse }}{\text { Neligiole Adverse }}$ | 41.5 41.5 | ${ }_{42.7}^{42.7}$ | $\stackrel{42.4}{42.4}$ |
| 2，CANAL STREET，WOODSIDE | Dwelling | 53．1 | 54.4 | 52.9 | －0．2 | Negligible Beneficial | 54.1 | 1.0 | Negiligibe Adverse | 41.5 | 42.7 | 42.4 |
| 2，CANAL STREET，WOODSIDE | Dwelling | 53.1 48.2 | 54.4 49.3 | 52.9 48.2 | -0.2 0.0 | Negligible Beneficial | 54.1 49.2 | 1.0 1.0 | $\frac{\text { Negligible Adverse }}{\text { Nefligible Adverse }}$ | 41.5 37.1 | 42.7 38.1 | 42.4 38.0 |
| 20，CANAL STREET，WOODSIDE | Dwelling | 55.1 | 55.8 | 55.3 | 0.2 | Negigigibl Adverse | 56.0 | 0.9 | Negigiole Adverse | 43.3 | 44.0 | 44.1 |
| $\frac{3,}{\text { 3，CANAL STREET，WOODSIDE }}$ | Dwelling | 46.6 48.7 | 47.7 49.6 | 46.6 48.6 | 0.0 0.0 | Nogo Change | 47.6 49.6 | 1.0 0.9 | $\frac{\text { Negigigle Adverse }}{\text { Nefligible Adverse }}$ | 35.7 37.6 | 36.7 38.4 | 36.6 38.4 |
| 4 4，CANAL STREET，WOODSSIDE | eling | 48.7 | 49.6 | 48.6 | －0．1 | Negligible Beneficial | 49.6 | 0.9 | Negiligible Adverse | 37.6 | 3.4 | 38.4 |
| 4，CANAL STREET，WOODSIDE | Deelling | 48.7 | 49.6 | 48.6 | －0．1 | Negligible Beneficial | 49.6 | 0.9 | Negligible Adverse | 37.6 | 38.4 | 38.4 |
| 4，CANAL STREET，WOODSIDE | Oweling | 48.7 | 49.6 | 48.6 | －0．1 | Negligible Beneficicial | 49.6 | 0.9 | Negiligile Adverse | 37.6 376 | 38.4 | 38.4 |
| $\frac{4,}{4, \text { CaNALAL STREET，}}$ ，WOODSSIDE | Owelling | ${ }_{47.9}^{48.9}$ | 49.0 | 47.9 | －0．0 | Negigiole Benenicial | 48.8 | 0.9 | Neoligigibe Adverse | ${ }_{37.6}$ | ${ }^{38,4} 3$ | 38.4 37.7 |
| 5．CANAL STREET，WOODSIDE | Dwelling | 48.8 | 49.7 | 49.0 | 0.2 | Negligible Adverse | 49.8 | 1.0 | Negiligible Adverse | 37.7 | 38.5 | 38.6 |
| 6，CANAL STREET，WOODSIIE | Dwelling | 49.9 | 50.8 | 50.0 | 0.1 | Negigiole Adverse | 50.9 | 1.0 | Negligible Adverse | 38.6 | 39.5 | 39.5 |
| 7， 7 ，CANAL STREET，WOODSIDE | Dwelling | 51．2 | 52.1 52.3 | 51．4 | 0.2 0.1 | $\frac{\text { Negligibib Adverse }}{\text { Negligile Adverse }}$ | 52.2 52.4 | ${ }^{1.0}$ | $\frac{\text { Negligible Adverse }}{\text { Negligible Adverse }}$ | 39.8 40.1 | ${ }_{40.6}^{40.8}$ | 40.7 |
| 9，CANAL STREET，WOOOSSIDE | Delling | 49.7 | 50.5 | 49.8 | 0.1 | Negligible Beneficial | 50.6 | 0.9 | Negligible Adverse | 38.5 | 39.2 | 39.3 |
| 1，CAPERSTOWN CRESCENT | Dwelling | 50.2 | 50.5 | 50.2 | ${ }_{0}^{0.0}$ | No Change | 51．0 | ${ }^{0.8}$ | Negiligile Adverse | 38．9 | 39.2 | 39.6 |
| 11，CAPERSTOWN CRESCENT | Dwelling | 49.2 | 49.1 | 49.2 | 0.0 | No Change | 49.9 | 0.7 | Negligible Adverse | 38.0 | 37.9 | 38.6 |
| 12，CAPPRSTOWN CRESCENT | welling | 49.3 | 49.9 | 49.3 | 0.0 | No Change | 50.3 | 1.0 | Negiligible Adverse | ${ }^{38,1}$ | ${ }^{38.6}$ | 39.0 |
| 13, CAPERSTOWN CRESCENT | Dwelling | 48.7 | 49.2 | 48.7 | 0.0 | No Change | 49.6 | 0.9 | Negigigile Adverse | 37.6 | 38.0 | 38.4 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 <br> Lnight,outside | DM33 Lnight,outside | DS33 Lnight,outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 14, CAPERSTOWN CRESCENT | Dwelling | 49.3 | 49.9 | 49.3 | 0.0 | No Change | 50.3 | 1.0 | Negigigible Adverse | 38.1 | 38.6 | 39.0 |
| 15, CAPERSTOWN CRESCENT | Dwelling | 48.5 | 49.2 | 48.5 | 0.0 | No Change | 49.5 | 1.0 | Negiligible Adverse | 37.4 | 38.0 | 38.3 |
| 16, CAPERSTOWN CRESCENT | Dwelling | 49.5 | 50.0 | 49.5 | 0.0 | No Change | 50.4 | 0.9 | Negiligibe Adverse | 38.3 | 38.7 | 39.1 |
| 17, CAPPRSTOWN CRESCENT | Oweling | 48.3 | ${ }^{49.1}$ | 48.3 | 0.0 | No Change | $\stackrel{49.3}{50}$ | 1.0 | Negigigle Adverse | 37.2 3.6 | ${ }^{37.9}$ | 38.1 3.5 |
| 18, CAPERSTOWN CRESCENT | Delling | 49.9 | 50.3 | 49.9 | 0.0 | No Change | 50.8 | 0.9 | Negigigibe Adverse | 38.6 | 39.0 | 39.5 |
| 19, CAPERSTOWN CRESCENT | Delling | 48.5 | 49.3 | ${ }^{48.5}$ | 0.0 | No Change | 49.5 4.5 | 1.0 | Negigigli Adverse | 37.4 362 | 38.1 37 | 38.3 37 |
| 2, CAPERSTOWN CRESCENT | Delling | 47.2 | 48.1 | 47.2 | 0.0 | No Change | 48.3 | 1.1 | Negigigibe Adverse | 36.2 | ${ }^{37.0}$ | 37.2 |
| 20, CAPERSTOWN CRESCENT | Dwelling | 49.8 | 50.1 | 49.8 | 0.0 | No Change | 50.6 | 0.8 | Negiligible Adverse | 38.6 371 | 38.8 378 | 39.3 301 |
| 21, CAPERSTOWN CRESCENT | Deelling | 48.2 | 49.0 | 48.2 | 0.0 | No Change | 49.3 | 1.1 | Negigigible Adverse | 37.1 | 37.8 | 38.1 |
| 22, CAPERSTOWN CRESCENT | Deelling | 49.9 | 50.3 | 49.9 | 0.0 | No Change | 50.8 | 0.9 | Negligible Adverse | 38.6 | 39.0 | 39.5 |
| 23, CAPERSTOWN CRESCENT | Dwelling | 48.2 | 49.0 | 48.2 | 0.0 | No Change | 49.3 | 1.1 | Negligible Adverse | 37.1 | 37.8 | 38.1 |
| 24, CAPERSTOWN CRESCENT | Dwelling | 49.9 48.0 | 50.1 48.8 | 49.9 48.0 | 0.0 0.0 | $\frac{\text { No Change }}{\text { No Change }}$ | 50.7 49.0 | 0.8 1.0 | $\frac{\text { Negiligibl Adverse }}{\text { Negigiole Adverse }}$ | 38.6 36.9 | 38.8 37.7 | 39.4 37.8 |
| 26. CAPERSTOWN CRESCENT | Dwelling | 50.0 | 50.2 | 50.0 | 0.0 | No Change | 50.8 | 0.8 | Negligible Adverse | 38.7 <br> 7. | 38.9 | 39.5 |
| 27, CAPPRSTOWN CRESCENT | Dwelling | ${ }_{58.3}^{48}$ | ${ }^{49.0}$ | ${ }_{5}^{48.2}$ | -0.1 | Negligible Beneficial | 49.2 | 0.9 | Negiligibe Adverse | 37.2 3.8 | 37.8 3 | 38.0 |
| 28, CAPERSTOWN CRESCENT | Welling | 50.1 | 50.2 | 50.1 | 0.0 | No Change | 50.8 |  | Negiligibe Adverse |  | 38.9 | 39.5 |
| 29, CAPERSTOWN CRESCENT | welling | 49.9 | 49.7 | 49.8 |  | Negligible Benenitical | 50.5 | 0.6 | Negiligile Adverse | ${ }^{38.6}$ | 38.5 |  |
| 3, CAPERSTOWN CRESCENT |  | 49.0 | ${ }^{49.4}$ | 49.0 |  | lange | 49.9 | 0.9 | Negiligibe Adverse | 37.8 |  |  |
| 30, CAPERSTOWN CRESCENT | Dweling | 49.7 | 50.0 | 49.7 | 0.0 | No Change | 50.5 | 0.8 | Negigigile Adverse | 38.5 | 38.7 | 39.2 |
| 31, CAPERSTOW N CRESCENT | Dweling | 47.9 | 48.7 | 47.8 | -0.1 | Negligible Beneficial | 48.9 50.3 | 1.0 | Negigigile Adverse | 36.8 <br> 3.8 | 37.6 306 | 37.7 |
| 32, CAPERSTOW CRESCENT | Oweling | 49.4 | 49.8 | 49.4 | 0.0 | No C cange | ${ }^{50.3}$ | 0.9 | Negiligile Adverse | 38.2 | 38.6 377 | 39.0 3.0 |
| 33, CAPERSTOWN CRESCENT | Dwelling | $\stackrel{48.2}{49.4}$ | ${ }_{49.9}^{48}$ | $\frac{48.2}{49.4}$ | ${ }_{0}^{0.0}$ | $\frac{\text { No Change }}{\text { No Change }}$ | 49.2 | ${ }_{0}^{1.0}$ | Negigigibe Adversse | ${ }^{38.1}$ | 38.7 38.5 | 38.0 38.9 |
| 35, CAPERSTOWN CRESCENT | Dwelling | 48.9 | 49.5 | 48.9 | 0.0 | No Change | 49.8 | 0.9 | Negiligile Adverse | 37.7 | 38.3 | 38.6 |
| 36, CAPERSTOWN CRESCENT | Dwelling | 49.4 | 49.7 | 49.4 | 0.0 | No Change | 50.2 | 0.8 | Negigigile Adverse | 38.2 | 38.5 | 38.9 |
| 37, CAPERSTOWN CRESCENT | Deelling | 49.9 | 49.7 | 49.9 | 0.0 | No Change | 50.5 | 0.6 | Negigigibe Adverse | 38.6 | 38.5 | 39.2 |
| 33, CAPERSTOWN CRESCENT | Dweling | 48.8 48. | 49.2 | ${ }_{48,8}^{48.8}$ | 0.0 | $\frac{\text { No Change }}{\text { No Change }}$ | ${ }_{493}^{49.7}$ | ${ }_{10}^{0.9}$ | Negigiole Adverse | 37,7 372 | 38.0 378 | 38.5 |
| $\frac{4}{4, C A P E R S S T O W N ~ C R E S C E N T ~}$ | Dwelling | 47.4 | 48.3 | 47.4 | 0.0 | No Change | 48.5 | 1.1 | Negigigile Adverse | 36.4 | ${ }_{37.2}$ | ${ }^{37.4}$ |
| 40, CAPERSTOWN CRESCENT | Wwelling | 49.1 | 49.3 | 49.1 | 0.0 | No Change | 49.9 | 0.8 | Negiligile Adverse | 37.9 | 38.1 | 38.6 |
| 41, CAPERSTOWN CRESCENT | Dwelling | 50.0 | 49.8 | 50.0 | 0.0 | No Change | 50.6 | 0.6 | Negiligibe Adverse | 38.7 375 | 38.6 378 | 39.3 |
| 43, CAPERSTOW N CRESCENT | Dwelling | 48.0 | 48.7 | 48.0 | 0.0 | No Change | 49.0 | 1.0 | Neogigigle Adverse | 36.9 | 37.6 |  |
| 44, CAPERSTOWN CRESESCENT | Dwelling | 48.7 | 49.1 | 48.7 | 0.0 | No Change | 49.6 | 0.9 | Negigigibe Adverse | 37.6 | 37.9 | 38.4 |
| 45, CAPERSTOW C CRESCEENT |  | 48.2 | 48.8 |  |  |  | 49.1 | 0.9 |  |  |  | 37.9 |
| 46, CAPERSTOW CRESCENT | weling | ${ }_{48.3}$ | 48.9 | 48.3 | 0.0 | No Change | 49.3 | 1.0 | Negigigile Adverse | 37.2 |  |  |
| 47, CAPERSOOW NCESECENT | Oweling | 48.1 | 48.7 | 48.1 | 0.0 | No Change | 49.0 | 0.9 | Negiqigile Adverse | 37.0 | 37.6 | 37.8 |
| 48, CAPERSTOWNCRESCENT | Oweling | $\frac{47.9}{48.4}$ | ${ }_{48,7}^{48.7}$ | 47.9 | -0.0 | No Change | 49.0 | 1.1 | Negligiole Adverse | 36.8 373 | 37.6 376 | 37.8 380 |
| 4, 4 , CAPERERSTOWN CRESCEENT | Dwelling | 49.5 | ${ }_{49.7}^{48.7}$ | 49.5 | 0.0 | $\frac{\text { Negiligile Beneicial }}{\text { No Change }}$ | ${ }_{50.3}^{49.2}$ | 0.8 | Neogigigibe Adverse | ${ }_{38.3}$ | ${ }_{3}^{37.5}$ | 38.0 39.0 |
| 50, CAPERSTOWN CRESCENT | Dwelling | 47.2 | 48.1 | 47.2 | 0.0 | No Change | 48.3 | 1.1 | Negiligile Adverse | 36.2 | 37.0 | 37.2 |
| 51, CAPERSTOWN CRESCENT | Dwelling | 48.3 | 48.7 | 48.3 | 0.0 | No Change | 49.2 | 0.9 | Negigigile Adverse | 37.2 | 37.6 | 38.0 |
|  | Dwelling | $\stackrel{48.8}{50.3}$ | 49.6 49.7 | 48.8 50.2 | 0.0 -0.1 | Neglicioble Ce Eeneficial | 49.8 50.8 | 1.0 0.5 | Negigible Adverse | 37.7 39.0 | 38.4 38.5 | 38.6 39.5 |
| 55. CAPERSTOWN CRESCENT | Deelling | 45.4 | 46.1 | 45.4 | 0.0 | No Change | 46.4 | 1.0 | Negigigibe Adverse | 34.6 | 35.2 | 35.5 |
| 57, CAPERSTOWN CRESCENT | Dwelling | 49.7 49.6 | ${ }_{49.3}^{49.3}$ | 49.6 49.6 | -0.1 0.0 | Negligible Beneficial | 50.3 50.2 | 0.6 0.6 | $\frac{\text { Negigigib Adverse }}{\text { Negigible Adverse }}$ | 38.5 38.4 | 38.1 38.1 | 39.0 38.9 |
| 6, CAPERSTOWN CRESCENT | Dwelling | 48.8 | 49.5 | 48.7 | -0.1 | Negligible Beneficial | 49.8 | 1.0 | Negligible Adverse | 37.7 | 38.3 | 38.6 |
| 61, CAPERSTOWN CRESCENT | Dwelling | 49.4 49.2 | $\frac{49.3}{49.2}$ | 49.4. | 0.0 0.0 | No Change No Change | 50.1 50.0 | 0.7 | Negiligil Adverse | 38.2 38.0 | 38.1 38.0 | 38.8 38.7 |
| 65, CAPERSTOWN CRESCENT | Dwelling | 49.0 | 49.1 | 49.0 | 0.0 | No Change | 49.8 | 0.8 | Negligible Adverse | 37.8 | 3.9 | 38.6 |
| ${ }^{\text {67, CAPERSTOWN CRESCENT }}$ | Dwelling | 49.1 48.6 | 49.2 48.9 | 49.0 48.6 | -0.1 0.0 | Negligible Beneficial | 49.9 49.5 | 0.8 0.9 | Negigible Adverse | 37.9 37.5 | 38.0 37.7 | 38.6 38.3 |
| 7, CAPERSTOWN CRESCENT | Dwelling | 49.3 | 49.4 | 49.3 | 0.0 | No Change | 50.0 | 0.7 | Negigigibe Adverse | 38.1 | 38.2 |  |
| 71, CAPERSTOWN CRESCENT | Dwelling | 48.4 | 48.9 | 48.4 | 0.0 | No Change | 49.3 | 0.9 | Negigigibe Adverse | 37.3 | 37.7 | 38.1 |
| 73, CAPERSTOWN CRESCENT | Dwelling | 48.2 | 48.7 | 48.2 | 0.0 | No Change | 49.2 | 1.0 | Negigible Adverse | 37.1 | 37.6 | 38.0 |
| 75, CAPERSTOWN CRESCCENT | Dwelling | 47.8 47.6 | 48.6 48.4 | 47.8 47.6 | 0.0 | $\frac{\text { No Change }}{\text { No Change }}$ | 48.9 48.7 | ${ }_{1}^{1.1}$ | Negigigile Adverse | $\begin{array}{r}36.8 \\ 36.6 \\ \hline\end{array}$ | 37.5 37.3 | 37.7 37.6 |
| 79, CAPERSTOWN CRESCENT | Deelling | 48.5 | 49.3 | 48.5 | 0.0 | No Change | 49.6 | 1.1 | Negiligile Adverse | 37.4 | 38.1 | 38.4 |
| 8 8, CAPERSTOWN CRESCENT | Dwelling | 48.9 | 49.6 | 48.9 | 0.0 | No Change | 49.9 | 1.0 | Negigigile Adverse | 37.7 | 38.4 | 38.6 |
| 9, CAPERSTOWN CRESCEN | Dwelling | $\stackrel{49.4}{43.0}$ | 49.3 | 49.4 | 0.0 -0.1 |  | $\stackrel{50.0}{43.8}$ | 0.6 | $\frac{\text { Negigigle Adverse }}{\text { Neligiole Adverse }}$ | 38.2 32.4 | 38.1 32.8 | 38.7 33.2 |
| 11, CHAPMAN PLACE, HEATHRYYOLD | Deelling | 43.9 | 44.2 | 43.8 | -0.1 | Negligible Beneficial | 44.6 | 0.7 | Negiligile Adverse | 33.2 | 33.5 | 33.9 |
| 13, CHAPMAN PLACE, HEATHRYYOLD | Delling | 44.8 | 45.4 | 44.7 | -0.1 | Negligible Beneficial | 45.7 | 0.9 | Negligible Adverse | 34.1 | 34.6 | 34.9 |
| 3, CHAPMAN PLACE, HEATHYYFOLD | Dwelling | 43.2 43.2 | $\stackrel{43.6}{43.6}$ | ${ }_{43.1}^{43.1}$ | -0.1 -0.1 | ${ }_{\text {Negiligible Beneficial }}^{\text {Negigile Beneficial }}$ | $\stackrel{44.0}{44.0}$ | 0.8 | $\frac{\text { Negigigle Adverse }}{\text { Neoligible Adverse }}$ | 32.6 32.6 | 33.0 33.0 | 33.3 33.3 |
| 7, CHAPMAN PLACE, HEATHRYFOLD | Dwelling | 43.3 | 43.7 | 43.3 | 0.0 | No Change | 44.1 | 0.8 | Negigibile Adverse | 32.7 | 33.1 | 33.4 |
| 9. CHAPMAN PLACE, HEATHRYFOLD | Dwelling | 43.6 | 43.9 | 43.6 | 0.0 | No Change | 44.5 | 0.9 | Negiligile Adverse | 33.0 3.2 | 33.2 | 33.8 |
| 1, CHAPMAN WALK, HEATHRYYOLD | Dwelling | 45.0. | 45.8 43.7 | 45.0. | 0.0 | $\frac{\text { No Change }}{\text { No Change }}$ | 46.0 | 1.0 0.8 | $\frac{\text { Negigigibe Adverse }}{\text { Negiquible Adverse }}$ | 34.2 32.6 | 35.0 33.1 | ${ }^{35.1}{ }_{33.3}$ |
| 13. CHAPMAN WALK, HEATHRYFOLD | Dwelling | 44.2 | 44.9 | 44.2 | 0.0 | No Change | 45.2 | 1.0 | Negigioble Adverse | 33.5 | 34.1 | 34.4 |
| 3, CHAPMAN WALK, HEATHYYFOLD | Oweling | ${ }^{43.2}$ | 43.8 <br> 4.3 | ${ }^{43.1}$ | -0.1 | Negigigile Beneficial | ${ }^{44.1}$ | 0.9 | Negigigile Adverse | 32.6 | ${ }^{33.2}$ | 33,4 |
| 7, CHAPMAN WALLK, HEATHRYYFOLD | Dwelling | ${ }_{42.8}^{42.8}$ | ${ }_{43.3}^{43.3}$ | ${ }_{42.7}^{42.8}$ | 0.0 <br> -0.1 | Negligible eneneficial | ${ }_{43.6}^{43.6}$ | 0.8 | Neoligibile Adverse | ${ }^{32.3}$ | 32.7 32.7 | 33.0 33.0 |
| 9, CHAPMAN WALK, HEATHRYFOLD | Deelling | 42.9 | 43.4 | 42.9 | 0.0 | No Change | 43.7 | 0.8 | Negigigile Adverse | 32.3 | 32.8 | 33.1 |
| $\frac{1.0}{10, C H E R R Y ~ R O A D ~}$ | Dwelling | 55.5 57.7 | 55.8 57.8 | 55.4 57.7 | -0.1 0.0 | $\frac{\text { Negligible Beneficial }}{\text { No Change }}$ | 55.9 57.9 | 0.4 0.2 | Negigible Adverse | ${ }_{45.7}^{43.7}$ | $\stackrel{44.0}{45.8}$ | 44.0 45.8 |
| 11, CHERRY YOAD | Dwelling | 57.2 | 57.5 | 57.1 | -0.1 | Negligible Beneficial | 57.5 | 0.3 | Negligible Adverse | 45.2 | 45.5 | 45.5 |
| 12, CHERRY ROAD | Dwelling | 56.9 | 57.2 | 56.8 | -0.1 | Negligible Beneficial | 57.2 | 0.3 | Negligible Adverse | 44.9 | 45.2 | 45.2 |
|  | Dwelling | 65.6 | ${ }^{65.7} 6$ | ${ }^{655.7}$ | 0.1 0.1 | $\frac{\text { Negigiole Adverse }}{\text { Negigiole Adverse }}$ | ${ }_{65.8}^{65.8}$ | 0.2 | $\frac{\text { Negigigle Adverse }}{\text { Negigible Adverse }}$ | 52.8 <br> 52.8 | 52.9 52.9 | $\stackrel{53.0}{53.0}$ |
| 18, CHERRY Y ROAD | Dewling | 65.6 <br> 5.6 | 65.7 5 5.8 | ${ }_{65.7}^{65.7}$ | 0.1 | Negligibe Adverse | 65.8 5.8 | 0.2 | Negigigibe Adverse | $\frac{52.8}{447}$ | 52.9 | 53.0 44.0 |
| 2, CHERRY ROAD | weiling | 56.6 | 56.8 | 56.7 | 0.1 | Negiligie Adverse | 56.9 | 0.3 | Negigiole Adverse | 44.7 | 44.9 | 44.9 |

## Appendix A14．4：Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short－term Daytime Noise Change（dB） | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long－term Daytime Noise Change（dB） | Magnitude of Change | DM18 <br> Lnight，outside | DM33 Lnight，outside | $\begin{gathered} \text { DS33 } \\ \text { Lnight,outside } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 20，CHERRY ROAD | Dwelling | 65.6 | 65.7 | 65.7 | 0.1 | Negigigile Adverse | 65.8 | 0.2 | Negigigile Adverse | 52.8 | 52.9 | 53.0 |
| 22．CHERRY Y ROAD | Oweling | ${ }_{65.6}^{65}$ | 65.7 | ${ }^{65.7}$ | 0.1 | Negaigible Adverse | 65.8 | 0.2 | Negiligible Adverse | ${ }_{52.8}^{52}$ | 52.9 | 53．0 |
| 24，CHERRY ROAD | Dweling | ${ }^{655.6}$ | ${ }^{65.7}$ | ${ }^{65.7}$ | ${ }_{0}^{0.1}$ | $\frac{\text { Negigigio Adverse }}{\text { Negligible Adverse }}$ | 65.8 65.8 | 0.2 | $\frac{\text { Negigigile Adverse }}{\text { Negligible Adverse }}$ | 52.8 52.8 | 52.9 52.9 | 53.0 53.0 |
| 28，CHERAY ROAD | Dwelling | 65.6 | 65.7 | 65.7 | 0.1 | Negligible Adverse | 65.8 | 0.2 | Negligible Adverse | 52.8 | 52.9 | 53.0 |
| 3，CHERRY ROAD | Dwelling | 55.7 | 56.0 | 55.6 | －0．1 | Negligible Beneficial | 56.0 | 0.3 | Negigigile Adverse | 43.9 | 44.1 | 44.1 |
| 30，CHERRY ROAD | Dwelling | 68.0 | 68.2 | 68.1 | 0.1 | Negligible Beneficial | 68.3 | 0.3 | Negligible Adverse | 54.9 | 55.1 | 55.2 |
| 32，CHERRY YOAD | Deelling | 68.0 | 68.2 | 68.1 | 0.1 | Negligible Beneficial | 68.3 | 0.3 | Negigioble Adverse | 54.9 | 55.1 | 55．2 |
| 34，CHERRY YOAD | welling | 68.0 | 68.2 | 68.1 | 0.1 | Negligible Beneficial | 68.3 | ${ }^{0.3}$ | Negigigibe Adverse | 54．9 | 55.1 | －55．2 |
| 3 36，CHEERRY Y 3 ROAD | Dwelling | ${ }_{68.0}^{68.0}$ | 68．2 | ${ }_{68.1}^{68.1}$ | ${ }_{0}^{0.1}$ | Negiligile Benenicial | ${ }_{68.3}^{68.3}$ | ${ }_{0.3}^{0.3}$ | Negigigibe Adverse | 54.9 | ${ }_{55.1}^{55.1}$ | ${ }^{55.2} 5$ |
| 4 ，CHERRY ROAD | Dwelling | 56.8 | 57.0 | 56.9 | 0.1 | Negligible Adverse | 57.1 | 0.3 | Negligible Adverse | 44.9 | 45.0 | 45.1 |
| 40，CHERRY ROAD | welling | 68.0 | 68.2 | 68.1 | 0.1 | Negligible Beneficial | 68.3 | 0.3 | Negigigibe Adverse | 54.9 | 55.1 | 55．2 |
| 42，CHERRY YOAD | Welling | 68.0 | 68.2 | 68.1 | 0.1 | Negligible Beneficial | 68.3 | 0.3 | Negigioble Adverse | 54.9 | 55.1 | 55．2 |
| 44，CHERRY ROAD |  | 68.0 | 68.2 | 68.1 | 0.1 | Negligible Beneficical | ${ }_{68.3}^{68}$ | 0.3 | Negiligible Adverse | 54.9 | 55.15 | 55．2 |
| 5．CHERRY ROAD |  | 56.1 |  |  | －0．1 | Negiligiole Beneficial |  |  | Negiligibe Adverse | 44.2 |  | 44.5 |
| 6，CHERRY ROAD | welling | 57.2 | 7．4 | 57.3 | 0.1 | Neegigibie Beneilical | 57. | 0.3 | Negiligile Aaverse |  |  |  |
| 7，CHERRY ROAD | deling | 56．7 |  | 56．6 |  | neic |  | ${ }_{0} .3$ | Negiligibe Adverse |  |  |  |
| 8，CHERAY ROAD | weling | 57.7 | 57.8 | 57.7 | 0.0 | No Change | 57.9 | 0.2 | Negiqigie Adverse | ${ }^{45.7}$ | ． 8 | 45.8 |
| 9．CHERRY ROAD | weling | 57．7 | 58．0 | 57．6 | －0．1 | Negiligiole Beneificial | 58．0 | ${ }_{2} .3$ | Negiligile Adverse | 45.7 | 45.9 | 45.9 |
| 10，CHURCH STREET，WOODSIDE | weling | 54．1． | 58．2 | 54．2 | 0.1 | Negigigio Adverse | 56．7 | ${ }_{2}^{2.6}$ | Negligiole Adverse | ${ }_{42}^{42.4}$ | ${ }_{46.1}^{46.1}$ | ${ }_{44.8}^{448}$ |
| I2，ChURCH STIEET，WOODSIDE | weling | 54.1 | 58.2 | 54．3 | 0.2 | Negigigile Adverse | 56．7 | ${ }^{2.6}$ | Negiligile Adverse | 42.4 | 46.1 | 44.8 |
| I4，CAURCHSTREET，WOODSIDE | Oweling | 55．6 | 60.1 | 55.7 <br> 5.7 | 0.1 | Negiligile Adverse | 58．5 | 2.9 | Negiligile Adverse | 43.8 | 47.8 | 46.4 |
| $1{ }^{16, C A U R C H S T R E E T, ~ W O O D S I D E ~}$ | Dwelling | ${ }_{53.6}^{55.6}$ | ${ }_{50}^{67.8}$ | ${ }_{53,8}^{55.7}$ | 0.1 | Neogigioble Adverse | ${ }_{56.5}^{58.5}$ | ${ }_{2}^{2.9}$ | Negigigibe Adverse | $4{ }^{43.8}$ | ${ }_{45.8}$ | 46.4 44.6 |
| 18，CHURCH STREET，WOODSIDE | Dwelling | 52.5 | 56.3 | 52.6 | 0.1 | Negligible Adverse | 54.9 | 2.4 | Negligible Adverse | 41.0 | 44.4 | 43.1 |
| 19，CHURCH STREET，WOODSIDE | Dwelling | 53.6 | 57.8 | 53.8 | 0.2 | Negigiolie Adverse | 56.5 | 2.9 | Negligible Adverse | 42.0 | 45.8 | 44.6 |
| 21，CHURCH STREET，WOODSIDE | welling | 54.7 | 58.9 | 54.9 | 0.2 | Negigigibe Adverse | 57.6 | 2.9 | Negigigile Adverse | 43.0 | 46.7 | 45.6 |
| 22，CHURCH STREET，Woodsioe | welling | 51.2 | 55.0 | 51.4 | 0.2 | Negigigibe Adverse | 53.6 | 2.4 | Negigigibe Adverse | 39.8 | 43.2 | 42.0 |
| 23，CHURCH STREET，WOODSIIDE | welling | 54.7 | 58.9 | 55.0 | 0.3 | Negigigibe Adverse | 57.6 | 2.9 | Negigigile Adverse | 43.0 | 46.7 | 45.6 |
| 24，CHURCH STREET，WOODSIDE | welling | 51.2 | 55.0 | 51.4 | 0.2 | Negigigibe Adverse | 53.6 | 2.4 | Negiligibe Adverse | 39.8 | 43.2 | 42.0 |
| 25，CHURCH STREET，WOODSIDE | Owelling | 54．2 | 58．0 | 54．5 | 0.3 | Negiligibe Adverse | 56.9 <br> 5.9 | $\frac{2.7}{22}$ | Negiligibe Adverse | 42.5 | 45.9 | 44.9 |
| 26，CAURCH STREET，Woodsibe | Dwelling | 54．3 | 53.6 58.0 | 㐌54．4．5 | ${ }_{0}^{0.1}$ | $\frac{\text { Negigigibe Adverse }}{\text { Negioible Adverse }}$ | 52.5 56.9 | ${ }_{2}^{2.2}$ | Negigigib Adverse | 39.0 42.5 | 45.9 | 44.9 |
| 28，CHURCH STREET，WOODSIDE | Dwelling | 50.3 | 53.6 | 50.4 | 0.1 | Negigioble Adverse | 52.5 | 2.2 | Negigioble Adverse | 39.0 | 42.0 | 41.0 |
| 29，CHURCH STREET，WOODSIDE |  | 49.9 | 52.8 |  |  | Negigigile Adverse |  |  |  |  |  |  |
| 30，CHURCH STREET，WOODSIDE | Dweling | 49.7 | 53.0 | 49.9 | 0.2 | Negigigie Adverse | 51.9 | 2.2 | Negligibe Adverse | 38.5 | 41.4 | 40.4 |
| 31，CHURCH STREET，WOODSIDE | weling | 49.9 | 52.8 <br> 5 | 50.3 | 0.4 | Negiligibe Adverse | 52.5 | ${ }^{2.6}$ | Negiligile Adverse | 38.6 | 41.3 | 41.0 |
| 32，CHURCH STREET，WOODSIDE | Oweling | ${ }_{59}{ }^{49.7}$ | 53.0 | 49.9 | 0.2 | Negigigile Adverse | 51．9 | ${ }^{2.2}$ | Negligiole Aaverse | 38.5 | 41.4 |  |
| 33， 34. CHURCH STREET，WOODSIDE | ${ }^{\text {Duelling }}$ | ${ }_{49.1}^{49}$ | ${ }_{5}^{54.0}$ | 51.6 49.2 | 0.3 0.1 | Negigigie Adverse | ¢ ${ }_{5}^{54.1}$ | ${ }_{2.0}^{2.8}$ | Negligioble Adverse | 39.9 <br> 37 | ${ }_{40.5}^{42.5}$ | ${ }_{39,7}$ |
| 35，CHURCH STREET，WOODSIDE | Deelling | 50.7 | 53.7 | 51.1 | 0.4 | Negigiole Adverse | 53.4 | 2.7 | Negligible Adverse | 39.4 | 42.1 | 41.8 |
| 36，CHURCH STREET，WOODSIDE | Dwelling | 49.1 | 52.0 | 49.2 | 0.1 | Negigigile Adverse | 51.1 | 2.0 | Negigigile Adverse | 37.9 | 40.5 | 39.7 |
| 37，CHURCH STREET，WOODSIDE | Dwelling | ${ }^{49.9} 5$ | 52.5 55.6 | $\stackrel{50.2}{53.8}$ | ${ }_{0}^{0.3}$ | $\frac{\text { Negigioble Adverse }}{\text { Negigiole Adverse }}$ | 55．2． | 2.3 2.1 | $\frac{\text { Negigioble Adverse }}{\text { Negligiole Adverse }}$ | 38.6 41.9 | $\frac{41.0}{43.8}$ | 40.7 43.8 |
| $46, \mathrm{CHURCH}$ STREET，WOODSIDE | Dwelling | 48.1 | 49.9 | 48.2 | 0.1 | Negiligile Adverse | 49.7 | 1.6 | Negligible Adverse | 37.0 | 38.6 | 38.5 |
| 48，CHURCH STREET，WOODSIDE | Dwelling | 48.0 47.9 | 49.8 49.6 | 48.1 48.1 | ${ }_{0}^{0.1}$ | $\frac{\text { Negligible Adverse }}{\text { Negligibe Adverse }}$ | 49.6 49.3 | 1.6 1.4 | $\frac{\text { Negligible Adverse }}{\text { Nefligible Adverse }}$ | 36.9 36.8 | 38.6 38.4 | 38.4 38.1 |
| 1，CLAAKE STREET | Dwelling | 54.9 | 56.1 | 54.7 | －0．2 | Negligible Beneficial | 56.0 | 1.1 | Negiligile Adverse | 43.1 | 44.2 | 44.1 |
| 1a，CLARKE STREET | Deeling | 54.4 | 55.7 | 54.3 | －0．1 | Negligible Beneficical | 55.6 | 1.2 | Negiligible Adverse | 42.7 | 43.9 | 43.8 |
| $\frac{\text { 2，CLARKE STREET }}{4 . C L A A K E ~ S T R E E T ~}$ |  |  |  |  |  | Negiligiole Beneficial |  |  | Negiligie Adverse | 42.0 |  |  |
| $\frac{4, \text { CLARKE STREET }}{}$ | Owelling | 53.0 | 54．3 | 52.9 | －0．1 | Negligible Beneficiolil | 54．2 | 1.2 | Neogigiole Adverse | 41.4 | 42.6 | 42.5 |
| 8，CLARKE STREET | Dwelling | 53.1 | 54.3 | 52.9 | －0．2 | Negligible Beneficial | 54.2 | 1.1 | Negigigibe Adverse | 41.5 | 42.6 | 42.5 |
| ABERDEENSERVIICED APPARTMENTS，43，CLIFTON LANE | Communty Facility | 48.7 | 49.6 | 48.9 | 0.2 | Negigioble Adverse | 49.5 | 0.8 | Negigigile Adverse | 37.6 | 38.4 | 38.3 |
| 10. CLIFTON PLACE | welling | 49.8 | 52.2 | 50．4 | $\frac{0.6}{12}$ | Negiligile Adverse | ${ }^{52.1}$ | $\frac{2.3}{35}$ | Negligible Adverse | 38.6 50.8 | 40.7 540 | 40．6 |
| 2，CLIFTONPLACE | Dweling | 63．4 | ${ }_{5}^{67.0}$ | 64．6 | 1.2 | Minor Adverse | ${ }_{5}^{66.9}$ | ${ }^{3.5}$ |  | 50．8 | 54．0 | 53.9 |
| 4，CLIFTONPLACE | Dwelling | ${ }_{50.3}^{50.3}$ | 52.8 52.8 | 50．9 | ${ }_{0}^{0.6}$ | Negligibe Adverse | 52.6 52.6 | ${ }_{2.3}^{2.3}$ | Negigible Adverse | 39.0 39.0 | $\frac{41.3}{41.3}$ | $\frac{41.1}{41.1}$ |
| 8，CLIFTON PLACE | Deelling | 49.8 | 52.2 | 50.4 | 0.6 | Negiligile Adverse | 52.1 | 2.3 | Negilibile Adverse | 38.6 | 40.7 | 40.6 |
| FLAT A，170，CLIFTON ROAD | Dwelling | 62.4 | 65.9 | 63.8 | 1.4 | Minor Adverse | 66.1 | 3.7 | Minor Adverse | 49.9 | 53.0 | 53.2 |
| FLAT B，170，CLIFTON ROAD | Dwelling | 62．4 | 65．9 | $\frac{63.8}{63.8}$ | 1.4 <br> 1.4 | Minor Adverse | $\frac{66.1}{66.1}$ | 3.7 3.7 | Minor Adverse | $\frac{49.9}{49.9}$ | 53．0 53.0 | ¢53．2 |
| FLAT D，170，CLIFTON ROAD | Dwelling | 62.4 | 65.9 | 63.8 | 1.4 | Minor Adverse | 66.1 | 3.7 | Minor Adverse | 49.9 | 53.0 | 53.2 |
| FLAT A，172，CLIFTON ROAD | Dwelling | 62.6 626 | 66．1 | 64.0 640 | 1.4 1.4 | Minor Adverse | 66.3 663 | 3.7 3 | Minor Adverse | 50．1 | 年3．22 | $\begin{array}{r}53.4 \\ 53.4 \\ \hline\end{array}$ |
| FLAT C，172，CLIFTON ROAD | Dwelling | 62.6 | 66.1 | 64.0 | 1.4 | Minor Adverse | 66.3 | ${ }_{3.7}$ | Minor Adverse | 50.1 | ${ }_{53.2}$ | 53．4 |
| FLAT D，172，CLIFTON ROAD | Deeling | 62.6 | 66.1 | 64.0 | 1.4 | Minor Adverse | 66.3 | 3.7 | Minor Adverse | 50.1 | 53．2 | 53．4 |
| FLLATA，174，CLIFTON ROAD | Dweling | ${ }_{62.8}^{628}$ | ${ }_{66.3}^{663}$ | ${ }^{64.2}$ | ${ }_{1}^{1.4}$ | Minor Adverse |  | ${ }_{3}^{3.8}$ | Minor Adverse | 50．3 |  | 53．7 |
| FLAT B，174，CLIFTON ROAD | weling | ${ }_{62.8}^{628}$ | 66.3 | ${ }_{64.2}^{64}$ | 1.4 | Minor Adverse | 66.6 | ${ }^{3.8}$ | Minor Adverse | 50．3 | 53．4 | 53.7 |
| FLAT D，174，CLIFTON ROAD | Dwelling | ${ }_{62.8}^{62.8}$ | ${ }_{66.3}$ | 64．2 | ${ }_{1.4}^{1.4}$ | Minor Adverse | ${ }_{66.6} 6$ | ${ }_{3.8}$ | Minor Adverse | 50．3 | 年3．44 | ${ }_{53,7}^{53,}$ |
| FLAT A，176，CLIFTON ROAD | Dwelling | 63.0 | 66.5 | 64.4 | 1.4 | Minor Adverse | 66.7 | 3.7 | Minor Adverse | 50.4 | 53.6 | 53.8 |
| LAT P，176，CLIFTON ROAD | Oweling | 63.0 | 66.5 | 64.4 | 1.4 | Minor Adverse | 66.7 | 3.7 | Minor Adverse | 50.4 | 53.6 | 53.8 |
| FLAT D，176，CLIFTONROAD | Dwelling | ${ }^{633.0}$ | 66．5 | 64．4 | 1.4 <br> 1.4 | Minor Adverse | ${ }^{66.7}$ | ${ }_{3.7}^{3.7}$ | Minor Adverse | 50．4 | ${ }_{53.6}^{53.6}$ | 53．8 |
| FLAT 2，235，CLIFTON ROAD | Dwelling | 62.9 | 66.5 | 64.1 | 1.2 | Minor Adverse | 66.9 | 4.0 | Minor Adverse | 50.3 | 53.6 | 53.9 |
| FLATA，272，CLIFTON ROAD | Dwelling | 62.0 62.0 | 65.6 65.6 | 63.1 63.1 | 1.1 1.1 | $\frac{\text { Minor Adverse }}{\text { Minor Adverse }}$ | 65.9 65.9 | 3.9 3.9 | $\frac{\text { Minor Adverse }}{\text { Minor Adverse }}$ | 49.5 49.5 | 52.8 52.8 | 53.0 53.0 |
| FLAT C，272，CLIFTON ROAD | Dwelling | 62.0 | 65.6 | 63.1 | 1.1 | Minor Adverse | 65.9 | 3.9 | Minor Adverse | 49.5 | 52.8 | 53.0 |
|  | Dweling | ${ }_{62.0}^{61.3}$ | ${ }_{65.6}^{65.0}$ | 63.1 62.4 | $\stackrel{.1 .1}{1.1}$ | $\xrightarrow[\text { Minor Adverse }]{\text { Minor Averse }}$ | 65.9 65.4 | 3.9 4.1 | $\xrightarrow{\text { Minor Adverse }}$ Minor Avverse | 49.5 489 | ${ }^{52.8} 5$ | 53.0 52.6 |
| FLAT B，282，CLIFTON ROAD | Dwelling | 61.3 | 65.0 | 62.4 | 1.1 | Minor Adverse | 65.4 | 4.1 | Minor Adverse | 48.9 | 52.2 | 52.6 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 night,outside | $\begin{gathered} \text { DS33 } \\ \text { Lnight,outside } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| FLAT C, 282, CLIFTON ROAD | Dwelling | 61.3 | 65.0 | 62.4 | 1.1 | Minor Adverse | 65.4 | 4.1 | Minor Adverse | 48.9 | 52.2 | 52.6 |
| FLAT D, 282, CLIFTON ROAD | Dwelling | 61.3 | 65.0 | 62.4 | 1.1 | Minor Adverse | 65.4 | 4.1 | Minor Adverse | 48.9 | 52.2 | 52.6 |
| CLIFTON MANOR, FLAT 10, 352, CLIFTON ROAD | Dwelling | 62.6 | 68.1 | 63.6 | 1.0 | Minor Adverse | 67.7 | 5.1 | Moderate Adverse | 50.1 | 55.0 | 54.7 |
| CLIFTON MANOR, FLAT 11, 352, CLIFTON ROAD | Oweling | ${ }_{62.6}^{62 .}$ | 68.1 | ${ }_{63.6}^{636}$ | 1.0 | Minor Adverse | ${ }_{6}^{67.7}$ | ${ }_{5}^{5.1}$ | Moderate Adverse | 50.1 | 55.0 55 | 54.7 54 |
| CLIFTTON MANOR, FLAT 12, 352, CLIFTON ROAD | Deelling | ${ }^{62.6}$ | 68.1 | ${ }^{63.6}$ | 1.0 | Minor Adverse | ${ }^{67.7}$ | 5.1 | Moderate Adverse | 50.1 | 55.0 | ${ }_{54.7}^{54}$ |
| CLIFTTON MANOR, FLAT 13, 352, CLIFTON ROAD | Delling | ${ }^{62.6}$ | 68.1 | ${ }^{63.6}$ | 1.0 | Minor Adverse | ${ }_{6}^{67.7}$ | ${ }_{5}^{5.1}$ | Moderate Adverse | 50.1 | 55.0 55 | 54.7 547 |
| CLIFTON MANOR, FLAT 14, 352, CLIFTON ROAD | Dwelling | 62.6 | 68.1 | 63.6 | 1.0 | Minor Adverse | 67.7 | 5.1 | Moderate Adverse | 50.1 | 55.0 | 54.7 |
| CLIFTON MANOR, FLAT 15, 352, CLIFTON ROAD | Dwelling | 62.6 | 68.1 | 63.6 | 1.0 | Minor Adverse | 67.7 | 5.1 | Moderate Adverse | 50.1 | 55.0 | 54.7 |
| CLIFTON MANOR, FLAT 16, 352, CLIFTON ROAD | Dwelling | 62.6 | 68.1 | 63.6 | 1.0 | Minor Adverse | 67.7 | 5.1 | Moderate Adverse | 50.1 | 55.0 | 54.7 |
| CLIFTON MANOR, FLAT 17, 352, CLIFTON ROAD | Dwelling | 62.6 | 68.1 | 63.6 | 1.0 | Minor Adverse | 67.7 | 5.1 | Moderate Adverse | 50.1 | 55.0 | 54.7 |
| CLIFTON MANOR, FLAT 18, 352, CLIFTON ROAD | Dwelling | 62.6 | 68.1 | 63.6 | 1.0 | Minor Adverse | 67.7 | 5.1 | Moderate Adverse | 50.1 | 55.0 | 54.7 |
| CLIFTON MANOR, FLAT 19, 352, CLIFTON ROAD | Dwelling | 62.6 | 68.1 | 63.6 | 1.0 | Minor Adverse | 67.7 | 5.1 | Moderate Adverse | 50.1 | 55.0 | 54.7 |
| CLIFTON MANOR, FLAT 2, 352, CLIFTON ROAD | Dwelling | 62.6 | 68.1 | 63.6 | 1.0 | Minor Adverse | 67.7 | 5.1 | Moderate Adverse | 50.1 | 55.0 | 54.7 |
| CLIFTTON MANOR, FLAT 20, 352. CLIFTON ROAD | Deelling | 62.6 | 68.1 | 63.6 | 1.0 | Minor Adverse | ${ }^{67.7}$ | 5.1 | Moderate Adverse | 50.1 | 55.0 | 54.7 |
| CLIFTON MANOR, FLLT 21, 352, CLIFTON ROAD | Dwelling | ${ }^{62.6}$ | 68.1 | 63.6 | 1.0 | Minor Adverse | ${ }^{67.7}$ | ${ }_{5}^{51}$ | Moderatat Adverse | 50.1 | 55.0 | 54.7 |
| CLIFON MANOR, FLAT 22, 35, CLIFTON ROAD | Dwelling | ${ }_{6}^{62.6}$ | 68.1 68.1 | ${ }_{63.6}^{63.6}$ | 1.0 1.0 | Minor Adverse | 67.7 67.7 | 5.1 5.1 | Moderate Adverse | 50.1 50.1 | 55.0 55.0 | 54.7 54.7 |
| CLIFTON MANOR, FLAT 24, 352, CLIFTON ROAD | Dwelling | 62.6 | 68.1 | 63.6 | 1.0 | Minor Adverse | 67.7 | 5.1 | Moderate Adverse | 50.1 | 55.0 | 54.7 |
| CLIFTON MANOR, FLAT 3, 352, CLIFTON ROAD | Dwelling | 62.6 | 68.1 | 63.6 | 1.0 | Minor Adverse | 67.7 | 5.1 | Moderate Adverse | 50.1 | 55.0 | 54.7 |
| CLIFTON MANOR, FLAT 4, 352, CLIFTON ROAD | Dwelling | ${ }_{62,6}^{62,}$ | 68.1 | ${ }_{63,6}^{636}$ | 1.0 | Minor Adverse | ${ }^{67.7}$ | ${ }_{5}^{51}$ | Moderate Adverse | 50.1 | 55.0 | 54.7 |
| CLIFTON MANOR, FLAA 5, 352, CLIFTON ROAD | Dwelling | 62.6 626 | 68.1 | 63.6 | 1.0 | Minor Adverse | 67.7 677 | 51 51 51 | Moderate Adverse | \%0.11 | 55.0 550 5 | 54.7 <br> 547 |
| CLIFTONMANOR, LLAA 6,352, C LIFTON ROAD | Dwelling | 62.6 62.6 | 68.1 | ${ }_{63.6}^{63.6}$ | 1.0 1.0 | Minor Adverse | ${ }^{67.7}$ | 5.1 <br> 5.1 | Modereate Adverse | 50.1 | 55.0 55.0 | 54.7 54.7 |
| CLIFTON MANOR, FLAT 9, 352, CLIFTON ROAD | Dwelling | 62.6 | 68.1 | 63.6 | 1.0 | Minor Adverse | 67.7 | 5.1 | Moderate Adverse | 50.1 | 55.0 | 54.7 |
| FLAT 1, 362, CLIFTON ROAD | Dwelling | 62.1 | 67.2 | 62.9 | 0.8 | Negigigile Adverse | 67.0 | 4.9 | Minor Adverse | 49.6 | 54.2 | 54.0 |
| FLAT 2, 362, CLIFTON ROAD | Dewling | ${ }_{62.1}^{62.1}$ | 67.2 | 62.9 | 0.8 | Negiligible Adverse | 67.0 | 4.9 | Minor Adverse | 49.6 | 54.2 | 54.0 |
| FLAT 3, 362, CLIFTON ROAD | Dwelling | 62.1 | 67.2 | 62.9 | 0.8 | Negigiole Adverse | 67.0 | 4.9 | Minor Adverse | 49.6 | 54.2 | 54.0 |
| FLAT 4, 362, CLIFTON ROAD | Dwelling | $\frac{62.1}{62.1}$ | $\frac{67.2}{67.2}$ | $\stackrel{62.9}{62.9}$ | 0.8 0.8 | $\frac{\text { Negligible Adverse }}{\text { Negligible Adverse }}$ | 67.0 67.0 | 4.9 | Minor Adverse | 49.6 49.6 | 54.2 | 54.0 54.0 |
| FLAT 6, 362, CLIFTON ROAD | Dwelling | 62.1 | 67.2 | 62.9 | 0.8 | Negiligile Adverse | 67.0 | 4.9 | Minor Adverse | 49.6 | 54.2 | 54.0 |
| LAT A, 392, CLIFTON ROAD | Dwelling | 62.9 | 68.2 | 63.7 | 0.8 | Negigigile Adverse | 67.6 | 4.7 | Minor Adverse | 50.3 | 55.1 | 54.6 |
| Flat B, 392, CLIFTON ROAD | Dwelling | $\frac{62.9}{62.9}$ | $\frac{68.2}{68.2}$ | ${ }_{6}^{63,7}$ | ${ }_{0}^{0.8}$ | $\frac{\text { Negligible Adverse }}{\text { Negioble }}$ | ${ }_{6}^{67.6}$ | 4.7 | Minor Adverse | 50.3 | 55.1 55.1 | 54.6 54.6 |
| FLAT D, 392, CLIFTON ROAD | Dwelling | 62.9 | 68.2 | 63.7 | 0.8 | Negiligibe Adverse | 67.6 | 4.7 | Minor Adverse | 50.3 | 55.1 | 54.6 |
| FLAT E, 392, CLIFTON ROAD | Dwelling | 62.9 62.9 | 68.2 68.2 | 63.7 63.7 | 0.8 0.8 | Negigiole Adverse | 67.6 67.6 | 4.7 4 | Minor Adverse | 50.3 50.3 | 55.1 55.1 | 54.6 54.6 |
| FLAT A, 394, CLIFTON ROAD | Dwelling | 50.3 | 50.9 | 50.4 | 0.1 | Negigioble Adverse | 51.2 | 0.9 | Negligible Adverse | 39.0 | 39.5 | 39.8 |
| FLAT B, 394, CLIFTON ROAD | Dwelling | 50.3 | 50.9 | 50.4 | 0.1 | Negigioble Adverse | 51.2 | 0.9 | Negligible Adverse | 39.0 | 39.5 | 39.8 |
| FLATC, 394, CLIFTON ROAD | Deelling | 50.3 | 50.9 | 50.4 | 0.1 | Negigigile Adverse | 51.2 | 0.9 | Negligible Adverse | 39.0 | 39.5 | 39.8 |
| FLAT D, 394, CLIFTON ROAD | Dwelling | 50.3 <br> 503 <br> 0.3 | 50.9 | 50.4 50.4 | 0.1 | Negiligib Adverse | 51.2 | 0.9 | Negiligib Adverse | 39.0 390 | 39.5 395 | 39.8 398 |
|  | Dweling | 50.3 <br> 50.3 | 50.9 50.9 | 50.4 50.4 | 0.1 0.1 | Negigibib Adverse | 51.2 <br> 1.2 <br> 1.7 | 0.9 | Negigibib Adverse | 39.0 <br> 39.0 | 39.5 <br> 39.5 | 39.8 <br> 39.8 |
| FLAT A, 396, CLIFTON ROAD | Dwelling | 63.0 | 68.3 | 63.8 | 0.8 | Negigigile Adverse | 67.7 | 4.7 | Minor Adverse | 50.4 | 55.2 | 54.7 |
| FLAT B, 396, CLIFFON ROAD | Dwelling | 63.0 | 68.3 | 63.8 | 0.8 | Negligible Adverse | 67.7 | 4.7 | Minor Adverse | 50.4 | 55.2 | 54.7 |
| FLAT C, 396, CLIFTON ROAD | Dwelling | ${ }_{63.0}^{63.0}$ | ${ }^{68.3}$ | ${ }^{63.8} 63.8$ | 0.8 | $\frac{\text { Negigigile Adverse }}{\text { Neoligiole Adverse }}$ | ${ }^{67.7}$ | ${ }_{4}^{4.7}$ | Minor Adverse | 50.4 | 55.2 55.2 | $\stackrel{54.7}{54.7}$ |
| FLATE, 396, CLIFTON ROAD | Delling | 63.0 | 68.3 | 63.8 | 0.8 | Negligible Adverse | ${ }^{67.7}$ | 4.7 | Minor Adverse | 50.4 | 55.2 | 54.7 |
| FLAT F, 396, CLIFTON ROAD | Dwelling | 63.0 61.5 | 68.3 66.2 | 63.8 62.2 | 0.8 0.7 | $\frac{\text { Negligiole Adverse }}{\text { Negligible Adverse }}$ | 67.7 65.6 | 4.7 4.1 | Minor Adverse | 50.4 49.1 | 55.2 53.3 | 54.7 52.8 |
| 100, CLIFTON ROAD | Dwelling | 72.3 | 73.8 | 72.4 | 0.1 | Negigioble Adverse | 73.5 | 1.2 | Negigioible Adverse | 58.8 | 60.2 | 59.9 |
| 102, CLIFTONROAD |  |  |  |  |  | Negigigio Adverse | ${ }_{7}^{73.5}$ |  | Negigigio Adverse | 58.8 |  | 59.9 |
| 107, ClIFTON ROAD | ${ }^{\text {Dowelling }}$ | 67.2 | 69.2 | ${ }_{67.5}^{66.5}$ | 0.3 | Neogigigile Adversse | 69.0 | ${ }_{1}^{1.8}$ | Neogigigie Adverse | 54.2 | 56.0 | 55.8 |
| 108, CLIFTON ROAD | Dwelling | 66.0 | 68.6 | 66.6 | 0.6 | Negiligile Adverse | 68.6 | 2.6 | Negligiole Adverse | 53.1 | 55.5 | 55.5 |
| 108, CLIFTON ROAD | Deelling | 66.0 | 68.7 | 66.7 | 0.7 | Negigigibe Adverse | 68.6 | ${ }^{2.6}$ | Negiligibe Adverse | 53.1 | 55.6 | 55.5 |
| 108, CLIFTON ROAD | Dwelling | 66.0 | 68.7 707 | 66.7 | 0.7 | Negiligile Adverse | 68.6 70.5 | 2.6 18 | Negiligib Adverse | 53.1. | $\begin{array}{r}55.6 \\ 574 \\ \hline\end{array}$ | 55.5 |
| 110, ClIFTON ROAD | ${ }^{\text {Doweling }}$ | 64.9 | 67.9 | ${ }_{65.8}^{69.0}$ | 0.9 | Negigigibe Adverse | $\underline{67.9}$ | ${ }_{3} .0$ | Minor Adverse | 55.1 52.1 | ${ }^{54.8}$ | ${ }_{54.8}$ |
| $\frac{112 . \text { CLIFTON ROAD }}{}$ | Dwelling | 64.2 | 67.5 | 65.2 | 1.0 | Minor Adverse | 67.5 | ${ }^{3.3}$ | Minor Adverse | 51.5 | 54.5 | 54.5 |
| 113, CLIFITON ROAD | Dweling | 69.1 64.2 | 71.5 67.5 | ${ }^{695.5}$ | 0.4 1.0 | Negigiolie Adverse | 71.2 67.5 | ${ }_{3.3}^{2.1}$ | Negiligie Adverse | 55.9 51.5 | 57.9 54.5 | 57.8 54.5 |
| 115. CLIFTON ROAD | Dwelling | 67.0 | 69.6 | ${ }_{6}^{67.6}$ | 0.6 | Negligible Adverse | 69.5 | 2.5 | Negligioble Adverse | 54.0 | 56.4 | 㐌5.3 |
| 16, CLIFTON ROAD | Dwelling | 637.0 | 67.3 | ${ }^{657.6}$ | 1.1 0.6 | Neoligiole Adverse | 69.5 | ${ }^{3.4}$ | Neanigibile Adververse | 54.0 | ${ }_{56.4}^{54.3}$ | ${ }_{56.3}^{56.3}$ |
| 118, CLIFTON ROAD | Dewling | 63.9 | 67.3 | 65.0 | 1.1 | Minor Adverse | 67.3 | ${ }^{3.4}$ | Minor Adverse | 51.2 | 54.3 | 54.3 |
| 19, CLIFTON ROAD | Dwelling | 65.8 63.7 | 68.8 67.2 | ${ }_{664 .}^{66}$ | 0.9 1.1 | $\frac{\text { Negigigibe Adverse }}{\text { Minor Adverse }}$ | 68.8 67.2 | ${ }_{3.5}^{3.0}$ | Minor Adverse | ${ }_{\text {53, }}^{51.1}$ | ${ }_{54.2}^{55.7}$ | ${ }_{54.2}^{55.7}$ |
| 121, CLIFTON ROAD | Dwelling | 65.1 | 68.3 | 66.1 | 1.0 | Minor Adverse | 68.3 | 3.2 | Minor Adverse | 52.3 | 55.2 | 55.2 |
| ${ }^{1122, \text { CLIFTON ROAD }}$ | Dwelling | ${ }_{6248}^{62.6}$ | 66.1 | ${ }^{63.8}$ | 1.2 | Minor Adverse |  | ${ }_{3}^{3.6}$ | Minor Adverse | 50.1 |  | 53.3 |
| 124, ClIFTON ROAD | Owelling | 62.6 | 66.2 | 63.8 | 1.2 | Minor Adverse | 66.2 | ${ }_{3.6}$ | Minor Adverse | 50.1 | ${ }_{53.3}$ | ${ }_{53.3}$ |
| 1125, CLIFFON ROAD | Deelling | 64.3 | 67.7 | 65.4 | 1.1 | Minor Adverse | 67.7 | 3.4 | Minor Adverse | 51.6 | 54.7 | 54.7 |
| 126, CLIFTON ROAD | Dwelling | 62.5 | 66.1 | 63,7 | 1.2 | Minor Adverse | 66.1 | 3.6 35 | Minor Adverse | 50.0 | 53.2 |  |
| 128, CLIFTON ROAD | Dwelling | 62.6 | 66.1 | 63.8 | 1.2 | Minor Adverse | 66.2 | ${ }_{3.6}$ | Minor Adverse | 50.1 | ${ }_{53.2}$ | ${ }_{53.3}$ |
| 1199, CLIFTON ROAD | Dwelling | 63.9 59 | 67.5 | 65.1 | 1.2 | Minor Adverse | ${ }_{6}^{67.5}$ | ${ }^{3.6}$ | Minor Adverse | 51.2 | 54.5 | 54.5 |
| - 130, CLIFON R ${ }^{\text {a }}$ | Dweling | 59.1 63.9 | 62.1 67.5 | 60.0 65.1 | 1.9 1.2 | Negigible Adverse | 62.1 67.5 | 3.0 3.6 | Minor Adverse | 46.9 51.2 | 49.6 54.5 5 | 49.6 <br> 54.5 |
| 132, CLIFFON ROAD | Dwelling | 62.1 | 65.5 | 63.3 | 1.2 | Minor Adverse | 65.4 | 3.3 | Minor Adverse | 49.6 | 52.7 | 52.6 |
| 133. CLIFTON ROAD | Dwelling | 63.9 | 67.5 | 65.1 63.3 | 1.2 <br> 1.2 | Minor Adverse | ${ }^{67.6}$ | ${ }^{3.7}$ | Minor Adverse | 51.2 49.6 | 54.5 <br> 52.6 | 54.6 <br> 52.5 |
| 135, CLIFTON ROAD | Deelling | 63.9 | ${ }^{67.5}$ | 65.1 | 1.2 | Minor Adverse | ${ }_{67.6}^{67 .}$ | 3.7 | Minor Adverse | 51.2 | ${ }_{54.5}^{5}$ | ${ }_{54.6}$ |
| 136, CLIFTON ROAD | Dweling | 61.9 | 65.3 | 63.1 | 1.2 | Minor Adverse | 65.1 | ${ }^{3.2}$ | Minor Adverse | 49.4 | 52.5 | 52.3 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 Lnight,outside | DS33 Lnight,outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 137, CLIFTON ROAD | Dwelling | 63.9 | 67.5 | 65.2 | 1.3 | Minor Adverse | 67.6 | 3.7 | Minor Adverse | 51.2 | 54.5 | 54.6 547 |
| $\frac{139, \text { CLIFTON ROAD }}{\text { 140, ClIFTON }}$ | Dwelling | 64.0 61.7 | 67.6 65.1 | 65.2 62.9 | $\frac{1.2}{1.2}$ | $\frac{\text { Minor Adverse }}{\text { Minor Adverse }}$ | 67.7 65.0 | ${ }_{3.3}^{3.7}$ | Minor Adverse | 51.3 49.3 | 54.6 52.3 | 54.7 <br> 52.2 |
| 1411. CLIFTON ROAD | Dwelling | 63.9 | 67.5 | 65.1 | 1.2 | Minor Adverse | 67.5 | ${ }_{3.6}$ | Minor Adverse | 51.2 | 54.5 | 54.5 |
| 142, CLIFTON ROAD | Dwelling | 61.6 | 65.0 | 62.7 | 1.1 | Minor Adverse | 64.9 | ${ }^{3.3}$ | Minor Adverse | 49.2 | 52.2 | 54.5 |
| 143, CLIFTON ROAD | Dwelling | 63.7 | 67.3 | 64.9 | 1.2 | Minor Adverse | 67.3 | 3.6 | Minor Adverse | 51.1 | 4.3 | , |
| 144, CLIFTON ROAD | Dwelling | 61.4 | 64.9 | 62.6 | 1.2 | Minor Adverse | 64.8 | 3.4 | Minor Adverse | 49.0 | 52.1 | 52.1 |
| 145, CLIFTON ROAD | Dwelling | 63.6 | 67.1 | 64.8 | 1.2 | Minor Adverse | 67.1 | 3.5 | Minor Adverse | 51.0 | 54.1 | 54.1 |
| 146, CLIFTON ROAD | Dwelling | 61.4 | 64.9 | 62.6 | 1.2 | Minor Adverse | 64.8 | 3.4 | Minor Adverse | 49.0 | 52.1 | 52.1 |
| 147, CLIFTON ROAD | Dweling | 63.4 | 66.9 | 64.6 | 1.2 | Minor Adverse | 66.9 | 3.5 | Minor Adverse | 50.8 | 53.9 | 53.9 |
| 148, CLIFFON ROAD | Dewling | 61.4 6.3 | 65.0 | 62.6 64.5 | 1.2 | Minor Adverse | 64.8 | ${ }^{3.4}$ | Minor Adverse | 49.0 | 52.2 | 52.1 |
| 149, CLIFTON ROAD | Deelling | 63.3 | 66.8 | 64.5 | 1.2 | Minor Adverse | ${ }_{66.7}^{66}$ | 3.4 3 | Minor Adverse | 50.7 492 | $\begin{array}{r}53.9 \\ 52 . \\ \hline 5\end{array}$ | 53.8 |
| 150, CLIFTON ROAD | Deelling | 61.6 | 65.2 | 62.8 | 1.2 | Minor Adverse | 65.0 | 3.4 | Minor Adverse | 49.2 | 52.4 | 52.2 |
| 151, CLIFTON ROAD | Deelling | 63.5 | 66.9 | 64.7 | 1.2 | Minor Adverse | 66.8 | 3.3 | Minor Adverse | 50.9 | 53.9 | 53.9 |
| 152, CLIFTON ROAD | Dwelling | 61.7 | 65.2 | 62.8 | 1.1 | Minor Adverse | 65.1 | ${ }^{3.4}$ | Minor Adverse | 49.3 | 52.4 | 52.3 |
| 153, CLIFTON ROAD | Deelling | 63.5 6.15 | 66.9 653 | 64.8 | 1.3 | Minor Adverse | 66.8 658 | 3.3 <br> 3.4 | Minor Adverse | 50.9 49.4 | 53.9 5.5 | 53.9 5.4 |
|  | ${ }^{\text {Dwelling }}$ Dowling | ${ }_{61.8}^{63.5}$ | ${ }_{67.0}^{67.3}$ | ${ }_{64.8}^{63.0}$ | $\stackrel{1.2}{1.3}$ | Minor Adverse | ${ }_{66.8}^{65.8}$ | ${ }_{3.3}^{3.4}$ | Minor Adverse | 50.9 | ${ }_{5}^{52.0}$ | ${ }_{53.9}^{52.9}$ |
| 156, CLIFTON ROAD | Dwelling | 58.2 | 61.4 | 59.2 | 1.0 | Minor Adverse | 61.4 | 3.2 | Minor Adverse | 46.1 | 49.0 | 49.0 |
| 157, CLIFTON ROAD | Dwelling | 63.5 | 67.0 | 64.7 | 1.2 | Minor Adverse | 66.8 | 3.3 | Minor Adverse | 50.9 | 54.0 | 53.9 |
| 158, CLIFTON ROAD | Dwelling | 63.0 | 66.5 | 64.2 | 1.2 | Minor Adverse | 66.5 | 3.5 | Minor Adverse | 50.4 | 53.6 | 53.6 |
| 159, CLIFTON ROAD | Dwellig | 63.5 62.8 | 67.0 66.3 | 64.7 64.0 | 1.2 1.2 | Minor Adverse | 66.8 66.4 | 3.3 3.6 | Minor Adverse | 50.9 50.3 | 54.0 53.4 | 53.9 53.5 |
| 161. CLIFTON ROAD | Dwelling | 63.5 | 67.1 | 64.8 | 1.3 | Minor Adverse | 66.9 | 3.4 | Minor Adverse | 50.9 | 54.1 | 53.9 |
| 162 , CLIFTON ROAD | Dwelling | 62.6 | 66.2 | 63.9 | 1.3 | Minor Adverse | 66.2 | 3.6 | Minor Adverse | 50.1 | 53.3 | 53.3 |
| 163, CLIFTON ROAD | Deelling | 63.5 | 67.1 | 64.8 | 1.3 | Minor Adverse | 67.0 | 3.5 | Minor Adverse | 50.9 | 54.1 | 54.0 |
| 164, CLIFTON ROAD | Dewling | ${ }_{62.6}^{62.6}$ | 66.2 | 63.8 | 1.2 | Minor Adverse | 66.3 | 3.7 | Minor Adverse | 50.1 | 53.3 | 53.4 |
| 164, CLIFTON ROAD | Dwelling | 62.6 63.4 | 66.0 | 63.8 64.6 | 1.2 1.2 | Minor Adverse | 66.3 66.9 | ${ }_{3.5}^{3.7}$ | Minor Adverse | 50.1 50.8 | 53.4 54.0 | 53.4 53.9 |
| 1657, CLIFTON ROAD | Dwelling | 63.2 | 66.9 | 64.5 | ${ }_{1}^{1.3}$ | Minor Adverse | 66.7 | ${ }_{3.5}$ | Minor Adverse | 50.6 | 54.9 | 53.8 |
| 168, CLIFTON ROAD | Dwelling | 62.2 | 65.7 | 63.6 | 1.4 | Minor Adverse | 65.9 | 3.7 | Minor Adverse | 49.7 | 52.9 | 53.0 |
| 169, CLIFTON ROAD | Deelling | 63.2 | 66.9 | 64.5 | 1.3 | Minor Adverse | 66.7 | 3.5 | Minor Adverse | 50.6 | 53.9 | 53.8 |
| 171. CLIFTON ROAD | Dwelling | 63.2 | 66.8 | 64.4 | 1.2 | Minor Adverse | ${ }^{66.7}$ | 3.5 | Minor Adverse | 50.6 | 53.9 | 53.8 |
| 173, CLIFTON ROAD | Dwelling | 63.2 63.1 | 66.8 66.7 | 64.4 64.3 | 1.2 1.2 | $\frac{\text { Minor Adverse }}{\text { Minor Adverse }}$ | 66.7 66.6 | ${ }_{3.5}^{3.5}$ | $\frac{\text { Minor Adverse }}{\text { Minor Adverse }}$ | 50.6 50.5 | 53.9 53.8 | 53.8 53.7 |
| 177, CLIFTON TOAD | ${ }^{\text {Dwelling }}$ Oweling | ${ }_{63.0}^{63.1}$ | ${ }_{66.6}^{66.7}$ | 64.2 | 1.2 | Minor Adverse | 66.5 | ${ }_{3} .5$ | Minor Adverse | 50.4 | 53.7 | 53.6 |
| 179, CLIFTON ROAD | Dwelling | 63.0 | 66.5 | 64.1 | 1.1 | Minor Adverse | 66.4 | 3.4 | Minor Adverse | 50.4 | 53.6 | 53.5 |
| 181, CLIFTON ROAD | Dwelling | 63.0 | 66.5 | 64.2 | 1.2 | Minor Adverse | 66.5 | 3.5 | Minor Adverse | 50.4 | 53.6 | 53.6 |
| 183, CLIFTON ROAD | Dwelling | 63.0 | 66.5 | 64.2 642 | 1.2 | Minor Adverse | 66.5 | 3.5 | Minor Adverse | 50.4 50.4 | 53.6 536 | 53.6 537 |
| ${ }^{\text {185, CLIFTON ROAD }}$ | Dwelling | 63.0 63.0 | 66.5 66.5 | 64.2. | 1.2 | Minor Adverse | 66.6 66.6 | 3.6 3.6 | Minor Adverse | 50.4 50.4 | 53.6 53.6 | 53.7 53.7 |
| 189, CLIFTON ROAD | Dwelling | 63.2 | 66.8 | 64.4 | 1.2 | Minor Adverse | 66.8 | 3.6 | Minor Adverse | 50.6 | 53.9 | 53.9 |
| 191, CLIFTON ROAD | Dwelling | 63.1 | 66.7 | 64.3 | 1.2 | Minor Adverse | 66.7 | 3.6 | Minor Adverse | 50.5 | 53.8 | 53.8 |
| 195. CLIFTON ROAD | Dwelling | $\frac{63.3}{633}$ | $\frac{67.0}{670}$ | $\frac{64.6}{646}$ | $\frac{1.3}{13}$ | Minor Adverse | $\frac{67.1}{67.1}$ | $\frac{3.8}{38}$ | Minor Adverse | 50.7 507 | 54.0 540 | 54.1 |
| 199, CLIFTON ROAD | Owelling | 63.2 | 66.8 | 64.6 | 1.4 | Minor Adverse | 67.0 | ${ }_{3} .8$ | Minor Adverse | 50.6 | 53.9 | 54.0 |
| 201, CLIFTON ROAD | Dwelling | 63.2 | 66.8 | 64.6 | 1.4 | Minor Adverse | 67.0 | 3.8 | Minor Adverse | 50.6 | 53.9 | 54.0 |
| 203, CLIFTTN ROAD | Dwelling | 63.4 | 66.9 | 64.8 | 1.4 | Minor Adverse | 67.1 | 3.7 | Minor Adverse | 50.8 | 53.9 | 54.1 |
| 205, CLIFTON ROAD | Dwelling | 63.4 | 66.9 | 64.8 | 1.4 | Minor Adverse | 67.1 | 3.7 | Minor Adverse | 50.8 | 53.9 | 54.1 |
| 207, CLIFTON ROAD | Dwelling | 63.3 | 66.9 | 64.8 | 1.5 | Minor Adverse | 67.1 | 3.8 | Minor Adverse | 50.7 | 53.9 | 54.1 |
| $\frac{207, \text { CLIFTON ROAD }}{209, ~ C L I F T O N ~}$ | Dwelling | 63.5 63.5 | 67.0 67.0 | 64.9 65.0 | 1.4 1.5 1.5 | $\frac{\text { Minor Adverse }}{\text { Minor Adverse }}$ | 67.3 67.3 | 3.8 <br> 3.8 | $\frac{\text { Minor Advelse }}{\text { Minor Adverse }}$ | 50.9 50.9 | 54.0 54.0 | 54.3 54.3 |
| 209, CLIFTON ROAD | Dwelling | 63.5 | 67.0 | 65.0 | 1.5 | Minor Adverse | 67.3 | ${ }_{3.8}$ | Minor Adverse | 50.9 | 54.0 | 54.3 |
| 211, CLIFTON ROAD | Dwelling | 63.5 | 67.0 | 64.9 | 1.4 | Minor Adverse | 67.3 | 3.8 | Minor Adverse | 50.9 | 54.0 | 54.3 |
| 211, CLIFTON ROAD | Dwelling | 63.5 | 67.0 | 64.9 | 1.4 | Minor Adverse | 67.3 | 3.8 | Minor Adverse | 50.9 | 54.0 | 54.3 |
| 213, CLIFTON ROAD | Dwelling | 63.5 | 67.1 | 65.0 | 1.5 | Minor Adverse | 67.3 | 3.8 | Minor Adverse | 50.9 | 54.1 | 54.3 |
| $\frac{233, \text { CLIFTON ROAD }}{215}$ | Dwelling | 63.5 63.5 | 67.1 67.0 | 65.0 65.0 | 1.5 1.5 | $\frac{\text { Minor Adverse }}{\text { Minor Adverse }}$ | 67.3 67.3 | 3.8 <br> 3.8 | $\frac{\text { Minor Adverse }}{\text { Minor Adverse }}$ | 50.9 50.9 | 54.1 | 54.3 |
| $\frac{215, ~ C L I F T O N ~ R O A D ~}{\text { 2 }}$ | Owelling | ${ }_{63.5}$ | 67.0 | 65.0 | 1.5 <br> 1.5 | Minor Adverse | 67.3 | ${ }_{3.8}$ | Minor Adverse | 50.9 | 54.0 | $\frac{54.3}{}$ |
| 247, CLIFTON ROAD | Dwelling | 63.5 | 67.0 | 64.9 | 1.4 | Minor Adverse | 67.3 | 3.8 | Minor Adverse | 50.9 | 54.0 | 54.3 |
| 219, CLIFTON ROAD | Oweling | 63.5 |  |  |  | Minor Adverse |  |  | Minor Adverse |  |  |  |
| 221, CLIFIONROAD | Dweling | 63.4 | 67.1 | 64.9 | . 1.5 | Minor Adverse | 67.2 | ${ }^{3.8}$ | Minor Adverse | 50.8 | 54.0 | 54.2 |
| ${ }^{225, \text { ClIFTON ROAD }}$ | Owelling | 63.6 | 67.1 | 65.1 | 1.5 | Minor Adverse | 67.4 | ${ }_{3} .8$ | Minor Adverse | 51.0 | 54.1 | 54.4 |
| 227, CLIFTON ROAD | Dwelling | 63.6 | 67.1 | 65.1 | 1.5 | Minor Adverse | 67.4 | 3.8 | Minor Adverse | 51.0 | 54.1 | 54.4 |
| 229, CLIFTON ROAD | Dwelling | 63.7 | 67.2 | 65.1 | 1.4 | Minor Adverse | 67.5 | 3.8 | Minor Adverse | 51.1 | 54.2 | 54.5 |
| 2311. CLIFTON ROAD | Dwelling | 63.8 | 67.3 | 65.2 6.2 | 1.4 | Minor Adverse | 67.6 | 3.8 | Minor Adverse | 51.2 | 54.3 | ${ }_{54.6}^{54}$ |
| 233, CLIFTON ROAD | Dwelling | 63.8 62.9 | 67.4 66.5 | $\frac{65.2}{64.1}$ | $\frac{1.4}{1.2}$ | Minor Adverse | 67.6 66.9 | $\frac{3.8}{4.0}$ | Minor Advelse | 51.2 50.3 | 54.4 53.6 | 54.6 53.9 |
| 237, CLIFTON ROAD | Dwelling | 62.7 | 66.4 | 63.8 | 1.1 | Minor Adverse | 66.7 | 4.0 | Minor Adverse | 50.2 | 53.5 | ${ }_{53.8}$ |
| 239, CLIFTON ROAD | Dwelling | 62.6 | 66.3 | 63.7 | 1.1 | Minor Adverse | 66.7 | 4.1 | Minor Adverse | 50.1 | 53.4 | 53.8 |
| 241, CLIFTON ROAD | Dwelling | 62.4 624 | ${ }_{66.1}^{66.1}$ | 63.5 634 | ${ }_{1}^{1.1}$ | Minor Adverse | 66.4 665 | 4.0 | Minor Adverse | 49.9 | 53.2 <br> 532 | 53.5 |
| 245, CLIFTON ROAD | Dwelling | 62.2 | 66.0 | 63.3 | 1.1 | Minor Adverse | 66.3 | 4.1 | Minor Adverse | 49.7 | 53.1 | 53.4 |
| 247, CLIFTON ROAD | Dwelling | 62.2 | 65.9 | 63.3 | 1.1 | Minor Adverse | 66.3 | 4.1 | Minor Adverse | 49.7 | 53.0 | 53.4 |
| 249, CLIFTON ROAD | Deelling | 62.2 | 65.9 | 63.3 6.3 | 1.1 | Minor Adverse | 66.3 | 4.1 | Minor Adverse | 49.7 | $\begin{array}{r}53.0 \\ 5.2 \\ \hline 5\end{array}$ | 53.4 |
| 2991, CLIFTON TON ROAD | ${ }^{\text {Dwelling }}$ Oweling | 62.4 | ${ }_{66.1}^{66.1}$ | ${ }_{63.5}^{63.5}$ | ${ }_{1.1}^{1.1}$ | Minor Adverse | 66.5 | 4.1 | Minor Adverse | 49.9 | -53.2 | 53.6 53.6 |
| 263, CLIFTON ROAD | Dwelling | 62.4 | 66.1 | 63.5 | 1.1 | Minor Adverse | 66.5 | 4.1 | Minor Adverse | 49.9 | 53.2 | 53.6 |
| 265. CLIFTON ROAD | Deelling | 62.4 | 66.1 | 63.5 | 1.1 | Minor Adverse | 66.5 | 4.1 | Minor Adverse | 49.9 | 53.2 | 53.6 |
| 267, CLIFTON ROAD | Dweling | 62.7 627 | 66.4 66.4 | ${ }_{6}^{63.8} 6$ | 1.1 | Minor Adverse | 66.8 | 4.1 | Minor Adverse | 50.2 | 53.5 <br> 535 <br> 5 | 53.9 539 |
| 271, CLIFTON ROAD | Dwelling | 62.9 | 67.0 | 64.1 | 1.2 | Minor Adverse | 67.3 | 4.4 | Minor Adverse | 50.3 | 54.0 | 54.3 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | Dм33 <br> Lnight,outside | DS33 Lnight,outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ${ }^{\text {275, CLIFTON ROAD }}$ | Dwelling | 63.6 | 67.3 | 65.1 | 1.5 | Minor Adverse | 68.2 | 4.6 | Minor Adverse | 51.0 | 54.3 | 55.1 |
| $\frac{\text { 277, CLIFTON ROAD }}{}{ }^{290}$ CLIFTON ROAD | Dwelling | ${ }_{63.6}^{636}$ | ${ }_{67.3}^{673}$ | 65.1 | 1.5 | Minor Adverse | 68.2 | 4.6 | Minor Adverse | 51.0 | 54.3 543 | $\begin{array}{r}\text { 55.1. } \\ \hline 5.1\end{array}$ |
| ${ }^{\text {279, CLIFTON ROAD }}$ | Dweling | ${ }^{63.6}$ | ${ }^{67.3}$ | ${ }_{65.1}^{65.1}$ | 1.5 1.5 | Minor Adverse | 68.2 | ${ }_{4.6}^{4.6}$ | Minor Adverse | 51.0 | 54.3 | 55.1 |
| 283, CLIFTON ROAD | Dwelling | 63.4 | 67.1 | 64.9 | 1.5 | Minor Adverse | 68.0 | 4.6 | Minor Adverse | ${ }_{50.8}$ | 54.1 | 54.9 |
| 285, CLIFTON ROAD | Dwelling | 63.4 | 67.1 | 64.9 | 1.5 | Minor Adverse | 68.0 | 4.6 | Minor Adverse | 50.8 | 54.1 | 54.9 |
| 286, CLIFTON ROAD | Dwelling | 63.3 | 67.2 | 64.5 | 1.2 | Minor Adverse | 67.6 | 4.3 | Minor Adverse | 50.7 | 54.2 | 54.6 |
| 287, CLIFTON ROAD | Dwelling | 63.2 | 66.9 | 64.7 | 1.5 | Minor Adverse | 67.8 | 4.6 | Minor Adverse | 50.6 | 53.9 | 54.8 |
| 288, CLIFTON ROAD | Dwelling | 62.9 | 66.7 | 64.1 | 1.2 | Minor Adverse | 67.2 | 4.3 | Minor Adverse | 50.3 | 53.8 | 54.2 |
| 289, CLIFTON ROAD | Deeling | 63.2 | 66.9 | 64.7 | 1.5 | Minor Adverse | 67.8 | 4.6 | Minor Adverse | 50.6 | 53.9 | 54.8 |
| 290, CLIFTON ROAD | Dwelling | 62.9 | 66.7 | 64.1 | 1.2 | Minor Adverse | 67.2 | 4.3 | Minor Adverse | 50.3 | 53.8 | 54.2 |
| 291, CLIFTON ROAD | Dwelling | 63.3 | 67.0 | 64.8 | 1.5 | Minor Adverse | 67.9 | 4.6 | Minor Adverse | 50.7 | 54.0 | 54.8 |
| 292, CLIFTTON ROAD | Delling | 63.0 | 66.8 | 64.4 | 1.4 | Minor Adverse | 67.6 | 4.6 | Minor Adverse | 50.4 | 53.9 | 54.6 |
| 293, CLIFTTON ROAD | Deelling | 63.3 | 67.0 | 64.8 | 1.5 | Minor Adverse | 67.9 | 4.6 | Minor Adverse | 50.7 | 54.0 | 54.8 |
| 294, CLIFTON ROAD | Dwelling | 63.0 | 66.8 | 64.4 | 1.4 | Minor Adverse | 67.6 | 4.6 | Minor Adverse | 50.4 | 53.9 | 54.6 |
| 295, CLIFTON R RAD | Delling | 63.4 | 67.1 | 64.9 | 1.5 | Minor Adverse | 68.0 | 4.6 | Minor Adverse | 50.8 | 54.1 | 54.9 |
| 296, CLIFTON R RAD | Delling | 62.9 | 66.8 | 64.2 | 1.5 | Minor Adverse | 67.4 | 4.5 | Minor Adverse | 50.3 | 53.9 | 54.4 |
| 297, CLIFTON ROAD | Delling | 63.4 | 67.1 | 64.9 | 1.5 | Minor Adverse | 68.0 | 4.6 | Minor Adverse | 50.8 | 54.1 | 54.9 |
| 298, CLIFTON ROAD | Deelling | 62.9 | 66.8 | 64.2 | 1.3 | Minor Adverse | 67.4 | 4.5 | Minor Adverse | 50.3 | 53.9 | 54.4 |
| 299, CLIFTON ROAD | Dwelling | 63.6 | 67.2 | 65.1 | 1.5 | Minor Adverse | 68.1 | 4.5 | Minor Adverse | 51.0 | 54.2 | 55.0 |
| $\frac{300, \mathrm{CLIFTON} \text { ROAD }}{300 \text { CLIFTON ROAD }}$ | Dwelling | 63.1 | ${ }^{666.8} 6$ | ${ }^{64.6}$ | 1.5 1.5 | Minor Adverse | 67.6 67.6 | ${ }_{4.5}^{4.5}$ | $\frac{\text { Minor Adverse }}{\text { Minor Adverse }}$ | 50.5 | 53.9 53.9 | 54.6 |
| 301, CLIFTON ROAD | Dwelling | 63.6 | 67.2 | 65.1 | 1.5 | Minor Adverse | 68.1 | 4.5 | Minor Adverse | 51.0 | 54.2 | 55.0 |
| 303, CLIFTON ROAD | Dwelling | 63.7 | 67.4 | 65.2 | 1.5 | Minor Adverse |  | 4.5 | Minor Adverse | 51.1 | 54.4 | 55.1 |
| 305, CLIFTON ROAD | Dwelling | 63.7 | 67.4 | 65.2 | 1.5 | Minor Adverse | 68.2 | 4.5 | Minor Adverse | 51.1 | 54.4 | 55.1 |
| 309, CLIFTON ROAD | Dwelling | 61.9 | 65.3 | 63.2 | 1.3 | Minor Adverse | 66.1 | 4.2 | Minor Adverse | 49.4 | 52.5 | 53.2 |
| 309 , CLIFTON ROAD | Dwelling | 61.9 | 65.3 | 63.2 | 1.3 | Minor Adverse | 66.1 | 4.2 | Minor Adverse | 49.4 | 52.5 | 53.2 |
| 309, CLIFTON ROAD | Dwelling | 61.9 | 65.3 | 63.2 | 1.3 | Minor Adverse | 66.1 | 4.2 | Minor Adverse | 49.4 | 52.5 | 53.2 |
| 309, CLIFTON ROAD | Dwelling | $\frac{61.9}{619}$ | 65.3 653 | 63.2 632 | 1.3 <br> 13 | Minor Adverse | 66.1 | 4.2 | Minor Adverse | 49.4 | 52.5 <br> 525 <br> 2. | 53.2 |
| 309, CLIFTON ROAD | Dwelling | 61.9 | ${ }_{65.3}^{65}$ | ${ }^{63.2}$ | 1.3 1.3 | Minor Adverse | 66.1 | 4.2 | Minor Adverse | 49.4 | 52.5 52.5 | ${ }^{53.2} 5$ |
| 309, CLIFTTON ROAD | Deelling | 61.9 | 65.3 | 63.2 | 1.3 | Minor Adverse | 66.1 | 4.2 | Minor Adverse | 49.4 | 52.5 | 53.2 |
| $\frac{311, \text { CLIFTON ROAD }}{313, \text { CLFTON ROAD }}$ | Dwelling | 60.3 60.3 | 63.7 63.6 | 61.6 61.5 | 1.3 1.2 1 | $\frac{\text { Minor Adverse }}{\text { Minor Adverse }}$ | 64.5 64.4 | 4.2 4.1 | $\frac{\text { Minor Adverse }}{\text { Minor Adverse }}$ | 48.0 48.0 | 51.1 51.0 | 51.8 51.7 |
| 314, CLIFTON ROAD | Community Serices | 61.1 | 64.6 | 62.5 | 1.4 | Minor Adverse | 65.5 | 4.4 | Minor Adverse | ${ }^{48.7}$ | 51.9 | 52.7 |
| 315, CLIFTON ROAD | Dwelling | 59.4 | 62.7 | 60.5 | 1.1 | Minor Adverse | 63.3 | 3.9 | Minor Adverse | 47.2 | 50.2 | 50.7 |
| 316, CLIFTON ROAD | Deelling | 62.6 | 66.2 | 64.0 | 1.4 | Minor Adverse | 67.0 | 4.4 | Minor Adverse | 50.1 | 53.3 | 54.0 |
| $\frac{319, \text { CLIFTON ROAD }}{}{ }^{\text {a }}$ CLIFTON ROAD | Dwelling | ${ }^{62.1}$ | 66.9 | 62.9 | 0.8 | Negiligle Adverse | 66.6 | 4.5 | Minor Adverse | 49.6 | 53.9 | 53.7 |
| $\frac{319, \text { CLIFTON ROAD }}{319 . C L I F T O N ~ R O A D ~}$ | Dweling | ¢ 58.8 | 63.8 63.8 | -59.2 | 0.4 0.4 | Negigiobe Adverse | ${ }_{63.3}^{63.3}$ | ${ }_{4}^{4.5}$ | Minor Adverse | ${ }_{46.7}^{46.7}$ | 51.2 | 50.7 50.7 |
| 321, CLIFTON ROAD | Dwelling | 58.8 | 63.8 | 59.2 | 0.4 | Negligible Adverse | 63.3 | 4.5 | Minor Adverse | 46.7 | 51.2 | 50.7 |
| ${ }^{\text {322, CLIFTTON ROAD }}$ | Dwelling | 61.3 | 64.8 | 62.6 | 1.3 | Minor Adverse | 65.5 | 4.2 | Minor Adverse | 48.9 | 52.1 | 52.7 |
| ${ }^{\text {323, CLIFTTON ROAD }}$ | Dwelling | 58.8 | 63.8 | 59.2 | 0.4 | Negiligibe Adverse | 63.3 | 4.5 | Minor Adverse | 46.7 | 51.2 | 50.7 |
| 324, CLIFTON ROAD | Dwelling | 61.0 | 64.5 | 62.3 | 1.3 | Minor Adverse | 65.3 | 4.3 | Minor Adverse | 48.6 | 51.8 | 52.5 |
| 324, CLIFTON ROAD | Dweling | 61.0 61.0 | 64.5 | 62.3 623 | 1.3 13 | Minor Adverse | 65.3 653 | ${ }_{43}^{4.3}$ | Minor Adverse | ${ }_{48,6}^{48.6}$ | 年1.88 | $\begin{array}{r}52.5 \\ 525 \\ \hline\end{array}$ |
| 326, CLIFTON ROAD | Dwelling | 61.5 | 65.1 | 62.8 | 1.3 | Minor Adverse | 65.8 | 4.3 | Minor Adverse | 49.1 | 52.3 | 53.0 |
| 326, CLIFTON ROAD | Deeling | 61.5 | 65.1 | 62.8 | 1.3 | Minor Adverse | 65.8 | 4.3 | Minor Adverse | 49.1 | 52.3 | 53.0 |
| 326, CLIFTON ROAD | Dwelling | 61.5 | 65.1 | 62.8 | 1.3 | Minor Adverse | 65.8 | 4.3 | Minor Adverse | 49.1 | 52.3 | 53.0 |
| 326, CLIFTTON ROAD | Dwelling | 61.5 | 65.1 | 62.8 | 1.3 | Minor Adverse | 65.8 | 4.3 | Minor Adverse | 49.1 | ${ }_{52.3}^{52.3}$ | 53.0 |
| ${ }^{\text {326, CLIFTON ROAD }}$ | Doweling | ${ }^{661.5} 62.2$ | ${ }_{65.2}^{66.1}$ | 62.8 63.0 | 1.3 <br> 0.8 | Neogioigle Adverse | 65.8 66.1 | ${ }_{3}^{4.9}$ | Minor Adverse | ${ }_{49.7}^{49.1}$ | 52.3 53.3 | ${ }_{53}^{53.2}$ |
| 328, CLIFTON ROAD | Dwelling | 61.5 | 65.1 | 62.7 | 1.2 | Minor Adverse | 65.8 | 4.3 | Minor Adverse | 49.1 | 52.3 | 53.0 |
| 329, CLIFTON ROAD | Dwelling | 62.2 | 66.2 | 63.0 | 0.8 | Negigigible Adverse | 66.1 | 3.9 | Minor Adverse | 49.7 | 53.3 | 53.2 |
| ${ }^{\text {331, CLIFTON ROAD }}$ | Dwelling | 62.2 49.5 | 66.2 53.0 | 63.0 49.8 | 0.8 0.3 | Negligible Adverse Negioible Adverse | 66.1 52.7 | 3.9 3.2 | $\frac{\text { Minor Adverse }}{\text { Minor Adverse }}$ | ${ }_{38.3}^{49.7}$ | 53.3 41.4 | 53.2 41.2 |
| ${ }^{\text {335, CLLFTON ROAD }}$ | Dwelling | 62.1 | 66.3 | 63.0 | 0.9 | Neogigigile Adverse | $\frac{56.2}{66.2}$ | ${ }_{4.1}^{4.1}$ | Minor Adverse | 49.6 | 53.4 | ${ }_{53.3}$ |
| 336, CLIFTON ROAD | Dwelling | 60.7 | 66.6 | 61.1 | 0.4 | Negiligile Adverse | 64.9 | 4.2 | Minor Adverse | 48.4 | 53.7 | 52.1 |
| ${ }^{\text {337, CLIFTON ROAD }}$ | Dwelling | 62.1 | 66.3 | 63.0 | 0.9 | Negiligibe Adverse | 66.2 | 4.1 | Minor Adverse | 49.6 | 53.4 | ${ }_{53.3}$ |
| ${ }^{339, \text { CLIFTON ROAD }}$ | Dweling | ${ }^{61.3}$ | 65.8 | ${ }_{62.1}^{62.1}$ | ${ }_{0}^{0.8}$ | Negiligibe Adverse | 65.5 | 4.2 | Minor Adverse |  |  | 52.7 |
| 340, CLIFTON ROAD | Dwelling | , | 62.6 | 59.7 | 0.8 | Negligible Adverse | 62.5 | ${ }_{3.6}$ | Minor Adverse | 46.7 | 50.1 | 50.0 |
| 340, CLIFTTON ROAD | Delling | 58.9 | 62.6 | 59.7 | 0.8 | Negigigibe Adverse | 62.5 | 3.6 | Minor Adverse | 46.7 | 50.1 | 50.0 |
| ${ }^{340, \text { CLIFTON ROAD }}$ | Dwelling | 58.9 | 62.6 | 59.7 | 0.8 | Negigigile Adverse | 62.5 | ${ }^{3} 6$ | Minor Adverse | 46.7 | 50.1 | 50.0 |
| ${ }^{340, \text {, CLIFTON ROAD }}$ | Dwelling | 58.9 589 | ${ }_{62.6}^{626}$ | 597 597 597 | 0.8 | Negligile Adverse | 62.5 625 | ${ }_{3}^{3.6}$ | Minor Adverse | 46.7 | 50.1 50.1 | 50.0 <br> 50 |
| 340, CLIFTON ROAD | Dwelling | 58.9 | 62.6 | ${ }_{59.7}$ | 0.8 | Negigigile Adverse | 62.5 | ${ }_{3.6}$ | Minor Adverse | ${ }^{46.7}$ | 50.1 | 50.0 |
| 340, CLIFTON ROAD | Dwelling | 58.9 | 62.6 | 59.7 | 0.8 | Negiligible Adverse | 62.5 | 3.6 | Minor Adverse | 46.7 | 50.1 | 50.0 |
| $\frac{344, \text { CLIFTON ROAD }}{345, \text { CLFTON ROAD }}$ | Dwelling | 61.3 61.3 | ${ }_{65.8}^{65.3}$ | 62.2 62.1 | 0.9 0.8 | $\frac{\text { Negligible Adverse }}{\text { Negigible Adverse }}$ | ${ }_{65.5}^{65.5}$ | 3.9 4.2 | $\frac{\text { Minor Adverse }}{\text { Minor Adverse }}$ | 48.9 48.9 | 52.5 53.0 | 52.4 52.7 |
| 346, CLIFTON ROAD | Dwelling | 46.5 | 48.2 | 46.7 | 0.2 | Negiligile Adverse | 48.0 | 1.5 | Negligible Adverse | 35.6 | 37.1 | 36.9 |
| 347, CLIFTON ROAD | Dwelling | 61.3 | 66.0 | 62.1 | 0.8 | Negligible Adverse | 65.7 | 4.4 | Minor Adverse | 48.9 | 53.1 | 52.9 |
| 348, CLIFTON ROAD | Dwelling | 54.7 | 58.0 | 55.3 554 | 0.6 | Negiligibe Adverse | 57.8 579 | 3.1 | Minor Adverse | 43.0 | 45.9 | 45.8 |
| $\frac{3488, \text { CLIFTON ROAD }}{}$ | Dwelling | 54.8 | 58.1 | 55.4 | 0.6 | Negigigibe Adverse | 57.9 | ${ }_{3.1}$ | Minor Adverse | 43.1 | 46.0 | 45.8 |
| 349, CLIFTON ROAD | Dwelling | 61.3 | 66.0 | 62.1 | 0.8 | Negigioble Adverse | 65.7 | 4.4 | Minor Adverse | 48.9 | 53.1 | 52.9 |
| ${ }^{\text {351, CLIFTON ROAD }}$ | Dwelling | 61.4 627 | ${ }_{66.1}^{68.1}$ | ${ }_{6}^{62.1}$ | ${ }_{0}^{0.7}$ | Negigigib Adverse | ${ }^{657.7}$ | ${ }_{5}^{4.3}$ | Minor Adverse | 49.0 <br> 50.2 | 53.2 55 5 | $\begin{array}{r}52.9 \\ 547 \\ \hline\end{array}$ |
| 352, CLIFTON ROAD | Owelling | 62.7 | 68.1 | 63.6 | 0.9 | Negigigibe Adverse | 67.7 | 5.0 | Moderate Adverse | ${ }_{50.2}$ | 55.0 | 54.7 |
| 353, CLIFTON ROAD | Dwelling | 61.4 | 66.1 | 62.1 | 0.7 | Negligiole Adverse | 65.7 | 4.3 | Minor Adverse | 49.0 | 53.2 | 52.9 |
| ${ }^{\text {355. CLIFTON ROAD }}$ | Dweling | 61.4 614 | 66.2 | 62.1 | 0.7 | Negiligib Adverse | 65.8 657 | ${ }_{4}^{4.4}$ | Minor Adverse | 49.0 | 53.3 <br> 532 <br> 5 | $\begin{array}{r}53.0 \\ 529 \\ \hline 5\end{array}$ |
| 359, CLIFTON ROAD | Dwelling | $\frac{61.1}{}$ | 65.9 | ${ }^{61.8}$ | 0.7 | Negiligile Adverse | 65.7 | 4.6 | Minor Adverse | 48.7 | 53.0 | 52.9 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 Lnight,outside | DS33 Lnight,outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 387, CLIFTON ROAD | Dwelling | 57.1 | 61.1 | 57.6 | 0.5 | Negigigible Adverse | 60.6 | 3.5 | Minor Adverse | 45.1 | 48.7 | 48.3 |
| 389. CLIFTON ROAD | Dwelling | $\frac{63.0}{62.7}$ | 68.1. | 63.8 63.4 | 0.7 | $\frac{\text { Negigioble Adverse }}{\text { Negigiole Adverse }}$ | $\frac{67.5}{66.9}$ | 4.5 | Minor Adverse | 50.4 50.2 | 55.0 54.4 | ${ }_{54.5}^{53.9}$ |
| 397, CLIFTON ROAD | Dwelling | 62.7 | 67.4 | 63.4 | 0.7 | Negiligibe Adverse | 66.9 | 4.2 | Minor Adverse | 50.2 | 54.4 | 53.9 |
| 397, CLIFTON ROAD | Delling | 62.7 | 67.4 | 63.4 | 0.7 | Negligible Adverse | 66.8 | 4.1 | Minor Adverse | 50.2 | 54.4 <br> 54.5 | 53.9 |
| 398, CLIFTON ROAD | Dwelling | 62.5 |  |  |  | Negigigile Adverse |  |  | Minor Adverse | 50.0 |  |  |
| 399, CLIFTON ROAD | weling | 62.7 | 67.4 | 63.4 | 0.7 | Negigigibe Adverse | 66.8 | 4.1 | Minor Adverse | 50.2 | 54.4 | 53.9 |
| 400, CLIFTON ROAD | Dwelling | 62.5 | 67.5 | 63.2 | 0.7 | Negigiobie Adverse | 66.9 | 4.4 | Minor Adverse | 50.0 | 54.5 | 53.9 |
| 401, CLIFFON ROAD | Oweling | 62.7 6.5 | 67.4 | ${ }_{63.4}^{6.2}$ | 0.7 | Negiligibie Adverse | 66.8 | 4.1 | Minor Adverse | 50.2 | 54.4 | 53.9 |
| 403, CLIFTON ROAD | Oweling | ${ }_{6}^{62.5}$ | ${ }^{667.6}$ | 62.2 | 0.7 0.7 | Negigigio Adverse | ${ }^{657.6}$ | ${ }_{4}^{4.4}$ | Minor Adverse | 49.1 | 53.3 54.6 | 52.8 54.0 |
| 405, CLIFTON ROAD | Dwelling | ${ }_{61.5}^{61.5}$ | 66.2 | ${ }_{62.2}$ | 0.7 | Negigigibe Adverse | 65.6 | 4.1 | Minor Adverse | 49.1 | ${ }_{53.3}$ | 54.8 |
| 406, CLIFTON ROAD | Dwelling | 62.4 | 67.4 | 63.1 | 0.7 | Negigigile Adverse | 66.8 | 4.4 | Minor Adverse | 49.9 | 54.4 | 53.9 |
| 407, CLIFTON ROAD | Dwelling | 61.5 | 66.1 | 62.1 | 0.6 | Negigioble Adverse | 65.6 | 4.1 | Minor Adverse | 49.1 | 53.2 | 52.8 |
| 407, CLIFTON ROAD | Dwelling | 61.4 | 66.1 | 62.1 | 0.7 | Negigioble Adverse | 65.5 | 4.1 | Minor Adverse | 49.0 | 53.2 | 52.7 |
| 409, CLIFTON ROAD | Deelling | 62.7 | 67.6 | 63.4 | 0.7 | Negigioble Adverse | 67.0 | 4.3 | Minor Adverse | 50.2 | 54.6 | 54.0 |
| 411, CLIFTON ROAD | Deelling | 62.4 | 67.1 | 63.0 | 0.6 | Negigigibe Adverse | 66.5 | 4.1 | Minor Adverse | 49.9 | ${ }_{54.1}^{5.1}$ | ${ }_{5}^{53.6}$ |
| $\frac{415, ~ C L I F T O N ~ R O A D ~}{\text { a }}$ | Dwelling | ${ }_{61.6}^{616}$ | ${ }_{66.2}^{66.2}$ | $\frac{62.2}{622}$ | 0.6 | Negligile Adverse | 65.5 655 | 3.9 3 | Minor Adverse | 49.2 49.2 | 53.3 53.3 | 52.7 52.7 |
| 417, CLIFTON ROAD | Dwelling | 61.1 | 65.7 | 61.6 | 0.5 | Neogigioble Adverse | 64.9 | ${ }_{3} .8$ | Minor Adverse | 48.7 | 52.9 | 52.11 |
| 417, CLIFTON ROAD | Dwelling | 61.1 | 65.7 | 61.6 | 0.5 | Negiligiole Adverse | 64.9 | ${ }^{3.8}$ | Minor Adverse | 48.7 | 52.9 | 52.1 |
| 419, CLIFTON ROAD | Dwelling | 61.0 | 65.6 | 61.5 | 0.5 | Negigioble Adverse | 64.7 |  | Minor Adverse | 48.6 | 52.8 | 52.0 |
| 421, CLIFTON ROAD | Dwelling | 60.9 | 65.6 | 61.4 | 0.5 | Negiligible Adverse | 64.7 | ${ }^{3.8}$ | Minor Adverse | 48.5 | 52.8 | 52.0 52.0 |
| 243, CLIFTON ROAD |  |  |  |  |  |  | 64.7 |  | Minor Adverse |  |  |  |
|  | weling | 60.9 | 65.6 | 61.4 | 0.5 | Negigigie Adverse |  | ${ }^{3.8}$ | Minor Adverse | 48.5 | 52.8 | 52.0 |
| 426, CLIF FON ROAD | Oweling | ${ }^{59.1}$ | 63.6 | ${ }^{59.6}$ | ${ }_{0}^{0.5}$ | Negigiole Adverse | $\frac{62.7}{649}$ | 3.6 3 | Minor Adverse | $\frac{46.9}{48.6}$ | 51.0 | 50.2 52.1 |
| 4 428, CLIFTON ROAD | Dwelling | 58.9 | ${ }_{65.4}^{65.8}$ | ${ }^{69.5}$ | 0.5 | Negigigible Adverse | ${ }_{62.5}$ | 3.6 | Minor Adverse | 46.7 | 50.8 | ${ }_{50.0}^{5}$ |
| 429, CLIFTON ROAD | Dwelling | 61.1 | 65.9 | 61.6 | 0.5 | Negigioble Adverse | 64.9 | 3.8 | Minor Adverse | 48.7 | 53.0 | 52.1 |
| 431, CLIFTON ROAD | Children's Nursery / Crèche | 60.2 | 65.1 | 60.7 | 0.5 | Negigigile Adverse | 64.1 | 3.9 | Minor Adverse | 47.9 | 52.3 | 51.4 |
| 432, CliFTONROAD | Oweling | 61.7 | 67.0 | 62.3 | 0.6 | Negigigile Adverse | 66.0 | 4.3 | Minor Adverse | 49.3 | 54.0 | 53.1 |
| 433, CLIFTON ROAD | Dwelling | 61.6 62.9 | $\frac{66.1}{66.5}$ | 62.1 | 0.5 | $\frac{\text { Negigiolie Adverse }}{\text { Neoligiole Adverse }}$ | $\frac{65.2}{6.1}$ | ${ }_{3.6}^{3.6}$ | Minor Adverse | $\frac{49.2}{50.3}$ | ${ }^{53.2} 5$ | 52.4 53.2 |
| 4355, ClIFTON ROAD | Dwelling | ${ }_{59.3}$ | 64.4 | 59.5 | 0.2 | Negigigible Adverse | 62.3 | ${ }_{3} 3$ | Minor Adverse | 47.1 | 55.7 <br> 5 | ${ }^{59.8}$ |
| 436 , CLIFTON ROAD | Dwelling | 58.6 | 64.2 | 58.8 | 0.2 | Negiligile Adverse | 61.9 | ${ }^{3} 3$ | Minor Adverse | 46.5 | 51.5 | 49.4 |
| 437 , CLIFTON ROAD | Dwelling | 59.3 | 64.4 | 59.5 | 0.2 | Negigigibe Adverse | 62.3 | 3.0 | Minor Adverse | 47.1 | 51.7 | 49.8 |
| 438 , CLIFTON ROAD | Dwelling | 58.6 | 64.2 | 58.8 | 0.2 | Negigigile Adverse | 61.9 | 3.3 | Minor Adverse | 46.5 | 51.5 | 49.4 |
| 439, CLIFTON ROAD | welling | 59.3 | 64.4 | 59.5 | 0.2 | Negigiole Adverse | 62.3 | 3.0 | Minor Adverse | 47.1 | 51.7 | 49.8 |
| 440, CLIFTON ROAD | Dwelling | 58.6 | 64.2 | 58.8 | 0.2 | Negigioble Adverse | 61.9 | ${ }^{3.3}$ | Minor Adverse | 46.5 | 51.5 | 49.4 |
| $\frac{441, \text { ClIFTON ROAD }}{}$ | Dwelling | 59.3 58.6 | 64.4 | 59.5 <br> 58.8 | 0.2 | Negigible Adverse | ${ }_{6}^{62.9}$ | ${ }_{3.3}$ | Minor Adverse | ${ }_{46.5}^{46.1}$ | $\stackrel{51.7}{51.5}$ | 49.8 |
| 443. CLIFTON ROAD | Dwelling | 59.4 | 64.4 | 59.6 | 0.2 | Negoligible Adverse | 62.3 |  | Nealigible Adverse | 47.2 | 51.7 | 49.8 |
| 444, CLIFTON ROAD | Dwelling | 58.5 | 64.2 | 58.7 | 0.2 | Negigigile Adverse | 61.7 | 3.2 | Minor Adverse | 46.4 | 51.5 | 49.3 |
| 445, CLIFTON ROAD | Deelling | 59.4 | 64.4 | 59.6 | 0.2 | Negigioble Adverse | 62.3 | 2.9 | Negligible Adverse | 47.2 | 51.7 | 49.8 |
| $\frac{446, ~ C L I F T O N ~ R O A D ~}{\text { a }}$ | Dweling | $\begin{array}{r}58.5 \\ 59.4 \\ \hline\end{array}$ | 64.2 64.4 | $\begin{array}{r}58,7 \\ 596 \\ \hline 9 .\end{array}$ | ${ }_{0}^{0.2}$ | Negiligile Adverse | 61.7 623 | 3.2 29 | Minor Adverse | 46.4 | 51.5 | 49938 |
| 448, CLIFTON ROAD | Dwelling | 58.5 | 64.2 | 58.7 | 0.2 | Negligible Adverse | 61.7 | 3.2 | Minor Adverse | 46.4 | 51.5 | 49.3 |
| 449, CLIFTON ROAD | Dwelling | 59.4 | 64.4 | 59.6 | 0.2 | Negiligile Adverse | 62.3 | 2.9 | Negligible Adverse | 47.2 | 51.7 | 49.8 |
| ${ }^{450, \text { CliFION ROAD }}$ | Dwelling | 58.5 59.1 | ${ }_{64.3}^{64.3}$ | ${ }_{59.3}^{59}$ | 0.2 | Negigible Adverse | ${ }_{6}^{62.1}$ | 3.2 3.0 | Minor Adverse | 46.4 | 51.5 | 49.3 |
| 452, CLIFTON ROAD | Dwelling | 58.4 | 64.2 | 58.6 | 0.2 | Negiligiole Adverse | 61.7 | 3.3 | Minor Adverse | 46.3 | 51.5 | 49.3 |
| 453, CLIFTON ROAD | Dwelling | 59.1 | 64.3 | 59.3 | 0.2 | Negigiolie Adverse | 62.1 | 3.0 | Minor Adverse | 46.9 | 51.6 | 49.6 |
| 454, CLIFTON ROAD | Dwelling | 58.4 | 64.2 | 58.6 | 0.2 | Negigigibe Adverse | 61.7 | ${ }^{3.3}$ | Minor Adverse | 46.3 | 51.5 | 49.3 |
| 455, CLIFTON ROAD | Dwelling | 59.1 58.4 | 64.3 64.2 | 59.3 58.6 | 0.2 0.2 | $\frac{\text { Negligible Adverse }}{\text { Negligible Adverse }}$ | $\frac{62.1}{61.7}$ | ${ }_{3.3}^{3.0}$ | Minor Adverse | 46.9 | 51.6 51.5 | 49.6 49.3 |
| 457, CLIFTON ROAD | Dwelling | 59.1 | 64.3 | 59.3 | 0.2 | Neogigioble Adverse | 62.1 | 3.0 | Minor Adverse | 46.9 | ${ }_{51.6}$ | 49.6 |
| 458, CLIFTON ROAD | Dwelling | 58.4 | 64.2 | 58.6 | 0.2 | Negigigile Adverse | 61.7 | ${ }_{3} 3$ | Minor Adverse | 46.3 | 51.5 | 49.3 |
| 459, CLIFTON ROAD | Dwelling | 59.1 | 64.3 | 59.3 | ${ }_{0}^{0.2}$ | Negiligile Adverse | 62.1 | 3.0 3 | Minor Adverse | 46.9 | 51.6 | 49.6 |
| $\frac{460, ~ C L I F T O N R O A D ~}{461 . ~ C L F T O N ~}$ | Dwelling | 58.3 59.1 | ${ }_{64.1}^{64.1}$ | 㐌9.5 | 0.2 | Negigigib Adverse | ${ }_{6}^{62.6}$ | 3.3 3.0 | Minor Adverse | $\frac{46.2}{46.9}$ | 51.4 51.6 | 49.2. |
| 4422, ClIFTON ROAD | Dwelling | 58.3 | 64.1 | 58.5 | 0.2 | Negiligile Adverse | 61.6 | ${ }_{3} 3$ | Minor Adverse | 46.2 | 51.4 | 49.2 |
| 463, CLIFTON ROAD | Dwelling | 59.1 | 64.3 | 59.3 | 0.2 | Negigioble Adverse | 62.1 | 3.0 | Minor Adverse | 46.9 | 51.6 | 49.6 |
| 464, CLIFTON ROAD | Dwelling | 58.3 | 64.1 | 58.5 | 0.2 | Negigigibe Adverse | 61.6 | ${ }^{3.3}$ | Minor Adverse | 46.2 | 51.4 | 49.2 |
|  | Dwelling | 59.3 | ${ }_{64.1}^{64.3}$ | 59.3 | ${ }_{0}^{0.2}$ | Negligigibe Advverse | $\frac{62.1}{61.6}$ | ${ }_{3.3}^{3.0}$ | Minoror Adverse | 46.2 | 51.6 | 49.6 |
| 467, CLIFTON ROAD | Delling | 59.4 | 64.4 | 59.6 | 0.2 | Negigioble Adverse | 62.3 | 2.9 | Negiligibe Adverse | 47.2 | 51.7 | 49.8 |
| 468 , CLIFTON ROAD | Dwelling | 58.2 | 63.9 | 58.3 | 0.1 | Negligible Beneficial | 61.4 | 3.2 | Minor Adverse | 46.1 | 51.2 | 49.0 |
| $\frac{469 . \text { ClIFTON ROAD }}{470, \text { ClIFTON ROAD }}$ | Dwelling | 59.4 58.2 | 64.4 | 59.6 58.3 | 0.1 | Negigioble Adverse | $\frac{62.3}{61.4}$ | 2.9 3.2 | $\frac{\text { Negiligile Adverse }}{\text { Minor Adverse }}$ | $\frac{47.2}{46.1}$ | 年51.7 | 49.8 49.0 |
| 477, CLIFTON ROAD | Dwelling | 59.4 | 64.4 | 59.6 | 0.2 | Negigiole Adverse | 62.3 | 2.9 | Negligible Adverse | 47.2 | 51.7 | 49.8 |
| $\frac{472, \text { ClIFTON ROAD }}{473, \text { ClIFTON ROAD }}$ | Dwelling | 58.2 <br> 59.4 | 63.9 64.4 | 58.3 59.6 | ${ }_{0}^{0.1}$ | $\frac{\text { Negiligile Beneficial }}{\text { Nefigiole Adverse }}$ | 61.4 62.3 | 3.2 2.9 | Minor Adverse | 46.1 472 | 51.2 517 | 49.0 498 |
| 474, CLIFTON ROAD | Dwelling | 58.2 | 63.9 | 58.3 | 0.1 | Negligible Beneficial | 61.4 | 3.2 | Minor Adverse | 46.1 | 51.2 | 49.0 |
| 475, CLIFTON ROAD | welling | 56.1 | 59.5 | 56.1 | 0.0 | No Change | 58.1 | 2.0 | Negiligile Adverse | 44.2 | 47.3 | 46.0 |
| $\frac{476, \text { CLIFOTON RAAD }}{\text { 477 CIETON }}$ | Dweling | 58.1 56.1 | $\begin{array}{r}63.7 \\ 595 \\ \hline 9.5\end{array}$ | 58.2 | 0.1 | Negiligibie Adverse | 61.3 581 | ${ }^{3.2}$ | Minor Adverse | ${ }_{46.0}^{462}$ | 51.1 473 | 48.9 |
| 478, CLIFTON ROAD | Dwelling | 58.1 | 63.7 | 58.2 | 0.1 | Negigiole Adverse | 61.3 | 3.2 | Minor Adverse | 46.0 | 51.1 | 48.9 |
| $\frac{499, \text { CLIFTON ROAD }}{480, \text { ClFTON }}$ | Dweling | 56.1 | ${ }^{59.5}$ | $\begin{array}{r}56.1 \\ 58 . \\ \hline 8\end{array}$ | ${ }_{0}^{0.0}$ | No Change | 58.1 61. | ${ }_{32}^{2.0}$ | Negligiole Adverse | 44.2 | 47.3 511 | 46.0 |
| 481. ClIFTON ROAD | Welling | 56.1 | 59.5 | $\begin{array}{r}56.1 \\ \hline 5.1\end{array}$ | 0.0 | No Change | 58.1 | 2.0 | Negiligible Adverse | 44.2 | 47.3 | 46.0 |
| 482, CLIFTON ROAD | Deelling | 58.1 | 63.7 | 58.2 | 0.1 | Negligible Adverse | 61.3 | 3.2 | Minor Adverse | 46.0 | 51.1 | 48.9 |
| $\frac{\text { 483, CLIFTON ROAD }}{\text { 48, ClIFTON }}$ | Dwelling | 54.9 58.0 | ${ }^{57.4} 6$ | 55.0 | ${ }_{0}^{0.1}$ | Negligibl Adverse Nefigiole Adverse | 56.5 61.1 | ${ }_{3.1}^{1.6}$ | Negiligile Adverse | ${ }_{45.9}^{43.1}$ | 45.4 50.9 | ${ }_{48.6}^{48.7}$ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | Dм33 <br> Lnight,outside | $\begin{gathered} \text { DS33 } \\ \text { Lnight,outside } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 485, CLIFTTON ROAD | Dwelling | 54.9 | 57.4 | 55.0 | 0.1 | Negigigile Adverse | 56.5 | 1.6 | Negligible Adverse | 43.1 | 45.4 | 44.6 |
| 486, CLIFTON ROAD | Dwelling | 58.0 54.9 | 63.5 57.4 | 58.1 55.0 | 0.1 | $\frac{\text { Negigigib Adverse }}{\text { Negigiole Adverse }}$ | 61.1 56.5 | 3.1 1.6 | Minor Adverse | $\frac{45.9}{43.1}$ | 50.9 45.4 | $\frac{48.7}{44.6}$ |
| 488, CLIFTON ROAD | Dwelling | 58.0 | 63.5 | 58.1 | 0.1 | Negigigile Adverse | 61.1 | ${ }_{3.1}$ | Minor Adverse | 45.9 | 50.9 | 48.7 |
| 489, CLIFTON ROAD | Dwelling | 54.9 | 57.4 | 55.0 | 0.1 | Negiligibe Adverse | 56.5 | 1.6 | Negigioile Adverse | 43.1 | 45.4 | 44.6 |
| 490, CLIFTTON ROAD | Dwelling | 58.0 | 63.5 | 58.1 | 0.1 | Negligible Adverse | 61.1 | 3.1 | Minor Adverse | 45.9 | 50.9 |  |
| 491, CLIFTON ROAD | Dwelling | 55.0 | 57.7 | 55.0 | 0.0 | No Change | 56.7 | 1.7 | Negligible Adverse | 43.2 | 45.7 | 44.8 |
| 492, CLIFTON ROAD | Dwelling | 57.9 | 63.5 | 58.0 | 0.1 | Negiligile Adverse | 61.0 | 3.1 | Minor Adverse | 45.8 | 50.9 | 48.6 |
| 493, CLIFTTON ROAD | Dwelling | 55.0 | 57.7 | 55.0 | 0.0 | No Change | 56.7 | ${ }_{1}^{1.7}$ | Negiligile Adverse | 43.2 | 45.7 | 44.8 |
| 494, CLIFTTON ROAD | Dwelling | 57.9 55.0 | 63.5 57.7 | 58.0 55.0 | 0.1 0.0 | Negeligible Adverse | 61.0 56.7 | 3.1 1.7 | Minor Adverse | 45.8 43 | 50.9 457 | 48.6 |
| 495, CLIFTTON ROAD | Dwelling | 55.0 57.9 | 57.7 63.5 | 55.0 58.0 | 0.0 0.1 | Nego Change | ${ }^{56.1}$ | 1.7 3.1 | Negigigle Adverse | ${ }_{45.8}^{43.2}$ | 45.7 | 44.8 48.6 |
| 497, CLIFTON ROAD | Dwelling | 55.0 | 57.7 | 55.0 | 0.0 | No Change | 65.7 | 1.7 | Negiligile Adverse | 43.2 | 45.7 | 44.8 |
| 498, CLIFTON ROAD | Dwelling | 57.9 | 63.5 | 58.0 | 0.1 | Negiligile Adverse | 61.0 | 3.1 | Minor Adverse | 45.8 | 50.9 | 48.6 |
| 499, CLIFTTON ROAD | Dwelling | 54.0 5.0 | 56.6 | 54.0 | 0.0 | No Change | 55.7 | 1.7 | Negiligile Adverse | ${ }_{42.3}^{42.3}$ | 44.7 51.1 | 43.9 |
| ${ }^{\text {500, CLIFTON ROAD }}$ | Dwelling | 58.3 54.0 | 63.7 56.6 | 58.3 54.0 | 0.0 0.0 | $\frac{\text { No Change }}{\text { No Change }}$ | 61.3 55.7 | 3.0 1.7 | Mesigor Adverse Adverse | ${ }_{42.3}^{46.2}$ | 51.1 44.7 | 48.9 43.9 |
| 502, CLIFTON ROAD | Dwelling | 58.3 | 63.7 | 58.3 | 0.0 | No Change | 61.3 | 3.0 | Minor Adverse | 46.2 | 51.1 | 48.9 |
| 503, CLIFTON ROAD | Dwelling | 54.0 | 56.6 | 54.0 | 0.0 | No Change | 55.7 | 1.7 | Negligible Adverse | 42.3 | 44.7 | 43.9 |
| 504, CLIFTON ROAD | Deelling | 58.3 | 63.7 | 58.3 | 0.0 | No Change | 61.3 | 3.0 | Minor Adverse | 46.2 | 51.1 | 48.9 |
| 505. CLIFTON ROAD | Dwelling | 54.0 | 56.6 | 54.0 | 0.0 | No Change | 55.7 | 1.7 | Negligiole Adverse | 42.3 | 44.7 | 43.9 |
| 506, CLIFTON ROAD | Dwelling | 58.3 56.0 | 63.7 59.5 | 58.3 56.0 | 0.0 0.0 | $\frac{\text { No Change }}{\text { No Change }}$ | 61.3 58.0 | 3.0 2.0 | $\xrightarrow{\text { Minor Adverse }}$ Negligible Adverse | $\stackrel{46.2}{44.1}$ | ${ }_{47.3}^{51.1}$ | 45.9 |
| 508, CLIFTON ROAD | Dwelling | 58.6 | 64.0 | 58.6 | 0.0 | No Change | 61.5 | 2.9 | Negiligible Adverse | 46.5 | 51.3 | 49.1 |
| 509, CLIFTON ROAD | Dwelling | 56.0 | 59.5 | 56.0 | 0.0 | No Change | 58.0 | 2.0 | Negiligible Adverse | 44.1 | 47.3 | 45.9 |
| 510, CLIFTON ROAD | Dwelling | 58.6 | 64.0 | 58.6 | 0.0 | No Change | 61.5 | 2.9 | Negiligible Adverse | 46.5 | 51.3 | 49.1 |
| 511, CLIFTON ROAD | Deelling | 56.0 | 59.5 | 56.0 | 0.0 | No Change | 58.0 | 2.0 | Negigioble Adverse | 44.1 | 47.3 | 45.9 |
| 512, CLIFTTON ROAD | $\frac{\text { Dwelling }}{\text { Dweling }}$ | 58.6 56.0 | ${ }_{69.5}^{64.0}$ | 58.6 | 0.0 0.0 | ${ }^{\text {No Co Change }}$ | ${ }^{68.0}$ | 2.9 2.0 | Negligigible Advverse | ${ }^{46.5} 44.1$ | 51.3 47.3 | 45.9 |
| 514, CLIFTON ROAD | Dwelling | 58.6 | 64.0 | 58.6 | 0.0 | No Change | 61.5 | 2.9 | Negligible Adverse | 46.5 | 51.3 | 49.1 |
| 515, CLIFTON ROAD | Dwelling | 59.3 | 64.3 | 59.3 | 0.0 | No Change | 61.9 | 2.6 | Negigigile Adverse | 47.1 | 51.6 | 49.4 |
| -516, CLIFTON ROAD | Dwelling | 58.8 59.3 | $\frac{64.2}{64.3}$ | 58.7 59.3 | -0.1 | $\frac{\text { Negligible Benentical }}{\text { No Change }}$ | $\frac{61.6}{61.9}$ | $\frac{2.8}{2.6}$ | $\frac{\text { Negigigio Adverse }}{\text { Negigible Adverse }}$ | 46.7 47.1 | 51.5 51.6 | $\frac{49.2}{494}$ |
| 518, CLIFTON ROAD | Dwelling | 55.8 | 64.2 | 58.7 | -0.1 | Negligible eeneficial | 61.6 | 2.8 | Negigigible Adverse | 46.7 | 51.5 | 49.2 |
| 519, CLIFTON ROAD | Dwelling | 59.3 | 64.3 | 59.3 | 0.0 | No Change | 61.9 | 2.6 | Negigigile Adverse | 47.1 | 51.6 | 49.4 |
| 520, CLIFTON ROAD | Dwelling | 58.8 | 64.2 | 58.7 | -0.1 | Negligible Beneficial | 61.6 | 2.8 | Negigioble Adverse | 46.7 | 51.5 | 49.2 |
| 5 521, CLIFTON ROAD | Dwelling | 59.3 | ${ }_{64.3}^{64}$ | 59.3 | 0.0 | No Change | 61.9 | 2.6 | Negigigile Adverse | 47.1 | 51.6 | 49.4 |
| 523, CLIFTON ROAD | Dwelling | 60.1 | 64.5 | 60.1 | 0.0 | No Change | 62.4 | ${ }_{2} 2.3$ | Negiligibe Adverse | 47.8 | 51.8 | 49.9 |
| 525, CLIFTON ROAD | Deeling | 60.1 | 64.5 | 60.1 | 0.0 | No Change | 62.4 | 2.3 | Negigioble Adverse | 47.8 | 51.8 | 49.9 |
| ${ }^{\text {527, CLIFTON ROAD }}$ | Dwelling | 60.1 | 64.5 | 60.1 | 0.0 | No Change |  |  | Negiligio Adverse | 47.8 | 51.8 | 49.9 |
| 532, CLIFTON ROAD |  |  | ${ }_{64.5}^{638}$ |  |  |  | 62.4 |  | Negligio Adverse |  |  |  |
| 533. CLIFTON ROAD | Dwelling | 60.1 | 63.8 | 59.9 | -0.2 | Negligible Benenificial | 61.4 | 13 | Negaligiole Adverse | 478 | 51.2 | 4.0 |
| 535, CLIFTTON ROAD | Delling | 60.1 | 63.8 | 59.9 | -0.2 | Negligible Beneficical | 61.4 | 1.3 | Negigioble Adverse | 47.8 | 51.2 | 49.0 |
| 537, CLIFTON ROAD | Dwelling | 60.1 | 63.8 | 59.9 | -0.2 | Negligible Beneficial | 61.4 | 1.3 | Negigigible Adverse | 47.8 | 51.2 | 49.0 |
| ${ }^{\text {539, CLIFTON ROAD }}$ | Dweling | 60.1 58.8 | ${ }_{63.9}^{63.9}$ | 59.0 | -0.4 | Negligible Beneficial | 61.2 | 1.1 | Negiligile Adverse | ${ }_{47}^{47.8}$ | 51.2 | 48.8 |
| 541, CLIFTON ROAD | Dwelling | 60.1 | 63.9 | 59.7 | -0.4 | Negligible Benenicicial | 61.2 | 1.1 | Neoligioble Adverse | 47.8 | 51.2 | 48.8 |
| 542, CLIFTON ROAD | Dwelling | 58.8 | 63.6 | 58.0 | -0.8 | Negligible Beneficial | 59.8 | 1.0 | Negigioble Adverse | 46.7 | 51.0 | 47.6 |
| 543, CLIFTON ROAD | Dwelling | 60.1 | 63.9 | 59.7 | -0.4 | Negligible Beneficial | 61.2 598 | 1.1 | Negligiole Adverse | 47.8 | $\frac{51.2}{51 .}$ | 48.8 |
| 544, CLIFTON ROAD | Dwelling | 58.8 60.1 | 63.6 63.9 | 58.0 59.7 | -0.8 -0.4 | $\frac{\text { Negligible Beneficial }}{\text { Negligibl }}$ Beneficial | 59.8 61.2 | 1.0 1.1 | $\frac{\text { Negigigile Adverse }}{\text { Negigiole Adverse }}$ | ${ }_{46.7}^{46.7}$ | - ${ }_{\text {S1.0 }}^{51.2}$ | 47.6 48.8 |
| 546, CLIFTON ROAD | Dwelling | 58.8 | 63.6 | 58.0 | -0.8 | Negligible Beneficial | 59.8 | 1.0 | Neogigigile Adverse | 46.7 | 51.0 | 47.6 |
| 547, CLIFTON ROAD | Dwelling | 57.4 | 59.3 | 57.1 | -0.3 | Negligible Beneficial | 58.0 | 0.6 | Negigigile Adverse | 45.4 | 47.1 | 45.9 |
| [548, CLIFTON ROAD | Dwelling | 59.0 57.4 | 63.6 | 58.1 57.1 | -0.9 -0.3 | $\frac{\text { Negligible Beneticial }}{\text { Negligibl }}$ Beneficial | 59.9 58.0 | 0.9 0.6 | $\frac{\text { Negiligble Adverse }}{\text { Negilible Adverse }}$ | 46.8 45.4 | 51.0 47.1 | 47.6 |
| 550, Clifton RoAD | Dwelling | 59.0 | 63.6 | 58.1 | -0.9 | Negligible Beneficial | 59.9 | 0.9 | Negiligile Adverse | 46.8 | 51.0 | 47.6 |
| 551, CLIFTON ROAD | $\frac{\text { Dwelling }}{\text { Dweling }}$ | 57.4 59.0 | 59.3 63.6 | 57.1 58.1 | -0.3 -0.9 | $\frac{\text { Negliaible Beneficial }}{\text { Negligible }}$ | 58.0 59.9 | 0.6 0.9 | Negligibe Adverse | 45.4 468 | $\frac{47.1}{510}$ | 45.9 476 |
| 553, CLIFTON ROAD | Dwelling | 57.4 | 59.3 | 57.1 | -0.3 | Negligible Beneficial | 58.0 | 0.6 | Negligible Adverse | 45.4 | 47.1 | 45.9 |
|  | Dwelling | 59.0 | 63.6 | 58.1 | -0.9 | Negligible Beneficial | 59.9 | 0.9 | Negligible Adverse | 46.8 | 51.0 | 47.6 |
| 555. CLIFTON ROAD | Dwelling | 56.7 | 58.4 | 56.3 | -0.4 | Negligible Beneficial | 57.2 | 0.5 | Negigioble Adverse | 44.8 | 46.3 | 45.2 |
| 555, CLIFTON ROAD | $\frac{\text { Dwelilig }}{\text { Weding }}$ | 59.7 | 64.0 | 58.8 56.3 | -0.9 | Negiligiole Beneiticial | 60.4 57.2 | ${ }_{0}^{0.5}$ | Negigible Adverse | ${ }_{4}^{47.5}$ | 51.3 46.3 | $\stackrel{48.1}{45.2}$ |
| 558, CLIFTON ROAD | Dwelling | 59.7 | 64.0 | 55.8 | -0.9 | Negligible Beneficial | 60.4 | 0.7 | Negigioble Adverse | 47.5 | 51.3 | 48.1 |
| 559, CLIFTON ROAD | Dwelling | 56.7 | 58.4 | 56.3 | -0.4 | Negligible Beneficial | 57.2 | 0.5 | Negligible Adverse | 44.8 | 46.3 | 45.2 |
| 560, CLIFTON ROAD | Dwelling | 59.7 | 64.0 | 58.8 | -0.9 | Negligible Beneficicial | 60.4 | 0.7 | Negigioble Adverse | 47.5 | 51.3 | 48.1 |
| 561, CLIFTON ROAD | Dweling | ${ }^{56.7}$ | 58.4 | 㐌56.3 | -0.4 | $\frac{\text { Negligible Beneficial }}{\text { Negligibl }}$ Beneficial | 57.2 60.4 | 0.5 0.7 | $\frac{\text { Negigigio Adverse }}{\text { Negigiole Adverse }}$ | 44.8 47.5 | -46.3 | 45.2 48.1 |
| 563 , CLIFTON ROAD | Dwelling | 56.1 | 58.1 | 55.5 | -0.6 | Negligible Beneficial | 56.5 | 0.4 | Negligiole Adverse | 44.2 | 46.0 | 44.6 |
| 564, CLIFTON ROAD | Dwelling | 60.0 | 64.2 | 58.8 | -1.2 | Minor Beneficial | 60.5 | 0.5 | Negigigible Adverse | 47.7 | 51.5 | 48.2 |
| 565, CLIFTON ROAD | Dwelling | 56.1 60.0 | 58.1 64.2 | 55.5 <br> 58.8 | -0.6 | Negligible Beneficial | 56.5 60.5 | 0.4 | $\frac{\text { Negigigile Adverse }}{\text { Negioiole }}$ Adverse | $\frac{44.2}{477}$ | 46.0 515 | ${ }_{44.6}^{482}$ |
| 567 , CLIFTON ROAD | Dwelling | 56.1 | 58.1 | 55.5 | -0.6 | Negligible Beneficial | 56.5 | 0.4 | Negigigile Adverse | 44.2 | 46.0 | 44.6 |
| 568, CLIFTON ROAD | Dwelling | 60.0 | 64.2 | 58.8 | -1.2 | Minor Beneficial | 60.5 | 0.5 | Negigigile Adverse | 47.7 | 51.5 | 48.2 |
| 569, CLIFTON ROAD | Dwelling | 56.1 60.0 | $\begin{array}{r}58.1 \\ 64 . \\ \hline\end{array}$ | 55.5 58.8 | -0.6 | Negligible Beneficical | 56.5 | 0.4 | Negiligile Adverse | ${ }_{44.2}^{47}$ | 46.0 | 44.6 |
| 571, CLIFTON ROAD | Dwelling | 55.8 | ${ }_{57.7}$ | 55.1 | -0.7 | Negligible Beneficicial | 56.2 | 0.4 | Neoligioble Adverse | 44.0 | 45.7 | 44.3 |
| 572, CLIFTON ROAD | Dwelling | 60.6 | 64.6 | 59.3 | -1.3 | Minor Beneficial | 61.0 | 0.4 | Negligible Adverse | 48.3 | 51.9 | 48.6 |
| -573, CLIFTON ROAD | Dweling | 55.8 60.6 | 57.7 64.6 | 55.1 59.3 | -0.7 | Negiligio Benenicial | 56.2 61.0 | 0.4 0.4 | Negigiole Adverse | ${ }_{48.3}^{44.0}$ | 451.7 | $\stackrel{44.3}{48.6}$ |
| 575, CLIFTON ROAD | Dwelling | 55.8 | 67.7 | 55.1 | -0.7 | Negligible Beneficicial | 56.2 | 0.4 | Negigigile Adverse | 44.0 | 45.7 | 44.3 |

A90/A96 Haudagain Improvement

## DMRB Stage 3 Environmental Statement

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 <br> Lnight,outside | DS33 <br> Lnight,outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 576, CLIFTON ROAD | Dwelling | 60.6 | 64.6 | 59.3 | ${ }_{-1.3}$ | Minor Beneficial | 61.0 | 0.4 | Negiligibe Adverse | 48.3 | 51.9 | 48.6 |
| 577, CLIFTON ROAD | $\frac{\text { Dwelling }}{\text { Owelling }}$ | 55.8 60.6 | 57.7 64.6 | 55.1 59.3 | ${ }_{-0.7}^{-1.3}$ | $\frac{\text { Negliable Beneficial }}{\text { Minor Beneficial }}$ | $\frac{56.2}{61.0}$ | 0.4 0.4 | $\frac{\text { Negligible Adverse }}{\text { Negigible Adverse }}$ | $\frac{44.0}{48.3}$ | 45.7 51.9 | ${ }_{48.6}^{44.6}$ |
| 579, CLIFTON ROAD | Dwelling | ${ }_{55.5}$ | ${ }_{58.7}$ | 55.2 | ${ }_{-0.3}$ | Negligibile Beneneficial | 56.3 | 0.8 | Negligigile Adverse | 43.7 | 46.6 | 44.4 |
| 5880, CLIFTON ROAD | Dwelling | 61.5 | 65.1 | 59.9 | -1.6 | Minor Beneficial | 61.5 | 0.0 | No Change | 49.1 | 52.3 | 49.1 |
| 581, CLIFTON ROAD | Dwelling | 55.5 | 58.7 | 55.2 | -0.3 | Negligible Beneficial | 56.3 | 0.8 | Negiligile Adverse | 43.7 | 46.6 | 44.4 |
| 582, CLIFTON ROAD | Dwelling | 61.5 | 65.1 | 59.9 | -1.6 | Minor Beneficial | 61.5 | 0.0 | No Change | 49.1 | 52.3 | 49.1 |
| 583, CLIFTON ROAD | Dwelling | 55.5 | 58.7 | 55.2 | -0.3 | Negligible Beneficial | 56.3 | 0.8 | Negligible Advers | 43.7 | 46.6 | 44.4 |
| 584, CLIFTON ROAD | Dwelling | 61.5 <br> 655 <br> 5 | 65.1 587 | 59.9 55 55 | -1.6 | Minor Beneficial | 61.5 5.5 | 0.0 0.8 | No Change | 49.1 437 | 52.3 46.6 | 49.1 44.4 |
| ${ }^{\text {585, CLIFTON ROAD }}$ | Dwelling | 55.5 61.5 | 58.7 65.1 | 55.2 59.9 | - $\begin{aligned} & -.3 \\ & -1.6\end{aligned}$ | $\frac{\text { Negligible Beneficial }}{\text { Minor Beneficial }}$ | 56.3 | 0.8 0.0 | Negeligibe Adverse | 43.7 49.1 | - 46.6 | 44.4 49.1 |
| 587, ClIFTON ROAD | Dwelling | 60.4 | 64.5 | 59.4 | -1.0 | Minor Beneficial | 61.0 | 0.6 | Negligible Advers | 48.1 | 51.8 | 48.6 |
| 588 , CLIFTON ROAD | Dwelling | 63.2 | 66.1 | 61.2 | -2.0 | Minor Beneficial | 62.9 | 0.3 | Negligible Beneficial | 50.6 |  | 50.3 |
| 5899. CLIFTON ROAD |  | 60.4 | 64.5 | 59.4 | -1.0 | Minor Beneficial | 61.0 | 0.6 | Negligible Adverse | 48.1 | 51.8 | 48.6 |
| 590, CLIFTON ROAD | Dwelling | 63.2 | 66.1 | 61.2 | 2.0 | Minor Beneficial | 62.9 | -0.3 | Negligible Beneficial | 50.6 | 53.2 | 50.3 |
|  | Deelling | 60.4 | 64.5 | 59.4 | -1.0 | Minor Beneficial | 61.0 | 0.6 | Negigioble Adverse | 48.1 | 51.8 | 48.6 |
| 592, CLIFTON ROAD | welling | 63.2 | 66.1 | 61.2 | .2.0 | Minor Beneficial | 62.9 | ${ }^{0.3}$ | Negligible Beneficial | 50.6 |  | 50.3 |
| 593, CLIFTONROAD | weling | ${ }^{60.4}$ | 64.5 | 59.4 | -1.0 | Minor Beneiticial | 61.0 | 0.6 | Negiligibi Adverse | ${ }^{48.1}$ | $\begin{array}{r}51.8 \\ 53 \\ \hline\end{array}$ | 48.6 50.3 |
| 594, CLIFTONROAD | weling | 63.2 | 66.1 | 61.2 | -2.0 | Minor Beneitical | 62.9 | -0.3 | Negligible Beneitical | 50.6 | 53.2 | 50.3 |
| 595. CLIFTON ROAD | Deeling | 61.2 | 65.0 | 59.9 | -1.3 | Minor Benenicical | 61.4 | 0.2 | Negiligibe Adverse | 48.8 | 52.2 | 49.0 |
| ${ }^{\text {596, CLIFONROAD }}$ | Dweling | ${ }_{64.9}^{61.2}$ | 67.4 65.0 | 62.9 | -2.7 -1.3 | Minor Beneneficicial | 63.7 61.4 | -1.2 | Negoligiole Beneitical | 52.1 48.8 | 年5.4. | 51.1 49.0 |
| 5998, CLIFTON ROAD | Owelling | 64.9 | 67.4 | 62.2 | -2.7 | Minor Beneficial | 63.7 | -1.2 | Negligible Beneficioil | 52.1 | 54.4 | 41.1 |
| 599, CLIFTON ROAD | welling | 61.2 | 65.0 | 59.9 | -1.3 | Minor Beneficial | 61.4 | 0.2 | Negligible Adverse | 48.8 | 52.2 | 49.0 |
| $\frac{\text { 600, CLIFTON ROAD }}{\text { 601, CLIFTON ROAD }}$ | Dwelling | 64.9 | 67.4 65.0 | 62.2 59.9 | -2.7 -1.3 | $\xrightarrow[\text { Minor Beneficicial }]{\text { Minor Beneicial }}$ | 63.7 61.4 | -1.2 | $\frac{\text { Negligible Beneficial }}{\text { Nefiliolie Adverse }}$ | 52.1 48.8 | 54.4 | 51.1 49.0 |
| 602, CLIFTON ROAD | Dwelling | 64.9 | 67.4 | 62.2 | -2.7 | Minor Beneficial | 63.7 | -1.2 | Negligible Beneficial | 52.1 | 54.4 | 51.1 |
| ${ }^{\text {603, CLIFTON ROAD }}$ | Dwelling | 62.3 62.3 | 65.6 65.6 | 60.7 60.7 | -1.6 -1.6 | $\frac{\text { Minor Beneficical }}{\text { Minor Beneficial }}$ | 62.1 62.1 | -0.2 -0.2 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ | 49.8 49.8 | 52.8 <br> 52.8 | 49.6 49.6 |
| 607, CLIFTON ROAD | Dwelling | 62.3 | 65.6 | 60.7 | -1.6 | Minor Beneficial | 62.1 | -0.2 | Negligible Beneficioal | 49.8 | 52.8 | 49.6 |
| $\frac{\text { 609, CLIFTON ROAD }}{633, \text { ClIFTON ROAD }}$ | Dwelling | 62.3 <br> 558 <br> 58 | 65.6 577 | 60.7 551 | -1.6 | Minor Beneficial | 62.1 56.2 | -0.2 | Negligible Beneficial | 49.8 | 52.8 | 49.6 |
| 96, CLIFTON ROAD | Dwelling |  | 68.8 |  | 0.4 | Negiligible Adverse |  |  | Negiligiole Adverse |  |  |  |
| 98, CLIFTON ROAD | Dwelling | 66.8 | 68.8 | 67.2 | 0.4 | Negigigile Adverse | 68.6 | 1.8 | Negigiolile Adverse | 53.9 | 55.7 | 55.5 |
| WOODSIDE BURGH HALL, WOODSIDE BURGH HALL, 360, CLIFTON ROAD | Public / Village Hall / Other Community Facility | 50.6 | 54.2 | 51.0 | 0.4 | Negigigile Adverse | 54.0 | 3.4 | Minor Adverse | 39.3 | 42.5 | 42.3 |
| WOODSIDE BURGH HALL STORE, CLIFTON ROAD | Hall Store | 50.6 | 54.2 | 51.0 | 0.4 | Negigigile Adverse | 54.0 | 3.4 | Minor Adverse | 39.3 | 42.5 | 42.3 |
|  | Primary School |  |  | 62.2 |  | Negiligile Adverse |  |  | Minor Adverse | 49.2 |  | 53.0 |
| 611, CLIFTON ROAD | Dwelling | 69.2 | 70.5 | 65.8 | ${ }^{-3.4}$ | Moderate Beneficial | 67.6 | -1.6 | Negligible Beneficial | 56.0 | 57.2 | 54.6 |
| 627, CLIFTON ROAD | Dwelling | 72.9 | 74.1 | 69.3 | -3.6 | Moderate Beneficial | 71.0 | 1.9 | Negligible Beneficial | 59.3 | 60.4 | 57.6 |
| 619, CLIFTON ROAD | welling | 72.0 | 73.2 | 68.5 | ${ }^{3.5}$ | Moderate Beneficial | 70.2 | -1.8 | Negligible Beneficial | 58.5 | 59.6 | 56.9 |
| CLUNY, CLUNY COTTAGE, LAUREL LANE, BRIDGE OF DON | Owelling | 59.5 | 59.4 | 59.4 | -0.1 | Negligible Beneficial | 60.1 | 0.6 | Negligible Adverse | 47.3 | 47.2 | 47.8 |
| COACH HOUSE COTTAGE, COACH HOUSE COTTAGE, MUGIEMOSS ROAD | Deelling | 54.6 | 54.6 | 54.5 | -0.1 | Negligible Beneficial | 55.1 | 0.5 | Negligible Adverse | 42.9 | 42.9 | 43.3 |
| 1, COOPER LANE | Dwelling | 46.8 | 47.5 | 46.8 | 0.0 | No Change | 47.5 | 0.7 | Negigigible Adverse | 35.9 | 36.5 | 36.5 |
| 11, COOPER LANE | ${ }^{\text {Dweling }}$ | 49.4 494 | 52.5 525 | 49.4 49.4 | ${ }_{0}^{0.0}$ | $\frac{\text { No Change }}{\text { No Change }}$ | 51.9 51.9 | 2.5 2.5 | Negigiole Adverse | 38.2 38.2 | 41.0 41.0 | 40.4 |
| 17, COOPER LANE | Owelling | 49.4 | 52.5 | 49.4 | 0.0 | No Change | 51.9 | 2.5 | Negigigibe Adverse | 38.2 | 41.0 | 40.4 |
| 19, COOPER LANE | Dwelling | 49.4 | 52.5 | 49.4 | 0.0 | No Change | 51.9 | 2.5 | Negligible Adverse | 38.2 | 41.0 | 40.4 |
| 2, COOPER LANE | Dwelling | 46.4 | 47.2 | 46.4 | 0.0 | No Change | 47.1 | 0.7 | Negiligile Adverse | 35.5 | 36.2 | 6.1 |
| 21, COOPER LANE | Dwelling | 49.4 | 52.5 | 49.4 | 0.0 | No Change | 51.9 | 2.5 | Negigioibe Adverse | 38.2 | 41.0 | 40.4 |
| 23, COOPERR LANE |  | 49.4 |  |  |  | No Change |  |  | Negigigibe Adverse | 38.2 | 41.0 | 40.4 |
| 25, COOPER LANE | welling | 49.4 | 52.5 | 49.4 | 0.0 | No Change | 51.9 | 2.5 | Negigigle Adverse | 8.2 | 41.0 | 40.4 |
| 27,COOPEALANE | oweing | 49.4 | ${ }^{52.5}$ | 49.4 | 0.0 | No Canange | 51.9 | ${ }^{2.5}$ | Negigigile Adverse | 30.2 | 41.0 | . 4 |
| 29, COOPERLANE | Oweling | 49.4 | 52.5 475 | 49.4 | 0.0 | No Change | 51.9 475 | ${ }^{2.5}$ | Negligio Adverse | ${ }_{3}^{38.2}$ | 41.0 | 40.4 |
| 31, COOPER LANE | Dwelling | 49.4 | 52.5 | 49.4 | 0.0 | No Change | 51.9 | 2.5 | Negiligile Adverse | 38.2 | 41.0 | 40.4 |
| 33, COOPER LANE | Dwelling | 49.4 | 52.5 | 49.4 | 0.0 | No Change | 51.9 | 2.5 | Negiligile Adverse | 38.2 | 41.0 | 40.4 |
| 35, COOPER LANE | ${ }^{\text {Owelling }}$ | 49.4 | ${ }^{52.5}$ | 49.4 | 0.0 | No Change | 47.1 | ${ }_{0}^{2.5}$ | Negigigible Adverse | ${ }_{35.5}$ | ${ }^{46.2}$ | 40.4 |
| 5, COOPER LANE | Deelling | 46.8 | 47.5 | 46.8 | 0.0 | No Change | 47.5 | 0.7 | Negiligile Adverse | 35.9 | 36.5 | 36.5 |
| 6, COOPERLANE | Dwelling | 46.4 | 47.2 | 46.4 | 0.0 | No Change | 47.1 | 0.7 | Negigibile Adverse | 35.5 | 36.2 | 36.1 |
| 7, COOPERLANE | Deelling | 49.4 | 52.5 | 49.4 | 0.0 | No Change | 51.9 | 2.5 | Negigigile Adverse | 38.2 | 41.0 | ${ }^{40.4}$ |
| 9, COOPER LANE | Dwelling | 49.4 46.1 | 52.5 47.0 | 49.4 46.0 | 0.0 .0 .1 | ${ }_{\text {Negligible }}$ Nengeficicial | 51.9 46.8 | ${ }_{0}^{2.5}$ | Negligile Adverse | 38.2 35.2 | $\stackrel{41.0}{36.0}$ | 40.4 35.9 |
| 103, CORDINER AVENUE | Dwelling | 46.1 | 47.0 | 46.0 | -0.1 | Negligible Beneficial | 46.8 | 0.7 | Negigigile Adverse | 35.2 | 36.0 | 35.9 |
| 105, CORDINER AVENUE | Dwelling | 46.1 | 47.0 | 46.0 | -0.1 | Negligible Beneficial | 46.8 | 0.7 | Negigibile Adverse | 35.2 | 36.0 | 35.9 |
| 107, CORDINER AVENUE | Dwelling | 46.1 | 47.0 | 46.0 | -0.1 | Negligible Beneficial | 46.8 | 0.7 | Negigigile Adverse | 35.2 | 36.0 | 35.9 |
| 109, CORDINER AVENUE | Dwelling | 46.1 46.4 | $\stackrel{47.0}{47.1}$ | 46.0 46.4 | -0.1 0.0 | $\frac{\text { Negligible Beneficial }}{\text { No Change }}$ | 46.8 47.1 | 0.7 | $\frac{\text { Negigigile Adverse }}{\text { Nefligible Adverse }}$ | 35.2 35.5 | 36.0 36.1 | 35.9 36.1 |
| 42, CORDINER AVENUE | Dwelling | 46.4 | 47.1 | 46.4 | 0.0 | No Change | 47.1 | 0.7 | Negligible Adverse | 5.5 | 5.1 | 6.1 |
| 44, CORDINER AVENUE | Dwelling | 46.4 | 47.1 | 46.4 | 0.0 | No Change | 47.1 | 0.7 | Negigible Adverse | 35.5 | 36.1 | 36.1 |
| 46, CoRDINER AVENUE | Dweling | 46.4 | 47.1 | 46.4 | 0.0 | No Change | 47.1 | 0.7 | Negigigile Adverse | 35.5 | 36.1 | 36.1 |
| 48, CORDINER AVENUE | Dweling | 46.4 | 47.1 | 46.4 | 0.0 | No Change | 47.1 | 0.7 | Negigigile Adverse | 35.5 <br> 35 | 36.1 | 36.1 |
| 50, Corbiner avenve | Dwelling | 46.4 46 | ${ }_{47.0}^{47.1}$ | 46.4 | -0.1 | Negligibile Eeneneficial | $\stackrel{47.1}{46.8}$ | ${ }_{0}^{0.7}$ | Negigigie Adverse | 35.5 35.2 | 36.1 36.0 | ${ }_{35.9}^{36.1}$ |
| 81, CORDINER AVENUE | Dwelling | 46.1 | 47.0 | 46.0 | -0.1 | Negligible Benenitial | 46.8 | 0.7 | Negigible Adverse | 35.2 | 36.0 | 35.9 |
| 83, CORDINER AVENUE | Oweling | 46.1 | 47.0 | 46.0 | ${ }^{-0.1}$ | Negligible Beneficial | 46.8 | 0.7 | Negligile Adverse | $\begin{array}{r}35.2 \\ \text { 35 } \\ \hline\end{array}$ | 36.0 3.0 | 35.9 359 |
| 85, Cordine Avenve | Dwelling | ${ }_{46.1}^{46.1}$ | 47.0 | 46.0 | -0.1 -0.1 | Negligile Beneitical | ${ }_{46.8}^{46.8}$ | 0.7 | Negigiole Adverse | 35.2 35.2 | 36.0 36.0 | 35.9 35.9 |
| $\frac{\text { 89, CORDINER AVENUE }}{\text { 91 CORDINER AVENUE }}$ | Dweling | $\frac{46.1}{461}$ | 47.0 470 | $\stackrel{46.0}{460}$ | ${ }^{-0.1}$ | Negligible Beneficial | $\stackrel{46.8}{468}$ | ${ }_{0}^{0.7}$ | Negligile Adverse | $\xrightarrow{35.2}$ | 36.0 360 | 35.9 359 |
|  |  |  |  |  |  | Negigigile Beneficial |  |  |  |  |  |  |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 <br> Lnight,outside | DS33 Lnight,outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 93, CORDINER AVENUE | Deeling | 46.1 | 47.0 | 46.0 | ${ }^{-0.1}$ | Negligible Beneficical | 46.8 | 0.7 | Negigigle Adverse | 35.2 | 36.0 | 35.9 |
| 95, CORDINER AVENUE | $\frac{\text { Dwelling }}{\text { Owelling }}$ | $\frac{46.1}{46.1}$ | 47.0 47.0 | $\frac{46.0}{46.0}$ | -0.1 -0.1 | Negligible Beneficial | 46.8 468 | 0.7 | Negiligile Adverse | 35.2 <br> 352 <br> 3 | 36.0 360 | 35.9 359 |
| 97, CoRDINER AVENUE | Dweling | $\frac{46.1}{46.1}$ | 47.0 47.0 | 46.0 46.0 | -0.1 -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negligibl }}$ Beneficial | 46.8.8 | 0.7 0.7 | $\frac{\text { Negigigile Adverse }}{\text { Negligible Adverse }}$ | 35.2 35.2 | 36.0 36.0 | 35.9 35.9 |
| 1, CORDINER PLACE | Dwelling | ${ }^{44.1}$ | 45.0 | 44.0 | -0.1 | Negegioible Beneficioil | 44.9 | 0.8 | Negigigible Adverse | ${ }^{33.4}$ | 34.2 | ${ }^{34.1}$ |
| 10, CORDINER PLACE | Dwelling | 46.3 | 47.3 | 46.2 | -0.1 | Negligible Beneficical | 47.2 | 0.9 | Negigigile Adverse | 35.4 | 36.3 | 36.2 |
| 11, CORDINER PLACE | Deelling | 44.1 | 45.0 | 44.0 | -0.1 | Negligible Beneficial | 44.9 | 0.8 | Negiligibe Adverse | 33.4 | 34.2 | 34.1 |
| 12, CORDINER PLACE | Deelling | 46.3 | 47.3 444 | $\frac{46.2}{432}$ | -0.1 | Negiligiole Beneficial | $\frac{47.2}{472}$ | 0.9 | Negiligibe Adverse | 35.4 | ${ }^{36,3}$ | $\begin{array}{r}36.2 \\ 335 \\ \hline\end{array}$ |
| 14, CORDINER PLACE | Dwelling | 46.3 | ${ }_{47.3}^{44.4}$ | 46.2 | -0.1 | Negiligiole Beneneificial | ${ }_{47.2}^{4}$ | 0.9 | Negigioble Adversse | ${ }_{35.4}$ | ${ }_{36.3}$ | ${ }^{33.5}$ |
| 15, CORDINER PLACE | Dwelling | 44.1 | 45.0 | 44.0 | -0.1 | Negligible Beneficial | 44.9 | 0.8 | Negigiolie Adverse | 33.4 | 34.2 | 34.1 |
| 16, CORDINER PLACE | welling | 46.3 | 47.3 | 46.2 | -0.1 | Negligible Beneficial | 47.2 | 0.9 | Negigiolie Adverse | 35.4 | 36.3 | 36.2 |
| 17, CORDINER PLACE | welling | 44.1 | 45.0 | 44.0 | -0.1 | Negligible Beneficial | 44.9 | 0.8 | Negigioble Adverse | 33.4 | 34.2 | 34.1 |
| 18, CORDINER PLACE | Deelling | 46.3 | 47.3 | 46.2 | 0.1 | Negligible Beneficical | 47.2 | 0.9 | Negigioble Adverse | 35.4 | 36.3 | 36.2 |
| 19, CORDINER PLACE | Deelling | 44.1 | 45.0 | 44.0 | 0.1 | Negligible Beneficial | 44.9 | 0.8 | Negiligibe Adverse | 3.4 | 34.2 | 4.1 |
| 2, COROINER PLACE | Deelling | 46.3 | 47.3 | 46.2 | 0.1 | Negligible Beneniticial | 47.2 | 0.9 | Negiligibe Adverse |  | 36.3 | 36.2 |
| 20, CORDINER PLACE | Oweling | 46.3 | 47.3 | 46.2 | -0.1 | Negiligiole Beneilical | 47.2 | 0.9 | Negiligibe Aaverse | 35.4 | 3.3 | 3.2 |
|  |  | 44.1 |  | 44.0 |  | Negligible Beneitical | 44.9 |  |  |  |  |  |
| 22, COROINEAPLACE | Oweling | 40.3 | 47. | 40.2 | -0. 1 | Negligibe Benentical | 44.2 | 0.9 | Negigigbe Adverse | 35.4 | 6.3 | 36.2 |
| 23, CORDIINER PLACE | Dweling | 44.1 | 45.0 | 44.0 | -0.1 | Negiligibe Beneificial | 44.9 | 0.8 | Negiligibe Adverse | 33.4 | 34.2 | 34.1 |
| 24, CORDIINER PLACE | weling | 46.3 | 47.3 | 46.2 | -0.1 | Negiligile Benenitical | 47.2 | 0.9 | Negiligiole Aaverse | 35.4 | ${ }^{36.3}$ | ${ }^{36.2}$ |
| 25, CoRoiner place | Dweling | 44.0 | 44.9 | ${ }_{4}^{43.9}$ | -0.1 | Negiligile Benenitial | ${ }_{4}^{44.8}$ | 0.8 | Negiligio Aaverse | 33.3 <br> 3.4 | 34.1 | ${ }^{34.1}$ |
| 26, CoRDINER PLACE | Oweling | 46.3 | ${ }^{47.3}$ | 46.2 | -0.1 | Negiligile Benenitial | 47.2 | 0.9 | Negiligiole Adverse | 35.4 | 36.3 3 | 36.2 3 3 |
| 27, CORDINEAPLACE | Oweling | 45.4 | 46.3 | 45.3 | -0.1 | Negiligiole Beneficial | 46.2 | 0.8 | Negiligiole Adverse | 34.6 <br> 3.4 | 35.4 | ${ }^{35.3}$ |
| 28, CoRDINER PLACE | weling | 46.3 | 47.3 | 46.2 | -0.1 | Negligible Beneficial | 47.2 | 0.9 | Negiligibe Adverse | 35.4 | 36.3 | 36.2 |
| $\frac{\text { 29, CORDINER PLACE }}{\text { 3, COROINER PLACE }}$ | Dwelling | $\frac{44.0}{441}$ | $\frac{44.9}{450}$ | $\frac{43.9}{440}$ | -0.1 | $\frac{\text { Neginioble Benenitical }}{\text { Neglioibl }}$ Beneficial | $\frac{44.8}{449}$ | 0.8 | Negligile Adverse | 33,3 334 | 34.1 342 | $\begin{array}{r}34.1 \\ 34.1 \\ \hline\end{array}$ |
| 30, CORDINER PLACE | Dwelling | 46.3 | 47.3 | 46.2 | -0.1 | Negligible Beneficial | 47.2 | 0.9 | Neogigiole Adverse | 35.4 | 36.3 | 36.2 |
| 31, CORDINER PLACE | welling | 44.0 | 44.9 | 43.9 | -0.1 | Negligible Beneficial | 44.8 | 0.8 | Negigioile Adverse | 33.3 | 34.1 | 34.1 |
| 32, CORDINER PLACE | welling | 46.3 | 47.3 | 46.2 | -0.1 | Negligible Beneficial | 47.2 | 0.9 | Negigioble Adverse | 35.4 | 36.3 | 36.2 |
| 33, CORDINER PLACE | welling | 44.0 | 44.9 | 43.9 | -0.1 | Negligible Beneficial | 44.8 | 0.8 | Negligible Adverse | 33.3 | 34.1 | 34.1 |
| 34, CORDINER PLACE | Dweling | ${ }^{43.3}$ | 44.4 | 43.2 | -0.1 | Negligible Beneficical |  |  | Negligibe Adverse |  |  | ${ }^{33.5}$ |
| 35, CORDINER PLACE | Dweling | 44.0 | 44.9 | 43.9 | -0.1 | Negiligile Beneficial | 44.8 | 0.8 | Negligible Adverse | ${ }^{33.3}$ | 34.1 | 34.1 |
| 36, ORRDINVR PLACE | Dwelling | 44.0 | 44.9 | $\stackrel{43.2}{43.9}$ | $-01$ | ${ }^{\text {Negegligigiele Beneilical }}$ | ${ }_{44.8}^{44.2}$ | 0.8 | Negigigie Adverse | 32.7 33.3 | 33.7 34.1 | 33.5 34.1 |
| 38, CORDINER PLACE |  | 43.3 |  | 43.2 |  | Negligible Beneficial | 44.2 |  | Negligible Adverse | 32.7 | 33.7 | 33.5 |
| 39, CORDINER PLACE | Dwelling | 44.0 | 44.9 | 43.9 | -0.1 | Negligible Beneficial | 44.8 | 0.8 | Negiligile Adverse | 33.3 | 34.1 | 34.1 |
| 4, CORDINER PLACE | Dwelling | 46.3 | 47.3 | 46.2 | -0.1 | Negligible Beneficial | 47.2 | 0.9 | Negaigible Adverse | 35.4 | 36.3 | 36.2 |
| ${ }^{40, \mathrm{COR} \text { OLINER PLACE }}$ | Dwelling | ${ }_{4}^{43.3}$ | 44.4 | 43.2 | -0.1 | Negligibie Beneficial | 44.2 | 0.9 | Negiligiole Adverse | 32.7 323 | 33.7 <br> 3.1 | 33.5 <br> 3.5 |
| 41, COROINER PLACE | Dweling | 44.0 | 44.9 44.4 | ${ }_{43,9}^{43}$ | -0.1 | Negligible Benenitical | ${ }_{442}^{44.8}$ | 0.8 | Negiquibe Adverse | ${ }^{33.3}$ | ${ }_{3}^{34.1}$ | ${ }^{34.1}$ |
| 42, 4 , COROINERER PLACE | ${ }^{\text {Duelling }}$ Douling | 44.0 | 44.9 | ${ }_{43.9}^{43.9}$ | -0.1 -0.1 | Negegligible Beneneficial | ${ }_{44.8}^{44.8}$ | 0.8 | Negligibile Adverse | 32.7 33.3 | ${ }^{33.1}$ | 33.5 34.1 |
| 44, CORDINER PLACE | Dwelling | 43.3 | 44.4 | 43.2 | -0.1 | Negligible Beneficial | 44.2 | 0.9 | Negligibile Adverse | 32.7 | 33.7 | 33.5 |
| 45, CORDIINER PLACE | Dwelling | 45.4 | 46.3 | 45.3 | -0.1 | Negligible Beneficial | 46.2 | 0.8 | Negilioile Adverse | 34.6 | 35.4 | 35.3 |
| 46, CoRDINER PLACE | Dwelling | 43.3 | 44.4 | 43.2 | -0.1 | Negligible Beneficial | 44.2 | 0.9 | Negigigile Adverse | 32.7 | ${ }^{33.7}$ | 33.5 |
| $\frac{47, \text { CORDINER PLACE }}{48, \text { CORDINER PLACE }}$ | Dwelling | ${ }_{43.0}^{44.0}$ | 44.9 44.4 | ${ }_{43.9}^{43.9}$ | -0.1 | $\frac{\text { Negligible Benenicial }}{\text { Neglioble }}$ | ${ }_{44.8}^{44.8}$ | 0.8 | Negiligie Adverse | ${ }^{33.3}$ | 34.1 | 34.1 |
| 49, CORDINER PLACE | Dwelling | 44.0 | 44.9 | 43.9 | -0.1 | Negligible Beneficial | 44.8 | 0.8 | Negiligile Adverse | 33.3 | 34.1 | 34.1 |
| 5, COROINER PLACE | Dwelling | 44.1 | 45.0 | 44.0 | -0.1 | Negligible Beneficial | 44.9 | 0.8 | Negligible Adverse | 33.4 | 34.2 | 34.1 |
| 50, CORDIINER PLACE | Deeling | 43.3 | 44.4 | 43.2 | 0.1 | Negligible Beneficial | 44.2 | 0.9 | Negigioble Adverse | 32.7 | 33.7 | 3.5 |
| 51. CORDINER PLACE | Oweling | 44.0 | 44.9 | ${ }_{43.9}$ | -0.1 | Neotigibe Beneficial | 44.8 | 0.8 | Negiligile Adverse | ${ }^{33.3}$ | ${ }^{34.1}$ | 34.1 3.1 |
| 53, CORDINER PLACE |  |  |  | ${ }_{43.9}^{4.9}$ |  | Negiligiole Beneficial |  |  |  |  |  |  |
| 57. CORDINER PLACE | Dwelling | 45.4 | 46.3 | 45.3 | -0.1 | Negligible Beneficicial | 46.2 | 0.8 | Negigigile Adverse | ${ }_{34,6}$ | ${ }_{35.4}$ | ${ }_{35,3}$ |
| 59, CORDINER PLACE | Dwelling | 44.0 | 44.9 | 43.9 | -0.1 | Negligible Beneficial | 44.8 | 0.8 | Negligible Adverse | 33.3 | 34.1 | 34.1 |
| 6, CoRDINER PLACE | Dwelling | 46.3 | 47.3 | 46.2 | -0.1 | Negligible Beneficial | 47.2 | 0.9 | Negigioble Adverse | 35.4 | 36.3 | 36.2 |
| 6i, CORDIINER PLACE | Dweliling | 44.0 | 44.9 | 43.9 | -0.1 | Negiligible Beneneficial | ${ }_{44.8}^{44.8}$ | ${ }_{0}^{0.8}$ | Negigigile Adverse | 33.3 33.3 | ${ }^{34.1}$ | ${ }^{34.1}$ |
| 65, CORDINER PLACE | Deeling | 44.6 | 45.6 | 44.6 | 0.0 | No Change | 45.5 | 0.9 | Negigioble Adverse | 33.9 | 34.8 | 34.7 |
| 67, CORDINER PLACE | Dwelling | 44.6 | 45.6 | 44.6 | 0.0 | No Change | 45.5 | 0.9 | Negigigile Adverse | 33.9 | 34.8 | 34.7 |
| 69, Corodiner place | Dwelling | 44.6 | 45.6 | 44.6 | 0.0 | No Change | 45.5 | 0.9 | Negiligibe Adverse | 33.9 | 34.8 | 34.7 |
| 7, CORDINER PLACE | Dwelling | 44.1 | 45.0 | 44.0 | -0.1 | Negligible Beneficial | 44.9 | 0.8 | Negligible Adverse | 33.4 | 34.2 | 34.1 |
| $\frac{71, \text { CORDINER PLACE }}{73, \mathrm{COROINER} \mathrm{PLACE}}$ | Dweling | 44.6 44.6 | ${ }_{45.6}^{45.6}$ | 44.6 | 0.0 | No Co change | 45.5 | 0.9 | Negigiole Adverse | ${ }_{33.9}^{33.9}$ | 34.8 <br> 34.8 | ${ }^{34.7}$ |
| 75, CORDINER PLACE | Dwelling | 44.6 | 45.6 | 44.6 | 0.0 | No Change | 45.5 | 0.9 | Negligible Adverse | 33.9 | 34.8 | 34.7 |
| 77, CORDINER PLACE | Dwelling | 44.6 | 45.6 | 44.6 | 0.0 | No Change | 45.5 | 0.9 | Negigigile Adverse | 33.9 | 34.8 | 34.7 |
| 79, CORDINER PLACE | Dwelling | 44.6 | 45.6 | 44.6 | 0.0 | No Change | 45.5 | 0.9 | Negiligibe Adverse | 33.9 | 34.8 | 34.7 |
| $\frac{8, \text { Coroiner PLACE }}{81, \text { CORDINER PLACE }}$ | Dweling | 46.3 | 47.3 | 46.2 | -0.1 | Negligible Beneficial | 47.2 | 0.9 | Negigigile Adverse | 35.4 <br> 3.9 | 36.3 <br> 348 | 36.2 347 |
| 83, COROINER PLACE | Dwelling | ${ }_{44.6}^{44.6}$ | ${ }_{45.6}^{45.6}$ | ${ }_{44.6}^{44.6}$ | 0.0 | No Change | 45.5 | 0.9 | Neoligigiole Adverse | ${ }_{33.9}$ | 34.8 34.8 | ${ }_{34.7}^{34.7}$ |
| 85, CORDINER PLACE | velling | 44.6 | 45.6 | 44.6 | 0.0 |  | 45.5 | 0.9 | giligile Adverse | 33.9 | 34.8 | 34.7 |
| 87, CORDINER PLACE | Deelling | 44.6 | 45.6 | 44.6 | 0.0 | No Change | 45.5 | 0.9 | Negigigile Adverse | 33.9 | 34.8 | 34.7 |
| 89, CORODINER PLACE | Owelling | 44.6 | 45.6 | 44.6 | 0.0 | No Change | 45.5 | 0.9 | Negigigile Adverse | 33.9 | 34.8 | 34.7 |
| 9. CORDINER PLACE | Dweling | 44.1 | 45.0 | 44.0 | -0.1 | Negligible Beneiticial | 44.9 | 0.8 | Negigigibe Adverse | 33.4 | 34.2 | 34.1 |
| 91, COWUAN PLACE, HAYTON | Dweling | $\stackrel{44.6}{56.6}$ | 45.6 60.1 | $\stackrel{44.6}{54.5}$ | - | Minor Benengeicial | 459.0 | ${ }_{2.4}^{0.9}$ | Negogigibe Adverse | 33.9 44.7 | 34.8 478 | $\stackrel{34.7}{46.8}$ |
| 11, COWAN PLACE, HATTON | Dwelling | 56.0 | 59.2 | 54.1 | -1.9 | Minor Beneficial | 58.2 | 2.2 | Negiligile Adverse | 44.1 | 47.0 | 46.1 |
| 13, COWAN PLACE, HAYTON | Dwelling | 56.0 | 59.2 | 54.1 | -1.9 | Minor Beneficial | 58.2 | 2.2 | Negligible Adverse | 44.1 | 47.0 | 46.1 |
| 15, CowAN PLACE, HAYTİN |  | 56.0 55.0 | ${ }^{59.2}$ | 54.1 | -1.9 | $\frac{\text { Minor Beneficial }}{\text { Minor Beneficial }}$ | 58.2 | $\frac{2.2}{21}$ | Negigigle Adverse | 44.1 | 47.0 | 46.1 |
| 19, COWAN PLACE, HAYTON | welling | 54.8 | 57.7 | 53.2 | -1.6 | Minor Beneficial | 56.8 | 2.0 | Negiligile Adverse | 43.1 | 45.7 | 44.9 |
| 3, COWAN PLACE, HAYTON | Dwelling | 54.1 550 | $\stackrel{57.1}{59}$ | ${ }_{52.3}^{53 .}$ | -1.8 | Minor Beneficial | ${ }_{56.2}^{572}$ | 2.1 | Negiligibe Adverse | ${ }_{4}^{42.4}$ | 45.1 | $\frac{44.3}{45}$ |
| 5, COWAN PLACE, HAYTON | weling |  | 58.2 | 53.1 | -1.9 | Minor Beneficial | 5.2 | 2.2 | Negligible Adverse |  | 46.1 | 45.2 |

A90/A96 Haudagain Improvement DMRB Stage 3 Environmental Statement

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 <br> Lnight,outside | DM33 <br> Lnight,outside | $\begin{gathered} \text { DS33 } \\ \text { Lnight,outside } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 7, COWAN PLACE, HAYTON | Dwelling | 53.2 | 56.0 | 51.5 | ${ }^{-1.7}$ | Minor Beneficial | 55.2 | 2.0 | Negiligibe Adverse | 41.6 | 44.1 | 43.4 |
| 9. COWA PLACE, HAYTON | Owelling | 56.0 | 59.2 | 54.1 | -1.9 | Minor Beneficial | 58.2 | ${ }^{2.2}$ | Negiligle Adverse | $\frac{44.1}{467}$ | $\frac{47.0}{467}$ | $\frac{46.1}{472}$ |
| COA Playing Field at Laurel Drive | CQA | 58.8 | 58.8 | 58.7 | -0.1 | Negligible Beneficial | 59.4 | 0.6 | Negligible Adverse | 46.7 | 46.7 | 47.2 |
| CROMBIE COTTAGE, 2, GRANDHOLM COTTAGES, GRANDHOLM | Dwelling | 48.3 | 48.8 | 48.1 | -0.2 | Negligible Beneficial | 49.4 | 1.1 | Negigiole Adverse | 37.2 | 37.7 | 8.2 |
| CROMBIE COTTAGE, 4, GRANDHOLM COTTAGES, GRANDHOLM | Dwelling | 48.3 | 48.8 | 48.1 | 0.2 | Negligible Beneficial | 49.4 | 1.1 | Negligible Adverse | 37.2 | 37.7 | 38.2 |
| CROMBIE HOUSE, 2, GRANDHOLM CRESCENT, GRANDHOLM | Dwelling | 53.5 | 54.1 | 53.4 | 0.1 | Negligible Beneficial | 54.7 | 1.2 | Negigigile Adverse | 41.9 | 42.4 | 33.0 |
| CROMBIE HOUSE, 4, GRANDHOLM CRESCENT, GRANDHOLM | Dwelling | 53.5 | 54.1 | 53.4 | -0.1 | Negligible Beneficial | 54.7 | 1.2 | Negligible Adverse | 41.9 | 42.4 | 43.0 |
| CROMBIE HOUSE, 5, GRANDHOLM CRESCENT, GRANDHOLM | Dwelling | 53.5 | 54.1 | 53.4 | -0.1 | Negligible Beneficial | 54.7 | 1.2 | Negligible Adverse | 41.9 | 42.4 | 43.0 |
| CROMBIE HOUSE, 6 , GRANDHOLM CRESCENT, GRANDHOLM | Dwelling | 53.5 | 54.1 | 53.4 | -0.1 | Negligible Beneficial | 54.7 | 1.2 | Negligible Adverse | 41.9 | 42.4 | 43.0 |
| CROMBIE HOUSE, 7, GRANDHOLM CRESCENT, GRANDHOLM | Dwelling | 53.5 | 54.1 | 53.4 | -0.1 | Negligible Beneficial | 54.7 | 1.2 | Negigigile Adverse | 41.9 | 42.4 | 43.0 |
| CROMBIE HOUSE, 8 , GRANDHOLM CRESCENT, GRANDHOLM | Dwelling | 53.5 | 54.1 | 53.4 | -0.1 | Negligible Beneficial | 54.7 | 1.2 | Negiligile Adverse | 41.9 | 42.4 | 43.0 |
| ROMBIE HOUSE, 9 , GRANDHOLM CRESCENT, GRANDHOLM | Dwelling | 53.5 | 54.1 | 53.4 | -0.1 | Negligible Beneficial | 54.7 | 1.2 | Negigigile Adverse | 41.9 | 42.4 | 43.0 |
| Rombie house, 10, Grandholm crescent, grandholm | Welling | 53.5 | 54.1 | 53.4 | -0.1 | Negligible Beneficial | 54.7 | 1.2 | Negligible Adverse | 41.9 | 42.4 | 43.0 |
| CROMBIE HOUSE, 11, GRANDHOLM CRESCENT, GRANDHOLM | Dwelling | 53.5 | 54.1 | 53.4 | 0.1 | Negligible Beneficial | 54.7 | 1.2 | Negligible Adverse | 41.9 | 42.4 | 43.0 |
| CROMBIE HOUSE, 12, GRANDHOLM CRESCENT, GRANDHOLM | Dwelling | 53.5 | 54.1 | 53.4 | -0.1 | Negligible Beneficial | 54.7 | 1.2 | Negligible Adverse | 41.9 | 42.4 | 43.0 |
| CROMBIE HOUSE, 14, GRANDHOLM CRESCENT, GRANDHOLM | Dwelling | 53.5 | 54.1 | 53.4 | 0.1 | Negligible Beneficial | 54.7 | 1.2 | Negligible Adverse | 41.9 | 42.4 | 43.0 |
| CROMBIE HOUSE, 15, GRANDHOLM CRESCENT, GRANDHOLM | Dwelling | 53.5 | 54.1 | 53.4 | 0.1 | Negligible Beneficial | 54.7 | 1.2 | Negiligile Adverse | 41.9 | 42.4 | 43.0 |
| CROMBIE HOUSE, 16, GRANDHOLM CRESCENT, GRANDHOLM | Dwelling | 53.5 | 54.1 | 53.4 | 0.1 | Negligible Beneficial | 54.7 | 1.2 | Negligible Adverse | 41.9 | 42.4 | 43.0 |
| 1, CUMMINGS PARK CIRCLE, NORTHFELEL | Deeling | 54,7 | 55.1 | 54.7 | 0.0 | No Change | 55.2) | 0.5 | Negigigibe Adverse | 43.0 | 43.3 | 43.4 |
| 10, CUMMINGS PARK CIRCLE, NORTHFIELD | welling | 57.6 | 58.1 | 57.6 | 0.0 | No Change | 58.1 | 0.5 | Negiligile Adverse | ${ }^{45.6}$ | 46.0 3.5 | 46.0 3.5 |
| 100, CUMMINGS PARK CIRCLE, NORTHFIELD | Dweling | 45.5 | 46.4 | 45.5 | 0.0 | No Change | 46.4 | 0.9 | Negigigibe Adverse | 34.7 | 35.5 | 35.5 |
| 102, CUMMINGS PARK CIRCLE, NORTHFIELD | Oweling | 45.4 | 46.3 | 45.4 | 0.0 | No Change | 46.3 | 0.9 | Negigigibe Adverse | 34.6 | 35.4 | 35.4 |
| 104, CUMMINGS PARK CIRCLE, NORTHFIELD | welling | 45.4 | 46.3 | 45.4 | 0.0 | No Change | 46.3 | 0.9 | Negigigile Adverse | 34.6 | 35.4 | 35.4 |
| 106, CUMMINGS PARK CIRCLE, NORTHFIELD | welling | 47.0 | 47.9 | 47.0 | 0.0 | No Change | 47.9 | 0.9 | Negigigibe Adverse | 36.0 | 36.8 | 36.8 |
| 108, CUMMINGS PARK CIRCLE, NORTHFIELD | Weling | 47.1 | 48.0 | 47.0 | -0.1 | Negligible Beneficial | 48.0 | 0.9 | Negigigibe Adverse | 36.1 | 36.9 | 36.9 |
| 11, CUMMINGS PARK CIRCLE, NORTHFIELD | welling | 54.8 | 55.7 | 54.8 | 0.0 | No Change | 55.6 | 0.8 | Negigigile Adverse | 43.1 | 43.9 | 43.8 |
| 110, CUMMINGS PARK CIRCLE, NORTHFIELD | Dwelling | 47.3 | 48.1 | 47.2 | -0.1 | Negligible Beneficial | 48.1 | 0.8 | Negigigibe Adverse | 36.3 | 37.0 | 37.0 |
| 111, CUMMINGS PARK CIRCLE, NORTHFIELD | welling | 47.5 | 48.3 | 47.4 | -0.1 | Negligible Beneficial | 48.3 | 0.8 | Negigible Adverse | 36.5 | 37.2 | 37.2 |
| 112, CUMMINGS PARK CIRCLE, NORTHFFLED | Pwelling | 47.5 | 48.3 | 47.4 | -0.1 | Negligible Beneficial | 48.4 | 0.9 | Negiligibe Adverse | 36.5 | 37.2 | 37.3 |
| 113, CUMMINGS PARK CIRCLE, NORTHFIELD | Pwelling |  | 48.6 |  | 0.0 | No Change | 48.5 | 0.8 | Negigigibe Adverse | 36.7 |  |  |
| 144, CUMMINGS PARK CIRCLE, NORTHFIELD | Deelling | 477. | 48.6 | 47.7 | 0.0 | No Change | 48.6 | 0.9 | Negiligile Adverse | 36.7 | 37.5 | 37.5 |
| 115, CUMMINGS PARK CIRCLE, NORTHFIELD | Owelling | 47.9 | 48.7 | 47.8 | -0.1 | Negligible Beneficial | 48.6 | 0.7 | Negigigibe Adverse | 9.8 | 37.6 | 37.5 |
| 116,CUMMINGS PARK CIRCLE, NORTHFELED | Oweling | 47.7 | ${ }^{48.6}$ | 47.7 | 0.0 | No Change | 48.6 | 0.9 | Negligible Adverse | 36.7 | 37.5 | 37.5 |
| Y17, COMMINGS PARK CIRCLE, NORTHFELD | Oweling | 47.9 | 48.7 | 47.9 | 0.0 | No Change | ${ }_{48,7}^{48,}$ | ${ }^{0.8}$ | Negigigle Adverse | 36.8 365 | 72 | ${ }^{37,6}$ |
| - $118, \mathrm{C}$ CMMMNG PARK CIRCLE, NORTHFIELD | Dweling | 48.0 | ${ }_{48.8}^{48.8}$ | 47.9 | -0.1 .0 .0 | Negligible Benentical | 48.3 48.7 | ${ }_{0}^{0.8}$ | $\frac{\text { Negligiole Adverse }}{\text { Negilible Adverse }}$ | 36.5 36.9 | ${ }^{37,2}$ | ${ }^{37.2}$ |
| 12, CUMMINGS PARK CIRCLE, NORTHFIELD | Dwelling | 57.5 | 58.1 | 57.5 | 0.0 | No Change | 58.1 | 0.6 | Negiligile Adverse | 45.5 | 46.0 | 46.0 |
| 120, CUMMINGS PARK CIRCLE, NORTHFIELD | Dwelling | 47.4 | 48.2 | 47.4 | 0.0 | No Change | 48.2 | 0.8 | Negigigile Adverse | 36.4 | 37.1 | 37,1 |
| 121, CUMMINGS PARK CIRCLE, NORTHFIELD | Dwelling | 48.1 | 48.9 | 48.1 | 0.0 | No Change | 48.9 | 0.8 | Negigigibe Adverse | 37.0 | 37.7 | 37.7 |
| 123, CUMMINGS PARK CIRCLE, NORTHFIELD | Dwelling | 48.1 | 48.9 | 48.0 | -0.1 | Negligible Beneficial | 48.8 | 0.7 | Negigigile Adverse | 37.0 | 37.7 | 37.7 |
| 125, CUMMINGS PARK CIRCLE, NORTHFIELD | Dwelling | 48.2 | 49.0 | 48.2 | 0.0 | No Change | 49.0 | 0.8 | Negigigile Adverse | 37.1 | 37.8 | 37.8 |
| 126, CUMMINGS PARK CIRCLE, NORTHFFELD | Deeling | 53.1 | 53.7 | 53.0 | -0.1 | Negligible Beneficial | 53.7 | 0.6 | Negigigile Adverse | 41.5 | 42.1 | 42.1 |
|  | Oweling | -48.6. | ${ }_{53,7}^{49.4}$ | ${ }_{53.5}^{48.5}$ | -0.1 <br> .0 .1 | Negiligiole Beneticial | ${ }_{53.7}^{49.3}$ |  | Negligibe Adverse | 37.5 415 | ${ }^{38.2}$ | $\begin{array}{r}38.1 \\ \hline 1.1 \\ \hline\end{array}$ |
| $1{ }^{129, ~ C U M M I N G S ~ P A R K ~ C I R C L E, ~ N O R T H F I E L D ~}$ | Dwelling | ${ }_{48.3}$ | 49.1 | 48.3 | 0.0 | No Change | 49.0 | 0.7 | Negigigile Adverse | 37.2 | ${ }_{37.9}$ | ${ }_{37.8}$ |
| 13, CUMMINGS PARK CIRCLE, NORTHFIELD | Dwelling | 54.1 | 54.9 | 54.1 | 0.0 | No Change | 54.9 | 0.8 | Negiligile Adverse | 42.4 | 43.1 | 43.1 |
| 130, CUMMINGS PARK CIRCLE, NORTHFIELD | Dweling | 53.1 | 53.7 | 53.0 | -0.1 | Negligible Beneficial |  |  | Negiligile Adverse |  | 42.1 | 2.1 |
| 131. CUMMINGS PARK CIRCLE. NORTHFIELD | Dwelling | 47.9 | 48.7 | 47.9 | 0.0 | No Change | 48.6 |  | Negiligile Adverse |  | 7.6 | 37.5 |
| 132, CUMMINGS PARK CIRCLE, NORTHFIELD | Dwelling | 53.1 | 53.7 | 53.0 | -0.1 | Negligible Beneficial | 53.7 | 0.6 | Negigigile Adverse | 41.5 | 42.1 | 42.1 |
| 133, CUMMINGS PARK CIRCLE, NORTHFIELD | Dwelling | 52.7 | 53.5 | 52.7 | 0.0 | No Change | 53.5 | 0.8 | Negigigile Adverse | 41.2 | 41.9 | 41.9 |
| 134, CUMMINGS PARK CIRCLE, NORTHFELD | Oweling | 53.11 | 53.7 | 53.0 | -0.1 | Negligible Beneficial | 53.7 | 0.6 | Negigigile Adverse | 41.5 | 42.1 | 42.1 |
|  | Oweling | 52.2. | 52.9 <br> 53. | 52.2 | 0.0 | No Change | 年53.0 | ${ }_{0}^{0.8}$ | Negiligile Adverse | 40.7 415 | $\frac{41.3}{421}$ | 41.4 |
| ${ }^{\text {P }}$ 136, CUMMINGS PARK CIRCLE, NORTHFELD | Oweling | ${ }_{51.7}^{517}$ | ${ }_{52.3}^{5}$ | ${ }^{53.7}$ | 0.0 | Negligible Beneficial | ${ }_{52.3}^{53.7}$ | 0.6 | $\frac{\text { Negligible Adverse }}{\text { Negligible Adverse }}$ | 4.5 | 42.1 | 42.1 |
| 138, CUMMINGS PARK CIRCLE, NORTHFIELD | Dwelling | 51.7 | 52.4 | 51.7 | 0.0 | No Change | 52.4 | 0.7 | Negligible Adverse | 40.3 | 40.9 | 40.9 |
| 139, CUMMINGS PARK CIRCLE, NORTHFIELD | Dwelling | 51.9 | 52.5 | 51.9 | 0.0 | No Change | 52.5 | 0.6 | Negigigile Adverse | 40.4 | 41.0 | 41.0 |
| 14, CUMMINGS PARK CIRCLE, NoRTHFIELD | Dwelling | 57.7 50.6 | 58.4 51.2 | 57.7 50.6 | 0.0 0.0 | $\frac{\text { No Change }}{\text { No Change }}$ | 58.4 51.2 | 0.7 | Negigigle Adverse | 45.7 39.3 | 46.3 39.8 | 46.3 39.8 |
| 141, CUMMINGS PARK CIRCLE, NORTHFIELD | Dwelling | 51.6 | 52.2 | 51.5 | -0.1 | Negligible Beneficial | 52.2 | 0.6 | Negigigile Adverse | 40.2 | 40.7 | 40.7 |
| $\frac{142, ~ C U M M M G S ~ P A R K ~ C I R C L E, ~ N O R T H F F I E L D ~}{143}$ | Dwelling | 52.8 | 53.4 52.3 | 52.7 51.6 | -0.1 | Negligible Beneficial | 53.4 52.2 | 0.6 | $\frac{\text { Negligile Adverse }}{\text { Negigible Adverse }}$ | $\frac{41.3}{40.2}$ | $\frac{41.8}{40.8}$ | $\frac{41.8}{40.7}$ |
| 144, CUMMINGS PARK CIRCLE, NORTHFIELD | Dwelling | 53.1 | 53.7 | 53.0 | 0.1 | Negligible Beneficial | 53.7 | 0.6 | Negligible Adverse | 41.5 | 42.1 | 42.1 |
| 146 , CUMMINGS PARK CIRCLE, NORTHFIELD | Owelling | 55.3 | 55.9 | 55.2 | 0.1 | Negligible Beneficial | 55.9 | 0.6 | Negigigile Adverse | 43.5 | 44.0 | 44.0 |
| 148, CUMMINGS PARK CIRCLE, NORTHFIELD | Dweling | 55.9 54.0 | 56.4 54.8 | 55.8 53.9 | -0.1 0.0 0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ | 56.5 54.7 | 0.6 0.7 | Negligile Adverse | 44.0 42.3 | 44.5 43.1 | 44.6 43.0 |
| 150, CUMMINGS PARK CIRCLE, NORTHFIELD | 析 | 55.7 | 56.2 | 55.6 | 0.1 | Negligible Beneficial | 56.2 | 0.5 | Negligible Adverse | 43.9 | 44.3 | 44.3 |
| 152, CUMMINGS PARK CIRCLE, NORTHFIELD | Dwelling | 56.9 | 57.4 | 56.9 | 0.0 | No Change | 57.4 | 0.5 | Negiligile Adverse | 44.9 | 45.4 | 45.4 |
| 154, CUMMINGS PARK CIRCLE, NORTHFIELD | welling | 58.1 | 58.5 | 58.1 | 0.0 | No Change | 58.5 | 0.4 | Negigigile Adverse | 46.0 | 46.4 | 46.4 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 Lnight,outside | DS33 Lnight,outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 156, CUMMINGS PARK CIRCLE, NORTHFIELD | Owelling | 57.9 | 58.3 | 57.9 | 0.0 | No Change | 58.4 | 0.5 | Negiligibe Adverse | 45.8 | 46.2 | 46.3 |
| 158. CUMMINGS PARK CIRCLE, NORTH FIELD | Dweling | 57.5 577 | 57.9 585 | 57.5 | 0.0 | ${ }^{\mathrm{No}} \mathrm{C}$ Change | 57.9 | ${ }_{0}^{0.4}$ | $\frac{\text { Negligible Adverse }}{\text { Negioigle Adverse }}$ | 45.5 45.7 | 45.8 46.4 | $\frac{45.8}{46.4}$ |
| 16, CUMMMNGS PARK CIRCLE, NORTHFIELD | Dweling | 57.7 <br> 5.2 | 58.5 | 57.8 58.2 | ${ }_{0}^{0.1}$ | Nogiolie Benenicial | 58.5 58.5 | 0.8 0.3 | Negigigib Adverse | ${ }_{46.1}^{46.7}$ | 46.4 | 46.4 46.4 |
| 162, CUMMINGS PARK CIRCLE, NORTHFIELD | Dwelling | 58.7 | 59.0 | 58.7 | 0.0 | No Change | 59.0 | 0.3 | Negligible Adverse | 46.6 | 46.8 | 46.8 |
| 164, CUMMINGS PARK CIRCLE, NORTHFIELD | Dwelling | 58.8 | 59.1 | 58.8 | 0.0 | No Change | 59.2 | 0.4 | Negligible Adverse | 46.7 | 46.9 | 47.0 |
| 166, CUMMINGS PARK CIRCLE, NORTHFIELD | Dwelling | 56.4 | 56.8 | 56.5 | 0.1 | Negligible Adverse | 56.8 | 0.4 | Negligible Adverse | 44.5 | 44.9 | 44.9 |
| 168, CUMMINGS PARK CIRCLE, NORTHFIELD | Deelling | 54.9 | 55.2 | 54.9 | 0.0 | No Change | 55.2 | 0.3 | Negigioble Adverse | 43.1 | 43.4 | 43.4 |
|  | welling | 53.2 | 54.2 | 53.1 | -0.1 | Negligible Beneficial | 54.1 | 0.9 | Negiligible Adverse | ${ }^{41.6}$ | 42.5 | ${ }_{42.4}^{42 .}$ |
| 170, 1 CUMMMGS PARK CIRCLE, NORTHFIELD | Dwelling | 54.0 53.4 | 54.4 53.8 | 54.1 53.5 | 0.1 | $\frac{\text { Negigigble Adverse }}{\text { Negilible Adverse }}$ | 54.4 <br> 53.8 | ${ }_{0}^{0.4}$ | $\frac{\text { Negigigib Adverse }}{\text { Negilible Adverse }}$ | $\stackrel{42.3}{41.8}$ | ${ }_{42.2}^{42.1}$ | ${ }_{422}^{42 .}$ |
| 174, CUMMINGS PARK CIRCLE, NORTHFIELD | Dwelling | 52.9 | 53.3 | 52.9 | 0.0 | No Change | 53.3 | 0.4 | Negiligile Adverse | 41.3 | 41.7 | 41.7 |
| 176, CUMMINGS PARK CIRCLE, NORTHFIELD | Dwelling | 52.4 | 52.9 | 52.5 | 0.1 | Negiligile Adverse | 52.9 | 0.5 | Negiligile Adverse | 40.9 | 41.3 | 41.3 |
| 178, CUMMINGS PARK CIRCLE, NORTHFIELD | Wwelling | 52.4 | 52.8 | 52.4 | 0.0 | No Change | 52.8 | 0.4 | Negigioble Adverse | 40.9 | 41.3 | 41.3 |
| 18, CUMMINGS PARK CIRCLE, NORTHFIELD | welling | 56.4 | 57.3 | 56.4 | 0.0 | No Change | 57.2 | 0.8 | Negigiobio Adverse | 44.5 | 45.3 |  |
| 180, CUMMINGS PAAKK CIRCLE, NORTHFIELD | welling | ${ }_{52.5}^{52}$ | 5.9 | 52.5 |  | No Change | 52.9 |  | Negigigie Adverse |  | 4.3 |  |
| 19, CUMMINGS PARK CliRCLE, NORTHFIELD | weling |  | 53.3 | 52.3 | 0.0 | ange |  | 0.9 | Negligible Aaverse | 40.8 |  |  |
| 20. CUMMINGS PARK CIRCLE. NORTHFIELD | Dwelling | 55.4 | 56.3 | 55.5 | 0.1 | Negoligible Adverse | 56.2 | 0.8 | Negaligible Adverse | 43.6 | 44.4 | 44.3 |
| 21, CUMMINGS PARK CIRCLE, NORTHFIELD | Dwelling | 51.7 | 52.9 | 51.6 | -0.1 | Negligible Beneficial | 52.7 | 1.0 | Negligible Adverse | 40.3 | 41.3 | 41.2 |
| 22, CUMMINGS PARK CIRCLE, NORTHFIELD | Deelling | 53.4 | 54.4 | 55.3 | -0.1 | Negligible Beneficial | 54.4 | 1.0 | Negigioibe Adverse | 41.8 | 42.7 | 42.7 |
|  | Dwelling | 51.3 53.9 | 52.4 55.1 | 51.2 <br> 53.8 | -0.1 -0.1 | Negiligie Beneficial | 52.3 55.0 | 1.0 1.1 | Negigigle Adverse | 39.9 42.2 | $\frac{40.9}{43.3}$ | 40.8 43.2 |
| 25, CUMMINGS PARK CIRCLE, NORTHFIELD | Dwelling | 51.1 | 52.2 | 51.0 | -0.1 | Negligible Beneficial | 52.1 | 1.0 | Negiligible Adverse | 39.7 | 40.7 | 40.6 |
| 26, CUMMINGS PARK CIRCLE, NoRTHHELD | Dwelling | 53.8 51.0 | 54.9 52.1 | 53.7 50.9 | -0.1 -0.1 | $\frac{\text { Negligible Benenitical }}{\text { Neglioile }}$ Beneficial | $\stackrel{54.9}{52.0}$ | 1.1 1.0 | Negigigle Adverse | ${ }^{42.2}$ | $\stackrel{43.1}{40.6}$ | $\stackrel{43.1}{40.5}$ |
| 28, CUMMINGS PARK CIRCLE, NORTHFIELD | Dwelling | 54.1 | 55.2 | 54.0 | -0.1 | Negligible Beneficial | 55.2 | 1.1 | Negiligile Adverse | 42.4 | 43.4 | 43.4 |
| 29, CUMMINGS PARK CIRCLE, NORTHFIELD | Dwelling | 51.1 <br> 53.8 | 52.2 | 51.0 53.9 | -0.1 0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negigiolie Adverse }}$ | 52.1 54.3 | 1.0 0.5 | $\frac{\text { Negiligib Adverse }}{\text { Negigiole Adverse }}$ | 39.7 42.2 | 40.7 42.6 | 40.6 42.6 |
| 30, CUMMINGS PARK CIRCLE, NORTHFIELD | welling | 53.7 | 55.0 | 53.6 | -0.1 | Negligible Beneficial | 54.9 | 1.2 | Negiligile Adverse | 42.1 | 43.2 | 43.1 |
| 31, CUMMINGS PARK CIRCLE, NORTHFELD | Dweling | 50.8 53,6 | 51.9 | 50.7 53,5 | -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ Beneficial | 51.8 547 | 1.0 | Negiligile Adverse | 39.5 420 | 40.4 43.1 | 40.4 430 |
| 33, CUMMINGS PARK CIRCLE, NORTHFIELD | Dwelling | 50.4 | 51.6 | 50.3 | -0.1 | Negligible Beneficial | 54.5 | ${ }_{1}^{1.1}$ | Neogigigile Adversse | ${ }^{49.1}$ | 40.2 | 40.1 |
| 34, CUMMINGS PARK CIRCLE, NORTHFIELD | Wwelling | 53.3 | 54.5 | 53.2 | -0.1 | Negligible Benenicicial | 54.4 | 11 | Negigioble Adverse | 41.7 | 428 | 42.7 |
| 35, CUMMINGS PARK CIRCLE, NORTHFIELD | Welling | 50.3 |  |  | -0.1 | Negligible Benenitical |  | 1.0 | Negiligibe Adverse |  | 39.9 | 39.9 |
| 36, CUMMINGS PARK C CRCLE, NORTHFIELD | weling | ${ }^{53.5}$ |  | 53.4 |  | Negigigile Beneificial | 54.6 <br> 5 |  | Negligible Adverse |  | 42.9 |  |
|  |  |  | 50.5 |  |  |  |  |  | Negligle Avverse | 34.3 | 39.3 | 39.2 |
| 38, CUMMMINGS PARK CIRCLE, NORTHFIELD | Dwelling | ${ }^{59.7}$ | ${ }^{54.5}$ | ${ }^{59.6}$ | -0.1 | Negligibile Benenificial | 54.5 50.7 | 1.0 | Neoligigile Adverse | $\frac{41.8}{38.5}$ | ${ }_{39.3}^{49.3}$ | ${ }^{429.4}$ |
| 4, CUMMINGS PARK CIRCLE, NORTHFIELD | Dwelling | 57.1 | 57.6 | 57.2 | 0.1 | Negiligile Adverse | 57.6 | 0.5 | Negiligibe Adverse | 45.1 | 45.6 | 45.6 |
| 40, CUMMINGS PARK CIRCLE, NORTHFIELD | Dwelling | 53.6 | 54.8 | 53.5 | -0.1 | Negligible Beneficial | 54.7 | 1.1 | Negligible Adverse | 42.0 | 43.1 | 43.0 |
| 42 C CUMMINGS PARK CIRCLE, NORTHFIELD | Dwelling | ${ }_{53.3}$ | ${ }_{54.5}$ | 53.2 | -0.1 | Negoligible Beneficioil | ${ }_{54.4}$ | 1.1 | Negigigible Adverse | ${ }^{31.7}$ | ${ }^{32.8}$ | ${ }^{42.7}$ |
| 43, CUMMINGS PARK CIRCLE, NORTHFIELD | Dwelling | 49.9 | 50.5 | 49.8 | -0.1 | Negligible Beneficial | 50.7 | 0.8 | Negligible Adverse | 38.6 | 39.2 | 39.4 |
| 44, CUMMINGS PARK CIRCLE, NoRTHFIELD | Dwelling | 53.4 48.9 | 54.6 49.9 | 53.3 48.8 | -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negligibe }}$ Beneficial | 54.6 49.9 | 1.2 1.0 | Negigiobe Adverse | 41.8 37.7 | ${ }^{42.9}$ | 42.9 38.6 |
| 46, CUMMINGS PARK CIRCLE, NORTHFIELD | Dwelling | 53.5 | 54.7 | 53.4 | -0.1 | Negligible Beneficial | 54.6 | 1.1 | Negiligile Adverse | 41.9 | 43.0 | 42.9 |
| 4 4, CUMMINGS PARK 4 Clircte, | Dwelling | ${ }_{53.4}^{49.4}$ | ${ }_{50.5}^{50.5}$ | ${ }_{53.3}$ | $-01$ |  | ${ }_{50}^{50.5}$ | ${ }_{1}^{1.1}$ | $\frac{\text { Negligibe Adverse }}{\text { Negligibe Adverse }}$ | $\frac{38.0}{41.8}$ | $\stackrel{38.7}{42.8}$ | ${ }^{38.8} 4$ |
| 49, CUMMINGS PARK CIRCLE, NORTHFIELD | Dwelling | 49.5 | 50.0 | 49.4 | . 0.1 | Negligible Beneficial | 50.2 | 0.7 | Negligible Adverse | 8.3 | 38.7 | 38.9 |
| 5. CUMMINGS PARK CIIRCLE, NORTHFIELD | Deelling | 52.9 | 53.5 | 52.9 | 0.0 | No Change | 53.5 | 0.6 | Negigigibe Adverse | 41.3 | 41.9 | 41.9 |
| 50, CUMMINGS PAAK CIRCLE, NORTH HFIELD | weiling |  |  |  |  | Negligible Beneficicial |  |  | Negiligile Adverse | 41.2 |  | 42.2 |
| 52, CUMW | Wering |  |  |  |  | Noylub |  |  | Neoligioble Adverse |  |  |  |
|  | Dweeling | ${ }_{477}^{52.6}$ | ${ }_{48,6}$ | \%2.6 | -0.0 | Neglioible Beneficicial | 43.5 | $\stackrel{1}{0.8}$ | Negligile Adverse | ${ }_{31,1}$ | ${ }_{37}^{42.1}$ | 42.2 374 |
| 54, CUMMINGS PARK CIRCLE, NORTHFIELD | Dwelling | 52.4 | 53.4 | 52.3 | -0.1 | Negligible Beneficial | 53.5 | 1.1 | Negilibile Adverse | 40.9 | 41.8 | 41.9 |
| 55, CUMMINGS PARK CIRCLE, NORTHFILLD | Dwelling | 47.5 | 48.5 | 47.5 | 0.0 | No Change | 48.4 | 0.9 | Negiligibe Adverse | 36.5 | 37.4 | 37.3 |
|  | Dwelling | 52.3 47.6 | 53.2 48.5 | 52.2 47.5 | -0.1 -0.1 | Negiligile Beneiticial | 53.4 48.5 | 1.1 0.9 | $\frac{\text { Negligible Adverse }}{\text { Neoligible Adverse }}$ | ${ }^{40.8} 36.6$ | 41.6 37.4 | ${ }^{41.8}$ |
| 58, CUMMINGS PAAK CIRCLE, NORTHFIELD | Dwelling | 51.9 | 52.9 | 51.8 | -0.1 | Negligible Beneficial | 52.9 | 1.0 | Negigible Adverse | 40.4 | 41.3 | 41.3 |
| 59, CUMMINGS PARK CIRCLE, NoRTHFIELD | Dwelling | 47.6 57.4 | 48.6 58.0 | $\stackrel{47.5}{57.5}$ | -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negioiolie Adverse }}$ | $\stackrel{48.5}{58.0}$ | 0.9 | $\frac{\text { Negigigle Adverse }}{\text { Neligiole Adverse }}$ | 36.6 45.4 | 37.5 45.9 | 37,4 45.9 |
| 60, CUMMINGS PARK CIRCLE, NORTHFIELD | Dwelling | 52.0 | 53.1 | 51.9 | -0.1 | Negligible Beneficial | 53.1 | 1.1 | Negiligibe Adverse | 40.5 | 41.5 | 41.5 |
| 61, CUMMINGS PARK CIRCLE, NORTHFIELD | Dwelling | 47.5 50.6 | 48.5 51.2 | 47.4 50.5 | -0.1 -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negligible Beneficial }}$ | 48.4 51.5 | 0.9 | $\frac{\text { Negligible Adverse }}{\text { Negigible Adverse }}$ | 36.5 39.3 | 37.4 <br> 39.8 | 37.3 40.1 |
| 63, CUMMINGS PARK CIRCLE, NORTHFIILD | Dwelling | 47.4 | 48.4 | 47.3 | -0.1 | Negligible Beneficial | 48.3 | 0.9 | Negiligile Adverse | 36.4 | 37.3 | 37.2 |
|  | Dwelling | ${ }_{\text {50.3 }}^{47.3}$ | 51.1 48.3 | 50.3 47.2 | 0.0 <br> 0.0 | $\xrightarrow{\text { Nogo Change }}$ | 51.3 48.2 | 1.0 0.9 | $\frac{\text { Negigigle Adverse }}{\text { Nefligible Adverse }}$ | ${ }^{39.0} 3$ | 39.7 37.2 | 39.9 37.1 |
| 66, CUMMINGS PARK CIRCLE, NORTHFIELD | eling | 49.6 | 50.4 | 49.5 | -0.1 | Ne | 50.5 | 0.9 | erse | 8.4 | 39.1 | 39.2 |
| 67, CUMMINGS PARK CIRCLE, NORTHFIELD | Deelling | ${ }^{47.2}$ | 48.2 | 47.1 | -0.1 | Negligible Beneficicial | 48.1 | 0.9 | Negigioble Adverse | 36.2 | 37.1 | 37.0 |
|  | Dweling |  | 48.7 | ${ }_{477}$ | -0.2 | Negiligibe Beneificial | 48.6 | 0.9 | Negigigile Adverse | ${ }^{36.7}$ | 37.6 | 37.5 |
| 7, CUMMMNGS PARK CIRCLE, NORTHFIELD | ${ }^{\text {Dueliling }}$ | ${ }_{53.1}^{4}$ | ${ }_{53.8}^{48.6}$ | ${ }_{53.1}$ | -0.1 | Negligible Benenitial | ${ }^{48.6}$ | ${ }_{0}^{0.8}$ | Negligile Adverse | 36.8 415 | 37.5 | 37.5 421 |
| 70, CUMMINGS PARK CIRCLE, NORTHFIELD | Dwelling | 47.5 | 48.5 | 47.4 | -0.1 | Negligible Beneficial | 48.4 | 0.9 | Negigioble Adverse | 36.5 | 37.4 | 37.3 |
| 71, CUMMINGS PARK CIRCLE, NORTHFIELD | Dwelling | 46.6 | 47.5 | 46.5 | -0.1 | Negligible Beneficial | 47.4 | 0.8 | Negligible Adverse | 35.7 | 36.5 | 36.4 |
| 72, CUMMINGS PARK C Circceen | Dwelling | ${ }_{46.5}^{46.5}$ | ${ }^{48.6}$ | 47.4 | -0.1 | Negligile Beneicical | ${ }^{48.5}$ | ${ }^{1.0}$ | $\frac{\text { Negligible Adverse }}{\text { Negligile Adverse }}$ | 36.5 35.7 | ${ }^{37.5} 36$ | 37.4 36.5 |
| 74, CUMMINGS PARK CIRCLE, NORTHFIELD | Dwelling | 47.7 486 | 48.7 | 47.6 4.6 | -0.1 | Negligible Beneficial | 48.6 475 | 0.9 | Negiligle Adverse | 36.7 357 | 37.6 366 | 37.5 365 |
| 76, CUMMINGS PARK CIRCLE, NORTHFIELLD | Dwelling | 47.4 | 48.4 | 47.3 | -0.1 | Negligible Beneficicial | 48.3 | 0.9 | Neoligible Adverse | 36.4 | ${ }_{37.3}$ | 37.2 |
| 77, CUMMINGS PARK CIRCLE, NORTHFIELD | Welling | 47.1 | 48.0 | 47.0 | -0.1 | Negligible Beneficical | 47.9 | 0.8 | Negligible Adverse | ${ }^{36.1}$ | 3 36.9 | ${ }_{36.8}^{36}$ |
| 78, CUMMMGS PARK C CiRCLE, NORTHHELELD | Dwelling | $\stackrel{47.0}{47.2}$ | ${ }_{48.1}^{48.0}$ | 46.9 | $-01$ | Negegigigibe Beneneficial | 48.0 | ${ }_{0} 1.8$ | Negigigibe Adverse | ${ }_{36.2}$ | ${ }_{37.0}$ | ${ }_{36.9}$ |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 <br> Lnight,outside | DM33 Lnight,outside | DS33 Lnight,outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8, CUMMINGS PARK CIRCLE, NORTHFIELD | Owelling | 57.3 | 57.9 | 57.4 | 0.1 | Negigigibe Adverse | 57.9 | 0.6 | Negigigle Adverse | 45.3 | 45.8 | 45.8 |
| 80, CUMMINGS PARK CIRCLE. NORTHEIELD | Dweling | 47.0 | 47.9 | 46.9 | ${ }_{0}^{-0.1}$ | Negligible Beneficial | $\frac{47.9}{48.1}$ | 0.9 | Negligible Adverse | 36.0 362 | 36.8 <br> 370 | 36.8 370 |
| 81, CUMMMGS PAAK CIRCLE, Northrilio | Dwelling | 47.2 | 48.2 | 47.1 | -0.1 | Negligible Beneficicial | ${ }_{48.1}^{48.1}$ | 0.9 | $\frac{\text { Negigigie Adverse }}{\text { Neoligible Adverse }}$ | 36.2 | ${ }^{37.0}$ | 37.0 37.0 |
| 83, CUMMINGS PARK CIRCLE, NORTHFIELD | Dwelling | 47.2 | 48.1 | 47.1 | -0.1 | Negligible Beneniticial | 48.0 | 0.8 | Negligible Adverse | $\frac{36.2}{}$ | 37.0 | 36.9 |
| 84, CUMMINGS PARK CIRCLE, NORTHFIELD | Dwelling | 46.9 | 47.9 | 46.9 | 0.0 | No Change | 47.8 | 0.9 | Negigigile Adverse | 35.9 | 36.8 | 36.8 |
| 85, CUMMINGS PARK CIRCLE, NORTHFIELD | Dwelling | 47.8 | 48.7 | 47.7 | -0.1 | Negligible Beneficial | 48.6 | 0.8 | Negligible Adverse | 36.8 | 37.6 | 37.5 |
| 86, CUMMINGS PARK CIRCLE, NORTHFILLD | Deelling | 47.0 | 47.9 | 46.9 | -0.1 | Negligible Beneficical | 47.9 | 0.9 | Negigioble Adverse | 36.0 | 36.8 | 36.8 |
| 87, CUMMM G GS PARK C CiRCLE, NORTH HRELD | welling | 47.8 | 48.6 | 47.7 | -0.1 | Negligible Beneficicial | 48.6 | 0.8 | Negiligibe Adverse | 36.8 | 37.5 | ${ }^{37.5}$ |
| 889, CUUMMINGGS PARK C CiRCLE, NORTTHFELELD | Dwelling | ${ }_{47}^{47.6}$ | 48.4 | 44.5 | -0.1 | Negiligile Benenicial | 48.4 | 0.8 | Negigigibe Adverse | ${ }_{36.6}$ | ${ }_{36.3}^{36.8}$ | ${ }^{36.8}$ |
| 9, CUMMNGS PARK CIRCLE, NORTHFIELD | Dwelling | 54.2 | 55.0 | 54.1 | -0.1 | Negligible Beneficial | 54.9 | 0.7 | Negigigibe Adverse | 42.5 | 43.2 | 43.1 |
| 90, CUMMINGS PARK CIRCLE, NORTHFIELD | Dwelling | 46.2 | 47.1 | 46.1 | -0.1 | Negligible Beneficial | 47.0 | 0.8 | Negiligile Adverse | 35.3 | 36.1 | 36.0 |
| 91, CUMMINGS PARK CIRCLE, NORTHFIELD | Wwelling | 47.7 | 48.5 | 47.6 | -0.1 | Negligible Beneficial | 48.5 | 0.8 | Negligible Adverse | 36.7 | 37.4 | 37.4 |
|  | welling | 45.8 |  | 45.8 | 0.0 | No Change | 46.7 |  | Negigiobio Adverse |  | 35.8 | 5.8 |
| 93, CUMMINGS PARK CIRCLEE NORTHFIELD | Dwelling | 48.0 | 48.9 | ${ }_{4}^{47.9}$ | -0.1 | Negligible Beneficial | ${ }_{48.8}$ | 0.8 | Negiquibe Adverse | ${ }^{36.9}$ |  |  |
| 94, CUMMINGS PARK C CiRCLE, NORTH HFIELD | weling | 45.8 | ${ }^{46.7}$ | ${ }_{45}^{45.7}$ | -0.1 | Neegigibie Benenicial |  | 0.8 | Negligible Aaverse |  | 35.8 |  |
| 98, CUMMI GS PARK CIRCLE E NORTHEIELD | Dwelling | 45.7 | 46.6 | 45.6 | -0.1 | Negegligibile Beneneficioial | ${ }_{46.5}^{46.6}$ | 0.8 | Neoligigibe Adverse | 34.9 | 35.7 <br> 35 | 35.7 |
| 1 1, CUMMINGS PARK CRESCENT, NORTHFIELD | Dwelling | 49.3 | 50.1 | 49.3 | 0.0 | No Change | 50.2 | 0.9 | Negiligible Adverse | 38.1 | 38.8 | 35.9 |
| 10, CUMMINGS PARK CRESCENT, NORTHFIELD | Dwelling | 49.8 | 50.6 | 49.8 | 0.0 | No Change | 50.7 | 0.9 | Negligible Adverse | 38.6 | 39.3 | 39.4 |
| 100, CUMMINGS PARK CRESCENT, NORTHFIELD | Dwelling | 47.2 | 47.8 | 47.2 | 0.0 | No Change | 48.1 | 0.9 | Negiligile Adverse | 36.2 | 36.8 | 37.0 |
| 104 C CUMMINGS PARK CRESCENTT, NORTHFIELD | Dwelling | 47.7 | ${ }^{48.1}$ | 47.7 | 0.0 | No Change | ${ }^{48.6}$ | 0.9 | Negigigibe Adverse | ${ }^{36.7}$ | ${ }_{37}$ | 37.5 |
| 106, CUMMINGS PARK CRESCENT, NORTHFIELD | Dwelling | 49.9 | 49.1 | 49.8 | -0.1 | Negligible Beneficial | 50.3 | 0.4 | Negigigible Adverse | 38.6 | 37.9 | 39.0 |
| 108, CUMMINGS PARK CRESCENT, NORTHFIELD | Dwelling | 49.9 | 49.1 | 49.8 | -0.1 | Negligible Beneficical | 50.3 | 0.4 | Negigioble Adverse | 38.6 | 37.9 | 39.0 |
| 11, CUMMMGS PARK CRESCENT, NORTHFIELD | Dweling | ${ }_{498}^{48.7}$ | $\stackrel{49.6}{50.6}$ | ${ }_{48}^{48.6}$ | -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ | - ${ }_{50.6}$ | 0.9 | Negigigib Adverse | 37.6 38.6 | 38,4 393 | 38.4 394 |
| 13, CUMMINGS PARK C CESCEENT, NORTHFIELD | Dwelling | 48.8 | 49.6 | ${ }^{48.7}$ | -0.1 | Negligible Eenenificial | ${ }_{49.7}$ | 0.9 | Negigigibe Adverse | ${ }^{37.7}$ | ${ }^{38.4}$ | ${ }^{38.5}$ |
| 14, CUMMINGS PARK CRESCENT, NORTHFIELD | welling | 50.6 | 51.1 | 50.6 | 0.0 | No Change | 51.5 | 0.9 | Negiligile Adverse | 39.3 | 39.7 | 40.1 |
| 15, CUMMINGS PARK CRESCENT, NORTHFILLD | welling | 48.8 | 49.6 | 48.7 | 0.1 | Negligible Beneficial | 49.7 | 0.9 | Negigible Adverse | 37.7 | 38.4 | 38.5 |
| 16, CUMMINGS PARK CRESCENT NORTHECELD | Dwelling | 50.6 | 51.1 | 50.6 | 0.0 | No Change | 51.5 | 0.9 | Negiligile Adverse | 39.3 | 39.7 | 40.1 |
|  | Dwelling | 49.3 | ${ }^{49.7}$ | $\frac{49.2}{50.8}$ | -0.1 0.0 | Negiligio Beneficial | 50.1. | 0.8 | Negigigib Adverse | 38.1 39.5 | 38.5 39.9 | 38.8 40.3 |
| 19, CUMMINGS PARK CRESCENT, NORTHFIELD | Dwelling | 49.3 | 49.7 | 49.2 | -0.1 | Negligible Beneficial | 50.1 | 0.8 | Negligible Adverse | 38.1 | 38.5 | 38.8 |
| 2, CUMMINGS PARK CRESCENT, NORTHFIELD | elling |  | 50.8 | 49.8 | -0.1 | Negligible Beneficical | 50.8 | 0.9 | Negigigile Adverse | 38.6 | 9.5 | 39.5 |
| 20, CUMMINGS PARK CRESCENT, NORTHFIELD | Dwelling | 50.8 | 51.3 | 50.8 | 0.0 | No Change | 51.7 | 0.9 | Negigigile Adverse | 39.5 | 39.9 | 40.3 |
| 21, CUMMINGS PARK CRESCENT, NORTHFIELD | Dweling | 48.6 | 49.5 | 48.6 50.9 | 0.0 | No Change | 49.6 518 | 1.0 | Negigigile Adverse | $\begin{array}{r}37.5 \\ 3.5 \\ \hline\end{array}$ | 38.3 | 38.4 |
| 23, CUMMINGS PARK CRESCENT, NORTHFIELD | Dwelling | ${ }_{40.6}$ | ${ }^{59.4}$ | 48.6 | 0.0 | ${ }^{\text {No Co Change }}$ | ${ }_{49.6}$ | 1.0 | $\frac{\text { Negigigie Adverse }}{\text { Neligible Adverse }}$ | ${ }^{39.5}$ | ${ }_{38.3}^{40.0}$ | ${ }_{30.4}$ |
| 24, CUMMINGS PARK CRESCENT, NORTHFIELD | Dwelling | 50.9 | 51.4 | 50.9 | 0.0 | No Change | 51.8 | 0.9 | Negiligile Adverse | 39.5 | 40.0 | 40.4 |
| 25, CUMMINGS PARK CRESCENT, NORTHFIELD | Dwelling | 48.4 | 49.2 | 48.4 | 0.0 | No Change | 49.3 | 0.9 | Negigigile Adverse | 37.3 | 38.0 | 38.1 |
|  | Dwelling | 51.0 48.4 | 51.4 49.2 | 51.0 48.4 | 0.0 | $\frac{\text { No Change }}{\text { No Change }}$ | 51.8 49.3 | 0.8 | $\frac{\text { Negigigle Adverse }}{\text { Neligiole Adverse }}$ | 39.6 37.3 | 40.0 38.0 | 40.4 38.1 |
| 28, CUMMINGS PARK CRESCENT, NORTHFIELD | Dwelling | 51.0 | 51.5 | 51.1 | 0.1 | Negligibile Adverse | 51.9 | 0.9 | Negigigile Adverse | 39.6 | 40.1 | 40.4 |
| 29, CUMMINGS PARK CRESCENT, NORTHFIELD | Dwelling | 49.0 49.1 | 49.9 49.9 | 48.9 | -0.1 -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negligibl }}$ Beneficial | 49.8 49.9 | 0.8 0.8 | $\frac{\text { Negigigib Adverse }}{\text { Negigible Adverse }}$ | 37.8 37.9 | 38.5 38.6 | 38.6 <br> 38.6 |
| 30, CUMMINGS PARK CRESCENT, NORTHFIELD | Dwelling | 51.0 | 51.4 | 51.0 | 0.0 | No Change | 51.8 | 0.8 | Negiligile Adverse | 39.6 | 40.0 | 40.4 |
| 331, CUMMMGS PARK CRESCENT, NORTHFIELD | Dwelling | 49.0 51.0 | 49.7 51.5 | 48.9 51.1 | -0.1 0.1 | $\frac{\text { Negligible Beneficial }}{\text { Nefigiole Adverse }}$ | 49.8 51.9 | 0.8 0.9 | Negligile Adverse | 37.8 39.6 | 38.5 40.1 | 38.6 40.4 |
| 34, CUMMINGS PARK CRESCENT, NORTHFIELD | Dwelling | 51.0 | 51.5 | 51.0 | 0.0 | No Change | 51.9 | 0.9 | Negigigile Adverse | 39.6 | 40.1 | 40.4 |
| 35, CUMMMGS PARK CRESCENT, NORTHFIELD | Dwelling | 47.2 50.9 | 48.0 51.4 | 47.2 51.0 | 0.0 0.1 | No Change | $\frac{48.2}{51.8}$ | 1.0 0.9 | Negligibe Adverse | 36.2 39.5 | 36.9 40.0 | 37.1 40.4 |
| 36, CUMMMGS PARK CRESCENT, Northrielo | Dwelling | 50.9 46.9 | 51.4 47.7 | 51.0 46.8 | 0.1 .0 .1 | Negligiole Adverse | 51.8 47.8 | 0.9 | $\frac{\text { Negligible Adverse }}{\text { Negilibie Adverse }}$ | 39.5 35.9 | ${ }^{40.0} 3$ | $\stackrel{40.4}{36.8}$ |
| 38, CUMMINGS PARK CRESCENT, NORTHFIELD | Dwelling | 50.8 | 51.3 | 50.9 | 0.1 | Negligibile Adverse | 51.7 | 0.9 | Negiligile Adverse | 39.5 | 39.9 | 40.3 |
| 39, CUMMINGS PARK CRESCENT, NORTHFILLD | Welling | 46.8 | 47.6 | 46.8 | 0.0 | No Change | 47.8 | 1.0 | Negigible Adverse | 35.9 | 36.6 | 36.8 |
| 4, 40, CUMMMINGS PARK C CRESCENT, NORTHFFIELD | Dwelling | 50.9 | 50.8 <br> 51.4 | 50.9 | -0.0 | $\frac{\text { Negligiole Beneficial }}{\text { No Change }}$ | 50.9 | 0.9 | Neoligigile Adverse | 38.5 39.5 | 39.5 40.0 | 39.5 40.4 |
| 41, CUMMINGS PARK CRESCENT, NORTHFIELD | Dwelling | 47.0 | 47.7 | 47.0 | 0.0 | No Change | 48.0 | 1.0 | Negligible Adverse | 36.0 | 36.7 | 36.9 |
| 42, CUMMINGS PARK CRESCENT, NORTHHELD | Dwelling | 50.9 47.0 | ${ }_{517.3}^{47.7}$ | 50.8 47.0 | -0.1 0.0 | $\frac{\text { Negligible Beneitical }}{\text { No Change }}$ | ${ }^{51.7} 4$ | 0.8 1.0 | $\frac{\text { Negigible Adverse }}{\text { Neoligible Adverse }}$ | 39.5 36.0 | 39.9 36.7 | ${ }^{40.3}$ |
| 44, CUMMINGS PARK CRESCEEENT, NORTHFIELD | Deeling | 50.9 | 51.3 | 50.8 | -0.1 | Negligible Beneficial | 51.7 | 0.8 | Negigioble Adverse | 39.5 | 39.9 | 40.3 |
| 45, CUMMMGS PARK CRESCENT, NoRTHFILLD | Dweling | ${ }^{48.4} 5$ | 48.3 51.6 | 48.4 | 0.0 | $\frac{\text { No Change }}{\text { No Change }}$ | $\stackrel{49.0}{52.0}$ | 0.6 | $\frac{\text { Negigigile Adverse }}{\text { Negigible Adverse }}$ | 37.3 39.7 | 37.2 40.2 | 37.8 40.5 |
| 47, CUMMINGS PARK CRESCENT, NORTHFILLD | Dwelling | 48.4 | 48.3 | 48.4 | 0.0 | No Change | 49.0 | 0.6 | Negiligile Adverse | 37.3 | 37.2 | 37.8 |
|  | Dwelling | ${ }_{46.7}$ | $\stackrel{51.6}{47.5}$ | ${ }_{46.7}^{56.7}$ | 0.0 | No No Change | $\stackrel{52.0}{47.7}$ | 1.0 | $\frac{\text { Negigigle Adverse }}{\text { Neligible Adverse }}$ | ${ }_{35.8}$ | ${ }_{36.5}^{40.2}$ | ${ }_{36.7}^{40.5}$ |
| 5, CUMMINGS PARK CRESCENT, NORTHFIELD | Dwelling | 49.1 | 49.8 | 49.0 | -0.1 | Negligible Beneficial | 49.9 | 0.8 | Negligible Adverse | 37.9 | 38.6 | 38.6 |
| S0, CUMMMGS PARK CRESCENT, NoRTHHELD | Dwelling | 51.3 46.7 | $\stackrel{51.7}{47.5}$ | 51.2 46.7 | 0.0 | $\frac{\text { Negligible Beneticial }}{\text { No Change }}$ | 52.1 47.7 | 0.8 1.0 | Negigigiole Avverse | 39.9 35.8 | $\stackrel{40.3}{36.5}$ | 40.6 36.7 |
| 52, CUMMINGS PARK CRESCENT, NORTHFIELD | eeling | 51.3 | 1.8 | 51.3 | 0.0 | No Change | 52.1 | 0.8 | Negligible Adverse | 39.9 | 40.4 |  |
| 53, CUMMINGS PARK CRESCENT, NORTHFIELD | Dwelling | 46.9 | 47.5 | 46.8 | -0.1 | Negligible Beneficial | 47.8 | 0.9 | Negligible Adverse | 35.9 | 36.5 | 36.8 |
| 54, CUMMINGS PARK CRESCENT, NORTHFILLD | Dwelling | 50.9 | 51.2 | 50.9 | 0.0 | No Change | 51.7 | 0.8 | Negigibile Adverse | 39.5 | 39.8 | 40.3 |
| 55. COMMINGS PARK CRESCEN, NORTHFIEL | Dwelling | 46.9 | $\frac{47.5}{512}$ | 46.8 | ${ }^{-0.1}$ | Negligible Beneticial | 47.8 517 | 0.9 | Negigigle Adverse | 35.9 39.5 | 36.5 398 | 36.8 403 |
| 57, CUMMINGS PARK CRESCENTT, NORTHFFIELD | Dwelling | ${ }_{49.3}$ | ${ }^{48.7}$ | 50.9 | -0.1 | Negligible engeneficial | ${ }^{51.7}$ | 0.4 | Negigigibe Adverse | 39.5 38.1 | 39.8 <br> 37.6 | ${ }^{40.5}$ |
| 58, CUMMINGS PARK CRESCEENT, NORTHFIELD | Dwelling | 50.7 | 51.0 | 50.7 | 0.0 | No Change | 51.5 | 0.8 | Negligible Adverse | 39.4 | 39.6 | 40.1 |
| 59, CUMMINGS PARK CRESCENT, NORTH ${ }^{\text {a }}$ (IELD | Oweliling | 48.8 | ${ }^{48.6}$ | 48.8 | 0.0 | No Change | 49.4 | 0.6 | Negiligile Adverse | 37.7 383 | 37.5 3.15 | ${ }^{38.2}$ |
| 60, CUMMMINGS PARK C CRESCENT, NORTHFIELLD | Dwelling | 49.5 50.7 | ¢1.0. | 49.4 50.7 | -0.0 | $\frac{\text { Negigigle Benefical }}{\text { No Change }}$ | 50.4 51.5 | 0.9 | Neoligigible Adverse | 38.3 39.4 | 39.1 39.6 | 39.1 40.1 |
| 61, CUMMINGS PARK CRESCENTT NORTHEIELD | Swelling | -46.3 | $\frac{46.9}{508}$ | 46.2 50.5 | ${ }^{-0.1}$ | Negligible Beneficial | $\frac{47.2}{513}$ | 0.9 | Negligible Adverse | 35.4 392 | $\begin{array}{r}35.9 \\ 3.9 \\ \hline\end{array}$ | 36.2 |
| 62, CUMMMGS PAAK CRESCENT, NORTHHELELD | Dwelling | ${ }^{50.5} 46$ | 50.8 | 50.5 | -0.1 | Negligible Eenefificial | $\stackrel{51.3}{47.2}$ | 0.9 | Negigigible Adverse | 35.4 | 35.9 | 36.2 |

A90/A96 Haudagain Improvement
DMRB Stage 3 Environmental Statement

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 Lnight,outside | DS33 <br> Lnight,outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 64, CUMMINGS PARK CRESCENT, NORTHFIELD | Dwelling | 50.1 | 50.5 | 50.1 | 0.0 | No Change | 50.9 | 0.8 | Negiligile Adverse | 38.8 | 39.2 | 39.5 |
| 65. CUMMINGS PARK CRESCEENT NORTHFIELD | Deeling | 46.3 | 46.9 | 46.2 | ${ }^{-0.1}$ | Negligible Beneficial | $\frac{47.2}{51.1}$ | 0.9 | Negiligile Adverse | 35.4 | 35.9 | $\frac{36.2}{397}$ |
| 66, CUMMMNS PARK CRESCENTT NORTHEIELD | Dwelling | 50.4 46.3 | 50.6 46.9 | 50.3 46.2 | -0.11 0.1 | Negligible Benenicial | 51.1 47.2 | 0.7 0.9 | Negiligile Adverse | 39.1 <br> 35.4 | $\begin{array}{r}39.3 \\ 35.9 \\ \hline\end{array}$ | 39.7 <br> 36.2 |
| 68, CUMMMINGS PARK C CESECENT, NORTHFIELD | ${ }^{\text {Duelilig }}$ | ${ }_{50.4}^{46.3}$ | $\stackrel{40.9}{50.6}$ | ${ }_{50.4}^{46.2}$ | -0.0 | No Change | 51.2 | 0.8 | Neogigiole Adverse | 39.1 | ${ }_{39.3}$ | 39.8 |
| 69, CUMMINGS PARK CRESCENT, NORTHFIELD | Dwelling | 46.1 | 46.7 | 46.0 | -0.1 | Negligible Benenficial | 47.0 | 0.9 | Negiligile Adverse | 35.2 | 35.8 | 36.0 |
| 7, CUMMMNGS PARK CRESCENT, NORTHFIELD | Dwelling | 49.2 | 50.0 | 49.2 | 0.0 | No Change | 50.0 | 0.8 | Negiligile Adverse | 38.0 | 38.7 | 38.7 |
| 70, CUMMINGS PARK CRESCENT, NORTHFIELD | Wwelling | 50.3 | 50.4 | 50.2 | -0.1 | Negligible Beneficial | 51.0 | 0.7 | Negiligile Adverse | 39.0 | 39.1 | 39.6 |
| 71, CUMMINGS PARK CRESCENT, NORTHFILLD | Wwelling | 46.1 | 46.7 | 46.0 | -0.1 | Negligible Beneficial | 47.0 | 0.9 | Negligible Adverse | 35.2 | 35.8 | 36.0 |
| 72, CUMMINGS PARK CRESCENT, NORTHFILLD | welling | 50.2 | 50.4 | 50.2 | 0.0 | No Change | 51.0 | 0.8 | Negigioble Adverse | 38.9 | 39.1 | 39.6 |
| 73, CUMMINGS PARK CRESCENT, NORTHFIELD | welling | 46.0 | 46.7 | 46.0 | 0.0 | No Change | 46.9 | 0.9 | Negigigile Adverse | 35.1 | 35.8 | 35.9 |
| 74, CUMMINGS PARK CRESCENT, NORTHFIELD | welling | 50.1 | 50.3 | 50.1 | 0.0 | No Change | 50.9 | 0.8 | Negigioble Adverse | 38.8 |  | 39.5 |
| 75, CUMMINGS PARK CRESCENT, NORTHFILLD | Wwelling | 46.0 | 46.7 | 46.0 | 0.0 | No Change | 46.9 | 0.9 | Negigioble Adverse | 35.1 | 35.8 | 35.9 |
| 76, CUMMINGS PARK CRESCENT, NORTHFILLD |  | 50.1 | 50.3 | 50.1 | 0.0 | No Change | 50.9 | 0.8 | Negligible Adverse | 38.8 | 39.0 | 39.5 |
| 78, CUMMINGS PARK CRESCEENT, NORTHFIELD | Dwelling | 49.2 | 49.6 | 49.1 | -0.1 | Negligible Beneficial |  | 0.8 | Negigigile Adverse | 38.0 | 38.4 | 38.7 |
| 8, CUMMINGS PARK CRESCENT, NORTHFIELD | Owelling | 49.4 | 50.3 | 49.3 | -0.1 | Negligible Beneficial | 50.3 | 0.9 |  | 38.2 | 9.0 | 39.0 |
| 80, CUMMINGS PARK ChESCEN, NORTHFELD | weling | 49.4 | 49.7 | 49.4 | 0.0 | No Change |  | 0.8 |  | ${ }^{38,2}$ | . 3 | 38.9 |
| 82, COMMINGS PARK CRESCENT, NORTHFIELD | weling | 49.1 | 49.5 | 49.1 | 0.0 | No Change | 50.0 | 0.9 | Negigigie Adverse | ${ }^{37.9}$ | 38.3 3.0 |  |
| 84, COMMIMGS PARK CRESCENT, NORTHFIELD | weling | 48.7 | 49.2 | ${ }^{48.7}$ | 0.0 | No Change | 49.6 | 0.9 | Negigigile Adverse |  | 38.0 | 38.4 |
| 86, CUMMMGS PARK CRESCENT, NORTHHIELD | Dwelling | 48.7 47.9 | $\frac{49.2}{48.5}$ | $\frac{48.7}{47.9}$ | 0.0 | $\frac{\text { No C Cange }}{\text { No Change }}$ | 49.6 48.9 | 0.9 1.0 | N Negligibe Adverse | 37.6 36.8 | 38.0 37.4 | 38.4 37.7 |
|  | Owelling | 48.7 | 49.6 | 48.6 | -0.1 | Negligible Beeneficial | 49.6 | 0.9 | Neogigiole Adverse | 37.6 | ${ }^{38.4}$ | 38.4 |
| 90, CUMMINGS PARK CRESCENT, NORTHFIELD | Dwelling | 47.8 | 48.4 | 47.7 | -0.1 | Negligible Beneficial | 48.7 | 0.9 | Negigigile Adverse | 36.8 | 37.3 | 37.6 |
| 92, CUMMINGS PARK CRESCENT, NORTHFILLD | Dwelling | 47.4 | 48.1 | 47.4 | 0.0 | No Change | 48.4 | 1.0 | Negligibl Adverse | 36.4 | 37.0 | 37.3 |
| 94, CUMMMGS PARK CRESCENT, NoRTHFIELD | Dwelling | ${ }_{47.3}^{47.6}$ | $\stackrel{48.1}{47.9}$ | 47.5 47.2 | -0.1 -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negligibl }}$ Beneficial | 48.5 48.2 | 0.9 0.9 | $\frac{\text { Negligibe Adverse }}{\text { Negligibe Aviverse }}$ | 36.6 36.3 | 37.0 36.8 | 37.4 37.1 |
| 98, CUMMINGS PARK CRESCENT, NORTHFIELD | Dwelling | 49.6 | 49.1 | 49.6 | 0.0 | No Change | 50.1 | 0.5 | Negligible Adverse | 38.4 | 37.9 | 38.8 |
| CUMMINGS PARK COMMUNITY CENTRE, CUMMINGS PARK CRESCENT, NORTHFIELD | Community Centre | 49.3 | 49.2 | 49.3 | 0.0 | No Change | 49.9 | 0.6 | Negligible Adverse | 38.1 | 38.0 | 38.6 |
| SHANDOR COTTAGE, 19, CUMMINGS PARK DRIVE, NORTHFIEL | Dwelling | 52.6 | 53.9 | 52.7 | 0.1 | Negligible Adverse | 54.0 | 1.4 | Negligible Adverse | 41.1 | 42.2 | 42.3 |
| CUMMINGS PARK COMMUNITY FLAT, 122, CUMMINGS PARK DRIV NORTHFIELD | Dwelling | 51.6 | 52.5 | 51.6 |  | No Change | 52.7 | 1.1 | Negigigle Adverse | 40.2 | 41.0 | 41.2 |
| 1, CUMMINGS PARK DRIVE, NORTHFIELD | Dwelling | 49.1 | 50.1 | 48.9 | -0.2 | Negligible Beneficial | 50.0 | 0.9 | Negiligile Adverse | 37.9 | 38.8 | 38.7 |
| 10, CUMMINGS PARK DRIVE, NORTHFIELD |  |  |  |  |  | No Chang |  |  | Negigigile Adverse |  |  |  |
| 100, CUMMINGS PARK DRIVE, NORTHEIELD | Dweling | 51.9 | 53.1 | 52.0 | 0.1 | Negiligile Adverse | 53.2 | ${ }_{1}^{1.3}$ | Negiligble Adverse | 0.4 | 1.5 | 41.6 |
| 102, COMMINGS PARK DRIVE, NORTHFIELD | Oweiling | 51.2 | 52.2 | 51.2 | 0.0 | Noc change | 52.4 | . 2 | Negligiole Aaverse | 39.8 | 40.7 | 40.9 |
|  | Oweling | 51.4 | 52.5 | 51.5 | 0.1 | Negiligile Adverse | 52.7 | 1.3 | Negligile Adverse | 40.0 | ${ }_{40}^{40}$ | 41.2 |
| 108, CUMMINGS PARK DRIVE, NORTHFIELD | Dwelling | 51.2 | 52.3 | 51.3 | 0.1 | Negligible Beneficial | 52.5 | 1.3 | Negiligile Adverse | 39.8 | 40.8 | 41.0 |
| 11, CUMMINGS PARK DRIVE, NORTHFIELD | Dwelling | 50.7 | 51.5 | 50.7 | 0.0 | No Change | 51.7 | 1.0 | Negligible Adverse | 39.4 | 40.1 | 40.3 |
|  | Dwelling | 51.5 | 52.5 | 51.6 | 0.1 | Negigigile Adverse | 52.8 | 1.3 | Negigible Adverse | 40.1 | 41.0 | 41.3 |
| 112. CUMM 1 NGS PARK DRIVE, NORTHFIELD | Dweling | 年51.5 | 52.5 52.8 | 51.6 51.8 | ${ }_{0}^{0.1}$ | Negiligile Adverse | 52.8 53.0 | 1.3 <br> 1.2 <br> 1 | Negligile Adverse | 40.1 40.4 | 41.0 41.3 | 41.3 41.4 |
| 116, CUMMINGS PARK DRIVE, NORTHFIELD | Dwelling | 51.8 | 52.8 | 51.8 | 0.0 | No Change | 53.0 | 1.2 | Negligible Adverse | 40.4 | 41.3 | 41.4 |
| 118, CUMMINGS PARK DRIVE, NORTHFIELD | Dwelling | 51.8 | 52.7 | 51.8 | 0.0 | No Change | 53.0 | 1.2 | Negigiole Adverse | 40.4 | 41.2 | 41.4 |
| 12, CUMMINGS PARK DRIVE, NORTHFIELD | Dwelling | 51.8 518 | 53.0 <br> 5.0 | 51.7 518 | -0.1 | Negligible Beneficial | 52.9 53 | 1.1 | Negligile Adverse | ${ }^{40.4}$ | 41.4 | 41.3 |
|  | ${ }^{\text {Duelling }}$ | ${ }^{517.8}$ | ${ }^{52.8} 48.6$ | ${ }_{4} 51.8$ | 0.0 | No Change | ${ }^{53.0}$ | ${ }^{1.2}$ | Neogigiole Adverse | ${ }^{40.4}$ | ${ }_{37.5}^{47.5}$ | ${ }^{47.9}$ |
| 13, CUMMINGS PARK DRIVE, NORTHFIELD | Dwelling | 50.8 | 51.6 | 50.8 | 0.0 | No Change | 51.7 | 0.9 | Negiligile Adverse | 39.5 | 40.2 | 40.3 |
| ${ }^{14, C U M M I N G S ~ P A R K ~ D R I V E, ~ N O R T H F I E L D ~}$ | Dwelling | 51.3 | 52.5 | 51.2 | -0.1 | Negligible Beneficial | 52.5 | 1.2 | Negigigile Adverse | 39.9 | 41.0 | 41.0 |
| 15, CUMMINGS PARK DRIVE, NORTHFIELD |  | 50.7 | 51.4 | 50.6 | -0.1 | Negligible Beneficial | 51.6 | 0.9 | Negiligibe Adverse | 39.4 | 40.0 | 40.2 |
| 16, CUMMINGS PARK DRIVE, NORTHFIELD | Dwelling | 51.4 | 52.6 | 51.3 | -0.1 | Negligible Beneficial | 52.5 |  | Negigigibe Adverse | 40.0 | 41.1 |  |
| 18, CUMMINGS PARK DRIVE, NoRTHFELEL | Oweling | - 53.9 | 55.0 517 | $\begin{array}{r}53.9 \\ 509 \\ \hline\end{array}$ | -0.0 | No No Change | 55.1 519 | 1.2 | Negiligle Adverse | ${ }_{39}^{42.2}$ | ${ }_{40.2}^{43.2}$ | ${ }_{40.3}^{43.3}$ |
| 20, CUMMINGS PARK DRIVE, NORTHFIELD | Dwelling |  | 54.2 | 51 |  | No Cha | 5 | 1.2 | Negligible Adverse | 41.5 | 5 | 42.6 |
| 21, CUMMINGS PARK DRIVE, NORTHFIELD | Dwelling | 53.3 | 54.6 | 53.3 | 0.0 | No Change | 54.6 | 1.3 | Negigigile Adverse | 41.7 | 42.9 | 42.9 |
| 22, CUMMINGS PARK DRIVE, NORTHFIELD | Dwelling | 53.1 | 54.2 | 53.1 | 0.0 | No Change | 54.3 | 1.2 | Negigigile Adverse | 41.5 | 42.5 | 42.6 |
| 23, CUMMINGS PARK DRIVE, NORTHFIELD | Dwelling | 52.4 | 53.6 | 52.4 | 0.0 | No Change | 53.7 | 1.3 | Negigiolie Adverse | 40.9 | 42.0 | 42.1 |
|  | Dwelling | 53.4 51.5 | 54.4 52.6 | 53.4 51.5 | 0.0 | $\frac{\text { No Change }}{\text { No Change }}$ | 54.6 52.7 | 1.2 1.2 | $\frac{\text { Negigigle Adverse }}{\text { Neoligible Adverse }}$ | $\frac{41.8}{40.1}$ | $\frac{42.7}{41.1}$ | $\frac{42.9}{41.2}$ |
| 26, CUMMINGS PARK DRIVE, NORTHFIELD | Dwelling | 53.6 | 54.5 | 53.5 | -0.1 | Negligible Benenficial | 54.7 | 1.1 | Negilibile Adverse | 42.0 | 42.8 | 43.0 |
| 27, CUMMINGS PARK DRIVE, NORTHFIELD | Dwelling | 50.7 | 51.8 | 50.7 | 0.0 | No Change | 51.9 | 1.2 | Negigioble Adverse | 39.4 | 40.4 | 40.4 |
| 28, CUMMMNS PARK DRIVE, NoRTHFELED | Dwelling | 53.5 50.1 | 54.5 510 | 53.5 50.1 | 0.0 | No Change | 54.6 <br> 512 <br> 1. | ${ }_{1}^{1.1}$ | Negigigle Adverse | 41.9 388 | ${ }^{42.8}$ | ${ }^{42.9}$ |
| 3 3, CUMMINGS PARK DRIVE, NORTHFIELD | Owelling | 49.9 | 50.5 | 49.8 | -0.1 | Negligible Beneficial | 50.7 | 0.8 | Negligible Adverse | 38.6 | 39.2 | 39.4 |
| 30, CUMMINGS PARK DRIVE, NORTHFIELD | Dwelling | 53.1 | 54.1 | 53.1 | 0.0 | No Change | 54.2 | 1.1 | Negigibile Adverse | 41.5 | 42.4 | 42.5 |
| 31, CUMMINGS PARK DRIVE, NoRTHFIELD | Owelling | 49.9 53.0 | 50.9 | 49.9 530 | 0.0 | No Change | 51.0 | 1.1 | Negigiole Adverse | 38.6 <br> 14 | 39.5 | 39.6 |
| $\frac{32, \text { CUMMINGS PARK DRIVE, NoRTHFIELD }}{\text { 33, CUMMINGS PARK DRIVE NORTHFELLD }}$ | Dwelling | 53.0 49.9 | 54.0 <br> 50.8 | 53.0 | 0.0 | $\frac{\text { No Change }}{\text { No Change }}$ | 年51.0 | ${ }_{1}^{1.1}$ | Neogigible Adverse | $\stackrel{41.4}{38.6}$ | ${ }^{42.3}$ | 42.4 |
| 34, CUMMINGG PARK DRIIV, NORTHFIELD | Welling | 52.9 | 53.9 | 52.9 | 0.0 | ge | 54.1 | 1.2 | giligile Adverse | 41.3 | 2. 2 | 42.4 |
| 35, CUMMINGS PARK DRIVE, NORTHFIELD | Wwelling | 50.4 | 51.1 | 50.4 | 0.0 | No Change | 51.5 | 1.1 | Negigigile Adverse | 39.1 | 39.7 |  |
| 36, CUMMINGS PARK DRIVE, NORTHFIELD | Deelling | 53.0 | 54.0 | 53.0 | 0.0 | No Change | 54.2 | 1.2 | Negigigile Adverse | 41.4 | 42.3 | 42.5 |
| 3 37, CUMMINGGS PARK DRIVE, NORTHFFIELD | Dwelling | 49.6 | 50.5 | 49.6 | 0.0 | No Change | 50.7 | 1.1 | Negiligibe Adverse | 38.4 | 39.2 | 39.4 |
| 38, CUMMINGS PARK DRIVE, NORTHFIEL | Oweling | 53.1 | 54.1 | 53.1 | 0.0 | No Change | 54.3 | 1.1 | Negligilie Adverse | 41.5 | 42.4 | ${ }^{42.6}$ |
| 39, CUMMINGS PARK DRIVE, Northrield | Dwelling | + 49.5 | 50.4 | ${ }^{49.5}$ | 0.0 -0.1 | Negligible Beneneficial | 50.6 | 1.1 0.9 | Negigiole Adverse | 38.3 40.0 | 39.1 40.6 | 39.3 40.8 |
| 40, CUMMINGS PARK DRIVE, NORTHFIELD | Dwelling | 53.1 | 54.1 | 53.1 | 0.0 | No Change | 54.3 | 1.2 | Negiligible Adverse | 41.5 | 42.4 | 42.6 |
| 44, CUMMINGS PARK DRIVE, NORTHFIELD | Deelling | 49.5 | 50.4 | ${ }^{49.5}$ | 0.0 | No Change | 50.6 | 1.1 | Negigigibe Adverse | 38.3 | 39.1 | 39.3 |
| ${ }^{42}$ 43, CUMMMNGS PAAK DRAVE, NoRTHFIELD | Dwelling | ${ }_{5}^{53.1}$ | 54.1 50.7 | ${ }^{53.1}$ | 0.0 | ${ }^{\text {No Co Change }}$ | 54.3 51.0 | 1.2 0.9 | Negigigle Adverse | ${ }^{48.5}$ | ${ }^{42.4}$ | ${ }^{42.6}$ |
| 44, CUMMINGS PARK DRIVE, NoRTHFIELD | Dwelling | $\stackrel{53.1}{49}$ | $\frac{54.2}{501}$ | $\stackrel{53.1}{49}$ | 0 | No Change | 54.4 503 | ${ }_{1}^{1.3}$ | Negligile Adverse | 41.5 380 | $\stackrel{42.5}{388}$ | 42.7 390 |
| 45, CUMMINGS PARK DRIVE, NORTHFIELD |  |  |  |  |  | No Change |  |  | Negligibe Adverse |  |  |  |

A90/A96 Haudagain Improvement

## DMRB Stage 3 Environmental Statement

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 <br> Lnight,outside | DM33 <br> Lnight,outside | DS33 Lnight,outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 46, CUMMINGS PARK DRIVE, NORTHFIELD | Dwelling | 53.4 | 54.5 | 53.4 | 0.0 | No Change | 54.6 | 1.2 | Negigigile Adverse | 41.8 | 42.8 | 42.9 |
| 47, CUMMIINGS PARK DRIVE, NORTHFIELD | Dwelling | 49.5 | 50.4 | 49.5 | 0.0 | No Change | 50.6 | 1.1 | Negligible Adverse | 38.3 | 39.1 | 39.3 |
| 48, CUMMINGS PARK DRIVE, NORTHFIELD | Dwelling | 53.5 | 54.6 | 53.5 | 0.0 | No Change | 54.7 | 1.2 | Negiligile Adverse | 41.9 | 42.9 | 43.0 |
| 49, CUMMINGS PARK DRIVE, NORTHFIELD | Dwelling | 49.0 | 50.0 | 49.0 | 0.0 | No Change | 50.2 | 1.2 | Negligible Adverse | 37.8 | 38.7 | 38.9 |
| 5, CUMMINGS PARK DRIVE, NORTHFIELD | Dwelling | 50.4 | 51.1 | 50.4 | 0.0 | No Change | 51.3 | 0.9 | Negligible Adverse | 39.1 | 39.7 | 39.9 |
| 50, CUMMINGS PARK DRIVE, NORTHFIELD | Dwelling | 52.9 | 54.1 | 52.9 | 0.0 | No Change | 54.2 | 1.3 | Negigigile Adverse | 41.3 | 42.4 | 42.5 |
| 51, CUMMINGS PARK DRIVE, NORTHFIELD | Dwelling | 49.0 | 50.0 | 49.0 | 0.0 | No Change | 50.2 | 1.2 | Negligible Adverse | 37.8 | 38.7 | 38.9 |
| 52. CUMMINGS PARK DRIVE, NORTHFIELD | Dwelling | 52.7 | 54.0 | 52.8 | 0.1 | Negligible Beneficial | 54.0 | 1.3 | Negilibile Adverse | 41.2 | 42.3 | 42.3 |
| 53, CUMMINGS PARK DRIVE, NORTHFIELD | Deelling | 49.6 | 50.6 | 49.7 | 0.1 | Negiligibe Adverse | 50.8 | 1.2 | Negigigible Adverse | 38.4 | 39.3 | 39.5 |
| 54, CUMMINGS PARK DRIVE, NoRTHFIELD | Dwelling | ${ }^{52.6}$ | 53.6 <br> 50. | ${ }_{42.6}^{497}$ | 0.0 | No Change | 53.8 <br> 50.8 | 1.12 | Negiligibe Adverse | ${ }_{31.1}$ | ${ }^{42.0}$ | 42.2 395 |
| ${ }^{55,} 5$ | ${ }^{\text {Dwelling }}$ Dowling | ${ }_{52.6}^{49.7}$ | ${ }_{50.6}^{53.6}$ | ${ }_{52.6}$ | 0.0 | ${ }^{\text {No Co Change }}$ | ${ }_{50.8}^{53.8}$ | ${ }_{1}^{1.2}$ | Negigigibe Adverse | $\frac{38.5}{41.1}$ | $\stackrel{39.4}{42.0}$ | 39.5 42.2 |
| 57, CUMMINGS PARK DRIVE, NORTHFIELD | Dwelling | 49.2 | 50.1 | 49.2 | 0.0 | No Change | 50.3 | 1.1 | Negligible Adverse | 38.0 | 38.8 | 39.0 |
| 58, CUMMINGS PARK DRIVE, NORTHFIELD | welling | 53.2 | 54.3 | 53.3 | 0.1 | Negligible Beneficial | 54.5 | 1.3 | Negligible Adverse | 41.6 | 42.6 | 42.8 |
| 59, CUMMINGS PARK DRIVE, NORTHFIELD | eeling | 49.2 | 50.1 | ${ }_{49.2}^{4.7}$ | 0.0 | No Change | 50.3 | 1.1 | Negiligibe Adverse | 38.0 | 38.8 |  |
| 6, CUMMINGS PARK DRIVE, NORTHFFIELD | welling | 51.8 | 52.6 | 51.7 59 | -0.1 | Negigigible Beneficial |  | 0.9 | Negiligible Adverse | 40.4 | 41.1 | 41.2 |
| 60, CUMMINGS PARK DRIVE, NORTHFIELD | eling | 53.3 | 54.4 |  |  |  | 54.6 |  |  |  |  | 2.9 |
| 62. CUMMINGS PARK DRIVE. NORTHFIEL | Dwelling | ${ }_{53,1}^{49.2}$ | 54.0 | ${ }_{53.1}^{49.2}$ | 0.0 | No Change | 54. | 1. | Neogigigib Adverse | 41.5 | 423 | 425 |
| 63, CUMMINGS PARK DRIVE, NORTHFIELD | Dwelling | 49.2 | 50.1 | 49.2 | 0.0 | No Change | 50.4 | 1.2 | Negligible Adverse | 38.0 | 38.8 | 39.1 |
| 64, CUMMINGS PARK DRIVE, NORTHFIELD | Deelling | 53.1 | 54.0 | 53.1 | 0.0 | No Change | 54.2 | 1.1 | Negiligile Adverse | 41.5 | 42.3 | 42.5 |
| 65, CUMMINGS PARK DRIVE, NORTHFIELD | Dwelling | 49.6 | 50.0 | 49.6 | 0.0 | No Change |  | 0.9 | Negligible Adverse | 38.4 | 38.7 | 39.2 |
| 66, CUMMINGS PARK DRIVE, NoRTHFIELD | Oweling | 52.8 | 53.9 | 52.8 | 0.0 | No Change | 54.0 | 1.1 | Negiligibe Adverse | ${ }_{31}^{41.3}$ | ${ }^{42.2}$ | ${ }^{42.3}$ |
| 67, CUMMINGS PARK DRIVE, NORTHFELEL | welling | ${ }_{48.7}$ | 49.7 | ${ }_{48.7}$ | 0.0 | No Change | 49.8 | 1.1 | Negigigble Adverse | 37.6 | 38.5 | 38.6 |
| 68, CUMMNGS PAAK DRIVE, NVRTHFELED | Dwelling | $\begin{array}{r}52.7 \\ 48.2 \\ \hline\end{array}$ | ${ }_{4}^{53.8}$ | 52.7 48.2 | 0.0 | $\frac{\text { No Change }}{}$ No Change | 53.9 49.3 | 1.2 1.1 | Negigigbe Adverse | 41.2. | ${ }^{42.2}$ | 42.2 38.1 |
| 7, CUMMINGS PARK DRIVE, NORTHFIELD | Dwelling | 50.4 | 51.0 | 50.3 | -0.1 | Negligible Benenicical | 51.2 | 0.8 | Negigigile Adverse | 39.1 | 39.6 | 39.8 |
| 70, CUMMINGS PARK DRIVE, NORTHFIELD | welling | 53.1 | 54.1 | 53.1 | 0.0 | No Change | 54.3 | 1.2 | Negiligile Adverse | 41.5 | 42.4 | 42.6 |
| (7, CUMMMNS PAAK DRIVE, NoRTHFIELD | ${ }^{\text {Owelling }}$ Dowling | ${ }_{53.2}^{48.5}$ | ${ }_{54.3}$ |  | 0.0 | No Change | ${ }_{54.4}^{49.7}$ | 1.2 | Negigigibe Adverse | $\frac{37.4}{41.6}$ | ${ }^{38.3} 4$ | 38.5 42.7 |
| 74, CUMMINGS PARK DRIVE, NORTHFIELD | Dwelling | 52.6 | 53.7 | 52.7 | 0.1 | Negiligile Adverse | 53.9 | 1.3 | Negligible Adverse | 41.1 | 42.1 | 42.2 |
| 76, CUMMINGS PARK DRIVE, NORTHFIELD | Deelling | 52.5 | 53.6 | 52.5 | 0.0 | No Change | 53.7 | 1.2 | Negligible Adverse | 41.0 | 42.0 | 42.1 |
| 78. CUMMINGS PARK DRIVE, NoRTHFIEL |  |  |  |  |  | Negligiole Beneficial |  |  |  |  |  |  |
| 8, COMMINGS PARK Dive, | Dwelling | ${ }_{5}^{52.3}$ | ${ }_{5}^{52.2} 5$ | 51.3. 52.7 | ${ }_{0}^{0.1}$ | Neogioiotile Adverse | ${ }_{53.9}^{52.3}$ | ${ }_{1.3}^{1.0}$ | Negigigib Adverse | 39.9 41.1 | ${ }_{42.2}^{40.7}$ | ${ }_{42.2}$ |
| 82, CUMMINGS PARK DRIVE, NORTHFIELD | Dwelling | 52.3 | 53.5 | 52.4 | 0.1 | Negiligile Adverse | 53.6 | 1.3 | Negligible Adverse | 40.8 | 41.9 | 42.0 |
| 84, CUMMINGS PARK DRIVE, NORTHFIELD | Dwelling | 52.5 | 53.3 | 52.5 | 0.0 | No Change | 53.6 | 1.1 | Negigigile Adverse | 41.0 | 41.7 | 42.0 |
| 86, CUMMINGS PARK DRIVE, NORTHFIELD | welling | 52.0 | 53.2 | 52.1 | 0.1 | Negigioble Adverse | 53.3 | 1.3 | Negigible Adverse | 40.5 | 41.6 | 41.7 |
| 88, CUMMMINGS PARK DRIVE, NORTHFIELD | Dwelling | 50.6 <br> 50.4 | 51.2 | 51.7 | 0.0 | Negigiole Adverse | 52.9 <br> 51.3 | ${ }_{0}^{1.3}$ | Neoligigile Adverse | ${ }^{40.2}$ | ${ }_{39.8}^{41.2}$ | ${ }_{39.9}$ |
| 90, CUMMINGS PARK DRIVE, NORTHFIELD | Dwelling | 51.9 | 52.8 | 51.9 | 0.0 | No Change | 53.1 | 1.2 | Negligible Adverse | 40.4 | 41.3 | 41.5 |
| 92, CUMMINGS PARK DRIVE, NORTHFIELD | Dwelling | 51.8 | 52.9 | 51.9 | 0.1 | Negligible Adverse | 53.1 | 1.3 | Negigigile Adverse | 40.4 | 41.3 | 41.5 |
| 94, CUMMINGS PARK DRIVE, NoRTHFIELD | Dwelling | ${ }^{51.5} 5$ | 52.5 52.3 | 51.5 <br> 51.4 | 0.0 | No Change | 52.7 52.5 | $\stackrel{1.2}{1.2}$ | Negigigle Adverse | 40.1 | 41.0 | 41.2 |
| 98, CUMMINGS PARK DRIVE, NORTHFIELD | Dwelling | 51.6 | 52.7 | 51.7 | 0.1 | Negigiolie Adverse | 52.9 | 1.3 | Negigiole Adverse | 40.2 | 41.2 | 41.3 |
| Bramble brae primary school. CUMMIng Park drive, Northfild | Primary School | 49.3 | 50.2 | 49.3 | 0.0 | No Change | 50.4 | 1.1 | Negigibile Adverse | 38.1 | 38.9 | 39.1 |
| 1, CUMMINGS PARK ROAD, NORTHFIELD | Dwelling | 59.2 | 60.7 | 59.3 | 0.1 | Negligible Beneficial | 60.7 | 1.5 | Negligible Adverse | 47.0 | 48.4 | 48.4 |
|  | Dwelling | ${ }_{5}^{49.4}$ | $\stackrel{50.2}{55.0}$ | ${ }_{53,8}^{49.4}$ | 0.0 | Negligible Eenaneficial | 50.5 55.1 | 1.4 | $\frac{\text { Negigigle Adverse }}{\text { Neoligible Adverse }}$ | 38.2 42.1 | 38.9 43.2 | 39.2 43.3 |
| 12, CUMMINGS PARK ROAD, NORTHFIELD | Dwelling | 49.4 | 50.2 | 49.4 | 0.0 | No Change | 50.5 | 1.1 | Negiligile Adverse | 38.2 |  |  |
| 13, CUMMINGS PARK ROAD, NORTHFIELD | Dwelling | 53.7 | 55.0 | 53.8 | 0.1 | Negligible Beneficial | 55.1 | 1.4 | Negligible Adverse | 42.1 | 43.2 | 43.3 |
| 14, CUMMINGG PARK ROAD, NORTTHFIELD | Deelling | ${ }_{57.9}^{47}$ | 48.5 | ${ }_{58.0}$ | 0.1 | Negigigibe Adverse | ${ }_{58.9}$ | 1.0 | Negiligibe Adverse | 36.8 | ${ }^{37.4}$ | 37.7 |
| - 15, CUMMINGS PARK ROAD, NoRTHFELED | Oweling | 53,7 479 | 55.0 48.5 | 53.8 48.0 | ${ }_{0}^{0.1}$ | $\frac{\text { Negigible Beneficial }}{\text { Neoligible Adverse }}$ | 55.1 48.9 | 1.4 1.0 | Negigigle Adverse | ${ }_{36.1}^{42.1}$ | 43.2 374 | 43.3 377 |
| 17, CUMMINGS PARK ROAD, NORTHFIELD | Dwelling | 52.6 | 53.7 | 52.6 | 0.0 | No Change | 53.9 | 1.3 | Negligible Adverse | 41.1 | 42.1 | 42.2 |
| 18, CUMMINGS PARK ROAD, NORTHFIELD | Dwelling | 48.8 | 49.4 | 48.9 | 0.1 | Negigigile Adverse | 49.9 | 1.1 | Negigible Adverse | 37.7 | 38.2 | 38.6 |
| $\frac{19, C U M M M N G S ~ P A R K ~ R O A D, ~ N O R T H F I E L D ~}{\text { 2, }}$ | Dwelling | 52.6 | 53.8 | 52.6 | 0.0 | No Change | 53.9 | ${ }_{1}^{1.3}$ | Neoligigible Adverse | 40.4 | $\frac{42.2}{41.6}$ | $\frac{42.2}{41.6}$ |
| 20, CUMMINGS PARK ROAD, NORTHFIELD | Deelling | 48.8 | 49.4 | 48.9 | 0.1 | Negigigible Adverse | 49.9 | 1.1 | Negigible Adverse | 37.7 | 38.2 | 38.6 |
| 21, CUMMINGS PARK ROAD, NORTHFIELD | Dwelling | 51.9 | 52.9 | 52.0 | 0.1 | Negigigile Adverse | 53.2 | 1.3 | Negigigile Adverse | 40.4 | 41.3 | 41.6 |
| $\frac{22, \text { CUMMMNS PAAK ROAD, }}{}$ | Dwelling | ${ }^{48.8} 5$ | $\stackrel{49.4}{52.9}$ | $\stackrel{48.9}{52.0}$ | ${ }_{0}^{0.1}$ | Negigible Adverse | $\stackrel{49.9}{53.2}$ | 1.1 1.3 | $\frac{\text { Negigigle Adverse }}{\text { Neoligible Adverse }}$ | 37.7 40.4 | 38.2 41.3 | $\stackrel{38.6}{41.6}$ |
| 24, CUMMINGS PARK ROAD, NORTHFIELD | Deelling | 48.8 | 49.4 | 48.9 | 0.1 | Negligible Adverse | 49.9 | 1.1 | Negligible Adverse | 37.7 | 38.2 | 38.6 |
| $\frac{25, \text { CUMMINGS PARK ROAD, NORTHFIELD }}{26 . \text { CUMMINGS PARK ROAD , NORTHFELED }}$ | Dwelling | 51.1 47.8 | 51.7 48.7 | 51.2 47.8 | 0.1 0.0 | Negligiole Adverse | 52.2 48.9 | 1.1 1.1 | Negigiole Adverse | 39.7 36.8 | 40.3 37.6 | 40.7 37.7 |
| $\frac{27, \text { CUMMINGS PARK ROAD, }}{}$, NORTHFIELED | Dwelling | $\stackrel{4}{51.1}$ | ${ }_{51.7}$ | ${ }_{51.2}$ | ${ }_{0}^{0.1}$ | Negoligible Adverse | 52.2 | ${ }_{1}^{1.1}$ | Neogigigle Adverse | ${ }^{39.7}$ | 40.3 | ${ }^{30.7}$ |
| 28, CUMMINGS PARK ROAD, NORTHFIELD | Dwelling | 47.8 | 48.7 | 47.8 | 0.0 | No Change | 48.9 | 1.1 | Negigigile Adverse | 36.8 | 37.6 | 37.7 |
| 29. CUMMINGS PARK ROAD, NORTHFIELD | Owelling | 51.1 | 51.7 | 51.2 | 0.1 | Negigioble Adverse | 52.2 | 1.1 | Negigigile Adverse | 39.7 | 40.3 | 40.7 |
| 3, CUMMINGS PARK ROAD, NORTHFIELD | Deelling | 59.1 | 60.6 | 59.2 | 0.1 | Negiligibe Adverse |  | 1.5 | Negiligble Adverse | 46.9 | 48.3 | 48.3 |
| 3 3, CUMMINGS PARK ROAD, NORTHFIELD | Deelling | 50.6 | 50.4 | 51.0 | 0.4 | Negiligibe Adverse | 51.6 | 1.0 | Negigigie Adverse | 39.3 | 39.1 | 40.2 |
| 31, CUMMINGS PARK ROAD, NORTHFIEL | Oweling | 51.1. | 51.7 50.4 | 51.2 | 0.1 | Negigigibe Adverse | 52.2 | 1.1 | Negigigile Adverse | 39.7 | ${ }^{40.3}$ | 40.7 |
| 33, CUMMMNGS PARK ROAD, NORTHFELED | Owelling | ${ }_{40.6}$ | 50.4 | 499.0 | 0.4 | Negigigio Adverse | 50.6 | 1.0 | Negigiole Avverse | 39.5 38.5 | 38.9 | ${ }_{39,5}^{40.2}$ |
| 3 35, CUMMINGS PARK ROAD, NORTHFIELD | Dwelling | 49.7 | 50.2 | 49.9 | 0.2 | Negigigile Adverse | 50.9 | 1.2 | Negigible Adverse | 38.5 | 38.9 | 39.5 |
| 37, CUMMINGS PARK ROAD, NORTHFIELD | Dwelling | 51.1 | 51.1 | 51.3 | 0.2 | Negigibile Adverse | 52.0 | 0.9 | Negigible Adverse | 39.7 | 39.7 | 40.5 |
| $\frac{39}{4, ~ C U M M M I N G S ~ P A R K ~ R ~ R O A D, ~ N O R T H F I E L D ~}$ | Dwelling | 51.9 | ${ }_{5}^{51.1}$ | 51.9 | 0.2 0.0 | Negigiole Adverse | 52.0 | 1.9 1.3 | $\frac{\text { Negigigib Adverse }}{\text { Neoligile Adverse }}$ | 39.7 40.4 | ${ }^{39.7} 41.6$ | 40.5 |
| 5, CUMMINGS PARK ROAD, NORTHFIELD | Dwelling | 48.8 50.3 | 49.5 <br> 5.5 | 48.7 <br> 50 <br> 0.3 | -0.1 | Negligible Beneficical | 49.8 515 | 1.0 | Negiligile Adverse | $\begin{array}{r}37.7 \\ 3.0 \\ \hline\end{array}$ | 38.3 40. | 38.6 4.1 |
| $\frac{6}{7, ~ C U U M M M N G S ~ P A R K ~ R ~ R O A D, ~ N O R T H F I E L E D ~}$ | ${ }^{\text {Dwelling }}$ Oweling | 50.3 48.8 | 59.5 | ${ }^{50.3}$ | -0.1 | Negligible Eeneneficial | 49.8 | 1.0 | Negigigile Adverse | ${ }^{39.7}$ | ${ }_{38.3}$ | 40.6 |
| 8, CUMMINGS PARK ROAD, NORTHFFELD | Dewling | ${ }_{50.3}^{507}$ | 51.5 | ${ }_{50.3}^{50}$ | 0.0 | No Change | 51.5 | 1.2 | Negigigle Adverse | 39.0 | 40.1 | 40.1 |
| 9 9, CUMMINGS PARK ROAD, NORTHFIELD | Dwelling | 53.7 | 55.0 | 53.8 | 0.1 | Negligible Beneficic | 55.1 | 1.4 | Negigigile Adverse | 42.1 | 43.2 | 43.3 |

A90／A96 Haudagain Improvement

## DMRB Stage 3 Environmental Statement

## Appendix A14．4：Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short－term Daytime Noise Change（dB） | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long－term Daytime Noise Change（dB） | Magnitude of Change | DM18 <br> Lnight，outside | DM33 <br> Lnight，outside | DS33 <br> Lnight，outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1，CUMMINGS PARK TERRACE，NORTHFIELD | Dwelling | 48.1 | 48.5 | 48.1 | 0.0 | No Change | 49.0 | 0.9 | Negiligibe Adverse | 37.0 | 37.4 | 37.8 |
| 10，CUMMINGS PARK TERRACE，NORTHFIILD | Oweling | 47.6 | 47.8 | 47.6 | 0.0 | No Change | 48.4 | 0.8 | Negaigible Adverse | 36.6 | 36.8 | 37.3 |
| 11，CUMMINGS PARK TERRACE，NORTHFIELD | Dwelling | 46.9 | 47.4 | 46.9 | 0.0 | No Change | 47.7 | 0.8 | Negigioble Adverse | 35.9 | 36.4 | 36.7 |
| 12，CUMMING PARK TERRACE，NoRTHFIELD | Welling | 46.9 | ${ }_{47.4}^{473}$ | 46.9 | 0.0 | No Change | ${ }_{4}^{47.7}$ | 0.8 | Negiligile Adverse | ${ }^{35.9}$ | 36.4 | $\begin{array}{r}36.7 \\ 383 \\ \hline\end{array}$ |
| 13，COMMINGS PARK TERRACE，NoRTHFIED | weling | 49.1 | ${ }_{48.3}$ | 49.1 | 0.0 | No Change | 49.5 | 0.4 | Negligiole Adverse | 37．9 | ${ }^{37.2}$ | 38.3 383 |
| 4，CUMMINGS PARK TERRACE，NORTHFIELD | Dwelling | 46.5 | 46.9 | 46.5 | 0.0 | No Change | 47.3 | 0.8 | Negiligible Adverse | 35.6 | 35.9 | ${ }_{36.3}$ |
| 16，CUMMINGS PARK TERRACE，NORTHFIELD | Dwelling | 46.5 | 46.9 | 46.5 | 0.0 | No Change | 47.3 | 0.8 | Negigioble Adverse | 35.6 | 35.9 | 36.3 |
| 2，CUMMINGS PARK TERRACE，NORTHFIELD | Dwelling | 48.2 | 48.6 | 48.2 | 0.0 | No Change | 49.0 | 0.8 | Negigioble Adverse | 37.1 | 37.5 | 37.8 |
| 3，CUMMINGS PARK TERRACE，NORTHFIELD | veling | 47.7 | 48.1 | 47.6 | －0．1 | Negligible Beneficical | 48.5 | 0.8 | Negiligibe Adverse | ${ }^{36.7}$ | 37.0 | 37.4 |
| 4，CUMMINGS PARK TERRACE，NORTHFIELD | welling | 47.7 | 48.1 | 47.6 | －0．1 | Negligible Beneficial | 48.5 | 0.8 | Negigioble Adverse | 36.7 | 37.0 | 37.4 |
| 5，CUMMINGS PARK TERRACE，NORTHFIELD | welling | 47.7 | 48.1 | 47.7 | 0.0 | No Change | 48.5 | 0.8 | Negigioble Adverse | 36.7 | 37．0 | 37.4 |
| 6，CUMMINGS PARK TERRACE，NORTHFFELD | welling | 47.7 | 48.1 | 47.7 | 0.0 | No Change | 48.5 | 0.8 | Negigigile Adverse | 36.7 | 37.0 | 37.4 |
| 7．CUMMMGS PARK TERRACE，NORTHFIELD | Dweling | $\frac{47.2}{47.2}$ | 47.7 47.7 | $\frac{47.2}{47.2}$ | 0.0 0.0 | $\frac{\text { No Change }}{\text { No Change }}$ | 48.1 48.1 | 0.9 | Negigigib Adverse | 36.2 36.2 | 36.7 367 | 37．0 |
| 9 9，CUMMINGS PARK TERRACE，NORTHFIELD | Dwelling | 47.6 | 47.8 | 47.6 | 0.0 | No Change | ${ }^{48.4}$ | 0.8 | Neogigigile Adverse | ${ }_{36.6}$ | ${ }_{36.8}$ | ${ }_{37.3}$ |
| 1，DANCING CAIRNS CRESCENT，HEATHRYFOLD | Dwelling | 45.6 | 45.6 | 45.5 | 0.1 | Negligible Beneficial | 46.2 | 0.6 | Negligible Adverse | 34.8 | 34.8 | 35.3 |
| 10，DANCING CAIRNS CRESCENT，HEATHRYFOLD |  | 44.8 | 45.1 | 44.7 | －0．1 | Negligible Beneficial | 45.5 | 0.7 | Negigibile Adverse | 34.1 |  | 34.7 |
| 11，DANCING CAIRNS CRESCENT，HEATHRYFOLD | ing | 45.6 | 45.6 | 45.5 | 0.1 | eneficial | 46.2 | 0.6 | Negigiole Adverse | 4.8 | 34.8 | 5.3 |
| 12，DANCING CAIRNS CRESCENT，HEATHRYFOLD | Oweling | 44.8 | 45.1 | 44.7 | －0．1 | Negligible Beneficial | 45.5 | 0.7 | Negligibe Adverse | 34.1 | 34.3 | 34.7 |
| 2．DANCING CAIRNS CRESCENT，HEATHRYFOLD | Dwelling | 44.8 | 45.1 | 44.7 | －0．1 | Negligible Beneficial | 45.5 | 0.7 | Negigioble Adverse | 34.1 | 34.3 | 34.7 |
| 3，DANCING CAIRNS CRESCENT，HEATHRYFOLD | welling | 45.6 | 45.6 | 45.5 | －0．1 | Negligible Beneficial | 46.2 | 0.6 | Negigigile Adverse | 34.8 | 4.8 | 35.3 |
| 4，DANCING CARNS CRESCENT，HEATHYYOLD | weling | 44.8 | 45.1 | 44.5 | －0．1 | Negiligiole Beneficial | 45.5 | 0.7 | Negigigile Adverse | $\begin{array}{r}34.1 \\ 3.8 \\ \hline\end{array}$ | 34.3 <br> 3.8 | $\begin{array}{r}34.7 \\ 353 \\ \hline\end{array}$ |
| 5．DANCING CARNS CRESCENT，HEATHYYOLD | Oweling | 45.6 | 45.6 | 45.5 | －0．1 | Neogigibie Beneitical | 46.2 | ${ }_{0}^{0.6}$ | Negiligie Adverse | 34.8 <br> 34.1 | 34.8 <br> 34 | 35．3 |
|  | Oweiling | 44.8 | ${ }_{45.1}$ | 44.5 | －0．1 | $\frac{\text { Negligiole Benenitical }}{\text { Neglioile }}$ Beneficial | 45.5 | 0.7 | Negigigile Adverse | 34.1 348 | 34.3 348 | ${ }_{3}^{34.7}$ |
| 8，DANCING CAIRNS CRESCENT，HEATHRYFOLD | Dwelling | 44.8 | 45.1 | 44.7 | －0．1 | Negligible Benenicicial | 45.5 | 0.7 | Negigioble Adverse | 34.1 | 34.3 | 34.7 |
| 9，DANCING CAIRNS CRESCENT，HEATHRYFOLD | Dwelling | 45.6 | 45.6 | 45.5 | －0．1 | Negligible Beneficial | 46.2 | 0.6 | Negigigile Adverse | 34.8 | 34.8 | 35.3 |
| 1，DANCING CAIRNS PLACE，HEATHRYYOLD | Dwelling | 年54．4 | 52．1． 53.3 | 年54．5 | 0.1 | Negigigile Adverse | 52．5 54.6 | 1.1 0.3 | N Negligibe Adverse | 40.0 42.6 | 40.6 41.7 | 41.0 42.9 |
| 11，DANCING CAIRNS PLACE，HEATHRYFOLD | Dwelling | 51.4 | 52.1 | 51.5 | 0.1 | Negigigile Adverse | 52.5 | 1.1 | Negigible Adverse | 40.0 | 40.6 | 41.0 |
| 12，DANCING CAIRNS PLACE，HEATHRYFOLD | welling | 53.9 | 53．0 | 53.9 | 0.0 | No Change | 54.2 | 0.3 | Negligible Adverse | 42.2 | 41.4 | 42.5 |
| 13，DANCING CAIRNS PLACE，HEATHRYFOLD | welling | 45.6 |  | ${ }^{45.4}$ | －0．2 | Negligible Beneficial |  |  |  | 34.8 3.8 | 34.9 | 35.2 |
| 14，DANCING CARNS PLACE，HEAAHRYFOLD | Dweling | 49.9 | ${ }_{40.3}$ |  |  | Negogigibe Adverse | 50.8 46.6 | ${ }_{0}^{0.9}$ | Negigigle Adverse | ${ }^{36.6}$ |  | 39.5 357 |
| 16，DANCING CAIRNS PLACE，HEATHRYFOLD | Dwelling | 49.0 | 49.1 | 48.9 | －0．1 | Negligible Beneficial | 49.6 | 0.6 | Negligigle Adverse | 37.8 | 37.9 | 38.4 |
| 17，DANCING CAIRNS PLACE，HEATHRYFOLD | Dwelling | 46.0 | 46.0 | 45.8 | －0．2 | Negligible Beneficial | 46.4 | 0.4 | Negigigile Adverse | 35.1 | 351 | 35.5 |
| 19，DANCING CAIRNS PLACE，HEATHPYFOLD | Deelling | 51.0 | 50.9 | 50.8 | －0．2 | Negligible Beneficial | 51.5 | 0.5 | Negigioble Adverse | 39.6 | 39.5 | 40.1 |
| 2，DANCING CAIRNS PLACE，HEATHYYFOLD | Dwelling | 52.5 | 52.0 | 52.4 | －0．1 | Negligible Beneficial | 53.0 | 0.5 | Negiligile Adverse | 41.0 | 40.5 | 41.4 |
|  | Oweiling | 51．4 53.5 | ${ }_{52.6}^{52.1}$ | 51．5 53.5 | 0.0 | Neiligibe Adverse | 52．5 53.8 | ${ }_{0} 0.3$ | $\frac{\text { Negligibe Adverse }}{\text { Neligible Adverse }}$ | 40.9 | ${ }_{40.6}^{41.1}$ | 42.2 |
| 5，DANCING CAIRNS PLACE，HEATHRYFOLD | Dwelling | 51.4 | 52.1 | 51.5 | 0.1 | Negligible Adverse | 52.5 | 1.1 | Negiligile Adverse | 40.0 | 40.6 | 41.0 |
| 6，DANCING CAIRNS PLACE，HEATHRYFOLD | Dwelling | 52.3 | 51.9 | 52.3 | 0.0 | No Change | 52.9 | 0.6 | Negligible Adverse | 40.8 | 40.4 | 41.3 |
| $\frac{7}{\text { 7．DANCING CARNS PLACE，HEATHYYFOLD }}$ | Dwelling | －${ }_{\text {51．4 }}^{52.2}$ | $\frac{52.1}{51.8}$ | 51．5 | 0.1 | $\frac{\text { Negiligile Adverse }}{\text { No Change }}$ | 52.5 <br> 52.8 | 1.1 0.6 | $\frac{\text { Negigigibe Adverse }}{\text { Neosigile Adverse }}$ | $\frac{40.0}{40.7}$ | $\frac{40.6}{40.4}$ | $\frac{41.0}{41.3}$ |
| 9，DANCING CAIRNS PLACE，HEATHRYFOLD | Dwelling | 51.4 | 52.1 | 51.5 | 0.1 | Negligible Adverse | 52.5 | 1.1 | Negiligile Adverse | 40.0 | 40.6 | 41.0 |
| 1，DANESTONE CIRCLE，MIDDLEFELED | Dwelling | 年1．7 | 52.1 50.4 | $\begin{array}{r}51.6 \\ 502 \\ \hline\end{array}$ | －0．1 | Negligible Beneficial | 52.4 <br> 511 <br> 1 | 0.7 | $\frac{\text { Negligible Adverse }}{\text { Nefligible Adverse }}$ | 40.3 38.9 | ${ }^{40.6}$ | ${ }_{30.9}^{407}$ |
| 11，DANESTONE CIRCLE，MIDLLEFIELD | Dwelling | 50.0 | 50.5 | 49.9 | －0．1 | Negligible Beneficial | 50.7 | 0.7 | Negligible Adverse | 38.7 | 39.2 | 39.4 |
| 13，DANESTONE CIRCLE，MIDDLEFIELD | welling | 51.1 | 51.1 | 51.0 | ． 0.1 | Negligible Beneficial | 51.6 | 0.5 | Negiligile Adverse | 39.7 | 39.7 | 40.2 |
| 15，DANESTONE CIRCLE，MIDDLEFIELD | Dwelling | 51.1 | 51.1 | 51.0 | －0．1 | Negligible Beneficial | 51.7 | 0.6 | Negligibe Adverse | 39.7 | 39.7 | 40.3 |
| 17，DANESTONE CIICLE，MIDLLEFELEL | Dwelling | 49.4 | 50.0 | ${ }^{49.3}$ | －0．1 | Negligible Beneficical | 50．1 | 0.7 | Negiligibe Adverse | 38.2 | 38.7 | 38.8 |
| 19，DANESTONE CIRCLE，MIDLEFIELD | Dwelling | 49．4 | 50.0 50.0 | ${ }_{49.3}$ | -0.1 .0 .1 | $\frac{\text { Negiligibe Beneficial }}{\text { Negligible Beneficial }}$ | 50.1 50.1 | 0.7 0.7 | $\frac{\text { Negligible Adverse }}{\text { Nefligible Adverse }}$ | 38.2 38.2 | 38.7 38.7 | 38.8 38.8 |
| 23，DANESTONE CIRCLE，MIDLLEFIELD | Dwelling | 49.4 | 50.0 | 49.3 | －0．1 | Negligible Beneficial | 50.1 | 0.7 | Negiligile Adverse | 38.2 | 38.7 | 38.8 |
| 25，DANESTTONE CIRCLE，MIDDLEFEIELD | Deeling | 49.0 | 50.0 | 48.9 | －0．1 | Negligible Beneficial | 49.9 | 0.9 | Negigigibe Adverse | 37.8 | 38.7 | 38.6 |
| 27，DANESTONE CIRCLE，MIDDLEFIELD | Dwelling | 49.0 | 50.0 | 48.9 | －0．1 | Negligible Beneficial | 49.9 | 0.9 | Negigible Adverse | 37.8 | 38.7 | 38.6 |
| 29，DANESTONE CIIRCLE，MID MIL | Dwelling | ${ }_{51.7}^{49.6}$ | 50．2 | ${ }_{51.6}$ | －0．1 | Negegligibiele Beneneficicial | 50．3 | 0.7 | Neoligigibe Adverse | 38.4 40.3 | 38.9 40.6 | 39.9 40.9 |
| 31，DANESTONE CIICLLE，MIDDLEFEELD | Deeling | 49.6 | 50.2 | 49.5 | －0．1 | Negligible Beneficial | 50.3 | 0.7 | Negigible Adverse | 38.4 | 38.9 | 39.0 |
| 33，DANESTONE CIRCLE，MIDDLEFILLD | Dwelling | 49.2 | 49.9 | 49.2 | 0.0 | No Change | 50.0 | 0.8 | Negigigile Adverse | 38.0 | 38.6 | 38.7 |
| 35，DANESTONE C CIRCLL，MIDLLEFIELD | ${ }^{\text {Dwelling }}$ Dowling | $\frac{48.7}{48.8}$ | ${ }_{49.3}^{49.3}$ | $\frac{48.6}{48.7}$ | -0.1 -0.1 | $\frac{\text { Negligible Benenticial }}{\text { Negifioile }}$ Beneficial | 49.5 | 0.8 | $\frac{\text { Negigigle Adverse }}{\text { Neoligible Adverse }}$ | 37.6 37.7 | 38.1 38.1 | 38.3 38.4 |
| 39，DANESTONE CIRCLE，MIDDLEFIELD | Dwelling | 48.9 | 49.4 | 48.9 | 0.0 | No Change | 49.8 | 0.9 | Negigiolie Adverse | 37.7 | 38.2 | 38.6 |
| 4，DANESTONE CIRCLE，MIDDLEFIELD | Dwelling | 50.2 <br> 50.1 | 50．4 | 50.2 50.2 | 0.0 0.1 | No Change | 51.1 50.9 | 0.9 | Negigible Adverse | 38.9 38.8 | 39.1 38.8 | 39.7 395 |
| 43，DANESTONE CIRCLE，MIDDLEFIELD | Dwelling | 50.2 | 50.1 | 50.3 | 0.1 | Negligible Beneficial | 51.0 | 0.8 | Negligible Adverse | 38.9 | 38.8 | 39.6 |
| 45，DANESTONE CIIRCLE，MIDDLEFIELD | welling | 49.2 | 49.7 | 49.2 | 0.0 | No Change | 50.1 | 0.9 | Negigibile Adverse | 38.0 | 38.5 | 38.8 |
| 47，DANESTONE CIICLE，MIDDLEFIELD | Deelling | 49.2 | 49.7 | 49.2 | 0.0 | No Change | 50.1 | 0.9 | Negigigile Adverse | 38.0 3.1 | 38.5 | 38.8 |
| 49，DANESTONE CIRCLE，MIDLEETIELD | Dwelling | ${ }_{51.7}^{49.3}$ | 49.8 52.1 | ${ }_{51.6}^{49.4}$ | 0.1 0.1 | Negligibile Benesificial | 50．3 | ${ }_{0} 0.7$ | Neoligigile Adverse | ${ }^{380.3}$ | 38.6 40.6 | 30．9 |
| 51, DANESTONE CIRCLE，MIDDLEFIELD | Dwelling | 49.9 | 50.4 | 49.9 | 0.0 | No Change | 50.8 | 0.9 | Negiligible Adverse | 38.6 | 39.1 | 39.5 |
| 6，DANESTOTE CIRCCLE，MIDDLEFIELD | welling | 50.2 | 50.4 | 50.2 | 0.0 | No Change | 51.1 | 0.9 | Negigigile Adverse | 38.9 | 39.1 | 39.7 |
| $\frac{\text { 7，DANESTONE CIRCLE，MIDLLEFIELD }}{\text { 8，}}$ | Dwelling | 51.7 50.2 | 52．1 | 51．6 | －0．1 | $\frac{\text { Negligible Beneficial }}{\text { No Change }}$ | 52.4 51.1 | 0.7 | $\frac{\text { Negligible Adverse }}{\text { Neoligiole Adverse }}$ | 40.3 38.9 | 40.6 39.1 | 40.9 39.7 |
| 9 9，DANESTONE CIRCLE，MIDDLEFIELD | Dwelling | 50.0 | 50.5 | 49.9 | －0．1 | Negligible Beneficial | 50.7 | 0.7 | Negligible Adverse | 38.7 | 39.2 | 39.4 |
| MANOR PARK SCHOOL，DANESTONE CIRCLE，MIDDLEFIELD | hool | 50.6 | 50.7 | 50.3 | －0．3 | Negligible Beneficial | 51.0 | 0.4 | Negigiole Adverse | 39.3 | 39.4 | 39.6 |
| DANESTONE COTTAGE WEST，DANESTONE COTTAGE WEST，SCOTSTOWN ROAD | Dwelling | 52.9 | 53.4 | 52.7 | －0．2 | Negligible Beneficial | 53.3 | 0.4 | Negligible Adverse | 41.3 | 41.8 | 41.7 |
|  | Dwelling | 72.2 | 70.3 | 72.1 | －0．1 | Negligible Beneficial | 73.1 | 0.9 | Negligibe Adverse | 58.7 | 57.0 | 59.5 |
| DANESTONE FARM COTTAGE，DANESTONE FARM COTTAGE，FAIRVIEW ROAD，DANESTONE | Dwelling | 66.2 | 64.1 | 66.2 | 0.0 | No Change | 66.2 | 0.0 | No Change | 53.3 | 51.4 | 53.3 |

