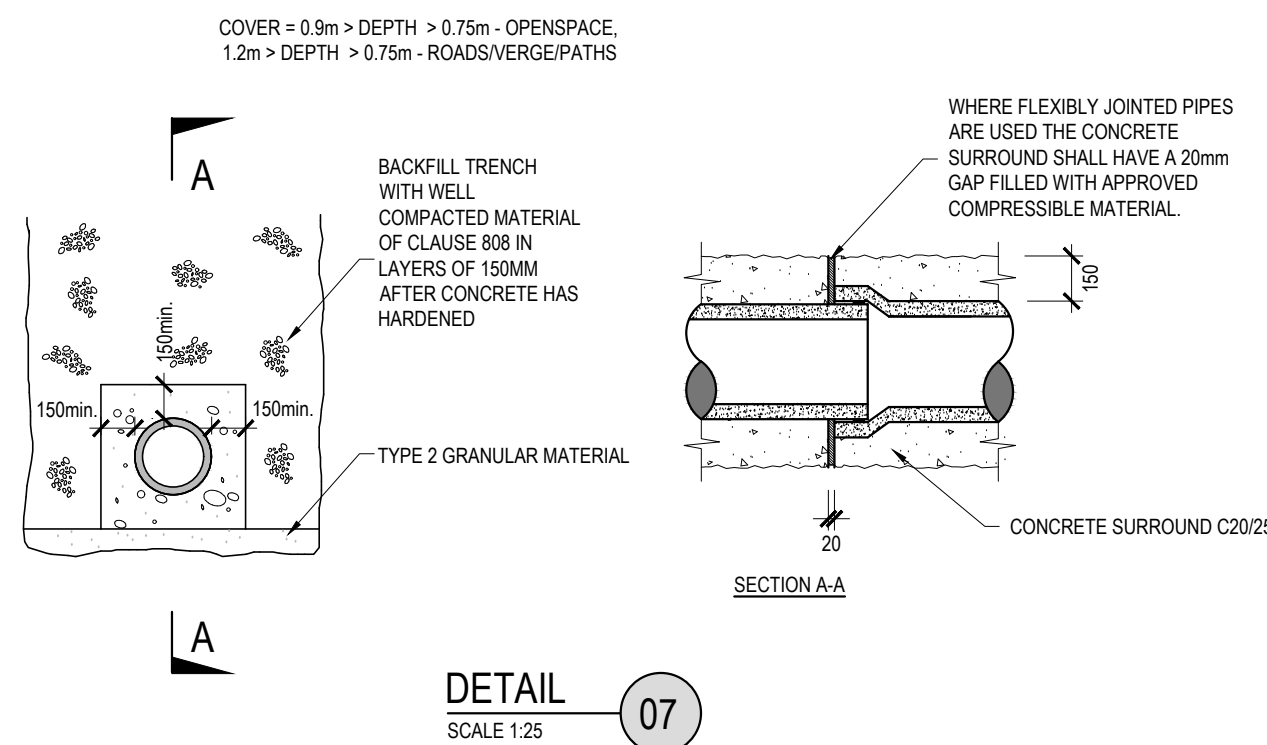


BEDDING FOR RIGID PIPES

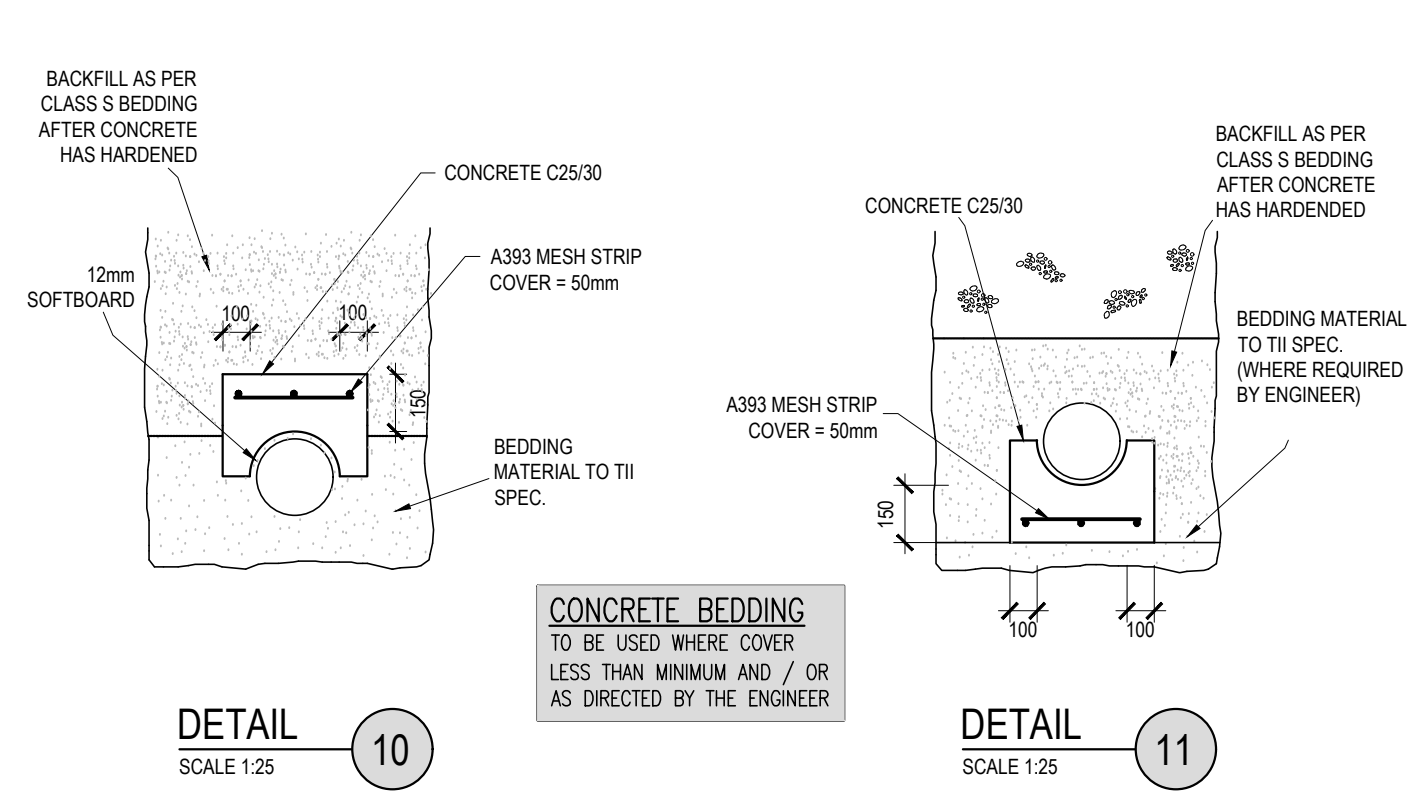
