

EC DIRECTIVE 2011/92/EU (as amended)

ROADS (SCOTLAND) ACT 1984 (Environmental Impact Assessment)
Regulations 2017 (as amended)

RECORD OF DETERMINATION

Name of Project:

A82 Petrol Station to Dumbuckhill
Northbound

Location:

The scheme is located on the northbound carriageway of a section of the A82 approx. 300m east of Dumbarton, West Dunbartonshire. The National Grid References are:

- Scheme start: NS 43155 74127
- Scheme end: NS 41737 74586

The length of the scheme is approximately 1.6km with an area of approximately 11,826m².

Description of Project:

The works are required to repair a section of damaged carriageway along a section of the A82 northbound carriageway. The main driver for this scheme is due to fretted surface course along with localised lengths of transverse and longitudinal cracking which suggests structural failure of the carriageway. This indicates the surface course is approaching the end of its serviceable life.

The works will consist of an inlay treatment of TS2010 road surfacing intermittently throughout the length of the scheme to repair the defective road surface. AC20 binder will be utilised in areas of deeper treatment, to a depth of 60mm. This will prevent accelerating pavement deterioration and improve the overall ride quality of the carriageway within the scheme extents.

The package of works is set to take place in November 2020 for the duration of seven working nights. Operating hours will be between 20:00 and 06:00. West Dunbartonshire Council's Environmental Health Team were contacted regarding the required works and provided no comment.

Traffic management will involve a mix of single lane closures and full closure along this section of the carriageway.

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 A82 is the key route between Glasgow and the North. The average annual daily flow (AADF) in 2018 for the A82 within the scheme extents was 12,485 with a 19% heavy goods vehicle (HGV) traffic count. A rail line lies approximately 40m south of the planned works area.

The scheme is situated on a semi-urban section of the A82 carriageway, east of Dumbarton. The ambient noise levels are primarily influenced by vehicle traffic from the A82 carriageway, with secondary sources from nearby urban land use activities.

There are a number of front facing residential properties directly adjacent to the A82 southbound carriageway within the scheme extents. The closest property is located approx. 35m from the scheme.

Core Path 69 exists to the south of the carriageway throughout the scheme extents¹, separated from the A82 carriageway by a wall. This pathway is part of the NCN7 Cycleway.

Core Path 79 meets and crosses the A82 carriageway within the scheme extents.

Footpaths run adjacent to the northbound and southbound carriageways for the full scheme extent.

Several accesses exist along the northbound carriageway leading to commercial properties and the local road network.

Several bus stops are located within the scheme extents, directly adjacent to the northbound carriageway.

The scheme does not fall within a Candidate Noise Management Area (CNMA) as defined by the Transportation Noise Action Plan, Road Maps¹.

2. Biodiversity

The scheme is situated on a semi-urban section of the A82. Sections of the scheme are flanked by residential and commercial properties while the majority of the scheme is surrounded by farmland and a quarry.

A desktop study using Nature Scot's Sitelink¹ online interactive map has identified the Inner Clyde, a combined Ramsar (8429)¹, Special Protected Area (8514)¹ and Site of Special Scientific Interest (1701), located approx. 160m south of the scheme. These sites have been designated due to presence of the following:

- Redshank *Tringa totanus* (non-breeding).
- Goldeneye *Bucephala clangula* (non-breeding),
- Cormorant *Phalacrocorax carbo*, (non-breeding),
- Eider *Somateria mollissima* (non-breeding)
- Oystercatcher *Haematopus ostralegus* (non-breeding).

¹ <https://consult.gov.scot/transport-scotland/transportation-noise-action-plan-2019-2023/> (Accessed 01/10/2020)

Description of Local Environment:

Amey's Invasive Non-native Species Database has identified one record of Japanese knotweed growth approx. 10m from the northbound carriageway, NGR NS 42578 74270. The footpath separates the invasive plant from the carriageway.

