



Llywodraeth Cymru
Welsh Government

A55 Junction 16 and 16A Improvements Environmental Statement Non-Technical Summary - March 2021



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Llywodraeth Cymru
Welsh Government

**Cronfa Datblygu
Rhanbarthol Ewrop
European Regional
Development Fund**

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Historically, the schemes at Junction 15 and 16 have been referred to collectively as the 'Junction 15 and 16 Improvements'. Since the Statutory Processes for each junction are being conducted independently of one another and because of the proposed improvements to the Junction 16A layout, a decision has been taken to rename the draft Orders, associated Environmental Statements and reporting as follows; the Junction 16 Scheme is now known as the Junction 16 and 16A Improvement Scheme. The Junction 15 Scheme is now known as the Junction 14 and 15 Improvement Scheme.

The Welsh Ministers are responsible for trunk roads in Wales including the A55 North Wales Expressway also known as the A55 North Wales Coast Road or the A55. The A55 forms part of Euroroute E22 Trans-European Transport Network (TEN-T) that runs from Ishim in Russia, to Dublin in Ireland, and provides a vital connection to the Port of Holyhead.

Junctions 15 and 16 are the only two roundabouts on the TEN-T and are substandard and dangerous junctions. With traffic numbers using the A55 constantly increasing, the roundabouts now present a hazard to through traffic and are also dangerous junctions for road users joining the A55 from the local road network and towns of Llanfairfechan, Penmaenmawr and Dwygyfylchi.

The Welsh Ministers propose removing the existing roundabout at Junction 16 Penmaenmawr and providing a new a height separated junction further east at Dwygyfylchi (Junction 16A). Traffic would join the A55 via slip roads allowing traffic to flow more smoothly and be safer for traffic joining the A55 in both east and west directions. A new link road would run parallel to the A55 and connect Junctions 16 and 16A. Junction 16 would replace the existing roundabout with slip roads to allow traffic travelling west access off the A55 to Penmaenmawr and access on to the A55 travelling west towards Bangor.