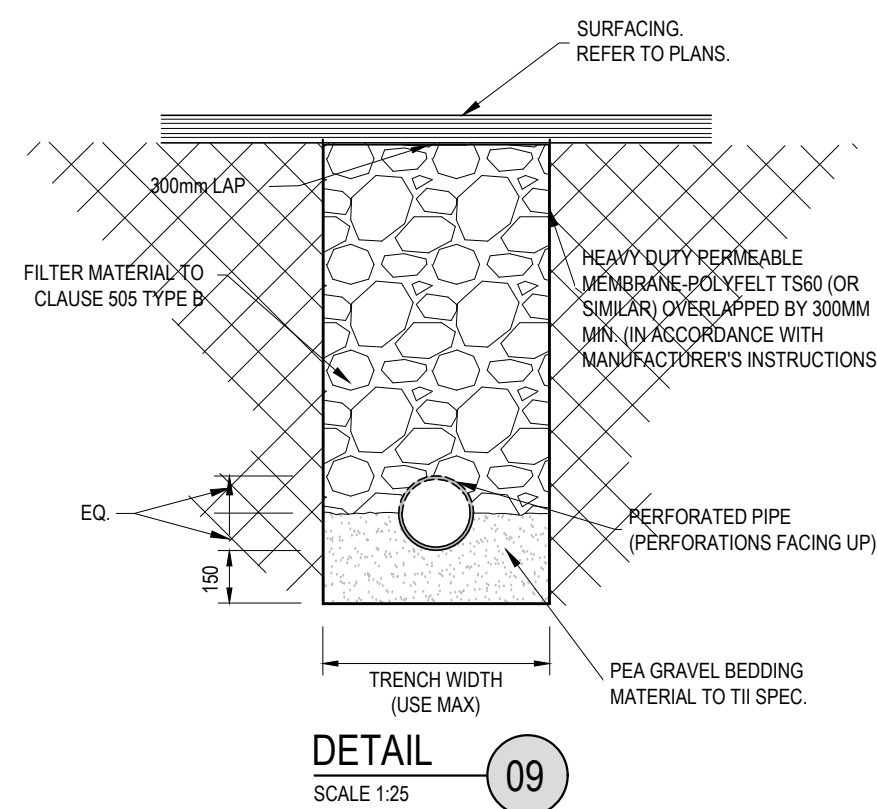
BEDDING FOR FLEXIBLE PIPES