Field Survey

An ecological survey was carried out on the 29th July 2020 to determine the requirement for protected mammal species licensing prior to construction under the Wildlife and Countryside Act 1981, the Nature Conservation (Scotland) Act 2004, the Conservation (Natural Habitats, &c.) Regulations 1994, and Wildlife and Natural Environment (Scotland) Act 2011.

No evidence of badger presence was found, and habitat appeared unfavourable, some areas were inaccessible for closer inspection. Habitat for otter along the Milton Burn appeared sub-optimal. From these surveys it is not predicted there is presence of protected species shelter within the scheme extents.

3. Land

The trunk road footprint consists of two northbound and southbound lanes, separated by a central reservation.

Footpaths run adjacent to the northbound and southbound carriageways for the full scheme extent. Footpaths verges are vegetated with low lying grass and thin strips of trees.

On site work activities will be confined within the A82 carriageway boundary and will not require access over any private or community land.

4. Soil

The scheme is not located within, or within proximity to, any Local Geodiversity Sites (formerly known as RIGS)² or geologically designated SSSIs³.

The National Soil Map of Scotland identifies the soil composition within the surrounding area to consists of a combination of non-calcareous gleys and a composition of unknown make up, likely due to the urban surroundings.

A desktop study using the British Geological Survey Map⁴ has identified local geology types as the following:

- Bedrock Geology
 - Ballagan Formation - Argillaceous Rock, Dolostone And Sandstone. Sedimentary Bedrock formed approximately 345 to 359 million years ago in the Carboniferous Period. Local environment previously dominated by lakes and lagoons.
 - Kinnesswood Formation - Sandstone. Sedimentary Bedrock formed approximately 347 to 383 million years ago in the Carboniferous and Devonian Periods. Local environment previously dominated by rivers.
- Superficial Deposits

² <https://www.google.com/maps/d/viewer?mid=1HfclRWclTRxXUZWNARManI-PUhE&ll=57.74680670722851%2C-5.313263556249922&z=6> (Accessed 01/10/2020)

³ <https://gateway.snh.gov.uk/sitelink/searchmap.jsp> (Accessed 01/10/2020)

⁴ <http://mapapps.bgs.ac.uk/geologyofbritain/home.html> (Accessed 01/10/2020)

Description of Local Environment:	
	<ul style="list-style-type: none"> - 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). - Raised Marine Beach Deposits of Holocene Age - Sand And Gravel. Superficial Deposits formed up to 2 million years ago in the Quaternary Period. Local environment previously dominated by shorelines (U).
5.	<p>Water</p> <p>SEPA's Water Classification Hub Map⁵ has identified the Clyde Estuary – Outer (200320) approx. 260m south of the scheme. SEPA has given an overall status of 'Moderate ecological' and an overall ecology status of 'Moderate'.</p> <p>Milton Burn (unclassified by SEPA) flows below the A82 carriageway within the scheme extents, and a drain flows partially through the scheme adjacent to the northbound carriageway.</p> <p>The Indicative River & Coastal Flood Map⁶ by SEPA highlights the carriageway to be at risk of surface water, river and coastal flooding.</p> <p>Flooding is managed by top entry gullies which are found at various points throughout the scheme extents.</p>
6.	<p>Air</p> <p>The A82 is a main route connecting towns within West Dunbartonshire. The average annual daily flow (AADF) in 2018 for the A82 within the scheme extents was 12,485 with a 19% heavy goods vehicle (HGV) traffic count.</p> <p>A quarry exists north of the scheme extents and a rail line is found south for the full extent of the scheme.</p> <p>As such, air quality is affected by the moderate daily use of the carriageway by road vehicle users, nearby railway line and quarry.</p> <p>West Dunbartonshire has not declared any Air Quality Management Areas⁷.</p>
7.	<p>Climate</p> <p>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).</p> <p>Amey, working on behalf of Transport Scotland, undertake carbon monitoring. Emissions from our activities are recorded using Transport Scotland's Carbon Management System.</p> <p>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.</p>
8.	<p>Material Assets</p>

⁵ <https://www.sepa.org.uk/data-visualisation/water-classification-hub/> (Accessed 02/10/2020)