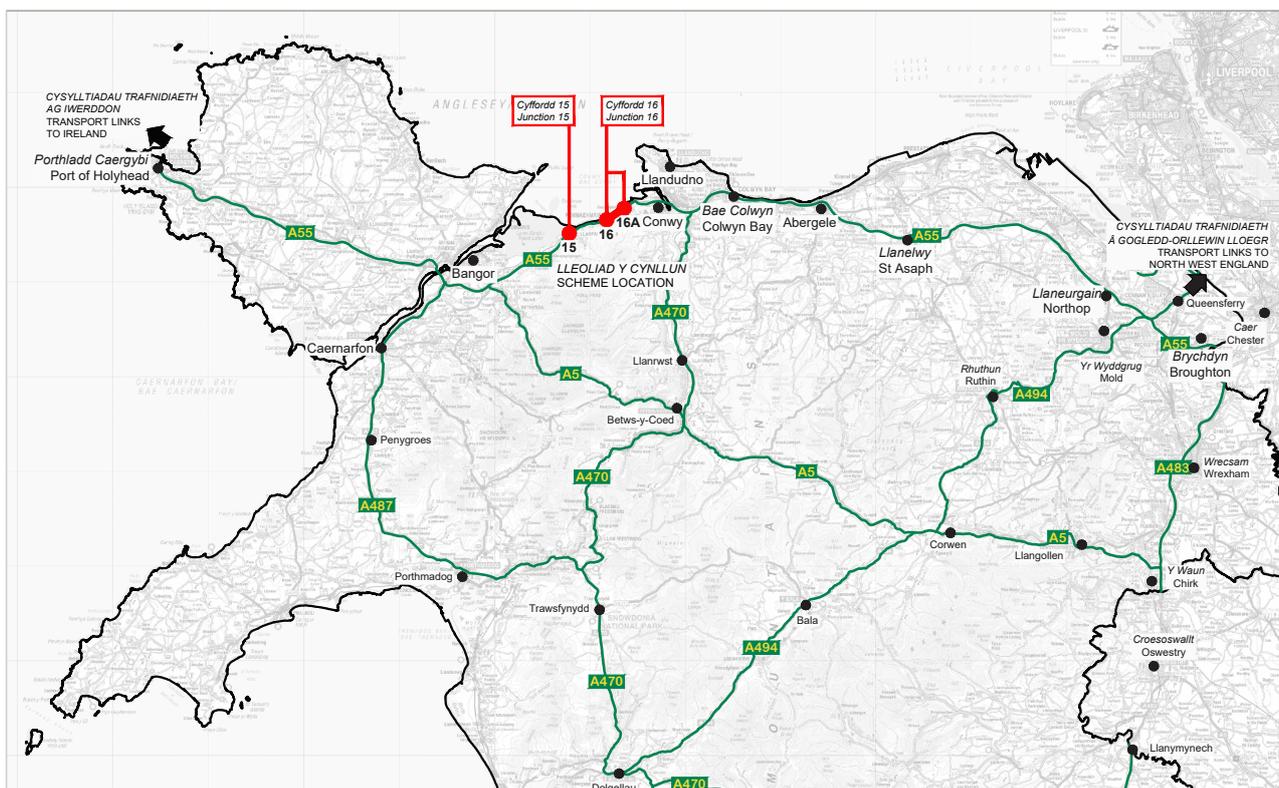


Figure 1 Scheme Location

The Scheme also provides opportunities for a number of measures intended to improve access and connectivity with the A55 around Junction 16 and 16A such as:

- A range of Active Travel measures to enhance the provision made for walkers and cyclists that would promote active travel journeys. These measures would improve the local footpath and cyclepath network between community facilities in Penmaenmawr and Dwygyfylchi. The improvements at Junction 16A would create a new link across the A55 and connect with established long-distance routes such as the National Cycle Network Route 5 and the Wales Coast Path.
- The new link road would help create a green corridor separating the strategic transport routes and the new link road to the north from the residential and agricultural areas to the south. The corridor would contain an Active Travel route with links to Dwygyfylchi and Penmaenmawr with accessible ramps to the proposed footbridge improving accessibility to the beach and foreshore.
- The green corridor would incorporate links to existing facilities such as the football field by Maes-y-Llan, and the Orme View Services, and provide a naturalistic landscape barrier of woodland and meadows as a setting for circular cycle and walking routes.

Environmental Impact Assessment

The Scheme for Junction 16 is subject to an Environmental Impact Assessment (EIA), in accordance with EC Directive 2011/92/EU, as amended by Directive 2014/52/EU (collectively referred to as the EIA Directive). The latter is transcribed into UK law through the Highways Act 1980 (as amended) and the Environmental Impact Assessment (Miscellaneous Amendments Relating to Harbours, Highways and Transport) Regulations 2017, which came into effect on 5 December 2017.

The EIA is reported in an Environmental Statement (ES), which provides detailed information to help anyone with an interest in the scheme to understand the proposals and have an opportunity to express an opinion before the Welsh Ministers decide whether to proceed with the Scheme.

This document is a Non-Technical Summary (NTS) of the ES that has been prepared to help you understand the Scheme better and to guide you to the relevant chapters or plans in the ES.

The ES is reported in three Volumes:

- Volume 1 – ES.
- Volume 2 – Figures.
- Volume 3 – Technical Appendices.

The Draft Orders

The ES accompanies the draft Statutory Orders published under the Highways Act 1980 (as amended) which set out the land required for the construction, operation and maintenance of the Scheme. The following draft orders have been prepared for the Scheme and are published together with the ES:

- The Chester to Bangor Trunk Road (A55) (Junctions 16 and 16A Improvement Realignment and Slip Roads) Order 202-
- The Chester to Bangor Trunk Road (A55) (Junctions 16 and 16A Improvement Realignment and Slip Roads) (Side Roads) Order 202-
- The Welsh Ministers (The Chester to Bangor Trunk Road (A55) (Junctions 16 and 16A Improvement Realignment and Slip Roads) Compulsory Purchase Order 202-

Copies of the ES and draft Orders may be inspected free of charge during normal office hours at the following premises:

- Conwy Culture Centre, Town Ditch Road, Conwy, LL32 8NU.
- Penmaenmawr Library, Bangor Rd, Penmaenmawr, LL34 6DA.
- Llanfairfechan Library, Village Rd, Llanfairfechan LL33 0AA.

All of the relevant information on the draft Orders and Environmental Statement are available digitally on the Welsh Government website or on request from the project team (see email address for contact details). During this challenging time, we are endeavouring to ensure that hard copies are available for anyone who may wish to view them. The list of premises where documents are held on deposit will be subject to constant review and may be amended based on the latest guidance on COVID-19. Up-to-date information regarding how the documents can be accessed, can be found via the project website and notices placed at the venues. All published documents for the Scheme can be viewed on the project website:

<https://www.gov.wales/a55-junctions-16-and-16A>

Copies of the draft Orders, Environmental Statement and supporting information may be inspected free of charge at the location listed below:

Orders Branch
Transport
Welsh Government
Cathays Park
Cardiff
CF10 3NQ

Electronic copies of the EIA can be purchased at a cost of £5 from the above address.

