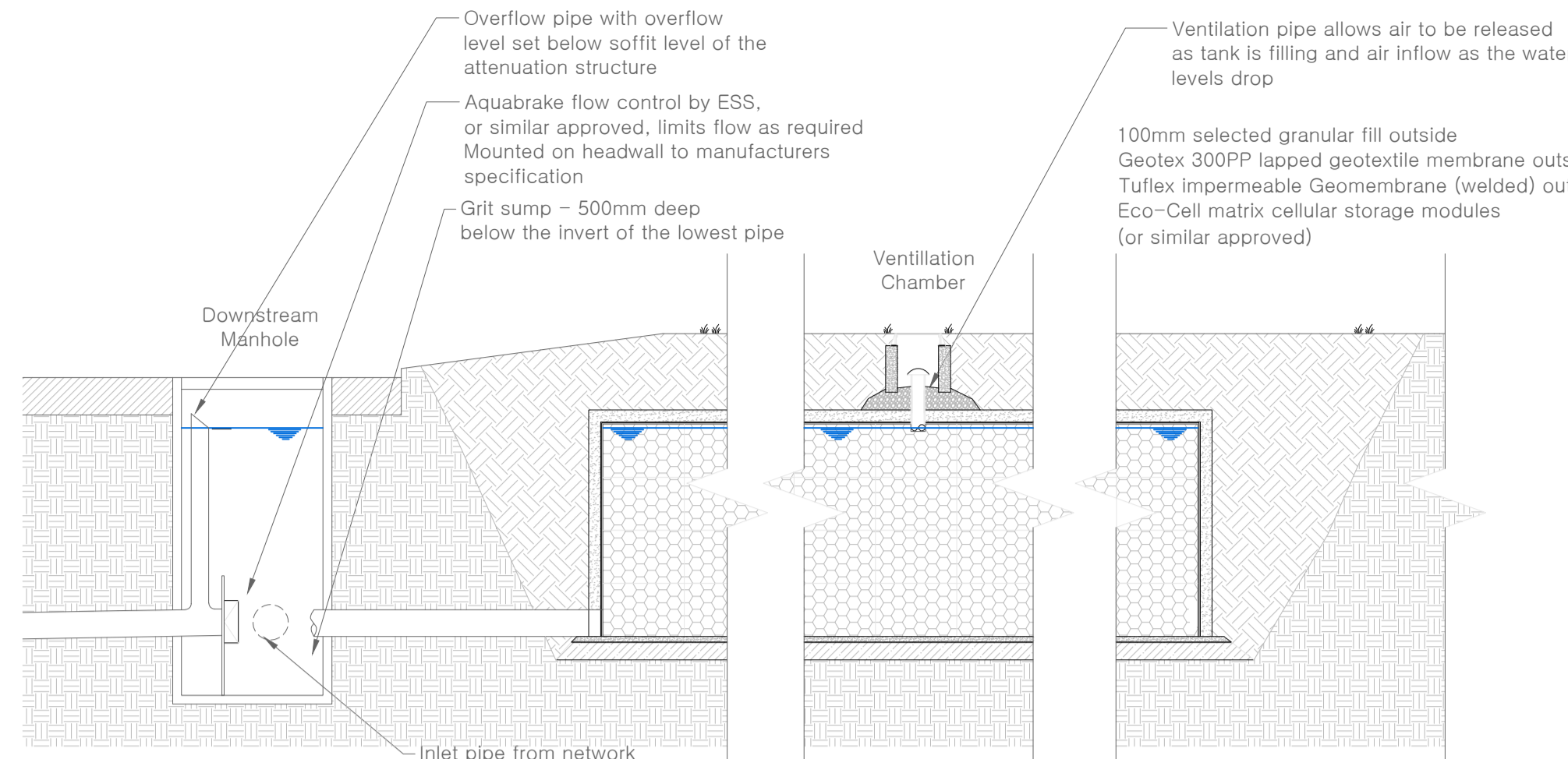


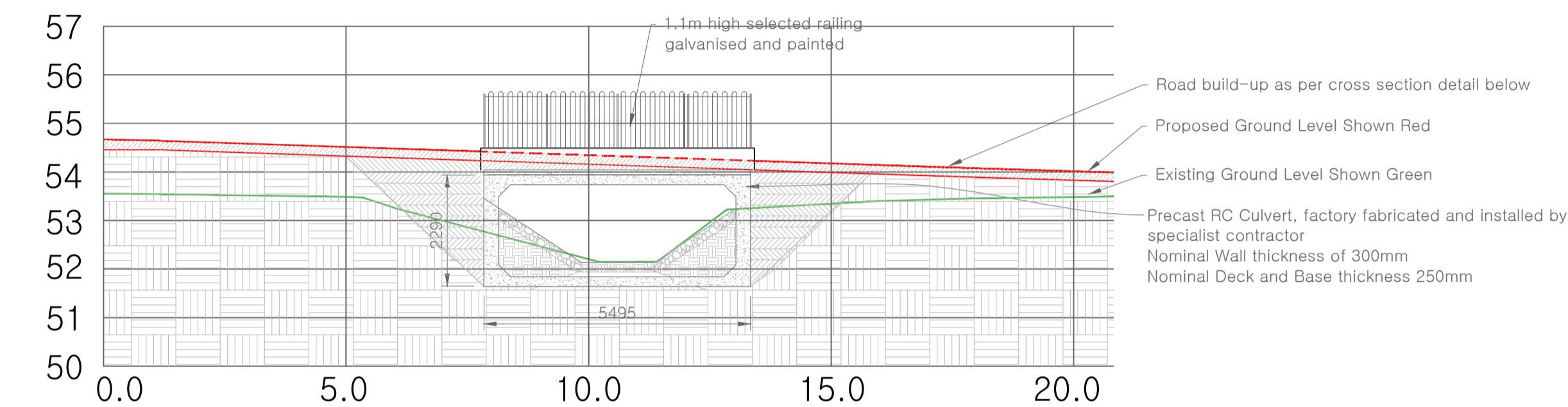
Not to scale, dimensions in millimetres

