



**TRANSPORT
SCOTLAND**
CÒMHDHAIL ALBA

Environmental Impact Assessment Record of Determination

A78 Meadowhead Roundabout to Newhouse Northbound

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Project Details

Description

Resurfacing works are required to maintain the safety and integrity of the northbound (NB) section of the A78 between Irvine and Troon, in North Ayrshire, covering a total area of 2 hectares (ha). The works are required due to a range of existing structural defects on the carriageway, including rutting, alligator cracking and longitudinal cracking.

Construction activities and the associated plant and machinery required are as follows:

- Implementation of Traffic Management (TM) and marking out site (TM plant);
- Removal of existing surfacing and milling to agreed depths (planer, wagon, lorries);
- Resurfacing to the existing road levels using TS2010 aggregate, AC binder, AC base (paver, roller);
- Reinstatement of road markings, linings, and studs (lorries/wagons and plant); and,
- Removal of TM.

In addition to structural inlays, drainage channel and gully clearing will be undertaken as well as kerbing clearing on the roundabout and traffic sign upgrades.

The proposed construction is programmed to be undertaken and completed within the 2026-2027 financial year during nighttime hours over a period of approximately nine nightshifts.

Traffic Management will consist of overnight full closures with a diversion route for mainline works utilising Meadowhead Avenue. Works occurring around the roundabout will require two-way traffic lights.

Location

This resurfacing scheme is being undertaken along the A78 NB carriageway, between Irvine and Troon, in North Ayrshire. The scheme extents are identified by the following National Grid References (NGRs) (Figure 1):

- Scheme Start - NS 33588 34603
- Scheme End - NS 33168 35939



Figure 1: Scheme Location Map

Description of local environment

Air quality

This scheme is being undertaken along the A78 NB carriageway, between Irvine and Troon, in North Ayrshire. The immediate scheme extents are bordered by soft grass verges and dense mixed woodland on both the NB and southbound (SB) sides of the carriageway. The surrounding area comprises industrial buildings to the east and open green space, including Dundonald Links Golf Course to the west.

There is only one residential property located within 200m of the scheme extents, this being Castleview House located approximately 107m west of the scheme extents along Auchengate Crescent. The only other notable air quality receptor is Dundonald Links Golf Course located 200m west of the proposed works.

Baseline air quality in the area is primarily influenced by traffic on the on the A78 road network, combined with industrial activities in the wider area. [Manual count point 80225](#), located within the scheme extents along the A78, recorded that in 2024, the Annual Average Daily Flow (AADF) for all vehicles was 19,250, of which 830 (4%) were Heavy Goods Vehicles (HGVs).

According to the [Scottish Pollutant Release Inventory \(SPRI\)](#), the following sites are located within 1km of the proposed works location:

- Shewalton Landfill Area 2 and 4/5 Irvine, Waste and Waste-Water Management Site is located approximately 1km north of the works;
- Meadowhead Sewage Treatment Works Irvine, Waste and Waste-Water Management Site is located approximately 690m east of the works, and;
- Caledonian Paper Mill, Shewalton Irvine, Paper and Wood Production and Processing Site is located approximately 200m east of the scheme extents.

North Ayrshire Council have not designated any [Air Quality Management Areas \(AQMAs\)](#) and no [Air Quality Monitoring Stations](#) are located within 200m of the works area.

Cultural heritage

A desk-based assessment has been undertaken using [Pastmap](#) online mapping tool. The study area covered a 300m radius for designated cultural heritage assets and a 200m radius for non-designated cultural heritage assets.

There are no designated cultural heritage assets located within 300m of the works or any Conservation Areas located within 200m of the scheme extents.

Full details of non-designated assets can be found in Table 1.

Table 1: Non-Designated Cultural Heritage Assets within 200m

NAME	REFERENCE NUMBER	DESCRIPTION	DISTANCE FROM SCHEME
Shewalton Moor	97368	National Record of Historic Environment (NRHE) - Axehead(S) (Stone) (Period Unassigned)	Approx. 130m west of the scheme extents

Landscape and visual effects

Landscape

The immediate scheme extents are bordered by soft grass verges and dense mixed woodland along both the NB and southbound (SB) sides of the carriageway. The surrounding area comprises industrial buildings to the east and open green space, including Dundonald Links Golf Course to the west.