The existing J16 roundabout was constructed in the late 1980's/early 1990's and built to alleviate traffic congestion.

Previous studies, undertaken between 2005 and 2015, identified the need for improvements to take account of increasing traffic and to improve road safety. A commitment to improve the junction was made in the Welsh Government's National Transport Finance Plan (2015).

A Welsh Transport Appraisal Guidance (WelTAG) Study carried out in 2018 identified key problems for both Junctions 15 and 16 and the need for improvements to address issues of:

Safety

The junction does not comply with current highway design standards. This is considered to affect safety and capacity.

Traffic Delays

The need to reduce journey times and delays, especially during peak periods (for example due to ferry flows).

Poor Network Resilience

If the A55 is closed for incidents or planned works, such as tunnel maintenance, there are a lack of appropriate diversion routes.

Sustainable Travel

Lack of competitive sustainable travel options and poor coastal access and safety for pedestrians and cyclists.



Figure 2 View east along the A55 from pedestrian footbridge across the A55 west of Petrol Filling Station and Puffin Cafe

These proposals support the direction and policy objectives of the Welsh Government as set out in government policy, strategies and programmes. Details of these are provided in Chapter 2 of the ES. The Scheme objectives for both junctions were agreed at the beginning of the project by the Welsh Transport Planning and Appraisal Review Group.

They are:

- OBJ1** Improve access to regional, national and international markets and improve access to employment opportunities.
- OBJ2** Improve road safety on the A55 from Junction 14 to Junction 16A.
- OBJ3** Improve journey times and journey time reliability on the A55 from Junction 14 to Junction 16A.
- OBJ4** Improve resilience on the A55 for strategic and local traffic.
- OBJ5** Improve journey times, journey time reliability and safety for access onto the A55 from Llanfairfechan and Penmaenmawr.
- OBJ6** Reduce severance with coastal areas for the Non-Motorised Users and enhance provision made for walkers and cyclists.
- OBJ7** To take reasonable steps to build healthier communities and better environments.
- OBJ8** Opportunities to provide integrated transport are increased.

There are also three technical Scheme objectives:

- TECH OBJ9** Minimising technical departures from standards.
- TECH OBJ10** Minimising need to reduce speed limits.
- TECH OBJ11** Minimising disruption during construction.

Four different junction layouts were designed to replace the existing roundabout at J16 in the constrained corridor between the Chester – Holyhead railway line to the north and existing buildings and farmland to the south. Each was considered against the Scheme objectives.

All the options that provided full access on and off the A55 would require substantial changes to the immediate surroundings and could have adverse environmental effects. The preferred option required a new height separated junction at 16A with a link road to Junction 16. The link road would bypass Dwygyfylchi and avoid or minimise some of the significant adverse effects of the other options.

A series of public exhibitions and consultation exercises have been held to allow the community and stakeholders to comment on the proposals. The feedback has contributed to the choice and the selection and design of the preferred option.

Option A was recommended to the Welsh Ministers and was subsequently announced as the preferred route on 6th April 2019.

Further detail of the options considered are provided in the ES Chapter 3 and are also explained in the following web link:

<https://gov.wales/preferred-options-replace-a55-roundabouts-go-show>



Figure 3 Junction 16

The Scheme would replace the existing Junction 16 roundabout with west bound on and off slip roads and provide a new height separated junction away from residential areas at 16A. These changes would allow the free flow of traffic along the A55, while providing safe access on and off the dual carriageway to the east and west.

A new link road between Junction 16 at Penmaenmawr and Junction 16A Dwygyfylchi would be provided on the south side of the A55. This road would loop around the Orme View Services before joining Conway Road close to the realigned Junction 16 at a proposed roundabout.

The roadside strip to the south of the A55 from Junction 16 to 16A would form a green corridor of tree and shrub planting, and wildflower-rich grassland. Cycle and footpath routes would also be created along the green corridor, with links into Dwygyfylchi. A bank, or false cutting would screen the A55 and link road in views from residential areas to the south.