Typical Details of Outfall to Watercourse  
NTS



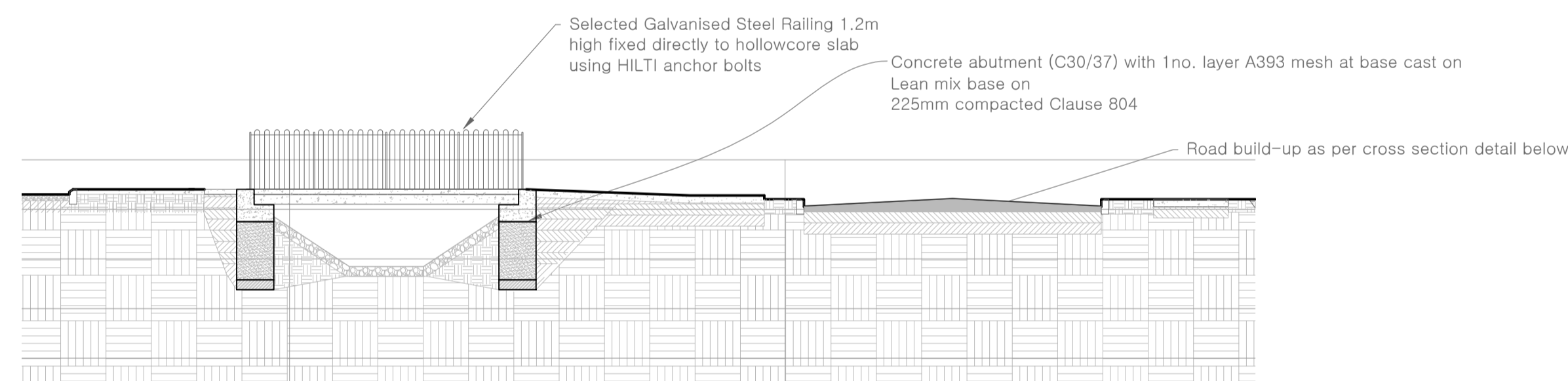
Attenuation Tank, Overflow Manhole and Ventilation Pipe/Manhole

