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Construction Environmental Management Plan

**Translink Sea Defences
CO401811 / CEMP 14C2 / 00**

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Executive Summary

The purpose of this Construction Environmental Management Plan (CEMP) is to set out the environmental requirements for construction of Translink Sea Defences at Section 14C2 near Coleraine and how they will be managed throughout construction.

Environmental constraints have been identified following a Preliminary Ecological Appraisal and habitat survey as well as an assessment under the Habitats Regulations. This CEMP provides details of the environmental constraints and identifies appropriate control measures to be implemented during construction.

Contents

- 1. Introduction 1**
 - 1.1. Background to the Scheme 1
 - 1.2. Purpose 1
 - 1.3. Structure..... 1
 - 1.4. Site Location 2
- 2. Method Statement 3**
- 3. General Requirements 4**
 - 3.1. Communication..... 4
 - 3.2. Compliance 4
 - 3.3. Permits, Licences and Consents 4
 - 3.4. Roles and Responsibilities 4
 - 3.5. Key Personnel Contact 6
 - 3.6. Competence 6
 - 3.7. Stakeholder Engagement 6
 - 3.8. Internal Communication 6
 - 3.9. Monitoring and Assurance 6
 - 3.10. Records and Documents..... 7
- 4. Environmental Mitigation 8**
 - 4.1. Introduction..... 8
 - 4.2. Biodiversity 8
 - 4.3. Water Environment..... 9
 - 4.4. Air Quality 10
 - 4.5. Noise and Vibration 10
 - 4.6. Archaeology and Cultural Heritage 10
 - 4.7. Landscape and Visual impact 11
 - 4.8. Geology and Soil 11
 - 4.9. Community Effects 11
 - 4.10. Waste 11
 - 4.11. Lighting..... 11
 - 4.12. Carbon..... 12
- 5. Incident Management..... 13**

1. Introduction

1.1. Background to the Scheme

- 1.1.1. Translink is proposing repairs to defective sea defences along the Coleraine to Derry line. The existing sea defences at Section 14C2 are comprised of sloping masonry along the line adjacent to the River Bann.
- 1.1.2. The existing railway line at this location is supported on a raised embankment that runs adjacent to the River Bann. There is currently a risk of ongoing erosion and undercutting of the embankments due to high flow velocities and extreme water levels unless these sections are protected. New rip rap and newly enhanced rip rap is to be built to protect the embankment and railway from further erosion.
- 1.1.3. The construction activities comprise of approximately 175m (alongshore length) of 0.06-0.3t double interlocking primary rock armour placement over the existing revetment slope and bedded in at the toe of the revetment and localised vegetation clearance.
- 1.1.4. A Preliminary Ecological Appraisal (PEA) and Habitats Regulations Assessment (HRA) have been undertaken for this project due to the proximity of the site to the River Bann Estuary Special Area of Conservation. These documents provide information on the mitigation measures to be implemented to avoid impacts on biodiversity.
- 1.1.5. These mitigation measures are included within this Construction Environmental Management Plan (CEMP). It also sets out the responsibilities with regard to compliance with legislation and provides a framework within which the mitigation measures will be implemented as informed by the site surveys.
- 1.1.6. This is a 'live' document and review shall be undertaken prior to construction and new information added as appropriate during the course of construction at the site.
- 1.1.7. The CEMP should be viewed as common practice and communicated to all staff working on the site.

1.2. Purpose

- 1.2.1. This document details the environmental risks and mitigation measures associated with the construction of sea defences at Section 14C2. The purpose of this CEMP is to:
 - Provide details of mitigation measures to be employed on site to ensure compliance with current legislation.
 - Minimise any potential adverse environmental effects during construction activities within the site with respect to the constraints identified in the Preliminary Ecological Appraisal and Habitats Regulations Assessment.

1.3. Structure

- 1.3.1. This CEMP details measures to minimise environmental impact from the construction of the sea defences and the managerial structure for managing mitigation measures within the site.
- 1.3.2. It also details the duties and responsibilities of Translink staff, contractors and those of their subcontractors.
- 1.3.3. This CEMP may be revised to address any issues arising on site during construction.

1.4. Site Location

- 1.4.1. The sea defences are located approximately 4.3km northwest of Coleraine on the south banks of the River Bann. The proposed site is located at Irish Grid Reference C 84383 33533, see scheme drawings in Appendix A.
- 1.4.2. The works include the construction of new rock armour along the existing railway line as shown on the scheme drawings in Appendix A.

2. Method Statement

2.1.1. The method statement for the proposed works was provided by F.P. McCann Contracting, outlining the methodology and plant required. It is included as Appendix B. The key points are summarised in this section.

2.1.2. The sequence of works to be undertaken is:

- Construction of rock armour to protect coastal railway, including the following activities:
- Mobilisation
- Stockpiling of materials
- Travel to site
- De-vegetation
- Clear existing area/failed defences
- Re-grade embankment slope
- Installation of new rock armour sea defences
- Demobilisation

2.1.3. The contractors' personnel on site will include the following:

- Site Manager (dayshift)
- Site Manager (night shift)
- Person In Charge Of Possession (PICOP)
- Engineering supervisor (ES)
- EO Engineering operative (EO)
- Track Safety Co-Ordinator (TSCs)
- Skilled Operative/s
- Plant Operator/s
- Safety Boat Crew
- Road Rail Vehicle Operator (RRVOs)
- Road Rail Vehicle Controller (RRVCs)
- Engineer/s

2.1.4. Plant & Equipment to be used on site will include:

- | | | |
|--------------------------------------|--------------------------------------|-------------------------|
| • Drip Trays | • First aid kit | • Lifejackets |
| • Easi Blocs | • Fuel Bowser | • Life Ring & Grab Rope |
| • ES Kit | • Harnesses and Fall Arrest Lanyards | • Lifting Chains/Slings |
| • Excavator Grab | • Hedge cutter | • Menzi (Excavator) |
| • Excavator Mounted Compaction Plate | • Heras Fencing | |

- PICOP Kit Plant Nappies
- RRV w/trailer & box
- Safety Boat
- Spill Kits including Floating Booms
- Strimmer
- Telehandler
- TSC kits
- Tilt Rotator Hitch
- Tower Lights
- Vibrating Plate
- Water Bowser
- Welfare Van

Programme

2.1.5. The proposed working hours and programme of works are:

- Delivery works to the site compound are to take place during dayshift working hours.
- On track works to be completed during nightshift T3 possessions.
- Installation of rock armour toe and rock armour face to be completed over a 54-hour blockade of the line.
- All site visitors and inspectors must phone the supervisor in advance of attending site to ensure safe working procedures can be maintained at all times.
- Works programmed to commence Autumn 2026 however exact timings are to be confirmed.

Site compound and methodology

2.1.6. A site compound will be established at Ballywollen Road, Coleraine. There is an existing area of hardstanding on the trackside at level crossing XL156 Grangemore that will be used for storage. An additional storage area at the compound will be agreed with the landowner and Translink should it be required. This will be within the field to the east of the level crossing XL156 Grangemore.

- All briefings and permits must be completed prior to starting work.
- A TSC will be appointed to manage the compound in respect to train movements and the NIR rulebook.
- Telehandler and excavator will be delivered to site to offload fencing panels, Easiblocs, materials etc. All plant will have a banksman to co-ordinate movements inside the compound with the TSC.
- All excavation and installation of posts or items into the ground must follow safe digging procedures whereby the permit to dig will be completed and the area scanned for services using a CAT & Genny.
- Temporary lineside fencing is to be erected first, this must be >3m from the track, this compound is currently not fenced and is directly open to the line from the entry point.
- Heras fencing will be used for temporary lineside fencing, and this must be double clipped with feet and stabilisers.
- Temporary lineside Heras fence gates will be locked between shifts using a chain and padlock.
- Easiblocs are to be set at spacing of 4m c/c to act as stop blocks for vehicles and the Heras fencing is to be linked to the blocks by ratchet straps as an additional precaution against storms.
- A welfare area is to be formed near the entrance, plant storage area and a materials set down area will also be designated as per site plan.
- Two metre high posts will be erected 3m from the location of any watercourses within the field and a silt fence will be installed behind these posts to prevent any run off of sediment into the stream.

- Any soft spots within the compound area will be stoned using type 3 granular material to allow lorries to travel across it.
- The materials storage area will have a light geotextile placed across where areas are needed for storage of stone. There will be an access route for delivery vehicles and plant.
- Plant and equipment storage will have a geotextile layer placed over the ground and drip trays/bunds placed under items stored between shifts.

Methodology for rip rap construction

- 2.1.7. To facilitate the construction of the rip rap embankment, the line will be closed under a T3 possession. Work party will access the track from the storage compound at Grangemore. RRVs will be on track at Grangemore with trailers. Excavators will be loaded onto the RRVs and taken to the works location along the rail track.
- 2.1.8. Floating booms will be let out from the edges of the embankment and tied off to a fixed structure or post at the edge of the extents.
- 2.1.9. The excavator will be offloaded from the flatbed trailer and access the embankment slope. The excavator will make access platforms at mid height of the embankment by scraping some of the ground and building up the embankment using stone to suit site contours.
- 2.1.10. The excavator will scrape off existing embankment and deposit the arisings into the opposite cess area or into the RRV trailer for removal from site, the bank is to be re-profiled as per scheme drawing. Where possible the direction of excavation should be such as to prevent or reduce any soils transmittal to the watercourse. This may include excavating from a higher ground level.
- 2.1.11. For excavation of the toe or within areas interfaced directly with the river a clamshell bucket may be used to excavate material and hold it until it can be placed in the spoil heap or trailer to be removed from site as a mitigation measure to prevent sediment being issued to the river.
- 2.1.12. A layer of Geofabrics HSP4 Coastal will be placed across the length of the embankment and pinned in place as per manufacturers instructions. The geofabric must be placed during low tide as it will float in water due to entrapped air pockets in the fabric. If required, some rock armour stones may be placed as ballast onto the geofabric by the Menzi using its grab attachment to ballast the area in the water.
- 2.1.13. Sections of geofabric to be cut and rolled out from the top of the embankment, each longitudinal section is to have a 1000mm overlap. The toe of the geofabric should be wrapped back on itself with approximately 1000mm lap.
- 2.1.14. Estimated section lengths required are approximately 11m including toe wrap.
- 2.1.15. Stainless steel pins may be used at the discretion of the site manager accounting for on site conditions to aid in holding the Geofabric in place until rock armour has been positioned.
- 2.1.16. Where required to provide a continuous profile to the embankment, depressions should be filled with type 3 granular material which will be compacted using an excavator mounted compactor (3 passes per layer), with the acceptable shape confirmed by the on site engineer.
- 2.1.17. Rock armour stones to be placed by excavator using the grab. Larger HMA 300/1000 rock armour stones will be used as toe stones and for tying into the sides and top of the section.
- 2.1.18. Rock armour to be placed up the bank at a slope of 1:2. Stones to be placed to interlock with other adjacent stones. The stones will be lightly pushed by the excavator to ensure they are properly seated. The toe stones must be placed first and completed prior to the tide coming back in. The embankment toe shall be formed by a double layer of rock armour minimum of 790mm depth and 1640mm width across the length of the repair section.
- 2.1.19. Positioning may be checked using a GPS and any variance agreed onsite with the engineer.
- 2.1.20. When the toe armour is in place the excavator will start at one edge and work to place additional rock armour at a grade of 1:2. Larger stones are to be used for the edges of the section. The rock armour layer should maintain a minimum thickness of 750mm throughout the rise, up to the top of the slope.

- 2.1.21. Crest of the section is to be a min 820mm width and be made up of the larger armour stones. Smaller armour stone to be used to infill behind the crest to shape into the existing ground.
- 2.1.22. Once the rock armour sections have been completed all equipment and materials remaining will be recovered to the compound. Floating booms to be recovered and grab ropes removed. An RRV will restore the ballast shoulder using its profiling bucket once works are complete at the end of the blockade.
- 2.1.23. Demobilisation to take place following all works completed and signed off. Removal of equipment from the compound to be carried out during dayshifts with a TSC present controlling the site.
- 2.1.24. All waste must be removed and disposed of at an appropriate facility.

