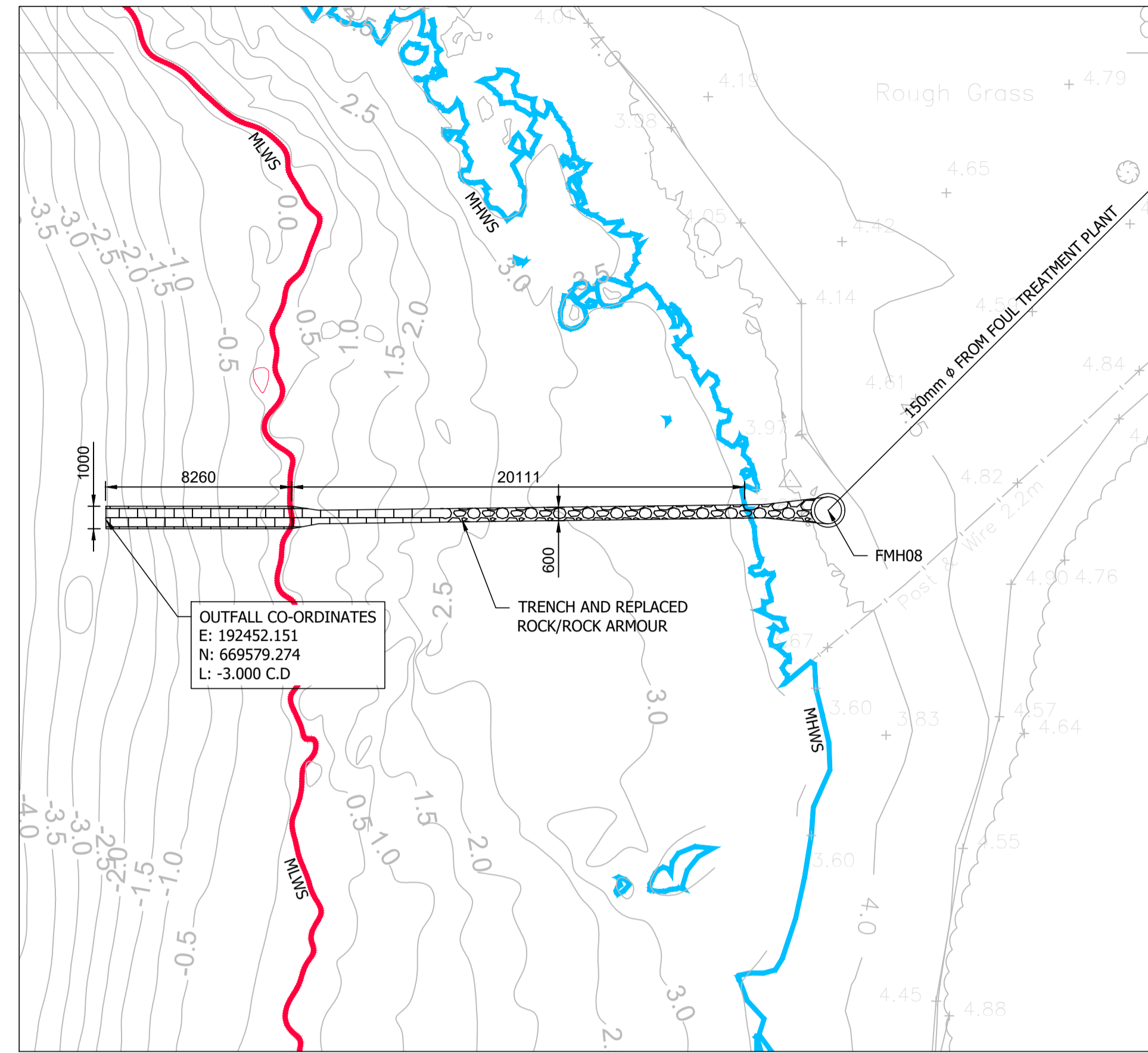


SITE LAYOUT
SCALE 1:1250



OUTFALL LAYOUT
SCALE 1:200

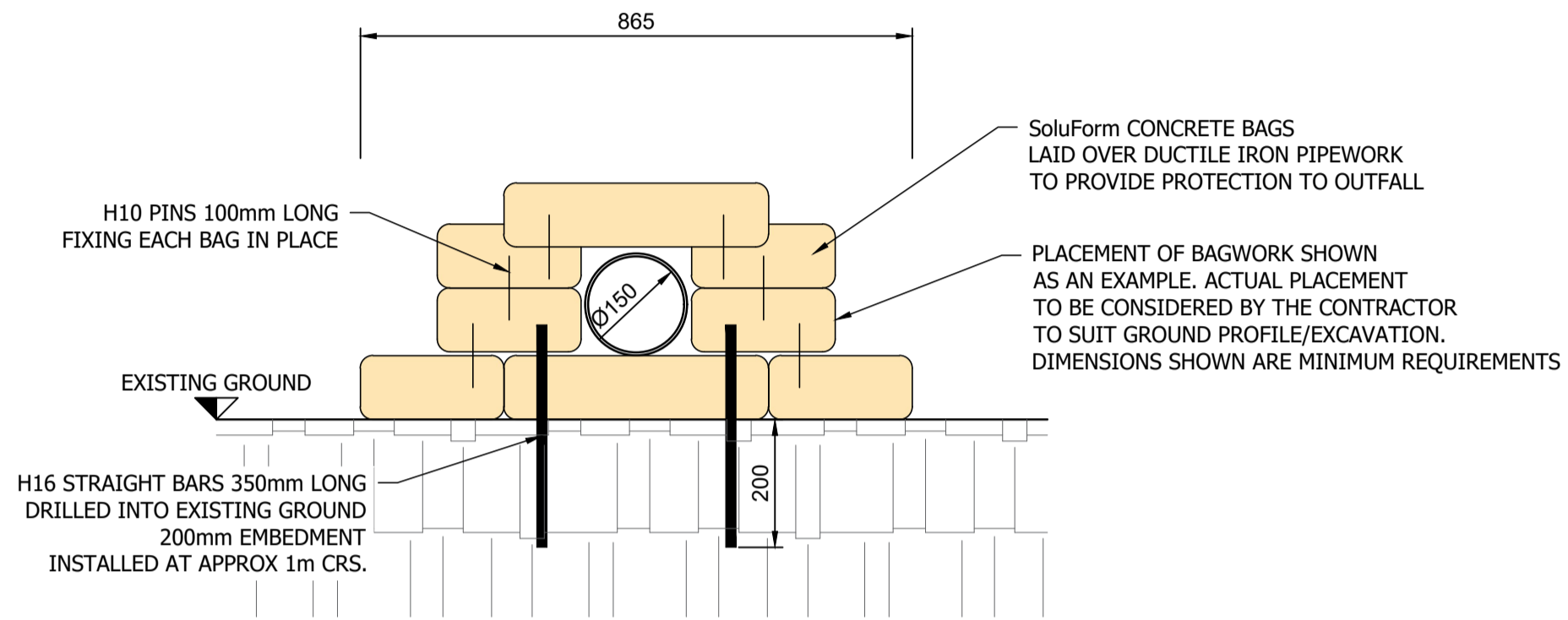
SoluForm CONCRETE BAG NOTES:

PREFILLED UNDERWATER BAGWORK relies upon the surrounding water to hydrate the concrete. For this to occur, steelwork is needed; the steelwork piercing each and every bag creating a pathway for the surrounding water to enter the bag and disperse around the concrete. When submerged underwater, and with a single standard pin through each bag, hydration and hardening typically takes around 6-12 hours, such that bagwork will have fully hardened by the next working day. Full strength is achieved within 28 days.