TABLE 1: TRENCH WIDTH LIMITS (W)

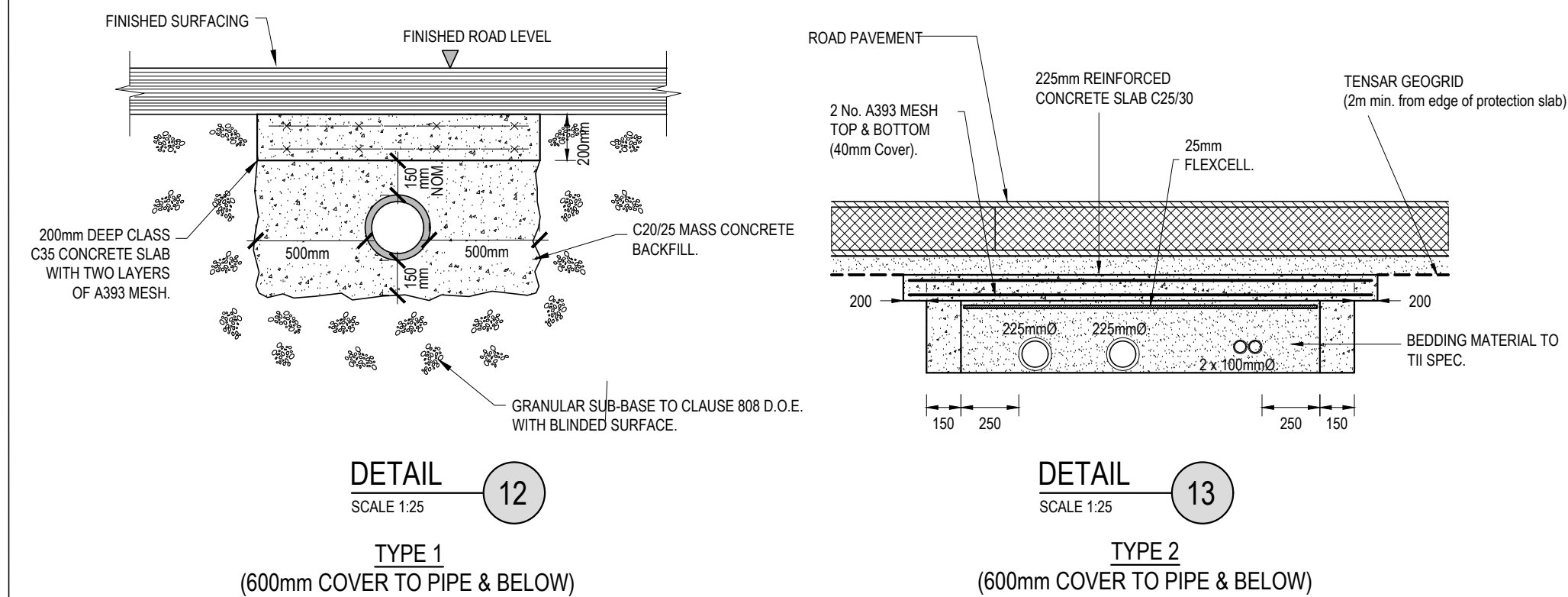
NOMINAL INTERNAL Ø (mm)	MINIMUM TRENCH WIDTH mm	MAXIMUM TRENCH WIDTH mm
100	450	650
150	500	700
225	600	800
300	700	900
375	950	1150
450	1050	1250
525	1150	1350
600	1250	1450
675	1350	1550
750	1400	1600
825	1500	1700
900	1950	2150
1050	2100	2300
1200	2300	2500
ABOVE 1200	OUTSIDE Ø OF PIPE PLUS 800mm	OUTSIDE Ø OF PIPE PLUS 1000mm



