

EC DIRECTIVE 2011/92/EU (as amended)

ROADS (SCOTLAND) ACT 1984 (Environmental Impact Assessment)

Regulations 2017 (as amended)

RECORD OF DETERMINATION

Name of Project:

A76 Southfield kennels to Mauchline North Gateway

Location:

The scheme is situated on an urban section of the A76 carriageway running through Mauchline, East Ayrshire. The scheme has the following National Grid Reference:

- Scheme Start: NS 49335 28189
- Scheme End: NS 50235 26529

The length of the scheme is approx. 1.7km, with a total works area of approx. 11,486m²

Description of Project:

Resurfacing works are required on a section of the A76 carriageway to maintain and rectify areas of damage. This section of A76 carriageway shows areas of fretting, and short lengths of longitudinal cracking in wheel paths.

This works will involve an inlay treatment using TS2010 to various depths between 40mm and 260mm throughout the scheme. EME2 base/binder will be utilised for areas of deeper treatment. Any loose or fragmented material encountered after milling will be removed and replaced with new material. All ironwork/kerbing shall be renewed as required. Road markings shall be replaced in accordance with Traffic Signs Regulations and General Directions 2016.

Environmental Health have been informed of works. No comments or mitigations were added.

Traffic Management (TM) for these works has yet to be confirmed, however will likely involve the total closure of the A76 carriageway within the scheme extents. This will be facilitated by an appropriate diversion route which is yet to be determined.

Please see Appendix 1 for a Location Plan and Scheme Extents drawing.

Description of Local Environment:

The following baseline descriptions have been numbered to follow the appropriate DMRB chapters for environmental assessment and do not reflect a ranking of sensitivity.

1. Population and Human Health

The scheme is situated in an urban section of the A76 carriageway, running through Mauchline. The ambient noise levels are primarily influenced by vehicle traffic from the A76 carriageway, with secondary sources nearby from urban land use activities.

The scheme is flanked on both sides by front facing residential properties directly adjacent to the A76 carriageway. The closest property is located less than 5m from the carriageway. Mauchline Fire Station is also present within proximity to the scheme extent.

Footways exist adjacent to the north and southbound carriageway for the majority of the scheme extent. A number of Core Paths travel directly adjacent to or meet the carriageway within the scheme extent; Ladyyard Circular (B5), River Ayr way to Mauchline (B2), East Weldon Circular (B3), and B6 (Unnamed)¹. A cycleway is present running throughout the scheme extent as well as a number of footpaths. There is no bridleway present in the scheme extent.

Several bus stops and on-street parking provisions are located within the scheme extents, directly adjacent to both the north and south bound carriageways.

There are multiple accesses present within the scheme extent leading to the local road network, residential properties and farmland. A number of these residential properties within the scheme extent can only be accessed via the A76 carriageway.

The scheme does not fall within a Candidate Noise Management Area (CNMA) as defined by the Transportation Noise Action Plan, Road Maps².

2. Biodiversity

The scheme is situated in an urban section of the A76 carriageway. The scheme is flanked on both sides by residential properties for the majority of the scheme extent. Farmland borders sections of the carriageway at both the north and southbound scheme extents.

A desktop study using Nature Scot's Sitelink³ online interactive map has not identified any designated sites within proximity of the works location.

Scotland TranServ's Invasive Non-native Species Database has not identified any INNS within proximity to the works locations.

Scotland TranServ's Animal Road Kill Database (2000-2020) has not identified any records of protected species within the scheme extent.

No protected species have been recorded on the National Biodiversity Network Atlas⁴ (between years 2010 to 2020) within 2km of the scheme.

¹ <http://webqis.east-ayrshire.gov.uk/webqis2016/> (Accessed 17/03/2020)

² <https://noise.environment.gov.scot/pdf/Major%20Road%20Maps.pdf> (Accessed 17/03/2020)

³ <https://gateway.snh.gov.uk/sitelink/searchmap.jsp> (Accessed 17/03/2020)

⁴ <https://records.nbnatlas.org/occurrences/search> (Accessed 17/03/2020)

