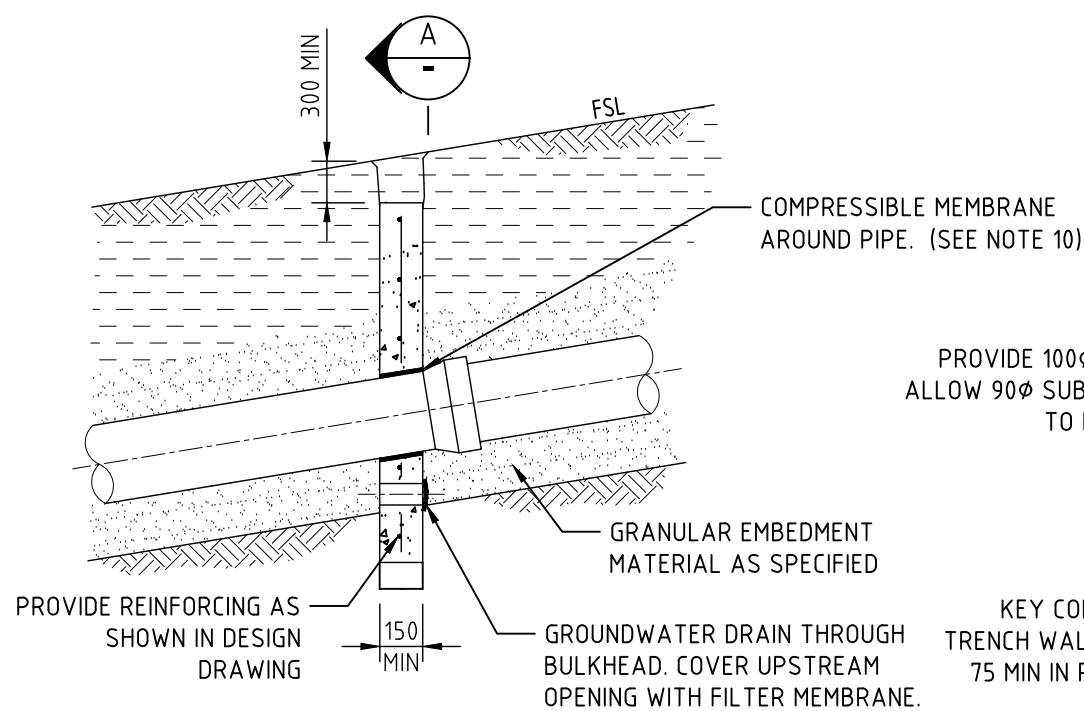
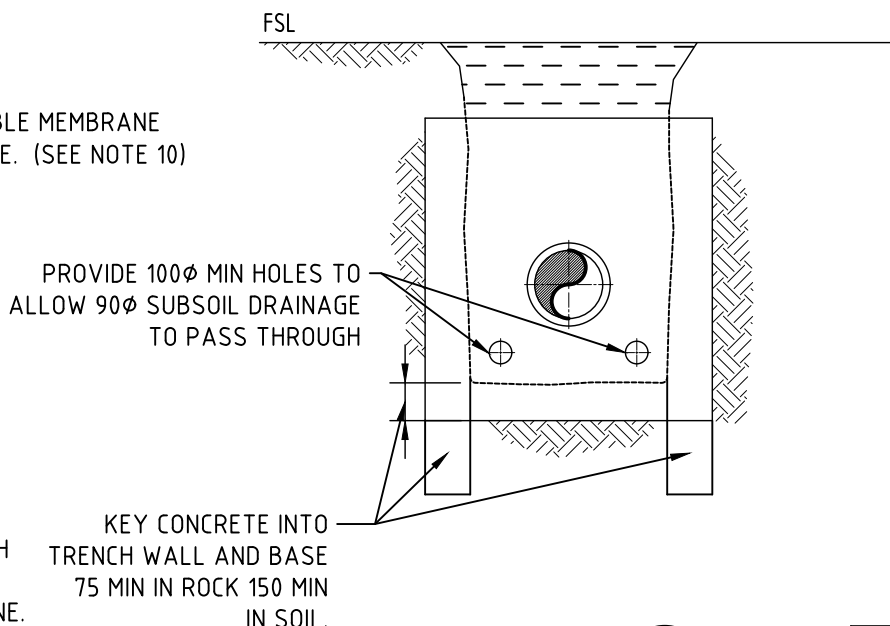
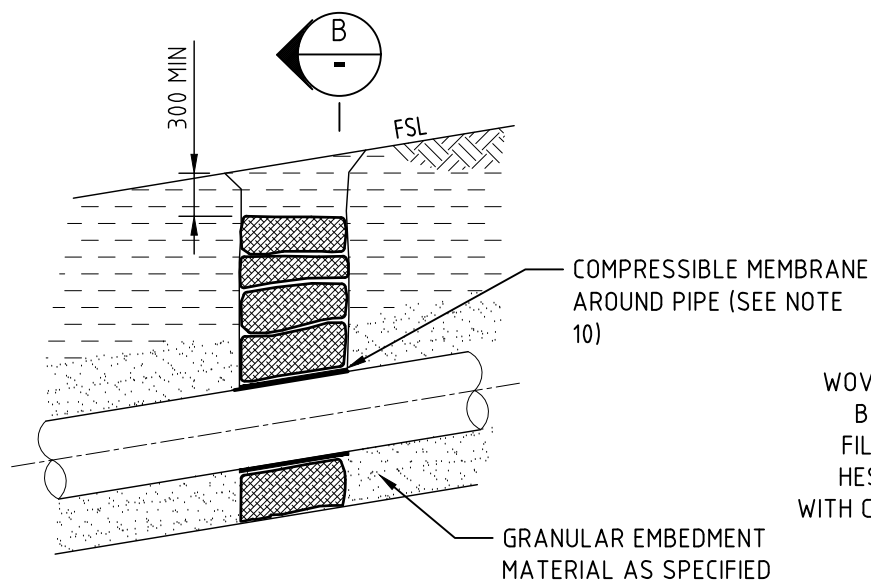




