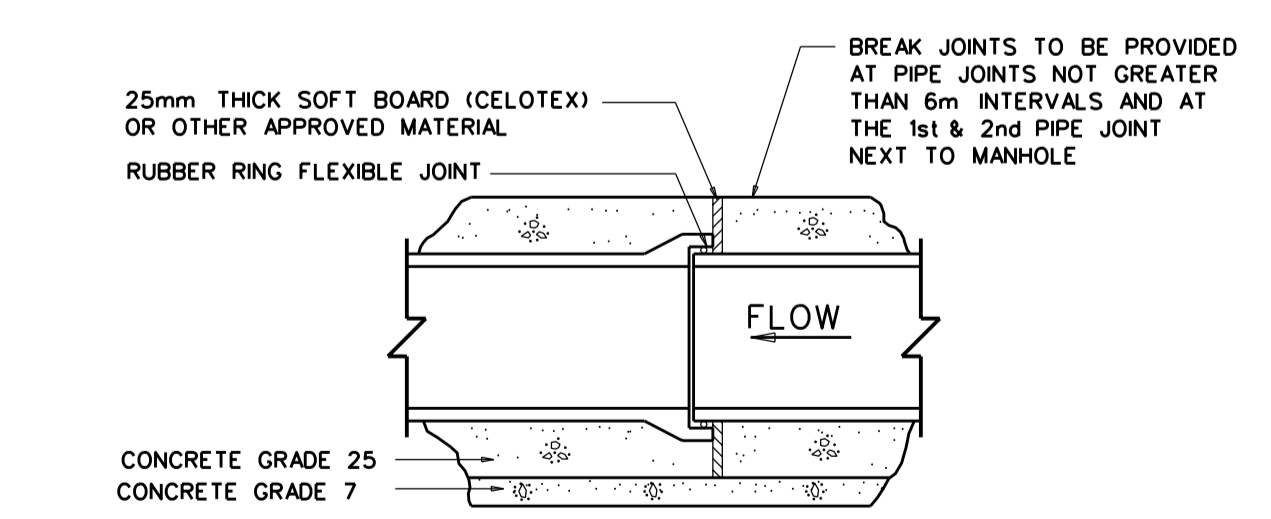


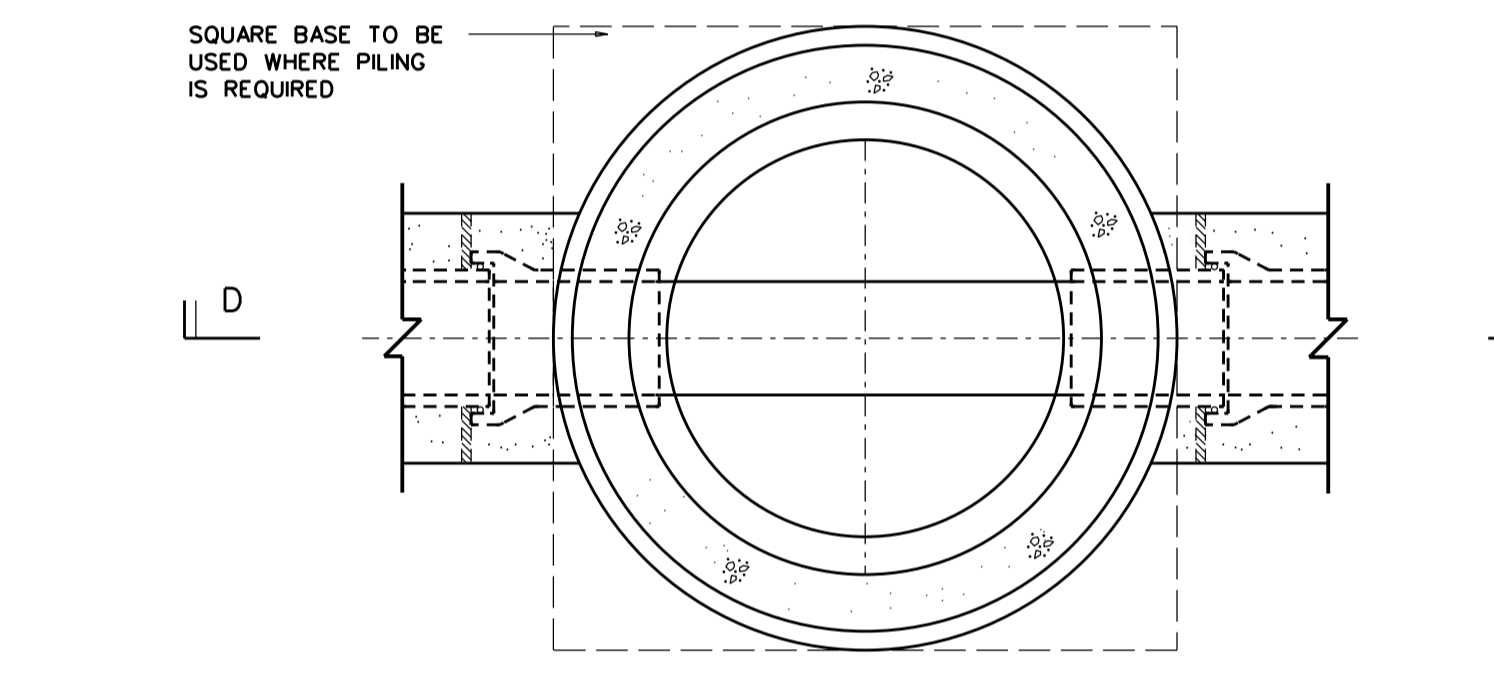
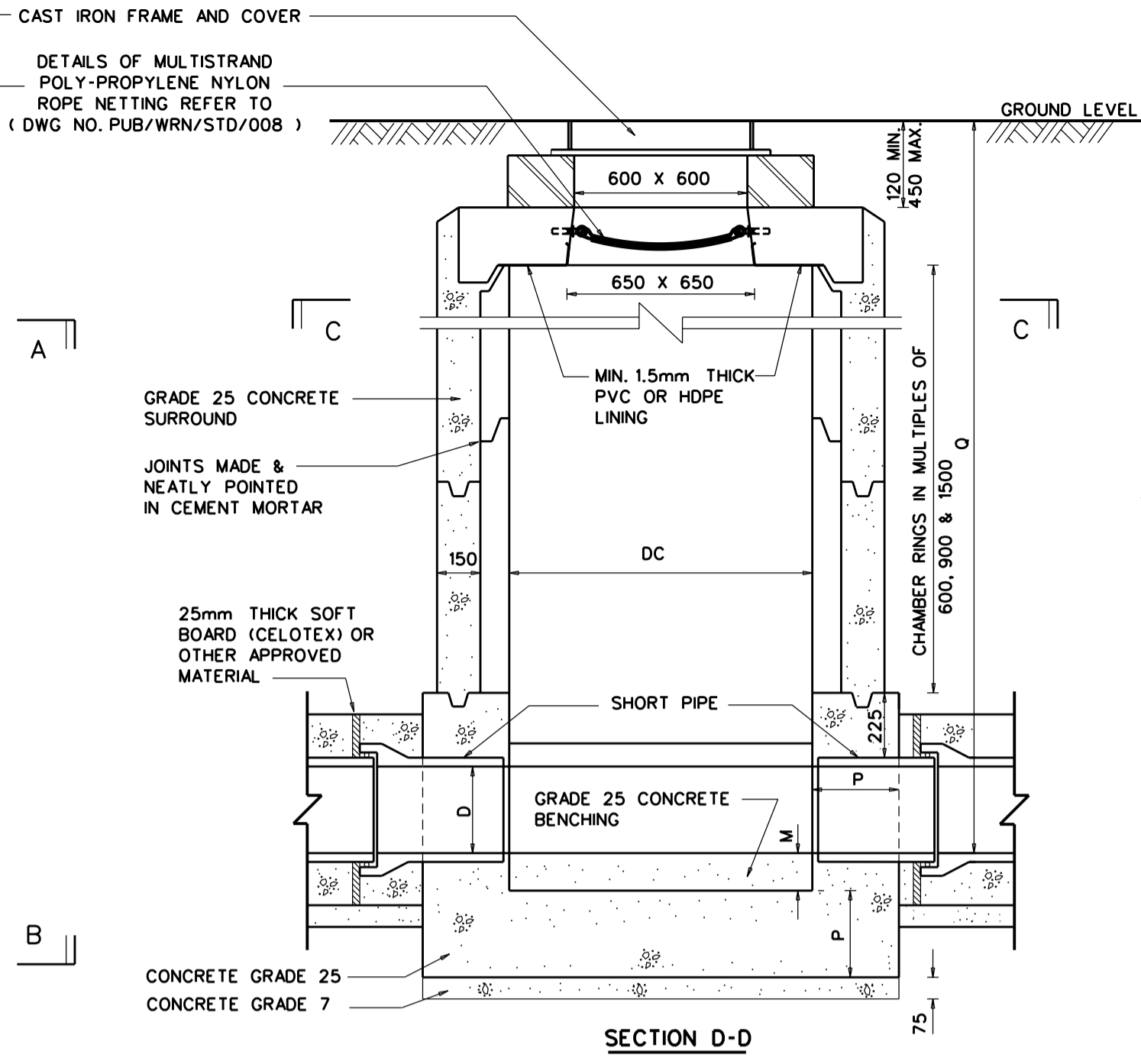
D	J	K	L	M	N		R.C. SLAB DETAILS	
					MAX.	MIN.	THICKNESS	REINFORCEMENT OF SLAB