Description of Local Environment:	
In accordance with Government measures in force to control coronavirus, a precautionary ecological survey of the site could not be undertaken ⁵ .	
3. Land	The scheme runs on single carriageway throughout the extent. The central sections of the scheme are flanked by housing while toward the southern and northern extents of the scheme vegetated verges appear.
4. Soil	The soil composition within the surrounding area consists of brown earths and non-calcareous gleys. The scheme is not located within proximity to any Local Geodiversity Sites or Geologically designated SSSI ⁶ . A desktop study using British Geological Survey Map ⁷ has identified the local geology type as: <ul style="list-style-type: none"> • Bedrock Geology - Mauchline Sandstone Formation - Sandstone. Sedimentary Bedrock formed approximately 272 to 299 million years ago in the Permian Period. Local environment previously dominated by hot deserts. • Superficial Geology - 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).
5. Water	SEPA Water Classification Map ⁸ has not identified any classified water courses within proximity to the scheme. Mauchline Burn (unclassified by SEPA) flows below the A76 carriageway within the scheme extents. Small areas of flood risk have been identified on the A76 carriageway within the scheme extents as per SEPA Flood Maps ⁹ .
6. Air	The A76 is a main route connecting towns within Dumfries and Galloway and East Ayrshire. As such, air quality is affected by the moderate daily use of the carriageway by road vehicle users. East Ayrshire Council has not declared any Air Quality Management Areas ¹⁰ .
7. Climate	

⁵ <https://www.gov.scot/news/effective-lockdown-to-be-introduced/> (Accessed 24/03/2020)

⁶ <https://www.google.com/maps/d/viewer?mid=1HfclRWclTRxXUZWNARManI-PUhE&ll=55.518435133606424%2C-4.37284437942003&z=14> (accessed 02/04/2020)

⁷ <http://mapapps.bgs.ac.uk/geologyofbritain/home.html?location=GLASGOW&qobBtn=go> (02/04/2020)

⁸ <https://www.sepa.org.uk/data-visualisation/water-classification-hub/> (Accessed 20/03/2020)

⁹ <https://www.sepa.org.uk/environment/water/flooding/flood-maps/> (Accessed 20/03/2020)

¹⁰ <http://www.scottishairquality.co.uk/laqm/aqma> (Accessed 17/03/2020)

Description of Local Environment:

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).

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

In addition, Scotland TranServ undertakes resource efficiency activities to manage and reduce emissions contributing to climate change. Actions and considerations for this scheme are detailed in section 8 Material Assets.

8. Material Assets

Activity	Material Required	Origin/ Content
Site construction	<ul style="list-style-type: none"> • TS2010 Surface Course • EME2 binder/base • Road paint • Road studs • Pre-set concrete kerbing and ironwork as required 	<p>A proportion of reclaimed asphalt pavement (RAP) is used in asphalt production. Typical RAP values for base and binder are 10% - 15%.</p> <p>The use of TS2010 surface course results in a reduced use of imported aggregates, and an increased use of a wider range of sustainable aggregate sources</p>

Note: All materials will be procured in accordance with Balfour Beatty Sustainable Procurement Policy.

Key Waste Arising from Activities

Activity	Waste Arising	Disposal/ Regulation
Site construction	Road planings	<p>At the investigation stage, cores were undertaken to determine the structural integrity of the carriageway and the presence of tar bound macadam within the road surface.</p> <p>Cores taken within the scheme extents show a presence of coal tar at several core locations. Based on the treatment table, maximum treatment depth does not reach the depth of coal tar at each area of tar presence.</p> <p>As such, road planings generated may be recovered in accordance with the criteria stipulated within SEPA document 'Guidance on the Production of Fully Recoverable Asphalt Road Planings'.</p>

Description of Local Environment:

9. Cultural Heritage

A desktop study using PastMap¹¹ has identified that the scheme extents fall partially within the boundary of Mauchline Conservation Area¹².

PastMaps¹³ has identified several Category B Listed Buildings within 100m of the scheme extent, the closest located directly adjacent to the carriageway within the scheme extent.

10. Landscape

The works are located within an urban area of the A76, with the surrounding environment consisting of residential properties and small areas of farmland. The A76 within the scheme extents does not fall within any designation for landscape quality or character.

11. Vulnerability of the Project to Risks

As the works will be limited to the like-for-like replacement of the carriageway surface, the works have been assessed as not being likely to increase the vulnerability of the road to major accidents / disasters.

Description of the main environmental impacts of the project and proposed mitigation:

The following environmental impacts have been numbered to follow the appropriate DMRB chapters for environmental assessment and do not reflect a ranking of impact severity. Construction and operational impacts, including impact on Policies and Plans, are covered within each environmental topic heading where applicable.