RAF Fullerton (Former) Historical Landmark is located 110m west of the scheme extents. This asset is not formally designated. There are no distinctive cultural landscape or historical landscape features within the scheme extents.

According to [Scotland's Environment Web](#), no landscape designations, including Ancient Woodlands, National Scenic Areas (NSAs) or any Gardens and Designed Landscapes, are situated within 500m of the proposed scheme extents.

There are also no [Tree Preservation Orders \(TPOs\)](#) located within 500m of the works.

A search on [Scotland's Landscape Character Type \(LCT\) Map](#), has identified that the LCT within the scheme extents can be classed as '[66 - Agricultural Lowlands - Ayrshire](#)' characterised by complex landforms, gently increasing in height from the coastal fringe, dissected by many burns and streams draining to incised main river

valleys to create an undulating lowland landscape. There are also a number of larger towns and villages with historic cores surrounded by more modern development.

[Scotland's Historic Land Use Assessment \(HLA\) Map](#) has identified that the land within the scheme extents has been previously used as '[Motorway and Major Roads](#)'. This modern transport systems have focussed on the construction and extension of multi-laned motorways, with their associated service stations. Providing links between major cities, they cover considerable areas of land. The land surrounding the scheme extents can be classed as a mixture of '[Industrial and Commercial Area](#)' and '[Leisure and Recreation - Golf Course](#)'.

Visual

Given the presence of mixed woodland vegetation along both sides of the carriageway, the proposed works are not expected to be visible from any residential properties or community facilities.

Transient visual receptors include road users (motorists, public transport users) travelling along the A78, who will experience brief views of the scheme. Typically, the views from the carriageway are pockets of woodland, with community area in the wider surroundings.

The following [core paths](#) can be found within 300m of the works:

- A78 Overpass - Barassie Gateside Bridge (ID: IK21) is located approximately 37m west of the scheme extents;
- Meadowhead/Shewalton (ID: IK42) is located approximately 58m east of the scheme extents, and;
- Gales Lodge - Overpass at A78 (ID: IK20) is located 209m north of the scheme extents.

[National Cycle Network Route 7](#) is located approximately 58m east of the scheme extents at the closest point. This route is in sections between Sunderland and Inverness, forming parts of the famous Sea to Sea (C2C) cycle route. This route aligns with Core Path Meadowhead/Shewalton (ID:IK42). Users of this route may also have views of the works.

Biodiversity

Protected Areas

A desktop study was undertaken using NatureScot's online research tool [Sitelink](#). This review confirmed that no European designated sites are located within, or have potential connectivity to, the proposed works area within a 2km radius. In addition, there are no national designations, such as Sites of Special Scientific Interest (SSSI) Local or National Nature Reserves, within 200m of the scheme extents.

There are also no [Tree Preservation Orders \(TPOs\)](#) located within 500m of the works.

Watercourses

Please see Road drainage and the water environment section for details.

Field survey

As the works will take place within the carriageway verges, a competent Amey ecologist determined that a field survey was required. This survey was undertaken on 3rd March 2026.

Invasive plants

The [NBN Atlas](#) has highlighted that the following target species and Invasive Non-Native Species (INNS) have historically been recorded within 500m of the works:

- Creeping thistle (*Cirsium arvense*);
- Japanese knotweed (*Fallopia japonica*);
- Rosebay willowherb (*Chamerion angustifolium*);
- Japanese rose (*Rosa rugosa*), and;
- Common ragwort (*Jacobaea vulgaris*).

Transport Scotland's Asset Management Performance System (AMPS) has previously recorded the presence of both rosebay willowherb and common ragwort along the NB carriageway of the A78 within the scheme extents.

Geology and soils

Geology

There are no Geological Conservation Review Sites (GCRS), Local Geodiversity Sites or any Geological SSSIs that have connectivity or are within 200m of the scheme extents as noted by [NatureScot's Sitelink](#).

