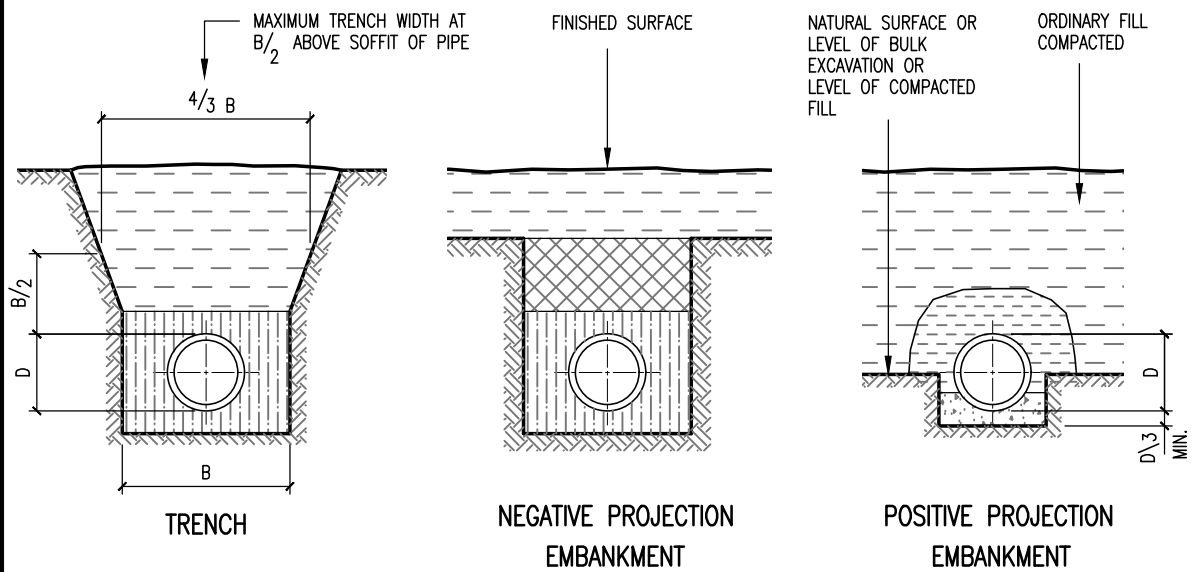


DRAWING INDEX: PIPELINES FOR WASTEWATER GREATER THAN 300mm DIAMETER

DRAWING NO.	REVISION	DRAWING TITLE
2000244.021	A	STANDARD PIPE BEDDING DETAILS



PIPE INSTALLATION CONDITION

1. DEFINITIONS

D - EXTERNAL PIPE DIAMETER

B - MAXIMUM TRENCH WIDTH ALLOWED AT TOP OF THE PIPE BARREL

G - DEPTH OF BEDDING BELOW BARREL OF PIPE. G = 100 IF D ≤ 1500 OR 150 IF D > 1500

2. TRENCH WIDTH

MINIMUM TRENCH WIDTH SHALL BE NOT LESS THAN THAT REQUIRED FOR SATISFACTORY PLACING AND COMPACTION OF BEDDING, HAUNCHING AND BACKFILL. FOR TYPE H BEDDING AND FOR PIPES UP TO 1500mm DIAMETER THE BARREL OF THE PIPE SHALL BE NO CLOSER THAN 200mm TO THE TRENCH WALL OR TRENCH SHIELD/SHORING. FOR TYPE C CONCRETE ENCASEMENT, THE PIPES SHALL BE NO CLOSER THAN 150mm AND THE PIPE SOCKET NO CLOSER THAN 75mm TO THE TRENCH WALL OR SHORING.

MAXIMUM TRENCH WIDTH SHALL GENERALLY BE (MINIMUM WIDTH + 200mm) UNLESS SPECIFIED OTHERWISE.

THE TRENCH WIDTH SHALL NOT EXCEED 4/3 B AT A HEIGHT OF B/2 ABOVE THE TOP OF THE PIPE BARREL.