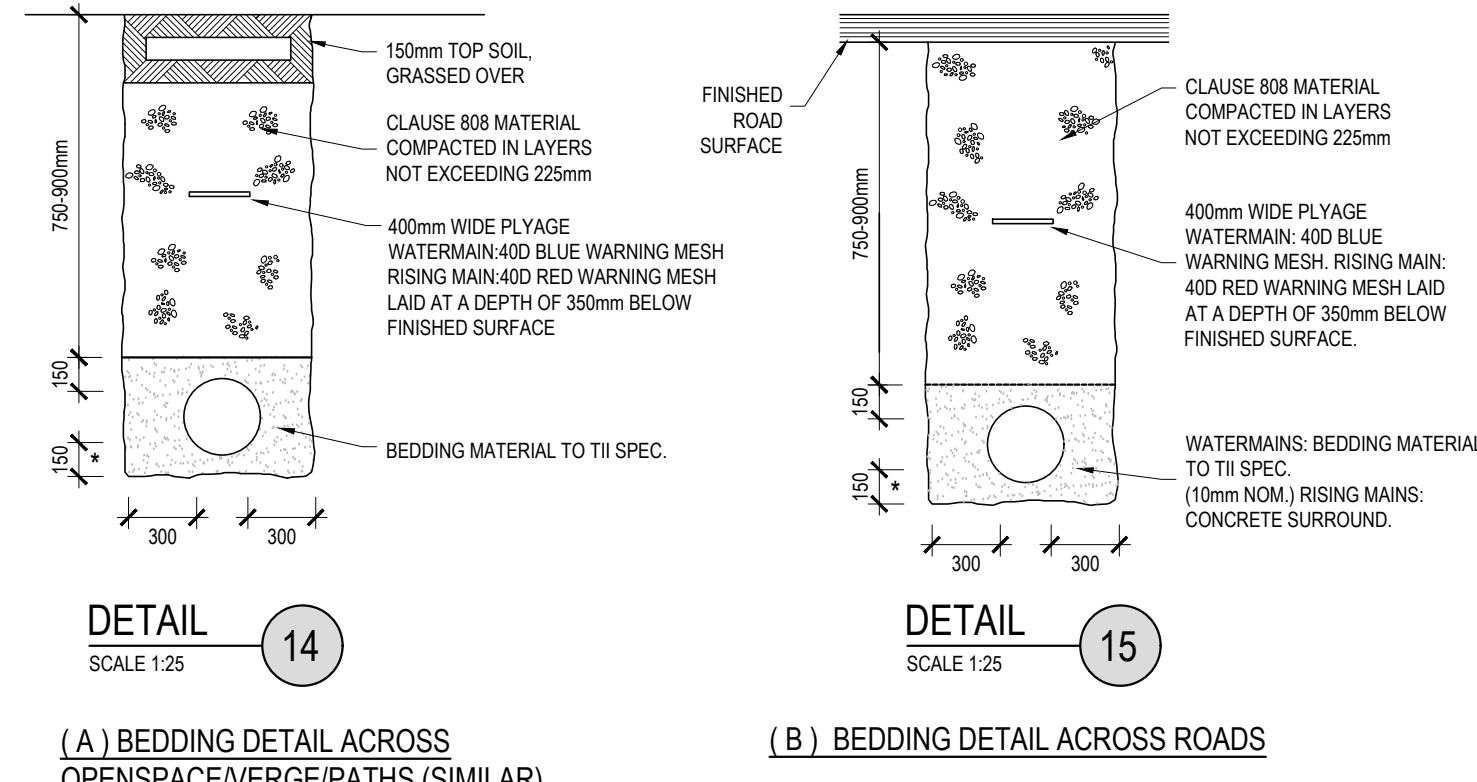
BEDDING FOR RIGID AND FLEXIBLE PIPES WITH LIMITED COVER



ALTERNATIVE BEDDING



TYPICAL SERVICES PROTECTION DETAIL



WATERMAIN/RISING MAIN BEDDING

- NOTES: (FOR PERMANENT REINSTATEMENT)
- FORM A SAW CUT 100mm DEEP AT A MIN. OF 100mm FROM SIDES OF EXCAVATION PRIOR TO PERMANENT REINSTATEMENT. WHERE ANY TRIM LINES ARE WITHIN 400mm OF ROAD EDGE, JOINT, OTHER REINSTATEMENT, OR IRONWORK, THE TRIM LINE SHOULD BE EXTENDED TO THE INTERFACE OF SUCH SITUATIONS.
 - DIG OUT SURFACING & TOP 225mm OF CL808 MATERIAL & REPLACE WITH NEW WIDER SURFACING ON 220 LAYER OF LEAN-MIX CONCRETE.
 - LEAN-MIX SURFACE TO BE SPRAYED PER CLAUSE 920 (NRA SPEC) PRIOR TO APPLICATION OF BINDER COURSE MACADAM.
 - 100°C HOT BITUMEN BINDER 50 PEN OR COLD THIXOTROPIC BITUMEN 50 - 70 PEN TO BE APPLIED TO ALL VERTICAL CUTS IN ACCORDANCE WITH B.S.594 PRIOR TO APPLICATION OF BITUMINOUS MATERIAL.
 - JOINTS SEALED WITH HOT BITUMEN AND TOPPED WITH FINE SAND / GRIT TO GET A MINIMUM 55 SKID RESISTANCE VALUE AS DETERMINED BY THE PORTABLE SKID RESISTANCE PENDULUM USED IN ACCORDANCE WITH ROAD NOTE 27 AND SHALL NOT EXCEED 3mm THICKNESS AND 25mm WIDTH.