According to [Britain's Geology Viewer](#), the geology along the A78, within the scheme extents, consists of the following:

Bedrock Geology

- Scottish Middle Coal Measures Formation-Sedimentary rock cycles, Coal Measure type. These sedimentary rocks are fluvial, palustrine and shallow-marine in origin. They are detrital, forming deposits reflecting the channels, floodplains and deltas of a river in a coastal setting (with periodic inundation from the sea).
- Troon Volcanic Member-Olivine-macrophyric basalt. These igneous rocks are volcanic (extrusive) in origin. Poor in silica, they form fluid flows of lava with feeder dykes and sills.

Superficial Deposits

- Raised marine deposits of Holocene age-Clay, silt, sand and gravel. These sedimentary deposits are shallow-marine in origin. They are detrital, generally coarse-grained forming beaches and bars in a coastal setting.

Soils

According to [Scotland's Soils Map](#), the component soil located within the scheme extents can be identified as 'Brown earths' derived from Carboniferous rocks with some Old Red Sandstone material which can be found on raised beach terraces and mounds with gentle slopes.

Land use

The [national scale land capability for agriculture](#) has been classed as both '3.1' and '3.2'. The classification, '3.1', dominates the scheme extents with this land capable of producing consistently high yields of a narrow range of crops and/ or moderate yields of a wider range. Short grass leys are common.

Metcalf Place, Old West [Landfill Site](#) is located approximately 721m northeast of the scheme extents.

Material assets and waste

Materials

Materials required are detailed within Table 2 below.

Table 2: Key Materials Required for Activities

Activity	Materials Required	Sources
Construction	<ul style="list-style-type: none"> • Fuel; • Road paint; • Road studs; • Traffic signs; • TS2010 surface course; • AC20 bituminous binder, and; • AC32 bituminous base. 	<ul style="list-style-type: none"> • TS2010 Surface Course allows a wider array of aggregate sources to be considered when compared to typical Stone Mastic Asphalt (SMA). As a result, the use of TS2010 will reduce the usage of imported aggregates and increase the use of a wider range of sustainable aggregate sources. • A proportion of reclaimed asphalt pavement (RAP) is used in asphalt production. Typical RAP values for base and binder are 10% -15% with up to 10% in surface course. • Some material may be derived from primary resources, such as the road paint.

Resurfacing will utilise warm-mix asphalt as it requires less heat, reducing energy use, making it more environmentally friendly in comparison to hot mix asphalt.

Materials will be obtained from recycled, secondary, or re-used origin as far as practicable within the design specifications to reduce natural resource depletion and associated emissions. For example, the binder and base courses used for resurfacing will contain a percentage of recycled material.

Wastes

Anticipated wastes from the proposed works are listed in Table 3 below.

Table 3: Waste Material Produced

Activity	Waste Produced	Disposal
Construction	<ul style="list-style-type: none"> • Road studs; • Old road signs; • Debris from gully and kerbing clearing; • Road paint, and; • Asphalt planings. 	<ul style="list-style-type: none"> • All waste will be disposed of following regulations of the Environmental Authorisation (Scotland) Regulations 2018 (EASR). • However, where planings meet SEPA's criteria, they will be fully recycled.

A Site Waste Management Plan (SWMP) will be prepared prior to the commencement of works to outline how resources will be managed and how waste generated throughout the scheme will be controlled. As the scheme value exceeds £350,000, an SWMP is required and will support the reduction of waste production, helping to minimise the volume of material sent to landfill.

Coal tar was not identified during investigation stages.

Noise and vibration

There are approximately five residential properties located within 300m of the scheme extents, with the closest being Castleview House located 107m west of the scheme extents along Auchengate Crescent. The only other sensitive noise and vibration receptor is Dundonald Links Golf Course, located 200m west of the proposed works area.

Baseline noise and vibration levels in the area are primarily influenced by traffic on the A78 road network, alongside industrial activities in the wider area. Data from [Manual count point 80225](#), located within the scheme extents, recorded an AADF all 19,250 vehicles in 2024, of which 830 (4%) were HGVs.

According to [Scotland's Noise Map](#), modelled day-time noise levels (L_{day}) in the areas surrounding the carriageway show levels of around 58-60dB and within the proposed works approximately 70-71dB. Nighttime noise level (L_{night}) in the areas surrounding the carriageway show levels of around 50-56dB and within the proposed works 60-63dB.

The works do not fall within a Candidate Noise Management Area (CNMA) as highlighted by [Transport Scotland's Transportation Noise Action Plan \(TNAP\) \(2024-2028\)](#).