A90／A96 Haudagain Improvement

## DMRB Stage 3 Environmental Statement

## Appendix A14．4：Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short－term Daytime Noise Change（dB） | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long－term Daytime Noise Change（dB） | Magnitude of Change | DM18 <br> Lnight，outside | DM33 Lnight，outside | DS33 <br> Lnight，outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DANESTONE FARM，DANESTONE FARM，PARKWAY | Dwelling | 66.4 | 66.2 | 6.6 | 0.2 | Negligible Adverse | 67.4 | 1.0 | Negligible Advers | 3.5 | 53.3 | 54.4 |
| DANESTONE MEDICAL PRACTICE，DANESTONE SURGERY，FAIRVIEW STREET DANESTONE | Heath Centre | 55.9 | 58.6 | 55.8 | 0.1 | Negligible Beneficial | 57.6 | 1.7 | Negligible Adverse | 44.0 | 46.5 | 45.6 |
| 10，DEANSLOCH CRESCENT | Dwelling | 45.2 | 44.7 | 45.1 | －0．1 | Negligible Beneficial | 45.6 | 0.4 | Negligible Adverse | 34.4 | 34.0 | 34.8 |
| 12，DEANSLOCH CRESCENT | Dwelling | 45.2 | 44.7 | 45.1 | －0．1 | Negligible Beneficial | 45.6 | 0.4 | Negigiole Adverse | 34.4 | 34.0 | 34.8 |
| 14，DEANSLOCH CRESCENT | Dwelling | 43.1 | 43.6 | 43.0 | －0．1 | Negligible Beneficial | 43.8 | 0.7 | Neoligible Adverse | 32.5 | 33.0 | 33.2 |
| 16，DEANSLOCH CRESCENT | Deelling | 43.1 | 43.6 | 43.0 | 0.1 | Negligible Beneficical | 43.8 | 0.7 | Negligible Adverse | 32.5 | ${ }^{33.0}$ | ${ }^{33.2}$ |
| 18，DEANSLOCH CRESCENT | Delling | ${ }_{4}^{43.1}$ | ${ }_{4}^{43.6}$ | ${ }^{43.0}$ | ${ }_{0}^{0.1}$ | Negligible Benefitial | ${ }_{4}^{43.8}$ | 0.7 | Negigigible Adverse | 32.5 3.5 | 33.0 | 33.2 348 |
| 2，DEANSLOCHCRESCENT | Dwelling | 45.2 43.1 | ${ }_{4}^{44.7} 4$ | ${ }_{4}^{45.1} 4$ | -0.1 -0.1 | Negiligile Beneitical | ${ }_{43.8}^{45.6}$ | 0.4 0.7 | $\frac{\text { Negligibe Adverse }}{\text { Negligible Adverse }}$ | ${ }^{34.4} 32.5$ | 34.0 33.0 | 34.8 33.2 |
| 22，DEANSLOCH CRESCENT | Dwelling | 43.1 | 43.6 | 43.0 | －0．1 | Negligible Beneficial | 43.8 | 0.7 | Negigiolie Adverse | 32.5 | 33.0 | 33.2 |
| 24，DEANSLOCH CRESCENT | elling | 43.1 | 43.6 | 43.0 | 0.1 | Negligible Beneficial | 43.8 | 0.7 | Negigiole Adverse | 32.5 |  | 33.2 |
| 4，DEANSLOCH CRESCEENT |  | 45.2 | 44.7 | 45.1 | 0.1 | Negligible Beneficial | 45.6 | 0.4 | Negligible Adverse | 34.4 | 34.0 | 34.8 |
| 6，DEANSLOCH CRESCENT |  | 45.2 | 44.7 | 45.1 | 0.1 | Negligible Benefitical | 45.6 | 0.4 | Negigigibe Adverse | 34.4 | 34.0 | 4.8 |
| 8，DEANSLOCHCRESCENT | Dwelling | 45.2 | 44.7 | 5．1 | －0．1 | Negigigile Benenitical |  |  |  | 34.4 | 34.0 | 4．8 |
|  | Dwelling | 41.9 | 42.6 | ． 8 | 0．1 | Negligibe Beneiticial | 42.7 | 0.8 | Negligible Adverse | 1．4 |  | 2.2 |
| 28，DEANSLOCHPLACE | Dweling | 41.9 | ${ }_{42.6}$ | 4.8 | ${ }_{0}^{0.1}$ | Negligibe Benenicial | 42.7 | 0.8 | Negigigie Adverse | 31．4 | ${ }^{32.1}$ | 32．2 |
| 32，DEANSLOOCHPACACE | Dweling | 41.9 | ${ }_{426}^{42.6}$ | ${ }_{41.8}^{418}$ | －0．1 | Negigigbe Benentical | ${ }_{42.7}^{42.7}$ | 0.8 | Negigigie Adverse | －31．4 | ${ }_{32.1}^{32.1}$ | ${ }_{322}^{32.2}$ |
| 34，DEANSLOCHPLACE | Dwelling | 41.9 | 42.6 | 41.8 | －0．1 | Negligiole Beneficicial | 42.7 | 0.8 | Negligibile Adverse | ${ }_{31.4}$ | ${ }_{32.1}$ | ${ }_{32.2}$ |
| 36，DEANSLOCH PLACE | Dwelling | 41.9 | 42.6 | 41.8 | －0．1 | Negligible Beneficial | 42.7 | 0.8 | Negligible Adverse | 31.4 | 32.1 |  |
| FLAT 1，2，DEER ROAD | Dwelling | 54.3 | 58.1 | 54.8 | 0.5 | Negligible Adverse | 57.8 | 3.5 | Minor Adverse | 42.6 | 46.0 | 45.8 |
| FLAT 10，，2，DEER R RoAD | Dwelling | $\begin{array}{r}\text { 54．3 } \\ 54.3 \\ \hline\end{array}$ | 58．1 58.1 | 54．8 54.8 | 0.5 | Negigiole Adverse | 57．8 57.8 | ${ }_{3.5}^{3.5}$ | Minor Adverse | $\xrightarrow{42.6}$ | 46.0 46.0 | 45.8 45.8 |
| FLAT 12，2，DEER ROAD | Dwelling | 54.3 | 58.1 | 54.8 | 0.5 | Negigigile Adverse | 57.8 | ${ }^{3} .5$ | Minor Adverse | 42.6 | 46.0 | 45.8 |
| FLAT 13，2，DEER ROAD | $\frac{\text { Dwelling }}{\text { Dweling }}$ | 54.3 54.3 | 58.1 58.1 | 54.8 54.8 | 0.5 | $\frac{\text { Negligible Adverse }}{\text { Negligible Adverse }}$ | 57.8 57.8 | ${ }_{3.5}^{3.5}$ | $\xrightarrow[\text { Minor Adverse }]{\text { Minor Adverse }}$ | ${ }_{42}^{42.6}$ | 46.0 46.0 | 45.8 45.8 |
| FLAT 15，2，DEER ROAD | Dwelling | 54.3 | 58.1 | 54.8 | 0.5 | Negigigile Adverse | 57.8 | 3.5 | Minor Adverse | 42.6 | 46.0 | 45.8 |
| FLAT 16，2，DEEER ROAD | Dwelling | 54.3 | 58.1 | 54.8 | 0.5 | Negligible Adverse | 57.8 | ${ }^{3.5}$ | Minor Adverse | 42.6 | 46.0 | 45.8 |
| FLLT 17，2，DEER R RoAD | Dwelling | 54．3 | 58.1 58.1 | 54.8 <br> 54.8 | 0.5 0.5 | $\frac{\text { Negligible Adverse }}{\text { Nequigibe Adverse }}$ | 57.8 <br> 57.8 | ${ }_{3.5}^{3.5}$ | $\frac{\text { Minor Adverse }}{\text { Minor Adverse }}$ | ${ }_{42}^{42.6}$ | 46.0 46.0 | 45.8 45.8 |
| FLAT 19，2，DEER ROAD | Dwelling | 54.3 | 58.1 | 54.8 | 0.5 | Negligible Adverse | 57.8 | 3.5 | Minor Adverse | 42.6 | 46.0 | 45.8 |
| FLAT 2，2，DEER ROAD | Dwelling | 54.3 | 58.1 | 54.8 | 0.5 | Negligible Adverse | 57.8 | ${ }^{3.5}$ | Minor Adverse | 42.6 | 46.0 | 5.8 |
| FLAT 20，2，DEER ROAD | Dwelling | 54.3 | 58.1 |  | 0.5 |  | 57.8 |  | Minor Adverse | 42.6 | 46.0 | 45.8 |
| FLAT 21，2，DEEER ROAD | Dwelling | 54.3 | 58.1 | 54.8 | 0.5 | Negigigile Adverse | 57.8 | ${ }^{3.5}$ | Minor Adverse | 42.6 | 46.0 | 45.8 |
| FLAT 22，2，DEER R ROAD | ${ }^{\text {Owelling }}$ | 54．3 | 年5．11 | 54.8 <br> 548 | 0.5 0.5 | Negligible Adverse | 57.8 <br> 578 | 35 | Minor Adverse | 42.6 | 46.0 | 45.8 |
| LAT | Dwelling | 54．3 | 58．1 | 54．8 | 0.5 | Negligibe Adverse | 578 | ${ }_{3} .5$ | Minoratarerse | 42.6 | 46.0 | 45.8 |
| FAT 4，2，DEER ROAD | Oweling | 54， | 58．11 | 54.8 <br> 54 | 0.5 | Negigigile Adverse | 578 | ${ }_{3}^{3.5}$ | Minor Adverse | 426 | 460 | 45.8 |
| FLAT 26，，，，DEER ROOAD | Dwelling | ${ }^{54.3}$ | ${ }_{58.1}^{58.1}$ | ${ }_{54.8}^{54.8}$ | 0.5 | Neoligigibe Adverse | $\stackrel{57.8}{57.8}$ | ${ }_{3.5}^{3.5}$ | Minor Adverse | ${ }_{42.6}^{42.6}$ | $\xrightarrow{46.0} 4$ | $\stackrel{45.8}{45}$ |
| FLAT 27，2，DEER ROAD | Dwelling | 54.3 | 58.1 | 54.8 | 0.5 | Negiligile Adverse | 57.8 | 3.5 | Minor Adverse | 42.6 | 46.0 | 45.8 |
| FLAT 28，，，DEEER ROAD | Dwelling | 54.3 | 58.1 | 54.8 | 0.5 | Negigigile Adverse | 57.8 | ${ }^{3.5}$ | Minor Adverse | 42.6 | 46.0 | 45.8 |
| FLAT 29，2，DEER R ROAD | Dweling | 年4．3 | 58．1 | 54.8 <br> 5.8 | 0.5 0.5 | $\frac{\text { Negligiole Adverse }}{\text { Neoligible Adverse }}$ | 57.8 578 | ${ }_{3.5}^{3.5}$ | Minor Adverse | ${ }_{42}^{42.6}$ | 46.0 | 45.8 |
| FLAT 4，2，DEER ROAD | Dwelling | 54.3 | 58.1 | 54.8 | 0.5 | Negiligile Adverse | 57.8 | 3.5 | Minor Adverse | 42.6 | 46.0 | 45.8 |
| FLAT 5，2，DEER ROAD | Dwelling | 54.3 | 58.1 | 54.8 | 0.5 | Negigigile Adverse | 57.8 | 3.5 | Minor Adverse | 42.6 | 46.0 | 45.8 |
| FLAT 6，2，DEEER ROAD | Dweling | 54.3 | 58.1 | 54.8 | 0.5 | Negigigile Adverse | 57.8 | ${ }^{3.5}$ | Minor Adverse | 42.6 | 46.0 | 45.8 |
| FLAAT 7，2，DEEER ROAD | Dwelling | 㐌4．3 | 58．1 58.1 | 54.8 54.8 | 0.5 | $\frac{\text { Negigigle Adverse }}{\text { Negigible Adverse }}$ | 57.8 <br> 57.8 | ${ }_{3.5}^{3.5}$ | Minor Adverse | ${ }_{42}^{42.6}$ | 46.0 46.0 | 45.8 45 |
| FLAT，，2，DEEER ROAD | Dwelling | 54.3 | 58.1 | 54.8 | 0.5 | Negligible Adverse | 57.8 | 3.5 | Minor Adverse | 42.6 | 46.0 | 45.8 |
| SALVATIONARMY HALL，12，DEER ROAD | Hall |  |  |  |  | Negiligile Adverse |  |  | Negligigle Adverse |  |  |  |
| $\frac{1, \text { ，DEER ROAD }}{}$ | Dwelling | ${ }_{73.0}$ | ${ }^{73.8}$ | 73.4 | 0.4 | Neoligibile Adverse | 74.0 | 1.0 | Neoligioble Adverse | ${ }_{59.4}$ | 60.2 | 60.3 |
| 1，DEER ROAD | Deelling | 73.0 | 73.8 | 73.4 | 0.4 | Negigiolie Adverse | 74.0 | 1.0 | Negigiolie Adverse | 59.4 | 60.2 | 60.3 |
| 51. DEER ROAD | Dwelling | 62.9 | 63.7 | 63.1 | 0.2 | Negigigile Adverse | 63.8 | 0.9 | Negigigibe Adverse | 50.3 | 51.1 | 51.2 |
| 55，DEEER ROAD | Dwelling | 62.9 63.0 | ${ }_{633.8}^{63.8}$ | ${ }_{63.1}^{63.2}$ | 0．2 | $\frac{\text { Negligible Adverse }}{\text { Negligile Adverse }}$ | ${ }_{63.8}^{63.9}$ | 0.9 | Negigible Adverse | 50．3 | 51．1 | 51．2 |
| 57, DEER ROAD | Dwelling | 63.0 | 63.8 | 63.2 | 0.2 | Negligible Adverse | 63.9 | 0.9 | Negligible Adverse | 50.4 | 51.2 | 51.2 |
| 59，DEER ROAD | Dwelling | ${ }_{61.7}^{61.7}$ | 62.5 | 61.9 | 0.2 | Negigigile Adverse | ${ }^{62.6}$ | 0.9 | Negigigibe Adverse | 49.3 | 50.0 | 50.1 |
| 61， 6 CEER ROAD | Dwelling | 61.6 58.8 | 62．5 | 66.9 58.9 | 0.3 0.1 | $\frac{\text { Negligibe Adverse }}{\text { Negligiole Adverse }}$ | 62.6 59.7 | 1.0 0.9 | Negigible Adverse | ${ }_{49.2}^{46.7}$ | 50．0 | 50.1 47.5 |
| 65, DEER ROAD | Dwelling | 58.8 | 59.4 | 58.9 | 0.1 | Negigible Adverse | 59.7 | 0.9 | Negligible Adverse | 46.7 | 47.2 | 47.5 |
| 67，DEER ROAD | Dwelling | 57.8 | 58.4 | 57.9 | 0.1 | Negligible Adverse | 58.7 | 0.9 | Negigigibe Adverse | 45.8 | 46.3 | 46.6 |
| 69，DEER R ROAD | $\frac{\text { Dwelling }}{\text { Dwelling }}$ | 57.8 56.7 | 58．5 | 58.0 56.8 | ${ }_{0}^{0.2}$ | Negligile Adverse | 58,7 575 | 0.9 | $\frac{\text { Negligible Adverse }}{\text { Nealioible Adverse }}$ | $\frac{45.8}{448}$ | 46.4 453 | 46.6 |
| 73，DEER ROAD | Dwelling | 56.7 | 57.3 | 56.8 | 0.1 | Negligible Beneficicial | 57.6 | 0.9 | Neogigiole Adverse | 44.8 | 45.3 | 45.6 |
| 75, DEER ROAD | Deeling | 54.1 | 55.0 | 54.3 | 0.2 | Negligible Adverse | 55.1 | 1.0 | Neoligible Adverse | 42.4 | 43.2 | 43.3 |
| 77，DEER ROAD | Develing | 54.1 | 55.0 <br> 557 | 54.3 | 0.2 | Negligibl Adverse | $\begin{array}{r}55.1 \\ 55 \\ \hline 5.9\end{array}$ | 1.0 | Negligiole Adverse | ${ }^{42.4}$ | 43.2 | 3．3 |
| 81，DEER ROAD | Dwelling | 54.9 | 55.8 | 55.1 | 0.2 | Negigibile Adverse | 55.9 | 1.0 | Negligible Adverse | 43.1 | 44.0 | 44.0 |
| DENEND COTTAGES， 2 ，GRANDHOLM COTTAGES，GRANDHOLM | Dwelling | 48.0 | 48.3 | 47.8 | －0．2 | Negligible Beneficial | 48.8 | 0.8 | Negligible Adverse | 36.9 | 7.2 | 37.7 |
| DENEND COTTAGES， 3 ，GRANDHOLM COTTAGES，GRANDHOLM | Dwelling | 47.9 | 48.2 | 47.8 | 0.1 | Negligible Beneficial | 48.8 | 0.9 | Negligible Adverse | 36.8 | 37.1 | 37.7 |
| DENEND COTTAGES，4，GRANDHOLM COTTAGES，GRANDHOLM | Deelling | 47.9 |  | 47.8 | －0．1 | Negligible Beneficial | 48.8 | 0.9 | Negligible Adverse | 36.8 | 37.1 | 37.7 |
| 10，DILL PLACE，HAYTON | Dwelling | 44.5 | 45.7 | 44.4 | 0.1 | Negligible Beneficial | 45.5 | 1.0 | Negligible Adverse | 33.8 | 34.9 | 34.7 |
| 12，DILL P PACE，HAYTON | Dwelling | 44.3 | 45.5 | 44.3 | 0.0 | No Change | 45.4 | 1.1 | Negligible Adverse | ${ }^{33.6}$ | 34.7 | 34.6 |
| 14，IIL PLACE，AAYON | $\frac{\text { Dwelling }}{\text { Dweling }}$ | 44．21 | ${ }_{45.3}^{45.4}$ | 44.1 44.0 | ${ }_{-0.1}^{0.0}$ | $\frac{\text { Negligible Benenicial }}{\text { Neglioibl }}$ | 45．2 | 1.0 1.1 | Negligiole Adverse | 33.5 33.4 | 34.6 34.5 | 34.4 34.4 |
| 18，DILL PLACE，HAYTON | Dwelling | 44.0 | 45.2 | 43.9 | －0．1 | Negligible emeneficial | ${ }^{45.0}$ | 1.0 | Negigigible Adverse | ${ }_{33.3}$ | ${ }^{34.4}$ | 34．2 |
| 2，DILL PLACE，HAVTON | Dwelling | ${ }^{47.1}$ | 47.9 | $\stackrel{47.1}{438}$ | 0.0 | No Change | 48.1 44 | 1.0 | Negigigle Adverse | －36．1 | 36.8 34 | $\frac{37.0}{34.1}$ |
| 20，DILL PLACE，HAYTON | Dwelling |  | 45.1 |  |  | Negligible Beneficial |  |  | Negligiole Adverse | 33．2 | 34.3 | 34.1 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 <br> Lnight,outside | DS33 <br> Lnight,outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 22, DILL PLACE, HAYTON | Dwelling | ${ }^{43.6}$ | 44.9 | ${ }_{4}^{43.6}$ | 0.0 | No Change | 44.7 | 1.1 | Negigigle Adverse | ${ }^{33.0}$ | ${ }^{34.1}$ | ${ }^{34.0}$ |
| 24, DILL PLACE, HAYTON | Dweling | 45.1 447 | 45.5 459 | 45.1 446 | . 0.0 | ${ }^{\text {No }}$ C Change | $\frac{46.0}{457}$ | ${ }_{0}^{1.9}$ | Negiligil Adverse | 34.3 34.0 | 34.7 35.0 | 35.1 34.9 |
| 4, DIIL PLACE, HAYTON | Owwiling | 44.7 | 45.9 | 44.6 44.5 | -0.1 -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negligibl eneneficial }}$ | 45.7 45 | 1.0 | $\frac{\text { Negigigie Adverse }}{\text { Negligible Adverse }}$ | 34.0 33.9 | 35.0 35.0 | 34.9 <br> 34.8 |
| ${ }^{\text {8, DILL PLACE, HAYTON }}$ | Dwelling | 44.6 | 45.8 | 44.5 | -0.1 | Negligible Benenitical | 45.6 | 1.0 | Negigioble Adverse | 33.9 | ${ }_{35.0}$ | ${ }_{34.8}$ |
| 1, DILL R ROAD, HAYTON | Dwelling | 44.8 | 45.8 | 44.7 | -0.1 | Negligible Beneficical | 45.9 | 1.1 | Negigigile Adverse | 34.1 | 35.0 | 35.0 |
| 3, DILL ROAD, HAYTON | Owelling | 45.3 | 46.3 | 45.3 | 0.0 | No Change | 46.4 | 1.1 | Negigigibe Adverse | 34.5 | 35.4 | ${ }^{35.5}$ |
| 5. IIL ROAD, HAYTON | Oweling | 45.7 | 46.7 | 45.7 | 0.0 | No Change | 46.9 | 1.2 | Negiligibe Adverse | 34.9 <br> 354 | 35.8 | 35.9 3.5 |
| 7, DILL ROAD, HAYTON | Dwelling | ${ }_{46.8}^{46.8}$ | ${ }_{47.6}^{47.6}$ | ${ }_{46.7}^{46.7}$ | $\stackrel{-0.1}{-0.1}$ | Negiligible Beneneiticial | 48.0 | ${ }_{1}^{1.2}$ | Neoligiole Adverse | ${ }_{35.9}$ | ${ }_{36.6}^{36.6}$ | ${ }_{36.9}$ |
| DOMIIES COURT, 1 , DOMINIES ROAD | Dwelling | 64.1 | 64.8 | 64.2 | 0.1 | Negligible Adverse | 64.7 | 0.6 | Negigiolie Adverse | 51.4 | 52.1 | 52.0 |
| DOMIIIES COURT, 2, DOMINIES ROAD | welling | 64.1 | 64.8 | 64.2 | 0.1 | Negligible Adverse | 64.7 | 0.6 | Negigigibe Adverse | 51.4 | 52.1 | 52.0 |
| DOMIIIES COURT, 3 , DOMINIES ROAD | welling | 64.1 | 64.8 | 64.2 | 0.1 | Neoligible Adverse | 64.7 | 0.6 | Negigigile Adverse | 51.4 | 52.1 | 52.0 |
| DOMIIIES COURT, 4, DOMINIES ROAD | eiling | 64.1 | 64.8 | 64.2 | 0.1 | Negiligibe Adverse | 64.7 | 0.6 | Negiligibe Adverse | 51.4 | 52.1. | 52.0 |
| DOMINIES COURT, 5, DOMINES ROAD |  | 64.1 |  | 4. 2 | 0.1 | Negligible Adverse | 64.7 | 0.6 | Negligible Adverse | 51.4 | 52.1 | 52.0 |
| DOMINES COURT, 6 , DOMINIES ROAD | Owelling | 64.1 | 64.8 | 64.2 | 0.1 | Negligiole Adverse | 64.7 | 0.6 | Negligiole Adverse | 51.4 |  | 52.0 |
| DOMINES COURT, 7 , DOMINIES ROAD | weling |  |  |  |  | Negiligiole Adverse | 64.7 |  | Negiligibe Aaverse | 51.4 |  | 52.0 |
| DOMINIES COURT, 9, DOMINIES ROAD | Dwelling | 64.1 | 64.8 | 64.2 | 0.1 | Negigigibe Adverse | ${ }_{64.7}$ | 0.6 | Neogigigibe Adverse | - 51.4 | 52.1 52.1 | 52.0 |
| DOMINIES COURT, 10 , DOMIIES ROAD | Delling | 64.1 | 64.8 | 64.2 | 0.1 | Negiligile Adverse | 64.7 | 0.6 | Negiligible Adverse | 51.4 | 52.1 | 52.0 |
| DOMINES COURT, 11, DOMINES ROAD | Welling | 64.1 | 64.8 | 64.2 | 0.1 | Negligible Adverse | 64.7 | 0.6 | Negigigile Adverse | 51.4 | 52.1 | 52.0 |
| DOMINIES COURT, 12, DOMINES ROAD | Wwelling | 64.1 | 64.8 | 64.2 | 0.1 | Neoligible Adverse | 64.7 | 0.6 | Negligiole Adverse | 51.4 | 52.1 | 52.0 |
| DOMINESCOURT, 13, DOMINIES ROAD | Weling | 64.1 | 64.8 | 64.2 | 0.1 | Negigigibe Adverse | 64.7 | 0.6 | Negigigile Adverse | 51.4 | 52.1 |  |
| DOMNESCOURT, 5, DOMMNES ROAD | weling | 64.1 | ${ }^{64.8}$ | 64.2 | 0.1 | Negiligio Adverse | 64.7 | 0.6 | Negiligile Aaverse | 51.4 | ${ }_{5}^{52.1}$ |  |
| DOMINES COURT, 16, DOMMIES ROAD | weling | 64.1 | 64.8 | 64.2 | 0.1 | Negiqigile Adverse | 64.7 | 0.6 | Negiligile Adverse | 51.4 | 52.1 | 52.0 |
| DOMINESCOURT, 17, DOMMINES ROAD | welling | 64.1 | 64.8 | 64.2 | 0.1 | Negiligibe Adverse | 64.7 | 0.6 | Negiligibe Adverse | 51.4 | 52.1 | 52.0 |
| DOMNESCOURT, 8, DOMMNES ROAD | Oweling | ${ }^{64.1}$ | 64.8 64.8 | ${ }_{64.2}^{64.2}$ | ${ }_{0}^{0.1}$ | $\frac{\text { Negigigie Adverse }}{\text { Nequigible Adverse }}$ | ${ }_{64.7}^{64.7}$ | 0.6 | $\frac{\text { Negigigibe Adverse }}{\text { Negiquibe Adverse }}$ | - 51.4 | - $\begin{array}{r}\text { 52.1 } \\ 52.1\end{array}$ | - 52.0 |
| DOMINES COURT, 20, DOMINES ROAD | Dwelling | 64.1 | 64.8 | 64.2 | 0.1 | Negligible Adverse | 64.7 | 0.6 | Negigioble Adverse | 51.4 | 52.1 | 52.0 |
| DOMINES COURT, 21, DOMIIES ROAD | welling | 64.1 | 64.8 | 64.2 | 0.1 | Negligible Adverse | 64.7 | 0.6 | Negigigile Adverse | 51.4 | 52.1 | 52.0 |
| DOMINES COURT, 22, DOMINES ROAD | Wweling | 64.1 | 64.8 | 64.2 | 0.1 | Neoligible Adverse | 64.7 | 0.6 | Negigigibe Adverse | 51.4 | 52.1 | 52.0 |
| DOMINIES COURT, 23, DOMMINES ROAD | Dwelling | 64.1 | 64.8 | 4.2 | 0.1 | Negiligibe Adverse | 64.7 | 0.6 | Negil | 51.4 | 52.1. | 52.0 |
| DOMINIES COURT, 24, DOMMINES ROAD | Dweling | 64.1 | 64.8 | 64.2 | 0.1 | Negligiole Adverse | 64.7 | 0.6 | Negligiole Adverse | 51.4 | 52.1 | 52.0 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| DOMINES COURT, 27. DOMINES ROAD | Dwelling | 64.1 | 64.8 | 64.2 | 0.1 | Neoligigle Adverse | 64.7 | 0.6 | Negaligibe Adverse | 51.4 | 52.1 | 52.0 |
| DOMINES COURT, 28, DOMINES ROAD | Dwelling | 64.1 | 64.8 | 64.2 | 0.1 | Negigigile Adverse | 64.7 | 0.6 | Negigigile Adverse | 51.4 | 52.1 | 52.0 |
| DOMINIES COURT, 29, DOMINES ROAD | Wwelling | 64.1 | 64.8 | 64.2 | 0.1 | Negligible Adverse | 64.7 | 0.6 | Negligible Adverse | 51.4 | 52.1 | 52.0 |
| DOMINESCOURT, 30, Domines ioad | weling | 64.1 | 64.8 | 64.2 | 0.1 | Negigigile Adverse | 64.7 | 0.6 | Negiligile Adverse | 51.4 | 52.1 | 52.0 |
| DOMINES COURT, 31, DOMININS ROAD | weling | 64.1 | 64.8 | 64.2 | 0.1 | Negigigile Adverse | 64.7 | 0.6 | Negiquigie Adverse | 51.4 | 52.1 | 52.0 |
| DOMINES COURT, 32 , DOMINES ROAD | Oweling | 64.1 | 64.8 | ${ }_{64.2}$ | 0.1 | Negligiolie Adverse | ${ }_{49}^{64.5}$ | 0.6 | Negligie Adverse | 51.4 377 | 52.1. | 52.0 |
| 1 1, DOMINES ROAD | Dwelling | 48.8 | 49.6 | ${ }_{48.7}^{48.7}$ | ${ }_{-0.1}$ | Negligiole Eeneficioil | 49.5 | 0.7 | Negigigible Adverse | ${ }_{37} 37.7$ | ${ }^{38.4}$ | ${ }_{38.3}$ |
| 1, DOMIINES ROAD | Dwelling | 48.8 | 49.6 | 48.7 | -0.1 | Negligible Beneficial | 49.5 | 0.7 | Negligible Adverse | 37.7 | 38.4 | 38.3 |
| 10, DOMINES ROAD | Oweling | 52.2 | 53.5 | 52.1 | -0.1 | Negligible Beneficial | 53.4 | 1.2 | Negigigibe Adverse | 40.7 | 41.9 | 41.8 |
| 12, DOMNIES ROAD | Oweling | 51.9 52.6 | ${ }_{53.1}^{53.8}$ | 51.7 | 0.2 | Negiligile Benenticial | 53.0 53.6 | $\stackrel{1.1}{1.0}$ | $\frac{\text { Negligible Adverse }}{\text { Negligible Adverse }}$ | 40.4 41. | ${ }_{42}^{41.5}$ | 41.4 |
| 16, DOMINIES ROAD | Dwelling | 55.2 | 56.4 | 55.0 | -0.2 | Negligible Beneficicial | 56.2 | 1.0 | Negligible Adverse | 43.4 | 44.5 | 44.3 |
| 18, DOMINES ROAD | Wwelling | 56.2 | 57.4 | 56.0 | -0.2 | Negligible Beneficial | 57.2 | 1.0 | Negigigile Adverse | 44.3 | 45.4 | 45.2 |
| 2, DOMINIES ROAD | Oweling | 47.5 | 48.5 | 47.4 | . 0.1 | Negligible Beneficial | 48.4 | 0.9 | Negligible Adverse | 36.5 | 37.4 | 37.3 |
| 20, DOMINIES ROAD |  |  |  |  | -0.1 | Negligible Benenitical |  |  | Negiligile Adverse | 41.1 | 42.1 | 42.0 |
| $\frac{3,}{4, \text { DOMMINES R ROAD }}$ | Owelling | ${ }^{519.8}$ | - ${ }_{52.0}^{50.0}$ | $\stackrel{51.8}{48.9}$ | -0.2 | Neglioible Beneneficial | - ${ }_{\text {52.3 }}^{50.0}$ | 0.9 | Negigigie Adverse | - 30.4 | ${ }_{38.7}^{40.8}$ | ${ }_{38.7}^{40.8}$ |
| 6. DOMINES R ROAD | eeling | 50.4 | 51.5 | 50.3 | 0.1 | Negligible Beneficial |  | 1.0 | Negligible Adverse | 39.1 | 40.1 |  |
| 8, DOMINIES ROAD | Dwelling | 50.7 | 51.9 | 50.6 | -0.1 | Negligible Beneficial | 51.7 | 1.0 | Negigiolie Adverse | 39.4 | 40.4 | 40.3 |
| 1, DON COURT | Owelling | 57.8 | 58.2 | 58.0 | 0.2 | Negligible Adverse | 58.6 | 0.8 | Negigioble Adverse | 45.8 | 46.1 | 46.5 |
| $\frac{2}{2, \text { DON }}$, DONCOURT | Owwelling | 57.6 53.3 | ${ }_{\text {53.0 }}^{53.6}$ | 55.8 53.4 | 0.1 | Negiligible Adverse | 58.4 54.1 | ${ }_{0}^{0.8}$ | Neogigiole Adverse | ${ }_{4}^{45.7}$ | ${ }_{42.0}^{45.9}$ | 46.3 42.4 |
| 4. DON COURT | Dwelling | 52.0 | 52.3 | 52.0 | 0.0 | No Change | 52.7 | 0.7 | Negigigile Adverse | 40.5 | 40.8 | 41.2 |
| 5 , Don Court | Dwelling | 55.0 | 55.5 | 55.2 | 0.2 | Negligible Adverse | 55.9 | 0.9 | Negigigile Adverse | 43.2 | 43.7 | 44.0 |
| 1, DON GARDENS | Dwelling | 48.6 48.8 | 49.5 | $\stackrel{48.7}{48.9}$ | ${ }_{0}^{0.1}$ | Negigigle Adverse | 49.6 49.8 | 1.0 <br> 1.0 <br> 1 | Negigigle Adverse | 37.5 37.7 | 38.3 38.5 | 38.4 38.6 |
| 11, DON GARDENS | Dwelling | 48.9 | 49.8 | 49.1 | 0.2 | Neoligible Adverse | 49.9 | 1.0 | Negigigile Adverse | 37.7 | 38.6 | 38.6 |
| 2, 3 , DON GAARDENS | Owelling | 48.3 | ${ }_{49.1}^{49.1}$ | ${ }_{48.3}^{48.4}$ | 0.0 | Negigigle Adverse | $\stackrel{49.2}{49.2}$ | 0.9 | Neoligigle Adverse | 37.2 37.2 | 37.9 37.9 | 38.0 38.0 |
| 4 4, DON GARDENS | Dwelling | 47.4 | 48.4 | 47.5 | 0.1 | Negigigile Adverse | 48.4 | 1.0 | Negigigile Adverse | 36.4 | 37.3 | 37.3 |
| 5, Don GARDENS | Owelling | 48.6 48.8 | 49.6 49.7 | ${ }_{48.9}^{48.7}$ | 0.1 0.1 | Negigigle Adverse | $\stackrel{49.6}{49.8}$ | $\stackrel{1.0}{1.0}$ | Negligibe Adverse | 37.5 37.7 | 38.4 38.5 | 38.4 38.6 |
| 7. DON GARDENS | elling | 50.6 | 51.1 | 50.6 | 0.0 | No Change | 51.3 | 0.7 | Adverse | 9.3 |  | 9.9 |
| 8, DON GARDENS | Owelling | 48.7 | 49.6 | 48.9 | 0.2 | Negiligile Adverse | 49.7 | 1.0 | Negigigibe Adverse | 37.6 | 38.4 | 38.5 |
| 9, DoN GARDENS | Oweling | ${ }_{49.7}$ | 50.4 | 49.8 | 0.1 | Negiligile Benenitical | 50.6 | 0.9 | Negligigle Adverse | 38.5 | 39.1 | 39.3 |
| FLAT B, 21, DONPLACE, WOODSIDE | Oweling | ${ }_{58.8}$ | 60.3 | ${ }_{58.4}$ | ${ }_{-0.4}$ | Negiligible Beneneicicial | ${ }_{59} 59$ | 1.0 | Neogigigie Adverse | ${ }_{46.7}^{46.7}$ | 48.0 | 476 |
| FLAT C, 21, DON PLACE, WOODSIDE | Dwelling | 58.8 | 60.3 | 58.4 | -0.4 | Negligible Beneficial | 59.8 | 1.0 | Negigiole Adverse | 46.7 | 48.0 | 47.6 |
| FLAT D, 21, DON PLACE, Woooside | Dwelling | 58.8 | 60.3 | 58.4 | -0.4 | Negligible Beneficial | 59.8 | 1.0 | Negiligile Adverse | 46.7 | 48.0 | 47.6 |
| FLAT E, 21, Di, | ${ }^{\text {Owwelling }}$ Diling | 56.8 | 60.3 58.1 | 58.4 56.3 | -0.4 -0.3 | Negiligile Beneiticial | 59.8 57.6 | 1.0 | Negigible Adverse | ${ }_{46.7}^{46.7}$ | 48.0 | ${ }^{47.6}$ |
| FLATB, 23, DON PLACE, WOODSIDE | Dwelling | 56.6 | 58.11 | 年5.3 | -0.3 | Negliable Beneficial | 57.6 | 1.0 | Negiligile Adverse | 44.7 | 46.0 | 45.6 |
| FLAT ( 23, 23, DON PACACE, WOOOSSIDE | Owelling | 56.6 | 58.1 | ${ }_{56.3}$ | -0.3 | Negoligible eeneficicial | 57.6 | 1.0 | Neoligiole Adverse | 44.7 | 46.0 | 45.6 |
| FLATE, 23, DON PLACE, WOOOSIDE | Owelling | 55.6 | 58.1 | 56.3 | -0.3 | Negligible Beneficical | 57.6 | 1.0 | Negigigible Adverse | 44.7 | 46.0 | 45.6 |
| FLAT F, 23, Don Place, woobside | Owwiling | 56.6. | 58.1 55.8 |  | $\stackrel{-0.3}{-0.3}$ | $\frac{\text { Negligible Beneficial }}{\text { Negligibl }}$ Beneficial | 57.6 55.4 | $\stackrel{1.0}{0.9}$ | $\frac{\text { Negigiglb Adverse }}{\text { Negilible Adverse }}$ | 44.7 | $\stackrel{46.0}{44.0}$ | $\stackrel{45.6}{43.6}$ |
| , |  |  |  |  |  |  |  |  | Negligile Adverse |  | 4.0 | 5.6 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 <br> Lnight,outside | DM33 Lnight,outside | $\begin{gathered} \text { DS33 } \\ \text { Lnight,outside } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| FLAT B, 25, DON PLACE, WOODSIDE | Dwelling | 54.5 | 55.8 | 54.2 | -0.3 | Negligible Beneficial | 55.4 | 0.9 | Negigigible Adverse | 42.8 | 44.0 | 43.6 |
| FLAT C, 25, DON PLACE, WOOOSIDE | Oweling | 54.5 | 55.8 | 54.2 | -0.3 | Negligible Beneficial | 55.4 | 0.9 | Negiligible Adverse | 42.8 | 44.0 | 43.6 |
| FLAT D, 25, DON PLACE, Woooside | Dwelling | 54.5 | 55.8 | 54.2 | -0.3 | Negligible Beneficial | 55.4 | 0.9 | Negiligibe Adverse | 42.8 | 44.0 | 43.6 |
| LATT E, 25, DON PLACE, WOODSIIDE | Oweling | 54.5 54.5 | 55.8 55 | 54.2 | ${ }^{-0.3}$ | Negligible Benefitical | 55.4 554 | 0.9 | Negigigle Adverse | 42.8 | ${ }^{44.0}$ | ${ }_{4}^{43.6}$ |
| FLAT F, 25, DON PLACE, WOOOSIDE | Oweling | 54.5 | 55.8 | 54.2 | -0.3 | Negligible Beneficical | 55.4 | 0.9 | Negigigile Adverse | ${ }^{42.8}$ | 44.0 | ${ }_{4}^{43.6}$ |
| FLAT 1, 29, Don PLACE, WOODSIDE | Dwelling | 46.3 46.1 | 47.1 47.0 | 46.4 46.1 | 0.1 0.0 | Negigigle Adverse | 47.3 47.0 | 1.0 0.9 | Negigigbe Adverse | 35.4 35.2 | 36.1 36.0 | 36.3 36.0 |
| FLAT 3, 29, DON PLACE, WOODSIDE | Dwelling | 48.2 | 49.2 | 48.2 | 0.0 | No Change | 49.2 | 1.0 1.0 | Neogigioble Adverse | $\begin{array}{r}37.1 \\ \hline 37.1\end{array}$ | 38.0 38.0 | 38.0 |
| FLAT 4, 29, DON PLACE, WOOOSIDE | Dwelling | 54.2 | 56.1 | 54.0 | -0.2 | Negligible Benenicicial | 55.2 | 1.0 | Negiligible Adverse | 42.5 | 44.2 | 43.4 |
| FLAT 5, 29, DON PLACE, WOODSIDE | Wwelling | 48.3 | 49.5 | 48.3 | 0.0 | No Change | 49.3 | 1.0 | Negiligible Adverse | 37.2 | 38.3 | 38.1 |
| 30, DON PLACE, WOODSIDE | welling | 51.2 | 52.8 | 50.8 | -0.4 | Negligible Beneficial | 52.3 | 1.1 | Negigigibe Adverse | 39.8 | 41.3 | 40.8 |
| 32, DON PLACE, WOODSIDE | welling | 54.7 | 56.6 | 54.2 | -0.5 | Negligible Beneficial | 55.8 | 1.1 | Negigioble Adverse | 43.0 | 44.7 | 44.0 |
| DON STREET, OLD ABERDEEN | welling | 55.0 | 55.5 | 55.2 | 0.2 | Negligible Adverse | 55.9 | 0.9 | Negigigile Adverse | 43.2 | 43.7 | 44.0 |
| FERNBANK, 78, DON STREET, WOODSIDE | Deeling | 57.2 | 60.3 | 56.9 | .0.3 | Negligible Beneficial | 58.4 | 1.2 | Negigioble Adverse | 45.2 | 48.0 | 46.3 |
| 10, DONSTREET, WOODSIDE | Dwelling | 67.1 57.1 | ${ }_{68.7}^{68.7}$ | 66.7 56.7 | -0.4 <br> -0.4 | $\frac{\text { Negligiole }}{\text { Negigione }}$ Beniticial | 68.9 58.9 | 1.0 1.8 | Negigigib Adverse | ${ }_{45.1}$ | $\stackrel{55.6}{49.8}$ | 46.7 |
| 101. DON STREET WOODSIDE | Welling | 56.8 | 63.7 | 56.3 | -0.5 | Negligible Beneficical | 59.7 | 2.9 | Negoligible Adverse | 44.9 | 51.1 | 47.5 |
| 102, DON STREET, WOODSIDE |  | 56.6 | 63.0 | 56.1 | -0.5 | Negligible Beneficial | 59. | 2.5 | Negiligible Adverse | 44.7 |  | 46.9 |
| 103, DON STREET, WOODSIDE | Dwelling | 56.8 | 63.7 | 56.2 | -0.6 | Negligible Beneficial | 59.7 | 2.9 | Negiligile Adverse | 44.9 | 51.1 | 47.5 |
| 104, DON STREET, WOODSIIDE | Deeling | 56.3 | 62.9 | 55.7 | -0.6 | Negligible Beneficial | 59.0 | 2.7 | Negiligile Adverse | 44.4 | 50.3 | 46.8 |
| M 105 , Donstreet, WOODSSIDE | Dwelling | 56.9 | ${ }_{63.9}^{629}$ | ¢5.6 | -0.6 | Negiligiole Beneficial | 59.8 59 | 2.9 2.7 | Negigigib Adverse | $\stackrel{44.9}{44.3}$ | 51.2 | $\stackrel{47.6}{467}$ |
| 107, DON STREET, WOODSIIDE | Dwelling | ${ }_{56.8}^{56.8}$ | ${ }_{63.8}$ | 55.2 | -0.6 | Negegioible Beneficioil | 59.7 | ${ }_{2}^{2.9}$ | Neogigigile Adverse | 44.9 | 51.2 | ${ }_{47.5}^{46.5}$ |
| 108, DON STREET, WOODSIDE | Dwelling | 56.1 | 63.1 | 55.5 | -0.6 | Negligible Beneficial | 59.0 | 2.9 | Negiligibe Adverse | 44.2 | 50.5 | 46.8 |
| 109. DON STREET, WOODSIDE | Oweling | 56.9 | 63.9 | 56.3 55 5 | -0.6 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ Beneficial | 59.8 | 2.9 2.8 | Negigigle Adverse | ${ }_{44.9}^{44}$ | 51.2 | 47.6 |
| I11, DONSTREET, WOOODSIDE | Dwelling | ${ }_{56.1}^{56.8}$ | ${ }_{63.8}^{63.8}$ | ${ }^{55.5}$ | -0.6 | Neegligiole Benenificial | 58.97 | ${ }^{2.8}$ | Negigigible Adverse | 44.9 | 50.4 | ${ }_{46}^{47.5}$ |
| 112, DON STREET, WOODSIDE | Dwelling | 56.1 | 63.2 | 55.5 | -0.6 | Negligible Beneficial | 59.0 | 2.9 | Negiligile Adverse | 44.2 | 50.6 | 46.8 |
| 113. DON STREET, WOODSIDE | Welling | 56.9 | 63.9 | 56.3 <br> 55 <br> 5 | -0.6 | Negligible Beneficical | 59.8 | 2.9 | Negiligible Adverse | 44.9 | 51.2 | 47.6 |
|  | Dwelling | ${ }_{56}^{56.0}$ | ${ }_{63.9}^{63.9}$ | ${ }_{56.4}^{55.5}$ | -0.6 | Negiligiee Beneitical | 59.8 | ${ }_{2}^{2.8}$ | Negigigibe Adverse | 44.0 | ${ }^{50.6} 5$ | 47.6 |
| 116, DON STREET, WOODSIDE | Dwelling | 56.3 | 63.6 | 55.7 | -0.6 | Negligible Beneficial | 59.3 | 3.0 | Minor Adverse | 44.4 | 51.0 | 47.1 |
| 117, DON STREET, WOODSIDE |  | 57.0 | 63.8 | 56.4 | -0.6 | Negiligiole Beneficial |  | ${ }^{2.8}$ | Negligigile Adverse | 45.0 | 51.2 | 47.6 |
| 118, Don Street, WOODSIDE | Dwelling | 56.3 | 63.6 58.9 | 55.7 54.5 | -0.6 -0.4 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ | 59.3 56.6 | 3.0 1.7 | Minor Adverse | ${ }_{43.1}^{44.4}$ | 46.7 | ${ }_{44.7}$ |
| 12, DON STREET, WOODSIDE | Dwelling | 67.1 | 68.7 |  | -0.4 | Negligible Beneficial |  |  | Negligible Adverse | 54.1 | 55.6 | 55.0 |
| 120, DON STREET, WOODSIIE | Dwelling | 56.3 | 63.6 | 55.7 | -0.6 | Negligible Beneficial | 59.3 | 3.0 | Minor Adverse | 44.4 | 51.0 | 47.1 |
| 121. DON STREET, WOOOSIDE | welling | 54.0 | 56.8 | 53.7 | -0.3 | Negligible Beneficial | 55.4 | 1.4 | Negiligibe Adverse | 42.3 | 44.9 | 43.6 |
| $1{ }^{122}$ 123, DON STREET, WOODSSIDE | Dwelling | ${ }_{\text {56.5 }}$ | ${ }^{635.8}$ | ${ }_{55.3}^{55.7}$ | -0.6 | Negegigigibe Beneneficioial | 59.9 | ${ }^{3.4}$ | Neoligigibe Adverse | 44.9 | 54.0 | ${ }^{43.1}$ |
| 124, DON STREET, WOOOSIDE | Deelling | 56.3 | 63.6 | 55.7 | -0.6 | Negligible Beneficical | 59.3 | 3.0 | Minor Adverse | 44.4 | 51.0 | 47.1 |
| 125, DON STREET, WOODSIDE | Dwelling | 53.3 | 55.3 | 53.1 | -0.2 | Negligible Beneficial | 54.6 | 1.3 | Negigiolie Adverse | 41.7 | 43.5 | 42.9 |
| 126, Don StREET, WOODSSIDE | Dwelling | $\stackrel{56.3}{53.2}$ | 63.6 54.9 | $\stackrel{55.7}{53.0}$ | -0.6 -0.2 | $\frac{\text { Negligible Beneficial }}{\text { Negligile }}$ Beneficial | 59.3 | 3.0 1.2 | Menor Adverse | $\stackrel{44.4}{41.6}$ | $\stackrel{51.0}{43.1}$ | $\stackrel{47.1}{42.7}$ |
| 128. Don Street Woooside | Deelling | 56.2 | 63.5 | 55.6 | -0.6 | Negligible Beneficial | 59.2 | 3.0 | Minor Adverse | 44.3 | 50.9 | 47.0 |
| - ${ }^{\text {130, DoNSTREET, WOODSIDE }}$ | Dwelling | 56.2 | 63.5 63.4 | 55.6 55.6 | -0.6 -0.6 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ Beneficial | 59.2 | 3.0 3.0 | Minor Adverse | $\stackrel{44.3}{44.3}$ | 50.9 50.8 | 47.0 47.0 |
| 134, DON STREET, WOODSIDE | Dwelling | 56.2 | 63.2 | 55.5 | -0.7 | Negligible Beneficial | 59.0 | 2.8 | Negiligibe Adverse | 44.3 | ${ }_{50.6}$ | 46.8 |
| ${ }^{\text {13, }}$ 136, DON STREET, WOODSIDE | Dwelling | 56.2 55.2 | 63.1 61.6 | 55.6 54.5 | -0.6 -0.7 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ | 59.0 57.8 | ${ }_{2}^{2.8}$ | Negligibl Adverse | ${ }_{44.3}^{43.4}$ | 50.5 49.2 | 46.8 |
| 14, DON STREET, WOODSIDE | Dwelling | 67.1 | 68.7 | 66.7 | -0.4 | Negligible Beneficial | 68.1 |  | Negiligile Adverse | 54.1 | 55.6 |  |
| $\frac{140, \text { Don STREET, WOODSIDE }}{142}$ | Dweling | 55.9 55.1 | 61.1 61.4 | 55.4 54.4 | -0.5 -0.7 | $\frac{\text { Negilibile Beneficial }}{\text { Negligible Beneficial }}$ | 57.9 57.6 | 2.0 2.5 | Negiligib Adverse | ${ }_{4}^{44.0}$ | 48.7 49.0 | 45.8 45.6 |
| 1 I42, DON STREET, WOODSIDE | Dwelling | 55.1 67.1 | ${ }_{6}^{61.4}$ | 54.4 | --0.4 | $\frac{\text { Negligible Benenitical }}{\text { Neglioibl }}$ Beneficial | 㐌7.6. | 2.5 1.0 | Negigigbe Adverse | $\stackrel{43.3}{54.1}$ | $\stackrel{49.0}{55.6}$ | 45.6 55.0 |
| 18, DON STREET, WOODSIDE | Dwelling | 67.3 | 69.0 | 66.9 | -0.4 | Negligible Beneficial | 68.3 | 1.0 | Negligiole Adverse | 54.3 | 55.8 | 55.2 |
| 2, DONSTREET, WOOOSIDE | Deelling | 68.3 | 69.8 | 68.0 | -0.3 | Negligible Beneficial | 69.3 | 1.0 | Negigioble Adverse | 55.2 | 56.6 | 56.1 |
| 20, 2 , DONSTTREET, WOODSIIDE | Dwelling | ${ }^{67.3}$ | 69.0 | 66.9 | -0.4 | Negegigigibe Beneneficioial | ${ }^{688.3}$ | 1.0 | Neogigioble Adverse | ${ }_{54.3}^{54.3}$ | 55.8 <br> 55.8 | 55.2 55.2 |
| 24, DON STREET, WOODSIDE | Deelling | 67.3 | 69.0 | 66.9 | -0.4 | Negligible Beneficial | 68.3 | 1.0 | Negigiolile Adverse | 54.3 | 55.8 | 55.2 |
| 26, DON STREET, WOODSIDE | Dwelling | 67.3 | 68.9 | 66.8 | -0.5 | Negligible Beneficial | 68.2 | 0.9 | Negiligible Adverse | 54.3 | 55.7 | 55.1 |
| 28, DONSTREET, WOODSIDE | Dwelling | ${ }_{67.3}^{67.3}$ | 68.9 | 66.8 | -0.5 | Negiligie Beneficial | 68.2 | 0.9 | Negigigle Adverse | $\stackrel{54.3}{54.3}$ | 55.7 55.7 | 55.1 55.1 |
| 32, DON STREET, WOODSIDE | Dwelling | 67.3 | 68.9 | 66.8 | -0.5 | Negligible Beneficial | 68.2 | 0.9 | Negiligibe Adverse | 54.3 | 55.7 | 55.1 |
| $\frac{34, \text { DONSTREET, WOODSIDE }}{3 \text { St }}$ | Dwelling | 67.4 67.4 | 69.0 69.0 | $\frac{66.9}{66.9}$ | -0.5 <br> -0.5 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ Beneficial | 68.4 68.4 | 1.0 1.0 | $\frac{\text { Negiligib Adverse }}{\text { Negigiole Adverse }}$ | 54.4 54.4 | 55.8 55.8 | 55.3 55.3 |
| 4, DON STREET, WOODSIDE | Dwelling | 57.3 | 57.2 | 56.7 | -0.6 | Negligible Beneficial | 57.2 | -0.1 | Negligible Beneficial | 45.3 | 45.2 | 45.2 |
| ${ }^{\text {40, }}$ ( DONSTREET, WOODSIDE | Dwelling | 67.4 67.4 | 69.0 69.0 | 66.9 6 | -0.5 -0.5 | $\frac{\text { Negliable Beneficial }}{\text { Negligible }}$ | 68.4 68.4 | $\stackrel{1.0}{1.0}$ | Negligible Adverse | 54.4 54.4 | 55.8 55.8 | ${ }_{55.3}^{55}$ |
| 6, DON STREET, WOODSIDE | Dwelling | 67.4 | 69.0 | 67.1 | 0.3 | Negligible Beneficial | 68.4 | 1.0 | Negiligible Adverse | 54.4 | 5.8 | 55.3 |
| 60, OONSTREET, WOODSIDE | Deelling | 61.8 | 65.4 | 61.2 | -0.6 | Negligible Beneficical | ${ }^{63.8}$ | ${ }_{2} 2$ | Negigioible Adverse | 49.4 | 52.6 | 51.2 |
| 6i, Donstreet, woodsibe | Oweling | 57.5 | 60.4 | 57.2 | -0.3 | Negiligiole Beneficial | 58.7 | 1.1 | Negiligile Adverse | 45.5 | 48.1 | 46.6 |
| 62, Din Son treet, woobsile | ${ }^{\text {Dueliling }}$ | 57.6 | 60.5 | ${ }_{57.3}$ | $\stackrel{0}{-0.3}$ | Negiligiole Benenicial | ${ }_{58.8} 60.8$ | 1.2 | Neoligigibe Adverse | 45.6 | 48.2 | 46.5 |
| 64, DON STREET, WOODSIDE | Dwelling | 58.0 | 60.7 | 57.6 | -0.4 | Negligible Beneficial | 59.0 | 1.0 | Negiligible Adverse | 45.9 | 48.4 | 46.8 |
| 65 , DON STREET, WOODSIDE | Dwelling | 57.6 | 60.6 | 57.3 | -0.3 | Negligible Beneficial | 58.8 | 1.2 | Negiligibe Adverse | 45.6 | 48.3 | 46.7 |
|  | Dwelling | 57.2 57.6 | 60.1 60.6 | 56.9 57.3 | -0.3 -0.3 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ Beneficial | 58.3 <br> 58.8 | 1.1 1.2 | Negigible Adverse | $\frac{45.2}{45.6}$ | 47.8 48.3 | 46.2 46.7 |
| 68, DON STREET, WOODSIIE | Deelling | 56.5 | 59.7 | 56.2 | -0.3 | Negligible Beneficical | 57.5 | 1.0 | Negligible Adverse | 44.6 | 47.5 | 45.5 |
| 69, DON STREET, WOODSIDE | Dwelling | 57.6 | 60.6 | 57.3 | -0.3 | Negligible Beneficical | 58.8 | 1.2 | Negiligile Adverse | 45.6 | 48.3 | 46.7 |
| 70, Don STREET, WOODSIDE | Dwelling | 56.5 | 59.7 60.7 | 56.2 | - $\begin{array}{r}-.0 .3 \\ -0.3\end{array}$ | $\frac{\text { Negilibile Beneficial }}{\text { Negligible }}$ Beneficial | 57.5 58.8 | $\frac{1.0}{12}$ | $\frac{\text { Negiligile Adverse }}{\text { Neofigiole Adverse }}$ | $\stackrel{44.6}{456}$ | 47.5 48.4 | ${ }_{45.5}^{467}$ |
| 72, DON STREET, WOODSIIE | Dwelling | 56.5 | 59.7 | 56.2 | -0.3 | Negligible Beneficial | 57.5 | 1.0 | Negligible Adverse | 44.6 | 47.5 | 45.5 |
| 73, DON STREET, WOODSIDE | welling | 57.6 | 60.7 | 57.3 | -0.3 | Negligible Beneficial | 58.9 | 1.3 | Negigigile Adverse | 45.6 | 48.4 | 46.7 |

## Appendix A14．4：Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short－term Daytime Noise Change（dB） | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long－term Daytime Noise Change（dB） | Magnitude of Change | DM18 Lnight，outside | DM33 <br> Lnight，outside | DS33 <br> Lnight，outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 74，DON STREET，WOODSIIDE | Dwelling | 56.5 | 59.7 | 56.3 | －0．2 | Negligible Beneficical | 57.6 | 1.1 | Negiligibe Adverse | 44.6 | 47.5 | 45.6 |
| 75，DON STREET，WOODSIDE | Deeling | 57．7 | 60.8 | 57.4 57.5 | －0．3 | Negligible Beneficial | 59．0 | ${ }_{1}^{1.3}$ | Negiligile Adverse | $\frac{45.7}{458}$ | 48.5 | 46.8 |
| 77，Don STREET，WOODSIDE | Dwelling | 57.8 57.8 | 61.0 61.0 | 57.5 57.5 | -0.3 0.3 | $\frac{\text { Negligible Beneficial }}{\text { Negligible Beneficial }}$ | 59.1 59.1 | 1.3 1.3 | Negigigle Adverse | 45.8 45.8 | 48.6 48.6 | 46.9 |
| 8，DONSTREET，WOODSIDE | Owelling | 67．1 | 68.7 | 66．7 | －0．4 | Negligible Beneficioial | 68.1 | 1.0 | Neoligible Adverse | 54．1 | 55.6 | 55.0 |
| 80，DON STREET，WOODSIDE | Dwelling | 57.2 | 60.5 | 57.0 | －0．2 | Negligible Beneficial | 58.5 | 1.3 | Negiligile Adverse | 45.2 | 48.2 | 46.4 |
| 81，DON STREET，WOODSIDE | Dwelling | 57.8 | 61.1 | 57.5 | －0．3 | Negligible Beneficial | 59.1 | 1.3 | Negiligile Adverse | 45.8 | 48.7 | 46.9 |
| 82，DON STREET，WOODSIDE | Welling | 55.0 | 58.2 | 54.7 | －0．3 | Negligible Beneficial | 56.2 | 1.2 | Negigioble Adverse | 43.2 | 46.1 | 44.3 |
| 83，DON STREET，WOODSIDE | Deelling | 57.8 <br> 554 <br> 5.4 | 61.2 59.7 | 57.5 <br> 55 <br> 55 | －0．3 | $\frac{\text { Negiligiole Beneficial }}{\text { Negioible }}$ | 59．2 | 1.4 | Negiligile Adverse | 45.8 <br> 43 <br> 18 | 48.8 | $\stackrel{47.0}{448}$ |
| 84，DONSTREET，WOODSIDE | Dwelling | 55．4 | ${ }_{613}^{51.1}$ | 55．6 | －0．3 | $\frac{\text { Negiligiole Beneficial }}{\text { Negligible Beneficial }}$ | ${ }_{59}^{56.3}$ | ${ }_{1}^{1.3}$ | Negigigbe Adverse | ${ }_{45.8}$ | 48.6 | ${ }_{44,8}^{471}$ |
| 86．DON STREET，WOODSIDE | Dwelling | 55.5 | 58.7 | 55.2 | ．0．3 | Negligible Beneficial | 56.7 | 1.2 | Neogigioble Adverse | 43.7 | 46.6 | 47.1 |
| 87，DON STREET，WOODSIDE | Dwelling | 57.9 | 61.5 | 57.6 | －0．3 | Negligible Beneficial | 59.4 | 1.5 | Negligible Adverse | 45.8 | 49.1 | 星 |
| 88，DON STREET，WOODSIDE |  | 55.5 | 58.8 | 55.2 | －0．3 | Negligible Beneficial | 56.8 | 1.3 | Negligible Adverse | 43.7 | 46.7 | 44.9 |
| 89，DON STREET，WOODSIDE | Deelling | 57.9 | 61.6 | 57.6 | －0．3 | Negligible Beneficial | 59.4 | 1.5 | Negligible Adverse | 45.8 | 49.2 | 47.2 |
| 90，DON STREET，WOODSIDE | Deelling | 55.4 | 58.7 | 55.1 | －0．3 | Negligible Beneficial |  |  | Negigioble Adverse | 43.6 | 46.6 | 44.8 |
| 9，ODONSTREET，WOODSIDE | weling | 557 55 | 61．9 | $\begin{array}{r}57.6 \\ 554 \\ \hline\end{array}$ | ${ }^{-0.3}$ | Negiligiole Beneficial | 59．5 | 1.6 1.3 | Negiligile Adverse | 45.8 | 49.4 | 47.3 |
| 99， 9 ，DONSTREET，WOODSIDE | Owelling | 55.7 | 59．1 | 55.4 | －0．3 | Negigigble Benenticial | 57.4 | 1.3 | Negigigive Avverse | ${ }_{44.9}^{44}$ | 46.9 | 45.0 |
| 95，DON STREET，WOODSIDE | Chidren＇s Nursery／Crieche | 53.3 | 57.3 | 53.0 | －0．3 | Negligible Beneficial | 54.9 | 1.6 | Negilioile Adverse | 41.7 | 45.3 | 43.1 |
| 96，DON STREET，WOODSIDE | Dwelling | 56.1 | 60.0 | 55.7 | －0．4 | Negligible Beneficial | 57.6 | 1.5 | Negligible Adverse | 44.2 | 47.7 | 45.6 |
| 97，OONSTREET，WOODSIDE | welling | 56.9 | 63.3 | 56．4 | －0．5 | Negligible Beneficicial | 59.5 | ${ }^{2.6}$ | Negiligible Adverse | 44.9 | 50.7 | 47.3 459 |
| 98，DONSTREET，WOODSIDE | Dweling | 56．3 | ${ }_{60.7}^{63}$ | ${ }_{56.3}^{55.9}$ | －0．4 | $\frac{\text { Negligible Benenitical }}{\text { Neglioibl }}$ Beneficial | 58．0 | 1.7 2.8 | Negigigbe Adverse | 44．4 | 48.4 510 | 45.9 47.4 |
| 9，DON TERRACE | Dwelling | 50.7 | ${ }_{51.5}$ | 50.9 | 0.2 | Neogligible Adverse | 51.7 | 1.0 | Negligible Adverse | 39．4 | 40．1 | 40.3 |
| 11，DON TERRACE | Dwelling | 50.6 | 51.4 | 50.7 | 0.1 | Negiligible Adverse | 51.5 | 0.9 | Negiligile Adverse | 39.3 | 40.0 | 40.1 |
| 12，DoN TERRACE | pwelling | 52.7 | 53.2 | 52.6 | －0．1 | Negligible Beneficial | 53.6 | 0.9 | Negiligile Adverse | 41.2 | 41.6 | 42.0 |
| 13，DoN TERRACE | weling | 47.9 | 48.7 | 48.0 | 0.1 | Negigigile Adverse | 48.8 | 0.9 | Negigigibe Adverse | 36.8 | 37.6 | 37.7 |
| 13，DoN TERRACE | Dwelling | 49.5 | 50.1 | 49.5 | 0.0 | No Change | 50.4 | 0.9 | Negiligibe Adverse | 38.3 | 38.8 | 39.1 |
| 14，DoN TERRACE | Dwelling | 45.0 | 45.9 | 45.1 | 0.1 | Negigigile Adverse | 46.0 | 1.0 | Negigigile Adverse | 34.2 | 35.0 | 35.1 |
| 14，DoN TERRACE | Dwelling | 45.0 | 45.9 | 45.1 | 0.1 | Negigigibe Adverse | 46.0 | 1.0 | Negigigile Adverse | 34.2 | 35.0 | 35.1 |
| 15，DoN TERRACE |  | 51.3 | 51.6 | 51.2 | －0．1 | Negligible Beneficial | 52.2 | 0.9 | Negligible Adverse | 9.9 | 40.2 | 40.7 |
| 15，DON TERRACE | Deelling | 46.2 | 47.1 | 46.2 | 0.0 | No Change | 47.2 | 1.0 | Negigigile Adverse | 35.3 | 36.1 | 36.2 |
| 15，DoN TERRACE | Dwelling | 46.2 | 47.1 | 46.2 | 0.0 | No Change | 47.2 | 1.0 | Negigigibe Adverse | 35.3 | 36.1 |  |
| 16，DON TERRACE | welling | ${ }_{52.7}^{5}$ | 53.8 | 52.6 | －0．1 | Negligible Beneficial | 53.8 | ． 1 | Negigigile Adverse | 41.2 | 2 | 42.2 |
| 16，Do N Thate | Oweling | 52．7 | 53．8 | －52．6 | ${ }_{-0.1}$ | Negligible Benenitical | 年5388 | 1.1 | Negigigle Adverse | ${ }_{41.2}^{412}$ | ${ }_{422}^{42.2}$ | ${ }_{42}^{42}$ |
| 20，DON TERRACE | Dwelling | ${ }^{51.8}$ | ${ }_{52.6}$ | 52．0 | 0.2 | Neoligioble Adverse | ${ }_{52.7}$ | 0.9 | Neoligioble Adverse | 40.4 | ${ }_{41.1}^{42.1}$ | ${ }_{41.2}^{42.2}$ |
| 21，DON TERRACE | Dwelling | 51.6 | 52.3 | 51.7 | 0.1 | Negigigibe Adverse | 52.5 | 0.9 | Negigioibe Adverse | 40.2 | 40.8 | 41.0 |
| 22，DON NTERRACE | Dwelling | 52．4 | 53.2 | 52．6 | 0.2 | Negiligibe Adverse | 53.3 | 0.9 | Negiligible Adverse | 40.9 | 41.6 | 41.7 |
| 23，DON ERRACE | Dwelling | 52．8． | 53．6 | $\stackrel{53.0}{53.3}$ | 0.2 0.1 | Negligible Adverse | ${ }^{53.7}$ | 0.9 | Negigigbe Adverse | $\stackrel{41.3}{41.6}$ | $\stackrel{42.0}{42.3}$ | $\stackrel{42.1}{42.4}$ |
| 25，DON TERRACE | Dwelling | 53.7 | 54.5 | 53.9 | 0.2 | Negiligile Adverse | 54.7 | 1.0 | Negiligile Adverse | 42.1 | 42.8 | 43.0 |
| 26，DON TERRACE | Dwelling | 54.2 | 55.0 | 54.4 | 0.2 | Negligible Adverse | 55.1 | 0.9 | Negiligibe Adverse | 42.5 | 43.2 | 43.3 |
| 27，DON TERRACE | Oweling | $\begin{array}{r}54.4 \\ 54.3 \\ \hline\end{array}$ | 55．2） | 54．6 | ${ }_{0}^{0.2}$ | Negiligibie Adverse | 55.3 <br> 5.2 | 0.9 | Negiligile Adverse | ${ }_{426}^{42.7}$ | ${ }_{4}^{43.4}$ | ${ }^{43.5}$ |
| 29，DON TERRACE | Dwelling | 54.2 | 55.0 | 54.4 | ${ }_{0}^{0.2}$ | Neogigigile Adverse | 55．1 | 0.9 | Neogigigle Adverse | ${ }_{42.5}$ | 43.2 | ${ }_{43.3}$ |
| 30，DON TERRACE | Dwelling | 54.1 | 54.9 | 54.3 | 0.2 | Negiligible Adverse | 55.0 | 0.9 | Negiligible Adverse | 42.4 | 43.1 | 43.2 |
| 31，DON TERRACE | Dwelling | 53.9 | 54.7 | 54.1 | 0.2 | Negiligibe Adverse | 54.9 | 1.0 |  | 42.2 | 43.0 | 43.1 |
| 32，DON TERRACE |  |  | 54.5 | 54.0 <br> 55 | 0.2 | Negigigle Adverse |  | 0.9 | Negiligibe Adverse | 42.2 | 42.8 | 43.0 |
| 33，DON TERRACE | welling | 55.1 | 55.8 | 55.3 | 0.2 | Negiligble Adverse | 56.0 | 0.9 | Negigigile Adverse | 43.3 |  |  |
| 34，DON TRARACE | Oweling | 55．13 | 55．8 | 55.3 | 0.2 | Negligive Adverse | 55．0 | 0.9 | Negligio Adverse | ${ }_{426}^{43.3}$ | 44.0 | 44.1 |
| 36，DON TERRACE | Dwelling | 52.9 | 53.5 | 53.0 | 0.1 | Negigigile Adverse | 53.7 | 0.8 | Negligible Adverse | 41.3 | 41.9 | 42.1 |
| 8，DON TERRACE | Dwelling | 49.9 | 50.4 | 50.0 | 0.1 | Negigigile Adverse | 50.7 | 0.8 | Negligible Adverse | 38.6 | 39.1 | 39.4 |
| 9，DONTEARACE | Dwelling | ${ }_{56.7}^{49.3}$ | $\frac{50.0}{60.9}$ | ${ }^{49.4} 5$ | －0．4 | Negigigibe Adverse | 50.2 59.1 | 0.9 2.4 | $\frac{\text { Negigigle Adverse }}{\text { Neoligiole Adverse }}$ | $\frac{38.1}{44.8}$ | 38.7 48.5 | 38.9 46.9 |
| 10，DONBANK TERRACE | Dwelling | 58.3 | 61.9 | 57.9 | －0．4 | Negligible Beneficial | 60.3 | 2.0 | Negligible Adverse | 46.2 | 49.4 | 48.0 |
| 100，DONBANK TERRACE | Deelling | 57.6 | 62.7 | 57.1 59.6 | －0．5 | Negligible Benefitical | 60.4 59 | ${ }_{2}^{2.8}$ | Negigigle Adverse | 45.6 | 50.2 | 48.1 |
| 11，Di，OONBANK T TERRACE | Dwelling | 57．0 | ${ }^{61.5}$ | 56.6 57.8 | -0.4 -0.4 | Negiligie Beneficial | 59.6 60.2 | ${ }_{2}^{2.6}$ | $\frac{\text { Negigible Adverse }}{\text { Neoligible Adverse }}$ | 45.0 | 49.4 | 47.4 |
| 13．DONBANK TERRACE | Dwelling | 57.1 | 61.6 | 56.6 | －0．5 | Negligible Beneficial | 59.6 | 2.5 | Negligible Adverse | 45.1 | 49.2 | 47.4 |
| 14，DONBANK TERRACE | Dwelling | 57.8 | 61.7 | 57.3 | －0．5 | Negligible Beneficial | 59.9 | 2.1 | Negligible Adverse | 45.8 | 49.3 | 47.6 |
| 15，DONBANK TERRACE | ${ }^{\text {Dwelling }}$ | 57.1 <br> 58. | ${ }_{6}^{61.6}$ | 56．6 | －0．5 | $\frac{\text { Negilibile Beneficial }}{\text { Negligible }}$ | 59.6 | $\stackrel{2.5}{2.1}$ | Negiligile Adverse | ${ }^{45.1}$ | 49.2 | 47.4 |
| 17，DONBANK TERRACE | Dwelling | 57.1 | 61.6 | 56.7 | －0．4 | Negligible Beneficicial | 59.6 | ${ }_{2} .5$ | Negigigile Adverse | 45.1 | 49.2 | 47.4 |
| 18，DonBank TeRRACE | Dwelling | 57.6 | 61.8 | 57.2 | －0．4 | Negligible Beneficial | 59.9 | ${ }_{2} 2.3$ | Negiligible Adverse | 45.6 | 49.4 | 47.6 |
| 19，DONBANK TERRACE |  | 57.1 | 61.6 | 56.7 | －0．4 | Negligible Beneficial | 59.6 | 2.5 | Negligible Adverse | 45.1 | 49.2 | 47.4 |
| 2，DONBANK TERRACE | Dwelling | 59.8 | 62.7 | 59.2 | －0．6 | Negigigibe Beneficial | 61.4 |  | Negigigile Adverse | 47.6 | 50.2 | 49.0 |
| 20，DONBANK TERRACE | Oweling | 57.3 | ${ }^{61.6}$ | 56．8 | －0．5 | Negiligibe Benenitical | 59．7 | ${ }^{2.4}$ | Negiligile Adverse | 45.3 | 49.2 | 47.5 |
|  | Oweling | 56.8 | ${ }_{61.4}^{61.4}$ | 56．3 | －0．4 | Negligibe Beneticial | 59．5 | ${ }_{2}^{2.6}$ | Negligio Adverse | 44.9 | 49.0 | 471 |
| 23，DONBANK TERRACE | Dwelling | 56.9 | 61.4 | 56.5 | －0．4 | Negligible Beneficial | 59.4 | 2.5 | Negligible Adverse | 44.9 | 49.0 | 47.2 |
| 24，DONBANK TERRACE | Dwelling | 56.7 | 61.3 | 56.3 | －0．4 | Negligible Beneficial | 59.3 | 2.6 | Negligible Adverse | 44.8 | 48.9 | 47.1 |
|  | Dwelling | $\stackrel{57.0}{56.8}$ | ${ }_{61.5}^{61.4}$ | ${ }_{56.3}^{56.6}$ | $\stackrel{-0.4}{-0.5}$ | Negiligiole Beneficial | 59．4 | ${ }_{2}^{2.5}$ | $\frac{\text { Negigigie Adverse }}{\text { Neoligible Adverse }}$ | ${ }_{45.9}^{44.9}$ | ${ }_{49.1}^{49.0}$ | $\stackrel{47.3}{47.2}$ |
| 27，DONBANK TERRACE | Dwelling | $\stackrel{57.0}{5.7}$ | 61.5 | 56．6 | －0．4 | Negligible Beneficical | 59．5 | 2.5 | Negigigle Adverse | 45.0 | 49.1 | ${ }_{47.3}^{47}$ |
| 29，DONBANK TERAACE | ${ }^{\text {Duelling }}$ | ${ }_{56}^{56.0}$ | ${ }^{61.4}$ | ${ }_{56.3}$ | －0．4 | Negiligible Benenitical | ${ }_{59.5}^{59.5}$ | ${ }_{2}^{2.5}$ | Neoligigibe Adverse | 45.0 | 49.1 | ${ }_{47.3}$ |
| 3，DONBANK TERRACE | Dwelling | 57．0 | 61.4 | 56.6 | －0．4 | Negligible Beneficical | 59.5 | 2.5 | Negligible Adverse | 45.0 | 49.0 | 47.3 |
| 30，Donbenk TeRRACE | Dwelling | 56.7 57.0 | 61.4 61.4 | 㐌5．6．2 | -0.5 -0.4 | $\frac{\text { Negigigiole Beneficial }}{\text { Negligile }}$ Beneficial | －${ }_{\text {59．3 }}^{59.5}$ | ${ }_{2}^{2.6}$ | Negigigie Adverse | 44.0 | ${ }_{49.0}^{49.0}$ | ${ }_{47.3}^{47.1}$ |
| 32，DONBANK TERRACE | Dwelling | 56.7 | 61.4 | 56.2 | －0．5 | Negligible Beneficial | 59.3 | 2.6 | Negigigile Adverse | 44.8 | 49.0 | 47.1 |

## Appendix A14．4：Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short－term Daytime Noise Change（dB） | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long－term Daytime Noise Change（dB） | Magnitude of Change | DM18 Lnight，outside | DM33 <br> Lnight，outside | DS33 Lnight，outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 33，DONBANK TERRACE | Dweling | 56.9 | 61.3 | 56.5 | ${ }^{-0.4}$ | Negligible Beneficial | 59．4 | 2.5 | Negligible Adverse | 44.9 | 48.9 | 47.2 |
| 34，DONBANK TERRACE | $\frac{\text { Dwelling }}{\text { Owelling }}$ | 56.7 56.9 | ${ }^{61.4}$ | 56．2 | -0.5 .0 .4 | Negligible Beneficial | 59.3 594 | $\frac{2.6}{25}$ | Negligible Adverse | $\frac{44.8}{449}$ | 49.0 489 | $\frac{47.1}{472}$ |
| 35，DoNBANK TERRACE | Dweling | 56．9 56.6 | 61．4 | － 56.5 | -0.4 -0.4 | $\frac{\text { Negligiole }}{\text { Negligibe }}$ Beneficial | 㐌9．4．3 | ${ }_{2}^{2.5}$ | $\frac{\text { Negigigio Adverse }}{\text { Negligible Adverse }}$ | 44．9 | 48.9 | 47.2 47.1 |
| 37，DONBANK TERRACE | Dwelling | 57.0 | ${ }^{61.5}$ | ${ }_{56.6}^{56.6}$ | －0．4 | Negegigible Beneficioil | 59.6 | ${ }_{2}^{2.6}$ | Negigigible Adverse | 45.0 | 49.1 | 47.4 |
| 38，Donsank TERRACE | Dwelling | 56.6 | 61.4 | 56.2 | －0．4 | Negligible Beneficial | 59.3 | 2.7 | Negigioile Adverse | 44.7 | 49.0 | 47.1 |
| Donsank terrac | Dwelling | 57.2 | 61.7 | 56.8 | －0．4 | Negligible Beneficical | 59.7 | 2.5 | Negiligibe Adverse | 45.2 | 49.3 | ${ }^{47.5}$ |
| 4，DONBANK TERRACE | Oweling | 61.5 | 64.8 | 60.0 | －1．5 | Minor Beneficial | 63.6 | 2.1 | Negigioble Adverse | 49.1 | 52.1 | 51.0 |
| 40，DONBANK TERRACE | Dweling | 56.7 | 61.5 | 56.3 | －0．4 | Negligible Beneficial | 59.4 | ${ }^{2} .7$ | Negigioble Adverse | 44.8 | 49.1 | 47.2 |
| 41，DONBANK TERRACE | Oweling | 56．2 | 61.0 | 55．7 | －0．5 | Neogigibe Beneticial | 58．2 | 2.0 | Negiligio Adverse | 44.3 | 48.6 | ${ }_{46.1}$ |
| 43，DONBANK TERRACE | ${ }^{\text {Owelling }}$ Dowling | 56.6 55.8 | 669．4 | ${ }^{56.2}$ | $\stackrel{-0.4}{-0.3}$ | Negligiole Beneificial | 59．3 | 2.6 | Negligioble Adverse | 44.0 | 47.2 | 46.3 |
| 44，DONBANK TERRACE | Welling | 56.6 | 61.4 | 56.2 | －0．4 | Negligible Beneficial | 59.3 | 2.7 | Negligible Adverse | 44.7 | 49.0 | 47.1 |
| 45，DONBANK TERRACE | Welling | 55.5 | 58.9 | 55.2 | －0．3 | Negligible Beneficial | 58.2 | 2.7 | Negiligibe Adverse | 43.7 | 46.7 | 46.1 |
| 46，DONBANK TERRACE | welling | 56.6 | 61.4 | 56.2 | －0．4 | Negiligiole Beneifical |  | ${ }_{2} .7$ | Negiligiole Adverse | ． 7 | 49.0 | 47.1 |
| 47，DONBANK TERRACE | weling | 5.4 |  | 55.1 | －0．3 | Negligible Beneficicial |  |  | Negiligibe Adverse | 3．6 | 46.6 | 46.0 |
| 48，DONBANK TERRACE | Dwelling | 56.6 | 61.4 59 | 56.2 | －0．4 | Negligible Beneitical |  |  | Negiligibe Adverse |  | 49.0 | 7.1 |
| 49，DONBANK TERRACE | Dweling | 55．2 | 58.5 | 54.9 | －0．3 | Negligible Beneficial |  |  | Negiligibe Adverse | 3．4 | 46.4 | 5.9 |
| 5．DONBANK TERRACE | Dweling | 57.1 | 61.5 | 56.6 | －0．5 | Negligible Beneficial | 59.6 | 2.5 | Negiligibe Adverse | 45.1 | 49.1 | 47.4 |
| 50，DONBANK TERRACE | Dweling | 56．7 | 61.5 59.4 | 56.2 54.9 | －0．5 | Negligible Benenitial | $\begin{array}{r}59.4 \\ 57 \\ \hline\end{array}$ | $\frac{2.7}{28}$ | Negiligile Adverse | 44.8 | 49.1 | 47.2 |
| 51，DONBANK TERRACE | weling | 55．1 | 58.4 | 54.9 | －0．2 | Negiligile Benenitical | 57．9 | ${ }_{2}^{2.8}$ | Negiligiole Aaverse | 43.3 | 46.3 | 45.8 |
| 52，DONBANK TERAACE | Oweling | 56．8 | 61．6 | 56．3 | －0．5 | Negiligile Benenitial | 59.5 | $\frac{2.7}{28}$ | Negiligio Aaverse | 44.9 | 49.2 | 47.3 |
| 54．DONBBANK TERRACE | Dwelling | ${ }_{56.9}$ | ${ }_{61.7}^{56.4}$ | 54.9 56.5 | -0.3 -0.4 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ Beneficial | 58.0 59.6 | 2.8 2.7 | $\frac{\text { Negligigle Adverse }}{\text { Nefligible Adverse }}$ | 43.4 44.9 | ${ }_{49.3}^{46.3}$ | 45.9 47.4 |
| 54，DONBANK TERRACE | Dwelling | 55.2 | ${ }_{58.5}$ | ${ }_{55.0}$ | －0．2 | Negoligible Beneficioil | 58.0 | ${ }_{2} 2.8$ | Negigigible Adverse | 43.4 | 46.4 | 45.9 |
| 56. Donbank TERRACE | Dwelling | 57.0 | 61.7 | 56.6 | －0．4 | Negligible Beneficial | 59.6 | 2.6 | Negilioile Adverse | 45.0 | 49.3 | 47.4 |
| 57，DONBANK TERRACE | Dweling | 55.3 | 58.6 | 55.1 | －0．2 | Negligible Beneficial | 58.1 | ${ }_{2}^{2.8}$ | Negigioble Adverse | 43.5 | 46.5 | 46.0 |
| 58，DONBANK TERRACE | weling | 55.7 | 59.7 | 55.3 | －0．4 | Negligible Beneficial | 58.4 | ${ }_{2}^{2.7}$ | Negigioble Adverse | 43.9 | 47.5 | 46.3 |
| 59，Donsank TERRACE | weling | 55.4 | 58.7 | 55.3 | －0．1 | Negligible Beneficial | 58.2 | ${ }_{2}^{2.8}$ | Negiligibe Adverse | 43.6 | 46.6 | 46.1 |
| 6，Donsenk TERRACE | Dwelling | $\begin{array}{r}59.3 \\ 554 \\ \hline\end{array}$ | 62.4 593 | $\begin{array}{r}58.8 \\ 55 \\ \hline 5\end{array}$ | －0．5 | Neogigibie Beneficial | 61．0 | 1.7 27 | Negiligile Adverse | ${ }^{47.1}$ | 49.9 | 48.6 |
| 61，DONBANK TERRACE | Dwelling | 55.5 | 58.7 | 55.5 | 0.0 | No Change | 58.3 | 2.8 | Negaligiole Adverse | 43.7 | 46.6 | 46.2 |
| 62，Donsank TERRACE | Dwelling | 54.8 | 58.7 | 54.5 | －0．3 | Negligible Beneficial | 57.8 | 3.0 | Minor Adverse | 43.1 | 46.6 | 45.8 |
| 63，DONBANK TERRACE | Deeling | 55.6 | 58.8 |  | 0.1 | Negiligibe Adverse |  |  | Negiligioe Adverse |  |  | 46.2 |
| 64，DONBANK TERRACE | Oweling | 54.7 <br> 557 | 58.5 5.9 | 54.3 559 | －0．4 | Negigigile Beneficial |  | ${ }^{3.0}$ | Minor Adverse | ．${ }^{\text {a }}$ | 46.4 | 5．7 |
|  |  |  | 58.9 |  | 0.2 | Negligibe Adverse | 58.4 |  | Negligibe Aaverse |  | 46.7 | ． 3 |
| 66，DONBANK LRARACE | Oweiling | 54.5 | 58.3 | 54.2 | －0．3 | Negligible Benenitical | 57.6 | 3.1 | Minor Avverse | 42.8 | 46.2 | 45.6 |
| 67，Don 6 ANK T TRRACE | Dweling | 55．8 <br> 54.4 | 58.9 58.2 | 55.9 54.1 | $\stackrel{.0 .1}{-0.3}$ | Negligiole Adverse | 58．5 57.5 | ${ }_{3.1}^{2.7}$ | Negligible Adverse | 44．0 | ${ }_{46.7}^{46.1}$ | 46.4 |
| 69，DONBANK TERRACE | Dwelling | 55.9 | 59.0 | 56.0 | 0.1 | Neoligiole Adverse | 58.5 | 2.6 | Negigiole Adverse | 44.0 | 46.8 | 46.4 |
| 7，DONBANK TERRACE | Dwelling | 57.1 | 61.6 | 56.7 | －0．4 | Negligible Beneficial | 59.7 | 2.6 | Negligible Adverse | 45.1 | 49.2 | 47.5 |
| 70，DONBANK TERRACE | Dwelling | 54.4 | 58.1 | 54.1 | －0．3 | Negligible Beneficial | 57.5 | 3.1 | Minor Adverse | 42.7 | 46.0 | 45.5 |
| 71，DONBANK TERRACE | Dwelling | － $\begin{array}{r}\text { 56．0 } \\ 54.4\end{array}$ | $\stackrel{59.1}{58.2}$ | 56.1 54.1 | －0．1 | Negligible Adverse | 58.6 57.6 | ${ }_{3.2}^{2.6}$ | Negigible Adverse | ${ }_{424.1}^{42.7}$ | 46.9 46.1 | $\stackrel{46.5}{45.6}$ |
| 73，Donsank TERRACE | Dwelling | 56.0 | 59.1 | 56.1 | 0.1 | Negigiole Adverse | 58.6 | 2.6 | Negiligile Adverse | 44.1 | 46.9 | 46.5 |
| 74，DoNBANK TERRACE | Dwelling | 54.5 56.0 | 年59．3 | 54.3 56.1 | －0．2 | $\frac{\text { Negigitile Beneficial }}{\text { Nefiliolie Adverse }}$ | 57.7 58.6 | 3.2 26 | Minor Adverse | $\frac{42.8}{44.1}$ | 46.2 470 | 45.7 |
| 75，DONBANK TERRACE | ${ }^{\text {Owelling }}$ | 54.5 | ${ }_{58.2}$ | 54.4 | －0．1 | Negligible Eenenificial | ${ }_{57.6}$ | ${ }_{3.1}^{2.1}$ | Neginore Adverse | ${ }_{42.8}^{44.8}$ | 46.1 | 45.6 |
| 77，DONBANK TERRACE | Dwelling | 57.4 | 63.2 | 56.8 | －0．6 | Negligible Beneficial | 59.6 | 2.2 | Negiligile Adverse | 45.4 | 50.6 | 47.4 |
| 78，DONBANK TERRACE | Owelling | 54.6 | 58.3 | 54.6 | 0.0 | No Change | 57.7 | 3.1 | Minor Adverse | 42.9 | 46.2 | 45.7 |
| 79，Donbank TeRRACE |  |  |  |  | 0.0 | No Change | 58.8 | ${ }^{2.5}$ | Negigigble Adverse | 44.4 |  | ${ }^{46.7}$ |
| 8．DONBANK TERRACE | Oweiling | 59．4 | ${ }_{5}^{62}$ | $\begin{array}{r}58.9 \\ 55 \\ \hline\end{array}$ | ${ }^{-0.5}$ | $\frac{\text { Negligiole Beneitical }}{\text { Nefilible }}$ Adverse |  |  | Negigigile Adverse |  | 49.9 |  |
| 82，DONBANK TERRACE | Dwelling | ${ }_{54.7}^{55.7}$ | ${ }_{58.3}^{58 .}$ | ${ }_{54.7}^{55.7}$ | 0.0 | Negigige Adverse | 57.7 | ${ }_{3.0}$ | Minor Adverse | 43.0 | 46.2 | 45.7 |
| 84，DONBANK TERRACE | Dwelling | 54.8 | 58.4 | 54.9 | 0.1 | Negligible Adverse | 57.8 | 3.0 | Minor Adverse | 43.1 | 46.3 | 45.8 |
| 86，DONBANK TERRACE | Dwelling | 55.0 | 58.6 | 55.2 | 0.2 | Negigioble Adverse | 57.9 | 2.9 | Negiligibe Adverse | 43.2 | 46.5 | 45.8 |
| 88，DONBANK TERRACE | Dwelling | 55.0 57.0 | ${ }^{58.6}$ | ${ }^{55.3}$ | －0．4 | Negligibile Aeneneficial | 58．6 | ${ }_{2}^{3.6}$ | Negnigioble Adverse | 45.0 | ${ }_{49.2}^{46.5}$ | 47．4 |
| 90，DONSANK T TRRACE | Delling | 55.0 | 58.7 | 55．3 | 0.3 | Negligible Adverse | 57.9 | 2.9 | Negiligile Adverse | 43.2 | 46.6 | 45.8 |
| 92，DONBANK TERRACE | Dwelling | 55.0 | 58.6 | 55.2 | 0.2 | Negligible Adverse | 57.9 | 2.9 | Negligible Adverse | 43.2 | 46.5 | 45.8 |
| 94，DONBANK TERRACE | Dewilling | 55．1 | 58．7 58.9 | ${ }^{55.2}$ | 0．2 | Negligioble Adverse | 57．9 <br> 58.0 | ${ }^{2.9}$ | Negigigib Adverse | $\xrightarrow{43.2}$ | $\stackrel{46.6}{46.7}$ | 45．8 |
| 98，Donsank TERRACE | Dwelling | 55.4 | 59.5 | 55.5 | 0.1 | Negiligile Adverse | 58.2 | 2.8 | Negiligile Adverse | 43.6 | 47.3 | 46.1 |
| 1．DONVIEW PLACE | Dweling | 53．8 | 57．6 | 53.5 | －0．3 | Negligible Beneficical | ${ }_{55.3}^{5}$ | 1.5 | Negigioble Adverse | ${ }^{42.2}$ | 45.6 | 43.5 |
| 2，DONVIEW PLACE | ${ }^{\text {Oweling }}$ Dueling | 49.2 50.6 | 年51．2． | 49.1 50.6 | -0.1 0.0 | Negligible Beneficial | 50．3 | 1.1 0.9 | $\frac{\text { Negligiole Adverse }}{\text { Negilible Adverse }}$ | 38.0 39.3 | 38.9 397 | 39.0 <br> 40. |
| 10，DONVIEW ROAD | Dwelling | 50.0 | 50.5 | 50.0 | 0.0 | No Change | 50.9 | 0.9 | Negiligile Adverse | 38.7 | 39.2 | 39.5 |
| 11，DONVIEW ROAD | Deeling | 50.7 | 51.8 | 50.6 | －0．1 | Negligible Beneficial | 51.7 | 1.0 | Negligible Adverse | 39.4 | 40.4 | 40.3 |
| 12，DONVIEW ROAD | Oweling | 50．1 | 50．5 | 50．0 | －0．1 | Negeligibe Benenitial | 51．0 | 0.9 | Negiligiole Adverse | 38.8 | 39.2 |  |
| 13，DoNVIEW ROAD | Oweiling | 50．7 | 50．7 | 50．6 | ${ }_{-0.1}^{0.1}$ | Negligibe Benenicial | 51．7 | 1.0 | Negligiole Adverse | 39．4 | 40.3 | \％0．3 |
| 15，DONVIEW ROAD | Dwelling | 50.7 | 51.7 | 50.6 | －0．1 | Negligible Beneficiolil | 51.7 | 1.0 | Neogigioble Adverse | 39.4 | 40.3 | 40.3 |
| 16，DONVIEW ROAD | Dwelling | 50.2 | 51.3 | 50.1 | －0．1 | Negligible Beneficial | 51.3 | 1.1 | Negligible Adverse | 38.9 | 39.9 | 39.9 |
| 17，DONVIEW ROAD | Deeling | 50.8 | 51.7 | 50.7 | －0．1 | Negligible Beneficial | 51.8 | 1.0 | Negigioble Adverse | 39.5 | 40.3 | 40.4 |
| 18，DONVEW ROAD | Dwelling | 50.6 50.7 | －${ }_{\text {52．0 }}^{51.4}$ | 50．5 50.6 | -0.1 -0.1 | $\frac{\text { Negligiole Beneficial }}{\text { Negligibe }}$ Beneficial | 51．7 51.7 | 1.1 1.0 | $\frac{\text { Negigigile Adverse }}{\text { Negigiole Adverse }}$ | 39.3 39.4 | $\stackrel{40.5}{40.0}$ | 40.3 40.3 |
| 2，DONVIEW ROAD | Dwelling | 50.5 | 51.1 | 50.5 | 0.0 | No Change | 51.5 | 1.0 | Negligible Adverse | 39.2 | 39.7 | 40.1 |
| 20，DONVIEW ROAD | Oweling | 52.0 | 53.5 | 51.9 | －0．1 | Negligible Beneficial | 53.1 | 1.1 | Neoligible Adverse | 40.5 | 41.9 | 41.5 |
| 21，DONVIEW ROAD | Dwelling | 50.5 50.7 | 51．0 | 50.5 | 0.0 | Nogo Change | 51．5 | 1.0 | Negigigle Adverse | 39.2 304 | 39．6 | 40.1 |
| 25，DONVIEW ROAD | Dwelling | 50.6 | 51.1 | 50.6 | 0.0 | No Change | 51.6 | 1.0 | Neoligiole Adverse | 39.3 | 39.7 | 40.2 |
| 27，DONVIEW R RAD | Deeling | 50.8 | ${ }_{51.3}^{5}$ | 50.7 | －0．1 | Negligible Beneficical | ${ }_{51.8}^{521}$ | 1.0 | Negligible Adverse | 39.5 | 39.9 | 40.4 |
| 28，DONVIEW ROAD | Dweling | 51.0 | 52.0 | 50.9 | －0．1 | Negligible Beneficial | 52.1 | ． 1 | Negligible Adverse | 39.6 | 40.5 | 40.6 |

A90/A96 Haudagain Improvement
DMRB Stage 3 Environmental Statement

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 <br> Lnight,outside | DS33 <br> Lnight,outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 29, DONVIEW ROAD | Dwelling | 50.9 | 51.4 | 50.8 | -0.1 | Negligible Beneficial | 51.9 | 1.0 | Negiligibe Adverse | 39.5 | 40.0 | 40.4 |
| 3. DONVIEW ROAD | $\frac{\text { Dwelling }}{\text { Oweling }}$ | 50.4 | 50.8 <br> 52.3 | 50.4 51.1 | 0.0 <br> 0.1 | $\xrightarrow{\text { Negligible }}$ Beneneficial | 51.3 | ${ }_{0}^{0.9}$ | Negligible Adverse | 39.1 <br> 39.8 | 39.5 40.8 | $\frac{39.9}{40.8}$ |
| 31, DONVIEW ROAD | Dwelling | 51.0 | 51.5 | 50.9 | -0.1 | Negiligible Benenificial | 52.0 | 1.0 | Neoligigile Adverse | 39.6 | 40.1 | 40.5 |
| 32, DONVIEW ROAD | Dwelling | 50.9 | 51.7 | 50.8 | -0.1 | Negligible Beneficial | 51.9 | 1.0 | Negligible Adverse | 39.5 | 40.3 | 40.4 |
| 33, DONVIEW ROAD | Dwelling | 51.2 | 51.8 | 51.2 | 0.0 | No Change | 52.3 | 1.1 | Negiligile Adverse | 39.8 | 40.4 | 40.8 |
| 35, DONVIEW ROAD | Dwelling | 51.5 | 52.2 | 51.4 | -0.1 | Negligible Beneficial | 52.6 | 1.1 | Negiligile Adverse | 40.1 | 40.7 | 41.1 |
| 37, DONVIEW ROAD | Dwelling | 51.4 | 52.1 | 51.3 | -0.1 | Negligible Beneficical | 52.4 | 1.0 | Negligible Adverse | 40.0 | 40.6 | 40.9 |
| 4, DONVIEW ROAD | Dwelling | 50.1 | 50.6 | 50.0 | -0.1 | Negligible Beneficial | 51.0 | 0.9 | Negigigible Adverse | 38.8 | 39.3 39 | 39.6 398 |
| 5, Donview road | Dwelling | 50.3 50.1 | 50.7 <br> 50.6 | 50.3 50.0 | 0.0 -0.1 | Negligible ${ }^{\text {Nangeeficial }}$ | 51.2 | 0.9 0.9 | $\frac{\text { Negigigib Adverse }}{\text { Negilible Adverse }}$ | 39.0 <br> 38.8 | 39.4 39.3 | 39.8 39.6 |
| 7, DONVIEW ROAD | Dwelling | 50.4 | 51.3 | 50.4 | 0.0 | No Change | 51.4 | 1.0 | Negigigibe Adverse | 39.1 | 39.9 | 40.0 |
| 8 , DONVIEW ROAD | Wwelling | 50.1 | 50.5 | 50.0 | -0.1 | Eligible Beneficial | 51.0 | 0.9 | Negigiolile Adverse | 38.8 | 39.2 | 396 |
| 9, DONVIEW ROAD | Dwelling | 50.3 | 50.8 | 50.3 | 0.0 | No Change | 51.2 | 0.9 | Negligible Adverse | 39.0 | 39.5 | 39.8 |
| EASTER PERSLEY, EASTER PERSLEY FARM STEAdING, PARKWAY | Dwelling | 65.1 | 62.3 | 65.0 | -0.1 | Negligible Beneficial | 65.1 | 0.0 | No Change | 52.3 | 49.8 | 52.3 |
| 1, FAIRLIE STREET | Dwelling | 58.0 | 58.4 | 57.5 | -0.5 | Negligible Beneficial | 57.7 | -0.3 | Negligible Beneficial | 45.9 | 46.3 | 45.7 |
| 11, FAIRLE STREET | Dwelling | 55.8 | 56.4 | 55.5 | -0.3 | Negligible Beneficial | 55.9 |  | Negigigile Adverse | 44.0 | 44.5 | 44.0 |
| 3, FAIRLIE STREET | Dwelling | 57.7 <br> 572 | 58.1 577 | 57.1 569 | -0.6 | Negligible Beneficial | 57.4 571 | -0.3 | Negligible Beneficial | 45.7 <br> 45 | 46.0 457 | 45.4 451 |
| S.FARLLESTRET | ${ }^{\text {Duelling }}$ | 57.2 | 57.0 | ${ }_{56.2}^{56.9}$ | -0.3 -0.2 |  | ${ }_{56.4}^{5}$ | -0.1 0.0 | $\frac{\text { Negligble Beneficial }}{\text { No Change }}$ | 44.5 | 45.7 45.0 | ${ }_{45}^{45.1}$ |
| 9, FARLLIL STREET | Dwelling | 56.0 | 56.6 | 55.6 | -0.4 | Negligible Benenicial | 56.0 | 0.0 | No Change | 44.1 | 44.7 | 44.1 |
| 1, FAIRVIEW AVENUE | Dwelling | 53.9 | 56.3 | 53.7 | -0.2 | Negligible Beneficial | 55.4 | 1.5 | Negigiole Adverse | 42.2 | 44.4 | 43.6 |
| 10, FAIRVIEW AVENUE | Deelling | 51.3 | 51.5 | 51.1 | -0.2 | Negligible Beneficial | 52.1 | 0.8 | Negigioble Adverse | 39.9 | 40.1 | 40.6 |
| 11, FARVIEW AVENUE | Oweling | 54.4 <br> 535 <br> 5 | 56.6 | 54.2 53 | -0.2 | $\frac{\text { Negligible Benenicial }}{\text { Neglioble }}$ | 55.8 54.2 | 1.4 0.7 | Negigigbl Adverse | 42.7 41.9 | $\stackrel{44.7}{42.2}$ | 44.0 |
| 14, FAIRVIEW AVENUE | Dwelling | 53.6 | 53.7 | 53.4 | -0.2 | Negligible Beneficioal | 54.3 | 0.7 | Negiligile Adverse | 42.0 | 42.1 | 42.6 |
| 15, FAIRVIEW AVENUE | Dwelling | 53.8 | 55.6 | 53.6 | -0.2 | Negligible Beneficial | 55.0 | 1.2 | Negiligio Adverse | 42.2 | 43.8 | 43.2 |
| 16. FARPVIEW AVENUE | Dwelling | 51.5 | 51.1 | 51.4 | -0.1 | Negligible Beneficial | 52.2 | 0.7 | Negigioble Adverse | 40.1 | 39.7 | 40.7 |
| 17. FARTVIEW AVENUE | Oweling | 54.1. | 55.9 | 53.8 | -0.3 | Neogigibe Beneticial | 55.3 | 1.2 | Negigigle Adverse | ${ }_{42.4}^{407}$ | 44.0 | ${ }_{4}^{43.5}$ |
| 19, FAIRVIEW AVENUE | Owelling | 55.6 | 57.6 | 55.4 | -0.2 | Negligible Beneficiolil | 56.9 | 1.3 | Neoligible Adverse | 43.8 | 45.6 | 44.9 |
| 2, FAIRVIEW AVENUE | welling | 52.1 | 52.9 | 52.1 | 0.0 | No Change |  |  | Negiligible Adverse | 40.6 | 41.3 |  |
| 20, FAIRVIEW AVENUE | elling | 51.8 | 51.4 | 51.6 | -0.2 | Negligible Beneficial | 52.4 | 0.6 | Negigiobile Adverse | 40.4 |  | 40.9 |
| 21, FAIRVIEW AVENUE | Deelling | 55.5 | 57.2 | 55.2 | -0.3 | Negligible Beneficial | 56.7 | 1.2 | Negigigile Adverse | 43.7 | 45.2 | 44.8 |
| 22, FARRVIEW AVENUE | Dweling | 52.0 | 51.5 | 51.9 53 5 | -0.1 | Negligible Benenitial | $\begin{array}{r}52.6 \\ 554 \\ \hline 5\end{array}$ | 0.6 13 | Negiligile Adverse | ${ }^{40.5}$ | 40.1 | 41.1 |
| 23, FARTVEW AVENUE | Oweling | 54.1 | 518 | 53.9 | -0.2 | Negegligiole Benenticial | 55.4 | ${ }^{1.3}$ | Negligibe Adverse | ${ }_{42,4}$ | 44.1 | ${ }_{4}^{43.6}$ |
| 24, FAARVIEW AVENUE | Dwelling | 54.0 | 55.9 | 53.8 | -0.2 | Negligible Beneficicial | 55.4 | 1.4 | Neoligigle Adverse | 42.3 | 44.0 | 43.2 |
| 26, FAIRVIEW AVENUE | Dwelling | 52.0 | 51.7 | 51.9 | -0.1 | Negligible Beneficial | 52.7 | 0.7 | Negligible Adverse | 40.5 | 40.3 | 41.2 |
| 27, FAIRVIEW AVENUE | Dwelling | 54.5 | 56.6 | 54.3 | -0.2 | Negligible Beneficial | 55.9 | 1.4 | Negigiolie Adverse | 42.8 | 44.7 | 44.0 |
| 28, FAARVIEW AVENUE | Dwelling | 52.1. 54.3 | $\stackrel{51.7}{56.3}$ | 51.9 54.1 | -0.2 -0.2 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ Beneficial | 52.7 55.7 | 0.6 1.4 | Negigible Adverse | 40.6 42.6 | 40.3 44 | 41.2 43.9 |
| 3, FAIRVIEW AVENUE | Dwelling | 54.4 | 56.8 | 54.2 | -0.2 | Negligible Beneficial | 55.9 | 1.5 | Negiligio Adverse | ${ }_{42.7}$ | 44.9 | 44.0 |
| 30, FAIRVIEW AVENUE | Dwelling | 51.9 | 51.4 | 51.7 | -0.2 | Negligible Beneficical | 52.5 | 0.6 | Negigioible Adverse | 40.4 | 40.0 | 41.0 |
| 31, FARTVIEW AVENUE | Dwelling | - 53.5 | 55.2 | 53.4 | -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negligible Beneficial }}$ | 54.8 527 | ${ }^{1.3}$ | $\frac{\text { Negigigib Adverse }}{\text { Negigible Adverse }}$ | $\frac{41.9}{40.6}$ | $\frac{43.4}{40.3}$ | $\frac{43.1}{412}$ |
| 33, FAIRVIEW AVENUE | Dwelling | 53.7 | 55.2 | 53.5 | -0.2 | Negligible Beneficial | 54.9 | 1.2 | Negiligibe Adverse | 42.1 | 43.4 | 43.1 |
| 34, FAIRVIEW AVENUE |  |  | 52.1 |  | -0.1 | Negligible Beneficical | 53.0 | 0.6 |  | 40.9 | 40.6 | 41.4 |
| 335. FARVIEW AVENUE | weling | 年5.7 | 55.1 557 | 53.6 | -0.1 | Neogigibe Beneficial |  |  | Negiligile Adverse |  | 43.3 | ${ }^{43.1}$ |
| 37, FAIRVIEW AVENUE | Dwell | 54.3 |  | 54.19 | -0.2 | Neoligibe Beneficial |  | 1.1 | Negiquibe Adverse | 42.6 | 43.9 | 43.6 |
| 5, FAARVIEW AVENUE | Dwelling | 54. | 56.2 | 53.8 | 0 | Neglioible Benenicial | 55.4 | 14 | Neoligioble Adverse | 423 | 443 | 436 |
| 6, FAIRVIEW AVENUE | Dwelling | 53.8 | 54.4 | 53.7 | -0.1 | Negligible Beneficial | 54.6 | 0.8 | Negiligile Adverse | 42.2 | 42.7 | 22.9 |
| 7, FAIRVIEW AVENUE | Dwelling | 54.3 | 56.4 | 54.0 | -0.3 | Negligible Beneficial | 55.7 | 1.4 | Negiligible Adverse | 42.6 | 44.5 | 43.9 |
| 8, FAIRVIEW AVENUE | welling | 51.5 | 51.6 |  | -0.2 | Negligible Beneficial | 52.3 | 0.8 | Negiligile Adverse | 40.1 | 40.2 |  |
| 9, FAIRVIEW AVENUE | Owelling | 54.4 | 56.6 | 54.2 | -0.2 | Negligible Beneficial | 55.8 | 1.4 | Negiligile Adverse | 42.7 | 44.7 | 44.0 |
| DANESTONE PRIMARY SCHOOL, FAIRVIEW BRAE, DANESTONE | Primary School | 56.6 | 59.8 | 57.2 | 0.6 | Negligible Adverse | 58.9 | 2.3 | Negigigile Adverse | 44.7 | 47.6 | 46.7 |
| 1, FAIRVVIEW CIRCLE, DANESTOONE | Dwelling | 58.0 | 56.1 | 58.0 | 0.0 | No Change | 58.5 | 0.5 | Negigigle Adverse | 45.9 | 44.2 | 46.4 |
| 10, FAIRVVIEW CIRCLE, DANESTONE | $\frac{\text { Dwelling }}{\text { Dwelling }}$ | ${ }^{53.1}$ | ${ }^{51.8}$ | ${ }^{53.0}$ | -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negligibl }}$ | ${ }^{53,7}$ | 0.6 | Negiligile Adverse | $\frac{41.5}{60.9}$ | 40.4 58.1 | $\frac{42.1}{61.0}$ |
| 101, FAIRVIEW CIRCLE, DANESTONE | Dwelling | 54.5 | 54.0 | 54.4 | -0.1 | Negligible Benenitial | 55.0 | 0.5 | Negligible Adverse | 42.8 | ${ }_{42.3}$ | 43.2 |
| 102, FARVVIEW CIRCLE, DANESTONE | Dwelling | 74.1 | 71.1 | 74.1 | 0.0 | No Change | 74.3 | 0.2 | Negigigile Adverse | 60.4 | 57.7 | 60.6 |
| 103, FAIRVVEW CIRCLE, DANESTONE | Dwelling | 57.7 | 55.7 | 57.7 | 0.0 | No Change | 58.2 | 0.5 | Negligible Adverse | 45.7 | 43.9 | 46.1 |
| 104, FARVVIVW CIRCLE, DANESTONE | Dwelling | 66.3 | 63.5 | 66.3 | 0.0 | No Change | 66.4 | 0.1 | Negligible Adverse | 53.4 | 50.9 | 53.5 |
| 105. FARVVIVW CIRCLE, DANESTONE | Dwelling | 57.7 61.9 | 55.7 58.9 | ${ }^{57.7} 61.8$ | 0.0 .0 .1 | $\stackrel{\text { No. Change }}{\text { Negligible }}$ Beneficial | $\frac{58.2}{62.0}$ | 0.5 0.1 | $\frac{\text { Negigioble Adverse }}{\text { Negigiole Adverse }}$ | 459.7 | $\frac{43.9}{46.7}$ | ${ }_{49.1}^{46.5}$ |
| 107 , FAIVVIEW CIRCLE, DANESTONE | Dwelling | 57.7 | 55.7 | 57.7 | 0.0 | No Change | 58.2 | 0.5 | Negligible Adverse | 45.7 | 43.9 | 46.1 |
| 108, FAIRVVIEW CIRCLE, DANESTONE | Dwelling | 64.1 | 61.1 | 64.0 | -0.1 | Negligible Beneficial | 64.2 | 0.1 | Negigible Adverse | 51.4 | 48.7 | 51.5 |
| 109, FARVVIVW CIRCLE, DANESTONE | Dweling | 57.7 580 | $\begin{array}{r}55.7 \\ 5.7 \\ \hline 8.1\end{array}$ | 57.7 580 | 0.0 | No Change | 58.2 | 0.5 | Negiligile Adverse | 45.7 | 43.9 | 46.1 |
| Y, PAAMVW GRCLE, DANESONE | Oweling | 55.0 | 55.1 |  | 0 | No Change |  | 0.5 | Negigigle Adverse | 45.5 |  |  |
| T11, FAIRVIEW CIRCLE, DANESTONE | Dwelling | 60.8 57.7 | 55.9 55.7 | 60.8 57.7 | 0.0 | No Change | ${ }_{58.0}^{68.0}$ | 0.2 0.5 | Neoligiolie Adverse | 45.7 | ${ }_{43.9}^{45}$ | ${ }_{46.1}^{46.1}$ |
| 112, FAIRVVEW CIRCLE, DANESTONE | Deelling | 61.7 | 59.0 | 61.6 | -0.1 | Negligible Beneficial | 61.8 | 0.1 | Negligible Beneficial | 49.3 | 46.8 | 49.4 |
| 113, FARVVIVW CIRCLE, DANESTONE | Dwelling | ${ }^{577}$ | 55.7 <br> 595 <br> 9.5 | 57.7 <br> 6.3 | 0.0 | No Change | 58.2 | 0.5 | Negiligle Adverse | 45.7 | 43.9 473 | 46.1 |
| 145, FAIVVIEW CIRCLE, DANESTONE | Dwelling | 62.3 57.7 | 59.7 | 62.3 57.7 | 0.0 | No Change | 62.4 58.2 | 0.5 | Negligigile Adverse | 45.7 | 43.9 | 49.1 |
| 116. FAIRVVW CIICCLE, DANEETONE | Deelling | $\begin{array}{r}61.6 \\ \hline 7.7\end{array}$ | 59.2 | 61.5 | -0.1 | Negligible Beneficical | 61.7 | 0.1 | Negiligibe Adverse | 49.2 | 47.0 | 49.3 |
| 117, 1 AARVVVW CIRCLE, DANESTONE | Dwelling | ${ }_{58.1}^{57}$ | ${ }_{56.1}^{55.7}$ | ${ }_{58.1}^{58.1}$ | -0.1 | Negligibile Beneficical | ${ }^{58.1}$ | 0.1 | Negligigibe Adverse | ${ }_{46.1}^{45 .}$ | $\stackrel{44.2}{44}$ | ${ }_{46.2}^{46.1}$ |
| 119, FAIRVVW CIICCLE, DANESTONE | welling | 57.7 | ${ }_{55.7}^{55}$ | 57.7 57 | 0.0 | No Change | $\stackrel{58.2}{57}$ | 0.5 | Negigigibe Adverse | ${ }_{45.7}^{45}$ | 43.9 | ${ }_{46.1}^{458}$ |
| 12, FAIRVIEW CIRCLE, DANESTONE | weling | 57.3 | 55.5 | 57.2 | -0.1 | Negligible Beneficial | 57.8 | 0.5 | Negligibe Adverse | 45.3 | 43.7 | 45.8 |

A90/A96 Haudagain Improvement
DMRB Stage 3 Environmental Statement

## Appendix A14.4: Operational Noise Modelling Results

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Receptor Name \& Receptor Description \& \[
\begin{gathered}
\text { DM18 } \\
\text { LA10,18hr }
\end{gathered}
\] \& \[
\begin{gathered}
\text { DM33 } \\
\text { LA10,18hr }
\end{gathered}
\] \& \[
\begin{gathered}
\text { DS18 } \\
\text { LA10,18hr }
\end{gathered}
\] \& Short-term Daytime Noise Change (dB) \& Magnitude of Change \& \[
\begin{gathered}
\text { DS33 } \\
\text { LA10,18hr }
\end{gathered}
\] \& Long-term Daytime Noise Change (dB) \& Magnitude of Change \& DM18 Lnight,outside \& DM33 Lnight,outside \& DS33 Lnight,outside \\
\hline 120, FAIRVIEW CIRCLE, DANESTONE \& Deeling \& 58.0 \& 55.9 \& 57.9 \& \({ }^{0.1}\) \& Negligible Beneficial \& 58.1 \& 0.1 \& Negigigle Adverse \& 45.9 \& 44.0 \& 46.0 \\
\hline 121. FAARVEW CIRCLE, DANESTONE \& Dwelling \& \begin{tabular}{l}
54.7 \\
5.7 \\
\hline
\end{tabular} \& 53.7 \& 54.5 \& -0.2
.0 .1 \& Negliaible Beneficial \& 55.0 \& \({ }_{0}^{0.3}\) \& Negiligile Adverse \& 43.0
448 \& \(\frac{42.1}{433}\) \& 43.2
449 \\
\hline 122, FARVIVW CIRCLL, DANESTTNE \& Dweling \& \({ }_{55.5}^{56.7}\) \& \({ }^{554.1}\) \& \begin{tabular}{l} 
56.6 \\
\hline 5.4
\end{tabular} \& \(-01\) \&  \& 56.9
55.9 \& 0.4 \& Negligigie Adverse \& \({ }_{43.7}^{44.8}\) \& -43.3 \& 44.9 \\
\hline 124 , FAIRVIEW CIRCLE, DANESTONE \& Dwelling \& 57.1 \& 55.3 \& 57.0 \& 0.1 \& Negligible Beneficial \& 57.3 \& 0.2 \& Negligible Adverse \& 45.1 \& 43.5 \& 45.3 \\
\hline 125, FAIRVIEW CIRCLE, DANESTONE \& Dwelling \& 55.6 \& 55.3 \& 55.5 \& -0.1 \& Negligible Beneficial \& 56.3 \& 0.7 \& Negigiole Adverse \& 43.8 \& 43.5 \& 44.4 \\
\hline 126, FAIRVIEW CIRCLE, DANESTONE \& Dwelling \& 55.6 \& 53.6 \& 55.5 \& 0.1 \& Negligible Beneficial \& 55.8 \& 0.2 \& Negigigile Adverse \& 43.8 \& \({ }^{42.0}\) \& 44.0 \\
\hline 127, FAIRVIEW CIIRCLE, DANESTONE \& Dwelling \& 55.6 \& 55.2 \& 55.5 \& . 0.1 \& Negligible Beneficial \& 56.2 \& 0.6 \& Negligible Adverse \& 43.8 \& 43.4 \& 44.3 \\
\hline 128, FAIRVIEW CIRCLE, DANESTONE \& Dwelling \& 56.6 \& 54.8 \& 56.5 \& -0.1 \& Negligible Beneficicial \& 56.8 \& 0.2 \& Negiligibe Adverse \& 44.7 \& 43.1 \& 44.9
450 \\
\hline \({ }^{\text {132, FAIRVIEW CIIRCLE, DANESTONE }}\) \& Dwelling \& 56.4 \& 59.7 \& 56.3 \& -0.1 \& Negligible Beneficicial \& 58.3 \& 1.9 \& Neogigible Adverse \& 44.5 \& 47.5 \& 46.2 \\
\hline 134, FAIRVIEW CIRCLE, DANESTONE \& Dwelling \& 57.1 \& 61.0 \& 57.0 \& 0.1 \& Negligible Beneficial \& 59.3 \& 2.2 \& Negigiolie Adverse \& 45.1 \& 48.6 \& 47.1 \\
\hline 136, FAIRVIEW CIRCLE, DANESTONE \& welling \& 55.2 \& 54.3 \& 55.1 \& 0.1 \& Negligible Beneficial \& 55.6 \& 0.4 \& Negigigibe Adverse \& 43.4 \& 42.6 \& 43.8 \\
\hline 138, FAIRVIEW CIRCLE, DANESTONE \& welling \& 54.8 \& 53.5 \& 54.7 \& 0.1 \& Negligible Beneficial \& 55.1 \& 0.3 \& Negigioble Adverse \& 43.1 \& 41.9 \& 43.3 \\
\hline 14, FARVVIEW CIRCLE, DANESTONE \& elling \& 57.4 \& 5.6 \& 57.3 \& 0.1 \& Negligible Beneficical \& 57.9 \& 0.5 \& Negigioble Adverse \& 45.4 \& 43.8 \& 45.8 \\
\hline 140, FARTVIEW CIRCLE, DANESTONE \& \(\frac{\text { Dwelling }}{\text { Dwelling }}\) \& \begin{tabular}{l}
55.1 \\
52.6 \\
\hline
\end{tabular} \& 53.6
51.7 \& 55.0
52.5 \& -0.1
.0 .1

0 \& $\frac{\text { Negligible Benenicial }}{\text { Neglioibl }}$ \& 55.4
53.2 \& 0.3
0.6 \& Negligile Adverse \& 43.3
41.1 \& 42.0
40.3 \& 43.6
41.6 <br>
\hline 144, FAIRVIEW CIRCLE, DANESTONE \& Dwelling \& 52.9 \& 51.7 \& 52.8 \& -0.1 \& Negligible Beneficial \& 53.4 \& 0.5 \& Negligible Adverse \& 41.3 \& 40.3 \& 41.8 <br>
\hline 146, FAIRVIEW CIRCLE, DANESTONE \& Dwelling \& 53.6 \& 54.7 \& 53.5 \& -0.1 \& Negligible Beneficial \& 54.6 \& 1.0 \& Negligible Adverse \& 42.0 \& 43.0 \& 42.9 <br>
\hline 148, FAIRVIEW CIIRCLE, DANESTONE \& Dweling \& 54.9 \& 56.7 \& 54.7 \& -0.2 \& Negligible Beneficial \& 56.1 \& 1.2 \& Negligible Adverse \& 43.1 \& 44.8 \& 44.2 <br>
\hline 15, FARVIEW CIRCLE, DANESTONE \& welling \& 58.0 \& 56.1 \& 58.0 \& 0.0 \& No Change \& 58.5 \& 0.5 \& Negiligiole Adverse \& 45.9 \& 44.2 \& 46.4 <br>
\hline S0. FARMEW CRCLE DAESTONE \& weling \& 54.9 \& 56.8 \& 54.9 \& -0.2 \& Negiligile Benenicical \& 56.1 \& 1.2 \& Negifigile Adverse \& 43.1 \& 44.9 \& 44.5 <br>
\hline S2, FARVEW CIRCLE, DANESTONE \& Dweiling \& 55.1 \& 57.0 \& 54.9 \& -0.2 \& Negiligioe Beneifical \& 56.4 \& ${ }_{1}^{1.3}$ \& Negiligie Adverse \& ${ }^{43.3}$ \& 45.0 \& 44.5 <br>
\hline  \& Dweling \& ${ }_{55.1}^{55.1}$ \& ${ }_{57.1}^{57}$ \& 55.0 \& -0.1 \&  \& ${ }_{56.4}^{56.4}$ \& ${ }_{1.3}^{1.3}$ \& Neoligigile Adverse \& ${ }_{43.3}^{43.3}$ \& ${ }_{45.1}^{45.1}$ \& ${ }_{44.5}^{44.5}$ <br>
\hline 158, FAIRVIEW CIRCLE, DANESTONE \& Dwelling \& 54.3 \& 56.2 \& 54.2 \& -0.1 \& Negligible Benenicical \& 55.6 \& 1.3 \& Negiligible Adverse \& 42.6 \& 44.3 \& 43.8 <br>
\hline 16, FARVVIEW CIRCLE, DANESTONE \& Dwelling \& 58.3 \& 56.5 \& 58.3 \& 0.0 \& No Change \& 55.8 \& 0.5 \& Negigioble Adverse \& 46.2 \& 44.6 \& 46.7 <br>
\hline 160, FARTVEW CIRCLE, DANESTONE \& Dweling \& 54.9 \& 57.0 \& 54.8 \& -0.1 \& Negligible Beneficial \& 56.2 \& 1.3 \& Negiligibe Adverse \& ${ }^{43.1}$ \& 45.0 \& 44.3 <br>

\hline 172, FAIRVIEW CIRCLE, DANESTONE \& Dwelling \& ${ }_{56.0}^{56.0}$ \& ${ }_{56.9}^{56.9}$ \& ${ }_{58.0}^{56.5}$ \& -0.0 \& Negligiole Beneitical \& ${ }_{58.5}^{58.0}$ \& | 1.4 |
| :--- |
| 0.5 | \& Neoligigle Adverse \& 44.9 \& 44.2 \& 45.4 <br>

\hline 18, FAIRVIEW CIRCLE, DANESTONE \& Dwelling \& 61.1 \& 59.3 \& 61.0 \& -0.1 \& Negligible Beneficial \& 61.6 \& 0.5 \& Negigigile Adverse \& 48.7 \& 47.1 \& 49.2 <br>
\hline 19, FAIRVIEW CIIRCLE, DANESTONE \& Dwelling \& 58.0 \& 56.1 \& 58.0 \& 0.0 \& No Change \& 58.5 \& 0.5 \& Negigioble Adverse \& 45.9 \& 44.2 \& 46.4 <br>
\hline 2, FAIRVVIEW CIRCLE, DANESTONE \& eelling \& 56.3 \& 58.1 \& 56.3 \& 0.0 \& No Change \& 57.5 \& 1.2 \& Negiligible Adverse \& 44.4 \& 46.0 \& 45.5 <br>
\hline 20, FAIRVVEW CIRCCLE, DANESTONE \& eeling \& \& \& \& \& No Change \& \& \& \& 8, 8 \& \& <br>
\hline 21, FAIRVVEW CIRCLE, DANESTONE \& \& \& 58.3 \& 60.0 \& -0.1 \& Negligible Beneitical \& 60.6 \& 0.5 \& Negiligibe Adverse \& \& 46.2 \& 48.3 <br>
\hline 22, FARVVIEW CIRCLE, DANESTONE \& \& 64.9 \& 63.1 \& 64.8 \& -0.1 \& Negligibe Beneiticial \& 65.4 \& 0.5 \& Negigigie Adverse \& 52.1 \& \& <br>
\hline \& Deeling \& \& 58.3 \& 60.1 \& 0.0 \& No Change \& 60.6 \& 0.5 \& Neqligiole Adverse \& \& 46.2 \& 48.3 <br>
\hline 24, ARIRVEW CIRCLE, DANESTONE \& Dweling \& 66.9 \& 65.1 \& 66.9 \& 0.0 \& No Change \& 67.4 \& 0.5 \& Negiligibe Adverse \& 53.9 \& 52.3 \& 54.4 <br>
\hline 25, ARARVEW CIRCLE, DANESTONE \& Dweling \& 60.3 \& ${ }^{58.5}$ \& 60.2 \& -0.1 \& Negligible Beneficial \& ${ }_{60.8}^{678}$ \& 0.5 \& Negiligile Adverse \& 48.0 \& 46.4 \& ${ }^{48.5}$ <br>
\hline 26, 27. FAIRVIEW CIRCLE, DANESTONE \& ${ }^{\text {Dwelling }}$ \& $\frac{67.4}{61.2}$ \& 65.6
59.3 \& ${ }^{67.3}$ \& -0.1 \& Negiligible Benenitical \& ${ }_{61.7}^{66.9}$ \& 0.5 \& Neogigiole Adverse \& 54.4
48.8 \& ${ }_{471}^{52.8}$ \& 54.8
49.3 <br>
\hline 28, FAIRVIEW CIRCLE, DANESTONE \& Dwelling \& 67.4 \& 65.6 \& 67.3 \& -0.1 \& Negligible Beneficial \& 67.9 \& 0.5 \& Negigigile Adverse \& 54.4 \& 52.8 \& 54.8 <br>
\hline 29, FAIRVIEW CIRCLE, DANESTONE \& Dwelling \& 59.6 \& 57.8 \& 59.5 \& -0.1 \& Negligible Beneficial \& 60.1 \& 0.5 \& Neoligiole Adverse \& 47.4 \& 45.8 \& 47.8 <br>
\hline $\frac{3 . F A R V V E W}{}$ CIRCLLE, DANESTONE \& Dwelling \& 58.0 69 \& ¢66.1 \& 58.0 \& 0.0
-0.1 \& Neglioible ${ }^{\text {Nangefeficial }}$ \& 58.5
70.5 \& 0.5
0.6 \& Negigiole Adverse \& $\stackrel{45.9}{56.6}$ \& 44.2
55.1 \& 46.4
57.2 <br>
\hline 31, FAIVVIEW CIIRCLE, DANESTONE \& Dwelling \& 61.5 \& 59.7 \& 61.5 \& 0.0 \& No Change \& 62.0 \& 0.5 \& Neogigible Adverse \& 49.1 \& 47.5 \& 49.5 <br>
\hline 32, FARVVEW CIRCLE, DANESTONE \& Dwelling \& 69.9 \& 68.1 \& 69.8 \& ${ }_{0}^{0.1}$ \& Negligible Beneficial \& 70.5 \& ${ }^{0.6}$ \& Negligible Adverse \& 56.6
4.9 \& 55.0
477 \& 57.2 <br>
\hline 33, ${ }^{\text {34, FAIRVVEW CIRCLE, }}$ \& ${ }^{\text {Dwelling }}$ Dweling \& ${ }^{614.5}$ \& ${ }^{60.0}$ \& ${ }^{614.4}$ \& -0.1
-0.1 \& Negiligile Benenitical \& ${ }^{62.4}$ \& 0.5 \& Negligibile Adverse \& ${ }_{60.8}^{49}$ \& 59.2 \& 61.2 <br>
\hline 35, FAIVVIEW CIIRCLE, DANESTONE \& Dwelling \& 62.3 \& 60.3 \& 62.2 \& 0.1 \& Negligible Beneficial \& 62.7 \& 0.4 \& Negigiole Adverse \& 49.8 \& 48.0 \& 50.2 <br>
\hline 36, FAIRVIEW CIRCLE, DANESTONE \& elling \& 74.5 \& 72.7 \& 74.4 \& 0.1 \& Negligible Beneficicial \& 75.0 \& 0.5 \& Negligiole Adverse \& 60.8 \& 59.2 \& 61.2 <br>
\hline 37, FAIRVVEW CIRCLE, DANESTONE \& Dweling \& ${ }^{61.6}$ \& 59.6 \& ${ }^{61.5}$ \& -0.1 \& Negligible Benenitical \& \& \& Negligiole Adverse \& 49.2 \& 47,4 \& <br>
\hline 38, FAIRVVIEW CIRCLE, DANESTONE \& \& \& 70.9 \& \& \& Negiligile Benenitial \& 73.2 \& 0.5 \& Negigigile Adverse \& 59.2 \& 57.5 \& <br>
\hline 39, FAARVIVW CIRCLELE DANESTONE \& ${ }^{\text {Oweling }}$ Diling \& ${ }_{53.8}$ \& ${ }_{59} 5.9$ \& ${ }_{53,7}$ \& -0.1 \& Negegligiole Benenitical \& ${ }_{54.5}^{62.0}$ \& 0.4 \& Neogligiole Adverse \& 492 \& ${ }_{413}$ \& 49.5 <br>
\hline 40 , FAIRVIEW CIRCLE, DANESTONE \& Dwelling \& 72.7 \& 70.9 \& 72.6 \& . 0.1 \& Negligible Beneficial \& 73.2 \& 0.5 \& Negigiole Adverse \& 59.2 \& 57.5 \& 59.6 <br>
\hline 41, FAIRVIEW CIRCLE, DANESTONE \& Dwelling \& 61.2 \& 59.1 \& 61.1 \& -0.1 \& Negligible Beneficial \& 61.5 \& 0.3 \& Negiligile Adverse \& 48.8 \& 46.9 \& 49.1 <br>
\hline  \& Dwelling \& 72.7
60.9 \& 70.9
58.8 \& 72.9
60.9 \& 0.0 \& ${ }^{\text {No Co Change }}$ \& ${ }^{73.1}$ \& 0.5
0.4 \& Negigible Adverse \& ${ }^{59.2}$ \& 57.5 \& 59.6
48.9 <br>
\hline 44, FAIRVIEW CIRCLE, DANESTONE \& Dwelling \& 72.7 \& 70.9 \& 72.7 \& 0.0 \& No Change \& 73.2 \& 0.5 \& Negligible Adverse \& 59.2 \& 57.5 \& 59.6 <br>
\hline 4, 4 4, AARVVEW CIRCLE, DANESTONE \& Dwelling \& 62.1
69.7 \& 597.9 \& $\stackrel{62.1}{69.6}$ \& 0.0
-0.1 \& Neglicibile Eenefeficial \& 62.5
70.2 \& 0.4
0.5 \& Negigigle Adverse \& $\stackrel{49.6}{56.5}$ \& $\stackrel{47.6}{54.8}$ \& 50.0
56.9 <br>
\hline 47, FAIRVVIEW CIRCLE, DANESTONE \& Delling \& 62.7 \& 60.4 \& 62.7 \& 0.0 \& No Change \& 63.15 \& 0.4 \& Negigigile Adverse \& 50.2 \& 48.1 \& 50.5 <br>
\hline 48, FAIRVVIEW CIRCLE, DANESTONE \& Dwelling \& 70.0
62.6 \& 68.2
60.3 \& 70.0
62.6 \& 0.0 \& $\frac{\text { No Change }}{\text { No Change }}$ \& 70.5
62.9 \& 0.5
0.3 \& Negligile Adverse \& 56.7
50.1 \& 55.1
48.0 \& 57.2
50.3 <br>
\hline 5, FAIRVIEW CIRCLE, DANESTONE \& Dwelling \& 58.0 \& 56.1 \& 58.0 \& 0.0 \& No Change \& 58.5 \& 0.5 \& Negiligile Adverse \& 45.9 \& 44.2 \& 46.4 <br>
\hline 50, FAIRVIEW CIRCLE, DANESTONE \& Dwelling \& 70.3 \& 68.5 \& 70.2 \& 0.1 \& Negligible Beneficial \& 70.8 \& 0.5 \& Negigigile Adverse \& 57.0 \& 55.4 \& 57.5 <br>
\hline 51, FAIRVIEW CIRCLE, DANESTONE \& Dwelling \& 63.0 \& 60.6 \& 63.0 \& 0.0 \& No Change \& 63.3 \& 0.3 \& Negligible Adverse \& 50.4 \& 48.3 \& 50.7
5.0 <br>
\hline S5, 5 , FAIRVVEW CIRCLE, DANESTONE \& Dwelling \& ${ }_{62.2}$ \& ${ }_{59.8}^{69.8}$ \& ${ }_{62.1}$ \& -0.1 \& Negligibile Eenefeficial \& $\frac{72.4}{62.5}$ \& 0.3 \& Neoligiole Adverse \& 49.7 \& ${ }_{47.6}$ \& 58.0
50.0 <br>
\hline 54, FAIRVIEW CIRCLE, DANESTONE \& Dwelling \& 73.4 \& 71.6 \& 73.4 \& 0.0 \& No Change \& 73.9 \& 0.5 \& Negigigile Adverse \& 59.8 \& 58.2 \& 60.2 <br>
\hline 55, FAIRVIEW CIRCLE, DANESTONE \& Dwelling \& 63.5 \& 61.1 \& 63.5 \& 0.0 \& No Change \& 63.8 \& 0.3 \& Negligigle Adverse \& 50.9 \& 48.7 \& 51.2 <br>
\hline 56, 5 , FAIRVVIEW CIRCLLE, DANESTONE \& ${ }^{\text {Dwelligg }}$ Diveling \& 74.8 \& 60.3 \& 74.8 \& 0.0 \& No Change \& ${ }^{74.5}$ \& 0.5 \& Neoligigiole Adverse \& 50.3 \& 58.6 \& 50.5 <br>
\hline 58, FAIRVIEW CIRCLLE, DANESTONE \& Delling \& 72.5 \& 70.5 \& 72.4 \& -0.1 \& Negligible Beneficial \& 72.9 \& 0.4 \& Negigigile Adverse \& 59.0 \& 57.2 \& 59.3 <br>
\hline 59, FAIRVIEW CIRCLE, DANESTONE \& Deeling \& 61.1 \& 58.7 \& 61.1 \& 0.0 \& No Change \& 61.3 \& 0.2 \& Negigigile Adverse \& 48.7 \& 46.6 \& 48.9 <br>
\hline 6, FARAVEW CIIRCLE, DANESTONE \& Dwelling \& 54.3
73.1 \& 53.3
71.2 \& 54.3
73.1 \& 0.0 \& ${ }^{\text {No Co Change }}$ No Change \& 55.0 \& 0.7 \& Negigible Adverse \& ${ }_{59.5}^{42.6}$ \& ${ }^{41.7} 5$ \& 43.2
60.0 <br>
\hline 61, FAIRVIEW CIRCLLE, DANESTONE \& Dwelling \& 60.3 \& 57.7 \& 60.2 \& -0.1 \& Negligible Beneficial \& 60.5 \& 0.2 \& Negigigle Adverse \& 48.0 \& 45.7 \& 48.2 <br>
\hline 如, FARVVEW CIRCLE, DANESTONE \& Dwelling \& $\frac{72.7}{60.9}$ \& 70.7
58.5 \& $\frac{72.6}{60.8}$ \& -0.1
-0.1 \& $\frac{\text { Negligible Beneficial }}{\text { Negioibile }}$ \& 73.1
61.1 \& 0.4 0.2 \& $\frac{\text { Negigigile Adverse }}{\text { Negigiole Adverse }}$ \& 59.2
48.5 \& 57.4
46.4 \& 59.5
48.7 <br>
\hline 64, FARVVIEW CIRCLE, DANESTONE \& Delling \& 72.2 \& ${ }^{70.3}$ \& ${ }^{72.1}$ \& 0.1 \& Negligible Beneficical \& 72.6 \& 0.4 \& Negigigle Adverse \& 58.7 \& 57.0 \& 59.1 <br>
\hline 65, FAIRVVEW CIRCLE, DANESTONE \& Dweling \& 61.1 \& 58.7 \& 61.0 \& 0.1 \& Negligible Beneficial \& 61.3 \& 0.2 \& Negiligile Adverse \& 48.7 \& 46.6 \& 48.9 <br>
\hline
\end{tabular}

A90/A96 Haudagain Improvement
DMRB Stage 3 Environmental Statement

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 night,outside | $\begin{gathered} \text { DS33 } \\ \text { Lnight,outside } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 66, FAIRVIEW CIRCLE, DANESTONE | Dweling | 70.1 | 67.6 | 70.1 | 0.0 | No Change | 70.4 | 0.3 | Negligible Adverse | 56.8 | 54.6 | 57.1 |
| 67, FAIRVIEW CIRCLE, DANESTONE | Dwelling | 60.9 | 58.6 | 60.8 | -0.1 | Negligible Beneficial | 61.1 | 0.2 | Negaigible Adverse | 48.5 | 46.5 | 48.7 |
| 68, FAIRVIEW CIRCLE, DANESTONE | Dwelling | 71.1 | 68.7 | 71.1 | 0.0 | No Change | 71.5 | 0.4 | Negligible Adverse | 57.7 | 55.6 | 58.1 |
| 69, FAARVIEW CIRCLE, DANESTONE | Oweling | 57.4 5.4 | 55.0 | 57.4 5.4 | 0.0 | No Change | 57.7 <br> 5.5 | 0.3 | Negigigle Adverse | 45.4 | 43.2 | 45.7 |
| 7, FAIRVIEW CIIRCLE, DANESTONE | Deeling | 58.0 | 56.1 | 58.0 | 0.0 | No Change | 58.5 | 0.5 | Negligible Adverse | 45.9 | ${ }_{54.2}^{4.2}$ | 46.4 |
| 70, FAIRVIEW CIRCLE, DANESTONE | Delling | $\begin{array}{r}71.3 \\ \hline 7\end{array}$ | ${ }_{68.8}^{68}$ | 71.2 57 | -0.1 | Sligibe Beneficicial | 71.6 <br> 77 | ${ }^{0.3}$ | Negigigle Adverse | $\begin{array}{r}57.9 \\ \hline 45\end{array}$ | $\begin{array}{r}55.7 \\ 43 \\ \hline\end{array}$ | 58.2 <br> 4.7 |
| 71, FAIPVIEW CIRCLE, DANESTONE | Dwelling | 57.4 | 55.0 | 57.4 | 0.0 | No Change | 57.7 | 0.3 | Negligible Adverse | 45.4 | 43.2 | 45.7 |
| 72, FAIPVIEW CIRCLE, DANESTONE | Dwelling | 70.8 | 68.3 | 70.8 | 0.0 | No Change | 71.1 | 0.3 | Negilibile Adverse | 57.5 | 55.2 | 57.7 |
| 73, FAIRVIEW CIRCLE, DANESTONE | Welling | 57.7 | 55.2 | 57.6 | -0.1 | Negligible Beneficial | 58.0 | 0.3 | Negligible Adverse | 45.7 | 43.4 | 45.9 |
| 74, FARVVEW CIRCLE, DANESTONE | Dwelling | 76.1 54.1 | 73.4 53.4 | 76.1 53.9 | 0.0 -0.2 | $\xrightarrow{\text { Nego Cigibe }}$ Beneneficial | 76.4 54.6 | 0.3 0.5 | Negligible Adverse Nefigiole Adverse | 62.2 42.4 | 59.8 41.8 | 62.5 42.9 |
| 76, FAIRVIEW CIRCLE, DANESTONE | Dwelling | 76.2 | 73.4 | 76.2 | 0.0 | No Change | 76.4 | 0.2 | Neogigigle Adverse | ${ }_{62.3}$ | 59.8 | 62.5 |
| 77, FAIRVIEW CIRCLE, DANESTONE | Dwelling | 57.6 | 55.4 | 57.6 | 0.0 | No Change | 58.0 | 0.4 | Negigiolile Adverse | 45.6 | 43.6 | 45.9 |
| 78, FAIRVIEW CIRCLE, DANESTONE | Dwelling | 76.3 | 73.5 | 76.3 | 0.0 | No Change | 76.5 | 0.2 | Negligible Adverse | 62.4 | 59.9 | 62.6 |
| T9, FARVIEW CIRCLE, DANESTONE | Dwelling | 57.6 53.6 | 55.4 <br> 52.4 | 57.6 53.5 | 0.0 <br> 0.0 <br> 0 | $\xrightarrow{\text { Nogo Change }}$ | 58.0 54.2 | 0.4 0.6 | Negiligile Adverse Nefigiole Adverse | 45.6 42.0 | 43.6 40.9 | 45.9 |
| 80, FAIRVIEW CIRCLE, DANESTONE | Dwelling | 73.1 | 70.0 | 73.0 | -0.1 | Negligible Beneficial | 73.2 | 0.1 | Negiligible Adverse | 59.5 | 56.7 | 59.6 |
| 81, FAIRVIEW CIIRCLE, DANESTONE | Dwelling | 57.6 | 55.4 | 57.6 | 0.0 | No Change | 58.0 | 0.4 | Negligible Adverse | 45.6 | 43.6 | 45.9 |
| ${ }^{82}$ 82, FARVIEW CIRCLE, DANESTONE | Dwelling | 73.1 | 70.0 554 | 73.0 576 | -0.1 | Negligible Beneficial | 73.2 580 |  | Negiligib Adverse | 59.5 |  | 59.6 |
| 83, FARVVIEW CIRCLE, DANESTONE | $\frac{\text { Dwelling }}{\text { Owelling }}$ | 57.6 73.1 | 55.4 70.0 | 57.6 73.0 | 0.0 .0 .1 | Neglioible ${ }^{\text {Nangeefericial }}$ | 58.0 73.2 | 0.4 0.1 | $\frac{\text { Negigigibe Adverse }}{\text { Negigiole Adverse }}$ | 45.6 59.5 | 43.6 56.7 | 45.9 59.6 |
| 85, FAIRVIEW CIRCLE, DANESTONE | Owelling | 57.6 | 55.4 | 57.6 | 0.0 | No Change | 58.0 | 0.4 | Negiligible Adverse | 45.6 | ${ }_{4}^{43.6}$ | 45.9 |
| 86, FAIRVIEW CIRCLE, DANESTONE | Dwelling | 73.1 | 70.0 | 73.0 | -0.1 | Negligible Beneficial | 73.2 | 0.1 | Negigigile Adverse | 59.5 | 56.7 | 59.6 |
| 87, FAIVVIEW CIRCLE, DANESTONE | Dwelling | 57.6 | 55.4 | 57.6 | 0.0 | No Change | 58.0 | 0.4 | Negigigile Adverse | 45.6 | 43.6 | 45.9 |
| 88, FAIRVIEW CIRCLE, DANESTONE | Dwelling | 73.1 | 70.0 | ${ }^{73.0}$ | -0.1 | Negligible Beneficial | 73.2 | 0.1 | Negligible Adverse | 59.5 | 56.7 | 59.6 |
| 89, FAIRVIEW CIRCLE, DANESTONE | welling | 57.6 | 55.4 | 57.6 | 0.0 | No Change | 58.0 | 0.4 | Negigigibe Adverse | 45.6 | 43.6 | 45.9 |
| 9, FAIRVIEW CIRCLE, DANESTONE | Dweling | F8.0 | 56.1 | 58.0 730 | 0.0 | No Change | 58.5 73. | ${ }_{0}^{0.5}$ | Negigiole Adverse | 45.9 | ${ }_{5}^{44.2}$ | 46.4 |
| 91, FAIRVIEW CIRCLE, DANESTONE | Dwelling | 57.6 | 55.4 | 57.6 | 0.0 | No Change | 58.0 | 0.4 | Negligible Adverse | 45.6 | 43.6 | 45.9 |
| 92, FAIRVIEW CIRCLE, DANESTONE | Wwelling | 59.3 | 56.7 | 59.2 | -0.1 | Negligible Beneficial | 59.6 | 0.3 | Negligible Adverse | 47.1 | 44.8 | 47.4 |
| 93, FAIRVIEW CIRCLE, DANESTONE | Dweling | 57.6 | 55.4 | 57.6 | 0.0 | No Change | 58.0 | 0.4 | Negligibe Adverse | $\frac{45.6}{514}$ | 43.6 | 45.9 |
| 945, FAIRVIEW CIRCLE, DANESTONE | Dwelling | 55.8 | 54.4 | 55.6 | -0.2 | Negligible Beneficial | 56.0 | 0.2 | Negigigibe Adverse | 44.0 | ${ }_{42.7}^{46.7}$ | ${ }_{4}^{44.1}$ |
| 96, FAIRVVIEW CIRCLE, DANESTONE | Wwelling | 64.3 | 61.3 | 64.3 | 0.0 | No Change | 64.5 | 0.2 | Negiligible Adverse | 51.6 | 48.9 | 51.8 |
| 97, FAIRVVIEW CIIRCLE, DANESTONE | Deeling | 56.0 | 55.0 | 55.9 |  | Negligible Benenitical | 56.3 | 0.3 | Negiligibe Adverse | 44.1 | 43.2 | 44.4 |
| 98, FAIRVVIEW CIRCLE, DANESTONE | weling |  |  |  |  | No Change |  |  | Negligible Aaverse |  |  |  |
| 99, FAIMVEW CIRGLE, DANESTONE | Oweiling | 54.9 | 54.6 | ${ }^{54.7}$ | -0.2 | Negilquile Beneifical | ${ }^{5} 5.5$ | 0.6 | Negiqigile Adverse | ${ }^{43.1}$ | 42.9 | 43.7 |
| EASTCOTTAGE, 122, FARVVIEW CRESCENT, DANESTONE | Oweling | 72.2 7111 | 72.9 | 72.5 714 | ${ }_{0}^{0.3}$ | $\frac{\text { Negigigio Adverse }}{\text { Negigible Adverse }}$ | 74.4 | $\frac{2.2}{23}$ | Negligiole Adverse | 58.7 577 | 59.3 | 60.7 |
|  | Dwelling | ${ }_{62.9}$ | ${ }_{66.1}^{71.8}$ | ${ }^{71.4} 6$ | 0.3 | Neoligigiele Adverse | 65.2. | ${ }_{2}^{2.3}$ | $\frac{\text { Negigigie Adverse }}{\text { Neligible Adverse }}$ | 50.3 | ${ }_{53.2}^{58.4}$ | 59.8 52.4 |
| 10, FAIVVIEW CRESCENT, DANESTONE | Dwelling | 59.7 | 60.2 | 59.6 | -0.1 | Negligible Beneficial | 60.5 | 0.8 | Negiligile Adverse | 47.5 | 47.9 | 48.2 |
| 100, FAIRVIEW CRESCENT, DANESTONE | Dwelling | 67.0 | 67.4 | 67.3 | 0.3 | Negigiolie Adverse | 68.8 | 1.8 | Negigigile Adverse | 54.0 | 54.4 | 55.7 |
| 101, FAIRVIEW CRESCENT, DANESTONE | Dwelling | 53.1 | 53.5 | 53.1 | 0.0 | No Change | 53.7 | 0.6 | Negiligibe Adverse | 41.5 | 41.9 | 42.1 |
| 102, FARVVIEW CRESCENT, DANESTONE | Dwelling | 67.0 56.4 | 67.4 | 67.3 | ${ }_{0}^{0.3}$ | $\frac{\text { Negiligile Adverse }}{\text { Negilible Adverse }}$ | 68.8 <br> 572 | $\frac{1.8}{0.8}$ | $\frac{\text { Negiligibe Adverse }}{\text { Negigible Adverse }}$ | 54.0 445 | $\begin{array}{r}54.4 \\ 452 \\ \hline\end{array}$ | $\begin{array}{r}55.7 \\ \hline 5 . \\ \hline\end{array}$ |
| 104, FAIRVIEW CRESCENT, DANESTONE | Dwelling | 67.0 | 67.3 | 67.3 | 0.3 | Negligible Adverse | 68.7 | 1.7 | Negiligile Adverse | 54.0 | 54.3 | 55.6 |
| 105, FAIRVVW CRESCENT, DANESTONE | Delling | 58.3 | 60.1 | 58.2 | -0.1 | Negligible Beneficial | 59.3 | 1.0 | Negligible Adverse | 46.2 | ${ }_{47.8}^{47}$ | ${ }^{47.1}$ |
| 100, FARVVIEW CRESCENT, DANESTONE | Dwelling | 67.0 68.5 | 67.3 | 67.3 688 | ${ }_{0}^{0.3}$ | Negiligile Adverse | 68.7 70.4 | 1.7 1.9 | Negigible Adverse | $\begin{array}{r}54.0 \\ 554 \\ \hline\end{array}$ | $\begin{array}{r}54.3 \\ 558 \\ \hline\end{array}$ | 55.6 |
| 11, FAIRVIEW CRESCENT, DANESTONE | Dwelling | 56.0 | 56.4 | 55.9 | -0.1 | Negligible Beneficial | 56.4 | 0.4 | Negiligile Adverse | 44.1 | 44.5 | 44.5 |
| 110, FAIRVIEW CRESCENT, DANESTONE | Deelling | 68.1 | 68.6 | 68.4 | 0.3 | Negligible Adverse | 70.1 | 2.0 | Negigigile Adverse | 55.0 | 55.5 | 56.8 |
| 112, FAIRVVEW CRESCENT, DANESTONE | Dwelling | 68.9 | 69.4 | 69.2 | 0.3 | Negiligibe Adverse | 70.9 | ${ }_{2}^{2.0}$ | Negiligile Adverse | 55.7 | 56.2 | 57.5 |
| 114, FARVIUW CRESCENT, DANESTONE | Oweling |  | 69.3 | 69.0 |  | Negiligibe Adverse | 70.8 | ${ }_{2}^{2.1}$ | Negiligibe Adverse | 55.6 |  | 57.5 |
|  | Oweling | ${ }_{68.3}$ | 68.9 | 68.6 | ${ }_{0.3}^{0.3}$ | Negigigiole Adverse | 70.5 | ${ }_{20}^{2.0}$ | Negligiol Adverse | ${ }^{55.4}$ | ${ }_{55.7}^{55.9}$ | 57.2 |
| 12, FAIVVIEW CRESCENT, DANESTONE | Dwelling | 62.2 | 64.3 | 62.3 | 0.1 | Negligible Beneficial | 63.8 | 1.6 | Negigioble Adverse | 49.7 | 51.6 | 51.2 |
| 120, FAIRVVIEW CRESCENT, DANESTONE | Dwelling | 68.4 | 68.9 | 68.7 | 0.3 | Negigiole Adverse | 70.4 | 2.0 | Negigioble Adverse | 55.3 | 55.7 | 57.1 |
| 126, FAIRVIUW CRESCENT, DANESTONE | Dwelling | 71.8 | ${ }^{72.5}$ | 72.1. | 0.3 | Negiligibic Adverse | 74.0 642 | ${ }^{2} .2$ | Negiligil Adverse | $\begin{array}{r}58.4 \\ 50 . \\ \hline\end{array}$ | 59.0 519 | $\begin{array}{r}60.3 \\ 515 \\ \hline 15\end{array}$ |
|  | Dwelling | 62.6 60.5 | 64.6 61.1 | 62.6 60.8 | ${ }_{0}^{0.0}$ | Negoligiole Advaerse | 64.2 62.6 | 1.6 2.1 | $\frac{\text { Negigible Adverse }}{\text { Neoligible Adverse }}$ | 50.1 48.2 | 51.9 48.7 | 51.5 50.1 |
| 144, FAIRVVEW CRESCENT, DANESTONE | Delling | 60.5 | 61.1 | 60.8 | 0.3 | Negigigibe Adverse | 62.6 | 2.1 | Negigigibe Adverse | 48.2 | 48.7 | 50.1 |
| 146, FARRVIVW CRESCENT, DANESTONE | Dwelling | 60.5 | $\frac{61.1}{611}$ | $\frac{60.8}{60.8}$ | ${ }_{0}^{0.3}$ | $\frac{\text { Negigigile Adverse }}{\text { Negligiole Adverse }}$ | $\frac{62.6}{626}$ | $\frac{2.1}{2.1}$ | $\frac{\text { Negigigib Adverse }}{\text { Negigiole Adverse }}$ | $\frac{48.2}{48.2}$ | $\frac{48.7}{487}$ | 50.1 50.1 |
| 15, FAIRVIEW CRESCENT, DANESTONE | Dwelling | 58.7 | 58.9 | 58.8 | 0.1 | Negligible Beneficial | 59.6 | 0.9 | Negiligile Adverse | 46.6 | 46.7 | 47.4 |
| 150, FAIRVVW CRESCENT, DANESTONE | Deeling | 60.5 | 61.1 | 60.8 | ${ }^{0.3}$ | Negligible Adverse | 62.6 | 2.1 | Negligible Adverse | 48.2 | 48.7 | 50.1 |
| 152, FARVVIVW CRESCENT, DANESTONE | Dwelling | 60.5 60.5 | ${ }^{61.1}$ | 60.8 60.8 | ${ }_{0}^{0.3}$ | Negigible Adverse | 62.6 62.6 | ${ }_{2.1}^{2.1}$ | $\frac{\text { Negigigle Adverse }}{\text { Neoligible Adverse }}$ | 48.2 48.2 | ${ }_{488.7}^{48.7}$ | 50.1 50.1 |
| 156, FAIRVVEW CRESCENT, DANESTONE | Dwelling | 60.5 | 61.1 | 60.8 | 0.3 | Negigiole Adverse | 62.6 | 2.1 | Negligible Adverse | 48.2 | 48.7 | 50.1 |
| 158, FARVVIEW CRESCENT, DANESTONE | Dwelling | 60.5 60.9 | ${ }_{62.7}^{66.1}$ | 60.8 60.8 | 0.3 -0.1 | Negigigib Adverse | ${ }^{62.6}$ | ${ }_{1}^{2.4}$ | $\frac{\text { Negigigib Adverse }}{\text { Negioible Adverse }}$ | 48.2 | 48.7 50.2 | ${ }_{40.1}^{50.8}$ |
| 160, FAIVVIEW CRESCENT, DANESTONE | Dwelling | 57.1 | 57.4 | 57.3 | 0.2 | Negligible Adverse | 58.9 | 1.8 | Negigioble Adverse | 45.1 | 45.4 | 46.7 |
| 162, FARVIEW CRESCENT, DANESTONE | Oweling | 56.7 | 57.0 | 56.9 | 0.2 | Negigigibe Adverse | 58.5 | 1.8 | Negigigile Adverse | 44.8 | 45.0 | 46.4 |
| 164, FARVVIEW CRESCENT, DANESTONE | Oweling | ${ }_{53,5}^{53 .}$ | ${ }_{54.0}^{53}$ | ${ }_{53,8}^{53,}$ | 0.3 | Negigigile Adverse | 55.4 | 1.9 | Negigigle Adverse | 41.9 | 42.3 | 43.6 |
| 166. 1 PARVIVW CRESCENT, DANESTONE | Dwelling | $\stackrel{53.1}{52.8}$ | 53.5 53.2 | 53.3 | 0.2 0.1 | $\frac{\text { Negligiole Adverse }}{\text { Negigiole Adverse }}$ | 54.5 54.1 | 1.4 <br> 1.3 <br> 1 | Negigigib Adverse | $\frac{41.5}{41.3}$ | $\stackrel{41.9}{41.6}$ | $\stackrel{42.8}{42.4}$ |
| 17, FAIVVIEW CRESCENT, DANESTONE | Dwelling | 56.7 | 55.6 | 56.7 | 0.0 | No Change | 56.8 | 0.1 | Negligible Beneficial | 44.8 | 44.7 | 44.9 |
| 170, FARVIEW CRESCENT, DANESTONE | Dweling | 52.7 <br> 528 | $\begin{array}{r}53.1 \\ 5.3 \\ \hline\end{array}$ | 52.8 529 | 0.1 | Negligible Beneficial | 54.0 54.1 | ${ }_{1}^{1.3}$ | Negiligib Adverse | $\frac{41.2}{413}$ | 41.5 | ${ }_{42.3}^{424}$ |
| ITM, FAIRVIEW CRESCENT, DANESTONE | Dwelling | 52.8 51.3 | 53.3 51.7 | 51.3 51.3 | 0.0 | Negigiole Avverse | 54.4 52.4 | ${ }_{1.1}^{1.3}$ | Negligigile Adverse | ${ }_{39} 49.9$ | ${ }_{40.3}^{41.7}$ | ${ }_{40.9}^{42.4}$ |
| (176. FAARVIEW CRESCENT, DANESTONE | Dewling | $\frac{51.3}{51.9}$ | 51.2 | 51.4 | 0.1 | Negligible Adverse | 52.7 525 | 1.4 | Negligible Adverse | 39.9 | 39.8 | $\frac{41.2}{410}$ |
| 178 18, FARVVIEW CRESCENT, DANESTONE | Dwelling | $\stackrel{51.9}{62.8}$ | ${ }_{52,3} 63$ | ${ }_{\text {52.0 }} 62.7$ | 0.1 -0.1 | Negigigible Benereficial | ${ }_{\text {52.5 }}^{63.7}$ | 0.6 | Negigigie Avverse | ${ }_{50.3}^{40.4}$ | ${ }_{\text {40, }}^{51.2}$ | $\stackrel{41.0}{51.1}$ |
| 180, FAIRVIEW CRESCENT, DANESTONE | welling | 54.2 | 54.8 | 54.4 | 0.2 | Negigigile Adverse | 54.8 | 0.6 | Negigigile Adverse | 42.5 | 43.1 | 43.1 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 <br> Lnight,outside | DS33 <br> Lnight,outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 182, FAIRVIVW CRESCENT, DANESTONE | Owelling | 54.6 | 55.4 | 54.8 | 0.2 | Negigigle Adverse | 55.2 | 0.6 | Negligible Adverse | 42.9 | 43.6 | 43.4 |
| 184. FAIRVIVW CRESCENT, DANESTONE | Dweling | 58.4 <br> 55 | 61.0 65 | 58.5 554 | 0.1 | $\frac{\text { Negligible Adverse }}{\text { Negioigle Adverse }}$ | 59.9 55.4 | 1.5 0.1 | $\frac{\text { Negligible Adverse }}{\text { Negioigle Adverse }}$ | $\frac{46.3}{43.5}$ | 48.6 43.4 | 47.6 43.6 |
| 19, FARVVEW CRESCENT, DANESTONE | Dweling | 60.4 | 62.0 | 60.5 | 0.1 | Neoligioble Adverse | 61.7 | 1.3 | Neogigigibe Adverse | ${ }_{48.1}^{48.5}$ | ${ }_{49.5}^{49.5}$ | $\stackrel{43.6}{49}$ |
| 20, FAIRVIEW CRESCENT, DANESTONE | Dwelling | 63.2 | 64.0 | 63.0 | -0.2 | Negligible Beneficial | 63.9 | 0.7 | Negligiole Adverse | 50.6 | 51.3 | 51.2 |
| 21, FAIRVIEW CRESCENT, DANESTONE | Dwelling | 55.1 | 54.5 | 55.2 | 0.1 | Negigiolie Adverse | 54.9 | -0.2 | Negligible Beneficial | 43.3 | 42.8 | 43.1 |
| 22, FAIRVIEW CRESCENT, DANESTONE | Dwelling | 66.6 | 67.5 | 66.4 | -0.2 | Negigigibe Beneficial | 67.2 | 0.6 | Negigioble Adverse | 53.7 | 54.5 | 54.2 |
| 23, FARVVIEW CRESCENT, DANESTONE | Dwelling | ${ }^{661.6} 6$ | $\frac{61.1}{68.2}$ | 61.7 67.2 | 0.1 -0.2 | $\frac{\text { Negligible Adverse }}{\text { Negligible }}$ Beneficial | $\frac{61.8}{67.9}$ | 0.2 | $\frac{\text { Negiligibe Adverse }}{\text { Negigiole Adverse }}$ | 49.2. | 48.7 55.1 | 49.4 54.8 |
| 25, FAIRVIEW CRESCENT, DANESTONE | Dwelling | 57.4 | 57.1 | 57.5 | 0.1 | Negligible Adverse | 57.8 | 0.4 | Negiligile Adverse | 45.4 | 45.1 | 45.8 |
| 26, FARVVIEW CRESCENT, DANESTONE | Deeling | ${ }_{66.7}^{67}$ | ${ }_{67.5}^{67}$ | ${ }_{66.5}^{66.5}$ | -0.2 | Negligible Beneficial | 67.2 57 | 0.5 | Negigigibe Adverse | 53.8 | 54.5 | 54.2 |
| 27, FARVIEW CRESCENT, DANESTONE | welling | 57.7 | 57.2 | 57.9 | 0.2 | Negiligibe Adverse | 57.9 | 0.2 | Negiligible Adverse | ${ }^{45.7}$ | 45.2 | 45.8 |
| 28, FARVIEW CRESCENT, DANESTONE | Dwelling | $\stackrel{66.0}{57.5}$ | $\frac{66.9}{56.8}$ | 65.9 57.7 | -0.2 | $\frac{\text { Negigigile Beneficial }}{\text { Nefilibile Adverse }}$ | ${ }^{666.6}$ | 0.6 0.1 | Negigigbe Adverse | ${ }_{45.1}^{55.5}$ | - 44.9 | ${ }_{45.6}^{53.7}$ |
| 3, FAIRVIEW CRESCENT, DANESTONE | Dwelling | 59.8 | 61.2 | 59.8 | 0.0 | No Change | 60.9 | 1.1 | Negigioible Adverse | 47.6 | 48.8 | 48.5 |
| 30, FAIRVIEW CRESCENT, DANESTONE |  | 66.6 | 7.4 | 66.5 | -0.1 | Negligible Beneficial | 67.2 | 0.6 | Negigioble Adverse | 53.7 | 54.4 | 54.2 |
| 31, FAIRVIEW CRESCENT, DANESTONE |  | 56.7 | 5.8 | 56.9 | 0.2 | Negigigibe Adverse | 56.5 | -0.2 | Negligible Benefitical | 44.8 | 44.0 |  |
| 32, FARVVIEW CRESCENT, DANESTONE | Dweling | 54.9 | 5.7 | 54.8 | -0.1 | Negligite Beneficical |  | 0.6 | Negigigibe Adverse | 43.1 | 43.9 | 43.7 |
| 33, FARVIEW CRESCENT, DANESTONE | Oweling | 55.6 | 55.6 | 55.7 | 0.1 | Negigigibe Adverse | 56.6 | 1.0 | Negigigile Adverse | 43.8 | 43.8 | 44.7 |
| 34, FARVIEW CRESCENT, DANESTONE | Dweling | 56.3 | 56.9 | 56.2) | -0.1 | Negiligiole Beneficial | 56.9 | 0.6 | Negiligibe Adverse | 44.4 | 44.9 | 44.9 |
| 35, FARVVIEW CRESCENT, DANESTONE | weling | 55.7 | 55.8 | 55.9 | 0.2 | Negiligibe Adverse | 56.9 | 1.2 | Negiligilie Aaverse | 43.9 | 44.0 |  |
| 36, FAIRVIEW CRESCENT, DANESTONE | ${ }^{\text {Oweling }}$ Oweling | ${ }_{56.4}^{56.5}$ | ${ }_{56.7}^{56.6}$ | 56.4 | -0.1 0.3 | $\frac{\text { Negigigile Beneficial }}{\text { Negigiobie Adverse }}$ | ${ }_{56.0}^{56.4}$ | 1.6 | Negigigio Benentical | $\stackrel{44.6}{44.5}$ | ${ }_{44.8}^{44.7}$ | 44.5 |
| 38, FAARVIEW CRESCENT, DANESTONE | Dwelling | 56.2 | ${ }^{56.8}$ | ${ }_{63.3}$ | 0.1 | Negligible Beneficial | ${ }_{63.3}$ | ${ }_{0} 0.1$ | Negligible Beneficioial | ${ }_{50.6}$ | ${ }_{50.3}$ | 50.7 |
| 39, FAIRVIEW CRESCENT, DANESTONE | Dwelling | 57.3 | 57.7 | 57.5 | 0.2 | Negiligile Adverse | 59.0 | 1.7 | Negiligile Adverse | 45.3 | 45.7 | 46.8 |
| 4, FAIRVIEW CRESCENT, DANESTONE | welling | 62.0 | 63.2 | 62.0 | 0.0 | No Change | 62.9 | 0.9 | Negligible Adverse | 49.5 | 50.6 | 50.3 |
| 40, FARVVIEW CRESCENT, DANESTONE | Welling | 62.9 | 62.4 | 62.9 | 0.0 | No Change | 62.8 | -0.1 | Negligible Beneficial | 50.3 | 49.9 | 50.3 |
| 4i, FARVVEW CRESCENT, DANESTONE | Dweling | ${ }_{68.6}^{56.6}$ | ${ }^{58.6}$ | ${ }^{58.8}$ | 0.2 | Negiligibe Adverse | 59.8 | 1.2 | Negiligibie Adverse | ${ }_{56.5}^{46}$ | 46.5 | ${ }^{47.6}$ |
| 43, FAIRVIEW CRESCENT, DANESTONE | Dwelling | 58.6 | 58.6 | 58.8 | 0.2 | Negligible Adverse | 59.8 | 1.2 | Neogigioble Adverse | 46.5 | 46.5 | 47.6 |
| 44, FAIRVIEW CRESCENT, DANESTONE | Dwelling | 66.0 | 65.6 | 65.9 | -0.1 | Negligible Beneficial | 65.7 | -0.3 | Negligble Beneficial | 53.1 | 52.8 | 52.9 |
| 45, FARVVIEW CRESCENT, DANESTONE | Deelling | 56.3 | 56.0 | 56.5 | 0.2 | Negiligibe Adverse | 57.1 | 0.8 | Negiligibe Adverse | 44.4 | 44.1 | 45.1 |
| 46, FARAVEW CRESCENT, DANESTT |  | 69.6 585 |  |  |  | Negiligio Benenicial |  |  |  | ${ }^{56.4}$ |  | 56.6 |
| 48, FAARVIEW CRESCENT, DANESTONE | Owelling | 70.5 | 69.6 | 70.7 | 0.2 | Neoligigile Adverse | 69.9 | -0.6 | Negligible Beneficicial | 57.2 | ${ }_{56.4}$ | 56.6 |
| 49, FAIRVIEW CRESCENT, DANESTONE | Wwelling | 55.4 | 55.3 | 55.6 | 0.2 | Negigigile Adverse | 56.4 | 1.0 | Negligible Adverse | 43.6 |  |  |
| 5, FAIPVIEW CRESCEAT, DANESTONE | Deelling | 60.8 | 61.9 | 60.8 | 0.0 | No Change | 61.7 | 0.9 | Negigioble Adverse | 48.5 | 49.4 | 49.3 |
| 50, FARVIEW CRESCENT, DANESTONE | Oweling | $\begin{array}{r}67.5 \\ \hline 5.4 \\ \hline\end{array}$ | ${ }^{66.7}$ | ${ }^{67.7}$ | 0.2 | Negigigle Adverse | 66.9 56.4 | -0.6 | $\frac{\text { Negigible Beneticial }}{\text { Neofigiole Adverse }}$ | 54.5 43.6 | 53.8 435 | 53.9 |
| 55, FAIRVIEW CRESCENT, DANESTONE | Dwelling | ${ }^{556.9}$ | ${ }_{65.1}^{56.1}$ | ${ }^{557.1}$ | 0.2 | Neogigiole Adverse | ${ }^{56.4}$ | -0.5 | Negligible Benesificial | ${ }_{53.9}^{43.9}$ | ${ }_{53.2}^{43.5}$ | ${ }_{53.5}^{44.5}$ |
| 53, FAIRVIEW CRESCENT, DANESTONE | Deelling | 57.4 | 57.9 | 57.6 | 0.2 | Negigigile Adverse | 59.3 | 1.9 | Negigiolie Adverse | 45.4 | 45.8 | 47.1 |
| 54, FARVVIEW CRESCCENT, DANESTONE | Dwelling | 65.7 | 64.6 | 65.9 | 0.2 | Negigibile Adverse | 65.1 | -0.6 | Negligible Beneficial | 52.9 | 51.9 | 52.3 |
| 55, FARVVIEW CRESCENT, DANESTONE | Dwelling | ${ }^{57.4}$ | 57.9 64.5 | 57.6 65.4 | 0.2 0.2 | Negigible Adverse | ${ }^{594.3}$ | 1.9 -0.3 | Negiligible Adverse | 45.4 52.4 | $\stackrel{45.8}{51.8}$ | ${ }^{47.1}$ |
| 57, FAIRVIEW CRESCENT, DANESTONE | Deelling | 57.4 | 57.9 | 57.6 | 0.2 | Negiligibe Adverse | 59.3 | 1.9 | Negigiolie Adverse | 45.4 | 45.8 | 47.1 |
| 5 59, FARVVIEW CRESCENT, DANESTONE | Dwelling | ${ }^{657.4}$ | ${ }_{564.9}$ | ${ }_{57.6}$ | 0.2 0.2 | Neoligigiele Adverse | ${ }_{59.3}^{64.6}$ | $\stackrel{-0.5}{1.9}$ | Negigigiobe Beneicial | \% 45.4 | ${ }_{45.8}$ | ${ }^{517.9}$ |
| 6, FAIPVIEW CRESCENT, DANESTONE | Dwelling | 59.4 | 59.8 | 59.3 | -0.1 | Negligible Beneficial | 59.7 | 0.3 | Negiligible Adverse | 47.2 | 47.6 | 47.5 |
| 6, FARVVIVW CRESCENT, DANESTONE | Dwelling | 59.3 66.0 | ${ }_{69.9}^{65}$ | 59.2 66.2 | -0.1 0.2 | $\frac{\text { Negligible Beneficial }}{\text { Negilibile Adverse }}$ | 59.8 66.2 | 0.5 0.2 | Negligibl Adverse | 47.1 53.1 | 47.6 52.5 | 47.6 53.3 |
| 61, FAIRVIEW CRESCENT, DANESTONE | Dwelling | 57.4 | 57.9 | 57.6 | 0.2 | Negiligile Adverse | 59.3 | 1.9 | Negiligile Adverse | 45.4 | 45.8 | 47.1 |
| 62, FARVIEW CRESCENT, DANESTONE | Dwelling | 64.9 57.4 | 64.2 57.9 | ${ }_{65.2}^{65.6}$ | ${ }_{0}^{0.3}$ | Negligibl Adverse | 65.1 59.3 | 0.2 1.9 | Negligibl Adverse | 52.1 45.4 | 51.5 45.8 | 52.3 47.1 |
| 64, FAIRVIEW CRESCENT, DANESTONE | Dwelling | 67.5 | 67.1 | 67.8 | 0.3 | Negigigile Adverse | 68.1 | 0.6 | Negigigible Adverse | 54.5 |  | 55.0 |
| 65, FAIRVIEW CRESCENT, DANESTONE | Dwelling | 57.4 | 57.9 | 57.6 | 0.2 | Negigiole Adverse | 59.3 | 1.9 | Negiligile Adverse | 45.4 | 45.8 | 47.1 |
| 66, FAIRVIEW CRESCENT, DANESTONE | Welling | 67.5 | 67.1 | 67.8 | 0.3 | Negigioble Adverse | 68.1 | 0.6 | Negigioble Adverse | 54.5 | 54.1 | 55.0 |
| 67, FARVVIEW CRESCCNT, DAAESSONE | Dwelling | 57.4 67.6 | ${ }^{57.9}$ | 57.6 67.9 | ${ }_{0}^{0.3}$ | Neogigigie Adversse | 59.3. 68.4 | ${ }_{0}^{1.9}$ | Neogigioble Adverse | 454.6 | ${ }_{54.3}^{45.8}$ | ${ }_{55.3}^{47.1}$ |
| 69, FAIRVIEW CRESCENT, DANESTONE | Deelling | 57.4 | 57.9 | 57.6 | 0.2 | Negigiole Adverse | 59.3 | 1.9 | Negigiolile Adverse | 45.4 | 45.8 | 47.1 |
| 7, FARVVIEW CRESCENT, DANESTONE | Dwelling | ${ }^{56.5}$ | 57.7 673 | ${ }_{56.6}^{56}$ | 0.1 | Negiligle Adverse | 57.5 68.4 | 1.0 | Negiligile Adverse | ${ }_{4}^{44.6}$ | ${ }^{45.7}$ | 45.5 <br> 5.5 |
| T, 71, FARIRVIEW CRESCCENT, DANESTONE | Dwelling | 67.6 57 | 67.3 57.8 | 67.6 | 0.3 | Neogigioble Adverse | 68.4 59.1 | 1.8 1.8 | Negiligib Avverse | 㐌4.6. | 54.3 45.8 | 55.3 46.9 |
| 72, FAIRVIEW CRESCENT, DANESTONE | Dwelling | 67.7 | 67.2 | 68.0 | 0.3 | Negigigile Adverse | 68.3 | 0.6 | Negligible Adverse | 54.7 | 54.2 | 55.2 |
| 73, FARVIEW CRESCENT, DANESTONE | Dwelling | 58.4 677 | ${ }^{587}{ }^{672}$ | 58.6 68.0 | ${ }_{0}^{0.2}$ | $\frac{\text { Negligible Adverse }}{\text { Negigiole Adverse }}$ | ${ }_{60.1}^{60.3}$ | ${ }_{0}^{1.7}$ | Negiligle Adverse | ${ }_{547}^{46.3}$ | 46.6 | 47.2 |
| 75, FAIRVIEW CRESCENT, DANESTONE | Dwelling | 57.5 | 57.6 | 57.8 | 0.3 | Negiligile Adverse | 58.9 | 1.4 | Negligible Adverse | 45.5 | 45.6 | 46.7 |
| 76, FAIRVIEW CRESCENT, DANESTONE | Dwelling | 66.9 | 66.7 | 67.2 | 0.3 | Negigigile Adverse | 67.9 | 1.0 | Negigigile Adverse | 53.9 | 53.8 | 54.8 |
| T7, FARVIEW CRESCENT, DANESTONE | Deeling | 54.2 | 54.6 | 54.4 | 0.2 | Negiligibe Adverse | 55.7 | 1.5 | Negigiole Adverse | $\stackrel{42.5}{54}$ | 42.9 | 43.9 |
| 78, FARIVVIEW CRESCENT, DANESTONE | Dwelling | ${ }_{56.3}$ | ${ }_{56.7}^{66.8}$ | ${ }_{56.5}^{66.5}$ | 0.2 | Neoligigiele Adverse | ${ }_{57.9}^{68.9}$ | 1.6 | Neogigioble Adverse | ${ }^{54.4}$ | $\stackrel{53.9}{44.8}$ | ${ }_{45.8}^{54.9}$ |
| 8, FAIRVIEW CRESCENT, DANESTONE | Dwelling | 60.1 | 60.5 | 60.0 | -0.1 | Negligible Beneficial | 60.8 | 0.7 | Negiligible Adverse | 47.8 | 48.2 | 48.5 |
| 80, FARVIEW CRESCENT, DANESTONE | Oweling | $\begin{array}{r}67.2 \\ 598 \\ \hline 8.8\end{array}$ | $\begin{array}{r}67.1 \\ 59 \\ \hline 9.3\end{array}$ | 67.5 59.5 | ${ }^{0.3}$ | Negigigibe Adverse | 68.4 | 1.2 | Negigigibe Adverse | 54.2 | 54.1 | 55.3 |
| 88, FAIRVIEW CRESCENT, DANESTONE | ${ }^{\text {Duelling }}$ | ${ }_{67} 67.2$ | ${ }_{67.1}$ | ${ }^{567.5}$ | 0.3 | Neoligioble Adverse | 68.4 | 1.2 | Neogigiole Adverse | ${ }_{54.2}$ | ${ }_{54.1}$ | ${ }_{55.3}$ |
| 83, FAIRVIEW CRESCENT, DANESTONE | Dwelling | 59.4 | 59.9 | 59.6 | 0.2 | Negigigile Adverse | 61.4 | 2.0 | Negligible Adverse | 47.2 | 47.6 | 49.0 |
| 84, FAIRVIEW CRESCENT, DANESTONE | Deelling | 67.5 | 67.5 | 67.8 | 0.3 | Negigigile Adverse | 68.8 | 1.3 | Negigioble Adverse | 54.5 | 54.5 | 55.7 |
| 85, FARVVIEW CRESCENT, DANESTONE | ${ }^{\text {Dwelling }}$ Dowiligg | 557.8 | 567.3 | 567.0 | ${ }_{0}^{0.2}$ | Negigible Adverse | 57.8 68.7 | 2.0 1.2 | $\frac{\text { Negigible Adverse }}{\text { Negligible Adverse }}$ | ${ }_{54.5}^{44.0}$ | ${ }_{\text {44, }}^{44.5}$ | ${ }_{55.6}^{45.8}$ |
| 87, FARVVIEW CRESCENT, DANESTONE | Dwelling | 56.4 | 56.8 | 56.6 | 0.2 | Negiligile Adverse | 58.2 | 1.8 | Negiligile Adverse | 44.5 | 44.9 | ${ }_{56.1}^{46.1}$ |
| $\frac{88}{\text { 8, FAARVIEW CRESCENT, DANESTONE }}$ | Dwelling | 67.1 56.1 | 67.2 56.5 | $\stackrel{67.4}{56.2}$ | 0.3 0.1 | Negigible Adverse | 68.5 57.8 | 1.4 1.7 | $\frac{\text { Negligible Adverse }}{\text { Neoligiole Adverse }}$ | 54.1 44.2 | 54.2 44.6 | 55.4 45.8 |
| 9, FAIRVIEW CRESCENT, DANESTONE | Dewling | ${ }_{54.2}^{56.1}$ | ${ }_{55.0}^{572}$ | ${ }^{54.2}$ | 0.0 | No Change | 55.2 6.5 | 1.0 | Negigigle Adverse | ${ }_{54.5}^{42.5}$ | ${ }^{43.2}$ | ${ }^{43.4}$ |
| 90 , FAIRVIEW CRESCENT, DANESTONE | Dwelling | 67.1 | 67.2 | 67.4 | 0.3 | Negigigile Adverse | 68.5 | 1.4 | Negigigile Adverse | 54.1 | 54.2 | 55.4 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 Lnight,outside | $\begin{gathered} \text { DS33 } \\ \text { Lnight,outside } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 91, FAIRVIEW CRESCENT, DANESTONE | Owelling | 56.8 | 57.3 | 57.0 | 0.2 | Negigigile Adverse | 58.7 | 1.9 | Negigigle Adverse | 44.9 | 45.3 | ${ }^{46.6}$ |
| 92, FAIRVIEW CRESCENT, DANESTONE | Dweling | 67.0 559 | 67.1 56.4 | 67.3 | $\frac{0.3}{02}$ | Negiligib Adverse | 68.4 577 | ${ }_{1}^{1.4}$ | Negiligile Adverse | 54.0 440 | 54.1 445 | $\begin{array}{r}\text { 55.3 } \\ \hline 45 \\ \hline\end{array}$ |
| 93, FAlinview CRESCENT, DANESTONE | Dwelling | 67.0 | ${ }_{66.1} 6$ | ${ }_{667.3}$ | ${ }_{0} .3$ | Neogigiole Adverse | 68.4 | ${ }_{1}^{1.4}$ | Neoligioble Adverse | ${ }_{54.0}$ | $\stackrel{4}{54.1}$ | ${ }_{55.3}^{45.7}$ |
| 95, FAIRVIEW CRESCENT, DANESTONE | Dwelling | 53.4 | 53.7 | 53.4 | 0.0 | No Change | 54.7 | 1.3 | Negiligile Adverse | 41.8 | 42.1 | 43.0 |
| 96, FAIVVIEW CRESCENT, DANESTONE | Dwelling | 66.9 | 67.1 | 67.2 | 0.3 | Negigigile Adverse | 68.4 | 1.5 | Negigigile Adverse | 53.9 | 54.1 | 55.3 |
| 97, FAIRVIEW CRESCENT, DANESTONE | Dwelling | 54.3 | 54.6 | 54.4 | 0.1 | Negigigile Adverse | 55.8 | 1.5 | Negigioble Adverse | 42.6 | 42.9 | 44.0 |
| 98, FAIRVIEW CRESCENT, DANESTONE | Oweling | 66.9 | $\begin{array}{r}67.1 \\ 53 \\ \hline 8 .\end{array}$ | 67.2 520 | 0.3 | Negligible Adverse | 68.4 5.9 | $\begin{array}{r}1.5 \\ \hline\end{array}$ | Negligible Adverse | 53.9 | 54.1 | 55.3 |
| 99,FARVIEW CRESCENT, DANESTONE | Dweling | 53.0 60.3 | 53.0 63.9 | ${ }_{61.0}^{56.9}$ | 0.7 |  | ${ }_{63.0}$ | ${ }_{2} .7$ | Negigigib Adverse | 48.0 | $\frac{41.4}{51.2}$ | 42.2 50.4 |
| 10 , FAIRVVEW DRIVE, DANESTONE | Dwelling | 50.4 | 50.8 | 50.4 | 0.0 | No Change | 51.2 | 0.8 | Negiligible Adverse | 39.1 | 39.5 | 39.8 |
| 101, FAIRVIEW DRIVE, DANESTONE | Dwelling | 51.0 | 51.9 | 50.9 | -0.1 | Negligible Beneficial | 52.0 | 1.0 | Negiligile Adverse | 39.6 | 40.4 | 40.5 |
| 103, FAIRVIEW DRIVE, DANESTONE | welling | 50.8 | 51.6 | 50.7 | -0.1 | Negligible Beneficial | 51.8 | 1.0 | Negigigile Adverse | 39.5 | 40.2 | 40.4 |
| 105, FAIRVIEW DRIVE, DANESTONE | Wwelling | 50.5 | 51.1 | 50.5 | 0.0 | No Change | 51.5 | 1.0 | Negligible Adverse | 39.2 | 39.7 | 40.1 |
| 107, FAIRVIEW DRIVE, DANESTONE | ling | 53.0 | 52.7 | 52.9 | -0.1 | Negligible Beneficial | 53.6 | 0.6 | Negigioble Adverse | 41.4 | 41.2 | 42.0 |
| 109, FAIRVIEW DRIVE, DANESTONE |  | 52.0 | 52.2 | 51.8 | -0.2 | Negligible Beneficical | 52.6 | 0.6 | Negiligible Adverse | ${ }^{40.5}$ | 40.7 |  |
|  |  | 58.8 | 62.6 | 59.6 | 0.8 | Negligible Adverse | 61.7 5 | 2.9 |  |  | 50.1 | 49.3 |
| - 111, FAIRVVIEW DRIVE, DANESTONE | Dweling | 51.3 <br> 525 | 51.3 527 | 51.3 | 0.0 | Negligible Beneneficial | ${ }_{51,9}^{53}$ | ${ }_{0}^{0.6}$ | Negigigib Adverse | 39.9 410 | ${ }_{4}{ }^{4.9}$ | 40.4 416 |
| IT, 1 IT, FAIRVIEW DRIVE, DANESTONE | Dwelling | 52.2 | 52. | 52.1 | -0.1 | Negligible Beneficicial | 53.0 | 0.8 | Negiligible Adverse | 40.7 | 41.0 | 414 |
| 117, FAIRVIEW DRIVE, DANESTONE | Dwelling | 49.6 | 49.9 | 49.5 | -0.1 | Negligible Beneficial | 50.4 | 0.8 | Negiligile Adverse | 38.4 | 38.6 | 39.1 |
| 119, FAIRVIEW DRIVE, DANESTONE | Dwelling | 52.0 | 52.2 | 51.9 | -0.1 | Negligible Beneficial | 52.7 | 0.7 | Negiligile Adverse | 40.5 | 40.7 | 41.2 |
| 12, FAIRVIEW DRIVE, DANESTONE |  | 54.1 | 56.2 | 54.5 | 0.4 | Negiligile Adverse | 55.8 | 1.7 | Negigigble Adverse | ${ }^{42.4}$ | ${ }^{44.3}$ | 44.0 |
| 12, ARARVEW DivE, DANESTONE |  |  |  | 49.9 | -0.1 | Negiligiole Beneficial | 50.8 <br> 50.7 | 0.8 | Negiligile Adverse | 38.7 | 38.9 | 39.5 |
| 123, FARVVIEW DRIVE, DANESTONE | Dwelling | 50.1 | 50.3 | 49.9 | -0.2 | Negiligibe Beneficicial | 50.7 | 0.6 | Negiligile Adverse | 38.8 | 39.0 | 39.4 |
| 125, FAIPVIEW DRIVE, DANESTONE | welling | 50.6 | 50.9 | 50.4 | -0.2 | Negligible Beneficial | 51.3 | 0.7 | Negigigibe Adverse | 39.3 | 39.5 | 39.9 |
| 127, AIRVIEW DRIVE, DANESTONE | Dweling | 51.5 | 51.6 | 51.4 | -0.1 | Negligible Beneficial | 52.2 | 0.7 | Negligible Adverse | ${ }^{40.1}$ | 40.2 | 40.7 |
| 131, AAIRVIEW DRIVE, DANESTONE | Dwelling | 52.9 | 53.3 | 53.0 | 0.1 | Negigigibe Adverse | 53.8 | 0.9 | Neogigigile Adverse | 41.3 | 41.7 | 42.2 |
| 133, FAIRVIEW DRIVE, DANESTONE | welling | 53.5 | 54.1 | 53.5 | 0.0 | No Change | 54.4 | 0.9 | Negigioble Adverse | 41.9 | 42.4 | 42.7 |
| 135, FAIRVIEW DRIVE, DANESTONE | Dwelling | 52.6 | 53.4 | 52.7 | 0.1 | Negigigile Adverse | 53.6 | 1.0 | Negigible Adverse | 41.1 | 41.8 | 42.0 |
| 137, FAIPVIEW DRIVE, DANESTONE | Oweling | 52.1 | 53.2 | 52.7 | 0.0 | hange | 53.2 | 1.1 | Negiligibie Adverse | ${ }^{40.6}$ | $\stackrel{41.6}{397}$ | 41.6 |
| 139, FAIRVIEW DRIVE, DANESTONE |  | 50.7 | 51.1 | 50.7 54 | 0.0 | No Change | 51.6 | 0.9 | Negiligible Adverse | 39.4 | 39.7 | 40.2 |
| $\frac{14 . \text { FARVIEW DRIVE, DANESTONE }}{141}$ | Dwelling | 53.6 50.9 | 55.6 | ¢ 50.0 | -0.4 | Negligigie Adverse | 51.6 | ${ }_{0}^{1.7}$ | Negigigib Adverse | ${ }_{39.5}^{42.0}$ | ${ }_{40.3}^{43.8}$ | 40.5 |
| 143, FAIRVIEW DRIVE, DANESTONE | Dwelling |  | 52.0 | 51.0 | -0.4 | Negligible Beneficial | 52.0 |  | Negligible Adverse | 40.0 | 40.5 | 40.5 |
| 145, FAIRVIEW DRIVE, DANESTONE | Dwelling | 50.7 | 51.0 | 50.7 | 0.0 | No Change | 51.5 | 0.8 | Negligible Adverse | 39.4 | 39.6 | 40.1 |
| 147, FAIRVIEW DRIVE, DANESTONE | welling | 50.2 | 50.9 | 49.7 | -0.5 | Negligible Beneficial | 50.8 | 0.6 | Negligible Adverse | 38.9 | 39.5 | 39.5 |
| 149, FARVIEW DRIVE, DANESTONE | Owelling | 50.9 | 54.4 | 50.8 61.4 | 0.6 | Negigigioble Adverise | 51.6 63.5 | ${ }_{2.7}^{0.7}$ | Negligigile Adverse | 39.5 <br> 8.5 | 39.7 51.7 | 50.9 |
| 151, FAIRVIEW DRIVE, DANESTONE | Dwelling | 49.9 | 50.5 | 49.4 | -0.5 | Negligible Beneficial | 50.4 | 0.5 | Negligible Adverse | 38.6 | 39.2 | 39.1 |
|  | Dwelling | 50.8 54.9 | 50.8 55.1 | 50.7 54.6 | -0.1 -0.3 | $\frac{\text { Negligible Beneficial }}{\text { Negligible Beneficial }}$ | 51.5 55.6 | 0.7 0.7 | $\frac{\text { Negligible Adverse }}{\text { Negigible Adverse }}$ | 39.5 43.1 | 39.5 43.3 | 40.1 43.8 |
| 157, FAIRVIEW DRIVE, DANESTONE | Dwelling | 54.9 | 55.1 | 54.6 | -0.3 | Negligible Beneficial | 55.6 | 0.7 | Negligible Adverse | 43.1 | 43.3 | 43.8 |
| 159, FAIRVIEW DRIVE, DANESTONE | wwelling | 54.9 | 55.1 | 54.6 | -0.3 | Negligible Beneficial | 55.6 | 0.7 | Negligible Adverse | 43.1 | 43.3 | 43.8 |
| 16, FAIRVIEW DRIVE, DANESTONE | Owelling | 54.8 | 57.3 | 55.2 | 0.4 | Negligibe Adverse | 56.7 | 1.9 | Negigigible Adverse | 43.1 | 45.3 | 44.8 |
| 161, FAIRVIEW DRIVE, DANESTONE | Dweling | 54.9 54 5 | 55.1 55.1 | $\begin{array}{r}54.6 \\ 54.6 \\ \hline\end{array}$ | -0.3 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ | $\begin{array}{r}55.6 \\ 55 \\ \hline 5\end{array}$ | 0.7 | Negiligile Adverse | ${ }_{4}^{43.1}$ | ${ }^{43.3}$ | 43.8 |
| 165, FAIRVIEW DRIVE, DANESTONE | Dwelling | 54.9 | 55.1 | 54.6 | -0.3 | Negligible Beneficial | 55.6 | 0.7 | Negligible Adverse | 43.1 | 43.3 | 43.8 |
| 167, FAIRVIEW DRIVE, DANESTTONE | Deelling | 54.9 | 55.1 | 54.6 | -0.3 | Negligible Beneficical | 55.6 | 0.7 | Negiligibe Adverse | 43.1 | 43.3 | 43.8 |
| 169, FAIRVIEW DRIVE, DANESTONE |  | 54.9 | 55.1 |  | -0.3 | Negiligiole Beneficial | 55.6 | ${ }^{0.7}$ | Negiligile Aaverse | 43.1 | ${ }^{43.3}$ | 43.8 517 |
| 17. FAIRVIEW DRIVE, DANESTONE | Dweling | 62.0 54.9 | 65.3 55.1 | 62.3 54.6 | 0.3 -0.3 | Negigioble Adverse | 64.4 55.6 | 2.4 0.7 | Negiligile Adverse | 49.5 43.1 | 52.5 43.3 | 51.7 43.8 |
| 173, FAIRVIEW DRIVE, DANESTONE | veling | 54.9 | 55.1 | 54.6 | -0.3 | Negligible Beneficial | 55.6 | 0.7 | Negligible Adverse | 3.1 | 3.3 | 3.8 |
| 175, FAIRVIEW DRIVE, DANESTONE | Dwelling | 54.9 | 55.1 | 54.6 | -0.3 | Negligible Beneficial | 55.6 | 0.7 | Negligible Adverse | 43.1 | 43.3 | 43.8 |
| 177, FAIRVIEW DRIVE, DANESTONE | Dwelling | 54.9 | 55.1 | 54.6 | -0.3 | Negligible Beneficial | 55.6 | 0.7 | Negigioble Adverse | 43.1 | 43.3 | 43.8 |
| 179, FARIVVIEW DRIVE, DANESTONE | Dwelling | 55.1 55.0 | 54.9 57.6 | 55.4 | -0.4 | Negigigioble Adverise | 54.8 56.9 | 1.9 | Negligigile Adverse | ${ }^{42.4} 43.2$ | ${ }_{45.6}^{43.1}$ | ${ }_{4}^{43.9}$ |
| 181, FAIRVIEW DRIVE, DANESTONE | Dwelling | 54.1 | 54.9 | 53.6 | -0.5 | Negligible Beneficial | 54.8 | 0.7 | Negligible Adverse | 42.4 | 43.1 | 43.1 |
| 183, FAIRVIEW DRIVE, DANESTONE | Dwelling | 54.1 | 54.9 | 53.6 | -0.5 | Negligible Beneficial | 54.8 | 0.7 | Negiligile Adverse | 42.4 | 43.1 | 43.1 |
|  | Dwelling | 54.1 | 54.9 549 | ${ }_{53,6}^{536}$ | -0.5 | $\frac{\text { Negligible Benenicical }}{\text { Neglioibl }}$ Beneficial | 54.8 548 | 0.7 | $\frac{\text { Negigigle Adverse }}{\text { Nelilible Adverse }}$ | 42.4 | ${ }_{43.1}^{431}$ | 43.1 |
| 189, FARVVIEW DRIVE, DANESTONE | Dwelling | 54.1 | 54.9 | 53.6 | -0.5 | Negligible Beneficial | 54.8 | 0.7 | Negiligile Adverse | 42.4 | 43.1 | 43.1 |
| 19, FAIRVIEW DRIVE, DANESTONE | Dwelling | 58.8 | 61.8 | 59.0 | 0.2 | Negligible Adverse | 61.0 | 2.2 | Negigibile Adverse | 46.7 | 49.4 | 48.6 |
| 191, EARVVIEW DRIVE, DANESTONE | Dwelling | 54.1 54.1 | 54.9 54.9 | 53.6 53.6 | -0.5 <br> -0.5 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ Beneficial | 54.8 <br> 54.8 | 0.7 0.7 | $\frac{\text { Negligible Adverse }}{\text { Negligibe Adverse }}$ | 42.4 42.4 | 43.1 43.1 | 43.1 43.1 |
| 195, FARVVIEW DRIVE, DANESTONE | Dwelling | 54.1 | 54.9 | 53.6 | -0.5 | Negligible Beneficial | 54.8 | 0.7 | Negigigile Adverse | 42.4 | 43.1 | 43.1 |
| 197, EARVVIEW DRIVE, DANESTONE | Dwelling | 54.1 54.1 | 54.9 54.9 | 53.6 53.6 | -0.5 .0 .5 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ | 54.8 54.8 | ${ }_{0}^{0.7}$ | Negligible Adverse | $\frac{42.4}{42.4}$ | $\frac{43.1}{43.1}$ | $\frac{43.1}{43.1}$ |
| 2, FAARVIEW DRIVE, DANESTONE | Dwelling | 60.3 | 64.2 | 61.1 | 0.8 | Negligiole Adverse | 63.2 | 2.9 | Negligible Adverse | 48.0 | 51.5 | 50.6 |
| 20, FARRVEW DRIVE, DANESTONE | Dwelling | 56.4 | 59.8 | 57.0 | 0.6 | Negligible Adverse | 58.8 | 2.4 | Negligible Adverse | 44.5 | 47.6 | 46.7 |
| 201, FAIRVIEW DRIVE, DANESTONE | Oweling |  | 54.9 | 53.6 | -0.5 | Negligible Beneficial | 54.8 | 0.7 | Negigigibe Adverse | 42.4 | 43.1 | 43.1 |
| 205, FAIRVIEW DRIVE, DANESTONE | ${ }^{\text {Duelling }}$ | 56.9 | 58.0 | 55.7 <br> 5.7 | -1.2 | Minor Beneficicial | 57.3 | 0.4 | Neocioioibe Adverse | 44.9 | 45.9 | 45.3 |
| 207, FAIRVIEW DRIVE, DANESTONE | Dwelling | 56.9 | 58.0 | 55.7 | -1.2 | Minor Beneficial | 57.3 | 0.4 | Negligible Adverse | 44.9 | 45.9 | 45.3 |
| 209, FAIRVIEW DRIVE, DANESTONE | Dwelling | 56.9 | 58.0 | 55.7 | -1.2 | Minor Beneficial | 57.3 | 0.4 | Negligible Adverse | 44.9 | 45.9 | 45.3 |
| 21,FARVIEW DRIVE, DANESTONE | Dwelling | 58.3 56.9 | 661.1 58.0 | 58.5 55.7 | - $\begin{array}{r}\text { - } 1.2 \\ \hline\end{array}$ | $\frac{\text { Negigigile Adverse }}{\text { Minor Beneficial }}$ | 60.3 57.3 | ${ }_{0}^{2.0}$ | $\frac{\text { Negligible Adverse }}{\text { Nefligible Adverse }}$ | 46.2 44.9 | 48.7 45.9 | 48.0 45.3 |
| 213 , FAIRVIEW DRIVE, DANESTONE | Dwelling | 56.9 | 58.0 | 55.7 | -1.2 | Minor Beneficial | 57.3 | 0.4 | Negiligible Adverse | 44.9 | 45.9 | 45.3 |
| 215, FAIRVVEW DRIVE, DANESTONE | Dwelling | 56.9 | 58.0 | $\begin{array}{r}55.7 \\ 5 \\ 5 \\ \hline\end{array}$ | -1.2 | Minor Beneficial | 57.3 | 0.4 | Negligible Adverse | 44.9 | 45.9 | 45.3 |
| 217, FARVIEW DRIVE, DANESTONE | Dwelling | 56.9 56.9 | 58.0 58.0 | 55.7 55.7 | -1.2 | Minor Beneficial | $\stackrel{57.3}{57.3}$ | 0.4 0.4 | Negigible Adverse | 44.9 | ${ }_{45.9}^{45}$ | ${ }_{45.3}^{45.3}$ |
| 222, FARVVIEW DRIVE, DANESTONE | Dwelling | 56.7 | 60.0 | 57.3 | 0.6 | Negligible Adverse | 59.1 | 2.4 | Negigiole Adverse | 44.8 | 47.7 | 46.9 |

## Appendix A14．4：Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short－term Daytime Noise Change（dB） | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long－term Daytime Noise Change（dB） | Magnitude of Change | DM18 Lnight，outside | DM33 Lnight，outside | DS33 Lnight，outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 221，FAIRVIEW DRIVE，DANESTONE | Owelling | 56.9 | 58.0 | ${ }_{5}^{55.7}$ | －1．2 | Minor Beneficical | 57.3 | 0.4 | Negigigle Adverse | 44.9 | 45.9 | 45.3 |
| 223，FAIRVIEW DRIVE，DANESTONE | Dweling | 56．9 | $\begin{array}{r}58.0 \\ 580 \\ \hline\end{array}$ | 55.7 <br> 5.7 | $\frac{-1.2}{-12}$ | Minor Beneficical | 57.3 <br> 573 | 0.4 | Negligible Adverse | $\frac{44.9}{449}$ | 45.9 459 | $\frac{45.3}{453}$ |
| 222，FAIRVIEW DRIIVE，DANESTONE | Dwelling | 55.8 | 56.9 | ${ }_{54.7}$ | －1．1 | Minor Beneficicial | 56.2 | 0.4 | Neoligigie Avverse | 44.0 | 44.9 | $\stackrel{45.3}{44.3}$ |
| 229，FAIRVIEW DRIVE，DANESTONE | Dwelling | 55.8 | 56.9 | 54.7 | －1．1 | Minor Beneficial | 56.2 | 0.4 | Negiligile Adverse | 44.0 | 44.9 | 44.3 |
| 23，FAIRVIEW DRIVE，DANESTONE | Dwelling | 59.7 | 62.5 | 59.9 | 0.2 | Negigibile Adverse | 61.7 | 2.0 | Negligible Adverse | 47.5 | 50.0 | 49.3 |
| 231，FARTVIEW DRIVE，DANESTONE | Oweling | 55.8 | 56.9 | 54.7 | 1.1 | Minor Beneticial | 56.2 | 0.4 | Negligible Adverse | 44.0 | 44.9 | 44.3 |
| 233，FAIRVIEW DRIVE，DANESTONE | Deelling | 55.8 | 56.9 | 54.7 | －1．11 | Minor Beneficial | 56.2 | 0.4 | Negigigibe Adverse | 44.0 | 44.9 | $\frac{44.3}{443}$ |
| 237， 2 FAIRVIEW DRIVE，DANESTONE | ${ }^{\text {Duediling }}$ | ${ }_{55.8}^{55.8}$ | 56.9 | ${ }_{54.7}^{54.7}$ | ${ }_{-1.1}^{\text {－1．}}$ | Minoror Benenificial | ${ }_{56.2}^{56.2}$ | ${ }_{0}^{0.4}$ | Neogigiole Adversse | 44.0 | 44.9 | 44.3 |
| 239，FAIRVIEW DRIVE，DANESTONE | Dwelling | 55.8 | 56.9 | 54.7 | －1．1 | Minor Beneficial | 56.2 | 0.4 | Negigigile Adverse | 44.0 | 44.9 | 44.3 |
| 24，FAIFVIEW DRIVE，DANESTONE | welling | 55.3 | 58.6 | 55.9 | 0.6 | Negigioble Adverse | 57.6 | ${ }^{2.3}$ | Negiligible Adverse | 43.5 | 46.5 | 45.6 |
| 241，FAIRVIEW DRIVE，DANESTONE | welling | 55.8 | 56.9 | 54.7 | －1．1 | Minor Beneficial | 56.2 | 0.4 | Negigigile Adverse | 44.0 | 44.9 | 44.3 |
| 243，FARTVIEW DRIVE，DANESTONE | welling | 55.8 | 56.9 | 54.7 | －1．1 | Minor Beneficial | 56.2 | 0.4 | Negigigibe Adverse | 44.0 | 44.9 | 44.3 |
| 245，FAIRVVEW DRIVE，DANESTONE | Dwelling | 55.8 <br> 55.8 | 56．9 | 㐌54．7 | － $\begin{aligned} & -1.1 \\ & -1.1\end{aligned}$ | $\frac{\text { Minor Beneficial }}{\text { Minor Beneficial }}$ | ${ }_{56.2}^{56.2}$ | 0.4 0.4 | Negigiobie Adverse | 44．0 | 44.9 | ${ }_{44.3}^{44.3}$ |
| 249．FAIRVIEW DRIVE．DANESTONE | Welling | 55.8 | 56.9 | 54.7 | －1．1 | Minor Beneficicial | 56.2 | 0.4 | Negoligible Adverse | 44.0 | 44.9 | 44.3 |
| 25，FAIRVIEW DRIVE，DANES |  | 59.8 | 62.4 | 59.9 | 0.1 | Negigigile Adverse | 61.7 | 1.9 | Negligible Adverse | 47.6 | 9.9 | 49.3 |
| 26，FAIFVIEW DRIVE，DANESTONE | Dwelling | 56.0 | 59.4 | 56.6 | 0.6 | Negligible Adverse | 58.4 | 2.4 | Negigioble Adverse | 44.1 | 47.2 | 46.3 |
| 261，FARVIIEW DRIVE，DANESTONE | Oweling | 53.8 | 54.9 | 52.9 | －0．9 | Negligible Beneficial | 54.4 | 0.6 | Negigioble Adverse | 42.2 | 43.1 | 42.7 |
| 263，ARIVVEW RIVE，DANESTONE | Oweling | 53．3 | 54．4 | 52.4 529 | －0．9 | Negiligiole Beneificial | 年5．8 | 0.5 | Negligiole Aaverse | 41.7 | 42.7 | 42.2 |
| 26，FARMVEW DIIVE，DANESTONE | weling | 53.9 | 55.0 | 52．9 | －1．0 | Minor Beneitical | 54．4 | 0.5 | Negligible Aaverse | 42.2 | 43.2 | 42.7 |
| 267，FARVVIEW DRIVE，DANESTONE | Oweling | 53．6 | 54.8 | $\begin{array}{r}52.7 \\ 52.8 \\ \hline\end{array}$ | －0．9 | Negiligiole Beneficial | $\begin{array}{r}54.2 \\ 54.2 \\ \hline\end{array}$ | 0.6 | Negiligile Adverse | ${ }^{42.0}$ | ${ }^{43.1}$ | 42.5 |
| 26， 27. FARIVVIEW DRIVE，DANESTONE | Dwelling | ${ }^{53.1} 6$ | ${ }_{64.3}^{54.9}$ | ${ }^{52.8}$ | 0.1 | Neogigigiobe Beneicical Adverse | ${ }_{6}^{54.3}$ | ${ }_{1.7}^{0.6}$ | Negigigibe Adverse | ${ }_{48.6}^{48.1}$ | ${ }_{50.7}^{43.1}$ | $\stackrel{42.6}{50.2}$ |
| 271．FAIRVIEW DRIVE，DANESTONE | Dwelling | 53.8 | 55.1 | 52.9 | －0．9 | Negligible Beneficial | 54.5 | 0.7 | Negligible Adverse | 42.2 | 43.3 | 42.8 |
| 273，FAIRVIEW DRIVE，DANESTONE | Dwelling | 53.8 | 55.1 | 52.9 | －0．9 | Negligible Beneficial | 54.4 | 0.6 | Negigiolile Adverse | 42.2 | 43.3 | 42.7 |
| 275，FARVVIEW DRIVE，DANESTONE | welling | 52.9 | 54.2 | 52.0 | －0．9 | Negligible Beneficial | 53.5 | 0.6 | Negigigibe Adverse | 41.3 | 42.5 | 41.9 |
| 277，FAIRVIEW DRIVE，DANESTONE | welling | 52.6 | 54.0 | 51.7 | －0．9 | Negligible Beneficial | 53.3 | 0.7 | Negiligble Adverse | 41.1 | ${ }^{42.3}$ | 41.7 |
| 279，FARVVIEW DRIVE，DANESTONE | Deelling | 58．3 | 62.7 567 | 57.7 54.8 | －0．6 | $\frac{\text { Negligible Beneficial }}{\text { Nefiliolie Adverse }}$ | 60.8 56.1 | ${ }_{1}^{2.5}$ | Negigigibe Adverse | 46.2 | 50.2 | 48.5 |
| 29．FAIRVIIEW DRIVE，DANESTONE | Dwelling | 61.2 | 63.4 | 61.3 | 0.1 | Negligible Beneficial | 63.0 | 1.8 | Negaligible Adverse | 48.8 | 50.8 | 50.4 |
| 3，FAIRVIEW DRIVE，DANESTONE | welling | 53.1 | 55.4 | 55．3 | 0.2 | Negligible Adverse | 54.8 | 17 | Negiligibe Adverse | 41.5 | 43.6 | 43.1 |
| 30，FAIRVIEW DRIVE，DANESTONE | welling | 54.3 | 56.4 | 54.5 | 0.2 | Negiligibe Adverse |  | 1.5 |  | 42.6 | 44.5 |  |
| 31，FAIRVVIEW DRIVE，DANESTONE | welling |  | 63.9 |  | 0.0 | No Change | ¢3．6 | 1.6 | Negiligibe Adverse | 49.5 | 51.2 | 51.0 |
| 32，FAIRVIEW DRIVE，DANESTONE | weling |  |  | 50.6 |  | Negligiole Beneficial |  |  | Negigigie Adverse |  |  |  |
| 33，FAITVEW DRVE，DANESONE | Oweiling | 62.2 | 64.1 | 62.3 | 0.1 | Negligible Benenicial | 63.8 | 1.6 | Negiqigile Adverse | 49.7 | 51.4 | 51.2 |
| 34，FARVVIEW DRIVE，DANESTONE | Oweling | ${ }^{51.3}$ | ${ }^{52.4}$ | ${ }^{511.3}$ | 0.0 | No Change | 52．4 | 1.1 | Negigiole Adverse | －39．9 | 40．9 | 40．9 |
|  |  | －62．7 | 㐌 64.5 | 62．7 | 0.0 | No Change | ${ }_{6}^{64.1}$ | 1.4 | Negligiole Adverse | 50．2 | 51.8 | 51.4 |
| 36， 37 FARIRVVIVW DRIVE，DANESTONE | ${ }^{\text {Duelling }}$ | 51．0 62.7 | ${ }_{64.5}^{52.4}$ | 50.8 62.7 | 0.0 | Negligiole Beneitical | ${ }_{64.1}^{52.1}$ | ${ }_{1}^{1.4}$ | Negligioble Adverse | 39．2 | ${ }_{51.8}^{40.8}$ | 40．6 |
| 38，FAIFVIEW DRIVE，DANESTONE | Dwelling | 51.3 | 52.8 | 51.4 | 0.1 | Negigigile Adverse | 52.7 | 1.4 | Negligible Adverse | 39.9 | 41.3 | 41.2 |
| 39，FAIRVIEW DRIVE，DANESTONE | Dwelling | 62.7 | 64.5 | 62.7 | 0.0 | No Change | 64.1 | 1.4 | Negigigible Adverse | 50.2 | 51.8 | 51.4 |
| 4，FAARVIEW DRIVE，DANESTONE | Dwelling | 54.4 53.4 | 57.0 57.0 | 54.8 53.7 | 0.4 0.3 | $\frac{\text { Negigioble Adverse }}{\text { Negigiole Adverse }}$ | 56.4 55.7 | 2.0 2.3 | $\frac{\text { Negigioble Adverse }}{\text { Negigiole Adverse }}$ | $\frac{42.7}{41.8}$ | 45.0 45.0 | 44.5 43.9 |
| 41，FAIFVIEW DRIVE，DANESTONE | Dwelling | 62.7 | 64.5 | 62.7 | 0.0 | No Change | 64.1 | 1.4 | Negligible Adverse | 50.2 | 51.8 | 51.4 |
| 42，FAIRVIEW DRIVE，DANESTONE | Dwelling | 52.8 62.7 | 55.8 64.5 | 53.3 62.7 | 0.5 0.0 | Negiligile Adverse | 54.9 64.1 | 2.1 1.4 | $\frac{\text { Negiligib Adverse }}{\text { Negilible Adverse }}$ | 41.3 50.2 | 44.0 51.8 | 43.1 51.4 |
| 44, FAIRVIEW DRIVE，DANESTONE | Dwelling | 56.6 | 61.5 | 57.1 | 0.5 | Negigigile Adverse | 59.8 | 3.2 | Minor Adverse | 44.7 | 49.1 | 47.6 |
| 45，FAIRVIEW DRIVE，DANESTONE | Dwelling | 62.7 59.1 | 64.5 63.9 | 62.7 59.8 | 0.0 0.7 | No Nochange | 64.1 62.3 | $\frac{1.4}{3.2}$ | $\frac{\text { Negligible Adverse }}{\text { Minor Adverse }}$ | $\frac{50.2}{46.9}$ | 51．8 | 51.4 49.8 |
| 46， 47 FAIRVVIEW DRIVE，，AANESTONE | Dwelling | ${ }_{62.7}^{59.7}$ | ${ }_{64.5}^{64.5}$ | ${ }_{62.7}^{59.7}$ | 0.0 | Negigige Acaverse | ${ }_{64.1}^{64.3}$ | ${ }_{1}^{1.4}$ | Neoligiole Adverse | ${ }_{50.2}^{46.9}$ | ${ }_{51.8}^{51.2}$ | ${ }_{51.4}^{49.8}$ |
| 48，FAIRVIEW DRIVE，DANESTONE | Dwelling | 56.5 | 61.3 | 56.9 | 0.4 | Negigiole Adverse | 59.6 | 3.1 | Minor Adverse | 44.6 | 48.9 | 47.4 |
| 49，FAIRVIUW DRIVE，DANESTONE | Dweling |  | 64.5 |  | 0.0 | No Change |  |  | Negligilie Aaverse | 50.2 | 51.8 | 51.4 |
| 5，FARMEW DREE，DANESTONE | Oweiling | 51.6 | 53.4 | 51.7 | 0.1 | Negiqigile Adverse | 53.1 | 1.4 | Negigigile Adverse | 40.2 | 41.8 |  |
| 51，FAIRVVIEW DRIVE，DANESTONE | Dwelling | ${ }_{62.7}$ | $\frac{64.5}{}$ | ${ }^{55.7}$ | 0.0 | Negigibe Avverse | ${ }_{64.1}$ | ${ }_{1}^{1.4}$ | Neoligible Adverse | 50.2 | ${ }_{51.8}$ | $\frac{40.4}{51.4}$ |
| 52 ，FAIVVIEW DRIVE，DANESTONE | Deelling | 51.3 | 53.1 | 51.0 | －0．3 | Negligible Beneficial | 52.5 | 1.2 | Negigiolie Adverse | 39.9 | 41.5 | 41.0 |
| 53，FAIVVIEW DRIVE，DANESTONE | Dwelling | 62.7 | 64.5 | 62.7 | 0.0 | No Change | 64.1 | 1.4 | Negligible Adverse | 50.2 | 51.8 | 51.4 |
| 54，FAARVIEW DRIVE，DANESTONE | Dwelling | 50.6 62.7 | ${ }^{52.8}$ | 50.5 62.7 | -0.1 0.0 | $\frac{\text { Negligible Beneiticial }}{\text { No }}$ | 52．1 | 1.5 1.4 | $\frac{\text { Negigible Adverse }}{\text { Neoligible Adverse }}$ | 39.3 50.2 | ${ }^{41.3}$ | ${ }^{40.6} 5$ |
| 56，FAIRVIEW DRIVE，DANESTONE | Dwelling | 54.2 | 58.3 | 54.5 | 0.3 | Negligibe Adverse | 56.9 | 2.7 | Negigioble Adverse | 42.5 | 46.2 | 44.9 |
| － 57, FARVVIEW DRIVE，DANESTONE | Dwelling | 62.7 55.5 | 64.5 59.8 | 62.7 55.5 | ${ }_{0}^{0.0}$ | $\frac{\text { No Change }}{\text { No Change }}$ | 64.1 58.1 | 1.4 2.6 | $\frac{\text { Negigigie Adverse }}{\text { Negigiole Adverse }}$ | 50.2 43.7 | $\stackrel{51.8}{47.6}$ | 51.4 46.0 |
| 59，FAIFVIEW DRIVE，DANESTONE | Dwelling | 66.3 | 67.3 | 66.2 | －0．1 | Negligible Beneficial | 67.2 | 0.9 | Negiligile Adverse | 53.4 | 54.3 | 54.2 |
|  | Dwelling | ${ }_{66.3}$ | ${ }^{54.3}$ | 52．4 | －0．1 | Negligible Aenerificial | － 63.8 | ${ }_{0}^{1.5}$ | $\frac{\text { Negligibe Adverse }}{\text { Neligible Adverse }}$ | ${ }_{50}^{40.4}$ | ${ }_{54.3}^{42.4}$ | $\stackrel{42.2}{54.2}$ |
| 63，FAIRVIEW DRIVE，DANESTONE | Dwelling | 66.3 | 67.3 | 66.2 | 0.1 | Negligible Beneficial | 67.2 | 0.9 | Negiligile Adverse | 53.4 | 4.3 | 54.2 |
| 65，FAIRVIEW DRIVE，DANESTONE | Deelling | 66.3 | 67.3 | 66.2 | －0．1 | Negligible Beneficial | 67.2 | 0.9 | Negigigile Adverse | 53.4 | 54.3 | 54.2 |
| 67，FAIRVIEW DRIVE，DANESTONE | Oweiling | 66.3 | 67.3 | ${ }_{66.2}^{662}$ | ${ }^{-0.1}$ | Negiligiole Beneficial | 67.2 | 0.9 | Negiligile Adverse |  | ${ }_{54,3}^{54}$ | 54．2 |
| 7，FAIRVIEW DRIVE，DANESTONE | Dwelling | ${ }_{52.2}$ | ${ }_{53.2}$ | ${ }_{52.1}$ | ${ }_{-0.1}$ | Negiligible Benenificial | ${ }_{53.2}$ | 1.0 | Neogigigie Adversse | ${ }^{50.7}$ | ${ }_{41.6}$ | ${ }_{4}^{54.6}$ |
| 71，FAIFVIEW DRIVE，DANESTONE | Dwelling | 66.3 | 67.3 | 66.2 | －0．1 | Negligible Beneficial | 67.2 | 0.9 | Negiligile Adverse | 53.4 | 54.3 | 54.2 |
| 73，FAARVIEW DRIVE，DANESTONE | Deeling | 66.3 | 67.3 | 66.2 | －0．1 | Negligible Beneficial | 67.2 | 0.9 | Negigigile Adverse | 53.4 | 54.3 | 54.2 |
| 75，FAIRVILEW DRIVE，DANESTONE | Dwelling | ${ }_{66.3}^{66.3}$ | ${ }_{67.3}^{67.3}$ | 66．2 | －0．1 | Negegigigibe Beneneficicial | ${ }^{67.2}$ | 0.9 | Negigigible Adverse | 53．4 | ${ }_{54.3}^{54.3}$ | $\begin{array}{r}\text { 54．2 } \\ 54.2 \\ \hline\end{array}$ |
| 79，FAIRVIVW DRIVE，DANESTONE | Dweling | －66．3 | 67.3 528 | 66.2 514 | －0．1 | Negligible Beneficial | 67.2 527 | 0.9 | Negligile Adverse | 53.4 397 | 54.3 4.3 | 54.2 4.2 |
|  | ${ }^{\text {Dwelilig }}$ Doeling | 56．3 | 52.8 67.3 | S66．4 | －0．1 | Negligiole Eenefificial | 52.7 67.2 | ${ }_{0} .9$ | Negigigible Avverse | 53.4 | $\frac{44.3}{}$ | $\frac{44.2}{54.2}$ |
| 83，FAARVIEW DRRIV，DANESTONE | Dewling | 56．0 | ${ }_{56.6}^{56}$ | 56.0 | 0.0 | No Change | 56．9 | 0.9 | Negiligile Adverse | 44.1 | 44.7 | $\frac{44.9}{45}$ |
| 85，FAIRVIEW DRIVE，DANESTONE | Dwelling | 56.5 57.1 | 56.7 57.6 | 㐌57．4 | -0.1 -0.1 | $\frac{\text { Negligiole Beneficial }}{\text { Negligible Beneficial }}$ | 57.2 57.9 | ${ }_{0}^{0.7}$ | Negigiole Adverse | ${ }_{4}^{44.6}$ | ${ }_{45.8}^{4.6}$ | ${ }_{45.2}^{45}$ |
| 89，FAIRVIEW DRIVE，DANESTONE | Dwelling | 51.4 | 51.9 | 51.4 | 0.0 | No Change | 52.2 | 0.8 | Negiligile Adverse | 40.0 | 40.4 | 40.7 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 <br> Lnight,outside | DM33 Lnight,outside | $\begin{gathered} \text { DS33 } \\ \text { Lnight,outside } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 9, FARTVIEW DRIVE, DANESTONE | Dwelling | 53.2 | 54.6 | 53.4 | 0.2 | Negigigile Adverse | 54.6 | 1.4 | Negigigle Adverse | 41.6 | 42.9 | 42.9 |
| 91, FAIRVIEW DRIVE, DANESTONE | Dwelling | 56.3 | 56.9 | 56.3 | 0.0 | No Change | $\begin{array}{r}57.1 \\ 525 \\ \hline\end{array}$ | 0.8 | Negiligile Adverse | $\frac{44.4}{402}$ | 44.9 | $\frac{45.1}{410}$ |
| 93, FARMVI DRIVE, DANESTONE | Owwiling | ${ }_{52.6}$ | ${ }_{\text {52. }}^{53.3}$ | $\stackrel{51.6}{52.5}$ | -0.1 | Negligibile Eeneneficial | ${ }_{5}^{52.5}$ | 0.9 | $\frac{\text { Negiligibe Adverse }}{\text { Negligile Adverse }}$ | ${ }_{41.1}^{40.1}$ | 41.7 | $\stackrel{41.0}{41.9}$ |
| 97, FAIRVIEW DRIVE, DANESTONE | Dwelling | ${ }_{\text {52.4 }}$ | ${ }_{53.3}^{55.3}$ | 52.4 | 0.0 | No Change | ${ }_{53.5}^{55.5}$ | ${ }_{1}^{1.1}$ | Negigigible Adverse | 40.9 | 41.7 | 41.9 |
| 99, FAIRVVEW DRIVE, DANESTONE | Dwelling | 51.4 | 52.6 | 51.4 | 0.0 | No Change | 52.6 | 1.2 | Negigigile Adverse | 40.0 | 41.1 | 41.1 |
| 1, FAIRVVIEW GARDENS, DANESTONE | Dwelling | 52.3 | 51.4 | 52.2 | -0.1 | Negligible Beneficial | 52.9 | 0.6 | Negiligile Adverse | 40.8 | 40.0 | 41.3 |
| 10, FAIRVVIEW GARDENS, DANESTONE | Dwelling | 59.2 | 57.5 | 59.2 | 0.0 | No Change | 59.8 | 0.6 | Negigiole Adverse | 47.0 | 45.5 | 47.6 |
| 11, FAIRVVEW GARDENS, DANESTONE | Welling | 57.5 | 55.8 | 57.4 | -0.1 | Negligible Beneficial | 58.1 | 0.6 | Negiligibe Adverse | 45.5 | 44.0 | 46.0 |
| 12, FAIRVIVW GARDENS, DANESTONE | Welling | 61.0 | 59.3 | 61.0 | 0.0 | No Change | ${ }_{61.7}^{619}$ | 0.7 | Negigigibe Adverse | 48.6 | 47.1 | ${ }_{4}^{49.3}$ |
| I4, 14. | Owelling | 67.3 57.7 | ${ }_{59.1}^{59.6}$ | 67.3 57.7 | 0.0 | ${ }^{\text {No Co Change }}$ | ${ }_{58.3}^{66.9}$ | 0.6 | Negligioble Adverse | ${ }_{45.7}^{48.9}$ | $\stackrel{44.4}{44.2}$ | $\stackrel{49.4}{46.2}$ |
| 16, FAIRVIEW GARDENS, DANESTONE | Welling | 61.2 | 59.5 | 61.1 | -0.1 | Negligible Beneficial | 61.9 | 0.7 | Negigigile Adverse | 48.8 | 47.3 | 49.4 |
| 17, FAIRVIVW GARDENS, DANESTONE | welling | 59.2 | 57.6 | 59.2 | 0.0 | No Change | 59.8 | 0.6 | Negigioble Adverse | 47.0 | 45.6 | 47.6 |
| 18, FAIRVVW GARDENS, DANESTONE |  | 61.1 | 59.4 | 61.0 | 0.1 | Negligible Benefitical | 61.7 | 0.6 | Negiligiole Adverse | 48.7 | 47.2 |  |
| 19, FARRVIEW GARDENS, DANESTONE | Dwelling | 60.2 58.1 | 58.5 56.5 | 60.1 58.1 | -0.1 0.0 | Negligible Beneficial | 60.7 58.8 | 0.5 0.7 | Negligile Adverse | 47.9 46.0 | $\stackrel{46.4}{44.6}$ | 48.4 46.7 |
| 20, FAIRVIEW GARDENS, DANESTONE | Dwelling | 60.7 | 59.0 | 60.7 | 0.0 | No Change | 61.4 | 0.7 | Negligible Adverse | 48.4 | 46.8 | 49.0 |
| 21, FAIRVVIEW GARDENS, DANESTONE | Deelling | 62.9 | 61.2 | 62.8 | 0.1 | Negligible Beneficial | 63.4 |  | Negligible Adverse | 50.3 | 48.8 | 50.8 |
| 23, FAIRVIVW GARDENS, DANESTONE | Welling | 62.4 | 60.7 6.5 | 62.3 | -0.1 | Negligible Beneficial | 62.9 | 0.5 | Negiligibe Adverse | 49.9 56 | 48.4 5.6 | 50.3 557 |
| 25, FARVIU GARDENS, DANESTONE | Oweling | ${ }_{7}^{68.3}$ | ${ }_{66.5}^{66.5}$ | ${ }^{68.2}$ | -0.1 | Negligible Beneitical | ${ }^{68,8}$ | 0.5 | Negigigle Adverse | ${ }_{56.9}$ | 53.6 | 55.7 |
| 29, FAIRVIEW GARDENS, DANESTONE | Dwelling | 71.5 | 69.9 | 71.5 | 0.0 | No Change | 72.2 | 0.7 | Negigiolie Adverse | 58.1 | 56.6 | 58.7 |
| 3, FAIRVIEW GARDENS, DANESTONE | Dwelling | 52.2 | 51.3 | 52.0 | -0.2 | Negligible Beneficial | 52.7 | 0.5 | Neoligiole Adverse | 40.7 | 39.9 | 41.2 |
| 331, FARVVIVW GARDENS, DANESTONE | Owelling | 71.6 71.5 | 69.9 | 71.6 71.4 | 0.0 -0.1 | Neglicibile Eenaneficial | $\frac{72.3}{72.1}$ | 0.7 0.6 | Negigigle Adverse | 58.2 58.1 | $\stackrel{56.6}{56.6}$ | 58.8 58.6 |
| 35, FAIRVIIW GARDENS, DANESTONE | Dweling | 71.5 | 69.8 | 71.5 | 0.0 | No Change | 72.1 | 0.6 | Negigigile Adverse | 58.1 | 56.6 | 58.6 |
| 337, FARRVVW GARDENS, DAAESTONE | Owelling | 70.7 70.5 | 69.1 68.8 | 70.7 70.5 | 0.0 | $\frac{\text { No Change }}{\text { No Change }}$ | 71.4 71.2 | 0.7 | Negligile Adverse | 57.4 57.2 | 55.9 55.7 | 58.0 57.8 |
| 4, FAIRVIEW GARDENS, DANESTONE | welling | 57.7 | 56.0 | 57.7 | 0.0 | No Change | 58.4 | 0.7 | Negiligile Adverse | 45.7 | 44.1 | 46.3 |
| 41, FARVVIVW GARDENS, DANESTONE | Owelling | 69.3 | 67.6 514 | ${ }_{69.2}^{69}$ | -0.1 | $\frac{\text { Negligible Benentical }}{\text { Neglioibl }}$ Benoficial | 69.9 53.0 | ${ }_{0}^{0.6}$ | Negligible Adverse | 56.1 409 | 54.6 40 | 56.6 414 |
| 6 6, FAIRVIEW GARDENS, DANESTONE | Dwelling | 58.2 | 56.6 | 58.2 | 0.0 | No Change | 58.9 | 0.7 | Neoligiole Adverse |  | 44.7 | 46.7 |
| 7, FAIRVIEW GARDENS, DANESTONE | ing | 52.3 | 51.2 | 52.2 | -0.1 | Negligible Beneficial | 52.8 | 0.5 | Negigioble Adverse |  | 39.8 | 41.3 |
| 8, ARARVIEW GAADENS, DANESTONE | welling |  | 56.4 | 58.1 | 0.0 | No Change |  |  |  | 46.0 |  |  |
| 9, FAIRVIEW GARDENS, DANESTONE | 粗eling | 52.6 59.9 |  | 52.6 | 0.0 | Noc Cange | 53.2 | 0.6 | Negigigile Adverse |  |  | 1.6 |
| 1, PARMEW GRANGE, DANESTONE | Oweling | 58.9 | 58.8 | 58.8 | -0. 1 | Nogligible Beneitical | 59.0 | 0.1 | Negigiole Adverse | 46.7 | 4.7 | 4.8 |
| 10, FARTVUW GRANGE, DANESTONE | weling | 56.0 | 53.9 | 56.0 | 0.0 | No Change | 56.3 | 0.3 | Negligigie Adverse | 44.1 | 42.2 | 44.4 |
| 12, FAIRVIEW GRANGE, DANESTONE | Owwiling | 67.4 | 59.6 | $\stackrel{57.3}{62.3}$ | -0.1 | ${ }_{\text {Negaligiole e Beneitical }}$ | 㐌7.38 | ${ }_{-0.1}^{-0.1}$ |  | 49.9 | 47.4 | $\stackrel{45.3}{49}$ |
| 14, FAIRVIIEW GRANGE, DANESTONE | Owelling | 57.8 | 56.6 | 57.5 | -0.3 | Negligible Benenicial | 57.5 | -0.3 | Negligible Benenicial | 45.8 | 44.7 | 45.5 |
| 15, FAIRVVIEW GRANGE, DANESTONE | Pwelling | 61.7 | 59.2 | 61.7 | 0.0 | No Change | 61.4 | -0.3 | Negligible Beneficial | 49.3 | 47.0 | 49.0 |
| 16, 17 , FARVVIVW GRANGE, DANESTONE | Owelling | 63.5 64.5 | 60.5 61.5 | 63.4 64.4 | -0.1 -0.1 | Negogioigiole Benenticical | 634.4 | -0.1 | $\frac{\text { Negigigle Beneficial }}{\text { No Chane }}$ | $\stackrel{50.9}{51.8}$ | 48.2 49.1 | 50.8 <br> 51.8 |
| 18, FAIRVVIEW GRANGE, DANESTTONE | Owelling | 71.6 | 68.5 | 71.5 | -0.1 | Negligible Beneficial | 70.9 | 0.7 | Negligible Beneficical | 58.2 | 55.4 | 57.5 |
| 19, FAIRVVEW GRANGE, DANESTONE | Owwling | 71.1 56.4 | 68.0 56.0 | 71.0 56.2 | -0.1 -0.2 | $\frac{\text { Negligible Beneficial }}{\text { Negligibl }}$ | 70.2 56.4 | -0.9 | Negligible Beneticial | 57.7 44.5 | 54.9 44.1 | 56.9 |
| 20, FAIRVVIEW GRANGE, DANESTONE | Dwelling | 66.2 | 63.3 | 66.1 | -0.1 | Negligible Beneficial | 65.2 | -1.0 | Negligible Beneficial | 53.3 | 50.7 | 52.4 |
| 21, FARRVIVW GRANGE, DANESTONE | Dwelling | 62.7 58.2 | 60.0 55.9 | 62.7 58.0 | 0.0 <br> 0.2 | $\xrightarrow{\text { Nogo Change }}$ | 61.8 57.6 | -0.9 -0.6 | $\frac{\text { Negligible Benentical }}{\text { Neglioble }}$ | 50.2 46.1 | 47.7 44.0 | 49.4 45.6 |
| 23, FAIRVIVW GRANGE, DANESTONE | Deweling | 55.5 | ${ }_{54,2}^{54.2}$ | ${ }_{57}^{55.3}$ | -0.2 | Negligible Benenificial | 55.2 | -0.3 | Negligible Benenificial | 43.7 | 42.5 | 43.4 |
| 24, FARVVIVW GRANGE, DANESTONE | Oweling | 57.8 62.8 | $\stackrel{55.7}{59.9}$ | 57.6 62.7 | -0.2 -0.1 | $\xrightarrow{\text { Negligible Beneficial }}$ Neglioibl Beneficial | 57.3 61.7 | - | $\frac{\text { Negligible Beneficical }}{\text { Negifiolie }}$ | 45.8 50.3 | 43.9 47.6 | 45.3 49 |
| 26, FAIRVIIEW GRANGE, DANESTONE | Owelling | 66.5 | 63.5 | 66.4 | -0.1 | Negligible Beneficial | 65.3 | -1.2 | Negligible Benenicial | 53.6 | 50.9 | 52.5 |
| 27, FAIRVVIEW GRANGE, DANESTONE | Oweling | 72.9 | 69.9 | 72.8 | -0.1 | Negligible Beneficial | 71.8 | -1.1 | Negligible Beneficial | 59.3 | 56.6 | 58.4 |
| 28, FAARVIVW GRANGE, DANESTTONE | Owwelling | 73.4 75.2 | 70.4 72.2 | 75.3 75.1 | -0.1 -0.1 | Negiligibe Beneiticial | 72.3 74.1 | -1.1 | Negiligiole Benenitical | 59.8 <br> 61.4 | 57.7 58.7 | 58.8 60.4 |
| 3, FAIRVIEW GRANGE, DANESTONE | Dwelling | 56.4 | 55.6 | 56.2 | -0.2 | Negligible Beneficial | 56.3 | -0.1 | Negligible Beneficial | 44.5 | 43.8 | 44.4 |
| 30, FARVVIVW GRANGE, DANESTONE | Dwelling | 65.5 624 | 63.9 6.15 | 65.4 6.23 | -0.1 | Negligible Beneficial | 65.1 625 | -0.4 | Negligible Beneficial | 52.7 499 | 51.2 491 | 52.3 |
|  | Dwelling | 62.4 60.0 | 67.5 57 | 62.3 59.9 | -0.1 | Negiligiole Beneitical | 62.5 59.1 | -0.9 | Negiligible Eenefificial | ${ }^{49.7}$ | 45.5 | 50.9 46.9 |
| 33, FAIRVVIEW GRANGE, DANESTONE | Dwelling | 57.7 | 57.6 | 57.5 | -0.2 | Negligible Beneficial | 58.0 | 0.3 | Negligible Adverse | 45.7 | 45.6 | 45.9 |
| 34, FARVVIVW GRANGE, DANESTONE | Dwelling | 58.6 57.2 | 58.2 55.1 | 58.4 57.1 | -0.2 -0.1 | $\frac{\text { Negligible Benenicial }}{\text { Neglioibl }}$ Beneficial | 58.8 56.6 | 0.2 | Neogioible Adverse | ${ }_{45.5}^{46.2}$ | ${ }_{43.1}^{46.1}$ | ${ }_{46}^{46.7}$ |
| 36, FAIRVIIEW GRANGE, DANESTONE | Dwelling | 55.5 | 53.0 | 55.5 | 0.0 | No Change | 55.1 | -0.4 | Negligible Beneficial | 43.7 | 41.4 | 43.3 |
| 37, FAIPVIEW GRANGE, DANESTONE | Pwelling | 59.4 | 58.7 | 59.2 | -0.2 | Negligible Beneficial | 59.5 | 0.1 | Negligible Adverse | 47.2 | 46.6 | 47.3 |
| 4, FARRVIVW GRANGE, DANESTONE | Oweling | 56.6 | 55.3 | 56.4 | 0.2 | Negigibile Beneficial | 56.4 | -0.2 | Negigigibe Beneficial | 44.7 | 43.5 | 44.5 |
| 5. FARTVVW GRANGE, DANESTONE | Oweiling | 59.3 | 57.8 56.1 | 59.2 56.1 | $\stackrel{-0.1}{-0.3}$ |  | $\stackrel{59.0}{56.6}$ | -0.3 | $\frac{\text { Negligible Beneficial }}{\text { Negligible Adverse }}$ | 47.15 | $\frac{45.8}{44.2}$ | $\frac{46.8}{44.7}$ |
| 7, FAIRVIEW GRANGE, DANESTONE | Dwelling | 56.1 | 55.9 | 55.9 | ${ }^{0.2}$ | Negligible Beneficial | 56.4 | 0.3 | Negligible Adverse | 44.2 | 44.0 | 44.5 |
| 8, FARVVIUW GRANGE, DANESTONE | Oweling | 55.6 | 54.8 | ${ }_{55.3}^{5}$ | -0.3 | Negiligile Benenitical | ${ }_{55.8}^{5}$ | 0.2 | Negigigile Adverse | 43.8 | 43.1 | 44.0 |
| 9 9, FAIRVIEW GROVE | Owwelling | ${ }_{53.9}^{54.9}$ | ${ }_{53.5}^{53.5}$ | ${ }_{53,8}^{54.4}$ | -0.1 | Negegligiole Beneneicial | ${ }_{54.5}^{54.5}$ | 0.3 | Neotigigio Adverse | 42.8 | 41.4 | 428 |
| 10, FAIRVVIEW GROVE | Dwelling | 56.1 | 54.4 | 56.0 | -0.1 | Negligible Beneficial | 56.9 | 0.8 | Negigiole Adverse | 44.2 | 42.7 | 44.9 |
| 11, FAIRVIEW GROVE | Dwelling | 52.0 | 51.3 | 51.9 | -0.1 | Negligible Beneficial | 52.6 | 0.6 | Negiligile Adverse | 40.5 | 39.9 | 41.1 |
| I2, 14. , FAIRVVVIEW GROVE | ${ }^{\text {Owwelling }}$ Diling | 51.5 51.7 | 50.9 | 51.4 | -0.1 -0.1 | Negiligile Beneiticial | 52.2 52.4 | ${ }_{0.7}^{0.7}$ | Negigible Adverse | ${ }_{40.3}^{40.1}$ | 39.5 39.7 | 40.9 |
| 15, FAIRVIVW GROVE | Dwelling | 51.9 | 51.3 | 51.8 | ${ }^{-0.1}$ | Negliable Beneficial | 52.6. | 0.7 | Negligible Adverse | 40.4 4.4 | 39.9 | $\frac{41.1}{412}$ |
| 2, 2, FAARVIEW GROVE | Owelling | 55.2 55.1 | 53.8 53.6 | 55.1 55.1 | -0.0 | Negligibe Beneitical | ${ }_{56.1}^{56.1}$ | 1.0 | Negligibe Adverse | $\stackrel{43.4}{43.3}$ | 42.2 | 44.2 |
| 4, FAIRVIEW GROVE | Oweling | ${ }_{55.6}^{55}$ | ${ }_{54.1}^{54}$ | 55.5 | -0.1 | Negligible Beneficical | 56.6 | 1.0 | Negigigile Adverse | 43.8 | 42.4 | 44.7 |
|  | Owwelling | ${ }_{57.7}^{55.7}$ | 55.9 | ${ }_{57.6}$ | $\xrightarrow{-0.1}$ | $\xrightarrow{\text { Negegligiole Beneilicial }}$ | ${ }_{58.7}$ | 1.0 | Negigigile Adverse | 45.7 | 44.0 | $\stackrel{44.6}{46.6}$ |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 <br> Lnight,outside | DM33 Lnight,outside | DS33 Lnight,outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 7, FAIRVIEW GROVE | Dwelling | 56.8 | 55.0 | 56.7 | -0.1 | Negligible Beneficial | 57.7 | 0.9 | Negigigible Adverse | 44.9 | 43.2 | 45.7 |
| 8, FAIRVIEW GROVE | Oweling | 56.7 | 54.9 | 56.7 | 0.0 | No Change | 57.5 | 0.8 | Negligible Adverse | 44.8 | 43.1 | 45.5 |
| 9, FAIVVIEW GROVE | Dwelling | 56.2 | 54.5 | 56.2 | 0.0 | No Change | 57.1 | 0.9 | Negiligibe Adverse | 44.3 | 42.8 | 45.1 |
| 1, FARAVIEW MANOR, DANESTONE | Oweling | 57.4 559 | 61.5 <br> 9 | 56.7 | -0.7 | Negligible Beneficical | 59.7 | ${ }_{2}^{2.3}$ | Negigigle Adverse | 45.4 | ${ }_{49}^{49.1}$ | 47.5 |
| 10, FAIPVIEW MANOR, DANESTONE | Deeling | ${ }_{55.9}$ | 59.9 | 56.0 | 0.1 | Negligible Adverse | 58.4 | 2.5 | Negigigibe Adverse | 44.0 | 47.6 | 46.3 |
| 101, FAIRVVW M M ANOR, DANEETONE | Delling | 53.4 | 55.6 | 55.7 | 0.3 | Negigigibe Adverse | 55.0 | 1.6 | Negligible Adverse | 41.8 | 43.8 | 43.2 |
| 103, FAIRVVIEW MANOR, DANESTONE | Dwelling | 56.0 | 59.2 | 55.6 | 0.6 | Negigioble Adverse | 58.3 | 2.3 | Negligible Adverse | 44.1 | 47.0 | 46.2 |
| 105, FAIRVVIEW MANOR, DANESTONE | Dwelling | 57.5 | 61.0 | 58.1 | 0.6 | Negiligile Adverse | 60.0 | 2.5 | Negilibile Adverse | 45.5 | 48.6 | 47.7 |
| 107, FAIRVVIEW MANOR, DANESTONE | Dwelling | 56.7 | 60.3 | 57.3 | 0.6 | Negiligibe Adverse | 59.2 | 2.5 | Negiligibe Adverse | 44.8 | 48.0 | 47.0 |
| 109, FAIRVVIEW MANOR, DANESTONE | Deelling | 55.9 | 58.4 | 56.5 | 0.6 | Negigigile Adverse | 57.6 | 1.7 | Negiligibe Adverse | 44.0 | 46.3 | 45.6 |
| 11, FAIRVIEW MANOR, DANESTONE | Delling | 55.8 | 57.9 | 54.7 | -1.1 | Minor Beneficical | 56.8 | 1.0 | Negigigible Adverse | 44.0 | 45.8 | 44.9 |
| T1, FAARVIEW MANOR, DANESTONE | Dwelling | 58.4 56.0 | 62.4 60.1 | $\stackrel{59.0}{56.2}$ | 0.6 | Negilibib Adverse | $\stackrel{61.0}{58.6}$ | ${ }_{2}^{2.6}$ | Negigible Adverse | 46.3 44.1 | 49.9 47.8 | 48.6 |
| 14, FAIRVIEW MANOR, DANESTONE | Dwelling | 55.9 | 60.0 | 56.1 | 0.2 | Negligible Adverse | 58.5 | 2.6 | Negligible Adverse | 44.0 | 47.7 | 46.4 |
| 15, FAlRVIEW MANOR, DANESTONE | Dwelling | 54.8 52.1 | 56.7 54.9 | 53.9 52.2 | -0.9 0.1 | Negiligile Beneficial | 55.7 53.9 | 0.9 1.8 | Negiligile Adverse Nefigiole Adverse | 43.1 40.6 | 44.8 43.1 | 43.9 42.2 |
| 17, FAIRVIEW MANOR, DANESTONE | Dwelling | 51.7 | 53.0 | 51.1 | -0.6 | Negligible Beneficial | 52.5 | 0.8 | Negigigibe Adverse | 40.3 | 41.4 | 41.0 |
| 18 , FAIR VIEW MANOR, DANESTONE | Dwelling | 48.6 | 49.8 | 48.5 | -0.1 | Negligible Benenicial | 49.6 | 1.0 | Negligible Adverse | 37.5 | 38.6 | 38.4 |
| 19, FAIRVIEW MANOR, DANESTONE | Deelling | 52.5 | 53.6 | 51.7 | -0.8 | Negligible Beneficical | 53.1 | 0.6 | Negigioble Adverse | 41.0 | 42.0 | 41.5 |
| 2, FARVVIEW MANOR, DANESTONE | Dweling | 57.7 | 62.1 | 57.6 | -0.1 | Negligible Beneficial | 60.3 | 2.6 | Negigioble Adverse | 45.7 | 49.6 | 48.0 |
| 20, FAIRVIEW MANOR, DANESTONE | Dwelling | 50.2 | $\frac{51.3}{51.3}$ | 50.0 | -0.2 | Negligible Beneficial | 51.1 51.4 | 0.9 | Negiligile Adverse | 38.9 3.4 | 39.9 40.4 | 39.7 40 |
| 21, FAIRVIEW MANOR, DANESTONE | Dewling | 50.7 | 51.8 | 50.2 | -0.5 | Negligible Beneficical | 51.4 | 0.7 | Negigigibe Adverse | 39.4 377 | 40.4 | 40.0 |
| 22, FAIRVIEW MANOR, DANESTONE | Delling | 48.9 | 49.9 | ${ }_{58.6}$ | -0.3 | Negligible Beneficicial | 49.7 | 0.8 | Negigigibe Adverse | 37.7 | 38.6 | 38.5 |
| 23, FAIRVIEW MANOR, DANESTONE | Delling | 52.3 | 53.4 | 51.8 <br> 4 | -0.5 | Negligible Benefitical | 53.1 | 0.8 | Negigigle Adverse | ${ }_{37}^{40.8}$ | 41.8 387 | 41.5 |
| 24, FAIRVIEW MANOR, DANESTONE | Deelling | 49.0 | 50.0 | 48.8 | -0.2 | Negligible Benefitical | 49.9 | 0.9 | Negigiglie Adverse | 37.8 | 38.7 | 38.6 |
| 25, FAIRVIEW MANOR, DANESTONE | Dewling | 54.0 | 56.0 | 53.1 | -0.9 | Negligible Beneficical | 55.0 | 1.0 | Negaligibe Adverse | 42.3 | $\stackrel{44.1}{39}$ | 43.2 39 |
| 26, FAIRVIEW MANOR, DANESTONE | Dwelling | 50.3 545 | 51.2 570 | 49.8 53.4 | -0.5 .11 | Negligible Benenitial | 50.9 <br> 55.6 | 0.6 1.1 | Negiligile Adverse | 39.0 42.8 | $\begin{array}{r}39.8 \\ 450 \\ \hline\end{array}$ | 39.5 438 |
| 2, 28. FARIRVIEW MANOR, DANESTONE | Dwelling | ${ }_{48.9}$ | ${ }^{57.0}$ | ${ }^{53,4} 4$ | - | Negnioibible Beneneficicial | ${ }_{49.6}$ | 0.7 | Negigigibe Adverse | ${ }_{37.7}^{42.8}$ | ${ }_{38.4}^{45.0}$ | ${ }_{38.4}^{43.8}$ |
| 29, FAIRVIEW MANOR, DANESTONE | Dwelling | 58.2 | 61.0 | 56.9 | -1.3 | Minor Beneficicial | 59.4 | 1.2 | Negiligibe Adverse | 46.1 | 48.6 | 47.2 |
| 3, FAIRVIEW MANOR, DANESTONE | Dwelling | 55.0 | 57.3 | 54.4 | -0.6 | Negligible Beneficial | 56.2 | 1.2 | Negigiolie Adverse | 43.2 | 45.3 | 44.3 |
| 30, FAIRVIEW MANOR, DANESTONE | Deelling | 49.6 | 50.2 | 49.4 | -0.2 | Negligible Beneficical | 50.3 | 0.7 | Negligible Adverse | 38.4 | 38.9 | 39.0 |
| 31, ARARVIEW MANOR, DANESTONE | Dwelling | 60.8 49.2 | 63.8 49.8 | 59.3 49.1 | -1.5 -0.1 | Mennor Beneficical | 62.1. | 1.3 0.7 | Negigigib Adverse | 48.5 38.0 | ${ }^{51.2}$ | 49.6 38.6 |
| 33, FAIRVIEW MANOR, DANESTONE | Dwelling | 60.6 | 63.6 | 59.1 | -1.5 | Minor Beneficial | 61.9 | 1.3 | Negigioble Adverse | 48.3 | 51.0 | 49.4 |
| 34, FAIRVIEW MANOR, DANESTONE | Dwelling | 49.4 | 50.0 | 49.4 | 0.0 | No Change | 50.2 | 0.8 | Negiligibe Adverse | 38.2 | 38.7 | 38.9 |
| 35, FAlRVIIEW MANOR, DANESTONE | Dwelling | 62.9 49.6 | 66.2 50.3 | 61.2 49.5 | -1.7 -0.1 | Megnor Beneficicial | 64.4 50.4 | 1.5 <br> 0.8 | Negigible Adverse | 50.3 38.4 | 53.3 39.0 | 51.7 39.1 |
| 37, FAIRVIEW MANOR, DANESTONE | Dwelling | 56.5 | 58.7 | 55.5 | -1.0 | Minor Beneficicial | 57.6 | 1.1 | Negigiolib Adverse | 44.6 | 46.6 | 45.6 |
| 38, FAIRVIEW MANOR, DANESTONE | Dwelling | 49.8 | 50.5 | 49.7 | -0.1 | Negligible Beneficical | 50.6 | 0.8 | Negiligile Adverse | 38.6 | 39.2 | 39.3 |
| 39, FAIRVIEW MANOR, DANESTONE | Dwelling | $\begin{array}{r}54.1 \\ 551 \\ \hline\end{array}$ | 55.4 | 53.4 | -0.7 | Negligible Beneficial | 54.9 <br> 557 | 0.8 | Negiligib Adverse | 42.4 | 43.6 447 | 43.1 |
| 4, FAIRVIVW M M A OR, DANESTONE | Dwelling | 55.1 48.5 | 56.6 49.2 | 54.2 48.4 | -0.9 -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negligibl }}$ | 55.7 49.3 | 0.6 | $\frac{\text { Negiligible Adverse }}{\text { Negigible Adverse }}$ | 43.3 37.4 | 44.7 38.0 | 43.9 38.1 |
| 41, FAIRVIEW MANOR, DANESTONE | Dwelling | 51.7 | 53.3 | 51.0 | -0.7 | Negligible Benenicicial | 52.5 | 0.8 | Negligiole Adverse | 40.3 | 41.7 | 41.0 |
| 42, FAIRVIEW MANOR, DANESTONE | Dwelling | 48.8 | 49.6 | 48.8 | 0.0 | No Change | 49.7 | 0.9 | Negigiolie Adverse | 37.7 | 38.4 | 38.5 |
| 43, FAIRVIEW MANOR, DANESTONE | Delling | 51.8 | 53.2 | 51.1 | -0.7 | Negligible Beneficical | 52.6 | 0.8 | Negigigibe Adverse | 40.4 | ${ }^{41.6}$ | 41.1 |
| 44, FAlRVIEW MANOR, DANESTONE | Dwelling | 49.2 52.0 | 50.0 53.3 | ${ }^{49.1}$ | $\stackrel{-0.1}{-0.6}$ | Negligible Beneficial | 50.1 52.8 | 0.9 | Negigible Adverse | 38.0 40.5 | 38.7 41.7 | 38.8 41.3 |
| 46, FAIRVIEW MANOR, DANESTONE | Dwelling | 49.7 | 50.6 | 49.6 | -0.1 | Negligible Beneficial | 50.5 | 0.8 | Negiligible Adverse | 38.5 | 39.3 | 39.2 |
| 47, FAIRVIEW MANOR, DANESTONE | Dwelling | 52.2 | 52.8 | 51.8 <br> 50.5 | -0.4 | Negliable Beneficial | 52.8 51.1 | 0.6 | Negiligibe Adverse | 40.7 30 | $\frac{41.3}{401}$ | 41.3 |
| 48, FAIRVIEW MANOR, DANESTONE | Dweling | - 52.6 | 51.5 | 50.5 | -0.1 | $\frac{\text { Negligiole Benenicical }}{\text { Neglioble }}$ | 51.4 | 0.8 | Negigigib Adverse | 39.3 40.6 | 40.1 | 40.0 |
| 5, FAIR VIEW MANOR, DANESTONE | Dwelling | 54.0 | 56.5 | 53.3 | -0.7 | Negligible Benenicicial | 55.3 | 1.3 | Negiligible Adverse | 42.3 | 44.6 | 43.5 |
| 50, FARVVIEW MANOR, DANESTONE | Dwelling | 49.7 |  | 50.0 | 0.3 | Negiligibe Adverse | 50.8 |  | Negiligibe Adverse | 38.5 | 39.2 |  |
| 51, FAlRVVIEW MANOR, DANESTONE | Dwelling | 53.0 50.1 | 53.4 50.9 | 52.6 50.4 | -0.4 0.3 | $\frac{\text { Negligilie Beneficial }}{\text { Neoligiole Adverse }}$ | 53.6 51.2 | 0.6 1.1 | Negigibib Adverse | 41.4 38.8 | 41.8 39.5 | 42.0 39.8 |
| 53, FAIRVIEW MANOR, DANESTONE | Dwelling | 53.2 | 53.7 | 52.9 | -0.3 | Negligible Beneficial | 53.9 | 0.7 | Negiligibe Adverse | 41.6 | 42.1 | 42.2 |
| 54, FAIRVIEW MANOR, DANESTONE | Dwelling | 54.0 | 55.3 | 54.6 | 0.6 | Negligible Adverse | 55.2 | 1.2 | Negiligile Adverse | 42.3 | 43.5 | 43.4 |
| 55, FAIRVIEW MANOR, DANESTONE | Dwelling | 53.3 <br> 54.5 | 53.7 56.2 | 53.0 <br> 55 <br> 5 | -0.3 | Negiligile Beneficial | 53.9 <br> 558 <br> 58 | 0.6 13 | Negligibl Adverse | 41.7 | 42.1 443 | 42.2 440 |
| 56, FAlRVIEW MANOR, DANESTONE | ${ }^{\text {Dweliling }}$ Doeling | 54.5 53.1 | 56.2 53.2 | 55.2 | -0.4 | Negligioble emeneficial | ${ }_{5}^{53.6}$ | 1.3 0.5 | Neogigioble Adverse | 41.5 | 41.6 | 42.0 |
| 58, FAIRVIEW MANOR, DANESTONE | Deelling | 54.9 | 57.3 | 55.5 | 0.6 | Negligible Adverse | 56.6 | 1.7 | Negligible Adverse | 43.1 | 45.3 | 44.7 |
| 59, FAlRV1EW MANOR, DANESTONE | Dwelling | 52.0 | ${ }_{55.0}^{55.2}$ | ${ }_{51.6}^{53.3}$ | -0.4 | Negiligile Benenticial | 52.4 | 0.4 | Negigibil Adverse | ${ }_{42.5}^{40.5}$ | $\stackrel{40.5}{43.4}$ | 40.9 |
| 60, FAIPVIEW MANOR, DANESTONE | Delling | 55.8 | 60.0 | 56.2 | 0.4 | Negligibl Adverse | 58.5 | 2.7 | Negligible Adverse | 44.0 | 47.7 | 46.4 |
| 61, FAlRVIEW MANOR, DANESTONE | Dwelling | 49.2 48.9 | 49.8 49.4 | 49.0 | $\stackrel{-0.2}{-0.2}$ | $\frac{\text { Negiligile Beneficial }}{\text { Negligile }}$ Beneficial | 49.9 | 0.7 | Negigible Adverse | 38.0 37.7 | 38.6 38.2 | 38.6 38.4 |
| 65, FAIRVIEW MANOR, DANESTONE | Dwelling | 49.0 | 49.5 | 48.8 | -0.2 | Negligible Beneficical | 49.7 | 0.7 | Negligiole Adverse | 37.8 | 38.3 | 38.5 |
| 67, FAIRVIEW MANOR, DANESTONE | Dwelling | 49.0. | 49.5 | 48.9 | -0.1 | Negligible Beneticial | 49.8 49.7 | 0.8 | Negigiobe Adverse | 37.8 37.7 | 38.3 38.2 | 38.6 38.5 |
| 7, FAIRVIEW MANOR, DANESTONE | Dwelling | 57.0 | 59.0 | 55.9 | -1.1 | Minor Beneficial | 57.9 | 0.9 | Negiligible Adverse | 45.0 | 46.8 | 45.8 |
| 71, FARVVIEW MANOR, DANESTONE | Oweling | 49.1 | 49.6 | 49.0 | -0.1 | Negligible Beneficical | 49.9 | 0.8 | Negigigibe Adverse | 37.9 | 38.4 | 38.6 |
| 7, 7 , FAFARVIEW MANOR, DANESTONE | Dwelling | 47.0 | 47.5 | 47.0 | 0.0 | $\frac{\text { Negligile eneifical }}{\text { No Change }}$ | 48.0 | 1.0 1.0 | Neogigioble Adversse | 37.0 36.0 | 36.5 <br> 36.5 | 38.2 36.9 |
| 77, FAIRVIEW MANOR, DANESTONE | Dwelling | 49.6 4.8 | 50.0 | 49.4 4.6 | -0.2 | Negligible Beneficial | 50.3 50.5 | 0.7 | Negigigib Adverse | 38.4 38. | 38.7 <br> 39. | 39.0 392 |
| 8, FAIRVIEW MANOR, DANESTONE | ${ }^{\text {Duelill }}$ Welling | $\stackrel{49.7}{52.7}$ | 50.4 56.6 | ${ }_{52.8}^{49.6}$ | -0.1 | Negligiole Eeneficicial | 50.1 55.1 | ${ }_{2} .4$ | Negligible Adverse | 38.6 41.2 | 34.7 <br> 4.7 | ${ }^{39.3}$ |
| 81, FAIRVIEW MANOR, DANESTONE | Dwelling | 49.9 50 | 50.6 50.9 | 49.8 50 | -0.1 | Negliaible Beneficial | 50.7 50.9 | 0.8 | Negiligile Adverse | 38.6 38. | 39.3 395 | 39.4 39 |
|  | Dweliling | 50.0 50.1 | 50.9 51.0 | 50.0 50.1 | 0.0 | No Change | 50.0 | 0.9 | Neoligioble Adverse | ${ }_{38.8}$ | 39.6 | ${ }_{39.6}$ |
| 87, FAIRVIEW MANOR, DANESTONE | welling | 50.0 | 51.0 | 50.1 | 0.1 | Negligible Adverse | 51.0 | 1.0 | Negligible Adverse | 38.7 | 39.6 | 39.6 |
| 89, FAlRVVIEW MANOR, DANESTONE | Dwelling |  | 51.3 57.0 | 50.2 | ${ }_{0}^{0.0}$ | Negligible Eeneneficial | 56.0 | 1.2 | Negligigibe Adverse | 38.1 | 459.0 | 39.8 44.1 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 Lnight,outside | DS33 Lnight,outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 91, FAIRVIEW MANOR, DANESTONE | Deeling | 49.3 | 50.7 | 49.5 | 0.2 | Negigigle Adverse | 50.5 | 1.2 | Negigigle Adverse | 38.1 | 39.4 | 39.2 |
| 93, FAIRVIEW MANOR, DANESTONE | Dweling | 53.3 51.8 | $\begin{array}{r}55.1 \\ 53.4 \\ \hline\end{array}$ | 53.8 | 0.5 | Negiligib Adverse | 54.6 53.1 | ${ }_{1}^{1.3}$ | Negiligibe Adverse | $\frac{41.7}{40.4}$ | $\frac{43.3}{418}$ | $\frac{42.9}{415}$ |
| 95, 9 9ARVIEW MANVR, DANESTTONE | Dwelling | 50.5 | ${ }^{53.9}$ | ${ }_{5}^{52.7}$ | 0.2 | Neogigigile Adverse | ${ }_{51.7}^{53.1}$ | 1.2 | Neogigigibe Adverse | 39.2 | 40.4 | ${ }_{40.5}^{41.5}$ |
| 99, FAIRVIEW MANOR, DANESTONE | Dwelling | 49.8 | 51.4 | 50.0 | 0.2 | Negligible Adverse | 51.1 | 1.3 | Negiligile Adverse | 38.6 | 40.0 | 39.7 |
| 1 1, FAIRVIEW PARADE | Dwelling | 56.8 | 59.1 | 56.7 | -0.1 | Negligible Beneficial | 58.2 | 1.4 | Negigigile Adverse | 44.9 | 46.9 | 46.1 |
| 10, FAIRVIEW PARADE | Dwelling | 52.8 | 52.3 | 52.6 | -0.2 | Negligible Beneficial | 53.5 | 0.7 | Negligible Adverse | 41.3 | 40.8 | 41.9 |
| 11, FAIRVIEW PARADE | Deelling | 57.2 | 59.9 | 57.0 | -0.2 | Negligible Beneficicial | 58.8 | 1.6 | Negigioble Adverse | 45.2 | 47.6 | 46.7 |
| 12, FAIRVIEW PARADE | Welling | 53.0 | 52.6 | 52.8 | -0.2 | Negligible Beneficial | 53.7 | 0.7 | Negiligibe Adverse | ${ }^{41.4}$ | 41.1 | 42.1 413 |
| (14, FAAVIVW PAAADE | Dwelling | $\stackrel{51.7}{57.6}$ | 年60.3 | 51.9 57.4 | -0.2 | Negligibile Benenficiolia | 52.8 59.3 | 1.7 1 | Negigigibe Adverse | 45.6 | $\stackrel{40.4}{48.0}$ | ${ }_{47.1}^{47.1}$ |
| 16, FAIRVIEW PARADE | Dwelling | 51.9 | 51.9 | 52.0 | 0.1 | Negligible Adverse | 53.0 | 1.1 | Negligible Adverse | 40.4 | 40.4 | 41.4 |
| 17, FAIRVIEW PARADE | Wwelling | 56.9 | 59.5 | 56.7 | -0.2 | Negligible Beneficial | 58.4 | 1.5 | Negigigile Adverse | 44.9 | 47.3 | 46.3 |
| 18, FAIRVIEW PARADE | Wwelling | 52.0 | 52.0 | 52.1 | 0.1 | Negigioble Adverse | 53.1 | 1.1 | Negigioble Adverse | 40.5 | 40.5 | 41.5 |
| 19, FAIRVIEW PARADE | veling | 56.9 | 59.5 | 56.7 | -0.2 | Negligible Beneficical | 58.5 | 1.6 | Negiligible Adverse | 44.9 | ${ }^{47.3}$ | 46.4 |
| 2, FAIRVIEW PARADE | Dwelling | 51.3 | 52.1 52.6 | $\begin{array}{r}51.1 \\ 52.6 \\ \hline\end{array}$ | -0.2 0.1 | $\frac{\text { Negligible Beneficial }}{\text { Nefiliolie Adverse }}$ | 52.2 53.7 | 0.9 1.2 | Negligibl Adverse | 39.9 41.0 | 40.6 41.1 | ${ }_{40.1}$ |
| 20, 21. FAIRVIVW PV PARADE | Dwelling | 56.9 | 59.4 | ${ }_{56.7}^{52.7}$ | -0.2 | Negligible Beneficicial | 58.4 | 1.5 | Neogigiole Adverse | 44.9 | 47.2 | 46.3 |
| 22, FAIRVIEW PARADE | Dwelling | 55.1 | 54.3 | 55.2 | 0.1 | Negligiole Adverse | 56.0 | 0.9 | Negligiole Adverse | 43.3 | 42.6 | 44.1 |
| 23, FAIRVIEW PARADE | Dwelling | 57.0 | 59.5 | 56.8 | -0.2 | Negligible Beneficial | 58.5 | 1.5 | Negigioble Adverse | 45.0 | 47.3 | 46.4 |
| 25, FAIRVIEW PARADE | Deelling | 54.1 | 55.8 | 53.9 | -0.2 | Negligible Beneficial | 55.3 | 1.2 | Negigioble Adverse | 42.4 | 44.0 | 43.5 |
| 27, FAARVEW PAAADE | Dwelling | 54.2 54.5 | ${ }_{56.1}^{56.3}$ | 53.9 | -0.3 | Negiligie Beneficial | 55.4 55.7 | 1.2 <br> 1.2 | Negigigle Adverse | ${ }_{42.8}^{42.5}$ | ${ }_{44.4}^{44.4}$ | ${ }_{43,6}^{43.9}$ |
| 3, FAIRVIEW PARADE | Dwelling | 56.4 | 58.8 | 56.3 | -0.1 | Negligible Beneficial | 57.9 | 1.5 | Negiligible Adverse | 44.5 | 46.7 | 45.8 |
| 31, FAIRVIEW PARADE | Dwelling | 54.2 | 56.0 | 54.0 | -0.2 | Negligible Beneficial | 55.4 | 1.2 | Negigigible Adverse | 42.5 | 44.1 | 43.6 |
| 33, FAIRVIEW PARADE | Deelling | 54.2 | 56.0 | 54.0 | -0.2 | Negligible Beneficial | 55.4 | 1.2 | Negligible Adverse | 42.5 | 44.1 | 43.6 |
| 35, FAIRVIEW PARADE | Deeling | 54.4 | 56.0 | 54.3 | -0.1 | Negligible Beneficial | 55.6 | 1.2 | Negiligibe Adverse | ${ }^{42.7}$ | 44.1 | ${ }^{43.8}$ |
| 37, FAIRVIVW PARADE | Dwelling | 54.9 553 | 53.9 | $\begin{array}{r}54.8 \\ 55 \\ 55 \\ \hline\end{array}$ | -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ | 55.4 558 568 | 0.5 | Negiligibie Adverse | ${ }_{4}^{43.1}$ | ${ }_{42.2}^{425}$ | ${ }^{43.6}$ |
| 4 4, FAIRVIEW PARADE | Dwelling | 53.3 | 52.9 | 53.2 | -0.1 | Negligible Beneficial | 54.0 | 0.7 | Negigigible Adverse | 41.7 | 41.3 | 42.3 |
| 41, FAIRVIEW PARADE | welling | 54.7 | 53.4 | 54.6 | -0.1 | Negligible Beneficial | 55.0 | 0.3 | Negigigile Adverse | 43.0 | 41.8 | 43.2 |
| 43, FAIRVIEW PARADE | welling | 55.7 | 54.4 | 55.7 | 0.0 | ge | 56.1 | 0.4 | Negligible Adverse | 43.9 | 42.7 | 44.2 |
| 45, FAIRVIEW PARADE | Dwelling | 57.6. | 56.1 | 57.5 59 | -0.1 | Negligible Beneficial | 57.9 | 0.3 | Negiligibe Adverse | 45.6 | 44.2 | 45.8 |
|  | Dwelling | 58.1 58.4 | 56.7 57.0 | 58.0 58.3 | -0.1 -0.1 | $\frac{\text { Negligible Benenicial }}{\text { Negliobl }}$ | 58.4 58.7 | 0.3 0.3 | Negigigib Adverse | 46.3 | 44.8 | 46.6 |
| 5. FAlRVIEW PARADE | Dwelling | 56.0 | 58.5 |  | -0.1 | Negligible Beneficicial | 57.5 |  | Negaligible Adverse | 44.1 | 46.4 | 45.5 |
| 6 6, FAIRVIEW PARADE | Dwelling | 52.4 | 51.6 | 52.4 | 0.0 | No Change | 53.3 | 0.9 | Negiligile Adverse | 40.9 | 40.2 | 41.7 |
| 7, FAIRVIEW PARADE | Dwelling | 56.1 | 58.6 | 56.0 | -0.1 | Negligible Beneficial | 57.6 | 1.5 | Negigioble Adverse | 44.2 | 46.5 | 45.6 |
|  | Dwelling | 52.3 56.3 | 52.2 58.9 | 52.2 <br> 56.2 | -0.1 | Negiligible eeneneficial | 53.2 57.9 | 1.6 | Negligigile Adverse | ${ }_{40.4}^{44.4}$ | ${ }_{40.7}^{46.7}$ | ${ }_{45}^{41.8}$ |
| 1, FAIRVVIEW PARK | Dwelling | 54.5 | 53.2 | 54.5 | 0.0 | No Change | 55.3 | 0.8 | Negigiolie Adverse | 42.8 | 41.6 | 43.5 |
| 10, FARVVIEW PARK | Dwelling | 59.7 | 58.6 | 59.7 | 0.0 | No Change | 60.2 | 0.5 | Negiligile Adverse | 47.5 | 46.5 | 47.9 |
| 11, 12. FARVVIEW PARK | Dwelling | 59.6 58.8 | 58.3 57.5 | 59.6 58.8 | 0.0 | $\frac{\text { No C Cange }}{\text { No Change }}$ | $\stackrel{60.0}{59.2}$ | 0.4 0.4 | Negigigle Adverse | $\stackrel{47.4}{46.7}$ | $\xrightarrow[46.5]{46.2}$ | $\stackrel{47.7}{47.0}$ |
| 2 2, FAIRVIEW PARK | Dwelling | 54.9 | 53.5 | 54.8 | -0.1 | Negligible Beneficial | 55.5 | 0.6 | Negiligibe Adverse | 43.1 | 41.9 | 43.7 |
|  | Dwelling | 54.8 54.5 | 53.3 53.3 | 54.8 54.4 | 0.0 -0.1 | Neglio Change ${ }_{\text {Nene }}$ | 55.3 55.2 | 0.5 | $\frac{\text { Negiligib Adverse }}{\text { Negigible Adverse }}$ | 43.1 42.8 | 41.7 41.7 | 43.5 43.4 |
| 5, FAIRVIEW PARK | Dwelling | 54.4 | 53.2 | 54.4 | 0.0 | No Change | 55.1 | 0.7 | Negiligible Adverse | 42.7 | 41.6 | 43.3 |
| - ${ }^{\text {6, FAIRVIEW PARK }}$ | Dwelling | 55.1 55.9 | 53.6 56.0 | 55.1 55.9 | 0.0 0.0 | $\frac{\text { No Change }}{\text { No Change }}$ | 55.5 57.1 | 0.4 1.2 | Negligibl Adverse | 43.3 44.0 | $\frac{42.0}{44.1}$ | 43.7 45.1 |
| 8, FAIRVIEW PARK | Dwelling | 57.6 | 57.2 | 57.5 | -0.1 | Negligible Beneficial | 58.3 | 0.7 | Negiligile Adverse | 45.6 | 45.2 | 46.2 |
|  | Dwelling | 55.0. | 55.5 56.4 | 55.0. | 0.0 .0 .1 | Negocigible Bene ${ }^{\text {Natical }}$ | 56.5 55.7 | 1.5 1.5 | Negligibl Adverse | ${ }_{42.5}^{43.5}$ | ${ }_{44.5}^{43.7}$ | 44.6 43.9 |
| 10, FAIRVIEW PLACE, DANESTONE | Dwelling | 52.6 | 52.8 | 52.4 | -0.2 | Negligible Beneficial | 53.2 | 0.6 | Negigigible Adverse | 41.1 | 41.3 |  |
| 11, FAIRVIEW PLACE, DANESTONE | Dwelling | 51.2 | 51.2 | 51.1 | -0.1 | Negligible Beneficial | 51.9 | 0.7 | Negiligile Adverse | 39.8 | 39.8 | 40.4 |
| 2, FAIRVIEW PLACE, DANESTONE | Dwelling | 54.6 | 57.1 | 54.4 | -0.2 | Negligible Beneficial | 56.2 | 1.6 | Negigioble Adverse | 42.9 | 45.1 | 44.3 |
|  | Dwelling | 54.6 <br> 54.4 | 57.2 | 54.4 54.3 | -0.2 | Negiligible eeneneficial | ${ }^{56.0}$ | ${ }_{1}^{1.6}$ | Neogigioble Adverse | ${ }^{42.9} 4$ | ${ }^{44.9}$ | ${ }_{44.1}^{44.3}$ |
| 5, FAIRVIEW PLACE, DANESTONE | Deelling | 54.2 | 56.4 | 54.0 | -0.2 | Negligible Beneficial | 55.6 | 1.4 | Negigiolile Adverse | 42.5 | 44.5 | 43.8 |
| 6 6, FARVVIEW PLACE, DANESTONE | Dwelling | 52.4 | 52.7 | 52.2 | -0.2 | Negligible Beneficial | 53.1 | 0.7 | Negiligile Adverse | 40.9 | 41.2 | 41.5 |
|  | Dwelling | 52.3 52.2 | $\begin{array}{r}\text { 52.7 } \\ 52.4 \\ \hline\end{array}$ | 52.1 52.0 | -0.2 | Negiligie Beneficial | $\stackrel{53.0}{52.9}$ | 0.7 | $\frac{\text { Negigigle Adverse }}{\text { Neligiole Adverse }}$ | ${ }_{40.8}^{40.7}$ | $\frac{41.2}{40.9}$ | $\stackrel{41.4}{41.3}$ |
| 9, FAIRVIEW PLACE, DANESTONE | Dwelling | 52.2 | 52.5 | 52.0 | -0.2 | Negligible Beneficial | 52.9 | 0.7 | Negiligibe Adverse | 40.7 | 41.0 | 41.3 |
| 1, FAARVIEW ROAD, DANESTONE | Dwelling | 53.1 67.7 | 52.7 65.4 | $\stackrel{52.9}{67.6}$ | -0.2 -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ Beneficial | 53.7 67.8 | 0.6 0.1 | $\frac{\text { Negligible Adverse }}{\text { Negligibl Beneficial }}$ | 41.5 54.7 | $\stackrel{41.2}{52.6}$ | 42.1 54.8 |
| 11, FAIRVIEW ROAD, DANESTONE | Dwelling | 59.0 | 57.1 | 58.9 | -0.1 | Negligible Beneficical | 59.8 | 0.8 | Negligible Adverse | 46.8 | 45.1 | 47.6 |
| 12, FAIRVIEW ROAD, DANESTONE | Dwelling | 69.0 69.0 | 66.8 66.8 | 68.9 | -0.1 -0.1 | Negiligile Benenitical | 70.0 70.0 | $\stackrel{1.0}{1.0}$ | Neoligibl Adverse | 55.8 55.8 | ${ }_{53.9}^{53.9}$ | 56.7 56.7 |
| 15, FAIRVIEW ROAD, DANESTONE | Dwelling | 59.4 | 57.5 | 59.4 | 0.0 | No Change | 60.4 | 1.0 | Negiligible Adverse | 47.2 | 45.5 | 48.1 |
| (16, FARVVIEW ROAD, DANESTONE | Dweling | 69.6 | 67.4 570 | 69.5 59 | -0.1 | Negligible Beneficial | $\begin{array}{r}70.7 \\ 59 \\ \hline 98\end{array}$ | 1.1 | Negiligile Adverse | ${ }^{56.4}$ | 54.4 | 57.4 |
|  | Dwelling | 69.2 | 67.0 | ${ }_{69.1}$ | -0.1 | Negligible Beneneficial | ${ }_{70.2}$ | 1.0 | Neoligioble Adverse | ${ }_{56.0}^{46.1}$ | 54.0 | 56.9 |
| 19, FAIRVIEW ROAD, DANESTONE | Dwelling | 58.5 | 56.6 | 58.4 | 0.1 | Negligible Beneficial | 59.4 | 0.9 | Negligible Adverse | 46.4 | 44.7 | 47.2 |
| 2, FAIRVIEW ROAD, DANESTONE | Dwelling | 55.2 | 54.3 | 55.1 | -0.1 | Negligible Beneficial | 55.8 | 0.6 | Negigioble Adverse | 43.4 | 42.6 | 44.0 |
| 20, FAARVIEW ROAD, DANESTONE | Dwelling | 72.3 <br> 8.4 | ${ }_{56.6}$ | 72.2 <br> 8.4 | -0.1 | Negigigie Beneficial | 73.3 <br> 18 | 0.9 | Negligigile Adverse | 58.8 | 56.8 44.7 | 59.8 47.1 |
| 22, FAIRVIEW ROAD, DANESTONE | Dweling | 72.3 587 | 70.1 568 | 72.2 587 | -0.1 | Negligible Beneficial | 73.4 <br> 59 <br> 9 | 1.1 | Negligile Adverse | 58.8 | 56.8 44.9 | 59.8 474 |
| 23, FAARVIEW RAAD, DANESTONE | Dweliling | ${ }^{569.5}$ | 56.8 67.3 | ${ }^{589.4}$ | -0.1 | Negligible eneneficiolil | 59.6 70.7 | 1.2 | Negligigile Adverse | ${ }_{56.3}^{46.6}$ | ${ }_{54.3}^{44.9}$ | 47.4 57.4 |
| 25, FAIRVVIEW ROAD, DANESTONE | Dewling | 58.9 | 56.9 | 58.8 | -0.1 | Negligible Beneficical | 59.8 | 0.9 | Negligible Adverse | 46.7 | 44.9 | 47.6 |
| 26, FAIRVIEW ROAL, DANESTONE | Dwelling | $\stackrel{69.4}{59.4}$ | 67.2 57.5 | ${ }_{59.4}^{69.3}$ | -0.1 | Negiligie Beneficial | 70.4 | 1.1 | Negigigie Avverse | ${ }^{56.2} 47.2$ | ${ }^{54.2}$ | ${ }^{57.2}$ |
| 28, FAIRVIEW ROAD, DANESTONE | welling | 68.7 | 66.5 | 68.6 | -0.1 | Negligible Beneficial | 69.8 | 1.1 | Negigigile Adverse | 55.6 | 53.6 | 56.6 |

A90/A96 Haudagain Improvement

## DMRB Stage 3 Environmental Statement

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{aligned} & \text { DM33 } \\ & \text { LA10,18hr } \end{aligned}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 Lnight,outside | $\begin{gathered} \text { DS33 } \\ \text { Lnight,outside } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 29, FAIRVIEW ROAD, DANESTONE | Dwelling | 59.6 | 57.7 | 59.6 | 0.0 | No Change | 60.6 | 1.0 | Negiligibe Adverse | 47.4 | 45.7 | 48.3 |
| 3, FAIRVIEW ROAD, DANESTONE | Deeling | 55.0 | 54.0 | 54.9 | -0.1 | Negligible Beneficial | 55.6 | 0.6 | Negiligile Adverse | ${ }_{\text {43.2 }}^{4.7}$ | ${ }_{523}^{423}$ | $\frac{43.8}{5.7}$ |
| 30, FARRVIEW ROAD, DANESTONE | Dweling | 68.9 59.3 | 66.7 <br> 57.4 | 68.8 59.2 | -0.1 -0.1 | Negligible Beneficial | 70.0 60.2 | 1.1 0.9 | Negiligile Adverse | 55.7 47.1 | 53.8 45.4 | 56.7 47.9 |
| 31, FAAIVVIEW ROAD, , AANESTONE | ${ }^{\text {Duelilig }}$ Oweling | 59.9 | 57.4 67.9 | ${ }^{59.8}$ | $\stackrel{-0.1}{-0.1}$ | Negegiogible Beneficioial | 60.9 70.9 | 1.0 | Neoligigle Adverse | ${ }_{56.6}^{45.1}$ | ${ }^{454.8}$ | ${ }^{47.5}$ |
| 33, FAIRVIEW ROAD, DANESTONE | Dwelling | 60.5 | 58.6 | 60.4 | -0.1 | Negligible Beneficical | 61.4 | 0.9 | Negiligile Adverse | 48.2 | 46.5 | 49.0 |
| 34, FAIRVIEW ROAD, DANESTONE | Dwelling | 70.4 | 68.4 | 70.3 | -0.1 | Negligible Beneficical | 71.3 | 0.9 | Negigiolie Adverse | 57.1 | 55.3 | 57.9 |
| 35. FAARVIEW ROAD, DANESTONE | Deelling | 60.6 | 58.8 | 60.6 | 0.0 | No Change | 61.4 | 0.8 | Negiligibe Adverse | 48.3 | 46.7 54.8 | 49.0 |
| 36, FAARVEW ROAD, DANESTONE | Dweling | 69.9 60.9 | ${ }^{67.9} 5$ | 69.8 60.9 | 0.0 | $\frac{\text { Negligitie Beneitical }}{\text { No Change }}$ | ${ }^{70.9}$ | 1.0 | Negigigibe Adverse | - 48.5 | 54.8 46.9 | 57.5 |
| 38, FAIRVVIEW ROAD, DANESTONE | Dwelling | 70.0 | 68.2 | 70.0 | 0.0 | No Change | 70.9 | 0.9 | Negiligile Adverse | 56.7 | 55.1 | 57.5 |
| 39, FAIRVIVW ROAD, DANESTONE | veling | 60.0 | 58.2 | 60.0 | 0.0 | No Change | 60.9 | 0.9 | Negligible Adverse | 47.7 | 46.1 | 48.5 |
| 4, FARVIEW ROAD, DANESTONE | elling | 56.4 |  | 56.4 | 0.0 | No Change | 56.9 |  | Negigigile Adverse | 44.5 | 43.3 |  |
| 40, FAIRVVIEW ROAD, DANESTONE | Deelling | 70.2 | 68.4 | 70.1 | -0.1 | Negligible Beneficial | 71.0 | 0.8 | Negigigibe Adverse |  | 55.3 | 57.6 |
| 41, FARRVIVW ROAD, DANESTONE | Dweling | ${ }_{60.2}^{688}$ | 58.4 | 60.1 | ${ }^{-0.1}$ | Negligible Benenitical | 60.9 | 0.7 | Negiligie Adverse | 47.9 | ${ }^{46.3}$ | 48.5 |
|  | Oweling | ${ }_{68.8}^{68}$ | 67.1 59.1 | ${ }_{68.8}^{607}$ | 0.0 | No Change | ${ }_{69.5}^{6.5}$ | ${ }^{0.7}$ | Negligile Adverse |  |  | 56.3 49.1 |
| 44, FAIRVIIEW ROAD, , AANESTONE | ${ }^{\text {Owelling }}$ | ${ }_{60.1}$ | ${ }_{674} 69$ | 69. | -0.1 | Negligibile Beneneicicial | 69.5 | 0.7 | Neogigible Adversse | ${ }_{55.9}^{48.9}$ | 54.4 | ${ }_{56.1}^{49.6}$ |
| 45, FAIRVIEW ROAD, DANESTONE | Dwelling | 60.6 | 58.9 | 60.5 | -0.1 | Negligible Beneficial | 61.3 | 0.7 | Negligible Adverse | 48.3 | 46.7 | 48.9 |
| 46, FAIRVIEW ROAD, DANESTONE | Dwelling | 69.6 | 68.0 | 69.6 | 0.0 | No Change | 70.3 | 0.7 | Negiligile Adverse | 56.4 | 54.9 | 57.0 |
| 47, FARVVIW ROAD, DANESTONE | Dwelling | ${ }_{7}^{63.3}$ | ${ }_{61.6}^{688}$ | 63.3 70.4 | 0.0 -0.1 |  | 64.0 71.1 | ${ }_{0}^{0.7}$ | Negigiole Adverse | 50.7 57.2 | - 49.2 | 51.3 577 |
| 49, FAARVIEW ROAD, DANESTONE | ${ }^{\text {Duelilig }}$ | 70.9 | ${ }_{56.2}^{66.8}$ | 70.9 57 | -0.0 | Negiob e ${ }^{\text {No Change }}$ | 58.6 | 0.7 | Neoligiole Adverse | 45.8 | $\stackrel{44.3}{45}$ | 46.5 |
| 5 5, FAIVVIEW ROAD, DANESTONE | Dwelling | 56.3 | 55.0 | 56.3 | 0.0 | No Change | 56.9 | 0.6 | Negiligile Adverse | 44.4 | 43.2 | 44.9 |
| 50, FAIRVIEW ROAD, DANESTONE | Owelling | 68.6 | 66.9 | 68.6 | 0.0 | No Change | 69.3 | 0.7 | Negigigibe Adverse | 55.5 | 53.9 | 56.1 |
| 51, FAIRVIVW ROAD, DANESTONE | Dweling | 59.1 | 57.3 | 59.0 | -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negligibl }}$ Beneficial | 59.7 | 0.6 | $\frac{\text { Negligible Adverse }}{\text { Neolioible Adverse }}$ | $\frac{46.9}{443}$ | ${ }_{45.3}^{428}$ | 47.5 |
| S3, FAARVEW ROAD, DANESTONE | Dweling | ${ }_{56.8}^{57.8}$ | ${ }_{56.1}^{56.5}$ | ${ }_{567.8}^{56.1}$ | 0.0 | Negligible Benenicial | ${ }_{56.5}^{56.5}$ | 0.7 | Neoligiole Adverse | 45.8 | ${ }_{44.2}^{42.8}$ | 44.4 |
| 57, FAIRVIEW ROAD, DANESTONE | Dwelling | 55.7 | 54.9 |  | -0.1 | Negligible Benenicicial | 56.3 | 0.6 | Negigigile Adverse | 43.9 | 43.1 | 44.4 |
| 6, FARVVIEW ROAD, DANESTONE | Dwelling | 57.0 | 56.3 |  | 0.0 | No Change |  | 0.6 | Negligible Adverse | 45.0 | 44.4 | 45.6 |
| 7, FAIRVIEW ROAD, DANESTONE | Dwelling | 57.5 | 56.0 | 57.4 | 0.1 | Negligible Beneficial | 58.1 | 0.6 | Negigible Adverse | 45.5 | 44.1 | 46.0 |
| 8, FAIRVIEW ROAD, DANESTONE | Dwelling |  | 56.5 | 57.1 | 0.0 | No Change |  | 0.8 | dverse |  | 44.6 | 45.8 |
| 9, FAIRVIEW ROAD, DANESTONE | Dwelling | 57.8 | 56.2 | 57.8 | 0.0 | No Change | 58.3 | 0.5 | Negigigile Adverse | 45.8 | 44.3 | 46.2 |
| DANESTONE COMMUNITY CENTRE, FAIRVIEW STREET, DANESTONE | Community Centre | 56.6 | 59.2 | 56.7 | 0.1 | Negiligile Adverse | 58.3 | 1.7 | Negiligile Adverse | 44.7 | 47.0 | 46.2 |
| DANESTONE CONGREGATIONAL CHURCH, FAIRVIEW STREET, DANESTONE | Church | 51.2 | 51.4 | 51.2 | 0.0 | No Change | 52.2 | 1.0 | Negligibe Adverse | 39.8 | 40.0 | 40.7 |
| STEP BY STEP PRE-SCHOOL NURSERY, FAIRVIEW STREET, DANESTONE | Pre-School | 51.1 | 51.2 | 51.1 | 0.0 | No Change | 52.0 | 0.9 | Negigigile Adverse | 39.7 | 39.8 | 40.5 |
| STREET, DANESTONE | Church | 53.2 | 55.4 | 53.1 | -0.1 | Negligible Beneficial | 54.7 | 1.5 | Negigigle Adverse | 41.6 | 43.6 | 43.0 |
| FAIRVIEW HOUSE NURSING HOME, FAIRVIEW STREET, DANESTONE | Dwelling | 53.5 | 55.1 | 53.4 | -0.1 | Negligible Beneficial | 54.7 | 1.2 | Negigiolie Adverse | 41.9 | 43.3 | 43.0 |
| 1, FAIRVIEW TERRACE, DANESTONE | Dwelling | 55.0 | 57.5 | 54.9 | -0.1 | Negligible Beneficial | 56.6 | 1.6 | Negigigile Adverse | 43.2 | 45.5 | 44.7 |
| 10, FARRVIEW TERRACE, DANESTONE | Dweling | 54.3 | 54.2 | 54.11 | -0.2 | Negligible Beneficical | 54.9 | 0.6 | Negigigile Adverse | 42.6 | 42.5 | 43.1 |
| 11, FAARVEW TERRACE, DANESTONE | Dwelling | 52.5 53.0 | 52.2 53.3 | 52.4 52.9 | -0.1 -0.1 | Negiligile Beneiticial | 53.1 53.8 | 0.6 0.8 | Negigible Adverse | $\frac{41.0}{41.4}$ | ${ }_{40.7}^{41.7}$ | ${ }_{4}^{42.5}$ |
| 2, FAIRVIEW TERRACE, DANESTONE | Dwelling | 54.8 | 57.2 | 54.7 | -0.1 | Negligible Beneficical | 56.4 | 1.6 | Negigigile Adverse | 43.1 | 45.2 | 44.5 |
| 3, FARVVIEW TERRACE, DANESTONE | Dwelling | 55.0 55.2 | 57.2 57.2 | 54.9 55.0 | -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negligibl }}$ | 56.5 56.5 | 1.5 1.3 | Negligile Adverse | 43.2 43.4 | 45.2 45.2 | 44.6 44.6 |
| 5, FAIRVIEW TERRACE, DANESTONE | Dwelling | 55.0 | 56.5 | 54.8 | -0.2 | Negligible Beneficial | 56.1 | 1.1 | Negigigile Adverse | 43.2 | 44.6 | 44.2 |
| ¢6, FARVVIEW TERRACE, DANESTONE |  | 54.9 |  |  | -0.2 | Negligible Benenitial |  |  |  |  |  | 43.5 |
| 7. ${ }^{\text {7. FARVVILW TERRACE, DANESTONE }}$ | Oweling | 54.4 59 | 53.0 572 | 54.3 |  | Negligible Benenicical | $\begin{array}{r}54.8 \\ 59 \\ \hline\end{array}$ | ${ }^{0.4}$ | Negligible Aaverse | 42.7 | 41.4 | 43.1 |
| 8, FAAVVIEW TERACE, DANNSTONE | Oweling | 59.2 | 55.5 | ${ }_{53,1}^{59.1}$ | ${ }_{-0.1}$ | Negligible Beneneficial | 53.8 | 0.6 | Negigigie Adverse | ${ }_{41.6}$ | 4510 | 47.6 |
| TYNACROY, 21, FAIRVVEW WALK, DANESTONE | Dwelling | 56.3 | 58.2 | 56.2 | -0.1 | Negligible Beneficicial | 57.4 | 1.1 | Neoligigle Adverse | 44.4 | 46.1 | 45.4 |
| 1, FAIRVIEW WALK, DANESTONE | Dwelling | 54.6 | 57.3 | 54.8 | 0.2 | Negiligile Adverse | 56.6 | 2.0 | Negiligile Adverse | 42.9 | 45.3 | 44.7 |
| 10, FAIRVIEW WALK, DANESTONE | Deelling | 53.6 | 54.9 | 53.7 | 0.1 | Negigioble Adverse | 54.8 | 1.2 | Negigigile Adverse | 42.0 | 43.1 | 43.1 |
| 11, FAIRVIEW WALK, DANESTONE | Deeling | 56.7 | 59.0 | 56.8 | 0.1 | Negligible Beneficial | 58.2 | 1.5 | Negigible Adverse | 44.8 | 46.8 | 46.1 |
| 12, FAIRVIVW WALK, DANESTONE | Dwelling | 55.1 | 52.4 | 51.2 | 0.1 | Negligibe Adverse | 52.3 | 1.2 | Negiligile Adverse | 39.7 | 40.9 | 40.8 |
| 14, FARVVIW W ALK, DANESTONE 15, FAIRVIEW WALK. DANESTONE | Dwelling | 50.6 56.8 | 51.3 58.7 | 50.6 <br> 56.8 | 0.0 | $\frac{\text { No Change }}{\text { No Change }}$ | 51.6 <br> 58.0 | ${ }_{1}^{1.2}$ | Negligile Adverse | 39.3 44.9 | 39.9 46.6 | ${ }_{40.2}$ |
| 16, FAIRVIEW WALK, DANESTONE | Dwelling | 52.5 | 52.6 | 52.4 | -0.1 | Negligible Beneficial | 53.4 | 0.9 | Negigiole Adverse | 41.0 | 41.1 | 41.8 |
| 17, FAIRVIEW WALK, DANESTONE | Dwelling | 56.6 | 58.4 | 56.5 | -0.1 | Negligible Beneficial | 57.7 | 1.1 | Negigible Adverse | 44.7 | 46.3 | 45.7 |
| 19, FAIRVIIEW WALK, DANESTONE | Dwelling | 57.7 | 59.6 | 57.6 | -0.1 | Negligible Beneficial | 58.9 | 1.2 | Negigible Adverse | 45.7 | 47.4 | 46.7 |
| 2, FAIRVVEW WALK, DANESTONE | Dwelling | 57.2 58.1 | 58.4 60.0 | 57.2 58.0 | 0.0 | Noco Change | 58.2 59.3 | 1.0 1. | Negigible Adverse | 45.2 46.0 | $\stackrel{46.3}{477}$ | ${ }_{471}^{46.1}$ |
| 25, FAIRV VIEW WALK, DANESTONE | Dwelling | 56.4 | 58.3 | 56.3 | -0.1 | Negligible Beneficicial | 57.5 | 1.1 | Negligible Adverse | 44.5 | 46.2 | 45.5 |
| 27, FAIRVIEW WALK, DANESTONE | Deeling | 56.0 | 57.8 | 56.0 | 0.0 | No Change | 57.1 | 1.1 | Negligible Adverse | 44.1 | 45.8 | 45.1 |
| 29, FAARVIEW WALK, DANESTONE | Dwelling | 53.9 563 | 54.4 590 | 53.8 <br> 56.5 | -0.1 | Neglioible Beneficial | 54.7 <br> 593 <br> 8 | ${ }^{0.8}$ | Negigigle Adverse | 42.2 | ${ }_{4}^{42.7}$ | 43.0 |
|  | Dwelling | 㐌52.4 | 59.0 53.0 | - ${ }_{56.5}^{56.2}$ | 0.2 -0.2 | Negligible Adverse | 㐌53.3 | ${ }_{0}^{2.0}$ | Negigigle Adverse | 44.4 40.9 | 46.8 41.4 | $\stackrel{46.2}{41.5}$ |
| 33, FAIRVVEW WALK, DANESTONE | Dwelling | 49.7 | 50.1 | 49.7 | 0.0 | No Change | 50.5 | 0.8 | Adverse | 38.5 | 38.8 | 39.2 |
| 4, FAIVVIEW WALK, DANESTONE | Dwelling | 53.5 | 54.4 | 53.5 | 0.0 | No Change | 54.4 | 0.9 | Negigigile Adverse | 41.9 | 42.7 | 42.7 |
| 5, FAIRVIEW WALK, DANESTONE | Deelling | 56.3 | 59.1 | 56.5 | 0.2 | Negligible Adverse | 58.3 | 2.0 | Negligible Adverse | 44.4 | 46.9 | 46.2 |
| 6, FARVVIEW WALK, DANESTONE | Dwelling | 50.7 53.9 | 51.8 55.6 | 50.7 54.0 | 0.0 | Neoligo Change Adverse | 51.8 55.3 | 1.1 1.4 | Negigible Adverse | 39.4 42.2 | 40.4 43.8 | 40.4 43.5 |
| 7, FARVVIEW WALK, DANESTONE | Delling | 55.2 | 57.5 | 55.3 | 0.1 | Negligible Beneficicial | 56.9 | 1.7 | Negigigile Adverse | 43.4 | 45.5 | 44.9 |
| 8, FARVVIEW WALK, DANESTONE | Oweling | 52.4 | 53.4 | 52.4 | 0.0 | No Change | 53.4 | 1.0 | Negigigle Adverse | 40.9 | 41.8 | 41.8 |
| $\frac{9}{1, ~ F A I R V V I E W ~ W A Y, ~ D A N E S T O N E ~}$ | Dwelling | ${ }_{53.6}^{53.6}$ | 58.2 53.7 | ${ }_{50.7}^{53.7}$ | 0.1 | Neoligioble Adverse | 54.7 | ${ }_{1}^{1.1}$ | Neoligioble Adverse | 42.0 | ${ }^{42.1}$ | 43.0 |
| 10, FAIRVVEW WAY, DANESTONE 11. FARIVIEW WAY DANESTONE | Dwelling | 52.6 54.9 | 53.4 54.7 | 52.7 55.0 | 0.1 | Negigible Adverse | $\stackrel{54.0}{558}$ | 1.4 | Negigigle Adverse | ${ }_{41.1}^{41.1}$ | $\frac{41.8}{43}$ | $\stackrel{42.3}{44}$ |
| 11, FAIRVIEW WAY, DANESTONE | Dwelling | 54.9 |  | 55.0 |  | Negligible Adverse | 55.8 | 0.9 | Negigigile Adverse | 43.1 | 43.0 | 44.0 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 Lnight,outside | DS33 Lnight,outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 12, FAIRVIEW WAY, DANESTONE | Deeling | 52.6 | 53.9 | 52.8 | 0.2 | Negigigle Adverse | 54.1 | 1.5 | Negigigle Adverse | 41.1 | 42.2 | 42.4 |
| 14, FAIRVIEW WAY, DANESTONE | Dweling | 52.4 | 53.4 56.1 | 52.5 | 0.1 | Negiligib Adverse | 53.8 <br> 575 | 1.4 | Negiligle Adverse | $\frac{40.9}{44.6}$ | $\frac{41.8}{44.2}$ | $\frac{42.2}{45.5}$ |
|  | Dwelling | - | ${ }_{53.4}^{56.1}$ | ${ }_{52.5}^{56.7}$ | ${ }_{0}^{0.1}$ | Neoligigiele Adverse | ${ }_{53.8}^{57.8}$ | ${ }_{1}^{1.4}$ | Neoligigie Avverse | 40.9 | 41.8 | 45.5 |
| 18 18, FAIVVIEW WAY, DANESTONE | Dwelling | 52.5 | 53.3 | 52.6 | 0.1 | Negligible Adverse | 54.0 | 1.5 | Negligible Adverse | 41.0 | 41.7 | ${ }_{42.3}^{42 .}$ |
| 19, FARIVIEW WAY, DANESTONE | Dwelling | 71.6 | 71.9 | 71.9 | 0.3 | Negigigile Adverse | 73.2 | 1.6 | Negigigile Adverse | 58.2 | 58.4 | 59.6 |
| 2, FAIRVVEW WAY, DANESTONE | Dwelling | 59.3 | 62.4 | 59.4 | 0.1 | Negigibile Adverse | 61.1 | 1.8 | Negligible Adverse | 47.1 | 49.9 | 48.7 |
| 20, FAIRVIEW WAY, DANESTONE | Dwelling | 51.7 | 52.3 | 51.9 | 0.2 | Negiligibe Adverse | 53.2 | 1.5 | Negilibile Adverse | 40.3 | 40.8 | 41.6 |
| 21, FAIRVIEW WAY, DANESTONE | welling | 69.9 | 70.4 | 70.2 | 0.3 | Negigigibe Adverse | 71.8 | 1.9 | Negiligibe Adverse | 56.6 | 57.1 | 58.4 |
| 21, FARVVIEW WAY, DANESTONE | welling | 69.9 5.9 | 70.4 | 70.2 502 | 0.3 | Negiligibe Adverse | 71.8 57 | 1.9 1.5 | Negiligibie Adverse | ${ }_{46.6}$ | 57.1 | 58.4 42.2 |
| 2, 2 2, FAIRVVIEW WAYY, DANESTTONE | Oweiling | ${ }_{69.9}$ | 52.8 70.4 | 52.4 70.2 | ${ }_{0}^{0.3}$ | Negigigibe Adverse | ${ }_{71.8}^{53.8}$ | 1.9 | $\frac{\text { Negliglie Adverse }}{\text { Negligibe Adverse }}$ | ${ }_{50.6}^{40.6}$ | ${ }_{57.1}^{4.1}$ | ${ }_{\text {4 }}^{42.4}$ |
| 24, FAIRVIEW WAY, DANESTONE | Dwelling | 52.0 | 52.6 | 52.2 | 0.2 | Negiligile Adverse | 53.6 | 1.6 | Negligible Adverse | 40.5 | 41.1 | 42.0 |
| 25, FAIRVIEW WAY, DANESTONE | Wwelling | 69.9 | 70.4 | 70.2 | 0.3 | Negiligile Adverse | 71.8 | 1.9 | Negiligibe Adverse | 56.6 | 57.1 | 58.4 |
| 26, FAIPVIEW WAY, DANESTONE | ling | 52.9 | 53.4 | 53.0 | ${ }^{0.1}$ | Negligiole Adverse | 54.4 | 1.5 | Negiligible Adverse | 41.3 | 41.8 | 42.7 573 |
| 27, FAIRVIEW WAY, DANESTONE | eiling | 68.4 5 | 69.0 |  | 0.3 | Negigigible Adverse | 70.6 | 2.2 | Negiligile Adverse | 55.3 |  | 57.3 |
| 28, FAIRVIEW WAY, DANESTONE | elling |  | 53.2 | 52.9 |  | Negiligibe Adverse | 54.3 | $\begin{array}{r}1.6 \\ \hline 1\end{array}$ | Negiligile Adverse | 41.2 | 41.6 | ${ }^{42.6}$ |
| 29, FAIRVIEW WAY, DANESTONE |  | 68.9 | 69.5 | 69.2 | 0.3 | Negiligibe Adverse | 71.0 | 2.1 | Negigigile Adverse | 55.7 | 56.3 |  |
| 3, FAIRVVIEW WAY, DANESTONE | Deelling | 53.2 |  | 53.4 | 0.2 | Negigigile Adverse | 54.4 | 1.2 | Negigioble Adverse | 41.6 |  | 42.7 |
| 30, FAIRVIEW WAY, DANESTONE | Dweling | 52.6 |  | 52.8 | 0.2 | Negigigibe Adverse | 54.2 | 1.6 | Negiligibe Adverse | 41.1 | 41.6 | 42.5 |
| 31, FARVVEW WA, DANESTONE | Oweling | ${ }_{5}^{69.1}$ | 69.7 | 69.4 | ${ }_{0}^{0.3}$ | Negigigiole Adverse | 71.2 <br> 542 | ${ }^{2} .1$ | Negligiole Aaverse | 55.9 | 56.5 | 57.8 |
| 32, ARIRVEW WA, DANESTONE | weling | 52.7 | 53.2 | 52.9 | ${ }^{0.2}$ | Negiligile Adverse | ${ }_{54.2}$ | 1.5 2.1 | Negigigile Adverse | 41.21 | ${ }_{51.6}^{4.6}$ | 42.5 |
| 33, FARTVIEW WAY, DANEESTONE | Dweling | 69.3 | 69.9 | 69.6 | 0.3 | Negiligble Adverse | 71.4 | 2.1 | Negiligble Adverse | 56.1 | 56.6 | 58.0 |
|  | Dweling | ${ }_{66.7}^{56.7}$ | 69, ${ }^{5}$ | 56.6 69.0 | ${ }_{0}^{0.3}$ | Neogigiobe Adverse | 58.4 70.9 | 2.0 | Neogigibie Adverse | $\stackrel{44.5}{55.6}$ | 56.2. | 46.3 57 |
| 36, FAIRVIEW WAY, DANESTONE | Dwelling | 56.5 | 57.2 | 56.8 | 0.3 | Negligible Adverse | 58.6 | 2.1 | Negligiole Adverse | 44.6 | 45.2 | 46.5 |
| 37, FAIRVIEW WAY, DANESTONE | Dwelling | 68.4 | 69.1 | 68.7 | 0.3 | Negiligile Adverse | 70.6 | 2.2 | Negiligile Adverse | 55.3 | 55.9 | 57.3 |
| 38, FAIRVIEW WAY, DANESTONE | welling | 57.8 | 58.5 | 58.1 | ${ }^{0.3}$ | Negigigibe Adverse | 60.0 | 2.2 | Negigigibe Adverse | 45.8 | 46.4 | 47.7 |
| 39, FAIPVIEW WAY, DANESTONE | welling | 68.8 | 69.5 | 69.1 | 0.3 | Negigigibe Adverse | 71.0 | 2.2 | Negigigibe Adverse | 55.7 | 56.3 | 57.6 |
| 4, FAIRVVIEW WAY, DANESTONE | welling | 55.5 | 58.0 | 55.7 | 0.2 | Negigigile Adverse | 57.2 | 1.7 | Negigioble Adverse | 43.7 | 45.9 | 45.2 |
| 40, FAIRVIEW WAY, DANESTONE | weling | 59.6 | 60.4 | 59.9 | 0.3 | Negigigile Adverse | 61.8 | 2.2 | Negigigile Adverse | 47.4 | 48.1 | 49.4 |
| 42, FAIRVIEW WAY, DANESTONE | Oweling | 61.7 | 62.3 | 61.9 | 0.2 | Negigigibe Adverse | 63.8 | 2.1 | Negiligibe Adverse | 49.3 | 49.8 | 51.2 |
| 44, FARVVIEW WAY, DANESTONE | Dwelling | 58.1 58.0 | 58.1 57.9 | 㐌58.2 | 0.2 | $\frac{\text { Negigigibe Adverse }}{\text { Negioible Adverse }}$ | - 59.4 | ${ }_{1}^{1.3}$ | Negigigib Adverse | 46.0 | ${ }_{45.8}^{46.0}$ | 477.0 |
| 48, FARIVIEW WAY, DANESTONE | Dwelling | 57.8 | 57.7 | 58.0 | 0.2 | Negigigile Adverse | 59.0 | 1.2 | Negligible Adverse | 45.8 | 45.7 | 46.8 |
| 5, FAIRVIEW WAY, DANESTO |  | 54.3 | 54.3 | 54.5 | 0.2 | Negiligile Adverse | 55. | 1.2 | Negiligile Adverse | 42.6 | 42.6 |  |
| 6, FAIRVIEW WAY, DANESTONE | Dwelling | 54.1 | 56.0 | 54.3 | 0.2 | Negigigile Adverse | 55.6 | 1.5 | Negiligile Adverse | 42.4 | 44.1 | 43.8 |
| 7, FAIRVIEW WAY, DANESTONE | welling | 53.9 | 53.8 | 54.1 | 0.2 | Negigioble Adverse | 55.0 | 1.1 | Negigioble Adverse | 42.2 | 42.2 | 43.2 |
|  | Dwelling | 52.5 53.6 | 54.5 | 52.6 53.8 | ${ }_{0}^{0.1}$ | Neogigigle Adverse | 53.6 | 1.0 | Negligigile Adverse | 42.0 | ${ }_{4}^{42.9}$ | ${ }_{42.9}^{42.9}$ |
| 1 1, FAIRVIEW WYND, DANESTONE | Dwelling | 52.3 | 52.8 | 52.4 | 0.1 | Negigigile Adverse | 53.2 | 0.9 | Negigiolie Adverse | 40.8 | 41.3 | 41.6 |
| 10, FAIRVIEW WYND, DANESTONE | Dwelling | 55.0 | 54.7 | 55.1 | 0.1 | Negigigile Adverse | 55.2 | 0.2 | Negiligile Adverse | 43.2 | 43.0 | 43.4 |
|  | Dwelling | $\stackrel{54.4}{53.9}$ | $\stackrel{53.9}{53.6}$ | $\stackrel{54.5}{54.0}$ | ${ }_{0}^{0.1}$ | Negigible Adverse | 54.7 54.5 | 0.3 | $\frac{\text { Negigigle Adverse }}{\text { Neligiole Adverse }}$ | $\frac{42.7}{42.2}$ | $\stackrel{42.2}{42.0}$ | $\xrightarrow{43.0}$ |
| 15, FAIRVIEW WYND, DANESTONE | Deelling | 50.4 | 50.9 | 50.3 | -0.1 | Negligible Beneficial | 51.2 | 0.8 | Negigioble Adverse | 39.1 | 39.5 | 39.8 |
| $\frac{16.1}{16, ~ F A R V V I E W ~ W Y N D, ~ D A N E S T O N E ~}$ | Dwelling | 53.9 51.4 | 53.3 <br> 51.8 | 54.0 51.4 | 0.1 0.0 | Negiligile Adverse | 54.2 52.1 | 0.3 0.7 | $\frac{\text { Negiligib Adverse }}{\text { Negigible Adverse }}$ | $\frac{42.2}{40.0}$ | 41.7 40.4 | 42.5 40.6 |
| 18, FAIRVVEW WYND, DANESTONE | Dwelling | 52.5 | 52.5 | 52.6 | 0.1 | Negigigible Adverse | 53.2 | 0.7 | Negiligible Adverse | 41.0 | 41.0 | 41.6 |
| $\frac{\text { 2, FAIRVIEW WYND, DANESTONE }}{20}$ | Dwelling | 50.9 52.3 | 51.5 52.1 | 50.9 52.4 | 0.0 0.1 | $\xrightarrow{\text { Nogo Change }}$ | $\begin{array}{r}51.8 \\ 52.9 \\ \hline\end{array}$ | 0.9 0.6 | Negligibl Adverse | 39.5 40.8 | 40.1 40.6 | $\frac{40.4}{41.3}$ |
| 22, FAIRVIEW WYND, DANESTONE | Dwelling | 52.2 | 52.0 | 52.3 | 0.1 | Negligible Beneficial | 52.7 | 0.5 | Negiligile Adverse | 40.7 | 40.5 | 41.2 |
| 24, FAIRVIVW WYND, DANESTONE | Dwelling | 52.2 | 52.0 | 52.3 | 0.1 | Negligible Beneficial | 52.8 | 0.6 | Negigigible Adverse | 40.7 | 40.5 | 41.3 |
| 26, FARVVIW WYND, DANESTONE | Oweling | 52.11 | 51.9 | 52.2 | 0.1 | Negiligibe Adverse |  | 0.7 | Negiligile Adverse |  | 40.4 |  |
|  | Oweiling | 53.0 | 52.9 | 53.1 | 0.1 | Negigigio Adverse | ${ }_{5}^{54.1}$ |  | Negligiole Aaverse | 4.4 | , | 42.4 |
| 3, FARMEW WND, DANESTONE | weling | 51.5 | 51.6 | 51.6 | 0.1 | Negigigile Adverse | ${ }^{52.2}$ | 0.7 | Negiqigile Adverse | 40.1 | 40.2 | 40.7 |
| ( 30, FARVVEW W WND, DAAESTONE | Oweling | 年 51.8 | 51.7 | 51.9 52.0 | 0.1 | $\frac{\text { Negigigibe Adverse }}{\text { Negigiole Adverse }}$ | 52.7 53.0 | 0.9 1.2 | $\frac{\text { Negigigle Adverse }}{\text { Neligiole Adverse }}$ | $\frac{40.4}{40.4}$ | 40.3 | $\frac{41.2}{41.4}$ |
| 34, FAIRVVEW WYND, DANESTONE | Dwelling | 49.8 | 50.1 | 50.0 | 0.2 | Negigiole Adverse | 51.3 | 1.5 | Negligible Adverse | 38.6 | 38.8 | 39.9 |
| 36, FAIRVVEW WYND, DANESTONE | Deelling | 53.0 | 53.3 | 53.2 | 0.2 | Negigigile Adverse | 54.5 | 1.5 | Negigioble Adverse | 41.4 | 41.7 | 42.8 |
| 38, FAARVIEW WYND, DANESTONE | Dwelling | 50.4 54.6 | 50.5 54.7 | ${ }^{50.5} 5$ | 0.1 0.1 | $\frac{\text { Negligiole Adverse }}{\text { Negligibe Adverse }}$ | 51.7 55.4 | 1.3 0.8 | $\frac{\text { Negligible Adverse }}{\text { Negligible Adverse }}$ | 39.1 42.9 | 39.2 43.0 | 40.3 43.6 |
| 40, FAIVVIEW WYND, DANESTONE | Dwelling | 49.9 | 50.2 | 49.9 | 0.0 | No Change | 51.0 | 1.1 | Negligible Adverse | 38.6 | 38.9 | 39.6 |
| 42, FAIRVIEW WYND, DANESTONE | Dwelling | 49.8 | 50.2 | 49.7 | -0.1 | Negligible Beneficial | 50.7 | 0.9 | Negigiolie Adverse | 38.6 | 38.9 | 39.4 |
| 44, FARVVIEW WYND, DANESTONE | Dwelling | 52.2 52.2 | 52.5 52.6 | 52.2. | 0.0 -0.1 | ${ }_{\text {Negligible }}$ Eengeficicial | 53.0 53.0 | 0.8 | $\frac{\text { Negligible Adverse }}{\text { Nefligible Adverse }}$ | 40.7 40.7 | $\frac{41.0}{41.1}$ | 41.4 41.4 |
| 5, FAIRVIEW WYND, DANESTONE | Dwelling | 52.1 | 51.9 | 52.2 | 0.1 | Negigioile Adverse | 53.1 | 1.0 | Negiligible Adverse | 40.6 | 40.4 | 41.5 |
| $\frac{\text { 6, FARVVIEW WYND, DANESTONE }}{7}$ | Dwelling | 53.9 50.1 | 53.6 49.8 | 54.0 50.2 | 0.1 0.1 | Negligible Adverse Negioible Adverse | 54.0 50.9 | 0.1 0.8 | Negligibl Adverse | ${ }_{3}^{42.2}$ | 42.0 38.6 | 42.3 39.5 |
| 8 , FAIRVIEW WYND, DANESTONE | veling | 54.3 | 54.0 | 54.4 | 0.1 | giligile Adverse | 54.5 | 0.2 | Negiligible Adverse | 42.6 | 2.3 | 42.8 |
| 9, FAITVIEW WYND, DANESTONE | Dwelling | 50.4 | 51.1 | 50.4 | 0.0 | No Change | 51.2 | 0.8 | Negligible Adverse | 39.1 | 39.7 | 39.8 |
| FLAT A, 1, FERRIIER CRESCENT | Oweling | 48.8 | 49.2 | 49.0 | 0.2 | Negiligiole Adverse | 49.2 | 0.4 | Negiligile Adverse | 37.7 377 | 38.0 | 38.0 |
| FLAT C, 1, FERRIIER CRESCENT | ${ }^{\text {Owelilig }}$ | 48.8 | 49.2 | 49.0 | 0.2 | Negigioble Adverse | 49.2 | 0.4 0.4 | Negligible Adverse | ${ }_{37,7}$ | 38.0 38.0 | 38.0 38.0 |
| ELAT D. 1, FERRIIIER CRESCENT | Deelling | 48.8 | 49.2 | 49.0 | 0.2 | Negigigibe Adverse | 49.2 | 0.4 | Negligible Adverse | 37.7 | 38.0 | 38.0 |
| CLAT E, 1, FRRRIIER CRESCENT | Dwelling | 48.8 488 | 49.2 | 49.0 | 0.2 | Negiligile Adverse | 49.2 | 0.4 0.4 | Negligiole Adverse | $\begin{array}{r}37.7 \\ 377 \\ \hline\end{array}$ | 38.0 380 | 38.0 380 |
| FLAT A, 2, FERRRIIER CRESCEENT | ${ }^{\text {Duelill }}$ Welling | ${ }_{48.8}^{48.8}$ | 49.4 | 49.0 | 0.2 | Neoligiole Adverse | 49.5 | 0.4 0.7 | Negligible Adverse | 37.7 37.7 | 38.2 38.2 | 38.3 38.3 |
| FLAT B, 2, FERRIIER CRESCENT | Dwelling | 48.8 488 | 49.4 494 | 49.0 | 0.2 | Negligible Adverse | 49.5 | 0.7 | Negiligile Adverse | 37.7 377 | 38.2 38.2 | 38.3 3.3 |
| FLAAT C, 2, 2, FERRRIIIER CRESESCENT | Dwelling | ${ }_{48.8}^{48.8}$ | 49.4 | 49.0 | 0.2 | Neotigible Adverse | 49.5 | 0.7 | Neoligibe Adverse | 37.7 | 38.2 38.2 | ${ }^{38.3}$ |
| AATE, 2, FERRIIER CREESCENT | Welling | 48.8 | 49.4 | 49.0 | 0.2 | Negigigile Adverse | 49.5 | 0.7 | Negligible Adverse | ${ }^{377}$ | 38.2 | 38.3 |
|  | Dwelling | ${ }_{4}^{47.1}$ | ${ }_{4}^{47.7}$ | ${ }_{47}^{49.3}$ | 0.2 | Negigigile Adverse | ${ }_{4}^{47.7}$ | 0.6 | Negigigible Adverse | ${ }_{36.1}$ | ${ }_{36.7}$ | ${ }_{36.7}$ |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 night,outside | $\begin{gathered} \text { DS33 } \\ \text { Lnight,outside } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| FLAT B , 3, FERRIER CRESCENT | Dwelling | 47.1 | 47.7 | 47.3 | 0.2 | Negigigile Adverse | 47.7 | 0.6 | Negigigible Adverse | 36.1 | 36.7 | 36.7 |
| FLAT C, 3, FERRRIIER CRESCEENT | Oweling | 47.1 | 47.7 | 47.3 | 0.2 | Negiligibe Adverse | 47.7 | 0.6 | Negaigible Adverse | 36.1 | 36.7 | 36.7 |
| FLAT D, 3, FERRIIER CRESCENT | Dwelling | 47.1 | 47.7 | 47.3 | 0.2 | Negiligile Adverse | 47.7 | 0.6 | Negiligibe Adverse | 36.1 | 36.7 | 36.7 |
| LAT A, 5, FERRRIIER CRESCEENT | Oweling | ${ }_{477}^{477}$ | 48.2 | ${ }_{478}^{478}$ | 0.1 | Negligible Beneficical | ${ }_{48.2}^{48}$ | 0.5 | Negigigle Adverse | ${ }_{36.7}^{36.7}$ | ${ }^{37.1}$ | ${ }^{37.1}$ |
| FLAT B, 5, FERRIIER CRESCEEAT | Delling | ${ }_{47.7}$ | ${ }^{48.2}$ | ${ }_{47.8}$ | 0.1 | Negligible Beneficical | 48.2 | 0.5 | Negligible Adverse | ${ }^{36.7}$ | 37.1 | ${ }^{37.1}$ |
| FLAT C,5, FERRIIIR CRESCENT | Dwelling | 47.7 | 48.2 | 47.8 | 0.1 | Negligible Benenitical | 48.2 | 0.5 | Negligible Adverse | ${ }_{36.7}^{36}$ | ${ }^{37.1}$ | ${ }^{37.1}$ |
| FLAT D, 5, FERRIER CRESCENT | Oweling | 47.7 | 48.2 | ${ }_{478}^{47.8}$ | 0.1 | $\frac{\text { Negligible Benenicical }}{\text { Neglioibl }}$ | ${ }_{48,2}$ | 0.5 | Negigigile Adverse | ${ }^{36.7}{ }^{36.7}$ | ${ }^{37.1}$ | 37.1 37.1 |
| FLATE, 5, Ferenilier crescent | Dwelling | ${ }_{4}^{47.7}$ | ${ }_{48.2}^{48.2}$ | 47.8 | 0.1 | Negiligiole Benenitiol | 48.2 | 0.5 | Negigigible Adverse | ${ }_{36.7}^{36.7}$ | ${ }^{37.1}$ | ${ }_{37,1}^{37.1}$ |
| FLAT A, 6, FERRIIER CRESCENT | Dwelling | 46.7 | 47.4 | 46.8 | 0.1 | Negligible Beneficial | 47.3 | 0.6 | Negiligile Adverse | 35.8 | 36.4 | 36.3 |
| FLAT B, 6, FERRIIER CRESCENT | Wwelling | 46.7 | 47.4 | 46.8 | 0.1 | Negligible Beneficial | 47.3 | 0.6 | Negigigibe Adverse | 35.8 | 36.4 | 36.3 |
| FLAT C, 6, FERRIIIR CRESCENT | welling | 46.7 | 47.4 | 46.8 | 0.1 | Negligible Beneficial | 47.3 | 0.6 | Negiligibe Adverse | 35.8 | 36.4 | 36.3 |
| LAT D, 6, FERRIIER CRESCENT | welling | 46.7 | 47.4 | 46.8 | 0.1 | Negligible Beneficial | 47.3 | 0.6 | Negigioble Adverse | 35.8 | 36.4 | 36.3 |
| FLAT E, 6, FERRIIER CRESCENT | Wwelling | 46.7 | 47.4 | 46.8 | 0.1 | Negligible Beneficial | 47.3 | 0.6 | Negiligibe Adverse | 35.8 | 36.4 | 36.3 |
| FLATAT F, , FERRIIER CRESCEENT | welling | 46.7 | 47.4 | 46.8 | 0.1 | Negligible Benenitical | 47.3 | 0.6 | Negiligible Adverse | 35.8 <br> 3.7 | 36.4 | 36.3 |
| FLAT A, 7 , FEERRIIER CRESCEEST | Welling | 46.6 | 47.1 |  | 0.1 | Negiligile Adverse | 47.0 | 0.4 | Negiligibe Adverse | 35.7 |  |  |
| FLAT B, 7, FERRIIER CRESCENT | weling | 46.6 | 47.1 | 46.7 |  | Negigigio Adverse | 47.0 |  | Negiligile Aaverse | 5.7 |  |  |
| FLAT D, 7, FERRIIER CRESCENT | Duelling | 46.6 | 471 | 46.7 | 0. | Neogigigibe Adverse | 470 | 0.4 | Neoligioble Adverse | ${ }_{357}$ | ${ }_{36.1}$ | 6.0 |
| FLAT E, 7, FERRIIER CRESCENT | Dwelling | 46.6 | 47.1 | 46.7 | 0.1 | Negiligible Adverse | 47.0 | 0.4 | Negligible Adverse | 35.7 | 36.1 | 36.0 |
|  | Dwelling | 46.6 | 47.1 | 46.7 | 0.1 | Negilioile Adverse | 47.0 | 0.4 | Negigioble Adverse | 35.7 | 36.1 | 36.0 |
| FLAT A, , , FERRRIER CRESCENT | Dwelling | 46.7 | 47.4 | 46.8 | 0.1 | Negligible Beneficial | 47.3 | 0.6 | Negiligible Adverse | 35.8 | 36.4 | 36.3 |
| FLAT B, 8 , FERRIIER CRESCENT | Deelling | 46.7 | 47.4 | 46.8 | 0.1 | Negligible Beneficial | 47.3 | 0.6 | Negigigibe Adverse | 35.8 | 36.4 | 36.3 |
| FLAT C, 8 , FERRILIER CRESCENT | ${ }^{\text {Dwelling }}$ Dowiling | ${ }_{46.7}^{46.7}$ | 47.4 47.4 | 46.8 | ${ }_{0}^{0.1}$ | Negiligle Beneficial | ${ }_{47.3}^{47.3}$ | 0.6 | Negigigib Adverse | 35.8 35.8 | 36.4 36.4 | 36.3 36.3 |
| FLAT E, 8, FERRRIIER CRESCENT | Dwelling | 46.7 | 47.4 | 46.8 | 0.1 | Negligible Beneficial | 47.3 | 0.6 | Negiligible Adverse | 35.8 | 36.4 | 36.3 |
| FLAT F, 8, FERRIIER CRESCENT | Dwelling | 46.7 | 47.4 | 46.8 | 0.1 | Negligible Beneficial | 47.3 | 0.6 | Negiligibe Adverse | 35.8 | ${ }^{36.4}$ | 36.3 |
| FLAT A, 9 , FERRIIER CRESCENT | welling | 47.5 | 48.1 | 47.7 | 0.2 | Negigigibe Adverse | 48.0 | 0.5 | Negigigibe Adverse | 36.5 | 37.0 | 36.9 |
| FLAT B,9, FERRIER CRESCENT | Dwelling | 47.5 | 48.1 | ${ }_{477}^{47.7}$ | ${ }^{0.2}$ | Negiligio Adverse | ${ }^{48.0}$ | ${ }_{0}^{0.5}$ | Negigigibe Adverse | 36.5 365 | ${ }^{37.0}$ | 36.9 |
| FLAT D, 9, FERRIILR CRESCENT | Owelling | 47.5 | 48.1 | 47.7 | 0.2 | Negiligile Adverse | 48.0 | 0.5 | Negligible Adverse | 36.5 | 37.0 | 36.9 |
| FLAT E, 9, FERRRIER CRESCENT | Dwelling | 47.5 | 48.1 | 47.7 | 0.2 | Negigiole Adverse | 48.0 | 0.5 | Negligible Adverse | 36.5 | 37.0 | 36.9 |
| FLAT F,9, FERRIIER CRESCENT | eelling | 47.5 | 48.1 | 47.7 | 0.2 | Negligiole Adverse | 48.0 | 0.5 | Negigigibile Adverse | 36.5 3.5 |  | 36.9 |
| FLAT A, O, FERRIIER CRESCENT | Dwelling | 46.4 | 47.1 | 46.6 |  | Negiligibe Adverse |  |  | Negiquibe Adverse |  |  |  |
| FLAT B, 10, FERRIIRR CRESCENT |  | 46.4 | ${ }^{47.1}$ |  | 0.2 | Negigigio Adverse | 47.0 | 0.6 | Negiligibe Adverse |  |  | 6.0 |
| FLAT D. 10. FERRRIER CRESCENT | Dwelling | 46.4 | 471 | 46.6 | 0.2 | Negoligible Adverse | 470 | 0.6 | Neoligioble Adverse | 35.5 | 36.1 | 36.0 |
| FLAT E, 10, FERRIIRR CRESCENT | Dwelling | 46.4 | 47.1 | 46.6 | 0.2 | Negigioble Adverse | 47.0 | 0.6 | Negligible Adverse | 35.5 | 36.1 | 36.0 |
| FLAT F, 10, FERRIIER CRESCENT | Dwelling | 46.4 | 47.1 | 46.6 | 0.2 | Negigioble Adverse | 47.0 | 0.6 | Negigioibe Adverse | 35.5 | 36.1 | 36.0 |
|  | Dwelling | ${ }_{47.3}^{47}$ | 47.9 | 47.5 | 0.2 0.2 | Negigiole Adverse | 47.8 47.8 | ${ }_{0}^{0.5}$ | Negigigle Adverse | 36.3 36.3 | 36.8 36.8 | 36.8 36.8 |
| FLAT C, 11, FERRIIER CRESCENT | Dwelling | 47.3 | 47.9 | 47.5 | 0.2 | Negigigile Adverse | 47.8 | 0.5 | Negiligible Adverse | 36.3 | 36.8 | 36.8 |
| \| FLAT D, 11, FERRIER CRESCENT | Dwelling | 47.3 47.3 | 47.9 47.9 | 47.5 47.5 | 0.2 0.2 | $\frac{\text { Negiligib Adverse }}{\text { Negilible Adverse }}$ | 47.8 47.8 | 0.5 0.5 | $\frac{\text { Negligible Adverse }}{\text { Nefligible Adverse }}$ | 36.3 36.3 | 36.8 <br> 36.8 | 36.8 <br> 36.8 |
| FLAT F, 11, FERRIIER CRESCENT | Deelling | 47.3 | 47.9 | 47.5 | 0.2 | Negiligibe Adverse | 47.8 | 0.5 | Negigioble Adverse | 36.3 | 36.8 | 36.8 |
| FLAT A, 12, FERRIER CRESCENT | Dwelling | 46.1 46.1 | 46.8 46.8 | 46.3 | 0.2 0.2 | $\frac{\text { Negigigib Adverse }}{\text { Negigible Adverse }}$ | 46.7 46.7 | 0.6 0.6 | $\frac{\text { Negiligib Adverse }}{\text { Negigible Adverse }}$ | 35.2 35.2 | 35.9 35.9 | 35.8 35.8 |
| FLAT C, 12, FERRIIER CRESCENT | Dwelling | 46.1 | 46.8 | 46.3 | 0.2 | Negigigile Adverse | 46.7 | 0.6 | Negiligible Adverse | 35.2 | 35.9 | 35.8 |
| FLAT D, 12, FERRIER CRESCENT | Dwelling | 46.1 46.1 | 46.8 46.8 | $\frac{46.3}{46.3}$ | 0.2 0.2 | Negligile Adverse | 46.7 46.7 | 0.6 0.6 | Negligibl Adverse | 35.2 35.2 | 35.9 35.9 | 35.8 <br> 35.8 |
| FLAT F, 12, FERRIIIR CRESCENT | Dwelling | 46.1 | 46.8 | 46.3 | 0.2 | Negigigile Adverse | 46.7 | 0.6 | Negiligile Adverse | $\frac{35.2}{}$ |  |  |
| FLAT A, 14, FERRIER CRESCENT | Dwelling | 46.5 46.5 | ${ }_{4}^{47.2} 4$ | 46.7 46.7 | 0.2 0.2 | Negligible Adverse Negioigle Adverse | $\frac{47.2}{47.2}$ | 0.7 0.7 | Negiligib Adverse Nefigiole Adverse | 35.6 <br> 356 | 36.2 362 | 36.2 362 |
| FLAT C, 4 4, FERRRIER CRESCENT | Dwelling | 46.5 | 47.2 | 46.7 | 0.2 | Neogigigile Adverse | 47.2 | 0.7 | Negigigible Adverse | 35.6 | ${ }_{36.2}$ |  |
| FLAT D, 14, FERRIIER CRESCENT | Dwelling | 46.5 | 47.2 | 46.7 | 0.2 | Negigiole Adverse | 47.2 | 0.7 | Negiligile Adverse | 35.6 | 36.2 | 36.2 |
| FLAT E, 14, FERRIIIR CRESCENT | Dwelling | 46.5 | 47.2 | 46.7 | 0.2 | Negigioble Adverse | 47.2 | 0.7 | Negigioble Adverse | 35.6 | 36.2 | 36.2 |
| FLAT A, 16 , FERRIIER CRESCENT | Dweliling | ${ }_{46.6}^{46.5}$ | ${ }_{47.3}^{47.2}$ | ${ }_{46.8}^{46.7}$ | ${ }_{0}^{0.2}$ | Neogigigle Adverse | ${ }_{47.3}^{47.2}$ | ${ }_{0}^{0.7}$ | Negligigile Adverse | 35.6 35.7 | 36.2. 36.3 | 36.2 36.3 |
| FLAT B, 16, FERRIIER CRESCENT | Deelling | 46.6 | 47.3 | 46.8 | 0.2 | Negigiole Adverse | 47.3 | 0.7 | Negiligile Adverse | 35.7 | 36.3 | 36.3 |
| FLAT C, 16, FERRIIER CRESCENT | Dwelling | 46.6 | 47.3 | 46.8 | 0.2 | Negigigile Adverse | 47.3 | 0.7 | Negiligile Adverse | 35.7 | 36.3 | 36.3 |
| FLAT D, 16, FERRIER CRESCENT | Dwelling | $\xrightarrow[46.6]{46.6}$ | ${ }_{47.3}^{47.3}$ | 46.8 46.8 | 0.2 | Negigible Adverse | $\stackrel{47.3}{47.3}$ | 0.7 | $\frac{\text { Negigigle Adverse }}{\text { Neligiole Adverse }}$ | ${ }^{35.7}{ }^{35.7}$ | ${ }^{36.3}$ | ${ }^{36.3}$ 36.3 |
| FLAT F, 16, FERRIIER CRESCENT | Dwelling | 46.6 | 47.3 | 46.8 | 0.2 | Negigioble Adverse | 47.3 | 0.7 | Negiligile Adverse | 35.7 | 36.3 | 36.3 |
| FLAT A, 18, FERRIIER CRESCENT | Delling | 46.8 | 47.4 | 46.9 | 0.1 | Negigigibe Adverse | ${ }_{47.4}^{4}$ | 0.6 | Negligible Adverse | 35.9 | 36.4 | 36.4 |
| FLAT B, 18, EERRILR CRESCENT | Dwelling | 46.8 46.8 | 47.4 47.4 | 46.9 | ${ }_{0}^{0.1}$ | Negigigle Adverse | 47.4 47.4 | 0.6 | $\frac{\text { Negigigle Adverse }}{\text { Neoligible Adverse }}$ | 35.9 35.9 | 36.4 36.4 | 36.4 36.4 |
| FLAT D, 18, FERRIIER CRESCENT | Dwelling | 46.8 | 47.4 | 46.9 | 0.1 | Negigiole Adverse | 47.4 | 0.6 | Negligible Adverse | 35.9 | 36.4 | 36.4 |
| FLAT E, 18, FERRIIER CRESCENT | Deeling | 46.8 | 47.4 | 46.9 | 0.1 | Negaligible Adverse | 47.4 | 0.6 | Negiligible Adverse | 35.9 | 36.4 | 36.4 |
|  | Dweling | $\stackrel{46.8}{46.6}$ | 477.4 | 46.9 | ${ }_{0}^{0.1}$ | Neogigiole Adverse | $\stackrel{47.4}{47.2}$ | 0.6 | Neogigiole Adverse | ${ }_{35.7}$ | ${ }^{36.4}$ | ${ }^{36.4} 3$ |
| FLAT B, 19, FERRIIER CRESCENT | Dwelling | 46.6 | 47.2 | 46.7 | 0.1 | Negigioble Adverse | 47.2 | 0.6 | Negiligible Adverse | 35.7 | 36.2 | 36.2 |
| FLAT C, 19, FERRIER CRESCENT | Oweling | ${ }_{46.6}$ | 47.2 | 46.7 | 0.1 | Negigigibe Adverse | 47.2 | 0.6 | Negigigibe Adverse | ${ }^{35.7}$ | 36.2 | 36.2 |
| FLAT A, O2, FERRIIIR CRESCENT | Dwelling | 46.9 | ${ }_{47.5}^{47.5}$ | 47.0 | 0.1 | Neoligioble Adverse | 47.5 | 0.6 | Neoligiobe Avverse | ${ }_{35.9}$ | ${ }_{36.2}^{36.5}$ | ${ }_{36.2}^{36.5}$ |
| FLAT B, 20, FERRIIER CRESCENT | Dwelling | 46.9 | 47.5 | 47.0 | 0.1 | Negigigile Adverse | 47.5 | 0.6 | Negligible Adverse | 35.9 | 36.5 | 36.5 |
| FLAT C, 20, FERRIIR CRESCENT | Deelling | 46.9 | 47.5 | 47.0 | 0.1 | Negigibile Adverse | 47.5 | 0.6 | Negiligibe Adverse | 35.9 | 36.5 | 36.5 |
|  | ${ }^{\text {Dwelling }}$ Dowiligg | 46.9 | 47.5 | 47.0 | ${ }_{0}^{0.1}$ | Negigible Adverse | ${ }_{47.5}^{47.5}$ | ${ }_{0}^{0.6}$ | $\frac{\text { Negigible Adverse }}{\text { Negligible Adverse }}$ | 35.9 35.9 | 36.5 36.5 | 36.5 36.5 |
| FLAT F, 20, FERRIIER CRESCENT | Dwelling | 46.9 | 47.5 | 47.0 | 0.1 | Negigigile Adverse | 47.5 | 0.6 | Negligible Adverse | 35.9 | 36.5 | 36.5 |
| FLLAT A, 21, FERRIIER CRESCENT | Dwelling | 47.4 474 | $\frac{48.1}{48.1}$ | $\stackrel{47.6}{476}$ | $\frac{0.2}{0.2}$ | $\frac{\text { Negiligile Adverse }}{\text { Nealigiole Adverse }}$ | $\frac{48.1}{48.1}$ | 0.7 0.7 | $\frac{\text { Negiligile Adverse }}{\text { Neofigiole Adverse }}$ | 36.4 36.4 | $\frac{37.0}{370}$ | $\stackrel{37.0}{370}$ |
| AT C, 21, FERRIIER CRESCENT | Dwelling | 47.4 | 48.1 | 47.6 | 0.2 | Negigiole Adverse | 48.1 | 0.7 | Negligible Adverse | 36.4 | 37.0 | 37.0 |
| FLAT D, 21, FERRIIER CRESCENT | welling | 47.4 | 48.1 | 47.6 | 0.2 | Negigigile Adverse | 48.1 | 0.7 | Negigigile Adverse | 36.4 | 37.0 | 37.0 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 <br> Lnight,outside | DM33 Lnight,outside | $\begin{gathered} \text { DS33 } \\ \text { Lnight,outside } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| FLAT E, 21, FERRIIER CRESCENT | Dwelling | 47.4 | 48.1 | 47.6 | 0.2 | Negigigile Adverse | 48.1 | 0.7 | Negigigile Adverse | 36.4 | 37.0 | 37.0 |
| FLAT F, 21, FERRIIER CRESCENT | Dwelling | 47.4 | 48.1 | 47.6 | 0.2 | Negligible Adverse | 48.1 | 0.7 | Negigioble Adverse | 36.4 | 37.0 | 37.0 |
| FLAT A, 22, FERRIIRR CRESCENT | Dwelling | 46.7 | 47.4 | 46.9 | 0.2 | Neoligible Adverse | 47.3 | 0.6 | Negigiolie Adverse | 35.8 | 36.4 | 36.3 |
| FLAT B, 22, FERRIIER CRESCENT | Dwelling | 46.7 | 47.4 | 46.9 | 0.2 | Negligible Adverse | ${ }_{473}^{473}$ | 0.6 | Negigigle Adverse | 35.8 <br> 3.8 | 36.4 3.4 | 36.3 3.3 |
| FLAT C, 22, FERRIIER CRESCENT | Dwelling | 46.7 | ${ }_{47.4}^{474}$ | 46.9 | 0.2 | Negligible Adverse | ${ }_{47.3}^{47}$ | 0.6 | Negigigile Adverse | ${ }_{35.8}^{35}$ | 36.4 | ${ }^{36.3}$ |
| FLAT D, 22, FERRIIIR CRESCENT | Dwelling | 46.7 | ${ }_{47.4}^{474}$ | 46.9 | 0.2 | Negigigile Adverse | ${ }_{47,3}^{47}$ | 0.6 | Negigigle Adverse | 35.8 <br> 35 | 36.4 364 | -36.3 |
| FLAT E, 22, FERRIIIR CRESCENT | Dwelling | 46.7 | 47.4 | 46.9 | 0.2 | Negigigle Adverse | 47.3 | 0.6 | Negigigle Adverse | ${ }^{35.8}$ | ${ }_{36.4}^{36}$ | ${ }_{36.3}$ |
| FLAT F, 22, FERRIIRR CRESCENT | Deeling | 46.7 | 47.4 | 46.9 | 0.2 | Negigiole Adverse | 47.3 | 0.6 | Negigigibe Adverse | 35.8 3 | 36.4 <br> 3.8 | 36.3 308 |
| FLAT A, 23, FERRIIR CRESCENT | Deeling | 49.6 | 50.1 | 49.8 | 0.2 | Negigigile Adverse | 50.1 | 0.5 | Negigigibe Adverse | 38.4 | 38.8 | 38.8 |
| FLAT B, 23, FERRIIER CRESCENT | Dwelling | 49.6 | 50.1 | 49.8 | 0.2 | Negligible Adverse | 50.1 | 0.5 | Negiligible Adverse | 38.4 | 38.8 | 38.8 |
|  | Dwelling | 49.6 | ${ }_{50.1}^{50.1}$ | 49.8 | 0.2 | Neotigigibe Adverse | ${ }_{50.1}^{50.1}$ | 0.5 | Neoligigle Adverse | 38.4 38.4 | 38.8 38.8 | ${ }_{38.8}^{38.8}$ |
| FLAT E, 23, FERRIIER CRESCENT | Dwelling | 49.6 | 50.1 | 49.8 | 0.2 | Negigigile Adverse | 50.1 | 0.5 | Negigiolile Adverse | 38.4 | 38.8 | 38.8 |
| FLAT F, 23, FERRRIER CRESCENT | welling | 49.6 | 50.1 | 49.8 | 0.2 | Negigioble Adverse | 50.1 | 0.5 | Negigioble Adverse | 38.4 | 38.8 | 38.8 |
| FLAT A, 24, FERRIEER CRESC | Dwelling | 46.6 | 47.3 | 46.7 | 0.1 | Negiligiole Adverse | 47.2 | 0.6 | Negiligiole Adverse | 35.7 <br> 35 |  |  |
| FLAT B, 24, FERRIIER CRESCEN | Dwelling | 46.6 | 47.3 | 46.7 | 0.1 | Negligiole Adverse | 47.2 |  | Negligiole Adverse | 5.7 | ${ }^{36.3}$ | 36.2 |
| FLAT C, 24, FERRIIER CREESCENT | Dwelling | 46.6 | 47.3 | 46.7 | 0.1 | Negligiole Adverse | 47.2 | 0.6 | Negligioble Adverse |  |  |  |
| FLAT D, 24, FERRIIR CREESCENT |  | 46.6 |  | 46.7 | 0.1 | Negiligiole Adverse | 47.2 |  | Negiligibe Adverse | 35.7 |  | 36.2 |
| FAT, 24, FRRRIER CRESCENT | eing | 46.6 | 47.3 | 46.7 | 0.1 | Negigiole Adverse | 47.2 | 0.6 | Negigigile Adverse | \% 7 | 36.3 | 6.2 |
| FLAT F, 24, FRRRIER CRESCENT | Dweling | 46.6 | 47.3 | 46.7 | 0.1 | Negigigile Adverse | 47.2 | ${ }^{0.6}$ | Negigigio Adverse | 35.7 3.0 | 36.3 | 36.2 |
| L-AAT A, 26, FERRIER CRESCEN | Dweling | 47.0 | 477 | 47.2 | ${ }_{0}^{0.2}$ | Negiligile Adverse | 47.6 | ${ }^{0.6}$ | Negiligile Adverse | 36.0 | 36.7 | 36.6 |
| FLAT B, 26, FERRIER CRESCENT | Dweling | 470 | ${ }_{477}^{47.1}$ | ${ }_{472}$ | 0.2 | Neqligiole Adverse | ${ }_{47}^{476}$ | 0.6 | Negligiole Adverse | ${ }^{36.0} 3$ | ${ }^{36.7}$ | ${ }^{36.6}$ |
| FLAT D, 26, FERRIIER CRESCENT | Dwelling | 47.0 | 47.7 | 47.2 | 0.2 | Negigigile Adverse | 47.6 | 0.6 | Negigiole Adverse | 36.0 | 36.7 | 36.6 |
| FLAT E, 26, FERRIIER CRESCENT | Dwelling | 47.0 | 47.7 | 47.2 | 0.2 | Negligible Adverse | 47.6 | 0.6 | Negligible Adverse | 36.0 | 36.7 | 36.6 |
| FLAT F, 26, FERRIIRR CRESCENT | Dwelling | 47.0 | 47.7 | 47.2 | 0.2 | Negligible Adverse | 47.6 | 0.6 | Negligible Adverse | 36.0 | 36.7 | 36.6 |
| FLAT A, 28, FERRRIER CRESCENT | Dwelling | 46.1 | 47.0 | 45.8 | -0.3 | $\frac{\text { Negligible Benenicial }}{\text { Neglioble }}$ | 47.1 | 1.0 | Negiligibe Adverse | 35.2 | 36.0 | 36.1 |
| FLAT C, 28, FERRIIER CRESCENT | Dwelling | 46.1 | 47.0 | 45.8 | -0.3 | Negligible Beneficicial | 47.1 | 1.0 | Neogigiole Adverse | ${ }_{35.2}$ | 36.0 | ${ }_{36.1}$ |
| FLAT D, 28, FERRIIRR CRESCENT | welling | 46.1 | 47.0 | 45.8 | 0.3 | Negligible Beneficial | 47.1 | 1.0 | Negigiolie Adverse | 35.2 | 36.0 | 36.1 |
| FLAT E, 28, FERRIIER CRESCENT | Dwelling | 46.1 | 47.0 | 45.8 | -0.3 | Negligible Beneficial | 47.1 | 1.0 | Negigigile Adverse | 35.2 | 36.0 | 36.1 |
| FLAT F, 28, FERRIIRR CRESCENT | welling | 46.1 | 47.0 | 45.8 | 0.3 | Negligible Beneficial | 47.1 | 1.0 | Negigiole Adverse | 35.2 | 36.0 | 36.1 |
| FLAT A, 30, FERRIIRR CREECENT | eiling | 46.4 | 47.2 | 46.2 | -0.2 | Negligible Benefitical | 47.4 | 1.0 | Negligiole Adverse | 35.5 355 | ${ }_{36.2}$ | 36.4 |
| FLLAT B, 30, FERRIER CRESCENT | $\frac{\text { Dwelling }}{\text { Dweling }}$ | 46.4 46.4 | 47.2 472 | 46.2 46.2 | -0.2 -0.2 | $\frac{\text { Negligible Benenicial }}{\text { Negliobl }}$ | 47.4 47.4 | 1.0 1.0 | $\frac{\text { Negligible Adverse }}{\text { Neoligible Adverse }}$ | ${ }_{35.5}^{35.5}$ | 36.2 36.2 | 36.4 36.4 |
| FLAT, , 30, FERRIIER CRESCENT | Dwelling | 46.4 | 47.2 | 46.2 | -0.2 | Negligible Beneficial | 47.4 | 1.0 | Negligible Adverse | 35.5 | 36.2 | 36.4 |
| FLAT E, 30, FERRIIR CRESCENT | Dwelling | 46.4 | 47.2 | 46.2 | -0.2 | Negligible Beneficial | 47.4 | 1.0 | Negigigile Adverse | 35.5 | 36.2 | 36.4 |
| FLAT F, 30, FERRIIIR CRESCENT | Dwelling | 46.4 | 47.2 | 46.2 | -0.2 | Negligible Beneficial | 47.4 | 1.0 | Negligible Adverse | 35.5 | 36.2 | 36.4 |
| PoLICE COMMUNITY PROJECT, FERRIER CRESCENT | ommunty Project | 44.3 | 44.8 | 44.4 | 0.1 | Negigioile Adverse | 44.9 | 0.6 | Negigigibe Adverse | 33.6 | 34.1 | 34.1 |
|  | Dwelling | ${ }_{46.1}^{46.1}$ | ${ }_{46.8}^{46.8}$ | ${ }_{46.1}^{46.1}$ | 0.0 | No Change | ${ }_{46.8}^{46.8}$ | ${ }_{0}^{0.7}$ | $\frac{\text { Negligibe Adverse }}{\text { Negligible Adverse }}$ | 35.2 35.2 | 35.9 35.9 | 35.9 35.9 |
| FLAT C, 1, FERRIIER GARDENS | Dwelling | 46.1 | 46.8 | 46.1 | 0.0 | No Change | 46.8 | 0.7 | Negligible Adverse | 35.2 | 35.9 | 35.9 |
| FLAT D, 1, FERRIIER GARDENS | Dwelling | 46.1 | 46.8 | 46.1 | 0.0 | No Change | 46.8 | 0.7 | Negligible Adverse | 35.2 | 35.9 | 35.9 |
| FLAT E, 1, EERRIIER GARDENS | Dwelling | $\frac{46.1}{46.1}$ | $\frac{46.8}{46.8}$ | $\frac{46.1}{46.1}$ | 0.0 | $\frac{\text { No Change }}{\text { No Change }}$ | $\frac{46.8}{46.8}$ | 0.7 0.7 | $\frac{\text { Negigioble Adverse }}{\text { Negligibe Adverse }}$ | $\begin{array}{r}\text { 35.2 } \\ \hline 35.2\end{array}$ | 35.9 35.9 | 35.9 35.9 |
| FLAT A, , , , FERRIIER GARDENS | Deeling | 49.1 | 49.7 | 49.2 | 0.1 | Negigigile Adverse | 49.7 | 0.6 | Negigigile Adverse | 37.9 | 38.5 | 38.5 |
| FLAT B, 2, FERRIIER GARDENS | $\frac{\text { Dwelling }}{\text { Dweling }}$ | $\frac{49.1}{49.1}$ | 49.7 49.7 | 49.2 49.2 | 0.1 0.1 | $\frac{\text { Negligible Adverse }}{\text { Negligible Adverse }}$ | 49.7 49.7 | 0.6 0.6 | $\frac{\text { Negiligibe Adverse }}{\text { Negigible Adverse }}$ | 37.9 37.9 | 38.5 38.5 | 38.5 38.5 |
| FLAT D, 2, FERRIIER GARDENS | Dwelling | 49.1 | 49.7 | 49.2 | 0.1 | Negligible Adverse | 49.7 | 0.6 | Neogigigle Adverse | 37.9 | ${ }^{38.5}$ | ${ }_{38.5}$ |
| FLATE, 2, FERRIIER GARDENS | Dwelling | 49.1 | 49.7 | 49.2 | 0.1 | Negligible Adverse | 49.7 | 0.6 | Negligible Adverse | $\frac{37.9}{37}$ | 38.5 | 38.5 |
| FLAA F, L, FERRIIER GARDENS | Dweling |  |  |  |  | Negigigie Adverse |  |  | Negiligile Adverse |  |  |  |
| FLAT B, 3 , FERRRIIER GARDENS | Dweliling | ${ }_{48.3}$ | 49.0 | 48.4 | 0.1 | Negligibile Adverse | 49.0 | 0.7 | Negligibile Adverse | 37.2 37.2 | 37.8 <br> 37.8 | 37.8 37.8 |
| FLAT C, 3, FERRIIER GARDENS | Dwelling | 48.3 | 49.0 | 48.4 | 0.1 | Negligible Adverse | 49.0 | 0.7 | Negligible Adverse | 37.2 | 37.8 | 37.8 |
| FLAT D, 3, FERRRIIR GARDENS | Dwelling | 48.3 | 49.0 | 48.4 | 0.1 | Negigigile Adverse | 49.0 | 0.7 | Negigigile Adverse | 37.2 | 37.8 | 37.8 |
| FLATE, 3, FERRIIR GARDENS | Dwelling | 48.3 | 49.0 | 48.4 | 0.1 | $\frac{\text { Negligible Adverse }}{\text { Neoligible Adverse }}$ | 49.0 490 | 0.7 | Negigigil Adverse | 37.2 372 | 37.8 378 | 37.8 378 |
| FLAT A, 4, FEERRIIER GARDENS | Dweling | 48.4 | 49.4 | 48.4.4 | -0.1 | Negligioble Aesereficiol | $\stackrel{49.0}{48.6}$ | ${ }_{1}^{0.7}$ | Negligiobe Adverse | 37.2 36.6 | 37.8 <br> 37.3 | 37.8 37 |
| FLAT B, 4, FERRIIER GARDENS | Deeling | 47.6 | 48.4 | 47.4 | -0.2 | Negligible Beneficial | 48.6 | 1.0 | Negigiolie Adverse | 36.6 | 37.3 | 37.5 |
| FLAT C, 4, FERRIIER GARDENS | Dwelling | 47.6 | 48.4 | 47.4 | -0.2 | Negligible Beneficial | 48.6 | 1.0 | Negligible Adverse | 36.6 | 37.3 | 37.5 |
| FLAT D, 4, EERRILR GAADENS | Dwelling | ${ }_{47.6}^{47.6}$ | $\xrightarrow{48.4}$ | $\stackrel{47.4}{47.4}$ | -0.2 | ${ }^{\text {Negegioigle }}$ Benenificiol | $\stackrel{48.6}{48.6}$ | 1.0 1.0 1 | Negigigle Adverse | $\stackrel{36.6}{36.6}$ | $\stackrel{37.3}{37.3}$ | 37.5 37.5 |
| FLAT F, 4, FERRIIER GARDENS | Deeling | 47.6 | 48.4 | 47.4 | -0.2 | Negligible Beneficial | 48.6 | 1.0 | Negigiolie Adverse | 36.6 | 37.3 | 37.5 |
| FLAT A, 5, FERRIER GARDENS | Dweling | ${ }_{48,7}^{48.7}$ | 49.9 | 48.3 483 | -0.4 | $\frac{\text { Negligible Benentical }}{\text { Neglioble }}$ | 49.9 499 | 1.2 | $\frac{\text { Negligible Adverse }}{\text { Neolioble Adverse }}$ | 37.6 376 | ${ }^{38.6}$ | ${ }^{38.6}$ |
| FLAT C, 5, FERRIIER GARDENS | Dwelling | 48.7 | 49.9 | 48.3 | -0.4 | Negligible Beneficicial | 49.9 | 1.2 | Negligible Adverse | 37.6 | 38.6 | 38.6 |
| FLAT D, 5, FERRIIER GARDENS | Dwelling | 48.7 | 49.9 | 48.3 | -0.4 | Negligible Beneficial | 49.9 | 1.2 | Negigigile Adverse | 37.6 | 38.6 | 38.6 |
| FLATE,5, FERRIIR GARDENS | Dwelling | $\frac{48.7}{487}$ | 49.9 | 48.3 <br> 48 | -0.4 | Negliable Beneficial | 49.9 | 1.2 | Negiligle Adverse | 37.6 376 | 38.6 | 38.6 38 |
| FLAAT F, S, EERRIER GARDENS | Dweling | ${ }_{48.7}$ | 49.9 | ${ }_{48.3}^{48}$ | ${ }^{-0.4}$ | Negligible Benenitical | 49.9 |  | Negigigie Adverse | 37.6 370 | 3.6 | 38.6 |
| FLAT B, ©, FERRIIIR GARDENS | ${ }^{\text {Dwelling }}$ | 48.1 | 49.8 | 47.4 | -0.7 | Negegligible Beneneiticial | 49.5 | ${ }_{1}^{1.4}$ | Neogigible Adversse | 37.0 | ${ }_{38,6}$ | ${ }_{38,3}$ |
| FLAT C, 6, FERRIIR GARDENS | Dwelling | 48.1 | 49.8 | 47.4 | -0.7 | Negligible Beneficial | 49.5 | 1.4 | Neoligible Adverse | 37.0 | 38.6 | 38.3 |
| FLAT D, 6, FERRIIER GARDENS | Dwelling | 48.1 | 49.8 | 47.4 | -0.7 | Negligible Beneficial | 49.5 | 1.4 | Negigigibe Adverse | 37.0 | 38.6 | 38.3 |
| FLAAT F, 6, , FERRRIIIRR GARDENS | ${ }^{\text {Dweliling }}$ Dweling | ${ }_{48.1}^{48.1}$ | 49.8 <br> 49.8 | 477.4 | -0.7 -0.7 | Negiligile Benenitical | 49.5 | 1.4 <br> 1.4 <br> 1 | Negigigibe Adverse | 37.0 37.0 | 38.6 38.6 | 38.3 38.3 |
| FLAT A, , , FERRIIIR GARDENS | Deeling | 45.7 | 46.8 | 45.4 | -0.3 | Negligible Beneficial | 46.9 | 1.2 | Negigigile Adverse | 34.9 | 35.9 | 35.9 |
| CAT B , 7, FERRIER GARDENS | Dwelling | ${ }_{457}^{457}$ | 46.8 | 45.4 454 | -0.3 | Negligible Beneficial | 46.9 | 1.2 12 12 | Negligibl Adverse | 34.9 | 35.9 | 35.9 |
| FLAT D, 7, FERRRIIRR GARDENS | Dweling | ${ }_{45.7}^{45.7}$ | ${ }_{46.8}^{46.8}$ | ${ }_{45.4}^{45.4}$ | $\stackrel{-0.3}{-0.3}$ | Negiligiole Beneiticial | 46.9 | 1.2 | Negiligible Adverse | 34.9 34.9 | 35.9 35.9 | 35.9 35.9 |
| FLATE, 7, FERRIIER GARDENS | Dwelling | 45.7 | 46.8 | 45.4 | -0.3 | Negligible Beneficical | 46.9 | 1.2 | Negligible Adverse | 34.9 | 35.9 359 | 35.9 35 |
| FLAA F, 7, FERRILR GAARENS | Dwelling | ${ }_{45.1}^{45.7}$ | ${ }^{46.8} 46.1$ | ${ }_{45.9}^{44.9}$ | $\stackrel{-0.3}{-0.2}$ | Negiligie Beneificial | 46.4 | 1.2 1.3 | Negigigibe Adverse | ${ }^{34.3}$ | 35.9 <br> 35 | $\begin{array}{r}35.5 \\ \hline 35\end{array}$ |
| FLAT B, 8, FERRIIR GARDENS | Dwelling | 45.1 | 46.1 | 44.9 | -0.2 | Negligible Beneficial | 46.4 | 1.3 | Negligible Adverse | 34.3 | 35.2 | 35.5 |

