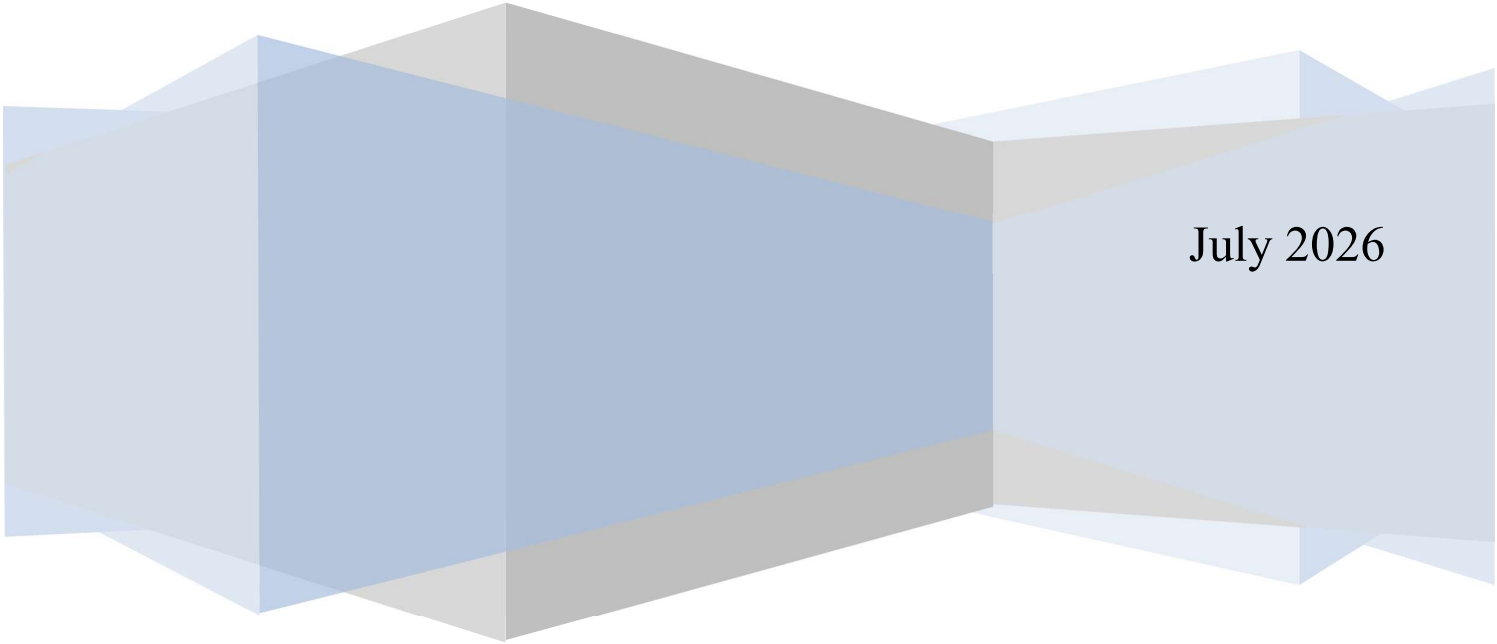


Quinn Consulting Engineers

Ardeamush Fernhill GWS

Preliminary Health & Safety Plan for Proposed Upgrade
Works Project for Ardeamush Fernhill GWS, Co. Clare.



July 2026

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PRELIMINARY HEALTH & SAFETY PLAN

This Health and Safety Plan has been prepared in accordance with Part 2 (12) of S.I. No. 291 of 2013, the Safety, Health and Welfare at Work (Construction) Regulations 2013.

