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Environmental Impact Assessment Record of Determination

A77 Crossraguel

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Project Details

Description

The works will comprise of resurfacing/inlay works and are required to remove structural defects such as fretting and potholes found within the scheme extents. In addition to structural inlays, verge works will be included as part of the scheme and include verge-side bollard replacement, resetting of existing gullies, catchpit to be cleared, ditch to be cleared, filter drain to be replaced, and footway to be sided out.

Construction activities are as follows:

- Installation of traffic management (TM);
- Milling carriageway to agreed depths between approx. 40mm to 120mm;
- Resurfacing of carriageway to the existing road levels using TS2010, AC20 Binder, and AC32 Base;
- Verge side works:
  - Like-for-like replacement of seven verge-side bollards;
  - Resetting of five existing gullies,
  - Clearing of one catchpit (minor works);
  - Clearing of one ditch;
  - Replacement of one filter drain;
  - Siding out of one footway;
- Reinstatement of road markings, linings and studs; and
- Removal of TM.

The following plant/machinery/vehicles may be used throughout the scheme:

- Road Planer;
- Road Paver;
- Mini excavator/pecker;
- Extrusion liner;
- Paint tanker;
- Bitumen tank;
- Asphalt rollers; and
- Tipping wagons.

The works are scheduled for 26th October 2026 during nighttime working hours. The duration of the works is anticipated to be approximately six to seven days.

Traffic management (TM) is to entail full closures of the A77 carriageway within the scheme extents. The designated diversion route will re-route vehicles from Turnberry onto Maiden Road (A719), continuing along the B7023, before rejoining the A77 at the roundabout.

Location

The scheme is located along the A77 carriageway on the outskirts of the town of Maybole, South Ayrshire. The approximate National Grid References (NGRs) are detailed below:

- Scheme start: NS 26986 08422
- Scheme end: NS 27718 08465

The scheme location is illustrated in Figure 1:



Figure 1. Scheme location.

Description of local environment

Air quality

Baseline air quality levels are likely to be influenced by traffic volumes and associated emissions from the A77 carriageway and surrounding agricultural activities within the area. The Annual Average Daily Flow (AADF) in 2025 was estimated for the nearest traffic count points on the A77 carriageway located near the scheme extents. The AADF in 2025 for Count Point 94025 located approx. 1km west of the scheme accounted for a total of 7,868 vehicles, with 899 being heavy goods vehicles (HGVs).

There are three properties located within 200m of the scheme extents. The closest receptor is Crossraguel Cottage, located <5m north of the scheme extents along the A77 carriageway.

There is one community air quality sensitive receptor within 200m of the scheme, Crossraguel Abbey Scheduled Monument located adjacent to the scheme.

There is a farm business located approx. 150m south of the scheme along the A77 carriageway.

South Ayrshire Council has not declared any Air Quality Management Areas (AQMAs). No real-time air quality monitoring stations are present within 200m of the scheme extents.

The Scottish Pollutant Release Inventory (SPRI) has not identified any polluting facilities within 1km of the scheme extents.

Cultural heritage

A desk-based assessment was undertaken using PastMap. A study area of 300m was used for designated cultural heritage assets and an area of 200m was used for non-designated cultural heritage assets.

Designated cultural assets identified within 200m of the scheme include:

- Crossraguel Abbey (ID: SM90087), Scheduled monument, located adjacent to the scheme. The monument comprises the extensive remains of the 13th-century Cluniac Abbey of Crossraguel, surviving as substantial stone structures, as earthworks, and as buried archaeology, together with an area likely to contain part of the outer precinct.

Non-designated cultural assets identified within 200m of the scheme include:

- Crossraguel Cottage (ID: 320551), National Record of the Historic Environment (NRHE), located within the scheme extents;
- Crossraguel Cottage (ID: 204615), NRHE, located within the scheme extents;
- Archaeological Dek-Based Assessment: Maybole To Girvan High Pressure Natural Gas Pipeline, South Ayrshire (ID: 4300), Historic Environment Record (HER), located within the scheme extents;
- Archaeological Watching Brief: Kirkoswald Mains Rehabilitation, South Ayrshire (ID: 4852), HER, located within the scheme extents;
- An Archaeological Watching Brief At Crossraguel Abbey, Maybole, Ayrshire (ID: 995), HER, located within the scheme extents;
- Crossragual Abbey,Maybole,Archaeological Watching Brief, Data Structure Report (ID: 3416), HER, located within the scheme extents;
- Archaeological Watching Brief: Crossraguel Abbey, Kirkoswald, South Ayrshire (ID: 4103), HER, located within the scheme extents;
- Archaeological Watching Brief: Signage Relocation Trench, Crossraguel Abbey (ID: 5165), HER, located within the scheme extents;
- Crossraguel Cottage (ID: 77556), HER, located within the scheme extents;
- Crossraguel Abbey (ID: 40830), NRHE, located approx. 27m south of the scheme extents;
- Crossraguel Abbey (ID: 5408), HER, located approx. 28m south of the scheme;
- Crossraguel Abbey, Dovecot (ID: 42133), HER, located approx. 71m south of the scheme;
- Crossraguel Abbey, Doocot (ID: 204626), NRHE, located approx. 83m south of the scheme;
- Crossraguel Abbey (ID: 40814), NRHE, located approx. 100m north of the scheme;
- South Mains (ID: 77339), HER, located approx. 160m south of the scheme; and
- South Mains (ID: 203461), NRHE, located approx. 190m south of the scheme.

Landscape and visual effects

The landscape surrounding the scheme extents is predominantly rural, characterised by scattered properties and farms, open agricultural fields, and ‘Abbeymill Burn’ watercourse. Sections of mature trees, hedgerow, scrub, and grassland are present along the scheme extents, which provide some visual screening from the works.

There are four properties located within 300m of the scheme extents. The closest receptor is Crossraguel Cottage, located <5m north of the scheme extents along the

A77 carriageway and will have view of the works. The remaining three properties will have partial views of the works, as there is some visual screening from trees and hedgerow along the scheme extents.

There is one community receptor within 300m of the scheme, Crossraguel Abbey Scheduled Monument located adjacent to the scheme. Visitors will have full view of the works.

No National Parks (Scotland's Environment Map), National Scenic Areas (NSAs), or Garden Designed Landscapes (GDLs) have been identified within 500m of the scheme extents (PastMap, Sitelink).

Core Paths (CP) SA32 and SA36 are located within the scheme extents with views of the works.

There is a footpath is present along a short section of the north side of the A77 carriageway, providing pedestrian access between the layby and the Crossraguel Abbey Scheduled Monument with sight of the works.

Scotland's Landscape Character Type Map lists the landscape character type present within the scheme extents to be 'Low Hills - Ayrshire' and can be categorised as the following:

- Undulating band of low hills with long ridges;
- Relatively unmodified, open character;
- Hills cut by valleys;
- Prominent landmark hills on the periphery;
- Richly diverse landcover pattern on lower hill slopes of pastoral fields, hedges, small woodlands and shelterbelts;
- Heather moorland on upper slopes;
- Relatively well-settled;
- Main settlement of Maybole on elevated south-facing slopes;
- Provide setting for Culzean Castle and the Girvan and Doon valleys; and
- Dramatic views from pronounced hills to the coast, Firth of Clyde, Ailsa Craig and Arran.

Scotland's Historic Land-Use Map lists the land surrounding the scheme extents as rectilinear fields and farms.

No trees under a Tree Preservation Order (TPO) have been identified within 500m of the scheme extents.

Scotland's Ancient Woodland Inventory has not identified ancient woodland within 500m of the scheme extents.

Biodiversity

NatureScot's Sitelink has not identified European designated sites within 2km, or with hydrological connectivity to the scheme.

NatureScot's Sitelink has not identified other designated sites are within 200m or have direct connectivity to the works area, including Sites of Special Scientific Interest (SSSIs), local and national nature reserves.

The NBN Atlas and Amey Environmental Screening Tool App resources has identified the presence of Himalayan balsam (*Impatiens glandulifera*), an Invasive Non-Native Species (INNS) within 500m of the scheme extents:

Scotland's Ancient Woodland Inventory has not identified ancient woodland within 500m of the scheme extents.

Following a desk-based review, an Amey ecologist considered that a site visit was deemed necessary as verge works will occur. A site visit was undertaken by Amey ecologists on 16th July 2026. Key findings from the Preliminary Ecological Walkover (PEW) are summarised below:

- Modified grassland is present throughout the proposed works area, within the verges and grazed fields in the wider environment.
- Broadleaved woodland and hawthorn hedgerow are present throughout the proposed works area.
- Within the scheme extents a residential property with the invasive non-native species (INNS) rhododendron (*Rhododendron ponticum*) exists.

Geology and soils

The scheme is not located within 200m of any Geological Conservation Review sites (GCRs), or Site of Special Scientific Interest (SSSIs) designated for their geological significance (NatureScot's Sitelink).

The local soil type within the scheme extents is not currently available on the National Soil Map of Scotland resource.