## Appendix A14．4：Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short－term Daytime Noise Change（dB） | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long－term Daytime Noise Change（dB） | Magnitude of Change | DM18 Lnight，outside | DM33 <br> Lnight，outside | $\begin{gathered} \text { DS33 } \\ \text { Lnight,outside } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| FLAT C，8，FERRIER GARDENS | Dwelling | 45.1 | 46.1 | 44.9 | －0．2 | Negligible Beneficial | 46.4 | 1.3 | Negligible Adverse | 34.3 | 35.2 | 35.5 |
| FLAT D，8，FERRIIER GARDENS | Dwelling | 45.1 | 46.1 | 44.9 | －0．2 | Negligible Beneficical | 46.4 | 1.3 | Negiligible Adverse | 34.3 | 35.2 | 35.5 |
| FLAT E，8，FERRIER GARDENS | Dwelling | 45.1 | 46.1 | 44.9 | －0．2 | Negligible Beneficial | 46.4 | 1.3 | Negiligile Adverse | 34.3 | 35.2 | 35.5 |
| FLAT F，8，FERRIER GARDENS | Dwelling | 45.1 | 46.1 | 44.9 | －0．2 | Negligible Beneficial | 46.4 | 1.3 | Negligible Adverse | 34．3 | 35.2 | 35.5 |
| FLAT A，9，FERRIER GARDENS | Dwelling | ${ }^{44.4}$ | ${ }_{45.3}^{45}$ | 44.2 | －0．2 | Negligible Beneficicial | 45.7 | ${ }_{1}^{1.3}$ | Negligible Adverse | 33．7 | 34.5 | 34.9 |
| FLAT P，9，FERRIIER GARDENS | Dwelling | 44.4 | ${ }_{45.3}^{45}$ | ${ }_{4}^{44.2}$ | －0．2 | Negligible Benefitical | 45.7 | ${ }_{1}^{1.3}$ | Negiligible Adverse | 33.7 | 34.5 | 34.9 |
| FLAT C， 9 ，FERRIIER GARDENS | Dwelling | 44.4 | 45.3 | 44.2 | －0．2 | Negligible Beneficicial | 45.7 | ${ }^{1.3}$ | Negligible Adverse | 33.7 | 34.5 | 34.9 |
| FLAT D，9，FERRIIIER GARDENS | Dwelling | 44.4 | 45.3 | 44.2 | －0．2 | Negligible Beneficicial | 45.7 | 1.3 | Negligible Adverse | ${ }^{33,7}$ | 34.5 | 34.9 |
|  | Dweling | 44.4 44.4 | ${ }_{45.3}^{45.3}$ | $\frac{44.2}{44.2}$ | $\stackrel{-0.2}{-0.2}$ | $\frac{\text { Negligible Benenicial }}{\text { Negliobl }}$ Beneficial | ${ }_{45.7}^{45.7}$ | ${ }_{1.3}^{1.3}$ | $\frac{\text { Negiligile Adverse }}{\text { Negilible Adverse }}$ | ${ }_{33,7}^{33.7}$ | 34.5 34.5 | 34.9 34.9 |
| FOUNTAIN MISSION HALL，FOUNTAIN MISSION HALL，DON PLACE， |  |  |  |  |  |  |  |  |  |  |  |  |
| woodside | Hal | 61.7 | 63.3 | 61.3 | －0．4 | Negligible Beneficial | 62.7 | 1.0 | Negligible Adverse | 49.3 | 50.7 | 50.2 |
| 1，FOUNTVILLE COURT | welling | 50.7 | 51.8 | 50.9 | 0.2 | Negigibile Adverse | 51.8 | 1.1 | Negligible Adverse | 39.4 | 40.4 | 40.4 |
| 10，FOUNTVILLE COURT | welling | 49.2 | 51.1 | 49.6 | 0.4 | Negligible Adverse | 51.5 | ${ }^{2.3}$ | Negiligibe Adverse | 38.0 | 39.7 | 40.1 |
| 11，FOUNTVILLE COURT | welling | 51.9 | 54.3 | 52.7 | 0.8 | Neoligible Adverse | 55.0 | 3.1 | Minor Adverse | 40.4 | 42.6 | 43.2 |
| 12. FOUNTVILLE COURT | Dwelling | 47.7 | 49.4 | 48.1 | 0.4 | Negligible Adverse | 49.7 | 2.0 | Negiligile Adverse | 36.7 | 38.2 | 38.5 |
| 13，FOUNTVILLE COURT |  | 47.5 | 49.0 | 47.8 | 0.3 | Negligible Adverse | 49.2 | 1.7 | Negigigile Adverse | 36.5 | ${ }^{37.8}$ |  |
| 14，FOUNTVILLE COURT |  | 47.0 | 48.4 | 47.2 |  | Negligible Adverse | 48.7 | 1.7 | Negigigile Adverse | 5．0 |  |  |
| 15，FOUNTVILLE COURT | Dwelling | 46.8 | 48.3 |  | 0.2 | Negligible Adverse | 48.5 |  | Negligible Aaverse | 35.9 | 37.2 |  |
| 16，FOUNTVILLE COURT | Owelling | 46.1 | ${ }^{47.6}$ | 46.4 | ${ }^{0.3}$ | Negigigble Adverse | ${ }_{4}^{47.8}$ | 1.7 | Negigigble Adverse | 35.2 | 36.6 | 36.8 |
| 2，FOUNVILECOURT | Oweling | 51．0 | 52．2 | 5.1 | ${ }_{0}^{0.1}$ | Negigible Adverse | 52．1 | 1.1 | Negigigle Adverse | 39.6 395 | ${ }_{40,7}$ | 40.4 |
| 4，FOUNTVILLE COURT | Dwelling | 51.0 | 52．2 | ${ }_{51.1}$ | 0.1 | Neogigigile Adverse | 52．1 | 1.1 | Negigigible Adverse | 39．6 | 40.7 | 40.6 |
| 5，FOUNTVILLE COURT | Dwelling | 47.8 | 49.4 | 48.0 | 0.2 | Negigigile Adverse | 49.5 | 1.7 | Negiligile Adverse | 36.8 | 38.2 | 38.3 |
| 6，FOUNTVILE COURT | weling | 48.1 | 49.7 | 48.4 | ${ }^{0.3}$ | Negigigile Adverse | 49.9 50.2 | ${ }_{1.8}^{17}$ | Negigigio Adverse | 37．0 | 38.5 | 38.6 |
| 7，Fountvill count | welling | 48.5 | 50.0 | 48.8 | 0.3 | Negligible Adverse | 50.2 | 1.7 | Negiligile Adverse | ${ }^{37.4}$ | 38.7 | 38.9 395 |
| 8，FOUNTVILEE COURT | welling | 48.9 | 50.5 | 49.2 | 0.3 | Negligible Adverse | 50.8 | 1.9 | Negiligile Adverse | 37.7 | 39.2 | 39.5 388 |
| 9， 9 ，FOUNTVILLE COURT | Dwelling | 47.9 | 49.8 | 48.4 | 0．5 | $\frac{\text { Negligible Adverse }}{\text { Minor Beneficial }}$ | ${ }^{50.1}$ | 2.2 | Negigigiole Adverse | 36.8 | 38.6 50.3 | 38.8 49.4 |
| 100，FOWLER AVENUE | Dwelling | 51.5 | 51.5 | 52.1 | 0.6 | Negigigile Adverse | 52.8 | 1.3 | Negligible Adverse | 40.1 | 40.1 | 41.3 |
| 102，FOWLER AVENUE | Wwelling | 51.9 | 51.9 | 52.8 | 0.9 | Negligible Adverse | 53.6 | 1.7 | Negigigible Adverse | 40.4 | 40.4 | 42.0 |
| 104，FOWLER AVENUE | weling | 51.9 | 51.9 | 52.8 | 0.9 | Negigigile Adverse | 53.6 | 1.7 | Negiligibe Adverse | 40.4 | 40.4 | ${ }^{42.0}$ |
| 106 FowLer Avenue | Deelling | 51.9 | 51.9 | 52．8 | 0.9 | Negiligile Adverse | ${ }_{53.6}^{5.6}$ | 1.7 | Negigigile Adverse | 40.4 | 40.4 | 42.0 420 |
| 108，FOWLER AVENUE | Dweling |  |  |  |  |  |  |  |  |  |  |  |
| 112，FWWLEALEELE |  | 5.18 | 51.6 | 52.6 | 0.8 | Neqligiole Adverse | 53 | 1.6 | Negiquile Adverse | 40.4 | 2 | 41.8 |
| 114，FOWLER AVENUE | Dwelling | 519 | 517 | 52.6 | 0.7 | Neoligioble Adverse | ${ }_{53.4}$ | ${ }_{1}^{1.5}$ | Neoligioble Adverse | 40.4 | 40.3 | 418 |
| 116，FOWLER AVENUE | Dwelling | 51.9 | 51.7 | 52.6 | 0.7 | Negigigile Adverse | 53.4 | 1.5 | Negiligile Adverse | 40.4 | 40.3 | 41.8 |
| 118，FOWLER AVENUE | Dwelling | 51.4 | 50.8 | 51.5 | 0.1 | Negligible Adverse | 52.0 | 0.6 | Negligible Adverse | 40.0 | 39.5 |  |
| I2，FOWLERAVENUE | weling | 62.1 | 62.9 | 60.9 | －1．2 | Minor Beneitical | 61.8 | －0．3 | Negigigle Benenicial | 49.6 | 50.3 | 49.4 |
| 120，FOWLER AVENUE | Dwelling | 51．4 | 50．8 | 51．5 | 0.1 | Negiligibe Adverse | 52．0 | 0.6 | Negiligible Adverse | 40.0 | 39.5 | 40.5 |
| 12， 12. | Dwelling |  | 50.8 50.8 | 㐌1．5 | ${ }_{0}^{0.1}$ | Negligibe Adverse | 52．0 52.0 | 0.6 | $\frac{\text { Negigigle Adverse }}{\text { Negligible Adverse }}$ | $\stackrel{40.0}{40.0}$ | 39.5 39.5 | 40.5 |
| 126，FOWLER AVENUE | Dwelling | 53.3 | 53.4 | 53.4 | 0.1 | Negigigile Adverse | 54.2 | 0.9 | Negiligile Adverse | 41.7 | 41.8 | 42.5 |
| 128，FOWLER AVENUE | Dwelling | 53.3 | 53.4 | 53.4 | 0.1 | Negligible Adverse | 54.2 | 0.9 | Negligible Adverse | 41.7 | 41.8 | 42.5 |
| $\frac{130, \text { FOWLER AVENUE }}{132 \text { ，FOWLER AVENUE }}$ | $\frac{\text { Dwelling }}{\text { Oweling }}$ | 㐌3．3 | 53．4 53.4 | 53．4 <br> 53.4 | ${ }_{0}^{0.1}$ | $\frac{\text { Negigigle Adverse }}{\text { Negigible Adverse }}$ | 㐌4．2．2 | 0.9 0.9 | $\frac{\text { Negigigle Adverse }}{\text { Neligible Adverse }}$ | $\frac{41.7}{41.7}$ | $\frac{41.8}{41.8}$ | 42．5 |
| 14，FOWLER AVENUE | Dwelling | 58.2 | 58.7 | 57.8 | －0．4 | Negligible Beneficial | 59.0 | 0.8 | Negligible Adverse | 46.1 | 46.6 | 46.8 |
| 16，FOWLER AVENUE | Wwelling | 57.2 | 57.7 | 57.5 | 0.3 | Negigigile Adverse | 58.6 | 1.4 | Negigioble Adverse | 45.2 | 45.7 | 46.5 |
| 18，FOWLER AVENUE | Dwelling | 56.2 | 56.7 | 56.5 | 0.3 | Negiligile Adverse | 57．5 | 1.3 | Negligible Adverse | 44.3 | 44.8 | ${ }^{45.5}$ |
| 2， 2 ， 20 FOWLER AVER AVENE | Dwelling | ${ }_{\text {cher }}^{65.7}$ | ${ }^{65.8} 5$ | 64.7 56.1 | $\stackrel{-0.9}{ }$ | $\frac{\text { Negligible Beneficial }}{\text { Negligiole Adverse }}$ | 65.1 57.0 | O．5 1.3 1.3 | Negigigle Benenicial | 52.8 43.9 | 53．0 | － 45.3 |
| 22，FOWLER AVENUE | Dwelling | 55.5 | 55.9 | 56.2 | 0.7 | Negigigile Adverse | 57.0 | 1.5 | Negiligile Adverse | 43.7 | 44.0 | 45.0 |
| 24，FOWL Ler Avenue | Dwelling |  |  |  | 0.7 | Negligible Adverse | 57.0 | 1.5 | Negiligile Adverse | 43.7 | 44.0 | 45.0 |
| 28，FOWLER AVENUE | Dwelling | 55.1 | 55.3 | 55.8 | 0.7 | Negiligile Adverse | 56.5 | 1.4 | Negligible Adverse | 43.3 | 43.5 | 44.6 |
| 30，FOWLER AVENUE | Dwelling | 54.0 | 54．4 | 54．8 | 0.8 | Negigigibe Adverse | ${ }_{55.6}^{5.7}$ | 1.6 | Negiligible Adverse | 42.3 | 42.7 | 43.8 |
| 32，FOWLER AVENUE | Dwelling | 54.1 | 54.4 | 54.8 | 0.7 | Negigigile Adverse | 55.7 | 1.6 | Negigioble Adverse | 42.4 | 42.7 | 43.9 |
| 34，FOWLLR AVENUE | Dwelling | $\stackrel{53.9}{53.9}$ | 54．1 | 㐌4．3 | 0.4 0.4 | Negigigie Adverse | $\stackrel{55.0}{55.0}$ | ${ }_{1.1}^{1.1}$ | $\frac{\text { Negigigile Adverse }}{\text { Negligiole Adverse }}$ | －42．2 | 42.4 42.4 | 43.2 43.2 |
| 38，FOWLER AVENUE | Dwelling | 53.6 | 54.0 | 53.8 | 0.2 | Negiligible Adverse | 54.7 | 1.1 | Negligible Adverse | 42.0 | 42.3 | 43.0 |
| 4，FOWLER AVENUE | Dwelling | 64.4 | 64.8 | 63.6 | －0．8 | Negligible Beneficial | 64.1 | －0．3 | Negligible Beneficial | 51.7 | 52.1 | 51.4 |
| ${ }^{\text {40，}}$ 42，FOWLLER AVENUE | Dwelling | $\stackrel{53.6}{53.8}$ | $\stackrel{54.0}{54.1}$ | 53．8 54.2 | 0.2 0.4 | Negigible Adverse | $\stackrel{54.7}{55.1}$ | 1.1 1.3 | $\frac{\text { Negigigle Adverse }}{\text { Neoligible Adverse }}$ | $\xrightarrow{42.0} 42$ | $\xrightarrow{42.3} 4$ | $\stackrel{43.0}{43.3}$ |
| 44, FowLER AVENUE | Dwelling | 53.8 | 54.1 | 54.2 | 0.4 | Negigiolie Adverse | 55.1 | 1.3 | Negligible Adverse | 42.2 | 42.4 | 43.3 |
| 46，FOWLER AVENUE | Dwelling | 53.4 51.5 | 53.7 51.9 | $\begin{array}{r}\text { 53．1．} \\ 51.3 \\ \hline\end{array}$ | －0．3 | $\xrightarrow{\text { Negligible Beneficial }}$ Negligible Beneficial | 54.0 52.2 | 0.6 0.7 | $\frac{\text { Negligible Adverse }}{\text { Nefligible Adverse }}$ | 41.8 40.1 | 42.1 40.4 | $\xrightarrow[40.7]{42}$ |
| 48，FOWLER AVENUE | Dwelling | 53.3 | 53.6 | 52.9 | －0．4 | Negligible Beneficial | 53.8 | 0.5 | Negligible Adverse | 41.7 | 42.0 | 42.2 |
| 49，FOWLLR AVENUE | Oweling | ${ }_{5}^{51.6}$ | $\stackrel{51.9}{53.6}$ | 51．4 52.6 | -0.2 -0.7 | Negligible Beneficial | 52．2 53.5 | 0.6 | Negligibe Adverse | $\stackrel{40.2}{41.7}$ | 40．4 | 40.7 |
| 51，FowL LR AVENUE | Dwelling | 50.4 | 50.6 | 50.6 | 0.2 | Negigiolie Adverse | 51.5 |  | Negligible Adverse | 39.1 | 9．3 | 40.1 |
| 52，FowLER AVENUE | Dwelling | 53.2 | 53.4 | 52.5 | －0．7 | Negligible Beneficial | 53.3 | 0.1 | Negligibl Beneficial | 41.6 | 41.8 | 41.7 |
| 53，FOWLER AVENUE | Weeling | 50.4 | 50.6 | 50.6 | 0.2 | Negigigibe Adverse | 51.5 | 1.1 | Negigigibe Adverse | 39.1 | 39.3 | 40.1 |
| 55，FOWLER AVENUE | Dwelling | 50.4 | 50.6 | 50.6 | 0.2 | Negligible Adverse | 51.5 | 1.1 | Negligible Adverse | 39.1 | 39.3 | 40.1 |
| 56，FowLER AVENUE | Dwelling | 52.8 | 53.0 | 52.5 | －0．3 | Negligible Beneficical | 53.3 | 0.5 | Negigioble Adverse | 41.3 | 41.4 | 41.7 |
| 57．FOWLER AVENUE 58 FOWIER AVENUE | Dweling | 50.4 514 51 | 50．6 | 50.6 <br> 515 <br> 15 | 0.2 | Negligibl Adverse | $\begin{array}{r}51.5 \\ 524 \\ \hline\end{array}$ | 1.1 | Negligiole Adverse | 39.1 40 | 39.3 402 | 40.1 |
| 589，FOWLLER AVENUE | ${ }^{\text {Oweling }}$ | 52．0 | 51.6 52.2 | 51．9 | －0．1 | Negiligible Eeneficicial | 52.4 52.7 | ${ }_{0}^{1.0}$ | Negiligibie Avverse | ${ }_{40.5}^{40.0}$ | ${ }_{40.7}^{40.2}$ | 40.2 |
| 6，FOWLER AVENUE | Dwelling | 62.1 51.6 | 62.9 518 | 60.9 517 | －1．2 | Minor Beneficical | 661.8 5.5 5. | －0．3 | Negigigible Benefitial | 49.6 | 50.3 | 49.4 |
| 60， 6 FOWLLER AVENUE | Dwelling | 51.6 52.1 | 51．8 | 51.7 52.0 | － | Negligible Adverse | 52.5 52.7 | 0.9 | Negiligle Avverse | ${ }_{40.6}^{40.6}$ | ${ }_{40.4}^{40.7}$ | $\frac{41.0}{41.2}$ |
| 62 ，FOWLER AVENUE | Dwelling | 51.8 | 52.0 | 52.9 | 1.1 | Minor Adverse | 53.9 | 2.1 | Negigigile Adverse | 40.4 | 40.5 | 42.2 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 Lnight,outside | DS33 Lnight,outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 63, FOWLLER AVENUE | Deeling | 49.9 | 50.3 | 50.2 | ${ }^{0.3}$ | Negigigle Adverse | 51.1 | 1.2 | Negligible Adverse | 38.6 | 39.0 | 39.7 |
| 64, FOWLLER AVENUE | Dweling | 51.8 | 52.0 50.3 | 52.1 | ${ }_{0}^{0.3}$ | Negiligib Adverse | $\frac{53.0}{51.1}$ | $\frac{1.2}{12}$ | Negligible Adverse | 40.4 386 | 40.5 390 | $\frac{41.4}{397}$ |
| ${ }^{\text {65, FowLER AVENUE }}$ | Dweling | 49.9 | 50.3 | 50.2 | ${ }_{0}^{0.3}$ | $\frac{\text { Negigigio Adverse }}{\text { Negligible Adverse }}$ | 㐌5.1. | ${ }_{1}^{1.2}$ | $\frac{\text { Negigigile Adverse }}{\text { Negligible Adverse }}$ | 38.6 40.5 | 39.0 40.8 | 39.7 41.7 |
| 67, FOWLER AVENUE | Dwelling | 49.7 | 50.0 | 49.9 | 0.2 | Negligible Adverse | 50.8 | 1.1 | Negligible Adverse | 38.5 | 38.7 | 39.5 |
| 68, FOWLER AVENUE | Dwelling | 52.9 | 53.3 | 53.0 | 0.1 | Negigibile Adverse | 54.0 | 1.1 | Negiligile Adverse | 41.3 | 41.7 | 42.3 |
| 69, FowLER AVENUE | Dwelling | 49.7 | 50.0 | 49.9 | 0.2 | Negigigile Adverse | 50.8 | 1.1 | Negigiolile Adverse | 38.5 | 38.7 | 39.5 |
| 71, FowLER AVENUE | Dwelling | 49.8 | 50.1 | 50.0 | 0.2 | Negiligibe Adverse | 50.9 | 1.1 | Negiligibe Adverse | 38.6 | 38.8 | 39.5 |
| 73, FOWLER AVENUE | Deelling | 49.8 | 50.1 | 50.0 | 0.2 | Negigigibe Adverse | 50.9 | 1.1 | Negigigibe Adverse | 38.6 | 38.8 | 39.5 |
| 74,FOWLER AVENUE | welling | 52.7 5.7 | 53.0 | $\begin{array}{r}52.9 \\ 51.5 \\ \hline\end{array}$ | 0.2 | Negiligibe Adverse | 53.9 | 1.2 | Negiligibie Adverse | 41.2 | ${ }^{41.4}$ | ${ }^{42.2}$ |
| 75,FOWLERAVENUE | Oweiling | $\stackrel{51.4}{50.9}$ | ${ }_{50.9}^{51.2}$ | 51.7 | 0.8 | Negigigibe Adverse | 52.9 52.9 | 2. | Negigigibe Adverse | ${ }_{39.5}^{40.0}$ | ${ }_{39.8}^{39.5}$ | ${ }_{41.3}^{40.6}$ |
| 77, FOWLER AVENUE | Dwelling | 49.7 | 50.0 | 49.9 | 0.2 | Negiligile Adverse | 50.8 | 1.1 | Negligible Adverse | 38.5 | 38.7 | 39.5 |
| 78, FowLER AVENUE | Dwelling | 51.0 | 51.1 | 51.7 | 0.7 | Negigiole Adverse | 52.7 | 1.7 | Negiligile Adverse | 39.6 | 39.7 | 41.2 |
| 79, FowLER AVENUE | ing | 50.7 | 51.4 | 50.8 | 0.1 | Negligible Benenticial | 51.9 | 1.2 | Negiligibe Adverse | 39.4 | 40.0 | 40.4 |
| 8, FOWLER AVENUE | ing | 62.1 | 2.9 | 60.9 | -1.2 | Minor Beneficical | 61.8 | -0.3 | Negligible Benefitical | 49.6 | 50.3 | 49.4 |
| 80, FOWLLERAVENUE | Deelling | 50.7 | 50.9 |  | 0.5 | Negigiobie Adverse | 52.19 | ${ }^{1.4}$ | Negigigio Adverse | 39.4 | 39.5 | 40.6 |
| 88, FOWLLER AVENUE | Dwelling | 50.7 | 50.8 | 51.1 | 0.4 | Neogioioile Adverse | 52. | ${ }_{1.3}^{1.3}$ | Neogigiole Adverse | 39.4 | 39.5 | 40.5 |
| 83, FowLER AVENUE | Dwelling | 50.7 | 51.4 | 50.8 | 0.1 | Negligible Beneficial | 51.9 | 1.2 | Negligible Adverse | 39.4 | 40.0 | 40.4 |
| 84, FoWLER AVENUE | Dwelling | 50.7 | 50.9 | 51.2 | 0.5 | Negligible Adverse | 52.1 | 1.4 | Negiligile Adverse | 39.4 | 39.5 | 40.6 |
| 85, FOWLER AVENUE | weling | 50.7 | 51.4 | S0.8 | 0.1 | Negiligile Beneficial | 51.9 | 1.2 | Negigigile Adverse | 39.4 <br> 3.3 | 40.0 | ${ }^{40.4}$ |
| 86, FOWLER AVENUE | Dweling | 50.6 | 50.8 <br> 5.8 | 51.0 <br> 595 | 0.4 | Negiligibe Adverse | 51.9 <br> 54.7 | 1.3 | Negigigibile Adverse | 39.3 | 39.5 | 40.4 |
| 87, 8 FOWLLER AVENUE | Dwelling | ${ }_{50.5}^{53.3}$ | 54.3 50.7 | 53.5 51.0 | ${ }_{0}^{0.5}$ | Neogigioble Adverse | 54.7 51.9 | 1.4 1.4 | Negigigibe Adverse | ${ }^{41.7} 3$ | 42.6 39.4 | 43.0 40.4 |
| 89, FowLER AVENUE | Dwelling | 53.3 | 54.3 | 53.5 | 0.2 | Negigioble Adverse | 54.7 | 1.4 | Negiligible Adverse | 41.7 | 42.6 | 43.0 |
| 90, FowLER AVENUE | Dwelling | 52.0 | 51.5 | 52.4 | 0.4 | Negigigibe Adverse | 52.9 | 0.9 | Negigigibe Adverse | 40.5 | 40.1 | 41.3 |
| 991, FOWLER AVENUE | welling | 53.3 | 54.3 | 53.5 | 0.2 | Negigigibe Adverse | 54.7 | 1.4 | Negigigibe Adverse | 41.7 | 42.6 | ${ }^{43.0}$ |
| 92, FowLER AVENUE | welling | 51.2 | 51.1 | 51.7 | 0.5 | Negigigibe Adverse | 52.4 | 1.2 | Negigioble Adverse | 39.8 | 39.7 | 40.9 |
| 93, FowLER AVENUE | weling | 53.3 | 54.3 | 53.5 | 0.2 | Negigigile Adverse | 54.7 | 1.4 | Negiligibe Adverse | 41.7 | 42.6 | 43.0 |
| 94, FowLER AVENUE | welling | 51.5 | 51.5 | 52.1 | 0.6 | Negigigibe Adverse | 52.8 | 1.3 | Negigigile Adverse | 40.1 | 40.1 | 41.3 |
| 95, FowLER AVENUE | Deeling | 52.7 | 54.1 | 52.8 | 0.1 | Negiligible Beneficical | 54.2 | ${ }_{1}^{1.5}$ | Negiligibie Adverse | 41.2 | 42.4 | 42.5 |
| 96, FOWLER AVENUE | welling | 51.5 | 51.5 | 52.1 55 | 0.6 | Negligiole Adverse |  |  | Negigigio Adverse | 40.1 | 40.15 | $\stackrel{41.3}{415}$ |
| 97, FOWLLR AVENUE | Dweling | 54.9 | 56.4 |  |  | Negiligibe Adverse | 56.4 | 1.5 | Negigigib Adverse |  |  |  |
| 9 1, FOWLER AVENUE | Dwelling | 56.7 | 57.2 | 56.4 | -0.3 | Negligiole Benenficial | ${ }_{56.7}^{52.7}$ | ${ }_{0} .0$ | Negligol Alverse | 44.8 | 45.2 | 44.8 |
| 17, FOWLER AVENUE | Dwelling | 51.9 | 52.3 | 51.4 | -0.5 | Negligible Beneficial | 52.2 | 0.3 | Negligible Adverse | 40.4 | 40.8 | 40.7 |
| 33, FOWLER AVENUE | Dwelling | 50.9 | 51.4 | 50.7 | -0.2 | Negligible Beneficial | 51.5 | 0.6 | Negligible Adverse | 39.5 | 40.0 | 40.1 |
| 25, FOWLER AVENUE | Dwelling | 55.3 | 55.6 | 55.0 | -0.3 | Negligible Beneficial | 55.8 | 0.5 | Negigioibe Adverse | 43.5 | 43.8 | 44.0 |
| 4,Fowleravenue | Oweling | 54.7 | 55.0 | 54.6 | -0.1 | Negligible Beneitical | 55.4 | 0.7 | Negiligibe Adverse | 43.0 | 43.2 | 43.6 |
| 5. FOWLER AVENUE | Oweling | 59.7 | ${ }^{60.3}$ | 59.5 <br> 5.5 | -0.2 | Negligible Beneficial | 59.8 | 0.1 | Negligible Beneficial | ${ }^{47.5}$ | 48.0 | ${ }^{47.6}$ |
| 29, FOWLERAVENUE | Dwelling | 56.5 | 57.0 | 56.5 | 0.0 | No Change | 57.4 | 0.9 | Negiligble Adverse | 44.6 | 45.0 | 45.4 |
| 43, FOWLLER AVENUE | Dwelling | 55.9 60.6 | ${ }^{56,3}$ | 56.0. | -0.1 | Negigighie Adverse | 56.8 60.7 | 0.9 | Negigigbe Adverse | 44.0 | ${ }_{4}^{44.4}$ | 44.9 |
| 13, FOWLER AVENUE | Dwelling | 58.1 | 58.7 | 57.7 | -0.4 | Negligible Beneficial | 58.0 | -0.1 | Negligible Beneficial | 46.0 | 46.6 | 45.9 |
| 21, FOWLER AVENUE | Deelling | ${ }_{53.6}$ | 53.9 | 53.2 | -0.4 | Negligible Beneficial | 53.9 | 0.3 | Negigigibe Adverse | 42.0 | 42.2 | 42.2 |
| 37, FowLer Avenue | Dwelling | 52.7 47.6 | 53.2 48.4 | 52.5 47.7 | -0.2 0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negilioile Adverse }}$ | 53.3 485 48 | 0.6 0.9 | $\frac{\text { Negiligibe Adverse }}{\text { Negilible Adverse }}$ | $\stackrel{41.2}{36.6}$ | ${ }_{31,6}^{473}$ | 41.7 374 |
| 1, GLADSTONE PLACE, WOODSIDE | Dwelling | 48.4 | 50.0 | 48.4 | 0.0 | No Change | 49.4 | 1.0 | Negiligile Adverse | 37.3 | 38.7 | 38.2 |
| 1, GLADSTONE PLACE, WOODSIIDE | Deelling | 48.5 | 49.6 | 48.5 | 0.0 | No Change | 49.5 | 1.0 | Negiligibe Adverse | 37.4 | 38.4 | 38.3 |
| 1, GLADSTONE PLACE, WOODSSIDE | weling | ${ }_{5}^{48.6}$ | ${ }_{5}^{49.8}$ |  |  | No Change |  |  | Negiligie Adverse | 37.5 <br> 387 |  | 38.4 |
| 1, GLADSTONE PLACE, WOODSSIDE | Dwelling | 50.0 50.0 | 52.0 52.0 | 49.8 49.8 | -0.2 | $\frac{\text { Negligible Beneficial }}{\text { Negliobl }}$ | 51.1 51.1 | ${ }_{1}^{1.1}$ | Negligibl Adverse | 38.7 38.7 | 40.5 40.5 | 39.7 39.7 |
| 1, GLADSTONE PLACE, WOODSIDE | Dwelling | 50.0 | 52.0 | 49.8 | -0.2 | Negligible Beneficial | 51.1 | 1.1 | Negligible Adverse | 8.7 | . 0.5 |  |
| 1, GLADSTONE PLACE, WOODSIDE | Dwelling | 50.0 | 52.0 | 49.8 | -0.2 | Negligible Beneficial | 51.1 | 1.1 | Negligible Adverse | 38.7 | 40.5 | 39.7 |
| 10, GLADSTONE PLACE, WOODSIDE | Dwelling | 49.9 | 50.8 | 50.1 | 0.2 | Negigioble Adverse | 50.9 | 1.0 | Negigioble Adverse | 38.6 | 39.5 | 39.5 |
| 11, GLADSSTONE PLACE, WOOOSIDE | Dwelling | 49.9 | ${ }_{50.8}^{49.0}$ | 48.2 50.1 | ${ }_{0}^{0.1}$ | Neogigigie Adversse | 40.9 | 1.0 | Negligigile Adverse | ${ }^{37.0}$ | 37.8 39.5 | 39.5 |
| 13, GLADSTONE PLACE, WOOOSIDE | Deelling | 48.1 | 49.0 | 48.2 | 0.1 | Negigiole Adverse | 49.1 | 1.0 | Negigiolile Adverse | 37.0 | 37.8 | 37.9 |
| 14, GLADSTONE PLACE, WOOOSIDE | Dwelling | 50.4 | 51.2 | 50.6 | 0.2 | Negigigile Adverse | 51.4 | 1.0 | Negiligile Adverse | 39.1 | 39.8 | 40.0 |
| 15, GLADSTONE PLACE, WOODSIDE | Dwelling | 48.1 50.4 | $\stackrel{49.0}{51.2}$ | 48.2 50.6 | 0.1 | $\frac{\text { Negigigle Adverse }}{\text { Negioible Adverse }}$ | 499.1 51.4 | 1.0 1.0 | $\frac{\text { Negigigle Adverse }}{\text { Neligiole Adverse }}$ | 37.0. 39.1 | 37.8 39.8 | 37.9 40.0 |
| 17, GLADSTONE PLACE, WOOOSIDE | Deelling | 48.1 | 48.9 | 48.1 | 0.0 | No Change | 49.0 | 0.9 | Negigioibe Adverse | 37.0 | 37.7 | 37.8 |
| 18, GLADSTONE PLACE, WOOOSIDE | Dwelling | 50.4 48.1 | 51.2 48.9 | 50.6 48.1 | 0.2 0.0 | Negiligit Adverse | 51.4 49.0 | 1.0 0.9 | $\frac{\text { Negligible Adverse }}{\text { Nefligible Adverse }}$ | 39.1 37.0 | 39.8 37.7 | 40.0 37.8 |
| 2, GLADSTONE PLACE, WOODSIDE | Dwelling | 50.2 | 51.3 | 50.3 | 0.1 | Negligible Beneficial | 51.2 | 1.0 | Negiligible Adverse | 38.9 | 39.9 | 39.8 |
| $\frac{\text { 20, GLADSTONE PLACE, WOODSIDE }}{\text { 21, GLADSTONE PLACE, WOODSIDE }}$ | Dwelling | 49.6 48.1 | 50.5 48.9 | 49.8 48.1 | 0.2 0.0 | Negaligibe Adverse | 50.6 49.0 | 1.0 0.9 | Negligibl Adverse | 38.4 37.0 | 39.2 37.7 | 39.3 37.8 |
| 22, GLADSTONE PLACE, WOODSIDE | eling | 49.6 | 50.5 | 49.8 | 0.2 | Negiligile Adverse | 50.6 | 1.0 | Negiligible Adverse | 38.4 | 39.2 | 39.3 |
| 23, GLADSTONE PLACE, WOOOSIDE | Dwelling | 48.3 | 49.2 | 48.4 | 0.1 | Negigigibe Adverse | 49.3 | 1.0 | Negigioble Adverse | 37.2 | 38.0 | 38.1 |
| 24, GLADSTONE PLACE, WOODSIDE | Dweling | 49.6 49.6 | 50.5 50.5 | 49.8 49.8 | $\frac{0.2}{0.2}$ | Negligibl Adverse | 50.6 50.6 | 1.0 1.0 | Negligile Adverse | 38.4 <br> 38.4 | 39.2 39.2 | 39.3 39.3 |
| 24, GLADSTONE PLACE, WOODSIDE | Dwelling | 49.6 | 50.5 | 49.8 | 0.2 | Negigiole Adverse | 50.6 | 1.0 | Negligible Adverse | 38.4 | 39.2 | 39.3 |
| 26, GLADSTONE PLACE, WOOOSIDE | Oweling | 53.3 | 54.0 | 53.4 | 0.1 | Negigioble Adverse | 54.1 | 0.8 | Negigioble Adverse | 41.7 | 42.3 | 42.4 |
| 28, GLADSTONE PLACE, WOOOSDILE | Dwelling | 52.6 48.7 | ${ }^{53.3}$ | 52.7 | ${ }_{0}^{0.1}$ | Negligibile Eeneneficial | 53.3 | 1.0 | Negligigile Adverse | ${ }_{37}^{47.6}$ | ${ }^{48.4}$ | ${ }^{41.7} 38$ |
| 29, GLADSTONE PLACE, WOODSIDE | Dwelling | 48.7 483 | 49,6 | 48.8 48. | 0.1 | Negligible Beneficial | 49.7 492 | 1.0 | Negligibl Adverse | $\begin{array}{r}37.6 \\ 372 \\ \hline\end{array}$ | $\begin{array}{r}38.4 \\ 380 \\ \hline\end{array}$ | $\begin{array}{r}38.5 \\ 380 \\ \hline\end{array}$ |
| 3, GLALSDTONE PALCE, WOODSIDE | Dweliling | ${ }_{52.6}^{48.3}$ | ${ }_{\text {43,3 }}$ | 48.4 52.7 | 0.1 | Negligioble Adverse | ${ }_{53.3}^{49.2}$ | 0.7 | Negigigible Adverse | 37.2 41.1 | 38.0 41.7 | 38.0 41.7 |
| 311. GLADSTONE PLACE, WOOODIDE | Dewling | 48.7 | ${ }_{59}^{49.6}$ | ${ }_{58.8}^{48.8}$ | 0.1 | Negligible Beneficical | 49.7 53 | 1.0 | Negligible Adverse | $\frac{37.6}{411}$ | 38.4 | 38.5 |
| 32, GLADSTONE PLACE, WOOOSDIDE | Dwelling | ${ }^{52.6} 48.7$ | ${ }_{49.3}$ | ${ }^{52.7} 48.8$ | ${ }_{0}^{0.1}$ | Negigigible Adverseisicial | ${ }^{539.3} 4$ | 1.0 | Negigible Avverse | ${ }_{37.6}^{41.1}$ | ${ }_{38.4}^{48.7}$ | ${ }_{38.5}^{41.7}$ |
| 34, GLADSTONE PLACE, WOODSIDE | welling | 49.3 | 50.2 | 49.5 | 0.2 | Negigigile Adverse | 50.2 | 0.9 | Negigigile Adverse | 38.1 | 38.9 | 38.9 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 Lnight,outside | $\begin{gathered} \text { DS33 } \\ \text { Lnight,outside } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 34, GLADSTONE PLACE, WOOOSIDE | Owelling | 49.3 | 50.2 | 49.5 | 0.2 | Negigigile Adverse | 50.2 | 0.9 | Negigigle Adverse | 38.1 | 38.9 | 38.9 |
| 35, GLADSTONE PLACE, WOODSIDE | Dweling | 51.4 | $\frac{52.2}{522}$ | 51.5 | 0.1 | Negiligib Adverse | 年52.3 <br> 2.3 | 0.9 0.9 | Negiligle Adverse | $\frac{40.0}{40.0}$ | 40.7 40.7 | $\frac{40.8}{40.8}$ |
| 35, GLADSTONE PLACE, WOOOSIDE | Dwelling | ${ }_{49.3}$ | 50.2 | ${ }_{49.5}^{51.5}$ | 0.2 | Neogigiole Adversse | - $\begin{array}{r}\text { 52.3 } \\ 50.2\end{array}$ | 0.9 | Neoligigibe Adverse | ${ }_{38.1}^{40.0}$ | ${ }_{38.9}$ | ${ }_{30.9}^{40.9}$ |
| 37, GLADSTONE PLACE, WOODSIDE | Dwelling | ${ }_{51.4}$ | 52.2 | $\stackrel{1}{51.5}$ | ${ }_{0}^{0.1}$ | Negigigile Adverse | ${ }_{52.3}$ | 0.9 | Negigigible Adverse | 40.0 | ${ }^{30.7}$ | ${ }^{30.8}$ |
| 38, GLADSTONE PLACE, WOOOSIDE | Dwelling | 49.3 | 50.2 | 49.5 | 0.2 | Negigigile Adverse | 50.2 | 0.9 | Negligible Adverse | 38.1 | 38.9 | 38.9 |
| GLADSTONE PLACE, WOODSIDE | Dwelling | 51.4 | 52.2 | 51.5 | 0.1 | Negigigile Adverse | 52.3 | 0.9 | Negigioble Adverse | 40.0 | 40.7 | 40.8 |
| 4, GLADSTONE PLACE, WOOOSIDE | welling | 48.9 | 50.0 | 49.0 | 0.1 | Negigioble Adverse | 49.9 | 1.0 | Negigioble Adverse | 37.7 | 38.7 | 38.6 |
| 40, GLADSTONE PLACE, WOOOSSIDE | welling | 49.6 | 50.4 | 49.7 | 0.1 | Negigigibe Adverse | 50.5 | 0.9 | Negiligile Adverse | 38.4 | 39.1 | 39.2 |
| 40, GLADSTONE PLACE, WOOOSIIDE | welling | 49.6 | 50.4 | 49.7 | 0.1 | Negigigibe Adverse | 50.5 | 0.9 | Negigigile Adverse | 38.4 | 39.1 | 39.2 |
| 41, GLADSTONE PLACE, WOODSIDE | welling | 49.2 | 50.0 | 49.3 | 0.1 | Negigigible Beneficial | 50.1 | 0.9 | Negigigble Adverse | 38.0 | 38.7 | 38.8 |
| 42, GLADSTONE PLACE, WOOOSIDE | welling | 49.6 | 50.4 | 49.7 | 0.1 | Negigiole Adverse | 50.5 | 0.9 | Negiligibe Adverse | 38.4 | 39.1 | 39.2 |
| 44, GLADSTONE PLACE, WOODSIDE | welling | 49.6 | 50.4 | 49.7 | 0.1 | Negigioble Adverse | 50.5 | 0.9 | Negigigile Adverse | 38.4 | 39.1 | 39.2 |
| 45, GLADSTONE PLACE, WOOOSSIDE | welling | 49.2 | 50.0 | 49.3 | 0.1 | Negligible Beneficial | 50.1 | 0.9 | Negigioble Adverse | 38.0 | 38.7 | 38.8 |
| 45, GLADSTONE PLACE, WOOOSIDE |  | 49.2 | 50.0 | 49.3 | 0.1 | Negligible Beneficial | 50.1 | 0.9 | Negigioble Adverse | 38.0 |  |  |
| 46, GLADSTONE PLACE, WOOOSIDE | Deelling | 51.8 | 52.5 | 51.8 | 0.0 | No Change | 52.6 |  | Negiligile Adverse |  | 41.0 | 41.1 |
| 46, GLADSTONE PLACE, WOOOSIDE | weling | 51.8 |  | 51.8 | 0.0 | No C Cange | ${ }_{5}^{52.6}$ | 0.8 | Negligible Aaverse |  | . 0 | 4.1 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 4, GLADSTONE PLACL, WOOSSIDE | Oweiling | 49. | 48.8 | 48.2 | 0.2 | Negiligule Adverse | 49.0 | 1.0 | Nogigle Adverse | 36.9 |  | 37.8 |
| 5,GLADSTONE PLACE, WOODSIDE | weling | 48.0 | 48.9 | 48.0 | 0.0 | No Change | 48.9 | 0.9 | Negiligile Adverse | 36.9 | ${ }^{37.7}$ | 37.7 377 |
| 5, GLALSTONE PLACE, WOODSSIDE | weling | 48.0 | 48.9 | 48.0 | 0.0 | No Change | ${ }_{58.9}$ | 0.9 | Negiligie Aaverse | 36.9 | 37.7 | 37.7 |
| S, GLADSTONEPACE, WOOSSIDE | weiling | 51.8 | 52.5 | 51.8 | 0.0 | No Change | 52.6 | 0.8 | Negiligile Adverse | ${ }^{40.4}$ | ${ }_{31.0}$ | ${ }_{31.1}$ |
| ST, GLADSTONEPLACE, WOOSSIDE | Oweiling | ${ }_{5}^{48.4}$ | 49.2 | ${ }_{5}^{48.5}$ | 0.1 | Negiligile Adverse | ${ }_{59.3}$ | 0.9 | Negiligile Adverse | 37.3 <br> 8. | 38.0 | 38.1 |
| 52, GLADSTONE PLACE, WOOOSIDE | weiling | 50.0 | ${ }^{50.8}$ | 50.1 | 0.1 | Negigigile Adverse | 50.9 513 | 0.9 | Negiligile Adverse | 38.7 | 39.5 | 39.5 |
| 52, GLADSTONE PLACE, WOODSIDE | welling | 50.4 | 51.2 | 50.5 | 0.1 | Negiligule Adverse | 51.3 | 0.9 | Negiligile Adverse | 39.1 | 39.8 | 39.9 |
| 53, GLADSTONE PLACE, WOOOSIDE | welling | 48.7 | 49.5 | 48.8 | 0.1 | Negligible Beneficial | 49.6 | 0.9 | Negigioble Adverse | ${ }^{37.6}$ | 38.3 | 38.4 |
| 54, GLADSTONE PLACE, WOOOSIDE | Dweling | 50.0 48.5 | 50.8 49.3 | 50.2 48.6 | 0.2 | $\frac{\text { Negigigio Adverse }}{\text { Negligible Adverse }}$ | 51.0 49.5 | 1.0 | Negigigib Adverse | 38.7 <br> 37.4 | 39.5 | ${ }^{39.6}$ |
| 56, GLADSTONE PLACE, WOODSIDE | Dwelling | 50.2 | 51.0 | 50.4 | 0.2 | Negiligiole Adverse | 51.2 | 1.0 | Negiligible Adverse | 38.9 | 39.6 | 39.8 |
| 57, GLADSTONE PLACE, WOODSIDE | welling | 48.7 | 49.6 | 48.9 | 0.2 | Negigigile Adverse | 49.7 | 1.0 | Negigioble Adverse | 37.6 | 38.4 | 38.5 |
| 58, GLADSTONE PLACE, WOODSIDE | weling | 52.2 | 53.1 | 52.4 | 0.2 | Negigigile Adverse | 53.2 | 1.0 | Negigible Adverse | 40.7 | 41.5 | 41.6 |
| 58, GLADSTONE PLACE, WOOOSSIDE | welling | 51.7 | 52.5 | 51.9 | 0.2 | Negligible Adverse | 52.7 | 1.0 | Negligible Adverse | 40.3 | 41.0 | 41.2 |
| 59, GLADSTONE PLACE, WOOODIDE | veling | 49.1 | ${ }^{49.9}$ | ${ }_{49.2}^{49}$ | 0.1 | Negiligibie Adverse | 50.0 | 0.9 | Negiligie Adverse | ${ }^{37.9}$ | 38.6 |  |
| 6, GLADSTONE PLACE, WOODSSIDE | ing |  |  |  |  | Negiligibe Adverse | 50.9 |  | Negiquibe Adverse |  |  | 39.5 |
| 60, GLADSTOSE PLACE, WOODSIDE |  |  | 56.6 | 55.9 | 0.2 | Negiligible Adverse |  | 1.0 | Negiligibe Adverse | 43.9 |  |  |
| 60, GLADSTON PLACE, WOOOSIDE | Oweling | ${ }_{48.9}$ | ${ }_{49.6}$ | \%59.9 | ${ }_{0}^{0.2}$ | Negigigib Adverse | ${ }_{49.9}$ | 1.0 | Negigigie Adverse | ${ }_{3} 37.9$ | ${ }_{38,6}$ |  |
| 62, GLADSTONE PLACE, WOODSIDE | Dwelling | 55.7 | 56.6 | 55.9 | 0.2 | Negiligible Adverse | 56.7 | 1.0 | Negligible Adverse | 43.9 | 44.7 | 44.8 |
| 63, GLADSTONE PLACE, WOOOSIDE | Dwelling | 48.5 | 49.3 | 48.7 | 0.2 | Negigigile Adverse | 49.5 | 1.0 | Negiligile Adverse | 37.4 | 38.1 | 38.3 |
| 64, GLADSTONE PLACE, WOODSIDE | Dwelling | 55.7 | 56.6 | 55.9 | 0.2 | Negigibile Adverse | 56.7 | 1.0 | Negligible Adverse | 43.9 | 44.7 | 44.8 |
| 66, GLADSTONE PLACE, WOODSIDE | Dwelling | 55.4 | 55.3 | 55.6 | 0.2 | Neogigigle Adverse | ${ }_{56.4}$ | 1.0 | Negligible Adverse | 43.6 | 44.4 | ${ }_{44.5}$ |
| 68, GLADSTONE PLACE, WOODSIDE | Dwelling | 55.6 | 56.5 | 55.9 | 0.3 | Negigigile Adverse | 56.6 | 1.0 | Negigigile Adverse | 43.8 | 44.6 | 44.7 |
| 7, GLADSTONE PLACE, WOODSIDE | welling | 48.0 | 48.9 | 48.0 | 0.0 | No Change | 48.9 | 0.9 | Negligible Adverse | 36.9 | 37.7 | 37.7 |
| 9, GLADSTONE PLACE, WOODSSIDE | Dwelling | ${ }^{50.0}$ | ${ }^{50.9}$ | 48.0 | 0.0 | Negigole Acverse | 48.9 | 0.9 | Neoligioble Adverse | ${ }_{36.9}$ | ${ }_{3}^{37.7}$ | ${ }_{39} 37.7$ |
| GLENCRAIG, GLENCRAIG, LAUREL LANE, BRIIGEE OF DON | Dwelling | 64.0 | 64.2 | 63.9 | -0.1 | Negligible Beneficial | 64.6 | 0.6 | Negligible Adverse | 51.3 | 51.5 | 51.9 |
| $\frac{\text { FLAT A, } 64, ~ G O O D H O P E ~ P A R K ~}{\text { FLAT }}$ | Dwelling | 56.4 56.4 | 56.1 56.1 | 56.2 56.2 | -0.2 -0.2 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ | 56.8 56.8 | 0.4 0.4 | Negligiole Adverse Negigible Adverse | 44.5 44.5 | 44.2 44.2 | 44.9 44.9 |
| FLAT C, 64, GOODHOPE PARK | Dwelling | 56.4 | 56.1 | 56.2 | . 0.2 | Negligible Beneficial | 56.8 | 0.4 | Negiligible Adverse | 44.5 | 44.2 | 44.9 |
| FLAT D, 64, GOODHOPE PARK | Welling | 56.4 | 56.1 | 56.2 | -0.2 | Negligible Beneficial | 56.8 | 0.4 | Negigigibe Adverse | 44.5 | 44.2 | 44.9 |
| FLAT E, 64, GOOOHOPP PARK | welling | 56.4 | 56.1 | 56.2 |  | Negligible Beneficicial |  |  | Negiligile Adverse | 44.5 | 4. 2 | 44.9 |
| FLAT F, 64, GOOODOPE PARK | Oweling | 56.4 | 56.1 | 56.2 | -0.2 | Negiligiole Beneitical | 56.8 | 0.4 | Negiligile Adverse |  |  |  |
| FLAT H. 64, GOOOHOPPE PAAK | ${ }^{\text {Oweling }}$ Oweling | 56.4 | 56.1 | 56.2 | -0.2 | Negligible Beneficicial | 56.8 | 0.4 | Negigigie Adverse | 44.5 | ${ }_{44.2}^{44.2}$ | 449 |
| FLAT J, 64, GOODHOPE PARK | Dwelling | 56.4 | 56.1 | 56.2 | -0.2 | Negligible Beneficial | 56.8 | 0.4 | Negilibile Adverse | 44.5 | 44.2 | 44.9 |
| FLAT K, 64, GOODHOPE PARK | Dwelling | 56.4 | 56.1 | 56.2 | -0.2 | Negligible Beneficial | 56.8 | 0.4 | Negiligibe Adverse | 44.5 | 44.2 | 44.9 |
| FLATL 6 , 64, GOOODHOPEP PARK | Dwelling | 56.4 56.4 | ${ }_{56.1}^{56.1}$ | 56.2 | -0.2 | Negligile Beneficial | 56.8 56.8 | 0.4 0.4 | Negligibe Adverse | ${ }_{44.5}^{44.5}$ | $\frac{44.2}{44.2}$ | 44.9 |
| FLAT N, 64, GOOODOPPE PARK | Deelling | 56.4 | 56.1 | 56.2 | -0.2 | Negligible Beneficial | 56.8 | 0.4 | Negligible Adverse | 44.5 | 44.2 | 44.9 |
| FLAT P, 64, GOODHOPE PARK | Dwelling | 56.4 | 56.1 | 56.2 | -0.2 | Negligible Beneficial | 56.8 | 0.4 | Negigigile Adverse | 44.5 | 44.2 | 44.9 |
| FLAT R, 64, GOOOHOPE PARK | Dwelling | 56.4 56.4 | 56.1 56.1 | 56.2 56.2 | $\stackrel{-0.2}{-0.2}$ | $\frac{\text { Negligible Beneficial }}{\text { Negioible }}$ Beneficial | 56.8 56.8 | 0.4 <br> 0.4 | $\frac{\text { Negigigle Adverse }}{\text { Negligiole Adverse }}$ | 44.5 44.5 | $\frac{44.2}{44.2}$ | 44.9 |
| 1, GOODHOPE PARK | Deelling | 71.1 | 71.6 | 71.0 | -0.1 | Negligible Beneficial | 72.5 | 1.4 | Negiligibe Adverse | 57.7 | 58.2 | 59.0 |
| $\frac{10, G O O D H O P E ~ P A R K}{11, ~ G O O D H O P E ~ P A R K ~}$ | Dwelling | 71.1 71.1 | 71.6 71.6 | 71.0 71.0 | -0.1 -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ Beneficial | 72.5 72.5 | 1.4 1.4 | $\frac{\text { Negligible Adverse }}{\text { Nefligible Adverse }}$ | 57.7 57.7 | 58.2 58.2 | 59.0 59.0 |
| 12, GOODHOPE PARK | Dwelling | 71.1 | 71.6 | 71.0 | -0.1 | Negligible Beneficial | 72.5 | 1.4 | Negigigile Adverse | 57.7 | 58.2 | 59.0 |
| $\frac{14, ~ G O O D H O P E ~ P A R K ~}{15, G O O D H O P E ~ P A R K}$ | Dwelling | 71.1 71.1 | 71.6 71.6 | 71.0 71.0 | -0.1 -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ Beneficial | 72.5 72.5 | 1.4 <br> 1.4 | $\frac{\text { Negligiole Adverse }}{\text { Nefligible Adverse }}$ | 57.7 57.7 | 58.2 <br> 58.2 | 59.0 59.0 |
| $16, G O O D H O P E$ PARK | W | 71.1 | 71.6 | 71.0 | -0.1 | Negligible Beneficicial | 72.5 | 1.4 | Negligible Adverse | 57.7 |  | 59.0 |
| 17, GOOOHOPPE PARK | Dwelling | 77.1 | 71.6 | 71.0 | -0.1 | Negligible Beneficial | 72.5 | 1.4 | Negigigile Adverse | 57.7 | 58.2 | 59.0 |
| 18.19 Goooblo Pe PARK | Owelling | 57.5 57.5 | 57.6 57.6 | 57.4 57.4 | -0.1 -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ | 㐌58.6 | ${ }_{1.1}^{1.1}$ | $\frac{\text { Negligible Adverse }}{\text { Negilible Adverse }}$ | 45.5 45 | 45.6 456 | 46.5 46.5 |
| 2, GOODHOPE PARK | Dwelling | 71.1 | 71.6 | 71.0 | -0.1 | Negligible Beneficial | 72.5 | 1.4 | Negligible Adverse | 57.7 | 58.2 | 59.0 |
| 20, GOODHOPE PARK | Dwelling | 57.5 | 57.6 | 57.4 | -0.1 | Negligible Beneficial | 58.6 | 1.1 | Negligible Adverse | 45.5 | 45.6 | 46.5 |
| 21, GOODHOPE PARK | Dwelling | 57.5 57.5 | 57.6 57.6 | 57.4 57.4 | -0.1 -0.1 | Negiligie Beneficial | 58.6 58.6 | ${ }_{1}^{1.1}$ | $\frac{\text { Negligible Adverse }}{\text { Negligible Adverse }}$ | 45.5 | ${ }_{45.6}^{45.6}$ | 46.5 |
| 23, GOOOHOPE PARK | Dwelling | 57.5 <br> 575 | 57.6 576 | 57.4 574 | ${ }^{-0.1}$ | Negligible Benefitial | 58.6 59 | ${ }_{1}^{1.1}$ | Negiligile Adverse | 45.5 455 | 45.6 456 | 46.5 |
| 25, GOODHOPE PARK | Dwelling | 57.5 | 57.6 | 57.4 | -0.1 | Negligible Beneficicial | 58.6 | 1.1 | Neoligiole Adverse | 45.5 | 45.6 | 46.5 |
| 26, GOOODOPP PARK | Deeling | 55.2 | 55.0 | 55.1 | -0.1 | Negligible Beneficical | 55.9 | 0.7 | Negligible Adverse | 43.4 | 43.2 | 44.0 |
| 27, GOODHOPE PARK | Dwelling | 55.2 | $\stackrel{55.0}{55.0}$ | ${ }^{55.1} 5$ | $\xrightarrow{-0.1} \begin{aligned} & -0.1\end{aligned}$ | Negligigibe Beneneficicial | 55.9 | 0.7 | Negigigible Adverse | ${ }_{43.4}^{43.4}$ | 43.2 | 44.0 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 <br> Lnight,outside | $\begin{gathered} \text { DS33 } \\ \text { Lnight,outside } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 29, GOOODHOPE PARK | Deeling | 55.2 | 55.0 | 55.1 | ${ }^{0.1}$ | Negligible Beneficical | 55.9 | 0.7 | Negigigle Adverse | 43.4 | ${ }^{43.2}$ | 44.0 |
| 3, GOODHOPE PARK | Dweling | 71.1 | 71.6 550 | $\frac{71.0}{551}$ | -0.1 | $\frac{\text { Negliaible Beneficial }}{\text { Negligible Beneficial }}$ | 72.5 <br> 5.9 | 1.4 0.7 | $\frac{\text { Negligible Adverse }}{\text { Negioigle Adverse }}$ | 57.7 <br> 4.4 | 58.2 43.2 | 59.0 44.0 |
|  | Dwelling | - ${ }_{55.2}$ | ${ }_{55.0}^{55.0}$ | ${ }_{55.1}^{55.1}$ | ${ }_{-0.1}^{-0.1}$ | Negiligiole Beneneificial | ${ }_{55.9}^{55.9}$ | 0.7 | Neogigigibe Adverse | 43.4 | 43.2 | 44.0 |
| 32, GOODHOPE PARK | Dwelling | 55.2 | 55.0 | 55.1 | -0.1 | Negligible Beneficial | 55.9 | 0.7 | Negligiole Adverse | 43.4 | 43.2 | 44.0 |
| 33, GOODHOPE PARK | Dwelling | 55.2 | 55.0 | 55.1 | -0.1 | Negligible Beneficical | 55.9 | 0.7 | Negigigile Adverse | 43.4 | 43.2 | 44.0 |
| 34, GOODHOPE PARK | Dwelling | 55.2 | 55.0 | 55.1 | -0.1 | Negligible Beneficial | 55.9 | 0.7 | Negigioble Adverse | 43.4 | 43.2 | 44.0 |
| 35, GOOOHOP位ARK | welling | 55.2 | 55.0 | 55.1 | -0.1 | Negligible Benenitial | $\begin{array}{r}55.9 \\ 55 \\ \hline 59\end{array}$ | 0.7 | Negiogiolb Adverse | 43.4 | 43.2 | $\frac{44.0}{44}$ |
| 36, Gooblope Pank | ${ }^{\text {Duediling }}$ | ${ }_{55.2}^{55.2}$ | ${ }_{55.0}^{55.0}$ | ${ }_{55.1}^{55.1}$ | ${ }_{-0.1}^{-0.1}$ | Negiligiole Beneneificial | ${ }_{55.9}$ | ${ }_{0} 0.7$ | Neogigiole Adversse | 43.4 | ${ }_{43.2}^{43.2}$ | 44.0 |
| 38, GOODHOPE PARK | Dwelling | 55.2 | 55.0 | 55.1 | -0.1 | Negligible Beneficial | 55.9 | 0.7 | Negigigile Adverse | 43.4 | 43.2 | 44.0 |
| 39, GOODHOPE PARK | welling | 55.2 | 55.0 | 55.1 | -0.1 | Negligible Beneficial | 55.9 | 0.7 | Negiligible Adverse | 43.4 | 43.2 | 44.0 |
| 4, GOODHOPE PARK | welling | 71.1 | 71.6 | 71.0 | -0.1 | Negligible Beneficial | 72.5 | 1.4 | Negiligibe Adverse | 57.7 | 58.2 | 59.0 |
| 40, GOODHOPE PARK | Oweling | 55.2 | 55.0 | 55.1 | -0.1 | Negligible Beneficial | 55.9 | 0.7 | Negiligibie Adverse | 43.4 | 43.2 | 44.0 |
| 41, GOODHOPE PARK | Dwelling | 55.2 | 55.0 | $\begin{array}{r}55.1 \\ 5 \\ \hline\end{array}$ | ${ }^{-0.1}$ | Negligible Beneficical | 55.9 | 0.7 | Negiligible Adverse | ${ }^{43.4}$ | ${ }^{43.2}$ | 44.0 |
| 42, GOOOHOPP PARK | Deelling | 52.9 | 52.1 |  | -0.1 | Negiligiole Beneficial |  | 0.4 | Negigigio Adverse | 4.3 |  |  |
|  | Oweling | 52.9 | 52.1 | 52.8 | -0.1 | Negligible Beneitical |  | 0.4 | Negligible Aaverse |  |  |  |
| 45. GOODHOPE PARK | Dwelling | 52.9 | 52.1 | 52.8 | -0.1 | Negligible Beneficicial | ${ }_{53.3}$ | 0.4 | Negaligible Adverse | 41.3 | 40.6 | 41.7 |
| 46, GOODHOPE PARK | Dwelling | 52.9 | 52.1 | 52.8 | . 0.1 | Negligible Beneficial | 53.3 | 0.4 | Negligible Adverse | 41.3 | 40.6 | 41.7 |
| 47, GOODHOPE PARK | Deelling | 52.9 | 52.1 | 52.8 | -0.1 | Negligible Beneficial | 55.3 | 0.4 | Negigioibe Adverse | 41.3 | 40.6 | 41.7 |
| 49, GOODHOPE PARK | Dwelling | 52.9 | ${ }_{52.1}$ | 52.8 | ${ }_{-0.1}$ | Negligible Beneficioial | ${ }_{53.3}$ | ${ }_{0}^{0.4}$ | Neogigigile Adverse | 41.3 | 40.6 | ${ }_{41.7}^{41.7}$ |
| 5, GOODHOPE PARK | Dwelling | 71.1 | 71.6 | 71.0 | -0.1 | Negligible Beneficial | 72.5 | 1.4 | Negiligible Adverse | 57.7 | 58.2 | 59.0 |
| 50, GOODHOPE PARK | Dwelling | 52.9 | 52.1 | 52.8 | -0.1 | Negligible Beneficial | 53.3 | 0.4 | Negiligile Adverse | 41.3 | 40.6 | 41.7 |
| 51, GOODHOP P PARK | welling | 52.9 | 52.1 | 52.8 | -0.1 | Negligible Beneficial | 53.3 | 0.4 | Negigioble Adverse | 41.3 | 40.6 | 41.7 |
| 52, Goootho Pe PARK | Dwelling | 52.9 | 52.1 | 52.8 | -0.1 | Negligible Beneficial | ${ }_{53.3}$ | 0.4 | Negiligibe Adverse | ${ }^{41.3}$ | 40.6 | 41.7 |
| 53, GOODHOPE PARK | Dwelling | 52.9 52.9 | 52.1 52.1 | 52.8 52.8 | -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ Beneficial | ${ }_{53.3}^{53.3}$ | ${ }_{0}^{0.4}$ | Negigigbe Adverse | ${ }_{41,3}^{41.3}$ | ${ }_{40.6}^{40 .}$ | 41.7 |
| 55, GOODHOPE PARK | Dwelling | 54.4 | 54.2 | 54.2 | -0.2 | Negligible Beneficial | 55.1 | 0.7 | Negiligibe Adverse | 42.7 | 42.5 | 43.3 |
| 56, GOODHOPE PARK | Dwelling | 54.2 | 54.0 | 54.1 | -0.1 | Negligible Beneficial | 54.9 | 0.7 | Negiligile Adverse | 42.5 | 42.3 | 43.1 |
| 57, GOOOHOPP PARK | Deeling | 54.2 | 54.0 | 54.1 | -0.1 | Negligible Beneficial | 54.9 | 0.7 | Negligible Adverse | 42.5 | ${ }^{42.3}$ | 43.1 |
| 58, GOOOHOPE PARK | welling | 54.3 | 54.1 | 54.2 | -0.1 | Negiligibe Eenenicial | 5.0 | 0.7 | Negiligile Aaverse | 42.6 | 42.4 | 43.2 |
| 59, GOODHOPE PARK | Dwelling | 54.5 71.1 | 54.2 71.6 | 54.3 71.0 | -0.2 -0.1 | $\frac{\text { Negligible Benenicial }}{\text { Negliobl }}$ | 55.1 72.5 | 0.6 1.4 | Negligibl Adverse | 42.8 57.7 | 42.5 58.2 | 43.3 59.0 |
| 60, GOODHOPE PARK | Welling | 54.6 | 54.3 | 54.4 | -0.2 | Negligible Beneficial | 55.2 | 0.6 | Negiligile Adverse | 42.9 | 42.6 |  |
| 61, GOODHOPE PARK | Deelling | 54.8 | 54.6 | 54.6 | -0.2 | Negligible Beneficial | 55.5 | 0.7 | Negigioble Adverse | 43.1 | 42.9 | 43.7 |
| 67, GOODHOPE PARK | welling | 56.1 | 55.9 | 55.9 | -0.2 | Negligible Beneficial | 56.5 | 0.4 | Negigioble Adverse | 44.2 | 44.0 | 44.6 |
| 69, GOODHOPE PARK | Owelling | 56.2 | 56.0 | 55.0 | -0.2 | Negligible Beneficiolil | 56.7 | 0.5 | Neoligible Adverse | ${ }_{44.3}$ | 44.1 | 44.8 |
| 7, GOOODHOPE PARK | Deelling | 71.1 | 71.6 | 71.0 | -0.1 | Negligible Beneficical | 72.5 | 1.4 | Negigiolile Adverse | 57.7 | 58.2 | 59.0 |
| 70, GOODHOPE PARK | Dwelling | 56.5 | 56.4 | 56.4 | -0.1 | Negligible Beneficial | 57.0 | 0.5 | Negiligile Adverse | 44.6 | 44.5 | 45.0 |
| 77, GOODHOPE PARK | Dwelling | ${ }^{56.8}$ | 56.5 58.1 | ${ }_{56.5}^{57.6}$ | -0.2 | Negegligible Beneneicical | 55.9 | ${ }_{1}^{1.1}$ | Neogigiole Adverse | 45.8 | 44.0 | ${ }_{45.7}^{46.7}$ |
| 73, GOODHOPE PARK | Dwelling | 57.0 | 57.4 | 56.8 | -0.2 | Negligible Beneficial | 58.1 | 1.1 | Negigiolile Adverse | 45.0 | 45.4 | 46.0 |
| 74, 77. GOOODHOPFE PARK | Dwelling | ${ }_{55.9}^{56.3}$ | ${ }_{56.2}^{56.6}$ | ${ }_{55.7}^{56.1}$ | -0.2 | ${ }_{\text {Negligible Beneficial }}^{\text {Negiole }}$ Beneficial | 57.9 | 1.0 | Negigigibe Adverse | 44.0 | ${ }_{44.3}^{44.7}$ |  |
| 76, GOODHOPE PARK | Wwelling | 55.6 | 55.9 | 55.4 | -0.2 | Negligible Beneficial | 56.6 | 1.0 | Negiligile Adverse | 43.8 | 44.0 | 44.7 |
| 77, GOOOHOPE PARK | Dwelling | - 54.7 | 55.9 | 55.15 | -0.1 -0.2 | Negligible Beneficial | 56.6 | ${ }^{1.0}$ | Negigigbe Adverse | 43.4 43.0 | 43.7 43.1 | 44.3 |
| 79, GOODHOPE PARK | Dwelling | 54.7 | 54.9 | 54.6 | -0.1 | Negligible Beneficial | 55.7 | 1.0 | Negiligibe Adverse | 43.0 | 431 | 43.9 |
| 8, GOOOHOPE PARK | Deelling | 77.1 | 71.6 | 71.0 | -0.1 | Negligible Benefiticial | 72.5 | 1.4 | Negiligible Adverse | 57.7 | 58.2 | 59.0 |
|  | Oweling |  |  |  |  | Neeligibe Benetical |  |  | Negigiole Adverse |  |  |  |
| 153, GORDONS MILIS ROAD | Dwelling | 57.7 | 61.6 | 57.2 | $\stackrel{-0.5}{-0.5}$ | Negoligioble Beneneicicial | ${ }_{59.9}$ | ${ }_{2.2}^{2.2}$ | Neoligigibe Adverse | ${ }_{45.7}^{45.7}$ | 49.2 | 476 |
| 155, GORDONS MILLS ROAD | Dwelling | 57.7 | 61.6 | 57.2 | -0.5 | Negligible Beneficial | 59.9 | 2.2 | Negilibile Adverse | 45.7 | 49.2 | 47.6 |
| 157, GORDONS MILLS ROAD | Dwelling | 57.7 | 61.6 | 57.2 | -0.5 | Negligible Beneficial | 59.9 | 2.2 | Negiligibe Adverse | 45.7 | 49.2 | 47.6 |
| 159, GORDONSMLLS ROAD | Dwelling | 57.7 57.7 | ${ }^{61.6}$ | 57.2 57.2 | -0.5 <br> -0.5 | Negligile Beneficial | 59.9 | ${ }^{2.2} 2$ | Negligibe Adverse | ${ }_{45.7}^{45.7}$ | $\frac{49.2}{49.2}$ | 47.6 |
| 163, GORDONS MILLS ROAD | Deelling | 57.7 | 61.6 | 57.2 | -0.5 | Negligible Beneficial | 59.9 | 2.2 | Negiligible Adverse | 45.7 | 49.2 | 47.6 |
| $1{ }^{165, ~ G O R D O N S ~ M I L S S ~ R O A D ~}$ | Dwelling | 57.7 | ${ }^{61.6}$ | 57.2. | -0.5 -0.5 -0.0 | $\frac{\text { Negligible Benenicical }}{\text { Neglioibl }}$ Beneficial | 59.9 | ${ }_{2}^{2.2}$ | $\frac{\text { Negigigle Adverse }}{\text { Nelilible Adverse }}$ | ${ }_{45}^{45.7}$ | 49.2 | 47.6 |
| 169, GORDONS MILSS ROAD | Dwelling | 57.2 | 61.3 | 56.7 | -0.5 | Negligible Beneficial | 59.5 | 2.3 | Negiligile Adverse | 45.2 | 48.9 | 47.3 |
| 171, GORDONS M MLLS R ROAD | Deelling | 57.2 | ${ }^{61.3}$ | 56.7 | -0.5 | Negligible Beneficical | 59.5 | ${ }_{2}^{2.3}$ | Negiligible Adverse | 45.2 | 48.9 | 47.3 |
| 173, GORDONS MILS ROAD | Dwelling | 57.2 | ${ }_{61.3}^{61.3}$ | 56.7 56.7 | -0.5 <br> -0.5 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ Beneficial | 59.5 59.5 | ${ }_{2.3}^{2.3}$ | $\frac{\text { Negligiole Adverse }}{\text { Nefligible Adverse }}$ | 45.2. | 48.9 48.9 | ${ }_{473}^{47.3}$ |
| 177, GORDONS MILSS ROAD | Dwelling | 57.2 | 61.3 | 56.7 | -0.5 | Negligible Beneficial | 59.5 | 2.3 | Negiligible Adverse | 45.2 | 48.9 | 47.3 |
| 179, GORDONS MILLS ROAD | Deeling | 57.2 | 61.3 | 56.7 | -0.5 | Negligible Beneficical | 59.5 | 2.3 | Negligible Adverse | 45.2 | 48.9 | 47.3 |
| 181, GORDONS ${ }^{\text {d MLLS R ROAD }}$ | Oweling |  | ${ }_{61.3}^{612}$ |  | -0.5 | Neogigibie Beneficial |  |  | Negiligie Adverse | 45.2 | 48.9 | 47.3 |
| ${ }^{1833, G O R D O N S ~ M I L S S ~ R O A D ~}$ | weiling | 57.0 |  | 56.5 | -0.5 | Negligibe Benenicial | 59.4 | $\frac{2.4}{24}$ | Negligiole Aaverse | 45.0 |  | 47.2 |
| 187, GORDONS MILLS ROAD | Dwelling | 57.0 | 61.2 | 56.5 | -0.5 | Negegligible Beneneicicial | ${ }_{59.4}^{59.4}$ | ${ }_{2.4}^{2.4}$ | Neoligioble Adverse | 45.0 | ${ }_{48.8}^{48.8}$ | 47.2 |
| 189, GORDONS MILS ROAD | Dwelling | 57.0 | 61.2 | 56.5 | -0.5 | Negligible Beneficial | 59.4 | 2.4 | Negligible Adverse | 45.0 | 48.8 | 47.2 |
| 191, GORDON'S MILLS ROAD | Deelling | 57.0 | 61.2 | 56.5 | -0.5 | Negligible Beneficial | 59.4 | 2.4 | Negigioble Adverse | 45.0 | 48.8 | 47.2 |
|  | Dwelling | 57.0 | $\frac{61.2}{61.2}$ | 56.5 | -0.5 | Negegigigibe Beneneficioial | 59.4 | ${ }_{2}^{2.4}$ | Negligigile Adverse | 45.0 | ${ }_{48.8}^{48.8}$ | ${ }_{47.2}$ |
| 197, GORDONS MILS ROAD | Dwelling | 57.0 | ${ }_{61.2}^{612}$ | 56.5 56.4 | -0.5 | Negligible Beneficial | $\begin{array}{r}59.4 \\ 594 \\ \hline 9.4\end{array}$ | 2.4 24 | Negligibl Adverse | 45.0 450 | 48.8 488 | 47.2 |
| 201, GORDONS SMILLS ROAD | Dweliling | 57.0 | $\frac{61.2}{61.2}$ | 56.4 | - | Negiligiole Beneiticial | 59.4 59.4 | ${ }_{2.4}^{2.4}$ | Negigigibe Adverse | 45.0 | 48.8 | 47.2 |
| 203, GORDONOS MILLS ROAD | Dewling | 57.0 | $\frac{61.2}{612}$ | 56.4 | -0.6 | Negligible Beneficical | 59.4 | 2.4 | Negligible Adverse | 45.0 | 48.8 | 47.2 |
| 205, GORDONS MILS R ROAD | Dwelling | $\stackrel{57.0}{57.0}$ | $\frac{61.2}{61.2}$ | ${ }_{56.4}^{56.4}$ | -0.6 | $\frac{\text { Negligibee Beneficial }}{\text { Negligible Beneficial }}$ | $\stackrel{59.4}{59.4}$ | ${ }_{2.4}^{2.4}$ | Negigigie Adverse | 45.0 | ${ }_{48.8}^{48.8}$ | ${ }_{47.2}^{47.2}$ |
| 209, GORDONS MILS ROAD | Dwelling | 57.0 | 61.2 | 56.4 | -0.6 | Negligible Beneficial | 59.4 | 2.4 | Negligible Adverse | 45.0 | 48.8 | 47.2 |

A90/A96 Haudagain Improvement

## DMRB Stage 3 Environmental Statement

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 <br> Lnight,outside | DM33 <br> Lnight,outside | $\begin{gathered} \text { DS33 } \\ \text { Lnight,outside } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 211, GORDONS MILS ROAD | Dwelling | 57.0 | 61.2 | 56.4 | -0.6 | Negligible Beneficial | 59.4 | 2.4 | Negigigile Adverse | 45.0 | 48.8 | 47.2 |
| 213. GORDONS MILLS ROAD | Oweling | 57.0 | 61.2 | 56.4 | ${ }^{-0.6}$ | Negligible Benefitial | 59.4 | 2.4 | Negiligible Adverse | 45.0 3.4 | ${ }_{48.8}^{4.8}$ | ${ }^{47.2}$ |
| 1, GRANDHOLM AVENUE, GRANDHOLM | Dwelling | 46.3 47.2 | 47.4 50.9 | 46.1 46.9 | -0.2 | Negligible Benenicial | $\stackrel{47.4}{49.2}$ | ${ }_{2}^{1.1}$ | Negigigie Adverse | 35.4 36.2 | 36.4 39.5 | 36.4 38.0 |
| 11, GRANDHOLM AVENUE, GRANDHOLM | Dwelling | 47.5 | 50.6 | 47.2 | -0.3 | Negligible Benenitical | 49.1 | 1.6 | Negigigile Adverse | ${ }^{\frac{36.5}{36.5}}$ | ${ }_{39.3}$ | 37.9 |
| 12, GRANDHOLM AVENUE, GRANDHOLM | Dwelling | 46.6 | 50.7 | 46.3 | -0.3 | Negligible Beneficial | 48.8 | 2.2 | Negigibile Adverse | 35.7 | 39.4 | 37.7 |
| 14, GRANDHOLM AVENUE, GRANDHOLM | Deelling | 46.8 | 50.8 | 46.5 | -0.3 | Negligible Beneficicial | 48.9 | 2.1 | Negiligible Adverse | 35.9 | 39.5 | 37.7 |
| 15, GRANDHOLM AVENUE, GRANDHOLM | Oweling | 48.7 | 52.1 | 48.3 | -0.4 | Negligible Beneficicial | 50.5 | 1.8 | Negigioble Adverse | 37.6 | 40.6 | 39.2 |
| 16, GRANDHOLM AVENUE, GRANDHOLM | Dweling | 46.9 | 51.1 | 46.4 | -0.5 | Negligible Beneficicial | 49.1 | ${ }_{2}^{2.2}$ | Negiligibe Adverse | 35.9 | 39.7 395 | 37.9 377 |
| 18, GRANDHOLM AVENUE, GRANDHOLM | Dwelling | $\frac{46.7}{46.4}$ | 50.9 47.8 | 46.3 | --0.4 | Negiligible Benenitical | 47.6 | 1.2 1.2 | Negigigible Adverse | 35.8 <br> 35.5 | 39.5 36.8 | ${ }_{36.6}$ |
| 3, GRANDHOLM AVENUE, GRANDHOLM | Dwelling | 47.5 | 49.1 | 47.4 | -0.1 | Negligible Beneficial | 49.0 | 1.5 | Negigiolie Adverse | 36.5 | 37.9 | 37.8 |
| 4, GRANDHOLM AVENUE, GRANDHOLM | welling | 47.7 | 48.9 | 47.6 | -0.1 | Negligible Beneficial | 48.9 | 1.2 | Negigigibe Adverse | 36.7 | 37.7 | 37.7 |
| 5, GRANDHOLM AVENUE, GRANDHOLM | welling | 46.8 | 49.4 | 46.4 | -0.4 | Negligible Beneficial | 48.2 | 1.4 | Negigioble Adverse | 35.9 | 38.2 | 37.1 |
| 6, GRANDHOLM AVENUE, GRANDHOLM |  | 46.4 | 48.2 | 46.2 | -0.2 | Negligible Beneficial | 47.6 | 1.2 | Adverse | 35.5 | 37.1 | 36.6 |
| 7, GRANDHOLM AVENUE, GRANDHOLM |  | 47.4 | 5.8 | 47.2 | -0.2 | Negligible Beneniticial | 49.2 | 1.8 | Adverse |  | 39.5 | 38.0 |
| 8, GRANDHOLM AVENUE, GRANDHOLM | Dwelling | 47.0 47.4 | 50.9 | ${ }_{47.1}^{46.7}$ | -0.3 | Negligible Beneitical | ${ }_{49.1}$ | ${ }_{1.1}^{2.7}$ | Negiligile Adverse | 36.4 | 39.4 | 37.9 |
| BrAEFOOT COTTAGE, 1, GRANDHOLM COTTAGES, GRANDHOLM | Dwelling | 51.5 | 52.0 | 51.3 | -0.2 | Negligible Beneficial | 52.6 | 1.1 | Negligibe Adverse | 40.1 | 40.5 | 41.1 |
| CROMBIE COTTAGE, 1 , GRANDHOLM COTTAGES, GRANDHOLM | Dwelling | 48.3 | 48.8 | 48.1 | -0.2 | Negligible Beneficial | 49.4 | 1.1 | Negligible Adverse | 37.2 | 37.7 | 38.2 |
| DENEND COTTAGES, 1, GRANDHOLM COTTAGES, GRANDHOLM | Dwelling | 48.3 | 48.6 | 48.1 | -0.2 | Negligible Beneficial | 49.1 | 0.8 | Negiligile Adverse | 37.2 | 37.5 | 37.9 |
| LADESIDE COTTAGE, 1 , GRANDHOLM COTTAGES, GRANDHOLM | Deelling | 47.8 | 48.0 | 47.6 | -0.2 | Negligible Beneficial | 48.6 | 0.8 | Negligible Adverse | 36.8 | 36.9 | 37.5 |
| LAUREL HOUSE, 1, GRANDHOLM COTTAGES, GRANDHOLM | Deelling | 52.7 | 53.2 | ${ }_{52.5}$ | -0.2 | Negligible Beneficial | 53.8 <br> 5.8 <br> 1. | 1.1 | Negiligile Adverse | 41.2 395 | 41.6 309 | 42.2 |
| (100, GRAADHOLM CRESCENT, GRANDHOLM | Oweling | 50.8 | 51.3 | 50.6 | -0.2 | Negoligioble Beneneficial | ${ }_{51.7}^{51.7}$ | 1.12 | Negligibe Adverse | 39.5 39.2 | 39.9 39.7 | 40.4 40.3 |
| 102, GRANDHOLM CRESCENT, GRANDHOLM | Dwelling | 50.8 | 51.3 | 50.6 | -0.2 | Negligible Beneficial | 51.9 | 1.1 | Negiligile Adverse | 39.5 | 39.9 | 40.4 |
| 103, GRANDHOLM CRESCENT, GRANDHOLM | Dwelling | 51.0 | 51.6 | 50.9 | -0.1 | Negligible Beneficial | 52.2 | 1.2 | Negigigibe Adverse | 39.6 | 40.2 | 40.7 |
| 104, GRANDHOLM CRESCENT, GRANDHOLM | welling | 50.8 | 51.3 | 50.6 | -0.2 | Negligible Beneficial | 51.9 | 1.1 | Negigigble Adverse | 39.5 | 39.9 | 40.4 |
| 105, GRANDHOLM CRESCENT, GRANDHOLM | welling | 51.1 | 51.8 | 51.0 | -0.1 | Negligible Beneficial | 52.3 | 1.2 | Negigigibe Adverse | 39.7 | 40.4 | 40.8 |
| 106, GRANDHOLM CRESCENT, GRANDHOLM | ling | 50.8 | 51.3 | 50.6 | -0.2 | Negligible Beneficial | 51.9 | 1.1 | Negigigile Adverse | 39.5 | 39.9 | 40.4 |
| 107, GRANDHOLM CRESCENT, GRANDHOLM | Dwelling | 51.1 | 51.8 | 51.0 | -0.1 | Negigigile Beneficicial | 52.3 | 1.2 | Negiligile Adverse | 39.7 | 40.4 | 40.8 |
| 108, GRANDHOLM CRESCENT, GRANDHOLM | Dwelling | 50.8 | 51.3 | 50.6 | -0.2 | Negligible Beneficial | 51.9 | 1.1 | Negigioble Adverse | 9.5 | 39.9 | 40.4 |
| 110, GRANDHOLM CRESCENT, GRANDH |  | 50.8 | 51.3 | 50.6 | -0.2 | Negligible Beneficical | 51.9 | 1.1 | Negigioble Adverse | 39.5 | 39.9 |  |
| 112, GRANDHOLM CRESCESTTT, GRANDHOLM |  | 50.8 | 51.3 | 50.6 | -0.2 |  |  |  | Adverse |  |  | 40.4 |
| 114, GRANDHOLM CRESCCENT, GRANDHOLM | Oweling | 48.7 | 49.5 | 48.6 |  | Negligibe Benenicial | 50.0 | ${ }_{1} 1$ | Negigigile Adverse | 37.6 | 8.3 | 38.7 |
| T6, GRANDHOLM CRESCENT, GRANDHOLM | Oweling | 48.7 | 49.5 |  |  | Negiquibe Beneiticar |  | 1.3 | Negigigile Adverse | 37.6 | 3.3 |  |
| I8, GRANDHOLM CRESCENT, GRANDHOLM | Oweiling | ${ }^{48.7}$ | 49.5 | 48.6 | -0.1 | Negigioble Benenitial | 50.0 | ${ }_{1}^{1.3}$ | Negiligile Adverse | 37.6 | ${ }^{38.3}$ | 38.7 |
| 120. GRANDHOLM CRESCENT, GRANDHOLM | Dweling | 48.7 | 49.5 | 48.6 | -0.1 | Negiligibe Benenicial | 50.0 | ${ }_{1}^{1.3}$ | Negiligile Adverse | 37,6 | ${ }^{38,3}$ | ${ }^{38,7} 3$ |
| 124, GRANDOLOLM CRESECENT, GAANDHOLM | Dweling | ${ }_{48.7}^{48.7}$ | 49.5 | 48.6 | $\stackrel{-0.1}{-0.1}$ |  | $\stackrel{50.0}{50.0}$ | 1.3 1.3 1 | Neoligigie Adverse | 37.6 37.6 | 38.3 <br> 38.3 | 38.7 38.7 |
| 126, GRANDHOLM CRESCENT, GRANDHOLM | Dwelling | 48.7 | 49.5 | 48.6 | -0.1 | Negligible Beneniticial | 50.0 | 1.3 | Negiligile Adverse | 37.6 | ${ }_{38.3}$ | 38.7 |
| 128, GRANDHOLM CRESCEENT, GRANDHOLM | Dwelling | 48.7 | 49.5 | 48.6 | -0.1 | Negligible Beneficial | 50.0 | 1.3 | Negiligile Adverse | 37.6 | 38.3 | 38.7 |
| 30, GRANDHOLM CRESCENT, GRANDHOLM | Dwelling | 48.7 | 49.5 | 48.6 | -0.1 | Negligible Beneficical | 50.0 | 1.3 | Negigigile Adverse | 37.6 | 38.3 | 38.7 |
| 132, GRANDHOLM CRESCEENT, GRANDHOLM | Deelling | 48.7 | 49.5 | 48.6 | -0.1 | Negligible Beneficial | 50.0 | 1.3 | Negigioble Adverse | 37.6 | 38.3 | 38.7 |
| 134, GRANDHOLM CRESCENT, GRANDHOLM | Oweling | 48.7 | 49.5 | ${ }_{48.6}$ | -0.1 | Negeligibe Benenitial | 50.0 | ${ }_{1}^{1.3}$ | Negiligie Adverse | ${ }^{37.6}$ | ${ }^{38.3}$ | ${ }^{38.7}$ |
| İisi, GRANDHOLM CRESCENT, GRANDHOLM | ${ }^{\text {Dwelling }}$ Dweling | ${ }_{48.4}^{48.7}$ | 49.1 | ${ }_{48.3}^{48.6}$ | $\xrightarrow{-0.1}$ | Negilioble Beneiticial | ${ }^{50.0}$ | ${ }_{1.2}$ | Neogigigle Adverse | ${ }_{37.3}$ | 37.9 | ${ }_{38.4}$ |
| 140, GRANDHOLM CRESCENT, GRANDHOLM | Dwelling | 48.4 | 49.1 | 48.3 | -0.1 | Negligible Beneficial | 49.6 |  | Negligible Adverse | 37.3 | 37.9 | 38.4 |
| 142, GRANDHOLM CRESCENT, GRANDHOLM | Dwelling | 48.4 | 49.1 | 48.3 | -0.1 | Negligible Beneficial | 49.6 |  | Negigigile Adverse | 37.3 | 37.9 | 38.4 |
| 144, GRANDHOLM CRESCENT, GRANDHOLM |  | 48.4 | 49.1 | 48.3 | 0.1 | Negligible Beneficial | 49.6 | 1.2 | jligible Adverse | 37.3 | 7.9 | B.4 |
| 146, GRANDHOLM CRESCENT, GRANDHOLM | elling | 48.4 | 49.1 | 48.3 | -0.1 | Negligible Beneficial | 49.6 | 1.2 | Negigigile Adverse | 37.3 | 37.9 | 38.4 |
|  | Dwelling | 48.4 | 49.1 |  |  |  | 49.6 |  | Negiligile Adverse |  | 37.9 | 38.4 |
| 150, GRANDHOLM CRESCENT, GRANDHOLM | Oweling |  | 49.1 | 48.3 | -0.1 | Negigigile Benenitical | 49.6 | 1.2 | Negigigble Adverse | ${ }^{37.3}$ | 37.9 |  |
|  | Oweiling |  | 49.1 |  |  | Negigigie Benenitial | 49.6 | . 2 | Negligiole Aaverse | 37.3 | 37.9 |  |
| I54, GRANDHOLM CRESCENT, GRANDHOLM | Oweling | 48.4 | ${ }^{49.1}$ | 48.3 | -0. 1 | Negligible Benenitial | 49.6 | 1.2 | Negligiole Aaverse | 37.3 | 37.9 | 38.4 |
| 156, GRANDHOLM CRESCENT, GRANDHOLM | Dweling | 49.6 | 50.4 | 49.4 | -0.2 | Negioigie Benenicial | 50.8 | 1.2 | Negigigle Adverse | 38,4 | 39,1 | 39.5 395 |
| 158, GRANDHOLM CRESCENT, GRANDHOLM | Dweling | 49.6 | 50.4 <br> 50.4 | ${ }_{49.4}^{494}$ | -0.2 | Negligibe Benenicial | 50.8 50.8 | ${ }_{1}^{1.2}$ | Negligio Adverse | 38.4 38.4 | 39.1 39.1 | ${ }^{39.5}$ |
| 162, GRANDHOLM CRESCENT, GRANDHOLM | Dwelling | 49.6 | ${ }_{50.4}$ | 49.4 | $\stackrel{-0.2}{ }$ | Negeligible Beneficioil | 50.8 | ${ }_{1}^{1.2}$ | Negigigile Adverse | ${ }^{38.4}$ | ${ }^{39.1}$ | ${ }^{39.5}$ |
| 164, GRANDHOLM CRESCENT, GRANDHOLM | Dwelling | 49.6 | 50.4 | 49.4 | -0.2 | Negligible Beneficical | 50.8 | 1.2 | Negigigile Adverse | 38.4 | 39.1 | 39.5 |
| 166, GRANDHOLM CRESCENT, GRANDHOLM | Dwelling | 49.6 | 50.4 | 49.4 | -0.2 | Negligible Beneficial | 50.8 | 1.2 | Neoligible Adverse | 38.4 | 39.1 | 39.5 |
| 168, GRANDHOLM CRESCENT, GRANDHOLM | Dwelling | 49.6 49.6 | 50.4 50.4 | $\frac{49.4}{49.4}$ | -0.2 | $\frac{\text { Negligible Benentical }}{\text { Neglioble }}$ | 50.8 50.8 | 1.2 | Negiligile Adverse | 38.4 38.4 | 39.1 39.1 | 39.5 395 |
| 172, GRANDHOLM CRESCENT, GRANDHOLM | Dwelling | 49.6 | 50.4 | 49.4 | -0.2 | Negligible Beneficicial | 50.8 | 1.2 | Neogigiole Adverse | 38.4 | 39.1 | 39.5 |
| 174, GRANDHOLM CRESCENT, GRANDHOLM | Dwelling | 49.6 | 50.4 | 49.4 | -0.2 | Negligible Beneficial | 50.8 | 1.2 | Negiligile Adverse | 38.4 | 39.1 | 39.5 |
| 76, GRANDHOLM CRESCENT, GAANDHOLM | Deelling | 49.6 | 50.4 | 49.4 | -0.2 | Negligible Beneficical | 50.8 | 1.2 | Negiligile Adverse | 38.4 | 39.1 | 39.5 |
| 178, GRANDHOLM CRESCENT, GRANDHOLM | Dwelling | 49.6 | 50.4 | 49.4 | -0.2 | Negligible Benenticial | 50.8 | 1.2 | Negiligile Adverse | 38.4 | 39.1 | 39.5 |
| 180, GRANDHOLM CRESCENT, GRANDHOLM | Dweling | 49.6 | 50.4 |  |  | Negligiole Benenicial | 50.8 | 1.2 | Negigigle Adverse |  | 39.1 | 9.5 |
| 182, GRANDHOLM CRESCENT, GRANDHOLM | Oweling | 49.6 | 50.4 | 49.4 | -0.2 | Negiligibe Benenitical | 50.8 | 1.2 | Negiligile Aaverse | 38.4 |  | 39.5 |
| 186, GRANDHOLM CRESCENT GRANDHOLM | Dwelling | 49.6 | 50.4 | 49.4 | -0.2 | ${ }^{\text {Negegigiobile }}$ Beneneiticial | 50.8 | 1.2 | Negigigibe Adverse | 38.4 38.4 | 39.1 | 39.5 |
| 188, GRANDHOLM CRESCCENT, GRANDHOLM | Dwelling | 49.6 | 50.4 | 49.4 | -0.2 | Negligible Beneficial | 50.8 | 1.2 | Negligible Adverse |  | 39.1 | 39.5 |
| 190, GRANDHOLM CRESCENT, GRANDHOLM | Dwelling | 49.6 | 50.4 | 49.4 | -0.2 | Negligible Beneficial | 50.8 | 1.2 | Negligible Adverse | 38.4 | 39.1 | 39.5 |
| 192, GRANDHOLM CRESCEENT, GRANDHOLM | Dwelling | 49.6 | 50.4 | 49.4 | -0.2 | Negligible Beneficicial | 50.8 | 1.2 | Negiligibe Adverse | 38.4 | 39.1 | 39.5 |
| 194, GRAADHOLM CRESCLM CRESCENT, GRANDHOLM | Dwelling | 49.6 | 50.4 | 49.4 | -0.2 | Negiligiole Beneiticial | ${ }_{50.8}^{50.8}$ | 1.2 | Neoligigile Adverse | 38.4 38.4 | ${ }^{39.1}$ | ${ }^{39.5}$ |
| 198, GRANDHOLM CRESCENT, GRANDHOLM | Dwelling | 49.6 | 50.4 50.4 | 49.4 4.4 | -0.2 | Negliable Beneficial | 50.8 | 1.2 12 | Negligible Adverse | 38.4 3.4 | 39.1 39.1 | 39.5 395 |
| 202, GRANDHOLM CRESCENT, GRANDHOLM | Dwelling | 49.6 | 50.4 | 49.4 | -0.2 | Negiligible eeneneficioial | 50.8 | 1.2 | Negigigile Adverse | 38.4 38.4 | ${ }^{39.1}$ | 39.5 |

A90/A96 Haudagain Improvement

## DMRB Stage 3 Environmental Statement

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 <br> Lnight,outside | DM33 <br> Lnight,outside | $\begin{gathered} \text { DS33 } \\ \text { Lnight,outside } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 204, GRANDHOLM CRESCENT, GRANDHOLM | Owelling | 49.6 | 50.4 | 49.4 | ${ }^{0.2}$ | Negligible Beneficical | 50.8 | 1.2 | Negigigle Adverse | 38.4 | 39.1 | 39.5 |
| 53, GRANDHOLM CRESCENT, GRANDHOLM | Dweling | 46.3 | $\frac{47.5}{471}$ | $\frac{46.2}{458}$ | ${ }^{-0.1}$ | Negligible Beneficial | $\frac{47.4}{470}$ | $\frac{1.1}{11}$ | Negligible Adverse | 35.4 350 | $\begin{array}{r}36.5 \\ \hline 361\end{array}$ | 36.4 360 |
| 55, GRANDHOLM CRESCENT, GRANDHOLM | Dwelling | ${ }_{46.1}$ | ${ }_{47.3}$ | 45.0 | $-01$ | Negiligiole Beneficial | 47.2 | ${ }_{1}^{1.1}$ | Neoligigibe Adverse | ${ }_{35.2}$ | ${ }_{36.3}^{36.1}$ | ${ }_{36.2}^{36.0}$ |
| 59, GRANDHOLM CRESCENT, GRANDHOLM | Dwelling | 45.8 | 46.9 | 45.7 | -0.1 | Negligible Beneficial | 46.9 | 1.1 | Negiligile Adverse | 35.0 | 35.9 | 35.9 |
| 61, GRANDHOLM CRESCENT, GRANDHOLM | Dwelling | 45.2 | 46.4 | 45.2 | 0.0 | No Change | 46.3 | 1.1 | Negigigile Adverse | 34.4 | 35.5 | 35.4 |
| 63, GRANDHOLM CRESCENT, GRANDHOLM | Dwelling | 45.1 | 46.4 | 45.1 | 0.0 | No Change | 46.2 | 1.1 | Negligible Adverse | 34.3 | 35.5 | 35.3 |
| 65, GRANDHOLM CRESCENT, GRANDHOLM | Deelling | 45.1 | 46.5 | 45.0 | -0.1 | Negligible Benenicical | 46.2 | 1.1 | Negigigibe Adverse | 34.3 <br> 34 <br> 4.2 | ${ }^{35.6}$ | 35.3 <br> 352 <br> 5 |
| 69, GRANDHOLM CRESCENT, GRANDHOLM | ${ }^{\text {Duediling }}$ | 45.0 | ${ }_{46.4}^{46.4}$ | 44.9 | -0.1 | Negligibli engeneficial | ${ }_{46.1}^{46.1}$ | ${ }_{1}^{1.1}$ | Neogigiole Adversse | ${ }^{34.2}$ | ${ }_{35.5}$ | ${ }_{35.2}$ |
| 71, GRANDHOLM CRESCENT, GRANDHOLM | Dwelling | 44.9 | 46.4 | 44.8 | -0.1 | Negligible Beneficial | 46.0 | 1.1 | Negiligible Adverse | 34.1 | 35.5 | 35.1 |
| 73, GRANDHOLM CRESCENT, GRANDHOLM | welling | 44.8 | 46.3 | 44.7 | -0.1 | Negligible Beneficial | 45.9 | 1.1 | Negligible Adverse | 34.1 | 35.4 | 35.0 |
| 75, GRANDHOLM CRESCENT, GRANDHOLM | welling | 44.7 | 46.4 | 44.6 | -0.1 | Negligible Beneficial | 45.9 | 1.2 | Negigigibe Adverse | 34.0 | 35.5 | 35.0 |
| 77, GRANDHOLM CRESCENT, GRANDHOLM | welling | 45.2 | 46.9 | 45.0 | -0.2 | Negligible Beneficial | 46.4 | 1.2 | Negigioble Adverse | 34.4 | 35.9 | 35.5 |
| 78, GRANDHOLM CRESCENT, GRANDHOLM |  | 44.9 | 45.8 | 44.8 | -0.1 | Negligible Beneficial | 46.0 | 1.1 | Negigioble Adverse | 34.1 | 35.0 | 35.1 |
| 79, GRANDHOLM CRESCENT, GRANDHOLM |  | 45.4 | 46.7 | 45.3 | -0.1 | Segigibe Benenicicial | 46.4 | 1.0 |  |  |  | 5.5 |
| 80, GRANDHOLM CRESCEAT, GRANDHOLM |  | 44.9 | 45.8 | 44.8 | -0.1 | Sgligibe Beneniticial | 46.0 | 1.1 | Negligible Aaverse |  |  |  |
| 81, GRANDHOLM CRESCENT, GRANDHOLM | eling | 46.0 | 47.1 | 46.0 | 0.0 | ange | 47.0 | 1.0 | Negiligible Adverse |  |  | 6.0 |
| 82, GRANDHOLM CRESCENT, GRANDHOLM | Deelling | 44.9 | 45.8 | 44.8 | -0.1 | Negligible Beneficial | 46.0 | 1.1 | Negigioble Adverse | . 1 | 35.0 | 35.1 |
| 83, GRANDHOLM CRESCENT, GRANDHOLM | Dweling | 46.1 | 47.2 | 46.0 | -0.1 |  | 47.0 | 0.9 | Negiligile Adverse | 35.2) | 36.2 <br> 3.0 | 36.0 351 |
| 84, GRANDHOLM CRESCENT, GRANDHOLM | weling | 44.9 | 45.8 | 44.8 | -0.1 | Negiligiole Beneficical | 46.0 | 1.1 | Negiligile Adverse | $\begin{array}{r}34.1 \\ 353 \\ \hline\end{array}$ | 35.0 <br> 3.3 | $\begin{array}{r}35.1 \\ 3.2 \\ \hline\end{array}$ |
| B5, GRANDHOLM CRESCENT, GRANDHOLM | weling | 46.2 | 47.3 | 46.1 | -0.1 | Negiligiole Beneilical | 47.2 | 1.1 | Negiligile Adverse | 35.31 | -36.3 | ${ }^{36.2}$ |
| 86, GRANDHOLM CRESCENT, GRANDHOLM | Oweiling | 44.9 | 45.8 | 44.8 | -0. 1 | Negiligibe Beneiticar | 46.5 | . 1 | Negiqigile Adverse | 34.1 <br> 3.7 | ${ }_{35.0}$ | 35.1 |
| 87, GRANDHOLM CRESCENT, GRANDHOLM | Oweling | 46.6 | 47.6 | 46.5 | -0. 1 | Negiligibe Beneilicar | 47.5 | 0.9 | Negiligie Aaverse | 35.7 | 36.6 | 36.5 <br> 3.5 |
| 88, GRANDHOLM CRESSCNT, GRANDHOLM | Dwelling | 44.9 | 45.8 473 | 44.8 46 | -0.1 | Negoligioble Beneneniticial | $\stackrel{46.0}{47.3}$ | 0.9 | Negigigbe Adverse | ${ }_{35.5}^{34.1}$ | ${ }_{36.3}^{35.0}$ | ${ }^{35.1} 3$ |
| 90, GRANDHOLM CRESCENT, GRANDHOLM | Dwelling | 44.9 | 45.8 | 44.8 | -0.1 | Negligible Beneficial | 46.0 | 1.1 | Negiligile Adverse | 34.1 | 35.0 | 35.1 |
| 91, GRANDHOLM CRESCENT, GRANDHOLM | welling | 46.8 | 47.6 | 46.8 | 0.0 | No Change | 47.7 | 0.9 | Negigioble Adverse | 35.9 | 36.6 | 36.7 |
| 92, GRANDHOLM CRESCENT, GRANDHOLM | Dwelling | ${ }_{46.9}^{44.6}$ | 45.8 474 | $\stackrel{44.8}{46.6}$ | -0.1 | Negligible Beneficial | ${ }_{4}^{46.0}$ | 1.1 | $\frac{\text { Negigigble Adverse }}{\text { Negioible Adverse }}$ | 34.1 357 | 35.0 3.0 | ${ }^{35.1}$ |
| 94, GRANDHOLM CRESCENT, GRANDHOLM | Dwelling | 44.9 | 45.8 | 44.8 | -0.1 | Negligible Beneficicial | 46.0 | 1.1 | Neoligible Adverse | ${ }_{34.1}$ | 35.0 | 35.1 |
| 95, GRANDHOLM CRESCENT, GRANDHOLM | Dwelling | 47.1 | 47.7 | 47.0 | -0.1 | Negligible Beneficial | 47.9 | 0.8 | Negiligibe Adverse | 36.1 | 36.7 | 36.8 |
| 96, GRANDHOLM CRESCENT, GRANDHOLM | Dwelling | 50.8 | 51.3 | 50.6 | -0.2 | Negligible Benefitical | 51.9 | 1.1 | Negiligible Adverse | 39.5 | 39.9 | 40.4 |
| 97, GRANDHOLM CRESCENT, GRANDHOLM | Dwelling | 50.8 <br> 50.8 | 年1.3 | 50.6 50.6 | -0.2 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ | 51.9 | 1.2 1.1 | Negligibl Adverse | 39.5 39.5 | 39.9 39.9 | 40.5 40.4 |
| 99, GRANDHOLM CRESCENT, GRANDHOLM | Dwelling | 50.8 | 51.4 | 50.6 | -0.2 | Negligible Beneficial | 52.0 | 1.2 | Negligible Adverse | 39.5 | 40.0 | 40.5 |
| GRANDHOLM DENTAL CLINIC, GRANDHOLM CRESCENT, GRANDHOLM | Heath Care Serices | 50.0 | 50.5 | 49.8 | -0.2 | Negligible Beneficial | 51.1 | 1.1 | Negligible Adverse | 38.7 | 39.2 | 39.7 |
| GRANDHOLM CRESCENT, GRANDHOLM | Dwelling | 53.5 | 54.1 | 53.4 |  | Negligible Beneficial | 54.7 | 1.2 | Negigioble Adverse | 41.9 | 42.4 |  |
| GRANDOLOLM CRESECENT, GAANDHOLM | Dwelling | 54.9 54.9 | 55.5 55.5 | 54.7 54.7 | -0.2 | Negiligiole Beneificial | 56.0 | ${ }_{1}^{1.1}$ | Negligigibe Adverse | ${ }_{43.1}^{43.1}$ | ${ }_{43.7}^{43.7}$ | ${ }^{44.1}$ |
| GRANDHOLM CRESCENT, GRANDHOLM | Dwelling | 54.9 | 55.5 | 54.7 | -0.2 | Negligible Beneficial | 56.0 | 1.1 | Negiligile Adverse | 43.1 | 43.7 | 44.1 |
| GRANDHOLM CRESCENT, GRANDHOLM | Dwelling | 54.9 53.5 | 55.5 54.1 | 54.7 <br> 53.4 | -0.2 -0.1 -0 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ Beneficial | 56.0 54.7 | ${ }_{1}^{1.1}$ | $\frac{\text { Negligible Adverse }}{\text { Nefligible Adverse }}$ | 43.1 41.9 | 43.7 42.4 | 44.1 43.0 |
| 121, GRANDHOLM DRIVE | Dwelling | 52.7 | 53.3 | 52.6 | ${ }_{-0.1}$ | Negligible Beneficioil | 53.9 | 1.2 | Negiligible Adverse | 41.2 | ${ }_{41.7}^{42.7}$ | 42.2 |
| 123, GRANDHOLM DRIVE | Dwelling | 51.8 | 52.3 | 51.6 | -0.2 | Negligible Beneficial | 52.8 | 1.0 | Negigioible Adverse | 40.4 | 40.8 | 41.3 |
| 1125, GRANDHOLM DRIVE | Dwelling | 50.14 | 50.4 | 49.9 513 | -0.2 | $\frac{\text { Negliaibe Beneficial }}{\text { Negligible }}$ Beneficial | $\begin{array}{r}51.1 \\ 525 \\ \hline\end{array}$ | 1.0 11 | Negiligile Adverse | 38.8 400 | 39.1 40.4 | 39.7 410 |
| 129, GRANDHOLM DRIVE | Dwelling | 51.0 | 51.4 | 50.9 | -0.1 | Negligible Beneficioil | 52.1 | 1.1 | Neogigigile Adverse | 39.6 | 40.0 | 40.6 |
| 131, GRANDHOLM DRIVE | Dwelling | 50.3 | 50.8 | 50.1 | -0.2 | Negligible Beneficical | 51.4 | 1.1 | Negligible Adverse | 39.0 | 39.5 | 40.0 |
| GRANDHOLM CARE HOME, GRANDHOLM DRIVE | Dwelling | 61.1 50.4 | 61.6 507 | 60.8 50.3 | -0.3 | Negilibile Beneficial | -62.1 | ${ }^{1.0}$ | Negigigle Adverse | ${ }^{48,7}$ | 49.2 39.4 | ${ }^{49.6}$ |
|  | ${ }^{\text {Duelling }}$ | $\frac{50.4}{50.4}$ | ${ }_{50.7}^{50.7}$ | 50.3 | -0.1 | Negiligiole Beneficial | $\frac{51.1}{51.1}$ | 0.7 0.7 | Neoligigibele Adverse | ${ }_{39.1}^{39.1}$ | ${ }_{39.4}^{39.4}$ | ${ }_{39.7}$ |
| PLAYING FIELDS, GRANDHOLM DRIVE | Playing Field |  | 49.3 | 48.8 | 0.2 | Negligible Beneficial | 49.7 |  | Negligible Adverse | 7.8 |  |  |
| 1, GRANDHOLM GARDENS, GRANDHOLM | Dwelling | 48.2 | 48.5 | 48.0 | -0.2 | Negligible Beneficial | 48.9 | 0.7 | Negligible Adverse | 37.1 | 37.4 | 37.7 |
| 10, GRANDHOLM GARDENS, GRANDHOLM | Dwelling | 48.4 | 50.2 | 48.2 | -0.2 | Negligible Beneficial | 49.5 | 1.1 | Negigigile Adverse | 37.3 | 38.9 | 38.3 |
| 112, GRANDHOLM GARDENS , GRANDHOLM | Dwelling | ${ }_{4}^{47.0}$ | 49.9 | 46.9 | - | Negegigigibe Beneneficicial | ${ }_{48.1}^{49.2}$ | ${ }_{1}^{1.1}$ | Negigigib Avverse | 37.0 36.0 | 38.6 36.8 | 38.0 37.0 |
| 14, GRANDHOLM GARDENS, GRANDHOLM | Deeling | 47.2 | 47.8 | 47.1 | -0.1 | Negligible Beneficial | 48.3 | 1.1 | Negigiolie Adverse | 36.2 | 36.8 | 37.2 |
| 15, GRANDHOLM GARDENS, GRANDHOLM | Dwelling | 48.2 46.4 | 48.6 47.5 | 48.1 46.3 | -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negligibl }}$ | 49.2 47.4 | 1.0 1.0 | $\frac{\text { Negligible Adverse }}{\text { Negligible Adverse }}$ | 37.1 35.5 | 37.5 36.5 | 38.0 36.4 |
| 17, GRANDHOLM GARDENS, GRANDHOLM | Dwelling | 48.7 | 50.3 | 48.5 | -0.2 | Negligible Beneficicial | 49.8 | 1.1 | Negligible Adverse | 37.6 | 39.0 | 38.6 |
| 18, GRANDHOLM GARDENS, GRANDHOLM | Dwelling | 47.7 | 50.4 | 47.5 | -0.2 | Negligible Beneficial | 49.2 | 1.5 | Negligible Adverse | 36.7 | 39.1 | 38.0 |
| $\frac{19, ~ G R A N D H O L M ~ G A R D E N S, ~ G R A N D H O L M ~}{2, ~ G R A N D O L M ~ G A R D E N S ~ G R A N D H O L M ~}$ | Dwelling | $\frac{45.9}{49.0}$ | 48.8 4.3 | 45.8 48.9 | -0.1 | $\frac{\text { Negligible Benenicial }}{\text { Neglioibl }}$ Beneficial | 47.5 | ${ }^{1.6}$ | $\frac{\text { Negigigle Adverse }}{\text { Negligiole Adverse }}$ | 35.0 378 | 37.7 38.1 | 36.5 38.6 |
|  | Dwelling | 46.1 | 47.1 | 46.1 | 0.0 | No Change | 47.1 | 1.0 | Negligible Adverse | 35.2 | 36.1 | 36.1 |
| 21, GRANDHOLM GARDENS, GRANDHOLM | Dwelling | 45.0 | 46.1 | 44.9 | -0.1 | Negligible Beneficial | 46.1 | 1.1 | Negiligile Adverse | 34.2 | 35.2 | 35.2 |
| 22, GRANDHOLM GARDENS, GRANDHOLM | Dewling | 45.4 | 46.5 | 45.4 | 0.0 | No Change | 46.5 | 1.1 | Negigigile Adverse | 34.6 | 35.6 | 35.6 |
| 23, GRANDHOLM GARDENS, GRANDHOLM | Dweling | 47.7 | 48.4 | ${ }_{4}^{47.6}$ | ${ }^{-0.1}$ | Negilibile Beneficial | 48.5 | ${ }^{0.8}$ | Negligile Adverse | 36.7 366 | 37.3 <br> 375 | 37.4 <br> 374 |
|  | Dwelling | ${ }_{48.4}^{48.4}$ | ${ }_{48.7}^{48.7}$ | ${ }_{48.3}$ | -0.1 | Negiligiole Beneficial | ${ }_{49.2}^{49.2}$ | ${ }_{0}^{0.8}$ | Neoligigiele Adverse | ${ }_{36}{ }_{37.3}$ | ${ }_{37.6}$ | $\stackrel{37.4}{38.0}$ |
| 3, GRANDHOLM GARDENS, GRANDHOLM | veling | 48.9 | 49.2 | 48.8 | -0.1 | Negligible Beneficial | 49.7 | 0.8 | Negligible Adverse | 37.7 | 38.0 | 38.5 |
| 4, GRANDHOLM GARDENS, GRANDHOLM | Dwelling | 46.4 | 47.0 | 46.3 | -0.1 | Negligible Beneficial | 47.5 | 1.1 | Negligible Adverse | 35.5 | 36.0 | 36.5 |
| 5, GRANDHOLM GAADENS, GRANDHOLM | Owelling | 48.0 | ${ }^{48.3}$ | 47.9 | -0.1 | Negligible Beneficial | 48.9 | 0.9 | Negigigile Adverse | ${ }^{36.9}$ | 37.2 | 37.7 |
| 7 7, GRANDHOLM GARDENS, GRANDHOLM | Dwelling | 46.7 | 47.6 | 46.6 | -0.1 | Negligible Beneficial | 47.9 | 1.2 | Negligible Adverse | 35.8 | 36.6 | 36.8 |
| 8, GRANDHOLM GARDENSS GRANDHOLM | Dwelling | 47.8 485 | ${ }_{4}^{48.5}$ | ${ }_{4}^{47.7}$ | -0.1 | Negijigile Beneficial | 48.9 495 | 1.1 | Negigigle Adverse | $\xrightarrow{36.8}$374 | 37.4 388 | 37.7 383 |
|  | Dwelling | ${ }_{4}^{47.4}$ | 50.1 | ${ }_{48.1}^{48.4}$ | -0.3 | Negegigioble Beeneficioial | 49.4 | 2.0 | Negigigible Adverse | 37.4 36.4 | 38.6 39.6 | 38.3 38.2 |
| 11, GRANDHOLM GROVE, GRANDHOLM | Dwelling | 48.1 48 | 51.5 517 | ${ }_{47.7}^{47.7}$ | -0.4 | Negligible Beneficial | 50.0 | 1.9 19 | Negiligile Adverse | 37.0 373 | 40.1 | 38.7 39 |
| 12, GRANDHHLM GROVE, GRANDHOLM | Dwelling | ${ }^{48.4} 49.1$ | 51.7 | ${ }^{48.9}$ | - | Negiligiole Beneficial | 50.4 | 1.3 | Negiligible Adverse | $\stackrel{37.9}{ }$ | ${ }_{39.1}$ | ${ }^{39.1}$ |
| 15, GRANDHOLM GROVE, GRANDHOLM | Dwelling | 48.4 | 51.7 | 48.1 | -0.3 | Negligible Beneficial | 50.2 | 1.8 | Negigigile Adverse | 37.3 | 40.3 | 38.9 |

## Appendix A14．4：Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short－term Daytime Noise Change（dB） | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long－term Daytime Noise Change（dB） | Magnitude of Change | DM18 <br> Lnight，outside | DM33 <br> Lnight，outside | $\begin{gathered} \text { DS33 } \\ \text { Lnight,outside } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 16，GRANDHOLM GROVE，GRANDHOLM | Dwelling | 48.5 | 51.7 | 48.1 | －0．4 | Negligible Beneficical | 50.3 | 1.8 | Negligible Adverse | 37.4 | 40.3 | 39.0 |
| 17，GRANDHOLM GROVE，GRANDHOLM | Dwelling | $\frac{46.6}{46.7}$ | 49.1 48.1 | 46.4 46.5 | －0．2 | $\frac{\text { Negligible Beneficial }}{\text { Negligibl } \text { Beneficial }}$ | 48.2 47.8 | $\frac{1.6}{1.1}$ | $\frac{\text { Negligible Adverse }}{\text { Negligible Adverse }}$ | 35.7 35.8 | 37.9 37.0 | 37.1 36.8 |
| 3，GRANDHOLM GROVE，GRANDHOLM | Dwelling | ${ }_{46.7}^{46.7}$ | ${ }_{48.4}$ | 46.5 | －0．2 | Negegiogible Benenificial | 47.9 | 1.2 | Negligibile Adverse | ${ }_{35.8}$ | ${ }_{37.3}$ | ${ }_{36.8}$ |
| 5，GRANDHOLM GROVE，GRANDHOLM | Dwelling | 46.4 | 47.8 | 46.3 | －0．1 | Negligible Beneficial | 47.6 | 1.2 | Negiligible Adverse | 35.5 | 36.8 | 36.6 |
| 6，GRANDHOLM GROVE，GRANDHOLM | Dwelling | 46.5 | 48.3 | 46.4 | －0．1 | Negligible Beneficial | 47.8 | 1.3 | Negligible Adverse | 35.6 | 37.2 | 36.8 |
| 7，GRANDHOLM GROVE，GRANDHOLM | Dwelling | 46.3 | 48.1 | 46.2 | －0．1 | Negligible Beneficial | 47.6 | 1.3 | Negligible Adverse | 35.4 | 37.0 | 36.6 |
| 8，GRANDHOLM GROVE，GRANDHOLM | Welling | 45.7 | 47.6 | 45.6 | －0．1 | Negligible Beneficial | 47.1 | 1.4 | Negligible Adverse | 34.9 | 36.6 | 36.1 |
| 9，GRANDHOLM GROVE，GRANDHOLM | pwelling | 46.1 | 47.7 | 46.0 | －0．1 | Negligible Beneficial | 47.3 | 1.2 <br> 1 | Negligioble Adverse | 35．2 | 36.7 |  |
| FLAT A，10，GRANDHOLM STREET | Dwelling | 62.9 62.9 | 68.2 68.2 | 63.1 63.1 | 0．2 | $\frac{\text { Negigigle Adverse }}{\text { Nequigible Adverse }}$ | 66.4 66.4 | ${ }_{3.5}^{3.5}$ | Minor Adverse | 年50．3 | 55．1 55.1 | 53.5 53.5 |
| FLAT C，10，GRANDHOLM STREET | Dwelling |  | 68.2 | 63.1 | 0.2 | Negligible Adverse | 66.4 | 3.5 | Minor Adverse | 50.3 | 55.1 | 53.5 |
| FLAT D，10，GRANDHOLM STREET | Wwelling | 62.9 | 68.2 | 63.1 | 0.2 | Negligible Adverse | 66.4 | 3.5 | Minor Adverse |  |  |  |
| FLAT E，10，GRANDHOLM STREET |  | 62.9 | 68.2 | 63.1 | 0.2 | Negligible Adverse | 66.4 | 3.5 | Minor Adverse | 50.3 | 55.1 | 53.5 |
| FLAT F，0，GRANDHOLM STREET | Dwelling | 62.9 | 68.2 | 63.1 | 0.2 | Negligible Adverse | 66.4 | 3.5 | Minor Adverse | 50.3 | 55.1 | 53.5 |
| FLAT G，10，GRANDHOLM STREET | Owelling | 62.9 | 68.2 | 63.1 | 0.2 | Negligible Adverse | 66.4 |  | Minor Adverse | 50.3 | 55.1 |  |
| FLAT 10 Ge GRANDHOLM STREET | Oweling | ${ }_{62.9}^{629}$ | ${ }_{68.2}^{682}$ | ${ }_{63.1}^{63.1}$ | 0.2 | Neotigiole Adverse | ${ }_{66.4}^{66.4}$ | ${ }_{3}^{3.5}$ | Minor Adverse | ${ }_{50.3}^{50.3}$ | ${ }_{55.1}^{55.1}$ | 53.5 535 |
| FLAT K，10，GRANDHOLM STREET | Owelling | 62.9 | 68.2 | 63．1 | 0.2 | Negligible Adverse | 66.4 | ${ }_{3.5}$ | Minor Adverse | ${ }_{50.3}$ | ${ }_{55.1}$ | 53.5 |
| FLATL， 10 ，GRANDHOLM STREET | welling | 62.9 | 68.2 | 63.1 | 0.2 | Negigiole Adverse | 66.4 | 3.5 | Minor Adverse | 50.3 | 55.1 | 53.5 |
| FLAT A，12，GRANDHOLM STREET | Dwelling | 62.9 62.9 | 68.2 68.2 | 63.1 63.1 | 0．2 | $\frac{\text { Negligible Adverse }}{\text { Negligibe Adverse }}$ | 66.4 66.4 | ${ }_{3.5}^{3.5}$ | $\xrightarrow[\text { Minor Adverse }]{\text { Minor Adverse }}$ | 50．3 50.3 | 55．1 55.1 | 53.5 53.5 |
| FLAT C，12，GRANDHOLM STREET | Dwelling | 62.9 | 68.2 | 63.1 | 0.2 | Negiligible Adverse | 66.4 | 3.5 | Minor Adverse | 50.3 | 55.1 | 53.5 |
| FLAT D，12，GRANDHOLM STREET | Wwelling | 62.9 | 68.2 | 63.1 | 0.2 | Negligible Adverse | 66.4 | 3.5 | Minor Adverse | 50.3 | 55.1 | 53.5 |
| FLAT E，12，GRANDHOLM STREET | welling | 62.9 | 68.2 | 63.1 | 0.2 | Negigigile Adverse | 66.4 | ${ }^{3.5}$ | Minor Adverse | 50.3 | 55.1 | 53.5 |
| 14，GRANDHOLM STREET | Owelling | 61.9 | 67.5 | 62．1 | 0.2 | Negiligible Adverse | 65.7 | ${ }_{3.8}$ | Minor Adverse | 49.4 | ${ }_{54.5}^{551}$ | 52.9 |
| 16，GRANDHOLM STREET | Welling | 61.8 | 67.4 | 62.0 | 0.2 | Negligible Adverse | 65.6 | ${ }_{3} 3$ | Minor Adverse | 49.4 | 54.4 | 52.8 |
| 18，GRANDHOLM STREET | Dwelling | 61.8 61.8 | 67.5 67.5 | 61.9 61.9 | 0.1 0.1 | $\frac{\text { Negligible Adverse }}{\text { Neoligible Adverse }}$ | 65.6 65.6 | 3.8 <br> 3.8 | Minor Adverse | 49．4 49.4 | 54.5 <br> 54.5 | 52.8 52.8 |
| 5，GRANDHOLM STREET | Dwelling | 64.9 | 68.8 | 65.1 | 0.2 | Negiligible Adverse | 67.5 | 2.6 | Negigigile Adverse | 52.1 | 55.7 | 54.5 |
| 7．GRANDHOLM STREET | Dwelling | 66.3 | 69.5 | 66.5 | 0.2 | Negigigibe Adverse | 68.5 | 2.2 | Negiligible Adverse | 53．4 | 56．3 | 55.4 |
| 8，GRANDHOLM STREET | Oweling | 62.9 62.9 | ${ }^{68.2}$ | 63.1 63.1 | 0.2 | Negigigie Adverse | ${ }_{66.4}^{66.4}$ | ${ }_{3.4}^{3.5}$ | Minor Adverse | ${ }_{50.3}^{50.3}$ | ${ }_{54.9}$ | ${ }_{53.4}^{53.5}$ |
| 1，GRANDHOLM WAY，GRANOHOLM | Dwelling | 49.7 | 50.3 | 49.6 | －0．1 | Negligible Beneficial | 50.9 | 1.2 | Negligible Adverse | 38.5 | 39.0 | 39.5 |
| 10，GRANDHOLM WAY，GRANDHOLM | Pweling | 49.8 | 50.1 | 49.5 | －0．3 | Negligible Beneficial | 50.6 | 0.8 | Neoligible Adverse | 38.6 | 38.8 |  |
| 11，GRANADHOLM WAY，GRAADHOLM | ${ }^{\text {Owelling }}$ Diling | ${ }_{50.0}$ | 50．0 | 49.5 | -0.2 0.1 0.0 | Negiligile Benenitical | 50.7 51.0 | 1.0 | Negligibe Adverse | 38.5 38.7 | 38.7 39.1 | ${ }^{39.4}$ |
| － 14. GRANDHOLM WAY，GRANDHOLM | Oweling | 50.8 50 50 | 51.2 513 | 50.6 507 | －0．2 | Negligible Benefitical | ¢1．7 | 0.9 | Negligioble Adverse | 39.5 | 39.8 | 40.3 |
| 2，GRAADHOLM WAY 3 ，GRANDHOLM WAY，GRANDOLOLM | Owwelling | 50．9 | 51．3 | 50．7 49.9 | －0．3 | Negiligible Benenitical | 51.8 51.1 | 0.9 | Negifigible Adverse | 39.5 38.9 | ${ }^{39.9}$ | 40.4 39.7 |
| 4，GRANDHOLM WAY，GRANDHOLM | Owelling | 49.6 | 50.1 | 49.5 | －0．1 | Negligible Beneficial | 50.6 | 1.0 | Negligible Adverse | 38.4 | 38.8 | 39.3 |
| 5，GRANNHOLM WAY，GRANDHHLM | ${ }^{\text {Owelling }}$ Diling | 49.0 | 49.3 49.1 | 488.9 | -0.1 -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Neglioble }}$ | 50．0 | 0.9 | Neoligigible Adverse | 37.7 37.7 | $\stackrel{37.9}{ }$ | ${ }_{38.5}$ |
| 7，GRANDHOLM WAY，GRANDHOLM | Owelling | 49.6 | 49.9 | 49.4 | －0．2 | Negligible Beneficical | 50.4 | 0.8 | Negligible Adverse | 38.4 | 38.6 | 39.1 |
| 8，GRANDHOLM WAY，GRANDHOLM | Dwelling | 48．2 | 48.5 48.8 | 48.1 48.4 | -0.1 -0.1 | $\frac{\text { Negligible Beneticial }}{\text { Negligibl }}$ Beneficial | 49．2． | 1.0 0.9 | $\frac{\text { Negligible Adverse }}{\text { Negligible Adverse }}$ | 37.1 37.4 | 37.4 37.7 | 38.0 38.2 |
| GRANITEHILL HOUSE，2，MARCHBURN DRIVE | Dwelling | 62.9 | 64.0 | 62.9 | 0.0 | No Change | 64.0 | 1.1 | Negligible Adverse | 50.3 | 51.3 | 51.3 |
| GRANTEHILL HOUSE， 3 ，MARCHBURN DRIVE | Dwelling | 62．9 6 | 64．0 | 62．9 | 0.0 | $\frac{\text { No Change }}{\text { No Change }}$ | 64．0 | ${ }_{1.1}^{1.1}$ | $\frac{\text { Negigigile Adverse }}{\text { Negioible Adverse }}$ | $\stackrel{50.3}{50.3}$ | $\stackrel{51.3}{51.3}$ | ${ }^{51.3}$ |
| GRANITEHILL HOUSE， 5 ，MARCHBURN DRIVE | Dwelling | 62.9 | 64.0 | 62.9 | 0.0 | No Change | 64.0 | 1.1 | Negligibile Adverse | 50.3 | 51.3 | 51.3 |
| GRANITEHILL HOUSE， 6 ，MAACHBURN DRIVE | Owelling | 62.9 | 64.0 | 62.9 | 0.0 | No Change | 64.0 | 1.1 | Negligible Adverse | 50.3 | 51.3 | 51.3 |
| GRANTEHILL HOUSE， 7 ，MARCHBURN DRIVE | Dwelling | 62．9 | 64．0 | 62．9 | 0.0 0.0 | $\frac{\text { No Change }}{\text { No Change }}$ | 64.0 64.0 | 1.1 <br> 1.1 | $\frac{\text { Negigible Adverse }}{\text { Negligible Adverse }}$ | 50．3 | $\stackrel{51.3}{51.3}$ | 年 ${ }_{51.3}$ |
| GRANITEHILL HOUSE， 9 ，MARCHBURN DRIVE | Dwelling | 62.9 | 64.0 | 62.9 | 0.0 | No Change | 64.0 | 1.1 | Negligible Adverse | 50.3 | 51.3 | 51.3 |
| GRANTTEHLLL HOUSE，10，MARCHBURN DRIVE | Oweling | 62.9 | 64．0 | 62．9 | 0.0 | No Change | 64．0 | ${ }_{1}^{1.1}$ | Negligible Adverse | 50．3 | 51．3 | 51．3 |
| GRANTEHILL HOUSE，12，MARCHBURN DRIVE | Dwelling | 62．9 | 64.0 | 62．9 | 0.0 | ${ }^{\text {No Co Change }}$ | 64.0 | ${ }_{1}^{1.1}$ | Negifigible Adverse | $\stackrel{50.3}{50.3}$ | ${ }_{51.3}^{51.3}$ | ${ }_{\text {51．3 }}^{51.3}$ |
| GRANTTEHILL HOUSE，13，MARCHBURN DRIVE | Dewling | 62.9 | 64.0 | 62.9 | 0.0 | No Change | 64.0 | 1.1 | Negiogioble Adverse | 50．3 | ${ }_{51.3}^{513}$ | 51．3 |
| GRANTTEHILL HOUSE，14，MARCHBURN DRIVE | Dwelling | 62.9 62.9 | $\frac{64.0}{64.0}$ | 62.9 62.9 | 0.0 0.0 | $\frac{\text { No Change }}{\text { No Change }}$ | $\frac{64.0}{64.0}$ | $\stackrel{1.1}{1.1}$ | $\frac{\text { Negigigle Adverse }}{\text { Neoligible Adverse }}$ | 50.3 50.3 | －${ }_{51.3}^{51.3}$ | 51．3 51.3 |
| GRANTTEHILL HOUSE，16，MARCHBURN DRIVE | Dwelling | 62.9 | 64.0 | 62.9 | 0.0 | No Change | 64.0 | 1.1 | Negiligile Adverse | 50.3 | 51.3 | 51.3 |
| GRANTTEHILL HOUSE，17，MARCHBURN DRIVE | Dwelling | 62.9 | 64.0 | 62.9 | 0.0 | No Change | 64.0 | 1.1 | Negigigibe Adverse | 50.3 | 51.3 | 51.3 |
| GRANTTEHILL HOUSE，18，MARCHBURN DRIVE | Dwelling | 62.9 62.9 | 64.0 64.0 | ${ }_{6}^{62.9}$ | 0.0 | $\frac{\text { No Change }}{\text { No Change }}$ | 64.0 64.0 | $\stackrel{1.1}{1.1}$ | Negigigle Adverse | 50．3 | 51.3 513 | 51．3 |
| GRANTEHILL HOUSE，20，MARCHBURN DRIVE | Dwelling | 62.9 | 64.0 | 62.9 | 0.0 | No Change | 64.0 | 1.1 | Negligible Adverse | 50.3 | 51.3 | 51.3 |
| GRANTEHILL HOUSE，21，MARCHBURN DRIVE | Dwelling | 62.9 | ${ }_{64.0}^{64}$ | 62.9 | 0.0 | No Change | 64.0 | 1.1 | Neogigible Adverse | 50．3 | ${ }_{51.3}^{513}$ | 51.3 |
| GRANTEHHLLL HOUSE，23，MARCHBURN DRIVE | Eelling | 62.9 | 64.0 | 62.9 | 0.0 | Change | 64.0 | 1.1 | Neogigigile Adverse | 50.3 | 51.3 | 51.3 |
| GRANTEEHILL HOUSE，24，MARCHBURN DRIVE | Dwelling | 62.9 | 64.0 | 62.9 | 0.0 | No Change | 64.0 | 1.1 | Negligible Adverse | 50.3 | 51.3 | 51.3 |
| GPANTTEHILL HOUSE，25，MARCHBURN DRIVE | Oweling | 62.9 | 64.0 | 62.9 | 0.0 | No Change | 64.0 | 1.1 | Negigigile Adverse | 50.3 | 51.3 | 51.3 |
| GRANITEHILL HOUSE，26，MARCHBUUN DRIVE | Owwelling | 62.9 | ${ }_{64.0}^{64.0}$ | $\underline{62.9}$ | 0.0 | ${ }^{\text {No Co Change }}$ | ${ }_{64.0}^{64.0}$ | $\stackrel{1.1}{1.1}$ | Negligiole Adverse | 50.3 50.3 | $\stackrel{51.3}{51.3}$ | $\stackrel{51.3}{51.3}$ |
| GRANTTEHILL HOUSE，28，MARCHBURN DRIVE | Dwelling | 62.9 | 64.0 | 62.9 | 0.0 | No Change | 64.0 | 1.1 | Negligible Adverse | 50.3 | 51.3 | 51.3 |
| GRANTTEHILL HOUSE，29，MARCHBURN DRIVE | Dewling | 62.9 | 64.0 | 62.9 | 0.0 | No Change | 64.0 | 1.1 | Negigigile Adverse | 50．3 | ${ }_{51}^{51.3}$ | 年51．3 |
| GRANITEHILL HOUSE，31，MARCHBURN DRIVE | ${ }^{\text {Dwelling }}$ Oweling | 62.9 62.9 | 64.0 | $\frac{62.9}{62.9}$ | 0.0 | ${ }^{\text {No C Change }}$ | 64.0 | 1.1 | Negligibile Adverse | 50.3 50.3 | $\stackrel{51.3}{51.3}$ | 51.3 51.3 |
| GRANTTEHILL HOUSE，32，MARCHBURN DRIVE | Wwelling | 62.9 | 64.0 | 62.9 | 0.0 | No Change | 64.0 | 1.1 | Negligible Adverse | 50.3 | 51.3 | ${ }^{51.3}$ |
| GRANTTHLL HOUSE，33，MARCHBUNN DIVE | Owelling | 62.9 | ${ }_{64.0}^{64.0}$ | $\underline{62.9}$ | 0.0 | ${ }^{\text {No Co Change }}$ | 64.0 | $\stackrel{1.1}{1.1}$ | Neotigigie Adverse | $\stackrel{50.3}{50.3}$ | $\stackrel{51.3}{51.3}$ | $\stackrel{51.3}{51.3}$ |
| GRANTTEHILL HOUSE，35，MARCHBURN DRIVE | Dwelling | 62.9 | 64.0 | 62.9 | 0.0 | No Change | 64.0 | 1.1 | Negligible Adverse | 50.3 | 51.3 | 51.3 |
| GRANTTEHILL HOUSE，36，MARCHBURN DRIVE | Owwling | $\frac{62.9}{62.9}$ | ${ }_{64.0}^{64.0}$ | $\stackrel{62.9}{62.9}$ | 0.0 | $\frac{\text { No Change }}{\text { No Change }}$ | ${ }_{64.0}^{64.0}$ | ${ }_{1.1}^{1.1}$ | $\frac{\text { Negigigile Adverse }}{\text { Negigible Adverse }}$ | 50.3 | 51.3 | $\stackrel{51.3}{51.3}$ |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 Lnight,outside | $\begin{array}{c\|} \text { DS33 } \\ \text { Lnight,outside } \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| GRANTEHILL HOUSE, 38, MARCHBURN DRIVE | Dweling | 62.9 | 64.0 | 62.9 | 0.0 | No Change | 64.0 | 1.1 | Negigigile Adverse | 50.3 | 51.3 | 51.3 |
| GRANTEHILL HOUSE, 39, MARCHBURN DRIVE | Oweling | 62.9 | 64.0 | 62.9 | 0.0 | No Change | 64.0 | 1.1 | Negligible Adverse | 50.3 | 51.3 | 51.3 |
| GRANTTEHILL HOUSE, 40, MARCHBURN DRIVE | Dwelling | 62.9 | 64.0 | 62.9 | 0.0 | No Change | 64.0 | 1.1 | Negiligile Adverse | 50.3 | 51.3 | 51.3 |
| GRANTTEHILL HOUSE, 41, MARCHBURN DRIVE | Dwelling | 62.9 | 64.0 | 62.9 | 0.0 | No Change | 64.0 | 1.1 | Negligible Adverse | 50.3 | 51.3 | 51.3 |
| GRANITEHILL HOUSE, 42, MARCHBURN DRIVE | Deeling | 62.9 | 64.0 | 62.9 | 0.0 | No Change | 64.0 | 1.1 | Negligible Adverse | 50.3 | $\stackrel{51.3}{51.3}$ | ${ }_{51.3}^{51.3}$ |
| GRANTTEHILL HOUSE, 43, MARCHBURN DRIVE | Delling | 62.9 | 64.0 | 62.9 | 0.0 | No Change | 64.0 | 1.1 | Negligible Adverse | ${ }_{50.3}$ | ${ }_{51.3}^{513}$ | ${ }_{51.3}^{51.3}$ |
| GRANITEHILL HOUSE, 44, MARCHBURN DRIVE | Deelling | 62.9 | 64.0 | 62.9 | 0.0 | No Change | 64.0 | 1.1 | Negiligible Adverse | ${ }_{50.3}$ | ${ }_{51.3}^{513}$ | ${ }_{51.3}^{513}$ |
| GRANTEHILL HOUSE, 45, MARCHBURN DRIVE | Dwelling | 62.9 | 64.0 | 62.9 | 0.0 | No Change | 64.0 | 1.1 | Negilibile Adverse | 50.3 | 51.3 | 51.3 |
| GRANITEHILL HOUSE, 46, MARCHBURN DRIVE | Dwelling | 62.9 | 64.0 | 62.9 | 0.0 | No Change | 64.0 | 1.1 | Negigigibe Adverse | 50.3 | 51.3 | 51.3 |
| GRANTTEHILL LOUEE, 47, MARCHBURN DRIVE | Oweling | 62.9 | 64.0 | 62.9 | 0.0 | No Change | 64.0 | 1.1 | Negiligibie Adverse | 50.3 | 51.3 | 51.3 |
|  | Oweiling | 62.9 | ${ }_{64.0}^{64.0}$ | 62.9 | 0.0 | ${ }^{\text {No Co Change }}$ | ${ }_{64.0}^{64.0}$ | ${ }_{1.1}^{1.1}$ | $\frac{\text { Negigigle Adverse }}{\text { Negligibe Adverse }}$ | ${ }^{50.3} 5$ | ${ }^{51.3} 5$ | ${ }_{51.3}^{51.3}$ |
| GRANTIEHILL HOUSE, 50, MARCHBURN DRIVE | Dwelling | 62.9 | 64.0 | 62.9 | 0.0 | No Change | 64.0 | 1.1 | Negligible Adverse | 50.3 | 51.3 | 51.3 |
| GRANTEHILL HOUSE, 51, MARCHBURN DRIVE | Dwelling | 62.9 | 64.0 | 62.9 | 0.0 | No Change | 64.0 | 1.1 | Negigiole Adverse | 50.3 | 51.3 | 51.3 |
| GRANTEHILL HOUSE, 52, MARCHBURN DRIVE |  | 62.9 | 64.0 | 62.9 | 0.0 | hange | 64.0 | 1.1 | Negigioble Adverse | 50.3 |  |  |
| GRANTEHILL HOUSE, 53, MARCHBURN DRIVE |  | 62.9 | 64.0 | 62.9 | 0.0 | No Change | 64.0 | 1.1 | Negigigibe Adverse | 50.3 | 51.3 |  |
| GRANTEHILL HOUSE, 54, MARCHBURN DRIVE | ling | 62.9 | 64.0 | 62.9 |  | No Change | 64.0 | 1.1 | Negigigibe Adverse | 50.3 | 51.3 |  |
| GRANTEHILL HOUSE, 55, MARCHBURN DRIVE | eeling | 62.9 | 64.0 | 62.9 | 0.0 | lange | 64.0 | 1.1 | Negigigile Adverse |  | 51.3 |  |
| GRANITEHILL HOUSE, 56, MARCHBURN DRIVE | Deelling | 62.9 | 64.0 | 62.9 | 0.0 | No Change | 64.0 | 1.1 | Negigigile Adverse | 50.3 | 51.3 | 1.3 |
| 1, GRANITEHILL ROAD, NORTHFIELD | welling | 53.6 | 54.7 | 53.6 | 0.0 | No Change | 54.8 | 1.2 | Negigioble Adverse | 42.0 | 43.0 | 43.1 |
| 11, GRANITEHLLL ROAD, NORTHFIELD | Oweling | 477 | 48.4 | 477 | 0.0 | No Change | ${ }_{48.6}$ | 1.1 | Negiligie Aaverse | 36.5 | ${ }^{37.3}$ | 37.5 376 |
| I3, GAANITHLL ROAD, NoRTHFIELD | Dwelling | 47.9 | ${ }_{48,4}$ | ${ }_{479}$ | ${ }_{0}^{0.0}$ | $\frac{\text { No Change }}{\text { No Change }}$ | ${ }_{48,9}^{48.9}$ | 1.0 | Negigigie Adverse | 36.7 36.8 | 37,3 37 | 37.6 377 |
| 17, GRANITEHLLL ROAD, NORTHFIELD | Dwelling | 48.2 | 48.8 | 48.2 | 0.0 | No Change | 49.1 | 0.9 | Negiligile Adverse | 37.1 | 37.7 | 37.9 |
| 19, GRANTEHILL ROAD, NORTHFIELD | Dwelling | 48.1 | 48.6 | 48.1 | 0.0 | No Change | 49.0 | 0.9 | Negigigile Adverse | 37.0 | 37.5 | 37.8 |
| 21, GRANTTEHILL ROAD, NORTHFIELD | Welling | 48.3 | 48.7 | 48.3 | 0.0 | No Change | 49.2 | 0.9 | Negigioble Adverse | 37.2 | 37.6 | 38.0 |
| 23, GRANITEHLLL ROAD, NORTHFIEL | Deeling | 48.5 | 48.8 | 48.5 | 0.0 | No Change | ${ }_{49}^{49.4}$ | ${ }_{0}^{0.9}$ | Negiligibe Adverse | $\begin{array}{r}37.4 \\ 378 \\ \hline\end{array}$ | 37.7 377 | 38.2 |
|  | Dwelling | 49.8 | 48.7 | 48.8 | -0.0 | Negligile Beneicical | 49.5 | 0.7 | Negigigibe Adverse | 37.8 37.7 | ${ }^{37.7}$ | 38.5 38.3 |
| 29, GRANTEHLL ROAD, NORTHFILLD | welling | 48.7 | 48.6 | 48.7 | 0.0 | No Change | 49.4 | 0.7 | Negiligile Adverse | 37.6 | 37.5 | 38.2 |
| 3, GRANITEHIL R ROAD, NORTHFIELD | Dwelling | 54.4 48.8 | 55.2 48.6 | 54.4 48.8 | 0.0 0.0 | No Change | 55.4 494 | 1.0 | Negigigle Adverse | ${ }^{42.7}$ | 43.4 375 | ${ }_{38,6}^{43,6}$ |
| 33, GRANITEHILL ROAD, NORTHFIELD | Dwelling | 49.1 | 48.7 | 49.1 | 0.0 | No Change | 49.7 | 0.6 | Neogigigle Adverse | 37.9 | 37.6 | 38.5 |
| 35 , GRANTEHILL ROAD, NORTHFIELD | Dwelling | 49.2 | 48.7 | 49.2 |  | No Change | 49.8 | 0.6 | Negigioble Adverse | 38.0 | 37.6 | 38.6 |
| 37, GRANITEHLLL ROAD, NORTTFFIELD | Deeling | 49.6 | 49.0 | 49.6 | 0.0 | No Change | 50.1 | 0.5 |  | 38.4 | ${ }^{37.8}$ | 38.8 |
| 39, GRANITEHILL ROAD, NORTHFIELD | weling | 49.8 | 49.0 |  |  | Negligible Beneeicical | 50.2 | 0.4 | Negigigile Adverse |  |  |  |
| 5, GRAN TEGILL ROAD, NORTHFIELD | Oweiling | 52.2 | 53.4 | 52.2 | 0.0 | No Change | 53.4 | 1.2 | Negiqigile Adverse | 40.7 | 4.8 | 4.8 |
| 7 7, GRANIIEHILL ROAD, NORTHFIELD | weling | 52.2 | 53.4 | 52.2 | 0.0 | No Change | 53.4 | 1.2 | Negiquible Aaverse | 40.7 | 41.8 | 41.8 |
| 9, GRANITEHILL ROAD, NORTHFIELD | Oweling | 50.4 | 50.9 | ${ }^{50.3}$ | ${ }^{-0.1}$ | Negiligiole Beneitical | 51.3 | 0.9 | Negigigie Adverse | ${ }^{39.1}$ | 39.5 57.1 | 39.9 |
| CULLERTON COURT, 1, GREAT NORTHERN ROAD | Dwelling | ${ }_{69.5}^{69.9}$ | 70.4 | 70.2 70.1 | 0.3 0.6 | Negigigibe Adversse | 70.4 70.3 | 0.8 | Negligioble Adverse | ${ }_{56.3}^{56.6}$ | 55.6 | 57.0 |
| MURAAY COURT, 1, GREAT NORTHERN ROAD | Dwelling | 69.9 | 70.1 | 70.5 | 0.6 | Negiligile Adverse | 70.7 | 0.8 | Negligible Adverse | 56.6 | 56.8 | 57.4 |
| FULLERTON COURT, 2, GREAT NORTHERN ROAD | Dwelling | 69.5 | 69.9 | 70.1 | 0.6 | Negigigile Adverse | 70.3 | 0.8 | Negigigile Adverse | 56.3 | 56.6 | 57.0 |
| MURRAY COURT, , , , GREAT NORTHERN ROAD | Deelling | 69.9 | 70.1 | 70.5 | 0.6 | Negigioble Adverse | 70.7 | 0.8 | Negligible Adverse | 56.6 | 56.8 | 57.4 |
| CLIFTON COURT, 3 , GREAT NOR THERN ROAD | Dweling | ${ }_{69.9}^{69.5}$ | 70.4 699 | 70.2 70.1 | ${ }_{0}^{0.3}$ | Negigigib Adverse | ${ }_{70.4} 7$ | 0.5 0.8 | Negigigib Adverse | ${ }_{56.6}^{56.3}$ | 56.1. | 57.1 570 |
| MURRAY COURT, 3, GREAT NORTHERN ROAD | Dwelling | 69.9 | 70.1 | 70.5 | 0.6 | Negligible Adverse | 70.7 | 0.8 | Negiligile Adverse | 56.6 | 56.8 | 57.4 |
| FULLERTON COURT, 4, GREAT NORTHERN ROAD | Dwelling | 69.5 | 69.9 | 70.1 | 0.6 | Negligible Adverse | 70.3 | 0.8 | Negligible Adverse | 56.3 | 55.6 | 57.0 |
| M | Dwelling | 69.9 | 70.1 | 70.5 70.2 | ${ }_{0}^{0.6}$ | Negigigle Adverse | 70.7 70.4 | 0.8 0.5 | Negigigib Adverse | 56.6 | ${ }_{56.8}^{57.1}$ | 57.4 57.4 |
| MURRAY COURT, 5, GREAT NORTHERN ROAD |  | 69.9 | 70.1 | 70.5 | 0.6 | Negigiolie Adverse |  | 0.8 | Negiligile Adverse | 56.6 | 56.8 | 57.4 |
| CLIFTON COURT, 6, GREAT NORTHERN ROAD | Deelling | 69.9 | 70.4 | 70.2 | 0.3 | Negigigibe Adverse | 70.4 | 0.5 | Negigigibe Adverse | 56.6 | 57.1 | 57.1 |
| FULLERTON COURT, 6 , GREAT NORTHERN ROAD | weling | 69.5 | 69.9 | 70.1 | 0.6 | Negiligibe Adverse | 70.3 |  | Negiligile Adverse | 56.3 | 56.6 |  |
|  | Weilng | 6.9 | \% 1 | 70.5 | 0.6 | Negigigile Adverse | 70.7 | 0.8 | Negigigile Adverse | 56.6 | 仡 | 57.4 |
| CIF ONCOUCO, , GREAT NORTHERN ROAD | Oweiling | 69.9 | 70.4 | 70.2 | 0.3 | Negigigie Adverse | 70.4 | 0.5 | Negiqigile Adverse | 56.6 | 57.1 | 57.1 |
| MULLERTON COURT, 7, GREAT NORTHERN ROAD | Oweling | 69.9 | 69.9 70.1 | 70.1 70.5 | 0.6 | Negigigle Adverse | 70.3 70.7 | 0.8 | $\frac{\text { Negiligile Adverse }}{\text { Neligiole Adverse }}$ | $\stackrel{56.3}{56.6}$ | ${ }_{5}^{56.6} 5$ | 57.0 |
| CLIFTON COURT, 8, GREAT NORTHERN ROAD | Dwelling | 69.9 | 70.4 | 70.2 | 0.3 | Negligible Adverse | 70.4 | 0.5 | Negligible Adverse | 56.6 | 57.1 | 57.1 |
| FULLERTON COURT, 8 , GREAT NORTHERN ROA | Dwelling | 69.5 | 69.9 | 70.1 | 0.6 | Negigigile Adverse | 70.3 | 0.8 | Negligible Adverse | 56.3 | 56.6 | 57.0 |
| MURRA COURT, 8 , GREAT NORTHERN ROAD | Dweling | 69.9 | 70.1 | 70.5 | ${ }^{0.6}$ | Negiligile Adverse | 70.7 | ${ }^{0.8}$ | Negigigil Adverse | ${ }_{56.6}^{56.6}$ | 56.8 | 57.4 57.4 |
| CLIFTON COURT, 9 , GREAT NORTHERN ROAD | Dwelling | 69.5 | $\underline{70.9}$ | 70.2 70.1 | 0.3 0.6 | Neoligibe Adverse | 70.4 70.3 | 0.5 0.8 | Neoligige Adverse | ${ }_{56.3}^{56.6}$ | ${ }_{56.1}^{56.6}$ | ${ }_{57.0}^{57.0}$ |
| MURRAY COURT, 9 , GREAT NORTHERN ROAD | Dwelling | 69.9 | 70.1 | 70.5 | 0.6 | Negigigile Adverse | 70.7 | 0.8 | Negligible Adverse | 56.6 | ${ }_{56.8}$ | 57.4 |
| CLIFTON COURT, 10, GREAT NORTHERN ROAD | Owelling | 69.9 | 70.4 | 70.2 | 0.3 | Negigioble Adverse | 70.4 | 0.5 | Negigigible Adverse | 56.6 | 57.1 | 57.1 |
| MURRAY COURT, 10, GREAT NORTHERN ROAD | Dwelling | 69.9 | ${ }_{70.1}$ | 70.5 | ${ }_{0}^{0.6}$ | Negigigib Adverse | 70.7 | 0.8 | Negigigib Adverse | ${ }_{56.6}^{56.3}$ | ${ }_{56.8}^{56.6}$ | ${ }^{57.0} 5$ |
| CLIFTON COURT, 11, GREAT NORTHERN ROAD | Dwelling | 69.9 | 70.4 | 70.2 | 0.3 | Negiligile Adverse | 70.4 | 0.5 | Negiligile Adverse | 56.6 | 57.1 | 57.1 |
| FULLERTON COURT, 11, GREAT NORTHERN ROAD | Deelling | 69.5 | 69.9 | 70.1 | 0.6 | Negigioble Adverse | 70.3 | 0.8 | Negligible Adverse | 56.3 | 56.6 | 57.0 |
| MURAAY COURT, 11, GREAT NORTHERN ROAD | Oweling | 69.9 | 70.1 | 70.5 | ${ }_{0}^{0.6}$ | Negigigio Adverse |  | 0.8 | Negligigle Adverse | 56.6 |  | 57.4 |
| CLIFTON COURT, 12, GREAT NORTHERN ROAD | veling | 69.9 | 70.4 | 70.2 | ${ }^{0.3}$ | Negligibe Adverse | 70.4 | 0.5 | Neqigigie Adverse | 56.6 | 57.1 | 57.1 |
| MUR A AY COURT, 12. GREAT NORTHERN ROAD | Dwelling | 69.9 | ${ }_{70.1}$ | 70.5 | 0.6 | Neoligiole Adverse | 70.7 | 0.8 | Neoligioble Adverse | ${ }_{56.6}$ | ${ }_{56.8}^{56.8}$ | 57.4 |
| CLIFTON COURT, 13, GREAT NORTHERN ROAD | Dwelling | 69.9 | 70.4 | 70.2 | 0.3 | Negiligile Adverse | 70.4 | 0.5 | Negligible Adverse | 56.6 | 57.1 | 57.1 |
| FULLERTON COURT, 13, GREAT NORTHERN ROAD | Deeling | 69.5 | 69.9 | 70.1 | 0.6 | Negigioble Adverse | 70.3 | 0.8 | Negligible Adverse | 56.3 | 56.6 | 57.0 |
| CLIFTON COURT, 14, GREAT NORTHERN ROAD | Dwelling | 69.9 | 70.4 | 70.5 70.2 | ${ }_{0}^{0.6}$ | Negigigile Adversse | 70.4 70.7 | 0.5 | Negigigible Adverse | ${ }_{56.6}^{56.6}$ | 56.8 57.1 | 57.4 57.1 |
| FULLERTON COURT, 14, GREAT NORTHERN ROAD | Deelling | 69.5 | 69.9 | 70.1 | 0.6 | Negigigile Adverse | 70.3 | 0.8 | Negligible Adverse | 56.3 | 56.6 | 57.0 |
| M MURAY COURT, 14, GGEAT NORTHER R ROAD | Dwelling | $\underline{69.9}$ | 70.1 70.4 | 70.5 70.2 | 0.6 0.3 | $\frac{\text { Negigigib Adverse }}{\text { Negigible Adverse }}$ | 70.7 70.4 | 0.8 0.5 | $\frac{\text { Negligible Adverse }}{\text { Negligible Adverse }}$ | 56.6 56.6 | 56.8 57.1 | 57.4 57.1 |
| FULLERTON COURT, 15, GREAT NORTHERN ROAD | Dwelling | 69.5 | 69.9 | 70.1 | 0.6 | Negigiolie Adverse | 70.3 | 0.8 | Negligible Adverse | 56.3 | 56.6 | 57.0 |
| M | - ${ }^{\text {Dwelling }}$ Oedling | 69.9 69.9 | 70.1 70.4 | 70.5 70.2 | ${ }_{0.3}^{0.6}$ | Negigigile Adverse Nefigible Adverse | 70.7 70.4 | 0.8 | Negiligile Adverse | ${ }_{56.6}^{56.6}$ | 56.8 57.1 | 57.4 57.1 |
| FULLERTON COURT, 16, GREAT NORTHERN ROAD | Dwelling | 69.5 | 69.9 | 70.1 | 0.6 | Negiligile Adverse | 70.3 | 0.8 | Negigiole Adverse | 56.3 | 56.6 | 57.0 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 Lnight,outside | $\begin{gathered} \text { DS33 } \\ \text { Lnight,outside } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MURRAY COURT, 16, GREAT NORTHER R ROAD | Owelling | 69.9 | 70.1 | 70.5 | 0.6 | Negigigile Adverse | 70.7 | 0.8 | Negigigle Adverse | 56.6 | 55.8 | 57.4 |
| CLIFTON COURT, 17, GREAT NORTHERN ROAD | Oweling | 69.9 | 70.4 69 | 70.2 | ${ }_{0}^{0.3}$ | Negiligib Adverse | 70.4 703 | ${ }_{0}^{0.5}$ | $\frac{\text { Negligible Adverse }}{\text { Negioigle Adverse }}$ | 56.6 56.3 | 57.1 56.6 | 57.1 57.0 |
| FULLERTON COURT, 17, GREAT NORTHERN ROAD | Dwelling | 69.5 | 69.9 70.1 | 70.1 70.5 | ${ }_{0}^{0.6}$ | $\frac{\text { Negigigio Adverse }}{\text { Negigiole Adverse }}$ | 70.3 70.7 | 0.8 | Negigibib Adverse | ${ }_{5}^{56.3}$ | 56.6 56.8 | 57.0 57.4 |
| CLIFTON COURT, 18, GREAT NORTHERN ROAD | Dwelling | 69.9 | 70.4 | 70.2 | 0.3 | Negligible Adverse | 70.4 | 0.5 | Negligible Adverse | 56.6 | 57.1 | 57.1 |
| FULLERTON COURT, 18, GREAT NORTHERN ROAD | Dwelling | 69.5 | 69.9 | 70.1 | 0.6 | Negigigile Adverse | 70.3 | 0.8 | Negigigile Adverse | 56.3 | 56.6 | 57.0 |
| MURRAY COURT, 18 , GREAT NORTHERN ROAD | Deelling | 69.9 | 70.1 | 70.5 | 0.6 | Negigigile Adverse | 70.7 | 0.8 | Negiligible Adverse | 56.6 | 56.8 | 57.4 |
| CLIFTON COURT, 19, GREAT NORTHERN ROAD | Oweling | 69.9 | 70.4 | 70.2 | ${ }^{0.3}$ | Negiligibe Adverse | 70.4 | 0.5 | Negigiole Adverse | 56.6 5.3 | 57.1 | 57.1 |
| MURRAY COURT, 19, GREAT NORTHERN ROAD | Dwelling | 69.9 | 70.1 | 70.5 | 0.6 | Neogigiole Adversse | 70.7 | 0.8 | Neogigiole Adversse | 56.6 | ${ }_{56.8}^{56.8}$ | ${ }^{57.4}$ |
| CLIFTON COURT, 20, GREAT NORTHERN ROAD | Dwelling | 69.9 | 70.4 | 70.2 | 0.3 | Negigigile Adverse | 70.4 | 0.5 | Negiligible Adverse | 56.6 | 57.1 | 57.1 |
| FULLERTON COURT, 20, GREAT NORTHERN ROAD | welling | 69.5 | 69.9 | 70.1 | 0.6 | Negigigibe Adverse | 70.3 | 0.8 | Negiligibe Adverse | 56.3 | 56.6 | 57.0 |
| MURRAY COURT, 20, GREAT NORTHERN ROAD | welling | 69.9 | 70.1 | 70.5 | 0.6 | Negigigibe Adverse | 70.7 | 0.8 | Negigigibe Adverse | 56.6 | 56.8 | 57.4 |
| CLIFTON COURT, 21, GREAT NORTHERN ROAD | welling | 69.9 | 70.4 | 70.2 | 0.3 | Negigioble Adverse | 70.4 | 0.5 | Negigioble Adverse | 56.6 | 57.1 | 57.1 |
| FULLERTON COURT, 21, GREAT NORTHERN ROAD | veling | 69.5 | 69.9 | 70.1 | 0.6 | Negiligibie Adverse | 70.3 | 0.8 | Negiligible Adverse | ${ }_{56.3}$ | 56.6 | 57.0 |
| MURRAY COURT, 21, GGEAT NORTHERN ROAD | Dwelling | ${ }^{69.9} 6$ | 70.1 70.4 | 70.5 70.2 | ${ }_{0}^{0.6}$ | Negligibe Adverse | 70.7 70.4 | 0.8 0.5 | Negligibl Adverse | 56.6 56.6 | 56.8 57.1 | 57.4 |
| FULLERTON COURT, 22, GREAT NORTHERN ROAD | Dwelling | 69.5 | 69.9 | 70.1 | 0.6 | Negiligile Adverse | 70.3 | 0.8 | Negiligile Adverse | 56.3 | 56.6 | 57.0 |
| MURRAY COURT, 22, GREAT NORTHERN ROAD | Dwelling | 69.9 | 70.1 | 70.5 | 0.6 | Negigiole Adverse | 70.7 | 0.8 | Negigioble Adverse | 56.6 | 56.8 | 57.4 |
| CLIFTON COURT, 23, GREAT NORTHERN ROAD | Dweling | 69.9 | 70.4 | 70.2 | 0.3 | Negiligile Adverse | 70.4 | 0.5 | Negiligile Adverse | 56.6 | 57.1 | 57.1 |
| MUREAY COURT, 23, GREAT NORTHERN ROAD | Dwelling | ${ }_{69.9}^{69.9}$ | 69.9 70.1 | 70.1 70.5 | ${ }_{0}^{0.6}$ | Negigigio Adverse | 70.3 70.7 | 0.8 0.8 | Negigigib Adverse | $\stackrel{56.3}{56.6}$ | 56.6 | 57.0 574 |
| CLIFTON COURT, 24, GREAT NORTHERN ROAD | Dwelling | 69.9 | 70.4 | ${ }_{70.2}$ | ${ }_{0} 0.3$ | Neoligigle Adverse | ${ }_{70.4}$ | 0.5 | Neogigigile Adverse | ${ }_{56.6}$ | 55.1 57.1 | ${ }^{57.1}$ |
| FULLERTON COURT, 24, GREAT NORTHERN ROAD | Dwelling | 69.5 | 69.9 | 70.1 | 0.6 | Negigigile Adverse | 70.3 | 0.8 | Negiligible Adverse | 56.3 | 56.6 | 57.0 |
| MURRA COUAT, 24, GREA NORITERN ROAD | Oweling | 69.9 | 70.1 | 70.5 | 0.6 | Negigigile Adverse | 70.7 | 0.8 | Negigioble Adverse | 56.6 | 56.8 | 57.4 |
| CLIFTON COURT, 25, GREAT NORTHERN ROAD | welling | 69.9 | 70.4 | 70.2 | 0.3 | Negigioble Adverse | 70.4 | 0.5 | Negligible Adverse | 56.6 | 57.1 | 57.1 |
| FULLERTON COURT, 25, GREAT NORTHERN ROAD | welling | 69.5 | 69.9 | 70.1 | 0.6 | Negigigibe Adverse | 70.3 | 0.8 | Negiligibe Adverse | 56.3 | 56.6 | 57.0 |
| MURRA ${ }^{\text {a }}$ COURT, 25, GREA NORITER R ROAD | welling | 69.9 | 70.1 | 70.5 | 0.6 | Negigigibe Adverse | 70.7 | 0.8 | Negigigibe Adverse | 56.6 | 56.8 | 57.4 |
| CLIFTON COURT, 26, GREA NORTHERN ROAD | Oweling | 69.9 | 70.4 | 70.2 70.1 | ${ }^{0.3}$ | Negigigio Adverse | 70.4 | ${ }^{0.5}$ | Negiligile Adverse | 56.6 | 57.1 | 57.1 |
| MURRAY COURT, 26, GREAT NORTHERN ROAD | Dwelling | 69.9 | 70.1 | 70.5 | 0.6 | Negiligile Adverse | 70.7 | 0.8 | Negligible Adverse | 56.6 | 56.8 | 57.4 |
| CLIFTON COURT, 27, GREAT NORTHERN ROAD | Dwelling | 69.9 | 70.4 | 70.2 | 0.3 | Negigiole Adverse | 70.4 | 0.5 | Negligible Adverse | 56.6 | 57.1 | 57.1 |
| FULLERTON COURT, 27, GREAT NORTHERN ROAD |  | 69.5 | 69.9 | 70.1 | 0.6 | Negigigile Adverse | 70.3 | 0.8 | Negigioibe Adverse | 56.3 | 6.6 | 57.0 |
| MURRAY COURT, 27, GREAT NORTHERN | Deelling | 69.9 | 70.1 | 70.5 | 0.6 |  |  |  |  | 56.6 |  |  |
| CLIFTON COURT, 28, GREAT NORTHERN ROAD |  | 69.9 | 70.4 | 70.2 |  | Negigigio Adverse | 70.4 | 0.5 | Negiligile Adverse |  |  |  |
| MURRAY COURT 28, GGEAT NORTHERN ROAD | Dwelling | 69.9 | 70.1 | 70.5 | 0.6 | Negiligibe Adverse | 70.7 | 0.8 | Neoligioble Adverse | 56.6 | 56.8 | 57.4 |
| CLIFTON COURT, 29, GREAT NORTHERN ROAD | Dwelling | 69.9 | 70.4 | 70.2 | 0.3 | Negigigile Adverse | 70.4 | 0.5 | Negligible Adverse | 56.6 | 57.1 | 57.1 |
| FULLERTON COURT, 29, GREAT NORTHERN ROAD | Deelling | 69.5 | 69.9 | 70.1 | 0.6 | Negigigile Adverse | 70.3 | 0.8 | Negigioble Adverse | 56.3 | 56.6 | 57.0 |
| CLIFTON COURT, 30, GREAT NORTHERN ROAD | Dwelling | 69.9 | 70.4 | 70.2 | ${ }_{0} 0.3$ | Neoligigle Adverse | ${ }_{70.4}$ | ${ }_{0} 0.5$ | Negigigile Adverse | 55.6 | 56.1 57.1 | ${ }_{57.1}^{57.4}$ |
| FULLERTON COURT, 30, GREAT NORTHERN ROAD | Dwelling | 69.5 | 69.9 | 70.1 | 0.6 | Negigigile Adverse | 70.3 | 0.8 | Negiligile Adverse | 56.3 | 56.6 | 57.0 |
| MURRAY COURT, 30, GREA NORIHERN ROAD | Dwelling | 69.9 | 70.1 70.4 | 70.5 70.2 | ${ }_{0}^{0.6}$ | Negigigle Adverse | 70.7 70.4 | 0.8 0.5 | $\frac{\text { Negigigle Adverse }}{\text { Nefligible Adverse }}$ | 56.6 56.6 | ${ }_{5}^{56.8}$ | 57.4 |
| FULLERTON COURT, 31, GREAT NORTHERN ROAD | Dwelling | 69.5 | 69.9 | 70.1 | 0.6 | Negigigile Adverse | 70.3 | 0.8 | Negigigile Adverse | 56.3 | 56.6 | 57.0 |
| MURRAY COURT, 31, GREAT NORTHERN ROAD | welling | 69.9 | 70.1 | 70.5 | 0.6 | Negigigile Adverse | 70.7 | 0.8 | Negiligile Adverse | 56.6 | 56.8 | 57.4 |
| CLIFTON COURT, 32, GREAT NORTHERN ROAD | Dwelling | 69.9 | 70.4 69.9 | 70.2 70.1 | 0.3 0.6 | $\frac{\text { Negigigble Adverse }}{\text { Negiquibe Adverse }}$ | ${ }_{70.4}^{703}$ | ${ }_{0}^{0.5}$ | $\frac{\text { Negligible Adverse }}{\text { Nefligible Adverse }}$ | 56.6 | 57.1 | 57.1 |
| MURRAY COURT, 32, GREAT NORTHERN ROAD | Owelling | 69.9 | 70.1 | 70.5 | 0.6 | Neogigiole Adverse | 70.7 | 0.8 | Neoligible Adverse | 56.6 | 56.8 | 57.4 |
| CLIFTON COURT, 33, GREAT NORTHERN ROAD | Deelling | 69.9 | 70.4 | 70.2 | 0.3 | Negigioble Adverse | 70.4 | 0.5 | Negigioble Adverse | 56.6 | 57.1 | 57.1 |
| FULLERTON COURT, 33, GREAT NORTHERN ROAD |  |  | 69.9 |  |  | Negiligile Adverse |  |  | Negiligie Adverse | 56.3 |  |  |
| CLIFTON COURT, 34, GREAT NORTHERN ROAD | Dewillig | 69.9 69.9 | 70.4 | 70.2 70.2 | 0.6 0.3 | Negigible Adverse | 70.7 70.4 | 0.8 0.5 | $\frac{\text { Negigible Adverse }}{\text { Neoligible Adverse }}$ | 56.6 56.6 | 56.8 57.1 | 57.4 57.1 |
| FULLERTON COURT, 34, GREAT NORTHERN ROAD | Deelling | 69.5 | 69.9 | 70.1 | 0.6 | Negiligibe Adverse | 70.3 | 0.8 | Negiligile Adverse | 56.3 | 56.6 | 57.0 |
| MURRAY COURT, 34, GREAT NORTHERN ROAD | Dwelling | 69.9 | 70.1 70.4 | 70.5 70.2 | ${ }_{0}^{0.6}$ | Negigible Adverse | 70.7 70.4 | 0.8 0.5 | Negigible Adverse | 56.6 56.6 | 56.8 57.1 | 57.4 57.1 |
| FULLERTON COURT, 35, GREAAT NORTHERN ROAD | Deelling | 69.5 | 69.9 | 70.1 | 0.6 | Negigigile Adverse | 70.3 | 0.8 | Negigigile Adverse | 56.3 | 56.6 | 57.0 |
| MURAAY COURT, 35, GREAT NORTHERN ROAD | Dwelling | 69.9 | 70.1 | 70.5 | 0.6 | Negigigile Adverse | 70.7 | 0.8 | Negigible Adverse | 56.6 | 56.8 | 57.4 |
| FULLERTON COURT, 36, GREAT NORTHERN ROAD | Dwelling | 69.5 | $\underline{69.9}$ | 70.1 | 0.6 | Neoligiole Adverse | 70.3 | 0.8 | Negligible Adverse | ${ }_{56.3}$ | 55.6 | 57.0 |
| MURRAY COURT, 36, GREAT NORTHERN ROAD | Dwelling | 69.9 | 70.1 | 70.5 | 0.6 | Negigigile Adverse | 70.7 | 0.8 | Negligible Adverse | 56.6 | 56.8 | 57.4 |
| CLIFTON COURT, 37, GREAT NORTHERN ROAD | Deelling | 69.9 | 70.4 | 70.2 | 0.3 | Negigioble Adverse | 70.4 | 0.5 | Negigioble Adverse | 56.6 | 57.1 | 57.1 |
| FULERTON COURT, 37, GREAT NORTHERN ROAD | Dwelling | 69.9 | 69.9 70.1 | 70.1 70.5 | ${ }_{0}^{0.6}$ | Negigiole Adverse | 70.7 | ${ }_{0}^{0.8}$ | $\frac{\text { Negigigie Adverse }}{\text { Neoligible Adverse }}$ | ${ }_{56.6}^{56.3}$ | ${ }_{56.6}^{56.8}$ | ${ }_{57.4}^{57.4}$ |
| CLIFTON COURT, 38, GREAT NORTHERN ROAD | Dwelling | 69.9 | 70.4 | 70.2 | 0.3 | Negigiolie Adverse | 70.4 | 0.5 | Negiligile Adverse | 56.6 | 57.1 | 57.1 |
| FULLERTON COURT, 38, GREAT NORTHERN ROAD | welling | 69.5 | 69.9 | 70.1 | 0.6 | Negigigile Adverse | 70.3 | 0.8 | Negigible Adverse | 56.3 | 56.6 | 57.0 |
| MURRAY COURT, 38, GREAT NORTHERN ROAD | Dweling | 69.9 | 70.1 | 70.5 | 0.6 | Negiligile Adverse | 70.7 | 0.8 | Negiligile Adverse | 56.6 | 56.8 | 57.4 |
| CLIFTON COURT, 39, Great inarthern road | Dwelling | 69.9 | 70.4 69.9 | 70.2 70.1 | ${ }_{0}^{0.3}$ | $\frac{\text { Negigigble Adverse }}{\text { Negigiole Adverse }}$ | 70.4 70.3 | 0.5 | $\frac{\text { Negigigle Adverse }}{\text { Negigiole Adverse }}$ | 56.6 56.3 | 57.1 | 57.1 57.0 |
| MURRAY COURT, 39, GREAT NORTHERN ROAD | W | 69.9 | 70.1 | 70.5 | 0.6 | Negiligile Adverse | 70.7 | 0.8 | Negligible Adverse | 56.6 |  | 57.4 |
| CLIFTON COURT, 40, GREAT NORTHERN ROAD | Deelling | 69.9 | 70.4 | 70.2 | 0.3 | Negigigile Adverse | 70.4 | 0.5 | Negligible Adverse | 56.6 | 57.1 | 57.1 |
| FULLERTON COURT, 40, GREAT NORTHERN ROAD | Oweling | 69.5 | 69.9 | 70.1 | 0.6 | Negigigibe Adverse | 70.3 | 0.8 | Negigigile Adverse | 56.3 | 56.6 | 57.0 |
| CLIFTON COURT, 41, GREAT NORTHERN ROAD | Oweliling | 69.9 | 70.4 | 70.5 | 0.3 | Neoligibile Adverse | 70.4 | 0.5 | Neogioigio Adverse | 56.6 | 57.1 | 57.4 |
| FULLERTON COURT, 41, GREAT NORTHERN ROAD | Dwelling | 69.5 | 69.9 | 70.1 | 0.6 | Negigigile Adverse | 70.3 | 0.8 | Negiligile Adverse | 56.3 | 55.6 | 57.0 |
| MURRAY COURT, 41, GREAT NORTHERN ROAD | Dwelling | 69.9 | 70.1 | 70.5 | 0.6 | Negigiole Adverse | 70.7 | 0.8 | Negligible Adverse | 56.6 | 56.8 | 57.4 |
| CLIFTON COURT, 42, GREAT NORITERN ROAD | ${ }^{\text {Dwelling }}$ Dowiling | 69.9 | 70.4 | 70.2 70.1 | ${ }_{0}^{0.3}$ | Negigible Adverse | ${ }^{70.4}$ | 0.5 | Negigible Adverse | ${ }_{56.6}^{56.3}$ | ${ }_{57.1}^{56.6}$ | 57.1 57.0 |
| MURRAY COURT, 42, GREAT NORTHERN ROAD | Dwelling | 69.9 | 70.1 | 70.5 | 0.6 | Negligible Adverse | 70.7 | 0.8 | Negligible Adverse | 56.6 | 56.8 | 57.4 |
| CLIFTON COURT, 43, GREAT NORTHERN ROAD | Dweling | 69.9 | 70.4 | 70.2 | ${ }^{0.3}$ | Negiligile Adverse | 70.4 | 0.5 | Negiligile Adverse | 56.6 | 57.1 56.6 | 57.1 |
| MUREAY COURT, 43, GREAT NORTHERN ROAD | Dwelling | 69.9 | ${ }^{69.9}$ | ${ }_{70.5}^{70.1}$ | ${ }_{0}^{0.6}$ | Negigigibe Adverse | ${ }_{70.7}^{70.3}$ | 0.8 | Negigigie Avverse | ${ }_{56.3}^{56.6}$ | ${ }_{56.6}^{56.8}$ | 57.4 57.4 |
| CLIFTON COURT, 44, GREAT NORTHERN ROAD | welling | 69.9 | 70.4 | 70.2 | 0.3 | Negigigile Adverse | 70.4 | 0.5 | Negigigile Adverse | 56.6 | 57.1 | 57.1 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 <br> Lnight,outside | $\begin{gathered} \text { DS33 } \\ \text { Lnight,outside } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| FULLERTON COURT, 44, GREAT NORTHERN ROAD | Owelling | 69.5 | 69.9 | 70.1 | 0.6 | Negligible Adverse | 70.3 | 0.8 | Negigigle Adverse | 56.3 | 55.6 | 57.0 |
| MURRAY COURT, 44, GREAT NORTHERN ROAD | Oweling | 69.9 | 70.1 | 70.5 | ${ }_{0}^{0.6}$ | Negiligib Adverse | 70.7 70.4 | ${ }_{0}^{0.8}$ | Negligible Adverse | $\frac{56.6}{56.6}$ | 56.8 <br> 571 | 57.4 57.1 |
| CLIFTON COURT, 45, GREAT NoRTHERN ROAD | Dweling | 69.9 | 70.4 | 70.2 70.1 | ${ }_{0}^{0.3}$ | Negigiobe Adverse | 70.4 | ${ }_{0}^{0.5}$ | Negigigie Adverse | ${ }_{\text {56.6 }}^{56.3}$ | ${ }_{5}^{56.6}$ | 57.1 57.0 |
| MURRAY COURT, 45, GREAT NORTHERN ROAD | Dwelling | 69.9 | 70.1 | 70.5 | 0.6 | Negligible Adverse | 70.7 | 0.8 | Negiligile Adverse | 56.6 | 56.8 | 57.4 |
| CLIFTON COURT, 46, GREAT NORTHERN ROAD | Dwelling | 69.9 | 70.4 | 70.2 | 0.3 | Negigigile Adverse | 70.4 | 0.5 | Negigigile Adverse | 56.6 | 57.1 | 57.1 |
| FULLERTON COURT, 46, GREAT NORTHERN ROAD | Dwelling | 69.5 | 69.9 | 70.1 | 0.6 | Negigibile Adverse | 70.3 | 0.8 | Negligible Adverse | 56.3 | 56.6 | 57.0 |
| MURRAY COURT, 46, GREAT NORTHERN ROAD | welling | 69.9 | 70.1 | 70.5 | 0.6 | Negigioble Adverse | 70.7 | 0.8 | Negligible Adverse | 56.6 | 56.8 | 57.4 |
| CLIFTON COURT, 47, GREAT NORTHERA ROAD | welling | 69.9 | 70.4 | 70.2 | ${ }^{0.3}$ | Negigigile Adverse | 70.4 | 0.5 | Negiligibie Adverse | 56.6 | 57.1 | 57.1 570 |
|  | ${ }^{\text {Oweling }}$ Dueling | ${ }_{69.9}^{69.9}$ | 69.9 70.1 | 70.1 70.5 | 0.6 | Negigigibe Adversse | ${ }_{70.7}$ | ${ }_{0}^{0.8}$ | Negligigibe Adverse | ${ }_{56.6}^{56.6}$ | ${ }_{56.6}^{56.8}$ | ${ }^{57.4}$ |
| CLIFTON COURT, 48, GREAT NORTHERN ROAD | Dwelling | 69.9 | 70.4 | 70.2 | 0.3 | Negiligile Adverse | 70.4 | 0.5 | Negligible Adverse | 56.6 | 57.1 | 57.1 |
| FULLERTON COURT, 48, GREAT NORTHERN ROAD | welling | 69.5 | 69.9 | 70.1 | 0.6 | Negigigile Adverse | 70.3 | 0.8 | Negigigile Adverse | 56.3 | 56.6 | 57.0 |
| MURRAY COURT, 48, GREAT NORTHERN ROAD | welling | 69.9 | 70.1 | 70.5 | 0.6 | Negigioble Adverse | 70.7 | 0.8 | Negigioble Adverse | 56.6 | 56.8 | 57.4 |
| CLIFTON COURT, 49, GREAT NORTHERN ROAD |  | 69.9 | 70.4 | 70.2 | ${ }^{0.3}$ | Negigioble Adverse | 70.4 | 0.5 | Negiligible Adverse | 56.6 | 57.1 | 57.1 57.0 |
| FULLERTON COURT, 49, GAEAT NORTHERN ROAD |  | 69.5 | 69.9 | 70.15 |  | laible Adverse | 70.3 | 0.8 | Negiligible Adverse | 56.3 |  |  |
| MURARAY COURT, 49, GREAT NORTHERN ROAD | welling | 69.9 | 70.1 |  | 0.6 | Negiligibie Adverse |  | 0.8 | Negiligile Aaverse | 56.6 |  |  |
|  |  | 69.5 |  | \% 21 |  | Neghele Averse |  |  |  |  |  |  |
| OLL ALON COUR, SO, GAEATNORHERNROAD | eiling | 69.5 | 69.9 | 70.1 | 0.6 | Nogigie Adverse | 70.3 | 0.8 | Negligle Avverse | 56.3 | 56.6 | 57.0 |
| MURRA COUTT, 50, GREA T NORITER R ROAD | weling | 69.9 | 70.1 | 70.5 | 0.6 | Negigigibe Adverse | 70.7 | ${ }_{0}^{0.8}$ | Negigiole Adverse | 56.6 56.6 | 56.8 571 | 57.4 |
| CLIFTON COURT, 51, Grea | weling | 69.9 | 70.4 | 70.2 | ${ }^{0.3}$ | Negiligibie Adverse | 70.4 | 0.5 | Negiligile Adverse | 56.6 | 57.1 | 57.1. |
| MUREAY COURT, 51, GREAT NORTHERN NOAD | ${ }^{\text {Oweling }}$ | 69.9 | 69.9 70.1 | 70.5 | ${ }_{0}^{0.6}$ | Negigigio Adverse | 70.7 | ${ }_{0}^{0.8}$ | Negigigib Adverse | ${ }_{56.6}^{56.3}$ | ${ }_{56.8}^{56.8}$ | 57.4 |
| CLIFTON COURT, 52, GREAT NORTHERN ROAD | Dwelling | 69.9 | 70.4 | 70.2 | 0.3 | Negiligile Adverse | 70.4 | 0.5 | Negiligile Adverse | 56.6 | 57.1 | 57.1 |
| FULLERTON COURT, 52, GREAT NORTHERN ROAD | Dwelling | 69.5 | 69.9 | 70.1 | 0.6 | Negigigile Adverse | 70.3 | 0.8 | Negigigible Adverse | 56.3 | 56.6 | 57.0 |
| MURRAY COURT, 52, GREAT NORTHERN ROAD | Dwelling | 69.9 | 70.1 | 70.5 | 0.6 | Negiligib Adverse | 70.7 70.4 | 0.8 | Negiligile Adverse | ${ }_{56.6}^{56.6}$ | 56.8 | 57.4 |
| FUULLERTON COURT, 53, GREAT NORTHERN ROAD | Dwelling | 69.5 | 69.9 | 70.1 | ${ }_{0} 0.6$ | Neogigiole Adverse | ${ }_{70.3}$ | 0.8 | Neoligioble Adverse | 56.3 | ${ }_{56.6}$ | ${ }_{57.0}^{57.0}$ |
| MURRAY COURT, 53, GREAT NORTHERN ROAD | welling | 69.9 | 70.1 | 70.5 | 0.6 | Negigigile Adverse | 70.7 | 0.8 | Negligible Adverse | 56.6 | 56.8 | 57.4 |
| CLIFTON COURT, 54, GREAT NORTHERN ROAD | welling | 69.9 | 70.4 | 70.2 | 0.3 | Negigigile Adverse | 70.4 | 0.5 | Negigioble Adverse | 56.6 | 57.1 | 57.1 |
| FULLERTON COURT, 54, GREAT NORTHERN ROAD | welling | 69.5 | 69.9 | 70.1 | 0.6 | Negigigile Adverse | 70.3 | 0.8 | Negigible Adverse | 56.3 | 56.6 | 57.0 |
| MURAAY COURT, 54, GREAT NORTHERN ROAD | Owelling | 69.9 | 70.1 | 70.5 | 0.6 | Negiligibe Adverse | 70.7 | 0.8 | Negiligibie Adverse | 56.6 | 56.8 <br> 57 | 57.4 |
| CLIFTON COURI, 55, GREAT Nort itern road | Dwelling | 69.9 | 70.4 69.9 | 70.2 70.1 | ${ }_{0}^{0.3}$ | $\frac{\text { Negigigibe Adverse }}{\text { Negioible Adverse }}$ | 70.4 70.3 | 0.5 | Negigigib Adverse | ${ }^{56.6} 5$ | 56.6 | $\stackrel{57.1}{57.0}$ |
| MURRAY COURT, 55, GREAT NORTHERN ROAD | Welling | 69.9 | 70.1 | 70.5 | 0.6 | Negigigile Adverse | 70.7 | 0.8 | Negligible Adverse | 56.6 |  | 57.4 |
| CLIFTON COURT, 56, GREAT NORTHERN ROAD |  |  |  | 70 | 0.3 | Negigigile Adverse | 70.4 |  | Negigigile Adverse |  |  |  |
| FULLERTON COURT, 56, GREAT NORTHERN ROAD | Dwelling | 69.5 | 69.9 | 70.1 | 0.6 | Negigibile Adverse | 70.3 | 0.8 | Negligible Adverse | 56.3 | 56.6 | 57.0 |
| MURRAY COURT, 56, GREAT NORTHERN ROAD | welling | 69.9 | 70.1 | 70.5 | 0.6 | Negigioble Adverse | 70.7 | 0.8 | Negigioble Adverse | 56.6 | 56.8 | 57.4 |
| CLIFTON COURT, 58, , GREAT NORTHERN ROAD | Owelling | 69.9 | 70.4 | 70.2 | ${ }_{0}^{0.3}$ | Neogigigle Adverse | 70.4 70.4 | 0.5 | Negligigile Adverse | 56.6 | 57.1 57.1 | 57.1. 57.1 |
| FLAT A, 177, GREAT NORTHERN ROAD | Deelling | 72.5 | ${ }^{73.1}$ | 72.8 | 0.3 | Negigigile Adverse | ${ }^{73.1}$ | 0.6 | Negiligile Adverse | 59.0 | 59.5 | 59.5 |
| FLAT B, 177, GREAT NORTHERN ROAD | Dwelling | 72.5 | 73.1 | 72.8 | 0.3 | Negigiole Adverse | ${ }^{73.1}$ | 0.6 | Negligible Adverse | 59.0 | 59.5 | 59.5 |
|  | Dwelling | 72.5 72.5 | 73.1 73.1 | 72.8 <br> 72.8 | ${ }_{0}^{0.3}$ | Negigible Adverse | 73.1 73.1 | 0.6 | $\frac{\text { Negigigle Adverse }}{\text { Neligiole Adverse }}$ | $\stackrel{59.0}{59.0}$ | 59.5 59.5 | 59.5 59.5 |
| FLATE, 177, GREAT NORTHERN ROAD | Deelling | 72.5 | 73.1 | 72.8 | 0.3 | Negigigile Adverse | ${ }^{73.1}$ | 0.6 | Negiligile Adverse | 59.0 | 59.5 | 59.5 |
| FLAA F, 7 I7, GREAT NORTHERN ROAD | Dwelling | 72.5 72.8 | 73.1 73.3 | 72.8 73.1 | 0.3 0.3 | $\frac{\text { Negigigib Adverse }}{\text { Negigible Adverse }}$ | 73.1 73.3 | 0.6 0.5 | $\frac{\text { Negligible Adverse }}{\text { Negligibe Adverse }}$ | 59.0 59.3 | 59.5 59.7 | 59.5 59.7 |
| FLAT B, 179, GREAT NORTHERN ROAD | welling | 72.8 | 73.3 | 73.1 | 0.3 | Negigigile Adverse | ${ }^{73.3}$ | 0.5 | Negigigle Adverse | 59.3 | 59.7 | 59.7 |
| FLAT C, 179, GREAT NORTHERN ROAD | Dwelling | ${ }_{72.8}^{72.8}$ | ${ }_{73.3}^{73.3}$ | 73.1 73.1 | 0.3 0.3 | Negiligil Adverse | ${ }_{73,3}^{73.3}$ | 0.5 0.5 | Negligile Adverse | 59.3 | 59.7 59.7 | 59.7 59.7 |
| FLAT F, 179, GREAT NORTHERN ROAD |  | 72.8 | 73.3 | 73.1 | 0.3 | Negigiolie Adverse | 73.3 | 0.5 | Negigigile Adverse | 59.3 | 59.7 | 59.7 |
| FLAT A, 185, GREAT NORTHERN ROAD | Dwelling | 73.6 73.6 | 73.8 73.8 | 73.9 73.9 | ${ }_{0.3}^{0.3}$ | Negiligib Adverse | 73.9 739 | 0.3 0.3 | Negiligib Adverse | 60.0 600 | 60.2 | 60.2 |
| FLAA B, | Dwelling | 73.6 73.6 | 73.8 73.8 | 73.9 73.9 | 0.3 0.3 | Negigigib Adverse | 73.9 73.9 | 0.3 0.3 | $\frac{\text { Negligible Adverse }}{\text { Negilibie Adverse }}$ | 60.0 | 60.2 60.2 | 60.2 60.2 |
| FLAT D, 185, GREAT NORTHERN ROAD | Dwelling | 73.6 | 73.8 | 73.9 | 0.3 | Negligible Adverse | 73.9 | 0.3 | Negiligile Adverse | 60.0 | 60.2 | 60.2 |
| LAT E, 185, GREAT NORTHERN ROAD | Welling | 73.6 | 73.8 | 73.9 | 0.3 | Negigioble Adverse | 73.9 | 0.3 | Negigible Adverse | 60.0 | 60.2 | 60.2 |
| LiNIISFARNE, 249, GREAT NORTHERN ROAD | Dwelling | ${ }_{71.3}$ | ${ }_{71.6}$ | ${ }_{71.6}$ | ${ }_{0}^{0.3}$ | Neogigiole Adverse | ${ }_{71.7}$ | ${ }_{0}^{0.4}$ | Negigiole Adverse | 67.9 | 60.2 | ${ }^{68.3}$ |
| CANTON HOUSE, CANTON HOUSE, 374, GREAT NORTHERN ROAD | Dwelling | 68.4 | 69.5 | 68.5 | 0.1 | Negligible Beneficial | 69.4 | 1.0 | Negligible Adverse | 55.3 | 56.3 | 56.2 |
| LAT A, 380, GREAT NORTHERN ROAD | Dwelling | 69.4 | 70.5 | 69.5 | 0.1 | Negligible Beneficial | 70.5 | 1.1 | Negigigile Adverse | 56.2 | 57.2 | 57.2 |
| LAT B, 380, GREAT NORTHERN ROAD | Dwelling | 69.4 | 70.5 | 69.5 | 0.1 | Negligible Beneficial | 70.5 | 1.1 | Negigigle Adverse | 56.2 | 57.2 | 57.2 |
| FLAT C, 380, GREAT NORTHERN ROAD | Dwelling | 69.4.4 | 70.5 | 69.5 | 0.1 0.1 | $\frac{\text { Negiligie Beneficial }}{\text { Negligibe }}$ Beneficial | 70.5 70.5 | ${ }_{1}^{1.1}$ | $\frac{\text { Negligible Adverse }}{\text { Neligible Adverse }}$ | ${ }_{56.2}$ | 57.2 | 57.2 |
| LLAT A, 424, GREAT NORTHERN ROAD | Dwelling | 72.4 | 73.2 | 72.6 | 0.2 | Negigiolie Adverse | 73.3 | 0.9 | Negigigile Adverse | 58.9 | 59.6 | 59.7 |
| FLAT B, 424, GREAT NORTHERN ROAD | welling | 72.4 | ${ }^{73.2}$ | ${ }^{72.6}$ | 0.2 | Negigigibe Adverse | 73.3 | 0.9 | Negigigile Adverse | 58.9 | 59.6 | 59.7 |
| FLAA C, 424, GREAT NORTHERN ROAD | Dweling | 72.4 | 73.2 | ${ }_{72,6}$ | ${ }_{0}^{0.2}$ | Negiligibie Adverse | 73.3 | 0.9 | Negigigile Adverse | 58.9 | 59.6 | 59.7 |
| FLAAT E, 424, GREAEAT NORTHERN ROAD | Dwelling | 72.4 72.4 | ${ }^{73.2}$ | ${ }_{72.6} 72.6$ | 0.2 | Negigigle Adverse | 73.3 73.3 | 0.9 | $\frac{\text { Negligible Adverse }}{\text { Neligible Adverse }}$ | ${ }_{58.9}^{58.9}$ | ${ }_{59.6}^{59.6}$ | ${ }_{59,7}$ |
| FLAT F, 424, GREAT NORTHERN ROAD | Dwelling | 72.4 | 73.2 | 72.6 | 0.2 | Negigiole Adverse | 73.3 | 0.9 | Negigigle Adverse | 58.9 | 59.6 | 59.7 |
| FLAT G, 424, GREAT NORTHERN ROAD | Dwelling | 72.4 | 73.2 | 72.6 | 0.2 | Negiligile Adverse | ${ }^{73.3}$ | 0.9 | Negligible Adverse | 58.9 | 59.6 | 59.7 |
|  | Oweling | 72.4 | ${ }^{73,2}$ | 72.6 | 0.2 | Negigigibe Adverse | ${ }^{73.3}$ | 0.9 | Negigigile Adverse | 58.9 | 59.6 | 59.7 |
| FLLAT B, 426, GREAT NORTHERN ROAD | ${ }^{\text {Owelling }}$ | ${ }_{72.5}$ | ${ }_{73.3}$ | ${ }_{72.7}$ | 0.2 | Neogigiole Adverse | ${ }^{73.4}$ | 0.9 | Neoligigibe Adverse | ${ }_{59.0}^{59.0}$ | ${ }_{59.7}^{59.7}$ | ${ }_{59.8}^{59.8}$ |
| FLAT C, 426, GREAT NORTHERN ROAD | Dwelling | 72.5 | ${ }^{73.3}$ | 72.7 | 0.2 | Negligible Adverse | 73.4 | 0.9 | Negigible Adverse | 59.0 | 59.7 | 59.8 |
| FLAT D, 426, GREAT NORTHERN ROAD | Dwelling | 72.5 | 73.3 | 72.7 | 0.2 | Negigibile Adverse | 73.4 | 0.9 | Negigible Adverse | 59.0 | 59.7 | 59.8 |
| FLaAT F, 426, GREAEAT NORTHERN ROAD | Dwelling | ${ }_{72.5}^{72.5}$ | ${ }_{73.3}$ | 72.7 72.7 | ${ }_{0}^{0.2}$ | Negigigibe Adverse | 73.4 73.4 | 0.9 | $\frac{\text { Negigigib Adverse }}{\text { Negligile Adverse }}$ | ${ }_{59.0}^{59.0}$ | ${ }_{59.7}^{59.7}$ | 59.8 |
| FLAT G, 426, GREAT NORTHER R ROAD | Dwelling | 72.5 | ${ }^{73.3}$ | 72.7 | 0.2 | Negiligle Adverse | 73.4 | 0.9 | Negiligle Adverse | 59.0 | 59.7 <br> 597 <br> 9 | 59.8 598 |
| FLLT A, 428, GREAT NORTHERN ROAD | ${ }^{\text {Dwelling }}$ Oweling | ${ }_{72.4}$ | ${ }^{73.2}$ | ${ }_{72.5}$ | 0.2 0.1 | Negigigible Benesificial | ${ }^{73.2}$ | 0.8 | Negligigile Adverse | 59.9 | 59.6 | ${ }_{59} 59.6$ |
| FLAT B, 428, GREAT NORTHERN ROAD | Deeling | 72.4 | ${ }_{73,2}$ | 72.5 | 0.1 | Negligible Beneficical | ${ }^{73.2}$ | 0.8 | Negigigle Adverse | 58.9 | 59.6 | 59.6 |
| FLAT C, 428, GREAT NORTHERN ROAD | Dwelling | 72.4 | 73.2 | 72.5 | 0.1 | Negligible Beneficial | ${ }^{7} 3$ | 0.8 | Negigioble Adverse | 58.9 | 59.6 | 59.6 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 <br> Lnight,outside | DM33 Lnight,outside | $\begin{gathered} \text { DS33 } \\ \text { Lnight,outside } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| FLAT D, 428, GREAT NORTHERN ROAD | Dwelling | 72.4 | 73.2 | 72.5 | 0.1 | Negligible Beneficial | 73.2 | 0.8 | Negigigile Adverse | 58.9 | 59.6 | 59.6 |
| FLAT E, 428, GREAT NORTHERN ROAD | Dwelling | 72.4 | 73.2 | 72.5 | 0.1 | Negligible Beneficial | 73.2 | 0.8 | Negigioble Adverse | 58.9 | 59.6 | 59.6 |
| FLAT F, 428, GREAT NORTHERN ROAD | Dwelling | 72.4 | 73.2 | 72.5 | 0.1 | Negligible Beneficial | 73.2 | 0.8 | Negigiolie Adverse | 58.9 | 59.6 | 59.6 |
| FLAT G, 428, GREAT NORTHERN ROAD | Owelling | 72.4 | ${ }^{73.2}$ | 72.5 | 0.1 | Negligible Benefitical | 73.2 | 0.8 | Negigigle Adverse | 58.9 | 59.6 | 59.6 |
| FLAT H, 428, GREAT NORTHERN ROAD | Oweling | 72.4 | ${ }^{73.2}$ | 72.5 | 0.1 | Negligible Beneficical | 73.2 | 0.8 | Negigigile Adverse | 58.9 | 59.6 | 59.6 |
| FLAT A, 462, GREAT NORTHERN ROAD | Owelling | 72.6 | 73.4 7 | 72.8 | 0.2 | Negligible Adverse | 73.5 735 | 0.9 | Negigigle Adverse | 59.1 | 59.8 | 59.9 |
| FLAT B, 462, GREAT NORTHERN ROAD | Owelling | 72.6 | 73.4 | 72.8 | 0.2 | Negligible Adverse | 73.5 | 0.9 | Negigigle Adverse | 59.1 | 59.8 | 59.9 |
| FLAT C, 462, GREAT NORTHERN ROAD | Welling | 72.6 | 73.4 | 72.8 | 0.2 | Negligible Adverse | 73.5 | 0.9 | Negigigibe Adverse | 59.1. | 59.8 59 | 59.9 |
| FLAT D, 462, GREAT NORTHERN ROAD | Owelling | 72.6 | 73.4 | 72.8 | 0.2 | Neoligible Adverse | 73.5 | 0.9 | Negiligile Adverse | 59.1 | 59.8 | 59.9 |
| FLAT E, 462, GREAA NORTHERN ROAD | Dwelling | ${ }^{72.6}$ | ${ }^{73.4}$ | 72.8 | 0.2 | Negligible Adverse | 73.5 | 0.9 | Negigigibe Adverse | 59.1. | 59.8 | 59.9 |
| FLLAT G, 462, , GREAT NOAT NOTHERERN ROAD | Owelling | ${ }_{72.6}$ | 73.4 <br> 73 | ${ }_{72.8}$ | 0.2 | Neotigigibe Adverse | ${ }^{73.5}$ | 0.9 | Neoligigle Adverse | ${ }_{59.1}^{59.1}$ | 599.8 59 | $\stackrel{59.9}{59.9}$ |
| FLAT H, 462, GREAT NORTHERN ROAD | Dwelling | 72.6 | 73.4 | 72.8 | 0.2 | Negligible Adverse | 73.5 | 0.9 | Negigiolile Adverse | 59.1 | 59.8 | 59.9 |
| FLaT A, 464, GREAT NORTHERN ROAD | Wwelling | 59.8 | 60.6 | 60.0 | 0.2 | Negligible Adverse | 60.7 | 0.9 | Negiligile Adverse | 47.6 | 48.3 | 48.4 |
| FLAT B, 464, GREAT NORTHERN ROAD | Dwelling | 59.8 59.8 | 60.6 60.6 | 60.0 60.0 | 0.2 | $\frac{\text { Negligible Adverse }}{\text { Neoligible Adverse }}$ | 60.7 60.7 | 0.9 | Negiligile Adverse Nefigiole Adverse | 47.6 47.6 | 48.3 48.3 | 48.4 48.4 |
| FLAT D, 444, , GREAT NORTHERN ROAD | Dwelling | 59.8 | 60.6 | 60.0 | 0.2 | Negligible Adverse | 60.7 | 0.9 | Negigigile Adverse | 47.6 | 48.3 | 48.4 |
| FLAT E, 464, GREAT NORTHERN ROAD | Dwelling | 59.8 | 60.6 | 60.0 | 0.2 | Negligible Adverse | 60.7 | 0.9 | Neoligiole Adverse | 47.6 | 48.3 | 48.4 |
| FLAT F, 464, GREAT NORTHERN ROAD | Oweling | 59.8 | 60.6 | 60.0 | 0.2 | Negligible Adverse | 60.7 | 0.9 | Negigigibe Adverse | 47.6 | 48.3 | 48.4 |
| FLAT G, 464, GREAT NORTHERN ROAD | Delling | 59.8 | 60.6 <br> 584 <br> 8.4 | 60.0 578 | 0.2 | Negligiole Adverse | 60.7 <br> 585 <br> 8 | 0.9 | Negiligile Adverse | 47.6 | $\frac{48.3}{463}$ | $\frac{48.4}{46.4}$ |
| FLAT A, 466, GREAT NORTHERN ROAD | Welling | 57.6 <br> 576 | 58.4 58.4 | 57.8 <br> 578 | 0.2 | Negligibl Adverse | 58.5 <br> 585 <br> 8.5 | 0.9 | Negiligile Adverse | 45.6 456 | 46.3 463 | 46.4 |
| FLeat B , 466, GREAT NORTHERN ROAD | Oweling | 57.6 57.6 | 58.4 | 57.8 578 | 0.2 | Neqligiole Adverse | 58.5 58.5 | 0.9 | Negligiole Adverse | ${ }_{45.6}^{45.6}$ | ${ }_{46.3}^{46.3}$ | 46.4 46.4 |
| FLAT D, 466, GREAT NORTHERN ROAD | Owelling | 57.6 | 58.4 | 57.8 | 0.2 | Negligible Adverse | 58.5 | 0.9 | Negligible Adverse | 45.6 | 46.3 | 46.4 |
| FLAT E, 466, GREAT NORTHERN ROAD | Dwelling | 57.6 | 58.4 | 57.8 | 0.2 | Negligible Adverse | 58.5 | 0.9 | Negligible Adverse | 45.6 | 46.3 | 46.4 |
| FLAT F, 46, GREAT NORTHERN ROAD | Dwelling | 57.6 | 58.4 | 57.8 | 0.2 | Neoligible Adverse | 58.5 | 0.9 | Negligible Adverse | 45.6 | 46.3 | 46.4 |
| FLAT G, 466, GREAT NORTHERN ROAD | Dwelling | 57.6 | 58.4 | 57.8 | 0.2 | Neoligible Adverse | 58.5 | 0.9 | Negigigile Adverse | 45.6 | 46.3 | 46.4 |
| (fLAT H, 466, GREAT NORTHERN ROAD | Owelling | 57.6 70.3 | 58.4 71.2 | 57.8 70.5 | 0.2 | $\frac{\text { Negligible Adverse }}{\text { Negligible Adverse }}$ | 58.5 71.3 | 0.9 1.0 | $\frac{\text { Negligible Adverse }}{\text { Negigiole Adverse }}$ | $\stackrel{45.6}{57.0}$ | 46.3 57.8 | 46.4 57.9 |
| FLAT B, 480, GREAT NORTHERN ROAD | Oweling | 70.3 | 71.2 | 70.5 | 0.2 | Negligible Adverse | 71.3 | 1.0 | Negigioble Adverse | 57.0 | 57.8 | 57.9 |
| FLAT C, 480, GREAT NORTHERN ROAD | Welling | 70.3 | 71.2 | 70.5 | 0.2 | Neoligible Adverse | 71.3 | 1.0 | Negigigibe Adverse | 57.0 | 57.8 | 57.9 |
| FLAT D, 480, GREAT NORTHERN ROAD | Oweling | 70.3 | 71.2 | 70.5 | 0.2 | Negligiole Adverse | 71.3 | 1.0 | Negiligibe Adverse | 57.0 | 57.8 | 57.9 |
| (FLATA, 488, GAEAT NORTHERN ROAD | Owelling | 60.0 | 60.9 60.9 | $\frac{60.2}{60.2}$ | 0.2 | $\frac{\text { Negigigie Adverse }}{\text { Nepligible Adverse }}$ | ${ }^{661.0}$ | 1.0 1.0 | $\frac{\text { Negigigio Adverse }}{\text { Negligible Adverse }}$ | ${ }_{477}^{47.7}$ | $\stackrel{48.5}{48.5}$ | 48.6 48.6 |
| FLAT C, 482, GREAT NORTHERN ROAD | Dwelling | 60.0 | 60.9 | 60.2 | 0.2 | Negligible Adverse | 61.0 | 1.0 | Negligible Adverse | 47.7 | 48.5 | 48.6 |
| FLAT D, 482, GGEAAT NORTHERN ROAD |  |  |  |  |  |  |  |  |  |  | 48.5 | 48.6 |
| ELATE E, 482, GAEAA NORTHERN | Oweling | 60.0 | 60.9 | 60.2 | 0.2 | Negiligie Adverse | 61.0 | 10 | Negiligie Adverse | 47.7 | 48.5 | 48.6 |
| FLAT F, 482, GREAT NORTHERN ROAD | weling | $\frac{60.0}{60.0}$ | 60.9 6 | $\frac{60.2}{602}$ | 0.2 | Negligible Adverse | $\frac{61.0}{610}$ | $\frac{1.0}{1.0}$ | $\frac{\text { Negiligibe Adverse }}{\text { Neoligible Adverse }}$ | 47.7 477 | 48.5 485 | 48.6 |
|  | Dwelling | 60.0 | 60.9 | 60.2 | 0.2 | Negligiole Adverse | ${ }_{61.0}^{61.0}$ | 1.0 | Neotigigibe Adverse | ${ }_{47.7}^{4}$ | 48.5 | $\stackrel{48.6}{48.6}$ |
| FLAT J, 482, GREAT NORTHERN ROAD | Dowlling | 60.0 | 60.9 | 60.2 | 0.2 | Negligible Adverse | 61.0 | 1.0 | Negiligile Adverse | 47.7 | 48.5 | 48.6 |
| FLAT K, 482, GREAT NORTHERN ROAD | Dwelling | 60.0 | 60.9 | 60.2 | 0.2 | Negligible Adverse | 61.0 | 1.0 | Negligible Adverse | 47.7 | 48.5 | 48.6 |
| FLAT L, 482, GREAT NORTHERN ROAD | Wwelling | 60.0 | 60.9 | 60.2 | 0.2 | Neoligible Adverse | 61.0 | 1.0 | Negligible Adverse | 47.7 | 48.5 | 48.6 |
| FLAT A, 484, GREAT NORTHERN ROAD | Oweling | 63.0 | 63.9 | 63.2 | 0.2 | Negligible Adverse | 64.0 | 1.0 | Negigioble Adverse | 50.4 | 51.2 | 51.3 |
| FLat B, 484, GREAT NoRTHERN ROAD | Oweling | 63.0 63.0 | ${ }_{639}^{639}$ | ${ }^{63.2}$ | ${ }_{0}^{0.2}$ | $\frac{\text { Negligiole Adverse }}{\text { Neoligible Adverse }}$ | 64.0 64.0 | 1.0 1.0 | Negioigle Adverse | 50.4 | 51.2 | 51.3 |
| FLAT D, 484, GREAT NORTHERN ROAD | Dwelling | 63.0 | 63.9 | 63.2 | 0.2 | Negligible Adverse | 64.0 | 1.0 | Negiligible Adverse | 50.4 | 51.2 | 51.3 |
| FLAT E, 484, GREAT NORTHERN ROAD | Dwelling | 63.0 | 63.9 | 63.2 | 0.2 | Neoligible Adverse | 64.0 | 1.0 | Negligiole Adverse | 50.4 | 51.2 | 51.3 |
| FLAT F, 484, GREAT NORTHERN ROAD | Pwelling | 63.0 | 63.9 | 63.2 | 0.2 | Negligible Adverse | 64.0 | 1.0 | Negligible Adverse | 50.4 | 51.2 | 51.3 |
| FLAT A, 486, GREAT NORTHERN ROAD | Owelling | 63.4 | 64.4 | $\frac{63.6}{63.6}$ | 0.2 | $\frac{\text { Negigigile Adverse }}{\text { Neoligible Adverse }}$ | 64.4 64 | 1.0 | $\frac{\text { Negligiole Adverse }}{\text { Neoligible Adverse }}$ | 50.8 50.8 | - ${ }_{\text {51.7 }}^{51.7}$ | - ${ }_{\text {51.7 }}^{51.7}$ |
| FLAT C, 486, GREAT NORTHERN ROAD | Dwelling | 63.4 | 64.4 | 63.6 | 0.2 | Negligible Adverse | 64.4 | 1.0 | Negligible Adverse | 50.8 | 51.7 | 51.7 |
| FLAT D, 486, GREAA NORTHERN ROAD | Oweling | 63.4 | 64.4 | 63.6 | 0.2 | Negligiole Adverse | 64.4 |  | Negiligibe Adverse | 50.8 | 51.7 |  |
| FLAT F, 486, GREAT NORTHERN ROAD | Dwelling | 63.4 | 64.4 | 63.6 | 0.2 | Negligible Adverse | 64.4 | 1.0 | Negligible Adverse | 50.8 | 51.7 | 51.7 |
| FLAT B, 488, GREAT NORTHERN ROAD | Dwelling | 63.2 | 64.1 | 63.4 | 0.2 | Negligible Adverse | 64.2 | 1.0 | Negligible Adverse | 50.6 | 51.4 | 51.5 |
| FLAT C, 488, GREAT NORTHERN ROAD | Pwelling | 63.2 | 64.1 | 63.4 | 0.2 | Neoligible Adverse | 64.2 | 1.0 | Negiligile Adverse | 50.6 | 51.4 | 51.5 |
| FLAT D, 488, GREAA NORTHERN ROAD | Dwelling | 63.2 632 | 64.1 | 63.4 634 | 0.2 | Negligile Adverse | 64.2 | 1.0 | Negligiole Adverse | 50.6 | 51.4 | 51.5 |
| (fLATE, 488, GREAA NORTHERN ROAD | ${ }^{\text {Dwelling }}$ Dowling | ${ }^{63.2}$ | 64.1 | 63.4 63.4 | 0.2 | Negigigible Adverse | ${ }_{64.2}^{64.2}$ | 1.0 | Negifigible Adverse | ${ }_{50.6}^{50.6}$ | 51.4 |  |
| FLAT A, 490, GREAT NORTHERN ROAD | Dwelling | 61.5 | 62.3 | 61.7 | 0.2 | Negligible Adverse | 62.4 | 0.9 | Negligible Adverse | 49.1 | 49.8 | 49.9 |
| FLAT B, 490, GREAA NORTHERN ROAD | Dewling | 61.5 | 62.3 | ${ }_{61.7}^{617}$ | 0.2 | Negligible Adverse | 62.4 | 0.9 | Negigigibe Adverse | 49.1 | 49.8 | 49.9 |
| FLLAT D, 490, 40 , GREAEAT NORTTHERERN ROAD | Dwelling | ${ }_{61.5}^{61.5}$ | ${ }^{622.3}$ | ${ }^{61.7}$ | 0.2 | $\frac{\text { Negiligibe Adverse }}{\text { Negigible Adverse }}$ | 62.4.4 | 0.9 | Negigigibe Adverse | ${ }_{49.1}^{49.1}$ | 49.8 | 49.9 |
| FLAT E, 490, GREAA NORTHERN ROAD | Deelling | 61.5 | ${ }^{62.3}$ | 61.7 | 0.2 | Negligible Adverse | 62.4 | 0.9 | Negligible Adverse | 49.1 | 49.8 | 49.9 |
| FLATF, 490, GREAT NORTHERN ROAD | Owwelling | ${ }_{6}^{61.5}$ | ${ }_{62.3}^{62.3}$ | 61.7 61.7 | 0.2 | $\frac{\text { Negigible Adverse }}{\text { Negligible Adverse }}$ | 62.4 62.4 | 0.9 | Neoligigile Adverse | 49.1 | 49.8 | 49.9 |
| FLAT H, 490, GREAT NORTHERN ROAD | Dwelling | 61.5 | 62.3 | 61.7 | 0.2 | Negligible Adverse | 62.4 | 0.9 | Negligible Adverse | 49.1 | 49.8 | 49.9 |
| FLAT J, 490, GREAT NORIHERN ROAD | weling | ${ }_{61.5}^{615}$ | ${ }_{623}^{623}$ | ${ }_{617}^{617}$ | ${ }_{0}^{0.2}$ | Negigigie Adverse | 62.4 | 0.9 | Negiligile Adverse | 49.1 | 49.8 | 49.9 |
| FLAT K, 490, GREAT NORTHERN ROAD | Dwelling | 61.5 61.5 | 62.3 62.3 | 61.7 617 | 0.2 | $\frac{\text { Negligible Adverse }}{\text { Neoligible Adverse }}$ | 62.4 62.4 | 0.9 0.9 | $\frac{\text { Negligible Adverse }}{\text { Neoligible Adverse }}$ | ${ }_{49,1}^{49.1}$ | 49.8 49.8 | 49.9 49.9 |
| FLAT A, 492, GREAT NORTHERN ROAD | Owelling | 71.6 | 72.5 | 71.8 | 0.2 | Negigiole Adverse | 72.6 | 1.0 | Negligible Adverse | 58.2 | 59.0 | 59.1 |
| FLAT B, 492, GREAT NORTHERN ROAD | Oweling | 71.6 | 72.5 | 71.8 | 0.2 | Negigigile Adverse | 72.6 | 1.0 | Negigigile Adverse | 58.2 | 59.0 | 59.1 |
| FLAT C, 492, GREAT NORTHERN ROAD | Owelling | ${ }^{71.6}$ | 72.5 | $\frac{71.8}{71.8}$ | 0.2 | $\frac{\text { Negigigle Adverse }}{\text { Negligible Adverse }}$ | $\frac{72.6}{72.6}$ | 1.0 1.0 | $\frac{\text { Negigigile Adverse }}{\text { Neosigiole Adverse }}$ | 58.2 58.2 | 59.0 59.0 | 59.1 59.1 |
| FLAT A, 535, GREAT NORTHERN ROAD | Deelling | 69.2 | 70.0 | 69.5 | 0.3 | Negligible Adverse | 70.1 | 0.9 | Neoligiole Adverse | 56.0 | 56.7 | 56.8 |
| FLAT B , 535, GREAT NORTHERN ROAD | Owelling | 69.2 69.2 | 70.0 70.0 | 69.5 | 0.3 0.3 | Negligibl Adverse | 70.1 70.1 | 0.9 | Negigiole Adverse | 56.0 | ${ }_{56.7}^{56.7}$ | 56.8 56.8 |
| FLAT D, 535, GREAT NORTHERN ROAD | Dwelling | 69.2 | 70.0 | 69.5 | 0.3 | Negligible Adverse | 70.1 | 0.9 | Negligible Adverse | 56.0 | 56.7 | 56.8 |
| FLAT E, 535, GREAT NORTHERN ROAD | Oweling | $\frac{69.2}{692}$ | 70.0 | 69.5 | ${ }_{0}^{0.3}$ | $\frac{\text { Negiligile Adverse }}{\text { Neoligible Adverse }}$ | 70.1 70.1 | 0.9 | $\frac{\text { Negiligile Adverse }}{\text { Negioble }}$ | 56.0 56.0 | 56.7 567 | 56.8 56.8 |
| LAT A, 537, GREAT NORTHERN ROAD | Dwelling | 69.2 | 69.9 | 69.4 | 0.2 | Negligible Adverse | 70.1 | 0.9 | Negiligile Adverse | 56.0 | 56.6 | 56.8 |
| LAT B, 537, GREAT NORTHERN ROAD | Wwelling | 69.2 | 69.9 | 69.4 | 0.2 | Negligible Adverse | 70.1 | 0.9 | Negligible Adverse | 56.0 | 55.6 | 56.8 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 Lnight,outside | $\begin{gathered} \text { DS33 } \\ \text { Lnight,outside } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| FLAT C, 537, GREAT NORTHERN ROAD | Dwelling | 69.2 | 69.9 | 69.4 | 0.2 | Negligible Adverse | 70.1 | 0.9 | Negiligile Adverse | 56.0 | 56.6 | 56.8 |
| FLAT D, 537, GREAT NORTHERN ROAD | Dwelling | 69.2 | 69.9 | 69.4 | 0.2 | Negigigibe Adverse | 70.1 | 0.9 | Negigigibe Adverse | 56.0 | 56.6 | 56.8 |
| FLAT E, 537, GREAT NORTHERN ROAD | Dwelling | 69.2 | 69.9 | 69.4 | 0.2 | Negigigile Adverse | 70.1 | 0.9 | Negigiolie Adverse | 56.0 | 56.6 | 56.8 |
| FLAT F. 537, GREAT NORTHERN ROAD | Oweling | 69.2 | 69.9 | ${ }^{69.4}$ | 0.2 | Negigigle Adverse | ${ }_{70.1}^{70.1}$ | 0.9 | Negigigle Adverse | 55.0 | 56.6 | 56.8 |
| FLAT 1, 539, GREAT NORTHERN ROAD | Deeling | 70.9 | 71.6 | 71.2 | 0.3 | Negigigle Adverse | ${ }_{71.8}^{71.8}$ | 0.9 | Negligible Adverse | $\stackrel{57.5}{575}$ | 58.2 | 58.4 |
| FLat 10, 539, GREAT NoRTHERN ROAD | Oweling | 70.9 | ${ }^{71.6}$ | 71.2 | 0.3 | Negigigibe Adverse | 71.8 | 0.9 | Negiligible Adverse | 57.5 575 | 58.2 | 58.4 |
| FLAA 2, 539, GREAT NORTHERN ROAD | Dweling | 70.9 | 71.6 | 71.2 | 0.3 0.3 | Negigigle Adverse | 71.8 71.8 | 0.9 | Negligile Adverse | 57.5 57.5 | 58.2. | 58.4 58.4 |
| FLLAT 4. 539, GREAT NORTHERN ROAD | Dwelling | 70.9 | ${ }_{71.6}$ | 71.2 | ${ }_{0}^{0.3}$ | Neogigigile Adverse | 71.8 | 0.9 | Neoligigile Adverse | ${ }^{57.5}$ | ${ }^{56.2}$ | ${ }^{58.4} 5$ |
| FLAT 5, 539, GREAT NORTHERN ROAD | Dwelling | 70.9 | 71.6 | 71.2 | 0.3 | Negiligile Adverse | 71.8 | 0.9 | Negligible Adverse | 57.5 | 58.2 | 58.4 |
| FLAT 6, 539, GREAT NORTHERN ROAD | Wwelling | 70.9 | 71.6 | 71.2 | 0.3 | Negigigile Adverse | 71.8 | 0.9 | Negigioble Adverse | 57.5 | 58.2 | 58.4 |
| FLAT 7, 539, GREAT NORTHERN ROAD | Owelling | 70.9 | 71.6 | 71.2 | ${ }^{0.3}$ | Negigigibe Adverse | 71.8 | 0.9 | Negligible Adverse | 57.5 575 | 58.2 | 58.4 <br> 58.4 |
| FLAT 9, 539, GREAT NORTHERN ROAD | Dwelling | 70.9 | 71.6 | 71.2 | 0.3 | Neogigioble Adverse | 71.8 | 0.9 | Neogigiole Adverse | 57.5 | 58.2 | 58.4 |
| FLAT 1, 541, GREAT NORTHERN ROAD | welling | 70.9 | 71.6 | 71.2 | 0.3 | Negigigile Adverse | 71.8 | 0.9 | Negiligile Adverse | 57.5 | 58.2 | 58.4 |
| FLAT 2, 541, GREAT NORTHERN ROAD |  | 70.9 | 71.6 | 71 | 0.3 | Negigigile Adverse | 71.8 | 0.9 | Negligible Adverse | 57.5 |  | 58.4 |
| FLAT 3, 541, GREAT NORTHERN ROAD |  | 70.9 | 71.6 | 71.2 | 0.3 | Negigigibe Adverse | 71.8 | 0.9 | Negigioble Adverse | 57.5 | 58.2 | 58.4 |
| FLAT 4, 541, GREAT NORTHERN ROAD |  | 70.9 | 71.6 | 71.2 |  | Negiligibe Adverse | 71.8 |  | Negigigile Adverse | 57.5 | 58.2 | 58.4 |
| FLAT 5, 541, GREAT NORTHERN ROAD | Deelling | 70.9 |  |  | 0.3 | Negigigibe Adverse | 71.8 | 0.9 | Negiligile Adverse | 57.5 |  | 58.4 |
| FLAT 6,541 , GREAT NORTHERN ROAD | Dweling | 70.9 | 71.6 71.6 | 71.2 | 0.3 | Negiligibe Adverse | 71.8 <br> 71.8 | 0.9 | Negiligile Adverse | 57.5 | 58.2 | 58.4 <br> 5.4 |
| FLAA 1,543, GREA NOR THERN ROAD | weling | 70.9 | ${ }_{71.6}$ | 71.22 | ${ }^{0.3}$ | Negigigile Adverse | 71.8 | 0.9 | Negiligie Aaverse | 57.5 | 58.2 | 58.4 |
| FLAT 10, 543, GREAT NORTHERN ROAD | Oweling | 70.9 | ${ }_{717} 71.6$ | 71.2 | ${ }^{0.3}$ | Negigigile Aaverse | 71.8 | 0.9 | Negligibe Adverse | 57.5 575 | -58.2 | 58.4 58.4 |
| LLAT 2, 543, GREAT NORTHERN ROAD | Oweling | 70.9 | ${ }^{71.6}$ | 71.2 | ${ }^{0.3}$ | Negiligile Adverse | 71.8 | 0.9 | Negiqigle Adverse | 57.5 575 | -58.2 | 58.4 <br> 58.4 |
| FLAT 4.543, GREAT NORTHERN ROAD | Dwelling | 70.9 | 71.6 71.6 | 71.2 71.2 | ${ }_{0.3}^{0.3}$ | Neoligigile Adverse | 71.8 71.8 | 0.9 | Negligigie Adverse | 57.5 57.5 | ${ }_{58.2}^{58.2}$ | 58.4 58.4 |
| FLAT 5, 543, GREAT NORTHERN ROAD | Dwelling | 70.9 | 71.6 | 71.2 | 0.3 | Negiligile Adverse | 71.8 | 0.9 | Negligible Adverse | 57.5 | 58.2 | 58.4 |
| FLAT 6, 543, GREAT NORTHERN ROAD | Dwelling | 70.9 | 71.6 | 71.2 | 0.3 | Negigiolie Adverse | 71.8 | 0.9 | Negligible Adverse | 57.5 | 58.2 | 58.4 |
| FLAT 7, 543, GREAT NORTHERN ROAD | welling | 70.9 | 71.6 | 71.2 | 0.3 | Negigigibe Adverse | 71.8 | 0.9 | Negigigibe Adverse | 57.5 | 58.2 | 58.4 |
| FLAT 8 , 543, GGEAT NORTHERN ROAD | veling | 70.9 | 71.6 | $\frac{71.2}{712}$ | ${ }_{0}^{0.3}$ | Negiligibe Adverse | ${ }_{7118}^{718}$ | 0.9 | Negiligile Adverse | 57.5 575 | 58.2 | 58.4 58.4 |
| FLAT 9, 543, GREAT NORTHERN ROAD | Dwelling | 70.9 | 71.6 | 71.2 | 0.3 | Negigigibe Adverse | 71.8 | 0.9 | Negigigible Adverse | 57.5 | 58.2 | 58.4 |
| COMMUNTTY MEETING PLACE, 571, GREAT NORTHERN ROAD | Community Facility | 74.1 | 74.6 | 74.5 | 0.4 | Negigigile Adverse | 75.1 | 1.0 | Negigigile Adverse | 60.4 | 60.9 | 61.3 |
| FLAT 1, 579, GREAT NORTHERN ROAD | Dweling | 72.9 | 73.1 | ${ }^{7} 3.3$ | 0.4 | Negigigile Adverse | ${ }^{73.8}$ | 0.9 | Negiligibe Adverse | 59.3 | 59.5 | 60.2 |
| FLAT 10, 579, GREAT NORTHERN ROAD | eeling | 72.9 | ${ }^{73.1}$ | 73.3 | 0.4 | Negigigile Adverse |  |  | Negigioble Adverse |  |  |  |
| FLAT 2, 579, GREAT NORTHERN ROAD | Deelling | 72.9 | ${ }^{73,1}$ | ${ }^{73.3}$ | 0.4 | Negigigile Adverse | ${ }^{73,8}$ | 0.9 | Negigigile Adverse | 59.3 | 59.5 | 60.2 |
| FLAAT 3,579, GREAT NORTHERN ROAD |  |  |  |  |  |  |  |  |  |  |  |  |
|  | Oweiling | 72.9 | 73.1 | ${ }_{73,3}$ | 0.4 | Negigigie Adverse | ${ }_{73,8}$ | 0.9 | Negiqigile Adverse | 59.3 | 59.5 | 60.2 |
| FLAT 6.579, GREAT NORTHERN ROAD | Dwelling |  | ${ }_{73.1}$ | ${ }_{73,3}$ | 0.4 | Neogigiole Adverse | ${ }_{73.8}$ |  | Neoligigio Adverse | 59.3 |  |  |
| FLLAT 7, 579, GREAT NORTHERN ROAD | Dwelling | 72.9 | ${ }_{73.1}$ | ${ }^{73.3}$ | 0.4 | Neogigigle Adverse | ${ }^{73.8}$ | 0.9 | Negigigible Adverse | 59.3 | 59.5 | ${ }_{60.2}^{60.2}$ |
| FLAT 8, 579, GREAT NORTHERN ROAD | Dwelling | 72.9 | ${ }^{73.1}$ | ${ }^{73.3}$ | 0.4 | Negigiole Adverse | ${ }^{73.8}$ | 0.9 | Negiligile Adverse | 59.3 | 59.5 | 60.2 |
| FLAT 9, 579, GREAT NORTHERN ROAD | Dwelling | 72.9 | 73.1 | ${ }^{73.3}$ | 0.4 | Negigigile Adverse | 73.8 | 0.9 | Negiligile Adverse | 59.3 | 59.5 | 60.2 |
| LLAT I, 58, GREAT NORTHERN ROAD | welling | 72.9 | 73.1 | 73.3 | 0.4 | Negiligibe Adverse | 73.8 | 0.9 | Negigigble Adverse | 59.3 | 59.5 | 60.2 |
| FLAT 2, 581, GREAT NORTHERN ROAD | Dwelling | 72.9 | 73.1 | ${ }^{73.3}$ | 0.4 | Negiligibe Adverse | ${ }^{73.8}$ | 0.9 | Negiligile Adverse | 59.3 | 59.5 | ${ }^{60.2}$ |
| (LLAA 3, 581, GREAT NORTHERN ROAD | Dwelling | ${ }_{72.9} 7$ | ${ }^{73.1}$ | ${ }_{73.3}^{73.3}$ | 0.4 0.4 | $\frac{\text { Negigigile Adverse }}{\text { Negigible Adverse }}$ | 73.8 73.8 | 0.9 | $\frac{\text { Negligible Adverse }}{\text { Neoligible Adverse }}$ | 59.3 | 59.5 | 60.2 |
| FLAT 5, 581, GREAT NORTHERN ROAD | Dwelling | 72.9 | 73.1 | 73.3 | 0.4 | Negigiole Adverse | 73.8 | 0.9 | Negligible Adverse | 59.3 | 59.5 | 60.2 |
| FLAT 6, 581, GREAT NORTHERN ROAD | welling | 72.9 | ${ }^{73.1}$ | ${ }^{73.3}$ | 0.4 | Negigigibe Adverse | ${ }^{73.8}$ | 0.9 | Negigigibe Adverse | 59.3 | 59.5 | 60.2 |
| FLAT 1, 583, GREAT NORTHERN ROAD | welling | 72.9 | 73.1 | ${ }^{73.3}$ | 0.4 | Negigigile Adverse | ${ }^{7} 3.8$ | 0.9 | Negigigibe Adverse | 59.3 | 59.5 | 60.2 |
| FLAT 10, 583, GREAT NORTHERN ROAD | welling | 72.9 | 73.1 | 73.3 | 0.4 | Negigigile Adverse | ${ }^{73.8}$ | 0.9 | Negiligibe Adverse | 59.3 | 59.5 | 60.2 |
| FLAT 2, 583, GREAT NORTHERN ROAD | Dwelling | 72.9 | 73.1 | 73.3 | 0.4 | Negigigile Adverse | 73.8 | 0.9 | Negiligible Adverse | 59.3 | 59.5 | O |
| FLAT 3, 583, GREAT NORTHERN ROAD | Oweling | 72.9 | 73.1 | 73.3 | 0.4 | Negigigile Adverse | 73.8 | 0.9 |  |  | 59.5 |  |
| FLAT 4, 583, GREAT NORTHERN ROAD | Dwelling | 72.9 | ${ }_{73.1}$ | ${ }_{7}^{73.3}$ | 0.4 | Negiligibe Adverse | ${ }_{7}^{73.8}$ | 0.9 | Negiligile Adverse | 59.3 | 59.5 | 60.2 |
| FLAA 5, 583, GGEAT NORTHERN ROAD | Oweling | ${ }_{72.9}$ | 73.1 73.1 | 73.3 73 | ${ }_{0}^{0.4}$ | Negligio Adverse | 73.8 73.8 | 0.9 | Negligile Adverse | ${ }_{59,3}^{59.3}$ | 59.5 | 60.2 |
| FLAT 7, 583, GREAT NORTHERN ROAD | Dwelling | 72.9 | 73.1 | 73.3 | 0.4 | Negiligile Adverse | 73.8 | 0.9 | Negligible Adverse | 59.3 | 59.5 | 60.2 |
| LLAT 8, 583, GREAT NORTHERN ROAD | welling | 72.9 |  | 73.3 |  | Negigigile Adverse | 73.8 |  | Negligible Adverse | 9.3 |  | 0.2 |
| FLAT 9, 583, GREAT NORTHERN ROAD | Dwelling | 72.9 | 73.1 | ${ }^{73.3}$ | 0.4 | Negigigile Adverse | 73.8 | 0.9 | Negiligile Adverse | 59.3 | 59.5 | 60.2 |
| FLAT 1,617, GREAT NORTHERN ROAD | Deelling | 72.2 | 72.0 | 72.5 | 0.3 | Negigigile Adverse | 73.0 | 0.8 | Negigioble Adverse | 58.7 | 58.5 | 59.4 |
| FLAT 10,6617, GREA N NORTHERN NOAD | Oweling | 72.2 | 72.0 | 72.5 | ${ }^{0.3}$ | Negiligile Adverse | ${ }^{73.0}$ | 0.8 | Negligigle Aaverse | 58.7 | 58.5 | 59.4 59.4 |
| FLat 3 , 617, GREAT NORTHERN ROAD | Dwelling | ${ }^{72.2}$ | 72.0 72.0 | 72.5 72.5 | ${ }_{0.3}^{0.3}$ | Negigigle Adverse | 73.0 73.0 | 0.8 | Neoligigib Adverse | ${ }_{58.7}^{58.7}$ | ${ }_{58,5}^{58.5}$ | - 59.4 |
| FLAT 4, 617, GREAT NORTHERN ROAD | Owelling | 72.2 | 72.0 | 72.5 | 0.3 | Neoligiole Adverse | 73.0 | 0.8 | Neoligible Adverse | 58.7 | 58.5 | 59.4 |
| FLAT 5, 617, GREAT NORTHERN ROAD | Dwelling | 72.2 | 72.0 | 72.5 | 0.3 | Negigibile Adverse | 73.0 | 0.8 | Negigibile Adverse | 58.7 | 58.5 | 59.4 |
| LAT 6, 617, GREAT NoRTHERN ROAD | Dwelling | 72.2 | 72.0 | 72.5 | ${ }^{0.3}$ | Negigioble Adverse | ${ }^{73.0}$ | 0.8 | Negigigile Adverse | 58.7 | 58.5 | 59.4 |
| LAT 7, 617, GREAT NORTHERN ROAD | welling | 72.2 | 72.0 | 72.5 | 0.3 | Negigigile Adverse | 73.0 | 0.8 | Negigigibe Adverse | 58.7 | 58.5 | 59.4 |
| FLAA 8,617 , GREA NOR R THERN ROAD | weling | 72.2 | 72.0 | 12.5 <br> 725 | 0.3 | Negiligibe Adverse | 73.0 | 0.8 | Negligible Aaverse | 58.7 | 58.5 | 59.4 |
| FLAA 9,617, GGEAT NORTHERN ROAD | Oweling | $\frac{72.2}{72.2}$ | 72.0 | 72.5 72.5 | ${ }_{0.3}^{0.3}$ | Negligile Adverse | ${ }_{73,0}^{73.0}$ | ${ }_{0}^{0.8}$ | Negiligile Adverse | 58.7 58.7 | 58.5 <br> 59 | 59.4 |
| FLAT 2, 619, GREAT NORTHERN ROAD | Owelling | 72.2 | 72.0 | 72.5 | ${ }_{0} 0.3$ | Negigigile Adverse | ${ }^{73.0}$ | ${ }_{0} .8$ | Neoligible Adverse | ${ }_{58.7}^{58.7}$ | ${ }_{58.5}^{56.5}$ | 59.4 |
| FLAT 3, 619, GREAT NORTHERN ROAD | Dwelling | 72.2 | 72.0 | 72.5 | 0.3 | Negigigible Adverse | 73.0 | 0.8 | Negigioble Adverse | 58.7 | 58.5 | 59.4 |
| FLAT 4, 619, GREAT NORTHERN ROAD | Oweling | 72.2 | 72.0 | 72.5 | 0.3 | Negigigile Adverse | 73.0 | 0.8 | Negigigile Adverse | 58.7 | 58.5 | 59.4 |
| FLAT 6, 619, GREAT NORTHERN ROAD | Dwelling | 72.2 | 72.0 | 72.5 | 0.3 | Negiligile Adverse | 73.0 | 0.8 | Negligible Adverse | 58.7 | 58.5 | 59.4 |
| FLAT 1, 621, GREAT NORTHERN ROAD | Owelling | 72.2 | 72.0 | 72.5 | 0.3 | Negigigile Adverse | 73.0 | 0.8 | Negiligibe Adverse | 58.7 | 58.5 | 59.4 |
| FLAT 10, 62, GREAT NORTHERN ROAD | Dweling | 72.2 | 72.0 | 72.5 <br> 725 | ${ }_{0}^{0.3}$ | Negiligile Adverse | 73.0 | ${ }^{0.8}$ | Negiligile Adverse | 58.7 59.7 | 58.5 <br> 5.5 | 59.4 |
|  | Dweling | - 72.2 | 72.0. | 72.5 72.5 | ${ }_{0.3}^{0.3}$ | $\frac{\text { Negigigio Adverse }}{\text { Negiobible Adverse }}$ | 73.0 73.0 | 0.8 | Negigigie Adverse | ${ }^{58.7} 5$ | 58.5 58.5 | 59.4 |
| FLAT 4, 621, GREAT NORTHERN ROAD | Dwelling | 72.2 | 72.0 | 72.5 | 0.3 | Negiligile Adverse | 73.0 | 0.8 | Negligible Adverse | 58.7 | 58.5 | 59.4 |
| LLAT 5, 621, GREAT NORTHERN ROAD | Oweling | 72.2 | 72.0 | 72.5 725 | 0.3 | Negigigibe Adverse | ${ }^{73.0}$ | 0.8 | Negigigibe Adverse | 58.7 | 58.5 | 59.4 |
| FLLAT 7, 621, GREAT NORTHERN ROAD | ${ }^{\text {Dumelling }}$ | ${ }_{72.2}$ | ${ }_{72.0}$ | ${ }_{72.5}$ | ${ }_{0.3}$ | Neogigigle Adverse | ${ }^{73.0}$ | 0.8 | Negligibile Adverse | ${ }^{58.7}$ | 58.5 | 59.4 |
| FLAT 8,621, GREAT NORTHERN ROAD | Dwelling | 72.2 | 72.0 | 72.5 | 0.3 | Negiligile Adverse | 73.0 | 0.8 | Negigigile Adverse | 58.7 | 58.5 | 59.4 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 Lnight,outside | DS33 Lnight,outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| FLAT 9, 621, GREAT NORTHERN ROAD | Dwelling | 72.2 | 72.0 | 72.5 | 0.3 | Negligible Adverse | 73.0 | 0.8 | Negiligile Adverse | 58.7 | 58.5 | 59.4 |
| FLAT A, 645, GREAT NORTHERN ROAD | Oweling | ${ }^{73.5}$ | ${ }^{73.3}$ | ${ }^{73.8}$ | 0.3 | Negigigibe Adverse | 74.3 | 0.8 | Negligible Adverse | 59.9 | 59.7 | 60.6 |
| FLAT B, 645, GREAT NORTHERN ROAD | Dwelling | 73.5 | 73.3 | 73.8 | 0.3 | Negigigibe Adverse | 74.3 | 0.8 | Negigioble Adverse | 59.9 | 59.7 | 60.6 |
| FLAAT C, 645, GREAT NORTHER R ROAD | Oweling | 73.5 | ${ }_{7}^{73.3}$ | 73.8 7 | 0.3 | Negigigle Adverse | ${ }_{7}^{74.3}$ | 0.8 | Negigigle Adverse | 59.9 | 5997 | 60.6 |
| FLAT D, 645, GREAT NORTHERN ROAD | Delling | 73.5 73 | ${ }_{73,3}$ | ${ }_{7}^{73.8}$ | 0.3 | Negigigle Adverse | ${ }_{74.3}$ | 0.8 | Negligible Adverse | 59.9 | $\stackrel{59.7}{59}$ | 60.6 |
| FLAT E, 645, GREAT NORTHER R ROAD | Delling | 73.5 | ${ }_{7}^{73.3}$ | ${ }_{7}^{73.8}$ | 0.3 | Negigigibe Adverse | ${ }_{74.3}$ | 0.8 | Negligible Adverse | 59.9 | 59.7 | 60.6 |
| FLAT F, 645, GREAT NORTHERN ROAD | Deelling | 73.5 | ${ }^{73.3}$ | 73.8 | 0.3 | Negigioble Adverse | 74.3 | 0.8 | Negligible Adverse | 59.9 | 59.7 | 60.6 |
| FLAT G, 645, GREAT NORTHERN ROAD | Dwelling | 73.5 | 73.3 | 73.8 | 0.3 | Negiligibe Adverse | 74.3 | 0.8 | Negilibile Adverse | 59.9 | 59.7 | 60.6 |
| FLAT H, 645, GREAA NORTHERN ROAD | HotelMMotel | 73.2 | 73.0 | 73.6 73 | 0.4 | Negigigible Adverse | 74.1 | 0.9 | Negigigible Adverse | 59.6 | 59.4 | 60.4 |
| FLAT A, 651, GREAT NORTHERN ROAD | Deeling | ${ }_{7}^{73.1}$ | ${ }_{7}^{73.0}$ | ${ }_{7}^{73.5}$ | 0.4 | Negigigle Adverse | 74.0 | 0.9 | Negigigle Adverse | 59.5 | 59.4 | 60.3 60.4 |
| FLLAT C, 651, GREAT NORTHERN ROAD | Oweiling | ${ }_{73.3}$ | ${ }_{73.1}$ | ${ }_{73.7}$ | 0.4 0.4 | Negigigibe Adverse | ${ }_{74.1}$ | 0.8 | Negigigibe Adverse | ${ }_{59.7}^{59.7}$ | ${ }_{59.5}^{59.5}$ | 60.4 |
| FLAT D, 651, GREAT NORTHERN ROAD | Dwelling | ${ }_{73.3}$ | 73.1 | ${ }_{73.7}$ | 0.4 | Neogigiole Adverse | 74.1 | 0.8 | Neogigiole Adverse | 59.7 | 59.5 | 60.4 |
| FLAT E, 651, GREAT NORTHERN ROAD | Dwelling | 73.3 | ${ }^{73.1}$ | ${ }^{73.7}$ | 0.4 | Negligible Adverse | 74.1 | 0.8 | Negligible Adverse | 59.7 | 59.5 | 60.4 |
| FLAT F, 651, GREAT NORTHERN ROAD | Deelling | 73.3 | ${ }_{73.1}$ | ${ }_{73,7}^{737}$ | 0.4 | Negiligibie Adverse | 74.1 | 0.8 | Negiligibe Adverse | 59.7 | 59.5 | 60.4 |
| FLAT G, 651, GREAT NORTHERN ROAD | Dwelling | 73.3 77.3 | 73.1 77.1 | 73.7 73.7 | 0.4 0.4 | Negligible Adverse Negioigle Adverse | 74.1 74.1 | 0.8 0.8 | Negiligib Adverse | 59.7 59.7 | 59.5 <br> 59.5 | 60.4 60.4 |
| FLAT J, 651, GREAT NORTHERN ROAD | Dwelling | 73.0 | 72.9 | 73.4 | 0.4 | Negligible Adverse | 73.8 | 0.8 | Negligible Adverse | 59.4 | 59.3 | 60.2 |
| FLAT K, 651, GREAT NORTHERN ROAD | Dwelling | 73.0 | 72.9 | 73.4 | 0.4 | Negigigile Adverse | 73.8 | 0.8 | Negigioble Adverse | 59.4 | 59.3 | 60.2 |
| FLAT L., 651, GREAT NORTHERN ROAD | Deeling | 73.0 | 72.9 | ${ }^{73.4}$ | 0.4 | Negiligibe Adverse | ${ }^{73.8}$ | 0.8 | Negligible Adverse | 59.4 | 59.3 | 60.2 |
| FLATM, 651, GREAT NORTHERN ROAD | Dweling | ${ }_{73.0}^{73}$ | 72.9 | ${ }^{73.4}$ | 0.4 | Negiligibie Adverse | 73.8 73 | 0.8 | Negiligile Adverse | 59.4 | 59.3 | 60.2 |
| FLat A, 65, G Geal | Dwelling | 73.0 73.0 | 72.9 72.9 | 73.4 73.4 | 0.4 0.4 | Negigigle Adverse | 73.8 <br> 73.8 | 0.8 0.8 | Negigigbe Adverse | 㐌9.4.4 | - ${ }_{59.3}^{59.3}$ | 60.2 60.2 |
| FLAT C, 655, GREAT NORTHERN ROAD | Dwelling | 73.0 | 72.9 | 73.4 | 0.4 | Negiligile Adverse | 73.8 | 0.8 | Negiligile Adverse | 59.4 | 59.3 | 60.2 |
| FLAT D, 655, GREAT NORTHERN ROAD | Dwelling | 73.0 | 72.9 | 73.4 | 0.4 | Negigigile Adverse | 73.8 | 0.8 | Negigigible Adverse | 59.4 | 59.3 | 60.2 |
| FLAT E, 655, GREAT NORTHERN ROAD | welling | 73.0 | 72.9 | 73.4 | 0.4 | Negigioble Adverse | 73.8 | 0.8 | Negigioble Adverse | 59.4 | 59.3 | 60.2 |
| FLAA F, 655, GREAT NORTHERN ROAD | Dwelling | 73.0 | 72.9 | 73.4 734 | ${ }_{0}^{0.4}$ | Negigiole Adverse | 73.8 73.8 | ${ }_{0}^{0.8}$ | Negligible Adverse | $\begin{array}{r}59.4 \\ 594 \\ \hline 9 .\end{array}$ | 59.3 | 60.2 60.2 |
| FLAT H, 655, GREAT NORTHERN ROAD | Dwelling | 73.0 | 72.9 | 73.4 | 0.4 | Negiligile Adverse | 73.8 | 0.8 | Negiligile Adverse | 59.4 | 59.3 | 60.2 |
| FLAT J, 655, GREAT NORTHERN ROAD | Wwelling | 73.0 | 72.9 | 73.4 | 0.4 | Negiligile Adverse | 73.8 | 0.8 | Negiligible Adverse | 59.4 | 59.3 | 60.2 |
| FLAT K, 655, GREAT NORTHERN ROAD | welling | 73.0 | 72.9 | 73.4 | 0.4 | Negigigile Adverse | 73.8 | 0.8 | Negigible Adverse | 59.4 | 59.3 | 60.2 |
| FLAT L. 655, GREAT NORTHERN ROAD | Oweling | 73.0 | 72.9 | ${ }^{73.4}$ | 0.4 | Negligible Adverse | 73.8 | 0.8 | Negligible Adverse | 59.4 | 59.3 | 60.2 |
| FLAT M, 655, GREAT NORTHERN ROAD | veling | 73.0 | 72.9 | ${ }^{73.4}$ | 0.4 | Negiligibie Adverse | 73.8 |  | Negigigio Adverse | 59.4 |  | 60.2 |
| FLAT 1, 663, GREAT NORTHERN ROAD | Dwelling |  |  |  |  | Negiligibe Adverse | ${ }_{72,8}^{72.8}$ | 0.8 | Negiligile Adverse |  |  |  |
| FLAT 10,663, GREAT NORTHERN ROAD |  | ${ }_{72.0}$ | 77.6 | 72.4 | 0.4 | Negigigio Adverse | 72.8 | 0.8 | Negiligibe Adverse | 58.5 |  | 59.3 |
| FLAT 3, 663, GREAT NORTHERN ROAD | Dwelling | 72.0 | 71.6 | 72.4 | 0.4 | Negoligible Adverse | 728 | 0.8 | Neoligioble Adverse | 58.5 | 58.2 | 59.3 |
| FLAT 4, 663, GREAT NORTHERN ROAD | Dwelling | 72.0 | 71.6 | 72.4 | 0.4 | Negigigile Adverse | 72.8 | 0.8 | Negligible Adverse | 58.5 | 58.2 | 59.3 |
| FLAT 5, 663, GREAT NORTHERN ROAD | Deelling | 72.0 | 71.6 | 72.4 | 0.4 | Negiligibe Adverse | 72.8 | 0.8 | Negligible Adverse | 58.5 | 58.2 | 59.3 |
| LLAT 6,663, GREAT NORTHERN ROAD | Deelling | 72.0 | 71.6 | 72.4 | 0.4 | Negigigile Adverse | 72.8 | 0.8 | Negigioble Adverse | 58.5 | 58.2 | 59.3 |
| LLAA 7, 663, GREA NOATHERN ROAD | Dwelling | 72.0 | 71.6 | 72.4 | 0.4 | Negiligble Adverse | 72.8 | 0.8 | Negiligble Adverse | 58.5 | 58.2 | 59.3 |
| FLAA 8,663 , GREA NORTHERN ROAD | Oweling | 72.0 | ${ }^{71.6}$ | 72.4 | 0.4 | Negigigio Adverse | 12.8 | 0.8 | Negigigibie Adverse | $\begin{array}{r}58.5 \\ 58 \\ \hline\end{array}$ | 58.2 | 59.3 |
| (LLAA 9, 663, GREA NORTHERN ROAD | Dwelling | 72.0 | 71.6 | 72.4 72.4 | 0.4 0.4 | Negigible Adverse | 72.8 <br> 72.8 | 0.8 0.8 | $\frac{\text { Negigigle Adverse }}{\text { Nefligible Adverse }}$ | 58.5 | - $\begin{array}{r}\text { 58.2 } \\ 58.2\end{array}$ | 599.3 |
| FLAT 2, 665, GREAT NORTHERN ROAD | welling | 72.0 | 71.6 | 72.4 | 0.4 | Negigigibe Adverse | 72.8 | 0.8 | Negigioble Adverse | 58.5 | 58.2 | 59.3 |
| FLAT 3, 665, GREAT NORTHERN ROAD | Owelling | 72.0 | 71.6 | ${ }^{72.4}$ | 0.4 | Negigigibe Adverse | 72.8 | 0.8 | Negigigile Adverse | 58.5 | 58.2 | 59.3 |
| FLAT 4, 665, GREAT NORTHERN ROAD | Dwelling | 72.0 | ${ }^{711.6}$ | 72.4 724 | 0.4 | $\frac{\text { Negigigble Adverse }}{\text { Negioible Adverse }}$ | 72.8 72.8 | 0.8 0.8 | $\frac{\text { Negligible Adverse }}{\text { Nefligible Adverse }}$ | 58.5 58.5 | -58.2 | $\stackrel{59.3}{59.3}$ |
| FLAT 6, 665, GREAT NORTHERN ROAD | Dwelling | 72.0 | 71.6 | 72.4 | 0.4 | Negiligile Adverse | 72.8 | 0.8 | Negligible Adverse | 58.5 | 58.2 | 59.3 |
| FLAT 1, 667, GREAT NORTHERN ROAD | Dwelling | 72.0 | 71.6 | 72.4 | 0.4 | Negigigibe Adverse | 72.8 | 0.8 | Negligible Adverse | 58.5 | 58.2 | 59.3 |
| FLLAT 10,667, GREAT NORTHERN ROAD | Dwelling | 72.0 | ${ }^{71.6}$ | 72.4 | 0.4 | Negigigio Adverse | 72.8 |  | Negiligie Adverse | 58.5 | 58.2 | 59.3 |
| FLLAT 3 , 667, , GREAT NORTHERN ROAD | Dwelling | ${ }^{72.0}$ | ${ }_{71.6}$ | 72.4 72.4 | 0.4 0.4 | Negigigib Adverse | ${ }^{72.8}$ | 0.8 | $\frac{\text { Negigigle Adverse }}{\text { Negligiole Adverse }}$ | ${ }_{58,5}^{58.5}$ | - ${ }_{58,2}^{58.2}$ | $\stackrel{59.3}{59.3}$ |
| FLAT 4, 667, GREAT NORTHERN ROAD | welling | 72.0 | 71.6 | 72.4 | 0.4 | Negigigile Adverse | 72.8 | 0.8 | Negligible Adverse | 58.5 | 8.2 |  |
| FLAT 5, 667, GREAT NORTHERN ROAD | Dwelling | 72.0 | 71.6 | 72.4 | 0.4 | Negigiole Adverse | 72.8 | 0.8 | Negligible Adverse | 58.5 | 58.2 | 59.3 |
| FLAT 6, 667, GREAT NORTHERN ROAD | Wwelling | 72.0 | 71.6 | 72.4 | 0.4 | Negigigile Adverse | 72.8 | 0.8 | Negigioble Adverse | 58.5 | 58.2 | 59.3 |
| FLAT 7, 667, GREAT NORTHERN ROAD | Dwelling | 72.0 | 71.6 | 72.4 | 0.4 | Negigigile Adverse | 72.8 | 0.8 | Negigigile Adverse | 58.5 | 58.2 | 59.3 |
| FLAA 8,667 , GREA NOR THERN ROAD | Dweling | 72.0 | 71.6 | 72.4 | 0.4 | Negiligile Adverse | 72.8 | ${ }_{0}^{0.8}$ | Negiligile Adverse | 58.5 58.5 | -58.2 | 59.3 |
| FLLAT A, 678, , GREAT NORTHERN ROAD | ${ }^{\text {Dwelling }}$ Ding | ${ }^{72.0} 61.7$ | $\frac{71.6}{62.5}$ | 72.4 61.9 | 0.4 | Negigigile Adversse | ${ }^{72.8}$ | 1.0 | Negligigile Adverse | 49.3 | $\stackrel{58.2}{50.0}$ | 59.3 50.2 |
| FLAT B, 678, GREAT NORTHERN ROAD | Dwelling | 61.7 | 62.5 | 61.9 | 0.2 | Negigioble Adverse | 62.7 | 1.0 | Negligible Adverse | 49.3 | 50.0 | 50.2 |
| FLAT C, 678, GREAT NORTHERN ROAD | Dwelling | 61.7 | 62.5 | 61.9 | 0.2 | Negigiole Adverse | 62.7 | 1.0 | Negigiole Adverse | 49.3 | 50.0 | 50.2 |
| FLAT D, 678, GREAT NORTHERN ROAD | Deeling | 61.7 | 62.5 | 61.9 | 0.2 | Negigigile Adverse | 62.7 | 1.0 | Negigigile Adverse | 49.3 | 50.0 | 50.2 |
| FLAT E, 678, GREAT NORTHER R ROAD | Dwelling | ${ }_{61.7}^{617}$ | 62.5 62.5 | 61.9 619 | ${ }_{0}^{0.2}$ | Negigigle Adverse | 62.7 62.7 | 1.0 1.0 | Negiligle Adverse | 49.3 | 50.0 | 50.2 |
| FLAT G, 678, GREAT NORTHERN ROAD | Dwelling | 61.7 | 62.5 | 61.9 | 0.2 | Neogigigile Adverse | 62.7 | 1.0 | Neoligible Adverse | 49.3 | 50.0 | 50.2 |
| FLAT H, 678, GREAT NORTHERN ROAD | Dwelling | 61.7 | 62.5 | 61.9 | 0.2 | Negigigile Adverse | 62.7 | 1.0 | Negigigibe Adverse | 49.3 | 50.0 | 50.2 |
| FLAT A, 682, GREAT NORTHERN ROAD | Deeling | 71.7 | 72.4 | 72.0 | 0.3 | Negigigibe Adverse | 72.6 | 0.9 | Negligible Adverse | 58.3 | 58.9 | 59.1 |
| FLAA B, 682, GREA NORTHERN ROAD | Oweling | 71.7 | 72.4 72.4 | 72.0 | ${ }^{0.3}$ | Negigigio Adverse | ${ }_{72,6}^{726}$ | 0.9 | Negiligie Adverse | 58.3 58.3 | 5.9 | 59.1. |
| FLAT C, 682, GREAT NORTHERN ROAD | Dwelling | 71.7 717 | 72.4 72.4 | 72.0 72.0 | ${ }_{0}^{0.3}$ | Negligile Adverse | 72.6 72.6 | 0.9 | $\frac{\text { Negligible Adverse }}{\text { Negligible Adverse }}$ | 58.3 | 58.9 58.9 | 59.1 59.1 |
| FLAT A, 684, GREAT NORTHERN ROAD | Dwelling | 71.7 | 72.4 | 72.0 | 0.3 | Negigigile Adverse | 72.6 | 0.9 | Adverse | 58.3 | 8.9 |  |
| FLAT B, 684, GREAT NORTHERN ROAD | Dwelling | 71.7 | 72.4 | 72.0 | 0.3 | Negigigile Adverse | 72.6 | 0.9 | Negligible Adverse | 58.3 | 58.9 | 59.1 |
| FLAT C, 684, GREAT NORTHERN ROAD | Deelling | 71.7 | 72.4 | 72.0 | 0.3 | Negigioble Adverse | 72.6 | 0.9 | Negigioble Adverse | 58.3 | 58.9 | 59.1 |
| FLLAT E, 684, GREAT NORTHERN ROAD | Dwelling | 71.7 <br> 17.7 | 72.4 <br> 72.4 | ${ }^{72.0}$ | ${ }_{0}^{0.3}$ | Negigigile Adverse | ${ }^{72.6}$ | 0.9 | Negligigile Adverse | 58.3 | 58.9 | 59.1 |
| FLAT F, 684, GREAT NORTHERN ROAD | Deelling | 71.7 | 72.4 | 72.0 | 0.3 | Negigigile Adverse | 72.6 | 0.9 | Negiligile Adverse | 58.3 | 58.9 | 59.1 |
| CLATA, 686, GREAT NORTHERN ROAD | Dwelling | 71.7 | 72.4 724 | 72.0 | ${ }^{0.3}$ | Negiligle Adverse | 72.6 | 0.9 | Negigigle Adverse | 58.3 | 58.9 | 59.1 |
| FLAT C, 686, GREAT NORTHERN ROAD | Deweling | 71.7 <br> 71.7 | 72.4 72.4 | 72.0 72.0 | ${ }^{0.3}$ | Neogigioble Adverse | 72.6 72.6 | 0.9 | Negigible Adverse | ${ }^{58.3} 5$ | $\stackrel{58.9}{58.9}$ | 59.1 59.1 |
| FLAT D, 686, GREAT NORTHER R ROAD | Welling | ${ }^{717.7}$ | 72.4 | 72.0 | 0.3 | Negigigile Adverse | ${ }_{72.6}^{72.6}$ | 0.9 | Negligible Adverse | 58.3 | 58.9 | 59.1. |
|  | Dwelling | ${ }_{711.7}^{71.7}$ | 72.4 | 72.0 | ${ }_{0.3}^{0.3}$ | Negigigile Adverse | ${ }_{72.6}$ | 0.9 | Negigigible Adverse | ${ }_{58.3}^{58 .}$ | 58.9 | ${ }_{59.1}$ |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 <br> Lnight,outside | $\begin{gathered} \text { DS33 } \\ \text { Lnight,outside } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| FLAT A, 687, GREAT NORTHERN ROAD | Deeling | 74.9 | 74.1 | 75.4 | 0.5 | Negligible Adverse | 75.6 | 0.7 | Negiligibe Adverse | 61.1 | 60.4 | 61.8 |
| FLAT B, 687, GREAT NORTHERN ROAD | Dwelling | 74.9 | 74.1 74.1 | 75.4 754 | 0.5 0.5 | Negligible Adverse | 75.6 756 | 0.7 | Negligible Adverse | $\frac{61.1}{611}$ | 60.4 60.4 | $\frac{61.8}{6.18}$ |
| FLAAC, 687, GREAT NORTHER R ROAD | Dweling | 74.9 <br> 7.9 | 74.1 74.1 | 75.4 <br> 75.4 | 0.5 | Negligiole Adverse | ${ }_{75.6}$ | 0.7 | Neginigiole Adverse | ${ }_{61.1}^{61.1}$ | 60.4 | ${ }^{611.8} 61.8$ |
| FLAT E, 687, GREAT NORTHERN ROAD | Dweling | 74.9 | ${ }_{74.1}$ | 75.4 | 0.5 | Negligible Adverse | 75.6 | 0.7 | Negigigible Adverse | 61.1 | ${ }^{60.4}$ | ${ }^{61.8}$ |
| FLAT F., 687, GREAT NORTHERN ROAD | Dwelling | 74.9 | 74.1 | 75.4 | 0.5 | Neoligible Adverse | 75.6 | 0.7 | Negligible Adverse | 61.1 | 60.4 | 61.8 |
| FLAT A, 688, GREAT NORTHERN ROAD | Dwelling | 65.1 | 65.7 | 65.4 | 0.3 | Neoligible Adverse | 66.0 | 0.9 | Negligible Adverse | 52.3 | 52.9 | 53.1 |
| FLAT B, 688, GREAT NORTHERN ROAD | Dwelling | 65.1 | 65.7 | 65.4 | 0.3 | Negligible Adverse | 66.0 | 0.9 | Negilibile Adverse | 52.3 | 52.9 | 53.1 |
| FLAT C, 688, GREAT NORTHERN ROAD | Deeling | 65.1 | 65.7 | 65.4 | 0.3 | Negligible Adverse | 66.0 | 0.9 | Negiligile Adverse | 52.3 | 52.9 | 53.1 |
| FLAT D, 688, GREAT NORTHERN ROAD | Dwelling | 65.1 | 65.7 | 65.4 | 0.3 | Negligible Adverse | 66.0 | 0.9 | Negigigible Adverse | 52.3 | 52.9 | 53.1 |
| FLAT A, 689, GREAT NORTHERN ROAD | veling | 74.9 | 74.2 | 75.4 | 0.5 | Negligible Adverse | 75.7 | 0.8 | Negigioble Adverse | 61.1 | 60.5 | 61.9 |
| FLAT B, 689, GREAT NORTHERN ROAD | welling | 74.9 | 74.2 | 75.4 | 0.5 | Negligible Adverse | 75.7 | 0.8 | Negigioble Adverse | 61.1 | 60.5 | 61.9 |
| FLAT C, 689, GREAT NORTHERN ROAD | welling | 74.9 | 74.2 | 75.4 | 0.5 | Negligible Adverse | 75.7 | 0.8 | Negigioble Adverse | 61.1 | 60.5 | 61.9 |
| FLat D, 689, GREAT NORTHERN ROAD | Dwelling | 74.9 | 74.2 | 75.4 | 0.5 | Negligible Adverse | 75.7 | 0.8 | Negligible Adverse | 61.1 | 60.5 | 61.9 |
| FLAT E, 689, GREAT NORTHERN ROAD | Dwelling | 74.9 | 74.2 | 75.4 | 0.5 | Negligible Adverse | 75.7 | 0.8 | Adverse | 61.1 | 60.5 | 61.9 |
| FLAT F, 689, GREAT NORTHERN ROAD | Deelling | 74.9 | 74.2 | 75.4 654 | 0.5 | Negligiole Adverse |  |  | Negiligile Adverse | 61.1 | 60.5 | 61.9 |
| FLAT B, 690, GREAT NORTHERN ROAD | Dwelling | ${ }_{65.2}$ | ${ }_{65.6}$ | 65.4 | 0.2 | Neoligioble Adverse | ${ }_{66.1}$ | 0.9 | Neoligioble Adverse | 52.4 | 52.8 | 53.2 |
| FLAT C, 690, GREAT NORTHERN ROAD | Dwelling | 65.2 | 65.6 | 65.4 | 0.2 | Negligible Adverse | 66.1 | 0.9 | Negligible Adverse | 52.4 | 52.8 | 53.2 |
| FLAT D, 690, GREAT NORTHERN ROAD | Dwelling | 65.2 | 65.6 | 65.4 | 0.2 | Negigiole Adverse | 66.1 | 0.9 | Negligible Adverse | 52.4 | 52.8 | 53.2 |
| FLAT A, 692, GREAT NORTHERN ROAD | Dwelling | 64.1 | 64.6 | 64.4 | 0.3 | Negigigile Adverse | 65.1 | 1.0 | Negligible Adverse | 51.4 | 51.9 | 52.3 |
| FLAT B, 692, GREAT NORTHERN ROAD | welling | 64.1 | 64.6 | 64.4 | 0.3 | Negligible Adverse | 65.1 | 1.0 | Negiligibe Adverse | 51.4 | 51.9 | 52.3 |
| LLATC, G92, GREA MORTHERN ROAD | Dwelling | 64.1 | 64.6 | 64.4 | 0.3 | Negigigble Adverse | 65.1 | 1.0 | Negigigble Adverse | 51.4 | 51.9 | 52.3 |
| FLAT D, G92, GREA M ORTHERN ROAD | Oweling | 64.1 | ${ }^{64.6}$ | 64.4 | 0.3 | Negligiole Adverse | 65.1 | 10 | Negiligile Adverse | 51.4 | 51.9 | 52.3 |
| FLAT E, 692, GREAT NORITERN ROAD | Dwelling | 64.1 | 64.6 | 64.4 | 0.3 | Negiligile Adverse | 65.1 | 1.0 | Negiligile Adverse | 51.4 | 51.9 | 52.3 |
| FLAT F, 692, GREAT NORTHERN ROAD | Deelling | 64.1 | 64.6 | 64.4 | 0.3 | Negligible Adverse | 65.1 | 1.0 | Negigioble Adverse | 51.4 | 51.9 | 52.3 |
| FLAT A, 694 , GREAT NORTHERN ROAD | Dwelling | 69.9 | 70.4 | 70.1 | 0.2 | Neqligiole Adverse | 70.8 70.8 | ${ }^{0.9}$ | Negligiole Adverse | 56.6 | 57.1 571 | 57.5 |
| FLAT C, 694, GREAT NORTHERN ROAD | Dwelling | 69.9 | 70.4 | 70.1 | 0.2 | Neogigiole Adverse | 70.8 | 0.9 | Negiligile Adverse | 56.6 | 57.1 | 57.5 |
| FLAT D, 694, GREAT NORTHERN ROAD | Wwelling | 69.9 | 70.4 | 70.1 | 0.2 | Negligible Adverse | 70.8 | 0.9 | Negligible Adverse | 56.6 | 57.1 | 57.5 |
| FLAT A, 696, GREAT NORTHERN ROAD | Dwelling | 69.9 | 70.4 | 70.1 | 0.2 | Negligible Adverse | 70.8 | 0.9 | Negigible Adverse | 56.6 | 57.1 | 57.5 |
| FLAT B, 696, GREAT NORTHERN ROAD | welling | 69.9 | 70.4 | 70.1 | 0.2 | Neoligible Adverse | 70.8 | 0.9 | Negigiole Adverse | 56.6 | 57.1 | 57.5 |
| FLAT C, 696, GREAT NORTHERN ROAD | welling | 69.9 | 70.4 | 70.1 | 0.2 | Negiligibe Adverse | 70.8 | 0.9 | Negligible Adverse | 56.6 | ${ }^{57.1}$ | 57.5 |
| FLAT D, 696, GREAT NORTHERN ROAD | welling | 9 9 |  |  |  |  |  |  |  |  |  |  |
| FLAT E, 696, GREAT NORTHERN ROAD | Oweling | 69.9 | 70.4 | 70.1 | 0.2 | Negligigle Adverse | 70.8 | 0.9 | Negigigble Adverse |  |  | 5.5 |
| FLAT A G98, GREAT NORTHERN ROAD | Oweling | 69.9 | 70.4 | $\frac{70.1}{70.1}$ | 0.2 | Neqligiole Adverse | 70.8 | 0.9 | Negigigie Adverse | ${ }_{56.6}^{56.6}$ | 57.1 | 57.5 |
| FLAT B, 698, GREAT NORTHERN ROAD | Dwelling | 69.9 | 70.4 | 70.1 | 0.2 | Negigigile Adverse | 70.8 | 0.9 | Negligible Adverse | 56.6 | 57.1 | 57.5 |
| FLAT C, 698, GREAT NORTHERN ROAD | Dwelling | 69.9 | 70.4 | 70.1 | 0.2 | Neoligible Adverse | 70.8 | 0.9 | Negligible Adverse | 56.6 | 57.1 | 57.5 |
| FLAT E., 698, GREAT NORTHERN ROAD | Dwelling | 69.9 | 70.4 70.4 | 70.1 70.1 | 0.2 | Negigigle Adverse | 70.8 70.8 | 0.9 | $\frac{\text { Negliglie Adverse }}{\text { Negligible Adverse }}$ | -56.6 | ${ }^{57.1} 5$ | $\stackrel{57.5}{57.5}$ |
| FLAT F., 698, GREAT NORTHERN ROAD | Dwelling | 69.9 | 70.4 | 70.1 | 0.2 | Negigigile Adverse | 70.8 | 0.9 | Negligible Adverse | 56.6 | 57.1 | 57.5 |
| FLAT G, 698, GREAT NORTHERN ROAD | Dwelling | 69.9 | 70.4 | 70.1 | 0.2 | Negligible Adverse | 70.8 | 0.9 | Negligible Adverse | 56.6 | 57.1 | 57.5 |
| FLAT H, 698, GREAT NORTHERN ROAD | Dwelling | 69.9 | 70.4 70.4 | 70.1 70.1 | $\frac{0.2}{0.2}$ | Negigible Adverse | 70.8 70.8 | 0.9 | $\frac{\text { Negigioble Adverse }}{\text { Negligiole Adverse }}$ | ${ }_{5}^{56.6} 5$ | 57.1 57.1 | $\stackrel{57.5}{57.5}$ |
| FLAT A, 700, GREAT NORTHERN ROAD | Dwelling | 69.9 | 70.4 | 70.1 | 0.2 | Negligible Adverse | 70.8 | 0.9 | Negligible Adverse | 56.6 | 57.1 | 57.5 |
| FLAT B, 700, GREAT NORTHERN ROAD | Dwelling | 69.9 | 70.4 70.4 | 70.1 70.1 | 0.2 | Negligibl Adverse | 70.8 708 | 0.9 | Negligible Adverse | 56.6 | 57.1 57.1 | 57.5 |
| FLLAT D, 700, GREAT NORTHERN ROAD | Dwelling | 69.9 | 70.4 | $\frac{70.1}{70.1}$ | 0.2 | Neoligigile Adverse | 70.8 | 0.9 | Negiligiol Avverse | ${ }_{56.6}^{56.6}$ | ${ }_{5}^{57.1}$ | ${ }_{57.5}^{57.5}$ |
| FLAT A, 702 , GREAT NORTHERN ROAD | Dwelling | 73.6 | 74.0 | 73.8 | 0.2 | Negilibile Adverse | 74.4 | 0.8 | Negligible Adverse | 60.0 | 60.3 | 60.7 |
| FLAT B, 702, GREAT Northern | Dwelling | 3.6 | 74.0 | 73.8 | 0.2 | Negigigile Adverse | 74.4 | 0.8 | Negligible Adverse | 60.0 | 0. 3 | 60.7 |
| FLAT C, 702, GREAT NORTHERN ROAD |  | 73.6 | 74.0 | 73.8 | 0.2 | Negligible Adverse | 74.4 | 0.8 | Negiligile Adverse | 60.0 | 60.3 |  |
| FLAT D, 702, GREAT NORTHERN ROAD | Dweling | ${ }^{73.6}$ |  |  |  | Negigigie Adverse |  |  | Negligiole Adverse |  |  | 60.7 |
| FLAT B , 704, GREAT NORTHERN ROAD | Oweling | ${ }_{73.6}$ | ${ }_{74.0}^{74.0}$ | ${ }_{73,8}^{73.8}$ | 0.2 | Negigiole Adverse | 74.4 74.4 | 0.8 | Negigigie Adverse | 60.0 | 60.3 | 60.7 |
| FLAT C, 704, GREAT NORTHERN ROAD | Dwelling | 73.6 | 74.0 | 73.8 | 0.2 | Negiligile Adverse | 74.4 | 0.8 | Negilibile Adverse | 60.0 | 60.3 | 60.7 |
| FLAT D, 704, GREAT NORTHERN ROAD | Dwelling | 73.6 | 74.0 | 73.8 | 0.2 | Neoligible Adverse | 74.4 | 0.8 | Negligible Adverse | 60.0 | 60.3 | 60.7 |
| FLAT A, 706, GREAT NORIHERN ROAD | Dwelling | ${ }^{73.6}$ | 74.0 | ${ }^{73.8}$ | 0.2 | Negligible Adverse | 74.4 | 0.8 | Negigigile Adverse | 60.0 | 60.3 | 60.7 |
| FLLAT C, , 706, GREAT NORTHERN ROAD | Dwelling | 73.6 73 | 74.0 74.0 | ${ }^{73.8}$ | 0.2 0.2 | Negigible Adverse | 74.4 74.4 | 0.8 0.8 | $\frac{\text { Negigigle Adverse }}{\text { Neoligible Adverse }}$ | 60.0 60.0 | ${ }_{60.3}^{60.3}$ | 60.7 60.7 |
| FLAT D, 706, GREAT NORTHERN ROAD | Dwelling | 73.6 | 74.0 | 73.8 | 0.2 | Negigigile Adverse | 74.4 | 0.8 | Negligible Adverse | 60.0 | 60.3 | 60.7 |
| FLAT E, 706, GREAT NORTHERN ROAD | Wwelling | 73.6 | 74.0 | 73.8 | 0.2 | Neoligible Adverse | 74.4 | 0.8 | Negligible Adverse | 60.0 | 60.3 | 60.7 |
| FLat A, 008 , GREAT NORTHERN ROAD | Dweling | ${ }^{73.6}$ | 74.0 | 73.8 | 0.2 | Negligible Adverse | 74.4 | 0.8 | Negligible Adverse | 60.0 | 60.3 | 60.7 |
| FLAT B, 708, GREAT NORTHERN ROAD | Oweling | 73.6 | 74.0 74.0 | 73.8 738 | 0.2 | Negligiole Adverse | 74.4 74.4 | ${ }^{0.8}$ | Neogigiole Adverse | 60.0 | ${ }^{60.3}$ | 60.7 |
| FLAT D, 708, GREAT NORTHERN ROAD | Dwelling | 73.6 | 74.0 | 73.8 | 0.2 | Negiligile Adverse | 74.4 | 0.8 | Negligible Adverse | 60.0 | 60.3 | 60.7 |
| FLAT E, 708, GREAT NORTHERN ROAD | Dwelling | 73.6 | 74.0 | 73.8 | 0.2 | Negligible Adverse | 74.4 | 0.8 | Negligible Adverse | 60.0 | 60.3 | 60.7 |
| FLAT F, 708, GREAT NORTHERN ROAD | Welling | ${ }^{73.6}$ | 74.0 | 73.8 | 0.2 | Neoligible Adverse | 74.4 | 0.8 | Neoligible Adverse | 60.0 | 60.3 | 60.7 |
| FLAT A, 710, GREAT NORTHERN ROAD | Owelling | ${ }^{73.7}$ | 74.0 74.0 |  | 0.2 | Negligigle Adverse | 74.5 | 0.8 |  | 60.1 | 60.3 | 60.8 |
| FLaT B, 710, GREAT NORTHERN ROAD | weling | ${ }_{737}^{73,7}$ | 74.0 740 | 73.9 | 0.2 | Neqligiole Adverse | 74.5 | 0.8 |  | 60.1 | 60.3 | 60.8 |
| FLAT D . 710, GREAT NORTHERN ROAD | Dwelling | ${ }_{73,7}$ | ${ }_{74.0}^{74.0}$ | 73.9 | 0.2 | Neoligioble Adverse | ${ }_{74.5}^{74.5}$ | 0.8 | Neoligioble Adverse | ${ }_{60.1}^{60.1}$ | ${ }_{60.3}$ | 60.8 |
| FLAT E, 710, GREAT NORTHERN ROAD | Dwelling | 73.7 | 74.0 | 73.9 | 0.2 | Negigiole Adverse | 74.5 | 0.8 | Negiligible Adverse | 60.1 | 60.3 | 60.8 |
| FLAT A, 712, GREAT NORTHERN ROAD | Wwelling | 67.2 | 67.4 | 67.5 | 0.3 | Negligible Adverse | 68.1 | 0.9 | Negigioble Adverse | 54.2 | 54.4 | 55.0 |
| FLAT B, 72 , G GEAAT NORTHERN ROAD | weling | 67.2 | 67.4 | 67.5 | ${ }^{0.3}$ | Negligiole Adverse | ${ }_{68.1}^{68.1}$ | 0.9 | Negiligile Adverse | 54.2 | 年4.4.4 | 55.0 |
|  | Dwelling | ${ }^{67.2}$ | 67.4 67.4 | 67.5 | ${ }_{0}^{0.3}$ | Negligible Avverse | ${ }_{68.1}^{68.1}$ | 0.9 | $\frac{\text { Negligible Adverse }}{\text { Negligible Adverse }}$ | 54.2 54.2 | $\begin{array}{r}54.4 \\ 54.4 \\ \hline\end{array}$ | 55.0 55.0 |
| FLATE, 712, GREAT NORTHERN ROAD | Dwelling | 67.2 | 67.4 | 67.5 | 0.3 | Negigigile Adverse | 68.1 | 0.9 | Negligible Adverse | 54.2 | 54.4 | 55.0 |
| FLAT F, 712, GREAT NORTHERN ROAD | welling | 67.2 | 67.4 | 67.5 | 0.3 | Negligible Adverse | 68.1 | 0.9 | Negiligile Adverse | 54.2 | 54.4 | 55.0 |
| FLAT A, 714 , GREAT NORTHERN ROAD | Dweling | 67.4 674 | $\stackrel{67.6}{676}$ | ${ }_{6}^{67.6}$ | $\frac{0.2}{0.2}$ | Negigiole Adverse | $\frac{68.2}{68.2}$ | 0.8 | $\frac{\text { Negiligile Adverse }}{\text { Neofigiole Adverse }}$ | 54.4 54.4 | 54.6 54.6 | 55.1 55.1 |
| LAT C, 744, GREAT NORTHERN ROAD | pwelling | 67.4 | 67.6 | 67.6 | 0.2 | Negligible Adverse | 68.2 | 0.8 | Negligible Adverse | 54.4 | 54.6 | 55.1 |
| FLAT D, 744, GREAT NORTHERN ROAD | Weling | 67.4 | 67.6 | 67.6 | 0.2 | Negligible Adverse | 68.2 | 0.8 | Negligible Adverse | 54.4 | 54.6 | 55.1 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 <br> Lnight,outside | DM33 Lnight,outside | $\begin{gathered} \text { DS33 } \\ \text { Lnight,outside } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| FLAT E, 744, GREAT NORTHERN ROAD | Dwelling | 67.4 | 67.6 | 67.6 | 0.2 | Negiligile Adverse | 68.2 | 0.8 | Negigigile Adverse | 54.4 | 54.6 | 55.1 |
| FLAT F, 744, GREAT NORTHERN ROAD | Dweling | 67.4 | 67.6 | 67.6 | 0.2 | Negligible Adverse | 68.2 | 0.8 | Negigioble Adverse | 54.4 | 54.6 | 55.1 |
| FLAT A, 718, GREAT NORTHERN ROAD | Dwelling | 64.4 | 64.6 | 64.6 | 0.2 | Neoligible Adverse | 65.2 | 0.8 | Negigiolie Adverse | 51.7 | 51.9 | 52.4 |
| FLAT B, 7, 78, GREAT NORTHERN ROAD | Owelling | 64.4 | ${ }^{64.6}$ | ${ }_{64.6}^{6.6}$ | 0.2 | Negligible Adverse | 65.2 65 | 0.8 | Negigigle Adverse | 51.7 | 51.9 | 52.4 |
| FLAT C, 718, GREAT NORTHERN ROAD | Owelling | 64.4 | ${ }^{64.6}$ | ${ }^{64.6}$ | 0.2 | Negligible Adverse | 65.2 | 0.8 | Negigigile Adverse | 51.7 | 51.9 | 52.4 |
| FLAT D, 718, GREAT NORTHERN ROAD | Owelling | 64.4 | ${ }^{64.6}$ | ${ }^{64.6}$ | 0.2 | Negligible Adverse | $\begin{array}{r}65.2 \\ \hline 74\end{array}$ | 0.8 | Negigigle Adverse | 51.7 | 51.9 | 52.4 |
| FLaT A, 720, GREAT NORTHERN ROAD | Dwelling | 73.6 | 73.9 | 73.9 | 0.3 | Neoligible Adverse | 74.5 | 0.9 | Negigigibe Adverse | 60.0 | 60.2 | 60.8 |
| FLLAT B, 720, GREAT NORTHERN ROAD | Dwelling | 73.6 | 73.9 | 73.9 | 0.3 | Negligible Adverse | 74.5 | 0.9 | Negigiole Adverse | 60.0 | 60.2 | 60.8 |
| FLAT C, 720, GREAT NORTHERN ROAD | Welling | ${ }^{73.6}$ | 73.9 | 73.9 | 0.3 | Neoligible Adverse | 74.5 | 0.9 | Negigigibe Adverse | 60.0 | 60.2 | 60.8 |
| FLAT D, 720, GREAA NORTHERN ROAD | Oweling | ${ }_{73.6}$ | 73.9 | 73.9 | ${ }^{0.3}$ | Negigigile Adverse | 74.5 | 0.9 | Negigigibe Adverse | 60.0 | 60.2 | 60.8 |
| FLLAT A, 722, GREAT NORTHER R R ROAD | Owelling | ${ }^{73.6}$ | ${ }_{73.9}$ | ${ }^{73.8}$ | 0.3 | Neotigigibe Adverse | 74.5 74.4 | 0.8 | Negligioble Adverse | 60.0 | 60.2 | 60.8 60.7 |
| FLAT B, 722, GREAT NORTHERN ROAD | Dwelling | 73.6 | 73.9 | 73.8 | 0.2 | Neoligible Adverse | 74.4 | 0.8 | Neoligiole Adverse | 60.0 | 60.2 | 60.7 |
| FLAT C, 722, GREAT NORTHERN ROAD | welling | 73.6 | 73.9 | 73.8 | 0.2 | Negigiole Adverse | 74.4 | 0.8 | Negigiole Adverse | 60.0 | 60.2 | 60.7 |
| FLAT D, 722, GREAT NORTHERN ROAD |  | 73.6 | 73.9 | 73.8 | 0.2 | Negligiole Adverse | 74.4 | 0.8 | Neoligible Adverse | 60.0 | 60.2 | 60.7 |
| FLATE, 722, GREAT NORTHERN ROAD | Owelling | 73.6 73.6 | 73.9 73.9 | 73.8 73.8 | 0.2 | $\frac{\text { Negligible Adverse }}{\text { Neoligible Adverse }}$ | 74.4 74.4 | 0.8 0.8 | $\frac{\text { Negligible Adverse }}{\text { Neoligible Adverse }}$ | 60.0 60.0 | 60.2 60.2 | 60.7 60.7 |
| FLAT 1, 723, GREAT NORTHERN ROAD | Owelling | 72.3 | 71.9 | 73.2 | 0.9 | Negligible Adverse | 73.1 | 0.8 | Negligible Adverse | 58.8 | 58.4 | 59.5 |
| FLAT 10, 723, GREAT NORTHERN ROAD | Oweling | 72.3 | 71.9 | 73.2 | 0.9 | Negligible Adverse | 73.1 | 0.8 | Negligible Adverse | 58.8 | 58.4 | 59.5 |
| FLAT 2, 723, GREAT NORTHERN ROAD | Wweling | 72.3 | 71.9 | 73.2 | 0.9 | Negligible Adverse | 73.1 | 0.8 | Negligible Adverse | 58.8 | 58.4 | 59.5 |
| FLAT 4, | Owelling | ${ }_{72.3}$ | 71.9 | 73.2 <br> 73 | 0.9 | Negifigible Adverse | 73.1 <br> 73.1 | 0.8 | Negifigible Adverse | 58.88 58.8 | - ${ }_{\text {58.4. }}$ | $\stackrel{59.5}{59.5}$ |
| FLAT 5, 723, GREAT NORTHERN ROAD | Dwelling | 72.3 | 71.9 | ${ }^{73.2}$ | 0.9 | Neoligible Adverse | 73.1 | 0.8 | Negigigile Adverse | 58.8 | 58.4 | 59.5 |
| FLAT 6, 723, GREAT NORTHERN ROAD | Pwelling | 72.3 | 71.9 | 73.2 | 0.9 | Neoligible Adverse | 73.1 | 0.8 | Negiligile Adverse | 58.8 | 58.4 | 59.5 |
| FLAT 7, 723, GREAT NORI HERN ROAD | Welling | 12.3 | 71.9 | 73.2 | 0.9 | Negligible Adverse | 73.1 | 0.8 | Negiligibe Adverse | 58.8 | 58.4 | 59.5 |
| FLAT 8, 723, GREAT NORTHERN ROAD | Oweling | ${ }^{72.3}$ | 71.9 | 73.2 <br> 7.2 | 0.9 | $\frac{\text { Negligible Adverse }}{\text { Negligible Adverse }}$ | 73.1 73.1 | ${ }_{0}^{0.8}$ | Negiligibe Adverse | 58.8 5 5 | 58.4 | 59.5 |
| FLAT A, 724, GREAT NORTHERN ROAD | Dwelling | 73.4 | 73.7 | 73.6 | 0.2 | Negiligile Adverse | 74.3 | 0.9 | Neogigiole Adverse | 59.8 | 60.1 | 60.6 |
| FLAT B, 724, GREAT NORTHERN ROAD | Pwelling | 73.4 | 73.7 | 73.6 | 0.2 | Neeligible Adverse | 74.3 | 0.9 | Negigiolie Adverse | 59.8 | 60.1 | 60.6 |
| FLAT C, 724, GREAT NORTHERN ROAD | welling | 73.4 | 73.7 | 73.6 | 0.2 | Negligible Adverse | 74.3 | 0.9 | Negligible Adverse | 59.8 | 60.1 | 60.6 |
| FLAT D, 724, GREAT NORTHERN ROAD | Wweling | 73.4 | 73.7 | 73.6 | 0.2 | Neoligible Adverse | 74.3 | 0.9 | Neoligible Adverse | 59.8 | 60.1 | 60.6 |
| FLAT 1, 725. GREAT NORTHERN ROAD | Dwelling | 72.3 | 71.9 | 73.2 | 0.9 | Negligible Adverse | 73.1 | 0.8 | Negiligibe Adverse | 58.8 | 58.4 | 59.5 |
| FLaT 2, 725, GREAT NORTHERN ROAD | Dwelling | ${ }^{72.3}$ | 71.9 71.9 | 73.2 73.2 | 0.9 | $\frac{\text { Negigigie Adverse }}{\text { Nepligible Adverse }}$ | 73.1 73.1 | 0.8 | $\frac{\text { Negigigio Adverse }}{\text { Negligible Adverse }}$ | ${ }_{58.8}^{58.8}$ | 58.4 58.4 | ${ }_{59.5}^{59.5}$ |
| FLAT 4, 725, GREAT NORTHERN ROAD | Dwelling | 72.3 | 71.9 | 73.2 | 0.9 | Negligible Adverse | 73.1 | 0.8 | Negligible Adverse | 58.8 | 58 | 59.5 |
| FLAT 5, 725, GREAT NORTHERN ROAD |  | 72.3 |  |  |  | Negigigile Adverse |  |  |  | 58.8 |  |  |
| FLAT 6, 725, GREAT NORTHERN ROAD | Oweling | 12.3 | 71.9 | 73.2 | 0.9 | Negiligile Adverse | 73.1 | 0.8 | Negiligile Adverse | 58.8 | 58.4 | 59.5 |
| FLAT A. T26, GREAT NORTHERN ROAD | welling | 73.8 <br> 7.8 | 74.0 | ${ }_{74.0}^{740}$ | 0.2 | Negigigile Adverse | 74.6 <br> 746 | 0.8 | Negiquible Adverse | 60.2 | 60.3 | 60.9 |
| FLAT B, T26, G GEAAT NORTHERN ROAD | weling | 73.8 738 | 74.0 | ${ }_{74.0}$ | ${ }^{0.2}$ | Negigigile Adverse | 74.6 | ${ }^{0.8}$ | Negiligile Adverse | ${ }^{60.2}$ | 60.3 | 60.9 |
| FLLAT C, | ${ }^{\text {Owwelling }}$ | ${ }^{73.8}$ | 74.0 | 74.0 | 0.2 | $\frac{\text { Negigigle Adverse }}{\text { Negligile Adverse }}$ | 74.6 74.6 | 0.8 | Negigigibe Adverse | 60.2 | 60.3 60.3 | 60.9 60.9 |
| FLAT E, 726, GREAT NORTHERN ROAD | Dwelling | 73.8 | 74.0 | 74.0 | 0.2 | Negligible Adverse | 74.6 | 0.8 | Negiligible Adverse | 60.2 | 60.3 | 60.9 |
| FLAT F. 726, GREAT NORTHERN ROAD | Dwelling | 73.8 | 74.0 | 74.0 | 0.2 | Negligible Adverse | 74.6 | 0.8 | Negligible Adverse | 60.2 | 60.3 | 60.9 |
| FLAT 1, 227 , GREAT NORTHERN ROAD | Oweling | 72.3 | 71.9 | 73.2 | 0.9 | Negligible Adverse | 73.1 | 0.8 | Negigioble Adverse | 58.8 | 58.4 | 59.5 |
| FLat 10, | Oweling | ${ }^{72.3}$ | 71.9 | 73.2 | ${ }^{0.9}$ | $\frac{\text { Negligiole Adverse }}{\text { Neoligible Adverse }}$ | 73.1 73.1 | ${ }^{0.8}$ | Negigigile Adverse | 58.8. | 58.4 | 59.5 |
| FLAT 3, 727, GREAT NORTHERN ROAD | Dwelling | 72.3 | 71.9 | 73.2 | 0.9 | Negligible Adverse | 73.1 | 0.8 | Neogigible Adverse | 58.8 | 58.4 | 59.5 |
| FLAT 4, 727, GREAT NORTHERN ROAD | welling | ${ }^{72.3}$ | 71.9 | 73.2 | 0.9 | Negligible Adverse | ${ }^{73.1}$ | 0.8 | Negigigibe Adverse | 58.8 | 58.4 | 59.5 |
| LAT 5, 727, GREAT NORTHERN ROAD | Wwelling | 72.3 | 71.9 | 73.2 | 0.9 | Neoligible Adverse | 73.1 | 0.8 | Negigigile Adverse | 58.8 | 58.4 | 59.5 |
| FLAT 6, 727, GREAT NORTHERN ROAD | Oweling | 72.3 | 71.9 | 73.2 | 0.9 | Negiligibe Adverse | 73.1 | 0.8 | Negiligible Adverse | 58.8 | 58.4 | 59.5 |
|  | Oweling | ${ }_{72.3}$ | 71.9 71.9 | 73.0 73.2 | 1.0 | Menilior Adverse | 72.9 73.1 | 0.9 | $\frac{\text { Negigigie Adverse }}{\text { Negligible Adverse }}$ | -58.5 | -58.3 | 59.3 |
| FLAT 9, 727, GREAT NORTHERN ROAD | Dwelling | 72.3 | 71.9 | 73.2 | 0.9 | Negligible Adverse | 73.1 | 0.8 | Negligible Adverse | 58.8 | 58.4 | 59.5 |
| FLAT A, 728, GREAT NORTHERN ROAD | Oweling | ${ }^{73.8}$ |  |  | 0.2 | Negligible Adverse |  |  | Negiligibe Adverse | 60.2 |  |  |
| FLLAT C, 7288, GREAT NORTHERER ROAD | Oweling | ${ }_{73.8}$ | 74.0 74.0 | 74.0 74.0 | 0.2 | Neoligiobie Adverse | 74.6 <br> 7.6 | 0.8 | Neoligigibe Adverse | 60.2 | 60.3 | 60.9 |
| FLAT D, 728, GREAT NORTHERN ROAD | Dwelling | 73.8 | 74.0 | 74.0 | 0.2 | Negigigile Adverse | 74.6 | 0.8 | Negligible Adverse | 60.2 | 60.3 | 60.9 |
| FLAT 1,729, GREAT NORTHERN ROAD | Dwelling | 72.0 | 71.7 | 73.0 | 1.0 | Minor Adverse | 72.9 | 0.9 | Negigiole Adverse | 58.5 | 58.3 | 59.3 |
| FLAT 10, 729, GREAT NORTHERN ROAD | Oweling | 72.0 | 71.7 | 73.0 | 1.0 | Minor Adverse | 72.9 | 0.9 | Negigigile Adverse | 58.5 | 58.3 | 59.3 |
| (fLAT 2, 729, GREAT NORTHERN ROAD | ${ }^{\text {Dwelling }}$ Dowling | ${ }^{72.0}$ | ${ }_{71.7}^{71.7}$ | ${ }^{73.0} 7$ | 1.0 | Minor Adverse | 72.9 72.9 | 0.9 | $\frac{\text { Negligible Adverse }}{\text { Negligible Adverse }}$ | 58.5 58.5 | ${ }_{58.3}^{58.3}$ | $\stackrel{59.3}{59.3}$ |
| FLAT 4, 729, GREAT NORTHERN ROAD | Dwelling | 72.0 | 71.7 | 73.0 | 1.0 | Minor Adverse | 72.9 | 0.9 | Negigiole Adverse | 58.5 | 58.3 | 59.3 |
| FLaA 5, 729, GREAT NORTHERN ROAD | Dwelling | 72.0 72.0 | $\begin{array}{r}71.7 \\ \hline 71.7\end{array}$ | 73.0 73.0 | 1.0 1.0 | Minor Adverse | 72.9 | 0.9 | Negigiole Adverse | 58.5 58.5 | 58.3 58.3 | 59.3 59.3 |
| FLLAT 7, 729, GREAT NORTHERN ROAD | Dwelling | 72.0 | 71.7 | 73.0 | 1.0 | Minor Adverse | 72.9 | 0.9 | Negligible Adverse | 58.5 | 58.3 | 59.3 |
| FLAT 88, 729, GREAT NORTHERN ROAD | Dwelling | 72.0 72.0 | 71.7 71.7 | 73.0 73.0 | 1.0 1.0 | Minor Adverse | 72.9 | 0.9 | $\frac{\text { Negigigib Adverse }}{\text { Negigible Adverse }}$ | 58.5 58.5 | 58.3 58.3 | 59.3 59.3 |
| FLaT A, 730, GREAT NORTHERN ROAD | Dwelling | 68.7 | 68.5 | 68.9 | 0.2 | Nealiaible Adverse | 69.5 | 0.8 | Negiligile Adverse | 55.6 | 55.4 | 56.3 |
| FLAT B, 730, GREAA NORTHERN ROAD | weling | ${ }_{687}^{68.7}$ | 68.5 |  | ${ }^{0.2}$ | Negigigie Adverse | 69.5 | ${ }_{0}^{0.8}$ | Negigigie Adverse | 55.6 |  | 56.3 |
| FLAT D. 730, GREAT NORTHERN ROAD | Dwelling | 68.7 | 68.5 | 68.9 | 0.2 | Negligibile Adverse | 69.5 | 0.8 | Neogigible Adversse | ${ }_{55.6}$ | 55.4 | 56.3 |
| FLAT E, 730, GREAT NORTHERN ROAD | Dwelling | 68.7 | 68.5 | 68.9 | 0.2 | Neoligible Adverse | 69.5 | 0.8 | Negigiolie Adverse | 55.6 | 55.4 | 56.3 |
| FLAT F, 730, GREAT NORTHERN ROAD | Oweling | 68.7 | 68.5 | 68.9 | 0.2 | Negigigile Adverse | 69.5 | 0.8 | Negigigibe Adverse | 55.6 | 55.4 | 56.3 |
|  | Owelling | 72.0 | 71.7 71.7 | 73.0 | 1.0 1.0 | Minor Adverse | 72.9 | 0.9 | Negigigibe Adverse | 58.5 <br> 58.5 | - ${ }_{\text {58.3 }}^{58}$ | ${ }_{\text {599.3 }}$ |
| FLAT 3, 731, GREAT NORTHERN ROAD | Dwelling | 72.0 | 71.7 | 73.0 | 1.0 | Minor Adverse | 72.9 | 0.9 | Negigiolie Adverse | 58.5 | 58.3 | 59.3 |
| LAT 4, 731, GREAT NoRTHERN ROAD | Dwelling | 72.0 | 71.7 | 73.0 730 | 1.0 | Minor Adverse | 72.9 | 0.9 | Negligible Adverse | 58.5 | 58.3 | 59.3 |
| FLAT 6, 731, GREAT NORTHERN ROAD | Dwelling | 72.0 | 71.7 | 73.0 | 1.0 | Minor Adverse | 72.9 | 0.9 | Negigigible Adverse | ${ }_{58.5}$ | 58.3 | ${ }_{59.3}$ |
| FLAT A, 732, GREAA NORTHERN ROAD | Dwelling | 67.2 | ${ }_{6}^{67.1}$ | 67.5 | 0.3 | Negligible Adverse | 68.0 | 0.8 | Negiligibe Adverse | 54.2 | 54.11 | 54.9 |
|  | Dwelling | ${ }^{67.2}$ | ${ }^{67.1}$ | ${ }_{67.5}^{67.5}$ | ${ }_{0.3}^{0.3}$ | Negiligibile Adverse | 68.0 68.0 | 0.8 | Negigigibe Adverse | - ${ }_{\text {54.2 }}$ | ${ }_{54.1}^{54.1}$ | - 54.9 |
| FLAT D, 732, GREAT NORTHERN ROAD | Wwelling | 67.2 | 67.1 | 67.5 | 0.3 | Negligible Adverse | 68.0 | 0.8 | Negligible Adverse | 54.2 | 54.1 | 54.9 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 <br> Lnight,outside | DM33 Lnight,outside | DS33 Lnight,outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| FLAT E, 732, GREAT NORTHERN ROAD | Dwelling | 67.2 | 67.1 | 67.5 | 0.3 | Negigigile Adverse | 68.0 | 0.8 | Negiligile Adverse | 54.2 | 54.1 | 54.9 |
| FLAT F, 732, GREAT NORTHERN ROAD | Oweling | 67.2 | 67.1 | 67.5 | 0.3 | Negigioble Adverse | 68.0 | 0.8 | Negligible Adverse | 54.2 | 54.1 | 54.9 |
| FLAT G, 732, GREAT NORTHERN ROAD | Dwelling | 67.2 | 67.1 | 67.5 | 0.3 | Negigigile Adverse | 68.0 | 0.8 | Negiligile Adverse | 54.2 | 54.1 | 54.9 |
| FLAT H, 732, GREAA NORTHERN ROAD | Oweling | ${ }_{67.2}^{672}$ | ${ }^{67.1}$ | 67.5 675 | 0.3 | Negigigle Adverse | 68.0 | 0.8 | Negigigle Adverse | 54.2 | 54.1 | 54.9 |
| FLAT IT, 732, GREAT NORTHERN ROAD | Deeling | 67.2 | ${ }^{67.1}$ | ${ }^{67.5}$ | 0.3 | Negigigile Adverse | 68.0 | 0.8 | Negligible Adverse | 54.2 | 54.1 | 54.9 |
| FLAT 1, 733, GREAT NORTHERN ROAD | Delling | 72.4 | ${ }_{72.1} 7$ | ${ }^{73.4}$ | 1.0 | Minor Adverse | ${ }_{7}^{73.3}$ | 0.9 | Negigigle Adverse | 58.9 | 年5.6. | 59.7 |
| FLAT 2, 733, GREAT NORTHERN ROAD | Dwelling | 72.4 | 72.1 | 73.4 | 1.0 | Minor Adverse | ${ }^{73.3}$ | 0.9 0.9 | Negligibl Adverse | 58.9 58.9 | 58.6 58.6 | 59.7 59.7 |
| FLAT 4, 733, GREAT NORTHERN ROAD | Dwelling | 72.4 | ${ }_{72.1}$ | 73.4 73.4 | 1.0 1.0 | Minoror Adverse | 73.3 <br> 73 | 0.9 | Negigigibe Adverse | 58.9 <br> 8.9 | 58.6 58.6 | 59.7 59.7 |
| FLAT 5, 733, GREAT NORTHERN ROAD | Dwelling | 72.4 | ${ }_{72.1}$ | ${ }^{73.4}$ | 1.0 | Minor Adverse | ${ }^{73.3}$ | 0.9 | Negiligibe Adverse | 58.9 | 58.6 | 59.7 |
| FLAT 6, 733, GREAT NORTHERN ROAD | Dwelling | 72.4 | 72.1 | 73.4 | 1.0 | Minor Adverse | 73.3 | 0.9 | Negiligible Adverse | 58.9 | 58.6 | 59.7 |
| FLATA, 734, GREAT NORTHERN ROAD | Dwelling | 66.6 66.6 | 66.6 66.6 | 66.9 66.9 | 0.3 0.3 | Negiligib Adverse Negioigle Adverse | 67.4 674 | 0.8 0.8 | Negligible Adverse Nefigiole Adverse | 53.7 | 53.7 <br> 537 <br> 5 | $\begin{array}{r}54.4 \\ 54.4 \\ \hline\end{array}$ |
| FLAT C, 734, GREAT NORTHERN ROAD | Dwelling | 66.6 | 66.6 | 66.9 | 0.3 | Neogigioble Adverse | 67.4 | 0.8 | Negligiole Adverse | $\begin{array}{r}\text { 53.7 } \\ \hline\end{array}$ | ${ }_{53.7}$ | 54.4 |
| FLAT D, 734, GREAT NORTHERN ROAD | welling | 66.6 | 66.6 | 66.9 | 0.3 | Negligible Adverse | 67.4 | 0.8 | Negiligibe Adverse | 53.7 | 53.7 | 54.4 |
| FLAT E, 734, GREAT NORTHERN ROAD | veling | 66.6 | 66.6 | 66.9 | ${ }^{0.3}$ | Negligiole Adverse | 67.4 | 0.8 | Negiligible Adverse | 53.7 | 53.7 | 54.4 |
| FLAT 1, 735, GREAT NORTHERN ROAD | Deelling | 72.4 | ${ }^{72.1}$ | 73.4 |  | Minor Adverse | 73.3 | 0.9 | Negiligible Adverse | 58.9 | 58.6 |  |
| FLAT 10, 735, GREAT NORTHERN ROAD | Oweling | 72.4 | 72.1 | 73.4 | 1.0 | Minor Adverse | ${ }^{73.3}$ |  | Negligigile Adverse | 58.9 |  | 59.7 |
| FLaT 2, 735, GREAT NORTHERN ROAD | Dweling | 72.4 | 72.1 | ${ }^{73.4}$ | 1.0 | Minor Adverse | ${ }^{73.3}$ | 0.9 | Negiligile Adverse | 58.9 |  | 59.7 |
| FLAT 3 735, GREAT NORTHERN ROAD | Dweling | 72.4 | ${ }_{72.1}$ | ${ }^{73.4}$ | 1.0 | Minor Adverse | ${ }^{73.3}$ | 0.9 | Negiligile Adverse | 58.9 | 58.6 | 59.7 597 |
| FLAT 4, 735, GREAT NORTHERN ROAD | weling | 72.4 | ${ }_{72.1}$ | ${ }^{73.4}$ | 1.0 | Minor Adverse | 73.3 773 | 0.9 | Negiligie Aaverse | 58.9 | 58.6 | 5997 |
| (fLAT 5, 735, GREA NORTHERN ROAD | Swelling | 72.4 72.4 | $\frac{72.1}{72.1}$ | 73.4 73.4 | 1.0 | Minor Adverse | ${ }_{73,3}^{73.3}$ | 0.9 | Negiligib Adverse | 58.9 | 58.6 58.6 | 59.7 |
| FLAT 7, 735, GREAT NORTHERN ROAD | Dwelling | 72.4 | 72.1 | 73.4 | 1.0 | Minor Adverse | 73.3 | 0.9 | Negiligile Adverse | 58.9 | 58.6 | 59.7 |
| FLAT 8, 735, GREAT NORTHERN ROAD | Dwelling | 72.4 | 72.1 | 73.4 | 1.0 | Minor Adverse | 73.3 | 0.9 | Negigigible Adverse | 58.9 | 58.6 | 59.7 |
| FLAT 9, 735, GREAT NORTHERN ROAD | Dwelling | 72.4 | 72.1 | 73.4 | 1.0 | Minor Adverse | 73.3 | 0.9 | Negiligible Adverse | 58.9 | 58.6 | 59.7 |
| FLATA, 736, GREAT NORTHERN ROAD | Dweling | ${ }^{73.1}$ | 73.4 | 73.4 734 | ${ }_{0}^{0.3}$ | Negligile Adverse | 74.0 74.0 | ${ }_{0}^{0.9}$ | Negligible Adverse | 59.5 | 59.8 | ${ }^{60.3}$ |
| FLAT C, 736, GREAT NORTHERN ROAD | Dwelling | 73.1 | 73.4 | 73.4 | 0.3 | Negiligile Adverse | 74.0 | 0.9 | Negiligiole Adverse | 59.5 | 59.8 | 60.3 |
| FLAT D, 736, GREAT NORTHERN ROAD | Wwelling | 73.1 | 73.4 | 73.4 | 0.3 | Negiligile Adverse | 74.0 | 0.9 | Negigiolile Adverse | 59.5 | 59.8 | 60.3 |
| FLAT E, 736, GREAT NORTHERN ROAD | Welling | 73.1 | 73.4 | ${ }^{7} 3.4$ | 0.3 | Negigigibe Adverse | 74.0 | 0.9 | Negigioble Adverse | 59.5 | 59.8 | 60.3 |
| FLAT A, 738, GREAT NORTHERN ROAD | Deelling | 72.4 | 72.6 | 72.7 | ${ }^{0.3}$ | Negigigibe Adverse | 73.2 | 0.8 | Negiligibie Adverse | 58.9 | 59.1 | 59.6 |
| FLeat B, | Dwelling | 72.4 | 72.6 72.6 | 72.7 72.7 | ${ }_{0.3}^{0.3}$ | $\frac{\text { Negigigibe Adverse }}{\text { Negioible Adverse }}$ | 73.2 73.2 | 0.8 | Negigigib Adverse | 58.9 58.9 | - 59.1 | 59.6 |
| FLAT D, 738, GREAT NORTHERN ROAD | Dwelling | 72.4 | 72.6 | 72.7 | 0.3 | Negiligile Adverse | 73.2 | 0.8 | Negligible Adverse | 58.9 | 59.1 | 59.6 |
| FLAT E, 738, GREAT NORTHERN ROAD |  | 72.4 | 72.6 | 72.7 | 0.3 | Negigigile Adverse | 73.2 |  | Negiligile Adverse | 3.9 |  |  |
| FLAT A, 740, GREAT NORTHERN ROAD | Dwelling | 72.4 | 72.6 | 72.7 | 0.3 | Negigigile Adverse | 73.2 | 0.8 | Negiligile Adverse | 58.9 | 59.1 | 59.6 |
| FLAT B, 740, GREAT NORTHERN ROAD | Dwelling | 72.4 | 72.6 | 72.7 | 0.3 | Negigioble Adverse | 73.2 | 0.8 | Negigioble Adverse | 58.9 | 59.1 | 59.6 |
| FLAT D, 700, 7 , GREAT NORTHERER ROAD | Dwelling | 72.4 | ${ }^{72.6}$ | 72.7 72.7 | ${ }_{0}^{0.3}$ | Neogigigle Adverse | 73.2 73 | 0.8 | Negligigile Adverse | 58.9 58.9 | 59.1 | 59.6 |
| FLAT E, 740, GREAT NORTHERN ROAD | Deelling | 72.4 | 72.6 | ${ }^{72.7}$ | 0.3 | Negigigile Adverse | ${ }^{73.2}$ | 0.8 | Negigiolie Adverse | 58.9 | 59.1 | 59.6 |
| FLAT F. 740, GREAT NORTHERN ROAD | Dwelling | 72.4 | 72.6 | 72.7 | 0.3 | Negigigile Adverse | 73.2 | 0.8 | Negiligile Adverse | 58.9 | 59.1 | 59.6 |
| 124, GREA NORTHERN ROAD | Dwelling | 72.0. | ${ }^{72.5}$ | ${ }^{72.3}$ | 0.3 0.4 | Negigigle Adverse | 72.5 72.7 | 0.5 | Negigigle Adverse | 58.5 58.7 | $\stackrel{59.0}{59.1}$ | 59.0. |
| 128, GREAT NORTHERN ROAD | Deelling | 72.5 | 72.9 | 72.8 | 0.3 | Negiligibe Adverse | 72.9 | 0.4 | Negigioble Adverse | 59.0 | 59.3 | 59.3 |
| 130, GREAT NORTHERN ROAD | Dwelling | 72.5 72.5 | 72.8 72.8 | 72.8 72.8 | 0.3 0.3 | $\frac{\text { Negigigib Adverse }}{\text { Negigible Adverse }}$ | 72.9 72.8 | 0.4 0.3 | $\frac{\text { Negiligib Adverse }}{\text { Negigible Adverse }}$ | 59.0 59.0 | 59.3 59.3 | ${ }_{59.3}^{59.3}$ |
| 134, GREAT NORTHERN ROAD | Dwelling | 72.6 | 72.8 | 72.9 | 0.3 | Negiligile Adverse | 72.9 | 0.3 | Negiligible Adverse | 59.1 | ${ }_{59.3}$ | 59.3 |
| 136, GREAT NORTHERN ROAD | Deelling | 72.7 | 72.9 | 72.9 | 0.2 | Negigigibe Adverse | 72.9 | 0.2 | Negigigile Adverse | 59.2 | 59.3 | 59.3 |
| 138, GREAT NORTHERN ROAD | Dwelling | 72.7 | 72.8 | 72.9 | 0.2 | Negiligibe Adverse | 72.9 | 0.2 | Negiligibe Adverse | 59.2 | 59.3 | 59.3 |
| 142, GREAT NORTHERN ROAD | Dwelling | ${ }_{72.6}$ | ${ }_{72.7}$ | ${ }_{72.9}$ | ${ }_{0}^{0.3}$ | Negigigib Adverse | 72.7 <br> 72.8 | 0.2 | Negigigib Adverse | $\stackrel{59.0}{59.1}$ | - 59.2 | $\stackrel{59.2}{59.3}$ |
| 144, GREAT NORTHERN ROAD | Dwelling | 72.6 | 72.8 | 72.9 | 0.3 | Negigioble Adverse | 72.8 | 0.2 | Negiligible Adverse | 59.1 | 59.3 | 59.3 |
| 1466 GREAT NORTHERN ROAD | Dweling | 72.7 | 72.8 | 72.9 | 0.2 | Negiligibe Adverse | 72.9 | 0.2 | Negiligile Adverse | 59.2 | 59.3 |  |
| 148, GREAT NORTHERN ROAD | Dweling | 72.8 | 72.9 | 73.0 | 0.2 | Negiligibe Adverse | 73.0 | 0.2 | Negiligile Adverse | 59.3 | 59.3 | 59.4 |
|  | Dwelling | ${ }^{72.8}$ | ${ }^{73.0}$ | ${ }^{73.1}$ | ${ }_{0}^{0.3}$ | $\frac{\text { Negigible Adverse }}{\text { Neoligible Adverse }}$ | ${ }^{73.0}$ | 0.2 | $\frac{\text { Negigiole Adverse }}{\text { Negligible Adverse }}$ | 59.3 58.8 | 59.4 59.0 | 59.4 59.1 |
| 154, GREAT NORTHERN ROAD | Dwelling | 71.8 | 72.1 | 72.1 | 0.3 | Negligible Adverse | 72.1 | 0.3 | Negiligile Adverse | 58.4 | 58.6 | 58.6 |
| 171, GREAT NORTHERN ROAD | Dwelling | 70.0 | 70.9 | 70.2 | 0.2 | Negigigile Adverse | 70.9 | 0.9 | Negigioble Adverse | 56.7 | 57.5 | 57.5 |
| 173, GREA NORTHER R ROAD | Dwelling | ${ }_{71.2}$ | 72.0 | ${ }^{71.4}$ | ${ }_{0}^{0.2}$ | Negigible Adverse | ${ }^{72.0}$ | 0.8 | $\frac{\text { Negigible Adverse }}{\text { Neoligible Adverse }}$ | 57.8 57.8 | ${ }_{58.5}^{58.5}$ | 58.5 |
| 179, GREAT NORTHERN ROAD | Dwelling | 72.8 | 73.3 | 73.1 | 0.3 | Negigioble Adverse | 73.3 | 0.5 | Negligible Adverse | 59.3 | 59.7 | 59.7 |
| 179, GREAT NORTHER R ROAD | Deeling | 72.8 | ${ }^{73.3}$ | ${ }_{7}^{73.1}$ | 0.3 | Negigigile Adverse | ${ }_{7}^{73.3}$ | 0.5 | Negligible Adverse | 59.3 | 59.7 | 59.7 |
| 179, GREAT NORTHERN ROAD | Dwelling | 72.8 <br> 72.8 | 73.3 73.2 | 73.1 73.1 | ${ }_{0}^{0.3}$ | Negigible Adverse | ${ }^{73.3}$ | 0.5 | Negigible Adverse | ${ }^{59.3}$ | 59.6 | ${ }_{59.6}^{59.7}$ |
| 181, GREAT NORTTERN ROAD | Dwelling | 72.8 | 73.2 | ${ }^{73.2}$ | 0.4 | Negligible Adverse | 73.3 | 0.5 | Negligible Adverse | 59.3 | 59.6 | 59.7 |
| 1 181, GREAT NORTHERN ROAD | Deelling | 72.8 | 73.2 | 73.2 | 0.4 | Negiligibe Adverse | ${ }^{73.3}$ | 0.5 | Negligible Adverse | 59.3 | 59.6 | 59.7 |
| 181, GREAT NORTHER N ROAD | Dwelling | 72.8 | 73.2 | 73.2 | 0.4 | Negigigib Adverse | 73.3 | 0.5 | Negiligile Adverse | 59.3 | 59.6 | 59.7 |
| 181, GEEAT NORTHERN ROAD | Dwelling | 72.8 72.8 | 73.2 73.2 | 73.2 73.2 | 0.4 0.4 | $\frac{\text { Negigigio Adverse }}{\text { Negiobible Adverse }}$ | 73.3 <br> 73 | 0.5 | Negigigib Adverse | ${ }_{59.3}^{59.3}$ | ${ }^{59.6}$ | ${ }^{599.7}$ |
| 181, GREAT NORTHERN ROAD | Dwelling | 72.8 | 73.2 | 73.2 | 0.4 | Negigioble Adverse | 73.3 | 0.5 | Negiligible Adverse | 59.3 | 59.6 | 59.7 |
| 181, GREAT NORTHERN ROAD | Oweling | 72.8 | 73.2 | ${ }^{73,2}$ | 0.4 | Negigigile Adverse | ${ }^{73,3}$ | 0.5 | Negigigibe Adverse | 59.3 | 59.6 | 59.7 |
|  | Dwelling | 73.2 <br> 7 | 73.5 <br> 73 | 73.5 <br> 73.5 | ${ }_{0}^{0.4}$ | Neoligiole Adverse | ${ }_{7}{ }_{7} 7.6$ | 0. 0.4 | Neoligioble Adverse | 59.6 | 59.9 | 50.0 |
| 183, GREAT NORTHERN ROAD | Dwelling | 73.2 | 73.6 736 | 73.5 735 | ${ }^{0.3}$ | Negiligile Adverse | 73.6 736 | 0.4 0.4 | Negligiole Adverse | 59.6 | 60.0 | 60.0 |
|  | Dwelilig | 73.2 <br> 72.8 | 73.6 73.2 | 73.5 73.2 | ${ }_{0}^{0.4}$ | Neoligiole Adverse | ${ }_{73.3}$ | 0.5 <br> 0.4 | Negligible Adverse | 59.3 | 59.6 | 59.7 |
| 183, GREAT NORTHERN ROAD | Dwelling | 73.2 | ${ }^{73.6}$ | 73.5 | ${ }^{0.3}$ | Negligible Adverse | 73.6 73 | 0.4 | Negiligile Adverse | 59.6 | 60.0 | 60.0 |
| 183, GREA N NRTITER NOAD | ${ }^{\text {Dwelling }}$ Dowling | ${ }^{73.2}$ | ${ }^{73.6}$ | ${ }^{73.5}$ | 0.3 | Negigibil Adverse | ${ }^{73.6}$ | 0.4 | Negiligibile Avverse | ${ }_{59} 59.6$ | 60.0 | 60.0 |
| 183, GREAT NORTHER R ROAD | Welling | ${ }_{7}^{73.2}$ | ${ }_{7}^{73.6}$ | ${ }_{7}^{73.5}$ | 0.3 | Negigigile Adverse | ${ }_{7}^{73.6}$ | 0.4 | Negligible Adverse | 59.6 | 60.0 | 60.0 |
| 183, GREAT NORITERN NOAD | Oweiling | ${ }_{73.6}$ | ${ }_{73.8}$ | ${ }_{73.9}$ | 0.3 | Negigigile Adverse | ${ }_{73.9}$ | 0.3 | Negigigile Adverse | 60.0 | ${ }^{590.6}$ | ${ }_{60.2}$ |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 <br> Lnight,outside | DS33 Lnight,outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 185, GREAA NORTHERN ROAD | Deeling | ${ }^{73.6}$ | 73.8 | 73.9 | 0.3 | Negigigile Adverse | 73.9 | ${ }^{0.3}$ | Negigigle Adverse | 60.0 | 60.2 | 60.2 |
| 187, GREAT NORTHERN ROAD | ${ }^{\text {Deweling }}$ | ${ }^{73,7}$ | 73.9 | 74.0 | ${ }_{0}^{0.3}$ | Negiligile Adverse | 74.0 74.0 | ${ }_{0}^{0.3}$ | Negiligile Adverse | $\frac{60.1}{60.1}$ | $\frac{60.2}{602}$ | $\frac{60.3}{603}$ |
| 189, GREAT NORTHERN ROAD | Dwelling | ${ }_{73.7}$ | ${ }_{73.9}$ | ${ }_{74.0}$ | ${ }_{0}^{0.3}$ | $\frac{\text { Negigigie Adverse }}{\text { Neoligibe Adverse }}$ | 74.0 | ${ }_{0}^{0.3}$ | Neoligigie Adverse | ${ }_{60.1}^{60.1}$ | $\frac{60.2}{60.2}$ | 60.3 |
| 193, GREAT NORTHERN ROAD | Dwelling | 73.7 | 73.9 | 74.0 | 0.3 | Negligible Adverse | 74.0 | 0.3 | Neoligiole Adverse | 60.1 | 60.2 | 60.3 |
| 195, GREAT NORTHERN ROAD | Dwelling | 73.6 | ${ }^{73.7}$ | 73.8 | 0.2 | Negigigile Adverse | 73.8 | 0.2 | Negigigile Adverse | 60.0 | 60.1 | 60.2 |
| 197, GREAT NORTHERN ROAD | Dwelling | 73.5 | 73.7 | 73.8 | 0.3 | Negigigile Adverse | 73.8 | 0.3 | Negigigile Adverse | 59.9 | 60.1 | 60.2 |
| 199, GREAT NORTHERN ROAD | Dwelling | 73.5 | 73.7 | 73.8 | 0.3 | Negigiole Adverse | 73.7 | 0.2 | Negigiole Adverse | 59.9 | 60.1 | 60.1 |
| 201, GREAT NORTHERN ROAD | Deeling | 73.5 | ${ }^{73,7}$ | 73.8 | 0.3 | Negiligibe Adverse | ${ }_{73,7}$ | 0.2 | Negiligibe Adverse | 59.9 | ${ }_{60.1}^{602}$ | 60.1 |
| 203, G GREAT NORTHERNT NORTHERN ROAD | ${ }^{\text {Owelling }}$ Dowling | ${ }_{73.6}$ | ${ }^{73.8}$ | ${ }_{73.9}$ | ${ }_{0}^{0.3}$ | Neoligigie Adverse | ${ }_{73.8}^{73.8}$ | 0.2 | Negigigie Adverse | 60.0 | $\frac{60.2}{60.2}$ | 60.2 60.2 |
| 207, GREAT NORTHERN ROAD | Dwelling | 73.6 | ${ }^{73,7}$ | 73.8 | 0.2 | Negigibile Adverse | 73.8 | 0.2 | Negigiolie Adverse | 60.0 | 60.1 | 60.2 |
| 09, GREAT NORTHERN ROAD | welling | 73.6 | 73.7 | 73.8 | 0.2 | Negigigile Adverse | 73.8 | 0.2 | Negigigile Adverse | 60.0 | 60.1 | 60.2 |
| 211, GREAT NORTHERN ROAD | Dwelling | 73.5 | 73.7 | 73.8 | 0.3 | Negigioble Adverse | ${ }^{73,7}$ | 0.2 | Negigioble Adverse | 59.9 | 60.1 | 60.1 |
| GREAT NORTHERN ROAD |  | 7.5 | ${ }_{73,7}$ | ${ }^{73.8}$ | ${ }^{0.3}$ | Negligible Adverse | ${ }_{73,7}$ | 0.2 | Adverse | 59.9 | 60.1 | 60.1 |
| 215, GREAT NORTHERN ROAD | Deelling | ${ }^{73.5}$ | ${ }^{73.6}$ | 73.8 |  | Negiligile Adverse |  | 0.2 | Adverse |  |  |  |
| 217, GREAT NORTHERN ROAD | Dwelling | ${ }^{73.5}$ | 73.6 | 73 | 0.3 | Negigigile Adverse | ${ }_{7}^{73.7}$ | 0.2 | Adverse | 9,9 | 60.0 |  |
| 219, GREAT NORTHERN ROAD | Oweling | ${ }^{73.3}$ | ${ }^{73.5}$ | ${ }^{73.6}$ | 0.3 | Negigigile Adverse | ${ }^{73.6}$ | 0.3 | Negigigile Adverse |  | 59.9 | 60.0 |
| 221, GREAT NORTHERN ROAD | Dwelling | 73.2 | ${ }^{73.3}$ | 73.5 | 0.3 | Negigigile Adverse | 73.4 | 0.2 |  | 59.6 | 59.7 | 59.8 |
| 23, GREAT NORTHERN ROAD | Dwelling | 73.2 | ${ }^{73.3}$ | 73.5 | 0.3 | Negiligile Adverse | ${ }^{73.4}$ | 0.2 | Negiligibe Adverse | 59.6 | 59.7 | 59.8 |
| 25. GReat Noritern road | welling | ${ }_{7}^{73.0}$ | ${ }_{73.1}$ | ${ }_{73,3}^{73,3}$ | ${ }^{0.3}$ | Negiligile Aaverse | ${ }_{73,2}^{732}$ | 0.2 | Negiligio Adverse | 59.4 | 59.5 | 59.6 |
| 227, GAEAT NOATHERNROAD | weling | 73.0 | ${ }^{73.2}$ | ${ }_{7}^{73.3}$ | 0.3 | Negigigib Adverse | ${ }_{73,2}^{732}$ | 0.2 | Negigigie Adverse | 59.4 | 59.6 | 59.6 |
| 29, GAEAT NORTHERNROAD | Oweling | ${ }^{73.0}$ | ${ }_{7}^{73.1}$ | ${ }^{73.2}$ | 0.2 | Negiligibe Adverse | ${ }^{73.2}$ | 0.2 | Negiligibe Adverse | 59.4 | 59.5 | 59.6 |
| 233, GREAT NORTHERNROAD | Oweling | 73.0 | ${ }_{73,1}$ | ${ }^{73.2}$ | 0.2 | Negiligile Aaverse | ${ }^{73.2}$ | 0.2 | Negiligio Adverse | 59.4 | 59.5 | 59.6 |
| 233, GREAT NORTHERN ROAD | Dwelling | ${ }_{72.8}^{72.8}$ | ${ }^{73.0}$ | ${ }^{73.1}$ | 0.3 | Negigigle Adverse | ${ }^{73.1}$ | 0.3 | Negigigle Adverse | ${ }_{59.3}^{59.3}$ | 59.4 | 59.5 |
| 237, GREAT NORTHERN ROAD | Dwelling | 72.5 | 72.7 | 72.7 | 0.2 | Negigigile Adverse | 72.8 | 0.3 | Negigiolie Adverse | 59.0 | 59.2 | 59.3 |
| 239, GREAT NORIHERN ROAD | Dwelling | 72.5 | 72.7 | 72.7 | 0.2 | Negigigile Adverse | 72.8 | 0.3 | Negigigibe Adverse | 59.0 | 59.2 | 59.3 |
| 241, GREAA NORTHERN ROAD | Dwelling | ${ }^{72.1}$ | ${ }_{72.4}$ | ${ }_{72.4}$ | 0.3 | Negigigle Adverse | ${ }_{72.4}$ | ${ }^{0.3}$ | Negigigile Adverse | ${ }_{58.6}$ | 58.9 | 58.9 |
| ${ }^{\text {243, }}$ 24, GREAT NOAT NORTHERER ROAD | Dwelling | ${ }_{71.7}$ | ${ }_{72.0}$ | ${ }_{71.9}$ | 0.2 | Negigigble Adverse | ${ }_{72.0}$ | 0.3 | Negigigile Adverse | ${ }_{58.3}$ | 58.5 | 58.5 |
| 247, GREAT NORTHERN ROAD | Dwelling | 71.7 | 72.0 | 71.9 | 0.2 | Negigiole Adverse | 72.0 | 0.3 | Negilioile Adverse | 58.3 | 58.5 | 58.5 |
| 273, GREAT NORTHERN ROAD | Dwelling | 74.5 | 74.9 | 74.8 | 0.3 | Negigigile Adverse |  | 0.5 | Negigiolie Adverse |  | 1.1 | 61.2 |
| 275, GREAT NORTHERN ROAD | Dwelling | 74.5 | 74.9 | 77.8 | 0.3 | Negigigible Adverse | 74.9 | 0.4 | Negligible Adverse | 60.8 | 61.1 | 61.1 |
| 283, GREAT NORTHERN ROAD | Funeral Directors |  | 15.4 <br> 751 |  |  |  |  |  | Negiligile Adverse |  | 61.6 |  |
| 302. GREAT NORTHERN ROAD | Dwelling | 70.7 | 71.6 | 70.9 | 0.2 | Negiligibe Adverse | 71.4 | 0.7 | Neoligioble Adverse | 57.4 | 58.2 | 58.0 |
| 302, GREAT NORTHERN ROAD | Dwelling | 70.7 | 71.6 | 70.9 | 0.2 | Negigioble Adverse | 71.4 | 0.7 | Negigiole Adverse | 57.4 | 58.2 | 58.0 |
| 303, GREAT NORTHERN ROAD | Deelling | 67.4 | 68.1 | 67.7 | 0.3 | Negigibile Adverse | 68.0 | 0.6 | Neoligiole Adverse | 54.4 | 55.0 | 54.9 |
| 304, GREAT NORTHERN ROAD | Dweling | 70.7 | 71.6 | 70.9 | 0.2 | Negiligie Adverse | 71.4 | 0.7 | Negigigie Adverse | 57.4 | 58.2 558 | - 58.0 |
| 305, GAEA NORAHEFN ROAD | ${ }^{\text {Duelling }}$ Doeling | 68.4 70.7 | ${ }_{71.6}$ | 70.9 | 0.2 | Negigigile Adverse | ${ }_{71.4}$ | ${ }_{0}^{0.7}$ | Negligigile Adverse | ${ }^{55.3} 5$ | ${ }_{55.8}^{58.2}$ | ${ }_{55.0}^{55.0}$ |
| 307, GREAT NORTHERN ROAD | Dwelling | 69.5 | 70.2 | 69.8 | 0.3 | Negiligile Adverse | 70.1 | 0.6 | Negiligile Adverse | 56.3 | 56.9 | 56.8 |
| 308, GREAT NORTHERN ROAD | Dwelling | 70.7 | 71.6 | 70.9 | 0.2 | Negigiole Adverse | 71.4 | 0.7 | Negigiole Adverse | 57.4 | 58.2 | 58.0 |
| 310, GREAT NORTHERN ROAD | Deeling | 70.7 | ${ }_{711.6}$ | 70.9 | 0.2 | Negigigile Adverse | 71.4 | 0.7 | Negigigibe Adverse | 57.4 | 58.2 | 58.0 |
| 312, GREAT NORTHERN ROAD | Dwelling | ${ }_{70,7}^{70.7}$ | 71.6 71.6 | 70.9 | 0.2 | Negligile Adverse | 71.4 | ${ }_{0} 0.7$ | Negigigle Adverse | 57.4 | 58.2 | 58.0 58.0 |
| 316, GREAT NORTHERN ROAD | Dwelling | 70.4 | 71.4 | 70.6 | 0.2 | Negiligile Adverse | 71.2 | 0.8 | Negiligible Adverse | 57.1 | 58.0 | 57.8 |
| 318, GREAT NORTHERN ROAD | Dwelling | 70.4 | 71.4 | 70.6 | 0.2 | Negigioble Adverse | 71.2 | 0.8 | Negigigile Adverse | 57.1 | 58.0 | 57.8 |
| 320, GREAT NORTHERN ROAD | Dwelling | 70.4 | 71.4 | ${ }^{70.6}$ | 0.2 | Negiligibe Adverse | 71.2 | 0.8 | Negigigibe Adverse | 57.1 | 58.0 | 57.8 |
| 322, GREAT NORTHERN ROAD | Dweling |  |  |  |  | Negligio Adverse |  |  |  |  |  |  |
| 326, GREAT NORTHERN ROAD | Dwelling | 70.4 | 71.4 | 70.6 | 0.2 | Neogigigle Adversse | 77.2 | 0.8 | Neogigible Adverse | ${ }_{57.1}^{57.1}$ | ${ }_{58.0}^{58.0}$ | 57.8 |
| 328, GREAT NORTHERN ROAD | Dwelling | 70.4 | 71.4 | 70.6 | 0.2 | Negigigile Adverse | 71.2 | 0.8 | Negiligile Adverse | 57.1 | 58.0 | 57.8 |
| 330, GREAT NORTHERN ROAD | Dwelling | 70.4 | 71.4 | 70.6 | 0.2 | Negigigile Adverse | 71.2 | 0.8 | Negigiolie Adverse | 57.1 | 58.0 | 57.8 |
| 332, GREAT NORTHERN ROAD | Dwelling | 69.7 | 70.9 | 70.0 | 0.3 | Negigigibe Adverse | 70.7 | 1.0 | Negigioble Adverse | 56.5 | 57.5 | 57.4 |
| 34, GREAT Norithern road | Oweling | 69.7 | 70.9 | 70.0 | ${ }_{0} 0^{3}$ | Negiligile Adverse | 70.7 | 1.0 | Negiligile Adverse | 56.5 | 57.5 | 57.4 |
| 336, GREAT NORTHERN ROA | Dwelling | ${ }_{69.7}^{69.7}$ | 70.9 70.9 | 70.0 70.0 | 0.3 0.3 | $\frac{\text { Negligible Adverse }}{\text { Negilible Adverse }}$ | 70.7 70.7 | $\stackrel{1.0}{1.0}$ | Negligibe Adverse | ¢6.5 | 57.5 57.5 | 57.4 |
| 340, GREAT NORTHERN ROAD | Dwelling | 69.7 | 70.9 | 70.0 | 0.3 | Negigible Adverse | 70.7 | 1.0 | Negligible Adverse | 56.5 | 57.5 | 57.4 |
| 342, GREAT NORTHERN ROAD | Dwelling | 69.7 | 70.9 | 70.0 | 0.3 | Negigible Adverse | 70.7 | 1.0 | Neoligible Adverse | 56.5 | 57.5 | 57.4 |
| $\frac{\text { 344, GREAT NORTHERN ROAD }}{\text { 34, GREAT NORTHERN }}$ | Dwelling | $\frac{69.7}{69.7}$ | 70.9 70.9 | 70.0 70.0 | 0.3 | Negigigle Adverse | 70.7 70.7 | $\stackrel{1.0}{1.0}$ | Negigible Adverse | 56.5 56.5 | 57.5 57.5 | 57.4 57.4 |
| 348, GREAT NORTHERN ROAD | Dwelling | 66.8 | 68.0 | 66.9 | 0.1 | Negiligile Adverse | 67.8 | 1.0 | Negigigile Adverse | 53.9 | 54.9 | 54.8 |
| - 350, GREAT NORTHERN ROAD | Dwelling | 66.4 66.6 | 67.8 68.0 | 66.6 66.6 | 0.2 0.0 | Negligiole Adverse | 67.5 67.6 | 1.1 1.0 | $\frac{\text { Negligible Adverse }}{\text { Negligible Adverse }}$ | 53.5 53.7 | 54.8 54.9 | 54.5 54.6 |
| 354, GREAT NORTHERN ROAD | Dwelling | 67.1 | 68.6 | 67.0 | -0.1 | Negligible Beneficial | 68.1 | 1.0 | Negligible Adverse | 54.1 | 55.5 | 55.0 |
| $\frac{\text { 382, GREAT NORTHERN ROAD }}{\text { 388, GREAT NORTHERN }}$ | $\frac{\text { Dwelling }}{\text { Dweling }}$ | 70.9 63.4 | $\frac{72.0}{64.5}$ | 71.0 63.5 | ${ }_{0}^{0.1}$ | $\frac{\text { Negligible Beneficial }}{\text { Negioigiole Adverse }}$ | 72.0 64.4 | $\frac{1.1}{1.0}$ | Negiligle Adverse | 57.5 <br> 50.8 | 58.5 <br> 518 | $\begin{array}{r}58.5 \\ \hline 517\end{array}$ |
| O3, GREAT NORTHERN ROAD | Dwelling | 73.1 | 73.8 | 73.4 | 0.3 | Negiligile Adverse | 74.0 | 0.9 | Adverse | 59.5 | 60.2 | 0.3 |
| 405, GREAT NORTHERN ROAD | Deelling | ${ }^{73.1}$ | ${ }^{73.8}$ | 73.4 | 0.3 | Negligible Adverse | 74.0 | 0.9 | Negigigibe Adverse | 59.5 | 60.2 | 60.3 |
| 405, GREAT NORTHERN ROAD | Oweling | 73.11 | ${ }^{73,8}$ | 73.4 | 0.3 | Negigigile Adverse | 74.0 | 0.9 | Negiligibe Adverse | 59.5 | 60.2 | 60.3 |
| 413, GREAT NORTHERN ROAD | Dweling | ${ }_{73,1}$ | ${ }^{73.8}$ | 73.4 | 0.3 | Neoligigibe Adverse | 74.0 | 0.9 | Neoligioible Adverse | ${ }_{59.5}^{59.5}$ | 60.2 | 60.3 |
| 419, GREAT NORTHERN ROAD | Dwelling | 73.0 | 73.6 | 73.3 | 0.3 | Negiligible Adverse | 73.9 | 0.9 | Negligiole Adverse | 59.4 | 60.0 | 60.2 |
| 499, GREAT NORTHERN ROAD | Dental Practice | 72.6 | 73.3 | 72.9 | 0.3 | Negigigile Adverse | 73.5 | 0.9 | Negigigibe Adverse | 59.1 | 59.7 | 59.9 |
| ${ }^{\text {423, G GEAEAT NORTHERN ROAD }}$ | Dwelling | 73.2 73.2 | 73.8 73.8 | 73.4 73.4 | 0.2 | Negigible Adverse | 74.0 | 0.8 | Negigible Adverse | 59.6 59.6 | 60.2 60.2 | 60.3 60.3 |
| 423, GREAT NORTHERN ROAD | Dwelling | 73.2 | 73.8 | 73.4 | 0.2 | Negiligible Adverse | 74.0 | 0.8 | Negigigible Adverse | 59.6 | 60.2 | 60.3 |
| $\frac{\text { 425, GREAT NORTHERN ROAD }}{\text { 425, GREAT NORTHERN ROAD }}$ | Dwelling | ${ }^{73.3}$ | 74.0 74.0 | ${ }^{73.6}$ | ${ }_{0}^{0.3}$ | $\frac{\text { Negiligile Adverse }}{\text { Negigible Adverse }}$ | 74.2 74.2 | 0.9 | $\frac{\text { Negiligile Adverse }}{\text { Negigible Adverse }}$ | 59.7 59.7 | $\frac{60.3}{60.3}$ | 60.5 60.5 |
| 425, GREAA NORTHERN ROAD | Delling | ${ }_{73.3}$ | 74.0 | ${ }_{736}^{73.6}$ | 0.3 | Negigigle Adverse | ${ }^{74.2}$ | 0.9 | Negigigible Adverse | 59.7 | ${ }^{60.3}$ | 60.5 |
| 425, GREAT NORTHERN ROAD | Dwelling | 73.3 | 74.0 | ${ }_{7} 3.6$ | 0.3 | Negigole Adverse | 74.2 | 0.9 | Negiligile Adverse | 59.7 | 60.3 | 60.5 |

