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SCOTLAND**
CÒMHDHAIL ALBA

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Record of Determination

M8 Clyde Tunnel Off-slip

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Project Details

Description

This scheme is being programmed to improve the ride quality of this section of the M8 carriageway. A visual survey has shown mainly surface defects such as fretting/chip loss, open centre joints and potholes throughout the scheme. There are also some cracking defects in parts of the older surface course, particularly on the J25a off-slip, both longitudinal and transverse.

Works will involve carriageway resurfacing using inlays of TS2010 and a binder, the binder material and depths are yet to be specified.

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.

Glasgow City Council Environmental health have been notified of the works by email (06/05/2021).

These works are programmed to take place in July 2021 and are expected to last up to seven days.

Location

The scheme is located on an urban section of the M8 carriageway within Glasgow City. The National Grid Reference:

- Scheme start – NS 53751 64664
- Scheme end 1 - NS 52369 66098
- Scheme end 2 - NS 52291 66217

The scheme length is approx. 2.3km and the total works area is 21,000m²

Figure 1 - Scheme Location and Extents

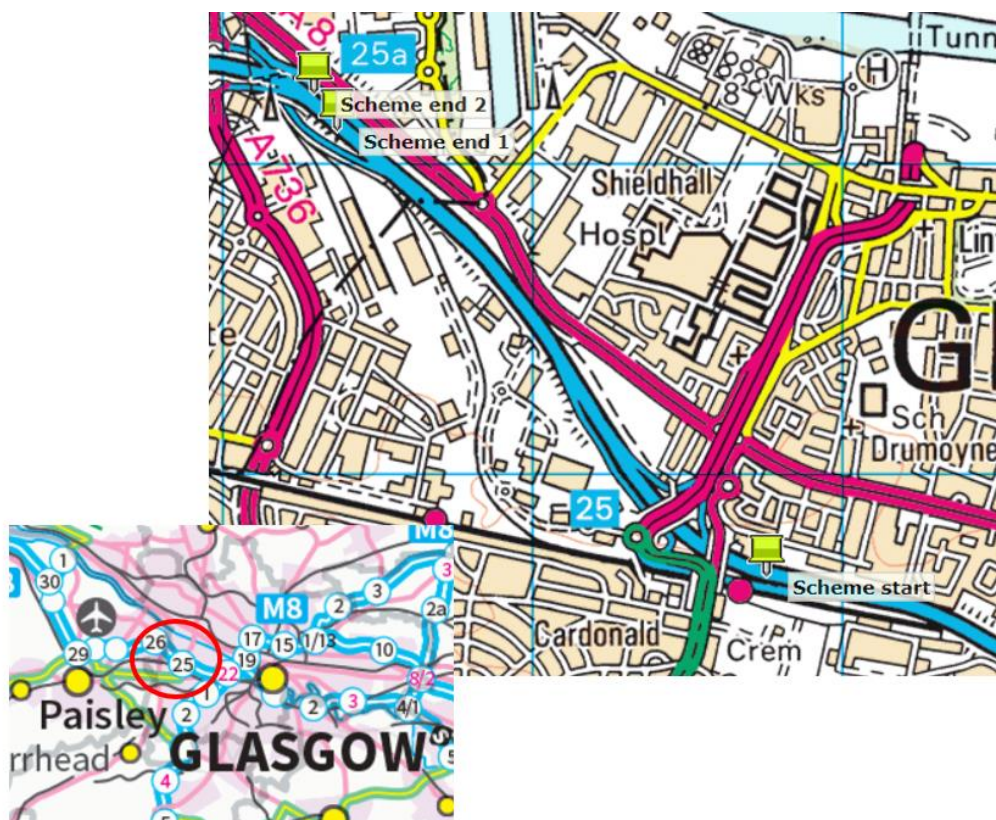


Figure 1 - Scheme Location and Extents

Description of Local Environment

Population and Human Health

The scheme is situated on the M8 carriageway adjacent to Hillington Industrial Estate within the City of Glasgow. The ambient noise levels in the local are likely influenced by industrial activities as well as primarily influenced by traffic on the M8.

There are no footpaths, CorePaths, cycleways or bridleways within the scheme extents.

There are residential properties approx. 105 m north east of the scheme location (towards the scheme start), on Rigmuir Road.

Premier Inn Glasgow Braehead sits approx. 100m from the carriageway.

An off-slip (Scheme end 1) exists within the scheme limits. There is also an on slip from the A739 carriageway which joins the M8 carriageway within the scheme extents.

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 set within an urban setting within Glasgow but the majority of the scheme is flanked by a thin wooded strip. The wider environment is made up of mostly industrial land.

A desktop study using NatureScot [SiteLink](#) has not identified any designated sites in close proximity to the scheme extents.

The Amey Animal Roadkill Database (2000 – 2020) does not highlight any records of roadkill within the scheme extents.

Amey's Invasive Non-native Species (INNS) Database has identified two records of giant hogweed (NS 5273565817 & NS 5276365781) and one record of Japanese knotweed (NS 5273565817) adjacent to the scheme and a further three records of giant hogweed on the other side of the east bound carriageway.

Land

This length of the M8 between Glasgow and Hillington is mostly a 4-lane motorway (plus hard shoulder), including the 2-lane J25a off-slip, and a small part of the J26 off-slip. The surrounding environment comprises of mainly an industrial estate with a small area of residential properties.

Soil

[Scotland's Soil Map](#) does not hold record of the soil type in this area.