TEMPORARY & PERMANENT REINSTATEMENT

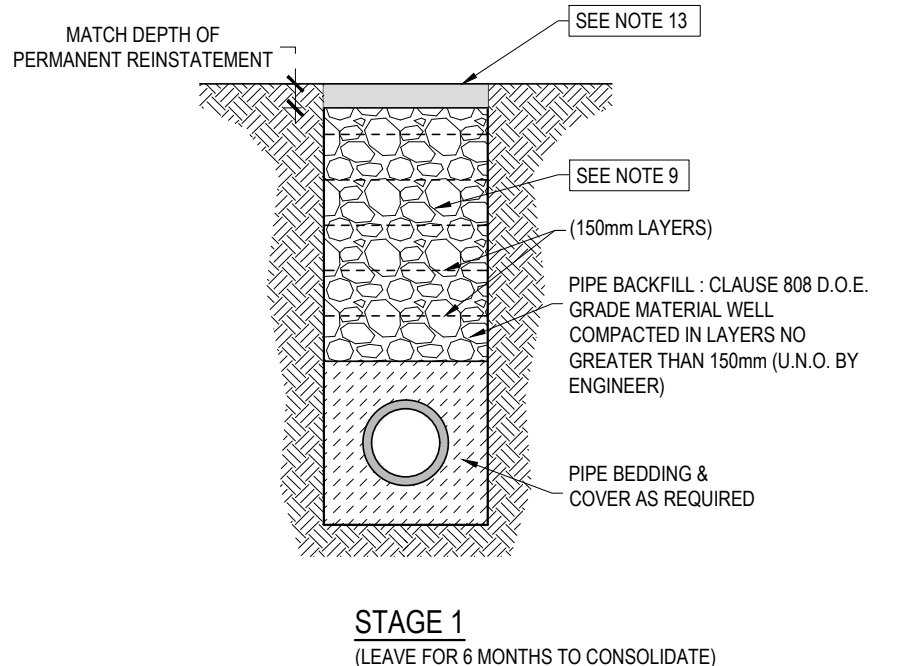