## Appendix A14.4: Operational Noise Modelling Results

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Receptor Name \& Receptor Description \& $$
\begin{gathered}
\text { DM18 } \\
\text { LA10,18hr }
\end{gathered}
$$ \& $$
\begin{gathered}
\text { DM33 } \\
\text { LA10,18hr }
\end{gathered}
$$ \& $$
\begin{gathered}
\text { DS18 } \\
\text { LA10,18hr }
\end{gathered}
$$ \& Short-term Daytime Noise Change (dB) \& Magnitude of Change \& $$
\begin{gathered}
\text { DS33 } \\
\text { LA10,18hr }
\end{gathered}
$$ \& Long-term Daytime Noise Change (dB) \& Magnitude of Change \& DM18 Lnight,outside \& DM33 Lnight,outside \& DS33 Lnight,outside <br>
\hline 425, GREAT NORTHERN ROAD \& Dwelling \& 73.3 \& 74.0 \& 73.6 \& 0.3 \& Negigigile Adverse \& 74.2 \& 0.9 \& Negligible Adverse \& 59.7 \& 60.3 \& 60.5 <br>
\hline 427, GREAT NORTHERN ROAD \& Oweling \& ${ }^{73.5}$ \& 74.1 \& ${ }^{73.8}$ \& 0.3 \& Negigioble Adverse \& 74.4 \& 0.9 \& Negligible Adverse \& 59.9 \& 60.4 \& 60.7 <br>
\hline 437, GREAT NORTHERN ROAD \& Dwelling \& 72.9 \& 73.5 \& 73.2 \& 0.3 \& Negigiole Adverse \& 73.8 \& 0.9 \& Negiligibe Adverse \& 59.3 \& 59.9 \& 60.2 <br>
\hline 443, GREAT NORTHERN ROAD \& Dwelling \& 72.3 \& ${ }^{73.0}$ \& 72.6
73.4 \& 0.3 \& Negigigibe Adverse \& 77.2 \& 0.9 \& Negigigle Adverse \& 58.8 \& 59.4 \& 59.6 <br>
\hline 447, GREAT NORTHERN ROAD \& Deeling \& ${ }^{73.1}$ \& ${ }^{73.8}$ \& ${ }^{73.4}$ \& 0.3 \& Negigigle Adverse \& 74.0 \& 0.9 \& Negligible Adverse \& 59.5 \& 60.2 \& 60.3 <br>
\hline 449, GREAT NORTHERN ROAD \& Delling \& ${ }^{49.5}$ \& 50.4 \& 49.6 \& 0.1 \& Negigigile Adverse \& 50.3 \& 0.8 \& Negigigle Adverse \& 38.3
38 \& 39.1
398 \& 39.0
398 <br>
\hline 449, GREAT NORTHERN ROAD \& Deelling \& 49.3 \& 50.1 \& 49.3 \& 0.0 \& No Change \& 50.1 \& 0.8 \& Negiligible Adverse \& 38.1 \& 38.8 \& 38.8 <br>
\hline 461, GREAT NORTHERN ROAD \& Dwelling \& 73.0 \& 73.9 \& ${ }^{73.3}$ \& 0.3 \& Negigiole Adverse \& 74.0 \& 1.0 \& Negiligible Adverse \& 59.4 \& 60.2 \& 60.3 <br>
\hline 461, GREAT NORTHERN ROAD \& Deelling \& 72.9 \& ${ }^{73.8}$ \& ${ }^{773.3}$ \& 0.4 \& Negigioibe Adverse \& 74.0 \& 1.1 \& Negligible Adverse \& 59.3 \& 60.2 \& 60.3 <br>
\hline 481, GREAT NORTHER R ROAD \& Deelling \& 72.8 \& ${ }_{73,7}^{73}$ \& ${ }^{73.2}$ \& 0.4 \& Negigigle Adverse \& ${ }_{7}^{73.9}$ \& 1.1 \& Negligible Adverse \& 59.3 \& 60.1 \& 60.2 <br>
\hline 4835, GREAT NORTHERER ROAD \& Oweiling \& ${ }_{72.8}^{72.8}$ \& ${ }_{73.7}$ \& 73.2

73.2 \& 0.4
0.4 \& Negigigibe Adverse \& ${ }_{73.9}$ \& ${ }_{1.1}^{1.1}$ \& Negigigibe Adverse \& ${ }_{59.3}^{59.3}$ \& ${ }_{60.1}^{60.1}$ \& $\frac{60.2}{60.2}$ <br>
\hline 487 , GREAT NORTHERN ROAD \& Dwelling \& 72.8 \& 73.7 \& 73.2 \& 0.4 \& Negiligile Adverse \& 73.9 \& 1.1 \& Negligible Adverse \& 59.3 \& 60.1 \& 60.2 <br>
\hline 491, GREAT NORTHERN ROAD \& Dwelling \& 72.8 \& 73.7 \& 73.1 \& 0.3 \& Negligible Adverse \& 73.8 \& 1.0 \& Negligible Adverse \& 59.3 \& 60.1 \& 60.2 <br>
\hline 491, GREAT NORTHERN ROAD \& Deelling \& 72.8 \& ${ }^{73,7}$ \& ${ }^{73,1}$ \& ${ }^{0.3}$ \& Negiligibie Adverse \& 73.8 \& 1.0 \& Negiligible Adverse \& 59.3 \& 60.1 \& ${ }^{60.2}$ <br>
\hline 499, GREAT NORTHERN ROAD \& Dwelling \& 72.9
73.0 \& 73.8
73.8 \& 73.3
73.4 \& 0.4
0.4 \& Negigible Adverse \& 73.9
74.0 \& 1.0
1.0 \& Negigible Adverse \& 年9.3.4 \& 60.2 \& 60.2
60.3 <br>
\hline 505, GREAT NORTHERN ROAD \& Dwelling \& 73.0 \& ${ }_{7} 7.8$ \& 73.4 \& 0.4 \& Negiligile Adverse \& 74.0 \& 1.0 \& Negigigibe Adverse \& 59.4 \& 60 \& 60.3 <br>
\hline 513, GREAT NORTHERN ROAD \& Dwelling \& 66.3 \& 67.0 \& 66.5 \& 0.2 \& Negigigile Adverse \& 67.2 \& 0.9 \& Negligible Adverse \& 53.4 \& 54.0 \& 54.2 <br>
\hline 513, GREAT NORTHERN ROAD \& Dwelling \& 66.3 \& 67.0 \& 66.5 \& 0.2 \& Negigioble Adverse \& 67.2 \& 0.9 \& Negiligible Adverse \& 53.4 \& 54.0 \& 54.2 <br>
\hline 571, GREAT NORTHERN ROAD \& Deelling \& 48.9 \& 50.4 \& 49.1 \& 0.2 \& Negigioibe Adverse \& 50.4 \& 1.5 \& Negigioble Adverse \& 37.7 \& 39.1 \& 39.1 <br>
\hline 571, GREAT NORTHERN ROAD \& Dwelling \& 48.9 \& 50.4 \& 49.1 \& 0.2 \& Negigibile Adverse \& 50.4 \& 1.5 \& Negiligile Adverse \& 37.7 \& 39.1 \& 39.1 <br>
\hline 571, GREA NOATITER N ROAD \& Dwelling \& 48.9 \& 50.4 \& 49.1 \& 0.2 \& Negiligibe Adverse \& 50.4 \& 1.5
1.5 \& Negiligible Adverse \& $\begin{array}{r}37.7 \\ 377 \\ \hline\end{array}$ \& 39.1 \& 39.1 <br>

\hline 571, GREA NOATITER ${ }^{\text {a }}$ NOAD \& Oweling \& 48.9 \& 50.4 \& 49.1 \& 0.2 \& Negigigile Adverse \& | 50.4 |
| :--- |
| 753 | \& 1.5

0 \& Negigigibe Adverse \& 37.7
607 \& 39.11 \& 39.15 <br>
\hline 575, GREA NORTHERN ROAD \& Dweling \& 74.4
744 \& ${ }^{74.8}$ \& ${ }_{747} 74$ \& 0.3
0.3 \& Negigigbe Adverse \& ${ }_{75.3}$ \& 0.9 \& Negigigle Adverse \& 60.7 \& 61.1 \& 61.5 <br>
\hline 577, GREAT NORTHERN ROAD \& Dwelling \& 68.7 \& 69.1 \& 69.1 \& 0.4 \& Negiligile Adverse \& 69.6 \& 0.9 \& Negiligiole Adverse \& 55.6 \& 55.9 \& 56.4 <br>
\hline 577, GREAT NORTHERN ROAD \& welling \& 68.7 \& 69.1 \& 69.1 \& 0.4 \& Negiligile Adverse \& 69.6 \& 0.9 \& Negiligible Adverse \& 55.6 \& 55.9 \& 56.4 <br>
\hline 585, GREAT NORTHERN ROAD \& welling \& 71.0 \& 71.2 \& 71.4 \& 0.4 \& Negigigibe Adverse \& 71.9 \& 0.9 \& Negigioble Adverse \& 57.6 \& 57.8 \& 58.4 <br>
\hline 587, GREAT NORTHER N ROAD \& Dweling \& 71.1 \& 71.4 \& 71.4 \& ${ }_{0}^{0.3}$ \& Negiligib Adverse \& 72.0 \& 0.9 \& Negigigble Adverse \& 57.7
577 \& 58.0 \& 58.5 <br>
\hline 591, GREAT NORTHERN ROAD \& Dwelling \& 71.0 \& 71.3 \& 71.3 \& 0.3 \& Negiligio Adverse \& 71.9 \& 0.9 \& Negligible Adverse \& 57.6 \& 57.9 \& 58.4 <br>
\hline \& Dwelling \& 70.8 \& 77.1 \& 71.2 \& 0.4 \& Negigigile Adverse \& 71.7 \& 0.9 \& Negiligibe Adverse \& 57.5 \& \& 58.3 <br>
\hline 651, GREAT NORTHERN ROAD \& Welling \& 73.0 \& 72.9 \& ${ }^{73.4}$ \& 0.4 \& Negigigible Adverse \& ${ }^{73.8}$ \& 0.8 \& Negiligible Adverse \& 59.4 \& 59.3 \& 60.2 <br>
\hline 653. GREAT NORTHERN ROAD \& Dwelling \& 73.0 \& 72.9 \& \& \& Negigigio Adverse \& \& \& Negigigibe Adverse \& 59.4 \& \& <br>
\hline 653, GREA NORTITER NOAD \& Oweling \& ${ }^{73.0}$ \& 72.9 \& ${ }_{7} 7.4$ \& 0.4 \& Negigigbe Adverse \& ${ }^{73.8}$ \& 0.8 \& Negiligile Adverse \& 5.4 \& \& 60.2 <br>
\hline 653, GREA NOATHERN ROAD \& Oweling \& 73.0 \& 72.9 \& 73.4 \& 0.4 \& Negigigie Adverse \& 73.8 \& 0.8 \& Negligibe Adverse \& 59.4 \& 59.3 \& 60.2
573 <br>
\hline 680, GREAT NORTHERN ROAD \& Dweling \& 69.7
779 \& 70.4 \& 69.9
75 \& 0.2 \& Negiligibe Adverse \& 70.6 \& 0.9 \& Negiligile Adverse \& 56.5 \& 57.1 \& 57.3 <br>
\hline 695. GREA NORTHER ROAD \& \& 74.9 \& ${ }_{74.1}$ \& 75.4 \& 0.5 \& Negigigio Adverse \& 75.6 \& 0.7 \& Negigigio Adverse \& 61.1 \& 60.4 \& ${ }_{61.8}^{617}$ <br>
\hline  \& ${ }^{\text {Duelling }}$ \& 74.8 \& 74.1
74.1 \& ${ }_{75.3}$ \& 0.5
0.5 \& Negigigle Adverse \& ${ }_{75.5}^{75.5}$ \& ${ }_{0}^{0.7}$ \& Negigigbe Adverse \& $\frac{61.1}{61.1}$ \& 60.4
60.4 \& ${ }_{61.7}^{61.7}$ <br>
\hline 703, GREAT NORTHERN ROAD \& Deelling \& 74.8 \& 74.1 \& ${ }^{75.3}$ \& 0.5 \& Negiligibe Adverse \& 75.5 \& 0.7 \& Negiligible Adverse \& 61.1 \& 60.4 \& 61.7 <br>
\hline 703, GREAT NORTHERN ROAD \& Dwelling \& 74.8 \& 74.1 \& 75.3 \& 0.5 \& Negigigile Adverse \& 75.5 \& 0.7 \& Negigigile Adverse \& 61.1 \& 60.4 \& 61.7 <br>
\hline 705. GREAT NORTHERN ROAD \& Deelling \& 74.4 \& 73.5 \& 75.0 \& 0.6 \& Negigigibe Adverse \& 75.1 \& 0.7 \& Negiligibe Adverse \& 60.7 \& 59.9 \& 61.3 <br>
\hline 716, GREAT NORTHER R ROAD \& Dweling \& 53.3
697 \& 53.4
699 \& 53.4
703 \& ${ }_{0}^{0.1}$ \& Negigigib Adverse \& 54.0
70.4 \& 0.7
0.7 \& Negigioble Adverse \& 41.7
56.5 \& 41.8
56.6 \& $\stackrel{42.3}{571}$ <br>
\hline 746, GREAT NORTHERN ROAD \& Dwelling \& 69.7 \& 69.9 \& 70.3 \& 0.6 \& Negigigile Adverse \& 70.4 \& 0.7 \& Negligible Adverse \& 56.5 \& 56.6 \& 57.1 <br>
\hline 748, GREAT NORTHERN ROAD \& Welling \& 63.3 \& 63.4 \& 64.1 \& 0.8 \& Negigigibe Adverse \& 64.1 \& 0.8 \& Negigigible Adverse \& 50.7 \& 50.8 \& 51.4 <br>
\hline 750, GREAT NORTHERN ROAD \& Deelling \& 63.3 \& 63.4 \& 64.1 \& 0.8 \& Negigigibe Adverse \& 64.1 \& 0.8 \& Negigioble Adverse \& 50.7 \& 50.8 \& 51.4 <br>

\hline 752. GREAT NORTHERN ROAD \& Deeling \& 63.3 \& 63,4 \& 64.1 \& 0.8 \& Negiligibe Adverse \& 64.1 \& 0.8 \& Negiligibe Adverse \& | 50.7 |
| :--- |
| 5.5 | \& 50.8 \& $\begin{array}{r}51.4 \\ 57.1 \\ \hline\end{array}$ <br>

\hline 754, GREAT NORTHERN ROAD \& Dwelling \& ${ }_{69.7}$ \& $\underline{69.9}$ \& 70.3
70.3 \& ${ }_{0}^{0.6}$ \& Negigigib Adverse \& 70.4
70.4 \& 0.7 \& Negigigib Adverse \& $\stackrel{56.5}{56.5}$ \& ${ }_{56.6}^{56.6}$ \& ${ }_{57.1}^{57.1}$ <br>
\hline 758, GREAT NORTHERN ROAD \& Dwelling \& 63.3 \& 63.4 \& 64.1 \& 0.8 \& Negigioble Adverse \& 64.1 \& 0.8 \& Negiligible Adverse \& 50.7 \& 50.8 \& 51.4 <br>
\hline 760, GREAT NORTHERN ROAD \& Dweling \& 63.3 \& 63.4 \& 64.1 \& 0.8 \& Negiligibe Adverse \& 64.1 \& 0.8 \& Negiligile Adverse \& 50.7 \& 50.8 \& 51.4 <br>
\hline 762, GREAT NORTHERN ROAD \& Dweling \& 63.3 \& 63.4 \& 64.1 \& 0.8 \& Negiligibe Adverse \& 64.1 \& 0.8 \& Negigigble Adverse \& 50.7 \& 50.8 \& 51.4 <br>
\hline 764. GREA NORTHER R OOAD \& Dweling \& 69.3 \& 69.6 \& 69.9 \& 0.6 \& Negiligile Adverse \& 70.1 \& 0.8 \& Negiligile Adverse \& 56.1 \& 56.4 \& 56.8 <br>

\hline  \& Dwelling \& ${ }_{72.1}$ \& ${ }_{72.8}$ \& ${ }^{69.4}$ \& ${ }_{0}^{0.6}$ \& Negigiobe Adverse \& | 70.1 |
| :--- |
| 72.8 | \& 0.8 \& Negigiobe Adverse \& - 58.1 \& $\stackrel{56.4}{59.3}$ \& $\stackrel{56.8}{59.3}$ <br>

\hline 772, GREAT NORTHERN ROAD \& Dwelling \& 72.1 \& 72.8 \& 72.4 \& 0.3 \& Negiligibe Adverse \& 72.8 \& 0.7 \& Negiligile Adverse \& 58.6 \& 59.3 \& 59.3 <br>
\hline 774, GREAT NORTHERN ROAD \& Dwelling \& 72.1 \& 72.8 \& 72.4 \& 0.3 \& Negigibile Adverse \& 72.8 \& 0.7 \& Negligible Adverse \& 58.6 \& 59.3 \& 59.3 <br>

\hline  \& Dwelling \& ${ }^{72.1}$ \& | 72.8 |
| :--- |
| 72.8 | \& 72.4

72.4 \& ${ }_{0}^{0.3}$ \& Negigible Adverse \& | 72.8 |
| :--- |
| 72.8 | \& 0.7 \& $\frac{\text { Negigigle Adverse }}{\text { Neligiole Adverse }}$ \& 58.6

58.6 \& $\stackrel{59.3}{59.3}$ \& $\stackrel{59.3}{59.3}$ <br>
\hline 780, GREAT NORTHERN ROAD \& Deelling \& 72.1 \& 72.8 \& 72.4 \& 0.3 \& Negligible Adverse \& 72.8 \& 0.7 \& Negiligile Adverse \& 58.6 \& 59.3 \& 59.3 <br>
\hline 782, GREAT NORTTER R ROAD \& Deelling \& ${ }^{72.3}$ \& 73.0 \& 72.5 \& 0.2 \& Negigigibe Adverse \& 72.9 \& 0.6 \& Negigigible Adverse \& 58.8 \& 59.4 \& 59.3 <br>
\hline 784, GREAT NORTHERN ROAD \& Dwelling \& 72.3 \& 73.0
730 \& 72.5
725 \& 0.2
0.2 \& Negligible Adverse \& 72.9 \& 0.6 \& Negligile Adverse \& 58.8
58
5 \& 59.4 \& 59.3
59
59 <br>
\hline 788, GREAT NORTHERN ROAD \& Dwelling \& 72.3 \& 73.0 \& 72.5 \& 0.2 \& Neogigigile Adverse \& 72.9 \& 0.6 \& Neoligible Adverse \& 55.8 \& ${ }_{59.4}$ \& 59.3 <br>
\hline 790, GREAT NORTHERN ROAD \& Deeling \& 72.3 \& 73.0 \& 72.5 \& 0.2 \& Negigioble Adverse \& 72.9 \& 0.6 \& Negligible Adverse \& 58.8 \& 59.4 \& 59.3 <br>
\hline 792, GREAT NORTHER R ROAD \& Dwelling \& ${ }_{72} 72.3$ \& ${ }^{73.0}$ \& 72.5 \& 0.2 \& Negiligule Adverse \& 72.9 \& 0.6 \& Negiligile Aaverse \& 58.8 \& 59.4 \& 59.3 <br>
\hline 794, GREAT NORTHERN ROAD \& Dwelling \& 72.4
72.4 \& 73.0
73.0 \& 72.4
72.4 \& 0.0
0.0 \& No Change \& 72.9 \& 0.5 \& Neogigioble Adverse \& 58.9
58.9 \& 59.4 \& - ${ }_{\text {59.3 }}$ <br>
\hline 798, GREAT NORTHERN ROAD \& Dwelling \& 72.4 \& 73.0 \& 72.4 \& 0.0 \& No Change \& 72.9 \& 0.5 \& Negligible Adverse \& 58.9 \& 59.4 \& 59.3 <br>
\hline 800, GREAT NORTHERN ROAD \& Deelling \& 72.4 \& 73.0 \& 72.4 \& 0.0 \& No Change \& 72.9 \& 0.5 \& Negigioble Adverse \& 58.9 \& 59.4 \& 59.3 <br>
\hline  \& Dwelling \& 73.6 \& 74.4
65.1 \& 74.4 \& 0.8
0.7 \& Negigigibile Adverse \& 74.5
65.1 \& 0.9 \& Negigigil Adverse \& 60.0. \& 60.7
52.3 \& 60.8
52.3 <br>
\hline 802, GREAT NORTHERN ROAD \& Deelling \& 72.4 \& 73.0 \& 72.4 \& 0.0 \& No Change \& 72.9 \& 0.5 \& Negligible Adverse \& 58.9 \& 59.4 \& 59.3 <br>
\hline 804, GREAT NORTHERN ROAD \& Dwelling \& 72.4 \& 73.0 \& 72.4
627 \& 0.0 \& No Change \& 72.9
635 \& 0.5 \& Negligibl Adverse \& 58.9
50.9 \& 59.4 \& 59.3 <br>
\hline  \& Dwelling \& 62.9
60.0 \& ${ }^{630.6}$ \& 62.9
59.9 \& -0.2 \& Negiligiole Beneneficicial \& 63.5
60.7 \& ${ }_{0}^{0.6}$ \& Negigigible Adverse \& 50.3
47.7 \& 518.5 \& 50.9 <br>
\hline 810. GREAT NORTHER R ROAD \& Dewling \& 62.9 \& 63.6 \& 62.7
509 \& -0.2 \& Negligible Beneficical \& 63.5 \& 0.6 \& Negligible Adverse \& 50.3 \& 51.0 \& 50.9 <br>
\hline 812, GREAT NORTHERN ROAD \& Dwelling \& ${ }_{60.9}^{62.9}$ \& ${ }_{60.6}^{63.6}$ \& ${ }_{6}^{59.9}$ \& $-01$ \& $\frac{\text { Negligibee Beneficial }}{\text { Negligible Beneficial }}$ \& ${ }_{60.5}^{63.5}$ \& 0.6 \& Negigigie Adverse \& ${ }^{47.7} 5$ \& - 48.5 \& 48.4
50.9 <br>
\hline 816, GREAT NORTHERN ROAD \& Dwelling \& 60.0 \& 60.8 \& 59.9 \& . 0.1 \& Negligible Beneficial \& 60.7 \& 0.7 \& Negligible Adverse \& 47.7 \& 48.5 \& 48.4 <br>
\hline
\end{tabular}

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 <br> Lnight,outside | DM33 <br> Lnight,outside | $\begin{gathered} \text { DS33 } \\ \text { Lnight,outside } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 818, GREAT NORTHERN ROAD | Dwelling | 72.2 | 73.0 | 72.0 | -0.2 | Negligible Beneficial | 72.8 | 0.6 | Negigigile Adverse | 58.7 | 59.4 | 59.3 |
| 820, GREAT NORTHERN ROAD | Oweling | 72.2 | ${ }^{73.0}$ | 72.0 | -0.2 | Negligible Beneficial | 72.8 | 0.6 | Negiligible Adverse | 58.7 | 59.4 | 59.3 |
| 822, GREAT NORTHERN ROAD | Dwelling | 72.2 | 73.0 | 72.0 | -0.2 | Negligible Beneficial | 72.8 | 0.6 | Negiligibe Adverse | 58.7 | 59.4 | 59.3 |
| 824, GREAT NORTHERN ROAD | Dwelling | 72.2 | 73.0 | 72.0 | -0.2 | Negligible Benefitical | 72.8 | 0.6 | Negigigibe Adverse | 58.7 | 59.4 | 59.3 |
| 826, GREAT NORTHERN ROAD | Deeling | 72.2 | 73.0 | 72.0 71.5 | -0.2 | Negligible Beneficical | 72.8 | 0.6 | Negligible Adverse | 58.7 | 59.4 | 59.3 |
| 827, GREAT NORTHERN ROAD | Delling | 77.2 | 77.4 | 77.5 | -2.7 | Minor Beneficicial | 72.1 | -2.1 | Negligible Benefitial | ${ }_{60.5}^{685}$ | 60.7 <br> 59 <br> 9. | 59.6 |
| 828, GREAT NORTHERN ROAD | Deelling | 72.2 | 73.0 | 72.0 | -0.2 | Negligible Beneficial | 72.8 | 0.6 | Negigiglie Adverse | 58.7 | 59.4 | 59.3 |
| 830, GREAT NORTHERN ROAD | Dwelling | 60.8 | 61.8 | 60.7 | -0.1 | Negligible Beneficical | 61.7 | 0.9 | Negiligibe Adverse | 48.5 | 49.4 | 49.3 |
| 832, GREAT NORTHERN ROAD | Deelling | 64.6 | 65.5 | 64.2 | -0.4 | Negligible Beneficical | 65.1 | 0.5 | Negiligibe Adverse | 51.9 | 52.7 | 52.3 |
| 833, GREAT NORTTER R ROAD | Dwelling | ${ }^{73.5}$ | ${ }^{73.5}$ | ${ }^{70.7}$ | -2.8 | Minor Beneficical | 77.1 | -2.4 | Negligible Beneficial | 59.9 | 59.9 | 57.7 |
| 834, GEEA NORTHERN ROAD | Oweiling | ${ }^{60.8}$ | ${ }_{73.4} 6$ | ${ }_{70.6} 6$ | --. | Negiligile Benenicial | ${ }_{71.1}^{61.1}$ | -2.4 | Negligigile Aesenericiol | ${ }_{59.9}^{48.9}$ | ${ }_{59.8}^{49.4}$ | ${ }^{497.7}$ |
| 836, GREAT NORTHERN ROAD | Dwelling | 64.6 | 65.5 | 64.2 | -0.4 | Negligible Beneficial | 65.1 | 0.5 | Negligible Adverse | 51.9 | 52.7 | 52.3 |
| 837, GREAT NORTHERN ROAD | Dwelling | 73.5 | 73.4 | 70.7 | -2.8 | Minor Beneficial | 71.1 | -2.4 | Negligible Beneficial | 59.9 | 59.8 | 57.7 |
| 838, GGEAT NORTHERN ROAD | Dwelling | 60.8 73.6 | 61.8 73.4 | 60.7 70.7 | -0.1 -2.9 | Negigible Beneficial | 61.7 71.1 | 0.9 -2.5 | Negigiolie Adverse | ${ }^{48.5}$ | 49.4 598 | 49.3 577 |
| 840, GREAT NORTHERN ROAD | Dwelling | 64.6 | 65.5 | 64.2 | -0.4 | Negligible Beneficial | 65.1 | 0.5 | Neogigioble Adverse | 51.9 | 52.7 | 52.3 |
| 842, GREAT NORTHERN ROAD | Dwelling | 73.7 | 74.6 | 73.0 | -0.7 | Negligible Beneficial | 74.0 | 0.3 | Negigiolile Adverse | 60.1 | 60.9 | 60.3 |
| 844, GREAT NORTHERN ROAD | Deelling | ${ }^{73,7}$ | 74.6 | ${ }^{73.0}$ | -0.7 | Negligible Beneficial | 74.0 | 0.3 | Negigioble Adverse | 60.1 | 60.9 | 60.3 |
| 846, GREAT NORTHERN ROAD | Dweling | $\begin{array}{r}73.7 \\ \hline 737\end{array}$ | 74.6 74.6 | 73.0 730 | -0.7 | Neogioible Beneficial | 74.0 740 | ${ }_{0}^{0.3}$ | Negiligib Adverse | $\frac{60.1}{60.1}$ | 60.9 | 60.3 |
| 848, GREAT NoRTHER R ROAD | Dwelling | ${ }_{73.7}$ | F74.6 | 73.0 73.0 | $\stackrel{-0.7}{-0.7}$ | Negogioigible Beneneficioial | 74.0 <br> 7.0 | ${ }_{0.3}^{0.3}$ | Negigigibe Adverse | $\frac{60.1}{60.1}$ | 60.9 | ${ }^{60.3}$ |
| 852, GREAT NORTHERN ROAD | Dwelling | 73.7 | 74.6 | 73.0 | -0.7 | Negligible Beneficial | 74.0 | 0.3 | Negligiole Adverse | 60.1 | 60.9 | 60.3 |
| 854, GREAT NORTHERN ROAD | Dwelling | 69.2 | 70.4 | 68.5 | -0.7 | Negligible Beneficial | 69.6 | 0.4 | Negiligibe Adverse | 56.0 | 57.1 | 56.4 |
| 856, GREAT NORTHERN ROAD | Dwelling | 69.2 | 70.4 | 68.5 | -0.7 | Negligible Beneficial | 69.6 | 0.4 | Negiligile Adverse | 56.0 | 57.1 | 56.4 |
| 858, GREAT NORTHERN ROAD | welling | 69.2 | 70.4 | 68.5 | -0.7 | Negligible Beneficial | 69.6 | 0.4 | Negigioble Adverse | 56.0 | 57.1 | 56.4 |
| 860, GREAT NORTHERN ROAD | Dwelling | ${ }^{69.2}$ | 70.4 | 68.5 | -.0 .7 .0 .7 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ | 69.6 69.6 | 0.4 0.4 | Negligible Adverse | 56.0 | 57.1 57.1 | 56.4 56.4 |
| 864, GREAT NORTHERN ROAD | Dwelling | 69.2 | 70.4 | 68.5 | -0.7 | Negligible Beneficial | 69.6 | 0.4 | Neogigiole Adverse | 56.0 | 57.1 | 56.4 |
| CONGREGATIONAL CHURCH, GREAT NORTHERN ROAD | Church | 69.5 | 70.2 | 69.8 | 0.3 | Negiligile Adverse | 70.4 | 0.9 | Negligible Adverse | 56.3 | 56.9 | 57.1 |
| FLAT B, 899, GREAT NORTHERN ROAD | Dwelling | 75.3 | 76.1 | 73.7 | -1.6 | Minor Beneficical | 74.4 | -0.9 | Negliable Beneficial | 61.5 | $\frac{62.2}{619}$ | 60.7 |
| FLAT D, 819 , GREAT NORTHERN ROAD | Dwelling | 75.4 | 76.2 | ${ }_{73.9}$ | -1.5 | Minor Beneficicial | 74.7 | -0.7 | Negligible Beneficicial | 61.6 | 62.3 | $\frac{60.0}{61.0}$ |
| 821, GREAT NORTHERN ROAD [2nd rep 2] | Dwelling | 75.1 | 75.7 | 73.3 | -1.8 | Minor Beneficial | 74.0 | . 11 | Negligible Beneficial | 61.3 | 61.9 | 60.3 |
| FLAT C, 899, GREAT NORTHERN ROAD | welling |  | 76.5 | 74.1 |  | Minor Beneficical | 74.9 | -0.8 |  | 61.9 | 62.6 | 61.1 |
| 821, GREAT NORTHERN ROAD (1sttrep 3) | weling | ${ }^{55.3}$ |  | ${ }^{73.5}$ | -1.8 |  | 74.2 |  | Negigigile Beneficial |  |  |  |
| T, GREENMOREGARDENS | Oweiling | 53.0 | 55.6 | 53.8 | 0.8 | Negigigile Adverse | 55.6 | ${ }^{2.6}$ | Negigigie Adverse | 4.4 | 43.8 | 43.8 |
| 11, GREENMORE GARDENS | weling | 50.1 | 51.3 | 50.5 | 0.4 | Negiligibe Adverse | 51.3 | 1.2 | Negiligibile Adverse | 38.8 | 39.9 | 39.9 |
| 15, GREENMORE GARDENS | Owelling | 50.8 | 51.7 | 51.1 | 0.3 | Neogigigile Adverse | 51.7 | 0.9 | Neogigiole Adverse | 39.5 | 40.3 | 40.3 |
| 17, GREENMORE GARDENS | Dwelling | 51.4 <br> 578 | $\begin{array}{r}52.0 \\ 58.1 \\ \hline\end{array}$ | $\begin{array}{r}51.6 \\ 579 \\ \hline\end{array}$ | 0.2 | Negiligib Adverse | 52.0 58.1 | 0.6 0 | Negiligib Adverse | 40.0 | 40.5 | 40.5 |
| 18, GREENMORE GARDENS | Dwelling | 57.8 52.1 | 58.1 52.7 | 57.9 52.4 | ${ }_{0}^{0.1}$ | Negigigle Adverse | 58.1 52.7 | ${ }_{0}^{0.3}$ | Negigigle Adverse | ${ }_{40.6}^{45.8}$ | $\frac{46.0}{41.2}$ | $\frac{46.0}{41.2}$ |
| 20, GREENMORE GARDENS | Dwelling | 59.1 | 59.4 | 59.2 | 0.1 | Negigioble Adverse | 59.3 | 0.2 | Negligible Adverse | 46.9 | 47.2 | 47.1 |
| 21, GREENMORE GARDENS | Owelling | 53.2 | 53.7 | 53.4 | 0.2 | Negigigibe Adverse | 53.7 | 0.5 | Negigioble Adverse | 41.6 | 42.1 | 42.1 |
|  | Dwelling | ${ }_{53.6}^{60.6}$ | ${ }^{60.8} 5$ | ${ }_{53.7}^{60.7}$ | ${ }_{0}^{0.1}$ | Negigigibe Adverse | ${ }^{60.8} 5$ | 0.4 | Negigigibe Adverse | 42.0 | ${ }_{42.3}^{48.5}$ | ${ }_{42.3}^{48.5}$ |
| 24, GREENMORE GARDENS | Dwelling | 61.9 | 62.1 | 62.0 | 0.1 | Negigigile Adverse | 62.1 | 0.2 | Negligible Adverse | 49.4 | 49.6 | 49.6 |
| 25, GREENMORE GARDENS | Owelling | 54.9 | 55.3 | 55.0 | 0.1 | Negigigibe Adverse | 55.3 | 0.4 | Negigioble Adverse | 43.1 | 43.5 | 43.5 |
| 27, GREENMORE GARDENS | Deelling | 55.8 | 56.2 | 56.0 | 0.2 | Negligible Adverse | 56.2 | 0.4 | Negigioble Adverse | 44.0 | 44.3 | 44.3 |
| 29, GREENMORE GARDENS |  |  |  |  |  | Negigigio Adverse |  |  | Negigigio Adverse | 45.3 |  |  |
| 3, GREENMORE GARDENS | Oweiling | ${ }^{51.8} 5$ | ${ }_{5}^{54.7}$ | 52.4 57.5 | 0.6 | Negigigib Adverse | ${ }_{5}^{54.7}$ | ${ }_{0}^{2.4}$ | Negigigib Adverse | ${ }_{45.3}^{40.4}$ | ${ }_{45.7}^{42.4}$ | 45.7 |
| 5, GREENMORE GARDENS | Welling | 51.0 | 53.0 | 51.5 | 0.5 | Negigigile Adverse | 53.0 | 2.0 | Negiligile Adverse | 39.6 | 41.4 | 41.4 |
| 7, GREENMORE GARDENS | Dwelling | 50.4 | 52.1 | 50.9 | 0.5 | Negigiole Adverse | 52.1 | 1.7 | Negiligile Adverse | 39.1 | 40.6 | 40.6 |
| 9, GREENMORE GARDENS | Welling | 50.2 | 51.6 | 50.6 | 0.4 | Negigioble Adverse | 51.6 | 1.4 | Negigioble Adverse | 38.9 | 40.2 | 40.2 |
| 19, HAMMERMMANAVEVUE, HELLTON | Dwelling | ${ }_{46.1}^{46.6}$ | ${ }_{48.0}^{47.0}$ | 47.0 | -0.1 | Negegigiolie Beneneficioial | 47.9 | 0.8 | Neogigioble Adverse | 35.7 36.1 | 36.6 36.9 | 36.5 36.8 |
| 103, HAMMERMAN AVENUE, HLLTON | Deelling | 47.1 | 48.0 | 47.0 | -0.1 | Negligible Beneficial | 47.9 | 0.8 | Negigiolile Adverse | 36.1 | 36.9 | 36.8 |
| 105, HAMMERMAN AVENUE, HLTON | Dwelling | 47.1 471 | 48.0 | 47.0 470 | -0.1 | Negligible Beneficial | 47.9 479 | 0.8 | Negiligile Adverse | 36.1 36.1 | 36.9 369 | 36.8 3.8 |
| 107, HAMMERMAN AVENUE, HLTON | Dweliling | ${ }_{47.1}^{47.1}$ | 48.0 | 47.0 | -0.1 | Negegligibile Beneneficioial | 47.9 | 0.8 | Negiligib Avverse | ${ }^{36.1}$ | 36.9 | ${ }_{36.8}$ |
| 111, HAMMERMAN AVENUE, HLLTON | Deeling | 47.1 | 48.0 | 47.0 | -0.1 | Negligible Beneficical | 47.9 | 0.8 | Negligible Adverse | 36.1 | 36.9 | 36.8 |
| 113, HAMMERMAN AVENUE, HLTON | Dwelling | $\stackrel{47.1}{47.1}$ | 48.0 48.0 | 47.0 47.0 | -0.1 -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negligibe }}$ Beneficial | 47.9 | ${ }_{0}^{0.8}$ | $\frac{\text { Negigible Adverse }}{\text { Negligible Adverse }}$ | 36.1 36.1 | 36.9 36.9 | 36.8 <br> 36.8 |
| 15. HAMMERMAN AVENUE, HILTON | Dwelling | 46.6 | 47.6 | 46.5 | -0.1 | Negligible Beneficial | 47.5 | 0.9 | Negligible Adverse | 35.7 | 36.6 | 36.5 |
| 17. HAMMERMAN AVENUE, HILTON | Dwelling | 46.6 46.6 | 47.6 47.6 | 46.5 46.5 | -0.1 .0 .1 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ Beneficial | 47.5 47.5 | 0.9 0.9 | $\frac{\text { Negligible Adverse }}{\text { Neglioble Adverse }}$ | 35.7 35.7 | 36.6 36.6 | 36.5 <br> 36.5 |
| 21, HAMMERMAN AVENUE, HLTON | eeling | 46.6 | 47.6 | 46.5 | -0.1 | Negligible Beneficial | 47.5 | 0.9 | Negiligible Adverse | 5.7 | 5.6 | 36.5 |
| 23, HAMMERMAN AVENUE, HILTON | Dwelling | 46.6 | 47.6 | 46.5 | -0.1 | Negligible Beneficial | 47.5 | 0.9 | Negiligibe Adverse | 35.7 | 36.6 | 36.5 |
| 25. HAMMERMAN AVENUE, HILTON | Oweling | 46.6 | 47.6 | 46.5 | -0.1 | Negligible Beneficicial | 47.5 | 0.9 | Negligigle Adverse | 35.7 | ${ }^{36.6}$ | 36.5 |
| 27, 29 HAMMMERMANAN AVENUE, HLITON | ${ }^{\text {Dueliling }}$ | ${ }_{46.6}^{46.6}$ | ${ }_{47.6}$ | 46.5 | -.0 .1 -0.1 | Negligible Benenitial | ${ }_{47}^{47.5}$ | 0.9 | Negligibe Adverse | ${ }^{35.7}$ | 36.6 36.6 | 36.5 36.5 |
| 3. HAMMERMAN AVENUE, HLTTON | Dwelling | 46.6 | 47.6 | 46.5 | -0.1 | Negligible Beneficial | 47.5 | 0.9 | Negiligible Adverse | 35.7 | 36.6 | 36.5 |
| 31, HAMMERMAN AVENUE, HILTON | Dwelling | 46.6 | 47.6 | 46.5 | -0.1 | Negligible Beneficial | 47.5 | 0.9 | Negiligile Adverse | 35.7 | 36.6 | 36.5 |
| 33, 3 HAMMERMANAVENUE, HILTON | Dwelling | ${ }_{46.6}^{46.6}$ | ${ }_{47.6}^{47.6}$ | 46.5 | -0.1 -0.1 | Negiligie Beneficial | ${ }_{4}^{47.5}$ | 0.9 | $\frac{\text { Negligible Adverse }}{\text { Negligible Adverse }}$ | ${ }^{35.7}$ | 36.6 36.6 | 36.5 36.5 |
| 37, HAMMERMAN AVENUE, HILTON | Dwelling | 46.6 46.6 | 47.6 476 | 46.5 46.5 | -0.1 .0 .1 | Negligible Benefitical | 47.5 475 | 0.9 | Negigigle Adverse | 35.7 357 | 36.6 3.6 | 36.5 365 |
| 39, 41. HAMMMERMMAN AVENUE, HILTON | Dwelling | 46.6 | 47.6 | 46.5 | -0.1 | Negegligible Beneneicicial | 47.5 | 0.9 | Neoligioble Adverse | ${ }_{35.7}^{35.7}$ | ${ }_{36.6}^{36.6}$ | ${ }^{36.5}$ |
| 43, HAMMERMAN AVENUE, HILTON | Deelling | 46.6 | 47.6 | 46.5 | -0.1 | Negligible Beneficical | 47.5 | 0.9 | Negligible Adverse | ${ }^{35.7}$ | ${ }_{36.6}^{36}$ | 3 36.5 |
| 45, HAMMERMAN AVENUE, HILTON | Oweling | 46.6 46.6 | ${ }_{47.6}^{47.6}$ | 46.4 | $\stackrel{-0.1}{-0.1}$ | Negiligible Beneneficicial | 47.5 | 0.9 | Negigigibe Adverse | ${ }_{35.7}$ | ${ }_{36.6}^{36.6}$ | ${ }_{36.5}^{36.5}$ |

A90/A96 Haudagain Improvement
DMRB Stage 3 Environmental Statement

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 <br> Lnight,outside | DS33 <br> Lnight,outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 49, HAMMERMAN AVENUE, HILTON | Dwelling | 46.6 | 47.6 | 46.5 | ${ }^{0.1}$ | Negligible Beneficical | 47.5 | 0.9 | Negiligibe Adverse | 35.7 | 36.6 | 36.5 |
| 5. HAMMMRMAN AVENUE, HLLTON | $\frac{\text { Dwelling }}{\text { Oweling }}$ | $\frac{46.6}{46.6}$ | 47.6 47.6 | $\frac{46.5}{46.5}$ | -0.1 -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negligibl } \text { Beneficial }}$ | 47.5 47.5 | 0.9 | Negligible Adverse | 35.7 35.7 | ${ }_{3}^{36.6}$ 36.6 | 36.5 36.5 |
| 53, HAMMERMAN AVENUE, HILTON | Dwelling | 46.6 | 47.6 | 46.5 | -0.1 | Negegligible Benenificial | 47.5 | 0.9 | Neogigigile Adversse | ${ }_{35.7}$ | ${ }_{36.6}$ | ${ }_{36.5}$ |
| 55, HAMMERMAN AVENUE, HILTON | Dwelling | 47.1 | 48.0 | 47.0 | -0.1 | Negligible Beneficial | 47.9 | 0.8 | Negiligile Adverse | 36.1 | 36.9 | 36.8 |
| 57, HAMMERMAN AVENUE, HILTON | Dwelling | 47.1 | 48.0 | 47.0 | -0.1 | Negligible Beneficial | 47.9 | 0.8 | Negiligile Adverse | 36.1 | 36.9 | 36.8 |
| 59, HAMMERMAN AVENUE, HILTON | Dwelling | 47.1 | 48.0 | 47.0 | -0.1 | Negligible Beneficial | 47.9 | 0.8 | Negiligile Adverse | 36.1 | 36.9 | 36.8 |
| 61, HAMMERMAN AVENUE, HILTON | Deelling | 47.1 | 48.0 | 47.0 | -0.1 | Negligible Beneficial | 47.9 | 0.8 | Negligible Adverse | 36.1 | 36.9 | 36.8 |
| 63, HAMMERMAN AVENUE, HLTTON | Dwelling | 47.1 | 48.0 | 47.0 | -0.1 | Negligible Beneficial | 47.9 | 0.8 | Negigioble Adverse | 36.1 | 36.9 | 36.8 <br> 3.8 |
| 65, HAMMERMANAVENUE, HLTON | Dwelling | ${ }_{47.1}^{47.1}$ | 48.0 48.0 | 47.0 47.0 | -0.1 -0.1 | $\frac{\text { Negiligiole Beneficial }}{\text { Negligible Beneficial }}$ | 47.9 47.9 | 0.8 0.8 | $\frac{\text { Negigigib Adverse }}{\text { Negilible Adverse }}$ | 36.1 36.1 | 36.9 36.9 | 36.8 36.8 |
| 69, HAMMERMAN AVENUE, HILTON | Dwelling | 47.1 | 48.0 | 47.0 | -0.1 | Negligible Beneficicial | 47.9 | 0.8 | Negiligile Adverse | 36.1 | 36.9 | 36.8 |
| 7, HAMMERMAN AVENUE, HLTTON | Dwelling | 46.6 | 47.6 | 46.5 | -0.1 | Negligible Beneficial | 47.5 | 0.9 | Negiligile Adverse | 35.7 | 36.6 | 36.5 |
| 71, HAMMERMAN AVENUE, HILTON |  | 47.1 | 48.0 | 47.0 | -0.1 | Negligible Beneficial | 47.9 | 0.8 | Negligible Adverse | 36.1 | 36.9 | 36.8 |
| 73, HAMMERMAN AVENUE, HILTON | Dwelling | 47.1 | 48.0 | 47.0 | -0.1 | Negligible Beneficicial | 47.9 | 0.8 | Negigioibe Adverse | 36.1 | 36.9 | 36.8 |
| 75, HAMMERMAN AVENUE, HILTON | Deelling | 47.1 | 48.0 | 47.0 | -0.1 | Negligible Beneficial | 47.9 | 0.8 | Negigioble Adverse | 36.1 | 36.9 | 36.8 |
| 77, HAMMERMAN AVENUE, HILTON | Deelling | 47.1 | 48.0 | 47.0 | -0.1 | Negligible Beneficial | 47.9 | 0.8 | Negigioble Adverse | 36.1 | 5.9 | 36.8 |
| 79, HAMMERMANAVENUE, HLTTON | Weling | 47.1 | 48.0 | 47.0 | -0.1 | Negilibile Benenitial | 47.9 | ${ }^{0.8}$ | Negigigibe Adverse | 36.1 | 36.9 369 | 36.8 |
| 81, HAMMERMANAVENUE, HITION | Dwelling | ${ }_{47.1}^{47.1}$ | 48.48 | 47.0 | -0.1 -0.1 |  | 47.9 | 0.8 | Negigible Adverse | 36.1 36.1 | 36.9 | ${ }^{36.8}$ |
| 85, HAMMERMAN AVENUE, HILTON | Dwelling | 47.1 | 48.0 | 47.0 | -0.1 | Negligible Benenicicial | 47.9 | 0.8 | Negigioble Adverse | 36.1 | 36.9 | 36.8 |
| 87, HAMMERMAN AVENUE, HILTON | Dwelling | 47.1 | 48.0 | 47.0 | -0.1 | Negligible Beneficial | 47.9 | 0.8 | Negiligible Adverse | 36.1 | 36.9 | 36.8 |
| 89, HAMMERMAN AVENUE, HILTON | welling | 47.1 | 48.0 | 47.0 | -0.1 | Negligible Beneficical | 47.9 | 0.8 | Negigigibe Adverse | 36.1 | 36.9 | 36.8 |
| 91, HAMMERMAN AVENUE, HILTON | Wwelling | 47.1 | 48.0 | 47.0 | -0.1 | Negligible Beneficial | 47.9 | 0.8 | Negigigibe Adverse | 36.1 | 36.9 | ${ }^{36.8}$ |
| 93, HAMMERMAN AVENUE, HLITON | Dwelling | 47.1 | 48.0 | 47.0 | -0.1 | Negligible Beneficicial | 47.9 | 0.8 | Negiligibie Adverse | ${ }^{36.1}$ | 36.9 | 36.8 |
| 97, HAMMERMAN AVENUE, HILTON | Dwelling | 47.1 | 48.0 | 47.0 | -0.1 | Negligibile Beneneficial | 47.9 | 0.8 | Neogigioble Adversse | ${ }_{36.1}$ | ${ }_{36.9}$ | ${ }_{36.8}$ |
| 99, HAMMERMAN AVENUE, HILTON | Wwelling | 47.1 | 48.0 | 47.0 | -0.1 | Negligible Benenicicial | 47.9 | 0.8 | Negiligile Adverse | 36.1 | 36.9 | 36.8 |
| 1, HAMMERMAN DRIVE, HLLTON | Dwelling | 51.0 | 51.5 | 51.0 | 0.0 | No Change | 51.5 | 0.5 | Negigioibe Adverse | 39.6 | 40.1 | 40.1 |
| 10, HAMMERMA D Dive, hlion | Deelling | 50.3 5.1 | 51.1 5.5 | 50.2 | -0.1 | Negligible Beneficial | 51.0 55 |  | Negigigibe Adverse |  | 39.7 | 39.6 |
| 101, HAMMERMAN R RIVE, HLLTON | Dwelling | 55.1 55.1 | 55.5 55.5 | 55.1 55.1 | 0.0 | No Change | 55.6 55.6 | 0.5 | Negigioble Adverse | 43.3 | ${ }_{43.7}^{43.7}$ | 43.8 |
| 105, HAMMERMAN DRIVE, HLTTON | Dwelling | 55.1 | 55.5 | 55.1 | 0.0 | No Change | 55.6 | 0.5 | Negigiolile Adverse | 43.3 | 43.7 | 43.8 |
| 107, HAMMERMAN DRIVE, HLLTON | Dwelling | 55.1 | 55.5 | 55.1 | 0.0 | No Change | 55.6 | 0.5 | Negigioble Adverse | 43.3 | 43.7 | 43.8 |
| 109,HAMMERMAN DRIVE, HLITON | ${ }^{\text {Dwelling }}$ Oweling | 55.10 | 55.5 51.5 | 55.0 | 0.0 | ${ }^{\text {No co change }}$ | 55.6 51.5 | 0.5 | Negigigible Adverse | ${ }_{39.6}$ | ${ }_{40.1}^{43.1}$ | 43.8 40.1 |
| 111, HAMMERMAN DRIVE, HLTTON | Dwelling | 55.1 | 55.5 | 55.1 | 0.0 | No Change | 55.6 | 0.5 | Negiligibe Adverse | 43.3 | 43.7 | 43.8 |
| 113.4AMMERMAN DRIVE, HLLTON | Dwelling | 55.1 | 55.5 <br> 55 <br> 5 | 55.1 | 0.0 | No Change | $\begin{array}{r}55.6 \\ 55 \\ \hline 5\end{array}$ | 0.5 | Negiligibe Adverse | 43.3 | $\frac{43.7}{437}$ | 43.8 |
| 115, HAMMERMAN DRIVE, HLITON | Dweling | 55.1 55.1 | 55.5 55.5 | 55.1 55.1 | 0.0 0.0 | $\frac{\text { No Change }}{\text { No Change }}$ | 55.6 55.6 | 0.5 | Negligible Adverse | ${ }_{43.3}^{43.3}$ | 43.7 43.7 | 43.8 43.8 |
| 119, HAMMERMAN DRIVE, HLITON | Dwelling | 51.4 | 51.9 | 51.4 | 0.0 | No Change | 51.9 | 0.5 | Negiligible Adverse | 40.0 | 40.4 | 40.4 |
| 12, HAMMERMAN DRIVE, HLLTON | Delling | ${ }_{50.3}^{51}$ | $\stackrel{51.1}{51 .}$ | 50.2 | -0.1 | Negligible Beneficic | 51.0 | 0.7 | Negligible Adverse | 39.0 | 39.7 | 39.6 |
| 121, HAMMERMAN DRIVE, HLLTON | Dwelling | 51.4 51.4 | 51.9 51.9 | 51.4 51.4 | 0.0 0.0 | $\frac{\text { No Change }}{\text { No Change }}$ | 51.9 | 0.5 0.5 | Negiligib Adverse | 40.0 40.0 | 40.4 40.4 | 40.4 40.4 |
| 125, HAMMERMAN DRIVE, HLITON | Dwelling | 51.4 | 51.9 | 51.4 | 0.0 | No Change | 51.9 | 0.5 | Negiligible Adverse | 40.0 | 40.4 | 40.4 |
| $1{ }^{\text {127, HAMMERMAN DRIVE, HLTTON }}$ | Dwelling | 51.4 51.4 | 51.9 51.9 | 51.4 51.4 | 0.0 0.0 | $\frac{\text { No Change }}{\text { No Change }}$ | 51.9 51.9 | 0.5 0.5 | Negligible Adverse Nefigible Adverse | 40.0 40.0 | 40.4 40.4 | 40.4 40.4 |
| 13, HAMMERMAN DRIVE, HLLTON | Dwelling | 51.0 | 51.5 | 51.0 | 0.0 | No Change | 51.5 | 0.5 | Negiligible Adverse | 39.6 | 40.1 | 40.1 |
|  | Dwelling | 51.4 <br> 51.4 | 51.9 519 | 51.4 51.4 | 0.0 | $\frac{\text { No Change }}{\text { No Change }}$ | 51.9 | ${ }_{0}^{0.5}$ | Negligile Adverse | $\frac{40.0}{40.0}$ | 40.4 40.4 | 40.4 40.4 |
| 135, HAMMERMAN DRIVE, HLTTON | Dwelling | 51.4 | 51.9 | 51.4 | 0.0 | No Change | 51.9 | 0.5 | Negiligile Adverse | 40.0 | 40.4 | 40.4 |
|  | ${ }^{\text {Holiday }}$-etacommodation/S |  |  |  |  |  |  |  |  |  |  |  |
| 137, HAMMERMAN DRIVE, HLTTON | Term Let | 49.8 | 50.3 | 49.8 | 0.0 | No Change | 50.3 | 0.5 | Negligible Adverse | 38.6 | 39.0 | 39.0 |
| 139. HAMMERMAN DRIVE, HLTTON | Dweling | 51.4 493 | 51.9 | 51.4 | 0.0 | No Change | 51.9 | 0.5 | Negligile Adverse | 40.0 | 40.4 388 | 40.4 |
| 1411, HAMMERMAN DRIVE, HITION | Dwelling | ${ }_{52.3}$ | 52.8 | ${ }_{52.4}$ | 0.1 | Negiligible Adverse | 52.9 | 0.6 | Negigigile Adverse | ${ }_{40.8}$ | ${ }_{41.3}$ | ${ }_{41.3}$ |
| 143, HAMMERMAN DRIVE, HLTTON | Dwelling | 52.4 | 52.8 | 52.4 | 0.0 | No Change | 52.9 | 0.5 | Negigigile Adverse | 40.9 | 41.3 | 41.3 |
| 145, HAMM E EMA N DRIVE, HLLTON | Dwelling | 49.1 | 49.6 | 49.1 | 0.0 | No Change | 49.6 | 0.5 | Negigigibe Adverse | 37.9 37 | 38.4 379 | 38.4 37 |
| 147, HAMMERMAN DRIVE, HLLTON | Dwelling | 48.5 49.7 | 49.1 50.5 | 48.5 49.7 | 0.0 | $\frac{\text { No Change }}{\text { No Change }}$ | 49.1 50.5 | 0.6 0.8 | Negigible Adverse | 37.4 38.5 | 37.9 39.2 | 37.9 39.2 |
| 15, HAMMERMAN DRIVE, HLTTON | Dwelling | 51.0 | 51.5 | 51.0 | 0.0 | No Change | 51.5 | 0.5 | Negligible Adverse | 39.6 | 40.1 | 40.1 |
| 151, HAMMERMAN DRIVE, HLITON | Dwelling | 49.9 | 50.5 | 49.9 | 0.0 | No Change | 50.5 | 0.6 | Negligible Adverse | 38.6 | 39.2 | 39.2 |
| 153, HAMMERMAN DRIVE, HLLTON | Dwelling | 53.0 56.7 | 53.5 57.2 | 53.1 56.7 | ${ }_{0}^{0.1}$ | Negligible Adverse | 53.6 57.3 | 0.6 | $\frac{\text { Negligible Adverse }}{\text { Nefigible Adverse }}$ | $\frac{41.4}{44.8}$ | $\frac{41.9}{45.2}$ | $\frac{42.0}{45.3}$ |
| 157, HAMMERMAN DRIVE, HLLTON | Dwelling | 55.6 | 56.3 | 55.7 | 0.1 | Negiligile Adverse | 56.3 | 0.7 | Negligible Adverse | 43.8 | 44.4 | 44.4 |
| 159. HAMMERMAN DRIVE, HLITON | Dweling | 53.9 49.3 | 54.5 50.1 | 53.9 49.2 | 0.0 <br> 0.0 <br> 0 | $\xrightarrow{\text { Nogo Change }}$ | $\begin{array}{r}54.5 \\ 50.0 \\ \hline\end{array}$ | 0.6 0.7 | Negiligib Adverse | 42.2 38.1 | 42.8 38.8 | 42.8 38.7 |
| 1 161, HAMMERMAN DRIVE, HILTON | Dwelling | 58.5 | 59.1 | 58.6 | 0.1 | Negligible Adverse | 59.2 | 0.7 | Negiligile Adverse | 46.4 | 46.9 | 47.0 |
| 163. HAMMERMAN DRIVE, HLT TON | Dwelling | 60.6 | 61.4 | 60.7 | 0.1 | Negiligile Adverse | 61.4 | 0.8 | Negigigble Adverse | 48.3 | $\frac{49.0}{40.1}$ | $\frac{49.0}{401}$ |
| 18, HAMMERMAN DRIVE, HLLTON | Dwelling | 49.3 | 50.1 | 49.2 | -0.1 | Negligible Beneficial | 50.0 | 0.7 | Negiligile Adverse | 38.1 | 38.8 | 38.7 |
| 19, HAMMERMAN DRIVE, HLLTON | Deelling | 51.0 | 51.5 | 51.0 | 0.0 | No Change | 51.5 | 0.5 | Negigigile Adverse | 39.6 | 40.1 | 40.1 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2, HAMMERMAN DRIVE, HLTON | Term Let | 48.7 | 49.5 | 48.7 | 0.0 | No Change | 49.4 | 0.7 | Negligible Adverse | 37.6 | 38.3 | 38.2 |
| 20, HAMMERMAN DRIVE, HLITON | Dweling | 49.3 510 | 50.1 515 | $\frac{49.2}{510}$ | -0.1 | Negligible Beneficical | 50.0 515 | 0.7 0.5 | Negiligle Adverse | 38.1 39 | 38.8 <br> 40. | 38.7 |
| 22, HAMMERMAN DRIVE, HILTON | Dwelling | 49.3 | 50.5 50.1 | 49.2 | -0.1 | Negligible E Beneficical | 50.0 | 0.7 | Neofigioble Adverse | ${ }^{39.1}$ | ${ }_{30.8}$ | ${ }_{30.7}$ |
| 23, HAMMERMAN DRIVE, HLLTON | Delling | 51.0 | $\stackrel{51.5}{50 .}$ | 51.0 | 0.0 | No Change | 51.5 | 0.5 | Negligible Adverse | 39.6 | 40.1 | 40.1 |
| 24, HAMMERMAN DRIVE, HLLTON | Dwelling | $\frac{49.3}{51.0}$ | 50.1 51.5 | $\frac{49.2}{51.0}$ | -0.1 0.0 | $\frac{\text { Negligibe Beneficial }}{\text { No Change }}$ | 50.0 51.5 | 0.7 | Negigible Adverse | 38.1 39.6 | 38.8 40.1 | 38.7 40.1 |
| 26, HAMMERMAN DRIVE, HLLTON | Dwelling | 70.3 | 70.6 | 70.3 | 0.0 | No Change | 70.7 | 0.4 | Negigigile Adverse | 57.0 | 57.3 | 57.4 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 Lnight,outside | $\begin{gathered} \text { DS33 } \\ \text { Lnight,outside } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 27, HAMMERMAN DRIVE, HILTON | Deeling | 51.0 | 51.5 | 51.0 | 0.0 | No Change | 51.5 | 0.5 | Negigigle Adverse | 39.6 | ${ }^{40.1}$ | 40.1 |
| 28, HAMMERMA DRIVE, HLLON | Dwelling | $\frac{70.3}{510}$ | 70.6 | $\frac{70.3}{510}$ | 0.0 | No Change | 70.7 <br> 515 <br> 15 | 0.4 0.5 | Negiligil Adverse | 57.0 39.6 | 57.3 40.1 | 57.4 40.1 |
| 29, HAMMMERMA D DIVE, HLLTON | Dwelling | 51.0 51.0 | 51.5 51.5 | 51.0 51.0 | 0.0 | $\frac{\text { No Cuange }}{\text { No Change }}$ | 51.5 51.5 | 0.5 0.5 | $\frac{\text { Negligible Adverse }}{\text { Negligible Adverse }}$ | 39.6 39.6 | 40.1 40.1 | 40.1 40.1 |
| 30, HAMMERMAN DRIVE, HITTON | Dwelling | 70.3 | 70.6 | 70.3 | 0.0 | ${ }^{\text {No Co Change }}$ | 70.7 | 0.4 | Negigioble Adverse | 57.0 | ${ }_{57.3}$ | 50.4. |
| 31, HAMMERMAN DRIVE, HLLTON | Dwelling | 51.0 | 51.5 | 51.0 | 0.0 | No Change | 51.5 | 0.5 | Negigiole Adverse | 39.6 | 40.1 | 40.1 |
| 32, HAMMERMAN DRIVE, HLLTON | Dwelling | 70.3 | 70.6 | 70.3 | 0.0 | No Change | 70.7 | 0.4 | Negigigibe Adverse | 57.0 | 57.3 | 57.4 |
| 33, HAMMERMAN DRIVE, HLLTON | Dwelling | 51.0 | 51.5 | 51.0 | 0.0 | No Change | 51.5 | 0.5 | Negiligibe Adverse | 39.6 | 40.1 | 40.1 |
| 34, ${ }^{\text {35, HAMMMERMAN }}$ DRIVE, HITTON | ${ }^{\text {Dwelling }}$ | ${ }_{51.0}$ | ${ }_{51.5}$ | ${ }_{51.0}$ | 0.0 | No Change | ${ }_{51.5}$ | ${ }_{0}^{0.5}$ | Neoligiole Adverse | ${ }^{59.6}$ | ${ }^{50.1}$ | ${ }^{50.1}$ |
| 36, HAMMERMAN DRIVE, HLLTON | Delling | ${ }^{70.3}$ | 70.6 | ${ }^{70.3}$ | 0.0 | No Change | 70.7 | 0.4 | Negigigibe Adverse | 57.0 | 57.3 | 57.4 |
| 37, HAMMERMAN DRIVE, HLLTON | welling | 51.0 | 51.5 | 51.0 | 0.0 | No Change | 51.5 | 0.5 | Negigigibe Adverse | 39.6 | 40.1 | 40.1 |
| 38, HAMMERMAN DRIVE, HLLTON | welling | 67.3 | 67.7 | 67.4 | 0.1 | Negligible Adverse | 67.8 | 0.5 | Negigigibe Adverse | 54.3 | 54.7 | 54.8 |
| 39, HAMMERMAN DRIVE, HLLTON | eiling | 51.0 | 51.5 | 51.0 | 0.0 | No Change | 51.5 | 0.5 | Negigioble Adverse | 39.6 | 40.1 | 40.1 |
| 4. HAMMERMAN DRIVE, HLITTON | $\frac{\text { Dwelling }}{\text { Dweling }}$ | 50.3 67.7 | 51.1 68.1 | ${ }^{50.2} 6$ | -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Neglioble }}$ | 51.0 68.2 | 0.7 | $\frac{\text { Negiligile Adverse }}{\text { Negigible Adverse }}$ | 39.0 54.7 | 39.7 55.0 | 39.6 55.1 |
| 41, HAMMERMAN DRIVE, HLTTON | Dwelling | 51.0 | ${ }_{51.5}$ | 51.0 | 0.0 | No Change | 51.5 | 0.5 | Negligible Adverse | 39.6 | 40.1 | 40.1 |
| 42, HAMMERMAN DRIVE, HLLTON |  | 67.8 | 68.2 | 67.9 | 0.1 | Negigibile Adverse | 68.3 | 0.5 | Negigigile Adverse | 54.8 | 55.1 | 55.2 |
| 43, HAMMERMAN DRIVE, HLLTON | eiling | 46.6 | 47.2 | 46.6 | 0.0 | No Change | 47.2 |  | Negigigile Adverse | 35.7 | 36.2 | 36.2 |
| 44, HAMMERMAN DRIVE, HLLTON | Dwelling | 67.9 | 68.3 472 | 67.9 | 0.0 | No Change | 68.4 | 0.5 | Negiligile Adverse | 54.8 <br> 5.7 | 55.2 | $\begin{array}{r}55.3 \\ \hline 8.2 \\ \hline\end{array}$ |
| 45, AAMMMERMAN DRIVE, HLLION | Dweling | ${ }_{6}^{46.6}$ | ${ }^{47.2}$ | 46.6 | 0.0 | No Change | ${ }_{68,2}$ | 0.6 | Negligiole Adverse | ${ }^{354.7}$ | - $\begin{array}{r}36.2 \\ 551\end{array}$ | - $\begin{array}{r}36.2 \\ 553\end{array}$ |
| 47, HAMMERMAN DRIVE, HLLTON | Dwelling | 46.6 | 47.2 | 46.6 | 0.0 | No Change | 47.2 | 0.6 | Negigigile Adverse | 35.7 | 36.2 | 36.2 |
| 48, HAMMERMAN DRIVE, HLLTON | Dwelling | 68.0 | 68.4 | 68.1 | 0.1 | Negligible Beneficial | 68.5 | 0.5 | Negigiole Adverse | 54.9 | 55.3 | 55.4 |
| (4, HAMMERMAN DRIVE, HLTION | Dwelling | $\stackrel{46.6}{51.0}$ | $\stackrel{47.2}{51.5}$ | 46.6 51.0 | 0.0 | No Change | $\stackrel{47.2}{51.5}$ | 0.6 0.5 | Negigigle Adverse | 35.7 39.6 | 36.2 40.1 | 36.2 40.1 |
| 50, HAMMERMAN DRIVE, HLLTON | Dwelling | 68.1 | 68.5 | 68.2 | 0.1 | Negigibile Adverse | 68.6 | 0.5 | Negigigile Adverse | 55.0 | 55.4 | 55.5 |
| (5, HAMMLERMAN DRIVE, HLLTON | $\frac{\text { Dwelling }}{\text { Dweling }}$ | 46.6 68.1 | 47.2 68.5 | 46.6 68.2 | 0.0 | $\frac{\text { No }}{\text { Noligible }}$ Adverse | 47.2 68.6 | 0.6 0.5 | $\frac{\text { Negligible Adverse }}{\text { Negigible Adverse }}$ | 35.7 55.0 | 36.2 55.4 | 36.2 55.5 |
| 53, HAMMERMAN DRIVE, HLLTON | Dwelling | 46.6 | 47.2 | 46.6 | 0.0 | No Change | 47.2 | 0.6 | Negiligile Adverse | 35.7 | 36.2 | 36.2 |
| 54. HAMMERMAN DRIVE, HLLTON | Dwelling | 67.9 | 68.3 <br> 472 | 68.0 | 0.1 | Negligible Beneficial | 68.4 472 | 0.5 | Negiligile Adverse | 54.8 357 | 55.2 | 55.3 |
| 56, HAMMERMAN DRIVE, HLLTON | Dwelling | 68.1 | 68.5 | 68.2 | 0.1 | Negiligile Adverse | ${ }_{68.6}$ | 0.5 | Neogigigie Adversse | ${ }^{55.0}$ | ${ }_{55.4}$ | ${ }_{55.5}$ |
| 57, HAMMERMAN DRIVE, HLLTON | ing | 48.6 | 49.0 | 48.6 | 0.0 | No Change | 49.1 | 0.5 | Neoligible Adverse | 37.5 | 37.8 | 37.9 |
| 55. HAMMMERMA D DIVE, HLLTON | Dwelling | 68.3 |  | 68.4 | 0.1 | Negligible Adverse | 68.8 |  | Negligible Adverse |  |  |  |
| 59, HAMMMERMA D DIVE, HLLTON |  | ${ }_{58.6}$ | 49.0 | ${ }^{48.6}$ |  | No Change | 49.1 | 0.5 |  | 37.5 | 37.8 | . 9 |
| 6, HAMMERMAN DAIVE, HLITON | Deeling | 50.3 | 51.1 | 50.2 | -0.1 | Negligiole Beneitical | 51.0 | 0.7 | Negigiole Adverse | 39.0 | 39.7 | 39.6 |
| 60, HAMMERMAN DRIVE, HLITON | Dweling | 68.0 | 68.4 | 68.1 | 0.1 | Negigiobe Benenicial | 68.5 | 0.5 | Negiligile Adverse | 54.9 | 55.3 | 55.4 |
| 61, HAMMERMAN DRIVE, HLLION | Dweling | 48.6 | 49.0 | 48.6 | 0.0 | No Change | ${ }_{68.1}^{49.1}$ | 0.5 | Negiligie Adverse | 37.5 549 | - 57.8 | 37.9 553 |
| 6e, 6 , HAMMMERMAAN DRIVE, HITTON | Dwelling | ${ }_{48.6} 6$ | 68.3 49.0 | 68.0 48.6 | 0.0 | ${ }^{\text {No Co Cange }}$ | 68.4 49.1 | 0.4 0.5 | Negigigie Adverse | ${ }^{54.5}$ | ${ }^{555.2}$ | ${ }_{35,3}$ |
| 64, HAMMERMAN DRIVE, HLLTON | Dwelling | 68.3 | 68.6 | 68.3 | 0.0 | No Change | 68.8 | 0.5 | Negigigile Adverse | 55.2 | 55.5 | 55.7 |
| 65, HAMMERMAN DRIVE, HLLTON | Dwelling | 48.6 | 49.0 | 48.6 | 0.0 | No Change | 49.1 | 0.5 | Negigigile Adverse | 37.5 | 37.8 | 37.9 |
| (6, HAMMERMAN DRIVE, HLLTON | Dwelling | 68.3 48.6 | 68.7 49.0 | 68.4 48.6 | ${ }_{0}^{0.1}$ | $\frac{\text { Negiligile Adverse }}{\text { No Change }}$ | 68.8 49.1 | 0.5 | $\frac{\text { Negiligile Adverse }}{\text { Negioble }}$ | 55.2 | ${ }^{55.6}$ | 55.7 |
| 68, HAMMERMAN DRIVE, HLLTON | Dwelling | 68.0 | 68.4 | 68.0 | 0.0 | No Change | 68.5 | 0.5 | Neogigible Adverse | 54.9 | 55.3 | 55.4 |
| 69, HAMMERMAN DRIVE, HLLTON | Dwelling | 48.6 | 49.0 | 48.6 | 0.0 | No Change | 49.1 | 0.5 | Negigigile Adverse | 37.5 | 37.8 | 37.9 |
| 7, HAMMERMAN DRIVE, HLTTON | Dwelling | 51.0 | 51.5 | 51.0 | 0.0 | No Change | 51.5 | 0.5 | Negigigile Adverse | 39.6 | 40.1 | 40.1 |
| 70, HAMMERMAN DRIVE, HILTON | Dwelling | 67.7 | 68.0 | 67.7 | 0.0 | No Change | 68.1 | 0.4 | Negigioble Adverse | 54.7 | 54.9 | 55.0 |
| 71, HAMMERMAN DRIVE, HLLTON | Dwelling | 48.6 | 49.0 | 48.6 | 0.0 | No Change | 49.1 | 0.5 | Negiligile Adverse | 37.5 <br> 5.0 | 37.8 | 37.9 |
|  | Dwelling | 68.1 48.6 | 68.5 49.0 | 68.2 48.6 | 0.1 | Negigigle Avverse | ${ }_{49.1}^{68.6}$ | 0.5 | Neogigigie Adverse | ${ }_{37.5}^{57.0}$ | ${ }_{357.8}^{55}$ | ${ }_{37.9}^{57.9}$ |
| 75, HAMMERMAN DRIVE, HLTTON | Dwelling | 48.6 | 49.0 | 48.6 | 0.0 | No Change | 49.1 | 0.5 | Negigiole Adverse | 37.5 | 37.8 | 37.9 |
| 77, HAMMERMAN DRIVE, HLLON | Dwelling | 48.6 | 49.0 | 48.6 | 0.0 | No Change |  |  | Negiligibe Adverse | 37.5 |  |  |
| 8, HAMMERMAN DRIVE, HLITON | Dwelling | 50.3 | 51.1 | 50.6 | -0.1 | Neglioible Eengeneficial | 51.1 | 0.5 | Negligiol Avverse | 39, | 397 | 396 |
| 81, HAMMERMAN DRIVE, HILTON | Dwelling | 48.6 | 49.0 | 48.6 | 0.0 | No Change | 49.1 | 0.5 | Negigiolie Adverse | 37.5 | 37.8 | 37.9 |
| 83, HAMMERMAN DRIVE, HLLTON | Dwelling | 48.6 | 49.0 | 48.6 | 0.0 | No Change | 49.1 | 0.5 | Negigiolie Adverse | 37.5 | 37.8 | 37.9 |
| 85, HAMMERMA D DIVE, HLLON | Dwelling | ${ }_{48,6}^{48.6}$ | 49.0 | ${ }_{48.6}^{48}$ | 0.0 | No Change | 49.1 | 0.5 | Negiligibe Adverse | 37.5 375 | ${ }^{37.8}$ | 37.9 379 |
|  | Dwelling | ${ }_{48.6}^{48.6}$ | 49.0 | ${ }_{48.6}^{48.6}$ | 0.0 | ${ }^{\text {No C Change }}$ | ${ }_{49.1}^{49.1}$ | 0.5 | $\frac{\text { Negligible Adverse }}{\text { Negligible Adverse }}$ | ${ }^{37.5}$ | 37.8 37.8 | 37.9 37.9 |
| 9, HAMMERMAN DRIVE, HILTON | Dwelling | 51.0 | 51.5 | 51.0 | 0.0 | No Change | 51.5 | 0.5 | Negligible Adverse | 39.6 | 40.1 | 40.1 |
| 991, HAMMERMA D DIVE, HLLON | Dwelling | 48.6 | 49.0 | 48.6 | 0.0 | No Change | 49.1 | 0.5 | Negigigile Adverse | 37.5 | ${ }^{37.8}$ | 37.9 |
| 93, HAMMLERMAN DRIVE, HLLTON | Dwelling | ${ }_{48.6}^{48.6}$ | 49.0 490 | 48.6 48.6 | 0.0 | $\frac{\mathrm{No} \text { C Cange }}{\text { No Change }}$ | 49.1 49.1 | 0.5 | $\frac{\text { Negigigile Adverse }}{\text { Negilible Adverse }}$ | 37.5 37.5 | 37.8 37.8 | 37.9 379 |
| 97, HAMMERMAN DRIVE, HLTTON | Dwelling | 55.1 | 55.5 | 55.1 | 0.0 | No Change | 55.6 | 0.5 | Negligible Adverse | 43.3 | 43.7 | 43.8 |
| 99, HAMMERMAN DRIVE, HLLTON | Dwelling | 55.1 | 55.5 | 55.1 | 0.0 | No Change | 55.6 | 0.5 | Negigigile Adverse | 43.3 | 43.7 | 43.8 |
| 1, HAMM MERMANLANE, HILTON | Dwelling | 48.6 | 49.2 | 48.7 | 0.1 | Negligigle Adverse | 49.2 | 0.6 | Negigioble Adverse | $\frac{37.5}{372}$ | 38.0 | 38.0 |
|  | Dwelling | 48.3 57.8 | $\stackrel{48.9}{58.5}$ | ${ }^{48.4} 5$ | -0.5 | Negligibile Benefificial | $\stackrel{48.9}{58.2}$ | ${ }_{0}^{0.4}$ | Neoligiole Adverse | ${ }^{37.2}$ | ${ }^{36.7}$ | ${ }^{36.1}$ |
| 11. HAYF IELD C CRESCENT | Dwelling | 53.6 | 54.3 | 53.1 | -0.5 | Negligible Beneficial | 54.0 | 0.4 | Negligible Adverse | 42.0 | 42.6 | 42.3 |
| 13, HAYYIELD CRESCENT | Dwelling | 53.0 | 53.7 | 52.5 | -0.5 | Negligible Beneficioal | 53.4 | 0.4 | Negigigile Adverse | 41.4 | 42.1 | 41.8 |
| 15, HAYFIELD CRESCENT | Dwelling | ${ }_{52,7}$ | ${ }_{53,4}^{53}$ | ${ }^{52.2}$ | -0.5 | Negligible Benenitial | 53.1 | 0.4 | Neqigigile Adverse | 41.2 | 41.8 | 41.5 |
| 17, HAYY 1 HALELCLIELESCENT | Dwelling | - 51.2 | $\stackrel{53.0}{52.6}$ | 51.8 51.5 | $\stackrel{-0.4}{-0.4}$ | $\frac{\text { Negiligiole Beneficial }}{\text { Negioidi }}$ Beneficial | $\begin{array}{r}\text { 52.7 } \\ 52.4 \\ \hline\end{array}$ | 0.5 | Negigigle Adverse | $\frac{40.7}{40.4}$ | 41.4 41.1 | 41.2 |
| 2, HAYFIELLD CRESCENT | Dwelling | 53.8 | 54.5 | 53.3 | -0.5 | Negligible Beneficial | 54.2 | 0.4 | Negigiole Adverse | 42.2 | 42.8 | 42.5 |
| 3, HAYFIELD CRESCENT | Dwelling | 56.7 | 57.4 532 | 56.2 | -0.5 | Negligible Beneficial | $\begin{array}{r}57.1 \\ 53 \\ \hline\end{array}$ | 0.4 0.5 | Negiligil Adverse | 44.8 | 45.4 416 | $\frac{45.1}{414}$ |
| ${ }_{5}^{\text {5, HAYYFELELD CRESCEENT }}$ | Dweling | 52.5 55.5 | ${ }_{56.2}^{53.2}$ | 52.0 | -0.5 -0.5 | Negiligiole Beneitical | ${ }^{53.0} 5$ | 0.3 | Neoligible Adverse | ${ }_{43.7}^{41.7}$ | ${ }_{44.3}^{4}$ | ${ }_{44.0}^{44.4}$ |
| 6. ${ }^{\text {, HAYFIELLL CRESCENT }}$ | Dwelling | 52.7 | $\begin{array}{r}53.4 \\ 5.2 \\ \hline\end{array}$ | ${ }_{52.3}^{51}$ | -0.4 | Negligible Beneficial | 53.2 | 0.5 | Negigigile Adverse | 41.2 | 41.8 | 41.6 |
| $\frac{7}{9, \text { HAAYFIELELD CRESCSCENT }}$ | Dwelling | $\stackrel{54.4}{53.8}$ | ${ }_{554.5}^{54.5}$ | ${ }_{54.3}^{53.0}$ | -0.4 | Negiligie Beneticial | ${ }_{54.8}^{54.2}$ | 0.4 0.4 | Negigigib Adverse | ${ }_{42.2}^{42.7}$ | ${ }^{43.4} 4$ | ${ }_{42.5}^{43.1}$ |
| 1, HAYFIELD PLACE | Dwelling | 56.8 | 57.1 | 56.2 | -0.6 | Negligible Beneficial | 56.9 | 0.1 | Negligible Adverse | 44.9 | 45.1 | 44.9 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 <br> Lnight,outside | DM33 Lnight,outside | DS33 Lnight,outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 10. HAYFIELD PLACE | Dwelling | 50.4 | 51.3 | 50.3 | -0.1 | Negligible Beneficial | 51.1 | 0.7 | Negigigible Adverse | 39.1 | 39.9 | 39.7 |
| 12. HAYFIELD PLACE | Dwelling | 50.1 | 51.0 | 50.0 | -0.1 | Negligible Beneficical | 50.8 | 0.7 | Negiligible Adverse | 38.8 | 39.6 | 39.5 |
| 14, HAYFIELD PLACE | Dwelling | 50.2 | 51.1 | 50.1 | -0.1 | Negligible Beneficial | 50.9 | 0.7 | Negiligibe Adverse | 38.9 | 39.7 | 39.5 |
| 16, HAYFIELD PLACE | Dwelling | 50.2 | 51.1 | 50.1 | -0.1 | Negligible Benefitical | 51.0 | 0.8 | Negigigle Adverse | 38.9 37.5 | 39.7 308 | 39.6 30. |
| 18, HAYFIELD PLACE | Delling | ${ }_{4}^{48.6}$ | ${ }_{59.5}^{49.5}$ | ${ }_{5.5}^{48.5}$ | -0.1 | Negligible Beneficicial | 49.4 | 0.8 | Negigigibe Adverse | 37.5 | 38.3 | 38.2 |
| 2, HAYFIELLD PLACE | Delling | ${ }^{52.6}$ | 53.4 | 52.3 | -0.3 | Negligible Benefitical | 55.2 | 0.6 | Negigigli Adverse | ${ }_{4}^{41.1}$ | 41.8 3.9 | 41.6 3.8 |
| 20, HAYFIELD PLACE | Delling | 49.2 | 50.2 | 49.1 | -0.1 | Negligible Beneficical | 50.1 | 0.9 | Negigigibe Adverse | 38.0 | 38.9 | 38.8 |
| 22, HAYFIELD PLACE | Dwelling | 49.4 | 50.4 | 49.3 | -0.1 | Negligible Beneficical | 50.2 | 0.8 | Negiligible Adverse | 38.2 | 39.1 | 38.9 |
| 24, HAYFIELD PLACE | Deelling | 51.3 | 52.3 | 51.2 | -0.1 | Negligible Beneficial | 52.2 | 0.9 | Negigigible Adverse | 39.9 | 40.8 | 40.7 |
| 3, HAYYIELD PLACE | Deelling | 54.2 | 54.6 | 53.7 | -0.5 | Negligible Benefitical | ${ }_{54.4}^{5.4}$ | 0.2 | Negigigle Adverse | ${ }^{42.5}$ | 42.9 | 42.7 411 |
| 5, HAYFIELLD PLACE | ${ }^{\text {Dwelling }}$ Dowling | ${ }_{5}^{52.5}$ | ${ }_{5}^{52.9} 5$ | 51.8 | -0.4 | Negligiole Beneitical | 52.9 52.9 | 0.4 | Negigigibe Adverse | $\stackrel{40.6}{41.0}$ | $\stackrel{41.6}{41.6}$ | $\stackrel{41.3}{41.3}$ |
| 6 6, HAYFIELD PLACE | Dwelling | 49.2 | 50.0 | 49.0 | -0.2 | Negligible Beneficial | 49.8 | 0.6 | Negiligile Adverse | 38.0 | 38.7 | 38.6 |
| 8 8, HAYFIELD PLACE | Dwelling | 49.4 | 50.2 | 49.2 | -0.2 | Negligible Beneficial | 50.0 | 0.6 | Negligible Adverse | 38.2 | 38.9 | 38.7 |
| FFLATA, 2, HAYTON ROAD, TILYYRONE | Dwelling | 59.6 59.6 | 63.9 63.9 | 56.9 56.9 | -2.7 .2 .7 | $\frac{\text { Minor Beneficial }}{\text { Minor Beneficial }}$ | 62.6 62.6 | ${ }_{3.0}^{3.0}$ | Minor Adverse | 47.4 47.4 | 51.22 | 50.1 50.1 |
| FLAT B, 2, HAYTON ROAD, TILYYRONE | ${ }^{\text {Dwelling }}$ Dowling | ${ }_{59.6}$ | ${ }_{63.9}$ | 56.9 | -2.7 | Minor Beneneficial | ${ }_{62.6}$ | ${ }_{3.0}$ | Minor Adverse | 47.4 | ${ }^{\frac{51.2}{51.2}}$ | 50.1 |
| FLAT D, 2, HAYTON ROAD, TLL YORONE | Dwelling | 59.6 | 63.9 | 56.9 | -2.7 | Minor Beneficial | 62.6 | 3.0 | Minor Adverse | 47.4 | 51.2 | 50.1 |
| FLAT E, 2, HAYTON ROAD, TILLYDRONE | Dwelling | 59.6 | 63.9 | 56.9 | -2.7 | Minor Beneficial | 62.6 | 3.0 | Minor Adverse | 47.4 | 51.2 | 50.1 |
| FLAT F, 2, HAYTON ROAD, TILLYORONE | Oweling | 59.6 | 63.9 | 56.9 | -2.7 | Minor Beneficial | 62.6 | 3.0 | Minor Adverse | 47.4 | 51.2 | 50.1 |
| FLAT G, , , HAYYON ROAD, TLL Y YROONE | Dewling | 59.6 | 63.9 | 56.9 | -2.7 | Minor Beneficical | ${ }_{62.6}^{62.6}$ | 3.0 | Minor Adverse | ${ }_{47.4}^{474}$ | 51.2 | 50.1 |
| FLAT H, 2, HAYYON ROAD, TILYYROONE | Dewling | 59.6 | 63.9 | 56.9 | -2.7 | Minor Beneficical | ${ }_{62.6}^{62 .}$ | ${ }_{3}^{3.0}$ | Minor Adverse | ${ }_{474}^{474}$ | 51.2 | 50.1 |
|  | ${ }^{\text {Dwelling }}$ Dowling | ${ }_{59.6}^{59.6}$ | 63.9 6 | 56.9 | -2.7 -2.7 | Minor Benefificial | ${ }^{62.6}$ | 3.0 3.0 | Minor Adverse | 47.4 | 51.2 | 50.1 50.1 |
| FLATL, 2, HAYTON ROAD, TILYORONE | Dwelling | 59.6 | 63.9 | 56.9 | -2.7 | Minor Beneficial | 62.6 | 3.0 | Minor Adverse | 47.4 | 51.2 | 50.1 |
| FLAT M, 2, HA YTON ROAD, TIL Y YRONE | Dwelling | 59.6 | 63.9 | 56.9 | -2.7 | Minor Beneficial | 62.6 | 3.0 | Minor Adverse | 47.4 | 51.2 | 50.1 |
| 1 1, HAYTON ROAD, TILYYRRONE | Deelling | 54.7 | 58.0 | 52.7 | -2.0 | Minor Beneficicial | 57.0 | 2.3 | Negiligibe Adverse | 43.0 | 45.9 | 45.0 |
| 10, HAYTON ROAD, TILYDRONE | Dwelling | 58.8 <br> 587 <br> 8. | 62.8 628 | 56.2. | -2.6 | $\frac{\text { Minor Beneficial }}{\text { Minor Beneficial }}$ | 61.7 61.6 | $\stackrel{2.9}{29}$ | $\frac{\text { Negligible Adverse }}{\text { Negilible Adverse }}$ | 46.7 | 50.3 <br> 508 | ${ }^{49.3}$ |
| 11, HAYTON ROAD, TLLLYDRONE | Dwelling | 54.7 | 58.0 | 52.7 | -2.0 | Minor Beneficial | 57.0 | 2.3 | Negigigible Adverse | 43.0 | 45.9 | 45.0 |
| 11, HAYTON ROAD, TILYYORONE | Dwelling | 54.7 | 58.0 | 52.7 | -2.0 | Minor Beneficial | 57.0 | 2.3 | Negigiolie Adverse | 43.0 | 45.9 | 45.0 |
| 12. HAYTON ROAD, TILLYDRONE | Dwelling | 58.9 58.7 | $\frac{63.0}{62.7}$ | 56.3 56.1 | -2.6 | $\frac{\text { Minor Beneficical }}{\text { Minor Beneficial }}$ | $\frac{61.8}{61.5}$ | $\frac{2.9}{2.8}$ | $\frac{\text { Negaligible Adverse }}{\text { Negioigle Adverse }}$ | $\frac{46.7}{46.6}$ | 50.4 50.2 | 49.4 49.1 |
| 12, HAYTON ROAD, TILLYORONE | Dwelling | 58.8 | 62.7 | 56.3 | -2.5 | Minor Beneficial | 61.6 | 2.8 | Negiligible Adverse | 46.7 |  | 49.2 |
| -13, HAYTON ROAD, TlLYQRONE | Dwelling | 55.1 59.1 | 58.4 63.0 | 53.0 56.7 | -2.1 -2.4 | $\xrightarrow{\text { Minor Beneficical }}$ | 57.4 61.8 | 2.3 2.7 | Negiligib Adverse | 43.3 46.9 | 46.3 50.4 | 45.4 49.4 |
| 14, HAYTON ROAD, TILLYDRONE | Dwelling | 59.1 | 63.0 | 56.7 | -2.4 | Minor Beneficial | 61.8 | 2.7 | Negligible Adverse | 46.9 | 50.4 | 49.4 |
| 14, HAYTON ROAD, TILLYORONE | Dwelling | 59.1 | 63.0 | 56.7 | -2.4 | Minor Beneficial | 61.8 | 2.7 | Negigioble Adverse | 46.9 | 50.4 | 49.4 |
| 14, HAYTON ROAD, TILLYDRONE | Deelling | 59.1 | 63.0 | 56.7 | -2.4 | Minor Beneficial | 61.8 | 2.7 | Negigioibe Adverse | 46.9 | 50.4 | 49.4 |
| 14, HAYTON ROAD, TILYORONE | Dwelling | 59.1 59.1 | 63.0 63.0 | 56.7 56.7 | -2.4 .2 .4 | $\xrightarrow{\text { Minor Beneficial }}$ | 61.8 61.8 | 2.7 2.7 | $\frac{\text { Negiligib Adverse }}{\text { Negigible Adverse }}$ | 46.9 | 50.4 50.4 | 49.4 494 |
| 1 15, HAYTON ROAD, TILLYDRONE | Dwelling | 55.1 | 58.4 | 53.0 | -2.1 | Minor Beneficial | 57.4 | 2.3 | Negiligile Adverse | 43.3 | 46.3 | 45.4 |
| 17, HAYTON ROAD, TILLYORONE | Dwelling | 55.1 | 58.4 | 53.0 | -2.1 | Minor Beneficial | 57.4 | 2.3 | Negigigile Adverse | 43.3 | 46.3 | 45.4 |
| 17, HAYTTON ROAD, TILYYORONE | Dwelling | 55.1 | 58.4. | 53.0 | -2.11 | Minor Beneficical | 57.4 574 | ${ }_{2}^{23}$ | Negligible Adverse | 43.3 | 46.3 | 45.4 |
| $\frac{19, \text { HAYTON ROAD, TlLYDRONE }}{\text { 12, }}$ | Dwelling | 55.1 55.1 | 58.4 58.4 | 53.0 53.0 | - $\begin{array}{r}-2.1 \\ -2.1\end{array}$ | $\xrightarrow{\text { Minor Beneficial }}$ Minor Beneficial | 57.4 57.4 | ${ }_{2.3}^{2.3}$ | Negigigib Adverse Nefigible Adverse | 43.3 43.3 | ${ }_{46.3}^{46.3}$ | 45.4 45.4 |
| 21, 2 HAYAYTON ROAD, | Dwelling | ${ }_{55.1}^{55.1}$ | ${ }_{\text {cher }}^{58.4}$ | 53.0 53.0 | -2.11 -2.1 | Minoror Beneneficicial | 57.4 57.4 | ${ }_{2.3}^{2.3}$ | Negigigibe Adverse | ${ }_{43.3}^{43.3}$ | ${ }_{46.3}^{46.3}$ | 45.4 |
| 23, HAYTON ROAD, TILLYORONE | Dwelling | 55.1 | 58.4 | 53.0 | -2.1 | Minor Beneficial | 57.4 | ${ }_{2} .3$ | Negigigible Adverse | 43.3 | 46.3 | 45.4 |
| 25, HAYTON ROAD, TILYYDRONE | Dwelling | 54.8 | 58.1 | 52.8 | -2.0 | Minor Beneficial | 57.1 | 2.3 | Negiligibe Adverse | 43.1 | 46.0 | 45.1 |
| $\frac{27, \text { HAYTON ROAD, TILYORONE }}{29, \text { HAYTON }}$ | Dwelling | 54.8 54.8 | 58.1 58.1 | 52.8 <br> 52.8 | -2.0 | $\frac{\text { Minor Beneficial }}{\text { Minor Beneficial }}$ | 57.1 57.1 | ${ }_{2.3}^{2.3}$ | $\frac{\text { Negiligible Adverse }}{\text { Negioble }}$ | $\frac{43.1}{43.1}$ | $\frac{46.0}{46.0}$ | $\frac{45.1}{45.1}$ |
| 29, HAYTON ROAD, TLLLYDRONE | Dwelling | 54.8 | 58.1 | 52.8 | -2.0 | Minor Beneficial | 57.1 | ${ }_{2.3}$ | Neogigigile Adverse | 43.1 | 46.0 | 45.1 |
| 3, HAYTON ROAD, TILYPRONE | Dwelling | 54.7 | 58.0 | 52.7 | -2.0 | Minor Beneficial | 57.0 | 2.3 | Negiligible Adverse | 43.0 | 45.9 | 45.0 |
| 31, AAYTON ROAD, TILLYDRONE | Oweling | 54.8 <br> 54 | 58.1 | 52.8 <br> 52.8 | -2.0 | Minor Beneficial | 57.1 | ${ }^{2.3}$ | Negiligibe Adverse | 43.1 | 46.0 |  |
| 33, HAYTON ROAD, TILLYROONE | Dwelling | 54.8 <br> 54.8 | 58.1 58.1 | 52.8 <br> 52.8 | -2.0 -2.0 | Minor Beneficial | 57.1 57.1 | ${ }_{2.3}^{2.3}$ | Negigible Adverse | 43.1 43.1 | 46.0 46.0 | 45.1 45.1 |
| 35, HAYTTON ROAD, TILLYORONE | Deelling | 54.8 | 58.1 | 52.8 | -2.0 | Minor Beneficial | 57.1 | ${ }^{2.3}$ | Negigiolile Adverse | 43.1 | 46.0 | 45.1 |
| 37, HAYTON ROAD, TILLYORONE | Deelling | 54.9 | 58.2 | 53.0 | -1.9 | Minor Beneficial | 57.2 | ${ }^{2.3}$ | Negiligible Adverse | 43.1 | 46.1 | 45.2 |
| 39, HAYTON ROAD, TILLYDRONE | Dwelling | 54.9 588 | 58.2 | $\begin{array}{r}53.0 \\ 5.0 \\ \hline\end{array}$ | -1.9 | Minor Beneficial | 57.2 | 2.3 29 | Negiligib Adverse | 43.1 | 46.1 <br> 50. | 45.2 493 |
|  | Dwelling | 58.8 | 62.8 58.2 | ${ }_{56.2}^{53.0}$ | -2.6 -1.9 | Minor Beneficial | 61.7 57.2 | ${ }_{2}^{2.9}$ | Negigigle Adverse | ${ }_{46.1}^{43.1}$ | 50.3 46.1 | 49.3 |
| 41, HAYTON ROAD, TILLYORONE | Dwelling | 54.9 | 58.2 | 53.0 | -1.9 | Minor Beneficial | 57.2 | 2.3 | Negiligible Adverse | 43.1 | 46.1 | 45.2 |
|  | Dwelling | 54.9 549 | ¢58.2 | 53.0 | -1.9 | Minor Beneficical | 57.2 | ${ }_{2}^{2.3}$ | Negligible Adverse | 43.1 | 46.1 | 45.2 |
| 4, 4 , HAYTON ROAD, TILLYORONE | Dwelling | 54.9 54.9 | - ${ }_{\text {58.2 }}^{58.2}$ | 53.0 53.0 | -1.9 -1.9 | Minor Beneficicial | 57.2 57.2 | ${ }_{2.3}^{2.3}$ | Negigible Adverse | ${ }_{43.1}^{43.1}$ | ${ }_{46.1}^{46.1}$ | 45.2 |
| 47, HAYTON ROAD, TILYY RONE | Dwelling | 54.9 | 58.2 | 53.0 | -1.9 | Minor Beneficial | 57.2 | 2.3 | Negigioble Adverse | 43.1 | 46.1 | 45.2 |
| 49, HAYTON ROAD, TILY YRONE | Dwelling | 55.0 54.7 | 58.1 58.0 | 53.1 52.7 | -1.9 -2.0 | $\xrightarrow[\text { Minor Beneficial }]{\text { Minor Beneficial }}$ | 57.1 57.0 | ${ }_{2.3}^{2.1}$ | Negigible Adverse | 43.2 43.0 | 46.0 45.9 | 45.1 45.0 |
| 5, HAYTON ROAD, TILYORONE | Dwelling | 54.7 | 58.0 | 52.7 | -2.0 | Minor Beneficial | 57.0 | 2.3 | Negigioible Adverse | 43.0 | 45.9 | 45.0 |
| 51, HAYTON ROAD, TILYYRONE | Dwelling | 55.0 55.0 | 58.1 58.1 | 53.1 53.1 | -1.9 -1.9 | $\xrightarrow[\text { Minor Beneficical }]{\text { Minor Beneficial }}$ | 57.1 57.1 | ${ }_{2.1}^{2.1}$ | Negligible Adverse | 43.2 43.2 | 46.0 46.0 | $\stackrel{45.1}{45.1}$ |
| 53, HAYTON ROAD, TILLYDRONE | Dwelling | 55.0 | 58.1 | 53.1 | -1.9 | Minor Beneficial | 57.1 | 2.1 | Negiligible Adverse | 43.2 | 46.0 | 45.1 |
| 55, HAYTON ROAD, TILLYORONE | Owelling | 55.0 | 58.1 | 53.1 | -1.9 | Minor Beneficial | 57.1 | 2.1 | Negigioble Adverse | 43.2 | 46.0 | 45.1 |
| 57, HAYTON ROAD, | Dwelling | 55.0 | 58.1 | 53.1 53.1 | -1.9 | Minoror Beneneficicial | 57.1 57.1 | ${ }_{2}^{2.1}$ | Negigigible Adverse | 43.2 | 46.0 | ${ }_{45.1}^{45.1}$ |
| 59, HAYTON ROAD, TILLYDRONE | Dwelling | 55.0 58.8 | 58.1 628 | 53.1 56.1 | -1.9 .26 | Minor Beneficial | ${ }^{57.1}$ | 2.1 29 | Negiligle Adverse | 43.2 467 | 46.0 50.3 | 45.1 49 |
|  | ${ }^{\text {Dweliling }}$ Oweling | 58.9 | ${ }^{62.8} 8$ | ${ }^{56.3}$ | -2.6 | Minoror Beneneficial | ${ }_{61.8}^{61.8}$ | 2.9 | Neogigioble Adverse | ${ }_{46.7}^{46.7}$ | ${ }_{50.4}$ | 49.4 |
| 7, HAYTON ROAD, TILLYDRONE | Delling | 54.7 | 58.0 | 52.7 | -2.0 | Minor Beneficial | 57.0 | 2.3 | Negigible Adverse | 43.0 | 45.9 | 45.0 |
| $\frac{8, \text { HAYTON ROAD, TILYYORONE }}{\text { 8, HATTON ROAD, TLIYPRONE }}$ | Dwelling | 58.8 58.8 | $\frac{62.9}{62.9}$ | 56.2 56.2 | -2.6 | $\frac{\text { Minor Beneficial }}{\text { Minor Beneficial }}$ | 61.7 61.7 | 2.9 | $\frac{\text { Negligiole Adverse }}{\text { Negligible Adverse }}$ | $\frac{46.7}{46.7}$ | 50.3 50.3 | $\frac{49.3}{49.3}$ |
| 9, HAYTON ROAD, TILYYDRONE | Dewling | 54.7 480 | 58.0 | $\begin{array}{r}52.7 \\ \hline 18\end{array}$ | -2.0 | Minor Beneficial | 57.0 | ${ }^{2.3}$ | Negligible Adverse | 43.0 | 45.9 | 45.0 |
| 1, HEATHRYFOLD CIRCLE | Dweling | 48.0 | 49.0 | 48.0 | 0.0 | No Change | 49.1 | . 1 | Negiligile Adverse | 36.9 | 37.8 | 37.9 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 Lnight,outside | DS33 Lnight,outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 10, HEATH PYFOLD CIRCLE | Dwelling | 42.9 | 43.2 | 43.5 | 0.6 | Negigigile Adverse | 44.3 | 1.4 | Negigigile Adverse | 32.3 | 32.6 | 33.6 |
| 100. HEATHRYFOLD CIRCLE | Oweling | 49.0 | ${ }_{54.0}^{497}$ | ${ }_{\text {48.8 }}^{48}$ | -0.2 .0 .1 | Negligible Beneficial | $\frac{49.5}{557}$ | ${ }_{0}^{0.5}$ | Negiligibe Adverse | 37.8 436 | 37.8 430 | 38.3 439 |
| 101, HEATHRYFOLD CIRCLE | Dwelling | 55.4 48.9 | 54.7 48.8 | 55.3 48.7 | -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negligibl eneneficial }}$ | 55.7 49.4 | 0.5 | Negligible Adverse | ${ }_{3}^{43.7}$ | ${ }_{3}^{43.0}$ | 43.9 38.2 |
| 103, HEATHRYFOLD CIRCLE | Dwelling | ${ }_{55.3}$ | ${ }_{54.6}$ | 55.2 | -0.1 | Negligible Beneniticial | ${ }^{55.6}$ | 0.3 | Negligible Adverse | 43.5 | 42.9 | 43.8 |
| 104, HEATHRYFOLD CIRCLE | Dwelling | 49.6 | 49.7 | 49.6 | 0.0 | No Change | 50.3 | 0.7 | Negigigible Adverse | 38.4 | 38.5 | 39.0 |
| 105, HEATHRYFOLD CIRCLE | Dwelling | 55.4 | 54.7 | 55.3 | -0.1 | 何ligible Beneficicia | 55.7 | 0.3 | Negligible Adverse | 43.6 | 43.0 | 43.9 |
| 106, HEATHRYFOLD CIRCLE | Dwelling | 50.5 | 50.3 | 50.5 | 0.0 | No Change | 51.1 | 0.6 | Negilibile Adverse | 39.2 | 39.0 | 39.7 |
| 107, HEATHRYFOLD CIRCLE | Delling | 55.3 | 54.5 | 55.2 | -0.1 | Negligible Beneficical | 55.6 | 0.3 | Negigigible Adverse | 43.5 | 42.8 | 43.8 |
| 108, HEATHRYFOLD CIRCLE | Deelling | $\stackrel{50.3}{5.3}$ | 50.2 | ${ }_{50.2}^{50 .}$ | -0.1 | Negligible Beneficical | ${ }_{50.8}$ | 0.5 | Negigigibe Adverse | 39.0 | 38.9 | 39.5 |
|  | ${ }^{\text {Dwelling }}$ Dowling | ${ }_{45.8}$ | ${ }_{45.0}$ | ${ }_{4} 54.7$ | 0.2 | Neegigigioble Adverierse | ${ }_{45.7}$ | 1.2 <br> 1 | Negigigibe Adverse | ${ }_{33.8}^{44.0}$ | ${ }^{43.3}$ | ${ }_{34.9}^{44.9}$ |
| 110, HEATHRYFOLD CIRCLE | Dwelling | 50.3 | 50.3 | 50.2 | -0.1 | Negligible Beneficial | 50.9 | 0.6 | Negiligile Adverse | 39.0 | 39.0 | 39.5 |
| 111, HEATHRYFOLD CIRCLE | Dwelling | 55.8 | 55.1 | 55.7 | -0.1 | Negligible Beneficial | 56.0 | 0.2 | Negiligibe Adverse | 44.0 | 43.3 | 44.1 |
| 112, HEATHRYFOLD CIRCLE | Wwelling | 50.9 | 50.8 | ${ }_{50.8}^{50.8}$ | -0.1 | Negligible Benefitical | 51.4 | 0.5 | Negiligible Adverse | 39.5 | 39.5 | 40.0 |
| 113, HEATHRYFOLD CIRCLE | Dwelling | 55.8 <br> 52.8 | 55.1 52.2 | 55.7 <br> 52.8 | -0.1 0.0 | Negligible Beneficial | 56.1 53.1 | 0.3 0.3 | Negiligib Adverse | 44.0 41.3 | 43.3 40.7 | 44.2 41.5 |
| 115, HEATHRYFOLD CIRCLE | Dwelling | 55.9 | 55.1 | 55.7 | -0.2 | Negligible Beneficial | 56.1 | 0.2 | Negigigibe Adverse | 44.0 | 43.3 | 44.2 |
| 116. HEATHRYFOLD CIRCLE | Dwelling | 51.0 | 51.0 | 50.9 | -0.1 | Negligible Beneficial | 51.6 | 0.6 | Negligible Adverse | 39.6 | 39.6 | 40.2 |
| 117, HEATHRYFOLD CIRCLE | Dwelling | 55.9 | 55.1 | 55.8 | -0.1 | Negligible Beneficical | 56.1 | 0.2 | Negligible Adverse | 44.0 | 43.3 | 44.2 |
| 118, HEATHRYFOLD CIRCLE | Dwelling | 50.9 | 50.8 | 50.8 | -0.1 | Negligible Beneficial | 51.4 | 0.5 | Negiligile Adverse | 39.5 | 39.5 |  |
| 119, HEATHRYFOLD CIRCLE | Dwelling | 55.9 42.9 | 55.1 43.2 | 55.8 43.5 | -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negigioble Adverse }}$ | 56.1 44.3 | 0.2 1.4 | Negiligib Adverse | ${ }^{44.0} 3$ | ${ }_{32.6}^{43.3}$ | 44.2 33.6 |
| 120, HEATHRYFOLD CIRCLE | Dwelling | 50.6 | 50.6 | 50.4 | -0.2 | Negligible Beneficial | 51.1 | 0.5 | Negiligible Adverse | 39.3 | 39.3 | 39.7 |
| 121, HEATHRYFOLD CIRCLE | Dwelling | 55.9 | 55.1 | 55.8 | -0.1 | Negligible Beneficial | 56.1 | 0.2 | Negigigible Adverse | 44.0 | 43.3 | 44.2 |
| 122, HEATHRYFOLD CIRCLE | Dwelling | 51.1 | 51.0 | 50.9 | -0.2 | Negligible Beneficical | 51.5 | 0.4 | Negigioble Adverse | 39.7 | 39.6 | 40.1 |
| 123, HEATHRYFOLD CIRCLE | Deeling | 55.8 | 55.0 | 55.7 | -0.1 | Negligible Benenticial | 56.0 | ${ }_{0}^{0.2}$ | Negiligibe Adverse | 44.0 | ${ }^{43.2}$ | 44.1 |
| 124, 12 HEATHRYYYFOLOLD CIRCLE | Dwelling | 55.4 55.7 | ${ }_{5}^{51.2}$ | 55.2 55 | -0.2 | Negiligile Beneitical | 55.8 55.9 | 0.4 | Negigigibe Adverse | 40.9 | 39.8 43.1 | $\stackrel{40.4}{44.0}$ |
| 126, HEATHRYFOLD CIRCLE | Wwelling | 51.1 | 50.9 | 50.9 | -0.2 | Negligible Beneficial | 51.5 | 0.4 | Negigiolile Adverse | 39.7 | 39.5 | 40.1 |
| 127, HEATHPYFOLD CIRCLE | welling | 55.6 | 54.6 | 55.5 | 0.1 | Negligible Beneficial | 55.7 | 0.1 | Negiligibe Adverse | 43.8 | 42.9 | 43.9 |
| $\frac{128 .}{129}$ HEATHRYFOLD CIRCLE | Deelling | 50.8 | 50.8 | 50.6 | -0.2 | Negligible Beneficicial | 51.3 | 0.5 | Negiligibie Adverse | 39.5 | 39.5 | 39.9 |
| 129, HEATHRYFOLD CIRCLE | Dwelling | 56.1 44.8 | 55.3 45.5 | ${ }_{46.7}^{56.0}$ | -0.1 -0.1 | $\frac{\text { Negiligiole Beneficial }}{\text { Negligible }}$ Beneficial | ${ }_{45.7}^{56.3}$ | 0.9 | Negigigib Adverse | ${ }^{44.2}$ | ${ }^{43.5}$ | 34.9 |
| 130, HEATHRYFOLD CIRCLE | welling | 51.0 | 50.8 | 50.8 | -0.2 | Negligible Beneficial | 51.4 | 0.4 | Negigiolile Adverse | 39.6 | 39.5 | 40.0 |
| 131, HEATHRYFOLD CIRCLE | Dwelling | 56.1 | 53 | 56.0 | -0.1 | Negligible Beneficial | 56.3 | 0.2 | Negiligile Adverse | 44.2 | 43.5 | 4.4 |
| 132, HEATHRYFOLD CIRCLE | Dwelling | 50.6 | 50.6 | 50.5 | -0.1 | Negligible Beneficical | 51.2 | 0.6 | Negigioble Adverse | 39.3 | 39.3 | 39.8 |
| 133, HEATHRYFOLD CIRCLE | Dwelling | $\frac{56.2}{510}$ | 55.4 | 56.1 | -0.1 | Neogioible Beneficial | 56.4 | 0.2 | Negiligib Adverse | $\frac{44.3}{39}$ | 43.6 396 | $\frac{44.5}{402}$ |
| ${ }^{\text {134, }}$ 135, HEATHYYYFOLD CIRCLELE | Dwelling | 56.4 | 55.7 55 | ${ }_{50.9}$ | -0.1 | Negiligible Beneneficial | ${ }_{51.6}^{56.6}$ | 0.6 | Neogigioble Adverse | 39.6 44.5 | 39.6 43.9 | 40.7 44.7 |
| 136, HEATHPYFOLD CIRCLE | Deelling | 50.8 | 50.8 | 50.8 | 0.0 | No Change | 51.4 | 0.6 | Negigiolile Adverse | 39.5 | 39.5 | 40.0 |
| 137, HEATHRYFOLD CIRCLE | Dwelling | 55.2 | 54.7 | 55.2 | 0.0 | No Change | 55.7 | 0.5 | Negiligible Adverse | 43.4 | 43.0 | 43.9 |
| 138, 1 HEATHRYYOLD CIRCLE | Dwelling | ${ }_{51.2}^{54}$ | 51.2 | 51.2 | 0.0 | No. ${ }_{\text {No Change }}$ | $\begin{array}{r}51.9 \\ 55.2 \\ \hline\end{array}$ | 0.7 | Negigigbe Adverse | 39.8 42.9 | 39.8 425 | 40.4 43.4 |
| 14, HEATH PYFOLD CIRCLE | Dwelling | 43.2 | 43.4 | 43.1 | -0.1 | Negligible Benenicial | 43.9 | 0.7 | Negiligible Adverse | 32.6 | 32.8 | 33.2 |
| 140, HEATHRYFOLD CIRCLE | welling | 54.7 | 53.8 | 54.7 | 0.0 | No Change | 55.0 | 0.3 | Negiligile Adverse | 43.0 | 42.2 | 43.2 |
| 141, HEATHRYFOLD CIRCLE | Dwelling | 54.1 54.7 | 53.6 53.6 | 年54.6 | 0.1 -0.1 | Negigigle Adverse | 54.7 54.8 | 0.6 0.1 | Negligible Adverse | 42.4 43.0 | $\stackrel{42.0}{42.0}$ | 43.0 43.1 |
| 143, HEATHRYFOLD CIRCLE | Dwelling | 54.5 | 53.8 | 54.6 | 0.1 | Negligible Adverse | 55.0 | 0.5 | Neogigiole Adverse | 42.8 | ${ }^{42.2}$ | 43.2 |
| 144., HEATHRYFOLD CIRCLE | Dwelling | 50.9 545 | 51.1 539 | 50.7 <br> 54.6 | -0.2 | Negligible Beneficial | 51.5 | 0.6 | Negiligibe Adverse | 39.5 | $\begin{array}{r}39.7 \\ \hline 12\end{array}$ | $\frac{40.1}{43}$ |
| 145, HEATHYY(OLD CIRCLE | Dweling | 54.5 <br> 50.8 | 53.9 | 54.6 50.7 | 0.1 -0.1 | Negigigibile Adverse Eeneicial | - 51.4 | 0.5 | Negigigib Adverse | ${ }_{39.5}^{42.8}$ | ${ }^{42.2}$ | 43.2 40.0 |
| 147, HEATHRYFOLD CIRCLE | Dwelling | 54.7 | 53.9 | 54.8 | 0.1 | Negligible Benenicical | 55.1 | 0.4 | Negiligible Adverse | 43.0 | 42.2 | 43.3 |
| 148, HEATHRYFOLD CIRCLE | Oweling | 50.4 54 5 |  | 50.3 <br> 54 | -0.1 | Negligible Benenitical | 51.1 |  | Negiligile Adverse | 39.1 | 39.4 |  |
| 149, HEATHRYFOLD CIRCLE | Welling | 54.8 <br> 4.8 | 54.0 457 | 54.8 449 | 0.0 | No Change | 55.2. | 0.4 | Negiligile Adverse | ${ }^{43.1}$ | ${ }^{42.3}$ | 43.4 |
|  | Dwelling | 45.0 50.2 | 45.7 | 44.9 50.1 | -0.1 | $\frac{\text { Neginioble Beneficical }}{\text { Neglioibl }}$ Beneficial | 45.9 50.9 | 0.9 | $\frac{\text { Negigigle Adverse }}{\text { Neligiole Adverse }}$ | 34.2 38.9 | 34.9 39.2 | 35.0 39.5 |
| 151, HEATHRYFOLD CIRCLE | Dwelling | 54.7 | 54.0 | 54.8 | 0.1 | Negligible Benenicial | 55.2 | 0.5 | Negligible Adverse | 43.0 | 42.3 | 43.4 |
| 152, HEATHPYFOLD CIRCLE | Deeling | 50.5 | 50.8 | 50.4 | -0.1 | Negligible Beneficial | 51.2 | 0.7 | Negiligile Adverse | 39.2 | 39.5 | 39.8 |
| 153. HEATHRYFOLD CIRCLE | Dwelling | 54.7 50 | 53.9 | 54.7 5.7 | 0.0 | No Change | 55.11 | 0.4 | Negligible Adverse | ${ }^{43.0}$ | ${ }^{42.2}$ | ${ }^{43.3}$ |
| 154, HEATHRYYOLD CIRCLE | Dwelling | 50.9 54.6 | ¢51.3 | 51.0 | ${ }_{0}^{0.1}$ | Negigigie Adverse | 51.9 55.1 | 1.0 0.5 | $\frac{\text { Negigigle Adverse }}{\text { Neligiole Adverse }}$ | 42.9 | 39.9 | $\stackrel{40.4}{43.3}$ |
| 156, HEATHRYFOLD CIRCLE | Dwelling | 49.5 | 50.5 | 49.7 | 0.2 | Negiligio Adverse | 50.8 | 1.3 | Negligible Adverse | 38.3 | 39.2 | 39.5 |
| 157, HEATHPYFOLD CIRCLE | Delling | 54.1 | 53.3 | 54.3 | 0.2 | Negigigibe Adverse | 54.6 | 0.5 | Negligible Adverse | 42.4 | 41.7 | 42.9 |
|  | Dwelling | $\stackrel{49.5}{54.0}$ | ${ }_{50.5}^{53.1}$ | ${ }^{494.7}$ | 0.2 | $\frac{\text { Negligible Adverse }}{\text { Neoligiole Adverse }}$ | 50.8 54.5 | 1.3 0.5 | $\frac{\text { Negigigle Adverse }}{\text { Neoligible Adverse }}$ | 38.3 42.3 | 39.2 41.5 | 39.5 42.8 |
| 16, HEATH PYFOLD CIRCLE | Dwelling | 43.2 | 43.4 | 43.1 | -0.1 | Negligible Beneficial | 43.9 | 0.7 | Negligible Adverse | 32.6 | 32.8 | 33.2 |
| $\frac{160, ~ H E A T H R Y F O L D ~ C I R C L E ~}{\text { a }}$ | Deeling | 49.5 | 50.5 | 49.7 | 0.2 | Negiligib Adverse | 50.8 | ${ }_{1}^{1.3}$ | Negigiole Adverse | 38.3 | 39.2 | 39.5 |
| 166, HEATHYYFOLOL CIRCLE | Dwelling | ${ }_{49.5}^{54.5}$ | ${ }_{50.5}^{53.1}$ | ${ }_{49.7}$ | 0.2 | Neogigioble Adverse | ${ }_{50.8}^{54.5}$ | ${ }_{1.3}^{1.5}$ | Neogigioble Adverse | ${ }_{38.3}^{42.3}$ | ${ }_{39.2}^{4}$ | ${ }_{39.5}^{42.8}$ |
| 163, HEATHRYFOLD CIRCLE | Dwelling | 54.0 | 53.1 | 54.2 | 0.2 | Negigioble Adverse | 54.6 | 0.6 | Negiligible Adverse | 42.3 | 41.5 | 42.9 |
| 164, HEATHRYFOLD CIRCLE | Deelling | 49.5 | 50.5 | 49.7 | 0.2 | Negigigibe Adverse | 50.8 | 1.3 | Negigigibe Adverse | 38.3 | 39.2 | 39.5 |
| 166, HEATHRYFOLD CIRCLE | Dwelling | 49.5 | 50.5 | 49.7 | 0.2 | Neoligioble Adverse | 50.8 | 1.3 | Neogioigile Adverse | 38.3 | 39.2 | 39.5 |
| 167, HEATHRYFOLD CIRCLE | Dwelling | $\begin{array}{r}53.8 \\ 4.8 \\ \hline\end{array}$ | $\begin{array}{r}53.1 \\ 50.8 \\ \hline\end{array}$ | $\begin{array}{r}54.0 \\ 50 \\ \hline\end{array}$ | 0.2 | Negligile Adverse | 54.5 512 | 0.7 14 | Negiligibe Adverse | 42.2 386 | 41.5 395 | 42.8 398 |
| 168, HEATHRYYOLD CLIRCLE | - ${ }^{\text {Dwelling }}$ Oedling | 493. 53.2 | 50.8 <br> 5.1 | 50.1 53.3 | 0.3 0.1 | Negligigible Adverefisicial | 51.2 53.6 | 1.4 <br> 0.4 | Negigible Avverse | 38.6 <br> 41.6 <br> 1.6 | 39.5 <br> 0.6 | $\begin{array}{r}39.8 \\ \hline 42.0\end{array}$ |
| 17, HEATHRYFOLD CIRCLE | Dwelling | 44.4 498 | 45.2. 50.8 | 44.4 50.1 | 0.0 0.3 | No Change | 45.4. | 1.0 | Negiligile Adverse | 33.7 38 | 34.4 395 | 34.6 398 |
|  | ${ }^{\text {Dwelling }}$ Dowling | ${ }_{53.4}$ | 50.8 52.4 | $\stackrel{50.1}{53.6}$ | ${ }_{0}^{0.3}$ | Negigigle Adverse | $\stackrel{51.2}{53.9}$ | 1.4 <br> 0.5 | Negiligibibe Avverse | ${ }^{31.8}$ | 40.9 | 42.2 |
| 172, HEATHRYFOLD CIRCLE | welling | 49.8 | 50.8 | 50.1 | 0.3 | Negigigible Adverse | 51.2 | 1.4 | Negligible Adverse | 38.6 | 39.5 | 39.8 |
|  | Dwelling | 49.8 | 50.8 | 50.1 | ${ }_{0.3}^{0.3}$ | Negigigile Adverse | 51.2 | ${ }_{1}^{1.4}$ | Negigigible Adverse | 38.6 | ${ }_{39.5}$ | ${ }_{39.8}$ |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 <br> Lnight,outside | DS33 <br> Lnight,outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 178, HEATHPYFOLD CIRCLE | Deeling | 49.8 | 50.8 | 50.1 | 0.3 | Negigigibe Adverse | 51.2 | 1.4 | Negigigle Adverse | 38.6 | 39.5 | 39.8 |
| 18. HEATHRYFOLD CIRCLE | Dweling | 43.2 | 43.4 428 | $\frac{43.1}{426}$ | -0.1 | Negligible Beneficial | $\frac{43.9}{432}$ | ${ }_{0}^{0.7}$ | Negligible Adverse | 32.6 323 | 32.8 323 | 33.2 326 |
| 180, HEATHRYFOLD CIRCLE | Dweling | ${ }_{42.8}^{42.8}$ | 42.8 42.8 | 42.6 42.6 | -0.2 | $\frac{\text { Negligible Benenticial }}{\text { Negioibl }}$ Beneficial | 43.2 43.2 | 0.4 | $\frac{\text { Negigigile Adverse }}{\text { Negligible Adverse }}$ | 32.3 32.3 | 32.3 <br> 32.3 | 32.6 <br> 32.6 |
| 184, HEATHRYFOLD CIRCLE | Dwelling | 42.8 | 42.8 | 42.6 | -0.2 | Negligible Benenitical | 43.2 | 0.4 | Negligible Adverse | ${ }_{32.3}$ | ${ }_{32.3}$ | ${ }^{32.6}$ |
| 186, HEATHRYFOLD CIRCLE | Dwelling | 42.8 | 42.8 | 42.6 | -0.2 | Negligible Beneficical | 43.2 | 0.4 | Negigigile Adverse | 32.3 | 32.3 | 32.6 |
| 188, HEATHRYFOLD CIRCLE | Dwelling | 42.8 | 42.8 | 42.6 | -0.2 | Negligible Beneficial | 43.2 | 0.4 | Negligible Adverse | 32.3 | 32.3 | 32.6 |
| 19, HEATHRYFOLD CIRCLE | Dwelling | 44.3 | 45.0 | 44.2 | -0.1 | Negligible Beneficial | 45.2 | 0.9 | Negilibile Adverse | 33.6 | 34.2 | 34.4 |
| 190, HEATHRYFOLD CIRCLE | Deelling | 42.8 | 42.8 | 42.6 | -0.2 | Negligible Beneficicial | 43.2 | 0.4 | Negligible Adverse | 32.3 | 32.3 | 32.6 |
| 192, HEATHRYFOLD CIRCLE | welling | 43.1 | ${ }_{4}^{43.2}$ | ${ }^{42.9}$ | -0.2 | Negligible Beneficial | 43.5 | 0.4 | Negiligibie Adverse | 32.5 325 | 32.6 | 32.9 329 |
| 194, 196 HEATHRYYYFOLD CIRCLELE | ${ }^{\text {Dwelling }}$ Dowling | ${ }_{43.1}^{43.1}$ | 43.2 | 42.9 | -0.2 | Negiligiole Benenicial | $\stackrel{43.5}{43.5}$ | 0.4 0.4 | $\frac{\text { Negliglie Adverse }}{\text { Negligibe Adverse }}$ | ${ }_{32.5}^{32.5}$ | ${ }_{32.6}$ | 32.9 32.9 |
| 198, HEATHRYFOLD CIRCLE | Dwelling | 43.1 | 43.2 | 42.9 | -0.2 | Negligible Beneficiolil | 43.5 | 0.4 | Neoligible Adverse | ${ }_{32.5}$ | 32.6 | 32.9 |
| 2, HEATHRYFOLD CIRCLE | Dwelling | 42.9 | 43.2 | 43.5 | 0.6 | Negigiole Adverse | 44.3 | 1.4 | Negigiolile Adverse | 32.3 | 32.6 | 33.6 |
| 20, HEATHPYFOLO CIRCLE | Dwelling | 43.2 | 43.4 | ${ }^{43.1}$ | ${ }^{-0.1}$ | Negligible Beneficical | 43.9 | 0.7 | Negiligible Adverse | 32.6 | 32.8 | 33.2 |
| $\frac{200, ~ H E A T H R Y F O L D ~ C I R C L E ~}{202}$ | Dwelling | 43.1 43.1 | 43.2 43.2 | 42.9 42.9 | -0.2 -0.2 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ Beneficial | 43.5 43.5 | 0.4 0.4 | Negligibl Adverse | 32.5 32.5 | 32.6 32.6 | 32.9 32.9 |
| 204, HEATHRYFOLD CIRCLE | Dwelling | 44.3 | 44.2 | 44.1 | -0.2 | Negligible Beneficial | 44.7 | 0.4 | Negiligile Adverse | 33.6 | 33.5 | 34.0 |
| 206, HEATHRYFOLD CIRCLE | Dwelling | 44.3 | 44.2 | 44.1 | -0.2 | Negligible Beneficial | 44.7 | 0.4 | Negiligile Adverse | 33.6 | 33.5 | 4.0 |
| 208, HEATHRYFOLD CIRCLE | Dwelling | 44.3 | 44.2 | 44.1 | -0.2 | Negligible Beneficial | 44.7 | 0.4 | Negigioble Adverse | 33.6 | 33.5 | 34.0 |
| 21, HEATHPYFOLD CIRCLE | Welling | 43.4 | 44.0 | 43.3 | -0.1 | Negligible Beneficical | 44.2 | 0.8 | Negigigile Adverse | 32.8 | ${ }^{33.3}$ |  |
|  | Dwelling | ${ }_{44.3}^{44.3}$ | 44.2 44.2 | 44.1 | -0.2 -0.2 | Negiligie Beneficial | ${ }_{44.7}^{44.7}$ | 0.4 0.4 | Negigigle Adverse | 33.6 33.6 | 33.5 <br> 33.5 | 34.0 34.0 |
| 214, HEATHRYFOLD CIRCLE | Dwelling | 44.3 | 44.2 | 44.1 | -0.2 | Negligible Beneficial | 44.7 | 0.4 | Negiligible Adverse | 33.6 | 33.5 | 34.0 |
| 216, HEATHRYFOLD CIRCLE | Dwelling | 44.3 | 44.2 | 44.1 | -0.2 | Negligible Beneficial | 44.7 | 0.4 | Negigigible Adverse | 33.6 | 33.5 | 34.0 |
| 218. HEATHRYFOLD CIRCLE | Dwelling | $\stackrel{44.4}{43.2}$ | $\frac{44.2}{434}$ | $\frac{44.2}{431}$ | -0.2 | $\frac{\text { Negligible Benenticial }}{\text { Negliobl }}$ | $\frac{44.9}{439}$ | 0.5 | Negigioble Adverse | ${ }_{3}^{33,7}$ | 33.5 <br> 3.8 | $\begin{array}{r}34.1 \\ 3.2 \\ \hline\end{array}$ |
| $\frac{22, \text { 20, HEATHPYFOLD CIRCLE }}{}$ | Dwelling | ${ }_{4}^{44.4}$ | ${ }_{4}^{44.2}$ | ${ }_{44.2}$ | -0.2 | Neegligiolie Beneneificial | 44.9 | 0.5 | Neogigiole Adverse | ${ }_{33,7}$ | ${ }_{32,5}^{33.5}$ | ${ }_{34.1}^{33.1}$ |
| 222, HEATHRYFOLD CIRCLE | Dwelling | 44.4 | 44.2 | 44.2 | -0.2 | Negligible Beneficial | 44.9 | 0.5 | Negiligile Adverse | 33.7 | 33.5 | 34.1 |
| $\frac{\text { 224, HEATHRYFOLD CIRCLE }}{\text { 26, HEATHYYFOLD CIRCLE }}$ | Deelling | 44.4 | ${ }^{44.2}$ | ${ }_{44.2}^{442}$ | -0.2 | Negiligiole Beneficial | 44.9 | ${ }^{0.5}$ | Negigigibe Adverse | 33.7 337 | 33.5 <br> 3.5 | ${ }^{34.1}$ |
| 228, HEATHRYFOLD CIRCLE | Dwelling | 44.2 | 44.0 | 44.0 | -0.2 | Negligible Beneficicial | 44.7 | 0.5 | Neogiligibe Adverse | ${ }^{33.5}$ | ${ }_{33.3}$ | ${ }_{34.0}$ |
| 23, HEATHRYFOLD CIRCLE | Dwelling | 42.8 | 43.1 | 42.6 | -0.2 | Negligible Beneficical | 43.4 | 0.6 | Negiligibe Adverse | 32.3 | 325 | 32.8 |
| 230, HEATHRYFOLD CIRCLE | welling | 44.2 | 44.0 | 44.0 | -0.2 | Negligible Benenitical | 44.7 | 0.5 | Negiligile Adverse | 33.5 | ${ }^{33.3}$ |  |
| 232, HEATHRYFOLD CIRCLE | weling | 44.2 | 44.0 | 44.0 |  | Neegigibie Beneilical | 44.7 |  | Negigigibe Adverse |  |  |  |
| 236. HEATHRYFOLD CIRCLE | Dwelling | 44. | 44.0 | 44.0 | . 0.2 | Negligible Beneficicial | 44.7 | 0.5 | Negiligibe Adverse | 33.5 | ${ }_{33,3}$ | 34.0 |
| 238, HEATHRYFOLD CIRCLE | Dwelling | 44.2 | 44.0 | 44.0 | -0.2 | Negligible Beneficial | 44.7 | 0.5 | Negligible Adverse | 33.5 | 33.3 | 34.0 |
| 24, HEATH PYFOLD CIRCLE | Dwelling | 43.2 | 43.4 | 43.1 | -0.1 | Negligible Beneficial | 43.9 | 0.7 | Negiligibe Adverse | 32.6 | 32.8 | 33.2 |
| $\frac{24}{243, \text { HEATHTHYYFOLOLD CIRCLE }}$ | Dwelling | ${ }_{46.6}^{46.2}$ | ${ }_{45.9}^{46.9}$ | ${ }_{46.6}^{45.6}$ | 0.4 0.0 | Negigigie Adverse | 47.4 46.4 | $\stackrel{1.2}{0.8}$ | $\frac{\text { Negigigle Adverse }}{\text { Negligible Adverse }}$ | 35.3 34.8 | 35.6 35.0 | 36.4 35.5 |
| 245, HEATHRYFOLD CIRCLE | Dwelling | 45.3 | 45.6 | 45.0 | -0.3 | Negligible Beneficial | ${ }_{45.8}^{46.8}$ | 0.5 | Negligible Adverse | ${ }^{34.5}$ | ${ }_{34.8}$ | ${ }^{35.0}$ |
| 249, HEATHRYFOLD CIRCLE | Dwelling | 52.4 | 53.4 | 52.5 | 0.1 | Negiligible Adverse | 53.6 | 1.2 | Negigigile Adverse | 40.9 | 41.8 | 42.0 |
| 25. HEATHPYFOLD CIRCLE | Deelling | 42.8 | 43.2 | 42.7 | -0.1 | Negligible Beneficial | 43.5 | 0.7 | Negligible Adverse | 32.3 | 32.6 | 32.9 |
| 251, HEATHRYFOLD CIRCLE | Dweling | $\stackrel{44.9}{44.8}$ | ${ }_{45.1}^{45.3}$ | 45.4 45.4 | ${ }_{0}^{0.5}$ | Negigiole Adverse | ${ }_{46.1}^{46.1}$ | 1.3 13 | Negigioble Adverse | 34.1 34.1 | 34.5 343 | -35.3 |
| 255, HEATHRYFOLD CIRCLE | Dwelling | 44.8 | 45.1 | 45.4 | 0.6 | Negligible Adverse | 46.2 | 1.4 | Negligible Adverse | 34.1 | 34.3 | 35.3 |
| 257, HEATHRYFOLD CIRCLE | Welling | 44.3 | 44.6 | 45.0 | 0.7 | Negiligile Adverse | 45.8 | 1.5 | Negligible Adverse | 33.6 | 33.9 | 35.0 |
| 259, HEATHRYFOLD CIRCLE | Owelling | 43.9 | 44.3 | 44.7 | 0.8 | Negigigile Adverse | 45.5 | 1.6 | Negiligibe Adverse | 33.2 | 33.6 | 34.7 |
| 26, HEATHRYFOLD CIRCLE | Deeling | 44.0 | 44.3 | 43.9 | -0.1 | Negligible Beneficial | 44.7 | 0.7 | Negiligibie Adverse | ${ }^{33.3}$ | ${ }^{33.6}$ | 34.0 |
|  | Dweling | ${ }_{43.6}^{43.7}$ | 44.1. | 44.5 | 0.8 | Negigigib Adverse | 45.2 | 1.6 1.6 | $\frac{\text { Negigigile Adverse }}{\text { Nefligible Adverse }}$ | ${ }^{33.1}$ | 33.4 33.3 | 34.5 34.4 |
| 265, HEATHRYFOLD CIRCLE | Dwelling | 49.0 | 50.1 | 49.1 | 0.1 | Negiligile Adverse | 50.2 | 1.2 | Negligible Adverse | 37.8 | 38.8 | 38.9 |
| 27, HEATH RYFOLD CIRCLE | Dwelling | 43.6 | 43.7 | 43.5 | -0.1 | Negligible Beneficical | 44.2 | 0.6 | Negiligibe Adverse | 33.0 | 33.1 | 33.5 |
| 28, HEATHRYFOLD CIRCLE | Deelling | 44.0 | 44.3 | 43.9 | -0.1 | Negligible Beneficial | 44.7 | 0.7 | Negiligile Adverse | 33.3 | 33.6 | 34.0 |
| 29. HEATHRYFOLD CIRCLE | Dwelling | 44.1 | $\frac{44.2}{481}$ | 43.9 471 | -0.2 | Negligibe Beneficial | 44.6 482 | 0.5 11 | Negiligle Adverse | 33.4 361 | $\begin{array}{r}33.5 \\ 370 \\ \hline\end{array}$ | 33.9 |
|  | Dwelling | 44.0 | ${ }_{48.3}^{48.1}$ | 43.9 | -0.1 |  | ${ }_{44.7}^{48.2}$ | 0.7 | Neogigioble Adverse | ${ }_{36.3}^{36.1}$ | ${ }_{33.6}$ | ${ }^{37.1}$ |
| $\frac{31, \text { HeATHRYFOLD CIRCLE }}{\text { 32 }}$ | Dwelling | 44.5 44. | 44.6 443 | 44.3 | -0.2 | Negligible Benenitial | 45.1 447 | 0.6 | Negligibl Adverse | $\begin{array}{r}33.8 \\ 3.3 \\ \hline\end{array}$ | 33.9 336 | 34.3 340 |
| 32, HEATHYY-OLD CIRCLE | Dwelling | 44.0. | 44.3 | 43.9 44.8 | -0.1 -0.1 | $\frac{\text { Negligible Benenicical }}{\text { Neglioibl }}$ Beneficial | $\stackrel{44.7}{45.6}$ | 0.7 | $\frac{\text { Negligiole Adverse }}{\text { Negligible Adverse }}$ | ${ }^{33.3}$ | 33.6 34.4 | 34.0 34.8 |
| 34, HEATHPYFOLD CIRCLE | Dwelling | 44.0 | 44.3 | 43.9 | -0.1 | Negligible Beneficicial | 44.7 | 0.7 | Neoligible Adverse | 33.3 | 33.6 | 34.0 |
| 35, HEATHRYFOLD CIRCLE | Dwelling | 45.2 | 45.5 | 45.2 | 0.0 | No Change | 45.9 | 0.7 | Negigiolie Adverse | 34.4 | 34.7 | 35.0 |
|  | Dwelling | 44.0 48.1 | 44.3 48.8 | 43.9 48.0 | -0.1 -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ | 44.7 49.1 | 0.7 1.0 | $\frac{\text { Negligible Adverse }}{\text { Nefligible Adverse }}$ | 33.3 37.0 | 33.6 37.7 | 34.0 37.9 |
| 38, HEATHRYFOLD CIRCLE | Dwelling | 44.9 | 45.1 | 44.9 | 0.0 | No Change | 45.6 | 0.7 | Negiligible Adverse | 34.1 | 34.3 | 34.8 |
| $\frac{39, \text { HeATHRYFOLD } \text { CIRCLE }}{\text { 4. HEATHRYFOLD CIRCLE }}$ | Dwelling | $\frac{46.6}{42.9}$ | 47.1 43.2 | 46.6 43.5 | ${ }_{0}^{0.0}$ | $\frac{\text { No Change }}{\text { Negioible Adverse }}$ | ${ }_{44.5}^{47.5}$ | 0.9 1.4 | Negligibl Adverse | 35.7 32.3 | 36.1 32.6 | 36.5 33.6 |
| 40, HEATHRYFOLD CIRCLE | Dwelling | 44.9 | 45.1 | 44.9 | 0.0 | No Change | 45.6 | 0.7 | Negiligible Adverse | 34.1 | 4.3 | 34.8 |
|  | Dwelling | 46.9 44.9 | 47.4 45.1 | 46.8 44.9 | -0.1 0.0 | Negligible Beneficial | 47.8 45.6 | 0.9 0.7 | $\frac{\text { Negligible Adverse }}{\text { Negligible Adverse }}$ | 35.9 34.1 | 36.4 34.3 | 36.8 34.8 |
| 43, HEATHRYFOLD CIRCLE | Dwelling | 47.6 | 48.3 | 47.6 | 0.0 | No Change | 48.6 | 1.0 | Negiligile Adverse | 36.6 | 37.2 | 37.5 |
| 44, HEATHRYFOLD CIRCLE | Deelling | 44.9 | 45.1 | 44.9 | 0.0 | No Change | 45.6 | 0.7 | Negiligile Adverse | 34.1 | 34.3 | 34.8 |
| $\frac{\text { 45, HEATHRYFOLD CIRCLE }}{\text { (1) }}$ | Dwelling | $\frac{47.8}{449}$ | 48.4 4.1 | $\frac{47.7}{449}$ | -0.1 | Negligibe Beneficial | $\frac{48.8}{456}$ | 1.0 | Negiligib Adverse | - 36.8 | - 37.3 | $\begin{array}{r}37.7 \\ 348 \\ \hline\end{array}$ |
| 47, HEATHPYFOLD CIRCLE | Oweling | 45.8 | 45.9 | 45.7 | -0.1 | Negligible | 46.4 | 0.6 | Neoligible Adverse | 35.0 35 | 34.0 35.0 | 34.5 35 |
| 48, HEATHRYFOLD CIRCLE | Dwelling | 44.9 46.4 | ${ }_{4}^{45.1}$ | 44.9 <br> 462 | 0.0 | No Change | 45.6 470 | 0.7 | Negligibl Adverse | $\begin{array}{r}34.1 \\ 355 \\ \hline\end{array}$ | 34.3 <br> 357 | $\begin{array}{r}34.8 \\ 360 \\ \hline\end{array}$ |
| 4, HEATHRYYOLD CIRCLE | ${ }^{\text {Dweliling }}$ Doeling | 46.4 | ${ }_{46.5}^{44.5}$ | 46.2 44.2 | -0.2 | $\frac{\text { Negligigle Beneficical }}{\text { Negigible Adverse }}$ | 45.1 | ${ }_{1}^{0.6}$ | Negigigible Adverse | 35.5 33.3 | ${ }^{35.8}$ | ${ }_{34.3}$ |
| 50, HEATHPYFOLC CIRCLE | Dewling | 45.4 | 45.6 | 45.3 | -0.1 | Negligible Beneficical | 46.1 | 0.7 | Negiligibe Adverse | 34.6 3.6 | 34.8 3.6 | 35.2 |
|  | Dwelling | ${ }_{46.4}^{45.3}$ | ${ }_{45.5}^{46.5}$ | ${ }_{46.3}^{46.2}$ | -0.1 | Negiligible Benefificial | ${ }_{47.0}^{46.1}$ | 0.7 | Negigible Avverse | ${ }_{35}{ }_{34.6}$ | ${ }^{354.6}$ 34.8 | ${ }^{36.0} 35$ |
| 53, HEATHRYFOLD CIRCLE | Dwelling | 51.8 | 50.2 | 51.8 | 0.0 | No Change | 51.9 | 0.1 | Negligible Adverse | 40.4 | 38.9 | 40.4 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 <br> Lnight,outside | DM33 Lnight,outside | $\begin{gathered} \text { DS33 } \\ \text { Lnight,outside } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 54, HEATHRYFOLD CIRCLE | Dwelling | 45.4 | 45.6 | 45.3 | -0.1 | Negligible Beneficial | 46.1 | 0.7 | Negigigible Adverse | 34.6 | 34.8 | 35.2 |
| 55, HEATHRYFOLD CIIRCLE | Oweling | 52.2 | 50.7 | 52.2 | 0.0 | No Change | 52.4 | 0.2 | Negligible Adverse | 40.7 | 39.4 | 40.9 |
| 56, HEATHRYFOLD CIRCLE | Dwelling | 45.4 | 45.6 | 45.3 | -0.1 | Negligible Beneficial | 46.1 | 0.7 | Negiligibe Adverse | 34.6 | 34.8 | 35.2 |
| 57, HEATHRYFOLD CIRCLE | Dwelling | 52.8 | 51.4 | 52.7 | -0.1 | Negligible Beneficial | 52.9 | 0.1 | Negligible Adverse | 41.3 | 40.0 | 41.3 |
| 58, HEATHRYFOLD CIIRCLE | Delling | $\begin{array}{r}45.4 \\ 5.4 \\ \hline\end{array}$ | ${ }_{45.6}$ | ${ }_{53.3}^{45}$ | -0.1 | Negligible Beneficicial | ${ }_{56.1}^{46.1}$ | 0.7 | Negligible Adverse | 34.6 | 34.8 | ${ }^{35.2}$ |
| 59, HEATHRYFOLD CIIRCLE | Delling | 53.1 | 51.9 | 53.0 | -0.1 | Negligible Beneficical | 53.3 | 0.2 | Negligible Adverse | ${ }^{41.5}$ | 40.4 | 41.7 |
| 6, HEATHRYYOLD CIRCLE | Deelling | 42.9 | 43.2 | 43.5 | 0.6 | Negigigile Adverse | 44.3 | 1.4 | Negiligible Adverse | 32.3 | 32.6 | 33.6 3.6 |
| 60, HEATHRYFOLD CIIRCLE | Dwelling | 45.4 | 45.6 | 45.3 | -0.1 | Negligible Beneficicial | 46.1 | 0.7 | Negiligible Adverse | 34.6 | 34.8 | 35.2 |
| 61, HEATHRYFOLD CIRCLE | Delling | 53.6 | 52.6 | 53.5 | -0.1 | Negligible Beneficial | 53.9 | 0.3 | Negigigible Adverse | ${ }_{42.0}^{37}$ | 41.1 | 42.2 |
| 62, HEATHRYFOLD CIRCLE | Deelling | ${ }_{58.4}$ | 49.4 | ${ }_{58.4}$ | 0.0 | No Change | 49.5 | 1.1 | Negigigle Adverse | ${ }^{37.3}$ | 38.2 | 38.3 422 |
| 63, HEATHYYFOLD CIRCLE | ${ }^{\text {Dwelling }}$ Dowling | ${ }^{53.6}$ | ${ }_{49.4}^{52.7}$ | ${ }^{53.6}$ | 0.0 | No Change | ${ }_{49.5}^{59.9}$ | 1.3 1.1 | Negigigibe Adverse | ${ }^{427.0}$ | $\xrightarrow{48.2}$ | ${ }_{38.3}^{42.2}$ |
| 65, HEATHRYFOLD CIRCLE | Dwelling | 53.8 | 52.8 | 53.7 | -0.1 | Negligible Beneficial | 54.0 | 0.2 | Negligible Adverse | 42.2 | 41.3 | 42.3 |
| 66, HEATHRYFOLD CIRCLE | Dwelling | 48.4 | 49.4 | 48.4 | 0.0 | No Change | 49.5 | 1.1 | Negligible Adverse | 37.3 | 38.2 | 38.3 |
| 67 , HEATHRYFOLD CIRCLE | Deelling | 53.9 | 53.0 | 53.9 | 0.0 | No Change | 54.2 | ${ }_{0}^{0.3}$ | Negiligible Adverse | ${ }_{32}^{42.2}$ | 41.4 | 42.5 3.3 |
| 68, HEATHPYFOLD CIRCLE | Dwelling | 48.4 54.1 | 49.4 53.1 | 48.4 54.0 | 0.0 .0 .1 | $\xrightarrow{\text { Nego Changele }}$ Bene | 49.5 54.3 | 1.1 0.2 | Negligibl Adverse | 37.3 42.4 | 38.2 41.5 | 38.3 42.6 |
| 7, HEATHRYFOLD CIRCLE | Dwelling | 44.0 | 44.5 | 44.2 | 0.2 | Negligioble Adverse | 45.1 | 1.1 | Negigigibe Adverse | 33.3 | 33.8 | ${ }_{34.3}$ |
| 70, HEATHRYFOLD CIRCLE | Dwelling | 48.4 | 49.4 | 48.4 | 0.0 | No Change | 49.5 | 1.1 | Negligible Adverse | 37.3 | 38.2 | 8.3 |
| 71, HEATHRYFOLD CIRCLE | Dwelling | 54.1 | 53.2 | 54.0 | -0.1 | Negligible Beneficial | 54.4 | 0.3 | Negligible Adverse | 42.4 | 41.6 | 42.7 |
| 72, HEATHRYFOLD CIRCLE | Dwelling | 48.4 | 49.4 | 48.4 | 0.0 | No Change | 49.5 | 1.1 | Negiligile Adverse | 37.3 | 38.2 | 38.3 |
| 73, HEATHRYFOLD CIRCLE | Dwelling | 54.3 | 53.4 | 54.2 | -0.1 | Negligible Beneficical | 54.6 | 0.3 | Negligible Adverse | 42.6 | 41.8 | 42.9 |
| 74, HEATHRYFOLD CIRCLE | Dwelling | 45.9 | 46.1 | 45.8 | -0.1 | Negligible Beneficical | 46.5 | 0.6 | Negigigibe Adverse | 35.0 | 35.2 | 35.6 |
| 75, HEATHRYFOLD CIRCLE | Dwelling | 54.4 4.6 | 53.5 4.5 | $\begin{array}{r}54.3 \\ 4.5 \\ \hline\end{array}$ | -0.1 | Negligible Beneficial | 54.6 473 | 0.2 | Negligible Adverse | ${ }_{357}^{42.7}$ | 41.9 359 | 42.9 36.3 |
| 76, HEATHYYFOLD CIRCLE | Dweling | 46.6 | 46.9 | 46.5 | ${ }^{-0.1}$ | $\frac{\text { Negligible Benenicical }}{\text { Neglioibl }}$ Beneficial | ${ }_{5}^{47.3}$ | 0.7 0.2 | Negigigbe Adverse | 35.7 43.1 | 35.9 42.4 | 36.3 <br> 43 <br> 8 |
| 78, HEATHRYFOLD CIRCLE | Dwelling | 50.3 | 51.3 | 50.3 | 0.0 | No Change | 51.4 | 1.1 | Negiligiole Adverse | 39.0 | 39.9 | 40.0 |
| 79, HEATHRYFOLD CIRCLE | Dwelling | 54.9 | 54.2 | 54.8 | -0.1 | Negligible Beneficial | 55.2 | 0.3 | Negigigible Adverse | 43.1 | 42.5 | 43.4 |
| $\frac{8, \text { HEATHPY } \mathrm{COLD} \text { CIIRCLE }}{\text { 80, HEATHRYFOLD }}$ | Dwelling | 42.9 45.8 | 43.2 | 43.5 45.6 | 0.6 -0.2 | Negligibl Adverse | 44.3 46.2 | 1.4 0.4 | $\frac{\text { Negiligibl Adverse }}{\text { Negigible Adverse }}$ | 32.3 35.0 | 32.6 34.7 | 33.6 35.3 |
| 81, HEATHPYFOLD CIRCLE | Dwelling | 55.0 | 54.2 | 54.9 | -0.1 | Negligible Beneficial | 55.3 | 0.3 | Negiligile Adverse | 43.2 | 42.5 | 43.5 |
| 82, HEATHRYFOLD CIRCLE | Dwelling | $\frac{46.3}{549}$ | 46.1 | $\frac{46.1}{548}$ | -0.2 | Negliable Beneficial | 46.7 <br> 56 <br> 5 | 0.4 | Negligible Adverse | 35.4 <br> 13 | $\begin{array}{r}35.2 \\ \hline 4.5\end{array}$ | 35.8 434 |
| 83, HEATHRYFOLD CIRCLE |  |  |  |  |  |  |  |  |  |  |  |  |
| 85, HEATHPYFOLD CIRCLE | Owelling | 55.2 | 54.6 | 55.1 | -0.1 | Negligible Beneficioial | 55.5 | 0.3 | Neogigiole Adverse | ${ }^{43.4}$ | 42.9 | 43.7 |
| 86, HEATHRYFOLD CIRCLE | Dwelling | 47.3 | 47.2 | 47.1 | -0.2 | Negligible Benenicial | 47.8 | 0.5 | Negiligible Adverse | 36.3 | 36.2 | 36.8 |
| 87, HEATHRYFOLD CIRCLE | Deelling | 55.3 | 54.6 | 55.2 | -0.1 | Negligible Beneficical | 55.6 | 0.3 | Negigigile Adverse | 43.5 | 42.9 | 43.8 |
| 88, HEATHRYFOLD CIRCLE | Dwelling | 47.6 <br> 554 | 47.4 547 | 47.4 553 | -0.2 | Neglioble Beneficial | 48.0 557 | 0.4 | Negiligibe Adverse | 36.6 4.6 | 36.4 | 36.9 |
| 99, HEATHRYFOLD CIRCLE | Dwelling | 44.2 | ${ }^{54.7}$ | 451.4 | -0.2 | Negigigiobie Advericial | ${ }_{45.3}$ | ${ }_{1.1}^{0.3}$ | Negigigibe Adverse | ${ }_{33.5}^{43.6}$ | $\stackrel{43.0}{34.0}$ | ${ }^{43.9}$ |
| 90, HEATHRYFOLD CIRCLE | Dwelling | 47.6 | 47.5 | 47.4 | -0.2 | Negligible Beneficicial | 48.0 | 0.4 | Negligible Adverse | 36.6 | 36.5 | 36.9 |
| 91, HEATHRYFOLD CIRCLE | Dwelling | 55.4 | 54.8 | 55.3 | -0.1 | Negligible Beneficial | 55.7 | 0.3 | Negiligile Adverse | 43.6 | 43.1 | 43.9 |
| 92, HEATHYYFOLD CIRCLE | Dwelling | 48.1 55.4 | $\stackrel{48.0}{54.8}$ | $\stackrel{48.0}{55.3}$ | -0.1 -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negligile }}$ Beneficial | 48.6 55.7 | 0.5 | Negigigle Adverse | 37.0 43.6 | 36.9 43.1 | 37.5 43.9 |
| 94, HEATHRYFOLD CIRCLE | Dwelling | 48.2 | 48.0 | 48.0 | -0.2 | Negligible Beneficial | 48.6 | 0.4 | Negiligibe Adverse | 37.1 | 36.9 | 37.5 |
| 95, HEATHPYFOLD CIRCLE | Dwelling | 55.4 48.8 | 54.7 489 | 55.3 48.6 | -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Neglioible }}$ | 55.7 49.4 | ${ }_{0}^{0.3}$ | Negligible Adverse Negioigle Adverse | ${ }^{43.6}$ | ${ }_{3}^{43.0}$ | 43.9 3.9 |
| 97, HEATHRYFOLD CIRCLE | Dwelling | 55.5 | 54.8 | 55.3 | -0.2 | Negligible Beneficial | 55.7 | 0.2 | Negligible Adverse | 43.7 | 43.1 | 43.9 |
| 98, HEATHRYFOLD CIRCLE | Welling | 49.0 | 49.0 | 48.8 | -0.2 | Negligible Beneficial | 49.5 | 0.5 | Negligible Adverse | 37.8 | 37.8 | 38.3 |
| $\frac{\text { 99, HEATHRYFOLD CIRCLE }}{\text { HEATHYYFOLD CIRCLE }}$ | Dwelling | 55.5 54.7 | 54.8 53.8 | 55.4 54.9 | -0.1 0.2 | $\frac{\text { Negligible Beneficial }}{\text { Nefigible Adverse }}$ | 55.8 55.2 | 0.3 | $\frac{\text { Negiligible Adverse }}{\text { Negioble }}$ | 43.7 43.0 | $\frac{43.1}{42.2}$ | $\frac{44.0}{43.4}$ |
| 1, HEATHRYFOLD DRIVE | Dwelling | 52.6 | 51.5 | 52.7 | 0.1 | Negogiobile Adverse | ${ }_{53.0}$ | 0.4 | Neoligible Adverse | 41.1 | ${ }_{40.1}$ | 41.4 |
| 10, HEATHRYFOLD DRIVE | Deelling | 52.1 | 51.4 | 52.0 | -0.1 | Negligible Beneficial | 52.5 | 0.4 | Negiligibe Adverse | 40.6 | 40.0 | 41.0 |
| 11, HEATHRYFOLD DRIVE | Dwelling | ${ }^{48.1}$ | 48.2 |  |  | No Change | 48.8 |  | Negiligile Adverse | 37.0 | 37.1 |  |
| 12, HEATHYYFOLD DRIVE | Dwelling | 40.0 | 40.3 47.9 | 50.2 | -0.1 | Negligible Benefificial | 40.6 | 0.6 | Neoligioble Adverse | 36.9 36.9 | 39.0.8 <br> 36.8 | ${ }^{39.5}$ |
| 14, HEATHRYFOLD DRIVE | Dwelling | 50.4 | 50.2 | 50.3 | -0.1 | Negligible Beneficial | 51.0 | 0.6 | Negiligibe Adverse | 39.1 | 38.9 | 39.6 |
| 15, HEATHRYFOLD DRIVE | Dwelling | 47.4 | 47.5 | 47.4 | 0.0 | No Change | 48.1 | 0.7 | Negligible Adverse | 36.4 | 36.5 | 37.0 |
| 16, HEATHRYFOLD DRIVE | Dwelling | 50.3 473 | 50.2 474 | 50.2 473 | -0.1 | Negligible Beneficial | 50.9 48.0 | 0.6 | Negligibl Adverse | 39.0 363 | 38.9 36.4 | 39.5 |
| 18, HEATHRYFOLD DRIVE | Dwelling | ${ }_{50.1}$ | 50.0 | 50.0 | -0.1 | Negligible eneneficial | 50.7 | 0.6 | Neoligible Adverse | 38.8 | ${ }^{38.7}$ | 39.4 |
| 19, HEATHRYFOLD DRIVE | Dwelling | 47.4 | 47.4 | 47.3 | -0.1 | Negligible Beneficial | 48.0 | 0.6 | Negligible Adverse | 36.4 | 36.4 378 | 36.9 3.9 |
|  | Dwelling | ${ }_{49.8}^{49.2}$ | 49.9 | 49.8 | -0.2 | Negligible Beneticial | ${ }_{50.5}^{49.6}$ | 0.4 | Negigible Adverse | ${ }^{38.0} 38.6$ | 37.8 38.6 | 38.4 39.2 |
| 21, HEATHRYFOLD DRIVE | Delling | 46.8 | 46.8 | 46.6 | -0.2 | Negligible Beneficial | ${ }^{47.3}$ | 0.5 | Negigigibe Adverse | 35.9 | 35.9 | ${ }^{36.3}$ |
| 22, HEATHYYFOLD DRIVE | Dwelling | 49.8 46.1 | 49.8 46.1 | 49.8 | 0.0 -0.2 | Negligible Eenaneficicial | 50.4 46.6 | 0.6 | Neoligigibe Adverse | ${ }^{38.6}$ 35.2 | ${ }^{38.6}$ 35.2 | ${ }_{35.7}$ |
| 24, HEATHPYFOLD DRIVE | Dwelling | 49.6 | 49.6 | 49.6 | 0.0 | No Change | 50.3 | 0.7 | Negilibile Adverse | 38.4 | 38.4 | 39.0 |
| 25, HEATHRYFOLD DRIVE | Dwelling | 45.6 | ${ }^{45.6}$ | ${ }^{45.4}$ | -0.2 | Negligibie Benenitical | ${ }_{50.1}^{46.1}$ | 0.5 | Negiligie Adverse | $\begin{array}{r}34.8 \\ 3.8 \\ \hline\end{array}$ | 34.8 | 35.2 |
| 26, HEATHYF 27 HeLD DRITVE | ${ }^{\text {Dwelling }}$ Oweling | 49.4. | 49.4 | 49.4 | 0.0 -0.2 | Negligible Cengeneficial | 50.1 45.7 | 0.7 | Negigible Adverse | 38.2 <br> 34.4 | 38.2 <br> 34.4 | 38.8 34.9 |
| 28, HEATHRYFOLD DRIVE | Dwelling | 49.2 | 49.2 | 49.2 | 0.0 | No Change | 49.9 | 0.7 | Negligible Adverse | 38.0 | 38.0 | 38.6 |
| $\frac{29, \text { HEATHRYFOLD DRIVE }}{3 \text { HEATHPYFOLD }}$ | Dwelling | 44.9 | 44.9 | 44.7 | -0.2 | Negligible Beneficial | 45.4 | 0.5 | Negigigle Adverse | 34.1 385 | ${ }_{3}^{34.1}$ | 34.6 |
| 3, He, HEATHPYFOLD DRIVE | Dwelling | 48.8 | 48.9 | 48.8 | 0.0 | No Change | 49.5 | 0.7 | Neogigioble Adverse | ${ }_{37.7}$ | ${ }_{37.7}$ | 38.3 |
| 31, HEATHRYFOLD DRIVE | Dwelling | 44.8 | 44.8 | 44.6 | -0.2 | Negligible Beneficical | 45.3 | 0.5 | Negligible Adverse | 34.1 | 34.1 | 34.5 |
| 32, HEATHYYFOLD DRIVE | ${ }^{\text {Dwelling }}$ Dowiling | ${ }_{48.7}^{44.1}$ | ${ }_{48.8}^{44.1}$ | 48.6 | -0.1 -0.2 | Negligible Beneficial | ${ }_{49}^{49.4}$ | 0.7 | $\frac{\text { Negigible Adverse }}{\text { Neoligible Adverse }}$ | 37.6 33.4 | 37.7 33.4 | 38.2 33.9 |
| 34, HEATHRYFOLD DRIVE | Delling | 47.0 | 46.9 | 46.8 | -0.2 | Negligible Beneficial | 47.4 | 0.4 | Negigigibe Adverse | 36.0 | 35.9 | 36.4 |
| 35, HEATHYYFOLD DRIVE | Dwelling | 43.6 46.9 | 43.5 46.8 | 43.5 46.7 | -0.1 -0.2 | $\frac{\text { Negligible Beneficial }}{\text { Negigible Beneficial }}$ | 44.1 47.3 | 0.5 0.4 | $\frac{\text { Negligible Adverse }}{\text { Neoligiole Adverse }}$ | 33.0 35.9 | 32.9 35.9 | 33.4 36.3 |
| 38, HEATHRYFOLD DRIVE | Deeling | ${ }^{46.7}$ | ${ }^{46.6}$ | ${ }^{46.5}$ | -0.2 | Negligible Beneficial | ${ }^{47.1}$ | 0.4 | Negligible Adverse | 35.8 | 35.7 | 36.1 |
| 4. HEATHRYFOLD DRIVE | weling | 50.9 | 50.3 | 50.7 | -0.2 | Negigigio Beneificial | 51.2 | 0.3 | Negigole Adverse | 39.5 | 39.0 | 39.8 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 <br> Lnight,outside | DM33 Lnight,outside | DS33 Lnight,outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 40 , HEATHRYFOLD DRIVE | Dwelling | 46.6 | 46.5 | 46.4 | ${ }^{0.2}$ | Negligible Beneficial | 47.1 | 0.5 | Negligible Adverse | 35.7 | 35.6 | 36.1 |
| 42, HEATHRYFOLD DRIVE | Oweling | 46.2 | 46.2 | 46.0 | -0.2 | Negligible Beneficical | 46.7 | 0.5 | Negligible Adverse | 35.3 | 35.3 | 35.8 |
| 44, HEATHRYFOLD DRIVE | Dwelling | 46.2 | 46.1 | 46.0 | -0.2 | Negligible Beneficial | 46.6 | 0.4 | Negiligile Adverse | 35.3 | 35.2 | 35.7 |
| 46, HEATHRYFOLD DRIVE | Oweling | 45.9 | ${ }_{45.8}^{45}$ | 45.7 | -0.2 | Negligible Beneficical | ${ }_{46.3}^{46}$ | 0.4 | Negigigle Adverse | 35.0 350 | 35.0 34 | 35.4 <br> 354 |
| 48, HEATHRYFOLD DRIVE | Deeling | ${ }^{45.8}$ | 45.7 | ${ }^{45.6}$ | -0.2 | Negligible Beneficical | 46.3 | 0.5 | Negligible Adverse | ${ }_{35.0}^{35}$ | 34.9 | 35.4 |
| 5, HEATHPYFFOLD DRIVE | Delling | 48.7 | 48.9 | ${ }^{48.6}$ | -0.1 | Negligible Beneficicial | ${ }_{49.4}^{49.4}$ | 0.7 | Negigigli Adverse | 37.6 348 | 37.7 348 | 38.2 <br> 35 |
| 50, HEATHRYFOLD DRIVE | Deelling | 45.6 | 45.6 | 45.4 | -0.2 | Negligible Beneficical | 46.1 | 0.5 | Negigigibe Adverse | 34.8 | ${ }^{34.8}$ | 35.2 |
| 52, HEATHRYFOLD DRIVE | Dwelling | 45.2 | 45.1 | 45.0 | -0.2 | Negligible Beneficical | 45.6 | 0.4 | Negiligible Adverse | 34.4 <br> 34 | 34.3 | $\begin{array}{r}34.8 \\ 3.8 \\ \hline\end{array}$ |
| 54, HEATHRYFOLD DRIVE | Deelling | 45.5 | 45.6 | 45.3 | -0.2 | Negligible Beneficial | 46.0 | 0.5 | Negigigible Adverse | 34.7 | 34.8 | 35.15 |
| ${ }^{6, \text { G }}$ HEATHRYFOLD DRIVE | Delling | 52.9 48.9 | 51.8 | 52.8 48.7 | ${ }_{-0.1}$ | $\frac{\text { Negligible Beneficial }}{\text { Negligibe }}$ | 53.1 4.5 | 0.2 | Negigigle Adverse | 41.3 377 | ${ }^{40.4}$ | 41.5 385 |
| \% $\frac{7}{8, \text { HEATHTHRYYFOLD }}$ | ${ }^{\text {Dwelling }}$ Dowling | ${ }_{50.9}^{48.8}$ | 50.5 | ${ }_{50.8}$ | -0.1 | Negiligiole Beneitical | ${ }_{51.4}^{49.5}$ | 0.5 | $\frac{\text { Negliglie Adverse }}{\text { Negligibe Adverse }}$ | ${ }_{39.5}^{37.5}$ | ${ }^{39.1}$ | 38.3 40.0 |
| 9, HEATHRYFOLD DRIVE | Dwelling | 48.3 | 48.5 | 48.4 | 0.1 | Negligible Adverse | 49.1 | 0.8 | Neoligible Adverse | 37.2 | ${ }_{37.4}$ | 37.9 |
| 1, HEATHRYFOLD PLACE | Dwelling | 48.3 | 48.7 | 48.2 | -0.1 | Negligible Beneficial | 49.0 | 0.7 | Negligible Adverse | 37.2 | 37.6 | 37.8 |
| 10, HEATHRYFOLD PLACE | Wwelling | 46.1 | 45.9 | ${ }^{46.0}$ | -0.1 | Negligible Beneficical | ${ }_{46.6}^{46}$ | 0.5 | Negiligible Adverse |  |  |  |
| 11, HEATHRYFOLD PLACE | Welling | 44.8 | 44.9 | 44.6 |  | Negligible Benenitical | 45.3 |  | Negiligible Adverse | 34.1 3.2 | 34.1 | 34.5 |
| 12, HEATHRYFOLD PLACE | Deelling | 46.1 | 45.9 | 46.0 | -0.1 | Negligible Beneficical | 46.6 | 0.5 | Negigigibe Adverse | 35.2 |  |  |
| 13, HEATHYYFFLD PLAC |  | 44.8 | 44.9 | 44.6 |  | Negiligiole Beneificial | 45.3 | 0.5 | Negiligibe Adverse | . 2 | 34.1 | 4.5 |
| 14, HEATHPYFOLD PLACE | Dweling | 46.1 | 45.9 | ${ }_{46.0}^{46}$ | -0.1 | Negiligibe Beneficial | 46.6 | 0.5 | Negiqigie Adverse | ${ }^{351.2}$ | 34 | 35.7 |
| 15. HEATHRYFOLD PLACE | weling | 44.8 | 44.9 | 44.6 | -0.2 | Negiligiole Beneificial | 45.3 | 0.5 | Negiligile Adverse | 34.1 | 34.1 <br> 3.1 | 34.5 |
| 16, HEATHYYFOLD PLACE | Oweling | 46.1 | 45.9 | 46.0 | -0.1 | Negiligiole Beneficical | 46.6 4.3 | 0.5 | Negiligile Adverse | - 35.2 | 35.0 | $\begin{array}{r}35.7 \\ 3.5 \\ \hline\end{array}$ |
| 17, HEATHYYOLD PACE | Swelling | 44.8 46.1 | 44.9 | 44.6 | -0.2 .0 .1 | $\frac{\text { Negligible Benenitical }}{\text { Neglioibl }}$ Beneficial | ${ }_{46.6}^{45}$ | 0.5 0.5 | Negiligib Adverse | 34.1 35.2 | 34.1 35.0 | 34.5 35.7 |
| 19, HEATHPYFOLD PLACE | Dwelling | 44.8 | 44.9 | 44.6 | -0.2 | Negegioible Beneficioil | 45.3 | 0.5 | Negigigibe Adverse | ${ }^{34.1}$ | ${ }_{34.1}$ | ${ }_{34.5}$ |
| 2, HEATHRYFOLD PLACE | Dwelling | 48.5 | 48.6 | 48.4 | -0.1 | Negligible Beneficial | 49.2 | 0.7 | Negigigible Adverse | 37.4 | 37.5 | 38.0 |
| 20, HEATHRYFOLD PLACE | Dwelling | 46.1 | 45.9 | 46.0 | -0.1 | Negligible Beneficial | 46.6 | 0.5 | Negiligible Adverse | 35.2 | 35.0 | 35.7 |
| 21, HEATHYYFOLD PLACE | Dwelling | 45.0 | $\stackrel{44.7}{45.6}$ | 44.8 45.3 | -0.2 | $\frac{\text { Negligible Beneficial }}{\text { Negligibe }}$ Beneficial | 45.4 | 0.4 | Negigiobe Adverse | $\begin{array}{r}34.2 \\ 34.7 \\ \hline\end{array}$ | 34.0 34.8 | 34.6 35.2 |
| 23, HEATHRYFOLD PLACE | Dwelling | 45.0 | 44.7 | 44.8 | -0.2 | Negligible Beneficial | 45.4 | 0.4 | Negiligile Adverse | 34.2 | 34.0 | 34.6 |
| 24, HEATHRYFOLD PLACE | welling | 45.5 | 45.6 | 45.3 | -0.2 | Negligible Beneficial | 46.1 | 0.6 | Negigioble Adverse | 34.7 | 34.8 | 35.2 |
| 25, HEATHRYFOLD PLACE | welling | 45.0 | 44.7 | 44.8 | -0.2 | Negligible Beneficial | 45.4 | 0.4 | Negigigile Adverse | 34.2 | 34.0 | 34.6 |
| 26, HEATHRYFOLD PLACE | Owelling | 45.5 | 45.6 | 45.3 | -0.2 | Negligible Beneficicial | 46.1 | 0.6 | Negiligibie Adverse | 34.7 34 | 34.8 | 35.2 3.6 |
| 27, HEATHYYFOLD PLACE | Dwelling | 45.5 | ${ }_{45.6}^{44.7}$ | ${ }_{45.3}^{44.8}$ | -0.2 | $\frac{\text { Negiligiole Beneficial }}{\text { Negligible }}$ Beneficial | 45.4 | 0.4 | Negigigib Adverse | 34.2 34.7 | 34.0 34.8 | $\begin{array}{r}34.6 \\ 35.2 \\ \hline\end{array}$ |
| 29, HEATHRYFOLD PLACE | Dwelling | 45.0 | 44.7 | 44.8 | -0.2 | Negligible Benenicicial | 45.4 | 0.4 | Negigioble Adverse | 34.2 | 34.0 | 34.6 |
| 3, HEATHPYFOLD PLACE |  |  | 49.0 |  |  |  |  |  |  |  |  |  |
| 30, HEATHPYFOLD PLACE | Deelling | 45.5 | 45.6 | 45.3 | -0.2 | Negligite Beneitical | 46.1 | 0.6 | Negligibe Adverse | 34.7 | 34.8 | 35.2 |
| 31, HEATHRYFOLD PLACE | Dweling | 45.0 | 44.7 | 44.8 | -0.2 | Negiligiole Beneificial | 45.4 | 0.4 | Negiligile Adverse | 34.2 | 34.0 | 34.6 <br> 3.2 |
| 32, HEATHYYOLD PLACE |  | ${ }_{45.5}^{4}$ | 45.6 | 45.3 | -0.2 | Nogligible Benenitial | 46.1 | ${ }_{0}^{0.6}$ | Negigigio Adverse | ${ }_{34,1}^{34.1}$ | 34.8 34 | 35.2 |
| 33, HEATHRYFOLD PLACE | ${ }^{\text {Duelling }}$ | 45.6 | ${ }_{45.7}^{45.7}$ | 44.5 | -0.1 | Negegigibile eeneneicicial | ${ }_{46.2}^{45.6}$ | 0.6 | Negigigile Adversse | ${ }^{34.8}$ | 34.9 | ${ }_{35.3}$ |
| 35, HEATHRYFOLD PLACE | Dwelling | 44.9 | 45.2 | 44.8 | -0.1 | Negligible Beneficial | 45.6 | 0.7 | Negligible Adverse | 34.1 | 34.4 | 34.8 |
| 36, HEATHRYFOLD PLACE | Dwelling | 46.0 | 46.1 | 45.8 | -0.2 | Negligible Beneficical | 46.6 | 0.6 | Negiligibe Adverse | 35.1 | 35.2 | 35.7 |
| 37, HEATHPYFOLD PLACE | Dwelling | $\frac{44.9}{46.4}$ | $\frac{45.2}{46.7}$ | $\frac{44.8}{463}$ | -0.1 | $\frac{\text { Negligible Benenicial }}{\text { Negligibl }}$ | $\stackrel{45.6}{471}$ | ${ }_{0}^{0.7}$ | $\frac{\text { Negiligible Adverse }}{\text { Negigiole Adverse }}$ | 34.1 35.5 | 34.4 358 | 34.8 361 |
| 39, HEATHRYFOLD PLACE | Dwelling | 44.9 | 45.2 | 44.8 | -0.1 | Negligible Beneficial | 45.6 | 0.7 | Negligible Adverse | 34.1 | 34.4 | ${ }_{34.8}$ |
| 4, HEATHRYYOLL PLACE | Deelling | 49.7 | 49.4 | 49.6 | -0.1 | Negligible Beneficial | 50.1 | 0.4 | Negligible Adverse | 38.5 | 38.2 3.2 | 38.8 |
| $\frac{\text { 40, HEATHRYFOLD PLACE }}{\text { 41. HEATHPYFOLD PLACE }}$ | Dwelling | 45.9 449 | 46.3 | 46.0 44.8 | 0.1 0.1 | Negigioble Adverse | 46.8 456 | 0.9 0.7 | Negligible Adverse | 35.0 34.1 | $\begin{array}{r}35.4 \\ 344 \\ \hline\end{array}$ | 35.9 348 |
| 43, HEATHRYFOLD PLACE | Dwelling | 44.9 | 45.2 | 44.8 | -0.1 | Negligible Beneficial | 45.6 | 0.7 | Negligible Adverse | 34.1 | 34.4 | 34.8 |
| 45, HEATHRYFOLD PLACE | Dwelling | 45.3 | 45.4 | 45.1 | -0.2 | Negligible Benenicicial | 45.9 | 0.6 | Negigioible Adverse | 34.5 | 34.6 | 35.0 |
| 47, HEATHRYFOLD PLACE |  |  | 45.4 | 45.1 | -0.2 | Negligible Benenitical | 45.9 | 0.6 | Negiligile Adverse | 34.5 |  |  |
| 49, HEATHRYFOLD PLACE | weling | 45.3 | 45.4 | 45.1 | -0.2 | Negiligiole Beneitical | 45.9 | 0.6 | Negiligie Adverse | 34.5 | \% 6 | 35.0 |
| 5. HEATHPYOLD PLACE | Oweiling | 48.8 | 49.2 |  | -0. 1 | Negigio Benelial | 49.6 | 0.8 | Nollate Averse | 3, |  | 5. 4 |
|  | Oweling | ${ }_{453}$ | ${ }_{45.4}$ | 45.1 | -0. 2 | Negligiole Benenicial | 45.9 | 0.6 | Negligiole Avverse | ${ }^{34.5}$ | ${ }^{34.6}$ | ${ }^{35} 5$ |
| 533, HEATHYYFOLD PACE | Oweling | ${ }_{45.3}^{45.3}$ | $\stackrel{45.4}{45.4}$ | ${ }_{45.1}^{45.1}$ | -0.2 | $\frac{\text { Negligiole Benenitical }}{\text { Neglioibl }}$ Beneficial | 45.9 | 0.6 | $\frac{\text { Negigigle Adverse }}{\text { Neligiole Adverse }}$ | 34.5 34.5 | 34.6 34.6 | 35.0 35.0 |
| 57 , HEATHRYFOLD PLACE | Deelling | 45.5 | 45.8 | 45.4 | -0.1 | Negligible Beneficicial | 46.2 | 0.7 | Negigiolie Adverse | 34.7 | 35.0 | ${ }_{35.3}$ |
| 59, HEATHRYFOLD PLACE | Dwelling | 50.5 | 51.6 | 50.5 | 0.0 | No Change | 51.7 | 1.2 | Negligible Adverse | 39.2 | 40.2 | 40.3 |
| 6, HEATHRYYOLD PLACE | Dweling | 47.7 | 47.6 | 47.6 | -0.1 | Negligible Beneficial | 48.3 50.1 | ${ }^{0.6}$ | Negigigile Adverse | $\begin{array}{r}36.7 \\ 379 \\ \hline\end{array}$ | $\begin{array}{r}36.6 \\ 3.6 \\ \hline\end{array}$ | $\begin{array}{r}37.2 \\ 388 \\ \hline\end{array}$ |
| 64, HEATHYYFOLD PACE | Dwelling | 49.1 | 49.9 | 49.1 49.6 | 0.0 | No Change | 50.1 50.7 | ${ }_{1.1}^{1.1}$ | $\frac{\text { Negigigle Adverse }}{\text { Nelilible Adverse }}$ | 38.4 | 38.6 39.2 |  |
| 7, HEATHRYFOLD PLACE | Dwelling | 49.3 | 49.9 | 49.5 | 0.2 | Negligible Adverse | 50.4 | 1.1 | Negiligile Adverse | 38.1 | 38.6 | 39.1 |
| 8 8, HEATHRYFOLD PLACE | Deelling | 46.9 | 47.0 | 46.8 | -0.1 | Negligible Benefitical | 47.6 | 0.7 | Negigigile Adverse | 35.9 | 36.0 | 36.6 |
| $\frac{9}{1, \text { HILLCRESTSTLPACE }}$ | Oweiling | 44.9 | 44.8 | ${ }_{48.8}^{44.6}$ | -0.2 | Negiligiole Beneitical | ${ }_{49.7}^{49.3}$ | 0.8 | $\frac{\text { Negligibe Adverse }}{\text { Neoligiole Adverse }}$ | 34.7 37.7 | 34.1 38.6 | 34.5 38.5 |
| 2, HILLCREST PLACE | Dwelling | 47.8 | 48.6 | 47.8 | 0.0 | No Change | 48.6 | 0.8 | Negigigile Adverse | 36.8 | 37.5 | 37.5 |
| 3. HILLCREST PLACE | Deeling | 46.8 | 47.8 | 46.6 | -0.2 | Negligible Beneficial | 47.7 | 0.9 | Negligible Adverse | 35.9 | 36.8 | 36.7 |
| 4. HILCRESTIPLACE | Oweiling | 47.2 | 48.2 | ${ }_{47,2}$ | 0.0 | No Change |  | 0.9 | Negiligie Adverse | 36.2 |  | 37.0 |
| 6, HILLCREST PLACE | Dwelling | 47.0 | 48.0 | 46.9 | -0.1 | Negligible Beeneficial | 47.9 | 0.9 | Neogigigile Adverse | 36.0 | 36.9 | ${ }_{36.8}$ |
| 7, HILLCREST PLACE | Dwelling | 46.7 | 47.8 | 46.6 | -0.1 | Negligible Beneficial | 47.7 | 1.0 | Negiligibe Adverse | 35.8 | 36.8 | 36.7 |
| 8, HILLCRESEST PLACE | Owelling | 47.0 | 47.9 | 46.9 | -0.1 | Negigigile Beneficial | 47.8 | 0.8 | Negigioble Adverse | 36.0 | 36.8 | 36.8 |
| 1, HLTTONAVEVUE | Dwelling | 62.1 55.5 | 66.5 | 65.3 | . 1.1 | Negiligibile Bereneificial | 66.1. | 4.8 | Minoror Adverse | 49.6 ${ }_{4}$ | 53.6 49.4 | 53.2 48.0 |
| $\frac{101, \text { HLLTON AVENUE }}{103}$ | Dwelling | 54.5 547 | ${ }^{61.2}$ | 54.2 54.4 | -0.3 | Negligible Beneficial | $\begin{array}{r}59.2 \\ 594 \\ \hline 9.4\end{array}$ | 4.7 | Minor Adverse | 42.8 | 48.8 488 | ${ }_{47}^{47.0}$ |
| 1 105, HITTON AVENUE | Dwelling | ${ }_{54.8}^{54.8}$ | 61.4 | 54.5 | $\stackrel{-0.3}{-0.3}$ | Negegiogible Beneficioial | ${ }^{59.4}$ | 4.6 | Minor Adverse | 43.1 | 49.0 | 47.2 |
| 107, HLLTON AVENUE | Dwelling | 54.9 | 61.5 | 54.7 | -0.2 | Negligible Benefitial | 59.5 | 4.6 | Minor Adverse | 43.1 | 49.1 | 47.3 |
| 109. HLLTON AVENUE | Dwelling | 55.1 57.5 | $\frac{61.6}{61.6}$ | 54.8 57.5 | $\stackrel{-0.3}{-0}$ | Negligibe Beneficial | 59.6 60.6 | 4.5 3.1 | Minor Adverse | 43.3 | $\frac{49.2}{49.2}$ | $\stackrel{47.4}{48.3}$ |
| 12, HILTON AVENUE | Dewling | 54.7 57 | ${ }_{61.8}^{616}$ | 54.5 574 | -0.2 | Negligible Beneficial | 59.7 | 5.0 | Moderate Adverse | 43.0 454 | 49.4 | 47.5 |
| 120, HLTTON AVENUE | weiling | 57.4 | 61.6 | 57.4 |  | No Change |  |  | Minor Adverse | 45.4 | 49.2 | 48.3 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | Dм33 <br> Lnight,outside | $\begin{gathered} \text { DS33 } \\ \text { Lnight,outside } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 121, HLTTON AVENUE | Dwelling | 57.2 | 60.5 | 57.3 | 0.1 | $\frac{\text { Negliable Beneficial }}{\text { Neglioile }}$ | 59.6 | 2.4 | Negligiole Adverse | 45.2 | 48.2 | 47.4 |
| $\frac{122 \text {. HLTTON AVENUE }}{123}$ | Dwelling | 57.4 56.4 | 61.5 <br> 9.9 | $\frac{57.3}{56.2}$ | -0.1 | $\frac{\text { Negliable Beneficial }}{\text { Neoligible Adverse }}$ | 60.5 588 | 3.1 | Minor Adverse | 45.4. | 49.1 | 48.2 |
| 123, HILTONAVENUE | Dweling | 56.1 <br> 57.4 | 59.74 | ${ }_{\text {56.2 }}^{57}$ | 0.1 -0.1 | Negligiole Adverse | 58.8 60.5 | ${ }_{3.1}^{2.7}$ | $\frac{\text { Negigigio Adverse }}{\text { Minor Adverse }}$ | ${ }_{45.4}^{44.2}$ | ${ }_{49.0}^{47.5}$ | ${ }_{48.2}^{46.7}$ |
| 125, HLTTON AVENUE | Dwelling | 55.4 | 59.3 | 55.5 | 0.1 | Negiligile Adverse | 58.3 | 2.9 | Negligible Adverse | 43.6 | 47.1 | 46.2 |
| 126, HLTTON AVENUE | Dwelling | 57.3 | 61.3 | 57.3 | 0.0 | No Change | 60.4 | 3.1 | Minor Adverse | 45.3 | 48.9 | 48.1 |
| 127. HLTTON AVENUE | Dwelling | 55.3 | 59.2 | 55.4 | 0.1 | Negiligile Adverse | 58.2 | 2.9 | Negligible Adverse | 43.5 | 47.0 | 46.1 |
| 128, HLTTON AVENUE | Dwelling | 57.1 | 61.2 | 57.1 | 0.0 | No Change | 60.2 | 3.1 | Minor Adverse | 45.1 | 48.8 | 47.9 |
| 129, HLLTON AVENUE | Dwelling | 55.2 | 59.3 | 55.3 | 0.1 | Negligible Beneficial | 58.2 | 3.0 | Minor Adverse | 43.4 | 47.1 | 46.1 |
| 130, HLTON AVENUE | Deeling | 57.2 | 61.2 | 57.1 | -0.1 | Negligible Beneficial | 60.3 | ${ }^{3} 1$ | Minor Adverse | 45.2 | 48.8 | 48.0 |
| 131, HLTOON AVENUE | Dwelling | 55.1 572 5 | 59.2 | 55.2 <br> 571 | 0.1 | Negiligile Adverse | 58.1 60.1 | 3.0 3 | Minor Adverse | 43.3 <br> 452 | 47.0 | 46.0 |
| 133, HLLTONAVENUE | Dwelling | 57.2 55.0 | $\frac{61.2}{59.1}$ | 55.1 55.1 | -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Nefligible Adverse }}$ | 60.2 58.0 | 3.0 3.0 | $\frac{\text { Minor Adverse }}{\text { Minor Adverse }}$ | ${ }_{43.2}^{45}$ | 48.8 46.9 | 47.9 459 |
| 134, HLTTON AVENUE | Dwelling | 55.22 | 61.2 | 55.2 | 0.0 | No Change | 60.3 | ${ }_{3.1}$ | Minor Adverse | 45.2 | 48.8 | 48.0 |
| 135, HLTTON AVENUE | Dwelling | 55.4 | 59.4 | 55.4 | 0.0 | No Change | 58.4 | 3.0 | Minor Adverse | 43.6 | 47.2 | 46.3 |
| 136, HLTTON AVENUE | Dwelling | 57.1 | 61.1 | 57.1 | 0.0 | No Change | 60.2 | 3.1 | Minor Adverse | 45.1 | 48.7 | 47.9 |
| 137, HLLTON AVENUE | Dwelling | 55.8 | 59.8 | 55.8 | 0.0 | No Change | 58.9 | 3.1 | Minor Adverse | 44.0 | 47.6 | 46.7 |
| $\frac{139, \text { HLT TON AVENUE }}{\text { 14, HITTON AVENUE }}$ | Dwelling | $\begin{array}{r}55.9 \\ 525 \\ \hline 5\end{array}$ | 60.0 59.1 | 55.8 5.8 5.8 | -0.1 | $\frac{\text { Negliaible Beneficial }}{\text { Negligible }}$ Beneficial | 59.0 57.2 | ${ }^{3.1}$ | Minor Adverse | 44.0 410 | 47.7 | 46.8 <br> 4.2 |
| 140, HILTON AVENUE | Dwelling | 57.2 | 61.1 | 57.1 | -0.1 | Negligible Beneficial | 60.4 | 3.2 | Minor Adverse | 45.2 | 48.7 | 48.1 |
| 141, HLTON AVENUE | Dwelling | 56.1 | 60.3 | 56.1 | 0.0 | No Change | 59.3 | 3.2 | Minor Adverse | 44.2 | 48.0 | 47.1 |
| 142, HLTON AVENUE | Dwelling | 57.2 | 61.1 | 57.1 | -0.1 | Negligible Beneficial | 60.4 | 3.2 | Minor Adverse | 45.2 | 48.7 | 48.1 |
| 143, HLTTON AVENUE | Dwelling | 56.0 | 60.2 | 55.9 | -0.1 | Negligible Beneficial | 59.2 | 3.2 | Minor Adverse | 44.1 | 47.9 | 7.0 |
| 144, HLTTON AVENUE | Dwelling | 57.2 | 61.1 | 57.1 | -0.1 | Negligible Beneficial |  | ${ }^{3.2}$ | Minor Adverse | 45.2 |  | 8.1 |
| 145, HLTOU AVENUE |  |  | 60.2 |  |  | No Change | 59.3 | ${ }^{3.2}$ |  |  | 47.9 | 7.1 |
| 1466. HLITON AVENUE | Dweling | 57.2 559 | 61.1 | 57.1 559 | ${ }^{-0.1}$ | Negligible Beneficial | 60.4 | $\frac{3.2}{32}$ | Minor Adverse | $\frac{45.2}{440}$ | 48.7 | 48.1 |
| 148, HLTTONAVENUE | Dwelling | ${ }_{5}^{57.2}$ | 61.1 | 57.2 | 0.0 | No Change | 60.3 | ${ }_{3.1}$ | Minor Adverse | 45.2 | ${ }_{48,7}$ | 48.0 |
| 149, HLLTON AVENUE | Dwelling | 55.6 | 59.5 | 55.6 | 0.0 | No Change | 58.7 | 3.1 | Minor Adverse | 43.8 | 47.3 | 46.6 |
| 150, HLTON AVENUE | Dwelling | 57.2 | 61.1 | 57.2 | 0.0 | No Change | 60.3 | 3.1 | Minor Adverse | 45.2 | 48.7 | 48.0 |
| $\frac{\text { 151, HILTON AVENUE }}{\text { 152, HITON AVENUE }}$ | Dwelling | 55.1 57.2 | 58.8 61.1 | 55.0 57.2 | -0.1 0.0 | Negligible Beneficial | 58.1 | 3.0 3.1 | Minor Adverse | 43.3 | ${ }_{48.7}^{48.7}$ | 46.0 48.0 |
| 153, HILTON AVENUE | Dwelling | 55.2 | 58.8 | 55.1 | -0.1 | Negligible Beneficial | 58.2 | 3.0 | Minor Adverse | 43.4 | 46.7 | 46.1 |
| 154, HLT TON AVENUE | Dwelling | 57.2 | 61.1 | 57.2 | 0.0 | No Change | 60.3 | 3.1 | Minor Adverse | 45.2 | 48.7 | 48.0 |
| I 1556 , HLLTONAVN AVENUE | Dwelling | ${ }_{54.3}^{56.8}$ | ${ }^{60.6} 5$ | ${ }^{56.8} 5$ | -0.1 | Negligible Eeneneficial | ${ }_{56.5}^{59.9}$ | ${ }_{2}^{3.1}$ | Neoligiole Adverse | 44.9 | 45.0 | ${ }_{44.6}$ |
| 157, HLLTON AVENUE | Dwelling | 56.8 | 60.6 | 56.8 | 0.0 | No Change | 59.9 | 3.1 | Minoor Adverse | 44.9 | 48.3 | 47.6 |
| 158, HLTTON AVENUE | Dwelling | 54.3 | 57.0 | 54.2 | -0.1 | Negligible Beneficial | 56.5 | 2.2 | Negligible Adverse | 42.6 | 45.0 | 44.6 |
| 1599 HLTTON AVENUE | Dwelling | 56.8 | 60.6 | 56.8 | 0.0 | No Change | 59.9 | ${ }^{3.1}$ | Minor Adverse | 44.9 | 48.3 | 47.6 |
| $\frac{16, \text { HLTON AVENUE }}{160, \text { HITON AVENUE }}$ | Dwelling | 54.0 54.3 | 60.9 57.0 | 53.8 54.2 | -0.2 | $\frac{\text { Negligiole Beneficial }}{\text { Negligible }}$ Beneficial | ${ }_{56.5}^{56.9}$ | ${ }^{4.9}$ | Neoligiole Adverse | ${ }_{42.6}^{42.6}$ | 45.5 | 46.7 44.6 |
| 161, HLTTON AVENUE | Dwelling | 56.8 | 60.6 | 56.8 | 0.0 | No Change | 59.9 |  | Minor Adverse | 44.9 | 48.3 | 47.6 |
| 162, HLTTON AVENUE | Dwelling | 54.3 | 57.0 | 54.2 | -0.1 | Negligible Beneficial | 56.5 | 2.2 | Negigiolie Adverse | 42.6 | 45.0 | 44.6 |
| 163, HLLTTON AVENUE | Dwelling | 55.7 | 59.2 | 55.7 | 0.0 | No Change | 58.6 | 2.9 | Negigioble Adverse | 43.9 | 47.0 | 46.5 |
| 164. HLTTON AVENUE | Dwelling | 51.4 55.7 | 53.0 59.2 | 51.2. | -0.2 0.0 | Negligible Beneficial | 52.7 58.6 | 1.3 2.9 | Negiligile Adverse | 40.0 439 | 41.4 470 | 41.2 465 |
| 166, HLTTON AVENUE | Dwelling | 51.4 | 53.0 | 51.2 | -0.2 | Negligible Benenficial | 52.7 | ${ }_{1}^{1.3}$ | Negiligible Adverse | 40.0 | 41.4 | 41.2 |
| 167, HLLTON AVENUE | Dwelling | 55.7 | 59.2 | 55.7 | 0.0 | No Change | 58.6 | 2.9 | Negligible Adverse | 43.9 | 47.0 | 46.5 |
| 168, HLITONAVENUE | Deeling | 51.4 55.7 | 53.0 | 51.2 55.7 | -0.2 | Negligite Beneficial | 52.7 58.6 | $\stackrel{1.3}{2.9}$ | Negigible Adverse | 40.0 | 41.4 | $\frac{41.2}{46.5}$ |
| 170, HILTON AVENUE | Dwelling | 51.4 | 53.0 | 51.2 | -0.2 | Negligible Benenicicial | 52.7 | 1.3 | Negigiolie Adverse | 40.0 | 41.4 | 41.2 |
| 171. HLTON AVENUE | Deeling | 57.1 | 60.7 | 57.0 | -0.1 | Negligible Beneficial | 60.0 | 2.9 | Negigioble Adverse | 45.1 | 48.4 | 47.7 |
| 172, HLTON AVENUE | Dwelling | 50.1 | 51.5 | 49.9 | -0.2 | Negligible Beneficial | 51.3 | 1.2 | Negigioble Adverse | 38.8 | 40.1 | 39.9 |
| $\frac{173 \text {, HLTTONAVENUE }}{174, \text { HLTON AVENUE }}$ | Dwelling | 57.1 50.1 | 60.7 51.5 | 57.0 49.9 | -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ Beneficial | 60.0 51.3 | 2.9 1.2 | $\frac{\text { Negligible Adverse }}{\text { Negligible Adverse }}$ | 45.1 38.8 | 48.4 40.1 | 47.7 39.9 |
| 175, HILTON AVENUE | Dwelling | 57.1 | 60.7 | 57.0 | -0.1 | Negligible Beneficicial | 60.0 | 2.9 | Negligiole Adverse | 45.1 | 48.4 | 47.7 |
| 176, HILTON AVENUE | Dwelling | 50.1 | 51.5 | 49.9 | -0.2 | Negligible Beneficial | 51.3 | 1.2 | Negigiolie Adverse | 38.8 | 40.1 | 39.9 |
| $\frac{177 \text {, HLTTON AVENUE }}{178 \text { HITON }}$ | Dwelling | 57.1 | ¢ 61.7 | 57.0 49 | ${ }^{-0.1}$ | Negliable Beneficial | -60.0 | 2.9 | Negiligile Adverse | 45.1 | 48.4 | ${ }^{47.7}$ |
| 178, HLITONAVENUE | Dwelling | 50.1 57.5 | 51.5 <br> 61.1 <br> 1 | 49.9 57.5 | -0.2 | Negligibe Beneficial | 51.3 60.4 | 1.2 2.9 | $\frac{\text { Negigiglie Adverse }}{\text { Nesiliole Adverse }}$ | 38.8 45.5 | ${ }_{48.7}^{48.1}$ | 39.9 48.1 |
| 18, HLTTON AVENUE | Dwelling | 54.0 | 60.9 | 53.7 | -0.3 | Negligible Beneficial | 58.9 | 4.9 | Minor Adverse | 42.3 | 48.5 | 46.7 |
| 180, HILTON AVENUE | Dwelling | 49.4 | 50.8 | 49.3 | -0.1 | Negligible Beneficial | 50.6 | 1.2 | Negigiolie Adverse | 38.2 | 39.5 | 39.3 |
| 181, HILTONAVENUE | Dwelling | 57.5 | 61.1 | 57.5 | 0.0 | No Change | 60.4 | 2.9 | Negigioble Adverse | 45.5 | 48.7 | 48.1 |
| 182. HLTOON AVENUE | Dwelling | 49.4 575 | $\frac{50.8}{611}$ | 49.3 575 | -0.1 | Negligible Beneficial | 50.6 | 1.2 | Negligible Adverse | 38.2 455 | 39.5 485 | 39.3 481 |
| 184, HLTTONAVENUE | Dwelling | 49.4 | 50.8 | 49.3 | -0.1 | Negligible Beneficial | ${ }_{50.6}$ | 1.2 | Negigigible Adverse | 38.2 | ${ }^{49.5}$ | ${ }_{39.3}$ |
| 185, HILTON AVENUE | Dwelling | 57.5 | 61.1 | 57.5 | 0.0 | No Change | 60.4 | 2.9 | Negigioile Adverse | 45.5 | 48.7 | 48.1 |
| 186. HLTTTON AVENUE | Dwelling | 49.4 | 50.8 | 49.3 | -0.1 | Negligible Beneficial | 50.6 | 1.2 | Negligiole Adverse | 38.2 | 39.5 | 39.3 |
| $\frac{187 \text {, HLITON AVENUE }}{188, \text { HLTON AVENUE }}$ | Dweling | 58.2 47.6 | $\frac{61.5}{49.3}$ | 58.1 47.4 | -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negligibl }}$ Beneficial | 60.9 49.0 | 2.7 1.4 | $\frac{\text { Negigigile Adverse }}{\text { Negigiole Adverse }}$ | ${ }^{46.1}$ | 49.1 38.1 | 48.5 37.8 |
| 189, HILTON AVENUE | Dwelling | 58.2 | 61.5 | 58.1 | -0.1 | Negligible Beneficicial | 60.9 | 2.7 | Negiligiole Adverse | 46.1 | 49.1 | 48.5 |
| 190, HLTTON AVENUE | Dwelling | 47.6 | 49.3 | 47.4 | -0.2 | Negligible Beneficial | 49.0 | 1.4 | Negligible Adverse | 36.6 | 38.1 | 37.8 |
| $\frac{191 \text {, HLTTON AVENUE }}{192 \text { HITON AVENUE }}$ | Dwelling | 58.2 476 | ${ }_{491.5}^{493}$ | 58.1 474 | -0.1 | Negliable Beneficial | 60.9 490 | $\frac{2.7}{14}$ | Negiligile Adverse | 46.1 36. | 49.1 | 48.5 378 |
| 193, HLTTONAVENUE | Dwelling | 58.2 | 61.5 | 58.1 | -0.1 | Negligibie Beneficicial | 60.9 | ${ }^{2.4}$ | Neogigioble Adverse | ${ }^{36.1}$ | ${ }^{39.1}$ | ${ }^{48.5}$ |
| 194, HLLTONAVENUE | Dwelling | 47.6 | 49.3 | 47.4 | -0.2 | Negligible Beneficial | 49.0 | 1.4 | Negigioble Adverse | 36.6 | 38.1 | 37.8 |
| 195, HLTTON AVENUE | Dwelling | 63.7 491 |  | 63.2 490 | -0.5 -0.0 | Negiligiole Beneficial | 年 $\begin{array}{r}64.2 \\ 509\end{array}$ | 0.5 <br> 105 | Negigigio Adverse | 51.1 379 | 51.5 3 3 | 51.5 |
| 197, HLTTON AVENUE | Dwelling | 63.7 | 64.2 | 63.2 | 0.5 | Negligible Beneficial | 64.2 | 0.5 | Neogigigile Adverse | ${ }_{51.1}$ | 51.5 | ${ }_{51.5}$ |
| 198, HLTTON AVENUE | Dwelling | 49.1 | 51.3 | 49.0 | -0.1 | Negligible Beneficial | 50.9 | 1.8 | Negiligile Adverse | 37.9 | 39.9 | 39.5 |
| 199, HLITON AVENUE | Dweling | 63.7 54.1 | 64.2 | 63.2 <br> 538 <br> 58 | -0.5 | Neogioible Beneficial | 64.2 590 | 0.5 49 | Negiligibe Adverse | 51.1 424 | 51.5 485 | 51.5 468 |
| 200, HILTONAVENUE | Dwelling | ${ }^{49.1}$ | 51.3 | 49.0 | -0.1 | Negligible Beneficial | 50.9 | 1.8 | Negligible Adverse | 37.9 | 39.9 | 39.5 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 Lnight,outside | DS33 Lnight,outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 201, HILTON AVENUE | Dwelling | 63.7 | 64.2 | 63.2 | ${ }^{0.5}$ | Negligible Beneficial | 64.2 | 0.5 | Negiligibe Adverse | 51.1 | 51.5 | 51.5 |
| 202. HLLTON AVENUE | Dwelling | 49.1 54.0 | 51.3 56.9 | $\frac{49.0}{53.9}$ | -0.1 -0.1 | $\frac{\text { Negliable Beneficial }}{\text { Negligible }}$ Beneficial | 50.9 56.4 | 1.8 <br> 2.4 | $\frac{\text { Negligible Adverse }}{\text { Negigible Adverse }}$ | 37.9 42.3 | $\frac{39.9}{44.9}$ | 39.5 44.5 |
| 206, HLTTON AVENUE | Dwelling | 54.0 | 56.9 | 53.9 | ${ }_{-0.1}$ | Negligible Beneficiolal | 56.4 | ${ }_{2.4}$ | Neoligible Adverse | 42.3 | 44.9 | 44.5 |
| 208, HILTON AVENUE | Dwelling | 54.0 | 56.9 | 53.9 | -0.1 | Negligible Benenicicial | 56.4 | 2.4 | Negiligible Adverse | 42.3 | 44.9 | 44.5 |
| 210, HILTON AVENUE | welling | 54.0 | 56.9 | 53.9 | -0.1 | Negligible Beneficical | 56.4 | 2.4 | Negligible Adverse | 42.3 | 44.9 |  |
| 212, HLTTON AVENUE | Dwelling | 58.2 | 61.5 | 58.1 | -0.1 | Negligible Beneficial | 60.9 | 2.7 | Negigiobile Adverse | 46.1 | 49.1 | 48.5 |
| 214, HLITON AVENUE | Deelling | 58.2 | 61.5 | 58.1 | -0.1 | Negligible Beneficial | 60.9 | 2.7 | Negigioble Adverse | 46.1 | 49.1 | 48.5 |
| 216, HLLTON AVENUE | Dwelling | 58.2 | 61.5 615 | 58.11 | -0.1 | Negligible Beneficial | 60.9 | ${ }_{2}^{27}$ | Negiligibe Adverse | 46.1 | 49.1 |  |
| $\frac{18}{218 . \text { HILTON AVENUE }}$ | Dwelling | - ${ }_{58.2}^{54.2}$ | 61.5 | 54.1. | $\stackrel{-0.1}{-0.2}$ |  | 60.9 59.0 | ${ }_{4.8}^{2.7}$ | $\frac{\text { Negligible Adverse }}{\text { Minor Adverse }}$ | ${ }_{46.1}^{46.5}$ | ${ }_{49}^{49.1}$ | 48.5 46.8 |
| 220, HILTON AVENUE | Dwelling | ${ }^{59.2}$ | 61.9 | 59.0 | $\stackrel{-0.2}{ }$ | Negegioible Beneficioil | ${ }^{51.4}$ | 2.2 | Negigioble Adverse | 47.0 | 49.4 | 49.0 |
| 222, HLTTON AVENUE | Dwelling | 59.2 | 61.9 | 59.0 | -0.2 | Negligible Beneficical | 61.4 | 2.2 | Negiligile Adverse | 47.0 | 49.4 | 49.0 |
| 224, HLTTON AVENUE | Dwelling | 59.2 | 61.9 | 59.0 | -0.2 | Negligible Beneficial | 61.4 | 2.2 | Negiligible Adverse | 47.0 | 49.4 | 49.0 |
| 2266, HLTON A AVNUE | Dewling | 59.2 | 61.9 | 59.0 | -0.2 | Negligible Benefificial | 61.4 | ${ }^{2.2}$ | Negigigibe Adverse | 47.0 | $\stackrel{49.4}{5.3}$ | 49.0 |
| 228, HLLTON AVENUE | Deelling | 60.8 | 62.8 | 60.5 | -0.3 | Negligible Benenitical | 62.4 62.4 | 1.6 | Negiligibe Adverse | 48.5 48.5 | 50.3 50.3 | 49.9 499 |
| ${ }^{\text {230, }}$ 232, HLLION ALTON AVENEEE | Dwelling | 60.8 60.8 | 62.8 62.8 | 60.5 | --0.3 | Negiligible Beneiticial | 62.4 | ${ }_{1}^{1.6}$ | Negigigible Adverse | 48.5 | ${ }_{50.3}^{50.3}$ | 49.9 |
| 234, HLTTON AVENUE | Dwelling | 60.8 | 62.8 | 60.5 | -0.3 | Negligible Beneficial | 62.4 | 1.6 | Negigiolile Adverse | 48.5 | 50.3 | 49.9 |
| 236, HLLTON AVENUE | welling | 63.3 | 64.6 | 63.0 | -0.3 | Negligible Beneficial | 64.4 | 1.1 | Negiligible Adverse | 50.7 | 51.9 | 51.7 |
| 238, HITTON AVENUE | Dwelling | 63.3 | 64.6 | 63.0 | -0.3 | Negligible Beneficial | 64.4 | 1.1 | Negiligible Adverse | 50.7 | 51.9 | 51.7 |
| 24, HILTONAVENUE | Deelling | 54.2 | 60.8 | 54.1 | -0.1 | Negligible Beneficial | 58.9 | 4.7 | Minor Adverse | 42.5 | 48.5 | 46.7 |
| $\frac{240, \text { HILTON AVENUE }}{242 \text { Hill }}$ | Dwelling | ${ }^{63.3}$ | 64.6 64.6 | 63.0 63.0 | -0.3 -0.3 | $\frac{\text { Negilibile Beneficial }}{\text { Negligible Beneficial }}$ | 64.4 64.4 | 1.1 <br> 1.1 | Negligibl Adverse | 50.7 50.7 | 51.9 51.9 | 51.7 51.7 |
| 244, HLTTON AVENUE | Dwelling | 66.1 | 66.9 | 65.7 | ${ }^{-0.4}$ | Negligible Beneficial | 66.8 | 0.7 | Negigiolie Adverse | 53.2 | 53.9 | 53.9 |
| 246, HLLTON AVENUE | Deelling | 66.1 | 66.9 | 65.7 | -0.4 | Negligible Beneficial | 66.8 | 0.7 | Negiligibe Adverse | 53.2 | 53.9 | 53.9 |
| 248, HLTTON AVENUE | Dwelling | 66.1 | 66.9 | 65.7 | -0.4 | Negligible Beneficial | 66.8 | 0.7 | Negigioibe Adverse | 53.2 | 53.9 | 53.9 |
| 250, HLLTONAVENUE | Oweling | 66.1 | ${ }_{66.9}^{64}$ | 65.7 | -0.4 | Negiligiole Beneficial | 66.8 | ${ }_{0}^{0.7}$ | Negligigile Adverse | 53.2 | 53.9 | 53.9 |
| 3, HLTIONAVENUE | Oweling | 59.6 | ${ }_{64.7}^{64}$ | $\begin{array}{r}60.4 \\ 55 \\ \hline\end{array}$ | 0.8 | Negigigile Adverse | ${ }^{63.9}$ | ${ }_{48}^{4.3}$ | Minor Adverse | ${ }_{4}^{4} 4.4$ | ${ }^{52.0} 4$ | 51.22 |
| 4, HLITTONAVENUE | Dwelling | 55.4 55.4 | ${ }_{61.8}^{61.8}$ | ${ }_{55.3}^{55}$ | -0.1 |  | ${ }_{60.3}$ | 4.9 | Minoro Adversese | 43.6 43.6 | 49.1 49.4 | 47.9 |
| 7. HILTON AVENUE | Dwelling | 56.7 | 62.6 | 56.9 | 0.2 | Negligible Adverse | 61.4 | 4.7 | Minor Adverse | 44.8 | 50.1 | 49.0 |
| 70, HLTON AVENUE | Dwelling | 56.7 | 61.9 | 56.5 | -0.2 | Negligible Beneficial | 60.2 | 3.5 | Minor Adverse | 44.8 | 49.4 | 47.9 |
| 71, 7 HLTO A AVENUE | Oweling | 55.2 575 | 61.8 | $\begin{array}{r}55.0 \\ 574 \\ \hline\end{array}$ | -0.2 | Negligibe Benenitial | 60.0 | 4.8 | Minor Adverse | 43.4 | 49.4 | 47.7 48.3 |
| 73, HLTTON AVENUE | Owelling | 54.9 | 61.7 | 54.6 | -0.3 | Negligible Beneficial | 59.7 | 4.8 | Minor Adverse | 43.1 | 49.3 | 47.5 |
| 75, HLTON AVENUE | Dwelling | 54.6 | 61.6 | 54.4 | -0.2 | Negligible Beneficial | 59.6 | 5.0 | Moderate Adverse | 42.9 | 49.2 | 47.4 |
| 77, HLTON AVENUE | welling | 54.5 | 61.6 | 54.3 | -0.2 | Negligible Beneficial | 59.5 | 5.0 | Moderate Adverse | 42.8 | 49.2 | 47.3 |
| 79, HLTON AVENUE | Dwelling | 54.4 | 61.5 | 54.1 | -0.3 | Negligible Beneficial | 59.4 | 5.0 | Moderate Adverse | 42.7 | 49.1 | 47.2 |
| 8, HLTTON AVENUE | Dwelling | 55.5 | 61.8 | 55.3 | -0.2 | Negligible Beneficial | 60.4 | 4.9 | Minor Adverse | 43.7 | 49.4 | 48.1 |
| 81, HLTON AVENUE | Dwelling | 54.4 | 61.5 | 54.1 | -0.3 | Negligible Beneficial | 59.4 | 5.0 | Moderate Adverse | ${ }^{42.7}$ | 49.1 | 47.2 |
| 83, HITTON AVENUE | Dwelling | 54.9 55.9 | 62.2 62.7 | 54.6 55.8 | -.0 .3 <br> .0 .1 <br>  | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ Beneficial | 59.9 60.5 | 5.0 4.6 | $\frac{\text { Moderate Adverse }}{\text { Minor Adverse }}$ | $\stackrel{43.1}{44.0}$ | $\stackrel{49.7}{50.2}$ | 48.6 48.2 |
| 87, HITTON AVENUE | Dwelling | 54.7 | 61.5 | 54.4 | -0.3 | Negligible Beneficial | 59.5 | 4.8 | Minor Adverse | 43.0 | 49.1 | 47.3 |
| 89, HLTON AVENUE | Deelling | 54.9 | 61.8 | 54.7 | -0.2 | Negligible Beneficial | 59.7 | 4.8 | Minor Adverse | 43.1 | 49.4 | 47.5 |
| 9, 9 , hilition avenue | Dwelling | 55.3 <br> 54.2 | $\frac{61.1}{60.9}$ | 55.3 53.9 | 0.0 -0.3 | Negligible ${ }^{\text {Cangefeficial }}$ | 59.8 58.9 | 4.5 | Minor Adverse | 43.5 42.5 | ${ }^{48.7} 48$ | 476.6 |
| 93, HLTOON AVENUE | Deelling | 54.2 | 61.0 | 54.0 | -0.2 | Negligible Beneficial | 59.0 | 4.8 | Minor Adverse | 42.5 | 48.6 | 46.8 |
| 95, HLTON AVENUE | Dwelling | 54.3 | 61.1 | 54.1 | -0.2 | Negligible Beneficial | 59.1 | 4.8 | Minor Adverse | 42.6 | 48.7 | 46.9 |
| 97, HLTOON AVENUE | Dwelling | 54.4 <br> 54.5 | 61.1 | 54.1 | -0.3 | $\frac{\text { Negligible Benenicial }}{\text { Negligibl }}$ Beneficial | 59.1 | 4.7 | Minor Adverse | $\frac{42.7}{42.8}$ | 48.7 48.9 | 46.9 47.0 |
| HiLTON CLINIC, HLTTON AVENUE | Clinic | 50.4 | 56.2 | 50.2 | -0.2 | Negegioible Beneficioial | ${ }_{54.6}$ | 4.2 | Minor Adverse | 39.1 | 44.3 | 42.9 |
| HILTON CLINC, HLLTON AVENUE | Clinic | 50.4 | 56.2 | 50.2 | -0.2 | Negligible Benenticial | 54.6 | 4.2 | Minor Adverse | 39.1 | 44.3 | 42.9 |
| 1, HLTTON CIRCLE | Deelling | 53.7 | 54.6 | 53.7 | 0.0 | No Change | 54.5 | 0.8 | Negigioble Adverse | 42.1 | 42.9 | 42.8 |
| 2, HILTON CIRCLE | Dwelling | 53.4 | 54.2 | 53.3 | -0.1 | Negligible Beneficial | $\begin{array}{r}54.1 \\ 54.5 \\ \hline\end{array}$ | 0.7 | Negiligile Adverse | 41.8 | 42.5 | 42.4 |
| 4, HLTON CIRCLE | Dwelling | 53.0 | 53.9 | 53.0 | 0.0 | No Change | 53.8 | 0.8 | Neogigigile Adverse | 41.4 | 42.2 | 42.2 |
| 5, HLTTON CIRCLE | Dwelling | 53.1 | 53.7 | 53.1 | 0.0 | No Change | 53.7 | 0.6 | Negligible Adverse | 41.5 | 42.1 | 42.1 |
| 6, HILTON CIRCLE | Dwelling | 53.9 | 54.7 | $\begin{array}{r}53.8 \\ 5.8 \\ \hline\end{array}$ | -0.1 | Negligigle Beneficial | 54.6 |  | Negiligile Adverse | ${ }_{42.2}$ | ${ }^{43.0}$ | 42.9 |
| 7, HILTON CIICLE |  | 52.3 534 | $\begin{array}{r}53.2 \\ 543 \\ \hline\end{array}$ |  | 0.0 | No Change | 53.1 | ${ }^{0.8}$ | Negligiole Aaverse | 40.8 | 41.6 | 4.5 |
| 8, HILTON CIICLE | Dwelling |  |  |  |  | No Change |  | 0.8 | Negligible Adverse | 41.8 |  | 42.5 |
| 102. HILTON DRIVE | Dweling | 65.5 654 | 66.8 | 65.5 655 | 0.0 0.1 | No Change | 66.6 66.5 | $\frac{1.1}{11}$ | Negigigle Adverse | 52.7 526 | 53.9 538 | 53,7 |
| 100, , HLTTON DRIVE | Dwelling | ${ }_{65.3}$ | 66.6 | 65.4 | 0.1 | Negifigiobile Advericisel | ${ }_{66.5}^{66.5}$ | 1.2 | Negigigibe Adverse | $\stackrel{52.6}{52.5}$ | ${ }_{53}^{53.7}$ | - ${ }_{53.6}^{53.6}$ |
| 11, HLTTON DRIVE | Dwelling | 65.2 | 66.0 | 65.1 | -0.1 | Negligible Beneficial | 65.9 | 0.7 | Negiligile Adverse | 52.4 | 53.1 | 53.0 |
| ${ }^{120, ~ H I L T O N ~ D R I V E ~}$ | Dwelling | 66.7 | 67.9 | 66.8 | 0.1 | Negligible Beneficial | 67.7 | 1.0 | Negigioble Adverse | 53.8 | 54.8 | 54.7 |
| 122, HITOND RIVE | Dwelling | ${ }_{66.7}^{66.7}$ | 67.9 | ${ }_{66.8}^{66.8}$ | ${ }_{0}^{0.1}$ | Negligible Benenitical | ${ }^{67.7}$ | ${ }_{1}^{1.0}$ | Negigible Adverse | ${ }_{53}^{53.8}$ | 54.8 54.8 | 54.7 54.8 |
| 126, HILTON DRIVE | Dwelling | 66.7 | 67.9 | 66.8 | 0.1 | Negligible Beneficial | 67.8 | 1.1 | Negiligile Adverse | ${ }_{53.8}$ | ${ }_{54.8}$ | 54.8 |
| 128, HLTON DRIVE | Dwelling | 66.7 65.7 | 67.9 66.6 | 66.8 65.6 | 0.1 0.0 | $\frac{\text { Negligible Beneficial }}{\text { Neglioble }}$ | 67.8 66.4 | 1.1 0.7 | Negligible Adverse Negioigle Adverse | 53.8 529 | 54.8 53.7 | 54.8 53.5 |
| ${ }^{130}$, HLITON DRIVE | Dwelling | 66.7 | 67.9 | 66.8 | 0.1 | Negligible Beneficicial | 67.8 | 1.1 | Negiligible Adverse | ${ }_{53.8}$ | 54.8 | ${ }_{54.8}$ |
| 132, HLTTON DRIVE | Dwelling | 66.6 | 67.9 | 66.7 | 0.1 | Negligible Adverse | 67.7 | 1.1 | Negligible Adverse | 53.7 | 54.8 | 54.7 |
| $\frac{134 .}{136 . \text { HITTON DRIVE }}$ | Dwelling | 66.6 | 67.9 | 66.7 | 0.1 | Negligible Adverse | 67.7 | 1.1 | Negiligile Adverse | ${ }_{53,7}$ | ${ }_{54.8}^{54}$ | ${ }_{54.7}^{54}$ |
| 138, HLTTON DRIVE | Dwelling | 66.6 | 67.9 | 66.7 | 0.1 | Neogiobile Adverse | 67.7 | ${ }_{1}^{1.1}$ | Negiligible Adverse | 53.7 | ${ }_{54.8}$ | ${ }_{54.7}^{54.7}$ |
| 14, HLTTON DRIVE | Dwelling | 65.6 | 66.4 | 65.5 | -0.1 | Negligible Beneficical | 66.2 | 0.6 | Negligible Adverse | 52.8 | 53.5 | 53.3 |
| -140, HITTON DRIVE | Dwelling | 66.5 | ${ }^{67.8}$ | 66.5 | 0.0 | No Change | ${ }^{67.6}$ | 1.1 | Negiligile Adverse | ${ }_{53.6}^{53}$ | 54.8 <br> 54 | 54.6 |
|  | ${ }^{\text {Duelling }}$ | ${ }_{66.5}^{67.5}$ | 68.4 | ${ }_{66.1}^{66.5}$ | 0.0 | No Change | 68.3 | 1.1 | Neoligiobe Avverse | 53.6 | ${ }_{54.8}^{54}$ | ${ }_{55.2}^{54.6}$ |
| 148, HILTON DRIVE | Dwelling | 67.5 | 68.9 | 67.6 | 0.1 | Negligible Beneficial | 68.7 | 1.2 | Negigioibe Adverse | 54.5 | 55.7 | 55.6 |
| 149. HLTON DRIVE | Dweling | ${ }_{67.7}^{65.7}$ | ${ }_{68.4}^{66.6}$ | ${ }_{65.6}^{67.1}$ | 0.0 0.0 | Nogo Change | ${ }_{68.3}^{66.5}$ | 1.2 0.8 | Negiligib Adverse Nefigiole Adverse | 54.1 52.9 | ${ }_{\text {55.3 }}^{53}$ | 55.2 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 Lnight,outside | DS33 Lnight,outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 150, HILTON DRIVE | Dwelling | 67.5 | 68.9 | 67.6 | 0.1 | Negligible Beneficial | 68.7 | 1.2 | Negligiole Adverse | 54.5 | 55.7 | 55.6 |
| 151. HLTTON DRIVE | Dwelling | 67.1 67.6 | 68.4 68 | 67.1 67.6 | 0.0 | $\frac{\text { No Change }}{\text { No Change }}$ | 68.3 68.7 | 1.2 1.1 | $\frac{\text { Negligiole Adverse }}{\text { Negigible Adverse }}$ | 54.1 54.6 | 55.3 55.7 | 55.2 55.6 |
| 153, HILTON DRIVE | Dwelling | 67.1 | 68.4 | 67.1 | 0.0 | No Change | 68.3 | 1.2 | Negiligible Adverse | 54.1 | ${ }_{55.3}$ | 55.2 |
| 154, HLTION DRIVE | Dwelling | 67.6 | 68.9 | 67.6 | 0.0 | No Change | 68.7 | 1.1 | Negligiole Adverse | 54.6 | 55.7 | 55.6 |
| 155. HLITTON DRIVE | Oweling | 67.3 675 | ${ }_{68.8}^{68.7}$ | 67.4 675 | ${ }_{0}^{0.1}$ | Negiligle Adverse | ${ }_{68.7}^{68.5}$ | ${ }_{1}^{1.2}$ | Negigigio Adverse | ${ }_{54.5}^{54.5}$ | ${ }_{55.7}^{55.6}$ | 55.4 55.6 |
| 157, HILTON DRIVE | Dwelling | 67.3 | 68.7 | 67.4 | 0.1 | Negligiole Adverse | 68.5 | 1.2 | Negligiole Adverse | 54.3 | 55.6 | 55.4 |
| 158, HLTTON DRIVE | Dwelling | 67.5 | 68.8 | 67.5 | 0.0 | No Change | 68.7 | 1.2 | Negigiolie Adverse | 54.5 | 55.7 | 55.6 |
| 159, HLTON DRIVE | Dwelling | 67.3 | 68.7 | 67.4 | 0.1 | Negigioble Adverse | 68.5 | 1.2 | Negifigile Adverse | 54.3 | 55.6 | 55.4 |
|  | Dwelling | 65.6 67.5 | 66.4 | 65.5 | -0.1 | Negligible Beneficial | 66.2 | 0.6 | Negigigibe Adverse | 52.8 | 53.5 | 53.3 |
| $\frac{160, \text { HilTON DRIVE }}{\text { 16, HITONDRVE }}$ | Dwelling | ${ }^{67.5}$ | 68.8 | 67.5 | 0.0 | No Change | 68.7 | 1.2 | Negligiole Adverse | 54.5 | 55.7 | 55.6 |
| 161, HLTON DRIVE | Deelling | 67.3 | 68.7 | 67.4 | 0.1 | Negligible Adverse | 68.5 | 1.2 | Negigigile Adverse | 54.3 | 55.6 | 55.4 |
| 162, HLTON DRIVE | Dwelling | 67.5 | 68.8 | 67.5 | 0.0 | No Change | 68.7 | 1.2 | Negligible Adverse | 54.5 | 55.7 | 55.6 |
| 163, HLTTON DRIVE | Dwelling | 67.3 | 68.6 | 67.4 | 0.1 | Negligible Adverse | 68.5 | 1.2 | Negiligile Adverse | 54.3 | 55.5 | 55.4 |
| $\frac{164, \text { Hilton dive }}{165 \text { HITON DRIVE }}$ | Deelling | 67.4 673 | 68.7 | ${ }^{67.4}$ | 0.0 | No Change | 68.5 685 | 1.1 | Negiligil Adverse | 54.4 <br> 543 | 55.6 | 55.4 |
| 165, HLLON DIVE | ${ }^{\text {Dwelling }}$ Dowling | ${ }_{67.4}^{67.3}$ | ${ }_{68.7}^{68.7}$ | ${ }_{67.4}^{67.4}$ | 0.0 | Negigigie Acverse | ${ }_{68.5}^{68.5}$ | ${ }_{1.1}^{1.1}$ | Neoligigiele Adverse | 54.4 | ${ }_{55.6}^{55.5}$ | 55.4 55.4 |
| 167, HLTON DRIVE | Dwelling | 67.3 | 68.6 | 67.4 | 0.1 | Negiligile Adverse | 68.5 | 1.2 | Negiligible Adverse | 54.3 | 55.5 | 55.4 |
| 168. HILTON DRIVE | Dwelling | 67.4 | 68.6 | 67.4 | 0.0 | No Change | 68.5 | 1.1 | Negligible Adverse | 54.4 | 55.5 | 55.4 |
| 169. HLTOON DRIVE | Dwelling | 67.3 65.8 | 68.6 66.7 | 67.4 65.8 | 0.1 0.0 | Negligiole Adverse | 68.5 66.6 | 1.2 0.8 | Negiligile Adverse | 54.3 53.0 | 55.5 53.8 | 55.4 53.7 |
| 170, HILTON DRIVE | Dwelling | 67.4 | 68.6 | 67.4 | 0.0 | No Change | 68.5 | 1.1 | Negiligible Adverse | 54.4 | 55.5 | 55.4 |
| 171, HLLTON DRIVE | Deelling | 66.5 | 67.3 | 66.6 | 0.1 | Negligible Beneficical | 67.4 | 0.9 | Negiligible Adverse | 53.6 | 54.3 | 54.4 |
| 172, HLLTON DRIVE |  |  |  |  |  | Negligible Beneficial |  |  |  |  |  |  |
| 173. HILTON DRIVE | Dwelling | 66.5 | 67.3 | $\frac{66.6}{66.6}$ | 0.1 | Negliable Beneficial | 67.4 673 | 0.9 | Negiligile Adverse | 年53.6 | 54.3 | 54.4 |
| 175, HLTTON DRIVE | Owelling | 66.5 | 67.3 | 66.6 | 0.1 | Negligible Beneficioil | 67.4 | 0.9 | Neoligiole Adverse | 53.6 | 54.3 | 54.4 |
| 176, HLLTON DRIVE | Dwelling | 66.6 | 67.4 | 66.6 | 0.0 | No Change | 67.4 | 0.8 | Negligible Adverse | 53.7 | 54.4 | 54.4 |
| 177, HLITON DRIVE | Dwelling | 66.5 | 67.3 | 66.6 | 0.1 | Negligibl Beneficial | 67.4 | 0.9 | Negligible Adverse | 53.6 | 54.3 | 54.4 |
| 178, HLLTON DRIVE | Dwelling | 66.6 | 67.4 | 66.6 | 0.0 | No Change | 67.4 | 0.8 | Negigigibe Adverse | 53.7 | 54.4 | 54.4 |
| 179. HLTONDRIVE | Dwelling | ${ }_{66.5}^{65.6}$ | $\frac{67.3}{66.4}$ | $\frac{66.5}{65.5}$ | 0.0 -0.1 | $\xrightarrow{\text { Nogo Change }}$ | $\frac{67.4}{66.2}$ | 0.9 | $\frac{\text { Negigioble Adverse }}{\text { Negigiole Adverse }}$ | 53.6 52.8 | $\stackrel{54.3}{53.5}$ | 54.4 |
| 180, HLLTON DRIVE | Dwelling | 66.6 | 67.4 | 66.6 | 0.0 | No Change | 67.4 | 0.8 | Negigiolie Adverse | 53.7 | 54.4 | 54.4 |
| 181, HLITTON DRIVE | Delling | 66.5 | 67.3 | 66.5 | 0.0 | No Change | 67.4 | 0.9 | Negigigile Adverse | 53.6 | 54.3 | 54.4 |
| $\frac{182, \text { HLTON DRIVE }}{183, \text { HiLTON DRIVE }}$ | Dwelling | 66.6 66.5 | 67.4 67.3 | 66.6 66.5 | 0.0 0.0 | $\frac{\text { No Change }}{\text { No Change }}$ | 67.4 67.4 | 0.8 0.9 | $\frac{\text { Negligible Adverse }}{\text { Negligibe Adverse }}$ | 53.7 53.6 | 54.4 54.3 | 54.4 54.4 |
| 184. HILTON DRIVE | Dwelling | 66.6 | 67.5 | 66.7 | 0.1 | Negligible Adverse | 67.5 | 0.9 | Negligible Adverse | 53.7 | 54.5 | 54.5 |
| ${ }^{\text {185, HLTONDRIVE }}$ | Dweling | 66.5 | ${ }_{67.5}^{67}$ | ${ }_{66.5}^{66.7}$ | ${ }_{0}^{0.0}$ | Neolicione Adverse | ${ }^{67.4}$ | 0.9 0.9 | $\frac{\text { Negligiole Adverse }}{\text { Negiobible Adverse }}$ | ${ }_{53.7}^{53.7}$ | 54.5 | 54.4 |
| 187, HILTON DRIVE | Dwelling | 66.2 | 67.2 | 66.3 | 0.1 | Negligible Benenicial | 67.3 | 1.1 | Negiligible Adverse | 53.3 | 54.2 | 54.3 |
| 188. HILTON DRIVE |  |  | 67.2 | 66.0 |  | Negiligiole Beneficial |  |  | Negiligio Adverse |  |  |  |
| 189, HLITTON DRIVE | Oweling | 66.2 | 67.2 | 66.3 | 0.1 | Negligible Beneficial | 67.3 | 1.1 | Negiligile Adverse | 53.3 | 54.2 | 4.3 |
| $\frac{19, \text { HLLTONDRIVE }}{190 \text { HilTONDRIVE }}$ | Dweliling | 65.8 | ${ }^{6672}$ | 65.8 | 0.0 | NoChange | 66.5 | 0.8 | Negligiole Adverse | ${ }_{53,0}$ | 53.8 | 53.7 |
| 19, HLTTON DRIVE | Owelling | 66.2 | 67.2 | 66.3 | 0.1 | Negligible Eeneficicial | 67.3 | 1.1 | Negligible Adverse | 53.3 | 54.2 | 54.3 |
| 192, HILTON DRIVE | Dwelling | 65.7 | 66.9 | 65.7 | 0.0 | No Change | 67.3 | 1.6 | Negligible Adverse | 52.9 | 53.9 | 54.3 |
| 193, HLLTON DRIVE | Deelling | 66.2 | 67.2 | 66.3 | 0.1 | Negligible Beneficial | 67.3 | 1.1 | Negigioble Adverse | 53.3 | 54.2 | 54.3 |
| 194, AlLON DRIVE | Dwelling | ${ }_{65.7}^{65.7}$ | 667.9 | ${ }_{65.7}^{65.7}$ | 0.0 0.1 | Neglioible Cenaeneficial | ${ }^{67.3}$ | 1.6 1.6 | Negigible Adverse | 52.9 52.9 | 53.9 | 54.3 54.3 |
| 196, HLITON DRIVE | Dwelling | 65.5 | 66.8 | 65.6 | 0.1 | Negligible Beneficial | 67.2 | 1.7 | Negigioble Adverse | 52.7 | 53.9 | 54.2 |
| 197, HLLTON DRIVE |  | 65.7 | 67.0 | 65.8 | 0.1 | Negligible Beneficial | 67.3 | 1.6 | Negigiolie Adverse | 52.9 | 54.0 | 54.3 |
| 198, HLLTON DRIVE | Deelling | 65.5 | 66.8 | 65.6 | 0.1 | Negligible Beneficicial | 67.2 | 1.7 | Negigigible Adverse | 52.7 | 53.9 | 54.2 |
| 199, HLTON DRIVE | Dwelling | 65.7 65.6 | 67.0 66.5 | 65.8 65.6 | 0.1 0.0 | Negligible Beneficial | 67.3 66.3 | 1.6 0.7 | $\frac{\text { Negligible Adverse }}{\text { Negligible Adverse }}$ | 52.9 52.8 | 54.0 53.6 | 54.3 53.4 |
| 200, HILTON DRIVE | Dwelling | 65.4 | 66.7 | 65.5 | 0.1 | Negligible Beneficical | 67.1 | 1.7 | Neoligioble Adverse | 52.6 | 53.8 | 54.1 |
| 201, HLITON DRIVE | Dwelling | 65.7 | 67.0 | 65.8 | 0.1 | Negligible Beneficial | 67.3 | 1.6 | Negligiole Adverse | 52.9 | 54.0 | 54.3 |
| ${ }^{\text {202, HILTON DRIVE }}$ | Dwelling | 65.4 656 | 66.7 | ${ }_{65.5}^{657}$ | 0.1 | Negiligile Beneficial | 67.1 672 | 1.7 | Negiligile Adverse | 52.6 | 53.8 | 54.1 |
| 203, HLTION DRIVE | Dwelling | 65.6 | 66.4 | ${ }_{65.3}^{65.7}$ | ${ }_{0}^{0.1}$ | Negigigile Adverse | $\frac{67.2}{66.9}$ | 1.6 1.7 | $\frac{\text { Negigigibe Adverse }}{\text { Negigiole Adverse }}$ | 52.8 52.4 | 53.9 | $\stackrel{54.2}{53.9}$ |
| 205, HLTTON DRIVE | Dwelling | 65.6 | 66.9 | 65.7 | 0.1 | Negigigile Adverse | 67.2 | 1.6 | Negigigibe Adverse | 52.8 | 53.9 | 54.2 |
| 206, HLTON DRIVE | Dwelling | 65.2 | 66.4 | 65.3 | 0.1 | Negligible Beneficial | 66.9 | 1.7 | Negigiole Adverse | 52.4 | 53.5 | 53.9 |
| 207, HLLTON DRIVE | Dwelling | 65.6 | 66.9 | 65.7 | 0.1 | Negligible Adverse | 67.2 | 1.6 | Negigioile Adverse | 52.8 | 53.9 | 54.2 |
| 208, HLTTON DRIVE | Dwelling | 65.2 | 66.4 | 65.3 | 0.1 | Negligible Beneficial | 66.9 | 1.7 | Negigiolie Adverse | 52.4 | 53.5 | 53.9 |
| 209. 21. HLTONONDIVE | ${ }^{\text {Dwelling }}$ Dowling | ${ }_{65.6}^{65.8}$ | 66.9 | ${ }_{65.8}^{65.8}$ | 0.1 | Negigible Adverse | ${ }_{6}^{66.6}$ | ${ }^{1.6}$ | Negligibe Adverse | 52.8 53.0 | ${ }_{53.9}^{53.8}$ | 54.2 53.7 |
| 210, HLTON DRIVE | Dwelling | 65.2 | 66.4 | 65.3 | 0.1 | Negligible Beneficial | 66.9 | 1.7 | Negigigile Adverse | 52.4 | 53.5 | 53.9 |
| $\frac{\text { 211. HILTON DRIVE }}{\text { 21 }}$ | Dewling | 65.6 | 66.9 | ${ }^{65.6}$ | 0.0 | No Change | 67.2 | 1.6 | Negligible Adverse | 52.8 | 53.9 | 54.2 |
|  | Dwelling | 65.2 | 66.9 | 65.3 | 0.1 | $\frac{\text { Negligible Beneticial }}{\text { No Change }}$ | 667.9 | 1.7 1.6 | $\frac{\text { Negigigio Adverse }}{\text { Negigiole Adverse }}$ | $\begin{array}{r}\text { 52.4 } \\ 52.8 \\ \hline\end{array}$ | 53.5 53.9 | -53.9 |
| 214, HILTON DRIVE | Dwelling | 65.2 | 66.4 | 65.3 | 0.1 | Negligible Benenficial | 66.9 | 1.7 | Negligiole Adverse | 52.4 | 53.5 | 53.9 |
| 215, HLITON DRIVE | Dwelling | 65.6 | 66.9 | 65.6 | 0.0 | No Change | 67.2 | 1.6 | Negigiolie Adverse | 52.8 | 53.9 | 54.2 |
| 216, HILTON DRIVE | Dwelling | 65.2 65.6 | 66.4 66.9 | 65.3 65.6 | 0.1 0.0 | Negligible Beneficial | 66.9 67.2 | 1.7 | Negligiole Adverse Negiaible Adverse | 52.4 52.8 | 53.5 53.9 | 53.9 54.2 |
| 218, HILTON DRIVE | Dwelling | 65.2 | 66.4 | 65.3 | 0.1 | Negligible Beneficial | 66.9 | 1.7 | Negiligiole Adverse | 52.4 | 53.5 | 53.9 |
| 219. HLTON DRIVE | Dwelling | 60.5 65.7 | 61.7 66.6 | 60.5 65.6 | 0.0 -0.1 | $\xrightarrow{\text { Nogo Change }}$ | 62.1 66.4 | $\stackrel{1.6}{0.7}$ | $\frac{\text { Negigigile Adverse }}{\text { Negigiole Adverse }}$ | 48.2 52.9 | 49.3 53.7 | 49.6 53.5 |
| 220, HILTON DRIVE | Dwelling | 65.3 | 66.5 | 65.3 | 0.0 | No Change | 67.0 | 1.7 | Negligible Adverse | 52.5 | 53.6 | 54.0 |
| 221, HLLTON DRIVE | Oweling | 60.5 | 61.7 | 60.5 | 0.0 | No change | 62.1 | 1.6 | Negiligile Adverse | 48.2 | 49.3 |  |
| 223, HILTON DRIVE | Dwelling | 650.5 | ${ }^{666.5}$ | 650.5 | 0.0 | ${ }^{\text {No Co Change }}$ | $\frac{67.0}{62.1}$ | 1.7 | Neoligigie Adverse | ${ }^{52.5} 48.2$ | ${ }^{59.3}$ | 49.6 |
| 224, HITTON DRIVE | Dwelling | 65.3 | 66.5 | 65.3 | 0.0 | No Change | 67.0 | 1.7 | Negligible Adverse | 52.5 | 53.6 | 54.0 |
| 225, HLTTON DRIVE | Dwelling | 60.5 | 61.7 | 60.5 | 0.0 | No Change | 62.1 | 1.6 | Negligible Adverse | 48.2 | 49.3 | 49.6 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 <br> Lnight,outside | DS33 <br> Lnight,outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 226, HILTON DRIVE | Dweling | 65.3 | 66.5 | 65.3 | 0.0 | No Change | 67.0 | 1.7 | Negligible Adverse | 52.5 | 53.6 | 54.0 |
| 228, HLTTON DRIVE | Dwelling | 65.0 | 66.2 | 65.0 | 0.0 | No Change | 66.6 | ${ }_{1}^{1.6}$ | Negligibile Adverse | 52.2 | ${ }_{53,3}$ | ${ }_{53.7}$ |
| 229, HLTTON DRIVE | Dwelling | 62.7 | 63.9 | 62.8 | 0.1 | Negligible Beneficial | 64.4 | 1.7 | Negligible Adverse | 50.2 | 51.2 | 51.7 |
| 23, HILTON DRIVE | Dwelling | 65.8 | 66.8 | 65.8 | 0.0 | No Change | 66.7 | 0.9 | Negligible Adverse | 53.0 | 53.9 | 53.8 |
| 230, HILTON DRIVE | Dwelling | 65.0 | 66.2 | 65.0 | 0.0 | No Change | 66.6 | 1.6 | Negligible Adverse | 52.2 | 53.3 | 53.7 |
| 231, HLITON DRIVE | Dwelling | 62.7 | 63.9 | 62.8 | 0.1 | Negligible Beneficial | 64.4 | 1.7 | Negligible Adverse | 50.2 | 51.2 | 51.7 |
| ${ }^{\text {232, HILTON DRIVE }}$ | welling | 65.0 | 66.2 | 65.0 | 0.0 | No Change | 66.6 | 1.6 | Negligible Adverse | 52.2 | 53.3 | 53.7 |
| ${ }^{\text {233, }}$ HILTTON DRIVE | Wwelling | 65.1 | 66.3 | 65.2 | 0.1 | Negiligile Adverse | 66.8 | 1.7 | Negigigibe Adverse | 52.3 | 53.4 | ${ }_{53.9}^{53}$ |
| 234, HILTON DRIVE | Deelling | 65.0 | 66.2 | 65.0 | 0.0 | No Change | 66.6 | 1.6 | Negligible Adverse | 52.2 | 53.3 |  |
| ${ }^{\text {235, }}$ 23ILTON DRIVE | Oweling |  | 66.3 | 65.2 | 0.1 | Negiligile Adverse | 66.8 | 1.7 | Negligigle Adverse | 52.3 | 53.4 | 53.9 |
| ${ }^{\text {236, HLILTON DRIVE }}$ | Dweling | 64.8 | 66.0 | 64.9 | 0.1 | Negigigile Adverse | 66.5 | 1.7 | Negiligile Adverse | 52.1 | 53.1 | 53.6 |
| 237, HILTONDRVE | Oweling | 65.1 | 66.3 | 65.2 | 0.1 | Negigigile Adverse | 66.8 | . 17 | Negiqigile Adverse | 52.3 | 53.4 | ${ }_{53.9}$ |
| 238, HILTON DRIVE | Oweling | 64.8 | 66.0 | 64.9 | 0.1 | Negigigibe Adverse | 66.5 | 1.7 | Negligigie Adverse | 52.1 | 53.1 | 53.6 5.9 |
| ${ }^{\text {239, HILTONDRIVE }}$ | Dwelling | ${ }_{65.8}^{65.1}$ | ${ }_{66.7}^{66.7}$ | ${ }_{65.8}^{65.8}$ | 0.1 | Negligibe Adverse | ${ }_{66.6}^{66.8}$ | 1.7 0.8 | $\frac{\text { Negigiolie Adverse }}{\text { Negligible Adverse }}$ | - 53.3 | 53.4 53.8 | 53.9 53.7 |
| 240, HILTON DRIVE | Dwelling | 64.8 | 66.0 | 64.9 | 0.1 | Negiligile Adverse | 66.5 | 1.7 | Negligible Adverse | 52.1 | 53.1 | 53.6 |
| 241, HILTON DRIVE | Dwelling | 65.0 | 66.2 | 65.0 | 0.0 | No Change | 66.7 | 1.7 | Neoligiole Adverse | 52.2 | 53.3 | 53.8 |
| 242, HLLTON DRIVE | Wwelling | 64.8 | 66.0 | 64.9 | 0.1 | Negligibe Adverse | 66.5 | 1.7 | Negligible Adverse | 52.1 | 53.1 | 53.6 |
| 243. HILTON DRIVE | Dwelling | 65.0 64.6 | 66.2 | 65.0 | 0.0 | No Change | 66.7 | 1.7 | Negiquigie Adverse | 52.2 | ${ }^{53.3}$ | 53.8 <br> 5 |
| 245, HLLTON DRIVE | Owelling | 65.0 | 66.2 | 65.0 | 0.0 | No Change | 66.7 | 1.7 | Negiligible Adverse | 52.2 | 53.3 | 53.8 |
| 246, HLTTON DRIVE | Dwelling | 64.6 | 65.8 | 64.7 | 0.1 | Negligible Adverse | 66.3 | 1.7 | Negligible Adverse | 51.9 | 53.0 | 53.4 |
|  | Dwelling | ${ }_{654.6}^{64.6}$ | ${ }_{65.8}^{66.2}$ | ${ }_{654.7}^{64.7}$ | 0.1 | Negociochenge Adverse | ${ }_{66.3}^{66.7}$ | 1.7 1.7 | $\frac{\text { Negligible Adverse }}{\text { Negligible Adverse }}$ | 年51.9 | 53.3 53.0 | 53.8 53.4 |
| 249., HILTON DRIVE | Dwelling | 64.8 | 65.9 | 64.8 | 0.0 | No Change | 66.5 | 1.7 | Negiligile Adverse | 52.1 | 53.0 | 53.6 |
| 5, HLTTON DRIVE | Pwelling | 66.2 | 67.2 | 66.2 | 0.0 | No Change | 67.1 | 0.9 | Neoligiole Adverse | 53.3 | 4.2 |  |
| 250, HILTON DRIVE | Deelling | 64.6 | 65.8 | 64.7 | 0.1 | Negligible Adverse | 66.3 | 1.7 | Negligible Adverse | 51.9 | 53.0 | 53.4 |
| 251, HILTON DRIVE | Deelling | 64.8 | 65.9 |  |  |  |  | 1.7 | Negligigile Adverse |  | 53.0 |  |
| 252. HLTTON DRIVE | Dweling | 64.5 | 65.7 | 64.6 | 0.1 | Negligible Beneeitical | 66.2 | 1.7 | Negigigble Adverse | 51.8 | 52.9 | 53.3 |
| 233, HLITON DRIVE | Oweling | 64.8 | 65.9 | 64.8 | 0.0 | No ciange | 66.5 | . 7 | Negiligio Adverse | 52.1 | 53.0 | 53.6 |
| 254, HILTON DRIVE | weling | 64.5 | 65.7 | 64.6 | 0.1 | Negligible Beneicicial | 66.2 | 1.7 | Negligigile Adverse | 51.8 | 52.9 | 53.3 |
| 255, HILTON DRIVE | Dweling | 64.8 | 65.9 | 64.8 | 0.0 | No Change | ${ }_{66.5}^{662}$ | 1.7 | Negigigie Adverse | 52.1 | 53.0 | ${ }^{53.6}$ |
| 256, Hiltoon dive | Dwelling | 64.5 | ${ }^{65.7}$ | 64.6 65.0 | 0.1 0.1 | $\frac{\text { Negligible Beneticial }}{\text { Negligibl }}$ Beneficial | ${ }_{66.2}^{66.6}$ | 1.7 1.7 | $\frac{\text { Negigigle Adverse }}{\text { Negligibe Adverse }}$ | 51.8 <br> 52.1 | $\begin{array}{r}52.9 \\ \hline 5.2\end{array}$ | 53.3 53.7 |
| 258, HILTON DRIVE | Dwelling | 64.5 | 65.7 | 64.6 | 0.1 | Negligible Beneficial | 66.2 | 1.7 | Negligible Adverse | 51.8 | 52.9 | 53.3 |
| 259, HLTTON DRIVE | Wwelling | 64.9 | 66.1 | 65.0 | 0.1 | Negligible Beneficial | 66.6 | 1.7 | Negligible Adverse | 52.1 | 53.2 | 53.7 |
| $\frac{26, \text { HLLTON DRIVE }}{260 \text { HITONDRIVE }}$ | Dwelling | $\frac{65.9}{642}$ | 66.9 654 | ${ }_{65.9}^{643}$ | 0.0 | No Change | 66.7 | ${ }_{0}^{1.8}$ | Negligibl Adverse | 53.0 | 53.9 | 53.8 530 |
| 261, HLTTON DRIVE | Dwelling | 64.9 | 66.1 | 65.0 | 0.1 | Negligible Beneficial | 66.6 | 1.7 | Neogigigile Adverse | 52.1 | 53.2 | ${ }_{53.7}$ |
| 262, HLTTON DRIVE | Dwelling | 64.2 | 65.4 | 64.3 | 0.1 | Negligible Beneficial | 65.8 | 1.6 | Neoligible Adverse | 51.5 | 52.6 | 53.0 |
| 263, HITTON DRIVE | Deeling | ${ }_{64.9}$ | 66.1 65.4 | ${ }_{64.0}^{65}$ | 0.1 | Negligible Benenticial | 66.6 65.8 | 1.7 | Negligile Adverse | 52.1 51.5 | 53.2 52.6 | $\begin{array}{r}53.7 \\ 53 \\ \hline\end{array}$ |
| 265, HILTON DRIVE | Dwelling | 61.3 | 62.4 | 61.3 | 0.0 | No Change | 62.9 | 1.6 | Neogigioble Adverse | 48.9 | 49.9 | 50.3 |
| 266, HLITON DRIVE | Dwelling | 64.2 | 65.4 | 64.3 | 0.1 | Negligible Beneficial | 65.8 | 1.6 | Negigigile Adverse | 51.5 | 52.6 | 53.0 |
| 267, HILTON DRIVE |  | 62.0 |  |  | 0.0 | No Change | 63.5 | 1.5 | Negigigile Adverse |  |  | 50.9 |
| 268, HITTON DRIVE | Dweling | 65.1 | 66.0 | 65.0 |  | Negligible Benenicical |  | 1.4 <br> 1.5 | Negigigile Adverse | 52.3 | 53.1 | 53.6 |
| 27, HLITON DRIVE | Oweiling | ${ }_{66.3}$ | 63.2 | 66.3 | 0.0 | No Change | 67. | ${ }_{0} .8$ | Negigigie Adverse | ${ }_{53.4}$ | ${ }_{54.2}$ | ${ }_{50.9}^{54.1}$ |
| 270, HILTON DRIVE | Dwelling | 65.1 | 66.0 | 65.0 | -0.1 | Negligible Benenficial | 66.5 | 1.4 | Negiligile Adverse | 52.3 | 53.1 | 53.6 |
| 271, HLLTON DRIVE | Dwelling | 62.0 | 63.0 | 62.0 | 0.0 | No Change | 63.5 | 1.5 | Negiligile Adverse | 49.5 | 50.4 | 50.9 |
| 272. HLTTON DRIVE | Oweling | 65.1 | 66.0 | ${ }_{65.0}^{620}$ | -0.1 | Negligible Beneficial | 66.5 6.5 | 1.4 1.5 | Negligible Adverse | 52.3 495 | $\begin{array}{r}53.1 \\ 5.4 \\ \hline\end{array}$ | 53.6 |
| 274, HILTONDRIVE | ${ }^{\text {Dwelling }}$ Oweling | 65.1 | 63.0 | 65.0 | -0.1 | Negligible Eeneneficial | ${ }_{66.5}^{66.5}$ | 1.4 1.4 | Negligiobe Adverse | $\stackrel{49.5}{52.3}$ | 50.4 | ${ }_{53} 5.6$ |
| 275, HLTTON DRIVE | Dwelling | 65.6 | 66.6 | 65.6 | 0.0 | No Change | 67.1 | 1.5 | Negligible Adverse | 52.8 | 53.7 | 54.1 |
| 276. HLLTON DRRIVE | Deelling | 65.2 | 66.1 | 65.2 | 0.0 | No Change | 66.6 | 1.4 | Negligible Adverse | 52.4 | 53.2 | 53.7 |
| 277. HLLTTON DRIVE | Deelling | 65.6 | 66.6 | 65.6 | 0.0 | No Change | 67.1 | 1.5 | Negigigile Adverse | 52.8 | 53.7 | 54.1 |
| 278, HITIONDRIVE | Dwelling | 65.2. | ${ }_{66.1}^{66.6}$ | ${ }_{65.6}^{65.6}$ | 0.0 | $\frac{\text { No Change }}{\text { No Change }}$ | 66.6 67.1 | ${ }_{1.5}^{1.4}$ | Negigigle Adverse | 52.4 <br> 52.8 | 53.2 53.7 | ${ }^{53.7} 5$ |
| 28, HLTTON DRIVE | Dwelling | 66.4 | 67.4 | 66.4 | 0.0 | No Change | 67.3 | 0.9 | Negigigile Adverse | 53.5 | 54.4 | 54.3 |
| 280, HILTON DRIVE | Deelling | 65.2 | 66.1 | 65.2 | 0.0 | No Change | 66.6 | 1.4 | Negigigile Adverse | 52.4 | 53.2 | 53.7 |
| 281, HILTON DRIVE | Deelling | 65.6 | 66.6 | 65.6 | 0.0 | No Change | 67.1 | 1.5 | Negligible Adverse | 52.8 | 53.7 | 54.1 |
| 282, HILTON DRIVE | Dweling | 65.2 | 66.1 | 65.2 | 0.0 | No Change | ${ }^{66.6}$ | 1.4 | Negiligibe Adverse | 52.4 | 53.2 | 53.7 |
| 283, HILTON DRIVE | Oweling | ${ }^{655.8}$ | 66.7 | 65.7 | -0.1 | Negligible Beneitical | 67.2 | 1.4 | Negligible Aaverse | 3.0 | 3.8 | 54.2 |
| 285, HLTTON DRIVE | Dwelling | 65.8 | 66.7 | ${ }_{65.7}$ | -0.1 | Negligible Eeneneficial | 67.2 | ${ }_{1}^{1.4}$ | Neoligioble Adverse | ${ }_{53.0}$ | ${ }_{53.8}$ | ${ }_{54.2}$ |
| 286, HLTTON DRIVE | Dwelling | 65.2 | 66.1 | 65.2 | 0.0 | No Change | 66.6 | 1.4 | Negigigile Adverse | 52.4 | 53.2 | 53.7 |
| 287, HLTTON DRIVE | Dwelling | 65.8 | 66.7 | 65.7 | -0.1 | Negligible Beneficial | 67.2 | 1.4 | Negigibile Adverse | 53.0 | 53.8 | 54.2 |
| 288, 28. HILTOND DRIVE | Dwelling | ${ }_{65.8}^{65.8}$ | ${ }_{66.7}^{66.7}$ | ${ }_{65.7}^{65.2}$ | -0.1 | Negligibile Eeneneficial | ${ }^{666.6}$ | 1.4 1.4 | $\frac{\text { Negiligibe Adverse }}{\text { Negigiole Adverse }}$ | ${ }^{52.4} 5$ | 53.2 53.8 | ${ }^{53.7}$ |
| 29, HILTONDRIVE | Dwelling | 65.9 | 66.9 | 65.9 | 0.0 | No Change | 66.8 | 0.9 | Negligible Adverse | 53.0 | 53.9 | 53.9 |
| 290, HILTON DRIVE | Dwelling | 65.2 | 66.1 | 65.2 | 0.0 | No Change | 66.6 | 1.4 | Negiligile Adverse | 52.4 | 53.2 | 53.7 |
| 291, HITONDRIVE | Dwelling | 65.6 65.1 | 66.5 66.0 | 65.7 ${ }^{65.7}$ | ${ }_{0}^{0.1}$ | $\frac{\text { Negiligile Adverse }}{\text { Neglioible Adverse }}$ | 67.0 66.5 | 1.4 | Negligibl Adverse | 52.8 528 5 | 53.6 | 54.0 |
| 293, HLTTON DRIVE | Dwelling | 65.6 | 66.5 | 65.7 | 0.1 | Negligiole Adverse | 67.0 | 1.4 | Negligible Adverse | 52.8 | 53.6 | 54.0 |
| 294, HLLTON DRIVE | Deelling | 65.1 | 66.0 | 65.2 | 0.1 | Negigioble Adverse | 66.5 | 1.4 | Negligible Adverse | 52.3 | 53.1 | 53.6 |
| ${ }^{\text {29, }}$ 29, HILTONDRIVE | Dwelling | 65.6 65.1 | 66.5 66.0 | 65.7 65.2 | 0.1 | $\frac{\text { Negligible Adverse }}{\text { Negligible Adverse }}$ | 67.0 66.5 | 1.4 1.4 1.4 | $\frac{\text { Negligible Adverse }}{\text { Neoligible Adverse }}$ | 52.8 52.3 | 53.6 53.1 | 54.0 53.6 |
| 297, HLTTON DRIVE | Dwelling | 65.6 | 66.5 | 65.7 | 0.1 | Negigibile Adverse | 67.0 | 1.4 | Negiligile Adverse | 52.8 | 53.6 | 54.0 |
| 298, HILTON DRIVE | Wwelling | 65.1 | 66.0 | 65.2 | 0.1 | Negligible Adverse | 66.5 | 1.4 | Negligible Adverse | 52.3 | 53.1 | 53.6 |
| 299. HLTTON DRIVE | Weling | ${ }_{65.6}^{6.4}$ | 66.5 | 65.7 | 0.1 | Negiligible Adverse | 67.0 | 1.4 | Negiligie Adverse | 52.8 | 5.6 | 5.0 |
| 30, HLLTON DRIVE | Oweling | ${ }_{66.4}^{65.4}$ | $\frac{67.3}{66.2}$ | ${ }_{66.4}^{65.4}$ | $\stackrel{0.0}{0.1}$ | Negocionionge Adverse | $\frac{67.2}{66.7}$ | ${ }_{1.4}^{0.8}$ | Negigigle Adverse | ¢53.5 | ${ }_{53,3}^{53.3}$ | ${ }^{54.2} 5$ |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 <br> Lnight,outside | DM33 Lnight,outside | $\begin{gathered} \text { DS33 } \\ \text { Lnight,outside } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 301, HILTON DRIVE | Dweling | 65.6 | 66.5 | 65.7 | 0.1 | Negigigle Adverse | 67.0 | ${ }^{1.4}$ | Negigigle Adverse | 52.8 | ${ }_{53.6}^{5.6}$ | $\stackrel{54.0}{5.0}$ |
| 302. HILTON DRIVE | Dwelling | 65.3 | 66.2 | 65.4 | 0.1 | Negligible Adverse | $\frac{66.7}{670}$ | $\frac{1.4}{14}$ | Negiligil Adverse | $\begin{array}{r}52.5 \\ 52.8 \\ \hline\end{array}$ | 53.3 53.6 | 53.8 54.0 |
| ${ }^{\text {303, HILTON DRIVE }}$ | Dwelling | ${ }_{65.3}^{65.6}$ | 66.5 | ${ }_{65.4}^{65.7}$ | 0.1 | Neoligigibe Adverse | ${ }_{66.7}^{66.7}$ | ${ }_{1}^{1.4}$ | Negligigie Adverse | $\stackrel{52.8}{52.5}$ | $\stackrel{53.6}{53.3}$ | 54.0 53.8 |
| 305, HLTTON DRIVE | Dwelling | 65.6 | 66.5 | ${ }^{65.7}$ | 0.1 | Neoligigle Adverse | 67.0 | ${ }_{1.4}^{1.4}$ | Negigigible Adverse | ${ }_{52.8}^{52.8}$ | ${ }_{53.6}$ | ${ }_{54.0}$ |
| 306, HILTON DRIVE | Dwelling | 65.3 | 66.2 | 65.4 | 0.1 | Neoligible Adverse | 66.7 | 1.4 | Negigigile Adverse | 52.5 | 53.3 | 53.8 |
| 307, HILTON DRIVE | Dwelling | 65.6 | 66.5 | 65.8 | 0.2 | Negligible Adverse | 67.0 | 1.4 | Negiligile Adverse | 52.8 | 53.6 | 54.0 |
| 308, HILTON DRIVE | Deelling | 65.4 | 66.3 | 65.5 | 0.1 | Negligible Beneficial | 66.8 | 1.4 | Negigiole Adverse | 52.6 | 53.4 | 53.9 |
| 309, HLTTON DRIVE | Deeling | 65.6 | 66.5 | 65.8 | 0.2 | Negligible Adverse | 67.0 | 1.4 | Negiligile Adverse | 52.8 | 53.6 | 54.0 |
| 31, HLTON DRIVE | Dwelling | 66.0 654 | 66.9 | 66.0 | 0.0 | No Change | ${ }_{66.8}^{668}$ | 0.8 1 | Negiligibe Adverse | ${ }_{5}^{53.1}$ | 53.9 | 53.9 |
| 310. HLITON DRIVE | Dwelling | ${ }_{65.6}^{65.6}$ | ${ }_{66.5}^{66.5}$ | ${ }_{65.8}^{65.5}$ | 0.1 | Negoligioile Adverse | ${ }^{667.0}$ | 1.4 1.4 | Negligioble Adverse | ${ }_{5}^{52.6}$ | 53,4 53.6 | 53.9 54.0 |
| 312, HLTTON DRIVE | Dwelling | 65.4 | 66.3 | 65.5 | 0.1 | Negligible Beneficial | 66.8 | 1.4 | Negiligile Adverse | 52.6 | 53.4 | 53.9 |
| 313. HILTON DRIVE | Dwelling | 65.6 | 66.5 | 65.8 | 0.2 | Negligible Adverse | 67.0 | 1.4 | Negigioble Adverse | 52.8 | 53.6 | 54.0 |
| 314, HLLTON DRIVE | Dwelling | 65.4 |  |  | 0.1 |  | 66.8 | 1.4 | Negiligiole Adverse |  | 53.4 | 3.9 |
| ${ }^{315, ~ H I L T O N ~ D R I V E ~}$ | Dwelling | ${ }_{65.5}^{65.7}$ | 66.6 66.4 | ${ }_{65.6}^{65.6}$ | ${ }_{0}^{0.1}$ | Negigioble Benenicial | 67.1 | ${ }_{1.4}^{1.4}$ | Neotigigie Adverse | ${ }_{52.7}^{52.9}$ | ${ }_{53.5}^{53.5}$ | 54.9 |
| 317, HLITTON DRIVE | Dwelling | 65.7 | 66.6 | 65.8 | 0.1 | Negligible Benenicial | 67.1 | 1.4 | Negligible Adverse | 52.9 | 53.7 | 54.1 |
| 318, HLLTON DRIVE | Dwelling | 65.5 | 66.4 | 65.6 | 0.1 | Negligible Beneficial | 66.9 | 1.4 | Negligible Adverse | 52.7 | 53.5 | 53.9 |
| $\frac{\text { 319. HILTON DRIVE }}{\text { 320 }}$ HITION DRIVE | Dwelling | 65.7 655 | 66.6 6.4 | 65.8 | 0.1 | Negliable Beneficial | 67.1 | 1.4 1.4 | Negligible Adverse | 52.9 527 | $\begin{array}{r}53.7 \\ 535 \\ \hline\end{array}$ | 54.1 539 |
| ${ }^{\text {320, HLTTON DRIVE }}$ | Dweling | ${ }_{65.7}^{65.5}$ | 66.4 | ${ }_{65.8}^{65.6}$ | 0.1 | Neginioble Benenticial | 66.9 | $\stackrel{1.4}{1.4}$ | Negligiole Adverse | ${ }^{52.7} 5$ | - ${ }_{53.5}$ | 53.9 54.9 |
| 322, HILTON DRIVE | Dwelling | 65.5 | 66.4 | 65.6 | 0.1 | Negligible Beneficicial | 66.9 | 1.4 | Negigiolie Adverse | 52.7 | 53.5 | 53.9 |
| 323, HLTTON DRIVE | Dwelling | 65.6 | 66.6 | 65.8 | 0.2 | Neoligible Adverse | 67.0 | 1.4 | Negiligile Adverse | 52.8 | 53.7 | 54.0 |
| 324, HLITON DRIVE | Dwelling | 65.6 | 66.6 | 65.8 | 0.2 | Negligible Adverse | 67.0 | 1.4 | Negiligibe Adverse | 52.8 | 53.7 | 54.0 |
| $\frac{325 . ~ H I L T O N ~ D R I V E ~}{\text { a }}$ | Dwelling | ${ }_{65.6}^{656}$ | ${ }_{66.6}^{6.6}$ | 65.8 | 0.2 | Negigigil Adverse | 67.0 | ${ }_{1}^{1.4}$ | Negiligibe Adverse | 52.8 <br> 5.8 | $\begin{array}{r}53.7 \\ 53 \\ \hline\end{array}$ | 54.0 |
| 327, HLTTON DRIVE | Dwelling | 65.6 | 66.6 | 65.8 | 0.2 | Negligible Adverse | 67.0 | 1.4 | Negigigile Adverse | 52.8 | 53.7 | 54.0 |
| 328, HLTTON DRIVE | Dwelling | 65.6 | 66.6 | 65.8 | 0.2 | Neeligible Adverse | 67.0 | 1.4 | Negigiolie Adverse | 52.8 | 53.7 | 54.0 |
| 329, HLTTON DRIVE | Dwelling | 65.6 | 66.6 | 65.8 | 0.2 | Neoligible Adverse | 67.0 | 1.4 | Negigigibe Adverse | 52.8 | 53.7 | 54.0 |
| 33, HLTON DRIVE | weling | 66.5 | 67.4 | 66.4 | -0.1 | Negligible Beneficial | 67.3 | 0.8 | Negigigibe Adverse | 53.6 | 54.4 | 54.3 |
| 330, HILTON DRIVE | Dweling | 65.6 | 66.6 | 65.8 | 0.2 | Negiligibe Adverse | 67.0 | 1.4 | Negiligibe Adverse | 52.8 | 53.7 | 54.0 |
| ${ }^{\text {331, }}$ 31LTITONDRIVE | Dweling | ${ }^{65.7}$ | ${ }_{66.5}^{66.5}$ | ${ }_{65.7}^{65.8}$ | 0.1 |  | ${ }_{66.9}^{66.9}$ | 1.3 1.3 | $\frac{\text { Negigigio Adverse }}{\text { Negligible Adverse }}$ | $\stackrel{52.9}{52.8}$ | 53.6 | 54.0 53.9 |
| 333, HILTON DRIVE | Dwelling | 65.7 | 66.6 | 65.8 | 0.1 | Negligible Beneficial | 67.0 | 1.3 | Negligible Adverse | 52.9 | 53.7 | 54.0 |
| 334, HILTON DRIVE | eiling | 65.6 | 6.5 | 65.7 | 0.1 | Negigible Adverse | 66.9 |  | Negligible Adverse | 52.8 | 53.6 |  |
| 333. HLTTON DRIVE | Dwelling | 65.7 | 66.6 | 65.8 | 0.1 | Negligible Beneticial | 67.0 | 1.3 | Negligible Adverse | 52.9 | 53.7 | 54.0 |
| ${ }^{\text {336. HILTON DRIVE }}$ | Dweling | ${ }_{65.6}^{657}$ | 66.5 | 65.7 | 0.1 | Negiligile Adverse | 66.9 | ${ }_{1}^{1.3}$ | Negiligibe Adverse | 52.8 528 | 53.6 53 | 53.9 |
| 337, HLITTON DRIVE | Dwelling | ${ }_{65.6}^{65.7}$ | ${ }_{66.5}^{66.5}$ | ${ }^{655.7}$ | ${ }_{0}^{0.1}$ | Negigigibe Aenenvicial | 67.9 | 1.3 | Negligiobe Adverse | ${ }_{52.8}^{52.8}$ | ${ }_{53}^{53.6}$ | 54.9 |
| 339, HILTON DRIVE | Dwelling | 65.9 | 67.1 | 65.9 | 0.0 | No Change | 67.1 | 1.2 | Negligible Adverse | 53.0 | 54.1 | 54.1 |
| 340, HILTON DRIVE | Dwelling | 65.6 | 66.5 | 65.7 | 0.1 | Negligible Adverse | 67.0 | 1.4 | Negligible Adverse | 52.8 | 53.6 | 54.0 |
| 341, HLTTON DRIVE | Dwelling | 65.9 65.6 | $\stackrel{67.1}{66.5}$ | 65.9 65.7 | 0.0 | Neoligione Aldugerse | $\stackrel{67.1}{67.0}$ | $\stackrel{1.2}{1.4}$ | Negigigle Adverse | $\stackrel{53.0}{52.8}$ | 54.1 <br> 53.6 | $\stackrel{54.1}{54.0}$ |
| 343, HLLTON DRIVE | Deeling | 65.9 | 67.1 | 65.9 | 0.0 | No Change | 67.1 | 1.2 | Negigiolie Adverse | 53.0 | 54.1 | 54.1 |
| 344, HLITTON DRIVE | Dwelling | 65.6 65.9 | 66.5 67.1 | 65.7 65.9 | 0.1 | Negligibe Adverse | 67.0 67.1 | 1.4 <br> 1.2 <br> 1 | $\frac{\text { Negigigib Adverse }}{\text { Negigible Adverse }}$ | 52.8 53.0 | 53.6 54.1 | 54.0 54.1 |
| 346, HLITON DRIVE | Dwelling | 65.6 | 66.5 | 65.7 | 0.1 | Negigigile Adverse | 67.0 | 1.4 | Negiligible Adverse | 52.8 | 53.6 | 54.0 |
| $\frac{347 \text {, HILTON DRIVE }}{348 \text { HLITON DRIVE }}$ | $\frac{\text { Dwelling }}{\text { Dweling }}$ | 66.4 65.5 | 67.7 66.4 | 66.3 65.6 | -0.1 0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negliobl }}$ | 67.6 66.8 | ${ }_{1.2}^{1.3}$ | Negligible Adverse Negilible Adverse | 53.5 52.7 | 54.7 53.5 | 54.6 53.9 |
| 399, HILTON DRIVE | Dwelling | 66.4 | 67.7 | 66.3 | 0.1 | Negligible Benenificial | 67.6 | 1.2 | Neoligiole Adverse | 53.5 |  | 54.6 |
| 35, HLTON DRIVE | Dwelling | 66.5 | 67.5 | 66.5 | 0.0 | No Change | 67.4 | 0.9 | Neoligible Adverse | 53.6 | 54.5 | 54.4 |
| 350, HILTON DRIVE | Dweling | 65.5 | 66.4 | 65.6 | 0.1 | Negiligile Benenitical | 66.8 |  | Negiligibe Adverse |  |  |  |
| ${ }^{\text {3552. HLILTON DRIVE }}$ | Dwelling | 65.5 | 66.4 | 65.6 | 0.1 | Negligible Beneniticial | 66.8 | 1.3 | Neoligioble Adverse | 52.7 | 53.5 | 53.9 |
| 353, HILTON DRIVE | Dwelling | 66.4 | 67.7 | 66.3 | -0.1 | Negligible Beneficial | 67.6 | 1.2 | Negligible Adverse | 53.5 | 54.7 | 54.6 |
| 354, HLTTON DRIVE | Dwelling | 65.5 | 66.4 | 65.6 | 0.1 | Negligible Beneficial | 66.8 | 1.3 | Negiligile Adverse | 52.7 | 53.5 | 53.9 |
| 355. HLLTON DRIVE | Dwelling | 66.7 | 67.9 | 66.5 | -0.2 | Negligible Beneficial | 67.8 | 1.1 | Negigigibe Adverse | 53.8 | 54.8 | 54.8 |
|  | Dwelling | ${ }^{66.7}$ | 67.9 67.9 | ${ }_{66.6}^{66.5}$ | $\stackrel{-0.1}{-0.2}$ | Negiligile Beneiticial | 67.9 67.8 | 1.2 1.1 | $\frac{\text { Negiligle Adverse }}{\text { Negligible Adverse }}$ | 53.8 53.8 | 54.8 54.8 | 54.8 54.8 |
| 358, HILTON DRIVE | Dwelling | 66.7 | 67.9 | 66.6 | -0.1 | Negligible Beneficial | 67.9 | 1.2 | Negligible Adverse | 53.8 | 54.8 | 54.8 |
| 359. HLLTON DRIVE | Dwelling | 66.7 | 67.9 | 66.5 | -0.2 | Negligible Beneficical | 67.8 | 1.1 | Negigioble Adverse | 53.8 | 54.8 | 54.8 |
| $\frac{\text { 360, HILTON DRIVE }}{361}$ | Dweling | 66.7 66.7 | 67.9 | ${ }_{6}^{66.6}$ | -0.1 | $\xrightarrow{\text { Negigioble Benenicial }}$ Negliobl | ${ }_{6}^{67.9}$ | 1.2 | Negigigle Adverse | 53.8 <br> 53 | 54.8 54.8 | 54.8 <br> 54.8 |
| 362, HILTON DRIVE | Dwelling | 66.7 | 67.9 | 66.6 | ${ }^{0.1}$ | Negligible Beneficial | 67.9 | 1.2 | Negligible Adverse | 53.8 | 54.8 | 54.8 |
| 363, HLTTON DRIVE | Dwelling | 66.5 | 67.7 | 66.3 | -0.2 | Negligible Beneficial | 67.7 | 1.2 | Negigigibe Adverse | 53.6 | 54.7 | 54.7 |
| 364, HILTON DRIVE | Dwelling | 66.5 | 67.7 | 66.4 | 0.1 | Negligible Benenitical | 67.7 | 1.2 | Negiligile Adverse | ${ }_{53.6}$ | 54.7 | 54.7 |
| 365. HILTON DRIVE | Dweling | 66.5 | ${ }^{67.7}$ | $\frac{66.3}{66.4}$ | -0.2 -0.1 -1 | $\frac{\text { Negligiole Benenicical }}{\text { Neglioble }}$ | ${ }^{67.7}$ | 1.2 | $\frac{\text { Negigigile Adverse }}{\text { Negilible Adverse }}$ | 53.6 53.6 | 54.7 54.7 | 54.7 54.7 |
| 367, HILTON DRIVE | Dwelling | 66.5 | 67.7 | 66.3 | 0.2 | Negligible Beneficical | 67.7 | 1.2 | Adverse | 53.6 | 54 | 54.7 |
| 368, HLTTON DRIVE | Dwelling | 66.5 | 67.7 | 66.4 | -0.1 | Negligible Beneficial | 67.7 | 1.2 | Negigigile Adverse | 53.6 | 54.7 | 54.7 |
| 369, HLLTON DRIVE | Dwelling | 66.5 | 67.7 | 66.3 | -0.2 | Negigigie Benenicial | 67.7 | 1.2 | Negligible Adverse | 53.6 | 54.7 | 54.7 |
| 37-HILTON LTINE | Dwelling | 66.5 | ${ }_{67.7}^{67.7}$ | 66.4 | -0.1 | Negligibile Eeneneficial | ${ }_{67.7}^{67.7}$ | 1.9 | Neoligioble Adverse | ${ }_{53}^{53.6}$ | 54.7 | 54.5 |
| 372. HLITTON DRIVE | Dwelling | 66.7 | 67.9 | 66.6 | -0.1 | Negligible Beneficical | 67.8 | 1.1 | Negigiolie Adverse | 53.8 | 54.8 | 54.8 |
| 374, HLLTON DRIVE | Dwelling | 66.7 | 67.9 | 66.6 | -0.1 | Negligible Beneficical | 67.8 | 1.1 | Negigigibe Adverse | 53.8 | 54.8 | 54.8 |
| ${ }^{\text {376, HILTON DRIVE }}$ | Dwelling | ${ }^{66.7}$ | 67.9 67.9 | ${ }^{666.6}$ | -0.1 -0.1 | Negiligile Benenitical | 67.8 67.8 | ${ }_{1.1}^{1.1}$ | Negigible Adverse | 53.8 53.8 | 54.8 <br> 54.8 | 54.8 54.8 |
| 380, HLITTON DRIVE | Dwelling | 66.5 | 67.6 | 66.3 | -0.2 | Negligible Beneficial | 67.5 | 1.0 | Negligible Adverse | 53.6 | 54.6 | 54.5 |
| $\frac{382 \text {. HILTON DRIVE }}{384}$ | Dweling | $\frac{66.5}{66.5}$ | ${ }_{6}^{67.6}$ | $\frac{66.3}{663}$ | -0.2 | $\frac{\text { Negligible Benenticial }}{\text { Negioibl }}$ | 67.5 675 | 1.0 10 10 | $\frac{\text { Negligible Adverse }}{\text { Neoligible Adverse }}$ | 53.6 53.6 | 54.6 546 | 54.5 54.5 |
| 386, HLTTON DRIVE | Dwelling | 66.5 | 67.6 | 66.3 | -0.2 | Negligible Beneficial | 67.5 | 1.0 | Negiligile Adverse | 53.6 | 54.6 | 54.5 |
| 388, HLTTON DRIVE | Dwelling | 66.6 | 67.6 | 66.4 | -0.2 | Negligible Beneficial | 67.6 | 1.0 | Negigigile Adverse | 53.7 | 54.6 | 54.6 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 <br> Lnight,outside | $\begin{gathered} \text { DS33 } \\ \text { Lnight,outside } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 39, HILTON DRIVE | Dweling | 66.4 | 67.6 | 66.4 | 0.0 | No Change | 67.4 | 1.0 | Negligible Adverse | ${ }_{53.5}^{53}$ | ${ }_{54.6}^{54}$ | 54.4 |
| 390, HILTON DRIVE | Dwelling | $\frac{66.6}{66.6}$ | $\frac{67.6}{676}$ | 66.4 6.4 | -0.2 | Neolioible Beneficial | ${ }^{67.6}$ | 1.0 | Negiligil Adverse | 53.7 <br> 53.7 | 54.6 <br> 54.6 | 54.6 <br> 54.6 |
| 392, HLT TON DRIVE | Dweling | 66.6 6 | ${ }^{67.6}$ | 66.4 66.4 | -0.2 | Negaligiole Benenticial | ${ }^{677.6}$ | 1.0 1.0 | Negigiole Adverse | 53.7 53.7 | $\begin{array}{r}\text { 54.6 } \\ 54.6 \\ \hline\end{array}$ | 54.6 54.6 |
| 396, HLITON DRIVE | Dwelling | 67.5 | 68.4 | 67.2 | -0.3 | Negligible Benenicial | 68.3 | 0.8 | Negiligile Adverse | 54.5 | 55.3 | 55.2 |
| 398, HILTON DRIVE | Dwelling | 67.5 | 68.4 | 67.2 | -0.3 | Negligible Beneficial | 68.3 | 0.8 | Negigigile Adverse | 54.5 | 55.3 | 55.2 |
| 400, HLITON DRIVE | Dwelling | 67.5 | 68.4 | 67.2 | ${ }^{0.3}$ | Negligible Beneficicial | 68.3 | 0.8 | Negigigibe Adverse | 54.5 | ${ }_{55.3}^{56}$ | 55.2 |
| 402, HLT TON DRIVE | Dwelling | 67.5 | 68.4 | 67.2 | -0.3 | Negligible Beneficial | 68.3 | 0.8 | Negiligibe Adverse | 54.5 | 55.3 | 55.2 5.0 |
|  | Dwelling | 68.5 | ${ }_{69.3}^{69.3}$ | 68.0 68.0 | $\stackrel{0}{0.5}$ | Negegioigiole Benenitical | 69.2 | 0.7 | $\frac{\text { Negigigibe Adverse }}{\text { Negilible Adverse }}$ | ${ }_{55.4}^{55.4}$ | - ${ }_{\text {56.1 }}^{56.1}$ | -56.0 |
| 408 , HILTON DRIVE | Dwelling | 68.5 | 69.3 | 68.0 | -0.5 | Negligible Beneniticial | 69.2 | 0.7 | Negigiole Adverse | 55.4 | 56.1 | 56.0 |
| 41, HLTTON DRIVE | Dwelling | 66.1 | 67.3 | 66.1 | 0.0 | No Change | 67.1 | 1.0 | Negigigibe Adverse | 53.2 | 54.3 | 54.1 |
| 410, HLITON DRIVE | welling | 68.5 | 69.3 | 68.0 | 0.5 | Negligible Beneficial | 69.2 | 0.7 | Negigigile Adverse | 55.4 | 56.1 | 56.0 |
| 412, HLITON DRIVE | eiling | 70.4 | 70.8 | 69.7 | 0.7 | Negligible Beneficial | 70.8 | 0.4 | Negigioble Adverse | 57.1 | 57.5 | 57.5 |
| $\frac{414, \text { HLT TON DRIVE }}{416 \text { HITON DRIVE }}$ | $\frac{\text { Dwelling }}{\text { Dweling }}$ | 70.4 70.4 | 70.8 70.8 | 69.7 69.7 | -0.7 .0 .7 | $\frac{\text { Negligible Benenicial }}{\text { Neglioble }}$ | 70.8 70.8 | 0.4 0.4 | Negligile Adverse | 57.1 57.1 | -57.5 | $\stackrel{57.5}{57.5}$ |
| 448 , HLITON DRIVE | Dwelling | 70.4 | 70.8 | 69.7 | 0.7 | Negligible Beneficicial | 70.8 | 0.4 | Negigigibe Adverse | 57.1 | 57.5 | 57.5 |
| 420, HILTON DRIVE | Dwelling | 70.7 | 71.2 | 69.9 | 0.8 | Negligible Beneficical | 77.1 | 0.4 | Negigiole Adverse | 57.4 | 57.8 |  |
| 422, HLITON DRIVE | Dwelling | 70.7 | 71.2 | 69.9 | 0.8 | Negligible Beneficial | 71.1 | 0.4 | Negigigile Adverse | 57.4 | 57.8 | 57.7 |
| 424, HILTON DRIVE | Dwelling | 70.7 | 71.2 | 69.9 | -0.8 | Negligible Beneficicial | 71.1 | 0.4 | Negiligibe Adverse | 57.4 | 57.8 | 57.7 |
| 426, MLT TON D Rive | weling | 70.7 | 77.2 | 69.9 | -0.8 | Negligible Benefitioal | ${ }^{71.1}$ | ${ }^{0.4}$ | Negiligile Adverse | 57.4 | 57.8 | 57.7 |
| 4288 , HLTION D Rive | weling | 71.7 | 72.4 | 70.6 | . 1.1 | Minor Beneitical | 72.0 | ${ }_{0} 0$ | Negiligile Aaverse | 58.3 | 58.9 | 58.5 |
| 43, HILTONDRIVE | Dweling | ${ }_{76.0}^{617}$ | ${ }_{67.2}^{6724}$ | ${ }^{66.0}$ | 0.0 | No C Cange | 67.0 | 1.0 | Negigigile Adverse | 53.1 58.3 | $\begin{array}{r}54.2 \\ 58 \\ \hline\end{array}$ | 54.0 585 |
| 4 432, HLITTON DRRIVE | Dwelling | $\frac{71.7}{71.7}$ | 72.4 72.4 | 70.6 | $\stackrel{-1.1}{\text {-1. }}$ | Minor Beneneicicial | ${ }^{72.0}$ | 0.3 | Neoligigile Adverse | ${ }_{58.3}^{58.3}$ | 58.9 58.9 | $\stackrel{58.5}{58.5}$ |
| 434, HILTON DRIVE | Dwelling | 71.7 | 72.4 | 70.6 | -1.1 | Minor Beneficial | 72.0 | 0.3 | Negiligible Adverse | 58.3 | 58.9 | 58.5 |
| 45, HILTON DRIVE | Dwelling | 66.1 | 67.3 | 66.1 | 0.0 | No Change | 67.1 | 1.0 | Negiligile Adverse | 53.2 | 54.3 | 54.1 |
| 47, HLLTON DRIVE | Dwelling | 65.9 | 67.1 | 65.9 | 0.0 | No Change | 66.9 | 1.0 | Negigigibe Adverse | 53.0 | 54.1 | 53.9 |
| 49, HLLTON DRIVE | Dwelling | 65.7 | 66.9 | 65.7 | 0.0 | No Change | 66.7 | 1.0 | Negigigle Adverse | 52.9 | 53.9 | 53.8 |
| 5, HLLTON DRIVE | welling | 65.7 | 66.5 | 65.6 | -0.1 | Negligible Beneficial | 66.3 | 0.6 | Negigigibe Adverse | 52.9 | 53.6 | 53.4 |
| 51, HLLTON DRIVE | welling | 65.6 | 66.8 | 65.6 | 0.0 | No Change | 66.6 | 1.0 | Negigigibe Adverse | 52.8 | 53.9 | 53.7 |
| 53. HLTTON DRIVE | Dwelling | 65.4 | 66.6 | 65.4 | 0.0 | No Change | 66.4 | 1.0 | Negiligibe Adverse | 52.6 | 53.7 | $\begin{array}{r}53.5 \\ 534 \\ \hline\end{array}$ |
| 57. HLTTON DRIVE | Dwelling | 65.2 | 66.4 | ${ }_{65.1}$ | -0.1 | Neglioible Benenicicial | ${ }_{66.1}^{66.1}$ | 0.9 | Neogigiole Adverse | 52.4 | ${ }_{53.5}^{53.6}$ | ${ }_{53,2}$ |
| 58, HLTTON DRIVE | Deeling | 65.4 | 66.3 | 65.3 | -0.1 | Negligible Beneficical | 66.2 | 0.8 | Neoligible Adverse | 52.6 | 53.4 | 53.3 |
| 59, HLLTON DRIVE |  | 65.0 | 66.3 |  |  | No Chang |  |  |  | 52.2 |  |  |
| 60, HLLTON DRIVE | Dwelling | 65.5 | 66.4 | 65.4 | 0.1 | Negligible Benenitial | 66.3 | 0.8 | Negiligile Adverse | 52.7 | 53.5 | 53.4 |
| 61. HILTTON DRIVE | Dwelling | 62.9 | 65.2 | 63.0 | 0.1 | Negiligble Adverse | 64.6 | 1.7 | Negiligibe Adverse | 50.3 | 52.4 | 51.9 |
| 62, HLTTON DRIVE | Dweling | 66.6 | 67.5 | 66.6 | 0.0 | No Change | 67.4 | 0.8 | Negiligile Aaverse | 53.7 | 54.5 | 54.4 |
| 64, HILTON DRIVE | Dweling | 66.7 | 67.6 | 66.6 | -0.1 | Negigigile Benenicical | 67.5 | ${ }_{0}^{0.8}$ | Negigigile Adverse | 53.8 | 54.6 | 54.5 |
| 66, HLTITONDIVE | Dweling | 66.7 | 67.7 | 66.6 | -0.1 | Negiligile Benenitial | 67.5 | 0.8 | Negiligile Adverse | 53.8 | 54.7 | $\begin{array}{r}54.5 \\ 5.5 \\ \hline\end{array}$ |
| 68, 7 HLTTON DRIVE | Dwelling | ${ }_{65.6}^{66.6}$ | 67.6 66.4 | ${ }_{65.5}^{66.5}$ | $\begin{array}{r}-0.1 \\ 0.1 \\ \hline 0.1\end{array}$ |  | 66.5 | 0.6 | Neoligigile Adverse | ${ }_{5}^{53.7}$ | 54.6 53.5 | 54.5 53.3 |
| 70, HLTTON DRIVE | Dwelling | 64.7 | 65.8 | 64.7 | 0.0 | No Change | 65.7 | 1.0 | Negligible Adverse | 52.0 | 53.0 | 52.9 |
| 72, HLTTON DRIVE | Deeling | 66.2 | 67.4 | 66.2 | 0.0 | No Change | 67.2 | 1.0 | Negigigile Adverse | 53.3 | 54.4 | 54.2 |
| 74, HLTTON DRIVE | Dwelling | 66.0 | 67.1 | 65.9 | -0.1 | Negligible Beneficial | 67.0 | 1.0 | Negigigibe Adverse | 53.1 | 54.1 | 54.0 |
| 76, HLTTON DRIVE | Dwelling | 66.0 | 67.2 | 66.0 | 0.0 | No Change | 67.0 | 1.0 | Negiligile Adverse | 53.1 | 54.2 | 54.0 |
| 78, HLITONDRIVE | Dwelling | ${ }_{65.8}^{65.8}$ | 67.0 | ${ }_{65.8}^{65.8}$ | 0.0 | No No Change | ${ }_{66.8}^{66.8}$ | $\stackrel{1.0}{1.0}$ | Neoligigile Adverse | $\stackrel{53.0}{53.0}$ | 54.0 54.0 | ${ }_{53.9}^{53.9}$ |
| 82, HLTTON DRIVE | Dwelling | 65.7 | 66.9 | 65.7 | 0.0 | No Chang | 66.7 | 1.0 | Negligible Adverse | 52.9 | 3.9 | 53.8 |
| 84, HLTON |  | 65.7 | 66.9 | 65.6 | -0.1 | Negligible Beneficial | 66.7 | 1.0 | Negigigile Adverse | 52.9 | 53.9 | 53.8 |
| 86, HLTTON DRIVE | Dwelling | 65.5 | 66.7 |  |  | No Change | 66.5 | ${ }_{1}^{1.0}$ | Negiligibe Adverse |  | 53.8 | ${ }_{53.6}$ |
| 88, HLTTON DRIVE | Dweling |  | 66.7 | 65.5 | 0.0 | No Change | 66.5 | 1.0 | Negligigle Adverse | 52.7 | 53.8 | 53.6 |
| 9, HLLTON DRIVE | Oweling | 65.2 | 66.0 | 65.1 | -0.1 | Negligiole Benenicial | 65.9 |  | Negligible Adverse | 52.4 |  | 53.0 |
| 90, HLTTON DRIVE | Dweling | 65.2 | 66.4 | ${ }_{65.2}^{651}$ | 0.0 | No Change | 66.2 | 1.0 | Negigigile Adverse | 52.4 | 53.5 | ${ }_{53}^{53.3}$ |
| ALLOTMENTS, HILTON DRIVE | Allotments | 55.0 | 65.6 | 55.1 | 0.1 | Negigigile Adverse | ${ }^{56.5}$ | 0.5 | Neoligiole Adverse | ${ }_{43.2}$ | ${ }_{43} 43$ | ${ }_{43.7}$ |
| HIGH CHURCH HILTON, HIGH CHURCH HLTON, HLTTON DRIVE | Church | 69.3 | 69.7 | 68.7 | -0.6 | Negligible Beneficial | 69.5 | 0.2 | Negligible Adverse | 56.1 | 56.5 | 56.3 |
| HILTON CHURCH HALL, HLLTON DRIVE | Church Hall | 64.2 | 65.0 | 64.1 | -0.1 | Negligible Beneficical | 64.8 | 0.6 | Negiligibe Adverse | 51.5 | 52.2 | 52.1 |
| 371, HILTON DRIVE | Dwelling | 69.1 | 69.7 | 69.2 | 0.1 | Neoligible Adverse | 69.2 | 0.1 | Neoligible Adverse | 55.9 | 56.5 | 56.0 |
| 395, ${ }^{\text {3/LITON } \text { NRIVE }}$ | Dwelling | ${ }_{72.7}^{72.9}$ | 73.5 73.4 | ${ }^{72.8}$ | -0.1 | $\frac{\text { Negiligible Benenifical }}{\text { Negligible Adverse }}$ | $\frac{72.9}{72.9}$ | -0.2 | $\xrightarrow{\text { Negligiole }}$ Neneneficiciole Adverse | $\stackrel{59.3}{59.2}$ | $\stackrel{59.9}{59.8}$ | 59.2 59.3 |
| 399, HLTTON DRIVE | Dwelling | 75.2 | 75.8 | 75.1 | -0.1 | Negligible Beneficical | 75.1 | ${ }^{0.1}$ | Negligible Beneficial | 61.4 | 62.0 | 61.3 |
| $\frac{\text { 373, HLT TON DRIVE }}{\text { 397 HuTON DRIVE }}$ | Dweling | 71.7 750 | 72.3 757 | 71.8 750 | 0.1 | Negligible Benenicial | 71.8 750 | 0.1 | Negligible Beneficicial | ${ }^{58.3}$ | 58.8 | 58.4 |
| 1 1, HLTTON HEIGHTS | Dwelling | 56.1 | 60.1 | 56.2 | 0.1 | Negigigile Adverse | 59.0 | 2.9 | Neqligible Adverse | 44.2 | ${ }_{47.8}$ | ${ }_{46.8}$ |
| 10, HILTON HEIGHTS | Dwelling | 57.0 | 61.3 | 57.1 | 0.1 | Negligible Adves | 60.2 | 3.2 | Minor Adverse | 45.0 | 48.9 | 47.9 |
| 100, HLLTON HEIGHTS | Dwelling | 53.7 | 55.0 | 53.8 | 0.1 | Negigigil Eeneficial | 54.8 | 1.1 | Negligible Adverse | 42.1 | 43.2 | 43.1 |
| 101, HLTON HEIGHTS | Dwelling | 53.1 | 54.4 | 53.2 | 0.1 | Negligible Adverse | 54.2 | 1.1 | Negligible Adverse | 41.5 | 42.7 | 42.5 |
| 102, HLTON HEIGHTS | Dwelling | 54.4 | 55.6 | 54.5 | 0.1 | Negigigibe Adverse | 55.5 | 1.1 | Negligible Adverse | 42.7 | 43.8 | 43.7 |
| 103. HLTON HEIGHTS | Dweling | $\begin{array}{r}54.4 \\ 54.4 \\ \hline\end{array}$ | 55.6 | 54.5 | 0.1 | Negiligile Adverse | 55.5 | 1.1 | Negligigle Adverse | 42.7 |  | ${ }^{43.7}$ |
| 104, HLTON HEIGHTS | Dwelling | 54.4 54.4 | 55.6 55.6 | 54.5 <br> 54.5 | ${ }_{0}^{0.1}$ | Negligibl Adverse | 55.5 <br> 55.5 | 1.1 | Negligile Adverse | 42.7 | 43.8 <br> 43 | $\begin{array}{r}43.7 \\ 43 \\ \hline\end{array}$ |
| 106 , HLTTON HEIGHTS | Dwelling | 59.4 | 60.7 | 59.5 | 0.1 | Negligible Adverse | 60.6 | 1.2 | Negigigile Adverse | 47.2 | 48.4 | 48.3 |
| 107 , HLTON HEIGHTS | Dwelling | 59.4 | 60.7 | 59.5 | 0.1 | Negligible Adverse | 60.6 | 1.2 | Negigibile Adverse | 47.2 | 48.4 | 48.3 |
| 108, HLTON HEGATS | Dwelling | 59.4 | ${ }_{600.7}^{60.7}$ | ${ }_{59.5}^{59.5}$ | ${ }_{0}^{0.1}$ | Negigigibe Adverse | 60.6 | 1.2 1.2 | Negigigile Adverse | ${ }_{47.2}^{47.2}$ | ${ }^{48.4}$ | $\stackrel{48.3}{48}$ |
| 11, HLTTON HEIGHTS | Dwelling | 57.0 | 61.3 | 57.1 | 0.1 | Negligigle Adverse | 60.2 | 3.2 | Minor Adverse | ${ }_{5}^{45.0}$ | $\stackrel{48.9}{59}$ | ${ }_{5}^{47.9}$ |
| 110, HLLON HEIGHTS | Dwelling | 65.5 | ${ }_{66.8}^{66.8}$ | ${ }_{65.6}^{65.6}$ | ${ }_{0}^{0.1}$ | $\xrightarrow{\text { Negiligible Benenticial }}$ Negioibl Beneficial | ${ }_{66.7}^{66.7}$ | 1.2 1.2 | Negigigil Adverse Neoligile Adverse | $\stackrel{52.7}{52.7}$ | ${ }_{53.9}^{53.9}$ | 53.8 53.8 |
| 112. HLLON HEIGHTS | Dwelling | 65.5 | 66.8 | ${ }_{65.6}^{656}$ | 0.1 | Negligible Beneficial | 66.7 | 1.2 | Negigigle Adverse | 52.7 | 53.9 | 53.8 |
| 113, HLTON HEIGHTS | Dwelling | 65.5 | 66.8 | 65.6 | 0.1 | Negligible Beneficial | 66.7 | 1.2 | Negligible Adverse | 52.7 | 53.9 | 53.8 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | Dм33 <br> Lnight,outside | $\begin{gathered} \text { DS33 } \\ \text { Lnight,outside } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 114. HILTON HEIGHTS | Dewling | 63.9 | 65.2 | 64.0 | 0.1 | Negligible Adverse | 65.1 | 1.2 | Negligible Adverse | 51.2 | 52.4 | 52.3 |
| 115. HLTON HEIGHTS | Dwelling | 63.9 | ${ }_{65.3}^{65}$ | 64.0 | 0.1 | Negiligle Adverse | 65.1 | ${ }_{1}^{1.2}$ | $\frac{\text { Negligiole Adverse }}{\text { Negioiole Adverse }}$ | 51.2 | 52.5 | 52.3 |
|  | Dweling | 58.6 | 61.7 61.7 | ${ }^{585.7} 5$ | 0.1 | Negligibe Adverse | 60.9 60.9 | ${ }_{2.3}^{2.3}$ | Negiligle Adverse | 46.5 | ${ }_{49.3}^{49.3}$ | 48.5 48.5 |
| 118, HLITON HEIGHTS | Dwelling | 58.6 | 61.7 | 58.7 | 0.1 | Neogigiole Adverse | 60.9 | ${ }_{2.3}$ | Negigioile Adverse | 46.5 | 49.3 | 48.5 |
| 119. HLLON HEIGHTS | Dwelling | 58.6 | 61.7 | 58.7 | 0.1 | Negigible Adverse | 60.9 | ${ }^{2.3}$ | Negiligile Adverse | 46.5 | 49.3 | 48.5 |
| 12, HLTTON HEIGHTS | Dwelling | 57.0 | 61.3 | 57.1 | 0.1 | Negigible Adverse | 60.2 | 3.2 | Minor Adverse | 45.0 | 48.9 | 47.9 |
| 120, HLLTON HEIGHTS | Deeling | 58.0 | 61.6 | 58.1 | 0.1 | Negigigibe Adverse | 60.7 | 2.7 | Negigioble Adverse | 45.9 | 49.2 | 48.4 |
| 121, HLLTON HEIGHTS | Dwelling | ${ }_{5}^{55.0}$ | 61.6 56 | 55.0 | 0.0 | No Change | 60.7 65 | ${ }^{2} .7$ | Negigigile Adverse | 45.9 | 49.2 | 48.4 |
| 14, HLTTON HEIGHTS | Dweling | 53.6 5.6 | 56.2 | 53.2 | -0.4 | Negligible Beneficial | 55.3 55 5 | 1.7 | Negiligiole Adverse | ${ }^{42.0}$ | ${ }_{44.3}^{4}$ | 43.5 |
|  | Dwelling | 53.6 53.6 | ${ }_{\text {56.2 }}^{56.2}$ | ${ }_{\text {533.2 }}^{53.2}$ | -0.4 -0.4 | $\frac{\text { Negligible Beneficial }}{\text { Negligibl }}$ Beneficial | 55.3 55.3 | 1.1 | $\frac{\text { Negigiglie Adverse }}{\text { Negigiole Adverse }}$ | $\stackrel{42.0}{42.0}$ | ${ }_{44,3}$ | 43.5 435 |
| 17, HLTTON HEIGHTS | Dwelling | 53.6 | 56.2 | 53.2 | -0.4 | Negligible Beneficial | 55.3 | 1.7 | Negligiole Adverse | 42.0 | 44.3 | 43.5 |
| 18, HLTON HEIGHTS | Dwelling | 53.2 | 55.6 | 52.8 | -0.4 | Negligible Beneficial | 54.7 | 1.5 | Negigioble Adverse | 41.6 | 43.8 | 43.0 |
| 19, HLTTON HEIGHTS | Deeling | 53.2 | 55.6 | 52.8 | -0.4 | Negligible Beneficial | 54.7 | 1.5 | Negifigile Adverse | 41.6 | 43.8 | 43.0 |
| 2, HLTON HEIGHTS | Delling | ${ }_{56.1}^{56}$ | ${ }_{60.1}^{60.1}$ | ${ }_{56.2}^{5.2}$ | 0.1 | Negigigibe Adverse | 59.0 | 2.9 | Negligible Adverse | 44.2 | 47.8 | 46.8 |
| 20, HLTTON HEIGHTS | Delling | 53.2 | ${ }_{55.6}^{556}$ | ${ }_{52.8}^{52}$ | -0.4 | $\frac{\text { Negliable Beneficial }}{\text { Neglioble }}$ | $\begin{array}{r}54.7 \\ 547 \\ \hline\end{array}$ | 1.5 | Negiligile Adverse | 41.6 416 | 43.8 | 43.0 |
|  | Dwelling | 53.2 47.8 | ${ }_{49.3}$ | 52.8 47.7 | -0.4 -0.1 -0 | Negligible Beneiticial | ${ }^{54.9}$ | ${ }_{1}^{1.1}$ | Neoligioble Adverse | ${ }_{36.8}^{46}$ | ${ }^{43.8}$ | ${ }_{37.7}^{43.0}$ |
| 23, HILTON HEIGHTS | Dwelling | 47.8 | 49.3 | 47.7 | -0.1 | Negligible Beneficial | 48.9 | 1.1 | Negligiole Adverse | 36.8 | 38.1 | 37.7 |
| 24, HLTON HEIGHTS | Deeling | 47.8 | 49.3 | 47.7 | -0.1 | Negligible Beneficial | 48.9 | 1.1 | Negigioble Adverse | 36.8 | 38.1 | 37.7 |
| $\frac{25, \text { HILTON HEIGHTS }}{\text { 26 HITONHIGHTS }}$ | Dwelling | ${ }_{47.8}^{47}$ | ${ }^{49.3}$ | ${ }_{5}^{47.7}$ | -0.1 | Negligible Benenitial |  | 1.1 | Negiligile Adverse | 36.8 | 38.1 |  |
| 26, HLTTON HEIGHTS | Dwelling | 53.2 | 55.4 | 52.6 | -0.6 | Negiligio Beneticial |  | ${ }_{1}^{1.3}$ | Negiligio Adverse | ${ }_{41.6}^{41.6}$ | ${ }_{43.6}^{436}$ | 2.8 |
| 27, HILTON HEIGHTS | Dwelling | 3.2 | 55.4 | - 52.6 | -0.6 | Negiligiole Beneitioal | 54.5 | ${ }_{1}^{1.3}$ | Negiligibe Adverse |  | ${ }^{43.6}$ |  |
|  |  | 53.2 |  |  | . 6 | Negligile Benefical |  | . | Noglobe Adverse |  |  |  |
| 29, HLITONHEIGIGHTS | Dweling | 53.2 | 55.4 | 52.6 | -0.6 | Neeligible Beneitical | 54.5 | ${ }_{2}^{1.3}$ | Negiquibe Adverse | 41.6 | 43.6 | 42.8 |
| 3 30, HLTTON HEIGHTS | Dwelling | 48.3 | 50.0 | 48.0 | ${ }_{-0.3}$ | Negligible Beneficioal | 49.4 | ${ }_{1}^{1.1}$ | Neoligiole Adverse | 37.2 | 38.7 | 38.2 |
| 31, HLTTON HEIGHTS | Deeling | 48.3 | 50.0 | 48.0 | -0.3 | Negligible Beneficial | 49.4 | 1.1 | Negigioble Adverse | 37.2 | 38.7 | 38.2 |
| 32, HLLTON HEIGHTS | Deeling | 48.3 | 50.0 | 48.0 | -0.3 | Negligible Beneficial | 49.4 | 1.1 | Negigioble Adverse | 37.2 | 38.7 | 38.2 |
| 33, HILON HEIGHIS | Dwelling | 48.3 | 50.0 | 48.0 | -0.3 -0.4 | Negiligile Benenitical | 49.4 50.1 | $\frac{1.1}{1.1}$ | Negigibie Adverse | 37.2 37.8 | ${ }^{38.7}$ | 38.2 38.8 |
| 35, HLTTON HEIGHTS | Dwelling | 49.0 | 50.8 | 48.6 | -0.4 | Negligible Beneficial | 50.1 | 1.1 | Negigioibe Adverse | 37.8 | 39.5 | 38.8 |
| 36, HLTTON HEIGHTS | Deeling | 47.9 | 49.6 | 47.5 | -0.4 | Negligible Beneficial | 49.0 | 1.1 | Negigioble Adverse | 36.8 | 38.4 | 37.8 |
| $\frac{37 \text {, HLTONHEIGHTS }}{38, \text { HITTON HEIGHTS }}$ | Dwelling | 47.9 47.9 | 49.6 49.6 | 47.5 47.5 | -0.4 -0.4 | $\frac{\text { Negligible Beneficial }}{\text { Negligibl }}$ Beneficial | 49.0 49.0 | 1.1 1.1 | $\frac{\text { Negigigile Adverse }}{\text { Negigible Adverse }}$ | 36.8 36.8 | 38.4 38.4 | 37.8 37.8 |
| 39, HLTTON HEIGHTS | Dwelling | 47.9 | 49.6 | 47.5 | -0.4 | Negligible Beneficial | 49.0 | 1.1 | Neogigigile Adverse | ${ }_{36.8}$ | 38.4 | 37.8 |
| 4. HLLTON HEIGHTS | Dwelling | 56.1 | 60.1 | 56.2 | 0.1 | Negigiole Adverse | 59.0 | 2.9 | Negigiolie Adverse | 44.2 | 47.8 | 46.8 |
| 40, HILTON HEIIGTS | Dwelling | 47.9 | 49.9 | 47.8 | -0.1 | Negligible Beneficial | 49.2 | 1.3 | Negiligible Adverse | 36.8 | 38.6 | 38.0 |
| $\frac{41, \text { HILTON HEIGHTS }}{\text { 42 HILTONHEIGHTS }}$ | Dwelling | 47.9 | 49.9 | ${ }^{47.8}$ | -0.1 | Negligible Beneficial | 49.2 | 1.3 | Negiligibe Adverse | 36.8 | 38.6 | 38.0 |
| $\frac{42, \text { HiLONHEIGHTS }}{43, \text { HITTON HEIGHTS }}$ | Dwelling | 47.9 | 49.9 | 47.8 47.8 | -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ | 49.2 | 1.3 1.3 1. | Negigiglie Adverse | 36.8 36.8 | 38.6 38.6 | 38.0 38.0 |
| 44, HLTTON HEIGHTS | Dwelling | 49.3 | 51.1 | 48.9 | -0.4 | Negligible Beneficial | 50.4 | 1.1 | Negigigibe Adverse | 38.1 | 39.7 | 39.1 |
| 45, HLTTON HEIGHTS | Dwelling | 49.3 | 51.1 | 48.9 | -0.4 | Negligible Beneficial | 50.4 | 1.1 | Negiligible Adverse | 38.1 | 39.7 | 39.1 |
| 46, HILTON HEIGHTS | Dwelling | 49.3 | 51.1 | 48.9 | -0.4 | Negligible Beneficial | 50.4 | 1.1 | Negigioble Adverse | 38.1 | 39.7 | 39.1 |
| 47, HLTTON HEIGHTS | Dwelling | 49.3 528 | 51.1 | 48.9 | -0.4 | Negliaible Beneficial | 50.4 54.4 | ${ }_{1}^{1.1}$ | Negligible Adverse | 38.1 413 | 39.7 43 | 39.1 424 |
| 49, HLTTON HEIGHTS | Dwelling | 53.5 | 55.9 | ${ }_{52.9}$ | -0.6 | Negegigible Beneficioial | 54.9 | 1.4 | Negigigible Adverse | 41.9 | 44.0 | ${ }_{43.1}$ |
| 5, HLTTON HEIGHTS | Dwelling | 56.9 | 61.1 | 57.0 | 0.1 | Negigigile Adverse | 60.0 | 3.1 | Minor Adverse | 44.9 | 48.7 | 47.7 |
| 50. HLLTON HEEIGHTS | Dwelling | 53.9 | 56.5 | 53.3 | -0.6 | Negligible Beneficial | 55.3 | 1.4 | Negligible Adverse | 42.2 | 44.6 | 43.5 |
| 51, HITON HEIGHTS | Dweling | 54.2 | 57.2 57.2 | 53.5 53.5 | -0.7 -0.7 | $\frac{\text { Negligible Beneficial }}{\text { Negligibl }}$ Beneficial | 55.8 <br> 55.8 | 1.6 1.6 | Negigigie Adverse | $\stackrel{42.5}{42.5}$ | 45.2 | 44.0 |
| 53, HLTON HEIGHTS | Dwelling | 54.2 | 57.2 | 53.5 | -0.7 | Negligible Beneficial | 55.8 | 1.6 | Negiligile Adverse | 42.5 | 45.2 | 44.0 |
| 54, HLTON HEIGHTS | Dwelling | 54.2 | 57.2 | 53.5 | -0.7 | Negligible Beneficial | 55.8 | 1.6 | Negigiolie Adverse | 42.5 | 45.2 | 44.0 |
| -5, HITTON HEIGHTS | Dwelling | 58.3 58.3 | 63.4 63.4 | 57.5 57.5 | -0.8 -0.8 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ | 60.7 60.7 | 2.4 2.4 | Negligile Adverse | 46.2 46.2 | 50.8 50.8 | 48.4 48.4 |
| 57, HLLTON HEIGHTS | Dwelling | 58.3 | 63.4 | 57.5 | -0.8 | Negligible Beneficial | 60.7 | 2.4 | Negiligiole Adverse | 46.2 | 50.8 | 48.4 |
| 58, HLTON HEIGHTS | Delling | 58.3 | 63.4 | 57.5 | -0.8 | Negligible Beneficial | 60.7 | 2.4 | Negligible Adverse | 46.2 | 50.8 | 48.4 |
| 59, HLTON HEIGHTS | Dwelling | 58.2 | 62.9 | 57.6 570 | -0.6 | Negligible Beneticial |  | 2.5 .3 | Negigigile Adverse | ${ }_{44}^{46.1}$ | ${ }_{50.3}$ | 48.4 |
| 6, HLTION HEGGHTS | Dwelling | 56.9 58.2 | $\frac{61.1}{62.9}$ | 57.0 57.6 | -0.1 | Negligible Adverse | 60.0 60.7 | ${ }^{3.1}$ |  | 44.9 | ${ }_{50.3}^{48.7}$ | 48.4 48.4 |
| 61, HLTTON HEIGHTS | Dwelling | 58.2 | 62.9 | 57.6 | 0.6 | Negligible Beneficial | 60.7 | 2.5 | Negligible Adverse | 46.1 | 0.3 | 8.4 |
| 62, HLTON HEIGHTS | Delling | 58.2 | 62.9 | 57.6 | -0.6 | Negligible Beneficial | 60.7 | 2.5 | Negligiole Adverse | 46.1 | 50.3 | 48.4 |
| 63, HLTTON HEIGHTS | Dwelling | 58.5 | 62.9 | 58.0 | -0.5 | Negligible Beneficical | 60.9 | 2.4 | Negigigible Adverse | 46.4 | 50.3 | 48.5 |
| 64, HLTON HEIGHTS | Dwelling | 58.5 <br> 585 | 62.9 | 58.0 580 | -0.5 | Negligible Beneficial | 60.9 | 2.4 | Negligiole Adverse | 46.4 46.4 | 50.3 50.3 | 48.5 485 |
| 66, HLTTON HEIGHTS | Dwelling | 58.5 | 62.9 | 58.0 | -0.5 | Negegigible Beneficioial | 60.9 | ${ }^{2.4}$ | Negigigible Adverse | 46.4 | 50.3 | 48.5 |
| 67, HLTTON HEIGHTS | Dwelling | 59.8 | 62.7 | 59.6 | -0.2 | Negligible Beneficial | 61.5 | 1.7 | Negilioile Adverse | 47.6 | 50.2 | 49.1 |
| (68, HITTON HEIGHTS | Dwelling | 59.8 59.8 | 62.7 62.7 | 59.6 59.6 | -0.2 -0.2 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ Beneficial | 61.5 61.5 | 1.7 1.7 | $\frac{\text { Negligiole Adverse }}{\text { Negilible Adverse }}$ | 47.6 47.6 | 50.2 | 49.1 49.1 |
| 7,HLTTON HEIGHTS | Dwelling | 56.9 | 61.1 | 57.0 | 0.1 | Negiligile Adverse | 60.0 | 3.1 | Minor Adverse | 44.9 | 48.7 | 47.7 |
| 70, HLTTON HEIGHTS | Delling | 59.8 | 62.7 | 59.6 | -0.2 | Negligible Beneficial | 61.5 | 1.7 | Negligible Adverse | 47.6 | 50.2 | 49.1 |
| 71, HITON HEIGHTS | Dwelling | 61.7 61.7 | ${ }_{63.6}^{63.6}$ | ${ }_{61.7}^{61.7}$ | 0.0 | No C Change | $\frac{63.1}{63.1}$ | 1.4 1.4 | Negigibie Adverse | 49.3 | 51.0 | 50.5 50.5 |
| 72, HLLTON HEIGHTS | Dwelling | 63.4 | 64.9 | 63.5 | 0.1 | Negligible Adverse | 64.6 | 1.2 | Negigigibe Adverse | 50.8 | 52.1 | 51.9 |
| 73, HLTTON HEIGHTS | Dwelling | 63.4 | 64.9 | 63.5 | 0.1 | Negigible Adverse | 64.6 | 1.2 | Negigioble Adverse | 50.8 | 52.1 | 51.9 |
| 74, HLTTON HEIGHTS | Dwelling | 63.4 634 | ${ }_{64.9}^{649}$ | ${ }_{63.5}^{63.5}$ | 0.1 | Negigigle Adverse | ${ }^{64.6}$ | 1.2 | Negligiole Adverse | 50.8 | 52.1 | 51.9 |
| 76, HLTTON HEIGHTS | Dwelling | 65.7 | 67.0 | 65.9 | 0.2 | Neogigigle Adverse | 64.8 | ${ }_{1.1}^{1.1}$ | Neogigioble Adverse | 52.9 | 54.0 | 53.9 |
| 77, HLTON HEIGHTS | Deelling | 65.7 | 67.0 | 65.9 | 0.2 | Negligible Adverse | 66.8 | 1.1 | Negligible Adverse | 52.9 | 54.0 | 53.9 |
| 78, HLTON HEIGHTS | Dwelling | ${ }_{65.7}^{65.7}$ | 67.0 67.0 | ${ }_{65.9}^{659}$ | ${ }_{0}^{0.2}$ | Negiligib Adverse Nefigiole Adverse | 66.8 66.8 | 1.1 1.1 | Negiligile Adverse Nefigiole Adverse | 52.99 | 54.0 540 | 53.9 539 |
| 8, HLTTON HEIGHTS | Dwelling | 56.9 | 61.1 | 57.0 | 0.1 | Negigigile Adverse | 60.0 | ${ }_{3} .1$ | Minor Adverse | 44.9 | 48.7 | 47.7 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 Lnight,outside | DS33 Lnight,outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 80, HILTON HEIGHTS | Deeling | 65.6 | 66.9 | 65.8 | 0.2 | Negigigle Adverse | 66.7 | 1.1 | Negigigle Adverse | 52.8 | 53.9 | 53.8 |
| 81, HILTON HEIGHTS | Dweling | ${ }^{65.6}$ | 66.9 6 | $\frac{65.8}{658}$ | 0.2 | $\frac{\text { Negligible Adverse }}{\text { Negioigle Adverse }}$ | 66.7 66.7 | ${ }_{1.1}^{1.1}$ | Negiligle Adverse | 52.8 <br> 52.8 | 53.9 53.9 | 53.8 538 |
| ${ }^{\text {82, }}$ 8, HILTON HEIGHTS | Dwelling | 65.6 | 66.9 | 65.8 | 0.2 | Neogigiole Adverse | 66.7 | ${ }_{1}^{1.1}$ | Neoligioble Adverse | 52.8 | 53.9 | ${ }_{53.8}^{53.8}$ |
| 84, HLTON HEIGHTS | Dwelling | 60.3 | 61.6 | 60.4 | 0.1 | Negigioble Adverse | 61.4 | 1.1 | Negiligile Adverse | 48.0 | 49.2 | 49.0 |
| 85, HLTTON HEIGHTS | Dwelling | 60.3 | 61.6 | 60.4 | 0.1 | Negigigile Adverse | 61.4 | 1.1 | Negigigile Adverse | 48.0 | 49.2 | 49.0 |
| 86, HLTTON HEIGHTS | Dwelling | 60.3 | 61.6 | 60.4 | 0.1 | Negigigile Adverse | 61.4 | 1.1 | Negigiolile Adverse | 48.0 | 49.2 | 49.0 |
| 87, HLTON HEIGHTS | Dwelling | 60.3 | 61.6 | 60.4 | 0.1 | Negiligile Adverse | 61.4 | 1.1 | Negiligibe Adverse | 48.0 | 49.2 | 49.0 |
| 88, HLTTON HEIGHTS | Delling | 55.2 | 56.5 | ${ }_{55.3}^{55}$ | 0.1 | Negligible Beneficical | ${ }_{56.3}^{56}$ | 1.1 | Negigigible Adverse | 43.4 | 44.6 | 44.4 |
| 89, HITTON HEIGHTS | Dweling | ${ }_{55.2}^{5}$ | 56.5 | ${ }_{55.3}^{57}$ | 0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negilioble Adverse }}$ | 56.3 | 1.1 <br> 3 <br> 1 | Negiligible Adverse | 43.4 | ${ }_{4}^{4.6}$ | 44.4 479 |
| 9, 90, HILTTON HEEIGIGTS | ${ }^{\text {Dwelling }}$ Dowling | ${ }_{55.2}^{55.0}$ | ${ }_{56.5}^{66.5}$ | ${ }_{55.3}^{55.1}$ | 0.1 | Negligibile Aenerificial | ${ }_{56.3}^{66.3}$ | ${ }_{1}^{1.1}$ | Neogioiole Adverserse | ${ }_{43.4}^{43.4}$ | $\stackrel{48.9}{44.6}$ | $\stackrel{44.4}{44.4}$ |
| 91, HILTON HEIGHTS | Dwelling | ${ }_{55.2}$ | 56.5 | 55.3 | 0.1 | Negligible Beneficiolil | 56.3 | 1.1 | Neoligible Adverse | 43.4 | 44.6 | 44.4 |
| 92, HILTON HEIGHTS | Dwelling | 53.6 | 54.9 | 53.7 | 0.1 | Negigioble Adverse | 54.7 | 1.1 | Negligible Adverse | 42.0 | 43.1 | 43.0 |
| 93, HILTON HEIGHTS | Dweling | 53.7 | 55.0 | 53.8 | 0.1 | Negiligiole Beneifical | 54.8 <br> 5.8 | 1.1 | Negigiobio Adverse | ${ }^{42.1}$ | ${ }^{43.2}$ | ${ }^{43.1}$ |
| 94, HITOONHEIGHTS | Dwelling | ${ }_{53,7}^{53.7}$ | 55.0 | 㐌5.88 | ${ }_{0.1}^{0.1}$ | Negiligiole Beneficial | 54.8 54.8 | ${ }_{1.1}^{1.1}$ | Negigigib Adverse | ${ }_{42.1}^{42.1}$ | ${ }_{43.2}^{43.2}$ | ${ }_{43.1}^{43.1}$ |
| 96, HLTON HEIGHTS | Dwelling | 53.7 | 55.0 | 53.8 | 0.1 | Negligible Beneficial | 54.8 | 1.1 | Negigiolile Adverse | 42.1 | 43.2 | 43.1 |
| 97, HILTON HEIGHTS | Deelling | 54.2 | 55.5 | 54.3 | 0.1 | Negligible Beneficial | 55.3 | 1.1 | Negigioble Adverse | 42.5 | 43.7 | 43.5 |
| 98, HILTON HEIGHTS | Deeling | 53.7 | 55.0 | 53.8 | 0.1 | Negligible Beneficial | 54.8 | 1.1 | Negligible Adverse | 42.1 | 43.2 | 43.1 |
| 99, HILTON HEIGHTS | Weling | ${ }_{53.7}^{59}$ | 55.0 | 53.8 | ${ }^{0.1}$ | Negligible Beneficial | 54.8 <br> 5.5 | ${ }_{1}^{1.1}$ | Negligiole Adverse | ${ }_{8}^{42.1}$ | 43.2 | ${ }_{4}^{43.1}$ |
| The Lodace, 69, hilton place | Sericed Apartments | 48.7 | 52.1 | 48.8 | 0.1 | Negligibe Beneficial | 51.5 | ${ }_{2}^{2.8}$ | Negligible Aaverse | - 37.6 | 40.6 | ${ }^{40.1}$ |
| 10, HILTONPLACE | Deeling | 63.0 | 64.1 | 63.0 | 0.0 | No Change | 64.0 | 1.1 | Negigigibile Adverse | 50.4 | 51.4 | 51.3 <br> 50.5 |
| 12, HLITONPLACE | Dwelling | ${ }_{6}^{62.0}$ | ${ }^{632.2}$ | ${ }_{61.4}^{62.0}$ | ${ }_{0.1}^{0.0}$ | Neogioibie Adverse | ${ }_{6}^{62.5}$ | 1.2 | Negigigibe Adverse | 49.5 48.9 | 50.6 50.1 | 50.5 50.0 |
| 16, HLLTON PLACE | Dwelling | 60.8 | 62.2 | 60.8 | 0.0 | No Change | 62.0 | 1.2 | Negligiole Adverse | 48.5 | 49.7 | 49.5 |
| 18, HLLTON PLACE | Dwelling | 60.4 | 61.9 | 60.4 | 0.0 | No Change | 61.7 | 1.3 | Negigigibe Adverse | 48.1 | 49.4 | 49.3 |
| 20, HLLTON PLACE | Wwelling | 60.4 | 61.9 | 60.5 | 0.1 | Negigigile Adverse | 61.7 | 1.3 | Negigigibe Adverse | 48.1 | 49.4 | 49.3 |
| 22, HLITONPLACE | Dweling | 59.7 | ${ }_{61.3}^{613}$ | 59,7 | 0.0 | No Change | ${ }_{61.1}^{61 .}$ | 1.4 1.4 | Negigigibe Adverse | 47.5 | 48.9 | 48.7 |
| 26, HLLTON PLACE | Owelling | 59.2 | 60.9 | 59.2 | 0.0 | No Change | 60.7 | 1.5 | Negligible Adverse | 47.0 | 48.5 | 48.4 |
| 28, HLLTON PLACE | Deelling | 59.2 | 60.9 | 59.2 | 0.0 | No Change | 60.7 | 1.5 | Negiligibe Adverse | 47.0 | 48.5 | 48.4 |
| 30, HLTTON PLACE | welling | 58.5 | 60.5 | 58.5 | 0.0 | No Change | 60.2 | 1.7 | Negigigio Adverse | 46.4 | 48.2 | 47.9 |
| 32, HILTTON PLACE | weling | 58.5 |  | 58.5 | 0.0 |  |  |  | Negigigile Aaverse |  |  |  |
| 34, HLTTONPLACE | weling | 57.5 | 59.7 |  | 0.0 | hange | 59.4 | 1.9 |  | 45.5 | . 5 |  |
| 36, HLITONPACE | Oweling | ${ }_{56.6}$ | ${ }_{59.1}^{59.1}$ | ${ }_{56.7}^{56}$ | ${ }_{0}^{0.1}$ | Neoligione Adverse | ${ }_{58.8}^{59.4}$ | ${ }_{2}^{1.8}$ | Negigigib Adverse | ${ }_{44.6}^{45}$ | 46.9 | 46.7 |
| 40, HLTTON PLACE | Dwelling | 56.6 | 59.1 | 56.7 | 0.1 | Negigioble Adverse | 58.8 | 2.2 | Negligible Adverse | 44.7 | 46.9 | 46.7 |
| 42, HLLTON PLACE | Deelling | 55.6 | 58.4 | 55.7 | 0.1 | Negigiole Adverse | 58.0 | 2.4 | Negiligibe Adverse | 43.8 | 46.3 | 45.9 |
| 44, HLITONPLACE | Dwelling | 55.6 54.5 | 58.4 57.7 | ${ }^{55.7} 5$ | ${ }_{0}^{0.1}$ | Negigiole Adverse | 58.0 57.3 | ${ }^{2.4}$ | Negigioble Adverse | ${ }_{4}^{43.8}$ | ${ }_{46.3}^{45.7}$ | 45.3 |
| 48, HLLTON PLACE | Dwelling | 54.5 | 57.7 | 54.6 | 0.1 | Negigigile Adverse | 57.3 | 2.8 | Negligible Adverse | 42.8 | 45.7 | 45.3 |
| 50, HILTON PLACE | Dwelling | 54.0 | 57.3 | 54.0 | 0.0 | No Change | 56.9 | 2.9 | Negigigible Adverse | 42.3 | 45.3 | 44.9 |
| 52. HLTTON PLACE | Dwelling | $\stackrel{54.0}{53.6}$ | 57.3 57.2 | $\stackrel{54.0}{53.7}$ | 0.0 | $\frac{\text { No Change }}{\text { Negigiole Adverse }}$ | 56.9 56.8 | ${ }_{3.2}^{2.9}$ | $\frac{\text { Negeligibe Adverse }}{\text { Minor Adverse }}$ | $\frac{42.3}{42.0}$ | 45.3 | 44.9 |
| 56, HILTON PLACE | Dwelling | 53.6 | 57.2 | 53.7 | 0.1 | Negigigile Adverse | 56.8 | 3.2 | Minor Adverse | 42.0 | 45.2 | 44.9 |
| 58, HLLTTONPLACE | Delling | 53.4 | 57.1 57.1 | ${ }_{53.5}^{53}$ | 0.1 | Negigigibe Adverse | ${ }_{56.7}^{56.7}$ | ${ }^{3.3}$ | Minor Adverse | 41.8 | 45.1 | 44.8 |
| 60, HLITONPLACE | Dwelling | 53.4 534 5 | 57.1 571 | 53.5 <br> 535 | ${ }_{0}^{0.1}$ | Negiligib Adverse | 56.7 | 3.3 33 | Minor Adverse | $\frac{41.8}{418}$ | 45.1 451 | 44.8 448 |
| 64, HILTON PLACE | Dwelling | 53.4 | 57.1 | 53.5 | 0.1 | Negiligile Adverse | 56.7 | 3.3 | Minor Adverse | 41.8 | 45.1 | 44.8 |
| 65, HLLTON PLACE | Dwelling | 53.8 | 57.0 | 53.9 | 0.1 | Negigigibe Adverse | 56.6 | 2.8 | Negigigile Adverse | 42.2 | 45.0 | 44.7 |
| 66 , HLTTONPLACE | Deelling | 53.3 |  |  |  | Negiligibe Adverse |  |  | Minor Adverse |  |  |  |
| 69, HLTTONPLACE | Oweling |  | 54.0 | 50.6 | 0.1 | Negigigio Adverse | 53.4 | 2.9 | Negiligile Adverse | ${ }^{39.2}$ | ${ }^{42.3}$ | 41.8 |
| 824, HLLTONPLACE | Dweeling | ${ }_{45.8}^{45}$ | ${ }_{4} 57.5$ | ${ }_{46.0}^{48.5}$ | ${ }_{0}^{0.2}$ | Negigigie Adverse | 473 | 1.5 | Negligiol Adverse | 35.1 | ${ }_{36.5}^{38.1}$ | ${ }_{36,3}^{38.6}$ |
| 86, HLTTON PLACE | Dwelling | 46.0 | 47.6 | 46.2 | 0.2 | Negigioble Adverse | 47.4 | 1.4 | Negligible Adverse | 35.1 | 36.6 | 36.4 |
| 88, HLLTON PLACE | Dwelling | 45.4 | 46.8 | 45.6 | 0.2 | Negigiole Adverse | 46.7 | 1.3 | Negigioble Adverse | 34.6 | 35.9 | 35.8 |
| 90, HLTTON PLACE | Dwelling | 46.9 483 | 49.6 520 | 47.0 483 | 0.1 | Negiligibic Adverse | $\frac{49.1}{512}$ | 2.2 29 | Negiligib Adverse | 35.9 372 | 38.4 40.5 | 37.9 398 |
| 92, HLITONPLACE | ${ }^{\text {Dweliling }}$ | ${ }^{48.4}$ | ${ }_{56.0}$ | ${ }_{51.5}$ | ${ }_{0}^{0.0}$ | Negoligiole Advarse | 51.2 55.1 | 2.9 3.7 | Negiligil Adverse | 37.2 40.0 | ${ }_{40.5}^{44.1}$ | 39.8 43.3 |
| 96, HLTTON PLACE | Dwelling | 53.0 | 58.3 | 53.0 | 0.0 | No Change | 57.2 | 4.2 | Minor Adverse | 41.4 | 46.2 | 45.2 |
| HLTON COURT, 1, HLTON ROAD | Deelling | 67.3 | 68.6 | 67.0 | -0.3 | Negligible Beneficial | 68.4 | 1.1 | Negligible Adverse | 54.3 | 55.5 | 55.3 |
| \|lilon COURT, 2, HLTON ROAD | Dweling | 67.3 673 | 68.6 68.6 | 67.0 670 | -0.3 | $\frac{\text { Negiligiole Beneficial }}{\text { Negioible }}$ | 68.4 68.4 | 1.1 1.1 | Negigiole Adverse | 54.3 | 55.5 <br> 55.5 | - ${ }_{\text {55.3 }}^{55}$ |
| HLTON COURT, 4, HLT TON ROAD | Dwelling | 67.3 | 68.6 | 67.0 | -0.3 | Negligible Beneficial | 68.4 | 1.1 | Negligible Adverse | 54.3 | 55.5 | 55.3 |
| HLTON COURT, 5, HLTON ROAD | Deelling | 67.3 | 68.6 | 67.0 | -0.3 | Negligible Beneficial | 68.4 | 1.1 | Negigible Adverse | 54.3 | 55.5 | 55.3 |
| HLTON COURT, 6, HLTON ROAD | Dwelling | 67.3 | 68.6 | 67.0 | -0.3 | Negligible Beneficial | 68.4 | 1.1 | Negigigile Adverse | 54.3 | 55.5 | 55.3 |
|  | Dwelling | ${ }^{67.3}$ | $\frac{68.6}{68.6}$ | $\frac{67.0}{67.0}$ | -0.3 <br> -0.3 | $\frac{\text { Negiligibe Beneficial }}{\text { Negligible }}$ Beneficial | 68.4 | $\frac{1.1}{1.1}$ | $\frac{\text { Negligible Adverse }}{\text { Nefligible Adverse }}$ | 54.3 54.3 | 55.5 <br> 5.5 | 55.3 55.3 |
| HLTION COURT, , , HLT TON ROAD | Dwelling | 67.3 | 68.6 | 67.0 | -0.3 | Negligible Benenicicial | 68.4 | 1.1 | Negigioble Adverse | 54.3 | 55.5 | 55.3 |
| Hilton Court, 10. , HLTION ROAD | Oweling | ${ }^{67.3}$ | 68.6 68.6 | ${ }^{67.0}$ | $\stackrel{-0.3}{-0.3}$ | $\frac{\text { Negligible Beneiticial }}{\text { Neglioibl }}$ Beneficial | 68.4 | ${ }_{1.1}^{1.1}$ | Negigigbe Adverse | 54.3 54.3 | 55.5 55.5 | 55.3 55.3 |
| HLITON COURT, 12, HLTTON ROAD | Dwelling | 67.3 | 68.6 | 67.0 | -0.3 | Negligible Beneficial | 68.4 | 1.1 | Negiligile Adverse | 54.3 | 55.5 | 55.3 |
| HLTON COURT, 13, HLTTON ROAD | Dwelling | 67.3 | 68.6 | 67.0 | -0.3 | Negligible Beneficial | 68.4 | 1.1 | Negigible Adverse | 54.3 | 55.5 | 55.3 |
| Hilton Court, | Dwelling | ${ }^{67.3}$ | ${ }_{68.6}^{68.6}$ | 67.0 | -0.3 | Negifigible Beeneficialial | 68.4 | ${ }_{1}^{1.1}$ | Negigigible Adverse | ${ }_{54.3}$ | 55.5 | 55.3 |
| $\frac{\text { HLTOON COURT, }}{}$ | Dweling | 67.3 673 | 68.6 | ${ }_{67.0}^{670}$ | -0.3 | Negligible Beneficial | 68.4 68.4 | ${ }_{1}^{1.1}$ | Negligile Adverse | 54.3 <br> 543 | 55.5 <br> 555 <br> 5 | 55.3 <br> 553 <br> 5 |
| HLITON COURT, 8 , HL HLTON ROAD | Dweliling | ${ }_{67.3}^{67}$ | ${ }^{686.6}$ | 67.0 | $\stackrel{-0.3}{-0.3}$ | Negiligiole Beneiticial | ${ }^{688.4}$ | 1.1 | Negligigile Adverse | ${ }_{54.3}$ | 55.5 | 55.3 |
| HLLTON COURT, 19, HLITTON ROAD | Dewling | 67.3 | 68.6 | 67.0 | -0.3 | Negligible Beneficial | 68.4 | 1.1 | Negigigibe Adverse | 54.3 | 55.5 | 55.3 |
|  | Dweling | ${ }^{67.3} 6$ | 68.6 68.6 | 67.0 67.0 | -0.3 -0.3 | Negiligiole Beneficial | ${ }^{68.4}$ | ${ }_{1}^{1.1}$ | Negigigie Adverse | ${ }_{54.3}^{54.3}$ | ${ }_{55.5}^{55.5}$ | ${ }_{55.3}^{55.3}$ |
| HLTON COURT, 22, HLTTON ROAD | welling | 67.3 | 68.6 | 67.0 | -0.3 | Negligible Beneficial | 68.4 | 1.1 | Negigigile Adverse | 54.3 | 55.5 | 55.3 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | Dм33 <br> Lnight,outside | DS33 <br> Lnight,outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| HILTON COURT, 23, HILTON ROAD | Dewling | 67.3 | 68.6 | 67.0 | -0.3 | Negligible Beneficical | 68.4 | 1.1 | Negligible Adverse | 54.3 | 55.5 | 55.3 |
| HLLTON COURT, 24, HLITTON ROAD | Dwelling | 67.3 | 68.6 | 67.0 | -0.3 | $\frac{\text { Negliable Beneficial }}{\text { Negligibl }}$ | 68.4 | 1.1 | Negligible Adverse | 54.3 | 55.5 | 55.3 <br> 5.3 |
| Hilton count, 25, HLTTON ROAD | Dweling | ${ }^{67.3}$ | 68.6 6 | ${ }^{67.0}$ | -0.3 | $\frac{\text { Negligiole Beneticial }}{\text { Negligibl }}$ Beneficial | 68.4 | ${ }_{1.1}^{1.1}$ | $\frac{\text { Negigigio Adverse }}{\text { Nefligible Adverse }}$ | 54.3 | 55.5 | ${ }_{55.3}^{55.3}$ |
| HLTTON COURT, 27, HLITON ROAD | Dwelling | 67.3 | 68.6 | 67.0 | -0.3 | Negligible Beneficioial | 68.4 | 1.1 | Negigigibe Adverse | 54.3 | 55.5 | ${ }^{55.3}$ |
| HLTTON COURT, 28, HLTTON ROAD | Dwelling | 67.3 | 68.6 | 67.0 | -0.3 | Negligible Beneficicial | 68.4 | 1.1 | Negiligible Adverse | 54.3 |  |  |
| HLTTON COURT, 29, HLITON ROAD | Dwelling | 67.3 | 68.6 | 67.0 | -0.3 | Negligible Beneficial | 68.4 | 1.1 | Negigiolie Adverse | 54.3 | 55.5 | 55.3 |
| HLTOON COURT, 30, HLLTON ROAD | Dwelling | 67.3 | 68.6 | 67.0 | -0.3 | Negligible Beneficial | 68.4 | 1.1 | Negligiole Adverse | 54.3 | 55.5 | 55.3 |
| HLTON COURT, 31, HLTTON ROAD | Dwelling | 67.3 | 68.6 | 67.0 | -0.3 | Negligible Beneficial | 68.4 | 1.1 | Negigioile Adverse | 54.3 | 55.5 | 55.3 |
| HLTON COURT, 32, HLLTON ROAD | Deeling | 67.3 | 68.6 | 67.0 | -0.3 | Negligible Beneficial | 68.4 | 1.1 | Negligible Adverse | 54.3 | 55.5 | 55.3 |
| HLTON COURT, 33, HLLTON ROAD | Deeling | 67.3 | 68.6 | 67.0 | -0.3 | Negligible Beneficial | 68.4 | 1.1 | Negiligile Adverse | 54.3 | 55.5 | 55.3 |
| HLTON COURT, 34, HLLTON ROAD | Deeling | 67.3 | 68.6 | 67.0 | -0.3 | Negligible Beneficial | 68.4 | 1.1 | Negigiolie Adverse | 54.3 |  | 55.3 |
| HLTON COURT, 35, HLTTON ROAD | Dwelling | 67.3 | 68.6 | 67.0 | -0.3 | Negligible Beneficial | 68.4 | 1.1 | Negigioile Adverse | 54.3 | 55.5 | 55.3 |
| HLTON COURT, 36, HLTTON ROAD | Dwelling | 67.3 | 68.6 | 67.0 | -0.3 | Negligible Beneficial | 68.4 | 1.1 | Negigiolie Adverse | 54.3 | 55.5 | 55.3 |
| HLTON COURT, 37, HLTTON ROAD | Dwelling | 67.3 | 68.6 | 67.0 | -0.3 | Negligible Beneficial | 68.4 | 1.1 | Negiligile Adverse | 54.3 | 55.5 | 55.3 |
| HLTTON COURT, 38, HILTON ROAD | Dwelling | 67.3 | 68.6 | 67.0 | -0.3 | Negligible Beneficial | 68.4 | 1.1 | Negiligile Adverse | 54.3 | 55.5 | 55.3 |
| HLLTON COURT, 39, HILTON ROAD | Delling | 67.3 | 68.6 | 67.0 | -0.3 | Negligible Beneficial | 68.4 | 1.1 | Negiligiole Adverse | 54.3 | 55.5 | 55.3 |
| HLLTON COURT, 40, HLTTON ROAD | Dwelling | ${ }^{67.3}$ | 68.6 | 67.0 | -0.3 | Negligible Beneficial | 68.4 | 1.1 | Negligible Adverse | 54.3 | 55.5 | 55.3 |
| HLTON COURT, 41, HLLTON ROAD | Deelling | 67.3 | 68.6 | 67.0 | -0.3 | Negligible Beneficial | 68.4 | 1.1 | Negligible Adverse | 54.3 | 55.5 | 55.3 |
| HilTon Court, 42, HLLTON ROAD | Dwelling | 67.3 | 68.6 | 67.0 | -0.3 | Negligible Beneficial | 68.4 | 1.1 | Negligible Adverse | 54.3 | 55.5 | 55.3 |
| HILTON COURT, 43, HLTTON ROAD | Dwelling | 67.3 67.3 | 68.6 68 | ${ }^{67.0}$ | -0.3 -0.3 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ | 68.4 68.4 | ${ }_{1.1}^{1.1}$ | Negiligib Adverse | 54.3 | 55.5 | 55.3 |
| HILTON COURT, 45, HLTTON ROAD | Dwelling | 67.3 | 68.6 | 67.0 | -0.3 | Negligible Beneficioial | 68.4 | 1.1 | Neoligiole Adverse | 54.3 | 55.5 | 55.3 |
| HLTON COURT, 46, HLITTON ROAD | Delling | 67.3 | 68.6 | 67.0 | -0.3 | Negligible Beneficial | 68.4 | 1.1 | Negligible Adverse | 54.3 | 55.5 | 55.3 |
| HILTON COURT, 47, HLLTON ROAD | Owelling | 67.3 |  |  |  | Negligible Beneficial |  |  | Negigioble Adverse |  | 55.5 |  |
| HILTON COURT, 48, HLITTON ROAD | Dwelling | $\frac{67.3}{673}$ | $\frac{68.6}{68 .}$ | $\frac{67.0}{670}$ | -0.3 | $\frac{\text { Negliable Beneficial }}{\text { Negligible }}$ | 68.4 68 | $\frac{1.1}{11}$ | Negiligile Adverse | 54.3 543 | $\begin{array}{r}55.5 \\ 555 \\ \hline\end{array}$ | 55.3 <br> 553 <br> 5.3 |
| HLTON Count, 99, HLTTON ROAD | Dwelling | 67.3 67.3 | 68.6 | ${ }^{67.0}$ | $\stackrel{-0.3}{-0.3}$ | Negligible Beneficioal | 68.4 | 1.1 1.1 | $\frac{\text { Negigigie Adverse }}{\text { Neoligiole Adverse }}$ | 54.3 | 55.5 55.5 | 55.3 <br> 553 <br> 5. |
| HLTOON COURT, 51, HLTTON ROAD | Dwelling | 67.3 | 68.6 | 67.0 | -0.3 | Negligible Beneficial | 68.4 | 1.1 | Negiligiole Adverse | 54.3 | 55.5 | 55.3 |
| HLTON COURT, 52, HLTTON ROAD | Deeling | 67.3 | 68.6 | 67.0 | -0.3 | Negligible Beneficial | 68.4 | 1.1 | Negiligile Adverse | 54.3 | 55.5 | 55.3 |
| HLTTON COURT, 53, HLITON ROAD | Dwelling | 67.3 | 68.6 | 67.0 | -0.3 | Negligible Beneficial | 68.4 | 1.1 | Negligible Adverse | 54.3 | 55.5 | 55.3 |
| HLLTON COURT, 54, HLLTON ROAD | Dwelling | 67.3 | 68.6 | 67.0 | -0.3 | Negligible Beneficial | 68.4 | 1.1 | Negligiole Adverse | 54.3 | 55.5 | 55.3 |
|  | Dweling | 67.3 63.0 | 68.6 67.1 | ${ }_{64.0}^{67.0}$ | -0.3 1.1 | Negligible Beneficial | 68.4 | ${ }_{4}^{1.1}$ | $\frac{\text { Negiligile Adverse }}{\text { Minor Adverse }}$ | 54.3 50.4 | 55.5 54.1 | 55.3 |
| 10, HILTON ROAD | Dwelling | 54.4 | 60.7 | ${ }_{54.5}$ | 0.1 | Negigioble Adverse | 59.4 | 5.0 | Moderate Adverse | ${ }_{42.7}$ | 48.4 | 47.2 |
| 100, HLTON ROAD | Dwelling | 60.1 | 63.6 | 59.9 | -0.2 | Negligible Beneficial | 62.1 | 2.0 | Negigioile Adverse | 47.8 | 51.0 | 49.6 |
| 101, HILTON ROAD | $\frac{\text { Dwelling }}{\text { Dweling }}$ | 58.0 58.4 | 62.5 62.9 | 57.4 58.0 | -0.6 -0.4 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ | 60.3 60.8 | ${ }_{2.3}^{2.4}$ | Negligile Adverse | 45.9 46.3 | 50.0 50.3 | 48.0 48.5 |
| 103, HLTITON ROAD | Dwelling | 58.0 | 62.5 | 57.4 | -0.6 | Negligible Beneficial | 60.3 | 2.3 | Negiligiole Adverse | 45.9 | 50.0 | 48.0 |
| 104, HILTON ROAD | Dweling | 58.4 58.2 | 62.9 62.6 | 58.0 57.5 | -0.4 -0.7 | $\frac{\text { Negliable Beneficial }}{\text { Negligible }}$ | 60.8 60.4 | ${ }_{2}^{2.4}$ | Negiligile Adverse | 46.3 46.1 | 50.3 50.1 | 48.5 48.1 |
| 106, HLTTON ROAD | Dwelling | 58.4 | 62.9 | 58.0 | -0.4 | Negligible Beneficicial | 60.8 | 2.4 | Negiligible Adverse | 46.3 | 50.3 | 48.5 |
| 107, HLTTON ROAD | Dwelling | 58.2 | 62.6 | 57.6 | -0.6 | Negligible Beneficial | 60.5 | 2.3 | Negligible Adverse | 46.1 | 50.1 | 48.2 |
| 108, HILTON ROAD | Dwelling | 58.4 | 62.9 | 58.0 | -0.4 | Negligible Beneficial | 60.8 | 2.4 | Negigioble Adverse | 46.3 | 50.3 | 48.5 |
| - 109 , HILTON ROAD | Dwelling | 58.1 58.2 | ${ }_{62.3}^{62.5}$ | 57.5 57.5 | -0.6 -0.7 | Negliaible Beneficial | 60.3 607 | 2.2 25 | Negiligile Adverse | 46.0 46.1 | 50.0 507 | 48.0 48.4 |
| 112, HILTON ROAD | Dwelling | 58.2 | 63.3 | 57.5 | -0.7 | Negligible Beneficioial | 60.7 | 2.5 | Neoligiole Adverse | 46.1 | 50.7 | 48.4 |
| 114. HLTTON ROAD | Dwelling | 58.2 | 63.3 | 57.5 | -0.7 | Negligible Beneficial | 60.7 | 2.5 | Negigioble Adverse | 46.1 | 50.7 | 48.4 |
| 116, HLTTON ROAD | Dwelling | 58.2 | 63.3 | 57.5 | -0.7 | Negligible Beneficial | 60.7 | 2.5 | Negigiolie Adverse | 46.1 | 50.7 | 48.4 |
| 118. HLTTON ROAD | Dwelling | 58.3 | 63,4 | 57.5 | -0.8 | Negligible Beneficical | 60.7 | 2.4 | Negiligible Adverse | 46.2 | 50.8 | $\frac{48.4}{47}$ |
| ${ }^{12}$ 12, HLITON ROAD | Dwelling | 54.4 58.3 | 60.7 63.4 | 54.5 57.5 | 0.1 -0.8 | Negligible Adverse | 59.4 60.7 | 5.0 2.4 | $\frac{\text { Moderate Adverse }}{\text { Negigiole Adverse }}$ | 42.7 46.2 | 48.4 50.8 | 47.2 48.4 |
| 122, HITTON ROAD | Dwelling | 58.3 | 63.4 | 57.5 | -0.8 | Negligible Beneficial | 60.7 | 2.4 | Negiligile Adverse | 46.2 | 50.8 | 48.4 |
| 124, HLTON ROAD | Dwelling | 58.3 | 63.4 | 57.5 | -0.8 | Negligible Beneficial | 60.7 | 2.4 | Negigiolie Adverse | 46.2 | 50.8 | 48.4 |
| 126, HLTOUN ROAD | Dwelling | 58.7 | 63.7 | 57.9 | -0.8 | Negligible Beneficial | 61.1 | 2.4 | Negligible Adverse | 46.6 | 51.1 | 48.7 |
| 128. HLTOON ROAD | Dwelling | 58.7 53.7 | $\frac{63.7}{60.1}$ | 57.9 53.7 | -0.8 | $\frac{\text { Negligible Beneficial }}{\text { No Change }}$ | 61.1 58.6 | 2.4 | $\frac{\text { Negligigile Adverse }}{\text { Minor Adverse }}$ | $\frac{46.6}{42.1}$ | 51.1 47.8 | $\frac{48.7}{46.5}$ |
| 130, HILTON ROAD | Dwelling | 58.7 | 63.7 | 57.9 | -0.8 | Negligible Beneficial | 61.1 | 2.4 | Negigioile Adverse | 46.6 | 51.1 | 48.7 |
| 132. HLTON ROAD | Dwelling | 58.7 54.1 | 63.7 60.6 | 57.9 | -0.8 0.1 | $\frac{\text { Negligible Beneficial }}{\text { Nefiliolie Adverse }}$ | 61.1 59.2 | 2.4 5.1 | Negigiolie Adverse | 46.6 42.4 | 51.1 48.3 | 48.7 47.0 |
| 142, HLTOON ROAD | Dwelling | 63.1 | 64.6 | 62.8 | -0.3 | Negligible Beneficial | 64.4 | 1.3 | Negigiolie Adverse | 50.5 | 51.9 | 51.7 |
| 144, HILTON ROAD | Dwelling | 63.1 | 64.6 | 62.8 | -0.3 | Negligible Beneficial | 64.4 | 1.3 | Negigiolie Adverse | 50.5 | 51.9 | 51.7 |
|  | Dwelling | 63.1 | 64.6 | 62.8 | -0.3 | Negligible Beneficial | 64.4 | 1.3 | Negigioile Adverse | 50.5 | 51.9 | 51.7 |
| $\frac{148 . \text { HLITTON ROAD }}{\text { 15 HITON }}$ | Dwelling | 63.1 537 | 64.6 | 62.8 537 | -0.3 | Negligible Beneficial | 64.4 58. | 1.3 | Negligiolie Adverse | 50.5 42. | 51.9 478 | 51.7 465 |
| $1{ }^{150, ~ H L I T O N ~ R O A D ~}$ | ${ }^{\text {Dwelling }}$ | 65.3 | 66.7 | 65.0 | -0.3 | Negligoble Beeneficial | 66.4 | ${ }_{1}^{1.1}$ | Negigigible Adverse | 52.5 | 53.8 | 53.5 |
| 152, HLITON ROAD | Dwelling | 65.3 | 66.7 | 65.0 | -0.3 | Negligible Beneficial | 66.4 | 1.1 | Negigioile Adverse | 52.5 | 53.8 | 53.5 |
| 154. HILTOON ROAD | Dwelling | 65.3 | 66.7 | 65.0 | -0.3 | Negligible Beneficial | 66.4 | 1.1 | Negligile Adverse | 52.5 | 53.8 | 53.5 5.5 |
| 156, HLTON ROAD | Dweling | 65.3 54.1 | ${ }^{66.7}$ | 65.2 | -0.1 | Negigiobie Adverse | 66.2 | ${ }_{5}^{1.1}$ | Nopidigate Adverse | 52. 42.4 | 53.8 48.3 | 53.0 47.0 |
| 17, HLLTON ROAD | Dwelling | 54.1 | 60.4 | 54.2 | 0.1 | Negigigile Adverse | 59.0 | 4.9 | Minor Adverse | 42.4 | 48.1 | 46.8 |
| 18, HLTTON ROAD | Delling | 54.1 | 60.7 | 54.2 | 0.1 | Negligible Adverse | 59.2 | 5.1 | Moderate Adverse | 42.4 | 48.4 | 47.0 |
| $\frac{19, \text { HLITON ROAD }}{\text { 2. HITON ROAD }}$ | Dwelling | 54.1 63.6 | 60.4 67.4 | 54.2 65.1 | 0.1 1.5 | Negigiole Adverse | 59.0 | 4.9 | Minor Adverse | $\stackrel{42.4}{51.0}$ | $\stackrel{48.1}{54.4}$ | 46.8 55.1 |
| 20, HILTON ROAD | Dwelling | 54.1 | 60.7 | 54.2 | 0.1 | Negligible Adverse | 59.2 | 5.1 | Moderate Adverse | 42.4 | 48.4 | 47.0 |
| $\frac{21, \text { HLT TON ROAD }}{}{ }^{23}$ HUTTON ROAD | Dwelling | 54.1 54 | 60.4 | 54.2 | 0.1 | Negligible Adverse | 59.0 589 | 4.9 | Minor Adverse | ${ }_{42.4}^{42.4}$ | 48.1 | 46.8 |
| $\frac{23, \text { LILTON ROAD }}{\text { 25, HLTON ROAD }}$ | Dwelling | 54.0 54.0 | 60.3 60.2 | 54.1 54.1 | 0.1 0.1 | $\frac{\text { Negigigib Adverse }}{\text { Negilible Adverse }}$ | 58.9 58.8 | 4.9 | $\frac{\text { Minor Adverse }}{\text { Minor Adverse }}$ | ${ }_{42.3}^{42.3}$ | 48.0 47.9 | 46.7 46.7 |
| 27, HLITON ROAD | Dwelling | 54.0 | 60.2 | 54.0 | 0.0 | No Change | 58.8 | 4.8 | Minor Adverse | 42.3 | 47.9 | 46.7 |
| 29, HLTTON ROAD | Dwelling | $\begin{array}{r}54.1 \\ 558 \\ \hline\end{array}$ | $\frac{60.3}{622}$ | 54.1 56.1 | 0.0 | No Change | $\frac{58.9}{608}$ | $\stackrel{4.8}{50}$ | Minor Adverse | 42.4 440 | 48.0 | 46.7 485 |
| 31, HILTON ROAD | Dwelling | 54.1 | 60.3 | 54.2 | 0.1 | Negligible Adverse | 58.9 | 4.8 | Minor Adverse | 42.4 | 48.0 | 46.7 |
| 33, HLTTON ROAD | Dwelling | 54.3 | 60.3 | 54.4 | 0.1 | Negigigile Adverse | 59.0 | 4.7 | Minor Adverse | 42.6 | 48.0 | 46.8 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 <br> Lnight,outside | DM33 <br> Lnight,outside | $\begin{gathered} \text { DS33 } \\ \text { Lnight,outside } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 35 , HITTON ROAD | Dwelling | 54.3 | 60.3 | 54.4 | 0.1 | Negigigile Adverse | 59.0 | 4.7 | Minor Adverse | 42.6 | 48.0 | 46.8 |
| 37, HLLTON ROAD | Oweling | 53.9 | 60.2 | 54.0 | 0.1 | Negiligibe Adverse | 58.8 | 4.9 | Minor Adverse | 42.2 | 47.9 | 46.7 |
| 39, HLLTON ROAD | Dwelling | 54.0 | 60.2 | 54.0 | 0.0 | No Change | 58.8 | 4.8 | Minor Adverse | 42.3 | 47.9 | 46.7 |
| 4, HLLTON ROAD | Dwelling | 63.6 | 67.4 674 | 65.1 | 1.5 | Minor Adverse | 68.2 | 4.6 | Minor Adverse | $\stackrel{51.0}{510}$ | 54.4 54 | 55.1 |
| 4, HLLTON ROAD | Deeling | 63.6 | 67.4 | 65.1 | 1.5 | Minor Adverse | 68.2 | 4.6 | Minor Adverse | 51.0 | 54.4 | 55.1 |
| 4. HLLTON ROAD | Delling | ${ }_{54.6}^{63.6}$ | 67.4 | ${ }_{65.1}^{651}$ | 1.5 | Minor Adverse | ${ }_{56.2}$ | 4.6 | Minor Adverse | 51.0 | 54.4 | 55.1 |
| 41, HLLTON ROAD | Dwelling | 54.0 | 60.3 | 54.0 | 0.0 | No Change | 58.8 | 4.8 | Minor Adverse | 42.3 | 48.0 | 46.7 |
| 43, HLLTON ROAD | Dwelling | 54.0 | 60.3 | 54.0 | 0.0 | No Change | 58.8 | 4.8 | Minor Adverse | 42.3 | 48.0 | 46.7 |
| 45, HLLTON ROAD | Deelling | 50.7 | 56.3 | 50.7 | 0.0 | No Change | 55.1 | 4.4 | Minor Adverse | 39.4 | 44.4 | 43.3 |
| 47 , HLTTON ROAD | Dwelling | 50.5 | 56.1 | 50.5 | 0.0 | No Change | 54.9 | 4.4 | Minor Adverse | 39.2 | 44.2 | 43.1 |
| 49, HILTON ROAD | Dwelling | 45.8 | 49.0 | 45.8 | 0.0 | No Change | 48.4 | 2.6 | Negigiolie Adverse | 35.0 | 37.8 | 37.3 |
| $\frac{5 \text {, HLTON ROAD }}{51}$ | Dweling | 55.8 449 | 62.2 46.4 | 56.1 450 | 0.3 | Negigigle Adverse | 60.8 4.8 | 5.0 | Moderate Adverse | 44.0 34 | 49.7 <br> 35 | 48.5 |
| 51, HLITON ROAD | Oweling | 44.9 50.8 | 46.4 | 45.0. | 0.1 | Negigigle Adverse | 46.2. | ${ }_{4}^{1.3}$ | Negigigle Adverse | 34.1 39.5 | 35.5 44.5 | 35.3 43.4 |
| 54, HLTTON ROAD | Dwelling | 54.0 | 60.5 | 54.0 | 0.0 | No Change | 59.0 | 5.0 | Moderate Adverse | 42.3 | 48.2 | 46.8 |
| 55. HILTON ROAD |  |  | 56.6 | 50. | 0.0 |  | 55.4 | 4.5 | Minor Adverse |  |  |  |
| 56, HLTTON |  | 54 | 60.5 | 54.0 | 0.0 | nge | 59.0 | 5.0 | Moderate Adverse | 42.3 | B. 2 | 46.8 |
| 57, HLTTON ROAD | elling | 46.6 | 49.9 | 46.6 | 0.0 | No Change | 49.2 | 2.6 | Negiligile Adverse | 35.7 | 38.6 | 38.0 |
| 58 , HLLTON ROAD | Dwelling | 54.1 | 60.5 | 54.1 | 0.0 | No Change | 59.0 | 4.9 | Minor Adverse | 42.4 | 48.2 | 46.8 |
| 59, HLTTON ROAD | Oweling | 45.5 | 47.0 | 45.6 | 0.1 | Negligible Adverse | 46.8 | 1.3 | Negligible Adverse | 34.7 | 36.0 | 35.9 |
| 6 6. HLTTON ROAD | Dwelling | 54.6. | 60.9 | 54.8 54 | 0.2 | Negigioble Adverse | 59.6 | 5 | Moderate Adverse | 42.9 | 48.5 | 47.4 |
| 60, HLLTON ROAD | Dwelling | 54.1 | 60.5 | 54.1 5.1 | 0.0 | No Change | 59.0 59 | 4.9 | Minor Adverse | ${ }_{4}^{42.4}$ | 48.2 | 46.8 |
| ${ }^{\text {64, Hilton Road }}$ 62, HLTON ROAD | ${ }^{\text {Dwelling }}$ Dowling | 55.0 54.1 | ${ }_{60.3}^{60.6}$ | 55.0 54.1 | 0.0 | ${ }^{\text {No Co Cange }}$ No Change | 59.8 59.1 | 4.8 5.0 | Monder Adverse Adverse | ${ }^{43.2} 4$ | ${ }_{48.9}^{48.9}$ | 47.6 |
| 63, HLTTON ROAD | Dwelling | 55.0 | 61.3 | 55.0 | 0.0 | No Change | 59.8 | 4.8 | Minor Adverse | 43.2 | 48.9 | 47.6 |
| 64, HILTON ROAD | Dwelling | 54.1 | 60.6 | 54.1 | 0.0 | No Change | 59.1 | 5.0 | Moderate Adverse | 42.4 | 48.3 | 46.9 |
| 65, HLLTON ROAD | Dwelling | ${ }_{55.3}^{5}$ | 61.5 | 55.3 | ${ }_{0}^{0.0}$ | $\frac{\text { No Change }}{\text { No Change }}$ | 60.0 59.4 | ${ }_{4}^{4.7}$ | Minor Adverse | ${ }_{4}^{43.5}$ | 49.1 | ${ }_{47.7}^{47}$ |
| 66, HLLTON ROAD | ${ }^{\text {Dwellilg }}$ Oweling | 54.6 55.3 | $\frac{60.9}{61.5}$ | 54.6 55.3 | 0.0 | ${ }^{\text {No }}$ No Changenge | 59.4 | 4.7 | Minor Adverse | 43.5 | 49.1 | 47.7 |
| 68, HLTTON ROAD | Wwelling | 54.6 | 60.9 | 54.6 | 0.0 | No Change | 59.4 | 4.8 | Minor Adverse | 42.9 | 48.5 | 47.2 |
| $\frac{69 . \text { HLITON ROAD }}{7}$ | Dwelling | 55.5 556 | 61.5 | 55.5 558 | 0.0 | No Change | 60.1 | 4.6 | Minor Adverse | 43.7 | 49.1 | ${ }_{4}^{47.8}$ |
| 70, HLLTON ROAD | Dwelling | 54.0 | 59.9 | ${ }_{55.9}$ | -0.1 | Negligible Beneficial | ${ }_{58.5}$ | 4.5 | Minor Adverse | 42.3 | 47.6 | 46.4 |
| 71, HLLTON ROAD | Dwelling | 55.5 | 61.5 | 55.5 | 0.0 | No Change | 60.1 | 4.6 | Minor Adverse | 43.7 | 49.1 | 47.8 |
| 72, HLLTON ROAD |  | 54.0 | 59.9 | 53.9 |  | Negligible Beneficicial | 58.5 | 4.5 | Minor Adverse | ${ }^{42.3}$ | 47.6 | 46.4 |
| 73, HLITON ROAD | weling | 55.8 | 61.6 59 | 55.8 | 0.0 | No Chan | 60.2 59 | 4.4 | Minor Adverse | 44.0 | 49.2 |  |
| 74, HLITTON ROAD | Dwelling | $\begin{array}{r}54.0 \\ 55 \\ 5 \\ \hline\end{array}$ | 59.9 | 54.0 55 5 | 0.0 | No Change | 58.5 | 4.5 | Minor Adverse | ${ }_{42.3}$ | ${ }^{47.6}$ | 46.4 |
| 75, HLLTTON ROAD | Dweling | 55.8 540 | 61.6 | $\begin{array}{r}55.8 \\ 540 \\ \hline\end{array}$ | ${ }_{0}^{0.0}$ | $\frac{\text { No Change }}{\text { No Change }}$ | 60.2 | $\stackrel{4.4}{4.5}$ | Minor Adverse | 44.0 | 49.2 | 47.9 |
| 76, HLITON ROAD | Dwelling | ${ }_{56.3}^{54.0}$ | ${ }_{691.7}^{61.9}$ | ${ }_{56.3}^{56.0}$ | 0.0 | No Change | ${ }_{60.3}^{56.5}$ | 4.0 | Minor Adverse | ${ }_{42.4}^{44.4}$ | ${ }_{49.3}^{49.6}$ | 46.4 |
| 78, HLTTON ROAD | Dwelling | 55.6 | 61.2 | 55.5 | -0.1 | Negligible Beeneficial | 59.8 | 4.2 | Minor Adverse | 43.8 | 48.8 | 47.6 |
| 79, HLITON ROAD | Dwelling | 56.3 | 61.7 | 56.2 | -0.1 | Negligible Beneficial | 60.3 | 4.0 | Minor Adverse | 44.4 | 49.3 | 48.0 |
| 8 8, HLTON ROAD | Dwelling | 54.6 | 60.9 | 54.8 | 0.2 | Negigioble Adverse | 59.6 | 5.0 | Moderate Adverse | 42.9 | 48.5 | 47.4 |
| $\frac{80 . \text { HLTTON ROAD }}{81, ~ H L T O N ~ R O A D ~}$ | Dwelling | 55.6 56.8 | $\frac{61.2}{618}$ | 55.5 | -0.1 | $\frac{\text { Negligible Beneticial }}{\text { No Change }}$ | 59.8 | ${ }_{3.2}^{4.2}$ | $\frac{\text { Minor Adverse }}{\text { Minor Adverse }}$ | $\frac{43.8}{449}$ | $\frac{48.8}{494}$ | 47.6 |
| 82, HLTTON ROAD | Dwelling | 56.0 | 61.3 | 55.9 | -0.1 | Negligible Beneficial | 59.9 | 3.9 | Minor Adverse | 44.1 | 48.9 | 47.6 |
| 83, HLTTON ROAD | welling | 56.8 | 61.8 | 56.8 | 0.0 | No Change | 60.5 | 3.7 | Minor Adverse | 44.9 | 49.4 | 48.2 |
| 84, HLLTON ROAD | Dwelling | 56.9 | 66.4 | 657.9 | 0.1 | ${ }_{\text {Negegiligible }}^{\text {Benenitical }}$ | 59.9 | 1.9 <br> 1 | Neoligiole Adverse | ${ }_{53}^{44.9}$ | ${ }_{55.3}^{48.9}$ | 55.0 |
| 85, HILTON ROAD | Dwelling | 57.9 | 62.2 | 57.8 | -0.1 | Negligible Beneficial | 61.0 | 3.1 | Minor Adverse | 45.8 | 49.7 | 3.6 |
| 86, HLTTON ROAD | Deelling | 57.5 | 61.8 | 57.4 | -0.1 | Negligible Beneficial | 60.6 | ${ }^{3.1}$ | Minor Adverse | 45.5 | 49.4 | 48.3 |
| 88, HLITTON ROAD |  | 57.5 | 61.8 | 57.4 | -0.1 | Negligible Benenitical | 60.6 | ${ }^{3.1}$ | Minor Adverse | 45.5 | 49.4 | 48.3 |
| 89, HILTON ROAD | Oweling | 58.0 | ${ }_{6}^{63.1}$ | 57.3 | -0.7 | Neoligibie Beneitical | 60.5 | 2.5 50 | Negiligile Adverse | 45.9 |  |  |
| 9, 90. HILTON ROAD | ${ }^{\text {Oweling }}$ Oweling | 59.0 | ${ }_{62.2}^{62 .}$ | 59.0 | ${ }_{0} 0$ | Negigiole Adverse | ${ }_{60.6}^{616}$ | ${ }_{2}{ }^{26}$ | Noedialaile Adverse | ${ }_{46.8}^{43.8}$ | 50.0 | 49.3 |
| 99, HLTTON ROAD | Dwelling | 57.7 | 62.7 | 57.0 | -0.7 | Negligible Beneficial | 60.2 | 2.5 | Negigioble Adverse | 45.7 | 50.2 | 47.9 |
| 92, HLLTON ROAD | Dwelling | 59.1 | 62.6 | 59.0 | -0.1 | Negligible Beneficial | 61.6 | 2.5 | Negiligibe Adverse | 46.9 | 50.1 | 49.2 |
| 93, HLLTON ROAD | Dwelling | 57.6 | 62.4 | 56.9 | -0.7 | Negligible Beneficial | 60.0 | 2.4 | Negiligile Adverse | 45.6 | 49.9 | 47.7 |
| 94, HLTTON ROAD | Dwelling | 60.1 57.4 | 63.6 62.1 | 59.9 56.7 | -0.2 -0.7 | $\frac{\text { Negligible Beneficial }}{\text { Neglioibl }}$ Beneficial | 62.1 59.7 | 2.0 2.3 | $\frac{\text { Negligible Adverse }}{\text { Negligible Adverse }}$ | 47.8 45.4 | 51.0 49.6 | 49.6 47.5 |
| 96, HLTTON ROAD | Dwelling | 60.1 | 63.6 | 59.9 | -0.2 | Negligible Beneficicial | 62.1 | 2.0 | Negigiolile Adverse | 47.8 | 51.0 | 49.6 |
| 97, HLTTON ROAD | Dwelling | 58.2 | 62.7 | 57.6 | -0.6 | Negligible Beneficial | 60.5 | 2.3 | Negiligible Adverse | 46.1 | 50.2 | 48.2 |
| 98, HLTTON ROAD | Dwelling | ${ }_{50.1}^{68.1}$ | ${ }_{63.6}^{62.6}$ | 59.9 | -0.2 -0.7 | Negiligile Beneficioal | $\underline{62.4}$ | ${ }_{2.3}^{2.0}$ | Negigigibe Adverse | 47.8 | ${ }_{51.0}^{50.1}$ | ${ }_{48.1}^{49.6}$ |
|  | Public /Village Hall / Other |  |  |  |  |  |  |  |  |  |  |  |
| HLTON COMMUNTY CENTRE, HLTON COMMUNITY CENTRE, HLTON ROAD | Communtiy Facility | 49.4 513 | 55.0 52.5 | $\frac{49.4}{511}$ | 0.0 | No Change | 53.8 523 | 4.4 | Minor Adverse | 38.2 3.9 | 43.2 | 42.2 |
| STEWART PARK, HLLTON ROAD | Playing Field | 48.2 | 49.1 | 48.1 | -0.1 | Negligible Beneficioil | 49.2 | 1.0 | Neoligible Adverse | 37,1 | 37.9 | 38.0 |
| STEWART PARK, PLAYING FIELDS, HLTON ROAD | wing Field | 48.2 | 49.2 | 48.0 | -0.2 | Negligible Beneficial | 49.2 | 1.0 | Negligible Adverse | 37.1 | 38.0 | 38.0 |
| STEWART PARK, PLAYYM F FIELDS, HLTTON ROAD (2) | Playing Field | 49.3 | 50.8 | 49.0 | 0.3 | Negligible Beneficial | 50.3 | 1.0 | Negligible Adverse | 38.1 | 39.5 | 39.0 |
| 1, HLT TON STREET | Dwelling | 68.7 | 70.7 | 69.0 | 0.3 | Negiligibe Adverse | 70.5 | 1.8 | Negiligibe Adverse | 55.6 | 57.4 | 57.2 |
| 10, HLLTONSTREET | Oweling | 72.9 | 74.2 | 72.8 | -0.1 | Silabe Beneicical | 74.1 | 1.2 | Negigigibe Adverse | 59.3 | 60.5 | 60.4 |
| 12, HLTTONSTREET | ${ }^{\text {Owelling }}$ | 72.29 | ${ }_{74.2}$ | 72.8 | -0.1 | Negligitib Beneneificia | 74.1 | 1.2 | Negligioble Adverse | ${ }_{59}^{59.3}$ | 60.5 | 690.4 |
| 13, HLITON STREET | Dwelling | 72.5 | 73.9 | 72.4 | -0.1 | Negligible Beneficical | 73.8 | 1.3 | Negligible Adverse | 59.0 | 60.2 | 60.2 |
| 14, HLLTON STREET | Deelling | 73.3 | 74.7 | ${ }^{7} 7.3$ | 0.0 | No Change | 74.6 | 1.3 | Negigioble Adverse | 59.7 | 61.0 | 60.9 |
| 15, HLTON STREET | Dwelling | 72.5 73.7 | 73.8 75.0 | 72.4 73.6 | -0.1 -0.1 | Negligible Beneficial | 73.9 <br> 74 | 1.2 1.2 | Negigiolb Adverse | 690.0 | $\frac{60.2}{61.2}$ | 60.1 |
| $\frac{17, \text { Hil }}{\text { don STREET }}$ | Dwelling | 73.4 | 74.8 | 73.4 | 0.0 | No Change | 74.7 | 1.3 | Negigigle Adverse | 59.8 | 61.1 | 61.0 |
| 18, HLLONSTREET | ${ }^{\text {Dwelling }}$ Oweling | 73.7 73.4 | 74.7 74.7 | ${ }^{73.6}$ | -0.1 -0.1 |  | 74.6 | 1.2 1.2 | $\xrightarrow{\text { Negigigibe Adverse }}$ Negigiole Adverse | ${ }_{60.1}^{69.8}$ | ${ }_{61.0}^{61.0}$ | 61.1 60.9 |
| 20, HLLON STREET | Deelling | ${ }^{73,7}$ | 74.9 | ${ }^{73.6}$ | -0.1 | Negligible Beneficical | 74.9 | 1.2 | Negigigle Adverse | 60.1 | 61.1 | 61.1 |
| 21, HLTONSTREET | Dwelling | 73.9 | 75.2 | 73.8 | -0.1 | Negligible Beneficial | 75.1 | 1.2 | Negigigile Adverse | 60.2 | 61.4 | 61.3 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 Lnight,outside | DS33 <br> Lnight,outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 23, HLTON STREET | Dwelling | 73.9 | 75.2 | ${ }^{73.8}$ | ${ }^{0.1}$ | Negligible Beneficial | 75.1 | ${ }^{1.2}$ | Negigigle Adverse | 60.2 | 61.4 | 61.3 |
| 25. HLTON STREET | Dwelling | ${ }^{73.7}$ | 75.0 750 | ${ }^{73.6}$ | -0.1 | Negligible Beneficial | 74.9 74.9 | $\frac{1.2}{12}$ | Negiligile Adverse | $\frac{60.1}{60.1}$ | $\frac{61.2}{612}$ | $\frac{61.1}{611}$ |
| $\frac{27, \text { HLTON STREET }}{\text { 29 HITON }}$ | Dwelling | 73.7 73.4 | 75.0 74.6 | 73.6 73.4 | -0.1 | Negligible Benenificial | 74.9 74.6 | ${ }_{1}^{1.2}$ | $\frac{\text { Negligible Adverse }}{\text { Negligible Adverse }}$ | 60.1 59.8 | 61.2 60.9 | 61.1 60.9 |
| 3, HLTONSTREET | Dwelling | \%6.7 | 70.7 | 799.0 | 0.3 | Negigigile Adverse | 70.5 | 1.8 | Negigigible Adverse | ${ }_{55.6}$ | ${ }^{60.4}$ | 67.2 |
| 31, HLTON STREET | Dwelling | 73.4 | 74.6 | 73.4 | 0.0 | No Change | 74.6 | 1.2 | Negigigile Adverse | 59.8 | 60.9 | 60.9 |
| 33, HLTON STREET | Dwelling | 73.0 | 73.9 | 73.0 | 0.0 | No Change | 73.9 | 0.9 | Negigigile Adverse | 59.4 | 60.2 | 60.2 |
| 35, HLTON STREET | Deelling | 73.0 | 73.9 | 73.0 | 0.0 | No Change | 73.9 | 0.9 | Negigiole Adverse | 59.4 | 60.2 | 60.2 |
| 4, HILTON STREET | Deeling | 71.7 | 73.1 | 71.7 | 0.0 | No Change | 73.0 | ${ }^{1.3}$ | Negigigibe Adverse | 58.3 | 59.5 | 59.4 |
| 5, HLITON STREET | Delling | 72.0 | ${ }_{73.4}^{73}$ | 71.9 | -0.1 | Negligibl Benenicic | ${ }^{73.3}$ | 1.3 | Negigigibe Adverse | ${ }_{58.5}$ | 59.8 | 59.7 |
|  | Dwelling | 77.0 | ${ }^{73.4}$ | $\frac{71.9}{71.9}$ | -0.1 | Negligibile Beneficicial | ${ }^{73.3}$ | $\stackrel{1.3}{1.3}$ | Negligioble Adverse | ${ }_{58.5}^{58.3}$ | ${ }_{59.8}^{59.8}$ | ${ }_{59.7}^{59.4}$ |
| 8, HLLTON STREET | Dwelling | 72.3 | ${ }_{73.6}$ | 72.2 | -0.1 | Negligible Beneficioil | 73.5 | 1.2 | Neoligiole Adverse | 58.8 | 60.0 | 59.9 |
| 9. HLLTON STREET | Dwelling | 72.2 | 73.6 | 72.1 | -0.1 | Negligible Beneficical | ${ }^{73.5}$ | 1.3 | Negigioble Adverse | 58.7 | 60.0 | 59.9 |
| 1, HILTOON TERRACE | Dweling | 50.0 | ${ }^{52.0}$ | 50.5 | 0.5 | Negiligile Adverse |  | ${ }_{2}^{2.1}$ | Negiligiole Adverse | ${ }^{38.7}$ | 40.5 |  |
| 10, HLLTON TERRACE | welling | 45.7 | 47.3 | 45.8 | 0.1 | Negiligible Benenitical | 47.0 |  | Negligiole Adverse | 34.9 |  |  |
| 11, HLLTTON TERRACE | eling | 48.8 |  | 49.2 | 0.4 | Negiligibe Adverse | 50. | ${ }_{2} .0$ | Negligioble Adverse |  |  | . 5 |
| 12. HLTTON TERRACE |  |  | 47.3 | 45.8 | 0.1 | Negligible Beneficioal | 47.0 | 1.3 | Negiligibe Adverse | .9 |  |  |
| 13. HLTTONTERRACE | Dweling | 48.2 | 50.0 | 48.5 | 0.3 | Negiqigile Aaverse | 50. | 1.9 | Negiligile Aaverse | 7 1 | 38.7 | 38.8 |
| 14, HLLTONTERRACE | Dwelling | 45.8 | 47.3 | 45.9 | 0.1 | Negligiole Adverse | ${ }^{47.1}$ | 1.3 | Negigigio Adverse | 35.0 | 36.3 | 36.1 |
| I5, HLITONTERRACE | Dweling | ${ }_{45.8}^{48.2}$ | $\stackrel{50.0}{473}$ | 48.5 | ${ }_{0}^{0.3}$ | Neotigibe Adverse | ${ }^{50.1} 47.1$ | 1.9 1.3 | Negingibe Adverse | $\stackrel{37.1}{35.0}$ | ${ }_{36}^{38,7}$ | 38.8 36.1 |
| 17, HLITON TERRACE | Dwelling | ${ }_{47.8}$ | 49.5 | ${ }^{48.1}$ | 0.3 | Negigigible Adverse | 49.6 | 1.8 | Negigigible Adverse | ${ }^{35.8}$ | ${ }^{38.3}$ | ${ }^{38.4}$ |
| 18, HLITON TERRACE | Dwelling | 45.6 | 47.1 | 45.7 | 0.1 | Neoligible Adverse | 46.9 | 1.3 | Negiligile Adverse | 34.8 | 36.1 | 35.9 |
| 19, HLLTONT TERRACE | Dweling | 47.8 | 49.5 | ${ }_{48,1}$ | ${ }_{0}^{0.3}$ | $\frac{\text { Negligible Adverse }}{\text { Neolioible Adverse }}$ | 49.6 | 1.8 <br> 1.9 <br> 1 | Negiligile Adverse | ${ }^{36.8}$ | 38.3 | 38.4 |
| 20, HILTON TERRACE | Dwelling | 45.6 | 47.1 | 45.7 | 0.1 | Negligible Adverse | 46.9 | 1.3 | Neogigiole Adverse | 34.8 | 36.1 | 35.9 |
| 21, HILTON TERRACE | Dwelling | 47.5 | 49.1 | 47.8 | 0.3 | Negiligibe Adverse | 49.1 | 1.6 | Negigigile Adverse | 36.5 | 37.9 | 37.9 |
| 22, HLTTON TERRACE | Dwelling | 46.0 47.5 | 47.6 49.1 | 46.1 47.7 | 0.1 | $\frac{\text { Negligible Adverse }}{\text { Negigible Adverse }}$ | 47.3 49.1 | 1.3 1.6 | $\frac{\text { Negligible Adverse }}{\text { Negigible Adverse }}$ | 35.1 36.5 | 36.6 37.9 | 36.3 37.9 |
| 24, HLLTON TERRACE | Dwelling | 46.1 | 47.6 | 46.2 | 0.1 | Negligible Adverse | 47.4 | 1.3 | Negiligile Adverse | 35.2 | 36.6 | 36.4 |
| 25, HLLTON TERRACE | Dwelling | 47.1 | 48.7 | 47.4 | 0.3 | Negligible Adverse | 48.7 | 1.6 | Negigioble Adverse | 36.1 | 37.6 | 37.6 |
| 26. HLTTON TERRACE | Dweling | 45.9 | 47.4 |  |  |  |  |  |  |  |  |  |
| 27, HLITTON TERRACE | Dwelling | ${ }_{45.9}^{47.1}$ | 48.7 47.4 | 47.4 46.0 | 0.3 0.1 | Neotigigie Adverse | $\stackrel{48.1}{48}$ | ${ }_{1.3}^{1.6}$ | Neotigigie Adverse | ${ }^{36.1}$ | ${ }^{37.6}$ | 37.6 36.2 |
| 29, HILTON TERRACE | Dwelling | 46.9 | 48.5 | 47.1 | 0.2 | Negiligile Adverse | 48.5 | 1.6 | Negigigile Adverse | 35.9 | 37.4 |  |
| 3, HILTON TERRACE | Dwelling | 50.0 | 52.0 | 50.5 | 0.5 | Negigigile Adverse | 52.1 | 2.1 | Neoligible Adverse | 38.7 | 40.5 | 40.6 |
| 30, HLLTON TERRACE | Dwelling | 46.1 | 47.6 | 46.2 | 0.1 | Negligible Adverse | 47.4 | 1.3 | Negligible Adverse | 35.2 | 36.6 | 36.4 |
| 33, HLLTON TERRACACE | Dweling | 47.0 | ${ }_{47.5}^{48.5}$ | ${ }_{46.1}^{46.1}$ | 0.1 | Negifigible Adverse | ${ }^{48.5}$ | ${ }_{1.3}^{1.5}$ | Negifigible Adverse | 36.0 35.1 | ${ }^{37.4} 36.5$ | 37.4 36.3 |
| 33, HLTTON TERRACE | Dwelling | 46.9 | 48.3 | 47.0 | 0.1 | Negligible Adverse | 48.3 | 1.4 | Neoligible Adverse | 35.9 | 37.2 | 37.2 |
| 34, HLTTON TERRACE | Dwelling | 46.2 | 47.7 | 46.3 | 0.1 | Negligible Beneficial | 47.5 | 1.3 | Negligible Adverse | 35.3 | 36.7 | 36.5 |
| 35, HLTION TERRACE | Dweling | 46.9 46 | 48.3 47.7 | 47.0 | 0.1 | Negligible Adverse | 48.4 | 1.4 | $\frac{\text { Negigigle Adverse }}{\text { Negligible Adverse }}$ | ${ }^{35.9}$ 35.3 | 37.2 36.7 | 37.2 |
| 37, HLTTON TERRACE | Dwelling | 46.2 | 47.8 | 46.4 | 0.2 | Negiligile Adverse | 47.7 | 1.5 | Negligiole Adverse | 35.3 | 36.8 | 36.7 |
| 38, HLLTTON TERRACE | Dwelling | 46.5 | 48.0 | 46.6 | 0.1 | Negligible Adverse | 47.7 | 1.2 | Negligible Adverse | ${ }^{35.6}$ | 36.9 | 36.7 |
| 39, HILTOU TERRACE | Dwelling | ${ }_{4}^{46.8}$ | ${ }_{49.7}^{49.7}$ | $\xrightarrow{48.4}$ | 0.2 0.4 | Neotigigibe Adverse | ${ }_{49.7}^{49.7}$ | 1.9 | $\frac{\text { Negligibe Adverse }}{\text { Negligile Adverse }}$ | 35.3 36.8 | 36.8 38.5 | ${ }_{38.5}^{36.7}$ |
| 40, HILTON TERRACE | Deelling | 46.5 | 48.0 | 46.6 | 0.1 | Negligible Adverse | 47.7 | 1.2 | Negigiolie Adverse | 35.6 | 36.9 | 36.7 |
| 41. HLLTONTERRACE | Dwelling | $\frac{47.6}{46.6}$ | $\frac{48.9}{477}$ | $\frac{47.7}{463}$ | 0.1 | Negiligile Adverse | 48.9 475 | 1.3 | Negligible Adverse | 36.6 3.3 | 37.7 367 | 37.7 365 |
| 42, HLTTON TERRACE | Dweling | ${ }_{4}^{46.2}$ | ${ }_{48,9}^{47.7}$ | ${ }_{47.7}^{46.3}$ | ${ }_{0}^{0.1}$ |  | $\stackrel{47.5}{48}$ | 1.3 1.3 1 | $\frac{\text { Negigigie Adverse }}{\text { Negligible Adverse }}$ | ${ }^{35.3}$ | ${ }^{36.7}{ }_{37.7}$ | ${ }^{36.5}$ |
| 44, HLITON TERRACE | Dwelling | 46.2 | 47.7 | 46.3 | 0.1 | Negligible Benenicial | 47.5 | 1.3 | Negligible Adverse | 35.3 | 36.7 | 36.5 |
| 45, HLTTON TERRACE | Dwelling | 47.7 45.4 | 49.1 470 | 47.8 45.4 | ${ }_{0}^{0.1}$ | Negligible Benenitical | ${ }_{46.0}^{49.0}$ | 1.3 <br> 13 | Negligible Adverse | 36.7 34.6 | 37.9 360 | 37.8 358 |
| 47 4, HLLTON TERRACE | Dwelling | 47.7 | 49.1 | 47.8 | 0.1 | Negligible Beneficical | 49.0 | 1.3 | Negligible Adverse | 36.7 | 37.9 | 37.8 |
| 48, HLLTON TERRACE | Dwelling | 45.4 | 47.0 | 45.4 | 0.0 | No Change | 46.7 | 1.3 | Negigigile Adverse | 34.6 | 36.0 | 35.8 |
| 49, HLTTON TERRACE | Dweling | 47.9 493 | - 49.2 | 48.0 | 0.1 | Negligibl Adverse | - 49.1 | 1.2 <br> 22 <br> 1 | Negiligib Adverse | 36.8 38.1 | 38.0 3.9 | 37.9 401 |
| 5, HLITONTERRACE | Dwelling | ${ }_{4}^{49.3}$ | 51.3 | 499.8 | 0.5 | $\frac{\text { Negligible Adverse }}{\text { Negligiole Adverse }}$ | 51.5 48 | 2.2 1.3 | Negiligle Adverse | 38.1 36.1 | 39.9 37.5 | $\stackrel{40.1}{37.3}$ |
| 51, HLITON TERRACE | Dwelling | 47.9 | 49.2 | 48.0 | 0.1 | Negligible Adverse | 49.1 | 1.2 | Negligible Adverse | 36.8 | 38.0 | 37.9 |
| 52. HLITTON TERRACE | Dwelling | 47.1 | 48.5 | 47.2 | 0.1 | Negligible Adverse | 48.3 | 1.2 | Negigigibe Adverse | 36.1 | 37.4 | 37.2 |
| 53, HLTTON TERRACE | Develing | ${ }_{48.7}^{47.7}$ | ${ }_{49.4}^{49.4}$ | $\xrightarrow{48.7}$ | 0.1 | Negligible Adverse | 49.3 48.9 | ${ }_{1}^{1.2}$ | $\frac{\text { Negligible Adverse }}{\text { Negligible Adverse }}$ | 37.0 36.7 | 38.2 37.9 | $\begin{array}{r}38.1 \\ 37.7 \\ \hline\end{array}$ |
| 55, HLLTTON TERRACE | Dwelling | 48.1 | 49.4 | 48.2 | 0.1 | Negligible Adverse | 49.3 | 1.2 | Negigigile Adverse | 37.0 | 38.2 | 38.1 |
| 56, HLTTON TERRACE | Dwelling | 47.7 48.2 | ${ }_{49.5}^{49.5}$ | ${ }_{48.3}^{48.8}$ | 0.1 | $\xrightarrow{\text { Negegigigle }}$ Benenticiol | 48.9 49.4 | 1.2 | Neoligigile Adverse | ${ }^{36.7}$ | 38.0 38.3 | ${ }_{38.2}$ |
| 58, HLLTON TERRACE | Deelling | 48.2 | 49.7 | 48.3 | 0.1 | Negligible Beneficical | 49.5 | 1.3 | Negligible Adverse | 37.1 | 38.5 | 38.3 |
| 59. HLTTON TERRACE | Dweling | 48.2 | 49.5 | 48.3 | ${ }_{0}^{0.1}$ | Negligible Benenitial | 49.4 | 1.2 | Negligigle Adverse | ${ }^{37.1}$ |  | 38.2 |
|  | Dwelling | ${ }_{48.2}^{46.1}$ | ${ }_{49.7}^{49.7}$ | ${ }_{48.3}^{46.2}$ | 0.1 | Negligibile Aenesericial | $\stackrel{49.4}{49.4}$ | $\stackrel{1.3}{1.2}$ | Neoligigle Adverse | 35.2 37.1 | ${ }_{38.5}^{36.6}$ | 36.4 38.2 |
| 61, HLITON TERRACE | Dwelling | 48.9 | 50.3 | 49.0 | 0.1 | Negligiole Adverse | 50.1 | 1.2 | Negligible Adverse | 37.7 | 39.0 | 38.8 |
| 62, HLTTON TERRACE | Dwelling | 48.3 | 49.8 | 48.4 | 0.1 | Negigigile Adverse | 49.6 | 1.3 | Negigigile Adverse | 37.2 | 38.6 | 38.4 |
| $\frac{63 \text {, HLITTON TERRACE }}{64, ~ H L T O N ~ T E R R A C E ~}$ | ${ }^{\text {Dweliling }}$ Dweling | 48.9 48 | 50.3 49.8 | 498.4 | 0.1 | Negifigible Adverse | 50.1 49.6 | ${ }_{1.3}^{1.2}$ | Negigigibe Adverse | 37.7 <br> 37.2 | 39.0 38.6 | 38.8 <br> 38.4 |
| 65, HLTTON TERRACE | Dweling | 49.7 510 | 50.9 523 | $\frac{49.8}{510}$ | 0.1 0.0 | Neglioible Benefitical | 50.8 | ${ }_{1}^{1.1}$ | Negligible Adverse | 38.5 396 | 39.5 | 39.5 |
| 66, HLLTON TERRACE | Dweling | 49.7 | 50.9 | ${ }^{49.8}$ | 0.1 | Negligible Beeneficial | ${ }_{50.8}^{52.8}$ | 1.1 | Negigioble Adverse | ${ }^{38.5}$ | ${ }_{39}{ }^{49.5}$ | 39.5 |
| 68, HLTTON TERRACE | Develing | 51.0 | 52.3 | 51.0 | 0.0 | No Change | 52.1 | 1.1 | Negligible Adverse | 39.6 | 40.8 | 40.6 |
| 69, HLLTON TERRACE | Dwelling | $\frac{48.8}{49.3}$ | 50.1 | $\xrightarrow{48.8} 4$ | 0.0 | $\frac{\text { No Change }}{\text { Negigible Adverse }}$ | 49.9 51.5 | $\stackrel{1.1}{2.2}$ | $\frac{\text { Negligible Adverse }}{\text { Negligible Adverse }}$ | 37.7 38.1 | 38.8 39.9 | 38.6 40.1 |
| 70, HLLTTON TERRACE | Dwelling | 51.3 | 52.6 | 51.4 | 0.1 | Negligible Adverse | 52.5 | 1.2 | Negigigible Adverse | 39.9 | 41.1 | 41.0 |
| 71, HLLTON TERRACE | Dwelling | 48.6 | 49.9 | 48.7 | 0.1 | Negiligile Adverse | 49.8 | 1.2 | Negligibe Adverse | 37.5 | 38.6 | 38.6 |