3. General Requirements

3.1. Communication

- 3.1.1. All site personnel will receive health, safety and environmental induction talks before they commence work and briefings to ensure their understanding for carrying out their allocated duties. Briefings will be given before carrying out work for the first time, and if the work process / environment changes. Site specific briefings will be developed from the risk management process including the summary details from this CEMP.
- 3.1.2. The operation of the sites will be working to any environmental requirements or planning conditions imposed by Causeway Coast and Glens Borough Council and the Department of Agriculture, Environment and Rural Affairs (DAERA).

3.2. Compliance

- 3.2.1. The Site Manager is responsible for ensuring the requirements set out in this CEMP and in the contractor method statement are followed. They are also responsible for ensuring all site staff are briefed on the mitigation measures set out in this document.

3.3. Permits, Licences and Consents

- 3.3.1. The contractor will be responsible for ensuring all necessary permits, licences or consents required are applied for and in place prior to works commencing such as ASSI consent and Schedule 6 (if required).

3.4. Roles and Responsibilities

- 3.4.1. Everyone working in the site either as a direct employee, contingent labour supply or through a sub-contractor has a responsibility to:
- Implement the CEMP.
 - Protect the environment from damage
 - Comply with specified mitigation measures and actively manage environmental risk on the site.
 - Report any environmental or social concerns to their supervisors
 - Comply with specified Safe System of Work (SSoW); and
 - Only carry out tasks if they have the required understanding, qualifications, and where necessary certification.
- 3.4.2. The following roles are responsible, as described, for the delivery of the environmental requirements set out in this CEMP:

Site Manager Responsibilities

- Ensuring the site is secure.
- Ensure there are First Aid Facilities and appropriately trained First Aid staff, spill kits are available, and staff are appropriately trained in their use.
- Ensuring that all site works are carried out in accordance with method statements, task briefings and activity briefings.
- Ensure that staff under their supervision are aware of their environmental responsibilities.

- Ensure key environmental risks are identified and operatives briefed on environmental topics.
- Carry out site inspections to identify any environmental issues.
- Ensuring that the site has an emergency egress arrangement so those leaving site in an emergency may do so safely.
- Ensure that all those that work on site:
 - Receive a Site Induction including briefing on environmental issues pertinent to the site.
 - Understand and obey the Site Rules.
 - Are made aware of the Emergency egress arrangements, Muster points, First Aid facilities and First Aiders, spill and clean up procedures.
 - Are aware of access/egress routes, access routes for plant, parking areas and storage areas.
 - Are aware of all environmental matters which arise on site.
- Ensure the activities on site:
 - Are carried out under Translink Operational Safety Rules where necessary.
 - Have task specific risk assessments and method statements (RAMS) in place identifying any environmental issue which may be applicable.
 - Are carried out in accordance with the requirements of any associated RAMS.

The HSEQ Representative Responsibilities:

- Undertaking site audits to measure compliance with the CEMP and RAMS.
- Raising action plans to address any non-compliance.
- Advising the Site Manager on all health and safety issues.
- Coordinating environmental, health and safety within the site and developing and maintaining compliance with policies, standards, and procedures applicable to the site.
- Ensure work is carried out in accordance with legislation & consents and the CEMP with regards to any environmental activities on the site.
- Determine what level of environmental support to provide at the site and allocates this resource accordingly.
- Ensure site staff are working in accordance with agreed Risk Assessments and Method Statement and in accordance with induction, toolbox talk training with regards to environmental risk.
- Ensuring compliance with Environmental legislation & consents, objectives, targets, and client environmental responsibility.
- Responsible for delivering toolbox talks.

General Operatives Responsibilities

- Attending the toolbox talk given by the Site Manager or HSEQ Representative ahead of activities commencing and adhering to guidance contained therein.
- Ensuring environmental, health & safety mitigation measures are carried out during the course of their duties.
- Working considerately with a good working ethic in order to minimise adverse environmental, health & safety impacts and follow all site rules communicated during briefings and induction/training sessions.

- Informing their supervisors of any environmental, health & safety issues they have noted in the site, so that these can be communicated to the site management team for further investigation.

3.5. Key Personnel Contact

3.5.1. The contractor will confirm the key personnel to be added to the CEMP.

3.6. Competence

3.6.1. The Site Manager will ensure that all staff are competent to undertake their roles. They will also provide the following:

3.6.2. General induction/awareness: roles and responsibilities of staff, expectations and targets, site rules and HSE issues for each site location.

3.6.3. Toolbox Talks covering specific task-related matters of environmental risk shall be provided e.g. training on water pollution prevention before all works.

3.6.4. Site staff will be competent to perform tasks that have the potential to impact the environment. Competence is defined in terms of appropriate education, training and experience. If project specific training is required, training will be appropriate to the role and seniority of staff.

3.7. Stakeholder Engagement

3.7.1. It is the responsibility of the Site Manager to ensure letters and sufficient notice is given to external stakeholders regarding upcoming works at the site that may cause a disturbance.

3.7.2. A record will be maintained of discussions held with statutory authorities.

3.8. Internal Communication

3.8.1. The Site Manager is responsible for ensuring that all staff, including subcontractors, receive a site induction, in addition to task briefings, site specific briefings, start of shift briefings, and toolbox talks.

3.8.2. The site induction will include:

- Environmental mitigation
- Toolbox talks that are to take place for the site to include:
 - Identification and actions related to invasive species
 - Locations of local wildlife sites/ designated areas
 - Waste management
 - Pollution prevention measures
 - Spillage response
 - Control of noise and dust

3.9. Monitoring and Assurance

3.9.1. Internal audits will be carried out by the client HSEQ team and environmental representatives as required.

3.10. Records and Documents

3.10.1. A copy of all licences, consents, permits or permissions granted to the contractor shall be provided to the Translink Representative within 7 days of receipt.

4. Environmental Mitigation

4.1. Introduction

4.1.1. Mitigation measures are outlined in the following sections. Mitigation measures have been identified within the PEA and HRA for this project.

4.2. Biodiversity

- 4.2.1. During construction works any open excavation pits or trenches should have wooden planks placed within them overnight and outside construction periods to provide a means of escape and to avoid accidental trapping of badgers, or other wild animals within them.
- 4.2.2. Soil mounds on site should be minimised to prevent badgers from excavating setts within them.
- 4.2.3. If vegetation clearance or trimming (e.g. trees) is required on site, this should be done outside of the nesting bird season (March to September). If this is not possible, the tree / vegetation must be checked up to 48 hours prior by a suitably qualified ecologist to determine if nesting birds are present.
- 4.2.4. Should any nesting birds be identified, the area will need to remain undisturbed until all dependent young have fledged the nest, and the nest is no longer in use. If removal is required during the breeding bird window, an ecologist should be contacted for further advice e.g., licence acquisition.
- 4.2.5. All fuels must be stored within a bunded area at least 10m from any watercourse. Refuelling of vehicles/machinery must be undertaken in a designated area away from any watercourse. Additional mitigation for water is provided in Section 4.3.
- 4.2.6. Consultation is to be undertaken with DAERA to determine if a Licence under Section 48 of the Fisheries Act (Northern Ireland) 1966: For permission to disturb or remove materials from the bed, bank, or shore of any watercourse that may impact fisheries interests, is required.
- 4.2.7. Where lighting is required, hoods should be used, and lights directed at works and away from the surrounding environment.
- 4.2.8. All lighting used during night-time work at the site must be directed towards the works only and switched off when not in use to minimise light spill into the surrounding habitat to prevent disturbance to protected species, in particular away from the river or vegetation adjacent to the site. Night lighting should follow the recommendations of the Bat Conservation Trust Bats and Lighting guidance. Further information is provided in the Preliminary Ecological Appraisal report for Section 14C2.
- 4.2.9. If protected species are found on site, then site works should stop, and a suitably qualified ecologist contacted. Allowance is to be made for the supervision of the works by an Ecological Clerk of Works should protected species be found on site.
- 4.2.10. To minimise impacts on foraging and commuting bats from construction noise, the movement of site traffic should be kept to a minimum when bats are active in proximity to the site, i.e. around sunrise and sunset between April and September.
- 4.2.11. Ensure that no materials or equipment are stored on soft estate. An existing area of hardstanding is located at the level crossing that will be used for storage. Where additional storage is required, Translink will agree with adjacent landowners a suitable location. Currently it is proposed that an area close to the track in the field to the east of the level crossing be utilised. This is due to the western field being located within Grange Local Wildlife Site (LWS), and it is recommended that this area is avoided for use as storage. If this is not feasible, then consultation with NIEA should be undertaken to determine appropriate mitigation to protect the LWS. This may include use of geotextiles to protect underlying vegetation and reinstatement of the site post construction.
- 4.2.12. The site for the rip rap is adjacent to the Farranlester LWS which includes the priority habitat reedbed vegetation. Adherence to pollution prevention measures as set out in the water section will ensure no

adverse effects on this LWS. Site staff should receive a toolbox talk on the location of both LWS and the measures to be implemented to protect them.

4.3. Water Environment

Pollution Prevention

- 4.3.1. A Pollution Prevention and Spill Response Procedure shall be developed by the contractor for the duration of the works. Indicative guidelines are provided in this section as well as Appendix C Incident Response Plan, these will be further developed by the contractor.
- 4.3.2. The following measures will be implemented to avoid pollution of the River Bann.
- 4.3.3. Designated refuelling area to be setup in the main compound and will have drip trays, spill kits and plant nappies located in this area. All storage and refuelling areas (if required) should be located at least 10m from any drainage, watercourses and the River Bann.
- 4.3.4. Equipment on site will use biodegradable hydraulic oil. Oil interceptor(s) to be fitted to all temporary discharge points and for discharge from any temporary oil storage/ refuelling areas.
- 4.3.5. All plant and machinery will be maintained in a good condition and any maintenance required will be undertaken within safe areas.
- 4.3.6. Chemicals and hazardous materials such as fuels and lubricants may be stored on the site. Measures will be developed, implemented, maintained and monitored in compliance with the Control of Pollution (Oil Storage) Regulations (Northern Ireland) 2010.
- 4.3.7. The Site Manager will produce a site layout plan identifying the storage location of any bunded fuel store, or stores for small volume packaged chemicals and materials. Any stockpiled materials will be stored within enclosed areas to enable the runoff to be stored and treated where required. Silt fencing will be erected around the materials storage area.
- 4.3.8. The contractor to implement the following Guidance for Pollution Prevention (GPPs):
- GPP 1: Understanding your environmental responsibilities – good environmental practices
 - GPP 2: Above ground oil storage tanks
 - GPP 5: Works and maintenance in or near water
 - GPP 6: Working on construction and demolition sites
 - GPP 8: Safe storage and disposal of used oils
 - GPP 13: Vehicle washing and cleaning
 - GPP 21: Pollution incident response planning
 - GPP 22: Dealing with spills
 - GPP 26: Safe storage -Drums and intermediate bulk containers
- 4.3.9. All site staff will be trained in pollution prevention measures and on how to deploy a spill kit. Provision of spill containment equipment such as absorbent material will be kept on site.
- 4.3.10. Floating boom/s deployed in the river in advance of works to capture any oils etc.
- 4.3.11. Spill control measures will be used to contain contaminated materials, such as plastic sheeting, sorbent pads and sorbent booms. All site personnel will be trained in the use of spill control measures. If a spill occurs, NIEA will be informed immediately.
- 4.3.12. Use of a clamshell bucket for excavation in and around the water's edge and any other areas where appropriate to reduce the chance of sediment entering the river.

