

# Record of Determination M74 Junction 10 and On-slip

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# Environmental Impact Assessment Record of Determination Transport Scotland

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# **Project Details**

# **Description**

This scheme is required to improve the quality and safety of the ride on this section of the M74 carriageway. The main stretch of carriageway currently shows signs of fretting while the on-slip shows fretting for most of its extent, along with transverse/longitudinal cracking.

Likely treatment will involve replacement of the surface course with possible deeper treatment at areas showing longitudinal cracking and at the severest of the rutting. Exact treatments and depths are yet to be determined. TS2010 is likely to be used as the surface material. Construction activities are likely to include:

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

South Lanarkshire Environmental Health team have been made aware of these works by email (14/05/2021).

These works are programmed to take place in August 2021, exact working hours and length of time of works is yet to be confirmed. Works are likely to take place during night working hours.

#### Location

The scheme is situated on a semi-rural stretch of the M74 to the east of Milton, South Lanarkshire. The National Grid Reference being:

- Scheme start NS 80543 41777
- Scheme end NS 81953 40136.



Image 1 - Scheme location

# **Description of Local Environment**

# Population and Human Health

The M74 is a key route between Glasgow and the south. The average annual daily flow (AADF) for the M74 (one way) on this section of the carriageway in 2019 was 10,954 with 38% being Heavy Goods Vehicles (HGVs).

The scheme is situated on a semi-rural stretch of the M74 carriageway to the east of Milton. The surrounding environment is made up of a mixture of residential properties, farmland and woodland. The River Nethan flows below one section of the carriageway.

There are a number of residential properties in close proximity to the scheme extents. The closest being approx. 50m south off Carlisle Road.

There is a footpath crosses the bottom of the on-slip.

There are no Core Paths, Cycleways or bridleways.

Access to the off-slip exists within the scheme extents.

A hard shoulder exists for the extents of the works.

Traffic management for this scheme is yet to be confirmed but is likely to involve lane closures.

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

# **Biodiversity**

The scheme is located on a semi-rural section of the M74. The scheme is flanked on both sides by a mixture of woodland and farmland. Residential and industrial land exists to the south of the carriageway. The Nethan Water flows below the carriageway within the extents.

A desktop study using <u>SiteLink</u> has identified the Clyde Valley Woods Special Area of Conservation (SAC) and Upper Nethan Valley Site of Special Scientific Interest (SSSI) approximately 1.5km north of the scheme end. These designations have been made due to upper mixed ash woodland, wet woodland and mixed woodland on base-rich soils associated with rocky slopes.

Amey's Invasive Non-native Species (INNS) Database has identified one record of Japanese Knotweed adjacent to the scheme area (NS 8120741028) and Giant Hogweed (NS 8103641358).

#### Field Survey

A field survey has been deemed not required for this scheme for a number of reasons. The scheme works are restricted to the existing carriageway footprint, specifically the northbound carriageway and on slip, there is a lack of suitable habitat on this side of the road. The pocket of woodland is isolated and surrounded by road. A survey was carried out within these woods by Amey Environment and Sustainability Team in November 2020 and no evidence of protected species were found.

Previous surveys of the Nethan Water have found evidence of Otter activity but no evidence of protected species shelter. As the works are non-intrusive and restricted to the existing carriageway there will be no impact on areas out with the footprint.

#### Land

The trunk road footprint consists of two northbound and two southbound lanes (works only occurring on Northbound). A mixture of agricultural fields, woodland, residential and industrial properties are present beyond the M74.

#### Soil

The Geology of Britain <u>Viewer</u> has identified the bedrock type in this area as Lanark Group and superficial deposits of Till - Diamicton.

Scotland's Soils Map has identified a mixture of Brown earth and Non-calcareous gley soils in this area.

#### Water

The Scottish Environment Protection Agency's (SEPA) Water Classification Map has identified the Nethan Water as flowing below the carriageway within the scheme extents. This has been given an overall and ecology rating of 'Moderate'.

SEPA Flood Risk Management Maps has highlighted that areas of the M74 carriageway within the scheme extents are at risk of surface water flooding.

