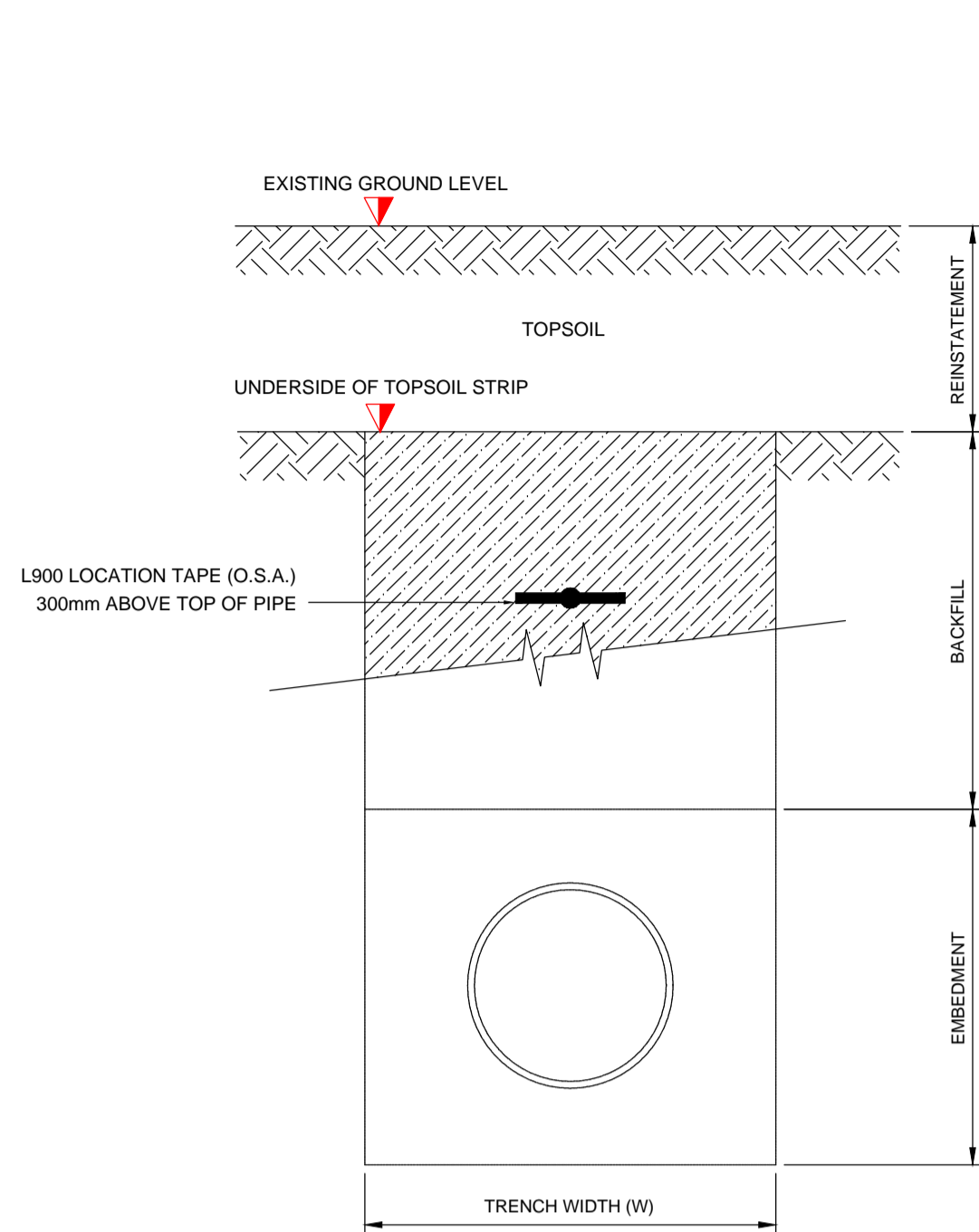