## Appendix A14．4：Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short－term Daytime Noise Change（dB） | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long－term Daytime Noise Change（dB） | Magnitude of Change | DM18 Lnight，outside | DM33 Lnight，outside | DS33 Lnight，outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 72，HILTON TERRACE | Deeling | 51.3 | 52.6 | 51.4 | 0.1 | Negigigle Adverse | 52.5 | 1.2 | Negiligibe Adverse | 39.9 | 41.1 | 41.0 |
| 73，HLITON TERRACE | Dweling | 51．5 | 52．7 | 51．6 | 0.1 | Negiligibe Adverse | 52．6 | $\frac{1.1}{12}$ | Negiligle Adverse | $\frac{40.1}{41.7}$ | $\frac{41.2}{42.9}$ | $\frac{41.1}{42.8}$ |
| 74，HILTON TERRACE | Dwelling | ${ }_{\text {53．3 }}^{51.5}$ | 54.6 52.7 | 53.4 51.6 | ${ }_{0}^{0.1}$ | $\frac{\text { Negligiole Adverse }}{\text { Negligibe Adverse }}$ | 54.5 52.6 | 1.2 1.1 | $\frac{\text { Negligible Adverse }}{\text { Negligible Adverse }}$ | ${ }_{40.7}^{40.7}$ | $\frac{42.9}{41.2}$ | 42.8 41.1 |
| $\frac{7}{76, \text { HLITON TERRACE }}$ | Dwelling | ${ }_{53.3}$ | ${ }_{54.5}$ | ${ }_{53.3}$ | 0.0 | No Change | ${ }_{54.4}$ | ${ }_{1}^{1.1}$ | Negigigible Adverse | 41.7 | ${ }_{42.8}$ | 42.7 |
| 77，HLTTON TERRACE | Delling | ${ }_{52.3}^{51.3}$ | 53．5 | 52．4 | 0.1 | Negigigle Adverse | 53．4 | 1.1 | Negligible Adverse | 40.8 | 41.9 | 41.8 |
| 78，HLTTON TERRACE | Deelling | 54.3 | 55.5 | 54.4 | 0.1 | Negigigile Adverse | 55.5 | 1.2 | Negiligible Adverse | 42.6 | 43.7 | 43.7 |
| 79，HLITON TERRACE | Deelling | 52.3 | 53．5 | 52.4 | 0.1 | Negigigibe Adverse | 53．4 | 1.1 | Negigioble Adverse | 40.8 <br> 3.2 | 41.9 | 41.8 364 |
| $\frac{8}{80, ~ H I L T O N ~ T E R R A C E ~}$ | ${ }^{\text {Duediling }}$ | ${ }_{54.3}^{4}$ | ${ }_{55.5}^{45.5}$ | $\stackrel{46.4}{54.4}$ | 0.1 | Neogigiole Adversse | ${ }_{55}^{45.5}$ | 1.2 | Neogigiole Adversse | ${ }^{35.2}$ | ${ }^{36.7}$ | ${ }^{36.4}$ |
| 81，HILTON TERRACE | Dwelling | 54.0 | 55.1 | 54.1 | 0.1 | Negiligile Adverse | 55.1 | 1.1 | Negigiolie Adverse | 42.3 | 43.3 | 43.3 |
| 82，HLTTON TERRACE | welling | 57.2 | 58.5 | 57.3 | 0.1 | Negligible Beneficial | 58.4 | 1.2 | Negiligible Adverse | 45.2 | 46.4 | 46.3 |
| 83，HLTTON TERRACE | welling | 54.0 | 55.1 | 54.1 | 0.1 | Negigioble Adverse | 55.1 | 1.1 | Negiligibe Adverse | 42.3 | 43.3 | 43.3 |
| 84，HLITTON TERRACE | welling | 57.4 | 58.6 | 57.5 | 0.1 | Negigigibe Adverse | 58.5 | 1.1 | Negigigibe Adverse | 45.4 | 46.5 | 46.4 |
| 85，HLITON IERRACE | Dwelling | －55．3 | 56．5 | 55．4． | ${ }_{0}^{0.1}$ | Negigigib Adverse | ¢60．5 | 1.1 1.2 | Negigigib Adverse | $\stackrel{43.5}{47.1}$ | ${ }_{48.6}^{44.6}$ | $\stackrel{44.5}{48.2}$ |
| 87．HLTTON TERRACE | Dwelling | 55.3 | 56.5 | 55.4 | 0.1 | Negoligible Adverse | 56.4 | 1.1 | Negoligible Adverse | 43.5 | 44.6 | 44.5 |
| 88，HLTTON TERRACE |  | 59.3 | 0.6 | 59.4 | 0.1 | Negigiole Adverse | 60.5 | 1.2 | Negligible Adverse | 47.1 | 48.3 | 48.2 |
| 89，HLTTON TERRACE | Deelling | 57.6 | 58.8 | 57.7 | 0.1 | Negigigibe Adverse | 58.7 | 1.1 | Negigioble Adverse | 45.6 |  | 46.6 |
| 9．HILTON TERRACE | Dweling | 48.8 574 | 50.7 | 49．22 | 0.4 | Negiligib Adverse | 50.8 585 | $\stackrel{2.0}{11}$ | Negiligile Adverse | $\begin{array}{r}37.7 \\ \hline 4.4\end{array}$ | 39.4 465 | 39.5 464 |
| 99，HLLTON TERRACE | Oweling | $\stackrel{57.4}{59.0}$ | 58．6． | 57．5 | ${ }_{0}^{0.1}$ | Negigigio Adverse | ¢8．5 | $\stackrel{1.1}{1.1}$ | Negigigibe Adverse | ${ }_{46.8}^{45.8}$ | ${ }_{479}^{46.5}$ | ${ }_{4}^{46.4}$ |
| 95，HLTTON TERRACE | Dwelling | 59.0 | 60.2 | 59.1 | 0.1 | Negiligile Adverse | 60.1 | 1.1 | Negigioble Adverse | 46.8 | 47.9 | 47.8 |
| 1，HLTTON WALK | Dwelling | 52.6 | 55.1 | 52.2 | －0．4 | Negligible Beneficial | 54.2 | 1.6 | Negiligibe Adverse | 41.1 | 43.3 | 42.5 |
| 10，HLTTON WALK | Dwelling | 52.1 52.1 | $\stackrel{54.4}{54.3}$ | 51.6 51.6 | -0.5 <br> -0.5 | Negligible Beneficial | 53．4 53.4 | 1.3 1.3 | Negigigle Adverse | $\stackrel{40.6}{40.6}$ | ${ }_{42.6}^{42.7}$ | $\stackrel{41.8}{41.8}$ |
| 12．HLTTON WALK | Dwelling | 52.1 | 54.4 | 51.6 | －0．5 | Negligible Beneficial | 53.4 | 1.3 | Negiligile Adverse | 40.6 | 42.7 | 41.8 |
| 13．HLTTON WALK | Dwelling | 52.4 52.6 | 54.7 55.0 | 51.9 52.1 | -0.5 <br> -0.5 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ Beneficial | 53.7 54.0 | 1.3 1.4 | $\frac{\text { Negiligib Adverse }}{\text { Negigiole Adverse }}$ | 40.9 41.1 | 43.0 43.2 | 42.1 42.3 |
| 15，HLTON WALK | Wwelling | 52.8 | 55.2 | 52.3 | －0．5 | Negligible Beneficial | 54.2 | 1.4 | Negligible Adverse | 41.3 | 43.4 | 42.5 |
| $\frac{16 . ~ H I L T O N W A L K ~}{2-H I T O N W A L K}$ | Dwelling | 53.0 525 | 55.5 54.8 | 52.5 520 | $\begin{array}{r}-0.5 \\ -0.5 \\ \hline\end{array}$ | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ Beneficial | 54.4 53.9 | 1.4 | Negiligile Adverse | $\frac{41.4}{410}$ | ${ }_{43,7}^{43.7}$ | ${ }_{42}^{42.7}$ |
| 3，HLTTON WALK | Dwelling | 52.3 | 54.6 | 51.8 | －0．5 | Negligibie Benenificial | ${ }_{53.7}$ | ${ }_{1}^{1.4}$ | Neogigigile Adversse | 40.8 | 42.9 | ${ }_{42.1}^{42.1}$ |
| 4，HLLTON WALK | Dwelling | 52.1 | 54.4 | 51.6 | －0．5 | Negligible Beneficial | 53.5 | 1.4 | Negigigibe Adverse | 40.6 | 42.7 | 41.9 |
| 5，HLLTON WALK |  |  | 54.5 |  |  |  |  |  | Negiligible Adverse |  | 42.8 | 42.0 |
| ${ }^{6}$ 6，HLITON WALK | weiling | 52.1 |  | 51．6 | －0．5 | Negigigile Beneificial | 53.5 | ． 1.4 | Negigigle Aaverse | 40.6 |  |  |
| 7，HILONWALK | Oweling | 52.1 | 54.3 | 51．6 | －0．5 | Negiligile Beneniciar | 53.4 | 1.3 | Negiqigile Adverse | 40.6 | 42.6 | 4.8 |
| 8，HILTON WALK | Oweling | 52．1 | 㐌4．3 | 51．5 | -0.6 <br> -0.5 | Negifigio Beneficial | 53．4 | ${ }_{1}^{1.3}$ | Negigiole Adverse | 40．6 | 42.6 426 | $\frac{41.8}{418}$ |
| 9 905，HOWEA SRIVE | Dwelling | $\stackrel{52.1}{52.3}$ | ${ }_{54.3}^{51.3}$ | $\stackrel{51.6}{52.2}$ | $-05$ | Negiligible Beneneficial | ${ }_{5}^{53.4}$ | 0.3 | Neoligioble Adverse | 40.8 | ${ }_{39.9}^{42.6}$ | ${ }_{41.8}^{41.1}$ |
| 107，Howes dive | Dwelling | 53.3 | 52.8 | 53.3 | 0.0 | No Change | 53.8 | 0.5 | Negigiolile Adverse | 41.7 | 41.3 | 42.2 |
| 109，Howes dive | Dwelling | 52.0 | 51.3 | 52.0 | 0.0 | No Change | 52.5 | 0.5 | Negligible Adverse | 40.5 | 39.9 | 41.0 |
| 111，HOWES DRIVE | Dwelling | 年 ${ }_{51.4}^{51.3}$ | 50.6 50.5 | 51.3 51.2 | -0.1 -0.1 | Negegioigiole Beneneficioal | 51.9 <br> 51.8 | 0.5 | $\frac{\text { Negigigle Adverse }}{\text { Neligiole Adverse }}$ | $\stackrel{40.0}{39.9}$ | 39.3 39.2 | $\xrightarrow{40.4} 4$ |
| 121，How | Deelling | 51.2 | 50.5 | 51.2 | 0.0 | No Change | 51.7 | 0.5 | Negiligibe Adverse | 39.8 | 39.2 | 40.3 |
| ${ }^{123,}$ 125，HOWESES DRIVE | Dwelling | 51.1 50.9 | 50.3 49.9 | 51.1 50.8 | 0.0 -0.1 | ${ }_{\text {Negligible }}^{\text {Nengeeficial }}$ | 51.6 51.3 | 0.5 0.4 | Negligibl Adverse | 39.7 <br> 39.5 | 39.0 38.6 | 40.2 39.9 |
| 127，HOWES DRIVE | welling | 50.6 | 49.5 | 50.5 | －0．1 | Negligible Beneficial | 51.0 | 0.4 | Negiligile Adverse | 39.3 | 38.3 | 39.6 |
| 129，HOWES DRIVE | Dweling | 45.5 | 45.7 | 45.4 | －0．1 | Neogioible Beneficial | 46.2 | 0.7 | Negiligile Adverse | 34.7 341 | 34.9 344 | 35.3 |
| 133，Howes dive | Dwelling | 45.0 | 45.3 | 44.9 | －0．1 | Negligible Beneficial | 45.7 | 0.7 | Negligible Adverse | 34.2 | 34.5 | 34.9 |
| 135．HOWES DRIVE | Dwelling | 45.2 | 45.7 | 45.2 | 0.0 | No Change | 46.1 | 0.9 | Negigigible Adverse | 34.4 | 34.9 | 35.2 |
| 137，HoWES DRIVE | Oweling | 45.6 | 46.1 | 45.5 |  | Negligibile Beneficicial |  |  | Negiligible Adverse | 34.8 | 35.2 <br> 5.1 |  |
|  | ${ }^{\text {Oweling }}$ Oweling | ${ }_{526}$ | 62.6 53.1 | ${ }_{523}$ | －0．3 | Negiligioe Beneficial | 62.4 53,1 | 0.5 | Negigigie Adverse | ${ }_{411}$ | ${ }_{40.5}$ | 49.9 |
| 103，HUTCHEON LOW DRIVE | Dwelling | 55.1 | 54.9 | 55.0 | －0．1 | Negligible Beneficial | 55.5 | 0.4 | Negilibile Adverse | 43.3 | 43.1 | 43.7 |
| 105，HUTCHEON LOW DRIVE | Dwelling | 55.1 | 54.8 | 55.0 | －0．1 | Negligible Beneficial | 55.5 | 0.4 | Negiligibe Adverse | 43.3 | 43.1 | 43.7 |
|  | Dwelling | 55.3 55.3 | 55.1 55.0 | 55．2 | －0．1 | Negligile Beneficial | ${ }_{55.7}^{55.7}$ | 0.4 0.4 | Negligibe Adverse | ${ }_{43.5}^{43.5}$ | ${ }_{43.2}^{43.3}$ | 43.9 |
| 11，HUTCHEONLOW DRIVE | Deelling | 60.3 | 61.1 | 60.0 | －0．3 | Negligible Beneficial | 61.0 | 0.7 | Negligible Adverse | 48.0 | 48.7 | 48.6 |
| 111，HUTCHEON LOW DRIVE | Dwelling | 55.3 | 55.1 | 55.2 | －0．1 | Negligible Beneficical | 55.8 | 0.5 | Negigigile Adverse | 43.5 | 43.3 | 44.0 |
| 113，HUTCHEON LOW DRIVE | Dwelling | $\begin{array}{r}53,7 \\ 53, \\ \hline\end{array}$ | 53．3 | 53．6 | ${ }_{-0.1}^{-0.1}$ | $\frac{\text { Negligible Benenicial }}{\text { Negligibl }}$ | 54.1 53.7 | 0.4 | $\frac{\text { Negligible Adverse }}{\text { Nefligible Adverse }}$ | $\frac{42.1}{417}$ | $\frac{41.7}{413}$ | 42．4 |
| 117，HUTCHEON LOW DRIVE | Dwelling | 52.8 | 52.3 | 52.7 | －0．1 | Negligible Beneficial | 53.1 | 0.3 | Negligible Adverse | 41.3 | 40.8 | 41.5 |
| 119，HUTCHEON LOW DRIVE | Dwelling | 52.5 | 52.0 | 52.4 | －0．1 | Negligible Beneficial | 52.8 | 0.3 | Negiligile Adverse | 41.0 | 40.5 | 41.3 |
| 122，HUTCHEEONLOW DRIVE | Owelling | $\stackrel{52.7}{52.0}$ | 52.2 52.5 | ¢ ${ }_{5}^{52.7}$ | $\stackrel{-0.1}{-0.3}$ | Negiligile Beneitical | 53.5 | 0.5 | $\frac{\text { Negligibe Adverse }}{\text { Neligible Adverse }}$ | ${ }_{40.5}^{4}$ | $\stackrel{40.7}{41.0}$ | $\stackrel{41.4}{41.0}$ |
| 125．HUTCHEON LOW DRIVE | Dwelling | 52.0 | 52.5 | 51.7 | 0.3 | Negligible Beneficial | 52.6 | 0.6 | Negligible Adverse | 40.5 | 41.0 | 41.1 |
| $\frac{127 . \text { HUTCHEON LOW DRIVE }}{129}$ | Deelling | 50.2 | 50.7 | 50.1 | －0．1 | Negligible Beneficical | 50．8 | 0.6 | Negiligible Adverse | 38.9 | 39.4 | 39.5 |
| 129，HUTCHEONLOW DRIVE | Dwelling | 年1．8 | 52．0 | ${ }^{51.6}$ | －0．2 |  | 52．4 | 0.6 | $\frac{\text { Negligibe Adverse }}{\text { Neoligiole Adverse }}$ | ${ }_{40.4}^{48.4}$ | ${ }_{49.5}^{40.5}$ | 40.5 |
| 17，HUTCHEON LOW DRIVE | Dwelling | 60.6 | 61.3 | 60.4 | －0．2 | Negligible Beneficial | 61.3 | 0.7 | Negligible Adverse | 48.3 | 48.9 | 8.9 |
| 19，HUTCHEON LOW DRIVE | Dwelling | 59.1 | 59.5 | 58.8 | －0．3 | Negligible Beneficial | 59.7 | 0.6 | Negligible Adverse | 46.9 | 47.3 | 47.5 |
| 21，HUTCHEON LOW DRIVE | Deelling | 56.0 | 56.9 | 55.8 | －0．2 | Negligible Beneficial | 56.7 | 0.7 | Negligible Adverse | 44.1 | 44.9 | 44.8 |
| 235，HUTCHEON LOW DRIVE | Dwelling | ${ }_{56.0}^{56.0}$ | 56．0 | 56.5 55.9 | －0．1 | Negegigigibe Beneneficioial | ${ }_{56.3}^{56.6}$ | 0.6 | Negligigile Adverse | ${ }_{44.1}^{44.1}$ | ${ }_{44.1}^{44.9}$ | ${ }_{44.7}^{45.3}$ |
| $\frac{\text { 27，HUTCHEON LOW DRIVE }}{\text { 29，HUTCHEON }}$ | Dwelling | 56.9 573 | 56．9 | 56.7 | －0．2 | Negligible Beneficial | 57.4 578 | 0.5 0.5 | Negligibl Adverse | 44.9 453 | 44.9 | 45.4 458 |
| 2，HUTCHEONLOW DRIVE | Dweliling | 57．7 | 58．0．6 | 561．6 | － | Negligible Beneficioil | 62．5 | 0.8 | Negigigibe Adverse | 49.3 | 50．1 | 50．0 |
| 31．HUTCHEON LOW DRIVE | Dewling | 57．3 | 58．0 | 56.9 | －0．4 | Negligible Beneficical | 57．8 | 0.5 | Negligible Adverse | 45.3 | 45.9 | 45．8 |
| 33，HUTCHEONLLOW DRIVE | Dwelling | ${ }^{56.8} 5$ | 57.4 58.2 | 56.3 57.0 | -0.5 -0.5 | $\frac{\text { Negligibee Beneficial }}{\text { Negligible Beneficial }}$ | 57.2 57.9 | 0.4 0.4 | Negigiole Adverse | ${ }_{45.5}^{44.9}$ | 45.4 46.1 | ${ }_{45.2}^{45}$ |
| 37，HUTCHEONLOW DRIVE | Dwelling | 57.8 | 58.6 | 57.5 | －0．3 | Negligible Beneficial | 58.4 | 0.6 | Negiligile Adverse | 45.8 | 46.5 | 46.3 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 <br> Lnight,outside | DM33 Lnight,outside | $\begin{gathered} \text { DS33 } \\ \text { Lnight,outside } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 39, HUTCHEONLOW DRIVE | Dwelling | 57.6 | 58.4 | 57.3 | ${ }^{0.3}$ | Negligible Beneficial | 58.2 | 0.6 | Negigigile Adverse | 45.6 | 46.3 | 46.1 |
| 41, HUTCHEON LOW DRIVE | Oweling | 57.8 | 58.6 | 57.5 | -0.3 | Negligible Beneficical | 58.4 | 0.6 | Negligible Adverse | 45.8 | 46.5 | 46.3 |
| 43, HUTCHEON LOW DRIVE | Dwelling | 57.9 | 58.7 | 57.6 | -0.3 | Negligible Beneficial | 58.5 | 0.6 | Negiligibe Adverse | 45.8 | 46.6 | 46.4 |
| 45, HUTCHEON LOW DRIVE | Dwelling | 55.4 | 56.2 | 55.0 | -0.4 | Negligible Beneficial | 55.9 | 0.5 | Negligible Adverse | 43.6 | 44.3 | 44.0 |
| 47, HUTCHEON LOW DRIVE | Delling | ${ }_{55.9}$ | 56.7 | 55.7 55 | -0.2 | Negligible Beneficical | 55.6 | 0.7 | Negligible Adverse | 44.0 | 44.8 | 44.7 |
| 49, HUTCHEON LOW DRIVE | Delling | 55.7 | 56.5 | 55.4 | -0.3 | Negligible Beneficicial | 56.3 | 0.6 | Negligible Adverse | 43.9 | 44.6 | 44.4 |
| 5, HUTCHEONLOW DRIVE | Deelling | ${ }^{61.1}$ | 62.1 | 60.9 | -0.2 | Negligible Beneficical | 61.9 | 0.8 | Negiligible Adverse | 48.7 | 49.6 | 49.4 |
| 51, HUTCHEON LOW DRIVE | Dwelling | 56.0 | 56.8 | 55.7 | -0.3 | Negligible Beneficical | 56.6 | 0.6 | Negiligible Adverse | 44.1 | 44.9 | 44.7 |
| 53, HUTCHEON LOW DRIVE | Deelling | 56.0 | 56.7 | 55.6 | -0.4 | Negligible Beneficial | 56.5 | 0.5 | Negigigible Adverse | 44.1 | 44.8 | 44.6 |
| 55, HUTCHEON LOW DRIVE | Dwelling | 55.0 | 56.7 | 55.6 | -0.4 | Negligible Beneficial | 56.5 | 0.5 | Negligible Adverse | 44.1 | 44.8 | 44.6 |
| 57, HUTCHEON LOW DRIVE | Delling | ${ }_{55.5}^{5}$ | 56.3 554 5 | 55.0 <br> 54.5 | ${ }^{-0.5}$ | Neogioible Beneficial | $\begin{array}{r}55.9 \\ 554 \\ \hline\end{array}$ | 0.4 | Negiligibe Adverse | ${ }_{4}^{43.7}$ | ${ }^{44.4}$ | 44.0 43 |
| 59, HUUCHEONLLOW DRIVE | Dwelling | ${ }_{55.9}^{54.9}$ | ${ }_{56.3}^{55.4}$ | 54.5 | $\stackrel{-0.4}{-0.4}$ | Negiligiole Beneitical | ${ }_{56.4}^{56.4}$ | 0.5 | Negigigibe Adverse | 44.0 | $\stackrel{43.6}{44.4}$ | $\stackrel{43.6}{44.5}$ |
| 63, HUTCHEON LOW DRIVE | Dwelling | 56.3 | 56.1 | 56.0 | -0.3 | Negligible Beneficial | 56.6 | 0.3 | Negligible Adverse | 44.4 | 44.2 | 44.7 |
| 65, HUTCHEON LOW DRIVE | eiling | 56.1 | 55.8 | 55.8 | -0.3 | Negligible Beneficial | 56.4 | 0.3 | Negiligibe Adverse | 44.2 | 44.0 | 44.5 |
| 67, HUTCHEON LOW DRIVE | veling | 55.3 | 54.8 | 55.1 | -0.2 | Negligible Beneficical | 55.6 | 0.3 | Negiligible Adverse | 43.5 | 43.1 | 43.8 |
| 69, HUTCHEON LOW DRIVE | welling | 56.1 | 55.8 | 55.9 | -0.2 | Negligible Benenitical | 56.5 | 0.4 | Negiligible Adverse | 44.2 | 44.0 | 44.6 |
| 7, HUTCHEONLOW DRIVE | eving | 61.9 | 62.8 6.8 |  |  | 隹 |  | 0.8 | Negligigile Adverse | 49.4 |  | 50.2 |
| 71, HUTCHEON LOW DRIVE | weling | 56.2 | 55.9 | 56.0 | -0.2 | Negigigile Beneficial | 56.6 | 0.4 | Negiligile Adverse | 44.3 | 44.0 |  |
| 73, HUTCHEONLOW DRIVE | weling | 55.4 | 54.9 | 55.3 | -0.1 | Negligible Beneficial | 55.8 | 0.4 | Negiligble Adverse | 43.6 | 43.1 | 44.0 |
| 75, HUTCHEONLOW DRIVE | weling | 56.0 | 55.7 | 55.9 | -0.1 | Neogigiole Beneificial | S5.4. | 0.4 | Negiligie Aaverse | 44.1 | 43.9 | 44.5 |
| T7, HUTCHEONLOW DRIVE | weling | 54.7. | 54.2 | 54.6 | -0.1 | Negiligiole Beneficial | 54 | 0.4 | Negigigile Adverse | ${ }^{43.0}$ | 42.5 | 43.3 |
| 79, HUUCCHEONLOW DRIVE | Dwelling | 54.1 | 53.6 | 54.0 | -0.1 | Negligible Beneficial | 54.4 | ${ }^{0.3}$ | Negiligble Adverse | ${ }^{42.4}$ | ${ }^{42.0}$ | 42.7 |
| 83, HUTCHEON LOW DRIVE | Dwelling | 52.3 53.1 | ${ }_{52.5}^{51.5}$ | 52.2 53.0 | -0.1 .0 .1 | Negiligile Beneitical | 52.5 53.4 | 0.2 0.3 | Negigigibe Adverse | 40.8 41.5 | 40.3 41.0 | $\frac{41.0}{41.8}$ |
| 85, HUTCHEON LOW DRIVE | Dwelling | 52.9 | 52.3 | 52.8 | -0.1 | Negligible Beneficicial | 53.1 | 0.2 | Neogioigile Adverse | 41.3 | 40.8 | 41.5 |
| 87, HUTCHEON LOW DRIVE | Dwelling | 53.1 | 52.5 | 53.0 | -0.1 | Negligible Beneficial | 53.4 | 0.3 | Negigiolile Adverse | 41.5 | 41.0 | 41.8 |
| 89, HUTCHEONLOW DRIVE | Dwelling | 54.1 61.8 | 54.4 62.7 | 53.9 61.6 | -0.2 -0.2 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ Beneficial | 54.6 62.6 | 0.5 0.8 | $\frac{\text { Negiligib Adverse }}{\text { Negigiole Adverse }}$ | 42.4 49.4 | 42.7 50.2 | 42.9 50.1 |
| 91, HUTCHEON LOW DRIVE | Wwelling | 54.0 | 54.5 | 53.6 | -0.4 | Negligible Beneficial | 54.5 | 0.5 | Negiligibe Adverse | 42.3 | 42.8 | 42.8 |
| 93, HUTCHEON LOW DRIVE | Dwelling | 53.9 | 54.6 5 5 | 53.7 | -0.2 | Negiligile Beneficial | 54.5 | 0.6 | Negiligibe Adverse | $\frac{42.2}{418}$ | 42.9 | 42.8 |
| 97, HUTCHEON LOW DRIVE | Dwelling | 53.0 | ${ }_{53.6}$ | 55.7 | -0.3 | Negligibie Benenificial | ${ }_{53.6}$ | 0.6 | Neogigigile Adversse | ${ }_{41.4}^{41.4}$ | ${ }^{42.0}$ | 42.0 |
| 99, HUTCHEON LOW DRIVE | Dwelling | 53.6 | 53.9 | 53.4 | -0.2 | Negligible Benenicicial | 54.1 | 0.5 | Negigioble Adverse | 42.0 | 42.2 | 42.4 |
| PERSLEY WALLED GARDEN, HUTCHEON LOW DRIVE | Walled Garden | 59.8 | 60.4 |  |  | Negligible Benenitical |  |  | Negiligible Adverse | 47.6 | 48.1 |  |
| 1, HUTCHEONLOW PLACE | weling |  | 56.2 | 55.0 | -0.3 | Negiligiole Beneilical | 56.0 | 0.7 | Negligible Adverse | 3.5 | 44.3 |  |
| O, HUTCHONLOW PLACE | Oweling | 57.2 | ${ }^{58.3}$ | 57.1 | -0. 1 | Negiligile Beneniciar | 58.1 | 0.9 | Negiqigile Adverse | 45.2 | 46.2 | 46.0 |
| 101, HUTCHEONLOW PACE | Oweling | 51.8 | 52.6 | $\begin{array}{r}51.4 \\ 51.4 \\ \hline\end{array}$ | -0.4 | $\frac{\text { Negligible Benenicical }}{\text { Negligile }}$ | 52.3 | 0.5 | Negigiole Adverse | 40.4 40.4 | $\frac{41.1}{41.1}$ | 40.8 |
| 1 103, HUTCHEONLOW PLACE | Dwelling | - | - 52.6 |  | -0.4 | Negiligible eeneneicicial | ${ }_{52.3}$ | 0.5 | Negigigibe Adverse | 40.4 | ${ }_{41.1}^{41.1}$ | $\stackrel{40.8}{40.8}$ |
| 107, HUTCHEON LOW PLACE | Dwelling | 51.8 | 52.6 | 51.4 | -0.4 | Negligible Beneficial | 52.3 | 0.5 | Negigiolile Adverse | 40.4 | 41.1 | 40.8 |
| 109, HUTCHEON LOW PLACE | Dwelling | 51.8 | 52.6 | 51.4 | -0.4 | Negligible Beneficial | 52.3 | 0.5 | Negiligile Adverse | 40.4 | 41.1 | 40.8 |
| 11, HUUCHEONLOW PLACE | Dwelling | 55.3 51.4 | $\stackrel{56.2}{52.3}$ | 55.0 51.2 | -0.3 -0.2 | $\frac{\text { Negligible Beneficial }}{\text { Negligile }}$ Beneficial | $\stackrel{56.0}{52.0}$ | ${ }_{0}^{0.6}$ | Negigigle Adverse | 43.5 40.0 | ${ }_{40.8}^{44.3}$ | $\stackrel{44.1}{40.5}$ |
| 113, HUTCHEON LOW PLACE | Dwelling | 51.4 | 52.3 | 51.2 | -0.2 | Negligible Beneficial | 52.0 | 0.6 | Negiligile Adverse | 40.0 | 40.8 | 40.5 |
| 115. HUTCHEONLOW PLACE | Dwelling | 51.4 <br> 51.4 | 52.3 | 51.2 | -0.2 -0.2 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ Beneficial | 52.0 52.0 | 0.6 | $\frac{\text { Negiligib Adverse }}{\text { Negigible Adverse }}$ | 40.0 40.0 | 40.8 40.8 | 40.5 40.5 |
| 119, HUTCHEONLOW PLACE | Dwelling | 51.4 | 52.3 | 51.2 | -0.2 | Negligible Beneficial | 52.0 | 0.6 | Negiligible Adverse | 40.0 | 40.8 | 40.5 |
| 12, HUTCHEON LOW PLACE | Owelling | 57.2 | 58.3 | 57.1 | -0.1 | Negligible Beneficical | 58.1 | 0.9 | Negiligibl Adverse | 45.2 | 46.2 | 46.0 |
| 121, HUTCHEON LOW PLACE | Dwelling | 51.4 | 52.3 | $\begin{array}{r}51.2 \\ 50 . \\ \hline\end{array}$ | -0.2 | Negilibile Benenicial | 52.0 | 0.6 | Negigiole Adverse | 40.0 | 40.8 | 40.5 |
| 1125 , HUTCHEONLOW PLACE | Dwelling | 52.9 | 53.9 | ${ }^{52.7}$ | -0.2 | Negegligible Benenificial | ${ }_{53.6}$ | 0.7 | Neogigigile Adversse | 41.3 | ${ }_{42.2}^{42.2}$ | 42.0 |
| 127, HUTCHEON LOW PLACE | Deelling | 52.9 | 53.9 | 52.7 | -0.2 | Negligible Benefitical | 53.6 | 0.7 | Negigioble Adverse | 41.3 | 42.2 | 42.0 |
| 129. HUTCHEONLOW PLACE | Dweling | 52.9 | 53.9 | 52.7 | -0.2 | Negligible Beneficical | 53.6 |  | Negiligile Adverse | 41.3 | 42.2 | 42.0 |
| 14, HUTCHEONLOW PLACE | Oweling | 57.2 | ${ }_{58,3}^{543}$ | ${ }_{5}^{57.1}$ | ${ }_{-0.1}$ | Negligible Benenitical | ${ }_{58,1}^{58}$ | 0.9 | Negiligile Adverse | 45.2 | 46.2 | 46.0 |
| 15, HUTCHEONLOW PLACE | Oweling | - 53.4 |  | 53.3 57.1 | -0.1 -0.1 | $\frac{\text { Negligiole Benenitical }}{\text { Neglioibl }}$ Beneficial | 54.2 58.1 | 0.8 | $\frac{\text { Negigigle Adverse }}{\text { Neligiole Adverse }}$ | $\frac{41.8}{45.2}$ | $\frac{42.6}{46.2}$ | $\stackrel{42.5}{46.0}$ |
| 17, HUTCHEON LOW PLACE | Dwelling | 53.4 | 54.3 | 53.3 | -0.1 | Negligible Beneficial | 54.2 | 0.8 | Negiligile Adverse | 41.8 | 42.6 | 42.5 |
| 18, HUTCHEON LOW PLACE | Dwelling | 57.2 | 58.3 | 57.1 | -0.1 | Negligible Beneficial | 58.1 | 0.9 | Negigioble Adverse | 45.2 | 46.2 | 46.0 |
| 19, HUTCHEONLOW PLACE | Dwelling | 53.4 57.2 | 54.3 58.3 | 53.3 57.1 | -0.1 -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ Beneficial | 54.2 58.1 | 0.8 0.9 | $\frac{\text { Negligible Adverse }}{\text { Negligible Adverse }}$ | 41.8 45.2 | 42.6 46.2 | 42.5 46.0 |
| 20, HUTCHEON LOW PLACE | Dwelling | 59.0 | 60.1 | 58.9 | -0.1 | Negligible Beneficial | 59.9 | 0.9 | Negligible Adverse | 46.8 | 47.8 | 47.6 |
| 21, HUTCCHEON LOW PLACE | Deelling | 53.4 | 54.3 | 53.3 | -0.1 | Negligible Beneficial | 54.2 | 0.8 | Negigioble Adverse | 41.8 | 42.6 | 42.5 |
| 22, HUTCHEONLOW PLACE | Dwelling | 59.0 | 60.1 55.0 | 58.9 53.8 | -0.1 -0.3 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ Beneficial | 59.9 54.8 | 0.9 | $\frac{\text { Negligible Adverse }}{\text { Nefligible Adverse }}$ | 46.8 42.4 | 47.8 <br> 43 | ${ }_{471}$ |
| 24, HUTCHEON LOW PLACE | Dwelling | 59.0 | 60.1 | 58.9 | -0.1 | Negligible Beneficioal | 59.9 | 0.9 | Neoligible Adverse | 46.8 | 47.8 | 47.6 |
| 25, HUTCHEON LOW PLACE | Dwelling | 54.1 | 55.0 | 53.8 | -0.3 | Negligible Beneficial | 54.8 | 0.7 | Negigigile Adverse | 42.4 | 43.2 | 43.1 |
| 26, HUTCHEON LOW PLACE | Deeling | 59.0 | 60.1 | 58.9 | -0.1 | Negligible Beneficial | 59.9 | 0.9 | Negligible Adverse | 46.8 | 47.8 | 47.6 |
| 27, HUTCHEON LOW PLACE | Oweling | 54.1 59 | 55.0 | 53.8 | -0.3 | Neogigibie Beneficial | 54.8 | ${ }_{0} 0.7$ | Negiligie Adverse | ${ }^{42.4}$ | 43.2 | 43.1 |
| 28, HUTCHEONLOW PLACE | Oweiling | 59.0. | 650 | 58.9 | -0. | Negligibe Benenicial | 59.9 | 0.9 | Negligiole Adverse | 4.8 | ${ }_{472}$ | 47.6 |
| 3, HUTCHEON LOW PLACE | Dwelling | ${ }_{55.3}$ | 55.2 | 55.0 | ${ }_{-0.3}$ | Negiligibe Benenificial | ${ }_{56.0}^{56.0}$ | 0.7 | Neoligioble Adverse | 43.5 | ${ }_{44.3}^{4.3}$ | ${ }_{44.1}^{4.1}$ |
| 30, HUTCHEON LOW PLACE | Dwelling | 59.0 | 60.1 | 58.9 | -0.1 | Negligible Beneficial | 59.9 | 0.9 | Negligible Adverse | 46.8 | 47.8 | 47.6 |
| 31, HUTCHEON LOW PLACE | Dwelling | 54.1 | 55.0 | 53.8 | -0.3 | Negligible Beneficial | 54.8 | 0.7 | Negigioble Adverse | 42.4 | 43.2 | 43.1 |
| 32, HUUCHEONLOW PLACE | Dwelling | 59.0 54.1 | ${ }^{650.0}$ | 58.9 | -0.3 | Negegigigibe Beneneficioial | 59.9 54.8 | 0.7 | Negligigile Adverse | ${ }_{46.4}^{42.8}$ | ${ }_{4}^{43.2}$ | ${ }_{4}^{43.1}$ |
| 34, HUTCHEON LOW PLACE | Dwelling | 59.0 530 | 60.1 538 | 58.9 527 | -0.1 | Negligible Beneficial | 59.9 595 | 0.9 0.5 | Negligibl Adverse | $\frac{46.8}{414}$ | 47.8 <br> 42 | 47.6 419 |
| ${ }^{\text {35, HUTCHEON }}$ 3, HUTCHEON LOW PLACE | ${ }^{\text {Dweliling }}$ Douling | 53.0 | 53.8 | 52.7 58.9 | $\stackrel{-0.3}{-0.1}$ | Negiligiole Beneiticial | 53.9 59.9 | 0.9 | Negigigib Avverse | 46.8 | 47.8 | 47.6 |
| 37. HUTCHEON LOW PLACE | Dewling | 53.0 | 53.8 | 52.7 | -0.3 | Negligible Beneficial | 53.5 | 0.5 | Negligible Adverse | 41.4 | 42.2 | 41.9 |
| 38, HUTCHEON LOW PLACE | Dwelling | ${ }_{59.3}^{59.0}$ | 60.3 53.8 | 59.2 52.7 | -0.1 .0 .3 | $\frac{\text { Negigigiole Beneficial }}{\text { Negligile }}$ Beneficial | 60.1 53.5 | 0.8 0.5 | Negigiole Adverse | ${ }_{4}^{47.1}$ | ${ }_{42.0}^{48.2}$ | 47.8 419 |
| 4, HUTCHEON LOW PLACE | Dwelling | 57.2 | 58.3 | 57.1 | -0.1 | Negligible Beneficial | 58.1 | 0.9 | Negiligile Adverse | 45.2 | 46.2 | 46.0 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 Lnight,outside | DS33 Lnight,outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 40, HUTCHEON LOW PLACE | Deeling | 59.3 | ${ }^{60.3}$ | 59.2 | ${ }^{0.1}$ | Negligible Beneficical | 60.1 | 0.8 | Negigigle Adverse | 47.1 | 48.0 | 47.8 |
| 41, HUTCHEON LOW PLACE | Dweling | 53.0 <br> 59 <br> 9. | $\frac{53.8}{60.3}$ | $\begin{array}{r}52.7 \\ \hline 9.7 \\ \hline\end{array}$ | -0.3 | Negligible Beneficial | $\frac{53.5}{60.1}$ | ${ }_{0}^{0.5}$ | $\frac{\text { Negligible Adverse }}{\text { Negioigle Adverse }}$ | 41.4 47.1 | 42.2 48.0 | 41.9 478 |
| 42, HUTCHEONLOW PLACE | Dwelling | ${ }_{53.0}^{59.3}$ | ${ }^{60.3} 5$ | $\stackrel{59.2}{52.7}$ | $\stackrel{-0.1}{-0.3}$ | Negiligiole Beneficial | ${ }_{50}^{63.5}$ | 0.5 | Neogigigibe Adverse | 41.4 | 42.2 | $\stackrel{47.9}{41.9}$ |
| 44, HUTCHEON LOW PLACE | Dwelling | 59.3 | 60.3 | 59.2 | -0.1 | Negligible Beneficial | 60.1 | 0.8 | Negligiole Adverse | 47.1 | 48.0 | 47.8 |
| 45, HUTCHEON LOW PLACE | Dwelling | 53.0 | 53.8 | 52.7 | -0.3 | Negligible Beneficical | 53.5 | 0.5 | Negigigile Adverse | 41.4 | 42.2 | 41.9 |
| 46, HUTCHEON LOW PLACE | Deelling | 59.3 | 60.3 | 59.2 | -0.1 | Negligible Beneficicial | 60.1 | 0.8 | Negiligible Adverse | 47.1 | 48.0 | 47.8 |
| 47, HUTCHEON LOW PLACE | welling | 53.0 | 53.8 | 52.7 | -0.3 | Negligible Beneficicial | 53.5 | 0.5 | Negigioble Adverse | 41.4 | 42.2 | 41.9 478 |
| 49, HUTCHEONLOW PLACE | ${ }^{\text {Duediling }}$ | ${ }_{53.0}^{59.0}$ | ${ }_{53.8}^{60.3}$ | ${ }_{5}^{52.7}$ | ${ }_{-0.3}$ | Negiligiole Beneneificial | ${ }_{50.5}^{63.5}$ | 0.5 | Neogigiole Adversse | ${ }_{41.4}^{4}$ | ${ }_{42.2}^{48 .}$ | 41.9 |
| 5, HUTCHEON LOW PLACE | Delling | 55.3 | 56.2 | 55.0 | -0.3 | Negligible Beneficical | 56.0 | 0.7 | Negigigibe Adverse | ${ }_{4}^{43.5}$ | 44.3 | 44.1 |
| 50, HUTCHEON LOW PLACE | welling | 59.3 | 60.3 | 59.2 | -0.1 | Negligible Beneficial | 60.1 | 0.8 | Negiligible Adverse | 47.1 | 48.0 | 47.8 |
| 51, HUTCHEON LOW PLACE | welling | 50.3 | 50.2 | 50.2 | -0.1 | Negligible Beneficial | 51.0 | 0.7 | Negiligibe Adverse | 39.0 | 38.9 | 39.6 |
| 52, HUTCHEON LOW PLACE | welling | 59.3 | 60.3 | 59.2 | -0.1 | Negligible Beneficical | 60.1 | 0.8 | Negigioble Adverse | 47.1 | 48.0 | 47.8 |
| 53, HUTCHEON LOW PLACE | ling | 50.3 | 50.2 | 50.2 | -0.1 |  | 51.0 | 0.7 | Negigiobio Adverse | 39.0 | 38.9 | 39.6 |
| 54, HUTCHEON LOW P | ing | 59.3 | ${ }^{60.3}$ |  | -0.1 | Negligible Beneficicial | 60.1 |  |  | ${ }^{47.1}$ |  | 47.8 |
| 55. HUTCHEON LOW PLACE | Deelling | 50.3 |  | 50.2 | -0. 1 | Negiligioe Beneificial | 51.0. |  | Negiligble Adverse | 9.0 |  | 39.6 |
| 57. HUTCHEON LOW PLACE | Dwelling | 50.3 | 50.2 | 50.2 | -0.1 | Negligible Beneficicial | 51.0 | 0.7 | Neoligioble Adverse | 39.0 | 38.9 | 39.6 |
| 58, HUTCHEON LOW PLACE | Dwelling | 57.8 | 58.7 | 57.6 | -0.2 | Negligible Beneficial | 58.5 | 0.7 | Negligible Adverse | 45.8 | 46.6 | 46.4 |
| 59, HUTCHEON LOW PLACE | Dwelling | 50.3 | 50.2 | 50.2 | -0.1 | Negligible Beneficial | 51.0 | 0.7 | Negligible Adverse | 39.0 | 38.9 | 39.6 |
| 6, HUTCHEON LOW PLACE | Dwelling | 57.2 | 58.3 | 57.1 | -0.1 | Negligible Beneficial | 58.1 | 0.9 | Negigioble Adverse | 45.2 | 46.2 | 46.0 |
| 60, HUCCHEONLOW PLACE | ${ }^{\text {Dwelling }}$ Dowling | 57.8 50.3 | 58.7 | 57.6 50.2 | -0.2 <br> -0.1 | Negiligle Beneficial | 58.5 51.0 | 0.7 | Negigigle Adverse | ${ }^{459.0}$ | 46.6 38.9 | ${ }_{39.6}^{46.4}$ |
| 62, HUTCHEON LOW PLACE | Dwelling | 57.8 | 58.7 | 57.6 | -0.2 | Negligible Beneficial | 58.5 | 0.7 | Negigigible Adverse | 45.8 | 46.6 | 46.4 |
| 63, HUTCHEON LOW PLACE | Deelling | 52.2 | 52.9 | 51.8 | -0.4 | Negligible Beneficial | 52.7 | 0.5 | Negigioble Adverse | 40.7 | 41.3 | 41.2 |
| 64, HUTCHEON LOW PLACE | Welling | 57.8 | 58.7 | 57.6 | -0.2 | Negligible Beneficial | 58.5 | 0.7 | Negiligibe Adverse | 45.8 | 46.6 | 46.4 |
| 65, HUTCHEONLOW PLACE | Oweling | 52.2, | 52.9 58.7 | 51.8 57.6 | -0.4 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ Beneficial | 52.7 58.5 | ${ }_{0}^{0.5}$ | $\frac{\text { Negigigble Adverse }}{\text { Negilible Adverse }}$ | ${ }_{45.8}^{40.7}$ | 41.3 | 41.2 |
| 67 , HUTCHEON LOW PLACE | Dwelling | 52.2 | 52.9 | 51.8 | -0.4 | Negligible Beneficiolal | 52.7 | 0.5 | Negigigible Adverse | 40.7 | 41.3 | 41.2 |
| 68, HUTCHEON LOW PLACE | Dwelling | 57.8 | 58.7 | 57.6 | -0.2 | Negligible Beneficial | 58.5 | 0.7 | Negiligile Adverse | 45.8 | 46.6 | 46.4 |
| 69, HUTCHEONLOW PLACE | Dwelling | 52.2 <br> 5.3 | 52.9 | 51.8 <br> 55.0 | -0.4 <br> -0.3 | $\frac{\text { Negiligiole Beneficial }}{\text { Negligible }}$ Beneficial | 52.7 56.0 | 0.5 0.7 | $\frac{\text { Negligiole Adverse }}{\text { Nefligiole Adverse }}$ | $\frac{40.7}{43.5}$ | $\frac{41.3}{44}$ | $\frac{41.2}{44.1}$ |
| 7 7, HUTCHEON LOW PLACE | Wwelling | 57.8 | 58.7 | 57.6 | -0.2 | Negligible Bene | 58.5 | 0.7 | Negiligile Adverse | 45.8 | 46.6 | 46.4 |
| 71, HUTCHEON LOW PLACE | wwelling | 52.2 | 52.9 | 51.8 | -0.4 | Negligible Beneficical | 52.7 | 0.5 | Negigioble Adverse | 40.7 | 41.3 | 41.2 |
| 72, HUTCHEONLOW PLACE | weling | 57.8 |  |  |  | Negigigile Benenitical | 58.5 |  |  | 45.8 |  |  |
| 7, HUTCHEONLOW PLACE | Oweiling | 52.1 | 52.9 | 51.8 | -0.4 | Negiligile Beneniciar | 52.7 | 0.5 | Negiqigile Adverse | 40.7 | 4.3 | 4.2 |
| 74, HUUCHEONLLOW PLACE | Oweling | 56.0 | 56.9 | 55.7 <br> 525 | -0.3 | $\frac{\text { Negligible Benenicical }}{\text { Negligile }}$ | 56.7 | ${ }_{0}^{0.7}$ | Negigiole Adverse | $\frac{44.1}{413}$ | $\frac{44.9}{421}$ | 44.8 |
| 76, HUTCHEONLOW PLACE | Dwelling | 56.0 | 53.9 | ${ }_{55.7}^{55.7}$ | -0.3 | Negiligible eeneneicicial | ${ }_{56.7}^{56.7}$ | 0.7 | $\frac{\text { Negigigie Adverse }}{\text { Neligiole Adverse }}$ | ${ }_{44.1}^{44.3}$ | ${ }_{44.1}^{4.9}$ | 44.8 |
| 77, HUTCHEONLOW PLACE | Dwelling | 52.9 | 53.7 | 52.5 | -0.4 | Negligible Beneficical | 53.4 | 0.5 | Negigiolile Adverse | 41.3 | 42.1 | 41.8 |
| 78, HUTCHEON LOW PLACE | Dwelling | 56.0 | 56.9 | 55.7 | -0.3 | Negligible Beneficial | 56.7 | 0.7 | Negiligibe Adverse | 44.1 | 44.9 | 44.8 |
| 79, HUTCHEONLOW PLACE | Dwelling | 52.9 57.2 | ${ }_{5}^{53.7}$ | 52.5 57.1 | -0.4 | $\frac{\text { Negligible Benenitical }}{\text { Neglioile }}$ Beneficial | 53.4 58.1 | 0.5 | $\frac{\text { Negigigle Adverse }}{\text { Neligiole Adverse }}$ | $\frac{41.3}{45.2}$ | $\stackrel{42.1}{46.2}$ | $\xrightarrow{46.8} 4$ |
| 80, HUTCHEON LOW PLACE | Wwelling | 56.0 | 56.9 | 55.7 | -0.3 | Negligible Beneficial | 56.7 | 0.7 | Negiligile Adverse | 44.1 | 44.9 | 44.8 |
| $\frac{81}{82}$ 81, HUTCHEOCHEONLOW PLOWCE | Dwelling | 52.9 56.0 | 53.7 56.9 | 52.5 55.7 | -0.4 -0.3 | $\frac{\text { Negligible Beneficial }}{\text { Negligibl }}$ Beneficial | 53.4 56.7 | 0.5 | $\frac{\text { Negiligib Adverse }}{\text { Negigible Adverse }}$ | 41.3 | 42.1 44.9 | 41.8 44.8 |
| 83, HUTCHEON LOW PLACE | Dwelling | 51.1 | 50.8 | 51.0 | -0.1 | Negligible Beneficial | 51.6 | 0.5 | Negiligile Adverse | 39.7 | 9.5 | 40.2 |
| 84, HUTCHEONLOW PLACE | Dwelling | 56.0 51.1 | 56.9 50.8 | 55.7 51.0 | -0.3 .0 .1 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ | 56.7 51.6 | 0.7 | Negligibl Adverse | 44.1 39.7 | 44.9 39.5 | 44.8 40.2 |
| 86, HUTCHEON LOW PLACE | Dwelling | 56.0 | 56.9 | 55.7 | -0.3 | Negligible Beneficial | 56.7 | 0.7 | Negiligile Adverse | 44.1 | 44.9 | 44.8 |
| 87, HUTCHEON LOW PLACE | Dwelling | 51.1 56.0 | 50.8 56.9 | 51.0 55.7 | -0.1 -0.3 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ | 51.6 56.7 | 0.5 0.7 | Negligibl Adverse | 39.7 44.1 | 39.5 44.9 | 40.2 44.8 |
| 89, HUTCHEON LOW PLACE | Welling |  |  | 51.0 | -0.1 | Negligible Beneficial | 51.6 | 0.5 | Negiligile Adverse | 39.7 |  |  |
| 9, HUTCHEON LOW PLACE | Dwelling | 55.3 | 56.2 | 55.0 | -0.3 | Negligible Beneficial | 56.0 | 0.7 | Negiligile Adverse | 43.5 | 44.3 | 44.1 |
| 90, HUTCHEON LOW PLACE | Wwelling | 56.0 | 56.9 | 55.7 | -0.3 | Negligible Beneficial | 56.7 | 0.7 | Negigioble Adverse | 44.1 | 44.9 | 44.8 |
| 91, HUTCHEONLOW PLACE | Dwelling | 51.1 | 50.8 | 51.0 | -0.1 | Negiligible eeneneficial | 51.6 | 0.5 | Negligigile Adverse | 39.7 39.7 | 39.5 | ${ }_{40.2}^{40.2}$ |
| 95, HUTCHEON LOW PLACE | Delling | 51.8 | 52.6 | 51.4 | -0.4 | Negligible Beneficial | 52.3 | 0.5 | Negigigibe Adverse | 40.4 | 41.1 | 40.8 |
| 97, HUTCHEON LOW PLACE | Dwelling | 51.8 | 52.6 | 51.4 | -0.4 | Negligible Beneficial | 52.3 | 0.5 | Negiligile Adverse | 40.4 | 41.1 | 40.8 |
| 99, HUTCHEONLOW PLACE | Dwelling | 51.8 54.3 | 52.6 55.1 | 51.4 54.1 | -0.4 | Negiligie Beneficial | $\stackrel{52.3}{55.6}$ | 0.5 1.3 | $\frac{\text { Negigigle Adverse }}{\text { Neligiole Adverse }}$ | $\stackrel{40.4}{42.6}$ | $\stackrel{41.1}{43.3}$ | 40.8 43.8 |
| 10, JOHN PARK PLACE, BRIDGE OF DON | Dwelling | 55.5 | 56.3 | 55.3 | -0.2 | Negligible Beneficial | 56.8 | 1.3 | Negigioibe Adverse | 43.7 | 44.4 | 44.9 |
|  | Dwelling | 67.5 56.3 | 68.4 57.1 | 67.2 56.1 | -0.3 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ Beneficial | 68.8 57.6 | 1.3 1.3 | $\frac{\text { Negligible Adverse }}{\text { Nefligible Adverse }}$ | 54.5 44.4 | 55.3 45.1 | 55.7 45.6 |
| 14, JOHN PARK PLACE, BRIIDGE OF DON | Dwelling | 58.6 | 59.5 | 58.4 | -0.2 | Negligible Beneficial | 60.0 | 1.4 | Negligible Adverse | 46.5 | 47.3 | 47.7 |
| $\frac{16.0 .}{16}$ JoHN PARK PLACE, BRIDGE OF DON | Dwelling | 60.2 69.7 | 61.0 70.7 | 60.0 | -0.2 -0.2 | $\frac{\text { Negliable Beneficial }}{\text { Negligible }}$ | 61.5 71.1 | 1.3 1.4 | Negligibl Adverse | 47.9 56.5 | 48.6 57.4 | 49.1 57.7 |
| 18, JOHN PARK PLACE, BRIIDGE OF DON | veling | 63.9 | 64.9 | 63.7 | -0.2 | Negligible Beneficial | 65.3 | 1.4 | Negiligible Adverse | 51.2 | 1 | 52.5 |
| 19, JoHN PARK PLACE, BRIDGE OF DON | Dwelling | 69.6 53.7 | 70.5 54.5 | ${ }_{69.5}^{69.3}$ | -0.3 | $\frac{\text { Negligible Benenicial }}{\text { Neglioble }}$ | 70.9 55.0 | 1.3 1.3 | Negligible Adverse | 56.4 42.1 | 57.2 42.8 | 57.5 43.2 |
| 20, OHMN PARK PLACE, BRIDGE OF DON | Dwelling | 64.6 | 65.5 | 64.4 | -0.2 | Negligible Beneniticial | 65.9 | 1.3 | Negigigible Adverse | 51.9 | 52.7 | 53.0 |
| 3, JOHN PARK PLACE, BRIDGE OF DON | Dwelling | 55.4 | 56.2 | 55.1 | -0.3 | Negligible Beneficial | 56.7 | 1.3 | Negligible Adverse | 43.6 | 44.3 | 44.8 |
| 4. JOHN PARK PLACE, BRIDGE OF DON | Dwelling | 53.6 | 54.4 | 53.4 | -0.2 | Negligible Beneficial | 54.9 | 1.3 | Negigioble Adverse | 42.0 | 42.7 | 43.1 |
|  | Dwelling | ${ }_{54.5}^{57.7}$ | ${ }_{55.3}^{58.5}$ | 57.3 | -0.2 | Negegigigibe Beneneficioial | 59.8 55.8 | ${ }_{1.3}^{1.3}$ | Negligigile Adverse | ${ }_{42.8}^{42.7}$ | ${ }^{46.4}$ | ${ }^{46.8}$ |
| 7, John PARK PLACE, BRIDGE OF DON | Dwelling | 56.8 <br> 547 | 57.7 <br> 555 | $\begin{array}{r}56.6 \\ 54.5 \\ \hline\end{array}$ | -0.2 | Negligible Beneficial | 58.1 56 | ${ }_{1}^{1.3}$ | Negligibl Adverse | 44.9 | 45.7 437 | 46.0 |
|  | Dweliling | 54.7 57.4 | ${ }^{55.5}$ | 54.5 57.2 | $\stackrel{-0.2}{-0.2}$ | Negligiolibe Beneiticial | 56.0 58.8 | ${ }_{1}^{1.4}$ | Negigigible Adverse | 45.4 | ${ }_{46.2}^{43 .}$ | ${ }_{46.7}^{44.7}$ |
| 1, KEMP STREET | Dewling | 58.4. | 59.8 | 58.4. | 0.0 | No Change | 59.8 | 1.4 | Negligible Adverse | 46.3 | 47.6 | 47.6 |
| $\frac{10, \text { KEMP STREET }}{\text { 11, KEMP STREET }}$ | Dwelling | 51.3 53.7 | 52.4 54.9 | $\stackrel{51.1}{53.6}$ | -0.2 -0.1 | ${ }^{\text {Negegigigiole }}$ Benefificicial | 52.3 54.9 | ${ }_{1}^{1.0}$ | Negigigib Avverse | ${ }^{39.1}$ | 43.1 | 43.1 |
| 12, KEMP STREET | Dwelling | 51.3 | 52.4 | 51.1 | -0.2 | Negligible Beneficial | 52.3 | 1.0 | Negigigile Adverse | 39.9 | 40.9 | 40.8 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 Lnight,outside | $\begin{gathered} \text { DS33 } \\ \text { Lnight,outside } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13. KEMP STREET | Dweling | 52.2 | 55.2 | 52.1 | ${ }^{0.1}$ | Negligible Beneficial | ${ }_{53.3}^{523}$ | 1.1 | Negigigle Adverse | 40.7 | 41.6 | 41.7 |
| 14. KEMP STREET | Dwelling | 51.3 | $\begin{array}{r}52.4 \\ 532 \\ \hline\end{array}$ | 年51.1 | -0.2 .0 .1 | Negliaible Beneficial | 52.3 <br> 533 | $\frac{1.0}{11}$ | Negiligil Adverse | 39.9 40.7 | $\frac{40.9}{41.6}$ | 40.8 41.7 |
| 15 MEMP STREET | Dweling | 52.2. | - $\begin{aligned} & \text { 53.2. } \\ & 52.4\end{aligned}$ | - 51.1 | -0.1 | Negligible Benenicial | - ${ }_{52.3}$ | 1.1 1.0 | $\frac{\text { Negigigie Adverse }}{\text { Negligible Adverse }}$ | 40.7 39.9 | $\stackrel{41.6}{40.9}$ | 41.7 40.8 |
| 17, KEMP STREET | Dwelling | 52.2 | 52.4 <br> 53.2 | ${ }_{52.1}$ | $\stackrel{-0.1}{-0.1}$ | Negegioible Beneficioil | ${ }_{53.3}$ | 1.1 | Negigigible Adverse | ${ }^{30.7}$ | 41.6 | 41.7 |
| 18, KEMP STREET | Dwelling | 50.9 | 51.8 | 50.7 | -0.2 | Negligible Beneficial | 51.9 | 1.0 | Negigigile Adverse | 39.5 | 40.4 | 40.4 |
| 19, KEMP STREET | Dwelling | 52.2 | 53.2 | 52.1 | 0.1 | Negligible Beneficial | 53.3 | 1.1 | Negigigile Adverse | 40.7 | 41.6 | 41.7 |
| 2, KEMP STREET | Deelling | 51.2 | 52.4 | 51.1 | -0.1 | Negligible Beneficical | 52.3 | 1.1 | Negigiole Adverse | 39.8 | 40.9 | 40.8 |
| 20, KEMP STREET | Dwelling | 50.8 | 51.8 | 50.7 | 0.1 | Negligible Beneficial | 51.9 | 1.1 | Negiligibe Adverse | 39.5 | 40.4 | ${ }^{40.4}$ |
| 21, KEMP STREET | Dwelling | 51.2 | 52.0 | 51.1 | ${ }^{0.1}$ | Negligible Beneficial | 52.2 | 1.0 | Negigigibe Adverse | 39.8 | 40.5 | 40.7 40.4 |
| 23, KEMP STREET | Dwelling | 50.7 | 51.4 | 50.6 | -0.1 | Negligible Beneficial | 51.6 | 0.9 | Negigigile Adverse | 39.4 | 40.0 | 40.2 |
| 24, KEMP STREET | Dwelling | 50.9 | 51.8 | 50.8 | 0.1 | Negligible Beneficial | 51.9 | 1.0 | Negigigile Adverse | 39.5 | 40.4 | 40.4 |
| 25, KEMP STREET | eiling | 49.4 | 49.9 | 49.3 | 0.1 | Negligible Beneficicial | 50.2 | 0.8 | Negiligibe Adverse | 38.2 | 38.6 | 38.9 |
| 26, KEMP STREET |  | 50.7 | 51.5 | 50.6 | 0.1 | Negiligile Benenitical | 51.6 | 0.9 | Negiligiole Adverse |  | 40.1 | 40.2 |
| 27, KEMP STE |  | 49.4 | 49.9 | 49.3 | -0.1 | Negligible Benefiticial |  | 0.8 | Negigigile Aaverse |  |  | 38.9 |
| 28, KEMP STRE | ding |  |  |  | -0.1 | Slagibe Benenicical |  | 0.9 | Negiligibe Adverse |  |  |  |
| 3, KEMP STREET | elling | 57.1 | 58.5 | . 1 | 0.0 | No Change | 58.4 | 1.3 | Negiligibe Adverse | . 1 | 46.4 | 46.3 |
| 30, KEMP STREET | eiling |  | 51.5 | 0.6 | - 0.1 | Negligible Beneitical | 51.6 | 0.9 | Negiligile Adverse | 9 4 | 40.1 | 40.2 |
| 32, KEMP STREET | Dwelling | 50.7 | 51.5 | 50.6 | 0.1 |  | 51.6 | 0.9 | Negigioble Adverse | 39.4 | 40.1 | 40.2 |
| 34, KEMP STREET | welling | 50.0 | 50.8 | 49.9 | -0.1 | Negiligile Benenitical | 50.9 | 0.9 | Negiligiole Adverse | 38.7 | 39.5 | 39.5 |
| 36, KEMP STIREET | weling | 50.0 | 50.8 | 49.9 | ${ }_{0}^{0.1}$ | Negiligile Benenitial | 50.9 | 0.9 | Negiligile Aaverse | ${ }^{38.7}$ | 39.5 | 39.5 |
| 38, KEMP STREET | Dwelling | 50.0 | 50.8 | 49.9 | -0.1 | Negiligile Benenitical | 50.9 | 0.9 | Negiligibe Adverse | 38.7 | 39.5 | 39.5 |
| 4, 4 , KEMP STREET | Dweling | 51.2 | ${ }^{52.4} 5$ | 519.1 | -0.1 |  | 52.3 50.9 | 0.9 | Neoligigibe Adverse | 39.8 38.7 | 30.5 | ${ }^{40.8} 3$ |
| 42, KEMP STREET | Dwelling | 49.5 | 50.4 | 49.3 | -0.2 | Negligible Benenicial | 50.3 | 0.8 | Negligible Adverse | 38.3 | 39.1 | 39.0 |
| 44, KEMP STREET | Deeling | 49.5 | 50.4 | 49.3 | -0.2 | Negligible Beneficical | 50.3 | 0.8 | Negigigibe Adverse | 38.3 | 39.1 | 39.0 |
| 5, KEMP STREET | Dwelling | 53.7 | 54.9 | 53.6 | -0.1 | Negligible Beneficial | 54.9 | 1.2 | Negigigibe Adverse | 42.1 | 43.1 | 43.1 |
| $6, \mathrm{KEMP}$ STREET | Dwelling | 51.2 | 52.4 | 51.1 | 0.1 | Negligible Beneficial | 52.3 | 1.1 | Negigigle Adverse | 39.8 | 40.9 | 40.8 |
| 7, KEMP STREET | Dwelling | 53.7 | 54.9 | 53.6 | 0.1 | Negligible Benenticial | 54.9 | 1.1 | Negigigibe Adverse | ${ }^{42.1}$ | 43.1 | ${ }_{40.1}^{43.1}$ |
| 9. KEMP STREET | Dwelling | 53.7 | 54.9 | 53.6 | -0.1 | Neglioible Beneficicial | 54.9 | 1.2 | Negaligible Adverse | 42.1 | 43.1 | 43.1 |
| 32, KETTLEHILLS CRESCENT | Deeling | 48.1 | 47.3 | 48.0 | 0.1 | Negligible Beneficial | 48.3 | 0.2 | Neoligiole Adverse | 37.0 | 36.3 | 37.2 |
| 33, KETTLEHHLLS CRESCEN |  | 48.1 |  | 48.1 | 0.0 | No Change | 48.4 |  |  | ${ }^{37.0}$ |  | ${ }^{37.3}$ |
| 34, KETTLEHILLS CRESCENT | weling | 48.1 | 47.2 | 48.0 | -0.1 | Negligible Beneitical | 48.3 | 0.2 | Negiligibe Adverse | 37.0 | 36.2 | 37.2 |
| 35, KETTLEHILLS CRESCENT |  |  | 46. | 47 | . 1 | Negligiole Beneficial | 48.0 | 0.2 | Negiligile Adverse |  |  | 36.9 |
| 36, KETLEHILSCRCESCEN | Weviling | 47.6 | 40.7 | 47.5 | -0.1 | Negligible Benenicicial | 47.8 | 0.2 | Negigigile Adverse | ${ }^{36.6}$ | ${ }^{35.8}$ | ${ }^{36.8}$ |
| 37, KETLLEHILS CRESCENT | Dweling | 47.7 | 46.8 | 47.7 | 0.0 | No Change | 48.0 | 0.3 | Negiligibe Adverse | 36.7 364 | 35.9 | 36.9 3.6 |
| 38, KETILEHILSCRCESCENT | Dweling | 47.4 | 46.5 | 47.3 | -0.1 | Negligible Benenicial | ${ }_{477}^{47}$ | 0.2 | Negiligile Adverse | 36.4 3.5 | $\begin{array}{r}35.6 \\ 357 \\ \hline\end{array}$ | 36.6 3.7 |
| 39, KETTLEHILS CRESCENT | Dwelling | ${ }_{47.5}^{47.5}$ | 46.6 46.4 | ${ }_{47.4}^{47}$ | $-01$ | Negligible Beneitical | ${ }_{47.7}^{47.7}$ | 0.2 0.2 | Negigigibe Adverse | ${ }^{36.5}$ | ${ }_{35.5}$ | ${ }_{36.5}^{36.7}$ |
| 41, KETTLEHILLS CRESCENT | Dwelling | 45.5 | 45.3 | 45.4 | -0.1 | Negligible Beneficial | 46.0 | 0.5 | Negiligible Adverse | 34.7 | 34.5 | 35.1 |
| 42, KETTLEHILLS CRESCENT | Dwelling | 44.9 | 44.9 | 44.9 | 0.0 | No Change | 45.5 | 0.6 | Negligible Adverse | 34.1 | 34.1 | 34.7 |
| 43, KETTLEHILLS CRESCENT | Dwelling | $\stackrel{43.5}{43.3}$ | 43.9 43.8 | 43.4 43.3 | -0.1 | $\frac{\text { Negligible Beneficial }}{\text { No Change }}$ | $\frac{44.2}{44.1}$ | 0.7 0.8 | Negigiole Adverse | 32.9 32.7 | $\begin{array}{r}33.2 \\ 33.2 \\ \hline\end{array}$ | 33.5 33.4 |
| 1, KETTLEHILLS LANE | Dwelling | 44.7 | 44.8 | 44.6 | -0.1 | Negligible Benenficial | 45.3 | 0.6 | Neogigible Adverse | 34.0 | ${ }_{34.1}$ | 34.5 |
| 2, KETTLEHILLS LANE | $\frac{\text { Dwelling }}{\text { Dweling }}$ | 43.5 43.3 | 43.9 43.1 | 43.4 43.2 | -0.1 -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negligibl }}$ Beneficial | 44.2 43.8 | 0.7 0.5 | $\frac{\text { Negiligibe Adverse }}{\text { Negigible Adverse }}$ | 32.9 32.7 | 33.2 32.5 | 33.5 33.2 |
| 4, KETTLEHILLS LANE | Dwelling | 43.3 | 43.7 | 43.3 | 0.0 | No Change | 44.0 | 0.7 | Neogigigle Adverse | ${ }_{32.7}$ | ${ }_{33.1}$ | ${ }_{33.3}$ |
| 6, 6 KETTLEHILLS LANE | Dwelling | 42.5 | 43.2 | 42.4 | -0.1 | Negliaible Beneficial | ${ }^{43.3}$ | 0.8 | Negligible Adverse | 32.0 385 | 32.6 | 32.7 38.7 |
| ${ }^{187, \text { kING STREET }}$ | veling |  |  |  |  | No Change |  |  | Negiligile Adverse |  |  |  |
| 21, kING STREET | ${ }^{\text {Dwelling }}$ | 49.7 | 50.1 | 49.7 | 0.0 | No Change | 50.0 | 0.3 | Neoligioble Adverse | ${ }_{38.5}$ | ${ }_{38.8}$ | ${ }_{38,7}$ |
| 11, KING STREET, WOODSIDE | Dwelling | 49.6 | 50.3 | 49.7 | 0.1 | Neoligible Adverse | 50.5 | 0.9 | Neoligiole Adverse | 38.4 | 39.0 | 39.2 |
| 13, KING STREET, WOODSIDE | Dwelling | 49.6 | 50.3 | 49.7 | 0.1 | Negigigile Adverse | 50.5 | 0.9 | Negigigile Adverse | 38.4 | 39.0 | 39.2 |
| 15. KING STREET, WOODSIDE | Dwelling | 49.6 | 50.3 | 49.7 | 0.1 | Negligible Adverse | 50.5 | 0.9 | Negigioble Adverse | 38.4 | 39.0 | 39.2 |
|  | Dweling | 51.9 | 52.7 51.9 | 51.3 | 0.1 | Negligibile Eeneficicial | 52.8 52.1 | 0.9 | Neogigiole Adverse | ${ }_{30.8}^{40.4}$ | ${ }_{40.4}^{41.2}$ | ${ }_{40}^{41.6}$ |
| KINMUNDY, KINMUNDY, LAUREL LANE, BRIDGE OF DON | Deeling | 58.8 | 59.2 | 58.7 | -0.1 | Negligible Beneficial | 59.5 | 0.7 | Negigigile Adverse | 46.7 | 47.0 | 47.3 |
| 1, LABURAUM W WALK | Dwelling | 51.8 | 52.4 | 51.8 | 0.0 | No Change | 52.4 | 0.6 | Negigigibe Adverse | 40.4 | 40.9 | 40.9 |
| 11, LABURNUM WALK | Dwelling | 54.5 | 54.8 | 54.6 | 0.1 | Negligible Adverse | 54.9 | 0.4 | Negiligibe Adverse | 42.8 | 43.1 | ${ }^{43.1}$ |
| 13, LABURNUM WALK | Dwelling | $\stackrel{56.5}{56.6}$ | 56.8 57.0 | 56.6 56.7 | 0.1 | $\frac{\text { Negigible Adverse }}{\text { Negligibe Adverse }}$ | 56.9 57.0 | 0.4 0.4 | Negigible Adverse | 44.6 | 44.9 45.0 | 44.9 45.0 |
| 17, LABURNUM WALK | Dwelling | 62.3 | 62.6 | 62.5 | 0.2 | Negligible Adverse | 62.6 | 0.3 | Negigigile Adverse | 49.8 | 50.1 | 50.1 |
| 19, LABURNUM WALK | $\frac{\text { Dwelling }}{\text { Dweling }}$ | 62.3 49.9 | 62.6 50.6 | 62.5 49.9 | 0.2 | Negligible Adverse | 62.6 50.5 | 0.3 | $\frac{\text { Negiligibe Adverse }}{\text { Negigible Adverse }}$ | 49.8 38.6 | 50.1 39.3 | 50.1 39.2 |
| 21, LABURNUM WALK | Dwelling | 62.3 | 62.6 | 62.5 | 0.2 | Negigigile Adverse | 62.6 | 0.3 | Negigigile Adverse | 49.8 | 50.1 | 50.1 |
| 23, LABURNUM WALK | $\frac{\text { Dwelling }}{\text { Dweling }}$ | $\frac{62.3}{62.3}$ | $\frac{62.6}{62.6}$ | 62.5 62.5 | 0.2 | $\frac{\text { Negiligile Adverse }}{\text { Neoligible Adverse }}$ | $\frac{62.6}{62.6}$ | ${ }_{0}^{0.3}$ | $\frac{\text { Negiligile Adverse }}{\text { Nefigiole Adverse }}$ | $\frac{49.8}{49.8}$ | 50.1 50.1 | 50.1 50.1 |
| 27, LABURNUM WALK | Dwelling | 62.3 | 62.6 | 62.5 | 0.2 | Negigigile Adverse | 62.6 | 0.3 | Negligible Adverse | 49.8 | 5.1 | 50.1 |
| 29, LABURNUM WALK | Dwelling | 62.3 | 62.6 | 62.5 | 0.2 | Negigigile Adverse | 62.6 | 0.3 | Negigigibe Adverse | 49.8 | 50.1 | 50.1 |
| 3, LABURNUM WALK | Dwelling | 52.0 | 52.5 | 52.0 | 0.0 | No Change | 52.5 | 0.5 | Negligible Adverse | 40.5 | 41.0 | 41.0 |
|  | Weviling | 64.3 | 62.6 | 62.5 | 0.2 | Negligio Adverse | ${ }_{64.6}^{64}$ | 0.3 | Neoligibe Adverse | 4.8 | 51.1 | 50.1 |
| 35, LABURNUM WALK | Dwelling | 64.1 | 64.3 | 64.2 | 0.1 | Neoligiole Adverse | 64.4 | 0.3 | Negiligible Adverse | $\frac{51.4}{51.4}$ | 51.6 | ${ }_{51.7}$ |
| 37, LABURNUM WALK | Deeling | 64.1 | 64.3 | 64.2 | 0.1 | Negligible Adverse | 64.4 | 0.3 | Negigiolie Adverse | 51.4 | 51.6 | 51.7 |
| 39, LABURNUM WALK | Dweling | 64.1 | 64.3 | 64.2 | 0.1 | Negiligile Adverse | 64.4 | 0.3 | Negligible Adverse | 51.4 | ${ }^{51.6}$ | 51.7 |
| 41, LTABURNUM WALK | Dwelling | 46.1 | ${ }_{64.3}$ | 464.2 | 0.1 | Negigigible Adverse | 44.4 | 0.3 | Negligibie Adverse | $\frac{51.4}{}$ | ${ }_{51.6}$ | ${ }_{51.7}$ |
| 43, LABURNUM WALK | Dwelling | 64.1 | 64.3 | 64.2 | 0.1 | Negligible Adverse | 64.4 | 0.3 | Negligible Adverse | 51.4 | 51.6 | 51.7 |
| 45, LABURNUM WALK | Dwelling | ${ }_{64.1}^{64.1}$ | ${ }_{64.3}^{64.3}$ | 64.2 | ${ }_{0}^{0.1}$ | Negigible Adverse | 644.4 | 0.3 | Negigigib Adverse | - 51.4 | $\stackrel{51.6}{51.6}$ | ${ }_{51.7}^{51.7}$ |
| 49, LABURNUM WALK | Dwelling | 68.2 | 68.4 | 68.4 | 0.2 | Negligible Adverse | 68.5 | 0.3 | Negligible Adverse | 55.1 | 55.3 | 55.4 |

A90/A96 Haudagain Improvement
DMRB Stage 3 Environmental Statement

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 <br> Lnight,outside | DM33 <br> Lnight,outside | DS33 <br> Lnight,outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 5, LABURNUM WALK | Dwelling | 52.9 | 53.3 | 52.9 | 0.0 | No Change | 53.3 | 0.4 | Negiligibe Adverse | 41.3 | 41.7 | 41.7 |
| 51. LABURNUM WALK | $\frac{\text { Dwelling }}{\text { Owelling }}$ | 68.2 | 68.4 | 68.4 | $\frac{0.2}{0.2}$ | $\frac{\text { Negiligile Adverse }}{\text { Negigible Adverse }}$ | 68.5 68.5 | 0.3 | Negligible Adverse | 55.1 55.1 | ${ }_{55.3}^{55.3}$ | 55.4 55.4 |
| 55, LABURNUM WALK | Dwelling | 68.2 | 68.4 | 68.4 | 0.2 | Neogigigile Adversse | 68.5 | 0.3 | Neogigigile Adversse | ${ }_{55.1}^{55.1}$ | ${ }_{55.3}$ | 55.4 |
| 57, LABURNUM WALK | Dwelling | 68.2 | 68.4 | 68.4 | 0.2 | Negigiole Adverse | 68.5 | 0.3 | Negiligile Adverse | 55.1 | 55.3 | 55.4 |
| 59, LABURNUM WALK | Dwelling | 68.2 | 68.4 | 68.4 | 0.2 | Negiligile Adverse | 68.5 | 0.3 | Negiligile Adverse | 55.1 | 55.3 | 55.4 |
| 6, LABURNUM WALK | Dwelling | 52.0 | 52.5 | 52.1 | 0.1 | Negigiole Adverse | 52.5 | 0.5 | Negiligile Adverse | 40.5 | 41.0 | 41.0 |
| 61, LABURNUM WALK | Dwelling | 68.2 | 68.4 | 68.4 | 0.2 | Negligible Adverse | 68.5 | 0.3 | Negigiolie Adverse | 55.1 | 55.3 | 55.4 |
| 67, LABURNUMM WALK | Dwelling | 68.22 | 68.4. | 68.4. ${ }^{68.3}$ | 0.2 0.1 | Negligible Adverse | 68.5 54.6 | 0.3 0.4 | Negligible Adverse | 55.1 42.5 | ${ }_{45}^{55.8}$ | 55.4 42.9 |
| 9, LABURNUM WALK | Dwelling | 54.3 | 54.6 | 54.4 | 0.1 | Negligibile Adverse | 54.7 | 0.4 | Negigiole Adverse | 42.6 | 42.9 | 43.0 |
| LADESIDE COTTAGE, 2, GRANDHOLM COTTAGES, GRANDHOLM | Dwelling | 47.8 | 48.0 | 47.6 | -0.2 | Negligible Beneficial | 48.6 | 0.8 | Negligible Adverse | 36.8 | 36.9 | 37.5 |
| LADESIDE COTTAGE, 3, GRANDHOLM COTTAGES, GRANDHOLM | Dwelling | 47.9 | 48.4 | 7.8 | 0.1 | Negligible Beneficial | 49.0 | 1.1 | Negligible Adverse | 36.8 | 37.3 | 37.8 |
| LADESIDE COTTAGE, 4, GRANDHOLM COTTAGES, GRANDHOLM | Dwelling | 48.0 | 48.2 | 47.8 | -0.2 | Negligible Beneficial | 48.8 | 0.8 | Negligible Adverse | 36.9 | 37.1 | 37.7 |
| 1, LLARCH ROAD | Dwelling | ${ }_{564.8}^{64}$ | 57.0 64.5 | 56.8 64.3 | 0.0 0.0 | No Change | 57.1 64.6 | 0.3 0.3 | Negiligile Adverse | $\frac{44.9}{516}$ | 45.0 518 | 45.1 519 |
| $1{ }^{\text {IT, LARCH ROAD }}$ | Dwelling | 57.7 | 58.0 | ${ }_{57.7}$ | 0.0 | No Change | 58.0 |  | Neogigioble Adverse | 45.7 | 45.9 | 45.9 |
| $1{ }^{\text {12, LARCH }}$ LOAD | Dwelling | 64.3 | 64.5 | 64.3 | 0.0 | No Change | 64.6 | 0.3 | Neogigioble Adverse | $\stackrel{4}{51.6}$ | 51.8 | 51.9 |
| $14 . \operatorname{LARCH~ROAD~}$ | Dwelling | 64.3 | 64.5 | 64.3 | 0.0 | No Change | 64.6 | 0.3 | Negigiolile Adverse | 51.6 | 51.8 | 51.9 |
| 16, LARCH ROAD | Dwelling | 64.3 | 64.5 | 64.3 | 0.0 | No Change | 64.6 | 0.3 | Negligible Adverse | 51.6 | 51.8 | 51.9 |
| $18 . \mathrm{LARCH}$ ROAD | Welling | 66.8 | 67.0 | 66.8 | 0.0 | No Change | ${ }_{6}^{67.1}$ | ${ }^{0.3}$ | Negiligibe Adverse | ${ }_{53.9}^{51.9}$ | 54.0 | 54.1 5.9 |
| $\frac{\text { 2, LLARCH ROAD }}{20 . L A B C H R O A D ~}$ | Dwelling | 64.3 66.8 | ${ }_{64.5}^{67.0}$ | 64.3 66.8 | 0.0 0.0 | $\frac{\text { No Change }}{\text { No Change }}$ | 64.6 67.1 | ${ }_{0}^{0.3}$ | $\frac{\text { Negiligible Adverse }}{\text { Negigiole Adverse }}$ | 51.6 53.9 | 51.8 54.0 | 51.9 54.1 |
| 22, LARCH ROAD | Dwelling | 66.8 | 67.0 | 66.8 | 0.0 | No Change | 67.1 | 0.3 | Neogigigile Adverse | 53.9 | $\stackrel{54.0}{54.0}$ | ${ }_{54.1}^{54.1}$ |
| 24, LARCH ROAD | Dwelling | 66.8 | 67.0 | 66.8 | 0.0 | No Change | 67.1 | 0.3 | Negiligile Adverse | 53.9 | 54.0 | 54.1 |
| $\frac{26, \text { LARCH ROAD }}{28 \text { LABCH ROAD }}$ | Dwelling | 66.8 66.8 | 67.0 67.0 | 66.8 66.8 | 0.0 0.0 | $\frac{\text { No Change }}{\text { No Change }}$ | 67.1 67.1 | ${ }_{0}^{0.3}$ | Negligible Adverse Nefigiole Adverse | 53.9 53.9 | 54.0 54.0 | 54.1 54.1 |
| 3, LARCH ROAD | Dwelling | 57.0 | 57.3 | 57.0 | 0.0 | No Change | 57.4 | 0.4 | Negigigibe Adverse | 45.0 | 45.3 | 45.4 |
| 3 30, LARCH ROAD | Dwelling | 66.8 | 67.0 | 66.8 | 0.0 | No Change | 67.1 | 0.3 | Negiligibe Adverse | 53.9 | 54.0 | 54.1 |
| 32, LARCH ROAD | Dwelling | 66.8 | 67.0 |  | 0.0 | No Change | 67.1 |  | Negigigle Adverse | 53.9 | 54.0 | 54.1 |
| 34, LARCH ROAD | veling | 69.4 | 69.7 | 69.3 | -0.1 | Negligible Beneficical | 69.8 | 0.4 | Negigigibe Adverse | 56.2 | 56.5 | ${ }_{56.6}^{56}$ |
| $\frac{36, \text { LARCH ROAD }}{38 .}$ | Dweling | 69.4 69.4 | 69.7 697 | ${ }_{69.3}^{693}$ | -0.1 -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negioibl }}$ | 69.8 69.8 | 0.4 0.4 | Negigigle Adverse | ${ }^{56.2}$ | ${ }_{56.5}^{56.5}$ | 56.6 |
| 4, LARCH ROAD | Dwelling | 64.3 | 64.5 | 64.3 | 0.0 | No Change | 64.6 | 0.3 | Negligigle Adverse | 51.6 | 51.8 | 51.9 |
| 40, LARCH ROAD | Welling | 69.4 | 69.7 | 69.3 | -0.1 | Negligibl Benefic | 69.8 |  | Negiligile Adverse | 56.2 |  |  |
| $42 . \operatorname{LARCH~ROAD~}$ | Dwelling | 69.4 | 69.7 | 69.3 | -0.1 | Negligible Beneficial | 69.8 | 0.4 | Negigigile Adverse | 56.2 | 56.5 | 56.6 |
| 44, LARCH ROAD | Dwelling | 69.4 | 69.7 | 69.3 | -0.1 | Negligible Beneficial | 69.8 | 0.4 | Negigiolie Adverse | 56.2 | 56.5 | 56.6 |
| 46, LARCH ROAD | Dwelling | 69.4 | 69.7 | 69.3 | -0.1 | Negligible Beneficial | 69.8 | 0.4 | Negigigile Adverse | 56.2 | 56.5 | 56.6 |
| 48, LARCH ROAD | Dwelling | 69.4 57.4 | 69.7 57.6 | 69.3 57.4 | -0.1 0.0 | Negligible Beneficial | 69.8 57.7 | 0.4 0.3 | $\frac{\text { Negigigib Adverse }}{\text { Negigible Adverse }}$ | 56.2 45.4 | 56.5 45.6 | 56.6 45.7 |
| ${ }_{6}^{\text {6, LARCH ROAD }}$ | Dwelling | 64.3 | 64.5 | 64.3 | 0.0 | No Change | 64.6 | 0.3 | Neogigigile Adverse | $\stackrel{4}{51.6}$ | ${ }_{51.8}$ | 51.9 |
| 7, LARCH ROAD | Dwelling | 57.5 | 57.8 | 57.5 | 0.0 | No Change | 57.8 | 0.3 | Negiligile Adverse | 45.5 | 45.8 | 45.8 |
| 8 8, LARCH ROAD | Dwelling | 64.3 | 64.5 | 64.3 | 0.0 | No Change | 64.6 | 0.3 | Negigigibe Adverse | 51.6 | 51.8 | 51.9 |
| 9, LARCH ROAD | Dwelling | 57.3 54.2 | 57.6 549 | 57.2 | -0.1 | $\frac{\text { Negliable Beneficial }}{\text { Negligible }}$ | 57.7 54.9 | 0.4 0.7 | Negligible Adverse | 45.5 | -45.6 |  |
| 10. LAUREL AVENUE, DANESTONE | Owelling | 52.3 | 52.8 | 52.1 | -0.2 | Negligible Beneficial | 53.0 | 0.7 | Negigigile Adverse | 40.8 | 41.3 | 41.4 |
| 100, LAUREL AVENUE, DANESTONE | Dwelling | 53.1 | 53.8 | 53.0 | -0.1 | Negligible Beneficial | 54.3 | 1.2 | Negigigile Adverse | 41.5 | 42.2 | 42.6 |
| 102. LAUREL AVENUE, DANESTONE | Dwelling | 53.6 | 54.2 | 53.4 | -0.2 | Negligible Beneficial | 54.8 | 1.2 | Negligible Adverse | 42.0 | 42.5 | 43.1 |
| 104, LAUREL AVENUE, DANESTONE | Deelling | 54.0 | 54.7 | 53.8 | -0.2 | Negligible Beneficial | 55.2 | 1.2 | Negigigibe Adverse | 42.3 | 43.0 | 43.4 |
| 100, LAUREL AVENUE, DANESTONE | Dwelling | 54.7 | 55.4 54.8 | 54.5 53.9 | -0.2 | $\frac{\text { Negligible Benenticial }}{\text { Negioibl }}$ | 55.9 55.3 | ${ }_{1}^{1.2}$ | Negigigbe Adverse | 43.0 42.4 | 43.6 43.1 | 44.0 43.5 |
| 11, LAUREL AVENUE, DANESTONE | Dwelling | 54.0 | 54.6 | 53.8 | -0.2 | Negligible Beneficiolal | 55.0 | 1.0 | Negigigile Adverse | ${ }_{42.3}$ | 42.9 | 43.2 |
| 110, LAUREL AVENUE, DANESTONE | Dwelling | 54.4 | 55.1 | 54.2 | -0.2 | Negligible Beneficial | 55.6 | 1.2 | Negigiole Adverse | 42.7 | 43.3 | 43.8 |
| 112, LAUREL AVENUE, DANESTONE | Dwelling | 59.0 | 59.6 | 58.8 | -0.2 | Negligible Beneficial | 60.1 | 1.1 | Negligible Adverse | 46.8 | 47.4 | 47.8 |
| 114. LAUREL A AENUE, DANESTONE | Dwelling | 60.9 5.3 | 61.6 528 | ¢0.7 | -0.2 | Negligible Beneficial | 62.1 53 | 1.2 | Negiligile Adverse | ${ }_{48.5}^{48}$ | 49.2 413 | 49.6 414 |
| 12, LAUREL AVENUE, DANESTONE | Dwelling | 52.3 51.5 | 52.8 51.9 | 52.1 51.4 | -0.2 -0.1 | ${ }^{\text {Negaligible Benenticial }}$ Negiole | 53.0 52.3 | 0.7 | $\frac{\text { Negigigle Adverse }}{\text { Neoligible Adverse }}$ | 40.8 40.1 | ${ }_{40.3}^{40.3}$ | 41.4 40.8 |
| 14, LAUREL AVENUE, DANESTONE | Dwelling | 53.5 | 54.3 | 53.3 | -0.2 | Negligible Beneficioial | 54.7 | 1.2 | Negligible Adverse | 41.9 | 42.6 | 43.0 |
| 16, LAUREL AVENUE, DANESTONE | Dwelling | 51.5 | 51.9 | 51.4 | -0.1 | Negligible Beneficial | 52.3 | 0.8 | Negigigile Adverse | 40.1 | 40.4 | 40.8 |
| 17, LAUREL AVENUE, DANESTONE | Dwelling | 53.8 <br> 515 <br> 15 | 54.5 | 53.6 51.4 | -0.2 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ | 55.0 523 | $\frac{1.2}{08}$ | $\frac{\text { Negligible Adverse }}{\text { Negioble }}$ Avverse | $\frac{42.2}{40.1}$ | 42.8 404 | 43.2 |
| 19,LAUREL AVENUE, DANESTONE | Dwelling | 59.3 | 60.0 | 59.1 | -0.2 | Negligible Beneficial | 60.5 | 1.2 | Neogigigile Adverse | 47.1 | 47.7 | 48.2 |
| 2, LAUREL AVENUE, DANESTONE | Dwelling | 52.3 | 52.8 | 52.1 | -0.2 | Negligible Beneficial | 53.0 | 0.7 | Negigible Adverse | 40.8 | 41.3 | 41.4 |
| 20, LAUREL AVENUE, DANESTONE | Dwelling | 51.5 56.3 | 51.9 57.0 | 51.4 56.1 | -0.1 -0.2 | $\frac{\text { Negiligiole Beneficial }}{\text { Negligible Beneficial }}$ | 52.3 57.5 | 0.8 1.2 | $\frac{\text { Negligible Adverse }}{\text { Nefligible Adverse }}$ | 40.1 44.4 | 40.4 45.0 | 40.8 |
| 22, LAUREL AVENUE, DANESTONE | Dwelling | 51.5 | 51.9 | 51.4 | -0.1 | Negligible Beneficial | 52.3 | 0.8 | Negigigile Adverse | 40.1 | 40.4 | 40.8 |
| 23, LAUREL AVENUE, DANESTONE | Deelling | 60.7 | 61.3 | 60.5 | -0.2 | Negligible Beneficial | 61.8 | 1.1 | Negigigibe Adverse | 48.4 | 48.9 | 49.4 |
| 24, LAUREL AVENUE, DANESTONE | Dwelling | 51.5 61.0 | 51.9 61.6 | 51.4 60.8 | -0.1 | $\frac{\text { Negligible Benenicial }}{\text { Neglioibl }}$ | 52.3 62.1 | 0.8 1.1 | $\frac{\text { Negigigble Adverse }}{\text { Negilible Adverse }}$ | $\stackrel{40.1}{48.6}$ | 40.4 49.2 | 40.8 49.6 |
| 26, LAUREL AVENUE, DANESTONE | Dwelling | 50.2 | 50.8 | 50.0 | -0.2 | Negligible Beneniticial | 51.3 | 1.1 | Negiligile Adverse | 38.9 | 39.5 | 39.9 |
| 27, LAUREL AVENUE, DANESTONE | Deelling | ${ }^{62.4}$ | 63.1 | 62.2 | -0.2 | Negligible Beneficial | 63.6 | 1.2 | Negligible Adverse | 49.9 | 50.5 | 51.0 |
| 28, LAUUELAVEEVE, DANESTONE | Dwelling | 52.6 <br> 62.8 | 63.4 | 52.4 62.6 | --0.2 | $\frac{\text { Negligible Beneitical }}{\text { Neglioibl }}$ Beneficial |  | $\frac{1.2}{1.2}$ | $\frac{\text { Negigigble Adverse }}{\text { Negilible Adverse }}$ | $\frac{41.1}{50.3}$ | 41.8 50.9 |  |
| 3, LAUREL AVENUE, DANESTONE | Dwelling | 57.3 | 58.5 | 57.3 | 0.0 | No Change | 57.8 | 0.5 | Negiligile Adverse | 45.3 | 46.4 | 45.8 |
| 30, LAUREL AVENUE, DANESTONE | Dwelling | 52.4 6.5 | 52.9 | 52.3 | -0.1 | Negligible Beneficical | ${ }_{53.3}^{5}$ | 0.9 | Negigigle Adverse | 40.9 | ${ }_{51.3}^{4.6}$ | 41.7 52.1 |
| 31, LAUREL AVEEVE, DAAESTONE | Dwelling | ${ }^{63.5}$ | 64.3 | ${ }_{52.3}^{66.3}$ | -0.2 <br> -0.1 | Negiligiole Beneiticial | ${ }_{53.3}^{64.8}$ | ${ }_{0}^{1.3}$ | Negligible Avverse | 50.9 | ${ }^{51.6}$ | 52.1 41.7 |
| 33, LAUREL AVENUE, DANESTONE | Delling | 63.5 | 64.3 | 63.3 | -0.2 | Negligible Beneficial | 64.8 | 1.3 | Negigigile Adverse | 50.9 | 51.6 | 52.1 |
| 34, LAUREL AVENUE, DANESTONE | Dwelling | ${ }_{62.4}^{53.8}$ | ${ }_{62.9}^{64.5}$ | ${ }_{62.3}$ | $\stackrel{-0.1}{-0.2}$ | ${ }^{\text {Negifigible Beneficial }}$ Negiole | ${ }_{653.3}$ | 1.2 | N Negligibe Adverse | 40.9 | ${ }_{51}^{41.3}$ | ${ }_{52.2}^{41.7}$ |

A90/A96 Haudagain Improvement
DMRB Stage 3 Environmental Statement

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 Lnight,outside | $\begin{gathered} \text { DS33 } \\ \text { Lnight,outside } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 36, LAUREL AVENUE, DANESTONE | Dwelling | 52.4 | 52.9 | 52.3 | -0.1 | Negligible Beneficical | 53.3 | 0.9 | Negiligibe Adverse | 40.9 | 41.3 | 41.7 |
| 37, LAUREL AVENUE, DANESTONE | Deeling | 54.3 | 55.1 | 54.1 | -0.2 | Negligible Beneficial | ${ }_{55.6}^{53}$ | 1.3 | Negiligile Adverse | 42.6 | $\frac{43.3}{413}$ | $\frac{43.8}{417}$ |
| 388, LAUREL AVENUE, DANESTONE | Dweling | 52.4 <br> 54.5 | 52.9 55.1 | 52.3 <br> 54.3 | -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ | 53.3 <br> 55.6 | 0.9 1.1 | Negigigle Adverse | 40.9 42.8 | 41.3 43.3 | 41.7 43.8 |
| 39, LAUREL AVENUE, DANESTONE | ${ }^{\text {Duelilig }}$ Oweling | 54.5 50 | ${ }_{5}^{52.8}$ | 54.1 52.1 | $\stackrel{-0.2}{-0.2}$ | Negegiogibe Benenificial | 55.0 | ${ }_{0} 0.7$ | Neoligigle Adverse | ${ }_{40.8}^{42.8}$ | ${ }_{41.3}^{43.3}$ | ${ }_{41.4}^{43.8}$ |
| 40, LAUREL AVENUE, DANESTONE | Dwelling | 52.4 | 52.9 | 52.3 | -0.1 | Negligible Beneficial | 53.3 | 0.9 | Negigigile Adverse | 40.9 | 41.3 | 41.7 |
| 41, LAUREL AVENUE, DANESTONE | Dwelling | 54.5 | 55.2 | 54.4 | -0.1 | Negligible Beneficial | 55.7 | 1.2 | Negigiolie Adverse | 42.8 | 43.4 | 43.9 |
| 42, LAUREL AVENUE, DANESTONE | Dwelling | 52.4 | 52.9 | 52.3 | -0.1 | Negligible Beneficial | 53.3 | 0.9 | Negigiole Adverse | 40.9 | 41.3 | 41.7 |
| 43, LAUREL AVENUE, DANESTONE | Dwelling | 54.9 52.4 | 55.6 52.9 | 54.7 52.3 | -0.2 -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negligibl }}$ | 56.1. | 1.2 0.9 | Negligile Adverse | 43.1 40.9 | 43.8 41.3 | 44.2 41.7 |
| 45, LAUREL AVENUE, DANESTONE | Dwelling | 54.6 | ${ }_{55.3}$ | 54.4 | -0.2 | Negligible Beneficicial | ${ }_{55.8}$ | 1.2 | Neoligiole Adverse | 42.9 | 43.5 | 44.0 |
| 46, LAUREL AVENUE, DANESTONE | Dwelling | 52.4 | 52.9 | 52.3 | -0.1 | Negligible Beneficial | 55.3 | 0.9 | Negligible Adverse | 40.9 | 41.3 |  |
| 47. LAUREL AVENUE, DANESTONE | Oweling | 55.4 | 56.1 | 55.2 | -0.2 | Negligible Beneficial |  | 1.3 | Negligibe Aaverse |  | 44.2 | 44.8 |
| 4, LAUMRLAVNUE, DANESTONE |  |  |  |  |  |  |  |  |  |  | \% |  |
| 49, LAUREL AVENUE, DANESTONE |  | 55.8 5.9 | 56.5 | 55.6 | ${ }^{-0.2}$ | Negeligibe Benenitial | 57.0. | ${ }^{1.2}$ | Negiligile Adverse | 44.0 | 4.6 | 45.0 |
|  | ${ }^{\text {Dowelling }}$ | 50.9 | ${ }_{50.9}$ | 50.0 | -0.2 | Negegigibile Benenificial | 51.4 | 1.2 | Neogigiole Adverse | ${ }_{38.9}$ | ${ }_{39.5}^{42.5}$ | 43.0 |
| 51, LAUREL AVENUE, DANESTONE | Dwelling | 56.3 | 57.1 | 56.1 | -0.2 | Negligible Beneficial | 57.6 | 1.3 | Negigigile Adverse | 44.4 | 45.1 | 45.6 |
| 52, LAUREL AVENUE, DANESTONE | Dwelling | 52.4 | 53.3 | 52.2 | -0.2 | Negligible Beneficial | 53.5 | 1.1 | Neoligiole Adverse | 40.9 | 41.7 | 41.9 |
| 53, LAURELAVENUE, DANESTONE | Dwelling | 57.1 57.1 | 57.9 | 56.9 | -0.2 | Negligible Beneniticial | 58.4 | ${ }^{1.3}$ | Negligiole Adverse | 45.1 | 45.8 | 46.3 |
| 54, LAURELAVENUE, DANESTONE | Dweling | 57.1 | 57.5 | $\stackrel{57.0}{576}$ | -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negligibl }}$ Beneficial | 58.0. | ${ }_{1}^{0.9}$ | Negligiobe Adverse | ${ }_{45.8}^{45.1}$ | $4{ }_{46.5}^{46}$ | 45.9 |
| 56, LAUREL AVENUE, DANESTONE | Dwelling | 55.8 | 56.6 | 55.7 | -0.1 | Negligible Beneficioial | 57.1 | 1.3 | Neoligiole Adverse | 44.0 | 44.7 | 45.1 |
| 57, LAUREL AVENUE, DANESTONE | Dwelling | 58.0 | 58.8 | 57.8 | -0.2 | Negligible Beneficial | 59.3 | 1.3 | Negigiole Adverse | 45.9 | 46.7 | 47.1 |
| 58, LAUREL AVENUE, DANESTONE | Owelling | 55.7 | 56.4 | 55.5 | -0.2 | Negligible Benenicial | 56.9 | 1.2 | Negligible Adverse | 43.9 | 44.5 | 44.9 |
| 6, LAUREL AVENUE, DANESTONE | Owelling | 52.3 | 52.8 | 52.1 | -0.2 | Negligible Beneficioial | 53.0 | 0.7 | Neoligiole Adverse | 40.8 | 41.3 | 41.4 |
| O, LAUREL AVENUE, DANESTONE | welling | 52.0 | 52.6 | 51.8 | -0.2 | Negligible Beneficial | 52.9 | 0.9 | Negligible Adverse | 40.5 | 41.1 | 41.3 |
| 61, LAURELAVENUE, DANESTONE | Dwelling | 61.9 | 62.7 | 61.7 | -0.2 | Negligible Beneficial | 63.2 | 1.3 | Negigigibe Adverse | 49.4 | 50.2 | 50.6 |
| 62, LAURELAVENUE, DANESTONE | Dwelling | 57.0 61.0 | 57.8 61.8 | 56.8 60.8 | -0.2 -0.2 | $\frac{\text { Negligible Beneticial }}{\text { Negligibl }}$ Beneficial | 58.4 62.3 | 1.4 <br> 1.3 <br> 1 | $\frac{\text { Negigigle Adverse }}{\text { Negiquibe Adverse }}$ | 45.0 48.6 | 45.8 49.4 | 46.3 49.8 |
| 64, LAUREL AVENUE, DANESTONE | Dwelling | 56.1 | 56.8 | 55.9 | -0.2 | Negligible Beneficial | 57.3 | 1.2 | Negligible Adverse | 44.2 | 44.9 | 45.3 |
| 65, LAUREL AVENUE, DANESTONE | Dwelling | 63.7 | 64.5 | 63.5 | -0.2 | Negligible Beneficial | 65.0 | 1.3 | Negigigile Adverse | 51.1 | 51.8 |  |
| 66, LAUREL AVENUE, DANESTONE | Deelling | 55.1 | 56.0 | 54.9 | -0.2 | Negligible Beneficial | 56.4 | 1.3 | Negligible Adverse | 43.3 | 44.1 | 44.5 |
| 6, LAUREAVENUE, DANESSONE | Oweling | 63.8 | 64.6 554 | ${ }^{63.6}$ | -0.2 | Negligibe Benenicial | ${ }_{65}^{65.1}$ | 1.3 | Negligile Adverse | ${ }_{427} 5$ | ${ }_{41.9}$ | 52.3 44.0 |
| 69, LAUREL AVENUE, DANESTONE | Owelling | ${ }^{62.6}$ | 63.3 | ${ }_{6} 52.4$ | -0.2 | Negligible Beneficioial | 63.8 | 1.2 | Neoligiole Adverse | $\stackrel{4}{50.1}$ | 50.7 | $\stackrel{4}{51.2}$ |
| 7. LAUREL AVENUE, DANESTONE | Dwelling | 53.9 | 54.5 | 53.7 | -0.2 | Negligible Beneficial | 54.8 | 0.9 | Negigiole Adverse | 42.2 | 42.8 | 43.1 |
| 70, LAUREL AVENUE, DANESTONE | Dwelling | 54.9 53.7 | 55.7 54.6 | 54.7 53.5 | -0.2 -0.2 | $\frac{\text { Negligible Beneficial }}{\text { Negligibl }}$ | 56.2 55.0 | 1.3 1.3 | Negligile Adverse | 43.1 42.1 | ${ }_{4}^{43.9}$ | 44.3 43.2 |
| 74, LAUREL AVENUE, DANESTONE | Dwelling | 54.2 | 55.1 | 54.1 | -0.1 | Negligible Beneficial | 55.5 | 1.3 | Negigigile Adverse | 42.5 | 43.3 | 43.7 |
| 76, LAURELAVENUE, DANESTONE | Dwelling | 53.1 | 54.0 | 52.9 | -0.2 | Negligible Beneficical | 54.4 | 1.3 | Negiligible Adverse | 41.5 | ${ }^{42.3}$ | ${ }_{42.7}^{427}$ |
| 78, LAUREL AVENUE, DANESTONE | Dwelling | 53.1 | 54.0 | 52.9 | -0.2 | $\frac{\text { Negligible Benentical }}{\text { Negliobl }}$ | 54.4 53.0 | 1.3 | Negligibl Adverse | 4 | 42.3 41.3 |  |
| 80, LAUREL AVENUE, DANESTONE | Dwelling | 53.0 | 53.9 | 52.8 | -0.2 | Negligible Beneficicial | 54.3 | 1.3 | Negligible Adverse | 41.4 | 42.2 | 42.6 |
| 82, LAUREL AVENUE, DANESTONE | Deelling | 53.0 | 53.9 | 52.9 | -0.1 | Negligible Beneficial | 54.3 | 1.3 | Neoligible Adverse | 41.4 | 42.2 | 42.6 |
| 84, LAUREL AVENUE, DANESTONE | Dwelling | 50.9 | 51.4 | 50.7 | -0.2 | Negiligile Beneficial | 51.8 | 0.9 | Negigigibe Adverse | 39.5 | ${ }^{40.0}$ | 40.4 |
| 86, LAURELAVENUE, DANESTONE | Dwelling | 50.1 50.5 | 50.7 51.0 | 50.0 50.3 | -0.1 | $\frac{\text { Negligible Beneticial }}{\text { Negligibl }}$ Beneficial | 51.2 | 1.1 1.1 | $\frac{\text { Negigigle Adverse }}{\text { Negilible Adverse }}$ | 33.8 39.2 | 39.4 39.6 | 39.8 40.2 |
| 9. LAUREL AVENUE, DANESTONE | Dwelling | 53.6 | 54.2 | 53.3 | -0.3 | Negligible Beneficial | 54.5 | 0.9 | Negligible Adverse | 42.0 | 42.5 | 42.8 |
| 90, LAUREL AVENUE, DANESTONE |  | 50.3 |  | 50.1 | -0.2 | Negligible Beneficial | 51.4 |  | Negigigibe Adverse |  | 39.5 | 40.0 |
| 92, LAUREL AVENUE, DANESTONE | Oweling | 52.1 | 52.7 | 52.0 | -0.1 | Negligible Beneficical | 53.2 | 1.1 | Negigigile Adverse | 40.6 | 41.2 |  |
| 94, LAUREL AVENUE, DANESTONE | Dewling | 51.9 | 52.5 | 51.8 | -0.1 | Negligible Beneficicial | 53.0 | 1.1 | Negigigibe Adverse | 40.4 | 41.0 |  |
|  | Dwelling | 52.2 | 52.8 <br> 5.3 | 52.0 | -0.2 | Negligibe Benenicial | 53.3 | 1.1 | Negigigile Aaverse | ${ }_{40.7}^{412}$ | 41.3 | 41.7 |
| LAUREL AVENUE, DANESTONE | Dwelling | S6.8 | ${ }^{564.7}$ | S6.5 | -0.3 | Negoligible Beneficicial | ${ }^{55.1}$ | 1.3 | Neoligioble Adverse | ${ }^{51.2}$ | 52.0 | ${ }^{\text {52.3 }}$ |
| 1, LAUREL BRAES, DANESTONE | Dwelling | 51.3 | 53.0 | 51.1 | -0.2 | Negligible Beneficial | 51.9 | 0.6 | Negigigile Adverse | 39.9 | 41.4 | 40.4 |
| 10,LAUREL LRAES, DANESTONE | Dwelling | 47.9 | ${ }_{48.3}$ | 47.8 | -0.1 | Negligible Benenitical | 48.6 | 0.7 | Negiligibe Adverse | 36.8 | 37.2 | 37.5 |
| 15. LAUUREL LRRAESSS DANESTONE | ${ }^{\text {Duelling }}$ Douling | 49.3 | ${ }_{50.3}$ | 49.2 | -0.1 | Negiligible Benenitical | 50.4 | 0.8 | Negigigibe Adverse | 38.4 38.1 | 39.4 39.0 | ${ }_{38.8}$ |
| 17, LAUREL LRAES, DANESTONE | Delling | 49.2 | 50.1 | 49.1 | -0.1 | Negligible Beneficical | 50.0 | 0.8 | Negligible Adverse | 38.0 | 38.8 | 38.7 |
| 19, LAUREL LRAES, DANESTONE | Dwelling | 48.4 | $\frac{49.1}{508}$ | $\frac{48.3}{50}$ | -0.1 | Negliable Beneficial | 49.2 | 0.8 | Negligible Adverse | $\begin{array}{r}37.3 \\ \hline 389\end{array}$ | 37.9 395 | 38.0 3.5 |
| 21, LAUREL BRAES, DANESTONE | Dwelling | 48.1 | 48.8 | 48.0 | -0.1 | Negligible Beneficial | 49.0 | 0.9 | Negigiole Adverse | 37.0 | 37.7 | ${ }_{37}{ }^{3} .8$ |
| 3, LAUREL BRAES, DANESTONE | Dwelling | 50.4 | 52.1 | 50.3 | -0.1 | Negligible Beneficial | 51.2 | 0.8 | Negligible Adverse | 39.1 | 40.6 | 39.8 |
| 37, LAUREL BRAES, DANESTONE | Dwelling | 48.4 | 48.7 | 48.2 | -0.2 | Negligible Benenitial | 49.2 | 0.8 | Negiligile Adverse | ${ }^{37.3}$ | 37.6 <br> 376 | ${ }^{38.0}$ |
| 39, LAUREL BRAES, DANESTONE | Dwelling | 48.5 | ${ }_{48,7}$ | 48.2 | -0.3 | $\frac{\text { Negligible Benenicial }}{\text { Negliobl }}$ | 49.1 | 0.6 | Negligile Adverse | 37.4 370 | 37.6 374 | 37.9 377 |
| 5, LAUREL BRAES, DANESTONE | Dwelling | 50.5 | 52.0 | 50.4 | -0.1 | Negligible Beneficial | 51.2 | 0.7 | Negiligile Adverse | 39.2 | 40.5 | 39.8 |
| 6, LAUREL LRAES, DANESTTONE | Deelling | 48.1 | 48.5 | 48.0 | -0.1 | Negligible Beneficial | 49.0 | 0.9 | Negligible Adverse | 37.0 | 37.4. | 37.8 |
| $\frac{7}{7}$ 7, LAUREL LAUREL BRESS DAAES, DANESTONE | Dwelling | 48.7 48.1 | 50.0 48.5 | 48.6 47.9 | -0.1 -0.2 | $\xrightarrow{\text { Negligible Beneficical }}$ Negioile Beneficial | 49.5 48.9 | 0.8 | Negigible Adverse | 37.6 37.0 | 38.7 37.4 | 38.3 37.7 |
| 9, LAUREL BRAES, DANESTONE | Dwelling | 49.8 | 51.0 | 49.7 | -0.1 | Negligible Beneficial | 50.6 | 0.8 | Negigigile Adverse | 38.6 | 39.6 | 39.3 |
| DANESTONE COUNTRY PARK, LAUREL DRIVE, DANESTONE | Country Park | 52.4 | 53.1 | 51.9 | -0.5 | Negligible Beneficial | 53.0 | 0.6 | Negiligile Adverse | 40.9 | 41.5 | 41.4 |
| TESCO STORES LTD, TESCO PHARMACY, LAUREL DRIVE, DANESTONE | Pharmacy | 65.9 | 68.1 | 65.3 | -0.6 | Negligible Beneficial | 67.3 | 1.4 | Negligible Adverse | 53.0 | 55.0 | 54.3 |
| LLUUREL GARDENS, DANESTONE | Dwelling | 61.9 | 62.8 | 61.4 | -0.5 | Negligible Benenficial | 62.6 <br> 647 | 0.7 | Negigigibe Adverse | 49.4 | 50.3 | 50.1 |
| 10, LAURRL GAADENS, DANESTONE | Dwelling | 54.3 54.3 | 55.0 | 53.9 53.9 | -0.4 <br> -0.4 | Negiligile Beneiticial | 54.7 54.7 | ${ }_{0}^{0.4}$ | $\frac{\text { Negligible Adverse }}{\text { Negligile Adverse }}$ | ${ }_{42.6}^{42.6}$ | ${ }^{43.2}$ | 43.0 43.0 |
| 12, LAUREL GARDENS, DANESTONE | Delling | ${ }_{58.3}^{5}$ | 59.4 | 57.3 | $-1.0$ | Minor Beneficical | ${ }_{58.6}^{5}$ | 0.3 | Negligible Adverse | 46.2 | 47.2 | 46.5 |
| 14, LAUREL GAADENS, DANESTONE | Dwelling | 58.3 61.9 | 59.4 6 | 57.3 60.8 | $\begin{array}{r}-1.0 \\ -1.1 \\ \hline\end{array}$ | $\xrightarrow{\text { Minor Beneficial }}$ Minor Beneficial | 58.6 62.2 | 0.3 0.3 | Negligile Adverse | 46.2 49.4 | 47.2 50.4 | 46.5 49.7 |
| 16, LAUREL GARDENS, DANESTONE | Dwelling | 61.9 | 63.0 | 60.7 | -1.2 | Minor Beneficial | 62.2 | 0.3 | Negigigile Adverse | 49.4 | 50.4 | 49.7 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 <br> Lnight,outside | DM33 <br> Lnight,outside | $\begin{gathered} \text { DS33 } \\ \text { Lnight,outside } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 17, LAUREL GARDENS, DANESTONE | Dwelling | 61.9 | 63.0 | 60.9 | ${ }^{-1.0}$ | Minor Beneficial | 62.3 | 0.4 | Negigigile Adverse | 49.4 | 50.4 | 49.8 |
| 18, LAUREL GARDENS, DANESTONE | Dwelling | 61.9 | 63.0 | 60.9 | -1.0 | Minor Beneficial | 62.3 | 0.4 | Negigigibe Adverse | 49.4 | 50.4 | 49.8 |
| 19, LAUREL GARDENS, DANESTONE | Dwelling | 62.3 | 63.3 | 61.3 | -1.0 | Minor Beneficial | 62.7 | 0.4 | Negigiolie Adverse | 49.8 | 50.7 | 50.2 |
| 2, LAUAEL L GARDENSS DANESTONE | Dwelling | ${ }_{62.3}^{62.3}$ | 64.0 | 63.0 | -0.3 | Negligible Benefitical | 64.1 | 0.8 | Negigigle Adverse | 50.7 | 51.3 | 51.4 |
| 20, LAUREL GARDENS, DANESTONE | Dwelling | ${ }_{62.3}$ | ${ }^{63.3}$ | 61.3 | -1.0 | Minor Beneficial | ${ }^{62.7}$ | 0.4 | Negigigile Adverse | 49.8 | 50.7 | 50.2 |
| 21, LAUREL GARDENS, DANESTONE | Dwelling | 61.2 | 62.2 | 60.4 | -0.8 | Negligible Beneficical | ${ }_{61.8}^{619}$ | 0.6 | Negigigle Adverse | 48.8 485 | 49.7 49 | 49.4 494 |
| 3, LAUREL GARDENS, DANESTONE | Dwelling | 60.8 | 61.4 | 60.6 | -0.2 | Negligible Beneficial | 61.9 | 1.1 | Negigigle Adverse | 48.5 | 49.0 | 49.4 |
| 3. LAUREL GARDENS, DANESTONE | Deeling | 60.8 | 61.4 | 60.6 | -0.2 | Negligible Beneficical | 61.9 | 1.1 | Negigigibe Adverse | 48.5 | 49.0 | 49.4 |
| 4, LAUREL GARDENS, DANESTONE | Deeling | 57.6 | 58.3 | 57.4 | -0.2 | Negligible Beneficicial | 58.6 | 1.0 | Negigigibe Adverse | 45.6 | 46.2 | 46.5 |
| 5. LAUREL GARDENS, DANESTONE | Deeling | 57.6 | 58.3 | 57.4 | -0.2 | Negligible Beneficical | 58.6 | 1.0 | Negigiolie Adverse | 45.6 | 46.2 | 46.5 |
| 6. LAUUEL CARDENS, DANESTONE | Delling | ${ }_{52.6}^{52.6}$ | ${ }_{53,3}$ | 52.2 | -0.4 | Negligible Beneficial | 53.2 | 0.6 | Negigigile Adverse | 41.1 | 41.7 | $\frac{41.6}{416}$ |
| 7, LAUUEL CAARDENS, DANESTONE | Dwelling | 52.0 | 53.3 | 52.2 55.7 | -0.4 -0.3 | Negligible Beneficioal | ${ }_{56 \text { 53.2 }}^{56}$ | ${ }_{0}^{0.6}$ | $\frac{\text { Negigible Adverse }}{\text { Neoligible Adverse }}$ | 44.1 44.1 | 44.7 44.7 | 41.6 44.9 |
| 9, LAUREL GARDENS, DANESTONE | Dwelling | 56.0 | 56.6 | 55.7 | 0.3 | Negligible Beneficial | 56.8 | 0.8 | Negligiole Adverse | 44.1 | 44.7 | 44.9 |
| 1, LAUREL GROVE, DANESTONE | eling | 61.2 | 62.4 | 60.0 | -1.2 | Minor Beneficial | 61.6 | 0.4 | Negligiole Adverse | ${ }^{48.8}$ | 49.9 | 49.2 |
| 10, LAUREL GROVE, DANESTONE | Dwelling | 54.2 | 54.6 | 53.9 | -0.3 | Negligibie Benenitical | 54.8 | 0.6 | Negligiole Adverse | ${ }^{42.5}$ | 42.9 |  |
| 11, LAUREL LGOOVE, DANESTONE | Dwelling | 60.6 | 60.7 | 60.5 | -0.1 | Negligible Benenitical |  |  | Negligioble Adverse | 48.3 | 48.4 |  |
| 12, LAUREL GROVE, DANESTONE |  |  | 62.4 | 62.0 | - 0.1 | Negiligile Benenitical | 62.9 | 0.8 | Negiligibe Adverse | . 6 | 49.9 |  |
| 14,LAUREL GROVE, DANESTONE | eiling | 62.0 | 62.4 | 61.9 | 0.1 | Negligibe Beneitical | 62.9 | 0.9 | Negiligile Adverse | 49.5 | 49.9 | 5. 3 |
|  | Dweling | 65.0 | 65.5 | 64.8 | -0.2 | Negiligibe Benenicial | 65.9 | 0.9 | Negiqigie Adverse | 52.2 | 52.7 | $\begin{array}{r}53.0 \\ 5.0 \\ \hline\end{array}$ |
| 16,LAUREL GROVE, DANESTONE | Dweling | 64.9 | ${ }_{6}^{65.9}$ | 64.4 56 | -0.5 | Negiligibe Benenitial | ${ }_{6}^{65.7}$ | ${ }^{0.8}$ | Negiligio Adverse | 52.1 | 53.0 | 52.9 452 |
| 17,LAUUREL GROVE, , AANESTONE | Dweling | ${ }_{64.3}$ | 65.4 | ${ }_{63.7}^{55.9}$ | $\stackrel{-0.6}{ }$ | ${ }^{\text {Negegiligibele }}$ Beneneificial | ${ }^{57.2}$ | ${ }_{0}^{0.6}$ | Negligiole Adverse | ${ }^{44.7}$ | -45.7 | ${ }_{52,3}^{45}$ |
| 19, LAUREL GROVE, DANESTONE | Dwelling | 64.7 | ${ }^{652.9}$ | 61.0 | $\stackrel{-0.7}{ }$ | Negegigible Beneficioial | ${ }_{62.5}^{65 .}$ | 0.8 | Negligibile Adverse | ${ }^{49.3}$ | ${ }_{50.3}$ | 50.0 |
| 2, LAUREL GROVE, DANESTONE | Dwelling | 59.0 | 59.8 | 58.3 | -0.7 | Negligible Beneficial | 59.6 | 0.6 | Negligible Adverse | 46.8 | 47.6 | 47.4 |
| 20.LAUMEL GROVE, DANESTONE | Dwelling | 55.9 | 58.0 | 56.0 | -0.9 | Negligible Beneficical | 57.4 | 0.5 | Negiligible Adverse | 44.9 | 45.9 | 45.4 |
| 21,LAUUEL GROVE, DANESTONE | Dwelling | 59.7 61.6 | 60.2 | 59.4 | -0.3 | $\frac{\text { Negligible Beneticial }}{\text { Negligible }}$ | ${ }_{6}^{60.5}$ | ${ }_{0}^{0.8}$ | Negigigle Adverse | ${ }_{492}^{47.5}$ | ${ }^{47.9}$ | ${ }_{497}^{48.2}$ |
| 22,LAUREL GROVE, DANESTONE | Dwelling | ${ }_{54.5}$ | ${ }_{55.3}$ | ${ }_{53.8}$ | ${ }_{-0.7}$ | Negenligible Beneficioial | ${ }_{54.9}$ | 0.4 | Negligible Adverse | 42.8 | 43.5 | 43.1 |
| 4. LAUREL GROVE, DANESTONE | welling | 60.2 | 61.3 | 59.0 | -1.2 | Minor Beneficial | 60.5 | 0.3 | Negligible Adverse | 47.9 | 48.9 | 48.2 |
| 5. LAUREL GROVE, DANESTONE | Dwelling | 51.9 | 52.3 | 51.6 | -0.3 | Negligible Beneficial | 52.5 | 0.6 | Negiligibe Adverse | 40.4 | 40.8 | 41.0 |
| 7, LAUREL GROVE, DANESTONE | Dwelling | 54.5 | 55.3 | 54.0 | 0.5 | Negligible Beneficicial | 55.1 | 0.6 | Negigigibe Adverse | 42.8 | 43.5 |  |
| 8, LAUREL GROVE, DANESTONE | Dwelling | 55.6 | 56.2 | 55.1 | -0.5 | Negligible Beneficial | 56.2 | 0.6 | Negifigible Adverse | 43.8 | 44.3 | 4.3 |
| 99.LAUREL GROVE, DANESTONE |  |  | 54.4 |  |  |  |  | 0.6 |  | 42.2 | 42.7 | 42.8 |
| LAUREL HOUSE, 3 , GRANDHOLM COTTAGES, GRANDHOLM | Dwelling | 52.9 | 53.4 | 52.7 | -0.2 | Negligible Beneficial | 54.0 | 1.1 | Negligible Adverse | 41.3 | 41.8 | 42.3 |
| LAUREL HOUSE, 4, GRANDHOLM COTTAGES, GRANDHOLM | Dwelling | 52.9 | 53.4 | 52.7 | -0.2 | Negligible Beneficial | 54.0 | 1.1 | Negigioble Adverse | 41.3 | 41.8 | 42.3 |
| 1, LAUREL PARK, DANESTONE | Deeling | 48.1 | 48.8 | 48.0 | -0.1 | Negligible Beneficial | 49.0 | 0.9 | Negigiolie Adverse | 37.0 | 37.7 | 37.8 |
| 10, LAUREL PARK, DANESTONE | Dwelling | 49.7 478 | $\begin{array}{r}50.1 \\ 48 . \\ \hline\end{array}$ | 49.5 477 | -0.2 | Negligible Beneficial | 50.6 486 | 0.9 0.8 | Negligiole Adverse | 38.5 <br> 3.8 | 38.8 371 | 39.3 375 |
| 12, LAURELPARK, DANESTONE | Dweling | 47.0 | ${ }_{47.4}^{48.2}$ | 46.8 | -0.2 | Negegioible Beneficioial | 47.9 | 0.9 | Negigigible Adverse | ${ }^{36.0}$ | 36.4 | ${ }_{36.8}$ |
| 14, LAUREL PARK, DANESTONE | Dwelling | 47.4 | 47.7 | 47.2 | -0.2 | Negligible Beneficial | 48.3 | 0.9 | Negligible Adverse | 36.4 | 36.7 | 37.2 |
| 15.LAUREL PARK, DANESTONE | $\frac{\text { Dwelling }}{\text { Dweling }}$ | 47.8 492 | $\frac{48.2}{495}$ | $\frac{47.6}{49}$ | -0.2 | $\frac{\text { Negligible Benenicial }}{\text { Negligibl }}$ | 48.7 498 | 0.9 | $\frac{\text { Negligible Adverse }}{\text { Neoligible Adverse }}$ | ${ }^{36.8}$ 368 | ${ }^{37.1}$ | ${ }^{37.6}$ |
| 17, LAUREL PARK, DANESTONE | Dwelling | 48.0 | 48.4 | 47.9 | -0.1 | Negligible Beneficicial | 48.9 | 0.9 | Negligible Adverse | 36.9 | ${ }_{37,3}$ | 37.7 |
| 18, LAUREL PAAK, DANESTTONE | Delling | 47.6 | 48.1 | 47.4 | -0.2 | Negligible Beneficial | 48.6 | 1.0 | Negligible Adverse | ${ }_{36.6}^{36}$ | ${ }^{37.0}$ | 37.5 |
| 2, LAUREL PARK, DANESTONE | Dwelling | 48.3 | ${ }_{48.8}^{48.7}$ | 48.1 48.1 | $-02$ | ${ }_{\text {Negligiole Beneilical }}^{\text {Negioble }}$ Beneficial | ${ }_{49.1}^{49.2}$ | 0.8 | $\frac{\text { Negligibe Adverse }}{\text { Negligile Adverse }}$ | ${ }^{37.3}$ | ${ }_{37}^{37.7}$ | 38.0 37.9 |
| 20, LAUREL PARK, DANESTONE | Dwelling | 48.5 | 48.8 | 48.3 | -0.2 | Negligible Beneficial | 49.3 | 0.8 | Negligible Adverse | 37.4 | 37.7 | 38.1 |
| 3, LAUREL PARK, DANESTONE |  |  |  |  |  | Negligible Benenitial |  |  | Negiligile Adverse |  |  | 7.9 |
| 5, LAUREL PARK, DANESTONE | Dwelling | 48.7 | 49.2 | 48.7 | 0.0 | No Change | 49.5 | 0.8 | Negiligible Adverse | ${ }^{37.6}$ | 38.0 | ${ }_{38.3}$ |
|  | Dwelling | 48.1 | 48.6 | 48.0 | -0.1 | Negligible Beneficial | 48.9 | 0.8 | Negligible Adverse | 37.0 | 37.5 | 37.7 |
| 7. ${ }^{\text {7. LAUREL PARK, DANESTONE }}$ ( LAURELPARK, DANESTONE | Dwelling Dwelling | ${ }_{49.5}^{49.7}$ | 48.1 50.0 | 47.5 49.4 | -0.2 -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negligibl Beneficial }}$ | 48.6 50.5 | 0.9 1.0 | $\frac{\text { Negligible Adverse }}{\text { Neoligible Adverse }}$ | 36.7 38.3 | 37.0 38.7 | 37.5 39.2 |
| 9, LAUREL PARK, DANESTONE | Deelling | 48.5 | 49.0 | 48.3 | -0.2 | Negligible Beneficial | 49.6 | 1.1 | Negligible Adverse | 37.4 | 37.8 | 38.4 |
| 1, LAUREL ROAD, DANESTONE | Dwelling | 52.6 | 54.3 | 52.6 | 0.0 | No Change | 53.4 | 0.8 | Negigiolie Adverse | 41.1 | 42.6 | 41.8 |
| 10, LAUREL ROAD, DANESTONE | Dweling | 48.9 | 49.4 53.1 | 48.4 | -0.5 | Negligible Beneficial | 49.5 <br> 5.6 | 0.6 | Negligible Adverse | 37.7 404 | 38.2 4.5 | 38.3 41.1 |
| 12, LAUREL ROAD, DANESTONE | Dweling | 51.9 | 53.9 | 59.6 | -0.6 | Negiligiole Beneiticial | 52.6 50.9 | ${ }_{0.7}^{0.7}$ | Negiligible Adverse | 40.9 38.9 | ${ }^{41.5}$ | ${ }_{39.5}^{49.1}$ |
| 14. LAUREL ROAD, DANESTONE | Dwelling | 50.9 | 51.6 | 50.2 | -0.7 | Negligible Beneficial | 51.5 | 0.6 | Negiligile Adverse | 39.5 | 40.2 | 40.1 |
| 16, LAUREL ROAD, DANESTONE | Develing | 52.4 57.9 | 53.5 | ${ }_{56.5}^{56.5}$ | -0.9 -1.7 | $\frac{\text { Negligible Beneficial }}{\text { Minor Beneficial }}$ | 53.0 58.1 | 0.6 | $\frac{\text { Negligible Adverse }}{\text { Negligible Adverse }}$ | ${ }_{450.9}$ | 41.9 47.0 | 41.4 46.0 |
| 2, LAUREL ROAD, DANESTONE | Dwelling | 55.3 | 57.3 | 55.4 | 0.1 | Negigigile Adverse | 56.1 | 0.8 | Negigiole Adverse | 43.5 | 45.3 | 44.2 |
| $\frac{\text { 20, LUUREL ROAD, DANESTONE }}{\text { 22. LAURELROAD DANESTONE }}$ | Deeling | 58.9 | 60.3 | 57.1 | -1.8 | Minor Beneficial | 59.2 | 0.3 | Negigigibe Adverse | 46.7 | 48.0 | 47.0 |
| 22, LAUREL ROAD, DANESTONE | Dwelling | 55.8 | 57.2 | 54.4 | -1.4 | Minor Beneficicial | 56.2 | 0.4 | Negiligibe Adverse | 44.0 | 45.2 | 44.3 |
| 24, LAUREL ROAD, DANESTONE | Dwelling | 58.3 58.7 | 59.8 60.2 | 56.7 57.0 | -1.6 -1.7 | $\frac{\text { Minor Beneficial }}{\text { Minor Beneficial }}$ | 58.7 59.0 | 0.4 <br> 0.3 <br> 0 | $\frac{\text { Negligiole Adverse }}{\text { Negligible Adverse }}$ | 466.2 | 47.6 47.9 | 46.6 46.8 |
| 28, LAUREL ROAD, DANESTONE | Dwelling | 51.1 | 51.8 | 50.5 | -0.6 | Negligible Benenicicial | 51.8 | 0.7 | Negligibile Adverse | 39.7 | 40.4 | 40.4 |
| 3, LAUREL ROAD, DANESTONE | Dwelling | 51.9 | 53.5 | 51.9 | 0.0 | No Change | 52.7 | 0.8 | Negligible Adverse | 40.4 | 41.9 | 4.2 |
| 30, LIUURELR ROADD, DANESTTONE | Dweiling | 52.4 | 5.5 | 51.4 | -1. | Mnor Beneitical | 52.9 | 0.5 | Negligiole Adverse | 40.9 | 4.9 | 4.3 |
|  | Weviling | 58.5 | 50.4 | 55.0 | -1.5 | Mnior Benelicalal | 59.2 | 0.7 | Neqligiole Adverse | 4.4 | 48.1 | 456 |
| 36, LAUREL ROAD, DANESTONE | Dwelling | 59.4 | ${ }^{561.4}$ | ${ }^{557.8}$ | ${ }_{-1.6}$ | Minor Beneneficial | ${ }^{60.1}$ | 0.7 | Negigiolib Avverse | ${ }_{4}^{44.2}$ | 46.6 49.0 | 45.6 47.8 |
| 4, LAUREL ROAD, DANESTONE | Dwelling | 49.7 | 50.8 | 49.5 | -0.2 | Negligible Beneficial | 50.4 | 0.7 | Neoligiole Adverse | 38.5 | 39.5 | 39.1 |
| 5.LAUQEL ROAD, DANESTONE | Dwelling | 52.1 47.5 | 53.2 48.1 | 51.9 47.3 | -.0 .2 -0.2 | Negiligile Beneiticial | 52.7 48.3 | 0.6 | Negigible Adverse | ${ }_{30.6}^{40.5}$ | 41.6 37.0 | ${ }^{441.2} 3$ |
| 7, LAUREL ROAD, DANESTONE | Dwelling | 51.7 | 52.6 | 51.5 | -0.2 | Negligible Beneficial | 52.3 | 0.6 | Negligible Adverse | 40.3 | 41.1 | 40.8 |
| 8, LAUVEL ROAD, DANESTONE | Dwelling | 47.9 52.0 | 48.5 53.1 | 47.4 51.8 | $\stackrel{-0.5}{-0.2}$ | $\frac{\text { Negligible Beneficial }}{\text { Negligibl }}$ | 48.6 52.7 | 0.7 | $\frac{\text { Negligible Adverse }}{\text { Negligible Adverse }}$ | 36.8 40.5 | 37.4 41.5 | 37.5 41.2 |
| 1, LAUREL TERRACE, DANE STONE | Deelling | ${ }_{55.6}^{53.6}$ | 54.7 | ${ }_{53.5}^{54}$ | -0.1 | Negligible Beneficical | ${ }_{54.2}$ | 0.6 | Negigigible Adverse | 42.0 | 43.0 | 42.5 |
| 10, LAUREL TERRACE, DANESTONE | Dwelling | 55.3 | 56.2 | 54.1 | -1.2 | Minor Beneficial | 55.6 | 0.3 | Negigigile Adverse | 43.5 | 44.3 | 43.8 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 <br> Lnight,outside | DM33 Lnight,outside | $\begin{gathered} \text { DS33 } \\ \text { Lnight,outside } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 11, LAUREL TERRACE, DANESTONE | Dwelling | 52.3 | 53.6 | 52.4 | 0.1 | Negigigile Adverse | 53.1 | 0.8 | Negigigle Adverse | 40.8 | 42.0 | 41.5 |
| 12.LAURELTERRACE, DANESTONE | Dweling | 55.4 <br> 5.4 | 㐌6.4. | $\begin{array}{r}54.1 \\ 538 \\ \hline\end{array}$ | $\stackrel{-1.3}{-14}$ | Minor Beneficial | 55.7 <br> 5.5 | $\frac{0.3}{03}$ | Negiligil Adverse | 43.6 43.4 | $\frac{44.5}{44.3}$ | 43.9 43.7 |
| 17, LAURRL TRRACE, DANESTONE | Owwiling | - 53.2 | - ${ }_{\text {56.2.2 }}^{55.2}$ | 53.8 53.7 | -1. | Neoligioble Adverse | ${ }_{5}^{55.4}$ | 0.8 | Negligigie Adverse | ${ }_{42.0}^{43.4}$ | 43.4 | $\stackrel{43.7}{42.7}$ |
| I6, LAUREL TERRACE, DANESTONE | Dwelling | 557.4 | ${ }_{\text {5 }}^{58.6}$ | ${ }_{55.6}$ | -1.8 | Minor Beneficicial | ${ }^{54.6}$ | 0.2 | Negigigible Adverse | 45.4 | ${ }^{46.5}$ | 45.6 |
| 17, LAUREL TERRACE, DANESTONE | Dwelling | 50.3 | 51.1 | 50.0 | -0.3 | Negligible Beneficial | 51.0 | 0.7 | Negligible Adverse | 39.0 | 39.7 | 39.6 |
| 18, LAUREL TERRACE, DANESTONE | Owelling | 58.2 | 59.4 | 56.4 | -1.8 | Minor Beneficial | 58.3 | 0.1 | Negligible Beneficial | 46.1 | 47.2 | 46.2 |
| 19, LAUREL TERRACE, DANESTONE | welling | 49.5 | 50.2 | 49.3 | -0.2 | Negligible Beneficicial | 50.3 | 0.8 | Negligible Adverse | 38.3 | 38.9 | 39.0 |
| 2,Le, LAUREL TERAACE, DANESTONE | Dwelling | ${ }_{54.5}^{57.5}$ | ${ }_{55.6}^{59.6}$ | ${ }_{53.2}^{5}$ | ${ }_{-1.3}^{-0.3}$ | Neginior Beneneficial | 54.9 | ${ }_{0} 0.4$ | Neoligiole Adverse | ${ }_{42.8}^{45}$ | ${ }_{43.8}^{46.8}$ | ${ }_{43.1}^{46.1}$ |
| 21, LAUREL TERRACE, DANESTONE | Dwelling | 51.8 | 52.2 | 51.5 | -0.3 | Negligible Beneficial | 52.4 | 0.6 | Negigiole Adverse | 40.4 | 40.7 | 40.9 |
| 22, LAUREL TERRACE, DANESTONE | welling | 54.5 | 55.5 | 53.2 | 1.3 | Minor Beneficial | 54.8 | 0.3 | Negigigile Adverse | 42.8 | 43.7 | 43.1 |
| 23, LAUREL TERRACE, DANESTONE | welling | 51.7 | 52.2 | 51.3 | -0.4 | Negligible Beneficial | 52.3 | 0.6 | Negigigibe Adverse | 40.3 | 40.7 | 40.8 |
| 25, LAUREL TERRACE, DANESTONE | veling | 51.9 | 52.4 | 51.4 | -0.5 | Negligible Beneficial | 52.5 | 0.6 | Negigioble Adverse | 40.4 | 40.9 | 41.0 |
| 27, LAUREL TERRACE, DANESTONE |  | 52.1 | 2.6 | 1.6 | 0.5 | Negligible Beneficicial | 52.7 | 0.6 | Negigioble Adverse | 40.6 | 41.1 | 41.2 |
| 3, LAURELTERRACE, DAN |  | 53.6 | 54.6 | 53.5 | 0.1 | Negligible Beneniticial | 54.3 |  | Negigigibe Adverse | 42.0 | 42.9 | 42.6 |
| 4, LAURELT TERRACE, DAN |  | 54.8 | 55.6 |  | -1.1 | Minor Beneficial |  | 0.3 | Negiligibe Aaverse | 43.1 | 43.8 | 43.3 |
| 5, LAURELTERRACE, DANESTT |  | 52.6 | 53.7 | 2.6 | 0.0 | No Change |  |  | Negigigle Adverse | . 1 |  |  |
| 6, LAUREL TERRACE, DANESTONE | Oweling | 54.6 | 55.4 | 3.5 | -1.1 | Minor Beneficial | 54.9 | 0.3 | Negiligile Adverse |  | 43.6 | 43.1 |
| 7. LAUREL TERRACE, DANESTONE | weling | 52.8 | 53.9 | 52.9 | 0.1 | Negligible Adverse | 53.5 | 0.7 | Negligiole Adverse | 41.3 | 42.2 | 41.9 |
| 8, LAUREL TERRACE, DANESTONE | weling | 54.6 | 55.5 | 53.5 | -1.1 | Minor Beneificial | 54.9 | 0.3 | Negiligio Adverse | 42.9 | 43.7 | 43.1 |
| 9, LAUREL LTRAACE, DANESTONE | weling | ${ }_{525}^{52.7}$ | 53.9 | 52.7 | 0.0 | No Change | ${ }_{53.5}^{53 .}$ | 0.8 | Negigigie Adverse | 41.2 | 42.2 | 41.9 |
| 7, LAUREL LUW, DANESTONE | Owelling | 52.5 55 | 58.2. | ${ }_{5}^{52.0}$ | - | Negligible Benentical | 53.0 | 1.7 | Negigigio Adverse | 40.8 43.7 | 42.4. | 41.4 44.8 |
| 11, LAUREL VIEW, DANESTONE | Dwelling | 61.3 | 64.4 | 59.5 | -1.8 | Minor Beneficial | 62.7 | 1.4 | Negligible Adverse | 48.9 | 51.7 | 50.2 |
| 12, LAUREL VIEW, DANESTONE | Dwelling | 61.9 | 65.1 | 60.1 | -1.8 | Minor Beneficial | 63.3 | 1.4 | Negigiole Adverse | 49.4 | 52.3 | 50.7 |
| 14, LAUREL VIEW, DANESTONE | Welling | 62.2 | 65.5 | 60.4 | -1.8 | Minor Beneficial | 63.7 | 1.5 | Negigigibe Adverse | 49.7 | 52.7 | 51.1 |
| 15, LAUREL VIEW, DANESTONE | Oweling | 51.6 | 53.4 | 50.8 | -0.8 | Negligible Beneficial | 52.6 | 1.0 | Negigigibe Adverse | 40.2 | 41.8 | 41.1 |
| 16, LAUREL VIEW, DANESTONE | Weviling | 50.8 48 | 52.6 | 50.0 | -0.8 | Negiligile Benenitial | 51.8 | 1.0 | Negiqigio Adverse | 39.5 | 41.1 | 40.4 |
| 17, LAUREE VIEW, DANESTONE | Wweling | ${ }_{49.8}^{49.6}$ | 50.5 | ${ }_{49.5}^{48.1}$ | $\stackrel{-0.3}{-0.5}$ | Negiligiee Beneitical | ${ }_{50.5}^{49.5}$ | 0.7 | Neoligigile Adverse | ${ }_{38.6}$ | 38.6 39.2 | ${ }_{39.2}^{38.3}$ |
| 19, LAUREL VIEW, DANESTONE | welling | 47.3 | 48.1 | 47.1 | 0.2 | Negligible Beneficial | 48.1 | 0.8 | Negigiole Adverse | 36.3 | 37.0 | 37.0 |
| 2, LAUREL VIEW, DANESTONE | elling | 51.9 | ${ }^{53.6}$ |  | -0.4 | Negligible Benefitical | 52.4 | 0.5 | Negiligible Adverse | 40.4 | $\stackrel{42.0}{373}$ | 40.9 |
| 20, LAUREL VIEW, DANESTONE | Dwelling | 47.6 48.6 | 48.4 49.2 | ${ }_{48,3}^{47.3}$ | -0.3 -0.3 | $\frac{\text { Negligible Benenicial }}{\text { Negliobl }}$ | 48.4 49.4 | 0.8 0.8 0 | $\frac{\text { Negligible Adverse }}{\text { Neoligible Adverse }}$ | 36.6 37.5 | 37.3 38.0 | 37.3 38.2 |
| 22, LAUREL VIEW, DANESTONE | Welling | 48.3 | 48.9 | 48.0 |  | Negligible Beneficial | 49.1 |  | Negiligile Adverse | 37.2 | 37.7 | 37.9 |
| 23, LAUREL VIEW, DANESTONE | Dwelling | 48.7 | 49.3 | 48.4 | -0.3 | Negligible Beneficial | 49.4 | 0.7 | Negigigile Adverse | 37.6 | 38.1 | 38.2 |
| 24, LAUREL VIEW, DANESTONE | Wwelling | 47.5 | 47.9 | 47.2 | -0.3 | Negligible Beneficial | 48.2 | 0.7 | Negligible Adverse | 36.5 | 36.8 | 37.1 |
| 25, LAUREL VIEW, DANVSTONE | weling | 47.5 | 48.0 | 47.3 | -0.2 | Negiligiole Beneficial | 48.3 4.3 | ${ }^{0.8}$ | Negiligile Adverse | $\begin{array}{r}36.5 \\ 3.5 \\ \hline\end{array}$ | 36.9 | - $\begin{array}{r}37.2 \\ 372\end{array}$ |
| 26, LAURELVIEW, DANESTONE | weling | 47.5 | 47.9 | 47.3 | -0.2 | Negiligile Benenicial | 48.3 | 0.8 | Negiquigie Adverse | ${ }^{36.5}$ | 36.8 | ${ }^{37.2}$ |
|  | Owelling | ${ }_{47.8}^{48.2}$ | 48.2 | 47.6 | $\stackrel{-0.2}{-0.2}$ | ${ }_{\text {Negligigle Beneficical }}^{\text {Negioble Beneficial }}$ | ${ }_{48.6}^{49.6}$ | 0.8 0.8 | $\frac{\text { Negigigle Adverse }}{\text { Negilible Adverse }}$ | 37.1 36.8 | 37.5 37.1 | 37.8 375 |
| 29, LAUREL VIEW, DANESTONE | Dwelling | 48.7 | 49.0 | 48.5 | -0.2 | Negligible Beneficial | 49.4 | 0.7 | Negligible Adverse | 37.6 | 37.8 | 38.2 |
| 3. LAUREL VIEW, DANESTONE | Dwelling | 53.5 | 55.4 | 53.0 | -0.5 | Negligible Beneficial | 54.0 | 0.5 | Negigigibe Adverse | 41.9 | 43.6 | 42.3 |
| 30, LAUREL VIEW, DANESTONE | Oweling | 48.7 | 49.0 | 48.5 | -0.2 | Negligible Beneficial | 49.4 | 0.7 | Negigigibe Adverse | ${ }^{37.6}$ | 37.8 | 38.2 |
| 31, LAUREL VIEW, DANESTONE | Oweling | ${ }_{48.8}^{48.2}$ | 49.0 | 48.1 | 0.1 | $\frac{\text { Negligible Benenicial }}{\text { Neglioble }}$ | 49.1 | 0.9 | Negigigle Adverse | ${ }^{37.1}$ | 37.8 | 37.9 38 |
| 33, LAUREL VIEW, DANESTONE | Dwelling | 49.4 | 49.8 | 49.1 | -0.3 | Negligible Beneficial | 49.9 | 0.5 | Negligible Adverse | 38.2 | 38.6 | 38.6 |
| 4, LAUREL VIEW, DANESTONE | Dwelling | 53.7 | 55.6 | 53.3 | -0.4 | Negligible Beneficial | 54.3 | 0.6 | Negigigile Adverse | 42.1 | 43.8 | 42.6 |
| 5. LAUREL VIEW, DANESTONE | Oweling | 53.3 | 55.1 | 52.9 | -0.4 | Negligible Beneficial | 53.9 | 0.6 | Negigigibe Adverse | 41.7 | 43.3 | 42.2 |
|  | Oweling | 年52.4 | ${ }^{54.7} 5$ | - ${ }_{51.9}^{51.9}$ | -0.4 | Negoligiobile Beneneficioial | ${ }_{\text {53.7 }}^{53.0}$ | 0.6 | Negigigie Adverse | $\stackrel{41.5}{40.9}$ | $\stackrel{43.0}{42}$ | ${ }_{41.4}^{42.1}$ |
| 8, LAUREL VIEW, DANESTONE | Dwelling | 55.7 | 57.9 | 54.6 | -1.1 | Minor Beneficial | 56.6 | 0.9 | Negligible Adverse | 43.9 | 45.8 | 44.7 |
| 9, LAUREL VIEW, DANESTONE | Oweling | 52.9 |  | 51.9 |  | Minor Beneiticial | 53.9 |  | Negiligile Adverse | 41.3 | 43.2 | 42.2 |
| 1, LAUREL L YND, DANESTONE | Oweling | 48.2 | 48.5 | 48.0 | -0.2 | Negligite Benenitical | 49.0 | 0.8 | Negigigile Adverse | 37.1 | 37.4 | 37.8 |
| 10, LAUREL WYND, DANESTONE | weliling | 48.3 | 48.5 | 48.1 | -0.2 | Negiligibe Beneficial | 49.1 | ${ }^{0.8}$ | Negigigio Adverse | 37.2 <br> 373 <br> 3, | 37.4 | 37.9 |
| 12, LAURELWYND, DANESTONE | Dwelling | ${ }_{48.3}^{48.4}$ | ${ }_{48.6}^{48.7}$ | ${ }_{48.2}^{48.3}$ | ${ }_{-0.1}^{0.1}$ | ${ }_{\text {Negaligiole }}^{\text {Neneniticle }}$ Beneficial | ${ }_{49.1}^{49.1}$ | ${ }_{0}^{0.8}$ | Neoligigie Adverse | ${ }_{37.2}$ | ${ }_{3}^{37.6}$ | 38.0 37.9 |
| 16, LAUREL WYND, DANESTONE | Owelling | 50.2 | 50.5 | 49.9 | -0.3 | Negligible Beneficical | 50.8 | 0.6 | Negigiolie Adverse | 38.9 | 39.2 | 39.5 |
| 18, LAUREL WYND, DANESTONE | Dwelling | 50.7 | 51.0 | 50.5 | -0.2 | Negligible Beneficial | 51.3 | 0.6 | Negiligile Adverse | 39.4 | 39.6 | 39.9 |
| 2, LAUQELW WND, DANESTONE | Dwelling | 48.8 50.8 | ${ }^{499.3} 5$ | $\stackrel{48.6}{50.6}$ | -0.2 | ${ }_{\text {Negligible Beneficioal }}^{\text {Neglioile }}$ Beneficial | $\stackrel{49.6}{51.3}$ | 0.8 0.5 | Negigigle Adverse | $\stackrel{37.7}{39.5}$ | 38.1 39.7 | 38.4 39.9 |
| 22, LAUREL WYND, DANESTONE | Dwelling | 48.0 | 48.1 | 47.8 | -0.2 | Negligible Beneficial | 48.7 | 0.7 | Negigiolie Adverse | 36.9 | 37.0 | 37.6 |
| 24, LAUREL WYND, DANESTONE | Owelling | 48.0 48.2 | 48.2 48.3 | 47.9 48.0 | -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negligibl }}$ Beneficial | 48.8 49.0 | 0.8 0.8 | $\frac{\text { Negigigib Adverse }}{\text { Negigiole Adverse }}$ | 36.9 37.1 | 37.1 37.2 | 37.7 37.8 |
| 28, LAUREL WYND, DANESTONE | Dwelling | 48.1 | 48.3 | 48.0 | -0.1 | Negligible Beneficial | 48.9 | 0.8 | Neogigigle Adverse | 37.0 | 37.2 | 37.7 |
| 3, LAUREL WYND, DANESTONE | Dwelling | $\frac{46.7}{48.1}$ | 47.3 48.4 | ${ }_{46.6}^{46.0}$ | -0.1 0.1 | $\frac{\text { Negligible Benenicial }}{\text { Negliobl }}$ | ${ }_{48.6}^{47.8}$ | 0.9 0.7 | Negligibl Adverse | 35.8 37.0 | 36.3 37.3 | 36.6 37.7 |
| 32, LAUREL WYND, DANESTONE | Dwelling | 48.5 | 48.7 | 48.3 | -0.2 | Negligible Beneficial | 49.2 | 0.7 | Negigioble Adverse | 37.4 | 37.6 | 38.0 |
| 34, LAUREL WYND, DANESTONE | Owwling | 48.9 47.2 | 49.2 47.7 | 48.7 47.0 | -0.2 -0.2 | Negligible Beneficioal | 49.6 48.1 | 0.7 0.9 | Negigible Adverse | 37.7 36.2 | 38.0 36.7 | 38.4 37.0 |
| 38, LAUREL WYND, DANESTONE | Dwelling | 47.6 | 48.1 | 47.5 | -0.1 | Negligible Beneficial | 48.5 | 0.9 | Negigiolie Adverse | 36.6 | 37.0 | 37.4 |
| 4, LAUREL WYND, DANESTONE | Oweling | 47.8 | 48.2 | 47.6 | -0.2 | Negligible Beneficial | 48.6 | 0.8 | Negigigile Adverse | 36.8 | 37.1 | 37.5 |
| 40, LAUREL WYND, DANESTTNE | Owelling | 48.3 48 | ${ }_{48.6}^{48.4}$ | 48.1 48.0 | .- .2 <br> -0.1 | Negiligile Benenitical | 49.2 | 0.9 | Negigigibe Adverse | 37.2 37.0 | ${ }^{37.5}$ | 38.0 <br> 37.8 |
| $\frac{\text { 44, LAUREL WYND, DANESTONE }}{\text { 46, LAUREL WYND DANESTONE }}$ | Owelling | 48.6 48.4 | 48.8 48.6 | 48.4 48.2 | -0.2 -0.2 | Negliable Benefitial | 49.4 | 0.8 | Negligibl Adverse | 37.5 373 | $\begin{array}{r}37.7 \\ 375 \\ \hline\end{array}$ | 38.2 38 |
| 46, LAUREL WYND, DANESTONE | Owweling | ${ }_{48.7}^{48.7}$ | 49.0 | ${ }_{48.6}^{48.6}$ | $-01$ | Negegiogible Beneficioial | ${ }_{49.6}^{49.6}$ | 0.9 | Negiligive Avore | 37.6 | 37.8 | 38.4 |
| 5. LAUREL WYND, DANESTONE | Deweling | ${ }_{47.1}^{47}$ | 47.4 | 47.0 | -0.1 | Negligible Benefitial | 47.9 | 0.8 | Negligible Adverse | 36.1 | 36.4 | ${ }^{36.8}$ |
| 50, LAUREL WYND, DANESTONE | Owelling | 47.4 48.4 | 48.1 48.7 | 47.2 48.2 | -0.2 | $\frac{\text { Negligible Beneficial }}{\text { Negligibl }}$ Beneficial | 48.4 49.3 | 1.0 0.9 | $\frac{\text { Negligible Adverse }}{\text { Negligible Adverse }}$ | 36.4 37.3 | 37.0 37.6 | 37.3 38.1 |
| 54, LAUREL WYND, DANESTONE | Owelling | 47.7 | 47.9 | 47.5 | -0.2 | Negligible Beneficial | 48.6 | 0.9 | Negigiolie Adverse | ${ }^{36.7}$ | ${ }_{36.8}^{376}$ | 37.5 |
| 56, LAUREL WYND, DANESTONE | welling | 48.4 | 48.7 | 48.2 | 0.2 | Negligible Beneficial | 49.2 | 0.8 | Negligible Adverse | 37.3 | 37.6 | 38.0 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 <br> Lnight,outside | $\begin{gathered} \text { DS33 } \\ \text { Lnight,outside } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 58, LAUREL WYND, DANESTONE | Dwelling | 48.0 | 48.2 | 47.8 | ${ }^{0.2}$ | Negligible Beneficial | 48.8 | 0.8 | Negigigle Adverse | 36.9 | ${ }_{37.1}^{37}$ | ${ }^{37.7}$ |
| 6. LAUBEL WYND, DANESTONE | Oweling | 48.5 | 48.8 474 | $\frac{48.4}{469}$ | -0.1 | Negliaible Beneficial | $\frac{49.3}{478}$ | ${ }_{0}^{0.8}$ | Negiligile Adverse | 37.4 360 | 37.7 364 | $\frac{38.1}{368}$ |
| 7. LAUREL WYYD, DANESTONE | Owwiling | 47.0 46.9 | 47.4 47.4 | 46.9 46.8 | -0.1 -0.1 | Negligible Beneticial | 47.8 47.8 | 0.8 | $\frac{\text { Negigigie Adverse }}{\text { Negligible Adverse }}$ | 36.0 35.9 | 36.4 36.4 | 36.8 36.8 |
| 1, LESLIE ROAD | Dwelling | 72.3 | 773.8 | 72.5 | 0.2 | Negligible Adverse | 73.6 | 1.3 | Negigioble Adverse | ${ }_{58.8}$ | 60.2 | 60.0 |
| 10, LESLE ROAD | Dwelling | 71.3 | 72.8 | 71.5 | 0.2 | Negligible Adverse | 72.5 | 1.2 | Negigigile Adverse | 57.9 | 59.3 | 59.0 |
| 11, LESLLE ROAD | Owelling | 71.5 | 72.9 | 71.6 | 0.1 | Negligible Beneficial | 72.6 | 1.1 | Negigigibe Adverse | 58.1 | 59.3 | 59.1 |
| 12. LESLIE ROAD | welling | 71.6 | 73.0 | 71.7 | 0.1 | Negligible Adverse | 72.7 | 1.1 | Negiligibe Adverse | 58.2 | 59.4 | 59.2 |
| 13. LESLEE ROAD | Oweling | 71.5 71.7 | 72.9 73.1 | 71.6 71.8 | ${ }_{0}^{0.1}$ | Negegioigiele Beneneiticial | 72.6 72.9 | ${ }_{1}^{1.2}$ | $\frac{\text { Negigigibe Adverse }}{\text { Negilible Adverse }}$ | - ${ }_{58.1}^{58.3}$ | 599.3 | ${ }^{59.1}$ |
| 15, LESLIE ROAD | Dwelling | 71.4 | 72.8 | 71.5 | 0.1 | Negligible Beneficioal | 72.5 | 1.1 | Neogigible Adverse | 58.0 | 59.3 | 59.0 |
| 17. LESLIE ROAD | Wwelling | 71.4 | 72.8 | 71.5 | 0.1 | Negligible Beneficial | 72.5 | 1.1 | Negigiolie Adverse | 58.0 | 59.3 | 59.0 |
| 19, LESLIE ROAD | welling | 71.6 | 72.9 | 71.7 | 0.1 | Negligible Adverse | 72.7 | 1.1 | Negigigibe Adverse | 58.2 | 59.3 | 59.2 |
| 21, LESLLE ROAD | eiling | 71.6 | 72.9 | 71.7 | 0.1 | Negligible Adverse | 72.7 | 1.1 | Negigioble Adverse | 58.2 | 59.3 | 59.2 |
| 22, LESLIE ROAD |  | 72.0 | (3.3 | 72.1 | 0.1 | Negiligible Benefitial | 73.1 | 1.1 | Negigioble Adverse | 58.5 | 59.7 | 59.5 |
| 23, LESLLE ROAD |  | 71.8 | 73.2 | 71.9 | 0.1 | Negiligible Adverse |  | 1.1 | Negiligibe Adverse | 58.4 |  |  |
| 25. LESLIE ROAD | ing | 71.8 | 73.2 | 71.9 | 0.1 | Negiligile Adverse | ${ }^{122.9}$ | 1.1 | Negiligibe Adverse | 58.4 |  | 59.3 |
| 27, LESLIE ROAD |  | 72.1 | 73.3 | 72.1 | 0.0 | No Change |  | 1.0 | Negiligibe Adverse |  |  |  |
| 29, LESLIE ROAD | Dwelling | 72.3 | 73.4 | 72.4 | 0.1 | Neoligible Adverse | 73.2 | 0.9 | Negigigibe Adverse | 58.8 | 59.8 | 9.6 |
| 29, LESLLE ROAD | Welling | 72.3 |  | 72.4 | 0.1 | Neoligible Adverse | 73.2 | 0.9 | Negiligibe Adverse | 58.8 | 59.8 | 59.6 |
| 29, LESLLE ROAD | weling |  | 73.4 | 72.4 | 0.1 | Negigigile Adverse | 73.2 | 0.9 | Negigigibe Adverse | 58.8 |  | 59.6 |
| 31, Lessite road | weling | 72.5 | ${ }_{7}^{73.3}$ | 72.5 | 0.0 | No Change | ${ }^{73.2}$ | 0.7 | Negiligibe Aaverse | 59.0 | 59.7 | 59.6 |
| 33, LESLELE ROAD | weling | 72.5 | ${ }^{73.3}$ | 72.5 | 0.0 | No Change | 73.2 | 0.7 | Negiligibe Adverse | 59.0 | 59.7 | 59.6 |
| 35, Lestie roab | weling | 12.8 <br> 72.8 | ${ }^{73.5}$ | 72.8 72 | 0.0 | No Change | 73.4 | 0.6 | Negiligile Adverse | 59.3 | 59.9 | 59.8 |
| 37, LESLE ROAD | Oweling | 72.8 | 73.5 | 72.8 | 0.0 | $\frac{\text { No C Cange }}{\text { No Change }}$ | 73,4 | 0.6 | Negigigle Adverse | 59.3 | 59.9 | 59.8 59.8 |
| 4. LESLIE ROAD | Dwelling | 71.1 | 72.5 | 71.2 | 0.1 | Negigible Adverse | 72.2 | 1.1 | Negigiolie Adverse | 57.7 | 59.0 | 58.7 |
| 41, LESLIE ROAD | Owelling | 72.8 | 73.5 | 72.8 | 0.0 | No Change | 73.4 | 0.6 | Negigigibe Adverse | 59.3 | 59.9 | 59.8 |
| 43, LESLIE ROAD | Weling | 73.0 | 73.7 | 73.0 | 0.0 | No Change | 73.6 | 0.6 | Negigigle Adverse | 59.4 | 60.1 | 60.0 |
| 45, LESLLE ROAD | welling | 73.0 | 73.7 | 73.0 | 0.0 | No Change | ${ }^{73.6}$ | 0.6 | Negigigibe Adverse | 59.4 | 60.1 | 60.0 |
| 47, LESLIE ROAD | welling | 73.0 | 73.6 | 73.0 | 0.0 | No Change | 73.5 | 0.5 | Negigigibe Adverse | 59.4 | 60.0 | 59.9 |
| 47, LESLIE ROAD | ing | 73.0 | ${ }^{73.6}$ | 73.0 | 0.0 | No Change | 73.5 | 0.5 | Negiligibe Adverse | 59.4 | 60.0 | 59.9 |
| 49, LESLLELE ROAD | Owelling | 73.0 73.0 | 73.6 73.6 | 73.0 72.9 | 0.0 -0.1 | Neglicibile Eenefeficial | 73.5 73 | 0.5 | Neoligioble Adverse | ${ }_{59.4}^{59.4}$ | ${ }^{60.0}$ | ${ }_{59.9}^{59.9}$ |
| 51, LESLIE ROAD | Dwelling | 73.0 | 73.7 | 73.0 | 0.0 | No Change | 73.6 | 0.6 | Negigiolile Adverse | 59.4 | 60.1 | 60.0 |
| 53, LESLIE ROAD |  |  |  |  |  | No Change |  |  |  | 59.4 |  |  |
| 53, LESLLE ROAD | Oweling | 73.0 | ${ }^{73.6}$ | 73.0 | 0.0 | No Change | 73.6 | 0.6 | Negigigie Adverse | 59.4 | 60.0 | 60.0 |
| 53, LESLIE ROAD | weling | 73.0 | ${ }^{73.6}$ | 73.0 | 0.0 | No Change | 73.6 735 | 0.6 | Negigigile Adverse | 59.4 | 60.0 | 60.0 |
| 55, LESLETERAD | weling | 72.9 | ${ }_{7}^{73.6}$ | 72.9 | 0.0 | No Change | 73.5 | 0.6 | Negigigile Adverse | 59.3 | 60.0 | 59.9 |
| 57, LesLie Road | ${ }^{\text {Owwelling }}$ | 73.0 73.0 | 73.6 73.7 | ${ }^{73.0}$ | 0.0 | ${ }^{\text {No Co Change }}$ | 73.5 73.6 | 0.6 | Negigigie Adverse | ${ }_{59.4}^{59.4}$ | 60.0 | 59.9 |
| 6, LESLIE ROAD | Dwelling | 77.1 | 72.5 | 71.2 | 0.1 | Negligible Adverse | 72.2 | 1.1 | Negigigile Adverse | 57.7 | 59.0 | 58.7 |
| 61, LESLIE ROAD | Dwelling | 73.0 | 73.7 | 73.0 | 0.0 | No Change | 73.6 | 0.6 | Negigigile Adverse | 59.4 | 60.1 | 60.0 |
| ${ }^{\text {63, LESLEE ROAD }}$ | Owelling | 73.0 73.0 | 73.8 <br> 73.8 | 73.0 73.0 | 0.0 | $\frac{\text { No C Cange }}{\text { No Change }}$ | 73.7 73.7 | 0.7 | $\frac{\text { Negigigile Adverse }}{\text { Negigiole Adverse }}$ | 59.4 59.4 | 60.2 60.2 | 60.1 60.1 |
| 7, LESLIE ROAD | Owelling | 71.4 | 72.8 | 71.5 | 0.1 | Negligible Beneficial | 72.5 | 1.1 | Negigigile Adverse | 58.0 | 59.3 | 59.0 |
| 8, $\frac{8}{9, L E S L S L E L E ~ R O A D ~}$ | Dwelling | 71.3 71.4 | 72.8 72.8 | 71.5 71.5 | 0.2 0.1 | Negligibl Adverse | 72.5 72.5 | $\stackrel{1.2}{1.1}$ | $\frac{\text { Negiligile Adverse }}{\text { Negigible Adverse }}$ | 57.9 58.0 | 59.3 59.3 | 59.0 59.0 |
| LINDEN, LINDEN, GRANDHOLM DRIVE | Owelling | 47.6 | 48.2 | 47.5 | . 0.1 | Negligible Beneficial | 48.7 | 1.1 | Negigigile Adverse | 36.6 | 37.1 | 37.6 |
| FLAT B, 25, LOGIE AVENUE | Dwelling | 52.7 | 53.0 50.6 | 61.7 56.8 | $\frac{9.0}{6.5}$ | $\frac{\text { Major Adverse }}{\text { Major Adverse }}$ | 63.6 57.5 | 10.9 7.2 | Majior Adverse | 41.2 39.0 | 41.4 39.3 | 51.0 45.5 |
| FLAA D, 10 , LoGil Avenue | Oweling | 50.3 | 50.6 | 56.8 63.0 | - ${ }_{-2.5}$ | Minior Benenficicial | ${ }_{63.5}$ | -1.8 | Nogiligible Benerificial | ${ }^{39.0} 5$ | $\stackrel{39.0}{5}$ | ${ }_{50.9}^{45.5}$ |
| FLAT D, 14, LOGIE AVENUE | Dwelling | 62.5 | 63.4 | 59.7 | -2.8 | Minor Beneficial | 60.4 | -2.1 | Negigiole Beneficial | 50.0 | 50.8 | 48.1 |
| FLAT D, 16, LoGie Avenue | Oweling |  | 61.0 | 57.8 | ${ }^{2.3}$ | Minor Beneficial | 58.5 | -1.6 | Negigigie Benenicial | 47.8 | 48.6 | 6.4 |
| LLAT, 18, LOGIE AVENUE | weling | 47.8 | 48.2 | 52.9 | 5.1 | Major Adverse | 53.9 | 6.1 | Moderatae Adverse | 36.8 | 37.1 | 42.2 |
| FLAT D, 20, LoGIEAVENUE | Wweling | 47.3 | 47.9 | $\begin{array}{r}52.6 \\ \hline 553 \\ \hline\end{array}$ | 5.3 <br> 8.4 | Major Adverse | 53.7 | 6.4 | Moderate Adverse | 36.3 359 | 36.8 368 | 42.1 |
| FLAT D, 22, LOGIE AVENUE | Dwelling | 47.3 | 47.9 | 52.4 | 5.1 | Major Adverse | 53.6 | ${ }_{6.3}$ | Moderate Adverse | ${ }_{36.3}$ | ${ }_{36.8}$ | 42.0 |
| FLAT D, 23, LOGIE AVENUE | Oweling | 46.7 480 | 47.3 487 | 53.4 <br> 514 <br> 1.4 | $\begin{array}{r}6.7 \\ 3 \\ \hline 1\end{array}$ | Maior Adverse | 54.5 524 5 | 7.8 4.4 | Moderate Adverse | 35.8 369 | 36.3 376 | 42.8 |
| FLLAT D, 24, Logie Avenue | ${ }^{\text {Dwelling }}$ Dowling | 48.0 | ${ }_{48.5}^{48.7}$ | ${ }_{51.4}^{56.0}$ | 3.4 7.0 | Moderate Adverse | 52.4 57.8 | 4.4 <br> 8.8 | Monor Adverse | 36.9 37.8 | 37.6 38.3 | 40.9 45.8 |
| FLaT D, 26, LOGIE AVENUE | Owelling | 48.4 | 49.3 | 52.0 | 3.6 | Moderate Adverse | 53.5 | 5.1 | Moderate Adverse | 37.3 | 38.1 | 41.9 |
| FLaT D, 28, LOGIEAVENUE | Oweling | 48.1 | 49.0 | 53.9 | 5.8 | Major Adverse | 55.6 | 7.5 | Moderate Adverse | 37.0 | 37.8 | 43.8 |
| FLAT D, 30, LOGIE AVENUE | Oweling | $\stackrel{48.2}{518}$ | $\stackrel{49.0}{514}$ | 56.2 | 8.0 | Major Adverse | 58.0 | 9.8 10.6 | Moderate Adverse | 37.1 40.4 | $\begin{array}{r}37.8 \\ \hline 8.0\end{array}$ | 45.9 |
| FLAT B, 10, Logie Avenue | Dwelling | 54.4 | 54.8 | 63.1 | 8.7 | Major Adverse | 63.8 | 9.4 | Moderate Adverse | 42.7 | 43.1 | 51.2 |
| FLAT B, 12, Logie avenue | Dwelling | 67.0 | 67.6 | 64.8 | 2.2 | Minor Beneficial | 65.3 | 1.7 | Negligible Beneficial | 54.0 | 54.6 | 52.5 |
| FLAT B, 14. LOGIE AVENUE | Dwelling | 65.1 | 66.0 | 62.3 | ${ }_{2}^{2.8}$ | Minor Beneficical | 63.0 | -2.1 | Negligible Beneficial | 52.3 | 53.1 | 50.4 |
| FLAT B, 16, LoGie Avenue | weling | 62.7 519 | - 6.6 | 60.5 | 2.24 | Minor Beneticial |  |  | Negigigiole Benenitial | 50.2 |  | 48.9 |
| FLAT B, 20, LOGIEAVENUE | Dwelling | 51.9 | ${ }_{52.5}$ | 56.8 | 4.9 | Moderate Adverse | 57.8 | 5.9 | Moderate Adverse | 40.4 | 41.0 | 45.8 |
| FLAT B, 21, LOGIE AVENUE | Dwelling | 51.6 | 52.4 | 59.4 | 7.8 | Major Adverse | 60.5 | 8.9 | Moderate Adverse | 40.2 | 40.9 | 48.2 |
| FLAT B, 22, LOGIE AVENUE | Oweling | 52.2 | 52.8 | 56.4 | 4.2 | Moderate Adverse | 57.5 | 5.3 | Moderate Adverse | 40.7 | 41.3 | 45.5 |
| FLAT B, 23, L4, LOGIEAIEAVENUENUE | Owelling | $\begin{array}{r}51.4 \\ 52.2 \\ \hline\end{array}$ | 52.0 52.9 | 58.0 | ${ }^{6.6}$ | Major Adverse | 59.2 55.5 | ${ }_{3.8}^{7.8}$ | Moderatie Adverse | 40.0 40.7 | ${ }_{40.5}^{41.3}$ | 473.7 |
| FLAT B, 26, LOGIE AVENUE | Dwelling | 52.9 | 53.6 | 55.7 | 2.8 | Minor Adverse | 57.1 | 4.2 | Minor Adverse | 41.3 | 42.0 | 45.1 |
| FLAT B, 28, LOGIE AVENUE | Dwelling | 51.9 | 52.6 | 57.9 | 6.0 | Major Adverse | 59.6 | 7.7 | Moderate Adverse | 40.4 | 41.1 | 47.4 |
| FLAT B, 30, LoGiE AVENUE | ${ }^{\text {Owelling }}$ Delling | 52.2 55.1 | 52.9 54.7 | ${ }_{61.0}^{68.8}$ | 8.8 13.7 | Major Adverse | 62.8 70.7 | 10.6 15.6 | Major Adverse | ${ }_{43.3}^{40.7}$ | ${ }_{4}^{41.3}$ | 50.3 57.4 |
| FLAT F, 10, LOGIE AVENUE | Oweling | 52.1 | 52.4 | 59.8 | 7.7 | Maior Adverse | ${ }_{60.5}^{64}$ | 8.4 | Moderate Adverse | 40.6 | 40.9 | 48.2 |
| FLat | Owweling | -66.5 | ${ }_{65.1}^{66.1}$ | ${ }_{64.1}^{61.3}$ | -2.4 -2.9 | ${ }_{\text {Minor }}$ Minereneficicial | ${ }^{64.7}$ | - ${ }_{-1.8}^{-2.1}$ | $\xrightarrow{\text { Negiligible Benenticial }}$ | ${ }_{51.5}^{51.5}$ | $\stackrel{54.1}{52.3}$ | $\stackrel{52.0}{49.6}$ |
| FLAT F, 16, LOGIE AVENUE | welling | 61.8 | 62.7 | 59.4 | -2.4 | Minor Beneficial | 60.1 | -1.7 | Negligible Beneficial | 49.4 | 50.2 | 47.8 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 <br> Lnight,outside | DS33 <br> Lnight,outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| FLAT F, 18, LOGIE AVENUE | Dwelling | 49.5 | 50.0 | 55.7 | 6.2 | Major Adverse | 56.6 | 7.1 | Moderate Adverse | 38.3 | 38.7 | 44.7 |
| FLAT F, 20, LOGIE AVENUE | Dwelling | 49.2 | 49.8 | 55.2 | 6.0 | Maior Adverse | 56.2 | 7.0 | Moderate Adverse | 38.0 377 | 38.6 38.6 | 44.3 46.4 |
| FLAT F, 21, LOGIEAVENUE | Dwelling | 48.9 493 | 49.8 49.9 | 57.5 <br> 54.5 | 8.6 5.2 | Maior Adverse | 58.5 <br> 55.5 | 9.6 6.2 | $\frac{\text { Moderate Adverse }}{\text { Moderate Adverse }}$ | 37.7 38.1 | $\begin{array}{r}38.6 \\ 38.6 \\ \hline\end{array}$ | 46.4 43.7 |
| LLAT F. 23, LOGGIE AVENUE | ${ }^{\text {Duelling }}$ Douling | ${ }_{48.7}^{48.7}$ | 49.4 | 54.5 55.5 | ${ }_{6} 6.8$ | Majoro Adverse | ${ }_{55.7}^{56.7}$ | ${ }_{8.0}^{6.2}$ | Moderarate Adverse | ${ }_{37.6}$ | 38.6 38.2 | ${ }_{44.8}^{43.8}$ |
| FLAT F, 24, LOGIE AVENUE | Dwelling | 49.8 | 50.6 | 52.8 | 3.0 | Moderate Adverse | 53.8 | 4.0 | Minor Adverse | 38.6 | 39.3 | 42.2 |
| FLAT F, 25, LOGIE AVENUE | Dwelling | 50.7 | 51.1 | 58.9 | 8.2 | Major Adverse | 60.7 | 10.0 | Major Adverse | 39.4 | 39.7 | 48.4 |
| FLAT F, 26, LOGIE AVENUE | Dwelling | 50.3 | 51.1 | 53.7 | 3.4 | Moderate Adverse | 55.1 | 4.8 | Minor Adverse | 39.0 | 39.7 | 43.3 |
| FLAT F, 28, LOGIIE AVENUE | Welling | ${ }_{49}^{49.8}$ | 50.7 <br> 50.8 | 56.0 587 | 6.2 | Major Adverse | $\begin{array}{r}57.7 \\ \hline 805\end{array}$ | 7.9 | Moderate Adverse | 38.6 3.7 | 39.4 | 45.7 <br> 48. |
| FLAAT, 30, LOGIE AVENUE | Dwelling | ${ }_{50.0}^{53.5}$ | 50.8 53.1 | ${ }_{68,7}^{68.5}$ | 8.7 <br> 15.0 <br>  | $\frac{\text { Maior Adverse }}{\text { Maior Adverse }}$ | ${ }^{60.5}$ | 10.5 16.8 | Maior Adverse | 38.7 41.9 | 39.5 41.5 | 48.2 57.0 |
| 1,LLGGIE GARDENS [G_rep 2] | Dwelling | 48.3 | 48.7 | 56.5 | 8.2 | Maior Adverse | 58.4 | 10.1 | Maior Adverse | 37.2 | 37.6 | 46.3 |
| 1, LOGIE GARDENS [2nd _ep 2] | Dwelling | 52.1 | 52.4 | 63.3 | 11.2 | Major Adverse | 65.2 | 13.1 | Major Adverse | 40.6 | 40.9 | 52.4 |
| 1, LOGIIE GARDENS [11t rep 2] | Dwelling | 50.0 | 50.3 | 60.2 | 10.2 | Major Adverse | 62.1 | 12.1 | Major Adverse | 38.7 | 39.0 | 49.6 |
| 26, LOGIIE PLACE | Dwelling | 56.8 | 59.0 | 55.4 | -1.4 | Minor Beneficial | 56.6 | -0.2 | Negligible Beneficicial | 44.9 | 46.8 | 44.7 |
| 26, LoGiE PLACE | Dwelling | 61.2 <br> 550 <br> 5 | 63.4 56.8 | 58.0 547 | -3.2 | Moderate Beneficial | 59.1 <br> 558 | -2.1 | Negligible Beneficial | 48.8 432 | 50.8 449 | 46.9 440 |
| 28,LOGIE PLACE | Dwelling | 55.2 | 58.2 | 55.2 | -1.0 | Minor Beneficicial | ${ }_{56.3}$ | 0.1 | Negligible Beneficial | 44.3 | 46.1 | 44.4 |
| 30, LOGIE PLACE | Dwelling | 51.0 | 51.2 | 51.6 | 0.6 | Negigigile Adverse | 52.5 | 1.5 | Negligible Adverse | 39.6 | 39.8 | 41.0 |
| 31, LOGIE PLACE | Deelling | 53.3 | 54.8 | 53.2 | -0.1 | Negligible Beneficial | 54.3 | 1.0 | Negigiolie Adverse | 41.7 | 43.1 | 42.6 |
| 32, LOGIIE PLACE | Dwelling | 51.1 | 51.2 | 51.6 | 0.5 | Negiligibe Adverse | 52.6 | 1.5 | Negiligibe Adverse | 39.7 | 39.8 | 41.1 |
| ${ }^{\text {3 }}$ 3, LOGGIE PRACE | Dwelling | 53.6 50.8 | 54.6 50.9 | 年51.8 | 0.2 | $\frac{\text { Negligible Adverse }}{\text { Neligiole Adverse }}$ | 54.9 52.1 | 1.3 1.3 | $\frac{\text { Negigigibe Adverse }}{\text { Negiliole Adverse }}$ | ${ }_{39.5}^{42.0}$ | ${ }_{39.5}^{42.9}$ | 43.1 40.6 |
| 35, LOGIE PLACE | Dwelling | ${ }_{53.6}$ | ${ }_{54.6}$ | ${ }_{53.8}$ | 0.2 | Negigigile Adverse | ${ }_{54.9}$ | ${ }_{1.3}^{1.3}$ | Neogligible Adverse | ${ }^{42.0}$ | 42.9 | 43.1 |
| 36, LOGIE PLACE | Dwelling | 50.8 | 50.9 | 51.2 | 0.4 | Negigigile Adverse | 52.1 | 1.3 | Negigiolie Adverse | 39.5 | 39.5 | 40.6 |
| $\frac{37.10 G I E P L A C E ~}{\text { 3 }}$ | $\frac{\text { Dwelling }}{\text { Dweling }}$ | $\begin{array}{r}53.6 \\ 50.4 \\ \hline\end{array}$ | 54.6 50.6 | $\begin{array}{r}53.8 \\ 50 \\ \hline\end{array}$ | 0.2 | Negiligile Adverse | 54.9 519 | $\begin{array}{r}1.3 \\ 1.5 \\ \hline\end{array}$ | $\frac{\text { Negiligile Adverse }}{\text { Nefigiole Adverse }}$ | 42.0 3.0 | 42.9 309 | 43.1 |
| 38, LOGIE PLACE | ${ }^{\text {Duelling }}$ | ${ }_{50.4}^{53.6}$ | ${ }_{50}^{50.6}$ | ${ }_{50.8}^{50.8}$ | 0.2 | Neogigiole Adverse | 54.9 | ${ }_{1.3}^{1.5}$ | Negigioble Adversse | ${ }^{39.0}$ | 42.9 | 43.1 |
| 40, LOGIE PLACE | Dwelling | 50.4 | 50.6 | 50.9 | 0.5 | Negiligile Adverse | 51.9 | 1.5 | Negigiolie Adverse | 39.1 | 39.3 | 40.4 |
| 41, LOGIE PLACE | Dwelling | 52.3 | 53.0 | 52.9 | 0.6 | Negigibile Adverse | 53.9 | 1.6 | Negligible Adverse | 40.8 | 41.4 | 42.2 |
| 42, LoGIE PLACE | Dwelling | 49.9 | 50.2 | 50.5 | 0.6 | Negligible Adverse | 51.5 | 1.6 | Negigiolie Adverse | 38.6 | 8.9 | 40.1 |
| 43, LOGIIE PLACE | Dwelling | 52.3 | 53.0 | 52.9 | 0.6 | Negigioble Adverse | 53.9 | 1.6 | Negigioble Adverse | 40.8 | 1.4 | 42.2 |
| 44, LOGIE PLACE | Dwelling | 49.9 | 50.2 | 50.5 | 0.6 | Negligibe Adverse | 51.5 | 1.6 | Negigioble Adverse | 38.6 | 38.9 | 40.1 |
|  | Dwelling | 51.3 | 51.8 | 51.8 | 0.5 0.5 | Negigigio Adverse | 52.7 527 | 1.4 1.4 | Negigigio Adverse | 39.9 399 | 40.4 40.4 | $\frac{41.2}{412}$ |
| 49, LOGIE PLACE | Dwelling | 51.3 | 51.6 | 52.3 | 1.0 | Minor Adverse | 53.2 | 1.9 | Negiligibe Adverse | 39.9 | 40.2 | 41.6 |
| 51, LOGIE PLACE | Dwelling | 51.3 | 51.6 | 52.3 | 1.0 | Minor Adverse | 53.2 | 1.9 | Negligible Adverse | 39.9 | 40.2 | 41.6 |
| FLAT D, 46, LOGIE PLACE | Dwelling | 47.6 | 47.6 | 50.8 | 3.2 | Moderate Adverse | 51.1 | 3.5 | Minor Adverse | 36.6 | 36.6 | 39.7 |
| FLAT D, 48, LOGIIE PLACE | Dwelling | 48.4 | 48.3 | 52.2 | 3.8 | Moderate Adverse | 52.4 | 4.0 | Minor Adverse | 37.3 | 37.2 | 40.9 |
| FLAAT D, 53, LOGIIE PLACE | Dwelling | 48.3 | 48.5 | 49.4 | 1.1 | Minor Adverse | ${ }^{50.1}$ | 1.8 1.5 | Negiligile Adverse | 37.2 <br> 3.8 | 37.4 367 | 38.8 <br> 3.8 |
| FLAT, 5, Locit Pace | Dwelling | $\stackrel{47.8}{52.2}$ | $\stackrel{47.7}{50.8}$ | ${ }_{5}^{48.7}$ | 0.9 0.3 | Negigigbe Adverse | 49.3 52.8 | 1.5 0.6 | Negigigle Adverse | 36.8 40.7 | ${ }^{36.7}$ | 38.1 41.3 |
| FLAT A, 59, , LOGIIE PLACE | Dwelling | ${ }_{53.4}^{52.4}$ | ${ }_{52.3}$ | ${ }_{54.6}$ | 1.2 | Minor Adverse | 55.0 | 1.6 | Negiligible Adverse | 41.8 | 40.8 | 43.2 |
| FLAT D, 61, LOGIE PLACE | Dwelling | 56.1 | 55.0 | 59.3 | 3.2 | Moderate Adverse | 59.4 | 3.3 | Minor Adverse | 44.2 | 43.2 | 47.2 |
| FLAT B, 46, LoGil Place | Dwelling | 50.4 | 50.4 | 55.3 | 2.9 | Minor Adverse | 53.6 | 3.2 | Minor Adverse | 39.1 | 39.1 | 42.0 |
| FLAT B, 48, LOGIE PLACE | Deelling | 51.1 | 51.1 | 55.0 | 3.9 | Moderate Adverse | 55.2 | 4.1 | Minor Adverse | 39.7 | 39.7 | 43.4 |
| LLAT B, 53, LOGIE PLACE | Dwelling | 51.7 | 51.7 | 52.8 | 1.1 | Minor Adverse | 53.5 | 1.8 | Negiligile Adverse | 40.3 | 40.3 | 41.9 |
| FLAT B, 5, LoGile Pace | Dweling | 51.1 | 50.8 | 51.9 | 0.8 | Negiligble Adverse | 52.5 | 1.4 | Negiligble Adverse | 39.7 | 39.5 | 41.0 |
| FLAT B, 57, LOGIE PLACE | Dwelling | 53.4 | 52.6 | 53.9 | 0.5 | Negligigle Adverse | 54.4 | 1.0 | Negigioble Adverse | 41.8 | 41.1 | 42.7 |
| FLAT C, 59, LoGile Place | Deeling | 54.5 | 53.8 | 55.9 | 1.4 |  | 56.5 | 2.0 | Negigigibe Adverse | 42.8 | 42.2 | 44.6 |
| FLAT B,6, LOGGIE PLACE | Dwelling | 57.0 | 56.2 | 60.2 | ${ }^{3.2}$ | Moderate Adverse | 60.4 | ${ }^{3.4}$ | Minor Adverse | 45.0 | 4,3 | 48.1 |
| FLAT F, 46, LOGIE PLACE | Dweling | 49.0 | ${ }_{49.0}^{49 .}$ | 52.3 540 | ${ }_{40}^{3.3}$ | Moderate Adverse | $\begin{array}{r}52.5 \\ 54.2 \\ \hline\end{array}$ | ${ }_{4}^{3.5}$ | Minor Adverse | 37.8 387 | $\begin{array}{r}37.8 \\ 38.6 \\ \hline\end{array}$ | 41.0 |
| FLAT F, 53, LOGIIE PLACE | Dwelling | 49.8 | 50.0 | 51.0 | 1.2 | Minor Adverse | ${ }_{51.7}^{54.7}$ | 1.9 | Negiligibe Adverse | ${ }_{38.6}$ | 38.7 | 40.3 |
| FLAT F, 55, LOGIE PLACE | Dwelling | 49.3 | 49.1 | 50.2 | 0.9 | Negigioile Adverse | 50.8 | 1.5 | Negligibile Adverse | 38.1 | 37.9 | 39.5 |
| FLAT F. 57, LoGIIE PLACE | Dwelling | 52.7 | 51.6 | 53.2 | 0.5 | Negigibile Adverse | 53.5 | 0.8 | Negigioile Adverse | 41.2 | 40.2 | 41.9 |
| FLAT F, 59, LoGle Place | Dweling | 53.9 | 53.1 558 568 | ${ }^{55.3}$ | ${ }^{1.4}$ | Minor Adverse | ${ }^{55.8}$ | $\begin{array}{r}1.9 \\ \hline\end{array}$ | Negligiolie Adverse | 42.2 | ${ }_{41.5}$ | 44.0 |
| FLAT F, 61, LOGIE PLACE | Dwelling | 56.8 60.1 | 55.8 | 60.2 | 3.4 <br> 1.3 <br> 1 | $\frac{\text { Moderate Adverse }}{\text { Minor Adverse }}$ | ${ }_{60.3}^{62.7}$ | 3.6 | Negnigioble Adverse | ${ }_{47.9}^{44.9}$ | 44.0 49.5 | 48.0 50.2 |
| 11, LOGIE TERRACE | Dwelling | 59.4 | 62.0 | 57.4 | -2.0 | Minor Beneficial | 58.8 | -0.6 | Negligible Beneficial | 47.2 | 49.5 | 46.7 |
| 13, LOGIE TERRACE | Dwelling | 59.4 | 62.0 | 57.4 | -2.0 | Minor Beneficial | 58.8 | -0.6 | Negligible Beneficial | 47.2 | 49.5 | 46.7 |
| 155. LOGIE TERRACE | Dwelling | $\begin{array}{r}59.4 \\ 59.4 \\ \hline 9 .\end{array}$ | $\frac{62.0}{620}$ | $\begin{array}{r}57.4 \\ 574 \\ \hline\end{array}$ | -2.0 -20 | Minor Beneficial | 58.8 | -0.6 | Negligible Beneficial | $\frac{47.2}{472}$ | $\frac{49.5}{495}$ | $\frac{46.7}{467}$ |
| 19, LOGIIE TERRACE | Dwelling | 59.1 | 61.9 | 56.8 | -2.3 | Minor Beneficial | 58.0 | ${ }^{-1.1}$ | Negligible Beneficiolial | 46.9 | 49.4 | 45.9 |
| 21, LOGIE TERRACE | Dwelling | 59.1 | 61.9 | 56.8 | -2.3 | Minor Beneficial | 58.0 | -1.1 | Negligible Beneficial | 46.9 | 49.4 | 45.9 |
| 23, LOGIE TERRACE | Dwelling | 59.1 | 61.9 | 56.8 | 2.3 | Minor Beneficial | 58.0 | -1.1 | Negligible Beneficial | 46.9 | 49.4 | 45.9 |
| 25. LoGie TERRACE | Dweling | 59.1 | 61.9 | 56.8 | -2.3 | Minor Beneficial | 58.0 | -1.1 | Negligible Beneficical | 46.9 | 49.4 | 45.9 |
| $\frac{\text { 27, LOGIE TERRACE }}{29}$ | Dweling | 58.2 | 61.2 | 55.3 <br> 55 <br> 5 | 2.9 | Minor Beneficial | 56.6 | -1.6 | Negligible Benenitical | 46.1 | 48.8 | 44.7 |
| 29, LOGIE TERRACE | Oweling | 58.2 | 61.2 | 55.2 | . | Moderaie Beneitical | 56.5 | , 7 | Negligile Beneilialal | 46. | 40.8 | 44.6 |
| 3, 5 LOGIE TRRACE | Dwelling | 59.9 | ${ }_{62.3}^{62.3}$ | ${ }_{59.1}^{59.1}$ | -0.8 | Negiligiole Benenicial | ${ }_{60.6}^{60.6}$ | 0.7 | Neoligigiole Adverse | ${ }_{476}$ | ${ }_{49.8}$ | ${ }_{48,3}^{48.3}$ |
| 7, LOGIIE TERRACE | Dwelling | 59.9 | 62.3 | 59.1 | -0.8 | Negligible Beneficioil | 60.6 | 0.7 | Negigigible Adverse | 47.6 | 49.8 | 48.3 |
| 9, LOGIE TERRACE | Dwelling | 59.9 | 62.3 | 59.1 | -0.8 | Negligible Beneficial | 60.6 | 0.7 | Negligible Adverse | 47.6 | 49.8 | 48.3 |
| MIDDLEFIELD COMMUNITY PROJECT YOUTH FLAT, 28, MANOR AVENUE | Community Serices |  | 52.1 | 60.2 |  | Major Adverse | 61.5 | 9.8 | Moderate Adverse | 40.3 | 40.6 | 49.1 |
| FLAT A, 52, MANOR AVENUE | Dwelling | 56.8 | 57.3 | 60.3 | 3.5 | Moderate Adverse | 60.7 | 3.9 | Minor Adverse | 44.9 | 45.3 | 48.4 |
| FLATB, 52, MANOR AVENUE | Dwelling | 56.8 56.8 | 57.3 <br> 573 | 60.3 603 | ${ }_{3.5}^{3.5}$ | Moderate Adverse Moderate Adverse | 60.7 60.7 | ${ }_{3.9}^{3.9}$ | $\frac{\text { Minor Adverse }}{\text { Minor Adverse }}$ | $\stackrel{44.9}{44.9}$ | ${ }_{45.3}^{45.3}$ | 48.4 48.4 |
| FLAT D, 52, MANOR AVENUE | Dwelling | ${ }_{56.8}^{56.8}$ | 57.3 | 60.3 | ${ }_{3.5}$ | Moderate Adverse | ${ }_{60.7}$ | ${ }_{3} 3.9$ | Minor Adverse | 44.9 | 45.3 | ${ }_{48.4}^{48.4}$ |
| FLAT A, 60, MANOR AVENUE | Delling | 56.2 | ${ }_{56.6}$ | 60.0 | 3.8 | Moderate Adverse | 60.3 | 4.1 | Minor Adverse | 44.3 | 44.7 | 48.0 |
| FLLT B, 60, MANOR AVENUE | Dwelling | ${ }_{56.2}^{56.2}$ | 56.6 56.6 | 60.0 60.0 | ${ }_{3.8}^{3.8}$ | Moderate Adverse | 60.3 | 4.1 4.1 | Minor Adverse Minor Adverse | $\stackrel{44.3}{44.3}$ | ${ }_{4}^{44.7}$ | 48.0 48.0 |
| FLAT D, 60, MANOR AVENUE | Dwelling | 56.2 | 56.6 | 60.0 | 3.8 | Moderate Adverse | 60.3 | 4.1 | Minor Adverse | 44.3 | 44.7 | 48.0 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | $\begin{gathered} \text { DM33 } \\ \text { Lnight,outside } \end{gathered}$ | $\begin{gathered} \text { DS33 } \\ \text { Lnight,outside } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MIDDLEFIELL PARISH CHURCH, 75, MANOR AVENUE | Church | 50.9 | 51.8 | 51.3 | 0.4 | Negigigile Adverse | 52.7 | 1.8 | Negigioile Adverse | 39.5 | 40.4 | 41.2 |
| $\frac{11}{1 / \text { MANOR AVENUE }}$ | $\frac{\text { Dwelling }}{\text { Dweling }}$ | 68.4 57.1 | 69.0 57.4 | 68.8 60.5 | 0.4 3.4 | $\frac{\text { Negiligibl Adverse }}{\text { Moderate Adverse }}$ | 70.3 60.9 | $\frac{1.9}{3.8}$ | $\frac{\text { Negiligile Adverse }}{\text { Minor Adverse }}$ | $\frac{55.3}{45.1}$ | 55.8 45.4 | 57.0 48.5 |
| 103, MANOR AVENUE | Dwelling | 57.0 | 57.4 | 60.5 | 3.5 | Moderate Adverse | 60.9 | 3.9 | Minor Adverse | 45.0 | 45.4 | 48.5 |
| 105. MANOR AVENUE | Dwelling | 56.9 | 57.2 | 60.5 | ${ }^{3.6}$ | Moderate Adverse | 60.8 | 3.9 | Minor Adverse | 44.9 | 45.2 | 48.5 |
| 107 MANOR AVENUE | Dwelling | 56.8 |  | 60.5 |  | Moderate Adverse |  | 4.0 | Minor Adverse | 44.9 |  |  |
|  | weling | 56.8 | 57.1 | 60.5 | ${ }^{3} 7$ | Moderate Adverse | 60.8 | 4.0 | Minor Adverse | 44.9 | 45.1 | 48.5 |
| 11, MANOR AVENUE | Dweling | 66.2 | 66.5 | 67.8 | ${ }_{1}^{1.6}$ | Minor Adverse | 69.1 | $\frac{2.9}{41}$ | Negiligile Adverse | ${ }^{53.3}$ | 53.6 <br> 450 | 55.9 485 |
| 1113, MANOR AVENUE | Dweling | ${ }_{56.7}^{56.7}$ | $\stackrel{57.0}{57.0}$ | 60.4 | 3.7 3 | Modererate Adverse | 60.8 60.7 | 4.1 | Minor Aviverse | 44.8 | 45.0 | 48.5 48.4 |
| 115, MANOR AVENUE | Dwelling | 56.6 | 56.9 | 60.3 | 3.7 | Moderate Adverse | 60.7 | 4.1 | Minor Adverse | 44.7 | 44.9 | 48.4 |
| 117, MANOR AVENUE | Deeling | 56.6 | 56.9 | 60.3 | 3.7 | Moderate Adverse | 60.7 | 4.1 | Minor Adverse | 44.7 | 44.9 | 48.4 |
| 119, MANOR AVENUE | Dwelling | 56.6 | 56.9 | 60.4 | 3.8 | Moderate Adverse | 60.7 | 4.1 | Minor Adverse | 44.7 | 44.9 | 48.4 |
| 121, MANOR AVENUE | Dwelling | 56.7 | 57.0 | 60.3 | 3.6 | Moderate Adverse | 60.7 | 4.0 | Minor Adverse | 44.8 | 45.0 | 48.4 |
| 123, MANOR AVENUE | Dwelling | 56.7 | 56.9 | 60.3 | 3.6 | Moderate Adverse | 60.7 | 4.0 | Minor Adverse | 44.8 | 44.9 | 48.4 |
| 125. MANOR AVENUE | Dwelling | 56.7 | 56.9 | 60.3 | 3.6 | Moderate Adverse | 60.6 | 3.9 | Minor Adverse | 44.8 | 44.9 | 48.3 |
| 127, MANOR AVENUE | Dwelling | 55.6 | 56.9 | 60.2 | 3.6 | Moderate Adverse | 60.5 | 3.9 | Minor Adverse | 44.7 | 44.9 | 48.2 |
| 129, MANOR AVENUE | welling | 53.3 | 53.0 | 55.9 | 2.6 | Minor Adverse | 56.2 | 2.9 | Negigioble Adverse | 41.7 | 41.4 | ${ }_{54.3}$ |
| 13, MANOR AVENUE | welling | 66.2 | 66.5 | ${ }_{67.8}^{6}$ | 1.6 | Minor Adverse | 69.1 567 | 2.9 | Negligiole Adverse | 53.3 418 | 53.6 | 55.9 |
| 133, MANOR AVENUE | Dwelling | ${ }_{53.8}$ | 53.8 | 56.8 | 3.0 | Moderate Adverse | 57.1 | ${ }_{3} 3$ | Minor Adverse | 42.2 | 42.2 | 45.1 |
| 135, MANOR AVENUE | Dwelling | 53.7 | ${ }_{53.8}$ | 56.8 | 3.1 | Moderate Adverse | 57.0 | 3.3 | Minor Adverse | 42.1 | 42.2 | 45.0 |
| 137. MANOR AVENUE | Dwelling | 54.7 | ${ }_{54.3}^{53}$ | 57.0 | ${ }_{2}^{2.3}$ | Minor Adverse | 57.3 <br> 5.5 | 2.6 | Negiligibe Adverse | 43.0 | ${ }_{42.6}$ | 45.3 |
| I 1 149, MANOR M AVENUE | Dwelling | 53.9 | ${ }^{53.7} 5$ | ${ }^{56.1} 5$ | ${ }_{2.3}^{2.2}$ | Minor Adverse | 56.0 | ${ }_{2.6}^{2.6}$ | Negigigbe Adverse | 44.2 | ${ }_{44.7}^{4.7}$ | 44.6 46.8 |
| 143, MANOR AVENUE | Dwelling | 57.3 | 57.3 | 59.1 | 1.8 | Minor Adverse | 59.4 | 2.1 | Neogligible Adverse | 45.3 | 45.3 | 47.2 |
| 145, MANOR AVENUE | Dwelling | 60.6 | 61.7 | 60.7 | 0.1 | Negiligile Adverse | 61.8 | 1.2 | Negigioble Adverse | 48.3 | 49.3 | 49.4 |
| 15, MANOR AVENUE | Dwelling | 66.2 | 66.5 | 67.8 | 1.6 | Minor Adverse | 69.1 | 2.9 | Negiligibe Adverse | 53.3 | 53.6 | 55.9 |
| 17, MANOR AVENUE | Dweling | 65.1 651 | ${ }^{6552}$ | ${ }^{67.2}$ | ${ }_{2}^{2.1}$ | Minor Adverse | ${ }_{68.3} 68$ | ${ }^{3.2}$ | Minor Adverse | 52.3 | 52.4 | 55.2 |
| 19, MANOR AVENUE | Dwelling | ${ }_{654.7}^{651}$ | ${ }_{654 .}^{64}$ | ${ }_{66.6}^{66.6}$ | ${ }_{1}^{2.9}$ | Minoro Adverse | ${ }_{68.3}^{66.6}$ | 3.2 2.9 | Meoligible Adverserse | 52.3 52.0 | 52.4 52.0 | ${ }_{5}^{55.6}$ |
| 23, MANOR AVENUE | Dwelling | 64.7 | 64.7 | 66.6 | 1.9 | Minor Adverse | 67.5 | 2.8 | Negligible Adverse | 52.0 | 52.0 | 54.5 |
| 25, MANOR AVENUE | Dwelling | 64.3 | 64.4 | 65.7 | 1.4 | Minor Adverse | 66.6 | 2.3 | Negigioibe Adverse | 51.6 | 51.7 | 53.7 |
| 27, MANOR AVENUE | Dwelling | 64.3 | ${ }_{64.4}^{64.3}$ | 65.7 64.4 | 1.4 0.2 | ${ }_{\text {M }}^{\text {Menino Adverse }}$ Negioble Adverse | ${ }_{65.3}^{66.6}$ | 2.3 1.1 | $\frac{\text { Negigigile Adverse }}{\text { Negigiole Adverse }}$ | 51.6 | 51.7 51.6 | 53.7 52.5 |
| 3. MANOR AVENUE | Dwelling | 68.4 | 69.0 | 68.8 | 0.4 | Negiligile Adverse | 70.3 | 1.9 | Negiligile Adverse | 55.3 | 55.8 | 57.0 |
| 31, MANOR AVENUE | Deelling | 64.2 | 64.3 | 64.5 | 0.3 | Negigigile Adverse | 65.4 | 1.2 | Negligible Adverse | 51.5 | 51.6 | 52.6 |
| 33, MANOR AVENUE | Dweling | $\frac{63.9}{61.0}$ | 64.0 | ${ }^{633.3}$ | -0.6 | Negiligile Beneficial | 64.2 | $\begin{array}{r}0.3 \\ \hline 2\end{array}$ | $\frac{\text { Negigighle Adverse }}{\text { Negioiole } A \text { Adverse }}$ | $\frac{51.2}{48.6}$ | 51.3 49.7 | 51.5 51.1 |
| 35, MANOR AVENUE | Dwelling | 63.9 | 64.0 | 63.3 | -0.6 | Negligible Beneficial | 64.2 | 0.3 | Negiligile Adverse | 51.2 | 51.3 | 51.5 |
| 36, MANOR AVENUE | Dwelling | 61.6 63.6 | 62.8 63.8 | ${ }_{6}^{63.5}$ | 1.9 -2.1 | Minor Adverse | 64.2 62.3 | - ${ }_{-1.6}$ | Negigiolie Adverse | 49.2 51.0 | 50.3 | 51.5 49.8 |
| 38, MANOR AVENUE | Dwelling | 61.6 | 62.8 | 63.5 | 1.9 | Minor Adverse | 64.2 | 2.6 | Negigioble Adverse | 49.2 | 50.3 | 51.5 |
| 39, MANOR AVENUE | Dwelling | $\frac{63.6}{61.6}$ | $\frac{63.8}{628}$ | $\frac{61.3}{635}$ | -2.3 | Minor Beneficical | $\frac{62.2}{64}$ | -1.4 | Negligible Beneficial | 51.0 | 51.2 | $\frac{49.7}{515}$ |
| 40, MANOR A AENUE | Dwelling | 61.6 63.6 | ${ }_{6}^{62.8} 6$ | 63.5 60.4 | 1.9 .3 .2 | Minor Adverse | $\frac{64.2}{612}$ | 2.6 .24 | Negiligile Adverse | 49.2 | 50.3 512 | 51.5 488 |
| 42, MANOR AVENUE | Dwelling | $\underline{61.6}$ | 62.8 | 63.5 | 1.9 | Minor Adverse | 64.2 | 2.6 | Negligible Adverse | 49.2 | 50.3 | ${ }_{51.5}$ |
| 43, MANOR AVENUE | Dwelling | 63.6 | 63.8 | 60.4 | -3.2 | Moderate Beneficial | 61.3 | -2.3 | Negligible Beneficial | 51.0 | 51.2 | 48.9 |
| 44, MANOR AVENUE | Dwelling | 58.7 | 59.6 | 61.1 | 2.4 | Minor Adverse | 61.6 | 2.9 | Negiligible Adverse | 46.6 | 47.4 | 49.2 |
| 45. MANOR A AENUE | Dwelling | ${ }_{59.5}^{63.5}$ | 63.8 | 59.0 | -4.5 | Moderate Beneficical | 59.8 | -3.7 | Minor Beneficical | 50.9 | 51.2 | 47.6 |
|  | Doweling | ${ }^{58.4} 6$ | 59.3 | 60.9 58.9 | ${ }_{-4.5}^{2.5}$ | Moderate Avereneficial | ${ }^{661.4} 5$ | 3.0 -3.7 | Minor Adverse | 40.9 | ${ }_{51.2}^{47.1}$ | ${ }_{47}^{49.6}$ |
| 48, MANOR AVENUE | Dwelling | 57.4 | 58.1 | 60.2 | 2.8 | Minor Adverse | 60.6 | 3.2 | Minor Adverse | 45.4 | 46.0 | 48.3 |
| 49, MANOR AVENUE | Dwelling | 63.2 | 63.6 | 57.2 | -6.0 | Major Beneficial | 58.2 | -5.0 | Moderate Beneficical | 50.6 | 51.0 | 46.1 |
| 5. MANOR AVENUE | Dwelling | 68.4 <br> 574 <br> 5.4 | 69.0 58.1 | 68.8 <br> 60.8 | 0.4 .8 | Negligibe Adverse | 70.3 606 | 1.9 3 | Negiligili Adverse | 55.3 <br> 4.4 | 55.8 460 | 57.0 48. |
| 51, MANOR AVENUE | Dwelling | 63.6 | 63.9 | ${ }^{57.8}$ | -5.8 | Major Beneficicial | ${ }_{50.7}$ | -4.9 | Minor Beneficicial | 451.0 | 51.2 | 46.6 |
| 53, MANOR AVENUE | Dwelling | 63.6 | 64.0 | 56.9 | -6.7 | Major Beneficicial | 57.9 | -5.7 | Moderate Beneficicial | 51.0 | 51.3 | 45.8 |
| 55, MANOR AVENUE | $\frac{\text { Dwelling }}{\text { Dweling }}$ | 63.6 64.1 | 64.0 64.5 | 56.9 58.2 | -6.7 -5 -5 | $\frac{\text { Maior Beneficical }}{\text { Maior Beneficial }}$ | 57.9 59.5 | -5.7 .4 .6 | $\frac{\text { Moderate Beneficial }}{\text { Minor Beneficial }}$ | 51.0 <br> 51.4 | 51.3 518 | 45.8 473 |
| 59, MANOR AVENUE | Dwelling | 64.1 | 64.6 | 58.3 | -5.8 | Major Beneficial | 59.6 | -4.5 | Minor Beneficial | 51.4 | 51.9 | 47.4 |
| 61. MANOR A AENUE | Dwelling | $\frac{64.1}{56.1}$ | 64.6 | 59.11 | -5.0 | Moderate Beneficial | 60.5 | $\begin{array}{r}-3.6 \\ \hline 40\end{array}$ | Minor Beneficical | $\frac{51.4}{14}$ | $\frac{51.9}{418}$ | 48.2 479 |
| 62, MANOR A AENUE | Dwelling | 56.2 | 56.7 | 59.8 | 3.6 | Moderate Adverse | 60.2 | 4.0 | Minor Adverse | 44.3 | 44.8 | 47.9 |
| 63, MANOR AVENE | $\frac{\text { Dwelilig }}{\text { Dweling }}$ | 64.2 | 64.6 56.7 | 59.8 | -5.0 3.6 | Mooderate Beneitical | 60.5 | -3.6 <br> 4.0 | Minoror Aveiverise | ${ }^{51.4}$ | 51.9 | 487.9 |
| 65, MANOR AVENUE | Deeling | 63.4 | 64.0 | 59.7 | -3.7 | Moderate Beneficial | 61.2 | -2.2 | Negligible Beneficial | 50.8 | 51.3 | 48.8 |
| 66, MANOR AVENUE | Dwelling | 56.2 | 56.6 | 59.8 | 3.6 | Moderate Adverse | 60.2 | 4.0 | Minor Adverse | 44.3 | 44.7 | 47.9 |
| 67. MANOR A AENUE | Dwelling | 64.0 | 64.5 | 59.6 | -4.4 | Moderate Beneficical | 61.1 | -2.9 | Negligible Beneficicial | 51.3 | 51.8 | 48.7 |
| 68, MANOR AVENUE | Dweling | 56.2 | ${ }_{66.8} 6$ | 59.9 | ${ }_{-3.3}$ | Moderatate Aeneneficial | ${ }^{60.2}$ | -1.7 | Negligibile eenenificial | ${ }_{50.6}$ | $\stackrel{4}{51.2}$ | 49.1 |
| 7, MANOR AVENUE | Dwelling | 68.4 | 69.0 | 68.8 | 0.4 | Negiligile Adverse | 70.3 | 1.9 | Negligibile Adverse | 55.3 | 55.8 | 57.0 |
| 70, MANOR AVENUE | Dwelling | 56.6 | 57.5 | 57.9 | 1.3 | Minor Adverse | 58.6 | 2.0 | Negligible Adverse | 44.7 | 45.5 | 46.5 |
| 71, MANOR AVENUE | Dwelling | 63.2 56.7 | 63.9 57.6 | 60.4 57.4 | -2.8 0.7 | Minor Beneficial | 66.9 58.2 | $\begin{array}{r}-1.3 \\ 1.5 \\ \hline\end{array}$ | $\frac{\text { Negligible Beneficial }}{\text { Neoligiole Adverse }}$ | 50.6 44.8 | 51.2 45.6 | 49.4 46.1 |
| 73, MANOR AVENUE | Dwelling | 62.7 | 63.7 | 61.5 | -1.2 | Minor Beneficicil | 63.1 | 0.4 | Negligible Adverse | 50.2 | 51.1 | 50.5 |
| 75, MANOR AVENUE | Church Hall/Reigious Meeting Place / Hall |  |  |  |  | No Change |  | 1.4 | Negligible Adverse | 47.9 | 48.9 | 49.2 |
| 77, MANOR AVENUE | Dwelling | 57.4 | 58.4 | 59.4 | 2.0 | Minor Adverse | 60.4 | 3.0 | Minor Adverse | 45.4 | 46.3 | 48.1 |
| 79, MANOR AVENUE | Oweling | 57.4 | 58.3 | 㐌9,3 | 1.9 | Minor Adverse | ${ }^{60.2}$ | ${ }_{3}^{2.8}$ | Negiligile Adverse | 45.4 | 46.2 | 47.9 |
| B3, MANOR AVENUE | Dwelling | 57.1 | 57.9 | ${ }_{59.1}$ | ${ }_{2} 2.0$ | Minor Adverse | 59.9 | ${ }_{2.8}$ | Neoligiole Adverse | 45.1 | 45.8 | 476 |
| 85, MANOR AVENUE | Dwelling | 57.0 | 57.7 | 58.8 | 1.8 | Minor Adverse | 59.7 | 2.7 | Negigiolie Adverse | 45.0 | 45.7 | 47.5 |
| 87, MANOR AVENUE | Dwelling | 56.7 | 57.3 | 58.6 | 1.9 | Minor Adverse | 59.4 | 2.7 | Negigigile Adverse | 44.8 | 45.3 | 47.2 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 Lnight,outside | DS33 <br> Lnight,outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 89, MANOR AVENUE | Deeling | 56.3 | 56.8 | 58.2 | 1.9 | Minor Adverse | 59.0 | 2.7 | Negigigle Adverse | ${ }^{44.4}$ | 44.9 | 46.8 |
| 9. MANOR AVENUE | Dwelling | 66.2. | 66.5 | 67.8 577 | 1.6 | Minor Adverse | 69.1 58.5 | 2.9 | Negligibe Adverse | 53.3 44.0 | 53.6 44.5 | 55.9 46.4 |
| 91, MANOR AVENUE | Dwelling | 55.8 57.6 | 56.4 57.9 | ${ }^{57.7}$ | 1.9 <br> 3.1 | Moner Adverse | 㐌6.5 | ${ }_{3.6}^{2.7}$ | $\frac{\text { Negligible Adverse }}{\text { Minor Adverse }}$ | ${ }_{45.0}^{44.6}$ | ${ }_{45.5}^{44.8}$ | 46.4 48.8 |
| 955, MANOR AVENUE | Dwelling | 57.5 | 57.8 | 60.7 | 3.2 | Moderate Adverse | 61.1 | 3.6 | Minor Adverse | 45.5 | 45.8 | 48.7 |
| 97, MANOR AVENUE | Dwelling | 57.1 | 57.5 | 60.5 | 3.4 | Moderate Adverse | 60.9 | 3.8 | Minor Adverse | 45.1 | 45.5 | 48.5 |
| 99, MANOR AVENUE | Dwelling | 57.2 | 57.6 | 60.5 | 3.3 | Moderate Adverse | 60.9 | 3.7 | Minor Adverse | 45.2 | 45.6 | 48.5 |
| LORD PRovost heniy e rae communit centre, manor avenue | Community Centre | 57.7 | 58.9 | 57.7 | 0.0 | No Change | 58.9 | 1.2 | Negligible Adverse | 45.7 | 46.7 | 46.7 |
| FLAT D, 24, MANOR AVENUE | Dwelling | 52.3 | 52.7 | 63.6 | 11.3 | Major Adverse | 64.7 | 12.4 | Major Adverse | 40.8 | 41.2 | 52.0 |
| FLAT D, 26, MANOR AVENUE | Dwelling | 51.8 | 52.2 | 61.4 | 9.6 | Major Adverse | 62.7 | 10.9 | Major Adverse | 40.4 | 40.7 | 50.2 |
| FLAT D, 28, MANOR AVENUE | elling | 51.4 | 51.8 | 60.3 | 8.9 | Major Adverse | 61.7 | 10.3 | Major Adverse | 40.0 | 40.4 | 93 |
| FLAT D, 30, MANOR AVENUE | Dwelling | $\begin{array}{r}51.8 \\ 54.4 \\ \hline\end{array}$ | 52.4 <br> 54.8 | 60.4 58.0 | ${ }_{3.6}^{8.6}$ | Moderate Adverse | 61.7 58.3 | ${ }_{39} 9$ | Moderate Adverse | 40.4 42.7 | 40.9 | ${ }_{49}{ }_{49}$ |
| FLAT D, 56, MANOR AVENUE | Dwelling | ${ }_{53.8}$ | 54.2 | 57.7 | ${ }_{3} 3$ | Moderate Adverse | 57.9 | 4.1 | Minor Adverse | ${ }_{42.2}$ | 42.5 | 45.8 |
| FLAT D, 58, , MANOR AVENUE | Dwelling | 54.4 | 54.8 | 58.1 | 3.7 | Moderate Adverse | 58.4 | 4.0 | Minor Adverse | 42.7 | 43.1 | 46.3 |
| FLAT B, 24, MANOR AVENUE | Dwelling | 55.1 | 55.4 | 65.3 | 10.2 | Major Adverse | 66.4 | 11.3 | Maior Adverse | 43.3 | 43.6 | 53.5 |
| A, 26, MANOR AVENUE |  |  |  | 63.4 | 8.6 | Major Adverse | 64.6 |  | Moderate Adverse | 43.1 | 43.3 |  |
| FLATC, 28, MANOR AVENUE |  | 54.4 | 54.7 | 62.6 | 8.2 | Major Adverse | 63.8 | 9.4 | Moderate Adverse |  | 43.0 |  |
| FLAT B, 54, MANOR AVENUE | eeling |  | 56.8 | 59.9 | 3.5 | Moderate Adverse | 60.2 |  | Minor Adverse | . 5 |  |  |
| FLATB, 56, MANOR ALENUE |  | 55.9 |  | 59.6 | ${ }^{3.7}$ |  | 59.9 |  | Minor Adverse | . 0 |  | 47.6 |
| FLAT B S S, MAMOR AVENUE |  |  | 56.5 | 59.7 | ${ }^{3.6}$ | Moderate Adverse | 60.0 | 3.9 | Minor Adverse | 44.2 | 44.6 | 47.7 |
| FLAT, 24, MANOR AVENUE | Dweling | 54.0 | 54.2 | 64.7 | 10.7 | Major Adverse | 65.8 | 11.8 | Major Adverse | 42.3 | 42.5 | 53.0 |
| FLAT E, 26, MANOR AVENUE | Dweling | 53.5 | ${ }_{53.5}^{53.8}$ | ${ }^{62.6}$ | ${ }_{8.4}^{9.1}$ | Major Adverse | ${ }_{62.9}^{63.9}$ | ${ }_{9}^{10.4}$ | Modior Adverse | 41.9 | $\frac{42.2}{419}$ | 51.2 |
| FLAT B, 30, MANOR AVENUE | Dwelling | 53.6 | 54.1 | 62.2 | ${ }^{8.6}$ | Majio Adverse | 63.4 | 9.8 | Moderate Adverse | 42.0 | 42.4 | 50.8 |
| FLAT E, 54, MANOR AVENUE | welling | 56.0 | 56.4 | 59.7 | 3.7 | Moderate Adverse | 60.0 | 4.0 | Minor Adverse | 44.1 | 44.5 | 47.7 |
| $\frac{\text { FLAT F, } 56, \text {, MANOR AVENUE }}{\text { FLAT F, } 58, \text { MANOR AVENUE }}$ | $\frac{\text { Dwelling }}{\text { Dweling }}$ | 55.5 <br> 55.8 | 55.8 56.2 | 59.3 59.5 | 3.8 3.7 | $\frac{\text { Moderate Adverse }}{\text { Moderate Adverse }}$ | 59.6 59.8 | 4.1 | $\frac{\text { Minor Adverse }}{\text { Minor Adverse }}$ | 43.7 44.0 | 44.0 44.3 | 47.4 47.6 |
| MANOR PARK CARAVAN PARK, 1, MANOR DRIVE | Dwelling | 59.7 | 59.7 | 61.2 | 1.5 | Minor Adverse | 62.4 | 2.7 | Negligible Adverse | 47.5 | 47.5 | 49.9 |
| MANOR PARK CARAVAN PARK, 3 , MANOR DRIVE | welling | 59.0 | 59.1 | 60.8 | 1.8 | Minor Adverse | 62.0 | 3.0 | Minor Adverse | 46.8 | 46.9 | 49.5 |
| MANOR PARK CARAVAN PARK, 4, MANOR DRIVE | welling | 55.7 | 55.6 | 57.3 | 1.6 | Minor Adverse | 58.4 | 2.7 | Negiligile Adverse | 43.9 | 43.8 | 46.3 |
| MANOR PARK CARAVAN PARK, 12 , MANOR DRIVE | Dwelling | 60.2 | 60.1 | 59.9 | -0.3 | Negligible Beneticial | 60.9 | 0.7 | Negigigibe Adverse | 47.9 | 47.8 | 48.5 |
| MANOR PAAK CAAAVVAN PARK, 15, MANOR DRIVE | Dwelling | 57.6 | 57.3 | 57.9 | 0.3 | Negigibie Adverse | 58.9 | ${ }^{1.3}$ | Negigigibe Adverse | 45.6 | 45.3 |  |
|  | Dweling | 57.4 <br> 54.4 | 57.5 54.5 | 59.4 55.1 | 2.0 0.7 | Menor Adverse | 60.6 56.3 | 1.2 1.9 | Minor Adverse | ${ }_{42,4}^{45.4}$ | 45.5 | 48.3 |
| MANOR PARK CARAVAN PARK, 20, MANOR DRIVE | Dwelling | 56.5 | 56.3 | 56.6 | 0.1 | Negligible Adverse | 57.3 | 0.8 | Negligible Adverse | 44.6 | 44.4 | 45.3 |
| 10, MANOR DRIVE | Dwelling | 52.4 | 52.8 | 63.1 | 10.7 | Major Adverse | 64.6 | 12.2 | Major Adverse | 40.9 | 41.3 | 51.9 |
| 11, MANOR DRIVE | Dwelling | 61.1 | 63.3 | 58.9 | -2.2 | Minor Beneficial | 60.0 |  | Negligible Benefitial | 48.7 |  |  |
| 12,MANOR DRIVE | Dweiling | 51.9 | 52.4 | 64,1 | 12.2 | Major Adverse | 65.8 | 13.9 | Maior Adverse | 40.4 | 40.9 | 53.0 |
| 13, MANOR DRIVE | Dweling | ${ }^{60.8}$ | -62.8 | 58.9 | -1.98 | Minor Benefiticial | 60.0 | ${ }_{-0.8}^{1.8}$ | Negligible Beneficial | ${ }^{48.5}$ | 50.3 | 47.7 58 |
| 14, MANOR DRIVE | Dwelling | 51.7 61.1 | 52.2 63.1 | 64.5 58.3 | 12.8 <br> -2.8 | Major Adverse | ${ }^{66.1} 5$ | 14.4 <br> -1.6 | Negioliot Adverse | 40.3 48.7 | $\stackrel{40.7}{50.5}$ | 53.2 47.3 |
| 16, MANOR DRIVE | Dwelling | 51.0 | 51.6 | 65.6 | 14.6 | Major Adverse | 67.3 | 16.3 | Major Adverse | 39.6 | 40.2 | 54.3 |
| 18, MANOR DRIVE | Deelling | 50.6 | 51.2 | 66.2 | 15.6 | Major Adverse | 67.9 | 17.3 | Major Adverse | 39.3 | 39.8 | 54.8 |
| $\frac{5 . \text { MANOR DRIVE }}{7, \text { MANOR DRIVE }}$ | $\frac{\text { Dwelling }}{\text { Dweling }}$ | $\frac{61.1}{61.2}$ | 63.4 | 57.1 57.7 | ${ }_{-}^{-4.0}$ | $\frac{\text { Moderate Beneticial }}{\text { Moderate Beneficial }}$ | 58.3 58.9 | -2.8 -2.3 | $\frac{\text { Negligible Beneficical }}{\text { Negilibile Beneficial }}$ | 48.7 48.8 | 50.8 50.8 | 46.2 46.7 |
| 8 8, MANOR DRIVE | Dwelling | 52.2 | 52.6 | 62.5 | 10.3 | Major Adverse | 64.0 | 11.8 | Major Adverse | 40.7 | ${ }_{41.1}$ | 51.3 |
| 9, MANOR DRIVE | Dwelling | 61.1 58.5 | 63.3 58.4 | 58.9 58.6 | -2.2 0.1 | $\frac{\text { Minor Beneficial }}{\text { Negigiole Adverse }}$ | 60.1 59.7 | -1.0 1.2 | $\frac{\text { Negligible Beneficial }}{\text { Negilioile Adverse }}$ | 48.7 46.4 | 50.7 46.3 | 47.8 47.5 |
| MANOR DRIVE | Dwelling | 54.7 | 54.6 | 55.0 | 0.3 | Negigigile Adverse | 56.0 | 1.3 | Negiligile Adverse | 43.0 | 42.9 | 44.1 |
| MANOR DRIVE | elling | 55.1 | 55.0 | 57.0 | 1.9 | Minor Adverse | 57.9 | 2.8 | Negligible Adverse | 43.3 | 43.2 | 45.8 |
| MANOR DRIVE | Dweling | 57.7 | 57.8 | 59.6 | 1.9 | Minor Adverse | ${ }^{60.8}$ | ${ }^{3.1}$ | Minor Adverse | 45.7 | 45.8 | 48.5 |
| MANOR DRIVE | Dweling | 54.3 |  |  | 1.9 | Minor Adverse | 57.3 |  | Minor Adverse | 42.6 |  |  |
| MANOR DRIVE | Dweling | 56.9 583 | 56.5 | 58.4 579 | 1.5 | Minor Adverse | 59.4 5.5 | ${ }^{2.5}$ | Negigible Adverse | 44.9 | 44.6 | 47.2 |
| MANOR DRIVE | Dwelling | 58.4 |  |  | 1.9 | Minor Adverse | 61.5 | ${ }_{3.1}$ | Minor Adverse | 46.3 | 46.4 |  |
| MANOR DRIVE | Dwelling | 55.4 | 55.3 | 56.7 | 1.3 | Minor Adverse | 57.8 | 2.4 | Negligible Adverse | 43.6 | 43.5 | 45.8 |
| MANOR DRIVE | Dwelling | 51.8 57 57 | 52.1 57.1 | 53.8 | 2.0 | Minor Adverse | 55.1. | ${ }^{3.3}$ | Minor Adverse | 40.4 4.0 | 40.6 | 43.3 |
| MANOR DRIVE | Dwelling | 55.0. | 57.1 54.7 | 56.6 56.2 | -0.4 1.2 | Negligible Beneitical | 57.6 57.1 | ${ }^{0.6}$ | $\frac{\text { Negiligle Adverse }}{\text { Negligible Adverse }}$ | ${ }_{45.2}^{43.2}$ | ${ }_{43.1}^{45.1}$ | 45.6 45.1 |
| MANOR DRIVE | Dwelling | 53.7 | 53.6 | 54.8 | 1.1 | Minor Adverse | 55.7 | 2.0 | Negligible Adverse | 42.1 | 42.0 | 43.9 |
| MANOR DRIVE | Deelling | 57.3 | 57.2 | 58.9 | 1.6 | Minor Adverse | 59.8 | 2.5 | Negigigile Adverse | 45.3 | 45.2 | 47.6 |
| MANOR DRIVE | $\frac{\text { Dwelling }}{\text { Dweling }}$ | 57.5 54.7 | 57.3 54.7 | 58.7 56.5 | 1.2 <br> 1.8 | $\frac{\text { Minor Adverse }}{\text { Minor Adverse }}$ | 59.7 <br> 57.5 |  | $\frac{\text { Negigigle Adverse }}{\text { Negigiole Adverse }}$ | 45.5 43.0 | 45.3 43.0 | 47.5 45.5 |
| MANOR DRIVE | Dwelling | 57.0 | 56.4 | 56.9 | -0.1 | Negligible Beneficial | 57.7 | 0.7 | Negigiole Adverse | 45.0 | 44.5 | 45.7 |
| FLAT D, 17, MANOR DRRVE | Dwelling | 53.7 | 55.4 | 58.5 | 4.8 | Moderate Adverse | 59.1 | 5.4 | Moderate Adverse | 42.1 | ${ }^{43.6}$ | 46.9 |
| FLAT D, 19, MANOR DRIVE | Dwelling | 60.6 56.3 | 61.6 58.0 | 61.3 60.4 | 0.7 4.1 | $\frac{\text { Negligible Adverse }}{\text { Moderate Adverse }}$ | 62.6 61.0 | 2.0 4.7 | Negigigile Adverse | 488.3 | 49.2 |  |
| FLAT B, 19, MANOR DRIVE | Dwelling | 62.2 | 63.4 | 63.9 | 1.7 | Minor Adverse | 65.3 | ${ }_{3} 3$ | Minor Adverse | 49.7 | 50.8 | 52.5 |
| FLAT F, 17, MANOR DRIVE | Dwelling | 55.3 | 57.1 | 60.0 | 4.7 | Moderate Adverse | 60.6 | 5.3 | Moderate Adverse | 43.5 | 45.1 | 48.3 |
| FLAT F, 19, MANOR DRIVE | Dwelling | 61.8 | 63.0 | 63.0 | 1.2 | Minor Adverse | 64.4 | 2.6 | Negligible Adverse | 49.4 | 50.4 | 51.7 |
| ILAA A, 15, MANNO WALK | ${ }^{\text {oweling }}$ Dineling | 56.8 | ${ }_{55.7}^{55.7}$ | 60.0 | ${ }_{3} .2$ | Moderate Adverse | 60.1 60.1 | ${ }_{33}$ | Minor Adverse | 44.9 | 439 | 478 |
| FLAT C, 15, MANOR WALK | Dwelling | 56.8 | 55.7 | 60.0 | 3.2 | Moderate Adverse | 60.1 | 3.3 | Minor Adverse | 44.9 | 43.9 | 47.8 |
| FLAT D, 15, MANOR WALK | Deeling | 56.8 | 55.7 | 60.0 | 3.2 | Moderate Adverse | 60.1 | 3.3 | Minor Adverse | 44.9 | 43.9 | 47.8 |
| 10, MANOR WALK | Dwelling | ${ }_{56.3}^{56.3}$ | ${ }_{55.5}^{55.6}$ | $\frac{60.1}{60.2}$ | ${ }_{3}^{3} 9$ | Moderarate Adverse | 60.2 | 4.0 | Minior Advererse | 44.4 | ${ }_{43.8}^{43.7}$ | 48.0 |
| 14. MANOR WALK | Develing | $\begin{array}{r}56.3 \\ 5.5 \\ \hline\end{array}$ | $\begin{array}{r}55.6 \\ 559 \\ \hline 5\end{array}$ | 60.2 | 3.9 4 | Moderate Adverse | 60.3 | 4.0 | Minor Adverse | 44.4 | 43.8 4.0 | 48.0 |
| 16, MANOR WALK | $\frac{\text { Dwelling }}{\text { Doeling }}$ | ${ }_{56.5}^{56.2}$ | 55.9 55.3 | ${ }_{60.6}^{60.7}$ | 4.4 3.4 | Moderate Adverse | 60.8 59.7 | 4.3 <br> 3.5 | Minor Adverse | ${ }_{44.6}^{44.6}$ | ${ }_{44.5}^{44.5}$ | ${ }_{48.5}^{48.5}$ |
| 18, MANOR WALK | Dwelling | 56.8 | 56.2 | 60.8 | 4.0 | Moderate Adverse | 60.9 59 | 4.1 | Minor Adverse | 44.9 | 44.3 | 48.5 |
| 19, MANOR WALK | Dwelling | 56.3 | 55.3 | 59.6 | ${ }^{3.3}$ | Moderate Adverse | 59.7 | ${ }^{3.4}$ | Minor Adverse | 44.4 | 43.5 | 47.5 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 Lnight,outside | DS33 Lnight,outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 21, MANOR WALK | Dwelling | 56.2 | 55.4 | 59.6 | 3.4 | Moderate Adverse | 59.7 | 3.5 | Minor Adverse | 44.3 | 43.6 | 47.5 |
| 23, MANOR WALK | Dwelling | ${ }_{56.3}^{56}$ | ${ }_{55.5}$ | 59.7 | $\begin{array}{r}3.4 \\ 51 \\ \hline\end{array}$ | Moderate Adverse | $\frac{59.8}{611}$ | 3.5 <br> 53 | Minor Adverse | $\frac{44.4}{440}$ | 43.7 439 | $\frac{47.6}{487}$ |
| 25, MANNO WALK | Dweling | ${ }_{56.1}^{55.8}$ | ${ }_{56.1}^{56.1}$ | ${ }_{60.9}^{61.1}$ | 5.1 5.0 | Maior Adverse | ${ }^{661.1}$ | 5.3 5.2 | Moderateate Adverse | ${ }_{44.2}^{44.2}$ | ${ }_{44.2}^{43.9}$ | $\stackrel{48.7}{48.9}$ |
| Of, MANOR WALK | Dwelling | ${ }_{56.2}$ | ${ }_{56.2}$ | 61.2 | 5.0 | Major Adverse | ${ }_{61.3}$ | ${ }_{5}^{5.1}$ | Moderate Adverse | ${ }_{44.3}$ | ${ }^{44.3}$ | 48.9 |
| 4, MANOR WALK | Dwelling | 56.0 | 55.3 | 59.6 | ${ }^{3} 6$ | Moderate Adverse | 59.7 | 3.7 | Minor Adverse | 44.1 | 43.5 | 47.5 |
| 6, MANOR WALK | Dwelling | 56.2 | 55.5 | 60.0 | 3.8 | Moderate Adverse | 60.1 | 3.9 | Minor Adverse | 44.3 | 43.7 | 47.8 |
| 8, MANOR WALK | Dwelling | 56.2 | 55.5 | 60.1 | 3.9 | Moderate Adverse | 60.2 | 4.0 | Minor Adverse | 44.3 | 43.7 | 47.9 |
| FLAT D, 1, MANOR WALK | Dwelling | 59.9 | 61.7 | 58.9 | -1.0 | Minor Beneficial | 59.9 | 0.0 | No Change | 47.6 | 49.3 | 47.6 |
| FLAT D, 2, MANOR WALK | Deelling | 51.8 | 53.1 | 58.1 | 6.3 | Major Adverse | 58.5 | 6.7 | Moderate Adverse | 40.4 | 41.5 | 46.4 |
| FLAT D, 3, MANOR WALK | Dwelling | 53.0 | 54.1 | 59.1 | 6.1 | Maior Adverse | 59.7 | 6.7 | Moderate Adverse | 41.4 | 42.4 | 47.5 |
| FLAT D, 5, MANOR WALK | Dwelling | 53.5 | 53.7 | 58.6 | 5.1 | Maior Adverse | 59.0 | 5.5 | Moderate Adverse | 41.9 | 42.1 | 46.8 |
| FLAT D, 7, MANOR WALK | welling | 48.7 | 48.4 | 51.2 | 2.5 | Minor Adverse | 51.5 | 2.8 | Negiligibe Adverse | 37.6 | 37.3 | 40.1 |
| FLAT D, 9, MANOR WALK | Deelling | 54.1 | 53.1 | 55.5 | 1.4 | Minor Adverse | 55.8 | 1.7 | Negligible Adverse | 42.4 | 41.5 | 44.0 |
| FLAA D, 11, MANOR WALK | Dweling | ${ }^{56.9}$ | 55.6 55.0 | ${ }^{56.1}$ | ${ }_{3.0}^{4.2}$ | Moderate Adverse | 56.4 | ${ }_{3.1}^{4.4}$ | Minor Adverse | 40.4 | 40.2 | 44.4. |
| FLAT B. 1, MANOR WALK | Dwelling | 61.2 | 63.0 | 60.9 | .0.3 | Negligible Beneficial | 62.1 | 0.9 | Negligible Adverse | 48.8 | 50.4 | 49.6 |
| FLAT B, 2, MANOR WALK |  | 54.7 | 56.0 | 60.1 | 5.4 | Major Adverse | 60.6 | 5.9 | Moderate Adverse | 43.0 |  | 48.3 |
| FLAT B, 3, MANOR WALK | Dwelling | 55.8 | 56.8 | 61.0 | 5.2 | Major Adverse | 61.8 | 6.0 | Moderate Adverse | 44.0 | 44.9 | 49.4 |
| FLAT B. 5. MANOR WALK | Dwelling | 55.8 | 55.9 | 60.4 53 | 4.6 | Moderate Adverse | $\frac{60.8}{64}$ | 5.0 | Moderata Adverse | 44.0 | 44.0 | 48.5 |
| FLAT B, 7, MANOR WALK | Dwelling | $\begin{array}{r}51.2 \\ 559 \\ \hline\end{array}$ | 51.0 <br> 551 <br> 5 | 53.7 <br> 574 | 2.5 1.5 | Minor Adverse | 54.0 577 | ${ }_{2}^{2.8}$ | Negiligib Adverse | 39.8 440 | 39.6 433 |  |
| FLAT B, 9 , 11, MANOROR WALK | Dwelling | 55.9 54.1 | $\stackrel{55.1}{53.8}$ | 57.4 58.3 | ${ }_{4}^{1.5}$ | Moderate Adverse | ${ }_{58.4}^{55.7}$ | ${ }_{4}^{1.8}$ | $\frac{\text { Negligibe Adverse }}{\text { Minor Adverse }}$ | 44.0 | 43.3 | 45.7 |
| FLAT B, 13, MANOR WALK | Dwelling | 57.1 | 56.0 | 60.2 | 3.1 | Moderate Adverse | 60.4 | ${ }_{3} 3$ | Minor Adverse | 45.1 | 44.1 | 48.1 |
| FLAT F. 1, MANOR WALK | Dwelling | 61.0 | 62.9 | 60.1 | -0.9 | Negligible Beneficial | 61.2 | 0.2 | Negigigile Adverse | 48.6 | 50.3 | 48.8 |
| FLAT F. 2, MANOR WALK | Dwelling | 53.6 | 54.9 | 59.7 | 6.1 | Maior Adverse | 60.1 | 6.5 | Moderate Adverse | 42.0 | 43.1 | 47.8 |
| FLAT F, 3, MANOR WALK | Dwelling | 54.6 | 55.8 | 60.6 | 6.0 | Maior Adverse | 61.2 | 6.6 | Moderate Adverse | 42.9 | 44.0 | 48.8 |
| FLAT F, 5, MANOR WALK FLAT F. 7 MANOR WALK | Dwelling | 54.9 499 | 55.1 49 | 60.0 52.6 | 5.1 .7 | Maior Adverse | 60.4 50 5 | 5.5 <br> .3 <br> 18 | Moderate Adverse | ${ }_{3}^{43.1}$ | ${ }^{43.3}$ | ${ }^{48.1}$ |
| FLAT F, 9 , MANOR WALK | Dwelling | 55.0 | 54.2 | 56.6 | 1.6 | Minor Adverse | 56.9 | 1.9 | Negiligibe Adverse | 43.2 | 42.5 | 44.9 |
| FLAT F, 11, MANOR WALK | Dwelling | 53.4 | 53.0 | 57.8 | 4.4 | Moderate Adverse | 57.9 | 4.5 | Minor Adverse | 41.8 | 41.4 | 45.8 |
| FLAT F, 13, MANOR WALK | Deelling | 56.9 | 55.7 | 60.2 | ${ }^{3.3}$ | Moderate Adverse | 60.3 | 3.4 | Minor Adverse | 44.9 | ${ }^{43.9}$ | 48.0 |
| 10, MARCHBURN AVENUE | Dweling |  | 43.2 |  |  | Negiligile Benenitial |  |  | Negligigle Aaverse |  |  |  |
| 12, MARCHBURN AVENUE | Dwelling | ${ }_{42.5}^{42.5}$ | 43.2 43.1 | 42.5 42.4 | -0.1 -0.1 | $\frac{\text { Negligible Benenicial }}{\text { Negliobl }}$ | 43.4 43.3 | 0.8 0.8 | Negligibl Adverse | 32.1 32.0 | 32.6 32.5 | 32.8 32.7 |
| 16, MARCHBURN AVENUE | Dwelling | 42.3 | 42.9 | 42.1 | -0.2 | Negligible Beneficicial | 43.0 | 0.7 | Negiligile Adverse | 31.8 | 32.3 | 32.4 |
| 17, MARCHBURN AVENUE | Dwelling | 42.8 | 43.1 | 42.7 | -0.1 | Negligible Beneficial | 43.5 | 0.7 | Negiligile Adverse | 32.3 | 32.5 | 32.9 |
| 18, MARCHBURN AVENUE | welling | 43.2 | 43.7 | 43.1 | -0.1 | Negligible Beneficial | 44.0 | 0.8 | Negigioble Adverse | 32.6 | 33.1 | 33.3 |
| 19, MARCHBUUNAVENUE | Dwelling | 43.2 | 43.3 43.7 | ${ }_{4}^{43.1}$ | -0.1 | Negiligible eeneneficial | ${ }_{4}^{44.0}$ | 0.8 | Negligigile Adverse | ${ }^{32.3}$ | 32.7 33.1 | ${ }^{33.0}$ |
| 21, MARCHBURN AVENUE | Deelling | 42.0 | 42.5 | 41.8 | -0.2 | Negligible Beneficial | 42.7 | 0.7 | Negligible Adverse | 31.5 | 32.0 | 32.2 |
| 22, MARCHBURN AVENUE | Dwelling | 43.0 | 43.6 | 43.0 | 0.0 | No Change | 43.8 | 0.8 | Negligible Adverse | 32.4 | 33.0 | 33.2 |
| 23, MARCHBURN AVENUE | Dwelling | 43.0 | 43.3 | ${ }^{42.9}$ | -0.1 | Negligible Beneficical | 43.7 | 0.7 | Negiligibe Adverse | 32.4 | 32.7 | 33.1 |
| 24, MARCHBURN AVENUE | Dwelling | $\frac{43.0}{428}$ | $\frac{43.6}{433}$ | $\frac{43.0}{427}$ | 0.0 |  | ${ }_{43,9}^{43.6}$ | 0.9 | $\frac{\text { Negiligibl Adverse }}{\text { Negioible Adverse }}$ | 32.4 323 | 33.0 327 | 33.2 330 |
| 26, MARCHBURN AVENUE | Dwelling | 42.9 | 43.5 | 42.8 | -0.1 | Negligible Beneficial | 43.7 | 0.8 | Negiligile Adverse | ${ }_{32.3}$ | 32.9 | ${ }_{33,1}$ |
| 27, MARCHBURN AVENUE | Dwelling | 42.8 | 43.4 | 42.7 | -0.1 | Negligible Beneficial | 43.6 | 0.8 | Negigible Adverse | 32.3 | 32.8 | 33.0 |
| 28, MARCHBURN AVENUE | Dwelling | 42.7 42.8 | 43.3 43.3 | 42.6 42.7 | -0.1 -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negligible Beneficial }}$ | 43.5 43.6 | 0.8 | $\frac{\text { Negiligib Adverse }}{\text { Negigiole Adverse }}$ | 32.2 32.3 | 32.7 32.7 | 32.9 33.0 |
| 30, MARCHBURN AVENUE | Dwelling | 42.2 | 42.8 | 42.0 | . 0.2 | Negligible Beneficial | 43.0 | 0.8 | Negligible Adverse | 31.7 | 32.3 | 32.4 |
| 31, MARCHBURN AVENUE | Deelling | 42.7 | 43.3 | ${ }_{4}^{42.6}$ | -0.1 | Negligible Benefiticial | ${ }_{4}^{43.6}$ | 0.9 | Negiligible Adverse | 32.2 | 32.7 | ${ }^{33.0}$ |
| 32, MARCHBURN AVENUE | Dwelling | $\stackrel{42.0}{42.7}$ | 42.4 43.3 | 41.8 42.6 | -0.2 -0.1 -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negliobl }}$ | $\stackrel{42.7}{43.6}$ | 0.7 0.9 | Negligible Adverse Nefigiole Adverse | 31.5 32.2 | 31.9 32.7 | 32.2 33.0 |
| 34, MARCHBURN AVENUE | Dwelling | 44.2 | 44 | 44.1 | -0.1 | Negligible Beneficial | 44.9 | 0.7 | Negiligile Adverse | 33.5 | 3.6 |  |
| 35, MARCHBURN AVENUE | Dwelling | 42.7 | 43.3 | 42.6 | -0.1 | Negligible Beneficial | 43.6 | 0.9 | Negligible Adverse | 32.2 | 32.7 | 33.0 |
| 36, MARCHBURN AVENUE | Deelling | 44.2 | 44.3 | 44.1 | -0.1 | Negligible Beneficical | 44.9 | 0.7 | Negigioble Adverse | 33.5 | 33.6 | 34.1 |
| 37, MARCHBURN AVENUE | Dwelling | 42.7 | 43.2 | 42.5 | -0.2 | Negligible Beneficial | 43.5 | 0.8 | Negiligibe Adverse | 32.2 | 32.6 | 32.9 |
| 38, MARCHBURN AVENUE | Dwelling | $\frac{44.2}{42.1}$ | 44.3 42.7 | $\stackrel{44.1}{42.0}$ | -0.1 -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ Beneficial | 44.9 42.9 | 0.7 | $\frac{\text { Negigigle Adverse }}{\text { Negligible Adverse }}$ | 33.5 31.6 | 33.6 32.2 | 34.1 32.3 |
| 4, MARCHBURN AVENUE | Dwelling | 42.5 | 42.9 | 42.4 | -0.1 | Negligible Beneficical | 43.2 | 0.7 | Negiligile Adverse | 32.0 | 32.3 | 32.6 |
| 40, MARCHBURN AVENUE | Dwelling | 44.2 | 44.3 | 44.1 | -0.1 | Negligible Beneficical | 44.9 | 0.7 | Negigigile Adverse | 33.5 | 33.6 | 34.1 |
| 41, MARCHBURN AVENUE | Dewling | 42.1 | $\frac{42.7}{44}$ | 42.0 | -0.1 | Negligible Beneficical | 42.9 | 0.8 | Negaligibe Adverse | 31.6 335 | 32.2 | $\frac{32.3}{34}$ |
| 42, MARCHBUUN AVENUE | Dwelling | ${ }_{4}^{44.2}$ | ${ }_{42.3}^{42.3}$ | 44.1 | -0.1 -0.1 | Negiligie Beneficial | 44.9 | ${ }_{0}^{0.7}$ | Negigibil Adverse | ${ }^{33.5}$ | ${ }^{33.6}$ | 34.1 <br> 32.3 |
| 44, MARCHBURN AVENUE | Delling | 44.2 | 44.3 | 44.1 | -0.1 | Negligible Beneficical | 44.9 | 0.7 | Negligible Adverse | 33.5 | ${ }^{33.6}$ | ${ }^{34.1}$ |
| 45, MARCHBURN AVENUE | Dwelling | $\stackrel{42.1}{44.1}$ | 42.7 44.5 |  | -0.1 -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negligile }}$ Beneficial | 44.9 | 0.8 | $\frac{\text { Negigigle Adverse }}{\text { Neoligible Adverse }}$ | ${ }_{3} 31.4$ | 32.2 33.8 | ${ }^{32.3}$ |
| 47, MARCHBURN AVENUE | Dwelling | 42.1 | 42.7 | 42.0 | -0.1 | Negligible Beneficical | 42.9 | 0.8 | Negligible Adverse | 31.6 | 32.2 | 32.3 |
| 48, MARCHBURN AVENUE | Dwelling | 44.1 | 44.5 | 44.0 | ${ }^{-0.1}$ | Negligible Benenitical | 44.9 | ${ }_{0}^{0.8}$ | Negiligie Adverse | 33.4 | ${ }^{33.8}$ | 34.1 |
| 49, MARCHBCHURNAVENUE | ${ }^{\text {Dwelling }}$ Oweling | ${ }^{44.1}$ | ${ }_{44.5}^{44.7}$ | 44.0 | -0.1 | Negegligible eeneneficial | 44.9 | 0.8 | Negligigibe Adverse | 31.6 33.4 | 32.2 <br> 33.8 | 32.3 34.1 |
| 51, MARCHBURN AVENUE | Deelling | 41.6 | 42.2 | 41.5 | -0.1 | Negligible Beneficical | 42.4 | 0.8 | Negigigibe Adverse | 31.2 | 31.7 | 31.9 |
| 52, MARCHBURN AVENUE | Dwelling | 44.1 | 44.5 | 44.0 415 | -0.1 | Negligible Benenitical | 44.9 | 0.8 | Negiligile Adverse | ${ }^{33.4}$ | 33.8 317 | 34.1 |
| 54, MARCHBURN AVENUE | Dwelling | 44.1 | 44.5 | 44.0 | ${ }_{-0.1}$ | Negligible Beneficiol | 44.9 | 0.8 | Neogigioble Adverse | ${ }^{31.4}$ | ${ }_{33.8}$ | $\frac{34.1}{}$ |
| 55. MARCHBURN AVENUE | Dwelling | 41.6 | 42.2 | 41.5 | -0.1 | Negligible Beneficical | 42.4 | 0.8 | Negigigile Adverse | 31.2 | 31.7 | 31.9 |
| 56, MARCHBURN AVENUE | Dwelling | 44.1 | 44.5 | 44.0 | -0.1 | Negligible Beneficial | 44.9 | 0.8 | Negligibl Adverse | 33.4 <br> 3.2 | 33.8 317 | 34.1 319 |
| 57, MARCHBCHURNA AVENUE | Dweliling | 45.6 | ${ }_{46.1}^{46.2}$ | 45.9 | ${ }_{0}$ | Negiligibie Eenenvericel | 46.4 46.8 | 1.2 | Negigigible Adverse | 34.2 34.8 | 31.7 <br> 35.2 | 31.9 35.9 |
| 59, MARCHBURN AVENUE | Dewling | 41.6 | 42.2 | 41.5 | -0.1 | Negligible Benefitical | 42.4 | 0.8 | Negligible Adverse | $\frac{31.2}{3.2}$ | 31.7 3.3 | 31.9 |
| 6, MARCHBURN AVENUE | Dwelling | $\stackrel{42.4}{45.6}$ | ${ }_{4}^{46.9}$ | ${ }_{45.9}^{42.3}$ | -0.1 | Negigiglio Beneitical | ${ }_{4}^{43.8} 4$ | ${ }_{1}^{0.8}$ | Negigible Avverse | ${ }_{34.8}$ | ${ }^{32.3}$ | 32.9 |
| 61, MARCHBURN AVENUE | Dwelling | 41.6 | 42.2 | 41.5 | -0.1 | Negligible Beneficial | 42.4 | 0.8 | Negigigile Adverse | 31.2 | 31.7 | 31.9 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 <br> Lnight,outside | DM33 night,outside | $\begin{gathered} \text { DS33 } \\ \text { Lnight,outside } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 62, MARCCBBURN AVENUE | Deeling | 45.6 | 46.1 | 45.9 | 0.3 | Negigigle Adverse | 46.8 | 1.2 | Negigigle Adverse | 34.8 | 35.2 | 35.9 |
| 63, MARCHBURN AVENUE | Dweling | $\frac{45.7}{456}$ | $\frac{46.4}{46.1}$ | 46.1 459 | 0.4 | Negiligibe Adverse | $\frac{47.0}{468}$ | ${ }_{1}^{1.3}$ | $\frac{\text { Negligible Adverse }}{\text { Negioigle Adverse }}$ | $\begin{array}{r}34.9 \\ 34.8 \\ \hline\end{array}$ | $\begin{array}{r}35.5 \\ 35.2 \\ \hline\end{array}$ | 36.0 35.9 |
| 64, MARCCBUUNAVENUE | Dwelling | 45.7 | 46.4 | 46.1 | 0.4 | Neoligioble Adverse | 47.0 | ${ }_{1}^{1.3}$ | Neogigiole Adverse | 34.9 | ${ }_{35.5}$ | ${ }^{35.9}$ |
| 66, MARCHBURN AVENUE | Dwelling | 45.6 | 46.1 | 45.9 | 0.3 | Negigioble Adverse | 46.8 | 1.2 | Negiligible Adverse | 34.8 | 35.2 | 35.9 |
| 67, MARCHBURN AVENUE | Dwelling | 45.7 | 46.4 | 46.1 | 0.4 | Negigigile Adverse | 47.0 | 1.3 | Negligible Adverse | 34.9 | 35.5 | 36.0 |
| 68, MARCHBURN AVENUE | Dwelling | 45.6 | 46.1 | 45.9 | 0.3 | Negigigile Adverse | 46.8 | 1.2 | Negligible Adverse | 34.8 | 35.2 | 35.9 |
| 69, MARCHBURN AVENUE | Dwelling | 45.7 | 46.4 | 46.1 | 0.4 | Negiligibe Adverse | 47.0 | 1.3 | Negilibile Adverse | 34.9 | 35.5 | 36.0 |
| 71, MARCHBURN AVENUE | Delling | 45.7 | 46.4 | 46.1 | 0.4 | Negigigible Adverse | 47.0 | 1.3 | Negligible Adverse | 34.9 | 35.5 3.5 | 33.0 |
| 73, MARCHBURNAVENUE | Deelling | ${ }_{4}^{45.7}$ | 46.4 | 46.1 | 0.4 | Negigigile Adverse | 47.0 | 1.3 | Negigigibe Adverse | 34.9 | 35.5 | 36.0 32. |
| $\frac{8, \text { MARCHBUUN AVENUE }}{1, \text { MARCHBURN CRESCENT }}$ | ${ }^{\text {Dwelling }}$ Dowling | ${ }_{45.5}^{42.6}$ | ${ }_{46.3}^{43.1}$ | ${ }_{45.5}^{42.4}$ | -0.2 | Negiligile Beneicical | $\stackrel{43.3}{46.5}$ | 1.0 | Negigigibe Adverse | ${ }^{32.1}$ | 32.5 35.4 | ${ }_{35.6}^{32.7}$ |
| 10, MARCHBURN CRESCENT | Owelling | 45.7 | 45.9 | 45.7 | 0.0 | No Change | 46.5 | 0.8 | Neoligible Adverse | 34.9 | ${ }^{35.0}$ | 35.6 |
| 11, MARCHBURN CRESCENT | Dwelling | 46.1 | 46.6 | 46.1 | 0.0 | No Change | 47.0 | 0.9 | Negligible Adverse | 35.2 | 35.7 | 36.0 |
| 12, MARCHBURN CRESCENT | Dwelling | 44.2 | 45.1 | 44.3 | 0.1 | Negligible Benefitical | ${ }_{45.3}$ | 1.1 | Negiligible Adverse | ${ }^{33.5}$ | 34.3 | 34.5 |
| 13, MARCHBURN CRESCENT | Dwelling | 46.7 44.1 | 46.9 45.0 | 46.6 44.2 | -0.1 0.1 | $\frac{\text { Negigible Beneficial }}{\text { Nefiliolie Adverse }}$ | 47.4 45.2 | 0.7 1.1 | Negligibl Adverse | 35.8 33.4 | 35.9 34.2 | 36.4 34.4 |
| 15, MARCHBURN CRESCENT | Dwelling | 46.5 | 46.8 | 46.5 | 0.0 | No Change | 47.3 | 0.8 | Negligible Adverse | 35.6 | 35.9 | 36.3 |
| 16, MARCHBURN CRESCENT | Dwelling | 44.0 | 44.8 | 44.0 | 0.0 | No Change | 45.0 | 1.0 | Negiligile Adverse | 33.3 | 34.1 | 34.2 |
| 17, MARCHBURN CRESCENT | Dweling | $\frac{46.3}{419}$ | $\frac{46.6}{425}$ | $\frac{46.3}{418}$ | 0.0 | No Change | $\frac{47.1}{427}$ | 0.8 | Negiligib Adverse | $\begin{array}{r}35.4 \\ 314 \\ \hline\end{array}$ | 35.7 320 | -36.1 |
| 18, MARCHBURN CRESCENT | Dweling | $\stackrel{41.9}{46.3}$ | 42.5 | 41.8 46.3 | -0.1 0.0 | Negligiole Beneficial | 42.7 47.1 | 0.8 0.8 | Negigiobe Adverse | $\begin{array}{r}31.4 \\ 35.4 \\ \hline\end{array}$ | 32.0 35.6 | 32.2 36.1 |
| 2, MARCHBURN CRESCENT | Dwelling | 45.2 | 45.9 | 45.1 | -0.1 | Negligible Beneficial | 46.0 | 0.8 | Negligible Adverse | 34.4 | 35.0 | 35.1 |
| 20, MARCHBURN CRESCENT | Dwelling | 43.1 | 43.2 | 42.9 | -0.2 | Negligible Beneficical | 43.7 | 0.6 | Negiligible Adverse | 32.5 | 32.6 | 33.1 |
| 21, MARCHBURN CRESCENT | Dwelling | 46.5 | 46.6 | 46.5 | 0.0 | No Change | 47.2 | 0.7 | Negigibile Adverse | 35.6 | 35.7 | 36.2 |
| 22, MARCHBURN CRESCENT | Deelling | 43.0 | 43.1 | 42.9 | -0.1 | Negligible Beneficical | 43.7 | 0.7 | Negigioble Adverse | 32.4 | 32.5 | 33.1 |
| 23, MARCHBURN CRESCENT | Dweling | ${ }_{429}^{46.7}$ | ${ }_{46.6}^{430}$ | ${ }_{428}^{46.6}$ | -0.1 | $\frac{\text { Negligible Benentical }}{\text { Neglioble }}$ Beneficial | $\stackrel{47.3}{43.6}$ | 0.6 0.7 | Negligible Adverse | ${ }_{3}^{35.8}$ | $\begin{array}{r}35.7 \\ 324 \\ \hline\end{array}$ | ${ }^{36.3}$ |
| 25, MARCHBURN CRESCENT | Dwelling | 43.4 | 44.0 | 43.3 | -0.1 | Negligible Beneficial | 44.2 | 0.8 | Negiligile Adverse | 32.8 | ${ }_{33.3}$ | ${ }_{33.5}$ |
| 26, MARCHBURN CRESCENT | Wwelling | 43.3 | 43.5 | 43.2 | -0.1 | Negligible Beneficial | 44.0 | 0.7 | Negligible Adverse | 32.7 | 32.9 | 33.3 |
| 27, MARCHBURN CRESCENT | Dwelling | ${ }_{43.3}^{44.1}$ | 44.5 43.5 | ${ }_{43.1}^{44.1}$ | 0.0 <br> 0.1 | $\xrightarrow{\text { Nogo Change }}$ | 44.9 | 0.8 0.7 | Negligible Adverse | 33.4 32.7 | 33.8 32.9 | 34.1 33.3 |
| 29, MARCHBURN CRESCENT | Dwelling | 45.0 | 45.1 | 44.9 | -0.1 | Negligible Benenicial | 45.6 | 0.6 | Negligible Adverse | 34.2 | ${ }^{34.3}$ | ${ }_{34.8}$ |
| 3, MARCHBURN CRESCENT | Dwelling | 45.9 43.2 | 46.6 43.4 | ${ }_{43.9}^{45}$ | 0.0 .0 .1 | Nego Change | 46.9 43.9 | 1.0 0.7 | Negligibl Adverse | 35.0 32.6 | $\begin{array}{r}35.7 \\ 32.8 \\ \hline\end{array}$ | 35.9 33.2 |
| 31, MARCHBURN CRESCENT | Dwelling | 45.5 | 45.4 | 45.4 |  | Negligible Beneficicial | 46.1 |  | Negiligile Adverse | 34.7 | 34.6 | 35.2 |
| 32, MARCHBURN CRESCENT | Dwelling | 43.2 | 43.4 | 43.0 | -0.2 | Negligible Beneficial | 43.8 | 0.6 | Negiligile Adverse | 32.6 | 32.8 | 33.2 |
| 33, MARCHBURN CRESCENT | Dwelling | 45.5 | 45.4 | 45.5 | 0.0 | No Change | 46.1 | 0.6 | Negigioble Adverse | 34.7 | 34.6 | 35.2 |
| 34, MARCHBUR ${ }^{\text {35, MARCHBURN CRESCEESNT }}$ | Dwelling | 45.7 | ${ }_{45.4}^{45.7}$ | 45.6 | -0.2 -0.1 | Negiligible eeneneficial | 46.2 | 0.5 | Neogigioble Adverse | 30.6 34.9 | ${ }^{34.6}$ | 31.4 35.3 |
| 36, MARCHBURN CRESCENT | Deelling | 40.5 | 41.3 | 40.4 | -0.1 | Negligible Beneficial | 41.4 | 0.9 | Negigiolie Adverse | 30.2 | 30.9 | 31.0 |
| 37, MARCHBURN CRESCENT | Dwelling | 45.3 | 45.2 | 45.2 | -0.1 | Negligible Beneficial | 45.9 | 0.6 | Negiligible Adverse | 34.5 | 34.4 | 35.0 |
| 38, MARCHBURN CRESCENT | Dwelling | $\stackrel{40.7}{44.4}$ | $\stackrel{41.5}{44.7}$ | 40.6 44.3 | -0.1 -0.1 -0.1 | $\frac{\text { Negligible Benenitical }}{\text { Neglioile }}$ Beneficial | ${ }_{4}^{45.5}$ | 0.8 0.7 | Negigigle Adverse | 30.4 33.7 | 31.1 34.0 | 31.1 34.3 |
| 4. MARCHBURN CRESCEENT | Deelling | 46.4 | 46.3 | 46.3 | -0.1 | Negligible Beneficial | 46.9 | 0.5 | Negigioble Adverse | 35.5 | 35.4 | 35.9 |
| 40, MARCHBURN CRESCENT | Dwelling | $\frac{40.1}{44.1}$ | 40.8 44.5 | 39.9 44.1 | -0.2 0.0 | Negligible Beneficial | 40.9 44.9 | 0.8 0.8 | Negiligibl Adverse Nefigible Adverse | 29.8 33.4 | 30.5 <br> 33.8 | 30.5 34.1 |
| 42, MARCHBURN CRESCENT | Dwelling | 41.9 | 42.5 | 41.8 | -0.1 | Negligible Beneficical | 42.7 | 0.8 | Neogigigile Adversse | ${ }^{331.4}$ | ${ }_{32.0}^{33.0}$ | 34.2 |
| 43, MARCHBURN CRESCENT | Dwelling | 44.0 | 44.4 | 44.0 | 0.0 | No Change | 44.8 | 0.8 | Negiligibe Adverse | 33.3 | 33.7 | 34.1 |
| 44. MARCHBURN CRESCENT | Dwelling | $\frac{41.7}{43.7}$ | $\frac{42.1}{44.1}$ | $\frac{41.6}{43.7}$ | -0.1 0.0 | Negligible Beneficial | $\frac{42.4}{44.5}$ | ${ }_{0}^{0.7}$ | $\frac{\text { Negiligible Adverse }}{\text { Negioble }}$ | 31.3 33.1 | 31.6 33.4 | 31.9 33.8 |
| 47 , MARCHBURN CRESCENT | Dwelling | 43.3 | 43.7 | 43.3 | 0.0 | No Change | 44.1 | 0.8 | Negigigibl Adverse | 32.7 | 33.1 | 33.4 |
| 49, MARCHBURN CRESCENT | Dwelling | 43.7 46.1 | 44.0 46.8 | 43.6 46.1 | -0.1 0.0 | Negligible Benenicial | 44.5 47.1 | 0.8 1.0 | Negligible Adverse | 33.1 35.2 | 33.3 35.9 | 33.8 36.1 |
| 51, MARCHBURN CRESCENT | Dwelling | 43.4 | 43.7 | 43.3 | -0.1 | Negligible Beneficial | 44.1 | 0.7 | Negiligile Adverse | 32.8 | 33.1 | 33.4 |
| 53, MARCHBURN CRESCENT | Deelling | 42.9 | 43.4 | 42.7 | -0.2 | Negligible Beneficial | 43.6 | 0.7 | Negigioble Adverse | 32.3 | 32.8 | 33.0 |
| 55, MARCHBUR CRESCENT | Dwelling | 42.9 | 43.4 43 | 42.7 427 | -0.2 | Negligible Beneficial | 43.6 436 | 0.7 | Negiligib Adverse | 32.3 <br> 323 | 32.8 327 | $\begin{array}{r}33.0 \\ 330 \\ \hline\end{array}$ |
|  | Dwelilig | $\stackrel{42.9}{42.7}$ | ${ }_{4}^{43.3}$ | ${ }_{42.5}^{42 .}$ | -0.2 -0.2 | Negiligiole Beneiticial | 43.6 43.5 | 0.8 | Negigibib Adverse | $\begin{array}{r}32.3 \\ 32.2 \\ \hline\end{array}$ | 32.7 32.7 | 33.0 32.9 |
| 6, MARCHBURN CRESCENT | Dweling | 47.9 | 47.0 433 | 47.8 427 | -0.1 -0.1 | Negliable Beneficial | 48.3 43.5 | 0.4 0.7 | Negiligle Adverse | 36.8 323 | 36.0 327 | 37.2 329 |
| 63, MARCHBURN CRESCENT | Dwelling | $\stackrel{42.1}{43.1}$ | $\stackrel{43.5}{43.5}$ | 43.0 | -0.1 | Negegligible Beneneicicial | 43.8 | 0.7 | Neoligioble Adverse | ${ }^{32.5}$ | $\stackrel{32.9}{32.9}$ | 32.92 |
| 65. MARCHBURN CRESCENT | Dwelling | 43.3 | 43.5 | 43.2 | -0.1 | Negligible Beneficial | 43.9 | 0.6 | Negigibile Adverse | 32.7 | 32.9 | 33.2 |
| 67, MARCHBURN CRESCENT | Dwelling | 42.7 46.0 | 43.1 46.6 | 42.6 46.0 | -0.1 0.0 | $\frac{\text { Negligibe Beneficial }}{\text { No Change }}$ | 43.4 46.9 | 0.7 | $\frac{\text { Negligible Adverse }}{\text { Negigible Adverse }}$ | 32.2 35.1 | 32.5 35.7 | 32.8 35.9 |
| 8 8, MARCHBURN CRESCENT | Dwelling | 45.6 | 45.8 | 45.6 | 0.0 | No Change | 46.4 | 0.8 | Negiligile Adverse | 34.8 | 35.0 | 35.5 |
| 9, MARCHBURN CRESCENT | Deelling | 46.0 | 46.6 | 46.0 | 0.0 | No Change | 47.0 | 1.0 | Negiligibe Adverse | 35.1 | 35.7 | 36.0 |
| GAANIEHILL HOUSE, 1, MAACHBURNDRIVE | Dwelling | 62.9 | 64.0 | 62.9 | $\stackrel{0.0}{0.0}$ | $\frac{\text { No Change }}{\text { No Change }}$ | 64.0 | ${ }_{1.1}^{1.1}$ | $\frac{\text { Negligible Adverse }}{\text { Nefligible Adverse }}$ | 50.3 | 年1.3 | 年51.3 |
| 10, MARCHBURN DRIVE | Dwelling | 44.3 | 45.0 | 44.3 | 0.0 | No Change | 45.2 | 0.9 | Negigioble Adverse | 33.6 | 34.2 | 34.4 |
| 11, MARCHBURN DRIVE | Oweling | 59.5 478 | ${ }^{60.5}$ | 59.6 478 | 0.1 | Negiligole Aaverse | 60.7 | 1.2 | Negiligibe Adverse | ${ }^{47.3}$ | 48.2 | 48.4 |
| 13, MARCCBBURN DRIVE | ${ }^{\text {Duelling }}$ | 59.0 | ${ }_{59.9}$ | ${ }_{59.0}$ | 0.0 | No Change | 60.1 | ${ }_{1.1}^{1.2}$ | Neoligigile Adverse | ${ }^{36.8}$ | ${ }_{47} 7.6$ | 47.8 |
| 14, MARCHBURN DRIVE | Dwelling | 44.3 | 45.0 | 44.3 | 0.0 | No Change | 45.2 | 0.9 | Negligible Adverse | 33.6 | 34.2 | 34.4 |
| 15, MARCHBURN DRIVE | Dwelling | 58.6 477 | 59.5 489 | 58.6 477 | 0.0 | No Change | 59.7 489 | 1.1 | Negiligile Adverse | ${ }^{46.5}$ | 47.3 377 | ${ }_{377}^{47.5}$ |
| 17, MARCHBURNN DRIVE | ${ }^{\text {Duelilig }}$ Weling | $\stackrel{4}{53.0}$ | $\stackrel{48.9}{54.2}$ | ${ }_{53.0}$ | 0.0 | ${ }^{\text {No Co Change }}$ | $\stackrel{48.9}{54.2}$ | 1.2 | Negligible Adverse | 36.4 41.4 | ${ }^{42.5}$ | ${ }^{42.5}$ |
| 18, MAACHBUR NRIVE | Dwelling | 44.3 538 | 45.0 542 | 44.3 538 | 0.0 | No Change | -45.2. | 0.9 | Negiligle Adverse | 33.6 4.2 | $\begin{array}{r}34.2 \\ \hline 4.5 \\ \hline\end{array}$ | 34.4 4.9 |
| 19, MAACHEBURN DRIVE | Dweliling | ${ }^{538.6}$ | 54.2 47.4 | ${ }^{53.8}$ | 0.0 -0.1 | Negligible eneneficicial | 48.9 | 0.3 | Neoligioble Adverse | ${ }^{47.5}$ | ${ }^{46.4}$ | $\stackrel{42.7}{37.7}$ |
| 21, MARCHBURN ORIVE | welling | 51.0 | 52.0 | 51.1 | 0.1 | Negigigibe Adverse | 52.2 | 1.2 | Negligible Adverse | 39.6 | 40.5 | 40.7 |
| $\frac{\text { 22, MARCHBURN DRIVE }}{\text { 23, MARCHBURN DRIVE }}$ | Owelling | ${ }^{45.8} 5$ | 45.4 | ${ }^{45.7}$ | $\stackrel{-0.1}{0.0}$ | Negligibe Beneficial | ${ }^{46.3}$ | 1.2 | Negigible Avverse | 35.7 38.7 | ${ }^{34.6}$ | ${ }^{359.4}$ |