3. BEDDING AND HAUNCH ZONE MATERIALS SHALL BE GRAVEL OR CRUSHED STONE OR A BLEND OF THESE MATERIALS COMPLYING WITH THE FOLLOWING GRADING REQUIREMENTS WHEN SIEVED AS SPECIFIED IN TABLE 6 OF AS/NZS 3725.

SIEVE SIZE mm	19.0	2.36	0.6	0.3	0.15	0.075
PERCENT MASS PASSING	100	100-50	90-20	60-10	25-0	10-0

NOTES

4. **SIDE ZONE MATERIAL** FOR TYPE HS1 AND HS2 BEDDING SHALL BE GRAVEL OR CRUSHED STONE OR A BLEND OF THESE MATERIALS COMPLYING WITH THE FOLLOWING GRADING REQUIREMENTS WHEN SIEVED AS SPECIFIED IN TABLE 7 OF AS/NZS 3725.

SIEVE SIZE mm	75	9.5	2.36	0.6	0.075
PERCENT MASS PASSING	100	100-50	100-30	50-15	25-0

5. **FOR TYPE H.** SELECTED FILL FOR THE OVERLAY ZONE SHALL BE MATERIAL FREE FROM CLAY LUMPS AND STONES RETAINED ON A 75mm SCREEN WITH NO MORE THE 10% OF THE MATERIAL BY VOLUME BEING STONES RETAINED ON A 25mm SCREEN. THIS MATERIAL SHALL BE PLACED AND CONSOLIDATED IN LAYERS NOT EXCEEDING 150mm, TO A DEPTH OF 300mm ABOVE THE PIPE BARREL.

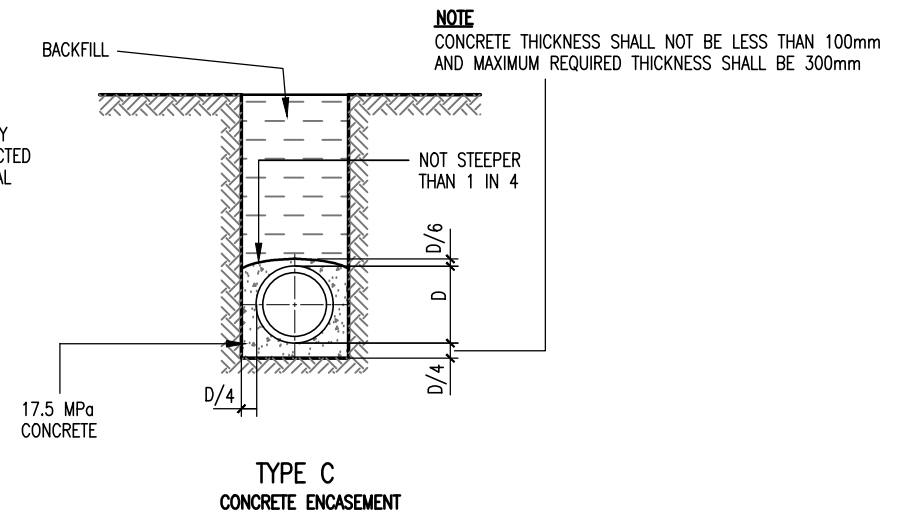
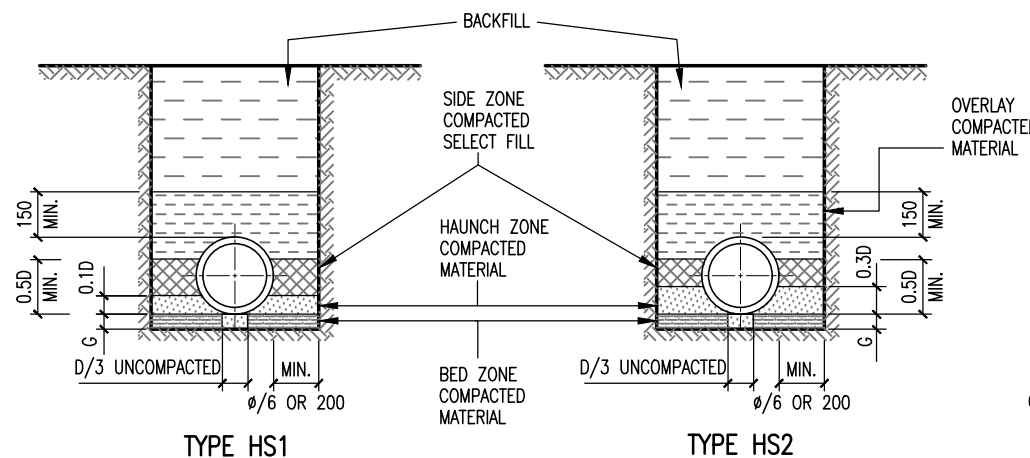
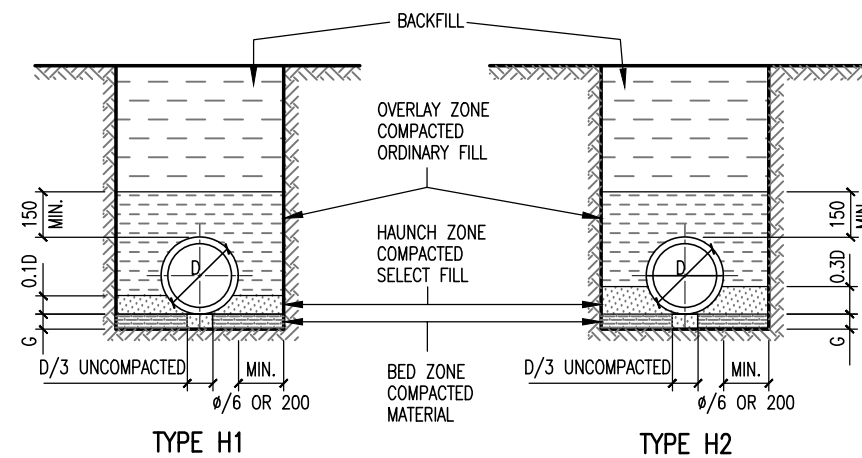
6. **CONCRETE** USED IN TYPE C BEDDING SHALL HAVE A 28 DAY STRENGTH OF 17.5 MPa.