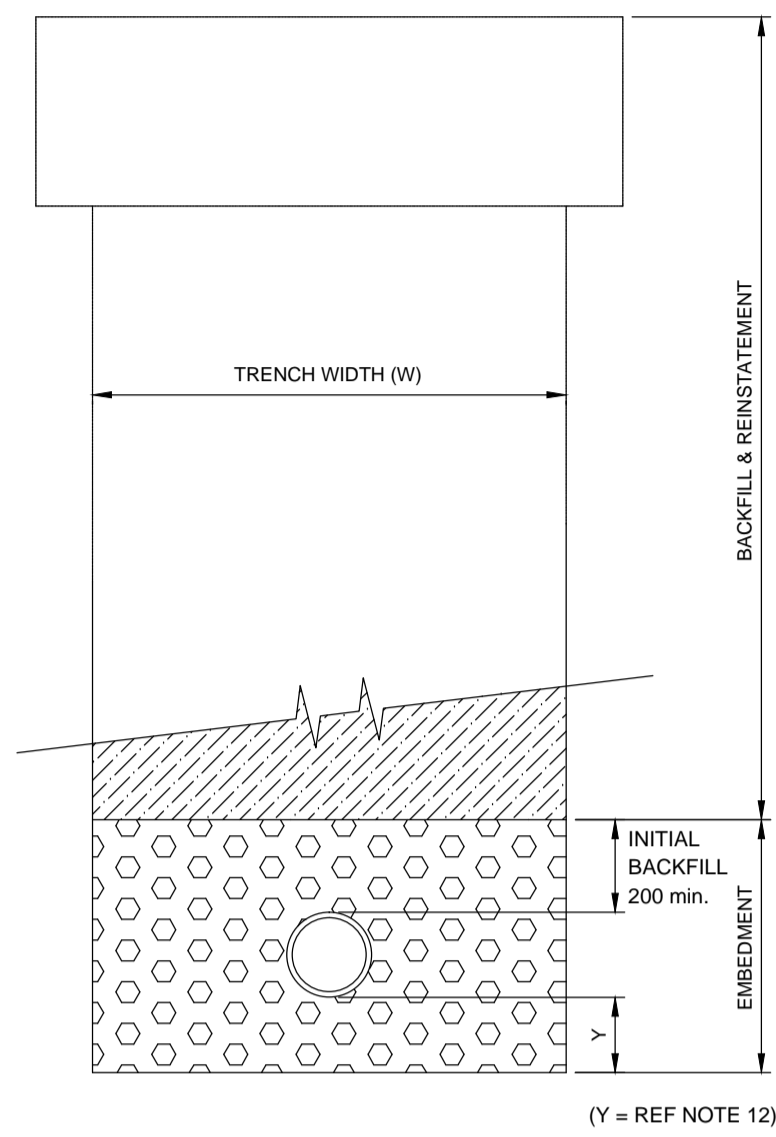