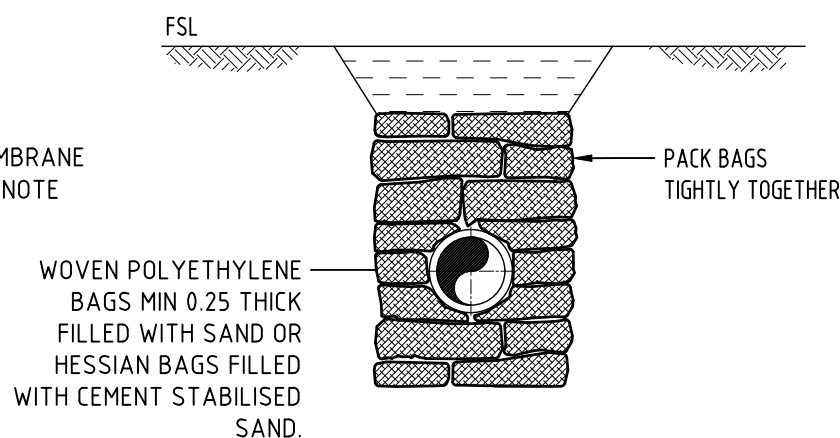
CONCRETE BULKHEAD DETAIL



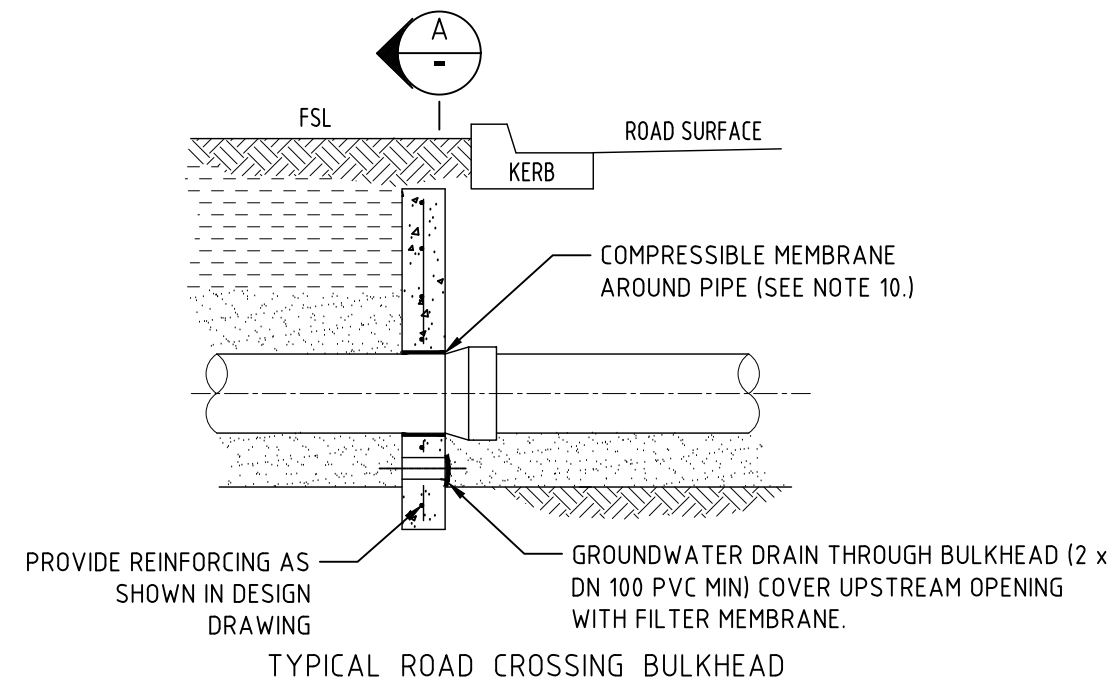
SECTION A



TRENCH STOP DETAIL



SECTION B



BULKHEADS AND TRENCHSTOPS		
TRENCH / PIPE GRADE (%)	REQUIREMENT	SPACING "S" (m)
5-14	TRENCH STOP	$S = 100 / \text{GRADE}(\%)$
5-14	CONCRETE BULKHEAD	AT ROAD CROSSINGS UNDER EACH KERB AND GUTTER OR AT EACH ROAD SHOULDER, UNDER RETAINING WALLS AND ADJACENT STRUCTURES
15-29	CONCRETE BULKHEAD	$S = L_p / \text{GRADE}(\%)$ WHERE $L_p = 80 \times \text{PIPE LENGTH (m)}$ (450 MAX) WHERE $L_p > 100 \text{ m}$ - USE INTERMEDIATE TRENCH STOPS AT SPACING $< 100 / \text{GRADE}(\%)$
30-50	CONTINUOUS CONCRETE ENCASEMENT OF PIPELINE AND CONCRETE BULKHEADS	$S = 100 / \text{GRADE}(\%)$
>50	SPECIAL DESIGN	

NOTES:

- ALL DIMENSIONS IN MILLIMETRES.
- CONSTRUCT CONCRETE BULKHEADS AND TRENCH STOPS AT LOCATIONS SPECIFIED IN DESIGN DRAWINGS.
- CONSTRUCT BULKHEAD ADJACENT TO KERB AND GUTTER SHOULDER OF SEALED ROADS.
- BULKHEAD AT A RETAINING WALL TO BE UNDER THE WALL.
- KEY CONCRETE BULKHEADS INTO SIDES AND BOTTOM OF TRENCH AGAINST A BEARING SURFACE OF UNDISTURBED SOIL.