Population and human health

Given the nature of the proposed scheme, a reduced buffer of 300m has been applied when considering Population and Human Health impacts and associated mitigation.

The scheme is located along the A78 NB carriageway, in North Ayrshire. This section of the A78 connects towns such as Irvine and Troon and forms part of the wider network leading toward larger settlements such as Glasgow. Irvine contains a range of community facilities, including educational facilities and recreational areas, with a greater diversity of such facilities present within Glasgow.

There are approximately five residential properties located within 300m of the scheme extents, the closest being Castleview House, located 107m west of the scheme extents along Auchengate Crescent. Given the existing mixed woodland vegetation along both carriageways, the works are not expected to be visible from any residential properties. There are no direct access or egress points to residential properties within the scheme extents.

Key community assets located within 300m of the proposed works include the following:

- Dundonald Links Golf Course located 200m west of the proposed works area;
- Meadowhead Industrial Estate is located approximately 50m west of the scheme extents;
- AquaPaddle Irvine Sports Club is located 162m east of the scheme extents, and;
- Shewalton Water Swimming Lake located approximately 100m east of the scheme extents.

There are no footways, streetlights or bus stops located within the scheme extents of the proposed works area. One layby is located adjacent to the A78 NB carriageway of the scheme extents; this is located at NGR NS 33311 35512.

[Ayrshire Coastal Path](#) is located approximately 80m east of the scheme extents. This route runs from Skelmorlie to Glenapp. The following [core paths](#) can be found within 300m of the works:

- A78 Overpass - Barassie Gateside Bridge (ID: IK21) is located approximately 37m west of the scheme extents;
- Meadowhead/Shewalton (ID: IK42) is located approximately 58m east of the scheme extents at the closest point, and;
- Gales Lodge - Overpass at A78 (ID: IK20) is located 209m north of the scheme extents.

[National Cycle Network Route 7](#) is located approximately 58m east of the scheme extents at the closest point. This route is in sections between Sunderland and Inverness, forming parts of the famous Sea to Sea (C2C) cycle route. This route aligns with Core Path Meadowhead/Shewalton (ID: IK42).

There are no [bridleways](#) located within 300m of the works.

Road drainage and the water environment

Surface water

There are no classified watercourses located within 500m of the scheme extents according to [SEPA's Water Classification Hub](#).

There are three unnamed, unclassified ponds situated within 250m of the proposed works area, the closest of which is located approximately 93m to the west.

The scheme is also bordered by several small unclassified tributaries, most of which are unnamed. The only identified watercourse is Montgomerie Burn, located approximately 414m west of the works.

Drainage along the scheme extents of the A78 consists of gullies, filter stones and catchpits.

Flood risk

[SEPA's Flood Risk Map](#) indicates that certain localised areas within the scheme extents are expected to face a low to high probability (0.1–10%) of surface water flooding each year.

Groundwater

Groundwater within the scheme area includes the Kilmarnock groundwater body (ID: 150662), which is classified as having overall poor quality, and the Prestwick and Irvine Coastal groundwater body, which is classified as having overall good quality according to the [Water Framework Directive \(WFD\)](#).

The works do not fall within a [Nitrate Vulnerable Zone \(NVZ\)](#) as classified by the Scottish Government. There are no [Drinking Water Protected Zones \(Surface\)](#) within 500m of the works.

Climate

Carbon Goals

The Climate Change (Scotland) Act 2009, as amended by the [Scottish Carbon Budgets Amendment Regulations 2025](#) sets out the statutory framework for reducing greenhouse gas (GHG) emissions in Scotland. The prior annual and interim targets have been replaced by five-year carbon budgets, which sets limits on the amount of GHGs that can be emitted in Scotland.

The proposed carbon budgets are aligned with advice from the UK Climate Change Committee (CCC) and calculated in accordance with the 2009 Act. The 2025 Regulations define the baseline years for emissions reductions as 1990 for greenhouse gases including carbon dioxide, methane, and nitrous oxide, and 1995 for others such as hydrofluorocarbons, perfluorocarbons, and sulphur hexafluoride (as set out in Section 11 of the Act). The budgets are as follows:

- 2026 - 2030: Average emissions to be 57% lower than baseline.
- 2031 - 2035: Average emissions to be 69% lower than baseline.
- 2036 - 2040: Average emissions to be 80% lower than baseline
- 2041 - 2045: Average emissions to be 94% lower than baseline.