REINSTATEMENT OF HIGHWAY
SUBJECT TO CONFIRMATION
SCALE 1:20



REINSTATEMENT OF GRASSLAND
- UNDERSIDE OF TOPSOIL -
SCALE 1:20



TYPICAL TRENCH ARRANGEMENT
SINGLE PIPE, BEDDING CLASS S
(1:20)

NOMINAL INTERNAL PIPE DIAMETER (mm)	MINIMUM TRENCH WIDTH (W) 1No. PIPE (m)	MINIMUM TRENCH WIDTH (W) 2No. PIPES (m)	MINIMUM TRENCH WIDTH (W) 3No. PIPES (m)
100	0.55	1.00	1.35
150	0.60	1.00	1.50
225	0.70	1.00	1.90

TABLE 1 - TRENCH WIDTHS DETAIL

D	NOMINAL SIZE OF GRANULAR MATERIAL (mm)
UP TO 150mm	10/14 SINGLE SIZE OR 14-5 GRADED
150 TO 550mm	10/14/20 SINGLE SIZE OR 14-5 OR 20-5 GRADED

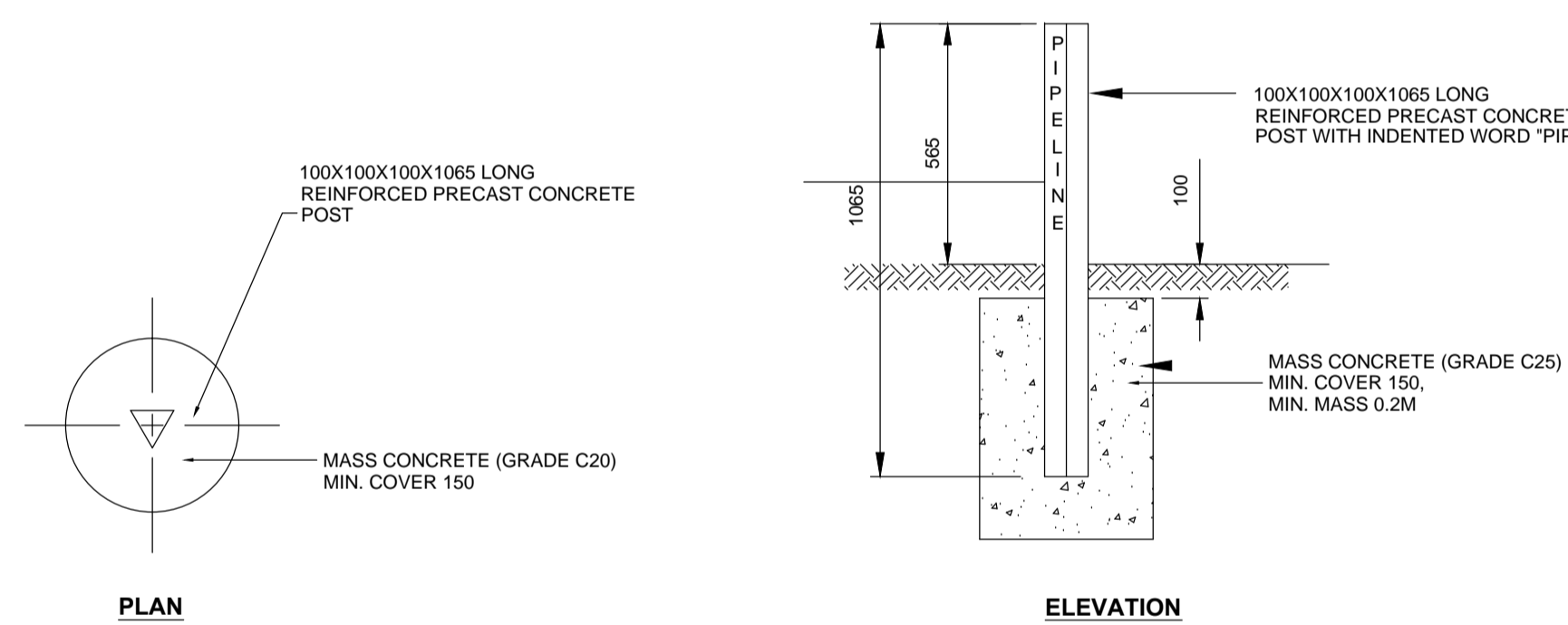
TABLE 2 - GRANULAR FILL

NOTES

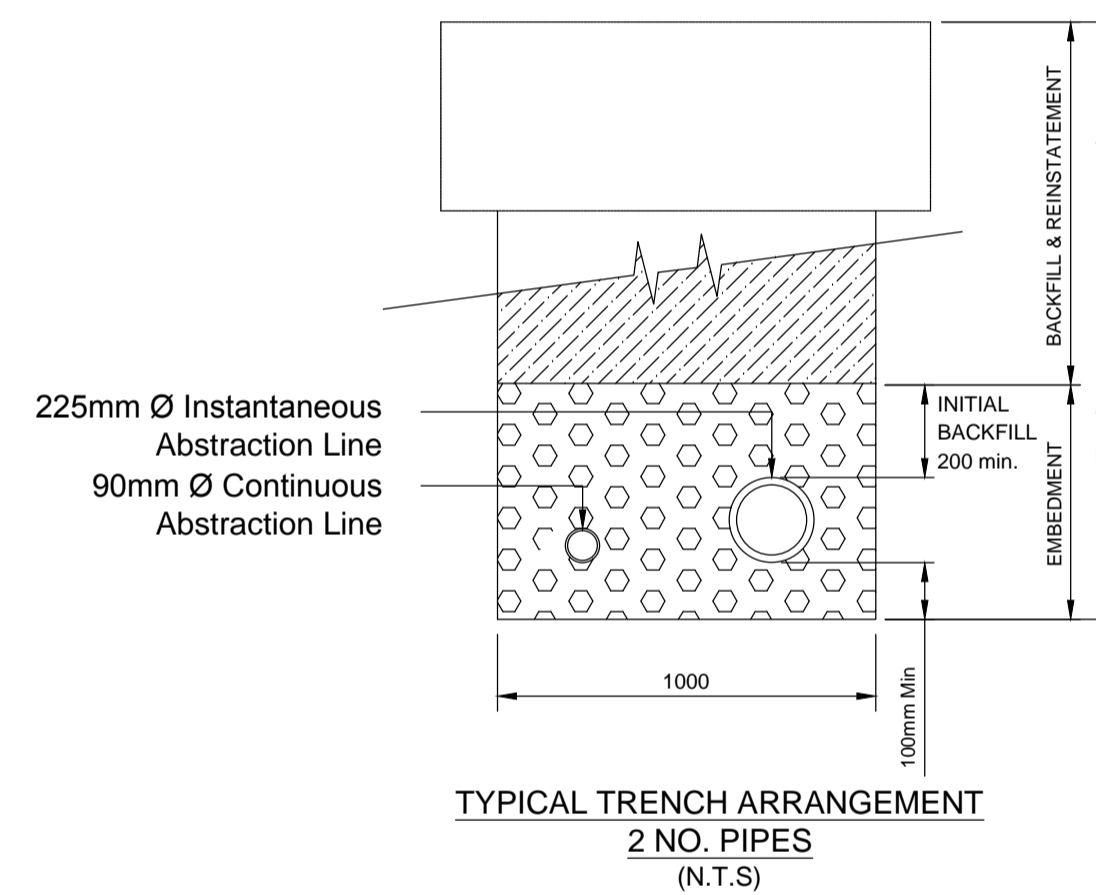
- PIPES TO BE LAID TO 900mm NOMINAL COVER OR AS SHOWN ON LONGITUDINAL SECTION.
- FOR DEPTH OF LESS THAN 1.20m OR GREATER THAN 5m REFER TO DESIGN ENGINEER FOR REINSTATEMENT DETAILS.
- MINIMUM TRENCH WIDTH (W) SHOULD BE OBTAINED FROM TABLE 1 OPPOSITE. THIS TABLE ASSUMES PIPES ARE SELECTED FOR 'WIDE' TRENCH CONDITIONS.
- TOPSOIL TO BE STRIPPED ACROSS WORKING WIDTH AND STORED SEPARATELY FROM SUBSOIL AND REPLACED ON TOP OF TRENCH.
- TOPSOIL TO BE SEEDED AND TREATED WITH FERTILIZER AFTER REINSTATEMENT IS COMPLETE.