## Appendix A14.4: Operational Noise Modelling Results

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline Receptor Name \& Receptor Description \& $$
\begin{gathered}
\text { DM18 } \\
\text { LA10,18hr }
\end{gathered}
$$ \& $$
\begin{gathered}
\text { DM33 } \\
\text { LA10,18hr }
\end{gathered}
$$ \& $$
\begin{gathered}
\text { DS18 } \\
\text { LA10,18hr }
\end{gathered}
$$ \& Short-term Daytime Noise Change (dB) \& Magnitude of Change \& $$
\begin{gathered}
\text { DS33 } \\
\text { LA10,18hr }
\end{gathered}
$$ \& Long-term Daytime Noise Change (dB) \& Magnitude of Change \& DM18 Lnight,outside \& DM33 Lnight,outside \& $$
\begin{gathered}
\text { DS33 } \\
\text { Lnight,outside }
\end{gathered}
$$ <br>
\hline 24, MARCHBURN DRIVE \& Dweling \& 48.6 \& 47.4 \& 48.5 \& ${ }^{0.1}$ \& Negligible Beneficial \& 48.9 \& ${ }^{0.3}$ \& Negigigle Adverse \& 37.5 \& 36.4 \& ${ }^{37.7}$ <br>
\hline 25, MARCHBURN DRIVE \& Dwelling \& $\frac{48.9}{458}$ \& 49.8
454 \& $\frac{49.0}{457}$ \& ${ }_{0}^{0.1}$ \& Negligible Adverse \& $\frac{50.0}{463}$ \& $\frac{1.1}{0.5}$ \& Negiligil Adverse \& $\begin{array}{r}37.7 \\ 35.0 \\ \hline\end{array}$ \& $\begin{array}{r}38.6 \\ 34.6 \\ \hline\end{array}$ \& $\begin{array}{r}38.7 \\ \hline 35.4 \\ \hline\end{array}$ <br>
\hline 26, MARCHBURN DRIVE \& Dweling \& 45.8
48.3 \& 45.4
49.2 \& ${ }_{48.3}^{45.7}$ \& -0.1 \& Negligible Beneficial \& 496.3 \& 0.5
1.1 \& $\frac{\text { Negigigie Adverse }}{\text { Negligible Adverse }}$ \& 35.0
37.2 \& $\begin{array}{r}34.6 \\ 38.0 \\ \hline\end{array}$ \& 35.4
38.2 <br>
\hline 28, MARCHBURN DRIVE \& Dwelling \& 48.6 \& 47.4 \& 48.5 \& -0.1 \& Negligible Beeneficial \& 48.9 \& 0.3 \& Negigioble Adverse \& ${ }_{37.5}$ \& ${ }_{36.4}$ \& ${ }^{367.7}$ <br>
\hline 29, MARCHBURN DRIVE \& Dwelling \& 47.3 \& 46.9 \& 47.2 \& -0.1 \& Negligible Beneficical \& 47.8 \& 0.5 \& Negigigile Adverse \& 36.3 \& 35.9 \& 36.8 <br>
\hline 29, MARCHBURN DRIVE \& Dwelling \& 43.6 \& 44.1 \& 43.6 \& 0.0 \& No Change \& 44.4 \& 0.8 \& Negiligile Adverse \& 33.0 \& 33.4 \& 33.7 <br>
\hline 30, MARCHBURN DRIVE \& Deelling \& 45.8 \& 45.4 \& 45.7 \& -0.1 \& Negligible Beneficical \& 46.3 \& 0.5 \& Negigiole Adverse \& 35.0 \& 34.6 \& 35.4 <br>
\hline 31, MARCHBURN DRIVE \& Delling \& 42.8 \& 43.1 \& 42.7 \& -0.1 \& Negligible Benefiticial \& 43.5 \& 0.7 \& Negigigibe Adverse \& 32.3 \& 32.5 \& 32.9 <br>
\hline 33, MARCHBURN DRIVE \& Dwelling \& ${ }^{42.6}$ \& ${ }^{43.0}$ \& 42.5 \& ${ }^{-0.1}$ \& Negiligile Beneficial \& ${ }^{43.4}$ \& ${ }^{0.8}$ \& Negigigibe Adverse \& 32.1 \& 32.4 \& 32.8
326 <br>
\hline 35, MARCGBURNDRIVE \& Dwelling \& 42.1 \& $\stackrel{42.8}{42.9}$ \& $\stackrel{42.4}{42.0}$ \& $-01$ \& ${ }^{\text {Negegligiole Beneitical }}$ \& $\stackrel{43.2}{43.0}$ \& 0.9 \& Negligioble Adverse \& ${ }_{3}^{32.0}$ \& ${ }_{32.3}^{32.3}$ \& ${ }^{32.6}{ }_{32.4}$ <br>
\hline 37, MARCHBURN DRIVE \& Dwelling \& 42.5 \& 42.8 \& 42.4 \& -0.1 \& Negligible Beneficioil \& 43.2 \& 0.7 \& Neoligiole Adverse \& 32.0 \& ${ }_{32.3}$ \& ${ }_{32.6}$ <br>
\hline 38, MARCHBURN DRIVE \& welling \& 42.1 \& 42.6 \& 42.0 \& 0.1 \& Negligible Beneficial \& 42.8 \& 0.7 \& Negigiole Adverse \& 31.6 \& 32.1 \& 2.3 <br>
\hline 39, MARCHBURN DRIVE \& elling \& 43.4 \& 43.3 \& 43.3 \& 0.1 \& Negligible Beneficical \& 44.0 \& 0.6 \& Neoligible Adverse \& 32.8 \& 32.7 \& 3.3 <br>
\hline 40, MARCHBURN DRIVE \& $\frac{\text { Dwelling }}{\text { Dwelling }}$ \& 42.1
43.0 \& 42.9
43.1 \& $\stackrel{42.0}{42.9}$ \& -0.1
.0 .1

0 \& $\frac{\text { Negligible Beneficial }}{\text { Neglioble }}$ \& 43.0
43 \& ${ }_{0}^{0.9}$ \& $\frac{\text { Negligible Adverse }}{\text { Neoligible Adverse }}$ \& 31.6
32.4 \& 32.3
32.5 \& 32.4
33.1 <br>
\hline 42, MARCHBURN DRIVE \& Dwelling \& 42.1 \& 42.5 \& 41.9 \& -0.2 \& Negligible Benenitial \& 42.8 \& 0.7 \& Negligible Adverse \& 31.6 \& 32.0 \& 32.3 <br>
\hline 43, MARCHBURN DRIVE \& Dwelling \& 42.3 \& 42.6 \& 42.2 \& -0.1 \& Negligible Beneficial \& 43.0 \& 0.7 \& Negigigibe Adverse \& 31.8 \& 32.1 \& 32.4 <br>
\hline 44, MARCHBURN DRIVE \& Dwelling \& $\frac{42.1}{428}$ \& 42.9
433 \& $\frac{42.0}{427}$ \& -0.1 \& Negliable Beneficial \& 43.0
436 \& 0.9 \& Negligible Adverse \& 31.6

323 \& | 32.3 |
| :--- |
| 327 | \& 32.4

330 <br>
\hline  \& Dweling \& $\xrightarrow[42.1]{42.8}$ \& ${ }_{42.5}^{43.5}$ \& $\stackrel{42.1}{41.9}$ \& $\stackrel{-0.1}{-0.2}$ \& Negogligibie Beneneficioial \& ${ }_{42.8}^{43.6}$ \& 0.8 \& Negiligible Adverse \& ${ }_{31.6}^{31.6}$ \& - $\begin{array}{r}\text { 32.7 } \\ 32.0\end{array}$ \& 33.0
323 <br>
\hline 47, MARCHBURN DRIVE \& Dwelling \& 42.9 \& 43.5 \& 42.8 \& -0.1 \& Negligible Beneficial \& 43.8 \& 0.9 \& Negligible Adverse \& 32.3 \& 32.9 \& 33.2 <br>
\hline 48, MARCHBURN DRIVE \& Dwelling \& 43.2 \& 43.7 \& 43.1 \& -0.1 \& Negligible Beneficial \& 44.0 \& 0.8 \& Negiligile Adverse \& 32.6 \& 33.1 \& 33.3 <br>
\hline 49, MARCHBURN DRIVE \& Dwelling \& 43.1 \& 43.8 \& 43.0 \& -0.1 \& Negligible Beneficical \& 44.0 \& 0.9 \& Negligible Adverse \& 32.5 \& 33.2 \& ${ }^{33.3}$ <br>
\hline 5. MARCHBURN DRIVE \& Dweling \& 63.5
432 \& 64.8
437 \& 63.6 \& 0.1 \& $\frac{\text { Negligible Adverse }}{\text { Negligibl }}$ \& 64.8
440 \& ${ }_{1}^{1.3}$ \& Negiligibe Adverse \& 50.9 \& 52.1
3.1 \& 52.1 <br>
\hline 51, MARCHBURN DRIVE \& Dwelling \& 43.1 \& 43.9 \& 43.0 \& -0.1 \& Negligible Beneficial \& 44.1 \& 1.0 \& Neogigiole Adverse \& 32.5 \& 33.2 \& ${ }_{33.4}$ <br>
\hline 52, MARCHBURN DRIVE \& Dwelling \& 43.2 \& 43.7 \& 43.1 \& -0.1 \& Negligible Beneficial \& 44.0 \& 0.8 \& Negligible Adverse \& 32.6 \& 33.1 \& 33.3 <br>
\hline 53, MARCHBURN DRIVE \& Dwelling \& 42.4 \& 43.0 \& 42.3 \& -0.1 \& Negligible Beneficial \& 43.2 \& 0.8 \& Negligible Adverse \& 31.9 \& 32.4 \& 32.6 <br>
\hline 54, MARCHBURN DRIVE \& Dwelling \& 43.2 \& 43.7 \& 43.1 \& -0.1 \& Negligible Beneficial \& 44.0 \& 0.8 \& Neoligible Adverse \& 32.6 \& 33.1 \& 33.3 <br>
\hline 55, MARCHBURN DRIVE \& Dwelling \& 42.1 \& 42.8 \& 41.9 \& -0.2 \& Negligible Beneficial \& 42.9 \& 0.8 \& Negiligibe Adverse \& 31.6 \& 32.3 \& 32.3 <br>
\hline 56, MARCHBURNDRIVE \& Dweling \& $\frac{43.2}{42.1}$ \& 43.7
42.8 \& $\xrightarrow[42.0]{43.1}$ \& -0.1 \& Negifigiole Benenicial \& $\stackrel{44.0}{42.9}$ \& 0.8 \& $\frac{\text { Negigigio Adverse }}{\text { Negligible Adverse }}$ \& 32.6
31.6 \& ${ }^{33.1}$ \& 33.3
32.3 <br>
\hline 58, MARCHBURN DRIVE \& Dwelling \& 43.2 \& 43.7 \& 43.1 \& -0.1 \& Negligible Benenicicial \& 44.0 \& 0.8 \& Negligible Adverse \& 32.6 \& 33.1 \& 33.3 <br>
\hline 59, MARCHBURN DRIVE \& \& \& \& \& \& No Change \& \& \& \& \& \& 32.2 <br>
\hline 60, MARCHBURN DRIVE \& Dwelling \& 41.7 \& 42.4 \& 41.6 \& 0.1 \& Negligible Beneitical \& 42.6 \& 0.9 \& Negiligile Adverse \& 31.3 \& 31.9 \& 32.1 <br>
\hline 61, MARCHBURN DRIVE \& Dwelling \& $\frac{41.7}{417}$ \& $\frac{42.3}{42.4}$ \& $\frac{41.6}{416}$ \& -0.1 \& Negilibile Benenicial \& 42.5 \& 0.8 \& Negiligibe Adverse \& 31.3
3.3 \& 31.8 \& 32.0
32.1 <br>
\hline 6, MARCCHBURN DRIVE \& Dweling \& 41.7 \& 42.4 \& 41.6 \& -0.1 \& Negligible Benenitial \& 42.6 \& 0.9 \& Negiligiole Adverse \& 31.3 \& 31.9 \& 32.15 <br>
\hline 64, MARCHBURN DRIVE \& Dwelling \& $\stackrel{41.2}{41.7}$ \& ${ }_{42.4}^{42.7}$ \& $\stackrel{41.1}{41.6}$ \& $\stackrel{-0.1}{-0.1}$ \&  \& $\stackrel{42.0}{42.6}$ \& 0.8
0.9 \& Negigigibe Adverse \& ${ }_{30.3}^{31.3}$ \& 31.3
31.9 \& 31.5
32.1 <br>
\hline 65, MARCHBURN DRIVE \& Dwelling \& 41.1 \& 41.6 \& 41.1 \& 0.0 \& No Change \& 41.9 \& 0.8 \& Negligible Adverse \& 30.7 \& 31.2 \& 31.4 <br>
\hline 66, MARCHBURN DRIVE \& Dwelling \& 41.7 \& 42.4 \& 41.6 \& -0.1 \& Negligible Beneficical \& 42.6 \& 0.9 \& Negligible Adverse \& 31.3 \& 31.9 \& 32.1 <br>
\hline 68, MARCHBURN DRIVE \& Dwelling \& ${ }^{41.7} 6$ \& ${ }^{42.4} 6$ \& 41.6

63.1 \& $\stackrel{-0.1}{0.0}$ \& $\frac{\text { Negligible Beneticial }}{\text { No Change }}$ \& ${ }^{42.6}$ \& \begin{tabular}{l}
0.9 <br>
1.3 <br>
\hline 1

 \& $\frac{\text { Negigioble Adverse }}{\text { Negligibe Adverse }}$ \& 

31.3 <br>
\hline 50.5
\end{tabular} \& 31.9

51.6 \& 32.1
51.7 <br>
\hline 70, MARCHBURN DRIVE \& Dwelling \& 41.7 \& 42.4 \& 41.6 \& -0.1 \& Negligible Beneficicial \& 42.6 \& 0.9 \& Neogigible Adverse \& ${ }_{31.3}$ \& 31.9 \& 32.1 <br>
\hline 8, MARCHBURN DRIVE \& Dwelling \& 47.5
59 \& 48.7
61.0 \& 47.6
60.0 \& 0.1
0.1 \& Negligible Adverse
Neoligible Adverse \& 48.8
61.1 \& 1.3
1.2 \& $\frac{\text { Negligible Adverse }}{\text { Negligible Adverse }}$ \& 36.5
47.6 \& 37.6
48.6 \& $\begin{array}{r}377 \\ 487 \\ \hline\end{array}$ <br>
\hline MARCHBURN DRIVE \& Dwelling \& 62.9 \& 63.9 \& $\underline{62.9}$ \& 0.0 \& Negigo Change \& 64.0 \& $\stackrel{1}{1.1}$ \& Neogigiole Adverse \& 50.3 \& $\stackrel{48.2}{51.2}$ \& ${ }_{51.3}^{48.3}$ <br>
\hline 1. MARCHBURN PLACE \& Dwelling \& 43.0 \& 43.3 \& 42.8 \& 0.2 \& Negligible Beneficial \& 43.6 \& 0.6 \& Negigiole Adverse \& 32.4 \& 32.7 \& 3.0 <br>
\hline 10, MARCHBURN PLACE \& Dwelling \& 43.5 \& 43.8 \& 43.7 \& 0.2 \& Negigigibe Adverse \& 44.6 \& 1.1 \& Negligible Adverse \& 32.9 \& 33.2 \& 33.9 <br>
\hline 11, MARCHBUR PLACE \& Dweling \& 43.5 \& ${ }^{43.8}$ \& ${ }^{43.7}$ \& 0.2 \& Negligiole Adverse \& 44.6 \& 1.1 \& Negligiole Adverse \& 32.9 \& 33.2 \& 33.9 <br>
\hline 12, MARCHBURN PLACE \& Dweling \& ${ }^{43.5}$ \& 43.8 \& 43.7 \& 0.2 \& Negigigio Adverse \& 44.6 \& 1.1 \& Negigigile Adverse \& 32.9 \& 33.2 \& 33.9 <br>
\hline 19, MARARCHBURN PLACE \& ${ }^{\text {bueling }}$ Dineling \& 42. \& 42.5 \& 419 \& 0.1 \& Negligible eneneficial \& 428 \& 0.8 \& Neoligioble Adverse \& 31.5 \& 320 \& 323 <br>
\hline 17. MARCHBURN PLACE \& Dwelling \& 42.1 \& 42.7 \& 42.0 \& . 0.1 \& Negligible Beneficial \& 43.0 \& 0.9 \& Negligible Adverse \& 31.6 \& 32.2 \& 32.4 <br>
\hline 2, MARCHBURN PLACE \& Deeling \& 43.0 \& 43.3 \& 42.8 \& -0.2 \& Negligible Beneficial \& 43.6 \& 0.6 \& Neoligiole Adverse \& 32.4 \& 32.7 \& 33.0 <br>
\hline 3, MARCHBURN PLACE \& Dweling \& 43.0 \& 43.3
433 \& 42.8 \& -0.2 \& Negligible Beneficial \& ${ }_{4}^{43.6}$ \& 0.6 \& Negligiole Adverse \& $\begin{array}{r}32.4 \\ 3.4 \\ \hline\end{array}$ \& 32.7
327 \& 33.0
3.0 <br>
\hline 5, MAARCHBURN PLACE \& Dweling \& 43.0 \& ${ }_{43.3}^{43.3}$ \& ${ }_{42.8}^{42.8}$ \& $\stackrel{-0.2}{-0.2}$ \& Negegioibile eeneficioial \& ${ }_{43.6}$ \& ${ }_{0} 0.6$ \& Negligibile Adverse \& 32.4
32.4 \& 32.7
32.7 \& 33.0
33.0 <br>
\hline 6 6, MARCHBURN PLACE \& Dwelling \& 43.0 \& 43.3 \& 42.8 \& -0.2 \& Negligible Beneficial \& 43.6 \& 0.6 \& Negligible Adverse \& 32.4 \& 32.7 \& 33.0 <br>
\hline 7. MARCHBURN PLACE \& Dwelling \& 43.5 \& 43.8 \& 43.7 \& 0.2 \& Negigioble Adverse \& 44.6 \& 1.1 \& Negigioble Adverse \& 32.9 \& 33.2 \& 33.9 <br>
\hline  \& Dwelling \& ${ }_{43.5}^{43.5}$ \& ${ }_{4}^{43.8}$ \& ${ }_{43.7}^{43.7}$ \& 0.2 \& Negligioble Adverse \& ${ }_{44.6}^{44.6}$ \& ${ }_{1.1}^{1.1}$ \& Negigigibe Adverse \& 32.9
32.9 \& 33.2
33.2 \& 33.9
33.9 <br>
\hline 10, MARCHBURN ROAD \& Dwelling \& 44.7 \& 44.4 \& 44.6 \& -0.1 \& Negligible Benefitical \& 45.2 \& 0.5 \& Negligible Adverse \& 34.0 \& ${ }^{33.7}$ \& 34.4 <br>
\hline 12, MARCCBUR ${ }^{13, \text { MARCHBURN ROAD }}$ \& Dwelling \& 44.5
42.6 \& 44.4
43.0 \& 44.4
42.4 \& $-02$ \& Negiligile Beneiticial \& ${ }_{43.3}^{45.0}$ \& 0.5 \& Neoligigile Adverse \& 33,8
32.1 \& ${ }_{3}^{33.4}$ \& 34.2
32.7 <br>
\hline 14, MARCHBURN ROAD \& Deelling \& 44.6 \& 44.5 \& 44.6 \& 0.0 \& No Change \& 45.2 \& 0.6 \& Negligible Adverse \& 33.9 \& 33.8 \& 34.4 <br>
\hline 15, MARCHBURN ROAD \& Dweling \& ${ }_{4}^{42.6}$ \& 43.0
44.6 \& ${ }_{4}^{42.5}$ \& -0.1 \& Negligible Benenitial \& 43.3 \& 0.7 \& Negiligile Adverse \& 32.1 \& 2.4 \& <br>
\hline (6, MARCCBURUR ROAD \& Dwelling \& ${ }_{42.8}^{44.8}$ \& 443.2 \& ${ }_{42.7}^{44.6}$ \& -0.1 \& Negiligible Benenitical \& ${ }_{4}^{43.5}$ \& 0.7 \& Negigigible Adverse \& 34.0
32.3 \& 33.9
32.6 \& 34.9
32.9 <br>
\hline 18, MARCHBUR ROAD \& Deeling \& 44.7 \& 44.6 \& 44.6 \& -0.1 \& Negligible Beneficical \& 45.3 \& 0.6 \& Negligible Adverse \& 34.0 \& 33.9 \& 34.5 <br>
\hline 19, MARCHBURN ROAD \& Dwelling \& 42.8 \& 43.2 \& 42.7 \& -0.1 \& Negligible Beneficial \& 43.5 \& 0.7 \& Negigigibe Adverse \& 32.3 \& 32.6 \& 32.9 <br>
\hline 20, MARCCBUR 21. MARCHBURN ROAD \& ${ }^{\text {Dwelilig }}$ Doeling \& ${ }_{4}^{43.1}$ \& ${ }_{4}^{43.5}$ \& 44.5 \& -0.1
-0.1 \& Negiligile Benenitical \& 45.2
43.8 \& 0.6 \& Negigible Adverse \& 33.9
32.5 \& 33.9
32.9 \& 34.4
33.2 <br>
\hline 22, MARCHBURN ROAD \& Dweling \& 44.6
43.0 \& 44.6
43.4 \& 44.5 \& -0.1
.0 .1 \& $\frac{\text { Negligible Benenitial }}{\text { Neglioble }}$ \& 45.2
43.7 \& 0.6
0.7 \& Negiligle Adverse \& 33.9
324 \& 33.9
328 \& $\begin{array}{r}34.4 \\ 3.4 \\ \hline\end{array}$ <br>
\hline 24, MARCHBURSN ROAD \& Dweling \& 44.5 \& ${ }_{4}^{44.6}$ \& 44.4 \& $\stackrel{-0.1}{-0.1}$ \& Negegiogible Beneficioial \& ${ }_{45.1}^{43.1}$ \& 0.6 \& Negigioble Adverse \& ${ }_{33.8}$ \& 32.9 \& ${ }_{34.3}$ <br>
\hline 25, MARCHBURN ROAD \& Develing \& 43.0 \& 43.4 \& 42.9 \& -0.1 \& Negligible Benefitial \& 43.7 \& 0.7 \& Negligible Adverse \& 32.4 \& 32.8 \& 33.1 <br>
\hline 26, MARCGBURN ROAD \& Dwelling \& $\frac{44.4}{43.0}$ \& ${ }_{4}^{44.6}$ \& $\frac{44.3}{42.9}$ \& -0.1
-0.1 \& $\frac{\text { Negligible Beneficial }}{\text { Negligibl }}$ Beneficial \& 45.0
43.7 \& 0.6 \& $\frac{\text { Negligible Adverse }}{\text { Negligible Adverse }}$ \& 33.7
32.4 \& 33.9
32.8 \& 34.2
33.1 <br>
\hline 28, MARCHBUR R ROAD \& Dwelling \& ${ }_{44.3}^{44 .}$ \& $\stackrel{44.6}{436}$ \& 44.2
4.4 \& ${ }^{-0.1}$ \& Negligible Beneficical \& 45.0 \& 0.7 \& Negigiolie Adverse \& 33.6 \& 33.9 \& 34.2
3.4 <br>
\hline 29, MARCHBURN ROAD \& Dwelling \& 43.5 \& 43.6 \& 43.4 \& 0.1 \& Negligible Beneficial \& 44.1 \& 0.6 \& Negigigile Adverse \& 32.9 \& 33.0 \& 33.4 <br>
\hline
\end{tabular}

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 <br> Lnight,outside | DM33 <br> Lnight,outside | DS33 <br> Lnight,outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30, MARCHBURN ROAD | Dwelling | 44.0 | 44.4 | 43.9 | ${ }^{0.1}$ | Negligible Beneficical | 44.8 | 0.8 | Negiligibe Adverse | 33.3 | 33.7 | 34.1 |
| $\frac{31, \text { MARCHBURN ROAD }}{32, \text { MARCHBURN ROAD }}$ | $\frac{\text { Dwelling }}{\text { Owelling }}$ | $\frac{43.2}{43.9}$ | $\frac{43.5}{44.3}$ | $\frac{43.1}{43.8}$ | -0.1 -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negligibl } \text { Beneficial }}$ | $\frac{43.9}{44.6}$ | 0.7 | Negligible Adverse | 32.6 33.2 | 32.9 33.6 | 33.2 33.9 |
| 32, MARCHBURN NOAD | Dwelling | 43.2 | 43.5 | ${ }_{43.1}$ | -0.1 | Negegligible Benenificial | 43.9 | 0.7 | Neogigigile Adversse | ${ }_{32.6}$ | ${ }_{32.9}$ | 33.2 |
| 34, MARCHBURN ROAD | Dwelling | 43.7 | 44.2 | 43.6 | -0.1 | Negligible Beneficial | 44.5 | 0.8 | Negiligile Adverse | 33.1 | 33.5 | 33.8 |
| 35, MARCHBURN ROAD | Dwelling | 43.7 | 43.8 | 43.7 | 0.0 | No Change | 44.4 | 0.7 | Negligible Adverse | 33.1 | 33.2 | 33.7 |
| 36, MARCHBURN ROAD | Dwelling | 43.5 | 44.1 | 43.4 | -0.1 | Negligible Beneficial | 44.3 | 0.8 | Negiligile Adverse | 32.9 | 33.4 | 33.6 |
| 37, MARCHBURN ROAD | Dwelling | 43.4 | 43.8 | 43.2 | -0.2 | Negligible Beneficial | 44.1 | 0.7 | Negiligibe Adverse | 32.8 | 33.2 | 33.4 |
| 38, MARCHBURN ROAD | Dwelling | 43.4 | 44.0 | 43.3 | -0.1 | Negligible Beneficicial | 44.3 | 0.9 | Negigigibe Adverse | 32.8 | 33.3 | 33.6 33 |
| 39, MARCHBURN ROAD | Dwelling | 43.5 42.7 | 43.9 43.1 | ${ }_{42.5}^{43.3}$ | -0.2 -0.2 | $\frac{\text { Negiligiole Beneficial }}{\text { Negligible Beneficial }}$ | 44.2 43.4 | 0.7 0.7 | $\frac{\text { Negigigib Adverse }}{\text { Negilible Adverse }}$ | $\begin{array}{r}32.9 \\ 32.2 \\ \hline\end{array}$ | $\begin{array}{r}33.2 \\ 32.5 \\ \hline\end{array}$ | 33.5 <br> 32.8 |
| 40, MARCHBURN ROAD | Dwelling | 42.6 | 43.3 | 42.5 | -0.1 | Negligible Beneficial | 43.5 | 0.9 | Negiligible Adverse | 32.1 | 32.7 | 32.9 |
| 41, MARCHBURN ROAD | Wwelling | 43.5 | 44.0 | 43.4 | -0.1 | Negligible Beneficial | 44.3 | 0.8 | Negiligile Adverse | 32.9 | 33.3 | 33.6 |
| 42, MARCHBURN ROAD | Welling | 43.9 | 44.2 | 43.8 | -0.1 | Negligible Beneficial | 44.6 | 0.7 | Negiligibe Adverse | 33.2 | 3.5 | 33.9 |
| 43, MARCHBURN ROAD | Deelling | 43.6 | 44.1 | 43.5 | -0.1 | Negligible Beneficial | ${ }^{44.3}$ | 0.7 | Negiligibe Adverse | 33.0 | 33.4 | 33.6 |
| 44. MARCHBURN ROAD | Dwelling | 44.0 432 | $\stackrel{44.4}{438}$ | ${ }_{4}^{43.8}$ | -0.2 | Negligible Beneficial | 44.7 440 | ${ }_{0}^{0.7}$ | Negiligib Adverse | 33.3 326 | 33.7 <br> 332 |  |
| 45, MARCHBURN ROAD | ${ }^{\text {Owelling }}$ Dowling | 43.9 | ${ }_{44.4}$ | ${ }_{43.8}^{43.1}$ | -0.1 | Negegligible Beneneicicial | 44.7 | 0.8 | Neogigigie Adverse | ${ }_{33.2}$ | ${ }_{33,2}^{33 .}$ | 33, 3 |
| 47, MARCHBURN ROAD | Dwelling | 43.0 | 43.6 | 42.9 | -0.1 | Negligible Beneficial | 43.8 | 0.8 | Negligible Adverse | 32.4 | 33.0 | 33.2 |
| 48, MARCHBURN ROAD | Dwelling | 44.0 | 44.5 | 43.8 | -0.2 | Negligible Beneficial | 44.7 | 0.7 | Negiligibe Adverse | 33.3 | 33.8 | 34.0 |
| 49, MARCHBURN ROAD | Dwelling | 43.0 | 43.6 | 42.9 | -0.1 | Negligible Beneficial | 43.9 | 0.9 | Negigiolile Adverse | 32.4 | 33.0 | 33.2 |
| 50, MARCHBURN ROAD | Dwelling | $\stackrel{43.6}{42.9}$ | 44.2 43.5 | 43.5 42.8 | -0.1 -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Neglioibl }}$ Beneficial | 44.5 43.7 | 0.9 | Negigioble Adverse | 33.0 32.3 | 33.5 32.9 | 33.8 33.1 |
| 52, MARCHBURN ROAD | Dwelling | 43.3 | 44.0 | 43.2 | -0.1 | Negligible Beneficial | 44.1 | 0.8 | Negiligile Adverse | 32.7 | 33.3 | 33.4 |
| 6, MARCHBURN ROAD | Delling | 41.9 | 42.5 | 41.8 | -0.1 | Negligible Beneficical | 42.7 | 0.8 | Negigioble Adverse | 31.4 | 32.0 | 32.2 |
| 1, MARCHBURN TERRACE | Dwelling | 52.7 | 53.7 | 52.6 | -0.1 | Negligible Beneficical | 53.8 | 1.1 | Negligible Adverse | 41.2 | 42.1 | 42.2 |
| 10, MAACHBURN TERRACE | Dwelling | 48.8 517 | 49.4 <br> 51. <br> 15 | 48.7 517 | -0.1 | Negligible Beneficial | 49.7 <br> 52. | 0.9 | Negiligibe Adverse | 37.7 403 | 38.2 397 | ${ }^{38.5}$ |
| 12, MARCCBBURN TERRACE | ${ }^{\text {Dwelling }}$ | ${ }_{52.1}^{52.1}$ | 51.5 | 55.0 | -0.1 | Negligible Eeneneficial | 52.5 | ${ }_{0}^{0.4}$ | Neogigiole Adverse | 40.6 | ${ }^{39.1}$ | 44.0 |
| 13, MARCHBURN TERRACE | Dwelling | 52.8 | 52.6 | 52.8 | 0.0 | No Change | 53.4 | 0.6 | Negiligile Adverse | 41.3 | 41.1 | 41.8 |
| 14, MARCHBURN TERRACE | Dwelling | 53.4 | 53.3 | 53.4 | 0.0 | No Change | 54.0 | 0.6 | Negigigile Adverse | 41.8 | 41.7 | 42.3 |
| 15. MARCHBURN TERRACE | ing | 54.0 | 54.0 | 53.9 | -0.1 | Negligible Beneficial | 54.7 | 0.7 | Negiligibe Adverse | 42.3 | 42.3 | 43.0 |
| 16, MARCHBURN TERRACE | Deelling | 53.8 | 54.5 | 53.8 | 0.0 | No Change |  | 0.9 | Negiligibe Adverse | 42.2 | 42.8 | 43.0 |
| 2, MARCHBURN TERRACE | Dwelling | 51.6 | 52.7 | 51.6 | 0.0 | No Change | 52.8 | 1.2 | Negligibl Adverse | ${ }^{40.2}$ | $\frac{41.2}{40.1}$ | ${ }_{41.3}^{402}$ |
| $\frac{3, \text { MAACCHBURN TERRACE }}{\text { 4, }}$ | Owelling | 50.1 | 51.0 | 50.1 | 0.0 | No Change | 51.2 | 1.1 | Neogigiole Adverse | 38.8 | 39.6 | 39.8 |
| 5, MARCHBURN TERRACE | Dwelling | 51.9 | 51.5 | 51.8 | -0.1 | Negligible Beneficial | 52.4 | 0.5 | Negiligile Adverse | 40.4 | 40.1 | 40.9 |
| 6, MARCHBURN TERRACE | Dwelling | 50.0 471 | 50.6 480 | 50.0 471 | 0.0 | No Change | $\begin{array}{r}50.9 \\ \hline 8.9\end{array}$ | 0.9 | Negiligibe Adverse | 38.7 36.1 | 39.3 369 | 39.5 371 |
| 7, MARCHBURN TERRACE | Dweling | ${ }_{47.3}^{47.1}$ | $\xrightarrow{48.0} 4$ | ${ }_{47.2}^{47.1}$ | 0.0 -0.1 | Negligible ${ }^{\text {Nengeneficial }}$ | 48.2. | 1.1 | Negigigib Adverse | ${ }^{36.1}$ | 36.9 36.9 | 37.1 37.2 |
| 9, MARCHBURN TERRACE | Dwelling | 47.9 | 48.6 | 47.8 | -0.1 | Negligible Beneficial | 48.8 | 0.9 | Negiligible Adverse | 36.8 | 37.5 | 37.7 |
| FLAT A, 14, MARQUIS ROAD | Wwelling | 67.5 | 67.9 | 67.8 | 0.3 | Negiligile Adverse | 68.0 | 0.5 | Negiligile Adverse | 54.5 | 54.8 | 54.9 |
| FLATB, 14, MARQUUS ROAD | Dwelling | 67.5 67.5 | 67.9 67.9 | 67.8 67.8 | 0.3 0.3 | $\frac{\text { Negligiole Adverse }}{\text { Negligible Adverse }}$ | 68.0 68.0 | 0.5 0.5 | Negiligib Adverse | 54.5 54.5 | 54.8 <br> 54.8 | 54.9 54.9 |
| FLAT D, 14, MARQUIS ROAD | Dwelling | 67.5 | 67.9 | 67.8 | 0.3 | Negigioble Adverse | 68.0 | 0.5 | Negiligile Adverse | 54.5 | 54.8 | 54.9 |
| FLATE, 14, MARQUUS ROAD | Dwelling | 67.5 67.5 | 67.9 67.9 | 67.8 67.8 | 0.3 0.3 | Negiligibl Adverse Negigible Adverse | 68.0 68.0 | 0.5 0.5 | Negiligible Adverse Negigiole Adverse | 54.5 <br> 54.5 | 54.8 <br> 54.8 | 54.9 54.9 |
| FLAT G, 14, MARQUIS ROAD | Dwelling | 67.5 | 67.9 | 67.8 | 0.3 | Negiligile Adverse | 68.0 | 0.5 | Negiligiole Adverse | 54.5 | 54.8 | 54.9 |
| FLaT H, 14, MARQUUS RRAD | Dwellig | 67.5 658 | 67.9 66.2 | 67.8 66.1 | ${ }_{0}^{0.3}$ | Negiligible Adverse Nefigiole Adverse | 68.0 66.3 | 0.5 0.5 | Negligible Adverse Nefigiole Adverse | 54.5 53.0 | 54.8 53.3 | 54.9 53.4 |
| FLAT B, 16, MARQUIS ROAD | Dwelling | 65.8 | 66.2 | 66.1 | 0.3 | Neogigigile Adverse | 66.3 | 0.5 | Negigigible Adverse | 53.0 | ${ }_{53.3}$ | 53.4 |
|  | ${ }^{\text {Owelling }}$ | 65.8 658 | 66.2 662 | 66.1 66.1 | ${ }_{0}^{0.3}$ | Negligibl Adverse | 66.3 663 | 0.5 | Negiligib Adverse | 53.0 | ${ }_{53.3}^{53}$ | 53.4 |
| FLATD, 16, MARQUUS ROAD | Dweling | 65.8 658 | 66.2 | 66.1 | 0.3 0.3 | Negiligib Adverse | 66.3 663 | 0.5 0.5 | Negiligile Adverse | 53.0 530 | 53.3 533 | $\begin{array}{r}53.4 \\ 53.4 \\ \hline\end{array}$ |
| FLAT F, 16, MARQUIS ROAD | Owelling | 65.8 | 66.2 | 66.1 | 0.3 | Negigigible Adverse | 66.3 | 0.5 | Neogigioble Adverse | 53.0 | ${ }_{53.3}$ | 53.4 |
| FLAT G, 16, MARQUIS ROAD | Dwelling | 65.8 | 66.2 | 66.1 | 0.3 | Negigiole Adverse | 66.3 | 0.5 | Negigioble Adverse | 53.0 | 53.3 | 53.4 |
| FLATH, 16, MARQUUS ROAD | Dwelling | 65.8 6.8 | 66.2 | 66.1 | 0.3 | Negigigibe Adverse | 66.3 | 0.5 | Negigigibe Adverse | 53.0 | 53.3 | 53.4 |
|  | Dwelilig | ${ }_{65.3}^{65.8}$ | 66.2 63.7 | $\frac{66.1}{63.6}$ | ${ }_{0}^{0.3}$ | Negigigib Adverse | 66.3 63.7 | 0.4 | Negligigibe Adverse | 53.0 50.7 | 53.3 51.1 | 53.4 51.1 |
| FLATC, 18, MARQUIS ROAD | Deelling | 63.3 | 63.7 | 63.6 | 0.3 | Negigiole Adverse | 63.7 | 0.4 | Negiligible Adverse | 50.7 | 51.1 | 51.1 |
|  | Dwelling | 63.3 63.3 | 63.7 63.7 | 63.6 63.6 | 0.3 0.3 | Negigigle Adverse | 63.7 63.7 | 0.4 0.4 | Negigigle Adverse | 50.7 50.7 | 51.1 51.1 | 51.1 51.1 |
| FLAT F, 18, MARQUUS ROAD | Delling | ${ }^{63.3}$ | 63.7 | 63.6 | 0.3 | Negigigibe Adverse | 63.7 | 0.4 | Negigioble Adverse | 50.7 | 51.1 | 51.1 |
| FLAT A, 20, MARQUUS ROAD | Dwelling | $\stackrel{59.9}{59.9}$ | 60.4 60.4 | $\frac{60.2}{60.2}$ | ${ }_{0}^{0.3}$ | Negigible Adverse | 60.4 60.4 | 0.5 0.5 | $\frac{\text { Negigigib Adverse }}{\text { Negigiole Adverse }}$ | 47.6 47.6 | 48.1 48.1 | 48.1 48.1 |
| FLAT C, 20, MARQUIS ROAD | Dwelling | 59.9 | 60.4 | 60.2 | 0.3 | Negigioble Adverse | 60.4 | 0.5 | Negigioble Adverse | 47.6 | 48.1 | 48.1 |
| FLAT D, 20, MARQUUS ROAD | Dwelling | 599.9 | 60.4 60.4 | $\frac{60.2}{60.2}$ | ${ }_{0}^{0.3}$ | Negigibib Adverse | 60.4 | 0.5 | Neoligige Adverse | 47.6 | ${ }_{48.1}^{48.1}$ | ${ }_{48.1}^{48.1}$ |
| FLAT F, 20, MARQUIS ROAD | Dwelling | 59.9 | 60.4 | 60.2 | 0.3 | Negiligile Adverse | 60.4 | 0.5 | Negiligile Adverse | 47.6 | 48.1 | 48.1 |
| FLATG, 20, MARQUIS ROAD | Dwelling | 59.9 | 60.4 | 60.2 | ${ }^{0.3}$ | Negiligibe Adverse | 60.4 | 0.5 | Negligible Adverse | 47.6 | 48.1 | 48.1 |
| FLAT A, 22, MARQUUS | ${ }^{\text {Dwelling }}$ Oweling | 599.7 | 60.4 | 60.2 | ${ }_{0.3}^{0.3}$ | Negigigibe Adverse | 60.4 | 0.5 | Negigigile Adverse | 47.5 | 47.9 | 48.9 |
| FLAT B, 22, MARQUIS ROAD | Dwelling | 59.7 | 60.2 | 60.0 | 0.3 | Negigigile Adverse | 60.2 | 0.5 | Negiligile Adverse | 47.5 | 47.9 | 47.9 |
| FLATC, 22, MARQUIS ROAD | Dwelling | 59,7 597 | 60.2 | 60.0 | ${ }_{0}^{0.3}$ | Negiligle Adverse | 60.2 | 0.5 | Negiligile Adverse | 47.5 | 47.9 | 47.9 |
| FLAT E, 22, MARQUUIS ROAD | Dweliling | 59.7 59.7 | 60.2 | 60.0 | 0.3 | Negigigibe Adverse | 60.2 | 0.5 | Negligigile Adverse | ${ }_{47.5}^{47.5}$ | 47.9 | 47.9 |
| FLAT F, 22, MARQUUS ROAD | Dwelling | 59.7 | 60.2 | 60.0 | 0.3 | Negligible Adverse | 60.2 | 0.5 | Negigigle Adverse | 47.5 | 47.9 | 479 |
| FLAT G, 22, MARQUUS R RAD | Dwelling | $\stackrel{59.7}{59.7}$ | 60.2 60.2 | 60.0 | ${ }_{0}^{0.3}$ | Negigible Adverse | 60.2 60.2 | 0.5 | Negigigle Adverse | 47.5 | 47.9 | 47.9 |
| FLAT A, 24, MARQUUS ROAD | Deeling | 55.8 | 59.3 | 59.1 | 0.3 | Negigigile Adverse | 59.3 | 0.5 | Negligible Adverse | 46.7 | 47.1 | 47.1 |
| FLAT C, 24, MARQUUS ROAD | Dwelling | 㐌58.8 | $\stackrel{59.3}{59.3}$ | - 59.1 | ${ }_{0}^{0.3}$ | Negigigio Adverse | $\stackrel{59.3}{59.3}$ | 0.5 | Negigigib Adverse | ${ }_{46.7}^{46.7}$ | ${ }_{47.1}^{47.1}$ | ${ }_{47.1}^{47.1}$ |
| FLAT D, 24, MARQUIS ROAD | Dwelling | 58.8 | 59.3 | 59.1 | 0.3 | Negigigile Adverse | 59.3 | 0.5 | Negigiole Adverse | 46.7 | 47.1 | 47.1 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 <br> Lnight,outside | $\begin{gathered} \text { DS33 } \\ \text { Lnight,outside } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| FLAT E, 24, MARQUIS ROAD | Dweling | 58.8 | 59.3 | 59.1 | 0.3 | Negligible Adverse | 59.3 | 0.5 | Negigiolie Adverse | 46.7 | 47.1 | 47.1 |
| FLAT F, 24, MARQUIS ROAD | Dwelling | 55.8 | 59.3 | $\begin{array}{r}59.1 \\ \hline 9.1\end{array}$ | 0.3 | $\frac{\text { Negiligile Adverse }}{\text { Nefigible Adverse }}$ | 59.3 | 0.5 | Negiligibe Adverse | 46.7 | 47.1 | 47.1 |
| FLLAT G, 24, MARQUUS ROAD | Dweling | 58.8 <br> 58.8 | 59.3 | 59.1 59.1 | ${ }_{0.3}^{0.3}$ | Negigiole Adverse | - ${ }_{59.3}^{59.3}$ | 0.5 0.5 | Negigible Adverse | ${ }_{46.7}^{46.7}$ | ${ }_{47.1}^{47.1}$ | ${ }_{47.1}^{47.1}$ |
| FLAT A, 26, MARQUUS ROAD | Dwelling | 57.2 |  | 57.5 | 0.3 | Negigigile Adverse | 57.7 | 0.5 | Negigigibe Adverse | 45.2 | 45.7 | 45.7 |
| LAT B, 26, MARQUIS ROAD | Dwelling | 57.2 |  | 57.5 | 0.3 | Negligible Adverse | 57.7 | 0.5 | Negligible Adverse | 45.2 | 45.7 | 45.7 |
| flat C, 26, MARQUIS ROAD | Dwelling | 57.2 | 57.7 | 57.5 | 0.3 | Negiligile Adverse | 57.7 | 0.5 | Negiligible Adverse | 45.2 | 45.7 | 45.7 |
| FLAT D, 26, MARQUIS ROAD | Dwelling | 57.2 | 57.7 | 57.5 | 0.3 | Negiligile Adverse | 57.7 | 0.5 | Negiligible Adverse | 45.2 | 45.7 | 45.7 |
| FLAT E, 26, MARQUIS ROAD | Dwelling | 57.2 | 57.7 | 57.5 | 0.3 | Negigigibe Adverse | 57.7 | 0.5 | Negigioble Adverse | 45.2 | 45.7 | 45.7 |
| FLAT F, 26, MARQUIS ROAD | Deeling | 57.2 | 57.7 | 57.5 | 0.3 | Negligible Adverse | 57.7 | 0.5 | Negligible Adverse | 45.2 | 45.7 | 45.7 |
| FLAT G, 26, MARQUIS ROAD | Deeling | 57.2 | 57.7 | 57.5 | 0.3 | Negligible Adverse | 57.7 | 0.5 | Negiligile Adverse | 45.2 | 45.7 | 45.7 |
| LAAT $\mathrm{C}, 26, \mathrm{MARQQUIS}$ ROAD | Dweling | 57.2 | 57.7 | 57.5 | 0.3 | Negligible Adverse | 57.7 | 0.5 | Negiligibe Adverse | 45.2 | 45.7 | 45.7 |
| FLAT A, 28. MARQUUS R ROAD | Dweling | 56.4 | 56.9 | 56.6 | 0.2 | Negligile Adverse | 56.9 | 0.5 | Negigigio Adverse | 44.5 | 44.9 | 44.9 |
| FLATC, 28, MARQQUIS | ${ }^{\text {Dwelling }}$ Dweling | 56.4 | 56.9 | ${ }_{56.6}^{56.6}$ | 0.2 | Neogigigibe Adviverse | 56.9 | ${ }_{0}^{0.5}$ | Neoligiolie Adverse | ${ }^{44.5}$ | 44.9 | 44.9 |
| FLAT D, 28, MARQUUS ROAD | Dwelling | 56.4 | 56.9 | 56.6 | 0.2 | Negiligile Adverse | 56.9 | 0.5 | Negligible Adverse | 44.5 | 44.9 | 44.9 |
| FLAT E, 28, MARQUIS ROAD | Dwelling | 56.4 | 56.9 | 56.6 | 0.2 | Negigigile Adverse | 56.9 | 0.5 | Negigiolie Adverse | 44.5 | 44.9 | 44.9 |
| FLATF, 28, MARQUUS ROAD | Dwelling | 56.4 56.4 | 56.9 | 56.6 | 0.2 | Negligibl Adverse | 56.9 | 0.5 | Negiligile Adverse | 44.5 | 44.9 | 44.9 |
| FLAT H, 28, MARQUIS ROAD | Dwelling | 56.4 | 56.9 | 56.6 | 0.2 | Neogigioble Adverse | 56.9 | 0.5 | Neogigioble Adverse | 44.5 | 44.9 | 44.9 |
| FLAT A. 58, MARQUIS ROAD | Dwelling | 53.4 | 53.9 | 53.6 | 0.2 | Negigigibe Adverse | 53.9 | 0.5 | Negiligiole Adverse | 41.8 | 42.2 | 42.2 |
| FLAT B, 58, MARQUIS ROAD | Dwelling | 3.4 | 53.9 | 53.6 | 0.2 | Negiligile Adverse |  | 0.5 | Negigioile Adverse | 41.8 | 42.2 | 42.2 |
| FLAT C, 58, MARQUIS ROAD | Dwelling | 53.4 | 53.9 | 53.6 | 0.2 | Negligible Adverse | 53.9 | 0.5 | Negligible Adverse | 41.8 | 42.2 | 2.2 |
| FLAT D, 58, MARQUUS ROAD | Dwelling | 53.4 | 53.9 | 53.6 | 0.2 | Negigigile Adverse |  | 0.5 | Negigigile Adverse | 41.8 | 42.2 | 22 |
| FLAT E, 58, MARQUIS ROAD | Dwelling | 53.4 | 53.9 | 53.6 | 0.2 | Negigigile Adverse | 53.9 | 0.5 | Negligible Adverse | 41.8 | 42.2 | 42.2 |
| FLAT F, 58, MARQUIS ROAD | Deeling | 53.4 | 53.9 | 53.6 | 0.2 | Negigioble Adverse | 53.9 | 0.5 | Negigioble Adverse | 41.8 | 42.2 | 42.2 |
| FLATA, 60, MARQuIS ROAD | Dwelling | 53.4 | 53.9 | 53.6 | 0.2 | Negigiole Adverse | 53.9 | 0.5 | Negigioile Adverse | 41.8 | 42.2 | 42.2 |
|  | $\frac{\text { Dwelling }}{\text { Dweling }}$ | 53.1 53.1 | 53.5 53.5 | ${ }_{\text {53.3 }} 5$ | 0.2 | Negligigibe Adverse | 53.6 53.6 | 0.5 0.5 | Negligigible Advverse | ${ }_{41.5}^{41.5}$ | 41.9 | ${ }^{42.0}$ |
| FLAT D, 60, MARQUUS ROAD | Dwelling | 53.1 | 53.5 | 53.3 | 0.2 | Negigigile Adverse | 53.6 | 0.5 | Negiligile Adverse | 41.5 | 41.9 | 42.0 |
| FLAT E, 60, MARQUIS ROAD | Dwelling | 53.1 | 53.5 | 53.3 | 0.2 | Negigigile Adverse | 53.6 | 0.5 | Negigioile Adverse | 41.5 | 41.9 | 42.0 |
| $\frac{\text { FLAT F, } 60, \text { MARQUUIS ROAD }}{\text { 21, MAROUIS ROAD }}$ | Dwelling | 53.1 559 | 53.5 56.7 | 53.3 56.1 | 0.2 | $\frac{\text { Negigigile Adverse }}{\text { Negilible Adverse }}$ | 53.6 <br> 5.6 | 0.5 0.7 | $\frac{\text { Negigigio Adverse }}{\text { Negigible Adverse }}$ | $\frac{41.5}{44.0}$ | $\frac{41.9}{44.8}$ | $\frac{42.0}{447}$ |
| ${ }^{23}$ 23, MARQUUS SOAD | Dwelling | 55.9 | ${ }_{56.7}$ | 56.1 | 0.2 | Negigigile Adverse | 55.6 | 0.7 | Negigigible Adverse | 44.0 | 44.8 | 44.7 |
| 25, MARQUIS ROAD | Dwelling | 55.9 | 56.7 | 56.1 | 0.2 | Negiligile Adverse | 56.6 | 0.7 | Negigiolie Adverse | 44.0 | 44.8 | 44.7 |
| 27, MARQUUS ROAD | Deeling | 55.9 | 56.7 | 56.1 | 0.2 | Negligible Adverse | 56.6 | 0.7 | Negigioble Adverse | 44.0 | 44.8 | 44.7 |
| $\frac{29, \text { MARQUIS ROAD }}{31}$ | Dwelling | 55.9 | 56.7 | 56.1 | 0.2 | Negligible Adverse | ${ }^{56.6} 5$ | 0.7 | Negligiole Adverse | 44.0 | 44.8 | 44.7 |
| 3, MARQUUS ROAD | Dwelling | 55.9 | ${ }_{56.7}^{56.7}$ | 56.1 | 0.2 | Negligible Adverse | ${ }_{56.6}^{56.6}$ | 0.7 | Negiligible Adverse | 44.0 | 44.8 | 44.7 |
| 35, MARQUIS ROAD | Dwelling | 55.9 | 56.7 | 56.1 | 0.2 | Negigiole Adverse | 56.6 | 0.7 | Negligible Adverse | 44.0 | 44.8 | 44.7 |
| 37, MARQUIS ROAD | Dwelling |  | 55.6 | 54.8 | 0.2 |  | 55.5 <br> 5.5 | 0.9 |  | ${ }^{42.9}$ | 43.8 | 43.7 |
| 39, MARQUIS ROAD | Dweling | ${ }_{54.6}^{54.6}$ | ${ }_{55.6}^{55.6}$ | 54.8 <br> 54.8 | 0.2 | Neogigigibe Adverse | ${ }_{55.5}^{55.5}$ | 0.9 | Negigigbe Adverse | 42.9 | 43.8 43.8 | ${ }_{43.7}^{43.7}$ |
| 43, MARQUIS ROAD | Dwelling | 54.6 | 55.6 | 54.8 | 0.2 | Negligiole Adverse | 55.5 | 0.9 | Negligiole Adverse | 42.9 | 43.8 | 43.7 |
| 45, MARQUIS ROAD | Dwelling | 54.6 | 55.6 | 54.8 | 0.2 | Negigigile Adverse | 55.5 | 0.9 | Negiligile Adverse | 42.9 | 43.8 | 43.7 |
| 47, MARQUIS ROAD | Dwelling | 54.6 54.6 | 55.6 <br> 556 <br> 5 | 54.8 548 | 0.2 | Negiligib Adverse | 55.5 <br> 555 <br> 5 | 0.9 | Negligible Adverse | 42.9 | 43.8 | 43.7 437 |
| 51, MARQUIS ROAD | Dwelling | 54.6 | ${ }_{55.6}$ | ${ }_{54.8}$ | 0.2 | Negligible Adverse | 55.5 | 0.9 | Negigigible Adverse | 42.9 | 43.8 | 43.7 |
| 53, MARQUIS ROAD | Dwelling | 55.4 | 56.5 | 55.6 | 0.2 | Negigigile Adverse | 56.3 | 0.9 | Negigioile Adverse | 43.6 | 44.6 | 44.4 |
| 55, MARQUIS ROAD | Dwelling | 55.4 | 56.5 | 55.6 | 0.2 | Negilibile Adverse | 56.3 | 0.9 | Negigioble Adverse | 43.6 | 44.6 | 44.4 |
| 57, MARQUUS ROAD | Dwelling | 55.4 | 56.5 | $\begin{array}{r}55.6 \\ 556 \\ \hline 5.6\end{array}$ | 0.2 | Negligible Adverse | -56.3 | 0.9 | Negiligibe Adverse | ${ }_{4}^{43.6}$ | ${ }_{4}^{44.6}$ | 44.4 |
| 59, MARQUIS ROAD | Dwelling | 55.4 55.4 | 56.5 56.5 | 55.6 55.6 | 0.2 | Negigible Adverse | 56.3 56.3 | 0.9 0.9 | $\frac{\text { Negigigle Adverse }}{\text { Negligible Adverse }}$ | 43.6 43.6 | 44.6 44.6 | 44.4 44.4 |
| 63, MARQUIS ROAD | Dwelling | 55.4 | 56.5 | 55.6 | 0.2 | Negigioble Adverse | 56.3 | 0.9 | Negiligibe Adverse | 43.6 | 44.6 | 44.4 |
| 65, MARQUUS ROAD | Deelling | 55.4 | 56.5 | 55.6 | 0.2 | Negigiole Adverse | 56.3 | 0.9 | Negligiole Adverse | 43.6 | 44.6 | 44.4 |
| 67, MARQUUS ROAD | Dwelling | 55.4 54.8 | 56.5 <br> 56.1 | 55.6 <br> 55.0 | 0.2 0.2 | $\frac{\text { Negigigib Adverse }}{\text { Negigible Adverse }}$ | 56.3 55.8 | 0.9 1.0 | $\frac{\text { Negigigile Adverse }}{\text { Negigible Adverse }}$ | 43.6 43.1 | 44.6 44.2 | $\frac{44.4}{44.0}$ |
| 71, MARQUIS ROAD | Dwelling | 54.8 | 56.1 | 55.0 | 0.2 | Negiligile Adverse | 55.8 | 1.0 | Negiligile Adverse | 43.1 | 44.2 | 44.0 |
| 73, MARQUIS ROAD | Dwelling | 54.8 <br> 54.8 | 56.1 56.1 | 55.0 55.0 | 0.2 0.2 | Negiligle Adverse | 55.8 <br> 55.8 | 1.0 1.0 | Negiligile Adverse | 43.1 43.1 | $\frac{44.2}{44.2}$ | 44.0 44.0 |
| 77, MARQUIS ROAD | Dwelling | 54.8 | 56.1 | 55.0 | 0.2 | Negigigibe Adverse | 55.8 | 1.0 | Negigigibe Adverse | 43.1 | 44.2 | 44.0 |
| 79, MARQUIS ROAD | Dwelling | 54.8 | 56.1 | 55.0 | 0.2 | Negligibe Adverse | 55.8 | 1.0 | Negligible Adverse | 43.1 | 44.2 | 44.0 |
| 81, MARQUIS ROAD | Dwelling | 54.8 | 56.1 | 55.0 | 0.2 | Negigigile Adverse | ${ }_{55.8}^{5}$ | 1.0 | Negigioile Adverse | 43.1 | 44.2 | 44.0 |
| ${ }^{\text {83, MAARQUUIS R ROAD }}$ | $\frac{\text { Dwelilig }}{\text { Dweling }}$ | 54.8 54.0 | ${ }_{55.3}^{56.1}$ | 55.0 | 0.2 | Negligigibe Adverse | 55.8 55.0 | 1.0 1.0 | Negligigible Advverse | ${ }_{42.3}^{43.1}$ | ${ }_{4}^{43.5}$ | 443.2 |
| 87, MARQUUS ROAD | Deeling | 54.0 | 55.3 | 54.2 | 0.2 | Negigioble Adverse | 55.0 | 1.0 | Negligible Adverse | 42.3 | 43.5 | 43.2 |
| 89, MARQUIS ROAD | Dwelling | 54.0 | 55.3 | 54.2 | 0.2 | Negigigile Adverse | 55.0 | 1.0 | Negigioile Adverse | 42.3 | 43.5 | 43.2 |
| 91, MARQUIS ROAD | Dwelling | 54.0 54.0 | 55.3 <br> 5.3 | 年4.2.2 | 0.2 | $\frac{\text { Negigioble Adverse }}{\text { Negigiole Adverse }}$ | 55.0 55.0 | 1.0 1.0 | $\frac{\text { Negigioble Adverse }}{\text { Negigiole Adverse }}$ | $\frac{42.3}{42.3}$ | $\frac{43.5}{43.5}$ | 43.2 43.2 |
| 95, MARQUUS ROAD | Dwelling | 54.0 | 55.3 | 54.2 | 0.2 | Negigiole Adverse | 55.0 | 1.0 | Negigioble Adverse | 42.3 | 43.5 | 43.2 |
| 97, MARQUIS ROAD | Deeling | 54.0 | 55.3 | 54.2 | 0.2 | Negligible Adverse | 55.0 | 1.0 | Negigioble Adverse | 42.3 | 43.5 | 43.2 |
| 99, MARQUS R ROAD | Pwelling | 54.0 70.6 | 55.3 71.4 | 54.2 70.9 | 0.2 0.3 | $\frac{\text { Negiligib Adverse }}{\text { Negigible Adverse }}$ | 55.0 71.3 | 1.0 0.7 | $\frac{\text { Negligible Adverse }}{\text { Negligible Adverse }}$ | 42.3 57.3 | 43.5 58.0 | 43.2 57.9 |
| MAYFIELD, MAYFIELD, GRANDHOLM DRIVE | Dwelling | 47.7 | 48.3 | 47.6 | -0.1 | Negligible Beneficicial | 48.8 | 1.1 | Neogligible Adverse | 36.7 | 37.2 | 37.7 |
| 1, MIDDLEFIELD CRESCENT | Dwelling | 60.5 | 61.3 | 60.5 | 0.0 | No Change | 61.6 | 1.1 | Negigioile Adverse | 48.2 | 48.9 | 49.2 |
| 10, MIDDLEFIELD CRESCENT | $\frac{\text { Dwelling }}{\text { Dwelling }}$ | 58.0 <br> 58.3 | 58.2. | 58.1 58.3 | 0.1 | Negligible Adverse | $\begin{array}{r}58.6 \\ 5.9 \\ \hline\end{array}$ | ${ }_{0}^{0.6}$ | Negiligib Adverse | ${ }_{45.9}^{46 .}$ | 46.1 | 46.5 |
| 12, MIDDLEFEIELD CRESCENT | Dwelling | ${ }_{58.0}^{58.0}$ | 58.2 | ${ }_{58.1}^{58.1}$ | 0.1 | Negiligible Adverse | ${ }_{58.6}^{55.9}$ | 0.6 | Negigigible Adverse | 45.9 | ${ }_{46.1}^{46.5}$ | ${ }_{46.5}^{46.7}$ |
| 13, MIDDLEFFILLD CRESCENT | Dwelling | 58.3 | 58.6 | 58.3 | 0.0 | No Change | 58.9 | 0.6 | Negigioble Adverse | 46.2 | 46.5 | 46.7 |
| 14, MIDDLLEFIELLL CRESCENT | welling | 58.0 | 58.2 | 58.1 | 0.1 | Negiligibe Adverse | 58.6 | 0.6 | Negligible Adverse | 45.9 | 46.1 | 46.5 |
| 15, MIDLLEFIELD CRESCENT | Dweling | 58.3 <br> 580 <br> 8 | 58.6 <br> 58.6 <br> 8. | 58.3 <br> 581 <br> 8. | ${ }_{0}^{0.0}$ | No Conane | $\begin{array}{r}58.9 \\ 58 . \\ \hline\end{array}$ | ${ }_{0}^{0.6}$ | Negiligile Adverse | 46.2 4 | 46.5 46. | 46.7 46.5 |
| 17, MIDDLEFELEL CRESCENT | Dwelling | 52.0 | 52.4 | 52.0 | 0.0 | No Change | 52.9 | 0.9 | Negigigile Adverse | 40.5 | 40.9 | 41.3 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 Lnight,outside | $\begin{gathered} \text { DS33 } \\ \text { Lnight,outside } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 18, MIDLEFIELD CRESCENT | Dwelling | ${ }_{56.3}$ | 57.0 | 55.9 | ${ }^{0.4}$ | Negigiole Beneficial | $5{ }_{5}^{56.7}$ | 0.4 | Negligible Adverse | 44.4 | 45.0 | ${ }^{44.8}$ |
| 19, MIDLLEFIELL CRESCENT | Dweling | 52.0 | $\frac{52.4}{612}$ | 52.0 | 0.0 | No Change | 52.9 | 0.9 | Negiligile Adverse | $\frac{40.5}{48.1}$ | $\frac{40.9}{488}$ | $\frac{41.3}{490}$ |
| 2, MIDDLEFEELD CRESCENT | Owwiling | ${ }_{56.3}$ | ${ }^{67.0}$ | ${ }_{55.9}$ | -0.4 | Negligible Eeneficicial | ${ }_{56.7}^{66.7}$ | 0.4 | Negigigie Adverse | 44.4 | ${ }_{45.0}^{45.8}$ | $\stackrel{49.0}{44.8}$ |
| 21, MIDDLEFFLELD CRESCENT | Dwelling | 52.0 | 52.4 | 52.0 | 0.0 | No Change | 52.9 | 0.9 | Neoligiole Adverse | 40.5 | 40.9 | 44.3 |
| 22, MIDDLEFIELD CRESCENT | Dwelling | 56.3 | 57.0 | 55.9 | -0.4 | Negligible Beneficial | 56.7 | 0.4 | Negigigile Adverse | 44.4 | 45.0 | 44.8 |
| 23, MIDDLEFIELD CRESCENT | Dwelling | 52.0 | 52.4 | 52.0 | 0.0 | No Change | 52.9 | 0.9 | Negigigile Adverse | 40.5 | 40.9 | 41.3 |
| 24, MIDDLEFIELD CRESCENT | Dwelling | 56.3 | 57.0 | 55.9 | -0.4 | Negligible Beneficical | 56.7 | 0.4 | Negigiole Adverse | 44.4 | 45.0 | 44.8 |
| 25, MIDDLEFIELD CRESCENT | Welling | 53.2 | 53.5 | 53.1 | -0.1 | Negligible Beneficical | 53.9 | 0.7 | Negigigile Adverse | 41.6 | 41.9 | 42.2 |
| 26, MIDLLEFELEL CRESCENT | Oweling | 57.2 | 57.9 | 57.0 | -0.2 | Negligible Beneficial | 57.9 | 0.7 | Negigigibe Adverse | 45.2 | 45.8 | ${ }_{45.8}^{4.2}$ |
| 27,MIDDLEFELELCCRESCENT | Owelling | 53.2 57.2 | ${ }_{53}^{53.9}$ | ${ }_{5}^{53.1}$ | $-01$ | ${ }_{\text {Negegigioble }}^{\text {Neneniticial }}$ | ${ }_{5}^{53.9}$ | 0.7 | Neoligigle Adverse | $\stackrel{45.6}{45}$ | $\stackrel{45.9}{45}$ | $\stackrel{42.2}{45.8}$ |
| 29, MIDDLEFIELD CRESCENT | Welling | 53.2 | 53.5 | 53.1 | -0.1 | Negligible Beneficial | 53.9 | 0.7 | Negigigile Adverse | 41.6 | 41.9 | 42.2 |
| 3, MIDDLEFFIELD CRESCEST | welling | 60.5 | 61.3 | 60.5 | 0.0 | No Change | 61.6 | 1.1 | Negigioble Adverse | 48.2 | 48.9 | 49.2 |
| ${ }^{\text {30, MIDDLEFELELD CRESCENT }}$ | eiling | 57.2 | 57.9 | 57.0 | -0.2 | Negligible Beneficial | 57.9 | 0.7 | Negiligibe Adverse | 45.2 | 45.8 | 45.8 |
| 31, MIDLLEFELEL CRESESCENT | Welling | 53.2 |  |  | -0.1 | Negligible Benenitical |  |  | Negligiole Adverse |  |  |  |
| 32, MIDLLEFFELEL CRESCENT | weling | 57.2 | 57.9 | 5.0 | 0.2 | Negiligile Benenitical | 57.9 | 0.7 | Negiligibe Aaverse | 45.2 | 45.8 | 45.8 |
|  |  | 53.6 | 54.0 |  | -0.1 | Negligibe Beneitical | 54.4 | 0.8 | Negiligibe Adverse |  |  | 42.7 |
| 34, MIDLEALILCRECNT | eiling | 56.9 | 57.0 | 5.1 |  | Negligibe Benenicial |  |  | Negligle Adverse |  |  |  |
| 35, MIDLLEFIEL CRESCENT | weling | 53.6 | 54.0 | 53.5 | -0.1 | Negiligibe Beneficial | 54.4 | ${ }^{0.8}$ | Negigigio Adverse | 42.0 | 42.3 | 42.7 |
| 36, MIDLLEFELELCRESCENT | weling | 5.9 | 57.8 | 56.7 | -0.2 | Negiligile Benenitical | 57.7 | 0.8 | Negiligiole Adverse | 44.9 | 45.8 |  |
|  | Owelling | ${ }_{56.9}^{55.9}$ | ${ }_{57}^{57.8}$ | ${ }_{56.7}^{56.5}$ | -0.1 | Negeigiobe Benentical | 54.4 577 | ${ }_{0}^{0.8}$ | Negigigie Adverse | 44.9 | ${ }_{458}^{42.3}$ | ${ }_{45.7}^{42.7}$ |
| 39, MIDDLEFEIELD CRESCENT | Owelling | 53.6 | 54.0 | 53.5 | -0.1 | Negligible Beneficical | 54.4 | 0.8 | Negiligile Adverse | 42.0 | 42.3 | 42.7 |
| 4. MIDDLEFIELD CRESCENT | Wwelling | 60.4 | 61.2 | 60.4 | 0.0 | No Change | 61.4 | 1.0 | Negigigile Adverse | 48.1 | 48.8 | 49.0 |
| 40, MIDDLEFEIELD CRESCENT | Welling | 56.9 | 57.8 | 56.7 | -0.2 | Negligible Beneficicial | 57.7 | 0.8 | Negigioble Adverse | 44.9 | 45.8 | 45.7 |
| 41, MIDDLEFFIELD CRESCENT | Welling | 53.6 | 54.0 | 53.5 | -0.1 | Negligible Beneficial | 54.4 | 0.8 | Negigigibe Adverse | 42.0 | 42.3 | 42.7 |
| 42, MIDDLLEFIELL CRESCENT | Oweling | ${ }_{55.4}^{5}$ | 56.5 | 55.3 | -0.1 | Negilibile Benenitial | 56.3 | 0.9 | Negiligibe Adverse | ${ }^{43.6}$ | ${ }^{44.6}$ | 44.4 |
|  | Owelling | 53.4 | ${ }_{56.5}^{56.5}$ | ${ }_{55.3}^{53.5}$ | $-01$ |  | ${ }_{56.3}^{54.4}$ | 0.9 | Neoligigle Adverse | ${ }_{43.6}^{42.0}$ | $\stackrel{44.6}{44}$ | $\stackrel{42.4}{44.4}$ |
| 45, MIDDLEFIELD CRESCENT | Welling | 53.6 | 54.0 | 53.5 | -0.1 | Negligible Beneficial | 54.4 | 0.8 | Negiligile Adverse | 42.0 | 42.3 | 42.7 |
| 46, MIDDLEFIELD CRESCENT | welling | 55.4 | 56.5 | 55.3 | 0.1 | Negligible Beneficical | 56.3 | 0.9 | Negigioble Adverse | 43.6 | 44.6 | 44.4 |
| 47, MIDDLEFFIELD CRESCENT | eiling | 53.6 | 54.0 | $\begin{array}{r}53.5 \\ 5.5 \\ \hline\end{array}$ | ${ }^{-0.1}$ | Negligible Benenitial | 54.4 | 0.8 | Negligiole Adverse | ${ }^{42.0}$ | ${ }^{42.3}$ | 4.7 |
| 48, MIDLLEFIELL CRESCENT | Dwelling | 55.4 50.8 | 56.5 51.4 | 55.3 50.8 | -0.1 0.0 | Negligible Benenicial | 㐌61.3 | 0.9 1.0 | Negligile Adverse | ${ }_{39.5}^{43.5}$ | 44.6 40.0 | 44.4 40.4 |
| 5, MIDDLEFIELD CRESCENT | Deelling | 60.5 | 61.3 | 60.5 |  | No Change | 61.6 |  | Negiligile Adverse | 48.2 | 48.9 | 49.2 |
| 50, MIDDLEFIELD CRESCENT | Dwelling | 53.0 | 54.0 | 52.8 | -0.2 | Negligible Beneficial | 53.8 | 0.8 | Negigigile Adverse | 41.4 | 42.3 | 42.2 |
| 51, MIDDLEFFIELD CRESCENT | Wwelling | 50.8 | 51.4 | 50.8 | 0.0 | No Change | 51.8 | 1.0 | Negligible Adverse | 39.5 | 40.0 | 40.4 |
| S5, MIDLLEFELELCRESCENT | weling | 53.0 | 54.0 | 年5.8 | -0.2 | Negligible Beneficial | 53.8 | 0.8 | Negiligile Adverse | ${ }^{41.4}$ | 42.3 | 42.2 |
| 53, MIDDLEFEELELCR CRESCENT | weling | 50.8 | 51.4 | 50.8 | 0.0 | No change | 51.8 | 1.0 | Negigigile Adverse | 39.5 | 40.0 | 40.4 |
| 54, MIDLLEFELELD CRESCENT | Oweling | 53.0 | 54.0 | 52.8 | -0.2 | Negligible Benenitical | 53.8 | 0.8 | Negiligble Adverse | 41.4 | 42.3 | 42.2 |
| 55, MMDLEFELELLCLCESCENT | Owelling | ${ }_{50.8}^{53.0}$ | ${ }_{54.4}^{54.0}$ | 50.8 52.8 | -0.2 | Negligibile Eeneneficial | ${ }_{5}^{51.8}$ | ${ }_{0}^{1.0}$ | $\frac{\text { Negligibe Adverse }}{\text { Negligile Adverse }}$ | $\stackrel{39.5}{41.4}$ | 42.3 | 40.4 42.2 |
| 58, MIDDLEFIELD CRESCENT | Dwelling | 51.5 | 52.7 | 51.2 | -0.3 | Negligible Benenicicial | 52.3 | 0.8 | Negligible Adverse | 40.1 | 41.2 | 40.8 |
| 6, MIDDLEFIELD CRESCENT | Dwelling | 60.4 | 61.2 | 60.4 | 0.0 | No Change | 61.4 | 1.0 | Negligible Adverse | 48.1 | 48.8 | 49.0 |
| 60, MIDDLEFIELD CRESCENT | Welling | 51.5 | 52.7 | 51.2 | -0.3 | Negligible Beneficial | ${ }_{52.3}$ | 0.8 | Negigigibe Adverse | 40.1 | 41.2 | 40.8 |
| 62, MIDDLEFIELD CRESCENT | Pweling | 51.5 | 52.7 | 51.2 | -0.3 | Negligible Beneficial | 52.3 | 0.8 | Negigigile Adverse | 40.1 | 41.2 | 40.8 |
| 64, MIDDLEFEIEL CRESCENT | Oweling | 51.5 50.9 | 52.7 519 | 51.2. | ${ }^{0.3}$ | $\frac{\text { Negligible Benenicial }}{\text { Neglioibl }}$ | 52.3 | ${ }^{0.8}$ | Negiligio Adverse | ${ }^{40.1}$ | 41.2 | 40.8 |
| 68, MIDDLEFIELD CRESCENT | Dwelling | 50.9 | 51.9 | 50.8 | 0.1 | Negligible Beneficial | 51.8 | 0.9 | Negligible Adverse | 39.5 | 40.4 | 40.4 |
| 7 7,MIDLEFFIELD CRESCENT | Dwelling | 60.5 | 61.3 | 60.5 | 0.0 | No Change | 61.6 | 1.1 | Negigiolie Adverse | 48.2 | 48.9 | 49.2 |
| 70, MIDLLEFIELD CRESCENT | weling | 50.9 | 51.9 |  |  | Negligible Beneficial | 51.8 | 0.9 | Negligiole Adverse |  |  |  |
| 72, MIDDLEFELEL CRESCENT | Oweling | 50.9 | 51.9 | ${ }_{50.8}^{50.8}$ | - 0.1 | Negiligile Benenitial | S1.8 | 0.9 | Negigigie Adverse | 39.5 | 40.4 | 40.4 |
| 76, MIDDLEFELELD CRESCENT | Dwelling | 50.2 | 51.3 | 50.0 | . 2.2 | Negligible eneneficial | 51.1 | 0.9 | Neoligioble Adverse | ${ }_{38,9}$ | 39.9 | 397 |
| 78, MIDDLEFIELD CRESCENT | Dwelling | 50.2 | 51.3 | 50.0 | -0.2 | Negligible Beneficial | 51.1 | 0.9 | Negligible Adverse | 38.9 | 39.9 | 39.7 |
| 8, MIDDLEFIELD CRESCENT | Pwelling | 60.4 | 61.2 | 60.4 | 0.0 | No Change | 61.4 | 1.0 | Negigiolie Adverse | 48.1 | 48.8 | 49.0 |
| 80, MIDDLEFEIELD CRESCENT | Owelling | 50.2 | 51.3 | 50.0 | -0.2 | Negligible Beneficial | 51.1 | 0.9 | Negigigile Adverse | 38.9 | 39.9 | 39.7 |
| 9,MIDDLEFFIELD CRESCENT | ${ }^{\text {Owwelling }}$ Diling | 58.3 58.5 | ${ }^{58.6}$ | 58.3 58.0 | 0.0 -0.5 | Negligibile Cenaneficicial | 58.9 58.9 | 0.6 | Negigible Adverse | 46.2 46.4 | 48.4 | ${ }_{46.7}^{46.7}$ |
| FLAT B, 86, MIDDLEFIELD PLACE | Dwelling | 58.5 | 60.7 | 58.0 | -0.5 | Negligible Beneficial | 58.9 | 0.4 | Negigigile Adverse | 46.4 | 48.4 | 46.7 |
| FLAT C, 86, MIDDLEEIELD PLACE | Oweling | 58.5 | 60.7 | 58.0 | -0.5 | Negligible Beneficical | 58.9 | 0.4 | Negiligibe Adverse | 46.4 | 48.4 | 46.7 |
|  | Oweling | 58.5 | 60.7 607 | 58.0 | 0.5 <br> 0.05 | $\frac{\text { Negligible Benenicial }}{\text { Neglioibl }}$ | 58.9 58.9 | 0.4 0.4 | Negligile Adverse | 46.4 46.4 | 48.4 484 | 46.7 |
| FLAT F, 8, MIDDLEFELL PLACE | Dwelling | 58.5 | 60.7 | 58.0 | -0.5 | Negligible Beneficial | 58.9 | 0.4 | Negiligile Adverse | 46.4 | 48.4 | 46.7 |
| FLAT G, 86, MIDDLEFIELLD PLACE | Pwelling | 58.5 | 60.7 | 58.0 | -0.5 | Negligible Beneficial | 58.9 | 0.4 | Negigigibe Adverse | 46.4 | 48.4 | 46.7 |
| FLAT H, 86, MIDLEEIELD PLACE | welling | 58.5 | 60.7 | 58.0 | 0.5 | Negligible Beneficial | 58.9 | 0.4 | Negligigle Adverse | 46.4 | 48.4 | 46.7 |
| $\frac{1}{1 / \text { MIDDLEFEIELD PLACE }}$ | Owwling | 57.8 57.6 | 58.5 58.3 | 57.9 57.6 | 0.1 | $\frac{\text { Negligible Adverse }}{\text { No Change }}$ | 59.0 58.8 | 1.2 | $\frac{\text { Negiligile Adverse }}{\text { Negigiole Adverse }}$ | 45.8 45.6 | 46.4 46.2 | 46.8 46.7 |
| 100, MIDDLEFIELD PLACE | Dwelling | 62.7 | 64.2 | 62.4 | -0.3 | Negligible Beneficical | 63.4 | 0.7 | Negigigile Adverse | 50.2 | 51.5 | 50.8 |
| 101, MIDDLEFIELD PLACE | Oweling | 60.0 | ${ }_{62.0}^{642}$ | 59.6 |  | Negiligile Benenitical | 60.4 | 0.4 | Negligigle Adverse | 4.7 | 49.5 | 48.1 |
|  | Owwelling | 62.0 | ${ }_{624.0}^{64}$ | ${ }_{59.6}^{62.4}$ | ${ }_{0}$ | Negingioble Beneneficial | ${ }_{60.4}^{63.4}$ | 0.4 | Neogigiole Adverse | ${ }_{477}$ | 49.5 | ${ }_{48,1}$ |
| 104, MIDDLEFIELD PLACE | Dwelling | 62.7 | 64.2 | 62.4 | -0.3 | Negligible Beneficial | 63.4 | 0.7 | Negigiole Adverse | 50.2 | 51.5 | 50.8 |
| 105, MIDDLEFIELD PLACE | Dwelling | 62.0 | 63.6 | 61.6 | -0.4 | Negligible Beneficial | 62.5 | 0.5 | Negiligile Adverse | 49.5 | 51.0 | 50.0 |
|  | ${ }^{\text {Owwelling }}$ Diling | ${ }_{65.4}^{62.0}$ | ${ }_{66.6}^{66.6}$ | ${ }^{655.2} 61.6$ | -0.4 | Negiligile Beneiticial | 66.3 | 0.9 | Negligible Avverse | ${ }^{52.6} 49.5$ | 53.8 51.0 | 53.4 50.0 |
| 108, MIDDLEFIELD PLACE | Dwelling | 65.4 | ${ }_{66.7}^{66}$ | ${ }^{65.2}$ | -0.2 | Negliaible Beneficial | 66.3 6.5 | 0.9 | Negiligle Adverse | 52.6 4.5 | ¢ 53.8 | 53.4 |
| $1{ }^{109, \text { MIDDLEFIELD PLACE }}$ | Owelling | $\stackrel{62.0}{52.7}$ | 63.6 53.3 | $\stackrel{61.6}{52.8}$ | 0.4 0.1 | Negiligile Beneiticial | 62.5 53.7 | 0.5 1.0 | Negligibe Adverse | 49.5 | 51.0 | 50.0. |
| 110, MIDDLEFIELD PLACE | Owelling | 65.4 | 66.7 | 65.2 | -0.2 | Negligible Beneficial | 66.3 | 0.9 | Negligible Adverse | 52.6 | 53.8 | 53.4 |
| 1112, MIDLLEFELELD PLACE | Owwelling | ${ }_{65.4}^{62.0}$ | ${ }_{66.7}^{66.7}$ | ${ }_{65.2}$ | -0.4 | $\xrightarrow{\text { Negegligiole Beneilicial }}$ | ${ }_{66.3}^{62.5}$ | 0.9 | Negligibile Adverse | ${ }_{52.6}$ | ${ }_{53.8}^{51.8}$ | ${ }_{\text {5 }}^{53.4}$ |

## Appendix A14．4：Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short－term Daytime Noise Change（dB） | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long－term Daytime Noise Change（dB） | Magnitude of Change | DM18 Lnight，outside | DM33 Lnight，outside | $\begin{gathered} \text { DS33 } \\ \text { Lnight,outside } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 113，MIDDLEFIELD PLACE | Dwelling | 56.6 | 57.7 | 56.4 | －0．2 | Negligible Beneficial | 57.5 | 0.9 | Negigigle Adverse | ${ }^{44.7}$ | 45.7 | 45.5 |
| 114．MIDDLEFIELD PLACE | Oweling | 62．9 6 | 64.6 671 | 62．7 | －0．2 | Negliaible Beneficial | 64．6 | $\frac{1.7}{08}$ | Negiligil Adverse | 50.3 53.0 | 51.9 54.1 | 51.9 <br> 53.8 |
| （115，MIDDLEFIELD PLACE | Owwiling | 65．9 | ${ }_{6}^{67.1}$ | ${ }^{65.7}$ | －0．2 | $\frac{\text { Negligible Beneficial }}{\text { Negligibl }}$ Beneficial | ${ }^{66.7}$ | 0.8 1.9 | Negigigie Adverse | 53．0 49.1 | 54.1 50.7 | 53.8 <br> 50.8 |
| 117，MIDLLEFIELD PLACE | Dwelling | 65.9 | 67.1 | 65.7 | －0．2 | Negligible Benenicial | 66.7 | 0.8 | Negiligile Adverse | 53.0 | 54.1 | ${ }_{53.8}^{50.8}$ |
| 118，MIDDLEFIELD PLACE | Dwelling | 59.9 | 61.7 | 59.7 | －0．2 | Negligible Beneficical | 61.7 | 1.8 | Negigigile Adverse | 47.6 | 49.3 | 49.3 |
| 119，MIDDLEFIELD PLACE | Dwelling | 65.8 | 66.9 | 65.5 | －0．3 | Negligible Beneficial | 66.5 | 0.7 | Negiligile Adverse | 53.0 | 53.9 | 53.6 |
| 12．MIDDLEFIELD PLACE | Pwelling | 57.6 | 58.3 | 57.6 | 0.0 | No Change | 58.8 | 1.2 | Negligible Adverse | 45.6 | 46.2 | 46.7 |
| 120．MIDDLEFELD ${ }^{\text {a }}$ | Weling | 58.2 | 59.7 | 58.1 | －0．1 | Negligible Beneficicial | 59.8 | 1.6 | Negigigible Adverse | ${ }^{46.1}$ | 47.5 | 47.6 56.5 |
| 121 | Owwelling | ${ }_{68.7}^{68.7}$ | 69.8 | ${ }_{68.5}^{68.5}$ | －0．2 |  | ${ }_{69.7}^{69.7}$ | ${ }_{1.0}^{1.0}$ | Negigigie Adverse | ${ }_{55.6}^{55.6}$ | ${ }_{56.6}^{56.6}$ | ${ }_{56.5}^{56.5}$ |
| ${ }^{125, ~ M I D D L E F I E L D ~ P L A C E ~}$ | Dwelling | 68.7 | 69.8 | 68.5 | ${ }^{0.2}$ | Negligible Beneficial | 69.7 | 1.0 | Negigiolie Adverse | 55.6 | 56.6 | 56.5 |
| 127，MIDDLEFIELD PLACE | welling | 68.7 | 69.8 | 68.5 | －0．2 | Negligible Beneficial | 69.7 | 1.0 | Negigigile Adverse | 55.6 | 56.6 | 56.5 |
| 129，MIDDLEFIELD PLACE | eiling | 62.7 | 64.3 | 62.6 | －0．1 | Negligible Beneficicial | 64.3 | 1.6 | Negiligibe Adverse | 50.2 | 51.6 | 51.6 |
| 13，MIDDLEFELEL PLACE | Dwelling | 52.7 62.0 | 53.3 63.7 | 52.8 61.9 | 0.1 .0 .1 | $\frac{\text { Negligible Benenicial }}{\text { Neglioble }}$ | ${ }_{63.7}^{53.7}$ | 1.0 1.7 | $\frac{\text { Negigiolie Adverse }}{\text { Negligible Adverse }}$ | 419.5 | ${ }^{41.7} 5$ | －${ }_{\text {42，}}^{51.1}$ |
| 133，MIDDLEFIELD PLACE | Welling | 59.9 | 61.5 | 59.7 | ${ }^{0} .2$ | Negligible Beneficial | 61.5 | 1.6 | Negiligile Adverse | 47.6 | 49.1 | 49.1 |
| 135，MIDDLEFIELD PLACE | eelling | 58.3 | 59.6 | 58.2 | ． 0.1 | Negligible Beneficial | 59.6 | 1.3 | Negigigile Adverse | 46.2 | 47.4 |  |
| 14，MIDDLEFIELD PLACE | Dwelling | 57.6 | 58.3 | 57.6 | 0.0 | No Change | 58.8 | 1.2 | Neoligiole Adverse | 45.6 | 46.2 | 46.7 |
| 15．MIDDLEFFIELD PLACE | Wweling | 52.7 | 53.3 | 52.8 | 0.1 | Negligible Beneficial | 53.7 | 1.0 | Negligible Adverse | 41.2 | 41.7 | 42.1 |
| 16，MIDOLEFELELP PLACE | weling | ${ }^{57.6}$ | ${ }_{5}^{58.3}$ | ${ }_{517}^{517}$ | 0.0 | No Change | 58．8 | 1.2 | Negiligio Adverse | 45.6 | 46.2 | 46.7 |
| 17，MIDDLEFFELED PLACE | weling | 51.7 | 52．11 | 51.7 | 0.0 | No Change | 52．7 | 1.0 | Negifigile Adverse | 40.3 | 40.6 | 41.2 |
| 18，MIDDLEFELELD PLACE | weling | 52.6 | 53.2 | ${ }_{52.6}^{51}$ | 0.0 | No Change | 53．7 | 1.1 | Negiligibe Adverse | 41.1 | 41.6 | 42.1 |
| 19，MIDDLERIELD PLACE | Dwelling | \％ 51.7 | 52．10 | ${ }_{622}$ | 0.0 | Neoligiobe Alverse | ${ }^{52.7}$ | ${ }_{1.4}^{1.0}$ | Neoligigile Adverse | ${ }_{49.6}^{40.6}$ | $\stackrel{40.6}{50.4}$ | 41.2 50.9 |
| 20，MIDDLEFIILD PLACE | Dwelling | 52.6 | 53.2 | 52.6 | 0.0 | No Change | 53.7 | 1.1 | Negiligible Adverse | 41.1 | 41.6 | 42.1 |
| 21，MIDDLEFIELD PLACE | Dwelling | 51.7 | 52.1 | 51.7 | 0.0 | No Change | 52.7 | 1.0 | Negiligile Adverse | 40.3 | 40.6 | 41.2 |
| 22，MIDDLEFELELD PLACE | Oweling | 52.6 | 53.2 | 52.6 | 0.0 | No Change | 53.7 | 1.1 | Negigigibe Adverse | 41.1 | 41.6 | 42.1 |
| 23，MIDDLEFIELD PLACE | Weling | 51.7 | 52.1 | 51.7 | 0.0 | No Change | 52.7 | 1.0 | Negigigibe Adverse | 40.3 | 40.6 | 41.2 |
| 24，MIDDLEFIELD PLACE | welling | 52.6 | 53.2 | 52.6 | 0.0 | No Change | 53.7 | 1.1 | Negligible Adverse | 41.1 | 41.6 | ${ }^{42.1}$ |
| 25，MIDDLEFIELD PLACE | Wweling | 50.3 | 50.8 | 50.3 | 0.0 | No Change | 51.3 | 1.0 | Negligible Adverse | 39.0 |  | 39.9 |
| 26．MIDDLEFEIEL PLACE | welling | 51.6 | 52.0 | 51.4 | －0．2 | Negligible Beneficial | 52.3 | 0.7 | Negiligibe Adverse | 40.2 | 40.5 | 40.8 |
| 27，MIDDLEFELED PLACE | Owelling | 50．3 | 50．8 | 年51．4 | －0．0 | Neglioibl ${ }^{\text {Nangene }}$ Eeficial | 51.3 52.3 | 1.0 0.7 | $\frac{\text { Negigigibe Adverse }}{\text { Negilible Adverse }}$ | 39.0 40.2 | 40.5 | 39．9 40.8 |
| 29，MIDDLEFIELD PLACE | Wwelling | 50.3 | 50.8 | 50.3 | 0.0 | No Change | 51.3 | 1.0 | Negiligile Adverse | 39.0 | 39.5 | 39.9 |
| 3．MIDDLEFIELD PLACE |  |  | 58.5 |  | 0.1 | Negligible Adverse | 59. | 1.2 | Negigigile Adverse | 45.8 |  |  |
| 30，MIDDLEFIELD PLACE | Dwelling | 51.6 | 52.0 | 51.4 | －0．2 | Negligible Beneficial | 52.3 | 0.7 | Negigibile Adverse | 40.2 | 40.5 | 40.8 |
| 31，MIDDLEFFIELD PLACE | Wwelling | 50.3 | 50.8 | 50.3 | 0.0 | No Change | 51.3 | 1.0 | Negligible Adverse | 39.0 | 39.5 | 39.9 |
|  | Owwelling | 51．6 | 52．0 | 51.4 50.7 | －0．1 | Negiligible Beeneficiaial | 52．3 51.6 | 0.8 | Neogigigle Adverse | ${ }^{40.2}$ | ${ }_{39.8}^{40.5}$ | ${ }_{40.2}^{40.8}$ |
| 34，MIDDLEFFIELD PLACE | Owelling | 50.7 | 51.8 | 50.5 | －0．2 | Negligible Beneficial | 51.5 | 0.8 | Negigigile Adverse | 39.4 | 40.4 | 40.1 |
| 35，MIDLLEFELEL PLACE | Oweling | 50．8 | 51．2 | 50．7 | －0．1 | Negligible Benefitical | 51．6 | 0.8 | Negligigle Adverse | 39.5 | 39.8 | 40.2 |
| 36，MIDDLEFFIED PLACE | Oweling | 50．7 | 51.8 | 50．5 | 0.2 | $\frac{\text { Negligible Beneitical }}{\text { Neglioibl }}$ | 年51．5 | 0.8 | Negigigle Adverse | 39.4 39.5 | ${ }^{40.4}$ | 40.1 |
| 38，MIDDLEFIELD PLACE | Dwelling | 50.7 | 51.8 | 50.5 | －0．2 | Negligible Beneficial | 51.5 | 0.8 | Negigigile Adverse | 39.4 | 40.4 | 40.1 |
| 39，MIDDLEFIELD PLACE | Owelling | 50.8 | 51.2 | 50.7 | －0．1 | Negligible Beneficial | 51.6 | 0.8 | Negigigile Adverse | 39.5 | 39.8 | 40.2 |
| 4．MIDDLEFIELD PLACE | weling | $\begin{array}{r}62.1 \\ 50 . \\ \hline\end{array}$ | －63．0 | －62．2． | 0.1 | Negligible Adverse | －63．5 | 1.4 1.8 | Negigigie Adverse | ${ }^{49.6}$ | 50.4 | 50.9 |
| 41, MIDLLEFIILD PLACE | Dwelling | 50.9 | 51.2 | 50.8 | －0．1 | Negligible Beneficicial | 51.7 | 0.8 | Negiligile Adverse | 39.5 | 39.8 | 40.3 |
| 42，MIDDLEFIELL PLACE | Dwelling | 51.6 | 52.8 | 51.4 | 0.2 | Negligible Beneficial | 52.2 | 0.6 | Negigiole Adverse | 40.2 | 41.3 | 40.7 |
| 43，MIDDLEFEIEL PLACE | Oweling | 50．9 | 51．22 | 50．8 | －0．1 | Negligible Beneficial |  |  | Negiligile Adverse | 39.5 | 39.8 | ${ }^{40.3}$ |
| 44，MIDDLEFEIEL PLACE | Oweling | 51.6 50.9 | $\begin{array}{r}52.8 \\ 51.2 \\ \hline\end{array}$ | 51.4 50.8 | -0.2 <br> .0 .1 | $\frac{\text { Negligible Benenicial }}{\text { Negliobl }}$ | 52.2 517 | 0.6 | Negligile Adverse | 40.2 39.5 | 41.3 39.8 | 40.7 40.3 |
| 46, MIDLLEFIELD PLACE | Dweling | 51.6 | 52.8 | 51.4 | 0.2 | Negligible Beneficial | 52.2 | 0.6 | Negligible Adverse | 40.2 | 41.3 |  |
| 47，MIDLLEFIELD PLACE | Dwelling | 50.9 | 51.2 | 50.8 | －0．1 | Negligible Beneficial | 51.7 | 0.8 | Negigigile Adverse | 39.5 | 39.8 | 40.3 |
| 48，MIDDLEFIELD PLACE | Dwelling | 51.6 | 52.8 | 51.4 | －0．2 | Negligible Beneficial | 52.2 | 0.6 | Negigigile Adverse | 40.2 | 41.3 | 40.7 |
| 5，MIDDLEFIELID PLACE | Owwelling | 50.8 57.8 | ${ }_{5}^{58.5}$ | 50.8 57.9 | 0.1 | Negligibile Adverse | ${ }_{59} 59.6$ | 1.2 1.2 | Neogigigle Adverse | 39.5 45.8 | 39.7 <br> 4.4 | ${ }_{46.8}^{40.2}$ |
| 50. MIDDLEFEIELD PLACE | Owelling | 52.8 | 54.1 | 52.6 | －0．2 | Negligible Beneficical | 53.3 | 0.5 | Negigigile Adverse | 41.3 | 42.4 | 41.7 |
| 51, MIDDLEFIELD PLACE | Dwelling | 50.8 | 51.1 | 50.8 | 0.0 | No Change | 51.6 | 0.8 | Negigigile Adverse | 39.5 | 39.7 | 40.2 |
| 52，MIDDLEFFIED PLACE | Dwelling | 52.8 <br> 50.8 | 54．1 51.1 | 52．6 50.8 | －0．2 | Negligible Beneficial | $\stackrel{53.3}{51.6}$ | 0.5 0.8 | Negigigle Adverse | $\stackrel{41.3}{39.5}$ | 42.4 39.7 | $\xrightarrow{40.7}$ |
| 54，MIDDLEFIELD PLACE | Dwelling | 52.8 | 54.1 | 52.6 | －0．2 | Negligible Beneficial | 53.3 | 0.5 | Negigigile Adverse | 41.3 | 42.4 | 41.7 |
| 55，MIDDLEFIELD PLACE | Owelling | 50.8 52.8 | 年54．1． | 50.8 52.6 | 0.0 -0.2 | Negligible ${ }^{\text {Nangeeficial }}$ | 51.6 53.3 | 0.8 | $\frac{\text { Negigigile Adverse }}{\text { Negigible Adverse }}$ | 39.5 41.3 | 39.7 42.4 | 40.2 41.7 |
| 57，MIDDLEFIELD PLACE | Dwelling | 51.5 | 52.2 | 51.4 | －0．1 | Negligible Beneficial | 52.2 | 0.7 | Negligible Adverse | 40.1 | 40.7 | 40.7 |
| 58，MIDDLEFIELD PLACE | Dwelling | 54.0 51.5 | 56.0 52.2 | 53.5 51.4 | -0.5 -0.1 | $\frac{\text { Negligible Benenicial }}{\text { Negliobl }}$ | 54.4 52.2 | 0.4 0.7 | Negligibl Adverse | 42.3 40.1 | 44.1 40.7 | 42.7 40.7 |
| 6 6，MIDDLEFIILD PLACE | Dwelling | 62 | 63.0 | 62.2 | 0.1 | Negligible Adverse | 63.5 | 1.4 | Adverse | 49.6 | 50.4 | 50.9 |
| 60，MIDDLEFFIELD PLACE | Oweling | 54.0 | 56.0 | 53.5 | －0．5 | Negligible Beneficicial | 54.4 | 0.4 | Negigigile Adverse | 42.3 | 44.1 | 42.7 |
| 61，MIDLEFELEL PLACE | Oweling | 51．5 | 52．2 | 51．4 |  | Negiligibe Benenitial | 52．2 | 0.7 | Negligigle Adverse | 40.1 |  |  |
| 63，MIDDLEFELILD PLACE | Owelling | 54.5 | 52.2 | ${ }_{514}$ | －0．5 | Negingioble Beneneficial | ${ }^{54.4}$ | 0.7 | Neotigigio Adverse | 40.1 | 40.7 | 40.7 |
| 64，MIDDLEFIILD PLACE | Dwelling | 54.0 | 56.0 | 53.5 | －0．5 | Negligible Beneficial | 54.4 | 0.4 | Negigiole Adverse | 42.3 | 44.1 | 42.7 |
| 65，MIDDLEFIELD PLACE | Dwelling | 52.2 | 52.9 | 52.0 | －0．2 | Negligible Beneficial | 52.7 | 0.5 | Negiligile Adverse | 40.7 | 41.3 | 41.2 |
| 66，MIIDLLFFELED PLACE | ${ }^{\text {Owwelling }}$ Diling | 56．0． | 58.8 52.9 | 55.2 52.0 | -0.8 <br> -0.2 | Negiligile Beneiticial | 56.3 52.7 | ${ }_{0}^{0.5}$ | Negligible Avverse | 44.7 | ${ }_{46.1}^{46}$ | 444．4 |
| 68，MIDDLLEFIELD PLACE | Dwelling | －56．0 | $\begin{array}{r}58.8 \\ 5.8 \\ \hline\end{array}$ | 55．2 | ${ }^{-0.8}$ | Negliaible Beneficial | －56．3 | 0.3 | Negiligle Adverse | 44.1 | $\frac{46.7}{413}$ | 44．4 |
| 7，MIDDLEFIELID PLACE | Owelling | 52.2 <br> 57.8 | 52．9 58.5 | 52.9 57.9 | －0．1 | Negiligiol Benenitical | $\stackrel{52.7}{59.0}$ | 0.5 1.2 | Negligibe Adverse | ${ }_{450.8}^{40.7}$ | 46．4 | 46．2 |
| 70，MIDDLEFIELL PLACE | Owelling | 55.0 | ${ }_{58.8}^{58}$ | 55．2 | －0．8 | Negligible Beneficical | ${ }_{\text {56．3 }}^{5}$ | 0.3 | Negligible Adverse | 44.1 | 46.7 | 44.4 |
| 77，MIDDLEFFELED PLACE | Owwelling | ${ }_{56.0}^{52.0}$ | ${ }_{52.8}^{52.9}$ | $\stackrel{52.0}{55.2}$ | －0．8 | Negiligible Beneitical | ${ }_{56.3}$ | 0.3 | Negiligible Adverse | $\stackrel{40.7}{44.1}$ | $\stackrel{41.3}{46.7}$ | $\stackrel{41.2}{44.4}$ |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 Lnight,outside | $\begin{gathered} \text { DS33 } \\ \text { Lnight,outside } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 73 MIDDLEFIELD PLACE | Dwelling | 53.3 | 54.1 | 53.1 | -0.2 | Negligible Beneficial | 53.6 | 0.3 | Negigigible Adverse | 41.7 | 42.4 | 42.0 |
| 74, MIDDLEFIELD PLACE | Dwelling | 57.3 | 60.0 | 56.6 | -0.7 | Negligible Beneficical | 57.6 | 0.3 | Negligible Adverse | 45.3 | 47.7 | 45.6 |
| 75, MIDDLEFIELD PLACE | Dwelling | 55.3 | 54.1 | 53.1 | -0.2 | Negligible Beneficial | 53.6 | 0.3 | Negiligibe Adverse | 41.7 | 42.4 | 42.0 |
| 76, MIDLLEFIELD PLACE | Oweling | $\stackrel{57.3}{53}$ | 60.0 54.1 | ${ }_{56.6}^{56.6}$ | -0.7 | Negligible Beneficical | 57.6 | 0.3 | Negigigle Adverse | ${ }_{45}^{45}$ | 47.7 | 45.6 |
| 77, MIDDLEFELEL PLACE | Delling | ${ }_{5573}^{57.3}$ | 54.1 | 53.1 | -0.2 | Negligible Beneficical | ${ }_{5}^{53.6}$ | 0.3 | Negigigibe Adverse | 41.7 | ${ }_{4}^{4.4}$ | 42.0 |
| 78. MIDDLEFFIELD PLACE | Delling | 57.3 59 | 60.0 54 | 55.6 | -0.7 | Negligible Benefitical |  | ${ }^{0.3}$ | Negigigli Adverse | 45.3 417 | ${ }_{47.7}^{47}$ | ${ }_{4}^{45.6}$ |
| 79, MIDDLEFELEL PLACE | Dwelling | 53.3 | 54.1 | 53.1 | -0.2 | Negligible Beneficial | 53.6 | 0.3 | Negligible Adverse | 41.7 | ${ }^{42.4}$ | 42.0 |
| 8, MIDDLEFIELD PLACE | Dwelling | 62.1 | 63.0 | 62.2 | 0.1 | Neglioible Adverse | 63.5 | 1.4 | Negiligible Adverse | 49.6 | 50.4 | 50.9 |
| 80, MIDDLEFIELD PLACE | Deelling | 57.3 | 60.0 | 56.6 | -0.7 | Negligible Beneficial | 57.6 | 0.3 | Negligible Adverse | 45.3 | 47.7 | 45.6 |
| 81, MIDDLEFELEL PLACE | Deelling | 54.4 | ${ }_{55.6}$ | 54.1 | -0.3 | Negligible Beneficical | 54.7 | 0.3 | Negigigibe Adverse | 42.7 427 | 43.8 | 43.0 43.0 |
|  | ${ }^{\text {Dwelling }}$ Dowling | 54.4 54.4 | $\stackrel{55.6}{55.6}$ | ${ }_{54.1}^{54.1}$ | $\stackrel{-0.3}{-0.3}$ | Negligiolele Beneneficial | ${ }_{54.7}^{54.7}$ | ${ }_{0}^{0.3}$ | Negigigibe Adverse | ${ }_{42.7}^{42.7}$ | ${ }_{43.8}^{43.8}$ | 43.0 |
| 87, MIDDLEFIELD PLACE | Dwelling | 54.4 | 55.6 | 54.1 | -0.3 | Negligible Beneficial | 54.7 | 0.3 | Negigiolile Adverse | 42.7 | 43.8 | 43.0 |
| 89, MIDDLEFIELD PLACE | Dwelling | 59.1 | 61.3 | 58.6 | -0.5 | Negligible Beneficial | 59.3 | 0.2 | Negligible Adverse | 46.9 | 48.9 | 47.1 |
| 9, MIDDLEFIELD PLACE | Dwelling | 52.7 59.7 | ${ }^{53.3}$ | 52.8 59 | 0.1 | Negiligile Benenitical |  | 1.0 | Negigiobio Adverse | 41.2 |  | 42.1. |
| 90, MIDLEEFLEL PLACE | Dwelling | 59.7 59.1 | 61.6 61.3 | 59.3 58.6 | -0.4 -0.5 | $\frac{\text { Negligible Benenicial }}{\text { Neglioibl }}$ | 60.3 | ${ }_{0}^{0.6}$ | Negligibl Adverse | 47.5 46.9 | 49.2 48.9 | 48.0 47.1 |
| 92. MIDDLEFELLD PLACE | Dwelling | 59.7 | 61.6 | 59.3 | -0.4 | Negligible Beneficial | 60.3 | 0.6 | Negigigibe Adverse | 47.5 | 49.2 | 48.0 |
| 93, MIDDLEFIELD PLACE | Dwelling | 59.1 | 61.3 | 58.6 | -0.5 | Negligible Beneficial | 59.3 | 0.2 | Negigiolile Adverse | 46.9 | 48.9 | 47.1 |
| 94, MIDDLEFEIELD PLACE | Oweling | 59.7 | 61.6 | 59.3 | -0.4 | Negligible Beneficial | 60.3 | 0.6 | Negigioble Adverse | 47.5 | 49.2 | 48.0 |
| 95, MIDDLEFIELD PLACE | Deelling | 59.1 | 61.3 | 58.6 | -0.5 | Negligible Beneficial | 59.3 | 0.2 | Negiligibe Adverse | 46.9 | 48.9 | 47.1 |
| 96, MIDDLEFIELD PLACE | Dwelling | 59.7 | 61.6 | 59.3 | -0.4 | Negligible Beneficial | 60.3 | 0.6 | Negligible Adverse | 47.5 | 49.2 | 48.0 |
| 97, MIDDLEFFIELLD PLACE | Dwelling | 60.0 | 62.0 | 59.6 | -0.4 | Negligible Benefitical | 60.4 | 0.4 | Negiligible Adverse | ${ }^{47.7}$ | 49.5 5 | ${ }_{48.1}^{48}$ |
| 98, MIDDLEFRELED PLACE | Oweling | 62.7 | 64.2 | 62.4 59 | -0.3 | Negligible Beneficical | 63.4 | 0.7 | Negiligibie Adverse | ${ }_{50.2}$ | 51.5 | 50.8 |
| 99, MIDDLEFIELD PLACE | Dweling | $\begin{array}{r}60.0 \\ 55 \\ \hline\end{array}$ | -62.0 | $\stackrel{59.6}{53.8}$ | -0.4 -17 | $\frac{\text { Negligible Beneficial }}{\text { Minor Beneficial }}$ | 60.4 56.1 | 0.4 | Negigigbe Adverse | ${ }_{4}^{43.7}$ | 49.5 | 48.1 |
| 100, MIDDLEFIELD TERRACE | Dwelling | 55.0 | 59.6 | 53.1 | -1.9 | Minor Beneficial | 55.2 | 0.2 | Negiligiole Adverse | 43.2 | 47.4 | 43.4 |
| 101, MIDDLEFIELD TERRACE | Dwelling | 57.3 | 58.4 | 57.1 | -0.2 | Negligible Beneficial | 58.2 | 0.9 | Negiligible Adverse | 45.3 | 46.3 | 46.1 |
| 102. MIDDLEFFELD TERRACE | Dwelling | 55.0 57 | 59.6 | $\begin{array}{r}53.1 \\ 57.1 \\ \hline\end{array}$ | -1.9 | Minor Beneficial | $\begin{array}{r}55.2 \\ 592 \\ \hline 8 .\end{array}$ | 0.2 | Negiligibe Adverse | $\begin{array}{r}43.2 \\ 4.3 \\ \hline\end{array}$ | 47.4 | 43.4 |
| 103 MIODLLFFELD TERRACE | Owelling | ${ }_{55.0}^{57.3}$ | ${ }_{59}{ }_{59.6}$ | ${ }_{5}^{53.1}$ | --. | Negiligile Benenicial | ${ }_{55.2}^{55.2}$ | 0.2 | Negigigibe Adverse | 43.2 | ${ }_{47.4}^{46.3}$ | ${ }_{46.1}^{46.4}$ |
| 105, MIDDLEFIELD TERRACE | Dwelling | 57.3 | 58.4 | 57.1 | -0.2 | Negligible Beneficial | 58.2 | 0.9 | Negligiole Adverse | 45.3 | 46.3 | 46.1 |
| 107, MIDDLEFIELD TERRACE | Dwelling |  |  |  | -0.2 | Negiligibe Benenitical |  | 0.9 | Negigigibile Adverse | ${ }^{43.3}$ | ${ }_{44.3}^{4}$ | 44.1 |
| 109, MIDDLEFIELD TERRACE | Dwelling | 55.1 54.5 | 56.2 55.9 | 54.9 54.3 | -0.2 -0.2 | $\frac{\text { Negligible Benenicial }}{\text { Negliobl }}$ | 56.0 55.7 | 0.9 1.2 | Negligibl Adverse | 43.3 42.8 | 44.3 44.0 | 44.1 43.9 |
| 111, MIDDLEFIELD TERRACE | Dwelling | 55.1 | 56.2 | 54.9 | -0.2 | Negligible Beneficial | 56.0 |  | Negiligile Adverse | 43.3 | 44.3 |  |
| 113, MIDDLEFIELD TERRACE | Dwelling | 55.1 | 56.2 | 54.9 | -0.2 | Negligible Beneficial | 56.0 | 0.9 | Negiligile Adverse | 43.3 | 44.3 | 44.1 |
| 115. MIDDLEFFIELD TERRACE | Deelling | 54.0 | 55.1 | 53.8 | -0.2 | Negligible Beneficial | 54.8 | 0.8 | Negigioble Adverse | 42.3 | 43.3 | 43.1 |
| 117, MIDDLEFFELD TERRACE | Dwelling | 54.0 | 55.1 55.1 | 53.8 53.8 | -0.2 | $\frac{\text { Negligible Beneficial }}{\text { Negligile }}$ Beneficial | 54.8 <br> 54.8 | 0.8 | Negigiolb Adverse | +42.3 | 43.3 43.3 | 43.1 43.1 |
| 12, MIDDLEFIELD TERRACE | Dwelling | 55.5 | 59.9 | 53.8 | -1.7 | Minor Beneficial | 56.1 | 0.6 | Negigigibe Adverse | 43.7 | 47.6 | 44.2 |
| 121 , MIDDLEFIELD TERRACE | Dwelling | 54.0 | 55.1 | 53.8 | -0.2 | Negligible Beneficial | 54.8 | 0.8 | Negigigible Adverse | 42.3 | 43.3 | 43.1 |
| 123, MIDDLEFFELD TERRACE | Dwelling | 53.8 | 54.8 | 53.6 | -0.2 | Negligible Beneficical | 54.6 | 0.8 | Negiligibe Adverse | 42.2 | ${ }^{43.1}$ | ${ }^{42.9}$ |
| 125. MIDDLEFFELD TERRACE | Dwelling | 53.8 <br> 53.8 | 54.8 54.8 | 㐌53.6 | $\stackrel{-0.2}{-0.2}$ | $\frac{\text { Negligible Beneficial }}{\text { Negioibile }}$ Beneficial | 54.6 54.6 | 0.8 | $\frac{\text { Negigioble Adverse }}{\text { Negigiole Adverse }}$ | $\frac{42.2}{42.2}$ | $\frac{43.1}{43.1}$ | $\frac{42.9}{42.9}$ |
| 129, MIDDLEFFELD TERRACE | Dwelling | 53.8 | 54.8 | 53.6 | -0.2 | Negligible Beneficical | 54.6 | 0.8 | Negigigibe Adverse | 42.2 | 43.1 | 42.9 |
| 13, MIDDLEEIELD TERRACE | Dwelling | 54.5 53.6 | 55.9 54.7 | 54.3 53.4 | -0.2 -0.2 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ Beneficial | 55.7 54.4 | 1.2 0.8 | $\frac{\text { Negiligibl Adverse }}{\text { Negigiole Adverse }}$ | $\stackrel{42.8}{42.0}$ | 44.0 43.0 | 43.9 42.7 |
| 133, MIDDLEFIELD TERRACE | Dwelling | 53.6 | 54.7 | 53.4 | -0.2 | Negligible Beneficial | 54.4 | 0.8 | Negiligile Adverse | 42.0 | 43.0 | 42.7 |
| 135, MIDDLEFIELD TERRACE | Dwelling | 53.6 | 54.7 | 53.4 | -0.2 | Negligible Beneficial | 54.4 | 0.8 | Negiligibe Adverse | 42.0 | 43.0 | 42.7 |
| 137. MIDDLEFFELD TERAACE |  |  |  |  |  | Negiligibe Benenitioal | 54.4. |  | Negigigio Adverse | 42.0 | 43.0 |  |
| 14,M, MIDLLEFFELELD TERRACEE | ${ }^{\text {Dwelling }}$ Oweling | 55.5 54.5 | 55.9 55.9 | 53.3 | -1.12 | Negnigibibe Beneneificicial | 56.1 55.7 | 1.6 1.2 | Negigigibe Adversse | ${ }_{4}^{43.8}$ | 44.0 | 44.9 |
| 16, MIDDLEFIELD TERRACE | Dwelling | 55.5 | 59.9 | 53.8 | -1.7 | Minor Beneficial | 56.1 | 0.6 | Negligible Adverse | 43.7 | 47.6 | 44.2 |
| 17, MIDDLEFFIELD TERRACE | Deelling | 54.5 | 55.9 | 54.3 | -0.2 | Negligible Beneficial | 55.7 | 1.2 | Negligible Adverse | 42.8 | 44.0 | 43.9 |
| 18, MIDDLEFFIELD TERRACE | Dwelling | 54.5 | $\begin{array}{r}59.2 \\ 554 \\ \hline\end{array}$ | 52.5 539 | -2.0 -0.0 | Minor Beneficial | $\begin{array}{r}54.9 \\ 55 \\ \hline\end{array}$ | ${ }^{0.4}$ | Negiligib Adverse | $\frac{42.8}{425}$ | 47.0 436 | 43.1 434 |
| 2, MIDDLEFIELD TERRACE | Oweling | $\stackrel{57.3}{57}$ | 60.5 | ${ }_{55.6}$ | - | Negenioibile eeneficioial | 55.2 58.7 | 1.4 | Negigigibe Adverse | ${ }_{45.3}^{42.5}$ | ${ }_{48.2}^{43.6}$ | ${ }_{4}^{46.6}$ |
| 20, MIDDLEFIELD TERRACE | Deelling | 54.5 | 59.2 | 52.5 | -2.0 | Minor Beneficicil | 54.9 | 0.4 | Negiligile Adverse | 42.8 | 47.0 | 43.1 |
| 21, MIDDLEFIELD TERRACE | Dwelling | 54.2 | 55.4 | 53.9 | -0.3 | Negligible Beneficial | 55.2 | 1.0 | Negiligile Adverse | 42.5 | 43.6 | 43.4 |
| 22, MIDDLEFIELD TERRACE | Dwelling | 54.5 | $\begin{array}{r}59.2 \\ 554 \\ \hline\end{array}$ | ${ }_{52,5}^{539}$ | -2.0 | Mnnor Beneticial | 54.9 <br> 55.2 | 0.4 1.0 | $\frac{\text { Negigigle Adverse }}{\text { Nelilible Adverse }}$ | 42.8 | ${ }_{47,0}$ | 43.1 |
| 24, MIDDLEFIIELD TERRACE | Dwelling | 54.5 | 59.2 | 52.5 | -2.0 | Minor Beneficicil | 54.9 | 0.4 | Negiligile Adverse | 42.8 | 47.0 | 43.1 |
| 25, MIDDLEEFIELD TTRRACE | Delling | ${ }_{54.2}$ | 55.4 | 53.9 | -0.3 | Negligible Beneficical | 55.2 | 1.0 | Negligible Adverse | 42.5 | 43.6 | 43.4 |
| 26, MIDDLEFIELD TERRACE | Dwelling | 54.6 53.3 | 59.1 54.7 | 52.9 53.0 | --1.7 | Megnor Benioficiceial | 55.1 54.3 | 0.5 1.0 | $\frac{\text { Negigigle Adverse }}{\text { Neoligible Adverse }}$ | $\frac{42.9}{41.7}$ | $\xrightarrow{46.9} 4$ | 43.3 |
| 28, MIDDLEFIELD TERRACE | Dwelling | 54.6 | 59.1 | 52.9 | -1.7 | Minor Beneficial | 55.1 | 0.5 | Negligible Adverse | 42.9 | 46.9 | 43.3 |
| 29, MIDDLEFIELD TERRACE | Dwelling | 53.3 | 54.7 | 53.0 | -0.3 | Negligible Beneficical | 54.3 | 1.0 | Negiligile Adverse | 41.7 | 43.0 | 42.6 |
| 3,MIDDLEFELELTERRACE | Dwelling | ${ }^{56.2}$ | - 59.6 | 55.9 52.9 | -0.3 -1.7 | Negiligiole Beneficial | 57.4 55.1 | 1.2 <br> 0.5 | Negigigib Adverse | 44.3 | 45.6 | ${ }_{43.3}^{45.4}$ |
| 31, MIDDLEFIELD TERRACE | Dwelling | 53.3 | 54.7 | 53.0 | -0.3 | Negligible Beneficial | 54.3 | 1.0 | Negiligible Adverse | 41.7 | 43.0 | 42.6 |
| 32, MIDDLEFFIELD TERRACE | Deelling | 54.6 | 59.1 | 52.9 | -1.7 | Minor Beneficial | 55.1 | 0.5 | Negigigibe Adverse | ${ }^{42.9}$ | 46.9 | 43.3 |
| 334, MIDDLEFIIELD TERAACE | Dwelling | ${ }_{5}^{53.6}$ | 54.1 59.1 | 53.9 | -0.3 -1.7 | Negligible Benenicical | 54.3 55.1 | 1.0 0.5 | $\frac{\text { Negigigle Adverse }}{\text { Negligiole Adverse }}$ | $\stackrel{41.7}{42.9}$ | $\stackrel{43.0}{46.9}$ | $\stackrel{42.6}{43.3}$ |
| 35, MIDDLEFIELD TERRACE | Dwelling | 55.8 | 57.0 | 55.5 | -0.3 | Negligible Beneficial | 56.8 | 1.0 | Negiligile Adverse | 44.0 | 45.0 | 44.9 |
| 36, MIDDLEFIELD TERRACE | Dwelling | 54.6 | 59.1 | 52.9 | -1.7 | Minor Beneficial | 55.1 | 0.5 | Negigigile Adverse | 42.9 | 46.9 | 43.3 |
| 37, MIDDLEFELED TERRACE | Dwelling | 55.8 54.6 | 57.0 | 55.5 52.9 | -0.3 -1.7 | Negiligile Beneficial | 56.8 55.1 | ${ }^{1.0} 0$ | $\frac{\text { Negigible Adverse }}{\text { Negligible Adverse }}$ | 44.0 | 45.0 | ${ }_{43.9}^{44.9}$ |
| 39, MIDDLEFIELD TERRACE | Delling | 55.8 | 57.0 | 55.5 | -0.3 | Negligible Beneficial | 56.8 | 1.0 | Negigible Adverse | 44.0 | 45.0 | 44.9 |
| 4, MIDDLEFEIELD TERRACE | Dwelling | ${ }_{5}^{57.3}$ | 60.5 59.1 | 56.6 52.9 | -0.7 -1.7 | $\frac{\text { Negligible Beneficial }}{\text { Minor Beneficial }}$ | 58.7 55.1 | 1.4 0.5 | $\frac{\text { Negigioble Adverse }}{\text { Negligiole Adverse }}$ | $\frac{45.3}{42.9}$ | $\frac{48.2}{46.9}$ | 46.6 43.3 |
| 41, MIDDLEFIELEL TERRACE | Deelling | ${ }_{55.8}^{54}$ | $\stackrel{57.0}{59}$ | ${ }_{55.5}^{527}$ | ${ }^{-0.3}$ | Negligible Beneficial | 55.8 | 1.0 | Negigigibe Adverse | 44.0 | 45.0 | 44.9 |
| 42, MIDDLEFIELD TERRACE | weiling | 54.2 | 58.3 | 52.7 | -1.5 | Minor Beneitical | 54.7 | 0.5 | Negigole Adverse | 42.5 | 46.2 | 43.0 |

## Appendix A14．4：Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short－term Daytime Noise Change（dB） | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long－term Daytime Noise Change（dB） | Magnitude of Change | DM18 Lnight，outside | DM33 Lnight，outside | $\begin{gathered} \text { DS33 } \\ \text { Lnight,outside } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 43，MIDDLEFIELD TERRACE | Deeling | 57.5 | 58.6 | 57.2 | ${ }^{0.3}$ | Negligible Beneficical | 58.5 | 1.0 | Negiligibe Adverse | 45.5 | 46.5 | 46.4 |
| 44，MIDDLEFIELD TERRACE | Dweling | 54.2 <br> 575 | 58．3 | $\begin{array}{r}52.7 \\ 572 \\ \hline\end{array}$ | $\stackrel{-1.5}{.0}$ | Minor Beneficial | 54.7 <br> 58.5 | $\stackrel{0.5}{10}$ | Negiligle Adverse | 42.5 45.5 | $\frac{46.2}{46.5}$ | 43.0 46.4 |
| 45，MIDDLEFIELD TERRACE | Dweling | － 54.5 | 58．6 | 57．2 52.7 | -0.3 -1.5 | $\frac{\text { Negligible Beneficial }}{\text { Minor Beneficial }}$ | 58．5 <br> 54.7 | 1.0 | Negigigie Adverse | 45．5 | 46．5 | 46.4 43.0 |
| 47，MIDLLEFIELD TERRACE | Dwelling | 57.5 | 58.6 | 57.2 | ${ }_{-0.3}$ | Negligible Beneficicial | ${ }_{58.5}^{54 .}$ | 1.0 | Negligible Adverse | 45.5 | 46.5 | 46.4 |
| 48，MIDDLEFIELD TERRACE | Dwelling | 54.2 | 58.3 | 52.7 | －1．5 | Minor Beneficicial | 54.7 | 0.5 | Negligible Adverse | 42.5 | 46.2 | 43.0 |
| 49，MIDDLEFIELD TERRACE | Dwelling | 57.5 | 58.6 | 57.2 | －0．3 | Negligible Beneficial | 58.5 | 1.0 | Negligible Adverse | 45.5 | 46.5 | 46.4 |
| 5．MIDDLEFIILLD TERRACE | Deelling | 56.2 | 57.6 | 55.9 | －0．3 | Negligible Beneficical | 57.4 | 1.2 | Negigioble Adverse | 44.3 | 45.6 | 45.4 |
| 50，MIDOLEFEFELD TERARACE | welling | 54.2 | 58.4 | 52.6 | －1．6 | Minor Beneficial | 54．6 | 0.4 | Negiligibe Adverse | ${ }^{42.5}$ | 46.3 | ${ }_{42.9}^{429}$ |
| 51，MIDLEERELD L ERRACE | ${ }^{\text {Oweling }}$ Dueling | － $\begin{array}{r}56.9 \\ 54.2\end{array}$ | 58．0 | 56.6 52.6 | －${ }_{-}^{-0.3}$ | ${ }^{\text {Negigigibl Beneficical }}$ Minor Beneficial | 57.8 54.6 | 0.9 | Negigible Adverse | 44.5 | ${ }_{46.3}$ | ${ }_{42.9}^{45}$ |
| 53，MIDLLEFIELD TERRACE | Dwelling | 56.9 | 58.0 | 56.6 | －0．3 | Negligible Beneficial | 57.8 | 0.9 | Negligible Adverse | 44.9 | 45.9 | 45.8 |
| 54，MIDDLEFIELD TERRACE | welling | 54.2 | 58.4 | 52.6 | －1．6 | Minor Beneficial | 54.6 | 0.4 | Negigigibe Adverse | 42.5 | 46.3 | 42.9 |
| 55，MIDDLEFIELD TERRACE | Wwelling | 56.9 | 58.0 | 56.6 | －0．3 | Negligible Beneficial | 57.8 | 0.9 | Negiligibe Adverse | 44.9 | 45.9 | 45.8 |
| 56，MIDDLEFIELD TERRACE | weling | 54.2 | 58.4 | 52．6 | －1．6 | Minor Beneficial | 54.6 | 0.4 | Negiligible Adverse | ${ }^{42.5}$ | 46.3 | 42.9 |
| 57，MIDDLEFIELD TERRACE | Dwelling | 56.9 54.0 | 58.0 58.4 | 56.6 52.4 | － $\begin{array}{r}-0.3 \\ -1.6\end{array}$ | Negligible Beneficial | 57.8 54.5 | 0.9 | Negligibl Adverse | ${ }_{42.3}$ | ${ }_{46.3}$ | 45.8 |
| 59，MIDDLEFIELD TERRACE | Dwelling | 54.6 | 55.7 | 54.3 | －0．3 | Negligible Beneficial | 55.5 | 0.9 | Negiligile Adverse | 42.9 | 43.9 | 43.7 |
| 6，MIDDLEFIELD TERRACE | Dwelling | 57.3 | 60.5 | 56.6 | －0．7 | Negligible Beneficial | 58.7 | 1.4 | Negiligile Adverse | 45.3 | 48.2 | 46.6 |
| 60，MIDDLEFIELELD TERRACE | Deeling | 54.0 | 58.4 | 52.4 | －1．6 | Minor Beneficial | 54.5 | 0.5 | Negigioble Adverse | 42.3 | 46.3 | 42.8 |
| 61，MIDDLEFIELD TERRACE | Dwelling | 54.6 54.0 | 55.7 <br> 584 | $\begin{array}{r}54.3 \\ 524 \\ \hline\end{array}$ | －0．3 | Negligitie Beneficial | 55.5 <br> 545 | 0.9 0.5 | Negligiole Adverse | 42．9 | 43．9 | 43.7 428 |
| 62，MIDLLEFELELD TERRACE | Oweling | ${ }_{54.6}^{54.6}$ | ${ }_{55.7}^{58.7}$ | ${ }_{54.3}^{52.4}$ | －0．3 | Neginiorbile Senenificial | 54.5 <br> 55 | 0.9 | Negigigib Adverse | ${ }_{42.9}$ | ${ }_{43.3}^{46}$ | ${ }_{43.8}^{4.8}$ |
| 64，MIDLLEFIELD TERRACE | Dwelling | 54.0 | 58.4 | 52.4 | －1．6 | Minor Beneficial | 54.5 | 0.5 | Negiligile Adverse | 42.3 | 46.3 | 42.8 |
| 65，MIDDLEFIELD TERRACE | Dwelling | 54.6 | 55.7 | 54.3 | －0．3 | Negligible Beneficial | 55.5 | 0.9 | Negigigible Adverse | 42.9 | 43.9 | 43.7 |
| 66，MIDDLEFIELLD TERRACE | Deelling | 54.0 | 58.3 | 52.4 | －1．6 | Minor Beneficicial | 54.4 | 0.4 | Negigioble Adverse | 42.3 | 46.2 | 42.7 |
| 67，MIDDLEFIED TERRACE | Oweling | 54．2 | ${ }_{5}^{553}$ | 54.0 <br> 524 | －0．2 | Negligible Benentical | 年5．2． | 1.0 0.4 | Negligible Adverse | $\stackrel{42.5}{42.3}$ | ${ }_{46.5}^{43.2}$ | 43.4 427 |
| 69，MIDDLEFIELD TERRACE | Dwelling | 54.2 | 55.3 | 54.0 | －0．2 | Negligible Beneficial | 55.2 | 1.0 | Negiligiole Adverse | 42.5 | 43.5 | 43.4 |
| 7，MIDDLEFIELD TERRACE | Welling | 56.2 | 57.6 | 55.9 | －0．3 | Negligible Beneficial | 57.4 | 1.2 | Negligible Adverse | 44.3 | 45.6 | 45.4 |
| 70，MIDDLEFIELD TERRACE | welling | 54.0 | 58.3 | 52.4 | －1．6 | Minor Beneficial | 54.4 | 0.4 | Negigigile Adverse | 42.3 | 46.2 | 42.7 |
| 71，MIDDLEEIELD TERRACE | Owelling | 54．2 | 55．3 | $\begin{array}{r}54.0 \\ 5 \\ \hline\end{array}$ | －0．2 | Negligibie Beneficical | $\begin{array}{r}55.2 \\ 54.4 \\ \hline\end{array}$ | 1.0 | Negiligibie Adverse | ${ }^{42.5}$ | 43.5 | 43.4 |
| 72，MIDLEEFELD ERRACE | Dwelling | ${ }_{54.2}^{54.0}$ | ${ }_{55.3}^{58.3}$ | ${ }_{5}^{52.0}$ | －－． | Negnioibible Beneneficicial | ${ }_{55.2}^{54.4}$ | 1.0 | Neogigiole Adverse | ${ }^{42.5}$ | ${ }_{43.5}^{46.5}$ | ${ }^{43.4}$ |
| 74，MIDLLEFIELD TERRACE | Dwelling | 54.7 | 59.2 | 53.0 | －1．7 | Minor Beneficial | 55.1 | 0.4 | Negigioble Adverse | 43.0 | 47.0 | 43.3 |
| 75，MIDDLEFELELD TERRACE |  | 54.2 | 55.3 | 54.0 | －0．2 | Negligible Benenitical | 55.1 | 0.9 |  | 42.5 | 43.5 |  |
| 76，MIDOLEFFELELD TERAACE | Dwelling | 54.7 | 59.2 | 53.0 | 1.7 | Minor Beneficial | 55.1 | 0.4 | Negligibe Adverse | 43.0 | 47.0 | 43.3 |
| 77，MIDDLEFIELD TERRACE | weling | $\begin{array}{r}54.2 \\ 547 \\ \hline\end{array}$ | $\begin{array}{r}55.3 \\ \hline 59 \\ \hline\end{array}$ | $\begin{array}{r}54.0 \\ 53 \\ \hline\end{array}$ | ${ }^{-0.2}$ | Negligibie Beneficial | $\begin{array}{r}55.1 \\ \hline 5.1 \\ \hline\end{array}$ | 0.9 | Negiligile Adverse | 42.5 | 43.5 | 43．3 |
| 78，MIDLEEFELD | Dwelling | 54， | 59．2 | 53．0 | －1．7 | Mnor Benenitial | 55．1 | 0.4 | Negligiole Adverse | 43.0 | 47.0 | 43.3 |
| 7，M，MDDLEFIIELD TERRACE | Dwelling | 54.3 57.3 | 50．5 | 54.6 | －－．${ }_{-0.7}$ |  | ${ }_{58.7}^{55.1}$ | 0.9 1.4 | Negiligible Adverse | ${ }_{45.3}^{42.5}$ | 43.5 48.2 | 43.3 46.6 |
| 80，MIDDLEFIELD TERRACE | Deelling | 54.7 | 59.2 | 53.0 | －1．7 | Minor Beneficial | 55.1 | 0.4 | Negligible Adverse | 43.0 | 47.0 | 43.3 |
| 81，MIDDLEFIELD TERRACE | Dwelling | 54.2 | 55.3 | 54.0 | －0．2 | Negligible Beneficial | 55.1 | 0.9 | Negigigible Adverse | 42.5 | 43.5 | 43.3 |
| $\frac{82, \text { MIDLEEEIELD TERRACE }}{\text { 83，}}$ | Dwelling | 54．6 54.9 | 㐌9．2． | 52.8 54.7 | －1．8 | Minor Beneficial | 55.0 55.9 | 0.4 1.0 | $\frac{\text { Negigioble Adverse }}{\text { Negigiole Adverse }}$ | $\frac{42.9}{43.1}$ | $\frac{47.0}{44.3}$ | 43．2 44.0 |
| 84，MIDDLEFIELD TERRACE | Dwelling | 54.6 | 59.2 | 52.8 | －1．8 | Minor Beneficial | 55.0 | 0.4 | Negiligile Adverse | 42.9 | 47.0 | 43.2 |
| 85，MIDDLEFIELD TERRACE | Dwelling | 54.9 54.6 | 年6．2．2 | 54.7 <br> 52.8 | -0.2 -1.8 | Negligible Beneficial | 55.9 55.0 | 1.0 0.4 | Negiligle Adverse | ${ }_{4}^{43.1}$ | 44.3 470 | 44.0 432 |
| 87，MIDLLEFIELD TERRACE | Owelling | 54.9 | 56.2 | 54.7 | －0．2 | Negligible Beneficicial | 55.9 | 1.0 | Negigigible Adverse | 43.1 | 44.3 | 44.0 |
| 88，MIDDLEFIELD TERRACE | Dwelling | 54.6 | 59.2 | 52.8 | －1．8 | Minor Beneficial | 55.0 | 0.4 | Negiligibe Adverse | 42.9 | 47.0 | 43.2 |
| 89，MIDDLEEELED TERRACE |  | 54．9 | 56．2 |  | －0．2 | $\frac{\text { Negiligio Beneficial }}{\text { Neofligible }}$ Beneficial | 55．9 | 1.0 | Negigigle Adverse | ${ }_{4}^{43.1}$ | 44.3 |  |
| 9，M，MIDLLEFEELELD TERRACE | ${ }^{\text {Oweliligg }}$ Doeling | ${ }^{56.2}$ | 57．6 | 55.9 52.9 | － $\begin{aligned} & -.1 .9 \\ & -1.9\end{aligned}$ | Ninor Beneficicial | 55.4 55.1 | 1.2 0.3 | Negigigibe Adversse | ${ }_{43.1}^{44.3}$ | ${ }_{4}^{47.2}$ | ${ }^{45.4} 4$ |
| 91，MIDDLEFIELD TERRACE | Dwelling | 55.9 | 57.1 | 55.7 | －0．2 | Negligible Beneficial | 56.9 | 1.0 | Negligible Adverse | 44.0 | 45.1 | 44.9 |
| 92，MIDDLEFFIELD TERRACE | Deelling | 54.8 | 59.4 | 52.9 | －1．9 | Minor Beneficial | 55.1 | 0.3 | Negiligile Adverse | 43.1 | 47.2 | 43.3 |
| 93，MIDDLEFIELD TERRACE | Dweling | 55．9 | $\begin{array}{r}57.1 \\ 59.4 \\ \hline\end{array}$ | $\begin{array}{r}55.7 \\ \hline 529\end{array}$ | $\stackrel{-0.2}{-19}$ | Negliable Beneficial | 56．9 | $\frac{1.0}{0.0}$ | Negiligle Adverse | $\frac{44.0}{43.1}$ | 45.1 <br> 472 | 44.9 |
| 945，MIDLLEFEELELD TERRACE | Dwelling | 54.8 55.9 | 59．4 | 52.9 55.7 | －1．9 | Negnioibibe eneneificicial | 55．9 | 1.0 1.0 | Negligigile Adverse | 44.0 | ${ }_{45.1}^{47.2}$ | ${ }_{44.9}^{43.3}$ |
| 96，MIDDLEFIELD TERRACE | Deelling | 54.8 | 59.4 | 52.9 | －1．9 | Minor Beneficial | 55.1 | 0.3 | Negiligile Adverse | 43.1 | 47.2 | 43.3 |
| 97，MIDDLEFIELD TERRACE | Dwelling | 55.9 | 57.1 | 55.7 | －0．2 | Negligible Beneficial | 56.9 | 1.0 | Negiligile Adverse | 44.0 | 45.1 | 44.9 |
| 98，MIDLEEFELD TERACE | Dwelling | $\stackrel{55.0}{57.3}$ | 59.6 58.4 | 53.1 57.1 | －1．9 | Megnor Beneficicial | $\stackrel{55.2}{58.2}$ | 0.2 0.9 | $\frac{\text { Negigigle Adverse }}{\text { Neligiole Adverse }}$ | $\stackrel{43.2}{45.3}$ | $\stackrel{47.4}{46.3}$ | 43.4 46.1 |
| 1，MIDDLEFIELD WALK | Dwelling | 56.9 | 58.3 | 56.6 | －0．3 | Negligible Beneficial | 58.2 | 1.3 | Negiligile Adverse | 44.9 | 46.2 | 46.1 |
| 10，MIDDLEFELD WALK | Dwelling | 51.7 53.0 | 53.1 54.5 | 51.5 52.7 | -0.2 -0.3 | $\frac{\text { Negilibile Beneficial }}{\text { Negligible }}$ | 52.8 <br> 54.2 | 1.1 1.2 | Negiligil Adverse | 40.3 41.4 | $\frac{41.5}{428}$ | $\frac{41.3}{425}$ |
| 12，MIDDLEFIELD WALK | Dwelling | 53.0 | 54.5 | 52．7 | －0．3 | Negligible Beneficicial | 54.2 | 1.2 | Negligible Adverse | 41.4 | 42.8 | 42.5 |
| 13，MIDDLEFIELD WALK | Dwelling | 53.0 | 54.5 | 52.7 | －0．3 | Negligible Beneficial | 54.2 | 1.2 | Negigigile Adverse | 41.4 | 42.8 | 42.5 |
| 14．MIDDLEFIELD WALK | Deeling | 53.0 | 54.5 | 52.7 56.6 | －0．3 | Negiligiole Beneficial | 54.2 | 1.2 | $\frac{\text { Negiligile Adverse }}{\text { Neofigiole Adverse }}$ | 41.4 | 42.8 | 42.5 |
| 2，M，MIDLLEFFELELD WALK | Dwelling | ${ }_{56.9}^{56.9}$ | ${ }_{58.3}^{58.3}$ | ${ }_{56.6}^{56.6}$ | $\stackrel{-0.3}{-0.3}$ | ${ }_{\text {Negegigiobible }}^{\text {Beneneficialial }}$ | ${ }_{58.2}^{58.2}$ | ${ }_{1.3}^{1.3}$ | Neogigioble Adverse | 44.9 | ${ }_{46.2}^{46.2}$ | ${ }_{46.1}^{46.1}$ |
| 4，MIDDLEFELEL WALK | Dwelling | 56.9 | 58.3 | 56.6 | －0．3 | Negligible Benenicial | 58.2 | 1.3 | Negiligible Adverse | 44.9 | 46.2 | 46.1 |
| 5．MIDLEFELELD WALK | Oweling | 53.0 | 54.4 | 52.7 | －0．3 | Negligible Beneficial | 54.2 | 1.2 | Negigigibe Adverse | ${ }^{41.4}$ | 42.7 | 42.5 |
| 6，MIDDLEFIELLD WALK | Dwelling | 53．0 | 54.4 54.4 | 52．7 52.7 | －0．3 | Negequigible Beneneficicial | 54．2 | 1．2 | Neoligiobe Avverse | $\frac{41.4}{41.4}$ | ${ }_{42.7}^{42.7}$ | 42.5 |
| 8，MIDLLEFELEL WALK | Delling | 53．0 | 54.4 | 52.7 | －0．3 | Negligible Beneficical | 54.2 | 1.2 | Negiligile Adverse | 41.4 | 42.7 | 42.5 |
| 9，MIDLEFEELD WALK | Dwelling | 51．7 | 53.1 471 | 51.5 46.6 | －0．2 | Negligible Benenicial | 52.8 473 | 1.1 | Negligibl Adverse | ${ }^{40.3}$ | $\stackrel{41.5}{361}$ | 41.3 363 |
| 10，MILL COURT | Dwelling | 47.9 | ${ }_{48.4}$ | 48.0 | 0.1 | Negigigibe Adverse | 48.7 | 0.8 | Negiligible Adverse | ${ }^{35.7}$ | ${ }_{37}{ }^{36.1}$ | ${ }^{36.6}$ |
| 11，MLL COURT | Delling | 47.9 | 48.4 | 48.0 | 0.1 | Negigigle Adverse | 48.7 | 0.8 | Negigible Adverse | 36.8 | 37.3 | 37.6 |
| $\frac{12, \text { MIL COURT }}{13, \text { MILL COURT }}$ | Dwelling | 47.9 | 48.4 48.4 | 48.0 48.0 | ${ }_{0}^{0.1}$ | $\frac{\text { Negigigile Adverse }}{\text { Negigible Adverse }}$ | 48.7 48.7 | 0.8 0.8 | $\frac{\text { Negligiole Adverse }}{\text { Nefligible Adverse }}$ | 36.8 36.8 | 37.3 37.3 | 37.6 37.6 |
| 14，MILL COURT | Dwelling | 47.9 | 48.4 | 48.0 | 0.1 | Negigioble Adverse | 48.7 | 0.8 | Negiligibe Adverse | 36.8 | 37.3 | 37.6 |
| 15，MLLL COURT | welling | 47.9 | 48.4 | 48.0 | 0.1 | Negigigile Adverse | 48.7 | 0.8 | Negigigile Adverse | 36.8 | 37.3 | 37.6 |

A90/A96 Haudagain Improvement

## DMRB Stage 3 Environmental Statement

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 <br> Lnight,outside | DS33 <br> Lnight,outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 16, MILL COURT | Deeling | 47.9 | 48.4 | 48.0 | 0.1 | Negligible Adverse | 48.7 | 0.8 | Negigigle Adverse | 36.8 | ${ }^{37.3}$ | 37.6 |
| 177. MLL COURT | Dweling | 47.9 | 48.4 48.4 | 48.0 480 | ${ }_{0}^{0.1}$ | Negiligil Adverse | $\frac{48.7}{487}$ | ${ }_{0}^{0.8}$ | Negligible Adverse | 36.8 368 | 37.3 <br> 373 | ${ }^{37.6}$ |
| 18, MLL COURT | Dwelling | ${ }_{47.7}^{47.9}$ | 48.4 48.1 | 48.0 47.7 | ${ }_{0}^{0.1}$ | $\frac{\text { Negiligile Adverse }}{\text { No Change }}$ | 48.7 48.4 | 0.8 0.7 | $\frac{\text { Negigigile Adverse }}{\text { Negligible Adverse }}$ | 36.8 36.7 | 37.3 37.0 | 37.6 <br> 37.3 |
| 2 2, MIL COURT | Owelling | 46.6 | ${ }_{47.1}^{46.1}$ | 46.6 | 0.0 | No Change | 47.3 | 0.7 | Negligible Adverse | ${ }_{35.7}$ | 36.1 | ${ }_{36.3}$ |
| 20, MILL COURT | Dwelling | 47.7 | 48.1 | 47.7 | 0.0 | No Change | 48.4 | 0.7 | Negigigile Adverse | 36.7 | 37.0 | 37.3 |
| 21, MILL COURT | Dwelling | 47.7 | 48.1 | 47.7 | 0.0 | No Change | 48.4 | 0.7 | Negigigile Adverse | 36.7 | 37.0 | 37.3 |
| 22, MILL COURT | Dwelling | 47.7 | 48.1 | 47.7 | 0.0 | No Change | 48.4 | 0.7 | Negigiole Adverse | 36.7 | 37.0 | 37.3 |
| 23, MLL COURT | Owelling | ${ }_{4}^{47.7}$ | 48.1 | ${ }_{4}^{47.7}$ | 0.0 | No Change | 48.4 | 0.7 | Negigigible Adverse | ${ }^{36.7}$ | 37.0 37.0 | 37.3 <br> 373 |
| ${ }^{24 . \text { MLL }}$ COURT | Deelling | ${ }_{477}^{477}$ | 48.1 | ${ }_{477}^{477}$ | 0.0 | No Change | ${ }_{48.4}^{48.4}$ | 0.7 | Negigigle Adverse | ${ }_{36.7}^{367}$ | ${ }^{37.0}$ | 37.3 373 |
| 25, MiLl 2 , MIL COUUT | ${ }^{\text {Dwelling }}$ Dowling | ${ }_{47.7}^{47.7}$ | ${ }_{48.1}^{48.1}$ | ${ }_{47.7}^{47.7}$ | 0.0 | ${ }^{\text {No Co Change }}$ | ${ }_{48.4}^{48.4}$ | 0.7 | Negigigibe Adverse | ${ }_{36.7}^{36.7}$ | 37.0 37.0 | ${ }_{37.3}^{37.3}$ |
| 27, MLLL COURT | Dwelling | 47.7 | 48.1 | 47.7 | 0.0 | No Change | 48.4 | 0.7 | Neoligiole Adverse | ${ }_{36.7}$ | 37.0 | ${ }_{37.3}$ |
| 28, MILL COURT | Dwelling | 48.8 | 49.2 | 48.8 | 0.0 | No Change | 49.5 | 0.7 | Negligible Adverse | 37.7 | 38.0 | 38.3 |
| 29, MILL COURT | welling | 48.8 | 49.2 | 48.8 | 0.0 | No Change | 49.5 | 0.7 | Negiligible Adverse | 37.7 <br> 3.7 | 38.0 | ${ }^{38.3}$ |
| 3, MILL COURT | Welling | 46.6 |  |  |  |  | 47.3 |  | Negiligible Adverse |  | 36.1 |  |
| 30, MLL COURT | welling | 48.8 | 49.2 | 48.8 |  | hange | 49.5 | 0.7 | Negiligibe Adverse | 37.7 |  | 383 |
| 31, MLL COUURT | welling | 48.8 | 49.2 | 48.8 | 0.0 | hange | 49.5 | 0.7 | Negigigile Adverse | 7.7 |  | 38.3 |
| 32, MLL Count | Oweling | 48.8 | 49.2 | 48.8 | 0.0 | No Change | 49.5 | 0.7 | Negigigile Adverse | ${ }^{37.7}$ | 38.0 | 383 |
| 33, MLL COURT | welling | 48.8 | 49.2 | 48.8 | 0.0 | No Change | 49.5 | 0.7 | Negiligile Adverse | 37.7 <br> 377 | 38.0 3.0 | 38.3 |
| 34, MLL COURT | Oweling | 48.8 | 49.2 | 48.8 | 0.0 | No Change | 49.5 | 0.7 | Negiligile Adverse | $\begin{array}{r}37.7 \\ 377 \\ \hline\end{array}$ | 38.0 | $\begin{array}{r}38.3 \\ 3.3 \\ \hline\end{array}$ |
| ${ }^{\text {35, MLLC COURT }}$ | Oweling | 48.8 48.8 | $\frac{49.2}{49.2}$ | 48.8 48.8 | ${ }_{0}^{0.0}$ | ${ }^{\text {No Co Change }}$ | 49.5 49.5 | 0.7 0.7 | N Neglighle Adverse | 37.7 37.7 | 38.0 38.0 | 38.3 38.3 |
| 4 4, MILL COURT | Dwelling | 46.6 | 47.1 | 46.6 | 0.0 | No Change | 47.3 | 0.7 | Negligible Adverse | 35.7 | 36.1 | 36.3 |
| 5. MILL COURT | Dwelling | 46.6 | 47.1 | 46.6 | 0.0 | No Change | 47.3 | 0.7 | Negligible Adverse | 35.7 | 36.1 | 36.3 |
| 6. MILL COURT | Dewling | 46.6 | 47.1 | 46.6 | 0.0 | No Change | 47.3 | 0.7 | Negligible Adverse | 35.7 357 | 36.1 36.1 | 36.3 |
| $\frac{7 . \text { MILL COURT }}{8 \text { MIL COURT }}$ | Dweling | 46.6 46.6 | ${ }_{471}^{47.1}$ | 46.6 46.6 | 0.0 0.0 | $\frac{\text { No Change }}{\text { No Change }}$ | 47.3 473 | ${ }_{0.7}^{0.7}$ | Negligibe Adverse | 35.7 <br> 35.7 | 36.1 36.1 | 36.3 36.3 |
| 9, MIL COURT | Dwelling | 46.6 | 47.1 | 46.6 | 0.0 | No Change | 47.3 | 0.7 | Negiligile Adverse | 35.7 | 36.1 | 36.3 |
| MILL HOUSE, 5, GRANDHOLM CRESCENT, GRANDHOLM | Wwelling | 54.9 | 55.5 | 54.7 | -0.2 | Negligible Beneficial | 56.0 | 1.1 | Negiligile Adverse | 43.1 | 43.7 | 44.1 |
| MILL HOUSE, 6, GRANDHOLM CRESCENT, GRANDHOLM | welling | 54.9 | 55.5 | 54.7 | -0.2 | Negligible Beneficial | 56.0 | 1.1 | Negigigile Adverse | 43.1 | 43.7 | 44.1 |
| MILL HOUSE, 7, GRANDHOLM CRESCENT, GRANDHOLM | Oweling | 54.9 | 55.5 <br> 55 | 54.7 54.7 | -0.2 | Negligible Beneficicial | 56.0 | 1.1 | Negiligibe Adverse | 43.1 | 43.7 | 44.1 |
| MILL HOUSE, , , GRANDHOLM CRESCENT, GRANDHOLM | Dweling | 54.9 54.9 | 55.5 | 54.7 54.7 | -0.2 | $\frac{\text { Negiligiole Beneficial }}{\text { Negligible Beneficial }}$ | 56.0 | ${ }_{1.1}^{1.1}$ | Negigiole Adverse | 43.1 43.1 | ${ }_{43.7}^{43.7}$ | $\stackrel{44.1}{44.1}$ |
| MILL HoUSE, 10, GRANDHOLM CRESCENT, GRANDHOLM | welling | 54.9 | 55.5 | 54.7 | -0.2 | Negligible Beneficial | 56.0 | 1.1 | Negiligile Adverse | 43.1 | 43.7 | 44.1 |
| MILL HOUSE, 11, GRANDHOLM CRESCENT, GRANDHOLM | welling | 54.9 | 55.5 | 54.7 | -0.2 | Negligible Beneficial | 56.0 |  | Negigigile Adverse | 43.1 | 43.7 | 44.1 |
| MILL HOUSE, 12, GRANDHOLM CRESCENT, GRANDHOLM | Deelling | 54.9 | 55.5 | 54.7 | -0.2 | Negligible Beneficial | 56.0 | 1.1 | Negigigile Adverse | 43.1 | 43.7 | 44.1 |
| MILL HOUSE, 14, GRANDHOLM CRESCENT, GRANDHOLM | Dweling | 54.9 549 | $\begin{array}{r}55.5 \\ \hline 55 \\ \hline\end{array}$ | $\begin{array}{r}54.7 \\ \hline 547 \\ \hline\end{array}$ | -0.2 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ | 56.0 560 | 1.1 | Negiligle Adverse | $\frac{43.1}{431}$ | 43.7 437 | $\frac{44.1}{44.1}$ |
| MIL HoUSE, I5, GRANDHOLM CRESCENT, GRANDHOLM | Dwelling | 54.9 | ${ }_{55.5}^{55.5}$ | ${ }_{54.7}^{54.7}$ | $\stackrel{-0.2}{-0.2}$ | ${ }^{\text {Negegigioliele Beneiticial }}$ | 55.0 | ${ }_{1.1}^{1.1}$ | $\frac{\text { Negigigie Adverse }}{\text { Neligible Adverse }}$ | ${ }_{43.1}^{43.1}$ | ${ }_{43.7}^{43.7}$ | ${ }_{44.1}^{4}$ |
| MILL HOUSE, 17, GRANDHOLM CRESCENT, GRANDHOLM | Dwelling | 54.9 | 55.5 | 54.7 | -0.2 | Negligible Beneficial | 56.0 | 1.1 | Negiligile Adverse | 43.1 | 43.7 | 44.1 |
| 1, MILL LADE WYND, DANESTONE | Dwelling | 65.9 | 67.9 | 65.4 | -0.5 | Negligible Beneficial | 67.3 | 1.4 | Negigigile Adverse | 53.0 | 54.8 | 54.3 |
| 10, MILL LADE WYND, DANESTONE | Dwelling | 62.4 | 65.1 | 61.4 | 1.0 | Minor Beneficial | 63.8 | 1.4 | Negigible Adverse | 49.9 | 52.3 | 51.2 |
| 11, MILL LADE WYND, DANESTONE | Deelling | 64.0 | 66.9 | 62.6 | -1.4 | Minor Beneficial | 65.4 | 1.4 | Negigioble Adverse | 51.3 | 53.9 | 52.6 |
| 2, MILLLADE WYND, DANESTONE | Deelling | 65.6 | 67.7 | 65.1 | -0.5 | Negligible Beneficial | 67.1 | 1.5 | Negligibe Adverse | 52.8 | 54.7 | 54.1 |
| $\frac{3 . \text { MILL LADE WYND, DANESTONE }}{4 .}$ | Dwelling | ${ }_{66.6}^{66.6}$ | 68.3 65.8 | 65.6 63.0 | -0.6 -0.6 | $\frac{\text { Negiligiole Beneficial }}{\text { Negligible Beneficial }}$ | 67.6 65.1 | 1.4 1.5 | $\frac{\text { Negigigib Adverse }}{\text { Negigible Adverse }}$ | 53.3 51.0 | 55.2 53.0 | 54.6 52.3 |
| 5, MILL LADE WYND, DANESTONE | Dwelling | 53.9 | 55.1 | 53.5 | -0.4 | Negligible Beneficial | 54.9 | 1.0 | Negigigle Adverse | 42.2 | 43.3 | 43.1 |
| 6, MILL LADE WYND, DANESTONE | Dwelling | 54.3 | 55.5 | 53.9 | 0.4 | Negligible Beneficial | 55.2 | 0.9 | Negigigile Adverse | 42.6 | 43.7 | 43.4 |
| 7. MILL LADE WYND, DANESTONE | Deeling | 65.3 | 68.0 | 64.7 | -0.6 | Negligible Beneficial | 66.9 | 1.6 | Negigigibe Adverse | 52.5 | 54.9 | 53.9 |
| 9, MLLL LADE WYND, DANESTONE | Owelling | ${ }_{61.3}$ | 64.0 | 60.5 | -0.8 | Negligible Benenificial | 62.8 | 1.5 | Negligible Adverse | 48.9 | 51.3 | 50.3 |
| MILLBANK VIEW, 17, GRANDHOLM CRESCENT, GRANDHOLM | Dwelling | 54.9 | 55.4 | 54.7 | -0.2 | Negligible Beneficial | 56.0 | 1.1 | Negigigile Adverse | 43.1 | 43.6 | 44.1 |
| MILLBANK VIEW, 18, GRANDHOLM CRESCENT, GRANDHOLM | Dwelling | 54.9 | 55.4 | 54.7 | -0.2 | Negligible Beneficial | 56.0 | 1.1 | Negligibe Adverse | 43.1 | 43.6 | 44.1 |
| MILBANK VIEW, 19, GRANDHOLM CRESCENT, GRANDHOLM | welling | 54.9 | 55.4 | 54.7 | 0.2 | Negligible Beneficial | 56.0 | 1.1 | Negigible Adverse | 43.1 | 43.6 | 44.1 |
| MILLBANK VIEW, 20, GRANDHOLM CRESCENT, GRANDHOLM | Dwelling | 54.9 | 55.4 | 54.7 | -0.2 | Negligible Beneficial | 56.0 | 1.1 | Nealigible Adverse | 43.1 | 43.6 | 44.1 |
| MILLBANK VIEW, 21, GRANDHOLM CRESCENT, GRANDHOLM | Dwelling | 54.9 | 55.4 | 54.7 | -0.2 | Negligible Beneficial | 56.0 | 1.1 | Negigible Adverse | 43.1 | 43.6 | 44.1 |
| MILLBANK VIEW, 22, GRANDHOLM CRESCENT, GRANDHOLM | Dwelling | 54.9 | 55.4 | 54.7 | -0.2 | Negligible Beneficial | 56.0 | 1.1 | Negligibe Adverse | 43.1 | 3.6 | 4.1 |
| MILLBANK VIEW, 23, GRANDHOLM CRESCENT, GRANDHOLM | Dwelling | 54.9 | 55.4 | 54.7 | 0.2 | Negligible Beneficial | 56.0 | 1.1 | Negligible Adverse | 43.1 | 43.6 | 4.1 |
| MILLBANK VIEW, 24, GRANDHOLM CRESCENT, GRANDHOLM | Dwelling | 54.9 | 55.4 | 54.7 | -0.2 | Negligible Beneficial | 56.0 | 1.1 | Negligible Adverse | 43.1 | 43.6 | 44.1 |
| MILLBANK VIEW, 25, GRANDHOLM CRESCENT, GRANDHOLM | Dwelling | 54.9 | 55.4 | 54.7 | -0.2 | Negligible Beneficial | 56.0 | 1.1 | Negligible Adverse | 43.1 | 43.6 | 44.1 |
| 1, MOIR AVENUE | Dwelling | 60.3 | 61.6 | 60.2 | -0.1 | Negligible Beneficial | 61.4 | 1.1 | Negigigle Adverse | 48.0 | 49.2 | 49.0 |
| 10, MOIR AVENUE | Dweling | 52.7 54.9 | 53.8 | 52.5 | -0.2 | Negligible Benenicical | 53.8 <br> 56 <br> 5 | 1.1 | Negigiole Adverse | 41.2 | 42.2 | 42.2 |
| 12, MOIR AVENUE | Dwelling | ${ }_{52.6}$ | ${ }_{53.8}$ | 54.5 | -0.1 | Negligible Beneficial | 53.7 | 1.1 | Negigigile Adverse | 41.1 | 42.2 | ${ }_{42.1}$ |
| 13, MOIR AVENUE | Dwelling | 53.4 | 54.6 | 53.2 | -0.2 | Negligible Beneficial | 54.5 | 1.1 | Negiligile Adverse | 41.8 | 42.9 | 42.8 |
| 14, MOIR AVENUE | Dweling | 49.7 | 50.9 | 49.6 | -0.1 | Negligible Beneficial | 50.8 | 1.1 | Negligible Adverse | 38.5 | 39.5 | 39.5 |
| 15. MOIR AVENUE | elling | 53.1 | 54.3 | 52.9 | -0.2 | Negligible Beneficical | 54.2 | 1.1 | Negigigile Adverse | ${ }^{41.5}$ | 42.6 | 42.5 |
| 16, MOIR AVENUE | Dweling | - 49.3 | 50.4 | 49.2 | ${ }^{-0.1}$ | Negligible Benenicial | 50.3 | 1.0 | Negigiole Adverse | $\frac{38.1}{410}$ | $\frac{39.1}{422}$ | 39.0 420 |
| IT, MOIR AVENUE | Dwelling | ${ }_{49.5}$ | ${ }_{50.3}^{50.3}$ | ${ }^{52.1}$ | -0.1 | Negiligible Beneneficial | ${ }_{50.2}^{50.6}$ | 1.0 | Neoligiole Adverse | 38.0 | ${ }_{39.0}^{4.0}$ | 38.9 |
| 19, MOIR AVENUE | Dwelling | 52.3 | 53.5 | 52.1 | -0.2 | Negligible Beneficial | 53.4 | 1.1 | Negigigile Adverse | 40.8 | 41.9 | 41.8 |
| 2, MOR A AVENUE | Dwelling | 60.1 49.3 | ${ }^{661.3} 5$ | 60.0 49.2 | -0.1 -0.1 | $\frac{\text { Negilibile Beneficial }}{\text { Negligible }}$ Beneficial | 61.2 50.3 | 1.1 1.0 | Negligibe Adverse | ${ }_{38.1}^{47.8}$ | 48.9 39.0 | ${ }_{3}^{48.8}$ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 Lnight,outside | $\begin{gathered} \text { DS33 } \\ \text { Lnight,outside } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 21, MOIR AVENUE | Owelling | 52.0 | 55.3 | 51.9 | ${ }^{0.1}$ | Negligible Beneficical | 53.1 | 1.1 | Negigigle Adverse | 40.5 | 41.7 | ${ }^{41.5}$ |
| 22, MOIR AVENUE | Dweling | $\frac{49.6}{517}$ | 50.7 | $\frac{49.5}{515}$ | -0.1 | Negligible Beneficial | 50.6 | $\frac{1.0}{11}$ | Negligible Adverse | 38.4 403 | 39.4 413 | $\frac{39.3}{413}$ |
| 23, MOIR AVVNUE | Dwelling | ${ }_{49.1}$ | ${ }_{50.1}^{52.9}$ | 49.0 | -0.1 |  | - 50.8 | 0.9 | $\frac{\text { Negigigie Adverse }}{\text { Neoligible Adverse }}$ | ${ }_{37.9}^{40.3}$ | 41.3 38.8 | 41.3 38.7 |
| 25, MOIR AVENUE | Dwelling | 51.2 | 52.4 | 51.0 | -0.2 | Negligible Benenicial | 52.3 | 1.1 | Negiligile Adverse | 39.8 | 40.9 | 40.8 |
| 26, MOIR AVENUE | Dwelling | 49.4 | 50.5 | 49.3 | -0.1 | Negligible Beneficial | 50.4 | 1.0 | Negigigile Adverse | 38.2 | 39.2 | 39.1 |
| 27, MOIR AVENUE | Deelling | 50.8 | 52.1 | 50.7 | -0.1 | Negligible Beneficial | 52.0 | 1.2 | Negiligible Adverse | 39.5 | 40.6 | 40.5 |
| 28. MOIR AVENUE | welling | 49.0 | 50.0 | 48.9 <br> 575 | -0.1 | Negligible Beneficial | 49.9 <br> 59 | 0.9 | Negigigibe Adverse | $\begin{array}{r}37.8 \\ \hline 45\end{array}$ | 38.7 | 38.6 4.3 |
| 4, MOIR AVENUE | ${ }^{\text {Duediling }}$ | ${ }_{53.2}$ | ${ }_{58.4}^{56.4}$ | 53.0 | -0.2 | Negligible Beneficicial | ${ }_{54.3}^{56.4}$ | ${ }_{1}^{1.1}$ | Neogigiole Adversse | ${ }_{41.6}$ | ${ }_{42.7}^{46.4}$ | ${ }_{42.6}^{46.6}$ |
| 5, MOIR AVENUE | Dwelling | 56.8 | 57.8 | 56.8 | 0.0 | No Change | 57.6 | 0.8 | Negiligile Adverse | 44.9 | 45.8 | 45.6 |
| 6 6, MOIR AVENUE | welling | 52.5 | 53.7 | 52.4 | -0.1 | Negligible Beneficial | 53.6 | 1.1 | Negligible Adverse | 41.0 | 42.1 | 42.0 |
| 7, MOIR AVENUE | welling | 56.4 | 57.4 | 56.4 | 0.0 | No Change | 57.2 | 0.8 | Negigigile Adverse | 44.5 | 45.4 | 45.2 |
| 8, MOIR AVENUE | Dweling | 52.3 | 53.4 | 52.2 | -0.1 | Negligible Beneficial | 53.4 | 1.1 | Negiligile Adverse | 40.8 | 41.8 | 41.8 |
| 9,MOIR AVENUE $\mathrm{CUMMINGS} \mathrm{PARK} \mathrm{HOUSE}, \mathrm{41}$, | Dwelling | - 51.1 | ${ }^{56.2} 5$ | 55.4 | 0.1 .0 .1 | Negigigibie Adverse | $\stackrel{56.1}{52.0}$ | 0.8 0.9 | Negigiobie Adverse | ${ }_{39.7}^{43.5}$ | 44.3 | 44.2 |
| 1. MORR CRESCENT | Welling | 68.4 | 68.4 | 68.5 | 0.1 | Negligible Beneficical | 68.5 | 0.1 | Negligible Beneficial | 55.3 | 55.3 | 55.4 |
| 10, MOIR CRESCENT |  | 56.0 | 56.4 | 56.1 | 0.1 | Negilibile Adverse | 56.4 | 0.4 | Negigiole Adverse | 44.1 |  | 44.5 |
| 11, MOIR CRESCENT | Dwelling | 54.3 | 54.6 | 54.3 | 0.0 | No Change | 54.7 | 0.4 | Negigioble Adverse | 42.6 | 42.9 | 43.0 |
| 11, MOIR CRESCENT | Oweling | 54.7 | 55.1 | 54.8 | 0.1 | Negligible Beneficicial | 55.1 | 0.4 | Negligible Adverse | 43.0 | 43.3 | 43.3 |
| 12, MOIR CRESCENT | weling | 51.7 | 52.3 | 51.7 | ${ }_{0}^{0.0}$ | No change | 52.3 | 0.6 | Negligiole Aaverse | 40.3 | 40.8 | 40.8 |
| 13, MOIR CRESCENT | weling | 52.5 | 53.0 | 52.6 | 0.1 | Negiligole Aaverse | 53.0 | 0.5 | Negiligile Adverse | 41.0 | 41.4 | 41.4 |
| 14, MOIR CRESCEN | Dweling | 51.5 | 52.2 | 51.5 | 0.0 | No Change | 52.1 | 0.6 | Negiligble Adverse | 40.1 | 40.7 | 40.6 |
| IS, Moir Crescen | Dwelling | - ${ }_{51.4}^{51.5}$ | 52.8 52.3 | 52.4 51.5 | 0.0 | ${ }^{\text {No Co Change }}$ | 52.9 52.2 | 0.7 | Negigigibe Adverse | 40.9 40.1 | $\stackrel{41.3}{40.8}$ | ${ }_{40.3}^{41.3}$ |
| 18, MOIR CRESCENT | Dwelling | 51.6 | 52.4 | 51.6 | 0.0 | No Change | 52.3 | 0.7 | Negligiole Adverse | 40.2 | 40.9 | 40.8 |
| 19, MOIR CRESCENT | Wwelling | 50.8 | 51.4 | 50.9 | 0.1 | Negigigile Adverse | 51.4 | 0.6 | Negigiolile Adverse | 39.5 | 40.0 | 40.0 |
| 2, MOIR CRESCENT | welling | 68.3 | 68.3 | 68.4 | 0.1 | Negigigile Adverse | 68.4 | 0.1 | Negigigile Adverse | 55.2 | 55.2 | 55.3 |
| 20, MOIR CRESCENT | welling | 51.7 | 52.6 | 51.7 | 0.0 | No Change | 52.5 | 0.8 | Negigioble Adverse | 40.3 | 41.1 | 41.0 |
| 22, MOIR CRESCENT | welling | 51.6 | 52.3 | 51.6 | 0.0 | No Change | 52.3 | 0.7 | Negiligibe Adverse | 40.2 | 40.8 | 40.8 |
| 24, MOIR CRESCENT | welling | 51.5 | 52.3 | 51.5 | 0.0 | No Change | 52.3 | 0.8 | Negigigile Adverse | 40.1 | 40.8 | 40.8 |
| 26, MOIR CRESCENT | Deelling | 51.5 | 52.3 | 51.5 | 0.0 | No Change | 52.3 | 0.8 | Negiligibie Adverse | ${ }^{40.1}$ | 40.8 | 40.8 |
| 28, MOIR CRESCENT | Dwelling | 51.6 | 52.4 | 51.6 64.1 | ${ }_{0}^{0.0}$ | Neglioible Benefificial | - 64.3 | ${ }_{0}^{0.7}$ | Negligiolie Adverse | - 40.12 | 40.9 | 40.8 |
| 30, MOIR CRESCENT | welling | 50.0 | 51.0 | 49.9 | -0.1 | Negligible Beneficial | 50.9 | 0.9 | Negigiole Adverse | 38.7 | 39.6 | 39.5 |
| 32, MOIR CRESCENT |  | 50.4 |  | 50.3 | -0.1 | Negligi |  |  | Negligible Adverse | 9.1 |  |  |
| 33, MOIR CRESCENT | Deelling | 50.7 | 51.5 | 50.6 | -0.1 | Negligible Beneficial | 51.5 | 0.8 | Negigigile Adverse | 39.4 | 40.1 | 40.1 |
| 34, MOIR CRESCENT | welling | 50.6 | 51.6 | 50.5 | -0.1 | Negligible Beneficial | 51.5 | 0.9 | Negigioble Adverse | 39.3 | 40.2 | 40.1 |
| 35, MOIR CRESCENT | Oweling | 50.6 | 51.4 | 50.5 | -0.1 | Negiligiole Beneficial | 51.5 | 0.9 | Negiligibie Adverse | 39.3 <br> 3 | 40.0 | 40.1 |
| 36, MOIR CRESCENT | Dwelling | 50.7 50.8 | 51.6 | 50.6 50.7 | -0.1 -0.1 | Negiligile Beneitical | 51.6 51.7 | 0.9 | Negigigle Adverse | 39.4 39.5 | $\frac{40.2}{40.2}$ | $\stackrel{40.2}{40.3}$ |
| 38, MOIR CRESCENT | Dwelling | 51.3 | 52.3 | 51.2 | -0.1 | Negligible Beneficial | 52.2 | 0.9 | Negigigile Adverse | 39.9 | 40.8 | 40.7 |
| 39, MOIR CRESCENT | Deelling | 51.0 | 51.9 | 51.0 | 0.0 | No Change | 52.0 | 1.0 | Negigigibe Adverse | 39.6 | ${ }^{40.4}$ | 40.5 |
| $\frac{4 . \text { MOIR CRESCENT }}{40, \text { MOIR CRESCENT }}$ | Dwelling | 64.4 51.1 | 64.4 | 64.5 | 0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negligibl }}$ | 64.5 52.0 | 0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negigiole Adverse }}$ | 51.7 39.7 | $\frac{51.7}{40.6}$ | 51.8 405 |
| 42, MOIR CRESCENT | Dwelling | 50.9 | 51.9 | 50.8 | -0.1 | Negligible Beneficial | 51.8 | 0.9 | Negiligile Adverse | 39.5 | 40.4 | 40.4 |
| 43, MOIR CRESCENT | Wwelling | 53.6 | 54.7 | 53.5 | -0.1 | Negligible Beneficial | 54.8 | 1.2 | Negligible Adverse | 42.0 | 43.0 | 43.1 |
| 44, MOIR CRESCENT | welling | 50.8 | 51.7 | 50.7 | -0.1 | Negligible Beneficial | 51.7 | 0.9 | Negigible Adverse | 39.5 | 40.3 | 40.3 |
| 45, MOIR CRESCENT | Owelling | 53.8 | 55.0 | 53.8 | 0.0 | No Change | 55.0 | 1.2 | Negigioble Adverse | 42.2 | 43.2 | 43.2 |
| $\frac{\text { 46, MOIR CRESCENT }}{\text { 47, MOR CRESCENT }}$ | Dwelling | 50.4 54.7 | 51.4 55.9 | 50.4 54.7 | $\stackrel{0.0}{0.0}$ | $\frac{\text { No C Cange }}{\text { No Change }}$ | 51.4 56.0 | 1.0 1.3 | Negiligle Adverse | 39.1 43.0 | $\frac{40.0}{44.0}$ | $\frac{40.0}{44.1}$ |
| 48, MOIR CRESCENT | Dwelling | 50.8 | 51.7 |  |  | Negligible Benenficial |  | 0.9 | Negligible Adverse | 39.5 | 40.3 |  |
| 49, MOIR CRESCENT | Dwelling | 55.6 | 56.8 | 55.6 | 0.0 | No Change | 56.9 | 1.3 | Negigigibe Adverse | 43.8 | 44.9 | 4.9 |
| 5. MOiR CRESCENT | Oweling | 62.0 |  |  | 0.1 | Negigigie Adverse | 62.1 | 0.1 | Negiligile Adverse |  | 49.5 |  |
| 5, MOIR CRESCENT | weling | 60.7 | 60.8 | 60.8 | 0.1 | Negiquibe Beneiticar | 60.9 | 0.2 | Negiqigile Adverse | 48.4 | 48.5 | 48.5 |
| 55, MORIR CRESCENT | Dwelling | ${ }_{56.3}$ | ${ }^{557.7}$ | ${ }_{56.3}$ | 0.0 | $\frac{\text { Negiligie cenenitial }}{\text { No Change }}$ | 55.7 57.7 | ${ }_{1}^{1.4}$ | Neoligigie Adverse | 44.4 | 45.7 | 45.7 |
| 52, MOIR CRESCENT | Dwelling | 52.4 | 53.5 | 52.3 | -0.1 | Negligible Beneficial | 53.5 | 1.1 | Negigibile Adverse | 40.9 | 41.9 | 41.9 |
| 53, MOIR CRESCENT | Dwelling | 55.6 | 57.0 | 55.6 | 0.0 | No Change | 57.0 | 1.4 | Negligible Adverse | 43.8 | 45.0 | 45.0 |
| -54, MOIR CRESCENT | Dwelling | 52.4 55.8 | 53.6 57.1 | 52.3 55.7 | -0.1 -0.1 | Negiligile Beneiticial | 53.6 57.1 | 1.2 1.3 | $\frac{\text { Negigible Adverse }}{\text { Neoligible Adverse }}$ | 40.9 | ${ }_{4}^{45.0} 4$ | ${ }_{4}^{42.0}$ |
| 56, MOIR CRESCENT | Dwelling | 52.7 | 53.9 | 52.6 | -0.1 | Negligible Beneficial | 53.9 | 1.2 | Negigioble Adverse | 41.2 | 42.2 | 42.2 |
| $\frac{\text { S7, MOIR CRESCENT }}{58, \text { MORR CRESCENT }}$ | Dwelling | - ${ }_{50.3}^{50.1}$ | ${ }^{585.7} 5$ | 57.3 50.1 | 0.0 | $\frac{\text { No Change }}{\text { No Change }}$ | 年51.7 | 1.4 1.2 | $\frac{\text { Negigigie Adverse }}{\text { Negigiole Adverse }}$ | 45.3 38.8 | 46.6 39.9 | $\stackrel{46.6}{39.9}$ |
| 59, MOIR CRESCENT | Dwelling | 58.4 | 59.8 | 58.4 | 0.0 | No Change | 59.8 | 1.4 | Negiligile Adverse | 46.3 | 47.6 | 47.6 |
| 6, MOIR CRESCENT | Dwelling | 61.0 614 | 61.1 628 | 61.1 6114 | 0.1 0.0 | Negiligili Adverse | 61.2 628 | 1.2 14 | Negiligle Adverse | 48.6 49 | 48.7 50.3 | 48.8 50 |
| 61, MOIR CRESCENT | Dwelling | 59.9 | 61.3 | 59.9 | 0.0 | No Change | ${ }^{661.3}$ | 1.4 | Negligibile Adverse | 47.6 | 48.9 | 48.9 |
| 7. MOIR CRESCENT | Deelling | ${ }_{58,2}$ | 58.4 | 58.4. | 0.2 | Negigigibe Adverse | 58.5 | 0.3 | Negligible Adverse | 46.1 | 46.3 | 46.4 |
| 7, MOIR CRESCENT | weling | 57.5 | 57.7 | 57.6 | 0.1 | Negiligibe Adverse | 57.7 | 0.2 | Negiligibe Adverse | 45.5 | 45.7 | 45.7 |
| 8, MOIR CRESCENT | weling | ${ }_{6}^{61.9}$ | 61.9 | ${ }^{62.0}$ | 0.1 | Negigigio Adverse | ${ }^{62.0}$ | ${ }_{0} .1$ | Negigigile Aaverse | 49.4 | 49.4 | 49.5 |
| 9, MOIR CRESCENT | Dweeling | ${ }_{55.7}^{55.7}$ | 56.0 | ${ }_{55.8}^{55.8}$ | 0.1 | Negiligible Beneneicicial | ${ }_{56.1}^{57.1}$ | 0.4 | Neoligigibe Adverse | 44.8 | ${ }_{44.9}^{44.1}$ | ${ }_{44.2}$ |
| 18, MOIR DRIVE | Dwelling | 54.4 | 54.8 | 54.3 | -0.1 | Negligible Beneficial | 54.8 | 0.4 | Negilibile Adverse | 42.7 | 43.1 | 43.1 |
| 20, MOIR DRIVE | Dwelling | 54.4 | 54.8 | 54.3 | -0.1 | Negligible Beneficial | 54.8 | 0.4 | Negligible Adverse | 42.7 | 43.1 | 43.1 |
| $\frac{22, \text { MOIR DRIVE }}{24, \text { MOIR DRIVE }}$ | Dwelling | 54.4 <br> 54.4 | 54.8 54.8 | 54.3 54.3 | -0.1 -0.1 | Negiligie Beneifical | 54.8 54.8 | 0.4 0.4 | Negigible Adverse | ${ }_{42.7}^{42.7}$ | ${ }^{43.1}$ | ${ }_{43.1}^{43.1}$ |
| 26, MOIR DRIVE | Dwelling | 54.4 <br> 54.4 | 54.8 548 | 54.3 543 | ${ }^{-0.1}$ | Negliaible Beneficial | 54.8 548 | 0.4 | Negiligle Adverse | 42.7 427 | 43.1 4.1 | ${ }_{4}^{43.1}$ |
| 29, MOIR DRIVE | Dwelling | 54.0 | 54.8. | 54.9 | -0.1 | Negegioibile Beneneicical | 54.8 52.8 | 0.8 | Neogigiole Adversse | 40.5 | ${ }_{41.3}^{43.1}$ | 43.3 |
| 30, MOIR DRIVE | welling | 53.8 | ${ }_{54.3}^{54}$ | 53.7 | -0.1 | Negligible Beneficical | ${ }_{54.3}^{52.3}$ | 0.5 | Negigigile Adverse | ${ }^{42.2}$ | ${ }^{42.6}$ | ${ }^{42.6}$ |
|  | Dwelling | ${ }_{5}^{53.8}$ | ${ }_{54.3}^{52.4}$ | ${ }_{\text {51. }}^{53.7}$ | -0.1 | Negligible Eenefificial | ${ }_{5}^{52.4}$ | 0.5 | Negigigibe Adverse | ${ }_{42.2}$ | 42.6 | 42.6 |

A90/A96 Haudagain Improvement

## DMRB Stage 3 Environmental Statement

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 Lnight,outside | DS33 Lnight,outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 34, MOIR DRIVE | Deeling | 53.8 | 54.3 | 53.7 | ${ }^{0.1}$ | Negligible Beneficical | 54.3 | 0.5 | Negiligibe Adverse | 42.2 | 42.6 | 42.6 |
| 36. MOIR DRIVE | Dweling | 53.8 | 年543 | 53.7 | -0.1 | Negligible Beneficial | 54.3 | ${ }_{0}^{0.5}$ | $\frac{\text { Negligible Adverse }}{\text { Negioigle Adverse }}$ | $\frac{42.2}{42.2}$ | $\frac{42.6}{42.6}$ | $\frac{42.6}{42.6}$ |
| $\frac{38, \text { MOIR DRIVE }}{40, \text { MOIR DRIVE }}$ | Dwelling | ${ }_{53.8}^{53.8}$ | ${ }_{54.3}^{54.3}$ | ${ }_{53,7}^{53.7}$ | $-01$ | Negoligioble Beneneficioial | ${ }_{54.3}^{54.3}$ | 0.5 | Neogigigibe Adverse | ${ }^{42.2}$ | ${ }_{42.6}$ | 42.6 42.6 |
| 42 , MOIR DRIVE | Dwelling | 52.7 | 53.3 | 52.7 | 0.0 | No Change | 53.3 | 0.6 | Negiligile Adverse | 41.2 | 41.7 | 41.7 |
| 44, MOIR DRIVE | Dwelling | 52.7 | 53.3 | 52.7 | 0.0 | No Change | 53.3 | 0.6 | Negigigile Adverse | 41.2 | 41.7 | 41.7 |
| 46, MOIR DRIVE | Dwelling | 52.7 | 53.3 | 52.7 | 0.0 | No Change | 53.3 | 0.6 | Negigiolile Adverse | 41.2 | 41.7 | 41.7 |
| 48, MOIR DRIVE | Deelling | 52.7 | 53.3 | 52.7 | 0.0 | No Change | 53.3 | 0.6 | Negigioble Adverse | 41.2 | 41.7 | 41.7 |
| 50, MOIR DRIVE | welling | 52.7 527 | ${ }_{53.3}^{5}$ | 52.7 52.7 | 0.0 | No Change | 53.3 | 0.6 | Negiligibe Adverse | $\frac{41.2}{412}$ | 41.7 | 41.7 417 |
| 52, MOIR DRIVE | Dweiling | ${ }^{52.7}$ | ${ }_{50.6}^{53.3}$ | ${ }_{49.8}^{52.8}$ | -0.1 | Negligibile Eenefeficial | ${ }^{53.3} 5$ | 0.6 | $\frac{\text { Negligibe Adverse }}{\text { Negligibe Adverse }}$ | ${ }_{3}^{48.6}$ | ${ }_{39.3}^{41.7}$ | ${ }_{39.2}^{41.7}$ |
| 56, MOIR DRIVE | Dwelling | 49.7 | 50.4 | 49.7 | 0.0 | No Change | 50.4 | 0.7 | Negligible Adverse | 38.5 | 39.1 | 39.1 |
| 1, MOIR GREEN | welling | 49.8 | 50.8 | 49.7 | -0.1 | Negligible Beneficial | 50.7 | 0.9 | Negigioble Adverse | 38.6 | 39.5 | 39.4 |
| 10, MOIR GREEN | welling | 48.7 | 49.7 | 48.6 | -0.1 | Negligible Beneficial | 49.5 | 0.8 | Negiligible Adverse | 37.6 | 38.5 | 38.3 |
| 11, MOIR GREEN | welling | 48.7 | 49.6 | ${ }^{48.6}$ | ${ }^{-0.1}$ | Negligible Beneficical | 49.5 | 0.8 | Negiligible Adverse | 37.6 | 38.4 | 38.3 |
| 12, MOIR GREEN | Dwelling | 48.7 48.4 | 49.7 49.4 | 48.6 48.3 | -0.1 -0.1 | $\frac{\text { Negligible Benenicial }}{\text { Neglioibl }}$ | 49.6 49.3 | 0.9 0.9 | Negligibl Adverse | 37.6 37.3 | 38.5 38.2 | 38.4 38.1 |
| 14, MOIR GREEN | Dwelling | 48.3 | 49.2 | 48.2 | -0.1 | Negligible Beneficial | 49.1 | 0.8 | Negigiolile Adverse | 37.2 | 38.0 | 37.9 |
| 15, MOIR GREEN | Deelling | 48.2 | 49.2 | 48.1 | -0.1 | Negligible Beneficial | 49.1 | 0.9 | Negigioble Adverse | 37.1 | 38.0 | 37.9 |
| 16, MOIR GREEN | Deeling | 48.2 | 49.2 | 48.1 | -0.1 | Negligible Beneficical | 49.1 | 0.9 | Negligible Adverse | ${ }^{37.1}$ | 38.0 | 37.9 |
| IT, MOIR GREEN | Dwelling | ${ }_{48.3}^{48.4}$ | ${ }_{49.3}^{49.4}$ | ${ }_{48.3}^{48.3}$ | -0.1 0.0 | Negligible Beneticial | 49.2 49.2 | 0.8 0.9 | Negligibe Adverse | 37.3 37.2 | 38.2 38.1 | 38.0 38.0 |
| 2, MOIR GREEN | Dwelling | 49.7 | 50.7 | 49.7 | 0.0 | No Change | 50.7 | 1.0 | Negligiole Adverse | 38.5 | 39.4 | 39.4 |
| 23, MOIR GREEN | Dwelling | 48.1 | 49.0 | 48.0 | -0.1 | Negligible Beneficial | 48.9 | 0.8 | Negiligibe Adverse | 37.0 | 37.8 | 37.7 |
| $\frac{24, \text { MOIR GREEN }}{\text { 25, MOR GREEN }}$ | Dwelling | $\stackrel{47.9}{47.3}$ | 48.8 48.2 | 47.4 | -0.1 -0.1 | Negogligible Beneneitical | ${ }_{48.1}^{48.7}$ | 0.8 | Negigigle Adverse | 36.8 36.3 | 37.7 37.1 | 37.6 37.0 |
| 26, MOIR GREEN | Dwelling | 47.2 | 48.1 | 47.1 | -0.1 | Negligible Beneficial | 48.0 | 0.8 | Negiligile Adverse | 36.2 | 37.0 | 36.9 |
| $\frac{\text { 27, MOIR GREEN }}{\text { 28, MOIR GREEN }}$ | Dwelling | 47.1 47.1 | 48.0 48.0 | 47.0 47.1 | -0.1 0.0 | Negligible Beneficial | 47.9 47.9 | 0.8 0.8 | $\frac{\text { Negiligib Adverse }}{\text { Negigiole Adverse }}$ | 36.1 36.1 | 36.9 36.9 | 36.8 36.8 |
| 3, MOIR GREEN | Wwelling | 49.6 | 50.5 | 49.5 | -0.1 | Negligible Beneficial | 50.5 | 0.9 | Negligible Adverse | 38.4 | 39.2 | 39.2 |
| 33, MOIR GREEN | Dweling | 48.0 478 | 48.9 | 47.9 | -0.1 .0 .0 | $\frac{\text { Negligible Benenticial }}{\text { Negliobl }}$ Beneficial | 48.8 | ${ }_{0}^{0.8}$ | Negiligile Adverse | 36.9 368 | 37.7 375 | 37.7 375 |
| 35, MOIR GREEN | Dwelling | 48.2 | 49.1 | 48.2 | 0.0 | No Change | 49.0 |  | Negligible Adverse | 37.1 | 37.9 | 37.8 |
| 36, MOIR GREEN | Dwelling | 48.4 | 49.2 | 48.4 | 0.0 | No Change | 49.2 | 0.8 | Negigigibe Adverse | 37.3 | 38.0 | 38.0 |
| 37, MOIR GREEN |  | 50.6 | 51.3 | 50.6 |  | No Change |  |  |  |  | 39.9 |  |
| 39, MOIR GREEN | Dwelling | 50.7 | 51.4 | 50.6 | .0.1 | Negligible Beneficial | 51.4 | 0.7 | Neoligigle Adverse | 39.4 | 40.0 | 40.0 |
| 4. MOIR GREEN | Dwelling | 49.6 | 50.5 | 49.5 | . 0.1 | Negligible Beneficial | 50.5 | 0.9 | Negligible Adverse | 38.4 | 39.2 | 39.2 |
| 40, MOIR GREEN | Dwelling | 50.7 | 51.5 | 50.7 | 0.0 | No Change | 51.4 | 0.7 | Negiligile Adverse | 39.4 | 40.1 | 40.0 |
| 5, MOIR GREEN | Dwelling | ${ }_{48.8}^{49.5}$ | 50.6 49.7 | 49.4 | -0.1 <br> -0.1 | Negiligile Beneiticial | 50.5 49.6 | ${ }^{1.0}$ | Negigiole Adverse | 38.3 37.7 | 39.3 38.5 | 39.2 38.4 |
| 6, MOIR GREEN | Dwelling | 48.6 | 49.6 | 48.6 | 0.0 | No Change | 49.5 | 0.9 | Negiligile Adverse | 37.5 | 38.4 | 38.3 |
| 7, MOIR GREEN | Dwelling | 48.7 | 49.6 | 48.6 | -0.1 | Negligible Beneficical | 49.5 | 0.8 | Negigigile Adverse | 37.6 | 38.4 | 38.3 |
| 8. 9 MOIR M MREEN | Dwelling | 48.6 48.6 | 49.6 49.6 | 48.6 48.5 | 0.0 -0.1 | Negigiochange ${ }^{\text {Neneficial }}$ | 49.5 | 0.9 | $\frac{\text { Negigioble Adverse }}{\text { Negigiole Adverse }}$ | 37.5 37.5 | 38.4 38.4 | 38.3 38.3 |
| 1, MONTGOMERY ROAD, HAYTON | Dwelling | 50.0 | 51.5 | 49.9 | -0.1 | Negligible Beneficial | 51.3 | 1.3 | Negligible Adverse | 38.7 | 40.1 | 39.9 |
| 10, MONTGOMERY ROAD, HAYTON | Dweling | 45.6 | 46.9 | 45.5 49 | -0.1 | $\frac{\text { Negliaible Beneficial }}{\text { Negligible }}$ | 46.7 513 | 1.1 13 | Negligile Adverse | $\begin{array}{r}34.8 \\ 387 \\ \hline\end{array}$ | 35.9 4.1 | 35.8 <br> 3.8 |
| 12, MONTGOMERY ROAD, HAYTON | Dwelling | 45.5 | 46.8 | 45.4 | -0.1 | Negligible Beneficiolil | 46.6 | 1.1 | Neoligible Adverse | 34.7 | 35.9 | 35.7 |
| 13, MONTGOMERY ROAD, HAYTON | Dwelling | 50.0 | 51.5 | 49.9 | -0.1 | Negligible Beneficial | 51.3 | 1.3 | Nedigibile Adverse | 38.7 | 40.1 | 39.9 |
| 14, MONTGOMERY ROAD, HAYTON | Dwelling | ${ }_{5}^{45.3}$ | 46.5 | 45.2 | -0.1 | Negligible Benenitical | 46.4 |  | Negiligie Adverse | 34.5 |  | 35.5 |
| (15, MONTGOMERY YOAAD, HAYTON | Dwelling | ${ }_{450.1}^{50.0}$ | ${ }_{46.5}^{46}$ | ${ }_{45.1}$ | 0.0 | Negligiole Beneitical | $\stackrel{51.3}{46.1}$ | 1.0 | $\frac{\text { Negligibe Adverse }}{\text { Neligible Adverse }}$ | 38.7 34.3 | ${ }_{35.4}^{40.1}$ | 39.9 35.2 |
| 17, MONTGOMERY ROAD, HAYTON | veling | 49.2 | 9.4 | 49.1 | 0.1 | Negligible Beneficial | 50.1 | 0.9 | Negigigile Adverse | 3.0 |  |  |
| 18, MONTGOMERY ROAD, HAYTON | Dwelling | 44.2 | 45.3 | 44.1 | -0.1 | Negligible Beneficial | 45.1 | 0.9 | Negligible Adverse | 33.5 | 34.5 | 34.3 |
| 19, MONTGOMERY ROAD, HAYTON | Dwelling | 49.2 | 49.4 | 49.1 | -0.1 | Negligible Beneficial | 50.1 | 0.9 | Negigible Adverse | 38.0 | 38.2 | 38.8 |
| 2, MONTGOMERY ROAD, HAYTON | Dweling | 50.7 44.2 | ¢51.8 | 50.5 44.1 | -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negligibl }}$ Beneficial | 51.9 45.1 | 1.2 0.9 | Negigigie Adverse | 39.4 33.5 | - 40.4 | $\stackrel{40.4}{34.3}$ |
| 21, MONTGOMERY ROAD, HAYTON | Dwelling | 49.2 | 49.4 | 49.1 | -0.1 | Negligible Beneficical | 50.1 | 0.9 | Negiligile Adverse | 38.0 | 38.2 | 38.8 |
| 22, MONTGOMERY ROAD, HAYTON | Dwelling | 44.2 | 45.3 | 44.1 | -0.1 | Negligible Beneficial | 45.1 | 0.9 | Negigigle Adverse | 33.5 | 34.5 | 34.3 |
| 23, MONTGOMERY ROAD, HAYTON | Dwelling | 49.2 | 49.4 | 49.1 | -0.1 | Negligible Beneficical | 50.1 | 0.9 | Negligible Adverse | 38.0 | 38.2 | 38.8 |
| 24, MONTGOMERY ROAD, HATTON | Dwelling | $\frac{44.2}{49}$ | 45.3 494 | $\frac{44.1}{49.1}$ | -0.1 | $\frac{\text { Negligible Benenicial }}{\text { Negioibl }}$ | $\frac{45.1}{50.1}$ | 0.9 | $\frac{\text { Negiligile Adverse }}{\text { Neofigible Adverse }}$ | 33.5 38.0 | $\begin{array}{r}34.5 \\ 38.2 \\ \hline\end{array}$ | 34.3 38.8 |
| 26, MONTGOMERY ROAD, HAYTON | Dwelling | 44.2 | 45.3 | 44.1 | -0.1 | Negligible Beneficial | 45.1 | 0.9 | Negiligile Adverse | 33.5 | 34.5 | ${ }_{34}{ }^{3}$ |
| 27, MONTGOMERY ROAD, HAYTON | Deelling | 49.2 | 49.4 | 49.1 | -0.1 | Negligible Beneficical | 50.1. | 0.9 | Negigigibe Adverse | 38.0 | 38.2 | 38.8 |
| 28. MONTGOMERY ROAD, HAYTON | Dwelling | $\frac{44.2}{49.2}$ | 45.3 49.4 | 44.1 49.1 | -.0 .1 .0 .1 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ Beneficial | 45.1 50.1 | 0.9 | $\frac{\text { Negigigle Adverse }}{\text { Negligible Adverse }}$ | 33.5 38.0 | 34.5 38.2 | 34.3 <br> 38.8 |
| 3, MONTGOMERY ROAD, HAYTON | Dwelling | 50.0 | 51.5 | 49.9 | . 0.1 | Negligible Beneficial | 51.3 | 1.3 | Negilibile Adverse | 38.7 | 40.1 | 39.9 |
| 30, MONTGOMERY ROAD, HAYTON | Deelling | 44.2 | 45.3 | 44.1 | -0.1 | Negligible Beneficical | 45.1 | 0.9 | Negligible Adverse | 33.5 | 34.5 | 34.3 |
| 31, MONTGOMERY ROAD, HAYTON | Dweling | 49.2 | 49.4 | 49.1 | -0.1 | Negiligiole Beneficial | 50.1 | 0.9 | Negiligile Adverse | 38.0 | 38.2 | 38.8 |
| 32, MONTGOMERY ROAD, HATTON | Oweling | 44.2 | 45.3 | 44.1 | -0.1 | Negiligioe Beneitical | ${ }_{5}^{45.1}$ |  | Negigigile Aaverse | 33.5 |  | 34.3 |
| 33, MONTGOMERY YOAD, HAYTON | ${ }^{\text {Duelling }}$ | ${ }_{44.2}$ | 45.4 | ${ }_{44.2}$ | -0.0 | Negigiobe Beneiticial | ${ }^{50.6}$ | 1.0 | Neoligigile Adverse | ${ }_{33.5}$ | ${ }_{34.6}$ | ${ }_{39.4}^{39.4}$ |
| 35, MONTGOMERY ROAD, HAYTON | Dwelling | 49.7 | 49.8 | 49.6 | -0.1 | Negligible Beneficial | 50.6 | 0.9 | Negigioble Adverse | 38.5 | 38.6 | 39.3 |
| 36, MONTGOMERY ROAD, HAYTON | Dwelling | 44.2 | 45.4 | 44.2 | 0.0 | No Change | 45.2 | 1.0 | Negligible Adverse | 33.5 | 34.6 | 34.4 |
| 37, MONTGOMERY ROAD, HAYTON | Dwelling | $\stackrel{49.7}{44.2}$ | 49.8 45.4 | 49.6 44.2 | -0.1 0.0 | $\frac{\text { Negligible Beneficial }}{\text { No Change }}$ | 50.6 45.2 | 0.9 1.0 | $\frac{\text { Negigigle Adverse }}{\text { Negigible Adverse }}$ | 38.5 33.5 | 38.6 34.6 | 39.3 34.4 |
| 39, MONTGOMERY ROAD, HAYTON | Dwelling | 49.7 | 49.8 | 49.6 | -0.1 | Negligible Beneficial | 50.6 | 0.9 | Negigigle Adverse | 38.5 | 38.6 | 39.3 |
| 4, MONTGOMERY ROAD, HAYTON | Dewling | 45.9 | 47.4 | 45.8 | -0.1 | Negligible Beneficial | 47.0 | 1.1 | Negigigile Adverse | 35.0 | 36.4 | 36.0 |
| 40, MONTGOMERY ROAD, HA 4 TON | Dwelling | $\frac{44.2}{49.7}$ | $\frac{45.4}{49.8}$ | $\frac{44.2}{49.6}$ | 0.0 -0.1 | Negligible Change | 45.2 50.6 | 1.0 | $\frac{\text { Negligible Adverse }}{\text { Negigible Adverse }}$ | 33.5 38.5 | 34.6 <br> 38.6 | 34.4 39.3 |
| 42, MONTGOMERY ROAD, HAYTON | Deeling | ${ }_{44.2}^{497}$ | 45.4 498 | ${ }_{4}^{4.2}$ | 0.0 | No C Cange | $\stackrel{45.2}{50 .}$ | 1.0 | Negligible Adverse | 33.5 385 | 34.6 38.6 | ${ }^{34.4}$ |
| 43, MONTGOMERY ROAD, HAYTON | weiling | 49.7 | 49.8 | 49.6 | 0.1 | Negligible Beneficial |  |  | Negigole Adverse | 38.5 | 38.6 | 39.3 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 <br> Lnight,outside | DM33 Lnight,outside | DS33 Lnight,outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 44, MONTGOMERY ROAD, HAYTON | Dwelling | 44.2 | 45.4 | 44.2 | 0.0 | No Change | 45.2 | 1.0 | Negigigible Adverse | 33.5 | 34.6 | 34.4 |
| 45, MONTGOMERY ROAD, HAYTON | Oweling | 49.7 | 49.8 | 49.6 | -0.1 | Negligible Beneficial | 50.6 | 0.9 | Negligible Adverse | 38.5 | 38.6 | 39.3 |
| 46, MONTGOMERY ROAD, HAYTON | Dwelling | 44.2 | 45.4 | 44.2 | 0.0 | No Change | 45.2 | 1.0 | Negiligibe Adverse | 33.5 | 34.6 | 34.4 |
| 47, MONTGOMERY ROAD, HAYTON | Oweling | 49.7 | 49.8 | 49.6 | -0.1 | Negligible Beneficial | 50.6 | 0.9 | Negigigle Adverse | 38.5 33 | 38.6 3.6 | 39.3 |
| 48, MONTGOMERY ROAD, HAYTON | Deeling | ${ }_{54.2}^{44}$ | ${ }^{45.4}$ | ${ }_{54.2}^{44}$ | 0.0 | No Change | 45.2 | 1.0 | Negligible Adverse | 33.5 | 34.6 | 34.4 |
| 49, MONTGOMERY ROAD, HAYTON | Delling | 50.2 | 50.3 | 50.1 | -0.1 | Negligible Beneficical | 51.1 <br> 51.3 | 0.9 | Negigigle Adverse | 38.9 387 | 39.0 40.1 | 39,7 399 |
| 5, MONTGOMERY ROAD, HAYTON | Delling | 50.0 | 51.5 | 49.9 | -0.1 | Negligible Beneficial | 51.3 | 1.3 | Negiligible Adverse | 38.7 | ${ }^{40.1}$ | 39.9 |
| 50, MONTGOMERY ROAD, HAYTON | Dwelling | 44.3 | 45.5 | 44.3 | 0.0 | No Change | 45.3 | 1.0 | Negligible Adverse | 33.6 | 34.7 | 34.5 |
| 51, MONTGOMERY ROAD, HAYTON | Deelling | 50.2 | 50.3 | 50.1 | -0.1 | Negligibl Benenficil | 51.1 | 0.9 | Negligible Adverse | 38.9 33 | 39.0 347 | $\begin{array}{r}39,7 \\ 345 \\ \hline\end{array}$ |
| 52, MONTGOMERY ROAD, HAYTON | Dwelling | 44.3 50.2 | 45.5 50.3 | 44.3 50.1 | 0.0 <br> 0.1 | $\xrightarrow{\text { Nego Cigibe }}$ Beneneficial | $\stackrel{45.3}{51.1}$ | 1.0 | Negligiole Adverse Nefigible Adverse | 33.6 38.9 | 34.7 39.0 | 34.5 39.7 |
| 54, MONTGOMERY ROAD, HAYTON | Dwelling | 44.3 | 45.5 | 44.3 | 0.0 | No Change | 45.3 | 1.0 | Negiligile Adverse | 33.6 | 34.7 | 34.5 |
| 55, MONTGOMERY ROAD, HAYTON | Dwelling | 50.2 | 50.3 | 50.1 | -0.1 | Negligible Beneficicial | 51.1 | 0.9 | Negiligible Adverse | 38.9 | 39.0 | 39.7 |
| 56, MONTGOMERY ROAD, HAYTON | Dwelling | 44.3 | 45.5 | 44.3 | 0.0 | No Change | 45.3 | 1.0 | Negligible Adverse | 33.6 | 34.7 | 34.5 |
| 57. MONTGOMERY ROAD, HAYTON | Dwelling | 50.2 | 50.3 | 50.1 |  | Negligible Beneficial | 51.1 | 0.9 | Negigiobio Adverse | 38.9 | 39.0 |  |
| 58, MONTGOMERY ROAD, HAYTON | Deeling | 44.3 | 45.5 | ${ }^{44.3}$ | 0.0 | No Change | ${ }_{5}^{45.3}$ | 1.0 | Negiligible Adverse | 33.6 | 34.7 | 34.5 |
| 59, MONTGOMERY ROAD, HAYTON | Welling | 50.2 | 50.3 | 50.1 | -0.1 | Negligible Beneficial |  | 0.9 | Negiligible Adverse | 38.9 | 39.0 |  |
| 6 6, MONTGOMERY ROAD, HAYTON |  | 45.7 | 47.2 | 45.7 |  |  | 46.9 | 1.2 |  | 34.9 |  | 5.9 |
| 60, MONTGOMERY ROAD, HAYTON | Dweling | 44.3 | 45.5 | 44.3 | 0.0 | No Change | 45.3 | 1.0 | Negiligile Adverse | 33.6 | 34.7 | 4.5 |
| 61, MONTGOMERY ROAD, HAYTON | Dweling | 50.2 | 50.3 | 50.1 | -0.1 | Negligible Beneficicial | 51.1 | 0.9 | Negiligibe Adverse | 38.9 | 39.0 | 39.7 |
| 62 , MONTGOMERY ROAD, HAYTON | Dweling | ${ }_{5}^{44.3}$ | ${ }_{4}^{45.5}$ | ${ }_{54.3}^{40.3}$ | 0.0 | No Change | $\stackrel{45.3}{51.3}$ | 1.0 | Negligiole Adverse | 33.6 3.6 | 34.7 3 | 34.5 395 |
| 63, MONTGOMERY ROAD, HA MTON | Swelling | 50.2 44.3 | 50.3 45.5 | 50.1 44.3 | -0.0 | Negligible Beneitical | 51.1 45.3 | 0.9 1.0 | Negiligib Adverse | $\begin{array}{r}38.9 \\ 33.6 \\ \hline\end{array}$ | 39.0 34.7 | 39.7 34.5 |
| 65, MONTGOMERY YOAD, HAYTON | Dwelling | 50.0 | ${ }_{50.3}$ | 49.9 | -0.1 | Negligible Beneficical | $\stackrel{4}{51.0}$ | 1.0 | Negigigibe Adverse | ${ }^{38.7}$ | ${ }^{39.0}$ | ${ }^{39.6}$ |
| 67, MONTGOMERY ROAD, HAYTON | Dwelling | 50.0 | 50.3 | 49.9 | -0.1 | Negligible Beneficial | 51.0 | 1.0 | Negigigible Adverse | 38.7 | 39.0 | 39.6 |
| 69, MONTGOMERY ROAD, HAYTON | Dwelling | 50.0 | 50.3 | 49.9 | -0.1 | Negligible Beneficial | 51.0 | 1.0 | Negligiole Adverse | 38.7 | 39.0 | 39.6 |
| 7, MONTGOMERY ROAD, HAYTON | Deelling | 50.0 | 51.5 | 49.9 | -0.1 | Negligible Beneficical | 51.3 | 1.3 | Negigioble Adverse | 38.7 | 40.1 | 39.9 |
| 71, MONTGOMERY ROAD, HATTON | Dwelling | 50.0 | 50.3 | 49.9 | -0.1 | Negilibile Benenitial | 51.0 | 1.0 | Negiligibie Adverse | 38.7 <br> 38.7 | 39.0 | 39.6 |
| 75, MONTGOMERY ROAD, HAYTON | Dwelling | 50.0 | 50.3 | 49.9 | -0.1 | Negligible Beneficiolal | 51.0 | 1.0 | Negigigible Adverse | 38.7 | 39.0 | 39.6 |
| 77, MONTGOMERY ROAD, HAYTON | Dwelling | 50.0 | 50.3 | 49.9 | -0.1 | Negligible Beneficial | 51.0 | 1.0 | Negiligile Adverse | 38.7 | 39.0 | 39.6 |
| 79, MONTGOMERY ROAD, HAYTON | Dwelling | 50.0 45.7 | 50.3 47.0 | $\frac{49.9}{45.6}$ | -0.1 .0 .1 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ | $\frac{51.0}{46.8}$ | 1.0 1.1 | $\frac{\text { Negligible Adverse }}{\text { Negioigle Adverse }}$ | $\begin{array}{r}38.7 \\ \hline 349\end{array}$ | 39.0 360 | $\begin{array}{r}39.6 \\ 359 \\ \hline\end{array}$ |
| 9, MONTGOMERY ROAD, HAYTON | Dwelling | 50.0 | 51.5 | 49.9 |  | Negligible Bene | 51.3 |  | Negigigible Adverse | 38.7 | 40.1 | 39.9 |
| 1, MORGAN ROAD | Dwelling | 49.4 | 50.5 | 49.1 | -0.3 | Negligible Beneficical | 50.1 | 0.7 | Negigiolie Adverse | 38.2 | 39.2 | 38.8 |
| 10, MORGAN ROAD |  |  |  |  |  | Negligible Benenitical |  |  |  |  |  |  |
| I, MORGANROAD | Oweling | 48.5 | 49.3 | ${ }^{48.2}$ | -0.3 | Negiligile Beneniciar | 49.2 | 0.7 | Negiqigile Adverse | 37.4 | ${ }^{38.1}$ | ${ }^{38.0}$ |
| 12, MORGAN ROAD | Oweling | 51.1 48.5 | 51.8 493 | 50.7 | -0.4 | Negifigio Beneficial | $\begin{array}{r}51.6 \\ 49 . \\ \hline\end{array}$ | 0.5 | Negigiole Adverse | $\begin{array}{r}39.7 \\ 374 \\ \hline\end{array}$ | - 40.4 | 40.2 |
| 13, MORGGAN ROAD | Dwelling | ${ }_{49.8}^{48.5}$ | ${ }_{50.5}^{49.3}$ | 48.4 | -0.4 | Negiligible eeneneicicial | ${ }_{50.3}^{49.1}$ | 0.6 | Negigigibe Adverse | ${ }^{37.4}$ | ${ }^{38.1}$ | 37.9 39.0 |
| 15, MORGAN ROAD | Dwelling | 48.7 | 49.5 | 48.4 | -0.3 | Negligible Beneficial | 49.3 | 0.6 | Negigigibe Adverse | 37.6 | 38.3 | 38.1 |
| 16, MORGAN ROAD | Dwelling | 49.6 | 50.3 | 49.2 | -0.4 | Negligible Beneficial | 50.1 | 0.5 | Negligible Adverse | 38.4 | 39.0 | 38.8 |
| 17, MORGAN ROAD | Oweling | 48.5 | 49.3 | 48.2 | -0.3 | Negligible Beneficical | 49.1 | 0.6 | Negiligibile Adverse | 37.4 | 38.1 | 37.9 |
| 18, MORGAN ROAD | Dwelling | 49.5 | 50.2 | ${ }_{49.1}^{49}$ | -0.4 | $\frac{\text { Negligible Benenicial }}{\text { Negligibl }}$ | 50.0 | 0.5 | $\frac{\text { Negiligibl Adverse }}{\text { Negioible Adverse }}$ | 38.3 387 | 38.9 3.9 | $\begin{array}{r}38.7 \\ 3.9 \\ \hline\end{array}$ |
| 2, MORGAN ROAD | Dwelling | 56.3 | 57.2 | 55.9 | -0.4 | Negligible Beneficial | 56.9 | 0.6 | Negligible Adverse | 44.4 | 45.2 | 44.9 |
| 20, MORGAN ROAD | Delling | 49.3 | 50.0 | 48.9 | -0.4 | Negligible Beneficial | 49.8 | 0.5 | Negligible Adverse | 38.1 | 38.7 | 38.6 |
| $\frac{21, \text { MORGAN ROAD }}{22, \text { MORGAN ROAD }}$ | Dwelling | 50.7 49.4 | $\begin{array}{r}51.4 \\ 501 \\ \hline\end{array}$ | 50.4 49.0 | -0.3 | $\frac{\text { Negilibile Beneficial }}{\text { Negligible Beneficial }}$ | 51.3 49.9 | 0.6 | Negiligle Adverse | 39.4 38.2 | 40.0 38.8 | 39.9 3.9 |
| 23, MORGAN ROAD | Dwelling | 52.0 | 52.5 | 51.6 | -0.4 | Negligible Beneficicial | 52.4 | 0.4 | Negligible Adverse | 40.5 | 41.0 | 40.9 |
| 24, MORGAN ROAD | Dwelling | 49.3 | 50.0 | 48.9 | -0.4 | Negligible Benenicicial | 49.8 | 0.5 | Negigioible Adverse | 38.1 | 38.7 | 38.6 |
| 26, MORGAN ROAD |  | 51.4 |  |  |  | Neogigibie Beneficial |  |  | Negiligile Adverse | 40.0 | 40.5 |  |
| 28, MORGAN ROAD | weling | 52.7 | 53.3 | 52.3 | -0.4 | Negiligiole Beneitical | 53.2 | 0.5 | Negiligie Adverse | 41.2 | 41.7 | 4.6 |
| 3, MOR MOAGA ANOAD | Dweeling | ${ }_{51.3}$ | ${ }_{50.9}$ | ${ }_{51.0}$ | -0.3 | Neegiligibie Beneneificial | ${ }_{51.8}^{50.1}$ | 0.5 | Neoligigibe Adverse | ${ }_{39,}$ | 39.0 40.4 | 38.8 40.4 |
| 32, MORGAN ROAD | Dwelling | 54.1 | 54.5 | 53.7 | -0.4 | Negligible Beneficial | 54.5 | 0.4 | Negigioble Adverse | 42.4 | 42.8 | 42.8 |
| 4, MORGAN ROAD | Dwelling | 54.5 | 55.1 | 54.0 | -0.5 | Negligible Beneficial | 54.9 | 0.4 | Negiligibe Adverse | 42.8 | 43.3 | 43.1 |
| 5, MORGAN ROAD | Dwelling | 49.6 | 50.4 | 49.2 | -0.4 | Negligible Beneficial | 50.2 | 0.6 | Negligible Adverse | 38.4 | 39.1 | 38.9 |
| $\frac{6, \text { Morgan }}{7, \text { MORGAN ROAD }}$ | Dwelling | 51.2 49.4 | 51.9 50.2 | 50.8 49.1 | -0.4 -0.3 | $\frac{\text { Negligible Beneficial }}{\text { Negligible Beneficial }}$ | 51.7 50.0 | 0.5 0.6 | $\frac{\text { Negligible Adverse }}{\text { Negligible Adverse }}$ | 39.8 38.2 | 40.4 38.9 | 40.3 38.7 |
| 8, MORGAN ROAD | Dwelling | 50.0 | 50.8 | 49.6 | -0.4 | Negligible Beneficicial | 50.5 | 0.5 | Negiligible Adverse | 38.7 | 39.5 | 39.2 |
| 9, MORGAN ROAD | Dwelling | 48.5 | 49.3 | 48.2 | -0.3 | Negligible Beneficial | 49.1 | 0.6 | Negligible Adverse | 37.4 | 38.1 | 37.9 |
| 1, MOSMAN GARDENS | Dwelling | ${ }^{51.8} 47.9$ | 54.1 49.7 | 51.4 47.6 | -0.4 -0.3 | $\frac{\text { Negligible Beneficial }}{\text { Negligibe }}$ Beneficial | 53.2 49.0 | 1.4 1.1 | Negigiobe Adverse | 40.4 36.8 | +42.4 | $\stackrel{41.6}{37.8}$ |
| 11, MOSMAN GARDENS | Dwelling | 47.9 | 49.7 | 47.6 | -0.3 | Negligible Beneficial | 49.0 | 1.1 | Negligible Adverse | 36.8 | 38.5 | 37.8 |
| 12, MOSMAN GARDENS | Dwelling | 48.9 | 50.6 | 48.6 | -0.3 | Negligible Beneficical | 50.1 | 1.2 | Negligible Adverse | 37.7 | 39.3 | 38.8 |
| 13, MOSMAN GARDENS | Dwelling | 48.9 | 50.6 | 48.6 | -0.3 | Negiligibe Beneficial | 50.1 | 1.2 | Negigigile Adverse | 37.7 | 39.3 | 38.8 |
| 14. MOSMAN GARDENS | Dwelling | 48.9 48.9 | 50.6 50.6 | 48.6 48.6 | -.0 .3 -0.3 - | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ Beneficial | 50.1 50.1 | 1.2 <br> 1.2 <br> 1 | $\frac{\text { Negigigble Adverse }}{\text { Negigiole Adverse }}$ | 37.7 37.7 | ${ }^{39.3}$ | 38.8 <br> 38.8 |
| 16, MOSMAN GARDENS | Dwelling | 48.1 | 49.6 | 47.8 | -0.3 | Negligible Benenicicial | 49.1 | 1.0 | Negiligible Adverse | 37.0 | 38.4 | 37.9 |
| 17 M MOSMAN GARDENS | Oweling | 48.1 | 49.6 | 47.8 | -0.3 | Negligible Beneficicial | 49.1 | 1.0 | Negiligile Adverse | 37.0 | 38.4 | 37.9 |
| 19, MOSMAN GARDENS | Dwelling | 48.1 | 49.6 | 47.8 | ${ }_{-0.3}$ | Negegligible Beneficioial | 49.1 | 1.0 | Neoligigibe Adverse | 37.0 | ${ }_{38.4}$ | 37.9 |
| 2, MOSMAN GARDENS | Dwelling | 49.4 | 51.7 | 49.1 | -0.3 | Negligible Beneficial | 50.8 | 1.4 | Negligiole Adverse | 38.2 | 40.3 | 39.5 |
| $\frac{20, ~ M O S M A N ~ G A R D E N S ~}{21}$ | Dwelling | 48.3 483 | 50.2 | 48.0 48.0 | -0.3 | Negligible Beneficial | 49.5 4.5 | 1.2 | Negiligile Adverse | 37.2 372 | 38.9 3.9 | ${ }^{38.3}$ |
| 21, MOSMAN GARDENS | - ${ }^{\text {Dwelling }}$ Oedling | ${ }^{480.3}$ | 50.2 52.1 | 48.0 50.0 | -0.3 <br> -0.3 | Negiligiole Beneficical | 49.5 <br> 51.5 | .1.2 | Negigible Avverse | 37.2 39.0 | 38.9 40.6 | 38.3 <br> 0.1 |
| 3, MOSMAN GARDENS | Dwelling | 49.4 4.4 | 51.7 503 | 49.0 | -0.4 | Negligible Beneficial | 50.7 | 1.3 | Negiligile Adverse | 38.2 373 | ${ }^{40.3}$ | 39.4 394 |
| 5, MOSMAN GARDEENS | Dweliling | 48.4 | 50.3 <br> 50.3 | ${ }_{48.1}^{48.1}$ | - | Negiligiole Beneiticial | 49.6 | 1.2 | Neoligioble Adverse | ${ }_{37.3}$ | 39.0 | 38.4 |
| 6, MOSMAN GARDENS | Welling | 48.4 | 50.3 | 48.1 | -0.3 | Negligible Beneficical | 49.6 | 1.2 | Negligible Adverse | ${ }^{37.3}$ | 39.0 | 38.4 |
|  | Owelling | ${ }_{48.7}^{48.4}$ | 50.5 | ${ }_{48.4}^{48.1}$ | $\stackrel{-0.3}{-0.3}$ | Negligible Beneficioil | 49.9 | 1.2 | Negigigile Adverse | ${ }_{37.6}$ | 39.2 | 38.6 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 <br> Lnight,outside | DS33 <br> Lnight,outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 9, MOSMAN GARDENS | Dwelling | 48.7 | 50.5 | 48.4 | ${ }^{0.3}$ | Negligible Beneficical | 49.9 | 1.2 | Negiligibe Adverse | 37.6 | 39.2 | 38.6 |
| 1. MOSMAN PLACE | $\frac{\text { Dwelling }}{\text { Oweling }}$ | $\frac{48.3}{46.4}$ | 50.5 47.7 | $\frac{48.2}{46.2}$ | -0.1 -0.2 | $\frac{\text { Negligible Beneficial }}{\text { Negligibl } \text { Beneficial }}$ | 50.0 47.4 | 1.7 | $\frac{\text { Negligible Adverse }}{\text { Negigible Adverse }}$ | 37.2 <br> 35.5 | 39.2 36.7 | 38.7 36.4 |
| 11, MOSMAN PLACE | Dwelling | ${ }_{46.6}^{46.4}$ | ${ }_{48.3}$ | ${ }_{46.5}^{46.5}$ | -0.1 | Negiligible Benenificial | 47.9 | ${ }_{1.3}$ | Neoligigile Adverse | ${ }^{35.7}$ | ${ }^{37.2}$ | ${ }^{36.8}$ |
| 12, MOSMAN PLACE | Dwelling | 46.4 | 47.7 | 46.3 | -0.1 | Negligible Beneficial | 47.4 | 1.0 | Negligible Adverse | 35.5 | 36.7 | 36.4 |
| 13, MOSMAN PLACE | Dwelling | 46.5 | 47.9 | 46.4 | -0.1 | Negligible Beneficial | 47.6 | 1.1 | Negiligile Adverse | 35.6 | 36.8 | 36.6 |
| 14, MOSMAN PLACE | Dwelling | 47.3 | 48.4 | 47.2 | -0.1 | Negligible Beneficial | 48.2 | 0.9 | Negiligile Adverse | 36.3 | 37.3 | 37.1 |
| 15, MOSMAN PLACE | Dwelling | 46.0 | 47.5 | 45.9 | -0.1 | Negligible Beneficial | 47.1 | 1.1 | Negligible Adverse | 35.1 | 36.5 | 36.1 |
| $\frac{16, \text { M } \text { OSMA PLACE }}{17}$ | Dwelligg | 46.4 46.5 | 47.8 48.0 | 46.3 46.4 | -0.1 -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negigible }}$ | 47.5 47.6 | 1.1 1.1 | Negiligib Adverse | 35.5 <br> 35.6 <br> 5.6 | 36.8 36.9 | 36.5 36.6 |
| 18, MOSMAN PLACE | Dwelling | 46.6 | 47.9 | 46.4 | -0.2 | Negligible Beneficiolil | 47.6 | 1.0 | Negigigile Adverse | 35.7 | 36.8 | ${ }_{36.6}$ |
| 19, MOSMAN PLACE | Dwelling | 46.6 | 48.0 | 46.5 | -0.1 | Negligible Beneficial | 47.7 | 1.1 | Negiligible Adverse | 35.7 | 36.9 | 36.7 |
| 2, MOSMAN PLACE | Welling | 49.5 | 51.3 | 49.4 | 0.1 | Negligible Beneficial | 50.9 | 1.4 | Negigigibe Adverse | 38.3 |  | 39.5 |
| 20, MOSMAN PLACE | Wwelling | 47.0 | 48.4 | 46.9 | ${ }^{0.1}$ | Negligible Beneficical | 48.1 | 1.1 | Negigioble Adverse | 36.0 | 37.3 | 37.0 |
| 21, MOSMA PLACE | Dweling | ${ }_{46.5}^{46.5}$ | ${ }_{48,}^{48.0}$ | ${ }_{46.4}^{46.4}$ | -0.1 | $\frac{\text { Negiligiole Beneficial }}{\text { Negligible }}$ | ${ }_{479}^{47.6}$ | ${ }_{1}^{1.1}$ | Negigiobie Adverse | 35.6 35.9 | 36.9 37.2 | 36.6 36.8 |
| 22, MOSMANPLACE | Dwelling | 46.8 | $\frac{48.3}{47.9}$ | $\stackrel{46.1}{46.4}$ | -0.1 | Negiligile Beneiticial | 47.6 | ${ }_{1.1}^{1.1}$ | Negigigibe Adverse | ${ }_{35.6}$ | $\frac{37.2}{36.8}$ | 36.8 36.6 |
| 24, MOSMAN PLACE | Dwelling | 46.7 | 48.2 | 46.5 | -0.2 | Negligible Beneficial | 47.8 | 1.1 | Negigioible Adverse | 35.8 | 37.1 | 36.8 |
| 3, MOSMAN PLACE | Dwelling | 47.6 | 49.6 | 47.5 | -0.1 | Negligible Beneficial | 49.2 | 1.6 | Negiligile Adverse | 36.6 | 38.4 | 38.0 |
| 4, MOSMAN PLACE | Deeling | 46.2 | 47.6 | 46.1 | -0.1 | Negligible Beneficial | 47.3 | 1.1 | Negligible Adverse | 35.3 | 36.6 | 36.3 |
| 5. MOSMAN PLACE | Dweling | $\frac{47.2}{46.2}$ | ${ }^{499.1}$ | ${ }_{46.1}^{47.1}$ | -0.1 -0.1 | $\frac{\text { Negiligiole Beneficial }}{\text { Negligibe }}$ Beneficial | ${ }_{47.3}^{48.7}$ | 1.5 1.1 | $\frac{\text { Negigigibe Adverse }}{\text { Negigiole Adverse }}$ | ${ }^{36.2}$ 35.3 | $\begin{array}{r}37.9 \\ 36.6 \\ \hline\end{array}$ | 37.6 36.3 |
| 7, MOSMAN PLACE | Owelling | 46.9 | 48.7 | 46.8 | -0.1 | Negligible Beneficioil | 48.3 | 1.4 | Neogigioble Adverse | 35.9 | ${ }^{37.6}$ | 37.2 |
| 8, MOSMAN PLACE | Dwelling | 46.3 | 47.6 | 46.2 | -0.1 | Negligible Beneficial | 47.4 | 1.1 | Negiligile Adverse | 35.4 | 36.6 | 36.4 |
| 9, MOSMAN PLACE | Dwelling | 46.8 | 48.5 | 46.7 | -0.1 | Negligible Beneficial | 48.1 | 1.3 | Negligible Adverse | 35.9 | 37.4 | 37.0 |
| PERSLEY PARK CARAVAN PARK, 1, MUGIIEMOSS ROAD | Dwelling | 69.1 | 69.8 | 69.2 | 0.1 | Negligible Adverse | 70.2 | 1.1 | Negligible Adverse | 55.9 | 56.6 | 56.9 |
| PERSLEY PARK CARAVAN PARK, 2, MUGIEMOSS ROAD | Dwelling | ${ }^{68.4}$ | 69.2 | ${ }^{68.5}$ | 0.1 | Negligitie Beneficial | 69.5 | 1.1 | Negiligibe Adverse | 55.3 | 56.0 | 56.3 |
| PERSLEY PARK CARAVAN PARK, 4, MUGGIEMOSS | ${ }^{\text {Dwelling }}$ | ${ }_{67.5}$ | ${ }_{66.1}^{66.1}$ | ${ }_{67.5}^{65.5}$ | 0.0 | No Change | 66.4 | 0.9 | Neogigiole Adverse | 54.3 52.7 | ${ }_{55.3}^{53.3}$ | ${ }_{55.5}^{53.5}$ |
| PERSLEY PARK CARAVAN PARK. 5. MUGIEMOSS ROAD | Welling | 63.8 | 64.4 | 63.7 | -0.1 | Negligible Beneficial | 64.6 | 0.8 | Negoligible Adverse | 51.2 | 51.7 | 51.9 |
| PERSLEY PARK CARAVAN PARK, 6 , MUGIEMOSS ROAD | welling | 71.4 | 72.4 | 71.5 | 0.1 | Negligible Beneficial | 72.4 | 1.0 | Negigigile Adverse | 58.0 | 58.9 | 5.9 |
| PERSLEY PARK CARAVAN PARK, 7, MUGIEMOSS ROAD |  | 63.4 | 64.2 | 63.4 | 0.0 | Change | 64.3 | 0.9 | Negiligible Adverse | 50.8 | 51.5 | 51.6 |
| PERSLEY PARK CARAVAN PARK, 8 , MUGIEMOSS ROAD | Dwelling | 71.9 | 72.9 |  | 0.0 | No Change | 72.8 | 0.9 | Negigiobile Adverse | 58.4 | 59.3 | 59.3 |
| PERSLEY PARK CARAVAN PARK, 9 , MUGIIEMOSSS ROAD | Deelling | 63.0 | 63.8 | 63.0 | 0.0 | No Change | 63.9 | 0.9 | Negiligble Adverse | 50.4 | 51.2 |  |
| PERSLEY PARK CARAVAN PARK, 10 , MUGIEMOSS R Road | weling | 70.9 | 72.0 | 71.0 | 0.1 | Negligible Beneficial | 71.9 | 1.0 | Negigigile Adverse | 57.5 | 58.5 | 8.4 |
| PersLer Pank Catavan Pank, 11, MUGIEMOSS ROAD | Oweling | ${ }_{717} 63.7$ | ${ }_{7}^{64.7}$ | ${ }_{7117}^{63.7}$ | 0.0 | No change | ${ }_{7}^{64.7}$ | 1.0 | Negiligie Aaverse | 51.1 | 52.0 | 52.0 |
| PERSLEY PARK CARAVAN PARK, 13 , MUGGIEMOSS R ROAD | Dwelling | 64.0 | 65.1 | 64.0 | 0.0 | No Change | 65.0 | 1.0 | Negigioible Adverse | 51.3 | 52.3 | 52.2 |
| PERSLEY PARK CARAVAN PARK, 14, MUGIEMOSS ROAD | Dwelling | 71.1 | 72.2 | 71.2 | 0.1 | Negigigile Adverse | 72.1 | 1.0 | Negigiolile Adverse | 57.7 | 58.7 | 58.6 |
| PERSLEY PARK CARAVAN PARK, 15, MUGIEMOSS R ROAD | Dwelling | 64.7 | 65.8 | 64.7 | 0.0 | No Change | 65.8 | 1.1 | Negiligible Adverse | 52.0 | ${ }_{53.0}^{5}$ | 53.0 |
| PERSLEY PARK CAAAVAN PARK, 16, MUGIEMOSS ROAD | Owelling | $\begin{array}{r}63.7 \\ \hline 65.1\end{array}$ | 64.5 65.9 | 63.6 <br> 6.1 | -0.1 | Negligible Beneficial | 64.5 66.0 | 0.8 0.9 | Negigigbe Adverse | $\stackrel{51.1}{52.3}$ | 51.8 53.0 | 51.8 53.1 |
| PERSLLEY PARK CARAVAN PARK, 18, MUGIEMOSS | ${ }^{\text {Duelilig }}$ | ${ }_{71.0}$ | ${ }^{611.4}$ | ${ }_{71.2}$ | 0.2 | Negigioile Adverse | ${ }_{72.1}$ | 1.1 | Neoligible Adverse | 57.6 | 58.0 | 58.6 |
| PERSLEY PARK CARAVAN PARK, 19, MUGGIEMOSS ROAD | Dwelling | 69.5 | 70.5 | 69.6 | 0.1 | Negligible Beneficical | 70.6 | 1.1 | Negligible Adverse | 56.3 | 57.2 | 57.3 |
| 207, MUGGIEMOSS RAAD | Dwelling | 70.8 | ${ }_{71.3}$ | 70.6 706 | -0.2 | Neogigibie Beneficial | ${ }_{72,1} 7$ | 1.2 13 | Negigioble Adverse | 57.5 575 | 57.9 | 58.5 <br> 58.6 |
| 230, MUGGIEMOSS CoAD | ${ }^{\text {Duelling }}$ | 70.7 | ${ }_{65.1}$ | ${ }_{64.5}$ | $\stackrel{-0.2}{-0.2}$ | Negiligie Beneficial | ${ }^{65.9}$ | ${ }_{1.2}$ | Neogigiole Adverse | 52.0 | ${ }_{57.9}$ | ${ }_{58.0}^{58.0}$ |
| 234, MUGIEMOSS ROAD | Dwelling | 69.9 | 70.4 | 69.8 | -0.1 | Negligible Beneficial | 71.2 | 1.3 | Negiligile Adverse | 56.6 | 57.1 | 57.8 |
| 236, MUGIEMOSS ROAD | Dwelling | 69.9 | 70.3 | 69.7 | -0.2 | Negligible Beneficial | 71.1 | 12 | Negligible Adverse | 56.6 | 57.0 | 57.7 |
| 238. MUGGIEMOSS ROAD | Deelling | 69.8 | 70.3 | 69.6 | -0.2 | Negligible Beneficial | 71.1 | 1.3 | Negligible Adverse | 56.6 | 57.0 | 57.7 |
| 240, MUGGIEMOSS R ROAD | Dwelling | 69.9 | 70.3 |  |  | Negiligiole Beneficial |  | 1.2 | Negiligile Adverse |  |  |  |
| 242, MUGIEMOSS ROAD | Dweling | 69.9 | 70.4 | 69.7 | -0.2 | Negligible Beneficial | 71.2 | 1.3 | Negiligble Adverse | 6.6 | 57.1 | 57.8 |
| 244, MUGILMOSS ROAD | Oweiling | 70.9 | 70.4 | 69.8 | -0. | Negligble Benenicial | 7.12 | 1.3 | Negligio Adverse | ${ }_{56.6} 5$ | 57.1 | 57.8 |
| 248, MUGIEMOSS ROAD | Owelling | 70.2 | 70.6 | 70.0 | -0.2 | Negligible Beneficial | 71.5 | 1.3 | Neoligioble Adverse | 56.9 | 57.3 | 58.1 |
| 250, MUGIEMOSS ROAD | Dwelling | 70.1 | 70.6 | 69.9 | -0.2 | Negligible Beneficial | 71.4 | 1.3 | Negigiole Adverse | 56.8 | 57.3 | 58.0 |
| 252, MUGIEMOSS R ROAD | Dwelling | 70.2 | 70.6 | 70.0 | -0.2 | Negigibile Benenicial | 71.5 | ${ }_{1}^{1.3}$ | Negiligile Adverse | 56.9 | 57.3 | 58.1 58.1 |
| 254, MUGGIEMOSS R RoAD | Dwelling | 70.2 70.3 | 70.7 70.7 | 70.0 70.1 | -0.2 | $\frac{\text { Negligible Beneficial }}{\text { Negijibile }}$ Beneficial | 71.5 71.6 | 1.3 1.3 | $\frac{\text { Negigigile Adverse }}{\text { Negligiole Adverse }}$ | 56.9 57.0 | 57.4 57.4 | $\stackrel{58.1}{58.2}$ |
| 258, MUGIIEMOSS ROAD | Dwelling | 70.6 | 71.0 | 70.4 | -0.2 | Negligible Beneficial | 71.9 | 1.3 | Negiligile Adverse | 57.3 | 57.6 | 58.4 |
| 260, MUGIEMOSS ROAD | Dwelling | 70.5 | 71.0 | 70.3 | -0.2 | Negligible Beneficial | 71.8 | 1.3 | Negiligile Adverse | 57.2 | 57.6 | 58.4 |
| 262. MUGIEMOSS ROAD | Develing | $\frac{70.5}{617}$ | $\frac{70.9}{621}$ | 70.3 | -0.2 | Negligible Beneficial | $\frac{71.8}{623}$ | ${ }_{1}^{1.3}$ | Negligible Adverse | $\begin{array}{r}57.2 \\ \hline 93\end{array}$ | $\frac{57.5}{49}$ | 58.4 |
| GROVE CEMETERY, MUGIEMOSS ROAD | Cemetery | ${ }_{68.1}$ | ${ }_{69.3}$ | 68.2 | 0.1 | Neogligibie Adverise | ${ }_{69.3}$ | 1.2 | Neoligioble Adverse | ${ }_{55.0}$ | ${ }_{56.1}^{49.1}$ | ${ }_{56.1}$ |
| MUGIEMOSS ROAD | Dwelling | 53.8 | 54.2 | 53.4 | -0.4 | Negigigible Beneficial | 54.2 | 0.4 | Negiligible Adverse | 42.2 | 42.5 | 42.5 |
| MUGIEMOSS ROAD | Dwelling | 59.5 | 59.6 | 59.4 | -0.1 | Negligible Beneficial | 60.1 | 0.6 | Negigioble Adverse | 47.3 | 47.4 | 47.8 |
| WOODSIDE COUNTRY PARK, MUGIEMOSS ROAD | Country Park | 62.4 | 63.6 | 62.5 | 0.1 | Negligible Beneficical | 63.6 | 1.2 |  | 49.9 | 51.0 | 51.0 |
| ( ANAITLL, NANITAL, GRANDHOLM COTTAGES, GRANDHOLM | National Cycle Route | 77.5 | 77.1 | 771.4 | -0.1 | Negenligible Beneniticial | 72.8 | ${ }_{1.3}^{1.3}$ | Neoligioble Adverse | 56.1 | ${ }_{58.6}$ | 59.3 |
| National Cycle Route (rec 2) | National Cycle Route | 62.2 | 62.9 | 62.2 | 0.0 | No Change | 63.2 | 1.0 | Negigiolie Adverse | 49.7 | 50.3 | 50.6 |
| National Cycle Route (rece 3) | National Cycle Route | 51.4 474 | 51.9 474 | 51.2 473 | -0.2 | Negligible Beneficial | 52.0 480 | 0.6 | Negligile Adverse | 40.0 36.4 | 40.4 36.4 | ${ }^{40.5}$ |
| National Cycle Route (rec 5) | National Cycle Route | 49.2 | 50.0 | 49.1 | -0.1 | Negligible Beneficial | 50.3 | 1.1 | Negigigile Adverse | 38.0 | ${ }_{38.7}$ | 39.0 |
| 1, NEWTON ROAD, MIDDLEFIELD | Deeling | 51.8 | 52.1 | 51.7 | -0.1 | Negligible Beneficical | 52.4 | 0.6 | Negligible Adverse | 40.4 | 40.6 | 40.9 |
| 10, 1 NEWTON ROAD, MIDDLEFELELD | Dweling | 52.6 53.7 | ${ }^{53.2} 5$ | 52.5 <br> 53.4 | -0.3 | Negiligiole Beneficical | 53.3 | 0.3 | Negigigible Adverse | ${ }_{42.1}^{42.1}$ | ${ }_{4}^{42.6}$ | ${ }_{4}^{42.7}$ |
| 12, NEWTON ROAD, MIDLLEFIELD | Dwelling | 52.6 537 | 53.2 | ${ }_{52.5}^{525}$ | -0.1 | Negligible Benefitical | ${ }_{53.3}^{51}$ | 0.7 | Negigigle Adverse | ${ }_{41.1}$ | ${ }_{41.6}^{4}$ | 41.7 |
|  | Dwelling | ${ }_{53}^{53.7}$ | 53.8 53.2 | 53.4 52.5 | -0.3 -0.1 | Negiligble Beneiticial | ${ }_{54.0}^{53.3}$ | 0.3 0.7 | Negigible Adverse | ${ }_{4}^{42.1}$ | ${ }_{4}^{42.2} 41.6$ | ${ }_{4}^{42.3}$ |
| 15, NEWTON ROAD, MIDDLEFIELD | Dwelling | 53.7 | 53.8 | 53.4 | -0.3 | Negligible Beneficical | 54.0 | 0.3 | Negligible Adverse | 42.1 | 42.2 | 42.3 |
| 16, 17 NeWTON ROAD, MIDDLEFELELD | Dwelling | 52.6 52.7 | - ${ }_{53.2}^{52.8}$ | 52.5 52.7 | -0.1 | Negiligio Beneficial | ${ }_{53.2}^{53.3}$ | 0.5 | Neoligigie Adverse | $\stackrel{41.1}{41.2}$ | $\stackrel{41.6}{41.3}$ | ${ }_{41.6}^{41.7}$ |
| 18, NEWTON ROAD, MIDDLEFIELD | Dwelling | 52.5 | 53.1 | 52.4 | -0.1 | Negligible Beneficial | 53.2 | 0.7 | Negigigile Adverse | 41.0 | 41.5 | 41.6 |