These budgets are legally binding and will be supported by a new Climate Change Plan, which will outline the specific policies and actions required to meet the targets.

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

Amey's Company Wide Carbon Goal is to achieve Scope 1 and 2 net-zero carbon emissions, with a minimum of 80% absolute reduction on our emissions by 2035. Amey is aiming to be fully net-zero, including Scope 3 emissions, by 2040.

Amey are working towards a contractual commitment to have carbon neutral depots on the South West Network Management Contract (SW NMC) network by 2028. Amey have set carbon goals for the SW NMC contract as a whole to be net-zero carbon by 2032.

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

Impacts

- TM implemented during the scheme may result in an increase in vehicle emissions through idling vehicles and increased congestion. This may result in a temporary deterioration in local air quality.
- During construction, including removal of the road surface, there is the potential for an increase in dust and emissions from plant and machinery and an increase in airborne particulate matter. This is likely to cause a slight deterioration in air quality within the local area.
- Residents along the diversion route roads, specifically those along Lochgreen Avenue, may experience a deterioration in air quality due to the increased volume of traffic.
- The impacts identified will be temporary for the duration of the works only and therefore no permanent change is predicted on air quality.
- Post construction, there will be no change to the traffic volume, vehicle speeds or road alignment as the works are like-for-like resurfacing.

Mitigation

Mitigation measures will follow best practice from the Institute of Air Quality Management (IAQM), from the '[Guidance on the assessment of dust from demolition and construction](#)' (2024), including:

- Site layout will be planned (including plant and vehicles) 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, such as excavated material, will be removed from site as soon as possible, unless being re-used on site;
- 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.

The following additional mitigation measures will be implemented:

- Green driving techniques will be adopted, and effective route preparation and planning undertaken prior to works.
- Plant, vehicles and Non-Road Mobile Machinery (NRMM) will be regularly maintained, paying attention to the integrity of exhaust systems to ensure such fuel operated equipment is not generating excessive fumes.

No significant effects are anticipated and therefore no further assessment in accordance with DMRB Guidance document LA 105: Air Quality is required.

Cultural heritage

Impacts

- There are no designated cultural heritage features within the scheme extents, and no land acquisition is required.
- The non-designated assets listed in Table 1 are not expected to be impacted, as the works involve like-for like resurfacing with a transient short construction duration. Additionally, the original construction of the A78 is likely to have removed any archaeological remains. Overall, the potential for uncovering new assets is considered low.

Mitigation

The following mitigation measures will be in place throughout the period of works:

- All plant and machinery will be stored within the carriageway boundary where practicable.
- If any archaeological finds are discovered, the works will be suspended, and the relevant stakeholders will be contacted.

No significant effects are anticipated to cultural heritage. Therefore, in line with DMRB Guidance document LA 106: Cultural Heritage, no further assessment is required.

Landscape and visual effects

Impacts

- There will likely be a short-term impact on the landscape character and visual amenity of the site as a result of the presence of construction plant, vehicles, and TM.
- Views from the carriageway will be temporarily affected during construction due to the presence of works, TM and plant.

Mitigation

- Throughout all stages of the works, the site will be kept clean and tidy, with materials, equipment, plant and wastes appropriately stored, reducing the landscape and visual effects as much as possible.
- Plant, vehicles, and materials will be contained to hardstanding areas within the carriageway boundary (as far as reasonably practicable). Should damage to the landscape occur, reinstatement will be carried out.

With mitigation measures and best practice in place, it is anticipated that any landscape and visual effects associated with the works will not be significant. Therefore, in accordance with DMRB Guidance document LA 107: Landscape and Visual Effects, no further assessment is required.

Biodiversity

Impacts

- Works will be confined to the carriageway boundary and immediate verges. As such, there is potential to spread or introduce INNS or target species.
- The ponds located within proximity to the extents of the scheme pose a potential pathway to pollute aquatic habitats, particularly during milling operations and periods of heavy rainfall (see Road Drainage and the Water Environment section for further details).
- Any misdirected temporary lighting and increased noise from construction activities may impact species present in the area.
- An increase in noise levels and misdirected site lighting has the potential to disturb any protected species nearby.
- Protected species may be impacted by the works in the absence of mitigation measures.