- BACKFILL MATERIALS TO BE PLACED IN LAYERS OF 250mm BEFORE COMPACTION.
- BACKFILL MATERIAL UNDER ROAD CONSTRUCTION TO BE GRANULAR SUB-BASE TYPE 1.
- BACKFILL MATERIAL IN OTHER AREAS TO BE OBTAINED FROM SELECTED EXCAVATED MATERIAL WHERE POSSIBLE PROVIDED THAT THIS MATERIAL COMPLIES WITH CLAUSE 2.43 OF CESWI. ADDITIONAL MATERIAL TO MAKE UP ANY DEFICIENCY TO BE IMPORTED. THIS MATERIAL TO BE GRANULAR SUB-BASE TYPE 1.
- JOINT HOLES TO BE PROVIDED TO ENSURE THAT PIPE RESTS ON THE BARREL.
- MINIMUM DEPTH Y OF BED TO PIPE BARREL TO BE 100mm FOR PIPES UP TO AND INCLUDING 100mm Ø N.B. 150mm FOR PIPES GREATER THAN 100mm Ø N.B. AND 200mm FOR TRENCHES IN ROCK.
- IN WET SOILS GRANULAR MATERIAL TO BE SURROUNDED BY FILTER FABRIC.
- ALL WASHOUT AND AIR VALVES ARE ASSUMED TO BE CONSTRUCTED FROM DUCTILE IRON (DI) HOWEVER THIS IS TO BE CONFIRMED BY THE SPECIALIST PIPE SUPPLIER.
- ALL DETAILS OF FITTINGS BETWEEN DI AND PE ELEMENTS ARE TO BE SUPPLIED BY THE SPECIALIST PIPE SUPPLIER.
- SLR ASSUMES USE OF FLEXIBLE ANCHORED JOINTS WITHIN THE PIPE WHICH ALLEVIATES THE REQUIREMENT FOR THRUST BLOCKS AT CORNERS SUCH AS PAM SAINT-GOBAIN UNIVERSAL VE JOINT. THIS IS TO BE CONFIRMED BY THE SPECIALIST PIPE SUPPLIER.

