

TOBIN

Refurbishments & Extension at Cape
Clear Heritage Centre at Oileán Chléire,
Co. Corcaigh

Volume A – Works Requirements

Volume A1.2: Civil Particular Specification



Údarás na
Gaeltachta

BUILT ON KNOWLEDGE

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1. INTRODUCTION

Part 1.2 of Volume A sets out the scope of works relating to the Civil Infrastructure element of the project and particular items to be noted by the Contractor. The General Specification relating to the Civil Infrastructure element of the project is included in Part 2.

The Contractor should ensure that they have examined all drawings and specifications to satisfy themselves of the extent and nature of the works.

The Contractor should note that the Part 1 of this Specification, and its associated drawings, take precedence over Part 2 of this Specification.

The Conditions of Contract applicable to this Contract are those contained in the **PW-CF6 – Short Form of Contract** Form of Contract relevant at the designated date. It is the responsibility of the Main Contractor to fully co-ordinate the works with the specialist contractor to ensure all elements are included in the tender submission.

1.1 SUMMARY OF SCOPE OF WORKS

The proposed works consist of the refurbishment and extensions at Cape Clear Heritage Centre at Oileán Chléire, Co. Corcaigh as identified on Drawing 12085-6001 Site Layout Plan.

The works will involve the following:

- Internal building modifications.
- Construction of a building extension.
- Installation of a packaged Wastewater Treatment System and all Associated works.
- Upgrade of surface water system.
- Upgrade existing access with new surfacing.
- Construction of a foul sewer.
- Installation of fencing.
- Upgrading of percolation area.
- All associated landscaping including top soiling and seeding.

1.2 DETAILED DESCRIPTION OF WORKS

The following works, which are described in more detail on the drawings, are to be executed and completed by the Contractor. The scope shall include for the supply, delivery, construction and commissioning of the works.

The Contractor shall refer to the relevant discipline's drawings and specifications for greater detail of the scope of works involved and below shall be read in conjunction with the other Works Requirement Documents and Contract Drawings.

The complete set of civil tender drawings include the following:

Drawing Number	Drawing Title
12085-6100	Site Location Map
12085-6101	Site Layout Plan
12085-6102	Site Layout Plan
12085-6104	Drainage Site Layout Plan
12085-6108	Polishing Filter Details
12085-6109	Pumping Station Section
12085-6110	Rising Main Details
12085-6111	Signage Details Map
12085-6112	Proposed Demolition Plan

1.2.1 Nature of Ground

The works are to be completed in accordance with the drawings and specifications as set out in the Contract documents. For the avoidance of doubt, the documents listed are those current at date of tender.

- Volume A1.2 Civil Particular Specification (this Document).
- Volume A2: Specification - Materials, Workmanship and Methods of Construction
- Transport Infrastructure Ireland (TII) Specification for Roadworks,
- Transport Infrastructure Ireland (TII) Standard Construction Details,
- Guidelines for Managing Openings in Public Roads – Guidelines for the Openings,
- Backfilling and Reinstatement of Openings in Public Roads, Second Edition (Rev 1), April 2017.
- Guidelines on Protection of Fisheries During Construction Works In and Adjacent to Waters” (Inland Fisheries Ireland, 2016).
- Guidelines for the Crossing of Watercourses During Construction of National Road Schemes (TII/NRA)
- Irish Fisheries Acts
- EU Water Framework Directive (2000/60/EC)
- BS EN 13670:2009 – Execution of Concrete Structures
- BS EN 13369:2013 – Common Rules for Precast Concrete Products
- BS EN 1916 / BS 5911
- CIRIA C754 – Scour at Bridges and Flow Control Structures

1.2.2 Site Set Up and Mobilisation

The Contractor shall erect temporary fencing along the boundary to secure the site. The Contractor shall be responsible for the temporary works design, security, maintenance and removal upon completion of the temporary fencing.

The Contractor must set up their onsite temporary accommodation and storage compound within the red line boundary. An area will be provided for material storage close to the construction works. The Contractor will be required to make good the area and reinstate it to its original condition on the completion of the contract works. The Contractor shall note that there is no parking provision on the site, and they will be required to make alternative arrangements for same.