1. Population and Human Health

1.1 Impacts

- If night works required, residential properties within proximity to the scheme may experience a level of disruption.
- Accesses may be temporarily blocked during the works.
- A number of Core Paths and footways may be temporarily blocked during the works.
- Bus stops will be inaccessible during the works, and bus routes will be impacted by the road closure.
- On street parking provisions will be inaccessible during the works.
- TS2010 will be utilised for resurfacing purposes, which is shown to have superior durability compared to standard road mixes.
- Reduced reoccurring routine maintenance and associated levels of disruption due to TS2010 durability.

¹¹ <https://pastmap.org.uk/map> (Accessed 20/03/2020)

¹² <https://www.east-ayrshire.gov.uk/Resources/PDF/M/Mauchline-Conservation-Area.pdf> (Accessed 20/03/2020)

¹³ <https://pastmap.org.uk/map> (Accessed 20/03/2020)

Description of the main environmental impacts of the project and proposed mitigation:

- TS2010 will afford benefits of a reduction in mid to high frequencies of traffic noise and a reduction in ground vibrations. As a result ambient noise levels may decrease post construction¹⁴.
- Traffic Management (TM) for these works has yet to be confirmed but will likely involve a total carriageway closure facilitated by an appropriate diversion.
- Traffic management is anticipated to have slight adverse impact on vehicle traffic and increase traffic levels in the surrounding road networks.

1.2 Mitigation

- If footways are blocked by the works, measures will be put in place to allow for pedestrians of all abilities to safely pass by the works.
- Operatives will facilitate local access requirements if obstructed by the works.
- Operatives will facilitate emergency vehicles and give them priority if works block access or route.
- Bus operators will be pre-notified of the works and intended closures/restrictions.
- Residential properties including Mauchline Fire Station will be notified prior to the works starting, detailing the nature, timings and duration of works along with traffic management arrangements. However the level of notification will vary dependent on programming of the works.
- Advance warning signs will be placed to warn road users of upcoming closures if required. TM will fall in line with the Traffic Signs Manual, Chapter 8.
- East Ayrshire Council's Environmental Health Department have been contacted prior the commencement of the works (undertaken by the Environmental & Sustainability Team). No comments were made.

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

2. Biodiversity

2.1 Impacts

- In accordance with Government measures in force to control coronavirus, a precautionary ecological survey of the site could not be undertaken¹⁵.
- As the scheme falls within an urban environment lacking in suitable sheltering for protected species such as badger and otter, it is unlikely that protected species will be active within the immediate surroundings.

2.2 Mitigation

- Even though it is deemed unlikely for protected species to be active within the local area the following precautions will be taken:
 - It is an offence to intentionally kill, injure or take (capture) a protected species; Operatives will be vigilant for potential presence of protected species. If a protected species is sighted within proximity to the works location, work will be temporarily suspended, until it has moved on. Any sightings will be reported to the Environmental and Sustainability team.
 - Safe storage of oil, fuels and other potential pollutants or hazardous materials on site.

¹⁴ Transport Scotland TS2010 Specification and Guidance Issue 03, October 2015 (as amended)

¹⁵ <https://www.gov.scot/news/effective-lockdown-to-be-introduced/> (Accessed 24/03/2020)

Description of the main environmental impacts of the project and proposed mitigation:	
It has been determined that the proposed project will not have direct or indirect significant effects to biodiversity.	
3. Land	<p>On site work activities will be confined within the existing A76 carriageway boundary, and will not require any access over private or community land.</p> <p>It has been determined that the proposed project will not have direct or indirect significant effects to land or land use.</p>
4. Soil	<p>The works are confined to the carriageway, and no areas of soil will be disturbed. As such, no impact to soils is predicted.</p> <p>It has been determined that the proposed project will not have direct or indirect significant effects to local soils.</p>
5. Water	<p>5.1 Impacts</p> <ul style="list-style-type: none"> • 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. This debris may be mobilised and could enter the road drainage having a detrimental effect on the surrounding local water environment. • There is potential for spills, leaks or seepage of fuels and oils associated with plant to escape and reach drainage systems, if not controlled. • Works have the potential to be delayed in the event of flooding or adverse weather. <p>5.2 Mitigation</p> <ul style="list-style-type: none"> • Appropriate measures will be implemented onsite to prevent any potential pollution to the natural water environment. This should include spill kits being present onsite at all times and drip trays being used to capture spillages. All site operatives are appropriately trained to deal with minor spillages. Any hazardous liquids held on site will be appropriately stored in line with manufacturing specifications and best practice. • Visual pollution inspections of the working site will be conducted in frequency, especially during periods of heavy rain or wind. • Weather reports will be monitored prior and during all construction activities. In the event of adverse weather / flooding events, all activities should temporarily stop, and only reconvene when deemed safe to do so, and run-off / drainage can be adequately controlled to prevent pollution. <p>It has been determined that the proposed project will not have direct or indirect significant effects to local waterways.</p>
6. Air	<p>6.1 Impacts</p> <ul style="list-style-type: none"> • On site construction activities carry a potential to produce airborne particulate matter and generate emissions that may have a slight impact on local air quality levels. • The use of vehicles, plant and generators emitting carbon emissions may temporarily affect air quality and will require the use of finite resources.