1.0 GENERAL DESCRIPTION OF PROJECT

1.1 Client: Ardeamush Fernhill GWS Committee,
C/O John Browne,
Group Scheme Secretary,
Ardeamush,
Doolin,
Co. Clare

1.2 Project Description: Ardeamush Fernhill Group Water Scheme. – Upgrade Works 2026

The proposed project comprises of the following works:

Ardeamush Fernhill GWS has a watermain supply distribution network of approximately 2530m covering a geographical area of rural townlands Ardeamush and Fernhill in North Clare. The upgrade works project consists of the replacement of the existing watermain distribution pipes throughout the scheme due to age and deterioration of the existing watermain network. The existing pipe sizes vary from 25mm to 50mm in diameter and the upgrade works involves the replacement of 2530m of 50mm diameter pvc watermain with a new 100mm diameter SDR17 PE watermain pipe and the replacement of 177m of existing 25mm diameter pvc watermain with new 50mm diameter SDR17 PE watermain pipe. The project also involves the installation of new valves, fittings and water meters. The works generally take place along the public road verges and is subject to the local authority road opening licence and conditions.

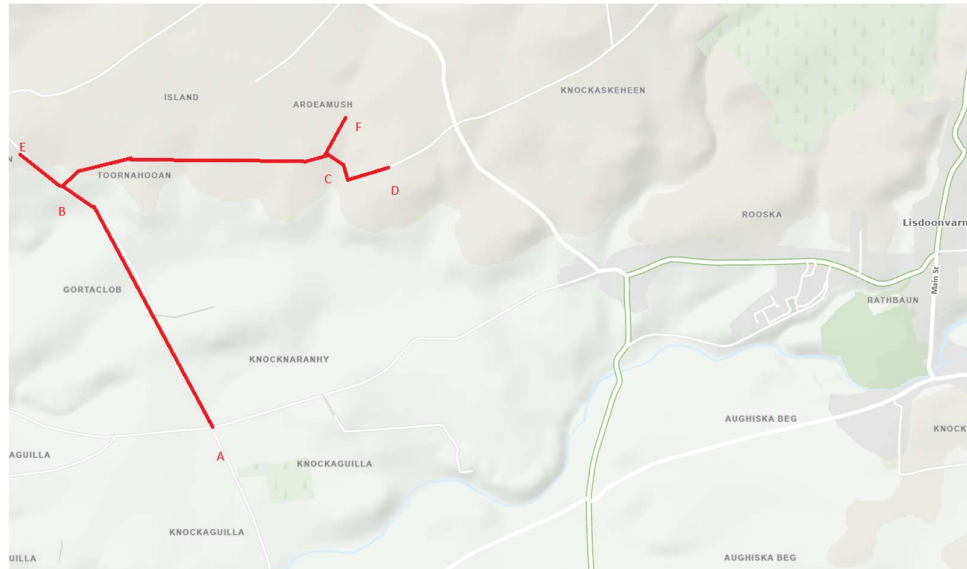
The works include but are not limited to the following:

- Temporary / Permanent diversion of pedestrians and vehicular traffic.
- Traffic Management of the public roadway.
- Temporary site fencing / trench protection.
- Excavation and pipe laying.
- Construction of associated valves and their chambers.
- Installation of metered water connections.
- General tidy up and removal off site.
- Fencing to be provided in proximity to all excavations.
- Prior to all excavations, the location of services must be established. All effort must be taken by all parties, to identify the true location of services and to protect all known and identified services.
- All works are to ensure that two-way vehicular and pedestrian traffic is maintained at most locations and where this is not possible due to machinery carrying out excavation works, one-way traffic will be maintained and controlled by a stop and go system or temporary traffic lighting system.
- The reporting of any significant event should be directed at those listed in the Tender Documents.

The full scope of the works and the Contractors obligations under the contract shall be ascertained by reference to the contract documents as a whole.

1.3 Site Location:

The proposed works are located in various townlands namely, Ardeamush and Fernhill from point A to D and from point B to E and from point C to F as shown in the OSI extract map below with more precise locations shown on the contract drawings site location map.



1.4 Drawings/Specification:

The following set of documentation is provided for the project:

- **Contract Drawings**
- **Invitation and Instructions to Tenderers**
- **Suitability Questionnaire**
- **Volume A – Works Requirements**
- **Volume B – Form of Tender and Schedule**
- **Volume C – Pricing Document**

1.5 Site Restriction:

No parking by any personnel (i.e. contractor, clients, consultants, visitors) will be permitted on any of the approach roads. The site extents are indicated on the Contract Drawings. The site compound area to be determined by the Contractor.

