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Environmental Impact Assessment Record of Determination

A90 South Tarbrax to AM Phillips Northbound – Resurfacing Works

Contents

Project Details

Description

The works are required to repair structural defects identified on a stretch of the northbound (NB) A90 carriageway at Gallowfauld, Angus. The works are required to address carriageway deterioration including cracking, grazing, potholes and fretting over a 1.35km stretch of the carriageway. The scheme covers an approximate area of 1.2 hectares.

Construction activities are as follows:

- Installation of traffic management (TM) and marking out site;
- Milling carriageway to agreed depths;
- Resurfacing of carriageway to the existing road levels using TS2010 10mm aggregate (site class 1 & 3) & AC20 binder;
- Reinstatement of road markings, linings, and studs; and
- Removal of TM.

The following plant, non-road mobile machinery (NRMM), and vehicles will be required:

- Planer;
- Paver;
- Roller(s);
- 3CX JCBs; and
- Bond coat truck.

The proposed construction is programmed to be completed within the 2024/2025 financial year (April 2024 to March 2025) for the duration of ten work nights split over a two-week period (19:30-06:30).

TM for the scheme will comprise of lane closures with an overnight convoy for the works duration. Angus Council's Environmental Health Team have been notified of such arrangements.

Location

The scheme is located along a rural stretch of the A90 at Gallowfauld, Angus at the National Grid References (NGRs) (Figure 1):