#### Air

The scheme does not fall within any <u>Air Quality Management Areas</u> (AQMAs) declared by South Lanarkshire Council. On site construction activities carry a potential to produce airborne particulate matter that may have a slight temporary impact on local air quality levels.

The average annual daily flow (AADF) for the M74 (one way) on this section of the carriageway in 2019 was 10,954 with 38% being Heavy Goods Vehicles (HGVs).

# **Climate Change**

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 CO<sub>2</sub> emissions by 80% before 2050 (from the baseline year 1990).

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.

#### **Material Assets**

Table 1 – Site construction materials

Activity	Material Required	Origin/ Content
Site Construction	Road paint Road surfacing (likely TS2010) Binder	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.

# Waste

Table 2 – Site waste materials

Key Waste Arising from Activities			
Activity	Waste Arising	Disposal/ Regulation	
Site Construction	Road planings Road paint/studs	Uncontaminated road planings generated as a result of the required works, will be fully recycled in accordance with the criteria stipulated within SEPA document 'Guidance on the Production of Fully Recoverable Asphalt Road Planings.	
		Further on-site investigations of the carriageway condition are required, including Coring and Testing. Due to this, condition of surfacing could not be fully determined, including presence of coal tar. As such, presence of tar is not currently known for this scheme.	
		Presence of tar should be confirmed prior to the commencement of the works.	
		If testing does not identify any coal tar within the scheme extents, 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'.	

Key Waste Arising from Activities		
	If evidence of tar is identified during further site investigations, any tar-contaminated planings will require removal off site for treatment/disposal at a licenced waste facility.	
	All materials that can be should be reused throughout the network in accordance with applicable legislation.	

# **Cultural Heritage**

The category B listed building Milton Bridge sits approximately 95m south of the scheme, while the Craighead Mill scheduled monument sits approximately 90m north of the scheme.

# Description of Main Environmental Impacts and Proposed Mitigation

# **Population and Human Health**

# **Impacts**

- Traffic management arrangements may prolong travel time for carriageway users.
- Works may have an impact on local residential properties, particularly if works are carried out at night.
- The works may impact on the footpath present.
- The hard shoulder will likely be closed for the entirety of the works.
- Access to the off slip may be temporarily blocked.

# **Mitigation**

- If diversions are required, then these will be announced prior to the works starting and appropriate signage put in place.
- A letter drop will take place to properties highlighted on the notification map detailing the timings and nature of the works.
- If works do block the footpath then measures will be put in place to allow pedestrians of all ability to pass by the works safely.

- If the off-slip exit must be blocked this will be carried out when the least traffic is on the road and will be announced in advance of it occurring.
- As works are likely to be carried out at night the E&S team have contacted South Lanarkshire Council's Environmental Health team to inform them prior to the works starting.

Provided that mitigation and good practice is followed the residual impact of the works on the local population is deemed neutral.

# **Biodiversity**

# **Impacts**

- There is potential for protected species to be active in the area.
- Potential for INNS to be spread if not properly managed.
- It is unlikely that works will impact on INNS.
- There is no connectivity between the designated sites and the scheme location so there will be no impact on these sites.

#### **Mitigation**

- It is an offence to intentionally kill, injure or take (capture) a protected species. The following must be adhered to at all times during construction:
  - In the event of observing a protected species on the live working site, all works must temporarily top until the animal has moved on.
  - The control room will be contacted for environmental record.
- Works will avoid areas of INNS growth where possible. Where works are required to be undertaken within or within close proximity of an area of growth, the following measures are required to prevent spread:
  - Plant/equipment and footwear washing facilities must be in place prior to starting construction works.
  - Prior to operatives leaving an area of INNS growth, a visual check of all PPE will be undertaken.
  - All soil and plant fragments must be removed from PPE.
  - Any cut back INNS, wash water and soils will be contained on site and appropriately disposed of.
  - All plant and equipment must also be thoroughly cleaned and checked to ensure it is free from any soil and plant fragments.
- Site briefings will be given on protected species and INNS.

Provided that mitigation and best practice are followed the residual impact on biodiversity as a result of the scheme is deemed neutral.

#### Land

The works will be kept to the existing trunk road boundary and will not require or prevent access to private or community land.