Whilst the link road would serve as a bypass to Dwygyfylchi, access to the village and Capelulo, would be maintained from J16A via Glan Yr Afon Road. Traffic calming measures are proposed to discourage the use of Glan Yr Afon Road as a through route to Penmaenmawr. The layout of the Scheme and the environmental measures designed to limit the adverse effects of the junction improvements, are shown in the plan at the rear of this NTS.



Figure 4 Visualisation of Scheme looking west across new height separated Junction 16A and overbridge and link road towards Penmaenmawr

If the Welsh Ministers confirm the Orders, construction would start late 2021 to be completed in mid/late 2023.

Construction would typically commence with temporary fencing of the works corridor and setting up of temporary compounds, followed by site clearance, removal of roadside vegetation and diversion of utilities. Temporary traffic management would provide steady flows of traffic through the works.

With these preparations complete, cuttings and flood attenuation measures would be excavated and embankments formed. Construction of structures such as the new overbridge, retaining walls and culverts would commence. The new link road and junctions would be completed followed by the installation of lighting columns, road signs, safety barriers and further fencing. Finally, the landscape planting and accommodation works would be completed.

Following construction, there would be 3 years of landscape maintenance and aftercare to make sure that areas of tree and shrub planting and grass seeding grow and become established.

Construction work would be carried out in accordance with best practice to minimise the effects of noise, dust and construction traffic and the inconvenience of road closures.

A full time Public Liaison Officer (PLO) would keep the public and affected landowners informed of progress and advise on the phases of construction work. The PLO would be based at the site office and be the first point of contact with a dedicated telephone number for members of the public to use.

Consultation

Organisations including Cadw, Gwynedd Archaeological Trust (GAT), Natural Resources Wales (NRW), Conwy County Borough Council (CCBC), Snowdonia National Park Authority (SNPA) and Welsh Government departments, have been consulted or have provided information. Their views have been considered as the design of the Scheme has developed. The Organisations have been invited to and/or attended Environmental Liaison Group (ELG) meetings and have been consulted throughout the development of the Scheme.

Town Councils, local residents, business owners, and stakeholder groups attended public exhibitions held in Dwygyfylchi, Penmaemawr and Llanfairfechan and met with the project team. Commercial, industrial, business operators, landowners and stakeholder groups have also been consulted.

Screening and Scoping

A screening exercise was undertaken in 2018 and 2019 to establish if the Scheme would require an Environmental Impact Assessment (EIA) in accordance with the relevant legislation. This process concluded that a statutory EIA would be required as the Scheme is classified as a “Relevant Project” due to its size and the likelihood that it would have potential to cause significant environmental effects.

Scoping is the process for deciding what environmental topics should be considered for assessment within the EIA. The Scoping Report was prepared in June 2019 and sets out the details and scope of the environmental assessments.

Mitigation and Enhancement

The designers have considered the impact of their design on the environment, and where practicable, the design has been adjusted to avoid or reduce any adverse effects. If adverse effects cannot be avoided or adequately reduced, mitigation measures are considered. Examples of mitigation include planting of trees and shrubs to screen views of traffic from properties, providing physical barriers to reduce traffic noise and creating new habitat for displaced wildlife. Enhancement is a measure that is over and above what is required to mitigate the adverse effects of a project and would deliver added benefits to the Scheme. The EIA has been completed by measuring the effects of the Scheme with the proposed mitigation in place by the time the Scheme becomes operational

Specialist Environmental Assessments

Specialist environmental assessments have been undertaken as part of the EIA process and are reported fully in the ES. These have identified and assessed the potential effects of the Scheme on a comprehensive range of environmental topics. A summary of these assessments is set out in the following pages.

Geology and Soils

The underlying geology and soils have a strong influence on the appearance of the local landform and how the use of land has evolved.

Historical mapping and results of a detailed ground investigation identified areas of made ground. Potentially there are buried materials associated with historic land uses including refuse disposal, a gasworks and a tar storage tank. There are also areas previously used to tip household waste and fill material associated with the construction of the A55 in the early 1990's. An existing sewage treatment works lies nearby Junction 16A, between the railway line and the coast.

The assessment has considered the likely effects of the Scheme on the underlying geology, ground conditions, groundwater and any areas of contamination.

There are no significant effects during the construction or operational phases of the scheme and no significant risks of the general public being exposed to contamination.