Mitigation

- If protected species are encountered, works will be paused and advice sought from Amey's Environmental Team.
- As part of the Network Management Contract (NMC), Amey, on behalf of transport Scotland, has been asked to keep a record of various target species, including rosebay willowherb and common ragwort. Verge works will be undertaken; however, they will be limited in extent as far as reasonably practicable to prevent the spread of INNS and target species and limit disturbance.
- Due to night-time programming, where lighting is required, hoods will be used and lights directed at works and away from ecological receptors including any woodland areas and watercourses, to minimise disturbance to nocturnal species.
- 'Soft start' techniques will be utilised with noise heavy equipment/plant/machinery in order to avoid disturbance to any potential noise sensitive species present in the area.
- Vehicles and materials will not be stored or parked on grass verges where possible. Where damage occurs, the reinstatement of the grass verge will be carried out.
- As works are to commence during breeding bird season (March to August inclusive) any activities which are to occur within 5m of vegetation will require a suitably qualified/experienced ecologist to assess whether a nesting bird check is required prior to works commencing. If it is deemed that a nesting bird check is required, nesting bird checks will be undertaken within 48 hours prior to any vegetation clearance works taking place.

With the above mitigation measures and best practice being adhered to, no significant effects on biodiversity are anticipated. Therefore, in accordance with DMRB Guidance document LA 108: Biodiversity, no further assessment is required.

Geology and soils

Impacts

- All works are contained to the engineered layers of the existing carriageway and immediate verges, resulting in limited potential for soil disturbance.
- There is a potential for soils from accidental spills or leaks of fuels and oils from construction plant and machinery. However, with mitigation in place the impact is considered minor and temporary.

Mitigation

- See additional pollution mitigation measures in the *Road Drainage and Water Environment* section below.
- Spill kits will be present on site and all operatives will be fully trained in their use. Any fuels or chemicals required for use will be stored securely with drip trays used appropriately and stored under any chemical or fuel containers.
- Where damage to soil occurs from vehicles stored and parked on the verge of the carriageway, the reinstatement of the grass verge will be carried out. Amey's Landscape Team will be contacted for specifications.

With mitigation measures in place, no significant effects are anticipated on geology and soils. Therefore, in line with DMRB Guidance document LA 109: Geology and Soils no further assessment is required.

Material assets and waste

Impacts

- Transportation and recovery of materials/waste will require energy deriving from fossil fuel, a non-renewable source.
- The design life for the TS2010 surfacing proposed is estimated to be 20 years. This will reduce the requirement for maintenance to this section of road over the period.
- There is potential for the works to contribute to resource depletion through use of transportation of primary materials such as aggregates.
- While WMA provides energy and emissions benefits, HMA provides long-term durability, extending the design life of the carriageway and reducing the frequency of future resurfacing interventions.

Mitigation

- 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. Where possible all materials will be reused throughout the network, if not possible they will be recycled locally at a suitably licenced waste management facility.
- Use of TS2010 will reduce the usage of imported aggregates and increase the use of a wider range of sustainable aggregate sources thus reducing GHG emissions.
- Materials will be delivered on site when required.

- A SWMP will be prepared, due to the value of the scheme being greater than £350,000. This will help control and reduce the amount of waste produced, resulting in less landfilled waste.
- The Contractor is responsible for the management and disposal of road planings arising from the works. All waste will be managed in accordance with the [Environmental Authorisations \(Scotland\) Regulations 2018](#), under the relevant SEPA waste authorisation for recovery, reuse or disposal. For example, road planings will be prioritised for recovery or reuse, through recycling into new asphalt, in line with the waste hierarchy.
- Waste will be transferred to SEPA-authorized facilities by carriers with valid waste carrier registration. A waste transfer note (WTN) will be completed for removal of waste from site and retained for two years, in line with statutory Duty of Care requirements.

It has been determined that the proposed project will not have direct or indirect significant effects on the consumption of material assets or creation of waste. Therefore, in accordance with DMRB Guidance document LA 110: Material Assets and Waste, no further assessment is required.