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

#### Soil

As works will be restricted to the existing carriageway there is no predicted impact on geology and soils as a result of the works.

#### Water

#### **Impacts**

- If not adequately controlled, debris and run off from the works could be suspended in the surface water. In the event of a flooding incident, this debris may be mobilised and could enter the road drainage having a detrimental effect on the surrounding local water environment;
- Potential for fuel/chemical spillages through the use of various plant and vehicles, which may adversely impact the water environment.

# **M**itigation

- Appropriate measures, as detailed in the Guidance for Pollution Prevention
   (GPP) 1 and 5 issued by <u>NetRegs</u>, will be implemented to prevent pollution to the
   natural water environment (e.g. debris, dust sand and hazardous substances) via
   entering nearby drains.
- Visual pollution inspections of the working area must be conducted in frequency, especially during heavy rainfall and wind;
- Debris and dust generated as a result of the works must be prevented from entering the drainage system. This can be via the use of drain covers or similar;
- Weather reports will be monitored prior to and during the works with all
  construction activities temporarily halting in the event of adverse weather/flooding
  event. The works will only continue when it is deemed safe to do so and runoff/drainage can be adequately controlled to prevent pollution.
- Fully stocked spill kits will be kept on site.
- While working on the area crossing the Nethan kickboards should be in place to ensure no debris falls off the bridge and enters the water.

Provided mitigation is followed the residual impact of works on the water environment is deemed neutral.

#### Air

# **Impacts**

- The use of vehicles and plants emitting greenhouse gases 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**

- Best practice measures will to be adopted for the duration of the scheme. Best practice measures will include but not be 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.
- Dust suppression should be carried out in dry weather conditions or if site works create dust.

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

# **Climate Change**

# **Impacts**

 Greenhouse gas emissions will be emitted through the use of machinery, vehicles and materials used (containing recycled and virgin materials).

# **Mitigation**

- Where possible local suppliers will be used as far as practicable to reduce travel time and greenhouse gas emitted as part of the works;
- Vehicles / plant will 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 Material Assets.

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

#### **Material Assets**

# **Impacts**

- Contribution to resource depletion through use of virgin materials,
- Greenhouse gas emissions generated by material production and transporting to and from site.

# **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.
- The chosen material TS2010 Surface Course allows a wider array of aggregate sources to be considered when compared to typical stone mastic asphalt (SMA).
   As a result, the use of TS2010 should reduce the usage of imported aggregates and increase the use of a wider range of sustainable aggregate sources.

# **Circular Economy**

The design life for the TS2010 surfacing proposed is estimated to be 20 years. This will reduce the requirement for maintenance to this section of road over the period.

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.

#### **Waste**

# **Impacts**

Special waste disposal may be required if tar is present.

# **Mitigation**

- Road planings generated will be recovered by a licenced contractor for reuse and
  / or recycling in accordance with the criteria stipulated within SEPA document
  'Guidance on the Production of Fully Recoverable Asphalt Road Planings'.
- If tar is present in road planings then a SEPA waste consignment note must be gained and the waste disposed of at a fully licenced facility.

# **Cultural Heritage**

As the works will be restricted to the existing carriageway and there is sufficient distance between the carriageway and these sites there is no predicted impact.

# **Vulnerability of the Project to Risks**

As the works will be limited to the like-for-like replacement of the carriageway pavement, 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.

#### **Cumulative Effects**

There are no schemes in close proximity to this scheme which have a cumulative effect on the local environment.

# **Assessments of the Environmental Effects**

Provided that mitigation measures and best practice are followed the residual impact is deemed neutral.

South Lanarkshire Environmental Health team have been made aware of these works by email (14/05/2021).

# 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 18,915m<sup>2</sup> area of existing carriageway.
- 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 if there is no coal tar present.
- 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 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 is not situated in whole or in part in a "sensitive areas" as listed under regulation 2 (1) of the Environmental Impact Assessment (Scotland) Regulations 1999 (as amended).

Characteristics of potential impacts of the scheme:

- As the works will be limited to the like-for-like replacement of the carriageway pavement, 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 road users.
- 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.

# **Annex A**

"sensitive area" means any of the following:

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



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Published by Transport Scotland, July 2021

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