10.0 PEDESTRIANS, CYCLISTS, EQUESTRIANS AND COMMUNITY EFFECTS

10.1 INTRODUCTION

10.1.1 This section outlines the baseline conditions, assesses the potential impacts on pedestrians, cyclists, equestrians and community facilities, and determines appropriate mitigation measures where necessary. The residual impacts are considered following implementation of the mitigation measures identified.

10.1.2 In accordance with DMRB (Vol. 11, Section 3, Chapter 2, Part 8), the assessment is specifically concerned with changes in amenity for pedestrians, cyclists and equestrians; aspects of people's journeys; changes in journey lengths and times and consequential alterations in level of severance. These changes will principally occur along the scheme route where the road intersects or runs adjacent to existing walking, cycling or equestrian routes.

10.1.3 Amenity can be defined as the relative pleasantness of a journey. It is concerned with the degree and duration of people's exposure to traffic – fear, safety, noise, dust and air quality. The amenity is determined by the following:

- Volume of traffic
- Speed of traffic
- Width of footpath
- Distance from traffic
- Any barriers between pedestrians and traffic
- Quality of street furnishings and
- Plantings.

10.2 METHODOLOGY

Determination of Baseline Conditions

10.2.1 This assessment has been undertaken in accordance with the DMRB Volume 11, Section 3, Part 8: June 1993[1].

10.2.2 A desk top study was undertaken based upon data obtained from the following websites:

- North Ayrshire Council[2]
- Sustrans[3]
- Scotways[4]
- Cycling Touring Club (CTC) [5]
- British Horse Society[6]

[1] http://www.standardsforhighways.co.uk/dmrb/vol11/section3/11s3p08.pdf [Accessed 23/08/2011]
[2] North Ayrshire Council, Local Transport Strategy 2008-2013. Available from http://www.north-ayrshire.gov.uk/ [Accessed 23/08/2011]
[3] Sustrans, National Cycle Network. Available from: http://www.sustrans.org.uk/what-we-do/national-cycle-network [Accessed 23/08/2011]
[4] Scotways, Heritage Paths. Available from: http://www.scotways.com/ [accessed on 23/08/2011]
[5] Cycling Touring Club, Routes and Maps. Available from http://www.ctc-maps.org.uk/routes/map [Accessed 24/08/2011]

10.2.3 A Non-Motorised User Survey (NMU) was carried out by Sky High Traffic at three Sites in the area of The Den, Dalry on the A737.

10.2.4 The purpose of the survey was to determine the level of pedestrian, equestrian and pedal cycle usage in the surrounding roads and footpaths. The results of the survey will be used to establish the level of NMU facilities required in the trunk road realignment scheme proposed for this area.

Consultation

10.2.5 Consultation by Amey was sought from Sustrans and North Ayrshire Council in September and November 2011. Further details can be found in Chapter 3.

10.2.6 Sustrans stated they have no comments relating to the proposals and are satisfied that the proposals are acceptable.

10.2.7 North Ayrshire Council responded to comment that "it is considered that the level of assessment undertaken by you thus far is significant. It is agreed that the principle impacts are likely to be related to visual amenity and noise. There will also be temporary disruption, on various fronts, during the construction phase. As such we will refer to the policies contained within the adopted Local Plan.

- Policy TRA7 (R) – Strategic Road Network
- Policy A1 – Non Conforming Uses Not Otherwise Provided for by Any Policy in the Local Plan."

Planning Policy, Legislative Context and Standards

Planning policy

10.2.8 The following policies are applicable to the proposed scheme:

10.2.9 PAN 75 Planning for Transport provides linkages between transport, including walking and cycling, and land use planning. The general aim of this policy is to achieve better and earlier integration between transport and land use planning at national, regional and local level.