Scheme start: NO 43405 41396

Scheme end: NO 43815 42697

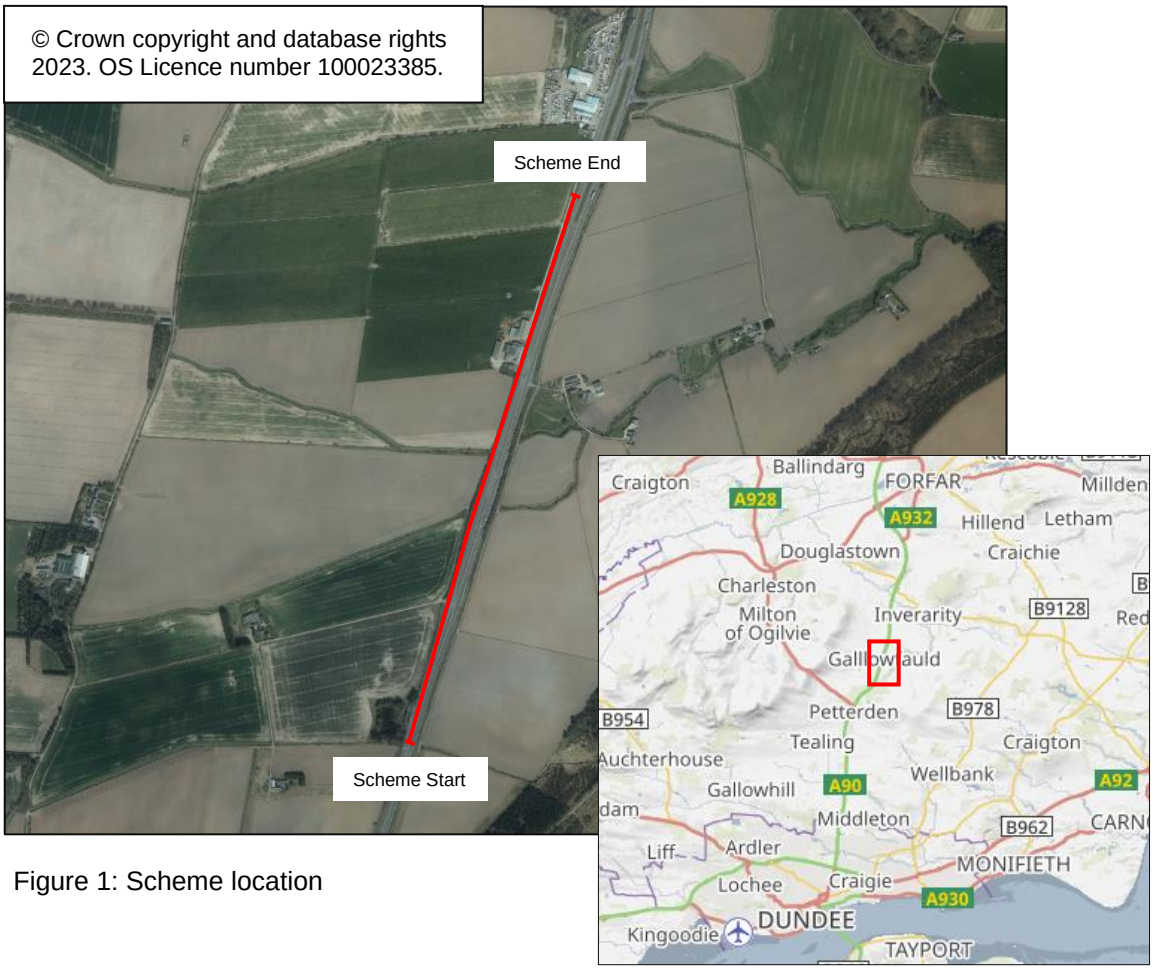

Figure 1: Scheme location

Description of local environment

Air quality

The scheme is located along a largely rural stretch of the A90. There are four residential properties located within 300m of the scheme, the closest being approximately 6m west of the carriageway boundary. No non-residential air quality receptors are present within 300m of the scheme.

Angus Council has not declared any Air Quality Management Areas (AQMAs), with the closest AQMA situated over 6km south within the Dundee City Council area. Baseline air quality levels are likely to be influenced by vehicles and associated emissions along the A90 carriageway and surrounding agricultural activities within this rural area.

The Average Annual Daily Flow (AADF) was estimated for the nearest traffic count point on the A90 carriageway located 2.3km north (site number: 80375), and accounted for 23,779 total vehicles, with 10.8% Heavy Goods Vehicles (HGVs).

No sites are registered on the Scottish Pollutant Release Inventory (SPRI) for air pollutant releases within 1km of the scheme.

Cultural heritage

A desktop study using the PastMap resource has identified one statutory, designated cultural heritage asset within 300m of the scheme:

- 'The Hostel' South Tarbrax Category B Listed Building (Ref: LB10991) approximately 6m west of the carriageway boundary.

There are a further three non-designated heritage assets recorded within 200m of the scheme, all Historic Environment Records (HERs):

- Tarbrax House, Forfar approximately 2m west (Ref: NO44SW0017);
- Tarbrax approximately 2m east (Ref: NO44SW0028); and,
- Gallowfauld approximately 80m east (Ref: NO44SW0020).

There are no Scheduled Monuments, Garden and Designed Landscapes, Conservation Areas, World Heritage Sites or Inventory Battlefields identified within 300m of the scheme.

Landscape and visual effects

The scheme is located within a largely rural area along a stretch of the A90. This scheme is not located within a National Park, National Scenic Area, or any other area designated for landscape character or quality (Sitelink).

The Landscape Character Type (LCT) within the scheme extent is categorised as Lowland Hill Ranges (LCT 382) with the following key characteristics:

- The Sidlaw and Ochil Hills comprise hard volcanic rocks which appear as relatively uniform ridgelines orientated southwest to northeast, contributing to the much wider strategic grain of landscape character defined by the Highland Boundary Fault geology;
- Recognisable shapes, peaks and slopes, and ridge profiles, the presence of which is emphasised by their location set within low lying agricultural landscape to the north and south;
- Short burns and rivers flowing from dramatic, short steep glens;
- Several large glens through the hills;
- Often distinctive and conspicuous scarp and dipslopes;
- Generally open medium scale landscapes of almost conical summits dominated by grass moorland and upland pasture;
- Sweeping patchwork of regular but not geometric patterns on the dipslopes;
- Some areas of extensive forestry;
- Occasional vertical features such as navigational and telecom masts, follies, and wind turbines which appear prominent in these elevated locations;
- Popular use for informal recreation by nearby large centres of population; and
- A sense of relative tranquillity.

Historic Environment Scotland's HLAMap has highlighted the surrounding landscape to consist largely of planned rectilinear fields and farms, with plantation identified in the wider area.

Various areas of woodland classified under the Ancient Woodland Inventory (AWI) are present in the surrounding area of the scheme, however none are directly adjacent to the A90 carriageway within extents. The closest area of woodland is Corbie Den (ID. 5737), an area of Long-Established (of plantation origin) woodland located approximately 300m east of the scheme.

Views to and from the road will be visually impacted for the duration of the works due to the presence of TM, plant, machinery and NRMM. However, there are only sporadic rural properties, with any visual impacts being temporary, and thus no

significant visual impacts are anticipated and 'Landscape and Visual Effects' has been scoped out requiring further assessment.