- CONCRETE TO BE CLASS N25.
- DO NOT DEFORM PIPES DURING PLACEMENT OF CONCRETE.
- SEAL BAGS TO PREVENT LEAKAGE OF CONTAINED MATERIAL.
- PROVIDE A CONTINUOUS DRAINAGE PATH - THROUGH BULKHEADS AND TRENCHSTOPS - IN TRENCH EXCAVATIONS ACROSS ROADWAYS. TRENCH DRAINAGE TO BE IN ACCORDANCE WITH SW-103.
- COMPRESSIBLE MEMBRANE AROUND PIPE TO BE 10 THICK POLYSTYRENE FOR BULKHEADS ADJACENT TO KERBS AND 3 THICK RUBBER FOR BULKHEADS AND TRENCHSTOPS ON SLOPES.
- FOR SLOPES >30% CONTINUOUSLY ENCASE THE PIPE TO PREVENT MOVEMENT AND TRANSFER OF GROUND WATER. WRAP JOINTS TO PREVENT DAMAGE TO RRJ.

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SR PCG - STANDARDS REVIEW PROJECT CONTROL GROUP
ASM - ASSET SECTION MANAGER

Date	Amendment	Rev	By	Approved
12.05.26	ISSUED FOR CONSTRUCTION	0	SR PCG	ASM



Project:	STANDARD DETAILS
EDRMS No:	PSC2016-01993-005
Drawing Title:	STORMWATER PIPE CONCRETE BULK HEADS & TRENCH STOPS - SHEET 1 OF 2

APPROVED		Revision:
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SW-102		Date:
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		Sheet Size:
		A3