10.2.10 SPP 17 Planning for Transport promotes an integrated approach to land use, economic development, transport and the environment. To achieve this requires consideration of the following objectives:

- To meet European and UK commitments and targets on greenhouse gases and local air quality;
- To maintain and enhance the natural and built environment, through avoiding or mitigating adverse environmental impacts, minimising environmental intrusion and retaining, improving and enhancing areas for biodiversity;
- To maintain and enhance the quality of urban life, particularly the vitality and viability of urban centres;
- To reinforce the rural economy and way of life; and
- To ensure that the impact of development proposals

[6] RideUK Routes, Available from: https://www.bhs.org.uk/Riding/Riding_Off_Road/Find_A_Route_To_Ride/RIDE_UK.aspx [Accessed 23/08/2011]

Legislative Context

10.2.11 Land Reform (Scotland) Act 2003: Deals with access to the outdoors and rights of way and core paths.

Determination of Impact Significance

10.2.12 The level of pedestrian, cyclist, equestrian or community facility usage is utilised as a guide to measure the sensitivity on a scale from negligible (never used) to very high (used frequently), as seen in Table 10.1. The magnitude of impact is the degree of change that will be caused by the works and is established using the criteria set out in Table 10.2. Once sensitivity and magnitude are established, Table 2.4 is used to determine impact significance as outlined in Chapter 2.

Table 10.1: Sensitivity of Pedestrians, Cyclists, Equestrians and Community Effects

Sensitivity	Typical Criteria Descriptors
Very High	The facilities are heavily used by a large number of pedestrians, cyclists and/or equestrian users. Any impact would result in significant disruption and discontent amongst a large number of individuals and vulnerable users.
High	The facilities are used regularly by large number of pedestrians, cyclists and/or equestrian users. Any impact would result in considerable disruption and discontent amongst a large number of individuals and vulnerable users.
Medium	The facilities are used occasionally by a reasonable number of pedestrians, cyclists and/or equestrian users. Any impact would result in a reasonable amount of disruption and discontent to those individuals concerned.
Low	The facilities are rarely used by a small number of people. Any impact would result in slight disruption and discontent to those individuals.
Negligible	The facilities are not used by pedestrians, cyclists and/or equestrians.

Table 10.2: Magnitude of Impact on Pedestrians, Cyclists, Equestrians and Community Effects

Impact Magnitude	Criteria
Major	Permanent loss/significant alteration of facility (such as path) resulting in considerable hindrance to pedestrians and others travel patterns, for example: increased journey distance for pedestrians by 500m or greater; or pedestrian at-grade crossing subject to a new road carrying over 16 000 vehicles per day (AADT) in the opening year; or three or more of the hindrances set out under 'minor' or two or more set out under 'moderate'
	Large scale or major improvement of route quality, extensive restoration or enhancement. Proposed route is substantially safer and more pleasant for use by pedestrians and others.
Moderate	Impact results in partial alteration to NMU facilities such that the experience is diminished to a noticeable degree, for example: increased journey distance for pedestrians by 250-500m; or pedestrian at-grade crossing subject to a new road carrying between 8 000 – 16,000 vehicles per day (AADT) in the opening year; or two or more of the hindrances set out under 'minor' applying to a single trip. Some users, particularly children and elderly people, are likely to be dissuaded from travelling.
	Moderate improvement/addition of key characteristics, features or elements positively enhancing user experience.
Minor	Some measurable change from baseline conditions considered unlikely to impact existing travel patterns but may cause some hindrance to movement, for example: increased journey distance for pedestrians by up to 250m; or a new bridge to climb or a subway to traverse; or pedestrian at-grade crossing subject to a new road carrying below 8 000 vehicles per day (AADT) in the opening year.
	Minor benefit to or addition of one (possibly more) key characteristics, features or elements, providing a small beneficial improvement for pedestrians and others.
Negligible	Very minor alterations but will not impinge on use by pedestrians, cyclists or equestrians. Existing travel patterns are unlikely to be altered.
No Change	No loss or alteration of key characteristics, features or elements for pedestrians, cyclists or equestrians.

10.3 BASELINE CONDITIONS

10.3.1 A Non-Motorised User (NMU) survey was undertaken by Sky High Traffic over a four day period in September 2011.

10.3.2 The survey consisted of splitting the scheme into three separate sites. One at The Graze Restaurant, the second at the entrance to Meadowhead Farm and the third at Maulside Lodge. These sites are presented in Drawing 10/SW/0901/037/205 Rev A: Non-Motorised Users Movements. Details of the survey results are shown in Table 10.3 – Non Motorised User Movements Results and Appendix G – NMU Survey Analysis.