Description of the main environmental impacts of the project and proposed mitigation:

- Traffic management may increase traffic levels and congestion within local environments.

6.2 Mitigation

- Best practice measures will to be adopted for the duration of the scheme. Best practices measures can include but not limited to:
 - Vehicle and plant servicing/checks as per manufacturing and legal requirements;
 - Adoption of drive green techniques;
 - Route preparation and planning.
 - When not in use plant and vehicles will be switched off.

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

7. Climate

7.1 Impacts

- Greenhouse gas emissions will be emitted through the use of machinery, vehicles, transport and manufacture of materials used.

7.2 Mitigation

- Where possible, local suppliers will be used as far as reasonably practicable to reduce travel time and greenhouse gas emitted as part of the works;
- Materials containing recycled and virgin materials will be utilised as far as practicable to reduce the impacts associated with exploration and production from virgin resources.
- 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 section 8 Material Assets.

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

8. Material Assets

8.1 Impacts

- Greenhouse gas emissions generated by material production and transporting to and from site;

8.2 Mitigation

- Materials will be locally sourced and derived from recycled, secondary or re-used origin as far as practicable within the design specifications to reduce natural resource depletion.
- TS2010 SMA allows a wider array of aggregate sources to be considered when compared to typical SMA, resulting in reduced use of imported aggregates, and an increased use of a wider range of sustainable aggregate sources¹⁶.
- 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.
- Waste will follow the hierarchy and be reduced, reused and recycled where possible.

¹⁶http://www.transport.gov.scot/system/files/uploaded_content/documents/tsc_basic_pages/Transport/TSIA%2035-15%20%2B%20TS2010%20Ver03%20%28Oct%202015%29.pdf (Accessed 18/03/2020)

Description of the main environmental impacts of the project and proposed mitigation:

- Road planings generated will be recovered by a licenced contractor for reuse and / or recycled in accordance with the criteria stipulated within SEPA document 'Guidance on the Production of Fully Recoverable Asphalt Road Planings'.

The design life for the TS2010 SMA surfacing is considered to be around 20 years. This will reduce the requirements of maintenance to this section of road in future.

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

9. Cultural Heritage

9.1 Impacts

- As works will be restricted to the carriageway, no impact is predicted to nearby Listed Buildings or Conservation area.

9.2 Mitigation

- As works are restricted to the carriageway and like-for-like nature of materials, there is no impact predicted to nearby Listed Buildings or Conservation area.
- East Ayrshire council have been contacted regarding the works and designations.

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

10. Landscape

10.1 Impacts

The stretch of the A76 does not fall within any designation for landscape quality or character.

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.

11. Vulnerability of the Project to Risks

As the works will be limited to the like-for-like replacement of the carriageway, there is no change to the vulnerability of the road to the risk or severity of major accidents / disasters.

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.

Extent of EIA work undertaken and details of consultation:

The following environmental parameters have been considered within this Record of Determination:

- Population and Human Health
- Biodiversity
- Land

Extent of EIA work undertaken and details of consultation:

- Soil
- Water
- Air
- Climate
- Material Assets
- Cultural Heritage
- Landscape

The following statutory organisations have been consulted:

- East Ayrshire Council (31/03/2020)

The following environmental reviews have been undertaken:

- A design Initial Environmental Review of the scheme, undertaken by the Environmental and Sustainability Team at Scotland TranServ issued in March 2020.

Statement of case in support of a Determination that a formal EIA and Environmental Impact Assessment Report is not required:

This is a relevant project falling within Annex II that:

The project covers an area of over 1 hectare.

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). Screening using Annex III criteria, reference to consultations undertaken and review of available information has identified there is no need for a full EIA.