7. WHERE CONCRETE BEDDING IS USED WITH A FLEXIBLY JOINTED PIPE THE BEDDING SHALL BE INTERRUPTED AT EACH JOINT BY A SPACER OF 12mm THICK SOFTBOARD OR OTHER MATERIAL APPROVED BY THE ENGINEER.

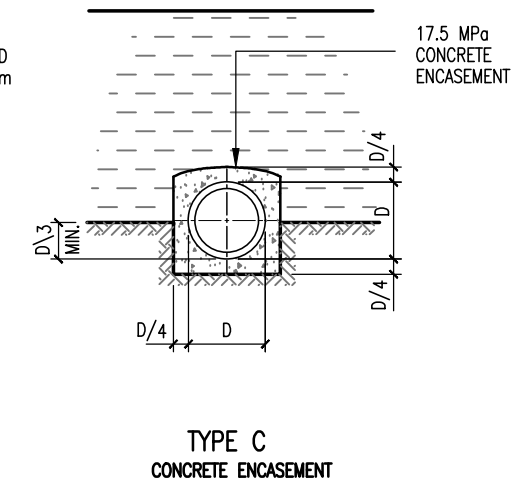
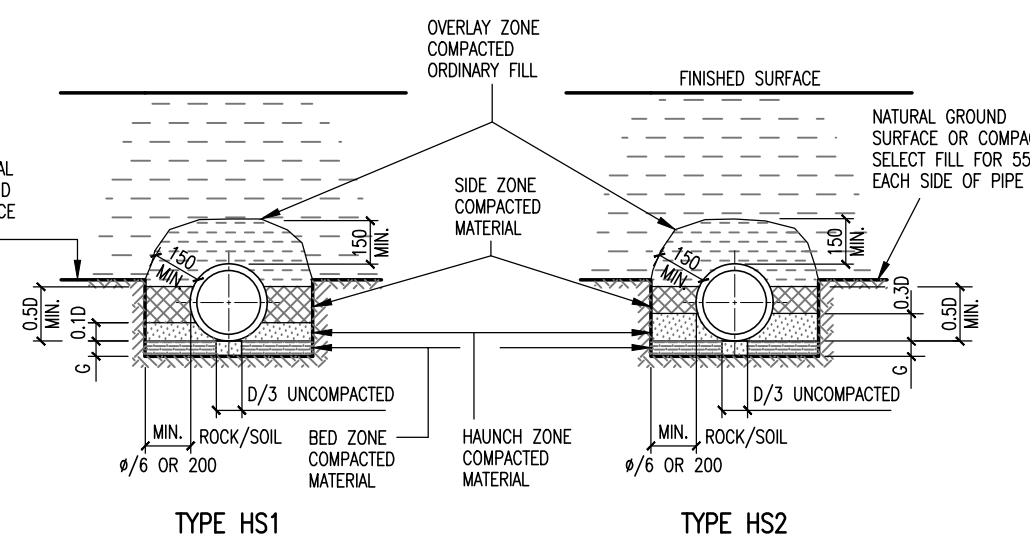
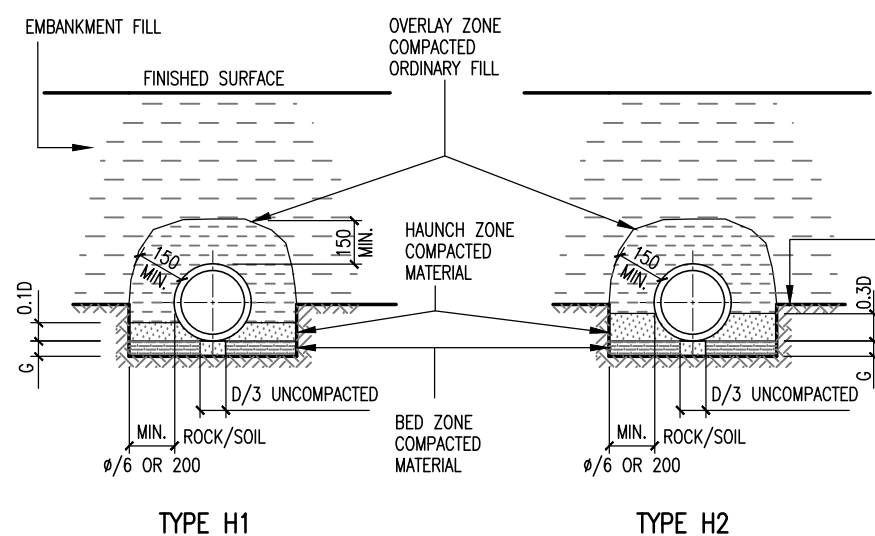
8. **TYPE C AND TYPE H IN ROCK EXCAVATION.** DIMENSION G SHALL BE 200mm MINIMUM. WHEN THE TRENCH DEPTH OR FILL DEPTH TO THE PIPE CROWN EXCEEDS 5m, G SHALL BE INCREASED BY 40mm FOR EACH EXTRA METRE OF DEPTH.

9. **TYPE C SCENARIO** TO ONLY BE APPLIED WHERE PIPE PROTECTION IS REQUIRED AND APPROVED BY WSL.

10. **FOR BEDDING REQUIREMENT OF FLEXIBLE PIPELINES,** REFER TO AS/NZS 2566.2



TRENCH INSTALLATION



EMBANKMENT INSTALLATION

ISSUE	DATE	AMENDMENT	BY	APPD.	DATE
A	05-25	GENERAL UPDATES	F.F.	P.H.	

DESIGNED	B.M.	02-06
DES. CHECKED	I.M.	02-06
DRAWN	A.B.	4-06
DWG. CHECKED		
PROJECT LEADER		
A.D. APPROVED		

J. PIGGOT	OPERATIONS: HEAD OF WASTEWATER
A. DEUTSCHLE	PLANNING: HEAD OF WASTEWATER

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Watercare	

STANDARD PIPE BEDDING
DETAILS
CONCRETE PIPES

CAD FILE 2000244.021	DATE 23-05-25
ORIGINAL SCALE A1	CONTRACT No.
NTS	-
DRAWING No.	ISSUE
2000244	.021 A