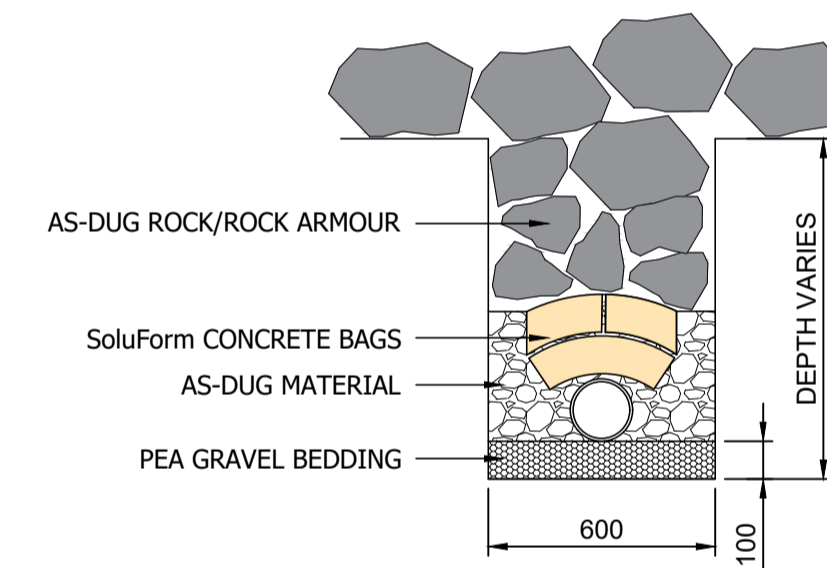
The procedure for placement below water level is:

- Unopened, loosened pre-filled underwater bagwork should be carefully carried, individually and by hand, through the watercourse to the location where they are needed. Each bag should be carefully placed horizontally, taking care not to drop, snag or tear the bags on sharp objects. Bagwork is to be placed flat and built up in rows, typically alternating or cross bonding bagwork to improve the strength of the finished blockwork. Bagwork can be patted flat or shaped once placed, to improve the appearance of the bagwork and reduce the amount of voids within the finished blockwork. Patting or shaping must be completed before the bagwork is pierced with steelwork.
- Underwater bagwork placed by divers can also be lowered into the river in 1T bulk bags. The divers can then remove individual prefilled bags from the bulk bag, by hand, to be carried and placed by the divers.
- After the second or third row of bags, steel rebar pins should be used to provide a pathway for water to enter the bag and hydrate the concrete, and to tie all the finished blockwork together. Steelwork pins should be pushed down vertically through the bags, with steelwork passing through each and every bag. Pins can be inserted by hand, or if a hammer is used, this should be a rubber mallet. Once placed and stacked, the tight seal between the steelwork and the liners, the tight packing between the individual bags and the fact that the steelwork is inserted vertically through the bags, ensures there is no loss of cement fines from the bags during placement or from piercing the bags.
- Further rows of bagwork and steelwork can be added, to take the wall or bagwork up to the required height. Typically standard 300mm long steelwork pins are inserted every two rows of bagwork, piercing 3 rows of bagwork with a single 300mm long pin. Ensure all the bagwork is pierced with at least one rebar pin, creating up to four entry points for each bag.
- Once pierced, air bubbles will typically escape from each bag, as water enters the bagwork and displaces any trapped air.

Biodegradation: The polymer film will biodegrade by the action of micro-organisms, at a similar rate as the outer hessian bag. General factors that affect the rate of biodegradation include, water temperature, light intensity, pH, whether the bag is subject to constant or intermittent wet/dry conditions and biological activity. Physical degradation is also subject to flow rates and turbulence. The outer hessian bagwork intentionally does not contain any fungicides and will safely biodegrade, typically within 6-12 months.