Table 10.3 – Non Motorised User Movements

Day	Site 1 - No NMUs				Site 2 - No NMUs				Site 3 - No NMUs				Total 1 - 3
	PC*	Ped	Equ	Total 1	PC*	Ped	Equ	Total 2	PC*	Ped	Equ	Total 3	
Thur	0	3	0	3	2	0	1	3	1	0	0	1	7
Fri	1	5	0	6	2	0	2	4	1	0	0	1	11
Sat	1	3	1	5	2	1	1	4	2	2	0	4	13
Sun	0	4	0	4	0	4	0	4	0	1	0	1	9
Total	2	15	1	18	6	5	4	15	4	3	0	7	40

* PC – Pedal Cyclists

Study Area

10.3.3 The proposed scheme is located on the A737 in the west of Scotland, approximately 3km east of Dalry. The area surrounding the scheme comprises of mixed grazing fields, areas of woodland and several detached houses to the south (The Den area). There is one footway located along the A737 which links properties 17/19, 27 and 29. Along this section of the A737 there are several bends with grassed verges making it difficult and dangerous to walk, cycle or take horses on.

10.3.4 The study area for consideration of pedestrians, cyclists, equestrians and community effects is based on the existing route alignment and covers the anticipated extent of the influence of the proposal.

Pedestrians

10.3.5 There is one designated footway located along this section of the A737 which links properties 17/19, 27 and 29 (Site 2), the location of this is shown in Drawing No 10/SW/0901/037/205 Rev A.

10.3.6 The NMU survey resulted in a total count of 23 pedestrian movements over a four day period between all three sites. The majority of these movements were within Site 1 having 15 pedestrians, which is presented in Drawing No 10/SW/0901/037/205 Rev A.

10.3.7 Pedestrian sensitivity is assessed as low due to the footway being of low or medium importance and rarity at a local scale.

Cyclists

10.3.8 A desk top study using Sustrans and CTC websites was carried out to identify any cycle routes within the surrounding area. This map highlighted that there are no designated cycle routes located within the scheme extents. According to Sustrans there is an on-road cycle route which travels along Sharon Street and across the A737, however this is approximately 1.9km from The Den.

10.3.9 The NMU survey resulted in a total count of 12 pedal cyclists along this section of the A737. The results highlighted more cyclists in Site 2.

10.3.10 Cyclist sensitivity is assessed as low due to the facilities rarely being used by a small number of people.

Equestrians

10.3.11 According to the British Horse Society, there are no equestrian routes located within the vicinity of The Den. However Maulside Lodge breeds horses, and there are equestrian users along this section of the A737. The NMU survey highlighted that over the four day period there were five equestrian movements at Site 1 and 2.

10.3.12 Equestrian sensitivity is assessed as low due to the facilities rarely being used by a small number of people.

Community Effects

10.3.13 There are no key community facilities such as schools, public buildings or public open spaces within the study area. There is no evidence of any formal recreational activity within the study area. Along this section of the A737 there are no bus stops, therefore no public buses utilise this section of the A737.

10.3.14 There is a small public post box located at property 18.

10.3.15 The following businesses are located within the vicinity of The Den and are discussed in more detail within Chapter 8 Land Use.

- The Graze restaurant is situated at the western end of The Den and is the only commercial business in the vicinity of the realignment.
- The Auchengree Farm shop can be accessed from the Auchengree Road just off the A737.

10.3.16 There is no evidence of frequent use of The Den by pedestrians, cyclists or equestrians other than the inhabitants of the local properties, as shown in Drawing No.10/SW/0901/037/205 Rev A; therefore the sensitivity of community effects is assessed as low.

10.4 IMPACT ASSESSMENT

During Construction

10.4.1 As the NMU survey highlighted the presence of pedestrians, cyclists and equestrians within the area, it is considered that the work will have an impact on these during construction.

<u>Pedestrians</u>

10.4.2 The amenity of the footpath will be reduced during the construction period due to the presence of dust and noise. Construction is likely to have a negative impact on pedestrians, especially at Site 1 and 3. The new road alignment will cut across the access route for the pedestrians at Meadowhead Farm, therefore making it difficult for them to travel in the area by foot. In accordance with Table 10.2 the magnitude of impact on pedestrians is assessed as minor due to the measurable change and hindrance of movement.

Cyclists

10.4.3 The disruption to the existing layout on the A737 at Sites 1 and 3 is likely to cause a negative impact on cyclists using the carriageway. In accordance with Table 10.2 the magnitude of impact on cyclists is assessed as minor due to the measureable change.

