



**TRANSPORT
SCOTLAND**
CÒMHDHAIL ALBA

Environmental Impact Assessment Record of Determination

A75 Dervaird Yard

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Project Details

Description

Works are required to maintain the safety and integrity of a stretch of the A75 carriageway within the scheme extents. The main driver for this scheme comes from the extensive transverse and longitudinal cracking, in addition to the widespread fretting, severe cracking and chip loss.

As such, the expected treatment works will involve replacing old and deteriorating surface course, with the possibility of deeper treatment in some areas.

Construction work will involve the milling and replacing of the defective surface course over an approximate 1600m stretch of the A75 carriageway. The total works area is approximately 15,600m² (1.56ha).

Treatment will involve an inlay treatment of TS2010 surface course, with possible deeper treatment in some areas. Treatment depths are yet to be determined. Road markings will also be reapplied as and when necessary.

The proposed construction activities will involve the following:

- Milling of existing bituminous material by road planer.
- Additional bituminous material removed by jack hammer/excavator, where not accessible by planer.
- Road sweeper to collect any loose material.
- HGV for removal and replacement of material.
- Tack / bond coat applied.
- New bituminous material laid by a paver.
- Material compacted using a heavy roller.
- New road markings/chevrons carried out where needed.
- Road studs replaced where necessary.

The proposed start date for construction is May 2022. Exact timings and duration are yet to be confirmed; however it is likely this scheme will be constructed within the first two weeks of May.

Traffic management (TM) for the works will involve single lane closures of the A75 carriageway, facilitated by temporary traffic lights (TTLs) and a convoy system.

Location

The scheme is situated in a semi-rural setting east of Glenluce, Dumfries & Galloway. The works have the following National Grid References (NGRs):