4.3.13. In addition to the control measures detailed above, the works will also comply with the measures outlined within the following guidance:

- Construction Industry Research and Information Association (CIRIA) Report C532: Control of water pollution from construction sites. Guidance for consultants and contractors.
- CIRIA Report C648: Control of Water Pollution from Linear Construction Projects- Technical Guidance; and
- CIRIA: Control of Water Pollution from Linear Construction Projects, Site Guide.

4.4. Air Quality

4.4.1. Dust generation will be minimised by focusing on correct storage of raw materials, high standards of housekeeping and site management, minimisation of drop heights and consideration of the prevailing wind.

4.4.2. Stockpiled material will be kept covered or damped during dry or windy conditions. During the earthworks phase, the amount of time soils are exposed will be minimised to reduce windblow and dust. Re-vegetate earthworks and exposed areas/soil stockpiles to stabilise surfaces as soon as practicable. Use Hessian, mulches or tackifiers where it is not possible to re-vegetate or cover with topsoil, as soon as practicable. Only remove the cover in small areas during work and not all at once.

4.4.3. Ensure all vehicles switch off engines when stationary – no idling vehicles.

4.4.4. The Site Manager should keep records of all environmental incidents that result in air pollution and remedial action taken should be recorded in an environmental incident logbook

4.5. Noise and Vibration

4.5.1. Community engagement will be conducted before and during construction activities within the site. This will include a letter-drop at least two weeks prior to significantly noisy or vibration generating activities in close proximity to sensitive receptors, or prior to any noisy works occurring outside of normal working hours.

4.5.2. In order to reduce noise reaching noise sensitive receptors, low-noise items of plant should be used where possible.

4.5.3. No idling of vehicles/plants. Ensure all vehicles and plants switch off engines when not in use.

4.5.4. Best practicable means of noise control, as described within BS 5228-1:2009+ A1:2014 'Code of Practice for Noise and Vibration Control on Construction and Open Sites' should be implemented in order to minimise the risk of disturbance. The British Standard provides specific detail on suitable measures for noise control in respect to construction operations.

4.5.5. Any noise or vibration complaints shall be logged and reported to the Site Manager.

4.6. Archaeology and Cultural Heritage

4.6.1. There is no potential impact on any cultural heritage sites anticipated from the proposed works. The boat wreck adjacent to the site is an undesignated historic site but no impact is anticipated on it from the proposals.

4.6.2. The sand dune system at Grangemore, located approximately 280m north of the level crossing access point and site compound is a Scheduled Zone, although no impact on the sand dunes is anticipated from the scheme. However, as a precaution, if unidentified remains are uncovered then works should cease and an archaeologist consulted for advice.

4.6.3. Should human remains or archaeological finds which may be deemed to be treasure under the Treasure Act (1996) be encountered then all work should cease and the appropriate authorities informed.

4.7. Landscape and Visual impact

- 4.7.1. Works should be undertaken in accordance with BS5837: 2012. Trees in relation to design, demolition and construction and no materials stored at the base of any trees around these works.
- 4.7.2. Site compounds should be appropriately hoarded and set up with clearly designated areas for parking, vehicle storage, materials storage, recycling/waste bins etc.
- 4.7.3. Materials and vehicles should be appropriately stored when not in use, wherever possible.

4.8. Geology and Soil

- 4.8.1. Any excavated soils should be stored in accordance with best practice guidance.
- 4.8.2. For excavation of the toe or within areas interfaced directly with the river a clamshell bucket may be used to excavate material and hold it until it can be placed in the spoil heap or trailer to be removed from site.
- 4.8.3. Avoid stockpiling of spoil/excavated materials at a location that could enter a watercourse. Silt fencing will be installed around storage area.
- 4.8.4. All litter and waste arising from works will be collected and bagged for disposal off site.
- 4.8.5. Any contaminated material removed from site will be disposed of in the appropriate licenced waste facility.
- 4.8.6. Contractor to follow GPPs to avoid pollution to underlying soils in site compound and storage areas.
- 4.8.7. Pending agreement with the landowner, at the additional storage area at Grangemore where materials would be stored on agricultural land, the topsoil will be excavated and stored in such a way that it can be reinstated post construction. Geotextiles will be laid under stoned storage areas to minimise damage to underlying subsoils. The additional compound area will be reinstated post construction.

4.9. Community Effects

- 4.9.1. To inform the local community of works and railway closure, a letter drop is recommended. Residents will be kept informed on programme of works and when night time works will be undertaken.

4.10. Waste

- 4.10.1. The Site Manager will determine if the project requires a site waste management plan and if so, this will be developed and maintained by them. It should be made available to all site personnel as appropriate and required training provided.
- 4.10.2. All sub-contractors removing waste from site must possess a current Waste Carrier's Licence. Site used for disposal / recycling of waste must be suitably licensed and copies of their licences kept on file.
- 4.10.3. Waste transfer notes are required for all waste. Any hazardous waste should only be disposed of by a specialist waste contractor under a hazardous waste consignment note.

4.11. Lighting

Lighting

- 4.11.1. In determining the lighting arrangement for the site, consideration will be given to residents and other sensitive receptors that may experience a nuisance by light. Habitats on site including linear scrub/trees and hedgerows are suitable for commuting and foraging bats. As such the Bats and Lighting in the UK Bats and the Built Environment Series – guidance should be observed.
- 4.11.2. Where appropriate the following measures will be considered for implementation:

- A warm white spectrum (ideally <2700Kelvin) should be adopted to reduce the blue light component;
- Luminaires should feature peak wavelengths higher than 550nm to avoid the component of light most disturbing to bats;
- Internal luminaires can be recessed where installed in proximity to windows to reduce glare and light spill;
- Only luminaires with an upward light ratio of 0% and with good optical control should be used;
- Luminaires should always be mounted on the horizontal, i.e., no upward tilt; and
- As a last resort, accessories such as baffles, hoods or louvres can be used to reduce light spill and direct it only to where it is needed.

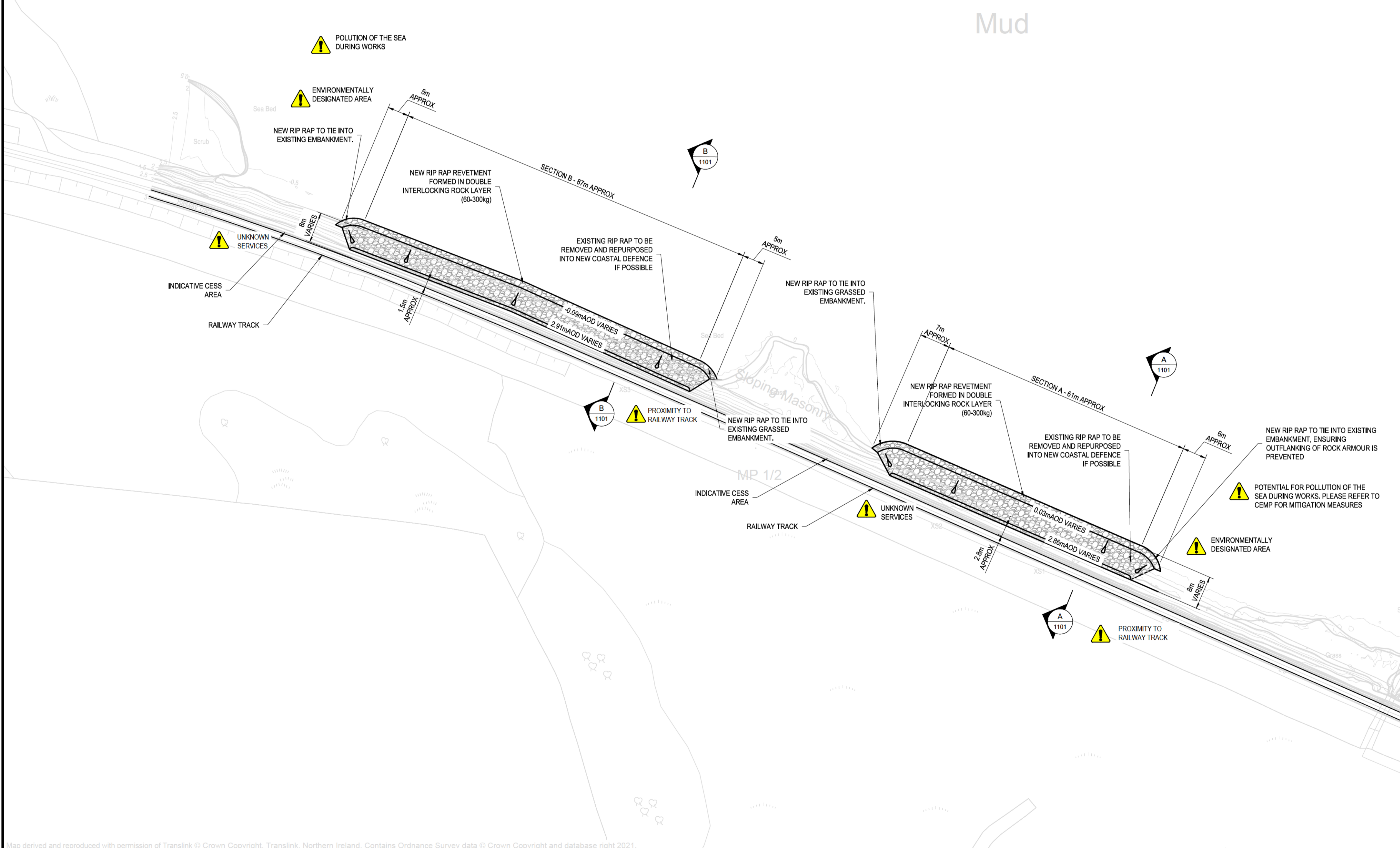
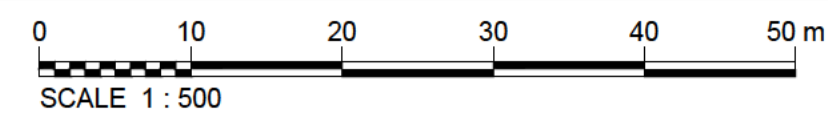
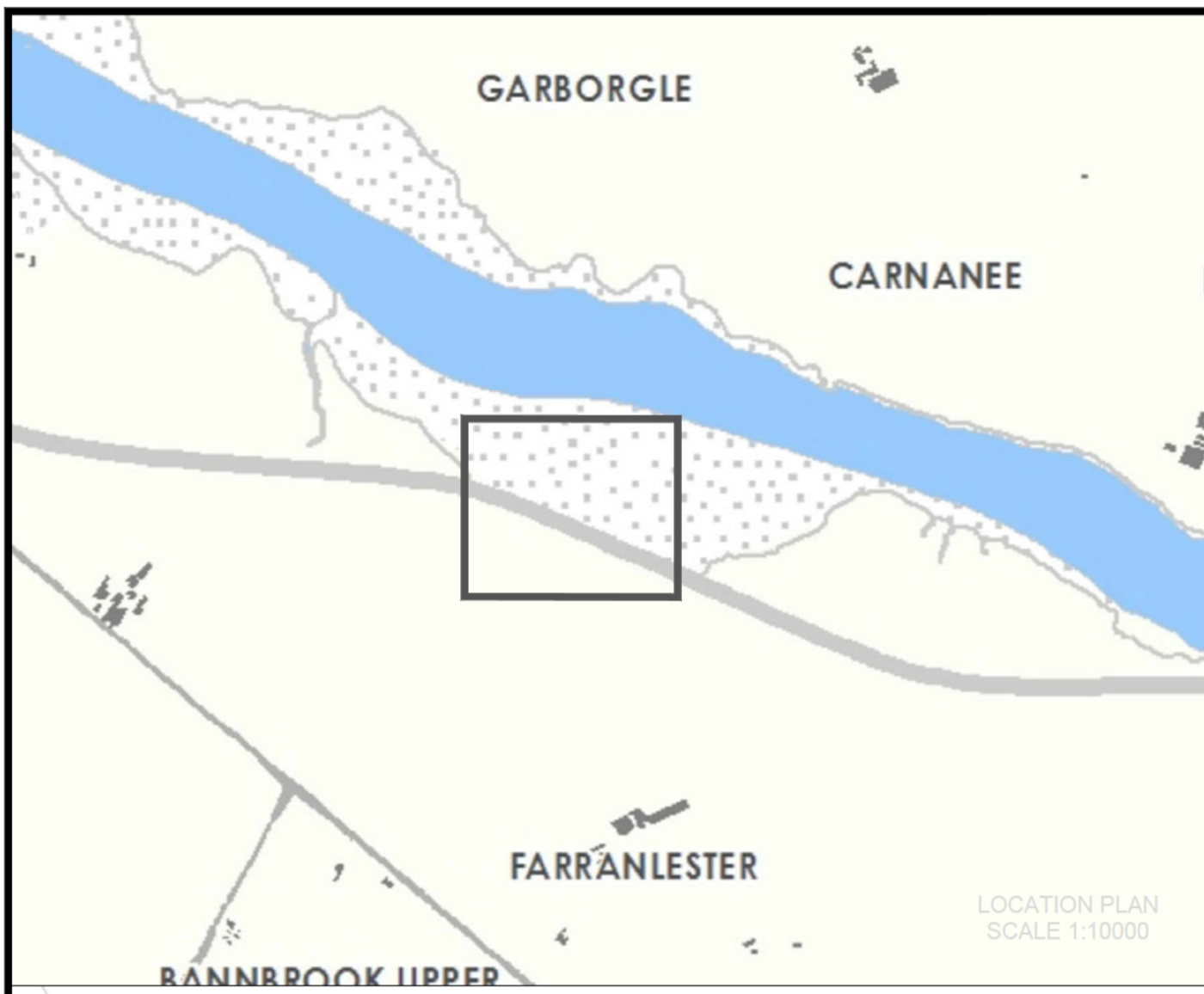
4.12. Carbon