1.2.3 Site Clearance

The Contractor shall clear the site of all obstructions and prepare the site for the works. Existing obstructions on the site which are to be removed and disposed offsite at a licensed tip facility.

The relevant background information pack includes surveys of existing obstructions and services. The Contractor shall also have been deemed to have visited the site to ascertain the extent of obstructions on site to be removed.

1.2.4 General

All materials and workmanship shall be subjected from time to time to such tests as outlined in the Works Requirements or that the Employer's Representative may direct. If required by the Employer's Representative the Contractor shall submit to the Employer's Representative a list of his proposed suppliers and sources of materials required for the execution of the Works. Samples shall be taken in accordance with the appropriate standard where applicable.

1.2.5 Programming

Thorough planning of day-to-day operations of the works is essential. A detailed programme of works must be prepared by the contractor prior to commencement. Access to the heritage centre, for both employees and visitors, must be maintained at all times. The completed programme must be agreed with the Employers representative prior to commencement of works. The programme shall be updated regularly (at least fortnightly) and presented to the Employers Representative for approval.

All materials and workmanship shall be subjected from time to time to such tests as outlined in the Works Requirements or that the Employer's Representative may direct. If required by the Employer's Representative the Contractor shall submit to the Employer's Representative a list of his proposed suppliers and sources of materials required for the execution of the Works. Samples shall be taken in accordance with the appropriate standard where applicable.

1.2.6 Nature of Ground

The Contractor must determine and decide for himself the nature of the ground. Schedule Part 1 Section K should be referred to in respect of the delay events and compensation events for unforeseeable ground conditions.

Where soft spots are encountered, these must be excavated and filled with compacted stone to achieve a CBR at formation level of 5%. The Contractor must record any soft spots and advise the Engineer prior to excavation and filling.

The Contractor shall be responsible for all temporary works including design on the project and shall make sufficient allowances for safe trench excavation, dewatering and other measures to allow works to proceed in a safe manner.

Grass areas are to be stripped of topsoil and subsoil and sprayed with "Round-up" or an equivalent suitable herbicide to kill off existing vegetation.

1.2.7 Demolition and Removal Works

While all materials excavated and or demolished shall be priced to be disposed offsite at a suitably licensed waste facility, there may be the potential for the salvage of materials. It is the contractor's own discretion to investigate potential disposal rebates. Savings associated with salvaging or reusing materials in the works shall be offered to the Employer and the Contract Sum amended accordingly.

Demolition work shall be carried out in accordance with British Standard Codes of Practice; BS6187: 1982 (Code of Practice for Demolition and BS 5228 Pt 1, 2 & 4 (Noise and Vibration Control), or any other relevant code of practice. All demolition work shall be carried out carefully with regard to existing surroundings. A detailed construction stage waste management plan will be required prior to commencement on site.

The demolition works include the following:

External Works:

- Existing pumping station to be demolished and replaced
- Existing rising main to be removed and upgraded
- Existing wastewater treatment plant (WWTP) to be decommissioned and disposed of off-site to a suitably licenced facility.

Any material being removed from site shall be disposed of at a licensed facility. Certificates shall be made available upon request.

1.2.8 Ground Works

The existing ground within the immediate area of the proposed culvert shall be excavated as required to a depth to facilitate the construction of both the required foundations, services, and external hard standing areas. It is the Contractors responsibility to fully determine the nature and extent of existing ground conditions.

The ground must be excavated in accordance with the details outlined on the drawings. The Contractor is required to undertake a series of CBR tests at formation level to confirm the CBR

prior to the installation of geotextile / fill material. The location / frequency of CBR tests to be agreed with the Civil Engineer. The granular/gravel bedding design is based on achieving a CBR of 1% based on pretender testing and the Contractor must ensure that a minimum CBR value of 1% is achieved over the footprint of the culvert and headwalls. The excavated material shall be stockpiled in the proposed fill area. Any unacceptable material must be disposed of offsite to a licensed facility.

Where soft spots are encountered, these must be excavated and filled with compacted stone to achieve a CBR at formation level of 1%. The Contractor must record any soft spots and advise the Engineer prior to excavation and filling.