Biodiversity

NatureScot's Sitelink resource has identified one European designated site within 2km of the scheme, the River Tay Special Area of Conservation (SAC) (ID. 8366) located approximately 1.95km northeast of the scheme's northern extent.

The requirement for a Habitats Regulations Appraisal (HRA) was scoped out due to the like-for-like, non-intrusive nature of the resurfacing works, in combination with the general topography and distance from the works area, no likely significant effects are anticipated to the River Tay SAC. Please see the Description of main environmental impacts and proposed mitigation within the Biodiversity section for further information.

NBN Atlas, and Transport Scotland's Asset Management Performance System (AMPS) have not identified any Invasive Non-Native Species (INNS) within 1km of the scheme, however, the target species/injurious weeds of Rosebay willowherb *(Chamerion angustifolium)* and Common ragwort *(Jacobaea vulgaris)* were recorded within the nearside verge of the NB carriageway, and also beyond the southbound (SB) A90 carriageway boundary.

Various areas of woodland classified under the Ancient Woodland Inventory (AWI) are present in the surrounding area of the scheme, however none are directly adjacent to the A90 carriageway within extents. The closest area of woodland is Corbie Den (ID. 5737), an area of Long-Established (of plantation origin) woodland located approximately 300m east of the scheme.

There are no Tree Preservation Orders (TPOs) within or surrounding scheme extents.

The immediate surrounding area of scheme extents comprises of semi-improved grassland, agricultural land, semi-mature trees, and shrubs. The immediate surrounding habitat tends to be of low intrinsic value because the existing road verge is subject to cyclic maintenance e.g., grass cutting, weed control, tree, and shrub cut-back etc, and combined with the nature of the works being contained within the carriageway boundary and already engineered layers, a Preliminary Ecological Walkover (PEW) has been scoped out, with a desktop study deemed sufficient.

Please see *Road* Drainage and the Water Environment section below for a description of local water bodies surrounding the scheme.

Geology and soils

The scheme does not lie within or have connectivity to any Geological Conservation Review Sites (GCRS), geological Sites of Special Scientific Interest (SSSIs), or Local Geodiversity Sites (LGS) (Sitelink).

The local soil type of scheme extents is recorded as a combination of brown earths with a smaller area of humus-iron podzols within the southern scheme area (Scotland's Soils).

Bedrock within scheme extents is comprised of the sedimentary bedrock of the Dundee Flagstone Formation, formed between 419.2 and 393.3 million years ago (Mya) during the Devonian period (British Geological Survey Geology Viewer).

Superficial deposits comprise of the sedimentary deposits of till (Devensian – Diamicton) formed between 116 and 11.8 thousand years ago during the Quaternary period.

As a result of the works taking place strictly within made ground within the A90 carriageway boundary, it has been determined that the proposed project does not carry the potential to cause direct or indirect impact to geology or soils. As such, impact has been assessed as being 'no change' and has been scoped out of requiring further assessment.

Material assets and waste

The proposed works are required to resurface the worn carriageway with notable defects and reinstate road markings and studs. Materials used will consist of:

- Bituminous surfacing (TS2010, binder/base);
- Road marking materials (thermoplastic road marking paint) and studs;
- Vehicle fuel;
- Oil; and
- Lubricant.

Wastes are anticipated to be planings from the carriageway surface course, with no coal tar recorded from coring logs within the scheme extents. The Contractor is responsible for the disposal of road planings, and this will be registered in accordance with a Paragraph 13(a) waste exemption issued by the Scottish Environment Protection Agency (SEPA), as described in Schedule 3 of the Waste Management Licensing Regulations 2011.

This scheme is in excess of £350k and therefore a Site Waste Management Plan (SWMP) will be produced.

Noise and vibration

The scheme is located along a largely rural stretch of the A90. There are four residential properties located within 300m of the scheme, the closest being approximately 6m west of the carriageway boundary. No non-residential noise sensitive receptors (NSRs) are present within 300m of the scheme.

The works do not fall within a Candidate Noise Management Area (CNMA), as defined by the Transportation Noise Action Plan (Road Maps) Transportation Noise Action Plan (TNAP).

Scotland's Noise Map has indicated modelled day-evening-night noise levels (Lden) within the carriageway to be 70-75dB, with lower night-time noise levels (Lnight) of 60-65dB. Baseline noise levels are likely to be primarily influenced by vehicle traffic along the A90 and surrounding agricultural activities.