In Accordance with [British Geological Survey map](#) the bedrock here is Clackmannan Group - Sedimentary rock cycles, Clackmannan group type. While the Superficial deposits are Alluvium - Clay, silt and sand.

Water

Although there are no watercourses within proximity to the scheme location there are a number of open top gullies along this section of the carriageway.

Road drainage is likely to outflow to the River Clyde approx. 230m north of the carriageway.

Air

The M8 is a key route connecting Edinburgh to the City of Glasgow. The average annual daily flow (AADF) one way for the M8 within the scheme extents in 2019 is recorded as 23,434 with a heavy goods vehicle (HGV) traffic count of 43%.

The scheme does not fall within any [Air Quality Management Area](#) (AQMA) declared by Glasgow City Council.

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 CO₂ 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

Activity	Material Required	Origin/ Content
Site construction	Road paint Road surfacing (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.

Table 1 - Materials Required

Waste

Activity	Waste Arising	Disposal/ Regulation
Site construction	Road planings Road paint/studs Filter material	<p>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.</p> <p>Presence of tar should be confirmed prior to the commencement of the works.</p> <p>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 Scottish Environmental Protection Agency (SEPA) document 'Guidance on the Production of Fully Recoverable Asphalt Road Planings'.</p> <p>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.</p> <ul style="list-style-type: none"> • A SEPA consignment note is required.

Activity	Waste Arising	Disposal/ Regulation
		<ul style="list-style-type: none"> • SEPA are to be informed at least three days prior to the movement of special waste. <p>All materials should be reused throughout the network where possible.</p>

Table 2 - Waste Arising and Disposal Requirements

Cultural Heritage

A desktop study using [PastMap](#) has not identified any areas of cultural heritage in proximity to the scheme.

Description of Main Environmental Impacts and Proposed Mitigation

Population and Human Health

Impacts

- Traffic management is likely to consist of single lane and slip closures. TM arrangements may prolong travel time and may increase traffic levels in the surrounding road networks.
- Due to the elevated verges, the area of woodland and the active eastbound carriageway there is no noise impact predicted on the residential properties as these will act as screening and absorb the noise created on site.
- Residents of Premier Inn may experience disturbance from night works.
- Reduced reoccurring routine maintenance and associated levels of disruption due to TS2010 durability.
- TS2010 road surfacing will be utilised, which should improve the skid resistance and reduce mid to high frequencies of traffic levels.

Mitigation

- Advance warning signs will be placed, informing commuters of the upcoming closure, to allow for better travel planning.
- The Premier Inn Hotel will be notified of works prior to start.

It has been determined that the proposed project will not have direct or indirect significant effects to Population and Human Health.

Biodiversity

Impacts

- Potential for INNS to be spread due to works.

Mitigation

- Operatives must be vigilant for potential presence of protected species. If a protected species is sighted within proximity to the works location, work shall be temporarily suspended, until it has moved on. Any sightings shall be reported to the E&S Team.
- Artificial lighting used during night works will be pointed directly at works and away from any areas of sensitive habitat (e.g. pockets of woodland) to ensure minimal impact on nocturnal species.
- Site operatives will be briefed on the location of the INNS. If INNS is identified on site, works will not be undertaken within areas of growth, unless deemed a requirement.
- No vehicles or plant are permitted to enter the verge and must only be operated from the carriageway.
- If works are required to be undertaken within an area of INNS, the following applies:
 - Any soils or wash water that inadvertently exits the verge should be collected and deposited back within the confines of the contaminated section of verge.
 - Movements of operatives within areas near INNS growth will be kept to a minimum. Before leaving one of these areas, operatives will ensure that all Personal Protective Equipment (PPE), tools and plant are sufficiently cleaned and free of soil. This will ensure that no soils contaminated with an invasive non-native species are inadvertently taken off site, causing their spread.
 - Care will be taken to ensure that wash water and cleared materials from PPE/equipment is appropriately contained and placed back within the contaminated area.
 - Care will be taken not to tread or track soils onto the carriageway surface, as this will increase the risk of invasive non-native species spread.
 - If possible, no traffic management or signage should enter the areas of INNS growth.
 - Where this is not possible any signage used within the verge will be appropriately cleared of all soil prior to removal.

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

Land

The works will be kept to the existing M8 carriageway boundary and will not require access to private or community land. Plant, materials and any temporary storage will be kept to the made carriageway surface only.

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

Soil

The works will be kept to the existing carriageway and soils shall not be impacted.

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

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 environmental.

Mitigation

- Appropriate measures will be implemented onsite to prevent any potential pollution to the natural water environment (e.g. debris, dust and hazardous substances). This will include spill kits being present onsite at all times;
- Visual pollution inspections of the working area will 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 run-off/drainage can be adequately controlled to prevent pollution.

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

Air

Impacts

- The use of vehicles and plants emitting carbon emissions may temporarily affect air quality.
- 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 limited to: vehicle and plant servicing/checks as per manufacturing and legal requirements; adoption of drive

green techniques; route preparation and planning; and when not in use plant and vehicles will be switched off.

- 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.

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 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.

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

Impact

- Transportation and recovery of planings will require energy deriving from fossil fuel,
- Limited quantity of waste from sweeping will arise requiring disposal.

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'.
- Road sweeping waste will be treated at a licenced facility to separate useful materials such as stone/aggregate as far as reasonably practicable, recovering this waste and diverting it from landfill.

Cultural Heritage

There are no features of cultural heritage that could be affected.

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 impacts on the environment.

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 21,000m² 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 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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