4.12.1. A carbon review will be undertaken to help identify and action improvements to minimise the carbon footprint of the project. Through identifying sources of excess carbon, the Site Manager will take actions to reduce carbon through use of low carbon materials, effective logistics and implementing schemes aimed at encouraging recycling.

5. Incident Management

- 5.1.1. An outline Incident Response Plan (IRP) has been prepared for the site (Appendix C) which will be further developed by the contractor.
- 5.1.2. In the event of an environmental incident, the Incident Response Plan shall be followed and the incident reported to TransLink and the relevant statutory bodies.

Appendix A: Scheme drawings



- Collapse of excavation/embankment during construction
- Unknown services
- Working adjacent to live railway line
- Working in an exposed coastal and tidal environment
- Movement of plant in and around sea
- Placement of rock armour
- Unauthorised site access
- Working adjacent to and within statutory and non-statutory designated sites
- Pollution hazards associated with working near sea
- Risk of damage to flora and fauna

Construction Risks **Public Risks** **Environmental Risks**

In addition to the hazards/risks normally associated with the types of work detailed on this drawing take note of the above. It is assumed that all works detailed on this drawing will be carried out by a competent contractor working, where appropriate, to an appropriate method statement.

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION BOX

General Notes

1. The co-ordinate system reference is IRENET95, based on Irish Transverse Mercator Projection. Levels are in metres above ordnance datum Belfast (mAOD) and refer to Northern Ireland 2015 geoid model.
2. Do not scale from this drawing. All dimensions must be checked/verified on site.
3. All levels must be checked in relation to the railway line with any discrepancies being passed back to the consultant. Levels and setting out should be checked by the site engineer to ensure the quoted levels are still relevant at the time of construction.
4. All works in watercourses will be carried out with care to minimise the risk of pollution adhering to guidance for pollution prevention.
5. All works planning to discharge to a watercourse or carry out works that will impact on the free flow of a watercourse will be subject to Consent to Undertake Works to a Watercourse under Schedule 6 Protection of Watercourses from the Drainage (Northern Ireland) Order 1973.

NOT FOR CONSTRUCTION

Services legend

No services identified through PAS128 Type D survey to interact with permanent works. The Contractor shall locate all services prior to commencement of any works on site. Any unknown services identified in the cess shall be isolated and placed in ducts during construction.

Comments									
Rev.:	Date	Drawn	Designed	Checked	Approved				
P01									
Issued for Planning									
Rev.:	Date	Drawn	JS	Designed	JS	Checked	MOD	Approved	MOD
	27/11/25								
Client Approval									
A - Approved									
B - Approved with Revisions									
C - Do Not Use									
Purpose of Issue								Status	
Issued for Planning								S3	

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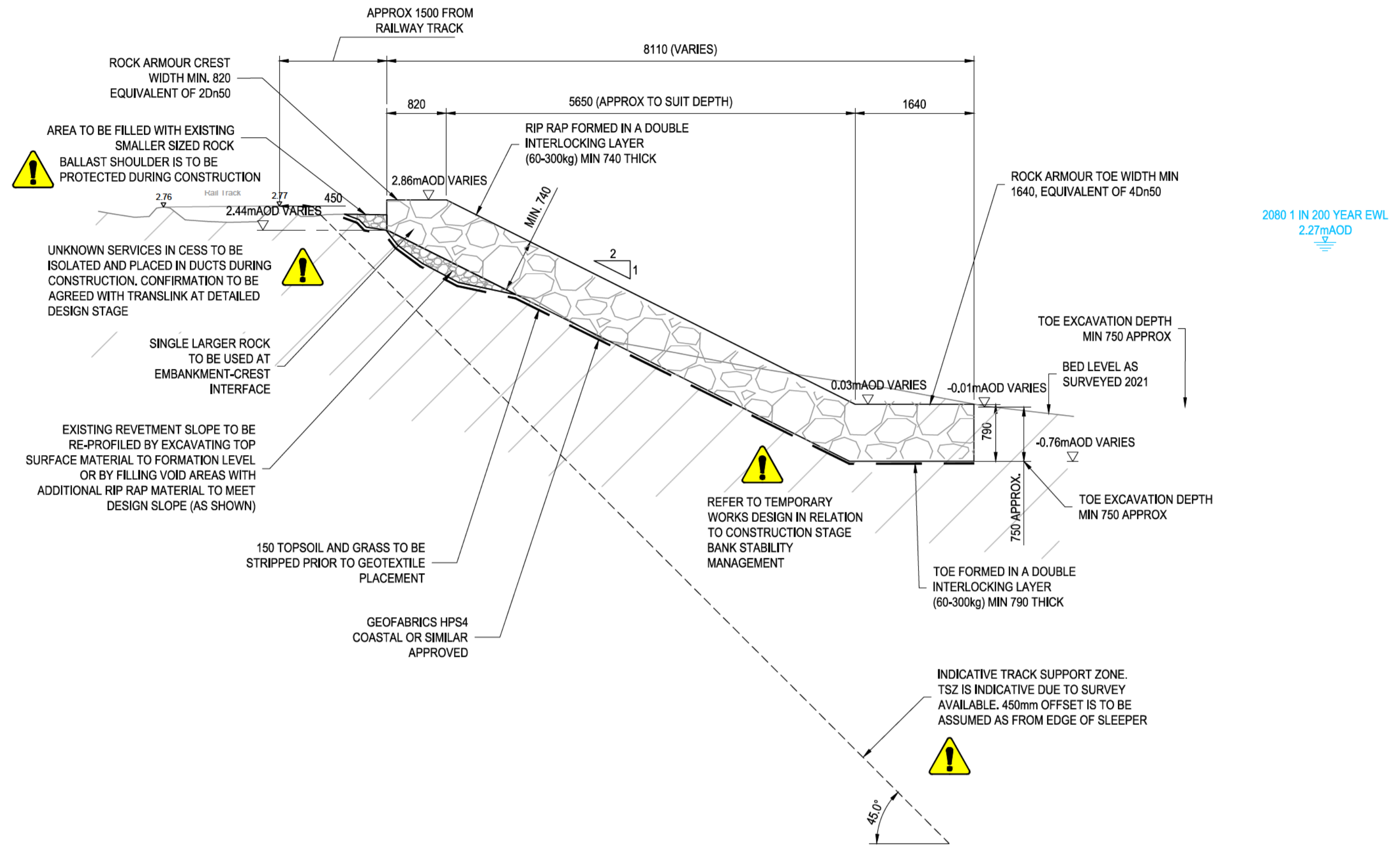
Translink Sea Defences

Outline Design
Asset 14C2 - 2300m beyond end of Section 14C1
General Arrangement

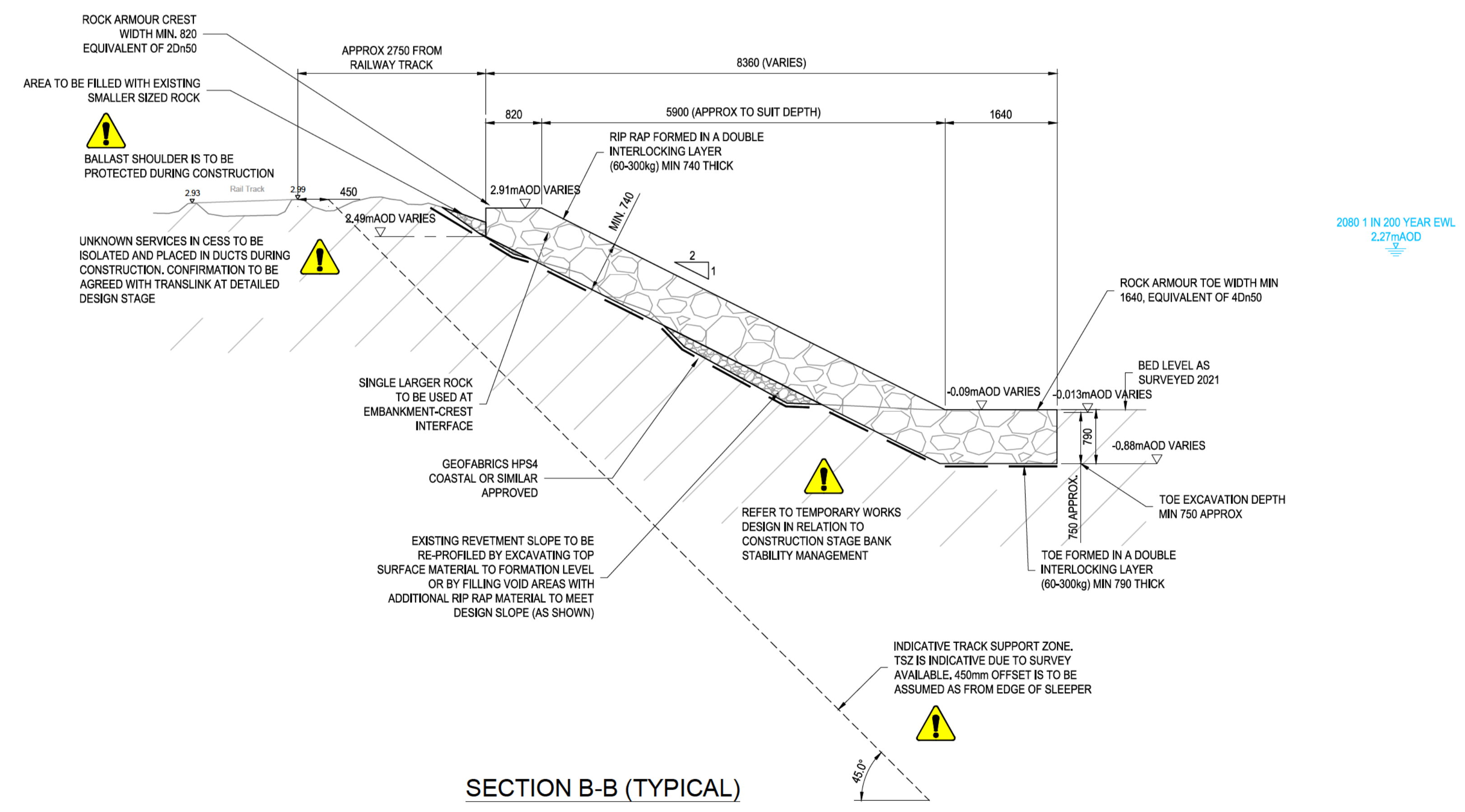
for

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	Approved:	27/11/25
Project Reference: 2025s1344 - Translink Sea Defences - CC&G		
Drawing Number:	Revision	
QSO-JBA-XX-XX-DR-C-0005-S3-P01-14C2_General_Arrangement	P01	



SECTION A-A (TYPICAL)



SECTION B-B (TYPICAL)

- Collapse of excavation/embankment during construction
- Unknown services
- Working adjacent to live railway line
- Working in an exposed coastal and tidal environment
- Movement of plant in and around sea
- Placement of rock armour
- Unauthorised site access
- Working adjacent to and within statutory and non-statutory designated sites
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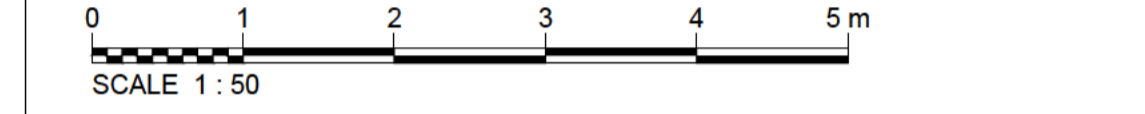
Construction Risks **Public Risks** **Environmental Risks**

In addition to the hazards/risks normally associated with the types of work detailed on this drawing take note of the above. It is assumed that all works detailed on this drawing will be carried out by a competent contractor working, where appropriate, to an appropriate method statement.