Noise and vibration

Impacts

- Noise and vibration levels are expected to increase during nighttime construction hours for properties within 300m of the scheme. This is due to the use of heavy plant and machinery, such as rollers, and increased HGV movements. However, these levels are not anticipated to significantly exceed existing ambient conditions or cause notable disturbance.
- TS2010 road surfacing offers enhanced durability and noise reducing properties compared to standard surfacing materials. As a result, both road users and nearby receptors are expected to benefit from the improved surface quality over the long term.
- Post-construction, the works are not expected to alter existing baseline noise levels for any sensitive receptors.

Mitigation

Mitigation measures follow Best Practicable Means as outlined in British Standard (BS) 5228:2009+A1:2014. The standard provides specific detail on suitable measures for noise control in respect to construction operations, for example:

- 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 in place, whereby plant/machinery/vehicles are started sequentially as opposed to simultaneously.
- The site supervisor will monitor the effects of noise and vibration levels during the works and make necessary working arrangements.

The following further mitigation measures related to noise and vibration will be in place:

- Amey's Environmental Team has notified North Ayrshire Council in advance of the works.
- A letter drop will be delivered to residents within 300m to notify them of upcoming works, timings and duration.
- Amey's environmental briefing on Noise and Vibration will be delivered to site operatives prior to construction.

With best practice mitigation measures in place, and due to the works being of a minor, transient nature, no significant effects are predicted for noise and vibration. Therefore, in accordance with DMRB Guidance document LA 111: Noise and Vibration, no further assessment is required.

Population and human health

Impacts

- TM has potential to cause temporary levels of disruption to road users (i.e. congestion and increased travel times).
- Land take is not required for this scheme therefore there will be no impact as a result of permanent or temporary land acquisition from private land, businesses, agriculture, Walkers, Cyclists or Horse riders (WCH) and/or community facilities as a result of the scheme.
- Access to residential properties will not be impacted by the works significantly.
- As works will be contained within the carriageway boundary, the core paths mentioned above are unlikely to be impacted.
- As the works are scheduled to occur during nighttime hours, the community facilities identified above are not expected to experience any significant impacts due to their limited use during this period.

Mitigation

- Local residents and road users will be informed of traffic management restrictions/arrangements and any expected travel delays will be publicised within the local and wider area, in an effort to minimise disturbance to vehicular travellers.
- Site specific control measures regarding noise and vibration, landscape and visual effects and air quality can be found in the relevant sections (above).

With best practice mitigation measures in place, no significant effects associated with 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

Impacts

- If not adequately controlled, debris and run off from the works could be suspended in the surface water. In the event of a flooding incident or heavy rainfall, this debris may be mobilised and could enter the road drainage having a detrimental effect on the surrounding local water environment.
- Potential for spills, leaks or seepage of fuels and oils associated with plant to escape and reach drainage systems and watercourses if not controlled, which may adversely impact the water environment.
- The verge and resurfacing works will not increase flood risk as they are limited to the existing impermeable carriageway surface, with no alteration to drainage infrastructure or surface water runoff patterns. No other post construction impacts are anticipated.

Mitigation

The following best practice and pollution prevention measures will be in place:

- 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 following the works.
- Debris and dust generated as a result of the works will be prevented from entering the drainage system. This can be via the use of drain covers or similar.
- Appropriate measures will be implemented onsite to prevent any potential pollution to the natural water environment (e.g., debris, dust, and hazardous substances). This will include spill kits being present onsite at all times, and the use of funnels and drip trays when transferring fuel etc.
- The control room will be contacted if any pollution incidences occur on (available 24 hours, 7 days a week).

- Visual pollution inspections of the working area will be conducted in frequency, especially during heavy rainfall and wind.
- Weather reports will be monitored prior and during all construction activities. In the event of adverse weather/flooding events, all activities will temporarily stop, and only reconvene when deemed safe to do so, and run-off/drainage can be adequately controlled to prevent pollution.
- Prior to works commencing, all operatives will be aware of [SEPA's Guidance for Pollution Prevention \(GPP\)](#).
- All storage areas (fuels, machinery, plant, materials) where required will be located/stored:
 - Away (>10m) from surface water drainage systems; and
 - Away from areas that see high vehicular movement (as far as reasonably practicable) to prevent damage by collision or extremes of weather.
 - Fuels stored within a drip tray, bund or other form of secondary containment with at least 110% of the maximum volume of a single container
- Amey's Water Pollution Prevention environmental briefing will be delivered to all site operatives before works start.