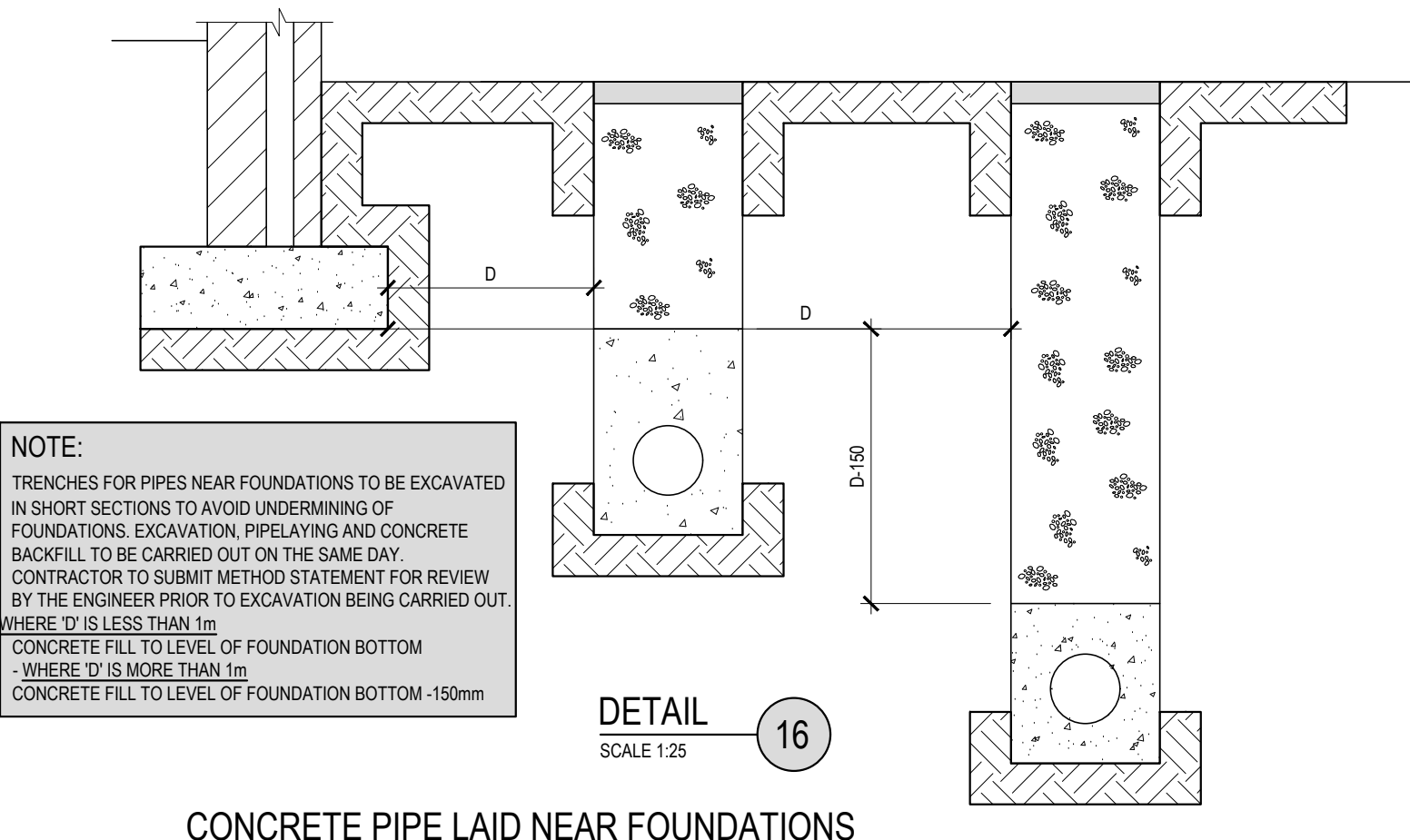
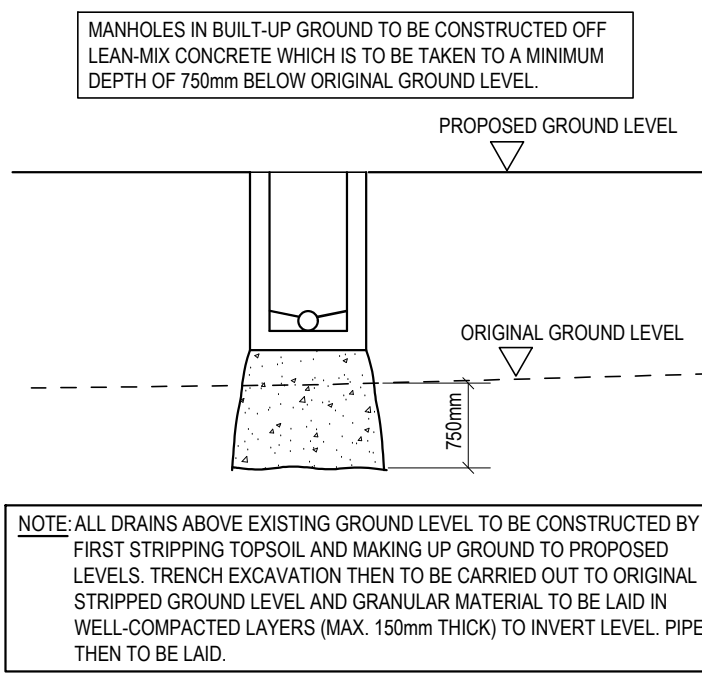