Bedrock Geology:

- Swanshaw Sandstone Formation-Sandstone. These sedimentary rocks are fluvial in origin. They are detrital, ranging from coarse- to fine-grained and form beds and lenses of deposits reflecting the channels, floodplains and levees of a river or estuary (if in a coastal setting).

Superficial Deposits:

- Hummocky (Moundy) Glacial Deposits-Diamicton, clay, sand and gravel. These sedimentary deposits are glacigenic in origin. They are detrital, created by the action of ice and meltwater, they can form a wide range of deposits and geomorphologies associated with glacial and inter-glacial periods during the Quaternary.

Material assets and waste

Materials

Resurfacing will use Transport Scotland's TS2010 hot-mix asphalt (HMA) specification with AC binder and base layers. Hot mix will be used due to supplier availability. 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. Refer to the Climate impacts and mitigation section for further details.

Other materials required will include road marking materials, road studs, vehicle fuel, oil, lubricant, filter stone, mortar/bituminous material for resetting gullies, and bollards.

Filter stone may contain a percentage of recycled content from previous schemes.

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. Some material may be derived from primary resources, such as the road paint.

Wastes

Wastes are anticipated to be carriageway planings which will primarily be recycled at a licenced facility, thereby reducing the amount sent to landfill and promoting circular economy practices.

Environmental Authorisations (Scotland) Regulations (EASR) classes waste asphalt (uncontaminated) as a Low-Risk Waste Activity (LRWA) under 'LRWA 3 - Treating asphalt road planings in a milling machine'. This means that uncontaminated road planings arising from the works do not require authorisation and will be fully recycled in accordance with SEPA's guidance on asphalt road planings.

Other wastes include old bollards and soft verge material.

Coring investigations have not identified the presence of coal tar within treatment depths within the scheme extents.

A Site Waste Management Plan (SWMP) will not be prepared prior to the works due to the scheme value being less than £350,000.

Noise and vibration

Baseline noise and vibration levels are likely to be influenced by vehicle traffic from the A77 carriageway and surrounding agricultural activities. The proposed diversion route passes through a more densely populated area, with over 100 sensitive receptors located within 300 m of the diversion route.

The AADF in 2025 was estimated for the nearest traffic count points on the A77 carriageway located near the scheme extents. The AADF in 2025 for Count Point 94025 located approx. 1km west of the scheme accounted for a total of 7,868 vehicles, with 899 being heavy goods vehicles (HGVs).

There are four noise sensitive receptors (NSRs) located within 300m of the scheme extents. The closest receptor is Crossraguel Cottage, located <5m north of the scheme extents along the A77 carriageway.

One community receptor for noise and vibration has been identified within 300m of the scheme extents, Crossraguel Abbey Scheduled Monument located adjacent to the scheme.

There is a farm business located approx. 150m south of the scheme along the A77 carriageway.

Scotland's Noise Map has indicated modelled day-evening-night noise levels (Lden) in the areas surrounding the carriageway to be around 71 dB within 5m of the works. Night-time noise levels (Lnight) surrounding the carriageway show levels of 64 dB within 5m of the works.

The scheme is not located within a Candidate Noise Management Area (CNMA) as defined within the Transportation Noise Action Plan.

Population and human health

The scheme is located along the A77 carriageway on the outskirts of the town of Maybole, South Ayrshire.

Core Paths SA32 and SA36 are located within the scheme extents with views of the works.

There is a footpath is present along a short section of the north side of the A77 carriageway, providing pedestrian access between the layby (NGR: NS277085) and the Crossraguel Abbey Scheduled Monument.

There are no National Cycle Network (NCN) routes or bridleways (RideMaps Scotland) within 300m of the scheme.

There are no bus stops located within the scheme extents.

There is a layby present within the scheme extents along the A77 carriageway East bound (EB), and a layby located approx. 85m northeast of the scheme.

There is a single access point to the following properties and businesses within the scheme extents:

- Farm business located approx. 150m south of the scheme;
- Crossraguel Abbey Scheduled Monument located adjacent to the scheme; and
- Four properties located at NGR: Crossraguel Cottage (<5m north of the scheme), Wellhome (45m south of the scheme), South Mains (145m south of the scheme), and South Mains (200m south of the scheme.

There are approx. four agricultural access/egress points located at NGR NS 27120 08389, NS 27350 08391, NS 27624 08434, and NS 27641 08419 within the scheme extents along the A77 carriageway.

Road drainage and the water environment

SEPA Water Classification Hub has not identified watercourses classified under the Water Framework Directive (WFD) within 500m of the scheme.