⁶ <http://map.sepa.org.uk/floodmap/map.htm> (Accessed 02/10/2020)

⁷ <http://www.scottishairquality.scot/laqm/aqma> (Accessed 02/10/2020)

Description of Local Environment:		
Activity	Material Required	Origin/ Content
Site Construction	<ul style="list-style-type: none"> • TS2010 Surface (bitumen and aggregate) • Road Paint / studs • AC20 Binder 	<p>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.</p> <p>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 sources⁸.</p>
<u>Key Waste Arising from Activities</u>		
Activity	Waste Arising	Disposal/ Regulation
Site Construction	<ul style="list-style-type: none"> • Road Planings 	<p>Uncontaminated road planings generated as a result of the works will be fully recycled in accordance with the criteria stipulated within SEPA document 'Guidance on the Production for Fully Recovered Asphalt Road Planings'⁹.</p> <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>Coal Tar contain high levels of Benzo (a) pyrene.</p> <p>An inlay treatment of varying depth is required of between 40mm and 200mm. Special waste disposal is only required for some areas of the scheme extents.</p> <p>Any waste containing coal tar will be classed as special waste. This will require landfill disposal to a site capable of accepting coal tar contaminated waste.</p> <p>The disposal of special waste is also subject to obtaining a SEPA consignment note and</p>

⁸ Transport Scotland TS2010 Surface Course Specification and Guidance Issue 04, 2018 (as amended)

⁹ SEPA Guidance on the Production of Fully Recovered Asphalt Road Planings

Description of Local Environment:		
		providing advance notice of at least 3 days prior to any waste movement.
<p>9. Cultural Heritage</p> <p>A desktop study using PastMap¹⁰ has identified Milton primary school (LB49861) as a Category B listed building within approx. 70m of the scheme.</p>		
<p>10. Landscape</p> <p>The works are located within a semi-urban area of the A82, with the surrounding environment consisting of residential properties, small areas of woodland and a quarry. The A82 within the scheme extents does not fall within any designation for landscape quality or character.</p>		

Description of the main environmental impacts of the project and proposed mitigation:		
<p>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.</p>		
<p>1. Population and Human Health</p> <p>1.1 Impacts</p> <ul style="list-style-type: none"> • Given the night-time programming of the works, residential properties nearby may experience a level of disturbance; • The Core Path that crosses the carriageway and accesses found within the scheme extents may be temporarily impacted / obstructed; • Traffic management may cause delays to journeys, cause congestion and increase traffic on local roads; • Bus stops may be inaccessible during the works, and bus routes may be impacted by the road closure; • 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 and; • 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 construction¹¹. <p>1.2 Mitigation</p> <ul style="list-style-type: none"> • If footways/Core Paths 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; 		

¹⁰ <https://pastmap.org.uk/> (Accessed on 02/10/2020)

¹¹ Transport Scotland TS2010 Specification and Guidance Issue 03, October 2015 (as amended)

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

- Bus operators will be pre-notified of the works and intended closures/restrictions. Where single lane closures will be applied, bus stops will be relocated outside the live working area and clearly signed;
- Properties nearby will be notified prior to the works starting; detailing the nature, timings and duration of works along with traffic management arrangements,
- Operatives will be briefed with the Noise and Vibration toolbox talk before starting works;
- Effects from noise will be kept to a minimum through the use of appropriate mufflers and silencers fitted to machinery. All exhaust silencers will be checked at regular intervals to ensure efficiency;
- The noisiest works shall be scheduled for before 11:00pm where feasible;
- Artificial site lighting will be directional and pointed away from residential properties,
- The road closures/restrictions will be widely publicised within the local and wider area, in an effort to minimise disturbance to vehicular travellers.

It has been determined that the proposed project will have slight temporary impact to population and human health.