The Contractor shall be responsible for all temporary works including design on the project and shall make sufficient allowances for safe trench excavation, dewatering and other measures to allow works to proceed in a safe manner.

1.2.9 Hit and Miss Fence

The hit and miss fence consist of 100 × 100 × 2600 mm precast concrete posts set plumb into 800 × 900 mm concrete footings positioned 100 mm below finished ground level, with a 300 mm precast concrete gravel board forming the base and a finished height of 2.0 m above ground level. Timber components include 100 × 19 × 2000 mm vertical boards and three 100 × 19 × 2000 mm horizontal cross rails, all softwood pressure treated with Tanalith E or an equivalent approved preservative, installed in an alternating front-and-back arrangement to achieve the hit and miss configuration. All fixings are galvanised for corrosion resistance, and any timber cut on site must be retreated with a suitable preservative. The fence must be installed straight, structurally sound and visually uniform along its full length.

Finishes include a smooth-planed surface to all timber elements with the pressure treatment serving as the primary protective finish, and concrete components left in their standard precast finish.

Durability requirements include use of pressure-treated timber with a service life appropriate for external ground-contact applications, corrosion-resistant fixings, and concrete posts and gravel boards designed to withstand long-term exposure, mechanical loads and environmental conditions without degradation.

1.2.10 Performance Specification: Packaged Wastewater Twin Pumping Station

Provide a complete twin packaged wastewater pumping station Kingspan PU1230TS Twin Pump Station or Similar Approved designed for foul sewage transfer. The system shall be factory-built and delivered as a fully integrated unit, incorporating a GRP chamber, twin submersible pumps, internal pipework, valves, level controls, lifting equipment, access cover, and a weatherproof control kiosk with alarms. The station shall be suitable for connection to a 150 mm OD MDPE rising main provided by others.

The Contractor shall supply, install, test, and commission the station, including all ancillary works required for safe and reliable operation.

1.2.10.1 *System Description*

A factory-built, below-ground packaged twin-pump sewage pumping station designed for applications where gravity discharge is not possible. Pumping Stations:

- Are suitable for domestic or commercial foul-water transfer.
- Are used with sewage treatment plants, septic tanks, rainwater systems and similar installations.

1.2.10.2 *Chamber Construction*

Pump chambers are:

- Manufactured from high-quality materials designed for durability and long service life.
- Produced under BS ISO 9001 quality procedures.

1.2.10.3 *Pumps*

Twin-pump stations:

- Use two pumps operating alternately or together depending on demand, providing duty-standby functionality and redundancy.
- Are designed to continue operating in the event one pump fails or requires maintenance.

1.2.10.4 *Control & Monitoring*

- Electrical controls monitor pump operation to maintain correct function.
- Compatibility with control-panel systems described in section 1.2.10.6 below.
- Provision for high-level alarm signalling (via beacon in supplied kiosk).

1.2.10.5 *Operational Requirements*

Twin-pump systems provide:

- Automatic level control via integral float switches or equivalent level-sensing controls (general pump-station design principles).
- Minimal routine maintenance due to high-quality components and design.

1.2.10.6 *Weatherproof Kiosk Including Beacon*

1.2.10.6.1 *General Requirements (Pumpstation Controls)*

Control systems for pump stations typically include:

- Electrical controls designed to monitor pump operation and maintain proper function.

- Control panels supplied in durable enclosures suitable for outdoor use as part of Kingspan's packaged pumping systems (derived from pumping-station product guidance).

1.2.10.6.2 Functional Requirements

The weatherproof kiosk for this tender shall:

- House all control and alarm equipment for the twin-pump station.
- Include a high-level alarm beacon mounted externally, visible under normal daylight conditions.
- Provide lockable access and protection from environmental exposure consistent with outdoor pump-station control equipment referenced in pumping systems.

1.2.10.6.3 Compliance Requirements

Control equipment to comply with relevant UK electrical and water industry standards as indicated for Kingspan pumping stations (e.g., BS EN 752, Building Regulations Document H1 when used with foul drainage systems).

1.2.10.7 Controls and Electrical

Install an external weatherproof control kiosk (IP54 minimum) on a concrete plinth. Equipment shall include motor starters, control switches, run-hour meters, alternation logic, level control sensors, alarm functions, telemetry contacts and emergency stop.