There are several field drains located within 500m of the scheme extents, the closest of which is located <10m north of the scheme extents.

'Abbeymill Burn' is located approx. <5m south of the scheme extents at the closest point.

The groundwater conditions within the scheme extents (entitled 'Keith', site ID: 150656) is listed as being in 'Good' condition under the WFD (SEPA Water Classification Hub).

There is a 'High' risk of surface water flooding (10% annually) within the scheme extents (SEPA Flood Maps).

The scheme is located within the 'Girvan' (ID: 150607) Drinking Water Safeguard Zone (Ground).

The A77 carriageway within the scheme extents is not located within a Scottish Government Nitrate Vulnerable Zone (NVZ).

Climate

The Climate Change (Scotland) Act 2009 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 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 50% lower than baseline.

- 2026 - 2030: Average emissions to be 50% lower than baseline.
- 2031 - 2035: Average emissions to be 60% 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, representing for 37% nationwide, and Transport Scotland are committed to reducing their emissions by 50% by 2030. To support this, Transport Scotland's Fourth Carbon Management Plan is committed to reaching Net Zero emissions

across corporate activities by 2027. This will contribute to achieving 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 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.

Monitoring, Management and Opportunities

To support our journey towards carbon neutral and zero waste we include potential opportunities for enhancement utilising circular economy principals within assessment of material assets.

Amey (working on behalf of Transport Scotland) undertake carbon monitoring. Emissions from our activities are recorded using Transport Scotland's Carbon Management System.

Further information identifying how Amey will obtain the above Carbon Goals can be viewed within the Carbon Management and Sustainability Plan Roadmap to net-zero: STRNMC – South West.

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

- On site construction activities carry a potential to produce airborne particulate matter, dust and generate emissions that may have a temporary impact on local air quality levels and act as a nuisance to nearby residents.
- TM implemented during the scheme may result in an increase in associated vehicle emissions through idling vehicles and increased congestion, particularly in communities surrounding the proposed diversion routes. However, these effects are expected to be reduced where works are undertaken during night-time working when baseline traffic is typically lower.
- All identified impacts are expected to be temporary, intermittent, and limited to the duration of the construction works. As such, no long-term changes in air quality are predicted.

Mitigation

- 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) will include the following mitigation relevant to this scheme:
  - All site layout will be planned (including plant, vehicles and Non-Road Mobile Machinery (NRMM)) so that machinery and dust causing activities are located away from receptors, as far as reasonably practicable;
  - Materials will be removed that have a potential to produce dust from site as soon as possible, unless being re-used on site;
  - Cutting, grinding or sawing equipment will be fitted with, or used in conjunction with, appropriate dust suppression measures, such as water sprays or local extraction systems (e.g. suitable local exhaust ventilation) to minimise the generation and dispersion of dust;
  - Drop heights from conveyors and other loading or handling equipment will be minimised;
  - Vehicles entering and leaving the work area will be covered 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 Non-Road Mobile Machinery (NRMM) will be switched off and there will be no idling vehicles.
- 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.
- Green driving techniques will be adopted, and effective route preparation and planning will be undertaken prior to works.
- Where possible, materials will be sourced locally.
- Surfaces will be swept where loose material remains following planing.

With best practice mitigation measures in place, no significant effects are predicted on air quality. Therefore, in accordance with DMRB Guidance document LA 105: Air Quality no further assessment is required.

Cultural heritage

Impacts

- Crossraguel Abbey Scheduled Monument is located adjacent to the scheme extents along the A77 carriageway. While works will be contained within the carriageway boundary with no land acquisition, temporary, minor visual impacts may occur during construction as a result of the presence of operative, plant, and vehicles and TM. However, these effects are short-term and localised to the scheme extents.
- The resurfacing and minor verge works along a section of the A77 carriageway would require a paver planer and roller wagon, which may generate vibration during the works. There is potential for temporary physical/vibration impacts on Crossraguel Abbey Scheduled Monument; however, given the nature and limited extent of the works, any effects are anticipated to be minor, localised and temporary.
- TM for the works will likely involve six or seven days along the A77 carriageway and involves a total road closure. Access to Crossraguel Abbey Scheduled Monument may be temporarily affected during the works due to TM arrangements, however, access will be maintained throughout construction as far as reasonably practicable.
- The works may result in very minor visual changes within the setting of the affected assets due to the verge side works and resurfacing, however, given the limited scope and minor nature of the works, any changes would be temporary, localised and contained within the existing carriageway boundary.