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION BOX

General Notes

1. The co-ordinate system reference is IRENET95, based on Irish Transverse Mercator Projection. Levels are in metres above ordnance datum Belfast (mAOD) and refer to Northern Ireland 2015 geoid model.
2. Do not scale from this drawing. All dimensions must be checked/verified on site.
3. All dimensions are in millimetres unless stated otherwise.
4. All levels must be checked in relation to the railway line with any discrepancies being passed back to the consultant. Levels and setting out should be checked by the site engineer to ensure the quoted levels are still relevant at the time of construction.
5. All works in watercourses will be carried out with care to minimise the risk of pollution adhering to guidance for pollution prevention.
6. All works planning to discharge to a watercourse or carry out works that will impact on the free flow of a watercourse will be subject to Consent to Undertake Works to a Watercourse under Schedule 6 Protection of Watercourses from the Drainage (Northern Ireland) Order 1973.



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P01	28/11/25	JS	Designed	JS	Checked	MOD Approved MOD
Client Approval						
A - Approved						
B - Approved with Revisions						
C - Do Not Use						
Purpose of Issue					Status	
Issued for Planning					S3	

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Translink Sea Defences

Outline Design
Asset 14C2 - 2300m beyond end of Section 14C1
Typical Cross Sections

for



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Project Reference: 2025s1344 - Translink Sea Defences - CC&G		
Drawing Number:		Revision
QSO-JBAI-XX-DR-C-0001-S3-P01-14C2_Typical_Cross_Section		P01



Appendix B: Method Statement

Method Statement	MS ID: Coleraine Sea Defences 14C2 Main Works	Rev: 0	Issue Date: 01/12/2025
Project	Sea Defence Repairs		
Title	Method Statement for sea defence repair		
Description of project	Sea Defence Repairs		
Works to be undertaken within this method statement	<ul style="list-style-type: none"> • Mobilisation • Stockpiling of materials • Travel to site • Devegetation • Clear existing area/failed defences • Re-grade embankment slope • Installation of new rock armour sea defences • Demobilisation 		
References	<ul style="list-style-type: none"> • NIR Rule Book • NIR Working Timetable • NIR Working Operating Notice and Supplementary • NIR T2/Redzone Document • NIR Access Register • Subcontractor RAMS • Tide Times • PEA document • BS EN 13383-1-2013 Armour Stone • Construction Drawings <p>Refer to NIR Safety Hub for latest versions of reference documentation</p>		
Lead Responsibility	Project Manager:		
Contractors Personnel on site	Site Manager	Emergency Contact Number	
	Dayshift Site Manager/Foreman		
	Nightshift Site Manager/Foreman		
	PICOP ES/s EO TSC/s Skilled Operative/s Plant Operator/s Safety Boat Crew RRVO/s RRVC/s Engineer/s Ecologist/ECoW		
Hierarchy of Safety	Off-track working >3m from the line: Works in the compound with lineside fencing T3 track possession: All works to take place under T3 protection T2 track possession: T2s can be used during dayshifts for inspection purposes Red zone working: N/A		
Site Rules	<ul style="list-style-type: none"> • NIR Rule book to be adhered to at all times and is to take precedence over any details within this document. • Where works are deemed unsafe by anyone on the team, all activities must cease immediately and these will be reassessed, with approval by the site foreman/ lead responsibility, before they can recommence. 		

The on-line version is the only approved version of this document.
 Hard copies must be validated against the revision level of the on-line version.

Limits of Site	<ul style="list-style-type: none">• From access point to structure and within NIR boundaries and public areas.• Additional Storage area at compound to be agreed between NIR & Landowner for temporary use.
Site Conditions	<ul style="list-style-type: none">• The TSC will inspect each location/site of works. From this inspection they will note all factors affecting condition of the site and access to and from the works area, in order to create the safe system of works.• The TSC must then chose the correct safe system of works to use for this location.• This information must be relayed to the remaining personnel through the TSC briefing which is to be carried out onsite.

<p>Plant & Equipment</p>	<ul style="list-style-type: none"> • Drip Trays • Easi Blocs • ES Kit • Excavator Grab • Excavator Mounted Compaction Plate • First aid kit • Fuel Bowser • Harnesses and Fall Arrest Lanyards • Hedgecutter • Heras Fencing • Lifejackets • Life Ring & Grab Rope • Lifting Chains/Slings • Menzi (Excavator) • PICOP Kit • Plant Nappies • RRV w/trailer & box • Safety Boat • Spill Kits inc Floating Booms • Strimmer • Telehandler • TSC kits • Tilt Rotator Hitch • Tower Lights • Vibrating Plate • Water Bowser • Welfare Van
<p>Materials</p>	<ul style="list-style-type: none"> • Geofabrics HPS4 Coastal • LMA 30/600 Armour Stone • Type 3 Granular Fill • Railway Ballast • Diesel/Oil/Petrol • Silt Fence • Stainless Steel Fixing Pins • Terram
<p>Regular Inspections</p>	<ul style="list-style-type: none"> • Tools and equipment are to be checked on a daily basis. • TSC to inspect the Safe Systems of Works to ensure it still works. • SHE inspections, with FPM Project Manager visits.
<p>Equipment Inspections</p>	<ul style="list-style-type: none"> • Equipment to be inspected at the start of each period of use for defects by the competent operator who will use it. If any defects are found the equipment is to be quarantined and they must reported it to the foreman who will inform FP McCann Rail office staff who will arrange repair. • Agreement to abide by this process is by signature on this method statement.

<p>Proposed Working Hours / Special Considerations</p>	<ul style="list-style-type: none"> • Delivery works to the site compound are to take place during Dayshift working hours. • On Track works to be completed during nightshift T3 possessions. • Installation of rock armour toe and rock armour face to be completed over a 54h blockade of the line. • All site visitors and inspectors must phone the supervisor in advance of attending site to ensure safe working procedures can be maintained at all times.
<p>Programme</p>	<p>Works programmed from September 2026</p>
<p>Public Nuisance</p>	<ul style="list-style-type: none"> • Staff and personnel to be courteous and polite to members of the public at all times. • Responsible parking of vans in the designated area during the works is required to ensure that public nuisance is minimised and access to properties is respected. • Parking is available at the locations stated within the site-specific section below, specific parking spots cannot be guaranteed.
<p>Safety of Public</p>	<ul style="list-style-type: none"> • Access point access gates to be shut and locked once passed through. • Keep contact with the public to a minimum.
<p>Noise and Vibration</p>	<ul style="list-style-type: none"> • See HSE HAV calculation sheet for details.
<p>Risk Assessments</p>	<p>The following risk assessments apply to this activity;</p> <ul style="list-style-type: none"> • 2025-12-01 Coleraine Sea Defences Section 14C2 Main Works-RA <p>See appendix risk assessment document at rear</p>
<p>Emergency Plan</p>	<p>In the event of an emergency notify the supervisor and proceed to one of the muster points as follows:</p> <div style="display: flex; justify-content: space-around;">   </div> <p>A fire warden and first aider will be designated during each site briefing.</p>
<p>COSHH Assessments</p>	<ul style="list-style-type: none"> • Petrol/Diesel/Oil • Cleaning Products • Natural Aggregates
<p>Environmental controls</p>	<p>Wildlife Impact Considerations –</p> <ul style="list-style-type: none"> • Works areas with the potential for nesting/roosting must be checked a maximum of 48h before works to ensure they are clear. • If nesting birds are identified works must remain undisturbed until any fledgeling birds have left and the nest is no longer in use.

- Where required a licence must be obtained if working around wildlife during periods identified by the ecologist such as nesting season.
- Any excavations which are open between shifts must be covered to prevent access by wildlife.
- Soil mounds should be minimised or walled off to prevent badgers accessing and starting setts within them.
- Lighting must be directed to the site of works and where required lighting hoods should be installed to prevent spillage of light disrupting animals schedules.
- Schedule 6 and Section 48 permits must be in place prior to commencement of works and any stipulations advised therein are to be adhered to.
- Should protective species be found on site works are to cease until reviewed by an ecologist and the Project Manager.
- ECoW to be present for works as specified by the Principal Designer.
- Where possible transit of personnel and equipment should be limited to those times outside of peak bat activity, such as sunrise/sunset.
- Environmental Toolbox talks relating to the site and works to be carried out will be specified by the Site Agent.

Control of invasive species –

- See invasive species sections

Prevention of pollution –

- Designated refuelling area to be setup in the main compound and will have drip trays, spill kits and plant nappies located in this area.
- Equipment on site will use biodegradable hydraulic oil.
- All litter and waste arising from works will be collected and bagged for disposal off site.
- Any contaminated material removed from site will be disposed of in the appropriate licenced waste facility.
- Floating Boom/s deployed in the river in advance of works to capture any oils etc.
- Use of a clamshell bucket for excavation in and around the waters edge and any other areas where appropriate to reduce the chance of sediment entering the river.
- All fuels and chemicals stored on site must be stored in a secure bunded area greater than 10m from a watercourse with a spill kit present at the location.

Invasive Species

Japanese Knotweed



How to Identify Japanese Knotweed:

- Green, heart-shaped leaves.
- Japanese Knotweed grows to 2-3m high.
- Bamboo like stems with dark red or purple speckles. Mature Japanese Knotweed canes are hollow, resemble bamboo stems and can be snapped easily.
- Zig-zag leaf pattern due to the leaves growing from the stems. Leaves are usually light green with red or purple flecks.
- Cream, white cluster of flowers. The flowers will usually bloom very late summer (August/September).

Actions relating to Japanese Knotweed:

- If Knotweed is found stop work immediately within 7m of the plant and inform your line manager and TSC.
- Do not excavate or move soil within 7m of the plant
- Do not track plant or vehicles over the area.
- Do not stockpile potential contaminated soil/material within 10m of a watercourse.
- It is a criminal offence to directly or indirectly promote the spread of Knotweed. This includes cutting or disturbing roots.

An area of suspected Japanese Knotweed is present on this stretch of line. This area has been treated with a prescribed weed killer. As a precaution the wheels of rail vehicles and excavators must be washed down prior to leaving site, any operatives working in the vegetated area must also wash their boots off when moving out of the area.