The AADF was estimated for the nearest traffic count point on the A90 carriageway located 2.3km north (site number: 80375), and accounted for 23,779 total vehicles, with 10.8% HGVs.

Population and human health

The carriageway surrounding the scheme extents connects various areas such as Forfar approximately 7km to the north, and Dundee approximately 7km to the south. These larger towns play host to medical practices, educational facilities, and basic amenity facilities such as shops and fuel garages.

Six residential properties are located within 500m of scheme extents, the closest Tarbrax House approximately 6m west of the carriageway boundary and lies directly adjacent to the carriageway, with no screening from the works area. Other identified residential receptors are set back from the carriageway, with partial screening due to the general distance from the works area and presence of vegetation.

Access/egress to three properties is gained from the carriageway within scheme extents, and includes:

- South Tarbrax;
- West Tarbrax; and
- Tarbrax House

One non-residential receptor is located within 500m, a holiday accommodation (Cosy Coo Shed) located approximately 450m east of the scheme.

There are no Angus Council Core Paths, or National Cycle Network (NCN) routes, or bridleways within the scheme, and the carriageway is not street-lit within this section.

A crossover point (NO 43528 41767) is present within scheme extents, and a parking layby and bus stop are located at NO 43561 41929, with the bus stop operating local services to Forfar, Stracathro and Kirriemuir.

TM will comprise of lane closures and an overnight convoy for the duration of the works period.

Road drainage and the water environment

The scheme is located within the Strathmore groundwater body (ID. 150681) which in 2021 had an overall classification of 'poor' (SEPA Water Environment Hub).

The Kerbet Water (ID: 6562) located approximately 185m north of the scheme has 'moderate ecological potential' under the Water Framework Directive (WFD) (SEPA Water Environment Hub).

The scheme is located within a Nitrate Vulnerable Zone (NVZ) within the Strathmore, Fife and Angus area.

Two unclassified watercourses are located within 500m of extents:

- Gallowfauld Burn flows under the A90 carriageway via a small culvert within scheme extents at NO 43580 41974.
- Corbie Burn located approximately 50m south.

A second culvert is located at NO 43617 42106 with an eastward flow under the A90 carriageway.

No areas of the carriageway have been identified as having an annual likelihood of surface water flooding, however, a section of the A90 just within the southernmost extent has a high likelihood (10% chance) of river flooding each year, from the Corbie Burn.

Various field drains are present in the immediate surrounding area, and drainage within scheme extents is provided by verge-side filter drainage and top-entry gullies.

Climate

The Climate Change (Scotland) Act 2009 sets out the target and vision set by the Scottish Government for tackling and responding to climate change (The Climate Change (Scotland) Act 2009). The Act included a target of reducing CO_2 emissions by 80% before 2050 (from the baseline year 1990). The Climate Change (Emissions Reduction Targets) (Scotland) Act 2019 amended the Climate Change (Scotland) Act 2009 to bring the target of reaching net-zero emissions in Scotland forward to 2045 (Climate Change (Emissions Reduction Targets) (Scotland) Act 2019).

The Scottish Government has since published its indicative Nationally Determined Contribution (iNDC) to set out how it will reach net-zero emissions by 2045, working to reduce emissions of all major greenhouse gases by at least 75% by 2030 (Scotland's contribution to the Paris Agreement: indicative Nationally Determined Contribution - gov.scot (www.gov.scot)). By 2040, the Scottish Government is committed to reducing emissions by 90%, with the aim of reaching net-zero by 2045 at the latest.

Transport Scotland is committed to reducing carbon across Scotland's transport network and this commitment is being enacted through the Mission Zero for Transport (Mission Zero for transport | Transport Scotland). Transport is the largest contributor to harmful climate emissions in Scotland. In response to the climate emergency, Transport Scotland are committed to reducing their emissions by 75% by 2030 and to a legally binding target of net-zero by 2045.

Policies and Plans

This Record of Determination (RoD) has been undertaken in accordance with Roads (Scotland) Act 1984 (Environmental Impact Assessment) Regulations 2017 (RSA EIA Regulations) along with Transport Scotland's Environmental Impact Assessment Guidance (Guidance – Environmental Impact Assessments for road projects (transport.gov.scot)). Relevant guidance, policies and plans accompanied with the Design Manual for Roads and Bridges (Design Manual for Roads and Bridges (DMRB)) LA 101 and LA 104 were used to form this assessment.