- The original construction of the A77 carriageway is likely to have removed any archaeological remains that may have been present. Therefore, the likelihood of unknown archaeological remains within the works area, confined to the carriageway boundary has been assessed to be low.

Mitigation

- Site operatives will take photographs before and after of listed buildings to evidence no damage.
- All storage of plant, vehicles and machinery will be at least 50m from designated assets.
- Should excavations uncover discoloured soils, or pieces of ceramic, bone or other materials of note, works will cease and the Amey Environment team and the Historic Environment Scotland team will be contacted.
- During construction, plant, vehicles, personnel, materials etc. will be contained to hard standing areas within the carriageway boundary at all times.
- Site operatives will be made aware of the cultural assets located in proximity to the works area and the Crossraguel Abbey Scheduled Monument. Where possible, storage of plant, vehicles and machinery will be stored outwith the close proximity to the of the identified cultural heritage features.
- Should the nature of the works change, the Amey Environment team will be contacted prior to works commencing.
- Historic Environment Scotland (HES) was notified of the works on 8th September 2026. HES confirmed that the proposed works are outwith the scheduled monument and can proceed with the works without needing consent. HES recommend that contractors on site are briefed on the location of the scheduled monument and the need to avoid any accidental damage to it. Should any damage to the scheduled monument occur, works will cease and HES will be contacted for further advice.

With best practice mitigation measures in place, no significant effects are predicted on cultural heritage. Therefore, in accordance with DMRB Guidance document LA 106: Cultural Heritage Assessment no further assessment is required.

Landscape and visual effects

Impacts

- Visual receptors identified have the potential to be visually impacted by the scheme during construction due to the presence of TM, plant, vehicles, machinery and operatives. There will be no operational impacts on visual receptors as works entail the like-for-like resurfacing works and minor verge works along the A77 carriageway within the scheme extents

- Misdirected site lighting could cause temporary disturbance to visual receptors including road users, receptors (particularly Crossraguel Cottage), and pedestrians using the footpath and core paths identified near the scheme.
- The general setting of the area may be impacted during construction due to the presence of TM, plant, vehicles, machinery and operatives' construction. No operational visual impacts are anticipated.
- The scheme entails like-for-like resurfacing and minor verge works (including replacement of bollards, resetting of existing gullies, clearing of a catchpit and ditch, replacement of filter drain, and siding out of footway) and will not extend beyond the current carriageway boundary. As such, no impacts to Crossraguel Abbey Scheduled Monument are anticipated. Temporary visual impacts on views of the Crossraguel Abbey Scheduled Monument are anticipated during the construction phase as a result of the TM and construction activities.
- The movement and operation of plant, vehicles, and machinery during construction has the potential to cause temporary damage to grass verges within the scheme extents, resulting in minor localised changes to the surrounding landscape during the works.
- No operational impacts are predicted for visual receptors and landscape character as works entails like-for-like resurfacing of the A77 carriageway and minor verge works (including replacement of bollards, resetting of existing gullies, clearing of a catchpit and ditch, replacement of filter drain, and siding out of footway) within the carriageway boundary.

Mitigation

- Site lighting will be directional and will be pointed away from nearby visual receptors, including Crossraguel Abbey Scheduled Monument, residential receptors, road users and users of nearby footpaths/core paths, to minimise temporary visual disturbance during construction.
- Carriageway resurfacing and verge works will be of a minimal visual impact and will be in keeping with the current setting of the A77 carriageway within the scheme extents.
- 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 of soil, grass or grass seed will be carried out.
- Throughout all stages of the works, the site will be kept clean and tidy, with materials, equipment, plant and wastes appropriately stored.

With best practice mitigation measures in place, no significant effects are anticipated on landscape and visual effects as a result of the scheme. Therefore, in accordance with DMRB Guidance document LA 107: Landscape and Visual Effects no further assessment is required.

Biodiversity

Impacts

- Construction activities may have the potential to have a temporary adverse impact on biodiversity in the area as a result of the presence vehicle and personnel, and potential disturbance from noise and artificial site lighting.
- INNS have been recorded within the wider area; however, works are restricted to the existing carriageway and verge boundary, reducing the risk of disturbance or spread.
- Modified grassland is present throughout the proposed works area, within the verges and grazed fields in the wider environment. The proposed works will disturb this habitat during the verge works.
- Broadleaved woodland and hawthorn hedgerow are present throughout the proposed works area. The proposed works will involve verge works within these habitats and, as such, may result in negative impacts through the loss or disturbance of woodland edge and hedgerow vegetation.
- Within the scheme extents a residential property with the invasive non-native species (INNS) rhododendron (*Rhododendron ponticum*) exists. This area is within a residential property so it is unlikely that this species will be disturbed during the proposed works.
- The proposed works may have a negative impact on birds that are nesting if vegetation clearance or tree cutback is required during the nesting bird season (March to August inclusive). There is potential for nesting birds to be disturbed by an increase in noise pollution.
- The proposed works will require vegetation clearance within the woodland habitat and in the absence of mitigation may disturb foraging and/or commuting protected species within the area.
- Verge works may negatively impact small mammal species.