LEGEND

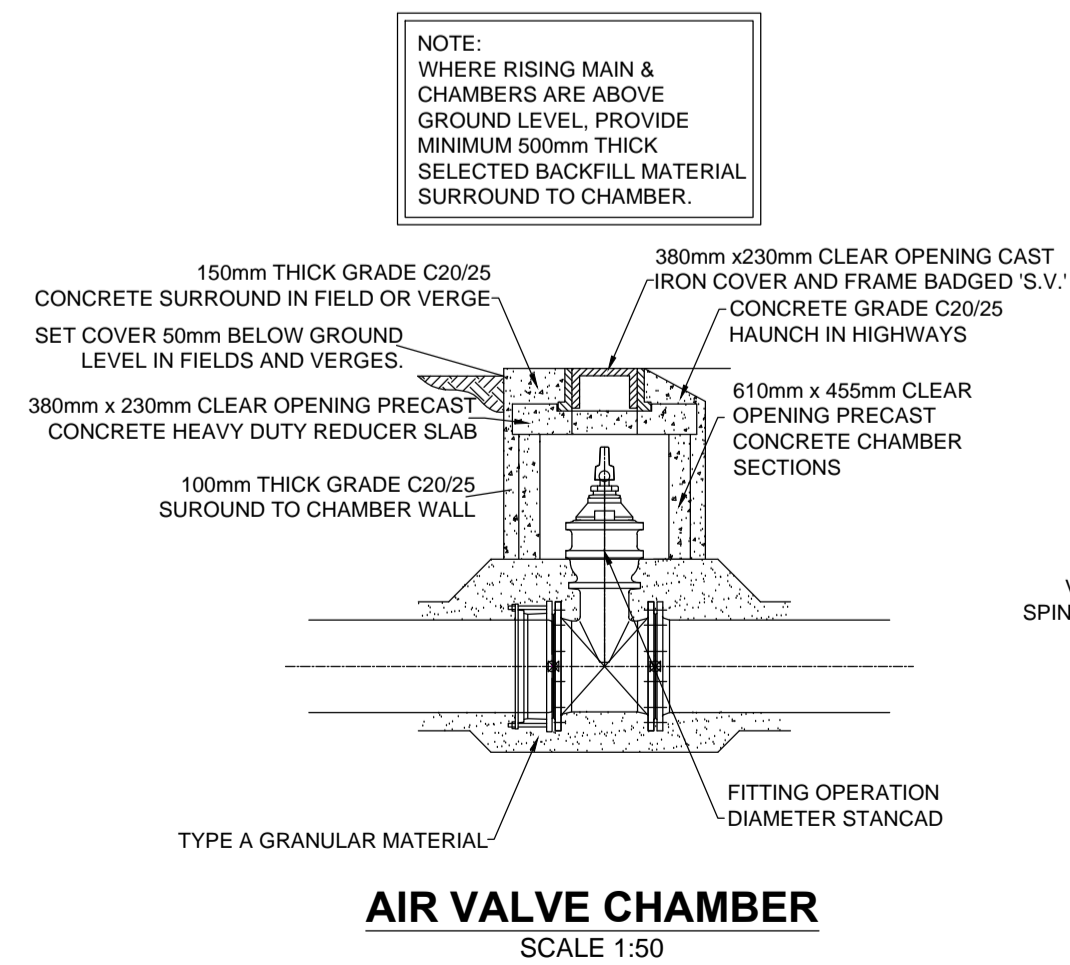
- SELECTED EXCAVATED MATERIAL OR GRANULAR SUB-BASE TYPE 1 (TYPE 1 UNDER ROAD CONSTRUCTION)
- AS DUG MATERIAL TO COMPLY WITH CLAUSE 2.82 OF CESWI.
- PROCESSED GRANULAR MATERIAL TO BS 882 (REFER TO AND INCLUDING TABLE 2 ABOVE FOR REQUIREMENTS)
- TOPSOIL