Description of main environmental impacts and proposed mitigation

Air quality

Construction activities associated with the proposed works have the potential to temporarily cause local air quality impacts surrounding the scheme location. Activities undertaken on site may cause dust and particulate matter to be emitted to the atmosphere and increased prolonged vehicle, plant and NRMM presence. However, taking into account the nature and scale of the works and the following mitigation measures, the risk of significant impacts to air quality are considered to be low, and will be for the duration of the works only.

- Best practice and measures as outlined in the 'Guidance on the assessment of dust from demolition and construction (January 2024)' published by the institute of Air Quality Management (IAQM), which includes the following mitigation relevant to this scheme will be followed:
  - Site layout will be planned (including plant, vehicles and NRMM) so that machinery and dust causing activities are located away from receptors, as far as reasonably practicable;
  - Materials that have a potential to produce dust will be removed from site as soon as possible, unless being re-used on site (cover or fence stockpiles to prevent wind whipping);
  - Cutting, grinding or sawing equipment will only be used when fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems;
  - Drop heights from conveyors and other loading or handling equipment will be minimised;
  - Vehicles entering and leaving the work area will be covered/sheeted to prevent escape of materials during transport;
  - Equipment will be readily available on site to clean any dry spillages, and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods; and
  - When not in use, plant, vehicles and NRMMs will be switched off and there will be no idling vehicles.
- All plant and fuel-requiring equipment utilised during construction will be well maintained to minimise emissions.
- Green driving techniques will be adopted, and effective route preparation and planning undertaken prior to works.
- Where possible, materials will be sourced locally.

Considering the nature, duration, size, and scale of the scheme, and with implementation of mitigation the proposed works impacts on local air quality levels during the construction period are assessed to be temporary negligible adverse in magnitude and therefore, in accordance with DMRB Guidance document LA 105: Air Quality no further assessment is required.

Cultural heritage

Despite records of cultural heritage features within 300m of scheme extents, there are no earthworks or land acquisition associated with the scheme, with original construction of the A90 carriageway likely to have removed any archaeological remains that may have been present. Therefore, the potential for the presence of unknown archaeological remains in the study area has been assessed to be low.

Furthermore, vibration levels will be similar to that during original construction of the A90 trunk road, and thus no significant impacts are anticipated to the identified listed building located adjacent to scheme extents. Works are confined to upper engineered layers of the carriageway and restricted to the carriageway boundary, on a like-for-like basis. The following best practice mitigation measures will be in place to reduce the risk of impacts to undiscovered features of cultural heritage interest, and existing identified features:

- Site operatives will be made aware of the location and sensitivity of the listed building feature at NO 43422 41518 prior to works commencing.
- Plant, machinery, NRMM and materials will be stored within the carriageway boundary as far as reasonably practicable, however, strictly not within the cultural heritage features identified. Where areas outwith the carriageway are to be accessed, it will be reduced as far as possible, and ideally limited to access on foot.
- If a change to the construction programme onsite is required that involves changes to scheme extents Amey's Environmental Team will be notified.
- Should any unexpected archaeological evidence be discovered, works will temporarily halt, and Amey's Environment Team contacted for advice.

Given the nature of the works, works area, and distance from identified cultural heritage features, no significant effects are predicted on cultural heritage. Therefore, in accordance with DMRB Guidance document LA 106: Cultural Heritage, no further assessment is required.

Biodiversity

Construction activities have the potential to have a temporary adverse impact on biodiversity in the area as a result of an increased vehicle presence and the potential

for disturbance to protected species within close surroundings; and potential to pollute habitats from noise and artificial lighting.

All works will be restricted to the A90 carriageway surface and will not entail any verge working or vegetation clearance. There are no earthworks, permanent (or temporary) land-take, accommodation works or site clearance, and there is no requirement to import topsoil. As such, there is limited potential to spread or introduce INNS or injurious flowering plant species.

The scheme is located 1.95km south of the River Tay SAC. The requirement for a HRA was scoped out due to the like-for-like, non-intrusive nature of the resurfacing works, in combination with the general topography and distance from the works area.

In addition, standard industry best practice will be implemented onsite throughout the construction period to mitigate potential impacts to surrounding species, in particular nocturnal species that may be impacted by the night works, and the local environment, including pollution prevention measures and control of INNS.