Mitigation

- Loss or damage to the grassland verges will be minimised where possible. The grassland habitat will be reinstated where possible following completion of the works.
- Works will avoid the woodlands. Any damage to the woodlands will be avoided.
- No works will be within the residential garden containing the invasive species rhododendron, preventing disturbance and potential spread.
- Amey's Environmental Briefing on protected species will be given to onsite operatives, due to the works taking place at night. Any use of artificial lighting will be directional and will avoid light spillover into sensitive habitats.

- Any vegetation clearance will be undertaken outwith the core bird nesting season (March to August inclusive) where practicable. If this is not possible, nesting bird checks will be carried out prior to works.
- General construction safeguards will also be followed and will include as a minimum:
    - There will be a slow start up of equipment if required to gradually increase levels of noise and vibrations onsite, as sudden noises can be more disturbing.
    - Where equipment can be used with hoods, doors or sleeves to reduce noise levels, these will be used wherever possible.
    - Open excavations will be fenced off and/or covered to avoid animals becoming trapped or injured. A mammal ladder (e.g. wooden plank) will be erected to allow any animals that may become trapped to escape. All excavations will be checked each morning to ensure no animals have become trapped overnight and an ecologist contacted for advice will any animals be encountered.
    - Consideration will be given to where spoil is stored, mammal proof fencing will be considered if spoil is to be stored on site for long periods of time
    - Attempts will be made to avoid working in the vicinity of habitats during the hours of darkness and within two hours after sunrise and two hours before sunset (1st March to 31st October), and between one hour after sunrise and within one hour before sunset (1st November to 28th February). If night work is essential, this will avoid unnecessary disturbance by ensuring that the height of lighting columns are as low as possible. Lighting hoods, cowls and shields will be utilised to focus light into the working areas and away from the surrounding environment and particularly away from watercourses.
    - No equipment will be stored within suitable habitat.
- Operatives will remain vigilant for the presence of protected species within or near the works. If a protected species is seen in or near the scheme, all works will be stopped until the animal passes by. The protected species will not be approached, and the area will be temporarily isolated until the animal has moved on. Any sightings will be reported to the Amey Environment Team.
- ‘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.
- Due to night-time programming, where lighting is required, hoods will be used and lights directed at works and away from ecological receptors such as trees, to minimise disturbance to nocturnal species.

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

Geology and soils

Impacts

- There is potential for spills, leaks or seepage of fuels and oils associated with machinery to escape if not controlled which may negatively affect the soil environment.
- There is potential for impacts to soil quality as works require verge works (including resetting of existing gullies, clearing of a catchpit, clearing of a ditch, replacement of filter drain and footway siding out) within the scheme extents along the A77 carriageway. This can create adverse conditions, including erosion and polluted soils.

Mitigation

- All works and plant, machinery and vehicles will be contained within the carriageway boundary at all times to prevent damage to soils present on the verge areas.
- After the works have been completed, excavation will be backfilled with soils/materials and reinstated to the original ground level. The area will be left level and free from debris.
- Excavated soils will not be stored on site, and will be appropriately contained/covered, and protected from the elements.
- Excavation of soils will be kept to a minimum and only where necessary, with any excavated soils being re-used on site as far as reasonably practicable.
- Spill kits will be present onsite 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.
- Weather reports will be monitored prior to the works, with all construction activities temporarily halting in the event of predicted high rainfall or wind.

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

Material assets and waste

Impacts

- Virgin aggregates used in the scheme will result in loss of natural resources, reduction of finite resources and loss of biodiversity.

- The nature of the scheme requires large HGVs resulting in local air quality degradation and greenhouse gas (GHG) emissions, combined with combustion fuel usage.
- Energy will be required for the scheme in the form of non-renewable fossil fuels for transport of materials and personnel, and for plant operation. The use of non-renewable fuels to power plant and machinery will be a contributing factor to GHG emissions.
- Use of TS2010 will reduce the usage of imported aggregates as it will prolong the period before future resurfacing is required and increase the use of a wider range of sustainable aggregate sources thus reducing greenhouse gas (GHG) emissions.