Figure 5 Aerial photograph from Alltwen looking across the village of Dwygyfylchi and the A55 road corridor towards Penmaenmawr Quarry and beyond to the coast of Anglesey

Road Drainage and Water Environment

The waters of Menai Strait, Conwy and Liverpool Bay that lie north off the North Wales coast between Llanfairfechan and Penmaenmawr, are designated sites of national and international importance due to the aquatic ecosystems and inter-tidal areas that support the aquatic, marine and birdlife. This area of sea is also of excellent water quality for bathing.

The Afon Gyrach is the main watercourse in the vicinity of the Scheme and runs in a northerly direction east of Penmaenmawr and north - east of the village of Dwygyfylchi. The river descends from the uplands and through the village of Capelulo and flows north passing underneath the A55 and railway before discharging onto the beach and into Conwy Bay. The water quality of the river has been recorded as generally good and the banks of the river are known to flood at times of heavy rain.

The Water Framework Directive (WFD) and Bathing Water Directive are important pieces of legislation that aim to provide a holistic approach to protection of the water environment and to address the chemical content of the water and marine ecology. As required by the Regulations, the assessment has looked at the potential effects of the Scheme on the water quality of the rivers and watercourses that run into the sea, together with any potential risks associated with flooding that would be caused by the construction or operation of the Scheme.



Figure 6 View of the A55 from Alltwen with the wooded valley of the Afon Gyrach crossing the coastal plain

The Scheme includes measures to protect the water environment including pollution control and containment measures in case there are pollution incidents and spillages on the A55. It also includes areas to store surface water following heavy rain where there are risks of surface water flooding. These would act to control flows and prevent localised flooding prior to discharging the water to existing drains and the Afon Gyrach which collectively outfall to the sea.

During the construction period there would be measures in place to protect watercourses and the sea from silt and spilled pollutants. These would be monitored following completion of the Scheme to ensure that they continue to be effective pollution control measures during the operational period.

The assessment has concluded that the Scheme would not affect the water quality of the Afon Gyrach or surface water drainage that enters the sea. There would be no significant effect on the chemical quality of the water, the aquatic ecosystems or bathing quality of the sea at Penmaenmawr. The Scheme would thus be in compliance with the WFD.

Nature Conservation

The coastal waters north of Penmaenmawr and Dwygyfylchi are designated sites of national and international importance:

- Menai Strait and Conwy Bay Special Area of Conservation (SAC).
- Liverpool Bay Special Protection Area (SPA).

A range of birds, including species normally associated with coastal habitats, were identified, including overwintering birds. Large numbers of oystercatchers forage in the intertidal zone and take refuge during high tide on local grasslands.

A Statement to Inform an Appropriate Assessment (SIAA) has considered the likely effects of the Scheme on these sites of national and international importance. The SIAA concluded that there would be no significant effects on these protected areas or overwintering birds as a result of the Scheme.

Surveys for bats have found a number of species, including lesser horseshoe bats using the landscape near the scheme, but no roosts were identified. Otter, trout and eel are associated with the Afon Gyrach and reptiles were found in grassland near the A55.

During the construction period, vegetation clearance would be carried out in the appropriate season to avoid harm and disturbance to species, such as birds and reptiles.

Mitigation to reduce potentially adverse effects includes tree and shrub planting to form a corridor of coastal scrub woodland along the A55 that links with the Afon Gyrach and woodland on Penmaen Bach. The woodland would provide cover, flight lines and foraging for fauna. Large areas of grassland would be seeded with wildflowers to encourage pollinators. Road lighting would be designed to avoid disturbance of bats and otter using the river valley of the Afon Gyrach.

Many of the impacts would be short term, but overall the scheme would be beneficial with an increase in vegetated habitats, including species rich grassland and native trees and shrubs.

Landscape

The existing A55 has extensive roadside planting screening the road from many nearby properties and to integrate it with the landscape. The proposed improvements, including the new link road and grade separated junction at 16A, would widen the existing road corridor into agricultural land to the south. As a result of the Scheme much of the existing roadside vegetation would be lost, leading to more open views of the A55 road corridor and associated traffic.

The Scheme includes landscape mitigation measures to reduce the landscape and visual impact in the form of an extensive earth bank, known as a false cutting. This would be planted with trees and shrubs to screen views of the link road and dual carriageway from the south. Where the false cutting stops, to the east of the Orme View Services, plantations would continue east along the south side of the A55 to meet the established trees near the tunnel portal. Junction 16A would be partly hidden in a cutting and by elevated slip roads. The landscape mitigation would also provide benefits for nature conservation and biodiversity with planting of native trees and shrubs appropriate to the locality.