Equestrians

10.4.4 The majority of equestrian movements along this section of the A737 are around Site 2. In accordance with Table 10.2, the magnitude of impact on equestrians is minor due to the measureable change.

Community Effects

10.4.5 The post box is located at property 18, therefore the works around Meadowhead Farm will cause disruption to those residents needing to use this facility. Therefore magnitude of impact on community effects is negligible.

10.4.6 In accordance with Table 2.4: Determination of Impact Significance, the significance of the impact will be slight. The sensitivity of the receptors, magnitude and significance of the impacts during construction are summarised in Table 10.4: Pedestrians, Cyclists, Equestrians and Community Impact Significance (Construction).

Table 10.4: Pedestrians, Cyclists, Equestrians and Community Impact Significance (Construction)

Receptor	Sensitivity	Magnitude	Significance
Pedestrians	Low	Moderate	Slight
Cyclists	Low	Moderate	Slight
Equestrians	Low	Minor	Slight
Community	Low	Negligible	Slight

Post Construction

Pedestrians

10.4.7 The new road alignment will have a slight beneficial impact on pedestrians. The old alignment will remain open for local residents, therefore lower traffic flows will provide a safer route for pedestrians travelling within the local area.

10.4.8 As the old alignment will remain open, the new alignment is not considered to impact on journey length or travel patterns for this user and the removal of traffic from the old alignment results in an improvement in amenity in the area.

10.4.9 The new alignment will cause a negative impact for pedestrians at Meadowhead Farm as the carriageway will cut across the route to the existing carriageway.

10.4.10 The magnitude of impact on pedestrians is assessed as moderate beneficial due to their being a larger number of pedestrian movements at Site 1 who will benefit from reduced traffic flows along the old alignment. In accordance

with Table 2.4: Determination of Impact Significance, the significance of the impact will be slight beneficial.

Cyclists

10.4.11 The new alignment is considered to reduce the journey length for cyclists due to the reduction in bends along the carriageway. However cyclists may continue to use the old carriageway as the traffic flow will be reduced resulting in a beneficial impact. Therefore the magnitude of impact on cyclists is assessed as minor beneficial giving an overall impact of slight beneficial.

Equestrians

10.4.12 The new road alignment will have no impact on equestrians, therefore the magnitude of impact on equestrians is assessed as no change giving an overall impact of neutral.

Community Effects

10.4.13 The new road alignment will have a slight impact on community effects due to the carriageway cutting across the Meadowhead Farm route. The magnitude of impact is minor therefore giving an overall impact of slight.

10.4.14 Overall the magnitude of the post construction impact is predicted to be moderate beneficial, due to the improvement of the footpath quality. The significance of this impact is slight beneficial. The sensitivity of the receptors, magnitude and significance of the post construction impacts are summarised in Table 10.5: Pedestrians, Cyclists, Equestrians and Community Impact Significance (Post Construction).

Table 10.5: Pedestrians, Cyclists, Equestrians and Community Impact Significance (Post Construction)

Receptor	Sensitivity	Magnitude	Significance
Pedestrians	Low	Moderate Beneficial	Slight Beneficial
Cyclists	Low	Minor Beneficial	Slight Beneficial
Equestrians	Low	No Change	Neutral
Community	Low	Minor	Slight Beneficial

10.5 MITIGATION

Disruption during Construction

10.5.1 Measures must be put in place for pedestrians, cyclists and equestrians to minimise disruption during the works. Pedestrians, cyclists and equestrians must be escorted through the works if diversions are not possible.

Post Construction

10.5.2 The proposed alignment will include dropped kerbs for crossings. Although these are not designated areas to cross, they have been allocated as a safer area to cross the carriageway. No mitigation measures are required.

10.6 RESIDUAL IMPACTS

10.6.1 The above mitigation measures will not alter the assessment of impact significance. Therefore the residual impact on will remain as that stated in Table 10.5.