1.2.10.8 Rising Main Appurtenances

- Provide air valves at high points where required.
- Provide scour/washout at the low point near the station.
- Flow meter where required by the client.
- Provide non-return function at discharge.
- Surge risk considered low.

1.2.10.9 Emergency Storage and Resilience

Provide 24-hour emergency storage per Irish Water requirements either within the wet well or using a dedicated emergency storage tank. If full storage cannot be accommodated, provide a risk assessment and an over-pumping connection.

1.2.10.10 Construction and Installation

Install in accordance with manufacturer requirements and Irish Water standards. Provide hydrostatic chamber testing, rising main pressure testing, safe access and lifting arrangements, and over-pumping connection.

1.2.10.11 Commissioning and Handover

Commissioning to include setting levels, confirming alternation, verifying alarm functions and performance testing. Provide full O&M documentation, pump curves, electrical schedules, setpoints, drawings and test certificates. Provide spare gaskets, fuses, one float and seals if specified.

1.2.10.12 Construction Submittals

- Provide datasheets,
- pump curve,
- electrical load schedule,
- single-line diagram and
- installation drawings.

1.2.11 Existing Services

The Contractor shall take into account all existing services on-site (above and underground) prior to signing contracts as no variations will be allowed as a consequence of undocumented services unless agreed with the Employers Representative prior to Works in respect of interference with services.

Contractors must comply with the current Code for Avoiding Danger from Overhead ESB Lines, and the current HSA Code for Avoiding Danger from Underground Services. All known information on both underground and over ground services is provided in the Relevant Background Information. This information is not meant to be definitive, and it is the Contractors responsibility to determine the exact location and extent of existing services on site. The Contractor shall especially note the presence of cables which are located throughout the Heritage Centre Precinct. The Contractor is required to protect and maintain all existing live services during the works and temporarily divert where work processes / sequence demand. All costs associated with the protection / temporary diversion of existing services must be borne by the Contractor. A site visit will be facilitated during the tender process to allow the Contractor to establish the nature of the site and extent of services. Where redundant services are encountered during the works the Contractor is to allow for the termination and removal of these services within the work area. The Contract involves the construction of connections and modifications to existing pipelines and structures as shown on the Drawings. The Contractor shall maintain the flows in the existing pipes and sewers disturbed in the course of construction of the works and shall provide all temporary works and pumping to do so. The Contractor shall consult with the relevant department of the relevant Authority and submit schedules and methods of his work for approval by the Employer's Representative prior to the execution of

these connections. Civil works associated with utilities installation including utility providers shall be included in the Contractors scope of works. There are crossings of public roads required for works to the connect ESB, drainage and watermains. All costs associated with these works are deemed to be included in the tender sum, including all fees and charges from local authorities for relevant permissions to open up the road.

Gaining of the required permissions to open the road and execution of the works (in particular at the sewer repair locations) is the responsibility of the Contractor. No claims shall be entertained for the failure or delay to gain appropriate approvals for carrying out works. All public roads and private lands affected by the works shall be repaired and restored to the condition they were in prior to the works commencing. This shall include surfacing of the roads and car parks with similar materials. A condition survey of all public roads and private lands affected by the works with photographs shall be undertaken by the Contractor prior to commencement. This shall be provided to the Employers Representative prior to works commencing.

1.2.12 Performance Technical Specification: Packaged Wastewater Treatment Plant (36PE) With Tertiary Polishing and Infiltration Area

1.2.12.1 Execution Class

Deliver all works to an appropriate Execution Class 2 quality level for small civil engineering works, including factory production control for packaged units and an agreed Inspection and Test Plan (ITP) covering excavation, placement, backfill, commissioning, and performance verification.

1.2.12.2 Robustness

The plant must maintain stable treatment under variable hydraulic and organic loading, and foreseeable upsets. Provide fail-safe alarms and contained shutdown to prevent uncontrolled discharge or bypass. Overflow pathways shall not compromise groundwater protection objectives.