SURFACE LAID PIPE DETAIL
SCALE 1:10



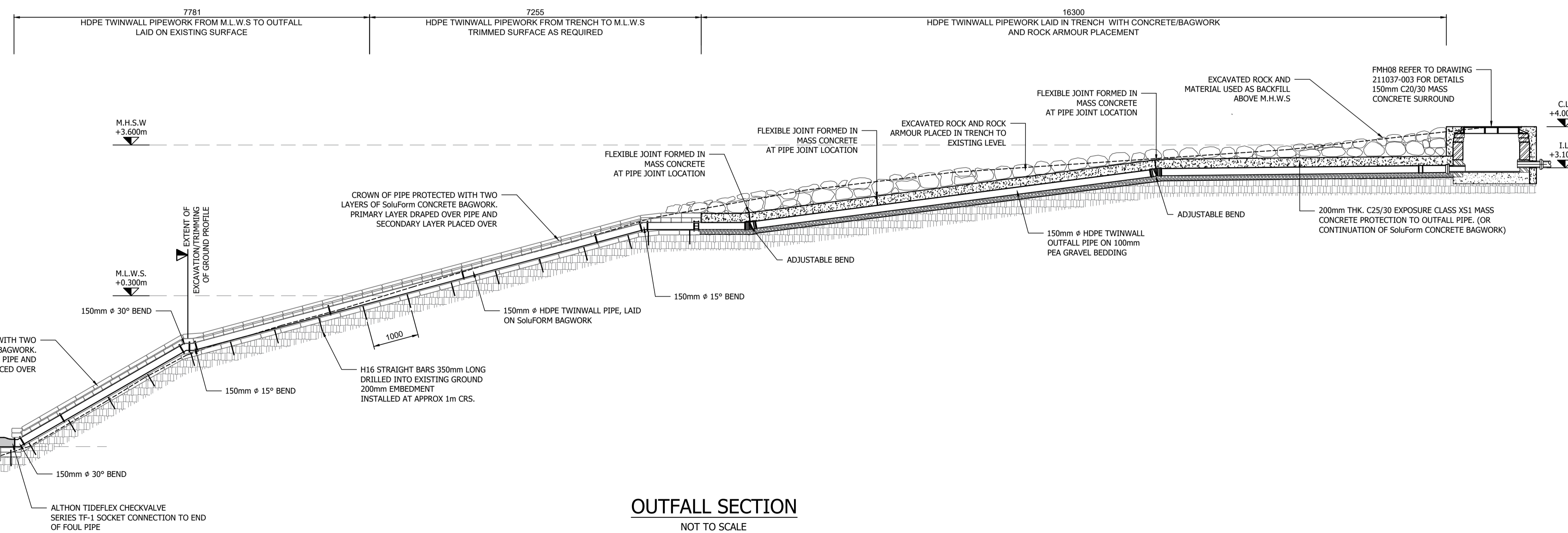
PIPE TRENCH DETAIL
SCALE 1:20

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
2. ALL LEVELS ARE TO **CHART DATUM** UNLESS STATED OTHERWISE.
3. REFER TO DRAWING 211037-001 FOR DRAINAGE GA.
4. REFER TO DRAWING 211037-003 FOR DRAINAGE DETAILS.
5. CONCRETE TO BE IN ACCORDANCE WITH BS 8500
6. WATER USED FOR MIXING AND CURING CONCRETE SHALL BE POTABLE. SEA WATER SHALL NOT BE USED.
7. TIDEFLEX CHECK VALVE TO BE INSTALLED STRICTLY AS PER THE MANUFACTURERS INSTRUCTIONS.
8. SoluForm CONCRETE FILLED UNDERWATER BAGWORK TO BE 32N HIGH STRENGTH STRUCTURAL MIX.
9. ALL PRE-FILLED BAGWORK TO REMAIN PALLETISED AND WRAPPED UNTIL READY TO USE. PALLETS TO BE STORED IN THE DRY, OR SUITABLY COVERED AND PROTECTED IF OUTSIDE.

MHWS	+3.6m
MHWN	+2.6m
O.D.	+1.6m
MLWN	+1.0m
MLWS	+0.3m
C.D.	+0.0m

TIDAL INFORMATION FOR LOCH FYNE



OUTFALL SECTION
NOT TO SCALE

SCALE 1:1250

SCALE 1:200

C2	27/07/22	OUTFALL DETAIL UPDATED PER SEPA COMMENTS.	KF	TCY
C1	01/06/22	ISSUED FOR CONSTRUCTION	KF	TCY
REV	DATE	REVISION	DRN	CHK

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PROJECT :
**Portavadie Estates
Foul Drainage Infrastructure**

TITLE :
**Proposed Foul Outfall
General Arrangement & Details**

DRAWN : JA	DATE : 25/05/22	CHECKED : KF	DATE : 01/06/22
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SCALE : (A1) As Shown	DRAWING STATUS : CONSTRUCTION
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DRAWING No : 211037-006	REV : C2
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