1.6 Relevant Adjoining Land Uses to site area:

Mostly public road.

1.7 Traffic Management:

- 1.7.1 Traffic Management works shall be carried out in accordance with the Department of Transport Traffic Management Guidelines and the Department of Transport's "Guidance for the Control and Management of Traffic at Road Works" 2010. The Contractor shall be responsible for the provision and proper positioning of all warning and advisory signs, traffic cones, signal and warning lamps, barriers and any other equipment, apparatus, labour or plant which may be necessary for the proper control of traffic and to minimize inconvenience to the general public caused by his operations.

Before commencing work on the site investigations and contract works, the Contractor should ascertain the requirements of Ardeamush Fernhill GWS Ltd, Clare Co. Council and the Gardaí with respect to the control of traffic during construction work. He shall be responsible for all liaisons with these authorities during the progress of the works. He shall submit to the Group Water Scheme's representative (The Engineer) a detailed Traffic Management Safety Plan a minimum of 2 No. weeks prior to any works to carriageways commencing. A Road Opening License shall be applied for, from Clare Co. Council, a minimum of 2 No. weeks in advance of works commencing.

The detailed Traffic Management Safety Plan shall be site specific and include details of the traffic management procedures to be undertaken for these specific works. The Traffic Management Safety Plan should include drawings of the traffic management proposals.

The Contractor must maintain one-way traffic at all times. In addition, pedestrian traffic along footpaths and pedestrian access to any place of business cannot be impeded. The Contractor shall submit the all-in rate for providing, erecting and maintaining temporary traffic lights on the site.

- 1.7.2 Before any work is undertaken on or near a road by any Contractor or Authority, a person must be appointed to be responsible for ensuring that the following points are observed and that:
- (a) Compliance with Clause 117 of the NRA Specification for Road Works.
 - (b) The Gardaí, Clare Co. Council and the Ardeamush Fernhill GWS are given at least two weeks notice of your intention to commence road works.
 - (c) A suitable name, address and telephone number are supplied to local Gardaí so that you may be contacted outside normal working hours in an emergency.
 - (d) Conformance to conditions or times of working previously agreed.
 - (e) The accesses to the site have adequate sight lines and are kept clear of parked vehicles.
 - (f) Advance warning signs for the works both for traffic and pedestrians are placed.
 - (g) Only cones and signs of the prescribed shape and size are used.
 - (h) As work proceeds along the carriageway, the signs are repositioned as required.
 - (i) The lenses of lamps are kept clean and the batteries in flashing lamps are replaced before the light goes dim.
 - (j) The area of the works is marked out with clearly visible barriers and that the same type of barrier is used throughout.
 - (k) The site is kept tidy to increase the safety factor for the workmen.
 - (l) All plant, material and surplus excavated material are contained within the barriers.

- (m) Mud and other debris deposited on the road surface by vehicles leaving the site is removed.
- (n) Signs for the works and other equipment used are kept clean and are regularly maintained.
- (o) Pedestrian walkways are provided and kept free from obstructions.
- (p) Local residents are considered when work is in progress outside normal working hours (ensuring that access to premises is maintained and that noise is kept to a minimum).
- (q) Workmen or visitors park their private cars away from the confines of the site remembering that their vehicles are not exempt from any parking restrictions in force locally.
- (r) All signs are removed from the carriageway when the work is complete.
- (s) Account taken of additional tourist and other traffic using roadways at weekends.

1.7.3 General Methods of Control

The basic methods used to inform and warn drivers of any roadworks and to delineate the site are: -

- (i) Traffic Signs
- (ii) Cones, Barriers and Demarcation Ropes

(a) Traffic Signs

Signs and their placing are of the utmost importance in guiding traffic through obstructions. Legends and symbols must be clear and concise as the function of the sign is first to warn, then to inform motorists and finally to guide them safely around temporary work areas. The first sign is always the 'Road Works' sign and a supplementary plate indicating the distance to the hazard should also be used. There are two sizes of traffic signs available, 600mm and 900mm.