1.2.12.3 Description of The Works

- Decommission existing wastewater treatment plant and percolation area, dispose of residual sludge and contaminated materials to licensed facilities.
- Supply, install, and commission a packaged secondary biological aeration/filtration treatment unit sized for nominal PE36, including primary settlement, aerated biological reactor with media, and final clarification with sludge return as per site characterisation assessment report appendix 3 and appendix 4.
- Provide integral pumped or gravity transfer to tertiary polishing units, including pressurised distribution as required, vents, inspection points, and flow control.

- Construct tertiary polishing units and an infiltration/attenuation layer, complete with percolation pipework, geotextile separation, and graded stone distribution layer.
- Provide all interconnecting pipework, manholes, vents, electrical power, control panel, alarms, and telemetry (if required).
- Testing, commissioning, handover documentation, operator training, and maintenance plan.

1.2.12.4 *Site-Specific Inputs (From Site Characterisation Assessment)*

- **Percolation Values:** Subsurface T = 26 min/25 mm; Surface P = 28 min/25 mm.
- **Groundwater Vulnerability:** Extreme; Groundwater Protection Response R2-1 (acceptable subject to normal good practice and required subsoil depth).
- **Separation:** Provide and verify a minimum of 0.9 m unsaturated soil beneath the base of the infiltration area to bedrock. Imported soil may be used if validated by probing and percolation testing per EPA COP 2021.
- **Infiltration/Attenuation Area:** Minimum 120 m² with vented pipe runs as per SCA layout and cross-sections.

1.2.12.5 *Loading*

1.2.12.5.1 *Hydraulic and Organic Loads*

Size the system for a nominal PE36, exceeding the SCA hydraulic (≈ 15.12 persons) and organic (≈ 30.3 PE) design figures to provide headroom and process stability. Provide process calculations for BOD/COD/SS and ammonia loadings, airflow, media surface area, sludge age, and hydraulic equalisation or time-dosing as necessary.

1.2.12.5.2 *Infiltration / Attenuation Layer*

- Minimum plan area 120 m², comprising ≥ 350 mm of clean 20 mm distribution stone refer appendix 3 drawing No.: 03 and drawing No.: 04 of the site characterisation assessment report.
- Perforated distribution pipework with vents and inspection points; geotextile separation above stone.
- Side slopes not steeper than 2:1; finished either slightly raised or at ground level depending on site grading and separation depth.

1.2.12.6 *Required Effluent Performance (Secondary + Tertiary, 95th Percentile)*

Parameter	Limit after Tertiary Polishing
BOD5	≤ 10 mg/L (≤ 20 mg/L at secondary stage)
Suspended Solids	≤ 10 mg/L (≤ 30 mg/L at secondary stage)
Ammoniacal Nitrogen (NH ₄ -N)	≤ 5 mg/L

Total Phosphorus (as PO ₄ -P)	Target ≤ 5–6 mg/L (site protection driven)
Microbiological Polishing	≥ 2 log reduction in E. coli across tertiary

1.2.12.7 *Design Basis and Standards*

- Apply EPA Code of Practice (2021) principles for polishing and separation, and EPA Wastewater Treatment Manuals for small communities/businesses for load assessment.
- Packaged treatment and tertiary units shall have declared performance to EN 12566-3 with conformity to Irish SR 66 (or equivalent).
- Observe minimum separation distances and protection measures per EPA COP 2021 Chapter 6 (Tables 6.1–6.3).
- Provide CE-marked materials and factory QA documentation for tanks, media, pumps, blowers, and controls.

1.2.12.8 *Process and Mechanical Requirements*

1.2.12.8.1 Secondary Treatment Unit (packaged aeration/filtration type or equivalent)

- Three functional stages: primary settlement; aerated biological reactor with moving or fixed media; final clarification with sludge return.
- Air supply sized for full nitrification; removable diffusers; blower in weatherproof housing with isolation and non-return air protection.
- Provide sludge return and desludging arrangements with documented intervals and volumes.
- Outlet by gravity or pumped to tertiary, with high-level interlock to protect infiltration area.

1.2.12.8.2 Tertiary Polishing Units (packaged filters or equivalent)

- Tertiary filters capable of achieving the specified polishing limits; include pre-screening (e.g., fibre/granular) to intercept residual solids and fats.
- Pressurised dosing network with orifice shielding for even distribution; batch/time dosing to promote rest periods and uniform loading of the attenuation layer.
- Underdrain collection to percolation pipework seated on distribution stone.