## Appendix A14．4：Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short－term Daytime Noise Change（dB） | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long－term Daytime Noise Change（dB） | Magnitude of Change | DM18 Lnight，outside | DM33 Lnight，outside | DS33 Lnight，outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 19，NEWTON ROAD，MIDLEFEELD | Owelling | 52.7 | 52.8 | 52.7 | 0.0 | No Change | 53．2 | 0.5 | Negigigle Adverse | 41.2 | 41.3 | 41.6 |
| 2，NEWTON ROAD，MIDDLEFFELD | Dweling | 52.5 <br> 5.5 | 年5311 | 52.4 <br> 524 | －0．1 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ | 53．3 | ${ }_{0}^{0.8}$ | Negligible Adverse | $\frac{41.0}{410}$ | $\frac{41.5}{415}$ | $\frac{41.7}{41.6}$ |
| 20，NeW 21. NEWTON ROAD，MID MILLEFEFELED | Dwelling | 51．9 | ${ }_{53.0}$ | ${ }_{5}^{52.0}$ | 0.1 | Negoligiobie Aendiverial | ${ }^{53,2} 5$ | 0.7 | $\frac{\text { Negigigie Adverse }}{\text { Neoligible Adverse }}$ | 40.4 | ${ }_{40.5}^{44.5}$ | $\stackrel{41.6}{41.1}$ |
| 22，NEWTON ROAD，MIDDLEFIELD | Dwelling | 52.5 | 53.1 | 52.4 | －0．1 | Negligible Beneficial | 53.2 | 0.7 | Negiligile Adverse | 41.0 | 41.5 | 41.6 |
| 23，NEWTON ROAD，MIDDLEFIELD | Dwelling | 51.9 | 52.0 | 52.0 | 0.1 | Negigioile Adverse | 52.6 | 0.7 | Negigigile Adverse | 40.4 | 40.5 |  |
| 24，NEWTON ROAD，MIDDLEFIELD | Dwelling | 52.5 | 53.1 | 52.4 | －0．1 | Negligible Beneficial | 53.2 | 0.7 | Negligible Adverse | 41.0 | 41.5 | 41.6 |
| 25，NEWTON ROAD，MIDDLEFFIELD | welling | 51.6 | 51.9 | 51.5 | ． 0.1 | Negligible Beneficicial | 52.3 | 0.7 | Negligible Adverse | 40.2 | 40.4 | 40.8 |
| 26，NEWTON ROAD，MIDDLEFFELD | welling | 52.4 | 53.0 | 52.3 | －0．1 | Negligible Beneficial | 53．1 | 0.7 | Negigioble Adverse | 40.9 | 41.4 | 41.5 |
| 27，NEWTON ROAD，MIDDLEFFELD | welling | 51.6 | 51.9 | 51.5 | －0．1 | Negligible Beneficial | 52．3 | 0.7 | Negigioble Adverse | 40.2 | 40.4 | 40.8 |
| 28，NEWTON ROAD，MIDDLEFFIELD | welling | 52.4 | 53.0 | $\begin{array}{r}52.3 \\ 515 \\ \hline\end{array}$ | ${ }^{0.1}$ | Negligible Beneficial | 53．11 | 0.7 | Negigigile Adverse | 40.9 | 41.4 | 41.5 |
| 29， 3 NEWTON ROAD，MIDDLEFELELD | Oweiling | ${ }_{51.8}^{51.6}$ | 51.9 52.1 | 51．5 51.7 | $-01$ | Negiligiole Beneitical | 52．4 | 0.6 | $\frac{\text { Negligibe Adverse }}{\text { Neoligibe Adverse }}$ | ${ }_{40.4}^{40.2}$ | ${ }_{40.6}^{40.4}$ | 40.9 |
| 30, NEWTON ROAD，MIDDLEFIELD | welling | 52.4 | 53.0 | 52.3 | －0．1 | Negligible Beneficial | 53.1 | 0.7 | Negligible Adverse | 40.9 | 41.4 | 41.5 |
| 31，NEWTON ROAD，MIDDLEFIELD | eeling | 51.6 | 51.9 | 51.5 | －0．1 | Negligible Beneficial | 52.3 | 0.7 | Negigigile Adverse | 40.2 | 40.4 | 40.8 |
| 32，NEWTON ROAD，MIDDLEFEILLD |  | 52.4 |  | 52.3 | ${ }^{0.1}$ | gible Beneficial | 53．1 | 0.7 | Negigioble Adverse | 40.9 | 41.4 | ． 5 |
| 34，NEWTON ROAD，MIDLLEFELELD |  | 52.9 | 53.4 | 52.7 5.7 |  | Iaible Beneficial |  | 0.5 | Negigigibe Adverse | 41.3 |  |  |
| 36，NEWTON ROAD，MIDDLEFFELD | Deelling | 52．9 | 53.4 | 52.7 52.7 | －0．2 | Negligible Beneficicial | 53．4 |  | Negligible Adverse | 41.3 |  |  |
| 38，NEWTON ROAD，MDDLLEFIELD | Dweling | 52.9 | 53.4 | 52.7 | －0．2 | Negigigile Beneficial | 53.4 | 0.5 | Negiligile Adverse |  | 41.8 | 41.8 |
| 4．NEWTON ROAD，MIDDLEFRED | weling | 52.5 | 53.1 | 52.4 <br> 5.4 | －0．1 | Negiligibe Beneificial | 53．3 | 0.8 | Negiquible Adverse | 41.0 | 41.5 | 41.7 |
| 40，NEWTON ROAD，MIDLLEFELED | Oweling | 52．9 | 53．4 | 52．7 | －0．2 | Neogigiole Beneificial | 53．4 | ${ }_{0}^{0.5}$ | Negligiole Adverse | ${ }_{41.3}^{418}$ | ${ }_{412}{ }^{4}$ | ${ }_{41.8}^{4.1}$ |
| 42，NEWTTN ROAD，MIDOLEFELEL | weling | 53.4 | 53.9 | ${ }_{53,2}^{53,2}$ | －0．2 | Negiligioe Beneificial | ${ }_{53,7}$ | 0.3 | Negligible Aaverse | 41.8 | 42.2 | 42.1 |
| 44，NEWTTN ROAD，MIDOLEFELEL | Dweling | 53.4 | 53.9 | 53．2 | －0．2 | Negiligibe Beneiticar | ${ }_{53.7}^{53}$ | 0.3 | Negiligble Adverse | 41.8 | ${ }^{42.2}$ | 42.1 |
| 46，NEWUON ROAD，MIIDLLFFELED | Dweling | 㐌3．4 | ${ }_{53.9}^{53.9}$ | －${ }_{53.2}^{53.2}$ | $\stackrel{-0.2}{-0.2}$ | Negiligile Beneitical | ${ }_{53,7}^{53.7}$ | 0.3 | Negigigibe Adverse | $\stackrel{41.8}{41.8}$ | $\frac{42.2}{42.2}$ | ${ }_{42.1}^{42.1}$ |
| 5，NEWTON ROAD，MIDDLEFIELD | Dwelling | 51.8 | 52.1 | 51.7 | －0．1 | Negligible Beneficicial | 52.4 | 0.6 | Neogioigile Adverse | 40.4 | 40.6 | 40.9 |
| 50，NEWTON ROAD，MIDDLEFIELD | Dwelling | 51.9 | 52.6 | 51.8 | －0．1 | Negligible Beneficial | 52.4 | 0.5 | Negiligile Adverse | 40.4 | 41.1 | 40.9 |
| 52，NEWTON ROAD，MIDDLEFFIELD | welling | 51.9 | 52.6 | 51.8 | －0．1 | Negligible Beneficial | 52.4 | 0.5 | Negigigile Adverse | 40.4 | 41.1 | 40.9 |
| 54, NEWTON ROAD，MIDDLEFEIELD | welling | 51.5 | 52.2 | 51.4 | －0．1 | Negligible Beneficial | 52.1 | 0.6 | Negigioble Adverse | 40.1 | 40.7 | 40.6 |
| 56, NEWTON ROAD，MDDLLEFIELD | welling | 51.5 | 52.2 | 51.4 | －0．1 | Negligible Beneficial | 52.0 | 0.5 | Negigioble Adverse | 40.1 | 40.7 | 40.5 |
| 6，NEWTON ROAD，MIDDLEFIELD | welling | 52.5 | 53.0 | 52.3 | －0．2 | Negigigible Beneficial | 53.2 | 0.7 | Negiligibe Adverse | 41.0 | 41.4 | 41.6 |
| 7．NEWTON ROAD，MIDDLEFFELD | Oweling | 51.8 | 52.1 | 51.7 | －0．1 | Negligible Beneficial | 52.4 | 0.6 | Negiligibe Adverse | 40.4 | 40.6 | 40.9 |
|  | Dwelling | 52.5 53.7 | 53．0 | 㐌53．4 | －0．2 | $\frac{\text { Negiligiole Beneficial }}{\text { Negligible }}$ Beneficial | － 54.2 | ${ }_{0.3}^{0.7}$ | Negigigib Adverse | ${ }_{42.1}^{41.0}$ | ${ }_{42.4}^{41.4}$ | ${ }_{42.6}^{41.6}$ |
| 58，NEWTON ROAD，MIDDLEFIELD | Dwelling | 52.2 | 52.7 | 51.6 | －0．6 | Negligible Beneficial | 52.3 | 0.1 | Negligible Beneficial | 40.7 | 41.2 | 40.8 |
| 70, NEWTON ROAD，MIDDLEFIELD |  |  |  |  | －0．4 | Negligible Beneficial |  |  | Negligible Adverse |  |  |  |
| 68，NEWTON ROAD，MIDDLEFIELD | Dwelling | 54.5 | 55.0 | 54.0 | －0．5 | Negligible Beneficial | 54.7 | 0.2 | Negiligile Adverse | 42.8 | 43.2 | 43.0 |
| 78，NEWTON ROAD，MIDDLEFIELD | welling | 53.1 | 53.8 | 52.7 | －0．4 | Negligible Beneficial | 53.2 | 0.1 | Negigioble Adverse | 41.5 | 42.2 | 41.6 |
| 82，NEWW 62 NEWTON ROAD，MIDDLEEFELED | Owelling | 54．5 53.4 | 55.1 53.9 | 54.9 52.9 | －0．5 | Negiligibiele Beneneficicial | ${ }_{5}^{53.5}$ | 0.1 | Negligigile Adverse | ${ }_{4}^{42.8}$ | ${ }_{42.2}^{43.3}$ | ${ }_{4}^{43.9}$ |
| 74，NEWTON ROAD，MIDDLEFIELD | Dwelling | 51.9 | 52.5 | 51.5 | －0．4 | Negligible Beneficial | 52.0 | 0.1 | Negligible Adverse | 40.4 | 41.0 | 40.5 |
| 291，NORTH ANDERSON DRIVE | Dwelling | 70.3 | 70.6 | 70.3 | 0.0 | No Change | 70.7 | 0.4 | Negiligile Adverse | 57.0 | 57.3 | 57.4 |
| 293，NoRTH ANDERSONDRIVE | Dwelling | $\underline{69.9}$ | 70.2 69.7 | $\underline{69.9}$ | 0.0 <br> 0.0 <br> 0.1 | Neglicioble Eenefeficial | 70.3 69.8 | 0.4 0.3 | Negigigle Adverse | $\stackrel{56.6}{56.3}$ | 56.9 56.5 | $\stackrel{57.0}{56.6}$ |
| 297，NORTH ANDERSON DRIVE | Dwelling | 68.8 | 69.0 | 68.7 | －0．1 | Negligible Beneficical | 69.1 | 0.3 | Negigioble Adverse | 55.7 | 55.8 | 55.9 |
| 299，NoRTH ANDERSON DRIVE | Dwelling | 70.4 70.1 | 70.6 70.3 | 70.4 70.1 | 0.0 0.0 | $\frac{\text { No Change }}{\text { No Change }}$ | 70.7 70.4 | 0.3 0.3 | $\frac{\text { Negiligib Adverse }}{\text { Negigible Adverse }}$ | 57.1 56.8 | 57.3 57.0 | 57.4 57.1 |
| 303，NORTH ANDERSON DRIVE | Dwelling | 69.7 | 69.9 | 69.7 | 0.0 | No Change | 70.0 | 0.3 | Negligible Adverse | 56.5 | 56.6 | 56.7 |
| 305，NoRTH ANDERSON DRIVE | Dwelling | 69.1 70.7 | 69.3 70.8 | 69.1 70.8 | 0.0 0.1 | $\xrightarrow{\text { Nogo Change }}$ | 69.4 70.9 | 0.3 0.2 | Negligibl Adverse | 55.9 57.4 | 56.1 57.5 | 56.2 57.5 |
| 309，NORTH ANDERSON DRIVE | Dwelling | 70.4 | 70.5 | 70.5 | 0.1 | Negligible Beneficial | 70.6 | 0.2 | Negiligile Adverse | 57.1 | 57.2 | 57.3 |
| 311，NoRTH ANDERSON DRIVE | Dwelling | 70.1 | ${ }^{70.1}$ | 70.2 | 0.1 | Negiligibe Adverse | 70.2 | 0.1 | Negiligibe Adverse | 56．8 | 56．8 | 56．9 |
|  | Dwelling | 69.8 70.6 | 69.8 70.6 | 69.8 70.8 | 0.0 | Neoligione Alduerse | 69.9 70.8 | 0.1 | Negigigibe Adverse | $\stackrel{56.6}{57.3}$ | $\stackrel{56.6}{57.3}$ | $\stackrel{56.6}{57.5}$ |
| 317，NORTH ANDERSON DRIVE | Dwelling | 69.7 | 69.7 | 69.9 | 0.2 | Negigiole Adverse | 69.8 | 0.1 | Negligible Beneficial | 56.5 | 56.5 | 56.6 |
| 319，NORTH ANDERSON DRIVE | Welling | 70.4 | 70.4 | 70.6 | 0.2 | Negigioble Adverse | 70.5 | 0.1 | Negligible Beneficial | 57.1 | 57.1 | 57.2 |
|  | Dwelling | 690．2 | 690．2 | ${ }^{69.3}$ | 0.1 | Negegigioliele Benenificial | ${ }^{69.3}$ | 0.1 | Negegigigible Beneneificial | 56．9 | 56．9 | 56．0 |
| 325．NORTH ANDERSON DRIVE | Deelling | 69.5 | 69.6 | 69.7 | 0.2 | Negligible Adverse | 69.7 | 0.2 | Negigiolie Adverse | 56.3 | 56.4 | 56.5 |
| 327，NoRTH ANDERSON DRIVE | Dwelling | 70．2 | 70．4 | 70.4 | 0.2 | Negligible Adverse | 70.5 | 0.3 | Negiligile Adverse | 56.9 | 57．1 | 57.2 5.3 |
| 331，NORTH ANDERSOND DRIVE | ${ }^{\text {Duelling }}$ | $\underline{69.9}$ | ${ }^{69.4}$ | 69.4 70.1 | 0.2 | Neogigiole Adversse | ${ }_{70.3}$ | 0.4 | Neoligioble Adverse | ${ }_{56.6}^{56.6}$ | ${ }^{56.2} 5$ | 56.0 57.0 |
| 333，NORTH ANDERSOND DRIVE | Deeling | 69.3 | 69.8 | 69.5 | 0.2 | Negligible Adverse | 69.7 | 0.4 | Negligible Adverse | 56．1 | 56．6 | 56．5 |
| 335，NoRTH ANDERSONDRIVE | Dwelling | 69．9 | 70.4 69.8 | 70．2 | ${ }_{0}^{0.1}$ | $\frac{\text { Negigigle Beneficial }}{\text { Negigiole Adverse }}$ | $\underline{70.7}$ | 0.5 0.6 | $\frac{\text { Negigible Adverse }}{\text { Negligible Adverse }}$ | $\stackrel{56.6}{55.9}$ | 57.1 56.6 | $\stackrel{57.1}{56.5}$ |
| 342，NORTH ANDERSON DRIVE | Dwelling | 70.0 | 70.9 | 70.1 | 0.1 | Negligible Beneficial | 70.9 | 0.9 | Negligible Adverse | 56.7 | 57.5 | 57.5 |
| 344，NoRTH ANDERSOND RIVE | Oweling | 69．9 | 70.8 70.8 | 69．9 | 0.0 | No Change | 70.7 70.7 | 0.8 0.8 | Negligibe Adverse | 56．6 | 57．5 | 57．4 |
| 347，NORTH ANDERSON DRIVE | Dwelling | 63.8 | 64.9 | 63.8 | 0.0 | No Change | 64.8 | 1.0 | Negiligible Adverse | 51.2 | 52.1 | 52.1 |
| 348，NoRTH ANDERSON DRIVE | Dwelling | 69.6 |  | 69.6 | 0.0 |  | 70.4 | 0.8 | Negiligile Adverse | 56.4 | 57.2 | 57.1 |
| 349，NORTH ANDERSON DRIVE | weling | 63.4 | ${ }_{7}^{64.5}$ | 63.3 | －0．1 | Negligible Beneficial | ${ }_{7}^{64.4}$ | 1.0 | Negiligibe Adverse | 50.8 | 51.8 | 5.7 |
| 3551．NORTH ANDERSON DRIVE | ${ }^{\text {Dueliling }}$ | 65.0 | ${ }_{66.3}$ | ${ }_{694.8}$ | －0．2 | Neglioible Benenficial | ${ }_{66.1}$ | 1.9 | Negigiole Adverse | ${ }_{522}$ | 53．4 | 53，2 |
| 352．NORTH ANDERSON DRIVE | Dwelling | 69.7 | 70.7 | 69.7 | 0.0 | No Change | 70.6 | 0.9 | Negigioble Adverse | 56.5 | 57.4 | 57.3 |
| 353，NORTH ANDERSON DRIVE | Dwelling | 65.0 | 66.3 | 64.8 | －0．2 | Negligible Beneficial | 66.1 | 1.1 | Negligible Adverse | 52.2 | 53.4 | 53.2 |
| 354，NoRTH ANDERSOND RIVE | Dwelling | ${ }_{69.0}^{69.7}$ | ${ }_{66.3}^{70.7}$ | ${ }_{694.8}^{64.8}$ | －0．2 | Negligibile Benefificial | 70.6 66.1 | 0.9 1.1 | $\frac{\text { Negligible Adverse }}{\text { Negligile Adverse }}$ | 56．5 | 57.4 53.4 | 57．3 |
| －356，NoRTH ANDERSON DRIVE | Dwelling | 69.6 650 | ${ }^{70.6}$ | 69.5 648 | -0.1 <br> .0. | $\frac{\text { Negligible Beneficial }}{\text { Neglioibl }}$ | 70.5 66.1 | 0.9 11 | Negiligle Adverse | 56．4 | 57.3 <br> 53 | 57．2 |
| 358，NORTH ANDERSON DRIVE | Dwelling | 69．5 | 60.6 70.6 | 69.4 | －0．1 | Negogioible Beneficicial | ${ }^{60.5}$ | 1.0 | Neoligiole Adverse | ${ }_{\text {52．}}^{56.3}$ | ${ }_{57.3}$ | 57．2 |
| 358，NORTH ANDERSON DRIVE | Deeling | 69.5 | 70.6 | 69.4 | －0．1 | Negligible Beneficical | 70.5 | 1.0 | Negligible Adverse | 56．3 | 57．3 | 57．2 |
| 358，NoRTH ANDERSONDRIVE | Oweling | 69．5 | 70.6 70.6 | $\frac{69.4}{69.4}$ | $\xrightarrow{-0.1} \begin{aligned} & -0.1\end{aligned}$ | Negegigigibe Beneneficial | 70.5 | 1.0 | Negigigibe Adverse | ${ }_{56.3}^{56.3}$ | ${ }_{57.3}^{57.3}$ | 57．2 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 Lnight,outside | DS33 Lnight,outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 359, NORTH ANDERSON DRIVE | Dwelling | 67.2 | 68.5 | 66.9 | ${ }_{0}^{0.3}$ | Negligible Beneficial | 68.3 | 1.1 | Negigigile Adverse | 54.2 | 55.4 | 55.2 |
| 360, NoRTH ANDERSON DRIVE | Dwelling | 67.0 | 68.4 | 66.9 | ${ }^{0.1}$ | Negligible Beneficial | 68.2 | 1.12 | Negligible Adverse | 54.0 | 55.3 | $\begin{array}{r}55.1 \\ 55 \\ \hline\end{array}$ |
| 361, NoRTH ANDERSONDRIVE | Dweling | ${ }_{67.3}^{67.2}$ | ${ }_{68.7}^{68.5}$ | 66.9 | -0.3 -0.2 | $\frac{\text { Negiligiole Beneficial }}{\text { Negligibe }}$ Beneficial | 68.5 | ${ }_{1}^{1.1}$ | Negigigib Adverse | 54.2 | 55.4 55.6 | 55.4 |
| 363, NORTH ANDERSON DRIVE | Dwelling | 67.2 | 68.5 | 66.9 | -0.3 | Negligible Beneficial | 68.3 | 1.1 | Negligible Adverse | 54.2 | 55.4 | 55.2 |
| 364, NORTH ANDERSON DRIVE | welling | 67.7 | 69.1 | 67.5 | -0.2 | ligible Beneficial | 68.9 | 1.2 | Negligible Adverse | 54.7 | 55.9 |  |
| 365, NORTH ANDERSON DRIVE | Wwelling | 67.2 | 68.5 | 66.9 | -0.3 | Negligible Beneficial | 68.3 | 1.1 | Negiligile Adverse | 54.2 | 55.4 | 55.2 |
| 366, NORTH ANDERSON DRIVE | Deelling | 67.6 | 69.0 | 67.5 | -0.1 | Negligible Beneficial | 68.8 | 1.2 | Negigioble Adverse | 54.6 | 55.8 | 55.7 |
|  | Dweling | 72.3 | 73.5 693 | 71.9 678 | -0.4 <br> .01 <br> 0.0 | Neogioibio Beneficial | 73.3 691 | 1.0 12 | Negiligib Adverse | 58.8 | 59.9 | 59.7 559 |
| 368, NoRTH ANDERSON DRIVE | weling | ${ }_{7}^{67.9}$ |  |  | -0. 1 | Negiligiole Beneitical | ${ }_{69,1}^{693}$ | 1.2 |  | 54.8 59 | 56.1 | ${ }_{55.9}^{59}$ |
| 369, NORTH ANDERSON DRIVE | Oweling | 72.3 73.0 | ${ }_{74.5}^{73.5}$ | 71.9 72.7 | -0.4 | $\frac{\text { Negligiole Benenitical }}{\text { Neglioibl }}$ Beneficial | ${ }_{7}^{73.3}$ | 1.0 | Negigigio Adverse | 58.8 | 59.9 | 59.7 60.3 |
| 371, NORTH ANDERSON DRIVE | Dwelling | 72.3 | 73.5 | 71.9 | -0.4 | Negligible Beneficical | 73.3 | 1.0 | Negigioile Adverse | 58.8 | 59.9 | 59.7 |
| 372, NORTH ANDERSON DRIVE | Dwelling | 73.0 | 74.1 | 72.7 | -0.3 | Negligible Beneficial | 73.9 | 0.9 | Negigiolile Adverse | 59.4 | 60.4 | 60.2 |
| 373, NoRTH ANDERSON DRIVE | Deeling | 72.3 | 73.5 | 77.9 | -0.4 | Negligible Beneficicial | 73.3 | 1.0 | Negiligibe Adverse | 58.8 | 59.9 | 59.7 |
| 374, NoRTH ANDERSON DRIVE | Dwelling | ${ }_{72,7}$ | 73.8 73 | 72.4 | -0.3 | $\frac{\text { Negligible Benentical }}{\text { Neglioble }}$ | ${ }_{73,7}$ | 1.0 | Negigigibe Adverse | 59.2 | 60.2 | 60.1 60.0 |
| 375, NORTH ANDERSSN DRIVE | ${ }^{\text {Owelling }}$ Dowling | ${ }_{72.7}$ | ${ }_{73.8}$ | ${ }_{72.4}$ | $\stackrel{-0.3}{-0.3}$ | Negiligiole Beneitical | ${ }^{73.7}$ | 1.0 | Negigigibe Adverse | ${ }_{59.2}^{59.1}$ | 60.2 | $\frac{60.0}{60.1}$ |
| 377, NORTH ANDERSON DRIVE | Dwelling | 72.6 | 73.8 | 72.3 | -0.3 | Negligible Beneficial | 73.6 | 1.0 | Negiligile Adverse | 59.1 | 60.2 | 60.0 |
| 378, NoRTH ANDERSON DRIVE | Wwelling | 72.9 | 74.0 | 72.6 | -0.3 | Negligible Beneficial | 73.8 | 0.9 | Negligible Adverse | 59.3 | 60.3 | 60.2 |
| 379, NoRIT ANDERSONDRIVE | Dwelling | 73.1 72.9 | 74.3 74.0 | 72.8 72.6 | -0.3 | $\frac{\text { Negiligiole Beneficial }}{\text { Negligibe }}$ Beneficial | 74.1 73.8 | 1.0 0.9 | Negigigib Adverse | 59.5 | ${ }^{60.6}$ | 60.4 |
| 381, NORTH ANDERSON DRIVE | Dwelling | 73.1 | ${ }^{74.3}$ | 72.8 | -0.3 | Negligible Beneficial | 74.1 | 1.0 | Negigiolile Adverse | 59.5 | 60.6 | 60.4 |
| 382, NORTH ANDERSON DRIVE | welling | 72.8 |  |  | -0.3 | Negligible Beneficicial | 73.8 | 1.0 | Negigigibe Adverse | 59.3 | 60.2 | 60.2 |
| 383, NORTH ANDERSON DRIVE | Dwelling |  | 73.4 | 71.9 |  | Negligible Beneficial |  | 1.0 | Negigioble Adverse |  | 59.8 | 59.6 |
| 384, NoRTH ANDERSON DRIVE | Oweling | 72.8 | 73.9 | 72.5 | -0.3 | Negligible Beneficical | 73.8 | 1.0 | Negigioble Adverse | 59.3 | 60.2 | 60.2 |
| 385, NORTH ANDERSON DRIVE | Oweling | ${ }_{7}^{72.2}$ | ${ }_{73,4}$ | 71.9 | ${ }_{0}$. | Neogigiole Beneificial | ${ }_{7}^{73.1}$ | 1.0 | Negigigio Adverse | 58.7 | 59.8 | 59.6 |
| 388, NORRTH ANDERSSON DRIVE | ${ }^{\text {Dwelling }}$ | 73.1 72.2 | 74.2 <br> 7.4 | $\frac{71.9}{}$ | -0.3 | ${ }_{\text {Negaligiole }}^{\text {Neneneificiol }}$ | ${ }_{73,2}$ | 1.0 | Neogigiole Adversse | ${ }_{58,7}^{59.5}$ | 60.5 | ${ }^{60.4} 59$ |
| 388, NORTH ANDERSON DRIVE | Dwelling | 73.1 | 74.2 | 72.8 | -0.3 | Negligible Beneficial | 74.1 | 1.0 | Negiligile Adverse | 59.5 | 60.5 | 60.4 |
| 389, NORTH ANDERSON DRIVE | Dwelling | 72.2 | 73.4 | 71.9 | -0.3 | Negligible Beneficial | 73.2 | 1.0 | Negiligile Adverse | 58.7 | 59.8 | 59.6 |
| 390, NoRTH ANDERSON DRIVE | Dwelling | 73.1 | 74.2 | 72.8 | -0.3 | Negligible Beneficical | 77.1 | 1.0 | Negaligible Adverse | 59.5 | 60.5 | 60.4 |
| 391, NoRTH ANDERSON DRIVE | Deeling | 72.4 | 73.6 | 72.1 | -0.3 | Negligible Beneficial | 73.4 | 1.0 | Negiligibe Adverse | 58.9 | 60.0 | 59.8 |
| 392, NORTH ANDERSON DRIVE | Dweling | ${ }_{72,1}$ | 74.2 | $\frac{72.8}{721}$ | -0.3 | Negiligio Beneficial | ${ }_{7}^{74.1}$ | 1.0 | Negiligibile Adverse | 59.5 589 | 60.5 | 60.4 59.8 |
| 393, NORTT ANDERSSN DRIVE | ${ }^{\text {Dwelling }}$ Oweling | ${ }_{72.3}$ | ${ }^{73.4}$ | ${ }_{72.0}$ | -0.3 | Negegigible Beneficioial | ${ }_{73.2}$ | 0.9 | Negigigile Adverse | 58.8 | 59.8 | ${ }_{59.6}$ |
| 395, NORTH ANDERSON DRIVE | Dwelling | 72.4 | 73.6 | 72.1 | -0.3 | Negligible Beneficial | 73.4 | 1.0 | Negiligile Adverse | 58.9 | 60.0 | 59.8 |
| 396, NORTH ANDERSON DRIVE | welling | 72.3 | 73.4 | 72.0 | -0.3 | Negligible Beneficial | 73.2 | 0.9 | Negigioible Adverse | 58.8 | 59.8 | 59.6 |
| 397, NoRTH ANDERSON DRIVE | Dwelling | 72.4 | 73.6 | 72.1 | -0.3 | Negligible Beneficial | 73.4 | 1.0 | Negigioble Adverse | 58.9 | 60.0 | 59.8 |
| 398, NORTH ANDERSON DRIVE | Dwelling | 72.3 | 73.4 | 72.0 | -0.3 | Negligible Beneficial | 73.2 | 0.9 | Negigioble Adverse | 58.8 | 59.8 | 59.6 |
| 399, NoRTH ANDERSON DRIVE | Welling | 73.0 | 74.2 | 72.7 | -0.3 | Negligible Beneficical | 74.0 | 1.0 | Negiligible Adverse | 59.4 | 60.5 | ${ }_{60.3}^{69}$ |
| 400, NoRTH ANDERSON DRIVE | Dwelling | 72.3 73.0 | 73.4 74.2 | 72.0 72.7 | -0.3 | Negiligiole Beneficial | 73.2 74.0 | 1.9 1.0 | Negigigib Adverse | 58.8 59.4 | ${ }^{59.8}$ | 590.6 |
| 402, NORTH ANDERSON DRIVE | Dwelling | 72.3 | 73.4 | 72.0 | -0.3 | Negligible Beneficial | 73.3 | 1.0 | Negligible Adverse | 58.8 | 59.8 | 59.7 |
| 403, NORTH ANDERSON DRIVE | Deelling | 73.0 | 74.2 | 72.7 | -0.3 | Negligible Beneficial | 74.0 | 1.0 | Negigioble Adverse | 59.4 | 60.5 | 60.3 |
| 404, NoRTH ANDERSON DRIVE | welling | 72.3 | 73.4 | 72.0 | -0.3 | Negligible Beneficial | 73.3 | 1.0 | Negiligile Adverse | 58.8 | 59.8 | 59.7 |
| 405, NORTH ANDERSON DRIVE | Oweling | ${ }_{73,0}^{73}$ | 74.2 734 | $\frac{72.7}{720}$ | -0.3 | Negligible Benenitial | 74.0 73.3 | 1.0 | Negiligile Adverse | 59.4 58.8 | 60.5 598 | 60.3 597 |
| 406, 40 , NORTHT ANDERSON DRIVE | ${ }^{\text {Duelling }}$ | ${ }_{73.1}$ | 73.4 74.3 | 72.8 | ${ }_{-0.3}$ | Negiligible Benenitical | ${ }_{74.1}$ | 1.0 | Neoligigibe Adverse | ${ }_{59}^{59.5}$ | ${ }_{60.6}$ | 690.4 |
| 408, NORTH ANDERSON DRIVE | Dwelling | 72.3 | 73.4 | 72.0 | -0.3 | Negligible Beneficial | 73.3 | 1.0 | Negiligible Adverse | 58.8 | 59.8 | 59.7 |
| 409, NORTH ANDERSON DRIVE | Dwelling | 73.1 | 74.3 | 72.8 717 | -0.3 | Negligible Benefificial | 77.1 | 1.0 | Negigigibe Adverse | 59.5 | 60.6 59 | 60.4 59 |
| 410, NORTH ANDERSON DRIVE | Dwelling | 72.0 73.1 | 73.1 <br> 74.3 | 71.7 <br> 72.8 | -0.3 -0.3 | $\frac{\text { Negligible Beneficial }}{\text { Neglioibl }}$ Beneficial | 73.0 74.1 | 1.0 1.0 | $\frac{\text { Negigigle Adverse }}{\text { Negligible Adverse }}$ | 58.5 59.5 | 59.5 60.6 | 59.4 60.4 |
| 412, NORTH ANDERSON DRIVE | Deelling | 72.0 | 73.1 | 77.7 | -0.3 | Negligible Beneficical | 73.0 | 1.0 | Negigigibe Adverse | 58.5 | 59.5 | 59.4 |
| 413, NoRTH ANDERSON DRIVE | Dwelling | 73.1 72.2 | 74.3 73.3 | 72.8 71.9 | -0.3 -0.3 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ | 74.1 73.2 | 1.0 1.0 | $\frac{\text { Negligible Adverse }}{\text { Negioible Adverse }}$ | 59.5 58.7 | 60.6 59.7 | 60.4 59.6 |
| 415, NORTH ANDERSON DRIVE | Dwelling | 72.6 | 73.8 | 72.4 | -0.2 | Negligible Beneficial | 73.6 | 1.0 | Negigioible Adverse | 59.1 | 60.2 | 60.0 |
| 416, NoRTH ANDERSON DRIVE | Dwelling | 72.2 | ${ }^{73.3}$ | 77.9 | -0.3 | Negligible Beneficical | 73.2 | 1.0 | Negigioble Adverse | 58.7 | 59.7 | 59.6 |
| $\frac{417, ~ \text { North Anderson drive }}{\text { 418, NORTH ANDERSON DRIVE }}$ | Dwelling | 72.6 72.1 | 73.8 73.3 | 72.4 71.8 | -0.2 -0.3 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ | 73.6 73.1 | 1.0 1.0 | Negiligil Adverse | 59.1 58.6 | 60.2 59.7 | 60.0 59.5 |
| 419, NORTH ANDERSON DRIVE | Dwelling | 72.6 | 73.8 | 72.4 | -0.2 | Negligible Beneficial | 73.6 | 1.0 | Negigigibe Adverse | 59.1 |  | 60.0 |
| 420, NORTH ANDERSON DRIVE | Dwelling | 72.1 | ${ }^{73.3}$ | 71.8 | -0.3 | Negligible Beneficial | 73.1 | 1.0 | Negigiolile Adverse | 58.6 | 59.7 | 59.5 |
| 421, NORTH ANDERSON DRIVE | Dwelling | 72.6 | 73.8 | 72.4 | -0.2 | Negligible Beneficial | 73.6 | 1.0 | Negigioble Adverse | 59.1 | 60.2 | 60.0 |
| 422, NoRTH ANDERSONDRIVE | Dwelling | ${ }^{72.1}$ | ${ }^{77.9}$ | ${ }_{71.5}^{71.8}$ | --0.3 | Negegigigibe Beneneficicial | 73.7 78 | 1.0 0.9 | Negigigible Avverse | 58.6 | 59.3 | 59.5 59.2 |
| 424, NoRTH ANDERSON DRIVE | Delling | 72.1 | ${ }_{7}^{73.3}$ | 71.8 | -0.3 | Negligible Beneficial | ${ }^{73.1}$ | 1.0 | Negligible Adverse | 58.6 | 59.7 | 59.5 |
| 425, NORTH ANDERSON DRIVE | Dwelling | 71.8 | 72.9 | 71.5 | -0.3 | Negligible Beneficial | 72.7 | 0.9 | Negligible Adverse | 58.4 | 59.3 | 59.2 |
| 426. NoRTH ANDERSSON DRIVE | Dwelling | 72.1 71.8 | 73.3 72.9 | 71.9 | -0.2 -0.3 | $\frac{\text { Negligible Beneficial }}{\text { Negligibl }}$ Beneficial | 73.1 72.7 | 1.0 0.9 | $\frac{\text { Negligiole Adverse }}{\text { Nefigible Adverse }}$ | 58.6 <br> 58.4 | $\begin{array}{r}59.7 \\ 59.3 \\ \hline\end{array}$ | 59.5 <br> 9.2 |
| 428, NORTH ANDERSON DRIVE | Dwelling | 72.1 | 73.3 | 71.9 | -0.2 | Negegioible Beneficioil | ${ }_{73.1}$ | 1.0 | Negigigibe Adverse | ${ }^{58.6}$ | 59.7 | 59.5 |
| 429, NORTH ANDERSON DRIVE | Dwelling | 71.8 | 72.9 | 71.5 | -0.3 | Negligible Beneficial | 72.7 | 0.9 | Negigible Adverse | 58.4 | 59.3 | 59.2 |
| 430, NoRTH ANDERSON DRIVE | Deelling | 72.1 | 73.3 | 71.9 | -0.2 | Negligible Beneficicial | ${ }^{73.1}$ | 1.0 | Negigigible Adverse | 58.6 | 59.7 | 59.5 |
| 431, NORTH ANDERSON DRIVE | Dwelling | 71.4 72.1 | ${ }_{72.6}^{72.3}$ | 71.1 71.9 | -0.3 -0.2 | $\frac{\text { Negliable Beneficial }}{\text { Negligible }}$ | 72.4 73.1 | 1.0 1.0 | $\frac{\text { Negigigle Adverse }}{\text { Negilible Adverse }}$ | 58.0 58.6 | 59.1 59.7 | 58.9 59.5 |
| 433, NORTH ANDERSON DRIVE | Dwelling | 71.4 | 72.6 | 71.1 | -0.3 | Negligible Beneficial | 72.4 | 1.0 | Negligible Adverse | 58.0 | 59.1 | 58.9 |
| 434, NoRTH ANDERSON DRIVE | Deelling | 72.9 | 74.0 | $\frac{72.6}{711}$ | -0.3 | Neogioible Beneficial | 73.8 | 0.9 | Negiligib Adverse | 59.3 59 | $\begin{array}{r}60.3 \\ 59.1 \\ \hline 9 .\end{array}$ | 60.2 |
| 435, NoRTH ANDERSONDRIVE | Dwelling | 712.9 | 72.6 74.0 | 72.6 | -0.3 -0.3 | Negligibile Benenificial | 72.4 73.8 | 1.0 0.9 | $\frac{\text { Negligibl Adverse }}{\text { Negligible Adverse }}$ | $\stackrel{58.0}{59.3}$ | ${ }_{60.3}$ | 60.2 |
| 437, NORTH ANDERSON DRIVE | Dwelling | 71.4 | 72.6 | 71.1 | -0.3 | Negligible Beneficial | 72.4 | 1.0 | Negiligible Adverse | 58.0 | 59.1 | 58.9 |
| 438, NORTH ANDERSON DRIVE | Deelling | 72.9 | 74.0 | 72.6 | -0.3 | Negligible Beneficial | 73.8 | 0.9 | Negligible Adverse | 59.3 | 60.3 | 60.2 |
| 439, Nortit Anversondilve | Dwelling | ${ }^{72.3}$ | ${ }^{73.4}$ | 12.0 72.6 | -0.3 | $\frac{\text { Negligiole }}{\text { Negligibe }}$ Beneficicialial | 73.2 <br> 73.8 | 0.9 | Negligiole Avverse | ${ }_{\text {5 }}^{59.8}$ | 㐌9.8.8 | ¢90.6 |
| 441, , NORTH ANDERSON DRIVE | Dwelling | 72.3 | 73.4 | 72.0 | -0.3 | Negligible Beneficial | 73.2 | 0.9 | Negigioble Adverse | 58.8 | 59.8 | 59.6 |

A90/A96 Haudagain Improvement
DMRB Stage 3 Environmental Statement
Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 <br> Lnight,outside | DS33 <br> Lnight,outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 442, NORTH ANDERSON DRIVE | Dwelling | 72.4 | 73.5 | 72.1 | -0.3 | Negligible Beneficial | ${ }_{7}^{73.3}$ | 0.9 | Negiligle Adverse | 58.9 | 59.9 597 | 59.7 59.5 |
| 443. NORTH ANDERSON DRIVE | Dweling | 72.2 | ${ }_{73,3}$ | 71.9 | -0.3 | Negligible Benenitial | 73.1 | 0.9 | Negiligle Adverse | 58.7 | $\begin{array}{r}59.7 \\ 59 \\ \hline\end{array}$ | 59.5 |
| 444, NoRTH ANDERSONDRIVE | Dweling | 72.4 | 73.5 73.3 | 72.1. 71.9 | -0.3 | $\frac{\text { Negiligiole Beneficial }}{\text { Negligible Beneficial }}$ | 73.3 73.1 | 0.9 | Negigigib Adverse | 58.9 58.7 | $\stackrel{59.9}{59.7}$ | ${ }_{59.5}^{59.7}$ |
| 446, NORTH ANDERSON DRIVE | Dwelling | 72.4 | 73.5 | 72.1 | -0.3 | Negligible Beneficial | 73.3 | 0.9 | Negigiolile Adverse | 58.9 | 59.9 | 59.7 |
| 447, NORTH ANDERSON DRIVE | velling | 72.0 | ${ }^{73.1}$ | 71.7 | -0.3 | Negligible Beneficial | 72.9 | 0.9 | Negigigibe Adverse | 58.5 |  | 597 |
| 448, NORTH ANDERSON DRIVE | Wwelling | 72.4 | 73.5 | 72.1 | -0.3 | Negligible Beneficial | 73.3 | 0.9 | Negigiobile Adverse | 58.9 | 59.9 | 59.7 |
| 449, NORTH ANDERSON DRIVE | Deelling | 72.0 | ${ }^{73.1}$ | 71.7 | -0.3 | Negligible Beneficial | 72.9 | 0.9 | Negigioble Adverse | 58.5 | 59.5 | 59.3 |
| 450, NoRTH ANDERSON DRIVE | Dweling | 72.2 | 73.3 735 | 71.9 722 | -0.3 | Negligible Beneficial | 73.1 73.1 | 0.9 | Negiligib Adverse | $\begin{array}{r}58.7 \\ 589 \\ \hline\end{array}$ | $\begin{array}{r}59.7 \\ 599 \\ \hline 9\end{array}$ | 59.5 597 |
| 451, NORTH ANDERSON DRIVE | Dwelling | \% $\begin{aligned} & 72.4 \\ & 72.2\end{aligned}$ | 73.5 73.3 | 72.2 | --0.2 | $\frac{\text { Negligible Benenitical }}{\text { Neglioibl }}$ | 73.3 73.1 | 0.9 | Negigigib Adverse | ${ }_{58,7}^{58.9}$ | 59.9 | 59.7 |
| 453, NORTH ANDERSON DRIVE | Dwelling | 72.4 | 73.5 | 72.1 | -0.3 | Negligible Beneficial | 73.3 | 0.9 | Negiligile Adverse | 58.9 | 59.9 | 59.7 |
| 454, NORTH ANDERSON DRIVE | Dwelling | 72.2 | 73.3 | 72.0 | -0.2 | Negligible Beneficical | 73.1 | 0.9 | Negigigible Adverse | 58.7 | 59.7 | 59.5 |
| 455. NORTH ANDERSON DRIVE | Dwelling | 73.1 | 74.1 | 72.9 | -0.2 | Negligible Beneficial | 73.9 | 0.8 | Negiligible Adverse | 59.5 | 60.4 | 60.2 |
| 456, NoRTH ANDERSON DRIVE | Dwelling | 72.1 73.0 | 73.2 74.2 | 71.98 | -0.2 | $\frac{\text { Negligible Benenicial }}{\text { Negliobl }}$ | ${ }_{73.0}^{738}$ | ${ }_{0}^{0.9}$ | Negiligibe Adverse | 58.6 | 59.6 | 59.4 |
| 458, NORTH ANDERSON DRIVE | Owelling | 73.2 | 74.2 | 73.0 | $\stackrel{-0.2}{-0.2}$ | Negegligible Beneneicicial | 74.0 | 0.8 | Negigigile Adversse | 59.6 | ${ }^{60.5}$ | ${ }^{60.2}$ |
| 459, NORTH ANDERSON DRIVE | Dwelling | 72.9 | 73.8 | 72.7 | -0.2 | Negligible Beneficial | 73.7 | 0.8 | Negigigile Adverse | 59.3 | 60.2 | 60.1 |
| 460, NoRTH ANDERSON DRIVE | Deelling | 73.2 | 74.2 | ${ }^{73.0}$ | -0.2 | Negligible Beneficical | 74.0 | 0.8 | Negigioble Adverse | 59.6 | 60.5 | 60.3 |
| 461. NORTH ANDERSON DRIVE | Dwelling | ${ }_{72,8}^{73.8}$ | 73.8 7.2 | 72.6 73.0 | -0.2 | $\frac{\text { Negiligiole Beneficial }}{\text { Negligible }}$ Beneficial | 73.6 74.0 | 0.8 | Negiligib Adverse | 59.3 | 60.2 |  |
| 462, NoRIT ANDERSONDRIVE | Dweling | 73.2 73.3 | 74.2 <br> 74.2 | 73.0 73.1 | -0.2 | Negligibile Beneneficial | 74.0 | 0.7 | Neogigioble Adverse | ${ }_{59,7}^{59.7}$ | 60.5 | ${ }_{60.3}$ |
| 464, NORTH ANDERSON DRIVE | Dwelling | 73.2 | 74.2 | 73.0 | -0.2 | Negligible Beneficial | 74.0 | 0.8 | Negigigibe Adverse | 59.6 | 60.5 | 60.3 |
| 465, NORTH ANDERSON DRIVE | welling | 73.3 | 74.2 | 73.1 | -0.2 | Negligible Beneficial | 74.0 | 0.7 | Negiligile Adverse | 59.7 |  | 60.3 |
| 466, NORTH ANDERSON DRIVE | Wwelling | 73.3 | 74.3 | 73.1 | -0.2 | Negligible Beneficial | 74.1 | 0.8 | Negiligile Adverse | 59.7 | 60.6 | 60.4 |
| 467, NORTH ANDERSON DRIVE | Deelling | 73.3 | 74.2 | ${ }^{73,1}$ | -0.2 | Negligible Beneficial | 74.0 | 0.7 | Negigioble Adverse | 59.7 | 60.5 | 60.3 |
| $\frac{\text { 468, NoRTH ANDERSON DRIVE }}{498}$ | Dweling | 73.3 773 | 74.3 742 | 73.1 731 | -0.2 | Negligible Benenitial | 74.1 74.1 | 0.8 0.7 | Negiligibe Adverse | $\begin{array}{r}59.7 \\ 597 \\ \hline 597\end{array}$ | 60.6 60.5 | ${ }_{60.4}^{60.4}$ |
| 469, NoRTH ANDERSOND ANDERSON DRIVE | ${ }^{\text {Dwelling }}$ Oweling | ${ }^{73.3}$ | 74.3 <br> 74.3 | 73.1 73.1 | -0.2 | ${ }^{\text {Negiligible Benenitical }}$ | 74.1 <br> 7.1 | 0.8 | Negigigible Adverse | 59.7 59.7 | 60.5 60.6 | 60.3 |
| 471, NORTH ANDERSON DRIVE | Dwelling | 73.4 | 74.3 | 73.2 | -0.2 | Negligible Beneficial | 74.2 | 0.8 | Negiligile Adverse | 59.8 | 60.6 | 60.5 |
| 472, NORTH ANDERSON DRIVE | Dwelling | 73.3 | 74.3 | 73.1 | -0.2 | Negligible Beneficial | 74.1 | 0.8 | Negigigibe Adverse | 59.7 | 60.6 | 60.4 |
| 473. NORTH ANDERSON DRIVE | Dwelling | 73.4 72.5 | 74.3 73.5 | 73.2 72.3 | -0.2 | $\frac{\text { Negligible Benenicial }}{\text { Negligibl }}$ Beneficial | 74.2 73.3 | 0.8 | $\frac{\text { Negaligible Adverse }}{\text { Negioiole Adverse }}$ | 59.8 | 60.6 | 60.5 597 |
| 475, NORTH ANDERSON DRIVE | Dwelling | 73.4 | ${ }_{74.3}$ | 73.2 | $\stackrel{-0.2}{ }$ | Negegioible Beneficioial | 74.2 | 0.8 | Negigigibe Adverse | 59.8 | 60.6 | 60.5 |
| 476, NORTH ANDERSON DRIVE | Dwelling | 72.5 | 73.5 | 72.3 | -0.2 | Negligible Beneficical | ${ }^{73.3}$ | 0.8 | Negigigible Adverse | 59.0 | 59.9 | 59.7 |
| 477, NORTH ANDERSON DRIVE | Dwelling | 73.4 | 74.3 | ${ }^{73.2}$ | -0.2 | Negligible Beneficial | 74.2 | 0.8 | Negigigibe Adverse | 59.8 | 60.6 | 60.5 |
| ${ }^{\text {478, }}$ / NORTH ANDERSON DRIVE | Deelling | 72.5 | 73.5 | ${ }^{72.3}$ | -0.2 | Negligible Benenitical | ${ }^{73.3}$ | 0.8 | Negiligibe Adverse | 59.0 | 59.9 | 59.7 |
| 480, NORTH ANDERSON DRIVE | Dwelling | 72.5 | ${ }_{7} 7.5$ | 72.3 | -0.2 | Negligible Beneficial | ${ }_{73.3}$ | 0.8 | Negigigibe Adverse | 59.0 | 59.9 | ${ }_{59,7}$ |
| 481, NORTH ANDERSON DRIVE | Dwelling | 72.4 | 73.4 | 72.3 | -0.1 | Negligible Beneficial | 73.2 | 0.8 | Negigiolile Adverse | 58.9 | 59.8 | 59.6 |
| 482, NoRTH ANDERSON DRIVE | Dwelling | 72.6 72.4 | 73.6 73.4 | 72.5 72.3 | -.0 .1 .0 .1 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ | 73.4 73.2 | 0.8 0.8 | Negiligib Adverse | 59.1 58.9 | 60.0 59.8 | 59.8 59.6 |
| 484, NORTH ANDERSON DRIVE | Dwelling | 72.6 | 73.6 | 72.5 | -0.1 | Negligible Beneficial | 73.4 | 0.8 | Negigigibe Adverse | 59.1 | 60.0 | 59.8 |
| 485, NORTH ANDERSON DRIVE | Dwelling | 72.4 | 73.4 | 72.3 | -0.1 | Negligible Beneficial | 73.2 | 0.8 | Negligible Adverse | 58.9 | 59.8 | 59.6 |
| ${ }^{\text {48, }}$ 48, NRTHT ANDERSON DRIVE | Dweling | 72.6 | 73.6 733 | 72.5 724 | -0.1 | Negligible Benenicial | $\begin{array}{r}73.4 \\ 731 \\ \hline\end{array}$ | ${ }_{0}^{0.8}$ | Negiligib Adverse | $\begin{array}{r}59.1 \\ 59.1 \\ \hline\end{array}$ | 60.0 597 | 59.8 595 59 |
| 488, NORTH ANDERSON DRIVE | Dwelling | 72.6 | 73.6 | 72.5 | -0.1 | Negligible Benenicial | 73.4 | 0.8 | Neogigiole Adverse | 59.1 | 60.0 | 59.8 |
| 489, NORTH ANDERSON DRIVE | Dwelling | 72.5 | 73.3 | 72.4 | -0.1 | Negligible Beneficial | 73.1 | 0.6 | Negiligile Adverse | 59.0 | 59.7 | 59.5 |
| 490, NORIT ANDERSSON DRIVE | Dwelling | 72.5 72.1 | ${ }^{73.4}$ | ${ }_{72.5}^{72.5}$ | 0.0 <br> 0.0 <br> 0 | Neglioible ${ }^{\text {No }}$ Beneficicial | ${ }_{72.6} 7$ | 0.6 | Negigible Adverse | ${ }_{59}^{58.6}$ | 59.8 59.3 | 59.5 59.1 |
| 492, NORTH ANDERSON DRIVE | Dwelling | 72.5 | 73.4 | 72.5 | 0.0 | No Change | 73.1 | 0.6 | Negiligile Adverse | 59.0 | 59.8 | 59.5 |
| 493, NNRTH ANDERSON DRIVE | Delling | 72.1 | 72.8 | 72.0 | -0.1 | Negligible Benenficil | 72.6 | 0.5 | Negigigibe Adverse | 58.6 | 59.3 | 59.1. |
| 494, NORTH ANDERSSON DRIVE | Dwelling | 72.5 72.2 | 73.4 72.8 | 72.5 72.2 | 0.0 | No Change | ${ }_{72.6}$ | 0.6 | Negligibile Adverse | ${ }_{59}^{59.7}$ | ${ }_{59.3}^{59.8}$ | 59.5 |
| 496, NORTH ANDERSON DRIVE | Dwelling | 72.5 | 73.4 | 72.5 | 0.0 | No Change | 73.1 | 0.6 | Negiligile Adverse | 59.0 | 59.8 | 59.5 |
| 497. NORTH ANDERSON DRIVE | $\frac{\text { Dwelling }}{\text { Dwelling }}$ | 72.2 73.2 | 72.8 74.0 | 72.2 73.4 | $\frac{0.0}{0.2}$ | $\frac{\text { No Change }}{\text { Negigible Adverse }}$ | 72.6 73.6 | 0.4 | $\frac{\text { Negiligible Adverse }}{\text { Nefigiole Adverse }}$ | 58.7 59.6 | ${ }^{59.3}$ | 59.1 60.0 |
| 499, NORTH ANDERSON DRIVE | Dwelling | 72.2 | 72.8 | 72.2 | 0.0 | No Change | 72.6 | 0.4 | Negiligile Adverse | 58.7 | 59.3 | 59.1 |
| 500, NoRTH ANDERSON DRIVE | Dwelling | 73.2 72.2 | 74.0 72.8 | 73.4 <br> 72.2 | 0.2 0.0 | Negeligible Adverse | 73.6 72.6 | 0.4 0.4 | Negiligib Adverse Nefigiole Adverse | 59.6 587 | 60.3 593 | 60.0 59 |
| 502, NORTH ANDERSON DRIVE | Dwelling | 73.2 | 74.0 | 73.4 | 0.2 | Negiligile Adverse | 73.6 | 0.4 | Negigigibe Adverse | 59.6 | 60.3 | 60.0 |
| 503. NoRTH ANDERSON DRIVE | Dwelling | 73.1 73 | 73.6 74.0 | 73.1 | 0.0 | No Change | 73.3 | 0.2 | Negligible Adverse | 59.5 | 60.0 | 59.7 |
| 504, NoRTH ANDERSON DRIVE | Dweling | 73.2. | 74.0 736 | 73.4 731 | 0.2 | Negiligile Adverse | 73.6 733 | ${ }^{0.4}$ | Negiligib Adverse | $\begin{array}{r}59.6 \\ 59.5 \\ \hline\end{array}$ | 60.3 | 60.0 597 |
| 506, NORTH ANDERSON DRIVE | Dwelling | 73.1 | 73.8 | 73.3 | 0.2 | Negiligile Adverse | 73.4 | 0.3 | Negiligile Adverse | 59.5 | 60.2 | 59.8 |
| 507, NORTH ANDERSON DRIVE | Dwelling | 73.1 | 73.6 | 73.1 | 0.0 | No Change | ${ }^{73.3}$ | 0.2 | Negligible Adverse | 59.5 | 60.0 | 59.7 |
| 508, NORIT ANDERSSON DRIVE | Dwelling | ${ }^{73.1}$ | ${ }^{73.6}$ | 73.3 73.1 | 0.2 | Negigigle Adverse | ${ }^{73.4}$ | 0.3 | Negigible Adverse | 59.5 | 60.2 60.0 | 59.8 59.7 |
| 510, NORTH ANDERSON DRIVE | Dwelling | 73.1 | 73.8 | ${ }^{73.3}$ | 0.2 | Negigigile Adverse | 73.4 | 0.3 | Negigioble Adverse | 59.5 | 60.2 | 59.8 |
| 511, NORTH ANDERSON DRIVE | Deelling | 73.1 | 73.6 | ${ }_{7}^{73.1}$ | 0.0 | No Change | 73.2 | 0.1 | Negligible Adverse | 59.5 | 60.0 | 59.6 |
| 512, NORTH ANDERSSN DRIVE | Dwelling | ${ }_{73.1}$ | ${ }^{73.6}$ | ${ }_{73.1}$ | 0.2 0.0 | Negigigle Acaverse | ${ }^{73.4}$ | 0.1 | Neogigioble Adverse | ${ }_{59.5}^{59.5}$ | $\frac{60.2}{60.0}$ | $\stackrel{59.8}{59.6}$ |
| 514, NORTH ANDERSON DRIVE | Dwelling | 69.7 | 70.2 | 69.9 | 0.2 | Negiligile Adverse | 69.8 | 0.1 | Negligible Beneficial | 56.5 | 56.9 | 56.6 |
| 515. NORTH ANDERSON DRIVE | Dwelling | 73.1 69.6 | 73.6 70.1 | 73.1 69.7 | ${ }_{0}^{0.0}$ | No Nochange | 73.2 69.7 | ${ }_{0}^{0.1}$ | $\frac{\text { Negligible Adverse }}{\text { Negiobiole Adverse }}$ | 59.5 56.4 | 60.0 56.8 | $\frac{59.6}{56.5}$ |
| 517, NORTH ANDERSON DRIVE | Dwelling | 73.1 | 73.6 | 73.1 | 0.0 | No Change | 73.2 | 0.1 | Negigioble Adverse | 59.5 | 60.0 | 59.6 |
|  | Dwelling | 70.9 | 70.6 71.3 | 70.2 70.8 | 0.2 -0.1 | Negligiole Adverse | 70.2. | 0.2 | Negligible Adverse | ${ }^{56.7} 5$ | 57.3 57.9 | 56.9 57.5 |
| 520, NORTH ANDERSON DRIVE | Dwelling | 69.8 | 70.4 | 70.0 | 0.2 | Negligible Adverse | 70.0 | 0.2 | Negligible Adverse | 56.6 | 57.1 | 56.7 |
| 521, NORTH ANDERSON DRIVE | welling | 70.9 | 71.3 | 70.8 | -0.1 | Negligible Beneficial | 70.9 | 0.0 | No Change | 57.5 | 57.9 | 57.5 |
| 523, NORTH ANDERSON DRIVE | Dwelling | ${ }_{69.9}^{69.9}$ | ${ }_{70.3}^{70.3}$ | ${ }^{699.7}$ | $\stackrel{-0.2}{-0.2}$ | Negifigiole Beneficial | ${ }^{69.8}$ | $\stackrel{-0.1}{-0.1}$ | Negiligile Beneficial | ${ }_{56.6}^{56.6}$ | 57.0 | ${ }_{56.6}^{56.6}$ |
| 527, NORTH ANDERSON DRIVE | welling | 72.8 | 73.0 | 71.9 | -0.9 | Negligible Beneficial | 72.3 | -0.5 | Negligible Beneficial | 59.3 | 59.4 | 58.8 |

A90/A96 Haudagain Improvement
DMRB Stage 3 Environmental Statement
Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 <br> Lnight,outside | DM33 <br> Lnight,outside | $\begin{gathered} \text { DS33 } \\ \text { Lnight,outside } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 529, NORTH ANDERSON DRIVE | Owelling | 72.8 | 73.0 | 71.9 | ${ }^{0.9}$ | Negligible Beneficical | 72.3 | -0.5 | Negligible Beneficial | 59.3 | 59.4 | 58.8 |
| 531. NORTH ANDERSON DRIVE | Dweling | 75.3 | 74.8 748 | 73.1 731 | -2.2 -22 | Minor Beneficical | 74.1 74.1 | $\stackrel{-1.2}{-12}$ | Negligible Beneficial | $\frac{61.5}{61.5}$ | $\frac{61.1}{61.1}$ | 60.4 |
| 533, NoRTH ANDERSON DRIVE | Dwelling | 75.9 <br> 7.9 | 74.8 74.8 | 73.1 73.0 | -2.2 -1.9 | ${ }_{\text {Minor Bersericial }}$ | 74.1 74.2 | -1.2 -0.7 | Negligible Beneticial | 61.5 | -61.1. | 60.4 60.5 |
| 537, NORTH ANDERSON DRIVE | Dwelling | 74.9 | 74.8 | 73.0 | -1.9 | Minor Benefificial | 74.2 | -0.7 | Negligible Beneficial | 61.1 | 61.1 | ${ }_{60.5}$ |
| 539, NORTH ANDERSON DRIVE | Dwelling | 72.6 | 73.1 | 71.3 | -1.3 | Minor Beneficial | 72.7 | 0.1 | Negiligile Adverse | 59.1 | 59.5 | 59.2 |
| 541, NORTH ANDERSON DRIVE | Dwelling | 71.9 | 72.5 | 70.7 | -1.2 | Minor Beneficial | 72.2 | 0.3 | Negigiolile Adverse | 58.4 | 59.0 | 58.7 |
| 543, NORTH ANDERSON DRIVE | Dwelling | 70.0 | 70.7 | 69.2 | -0.8 | Negligible Beneficial | 70.7 | 0.7 | Negiligibe Adverse | 56.7 | 57.4 | 57.4 |
| 545, NORTH ANDERSON DRIVE | Dwelling | 69.9 | 70.6 | 69.2 | -0.7 | Negligible Beneficial | 70.7 | 0.8 | Negigigibe Adverse | 56.6 | 57.3 | 57.4 |
| 551, NORTH ANDERSON DRIVE | welling | 53.7 | 54.6 | 62.1 | 8.4 | Major Adverse | 63.0 | 9.3 | Moderate Adverse | 42.1 | 42.9 | 50.4 |
| 553, NoRTH ANDERSON DRIVE | welling | 53.7 | 54.6 | 62.1 | 8.4 | Maior Adverse | 63.0 | ${ }^{9.3}$ | Moderate Adverse | ${ }^{42.1}$ | 42.9 | 50.4 |
| 555, NoRtT ANDERSSNDRIVE | Oweiling | ${ }_{53.7}^{53.7}$ | ${ }_{54.6}^{54.6}$ | ${ }_{62.1}^{62.1}$ | ${ }_{8.4}^{8.4}$ | Major Adverse | ${ }_{63.0}^{63.0}$ | ${ }_{9.3}$ | Modereateie Adviverse | ${ }_{42.1}^{42.1}$ | 42.9 | 50.4 |
| FLAT D. 559. NORTH ANDERSON DRIVE | Welling | 70.9 | 71.7 | 68.0 | -2.9 | Minor Beneficial | 68.7 | .2.2 | Negligible Beneficial | 57.5 | 58.3 | 55.6 |
| FLAT D, 561, NORTH ANDERSON DRIVE |  | 70.7 | 71.4 | 68.1 | 2.6 | Minor Beneficial | 68.7 | 2.0 | Negligible Beneficial | 57.4 |  |  |
| FLAT D, 563, NORTH ANDERSON DRIVE |  | 73.1 | 73.8 | 70.7 | -2.4 | Minor Beneficial | 71.3 | ${ }^{1.8}$ | Negligible Beneficial | 59.5 | 60.2 |  |
| FLAT B, 559, NORTH ANDERSON DRIVE |  | 72.3 | 73.2 | 69.4 | . 2.9 | Minor Beneficicial | 70.1 | -2.2 | Negligible Benefitical | 58.8 | 59.6 |  |
| FLAT B, 561, NoRTH ANDERSON DRIVE | weling |  | 73.2 | 69.8 | -2.7 | Minor Beneiticial | 70. |  | Negligible Benenitical | 9.0 |  |  |
| FLat B, 563, NORTH ANDERSON DRIVE | weling | 74.2 | 74.9 | 71.8 | 2.4 | Minor Beneitical | 72.4 | 1.8 | Negligble Beneitical | 60.5 |  | 58.9 |
| FLAT F, 559, NORTH ANDERSOND DIVE | weling | 71.9 | 12.8 | 69.0 | -2.9 | Minor Beneitical | 69.7 | -2.2 | Negligible Beneiticial | 58.4 | 59.3 | 56.5 |
| ELATF, 567, NORTHANDERSONDRIVE | welling | ${ }_{72.1}$ | ${ }_{7247}$ | ${ }_{69.4}^{6716}$ | 2.7 .25 | Minor Beneficical | ${ }_{70} 72.0$ | -2.18 | Negligible Benenif | 58.6 | 59.2 | ${ }_{56.7}^{59.8}$ |
| LaT F. 563, NoRTH ANDERSONORIVE | Dwelling | 74.1 | 74.7 | 71.6 | . 2.5 | Minor Beneficial | 72.3 | 1.8 | Negligible Beneficial | 60.4 | 61.0 | 58.8 |
| NORTHFIELD | Dwelling | 48.8 | 49.6 | 48.7 | -0.1 | Negligible Beneficial | 49.5 | 0.7 | Negligible Adverse | 37.7 | 38.4 | 38.3 |
| 1, OLDTOWN PLACE | welling | 39.0 <br> 5.0 | 39.3 57 | 38.9 5.9 | -0.1 | Negligible Beneficical | 39.6 57 | 0.6 | Negiligile Adverse | $\frac{28.8}{483}$ | $\frac{29.1}{45}$ | 29.4 <br> 4.3 |
| 10, OLDTOW N PLACE | weling | 56.2 | 57.2 | 56.2 | 0.0 | No Change | 57.3 | 1.1 | Negiligibe Adverse | ${ }^{44.3}$ | 45.2 294 | ${ }^{45.3}$ |
| 11, OLDOWN PACE | Dwelling | 39.3 | 39.6 | 39.1 | -0.2 | Negligible Beneficial | 39.9 57.3 | ${ }_{0}^{0.6}$ | $\frac{\text { Negiligible Adverse }}{\text { Negilible Adverse }}$ | $\frac{29.1}{44.3}$ | 29.4. | ${ }_{45.3}^{29.6}$ |
| 13, OLDTOW P PACE | Dwelling | 39.4 | 39.7 | 39.2 | -0.2 | Negligible Beneficial | 40.0 | 0.6 | Negiligible Adverse | 29.2 | 29.5 | 29.7 |
| 14, OLDTOWN PLACE | welling | 56.2 | 57.2 | 56.2 | 0.0 | No Change | 57.3 | 1.1 | Negigigile Adverse | 44.3 | 45.2 | 45.3 |
| 15, OLDTOWN PLACE | weling | 53.4 | 53.9 | 53.4 | 0.0 | No Change | 54.4 | 1.0 | Negigigile Adverse | 41.8 | 42.2 | 42.7 |
| 16, OLDTOWN PLACE | Wwelling | 56.2 | 57.2 | 56.2 | 0.0 | No Change | 57.3 | 1.1 | Negiligibe Adverse | 44.3 | 45.2 | 45.3 |
| 17, OLDTOWN PLACE | Deelling | $\begin{array}{r}39.4 \\ 5.4 \\ \hline\end{array}$ | $\begin{array}{r}39.7 \\ 572 \\ \hline\end{array}$ | $\begin{array}{r}39.2 \\ 5.2 \\ \hline\end{array}$ | -0.2 | Negligible Beneficial | ${ }^{40.0}$ | 0.6 | Negiligibie Adverse | 29.2 | 29.5 | 29.7 |
| 18, OLDIOWNPLACE | Oweling | 㐌54.20 | 54.5 | 54.0 | 0.0 | $\frac{\text { No Cuange }}{\text { No Change }}$ | 55.3 55 | ${ }_{1}^{1.0}$ | Negigigib Adverse | $\stackrel{44.3}{42}$ | 428 | $\stackrel{45.3}{43}$ |
| 2, OLDTOWN PLACE | Dwelling | 56.2 |  |  |  | No Change |  |  | Negligible Adverse | 44.3 | 45.2 | 45.3 |
| 20, OLDTOWN PLACE | Dwelling | 56.2 | 57.2 | 56.2 | 0.0 | No Change | 57.3 | 1.1 | Negiligibe Adverse | 44.3 | 45.2 | 45.3 |
| 21, OLDTOWN PLACE | Oweling | 39.4 | 39.7 | 39.2 | -0.2 | Negligible Benenitial | 40.0 | 0.6 | Negigigibe Adverse | 29.2 | 29.5 |  |
| 22, OLJOW PLACE | weiling |  | 57.2 | 56.2 | 0.0 | No Change | 57.3 | . 1 |  | 44.3 |  | 45.3 |
| 23, OLDIOW NPACEE | Oweiling | 54.8 | 55.2 | 54.9 | 0.1 | Negiligole Aaverse | 55.7 | 0.9 | Negligibe Aaverse | 43.1 | 43.4 | 43.9 |
| 24,OLDTOW NPACE | Oweling | 56.2 | 57.2 | 56.2 | 0.0 | No Change | 57.3 <br> 573 | 1.1 | Negiligibe Adverse | ${ }_{44.3}^{4.3}$ | 45.2 | 45.3 |
| 28, OLDTOW N PLACE | Dwelling | ${ }_{56.2}^{56.2}$ | 57.2 | 56.2 | 0.0 | No Change | 57.3 | 1.1 | Negigigible Adverse | ${ }_{44.3}$ | 45.2 | ${ }_{45.3}$ |
| 3, OLDTOWN PLACE | Dwelling | 39.3 | 39.6 | 39.1 | -0.2 | Negligible Beneficial | 39.9 | 0.6 | Negiligibe Adverse | 29.1 | 29.4 | 29.6 |
| 30, OLDTOWN PLACE | Dewling | 56.2 | 57.2 | 56.2 | 0.0 | No Change | 57.3 | 1.1 | Negigigle Adverse | 44.3 | 45.2 | 45.3 |
| $\frac{33, \text { OLDIOW PLACE }}{34, \text { OLTOWN LACE }}$ | Dwelling | 56.2 | 57.2 | 56.2 | 0.0 | No Change | 57.3 57.3 | 1.1 | Neogigigibe Adviverse | 44.3 | 45.2 | ${ }_{45.3}^{45.3}$ |
| 36, OLDTOWN PLACE | Dwelling | 56.2 | 57.2 | 56.2 | 0.0 | No Change | 57.3 | 1.1 | Negigioble Adverse | 44.3 | 45.2 | 45.3 |
| $\frac{38, \text { OLDTOWN PLACE }}{4, \text { OLDTOWN PLACE }}$ | Dwelling | 56.2 56.2 | 57.2 57.2 | 56.2 | 0.0 0.0 | $\frac{\text { No Change }}{\text { No Change }}$ | 57.3 57.3 | ${ }_{1.1}^{1.1}$ | $\frac{\text { Negigigle Adverse }}{\text { Neoligible Adverse }}$ | $\stackrel{44.3}{44.3}$ | 45.2. | ${ }_{45.3}^{45.3}$ |
| 40, OLDTOWN PLACE | Dwelling | 56.2 | 57.2 | 56.2 | 0.0 | No Change | 57.3 | 1.1 | Negiligile Adverse | 44.3 | 45.2 | 45.3 |
| 42, OLDTOWN PLACE | Dwelling | 56.2 | 57.2 | 56.2 | 0.0 | hange | 57.3 | 1.1 | Negigiole Adverse | 44.3 | 45.2 | 45.3 |
| 44, OLDTOWN PLACE | Deelling | 56.2 | 57.2 | 56.2 | 0.0 | No Change | 57.3 | 1.1 | Negiligibe Adverse | ${ }^{44.3}$ | 45.2 | ${ }^{45.3}$ |
| 46, OLDTOWN PLACE | Dweling | 56.2 | 57.2 |  | 0.0 | No Change | 57.3 |  | Negiligibe Adverse | 44.3 | 45.2 |  |
| 5,OLDTOWN PLACE | ${ }^{\text {Oweling }}$ Oweling | - | ${ }_{39,3}$ | - 38.9 | -0.0 | Nochange | ${ }_{39,5}$ | 0.6 | Negigiole Adverse | ${ }_{28.8}^{4.8}$ | ${ }_{251}^{49.1}$ | ${ }_{29} 9.4$ |
| 6, OLDTOWN PLACE | Wwelling | 56.2 | 57.2 | 56.2 | 0.0 | No Change | 57.3 |  | Negigigile Adverse | 44.3 | ${ }_{45.2}$ | ${ }_{45.3}^{29.4}$ |
| 7, OLDTOWN PLACE | Dwelling | 39.3 | 39.6 | 39.1 | -0.2 | Negligible Beneficial | 39.9 | 0.6 | Negligible Adverse | 29.1 | 29.4 | 29.6 |
| 8, OLDTOW PLACE | Dwelling | 56.2 390 | 57.2 393 | $\begin{array}{r}56.2 \\ 389 \\ \hline\end{array}$ | 0.0 | No Change | $\begin{array}{r}57.3 \\ \hline 96\end{array}$ | ${ }^{1.1}$ | Negiligile Adverse | $\stackrel{44.3}{288}$ | 45.2 | 45.3 294 |
| $\frac{9}{1, \text { OLDTOWN TEREACE }}$ | ${ }^{\text {Dwelilig }}$ Weling | 39.2 | 39.3 46.0 | 38.1 | $-01$ | Negiligiolie Beneneficicial | ${ }^{39.6} 4$ | 0.6 1.0 | Negligigie Adverse | ${ }^{28.4}$ | ${ }_{35.1}^{29.1}$ | ${ }_{35.3}$ |
| 10, OLDTOWN TERRACE | Dwelling | 46.0 454 | 46.0 463 | 45.9 4.9 | -0.1 | Negligible Beneficial | ${ }_{46.7}^{46.7}$ | 0.7 | Negiligle Adverse | 35.1 34 | $\begin{array}{r}35.1 \\ 354 \\ \hline\end{array}$ | $\begin{array}{r}35.8 \\ 355 \\ \hline\end{array}$ |
| 12, LLDTOWN TERRACE | Owelling | 45.1 | 46.0 | 45.9 | -0.2 | Negligible Beneficial | 46.7 | 0.6 | Negiligile Adverse | 35.2 | $\frac{35.1}{}$ | 35.8 |
| 13, OLDTOWN TERRACE | Dweling | 44.6 | 45.2 | 44.5 | -0.1 | Negligible Beneficial | 45.4 | 0.8 | Negigigile Adverse | 33.9 | 34.4 | 34.6 |
| 14, OLDTOWN TERRACE | Dwelling | 46.3 459 | 46.3 454 | 46.4 458 | 0.1 | Negigigil Adverse | 47.2 46.4 | 0.9 0.5 | Negigigle Adverse | 35.4 <br> 350 | $\begin{array}{r}35.4 \\ 3.6 \\ \hline\end{array}$ | ${ }^{36.2}$ |
| 16, OLDTOWN TERRACE | Dwelling | 47.2 | 47.3 | 47.3 | 0.1 | Negligible Beneficioal | 48.1 | 0.9 | Neogigigile Adverse | 36.2 | ${ }_{36.3}$ | ${ }_{37.0}$ |
| 17, OLDTOWN TEARACE | Owelling | 44.6 | 45.2 | 44.5 | -0.1 | Negligible Beneficial | 45.4 | 0.8 | Negligible Adverse | 33.9 | 34.4 | 34.6 |
| 18, OLDTOWN TERRACE | Deelling | 46.4 | 46.4 | 46.5 | 0.1 |  | 47.2 | 0.8 |  |  |  |  |
| 19, OLDTOWN TERRACE | Deelling | 45.9 | 45.4 | 45.8 | -0.1 | Negligible Beneitical | 46.4 | 0.5 | Negiligibe Adverse | 35.0 | 34.6 | 35.5 |
| 2, OLDTOWN TERRACE | Oweling | $\stackrel{46.0}{476}$ | 45.9 | 45.9 | -0.1 | Negiligile Beneficial | 46.6 | 0.6 | Negligilie Aaverse | 35.1 | 35.0 | 35.7 |
| 21, LLDTOWN TERRACE | Dwelling | ${ }_{44.6}$ | 45.2 | 44.5 | -0.1 | Negligible Beneficial | ${ }_{45.4}^{45.4}$ | ${ }_{0} .8$ | Neoligigle Adverse | ${ }_{33.9}$ | ${ }_{34.4}$ | ${ }_{34.6}$ |
| 22, OLDTOWN TERRACE | Dwelling | 46.4 | 46.4 | 46.5 | 0.1 | Negligibile Adverse | 47.2 | 0.8 | Negiligile Adverse | 35.5 | 35.5 | 36.2 |
| 23, OLDTOWN TERRACE | Dwelling | 45.9 | 45.4 | 45.8 | -0.1 | Negligible Beneficial | 46.4 | 0.5 | Negigible Adverse | 35.0 | 34.6 | 35.5 |
| $\frac{24, \text { LDD }}{\text { 25, OLDTOWN TERAACE }}$ | Dwelling | ${ }_{48.1}^{48.2}$ | ${ }_{45.4}^{48.7}$ | 48.4 | 0.2 0.1 | Negigigibe Adverse | 49.3 | ${ }^{1.1}$ | Negigigie Adverse | ${ }^{37.1}$ | ${ }^{37.6}$ | ${ }_{38.1}^{38.1}$ |
| 27, OLDTOWN TERRACE | Dwelling | 46.7 | 47.3 | 47.0 | 0.3 | Negigiole Adverse | 47.9 | 1.2 | Negiligile Adverse | 35.8 | 36.3 | 36.8 |
| 29, OLDTOWN TERRACE | Dwelling | 45.1 45.4 | 45.4 46.3 | ${ }_{45.4}^{45.2}$ | 0.1 0.0 | Negiligile Adverse | 46.0 46.4 | 0.9 1.0 | Negligile Adverse | 34.3 34.6 | 34.6 35.4 | 35.1 35.5 |
| 31, OLDTOWN TERRACE | Dwelling | 46.2 | 46.7 | 46.4 | 0.2 | Negigigile Adverse | 47.3 | 1.1 | Negiligile Adverse | 35.3 | 35.8 | ${ }_{36.3}$ |
| 33, OLDTOWN TERRACE | Dwelling | 45.1 | 45.4 | 45.2 | 0.1 | Negligibe Adverse | 46.0 | 0.9 | Negigigile Adverse | 34.3 | 34.6 | 35.1 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 <br> Lnight,outside | DS33 <br> Lnight,outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 35, OLDTOWN TERRACE | Dwelling | 45.5 | 45.9 | 45.8 | 0.3 | Negiligile Adverse | 46.6 | 1.1 | Negiligibe Adverse | 34.7 | 35.0 | 35.7 |
| 4, OLDTOWN TERRACE | Deeling | 46.1 | 46.0 | 45.9 | -0.2 | Negligible Benefitical | $\frac{46.7}{464}$ | 0.6 | Negiligile Adverse | $\frac{35.2}{347}$ | 35.1 351 | $\begin{array}{r}35.8 \\ \hline 55\end{array}$ |
| 5, OLDTOW N TERRACE | Dweling | 45.5 46.0 | 46.3 45.9 | 45.4 45.9 | -0.1 .0 .1 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ | 46.4 46.6 | 0.9 | Negigigle Adverse | 34.7 35.1 | 35.4 <br> 35.0 | 35.5 <br> 35.7 |
| $\frac{6}{7, \text { OLLDTOW N TERAACE }}$ | ${ }^{\text {Duelling }}$ | 45.4 | ${ }_{46.3}^{46.9}$ | 45.4 | 0.0 | Negigiole Benenicial | 46.4 | 1.0 | Negligioble Adverse | ${ }_{34.6}$ | 35.4 35.4 | ${ }_{35.5}$ |
| 8, OLDTOWN TERRACE | Dwelling | 46.1 | 46.1 | 45.9 | -0.2 | Negligible Benenficial | 46.7 | 0.6 | Negiligile Adverse | 35.2 | 35.2 | 35.8 |
| 9, OLDTOWN TERRACE | Dwelling | 45.2 | 46.0 | 45.2 | 0.0 | No Change | 46.2 | 1.0 | Negiligile Adverse | 34.4 | 35.1 | 35.3 |
| 1, PERSLEY CRESCENT | Dwelling | 52.0 | 52.5 | 51.9 | -0.1 | Negligible Beneficial | 52.8 | 0.8 | Negiligile Adverse | 40.5 | 41.0 | 41.3 |
| 10, PERSLEV CRESCENT | Wwelling | 50.5 | 51.2 | 50.3 | -0.2 | Negligible Beneficial | $\frac{51.3}{51.2}$ | 0.8 | Negligible Adverse | 39.2 | 39.8 | 39.9 |
| 11, PERSLEY CRESCENT | Dwelling | 50.4 50.4 | 51.3 | 50.3 50.2 | -0.1 -0.2 | $\frac{\text { Negiligiole Beneficial }}{\text { Negligible Beneficial }}$ | 51.2 | 0.8 0.8 | $\frac{\text { Negigigib Adverse }}{\text { Negilible Adverse }}$ | 39.1 39.1 | 39.9 <br> 39.8 | 39.8 <br> 39.8 |
| 13, PERSLEY CRESCENT | Dwelling | 50.1 | 51.1 | 50.0 | -0.1 | Negligible Beneficial | 51.0 | 0.9 | Negiligible Adverse | 38.8 | 39.7 | 39.6 |
| 14, PERSLEY CRESCENT | Dwelling | 50.0 | 51.0 | 49.9 | -0.1 | icial | 50. | 0.9 | Negligible Adverse | 38.7 | 9.6 | 39.5 |
| 15, PERSLEY CRESCENT |  | 50.0 | 51.0 | 49.9 | -0.1 | Negligible Beneficial | 51.0 | 1.0 | Negiligibe Adverse | 38.7 | 9.6 | 39.6 |
| 16, PERSLEY CRESCENT | Deelling | 50.0 | 51.0 | 49.9 | -0.1 | Negligible Beneficial | 50.9 | 0.9 | Negigioibe Adverse | 38.7 | 39.6 | 39.5 |
| 17, PERSLEY CRESCENT | Dweling | 51.0 | 51.6 | 50.9 | ${ }^{-0.1}$ | Neogioible Beneficial | 51.7 <br> 517 <br> 17 | ${ }_{0}^{0.7}$ | Negiligib Adverse | 39.6 396 | 40.2 |  |
|  | ${ }^{\text {Owelling }}$ Dowling | ${ }_{51.0}^{51.0}$ | ${ }_{51.6}^{51.6}$ | 50.9 | ${ }_{-0.1}$ | Negligiole Beneneficial | 51.7 | 0.7 | Neogigigie Adverse | 39.6 | 40.2 | 40.3 40.3 |
| 2, PERSLEY CRESCENT | Owelling | 51.8 | 52.3 | 51.7 | -0.1 | Negligible Beneficioil | 52.6 | 0.8 | Neogigiole Adverse | 40.4 | 40.8 | 41.1 |
| 20, PERSLEY CRESCENT | Dwelling | 51.0 | 51.6 | 50.9 | -0.1 | Negligible Beneficial | 51.7 | 0.7 | Negigiolile Adverse | 39.6 | 40.2 | 40.3 |
| 3, PERSLLEY CRESCENT | Dwelling | 51.9 | 52.5 | 51.8 | -0.1 | Negligible Beneficical | 52.7 52. | 0.8 | Negigigile Adverse | 40.4 | 41.0 | 41.2 |
| 4, PERSLEY CRESCENT | Dwelling | $\begin{array}{r}\text { 52.1 } \\ 51.8 \\ \hline\end{array}$ | - ${ }_{\text {52.7 }}^{52.4}$ | 51.9 51.6 | -0.2 | $\frac{\text { Negligible Benenitical }}{\text { Neglioibl }}$ Beneficial | 52.9 52.6 | 0.8 | $\frac{\text { Negiligibl Adverse }}{\text { Negigiole Adverse }}$ | 40.6 40.4 | 41.2 40.9 | 41.3 41.1 |
| 6, PERSLEY CRESCCENT | Dwelling | 51.7 | 52.4 52.4 | 51.6 | -0.1 | Negegioible Beneficioil | 52.6 | 0.9 | Negigigibe Adverse | ${ }_{40.3}$ | 40.9 | 41.1 |
| 7, PERSLLEY CRESCENT | Dwelling | 51.5 | 52.2 | 51.4 | -0.1 | Negligible Beneficial | 52.4 | 0.9 | Negiligile Adverse | 40.1 | 40.7 | 40.9 |
| 8 8, PERSLEY CRESCENT | welling | 50.8 | 51.4 | 50.7 | -0.1 | Negligible Beneficial | 51.6 | 0.8 | Negiligibe Adverse | 39.5 | 40.0 | 40.2 |
| 9, PERSLEY CRESCENT | Oweling | 50.8 | ${ }^{51.5}$ | 50.7 78.6 | -0.1 -0.1 | Negigigibe Beneficial | ${ }^{51.6}$ | - ${ }^{-12}$ | Negigioble Adverse | ${ }^{39.5}$ | ${ }^{40.1}$ | ${ }_{60.2}^{40.5}$ |
| PERSLEY DEN LODGE, PERSLEY DEN LODGE, GRaNDHOLM DRIVE | Dwelling | 48.0 |  |  |  | Neglioible Beneficial | 48.7 |  | Negioble Adverse |  |  |  |
|  |  | 723 | 727 | ${ }_{7} 7.8$ | ${ }_{0} 0.3$ | Neopligioble Adverserse | 72.7 | 0.7 | Negigiole Avverse | 58.8 | 59.2 | ${ }^{37.6}$ |
| \% 10 , PRIRIE'S COURT | Dwelling | 72.2 | 72.5 | 72.4 | 0.2 | Neogigigile Adverse | 72.5 | 0.3 | Neogigigile Adverse | 58.7 | 59.0 | 59.0 |
| 11, PIRIE'S COURT | Dweling | 72.2 | 72.5 | 72.4 |  | Negligible Adverse | 72.5 | 0.3 | Negligible Adverse | 58.7 | 59.0 | 59.0 |
| 12, PIRIE'S COURT |  | 72.2 | 72.5 | 72.4 | 0.2 | Negigigile Adverse | 72.5 |  | Negigioble Adverse | 58.7 | 59.0 | 9.0 |
| 13, PIRIE'S COURT | Deelling | 72.2 | 72.5 | 72.4 | 0.2 | Negigigibe Adverse | 72.5 | 0.3 | Negigigile Adverse | 58.7 | 59.0 | 59.0 |
| 14, PRIRIE'S COURT | Oweling | 72.2 | ${ }^{2} 2.5$ | 72.4 | 0.2 | Negiligibe Adverse | 72.5 | 0.3 | Negigigile Adverse | 58.7 | 9.0 | 59.0 |
| I5, PRilies Count | Oweling | 72.2 | 72.5 | 72.4 | 0.2 | Negigigibe Adverse | 72.5 | 0.3 | Negligible Adverse | 58.7 | 59.0 | 59.0 |
| $\frac{2, \text { Priles }}{3, \text { PIRIES Count }}$ | Dweling | ${ }_{723}$ | ${ }_{72.7}$ | ${ }_{72.6}$ | 0.3 0.3 | Negigigbe Adverse | 72.8 | 0.5 | Neoligigibe Adverse | ${ }_{58.8}^{58.8}$ | ${ }_{59.2}^{59}$ | ${ }_{59.3}^{59}$ |
| 4, PRIRE'S Count | Dwelling | 72.3 | 72.7 | 72.6 | 0.3 | Negigigile Adverse | 72.8 | 0.5 | Negligible Adverse | 58.8 | 59.2 | 59.3 |
| 5, PRIRE'S Court | Deelling | 72.3 | ${ }_{7}^{72.7}$ | ${ }^{72.6}$ | 0.3 | Negigigibe Adverse | 72.8 | 0.5 | Negigigibe Adverse | 58.8 | 59.2 | 59.3 |
|  | ${ }^{\text {Duelling }}$ Doeling | ${ }_{72.2}$ | ${ }_{72.5}$ | 72.4 | ${ }_{0}^{0.3}$ | Neogigiole Adversse | 72.85 | 0.5 | Neogigiole Adverse | ${ }_{58.7}^{58.7}$ | ${ }_{59.0}^{59.0}$ | ${ }_{59.0}^{59.0}$ |
| 8, PRIRI''S Count | Dwelling | 72.2 | 72.5 | 72.4 | 0.2 | Negigigile Adverse | 72.5 | 0.3 | Negigigile Adverse | 58.7 | 59.0 | 59.0 |
| 9, PRIRE'S COURT | welling | 72.2 | 72.5 | 72.4 | 0.2 | Negigioble Adverse | 72.5 | 0.3 | Negligible Adverse | 58.7 | 59.0 | 59.0 |
| FLAT 1, 12, PRIIE'S LANE | Dwelling | 58.1 | 58.6 | 58.3 | $\frac{0.2}{0.3}$ | $\frac{\text { Negiligib Adverse }}{\text { Negioible Adverse }}$ | $\begin{array}{r}58.6 \\ 537 \\ \hline\end{array}$ | 0.5 0.6 | $\frac{\text { Negiligile Adverse }}{\text { Neoligible Adverse }}$ | 46.0 415 | 46.5 | 46.5 |
| FLAT 2, 4, PIRIIE'SLANE | Dwelling | ${ }_{53.1}^{53.1}$ | ${ }_{53.6}$ | ${ }_{53.4}$ | ${ }_{0} 0$ | Negigigibe Adverse | ${ }_{53.7}$ | 0.6 | Negigigibe Adverse | 41.5 | ${ }_{42.0}$ | ${ }_{42.1}^{42.1}$ |
| FLAT 3, 14, PIRIE'S LANE | Dwelling | 53.1 | 53.6 | 53.4 | 0.3 | Negigigile Adverse | 53.7 | 0.6 | Negligible Adverse | 41.5 | 42.0 | 421 |
| FLaT, 4, 4, PRIIE'S LANE | Deelling | ${ }_{53.1}$ | ${ }_{53.6}$ | 53.4 | ${ }^{0.3}$ | Negiligibe Adverse |  | 0.6 | Negiligibie Adverse | 41.5 | 42.0 | ${ }_{4}^{42.1}$ |
| 12, PRIIE'S LANE | Dwelling | ${ }^{54.7}$ | ${ }_{53.1}^{55.1}$ | 54.9 | ${ }_{0.3}^{0.2}$ | Negigigbe Adverse | ${ }_{55.7}^{55.2}$ | ${ }_{0}^{0.5}$ | Negligiole Adverse | 43.0 | ${ }_{42.0}^{43.3}$ | ${ }_{4}^{43.4}$ |
| 18, PIIIIE'S LANE | Dwelling | 53.1 | 53.6 | 53.4 | 0.3 | Negigigibe Adverse | 53.7 | 0.6 | Negligible Adverse | 41.5 | 42.0 | 42.1 |
| 2, PRIRE'S LANE | welling | 62.6 | 63.0 | 62.9 | 0.3 | Negigigile Adverse | 63.0 | 0.4 | Negigibile Adverse | 50.1 | 50.4 | 50.4 |
| 4, PRIESLANE | Dweling | 58.11 | 58.6 | 58.3 58.3 | 0.2 | Negigigio Adverse | ${ }_{58.6}^{58.6}$ | 0.5 | Negligibe Adverse | ${ }_{46.0}^{46}$ | 46.5 | 46.5 |
| PLAY AREA, PRIE'S LANE | Play frea | 43.6 | 45.2 | 54.0 | ${ }_{0}^{0.4}$ | Neoligioble Adverse | ${ }_{45.6}$ | ${ }_{1}^{1.7}$ | Neoligioble Adverse | ${ }_{33.0}^{46.0}$ | ${ }^{46.4}$ | ${ }_{34.5}^{46.5}$ |
| 1, PLANE TREE ROAD | Dwelling | 70.2 | 70.4 | 70.3 | 0.1 | Negligible Beneficial | 70.5 | 0.3 | Negigigile Adverse | 56.9 | 57.1 | 57.2 |
| 11, PLANE TREE ROAD | Deelling | 70.2 | 70.4 | 70.3 | 0.1 | Negligible Beneficial | 70.5 | 0.3 | Negigigibe Adverse | 56.9 | 57.1 | 57.2 |
| $\frac{13, \text { PLANE TREE ROAD }}{}{ }^{\text {15, PLANE TREE ROAD }}$ | Dwelling | 70.2 70.2 | 70.4 70.4 | 70.3 70.3 | ${ }_{0}^{0.1}$ | Negiligile Beneiticial | 70.5 | ${ }_{0}^{0.3}$ | Negigible Adverse | 56.9 | 57.11 | 57.2 57.2 |
| 17, PLANE TREE ROAD | Dwelling | 59.0 | 59.2 | 59.0 | 0.0 | No Change | 59.3 | 0.3 | Negligible Adverse | 46.8 | 47.0 | 47.1 |
| 19, PLANE TREE ROAD | Deelling | 59.7 | 60.1 | 59.7 | 0.0 | No Change | 60.1 | 0.4 | Negiligile Adverse | 47.5 | 47.8 | 47.8 |
| 21, PLANE TREE ROAD | Dwelling | 59.2. | 59.6 | 59.2 | 0.0 | No Change | 59.6 | 0.4 0.4 | $\frac{\text { Negigigle Adverse }}{\text { Negligiole Adverse }}$ | 47.0 | 47.4 | 47.4 |
| 25, PLANE TREE ROAD | Dwelling | 58.5 | 59.1 | 58.5 | 0.0 | No Change | 59.1 | 0.6 | Neogigiole Adverse | 46.4 | 46.9 | 46.9 |
| 27, PLANE TREE ROAD | Dwelling | 57.5 | 58.2 | 57.4 | -0.1 | Negligible Beneficial | 58.2 | 0.7 | Negligible Adverse | 45.5 | 46.1 | 46.1 |
| 29, PLANE TREE ROAD | Dwelling | 54.12 | 55.8 | 54.1 | 0.0 | No Change | 55.3 | 1.2 | Negligible Adverse | ${ }^{42.4}$ | 44.0 | 43.5 |
| 3, ${ }^{\text {P, PANE TREE ROAD }}$ | Dwelling | 70.2 55.7 | 70.4 57.0 | 70.3 55.7 | 0.1 | Negligiole Beneficial | ${ }^{70.5}$ | 0.3 1.0 | Negligible Adverse | 56.9 43.9 | $\stackrel{57.1}{45.0}$ | ¢7.2 |
| 31, PLANE TREE ROAD | Dwelling | 59.4 | 60.4 | 59.4 | 0.0 | No Change | 60.3 | 0.9 | Negligible Adverse | 47.2 | 48.1 | 48.0 |
| 32, PLANE TREE ROAD | Delling | 56.6 | 57.9 | 56.6 | 0.0 | No Change | 57.6 | 1.0 | Negigibile Adverse | 44.7 | 45.8 | 45.6 |
| 33, PLANE TREE R RAD | Dwelling | ${ }^{60.3}$ | 66.4 58.5 | ${ }^{60.3} 5$ | 0.0 | ${ }^{\text {No Co Change }}$ | 61.2 58.3 | 1.9 1.0 | Negligibe Adverse | ${ }_{45.3}^{48.0}$ | 49.4 | 488.8 |
| 35, PLANE TREE ROAD | Delling | 61.3 | 62.4 | 61.3 | 0.0 | No Change | 62.3 | 1.0 | Negligible Adverse | 48.9 | 49.9 | 49.8 |
| 36, PLANE TREE ROAD | Dwelling | 68.5 | ${ }^{59.7}$ | 㐌8.4.4 | $\stackrel{-0.1}{0.0}$ | $\frac{\text { Negligible Beneticial }}{\text { No Change }}$ | 59.5 | 1.0 1.0 | $\frac{\text { Negigigle Adverse }}{\text { Negigiole Adverse }}$ | 46.4 50.0 | ${ }^{47.5}$ | 47.3 |
| 39, PLANE TREE ROAD | Delling | 63.4 | 64.6 | ${ }^{63.3}$ | -0.1 | Negligible Beneficical | 64.4 | 1.0 | Negligible Adverse | 50.8 | 51.9 | 51.7 |
|  | Dwelling | 70.2 | 70.4 70.4 | ${ }_{70.3}^{70.3}$ | ${ }_{0}^{0.1}$ | Negligible Beneficial | 70.5 | 0.3 0.3 | Negigible Adverse | 56.9 | 57.1 57.1 | 57.2 57.2 |
| 9, PLANE TREE ROAD | Dwelling | 70.2 | 70.4 | 70.3 | 0.1 | Negligible Beneficial | 70.5 | 0.3 | Negiligibe Adverse | 56.9 | 57.1 475 | 57.2 |
| $\frac{1, \text { PRMMROSEHILL }}{10 \text { PRIVE }}$ | Dwelling | ${ }_{58.3}^{52.3}$ | ${ }_{59}^{59.2}$ | ${ }_{58.4}^{52.4}$ | $\stackrel{-0.1}{0.1}$ | $\frac{\text { Neegigiblib Beneficial }}{\text { Negigiole Adverse }}$ | ${ }_{59.2}^{59.5}$ | 0.9 | $\frac{\text { Negigigle Adverse }}{\text { Negigiole Adverse }}$ | 40.8 | $\stackrel{41.6}{41.6}$ | 44.6 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 Lnight,outside | DS33 Lnight,outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 11, PRIMROSEHLLL DRIVE | Deeling | 49.6 | 50.2 | 49.7 | 0.1 | Negigigle Adverse | 50.0 | 0.4 | Negigigle Adverse | 38.4 | 38.9 | 38.7 |
| 12.PRIMROSEHLLL DRIVE | Dwelling | 52.4 | ${ }^{53.3}$ | 52.5 | ${ }_{0}^{0.1}$ | $\frac{\text { Negigioble Adverse }}{\text { Negioble }}$ Adverse | 53.3 53.7 | 0.9 | $\frac{\text { Negigioble Adverse }}{\text { Negigiole Adverse }}$ | $\frac{40.9}{41.5}$ | $\frac{41.7}{42.1}$ | $\frac{41.7}{42.1}$ |
| 15, PRIMROSEHILL DRIVE | Owelling | 46.6 | 47.7 | 46.8 | 0.2 | Neogigiole Adverse | ${ }_{47.6}$ | 1.0 | Neoligible Adverse | 35.7 | 36.7 | 36.6 |
| 16, PRIMROSEHILL DRIVE | Dwelling | 52.1 | 52.8 | 52.2 | 0.1 | Negigioble Adverse | 52.8 | 0.7 | Negiligile Adverse | 40.6 | 41.3 | 41.3 |
| 17, PRIMROSEHHLL DRIVE | Delling | ${ }_{56.8}$ | 47.9 | ${ }_{5}^{47.0}$ | 0.2 | Negigigibe Adverse | ${ }_{57.8}^{47}$ | 1.0 | Negligible Adverse | 35.9 | 36.8 | ${ }^{36.8}$ |
| 18, PRIMROSEHILL DRIVE | Delling | 53.3 | 53.8 | 53.5 | 0.2 | Negigioble Adverse | 53.8 | 0.5 | Negligible Adverse | 41.7 | 42.2 | 42.2 |
| 19, PRIMROSEHILL DRIVE | Dwelling | 46.9 | 48.1 | 47.2 | 0.3 | Negiligibe Adverse | $\frac{48.0}{51.0}$ | 1.1 | Negiligible Adverse | 35.9 39 | 37.0 30 | 36.9 39 |
| 2, PRIMROSEEHILL DRIVE | Delling | ${ }_{50.5}^{51}$ | ${ }_{51.3}^{51.3}$ | ${ }_{50.7}^{50 .}$ | 0.2 | Negigigible Adverse | ${ }_{51.3}^{51.3}$ | 0.8 | Negligible Adverse | 39.2 | 39.9 | 39.9 |
| $\frac{20, ~ P R I M R O S E H I L L ~ D R I V E ~}{21}$ | Dwelling | 51.9 46.9 | 52.3 48.0 | 52.1 47.1 | 0.2 0.2 | Negligible Adverse Nefigible Adverse | 52.3 47.9 | 0.4 1.0 | Negligible Adverse Nefigiole Adverse | 40.4 35.9 | 40.8 36.9 | 40.8 36.8 |
| 22, PRIMROSEHILL DRIVE | Dwelling | 51.6 | 52.0 | 51.8 | 0.2 | Negiligile Adverse | 52.0 | 0.4 | Negligible Adverse | 40.2 | 40.5 | 40.5 |
| 23, PRIMROSEHILL DRIVE | Dwelling | 46.9 | 48.1 | 47.2 | 0.3 | Negigiole Adverse | 48.0 | 1.1 | Negigiolile Adverse | 35.9 | 37.0 | 36.9 |
| 24, PRIMROSEHILL DRIVE | Dwelling | 50.9 | 51.4 | 51.1 | 0.2 | Negligible Adverse | 51.4 | 0.5 | Negligible Adverse | 39.5 | 40.0 | 40.0 |
|  | Dweling | ${ }^{46.7}$ | ${ }^{47.9}$ | 46.9 | 0.2 | Negigiobe Adverse | 47.8 51.8 | 1.1 0.5 | Negigiobie Adverse | 35.8 39.9 | 36.8 40.3 | 36.8 40.4 |
| 27, PRIMROSEHILL DRIVE | Dwelling | 46.9 | 48.2 | 47.2 | 0.3 | Negigiolie Adverse | 48.1 | 1.2 | Negiligile Adverse | 35.9 | 37.1 | 37.0 |
| 28, PPIMROSEHILL DRIVE | Dwelling | 50.8 | 51.3 | 51.0 | 0.2 | Negigiole Adverse | 51.4 | 0.6 | Negiligile Adverse | 39.5 | 39.9 | 40.0 |
| 29, PRIMROSEALLL DRIVE | Dwelling | 46.8 | $\stackrel{47.9}{597}$ | ${ }_{5}^{47.1}$ |  | Negiligibe Adverse | 47.9 59 |  | Negiligib Adverse | 35.9 |  | ${ }^{36.8} 478$ |
| 3, PRIMROSEHILL DRIVE | Dwelling | 58.9 49.2 | 59.7 49.7 |  | $\stackrel{-0.1}{0.1}$ | $\frac{\text { Negligiole Benenicical }}{\text { Neglioibl }}$ Beneficial | 59.5 49.8 | 0.6 0.6 | $\frac{\text { Negigigibe Adverse }}{\text { Negigiole Adverse }}$ | $\stackrel{46.7}{38.0}$ | ${ }^{47.5}$ | ${ }_{38,3}$ |
| 31, PRIMROSEHILL DRIVE | Owelling | 46.7 | 47.9 | 46.9 | 0.2 | Negiligibe Adverse | 47.8 | 1.1 | Neogigiole Adverse | 35.8 | 36.8 | 36.8 |
| 33, PRIMROSEHILL DRIVE | Dwelling | 48.2 | 49.6 | 48.5 | 0.3 | Negigiole Adverse | 49.7 | 1.5 | Negigigibe Adverse | 37.1 | 38.4 | 38.5 |
| 34, PRIMROSEHILL DRIVE | Dwelling | 50.4 | 50.8 | 50.6 | 0.2 | Negigigible Adverse | 50.9 | 0.5 | Negiligible Adverse | 39.1 | 39.5 | 39.5 |
| 36, PRIMROSEHILL DRIVE | Dwelling | 50.6 | 51.0 | 50.8 | 0.2 | Negigigile Adverse | 51.1 | 0.5 | Negigioble Adverse | 39.3 | 39.6 | 39.7 |
| 38, PRIMROSEHILL DRIVE | Dwelling | 50.5 | 50.9 | 50.7 | 0.2 | Negiligibe Adverse | 51.0 | 0.5 | Negligible Adverse | 39.2 | 39.5 | 39.6 |
| 4, PRIMROSEHILL DRIVE | Dwelling | 57.8 50.4 | 58.6. | $\begin{array}{r}57.8 \\ 50.5 \\ \hline\end{array}$ | ${ }_{0}^{0.0}$ | No Nochange | 58.6 <br> 50.8 | ${ }_{0}^{0.8}$ | Negligible Adverse | ${ }_{39.1}^{45.8}$ | ${ }^{46.5}$ | 46.5 395 |
| 42, PRIMROSEHILL DRIVE | Dwelling | ${ }_{50.6}^{50.4}$ | 50.9 | ${ }_{50.8}$ | 0.2 | Negigigile Adverse | 51.0 | 0.4 | Negigigibe Adverse | 39.3 | ${ }^{39.5}$ | 39.6 |
| 44, PRIMROSEHILL DRIVE | Wwelling | 50.7 | 51.1 | 50.9 | 0.2 | Negiligile Adverse | 51.2 | 0.5 | Negiligibe Adverse | 39.4 | 39.7 | 39.8 |
| 46, PRIMROSEHILL DRIVE | Dwelling | 50.8 | 51.2 | 51.0 | 0.2 | Negiligib Adverse | 51.3 | 0.5 | Negiligibe Adverse | 39.5 395 | 39.8 | 39.9 |
| 5, PRIMROSEHILL DRIVE | Dwelling | 49.7 | 50.4 | 49.7 | 0.0 | No Change | 50.0 | 0.3 | Neogigigile Adverse | 38.5 | ${ }_{38.8}$ | 38.7 |
| 5, PRIMROSEHILL DRIVE | Dwelling | 49.9 | 50.3 | 49.9 | 0.0 | No Change | 50.2 | 0.3 | Negligible Adverse | 38.6 | 39.0 | 38.9 |
| 50, PRIMROSEHILL DRIVE | Deelling | 50.0 | 50.5 | 50.2 | 0.2 | Negiligibe Adverse | 50.5 | 0.5 | Negiligibe Adverse | 38.7 | 39 |  |
| 52, PRIMROSEALLL DRIVE | weling | 50.0 |  | $\begin{array}{r}50.2 \\ 550 \\ \hline\end{array}$ | 0.1 | Negigigibe Adverse | 50.5 | 0.5 | Negligible Adverse | 38.7 |  | 39.2 |
| 54, PRIMROSEHLLL DRIVE | Dweling | 54.9 | 55.3 | 55.5 | 0.1 | Negigigie Adverse | 55.3 | 0.4 | Negligibe Adverse | ${ }^{43.1}$ | ${ }^{43.5}$ | ${ }^{43.5}$ |
| 56, PRIMROSEHILL DRIVE | Oweling | 50.4 | 50.8 | $\begin{array}{r}50.5 \\ 529 \\ \hline\end{array}$ | ${ }_{0}^{0.1}$ | Negigigio Adverse | 50.9 | ${ }_{0}^{0.5}$ | Negligibe Adverse | $\frac{39.1}{413}$ | 39.5 | 39.5 419 |
|  | Dwelling | 51.5 | ${ }_{51.9}^{51.9}$ | ${ }_{51.5}^{52.5}$ | 0.0 | Negigiole Acverse | 51.8 | 0.3 | Neogigiole Adverse | 40.1 | 40.4 | 40.9 |
| 8 , PRIMROSEHILL DRIVE | Dwelling | 53.4 | 54.6 | 53.5 | 0.1 | Negligible Adverse | 54.5 | 1.1 | Negigigibe Adverse | 41.8 | 42.9 | 42.8 |
| 9, PRIMROSEHILL DRIVE | Dwelling | 49.0 | 49.5 | 49.1 | 0.1 | Negigiolie Adverse | 49.3 | 0.3 | Negiligible Adverse | 37.8 | 38.3 | 38.1 |
| 1, PRMMROSEHILL GARDENS | Dwelling | $\stackrel{55.0}{49.3}$ | $\stackrel{57.7}{50.2}$ | 55.8 49.5 | 0.8 | Negigigle Adverse | 57.8 50.1 | 2.8 0.8 | Negigigle Adverse | 43.2 38.1 | $\stackrel{45.7}{38.9}$ | 45.8 38.8 |
| 12, PRIMROSEHILL GARDENS | Dwelling | 49.3 | 50.2 | 49.5 | 0.2 | Negiligiole Adverse | 50.1 | 0.8 | Negiligibe Adverse | 38.1 | 38.9 | 38.8 |
| 14, PRIMROOESHILL GARDENS | Delling | 49.7 | 50.5 | 49.8 | 0.1 | Negligible Beneficial | ${ }_{50.3}^{50 .}$ | 0.6 | Negigigibe Adverse | 38.5 | 39.2 | 39.0 |
| 15, PRIMROSEHILL GARDENS | Dwelling | 50.5 49.5 | 52.1 50.3 | 50.8 49.6 | 0.3 0.1 | Negigible Adverse | $\begin{array}{r}52.1 \\ \hline 50.1\end{array}$ | 1.6 0.6 | Negigible Adverse | 39.2 38.3 | 40.6 39.0 | 40.6 38.8 |
| 17, PRIMROSEHILL GARDENS | Dwelling | 50.2 | 51.6 | 50.5 | 0.3 | Negiligile Adverse | 51.6 | 1.4 | Negiligile Adverse | 38.9 | 40.2 | 40.2 |
| 18, PRIMROSEHILL GARDENS | Deelling | 49.7 | 50.4 | 49.8 | 0.1 | Negligible Beneficial | 50.3 | 0.6 | Negligible Adverse | 38.5 | 39.1 | 39.0 |
| 19, ${ }^{\text {2, PRIMMROSESEHILL }}$ GARDENS | Dweling | ${ }_{50.3}^{49.7}$ | 51.7 | 50.0 | ${ }_{0.3}^{0.3}$ | $\frac{\text { Negigigio Adverse }}{\text { Negligible Adverse }}$ | ¢1.0 | 1.3 1.3 | Negigigib Adverse | 38.5 39.0 | 39.6 40.3 | 39.6 40.2 |
| 20, PRIMROSEHILL GARDENS | Dwelling | 49.3 | 49.9 | 49.4 | 0.1 | Negiligible Adverse | 49.8 | 0.5 | Negiligible Adverse | 38.1 | 38.6 | 38.6 |
| 21, PRIMROSEHLLL GARDENS | Dwelling | 49.5 |  | 49.8 | 0.3 | Negiligibe Adverse |  | 1.2 | Negiligibe Adverse | 38.3 | 39.4 | 39.4 |
| 3, PRIMROSEHLLL GARDENS | Dwelling | ${ }_{54.3}$ | ${ }_{56.4}$ | ${ }_{54.8}$ | 0.5 | Negoligiobe Advencise | ${ }_{56.5}^{46.5}$ | 2. 2 | Neoligioble Adverse | ${ }^{36.6}$ | 34.5 | 34.6 |
| 4, PRIMROSEHHILL GARDENS | Deelling | 49.9 | 51.4 | 50.2 | 0.3 | Negigigile Adverse | 51.2 | 1.3 | Negigiolile Adverse | 38.6 | 40.0 | 39.8 |
| 6 6, PRIMROSEHILL GARDENS | Dwelling | 50.0 | 51.2 | 50.2 | 0.2 | Negigiole Adverse | 51.1 | 1.1 | Negiligile Adverse | 38.7 | 39.8 | 39.7 |
| 8, PRIMROSEHILL GARDENS | Dwelling | 49.9 463 | 51.0 | 50.1 46.6 | 0.2 0 | Negiligib Adverse | 50.9 475 | 1.0 | Negiligib Adverse | $\begin{array}{r}38.6 \\ 354 \\ \hline\end{array}$ | 39.6 36.6 | 39.5 <br> 365 |
| 10, PRRIMROSEHILL PLACE | Dwelling | ${ }_{46.3}^{46.7}$ | ${ }_{48.5}^{47.5}$ | ${ }_{46.6}^{47.1}$ | ${ }_{0}^{0.4}$ | Negigigle Adverse | 48.4 | 1.2 1.7 | Negigigle Adverse | 35.4 35.8 | 36.6 37.4 | 36.5 37.3 |
| 12. PRIMROSEEHILL PLACE | Delling | 46.2 | 47.4 | 46.4 | 0.2 | Negligible Adverse | 47.3 | 1.1 | Negligible Adverse | 35.3 351 | 36.4 | 36.3 |
| 13, PRIMROSEHILL PLACE | Dwelling | 46.0 46.2 | 47.6 47.5 | 46.3 46.4 | 0.3 0.2 | Negigibie Adverse | 47.5 47.4 | 1.5 1.2 | Negigiobe Adverse | 35.1 35.3 | 36.6 36.5 | 36.5 36.4 |
| 15, PRIMROSEHIIL PLACE | Dwelling | 46.6 459 | 48.4 473 | 47.0 4.0 | 0.4 | Negigigibe Adverse | ${ }_{48.4}^{48.4}$ | 1.8 | Negiligibe Adverse | 35.7 | 37.3 | 37.3 |
| 16, PRIMROSEHILL PLACE | Dwelling | 45.9 46.7 | 47.3 48.9 | 46.2 47.1 | 0.3 0.4 | Neogigigibe Adverse | 47.2 48.7 | 1.3 2.0 | Neogigigibe Adverse | 35.0 35.8 | 36.3 37.7 | 36.2 37.6 |
| 18, PRIMROSEHILL PLACE | Dwelling | 45.9 | 47.2 | 46.2 | 0.3 | Negligible Adverse | 47.2 | 1.3 | Negligible Adverse | 35.0 | 36.2 | 36.2 |
| 19, PRIMROSEHILL PLACE | Dwelling | 46.8 | 48.8 | 47.3 | 0.5 | Negigioble Adverse | 48.8 | 2.0 | Negigioible Adverse | 35.9 | 37.7 | 37.7 |
| 20, PRIMROSEEILL PLACE | Dweling | 47.5 | 49.2 | 47.8 | ${ }_{0}^{0.3}$ | Negiligibe Adverse | 49.1 | 1.6 | Negiligile Adverse | 36.5 | 38.0 | ${ }^{37.9}$ |
| 22, PRIMROSEHILL PLACE | Dwelling | 50.0 | 51.3 | 50.3 | 0.3 | Neoligioble Adverse | 51.4 | 1.4 | Negigigibe Adverse | ${ }_{38,7}$ | 39.9 | 40.0 |
| 23, PRIMROSEHILL PLACE | Dwelling | 50.9 | 53.0 | 51.5 | 0.6 | Negigigile Adverse | 53.2 | 2.3 | Negigiolile Adverse | 39.5 | 41.4 | 41.6 |
| 4. PRIMROSEHILL PLACE | Deelling | 47.8 | 49.0 | 48.0 | 0.2 | Negigioble Adverse | 49.0 | 1.2 | Negigioble Adverse | 36.8 | 37.8 | 37.8 |
| 5, PRRMMROSEEHILL PLACEE | Dwelling | 50.6 47.6 | 53.4 48.8 | 51.4 47.8 | ${ }_{0}^{0.8}$ | Negigigile Adverse | 53.3 | 1.2 1.2 | Neogigioble Adverse | ${ }^{39.3}$ | ${ }^{41.8}$ | ${ }^{417.7}$ |
| 7. PRIMROSEHILL PLACE | Dwelling | 50.2 463 | 52.7 475 | 50.9 465 | 0.7 | Negigigle Adverse | 52.7 474 | 2.5 .11 | Negligibl Adverse | 38.9 354 | 41.2 365 | 41.2 364 |
| 9, PRIMR | Dweliling | 46.9 | 48.9 | ${ }_{46.4}^{46.5}$ | 0.5 | Neoligigle Adverse | ${ }_{48.8}^{48.4}$ | 1.9 | Negigigible Adverse | 35.4 35.9 | 36.5 37.7 | 36.4 37.7 |
| FLAT A, 1, PRIITFIELD TERRACE | Dwelling | 47.0 | 49.7 | 47.7 | 0.7 | Negigiole Adverse | 49.6 | 2.6 | Negligible Adverse | 36.0 | 38.5 | 38.4 |
| FLAT B, 1, PRINTFELL TEARACE | Dwelling | 47.0 47.0 | ${ }_{49,7}^{49.7}$ | ${ }^{47.7} 4$ | 0.7 0.7 | Negiligib Adverse Nefigiole Adverse | 49.6 49.6 | ${ }_{2.6}^{2.6}$ | Negligile Adverse | 36.0 360 | $\begin{array}{r}38.5 \\ 38.5 \\ \hline\end{array}$ | 38.4 <br> 38.4 |
| FLAT D, 1, PRINTFIELD TERRACE | Dwelling | 47.0 | 49.7 | 47.7 | 0.7 | Negigigile Adverse | 49.6 | 2.6 | Negiligile Adverse | 36.0 | 38.5 | ${ }_{38.4}$ |

## Appendix A14．4：Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short－term Daytime Noise Change（dB） | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long－term Daytime Noise Change（dB） | Magnitude of Change | DM18 Lnight，outside | DM33 night，outside | $\begin{gathered} \text { DS33 } \\ \text { Lnight,outside } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| FLAT E，1，PRINTFIELD TERRACE | Deeling | 47.0 | 49.7 | 47.7 | 0.7 | Negigigile Adverse | 49.6 | 2.6 | Negligible Adverse | 36.0 | 38.5 | 38.4 |
| FLAT F，1，PRINTFFELD TERRACE | Dweling | 47.0 535 | $\frac{49.7}{542}$ | 47.7 537 | 0.7 | Negiligib Adverse | $\frac{49.6}{54.1}$ | ${ }^{2.6}$ | Negiligle Adverse | $\frac{36.0}{41.9}$ | 38.5 42.5 | 38.4 42.4 |
|  | Dweling | 年5．5 | 54．2 | 53．7 53.7 | 0．2 0.2 | Negigibib Adverse | 㐌54．1 | 0.6 | $\frac{\text { Negigigile Adverse }}{\text { Negligible Adverse }}$ | 41.9 | 42．5 | 42.4 42.4 |
| FLAT C C，，，PRINT FIELD TERAACE | Dwelling | ${ }_{53.5}^{53.5}$ | 54．2 | ${ }_{53,7}$ | 0.2 | Neoligigle Adverse | ${ }_{54.1}^{54.1}$ | 0.6 | Negigigible Adverse | 41.9 | ${ }_{42.5}$ | 42.4 |
| FLAT D，2，PRINTFIELD TERRACE | Dwelling | 53.5 | 54.2 | 53.7 | 0.2 | Negigigile Adverse | 54.1 | 0.6 | Negigigile Adverse | 41.9 | 42.5 | 42.4 |
| FLATE，2，PRINTFIELD TERRACE |  | 53.5 | 54.2 | 53.7 | 0.2 | Negigibile Adverse | 54.1 | 0.6 | Negligible Adverse | 41.9 | 42.5 | 42.4 |
| FLAT F，2，PRINTFIELD TERRACE |  | 53.5 | 54.2 | 53.7 | 0.2 | Negigioble Adverse | 54.1 | 0.6 | Negigioble Adverse | 41.9 | 42.5 | 42.4 |
| FLAT A，3，PRINTFIELD TERRACE | welling | 45.8 | 48.0 | 46.3 | 0.5 | Negigigibe Adverse | 48.0 | 2.2 | Negigioble Adverse | 35.0 | 36.9 | 36.9 |
| FLAT B，3，PRIITFIELD TERRACE | welling | 45.8 | 48.0 | 46.3 | 0.5 | Negigigibe Adverse | 48.0 | ${ }^{2.2}$ | Negigioble Adverse | ${ }^{35.0}$ | 36.9 | 36.9 |
| FLAT C，3，PRINTFIELD TERRACE | welling | 45.8 | 48.0 | 46.3 | 0.5 | Negigigile Adverse | 48.0 | ${ }^{2.2}$ | Negiligble Adverse | 35.0 35 | 36.9 | 36.9 3.9 |
| FLAT E，3，PRPINT | Oweiling | ${ }_{45.8}^{45.8}$ | 48.0 | ${ }_{46.3}^{46.3}$ | ${ }_{0}^{0.5}$ | Negigigibe Adverse | 48.0 | ${ }_{2}^{2.2}$ | $\frac{\text { Negligibe Adverse }}{\text { Neoligibe Adverse }}$ | 35．0 35.0 | ${ }^{36.9}$ | 36．9 36.9 |
| FLAT F，3，PRIITFIELD TERRACE | welling | 45.8 | 48.0 | 46.3 | 0.5 | Negiligile Adverse | 48.0 | 2.2 | Negligible Adverse | 35.0 | 36.9 | 36.9 |
| FLAT A，4，PRINTFILLD TERRACE | ing | 54.8 | 55.4 | 55.0 | 0.2 | Negigigile Adverse | 55.4 | 0.6 | Negligible Adverse | 43.1 | 3．6 | 43.6 |
| FLAT B，4，PRINTFIILD TERRACE |  | 54.8 | 5.4 | 55.0 | 0.2 | Negigigibe Adverse | 55.4 | 0.6 | Negigioble Adverse | 43.1 | 43.6 | 43.6 |
| FLAT C，4，PRINTFIELD TERRACE |  | 54.8 | 5.4 | 55.0 | 0.2 | Negigioble Adverse | 55．4 | 0.6 | Negiligible Adverse | ${ }^{43.1}$ |  | ${ }_{4}^{43.6}$ |
| FLAT D，4，PRINTFIELD TERRACE | eeling | 54.8 | 55.4 | 55.0 | 0.2 | Negiligibe Adverse | 55．4 |  | Negligigile Adverse | 43.1 |  |  |
| FLAT E，4，PR PINT FIELD TERRACE | Dwelling | 54.8 | 55.4 | 55.0 | 0.2 | Negigigile Adverse | 55 | 0.6 | Negiligile Aaverse | 43.1 | 43.6 | 43.6 |
| FLAT， 4 ，PRINTFELED TERRACE | Dweling | 54.8 | 55．4 | 55.0 | 0.2 | Negiligibe Adverse | 55.4 | 0.6 | Negiquible Adverse | 43.15 | ${ }^{43.6}$ | 43.6 3.3 |
| FLATA，S，PRINFFLED TERRACE | weling | 45.3 | 47.3 | 45.7 | 0.4 | Negiligile Adverse | ${ }_{473}^{473}$ | ${ }_{2}^{2.0}$ | Negiligile Adverse | $\begin{array}{r}34.5 \\ 345 \\ \hline\end{array}$ | 36.3 <br> 363 | 36.3 <br> 3.3 |
|  | weling | 45.3 | 47.3 | ${ }^{45.7}$ | 0.4 | Negigigile Aaverse | ${ }_{473}$ | ${ }_{2}^{2.0}$ | Negiligile Adverse | 34．5 | ${ }^{36.3}$ | ${ }^{36.3}$ |
| FLAT， 5 ，PRINTFELD TEARACE | Oweling | 45.3 | 47.3 | ${ }^{45.7}$ | 0.4 | Negiligile Adverse | ${ }_{473}$ | 2.0 | Negiligile Adverse | 34.5 <br> 3.5 | ${ }_{36.3}^{363}$ | ${ }^{36.3}$ |
| ALAT，5，PRINTFEL TEARACE | Oweling | 45.3 | 47.3 | ${ }^{45.7}$ | 0.4 | Negigigile Adverse | ${ }_{473}$ | 2.0 | Negiligile Adverse | 34.5 | ${ }^{36.3}$ | ${ }^{36.3}$ |
| FLATE， 5 ，PRINTFIELD TERRACE | Oweling | 45.3 | 47.3 | ${ }^{45.7}$ | 0.4 | Negigigile Adverse | ${ }_{473}$ | ${ }_{2}^{2.0}$ | Negigigle Adverse | 34.5 345 | 36.3 <br> 3.3 | 36.3 <br> 3.3 |
| FLAT A， 6 ，PRINTTIILLD TERRACE | Dwelling | 54.4 | 55.0 | 54.6 | 0.2 | Negigigile Adverse | 55.0 | 0.6 | Negiligile Adverse | 42.7 | 43.2 | 43.2 |
| FLAT B， 6 ，PRIITFIELLD TERRACE | Wwelling | 54.4 | 55.0 | 54.6 | 0.2 | Negigigibe Adverse | 55.0 | 0.6 | Negigigile Adverse | 42.7 | 43.2 | 43.2 |
| FLAT C，6，PRINTFIELD TERRACE | weling | 54.4 | 55.0 | 54．6 | 0.2 | Negiligibie Adverse | $\begin{array}{r}55.0 \\ 55 \\ \hline\end{array}$ | 0.6 | Negiligile Adverse | ${ }^{42.7}$ | 43.2 | 43.2 |
| FLAT E，，，PRPINTFIELD TERRACE | Dwelling | 54.4 | 55.0 | 54.6 | 0.2 | Negigigile Adverse | 55.0 | 0.6 | Negigigibe Adverse | 42.7 | 43.2 | 43.2 |
| FLAT F，6，PRIITFIELD TERRACE | Dwelling | 54.4 | 55.0 | 54.6 | 0.2 | Negigiole Adverse | 55.0 | 0.6 | Negigiole Adverse | 42.7 | 43.2 | 43.2 |
| FLAT A，7，PRINTFIELD TERRACE | Welling | 45.3 | 47.4 | 45.7 | 0.4 | Negiligibie Adverse | 47.4 | ${ }_{2}^{2.1}$ | Negiligible Adverse | 34.5 345 | 36.4 | 36.4 |
|  | Dwelling | ${ }_{45.3}^{45.3}$ | 47.4 47.4 | ${ }_{45.7}^{45.7}$ | 0.4 0.4 | Negligibe Adverse | 47.4 47.4 | ${ }_{2.1}^{2.1}$ | Negligibl Adverse | 34.5 34.5 | 36.4 | 36.4 36.4 |
| FLAT D，，，PRPINT FIELD TERAACE | Dwelling | 45.3 | 47.4 | 45.7 |  | Negiligile Adverse | 47.4 |  | Negligible Adverse | 34.5 | 36.4 | 36.4 |
| FLATE，7，PRINT FIELD TERRACE | Dwelling | 45.3 | 47.4 | 45.7 | 0.4 | Negigigile Adverse | 47.4 | 2.1 | Negiligile Adverse | 34.5 | 36.4 | 36.4 |
| FLAT F．7，PRINTFIELD TERRACE | welling | 45.3 | 47.4 | 45.7 | 0.4 | Negigioble Adverse | 47.4 | 2.1 | Negigioble Adverse | 34.5 | 36.4 | 36.4 |
| FLAT B，，，，PRPINT | Owelling | 46．9 | 48.0 48.0 | ${ }_{47.1}^{47.1}$ | ${ }_{0}^{0.2}$ | Neogigigle Adverse | 48.0 48.0 | ${ }_{1.1}^{1.1}$ | Negligigile Adverse | 35.9 35.9 | 36.9 36.9 | 36.9 36.9 |
| FLAT C，8，PRINT FIELD TERRACE | Dwelling | 46.9 | 48.0 | 47.1 | 0.2 | Negigigile Adverse | 48.0 | 1.1 | Negligible Adverse | 35.9 | 36.9 | 36.9 |
| FLAT D，8，PRINT FIELD TERRACE | Dwelling | 46.9 | 48.0 | 47.1 | 0.2 | Negigibile Adverse | 48.0 | 1.1 | Negligible Adverse | 35.9 | 36.9 | 36.9 |
|  | Dwelling | $\stackrel{46.9}{46.9}$ | 48.0 48.0 | ${ }_{47.1}^{47.1}$ | 0.2 | Negigigle Adverse | 48.0 48.0 | ${ }_{1}^{1.1}$ | $\frac{\text { Negigigle Adverse }}{\text { Neligiole Adverse }}$ | 35.9 35.9 | 36.9 36.9 | 36.9 36.9 |
| FLAT A，9，PRINTTIELD TTERRACE | Deelling | 45.9 | 48.1 | 46.4 | 0.5 | Negiligibe Adverse | 48.1 | 2.2 | Negiligibe Adverse | 35.0 | 37.0 | 37.0 |
|  | Dwelling | 45.9 45.9 | 48.1 48.1 | 46.4 46.4 | 0.5 0.5 | $\frac{\text { Negigigib Adverse }}{\text { Negigible Adverse }}$ | 48.1 48.1 | $\frac{2.2}{2.2}$ | $\frac{\text { Negiligib Adverse }}{\text { Negigible Adverse }}$ | 35.0 35.0 | 37.0 37.0 | 37.0 37.0 |
| FLAT D，9，PRINT FIELD TERRACE | Dwelling | 45.9 | 48.1 | 46.4 | 0.5 | Negigigile Adverse | 48.1 | 2.2 | Negligible Adverse | 35.0 | 37.0 | 37.0 |
| FLATE，，，PPINT FIELD TERRACE | Dweling | 45.9 | 48.1 | 46.4 | 0.5 | Negiligibe Adverse | 48.1 | $\frac{2.2}{22}$ | Negiligibe Adverse | 35.0 350 | 37.0 | 37.0 |
| FLAT A，10，PRINT FIELD TERRACE | Dwelling | 46.9 | 48.0 | 47.1 | 0.2 | Negigigile Adverse | 48.0 |  | Negiligile Adverse | 35.9 | 36.9 | 36.9 |
| FLAT B，10，PRINTFIELD TERRACE | Dwelling | 46.9 | 48.0 | 47.1 | 0.2 | Negigigibe Adverse | 48.0 | 1.1 | Negiligibe Adverse | 35.9 | 36.9 | 36.9 |
| FLATC，10，PRINTFELEL TERRACE | Oweling | 46.9 | 48.0 | 47.1 |  | Negiligibe Adverse | 48.0 | 1.1 | Negiligile Adverse | 35.9 | 36.9 |  |
| AL | Oweiling | 48.9 | 48.0 | 47.1 | 0.2 | Negigigile Adverse | 48. | ． | Negligiole Aaverse | 35．9 | 36.9 | 369 |
|  | Oweiling | 46.9 | 48.0 | 47.1 | 0.2 | Negigiobe Adverse | 48.0 | ． 1 | Negiqigile Adverse | 35.9 | 36.9 | 36.9 |
|  | Oweling | 46.9 51.1 | ${ }^{48.0} 5$ | $\frac{47.1}{51.2}$ | 0.2 0.1 | Negigigle Adverse | $\frac{48.0}{51.8}$ | 1.1 0.7 | $\frac{\text { Negigigle Adverse }}{\text { Neligiole Adverse }}$ | 35.9 39.7 | 36.9 40.3 | 36.9 40.4 |
| FLAT B，11，PRINTFIELL TERRACE | Deelling | 51.1 | 51.7 | 51.2 | 0.1 | Negigioble Adverse | 51.8 | 0.7 | Negiligile Adverse | 39.7 | 40.3 | 40.4 |
| FLATC，11，PRIINTFIELD TERRACE | Dwelling | 51.1 | 51.7 | 51.2 | 0.1 | Negigibile Adverse | 51.8 | 0.7 | Negigiole Adverse | 39.7 | 40.3 | 40.4 |
|  | Dwelling | 51.1 51.1 | 51.7 51.7 | 51．2 | ${ }_{0}^{0.1}$ | Negigible Adverse | 51.8 51.8 | ${ }_{0}^{0.7}$ | $\frac{\text { Negigible Adverse }}{\text { Neoligible Adverse }}$ | ${ }^{39.7}$ | ${ }_{40.3}^{40.3}$ | ${ }_{40.4}^{40.4}$ |
| FLAT F，11，PRINTTIELLD TERRACE | Dwelling | 51.1 | 51.7 | 51.2 | 0.1 | Negiligile Adverse | 51.8 | 0.7 | Negigioble Adverse | 39.7 | 40.3 | 40.4 |
|  | Dwelling | 年50．8 | 年51．5 | 年51．0 | $\frac{0.2}{0.2}$ | Negigiole Adverse | 年 $\begin{aligned} & \text { 51．5 } \\ & 51.5\end{aligned}$ | 0.7 0.7 | Negigigie Adverse | 39.5 39.5 | ${ }_{40.1}^{40.1}$ | $\frac{40.1}{40.1}$ |
| FLATC，，3，PRINTTIELD TERRACE | Dwelling | 50.8 | 51.5 | 51.0 | 0.2 | Negigigile Adverse | 51.5 | 0.7 | Negligible Adverse | 39.5 | 40.1 | 40.1 |
|  | Dwelling | 50.8 50.8 | 51.5 51.5 | 51.0 51.0 | 0.2 0.2 | $\frac{\text { Negligible Adverse }}{\text { Negigible Adverse }}$ | 51.5 51.5 | 0.7 | $\frac{\text { Negligible Adverse }}{\text { Negligible Adverse }}$ | 39.5 39.5 | 40.1 40.1 | 40.1 40.1 |
| FLAT F，，33，PRINT FIELD TERRACE | Dwelling | 50.8 | 51.5 | 51.0 | 0.2 | Negiligile Adverse | 51.5 | 0.7 | Negligible Adverse | 39.5 | 40.1 | 40.1 |
| （LATA， 6 ，PRINTFELD WALK | Dweling | － 59.4 | 59．8 59.8 | － 59.6 | ${ }_{0}^{0.2}$ | Negigigie Adverse | － 59.8 | ${ }_{0}^{0.4}$ | Negigigib Adverse | $\xrightarrow{47.2}$ | $\stackrel{47.6}{47.6}$ | ${ }_{47,6}^{47.6}$ |
| FLAT C，6，PRINTFIELD WALK | Dwelling | 59.4 | 59.8 | 59.6 | 0.2 | Negigioble Adverse | 59.8 | 0.4 | Negiligible Adverse | 47.2 | 47.6 | 47.6 |
| ELAT 0,6, PRINTHELD WALK | Oweling | 59．4 | 59.8 | 59.6 | 0.2 | Negigigile Adverse | 59.8 | 0.4 | Negligible Aaverse | 47.2 | 47.6 | 47.6 |
| LLAT | Dweling | 59．4 | 59．8 | 59．6 | 0.2 | Neoligigiole Adverse | 59．8 | 0.4 | Negligiol Avverse | 47.2 | 47.6 | 476 |
| FLAT A，7，PRINT FIELD WALK | Dwelling | 57.2 | 57.8 | 57.5 | 0.3 | Negigigile Adverse | 57.8 | 0.6 | Negligible Adverse | 45.2 | 45.8 | 45.8 |
| FLAT B，7，PRINTFIELD WALK | Deelling | 57.2 | 57.8 | 57.5 | 0.3 | Negigibile Adverse | 57.8 | 0.6 | Negiligibe Adverse | 45.2 | 45.8 | 45.8 |
| －LAT C， 7 ，PRINTFELED WAL | ${ }^{\text {Dwelling }}$ Dowiligg | 57.2 57.2 | 57.8 57.8 | 57.5 <br> 57.5 | ${ }_{0}^{0.3}$ | Negigible Adverse | 57.8 57.8 | ${ }_{0}^{0.6}$ | $\frac{\text { Negigible Adverse }}{\text { Negligible Adverse }}$ | 455．2 | ${ }_{45.8}^{45.8}$ | ${ }_{45.8}^{45}$ |
| FLAT E，7，PRINTFIELD WALK | Dwelling | 57.2 | 57.8 | 57.5 | 0.3 | Negigigile Adverse | 57.8 | 0.6 | Negligible Adverse | 45.2 | 45.8 | 45.8 |
| FLAT F，7，PRITTFIELD WALK | Dwelling | $\frac{57.2}{55.8}$ | 57.8 56.3 | 57．5 | ${ }_{0}^{0.3}$ | $\frac{\text { Negiligile Adverse }}{\text { Nealigiole Adverse }}$ | 57.8 56.3 | 0.6 | $\frac{\text { Negiligile Adverse }}{\text { Neofigible Adverse }}$ | $\frac{45.2}{440}$ | 45.8 44.4 | 45.8 44.4 |
| FLAT B， ，PRINTFIELD WALK | Dwelling | 55.8 | 56.3 | 56.1 | 0.3 | Negiligile Adverse | 56.3 | 0.5 | Negligible Adverse | 44.0 | 44.4 | 44.4 |
| FLAT C，8，PRIITFIELD WALK | Dwelling | 55.8 | 56.3 | 56.1 | 0.3 | Negigigile Adverse | 56.3 | 0.5 | Negigigile Adverse | 44.0 | 44.4 | 44.4 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 night,outside | $\begin{gathered} \text { DS33 } \\ \text { Lnight,outside } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| FLAT D, 8, PRINTFIELD WALK | Dwelling | 55.8 | 56.3 | 56.1 | 0.3 | Negigigile Adverse | 56.3 | 0.5 | Negligible Adverse | 44.0 | 44.4 | 44.4 |
| FLAT E, 8, PRINTFIELD WALK | Dwelling | 55.8 | 56.3 | 56.1 | 0.3 | Negigioble Adverse | 56.3 | 0.5 | Negligible Adverse | 44.0 | 44.4 | 44.4 |
| FLAT F, 8, PRINTFIELD WALK | Dwelling | 55.8 | 56.3 | 56.1 | 0.3 | Negigiole Adverse | 56.3 | 0.5 | Negiligile Adverse | 44.0 | 44.4 | 44.4 |
| FLAT A, 9, PPINTTIELD WALK | Oweling | 50.1 | 50.9 | ${ }_{50.3}^{50.3}$ | 0.2 | Negigigibe Adverse | $\stackrel{51.0}{51.0}$ | 0.9 | Negigigle Adverse | 38.8 3.8 | 39.5 | 39.6 396 |
| FLAT B, 9, PRINTTIELD WALK | Delling | ${ }_{50.1}^{50.1}$ | 50.9 | ${ }_{50.3}$ | 0.2 | Negigigle Adverse | $\stackrel{51.0}{51.0}$ | 0.9 | Negligible Adverse | 38.8 | 39.5 | 39.6 |
| FLAT C, , , PRINT FIELD WALK | Delling | 50.1 | 50.9 | ${ }_{50.3}$ | 0.2 | Negigigibe Adverse | 51.0 51.0 | 0.9 | Negigigle Adverse | 38.8 388 | 39.5 395 | ${ }_{39}^{39.6}$ |
| FLAT D, 9, PRINT FIELD WALK | Deelling | 50.1 | 50.9 | 50.3 | 0.2 | Negigioble Adverse | 51.0 | 0.9 | Negiligible Adverse | 38.8 | 39.5 | 39.6 |
| FLAT E, , , PRINT IIELD WALK | Dwelling | 50.1 | 50.9 | 50.3 | 0.2 | Negiligibe Adverse | 51.0 | 0.9 | Negiligible Adverse | 38.8 3 | 39.5 | 39.6 |
| FLAA F,9, PRINTTIELD WALK | Deelling | ${ }_{50.1}^{50.1}$ | 50.9 | 50.3 <br> 538 <br> 5 | 0.2 | Negiligib Adverse | 51.0 | 0.9 | Negiligible Adverse | 38.8 4.8 | 39.5 | 39.6 424 |
| FLLAT B, 10, PRINTFELELD WALK | Dwelling | ${ }_{53,6}^{53.6}$ | ${ }^{54.1} 5$ | ${ }_{53}^{53.8}$ | 0.2 0.2 | Negigigibe Adverse | ${ }_{54.1}^{54.1}$ | 0.5 | Negigigibe Adverse | 42.0 | 42.4 | ${ }_{42.4}^{42.4}$ |
| FLAT C, 10, PRINTFIELD WALK | Dwelling | 53.6 | 54.1 | 53.8 | 0.2 | Negiligile Adverse | 54.1 | 0.5 | Negligible Adverse | 42.0 | 42.4 | 42.4 |
| FLAT D, 10, PRINT FIELD WALK | Wwelling | 53.6 | 54.1 | 53.8 | 0.2 | Negigigile Adverse | 54.1 | 0.5 | Negigiolile Adverse | 42.0 | 42.4 | 42.4 |
| FLAT E, 10, PRINTTIILD WALK | Wwelling | 53.6 | 54.1 | 53.8 | 0.2 | Negigigibe Adverse | 54.1 | 0.5 | Negiligibe Adverse | 42.0 | 42.4 | 42.4 |
| FLAT F, 10, PRINTFIELD WALK | welling | 53.6 | 54.1 | 53.8 | 0.2 | Negigioble Adverse | 54.1 | 0.5 | Negiligible Adverse | ${ }^{42.0}$ | ${ }^{42.4}$ | 42.4 |
| FLATC, 11, PRINTFIELLL WALK | veling | 50.0 | 51.2 | 50.3 |  | Negigigible Adverse | 51.4 |  | Negiligible Adverse |  |  |  |
| FLAT D, 11, PRINT FIELLL WALK | Deelling | 50.0 | 51.2 |  | ${ }^{0.3}$ | Negiligibe Adverse | 51 | 1.4 | Negiligile Aaverse | 38.7 |  | \% |
| FLAT E, 11, PRINTFIELIL WALK | Oweling |  | 51.2 | 50.3 | 0.3 | Negigigile Adverse | 51.4 | 1.4 | Negiligibe Adverse |  |  |  |
| LLAFT, 11 , PRNA PELOWALK | Oweiling | 50.0 | 5 | 50.3 | 0.3 | Negigigile Adverse | 51.4 | 1.4 | Negigigile Adverse | 38.7 | 39.8 | 40.0 |
| FLAT A, 12, PRINTHELD WALK | Dweling | 50.4 | $\frac{51.2}{512}$ | 50.7 | ${ }_{0} 0$ | Negiligibe Adverse |  | 0.9 | Negiligile Adverse | 39.1 | 39.8 <br> 3.8 | 39.9 399 |
| FLAA B, I2, PRiNFTELD WALK | Oweling | 50.4 | 51.2 | 50.7 | ${ }^{0.3}$ | Negiligibie Adverse |  | 0.9 | Negiligile Adverse | 39.1 | 39.8 <br> 3.8 | 39.9 399 |
| FLATC, 12, PRINTHELDWALK | Dwelling | 50.4 50.4 | 年 ${ }_{\text {51.2 }}$ | 50.7 50.7 | 0.3 0.3 | Negigigle Adverse |  | 0.9 | Negigigbe Adverse | 39.1 39.1 | 39.8 <br> 39.8 | 39.9 39.9 |
| FLAT E, 12, PRINTFIELD WALK | Dwelling | ${ }^{50.4}$ | 51.2 | ${ }_{50.7}$ | ${ }_{0} 0.3$ | Negigigile Adverse | ${ }_{51.3}$ | 0.9 | Negigigibe Adverse | ${ }^{39.1}$ | ${ }_{39.8}$ | 39.9 |
| FLAT F, 12, PRINTFIELD WALK | Dwelling | 50.4 | 51.2 | 50.7 | 0.3 | Negigigile Adverse | 51.3 | 0.9 | Negigigible Adverse | 39.1 | 39.8 | 39.9 |
| FLAT A, 14, PRINTTIILL WALK | Dwelling | 49.6 | 50.6 | 49.9 | 0.3 | Negiligibe Adverse | 50.7 | 1.1 | Negiligibe Adverse | 38.4 | 39.3 | 39.4 |
| FLAA B, 14, PRINTFELD WALK | Dweling | 49.6 | ${ }_{50.6}$ | 49.9 | ${ }_{0}^{0.3}$ | Negigiole Adverse | 50.7 50.7 | ${ }_{1}^{1.1}$ | Negligible Adverse | $\begin{array}{r}38.4 \\ 384 \\ \hline\end{array}$ | 39.3 | 39.4 394 |
| FLAT D, 14, PRINT FIELD WALK | Dwelling | 49.6 | 50.6 | 49.9 | 0.3 | Negiligile Adverse | 50.7 | 1.1 | Negiligiole Adverse | 38.4 | 39.3 | 39.4 |
| FLAT E. 14, PRINT FIELD WALK | Wwelling | 49.6 | 50.6 | 49.9 | 0.3 | Negiligile Adverse | 50.7 | 1.1 | Negiligile Adverse | 38.4 | 39.3 | 39.4 |
| FLAA F, 14, PRINTFIELD WALK | Dwelling | 49,6 | 50.6 <br> 50.5 | 49.9 | ${ }_{0}^{0.3}$ | Negiligil Adverse | 50,7 50.6 | 1.1 | Negiligil Adverse | 38.4 380 | 39.3 392 | 39.4 393 |
| FLAT B, 16, PRINTFIELD WALK | Dwelling | 49.2 | 50.5 | 49.5 | 0.3 | Neogigigie Adverse | 50.6 | ${ }_{1}^{1.4}$ | Neogigigile Adversse | 38.0 | 39.2 | ${ }_{39.3}$ |
| FLAT C, 16, PRINT FIELD WALK | Dwelling | 49.2 | 50.5 | 49.5 | 0.3 | Negigioble Adverse | 50.6 | 1.4 | Negigigibe Adverse | 38.0 | 39.2 | 39.3 |
| FLAT D, 16, PRINTFIELLD WALK |  | 49.2 |  | 49.5 |  | Negigigibe Adverse |  |  |  | 38.0 | 39.2 |  |
| FLATE, 16, PRRINTFIELD WALK | weling | 49.2 |  | 49.5 | 0.3 | Negigigio Adverse | 50.6 | 1.4 | Negigigile Adverse | 3.0 | 39.2 | 39.3 |
| LLAF, 6, PRANFELD WALK | Oweling | 49.2 | 50.5 | 49.5 | 0.3 | Negigigile Adverse | 50.6 | . 1.4 | Negiqigile Adverse | 38.0 | 39.2 | 39.3 |
| FLAA A, 18. PRINTIELD WALK | Oweling | 49.8 | 52.1 | 50.3 | ${ }_{0}^{0.5}$ | Negigiolie Adverse | 52.1 | $\stackrel{2.3}{23}$ | Negigiole Adverse | 38.6 38.6 | $\stackrel{40.6}{40.6}$ | $\stackrel{40.6}{40}$ |
| FLAA B, 8, PR PRNFIELD WALK | Dwelling | 49.8 | 52.1 | 50.3 | 0.5 | Negiligio Aaverse |  | ${ }_{23}^{2.3}$ | Negigigio Adverse | 38.6 38.6 | ${ }_{40.6}^{40.6}$ | 40.6 |
| FLAAC, 18, PRRINTIELDWALK | ${ }^{\text {Duelling }}$ | 49.8 | 52.1 52.1 | 50.3 50.3 | ${ }_{0}^{0.5}$ | Negligibe Adverse | 52.1 52.1 | ${ }_{2.3}^{2.3}$ | Negligioble Adverse | ${ }^{38.6}$ 38.6 | ${ }_{40.6}^{40.6}$ | 40.6 40.6 |
| FLAT E, 18, PRINT FIELD WALK | Dwelling | 49.8 | 52.1 | 50.3 | 0.5 | Negigioble Adverse | 52.1 | 2.3 | Negligible Adverse | 38.6 | 40.6 | 40.6 |
| FLAT F, 18, PRINTFILLD WALK | Dwelling | 49.8 | 52.1 | 50.3 | 0.5 | Negigiolie Adverse | 52.1 | 2.3 | Negigigile Adverse | 38.6 | 40.6 | 40.6 |
| 1 1, PRoVOST RUST DRIVE | Dwelling | 61.7 | $\frac{62.9}{65.8}$ | 61.6 | $\stackrel{-0.1}{0.0}$ | Negligible Beneficial | ${ }_{62.8}^{65.8}$ | ${ }_{1.1}^{1.1}$ | $\frac{\text { Negiligible Adverse }}{\text { Negigiole Adverse }}$ | 49.3 | 50.3 | 50.3 |
| 100, PROVOST TUST DRIVE | Dwelling | 51.0 | 51.2 | 64.1 | 0.1 | Negigigile Adverse | $\stackrel{51.9}{ }$ | 0.9 | Negigigibe Adverse | 39.6 | ${ }^{59.8}$ | 40.4 |
| 101, PROVOST RUST DRIVE | welling | 64.3 | 65.8 | 64.4 | 0.1 | Negigiole Adverse | 65.8 | 1.5 | Negigible Adverse | 51.6 | 53.0 | 53.0 |
| $1{ }^{102, \text { PROVOST RUST DRIVE }}$ | Dwelling | 50.7 64.3 | 51.1 65.8 | 50.8 64.4 | 0.1 0.1 | $\frac{\text { Negigitiole Beneficial }}{\text { Negilibiel Adverse }}$ | 51.7 65.8 | 1.0 1.5 | $\frac{\text { Negligible Adverse }}{\text { Negligible Adverse }}$ | 39.4 51.6 | 39.7 53.0 | 40.3 53.0 |
| 104, PROVOST RUST DRIVE | Dwelling | 50.7 | 51.1 | 50.8 | 0.1 | Negligible Beneficial | 51.7 | 1.0 | Negilibile Adverse | 39.4 | 39.7 | 40.3 |
| $1{ }^{105,}$ PRoVOST RUST DRIVE | Dweling | 63.0 50.4 | -64.5 | $\frac{63.1}{50.4}$ | 0.1 | Negigigie Adverse | - $\begin{array}{r}64.5 \\ 51.5\end{array}$ | ${ }_{1.1}^{1.5}$ | $\frac{\text { Negigigile Adverse }}{\text { Nefligible Adverse }}$ | 50.4 39.1 | 51.8 39.6 | 51.8 40.1 |
| 107, PROVOST RUST DRIVE | Dwelling | 63.0 | 64.5 | 63.1 | 0.1 | Negigioile Adverse | 64.5 | 1.5 | Negiligible Adverse | 50.4 | 51.8 | 51.8 |
| 108 , PROVOST RUST DRIVE | Dweling | 50.4 | 51.0 |  | 0.0 | No Change | 51.5 |  | Negiligile Adverse | 39.1 | 39.6 |  |
| $\frac{109, \text { PRovost RUST DRIVE }}{11, \text { PRovost RuST DRIVE }}$ | Dwelling | 64.3 | ${ }_{65.8}^{65.8}$ | 64.4 | 0.1 0.0 | $\frac{\text { Negiligile Adverse }}{\text { No Change }}$ | ${ }_{65.8}^{65.8}$ | 1.5 1.3 | Negigible Adverse | 51.6 51.8 | 53.0 53.0 | 53.0 53.0 |
| 110, PROVOST RUST DRIVE | Dwelling | 50.8 | 51.2 | 50.8 | 0.0 | No Change | 51.7 | 0.9 | Negiligibe Adverse | 39.5 | 39.8 | 40.3 |
| $\frac{111 ., ~ P R O V O S T ~ R U S T ~ D R I V E ~}{\text { 12 }}$ | Dweling | 64.3 508 | 65.8 512 | 64.4 508 | 0.1 | Negligile Adverse | 65.8 517 | 1.5 | Negligibl Adverse | 51.6 395 | 53.0 3.8 | 53.0 4.3 |
| $\frac{12,1}{13, \text { PROVOST RUST DRIVE }}$ | Dwelling | 50.8 63.2 | $\stackrel{54.7}{64}$ | 50.8 63.3 | 0.0 0.1 | Negligo Change ${ }^{\text {Neneficial }}$ | 51.7 64.7 | 1.5 1.9 | Negigible Adverse | ${ }^{39.5}$ | 39.8 52.0 | 40.3 |
| 144, PROVOST TUST T RIVE | Delling | 50.2 | 50.7 | 50.2 | 0.0 | No Change | 51.2 | 1.0 | Negigigibe Adverse | 38.9 | 39.4 | 39.8 |
| 115., PROVOST RUST DRIVE | Dwelling | $\frac{63.2}{502}$ | 64.7 507 | 63.3 50.2 | $\stackrel{0.1}{0.0}$ | $\frac{\text { Negligible Beneficial }}{\text { No Change }}$ | -64.7 | 1.5 1.0 | $\frac{\text { Negiligible Adverse }}{\text { Negigiole Adverse }}$ | 50.6 38.9 | 52.0 39.4 | 52.0 398 |
| 117, PROVOST RUST DRIVE | Dwelling | 64.2 | 65.8 | 64.3 | 0.1 | Negligible Beneficial | 65.8 | 1.6 | Negligible Adverse | 51.5 | 53.0 | 53.0 |
| 118, PROVVST R RSST DRIVE | Delling | 50.7 | 51.0 | 50.7 | 0.0 | No Change | 51.6 | 0.9 | Negligible Adverse | 39.4 51 | 39.6 | 40.2 |
| 19 19, PRovost RuST DRIVE | Dwelling | 64.24 | ${ }_{65.8}^{65.8}$ | ${ }_{64.4}^{64.3}$ | 0.0 | Negligile Beneicical | ${ }_{65.8}^{65.8}$ | ${ }_{1.4}^{1.6}$ | $\frac{\text { Negligibe Adverse }}{\text { Neligible Adverse }}$ | ${ }_{51.7}^{51.7}$ | ${ }_{53}^{53.0}$ | ${ }_{53.0}^{53.0}$ |
| 120, PROVOST RUST DRIVE | Dwelling | 50.7 | 51.0 | 50.7 | 0.0 | No Change | 51.6 | 0.9 | Negligible Adverse | 39.4 | 39.6 | 40.2 |
| $1{ }^{121, .9}$ PRoVOST RUST DRIVE | Dwelling | 63.6. 50 | 65.9 | - ${ }^{63.7}$ | ${ }_{0}^{0.1}$ | $\frac{\text { Negiligibe Adverse }}{\text { Negioible Adverse }}$ | -65.1. | 1.5 1.0 | Negigigib Adverse | 51.0 39.2 | 52.3 39.5 | 52.3 40.1 |
| $1{ }^{123,}$ PROVOST RUST DRIVE | Dwelling | 63.6 | 65.1 | 63.7 | 0.1 | Negigioble Adverse | 65.1 | 1.5 | Negiligible Adverse | 51.0 | 52.3 | 52.3 |
| $1{ }^{124 .,}$ PROVOST RUST DRIVE | Oweling | 50.5 | 50.9 | ${ }^{50.6}$ | 0.1 | Negigigile Adverse | 51.5 | 1.0 | Negigigibe Adverse | 39.2 | 39.5 | 40.1 |
| 126, PROVOST RUST DRIVE | Dwelling | 50.4 | 50.9 | 50.5 | 0.1 | Neoligiole Adverse | 51.5 | 1.1 | Neoligible Adverse | 39.1 | 39.5 | 40.1 |
| $\frac{127, \text { PROVOST RUST DRIVE }}{128}$ PROVOST RUST DRIVE | Dwelling | 64.2 50.4 | 65.7 50.9 | 64.3 50.5 | 0.1 0.1 | Negligible Beneficial | 65.7 <br> 515 <br> 15 | ${ }_{1}^{1.5}$ | Negiligile Adverse | 51.5 39.1 | 52.9 39.9 | 52.9 |
|  | - ${ }^{\text {Dwelling }}$ Oedling | 50.4 <br> 64.2 | 50.9 65.7 | 50.5 64.3 | 0.1 0.1 | Negligible Aeneficicial | 51.5 65.7 | 1.1 <br> 1.5 <br> 1 | Negigible Avverse | $\stackrel{31.5}{\text { 59, }}$ | 39.9 <br> 52.9 | 40.1 52.9 |
| $\frac{13, \text { PRoVOST RUST DRIVE }}{130}$ | Dwelling | 64.1 498 | 65.5 50.5 | 64.1 499 | 0.0 0.1 | No Change | 65.5 50.5 | 1.4 | Negiligile Adverse | 51.4 38 | 52.7 392 | 52.7 595 |
|  | Dwelling | ${ }_{64.2}$ | 50.5 65.7 | ${ }_{64.3}$ | ${ }_{0}^{0.1}$ | Negigigil Adverse | 50.7 | 1.5 | Neoligioble Adverse | ${ }^{381.5}$ | 39.9 | 59.9 |
| 132, PROVOST R RST T PRIVE | Welling | 49.8 | 50.5 | 49.9 | 0.1 | Negigigibe Adverse | 50.9 | 1.1 | Negligible Adverse | ${ }^{38.6}$ | 39.2 | 39.5 |
| ${ }^{133}$ 134, PRROVOST T RUST TRIVE | Oweiling | ${ }_{49} 6.8$ | ${ }_{50.5}^{65.8}$ | 49.9 | 0.1 | Negigigile Adverse | ${ }_{50.9}$ | ${ }_{1}^{1.1}$ | Negigigile Adverse | ${ }^{58.6}$ | ${ }^{53,2}$ | 39.5 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 Lnight,outside | DS33 Lnight,outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 135, PROVOST RUST DRIVE | Dwelling | 64.3 | 65.8 | 64.4 | 0.1 | Negigigile Adverse | 65.9 | 1.6 | Negiligile Adverse | 51.6 | 53.0 | 53.0 |
| ${ }^{136 . \text { PROVOST RUST DRIVE }}$ | Oweling | 49.8 | ${ }_{50.5}^{65}$ | 49.9 | 0.1 | Negiligib Adverse | 50.9 | $\frac{1.1}{16}$ | Negiligibe Adverse | 38.6 | 39.2 | 39.5 529 |
| $\frac{137 \text {, PROVOST RUST DRIVE }}{138}$ | Dwelling | 64.1 52.5 | ${ }^{65.7} 5$ | 64.2 52.6 | ${ }_{0}^{0.1}$ | $\frac{\text { Negigigio Adverse }}{\text { Negligible Adverse }}$ | 65.7 53.2 | 1.6 | Negigibib Adverse | 51.4 41.0 | 52.9 40.5 | 52.9 41.6 |
| ${ }^{139}$ IS, PROVOST RUST DRIVE | Dwelling | ${ }^{54.1}$ | 55.7 | 64.2 | 0.1 | Negigigibe Adverse | ${ }^{55.7}$ | 1.6 | Negigigible Adverse | 51.4 | ${ }_{52.9}$ | 52.9 |
| 14, PROVOST RUST DRIVE | Dwelling | 64.4 | 65.8 | 64.4 | 0.0 | No Change | 65.8 | 1.4 | Negigigible Adverse | 51.7 | 53.0 | 53.0 |
| 140, PROVOST RUST DRIVE | Dwelling | 52.5 | 52.0 | 52.6 | 0.1 | Negigioile Adverse | 53.2 | 0.7 | Negigiolile Adverse | 41.0 | 40.5 | 41.6 |
| 141, PROVOST RUST DRIVE | Dwelling | 64.4 | 65.9 | 64.5 | 0.1 | Negligible Beneficial | 65.9 | 1.5 | Negiligibe Adverse | 51.7 | 53.0 | 53.0 |
| 142, PROVOST RUST DRIVE | Deelling | 52.5 | 52.0 | 52.6 | 0.1 | Negiligile Adverse | 53.2 | 0.7 | Negiligibe Adverse | 41.0 | 40.5 | 41.6 |
| 143, PROVOST RUST DRIVE | Deelling | 64.5 | 66.0 | 64.6 | 0.1 | Negligible Beneficial | 66.0 | 1.5 | Negigioble Adverse | 51.8 | 53.1 | 53.1 |
| 144, PROVOST RUST DRIVE | welling | 52.5 | 52.0 | 52.6 | 0.1 | Negiligibe Adverse | 53.2 | 0.7 | Negiligible Adverse | $\stackrel{41.0}{517}$ | 40.5 | 41.6 530 |
| $1{ }^{\text {145, }}$ 14, PROVOVOST R RUST D RIVE | Dwelling | ${ }_{53.0}^{64.4}$ | ${ }_{52.4}^{65.9}$ | ${ }_{53.3}^{64.5}$ | ${ }_{0}^{0.1}$ | Neogigigiobe Beneicical Adverse | ${ }_{53.9}^{65.9}$ | ${ }_{0}^{1.9}$ | $\frac{\text { Negligibe Adverse }}{\text { Neoligibe Adverse }}$ | $\stackrel{51.7}{41.4}$ | ${ }_{40.9}$ | 43.0 |
| 147, PROVOST RUST DRIVE | Dwelling | 64.4 | 65.9 | 64.5 | 0.1 | Neoligible Beneficial | 65.9 | 1.5 | Negligible Adverse | 51.7 | 53.0 | 53.0 |
| 148, PROVOST TUST T RIVE | welling | 53.0 | 52.4 | 53.3 | 0.3 | Negiligibe Adverse | 53.9 | 0.9 | Negiligible Adverse | 41.4 | 40.9 | ${ }_{52,2}$ |
| 149, PROVOST RUST DRIVE | Dwelling | 64.2 64.3 | 65.8 65.6 | 64.3 64.2 | 0.1 .0 .1 | $\frac{\text { Negilible Beneficial }}{\text { Negligible }}$ Beneficial | 65.8 65.6 | 1.6 1.3 | Negligibl Adverse | 51.5 51.6 | 53.0 52.8 | 53.0 52.8 |
| 150, PROVOST RUST DRIVE | Dwelling | 53.0 | 52.4 | 53.3 | 0.3 | Negligible Adverse | 53.9 | 0.9 | Negiligile Adverse | 41.4 | 40.9 | 42.2 |
| 151, PROVOST RUST DRIVE | Dwelling | 64.2 | 65.8 | 64.3 | 0.1 | Negligible Beneficial | 65.8 | 1.6 | Negiligile Adverse | 51.5 | 53.0 | 53.0 |
| 152, PROVOST T RUST DRIVE | Dwelling | 53.0 | 52.4 | 53.3 | 0.3 | Negligibe Adverse | 53.9 | 0.9 | Negigioble Adverse | 41.4 | 40.9 | 42.2 |
| 153. PROVOST RUST DRIVE | Dweling | 64.0 | ${ }^{65.5}$ | 64.1 | 0.1 | Negiligiole Beneficial | 65.5 | 1.5 | Negiligile Adverse | 51.3 | ${ }^{52.7}$ | 52.7 |
|  | Swelling | 51.22 | ${ }^{51.2}$ | 51.6 64.1 | 0.4 0.1 | Negigigile Adverse | ${ }_{65.5}$ | ${ }_{1.1}^{1.5}$ | Negigigibe Adversse | 39.8 <br> 51.3 | 39.8 52.7 | 40.8 52.7 |
| 156, PROVOST RUST DRIVE | Dwelling | 51.2 | 51.2 | 51.6 | 0.4 | Negligiole Adverse | 52.3 | 1.1 | Negiligile Adverse | 39.8 | 39.8 | 40.8 |
| 157, PROVOST RUST DRIVE | Dwelling | 63.9 | 65.4 | 64.0 | 0.1 | Negigigile Adverse | 65.4 | 1.5 | Negigigible Adverse | 51.2 | 52.6 | 52.6 |
| 158, PRoVOST RUST DRIVE | welling | 51.6 | 51.5 | 51.8 | 0.2 | Negigioble Adverse | 52.6 | 1.0 | Negigioble Adverse | 40.2 | 40.1 | 41.1 |
| ${ }^{159, ~ P R O V O S T ~ R U S T ~ D R I V E ~}$ | Deeling | ${ }_{6}^{63.9}$ | 65.4 | 64.0 644 | ${ }_{0}^{0.1}$ | Negiligibie Adverse | 65.4 658 | 1.5 14 | Negigioble Adverse | ${ }^{51.2}$ | 52.6 | 52.6 530 |
| 160 PROVOST RUST DRIVE | Dwelling | 51.6 | 51.5 | 51.8 | 0.2 | Negiligile Adverse | 52.6 | 1.0 | Negiligiole Adverse | 40.2 | 40.1 | 41.1 |
| 161, PROVOST RUST DRIVE | Wwelling | 63.3 | 64.8 | 63.4 | 0.1 | Negiligile Adverse | 64.8 | 1.5 | Negiligile Adverse | 50.7 | 52.1 | 52.1 |
| 162, PROVOST RUST DRIVE | welling | 50.9 | 51.0 | 51.2 | 0.3 | Negigigile Adverse | 51.9 | 1.0 | Negigioble Adverse | 39.5 | 39.6 | 40.4 |
| 163, PROVOST RUST DRIVE | Deelling | 63.3 | 64.7 | 63.4 | 0.1 | Negigigibe Adverse | 64.8 | 1.5 | Negiligibe Adverse | 50.7 | 52.0 | 52.1 |
|  | Dwelling | ${ }^{50.9}$ | 51.0 | - 64.12 | ${ }_{0}^{0.3}$ | Negigigibe Adverse | ${ }_{65.5}^{56.9}$ | ${ }_{1.5}^{1.5}$ | Negigigib Adverse | 39.5 51.3 | 39.6 52.6 | ${ }^{40.4}$ |
| 166 , PROVOST RUST DRIVE | Dwelling | 50.9 | 51.0 | 51.2 | 0.3 | Negligible Adverse | 51.9 | 1.0 | Negligible Adverse | 39.5 | 39.6 | 40.4 |
| 167, PROVOST RUST DRIVE | Dwelling | 64.0 | 65.5 | 64.1 |  | Negligible Beneficial | 65.5 |  | Negiligible Adverse | . 3 | 52.7 |  |
| 168, PROVOST RUST DRIVE | Deelling | 50.9 | 51.0 | 51.2 | 0.3 | Negigioble Adverse | 51.9 | 1.0 | Negigigile Adverse | 39.5 | 39.6 | 40.4 |
| 169, PROVOST RUST DRIVE | Dwelling | 63.4 639 | 64.8 653 | 63.5 | $\stackrel{0.1}{0 .}$ | Negeligible Adverse | 64.9 | 1.5 1.4 | Negiligile Adverse | 50.8 | $\begin{array}{r}52.1 \\ 525 \\ \hline\end{array}$ | 52.1 525 |
|  | Dweling | ${ }_{50.6}^{63.9}$ | $\stackrel{65.3}{50.8}$ | ${ }_{50.6}^{66.9}$ | 0.0 | No Change | ${ }_{51.4}^{65.3}$ | ${ }_{0}^{1.4}$ | $\frac{\text { Negigigie Adverse }}{\text { Neligiole Adverse }}$ | ${ }_{39.3}$ | ${ }_{39.5}^{52.5}$ | 52.5 40.0 |
| 171, PROVOST TUSTT DRIVE | Dwelling | 63.4 | 64.8 | 63.5 | 0.1 | Negligible Adverse | 64.9 | 1.5 | Negligible Adverse | 50.8 | 52.1 | 52.1 |
| 172, PROVOST RUST DRIVE | Dwelling | 50.6 | 50.8 | 50.6 | 0.0 | No Change | 51.4 | 0.8 | Negigigible Adverse | 39.3 | 39.5 | 40.0 |
| 173, 1 PRoVOST RUST DRIVE | Dwelling | 64.1 50.6 | 65.6 50.8 | ¢ 64.2 | 0.1 0.0 | Negigigle Adverse | 65.6 51.4 | 1.5 <br> 0.8 <br> 1 | Negigigbe Adverse | 51.4 39.3 | ${ }^{52.8}$ | 52.8 |
| 175, PROVOST RUST DRIVE | Dwelling | 64.1 | 65.6 | 64.2 | 0.1 | Negiligile Adverse | 65.6 | 1.5 | Negiligible Adverse | 51.4 | 52.8 | 52.8 |
| 176, PROVOST RUST DRIVE | welling | 50.6 | 50.8 | 50.6 | 0.0 | No Change | 51.4 | 0.8 | Negiligile Adverse | 39.3 | 39.5 | 40.0 |
| ${ }^{\text {177, }}$ 178 PROVOST T RUST DRIVE | Dwelling | $\begin{array}{r}63.7 \\ 590 \\ \hline 9.0\end{array}$ | 65.1 599 | $\begin{array}{r}63.7 \\ 592 \\ \hline 9 .\end{array}$ | ${ }_{0}^{0.0}$ | No Change | 65.1 602 | 1.4 1.12 | Negligible Adverse | 51.1 46.8 | 52.3 476 | 52.3 479 |
| 179, PROVOST RUST DRIVE | Owelling | 63.7 | 65.1 | 63.7 | 0.0 | No Change | 65.1 | 1.4 | Neogigiole Adverse | 51.1 | ${ }_{52.3}$ | 52.3 |
| 18, PROVOST RUST DRIVE | Dwelling | 64.6 | 66.0 | 64.6 | 0.0 | No Change | 66.0 | 1.4 | Negiligibe Adverse | 51.9 | 53.1 | 53.1 |
| $1{ }^{181, \text { PROVOST RUST TRIVE }}$ | Dweling |  | ${ }_{6}^{63.7}$ |  | 0.1 | Negligibe Benenitial | ${ }_{63,7}^{63,}$ | 1.5 1.5 | Negiligie Adverse | 49.7 | 51.1 |  |
| 1835 PROVOST RUST DRIVE | ${ }^{\text {Dwelling }}$ Oweling | 62.5 | ${ }^{631.8}$ | ${ }_{60.6}^{62.3}$ | 0.1 | Negigigible Adverse | ${ }^{631.9}$ | ${ }_{1}^{1.4}$ | Negligigile Adverse | ${ }_{48.2}^{49.1}$ | 59.4 | 59.4 |
| 1887 PROVOST RUST DRIVE | Dwelling | 60.6 | 61.9 | 60.6 | 0.0 | No Change | 62.0 | 1.4 | Negligiole Adverse | 48.3 | 49.4 | 49.5 |
| 19, PROVOST RUST DRIVE | Deelling | 64.3 | 65.7 | 64.3 | 0.0 | No Change | 65.7 | 1.4 | Negigigile Adverse | 51.6 | 52.9 | 52.9 |
| 2, PROVOST RUST DRIVE | Dwelling | $\frac{61.2}{641}$ | 62.5 | $\frac{61.1}{641}$ | -0.1 | Negligible Beneficial | 62.4 | $\frac{1.2}{15}$ | Negiligle Adverse | 48.8 | 50.0 | 49.9 |
| ${ }^{21}{ }^{2,}$, PROVOSOST RUST DRIVE | Oweling | 64.0 | ${ }^{655.4}$ | 64.0 | 0.0 | No Change | ${ }^{655.4}$ | ${ }_{1.4}^{1.5}$ | Neoligible Adverse | ${ }^{51.3}$ | ${ }_{5}^{52.6}$ | ${ }_{5}^{52.6}$ |
| 22 PRROVOST RUST DRIVE | Dwelling | 64.8 64.1 | 66.3 655 | 64.8 | 0.0 | ${ }^{\text {No }}$ C Change | 66.2 655 | 1.4 | Negiligle Adverse | 52.1 51.4 | $\begin{array}{r}53.4 \\ 5.4 \\ \hline\end{array}$ | ${ }_{52.3}$ |
| ${ }^{23}{ }^{24, \text { PRROVOSTS }}$ RUST DRIVE | Dwelling | 64.1 64.8 | ${ }_{65.3}^{66.5}$ | ${ }_{64.8}^{64.0}$ | -0.1 0 | Negiligie Beneficial | ${ }_{65.5}^{66.5}$ | 1.4 1.4 | $\frac{\text { Negigible Adverse }}{\text { Neoligible Adverse }}$ | 51.4 52.1 | 52.7 53.4 | ${ }_{52.7}^{53.3}$ |
| 25. PROVOST RUST DRIVE | Dwelling | 64.1 64.3 | 65.5 | 64.0 | -0.1 | Negligible Beneficial | 65.5 6.5 | 1.4 | Negligible Adverse | 51.4 51 | 52.7 | 52.7 5.7 |
| ${ }^{\text {26, PROVOST RUST DRIVE }}$ | Dwelling | ${ }_{64.3}^{64.1}$ | ${ }_{655}^{65.8}$ | 64.3 | 0.0 | $\frac{\text { No C Cange }}{\text { No Change }}$ | ${ }_{65.5}^{65.5}$ | 1.5 1.4 | Negigigio Adverse | 51.6 | 53.0 | ${ }_{53,0}^{50 .}$ |
| ${ }^{27, \text { PRoVOST RUST DRIVE }}$ | Dwelling | ${ }_{64.3}$ | ${ }_{65.8}^{65.8}$ | ${ }_{64.3}$ | 0.0 | ${ }^{\text {No }}$ No Changenge | 65.8 | 1.5 | Negligible Adverse | 年51.4 | 52.7 53.0 | ${ }_{53.0}^{52.7}$ |
| 29, PROVOST RUST DRIVE | Dwelling | 63.8 | 65.2 | 63.8 | 0.0 | No Change | 65.2 | 1.4 | Negigigile Adverse | 51.2 | 52.4 | 52.4 |
| ${ }^{\text {3, PROVOST RUST DRIVE }}$ | Dwelling | 61.8 64.2 | 63.0 65.6 | 61.7 64.2 | -0.1 0.0 | $\frac{\text { Negligible Beneficial }}{\text { No Change }}$ | 62.9 65.6 | ${ }_{1.1}^{1.4}$ | Negligile Adverse | 49.4 51.5 | 50.4 52.8 | 50.3 52.8 |
| 31, PROVOST RUST DRIVE | Dwelling | 64.1 | 65.5 | 64.1 | 0.0 | hange | 65.5 | 1.4 | Negiligile Adverse | 51.4 | 52.7 | 52.7 |
| ${ }^{\text {32 }}$ 32, PROVOST RUST DRIVE | Dwelling | 64.2 63.8 | 65.6 <br> 6.2 <br> 6. | 64.2 63.8 | 0.0 0.0 | ${ }^{\text {No C Change }}$ | 65.6 65.2 | 1.4 1.4 | Negligibe Adverse | $\frac{51.5}{51 .}$ | 52.8 52.4 | 52.8 524 |
| 34, PROVOST RUST DRIVE | Owelling | ${ }_{53.9}$ | ${ }_{54.8}$ | 53.9 | 0.0 | No Change | 55.0 | 1.1 | Negigigile Adverse | 42.2 | 43.1 | 43.2 |
| 35. PROVOST RUST DRIVE | Dwelling | 64.0 | 65.4 | 64.0 | 0.0 | No Change | 65.4 | 1.4 | Negigible Adverse | 51.3 | 52.6 | 52.6 |
| $\frac{350, \text { PROVOST RUST DRIVE }}{352 . \text { PROVOST RUST DRIVE }}$ | Dwelling | 46.5 | 47.4 | 46.5 | 0.0 | No Change | 47.5 474 | 1.0 | Negiligibe Adverse | $\begin{array}{r}35.6 \\ 3.4 \\ \hline\end{array}$ | 36.4 3.2 | 36.5 36.4 |
| 352, 3 PR PROVOST T RUST D RIVE | Dwelling | 46.2 | ${ }_{47.1}^{47.2}$ | ${ }_{46.3}^{46.4}$ | 0.1 | Negligibile Benerificial | ${ }^{477.3}$ | 1.1 | Neoligigile Adverse | 35.4 35.3 | 36.2 36.1 | 36.4 36.3 |
| ${ }^{356, \text { PROVOST RUST DRIVE }}$ | Dweling | 46.0 459 | 46.9 | 46.1 | 0.1 | Negligile Adverse | $\stackrel{47.2}{471}$ | 1.2 | Negligile Adverse | $\begin{array}{r}35.1 \\ 350 \\ \hline\end{array}$ | $\begin{array}{r}35.9 \\ 359 \\ \hline\end{array}$ | 36.2 36.1 |
| ${ }^{\text {356, PRROVOST RUST DRIIVE }}$ | Dweliling | ${ }_{53.9}^{45.9}$ | ${ }^{464.8}$ | ${ }_{53.8}^{46.1}$ | -0.1 | Negligibile Aevereficial | ${ }_{54.9}$ | 1.0 | Negligigile Adverse | 35.0. 42.2 | 35.9 43.1 | 36.1 43.1 |
| $\frac{360, \text { PROVOST TUST T RIIEE }}{}$ | Deeling | 42.9 | 43.4 | 42.8 | -0.1 | Negligible Beneficical | 43.7 | 0.8 | Negligible Adverse | 32.3 | 32.8 | ${ }^{33.1}$ |
| ${ }^{362, \text { PROVOST }}$ 37, PROVOST RUST DRIVE | Dwelling | ${ }_{63.8}^{41.9}$ | ${ }_{65.2}^{42.7}$ | ${ }_{6}^{41.9}$ | 0.0 | ${ }^{\text {No Co Change }}$ | ${ }^{42.9}$ 65.2 | ${ }_{1}^{1.4}$ | Negigigie Avverse | $\frac{31.4}{51.2}$ | 32.2 52.4 | 32.3 |
| 38, PROVOST RUST DRIVE | Dwelling | 52.0 | 52.6 | 51.9 | -0.1 | Negligible Beneiticia | 52.8 | 0.8 | Negigigile Adverse | 40.5 | 41.1 | 41.3 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 <br> Lnight,outside | $\begin{gathered} \text { DS33 } \\ \text { Lnight,outside } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 39, PROVOST RUST DRIVE | Dwelling | 64.0 | 65.4 | 64.0 | 0.0 | No Change | 65.4 | 1.4 | Negiligibe Adverse | 51.3 | 52.6 | 52.6 |
| 4. PROVOST RUST DRIVE | $\frac{\text { Dwelling }}{\text { Owelling }}$ | 61.2 52.0 | $\begin{array}{r}62.5 \\ \hline 52.6\end{array}$ | 61.1 51.9 | -0.1 <br> 0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negligibl } \text { Beneficial }}$ | 62.4 <br> 52.8 | $\frac{1.2}{0.8}$ | Negligible Adverse | $\frac{48.8}{40.5}$ | $\frac{50.0}{41.1}$ | $\frac{49.9}{41.3}$ |
| 4 40, 41 PROVOSST RUST DRIVE | Dwelling | ${ }_{62.0}^{53.7}$ | ${ }^{52.6}$ | ${ }_{61.9}^{63.7}$ | -0.1 | Nogo hange | S5.1 | 1.4 | Neogigigile Adverse | ${ }_{51.1}^{40.1}$ | ${ }_{52.3}$ | ${ }_{52.3}$ |
| 42 , PROVOST RUST DRIVE | Dwelling | 51.6 | 52.1 | 51.5 | -0.1 | Negligible Beneficial | 52.4 | 0.8 | Negligible Adverse | 40.2 | 40.6 | 40.9 |
| 43, PROVOST RUST DRIVE | Dwelling | 64.0 | 65.4 | 64.0 | 0.0 | No Change | 65.4 | 1.4 | Negiligile Adverse | 51.3 | 52.6 | 52.6 |
| 44, PROVOST RUST DRIVE | Dwelling | 51.6 | 52.1 | 51.5 | -0.1 | Negligible Beneficial | 52.4 | 0.8 | Negiligile Adverse | 40.2 | 40.6 | 40.9 |
| 45, PROVOST RUST DRIVE | Dwelling | 63.8 | 65.2 | 63.8 | 0.0 | No Change | 65.2 | 1.4 | Negigiolie Adverse | 51.2 | 52.4 | 52.4 |
| 4 46, PROVOST RUST DRIVE | Dwelling | 51.5 64.2 | 52.1 65.6 | 51.4 64.2 | -0.1 0.0 | Negligible Beneficial | 52.4 65.6 | 0.9 1.4 | Negligible Adverse | $\stackrel{40.1}{51.5}$ | $\stackrel{40.6}{52.8}$ | 40.9 52.8 |
| 48 , PROVOST RUST DRIVE | Dwelling | 51.5 | 52.1 | 51.4 | -0.1 | Negligible Beneficial | 52.4 | 0.9 | Negiligibe Adverse | 40.1 | 40.6 | 40.9 |
| 49, PROVOST RUST DRIVE | Dwelling | ${ }_{64.2}^{6.3}$ | 65.6 645 | 64.2 | 0.0 | No Change | 65.6 | 1.4 | Negiligile Adverse | 51.5 507 | 52.8 518 | 52.8 518 |
| 5, PRoVOST RUST DRIVE | Dwelling | ${ }_{51.6}^{663}$ | $\stackrel{64.5}{52.2}$ | ${ }^{631.5}$ | $-01$ | Negoligiobiele Beneneficicial | ${ }_{524.5}$ | 1.2 0.9 | Neogigiole Adversse | 40.2 | 41.87 | S1.0 |
| 51, PROVOST RUST DRIVE | Dwelling | 64.2 | 65.6 | 64.2 | 0.0 | No Change | 65.7 | 1.5 | Negiligile Adverse | 51.5 | 52.8 | 52.9 |
| 52, PROVOST RUST DRIVE | Deelling | 51.5 | 52.1 | 51.5 | 0.0 | No Change | 52.4 | 0.9 | Negigioble Adverse | 40.1 | 40.6 | 40.9 |
| 53, PROVOSST RUST DRIVE | weling | ${ }^{64.6}$ | 65.0 | 64.6 | 0.0 | No Change | 66.0 | . 1.4 | Negligibe Adverse | 31.9 | 43.1 | ${ }^{53.1}$ |
| 54. Provost rust dive | ${ }^{\text {Owelling }}$ | 64.5 | 55.9 | 60.5 | 0.0 | Nogo Change | 65.9 | 1.4 | Neogigigile Adverse | ${ }_{51.8}$ | ${ }_{53.0}$ | ${ }_{53.0}$ |
| 56, PROVOST RUST DRIVE | Dwelling | 54.9 | 56.2 | 54.9 | 0.0 | No Change | 56.2 | 1.3 | Negilibile Adverse | 43.1 | 44.3 | 44.3 |
| 57, PROVOST RUST DRIVE | Dwelling | 64.6 | 66.0 | 64.6 | 0.0 | No Change | 66.0 | 1.4 | Negigigile Adverse | 51.9 | 53.1 | 53.1 |
| 58. PROVOST RUST DRIVE | welling | 53.7 | 54.6 | 53.6 | -0.1 | Negligible Beneficial | 54.8 | 1.1 | Negiligible Adverse | 42.1 | ${ }^{42.9}$ | 43.1 5.1 |
| 59, PROVOST RUST DRIVE | Dweling | ${ }_{64.9}^{64.9}$ | 66.1 66.3 | 64.7 64.9 | ${ }_{0}^{0.0}$ | No Change | ${ }_{66.1}^{66.1}$ | $\stackrel{1.4}{1.4}$ | Negigigbe Adverse | $\stackrel{52.0}{52.1}$ | 53.2 53.4 | 53.2 |
| 60, PROVOST RUST DRIVE | Dwelling | ${ }_{51.1}$ | ${ }_{51.5}$ | ${ }_{51.0}$ | -0.1 | Negligible eneneficial | 65.9 | ${ }_{0} 0.8$ | Neogigigile Adverse | ${ }^{59.7}$ | ${ }^{50.1}$ | ${ }^{50.4} 4$ |
| 61, PROVOST RUST DRIVE | Dwelling | 64.8 | 66.2 | 64.8 | 0.0 | No Change | 66.2 | 1.4 | Negiligile Adverse | 52.1 | 53.3 | 53.3 |
| 62, PROVOST RUST DRIVE | Wwelling | 50.9 | 51.4 | 50.9 | 0.0 | No Change | 51.8 | 0.9 | Negiligile Adverse | 39.5 | 40.0 | 40.4 |
| 63, PROVOST RUST DRIVE | welling | 64.8 | 66.2 | 64.8 | 0.0 | No Change | 66.2 | 1.4 | Negigigibe Adverse | 52.1 | 53.3 | 53.3 |
| 64, PROVOST RUST DRIVE | welling | 51.2 | 51.7 | 51.1 | -0.1 | Negligible Beneficial | 52.1 | 0.9 | Negligibe Adverse | 39.8 | 40.3 | 40.6 |
| 65, PROVOST RUST DRIVE | welling | 64.8 | 66.2 | 64.8 507 | 0.0 | No Change | ¢6.2 | 1.4 | Negigigibe Adverse | 52.15 | 53.3 | ${ }_{43.3}^{4.3}$ |
| 66 Provost RuST DRIVE | Dwelling | 50.8 649 | ${ }^{51.3}$ | 50.7 649 | 0 | Negligible Beneficial | 66.3 | 14 | Negigible Adverse | 39.5 52.1 | $\stackrel{33.9}{53.4}$ | ${ }_{53.4}^{40.3}$ |
| 68, PROVOST RUST DRIVE | Dwelling | 50.8 | 51.3 | 50.7 | -0.1 | Negligible Beneficial | 51.7 | 0.9 | Negigigile Adverse | 39.5 | 39.9 | 40.3 |
| 69, PROVOST RUST DRIVE | Welling | 64.8 | 66.2 | 64.8 | 0.0 | No Change | 66.3 | 1.5 | Negigigibe Adverse | 52.1 | 53.3 |  |
| 7, PRoVOST RUSTDRIVE | weiling |  | 64.9 | 63.6 | 0.0 | No Change | 64.8 <br> 518 | 1.2 | Negiligibe Adverse | 51.0 305 | 40 | 52.14 |
| 7 71, PROVOST RUST DRIVE | Dwelling | 65.0 | 56.4 | 65.0 | 0.0 | No Change | 65.4 | 1.4 | Neoligible Adverse | 52.2 | ${ }_{53.5}^{40.5}$ | ${ }_{53,5}$ |
| 72, PROVOST RUST DRIVE | Dwelling | 50.9 | 51.4 | 50.9 | 0.0 | No Change | 51.8 | 0.9 | Negilibile Adverse | 39.5 | 40.0 | 40.4 |
| 73, PROVOST RUST DRIVE | Dwelling | 64.9 | 66.3 | 64.9 | 0.0 | No Change | 66.3 | 1.4 | Negigiole Adverse | 52.1 | 53.4 | 53.4 |
| 74, PROVOST RUST DRIVE | Dwelling | 50.6 64.9 | ${ }_{\text {51.1. }}^{66.3}$ | 50.6 64.9 | 0.0 | $\frac{\text { No Change }}{\text { No Change }}$ | 51.6 66.3 | 1.0 | Negigiole Adverse | 39.3 52.1 | $\begin{array}{r}39.7 \\ 534 \\ \hline\end{array}$ | 40.2 534 |
| 76, PROVOST RUST DRIVE | Dwelling | ${ }_{50.6}$ | ${ }_{51.1}^{60.1}$ | ${ }_{50.6}$ | 0.0 | No Change | ${ }_{51.6}$ | 1.0 | Negigigile Adverse | ${ }^{59.3}$ | ${ }^{59.7}$ | ${ }^{50.2}$ |
| 77, PROVOST RUST DRIVE | Dwelling | 64.9 | 66.4 | 64.9 | 0.0 | No Change | 66.4 | 1.5 | Negiligile Adverse | 52.1 | 53.5 | 53.5 |
| 78, PROVOST RUST DRIVE | Dwelling | 50.2 | 50.8 | 50.2 | 0.0 | No Change | 51.2 | 1.0 | Negiligile Adverse | 38.9 5.9 | 39.5 | 39.8 |
| 8, PROVOST RUST DRIVE | Owelling | 65.0 | 66.4 | 65.0 | 0.0 | No Change | 66.4 | ${ }_{1}^{1.4}$ | Negigigile Adverse | 52.2 | ${ }_{53.5}^{53.5}$ | ${ }_{53.5}$ |
| 80. PROVOST RUST DRIVE | Wwelling | 50.2 | 50.8 | 50.2 | 0.0 | No Change | 51.2 | 1.0 | Negaligible Adverse | 38.9 | 39.5 | 39.8 |
| 81, PROVOST RUST DRIVE | pwelling | 65.0 | 66.4 | 65.0 | 0.0 | No Change | 66.4 | 1.4 | Negligible Adverse | 52.2 | 53.5 | 53.5 |
| 82, PROVOST RUST DRIVE | Dwelling | 50.6 | 51.0 | 50.6 | 0.0 | No Change | 51.5 | 0.9 | Negigigibe Adverse | 39.3 | 39.6 | 40.1 |
| ${ }^{\text {83 }}$ 8, PROVOST RUST DRIVE | Oweling | 65.0 50.5 | $\frac{66.5}{51.2}$ | 65.1 50.5 | 0.1 | $\frac{\text { Negiligile Beneficial }}{\text { No Change }}$ | 66.5 | 1.5 | Negigiole Adverse | - 52.2 | $\begin{array}{r}\text { 53.6 } \\ 39.8 \\ \hline\end{array}$ | $\frac{53.6}{40.1}$ |
| 85, PROVOST RUST DRIVE | Dwelling | 64.9 | 66.3 | 64.9 | 0.0 | No Change | 66.3 | 14 | Negigigile Adverse | 52.1 | 534 | 53.4 |
| 86, PROVOST RUST DRIVE | Dwelling | 50.7 | 51.0 | 50.7 | 0.0 | No Change | 51.5 | 0.8 | Negigioble Adverse | 39.4 | 39.6 | 40.1 |
| 87, PROVOST RUST DRIVE | Dewling | 64.9 | 66.4 | 64.9 | 0.0 | No Change | 66.4 | 1.5 | Negigibile Adverse | 52.1 | 53.5 |  |
| 88. PRovost rust dive | ${ }^{\text {Dwelling }}$ Diveling | 64.9 | 56.2 | 65.0 | 0.1 | Negigiole Acverse | 56.3 | 1.4 <br> 1.4 | Neoligible Adverse | ${ }_{52.2}^{43.1}$ | ${ }_{53.5}^{44.3}$ | ${ }_{53.5}^{44.4}$ |
| 9, PROVOST RUST DRIVE | Dwelling | 64.6 | 65.9 | 64.5 | -0.1 | Negligible Beneficial | 65.8 | 1.2 | Negligible Adverse | 51.9 | 53.0 | 53.0 |
| 90, PROVOST RUST DRIVE | Dwelling | 51.2 | 51.3 | 51.2 | 0.0 | No Change | 52.0 | 0.8 | Negligible Adverse | 39.8 | 39.9 | 40.5 |
| 91, PROVOST RUST DRIVE | Dwelling | -65.1 | 㐌6.6. | -65.1 | 0.0 0.0 | No Change | 66.6 520 | 1.5 0.8 | Negigible Adverse | $\begin{array}{r}52.3 \\ 39.8 \\ \hline\end{array}$ | 53.7 39.9 | 53.7 40.5 |
| 93, PROVOST RUST DRIVE | Dwelling | 65.1 | 66.6 | 65.2 | 0.1 | Negigigile Adverse | 66.6 | 1.5 | Negiligile Adverse | 52.3 | 53.7 | 53.7 |
| 94, PROVOST RUST DRIVE | Dwelling | 51.2 | 51.3 | 51.2 | 0.0 | No Change | 52.0 | 0.8 | Negiligile Adverse | 39.8 | 39.9 | 40.5 |
| 95, PROVOST RUST DRIVE | Dwelling | 65.1 | 66.6 | 65.2 | 0.1 | Negiligibe Adverse | 66.6 | 1.5 | Negigibile Adverse | 52.3 | 53.7 | 53.7 |
| ${ }^{\text {96, PROVOST RUST DRIVE }}$ | Dwelling | 51.2 650 | 51.3 | 51.2 65.1 | 0.0 0.1 | Nego Change | 52.0 66.6 | 0.8 1.6 | Negiligil Adverse | $\begin{array}{r}39.8 \\ 52 \\ \hline\end{array}$ | 39.9 53.6 | ${ }_{537}^{40.5}$ |
| 98, PROVOST RUST DRIVE | Dwelling | 51.0 | 51.2 | 51.1 | 0.1 | Negligiole Adverse | 51.9 | 0.9 | Negigigibe Adverse | 39.6 | 39.8 | 40.4 |
| 99, PROVOST RUST DRIVE | Dwelling | 65.0 | 66.5 | 65.1 | 0.1 | Negligible Beneficial | 66.6 | 1.6 | Negigigile Adverse | 52.2 | 53.6 | 53.7 |
| 10, QUARRYY ROAD, NORTHFIELD | welling | 42.8 | 43.1 | 42.7 | ${ }^{-0.1}$ | Negligible Beneficial | ${ }^{43.5}$ | 0.7 | Negigioble Adverse | 32.3 | 32.5 | 32.9 |
|  | Dwelling | 42.6 | 43.0 | 42.5 | -0.1 | Negligible Beneficial | 43.3 | 0.7 | Negligibe Adverse | 32.1 | 32.4 | 32.7 |
| NORTHFIELD | Heath Centre | 41.7 | 42.2 | 41.6 | -0.1 | Negligible Beneficial | 42.4 | 0.7 | Negigible Adverse | 31.3 | 31.7 | 31.9 |
| THE ABERDEEN LARCHES HOTEL, 12, QuEEN STREET, Woodside | Hotel | 53.3 |  | 53.5 |  | Neoligible Adverse |  | 0.9 | Negligible Adverse | 41.7 | 42.6 | 42.5 |
| 1, QuEENSTREET, WOODSIDE | Deelling | 73.2 | 74.0 | 73.5 | 0.3 | Negigigibe Adverse | 74.2 | 1.0 | Negigigile Adverse | 59.6 | 60.3 | 60.5 |
| 11, QUEENSTREET, WOODSIDE | Dweliling | 51.22 | 51.9 513 | 51.22 | 0.0 | No Change | 51.9 513 | 0.7 | Negigigile Adverse | 39.8 | 40.4 | 40.4 |
| H1, QUEENSTREET, WOOOSILE | Dwelling | 50.5 48.1 | + ${ }_{49.1}$ | 50.5 48.2 | ${ }_{0}^{0.1}$ | Neoligioble Adverse | ${ }^{519.3}$ | 0.8 1.1 | Negigigibe Adverse | 39.2 37.0 | 39.9 37.9 | 38.0 38.0 |
| 14, QUEEN STREET, WOODSIDE | Dwelling | 52.5 | 53.5 | 52.7 | 0.2 | Negiligibe Adverse | 53.5 | 1.0 | Negligible Adverse | 41.0 | 41.9 | 41.9 |
| 16, QUEEN STREET, WOODSIDE | Dwelling | 50.7 | 53.7 | 51.0 | 0.3 | Negigigibe Adverse | 53.4 | 2.7 | Negligible Adverse | 39.4 | 42.1 | 41.8 |
| 17, QuEENSTREET, WOODSILE | Dwelling | ${ }_{50.6}^{50.3}$ | $\stackrel{51.6}{57.4}$ | ${ }_{50.5}^{50.6}$ | 0.0 | Negigigle Adverse | $\stackrel{51.9}{57.3}$ | ${ }_{0}^{1.6}$ | Negigigie Adverse | ${ }^{39.0} 4$ | 40.2 | ${ }_{45.3}^{40.4}$ |
| 10, RITCHIE PLACE | Dwelling | 44.0 | 45.3 | 43.9 | -0.1 | Negligible Beneficical | 45.0 | 1.0 | Negigiole Adverse | 33.3 | 34.5 | 34.2 |
| 12, RITCHIE PLACE | Dweling | 44.0 | 45.3 | 43.9 |  | Negigigile Beneficial | 45.0 | 1.0 | Negligibe Adverse |  | 34.5 | 34.2 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 <br> Lnight,outside | DM33 Lnight,outside | DS33 Lnight,outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 14, RITCHIE PLACE | Dwelling | 44.0 | 45.3 | 43.9 | ${ }^{0.1}$ | Negligible Beneficial | 45.0 | 1.0 | Negigigible Adverse | 33.3 | 34.5 | 34.2 |
| 16, RITCHIE PLACE | Oweling | 44.0 | 45.3 | 43.9 | -0.1 | Negligible Beneficical | 45.0 | 1.0 | Negligible Adverse | 33.3 | 34.5 | 34.2 |
| 18, RITCHIE PLACE | Dwelling | 44.0 | 45.3 | 43.9 | -0.1 | Negligible Beneficial | 45.0 | 1.0 | Negiligibe Adverse | 33.3 | 34.5 | 34.2 |
| 2, RITCHIE PLACE | Oweling | ${ }_{4}^{44.4}$ | 45.8 | ${ }_{4}^{4.2}$ | -0.2 | Negligible Benefitical | 45.5 | 1.1 | Negigigibe Adverse | 33.7 33 | 35.0 34 | 34.7 34.1 |
| 20, RITCHIE PLACE | Delling | ${ }^{43.8}$ | ${ }^{45.1}$ | ${ }^{43.7}$ | -0.1 | Negligible Beneficicial | 44.8 | 1.0 | Negigigibe Adverse | 33.2 | ${ }_{34.3}$ | 34.1 |
| 22, RITCHIE PLACE | Delling | ${ }^{43.8}$ | 45.1 | ${ }^{43.7}$ | -0.1 | Negligible Beneficicial | 44.8 448 | 1.0 | Negigigli Adverse | $\begin{array}{r}33.2 \\ 33 \\ \hline 3\end{array}$ | 34.3 34 | 34.1 34.1 |
| 24, RITCHIE PLACE | Delling | 43.8 | 45.1 | 43.7 | -0.1 | Negligible Beneficical | 44.8 | 1.0 | Negigigibe Adverse | ${ }^{33.2}$ | 34.3 34 | ${ }^{34.1}$ |
| 26, RITCHIE PLACE | Dwelling | 43.8 | 45.1 | 43.7 | -0.1 | Negligible Beneficical | 44.8 | 1.0 | Negigioble Adverse | 33.2 | 34.3 | 34.1 |
| 28, RITCHIE PLACE | Deelling | 43.8 | 45.1 | 43.7 | -0.1 | Negligible Beneficical | 44.8 | 1.0 | Negiligibe Adverse | 33.2 | 34.3 | 34.1 |
| 30, RITCHIE PLACE | Deelling | 43.8 | 45.1 | 43.7 | -0.1 | Negligible Beneficial | 44.8 | 1.0 | Negiligibe Adverse | 33.2 | 34.3 | 34.1 |
| 32, RITCHIE PLACE | Dwelling | 43.2 | 44.6 | 43.0 | -0.2 | Negligible Beneficial | 44.3 | 1.1 | Negiligible Adverse | 32.6 | 33.9 | 33.6 |
| $\frac{34 . \text { RITCHIE PLACE }}{}$ 36. | Dewling | 43.2 432 | 44.6 446 | 43.0 43 | -0.2 | Negligible Beneficial | 44.3 443 | 1.1 | Negligible Adverse | 32.6 326 | 33.9 339 | 33.6 336 |
| 36, RITCHIE PLACE | Dwelling | 43.2 | 44.6 | 43.0 | -0.2 | Negligibile Beneneficial | 44.3 | ${ }_{1}^{1.1}$ | Neogigiole Adversse | ${ }^{32.6}$ | 33.9 | ${ }_{33.6}$ |
| 4, RITCHIE PLACE | Dwelling | 44.4 | 45.8 | 44.2 | -0.2 | Negligible Beneficial | 45.5 | 1.1 | Negigigibe Adverse | 33.7 | 35.0 | 34.7 |
| 40, RITCHIE PLACE | Dwelling | 43.2 432 | 44.6 44.6 | 43.0 430 | -0.2 | Negliable Benefitial | 44.3 443 | ${ }_{1}^{1.1}$ | Negiligle Adverse | 32.6 326 | 33.9 339 | 33.6 336 |
| 4 4, RITCHIE PLACE | Dwelling | 43.2 43.2 | 44.6 44.6 | 43.0 43.0 | -0.2 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ | 44.3 44.3 | 1.1 1.1 | Negligible Adverse | 32.6 32.6 | 33.9 33.9 | 33.6 33.6 |
| 46 , RITCHIE PLACE | Dwelling | 43.2 | 44.6 | 43.0 | -0.2 | Negligible Beneficial | 44.3 | 1.1 | Negligiole Adverse | 32.6 | 33.9 | 33.6 |
| 48, RITCCHIE PLACE | Dwelling | 43.5 | 45.0 | 43.2 | -0.3 | Negligible Beneficial | 44.6 | 1.1 | Negigioble Adverse | 32.9 | 34.2 | 33.9 |
| 50, RITCHIE PLACE | Deelling | 43.5 | 45.0 | 43.2 | -0.3 | Negligible Beneficial | 44.6 | 1.1 | Negigioibe Adverse | 32.9 | 34.2 | 33.9 |
| 52, RITCHIE PLACE | Dwelling | ${ }_{4}^{43.5}$ | 45.0 | ${ }_{4}^{43.2}$ | -0.3 | Negligible Beneficical | ${ }_{4}^{44.6}$ | 1.1 | Negigigibe Adverse | 32.9 | 34.2 34 | 33.9 33 |
| 54, RITCHIE PLACE | Dweling | 43.5 | 45.0 | 43.2 | -0.3 | Negligible Beneficicial | 44.6 | 1.1 | Negligible Adverse | 32.9 | 34.2 | 33.9 |
| 56, RITCHIE PLACE | Dwelling | 43.5 435 | 45.0 450 | ${ }_{43.2}^{432}$ | -0.3 | Negligible Beneficial | 44.6 446 | 1.1 | Negligible Adverse | 32.9 329 | 34.2 342 | 33.9 3.9 |
| 58, RITCHIE PLACE | Dwelling | 43.5 | 45.0 | 43.2 | -0.3 | Negligible Benenitial | 44.6 | 1.1 | Negigiglie Adverse | 32.9 | 34.2 | 33.9 |
| 6, RITCHIE PLACE | Dwelling | 44.4 | 45.8 | 44.2 | -0.2 | Negligible Beneficical | 45.5 | 1.1 | Negligiole Adverse | 33.7 | 35.0 | 34.7 |
| 60, RITCHIE PLACE | Deelling | 43.5 | 45.0 | 43.2 | -0.3 | Negligible Benenitical | 44.6 | 1.1 | Negigioble Adverse | 32.9 | 34.2 | 33.9 |
| ${ }^{\text {62, }}$ 6, RITCHIE PLACE | Dwelling | 43.5 43.4 | $\stackrel{45.0}{45.1}$ | 43.2 43.1 | -0.3 -0.3 | $\frac{\text { Negligible Beneficial }}{\text { Negligibl }}$ Beneficial | 44.6 44.6 | 1.1 1.2 | $\frac{\text { Negiligib Adverse }}{\text { Negigiole Adverse }}$ | $\begin{array}{r}32.9 \\ 32.8 \\ \hline\end{array}$ | 34.2 34.3 | 33.9 33.9 |
| 66 , RITCHIE PLACE | Dwelling | 43.4 | 45.1 | 43.1 | -0.3 | Negligible Beneficial | 44.6 | 1.2 | Negiligibe Adverse | 32.8 | 34.3 | 33.9 |
| 68, RITCHIE PLACE | Dwelling | 43.4 | 45.1 | 43.1 | -0.3 | Negligible Beneficial | 44.6 | 1.2 | Negigiolie Adverse | 32.8 | 34.3 | 33.9 |
| 70, RITCHIE PLACE | Dwelling | 43.4 4.4 | 45.1 | 43.1 | -0.3 | Negliable Beneficial | $\stackrel{44.6}{446}$ | 1.2 | Negligible Adverse | 32.8 328 | 34.3 343 | 33.9 |
| 72, RIICHIE PLACE | Dwelling | 43.4 43.4 | ${ }_{45.1}^{45.1}$ | ${ }_{43.1}^{43.1}$ | -0.3 | $\frac{\text { Negligiole Benenicical }}{\text { Neglioble }}$ | $\stackrel{44.6}{44.6}$ | $\stackrel{1.2}{1.2}$ | Negigigib Adverse | 32.8 <br> 32.8 | 34.3 34.3 | 33.9 33.9 |
| 76, RITCHIE PLACE | Dwelling | 43.4 | 45.1 | 43.1 | -0.3 | Negligible Benenicicial | 44.6 | 1.2 | Negigioble Adverse | 32.8 | 34.3 | 33.9 |
| 78. RITCHIE PLACE |  |  |  |  |  | Negligible Benenitical |  |  | Negiligible Adverse | 32.8 |  |  |
| 8, RITCHIE PLACE | Deelling | 44.0 | 45.3 | 43.9 | -0.1 | Negligible Beneficial | 45.0 | 1.0 | Negigigile Adverse | 33.3 | 34.5 | 34.2 |
| 1, ROSEHILL AVENUE | Dwelling | 66.8 583 | 67.2 588 | 66.2 | -0.6 | Negliable Beneficial | 67.1 587 | 0.3 | Negiligib Adverse | 53.9 | 54.2 | 54.1 |
| 11, ROSEHILL AVENUE | Dweliling | 58.4 | 58.8 53.1 | 57.8 | -0.4 | Negegiogibe eeneficicial | 58.0 | 0.6 | Neogigioble Adverse | 40.9 | ${ }_{46}^{41.5}$ | ${ }_{41.4}^{46.6}$ |
| 12, ROSEHILL AVENUE | Delling | ${ }_{58.3}^{5}$ | 58.8 | ${ }_{57.8}^{5}$ | -0.5 | Negligible Beneficicial | ${ }_{58.7}^{58}$ | 0.4 | Negigigibe Adverse | 46.2 | 46.7 | 46.6 |
| 13, ROSEHIL AVENUE | Dwelling | 52.4 58.3 | 53.1 58.8 | 52.0 57.8 | -0.4 -0.5 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ Beneficial | 53.0 58.7 | 0.6 0.4 | $\frac{\text { Negiligible Adverse }}{\text { Negigible Adverse }}$ | 40.9 46.2 | 41.5 46.7 | 41.4 46.6 |
| 15, ROSEHILL AVENUE | Dwelling | 52.4 | 53.1 | 52.0 | -0.4 | Negligible Beneficial | 53.0 | 0.6 | Negligiole Adverse | 40.9 | 41.5 | 41.4 |
| 16, ROSEHILL AVENUE | Dwelling | 58.3 | 58.8 | 57.8 | -0.5 | Negligible Beneficial | 58.7 | 0.4 | Negiligibe Adverse | 46.2 | 46.7 | 46.6 |
| 17. ROSEHILL AVENUE | Dwelling | 51.1 55.6 | 52.0 56.2 | 50.8 55.1 | -0.3 -0.5 | $\frac{\text { Negliable Beneficial }}{\text { Negligible }}$ | 51.9 56.0 | 0.8 0.4 | Negligibl Adverse | 39.7 43.8 | $\stackrel{40.5}{443}$ | 40.4 44 |
| 19, ROSEHLLL AVENUE | Dwelling | 551.1 | 52.0 | 50.8 | -0.3 | Negligible Benenificial | 55.9 | 0.8 | Neogigigile Adversse | ${ }_{39.7}$ | 40.5 | 40.4 |
| 2, ROSEHILL AVENUE | Dwelling | 64.9 | 65.3 | 64.3 | -0.6 | Negligible Beneficical | 65.2 | 0.3 | Negiligibe Adverse | 52.1 | 52.5 | 52.4 |
| 20, ROSEHHLL AVENUE | Dwelling | ${ }_{\text {55.6 }}^{51.1}$ | 56.2 52.0 | 55.1 50.8 | -0.5 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ | 56.0 51.9 | 0.4 | $\frac{\text { Negiligible Adverse }}{\text { Negioble }}$ | 43.8 39.7 | $\frac{44.3}{40.5}$ | $\frac{44.1}{40.4}$ |
| 22, ROSEHLLL AVENUE | Dwelling | 55.6 | 56.2 | 55.1 | -0.5 | Negligible Beneficicial | 56.0 | 0.4 | Neogigigile Adverse | 43.8 | ${ }_{44.3}$ | 44.1 |
| 23, ROSEHILL AVENUE | Dwelling | 51.1 | 52.0 | 50.8 | -0.3 | Negligible Benenicicial | 51.9 | 0.8 | Negiligible Adverse | 39.7 | 40.5 | 40.4 |
| 24, ROSEHILL AVENUE | Oweling | $\begin{array}{r}55.6 \\ 50.6 \\ \hline\end{array}$ | 56.2 | $\begin{array}{r}55.1 \\ \hline 50 . \\ \hline\end{array}$ | -0.5 | Negligible Benenitical | 56.0 |  | Negiligibe Adverse | ${ }^{43.8}$ | 44.3 |  |
| 25, ROSEHLLL AVENUE | Dwelling | 50.5 47.6 | 51.4 48.7 | 50.2 47.4 | $\stackrel{-0.3}{-0.2}$ | $\frac{\text { Negligible Benenticial }}{\text { Neglioibl Beneficial }}$ | 51.3 48.5 | 0.8 0.9 | Negigible Adverse | 39.2 36.6 | 40.0 37.6 | 39.9 37.4 |
| 27, ROSEHILL AVENUE | Dwelling | 50.5 | 51.4 | 50.2 | -0.3 | Negligible Beneficical | 51.3 | 0.8 | Negigiolib Adverse | 39.2 | 40.0 | 39.9 |
| 28, ROSEHILL AVENUE | Dweling | 47.6 50.5 | 48.7 514 | 47.4 50.2 | -0.2 -0.0 | Negliable Benefitial | 48.5 51.3 | 0.9 | Negligibl Adverse | 36.6 392 | 37.6 400 | 37.4 <br> 39. |
| 29, ROSEAILL AVENUE | Dwelling | 50.5 | 51.4 | 50.2 | -0.3 | Negiligile Beneiticial | 51.3 | ${ }_{0}^{0.8}$ | Negigible Adverse | 39.2 53.9 | 40.0 | 39.9 54.1 |
| 30, ROSEHILL AVENUE | Dwelling | 47.6 | 48.7 | 47.4 | -0.2 | Negligible Beneficial | 48.5 | 0.9 | Negligible Adverse | 36.6 | 37.6 | 37.4 |
| 31, ROSEHILL AVENUE | Dwelling | 50.5 | 51.4 | 50.2 | -0.3 | Negligible Beneficical | 51.3 | 0.8 | Negaligibe Adverse | 39.2 | $\stackrel{40.0}{37}$ | 39.9 374 |
| 32, ROSEHIL AVENUE | Dwelling | 47.6 64.9 | ${ }_{65.3}^{48.7}$ | 47.4 64.3 | -0.2 | Negligiole Beneiticial | 485.5 | 0.9 | Negigigibe Adverse | 36.6 52.1 | ${ }^{37.6} 5$ | 37.4 52.4 |
| 5, ROSEHILL AVENUE | Delling | 66.8 | 67.2 | 66.2 | -0.6 | Negligible Benefitical | 67.1 | 0.3 | Negligible Adverse | 53.9 | 54.2 | 54.1 |
| 6, ${ }^{\text {C, ROSESHILL AVEHIL AVENUE }}$ | Dwelling | 64.9 66.8 | ${ }^{657.3}$ | ${ }_{66.3}^{66.2}$ | $\stackrel{-0.6}{-0.6}$ | Negiligible Beneificial | ${ }_{657.1}^{67.1}$ | 0.3 | Neogigiole Adverse | ${ }_{52,9}^{53.9}$ | ${ }^{52.5}$ | 52.4 54.1 |
| 8, ROSEHILL AVENUE | Dwelling | 64.9 | 65.3 | 64.3 | -0.6 | Negligible Beneficical | 65.2 | 0.3 | Negligible Adverse | 52.1 | 52.5 | 52.4 |
| 9, ROSEEHILLAVENUE | Dweling | 52.4 | 53.15 | 52.0 | -0.4 | Negligible Benenitical | -53.0 | ${ }_{0}^{0.6}$ | Negigigio Adverse | 40.9 | 41.5 | 41.4 |
| 1, ROSEHILL CRESCENT | Owelling | 57.8 | 58.4 | 57.3 | -0.5 | Negligible Beneficioial | 58.2 | 0.4 | Neogigioble Adverse | 45.8 | 46.3 | 46.1 |
| 10, ROSEHILL CRESCENT | Dwelling | 49.1 | 50.0 | ${ }_{48.8}$ | -0.3 | Negligible Beneficial | 49.8 | 0.7 | Negigioble Adverse | 37.9 <br> 7 | 38.7 | 38.6 |
| 11, ROSEHILL CRESCENT | Dwelling | 48.9 50.0 | 49.7 50.8 | 48.6 49.8 | -0.3 | Negligible Beneficial | 49.5 | 0.6 | Negiligib Adverse | 37.7 387 | 38.5 395 | 38.3 394 |
| 13.10 ROSEHILL CRESCENT | Dwelling | 48.7 | 49.5 | 48.4 | -0.3 | Negligible Benenicial | 49.3 | 0.6 | Negiligible Adverse | 37.6 | 38.3 | 38.1 |
| ${ }^{14,}$ ROSEHILL CRESCENT | Dwelling | 49.1 | 50.0 | 48.9 | -0.2 | Negligible Beneficical | 49.8 | 0.7 | Negligible Adverse | 37.9 | 38.7 | 38.6 |
| 15, ROSEHILL CRESCENT | Dwelling | 48.3 | 49.1 | 48.1 48.4 | -0.2 | Negligible Beneficial | 49.0 | 0.7 | Negiligib Adverse | $\begin{array}{r}37.2 \\ 375 \\ \hline\end{array}$ | 37.9 383 | 37.8 388 |
| 1 16, ROSEEHILL CRESESCENT | Dweliling | ${ }_{48.3}^{48.6}$ | 49.2 | ${ }_{48.1}^{48.4}$ | $\stackrel{-0.2}{-0.2}$ | Negiligiole Beneiticial | 49.0 | 0.7 | Negigigible Adverse | 37.5 37.2 | 38.3 | 38.2 37.8 |
| 18, ROSEHILL CRESCENT | Dewling | 48.5 | 49.4 | 48.3 | -0.2 | Negligible Beneficical | 49.3 | 0.8 | Negligible Adverse | 37.4 37.1 | 38.2 37 | 38.1 37 |
| 19, ROSEHILL CRESCENT | Dwelling | 59.0 | ${ }_{59.5}^{49.1}$ | ${ }_{58.5}$ | $\stackrel{-0.1}{-0.5}$ | Negiligile Beneitiolial | ${ }_{59.3}$ | 0.3 | Negigible Avverse | ${ }^{37.1} 46.8$ | ${ }_{47.3}$ | 47.1 |
| 20, ROSEHILL CRESCENT | Dwelling | 50.0 | 51.0 | 49.9 | -0.1 | Negligible Beneficial | 50.9 | 0.9 | Negigigile Adverse | 38.7 | 39.6 | 39.5 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 <br> Lnight,outside | DM33 Lnight,outside | $\begin{gathered} \text { DS33 } \\ \text { Lnight,outside } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 21, ROSEHILL CRESCENT | Deeling | 48.3 | 49.2 | 48.1 | -0.2 | Negligible Beneficicial | 49.0 | 0.7 | Negigigle Adverse | 37.2 | 38.0 | ${ }^{37.8}$ |
| 22, ROSEHILL CRESCENT | Dwelling | 49.8 482 | 50.8 491 | $\frac{49.7}{480}$ | -0.1 | Negligible Beneficial | 50.6 489 | 0.8 | Negiligile Adverse | 38.6 | 39.5 379 | 39.3 377 |
|  | Dweling | ${ }_{48.2}^{48.2}$ | 49.1 | ${ }_{48.0}^{48.0}$ | -0.2 |  | 48.9 | 0.7 | Negligible Adverse | ${ }_{37,1}$ | ${ }^{37.9}$ | 37.7 37.7 |
| 27, ROSEHLLL CRESCENT | Dwelling | 48.0 | 49.1 | 47.9 | -0.1 | Negligible Benenicial | 48.9 | 0.9 | Negligible Adverse | 36.9 | 37.9 | 37.7 |
| 29, ROSEHILL CRESCENT | Dwelling | 48.4 | 49.4 | 48.3 | -0.1 | Negligible Beneficial | 49.3 | 0.9 | Negigibile Adverse | 37.3 | 38.2 | 38.1 |
| 3, ROSEHILL CRESCENT | Dwelling | 56.2 | 56.8 | 55.7 | -0.5 | Negligible Beneficial | 56.6 | 0.4 | Negiligile Adverse | 44.3 | 44.9 | 44.7 |
| 31, ROSEHILL CRESCENT | Deelling | 48.8 | 49.8 | 48.7 | -0.1 | Negligible Beneficical | 49.6 | 0.8 | Negigioble Adverse | 37.7 | 38.6 | 38.4 |
| 33, ROSEHILL CRESCENT | Deelling | 48.7 | 49.7 | 48.7 | 0.0 | No Change | 49.6 | 0.9 | Negigigile Adverse | 37.6 | 38.5 | 38.4 |
| 4, ROSEHILL CRESCENT | Dwelling | 55.0 | 55.5 | 54.4 | -0.6 | Negligible Beneficial | ${ }_{55.3}$ | 0.3 | Negigigibe Adverse | 43.2 | 43.7 | 43.5 |
| 5, ROSEHHLLL CRESCENT | veling | 54.2 | 54.8 | ${ }_{53.7}$ | -0.5 | Negligible Benenitical | $\begin{array}{r}54.6 \\ 5.6 \\ \hline\end{array}$ | 0.4 | Negiligble Adverse | 42.5 | ${ }^{43.15}$ | 42.9 |
| $\frac{6, \text { ROSEHLL CRESCENT }}{7, \text { ROSEHILL CRESESNT }}$ | Dwelling | ${ }_{53,6}^{53.7}$ | ${ }_{54.3}^{54.2}$ | ${ }_{53,1}^{53.1}$ | -0.6 |  | ${ }_{54.0}^{54.0}$ | ${ }_{0}^{0.4}$ | Neoligigile Adverse | ${ }_{42.0}^{42.1}$ | 42.6 | ${ }_{42.3}^{42.3}$ |
| 8, ROSEHILL CRESCENT | Dwelling | 48.5 | 49.3 | 48.2 | -0.3 | Negligible Beneficial | 49.2 | 0.7 | Negligible Adverse | 37.4 | 38.1 | 38.0 |
| 9 9, ROSEHLLL CRESCENT |  | 53.5 | 54.1 | 53.0 | 0.5 | Negligible Beneficial | 53.9 | 0.4 | Negligible Adverse | 41.9 | 42.4 |  |
| 10, ROSEHILL DRIVE |  | 8.9 | 69.2 | 68.2 | -0.7 | Negligible Beneficial | 68.9 | 0.0 | No Change | 55.7 | 56.0 |  |
| 103, ROSEHILL DRIVE | Deelling | 67.0 | 67.7 | 66.6 | -0.4 | Negligible Benenitical |  | 0.7 | Negiligibe Adverse | 54.0 | 54.7 |  |
| 105. ROSEHILL DRIVE | Dwelling | 67.0 | 67.7 |  | -0.4 | Negiligile Benenitical | 67.7 | 0.7 | Negiligile Adverse |  | 54.7 |  |
|  | Oweling | 67.0 |  |  | -0.4 | Negligibie Benenicial | 6.7 |  | Negigigie Adverse | 54.0 |  | 54.7 |
| 109. ROSEAILL DRIVE | Dweling | 66.9 | ${ }^{67.6}$ | 66.5 |  | Negilibile Benenicial | ${ }_{67.7}^{677}$ | 0.8 | Negiligibe Adverse | 53.9 | 54.6 | $\begin{array}{r}54.7 \\ 547 \\ \hline\end{array}$ |
| 11, ROSEALL DAVE | Oweling | 66.9 | ${ }^{67.6}$ | ${ }_{66.5}^{665}$ | -0.4 | Negingiole Benenticial | ${ }^{67.7}$ | ${ }_{0}^{0.8}$ | Negigigie Adverse | ${ }_{53,9}^{539}$ | - ${ }_{54.6}^{54.6}$ | 54.7 547 |
| 115, ROSEHILL DRIVE | Dwelling | 66.9 | 67.6 | 66.5 | -0.4 | Negligible Benenitical | ${ }^{67.7}$ | 0.8 | Negligible Adverse | 53.9 | 54.6 | 54.7 |
| 117, ROSEHILL DRIVE | Dwelling | 66.9 | 67.6 | 66.5 | -0.4 | Negligible Beneficial | 67.7 | 0.8 | Negiligile Adverse | 53.9 | 54.6 | 54.7 |
| 119, ROSEHILL DRIVE | Oweling | 66.9 | 67.6 | 66.5 | ${ }^{-0.4}$ | $\frac{\text { Negligible Benenicical }}{\text { Neglioibl }}$ Beneficial | $\frac{67.7}{69.2}$ | 0.8 | Negigigle Adverse | 53.9 <br> 55.8 | 54.6 | 54.7 56.0 |
| 121, ROSEHILL DRIVE | Owelling | 66.7 | 67.5 | 66.4 | -0.3 | Negligible Beneficicial | 67.6 | 0.9 | Negigiolie Adverse | 53.8 | 54.5 | 54.6 |
| 123, ROSEHILL DRIVE | Dwelling | 66.7 | 67.5 | 66.4 | -0.3 | Negligible Beneficial | 67.6 | 0.9 | Negigigile Adverse | 53.8 | 54.5 | 54.6 |
| 125, ROSEHILL DRIVE | Dwelling | 66.7 | 67.5 | 66.4 | -0.3 | Negligible Beneficial | 67.6 | 0.9 | Negigigibe Adverse | 53.8 | 54.5 | 54.6 |
| 127, ROSEHILL DRRIVE | Deeling | 66.7 | 67.5 | 66.4 | -0.3 | Negligible Beneficical | 67.6 | 0.9 | Negigigibe Adverse | 53.8 | 54.5 | 54.6 |
| 129, ROSEHILL DRIVE | Dwelling | 66.7 | 67.5 | 66.4 | -0.3 | Negligible Beneficial | 67.6 | 0.9 | Negigigile Adverse | 53.8 | 54.5 | 54.6 |
| 131, ROSEHILL DRIVE | Deelling | 66.7 | 67.5 | 66.4 | -0.3 | Negligible Beneficial | 67.6 | 0.9 | Negiligibe Adverse | 53.8 | 54.5 | 54.6 |
|  | Dwelling | $\frac{66.2}{66.2}$ | ${ }^{67.0}$ | 65.9 65.9 | -0.3 | $\frac{\text { Negligible Beneficial }}{\text { Negligibl }}$ Beneficial | ${ }^{67.1}$ | 0.9 | $\frac{\text { Negigigibe Adverse }}{\text { Negilible Adverse }}$ | ${ }_{\text {53.3 }}$ | 54.0 | -54.1 |
| 137, ROSEHILL DRIVE | Dwelling | 66.2 | 67.0 | 65.9 | -0.3 | Negligible Beneficial | 67.1 | 0.9 | Negiligile Adverse | 53.3 | 54.0 | 54.1 |
| 139, ROSEHILL DRIVE |  | 6.2 |  | 65.9 | -0.3 | Negligible Beneficial | 67.1 |  |  |  | 4.0 |  |
| 14, ROSEHILL DRIVE | Dwelling | 68.9 | 69.4 | 68.3 | -0.6 | Negligible Beneficial | 69.1 | 0.2 | Negigigile Adverse | 55.7 | 56.2 | 55.9 |
| 141, ROSEHILL DRIVE | Deeling | 66.2 | 67.0 | 65.9 | -0.3 | Negligible Beneficical | 67.1 | 0.9 | Negigioble Adverse | 53.3 | 54.0 | 54.1 |
| 143, ROSEHILLDRIVE | Dwelling | 66.2 | 67.0 | 65.9 | -0.3 | Negigigile Benenitical | 67.1 | 0.9 | Negiligile Adverse | 53.3 | 54.0 | 54.1 |
| 145, ROSEHILL DRIVE | Dweling | 66.3 | 67.0 | 66.0 | ${ }^{-0.3}$ | Negiligile Benenitial | 67.1 | 0.8 | Negigigile Adverse | 53.4 | 54.0 | 54.1 |
| 14, ROSEAHLD DRVE | - ${ }^{\text {Dwelling }}$ Oweling | ${ }_{66.3}^{66.3}$ | 67.0 67.0 | 66.0 | -0.3 -0.3 |  | 67.1 67.1 | 0.8 0.8 | Negigible Adverse | 53.4 53.4 | $\stackrel{54.0}{54.0}$ | 54.1 |
| 151, ROSEHILL DRIVE | Dwelling | 66.3 | 67.0 | 66.0 | -0.3 | Negligible Benenicial | 67.1 | 0.8 | Negligible Adverse | 53.4 | 54.0 | 54.1 |
| 153. ROSEHILL DRIVE | Dwelling | 66.3 | 67.0 | 66.0 | -0.3 | Negligible Beneficial | 67.1 | 0.8 | Negigiole Adverse | 53.4 | 54.0 | 54.1 |
| 155, ROSEHILL DRIVE | Deelling | 66.3 | 67.0 | 66.0 | -0.3 | Negligible Beneficial | 67.1 | 0.8 | Negigigibe Adverse | 53.4 | 54.0 | 54.1 |
| - 157 , Rosenill dive | Dweling | 66.1 | 66.9 | 65.9 | ${ }^{-0.2}$ | $\frac{\text { Negligible Benenicial }}{\text { Neglioble }}$ | ${ }^{67} 6$ | 0.9 | Negligile Adverse | 53.2 | 53.9 | 54.0 |
| 16, ROSEHILL DRIVE | Dwelling | 69.0 | 69.5 | 68.4 | -0.6 | Negligible Beneficicial | 69.2 | 0.2 | Neogigigle Adverse | ${ }_{55.8}$ | 56.3 | 56.0 |
| 161, ROSEHILL DRIVE | Dwelling | 66.1 | 66.9 | 65.9 | -0.2 | Negligible Beneficial | 67.0 | 0.9 | Negigigile Adverse | 53.2 | 53.9 | 54.0 |
| 163, ROSEHILL DRIVE | Deeling | 66.1 | 66.9 | 65.9 | -0.2 | Negligible Beneficical | 67.0 | 0.9 | Negligible Adverse | 53.2 | 53.9 | 54.0 |
| 165, ROSEHILL DRIVE | Dwelling | 66.1 | 66.9 |  | -0.2 | Negeligibe Benenitial |  | 0.9 | Negiligie Adverse | 53.2 | 53.9 | 54.0 |
| - 167 , ROSEHILL DRIVE | Oweling | ${ }_{66.4}^{66.1}$ | 66.9 | 66.2 | -0.2 | Negoligiole Benenticial | 67.3 | 0.9 | Negigigie Adverse | ${ }_{53.5}^{53.2}$ | 㐌4.9 | $\stackrel{54.0}{54.3}$ |
| 171, ROSEHILL DRIVE | Dwelling | 66.4 | 67.3 | 66.2 | 0.2 | Negligible Beneficial | 67.3 | 0.9 | Negligible Adverse | 3.5 | 4.3 |  |
| 173, ROSEHILL DRIVE | Dwelling | 66.4 | 67.3 | 66.2 | -0.2 | Negligible Beneficial | 67.3 | 0.9 | Negigiolie Adverse | 53.5 | 54.3 | 54.3 |
| 175, ROSEHILL DRIVE | Dwelling | 66.4 | 67.3 | 66.2 | -0.2 | Negligible Beneficial | 67.3 | 0.9 | Negigigibe Adverse | 53.5 | 54.3 | 54.3 |
| IT7, ROSEALLL DRIVE | Oweling | 66.4 | 67.3 | 66.2 | -0.2 | Negeligibie Benenitial | 67.3 | 0.9 | Negiligile Adverse | 53.5 | 54.3 | 年4.33 |
| $\frac{179, \text { ROSEHILL DRIVE }}{18 \text { ROSEHLL DRIVE }}$ | Dwelling | ${ }^{66.4} 6$ | ${ }_{69.5}^{69.5}$ | 66.4 | -0.2 | Neginigile Benenticial | 67.3 | 0.9 | Negligibe Adverse | 53.5 55.8 | 54.3 56.3 | 54.3 56.0 |
| 181, ROSEHILL DRRE | Dwelling | 67.1 | 68.0 | 66.9 | -0.2 | Negligible Beneficical | 68.0 | 0.9 | Negligible Adverse | 54.1 | 54.9 | 54.9 |
| 183, ROSEHILL DRRVE | Dwelling | 67.1 | 68.0 | 66.9 | -0.2 | Negligible Beneficial | 68.0 | 0.9 | Negligible Adverse | 54.1 | 54.9 | 54.9 |
| 185, ROSEHILL DRIVE | Dwelling | $\frac{67.1}{67.1}$ | 68.0 | 66.9 | -0.2 | $\frac{\text { Negligible Benenicial }}{\text { Negligibl }}$ | 68.0 | 0.9 | Negiligle Adverse | 54.11 | 54.9 549 | 54.9 |
| 189, ROSEHILL DRIVE | Dwelling | 67.1 | 68.0 | 66.9 | -0.2 | Negligible Beneficicial | 68.0 | 0.9 | Neogigiole Adverse | 54.1 | 54.9 | 54.9 |
| 191, ROSEHILL DRIVE | Dwelling | 67.1 | 68.0 | 66.9 | -0.2 | Negligible Beneficial | 68.0 | 0.9 | Negigigile Adverse | 54.1 | 54.9 | 54.9 |
| 20, ROSEHILL DRIVE | Dwelling | 69.2 | 69.7 | 68.6 | -0.6 | Negligible Beneficial | 69.4 | 0.2 | Negiligibe Adverse | 56.0 | 56.5 | 56.2 |
| 21, ROSEHILL DRIVE | Dwelling | 68.3 | 68.6 | 67.6 | -0.7 | Negligible Beneficial | 68.3 | 0.0 | No Change | 55.2 | 55.5 | 55.2 |
| 22, ROSEEHILL DRIVE | Deelling | 69.2 | 69.8 | 68.6 | -0.6 | Negligible Beneficical | 69.5 | 0.3 | Negiligibe Adverse | 56.0 | 56.6 | 56.3 |
| 23, ROSEEHILL DRIVE | Oweling | 68.3 |  |  | -0.6 | Negligible Benenitical | 68.4 | 0.1 | Negiligile Adverse | 55.2 | ${ }_{55.5}^{5.5}$ | 55.3 |
| ${ }^{24, \text { ROSEHILL L Dive }}$ | Oweling | 69.4 |  | 68.8 | -0.6 | Negligible Benenitical | 69.1 | ${ }_{0} .3$ | Negligiole Aaverse | 56.2 | 56.7 | 56.5 |
| 25, ROSEHILL Dive | Oweling | ${ }_{67.0}^{694}$ | 67.4 | ${ }_{68.8}^{66.4}$ | -0.6 | Negigigbe Benenticial | 69.7 | 0.1 | Neogligible Adverse | 54.2 | 54.4 | 54.1 |
| 27, ROSEHILL DRIVE | Dwelling | 68.7 | 69.1 | 68.1 | -0.6 | Negligible Beneficial | 68.8 | 0.1 | Negligible Beneficial | 55.6 | 55.9 | 55.7 |
| 28, ROSEHILL DRIVE | Dwelling | 69.4 | 69.9 | 68.8 | -0.6 | Negligible Beneficical | 69.7 | 0.3 | Negigioble Adverse | 56.2 | 56.6 | 56.5 |
| 29, 30 ROSEEHLLL DRIVIVE | Dwelling | ${ }^{689.4}$ | 69.9 | ${ }^{688.8}$ | -0.6 | Negiligible eeneneficial | 68.9 69.7 | ${ }_{0}^{0.3}$ | Neogigioble Adverse | 55.6 | ${ }_{56.6}^{56.0}$ | ${ }_{55.5}^{55.7}$ |
| 31, ROSEHILL DRIVE | Dwelling | 67.0 | ${ }^{67.6}$ | 66.4 | -0.6 | Negligible Beneficial | ${ }_{6}^{67.2}$ | 0.2 | Negligibl Adverse | 54.0 | 54.6 56.6 | 54.2 56.4 |
| 33, ROSEEHLLL DRIVE | Owelling | ${ }_{697.1}^{69}$ | ${ }^{697.6}$ | ${ }_{66.5}^{66.7}$ | - | Negiligiole Beneiticial | ${ }^{697.3}$ | 0.2 | Negiligible Adverse | ${ }_{54.1}^{56.1}$ | ${ }_{54.6}^{56.6}$ | ${ }^{56.4} 5$ |
| 34, ROSEHILL DRIVE | Dwelling | 69.2 | 69.8 | 68.6 | -0.6 | Negligible Beneficical | 69.5 | 0.3 | Negligible Adverse | 56.0 | 56.6 | ${ }_{565}^{56.3}$ |
| 35, ROSEHLLL DRIVE | Dwelling | ${ }_{69.1}^{60.1}$ | 69.6 | ${ }_{68.5}$ | ${ }_{-0.6}^{-0.6}$ | Neginiobile Beneneiticial | 69.4 | ${ }_{0}^{0.3}$ | Neoligiole Adverse | ${ }_{55.9}^{55.9}$ | ${ }_{56.4}^{56.4}$ | ${ }_{56.2}$ |
| 37, ROSEHILL DRIVE | Dwelling | 68.7 | 69.2 | 68.1 | -0.6 | Negligible Beneficial | 68.9 | 0.2 | Negigiole Adverse | 55.6 | 56.0 | 55.7 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 Lnight,outside | $\begin{gathered} \text { DS33 } \\ \text { Lnight,outside } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 38, ROSEHILL DRIVE | Dwelling | 69.1 | 69.6 | 68.5 | ${ }^{0.6}$ | Negligible Beneficical | 69.4 | ${ }^{0.3}$ | Negigigle Adverse | 55.9 | 56.4 | ${ }_{56.2}^{56}$ |
| 39, ROSEHILL DRIVE | Dweling | $\frac{68.6}{68 .}$ | $\frac{69.1}{689}$ | 68.0 68 | ${ }_{-0.6}^{-0.6}$ | Negligible Beneficial | $\frac{68.8}{68 .}$ | 0.2 | Negligiole Adverse | 55.5 <br> 5.5 | 55.9 <br> 55.7 | 55.7 <br> 5.5 |
| 4, ROSEHILL DRIVE | Dweling | 68.6 69.1 | 68.9 69.6 | 68.0 | -0.6 -0.6 | $\frac{\text { Negligiole Beneficial }}{\text { Negligibe }}$ Beneficial | 69.6 | ${ }_{0}^{0.0}$ | Neoligo Change Adverse | 55.5 55.9 | 55.7 56.4 | 55.5 56.2 |
| 41, ROSEHILL DRIVE | Dwelling | 68.5 | 69.0 | 67.9 | -0.6 | Negligible Beneficioil | 68.7 | 0.2 | Negligible Adverse | 55.4 | ${ }^{56.4}$ | 55.6 |
| 42, ROSEHILL DRIVE | Dwelling | 69.1 | 69.5 | 68.5 | -0.6 | Negligible Beneficial | 69.4 | 0.3 | Negigigile Adverse | 55.9 | 56.3 | 56.2 |
| 43, ROSEHILL DRIVE | Deelling | 69.1 | 69.6 | 68.5 | -0.6 | Negligible Beneficial | 69.3 | 0.2 | Negiligible Adverse | 55.9 | 56.4 | 56.1 |
| 44, ROSEHILL DRIVE | welling | 69.2 | 69.7 | 68.7 | . 0.5 | Negligible Beneficial | 69.5 | 0.3 | Negigioble Adverse | 56.0 | 56.5 | 56.3 |
| 45, ROSEHILL DRIVE | welling | 67.4 | 67.9 | 66.8 | -0.6 | Negligible Beneficial | 67.7 | 0.3 | Negiligibie Adverse | 54.4 | 54.8 | 54.7 5.5 |
| 46, ROSEHILL DRIVE | welling | 69.4 | 69.8 | 68.8 | -0.6 | Negligible Beneficial | 69.7 | 0.3 | Negigioble Adverse | 56.2 | 56.6 | 56.5 |
| 47, ROSEHILL DRIVE | welling | 69.0 | 69.6 | 68.4 | -0.6 | Negligible Beneficial | 69.3 | 0.3 | Negigioble Adverse | 55.8 | 56.4 | 56.1 |
| 48, ROSEHILL DRIVE | welling | 71.0 | 71.5 | 70.5 | -0.5 | Negligible Beneficial | 71.3 | 0.3 | Negigioble Adverse | 57.6 | 58.1 | 57.9 |
| 49, ROSEHILL DRIVE | welling | 69.0 | 69.5 | 68.4 | -0.6 | Negligible Beneficial | 69.3 | 0.3 | Negigioble Adverse | 55.8 | 56.3 | 56.1 |
| 50, ROSEHILL DRIVE | Oweling | 71.0 | 71.5 | 70.5 | -0.5 | Negligible Beneficical | 71.3 | 0.3 | Negigioble Adverse | 57.6 | 58.1 | 57.9 |
| 51, ROSEHILL DRIVE | weling | 68.9 | 9.5 | 68.3 | -0.6 | aligible Beneficial | 69.2 | 0.3 | Negiligile Adverse | 55.7 | 56.3 | 5.0 |
| 52, ROSEHILL DRIVE | welling | 71.0 | 71.5 | 70.5 | -0.5 |  | 71.3 |  | Negiligile Adverse | 57.6 <br> 55 |  | .9 |
| 53, ROSEHILL DRIVE | Welling | ${ }^{68.8}$ | 9,3 | 68.2 | -0.6 | Negiligiole Beneficial | 69.1 | 0.3 | Negiligibe Adverse | 55.7 |  |  |
| 54, Rosebhill dive | eling |  |  |  |  | dical |  | 0.3 | Negiligibe Adverse | 7.6 |  |  |
| 55, Rosehill bive | Oweling | 69.0 | 69.4 | 68.4 |  | Neoligibe Beneficial | ${ }^{69.3}$ | 0.3 | Nogigle Adverse | 55.8 | 56.2 | 75 |
| 56, Rosehill dive | weling | 70.5 | 70.9 | 70.0 | -0.5 | Negiligiole Beneficial | 70.8 | ${ }_{0}^{0.3}$ | Negiligile Adverse | 57.2 <br> 57 <br> 57 | 57.5 | 57.5 |
| 57, ROSECHILL DRIVE | Oweling | ${ }_{76.9}$ | 69.4 | 68.4 | -0.5 | Negiligiole Beneficical | 69.2 | ${ }_{0}^{0.3}$ | Negiligile Adverse | 55.7 | 56.2 | 56.0 |
| 5, Rosehill dive | weiling | 70.5 | 70.9 | 70.0 | -0.5 | Neoiligiole Beneiticar | 70.8 | 0.3 | Negiquibe Adverse | 57.2 | 57.5 | 57.5 |
| 59, ROSEHILL DRIVE | Dweling | 68.9 | 69.3 | 68.3 | -0.6 | Negligible Beneficial | 69.2 | 0.3 | Negiligile Adverse | 55.7 | 56.1 | 56.0 |
| 6, Rosehill ilive | Oweling | 68.7 | 69.0 | ${ }^{68.1}$ | -0.6 | Negiligiole Beneficial | ${ }_{68,7}^{68.7}$ | 0.0 | No Change | 55.6 572 | $\begin{array}{r}55.8 \\ 575 \\ \hline\end{array}$ | $\begin{array}{r}55.6 \\ 575 \\ \hline\end{array}$ |
| 60, Rosehtl dine | Oweling | 70.5 | 70.9 | 70.0 | -0.5 | Negenigiole Benenticial | 70.8 | ${ }_{0}^{0.3}$ | Negiligile Adverse | 55.2. | 57.5 | 57.5 |
| 62, ROSEHILL DRIVE | Dwelling | 70.5 | 70.9 | 70.0 | -0.5 | Negligible Beneficial | 70.8 | 0.3 | Negiligile Adverse | 57.2 | 57.5 | 57.5 |
| 63, ROSEHILL DRIVE | welling | 69.0 | 69.5 | 68.4 | -0.6 | Negligible Beneficial | 69.3 | ${ }^{0.3}$ | Negligible Adverse | 55.8 | 56.3 | 56.1 |
| 64, ROSEHILL DRIVE | welling | 68.6 | 69.3 | 68.2 | -0.4 | Negligible Beneficial | 69.4 | 0.8 | Negiligble Adverse | 55.5 | 56.1 | 56.2 |
| 65, RoSEHILL DRIVE | Dwelling | 68.9 | 69.3 | ${ }^{68,3}$ | -0.6 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ Beneficial | 69.2 | ${ }^{0.3}$ | Negiligile Adverse | $\begin{array}{r}55.7 \\ 55 \\ \hline 5\end{array}$ | 56.1 | 56.0 |
| 67, ROSEHILL DRIVE | Dwelling | 68.7 | 69.2 | 68.1 | -0.6 | Negligible Be | 69.0 | 0.3 | Negligioble Adverse | 55.6 | 56.0 | 55.8 |
| 68, ROSEHILL DRIVE | Welling | 68.6 | 69.3 | 68.2 | -0.4 | Negligible Beneficial | 69.4 |  | Negigigible Adverse | 55.5 | 56.1 | 56.2 |
| 69, ROSEHILL DRIVE | welling | 68.8 | 69.2 |  |  | Negligible Beneficial | 69.1 | 0.3 | Negiligile Adverse | 55.7 |  | 55.9 |
| 70, ROSEHILL DRIVE | Welling | 68.6 | 69.3 | 68.2 | -0.4 | Negligible Beneficicial | 69.4 |  | Negiligibe Adverse | 55.5 |  | 56.2 |
| 71, ROSEHILL DRIVE | Oweling |  | 69.1 | 68.1 | -0.5 | Negigigile Beneificial | 69.0 |  | Negiligile Adverse | 55.5 |  |  |
| 3, Rosehill bive | Oweiling | 68.6 | 69.1 | 68.1 | -0.5 | Negiligile Beneniciar | 69.0 | 0.4 | Negiqigile Adverse | 55.5 | 55.9 | 55.8 |
| 75, ROSEEILL Dive | Oweling | $\frac{68.5}{68.6}$ | 69.0 | 68.0 | -0.5 | $\frac{\text { Negligible Benenicical }}{\text { Negligile }}$ | 68.8 6 | ${ }_{0}^{0.3}$ | Negigiole Adverse | 55.4 <br> 55 | $\begin{array}{r}\text { 55.8 } \\ \hline 55 \\ \hline\end{array}$ | 55.7 |
| 7, 7 , ROSEHILL DRIVE | Dwelling | ${ }_{68.4}^{68.6}$ | ${ }_{68.9} 68.1$ | 68.9 | ${ }_{-0.5}^{-0.6}$ | Negiligible eeneneicicial | ${ }_{68.7}^{68.9}$ | ${ }_{0}^{0.3}$ | Negligigile Adverse | ${ }_{55.3}^{55 .}$ | ${ }_{55.7}^{55.9}$ | $\stackrel{55.7}{55.6}$ |
| 8, ROSEHILL DRIVE | Dwelling | 68.8 | 69.1 | 68.2 | 0.6 | Negligible Beneficical | 68.8 | 0.0 | No Change | 55.7 | 55.9 | 55.7 |
| 81, ROSEHILL DRIVE | Dwelling | 68.4 | 68.9 | 67.8 | -0.6 | Negligible Beneficial | 68.7 | 0.3 | Negigigibe Adverse | 55.3 | 55.7 | 55.6 |
| 83, ROSEHILL DRIVE | Dwelling | 68.4 | 68.9 68.8 | 67.9 67.8 | -0.5 -0.6 | $\frac{\text { Negligible Beneficial }}{\text { Negligile }}$ Beneficial | 68.8 68.7 | 0.4 | $\frac{\text { Negigigle Adverse }}{\text { Neligiole Adverse }}$ | $\stackrel{55.3}{55.3}$ | 55.7 55.7 | $\stackrel{55.7}{55.6}$ |
| 87, ROSEHILL DRIVE | Deelling | 68.0 | 68.4 | 67.5 | -0.5 | Negligible Beneficial | 68.4 | 0.4 | Negigioble Adverse | 54.9 | 55.3 | 55.3 |
| $\frac{89, \text { ROSEHILL DRIVE }}{1, \text { ROSEHILL PLACE }}$ | Dwelling | 67.9 49.4 | 68.3 50.7 | 67.5 49.3 | -0.4 -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ Beneficial | 68.3 50.5 | 0.4 1.1 | $\frac{\text { Negigigle Adverse }}{\text { Negligible Adverse }}$ | 54.8 38.2 | 55.2 39.4 | 55.2 39.2 |
| 10, ROSEHILL PLACE | welling | 49.1 | 50.1 | 49.0 | -0.1 | Negligible Beneficial | 49.9 | 0.8 | Negiligible Adverse | 37.9 | ${ }_{38.8}$ | 38.6 |
| 11, ROSEHILL PLACE | Dwelling | 48.5 49.0 | 49.8 50.1 | 48.4 48.9 | -0.1 .0 .1 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ | 49.5 49.9 | 1.0 0.9 | Negligile Adverse | 37.4 37.8 | 38.6 38.8 | 38.3 38.6 |
| 13, ROSEHILL PLACE | Dwelling | 46.8 | 48.4 | 46.7 | -0.1 | Negligible Beneficicial | 48.0 |  | Negligible Adverse | 35.9 | 37.3 | 36.9 |
| 14, ROSEHILL PLACE | Dwelling | 47.4 | 48.5 | 47.3 | -0.1 | Negligible Beneficical | 48.3 | 0.9 | Negiligibe Adverse | 36.4 | 37.4 | 37.2 |
| 15, ROSEHILL PLACE | Oweling | ${ }^{48.3}$ |  |  |  | Negligible Benenitical | 49.4 |  | Negiligile Adverse | 37.2 |  |  |
| 17, ROSEHILL PLACE | Dwelling | 48.4 | 49.7 | ${ }_{48.3}$ | -0.1 | Negligible Eeneneficial | 49.4 | 1.0 | Neoligigibe Adverse | ${ }_{37.3}^{38.5}$ | ${ }_{39}{ }^{39.5}$ | ${ }_{38.2}$ |
| 18, ROSEHIL PLACE | Dwelling | 50.2 | 51.2 | 50.1 | . 0.1 | Negligible Beneficial | 51.1 | 0.9 | Negilibile Adverse | 38.9 | 39.8 | 39.7 |
| 19, ROSEHILL PLACE | Dwelling | 48.5 | 49.7 | 48.4 | -0.1 | Negligible Beneficial | 49.5 | 1.0 | Negligible Adverse | 37.4 | 38.5 | 38.3 |
| 2, ROSEHILL PLACE | Oweling | $\frac{49.1}{513}$ | 50.1 | ${ }_{518}^{48.8}$ | -0.3 | Negligibe Benenticial | 49.9 | ${ }_{0}^{0.8}$ | Negiligile Adverse | 37.9 399 | 38.8 409 | ${ }^{38.6}$ |
| 21, ROSEHHLL PLACE | Dwelling | 48.4 | ${ }^{59.7}$ | 48.4 | 0.0 | Nogo Change | 49.5 | 1.1 | Negligible Adverse | ${ }_{37.3}$ | ${ }^{38.5}$ |  |
| 22, ROSEHILL PLACE | Dwelling | 52.3 | 53.4 | 52.3 | 0.0 | No Change | 53.2 | 0.9 | Negigigile Adverse | 40.8 | 41.8 | 41.6 |
| 23, ROSEHILL PLACE | Dwelling | 48.0 | 49.3 | 47.9 | .0.1 | Negligible Beneficial | 49.1 | 1.1 | Negigiole Adverse | 36.9 | 38.1 | 37.9 |
| 24, RoSEHILL PLACE | Deeling | 54.1 | 55.2 | 54.1 | 0.0 | No Change | 55.0 | 0.9 | Negigigile Adverse | ${ }^{42.4}$ | ${ }^{43.4}$ | 43.2 |
| ${ }^{25,}$ 26, ROSEHILL PLACE | Dwelling | 49.3 56.0 | 50.6 | 49.3 56.0 | 0.0 | No Change | 50.3 | 1.0 0.9 | $\frac{\text { Negligible Adverse }}{\text { Nefligible Adverse }}$ | 38.1 44.1 | 39.3 451 | 39.0 449 |
| 27, ROSEHILL PLACE | Dwelling | 49.9 | 51.2 | 49.8 | -0.1 | Negligible Beneficial | 51.0 | 1.1 | Negligible Adverse | 38.6 | 39.8 | 39.6 |
| 3, ROSEHILL PLACE | Dwelling | 48.8 | 50.0 | 48.6 | -0.2 | Negligible Beneficial | 49.8 | 1.0 | Negigigile Adverse | 37.7 | 38.7 | 38.6 |
| 4. ROSEHILL PLACE | Dwelling | 49.2 | 50.2 | 48.9 | -0.3 | Negligible Beneficicial | 49.9 | 0.7 | Negiligile Adverse | 38.0 37.0 | 38.9 | 38.6 |
| 5, ROSESHILL PLACE | Dwelling | ${ }_{48.3}$ | 49.3 | 48.2 | $-01$ | Negiligiole Benenicioal | 49.2 | 0.9 | Neoligigiole Adverse | ${ }_{37}{ }_{37.6}$ | ${ }^{38.6}$ | ${ }^{38.5}$ |
| 7 7, ROSEHILL PLACE | Dwelling | 48.6 | 49.9 | 48.4 | -0.2 | Negligible Benenicial | 49.6 | 1.0 | Negiligibe Adverse | 37.5 | 38.6 | 38.4 |
| 8, ROSEHILL PLACE | Oweling | 48.8 | 49.8 | 48.6 | -0.2 | Negligible Beneficial | 49.6 | 0.8 | Negigigibe Adverse | 37.7 372 | 38.6 | 38.4 |
| 9 9, ROSEHILLPLACE | Oweling | 48.5 | 49.6 | ${ }^{48.2}$ | -0.1 | Negiligile Beneniciar | 49.4 | . 1 | Negiqigile Adverse | 37.2 | 38.4 | 38.2 |
|  | Dwelling | 51.5 | $\begin{array}{r}52.2 \\ 52.2 \\ \hline\end{array}$ | 51.1 51.1 | -0.4 <br> -0.4 | Negiligiole Benenitical | 52.1 52.1 | 0.6 0.6 | Negigigil Adverse | 40.1 | 40.7 40.7 | ${ }_{40.6}^{40.6}$ |
| 3, ROSEHILL TERRACE | Dwelling | 50.9 | 51.7 | 50.6 | -0.3 | Negligible Beneficical | 51.5 | 0.6 | Negigiolie Adverse | 39.5 | 40.3 | 40.1 |
| 4, ROSEHILL TERRACE | Dwelling | 51.3 | 52.1 | 50.9 | -0.4 | Negligible Beneficial | 51.9 | 0.6 | Negiligile Adverse | 39.9 | 40.6 | 40.4 |
|  | ${ }^{\text {Dwelling }}$ Dowling | 50.3 48.9 | 51.2 49.8 | 50.0 48.6 | -0.3 -0.3 | Negiligile Benenitical | 51.0. | ${ }_{0}^{0.7}$ | Negigigle Adverse | 39.0 37.7 | 39.8 38.6 | ${ }^{39.6}$ |
| 7. ROSEHLLLL TERRACE | Owelling | 49.4 | 50.3 | 49.1 | -0.3 | Negligible Beneficical | 50.1 | 0.7 | Negligible Adverse | 38.2 | 39.0 39.1 | 38.8 |
| $\frac{8,}{9, \text { ROSEEEHILL }}$ ITRRACE | Dwelling | ${ }_{49.1}^{49.5}$ | $\stackrel{50.4}{50.0}$ | ${ }_{48.8}^{49.2}$ | $\stackrel{-0.3}{-0.3}$ | ${ }^{\text {Negegigigible }}$ Beneneficicial | ${ }^{50.2} 49.8$ | 0.7 | Negigible Avverse | ${ }_{38,9}^{38.9}$ | ${ }^{39.1}$ | ${ }^{38.9}$ |
| 1, ROWAN ROAD | Dwelling | 56.8 | 57.3 | 56.6 | -0.2 | Negligible Beneficial | 57.3 | 0.5 | Negigigile Adverse | 44.9 | 45.3 | 45.3 |

## Appendix A14．4：Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short－term Daytime Noise Change（dB） | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long－term Daytime Noise Change（dB） | Magnitude of Change | DM18 Lnight，outside | DM33 Lnight，outside | DS33 Lnight，outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 10，ROWAN ROAD | Deeling | 58.5 | 59.3 | 58.2 | ${ }^{0.3}$ | Negligible Beneficical | 59.2 | 0.7 | Negigigle Adverse | 46.4 | 47.1 | 47.0 |
| 11．ROWA ROAD | Dweling | $\begin{array}{r}53.8 \\ 572 \\ \hline\end{array}$ | 54.4 <br> 579 | 53.7 570 | －0．1 | Negligible Beneficial | 54．3 | ${ }_{0}^{0.5}$ | Negligible Adverse | $\frac{42.2}{452}$ | $\frac{42.7}{458}$ | $\frac{42.6}{458}$ |
| $1{ }^{12, ~ R O W A N ~ R O A D ~}$ | Dwelling | 57．2 | 57.9 53.8 | 57.0 53.2 | -0.2 0.0 | Negligible Beneficial | 㐌5．8．8 | 0.6 | $\frac{\text { Negligible Adverse }}{\text { Negligible Adverse }}$ | 45．1． | 45.8 42.2 | 45．8 |
| 14，ROWAN ROAD | Dwelling | 65.2 | 65.9 | 64.8 | －0．4 | Negligotile Beeneficial | 65．8 | 0.6 | Negligible Adverse | 52.4 | 53.0 | 53．0 |
| 15，ROWAN ROAD | Dwelling | 53.0 | 53.6 | 52.9 | －0．1 | Negligible Beneficial | 53.6 | 0.6 | Negligible Adverse | 41.4 | 42.0 | 42.0 |
| 16，RoWAN ROAD | Dwelling | 62.3 | 63.0 | 62.0 | －0．3 | Negligible Beneficial | 62.9 | 0.6 | Negligible Adverse | 49.8 | 50.4 | 50.3 |
| 17，ROWAN ROAD | Dwelling | 52.7 | 53.3 | 52.6 | －0．1 | Negligible Beneficical | 53.2 | 0.5 | Negiligibe Adverse | 41.2 | 41.7 | 41.6 |
| 18，ROWAN ROAD | Deelling | 60.7 | 61.3 | 60.3 | －0．4 | Negligible Beneficical | 61.3 | 0.6 | Negiligibe Adverse | 48.4 | 48.9 | 48.9 |
| 19，ROWAN ROAD | Deeling | 52.5 | 53.1 | 52.5 648 | 0.0 | No Change | $\begin{array}{r}53.1 \\ 6.8 \\ \hline\end{array}$ | 0.6 | Negiligibe Adverse | ${ }_{51.0}^{4.0}$ | ${ }^{41.5}$ | ${ }^{41.5}$ |
| 2，ROWAN ROAD | Dwelling | 65.2 59.1 | $\stackrel{65.9}{59.8}$ | 64.8 <br> 58.8 | -0.4 -0.3 | Negiligible Beneiticial | 65.7 59.7 | 0.6 | Negligibile Adverse | $\stackrel{52.4}{46.9}$ | ${ }^{537.6}$ | ${ }^{537.5}$ |
| 21，ROWAN ROAD | Dwelling | 52.4 | 53.0 | 52.4 | 0.0 | No Change | 53.0 | 0.6 | Negligible Adverse | 40.9 | 41.4 | 41.4 |
| 22．ROWA ROAD | Deelling | 58.5 | 59.3 | 58．2 | －0．3 | Negligible Beneficial | 59．2 | 0.7 | Negigioble Adverse | 46.4 | 47.1 | 47.0 |
| 23，ROWAN ROAD | Dwelling | 52．5 | 53．1 | 52．5 | 0.0 | No Change |  | 0.5 | Negigiobio Adverse | 41.0 | 41.5 | 41.4 |
| 24，ROWAN ROAD | welling | 57.2 | 57.9 | 57.0 5.5 | －0．2 | Negligible Benenitical | 57.8 |  | Negiligible Adverse | 45.2 |  | 45.8 |
| 25，ROWAN ROAD | Welling | 52.6 | 53.1 |  | －0．1 | Negligible Benefiticial |  | 0.5 | Negiligible Adverse | 41.1 | 41.5 | 4.5 |
| 26，ROWAN ROAD |  | 56.5 | 57.2 | 56.3 | －0．2 | Negiligiole Beneificial | 57.1 | 0.6 | Negligigile Adverse | 44.6 | 45.2 | 45.1 |
| 26，ROWAN ROAD | Owelling | 52．6 | －53．5 | 52.4 525 5.5 | －0．2 | Negligible Benenitical | 53.3 | 0.7 | Negiqigie Adverse | ${ }_{4}^{41.1}$ | 41.9 | 41.7 |
| 27．ROWA R ROAD | Dweling | 52．5 | 53.1 5.1 | 52.5 <br> 51.4 | 0.0 | No Change | 53．1 | 0.6 | Negiligile Adverse | 41.0 | 41.5 | 41.5 |
| 28，ROWANAN ROAD | Dwelling | － 52.4 | 52．0 53.2 | 51．4 | ${ }_{0}^{0.0}$ | No Change | － 53.1 | 0.6 | Negigigib Adverse | ${ }_{40.1}^{40.0}$ | 40.5 | 40.5 |
| 3，ROWAN ROAD | Dwelling | 56.1 | 56.6 | 56.0 | －0．1 | Negligible Beneficical | 56.6 | 0.5 | Negligible Adverse | 44.2 | 44.7 | 44.7 |
| 30，ROWAN ROAD | Dwelling | 51.6 | 52.1 | 51.6 | 0.0 | No Change | 52.1 | 0.5 | Negigiolie Adverse | 40.2 | 40.6 | 40.6 |
| 31，ROWAN ROAD | Deelling | 52.6 | 53.2 | 52.6 | 0.0 | No Change | 53.1 | 0.5 | Negiligibe Adverse | 41.1 | 41.6 | 41.5 |
| 32，ROWA ROAD | Dwelling | 51．4 | $\begin{array}{r}52.0 \\ 520 \\ \hline\end{array}$ | 51．5 | 0.1 | Negeligiole Adverse | 52．0 | 0.6 | Negigioble Adverse | $\frac{40.0}{40.8}$ | 40.5 | 40.5 |
| 34，ROWAN ROAD | Dwelling | 51.5 | 52.0 | 51.5 | 0.0 | No Change | 52.0 | 0.5 | Negligible Adverse | 40.1 | 40.5 | 40.5 |
| 35，ROWAN ROAD | Dwelling | 52.8 | 53.2 | 52.8 | 0.0 | No Change | 53.2 | 0.4 | Negiligile Adverse | 41.3 | 41.6 | 41.6 |
| 36，RoWAN ROAD | welling | 51.5 | 52.0 | 51.6 | 0.1 | Negigigile Adverse | 52.0 | 0.5 | Negigioble Adverse | 40.1 | 40.5 | 40.5 |
| 37，ROWAN ROAD | welling | 53.0 | 53.4 | 53.0 | 0.0 | No Change | 53.4 | 0.4 | Negigible Adverse | 41.4 | 41.8 | 41.8 |
| 38，ROWA R ROAD | Deelling | 51.7 | 52.2 | 51.8 | 0.1 | Negligible Beneficicial | 52.2 | 0.5 | Negiligibie Adverse | 40.3 | 40.7 | 40.7 |
| 39，ROWAN ROAD | Dwelling | ${ }_{63.2}^{53.3}$ | 53．6 63.0 | 53.2 62.0 | －0．3 | Neglioible Benefificial | 53．6． 62.9 | 0.4 | Negigigib Adverse |  | 42．0． 50.4 | $\stackrel{42.0}{50.3}$ |
| 40，ROWAN ROAD | welling | 51.8 | 52.3 | 51.9 | 0.1 | Negligible Adverse | 52.3 | 0.5 | Negiligile Adverse | 40.4 | 40.8 | 40.8 |
| 41，RoWAN ROAD | Dwelling | 53.2 | 53.7 | 53.3 | 0.1 | Negligible Beneficial | 53.7 | 0.5 | Negigigile Adverse | 41.6 | 42.1 | 42.1 |
| 42，ROWAN ROAD | Deelling | 52.0 | 52.4 | 52.1 | 0.1 | Negigigile Adverse | 52.4 | 0.4 | Negigigile Adverse | 40.5 | 40.9 | 40.9 |
| 43，ROWAN ROAD | Dweling | 年5．4． | 53．8 | 年5．4．4 | $\stackrel{0.0}{0.1}$ | No Change | 年5．8．8 | 0.4 | Negiligle Adverse | $\frac{41.8}{40.6}$ | $\frac{42.2}{411}$ | $\frac{42.2}{411}$ |
| 44. | Dwelling | ${ }_{53.4}^{52.4}$ | ${ }_{525}^{53.8}$ | ${ }_{5}^{52.5}$ | ${ }_{0} 0.1$ | Neoligiole Adverse | ${ }_{5}^{52.6}$ | 0.4 | $\frac{\text { Negigigie Adverse }}{\text { Neligible Adverse }}$ | 41.8 | ${ }_{42.2}^{44.1}$ | $\stackrel{42.1}{42.2}$ |
| 46，ROWAN ROAD | Deelling | 52.4 | 52.9 | 52.5 | 0.1 | Negigibile Adverse | 52.9 | 0.5 | Negiligile Adverse | 40.9 | 41.3 | 41.3 |
| 47，ROWAN ROAD | Dwelling | 53.4 | 53.8 | 53.5 | 0.1 | Negigiole Adverse | 53.8 | 0.4 | Negigigile Adverse | 41.8 | 42.2 | 42.2 |
|  | Dwelling | 52.3 52.9 | $\stackrel{52.7}{53.4}$ | $\stackrel{52.3}{53.0}$ | 0.0 | Neolioiohenge Adverse | 52.7 53.4 | 0.4 0.5 | Negigible Adverse | 40.8 41.3 | $\frac{41.2}{41.8}$ | $\stackrel{41.2}{41.8}$ |
| 5，ROWAN ROAD | Dwelling | 55.6 | 56.1 | 55.4 | －0．2 | Negligible Beneficial | 56.1 | 0.5 | Negiligile Adverse | 43.8 | 44.2 | 44.2 |
| 50，ROWAN ROAD | Dwelling | 51.9 50.6 | 52．4 | 52.0 50.6 | 0.1 0.0 | Negiligibl Adverse | 52．4 | 0.5 0.6 | Negligible Adverse | ${ }^{40.4}$ | 40．9 | ${ }^{40.9}$ |
| 52，ROWAN ROAD | Dwelling | 51.3 | 51.9 | 51.3 | 0.0 | No Change | 51.9 | 0.6 | Negigigile Adverse | 39.9 | 40.4 | 40.4 |
| 53，ROWAN ROAD | Dwelling | 50.5 | 51.2 | 50.5 | 0.0 | No Change | 51.1 | 0.6 | Negigible Adverse | 39.2 | 39.8 | 39.7 |
| 54．ROWAN ROAD | Deelling | 51.2 | 51．9 | 51.2 | 0.0 | No Change | 51.9 | 0.7 | Negiligibie Adverse | 39.8 | 40.4 | 40.4 |
| 55. Row ${ }^{\text {56，ROWAN ROAD }}$ |  |  |  |  |  | No Change |  |  | Negigigie Adverse | 38.6 397 |  |  |
| 57，ROWAN ROAD | ${ }^{\text {Duwelling }}$ | 52.1 | 55．4 | 52.0 | －0．1 | Negligible Eeneficicial | 55．11 | 1.0 | Neoligibile Adverse | 40．6 | 41.8 | 41.5 |
| 58，ROWAN ROAD | Deelling | 51.0 | 51.8 | 51.0 | 0.0 | No Change | 51.7 | 0.7 | Negigigile Adverse | 39.6 | 40.4 | 40.3 |
| 59，ROWAN ROAD | Deeling | 52.3 | 53.7 | 52.2 | －0．1 | Negligible Beneficial | 53.3 | 1.0 | Negigigile Adverse | 40.8 | 42.1 | 41.7 |
| 6，Rowav Road | Dwelling | 60.7 51.0 | $\frac{61.3}{51.8}$ | 60.3 51.0 | －0．4 | $\frac{\text { Negligible Beneficial }}{\text { No Change }}$ | 61.3 51.7 | 0.6 | Negigigie Avverse | 489．4 | 48.9 40.4 | $\stackrel{48.9}{40.3}$ |
| 61，ROWAN ROAD | Deelling | 52.5 | 53.9 | 52.4 | －0．1 | Negligible Beneficial | 53.6 | 1.1 | Negiligile Adverse | 41.0 | 42.2 | 42.0 |
| 62，RoWAN ROAD | Dwelling | 51.0 | 51.8 | 51.0 | 0.0 | No Change | 51.7 | 0.7 | Negigibile Adverse | 39.6 | 40.4 | 40.3 |
| 63． 64 ROWAN ROAN ROAD | Dwelling | 53.1 50.9 | 54.5 51.8 | ${ }_{530.9}^{50.9}$ | -0.1 0.0 | $\frac{\text { Negligible Beneitical }}{\text { No Change }}$ | 54.1 51.6 | ${ }^{1.0}$ | $\frac{\text { Negigible Adverse }}{\text { Neoligible Adverse }}$ | ${ }_{39}^{49.5}$ | 42.8 | ${ }^{42.4} 4$ |
| 65．ROWAN ROAD | Dwelling | 53.5 | 55.0 | 53.4 | －0．1 | Negligible Beneficial | 54.6 | 1.1 | Negigioble Adverse | 41.9 | 43.2 | 42.9 |
| 66，ROWAN ROAD | Dwelling | 50.9 53.9 | 51.8 <br> 55.4 | 50.8 <br> 53.8 | －0．1 | $\frac{\text { Negiligiole Beneficial }}{\text { Negiaible }}$ | 51.6 55.0 | 0.7 1.1 | Negiligib Adverse | 39.5 422 | 40.4 43.6 | 40.2 432 |
| 68，ROWAN ROAD | Dwelling | 54.0 | 55.7 | 53.8 | －0．2 | Negligible Beneficial | 55.2 | 1.2 | Negiligile Adverse | 42.3 | 43.9 | 43.4 |
| 69，ROWAN ROAD | Deelling | 54.5 | 56．0 | 54.3 | －0．2 | Negligible Beneficial | ${ }_{55.6}^{56}$ | 1.1 | Negigigile Adverse | 42.8 | 44.1 | 43.8 |
| $\frac{7, \text { ROWAN ROAD }}{70 \text { ROWAN ROAD }}$ | Dwelling | $\stackrel{55.2}{56.3}$ | 55．7 58.2 | 55．1 56.2 | －0．1 <br> 0.1 <br> 0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negligible Beneficial }}$ | ${ }_{557.6}^{57.6}$ | 0.5 1.3 | Negligibe Adverse | 43．4 44.4 | $\stackrel{43.9}{46.1}$ | 43.9 |
| 71，ROWAN ROAD | Dwelling | 54.9 | 56.5 | 54.8 | －0．1 | Negligible Benenicicial | 56.1 | 1.2 | Negiligible Adverse | 43.1 | 44.6 | 44.2 |
| 72，ROWAN ROAD | Dweling | 56．8 | 58．7 | 56.7 <br> 558 | ${ }^{-0.1}$ | Negiligiole Beneficial | 58．1 | 1.3 | Negiligile Adverse | 44.9 | 46.6 | 46.0 |
| 74．ROWAN ROAD | Dwelling | ${ }_{58.4}^{56.4}$ | 60.2 | 55.2 | －0．2 | Negegioibile Beneneficial | 59.6 | 1.2 | Neoligigie Adverse | 46.3 | 47.9 | 47.4 |
| 75，RoWAN ROAD | Dwelling | 55.6 | 57.3 | 55.5 | －0．1 | Negligible Beneficial | 56.8 | 1.2 | Negligible Adverse | 43.8 | 45.3 | 44.9 |
| 76，ROWAN ROAD | Deelling | 59.9 | 61.8 | 59.8 | －0．1 | Negligible Beneficial | 61.2 | 1.3 | Negigigile Adverse | 47.6 | 49.4 | 48.8 |
| 77， 78. ROWWAN ROAD | Dwelling | 57．6 | ${ }^{59.5}$ | 57．5 | －0．1 | Negegigigibe Beneneficicial | 58．9 | ${ }_{1.3}^{1.3}$ | Negigigible Adverse | ${ }_{48.6}$ | ${ }_{50.3}^{47.3}$ | ${ }_{49.8}^{46.7}$ |
| 79，ROWAN ROAD | Dweling | $\begin{array}{r}57.6 \\ 59 . \\ \hline 9.1\end{array}$ | 59.5 598 | 57.5 588 | －0．1 | Negligible Beneficial | 58.9 597 | ${ }^{1.3}$ | Negligile Adverse | 45.6 | 47.3 | 46.7 |
| ${ }^{\text {8，Row }}$ 80，ROWAN ROAD ROAD | ${ }^{\text {Dwelilig }}$ Doeling | 59.1 62.5 | ${ }_{594.4}^{69.4}$ | ${ }^{58.8}$ | $\stackrel{-0.3}{-0.2}$ | Negiligiole Beneiticial | ${ }^{59.7}$ | ${ }_{1.3} 1.6$ | Negligigile Adverse | ${ }^{46.0}$ | $\stackrel{41.7}{51.7}$ | $\stackrel{41.2}{ }$ |
| 81，ROWA R ROAD | Dewling | 57.6 | 59.5 | 57.5 | －0．1 | Negligible Beneficial | 58.9 | 1.3 | Negigioble Adverse | 45.6 | 47.3 | 46.7 |
| 82，ROWA NOAD | Dwelling | $\stackrel{64.9}{57.6}$ | ${ }_{59.5}^{66.8}$ | $\stackrel{64.7}{57.5}$ | -0.2 -0.1 | ${ }^{\text {Negegigigible }}$ Beneneficicial | $\stackrel{66.2}{58.9}$ | 1.3 1.3 | Negigigie Avverse | ${ }^{52.1} 45$ | $\stackrel{53.9}{47.3}$ | ${ }_{46.7}$ |
| 84，ROWAN ROAD | Dwelling | 70.5 | 72.4 | 70.4 | －0．1 | Negligible Beneficial | 71.9 | 1.4 | Negigigile Adverse | 57.2 | 58.9 | 58.4 |

## Appendix A14．4：Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short－term Daytime Noise Change（dB） | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long－term Daytime Noise Change（dB） | Magnitude of Change | DM18 Lnight，outside | DM33 Lnight，outside | DS33 Lnight，outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 85，ROWAN ROAD | Deeling | 60.7 | 62.6 | 60.5 | －0．2 | Negligible Beneficical | 62.0 | 1.3 | Negigigle Adverse | 48.4 | 50.1 | 49.5 |
| 87，ROWA ROAD | Dwelling | 60.7 607 | $\frac{62.6}{626}$ | 60．5 | －0．2 | Neoligible Beneficial | $\frac{62.0}{620}$ | ${ }_{1}^{1.3}$ | Negiligib Adverse | 48.4 48. | 50．1 | 49．5 |
| 9，ROWAN ROAD | Dwelling | ${ }_{54.3}$ | ${ }_{54.8}^{56.8}$ | ${ }^{60.5}$ | $-01$ | Negiligiole Beneneificial | 54.8 | 0.5 | Neogigigibe Adverse | 42.6 | ${ }_{43.1}$ | ${ }_{43.1}^{49.5}$ |
| 91，ROWAN ROAD | Dwelling | 60.7 | 62.6 | 60.5 | －0．2 | Negligible Beneficioil | 62．0 | ${ }_{1}^{1.3}$ | Neogigiole Adverse | ${ }^{48.4}$ | 50．1 | 49.5 |
| 93，ROWAN ROAD | Dwelling | 70.8 | 72.8 | 70.7 | －0．1 | Negligible Beneficial | 72.2 | 1.4 | Negligible Adverse | 57.5 | 59.3 | 58.7 |
| 95，RoWAN ROAD | Dwelling | 70.8 | 72.8 | 70.7 | －0．1 | Negligible Beneficial | 72.2 | 1.4 | Negligible Adverse | 57.5 | 59.3 | 58.7 |
| 97，ROWAN ROAD | Dwelling | 70.8 | 72.8 | 70.7 | －0．1 | Negligible Beneficical | 72.2 | 1.4 | Negiligibe Adverse | 57.5 | 59.3 | 58.7 |
| 99，ROWAN ROAD | Deelling | 70.8 | 72.8 | 70.7 | －0．1 | Negligible Beneficial | 72.2 | 1.4 | Negiligibe Adverse | 57.5 | 59.3 | 58.7 |
| FLLAT，A，11，SANDILLANDS DRIVE | Dwelling | 51.9 51.9 | 52．5 52.5 | 52.1 52.1 | 0.2 0.2 | $\frac{\text { Negiligile Adverse }}{\text { Negigible Adverse }}$ | 52.5 52.5 | 0.6 0.6 | $\frac{\text { Negligible Adverse }}{\text { Negigiole Adverse }}$ | 40.4 40.4 | 41.0 41.0 | 41.0 41.0 |
| FLAT C，11，SANDILANDS DRIVE | Dwelling | 51.9 | 52.5 | 52.1 | 0.2 | Negiligile Adverse | 52.5 | 0.6 | Negligible Adverse | 40.4 | 41.0 | 41.0 |
| FLAT D，11，SANDILANDS DRIVE | Dwelling | 51.9 | 52.5 | 52．1 | 0.2 | Negigigibe Adverse | 52.5 | 0.6 | Negigiolie Adverse | 40.4 | 41.0 | 41.0 |
| FLATE， 11. SANDILANDS DRIVE | Deelling | 51.9 | 52.5 | 52．1 | 0.2 | Negligible Adverse | 52．5 | 0.6 | Negligible Adverse | 40.4 | 41.0 | 41.0 |
| FLeat F，I1，SANDILANDS DRIVE | Dwelling | 51．9 | ¢52．5 | － 52.1 | 0.2 | Negigiobe Adverse | 52．5 | 0.6 | Negigiobie Adverse | 40．4 | ${ }_{41.1}^{41.0}$ | $\stackrel{41.0}{41.1}$ |
| FLAT，B，13，SANDILANDS DRIVE | welling | 52.2 | 52.6 | 52.4 | 0.2 | Negigioble Adverse | 52.6 | 0.4 | Negiligible Adverse | 40.7 | 41.1 | 41.1 |
| FLAT C，13，SANDILANDS DRIVE | Dwelling | 52.2 | 52.6 | 52.4 | 0.2 | Negigigile Adverse | 52.6 | 0.4 | Negiligibe Adverse | 40.7 | 1.1 |  |
| FLAT D，13，SANDILANDS DRIVE | Dwelling | － 52.2 | 52．6 | 52．4 | 0.2 | Negiligibe Adverse | ${ }_{52,6}$ |  | Negiqigie Adverse | 40.7 | 41.1 | 41.1 |
| FLATE，13，SANDILANDS DRIVE | Dweling | 52．2 | ${ }_{5}^{52.6}$ | 52．4 | 0.2 | Negiligibe Adverse | 52．6 | 0.4 | Negiligile Adverse | 40.7 | 41.1 | $\frac{41.1}{4.1}$ |
| FLLAT A，15，SANDILANSSS DRIVE | Dwelling | －${ }_{52.2}^{52.3}$ | －${ }_{52.6}^{52.7}$ | － 52.4 | 0．2 | Negigigibe Adverse | ¢52．6 | ${ }_{0}^{0.4}$ | Negigigible Adverse | ${ }_{40.8}^{40.7}$ | ${ }_{41.1}^{41.1}$ | $\frac{41.1}{41.2}$ |
| FLAT B，15，SANDILANDS DRIVE | Dwelling | 52.3 | 52.7 | 52.5 | 0.2 | Negiligile Adverse | 52.7 | 0.4 | Negligiole Adverse | 40.8 | 41.2 | 41.2 |
| FLAT C，15，SANDILANDS DRIVE | Dwelling | 52.3 | 52.7 | 52.5 | 0.2 | Negigigible Adverse | 52.7 | 0.4 | Negiligible Adverse | 40.8 | 41.2 | 41.2 |
| FLAI D，15，SANDILANDS DRIVE | Oweling | 52．3 | 52.7 | 52.5 52.5 | 0.2 0.2 | Negigigle Adverse | 52.7 52.7 | 0.4 | Negigigbe Adverse | 40．8 | $\frac{41.2}{41.2}$ | $\frac{41.2}{41.2}$ |
| FLAT F，15，SANDILANDS DRIVE | Dwelling | ${ }^{52.3}$ | 52．7 <br> 52.7 | 52．5 | 0.2 | Neogigigile Adversse | 52.7 52.7 | 0.4 | Negigioble Adverse | 40.8 | 41.2 | 41.2 |
| FLAT A，16，SANDILANDS DRIVE | Dwelling | 49.8 | 50.2 | 50.0 | 0.2 | Negiligile Adverse | 50.2 | 0.4 | Negiligile Adverse | 38.6 | 38.9 | 38.9 |
| FLATB，16，SANDILANDS DRIVE | Dwelling | 49.8 49.8 | 50.2 50.2 | 50.0 50.0 | 0.2 0.2 | $\frac{\text { Negiligib Adverse }}{\text { Negigible Adverse }}$ | 50.2 50.2 | 0.4 0.4 | $\frac{\text { Negiligibl Adverse }}{\text { Negigible Adverse }}$ | 38.6 38.6 | 38.9 38.9 | 38.9 38.9 |
| FLAT D，16，SANDILANDS DRIVE | Dwelling | 49.8 | 50.2 | 50.0 | 0.2 | Negiligile Adverse | 50.2 | 0.4 | Negiligile Adverse | 38.6 | 38.9 | 38.9 |
| FLATE，16，SANDILANDS DRIVE | Dwelling | 49.8 | 50．2 | 50．0 | 0.2 | Negligible Adverse | 50．2 | 0.4 | Negligible Adverse | 38.6 3.6 | 38.9 | 38.9 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| FLAT B，17，SANDILANDS DRIVE | Dwelling | 52.6 | 53.0 | 52.9 | 0.3 | Neogigigile Adverse | 53.0 | 0.4 | Neogigioble Adverse | 41.1 | 41.4 | 41.4 |
| FLAT C，17，SANDILANDS DRIVE | Dwelling | 52.6 | 53.0 | 52.9 | 0.3 | Negigigile Adverse | 53.0 | 0.4 | Negiligile Adverse | 41.1 | 41.4 | 41.4 |
| FLat D，17，SANDILANDS DRIVE | Deelling | 52.6 | 53.0 | 52.9 | 0.3 | Negigigibe Adverse | 53.0 | 0.4 | Negigigile Adverse | 41.1 | 41.4 | 41.4 |
| FLATA，188，SANDILANDS DRIVE | Dwelling | 50．0 | 50.4 <br> 50.4 | 50．2 | 0.2 | Negigigbe Adverse | 50.4 50.4 | 0.4 | $\frac{\text { Negigigibe Adverse }}{\text { Neofigiole Adverse }}$ | 38.7 38.7 | 39.1 39.1 | 39．1 |
| FLAT C，18，SANDILANDS DRIVE | Owelling | 50.0 | 50.4 | 50.2 | 0.2 | Neogigigile Adverse | 50.4 | 0.4 | Neogigiole Adverse | 38.7 | ${ }_{39.1}$ | ${ }^{39.1}$ |
| FLAT D，18，SANDILANDS DRIVE | Dwelling | 50.0 | 50.4 | 50.2 | 0.2 | Negigigile Adverse | 50.4 | 0.4 | Negiligile Adverse | 38.7 | 39.1 | 39.1 |
| FLLATE， 18, SANDDLLANDS DRIVE | Dwelling | 50.0 50.0 | 50．4 | 50．2 | 0.2 | Negigigle Adverse | 50.4 50.4 | 0.4 0.4 | Negigigle Adverse | ${ }_{38,7}^{38.7}$ | ${ }^{39.1}$ | ${ }^{39.1}$ |
| FLAT A，19，SANDILANDS DRIVE | Dwelling | 54.1 | 54.4 | 54.3 | 0.2 | Negigioble Adverse | 54.5 | 0.4 | Negligiole Adverse | 42.4 | 42.7 | 42.8 |
| FLLATB， 9 ，SANDILANDS SRIVE | Dwelling | 54．1 54.1 | 54．4 54.4 | 㐌4．3 | 0．2 | Negigible Adverse | 年4．5 | 0.4 0.4 | Negigiobe Adverse | 42.4 42.4 | ${ }_{42.7}^{42.7}$ | 42.8 42.8 |
| FLAT D，19，SANDILANDS DRIVE | Dwelling | 54.1 | 54.4 | 54.3 | 0.2 | Negligible Adverse | 54.5 | 0.4 | Negiligible Adverse | 42.4 | 42.7 | 42.8 |
| FLATA，20，SANDILANDS DRIVE | Dwelling | 50.0 50.8 | 50.4 51.2 | 50.2 51.0 | 0.2 0.2 | Negligible Adverse Negioigle Adverse | 50.4 51.2 | 0.4 0.4 | Negiligib Adverse Nefigiole Adverse | 38.7 39.5 | 39.1 398 | 39.1 398 |
| FLAT C，20，SANDILANDS DRIVE | Dwelling | 50.8 | 51.2 | 51.0 | 0.2 | Negiligile Adverse | 51.2 | 0.4 | Negligible Adverse | 39.5 | 39.8 | 39.8 |
| FLAT D，20，SANDILANDS DRIVE | Dwelling | 50.8 | 51.2 | 51.0 | 0.2 | Negigioble Adverse | 51.2 | 0.4 | Negigioible Adverse | 39.5 | 39.8 | 39.8 |
| FLATA，21，SANDLLANDS DRIVE | Dwelling | 53.1 53.1 | 53.4 53.4 | ${ }_{53.3}^{53}$ | ${ }_{0}^{0.2}$ | Negligible Adverse | 53.5 53.5 | 0.4 0.4 | Negligibl Adverse | 41.5 41.5 | 41.8 41.8 | 41.9 41.9 |
| FLAT C，21，SANDILANDS DRIVE | Dwelling | 53.1 | 53.4 | 53.3 | 0.2 | Negigigile Adverse | 53.5 | 0.4 | Negligible Adverse | 41.5 | 1.8 | 1.9 |
| FLAT D，21，SANDILANDS DRIVE | Dwelling | 53．1 | 53.4 | 53.3 | 0.2 | Negigiole Adverse | 53.5 | 0.4 | Negiligile Adverse | 41.5 | 41.8 | 41.9 |
| FLAT E，21，SANDILANDS DRIVE | Dwelling | 53．1 | 53.4 | 53．3 | 0.2 | Negigioble Adverse | 53.5 | 0.4 | Negigioble Adverse | 41.5 | 41.8 | 41.9 |
|  | Dweliling | 53.1 53.2 | 53．4 | 53．4 | ${ }_{0}^{0.2}$ | Neogigigie Adversse | ${ }_{\text {53．5 }}^{53.5}$ | 0．3 | Neogigioble Adverse | 41.6 | 41.9 | 41.9 |
| FLAT C，22，SANDILANDS SRIVE | Deelling | 53.2 | 53.5 | 53.4 | 0.2 | Negigigile Adverse | 53.5 | 0.3 | Negiligile Adverse | 41.6 | 41.9 | 41.9 |
| FLAT D，22，SANDILANDS DRIVE | Dwelling | 53.2 | 53.5 | 53.4 | 0.2 | Negigigile Adverse | 53.5 | 0.3 | Negiligile Adverse | 41.6 | 41.9 | 41.9 |
| （FLATE，22，SANDILANDS DRIVE | Dwelling | －${ }_{53.2}^{53.2}$ | 53.5 53.5 | 㐌3．4．4 | 0.2 0.2 | $\frac{\text { Negligible Adverse }}{\text { Negligiole Adverse }}$ | 53.5 53.5 | ${ }_{0}^{0.3}$ | $\frac{\text { Negligible Adverse }}{\text { Negligibe Adverse }}$ | 41.6 41.6 | 41.9 41.9 | 41.9 |
| FLaT A，23，SANDILANDS DRIVE | Dwelling | 46.2 | 46.6 | 46.3 | 0.1 | Negligible Beneficial | 46.8 | 0.6 | Negiligile Adverse | 35.3 | 35.7 | 35.9 |
| LATT B，23，SANDILANDS DRIVE | Delling | 46.2 | 46.6 | 46.3 | 0.1 | Negligible Beneficical | 46.8 | 0.6 | Negligible Adverse | ${ }_{35.3}^{35}$ | ${ }^{35.7}$ | 35.9 |
| FLLAT C，23，SANDILANDS DRIVE | Dwelling | $\xrightarrow{46.2} 4$ | 46.6 46.6 | 46．3 46 | ${ }_{0}^{0.1}$ | Negiligile Beneficial | 46.8 46.8 | 0.6 | $\frac{\text { Negigigle Adverse }}{\text { Neoligible Adverse }}$ | 35．3 35.3 | ${ }^{355.7}$ | 35.9 35.9 |
| FLAT E，23，SANDILANDS DRIVE | Dwelling | 46.2 | 46.6 | 46.3 | 0.1 | Negligible Beneficial | 46.8 | 0.6 | Negligible Adverse | 35.3 | 35.7 | 35.9 |
| FLAT F，23，SANDILANDS DRIVE | Dwelling | 46．2 | $\frac{46.6}{53}$ | 46．3 | 0.1 | Negligible Beneficial | $\frac{46.8}{536}$ | 0.6 | Negiligile Adverse | $\frac{35.3}{417}$ | 35.7 4.0 | 35.9 |
|  | Dwelling | ${ }_{\text {53．3 }}$ | ${ }^{53.6}$ | 53．5 | 0.2 | $\frac{\text { Negigigibe Adverse }}{\text { Negioible Adverse }}$ | ${ }^{53.6}$ | ${ }_{0}^{0.3}$ | Negigigib Adverse | ${ }_{41.7}^{41.7}$ | $\stackrel{42.0}{42.0}$ | 42.0 |
| FLAT C，24，SANDILANDS DRIVE | Dwelling | 53.3 | 53.6 | 53.5 | 0.2 | Negigioble Adverse | 53.6 | 0.3 | Negiligible Adverse | 41.7 | 42.0 | 42.0 |
| FLAT D，24，SANDILANDS DRIVE | Oweling | 53.3 | 53.6 | 53.5 | 0.2 | Negigigibe Adverse | 53.6 | 0.3 | Negigigibe Adverse | 41.7 | 42.0 | 42.0 |
| FLAT F，24，SANDIIANDS DRIVE | Dwelling | 53．3 | 53．6 | ${ }_{53} 53.5$ | 0.2 | Neoligioble Adverse | ${ }_{53.6}^{53.6}$ | 0.3 | Neoligiobe Avverse | 41.7 | 42.0 | 42.0 |
| FLAT A，25，SANDILANDS SRIVE | Delling | 52.5 | 52.7 | 52.5 | 0.0 | No Change | 52.7 | 0.2 | Negiligile Adverse | 41.0 | 41.2 | 41.2 |
| FLAT B，25，SANDILANDS DRIVE | Deelling | 52.5 | 52.7 | 52.5 | 0.0 | No Change | 52.7 | 0.2 | Negiligibe Adverse | 41.0 | 41.2 | 41.2 |
| FLLAT C，25，SAADDLLANDS DRIVE | Dwelling | 52.5 52.5 | 52.7 52.7 | 52.5 52.5 | 0.0 | ${ }^{\text {No Co Change }}$ No Change | 52.7 52.7 | 0．2 | $\frac{\text { Negigible Adverse }}{\text { Negligible Adverse }}$ | 41.0 41.0 | $\frac{41.2}{41.2}$ | $\frac{41.2}{41.2}$ |
| FLAT E，25，SANDILANDS DRIVE | Dwelling | 52.5 | 52.7 | 52.5 | 0.0 | No Change | 52.7 | 0.2 | Negligible Adverse | 41.0 | 41.2 | 41.2 |
| FLATF，25，SANDILANDS DRIVE | Dwelling | 52．5 | 52．7 | 52．5 | $\frac{0.0}{0.1}$ | No No Change | 52.7 525 | 0.2 | $\frac{\text { Negiligile Adverse }}{\text { Neofigiole Adverse }}$ | 41.0 40.6 | $\frac{41.2}{410}$ | $\frac{41.2}{410}$ |
| LAT B， 26, SANDILANDS DRIVE | Dwelling | 52.1 | 52.5 | 52.2 | 0.1 | Negiligile Adverse | 52.5 | 0.4 | Negligible Adverse | 40.6 | 41.0 | 41.0 |
| FLAT C，26，SANDILANDS DRIVE | welling | 52.1 | 52.5 | 52.2 | 0.1 | Negigigile Adverse | 52.5 | 0.4 | Negligible Adverse | 40.6 | 41.0 | 41.0 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) Change ( dB ) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 <br> Lnight,outside | DS33 Lnight,outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| FLAT D, 26, SANDILANDS DRIVE | Dwelling | 52.1 | 52.5 | 52.2 | 0.1 | Negigigile Adverse | 52.5 | 0.4 | Negigigile Adverse | 40.6 | 41.0 | 41.0 |
| FLATE, 26, SANDILANDS DRIVE | Deelling | 52.1 | 52.5 | 52.2 | 0.1 | Negiagiole Adverse | 52.5 | 0.4 | Negiligile Adverse | 40.6 | 41.0 | 41.0 |
|  | Dweling | 52.1 <br> 55.3 | 52.5 55.7 | - 55.6 | ${ }_{0.3}^{0.1}$ | $\frac{\text { Negigigie Adverse }}{\text { Nequigible Adverse }}$ | 52.5 <br> 55.7 | 0.4 0.4 | $\frac{\text { Negigigie Adverse }}{\text { Negligible Adverse }}$ | 40.6 | $\stackrel{41.0}{43.9}$ | 41.0 43.9 |
| FLAT B, 27, SANDILANDS DRIVE | Dwelling | 55.3 | 55.7 | 55.6 | 0.3 | Negligible Adverse | 55.7 <br> 5.7 | 0.4 | Negiligible Adverse | 43.5 | 43.9 | 43.9 |
| FLATC, 27, SANDILAN | Deeling | 55.3 | 55.7 | 55.6 | 0.3 | Neoligible Adverse | 55.7 | 0.4 | Negligible Adverse | 43.5 | 43.9 |  |
| FLAT D, 27, SANDILANDS DRIVE | Dwelling | 55.3 | 55.7 | 55.6 | 0.3 | Neoligible Adverse | 55.7 | 0.4 | Neoligible Adverse | 43.5 | 43.9 | 43.9 |
| FLAT E, 27, SANDILANDS DRIVE | Dwelling | 55.3 | 55.7 | 55.6 | 0.3 | Negligible Adverse | 55.7 | 0.4 | Negigioble Adverse | 43.5 | 43.9 | 43.9 |
| FLAT F, 27, SANDILANDS DRIVE | Dwelling | 55.3 |  | 55.6 | 0.3 | Negligible Adverse | 55.7 | 0.4 | Negiligile Adverse | 43.5 | 43.9 | 43.9 |
| FLATA, 28. SANDILANDS DRIVE | Dweling | 49.3 | 49.7 | 49.5 | 0.2 | Negiligiole Adverse | 49.8 | 0.5 | Negigigie Adverse | 38.1 | 38.5 | ${ }^{38.6}$ |
| FLAT B, 28, SANDILANDS DRIVE | Dweling | 49.3 | 49.7 | 49.5 | 0.2 | Negiligile Adverse | 49.8 | 0.5 | Negigigie Adverse | 38.1 | 38.5 | 38.6 3.6 |
| FLATC, 28, SANDILANDS DRIVE | Dwelling | 49.3 | 49.7 | 49.5 | 0.2 | Negligiole Adverse | 49.8 | 0.5 | Negiligibe Adverse | ${ }^{38.1}$ | 38.5 | ${ }^{38.6}$ |
| FLAT D, 28, SANDILANDS DRIVE | Dwelling | 49.3 | 49.7 | 49.5 | 0.2 | Negligible Adverse | 49.8 | 0.5 | Negiligibe Adverse | 38.1 | 38.5 | 38.6 |
| FLATA, 29, SANDILANDS DRIVE | Dwelling | 55.2 <br> 5.2 | $\begin{array}{r}55.5 \\ 555 \\ \hline 5\end{array}$ | $\begin{array}{r}55.4 \\ 5.4 \\ \hline\end{array}$ | 0.2 | Negigigie Adverse | 55.6 <br> 556 <br> 5. | 0.4 | Negiligibe Adverse | 43.4 | 43.7 | 43.8 |
| FLATC, 29, SANDILANSS DRIVE | ${ }^{\text {Dwelling }}$ | ${ }_{55.2}$ | ${ }_{55.5}^{55.5}$ | 55.4 | 0.2 | Neoligioble Adverse | ${ }_{55.6}^{55.6}$ | 0.4 | Negligiobe Adverse | ${ }_{43.4}^{43.4}$ | ${ }_{43.7}^{43.7}$ | ${ }_{43.8}^{43.8}$ |
| FLAT D, 29, SANDILANDS DRIVE | Dwelling | 55.2 | 55.5 | 55.4 | 0.2 | Negiligile Adverse | 55.6 | 0.4 | Negiligile Adverse | 43.4 | 43.7 | 43.8 |
| FLLAT A, 30, SANDILANDS DRIVE | Dweling | 48.3 | 48.8 | 48.4 | 0.1 | Negligible Adverse | 48.8 | 0.5 | Negligiole Adverse | ${ }^{37.2}$ | 37.7 | 37.7 377 |
| FLATC. 30. SANDILANDS DRIVE | Dwelling | 48.3 | 48.8 | 48.4 | 0.1 | Neoligioble Adverse | 48.8 | 0.5 | Neoligioble Adverse | ${ }_{37.2}$ | ${ }_{37,7}$ | ${ }_{37,7}$ |
| FLAT D, 30, SANDILANDS DRIVE | Dwelling | 48.3 | 48.8 | 48.4 | 0.1 | Negligible Adverse | 48.8 | 0.5 | Negigigile Adverse | 37.2 | 37.7 | 37.7 |
| FLAT E, 30, SANDILANDS DRIVE | Dwelling | 48.3 | 48.8 | 48.4 | 0.1 | Neoligible Adverse | 48.8 | 0.5 | Negigiole Adverse | 37.2 | 37.7 | 37.7 |
| FLAT F, 30, SANDILANDS DRIVE | Dwelling | 48.3 | 48.8 | 48.4 | 0.1 | Negligible Adverse | 48.8 | 0.5 | Negigigile Adverse | 37.2 | 7.7 | 37.7 |
| FLAT A, 31, SANDILANDS DRIVE | Deeling | 51.5 |  | 51.8 |  | Neoligible Adverse | 52.0 | 0.5 | gligible Adverse | 40.1 | 40.5 | 40.5 |
| FLAT B, 31, SANDILANDS DRIVE | Dwelling | 51.5 | 52.0 | 51.8 | 0.3 | Neoligible Adverse | 52.0 |  | Neoligible Adverse | 40.1 | 40.5 | 40.5 |
| FLATC, 31, SANDILANDS DRIVE | Dwelling | 51.5 | 52.0 | 51.8 | 0.3 | Negligible Adverse | 52.0 | 0.5 | Negligible Adverse | 40.1 | 40.5 | 40.5 |
| FLAT D, 31, SANDILANDS DRIVE | Dweling | 51.5 | 52.0 | 51.8 | ${ }^{0.3}$ | Negigigile Adverse | 52.0 | 0.5 | Negiligile Adverse | 40.1 | 40.5 | 40.5 |
| FLATE, 31, SANDILANDS DRIVE | Dweling | 51.5 | 52.0 | 51.8 | 0.3 | Negiligiole Adverse | 52.0 | 0.5 | Negiligiole Adverse | 40.1 | 40.5 | 40.5 |
| FLAT F, 31, SANDILANDS DRIVE | Dweling | 51.5 | 52.0 | 51.8 | ${ }_{0}^{0.3}$ | Negigigie Adverse | 52.0 | 0.5 | Negigigie Adverse | ${ }^{40.1}$ | ${ }^{40.5}$ | 40.5 |
| FLATA, 32, SANDILANDS DRIVE | Dweling | 47.8 | 48.4 | 48.0 | 0.2 | Negiqigile Adverse | 48.4 | 0.6 | Negiqigio Adverse | ${ }^{36.8}$ | ${ }_{37,3}^{373}$ | ${ }^{37.3}$ |
| FLAT B, 32, SANDILANDS DRIVE | Dwelling | ${ }^{477.8}$ | 48.4 484 | 48.0 | 0.2 | Negigigle Adverse | 48.4 48.4 | 0.6 | $\frac{\text { Negligible Adverse }}{\text { Nealioible Adverse }}$ | 36.8 36.8 | ${ }^{37,3}$ | ${ }^{37,3}$ |
| FLAT D, 32, SANDILANDS DRIVE | Dwelling | 47.8 | 48.4 | 48.0 | 0.2 | Negligible Adverse | 48.4 | 0.6 | Negligible Adverse | 36.8 | 37.3 | 37.3 |
| FLAT E, 32, SANDILANDS DRIVE | Dwelling | 47.8 | 48.4 | 48.0 | 0.2 | Negigibile Adverse | 48.4 | 0.6 | Neoligiole Adverse | 36.8 | 37.3 | 37.3 |
| FLAT F, 32, SANDILANDS DRIVE | Dweling | 47.8 65.6 | 48.4 | 48.0 | 0.2 | Negigigile Adverse | 48.4 | 0.6 | Negiqigio Adverse | ${ }^{36.8}$ | ${ }^{37.3}$ | 37.3 |
| $\frac{\text { Scheoduled Monument Aberdeenshire Cana remans of) }}{1, \text { SMITHFLLL }}$ | National Cycle Roule | ${ }_{58.5}^{65.6}$ | ${ }_{56.7}^{66.5}$ | ${ }_{56.4}^{68.4}$ | -0.1 | Negligibile Aeseresicial | ${ }_{59.6}$ | 1.1 | Negligibile Adverse | ${ }^{56.4}$ | ${ }^{537.5}$ | ${ }_{47.4}$ |
| 10, SMITHFIELD DRIVE | Dwelling | 58.8 | 59.9 | 58.8 | 0.0 | No Change | 59.9 | 1.1 | Negligible Adverse | 46.7 | 47.6 | 47.6 |
| 101, SMITHFIELL DRIV | Dwelling | 55.9 | 56.5 | 55.7 | -0.2 | Negligible Beneficial | 56.4 | 0.5 | Negigigile Adverse | 44.0 | 44.6 | 44.5 |
| 103, SMITHFIELD DRIVE | Dwelling | 55.4 | 56.0 | 55.2 | 0.2 | Negligible Beneficial | 55.8 | 0.4 | Negigigibe Adverse | 43.6 | 44.1 | 44.0 |
| 105, SMITHFIELD DRIVE | Dwelling | 55.9 | 56.5 | 55.8 | 0.1 | Negligible Beneficicial | 56.2 | 0.3 | Negigigible Adverse | 44.0 | 44.6 | 44.3 |
| 107, SMTHFIEL D DRIVE | Dwelling | 57.0 57.3 | 57.5 57.8 | 56.6 56.9 | -0.4 -0.4 | $\frac{\text { Negligible Benenicial }}{\text { Negliobl }}$ | 57.1 57.2 | 0.1 0.1 | Negligible Adverse | 45.0 45.3 | 45.5 45.8 | 45.1. |
| 11, SMITHFIELD DRIVE | Dwelling | 56.2 | 57.3 | 56.0 | -0.2 | Negligible Benenicial | 57.2 | 1.0 | Negligible Adverse | 44.3 | 45.3 | 45.2 |
| 12, SMITHFIELLL DRIVE | Dwelling | 58.8 | 59.9 | 58.8 | 0.0 | No Change | 59.9 | 1.1 | Negligible Adverse | 46.7 | 47.6 |  |
| 13, SMITHFELELD DRIVE | $\frac{\text { Dwelilig }}{\text { Dweling }}$ | 55.7 58.8 | 56.8 59.9 | 55.5 58.8 | -0.2 | $\frac{\text { Negligible Beneiticial }}{\text { No Change }}$ | 56.9 59.9 | 1.0 1.1 | Negligibile Adverse | ${ }_{46.7}^{46.9}$ | 44.6 | 44.8 47.6 |
| 15, SMITHFIELLD DRIVE | Deeling | 55.2 | 56.2 | 55.0 | -0.2 | Negligible Beneficial | 56.2 | 1.0 | Negligible Adverse | 43.4 | 44.3 | 44.3 |
| 16, SMITHFIELD DRIVE | Dwelling | 58.8 | 59.9 | 58.8 | 0.0 | No Change | 59.9 | 1.1 | Negligible Adverse | 46.7 | 47.6 | 47.6 |
| $\frac{18, \text { SMITHFIELL DRIVE }}{18, \text { SMITFFELD DRIVE }}$ | Dwelling | 57.6 57.6 | 58.8 58.8 | 57.6 57.6 | 0.0 | $\frac{\text { No Change }}{\text { No Change }}$ | 58.7 58.7 | ${ }_{1}^{1.1}$ | $\frac{\text { Negigioble Adverse }}{\text { Negligibe Adverse }}$ | ${ }_{45.6}^{45.6}$ | $\frac{46.7}{46.7}$ | $\stackrel{46.6}{46.6}$ |
| 2, SMITHFFIELD DRIVE | Dwelling | 61.3 | 62.4 | 61.3 | 0.0 | No Change | 62.4 | 1.1 | Negligible Adverse | 48.9 | 49.9 | 49.9 |
| 20, SMITHFIELD DRIVE | Dwelling | 56.4 | 57.4 | 56.3 | -0.1 | Negligible Beneficial | 57.4 | 1.0 | Negigigile Adverse | 44.5 | 45.4 | 45.4 |
| 20, SMITHFIELLD DRIVE | Dwelling | 56.4 | 57.4 | 56.3 | -0.1 | Negligible Beneficical | 57.4 | 1.0 | Negigigibe Adverse | 44.5 | 45.4 | 45.4 |
| $\frac{\text { 22, SMITHFELEL DRIVE }}{24, \text { SMITHFILLD DRIVE }}$ | Dwelling | 54.6 548 | 55.7 | 54.3 | -0.3 | Negligible Beneficial | 55.5 | 0.9 10 | Negligibl Adverse | 42.9 | 43.9 | 43.7 |
| 26, SMITHFIELD DRIVE | Dwelling | 54.9 | 56.0 | 54.6 | -0.3 | Negligible Beneficicial | 55.8 | 0.9 | Neoligiole Adverse | 43.1 | 44.1 | 44.0 |
| 28, SMITHFIELD DRIVE | Dwelling | 54.8 | 55.9 | 54.6 | 0.2 | Negligible Beneficical | 55.8 | 1.0 | Negligiole Adverse | 43.1 | 44.0 | 44.0 |
| 3, SMITHFIELD DRIVE | Dweling | 57.3 | $\begin{array}{r}58.6 \\ 545 \\ \hline\end{array}$ |  | -0.1 | Negligible Benenitial | 58.4 |  | Negligigle Adverse | 45.3 | 46.5 | 46.3 |
| 30, SMITHFELEL DRIVE | Dweling | 53.4 | ${ }_{54.5}^{54.6}$ | ${ }^{53,3}$ | -0. 1 | Negligibe Benenicial | 54.4 <br> 545 | 1.0 | Negligiole Adverse | 41.8 | 42.8 |  |
| 32, SMITHFIELD DRIVE | Dwelling | 56.7 | 54.8 | 56.5 | 0 | Negligible Beneneicicial | 54.5 | 1.0 | Neoligiove Adverse | 448 | 4.9 | 4.8 |
| 36, SMITHFIELD DRIVE | Dwelling | 56.6 | 57.7 | 56.4 | -0.2 | Negligible Benenicicial | 57.5 | 0.9 | Negigiolie Adverse | 44.7 | 45.7 | 45.5 |
| 38, SMITHFIELLD DRIVE | Deeling | 56.2 | 57.3 | 56.0 | -0.2 | Negligible Beneficial | 57.2 | 1.0 | Negligible Adverse | 44.3 | 45.3 | 45.2 |
| 4, SMTHHPELD DivE | Dwelling | ${ }^{66.3} 5$ | 62.4 57.2 | ${ }_{55.9}^{66.3}$ | 0.0 -0.2 | Negligibhene Benefeicic | 62.4 57.1 | 1.1 1.0 | $\frac{\text { Negligible Adverse }}{\text { Negligible Adverse }}$ | 48.9 44.2 | 49.9 45.2 | 49.9 45.1 |
| 42, SMITHFIELD DRIVE | Dwelling | 56.4 | 57.4 | 56.2 | -0.2 | Negligible Beneficial | 57.3 | 0.9 | Negiligile Adverse | 44.5 | 45.4 | 45.3 |
| 44, SMITHFIELD DRIVE | Dwelling | 56.6 | 57.6 | 56.4 | -0.2 | Negligible Beneficial | 57.5 | 0.9 | Negigiole Adverse | 44.7 | 45.6 | 45.5 |
| 46, SMITHFELEL DRIVE | Dweling | 54.8 53.4 | 55.8 54.4 | 54.6 53.3 | -0.2 -0.1 | Negligible Beneficioal | 55.7 54.4 | 0.9 1.0 | $\frac{\text { Negigigie Adverse }}{\text { Negligible Adverse }}$ | $\stackrel{43.1}{41.8}$ | 44.0 | 43.9 42.7 |
| 5, SMITHFIELD DRIVE | Dwelling | 56.7 | 57.7 | 56.5 | -0.2 | Negligible Beneficicial | 57.7 | 1.0 | Neogigiole Adverse | 44.8 | 45.7 | 45.7 |
| 50, SMITHFIELD DRIVE | Dwelling | 54.1 | 55.1 | 54.0 | -0.1 | Negligible Beneficical | 55.0 | 0.9 | Negligible Adverse | 42.4 | 43.3 | 43.2 |
| 52, SMITHFIELD DRIVE | Dwelling | 54.0 | 55.0. 54.8 | 53.8 53,6 | -0.2 | $\frac{\text { Negligible Beneficial }}{\text { Negligibl }}$ Beneficial | 54.9 547 | 0.9 | Neotigibe Adverse | 42.3 | 43.2 431 | 43.1 |
| 56, SMITHFIELD DRIVE | Dwelling | 53.8 | 54.8 | 53.6 | -0.2 | Negligible Beneficial | 54.7 | 0.9 | Negigigile Adverse | 42.2 | 43.1 | 43.0 |
| 58, SMITHFIELD DRIVE | eelling | 54.5 | 55.3 | 54.4 | -0.1 | Negligible Beneficial | 55.3 | 0.8 | Negligible Adverse | 42.8 | 43.5 | 43.5 |
| 6, SMITHFIELD DRIVE | Dwelling | 61.3 55.1 | 62.4 55.9 | 61.3 54.9 | 0.0 .0 .2 | Negligible ${ }^{\text {Nengeneficial }}$ | 62.4 55.9 | 1.1 0.8 | $\frac{\text { Negigigib Adverse }}{\text { Negigible Adverse }}$ | 48.9 43 | 49.9 | 49.9 44.0 |
| 62, SMITHFIELD DRIVE | Dwelling | 55.3 | 56.2 | 55.2 | 0.1 | Negligible Beneficial | 56.2 | 0.9 | Negligible Adverse | 43.5 | 44.3 | 44.3 |
| ${ }^{\text {64, SMITHFIELL DRIVE }}$ 66, SMITHFLLD DRIVE | $\frac{\text { Dwelling }}{\text { Owelling }}$ | 55.6 56.0 | 56.5 56.9 | 55.4 <br> 55.8 | -0.2 -0.2 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ Beneficial | 56.4 56.8 | 0.8 | Negigible Adverse | 43.8 44.1 | 44.6 44.9 | $\stackrel{44.5}{44.9}$ |
| 68, SMITHFELELD DRIVE | Dwelling | 55.5 | 56.4 | 55.4 | ${ }_{-0.1}$ | Negligible Beneficioial | 56.3 | 0.8 | Neoligiole Adverse | 43.7 | 44.5 | 44.4 |
| 7,SMITHFIELD DRIVE | Dwelling | 56.2 | 57.3 | 56.1 | -0.1 | Negligible Beneficial | 57.2 | 1.0 | Negigigile Adverse | 44.3 | 45.3 | 45.2 |