2. Biodiversity

2.1 Impacts

- A footpath separates the invasive plant from the carriageway. The works will be kept to the paved carriageway and will not disturb the invasive plant;
- There is potential for protected species to be active within the local area;
- The works have no direct impact on the habitat within the SPA, Ramsar or SSSI. The works will also be carried out within the wintering period (September to March).
 - In consideration of the conservation objectives of these sites, and on the basis of objective information, it is determined that the works are 'not likely' to have a significant effect on the Natura Sites. Nature Scot have been consulted.

2.2 Mitigation

- 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.
- On site light sources will be kept to a minimum, and only used as required. When in use, any artificial light should be pointed down and directed at the area of works as far as reasonably practicable, reducing any light spill into the wider surroundings including to nearby sensitive areas.
- There is ongoing consultation with NatureScot. Upon the outcome of the consultation, agreements and requirements will be adhered to during construction.

Significant effects on the Natura Sites locally are not likely.

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

3. Land

The works will be kept to the existing A82 carriageway boundary and will not require or prevent access to private or community land out.

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 land.	
4. Soil	<p>The works will be kept to the existing carriageway and soils shall not be impacted.</p> <p>It has been determined that the proposed project will not have direct or indirect significant effects to soil.</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; • Potential for spills, leaks or seepage of fuels and oils associated with plant to escape and reach drainage systems and watercourses, if not controlled; • Risk of flooding may impact the scheme extent delaying the works. <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 (e.g. debris, dust and hazardous substances). This will always include spill kits being present onsite, the use of funnels and dip trays when transferring fuel, the use of drain covers; • Visual pollution inspections of the working area will be conducted frequently, especially during heavy rainfall and wind; • Weather reports shall 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. • Oil, fuels and other potential pollutants or poisonous materials will be stored safely on site; • Best practice, as detailed by SEPA's 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. <p>It has been determined that the proposed project will not have direct or indirect significant effects to water.</p>
6. Air	<p>6.1 Impacts</p> <ul style="list-style-type: none"> • The use of vehicles and plants 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. <p>6.2 Mitigation</p> <ul style="list-style-type: none"> • Best practice measures will to be adopted for the duration of the scheme. Best practice measures will include but not be limited to: <ul style="list-style-type: none"> - Vehicle and plant servicing/checks as per manufacturing and legal requirements;

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

- Adoption of drive green techniques;
- Route preparation and planning.
- When not in use plant and vehicle will be switched off.

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

7. Climate

7.1 Impacts

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

7.2 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.

8. Material Assets

8.1 Impacts

- Contribution to resource depletion through use of virgin materials,
- Greenhouse gas emissions generated by material production and transporting to and from site,
- Special waste disposal will be required, due to the presence of tar.

8.2 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.
- Uncontaminated 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'.
- 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.
- Any waste containing coal tar will be classed as special waste. This will require landfill disposal to a site capable of accepting coal tar contaminated waste.
- The disposal of special waste is also subject to obtaining a SEPA consignment note and providing advance notice of at least 3 days prior to any waste movement.

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.

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 the consumption of material assets or disposal of waste.

9. Cultural Heritage

The works will be kept to the existing footprint of the carriageway and will not impact upon the listed building.

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

10. Landscape

The A82 within the scheme extents 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.

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

11. 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.

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

The following statutory organisations have been consulted:

- West Dunbartonshire Council's Environmental Health Team have been notified of the proposed works.
- Nature Scot regarding the Nature Sites.

Extent of EIA work undertaken and details of consultation:

The following environmental surveys / reviews have been undertaken:

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

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

The works are considered to constitute a relevant project falling within Annex II as referred to in the Environmental Impact Assessment (Scotland) Regulations 1999 (as amended), since they 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). 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 are restricted to the 11,826m² / 1.2 ha 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.
- Uncontaminated road planings will be fully recycled in accordance with Guidance on the Production for Fully Recovered Asphalt Road Planings.
- 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.
- A slight adverse impact is predicted with regards to noise and vibrations during construction due to the close proximity to residential properties, this will be mitigated as far as is reasonably practicable on site and residents informed of upcoming works.
- 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:

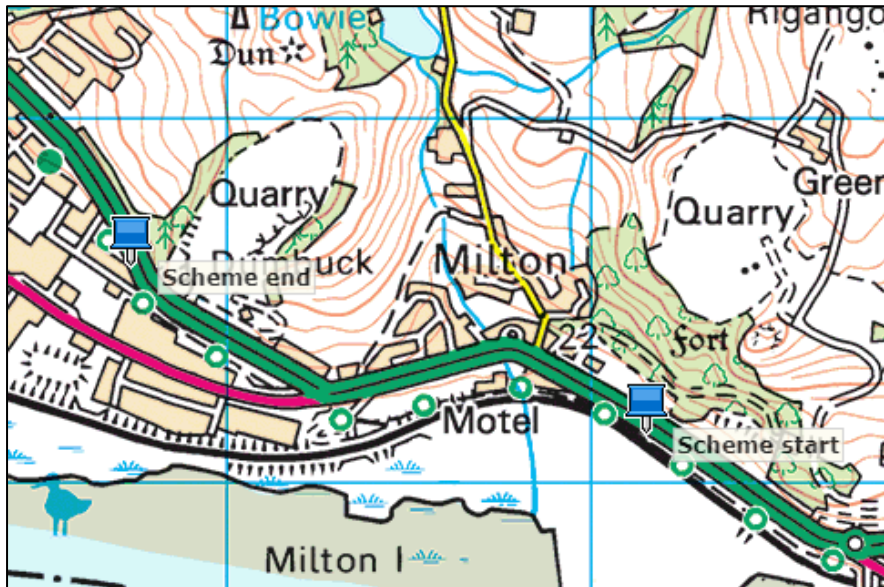
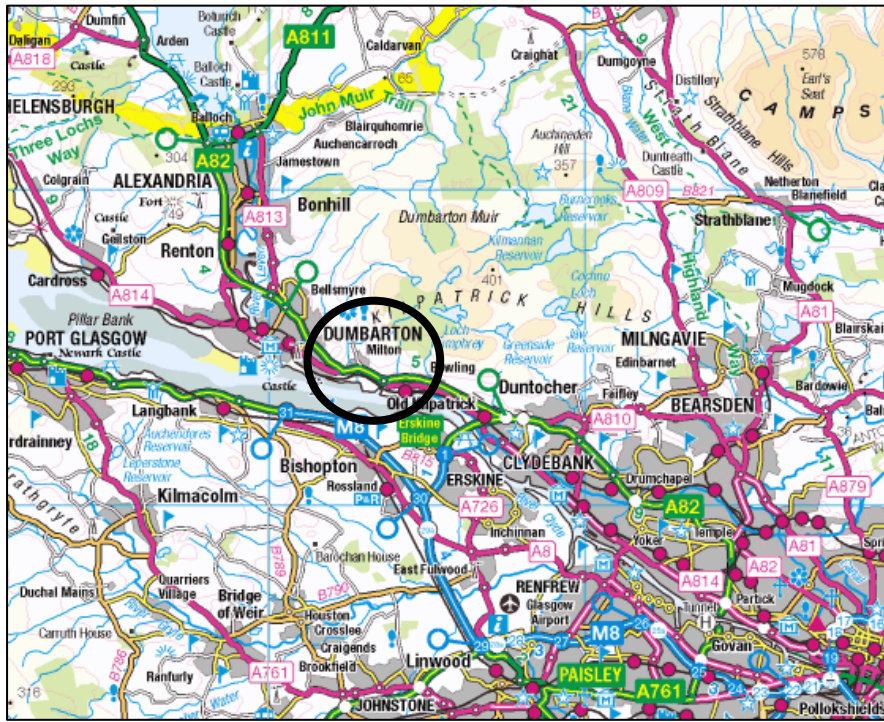
- As the works will be limited to the like-for-like replacement of the carriageway pavement, there is no change to the vulnerability of the road to the risk or severity of major accidents / disasters that would impact on the environment.
- No significant residual impacts are predicted. Disruption due 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.

File references of supporting documentation:

Appendix 1 – Scheme location and extent

APPENDIX 1: SCHEME LOCATION AND EXTENTS



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