With the following mitigation measures in place, the risk of significant impacts on biodiversity are considered to be low:

- As part of the Network Management Contract (NMC) Amey, on behalf of Transport Scotland, keep records of various target species, including Rosebay willowherb and Common ragwort. Works will not cause the spread of such species, if works are likely to result in the spread of species through disturbance, Amey's Landscaping Team will be consulted.
- A 'soft start' will be implemented on site each day. This will involve switching on plant/vehicles simultaneously as opposed to instantaneously, to ensure a gradual increase in noise for minimal disturbance.
- Site lighting will be directional and aimed away from sensitive ecological receptors including trees and watercourses.
- Should a protected species be encountered or move on site, works will be temporarily halted until the animal has moved on, or until Amey's Environmental Team can provide advice.
- Amey's Environmental Team will be contacted if:
    - There are any sightings of protected species on, or within close surroundings of the active works area;
    - Unforeseen site clearance, or additional construction activities are required; or
    - INNS are found within the work area.
- Plant, vehicles, NRMM and materials will be contained within areas of made/engineered ground, and not parked/stored on grass verges as far as reasonably practicable. Reinstatement of any damaged areas will be undertaken (if required) upon completion of the scheme.

- Please see Road Drainage and the Water Environment section below for further mitigation measures in relation to pollution prevention and control.

With best practice mitigation measures in place, no significant effects are precited for biodiversity. Therefore, in accordance with DMRB Guidance document LA 108: Biodiversity no further assessment is required.

Material assets and waste

There is potential for impacts as a result of resource depletion through use and transportation of new materials. However, materials will be sourced locally where possible and the design life for the TS2010 surfacing proposed is estimated to be 20 years thus reducing the requirement for maintenance to this section of road over this period. The following mitigation measures will be put in place:

- Materials will be derived from recycled, secondary, or re-used origin as far as practicable within the design specifications to reduce natural resource depletion and associated emissions.
- Waste will be stored in suitable containers and covered.
- Where possible, different waste streams will be separated at the source.
- The waste hierarchy (Reduce, Reuse, Recycle and Dispose) will be employed throughout the construction works.
- Following on-site coring investigations and testing, no coal-tar was identified within the surfacing of the carriageway within the scheme extent. As such, road planings generated as a result of the works will be recovered in accordance with the criteria stipulated within SEPA document 'Guidance on the Production of Fully Recoverable Asphalt Road Planings' where possible.
- A SWMP will be prepared to include details on the quantity and type of waste produced, details of how the waste produced will be minimised, details of how materials unsuitable for reuse, recycling or recovery will be disposed of a comparison against the Scottish Government's targets for waste reduction and recycling and details of compliance with waste duty of care legislation.

With best practice mitigation measures in place, no significant effects are predicted Material Assets and Waste. Therefore, in accordance with DMRB Guidance document LA 110: Material Assets and Waste, no further assessment is required.

Noise and vibration

Construction activities associated with the proposed works have the potential to cause noise and vibration impacts through the use of equipment and construction vehicles for the proposed activities. The works will take place during night-time working hours. This potential disturbance will likely influence NSRs adjacent and

surrounding scheme extents, therefore will likely increase noise levels from ambient night levels.

The proposed scheme is anticipated to result in temporary minor adverse noise impacts. Operationally, TS2010 road surfacing is shown to have superior durability and noise reducing features compared to standard road surfacing mixes. Vehicle travellers and nearby local amenity users will benefit from improved road surfacing as a result of the scheme.

The following mitigation measures will be put in place:

- On-site construction tasks will be programmed to be as efficient as possible, with a view to limiting noise disruption to local sensitive receptors. The noisiest works will be undertaken before 23:00 where possible.
- Effects from noise will be kept to a minimum through the use of appropriate mufflers and silencers fitted to machinery. All exhaust silencers will be checked at regular intervals to ensure efficiency.
- A ‘soft start’ to works will be enforced, whereby plant/machinery/vehicles are started sequentially as opposed to simultaneously.
- Amey’s Noise and Vibration toolbox talk will be delivered to all site operatives before works start.
- A letter drop will be delivered to residents within 300m to notify them of upcoming works, TM, diversion routes, and works timings and duration.

With best practice mitigation measures in place, no significant effects are predicted for noise and vibration. Therefore, in accordance with DMRB Guidance document LA 111: Noise and Vibration and no further assessment is required.

Population and human health

During construction, activities undertaken on site may have temporary adverse impacts on local residents, vehicle travellers, and non-motorised road users (NMUs) as a result of construction presence, and associated noise and delays due to traffic management measures and local diversion routes. This will include longer journey times for those travelling within the surrounding area. Access/egress points to multiple properties are located within scheme extents, however local access will be granted where required.