Himalayan Balsam



How to identify Himalayan Balsam:

- Large, pink flowers shaped like a bonnet; these are followed by hanging, green seed pods.
- Flowers from July to October
- Height: up to 2m

Actions relating to Himalayan Balsam:

- Immediately stop work on site if Himalayan Balsam is suspected in the area and inform your line manager and TSC.
- Don't disturb the seed pods.
- Don't move soil which may contain the seeds of the plant unless specifically instructed to do so.

An area of suspected Himalayan Balsam is present on this stretch of line. This area has been treated with a prescribed weed killer. As a precaution the wheels of rail vehicles and excavators must be washed down prior to leaving site, any operatives working in the vegetated area must also wash their boots off when moving out of the area.

Giant Hogweed



How to identify Giant Hogweed:

- Giant Hogweed will grow to 4 metres tall or more before flowering.
- Common hogweed prefers roadsides to riversides, but it will grow almost anywhere. Giant Hogweed is almost exclusively a riverside plant.
- Giant Hogweed will have 50 or more flower stems on each flower umbel. The number of stems on each flower of common hogweed will normally not get to more than 21.
- The main stem of giant hogweed is reasonably smooth in comparison to common hogweed, except at the leaf joints which are markedly more hairy than the rest of the stem.
- The leaves of Giant Hogweed are larger, shinier, more sharply serrated and more importantly, hairless

Actions relating to Giant Hogweed:

- Immediately stop work on site if Hogweed is suspected and inform your line manager and TSC.
- Seek medical advice if you have come into contact with the plant. The danger with Giant Hogweed is not poisoning, but in the way that its sap reacts with your skin. If you get the sap on you then it will react with the melanin in your skin and removes any protection that patch has from UV light.
- If the hairs or sap come into contact with your eyes they can cause blindness. The furocoumarins that cause this effect are present in all parts of the plant.
- Wear protective clothing prior to touching the plant.
- Don't touch the plant unless directed to do so.
- Never move soil which may contain seeds unless specifically advised to do so.

<p>Personal Protective Equipment</p>	<p>The following items of PPE are to be worn within the site boundaries:</p> <ul style="list-style-type: none"> • Full orange NIR certified PPE high visibility coat and trousers • Protective non-slip footwear, with ankle protection • Hard hat (not yellow, red or green) • Protective gloves • Goggles / eye protection • Lifejackets to be worn by operatives working on the sloped embankment into the river. • Harnesses and lanyards to be used when workers are operating on the slope during high tide. <p>Supplementary PPE such as masks, goggles and ear defenders must be worn in accordance with the risk assessments.</p> <p>All PPE must conform to the Translink Infrastructure Workwear Policy.</p>
<p>First Aid Provisions</p>	<ul style="list-style-type: none"> • A first aid kit is held in the works van for these works. First aid kits will also be available on site. • The nominated first aider is: Site Manager/TSC • The location of the onsite first Aid kits and the nominated first aider will be briefed to the working group at the start of each shift, during the TSC/POWP briefings.
<p>Training requirements</p>	<ul style="list-style-type: none"> • All site operatives/personnel accessing the track must hold, as a minimum, NIR PTS accreditation. Appropriate competency cards must be held (in date) for all other track competencies required for the works. All track competency cards must be carried at all times when working on or near the line and be produced on request by an authorised official. • Task specific competencies for each site will be covered by a suitable person detailed to the role by FPM management.
<p>Permits to work</p>	<ul style="list-style-type: none"> • TSC Briefing prior to track access • PEM Form • Permit to Dig • Translink to confirm requirements for Forms 1-5
<p>Emergency Contacts & Procedures</p>	<p>In the event of an emergency, notify your supervisor immediately. Tell them the specific location and nature of the incident plus anything else you can ascertain. A copy of emergency contact numbers will be held in each of the Site Transportation Vehicles, the location of which will be at the access point stated in the site-specific information below.</p> <p>For all works On or Near the Line, the following procedure must be carried out by the TSC, and in his absence the site Supervisor.</p> <p>In the case of an emergency On or Near the Line, or that could impact upon the railway, contact:</p> <p><u>NIR Signal Cabin:</u> Coleraine [REDACTED]</p> <ol style="list-style-type: none"> 1. First, state "THIS IS AN EMERGENCY CALL". 2. Give your name, grade, and your location. 3. State the nature of the incident, and where it happened (use signal numbers and mile posts references where possible). 4. State the emergency service support you require. 5. Give your telephone or radio number. 6. Ask for the entire message to be repeated. 7. Stay in contact until nothing further is required.

Pre-Works	<ul style="list-style-type: none"> • The Foreman/Supervisor/TSC and will visit the site of works to conduct an assessment of the works location. • The Foreman/Supervisor will complete their Point Of Work Plan. • The above should be completed onsite and not in advance of the visit. • The Foreman/Supervisor will brief the team on the POWP • NO WORKS TO COMMENCE UNTIL POWP HAS BEEN COMPLETED AND BRIEFED TO ALL WORK PARTY MEMBERS ON SITE. • Foreman to make it known that, site welfare arrangements will be via welfare van/portaloo. Additional hand wipes sanitiser and first aid kit to be held in the van.
Safe System of Works Procedure	<ul style="list-style-type: none"> • From the information and assessments made above the TSC will deduce their safe system of works in accordance with their training and the NIR Rule Book. • Once the PICOP has granted possession of the line the ES will setup the worksite and authorise the TSCs when this has been setup. • Where accessing through gates, doors and fences please ensure gloves are worn. • Operatives to ensure all gates/ doors are closed behind them. • Note: it is every persons responsibility to ensure that all tools and equipment they take onto the track are placed safely for the passage of trains and then removed when they leave the track. • PEM sheet must be completed prior to accessing and when leaving the track.

Coleraine Sea Defences Section 14C2 approx MP63.50

Site Limits:	MP65.00-MP63.50
NIR Access Point:	XL156 Grangemore MP65.00 55°09'19.7"N 6°44'12.2"W
Road Name & Postcode:	Ballywoolen Rd BT51 3PA

Access Photo:



RRV Access Point:	XL156 Grangemore MP65.00	55°09'19.7"N 6°44'12.2"W
Road Name & Postcode:	Ballywollen Rd, Coleraine, BT51 3PA	

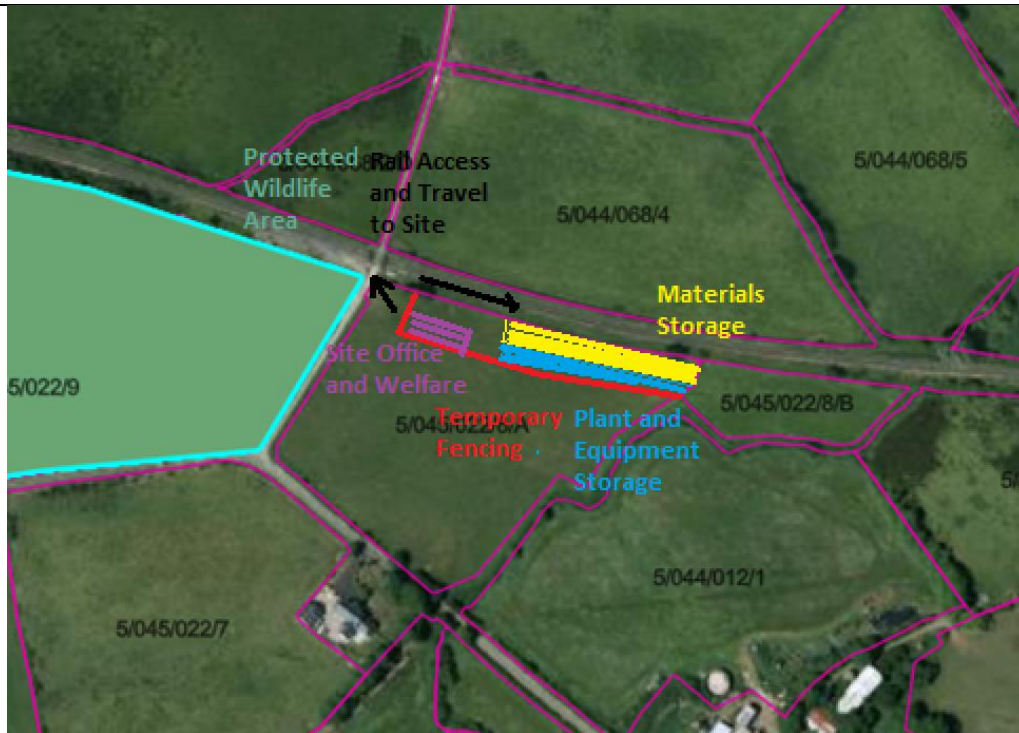
Access Photo:



Nearest Hospital:	Causeway Hospital, 4 Newbridge Road, BT52 1HS, 02870327032
Safe System of Works:	Off track, T2, T3
Landowner Details:	NIR/NITHCO

Methodology:

- **Site deliveries to XL156 Grangemore MP65.00:**
- All briefings and permits must be completed prior to starting work.
- A TSC will be appointed to manage the compound in respect to train movements and the NIR rulebook.
- Storage site must be located outside of the Grange protected wildlife area as shown on the site plan below.
- Telehandler and Excavator will be delivered to site to offload fencing panels, Easiblocs, materials etc. All plant will have a banksman to co-ordinate movements inside the compound with the TSC.
- All excavation and installation of posts or items into the ground must follow safe digging procedures whereby the permit to dig will be completed and the area scanned for services using a CAT & Genny.
- Temporary lineside fencing is to be erected first, this must be >3m from the track, this compound is currently not fenced and is directly open to the line from the entry point.
- Heras fencing will be used for temporary lineside fencing and this must be double clipped with feet and stabilisers.
- Temporary lineside Heras fence gates will be locked between shifts using a chain and padlock.
- Easiblocs are to be set at spacing of 4m c/c to act as stop blocks for vehicles and the heras fencing is to be linked to the blocks by ratchet straps as an additional precaution against storms.
- A welfare area is to be formed near the entrance, plant storage area and a materials set down area will also be designated as per site plan:



- All temporary fencing will be added to the Temporary works register and checking frequency is to be the start and end of each shift.
- Portaloo/cabins to be setup for site welfare. A demarcated area will be setup using wooden fence posts and blue rope with reflective tape added at intervals to provide a 1m buffer zone around the welfare to prevent users coming directly out into site traffic.
- 2m high posts will be erected 3m from the location of any watercourses within the field to demarcate the area, the posts will have the tops sprayed white to make them easier to see. A silt fence is to be installed behind these posts to prevent any run off of sediment into the stream.
- The full compound area will be reviewed for soft spots and these are to be stoned up as necessary using type 3 granular material compacted in layers (6 passes per layer MCHW S600) using a vibrating plate until the site engineer/manager is satisfied the ground is suitable for delivery lorries to travel it.
- The materials storage area is to have a light geotextile (eg Terram) ran across it as areas are needed and will be used for storage of imported stone and geotextiles. Storage area must maintain an access route for delivery vehicles and plant. Areas of unweighted geotextile must be lifted and put into storage or have stone added to prevent blowing onto the track.
- All deliveries must be logged and quantities included in the end of shift report.
- Plant and equipment storage will have a geotextile layer placed over the ground and drip trays/bunds placed under items stored between shifts.
- An area is to be setup at the edge of the plant and equipment storage area to include fire extinguishers, spill kits and small drip trays and will have posts labelled with these items to denote their position. An instruction note is to be installed on each post regarding the procedure of their use and replacement if used. Fuel and chemical storage must be banded.
- Deliveries of materials will stop at the site access gate to receive instructions from the TSC/Site Manager. The lorry will then travel to the location instructed and will be guided there by a banksman until it has completed the delivery and left site.
- Stockpiles of granular fill and soils must be fenced off with bottom boards added to the fencing to deter animals from accessing the mounds and tunnelling into them, if tunnelling is noticed an ecologist should be called to determine the presence of any animals within site materials.
- At the end of each shift the site will be secured before leaving and the gates will be locked.