- Scheme Start: NX 22684 58447
- Scheme End: NX 21284 57540

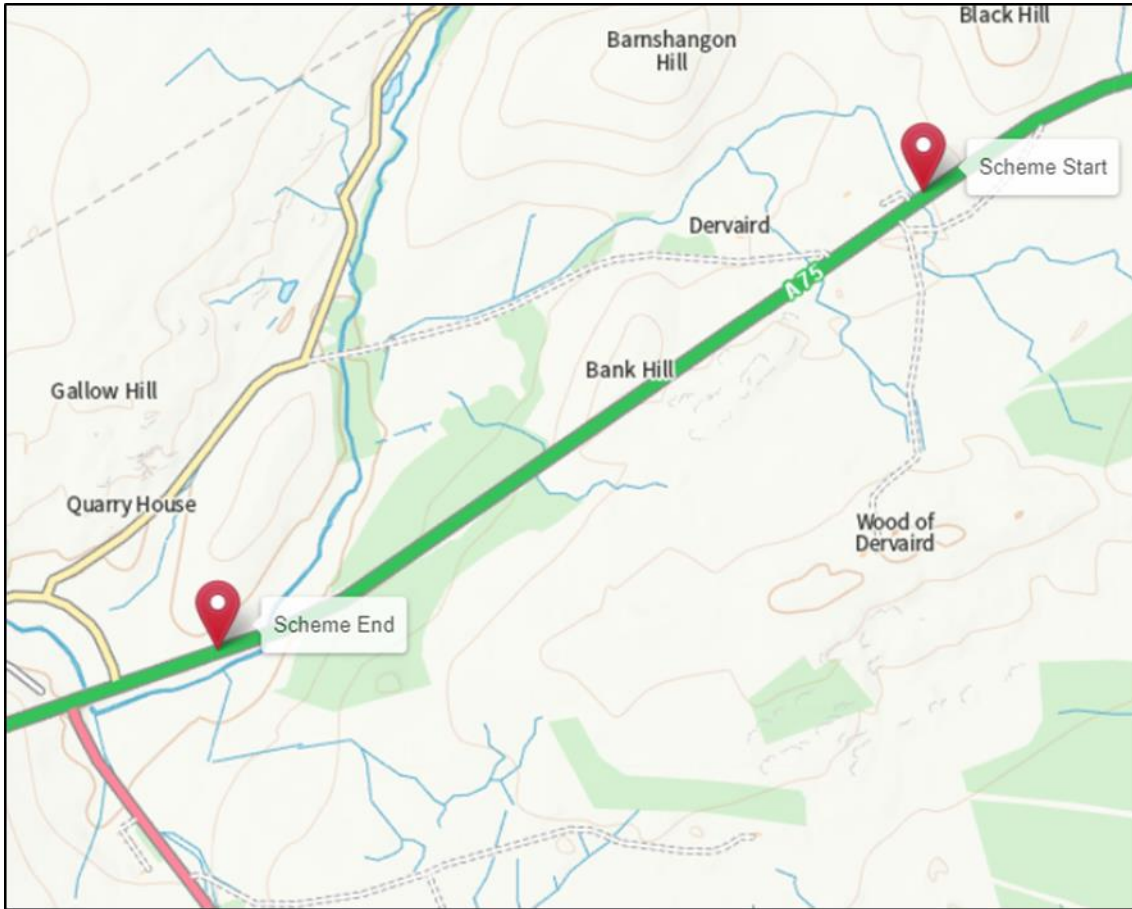


Figure 1 - Scheme Extents



Figure 2 - Scheme Location

Description of local environment

Air quality

The section of the A75 carriageway falls within a semi-rural setting east of Glenluce, Dumfries and Galloway. Areas of farmland and intermittent residential properties are located in the surrounding environment.

The A75 carriageway is a main route connecting Gretna and Stranraer and is subject to moderate traffic on a daily basis. The [Annual Average Daily Traffic Flow](#) (AADT) in 2020 for the A75 carriageway just west of the works location is 3,981; approximately 17% of which consists of Heavy Goods Vehicles (HGVs).

Local air quality is likely to be impacted primarily by road traffic, in addition to nearby agricultural land use activities.

Dumfries and Galloway Council has not declared any [Air Quality Management Areas](#) (AQMAs).

Cultural heritage

A desktop study using [PastMap](#) has not identified any features of cultural heritage within proximity of the proposed scheme.

Works will be restricted to the existing carriageway boundary and already engineered layers and will not impact upon the surrounding landscape or have potential to impact on any undiscovered features of cultural heritage.

It has been determined that the proposed project will not have direct or indirect significant effects to features of undiscovered cultural heritage.

Landscape and visual effects

The works are located along a semi-rural stretch of the A75 carriageway, east of Glenluce, Dumfries and Galloway. Surrounding landscape consists of predominantly thin wooded strips and open, low-lying, agricultural land. A large densely vegetated area of scrub is located adjacent to the A75 carriageway within the scheme extents.

Historic Environment Scotland's [HLAMap](#) has highlighted the surrounding landscape as a combination of rough grazing, restored agricultural land, managed woodland, and rectilinear/sub-rectangular fields and farms.

A desktop study using [PastMap](#) and [Nature Scot Sitelink](#) online interactive map has not highlighted any areas designated for landscape quality or special characteristics within the works location.

Works will be restricted to the existing carriageway boundary and will not impact upon the surrounding landscape. Views of, and from, the road will be temporarily affected during construction due to the presence of works, traffic management and plant. As the works are operating on a like-for-like basis, no permanent changes to landscape features are predicted.

It has been determined that the proposed project will not have direct or indirect significant effects to local landscape.

Biodiversity

The scheme extents lie within a semi-rural area, primarily surrounded by agricultural land. Areas of low-lying scrub vegetation can be found intermittently adjacent to both sides of the carriageway. Lady Burn flows below the A75 carriageway within the scheme extents.

Amey's Invasive Non-native Species (INNS) database does not hold any record of INNS within proximity to the works.

A desktop study using [Nature Scot's Sitelink online interactive map](#) has identified the '[Flow of Dergoals](#)' Special Area of Conservation (SAC) located approximately 930m east of the scheme. The Flow of Dergoals is designated for the qualifying upland habitat features of blanket bog and depressions on peat substrates.

Field Survey

Low lying agricultural fields dominate the surrounding habitat in proximity to the works, with areas of scrub vegetation adjacent to the carriageway.

Given the lack of suitable surrounding habitat coupled with a lack of recent roadkill, a site survey has been deemed unnecessary for the works.

Geology and soils

The [National Soil Map of Scotland](#) identifies the local soil type as brown earths.