A90/A96 Haudagain Improvement

## DMRB Stage 3 Environmental Statement

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 Lnight,outside | DS33 <br> Lnight,outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 70, SMITHFIELD DRIVE | Dweling | 56.2 | 57.0 | 56.0 | ${ }^{0.2}$ | Negligible Beneficial | 56.9 | 0.7 | Negligible Adverse | ${ }_{4}^{44.3}$ | 45.0 | 44.9 |
| 72, SMITHFIELD DRIVE | Dwelling | 56.1 | 56.8 570 | 56.0 56.4 | -0.1 | Negligible Beneficial | 56.7 | ${ }_{0}^{0.6}$ | Negiligil Adverse | $\frac{44.2}{44.5}$ | $\frac{44.9}{45.0}$ | 44.8 44.9 |
| 74, SMTHFELE DRIVE | Dwelling | ${ }_{56.4}^{56.4}$ | 57.0 | ${ }_{56.4}^{56.4}$ | 0.0 | No Co Change | ${ }_{56.8}^{56.8}$ | 0.4 | Negligigie Adverse | 44.5 | $\stackrel{45.0}{45.0}$ | 44.9 |
| 77, SMITHFFELD DRIVE | Dwelling | ${ }_{\text {53, }}^{56.4}$ | ${ }_{54.4}$ | ${ }_{\text {53,5 }}$ | -0.1 | Negligible eneneficial | 54.4 | 0.8 | Negigigible Adverse | 42.0 | ${ }_{42.7}$ | 42.7 |
| 78, SMITHFIELD DRIVE | Dwelling | 56.3 | 56.9 | 56.3 | 0.0 | No Change | 56.8 | 0.5 | Negigiole Adverse | 44.4 | 44.9 | 44.9 |
| 79, SMITHFIELD DRIVE | Dwelling | 53.5 | 54.2 | 53.3 | -0.2 | Negligible Beneneicic | 54.2 | 0.7 | Negigigile Adverse | 41.9 | 42.5 | 42.5 |
| 8, SMITHFFIELD DRIVE | Dwelling | 61.3 | 62.4 | 61.3 | 0.0 | No Change | 62.4 | 1.1 | Negigioble Adverse | 48.9 | 49.9 | 49.9 |
| ${ }^{\text {81, SMITHFIELD D DIVE }}$ | ${ }^{\text {Dwelling }}$ | ${ }_{53.5}^{56.5}$ | 54.2 | ${ }_{53.4}^{56.4}$ | ${ }_{0} 0.1$ | Negligibile Beneneficial | ${ }_{54.2}$ | ${ }_{0}^{0.7}$ | Negligiobe Adverse | 44.9 | ${ }_{42.5}^{42.5}$ | 42.5 |
| 82, SMITHFIELLD DRIVE | Delling | 57.4 | 58.0 | 57.5 | 0.1 | Negligible Adverse | 57.7 54 | 0.3 | Negigigibe Adverse | 45.4 | 45.9 | 45.7 |
| 83, SMITHFIELLD DRIVE | welling | 53.8 | 54.4 | 53.6 | -0.2 | Negligible Beneficial | 54.5 | 0.7 | Negigigibe Adverse | 42.2 | 42.7 | 42.8 |
| 84, SMITHFIELD DRIVE | welling | 57.1 | 57.6 | 57.2 | 0.1 | Negigigile Adverse | 57.4 | 0.3 | Negigigile Adverse | 45.1 | 45.6 | 45.4 |
| 85, SMITHFFIELL DRIVE | elling | 55.3 | 56.0 | 55.1 | 0.2 | Negligible Beneficical | 56.0 | 0.7 | Negigioble Adverse | 43.5 | 44.1 | ${ }^{44.1}$ |
| 86, SMITHFELED DRIVE | Dweling | 59.5 | 60.1 56.0 | 59.4. | -0.1 0.1 | $\frac{\text { Negligible Benenicial }}{\text { Neglioble }}$ | 59.7 55.9 | 0.2 0.7 | $\frac{\text { Negigigile Adverse }}{\text { Negligible Adverse }}$ | ${ }_{4}^{47.4}$ | 47.8 44.1 | 47.0 |
| 88, SMITHFIELD DRIVE | welling | 60.3 | 60.8 | 60.0 | 0.3 | Negligible Beneficial | 60.3 | 0.0 | No Change | 48.0 | 48.5 | 48.0 |
| 89, SMITHFIELD DRIVE |  | 55.1 | 55.8 | 4.9 | 0.2 | Negligible Beneficial | 55.7 | 0.6 | Negigiole Adverse | 3. | 44.0 | . 9 |
| 9, SMITHFFIELD DRIVE | Dwelling | 56.5 | 57.6 | 56.3 | -0.2 | Negligible Beneficial |  |  | Negigigibe Adverse | 44.6 | 45.6 | 45.5 |
| 91, SMITHFIELLD DRIVE | Dwelling | 54.9 | 55.6 | 54.7 | -0.2 | Negligible Beneficical | 55.5 | 0.6 | Negigioble Adverse | 43.1 | 43.8 |  |
| 93, SMITHFELED DRIVE | welling | 55.3 | 56.0 | ${ }^{55.2}$ | -0.1 | Negligible Benefitioal | 55.9 | 0.6 | Negigigiole Adverse | ${ }_{5}^{43.5}$ | 44.1 | 44.0 |
| 94, SMITHFIELD DRIVE | weling | 64.9 | 64.9 | 63.5 | -1.4 | Minor Beneitical | 64.2 | -0.7 | Negigigiole Beneiticial | 52.1 | 52.1 | 51.5 |
| 95, SMITHFIELD DRIVE | Dweling | 55.1 | 55.7 | 54.9 | -0.2 | Negligible Benenitial | ${ }^{55.6}$ | 0.5 | Negiligibe Adverse | ${ }_{5}^{43.3}$ | 43.9 | ${ }_{4}^{43.8}$ |
| 96, SMITHFELELLD DRIVE | Dwelling | ${ }_{55.4}^{65.1}$ | ${ }_{56.1}^{65 .}$ | ${ }^{653.7}$ | -1.4 | Negnioibible Beneficicicial | ${ }_{55.9}^{64.4}$ | $\stackrel{0.5}{ }$ | Negoligiole Benenitical | ${ }_{4}^{52.3}$ | ¢2.3 | 44.0 |
| 99, SMITHFIELD DRIVE | Dwelling | 55.3 | 55.9 | 55.1 | -0.2 | Negligible Benenicial | 55.8 | 0.5 | Negligible Adverse | 43.5 | 44.0 | 44.0 |
| SMITHFIELD COURT, 14, SMITHFIELD DRIVE | Dwelling | 60.8 | 61.2 | 60.3 | -0.5 | Negligible Beneficial | 60.6 | 0.2 | Negligible Beneficial | 48.5 | 48.8 | 48.3 |
| SMITHFILLD COURT, 16, SMITHFIELD DRIVE | Dwelling | 63.0 | 63.4 | 62.7 | -0.3 | Negligible Beneficial | 62.9 | -0.1 | Negligible Beneficical | 50.4 | 50.8 | 50.3 |
| SMITHFILLD COURT, 25, SMITHFIELD DRIVE | Dwelling | 63.6 | 64.1 | 63.3 | 0.3 | Negligible Beneficial | 63.6 | 0.0 | No Change | 51.0 | 51.4 | 51.0 |
| SMITHFILLD COURT, 15, SMITHFIELD DRIVE | welling | 62.4 | 62.8 | 62.1 | 0.3 | Negligible Beneficicial | 62.3 | -0.1 | Negligible Beneficial | 49.9 | 50.3 | 49.8 |
| SMITHFIELD COURT, 21, SMITHFIELD DRIVE | weling | 65.6 | 66.2 | 65.1 | -0.5 | Negigigibe Beneficial | 65.6 | 0.0 | No Change | 52.8 |  |  |
| SMTHFIELD COURT, 22, SMITHFELEL DRIVE | Deelling | 65.9 | 66.5 | 65.4 | -0.5 | Negligible Beneficicial | 65.9 | 0.0 | No Change | 53.0 | 53.6 | 53.0 |
| SMIHFELDCOURT, 23, SMITHFELED DRIVE | Dweling | 66.4. | ${ }^{664.9}$ | ${ }_{65.9}^{65.7}$ | -0.5 |  | ${ }_{64.3}^{66.3}$ | -0.1 | Negifigile Benentical | - ${ }_{51.7}^{51.7}$ | -53.9 | -53.4 |
| SMTHFIELD COURT, 27, SMITHFIELD DRIVE | Dwelling | 64.8 | 65.4 | 64.4 | -0.4 | Negligible Beneficial | 64.8 | 0.0 | No Change | 52.1 | 52.6 | 52.1 |
| SMITHFIELD COURT, 28, SMITHFIELD DRIVE | Dwelling | 65.2 | 65.8 | 64.8 | -0.4 | Negligible Beneficial | 65.2 | 0.0 | No Change | 52.4 |  |  |
| ALLOTMENTS, SMITHFIELDLANE | Allotments | 52.3 | 53.1 | 52.2 | 0.1 | Negligibe Beneiticial |  | 0.8 | Negiligile Adverse | 40.8 | 41.5 | 41.5 |
| SMITHFIELD LODGE, SMITHFIELD LODGE, CLARKE STREET | Dwelling | 53.3 | 54.1 | 53.2 | -0.1 | Negligible Beneficial | 54.2 | 0.9 | Negigigibe Adverse | 41.7 | 42.4 | 42.5 |
| ST JOHN'S CHURCH FOR DEAF PEOPLE, 13, SMITHFIELD ROAD | Church | 49.3 | 51.2 | 49.4 | 0.1 | Negligible Adverse | 51.3 | 2.0 | Negligible Adverse | 38.1 | 39.8 | 39.9 |
| 10, SMITHFIELD ROAD | Dweling | 50.1 | 51.4 | 50.1 | 0.0 | No Change | 51.6 | 1.5 1.5 | Negiligile Adverse | 38.8 388 | 40.0 | 40.2 |
| $1{ }^{\frac{12}{14, ~ S M I T H P E L E L ~ R ~ R O A D ~}}$ | Dwelling | 50.1 50.1 | 51.4 <br> 51.4 | 50.1 50.1 | 0.0 | ${ }^{\text {No Co Cange }}$ No Change | ${ }^{51.6}$ | 1.5 <br> 1.5 | $\frac{\text { Negiligle Adverse }}{\text { Negligible Adverse }}$ | 38.8 38.8 | $\stackrel{40.0}{40.0}$ | 40.2 40.2 |
| 16, SMITHFIELD ROAD | Dwelling | 50.1 | 51.4 | 50.1 | 0.0 | No Change | 51.6 | 1.5 | Negligible Adverse | 38.8 | 40.0 | 40.2 |
| 17, SMITHFIELD ROAD | Deelling | 50.5 | 51.8 | 50.6 | 0.1 | Negligible Adverse | 52.1 | 1.6 | Negigiolie Adverse | 39.2 | 40.4 | 40.6 |
| $\frac{18}{19, \text { SMITHFELEL ROAD }}$ | $\frac{\text { Dwelling }}{\text { Dweling }}$ | 53.2 | 54.5 <br> 51.8 | 53.3 50.6 | ${ }_{0}^{0.1}$ | $\frac{\text { Negligible Beneficial }}{\text { Negigiolie Adverse }}$ | 54.8 52.1 | ${ }_{1}^{1.6}$ | $\frac{\text { Negigigle Adverse }}{\text { Negigible Adverse }}$ | 41.6 39.2 | 42.8 40.4 | 43.1 40.6 |
| 2, SMITHFIELD ROAD | Dwelling | 48.8 | 50.2 | 48.9 | 0.1 | Negligible Adverse | 50.3 | 1.5 | Negigiole Adverse | 37.7 | 38.9 | 39.0 |
| $\frac{20, \text { SMITHFELEL ROAD }}{21, \text { SMITHFELLD }}$ | Dwelling | 53.2 51.3 | 54.5 <br> 52.3 | 53.3 51.3 | 0.1 | Negligible Beneficial | 54.8 52.7 | 1.6 1.4 | Negligile Adverse | 41.6 39.9 | 42.8 40.8 | 43.1 41.2 |
| 22, SMITHFIELD ROAD | Dwelling | 53.2 | 54.5 | 53.3 | 0.1 | Negligible Beneficial | 54.8 | 1.6 | Negigigile Adverse | 41.6 | 42.8 | 43.1 |
| 23, SMITHFIELD ROAD | eilling | 51.2 | 52.3 | 51.2 | 0.0 | No Change |  | 1.4 | Negligible Adverse | 9.8 | 40.8 | 1.1 |
| 24, SMITHFIELLL ROAD | Dwelling | 53.2 | 54.5 | 53.3 | 0.1 | Negligible Beneficial | 54.8 | 1.6 | Negigigible Adverse | 41.6 | 42.8 | ${ }^{43.1}$ |
| 25, SMTHFIELD ROAD | Dweling | 51.8 | 52.9 | 51.8 | 0.0 | No Change |  |  | Negiligibe Adverse | 40.4 |  |  |
| $2{ }^{26}$ SMMTHFIELD ROAD | Oweling | 51.9 | ${ }_{52,}^{62.3}$ | 51.2 | 0.1 | Negigigle Adverse | ${ }_{53.3}^{62.7}$ | ${ }_{1.6}^{1.6}$ | Negigiole Adverse | 40.4 | ${ }_{413}^{49.8}$ | 417 |
| 28, SMITHFIELD ROAD | Dwelling | 61.1 | 62.3 | 61.2 | 0.1 | Negligible Adverse | 62.7 | 1.6 | Negigigile Adverse | 48.7 | 49.8 | 50.2 |
| 29, SMITHFIELD ROAD | Deeling | 52.5 | 53.6 | 52.6 | 0.1 | Negligible Adverse | 54.0 | 1.5 | Negigigile Adverse | 41.0 | 42.0 | 42.3 |
| 30, SMITHFELEL ROAD | Dweling | 61.1 52.7 | 62.3 53.7 | 61.2 52.7 | 0.0 | $\frac{\text { Negigiole Adverse }}{\text { No Change }}$ | 62.7 54.1 | 1.6 1.4 1 | Negigigibe Adverse | ${ }_{41.2}^{48.1}$ | ${ }_{42.1}^{49.8}$ | 50.2 |
| 32, SMITHFIELD ROAD | Dwelling | 61.1 | 62.3 | 61.2 | 0.1 | Negligible Adverse | 62.7 | 1.6 | Negligible Adverse | 48.7 | 49.8 | 50.2 |
| 33, SMITFFIELL ROAD | Dwelling | 54.8 62.7 | 55.8 63.9 | 54.8 62.8 | 0.0 0.1 | $\xrightarrow{\text { Nogo Change }}$ | 56.3 64.4 | 1.5 1.7 | Negligile Adverse | 43.1 50.2 | 44.0 51.2 | 44.4 51.7 |
| 35, SMITHFIELD ROAD | Dwelling | 54.9 | 56.0 | 54.9 | 0.0 | No Change | 56.4 | 1.5 | Negligible Adverse | 43.1 | 44.1 | 44.5 |
| 36, SMITHFIELD ROAD | Deeling | 52.0 | 52.6 | 52.0 | 0.0 | No Change | 53.1 | 1.1 | Negigigile Adverse | 40.5 | 41.1 | 41.5 |
| 37, SMITHFELEL ROAD | Dweling | 57.0 520 | 58.1 526 | 57.0 520 | 0.0 | No Change | 58.6. | $\stackrel{1.6}{11}$ | Negiligile Adverse | 45.0 | 46.0 | 46.5 |
| 39, SMITHFIELD ROAD | Dwelling | 57.4 | 58.5 | 57.4 | 0.0 | No Change | 58.9 | 1.5 | Negiligile Adverse | 45.4 | 46.4 | 46.7 |
| 4 , SMITHFFIELD ROAD | Dwelling | 48.8 | 50.2 | 48.9 | 0.1 | Negligible Adverse | 50.3 | 1.5 | Negigiole Adverse | 37.7 | 38.9 | 39.0 |
| 40, SMTHFELEL ROAD | Dwelling |  | 52.6 |  | 0.0 | No Change | 53.1 | 1.1 | Negligible Adverse | 40.5 |  | 41.5 |
| ${ }^{41, \text { SMITHFELEL ROAD }}$ | Dwelling | 54.8 | ${ }_{5}^{55.8}$ | 54.8 | 0.0 | No Change | 56.3 | 1.5 | Negligigle Adverse | 43.1 | 44.0 | 44.4 |
| 42, SMITHPELEL ROAD | Dweling | 52.0 54.8 | $\begin{array}{r}52.6 \\ 55.8 \\ \hline\end{array}$ | 52.0 54.8 | 0.0 | $\frac{\text { No Change }}{\text { No Change }}$ | ${ }_{56.1}^{53.1}$ | 1.1 1.5 | Negligibe Adverse | ${ }_{43.1}^{40.5}$ | 4.14 | 41.5 |
| 44, SMITHFELEL R ROAD | Delling | 51.9 | ${ }_{52.5}^{5.5}$ | 51.9 | 0.0 | No Change | 53.0 | 1.1 | Negigigle Adverse | 40.4 | 41.0 | 41.4 |
| 45, SMITHFIELD ROAD | Dweling | 54.8 | 55.8 | 54.8 | 0.0 | No Change | 56.3 | 1.5 | Negigigile Adverse | 43.1 | 44.0 | 44.4 |
| 46, SMITHFELEL ROAD | ${ }^{\text {Dwelling }}$ Dweling | ${ }_{5}^{54.9}$ | ${ }_{55.8}^{52.5}$ | ${ }_{54.9}^{54.8}$ | 0.0 | ${ }^{\text {No Co Change }}$ | ${ }_{53.3}^{53.0}$ | ${ }_{1.5}^{1.5}$ | $\frac{\text { Negligible Adverse }}{\text { Negigiole Adverse }}$ | $\stackrel{40.4}{43.1}$ | 44.0 | $\stackrel{44.4}{44.4}$ |
| 48, SMITH FIELD ROAD | Dwelling | 51.9 | 52.5 | 51.9 | 0.0 | No Change | 53.0 | 1.1 | Negigigile Adverse | 40.4 | 41.0 | 41.4 |
| 49, SMITHFIELD ROAD | Dwelling | 51.3 | 52.2 525 | 51.3 | 0.0 | No Change | 52.6 5.0 | 1.3 | Negligible Adverse | 39.9 | 40.7 | $\frac{41.1}{41.1}$ |
| 50, SMITHFELEL ROAD | ${ }^{\text {Dwelling }}$ Oweling | 51.3 | 52.5 | 51.3 | 0.0 | ${ }^{\text {No Co Change }}$ | 53.6 | 1.3 | Negigigible Adverse | ${ }^{40.9}$ | 40.7 | $\stackrel{41.4}{41.1}$ |
| 52, SMITHFIELL ROAD | Dwelling | $\frac{51.6}{513}$ | 52.2 | 51.6 | 0.0 | No Change | $\stackrel{52.7}{526}$ | 1.1 | Negligible Adverse | 40.2 | 40.7 | 41.2 |
| 53, SMITHFIELD ROAD | Dwelling | 51.3 | 52.2 | 51.3 | 0.0 | No Change | 52.6 | 1.3 | Negigigile Adverse | 39.9 | 40.7 | 41.1 |

A90/A96 Haudagain Improvement
DMRB Stage 3 Environmental Statement

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 <br> Lnight,outside | $\begin{gathered} \text { DS33 } \\ \text { Lnight,outside } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 54, SMITHFIELD ROAD | Dwelling | 51.6 | 52.2 | 51.6 | 0.0 | No Change | 52.7 | 1.1 | Negigigile Adverse | 40.2 | 40.7 | 41.2 |
| 55, SMITHFIELLD ROAD | Deelling | 51.3 | 52.2 | 51.3 | 0.0 | No Change | 52.6 | 1.3 | Negigioble Adverse | 39.9 | 40.7 | 41.1 |
| 56, SMITHFIELLD ROAD | Deelling | 51.6 | 52.2 | 51.6 | 0.0 | No Change | 52.7 | 1.1 | Negigiolie Adverse | 40.2 | 40.7 | 41.2 |
| 57, SMITHFIELD ROAD | Dwelling | 51.1 | 51.7 | 51.1 | 0.0 | No Change | 52.1 | 1.0 | Negigiole Adverse | 39.7 | 40.3 | 40.6 |
| 59, SMITHFIELD ROAD | Dwelling | 51.1 | 51.7 | 51.1 | 0.0 | No Change | 52.1 | 1.0 | Negiligile Adverse | 39.7 | 40.3 | 40.6 |
| 6, SMITHFIELD R ROAD | Delling | ${ }_{5}^{48.8}$ | 50.2 | 48.9 | 0.1 | Negigigibe Adverse | ${ }_{50.3}^{50 .}$ | 1.5 | Negigigibe Adverse | 37.7 397 | 38.9 | 39.0 |
| 61, SMITHFIELLD ROAD | Dwelling | 51.1 | 51.7 | 51.1 | 0.0 | No Change | 52.1 | 1.0 | Negigigile Adverse | 39.7 | 40.3 | 40.6 |
| 63, SMITHFIILD ROAD | Dwelling | 51.1 | 51.7 | 51.1 | 0.0 | No Change | 52.1 | 1.0 | Negigiole Adverse | 39.7 | 40.3 | 40.6 |
| 8, SMITHFFIELD ROAD | Dwelling | 48.8 | 50.2 | 48.9 | 0.1 | Negigigile Adverse | 50.3 | 1.5 | Negiligile Adverse | 37.7 | 38.9 | 39.0 |
| SOCIETY COURT, FLAT 1, SOCIETY COURT, SOCIETY LANE | Deelling | 74.2 | 74.7 | 74.6 | 0.4 | Negigiole Adverse | 75.1 | 0.9 | Negiligile Adverse | 60.5 | 61.0 | 61.3 |
| SOCIETY COURT, FLAT 10, SOCIETY COURT, SOCIETY LANE | Dwelling | 63.5 | 64.0 | 63.7 | 0.2 | Negiligile Adverse | 64.4 64.4 | 0.9 | Negigigle Adverse | 50.9 | 51.3 513 | $\stackrel{51.7}{517}$ |
| SOCIETY COURT, LLAT 12, SOCIETY C COURT, SOCCIETY LANE | Dwelling | ${ }_{63.5}^{63.5}$ | 64.0 | ${ }_{63.7}^{63.7}$ | 0.2 | $\frac{\text { Negligiole Adverse }}{\text { Neligiole Adverse }}$ | ${ }_{64.4}^{64.4}$ | 0.9 | Neoligigile Adverse | ${ }_{50.9}$ | ${ }^{51.3} 5$ | ${ }_{51.7}^{51.7}$ |
| SOCIETY COURT, FLAT 13, SOCIETY COURT, SOCIETY LANE | Dwelling | 63.5 | 64.0 | 63.7 | 0.2 | Negligible Adverse | 64.4 | 0.9 | Neogligible Adverse | 50.9 | 51.3 | 51.7 |
| Sole | Dwelling | ${ }_{63.5}^{63.5}$ | 64.0 64.0 | 63.7 63.7 | 0.2 | $\frac{\text { Negligible Adverse }}{\text { Nefigible Adverse }}$ | 64.4 64.4 | 0.9 0.9 | Negiligile Adverse Nefigiole Adverse | 50.9 50.9 | 51.3 | 51.7 51.7 |
| SOCIETY COURT. FLAT 16. SOCIETY COURT SOCIETY LANE | Dwelling | 63.5 | 64.0 | 63.7 | 0.2 | Negigigile Adverse | 64.4 | 0.9 | Negligible Adverse | 50.9 | 51.3 | 51.7 |
| OCIETY COURT, FLAT 17, SOCIETY COURT, SOCIETY LANE | Dwelling | 59.1 | 59.8 | 59.4 | 0.3 | Negigigile Adverse | 60.1 | 1.0 | Negligible Adverse | 46.9 | 47.6 | 47.8 |
| SOCIETY COURT, FLAT 18, SOCIETY COURT, SOCIETY LANE | ling | 59.1 | 59.8 |  | 0.3 | Negigigile Adverse | 60.1 | 1.0 | Negligible Adverse | 46.9 | 47.6 | 47.8 |
| SOCIETY COURT, FLAT 19, SOCIETY COURT, SOCIETY LANE | Dwelling | 59.1 | 59.8 | 59.4 | 0.3 | Negligible Adverse | 60.1 | 1.0 | Negligible Adverse | 46.9 | 47.6 | 47.8 |
| SOCIETY COURT, FLAT 2, SOCIETY COURT, SOCIETY LANE | Deelling | 74.2 | 74.7 | 74.6 | 0.4 | Negiligile Adverse | 75.1 | 0.9 | Negigiolie Adverse | 60.5 | 61.0 | 61.3 |
| SOCIETY COURT, FLAT 20, SOCIETY COURT, SOCIETY LANE | Dwelling | 59.1 | 59.8 | 59.4 | 0.3 | Negigiolie Adverse | 60.1 | 1.0 | Negligiole Adverse | 46.9 | 47.6 | 47.8 |
| SOCIETY COURT, FLAT 21, SOCIETY COURT, SOCIETY LANE | Dwelling | 59.1 | 59.8 | 59.4 | 0.3 | Negigioble Adverse | 60.1 | 1.0 | Negigigibe Adverse | 46.9 | 47.6 | 47.8 |
| SOCIETY COURT, FLAT 22, SOCIETY COURT, SOCIETY LANE | Dwelling | 59.1 | 59.8 | 59.4 | 0.3 | Negiligile Adverse | 60.1 | 1.0 | Negiligile Adverse | 46.9 | 47.6 | 47.8 |
| SOCIETY COURT, LLAT 23, SOCIEEY COURT, SOCIETY LANE | welling | 59.1 | 59.8 | 59.4 | 0.3 | Negigigile Adverse | 60.1 | 1.0 | Negligible Adverse | 46.9 | 47.6 | 47.8 |
| SOCIETY COURT, FLAT 24, SOCIEETY COURT, SOCIETY LANE | Dwelling | 59.11 | $\frac{59.8}{60.1}$ | 59.4 56.4 | ${ }_{0}^{0.3}$ | $\frac{\text { Negiligile Adverse }}{\text { Negigible Adverse }}$ | 60.1 59.6 | ${ }_{1}^{1.0}$ | Negiligile Adverse | $\frac{46.9}{440}$ | $\frac{47.6}{478}$ | 47.8 474 |
| SOCIETY COURT, LLAT 26, SOCIETY COURT, SOCIETY LANE | Dwelling | 55.8 | 60.1 | ${ }^{56.4}$ | 0.6 | Neogigiole Adverse | 59.6 | ${ }_{3.8}$ | Minor Adverse | 44.0 | 47.8 | 47.4 |
| SOCIETY COURT, FLAT 27, SOCIETY COURT, SOCIETY LANE | Dwelling | 55.8 | 60.1 | 56.4 | 0.6 | Negiligile Adverse | 59.6 | 3.8 | Minor Adverse | 44.0 | 47.8 | 47.4 |
| SOCIETY COURT, FLAT 28, SOCIETY COURT, SOCIETY LANE | welling | 55.8 | 60.1 | 56.4 | 0.6 | Negigigile Adverse | 59.6 | ${ }^{3} .8$ | Minor Adverse | 44.0 | 47.8 | 47.4 |
| SOCIETY COURT, FLAT 29, SOCIETY COURT, SOCIETY LANE | welling | 55.8 | 60.1 | 56.4 | 0.6 | Negligible Adverse | 59.6 | 3.8 | Minor Adverse | 44.0 | 47.8 | 47.4 |
| SOCIETY COURT, FLLT 3 SOCIETY COURT, SOCIETY LANE | Dwelling | $\begin{array}{r}74.2 \\ \hline 5 \\ \hline\end{array}$ | 74.7 | 74.6 5.4 | 0.4 | Negligible Adverse | 75.1 59 | 0.9 | Negligioble Adverse | 60.5 | 61.0 | 61.3 |
| Sociely Count, LAA 30, SOCIETY COURR, Socier lane | Dwelling | 55.8 62.5 | 60.1 67.6 | ${ }^{56.4}$ | 0.6 0.7 | Negigiole Adverse | ${ }^{597.6}$ | 3.8 4.5 | Minor Adverse | 44.0 50.0 | ${ }^{47.8}$ | $\stackrel{47.4}{54.0}$ |
| OCIETY COURT, FLAT 32, SOCIETY COURT, SOCIETY LANE | Owelling | 62.5 | 67.6 | 63.2 | 0.7 | Negigigile Adverse | 67.0 | 4.5 | Minor Adverse | 50.0 | 54.6 | 54.0 |
| OCIETY COURT, FLAT 33, SOCIETY COURT, SOCIETY LANE | Dwelling | 2.5 | 67.6 | 63.2 | 0.7 | Negigiolie Adverse | 67.0 | 4.5 | Minor Adverse | 50.0 |  |  |
| SOCIETY COURT, FLAT 34, SOCIETY COURT, SOCIETY LANE | Dwelling | 62.5 | 67.6 | 63.2 | 0.7 | Negigioble Adverse | 67.0 | 4.5 | Minor Adverse | 50.0 | 54.6 | 54.0 |
| SOCIETY COURT, FLAT 35, SOCIETY COURT, SOCIETY LANE | welling | 62.5 | 67.6 | 63.2 | 0.7 | Negigigie Adverse | 67.0 | 4.5 | Minor Adverse | 50.0 | 54.6 | 54.0 |
| Solie IY COURT, LAA | Dwelling | ${ }^{62.5}$ | ${ }_{747} 67.6$ | ${ }^{63.2}$ | 0.7 | Negiligibe Adverse | 67.0 75.1 | 4.5 | Minor Adverse | 50.0 | ${ }^{54.6}$ | 54.0 |
| SOCIETTY COURT, FLAT 4, SOCIETY TYOURT, SOCIETY LANE | Oweling | 74.2 | 74.7 | 74.6 | 0.4 | Negligiole Adverse | 75.1 | 0.9 | Negligigle Adverse | 60.5 | 61.0 | 61.3 |
| SOCIETY COURT, FLAT G, SOCIETY COURT, SOCIETY LANE | Dwelling | 74.2 | ${ }_{74.7}$ | 74.6 | 0.4 | Negligible Adverse | 75.1 | 0.9 | Negigigible Adverse | 60.5 | 61.0 | 61.3 |
| SOCIETY COURT, FLAT 7 , SOCIETY COURT, SOCIETY LANE | Dwelling | 74.2 | 74.7 | 74.6 | 0.4 | Negiligible Adverse | 75.1 | 0.9 | Negligible Adverse | 60.5 | 61.0 | 61.3 |
| Societ Count, LAAT, 8 SOCIETY COURT, SOCIETT LANE | Dewling | 74.2 | 74.7 | ${ }^{74.6}$ | 0.4 | Negligible Adverse | 75.1 | 0.9 | Negligiole Adverse | 60.5 | $\frac{61.0}{513}$ | ${ }_{61.3}^{617}$ |
|  | Dwelling | ${ }^{63.5}$ | ${ }_{71.6}$ | ${ }_{74.1}^{66.1}$ | -0.1 | Negiligible A Aeneresicial | ${ }^{64.4}$ | 0.9 | Negigigib Adverse | 60.5 | 58.2 | 60.7 |
| TODHILL PERSLEY, STATION ROAD, WOODSIIE | Playing Field | 50.4 | 50.7 | 50.2 | -0.2 | Negligible Beneficial | 50.9 | 0.5 | Negigiolie Adverse | 39.1 | 39.4 | 39.5 |
| THE LAURELS NURSING HOME, THE LAURELS NURSING HOME, STATION ROAD, WOODSIDE | Dwelling |  |  | 53.9 | 0.2 | Negilible Adverse | 54.5 | 0.8 | Negligible Adverse | 42.1 | 42.4 | 42.8 |
| STEWART PARK COURT, 1, STEWART PAAK PLACE | Dwelling | 66.1 | 67.2 | 65.9 | -0.2 | Negligible Beneficical | 67.1 | 1.0 | Negligible Adverse | 53.2 | 54.2 | 54.1 |
| STEWART PARK COURT, 2 , STEW ART PARK PLACE | Dweling | 66.1 | ${ }^{67.2}$ | ${ }_{65.9}^{659}$ | -0.2 | Negligible Beneficial | ${ }_{6}^{67.1}$ | 1.0 | Negigigile Adverse | 53.2 | $\begin{array}{r}54.2 \\ 54.2 \\ \hline\end{array}$ | 54.1. |
| STEWART PARK COURT, 4 , STEWART PARK PLACE | Dwelling | ${ }_{66.1}^{66.1}$ | $\frac{67.2}{67.2}$ | 65.9 | -0.2 | ${ }_{\text {Negegigioble }}$ Beneneficicial | ${ }_{67.1}^{67.1}$ | $\stackrel{1.0}{1.0}$ | Neogigiole Adverse | ${ }_{\text {53.2 }}$ | $\stackrel{54.2}{54.2}$ | ${ }_{54.1}^{54.1}$ |
| STEWART PARK COURT, 5 , STEW ART PARK PLACE | Dwelling | 6.1 | 67.2 | 65.9 | ${ }_{0} 0.2$ | Negligible Beneniticial | 67. | , | Negiligile Adverse | 53.2 |  |  |
| STEWART PARK COURT, 6, STEWART PARK PLACE | Dwelling | 66.1 | 67.2 | 65.9 | -0.2 | Negligible Beneficial | 67.1 | 1.0 | Negigiolie Adverse | 53.2 | 54.2 | 54.1 |
| STEWART PARK COURT, 7, STEWART PARK PLACE | Dwelling | 66.1 | 67.2 | 65.9 | -0.2 | Negligible Beneficial | 67.1 | 1.0 | Negligible Adverse | 53.2 | 54.2 | 54.1 |
| TEEWART PARK COURT, 8 , STEWART PARK PLACE | Deelling | 66.1 | 67.2 | 65.9 | -0.2 | Negligible Benenitical | 67.1 | 1.0 | Negigigibe Adverse | 53.2 | 54.2 | 54.1 |
| STEWAR PARK COURT,9, STEWART PARK PLACE | Dweling | 66.1 | 67.2 | 65.9 | -0.2 | Negligible Benenitial | $\frac{67.1}{67.1}$ | 1.0 | Negigigile Adverse | $\begin{array}{r}53.2 \\ 5.2 \\ \hline .2\end{array}$ | $\begin{array}{r}54.2 \\ 542 \\ \hline\end{array}$ | 54.1 |
| Stewari park court, 10, Stewart Pank PLACE | Dweling | ${ }^{66.1}$ | $\frac{67.2}{67.2}$ | 65.9 | -0.2 |  | ${ }^{67.1}$ | 1.0 | $\frac{\text { Negigigio Adverse }}{\text { Nefligible Adverse }}$ | - 53.2 | 54.2 | - 54.1 |
| STEWART PARK COURT, 12, STEWART PARK PLACE | Dwelling | 66.1 | 67.2 | 65.9 | -0.2 | Negligible Beneficial | 67.1 | 1.0 | Negligible Adverse | 53.2 | 54.2 | 54.1 |
| STEWART PARK COURT, 13, STEWART PARK PLACE | Deeling | 66.1 | 67.2 | 65.9 | -0.2 | Negligible Beneficial | 67.1 | 1.0 | Neoligiole Adverse | 53.2 | 54.2 | 54.1 |
| Stewart Pank count, 14, Stewart PaAK PLACE | Dwelling | ${ }_{66.1}^{66.1}$ | $\frac{67.2}{67.2}$ | 65.9 | $-02--0$ | $\frac{\text { Negligible Beneficial }}{\text { Negligibl }}$ Beneficial | ${ }^{67.1}$ | 1.0 1.0 | Negigible Adverse | $\stackrel{53.2}{53.2}$ | 54.2 | ${ }^{54.1}$ |
| STEWART PARK COURT, 16, STEWART PARK PLACE | Dwelling | 66.1 | 67.2 | 65.9 | -0.2 | Negligible Beneficial | 67.1 | 1.0 | Negligible Adverse | 53.2 | 54.2 | 54.1 |
| STEWART PARK COURT, 17 , STEWART PARK PLACE | Dwelling | 66.1 66.1 | 67.2 67.2 | 65.9 65.9 | -0.2 -0.2 | $\frac{\text { Negliable Beneficial }}{\text { Negligible }}$ | 67.1 67.1 | 1.0 1.0 | Negigigile Adverse Negigiole Adverse | 53.2 53.2 | 54.2 54.2 | 54.1 54.1 |
| TEWART PARK COURT, 19, STEWART PARK PLACE | Dwelling | 66.1 | 67.2 | 65.9 | -0.2 | Negligible Beneficial | 67.1 | 1.0 | Negligible Adverse | 53.2 | 54.2 | 54.1 |
| STEWART PARK COURT, 20, STEW ART PARK PLACE | Dwelling | 66.1 66.1 | 67.2 67.2 | 65.9 65.9 | -0.2 -0.2 | $\frac{\text { Negligible Beneficial }}{\text { Negligibl }}$ | 67.1 67.1 | 1.0 1.0 | Negligile Adverse | 53.2 53.2 | 54.2 54.2 | 54.1 54.1 |
| TEWART PARK COURT, 22, STEWART PARK PLACE | Dwelling | 66.1 | 67.2 | 65.9 | -0.2 | Negligible Beneficial | 67.1 | 1.0 | Adverse | 53.2 | 4.2 | 54.1 |
| STEWART PARK COURT, 23, STEWART PARK PLACE | Dwelling | 66.1 | 67.2 | 65.9 | -0.2 | Negligible Beneficial | 67.1 | 1.0 | Negigiole Adverse | 53.2 | 54.2 | 54.1 |
| STEWART PARK COURT, 24, STEWART PARK PLACE | Deelling | 66.1 | 67.2 | 65.9 | -0.2 | Negligible Beneficial | 67.1 | 1.0 | Negigigibe Adverse | 53.2 | 54.2 | 54.1 |
|  | Dweliling | 66.1 | 67.2 | 65.9 | $\stackrel{-0.2}{-0.2}$ | Negiligiole Beneitical | 67.11 | 1.0 | Neoligigle Adverse | 53.2 53.2 | 54.2 54.2 | 54.1 54.1 |
| STEWART PARK COURT, 27, STEWART PARK PLACE | Deelling | 66.1 | 67.2 | 65.9 | -0.2 | Negligible Beneficial | 67.1 | 1.0 | Negigigile Adverse | 53.2 | 54.2 | 54.1 |
| STEWART PARK COURT, 28, STEWART PARK PLACE | Dwelling | 66.1 | 67.2 | 65.9 659 | -0.2 | Negligible Beneficial | 67.1 671 | 1.0 | Negiligile Adverse | 53.2 | $\begin{array}{r}54.2 \\ 542 \\ \hline\end{array}$ | 54.1. |
|  | ${ }^{\text {Duelilig }}$ Oweling | 66.1 | 67.2 | 65.9 | - | ${ }^{\text {Negiligible Beneificical }}$ | ${ }^{67.1}$ | 1.0 | Negigigibe Adverse | ${ }^{53.2}$ | 54.2 54.2 | ${ }_{54.1}^{54.1}$ |
| STEWART PARK COURT, 31, STEWART PARK PLACE | Dwelling | 66.1 | 67.2 672 | 65.9 659 | -0.2 | Negligible Beneficial | ${ }_{6}^{67.1}$ | 1.0 | Negiligile Adverse | 53.2 ${ }_{5}$ | $\begin{array}{r}54.2 \\ 542 \\ \hline\end{array}$ | 54.1 54.1 |
| STEWART PARK COURT, 33, STEWART PARK PLACE | ${ }^{\text {Dwelling }}$ | 66.1 | 67.2 | ${ }_{65.9}$ | -0.2 | Negegligible Beneneificial | ${ }_{67.1}$ | 1.0 | Neogigigle Adverse | ${ }_{\text {53.2 }}$ | 54.2 54.2 | ${ }^{54.1}$ |
| Stewart Park Court, 34, STEWART PARK PLACE | Dwelling | 66.1 | 67.2 | 65.9 | -0.2 | Negligible Beneficial | 67.1 | 1.0 | Negigigile Adverse | 53.2 | 54.2 | 54.1 |

## Appendix A14．4：Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short－term Daytime Noise Change（dB） | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long－term Daytime Noise Change（dB） | Magnitude of Change | DM18 Lnight，outside | DM33 <br> Lnight，outside | $\begin{gathered} \text { DS33 } \\ \text { Lnight,outside } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| STEWART PARK COURT，35，STEWART PARK PLACE | Owelling | 66.1 | 67.2 | 65.9 | －0．2 | Negligible Beneficical | 67.1 | 1.0 | Negigigle Adverse | 53．2 | 54.2 | 54.1 |
| STEWART PARK COURT，36，STEWART PARK PLACE | Oweling | 66.1 | $\frac{67.2}{672}$ | 65．9 6 | －0．2 | Negligible Beneficial | $\frac{67.1}{671}$ | 1.0 | Negligible Adverse | 53．2 | $\frac{54.2}{542}$ | $\frac{54.1}{54.1}$ |
|  | Dwelling | ${ }_{66.1}$ | 67.2 | 65.9 | －0．2 | Negiligiole Beneneificial | ${ }_{67.1}$ | 1.0 | $\frac{\text { Negigigie Adverse }}{\text { Neoligible Adverse }}$ | 53．2 | ${ }_{54.2}$ | 54．1 54.1 |
| STEWART PARK COURT，39，STEWART PARK PLACE | Dwelling | 66.1 | 67.2 | 65.9 | －0．2 | Negligible Beneficial | 67.1 | 1.0 | Negiligile Adverse | 53.2 | 54.2 | 54.1 |
| STEWART PARK COURT，40，STEWART PARK PLACE | Dwelling | 66.1 | 67.2 | 65.9 | －0．2 | Negligible Beneficial | 67.1 | 1.0 | Negigigile Adverse | 53.2 | 54.2 | 54.1 |
| STEWART PARK COURT，41，STEWART PARK PLACE | Dwelling | 66.1 | 67.2 | 65.9 | －0．2 | Negligible Beneficial | 67.1 | 1.0 | Negligible Adverse | 53.2 | 54.2 | 54.1 |
| STEWART PARK COURT，42，STEWART PARK PLACE | Deelling | 66.1 | 67.2 | 65.9 | －0．2 | Negligible Beneficical | 67.1 | 1.0 | Negigioble Adverse | 53．2 | 54．2 | 54．1 |
| STEWART PARK COURT，43，STEWART PARK PLACE | welling | 66.1 | 67.2 | 65.9 | －0．2 | Negligible Beneficicial | 67.1 | 1.0 | Negiligibie Adverse | 53．2 | $\begin{array}{r}54.2 \\ 54.2 \\ \hline\end{array}$ | 54.1 54.1 |
| STEWART PARK COURT，45，STEWART PARK PLACE | Dwelling | 66.1 | 67.2 | 65.9 | －0．2 | Negligible Beneficicial | 67.1 | 1.0 | Negiligile Adverse | 53.2 | 54.2 | 54.1 |
| STEWART PARK COURT，46，STEWART PARK PLACE | Dwelling | 66.1 | 67.2 | 65.9 | －0．2 | Negligible Beneficial | 67.1 | 1.0 | Negligible Adverse | 53.2 | 54.2 | 54.1 |
| STEWART PARK COURT，47，STEWART PARK PLACE | welling | 66.1 | 67.2 | 65.9 | －0．2 | Negligible Beneficial | 67.1 | 1.0 | Negigioble Adverse | 53.2 | 54.2 | 54.1 |
| STEWART PARK COURT，48，STEWART PARK PLACE | welling | 66.1 | 67.2 | 65.9 | －0．2 | Negligible Beneficial | 67.1 | 1.0 | Negiligibe Adverse | 53.2 | 54.2 | 54．1 |
| STEWART PARK COURT，49，STEWART PARK PLACE | Dweling | 66.1 | ${ }_{67.2}^{672}$ |  |  | Neogigibie Beneticial | 67.1 |  | Negiqigie Adverse |  |  | 54.1 54.1 |
| STEWART PARK COURT 51．STEWART PARK PLACE | Dwelling | ${ }_{66.1}^{66.1}$ | 67.2 | 65.9 | －0．2 | Negligioibe Benenificial | 67.1 | 1.0 | Neogigioble Adverse | ${ }_{53.2}$ | ${ }_{54.2}^{54.2}$ | ${ }_{54.1}^{54.1}$ |
| STEWART PARK COURT， 52 ，STEWART PARK PLACE | Dwelling | 66.1 | 67.2 | 65.9 | －0．2 | Negligible Beneficial | 67.1 | 1.0 | Negiligile Adverse | 53.2 | 54.2 | 54.1 |
| STEWART PARK COURT，53，STEWART PARK PLACE | Dwelling | 66.1 | 67.2 | 65.9 | －0．2 | Negligible Beneficial | 67.1 | 1.0 | Negiligile Adverse | 53.2 | 54.2 | 54.1 |
| STEWART PARK COURT，54，STEWART PARK PLACE | Dwelling | 66.1 | 67.2 | 65.9 | －0．2 | Negligible Beneficial | 67.1 | 1.0 | Negigioble Adverse | 53.2 | 54.2 | 54.1 |
| STEWART PARK COUTT，55，STEWART PARK PLACE | Dweling | 66.1 | 67.2 | 65．9 | －0．2 | Neogigiole Beneificial | 67.1 | 1.0 | Negiligie Aaverse | ${ }_{53,2}^{53}$ | 年4．2 |  |
|  | ${ }^{\text {Oweling }}$ | ${ }_{66.1}^{66.1}$ | 67.2 | ${ }_{65.9}^{659}$ | －0．2 | Negiligible Benenitical | ${ }^{67.1}$ | 1.0 | Negigigibe Adversse | ${ }^{53.2} 5$ | 54．2 | 54.1 54.1 |
| STEWART PARK COURT， 58, STEWART PARK PLACE | Dwelling | 66.1 | 67.2 | 65.9 | －0．2 | Negligible Beneficial | 67.1 | 1.0 | Negligible Adverse | 53.2 | 54.2 | 54.1 |
| 1，STEWART PARK PLACE | Dwelling | 63.7 | 65.2 | 63.4 | －0．3 | Negligible Beneficial | 65.0 | 1.3 | Negiligile Adverse | 51.1 | 52.4 | 52.2 |
| 10，STEWART PARK PLACE | welling | 60.1 | 61.2 | 59.9 | －0．2 | Negligible Beneficial | 61.1 | 1.0 | Negligible Adverse | 47.8 | 48.8 | 48.7 |
| 11，STEWART PARK PLACE | welling | 59.4 | 60.6 | 59.2 | －0．2 | Negligible Beneficial | 60.4 | 1.0 | Negigigile Adverse | 47.2 | 48.3 | 48.1 |
| 12，STEWART PARK PLACE | welling | 58．9 | 60．2 | 58.7 59.9 | －0．2 | $\frac{\text { Negilibile Beneficial }}{\text { Negligible }}$ | 60．0 | 1.1 | Negiligibie Adverse | ${ }_{46.7}^{467}$ | 47.9 | ${ }_{47.7}^{47.6}$ |
| 14, STEWART PARK PLACE | Dwelling | 60.5 | 61.8 | 60.3 | －0．2 | Negligible Beneficial | 61.7 | 1.2 | Negiligibe Adverse | 48.2 | 49.4 | 49.3 |
| 15，STEWART PARK PLACE | Dwelling | 57.4 | 58.6 | 57.2 | －0．2 | Negligible Beneficial | 58.6 | 1.2 | Negiligile Adverse | 45.4 | 46.5 | 46.5 |
| 16，STEWART PARK PLACE | Oweling | 56.9 | 58.0 | 56.7 | －0．2 | Negligible Beneficial | 58.0 | 1.1 | Negligible Adverse | 44.9 | 45.9 | 45.9 |
| 17．STEWART PARK PLACE |  | 54.0 | 54.8 | 53．8 | －0．2 | Negligible Beneficical | 54.8 56 | 0.8 | Negigigio Adverse | 42.3 | ${ }^{43.1}$ | ${ }_{4}^{43.1}$ |
| $\frac{18, \text { STEWART PARK PLACE }}{\text { 2，STEWART PARK PLACE }}$ | Dwelling | 54.5 63.2 | 64.6 | 㐌6．3．9 | －0．3 | Negiligioe Beneficial | 55．4 | ${ }_{1}^{1.9}$ | Negigigib Adverse | 42．6 | ${ }^{43.5}$ | 43．6 |
| 3，STEWART PARK PLACE | Dwelling | 62.1 | 63.6 | 61.9 | －0．2 | Negligible Beneficial | 63.4 |  | Negligible Adverse | 49.6 | 51.0 | 50.8 |
| 4，STEWART PARK PLACE | Dwelling | 62.1 | 63.6 | 61.8 | －0．3 | Negligible Beneficial | 63.5 | 1.4 | Negiligile Adverse | 49.6 | 51.0 | 50.9 |
| 5，STEWART PARK PLACE | welling | 56.4 | 58.0 | 56.1 | －0．3 | Negligible Beneficial | 57.7 | 1.3 | Negigioble Adverse | 44.5 | 45.9 |  |
| $\frac{6, \text { STEWART PARK PLACE }}{\text { 7，}}$ | Owelling | 59.8 60.4 | 60．9 | 59.5 60.1 | -0.3 -0.3 | $\frac{\text { Negligible Beneficial }}{\text { Negligile }}$ Beneficial | 60.7 61.3 | 0.9 | Negigigile Adverse | 47.6 48.1 | 48.5 49.1 | 48.4 48.9 |
| 8，STEWART PAAK PLACE | Deelling | 60.3 | 61.5 | 60.0 | －0．3 | Negligible Beneficical | 61.3 | 1.0 | Negigible Adverse | 48.0 | 49.1 | 48.9 |
| 9，STEWART PARK PLACE | Dwelling | 54.9 | 56.1 | 54.6 | －0．3 | Negligible Beneficial | 55.9 | 1.0 | Negligible Adverse | 43.1 | 44.2 | 44.0 |
| STEWART PARK，LODGE，STEWART PARK，HILTON ROAD | Dwelling | 48.4 49.8 | 48.9 | 48.4 49.9 | ${ }_{0}^{0.0}$ | Nono Change | 49.4 50.6 | 1.0 | $\frac{\text { Negigigle Adverse }}{\text { Nefligible Adverse }}$ | 37.3 38.6 | 37.7 385 | 38.2 39.3 |
| 10，STRACHAN PLACE | Welling | 51.3 | 51.1 | 51.4 | 0.1 | Negigigile Adverse | 52.1 | 0.8 | Negiligile Adverse | 39.9 | 39.7 | 40.6 |
| 11，STRACHAN PLACE | Oweling | 51.3 | 51.0 | 51．4 | 0.1 | Negigigibe Adverse | 52．1 | 0.8 | Negigigibe Adverse | 39.9 | 39.6 | 40.6 |
| 12，STRACHAN PLACE | ${ }^{\text {Owelling }}$ Dowling | ¢19．4 | 55.0 50.0 | ${ }^{51.5}$ | 0.1 | Neogigioble Adverse | 52.2 50.5 | 0.8 1.1 | Negigigib Adverse | ${ }_{30.0}^{40.0}$ | ${ }_{39.7}^{39.7}$ | ${ }_{39.2}^{40.7}$ |
| 3，STRACHAN PLACE | Dwelling | 50.2 | 50.7 | 50.3 | 0.1 | Negligible Beneficial | 51.2 | 1.0 | Negligible Adverse | 38.9 | 39.4 | 39.8 |
| 4．STRACHAN PLACE | Deelling | 50.5 | 51.0 50.0 | 50.6 50.7 | 0.1 | Negiligibe Adverse | 51.6 | 1.1 | Negiligile Adverse | 39.2 | 39.6 | 40.2 |
| 5，STTACHAN PLACE | Dweling | 50．6 | 年50．3 | 50．7 | ${ }_{0}^{0.1}$ | Negigigib Adverse | － 51.3 | 0.7 | Negigigib Adverse | 39.3 39.1 | 39.0 <br> 38.8 | 39.9 39.7 |
| 7，STRACHAN PLACE | Dwelling | 51.0 | 50.7 | 51.1 | 0.1 | Negigioble Adverse | 51.8 | 0.8 | Negiligible Adverse | 39.6 | 39.4 | 40.4 |
| 8，STTACHANPLACE | Dweling | 51.0 | 50.7 |  | 0.1 | Negiligibe Adverse |  |  | Negiligile Adverse | 39.6 | 39.4 |  |
| 9，STRACHANPLACE | Oweling | 51.5 | 51.3 | 51.6 | 0.1 | Negigigile Adverse | ${ }_{52}^{52.3}$ | ${ }^{0.8}$ | Negligiole Adverse | 40.1 | 39.9 | 40.8 |
| It， 11. SUMMER STREET，WOODSIDE | Oweling | －${ }_{50.2}^{50.6}$ | $\stackrel{52.3}{52.6}$ | 51．3 | 0.1 | $\frac{\text { Negifigibe Benenicial }}{\text { Neoligiole Adverse }}$ | $\stackrel{52.0}{52.0}$ | 1.4 | Neoligible Adverse | ${ }^{39.3}$ |  | ${ }^{40.7}$ |
| 13 I SUMMER STREET，WOODSIDE | Dwelling | 50.5 | 52.4 | 50.6 | 0.1 | Negligible Adverse | 51.9 | 1.4 | Negligible Adverse | 39.2 | 40.9 | 40.4 |
| 15，SUMMER STREET，WOOOSSIDE | Deelling | 50.3 | 51.9 | 50.4 | 0.1 | Negigioble Adverse | 51.5 | 1.2 | Negiligile Adverse | 39.0 | 40.4 | 40.1 |
| $\frac{15, \text { SUMMER STREET，WOODSIDE }}{}$ | Dwelling | 50.7 50.7 | 52.4 52.4 | 50.9 50.9 | 0.2 0.2 | $\frac{\text { Negiligib Adverse }}{\text { Negigiole Adverse }}$ | 52.0 52.0 | 1.3 1.3 | $\frac{\text { Negligible Adverse }}{\text { Negligible Adverse }}$ | 39.4 39.4 | 40.9 40.9 | 40.5 40.5 |
| 19，SUMMER STREET，WOODSIDE | Dwelling | 60.6 | 66.0 | 60.8 | 0.2 | Negigioble Adverse | 64.2 | 3.6 | Minor Adverse | 48.3 | 53.1 | 51.5 |
| 2，SUMMER STREET，WOODSIIE | Deelling | 50.0 | 51.0 | 50.2 | 0.2 | Negigioble Adverse | 50.8 | 0.8 | Negligible Adverse | 38.7 | 39.6 | 39.5 |
| $\frac{7}{7, \text { SUMMER STREET，WOODSIDE }}$ | Dwelling | 49.4 57.6 | 50.8 62.2 | 49.5 57.7 | 0.1 0.1 | Negigigib Adverse | 50.6 60.6 | 1.2 3.0 | $\frac{\text { Negiligle Adverse }}{\text { Minor Adverse }}$ | 38.2 45.6 | 39.5 497 | 39.3 48.3 |
| 9，SUMMER STREET，WOODSIDE | Dwelling | 50.3 | 51.9 | 50.4 | 0.1 | Negiligile Adverse | 51.5 | 1.2 | Negligible Adverse | 39.0 | 40.4 | 40.1 |
| SUNNYBRAE COTTAGES，2，MILL LADE WYND，DANESTONE | Dwelling | 56.9 | 59.0 | 56.4 | －0．5 | Negligible Beneficial | 58.2 | 1.3 | Negigigile Adverse | 44.9 | 46.8 | 46.1 |
| SUNNYBRAE COTTAGESS．4，MILL LADE WYND，DANESTONE | Deeling | 56.4 | 58.4 | 55.8 | －0．6 | Negligible Beneficicial | 57.7 | ${ }_{1}^{1.3}$ | Negigiole Adverse | 44.5 | 46.3 | 45.7 |
| SUNYBRAE COTTAGES， 6 ，MLLL LADE WYND，DANESTONE | Dweling | －55．6 | $\stackrel{57.6}{55.6}$ | $\stackrel{55.1}{53.5}$ | -0.5 -0.5 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ Beneficial | 56.9 55.1 | 1.3 1.1 | Negligible Adverse | ${ }_{42.3}^{43.8}$ | ${ }_{45.6}^{45.8}$ | ${ }_{43.3}^{44.9}$ |
| 1，TALIOR PLACE | eeling | 48.1 | 49.7 | 48.0 | －0．1 | Negligible Beneficicial | 49.3 | 1.2 | Negligible Adverse | 37.0 | 38.5 |  |
| 10，TALOR PLACE | Dwelling | 42.4 | 44.2 | 42.3 | －0．1 | Negligible Beneficial | 43.7 | 1.3 | Negligible Adverse | 31.9 | 33.5 | 33．1 |
| 11，TALLOR PLACE | Owelling | 48.1 | 49.7 | 48.0 | －0．1 | Negligible Beneficial | 49.3 | 1.2 | Negigigile Adverse | 37.0 | 38.5 | 38.1 |
| $\frac{12 .}{14, \text { TALLLOR PLACE }}$ | Dwelling | 42．4 42.4 | $\frac{44.2}{44.2}$ | ${ }_{42.3}^{42.3}$ | －0．1 | Negiligile Beneficial | $\frac{43.7}{43.7}$ | 1.3 1.3 1 | $\frac{\text { Negigigble Adverse }}{\text { Nesfigiole Adverse }}$ | 31.9 31.9 | 33．5 33.5 | 33.1 33.1 |
| 15，TALLOR PLACE | Delling | 47.6 | 50.2 | 47.5 | －0．1 | Negligible Beneficicial | 49.5 | 1.9 | Negiligible Adverse | 36.6 | 38.9 | 38.3 |
| 16，TALLOR PLACE | Dwelling | 42.4 476 | 44．2 | 42.3 475 | －0．1 | Negligible Benefitical | 43.7 | ${ }_{1}^{1.3}$ | Negiligible Adverse | 31.9 | ${ }^{33.5}$ | ${ }^{33.1}$ |
| 17，TAALLOR PPACACE | Dwelling | ${ }_{42.4}^{47.6}$ | 50．2 44.2 | ${ }_{42.3}$ | －0．1 | Negiligiole Beneiticial | 49.7 43.7 | 1.3 | Negigigible Adverse | 36.9 31.9 | 38.9 33.5 | 38.3 33.1 |
| 19．TALLOR PLACE | Dewling | 47.6 | 50.2 | 47.5 | －0．1 | Negligible Beneficical | 49.5 | 1.9 | Negligible Adverse | 36.6 | 38.9 | 38.3 |
|  | Dwelling | ${ }^{42.4} 42.4$ | ${ }_{44.2}^{44.2}$ | ${ }_{42.3}^{42.3}$ | -0.1 -0.1 | ${ }^{\text {Negegigigible }}$ Beneneficicial | ${ }_{43.7}^{43.7}$ | 1.3 1.3 | Negigible Avverse | 31.9 31.9 | ${ }_{33.5}^{33.5}$ | ${ }_{33.1}^{33.1}$ |
| 21，TALOR PLACE | Dwelling | 47.6 | 50.2 | 47.5 | －0．1 | Negligible Beneficial | 49.5 | 1.9 | Negigigile Adverse | 36.6 | 38.9 | 38.3 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 <br> Lnight,outside | DM33 Lnight,outside | DS33 <br> Lnight,outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 22, TALLOR PLACE | Dwelling | 42.4 | 44.2 | 42.3 | 0.1 | Negligible Beneficical | 43.7 | 1.3 | Negiligibe Adverse | 31.9 | 33.5 | 33.1 |
| $\frac{23, \text { TAlLOR PLACE }}{24, \text { TAlOR PLACE }}$ | $\frac{\text { Dwelling }}{\text { Owelling }}$ | $\frac{47.6}{42.4}$ | $\frac{50.2}{44.2}$ | $\frac{47.5}{42.3}$ | -0.1 -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negligibl } \text { Beneficial }}$ | $\frac{49.5}{43.7}$ | 1.9 1.3 | Negligible Adverse | 36.6 31.9 | 38.9 33.5 | 38.3 33.1 |
| 24, 2 , TALLOR PPLACE | Dweliling | ${ }^{42.4} 47.6$ | ${ }_{50.2}^{44.2}$ | ${ }_{47.5}^{42.3}$ | -0.1 | Negoligible Beeneficial | 49.5 | 1.9 | Neoligibile Adverse | 36.6 | 38.9 | 38.3 |
| 26, TALOR PLACE | Dwelling | 44.1 | 46.2 | 44.0 | -0.1 | Negligible Beneficial | 45.7 | 1.6 | Negligible Adverse | 33.4 | 35.3 | 34.9 |
| 28, TALOR PLACE | Dwelling | 44.1 | 46.2 | 44.0 | -0.1 | Negligible Beneficial | 45.7 | 1.6 | Negiligile Adverse | 33.4 | 35.3 | 34.9 |
| 3, TALLOR PLACE | Dwelling | 48.1 | 49.7 | 48.0 | -0.1 | Negligible Beneficial | 49.3 | 1.2 | Negiligile Adverse | 37.0 | 38.5 | 38.1 |
| 30, TALLOR PLACE | Dwelling | 44.1 | 46.2 | 44.0 | -0.1 | Negligible Beneficial | 45.7 | 1.6 | Negligible Adverse | 33.4 | 35.3 | 34.9 |
| $\frac{\text { 32, TALLOR PLACE }}{\text { 34, TALOR PLACE }}$ | Dwelling | $\frac{44.1}{44.1}$ | $\frac{46.2}{46.2}$ | 44.0 44.0 | -0.1 -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ | ${ }_{45.7}^{45.7}$ | 1.6 1.6 | Negligible Adverse | 33.4 33.4 | ${ }_{35.3}^{35.3}$ | 34.9 34.9 |
| 36, TALLOR PLACE | Dwelling | 44.1 | 46.2 | 44.0 | -0.1 | Negligible Benenicicial | 45.7 | 1.6 | Negiligible Adverse | 33.4 | ${ }_{35.3}$ | 34.9 |
| 38, TALLOR PLACE | Dwelling | ${ }_{4}^{4.1}$ | ${ }_{46.2}^{46}$ | ${ }^{44.0}$ | ${ }^{0.1}$ | Negligible Beneficial | 45.7 | 1.6 | Negligible Adverse | 33.4 319 | $\begin{array}{r}35.3 \\ 335 \\ \hline\end{array}$ | 34.9 33 |
| 4, TALLOR PLACE | Dwelling | $\frac{42.4}{44 .}$ | 44.2 | 42.3 | -0.1 | $\frac{\text { Negligible Benenitical }}{\text { Negliobl }}$ Benoficial | ${ }_{457}^{43.7}$ | ${ }_{1}^{1.3}$ | Negligible Adverse | 31.9 33.4 | 33.5 353 | 33.1 34 |
| 42, TALOR PLACE | Dwelling | 46.9 | 50.7 | 46.9 | 0.0 | No Change | 49.7 | 2.8 | Negiligile Adverse | 35.9 | 39.4 | 38.5 |
| 44, TALLOR PLACE | Dwelling | 46.9 | 50.7 | 46.9 | 0.0 | No Change | 49.7 | 2.8 | Negigigible Adverse | 35.9 | 39.4 | 38.5 |
| 46, TALLOR PLACE | Deelling | 46.9 | 50.7 | 46.9 | 0.0 | No Change | 49.7 | 2.8 | Negigioble Adverse | 35.9 | 39.4 | 38.5 |
| 48, TALLOR PLACE | welling | 46.9 | 50.7 | 46.9 | 0.0 | No Change | 49.7 | ${ }^{2.8}$ | Negigigibe Adverse | 35.9 | 39.4 | 38.5 |
| 5, TALOR PLACE | Dweling | 48.1 | 49,7 | 48.0 | -0.1 | Negligible Benenicial | 49.3 | 1.2 | Negigigie Adverse | 37.0 35.9 | 38.5 394 | 38.1 385 |
| 50, TAALOR PLACE | Dwelling | 46.9 | 50.7 | 46.9 | 0.0 | No Change | 49.7 | ${ }^{2.8}$ | Neogigigile Adversse | $\stackrel{35.9}{35.9}$ | 39.4 | ${ }^{38.5}$ |
| 54, TALLOR PLACE | Dwelling | 46.9 | 50.7 | 46.9 | 0.0 | No Change | 49.7 | 2.8 | Negiligible Adverse | 35.9 | 39.4 | 38.5 |
| 56, TALLOR PLACE | Welling | 46.9 | 50.7 | 46.9 | 0.0 | No Change | 49.7 | ${ }^{2} .8$ | Negigigibe Adverse | 35.9 | 39.4 | 38.5 |
| 56. TALLOR PLACE | Dwelling | 44.3 42.4 | ${ }_{4}^{47.5}$ | ${ }_{42.3}^{44.3}$ | 0.0 <br> 0.0 | ${ }^{\text {Neglioible }}$ Noneneficial | 46.6 43.7 | 2.3 <br> 13 | $\frac{\text { Negigigble Adverse }}{\text { Negiquible Adverse }}$ | 33.6 31.9 | 36.5 335 | 35.7 3.7 |
| 60, TALOR PLACE | Dwelling | 44.3 | 47.5 | 44.3 | 0.0 | No Change | 46.6 | 2.3 | Negligible Adverse | 33.6 | 36.5 | 35.7 |
| 62, TALLOR PLACE | Dwelling | 44.3 | 47.5 | 44.3 | 0.0 | No Change | 46.6 | ${ }^{2.3}$ | Negiligibe Adverse | 33.6 | 36.5 | 35.7 |
| 64, TALLOR PLACE | Dwelling | 44.3 | 47.5 | 44.3 | 0.0 | No Change | 46.6 | ${ }^{2.3}$ | Negiligile Adverse | 33.6 | 6.5 | 35.7 |
| 66, TALLOR PLACE | Dwelling | 44.3 | 47.5 | ${ }^{44.3}$ | 0.0 | No Change | 46.6 | ${ }^{2.3}$ | Negiligibe Adverse | ${ }^{33.6}$ | 36.5 | 35.7 |
| ${ }^{\text {68, TALLOR PLACE }}$ | Dwelling | 44.3 48.1 | 47.5 | 44.3 48.0 | 0.0 -0.1 |  | ${ }_{49.6}^{46.6}$ | ${ }_{1.2}^{2.3}$ | $\frac{\text { Negigigble Adverse }}{\text { Negiquibe Adverse }}$ | 33.6 37.0 | 36.5 38.5 | 35.7 38.1 |
| 70, TALLOR PLACE | welling | 44.3 | 47.5 | 44.3 | 0.0 | No Change | 46.6 | 2.3 | Negigible Adverse | 33.6 | 6.5 | 35.7 |
| 72, TALOR PLACE | Dwelling | 44.3 | 47.5 | 44.3 | 0.0 | No Change | 46.6 | 2.3 | Negigigile Adverse | 33.6 | 36.5 | 35.7 |
| 74, TALLOR PLACE | Deelling |  | 47.5 | 44.3 |  | No Change | 46.6 | ${ }^{2.3}$ | Negigigibe Adverse | 33.6 | 36.5 |  |
| 9, TALIOR PLACE | Owelling | ${ }^{48.1}$ | 49.7 | 48.0 | -0.1 | Negligible Beneficiol | 49.3 | 1.2 | Neoligible Adverse | 37.0 | 38.5 | ${ }_{38.1}$ |
| 1, TANFIELD AVENUE | Dwelling | 55.8 | 59.7 | 59.0 | 0.2 | Negigiole Adverse | 59.5 | 0.7 | Negigigile Adverse | 46.7 | 47.5 | 47.3 |
| 2. TANFIELD AVENUE | Dwelling | 53.5 | 54.4 575 5 | 53.7 | 0.2 | Negligible Adverse | 54.3 | 0.8 | Negligible Adverse | $\frac{41.9}{415}$ | 42.7 <br> 45 | $\frac{42.6}{452}$ |
| $\frac{3}{4 ., ~ T A N F I E L D ~ A V E N U E ~}$ | Dwelling | 49.3 | 50.3 | 49.5 | 0.2 | Neogigigile Adversse | 50.2 | 0.9 | Neogigigle Adversse | 48.1 | ${ }^{49.0}$ | 38.9 |
| 5, TANFIELD AVENUE | Deelling | 48.7 | 49.7 | 48.9 | 0.2 | Negigiole Adverse | 49.6 | 0.9 | Negigigile Adverse | 37.6 | 38.5 | 38.4 |
| 6, TANFIELD AVENUE | Wwelling | 49.1 | 50.0 | 49.3 | 0.2 | Negiligile Adverse | 50.0 | 0.9 | Negiligile Adverse | 37.9 | 38.7 | 38.7 |
| $\frac{7,}{\text { 7, TANFIELD AVENUE }}$ | Dwelling | 51.8 48.9 | 52.6 49.9 | 52.1 49.1 | 0.3 0.2 | Negigigle Adverse | 52.6 49.8 | 0.8 0.9 | Negigigle Adverse | 40.4 37.7 | ${ }^{41.1} 3$ | 41.1 38.6 |
| 1 1, TANFIELD COURT | Dwelling | 50.0 | 51.3 | 50.2 | 0.2 | Negiligibe Adverse | 51.4 | 1.4 | Negigigibe Adverse | 38.7 | 39.9 | 40.0 |
| $\frac{\text { 2, TANFIELL }}{3,}$ TANFOULED COURT | Dwelling | 50.0 47.5 | 51.3 48.7 | 50.2 47.7 | 0.2 | Negigible Adverse | 51.4 48.7 | 1.4 1.2 1 | Negigible Adverse | 38.7 36.5 | 39.9 37.6 | 40.0 37.6 |
| 4, TANFIELD COURT | Dwelling | 45.4 | 46.9 | 45.7 | 0.3 | Negigiolie Adverse | 47.0 | 1.6 | Negligible Adverse | 34.6 | 35.9 | 36.0 |
| 5, TANFIELD COURT | Dwelling | 45.4 | 47.1 | 45.7 | 0.3 | Negigigile Adverse | 47.3 | 1.9 | Negigigile Adverse | 34.6 | 36.1 | 36.3 |
| ${ }^{6 . \text { C TANFIEL }} 7$ |  | 46.2 | 48.3 |  |  | Negiligibe Adverse | 48.6 | 2.4 | Negiligile Adverse |  | 37.2 |  |
| \%, TAANFELED COURT | Dweling | ${ }_{44.6}^{44 .}$ | ${ }_{46.1}^{46.1}$ | ${ }_{44.9}$ | ${ }_{0}^{0.3}$ | Neogigigie Adverse | ${ }_{46.1}^{46.8}$ | ${ }_{1}^{1.8}$ | Negligiole Avverse | ${ }_{33,9}$ | ${ }_{35.2}$ | ${ }_{35,2}$ |
| 9, TANFIELD COURT | Dwelling | 45.7 | 47.3 | 46.0 | 0.3 | Negigiole Adverse | 47.5 | 1.8 | Negligible Adverse | 34.9 | 36.3 | 36.5 |
| ST Joseph' P PESBYTERY, 2, TANFIELD WALK | Dwelling | 67.3 | 68.1 | 67.6 | 0.3 | Negigigibe Adverse | 68.0 | 0.7 | Negiligible Adverse | 54.3 | 55.0 | 54.9 |
| FLLAT 1, 3, TANFIELL WALK | ${ }^{\text {Dwelling }}$ Diveling | 66.4 | $\frac{67.4}{67.4}$ | ${ }_{66.6}^{66.6}$ | 0.2 | Negigible Adverse | ${ }^{67.2}$ | 0.8 | Neoligibl Adverse | ${ }_{53}^{53.5}$ | 54.4 54.4 | 54.2 54.2 |
| FLAT 3, 3, TANFIELD WALK | Dwelling | 66.4 | 67.4 | 66.6 | 0.2 | Negigigile Adverse | 67.2 | 0.8 | Negigigile Adverse | 53.5 | 54.4 | 54.2 |
| FLAT 2,9, TANFIELL WALK | Deelling | 58.5 | 59.3 | 58.7 | 0.2 | Negigibile Adverse | 59.1 | 0.6 | Negigigle Adverse | 46.4 | 47.1 | 46.9 |
| 11, TANFIELD WALK | Dwelling | 58.5 58.5 | 59.3 59.3 | 58.7 58.7 | 0.2 | Negiligil Adverse | 59.1 59.1 | 0.6 | Negligible Adverse Nefigible Adverse | 46.4 46.4 | 47.1 471 | 46.9 469 |
| 15 T TANFIELD WALK | Dwelling | 56.8 | 57.6 | 57.1 | 0.3 | Negiligile Adverse | 57.5 | 0.7 | Negligible Adverse | 44.9 | 45.6 | 45.5 |
| 17, TANFIELD WALK | Deelling | 56.8 | 57.6 | 57.1 | 0.3 | Negigiole Adverse | 57.5 | 0.7 | Negligible Adverse | 44.9 | 45.6 | 45.5 |
| 19, TANFIELD WALK | Dweling | 56.2 | 57.0 570 | 56.4 | 0.2 | $\frac{\text { Negigigib Adverse }}{\text { Negigible Adverse }}$ | $\stackrel{56.9}{56.9}$ | ${ }_{0}^{0.7}$ | $\frac{\text { Negigigib Adverse }}{\text { Negigible Adverse }}$ | ${ }_{44.3}^{44.3}$ | 45.0 45.0 | 44.9 |
| 22, TANFIELD WALK | Dwelling | 53.2 | 54.2 | 53.4 | 0.2 | Neogigigle Adverse | 54.1 | 0.9 | Negigigile Adverse | 44.6 | 42.5 | 42.4 |
| 22, TANFIELD WALK | Dwelling | 53.2 | 54.2 | 53.4 | 0.2 | Negigiolie Adverse | 54.1 | 0.9 | Negigigibe Adverse | 41.6 | 42.5 | 42.4 |
| $\frac{\text { 22, TANFIELD WALK }}{\text { 20 TANFILID WALK }}$ | Dwelling | 53.2 | 54.2 | 53,4 | 0.2 | Negiligile Adverse | 54.1 | 0.9 | Negigigle Adverse | 41.6 | 42.5 | 42.4 |
| $\frac{22 .}{}$ 2, TANFIELD WALK | ing | 53.2 53.2 | $\begin{array}{r}54.2 \\ 54.5 \\ \hline\end{array}$ | 53.4 | 0.2 | Negiligibe Adverse | $\begin{array}{r}54.1 \\ 54.4 \\ \hline\end{array}$ | 0.9 | Negiligibe Adverse | 41.6 | 42.5 | 42.4 |
| 24. TANFIELD WALK | Dwelling | 52.4 | ${ }_{53,4}$ | 52. | 0.2 | Neogigiole Adverse | ${ }_{53,4}$ | 10 | Negigigie Adverse | 40.9 | 41.8 | 418 |
| 24, TANFIELD WALK | Dwelling | 52.4 | 53.4 | 52.6 | 0.2 | Negigigile Adverse | 53.4 | 1.0 | Negiligile Adverse | 40.9 | 41.8 | 41.8 |
| 24, TTNFIELD WALK | Dwelling | 52.4 | 53.4 | 52.6 | 0.2 | Negigigile Adverse | 53.4 | 1.0 | Negigible Adverse | 40.9 | 41.8 | 41.8 |
| 24, TANFIELD WALK | Dwelling | 52.4 52.3 | ${ }_{\text {53.4 }}^{53.2}$ | 52.6 52.6 | ${ }_{0}^{0.2}$ | Negigible Adverse | 53.4 53.1 | 1.0 0.8 | Neoligibe Adverse | 40.9 40.8 | $\frac{41.8}{41.6}$ | $\frac{41.8}{41.5}$ |
| 26, TTNFIELD WALK | Dweling | 52.6 <br> 508 <br> 0.8 | 53.6 <br> 517 <br> 17 | 52.8 510 | 0.2 | Negligible Adverse | -53.6 | 1.0 0.8 | Negiligle Adverse | 41.1 | 42.0 | 42.0 |
| $\frac{\text { 27, TANFIELD WALK }}{28, \text { TANFIELD WALK }}$ | Dwelling | 50.8 46.7 | 51.7 47.9 | 51.0 46.9 | ${ }_{0}^{0.2}$ | Negigigib Adverse | 51.6 47.9 | 1.8 1.2 | Negigigib Adverse | ${ }^{39.8}$ | ${ }_{36.8}^{40.3}$ | ${ }^{40.8}$ |
| $\frac{31, \text { TANFIELD WALK }}{\text { 34, TANEILD WALK }}$ | Deelling | 50.0 | 51.0 | 50.2 | 0.2 | Negigigle Adverse | 50.8 | 0.8 | Negigigibe Adverse | 38.7 | 39.6 | 39.5 |
| 34, TANFIELD WALK 36. TANFIELD WALK | Dwelling | ¢50.0 | 51.9 55.1 | 50.5 | 0.5 0.7 | Negigigle Adverse | 52.4 55.8 | 2.4 3.0 | Negiligil Adverse | ${ }^{38.7} 4$ | 40.4 43.3 | 40.9 44.0 |
| 4, TANFIELD WALK | Welling | 65.2 | 66.0 | 65.4 | 0.2 | Negigiolie Adverse | 65.9 | 0.7 | Negigioble Adverse | 52.4 | 53.1 | 53.0 |
|  | Oweling | 62.5 62.5 | ${ }^{63.2}$ | $\frac{62.7}{62.7}$ | 0.2 | $\xrightarrow{\text { Negigigle Adverse }}$ Negigible Adverse | ${ }_{6}^{63.1}$ | ${ }_{0}^{0.6}$ | Negigible Adverse | 50.0 | ¢0.6 | 50.5 |

A90/A96 Haudagain Improvement
DMRB Stage 3 Environmental Statement

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 <br> Lnight,outside | DM33 <br> Lnight,outside | $\begin{gathered} \text { DS33 } \\ \text { Lnight,outside } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 7, TANFIELD WALK | Dwelling | 62.5 | 63.2 | 62.8 | 0.3 | Negligible Adverse | 63.1 | 0.6 | Negigigile Adverse | 50.0 | 50.6 | 50.5 |
| 7. TANFIELD WALK | Oweling | 62.5 | 63.2 | ${ }^{62,8}$ | ${ }_{0}^{0.3}$ | Negiligile Adverse | $\frac{63.1}{63.1}$ | ${ }_{0}^{0.6}$ | Negiligile Adverse | 50.0 500 | 50.6 | 50.5 <br> 0.5 |
| 7, TANFIELD WALK | Dwelling | 62.5 62.5 | 63.2 63.2 | 62.8 62.8 | ${ }_{0.3}^{0.3}$ | Negligible Adverse | 63.1 63.1 | ${ }_{0}^{0.6}$ | Negligible Adverse | 50.0 50.0 | 50.6 50.6 | 50.5 <br> 50.5 |
| 9, TANFIELD WALK | Dwelling | ${ }_{58.6}$ | ${ }_{59.4}$ | ${ }_{58.9}$ | ${ }_{0} 0.3$ | Negigigile Adverse | ${ }_{59.3}$ | ${ }_{0} 0.7$ | Negigigible Adverse | 46.5 | ${ }^{50.2}$ | ${ }^{47.1}$ |
| 9, TANFIELD WALK | Dwelling | 58.6 | 59.4 | 58.9 | 0.3 | Negigigile Adverse | 59.3 | 0.7 | Negigigile Adverse | 46.5 | 47.2 | 47.1 |
| ST JOSEPH'S CHURCH, TANFIELD WALK | Church | 64.7 | 65.5 | 64.9 | 0.2 | Negigigile Adverse | 65.4 | 0.7 | Negigigile Adverse | 52.0 | 52.7 | 52.6 |
| THE LODGE, THE LODGE, GRANITEHILL ROAD, NORTHFIELD | Dwelling | 48.6 | 49.5 | 48.6 | 0.0 | No Change | 49.7 | 1.1 | Negigiole Adverse | 37.5 | 38.3 | 38.5 |
| THE NEUK, THE NEUK, LAUREL LANE, BRIDGE OF DON | Dwelling | 63.3 | 63.5 | 63.2 | ${ }^{0.1}$ | Negligible Beneficial | 63.9 | 0.6 | Negligible Adverse | 50.7 | 50.9 | 51.2 |
| THE QUARRY CENTRE, CUMMINGS PARK CRESCENT, NORTHFIELD | Council | 46.2 | 46.7 | 46.2 | 0.0 | No Change | 47.1 | 0.9 | Negigigile Adverse | 5.3 | 35.8 | 36.1 |
| NORTH COURT HILLHEAD, 147, DON STREET, OLD ABERDEEN | Dwelling | 55.0 | 55.5 | 55.2 | 0.2 | Neoligible Adverse | 55.9 | 0.9 | Negiligile Adverse | 43.2 | 43.7 | 44.0 |
| NORTH COURT HILLHEAD, 155, DON STREET, OLD ABERDEEN | Dwelling | 55.0 | 55.5 | 55.2 | 0.2 | Negligible Adverse | 55.9 | 0.9 | Negligible Adverse | 43.2 | 43.7 | 44.0 |
| GRANTIEHILL L TERRACE, , , UPPER P PRSLEY ROAD | Dwelling | 59.4 | 59.4 | 59.7 | 0.3 | Negigiole Adverse | 60.0 | 0.6 | Negiligile Adverse | 47.2 | 47.2 | 47.7 |
| GRANITEHILL TERRACE, 2, UPPER PERSLEY ROAD | ing | 59.4 | 59.4 | 59.7 | ${ }^{0.3}$ | Negigigile Adverse | 60.0 | 0.6 | Negligible Adverse | 47.2 | 47.2 | ${ }_{477}^{477}$ |
| GRANTTEHLLL TERRACE, 3, UPPER PERSLEY ROAD | Dwelling | 59.4 | 59.4 |  |  | Negiligile Adverse | 60.0 |  |  | 47.2 | 47.2 | 47.7 477 |
| GRANITEHLLL TERRACE, 5, UPPER PERSSLEY ROAD | Dwelling | ${ }_{59.4}$ | 59.4 | 59.7 | 0.3 | Neogigioble Adverse | 60.0 | 0.6 | Neogigioble Adverse | 47.2 | 472 | ${ }_{477}$ |
| GRANTITHILL TERRACE, 6, UPPER PERSLEY ROAD | Dwelling | 59.4 | 59.4 | 59.7 | 0.3 | Negigigibe Adverse | 60.0 | 0.6 | Negigigibe Adverse | 47.2 | 47.2 | 47.7 |
| GRANTEHILL TERRACE, 7, UPPER PERSLEY ROAD | Dwelling | 56.9 | 57.2 | 56.8 | -0.1 | Negligible Beneficial | 57.7 | 0.8 | Negigioble Adverse | 44.9 | 45.2 | 45.7 |
| GRANTIEHILL TERRACE, 8 , UPPER PERSLEY ROAD | Dwelling | 56.9 | 57.2 | 56.8 | -0.1 | Negligible Beneficial | 57.7 | 0.8 | Negiligile Adverse | 44.9 | 45.2 | 45.7 |
| GRANTEHLL IERRACE, 9 , UPPER PERSLEY ROAD | weling | 56.9 | 57.2 | 56.8 | -0.1 | Negiligiole Beneilical | 57.7 577 | ${ }^{0.8}$ | Negiligile Aaverse | 44.9 | 45.2 | 45.7 457 |
| GRANITEHLLL TERRACE, 10, UPPER PRERSLEY YOAD | weling | 56.9 | 57.2 | 56.8 | -0.1 | Negigigile Beneficial | 57.7 | 0.8 | Negligible Aaverse | 44.9 | 45.2 | 45.7 <br> 15 |
| GRANITEHLLL TERRACE, 11, UPPER PERSLEY ROAD | Oweling | 56.9 | 57.2 | 56.8 | ${ }^{-0.1}$ | Negligible Beneficical | 57.7 | 0.8 | Negligible Adverse | 44.9 | 45.2 | 45.7 |
| GRANIEHLL TERRACE, 12, UPPER PERSLEY YOAD | Oweling | 56.9 57.6 | 57.2 57.8 | 56.8 57.6 | $-01$ | Negligibe Beneficial | 57.7 58.3 | 0.8 | $\frac{\text { Negigigle Adverse }}{\text { Nefligible Adverse }}$ | 44.9 | $\frac{45.2}{45.8}$ | 45.7 |
| GRANTEHILL TERRACE, 15, UPPER PERSLEY ROAD | Dwelling | 55.8 | 57.0 | 56.7 | -0.1 | Negligible Beneficial | 57.5 | 0.7 | Negigigible Adverse | 44.9 | 45.0 | 45.5 |
| 22, VALENTINE DRIVE | welling | 69.8 | 68.2 | 69.9 | 0.1 | Negigigibe Adverse | 68.6 | -1.2 | Negligible Beneficial | 55.6 | 55.1 | 55.5 |
| 24, VALENTINE DRIVE | Dwelling | 71.8 | 69.8 | 71.9 | 0.1 | Negigigile Adverse | 70.3 | -1.5 | Negligible Beneficial | 58.4 | 56.6 | 57.0 |
| VIEW COTTAGE, VIEW COTTAGE, GRANDHOLM COTTAGES, GRANDHOLM | Dwelling | 55.3 | 56.3 | 55.2 | -0.1 | Negligible Beneficial | 55.9 | 0.6 | Negiligile Adverse | 43.5 | 44.4 | 44.0 |
| THE LARCHES, 1 , WALLACEBRAE AVENUE, DANESTONE | welling | 53.7 | 52.2 | 53.6 | -0.1 | Negligible Beneficial | 54.2 | 0.5 | Negigigile Adverse | 42.1 | 40.7 | 42.5 |
| 10, WALLACEBRAE AVENUE, DANESTONE | weling | 57.4 | 59.1 | 57.1 | -0.3 | Negligible Beneficial | 58.4 | 1.0 | Negigigibe Adverse | 45.4 | 46.9 | 46.3 |
| 11, WALLACEBRAE AVENUE, DANESTONE | welling | 56.4 | 57.7 | 56.2 | -0.2 | Negligible Beneficial | 57.3 | 0.9 | Negigigibe Adverse | 44.5 | 45.7 | 45.3 |
| 12, WALLACEBRAE AVENUE, |  | 54.3 | 54.5 | 54.0 | -0.3 | Negligible Beneficical | 54.8 | 0.5 | Negigioble Adverse | 42.6 | 42.8 | 43.1 |
| 14, WALLACEERAAE AVENUE, DANESTONE | Deelling | 53.7 | 54.3 | 53.5 |  | Negigigile Benenitical | 54.3 |  | Negiligibe Adverse | 42.1 |  | 42.6 |
| 15, WALLACEBRAE AVENUE, DANESTONE |  |  | 58.5 | 57.2 | -0.2 | Negigigile Beneficial | 58.2 | 0.8 | Negiligile Adverse |  |  | 46.1 |
| 16, WALLAC ARAEAVENUE, DANESTONE | Oweiling | 57.4 | 58.5 | 57.2 | -0.2 | Negiligibe Beneniciar | 58.2 | 0.8 | Negiqigile Adverse | 45.4 | ${ }_{46.4}$ | 46.1 |
| 18, WALLACEBRAE AVENUE, DANESTONE | Dwelling | 58.0 | 60.1 | 57.8 | -0.2 | Negligible Beneficicial | 59.2 | 1.2 | Negligible Adverse | 45.9 | 47.8 | 47.0 |
| 19, WALLACEBRAE AVENUE, DANESTONE | Dwelling | 53.5 | 53.8 | 53.4 | -0.1 | Negligible Beneficial | 54.2 | 0.7 | Negiligile Adverse | 41.9 | 42.2 | 42.5 |
| 2, WALLACEBRAE AVENUE, DANESTONE | Dwelling | 55.5 | 55.0 | 55.3 | -0.2 | Negligible Beneficial | 55.9 | 0.4 | Negigioble Adverse | 43.7 | 43.2 | 44.0 |
| 20, WALLACEBRAEAVENUE, DAAESTONE | ${ }^{\text {Dwelling }}$ Dowiling | 57.5 55.2 | ${ }_{59.3}^{56.8}$ | 57.2 54.7 | -0.3 -0.5 | Negiligle Beneficial | 58.6 56.2 | 1.1 1.0 | Negigible Adverse | 453.5 | ${ }_{4}^{44.9}$ | ${ }_{46.5}^{46.5}$ |
| 22, WALLACEBRAE AVENUE, DANESTONE | Dwelling | 58.0 | 60.0 | 57.7 | -0.3 | Negligible Beneficial | 59.2 | 1.2 | Negiligile Adverse | 45.9 | 47.7 | 47.0 |
| 23, WALLACEBRAEAVE AVEE. DANESTONE | Oweling | 55.7 | 56.4 | 55.4 | -0.3 | Negligible Beneficial | 56.4 | 0.7 | Negigioble Adverse | 43.9 | 44.5 | 44.5 |
| 24, WALLACEBRAE AVENUE, DANESTONE | Dweling | 55.8 55.3 | 56.5 | $\begin{array}{r}55.5 \\ 550 \\ \hline 5\end{array}$ | -0.3 | $\frac{\text { Negiligiole Beneficial }}{\text { Negligible Beneficial }}$ | 56.5 | ${ }_{0}^{0.7}$ | Negiligie Adverse | 44.0 | 44.6 | 44.6 |
| 26, WALLACEBRAE AVENUE, DANESTONE | Dwelling | 55.3 | 55.6 | 55.0 | -0.3 | Negligible Beneficial | 55.9 | 0.6 | Negligible Adverse | 43.5 | 43.8 | 44.0 |
| 27, WALLACEBRAE AVENUE, DANESTONE | Welling | 52.6 | 52.8 | 52.3 | -0.3 | Negligible Beneficial | 53.1 | 0.5 | Negiligile Adverse | 41.1 | 41.3 | 41.5 |
| 28, WALLACEBRAE AVENUE, DANESTONE | Dwelling | 52.8 | 52.0 | 52.6 | -0.2 | Negligible Beneficial | 53.2 | 0.4 | Negiligile Adverse | 41.3 | 40.5 | 41.6 |
| 29, WALLACEBRAE AVENUE, DANESTONE | Pwelling | 51.3 | 50.8 | 51.2 | 0.1 | Negligible Beneficial | 51.7 | 0.4 | Negigioble Adverse | 39.9 | , | , 7 |
| 3, WALLACEBRAE AVENUE, DANESTON | welling | 51.6 | 51.8 | 51.5 | -0.1 | Negligible Beneficical | 52.2 | 0.6 | Negiligibie Adverse | 40.2 | ${ }^{40.4}$ | 40.7 |
| 4, WALLACEBRAE AVENUE, DANESTONE | weling | 51.6 |  |  |  | Negiligiole Beneitical |  |  | Negiligile Adverse | 40.2 |  |  |
|  | Oweling | 53.5 | ${ }_{5}^{52.5}$ | 53.5 | -0.2 | Negiligioe Beneficial | 54.9 | ${ }_{0}^{0.4}$ | Negigigie Adverse | ${ }_{41.1}^{42.1}$ | ${ }_{41.9}^{4}$ | 42.4 |
| 7, WALLACEBRAE AVENUE, DANESTONE | Dwelling | 53.4 | 52.8 | 53.3 | -0.1 | Negligible Beneficioal | 54.0 | 0.6 | Negligible Adverse | 41.8 | 41.3 | 42.3 |
| 8, WALLACEBRAE AVENUE, DANESTONE | Dwelling | 57.2 | 58.3 | 57.1 | -0.1 | Negligible Beneficial | 58.1 | 0.9 | Negligible Adverse | 45.2 | 46.2 | 46.0 |
| 9, WALLACEBRAE AVENUE, DANESTONE | Dwelling | 57.0 | 58.8 | 56.8 | -0.2 | Negligible Beneficial | 58.1 | 1.1 | Negligible Adverse | 45.0 | 46.7 | 46.0 |
| 1, WALLACEBRAE CRESCENT, DANESTONE | Oweling | 49.7 | 49.2 | -49.6 | -0.1 | Negigible Benenitical | 50.4 | ${ }_{0}^{0.7}$ | Negiligile Adverse | 38.5 394 | 38.0 | 39.1 |
| 10, WALLACEBAAECAESCEN, DANESTONE | Dwelling | ${ }_{5}^{50.0} 5$ | 50.7 | ${ }_{5}^{50.7}$ | 0.0 | No Co Change | 51.4 51.9 | 0.9 | $\frac{\text { Negligibe Adverse }}{\text { Neoligiole Adverse }}$ | ${ }_{39.6}$ |  |  |
| 12, WALLACEBRAE CRESCENT, DANESTONE | Dwelling | 49.2 | 49.4 | 49.2 | 0.0 | No Change | 50.0 | 0.8 | Negligible Adverse | 38.0 | 38.2 | 38.7 |
| 14, WALLACEBRAE CRESCENT, DANESTONE | Dwelling | 49.0 | 49.2 | 49.0 | 0.0 | No Change | 49.8 | 0.8 | Negiligile Adverse | 37.8 | 38.0 | 38.6 |
| 15, WALLACEBRAE CRESCENT, DANESTONE | welling | 51.1 | 50.7 | 51.1 | 0.0 | No Change | 51.9 | 0.8 | Negigigile Adverse | 39.7 | 39.4 | ${ }^{40.4}$ |
| 16, WALLACEBRAE CRESCENT, DANESTONE | welling | 49.0 | 49.2 | 49.0 | 0.0 | No Change | 49.9 | 0.9 | Negigigile Adverse | 37.8 | 38.0 | 38.6 |
| 17, WALLACEBRAE CRESCENT, DANESTONE | Dwelling | 50.9 | 50.8 | 50.9 | 0.0 | No Change | 51.8 | 0.9 | Negiligile Adverse | 39.5 | 39.5 | ${ }^{40.4}$ |
| 18, WALLACEEBAEC CESCENT, DANESTONE | Owelling | 51.2 | ${ }_{51.1}^{50.5}$ | 51.2 | 0.0 | Negligiole Beneficial | 52.1 | 0.9 | Neogigigle Adverse | ${ }_{39.8}$ | ${ }_{39,7}$ | ${ }_{40.6}^{39.6}$ |
| 2, WALLACEBRAE CRESCENT, DANESTONE | Dwelling | 50.9 | 0.1 | 50.9 | 0.0 | No Change | 51.6 | 0.7 | Negligible Adverse | 39.5 | 8.8 | 40.2 |
| 20, WALLACEBRAE CRESCENT, DANESTONE | Deeling | 50.2 | 50.4 | 50.0 | -0.2 | Negligible Beneficial | 50.8 | 0.6 | Negigigile Adverse | 38.9 | 39.1 | 39.5 |
| $\frac{\text { 21, WALLACEBRAE CRESCENT, DANESTONE }}{\text { 22. WALLACEBRAE CRESCENT DANESTONE }}$ | Dwelling | 51.4 <br> 50.8 | 51.1 51.0 | 51.4 50.5 | 0.0 .0 .3 | Negligible Beneneficial |  | 0.8 0.5 | Negigigle Adverse | ${ }_{30.5}$ | 39.7 39.6 | ${ }_{39.9}$ |
| 23, WALLACEBRAE CRESCENT, DANESTONE | Dwelling | 51.6 | 51.4 | 51.6 | 0.0 | No Change | 52.4 | 0.8 | Negiligible Adverse | 40.2 | 40.0 | 40.9 |
| 24, WALLACEBRAE CRESCENT, DANESTONE | Oweling | 50.7 | 50.9 | 50.4 | -0.3 | Negligible Beneficial | 51.2 | 0.5 | Negigigile Adverse | 39.4 | 39.5 | 39.8 |
| 25, WALLACEBRAEC CESCENT, DANESTONE | Dwelling | 51.9 50.7 | 51.9 50.9 | 51.9 | 0.0 -0.3 | Negligiblie eneneficicial | $\begin{array}{r}52.7 \\ 51.2 \\ \hline\end{array}$ | 0.8 0.5 | Negigigib Adverse | 40.4 | ${ }^{40.4} 30.5$ | ${ }^{41.2} 39.8$ |
| $\frac{27, \text { WALLACEBRAE CRESCENT, DANESTONE }}{28 .}$ | Dwelling | 51.9 | 52.1 50.8 | 51.9 | 0.0 | No Change | 52.8 | 0.9 0.5 | Negiligle Adverse | 40.4 | 40.6 | 41.3 |
| 28, WALLACEERAECRESCENT, ANESTONE | Dwelling | 50.6 50.7 | ${ }^{50.8} 5$ | ${ }_{50.6}^{50.3}$ | -0.3 -0.1 | Negligible Beneficial | ${ }^{\frac{51.1}{51.6}}$ | 0.5 0.9 | Negigible Adverse | 39.3 39.4 | 39.5 39.9 | 39.7 40.2 |
| 3, WALLACEBRAE CRESCENT, DANESTONE | Dwelling | 50.8 | 50.2 | 50.8 | 0.0 | No Change | 51.5 | 0.7 | Negigiole Adverse | 39.5 | 38.9 | 40.1 |

## Appendix A14．4：Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short－term Daytime Noise Change（dB） | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long－term Daytime Noise Change（dB） | Magnitude of Change | DM18 Lnight，outside | DM33 night，outside | $\begin{gathered} \text { DS33 } \\ \text { Lnight,outside } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 30，WALLACEERAE CRESCENT，DANESTONE | Owelling | 50.5 | 50.8 | 50.3 | －0．2 | Negligible Beneficial | 51.0 | 0.5 | Negiligibe Adverse | 39.2 | 39.5 | 39.6 |
| 31，WALLACEBRAE CRESCENT，DANESTONE | Dweling | 49．5 | 50．0 | 49.5 50.4 | ．0．0 | No Change | $\frac{50.3}{512}$ | ${ }_{0}^{0.8}$ | Negiligle Adverse | 38.3 <br> 39.4 | 38.7 <br> 39.5 | 39.0 <br> 39.8 |
| 32，WALLACEERAECRESCENT，AANESTONE | Dweling | ${ }_{49.7}$ | 50．9 | 50.4 49.7 | －0．0 | Negiligioe Beneficial | － | 0.9 | Neoligigie Avverse | ${ }_{39.5}^{39.4}$ | 39.5 38.9 | 39.8 39.3 |
| 34，WALLACEERAAE CRESCENT，DANESTONE | Dwelling | 50.0 | 50.3 | 49.7 | －0．3 | Negligible Beneficial | 50.5 | 0.5 | Negiligile Adverse | 38.7 | 39.0 | 39.2 |
| 35，WALLACEBRAE CRESCENT，DANESTONE | Dwelling | 49.8 | 50.3 | 49.8 | 0.0 | No Change | 50.7 | 0.9 | Negigigile Adverse | 38.6 | 39.0 | 39.4 |
| 36，WALLACEBRAE CRESCENT，DANESTONE | Deelling | 51.1 | 50.6 | 50.9 | －0．2 | Negligible Benenificia | 51.6 | 0.5 | Negiligible Adverse | 39.7 | 39.3 | 40.2 |
| 37，WALLACEBRAE CRESCENT，DANESTONE | Deelling | 49.7 | 50.2 | 49.7 | 0.0 | No Change | 50.6 | 0.9 | Negigigibe Adverse | $\begin{array}{r}38.5 \\ 3.3 \\ \hline\end{array}$ | 38.9 | 39.3 398 |
| 38，WALLACEEBAAEE CRESCENT，DANESTONE | Dweling | ${ }_{50.6}^{51.1}$ | ${ }_{51.6}^{49.6}$ | ${ }_{50.5}^{50.8}$ | －0．3 | Negiligiole Beneiticial | 51.2 51.7 | ${ }_{0}^{0.6}$ | Negigigibe Adverse | ${ }^{39.7}$ | 40．2 | ${ }^{39.3}$ |
| 4，WALLACEBRAE CRESCENT，DANESTONE | Deeling | 50.6 | 49.7 | 50.6 | 0.0 | No Change | $\stackrel{51.3}{51 /}$ | 0.7 | Negigigibe Adverse | 39.3 | 38.5 | 39.9 |
| 40，WALLACEBRAE CRESCENT，DANESTONE | welling | 51.1 | 50.5 | 50.9 | －0．2 | Negligible Beneficial | 51.6 | 0.5 | Negligible Adverse | 39.7 | 39.2 | 40.2 |
| 41，WALLACEBRAE CRESCENT，DANESTONE | welling | 51.2 | 51.2 | 50.9 | －0．3 | Negligible Beneficial | 51.8 | 0.6 | Negigigile Adverse | 39.8 | 39.8 | 40.4 |
| 43，WALLACEBRAE CRESCENT，DANESTONE | Oweling | 51.1 | 51.5 | 50.9 | －0．2 | Negligible Beneficial | 51.7 | 0.6 | Negigioble Adverse | 39.7 | 40.1 | 40.3 |
| 45，WALLACEERAE CRESCENT，DANESTONE | Dwelling | 51.0 50.1 | 51.4 <br> 50.5 | 50.8 49.8 | -0.2 .0 .3 | $\frac{\text { Negiligiole Beneficial }}{\text { Negligible Beneficial }}$ | 51.6 50.7 | 0.6 | Negigiobie Adverse | 39.6 <br> 38.8 | 40．0 39.2 | 40.2 39.4 |
| 49．WALLACEBRAE CRESCENT DANESTONE | Welling | 50.2 | 50.5 | 50.0 | －0．2 | Negligible Beneficicial | 50.8 | 0.6 | Negoligible Adverse | 38.9 | 39.2 | 39.5 |
| 5，WALLACEBRAE CRESCENT，DANES |  | 51.0 | 50.5 | 51.0 | 0.0 | No Change |  | 0.7 | Negligible Adverse | 9.6 |  | 0.3 |
| 51，WALLACEBRAE CRESCENT，DANESTONE | Deelling | 48.9 | 49.0 | 48.8 | －0．1 | Negligible Beneficial | 49.7 | 0.8 | Negigioble Adverse | 37.7 | 37.8 | 38.5 |
| 53，WALLACEBRAE CRESCENT，DANESTONE | Dweling | 49.8 <br> 50.4 | 49.9 5 5 | 49.6 5 5 | －0．2 | Negiligiole Beneficial | 50．4 | 0.6 | Negiligibe Adverse | $\begin{array}{r}38.6 \\ 3.9 \\ \hline\end{array}$ | $\begin{array}{r}38.6 \\ 3.2 \\ \hline\end{array}$ | 39．1 |
| 55，WALLACEBRAEE RESCENT，DANESTONE | Oweling | 50．4 | 50.5 | 50．22 | ${ }^{-0.2}$ | Negiligiole Beneilical | 51．0． | ${ }_{0} 0.6$ | Negiligie Aaverse | 39.1 | 39.2 | 39.6 |
|  | ${ }^{\text {Oweling }}$ | ${ }_{517}^{51.8}$ | 年1．5 | 51．4 | ${ }_{-0.3}$ | Negiligible Beneneiticial | － 52.3 | 0.4 | Negigigibe Adversse | ${ }_{40.3}^{40.4}$ | ${ }_{30.9}$ | 40.6 |
| 6，WALLACEBRAE CRESCENT，DANESTONE | Dwelling | 50.8 | 50.2 | 50.8 | 0.0 | No Change | 51.5 | 0.7 | Negligible Adverse | 39.5 | 38.9 | 40.1 |
| 61，WALLACEBRAE CRESCENT，DANESTONE | Dwelling | 51.6 | 51.4 | 51.4 | －0．2 | Negligible Beneficial | 52.1 | 0.5 | Negiligile Adverse | 40.2 | 40.0 | 40.6 |
| 63，WALLACEERAE CRESCENT，DANESTONE | Dwelling | 51．5 51.5 | －${ }_{\text {51．2 }}^{51.0}$ | 年1．3 | -0.2 -0.2 | $\frac{\text { Negligible Beneficial }}{\text { Negioibiole }}$ Beneficial | 52．1 52.0 | 0.6 | $\frac{\text { Negigioble Adverse }}{\text { Negigiole Adverse }}$ | $\frac{40.1}{40.1}$ | 39.8 39.6 | $\frac{40.6}{40.5}$ |
| 7，WALLACEBRAE CRESCENT，DANESTONE | Dwelling | 51.7 | 51.3 | 51.6 | －0．1 | Negligible Beneficial | 52.4 | 0.7 | Negiligible Adverse | 40.3 | 39.9 | 40.9 |
| 9，WALACEBRAE CRESCENT，DANESTONE | Dwelling | 50.9 51.7 | 50.3 51.4 | 50.9 51.7 | 0.0 0.0 | $\frac{\text { No Change }}{\text { No Change }}$ | 51.6 52.5 | 0.7 0.8 | Negligible Adverse | 39.5 40.3 | 39.0 40.0 | 40.2 41.0 |
| 1 1，WALLACEBRAE DRIVE | Dwelling | 58.1 | 60.9 | 57.9 | －0．2 | Negligible Beneficial | 59.9 | 1.8 | Negligible Adverse | 46.0 | 48.5 | 47.6 |
| 10，WALLACEBRAE DRIVE | Dwelling | 49.5 50.5 | $\frac{48.6}{51.5}$ | 49.5 50.4 | 0.0 -0.1 | $\xrightarrow{\text { Nogligible }}$ Seneneficial | 50．2 | ${ }_{1.7}^{0.7}$ | $\frac{\text { Negligiole Adverse }}{\text { Nefigible Adverse }}$ | 38.3 39.2 | $\frac{37.5}{40.1}$ | $\frac{38.9}{40.2}$ |
| 12，WALLACEBRAE DRIVE | Welling | 48.7 | 48.7 | 48.7 | 0.0 | No Change | 49.5 | 0.8 | Negligible Adverse | 37.6 | 37.6 | 38.3 |
| 14，WALLACEBRAE DRIVE | wwelling | 51.3 | 50.4 | 51.2 | －0．1 | Negligible Beneficical | 51.9 | 0.6 | Negigioble Adverse | 39.9 | 39.1 | 40.4 |
| 15，WALLACEBRAE DRIVE | weling | 51.3 | 51.8 |  | －0．1 | Negligible Benenitical |  |  |  |  |  |  |
| 16，WALLACEBAE DRAVE | Oweling | 51.2 | 50.3 | 51.2 | 0.0 | No Change | 5.9 | 0.7 | Negiqigile Adverse | 39.8 | 39.0 | 40.4 |
| 17，WALLACEBRAE DRIVE | weling | 51．1 | 51．9 | 51．1 | 0．0 | No Change | 52．1 | 1.0 | Negigiole Adverse | 39.7 39.5 | － 40.4 | 40.6 |
| 18，WALLACEERAE DRAVE | Owelling | 50.9 50.7 | 50．0 | 50.8 50.7 | 0.0 | $\frac{\text { Negligiole ebeneicical }}{\text { No Change }}$ | 年1．6 | 0.9 | Negligigile Adverse | 39.5 39.4 | 38.7 39.7 | ${ }_{40.2}^{40.2}$ |
| 2，WALLACEBRAE DRIVE | Dweling | 56.0 515 | 58．7 | 55.9 513 | －0．1 | Negligible Beneficial | 57.8 521 | 1.8 | Negligile Adverse | 44.1 | 46.6 398 | 45.8 |
| $\frac{20, \text { WALLACEBRAE DRIVE }}{21, \text { WALLACEBRAE DRIVE }}$ | ${ }^{\text {Dwelling }}$ Dowiling | 51.5 | 51.2 50.9 | 51．3 | -0.2 -0.1 | Negiligile Beneiticial | 52.1 51.3 | 0.6 | Negigible Adverse | ${ }_{39.1}^{40.1}$ | 39.8 39.5 | ${ }_{30.6}^{40.9}$ |
| 22，WALLACEBRAE DRRVE | Dewling | 50.1 | 50.1 | 50.0 | －0．1 | Negligible Beneficicial | 50.8 | 0.7 | Negligible Adverse | 38.8 | $\frac{38.8}{39}$ | 39.5 |
| 23，WALLACEBRAE DRIVE | Dwelling | $\stackrel{49.9}{51.0}$ | 年0．3 | 49．9 | 0.0 -0.1 | Neglicibile Eenefeficial | 年51．9 | 1.0 | Negigible Adverse | 38.6 39.6 | 39.0 39.0 | 39.5 40.2 |
| 25，WALLACEERAE DRRIVE | Delling | 49.8 | 50．2 | 49.8 | 0.0 | No Change | ${ }_{50.7}^{517}$ | 0.9 | Negligible Adverse | 38.6 | 38.9 | 39.4 |
| $\frac{26, \text { WALLACEBRAE DRIVE }}{27, \text { WALLACEBAAE DRIVE }}$ | Dwelling | 51.0 50.9 | 50.1 50.1 | 50.9 50.9 | -0.1 0.0 | $\frac{\text { Negligible Beneficial }}{\text { No Change }}$ | 51.7 51.6 | 0.7 | $\frac{\text { Negligible Adverse }}{\text { Negilible Adverse }}$ | 39.6 39.5 | 38.8 38.8 | 40.3 40.2 |
| 28，WALLACEBRAE DRIVE | Dwelling | 49.5 | 49.4 | 49.4 | －0．1 | Negligible Beneficial | 50.1 | 0.6 | Nedigibile Adverse | 38.3 | 38.2 | 38.8 |
| 29，WALLAC EBRAE DRIVE | Dweling |  |  |  |  | Negiligio Beneticial |  |  | Negigiole Adverse |  |  |  |
|  | Dwelling | 54．4 | 49.4 | 54.3 | －0．1 | Negegiogible Benenicicial | ${ }_{51.0}^{56.5}$ | 0.6 | Neogigigile Adversse | ${ }_{39.1}$ | ${ }^{48.2}$ | ${ }_{39.6}$ |
| 31，WALLACEBRAE DRIVE | Dwelling | 50.2 | 50.1 | 50.0 | －0．2 | Negligible Beneficial | 50.7 | 0.5 | Negigigile Adverse | 38.9 | 38.8 | 39.4 |
| 32，WALLACEBRAE DRIVE | Deeling | 49.6 | 48.4 | 49.6 | 0.0 | No Change | 50.2 | 0.6 | Negigigile Adverse | 38.4 | 37.3 | 38.9 |
| 33，WALLACEBRAE DRIVE | Oweling | ${ }^{\frac{50.3}{51.8}}$ | $\frac{50.1}{51.2}$ | 50．1 | －0．2 | $\frac{\text { Negiligiole Benenicical }}{\text { Neglioibl }}$ Beneficial | 50．8 52.4 | 0.5 | $\frac{\text { Negiligile Adverse }}{\text { Neligiole Adverse }}$ | 39．0 40.4 | 38.8 <br> 39.8 | 39.5 40.9 |
| 35，WALLACEBRAE DRIVE | Dwelling | 50.2 | 50.0 | 50.0 | －0．2 | Negligible Beneficial | 50.6 | 0.4 | Negligible Adverse | 38.9 | 38.7 | 39.3 |
| 36，WALLACEBRAE DRIVE | Dwelling | 51.0 | 49.9 | 50.9 | －0．1 | Negligible Beneficial | 51.5 | 0.5 | Negigibile Adverse | 39.6 | 38.6 | 40.1 |
| 37， 3 ，WALACEEERAE DRIVE | Dwelling | ${ }_{50.6}^{51.5}$ | 50．3 | 50．4 | -0.2 0.0 | $\frac{\text { Negligible Beneitical }}{\text { No Change }}$ | 51．0 | 0.4 | $\frac{\text { Negigible Adverse }}{\text { Neoligible Adverse }}$ | 39.3 40.1 | 39.0 39.1 | ${ }^{39.6} 40.6$ |
| 39，WALLACEEBRAE DRIVE | Dwelling | 50.8 | 50.7 | 50.6 | －0．2 | Negligible Beneficial | 51.2 | 0.4 | Negigioble Adverse | 39.5 | 39.4 | 39.8 |
| 4，WALLACEBRAE DRIVE | Dwelling | 54．8 51.7 | 55．8 <br> 50.6 | 54．7 <br> 51.6 | -0.1 -0.1 | $\frac{\text { Negifigiole Beneficial }}{\text { Negigible }}$ Beneficial | 55．9 52.3 | ${ }_{0}^{1.1}$ | $\frac{\text { Negigigie Adverse }}{\text { Negigiole Adverse }}$ | ${ }_{40.3}^{43.1}$ | ${ }^{44.0}$ | $\frac{44.0}{40.8}$ |
| 41，WALLACEBRAE DRIVE | Delling | $\stackrel{51.5}{51 .}$ | $\stackrel{51.3}{51}$ | ${ }_{51.2}^{517}$ | －0．3 | Negligible Beneficial | 51．9 | 0.4 | Negligible Adverse | 40.1 | 39.9 | 40.4 |
| 42，WALLACEBRAE DRIVE | Dwelling | ${ }_{51.7}^{51.7}$ | $\stackrel{50.6}{53.5}$ | 51.7 51.6 | 0.0 -0.1 | Negligible Eeneneficial | 52．31 | ${ }_{1}^{1.4}$ | Neoligigibe Adverse | ${ }_{40.3}^{40.3}$ | ${ }^{39.3}$ | ${ }_{40.5}^{41.5}$ |
| 6，WALLACEBRAE DRIVE | Dwelling | 54.3 | 55.2 | 54.2 | －0．1 | Negligible Beneficial | 55.4 | 1.1 | Negilibile Adverse | 42.6 | 43.4 | 43.6 |
| 7，WALLACEBRAE DRIVE |  | 51．3 | ${ }_{522}^{52.8}$ | 51．22 | －0．1 | Negiligioe Beneticial | $\begin{array}{r}52.6 \\ 52 . \\ \hline\end{array}$ | ${ }_{1}^{1.3}$ | Negigigie Adverse | ${ }^{39.9}$ | 407 | 41.1 |
| $\frac{9}{1, \text { WALLLACEBRAE GARDENS }}$ ，DANESTONE | Dwelling | 52.4 | 52．2．1 52.1 | 52．1． | －0．3 | Negligibile Benenificial | 52．9 | 0.5 | Neogigigle Adverse | 40.9 | 40.6 | 40.3 |
| 10，WALLACEBRAE GAADENS，DANESTONE | Dewling | 51.4 50.4 | 51.7 <br> 51.2 | 51.0 50.0 | －0．4 | Negligible Beneficical | 51.8 <br> 51.8 | 0.4 | Negigigle Adverse | 40.0 3.5 | $\stackrel{40.3}{39}$ | 40.4 |
| 11，WALLACEBRAE GARDENS，DANESTONE | Deelling | 50.9 | 51.2 | 50.5 | －0．4 | Negligible Beneficial | 51.4 | 0.5 | Negigigile Adverse | 39.5 | 39.8 | 40.0 |
|  | Dwelling | 52.6 52.7 | 52.3 <br> 52.4 | 52.3 <br> 52.4 | －0．3 | Negiligigie Beneficical | $\begin{array}{r}53.0 \\ 53.2 \\ \hline\end{array}$ | 0.4 0.5 | Negilibibe Adverse | $\frac{41.1}{41.2}$ | 40．8 | $\frac{41.4}{41.6}$ |
| 4，WALLACEERAE GARDENS，DANESTONE | Dweling | 52.7 528 | 52.5 <br> 525 | $\begin{array}{r}52.4 \\ 52.4 \\ \hline\end{array}$ | －0．3 | Negligible Beneficial | $\begin{array}{r}53.2 \\ 532 \\ \hline\end{array}$ | 0.5 0.4 | Negiligle Adverse | $\frac{41.2}{413}$ | $\frac{41.0}{410}$ | ${ }_{41.6}^{416}$ |
| 5，WALLACEBRAE GARDENS，DANESTONE | Dwelling | ${ }_{51.8}^{52.8}$ | ${ }_{52.0}$ | 51．5 | －0．3 | Negegioible Beneficioial | ${ }_{52.3}$ | 0.5 | Negligible Adverse | 40.4 | 40.5 | 40.8 |
| 7，WALLACEERAE GARDENS，DANESTONE | Dwelling | 52.0 | 52．4 | 51.6 51.5 | －0．4 | Negligible Beneficial | 52.4 | 0.4 | Negiligile Adverse | 40.5 | 40.9 | 40.9 |
| 8，WALLACEERAE GARDENS，DANESTONE | Dwelling | 51.9 51.6 | $\stackrel{52.2}{52.0}$ | 年51．5 | -0.4 <br> -0.3 | $\frac{\text { Negligible Beneficial }}{\text { Negigiole }}$ Beneficial | $\begin{array}{r}\text { 52．3 } \\ \hline 52.1\end{array}$ | 0.4 0.5 | Negigible Adverse | $\frac{40.4}{40.2}$ | $\frac{40.7}{40.5}$ | $\frac{40.8}{40.6}$ |
| 1，WALLACEBRAE PATH，DANESTONE | Deeling | ${ }_{51.4}^{5}$ | $\stackrel{50.8}{514}$ | $\stackrel{51.3}{519}$ | －0．1 | Negligible Beneficical | 51.9 | 0.5 | Negligible Adverse | 40.0 | 39.5 | 40.4 |
| 2，WALLACEBRAE PATH，DANESTONE | weling | 52.0 | 51.4 | 5.9 | －0．1 | Negigigio Beneficial | 52.4 | 0.4 | Negigible Adverse | 40.5 | 40.0 | 40.9 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 <br> Lnight,outside | DS33 <br> Lnight,outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3, WALLACEBRAE PATH, DANESTONE | Deeling | 49.3 | 49.6 | 49.0 | -0.3 | Negligible Beneficical | 49.8 | 0.5 | Negiligibe Adverse | 38.1 | 38.4 | 38.6 |
| 4. WALLACEBBAE PATH, DANESTONE | Dweling | 51.0 <br> 50.5 | 51.3 | 50.7 | ${ }_{-0.3}^{-02}$ | Negligible Beneficial | $\frac{51.5}{511 .}$ | ${ }_{0}^{0.5}$ | Negligible Adverse | 39.6 392 | 39.9 39.4 | ${ }_{30.1}^{407}$ |
| 5, WALACEBAE PATH, DANESTONE | Dwelling | ${ }_{53.1}$ | 52.5 | 52.9 | -0.2 | Negiligibie Beneneificial | 53.6 | 0.5 | Neogigiole Adverse | 41.5 | 41.0 | ${ }^{39.7} 4$ |
| 7 7, WALLACEBRAE PATH, DANESTONE | Dwelling | 50.8 | 50.1 | 50.8 | 0.0 | No Change | 51.5 | 0.7 | Negiligile Adverse | 39.5 | 38.8 | 40.1 |
| 1 , WALLACEBRAE PLACE | Dwelling | 55.5 | 56.8 | 55.4 | -0.1 | Negligible Beneficicial | 56.8 | 1.3 | Negigigile Adverse | 43.7 | 44.9 | 44.9 |
| 10, WALLACEBRAE PLACE | Deelling | 51.5 | 50.8 | 51.5 | 0.0 | No Change | 52.3 | 0.8 | Negiligible Adverse | 40.1 | 39.5 | 40.8 |
| 11, WALLACCBRAE PLACE | welling | 54.9 | 55.8 | 54.8 | -0.1 | Negligible Beneficical | 56.1 | 1.2 | Negigigibe Adverse | 43.1 | 44.0 | 44.2 |
| 12, WALLACEBAAE PLACE | ${ }^{\text {Duediling }}$ | 5.6 | 50.0 | 5.6 | 0.0 | No Change | 52.9 | 0.6 | Neogigiole Adversse | 40.8 | ${ }_{39.6}$ | 41.3 |
| 15, WALLACEBRAE PLACE | Dwelling | 55.3 | 56.9 | 55.2 | -0.1 | leligible Benefico | 56.7 | 1.4 | Negigiolie Adverse | 43.5 | 44.9 | 44.8 |
| 16, WALLACEBRAE PLACE | welling | 52.4 | 51.2 | 52.4 | 0.0 | No Change | 53.0 | 0.6 | Negiligible Adverse | 40.9 | 39.8 | 41.4 |
| 17, WALLACEBRAE PLACE | welling | 55.8 | 57.8 | 55.6 | -0.2 | Negligible Beneficial | 57.4 | 1.6 | Negigigile Adverse | 44.0 | 45.8 | 45.4 |
| 18, WALLACEBRAE PLACE | welling | 52.0 | 50.6 | 51.9 | -0.1 | Negligible Beneficial | 52.6 | 0.6 | Negiligibe Adverse | 40.5 | 39.3 | 41.1 |
| 19, WALLACEBRAE PLACE | Dwelling | 㐌5.3 | 55.2. | 54.2 | -0.1 | $\frac{\text { Negligiole }}{\text { Negigione }}$ Beniticial | 55.5 53.9 | ${ }_{0}^{1.2}$ | Negigigib Adverse | ${ }_{41.7}^{42.7}$ | ${ }_{40.7}^{43.4}$ | ${ }_{42.2}^{43.1}$ |
| 20, WALLACEBRAE PLACE | Wwelling | 52.1 | 50.7 | 52.0 | -0.1 | Negligible Beneficial | 52.6 | 0.5 | Negigigibe Adverse | 40.6 | 39.4 | 41.1 |
| 21, WALLACEBRAE PLACE | Welling | 51. | 51.1 | 51.4 | -0.1 | Negligible Beneficial | 52.3 | 0.8 | Negiligible Adverse | 40.1 |  | 40.8 |
| 22, WALLACEBRAE PLACE | Dwelling | 50.8 | 50.0 | 50.8 | 0.0 | No Change | 51.6 | 0.8 | Negiligile Adverse | 39.5 | 38.7 | 40.2 |
| 23, WALLACEBRAE PLACE | Dwelling | 52.9 | 51.8 | 52.8 | -0.1 | Negligible Beneficial | 53.6 | 0.7 | Negigioble Adverse | 41.3 | 40.4 | 42.0 |
| 24, 25 WALLACCEBAEEAE P PACACE | Dwelling | 50.6 52.3 | ${ }^{49.5}$ | 50.6 <br> 52.2 | -0.1 | Negligible | 51.4 | 0.5 | Neogigioble Adverse | 39.3 <br> 40.8 | 38.6 40.1 | ${ }_{41.3}^{40.0}$ |
| 27, WALLACEBRAE PLACE | Dwelling | 52.7 | 51.5 | 52.6 | -0.1 | Negligible Beneficial | 53.4 | 0.7 | Negigiolie Adverse | 41.2 | 40.1 | 41.8 |
| 29, WALLACEBRAE PLACE | Deelling | 50.5 | 49.8 | 50.5 | 0.0 | No Change | 51.3 | 0.8 | Negiligibe Adverse | 39.2 | 38.6 |  |
| 3, WALACEERAE PLACE | Oweling | 55.6 | 56.5 | 55.5 | -0.1 | $\frac{\text { Negligible Benenicical }}{\text { Neglioibl }}$ Beneficial | 56.8 <br> 50.8 | 1.2 0.7 | Negigigbe Adverse | ${ }^{43.8}$ | ${ }_{34,6}$ | 34.9 |
| 4, WALLACEBRAE PLACE | Dwelling | 52.9 | 51.7 | 52.9 | 0.0 | No Change | 53.5 | 0.6 | Negiligiole Adverse | 41.3 | 40.3 | 41.9 |
| 5, WALLACEBRAE PLACE | Dwelling | 55.8 | 56.8 | 55.7 | -0.1 | Negligible Benenficial | 57.0 | 1.2 | Negiligile Adverse | 44.0 | 44.9 | 45.0 |
| $\frac{6, \text { WALLACEBAE }}{7, \text { WALLACEBRAE PLACE }}$ | ${ }^{\text {Owelling }}$ Dowling | ${ }_{55.7}^{53.0}$ | ${ }_{56.9}^{56.8}$ | ${ }_{55.6}^{53.6}$ | -0.1 | Negligible Beneneficial | 53.6 57.0 | ${ }_{1}^{0.6}$ | Negigigib Adverse | $\stackrel{41.4}{43.9}$ | 40.4 | 45.0 |
| 8, WALLACEBRAE PLACE | Dwelling | 51.7 | 50.9 | 51.6 | -0.1 | Negligible Beneficial | 52.4 | 0.7 | Negligible Adverse | 40.3 | 39.5 | 40.9 |
| $\frac{9 . \text { WALLACEBRAE PLACE }}{1 \text { WAllACEBRAE }}$ | Dwelling | $\frac{55.5}{615}$ | $\frac{56.6}{64.1}$ | 55.4 | $\stackrel{-0.1}{-13}$ | $\frac{\text { Negliable Beneficial }}{\text { Minor Beneficial }}$ | 56,7 627 | $\frac{1.2}{1.2}$ | $\frac{\text { Negiligile Adverse }}{\text { Neofigiole Adverse }}$ | $\frac{43.7}{49.1}$ | 44,7 | 44.8 <br> 50 <br> 0 |
| 10, WALLACEBRAE ROAD | Wwelling | 59.0 | 61.6 | 57.7 | -1.3 | Minor Beneficial | 60.2 | 1.2 | Negligible Adverse | 46.8 | 49.2 | 47.9 |
| 11, WALLACEBRAE ROAD | wwelling | 59.3 | 61.8 | 58.1 | -1.2 | Minor Beneficial | 60.5 | 1.2 | Negigioble Adverse | 47.1 | 9.4 | 48.2 |
| 12, WALLACEBRAE ROAD | weling | 57.9 | ${ }^{60.4}$ |  |  |  | 59.0 |  |  |  | 48.1 |  |
| 14, WALLACEBAEAEAOA | Oweiling | 57.3 | 59.7 | 56.1 | -1.2 | Minor Beneiticial | 58.4 | . 1 | Negiqigile Adverse | 45.3 | 47.5 | 46.3 |
| 15, WALLACEBRAE ROAD | Oweling | 59.5 55.4 | 62.1 | 58.4 <br> 54.4 | -1.1 | Minor Beneticial | 60.7 56.4 | $\frac{1.2}{10}$ | Negigiole Adverse | ${ }_{43,}^{43}$ | -49.6 | 484.4 |
| 17, WALLACEBRAE ROAD | Owelling | 60.0 | 62.5 | 58.7 | ${ }_{-1.3}$ | Minor Beneficial | 61.1 | 1.1 | Neoligible Adverse | 47.7 | 50.0 | 48.7 |
| 18, WALLACEBRAE ROAD | Dwelling | 52.0 | 53.0 620 | 51.5 <br> 59.5 | -0.5 | Negligible Beneficial | 52.8 | 0.8 .11 | Negligile Adverse | 40.5 475 | 41.4 | 41.3 485 |
| 19, WALLACACEBRAE ROAE ROAD | ${ }^{\text {Dwelling }}$ Dowiling | ${ }^{59.7}$ | 62.2 63.9 | ${ }_{58.5}^{59.7}$ | - ${ }^{-1.2}$ | Minor Beneificial | 60.8 62.4 | 1.1 1.3 | Negigible Adverse | 48.5 | ${ }_{51.2}^{49.7}$ | 48.5 |
| 20, WALLACEBRAE ROAD | Dwelling | 52.4 | 53.4 | 51.9 | -0.5 | Negligible Beneficial | 53.1 | 0.7 | Negligiole Adverse | 40.9 | 41.8 | 41.5 |
| $\frac{21, \text { WALLACEBRAE ROAD }}{22 . \text { WALLACEBAAE ROAD }}$ | Dwelling | 59.2 52.1 | 61.7 53.1 | 㐌51.1. | - -1.5 | Megnor Beneficicial | 60.4 52.9 | 1.2 0.8 | Negigiole Adverse | ${ }_{40.0}^{47.0}$ | ${ }_{41.5}^{49.3}$ | ${ }_{481.3}^{48.1}$ |
| 23, WALLACEBRAE ROAD | Dwelling | 59.6 | 62.1 | 58.4 | -1.2 | Minor Beneficicial | 60.8 | 1.2 | Negligible Adverse | 47.4 | 49.6 | 48.5 |
| 24, WALLACEBRAE ROAD | Dwelling | 50.1 | 51.0 | 49.6 | -0.5 | Negligible Beneficial | 50.7 | 0.6 | Negligible Adverse | 38.8 | 39.6 | 39.4 |
| 25, WALLACEBRAE ROAD | Dwelling | 60.0 52.7 | 62.5 54.0 | 58.8 52.1 | -1.2 -0.6 | Minor Beneficical | 61.1 | 1.1 0.7 | $\frac{\text { Negigigle Adverse }}{\text { Nefligible Adverse }}$ | $\frac{47.7}{41.2}$ | 50.0 42.3 | 48.7 41.8 |
| 27, WALLACEBRAE ROAD | Dwelling | 60.3 | 62.8 | 59.2 | -1.1 | Minor Beneficial | 61.5 | 1.2 | Negigioible Adverse | 48.0 | 50.3 | 49.1 |
| $\frac{28, \text { WALLACEBRAE ROAD }}{29}$ | Dwelling | 52.6 60.2 | 53.7 62.7 | 52.0 59.1 | $\begin{array}{r}-0.6 \\ .1 .1 \\ \hline\end{array}$ | Negligible Beneficial | 53.3 61.4 | 0.7 1.2 | Negligibl Adverse | 41.1 47.9 | 42.1 50.2 | 41.7 49.0 |
| 3, WALLACEBRAE ROAD | Dwelling | 55.9 | 57.8 | 55.0 | -0.9 | Negligible Benenicicial | 56.8 | 0.9 | Negligiole Adverse | 44.0 | 45.8 | 44.9 |
| 30, WALLACEBRAE ROAD | Deelling | 53.2 | 54.3 | 52.6 | -0.6 | Negligible Beneficial | 53.9 | 0.7 | Negiligile Adverse | 41.6 | 42.6 | 42.2 |
| 31, WALLACEBRAE ROAD | Dwelling | 60.3 | -62.7 | 59.2 | -1.1 | Minor Beneficial | $\begin{array}{r}61.5 \\ 54 . \\ \hline\end{array}$ | $\frac{1.2}{0.6}$ | Negigigle Adverse | 48.0 420 | 50.2 431 | 49.1 425 |
| 33, WALLACEBAAE ROAD | Dweliling | 53.7 | 54.0 | 53.0 58.7 | - -1.0 | Negiligioe Beneficial | 54.9 | 1.2 | Neogigioble Adverse | ${ }^{427.5}$ | ${ }_{49.5}^{43.1}$ | 48.5 |
| 34, WALLACEBRAE ROAD | Deelling | 53.3 | 54.4 | 52.7 | -0.6 | Negligible Beneficial | 53.9 | 0.6 | Negiligile Adverse | 41.7 | 42.7 | 42.2 |
| 35, WALLACEBRAE ROAD | Dwelling | 59.2 | 61.5 | 58.3 | -0.9 | Negligible Beneficial | 60.4 | 1.2 | Negiligile Adverse | 47.0 | 49.1 | 48.1 |
| 36, WALLACEERAE ROAD | Dwelling | 51.9 <br> 55.8 | 52.7 56.3 | 51.4 55.5 | -0.5 | Negiligie Beneficial | 52.5 56.4 | 0.6 | $\frac{\text { Negigigle Adverse }}{\text { Neligiole Adverse }}$ | $\xrightarrow{40.4} 4$ | $\stackrel{41.2}{44.4}$ | 44.0 |
| 38, WALLACEERRAE ROAD | Delling | 52.0 | 52.6 | 51.5 56.5 | -0.5 | Negligible Beneficical | 52.5 | 0.5 | Negigigible Adverse | 40.5 | 41.1 | 41.0 |
| 39, WALLACEBRAE ROAD | Dwelling | 55.3 58.5 | 55.6 61.1 | 55.1 57.2 | --0.2 | Neginior Beneficicial | 559.7 | 1.2 <br> 1 | Negligigile Adverse | 43.4 | ${ }^{43.8}$ | 44.5 |
| 40, WALLACEBRAE ROAD | Dwelling | 52.1 | 52.7 | 51.7 | -0.4 | Negligible Beneficial | 52.7 | 0.6 | Negligible Adverse | 40.6 | 41.2 | 41.2 |
| 41, WALLACEBRAE ROAD | Dwelling | 49.8 | 50.0 | 49.6 | -0.2 | Negligible Beneficial | 50.4 | 0.6 | Negigigile Adverse | 38.6 | 38.7 | 39.1 |
| 42, WALLACEBRAE ROAD | Dwelling | $\frac{51.8}{50.7}$ | 52.2 | 51.4 <br> 50.4 | -0.4 | Negligible Beneficial | $\frac{52.3}{512}$ | 0.5 | Negiligile Adverse | 40.4 | 40.7 395 | 40.8 |
|  | Dwelling | ${ }_{51.8}^{50.7}$ | ${ }_{50.3}^{52.3}$ | ${ }_{50}^{50.5}$ | $\stackrel{-0.3}{-0.3}$ | ${ }_{\text {Negegigiobible }}^{\text {Beneneficialial }}$ | ${ }_{5}^{52.4}$ | 0.6 | Neogigioble Adverse | $\stackrel{39.4}{40.4}$ | ${ }_{40.8}^{39.5}$ | ${ }^{39.9}$ |
| 45, WALLACEBRAE ROAD | Dwelling | 51.2 | 51.5 | 50.9 | -0.3 | Negligible Benenicial | 51.7 | 0.5 | Negiligible Adverse | 39.8 | 40.1 | 40.3 |
| 46, WALLACEBRAE ROAD | Oweling | 51.3 | 51.8 | 50.9 | -0.4 | Negiligiole Beneficial | 51.8 | 0.5 | Negigigibe Adverse | 39.9 | 40.4 | 40.4 |
| 44, WALLLACEBRAE ROAD | Dweling | 50.6 | 52.0 | 50.3 | -0.3 | Negeqligible Beneneniticial | - ${ }_{51.2}^{51.2}$ | 0.6 | Neoligiobe Avverse | ${ }_{39,3}^{40.3}$ | ${ }_{30.5}^{40.6}$ | ${ }_{39,8}$ |
| 49, WALLACEBRAE ROAD | Dwelling | 51.4 | 51.8 | 51.1 | -0.3 | Negligible Beneficical | 52.0 | 0.6 | Negiligile Adverse | 40.0 | 40.4 | 40.5 |
| 5. WALLACEBRAE ROAD | Dweling | 57.7 | 60.0 | 56.6 498 | -1.1 | Minor Beneficial | 58.7 | 1.0 | Negligible Adverse | 45.7 3.8 | ${ }^{47.7}$ | 46.6 3.9 |
| 51, WALLACEBRAE ROAD | Dwelling | ${ }_{52.6}^{50.1}$ | 51.9 | $\stackrel{\text { 52.4 }}{ }$ | -0.2 | Negligible Beneficicial | ${ }_{53.0}$ | 0.4 | Negligible Adverse | ${ }_{41.1}$ | 40.4 | ${ }_{41.4}$ |
| 52, WALLACEBRAE ROAD | Dewling | 50.0 | 50.0 | ${ }_{59}^{49.8}$ | -0.2 | Negligible Benefitial | 50.6 | 0.6 | Negiligile Adverse | 38.7 | 38.7 | 39.3 |
| 53, WALLACEBRAE ROAD | Dwelling | 53.5 48.6 | 53.0 49.0 | 53.3 | -0.2 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ Beneficial | 54.0 49.3 | 0.5 0.7 | $\frac{\text { Negigioble Adverse }}{\text { Negligiole Adverse }}$ | 41.9 37.5 | $\stackrel{41.4}{37.8}$ | 42.3 38.1 |
| 56, WALLACEBRAE ROAD | Dwelling | 48.6 | 48.4 | 48.4 | -0.2 | Negligible Beneficial | 49.2 | 0.6 | Negligible Adverse | 37.5 | 37.3 | 38.0 |
| 58, WALLACEBRAE ROAD | welling | 48.6 | 48.3 | 48.4 | -0.2 | Negligible Beneficial | 49.1 | 0.5 | Negigigile Adverse | 37.5 | 37.2 | 37.9 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 Lnight,outside | $\begin{gathered} \text { DS33 } \\ \text { Lnight,outside } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 6, WALLACEBRAE ROAD | Dweling | 58.4 | 61.1 | 57.1 | ${ }^{-1.3}$ | Minor Beneficial | 59.6 | 1.2 | Negigigile Adverse | 46.3 | 48.7 | 47.4 |
| 60, WALLACEBRAE ROAD | Dwelling | 50.7 | 50.5 | 50.5 | -0.2 | Negligible Beneficical | 51.2 | 0.5 | Negaigible Adverse | 39.4 | 39.2 | 39.8 |
| 62, WALLACEBRAE ROAD | Dwelling | 50.8 | 50.6 | 50.6 | -0.2 | Negligible Beneficial | 51.3 | 0.5 | Negiligile Adverse | 39.5 | 39.3 | 39.9 |
| 64, WALLACEERAEA ROAD | Oweling | 49.5 | 49.7 | 49.3 | -0.2 | Negligible Beneficical | 50.1 | 0.6 | Negigigle Adverse | 38.3 3.5 | ${ }_{38.5}^{38.5}$ | 38.8 |
| 66, WALLACEBRAE ROAD | Deeling | 49.7 | ${ }_{49.9}$ | 49.5 | -0.2 | Negligible Beneficicial | 50.3 | 0.6 | Negligible Adverse | 38.5 | 38.6 | 39.0 |
| 68, WALLACEBRAE ROAD | Delling | 50.0 | 50.2 | ${ }^{49.7}$ | -0.3 | Negligible Beneficical | 50.5 | 0.5 | Negigigle Adverse | $\begin{array}{r}38.7 \\ \hline 47\end{array}$ | 38.9 | 39.2 4.2 |
| 7, WALLACEBRAE ROAD | Deelling | 59.4 | 61.9 | 58.2 | -1.2 | Minor Beneficial | 60.5 | 1.1 | Negiligible Adverse | 47.2 | 49.4 | 48.2 |
| 70, WALLACEBRAE ROAD | Dwelling | 50.5 | 50.8 | 50.3 | -0.2 | Negligible Beneficial | 51.1 | 0.6 | Negiligible Adverse | 39.2 3.2 | 39.5 | 39.7 |
| 72, WALLACEBRAE ROAD | Deelling | 51.3 | 51.7 | 50.9 | -0.4 | Negligible Beneficial | 51.8 <br> 515 | 0.5 | Negigigible Adverse | 39.9 | 40.3 | 40.4 |
| 74, WALLACEBRAE ROAD | Dwelling | 50.9 | $\frac{51.3}{51.6}$ | 50.7 | -0.2 | Negiligiole Beneficial | 51.5 | ${ }^{0.6}$ | Negiligibe Adverse | 39.5 397 | 39.9 <br> 402 | 40.1 40.2 |
| 76, WALLACEERAAE ROAD | ${ }^{\text {Dwelling }}$ Dowling | ${ }_{51.0}^{51.0}$ | ${ }_{5}^{51.6}$ | $\stackrel{50.6}{50.6}$ | $\stackrel{-0.5}{-0.4}$ | Negiligiole Beneitical | ¢1.6 | 0.5 | Negigigibe Adverse | ${ }_{39.6}$ | $\frac{40.2}{40.1}$ | ${ }_{40.1}^{40.2}$ |
| 8, WALLACEBRAE ROAD | Dwelling | 59.5 | 62.3 | 58.1 | -1.4 | Minor Beneficial | 60.7 | 1.2 | Negligible Adverse | 47.3 | 49.8 | 48.4 |
| 80, WALLACEBRAE ROAD | Dwelling | 51.9 | 52.9 | 51.3 | -0.6 | Negligible Beneficial | 52.5 | 0.6 | Negligible Adverse | 40.4 | 41.3 | 41.0 |
| 82, WALLACEBRAE ROAD | Dwelling | 53.0 | 54.1 | 52.4 | -0.6 | Negligible Benenitical | 53.6 | 0.6 | Negiligible Adverse | ${ }^{41.4}$ | 42.4 | 42.0 4.3 |
| 84, WALLACEERAAE ROAD | Deelling | 52.2 |  | 51.6 | -0.6 | Negligible Benenitical | ${ }_{52.8}^{528}$ |  | Negiligible Adverse |  |  | 41.3 |
| 86, WALLACEBRAE ROAD | Oweling |  | 53.1 |  |  | Negligible Benenitical |  |  |  | 40.6 | 41.5 |  |
| 9. WALLACEBRAE ROAD | Sweling | 59.4 | ${ }_{6} 50.2$ | ${ }_{58.9}$ | - 1.1 | Negligiobe Beneticial | 50.6 | 12 | Neoligigibe Adverse | 472 | 49.5 | ${ }_{48,}$ |
| 90, WALLACEBRAE ROAD | Dwelling | 50.5 | 51.4 | 50.1 | -0.4 | Negligible Beneficial | 51.2 | 0.7 | Negiligible Adverse | 39.2 | 40.0 | 39.8 |
| 92, WALLACEBRAE ROAD | Dwelling | 50.2 | 50.7 | 49.8 | -0.4 | Negligible Beneficial | 50.8 | 0.6 | Negigioble Adverse | 38.9 | 39.4 | 39.5 |
| 94, WALLACEBRAE ROAD | Dwelling | 49.2 | 49.7 | 48.9 | ${ }^{0.3}$ | Negligible Beneficial | 49.8 | 0.6 | Negiligile Adverse | 38.0 | 38.5 | 38.6 |
| 96, WALLACEBRAE ROAD | Dwelling | 50.6 | 51.0 | 50.3 | -0.3 | Negligible Beneficial | 51.1 | 0.5 | Negigigibe Adverse | 39.3 | 39.6 | 39.7 |
| 1, WALLACEBRAE TERRACE, DANESTONE | welling | 55.0 | 56.3 | 54.9 | -0.1 | Negligible Beneficical | 56.3 | 1.3 | Negigioble Adverse | 43.2 | 44.4 | 44.4 |
| 10, WALLACEBRAE TIRRACE, DANESTONE | Dwelling | 52.5 | 52.2 | 52.5 | 0.0 | No Change | 53.3 | 0.8 | Negligible Adverse | 41.0 | 40.7 | 41.7 |
| 11, WALLACEBRAE TERRACE, DANESTONE | welling | 53.1 | 52.4 | 52.9 | -0.2 | Negligible Beneficicial | 53.5 | 0.4 | Negigioble Adverse | 41.5 | 40.9 | 41.9 |
| 12, WALLACEBRAE TERRACE, DANESTONE | Deeling | 52.2 | 51.5 | 52.1 50.7 | ${ }^{-0.1}$ | $\frac{\text { Negiligiole Beneficial }}{\text { Negligible }}$ Beneficial | 52.9 54.4 | ${ }_{0}^{0.7}$ | Negiligibe Adverse | ${ }_{40}^{40.7}$ | 40.1 | 41.3 |
|  | ${ }^{\text {Dwellilg }}$ Oweling | ${ }_{53.0}$ | ${ }_{52.4}^{55 .}$ | ${ }_{52.7}$ | -0.3 | Negligible Beneficicial | ${ }_{53.3}$ | ${ }_{0}^{0.3}$ | Negligible Adverse | 41.4 | 40.9 | 41.7 |
| 16, WALLACEBRAE TERRACE, DANESTONE | welling | 53.2 | 52.5 | 53.0 | -0.2 | Negligible Beneficial | 53.6 | 0.4 | Negigioble Adverse | 41.6 | 41.0 | 42.0 |
| 17, WALLACEBRAE TERRACE, DANESTONE | welling | 52.5 | 52.1 | 52.3 | -0.2 | Negligible Beneficial | 52.9 | 0.4 | Negigible Adverse | 41.0 | 40.6 | 41.3 |
| 18, WALLACEBRAE TERRACE, DANESTONE | Deelling | 53.8 | 54.1 | 53.5 | -0.3 | Negligible Beneficicial | 54.3 | 0.5 | Negiligibie Adverse | 42.2 | 42.4 | 42.6 |
| 19. WALLACEBRAE TeRRACE, DANESTONE | Dweling | 52.4 | $\begin{array}{r}51.8 \\ 57 \\ \hline\end{array}$ |  |  |  |  |  |  |  |  |  |
| 2, WALLACEBRAE TERRACE, DANESTONE | Dwelling | 55.9 55.3 | 57.4 54.8 | 55.8 55.1 | -0.1 -0.2 | Negrigiole Benenicial | 55.2 55.7 | ${ }_{0}^{1.4}$ | Negigigib Adverse | 44.0 | ${ }_{45.1}^{45.4}$ | 43, ${ }^{4.9}$ |
| 21. WALLACEBRAE TERRACE, DANESTONE | Dwelling | 51.6 | 50.4 | 51.6 |  | No Change | 52.2 | 0.6 | Negligioble Adverse | 40.2 | 39.1 | 40.7 |
| 22, WALLACEBRAE TERRACE, DANESTONE | Dwelling | 51.5 | 51.3 | 51.2 | -0.3 | Negligible Beneficial | 51.9 | 0.4 | Negiligile Adverse | 40.1 | 39.9 | 40.4 |
| 23, WALLACEBRAE TERRACE, DANESTONE | welling | 51.7 | 50.4 | 51.6 | -0.1 | Negligible Beneficial | 52.3 | 0.6 | Negigioble Adverse | 40.3 | 39.1 | 40.8 |
| 24, WALLACEBRAE TiRRACE, DANESTONE | Dweling | 51.7 | 51.5 | 51.5 | -0.2 | Negligible Beneficial | 52.2 | 0.5 | Negigigile Adverse | 40.3 | 40.1 | 40.7 |
| 25, WALLACEBRAE TERRACE, DANESTONE | Oweling | 51.9 | 50.6 | 51.9 | 0.0 | No Change | 52.5 | 0.6 | Negigigile Adverse | ${ }^{40.4}$ | 39.3 | 41.0 |
| 26, WALLACEBRAE TERRACE, DANESTONE | Dwelling | 51.9 | 51.8 | 51.6 | -0.3 | Negligible Benenitical | ${ }^{52.3}$ | 0.4 | Negiligble Adverse | 40.4 | ${ }^{40.4}$ | 40.8 |
| 27, WALLACEBRAE ERRACE, DANESTONE | Oweling | 51.9 | 50.5 | $\begin{array}{r}51.9 \\ 51 \\ \hline 18\end{array}$ | 0.0 | No C Cange | 52.5 | 0.6 | Negiligile Adverse | 40.4 | 39.2 | 41.0 |
| 28, WALLACEBAAE ITRRACE, DANESTONE | Dwelling | 51.5 | 51.0 50.5 | 51.3 | -0.2 | $\frac{\text { Negligible Benenicical }}{\text { Neglioibl }}$ Beneficial | ¢52.0 | 0.5 | $\frac{\text { Negigigle Adverse }}{\text { Nefligible Adverse }}$ | 40.1 40.4 | 39.6 39.2 | 40.5 |
| 3, WALLACEBRAE TERRACE, DANESTONE | Dwelling | 53.7 | 53.4 | 53.5 | -0.2 | Negligible Beneficial | 54.2 | 0.5 | Negligible Adverse | 42.1 | 41.8 | 42.5 |
| 30, WALLACEBRAE TERRACE, DANESTONE | Owelling | 49.8 | 49.8 | 49.6 | -0.2 | Negligible Beneficial | 50.3 | 0.5 | Negigigible Adverse | 38.6 | 38.6 | 39.0 |
| 31, WALLACEBRAE TERRACE, DANESTONE | Dwelling | 51.8 495 | 50.4 495 | 51.7 493 | -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ Benficial | 52.4 50.1 | 0.6 | Negligile Adverse | ${ }^{40.4} 3$ | 39.1 38.3 | 40.9 38 |
| 33, WALLACEBRAE TERRACE, DANESTONE | Dwelling | 51.4 | 50.2 | 51.4 | 0.0 | No Change | 52.0 | 0.6 | Negligible Adverse | 40.0 | 38.9 | 40.5 |
| 34, WALLACEBRAE TERRACE, DANESTONE | Deelling | 49.2 | 49.2 | 49.1 | -0.1 | Negligible Beneficical | 49.8 | 0.6 | Negligible Adverse | 38.0 | 38.0 | 38.6 |
| 35, WALLACEBRAE TerRACE, DANESTONE | Oweling | 51.4 |  | 51.3 | -0.1 | Negigiobe Benenitial | 51.9 |  | Negigigibie Adverse | 40.0 |  | 40.4 |
| 36, WALLACEBAEE TRRACE, DANESTONE | Dwelling | 49.1 51.6 | 49.0 50.3 | 49.0 51.6 | -0.1 0.0 | Negligible Beneficial | 49.7 52.2 | 0.6 | Negiligile Adverse | 37.9 40.2 | 37.8 39.0 | 38.5 40.7 |
| 39, WALLACEBRAE TERRACE, DANESTONE | eeling |  | 0.4 | 51.7 | 0.0 | No Change | 52.3 | 0.6 | Negligible Adverse | 40.3 | 39.1 | 0.8 |
| 4, WALLACEBRAE TERRACE, DANESTONE | Dwelling | 56.1 | 56.1 | 56.0 | -0.1 | Negligible Beneficial | 56.8 | 0.7 | Negiligile Adverse | 44.2 | 44.2 | 44.9 |
| 5, WALLACEBRAE TERRACE, DANESTONE | Dwelling | 53.2 | 52.8 | 53.1 | -0.1 | Negligible Beneficial | 53.7 | 0.5 | Negigioble Adverse | 41.6 | 41.3 | 42.1 |
|  | Dwelling | 55.5 53.1 | 55.4 52.4 | 55.0 | -0.1 | Negiligible eeneneficial |  | 0.5 | Negligigile Adverse | ${ }_{41.5}^{43.7}$ | 43.9 | ${ }_{42.0}^{44.3}$ |
| 8, WALLACEBRAE TERRACE, DANESTONE | Deelling | 54.5 | 54.2 | 54.5 | 0.0 | No Change | 55.3 | 0.8 | Negigiolile Adverse | 42.8 | 42.5 | 43.5 |
|  | Dwelling | 52.7 53.2 | 52.0 51.7 | 52.6 53.1 | -0.1 -0.1 | Negiligile Beneificial | ${ }_{\text {53.2 }}^{53.6}$ | 0.5 | $\frac{\text { Negigible Adverse }}{\text { Neoligible Adverse }}$ | $\frac{41.2}{41.6}$ | ${ }_{40.5}^{40.5}$ | ${ }_{4}^{42.6}$ |
| 10, WALLACEBRAE WALK | Dwelling | 51.8 | 50.9 | 51.8 | 0.0 | No Change | 52.5 | 0.7 | Negligible Adverse | 40.4 | 39.5 | 41.0 |
| 11, WALLACEBRAE WALK | Dwelling | 57.2 53.7 | 59.8 52.8 | 57.0 53.6 | -0.2 <br> .0 .1 <br>  | $\frac{\text { Negilibile Beneficial }}{\text { Negligible Beneficial }}$ | 年54.7. | 1.5 0.6 | Negligiole Adverse | $\frac{45.2}{42.1}$ | ${ }_{413}^{47.6} 4$ | ${ }_{46}^{46.6}$ |
| 14, WALLACEBRAE WALK | Dwelling | 56.0 | 57.2 | 55.9 | -0.1 | Negligible Beneficial | 57.2 | 1.2 | Negligible Adverse | 44.1 | 45.2 | 45.2 |
| 15, WALLACEBRAE WALK | Dwelling | 56.7 | 58.8 | 56.7 | 0.0 | No Change | 58.2 | 1.5 | Negigioble Adverse | 44.8 | 46.7 | 46.1 |
| 16, WALLACEBRAE WALK | Deelling | 56.4 | 57.9 | 56.4 | 0.0 | No Change | 57.6 | 1.2 | Negigigile Adverse | 44.5 | 45.8 | 45.6 |
| 17, WALLACEBRAE WALK | Dwelling | 56.0 56.0 | 57.2 56.9 | 55.9 56.0 | -0.1 | $\frac{\text { Negligible Beneficial }}{\text { No Change }}$ | 57.1 57.0 | 1.1 1.0 | $\frac{\text { Negligiole Adverse }}{\text { Nefligible Adverse }}$ | $\frac{44.1}{44.1}$ | 45.2 | 45.1 |
| 2, WALLACEBRAE WALK | Dwelling | 52.7 | 51.2 | 52.7 | 0.0 | No Change | 53.2 | 0.5 | Negligible Adverse | 41.2 | 39.8 | 416 |
| 20, WALLACEBRAE WALK | Dwelling | 56.1 | 57.2 | 56.1 | 0.0 | No Change | 57.2 | 1.1 | Negigigile Adverse | 44.2 | 45.2 | 45.2 |
| 22, WALLACEBRAE WALK |  | 56.1 | 57.2 | 56.0 | -0.1 | Negligible Beneficial | 57.2 | 1.1 | Negigigile Adverse | 44.2 | 45.2 | 45.2 |
|  | Oweling | 54.1 | 54.2 | 54.5 | - 2 | Negligibe Benenicial | 55.1 | 0.4 | Negligiole Avverse | 43.0 | 42.5 | 43.3 |
| 6, WALLACEEBAE WALK | Dwelling | 54.8 54 | $\stackrel{51.7}{51.7}$ | $\stackrel{54.8}{52}$ | $\stackrel{0}{0}$ | $\frac{\text { Negligible Beneiticial }}{\text { No change }}$ | ${ }_{53.4}^{54.4}$ | ${ }_{0}^{0.6}$ | Negligible Adverse | 41.3 | 40.3 | 41.8 |
| 7, WALLACEBRAE WALK | Dwelling | 54.0 | 54.1 | 53.8 | -0.2 | Negligible Beneficial | 54.5 | 0.5 | Negigibile Adverse | 42.3 | 42.4 | 42.8 |
| 9, WALLACEBRAE WALK | ${ }^{\text {Dwelling }}$ Dowiling | 52.5 55.7 | 51.3 57.2 | 52.4 55.5 | -0.1 -0.2 | Negiligile Beneficial | ${ }^{53.0} 5$ | 0.5 1.0 | $\frac{\text { Negigible Adverse }}{\text { Neoligible Adverse }}$ | 41.0 | 39.9 45.2 | ${ }_{4}^{41.4} 4$ |
| 1, WALLACEBRAE WYND, DANESTONE | Delling | 53.3 | 53.2 | 53.3 | 0.0 | No Change | 54.1 | 0.8 | Negligible Adverse | 41.7 | 41.6 | 42.4 |
| 10, WALLACEBRAE WYND, DANESTONE | Dwelling | 51.7 <br> 52.6 | 51.3 52.4 | 51.5 <br> 52.5 | -0.2 -0.1 | Negiligile Benenticial | 52.3 | 0.6 | $\frac{\text { Negligible Adverse }}{\text { Neoligiole Adverse }}$ | 40.3 41.1 | 39.9 40.9 | 40.8 41.8 |
| 12, WALLACEBRAE WYND, DANESTONE | welling | 52.1 | 53.3 | 52.1 | 0.0 | No Change | 53.3 | 1.2 | Negiligile Adverse | 40.6 | 41.7 | 41.7 |
| 14, WALLACEBRAE WYND, DANESTONE | welling | 55.0 | 56.5 | 54.9 | -0.1 | Negligible Beneficial | 56.3 | 1.3 | Negigigile Adverse | 43.2 | 44.6 | 44.4 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 Lnight,outside | DS33 Lnight,outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 15, WALLACEBRAE WYND, DANESTONE | Owelling | 52.6 | 52.4 | 52.5 | ${ }^{0.1}$ | Negligible Beneficical | 53.4 | 0.8 | Negigigle Adverse | 41.1 | 40.9 | 41.8 |
| 16. WALLACEBBAE WYYD, DANESTONE | Dweling | 55.0 <br> 50 <br> 5 | 57.0 | 54.9 5 5 | -0.1 | Negligible Beneficial | 56.4 <br> 537 <br> 5 | 1.4 | Negligible Adverse | $\frac{43.2}{413}$ | $\frac{45.0}{411}$ | $\frac{44.5}{42 .}$ |
| 17, WALACEBAE W WVO, DANESTONE | Dweeling | ${ }_{57.3}^{57}$ | 52.6 59.7 | ${ }_{5}^{52.7}$ | -0.2 |  | ${ }_{58,9}^{53.7}$ | 1.6 1.9 | Neoligigie Avverse | 45.3 | ${ }_{47.5}^{4.5}$ | 42.1 46.7 |
| 19, WALLACEBRAE WYND, DANESTONE | Dwelling | 52.8 | 52.6 | 52.7 | -0.1 | Negligible Benenicial | 53.7 | 0.9 | Negiligile Adverse | 41.3 | 41.1 | 42.1 |
| 2, WALLACEBRAE WYND, DANESTONE | Dwelling | 52.4 | 53.0 | 52.3 | -0.1 | Negligible Beneficical | 53.4 | 1.0 | Negigigile Adverse | 40.9 | 41.4 | 41.8 |
| 20, WALLACEBRAE WYND, DANESTONE | Dwelling | 57.2 | 59.6 | 57.1 | -0.1 | Negligible Beneficial | 58.9 | 1.7 | Negligible Adverse | 45.2 | 47.4 | 46.7 |
| 21, WALLACEBRAE WYND, DANESTONE | Deelling | 52.7 | 52.3 | 52.6 | -0.1 | Negligible Beneficical | 53.5 | 0.8 | Negigioble Adverse | 41.2 | 40.8 | 41.9 |
| 22, WALLACEBRAE WYTD, DANESTTONE | Welling | 57.3 527 | $\begin{array}{r}59.7 \\ 5.7 \\ \hline\end{array}$ | 57.1 | -0.2 | Negligible Beneficicial | $\begin{array}{r}58.9 \\ 5 \\ \hline\end{array}$ | ${ }^{1.6}$ | Negiligibe Adverse | 45.3 | ${ }^{47.5}$ | $\frac{46.7}{419}$ |
| 23, WALLACEBAAE WYTO, DANESTONE | Dwelling | ${ }_{56.3}^{52.7}$ | 52.3 58.7 | ${ }^{52.6} 5$ | $-01$ | Negiligile Benenicial | 53.9 57.9 | 1.8 1.6 | $\frac{\text { Negligibe Adverse }}{\text { Negligibe Adverse }}$ | $\stackrel{41.2}{44.4}$ | $\stackrel{40.8}{46.6}$ | ${ }_{45.8}^{4.9}$ |
| 25, WALLACEBRAE WYND, DANESTONE | Dwelling | 52.7 | 52.2 | 52.6 | -0.1 | Negligible Beneficial | 53.5 | 0.8 | Negligible Adverse | 41.2 | 40.7 | 41.9 |
| 26, WALLACEBRAE WYND, DANESTONE | Welling | 57.2 | 59.6 | 57.0 | -0.2 | Negligible Beneficial | 55.8 | 1.6 | Negigigibe Adverse | 45.2 | 47.4 | 46.7 |
| 27, WALLACEBRAE WYND, DANESTONE | Wwelling | 52.7 | 52.2 | 52.6 | -0.1 | Negligible Beneficial | 53.5 | 0.8 | Negigioble Adverse | 41.2 | 40.7 | 41.9 |
| 28, WALLACEBRAE WYND, DANESTONE | eiling | 57.2 | 59.5 | 57.0 | -0.2 | Negligible Benefitical | ${ }_{58.8}^{58}$ | ${ }^{1.6}$ | Negiligible Adverse | 45.2 | 47.3 | 46.7 |
| 29, WALLACEBRAE WYYD, DANESTONE | elling | 52.9 |  |  | -0.1 | alile |  |  | Negiligible Adverse |  |  | 42.1 |
| 3, WALLACEERAE WYND, DANESTOSE | diling | 53.0 | 52.8 | 53.0 |  | No Change |  |  | Negiligile Adverse | 41.4 | , 3 |  |
| 30, WALLACEBRAE WYYD, DANESTONE | Dwelling | 57.2 529 | 5. ${ }^{4}$ | 57.0 528 | -0.2 | Negeifigiole Benenticial | ${ }_{53}^{58.8}$ | 1.6 | Negigigib Adverse | $\frac{45.2}{413}$ | 47.3 | 46.7 |
| 32, WALLACEBRAE WYND. DANESTONE | Dwelling | 54.0 | 54.5 | 53.9 | -0.1 | Negligible Beneficial | 55.0 | 1.0 | Negiligible Adverse | 42.3 | 42.8 | 43.2 |
| 33, WALLACEBRAE WYND, DANESTONE | Dwelling | 52.3 | 51.6 | 52.2 | -0.1 | Negligible Beneficial | 52.9 | 0.6 | Negligible Adverse | 40.8 | 40.2 | 41.3 |
| 34, WALLACEBRAE WYND, DANESTONE | Dwelling | 51.9 | 52.1 | 51.9 | 0.0 | No Change | 52.9 | 1.0 | Negiligile Adverse | 40.4 | 40.6 | 41.3 |
|  | ${ }^{\text {Dwelling }}$ Dowling | 52.7 55.0 | 52.2 56.0 | 52.5 54.8 | -0.2 -0.2 | Negiligile Beneificial | 53.3 56.1 | 0.6 1.1 | Negigigle Adverse | 41.2. 43 | ${ }_{40.7}^{44.1}$ | $\stackrel{41.7}{44.2}$ |
| 37, WALLACEBRAE WYND, DANESTONE | Dwelling | 52.0 | 51.3 | 51.9 | -0.1 | Negligible Beneficial | 52.6 | 0.6 | Negigigible Adverse | 40.5 | 39.9 | 41.1 |
| 38, WALLACEBRAE WYND, DANESTONE | Dwelling | 55.0 | 56.0 | 54.8 | -0.2 | Negligible Beneficial | 56.2 | 1.2 | Negiligible Adverse | 43.2 | 44.1 | 44.3 |
| 39, WALLACEBRAE WYND, DANESTONE | Dwelling | 52.0) | 51.3 | 51.9 | -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ | 52.6. | 0.6 10 | Negligible Adverse | ${ }_{40.5}^{40.7}$ | 39.9 415 | $\frac{41.1}{41.6}$ |
| 40 , WALLACEBRAE WYND, DANESTONE | Dwelling | 55.5 | 56.9 | 55.3 | -0.2 | Negligible Beneficial | 56.8 | 1.3 | Negiligiole Adverse | 43.7 | 44.9 | 44.9 |
| 41, WALLACEBRAE WYND, DANESTONE | Wwelling | 48.6 | 47.9 | 48.6 | 0.0 | No Change | 49.2 | 0.6 | Negiligile Adverse | 37.5 | 36.8 | 38.0 |
| 42, WALLACEBRAE WYND, DANESTONE | welling | 55.5 | 56.9 | 55.3 | -0.2 | Negligible Beneficial | 56.8 | 1.3 | Negigible Adverse | 43.7 | 44.9 | 44.9 |
| 43, WALLACEBBAE WYND, DANESTONE | Dwelling | 48.6 5.9 | 47.9 | 48.6 57.7 | 0.0 | No Change | 49.2 | 0.6 | Negiligibie Adverse |  | 36.8 | 38.0 475 |
| 44, WALLACEBAE WY WD, DANESTTONE | Dwelling | 57.9 | 60.8 49.9 | 55.7 | -0.2 | Negiligio Beneficial | ${ }^{59.7} 5$ | 1.8 0.8 | Negigigib Adverse | 45.8 38.9 | ${ }^{48.5}$ | 47.5 39.6 |
| 46, WALLACEBRAE WYND, DANESTONE | Dwelling | 57.8 | 60.7 | 57.6 | -0.2 | Negligible Beneficical | 59.7 | 1.9 | Negigioble Adverse | 45.8 | 48 | 47.5 |
| 47, WALLACEBBAE WYND, DANESTONE |  | 49.9 | 49.6 | ${ }_{49.8}$ |  | Negigigile Benenitical |  |  |  | 38.6 | 38.4 | 39.3 |
| 48, WALLACEBAEE WND, DANESTONE | Oweiling | 58.5 | 6.8 | 58.3 | -0.2 | Negiligile Beneniciar | 60.5 | 2.0 | Negiqigile Adverse | 40.4 |  |  |
| 5, WALLACEBRAE WYND, DANESTONE | Dwelling | 51.1 53.0 | 50.6 52.6 | 55.9 | -0.1 | $\frac{\text { Negligiole Benenitical }}{\text { Neglioibl }}$ Beneficial | 51.7 53.7 | 0.7 | Neoligigile Adverse | ${ }^{39.4}$ | $\frac{39.1}{41.1}$ | 40.3 |
| 50, WALLACEBRAE WYND, DANESTONE | Dwelling | 56.2 | 58.0 | 56.0 | -0.2 | Negligible Benenicial | 57.6 | 1.4 | Negiligile Adverse | 44.3 | 45.9 | 45.6 |
| 51, WALLACEBRAE WYND, DANESTONE | Dwelling | 51.1 | 50.6 | 51.0 | -0.1 | Negligible Beneficial | 51.7 | 0.6 | Negligible Adverse | 39.7 | 39.3 |  |
|  | ${ }^{\text {Dwelling }}$ Dowiling | ${ }_{551.6}^{51.6}$ | 57.0 | 55.4 | -0.2 | Negligile Beneficial | 56.9 52.3 | 1.3 0.7 | Negigible Adverse | ${ }_{4}^{43.8} 4$ | ${ }^{459.4}$ | 44.9 |
| 54, WALLACEBRAE WYND, DANESTONE | Dwelling | 55.2 | 56.1 | 55.1 | -0.1 | Negligible Beneficial | 56.4 | 1.2 | Negligible Adverse | 43.4 | 44.2 | 44.5 |
| 55, WALLACEBAEE WYND, DANESTONE | Dwelling | 51.6 55.4 | 50.7 55.9 | 51.6 55.2 | 0.0 -0.2 | Negligibile Benefificial | 52.3 56.3 | 0.9 | Negigiobe Adverse | 40.2 43.6 | 39.4 44.0 | 40.8 4 |
| 57, WALLACEBRAE WYND, DANESTONE | Dwelling | 50.7 | 49.9 | 50.6 | -0.1 | Negligible Beneficial | 51.4 | 0.7 | Negligible Adverse | 39.4 | 38.6 | 40.0 |
| 58, WALLACEBRAE WYND, DANESTONE | Dwelling | 53.8 50.7 | 53.7 49.9 | 53.8 50.7 | 0.0 0.0 | $\frac{\text { No Change }}{\text { No Change }}$ | 54.6 51.4 | 0.8 | $\frac{\text { Negligible Adverse }}{\text { Negligible Adverse }}$ | 42.2 39.4 | 42.1 38.6 | 42.9 40.0 |
| 6, WALLACEBRAE WYND, DANESTONE | Dwelling | 52.3 | 52.1 | 52.2 | -0.1 | Negligible Beneficial | 53.0 | 0.7 | Negiligibe Adverse | 40.8 | 40.6 | 41.4 |
| 60, WALLACEBAAE WYND, DANESTONE | Dweling | 52.4 51.1 | 52.5 50.5 | - 51.4 | 0.0 | $\frac{\text { No C Cange }}{\text { No Change }}$ | 㐌51.9 | 1.0 | Negigigib Adverse | ${ }_{39.7}^{40.9}$ | 41.0 39.2 | 410.4 |
| 62, WALLACEBRAE WYND, DANESTONE | Dwelling | 52.8 | 52.7 | 52.7 | -0.1 | Negligible Benenficial | 53.7 | 0.9 | Negiligible Adverse | 41.3 | 41.2 | 42.1 |
| 63, WALLACEBBAE WYND, DANESTONE | Dweling |  | 50.5 | 51.1 |  | No Change | 51.9 | 0.8 | Negiligile Adverse |  | 39.2 |  |
| ${ }^{\text {64, WALLACEBAE }}$ WALACEBRAE WYYD, DANESTONE | ${ }^{\text {Owelling }}$ | ${ }_{52.3}^{52.3}$ | 52.74 | ${ }_{52.3}^{52.3}$ | -0.0 | Negligiole Beneitical | ${ }_{53} 5.9$ | 0.6 | Neoligigibe Adverse | 40.8 | 4.2 | ${ }_{41.3}^{42.1}$ |
| 66, WALLACEBRAE WYND, DANESTTONE | Dwelling | 52.8 | 52.7 | 52.8 | 0.0 | No Change | 53.8 | 1.0 | Negligible Adverse | 41.3 | 41.2 | 42.2 |
| 67, WALLACEBRAE WYND, DANESTONE | Dwelling | 52.3 | 51.4 | 52.3 | 0.0 | No Change | 52.9 | 0.6 | Negligible Adverse | 40.8 | 40.0 | 41.3 |
| 68, WALLACEBBAE WYND, DANESTONE | Dwelling | - 53.1 | 52.9 | 53.0 <br> 518 <br> 18 | -0.1 | Eegligile Beneficici | $\begin{array}{r}54.0 \\ 524 \\ \hline 5\end{array}$ | 0.9 | Negligile Adverse | 41.5 | ${ }^{41.3}$ | 42.3 |
|  | Dweliling | 51.8 52.3 | 50.7 <br> 52.4 | 51.8 52.1 | -0.2 | Negligible eneneficiolil | 52.4 53.0 | ${ }_{0}^{0.6}$ | Negligigib Avverse | ${ }^{40.4} 40.8$ | 39.4 40.9 | ${ }^{40.9} 41.4$ |
| 70, WALLACEBRAE WYYD, DANESTONE | Dewling | 52.1 | 51.1 | 52.0 | -0.1 | Negligible Beneficical | 52.7 | 0.6 | Negligible Adverse | ${ }^{40.6}$ | 39.7 392 | ${ }_{31.2}^{4.6}$ |
| 71, WALLACEBAEE WYND, DANESTONE | Dwelling | ¢50.6 | 年51.5 | 50.3 52.1 | -0.3 -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Negligibe }}$ Beneficial | 51.0 52.9 | 0.4 | $\frac{\text { Negigigie Adverse }}{\text { Negigiole Adverse }}$ | 39.3 40.7 | 39.2 39.8 | 39.6 41.3 |
| 74, WALLACEBRAE WYYD, DANESTTONE | Delling | ${ }_{53.3}^{5.3}$ | 52.2 | 53.2 | -0.1 | Negligible Beneficial | 53.9 | 0.6 | Negligible Adverse | 41.7 | 40.7 | 42.2 |
| 76, WALLACEBRAE WYYD, DANESTONE | Dwelling | $\stackrel{52.4}{53.8}$ | $\stackrel{51.2}{53.1}$ | 52.4 53.6 | -0.0 | Negligible ${ }^{\text {Nangeeficial }}$ | ${ }_{54.3}^{54.0}$ | 0.6 | Negligibe Adverse | 40.9 | ${ }^{39.8}$ | 4 |
| 8, WALLACEBRAE WYND, DANESTONE | Dwelling | 52.0 | 52.9 | 51.9 | -0.1 | Negligible Beneficial | 53.1 | 1.1 | Negilibile Adverse | 40.5 | 41.3 | 41.5 |
| 80, WALLACEBRAE WYND, DANESTONE |  | 53.7 | 52.9 529 | 53.5 | ${ }_{-0.2}$ | Neogigibie Beneficial | 54.2 | ${ }_{0}^{0.5}$ | Negiligie Adverse | 42.1 | 41.3 | 42.5 |
| 9, WALLACEBRAE WYND, DANESTONE | Dwelling | ${ }_{52.8}^{55.8}$ | 52.5 | ${ }_{5}^{52.8}$ | 0.0 | Negigigle ceneifical | 54.6 | 0.8 | Neoligigie Adverse | 41.3 | 41.0 | ${ }^{42.0}$ |
| 1, WAVELL CRESCENT | Dwelling | 48.7 | 49.9 | 48.5 | -0.2 | Negligible Beneficical | 49.8 | 1.1 | Negligible Adverse | 37.6 | 38.6 | 38.6 |
| 10, WAVELL CRESCENT | Deelling | 47.4 | 48.0 | 47.3 | -0.1 | Negligible Beneficial | 48.4 | 1.0 | Negigigile Adverse | 36.4 | 36.9 | 37.3 |
| $\frac{11, \text { WAVEL CRESCENT }}{\text { 12, WVIELL CRESCNT }}$ | Dwelling | ${ }_{48.4}^{47.3}$ | 498.6 | 48.3 | ${ }_{0}^{-0.1}$ | $\frac{\text { Negligible Beneficial }}{\text { No Change }}$ | 49.4 48.3 | 1.0 | Negigibil Adverse | 37.3 36.3 | 38.4 37.1 | 38.2 <br> 37.2 |
| 13, WAVELL CRESCENT | Dweling | 48.6 | 50.0 477 | 48.5 | -0.1 | Negligible Beneficial | 49.7 479 | 1.1 | Negiligle Adverse | $\begin{array}{r}37.5 \\ 359 \\ \hline\end{array}$ | 38.7 367 | 38.5 368 |
| 14, WAVEL CRESCENT | Dweling | 49.0 | ${ }_{50.5}$ | 48.8 | $\stackrel{-0.2}{-0.1}$ | Negegiogible eeneficioial | ${ }_{50.1}$ | 1.1 | Negigigib Avorerse | 37.8 | 39.2 | 38.8 <br> 8.4 |
| 16, WAVELL CRESCENT | Dewling | ${ }^{47.5}$ | 48.0 | 47.4 | -0.1 | Negligible Beneficial | 48.5 | 1.0 | Negiligile Adverse | 36.5 | 36.9 | 37.4 |
| $\frac{17}{18, \text { WAVELL CRESCENT }}$ | Dwelling | $\frac{49.2}{47.6}$ | 50.9 48.3 | ${ }_{4}^{49.1}$ | $\begin{array}{r}-0.1 \\ -0.1 \\ \hline\end{array}$ | $\frac{\text { Negligible Beneficial }}{\text { Negigible }}$ Beneficial | 50.4 48.5 | $\frac{1.2}{0.9}$ | $\frac{\text { Negligible Adverse }}{\text { Negigible Adverse }}$ | 38.0 36.6 | 39.5 37.2 | 39.1 37.4 |
| 19, WAVELL CRESCENT | Dewling | ${ }^{50.0}$ | 51.8 475 | 49.8 | -0.2 | Negligible Beneficical | $\stackrel{51.2}{47}$ | 1.2 | Negligible Adverse | 38.7 359 | 40.4 | 39.8 |
| 2, WAVELL CRESCENT | Dweling | 46.9 | 47.5 | 46.8 | -0.1 | Negligible Beneficial |  | 0.9 | Negigigile Adverse | 35.9 | 36.5 | 36.8 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 <br> Lnight,outside | DM33 Lnight,outside | $\begin{gathered} \text { DS33 } \\ \text { Lnight,outside } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 20, WAVELL CRESCENT | Dwelling | 47.0 | 47.8 | 46.9 | -0.1 | Negligible Beneficial | 48.0 | 1.0 | Negigigible Adverse | 36.0 | 36.8 | 36.9 |
| 21, WAVELL CRESCENT | Oweling | 50.8 | 52.9 | 50.5 | -0.3 | Negligible Beneficial | 52.1 | 1.3 | Negiligible Adverse | 39.5 | 41.3 | 40.6 |
| 22, WAVELL CRESCENT | Dwelling | 47.6 | 48.4 | 47.5 | -0.1 | Negligible Beneficial | 48.6 | 1.0 | Negiligibe Adverse | 36.6 | 37.3 | 37.5 |
| 23, WAVELL CRESCENT | Oweling | ${ }^{52.9}$ | 55.3 | ${ }^{52.5}$ | -0.4 | Negligible Beneficical | 54.4 | 1.5 | Negigigle Adverse | 41.3 | 43.5 37 | ${ }_{327}^{42.7}$ |
| 24, WAVELL CRESCENT | Delling | ${ }_{47.7}$ | ${ }^{48.5}$ | ${ }_{47.6}$ | -0.1 | Negligible Beneficical | 48.7 | 1.0 | Negigigibe Adverse | 36.7 375 | ${ }^{37.4}$ | 37.6 |
| 26, WAVELL CRESCENT | Delling | ${ }_{48.6}$ | 50.0 | ${ }^{48.5}$ | -0.1 | Negligible Beneficicial | ${ }_{49.8}^{49}$ | 1.2 | Negigigli Adverse | 37.5 37 | 38.7 388 | 38.6 38 |
| 28, WAVELL CRESCENT | Delling | 48.7 | 50.1 | 48.6 | -0.1 | Negligible Beneficical | 49.9 | 1.2 | Negigigibe Adverse | 37.6 377 | 38.8 | 38.6 |
| 3, WAVELL CRESCENT | Dwelling | 48.9 | 49.8 | 48.8 | -0.1 | Negligible Beneficical | 49.8 | 0.9 | Negiligible Adverse | 37.7 37 | 38.6 3 | 38.6 |
| 30, WAVELL CRESCENT | Deelling | 49.0 | 50.5 | 48.8 | -0.2 | Negligible Benefiticial | 50.2 | 1.2 | Negigigible Adverse | 37.8 379 | 39.2 | 38.9 390 |
| 32, WAVEL CRESCENT | Dwelling | 49.5 | ${ }^{50.7}$ | ${ }_{49.3}$ | -0.2 | Negiligile Benenicial | 50.3 <br> 50.8 | $\stackrel{1.2}{1.3}$ | Negigigibe Adverse | ${ }_{38.3}$ | ${ }_{39.8}^{39.4}$ | ${ }^{39.0}$ |
| 36, WAVELL CRESCENT | Dwelling | 50.6 | 52.2 | 50.4 | -0.2 | Negligible Beneficial | 51.8 | 1.2 | Negligiole Adverse | 39.3 | 40.7 | 40.4 |
| 4, WAVELL CRESCENT | Dwelling | 46.8 | 47.4 | 46.7 | -0.1 | Negligible Beneficial | 47.7 | 0.9 | Negigiolile Adverse | 35.9 | 36.4 | 36.7 |
| 5. W AVELL CRESCENT | Deelling | 48.9 | 49.8 | 48.8 | -0.1 | Negligible Beneficial | 49.8 | 0.9 | Negaligible Adverse | 37.7 | 38.6 | 38.6 |
| 6, WAVEL CRESCENT | Dweling | 46.6 |  |  | 0.0 | No Change | ${ }_{5}^{47.5}$ |  |  | ${ }^{357}$ |  |  |
| 7, WAVELL CRESCENT | Dwelling | 49.1 46.7 | 49.9 47.2 | 49.0 46.6 | -0.1 -0.1 | $\frac{\text { Negligible Benenicial }}{\text { Neglioibl }}$ | 50.0 47.6 | 0.9 0.9 | Negligibl Adverse | 37.9 35.8 | 38.6 36.2 | 38.7 36.6 |
| 9, WAVELL CRESCENT | Dwelling | 48.3 | 49.5 | 48.2 | -0.1 | Negligible Beneficicial | 49.4 | 1.1 | Neogigioble Adverse | 37.2 | 38.3 | 38.2 |
| 1, WEAVER TERRACE | Dwelling | 50.4 | 51.4 | 50.4 | 0.0 | No Change | 51.3 | 0.9 | Negiligile Adverse | 39.1 | 40.0 | 39.9 |
| 10, WEAVER TERRACE | Dweling | 48.0 | 48.9 | 47.9 | -0.1 | Negligible Beneficial | 48.8 | 0.8 | Negiligibe Adverse | 36.9 | 37.7 | 37.7 |
| 11, WEAVER TERRACE | Deelling | 49.4 | 50.4 | 49.3 | -0.1 | Negligible Beneficial | 50.2 | 0.8 | Negiligibe Adverse | 38.2 | 39.1 | 38.9 |
| 12, W EAVER T TRRACE | Oweling | ${ }_{474}^{47.5}$ | 48.5 | 47.5 | 0.0 | No Change | ${ }_{48.4}$ | 0.9 | Negiligibe Adverse | 36.5 3.4 | $\begin{array}{r}37.4 \\ 373 \\ \hline\end{array}$ | 37.3 <br> 372 |
| 14, WEAVER TERRACE | Oweling | 47.4 | 48.4 | 47.4 | 0.0 | No Change | 48.3 | 0.9 | Negiligible Adverse | 36.4 | 37.3 <br> 3 | 37.2 |
| 15, WEAVER TERRACE | Dwelling | 49.0 47.4 | 50.0 48.4 | 48.9 47.3 | -0.1 -0.1 | $\frac{\text { Negligible Beneficial }}{\text { Neglioibl }}$ Beneficial | 49.9 48.2 | 0.8 | Negigigble Adverse | 37.8 36.4 | 38.7 37.3 | 38.6 37.1 |
| 17, WEAVER TERRACE | Dwelling | 49.1 | 50.2 | 49.0 | -0.1 | Negligible Benenicial | 50.0 | 0.9 | Negligiole Adverse | 37.9 | 38.9 | 38.7 |
| 18, WEAVER TERRACE | Dwelling | 47.7 | 48.7 | 47.6 | -0.1 | Negligible Beneficial | 48.6 | 0.9 | Negigiolile Adverse | 36.7 | 37.6 | 37.5 |
| 19, WEAVER TERRACE | Dwelling | 48.9 50.4 | 50.0 51.4 | 48.8 50.4 | -0.1 0.0 | Negligible Beneficial | $\frac{49.8}{51.3}$ | 0.9 0.9 | $\frac{\text { Negiligib Adverse }}{\text { Negigiole Adverse }}$ | 37.7 39.1 | 38.7 40.0 | 38.6 39.9 |
| 20, WEAVER TERRACE | Dwelling | 47.3 | 48.3 | 47.2 | -0.1 | Negligible Beneficial | 48.2 | 0.9 | Negiligibe Adverse | 36.3 | 37.2 | 37.1 |
| 21, WEAVER TERRACE | Dwelling | 49.0 | 50.1 | 48.9 | -0.1 | Negiligile Beneficial | 49.9 | 0.9 | Negiligibe Adverse | 37.8 <br> 35 | 38.8 360 | 38.6 359 |
| 23, WEAVER TERRACE | Dwelling | 48.8 | 50.0 | 48.7 | -0.1 | Negligibie Benenificial | 49.8 | 1.0 | Neoligigile Adverse | ${ }_{37.7}$ | ${ }_{38.7}$ | ${ }_{35.6}$ |
| 24, WEAVER TERRACE | Dwellig | 46.1 | 47.0 | 46.0 | -0.1 | Negligible Beneficical | 46.8 | 0.7 | Negiligible Adverse | 35.2 | 36.0 | 35.9 |
|  |  | 48.8 |  |  |  |  |  |  |  |  |  |  |
| 28, WEAVER TERRACE | Dwelling | 46.1 | 47.0 | 46.0 | -0.1 | Negligible Beneniticial | 46.8 | 0.7 | Neogigiole Adverse | ${ }_{35.2}$ | ${ }_{36.0}$ | ${ }_{35.9}$ |
| 3, WEAVER TERRACE | Dwelling | 50.4 | 51.4 | 50.4 | 0.0 | No Change | 51.3 | 0.9 | Negigioble Adverse | 39.1 | 40.0 | 39.9 |
| 30, WEAVER TERRACE | Deelling | 46.1 | 47.0 | 46.0 | -0.1 | Negligible Beneficial | 46.8 | 0.7 | Negligible Adverse | 35.2 | 36.0 | 35.9 |
| 32, WEAVER TERRACE | Dwelling | 46.1 | 47.0 514 | 46.0 50.4 | -0.1 | Negligible Benenicial | $\frac{46.8}{513}$ | 0.7 | Negiligibe Adverse | 35.2 391 | 36.0 400 | 35.9 399 |
| 4, WeAVER TERRACE | Dwelling | ${ }^{50.4} 50.8$ | 51.4 51.8 | 50.4 50.7 | -0.1 | Negligible eneneficial | ${ }_{51.6}$ | 0.8 | Neogigioble Adverse | ${ }^{39.5}$ | 40.4 | 40.2 |
| 6, WEAVER TERRACE | Dwelling | 50.4 | 51.4 | 50.4 | 0.0 | No Change | 51.3 | 0.9 | Negigigile Adverse | 39.1 | 40.0 | 39.9 |
| 7. WEAVER TERRACE | Dwelling | 51.1 | 52.0 | 51.0 | -0.1 | Negligible Beneficical | 51.9 | 0.8 | Negligible Adverse | 39.7 39.1 | 40.5 | 40.4 |
| 9, WEAVER TERRACE | Dwelling | ${ }^{50.4}$ | 50.7 | 49.6 | -0.1 | Negligible Beneficicial | 50.6 | 0.9 | Neogigiole Adverse | ${ }_{38.5}$ | ${ }^{40.4}$ | ${ }_{39.3}$ |
| FOUNTAN GRANGE, 1, WESTERN ROAD | Delling | 66.1 | 67.1 | 66.2 | 0.1 | Negligible Adverse | 67.1 | 1.0 | Negiligibe Adverse | 53.2 | 54.1 | 54.1 |
| WOODSIDE MEDICAL GROUP, 1, SKENE PLACE, DYCE | ${ }^{\text {Clinic }}$ | 60.6 66.1 | ${ }_{66.8}^{67.1}$ | 60.9 | 0.3 0.1 | $\frac{\text { Negigigile Adverse }}{\text { Negigiole Adverse }}$ | 64.9 67.1 | 4.3 1.0 | Meoligionle Adverserse | 48.3 53.2 | ${ }_{54.1}^{53.9}$ | 52.1 |
| FOUNTAIN GRANGE, 3, WESTERN ROAD | Dwelling | 66.1 | 67.1 | 66.2 | 0.1 | Negigioble Adverse | 67.1 | 1.0 | Negilibile Adverse | 53.2 | 54.1 | 54.1 |
| Fountaln grange, 4, WESTERN ROAD | Deeling | 66.1 | 67.1 | 66.2 | 0.1 | Negigioble Adverse | 67.1 | 1.0 | Negigigibe Adverse | 53.2 | 54.1 | 54.1 |
| FOUNTAIN GRANGE, 5, WESTTERN ROAD |  | 66.1 | 67.1 | 66.2 |  | Negiligibe Adverse | 67.1 |  | Negiligible Adverse |  |  | 54.1 |
| FOUNTAIN GRANGE, 6, WESTERN ROAD | Oweling | ${ }_{66.1}^{6.1}$ | 67.1 |  | 0.1 | Negigigio Adverse | ${ }^{67.1}$ | 1.0 | Negiligie Adverse | ${ }^{53.2}$ |  | 4.1 |
| FOUNTAIN GRANGE, 8 , WESTERN ROAD | ${ }^{\text {Dueliling }}$ | ${ }_{66.1}^{66.1}$ | ${ }_{67.1}$ | 66.2 | 0.1 | Neogigiole Adverse | ${ }_{67.1}$ | 1.0 | Negigigie Adverse | 53.2 | ${ }^{54.1}$ | ${ }_{54.1}^{54.1}$ |
| Fountali grange, 9, WeSTERN ROAD | Dwelling | 66.1 | 67.1 | 66.2 | 0.1 | Negigioble Adverse | 67.1 | 1.0 | Negigioble Adverse | 53.2 | 54.1 | 54.1 |
| FOUNTAIN GRANGE, 10, WESTERN ROAD | Dwelling | 66.1 | 67.1 | 66.2 | 0.1 | Negigiole Adverse | 67.1 | 1.0 | Negiligibe Adverse | 53.2 | 54.1 | 54.1 |
| FOUNTAIN GRANGE, 11, WESTERN ROAD | Dwelling | 66.1 | 67.1 | 66.2 | 0.1 | Negiligile Adverse | 67.1 | 1.0 | Negiligile Adverse | 53.2 | 54.1 | 54.1 |
| FOUNTAIN GRANGE, 13 , WESTERN ROAD | Dwelling | 65.6 | 66.7 | ${ }_{65.7}^{66.7}$ | 0.1 | Negigigile Adverse | 66.7 | ${ }_{1}^{1.1}$ | Negigigibe Adverse | ${ }_{52.8}$ | ${ }_{53.8}$ | 54.8 |
| FOUNTAN GRANGE, 14, WESTERN ROAD | Dwelling | 65.6 | 66.7 | 65.7 | 0.1 | Negigigile Adverse | 66.7 | 1.1 | Negigigible Adverse | 52.8 | 53.8 | 53.8 |
| Fountal arange. 15, WEETTERN ROAD | Dewling | 65.6 | 66.7 | ${ }^{65.7}$ | 0.1 | Negligible Adverse | 66.7 | 1.1 | Negaligibe Adverse | ${ }_{52.8}^{52}$ | 53.8 | 53.8 |
| Fountan Grance, 16, WESTERN ROAD | Dwelling | 65.6 65.6 | ${ }^{66.7}$ | ${ }^{65.7}$ | ${ }_{0}^{0.1}$ | Negigibie Adverse | ${ }_{66.7}^{66.7}$ | 1.1 1.1 | Negigiobe Adverse | $\begin{array}{r}52.8 \\ 52.8 \\ \hline\end{array}$ | 53.8 <br> 53.8 | ${ }_{53.8}^{53.8}$ |
| FOUNTAIN GRANGE, 18, WESTERN ROAD | Dwelling | 65.6 | 66.7 | 65.7 | 0.1 | Negligible Adverse | 66.7 | 1.1 | Negligible Adverse | 52.8 | 53.8 | 53.8 |
| Fountaln grange, 19, WESTERN ROAD | Dwelling | 65.6 | 66.7 | 65.7 | 0.1 | Negiligile Adverse | 66.7 | 1.1 | Negligible Adverse | 52.8 | 53.8 | 53.8 |
| FOUNTAIN GRANGE, 20, WESTERN ROAD | Dwelling | 65.6 | 66.7 | 65.7 | 0.1 | Negigigile Adverse | 66.7 | 1.1 | Negigigile Adverse | 52.8 | 53.8 | 53.8 |
| Fountain grance 21, Western road | Dwelling | ${ }^{656.6}$ | 66.7 | 65.7 | 0.1 | Negaligible Adverse | 66.7 | 1.1 | Negaligible Adverse | 52.8 | ${ }_{53.8}^{5}$ | 53.8 |
| FOUNTAN GRANGE, 23, WESTTERN ROAD | Dwelling | ${ }_{655.6}$ | ${ }_{66.7}^{66.7}$ | ${ }_{65.7}^{65.7}$ | ${ }_{0}^{0.1}$ | Neogigioble Adverse | ${ }_{66.7}^{66.7}$ | ${ }_{1.1}$ | Neogigioble Adverse | ${ }_{52.8}^{52.8}$ | ${ }_{53.8}^{53.8}$ | ${ }_{53.8}^{53.8}$ |
| Fountaln grange, 24, WESTERN ROAD | Dwelling | 54.6 | 55.4 | 54.8 | 0.2 | Negigioble Adverse | 55.3 | 0.7 | Negiligible Adverse | 42.9 | 43.6 | 43.5 |
| Fountall GRANGE, 25, WESTERN ROAD | Deelling | 54.6 | 55.4 | 54.8 | 0.2 | Negigigibe Adverse | 55.3 | 0.7 | Negigigibe Adverse | 42.9 | 43.6 | 43.5 |
| Fountaln grange, 27, WESTERN ROAD | Dwelling | 54.6 | 55.4 | 54.8 | 0.2 | Neoligiole Adverse | 55.3 | 0.7 | Neogioigile Adverse | 42.9 | 43.6 | 43.5 |
| Fountalin grange, 28, WESTERN RoAD | Deelling | 54.6 | 55.4 | 54.8 | 0.2 | Negiligile Adverse | 55.3 | 0.7 | Negigioible Adverse | 42.9 | 43.6 | 43.5 |
| FOUNTAIN GRANGE, 29, WESTERN ROAD | Dwelling | 54.6 54.6 | 55.4 <br> 554 <br> 5.4 | 54.8 548 | 0.2 | Negligiole Adverse | 55.3 <br> 553 <br> 5. | 0.7 | Negligibl Adverse | 42.9 | 43.6 4.3 | 43.5 4.5 |
| FOUNTAN GRANGE, 31, WESTERN ROAD | Dwelling | ${ }_{54.6}$ | 55.4 | 54.8 | 0.2 | Neogigigile Adverse | ${ }_{55.3}$ | 0.7 | Negligible Adverse | 42.9 | 43.6 | 43.5 |
| OUNTAIN GRANGE, 32, WESTERN ROAD | Dwelling | 54.6 | 55.4 | 54.8 | 0.2 | Negigioble Adverse | 55.3 | 0.7 | Negigioile Adverse | 42.9 | 43.6 | 43.5 |
| GROUND FLOOR, 32, WESTERN ROAD | Dwelling | 57.3 | 57.2 | 56.7 | -0.6 | $\frac{\text { Negiligile Beneficial }}{\text { Negioiolie Adverse }}$ | 57.2 | $\stackrel{-0.1}{0.7}$ | $\frac{\text { Negligible Beneficial }}{\text { Negioiolie Adverse }}$ | 45.3 | 45.2 436 | 45.2 43.5 |
| OUNTAIN GRANGE, 34, WESTERN ROAD | Dwelling | 54.6 | 55.4 | 54.8 | 0.2 | Negigiole Adverse | 55.3 | 0.7 | Negiligile Adverse | 42.9 | 43.6 | 43.5 |
| FOUNTAIN GRANGE, 35, WESTERN ROAD | Welling | 54.6 | 55.4 | 54.8 | 0.2 | Negigigile Adverse | 55.3 | 0.7 | Negligible Adverse | 42.9 | 43.6 | 43.5 |

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 Lnight,outside | DS33 Lnight,outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| FOUNTAIN GRANGE, 36 , WESTERN ROAD | Dweling | 67.5 | 68.6 | 67.6 | 0.1 | $\frac{\text { Negliaible Benefitial }}{\text { Negliobl }}$ | 68.5 <br> 5.5 | 1.0 | Negligile Adverse | 54.5 | 55.5 | 55.4 |
| FOUNTAIN GRANGE, 37, WESTERN ROAD | Dwelling | 55.8 67.5 | 55.6 68.6 | ${ }^{55.2}$ | -0.6 | $\frac{\text { Negligible Beneficial }}{\text { Negligible Beneficial }}$ | 55.7 68.5 | -0.1 1.0 | $\frac{\text { Negligible Beneficial }}{\text { Negigiolie Adverse }}$ | 44.0 54.5 | 43.8 55.5 | 43.9 55.4 |
| FOUNTAIN GRANGE, 38, WESTERN ROAD | Dwelling | 67.5 | 68.6 | 67.6 | 0.1 | Negligible Beneficiolal | 68.5 | 1.0 | Negigigible Adverse | 54.5 | 555 | 55.4 |
| GROUND FLOOR, 38, WESTERN ROAD | Dwelling | 55.8 | 55.6 | 55.2 | -0.6 | Negligible Beneficial | 55.7 | -0.1 | Negligible Beneficial | 44.0 | 43.8 | 43.9 |
| FOUNTAIN GRANGE, 39, WESTERN ROAD | elling | 67.5 | 68.6 | 67.6 | 0.1 | Negligible Beneficical | 68.5 | 1.0 | Negiligile Adverse | 54.5 | 55.5 | 55.4 |
| FOUNTAIN GRANGE, 40, WESTERN ROAD | Dwelling | 67.5 | 68.6 | 67.6 | 0.1 | Negligible Beneficial | 68.5 | 1.0 | Negigiobile Adverse | 54.5 | 55.5 | 55.4 |
| FOUNTAIN GRANGE, 41, WESTERN ROAD | Deelling | 67.5 | 68.6 | 67.6 | 0.1 | Negligible Beneficial | 68.5 | 1.0 | Negigioble Adverse | 54.5 | 55.5 | 55.4 |
| FOUNTAIN GRANGE, 42, WESTTERN ROAD | Deelling | 67.5 | 68.6 | 67.6 | 0.1 | Negligible Beneficial | 68.5 | 1.0 | Negiligibe Adverse | 54.5 | 55.5 | 55.4 |
| FOUNTAIN GRANGE, 43, WESTERN ROAD | Dwelling | 67.5 | 68.6 | 67.6 | 0.1 | Negligible Beneficial | 68.5 | 1.0 | Negigigble Adverse | 54.5 | 55.5 | 55.4 |
| OOUNAINGRANGE, 44, WESTERNROAD | welling | 67.5 | 68.6 | ${ }^{67.6}$ | 0.1 | Negiligiole Beneilical | 68.5 | 1.0 | Negiligile Aaverse |  | 55.5 | $\begin{array}{r}55.4 \\ 554 \\ \hline 5.4\end{array}$ |
| OUNTAIN GRANGE, 45, WESTERN ROAD | weling | 67.5 | 68.6 | ${ }^{67.6}$ | 0.1 | Negiligiole Beneficial | ${ }_{68.5}^{68.5}$ | 1.0 | Negigigble Adverse | 54.5 545 | 555 | 55.4 <br> 554 |
| FOUNAIN GRANGE, 46, WESTIERN ROAD | Oweling | 67.5 | 68.6 | 67.6 | 0.1 | Negligible Beneficicial | 68.5 | 1.0 | Negiligibe Adverse | 54.5 | 55.5 | 55.4 |
| FOUNTAIN GRANGE, 47, WESTERN ROAD | Dweling | 67.5 | 68.6 | ${ }_{67.6}^{607}$ | 0.1 | Negigibile Benenicial | ${ }_{68.5}^{643}$ | ${ }_{3}^{1.0}$ | Negigiobib Adverse | 54.5 48.2 | 55.5 | 55.4 |
|  | Dwelling | 60.5 | ${ }_{66.0}^{66.0}$ | 60.7 | 0.2 | Neoligigile Adverse | 64.3 | ${ }_{3.8}$ | Minoror Adveresse | 48.2 | 53.11 | ${ }^{51.6}$ |
| FLAT B, 89 , WESTERN ROAD | Dwelling | 61.8 | 67.0 | 62.4 | 0.6 | Negiligile Adverse | 65.9 | 4.1 | Minor Adverse | 49.4 | 54.0 | 53.0 |
| FLAT C, 89, WESTERN ROAD | Dwelling | ${ }_{61.8}^{618}$ | ${ }^{67.0} 6$ | 62.4 624 | ${ }_{0}^{0.6}$ | Negligile Adverse | 65.9 659 | 4.1 | Minor Adverse | 49.4 | 54.0 54.0 | 53.0 |
| FLAT E, 89, WESTERN ROAD | Dwelling | 61.8 | 67.0 | 62.4 | 0.6 | Negiligibe Adverse | 65.9 | 4.1 | Minor Adverse | 49.4 | 54.0 | 53.0 |
| FLAT F, 89, WESTERN ROAD | Dwelling | 61.8 | 67.0 | 62.4 | 0.6 | Negigigile Adverse | 65.9 | 4.1 | Minor Adverse | 49.4 | 54.0 | 53.0 |
| 10, WESTERN ROAD | welling | 54.4 | 57.0 | 53.1 | -1.3 | Minor Beneficial | 56.3 | 1.9 | Negigiolie Adverse | 42.7 | 45.0 | 44.4 |
| 100, WESTERN ROAD | welling | 57.0 | 62.9 | 57.3 | 0.3 | Negiligible Adverse | 62.3 | 5.3 | Moderate Adverse | 45.0 | 50.3 | 49.8 |
| 101, WESTERN ROAD | welling | 58.3 | 64.4 | 58.5 |  | Negiligibe Adverse |  |  | Moderate Adverse | 46.2 |  |  |
| 102, WESTERN ROAD | welling | 57.0 | 62.9 |  | 0.3 | Negigigibe Adverse | 62.3 |  | Moderate Adverse | 45.0 |  | 49.8 |
| 103. WESTERN ROAD | Dwelling | 58.3 57.1 | 64.4 | 58.5 <br> 574 | 0.2 | Negiligib Adverse | 63.7 624 | 5.4 5 5 | Moderate Adverse | $\frac{46.2}{451}$ | 51.7 | $\frac{51.1}{49}$ |
| 104 , WESTERN ROAD | Dweling | $\begin{array}{r}57.1 \\ 57.5 \\ \hline\end{array}$ | ${ }_{63.0}^{63.1}$ | 57.4 | ${ }_{0}^{0.3}$ | Negiligibie Adverse | ${ }_{62.4}^{62.4}$ | 5 | Moderate Adverse | 45.1 |  | 49.9 |
| 105, WESTEREN ROAD | ${ }^{\text {Dwelling }}$ | 57.5 | ${ }_{63.0}^{63.1}$ | 57.7 57.4 | 0.2 | Negligioble Adverse | ${ }^{62.5}$ | ${ }_{5.3} 5$ | Modereate Advererse | 45.1 | 50.5 | 50.0 |
| 107, WESTERN ROAD | Dwelling | 57.5 | 63.1 | 57.7 | 0.2 | Negiligile Adverse | 62.5 | 5.0 | Moderate Adverse | 45.5 | 50.5 | 50.0 |
| 108, WESTERN ROAD | Dwelling | 57.5 | 63.1 | 57.7 | 0.2 | Negigigile Adverse | 62.6 | 5.1 | Moderate Adverse | 45.5 | 50.5 | 50.1 |
| 109. WESTERN ROAD | Dwelling | $\begin{array}{r}57.5 \\ \hline 5.1 \\ \hline\end{array}$ | $\stackrel{63.0}{54.8}$ | $\stackrel{57.7}{53.6}$ | - $\begin{array}{r}0.2 \\ -1.5\end{array}$ | $\frac{\text { Negigigibe Adverse }}{\text { Minor Beneficial }}$ | $\stackrel{62.5}{54.8}$ | 5.0 | $\frac{\text { Moderate Adverse }}{\text { Negligibe }}$ Beneficiol | 45.5 43.3 | 50.4 <br> 43.1 | 50.0 43.1 |
| 110, WESTERN ROAD | Dwelling | 57.5 | 63.1 | 57.7 | 0.2 | Negigigile Adverse | 62.6 | 5.1 | Moderate Adverse | 45.5 | 50.5 | 50.1 |
| 111, WESTERN ROAD | Owelling | 57.5 | 63.0 | 57.7 | 0.2 | Negigigibe Adverse | 62.5 | 5.0 | Moderate Adverse | 45.5 | 50.4 | 50.0 |
| 112, WESTERN ROAD | Oweling | 57.6 | 63.2 | 57.8 | 0.2 | Negigigibe Adverse | 62.6 | 5.0 | Moderate Adverse | 45.6 | 50.6 | 50.1 |
| $1{ }^{113, \text { WESTERN ROAD }}$ | Welling | 57.2 | 62.9 | 57.4 | 0.2 | Negigigile Adverse | 62.3 | 5.1 | Moderate Adverse | 45.2 | 50.3 | 49.8 |
| 115, WESTERN ROAD | Dwelling | 57.2 | 62.9 | 57.4 | 0.2 | Negigigibe Adverse | 62.3 | 5.1 | Moderate Adverse | 45.2 | 50.3 | 49.8 |
| 116, WESTERN ROAD | Dwelling | 57.9 | 63.2 | 58.1 | 0.2 | Negligible Adverse | 62.6 | 4.7 | Minor Adverse | 45.8 | 50.6 | 50.1 |
| 117, WESTERN ROAD | Welling | 57.3 | 63.0 | 57.5 | 0.2 | Negigigibe Adverse | 62.4 | 5.1 | Moderate Adverse | ${ }^{45.3}$ | 50.4 | 49.9 |
| 118, WESTERN ROAD | Dwelling | 57.9 57.3 | 63.2 63.0 | 58.1 57.5 | 0.2 0.2 | Negligibl Adverse | 62.6 62.4 | 4.7 5.1 | ${ }_{\text {Minor Adverse }}^{\text {Moderate Adverse }}$ | 45.8 45.3 | 50.4 | 50.1 49.9 |
| 12, WESTERN ROAD | Dwelling | 53.2 | 55.3 | 52.3 | -0.9 | Negligible Beneficial | 54.8 | 1.6 | Negligiole Adverse | 41.6 | 43.5 | 43.1 |
| 120, WESTERN ROAD | Dwelling | 58.3 | 63.2 | 58.5 | 0.2 | Negigioile Adverse | 62.7 | 4.4 | Minor Adverse | 46.2 | 50.6 | 50.2 |
| $\frac{1212, \text { WESTERN ROAD }}{122, \text { WESTERN ROAD }}$ | Dwelling | 56.6 58.3 | $\frac{61.9}{63.2}$ | 56.8 58.5 | 0.2 0.2 | Negigigib Adverse | 66.4 62.7 | 4.4 4 | Minor Adverse | ${ }_{46.2}^{44.7}$ | ${ }_{50.6}^{49.4}$ | 490.2 |
| 123, WESTERN ROAD | Deelling | 56.6 | 61.9 | 56.8 | 0.2 | Negigioble Adverse | 61.4 | 4.8 | Minor Adverse | 44.7 | 49.4 | 49.0 |
| 124, WESTERN ROAD | Dwelling | 59.3 | 63.4 | 59.4 | 0.1 | Negigigile Adverse | 63.0 | 3.7 | Minor Adverse | 47.1 | 50.8 | 50.4 |
| $\frac{125 . \text { WESTERN ROAD }}{126, \text { WESTERN ROAD }}$ | Dwelling | ${ }_{5}^{56.8}$ | $\frac{62.0}{63.5}$ | 57.0 59.4 | $\frac{0.2}{0.1}$ | $\frac{\text { Negigigile Adverse }}{\text { Negigiole Adverse }}$ | 61.6 63.0 | ${ }_{3}^{4.8}$ | Minor Adverse | $\frac{44.9}{47.1}$ | 49.5 50.9 | 49.2 50.4 |
| 127, WESTERN ROAD | Dwelling | 56.8 | 62.0 | 57.0 | 0.2 | Negigigile Adverse | 61.6 | 4.8 | Minor Adverse | 44.9 | 49.5 | 49.2 |
| 128, WESTERN ROAD | Deelling | 60.1 | 63.8 | 60.2 | 0.1 | Negigigibe Adverse | 63.5 | 3.4 | Minor Adverse | 47.8 | 51.2 | 50.9 |
| 129, WESTERN ROAD | Dwelling | 56.9 559 | $\begin{array}{r}62.1 \\ 553 \\ \hline\end{array}$ | 57.1 544 | 0.2 -15 | Negiligile Adverse | 61.6 554 | 4.7 | Minor Adverse | 44.9 440 | 49.6 435 | 49.2 436 |
| 130, WESTERN ROAD | Dwelling | 60.1 | 63.8 | 60.3 | 0.2 | Negiligibe Adverse | 63.5 | 3.4 | Minor Adverse | 47.8 | 51.2 | 50.9 |
| 131, WESTERN ROAD | Dwelling | 56.9 | 62.1 | 57.1 | 0.2 | Negigigile Adverse | 61.6 | 4.7 | Minor Adverse | 44.9 | 49.6 | 49.2 |
| 133, WESTERN ROAD | Dwelling | 57.0 | ${ }_{62.1}^{62.1}$ | 57.2 572 | ${ }^{0.2}$ | Negligible Adverse | ${ }_{61.6}^{616}$ | ${ }_{4}^{4.6}$ | Minor Adverse | 45.0 | 49.6 | 49.2 |
| ${ }^{\text {135, WESTERN ROAD }}$ | Dwelling | 57.0 58.3 | ${ }_{62.1}^{62.3}$ | 57.2 58.5 | ${ }_{0}^{0.2}$ | Negligible Adverse | 61.6 62.8 | 4.6 4.5 | Minor Adverse | 45.0 46.2 | 49.6 50.7 | 49.2 50.3 |
| 139, WESTERN ROAD | Dwelling | 58.3 | 63.3 | 58.5 | 0.2 | Negigigibe Adverse | 62.8 | 4.5 | Minor Adverse | 46.2 | 50.7 | 50.3 |
| 14, WESTERN ROAD | Dwelling | 56.6 | 55.6 | 55.0 | -1.6 | Minor Beneficial | 55.9 | -0.7 | Negligible Beneficial | 44.7 | 43.8 | 44.0 |
| 141, WESTERN ROAD | Deelling | 58.6 | 63.2 | 58.8 | 0.2 | Negigigibe Adverse | 62.8 | 4.2 | Minor Adverse | 46.5 | 50.6 | 50.3 |
| 1435, WEESTERN R ROAD | Dwelling | ${ }_{58.6}^{59.6}$ | ${ }_{63.6}^{63.2}$ | 58.8 59.7 | 0.2 0.1 | Negligigile Advverse | ${ }_{62.8}^{63.3}$ | 4.7 3.7 | Minoror Adverse | 46.5 47.4 | 50.6 51.0 | 50.3 50.7 |
| 147, WESTERN ROAD | Deelling | 59.6 | 63.6 | 59.7 | 0.1 | Negigioble Adverse | 63.3 | 3.7 | Minor Adverse | 47.4 | 51.0 | 50.7 |
| 149, WESTERN ROAD | Dwelling | 61.0 | 64.3 | 61.1 | 0.1 | Negigigile Adverse | 64.1 | 3.1 | Minor Adverse | 48.6 | 51.6 | 51.4 |
| 15, WESTERN ROAD | Dwelling | ${ }^{56.3} 61.0$ | 55.6 64.3 | 54.7 61.1 | -1.6 0.1 | Minor Beneficial | 55.8 <br> 64.1 | -0.5 3.1 | Negligible Beneticial | 44.4 48.6 | $\frac{43.8}{51.6}$ | 44.0 |
| 16, WESTERN ROAD | Dwelling | 57.3 | ${ }_{56.1}^{56}$ | 55.7 <br> 55 <br> 5 | -1.6 | Minor Beneficical | 56.4 | -0.9 | Negligible Benefitial | 45.3 449 | 44.2 441 | 44.5 |
| $\frac{17, \text { WESTERN ROAD }}{18, \text { WESTERN ROAD }}$ | Dwelling | 56.8 53.5 | 56.0 53.0 | 55.3 52.4 | -1.5 -1.1 | ${ }_{\text {Minor Beneficicial }}$ | - 56.2 | -0.6 | $\frac{\text { Negligible Benenticial }}{\text { Negioibile }}$ Beneficial | 44.9 41.9 | 44.1 41.4 |  |
| 19, WESTERN ROAD | Dwelling | 57.2 | 56.4 | 55.7 | -1.5 | Minor Beneficial | 56.6 | 0.6 | Negligible Benenicial | 45.2 | 44.5 | 44.7 |
| 20, WESTERN ROAD | Dwelling | 54.3 | 53.8 | 53.2 | -1.1 | Minor Beneficial | 53.9 | -0.4 | Negigibie Beneficial | 42.6 | 42.2 | 42.2 |
| $\frac{21, \text { Western road }}{\text { 22, WESTERN ROAD }}$ | Dwelling | 57.4 54.1 | ${ }_{56.7}^{56.7}$ | 㐌53.11 | -1.3 -1.0 | Minor Beneficicial | ${ }_{5}^{56.9}$ | $\stackrel{-0.5}{-0.4}$ | $\frac{\text { Negiligiole Beneficial }}{\text { Negligile }}$ Beneficial | 45.4.4 | $\frac{44.8}{41.9}$ | $\stackrel{44.9}{42.1}$ |
| 23, WESTERN ROAD | Dwelling | 59.4 | 59.6 | 58.9 | -0.5 | Negligible Beneficial | 59.6 | 0.2 | Negigioile Adverse | 47.2 | 47.4 | 47.4 |
| 24, WESTERN ROAD | Dwelling | ${ }_{567.8}^{66}$ | 55.9 69.2 | 55.4 67.7 | -0.9 .0 .1 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ Beneficial | 56.0 68.8 | -0.3 1.0 | $\frac{\text { Negigigle Beneficial }}{\text { Nefilioble Adverse }}$ | 44.4 54.8 | 44.0 56.0 | 44.1 55.7 |
| 26, WESTERN ROAD | Dwelling | 56.6 | 56.3 | 55.8 | -0.8 | Negligible Beneficial | 56.4 | -0.2 | Negligible Beneficial | 44.7 | 44.4 | 44.5 |
| 27, WESTERN ROAD | Dwelling | 67.8 56.5 | 69.2. | 67.7 55.9 | -0.1 .0 .6 | $\frac{\text { Negiligiole Beneficial }}{\text { Negligible Beneficial }}$ | 㐌56.8. | 1.0 0.0 | Negiligile Adverse | 54.8 44.6 | 56.0 445 | 55.7 446 |
| 29, WESTERN ROAD | Dwelling | 67.8 | 69.2 | 67.7 | -0.1 | Negligible Beneficial | 68.8 | 1.0 | Negiligile Adverse | 54.8 | 56.0 | 55.7 |

## Appendix A14．4：Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short－term Daytime Noise Change（dB） | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long－term Daytime Noise Change（dB） | Magnitude of Change | DM18 Lnight，outside | DM33 Lnight，outside | DS33 Lnight，outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3，WESTERN ROAD | Owelling | 51.8 | 52.6 | 50.9 | ${ }^{0.9}$ | Negligible Beneficical | 52.4 | 0.6 | Negigigle Adverse | 40.4 | ${ }^{41.1}$ | 40.9 |
| 31，WESTERN ROAD | Dweling | $\frac{67.8}{678}$ | $\frac{69.2}{692}$ | $\frac{67.7}{677}$ | －0．1 | Negligible Beneficial | $\frac{68.8}{688}$ | 1.0 | Negiligib Adverse | 54.8 54.8 | 56.0 56.0 | 55.7 <br> 55.7 |
| 33，WESTERN ROAD | Dwelling | ${ }_{57.3}$ | ${ }^{69.2}$ | 56.7 | ${ }_{-0.6}^{-0.1}$ | Negiligiole Beneneificial | ${ }^{657.2}$ | －0．1 | Negligible Benesificial | ${ }_{45.3}$ | 45.2 | ${ }_{45.2}$ |
| 35，WESTERN ROAD | Dwelling | 67.8 | 69.2 | 67.7 | 0.1 | Negligible Beneficial | 68.8 | 1.0 | Negigiole Adverse | 54.8 | 56.0 | 55.7 |
| 37，WESTERN ROAD | Dwelling | 67.8 | 69.2 | 67.7 | －0．1 | Negligible Beneficial | 68.8 | 1.0 | Negligible Adverse | 54.8 | 56.0 | 55.7 |
| 39，WESTERN ROAD | Dwelling | 67.8 | 69.2 | 67.7 | －0．1 | Negligible Beneficial | 68.8 | 1.0 | Negigiolile Adverse | 54.8 | 56.0 | 55.7 |
| 41，WESTERN ROAD | Deelling | 67.8 | 69.2 | 67.7 | －0．1 | Negligible Beneficial | 68.8 | 1.0 | Negigioble Adverse | 54.8 | 56.0 | 55.7 |
| 43，WESTERN ROAD | welling | 67.8 | 69.2 | 67.7 | ${ }^{0.1}$ | Negligible Beneficicial | 68.8 | 1.0 | Negiligibie Adverse | 54.8 54 | 55.0 | $\begin{array}{r}55.7 \\ 557 \\ \hline 5\end{array}$ |
| 4，47，WESTTERN ROAD | Dweiling | ${ }_{67.8}^{67.8}$ | ${ }_{69.2}^{69.2}$ | ${ }_{67.7}^{67.7}$ | 01 | Negiligile Benenicial | ${ }_{68.8}^{66.8}$ | 1.0 | $\frac{\text { Negligibe Adverse }}{\text { Negligibe Adverse }}$ | ${ }_{5}^{54.8}$ | ${ }_{56.0}^{56.0}$ | ${ }_{55.7}^{55.7}$ |
| 49，WESTERN ROAD | Dwelling | 67.8 | 69.2 | 67.7 | －0．1 | Negligible Beneficial | 68.8 | 1.0 | Negligible Adverse | 54.8 | 56.0 | 55.7 |
| 5，WESTERN ROAD | welling | 52.3 | 52.8 | 51.4 | －0．9 | Negligible Beneficial | 52.8 | 0.5 | Negigioble Adverse | 40.8 | 41.3 | 41.3 |
| 51，WESTERN ROAD | Wwelling | 67.8 | 69.2 | 67.7 | －0．1 | Negligible Beneficial | 68.8 | 1.0 | Negligible Adverse | 54.8 | 56.0 | 55.7 |
| 53，WeStern road |  | 67.8 | 69.2 | 67.7 | ${ }^{0.1}$ | Negligible Beneficical | 68.8 | 1.0 | Negiligible Adverse | 54.8 54 | 56.0 | 55．7 |
| 55，WESTERN ROAD | Dwelling | 67.8 67.8 | 69．2． | 67.7 67.7 | -0.1 <br> .0 .1 <br>  <br> 0 | $\frac{\text { Negligible Beneficial }}{\text { Negligible }}$ Beneficial | 68.8 68.8 | 1.0 1.0 | Negligibl Adverse | 54.8 <br> 54.8 | 56.0 56.0 | 55.7 55.7 |
| 59，WESTERN ROAD | Dwelling | 67.8 | 69.2 | 67.7 | －0．1 | Negligible Beneficial | 68.8 | 1.0 | Negiligile Adverse | 54.8 | 56.0 | 55.7 |
| 61，WESTERN ROAD | Dwelling | 67.8 | 69.2 | 67.7 | 0.1 | Negligible Beneficial | 68.8 | 1.0 | Negiligile Adverse | 4.8 | 56.0 | 55.7 |
| 63，WESTERN ROAD | Dweling | 67.8 | 69.2 | 67.7 | －0．1 | Negligible Beneficial | 68.8 | 1.0 | Negigioble Adverse | 54.8 | 56.0 | 55.7 |
| 67，WESTERN ROAD | weling | 55．2 | 58.5 | 55．3 | 0.1 | Negiligiole Beneficial | 57.3 | ${ }_{3}^{2.1}$ | Negligigie Adverse | 43.4 | 46.4 |  |
| 7，WESTERN ROAD | Swelling | 57.6 52.7 | 62.2 53.0 | 55.6 | ${ }_{-1.1}^{0.1}$ | Negigibie Adverse | ${ }_{50.9}$ | ${ }_{0} 0.2$ | Negnigibile Adverse | ${ }_{451.2}$ | ${ }_{41,4}^{49.4}$ | $\stackrel{48.3}{41.3}$ |
| 72，WESTERN ROAD | Dwelling | 62.0 | 67.9 | 62.2 | 0.2 | Negigigile Adverse | 66.0 | 4.0 | Minor Adverse | 49.5 | 54.8 | 53.1 |
| 73，WESTERN ROAD | Dwelling | 61.0 | 66.5 | 61.2 | 0.2 | Negigibile Adverse | 64.7 | 3.7 | Minor Adverse | 48.6 | 53.6 | 52.0 |
| 74，WESTERN ROAD | welling | 62.0 | 67.9 | 62.2 | 0.2 | Negigioble Adverse | 66.0 | 4.0 | Minor Adverse | 49.5 | 54.8 | 53．1 |
| 75，WeSt ern road | Dwelling | 61.0 | 66.6 | ${ }_{6}^{61.3}$ | ${ }^{0.3}$ | Negigiolie Adverse | 64.8 | ${ }_{4}^{3.8}$ | Minor Adverse | ${ }_{48,6}^{485}$ | 53．7 | 52．1． |
| 77，WESTERN ROAD | ${ }^{\text {Dwellilg }}$ Oweling | 62．0 | ${ }_{66.7}^{66.7}$ | 62．24 | 0.2 | Negigigible Adversse | 64．9 | ${ }_{3}^{4.7}$ | Minor Adverse | 48.8 | ${ }_{53.8}^{54.8}$ | 52.1 |
| 77，WESTERN ROAD | Wwelling | 61.2 | 66.7 | 61.4 | 0.2 | Negigigile Adverse | 64.9 | 3.7 | Minor Adverse | 48.8 | 53.8 | 52.1 |
| 77，WESTERN ROAD | welling | 61.2 | 66.7 | 61.4 | 0.2 | Negigigile Adverse | 64.9 | 3.7 | Minor Adverse | 48.8 | 53.8 | 52.1 |
| 77，WESTERN ROAD | Oweling | 61.2 | 66.7 | 61.4 | 0.2 | Negligible Adverse | 64.9 | 3.7 | Minor Adverse | 48.8 | 53.8 | 52．1 |
| 77，WESTERN ROAD | welling | 61.2 | 66.7 | 61.4 | 0.2 | Negiligibe Adverse | 64.9 | ${ }^{3.7}$ | Minor Adverse | 48.8 |  | 52.1 531 |
| 78，WEESTERN ROAD | welling |  |  |  |  | Negiligibe Adverse |  |  | Minor Adverse |  |  |  |
| 79，WESTERN ROAD | weling | 57.8 | 62.7 | 58.0 | 0.2 | Negiligible Adverse | 61.0 | ${ }^{3.2}$ | Minor Adverse | 45.8 |  | 48.6 |
| 81，WESTERN ROAD | weling | 59.0 | 64.1 | 59.1 | 0.1 | Negigigbe Adverse | 62.4 | 3.4 | Minor Adverse | 有 |  | 49.9 |
| 82，WESTENROAD | Oweling | 60.2 | 66.0 | 60.6 | ${ }^{0.4}$ | Negigigile Adverse | ${ }^{64.3}$ | ${ }_{4}^{4.1}$ | Minor Adverse | ${ }_{47.9}$ | ${ }_{5}^{53.1}$ | 51.6 |
| 83，WESTERN ROAD | Pweling | 58.4 | 63.6 | 58.6 | 0.2 | Negiligibe Adverse | 61.9 | ${ }^{3.5}$ | Minor Adverse | 46.3 | 51.0 | 49.4 |
| 85，WESTERN ROAD | Community Facility | 60.8 | 66.9 | 61.1 | 0.3 | Negligible Adverse | 65.0 | 4.2 | Minor Adverse | 48.5 | 53.9 | 52.2 |
| 87，WESTERN ROAD | Oweling | 60.5 | 66.0 | 60.7 | 0.2 | Negigigle Adverse | 64.3 | ${ }^{3.8}$ | Minor Adverse | 48.2 | 53．1 | 51．6 |
| $\frac{87}{89}$ ，WESTTERN ROAD | Dwelling | 60．4 | 657．9 | ${ }^{60.7}$ | ${ }_{0}^{0.3}$ | Negigible Adverse | 64.2 65.9 | ${ }^{3.8} 4$ | Minor Adverse | 48.4 | 53．0 | 51．5 |
| 89，WESTERN ROAD | Dwelling | 61.9 | 67.0 | 62.4 | 0.5 | Negigigile Adverse | 65.9 | 4.0 | Minor Adverse | 49.4 | 54.0 | 53.0 |
| 9，WESTERN ROAD | Dwelling | 54.0 | 53.9 | 52.6 | －1．4 | Minor Beneficial | 53.9 | －0．1 | Negligible Beneficial | 42.3 | 42.2 | 42.2 |
| 93，WESTERN ROAD | Dwelling | $\begin{array}{r}58.0 \\ 577 \\ \hline\end{array}$ | 63.9 | 58．3 | 0.3 | $\frac{\text { Negigigib Adverse }}{\text { Negigible Adverse }}$ | 63.2 | 5.2 <br> 54 | Moderate Adverse | 45.9 457 | 51．2 | 50．6 |
| 94，WESTERN ROAD | Dwelling | 54.4 | 59.8 | 54.6 | 0.2 | Negiligile Adverse | 59.3 | 4.9 | Minor Adverse | 42.7 | 47.6 | 47.1 |
| 94，WESTERN ROAD | welling | 54.4 | 59.8 | 54.6 | 0.2 | Negigigile Adverse | 59.3 | 4.9 | Minor Adverse | 42.7 | 47.6 | 47.1 |
| 95，Western road | Dwelling | 57.1 | 63.4 | 57.3 | 0.2 | Negigigibe Adverse | 62.6 | 5.5 | Moderate Adverse | 45.1 | 50.8 | 50.1 |
| 96，WESTERN ROAD | Dwelling | 57．6 | ${ }_{64.5}^{63.7}$ | 57．9 | ${ }_{0}^{0.3}$ | Negigigbe Adverse | ${ }^{63.1}$ | 5.5 5.4 | $\frac{\text { Moderate Adverse }}{\text { Moderate Adverse }}$ | ${ }_{45.6}^{46.3}$ | 年51．1 | 年51．5 |
| 98，WESTERN ROAD | Dwelling | 57.6 | 63.7 | 57.9 | 0.3 | Negigigile Adverse | 63.1 | 5.5 | Moderate Adverse | 45.6 | 51.1 | 50.5 |
| 99，WESTERN ROAD | Dweling | 58.4 | 64.5 |  | 0.2 | Negiligibe Adverse | 63.8 |  | Moderate Adverse | ${ }^{46.3}$ | 51.8 |  |
| 1，10 WSESTERTON CRESECENT | ${ }^{\text {Oweling }}$ Oweling | $4{ }_{4}{ }^{4.3}$ | ${ }_{43.5}^{43}$ | 429 | 0.0 | Negligiole Beneitical | ${ }_{43.9}^{43.9}$ | 0.6 | Negigiole Adverse | ${ }_{32.1}^{32 .}$ | ${ }_{32,9}$ | 33．2． <br> 33.1 |
| 11，WESTERTON CRESCENT | Dwelling | 42.2 | 42.7 | 42.1 | －0．1 | Negligible Beeneficial | 42.9 | 0.7 | Negligible Adverse | 31.7 | 32.2 | 32.3 |
| 12，WESTERTON CRESCENT | Dwelling | 43.1 | 43.4 | 43.0 | －0．1 | Negligible Beneficial | 43.8 | 0.7 | Negigioble Adverse | 32.5 | 32.8 | 33.2 |
| 13，WESTERTON CRESCEN | Dwelling | ${ }_{42.3}$ | 42.7 | ${ }_{42.2}$ | ${ }^{-0.1}$ | Negiligiole Beneificial | 43.0 | 0.7 | Negiligibe Adverse | 31.8 3.5 | 32.2 | 32.4 332 |
| 14，WESTERTON CRESCEN | Dwelling | ${ }^{43.7}$ | ${ }_{43.2}^{43.5}$ | $\stackrel{43.0}{42.7}$ | －0．1 | $\frac{\text { Negligible eeneitical }}{\text { No Change }}$ | ${ }_{43.5}^{43.9}$ | 0.8 | $\frac{\text { Negligible Adverse }}{\text { Negligibe Adverse }}$ | 32.5 32.2 | 32.9 32.6 | 33.2 32.9 |
| 18，WESTERTON CRESCENT | Dwelling | 41.7 | 42.3 | 41.6 | －0．1 | Negligible Benenficial | 42.5 | 0.8 | Negligible Adverse | 31.3 | 31.8 | 32.0 |
| 2，WESTERTON CRESCENT | Dwelling | 40.5 | 41.3 | 40.3 | －0．2 | Negligible Beneficial | 41.3 | 0.8 | Negigigile Adverse | 30.2 | 30.9 | 30.9 |
| 20，WESTERTON CRESCENT | Dwelling | 42.1 | 42.7 | 42.0 | －0．1 | Negligible Beneficial | 42.9 | 0.8 | Negigigile Adverse | 31.6 | 32.2 | 32.3 |
| 22，WESTERTON CRESCENT | Deelling | 42.2 | 42.8 | 42.2 | 0.0 | No Change | 43.1 | 0.9 | Negiligile Adverse | 31.7 | 32.3 | 32.5 |
| 24，WESTERTON CRESCENT | Dwelling | 42.3 | ${ }_{42}^{42.8}$ | $\frac{42.2}{419}$ | ${ }^{-0.1}$ | Negiligiole Beneficial | 43.0 | ${ }_{0}^{0.7}$ | Negiligile Adverse | 31.8 | 32.3 | $\begin{array}{r}32.4 \\ 32 . \\ \hline\end{array}$ |
| 28，WESTERTON CRESCENT | Dwelling | 42.4 | 42.6 | 42.3 | ${ }_{-0.1}$ | Negligible Beneficicial | 43.1 | 0.7 | Negligible Adverse | 31.9 | 32.1 | 32.5 |
| 3，WESTERTON CRESCENT | Oweling | ${ }^{42.4}$ | 42.9 | ${ }^{42.3}$ | －0．1 | Negligible Beneficial | 43.2 | 0.8 | Negigigile Adverse | 31.9 | 32.3 | 32.6 |
| 4，WESTERTON CRESCENT | Dweling | 39.9 |  |  | －0．1 | Negligible Beneficial |  |  |  |  |  | 30.4 |
| 5，WESTERTTON CRESCENT | Deelling | ${ }^{42.3}$ | ${ }^{42.8}$ | 42.2 | －0．1 | Negligible Beneitical | ${ }^{43.1}$ |  | Negiligile Adverse |  | 32.3 | 32.5 |
| 6，WESTERTON CRESCENT | Dweling |  | 43.0 | ${ }^{42.6}$ | －0．1 | Negligible Beneficial | 43.4 |  | Negiligibe Adverse |  | 32.4 | 32.8 |
| 8，WESTERTON CRESCENT | ${ }^{\text {Owelling }}$ | ${ }_{42.8}^{42.8}$ | 43.1 | ${ }_{42.7}$ | －0．1 | Negligible Beneficioil | ${ }_{43.5}^{43.5}$ | 0.7 | Neoligible Adverse | ${ }_{32.3}$ | ${ }_{32.5}$ | ${ }_{329}$ |
| 9，WESTTERTON CRESCENT | Delling | ${ }^{42.2}$ | ${ }^{42.7}$ | 42.1 | －0．1 | Negligible Beneficical | 43.0 | 0.8 | Negligible Adverse | 31.7 | 32.2 | 32.4 |
| 1，WESTERTON PLACE，NORTHFIELD | Deelling | 54.9 | 55.4 | 55.0 | 0.1 | Negigioble Adverse | 55.9 | 1.0 | Negigioble Adverse | 43.1 | 43.6 | 44.0 |
| 10，WESSTRRON PACE，NoRTHFIELD | Dwelling | ${ }_{52.8}^{52.6}$ | 52.7 52.5 | 52.8 52.6 | 0.0 | No C Change | 53．4 53.2 | ${ }_{0}^{0.6}$ | Negigigib Adverse | $\frac{41.3}{41.1}$ | $\frac{41.2}{41.0}$ | $\frac{41.8}{41.6}$ |
| 12，WESTERTON PLACE，NoRTHFIELD | Dwelling | 50．8 | 51.9 549 | 50．9 | 0.1 | Negiligile Adverse | 52.1 554 | 1.3 <br> 1.8 <br> 1 | Negiligile Adverse | 39.5 4.5 | 40．4 | ${ }_{40.6}^{4.6}$ |
| 13， 14. WESTERTERTON | ${ }^{\text {Dwelling }}$ Dowiligg | 54.6 55.8 | 54.9 56.4 | 54.8 | 0.0 | No C Change | ${ }_{55.8}^{55.4}$ | 1.0 | Negligigibe Adverse | 44.0 | ${ }_{4}^{44.5}$ | ${ }_{44.9}^{43.9}$ |
| 15，WESTERTON PLACE，N NoRTHFIELD | Deelling | 56．7 | 57．5 | 56．8 | 0.1 | Negligible Beneficial | 57．8 | 1.1 | Negigigle Adverse | 44.8 | 45.5 | 45.8 |
| 16，WESTERTON PLACE，NORTHFIELD | Dwelling | 58.1 | 59.1 | 58.2 | 0.1 | Negigioble Adverse | 59.3 | 1.2 | Negigioble Adverse | 46.0 | 46.9 | 47.1 |

A90/A96 Haudagain Improvement
DMRB Stage 3 Environmental Statement

## Appendix A14.4: Operational Noise Modelling Results

| Receptor Name | Receptor Description | $\begin{gathered} \text { DM18 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DM33 } \\ \text { LA10,18hr } \end{gathered}$ | $\begin{gathered} \text { DS18 } \\ \text { LA10,18hr } \end{gathered}$ | Short-term Daytime Noise Change (dB) | Magnitude of Change | $\begin{gathered} \text { DS33 } \\ \text { LA10,18hr } \end{gathered}$ | Long-term Daytime Noise Change (dB) | Magnitude of Change | DM18 Lnight,outside | DM33 Lnight,outside | DS33 <br> Lnight,outside |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2, WESTERTON PLACE, NORTHFIELD | Owelling | 55.1 | 55.7 | 55.2 | 0.1 | Negligibe Adverse | 56.1 | 1.0 | Negigigle Adverse | 43.3 | 43.9 | 44.2 |
| 3. WESTERTON PLACE, NORTHFIELD | Oweling | 55.0 | 55.6 54 | 55.0 | 0.0 | No Change | 56.0 | 1.0 | Negiligible Adverse | 43.2 | ${ }_{43.8}^{4.8}$ | 44.1 |
| 4, WESTERTON PLACE, NORTHFELED | Dweling | 53.8 <br> 52.8 | 54.9 53.8 | $\begin{array}{r}\text { 53.8 } \\ 52.8 \\ \hline\end{array}$ | 0.0 | $\frac{\text { No C Cange }}{\text { No Change }}$ | 55.0 | 1.2 <br> 1.2 <br> 1 | Negigigie Adverse | $\stackrel{42.2}{41.3}$ | ${ }_{42.2}^{43.1}$ | ${ }_{42.3}^{43.2}$ |
| 6, WESTERTON PLACE, NORTHFIELD | Dwelling | 52.2 | 53.2 | 52.3 | 0.1 | Negligible Beneficial | 53.4 | 1.2 | Negiligile Adverse | 40.7 | 41.6 | 41.8 |
| 7, WESTERTON PLACE, NORTHFIELD | Oweling | 51.3 | 52.2 | 51.3 | 0.0 | No Change | 52.4 | 1.1 | Negligible Adverse | 39.9 | 40.7 | 40.9 |
| 8, WESTERTONPLACE, NORTHFIEL | Oweling | 53.5 | 53.5 | 53.4 | -0.1 | Negligible Benenicical | 54.2 | 0.7 | Negiligile Adverse | 41.9 | 41.9 | 42.5 42.2 |
| 9.WESTERTONPLACE, NORTHPIELD | Oweling | 53.3 48.2 | 53.3 <br> 48.8 | 53.2 48.0 | -0.1 | Negiligile Beneiticial | ${ }^{539.2}$ | 1.0 | Neogigigle Adverse | ${ }_{37.1}^{47.1}$ | ${ }^{47.7}$ | $\stackrel{42.2}{38.0}$ |
| 1, WILKE AVENUE | Dwelling | 54.6 | 54.7 | 52.4 | -2.2 | Minor Beneficial | 53.1 | -1.5 | Negligible Beneficial | 42.9 | 43.0 | 41.5 |
| 2, WILKIE AVENUE | Dwelling | 53.5 55 5 | $\begin{array}{r}53.9 \\ 55 \\ 5 \\ \hline\end{array}$ | 50.1. | -3.4 | Moderate Benenticial | $\begin{array}{r}51.1 \\ 5.3 \\ \hline\end{array}$ | ${ }^{-2.4}$ | Negligible Benefitical | 41.9 | 42.2 | 39.7 |
| $\frac{3}{4, ~ W I L K I E ~ A V E N U E ~}$ | Dwelling | 54.0 | ${ }_{54.4}$ | 50.1 | ${ }_{-3.9}$ | Moderate Beneficicial | 51.0 | ${ }^{-1.0}$ | Minor Beneficicial | ${ }_{42.3}$ | ${ }_{42.7}$ | 39.6 |
| 5. WILKIE AVENUE | Dwelling | 56.3 | 56.6 | 53.4 | -2.9 | Minor Beneficicial | 54.1 | -2.2 | Negligible Beneficial |  | 44.7 | 2.4 |
| 6, WILKIE AVENUE | Dwelling | 56 | 56.5 | 50.6 | -5.4 | Major Beneficial | 51.7 | -4.3 | Minor Beneficial |  | 44.6 | . 3 |
| 7. WLLKIE AVENUE | ling | 59.5 |  | 54.9 | 4.6 | Moderate Beneficical |  |  | Minor Beneficial | 47.3 |  |  |
| 8, WILKE AVENUE | Dwelling | 58.8 | 59.2 | 52.7 | -6.1 | Major Beneficial | 53.8 | -5.0 | Moderate Beneficial | 46.7 | 47.0 | 42.2 |
| WOOOBINE COTTAGE, WOOOBBINE, GRANDHOLM COTTAGES, GRANDHOLM | Dwelling | 52.1 | 52.6 | 52.0 | -0.1 | Negligible Beneficial | 53.1 | 1.0 | Negligible Adverse | 40.6 | 41.1 | 41.5 |
| WOOLLEA, WOOOLLEA, GRANDHOLM DRIVE | Oweling | 47.7 | 48.3 | 47.5 | -0.2 | Negligible Beneficial | 48.7 | 1.0 | Negigigile Adverse | 36.7 | 37.2 | 37.6 |
| Wool | Church |  |  |  | 0.2 | Negigigle Adverse |  | 0.9 | Negligible Adverse | 419 | 426 | 427 |
| 1, WRIGHTS LANE, HILTON | Dweling | 50.6 | 53.4 | 50.7 | 0.1 | Negligible Adverse | 53.0 | 2.4 | Negiligible Adverse | 39.3 | 41.8 | 41.4 |
| 2, WRIGHTS LANE, HLITON | Dwelling | 50.6 | 53.4 | 50.7 | 0.1 | Negigible Adverse | 53.0 | 2.4 | Negigigile Adverse | 39.3 | 41.8 | 41.4 |
| WRIGHIS LANE, HILTON | Oweling | 50.6 | 53.4 | 50.7 | 0.1 | $\frac{\text { Negigigle Adverse }}{\text { Nequigible Adverse }}$ | 53.0 | $\frac{2.4}{24}$ | Negiquible Adverse | ${ }^{39.3}$ | 41.8 | $\frac{41.4}{41.4}$ |
| 5 5, WRIGGHTS LANE, HLITON | Owelling | 50.6 | 53.4.4 | ${ }^{50.7} 5$ | 0.1 | Neoligigile Adverse | 53.0 | ${ }_{2.4}$ | Negigigible Adverse | 39.3 | ${ }_{41.8}$ | 41.4 |
| 6, WRIIGHTS LANE, HLTTON | Deeling | 50.6 | 53.4 | 50.7 | 0.1 | Negigigle Adverse | 53.0 | 2.4 | Negigigle Adverse | 39.3 393 | 41.8 | 41.4 |
| 7, WRIGHTSTS LANE, HLITON | Dwelling | 50.6 | ${ }_{53,4}^{53.4}$ | ${ }_{50.7}^{50.7}$ | ${ }_{0}^{0.1}$ | Negigigibe Adverse | ${ }_{53.0}$ | ${ }_{2.4}^{2.4}$ | Negigigile Adverse | ${ }_{39.3}$ | ${ }_{41.8}^{41.8}$ | $\stackrel{41.4}{41.4}$ |

Note 1 - The Do-Something (DS) noise levels incude the reduction aftorded by the proposed noise barries


## A17.1: Planning Policy Context for Environmental Assessment

## 1 Policy Context to ES Chapters

1.1.1 The following sections provide a summary of the key planning policies that are relevant to each topic chapter in the Stage 3 Environmental Statement (ES).

## Policy Context for Chapter 7: Community and Private Assets

1.1.2 National planning policy on a variety of themes is contained in Scottish Planning Policy (SPP) (Scottish Government, 2014). Key provisions of SPP on community and private assets are:

- achieving a sustainable economy;
- promoting regeneration and the full and the efficient appropriate use of land, buildings and infrastructure;
- supporting development which will enhance local competitiveness and promoting the creation of mixed communities;
- facilitating access to local community services and support for public transport;
- promoting the integration of employment regeneration opportunities with supporting infrastructure and housing development; and
- to support healthier living by improving the quality of the built environment, by increasing access to amenities, services and active travel opportunities, and by addressing environmental problems affecting communities.
1.1.3 SPP indicates that the fundamental principle of sustainable development is that it integrates economic, social and environmental objectives. The aim is to achieve the right development in the right place. SPP provides that the planning system should promote development that supports the move towards a more economically, socially and environmentally sustainable society.
1.1.4 Table 1 below provides a summary of the key development plan policies and relevant supplementary guidance that are of relevance to community and private assets. An assessment of compliance of the proposed scheme in relation to these policies is provided in Appendix A17.2 (Assessment of Development Plan Policy Compliance), and is summarised in Chapter 17 (Policies and Plans) having regard to the overall compliance of the proposed scheme in relation to national, regional and local policy.

Table 1: Development Plan Policy for Community and Private Assets

| Aberdeen City and Shire Strategic Development Plan 2014 |  |  |  |
| :---: | :---: | :---: | :---: |
| Objective |  |  | Targets |
| Sustainable mixed communities |  |  | - To increase the range and quality of housing and the residential environment in the 'regeneration priority areas'; <br> - For $40 \%$ of all new housing in Aberdeen City to be on brownfield sites; <br> - For the quality and design of new developments in the city region to be nationally recognised; <br> - For local development plans and all masterplans to fully consider the scope for a mix of uses on a site. |
| Aberdeen Local Development Plan 2012 |  |  |  |
| Policy Ref. | Title | Supplementary Guidance | Policy Objectives |
| Policy <br> H1 | Residentia Areas | House <br> Extensions* <br> Curtilage Splits <br> Open Space | Within existing residential areas ( H 1 on the Proposals Map) and within new residential developments, proposals for new residential development and householder development will be approved in principle if it: <br> 1. does not constitute over development; <br> 2. does not have an unacceptable impact on the character or amenity of the surrounding area; <br> 3. does not result in the loss of valuable and valued areas of open |


|  |  |  | space. Open space is defined in the Aberdeen Open Space Audit 2010; <br> 4. complies with Supplementary Guidance on Curtilage Splits; and <br> 5. complies with Supplementary Guidance on House Extensions. <br> Within existing residential areas, proposals for non-residential uses will be refused unless: <br> 1. they are considered complementary to residential use; or <br> 2. it can be demonstrated that the use would cause no conflict with, or any nuisance to, the enjoyment of existing residential amenity. |
| :---: | :---: | :---: | :---: |
| Policy <br> T1 | Land for Transport |  | Land has been safeguarded for transport projects listed below and these are highlighted on the proposals map: <br> - Improved rail services; <br> - A96 Park and Ride / Choose / Dyce Drive Link Road; <br> - Berryden Corridor; <br> - South College Street improvements; <br> - Haudagain roundabout improvements; and <br> - The Third Don Crossing |
| Policy NE1 | Green Space Network |  | The City Council will protect, promote and enhance the wildlife, recreational, landscape and access value of the Green Space Network. Proposals for development that are likely to destroy or erode the character or function of the Green Space Network will not be permitted. Where major infrastructure projects or other developments necessitate crossing the Green Space Network, such developments shall take into account the coherence of the network. In doing so measures shall be taken to allow access across roads for wildlife and for access and outdoor recreation purposes. |
| Policy NE2 | Green Belt | Green Belt Review | The City Council will ensure no development will be permitted in the green belt for purposes other than those essential for agriculture, woodland and forestry, recreational uses compatible with an agricultural or natural setting, mineral extraction or restoration or landscape renewal. <br> The following relevant exceptions apply to this policy: <br> 1) Proposals for development associated with existing activities in the green belt will be permitted but only if all of the following criteria are met: <br> a. The development is within the boundary of the existing activity, <br> b. The development is small-scale. <br> c. The intensity of activity is not significantly increased. <br> d. Any proposed built construction is ancillary to what exists. <br> 2) Essential infrastructure, such as electronic communications infrastructure and electricity grid connections, transport, proposals identified in the Local Development Plan, such as the Aberdeen Western Peripheral Route, as well as roads planned through the masterplanning of new housing and employment allocations, which cannot be accommodated other than in the green belt. |
| Policy NE3 | Urban Green Space |  | Permission will not be granted to use or redevelop any parks, playing fields, sports pitches, allotments or all other areas of urban green space (including smaller spaces not identified on the Proposals Maps). In all cases, development will only be acceptable provided that there are no significant impacts on landscape, access or the natural environment. |

## Policy Context for Chapter 8: Geology, Soils, Contaminated Land and Groundwater

1.1.5 National planning policy on a variety of themes is contained in Scottish Planning Policy (SPP) (Scottish Government, 2014). Key provisions of SPP on geology, soils, contaminated land and groundwater are:

- to support healthier living by improving the quality of the built environment and by addressing environmental problems affecting communities;
- seek to protect soils from damage such as erosion or compaction;
- to encourage planning authorities to take the probability of flooding from all sources - (coastal, fluvial (water course), pluvial (surface water), groundwater, sewers and blocked culverts) and the risks involved into account when preparing development plans and determining planning applications; and
- to take into account the implications of development for water, air and soil quality.

Planning Advice Notes (PAN) published by the Scottish Government provide further guidance on specific topics. PAN 33 is applicable to contaminated land and the details of this guidance are summarised in Table 2 below.

Table 2: National Planning Guidance and Advice

| Reference | Title | Summary of Document |
| :--- | :--- | :--- |
| PAN 33 | Development of <br> Contaminated Land <br> $(2000)$ | Provides advice on the implications of the contaminated land regime for the <br> planning system; and the development of, and approach to, contaminated land <br> in development plans. It also contains guidance on the determination of <br> planning applications when the site is, or may be, contaminated. |

Table 3 provides a summary of the key development plan policies and relevant supplementary guidance that are of relevance to geology, soils, contaminated land and groundwater. An assessment of compliance of the proposed scheme in relation to these policies is provided in Appendix A17.2 (Assessment of Development Plan Policy Compliance), and is summarised in Chapter 17 (Policies and Plans) having regard to the overall compliance of the proposed scheme in relation to national, regional and local policy.

Table 3: Development Plan Policy for Geology, Soils, Contaminated Land and Groundwater

| Aberdeen City and Shire Strategic Development Plan 2014 |  |  |  |
| :---: | :---: | :---: | :---: |
| Objective |  |  | Targets |
| Quality of the | nvironment | - To avoid new development preventing water bodies achieving 'good ecological status' under the Water Framework Directive. |  |
| Aberdeen Local Development Plan 2012 |  |  |  |
| Policy Ref. | Title | Supplementary Guidance | Policy Objectives |
| Policy R2 | Degraded and Contaminated Land |  | The City Council will require that all land that is degraded or contaminated, including visually, is either restored, reclaimed or remediated to a level appropriate for its proposed use. |
| Policy NE8 | Natural Heritage | Buffer Strips | Development that, taking into account any proposed mitigation measures, has an adverse effect on a protected species or an area designated because of its natural heritage value will only be permitted where it addresses the criteria set out in Scottish Planning Policy. These are International Designations, National Designations, Local Designations and European Protected Species and Species protected under the Wildlife and Countryside Act 1981. In addition, as stated in the supplementary guidance, the value of Buffer Strips as an area of land maintained in permanent vegetation that helps to control soil and water quality and has other environmental benefits. In all cases of development at any location: - <br> - Applicants should submit supporting evidence for any development that has an adverse effect on a protected species demonstrating both the need for the development and that a full range of possible alternative courses of action have been properly examined and none found to acceptably meet the need identified. <br> - An ecological assessment will be required on a designated site or where there is evidence to suggest that a habitat or species of importance (including those identified in the UK and Local Biodiversity Action Plans) exists on the site. <br> - No development will be permitted unless steps are taken to mitigate negative development impacts. <br> - Natural heritage beyond the confines of designated sites should be protected and enhanced. |


| Aberdeen City and Shire Strategic Development Plan 2014 |  |  |  |
| :--- | :--- | :--- | :--- |
| Objective | Targets |  |  |
| Quality of the environment | • To avoid new development preventing water bodies achieving 'good <br> ecological status' under the Water Framework Directive. |  |  |
| Aberdeen Local Development Plan 2012 | Supplementary <br> Guidance | Policy Objectives |  |
| Policy Ref. | Title |  | - Where feasible, steps to prevent further fragmentation or isolation <br> of habitats must be sought and opportunities to restore links which <br> have been broken will be taken. <br> - Measures will be taken, in proportion to the opportunities available, <br> to enhance biodiversity through the creation and restoration of <br> habitats and, where possible, incorporating existing habitats. |
| There will be a presumption against excessive engineering and |  |  |  |
| culverting; there will be a requirement to restore existing culverted or |  |  |  |
| canalised water bodies where this is possible; and the inclusion of |  |  |  |
| SUDS. |  |  |  |

## Policy Context for Chapter 9: Road Drainage and the Water Environment

1.1.8 National planning policy on a variety of themes is contained in Scottish Planning Policy (SPP) (Scottish Government, 2014). Key provisions of SPP on road drainage and the water environment are:

- to support development that will contribute to sustainable economic growth and to high quality sustainable places;
- to prevent further development which would be at risk from flooding or coastal erosion;
- to take into account the implications of development for water, air and soil quality;
- improving the natural environment and the sustainable use and enjoyment of it; and
- to manage flooding to reduce its economic and social consequences and safeguard services and infrastructure.
1.1.9 SPP encourages planning authorities to take the probability of flooding from all sources - (coastal, fluvial (water course), pluvial (surface water), groundwater, sewers and blocked culverts) and the risks involved with such flooding into account when preparing development plans and determining planning applications.
1.1.10 The following Planning Advice Notes (PANs) published by the Scottish Government provide further guidance on specific topics. Documents of relevance to road drainage and the water environment are summarised in Table 4 below.

Table 4: National Planning Guidance and Advice

| Reference | Title | Summary of Document |  |
| :--- | :--- | :--- | :---: |
| PANs |  Planning and <br> Sustainable Urban <br> Drainage Systems <br> (2001) Provides good practice advice for planners and the development industry on the <br> implementation of Sustainable Urban Drainage Systems (SUDS) (now referred to as <br> Sustainable Drainage Systems in latest guidance) to aid the introduction of more <br> sustainable developments. <br> PAN 69 Planning and <br> Building <br> Standards Advice <br> on Flooding <br> (2004) Provides background information and best practice advice in support of the former <br> SPP7 (Planning and Flooding) which has now been consolidated into SPP, and the <br> Technical Handbooks published by the Scottish Building Standards Agency that <br> provide guidance for the Building (Scotland) Regulations 2004. <br> This Advice Note focuses on the responsibilities of local authorities and developers <br> in ensuring that future built development is not located in areas with a significant risk <br> of flooding, including functional flood plains. <br> PAN 79 Water and <br> Drainage (2006) Clarifies the role of the planning authority in setting the direction of development to <br> inform the planning and delivery of new water infrastructure in a coordinated way. It <br> explains the roles of Scottish Water and SEPA and encourages joint working in |  |  |


| Reference | Title | Summary of Document |
| :--- | :--- | :--- |
|  |  | order to ensure a common understanding of capacity constraints and agreement on <br> the means of their removal. It advises on the appropriateness of private schemes <br> and the handling of Scottish Water developments. |

1.1.11 Table 5 below provides a summary of the key development plan policies and relevant supplementary guidance that are of relevance to road drainage and the water environment. An assessment of compliance of the proposed scheme in relation to these policies is provided in Appendix A17.2 (Assessment of Development Plan Policy Compliance), and is summarised in Chapter 17 (Policies and Plans) having regard to the overall compliance of the proposed scheme in relation to national, regional and local policy.

Table 5: Development Plan Policy for Road Drainage and the Water Environment

| Aberdeen City and Shire Strategic Development Plan 2014 |  |  |  |
| :---: | :---: | :---: | :---: |
| Objective |  |  | Targets |
| Sustainable development and climate change |  |  | - To avoid developments on land which is at an unacceptable risk from coastal or river flooding (as defined by the 'Indicative River and Coastal Flood Map for Scotland' or through a detailed flood risk assessment), except in exceptional circumstances. |
| Quality | environment | - To dam <br> - To eco | ake sure that development improves and does not lead to the loss of, or ge to, built natural or cultural heritage asset; and oid new development preventing water bodies achieving 'good gical status' under the Water Framework Directive. |
| Aberdeen Local Development Plan 2012 |  |  |  |
| Policy Ref. | Title | Supplementary Guidance | Policy Objectives |
| Policy NE6 | Flooding and Drainage | Drainage Impact Assessment | Development will not be permitted if: <br> 1) it would increase the risk of flooding:- <br> - by reducing the ability of the functional flood plain to store and convey water; <br> - through the discharge of additional surface water; or <br> - by harming flood defences. <br> 2) it would be at risk itself from flooding; <br> 3) adequate provision is not made for access to water bodies for maintenance; or <br> 4) it would result in the construction of new or strengthened flood defences that would have a significantly damaging effect on the natural heritage interests within or adjacent to a watercourse. <br> In addition, supplementary guidance states that, an application of this type should be accompanied by a DIA should be carried out in accordance with the principles of sustainable drainage. The submitted <br> DIA should include the following basic requirements and additional requirements where specified by the planning authority. The development should confirm the requirements before preparing the DIA. <br> Basic requirements are: <br> - an examination of the current and historical drainage patterns; <br> - a concept drawing of the development proposal; <br> - a brief summary of how the drainage design provides SUDS techniques in accordance with the design manual; <br> - summary of SUDS to be incorporated (refer to the selection tool within the design manual); <br> - the soil classification for the site; <br> - evidence of subsoil porosity tests including where possible at the location of any intended infiltration device; <br> - calculations showing the pre- and post-development peak run-off flow rate for the critical rainfall event (refer to section 3); <br> - attenuation designed for a 10 year return period rainfall event; <br> - wastewater drainage proposals; <br> - confirmation of maintenance responsibility; and <br> - a copy of a letter from the water authority giving the location of the |


|  |  |  | nearest public sewers and confirmation of their availability for servicing the site. |
| :---: | :---: | :---: | :---: |
| Policy NE8 | Natural Heritage | Buffer Strips | Development that, taking into account any proposed mitigation measures, has an adverse effect on a protected species or an area designated because of its natural heritage value will only be permitted where it addresses the criteria set out in Scottish Planning Policy. These are International Designations, National Designations, Local Designations, European Protected Species and Species protected under the Wildlife and Countryside Act 1981. <br> In all cases of development at any location: - <br> - Applicants should submit supporting evidence for any development that has an adverse effect on a protected species demonstrating both the need for the development and that a full range of possible alternative courses of action have been properly examined and none found to acceptably meet the need identified. <br> - An ecological assessment will be required on a designated site or where there is evidence to suggest that a habitat or species of importance (including those identified in the UK and Local Biodiversity Action Plans) exists on the site. <br> - No development will be permitted unless steps are taken to mitigate negative development impacts. <br> - Natural heritage beyond the confines of designated sites should be protected and enhanced. <br> - Where feasible, steps to prevent further fragmentation or isolation of habitats must be sought and opportunities to restore links which have been broken will be taken. <br> - Measures will be taken, in proportion to the opportunities available, to enhance biodiversity through the creation and restoration of habitats and, where possible, incorporating existing habitats. <br> - There will be a presumption against excessive engineering and culverting; there will be a requirement to restore existing culverted or canalised water bodies where this is possible; and the inclusion of SUDS. Natural buffer strips will be created for the protection and enhancement of water bodies, including lochs, ponds, wetlands, rivers, tributaries, estuaries and the sea. Supplementary Guidance will be developed on buffer strips. <br> In addition, supplementary guidance states that buffer strips are important to the water environment as they reduce run-off into water bodies by storing water and releasing it more slowly, and therefore reducing flooding. |

## Policy Context for Chapter 10: Ecology and Nature Conservation

1.1.12 National planning policy on a variety of themes is contained in Scottish Planning Policy (SPP) (Scottish Government, 2014). Key provisions of SPP on ecology and nature conservation are:

- to protect and enhance the natural environment, including biodiversity and the landscape;
- improving the natural environment and the sustainable use and enjoyment of it;
- to support healthier living by improving the quality of the built environment and by addressing environmental problems affecting communities;
- to support habitat connectivity; and
- to protect and enhance ancient semi-natural woodland as an important and irreplaceable resource, together with other native and long established woodlands with high nature conservation value.
1.1.13 SPP indicates that planning authorities should adopt a broad approach to natural heritage rather than just conserving designated or protected sites and species through taking into account ecosystems and natural processes in their area. SPP also states that planning authorities should support opportunities for enjoyment and understanding of natural heritage.
1.1.14 Circulars and Planning Advice Notes (PANs) published by the Scottish Government provide further guidance on specific topics. Documents of relevance to ecology and nature conservation are summarised in Table 6 below.

Table 6: National Planning Guidance and Advice

| Reference | Title | Summary of Document |
| :--- | :--- | :--- |
| PANs | Planning for <br> Natural Heritage | Provides advice on how development and the planning system can contribute to the <br> conservation, enhancement, enjoyment and understanding of Scotland's natural <br> environment and encourages developers and planning authorities to be positive and <br> creative in addressing natural heritage issues. <br> PAN 60 complements the SPP on Natural Heritage, with examples of good planning <br> practice in relation to natural heritage drawn from across Scotland highlighted in a <br> number of case studies. |
| PAN |  |  |

1.1.15 Table 7 below provides a summary of the key development plan policies and relevant supplementary guidance that are of relevance to ecology and nature conservation. An assessment of compliance of the proposed scheme in relation to these policies is provided in Appendix A17.2 (Assessment of Development Plan Policy Compliance), and is summarised in Chapter 17 (Policies and Plans) having regard to the overall compliance of the proposed scheme in relation to national, regional and local policy.

Table 7: Development Plan Policy for Ecology and Nature Conservation

| Aberdeen City and Shire Strategic Development Plan 2014 |  |  |  |
| :---: | :---: | :---: | :---: |
| Objective |  |  | Targets |
| Quality of the environment |  |  | - To make sure that development improves and does not lead to the loss of, or damage to natural heritage; and <br> - To avoid new development preventing water bodies achieving 'good ecological status' under the Water Framework Directive. <br> - Recognise that both councils will take account of biodiversity, wildlife habitats, landscape, green networks and other sensitive areas in identifying land for development, preparing masterplans and assessing development proposals. |
| Aberdeen Local Development Plan 2012 |  |  |  |
| Policy Ref. | Title | Supplementary Guidance | Policy Objectives |
| Policy NE1 | Green Space Network |  | The City Council will protect, promote and enhance the wildlife, recreational, landscape and access value of the Green Space Network. Proposals for development that are likely to destroy or erode the character or function of the Green Space Network will not be permitted. Where major infrastructure projects or other developments necessitate crossing the Green Space Network, such developments shall take into account the coherence of the network. In doing so measures shall be taken to allow access across roads for wildlife and for access and outdoor recreation purposes. |
| Policy NE5 | Trees and Woodlands | Trees and Woodland | Development that will result in the loss of, or damage to, established trees and woodlands that have natural or cultural heritage value or contribute to the character, biodiversity or amenity will be resisted. <br> Appropriate measures should be taken for the protection and long term management of existing trees and new planting both during and after construction. Buildings and services should be sited so as to minimise adverse impacts on existing and future trees and tree cover. <br> Additionally, supplementary guidance on trees state that a Tree Protection Plan should be developed and annotated stating the following: <br> - Trees to be retained; <br> - Trees to be removed; |


|  |  | - Trees to be pruned; <br> - The exact location of the Construction Exclusion Zone showing the <br> protective barriers/fences, all physical barriers including the ground <br> protection (these areas should reflect the RPAs taken from the Tree <br> Constraints Plan, or a distance equal to half the height of the tree, or <br> the canopy drip line of the tree, whichever is greatest); <br> - Details of the type of fencing/physical barrier to be used (this is to be <br> the same as in figure 2 of BS5837 unless otherwise agreed in <br> writing); <br> - The fencing/protective barrier with display signs indicating that the <br> enclosed area is a construction exclusion zone; <br> - Those areas of proposed or structural landscaping be protected to <br> prevent damage to the soil structure; and |
| :--- | :--- | :--- | :--- |
| - Finalised site layout. |  |  |

## Policy Context for Chapter 11: Landscape and Visual

1.1.16 National planning policy on a variety of themes is contained in Scottish Planning Policy (SPP) (Scottish Government, 2014). Key provisions of SPP on landscape and visual impacts are:

- safeguarding the impacts on local communities, individual houses, sensitive receptors and economic sectors important to the local economy;
- restoration and aftercare (including any benefits in terms of the remediation of existing areas of dereliction or instability);
- to facilitate positive change whilst maintaining and enhancing the distinctive character of the landscape in both the countryside and urban areas; and
- to ensure that the siting and design of development is informed by local landscape character.
1.1.17 SPP indicates that landscapes and the natural heritage are sensitive to inappropriate development and encourages planning authorities to ensure that potential effects, including the cumulative effect of incremental changes, are considered when preparing development plans and deciding planning applications.
1.1.18 It is recognised in SPP that whilst the protection of the landscape and natural heritage can impose constraints on new development, 'with careful planning and design the potential for conflict can be minimised and the potential for enhancement maximised' (Scottish Government 2014).
1.1.19 Circulars and Planning Advice Notes (PANs) published by the Scottish Government provide further guidance on specific topics. Documents of relevance to landscape and visual impacts are summarised in Table 8 below.

Table 8: National Planning Guidance and Advice

| Reference | Title | Summary of Document |
| :--- | :--- | :--- |
| PANs | Planning for <br> Natural <br> Heritage <br> (2000) | Provides advice on how development and the planning system can contribute to the <br> conservation, enhancement, enjoyment and understanding of Scotland's natural <br> environment and encourages developers and planning authorities to be positive and <br> creative in addressing natural heritage issues. It complements the policy in SPP, with <br> examples of good planning practice in relation to natural heritage drawn from across <br> Scotland highlighted in a number of case studies. |

1.1.20 Table 9 below provides a summary of the key development plan policies and relevant supplementary guidance that are of relevance to visual impacts and effects on landscape. An assessment of compliance of the proposed scheme in relation to these policies is provided in Appendix A17.2 (Assessment of Development Plan Policy Compliance), and is summarised in Chapter 17 (Policies and Plans) having regard to the overall compliance of the proposed scheme in relation to national, regional and local policy.

Table 9: Development Plan Policy for Landscape and Visual

| Aberdeen City and Shire Strategic Development Plan 2014 |  |  |  |
| :---: | :---: | :---: | :---: |
| Objective |  |  | Targets |
| Quality of the environment |  |  | - To make sure that development improves and does not lead to the loss of, or damage to, built, natural or cultural heritage assets. |
| Aberdeen Local Development Plan 2012 |  |  |  |
| Reference | Title | Supplementary Guidance | Policy Objectives |
| Policy H1 | Residential Areas | House <br> Extensions* <br> Curtilage Splits <br> Open Space | Within existing residential areas (H1 on the Proposals Map) and within new residential developments, proposals for new residential development and householder development will be approved in principle if it: <br> 1. does not constitute over development; <br> 2. does not have an unacceptable impact on the character or amenity of the surrounding area; <br> 3. does not result in the loss of valuable and valued areas of open space. Open space is defined in the Aberdeen Open Space Audit 2010; <br> 4. complies with Supplementary Guidance on Curtilage Splits; and <br> 5. complies with Supplementary Guidance on House Extensions. <br> Within existing residential areas, proposals for non-residential uses will be refused unless: <br> 1. they are considered complementary to residential use; or <br> 2. it can be demonstrated that the use would cause no conflict with, or any nuisance to, the enjoyment of existing residential amenity. |
| Policy D6 | Landscape | Landscape Strategy Part 2 - Landscape Guidelines | Development will not be acceptable unless it avoids: <br> - Adversely affecting landscape character and elements which contribute to, or provide, a distinct 'sense of place' which point to being either in or around Aberdeen or a particular part of it; |


|  |  |  | - Obstructing views of the City's townscape, landmarks and features when seen from publicly accessible vantage points such as roads, railways, recreation areas and pathways and particularly from the main city approaches; <br> - Disturbance, loss or damage to recognised recreation, wildlife or woodland resources or to the physical links between them; <br> - Sprawling onto green spaces or buffers between places or communities with individual identities, and those which can provide opportunities for countryside activities; and <br> - Development should avoid significant adverse impacts upon existing landscape elements, including linear and boundary features or other components, which contribute to local amenity, and provide opportunities for conserving, restoring or enhancing them. <br> The Landscape Strategy supplementary guidance states, under Landscape Practice Note 5 - Development Proposals, that siting and design of new buildings and structures within urban areas shall have regard to landscape fit and local context in terms of their visual scale, massing and colour of materials. A Planning Brief explaining the principles on which development proposals are based will be required in some instances. |
| :---: | :---: | :---: | :---: |
| Policy NE5 | Trees and Woodlands | Trees and Woodland | Development that will result in the loss of, or damage to, established trees and woodlands that have natural or cultural heritage value or contribute to the character, biodiversity or amenity will be resisted. <br> Appropriate measures should be taken for the protection and long term management of existing trees and new planting both during and after construction. Buildings and services should be sited so as to minimise adverse impacts on existing and future trees and tree cover. <br> Additionally, supplementary guidance on trees state that a Tree Protection Plan should be developed and annotated stating the following: <br> - Trees to be retained; <br> - Trees to be removed; <br> - Trees to be pruned; <br> - The exact location of the Construction Exclusion Zone showing the protective barriers/fences, all physical barriers including the ground protection (these areas should reflect the RPAs taken from the Tree Constraints Plan, or a distance equal to half the height of the tree, or the canopy drip line of the tree, whichever is greatest); <br> - Details of the type of fencing/physical barrier to be used (this is to be the same as in figure 2 of BS5837 unless otherwise agreed in writing); <br> - The fencing/protective barrier with display signs indicating that the enclosed area is a construction exclusion zone; <br> - Those areas of proposed or structural landscaping be protected to prevent damage to the soil structure; and <br> - Finalised site layout. |

## Policy Context for Chapter 12: Cultural Heritage

1.1.21 National planning policy on a variety of themes is contained in Scottish Planning Policy (SPP) (Scottish Government, 2014). Key provisions of SPP on cultural heritage are:

- to safeguard historic assets through development plans and development management decisions; and
- to promote the care and protection of the historic environment and decision-making based on a clear understanding of the importance of heritage assets.

The Government's Scottish Historic Environment Policy (SHEP) and the Managing Change in the Historic Environment Guidance Note series, both published by Historic Scotland, set out Scottish Ministers' policies for the historic environment and provide a framework that informs the work of a range of organisations that have a role and interest in managing the historic environment.
1.1.23 A summary of the SHEP and other national guidance and advice of relevance to cultural heritage is provided in Table 10 below.

Table 10: National Planning Guidance and Advice

| Reference | Title | Summary of Document |
| :---: | :---: | :---: |
| SHEP | Scotland's Historic Environment Policy (December 2011) | This document consolidates the previous SHEP series into one policy document. The SHEP complements and has the same authority as the Scottish Planning Policy and other relevant Ministerial policy documents, and is a relevant consideration in the statutory planning, EIA and Strategic Environmental Assessment (SEA) processes. <br> The policy of the Scottish Ministers states that: <br> - actions taken in respect of Scotland's historic environment should secure its conservation and management for the benefit and enjoyment of present and future generations; <br> - there should be a presumption in favour of preservation of individual historic assets and also the pattern of the wider historic environment; no historic asset should be lost or radically changed without adequate consideration of its significance and of all the means available to manage and conserve it; and <br> - Scotland's historic environment should be managed in a sustainable way, recognising that it is a social, cultural, economic and environmental resource of great value. |
| Guidance Note Series | Managing <br> Change in the Historic Environment | The series details how to apply the policies contained in the Scottish Historic Environment Policy (2009) (SHEP) and Scottish Planning Policy (2014). The guidance notes that are of particular relevance to the scheme are 'Demolition' and 'Setting'. These documents set out the principles that apply to the demolition of listed buildings and unlisted buildings in conservation areas and those principles that apply to developments affecting the setting of historic assets or places. |
| PAN 2/2011 | Planning and Archaeology | This PAN sits alongside Scottish Planning Policy (SPP), Scottish Historic Environment Policy (SHEP) and the Managing Change in the Historic Environment Guidance Notes, which together set out the Scottish Ministers' policies for planning and the historic environment. <br> This advice note includes guidance on archaeological assessments and field assessments as well as arrangements for mitigation. The PAN promotes the protection and preservation of archaeological sites and monuments, and their settings, in situ wherever feasible. <br> Where preservation in situ is not possible, advice is provided on an appropriate level of excavation, recording, analysis, publication and archiving which should be carried out before and/or during development. |
| PAN 78 | Inclusive Design (2006) | PAN 78 supports the government's aim of promoting more equality in the areas where we live and work. The PAN aims to explain the importance of inclusive design, identify the nature of the problems experienced in designing inclusive environments and describe the legislative context. It also outlines the roles of the different stakeholders in delivering inclusive design and identifies the particular challenges of applying inclusive design when altering the historic environment to ensure accessibility for all users. |

Table 11 below provides a summary of the key development plan policies and relevant supplementary guidance that are of relevance to cultural heritage. An assessment of compliance of the proposed scheme in relation to these policies is provided in Appendix A17.2 (Assessment of Development Plan Policy Compliance), and is summarised in Chapter 17 (Policies and Plans) having regard to the overall compliance of the proposed scheme in relation to national, regional and local policy.

Table 11: Development Plan Policy for Cultural Heritage

| Aberdeen City and Shire Strategic Development Plan 2014 |  |  |
| :--- | :--- | :--- | :--- |
| Objective | Targets |  |
| Quality of the environment | $\begin{array}{l}\text { - To make sure that development improves and does not lead to the loss of, or } \\ \text { damage to built, natural or cultural heritage assets. }\end{array}$ |  |
| Aberdeen Local Development Plan 2012 |  |  |
| Reference | Title | Policy Objectives |
| Policy D4 | $\begin{array}{l}\text { Aberdeen's } \\ \text { Granite } \\ \text { Heritage }\end{array}$ | $\begin{array}{l}\text { The City Council will encourage the retention of granite buildings throughout the City, even } \\ \text { if not listed or in a conservation area. Conversion and adaptation of redundant granite } \\ \text { buildings will be favoured. Within conservation areas, neither conservation area consent } \\ \text { nor planning permission will be given for the demolition or part removal of granite buildings } \\ \text { (excepting those buildings that make an insignificant contribution to the character of the } \\ \text { conservation area). Consent will not be given for the demolition of granite-built garden or } \\ \text { other boundary walls in conservation areas. Where a large or locally significant granite } \\ \text { building that is not listed or in a conservation area is demolished, the City Council will } \\ \text { expect the original granite to be used on the principal elevations of the replacement } \\ \text { building. Page 186The City Council will seek to retain original setted streets and granite } \\ \text { pavements in conservation areas, and elsewhere if they contribute significantly to a sense } \\ \text { of place. Where the opportunities occur, greater use will be made of granite in resurfacing } \\ \text { historic streets in the City Centre. The City Council will seek to retain coach houses and } \\ \text { other large granite-built outbuildings adjoining rear lanes in conservation areas and } \\ \text { conversion to appropriate new uses will be encouraged. }\end{array}$ |
| Policy D5 | $\begin{array}{l}\text { Built } \\ \text { Heritage }\end{array}$ | $\begin{array}{l}\text { Proposals affecting Conservation Areas or Listed Buildings will only be permitted if they } \\ \text { comply with Scottish Planning Policy. } \\ \text { Planning permission for development that would have an adverse effect on the character or } \\ \text { setting of a site listed in the inventory of gardens and design landscapes in Scotland or in } \\ \text { any addition to the inventory will be refused unless: } \\ \text { - the objectives of designation and the overall integrity and character of the designated } \\ \text { area will not be compromised; or }\end{array}$ |
| - any significant adverse effects on the qualities for which the area has been designated |  |  |
| are clearly outweighed by social, economic and strategic benefit of national importance. |  |  |$\}$

## Policy Context for Chapter 13: Air Quality

1.1.25 National planning policy on a variety of themes is contained in Scottish Planning Policy (SPP) (Scottish Government, 2014). Key provisions of SPP on air quality are:

- promoting sustainable development;
- tackling congestion to support sustainable economic growth and reduce emissions;
- to encourage decision making to take into account the implications of development for water, air and soil quality;
- to support healthier living by improving the quality of the built environment and by addressing environmental problems affecting communities; and
- to tackle climate change, and in particular reduce emissions of the greenhouse gases that contribute to it.

SPP states that the relationship between transport and land use has a strong influence on sustainable economic growth, and this should be taken into account when preparing development plans and in development management decisions. Policy indicates that a reduction in emissions from transport sources requires more sustainable modes of transport. It is suggested that the planning system should support a pattern of development which reduces the need to travel, encourages active travel and facilitates movement by public transport (Scottish Government, 2014).
1.1.27 Circulars and Planning Advice Notes (PANs) published by the Scottish Government provide further guidance on specific topics. Documents of relevance to air quality are summarised in Table 12 below.

## Table 12: National Planning Guidance and Advice

| Reference | Title | Summary of Document |
| :--- | :--- | :--- |
| PANs | PAN <br> 51(Revised <br> 2006) |  |
| Planning, <br> Environmental <br> Protection and <br> Regulation | The main function of this Planning Advice Note (PAN) is to support the existing policy <br> on the role of the planning system in relation to the environmental protection regimes, <br> including air quality. |  |
|  |  | PAN 51 summarises the statutory responsibilities of the environmental protection <br> bodies, as well as informing these bodies about the planning system. |
| The document also provides information on European and domestic legislation and |  |  |
| policy frameworks for ambient air quality. |  |  |

1.1.2 Table 13 below provides a summary of the key development plan policies and relevant supplementary guidance that are of relevance to air quality. An assessment of compliance of the proposed scheme in relation to these policies is provided in Appendix A17.2 (Assessment of Development Plan Policy Compliance), and is summarised in Chapter 17 (Policies and Plans) having regard to the overall compliance of the proposed scheme in relation to national, regional and local policy.

Although there are no direct targets for Air Quality in the ACSSDP, the plan does state that in its 'Spatial Strategy' that planned a wide range of transport measures to either tackle existing problems or support the growth planned over the next 20 to 25 years. While congestion is a key factor, reducing the effect of transport on the environment (including improving air quality) is also important.

Table 13: Development Plan Policy for Air Quality

| Aberdeen Local Development Plan 2012 |  |  |  |
| :--- | :--- | :--- | :--- |
| Reference | Title | Supplementary <br> Guidance | Policy Objectives |
| Policy <br> NE10 | Air Quality | Air Quality | Planning applications for development which has the potential to have a <br> detrimental impact on air quality will not be permitted unless measures <br> to mitigate the impact of air pollutants are proposed and can be agreed <br> with the Planning Authority. Additionally, supplementary guidance <br> dictates that developments will need an air quality assessment where a <br> significant change in air quality is expected. The change will include <br> both construction and operational impacts. |

## Policy Context for Chapter 14: Noise and Vibration

1.1.30 National planning policy on a variety of themes is contained in Scottish Planning Policy (SPP) (Scottish Government, 2014). Key provisions of SPP on noise are:

- to support development that will contribute to sustainable economic growth and to high quality sustainable places; and
- to support healthier living by improving the quality of the built environment and by addressing environmental problems affecting communities.
1.1.31 Circulars and Planning Advice Notes (PANs) published by the Scottish Government provide further guidance on specific topics. Documents of relevance to noise and vibration are summarised in Table 14 below.

Table 14: National Planning Guidance and Advice

| Reference | Title | Summary of Document |
| :--- | :--- | :--- |
| PAN 1/2011 | Planning and Noise | This PAN promotes the principles of good acoustic design and a sensitive <br> approach to the location of new development. It promotes the appropriate <br> location of new potentially noisy development, and a pragmatic approach to the <br> location of new development within the vicinity of existing noise generating <br> uses, to ensure that quality of life is not unreasonably affected and that new <br> development continues to support sustainable economic growth. |

Table 15 below provides a summary of the key development plan policies and relevant supplementary guidance that are of relevance to noise and vibration. An assessment of compliance of the proposed scheme in relation to these policies is provided in Appendix A17.2 (Assessment of Development Plan Policy Compliance), and is summarised in Chapter 17 (Policies and Plans) having regard to the overall compliance of the proposed scheme in relation to national, regional and local policy.

Table 15: Development Plan Policy for Noise and Vibration
Aberdeen City and Shire Strategic Development Plan 2014

| Objective |  | Targets |  |
| :---: | :---: | :---: | :---: |
| Quality of the environment |  | - To make sure that development improves and does not lead to the loss of, or damage to, built, natural or cultural heritage assets. |  |
| Aberdeen Local Development Plan 2012 |  |  |  |
| Policy Ref. | Title | Supplementary Guidance | Policy Objectives |
| Policy H1 | Residential Areas | House Extensions* Curtilage Splits * Open Space | Within existing residential areas (H1 on the Proposals Map) and within new residential developments, proposals for new residential development and householder development will be approved in principle if it: <br> 1. does not constitute development; <br> 2. does not have an unacceptable impact on the character or amenity of the surrounding area; <br> 3. does not result in the loss of valuable and valued areas of open space. Open space is defined in the Aberdeen Open Space Audit 2010; <br> 4. complies with Supplementary Guidance on Curtilage Splits; and <br> 5. complies with Supplementary Guidance on House Extensions. <br> Within existing residential areas proposals for non-residential uses will be refused unless: <br> 1. they are considered complementary to residential use; or <br> 2. it can be demonstrated that the use would cause no conflict with, or any nuisance to, the enjoyment of existing residential amenity. |

## Policy Context for Chapter 15: Effects on All Travellers

National planning policy on a variety of themes is contained in Scottish Planning Policy (SPP) (Scottish Government, 2014). Key provisions of SPP relevant to assessing effects on all travellers including effects on vehicle travellers (view from the road, driver stress) and effects on pedestrians, cyclists and equestrians are:

- promoting sustainable development;
- to prioritise opportunities for personal travel by mode in the following order - walking, cycling, public transport, car and other motorised vehicles;
- to encourage improvements to active transport networks, such as paths and cycle routes, in urban and rural areas that will support more sustainable travel choices;
- improving the natural environment and the sustainable use and enjoyment of it; and
- to facilitate positive change whilst maintaining and enhancing the distinctive character of the landscape in both the countryside and urban areas.

Planning Advice Notes (PAN) published by the Scottish Government provide further guidance on specific topics. Details of relevant PANS are summarised in Table 15 below.

Table 15: National Planning Guidance and Advice

| Reference | Title | Summary of Document |
| :--- | :--- | :--- |
| PANs | Planning for Transport <br> $(2005)$ | Aims to create greater awareness of how linkages between planning and <br> transport can be managed. It highlights the roles of different bodies and <br> professions in the process and points to other sources of information on the <br> overlap of the two sectors. |
| PAN 75 |  | Inclusive <br> $(2006)$ |
| PAN 78 | Design | Supports the government's aim of promoting more equality in the areas where <br> we live and work. The PAN aims to explain the importance of inclusive design, <br> identify the nature of the problems experienced in designing inclusive <br> environments and describe the legislative context. It also outlines the roles of <br> the different stakeholders in delivering inclusive design. |

Table 16 provides a summary of the key development plan policies and relevant supplementary guidance that are of relevance to effects on all travellers. An assessment of compliance of the proposed scheme in relation to these policies is provided in Appendix A17.2 (Assessment of Development Plan Policy Compliance), and is summarised in Chapter 17 (Policies and Plans) having regard to the overall compliance of the proposed scheme in relation to national, regional and local policy.

Table 16: Development Plan Policy for Effects on All Travellers

| Aberdeen City and Shire Strategic Development Plan 2014 |  |  |  |
| :---: | :---: | :---: | :---: |
| Objective |  |  | Targets |
| Accessibility |  |  | - For all developments to meet the accessibility standards set out in the regional transport strategy. <br> - For major employment and service developments in strategic growth areas to show that they are easy to access by walking, cycling or using public transport. The travel plans produced for these developments should reduce the need for people to use cars. <br> - To reduce the percentage of journeys made by car. |
| Aberdeen Local Development Plan 2012 |  |  |  |
| Policy Ref. | Title | Supplementa ry Guidance | Policy Objectives |
| Policy D3 | Sustainable and Active Travel | Transport and Accessibility | New development will be designed in order to minimise travel by private car, improve access to services and promote healthy lifestyles by encouraging active travel. Development will maintain and enhance permeability, ensuring that opportunities for sustainable and active travel are both protected and improved. Access to, and movement within and between, new and existing developments will prioritise transport modes in the following order - walking, cycling, public transport, car and other motorised vehicles. <br> Existing access rights, including core paths, rights of way and paths within the wider network will be protected and enhanced. Where development proposals impact on the access network, the principle of the access must |


|  |  |  | be maintained through the provision of suitable alternative routes. <br> Chapter 4 of the Transport and Accessibility SPG states that the Council is <br> currently undertaking a review of its 1998 publication "Guidelines and <br> Specification for Roads within Residential and Industrial Developments" <br> which sets out the technical requirements for designing new roads, <br> parking facilities, and walking and cycling infrastructure. The review takes <br> account of the Scottish Government's Policy Statement Designing Streets <br> (2010). The Council intends to publish a fully revised version of the <br> technical guidelines in due course and officers are progressing this <br> detailed work. In the meantime, the Local Development Plan has taken <br> account of Designing Streets by including a Roads Descriptor' Map which <br> categorises the road network according to the principles of Designing <br> Streets. |
| :--- | :--- | :--- | :--- |
| Policy |  |  | Access and <br> Informal <br> Recreation |
|  | Infrastructure <br> and <br> Developers <br> Contribution <br> Manual, <br> Transport and <br> Accessibility <br> and Open <br> Space | New development should not compromise the integrity of existing or <br> potential recreational opportunities including access rights, core paths, <br> other paths and rights of way. Core Paths are shown on the Proposals <br> Map. Where development is proposed, every opportunity should be taken <br> to improve public access, permeability and links to green space for <br> recreation and for active travel. <br> The SPG states that contributions from other developments can be used <br> to provide improvements to public transport, the local road network, traffic <br> management, pedestrian and cycle facilities, and accessibility <br> infrastructure. |  |

## Policy Context for Chapter 16: Materials

1.1.36 National planning policy on a variety of themes is contained in Scottish Planning Policy (SPP) (Scottish Government, 2014). Key provisions of SPP on design and materials are:

- to support sustainable development;
- to encourage the use of sustainable and recycled materials in construction; and
- promote development design that would contribute positively to the built and natural environment.


## References

Aberdeen City Council (2012). Aberdeen Local Development Plan (ALDP) 2012.
Aberdeen City Council (2012). Air Quality, Supplementary Guidance. Aberdeen Local Development Plan (ALDP) 2012.

Aberdeen City Council (2012). Buffer Strips, Supplementary Guidance. Aberdeen Local Development Plan (ALDP) 2012.

Aberdeen City Council (2012). Drainage Impact Assessment, Supplementary Guidance. Aberdeen Local Development Plan (ALDP) 2012.

Aberdeen City Council (2012). Green Belt Review, Supplementary Guidance. Aberdeen Local Development Plan (ALDP) 2012.

Aberdeen City Council (2012). Open Space, Supplementary Guidance. Aberdeen Local Development Plan (ALDP) 2012.

Aberdeen City Council (2012). Landscape Guidelines, Supplementary Guidance. Aberdeen Local Development Plan (ALDP) 2012.

Aberdeen City Council (2012). Transport and Accessibility, Supplementary Guidance. Aberdeen Local Development Plan (ALDP) 2012.

Aberdeen City Council (2012). Trees and Woodlands, Supplementary Guidance. Aberdeen Local Development Plan (ALDP) 2012.

Aberdeen City Council (2013). Infrastructure and Developer Contributions Manual, Supplementary Guidance. Aberdeen Local Development Plan (ALDP) 2012.

Aberdeen City Council (2013). Bats and Development, Supplementary Guidance. Aberdeen Local Development Plan (ALDP) 2012.

Aberdeen City and Shire Strategic Development Planning Authority (2014). Aberdeen City and Aberdeenshire Strategic Development Plan

Historic Scotland (2011). SHEP Scotland's Historic Environment Policy.
Historic Scotland. Managing Change in the Historic Environment guidance note series.
Scottish Government (2000). Planning Advice Note (PAN) 60 Planning for Natural Heritage.
Scottish Government (2001). Planning Advice Note (PAN) 61: Planning and Sustainable Urban Drainage Systems.

Scottish Government (2004). Planning Advice Note (PAN) 69: Planning and Building Standards Advice on Flooding.

Scottish Government (2006). Planning Advice Note (PAN) 51 Planning, Environmental Protection and Regulation.

Scottish Government (2006). Planning Advice Note (PAN) 78: Inclusive Design.
Scottish Government (2006). Planning Advice Note (PAN) 79: Water and Drainage.
Scottish Government (2011). Planning Advice Note (PAN) 1/2011 Planning and Noise.
Scottish Government (2011). Planning Advice Note (SPP) 2/2011 Planning and Archaeology.
Scottish Government (2014). Scottish Planning Policy.

## A17.2: Assessment of Development Plan Policy Compliance

Table 1 below lists the key policies that may affect the development of the proposed scheme.
Policies that are marked with ' $\mathbf{X}$ ' are of particular relevance as there may be non-compliance issues. Policies that are marked with a tick ' $V$ ' are generally compliant.

Those ES chapters that are relevant to individual policies are cross-referenced.

## A90/A96 Haudagain Improvement

## DMRB Stage 3 Environmental Statement

## Appendix A17.2: Assessment of Development Plan Policy Compliance

Table 1: Assessment of Policy Compliance (Strategic Development Plan)

\begin{tabular}{|c|c|c|c|}
\hline \begin{tabular}{l}
Objectives / \\
Aspirations
\end{tabular} \& \begin{tabular}{ll} 
Relevant \& Environmental \\
Statement \\
Chapter(s)
\end{tabular} \& Compliance with Policy \& Summary of Targets \\
\hline \multicolumn{4}{|l|}{Aberdeen City and Shire Strategic Development Plan (ACSSDP) 2014} \\
\hline Sustainable Development and Climate Change \& \begin{tabular}{l}
Chapter 16 (Materials) \\
Chapter 9 (Road Drainage and the Water Environment) \\
Chapter 8 (Geology, Soils, Contaminated Land and Groundwater)
\end{tabular} \& \(\checkmark\)
\(\checkmark\)
\(\checkmark\)

$\checkmark$ \& | The ACSSDP is committed to tackling climate change and promoting sustainable development. The targets identified to achieve this objective include the mitigation and prevention of flood risk and promoting waste management practices, these targets are identified below. In addition, the ACSSDP notes that new developments must be designed and built to use resources more efficiently and be located in places where they have as little effect on the environment as possible. |
| :--- |
| Targets: |
| - For all new buildings to be carbon neutral by 2020; |
| - For the equivalent of the city region's electricity needs to be met from renewable sources by 2020; |
| - To avoid having to increase the amount of water Scottish Water are licensed to take from the River Dee, as a result of the new developments proposed in the plan; |
| - For all new developments to use water-saving technology; |
| - To avoid developments on land which is at an unacceptable risk from coastal or river flooding (as defined by the 'Indicative River and Coastal Flood Map for Scotland' or through a detailed flood risk assessment), except in exceptional circumstances; and |
| - To work towards at least an extra 300,000 tonnes of new waste-management infrastructure. |
| Through the implementation of mitigation items such as Site Waste Management Plans (Mitigation Item W25), Construction Environmental Management Plans (Mitigation Item M3) and SUDS (Mitigation Item M2) the proposed scheme accounts and broadly complies with these objectives. | <br>


\hline Population Growth \& Chapter 2 (Need for the Scheme) \& $\checkmark$ \& | An overarching principle of the ACSSDP is to increase growth within the city region to 500,000 by 2035 . Providing the necessary infrastructure to accommodate this growth is highlighted as a priority. |
| :--- |
| Targets: |
| - To increase the population of the city region to 500,000 by 2035 ; |
| - To move towards building at least 2,500 homes a year by 2016 through the development plan; and |
| - To move towards building at least 3,000 homes a year by 2020 through the development plan. |
| The Haudagain Improvement is listed in the 'Spatial Strategy' section of the ACSSDP as necessary to support growth and so the proposed scheme is fully compliant with this objective. | <br>

\hline
\end{tabular}

| Quality of the Environment | Chapter 7 (Community and Private Assets) <br> Chapter 08 - (Geology, Soils, Contaminated Land and Groundwater) <br> Chapter 09 - (Road Drainage and the Water Environment) <br> Chapter 10 (Ecology and Nature Conservation) <br> Chapter 11 (Landscape and Visual) <br> Chapter 12 (Cultural Heritage) | $\checkmark$ $\checkmark$ $\checkmark$ $\checkmark$ $\checkmark$ $\checkmark$ | A key objective of the ACSSDP is to ensure that development improves and does not lead to the loss of, or damage to, built, natural or cultural heritage. <br> Targets: <br> - To make sure that development improves and does not lead to the loss of, or damage to, built, natural or cultural heritage assets; and <br> - To avoid new development preventing water bodies achieving 'good ecological status' under the Water Framework Directive. <br> Adherence to and preservation of the above targets will be set out in chapters $7,10,11$ and 12 (for the first target) and chapters 8 and 9 (for the second target). Further assessment is provided in Table 2 below. <br> Appropriate mitigation measures have been identified to minimise impacts, these can be found in Chapter 20 - Schedule of Environmental Commitments and it is considered that the proposed scheme broadly supports the SDP objectives in this respect. |
| :---: | :---: | :---: | :---: |
| Accessibility | Chapter 15 (Effects on all Travellers) | $\checkmark$ | Targets: <br> - For all developments to meet the accessibility standards set out in the regional transport strategy; <br> - For major employment and service developments in strategic growth areas to show that they are easy to access by walking, cycling or using public transport. The travel plans produced for these developments should reduce the need for people to use cars; and <br> - To reduce the percentage of journeys made by car. <br> The ACSSDP seeks to ensure that all developments promote attractive and accessible travel options for both motorised and nonmotorised users (NMUs). This has been accommodated in the design of the proposed scheme through the incorporation of designated cycle lanes and signalised crossings. Further information on the scheme design in terms of provisions for motorised and NMUs is provided in Chapter 15. |

## Table 2: Assessment of Policy Compliance (Local Development Plan)

| Policy (Supporting Supplementary Guidance) | Relevant Environmental <br> Statement Chapter(s) | Compliance with Policy | Summary |
| :---: | :---: | :---: | :---: |
| Aberdeen Local Development Plan 2012 |  |  |  |
| Policy T1 Land for Transport | Chapter 7 (Community and Private Assets) | $\checkmark$ | ALDP Policy T1 safeguards land for the Haudagain Roundabout improvement. The proposed scheme closely aligns with the land allocated for transport land in the ALDP and this would enable the development of the neighbouring Opportunity Sites (OP19 and OP21) allocated for new housing and retail. The land designation of the proposed scheme has partially exceeded the safeguarded land as the design has been developed, however overall the proposed scheme is compliant with the policy. |
| Policy D3 Sustainable and Active Travel | Chapter 15 (Effects on All Travellers) | $\checkmark$ | Policy D3 sets out to achieve a well integrated transport system which will be assisted by protecting and improving links, suitable for nonmotorised use, between residential, employment, recreational and other facilities. The proposed scheme will either maintain or improve access for Non-Motorised Users with improvements embedded in the design such as new cycle routes/footpaths and NMU crossing points. Therefore, following the implementation of suitable mitigation, there are no adverse significant impacts expected as a result of the works. |

## A90/A96 Haudagain Improvement

## DMRB Stage 3 Environmental Statement

Appendix A17.2: Assessment of Development Plan Policy Compliance

| Policy (Supporting Supplementary Guidance) | Relevant Environmental Statement Chapter(s) | Compliance with Policy | Summary |
| :---: | :---: | :---: | :---: |
| Aberdeen Local Development Plan 2012 |  |  |  |
| (Supplementary Guidance Transport and Accessibility) |  |  |  |
| Policy $\quad$ D4  <br> Aberdeen's  <br> Granite  <br> Heritage  | Chapter Heritage) $12 \quad$ (Cultural | N/A | ACC encourages the retention of granite buildings throughout the City. There are no buildings containing granite that will be affected by the proposed scheme and therefore this policy will not be compromised. |
| Policy D5 Built Heritage | Chapter $12 \quad$ (Cultural Heritage) | $\checkmark$ | The proposed scheme will not have a detrimental effect on the character, integrity or setting of the historic buildings within the study area. The assessment outlined in Chapter 12 (Cultural Heritage) concluded that after mitigation, there would be a Neutral impact on historic properties within the surrounding area and as such, the proposed scheme would satisfy the requirements of Policy D5. Similarly there are no listed buildings, conservation areas or scheduled monuments within the local area which would be affected by the works. |
| Policy D6 Landscape (Supplementary Guidance - Landscape Strategy Part 2 - Landscape Guidelines) | Chapter 11 (Landscape and Visual) | - | Policy D6 - Landscape states that development will not be acceptable unless it avoids the following: <br> 1. significantly adversely affecting landscape character and elements which contribute to, or provide, a distinct 'sense of place' which point to being either in or around Aberdeen or a particular part of it; <br> New planting is proposed to enhance a strong sense of place, acknowledging the fact that the existing sense of place and overall urban character and structure of the townscape would have substantial impacts from the proposed scheme. It should also be acknowledged that the proposed scheme will enable the subsequent development of Haudagain Triangle (OP19) and Manor Walk (OP21) which have been identified in the ALDP as Opportunity Sites and part of the Spatial Strategy as set out in Paragraph 2.2 of the ALDP. Thereby the proposed scheme supports the creation of a regenerated 'sense of place' in broader compliance with Policy D6 <br> 2. obstructing important views of the City's townscape, landmarks and features when seen from busy and important publicly accessible vantage points such as roads, railways, recreation areas and pathways and particularly from the main city approaches; <br> The landscape and visual assessment has not identified the loss of any important viewpoints as a result of the proposed scheme. As can be seen in figure 11.4, the proposed scheme design integrates NMU path and cycleways into the scheme while the overall layout and design (prepared in cognisance of Criteria 3 and Section 7 of Landscape Strategy Part 2) has been landscaped with both soft and hard landscaping which enables greater definition of areas for open space, pedestrian movement and areas for wildlife. <br> 3. disturbance, loss or damage to important recreation, wildlife or woodland resources or to the physical links between them; <br> Figure 11.4 also displays, in accordance with the third criteria and Section 8 of the Landscape Strategy, clearly defined proposed spatial distribution of trees, shrubs, hedges, other plants and grass seeded areas (Mitigation Items LV6). The mitigation strategy adopted by the proposed scheme will look to replace trees lost during construction and embedded newly planted trees with existing planting |

## A90/A96 Haudagain Improvement

## DMRB Stage 3 Environmental Statement

## Appendix A17.2: Assessment of Development Plan Policy Compliance

| Policy (Supporting Supplementary Guidance) | Relevant Environmental Statement Chapter(s) | Compliance with Policy | Summary |
| :---: | :---: | :---: | :---: |
| Aberdeen Local Development Plan 2012 |  |  |  |
|  |  |  | 4. sprawling onto important or necessary green spaces or buffers between places or communities with individual identities, and those which can provide opportunities for countryside activities. <br> No areas of green belt or Urban Green Space will be lost due to the proposed scheme; however there will be a requirement to use some localised residential open space. The use of hedgerow planting and earth bunds / mounding will act as mitigating buffers which will avoid sprawling between communities and places. |
| $\begin{aligned} & \text { Policy H1- } \\ & \text { Residential } \\ & \text { Areas } \end{aligned}$ | Chapter 7 (Community and Private Assets) <br> Chapter 11 (Landscape and Visual) <br> Chapter 14 (Noise and Vibration) | X | Policy H1 states that proposals for non-residential uses will be refused unless they can demonstrate that the use would cause no conflict with, or any nuisance to, the enjoyment of existing residential amenity. <br> A small area of the proposed scheme is not covered by policy T 1 and falls within the H 1 designated area. There will be direct loss of residential land as a result of the proposed scheme, and it is assessed that there will be some significant residual impacts on residential properties remaining in proximity to the proposed scheme, notably from landscape and visual, and noise impacts. <br> The proposed scheme is identified as a strategic improvement at this location. The development of the design and assessment of impacts has, where possible, sought to protect residential amenity; notably from noise, landscape and effects on all travellers. An extensive suite of mitigation measures (see Chapter 20: Schedule of Environmental Commitments) is proposed. It is also relevant to note that existing pressure on the Haudagain Roundabout has led to increased numbers of vehicles diverting onto adjacent residential streets. In addition to addressing congestion at the existing roundabout the proposed scheme will enable the reduction of traffic volumes on existing residential streets, with consequent benefits to amenity. |
| Policy NE1 <br> Green Space <br> Network  | Chapter 7 (Community and Private Assets) <br> Chapter 10 - Ecology and Nature Conservation <br> Chapter 11 - Landscape and Visual | $\checkmark$ $\checkmark$ $\checkmark$ | Consideration of impacts on the green space network has been undertaken in Chapter 7 (Community and Private Assets). It is not expected that the proposed scheme would have a significant impact on this designation and therefore complies with policy. <br> As stated in Chapters 10 and 11 the construction of the proposed scheme will result in some loss of the natural habitat but after appropriate mitigation measures have been implemented the impacts are not deemed to be significant. |
| Policy NE2Green Belt(SupplementaryInformation <br> Green <br> Review) | Chapter 7 (Community and Private Assets) | $\checkmark$ | Consideration of impacts on the Green Belt has been undertaken in Chapter 7 (Community and Private Assets). Although designated Green Belt was identified within the 500 m study buffer of the site, the proposed scheme will not impact on the Green Belt and is therefore compliant with policy in this respect. |
| Policy NE3 <br> Urban Green <br> Space  <br>   | Chapter 7 (Community and Private Assets) | $\checkmark$ | Consideration of impacts on the green space network has been undertaken in Chapter 7 (Community and Private Assets). The proposed scheme will not impact on any urban green space and is therefore compliant with this policy. |

## A90/A96 Haudagain Improvement

## DMRB Stage 3 Environmental Statement

## Appendix A17.2: Assessment of Development Plan Policy Compliance

| Policy (Supporting Supplementary Guidance) | Relevant Environmental Statement Chapter(s) | Compliance with Policy | Summary |
| :---: | :---: | :---: | :---: |
| Aberdeen Local Development Plan 2012 |  |  |  |
| Policy NE4 <br> Open Space <br> Provision In <br> New  <br> Developments  <br>   <br> (Supplementary  <br> Guidance  <br> Open Space)  | Chapter 17 (Policies and Plans) | N/A | During pre-application discussions with ACC it was indicated that consideration should be given to Policy NE4. This policy, supplemented by Open Space Guidance, states that the Council will require provisions of at least 2.8 hectares of meaningful and useful public open space per 1,000 people in new residential developments. <br> This policy is not applicable to the proposed scheme as it does not include any new residential development. |
| Policy NE5 Trees and Woodlands (Supplementary Guidance Trees Woodland) and | Chapter 10 (Ecology and Nature Conservation) <br> Chapter 11 (Landscape and Visual) | $\checkmark$ | This policy presumes against the loss of trees and woodlands of importance to nature conservation and local amenity, and requires consideration of appropriate management techniques and new/replacement planting as part of the development proposals. Impacts on trees within the study area are considered in both Chapters 10 (Ecology and Nature Conservation) and 11 (Landscape and Visual). <br> These propose that while there are some trees which will require to be removed to accommodate the proposed scheme, mitigation measures including planting to assist in softening the transition between the main road corridor and the adjacent residential areas (Mitigation item LV11) will be implemented. In addition, all trees removed will be replaced (Mitigation item LV4) and it is expected that upon Summer, 15 years after opening, the woodland coverage in the area will exceed the current pre scheme figure. With these in place, it is considered the proposed scheme meets the requirements of the policy. |
| Policy NE6 <br> Flooding and  <br> Drainage  <br>   <br>   <br> (Supplementary  <br> Guidance  <br> Drainage  <br> Impact  <br> Assessment)  | Chapter 9 (Road Drainage and the Water Environment) <br> Chapter 8 (Geology, Soils, Contaminated Land and Groundwater) | $\checkmark$ | For the proposed scheme, a Sustainable Drainage System (SUDS) drainage outfall is proposed to the Scatter Burn immediately upstream of the Aberdeen - Inverness railway line. With the inclusion into the scheme of SUDS features such as a detention basin to manage surface water runoff and minimise pollution. With the inclusion of the proposed mitigation measures, the majority of residual impacts would be reduced to Neutral, with a small number of Slight Adverse impacts <br> After mitigation, the potential impacts for the proposed scheme with respect to hydrology and flood risk have been identified as of Neutral significance in Chapter 9 (Road Drainage and the Water Environment) both during construction and operation. Accordingly, the proposed scheme would meet the requirements of this policy. |
| Policy NE8 Natural Heritage (Supplementary Guidance Buffer Strips) | Chapter 10 (Ecology and Nature Conservation <br> Chapter 9 (Road Drainage and the Water Environment) | $\checkmark$ | The proposed scheme would have the potential to conflict with Policy NE8 as it has the potential to have a Negative impact on some ecological receptors during construction and operation such as pollution, alteration of commuting routes and loss of /disturbance to habitats. <br> After mitigation works such as reducing habitat loss by restricting felling and vegetation clearance activities to the minimum area necessary for the works (Mitigation Item E6), it has been concluded that there would be no residual impacts from the proposed scheme and therefore the proposals are compliant with Policy NE8. |

## A90/A96 Haudagain Improvement

DMRB Stage 3 Environmental Statement
Appendix A17.2: Assessment of Development Plan Policy Compliance

| Policy (Supporting Supplementary Guidance) | Relevant Environmental <br> Statement Chapter(s) | Compliance with Policy | Summary |
| :---: | :---: | :---: | :---: |
| Aberdeen Local Development Plan 2012 |  |  |  |
| Policy NE9 <br> Access  <br> Informal  <br> Recreation  <br>   <br>   <br> (Supplementary  <br> Guidance  <br> Infrastructure  <br> and Developers  <br> Contribution  <br> Manual,  <br> Transport and  <br> Accessibility  <br> and Open  <br> Space)  | Chapter 15 (Effects on all Travellers) | $\checkmark$ | Policy NE9 seeks to retain the integrity of existing and potential access rights, core paths, other paths and rights of way. The proposed scheme has accounted for NMUs in the final design, and further information can be found in Chapter 15 (Effects on all Travellers). During operation, no residual impacts are anticipated on NMUs using any of the core paths, aspirational core paths or NCR1 within the study area and therefore the proposed scheme is compliant with this policy. |
| Policy NE10 Air Quality <br> (Supplementary Guidance - Air Quality) | Chapter 13 (Air Quality) | $\checkmark$ | The assessment in Chapter 13 (Air Quality) concludes that following the implementation of appropriate mitigation measures, it is considered unlikely that there would be any significant residual impacts at the construction and operation stage for the proposed scheme. Accordingly, the proposed scheme satisfies the requirement of Policy NE10. |
| Policy R2 Degraded and Contaminated Land (Supplementary Guidance Waste Management) | Chapter 8 (Geology, Soils, Contaminated Land and Groundwater) | $\checkmark$ | Appropriate mitigation measures would be implemented to meet the requirement of Policy R5 and therefore, the proposed scheme would not present any conflict with policy in this respect. |


[^0]:    Disclaimer
    This advice is given without prejudice to any decision made on elements of the proposal regulated by us, as such a decision may take into account factors not considered at the planning stage. We prefer all the technical information required for any SEPA consents to be submitted at the same time as the planning application. However, we consider it to be at the applicant's commercial risk if any significant changes required during the regulatory stage necessitate a further planning application and/or neighbour notification or advertising. We have relied on the accuracy and completeness of the information supplied to us in providing the above advice and can take no responsibility for incorrect data or interpretation, or omissions, in such information. If we have not referred to a particular issue in our response, it should not be assumed that there is no impact associated with that issue. If you did not specifically request advice on flood risk, then advice will not have been provided on this issue. Further information on our consultation arrangements generally can be found in How and when to consult SEPA, and on flood risk specifically in the SEPA-Planning Authority Protocol.

    ## Caveats

    The advice contained in this letter is supplied to you by SEPA in terms of Section 72 (1) of the Flood Risk Management (Scotland) Act 2009 on the basis of information held by SEPA as at the date hereof. It is intended as advice solely to Aberdeen City Council as Planning Authority in terms of the said Section 72 (1). Our briefing note entitled: "Flood Risk Management (Scotland) Act 2009: Flood risk advice to planning authorities" outlines the transitional changes to the basis of our advice inline with the phases of this legislation and can be downloaded from www.sepa.org.uk/planning/flood risk.aspx.