1.2.12.8.3 Pipework and Manholes

- Provide vented pipe runs, access chambers, isolation valves, and sampling points upstream and downstream of tertiary and at infiltration discharge.
- Materials: uPVC or PE100 for gravity/pressure lines as appropriate; watertight joints; marker tape and as-built records.

1.2.12.9 *Electrical, Controls, and Alarms*

- Local control panel with MCBs/RCDs, blower and pump controls, runtime meters, and audible/visual alarms for faults and high level.
- Provide safe isolation points, surge protection where appropriate, and cable sizing suited to installed equipment and run lengths.

- Telemetry/remote alarms where required by the Employer.

1.2.12.10 Tolerance and Setting Out

- Set packaged units to line and level as indicated; verify foundation bearing capacity and anti-float measures.
- Backfill with specified granular material; protect units from construction loads; maintain minimum inverts for gravity sections and head for pumped distribution.
- Finish tertiary bed per cross-section either at ground or slightly raised to maintain separation depth and shed surface water.

1.2.12.11 Handling, Storage, and Protection

- Deliver tanks and packaged units with appropriate lifting plans; use certified lifting points and equipment.
- Store components off ground; protect media and internals from contamination; prevent ingress of silt/surface water during work.

1.2.12.12 Commissioning, Inspection, Testing, and Records

- Pre-commissioning: watertightness, blower output, pump duty, dosing uniformity across tertiary distribution network.
- Commissioning sampling after stabilisation period to confirm compliance with performance limits.
- Issue commissioning certificate signed by specialist and supervising engineer.
- Provide as-built drawings, O&M manuals, media/pump/blower data, electrical test certificates, CE/SR 66/EN 12566-3 performance evidence, maintenance schedules.

1.2.12.13 Operation and Maintenance

- Provide a maintenance contract proposal with inspection intervals, desludging guidance aligned to EPA COP 2021, and user responsibilities.
- Retain records of desludging and service visits; provide log sheets and alarm response procedures.

1.2.12.14 Information to be Provided by the Specialist

- Process design calculations: hydraulic profiles, media sizing, air demand, sludge production, and tertiary loading using site percolation values.
- Foundation loads, flotation checks, and anchorage requirements for tanks/units.
- Warranties and insurances appropriate to public works requirements, and submission of evidence prior to work.

1.2.12.15 Site-Specific Construction Notes

- Decommission and remove existing plant and percolation area; upgrade foul sewers and any existing pumping station/rising main where indicated.
- Install packaged tertiary units with $\geq 120 \text{ m}^2$ attenuation layer; confirm 0.9 m of natural/imported suitable soil by probing before construction.
- Vented pipe runs throughout; align works with SCA plan and cross-sections.

1.2.12.16 Environmental and Regulatory Notes

Any discharge to waters (as defined by legislation) requires licensing under the Water Pollution Acts 1977–1990. For this scheme, discharge is groundwater via infiltration with EPA COP separation and tertiary polishing. The contractor shall comply with all statutory consent and notify the Employer of any permits required.

1.2.12.17 Health and Safety Requirements

1.2.12.17.1 General Requirements

- Comply with the Safety, Health and Welfare at Work legislation and Irish construction regulations.
- Prepare a project-specific Health and Safety Plan: risk assessments, method statements, emergency procedures, training, and site-specific controls.
- Appointing a competent site safety lead responsible for daily monitoring and coordination with PSDP/PSCS.

1.2.12.17.2 Site-Specific Risk

- Extreme groundwater vulnerability: prevent pollution from spills, dewatering, or chemical handling through bunding, spill kits, and impermeable working surfaces as appropriate.
- Excavations to ~1.7 m or deeper anticipated from trial hole: assess stability, provide shoring/benching, safe access/egress, and manage water ingress.
- Decommissioning existing wastewater assets: manage residual sludge and contaminated materials safely; avoid uncontrolled discharges to ground.
- Undulating terrain and proximity to existing structures: manage plant movement, lifting, and public interface risks.