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

Characteristics of the scheme:

- Construction activities will involve the milling and replacement of the defective carriageway surface via 40mm and 260mm inlay, over an approximate 1.7km stretch of the A76 carriageway.
- The total area of works is approximately 11,486m² (1.14ha).
- Virgin materials will be required for the scheme construction, however the sustainable design chosen will minimise materials required and the levels of wastes generated. The use of TS2010 will reduce the use of imported aggregates and increase the use of a wider range of sustainable aggregate sources, as resurfacing material will contain a percentage of recycled material content where practicable.
- A proportion of reclaimed asphalt pavement (RAP) is used in asphalt production. Typical RAP values for base and binder are up to 10% in surface course.
- Road planings arising from the scheme will be recycled and reused as a material, reducing waste generated from construction works requiring landfill. The use of TS2010 will reduce the use of imported aggregates and increase the use of a wider range of sustainable aggregate sources.

- The design option (replacing the defective surfacing) conveys sustainability benefits by significantly reducing the quantity of maintenance interventions required at the location over approximately 20 years.

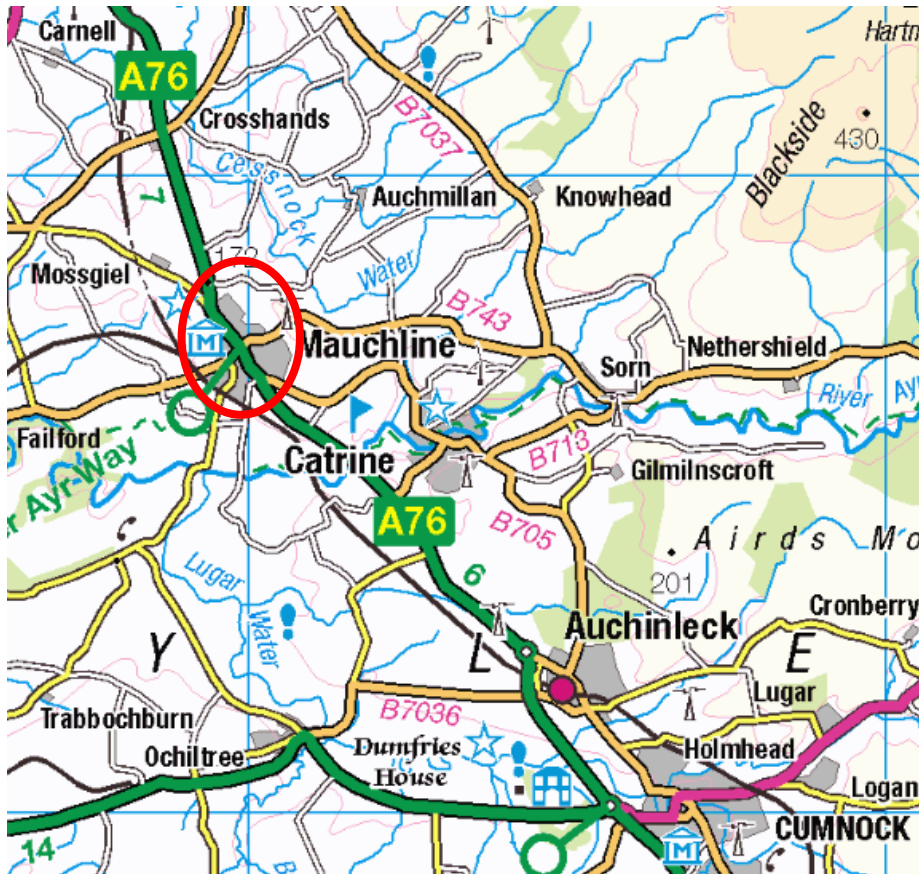
Location of the scheme:

- The scheme is located in an urban environment, and will be confined within the existing carriageway boundaries.
- The scheme will not require any land take and will not alter any local land uses.

Characteristics of potential impacts of the scheme:

- As the works will be limited to the like-for-like replacement of the carriageway surface, there is no change to the vulnerability of the road to the risk or severity of major accidents or disasters that would impact on the environment.
- No significant residual impacts are predicted. Disruption due to construction activities is 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 road users.
 - The use of TS2010 road surfacing will afford 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.

APPENDIX 1 : SCHEME LOCATION AND EXTENTS¹⁷



Reproduced by permission of the Ordnance Survey on behalf of HMSO.
© Crown Copyright and database right 2020.

All rights reserved. Ordnance Survey License Number 100046668

¹⁷ <https://gridreferencefinder.com/> (Accessed 18/03/2020)