- **Materials transport to site 14C2 and pre works:**
- All briefings and permits must be completed prior to starting work.
- No access is permitted to the line until the T3 possession has been granted by the PICOP. Access permission will be notified by the TSC/s.
- All works will have prior consent from an ecologist before being allowed to proceed. Refer to Environmental controls section above for details.
- Work party on foot will access the track under instruction from the TSC at XL156 access point. Location is approx. 900m from the access point walking towards low mileage.

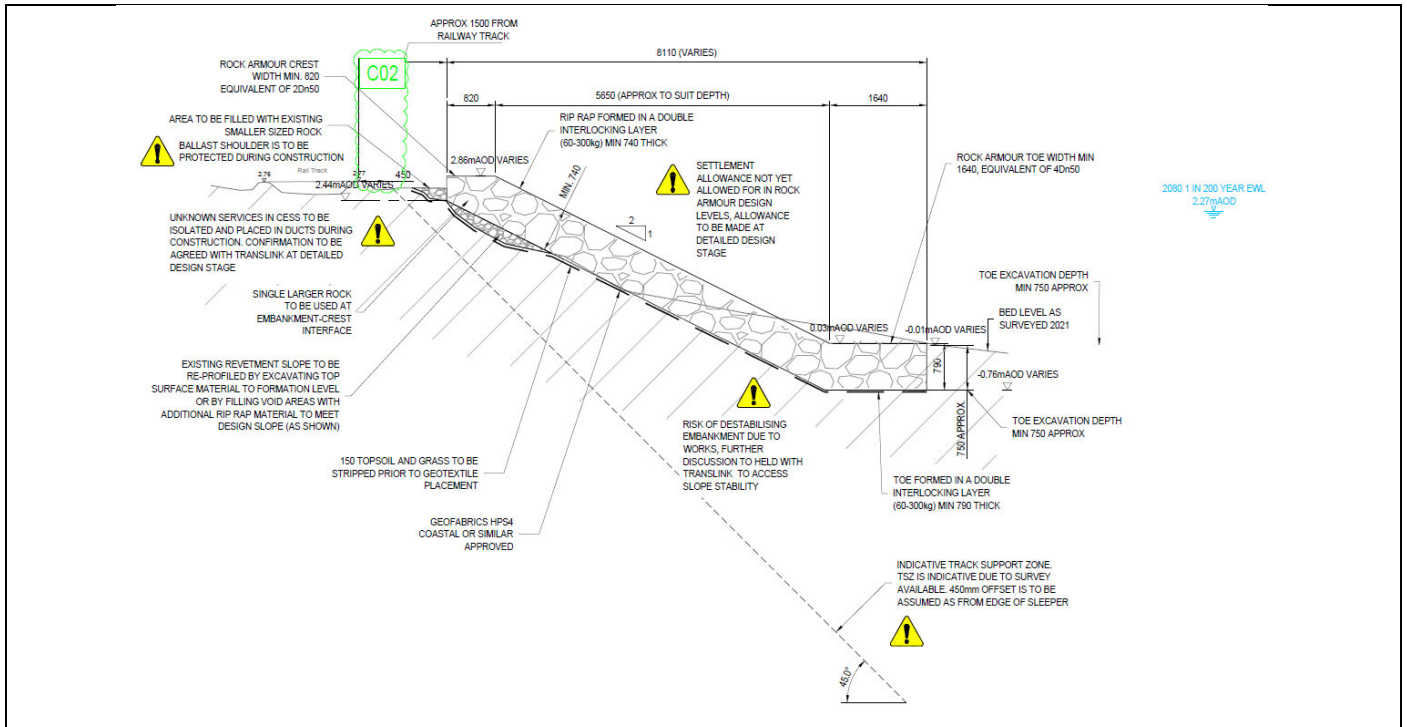
The on-line version is the only approved version of this document.
Hard copies must be validated against the revision level of the on-line version.

- RRVs and associated operators will work out of XL156 Grangemore compound and RRVs will on track at this location. Travel is approx. 900m towards low mileage estimated RRV duration for a single transit to site is 10mins.
- RRVs attended by their RRVCs will on track at Grangemore with two trailers each. The trailers will be set on the line and connected to the RRVs.
- Telehandlers/Excavators will load the RRV trailers with the materials required for that shift.

- Material set down areas near site will be designated by the site manager/engineer. These areas will be cleared of vegetation using strimmers, hedgecutters and hand tools. Arisings are to be left in the cess vegetation areas. A layer geotextile and then of granular fill (approx. 100mm thickness) will be laid over the set down area by the RRV and be compacted using a vibrating plate (6 passes).
- Delivered material will be deposited into the set down areas. All stockpiles must be >3m from the nearest running rail and may be no higher than 1.5m.
- Stockpiles must not be mixed.
- An initial section of the rock armour defences will be completed and following this rock armour may be placed onto the rock armour section to be used for construction of the next section. The machine banksman will ensure that placed rock armour is not removed from its position by the excavator and may use marker spray if required to denote new deliveries.
- Following each return run of materials the site manager will determine whether enough time exists within the shift to complete another run and will instruct the RRVCs accordingly.
- Quantity and type of material moved to site storage areas must be recorded in the end of shift report.
- At the end of each shift all personnel and equipment will be removed back to their access points. All work parties will ensure everything has been removed from their works area and the TSC will double check this has been cleared and record as such in their PEM sheet.
- Site must be left tidy, safe and clear for the passage of trains.

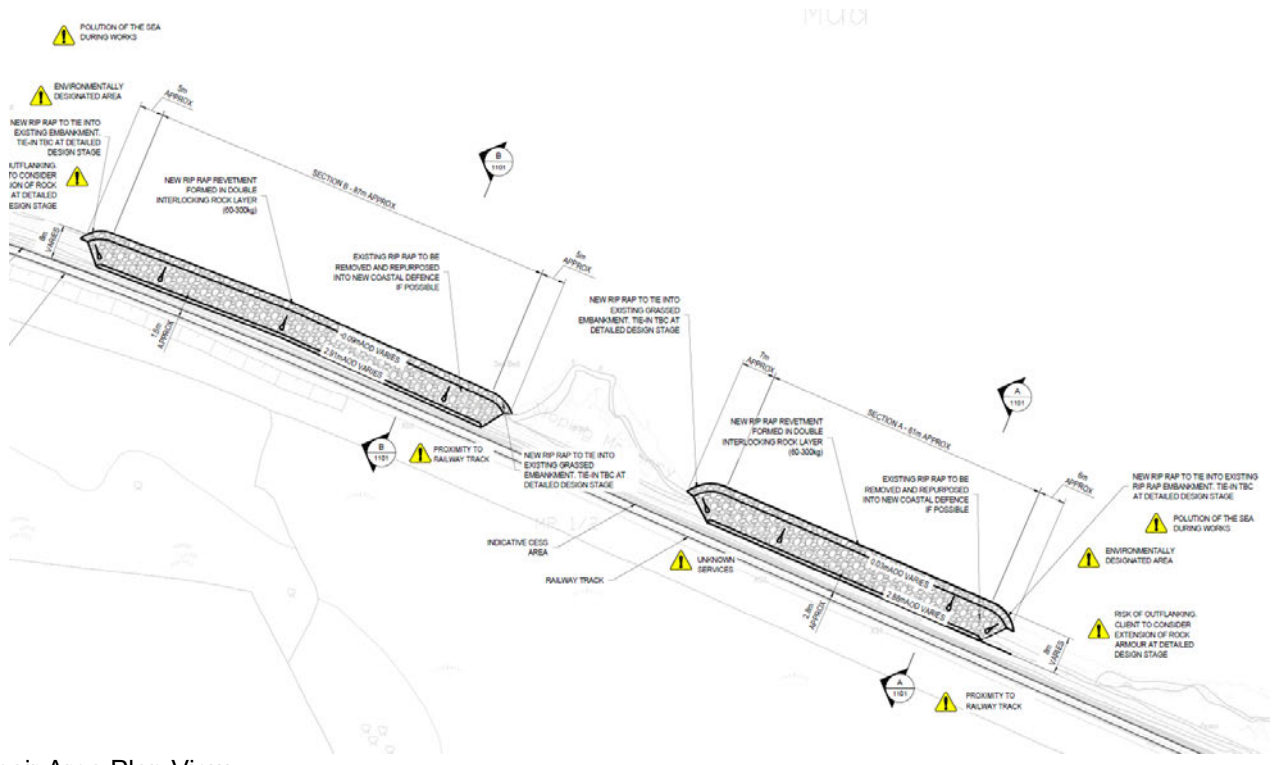
- **Main works 14C2:**
- All briefings and permits must be completed prior to starting work.
- A safety boat should be in place for the duration of the blockade works.
- No access is permitted to the line until the T3 possession has been granted by the PICOP. Access permission will be notified by the TSC/s.
- As this site is within SSI grounds all works must have ecologist approval to proceed before commencing. Refer to Environmental controls section above for details.
- All excavations and embedment into the ground will be have a permit to dig completed and the area scanned using CAT and Genny to verify it is clear of services. If services are found a trial hole will be dug to locate and verify the position and line of services and the services will be protected using split ducting or beams.
- Work party on foot will access the track under instruction from the TSC at XL156 access point. Location is approx. 900m from the access point walking towards low mileage.
- RRVs and associated operators will work out of XL156 Grangemore compound and RRVs will on track at this location. Travel is approx. 900m towards low mileage estimated RRV duration for a single transit to site is 10mins.
- RRVs attended by their RRVCs will on track at Grangemore with two trailers each. The trailers will be set on the line and connected to the RRVs.
- Excavators will be loaded onto a flatbed trailer at Grangemore and delivered to the site location by RRV.
- Any operatives working on the embankment or toe of the slope during high tide must wear a life jacket.
- Guide ropes will be tied to the sleepers at the extents of the section works and the rope ran down the embankment.
- The life ring and grab rope will be positioned at the top of the embankment where the guide rope has been placed. In the event of a person falling into the water operatives may, if safe to do so, use the guide rope to descend the embankment and throw the life ring and grab rope to the person in the water until they can be recovered by the safety boat or pulled back to shore.
- At the discretion of the Site Manager and operatives harnesses and fall arrest systems may be used, these may be fixed to points such as sleepers or around the trunk of large trees nearby.
- Floating booms will be let out from the edges of the embankment and tied off to a fixed structure or post at the edge of the extents.
- The Excavator will offload from the flatbed trailer and access the embankment slope.
- Flat plates will be placed over the ballast where the Excavator is accessing and used to protect any S&T services if present.
- The excavator will make access platforms at mid height of the embankment by scraping some of the ground and building up the embankment using stone to suit site contours.
- Example: Hitachi 130 depth reach 5m below @ 4m distance