1.2.12.17.3 Environmental and Groundwater Protection

- Maintain ≥ 0.9 m unsaturated soil beneath infiltration area; prohibit unnecessary trafficking over the attenuation layer footprint to avoid compaction.
- Control surface water; prevent cement washout or silt-laden runoff entering soil or drains.

1.2.12.17.4 Confined Spaces and Tanks

- Treat tanks and chambers as confined spaces; permit-to-work only; gas monitoring and rescue arrangements in place.
- Prevent unauthorised access to open excavations and tanks using barriers, signage, and lockable covers.

1.2.12.17.5 Lifting and Installation

- Plan lifting operations by a competent person; verify ground bearing for cranes/plant; establish exclusion zones.
- Use certified lifting points and tackle; follow manufacturer handling instructions for packaged units.

1.2.12.17.6 Excavation Safety

- Provide shoring/benching/battering to suit soil conditions; monitor for water ingress and instability.
- Fence excavations with controlled access prohibit entry in unsafe conditions.

1.2.12.17.7 Traffic and Public Interface

- Implement a traffic management plan: delivery scheduling, plant/pedestrian segregation, signage, and banksmen where required.

1.2.12.17.8 Electrical Safety

- Apply safe isolation and lock-out/tag-out; RCD protection; weatherproof enclosures for temporary power.
- Test and certify electrical installations before energisation.

1.2.12.17.9 Decommissioning of Existing Plant

- Remove sludge via licensed contractors; clean and purge tanks; test for residual gases before opening; document disposal.
- Prevent any effluent escape during transition to the new system.

1.2.12.17.10 Weather, Remote Location, and Lifting Emergency Response

- Monitor wind for lifting; implement stormwater controls during excavation; secure materials/plant in exposed coastal conditions.
- Prepare emergency plans considering island access and response times for medical/environmental incidents.

1.2.12.18 Construction Submittals

- Process design report demonstrating compliance with effluent limits and tertiary polishing targets for 36 PE, using site percolation values and separation depths.
- General arrangement plan and cross-sections consistent with SCA layout, adapted to the tender's solution.
- Inspection and Test Plan (ITP) covering factory QA, installation, commissioning, and performance verification.
- Outline O&M manual including maintenance intervals and desludging per EPA COP 2021.

1.2.13 Structural Frame for Pergola / Covered Area

The new covered outdoor space will be supported by a structural steel frame. The frame will use S355 hot-dip galvanised steel, consisting of 150 x 150 x 5 SHS columns set in 600 x 600 x 900 deep concrete foundations. The roof covering will be carried by 200 x 100 x 5 SHS beams and a 254 x 176 x 31 UB.

1.2.14 Reinstatement

Reinstatement will generally be carried out in accordance with the requirements of the Guidelines for the Opening, Backfilling and Reinstatement of Trenches in Public Roads April 2002 or latest as published by the Department of the Environment and Local Government.

Permanent reinstatement where specified shall be carried out by using materials fully in compliance with the requirements of the Guidelines for the Opening, Backfilling and Reinstatement of Trenches in Public Roads April 2002.

Prior to the placing of immediate and permanent reinstatement, the Contractor shall saw cut the edges of all existing road surfaces and foundations and shall seal the exposed edges. Any breaking of road surfaces leaving irregular edges will not be permitted.

The width for reinstatement shall be the maximum width of trench for each pipe sizes plus 300mm on either side to allow for breaking surface and later knitting in.

If through the improper use of machinery or through carelessness or for any other avoidable cause, the Contractor disturbs a greater width of road than that defined above he shall be responsible for the proper restoration of such extra width at his own expense.

The Surface Dressing, to Clause 919, shall be an inverted double dressing, as defined in the IAT Guidelines for Surface Dressing in Ireland, with 6mm and 14mm chipping size. The design and application of the surface dressing shall comply with the IATs Guidelines for Surface Dressing in Ireland.

1.2.15 Reinstatement – Surfacing Works

Permanent Reinstatement of the areas around the proposed Heritage Centre Precinct shall be carried out in accordance with the Guidelines for the Opening, Backfilling and Reinstatement of Trenches in Public Roads.