With mitigation measures in place, no significant effects are anticipated on the water environment. Therefore, in accordance with DMRB Guidance document LA 113: Road drainage and the water environment no further assessment is required.

Climate

Impacts

- Construction activities may result in GHG emissions being from vehicles, machinery, material use and production, and transportation.
- The use of HMA supports a longer design life compared to other SMA materials, resulting in reduced whole-life carbon impacts as there is a reduced need for repeat resurfacing, minimised material use, transport emissions and construction waste over the road asset's lifecycle.

Mitigation

The following mitigation measures will be in place:

- Local suppliers will be used as far as reasonably practicable to reduce travel time and GHG emitted as part of the works.
- Vehicles/plant will not be left on when not in use to minimise and prevent unnecessary emissions.

- 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 not significant. Therefore, in accordance with DMRB Guidance document LA 114: Climate, no further assessment is required.

Vulnerability of the project to risks

Construction activities are confined to the carriageway boundary and immediate verges, and maintenance is carried out on a like for like, basis. This will reduce the risk of major accidents or environmental disasters that could negatively impact the surrounding environment.

Improvement of the road surface following carriageway resurfacing works will enhance skid resistance, and thus overall road safety on completion of the scheme.

Considering the above and mitigation measures adhered to, the vulnerability of the project to major accidents and disasters is considered to be low.

Assessment cumulative effects

[Amey's Current Works Schedule](#) has highlighted that there are no works scheduled along the A78 in proximity to the scheme extents within the proposed timescales.

[The Scottish Road Works Commissioner](#) also does not identify any scheduled works that are set to take place within the scheme extents, within the same timescale, of the proposed works.

[North Ayrshire Council's Planning Portal](#), has not identified any extant planning applications surrounding the scheme extents that would result in any in-combination effects.

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.

Overall, it is unlikely the proposed works will have a significant cumulative effect with any other proposed works in the local area. Considering the nature and scale of the maintenance works being undertaken, no cumulative or in combination effects are anticipated.

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 works.

The following environmental surveys/reviews have been undertaken:

- An Environmental Scoping Assessment (ESA) of the scheme, undertaken by the Energy Transitions & Sustainability Team at Amey in January 2026.
- A Preliminary Ecological Walkover (PEW) undertaken by the Ecology Team at Amey in March 2026.

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:

- As the works will be limited to the carriageway verges and 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.

- The successful completion of the scheme will afford benefits to carriageway users and residential properties in proximity, due to improved condition and ride quality of the carriageway surface.
- No negative impacts on the environment are expected during the operational phase as a result of works. The use of HMA and TS2010 road surfacing affords the benefits of a reduction in mid to high frequencies of traffic noise and a reduction in ground vibrations. As a result, ambient noise levels will decrease post construction.
- 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.
- Works are not expected to result in significant disturbance to protected species that may be present in the wider area.
- At end of life, components can be recycled, reducing waste to landfill.
- The design option conveys sustainability benefits by significantly reducing the quantity of maintenance interventions required at the location.

Location of the scheme:

- The scheme will be confined within the existing carriageway boundaries and verges (total area 2ha.) and as a result will not require any land take and will not alter any local land uses.
- Works are not located within an area designated for its specific landscape character or quality.

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 water environment and drainage.
- Measures will be in place to ensure appropriate removal and disposal of waste and any uncontaminated road planings will be recycled in accordance with Guidance on the Production for Fully Recovered Asphalt Road Planings.
- Materials will be derived from recycled, secondary or re-used origin as far as practicable within the design specifications.
- Any potential impacts of the works are expected to be temporary, non-significant, and limited to the construction phase.
- No in-combination effects have been identified.

References of supporting documentation

The following environmental surveys/reviews have been undertaken:

- An ESA of the scheme, undertaken by the Energy Transitions & Sustainability Team at Amey in January 2026.
- A Preliminary Ecological Walkover (PEW) undertaken by the Ecology Team at Amey in March 2026.

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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