TABLE 2	LANDSCAPED AREAS	ROADWAYS/ FOOTPATHS	NOTES
CONCRETE PIPE (>1.2m COVER)	1,3	2,4	A, DETAIL 4 NOT ACCEPTABLE IN DCC AREA
CONCRETE PIPE (1.2m > D > 0.9m)	1,3	7	A
CONCRETE PIPE (0.9m > D > 0.75m)	7	7	A
CONCRETE PIPE (0.75m > D > 0.60m)	8	8	A
CONCRETE PIPE (0.6m > D > 0.45m)	12,13	12,13	C
FLEXIBLE PIPE (>1.2m COVER)	5	6	B
FLEXIBLE PIPE (1.2m > D > 0.9m)	5	7	B
FLEXIBLE PIPE (0.9m > D > 0.75m)	7	7	B
FLEXIBLE PIPE (0.75m > D > 0.6m)	8	8	B
FLEXIBLE PIPE (0.6m > D > 0.45m)	12,13	12,13	B, C
WATERMANS (D > 0.75m)	14	15	A
RIISING MAIN (D > 0.75m)	14	15	A
REINSTATEMENT OF PIPES IN EXISTING ROADS.	N/A	18	A

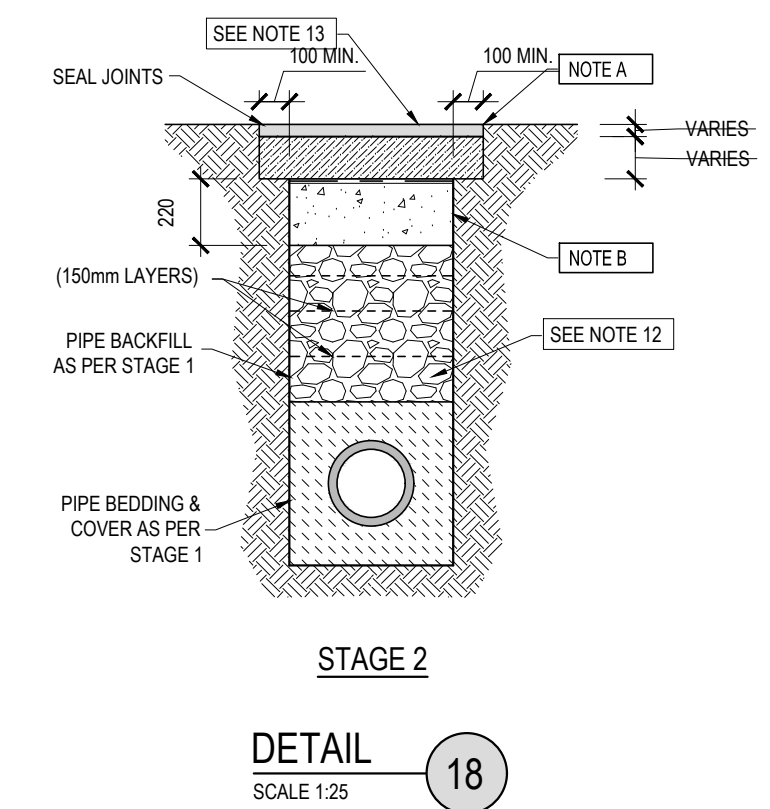
NOTES: A. APPLIES THROUGHOUT GSDS AUTHORITY REGIONS B. APPLIES THROUGHOUT GSDS AUTHORITY REGIONS EXCEPT DCC C. AGREEMENT FROM AUTHORITY REQUIRED



CONCRETE PIPE LAID NEAR FOUNDATIONS



DRAINS IN BUILT-UP GROUND



REINSTATEMENT OF PIPE TRENCH IN EXISTING ROAD



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NOTES:

- C20/25 CONCRETE TO HAVE A MINIMUM CEMENT CONTENT OF 260kg/m³, MAXIMUM WATER/CEMENT RATIO OF 0.65 AND SLUMP CLASS S2.
- C25/30 CONCRETE TO HAVE A MINIMUM CEMENT CONTENT OF 280kg/m³, MAXIMUM WATER/CEMENT RATIO OF 0.65 AND SLUMP CLASS S2.