Scale 1:50



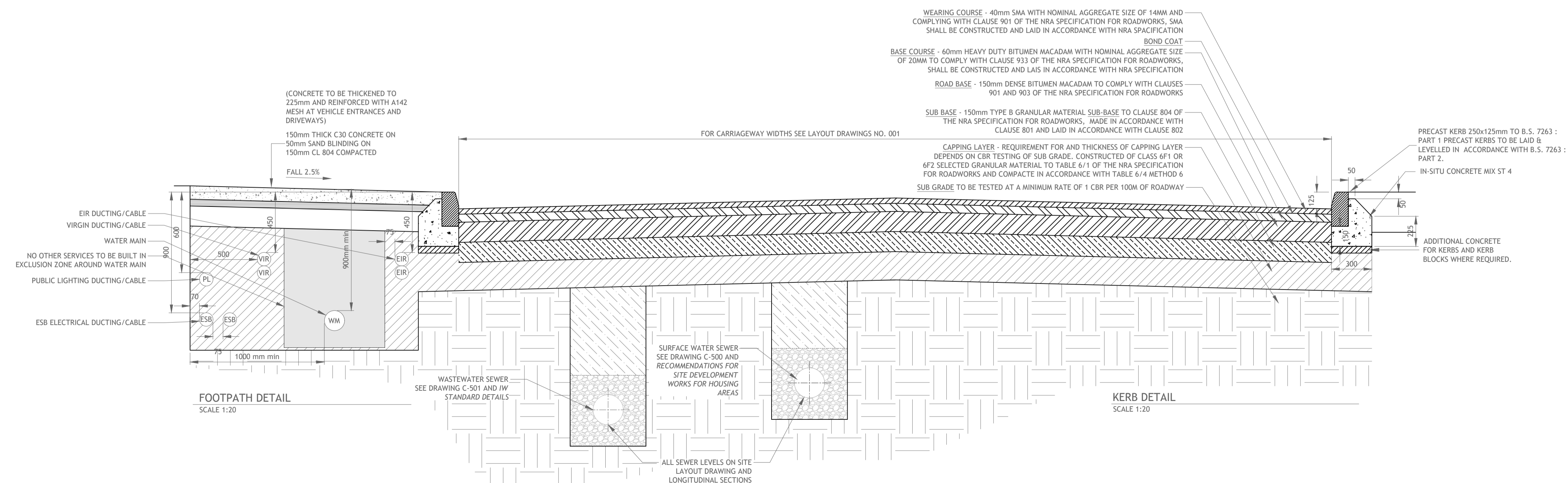
Pre-cast RC Box Culvert Bridge over Drainage Channel

Scale 1:50



Typical RC Pedestrian Bridge over Drainage Channel

Scale 1:50



Typical Road Cross Section

Scale 1:20

**Tank Notes:**

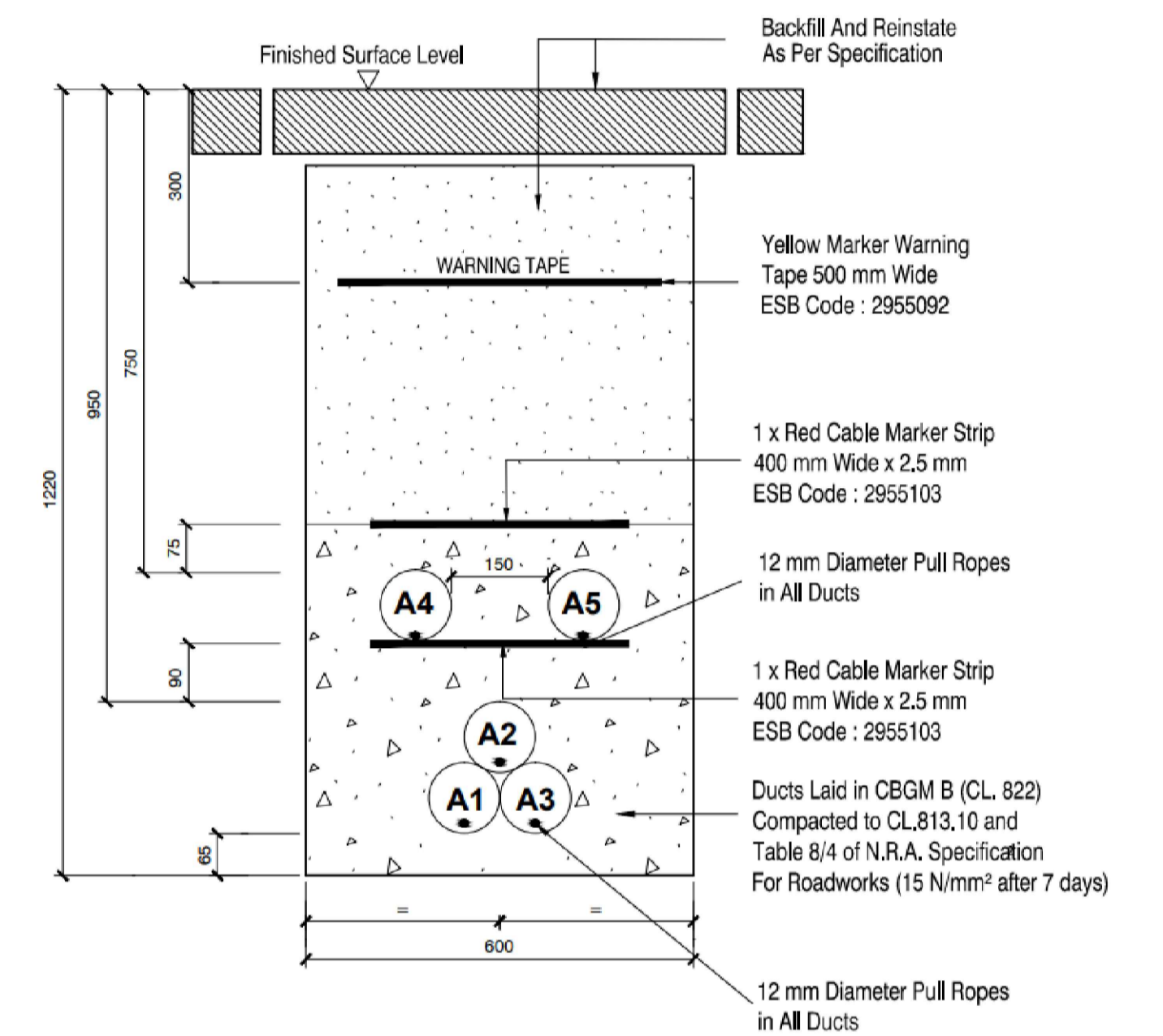
- ESS Eco-cell modules (or similar approved) measuring 690mm x 410mm x 450mm high, arranged as shown.
- Modules to be wrapped with Tuflex Impermeable geomembrane (or similar approved) with lapped, heat welded joints.
- To protect the waterproof geomembrane during backfilling the top and sides are to be lined with a geotex 300 PP needle punched, non-woven geotextile with lapped joints.
- Vent pipes and water pipes to be connected to the tank using heavy duty pipe collars heat welded to the Tuflex Impermeable Geomembrane and with stainless steel strangle bands for fastening around the pipe.
- 100mm thick layer of thick coarse sand or class 6H selected granular material to surround geotextile on the top and sides of the tank.
- Modules to be laid on a flat, level and smooth base of selected, compacted granular material.
- Vent Box - Stanton heavy duty ductile iron double triangular surface box (or similar approved) with a vented cover, 300mm x 300mm clear opening and a minimum of 100mm frame depth on mortar bed.
- Minimum cover over Eco-cell modules is 500mm in a green area and 650mm in a trafficked area.
- A CBR of between 3% and 5% has been assumed at sub-base level. CBR testing will be carried out by the contractor prior to installation.