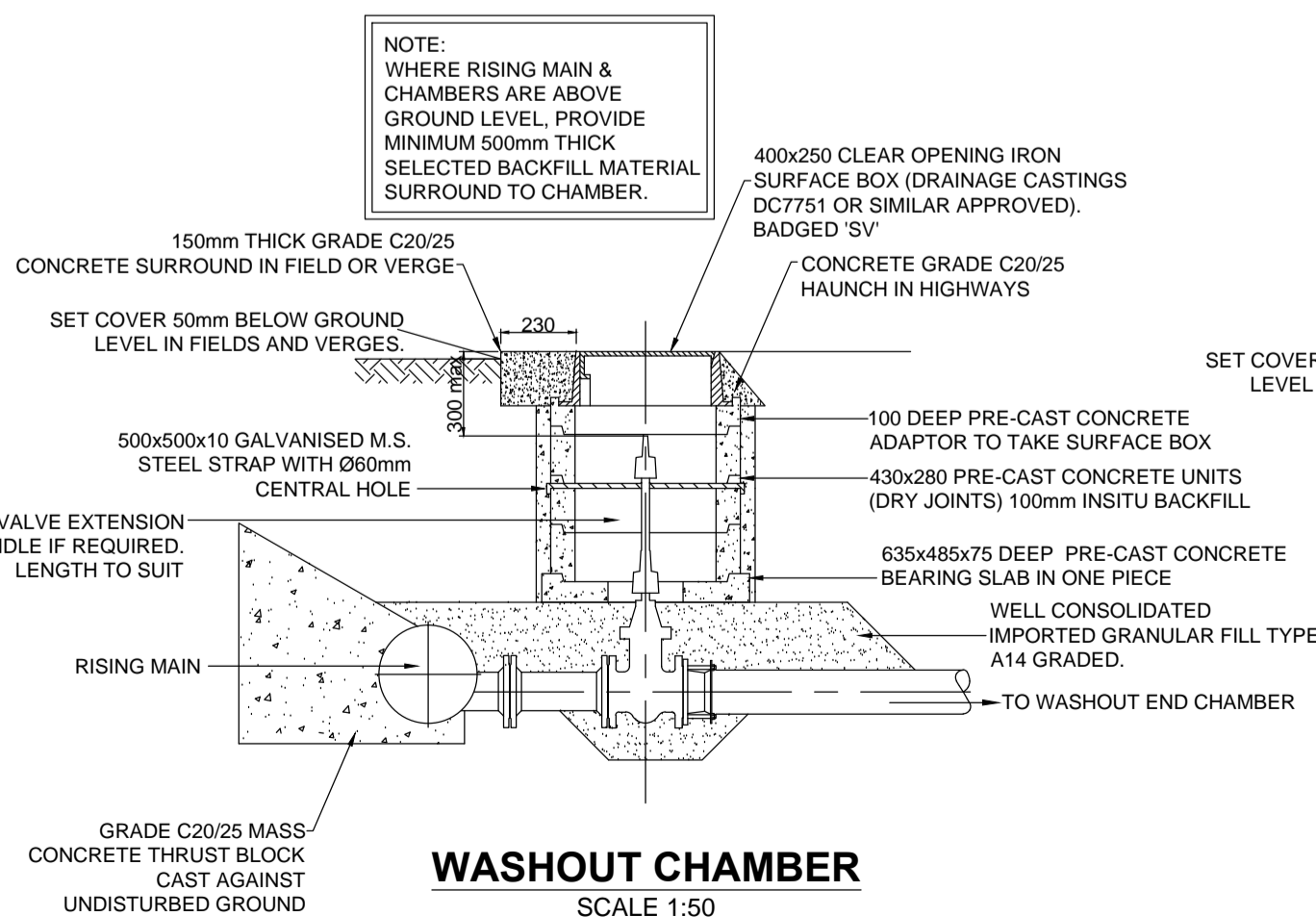
MARKER POST DETAILS
(TO MARK PUMPING MAIN POSITION AT FENCELINE AND ROAD CROSSING)
SCALE 1:20