The Contractor shall be entirely responsible for both the temporary and final permanent restoration of all surfaces over pipe and duct trenches. In making such restoration, materials equal to those existing shall be used.

An allowance should be made for a reinstatement of the grass infield surface once the new drainage channel, storm sewer connections and land drains have been installed. The contractor shall also fully reinstate the grass surface under the infiltration tank. Allowance should be made to suitably grade the grass area adjacent to the perimeter of the track so that there is no trip hazard. The newly graded and reinstated grass area shall be left fair in grade and contour with the surrounding area and be left ready for installation of the grass turf.

If through the improper use of excavating machinery, or through carelessness or for any other cause, the Contractor disturbs a greater width of surface than that herein specified, then any extra area which it is necessary for the Contractor to restore shall be executed by the Contractor at his own expense.

1.3 TEMPORARY WORKS DESIGNER

Unless noted otherwise in this Specification or in other Contract Documents, the Contractor shall be responsible for the design of any demolition, de-commissioning or dismantling work on the project. The Contractor shall be responsible for the design of all temporary works.

The Contractor shall appoint a competent Temporary Works Designer who shall take overall design responsibility for the stability of the structures during the envisaged construction process. This designer must be competent in temporary works design, to safely provide for the complex forces involved in temporary works/permanent works interaction at the various stages of construction. The Contractor shall also employ a suitably qualified site engineer for this purpose. It will be required that both the Temporary Works Designer and qualified engineer liaise with each other and the Project Supervisors at all stages.

The Contractor is required to arrange and ensure the attendance of all specialist designers and temporary works designers at site meetings.

1.4 WEATHER

The Contractor is to allow sufficient contingency in his programme for unsuitable weather conditions.

1.5 EXISTING SERVICES

The contractor shall take into account all existing services on-site (above and underground) prior to signing contracts as no variations will be allowed as a consequence of undocumented services unless agreed with the Employers Representative prior to Works in respect of interference with services.

Contractors must comply with the current Code for Avoiding Danger from Overhead ESB Lines, and the current HSA Code for Avoiding Danger from Underground Services.

All known information on both underground and overground services is provided as background information. This information is not meant to be definitive, and it is the Contractors responsibility to determine the exact location and extent of existing services on site.

The Contractor is required to protect all existing live services during the works and temporarily divert where work processes / sequence demand. All costs associated with the protection / temporary diversion of existing services must be borne by the Contractor. A site visit will be facilitated during the tender process to allow the Contractor to establish the nature of the site and extent of services.

Where redundant services are encountered during the works the Contractor is to allow for the termination and removal of these services within the work area.

1.6 GENERAL SITE RESTRICTIONS

All above-ground obstructions/buildings and services identified on the topographical survey / GRP Survey are required to be removed by the Contractor to facilitate the completion of the works. Existing services to be retained and protected during the works and any necessary temporary diversions required to facilitate the works will be the responsibility of the Contractor.

The Contractor must note that the wheels and underside of all construction traffic leaving the site shall be cleaned to prevent soiling of public roads. A wheel washing facility, including water jets or other approved cleansing method, shall be provided close to the site exit. In the event that any public roads become soiled by construction traffic from the site, these roads shall be cleaned immediately.

No work shall take place on-site outside the hours of 7.00am to 6.00pm Monday to Friday and 8.00am to 5.00pm Saturday or on Sundays or public holidays unless otherwise agreed with the Client.

Equivalent sound levels arising from all sources within the proposed development during construction when measured at the boundary of noise sensitive locations, i.e. dwelling houses, shall not exceed a level of 55 dB (A) LAr (60 minutes) between 8.00am and 8.00pm Monday to Friday and 8.00am to 2.00pm on Saturday. Noise levels shall not exceed 45 dB (A) LAr (15 minutes) at any other time. It is the responsibility of the Contractor to demonstrate to the Client that these restrictions are been adhered to if and when requested.

Mechanical machinery systems shall not produce clearly audible tonal noises at nighttime (10.00pm to 8.00am) when assessed from the nearest noise sensitive location.

All signage shall be in accordance with the Traffic Signs Manual, and all road markings shall be in accordance with TII Specification for Road Works Series 1200 and in accordance with the Traffic Signs Manual.