A desktop study using the [British Geological Survey Map](#) identifies the local geology type as the following:

- Bedrock geology: Shinnel Formation - Wacke. Sedimentary Bedrock formed approximately 444 to 458 million years ago in the Ordovician Period. Local environment previously dominated by deep seas.
- Superficial deposits: Till, Devensian - Diamicton. Superficial Deposits formed up to 2 million years ago in the Quaternary Period. Local environment previously dominated by ice age conditions (U).

All works will operate on a like-for-like basis and remain restricted within the existing carriageway footprint. No excavations beyond the existing engineered footprint will be required as part of the works, and as such no soils will be impacted.

It has been determined that the proposed project will not have direct or indirect significant effects to local soils or geomorphological features.

Material assets and waste

Key Materials Required for Activities

The following materials will be required for the works:

- AC32 Base
- AC20 binder,
- TS2010 SMA Surface course
- Road paint
- Lubricant
- Vehicle fuel
- Oil

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.

TS2010 Surface Course allows a wider array of aggregate sources to be considered when compared to typical 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.

Key Waste Arising from the Activities

The following waste is likely to be produced as a result of the works:

- Road planings
- Removed pavement foundation and bound material

Following on-site coring investigations and testing, no coal-tar was identified within the surfacing of the carriageway within the scheme extent.

As such, road planings generated as a result of the works may be recovered in accordance with the criteria stipulated within SEPA document 'Guidance on the Production of Fully Recoverable Asphalt Road Planings'.

Noise and vibration

The section of the A75 carriageway falls within a rural setting east of Glenluce, Dumfries and Galloway. Areas of farmland and scrub are located in the surrounding environment.

The A75 carriageway is a main route connecting Gretna and Stranraer and is subject to moderate traffic on a daily basis. The [Annual Average Daily Traffic Flow](#) (AADT) in 2020 for the A75 carriageway just west of the works location is 3,981; approximately 17% of which consists of Heavy Goods Vehicles (HGVs).

Baseline noise levels are likely primarily influenced by vehicle traffic from the carriageway, with secondary sources from local agricultural practices.

One residential property, Dervaird, is located approximately 150m from the eastbound carriageway at the eastern scheme extent. Two further residential properties (Greyhill Cottage and Quarry House) are located approximately 310m and 320m north from the western scheme extent respectively. No screening, such as vegetation, is present between the works location and these residential properties.

The scheme does not fall within a [Candidate Noise Management Area](#) (CNMA) as defined by the Transportation Noise Action Plan, Road Maps.

Population and human health

Three access points/junctions are located at the eastern scheme extents, which give access to the local road network and the Driver and Vehicle Standards Agency Check Point.

No non-motorised provisions are located within the scheme extents.

Road drainage and the water environment

A desktop study using the Scottish Environment Protection Agency (SEPA) [River Basin Management Plan Interactive Map](#) has identified Lady Burn (SEPA ID: 10496), which flows below the A75 carriageway at the western scheme extent. SEPA has classified this waterbody as having an overall status of 'Moderate', comprising an ecological status of 'Moderate'.

Several unclassified drains/issues are culverted directly below the A75 carriageway within the scheme extent.

The [Indicative River & Coastal Flood Map](#) by SEPA has highlighted small areas of surface water flood risk within the scheme extents, and a risk of river water flooding along the course of Lady Burn.

Road drainage is provided by a combination of side and top entry gullies and filter channel drainage throughout the scheme.

Climate

The Climate Change (Scotland) Act sets out the target and vision set by the Scottish Government for tackling and responding to climate change. The Act includes a target of reducing CO₂ emissions by 80% before 2050 (from the baseline year 1990).

The Scottish Government has since published its indicative Nationally Determined Contribution (NDC) to set out how it will instead reach Net Zero by 2045, working to reduce emissions of all major greenhouse gases by at least 75% by 2030. By 2040, the Scottish Government is committed to reduce emissions by 90%, with the aim of reaching net zero by 2045 at the latest.

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

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

Description of main environmental impacts and proposed mitigation

Air quality

Impacts

- Traffic management (TM) for the works will involve single lane closures facilitated by temporary traffic lights and a convoy system.
 - TM may result in a slight increase in road congestion and associated vehicle emissions on the A75 carriageway due to increased stop/start on approach to TM.
- The use of vehicles, plant and generators emitting carbon emissions may temporarily affect air quality and will require the use of finite resources.
- On site construction activities carry a potential to produce airborne particulate matter that may have a slight impact on local air quality levels.