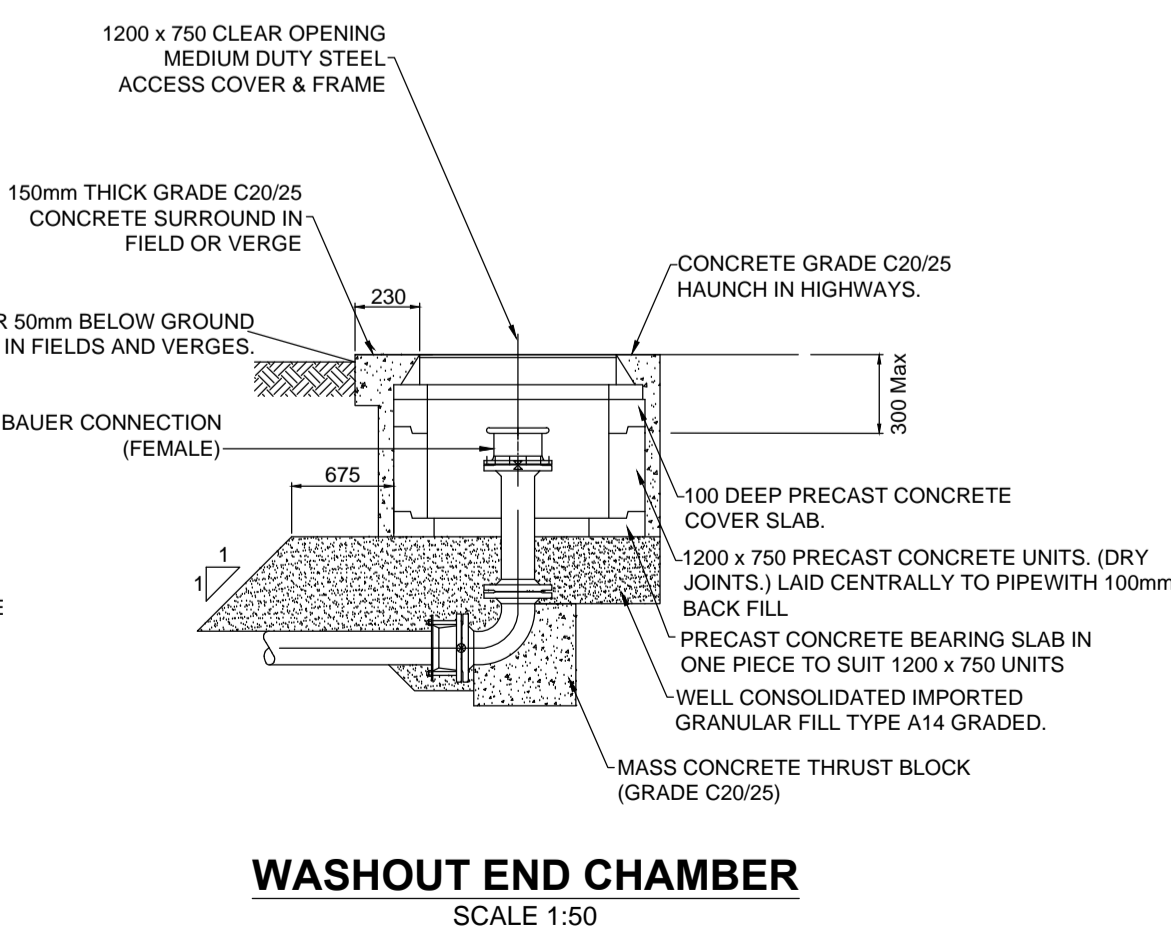
TYPICAL TRENCH ARRANGEMENT
2 NO. PIPES
(N.T.S)



AIR VALVE CHAMBER
SCALE 1:50



WASHOUT CHAMBER
SCALE 1:50



WASHOUT END CHAMBER
SCALE 1:50

Revision	By	Chk'd By	Date	Comments
1	IMR	GR	July 16	Draft
0	IMR	DP	July 16	INITIAL ISSUE

Gent Fairhead & Co. Ltd.



Site: RIVENHALL AIRFIELD

Project: River Blackwater Abstraction

Drawing Title: **PROPOSED RISING MAIN DETAILS**

Scale: AS SHOWN Date: JULY 2016

Drawing Number: **104** Revision: **1**

DRAFT