- C40/50 CONCRETE TO HAVE A MINIMUM CEMENT CONTENT OF 400kg/m³, MAXIMUM WATER/CEMENT RATIO OF 0.45 AND SLUMP CLASS S3.
- WHERE CLASS 6F1/6F2 CAPPING MATERIAL IS PROPOSED WITHIN 500mm OF CONCRETE OR STEEL, CLASS 6N TO BE USED INSTEAD.
- WHERE FOOTPATHS ARE LOCATED ADJACENT TO ROADS, C40/50 CONCRETE TO BE USED. ALTERNATIVELY, FOOTPATHS LOCATED BEHIND VERGES C25/30 CONCRETE MAY BE USED.

NOTE: ALL WORKS & SPECIFICATIONS TO BE UNDERTAKEN IN ACCORDANCE WITH

- TI SPECIFICATION FOR ROADWORKS
- GREATER DUBLIN CODE OF PRACTICE FOR DRAINAGE WORKS
- RECOMMENDATIONS FOR SITE DEVELOPMENT WORKS

0	29.02.24	ISSUED FOR PLANNING	CDC	RSP
0	13.10.23	ISSUED FOR INFORMATION	CDC	RSP
rev	date	description	by	chkd.
STATUS CODES				
purpose	acceptance		project ref.	
P3 - PLANNING PERMISSION		S - ISSUED		
		DBFL Consulting Engineers Civil, Structural & Transportation Engineering		www.dbfl.ie
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project ref.				
MIXED USE DEVELOPMENT (LRD), SANTRY AVENUE, DUBLIN				
drawing title				
SURFACE WATER DETAILS SHEET 3 OF 6				
client				
DWYER NOLAN DEVELOPMENTS				
designed by	author	scale	sheet size	
RSP	CDC	AS SHOWN	A1	
drawing no.	revision			
230146-X-91-X-XXX-DR-DBFL-CE-5003			1	