During construction earthmoving would cause short-term disruption, but once complete, the false cutting would provide effective screening. Plantations would grow over several years to provide the same benefit. The A55 and the link road would be screened from the views of nearby residential areas such as those along Ysguborwen Road, Gwel y Mor and Cae Gwynan while keeping open views of the sea beyond.

The scheme would be close to the residential properties at Maes y Llan, but existing views north across the open sea from the properties would be retained.

The landscape and visual impact of the Scheme on the highly scenic qualities of the surrounding upland areas, would remain intact, with no significant change to the wider landscape character or the tranquillity of Snowdonia National Park.

Cultural Heritage

The Creuddyn and Arllechwedd Historic Landscape, which lies in the uplands to the south, is noted for its archaeology and open character. The uplands contain numerous prehistoric Scheduled Ancient Monuments, but these are over 1km from the scheme. There are four Conservation Areas within Penmaenmawr that protect mainly 19th century buildings. The Scheme would have no significant effects on these heritage assets.

There are a number of archaeological features identified in the assessment that have the potential to be affected by the Scheme. These include areas of former landfill sites and buildings that lie close to the existing A55. These features will be fully investigated, evaluated and recorded prior to construction of the Scheme.

Community Assets

The assessment has examined the effects on community facilities such as surgeries, post offices, shops, parks, community halls, and on development land and farms.

An area of garden at the Oasis Centre and part of the playing field at Maes y Llan, would be taken for the scheme. Approximately 10 hectares of grazing land would be permanently lost, but there would be no severance or loss of farm access. There would be some temporary loss of grazing land during the construction period for site compounds and storage of materials.

There would be new public open space and the Maes y Llan playing field would be improved. Safe Active Travel routes would be created to improve accessibility for the local community. The Scheme would have a beneficial effect on the community.



Figure 7 Visualisation of the proposed link road passing south of the south of the Orme View Services

Air Quality

The assessment has examined how the Scheme would affect air quality. Surveys in 2018 showed that existing air quality does not require measures to reduce pollutants. These results have then been compared with calculations of air quality in 2022/2023, when the Scheme would be open for traffic. The assessment of the operational effects of the proposed Scheme show that there would be no changes in vehicle emissions.

The assessment has also considered construction dust and airborne pollutants such as Nitrogen Oxides, and tiny particulate matter that could be from dust, sea salt, soot or small particles of metal. Concentrations of airborne pollutants would be well below the levels that would require reduction measures.

Good construction site management and dust control techniques would reduce emissions during the construction phase. With these measures in place the effects of construction dust have been assessed as not significant.



Figure 8 View east of the existing A55 road corridor looking towards Junction 16A

Noise and Vibration

This assessment examines how the Scheme would change noise and vibration associated with construction and operation of the Scheme. The A55 is the primary source of noise in the area and consequently there are designated Noise Action Plan Priority Areas (NAPPA), at several locations.

Surveys of existing noise levels were undertaken in 2018. These results have then been compared with calculations of air quality in 2022/2023, when the Scheme would be open for traffic.

The assessment showed that during the construction period there would be an increase in noise affecting people living close to the Scheme as a consequence of some construction activities.

Proposed mitigation for traffic noise would include a low-noise surfacing system for the proposed new link road, and false cuttings and noise barriers installed for the benefit of local residents.

The assessment has concluded that there would be a decrease in noise levels for the majority of receptors, although a few would experience a slight increase. Residential properties at Maes y Llan, which are within a NAPPA would experience a noise reduction with noise barriers of adequate height installed beside or close to the road.

All Travellers

This environmental topic addresses the requirement of the Well-being of Future Generations (Wales) Act 2015 and the Active Travel (Wales) Act 2013. It also addresses the effects that the Scheme would have on pedestrians, cyclists, equestrians and vehicular travellers.

The Active Travel (Wales) Act 2013 refers to walking or cycling as an alternative to motorised transport for the purpose of making regular and daily journeys. An active travel is a journey made to or from a workplace or educational establishment or to access other services or community facilities. This covers short distance commuting, such as travel to school, shops or leisure facilities and has to be suitable for every day use. It does not cover routes or sections of routes that are just used for leisure or recreational purposes.