With the following mitigation measures in place, the risk of significant impacts on population and human health is considered to be low:

- Where appropriate, a communication strategy will be implemented to keep local residents and/or businesses informed of the proposed working schedule,

particularly the times and durations of noisy construction activities. This will include:

  - Notification via a letter drop will be issued to local residents prior to commencement of the works, in particular due to night time programming and road restrictions;
  - Pre-construction notice of the works and journey planning via social media and on approach to scheme extents.

- Construction lighting will consider the need to avoid illuminating surrounding properties to avoid a nuisance at night, and non-essential lighting will be switched off at night.
- Angus Council's Environmental Health Team have been contacted to notify of night-time programming.
- Discussions will be made with local transport authorities/operators to discuss alternative stops will the existing bus stop be temporarily impacted.

With best practice mitigation measures in place, no significant effects on population and human health are predicted. Therefore, in accordance with DMRB Guidance document LA 112: Population and Human Health, no further assessment is required.

Road drainage and the water environment

During resurfacing works, there is potential for temporary impacts on the water environment. Potential changes in water quality from pollution events (either by accidental spillage of sediments, particulate matter, chemicals, fuels or by mobilisation of these in surface water) during works could have a direct or indirect effect on the surrounding water environment. The following mitigation measures will be put in place to reduce the risk of pollution incidents as a result of works:

- All operatives working on site will be informed of the location and sensitivity of the surrounding watercourses prior to works commencing, in particular the Gallowfauld Burn which culverts scheme extents.
- Prior to works commencing, all operatives will be briefed on SEPA's Guidance for Pollution Prevention (GPP) documents (particularly GPP 1, GPP 2, GPP 5, GPP 6, GPP 8 and GPP 21 and 22 and 26).
- The Contractor will implement measures to minimise the risk of debris, dust, sediment, accidental spillages entering the road drainage system. This can be via the use of drain covers or similar to ensure full segregation of the works from the road drainage system.
- All debris which has the potential to be suspended in surface water and wash into the local water environment will be cleaned from the site both during and following the works.
- All site operatives will be made aware of site spillage response procedures and in the event of a spill all works associated with the spill will stop, and the incident

reported. Spill kits will also be available within all site vehicles and spill kits will be replenished onsite when required.

- The Amey control room will be contacted if any pollution incidences occur (24 hours, 7 days a week), on 0800 083 0084.
- In the event of a 'serious incident,' SEPA will be notified without delay.
- Weather reports will be monitored prior to and during the works with all construction activities temporarily halting in the event of adverse weather/flooding event.
    - The works will only continue when it is deemed safe to do so and run-off/drainage can be adequately controlled to prevent pollution.
- All storage areas (of waste, fuels, plant, vehicles and NRMM) where required will be located:
    - Away from areas that see high vehicular movement (as far as reasonably practicable) to prevent damage by collision or extremes of weather; and
    - More than 10m away from any identified connectivity (including road drainage and culverts) to the identified watercourses, and all oils/fuels returned to hardstanding storage areas after use.
- If fuel/oil requires onsite storage, bunds are to be provided around bulk storage to a capacity of 110% of the stored fuel/oil.
- Amey's Water Pollution Prevention toolbox talk will be delivered daily to site operatives prior to works commencing.

With the above mitigation measures in place, it is anticipated that any road drainage and the water environment effects associated with the proposed works are unlikely to be significant. Therefore, in accordance with DMRB Guidance document LA 113: Road drainage and the water environment no further assessment is required.

Climate

Construction activities associated with the proposed works have the potential to cause local air quality impacts as a result of the emission of greenhouse gases through the use of vehicles and machinery, material use and production, and transportation of materials to and from site. The following mitigation measures will be put in place:

- Where possible, materials and suppliers will be sourced locally to reduce greenhouse gas (GHG) emissions associated with travel distance, materials movement, and waste will be disposed at local landfill.
- Further actions and considerations for this scheme are detailed in the above *Material Assets and Waste* section.

With best practice mitigation measures in place, the residual significance of effect on climate is considered to be neutral. Therefore, in accordance with DMRB Guidance document LA 114: Climate, no further assessment is required.

Major Accidents and Disasters

Works are restricted to the like-for-like replacement within the carriageway boundary and thus there will be no change in vulnerability of the road to risk, or in severity of major accidents/disasters that would impact on the environment.