10.7 CONCLUSION

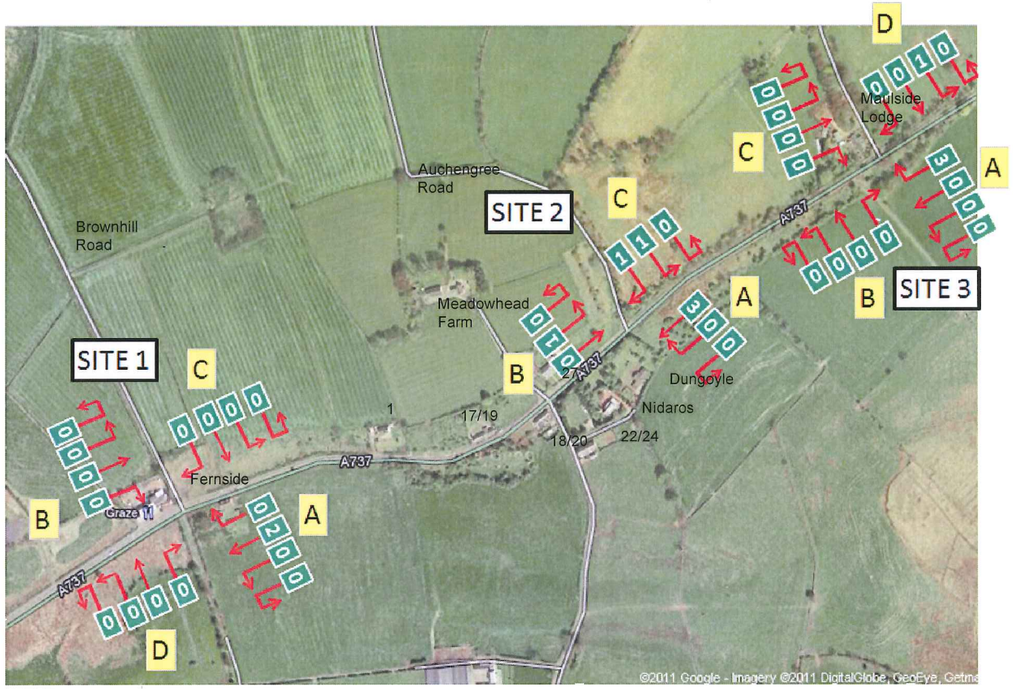
10.7.1 Although there is no designated footway located along this section of the A737, the NMU survey highlighted the presence of pedestrians, cyclists and equestrians.

10.7.2 The new alignment is not considered to impact on journey length or travel patterns for all users.

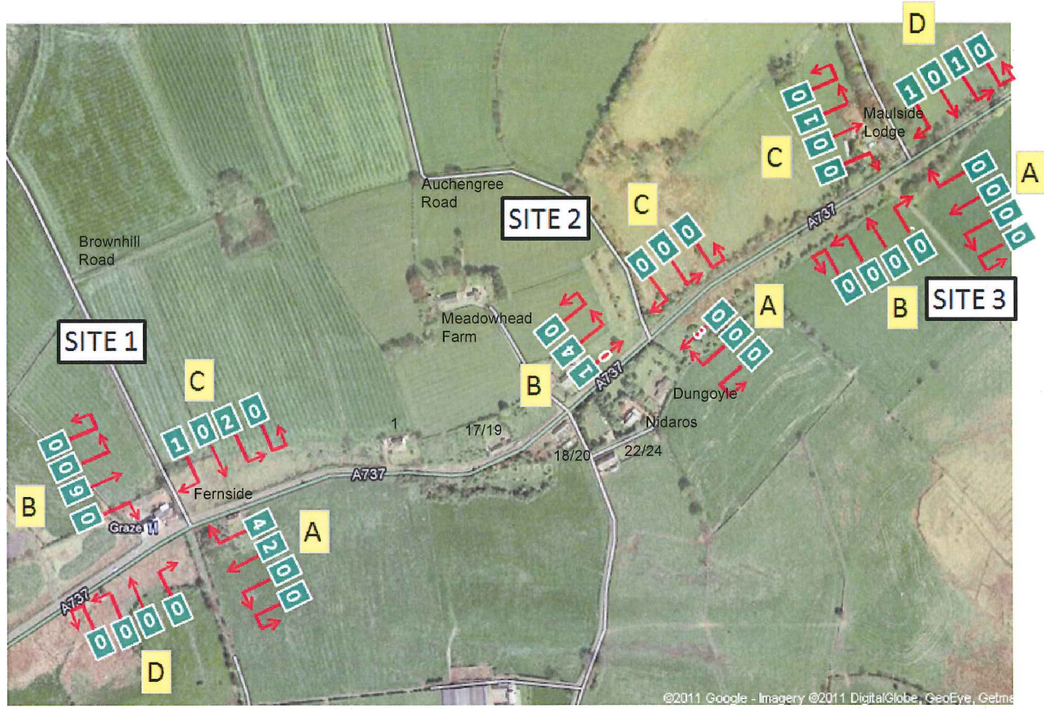
10.7.3 By realigning the carriageway and keeping the existing carriageway, it will allow for safer travel for these users.