Following consultations with Conwy County Borough Council, Sustrans and Cycling UK, a number of Active Travel routes have been proposed within the Scheme including improvements to National Cycle Network Route 5 (NCNR5). This would include:

- A new DDA compliant footbridge, including ramps, at Orme View Services.
- Improved accessibility between Dwygyfylchi and Penmaenmawr to the NCNR5.
- Improved accessibility along Glan Yr Afon Road between Dwygyfylchi, NCNR5 and Penmaenmawr.
- New pedestrian/cycleway along the new Link Road providing connectivity between Penmaenmawr, Dwygyfylchi and the new Junction 16A with access to NCNR5 along the coastline.
- Closure of informal footpaths which currently have direct access onto A55.

During construction, a Construction Traffic Management Plan would be put in place by the contractor to manage any diversions or road closures. There would be some temporary diversions required during the construction phase to footways and access to NCNR5 may be temporarily affected by the works. There may also be some disruption to users of the

A55 caused by reduced speed limits and lane closures during the construction period.

The Scheme has considered the requirements of the Active Travel (Wales) Act 2013 and would deliver a number of additional benefits by improving accessibility to the NCNR5, coastline and neighbouring local areas and community facilities.

Materials Assets & Waste

The assessment has considered the effects of the Scheme on the use of materials and waste generated during both the construction and operational stages of the project.

During the construction the Scheme would require a large amount of fill material to be imported from elsewhere for construction of the new junction, slip roads and large-scale earthworks to create the false cutting. At this stage it is not known where the material will come from.

Opportunities would be sought wherever possible to make use of local projects to source suitable fill materials for construction. Waste would be minimised by recycling and suitable recycled materials would be used in construction wherever possible and feasible.

It is predicted that there would be no significant change in the use of materials or generation of waste when the road is completed and in use.

Population and Health

The assessment of population and health has drawn upon the work carried out in a number of other specialist assessments undertaken as part of the EIA. The assessment has considered the potential effects relating to private property and housing, community land assets, development land and businesses, agricultural land holdings and walkers, cyclists and horse riders. The Health Impact Assessment has considered potential effects relating to geology and soils, road drainage and environment, landscape, community assets, air quality, noise and vibration, all travellers, climate change and the risks of accidents and disasters.

The most adverse effects would be loss of open space, loss of development land and agricultural land during both construction and when the scheme is in operation. The football pitch at Maes Y Llan residential area would be temporarily affected during construction but would be returned to the community on completion of the works. The effects on agricultural land include loss of land used as a seasonal camp site.

There would be beneficial effects from improvements to public open space, provision of additional cycleways and access to areas of amenity once the scheme is completed. No adverse effects are anticipated in terms of private properties and housing or local businesses.

The Health Impact Assessment has concluded that there would be some potential adverse effects on driver stress during construction but beneficial effects as a result of the Scheme. With regard to the Well Being of Future Generations (Wales) Act 2015 and the Active Travel (Wales) Act 2013, there would be some beneficial effects resulting from improved provision for non-motorised users such as cyclists and pedestrians.

Climate Change

The Scheme has been assessed for its potential to affect climate. Aspects that are considered are the release of Greenhouse Gases into the atmosphere by construction and the resilience of the Scheme to the effects of climate change.

The greenhouse gas assessment shows that construction of the Scheme would

produce a total emission of 11,603 tonnes of carbon dioxide. These emissions are considered significant, but low in terms of the overall UK Carbon Budget for the period of construction.

User greenhouse gas emissions, using a 60-year appraisal period, were assessed to be 4000 tonnes lower than if the A55 Junction 15 and 16 Improvements Scheme was not in place. This shows that there is a decrease in user greenhouse gas emissions with the A55 Junction 15 and 16 Scheme in place, due to the smoother and more efficient route.