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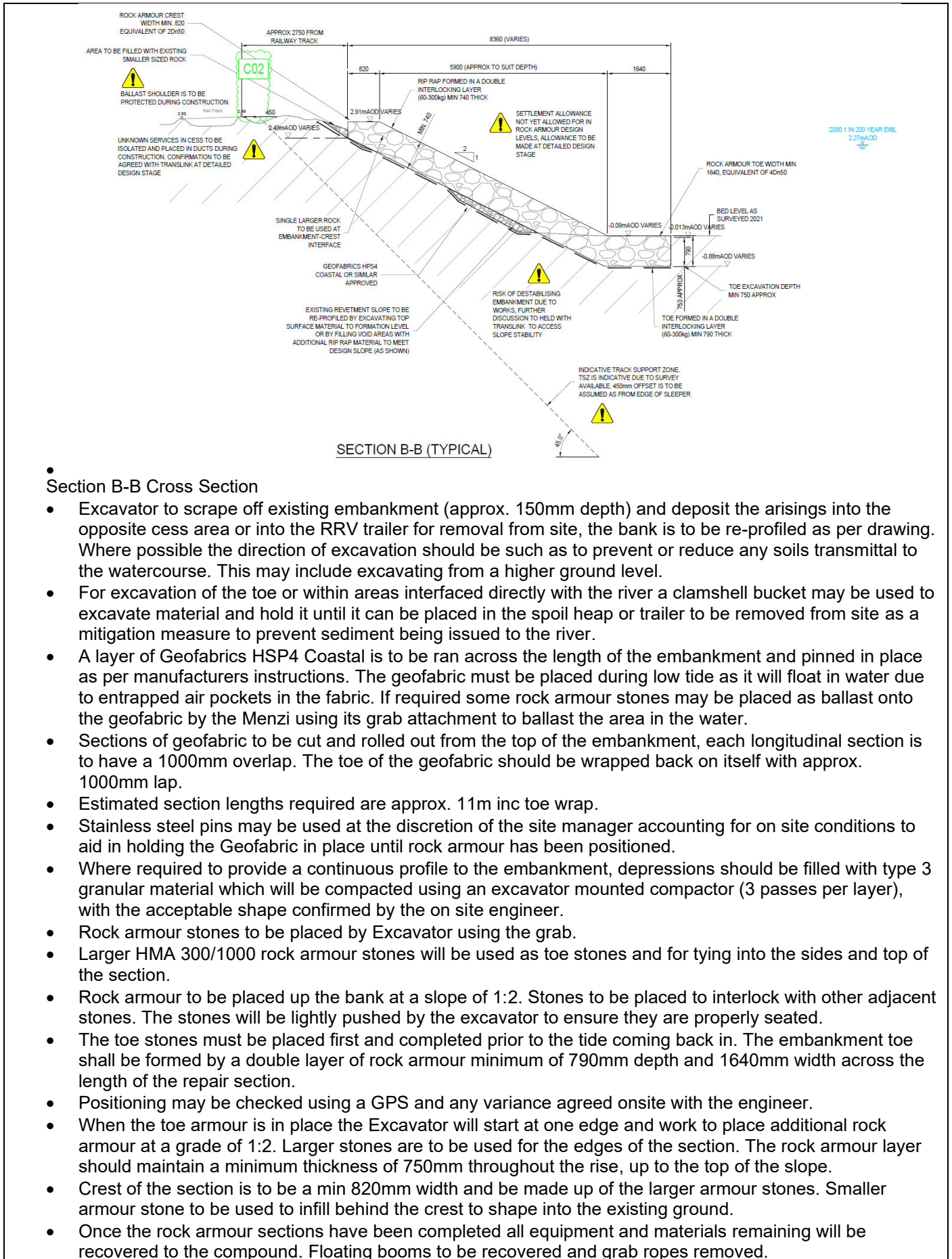


SECTION A-A (TYPICAL)

Section A-A Cross Section



Repair Area Plan View



Section B-B Cross Section

- Excavator to scrape off existing embankment (approx. 150mm depth) and deposit the arisings into the opposite cess area or into the RRV trailer for removal from site, the bank is to be re-profiled as per drawing. Where possible the direction of excavation should be such as to prevent or reduce any soils transmittal to the watercourse. This may include excavating from a higher ground level.
- For excavation of the toe or within areas interfaced directly with the river a clamshell bucket may be used to excavate material and hold it until it can be placed in the spoil heap or trailer to be removed from site as a mitigation measure to prevent sediment being issued to the river.
- A layer of Geofabrics HSP4 Coastal is to be ran across the length of the embankment and pinned in place as per manufacturers instructions. The geofabric must be placed during low tide as it will float in water due to entrapped air pockets in the fabric. If required some rock armour stones may be placed as ballast onto the geofabric by the Menzi using its grab attachment to ballast the area in the water.
- Sections of geofabric to be cut and rolled out from the top of the embankment, each longitudinal section is to have a 1000mm overlap. The toe of the geofabric should be wrapped back on itself with approx. 1000mm lap.
- Estimated section lengths required are approx. 11m inc toe wrap.
- Stainless steel pins may be used at the discretion of the site manager accounting for on site conditions to aid in holding the Geofabric in place until rock armour has been positioned.
- Where required to provide a continuous profile to the embankment, depressions should be filled with type 3 granular material which will be compacted using an excavator mounted compactor (3 passes per layer), with the acceptable shape confirmed by the on site engineer.
- Rock armour stones to be placed by Excavator using the grab.
- Larger HMA 300/1000 rock armour stones will be used as toe stones and for tying into the sides and top of the section.
- Rock armour to be placed up the bank at a slope of 1:2. Stones to be placed to interlock with other adjacent stones. The stones will be lightly pushed by the excavator to ensure they are properly seated.
- The toe stones must be placed first and completed prior to the tide coming back in. The embankment toe shall be formed by a double layer of rock armour minimum of 790mm depth and 1640mm width across the length of the repair section.
- Positioning may be checked using a GPS and any variance agreed onsite with the engineer.
- When the toe armour is in place the Excavator will start at one edge and work to place additional rock armour at a grade of 1:2. Larger stones are to be used for the edges of the section. The rock armour layer should maintain a minimum thickness of 750mm throughout the rise, up to the top of the slope.
- Crest of the section is to be a min 820mm width and be made up of the larger armour stones. Smaller armour stone to be used to infill behind the crest to shape into the existing ground.
- Once the rock armour sections have been completed all equipment and materials remaining will be recovered to the compound. Floating booms to be recovered and grab ropes removed.

- An RRV will restore the ballast shoulder using its profiling bucket once works are complete at the end of the blockade.
- Demobilisation to take place following all works completed and signed off. Removal of equipment from the compound to be carried out during dayshifts with a TSC present controlling the site.
- All waste must be removed and disposed of at an appropriate facility.



T2 Location Info

Doc. Ref: I/NAS/GUI/2104
Issued: 9th May 2025

For work carried out between 67.25 MP – 62.25 MP

	FROM	TO
Location	Castlerock	Bann Bridge
Signals	CE346	CE329
Milepost	67.25	62.25



TYPES OF T2 AVAILABLE

T2A
T2D S&T ONLY
T2H
T2X (As per Section T Part 2 - 4.3.4)

Access Points

Milepost	Access	UP/DOWN	GPS	T-COD
67.25 - 67.00	XL161 Golf Course UWC	DOWN	55°09'41.0"N 6°46'42.5"W	YES
<i>Place T-COD on single line through access gate</i>				
XL162 CASTLEROCK - Ensure crossing is set to manual by signaller before placing T-COD				
66.50 - 66.25	XL159 Barmouth AHB	UP/DOWN	55°09'33.2"N 6°45'42.6"W	YES
<i>Place T-COD between both IRJ's on each side of the crossing</i>				
65.25 - 65.00	XL156 Grangemore UWC MSL	DOWN	55°09'41.0"N 6°46'42.5"W	NO
62.75 - 62.50	Cairn Road	DOWN	55°08'31.0"N 6°40'38.1"W	YES
<i>Place T-COD on SINGLE line through access gate at bottom of steps</i>				

Crossings

Reference	Name	Type	Milepost	Strike-In Area	
XL162	Castlerock	CCTC	67.50 - 67.25	70.25	66.25
XL161	Golf Course	UWC	67.25 - 67.00	N/A	N/A
XL159	Barmouth	AHB	66.50 - 66.25	67.25	65.75
XL158	Conn's	UWC	66.50 - 66.25	N/A	N/A
XL156	Grangemore	UWC / MSL	65.25 - 65.00	66.00	64.00
XL155	Craig's	UWC	65.00 - 64.75	N/A	N/A

Signaller Contact Details

Coleraine SCC (Londonderry, Portrush, Coleraine - Ballymena)	
Coleraine North -	028 7032 7561
Coleraine Emergency -	028 7032 1860
Railway Control -	028 90 899 444

Appendix C: Incident Response Plan

Introduction

Although the site operations are planned to reduce the risk of an incident occurring, there may be a residual risk of a pollution incident in the form of a spillage that could cause serious environmental problems. This plan has been prepared to ensure pollution prevention measures are in place to minimise the consequences of an environmental incident.

In the event of an environmental incident, the contractors Environmental Incident Plan or Incident Response procedures shall be followed. All environmental incidents, close calls and near misses shall be recorded.

All environmental incidents should be reported directly to the Site Manager as soon as reasonably practicable.

An environmental incident can be:

- A fuel or chemical spillage onto ground, into drains or a watercourse;
- Damage to the habitat of protected species or nesting birds;
- Damage to protected species, either plants or animals;
- Incidents involving waste, such as fly-tipping or the illegal transfer of waste.

As a minimum, contractors and sub-contractors will be required to complete a risk assessment to assess requirements for spillage equipment and pollution prevention storage. Any equipment should be clearly labelled and readily available in the area it is likely to be required – the locations and how the equipment is to be used should be detailed in an environmental Toolbox Talk to all contractors.

Where necessary, in the event of a pollution incident, the Northern Ireland Environment Agency (NIEA) will be contacted, and Environmental Manager notified. The NIEA pollution hotline number is 0800 807060.

If a workplace hazard is spotted a ‘close call’ must be raised to prevent any incidents or activity that could be potentially harmful to the environment or the community.

Site details

Site Name(s)	- Translink Sea Defences Section 14C2
Site Access	

Period of Operation	Delivery works during daytime hours and on track works to be completed at nighttime, over a 54hour blockade of the line.
Equipment on site	Refer to Section 2. Method Statement
Pollution Prevention Equipment on site (e.g. spill kits)	Spill kits will be available on site and refuelling stations will be identified for plant
Site Manager/ Responsible Person	TBC
On-site staff	Contractor

Site responsible person

TBC

Environmental Close Calls and Incidents

Spillage	<p>Stop working immediately. If safe to do so, use spill kits provided (located on plant / equipment) to stop the spill spreading.</p> <p>Notify the Site Manager</p> <p>If necessary, use sand to create a bund or use a boom to contain spills which have already entered a watercourse</p> <p>Site Manager is responsible for managing clean up and deciding if additional support (clean up contractor) is necessary and for contacting the NIEA if the spill is over the reportable thresholds (see below).</p>
Flooding	<p>Site Manager is responsible for signing up to Northern Ireland Environment Agency and DfI Flood Warning System.</p> <p>Site Manager/Supervisor is responsible for good site practice to limit spillage during flood.</p>
Noise and Light	If approached by an aggrieved member of the public, remain calm.
Complaint	Report to Site Manager
Inadequate	Report close call to Site Manager
Waste Provision	Responsibility of Site Manager

Incident Thresholds

TYPE OF INCIDENT	VOLUME	EXAMPLE
Any incident by / near a watercourse or drains Any unplanned loss or spillage into combined drainage areas	Any Volume	Any substance
Fuel spillage or loss	50 L	Petrol, diesel or gas oil
Spillage or loss of other hydrocarbons	20 L	Lubricating oil, transmission fluids
Spillage or loss of detergents	25 L	Washing powder, washing up liquid, shampoos, soaps, car cleaning products.
Spillage or loss of disinfectants	5 L	Household bleach, toilet cleaner, Dettol
Spillage or loss of paints and dyes	50 L	All
Spillage or loss of inorganic powders	50 Kg	Silt, sand, cement chalk, gypsum /plaster
Spillage or loss of pesticides	5 L	All
Spillage or loss of herbicides	5 L	All

Emergency Contact Details

Emergency Services	Police, Fire, Ambulance - 999
Local Hospital/ Health Centre	Causeway Hospital 4 Newbridge Rd, Coleraine BT52 1HS
Local Authority Environmental Health	Environmental Health Department – Causeway Coast and Glens
Spill over reportable thresholds	Northern Ireland Environment Agency – 0800 807 060
Spill impacting water	Northern Ireland Environment Agency – 0800 807 060 DAERA - 0300 200 7840
Environmental Spill Contractor	TBC

Local Water and Sewage Company	Northern Ireland Water - 03457440088
Impact on a Designated Site / Ecology	Northern Ireland Environment Agency – 0800 807 060
Environmental Manager	TBC
Translink	Contact Helpline - 028 90 66 66 30