Always place a 'Road Works' sign with an 'End' supplementary plate after the works, positioned so that it is clearly visible.

When placing the advance warning signs and regulatory signs, the following points should be noted:

- (i) All signs should be of standard design.
- (ii) All signs should be of the same size, reflectorised and kept clean at all times.
- (iii) Signs must be mounted or fixed in such a way that they will remain firmly in position, unaffected by the wind and moving traffic.

1.7.4 Siting of Roadwork's Signs

All siting layouts of roadwork's (signs, cones etc.) to be in accordance with Chapter 8 of Department of Transport Traffic Management Guidelines.

1.7.5 Traffic Disruption

The Contractor shall arrange his operations so that obstruction to traffic is minimised. Where any obstruction is required for the satisfactory progress of the works, the Contractor shall consult the Engineer about the situation, in advance of commencing the work.

Traffic disruption will only be permitted between 10.00am and 16.00pm and flagmen shall be used to control traffic.

2.0 INTENDED PROJECT COMPLETION TIME

2.1 Restrictions on Working Hours:

Normal Working Hours: 8am - 6pm Monday to Friday, 9am - 4pm Saturday. Working outside of normal working hours will only be by agreement with the Engineer.

2.2 Restrictions on Access:

Access only at locations agreed with landowners and at locations, which are safe with respect to sight distances etc and agreed with the Engineer. Traffic management for all accesses shall comply with the provisions of Chapter 8 of the Traffic Management Guidelines.

2.3 Other Contracts that may affect work: (see section 5 below)

No other works are foreseen at this time.

2.4 Intended Contract Commencement Date:

To be advised by contractor.

2.5 Intended Contract Completion Date:

To be advised by contractor.

2.6 Intended Duration of Contract:

Expected works to Commence – **Feb 2026**

Expected duration of works – **14 Weeks**

3.0 KNOWN EXISTING SERVICES

As shown on Contract Drawings attached.

3.1 Overhead and Underground Services:

The Electricity Supply Board (ESB) has a number of overhead lines and underground services within the surrounding area.

Eircom has a number of overhead lines and underground services in the surrounding area.

Note: The information in the Contract as to the whereabouts of existing services and mains, as shown on The Contract Drawings are based on preliminary information from statutory undertakers and there is no guarantee as to the accuracy of the information, The Contractor shall be deemed to have included in his rates and prices for taking measures for the locating of, support and full protection of pipes, cables and other apparatus during the progress of the Works and for keeping the Engineer informed of all arrangements he makes with owners of privately owned services, Statutory Undertakers and Public Authorities as appropriate and for ensuring that no existing mains and services are interrupted without the written consent of the appropriate Authority.

The Contractor shall make his own enquiries of the statutory undertakers and public authorities and satisfy himself as to the exact position, depth and gradient of any underground services or field drains at each location before borings/trial pits commence. The Contractor shall also make enquiries as to the presence and location of any privately-owned services or land drains. All excavations located within the boundaries of public highways, and elsewhere if the presence of underground services or field drains is suspected, shall start by means of a hand excavated inspection pit not less than one square metre in plan and 1.2 meters deep. Hand operated power tools may be used to assist excavation where hard strata such as road pavements cannot be broken without the use of such tools. Mechanical excavation shall not begin until the presence or otherwise of all such services has been established, and noted, and located for reference in the Contractor's Final Report. The Contractor shall be deemed to have included this in his rates, together with the full recording of strata and taking of samples and reporting as this is considered part of the exploratory hole.

The Engineer and appropriate authority/private body and/or individual, shall be notified immediately of any damage to existing public or private services. The Contractor shall insure Ardeamush Fernhill GWS, Clare Co Council and himself against all loss or damage to public and private services from whatever cause arising during the period of the site investigations contract.