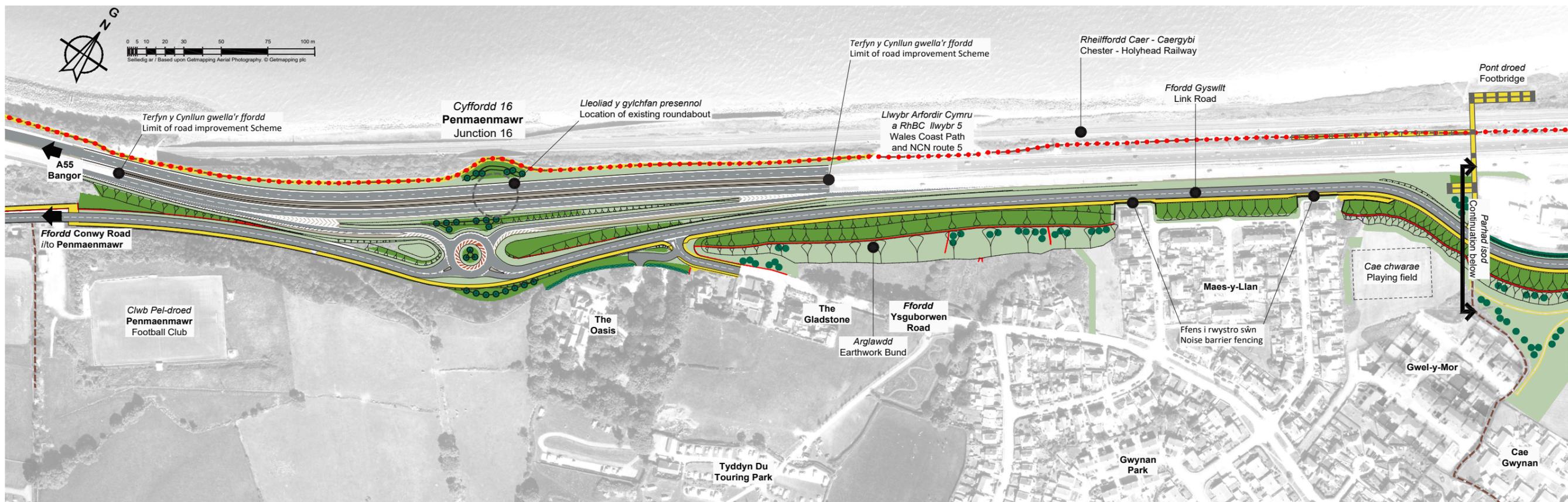
The climate change resilience assessment demonstrated that the Scheme is not vulnerable to the effects of Climate Change, and so no mitigation measures would be required.

Risk of Accident and Disaster

The Scheme is designed to resist the normal adverse effects of natural and man-made events that might be expected to affect the area in which it is sited, for example, flooding, high winds or vehicle collisions. Some extreme and very unlikely natural and man-made events, for which the Scheme cannot be designed, could occur such as extreme weather events and severe flooding events following tidal surges from the sea.

The assessment demonstrates that the Scheme would not worsen the consequences for the environment but could result in closure of the A55 for a short period while damage is repaired. Mitigation for these events would include advanced warning signs and advanced planning for the consequences of collisions and repair of damage to the road.

9 Scheme plan



Any person or organisation can now support or object to the draft Orders, suggest alternatives to the draft Orders, or comment on the Environmental Statement and/or the Statement to Inform an Appropriate Assessment.

Depending on the nature and number of any objections and comments received to the published draft Statutory Orders, a Public Local Inquiry may be held before an independent Inspector.

If a Public Local Inquiry is to be held, all those who have responded would normally be notified within 4 weeks of the end of the objection period and the Inquiry held within 22 weeks of that notification. Details of the Public Local Inquiry would be confirmed and notices would appear in the local press.

All correspondence would be copied to the Inspector and kept in the Inquiry Library which would be available to the public. Publicity would be given to any feasible alternative proposal received within a time limit to be specified within the Public Inquiry Notice.

If the Welsh Ministers decide to proceed with the Scheme a contractor would be appointed through a tendering process and construction would commence. The programme for the next phases is set out on the back cover.

Winter 2020/2021 Publication of draft Orders and the Environmental Statement

These will set out the land that would be required to build the Scheme and the environmental mitigation work that would be involved. It would detail local accesses and provision of Private Means of Access. You will then have the opportunity to formally object or support the Scheme or suggest an alternative.

Summer 2021 Potential Public Inquiry

If a Public Inquiry is required, an independent Inspector would hear evidence, in front of the public, from interested parties and stakeholders. The Inspector would make a recommendation to the Welsh Ministers on how to proceed.

Autumn 2021 Welsh Ministers decision to make the Orders

The Welsh Ministers would decide whether to make Orders and to go ahead with the construction of the project.

Autumn 2021 Appoint Design & Build (D&B) contractor subject to Welsh Ministers decision

Subject to the decision to proceed with the Scheme, the Contractor who will undertake the detailed design and build would be appointed by the Welsh Government.

Winter 2021/2022 Commence construction on site

Works to build the new section of trunk road would start.

Autumn 2023 junction 15 improvements open

The improved section of road would open.