Mitigation

- Material arising from siding-out and verge works will be screened to remove vegetation and other non-soil material prior to reuse on site or transfer off site for recovery or disposal, in accordance with SEPA guidance.
- A Site Waste Management Plan (SWMP) will not be required for these works.
- The Contractor will comply with all 'Duty of Care' requirements, ensuring that any surplus materials or wastes are stored, transported, treated, used, and disposed of safely without endangering human health or harming the environment. All waste transfer notes and/or waste exemption certificates will also be completed and retained.
- All waste will be transported by a suitable licenced contractor and will be accompanied by correctly completed waste transfer note. All special waste will be transport by suitable licenced contractor and will be accompanied by correctly completed special waste consignment note (SWCN) providing information about the waste, the producer and the person the waste is being handed to; the SWCN will be kept for three years, the Site Responsible Manager is responsible for ensuring these are retained onsite.
- Materials will be sourced from recycled origins as far as reasonably practicable within design specifications.
- Where possible all materials will be reused throughout the network, if not possible they will be recycled locally.
- Where possible, materials will be obtained locally and operatives deployed from the local depot where possible to reduce haulage and scheme associated journeys, reducing impact of associated GHG emissions on climate change.

With best practice mitigation measures in place, no significant effects are predicted as a result of the material assets required and the wastes being produced. Therefore, in accordance with DMRB Guidance document LA 110: Material Assets and Waste, no further assessment is required.

Noise and vibration

Impacts

- Construction activities associated with the works have the potential to cause noise and vibration impacts through the use of machinery and construction vehicles.
- Noise sensitive receptors along the A77 near the scheme extents and along the A719 diversion route may temporarily experience higher volumes of local traffic and therefore, higher noise levels.
- Noisy works will likely be required during night-time hours, which could cause disturbance for residential properties within 300m of the scheme extents.
- TS2010 road surfacing is shown to have superior durability and noise reducing features compared to standard road surfacing mixes. Vehicle travellers and nearby residential properties will benefit from improved road surfacing as a result of the scheme.

Mitigation

- Properties identified within 300m of the scheme extents will be notified in advance of the works. Pre-notification will include details of proposed timings, duration of the works and any other relevant information.
- 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 use of ‘soft start’ methods and the use of electric plant/vehicles/machinery will be undertaken to minimise noise disturbance.
- Vehicles and machinery will be started sequentially rather than simultaneously.
- There will be no idling of vehicles or machinery.
- Plant/machinery will be fitted with silencers/mufflers.
- Amey’s ‘Noise and Vibration’ Environmental Briefing will be delivered to all site operatives before works start.
- The Amey Environment team has contacted South Ayrshire Council’s Environmental Health Team to notify of the works due to night-time programming. South Ayrshire Council has responded back and has no further comments.

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

Impacts

- TM for the works will likely involve a total road closure. The designated diversion route will re-route vehicles from Turnberry onto Maiden Road (A719), continuing along the B7023, before rejoining the A77 at the roundabout. Nearby residents may experience travel disruption due to presence of TM, which may lead to increased journey times and distances if alternative routes are utilised to avoid TM. Those living by, and utilising diversion route roads may also experience travel disruption and disturbance as a result of the scheme.
- 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, and/or community facilities as a result of the scheme.
- Access to the residential properties and farms identified have the potential to be impacted by the works.
- The layby within the scheme extents may be partially and temporarily closed or access prohibited during works.
- Temporary closure of the footpath, core path, and access to the scheduled monument may be required during construction activities, which could temporarily affect its availability to pedestrians.
- Site lighting may impact nearby visual receptors along the carriageway during construction.

Mitigation

- Local residents within 300m of the scheme extents and road users will be notified in advance of the works and all associated TM arrangements.
- Where temporary footpath or core path closures are required, appropriate advance warning signage will be provided, and clearly signed pedestrian diversions will be implemented. The footway and core paths within the scheme extents will be maintained, as far as reasonably practicable, throughout the works.
- TM will be advertised upon approach and in advance of the scheme. When in place, TM will be monitored to ensure it is effectively managing traffic flow.
- Single access to residential properties and farms within the scheme will remain accessible at all times.
- Any temporary closure or restriction of the layby within the scheme extents will be clearly signed in advance of the works, with access reinstated as soon as practicable following completion of the works.
- Temporary site lighting will used throughout the scheme will be directional and pointed only at the area of works.