THE CONTRACTOR MUST COMPLY WITH THE REQUIREMENTS AND CONDITIONS OF THE BODIES RESPONSIBLE FOR INDIVIDUAL SERVICES.

4.0 OTHER WORK ACTIVITIES

The following other activities, not related to or included within the scope of the contract, will be carried out on the site during the construction phase.

4.1 Building Activities:

Not foreseen at this time.

4.2 Installation of Services, e.g. telephones, data, computer, process services:

Not foreseen at this time.

4.3 External Works such as Land Drainage, Landscaping, Public Utility Services, Works by Local Authority:

Maintenance of grass verges and open areas may be undertaken by Clare Co. Council Roads Department.

5.0 PARTICULAR RISKS

The following is the non-exhaustive list of particular risks to the safety and health of persons as set out, together with the opinion of the Project Supervisor for Design Process on what elements of the works may fall within each risk category. It should be noted that many of the risks on the project might arise out of working methods, which are at the discretion of the Contractor and as such cannot be determined by the Project Supervisor for Design Stage.

5.1 Works that put persons at work at risk of impact with moving vehicular traffic, where the risk is particularly aggravated by the nature of the work or processes used or by the environment at the place of work or site:

Public roads are subject to speeding traffic.

As noted in section 2.2.1 above, two-way traffic is to be maintained at most locations and one-way traffic minimum for restricted periods. This is to be incorporated into the traffic management proposals, which should incorporate traffic calming and provide protection from traffic impact in the form of barriers or bollards.

5.2 Works which puts persons at work at risk of burial under earth falls, engulfment in swampland or falling from a height, where the risk is particularly aggravated by the nature of the work or processes used or by the environment at the place of work or site:

5.2.1 Burial under Earth falls, for example: deep foundations, deep cuttings work near unstable ground or buildings.

The following risks are relevant during the excavation of the trenches:

- Collapse/ Slippage of sides of excavations.
- Collapse/ Slippage of sides of excavations due to ground loading adjacent to excavations by Crane, digger or other heavy objects.

- Offloading of fill material by tipper truck/ loading bucket.
- Excavation in fill material and adjacent to or through free draining material.
- Excavation adjacent to existing manholes and pipelines.

5.2.2 Engulfment in Swampland, for example: unstable ground, work adjacent to lakes and ponds or reclaimed ground.

Risk from engulfment in swampland is unforeseen during the course of these works.

5.2.3 Falling from a height for work, for example: masts, towers, bridges, chimneys and steeples, where conventional scaffolding cannot be erected. Relevant risks include:

- A fall into an excavation.
- A fall from digger / Crane / Dump truck / or FWD vehicle.

5.3 Works, which puts persons at risk from chemical or biological substances constituting a particular danger to the safety and health of such persons or involving a legal requirement for health monitoring:

5.3.1 Building Materials to be used in the works such as: asbestos, toxic paints, solvents, adhesives, insulation materials, toxic dust.

Relevant Risks may include:

- Use of Concrete Admixtures associated with concrete works in reinstating slit trenches.
- Use of cleansers etc. on site.
- Bituminous products associated with road surfacing for reinstating slit trenches.

5.3.2 Materials in Existing Buildings such as: asbestos, toxic dust.

Risk from materials in existing buildings is not foreseen during the course of these works.

5.3.3 Materials in existing underground services

- Contact with effluent from existing sewers when excavating trial holes and bore holes.

5.3.4 Health hazards due to Weil's Disease and other water-borne diseases.

5.4 Work with ionising radiation requiring the designation of controlled or supervised areas as defined in Article 20 of Directive 80/836/Eurotom such as: radioactive lighting conductors, radioactive smoke detectors, other disused radioactive materials or plant, radioactive installations:

Risk from radiation is not foreseen during the course of these works.

5.5 Work near high voltage lines and underground services:

As shown on Contract Drawings.