**Hydrocarbon Interceptor Notes:**

- Klargest bypass hydrocarbon interceptors are to be installed immediately upstream of the attenuation tanks and flow control.
- Bypass interceptors are designed to treat 10% of peak flows where the risk of a large spillage and heavy flooding occurring at the same time are small.
- Bypass separators are considered suitable where there is a risk of infrequent light contamination and potential for small spills.

**Flow Control:**

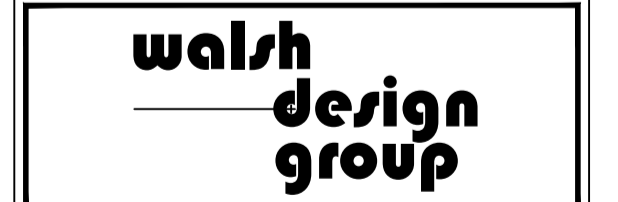
- Fluid Cone Aqua Brakes (or similar approved) will be installed at the attenuation outlet manhole to limit flow to the appropriate rate as follows:
- This vortex flow control device is specifically designed for the required flow, has no moving parts and is powered by water flow alone.
- The device is designed to minimise risk of blockage but is also equipped with a bypass door that can be manually opened in case of blockage.
- Outlet Manholes will also be fitted with an overflow pipe, in accordance with the manufacturer's recommendations, to prevent flooding. The overflow level will be set such that flow from all events up to and including a 1 in 100 year storm event are contained.



Underground 38kV Single Circuit Trench Cross Section - Trefoil 5 Way Duct Formation

Scale NTS

Issue No.	Description	Date	By	Check
1	Issued for approval	05.09.22	IR	MW
2	Issued for pre-stamped	22.01.23	IR	MW



No.2 The Mall, Tel. 021-4774940  
 Manorborough Woods, Fax 021-4775421  
 Douglas, Co. Cork. email.info@wdg.ie

Title:	Site Details - Typical
Client:	Cummor Construction Ltd.
Project:	Proposed Residential Development, Coolcarron, Fermoy, Co. Cork
Dra. No:	19074-P-504
Date:	Jan 2021
Drawn by:	IR
Scale:	As Shown
Status:	Planning

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