0 100

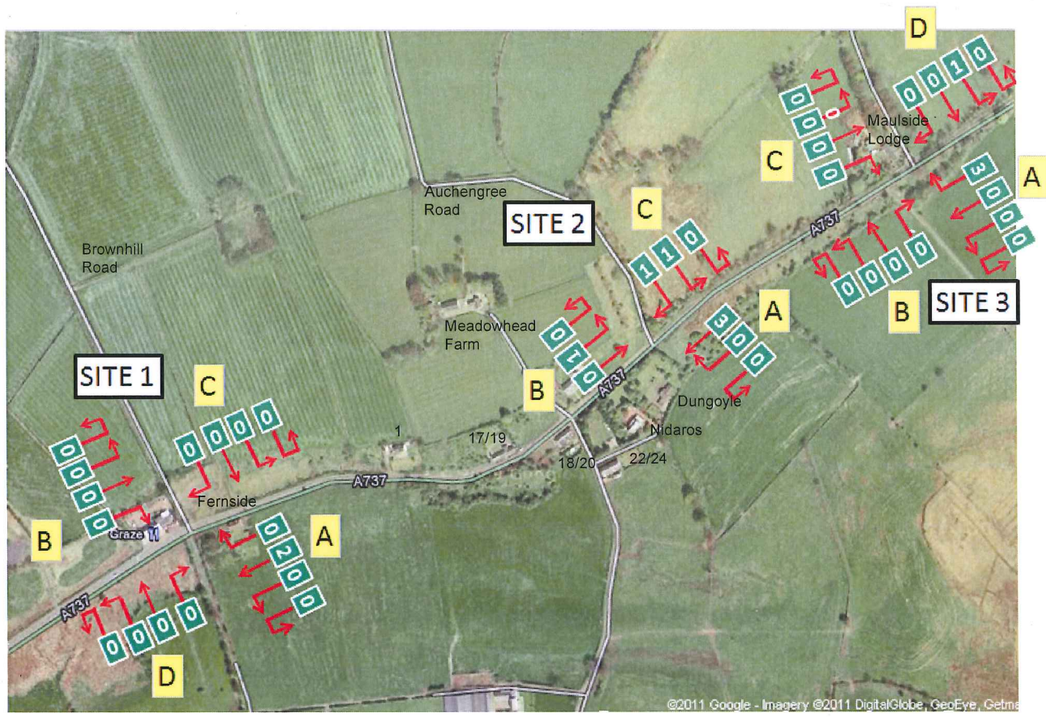
PEDAL CYCLE MOVEMENTS



PEDESTRIAN MOVEMENTS



EQUESTRIAN MOVEMENTS



Rev	Revision details	Chkd	Appd	Date
A	Minor changes to layout	H.F.	RS	27/11/12

Drawn: I.H.		Preliminary	✓
Design: H.F.		For comment	
Chkd: L.W.		For tender	
Appd: N.C.		For construction	
Date: 14/02/12		As constructed	
		Other	

amey

Client
MTRIPS
TRANSPORT SCOTLAND

Project Name
A737/A738 TRUNK ROAD
THE DEN. DALRY

Drawing Title
ENVIRONMENTAL
NON-MOTORISED
USERS MOVEMENTS

Original Drg Size : A3	Dimensions : -
Scale : Not to Scale	Copyright © Amey

Drawing No	Rev
10/SW/0901/037/205	A

P:\#SHAREDIT - MINOR IMPROVEMENTS\T04 - A737\2010-2011\A737 The Den\003 Design\002 Drawings\Work Area\1 Live Drawings\Environmental\10_SW_0901_037_205 Non-motorised Users Movements Rev A.dwg, 23/11/2012 16:23:24,