5.5.1 External Overhead ESB, underground ESB services and underground Bord Gais gas mains and services.

Location - as per 3.1

5.6 Work exposing persons at work to the risk of drowning, for example: works significantly below water table, work to bridges, culverts, and work on or near the sea, lakes, ponds, reservoirs:

Special actions to be taken to avoid / mediate major hazards such as: cold water shock, hypothermia, fatigue, drowning, currents, water borne diseases, impact by floating objects, slipping on wet surfaces.

These risks would include the possibility of falling into water collected in excavations. Working adjacent to watermains. Risks include damaging mains causing localised ponding and risk of drowning.

5.7 Work on wells, underground earth work and tunnels, for example excavated wells, underground earth work, tunnels, underpinning:

Risk from underground works is unforeseen during the course of these works except for the risks associated with drainage. These risks would include working in confined areas, gas fumes, slips, trips and falls.

5.8 Work carried out by divers at work having a system of air supply:

Risk from diving is unforeseen during the course of these works.

5.9 Work carried out in a caisson with compressed air atmospheres:

Risk from working in a compressed air atmosphere is unforeseen during the course of these works.

5.10 Work involving the use of explosives, for example: rock blasting or demolition:

Risks from use of explosives is unforeseen during the course of these works.

5.11 Work exposing persons at work to the risk of explosion:

- Oil, Diesel containers used to store fuel for plant used on site.
- Risk from existing surface water piping and manholes where the build-up of gases may have occurred.
- Risk from breach of high pressure watermains

5.12 Work involving the assembly or dismantling of heavy prefabricated components for example: heavy steel structural frame elements, heavy precast concrete frame elements or heavy prefabricated plant items:

Relevant risks may include:

- Collapse of crane due to ground movement, mechanical failure, overloading.
- Failure of Crane chain, spreader beam, anchorage in lifted objects.
- Failure of equipment used in lifting of equipment.

5.13 Other Particular Risks

There may be other risks associated with the construction of these works. The Project Supervisor (Construction Stage) should familiarize himself with the site investigation requirements so as to identify any particular associated risks.

5.14 Noise Levels

The site noise as defined in BS 5228: 2000 shall not exceed the following criteria:

L (Fast)	L _{aeq}	Time Period
70	60 dB (A)	0700 hours to 1900hours, Mondays to Saturdays inclusive
50	40 dB (A)	At all times

At any noise sensitive premises in the locality when measured in accordance with appendix A of BS 5228: 2000. An appropriate correction shall be applied in the case of tonal impulsive components in the measurement of noise.

5.15 Weil's Disease

Risk from Weil's disease in areas of dense foliage and areas of running water where the presence of rodents is likely.

5.16 Foot and Mouth Protocols

Risk from Foot & Mouth Protocols when working in and around farmlands.

5.17 Working on Sloping Ground

Risk from slippage on sloped ground and other areas identified to be at risk of failure that may inhibit the movement/operation of heavy plant/ investigation rigs.

6.0 SAFETY LEGISLATION REALTING TO THE WORKS

The works are to be carried out in accordance with the following safety legislation, Regulations and regulatory documents:

1. Safety, Health and Welfare at Work Act 2005
2. Safety, Health and Welfare at Work (General Application) Regulations, 2007
3. Safety, Health and Welfare at Work (Construction) Regulations, 2013, S.I. 291.
4. Traffic Management Guidelines, Department of Transport 2006.

In addition to the above, the contractor should identify and carry out works as per all other relevant legislation.

7.0 CONTINUING LIAISON

- 7.1 Procedures for dealing with unforeseen eventualities during project execution resulting in substantial design change, which might affect contract period and other resources.

Contractor to contact Engineer immediately upon occurrence of unforeseen eventuality. Engineer to instruct Contractor accordingly.

- 7.2 Procedures for considering health and safety aspects of the design elements for the Project Supervisor Construction Stage.

Contractor to liase fully with Engineer on all such design issues.

Disclaimer

The information contained in the preliminary Safety & Health Plan has been prepared prior to commencement of the works on site. It does not take into account any matters or information, which may come to light after that time.

Signed:



for Quinn Consulting Engineers

Dated: 27th July 2026