TM will comprise of lane closures and an overnight convoy system, with the overall vulnerability of the project to risks of major accidents and disasters considered to be low.

Assessment cumulative effects

During construction, activities associated with the works may create several types of minor temporary disturbances such as changes to noise and vibration and air quality. However, these impacts will be temporary in nature and are not anticipated to result in a significant cumulative effect.

A search of the Scottish Road Works Commissioner's Interactive Map and Angus Council's Planning Portal has not highlighted any works or relevant proposed developments or planning applications during the proposed timescale at the location of the works.

Amey's current programme of works has not highlighted any other works on the A90 that will be undertaken in conjunction with the scheme.

Any future schemes will be programmed to take into account already programmed works, and as such any effect (such as from TM arrangements and potential construction noise) will be limited.

Assessments of the environmental effects

As detailed in the Description of Main Environmental Impacts and Proposed Mitigation section within this Record of Determination, there are no significant effects anticipated on any environmental receptors as a result of the proposed scheme.

The following environmental surveys/reviews have been undertaken:

- An Initial Environmental Review of the scheme, undertaken by the Amey Environment and Sustainability Team in March 2024.

Statement of case in support of a Determination that a statutory EIA is not required

This is a relevant project in terms of section 55A(16) of the Roads (Scotland) Act 1984 as it is a project for the improvement of a road and the completed works (together with any area occupied by apparatus, equipment, machinery, materials, plant, spoil heaps, or other such facilities or stores required during the period of construction) exceed 1 hectare in area.

The project has been subject to screening using the Annex III criteria to determine whether a formal Environmental Impact Assessment is required under the Roads (Scotland) Act 1984 (as amended by The Roads (Scotland) Act 1984 (Environmental Impact Assessment) Regulations 2017). Screening using Annex III criteria, reference to consultations undertaken and review of available information has not identified the need for a statutory EIA.

The project will not have significant effects on the environment by virtue of factors such as:

Characteristics of the scheme:

- Construction activities are restricted to the existing carriageway boundary within made ground and as such there will be no residual change to the local landscape as a result of the works.
- No in-combination effects have been identified.
- Works are not expected to result in significant disturbance to protected species that may be present in the wider area.
- The risk of major accidents or disasters is considered to be low.

- As the works will be limited to the like-for-like replacement of the structural components, there is no change to the vulnerability of the road to the risk or severity of major accidents/disasters that would impact on the environment. No impacts on the environment are expected during the operational phase as a result of works.
- By removing the carriageway defects this will provide this part of the A90 carriageway with another life cycle, and significantly improve the ride quality, which will result in safer conditions, and positive operational impacts for road users.

Location of the scheme:

- Works are not located within an area designated for its specific landscape character or quality.
- The scheme is not situated in whole or in part in a sensitive area.
- The scheme will be confined within the existing carriageway boundary and as a result will not require any land take or alter any local land uses or habitats.
- Any impacts to the local landscape during the construction phase will be minor, temporary and not considered significant. In addition, no operational adverse impacts are anticipated.

Characteristics of potential impacts of the scheme:

- Containment measures of the working area will be in place to prevent debris or pollutants from entering the surrounding environment.
- Any potential impacts of the works are expected to be temporary, non-significant, and limited to the construction phase.
- Measures will be in place to ensure appropriate removal and disposal of waste.
- In the event that INNS are found on site, measures to prevent potential INNS spread will be implemented.
- No in-combination effects have been identified.

Annex A

"sensitive area" means any of the following:

- land notified under sections 3(1) or 5(1) (sites of special scientific interest) of the Nature Conservation (Scotland) Act 2004
- land in respect of which an order has been made under section 23 (nature conservation orders) of the Nature Conservation (Scotland) Act 2004
- a European site within the meaning of regulation 10 of the Conservation (Natural Habitats, &c.) Regulations 1994
- a property appearing in the World Heritage List kept under article 11(2) of the 1972 UNESCO Convention for the Protection of the World Cultural and Natural Heritage
- a scheduled monument within the meaning of the Ancient Monuments and Archaeological Areas Act 1979
- a National Scenic Area as designated by a direction made by the Scottish Ministers under section 263A of the Town and Country Planning (Scotland) Act 1997
- an area designated as a National Park by a designation order made by the Scottish Ministers under section 6(1) of the National Parks (Scotland) Act 2000.

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Published by Transport Scotland, April 2024

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