Mitigation

- All works shall operate in accordance with current best practice as outlined in the Guidance on the assessment of dust from demolition and construction (2014) published by the IAQM, which includes the following mitigation relevant to this scheme:
 - When not in use plant and vehicles will be switched off; there will be no idling vehicles.
 - All plant and fuel-requiring equipment utilised during construction shall be well maintained in order to minimise emissions, as per manufacturing and legal requirements.
 - Green driving techniques will be adopted, and effective route preparation and planning shall be undertaken prior to works.
 - Planing operations will be wetted to reduce dust arising.
 - Drop heights to haulage vehicles and onto conveyors will be minimised.
 - Lorries will be sheeted when carrying dry materials.
 - Surfaces will be swept where loose material remains following planing.

Providing all works operate in accordance with current best practice, the residual impact for air is considered neutral.

It has been determined that the proposed project will not have direct or indirect significant effects to local air quality.

Biodiversity

Impacts

- There is potential for protected species to be active within the local surrounding area.
- In the event of night-time programming, misdirected site lighting could cause disturbance to any surrounding nocturnal species.
- No impact is predicted to Flow of Dergoals SAC, by virtue of the following factors;
 - Works will be restricted to the resurfacing activities on the A75 carriageway located approx. 900m away, and will have no physical impact on the features for which the SAC is designated.
 - Pollution prevention measures will be in place for the duration of the works.

Mitigation

- All temporary lighting will be directional and pointed away from sensitive ecological receptors.
- In the event of observing a protected species on the live working site, all works will temporarily stop until the animal has moved on. The control room will be contacted for environmental record.
- Pollution prevention measures as outlined in the *Road Drainage and the Water Environment* section below will be adhered to during the works.

On the condition that best practice is adhered to, residual impact to local biodiversity is considered neutral as a result of the works.

It has been determined that the proposed project will not have direct or indirect significant effects to biodiversity.

Material assets and waste

Impacts

- The works will contribute to resource depletion through use of virgin materials.
- Greenhouse gas (GHG) emissions will be generated by material production and transportation to and from site.
- Transportation and recovery of materials/waste will require energy deriving from fossil fuel, a non-renewable source.

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.
- Waste will be treated at a licenced facility to separate useful materials such as metal as far as reasonably practicable, recovering this waste and diverting it from landfill.
- 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.

It has been determined that the proposed project will not have direct or indirect significant effects to the consumption of material assets or disposal of waste.

Noise and vibration

Impacts

- TS2010 road surfacing is shown to have superior durability and noise reducing features compared to standard road surfacing mixes. Vehicle travellers and nearby receptors will benefit from improved road surfacing as a result of the scheme.
- Residential properties within proximity/sightline of the works location may experience a temporary disturbance in the event of night-time programming, due to an increase in baseline noise levels from construction works.

Mitigation

- Dumfries and Galloway Council's Environmental Health Team will be notified in the event of night-time working.
- Residential properties in proximity shall be notified prior to the works starting; detailing the nature, timings and duration of works.
- Plant and machinery will be switched off when not in use to reduce noise disruptions to the surrounding environment.
- Engine exhaust and vent silencers shall be used where possible.

Provided that best practice measures are followed, it is predicted that residual impact to population and human health will be neutral, with temporary slight adverse impact predicted during construction.

It has been determined that the proposed project will not have direct or indirect significant effects to local noise and vibration.

Population and human health

Impacts

- Traffic management (TM) for the works will involve single lane closures facilitated by temporary traffic lights and a convoy system.
 - TM may result in increased travel times for users of the A75 carriageway during the works, which can lead to driver frustration.
- TS2010 road surfacing will be utilised. TS2010 can reduce noise levels and improve the skid resistance of the road.
- The use of TS2010 is shown to have superior durability to standard road mixes as such this will extend the life span of the carriageway preventing the need for reoccurring routine maintenance and associated levels of disruption.
- Dependent on the siting of works/TM, there is potential for accesses to be temporarily blocked.

Mitigation

- Advance traffic warning signs will be placed prior to works in an effort to minimise disturbance to vehicular travellers, and will inform road users of expected duration, timings, and any temporary traffic management arrangements.
- Operatives shall grant local access when required, if blocked by the works.
- Appropriate dust suppression systems will be used in order to effectively control construction dust. This shall include dampening down of cutting/breaking out activities where appropriate.