- 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 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

Impacts

- If not adequately controlled, debris and runoff from the works could enter surrounding surface water environment. In the event of heavy rainfall or a flooding incident, this debris may be mobilised and could enter the road drainage system, thus having a detrimental effect on the surrounding local water environment.
- In the event of a flooding incident, debris may be mobilised and could enter the road drainage having a detrimental effect on the surrounding local water environment.
- The Drinking Water Protected Area identified will not be impacted by the scheme due to the nature of the works (e.g. minor, transient etc.) combined with the relevant pollution control measures.

Mitigation

- 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.
- 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.
- The control room will be contacted if any pollution incidences occur (available 24 hours, 7 days a week).
- Visual pollution inspections of the working area will be conducted frequently, 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 runoff/drainage can be adequately controlled to prevent pollution.
- All storage of materials/fuel and any refuelling activities (if required) will be undertaken more than 10m away from any watercourse at all times and placed on a hardstanding surface.
- All oils and fuels will be returned to storage area after use.

- All operatives will be briefed on SEPA's Guidance for Pollution Prevention (GPP) documents (namely, GPP 1, GPP 2, GPP 5, GPP 6, GPP 8, GPP 21 and GPP 22) (SEPA's Guidance for Pollution Prevention).
- Amey's 'Water Pollution Prevention' Environmental Briefing will be delivered to all site operatives before works start.

Providing all works operate in accordance with current best practice, as demonstrated by SEPA's Guidance for Pollution Prevention (GPPs), no significant effects are predicted 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

- Greenhouse Gas (GHG) emissions will be emitted through the use of machinery, vehicles and materials used (containing recycled and virgin materials) and transporting to and from site.

Mitigation

- 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

As the works will be limited to the like-for-like carriageway resurfacing and minor verge works within the carriageway boundary, there will be no change in vulnerability of the carriageway to risk, or in severity of major accidents/disasters that would impact on the environment.

It has been determined that the scheme will not alter the vulnerability of the project to risk of major accidents or disasters.

Assessment of cumulative effects

The Scottish Road Works Commissioner's Interactive Map does not highlight any other works in the area at the time of construction.

South Ayrshire Council's Planning Portal has identified the following works that may be undertaken during the proposed timescale within close proximity to the location of the works:

- Application reference 26/00350/PNF relates to a prior notification for farm-related non-residential building works at Wellholme Cottage, Crossraguel Kirkoswald South Ayrshire KA19 8HH. Due to the nature and scale (e.g. minor, low-risk and localised) of the development in application reference 26/00350/PNF, no impacts with regard to cumulative effects with the proposed scheme are anticipated.

Amey's current programme of works has not highlighted any other works on the A77 that will be undertaken in conjunction with the scheme.

No other nearby schemes which may result in a combined effect on nearby receptors have been identified.

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

Following assessment as detailed within this Record of Determination, and provided that mitigation measures are in place and best practice is followed, there will be no significant effects on the environment.

The following environmental surveys/reviews have been undertaken:

- An Environmental Scoping Assessment of the scheme, undertaken by the Amey Environment Team in September 2026.
- The Amey Environment team has contacted South Ayrshire Council's Environmental Health Team to notify of the works due to night-time programming in September 2026. No comments/recommendations have been provided by South Ayrshire Council.

- Historic Environment Scotland (HES) was notified of the works on 8th September 2026. No comments/recommendations have been provided by HES at the time of writing.
- A Preliminary Ecological Walkover (PEW) and PEW report was undertaken by the Amey Environment Team in July 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) are situated on the perimeter of Crossraguel Abbey Scheduled Monument which is a sensitive area within the meaning of regulation 2(1) of the Environmental Impact Assessment (Scotland) Regulations 1999.

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 resurfacing and minor verge works, 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 resurfacing and verge works will extend the operational life of this section of the A77 by improving the carriageway surface, verge condition and drainage, contributing to safer conditions for road users.

Location of the scheme:

- Works are not anticipated to impact areas designated for their landscape character or quality and will not impact culturally significant designations present within the site due to its containment within the carriageway boundary. The works entail like-for-like resurfacing and minor verge works along with the existing A77 carriageway. No physical disturbance will occur to the Crossraguel Abbey Scheduled Monument, and the works will not result in permanent changes to its setting within the landscape. Any effects associated with construction activities, including the presence of TM, plant and machinery, will be temporary during the construction period only.
- 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.

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.
- No in-combination effects have been identified.

References of supporting documentation

- An Environmental Scoping Assessment of the scheme was undertaken by the Amey Environment Team in September 2026.
- A Preliminary Ecological Walkover (PEW) and PEW report was undertaken by the Amey Environment Team in July 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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