Provided that best practice measures are followed, it is predicted that residual impact to population and human health will be neutral, with temporary slight adverse impact predicted during construction.

It has been determined that the proposed project will not have direct or indirect significant effects to local population and human health.

Road drainage and the water environment

Impacts

- In the event of a flooding incident, the works will carry an increased risk of allowing fine sediments/debris to become mobilised in surface water.
- 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 affect the water environment.

- If not appropriately controlled, debris, sediment and run off from the works has the potential to enter nearby drains and watercourses and could detrimentally impact water quality.
- There is potential for flooding to occur within the works area. This may delay the works and give potential for pollution via flooding.

Mitigation

- Best practice, as detailed by SEPA Guidance for Pollution Prevention (GPPs), will always be followed onsite. This will ensure that any potential sediments/spills are not allowed to enter road drainage unchecked.
- Appropriate measures shall be implemented onsite to prevent any potential pollution to the natural water environment (e.g. debris, dust and hazardous substances). This will include, but will not be limited to, spill kits being present onsite at all times, and the use of funnels and drip trays when transferring fuel, and utilisation of drain covers/shielding boards.
- Any pollution incidences will be reported to the Amey control room.
- Operatives will conduct regular checks of the surrounding ground/drains for any spillages/leakage regularly, especially in periods of heavy wind and rainfall.
- All debris which has the potential to be suspended in surface water and wash into the local water environment shall be cleaned from the site following the works.
- Weather reports shall be monitored prior to 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 when run-off/drainage can be adequately controlled to prevent pollution.

Providing all works operate in accordance with site control measures and SEPA Guidance for Pollution Prevention (GPP) the residual impact for water is considered neutral.

It has been determined that the proposed project will not have direct or indirect significant effects to the water environment.

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 greenhouse gas emitted as part of the works.
- Vehicles/plant shall not be left on when not in use to minimise and prevent unnecessary emissions being emitted.
- Further actions and considerations for this scheme are detailed in the above Material assets and waste section.

It has been determined that the proposed project will not have direct or indirect significant effects to climate.

Vulnerability of the project to risks

As the works will be limited to the like-for-like replacement of the carriageway structure, there will be no change in vulnerability of the road to risk, or in severity of major accidents/disasters that would impact on the environment.

It has been determined that the proposed project is not expected to alter the vulnerability of the existing trunk road infrastructure to risk of major accidents or disasters.

Assessment of cumulative effects

An assessment of Dumfries and Galloway [roadworks and road closures](#) does not identify any programmed works within proximity of the scheme, that may have result in a cumulative effect.

Amey's current programme of works does not feature any nearby schemes which may result in a combined effect on nearby receptors, such as vehicular travellers and residential/sensitive properties.

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

The following environmental surveys / reviews have been undertaken:

- A design Initial Environmental Review of the scheme, undertaken by the Environmental and Sustainability Team at Amey in December 2021.

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

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

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

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

Characteristics of the scheme:

- Construction activities are restricted to the approximate 15,600m² (1.56ha) area of existing carriageway.
- At end of life, components can be recycled, reducing waste to landfill.
- Materials will be derived from recycled, secondary or re-used origin as far as practicable within the design specifications.
- The chosen material TS2010 Surface Course allows a wider array of aggregate sources to be considered when compared to typical SMA.
- Road planings will be fully recycled in accordance with Guidance on the Production for Fully Recovered Asphalt Road Planings.
- 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 as a result will not require any land take and will not alter any local land uses.

- The scheme falls within proximity of 'Sensitive Area' Flow of Dergoals SAC. With mitigation measures in place and due to sufficient distancing and restriction to the A75 carriageway, no impact is predicted to this site.

Characteristics of potential impacts of the scheme:

- As the works will be limited to the relatively 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 significant residual impacts are predicted. Disruption due to construction activities are not expected to be significant and will be mitigated as far as is reasonably practicable.
- The successful completion of the scheme will afford benefits to residential properties in proximity, due to improved condition and ride quality of the carriageway surface, and improved carriageway drainage.
- The use of 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 should decrease post construction.
- The scheme is not predicted to result in impact to any "sensitive area" as listed under regulation 2 (1) of the Environmental Impact Assessment (Scotland) Regulations 1999 (as amended).

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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