300 - 450	1350	1050	225	130	2500	1600	180	20 at 150 crs.
500 - 700	1500	1275	300*	130	2800	1800	225	20 at 150 crs.
750 - 900	1800	1500	300*	150	3000	2000	225	20 at 150 crs.

* CONCRETE ONLY TO BE USED FOR THESE MANHOLES

BRICK/IN-SITU CONCRETE SHALLOW MANHOLE



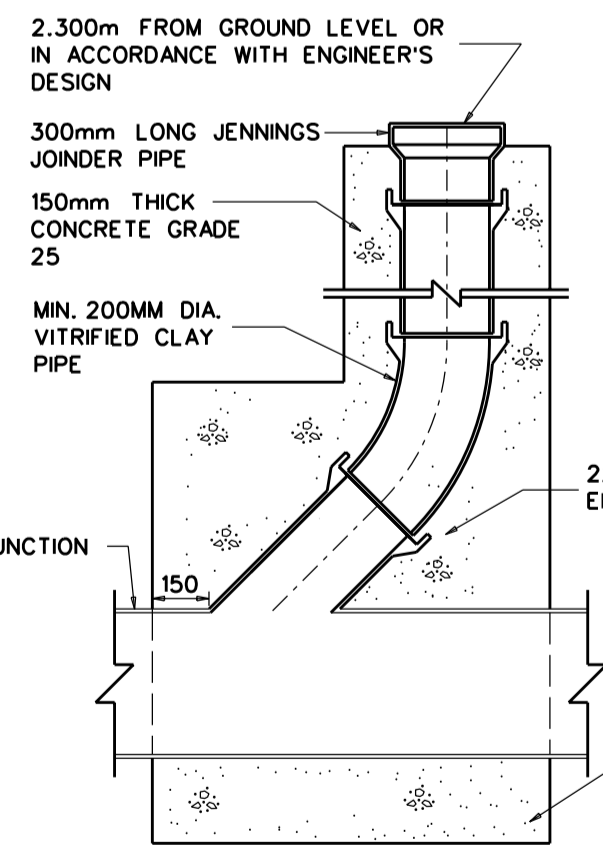
BREAK JOINTS TO CONCRETE BEDDING



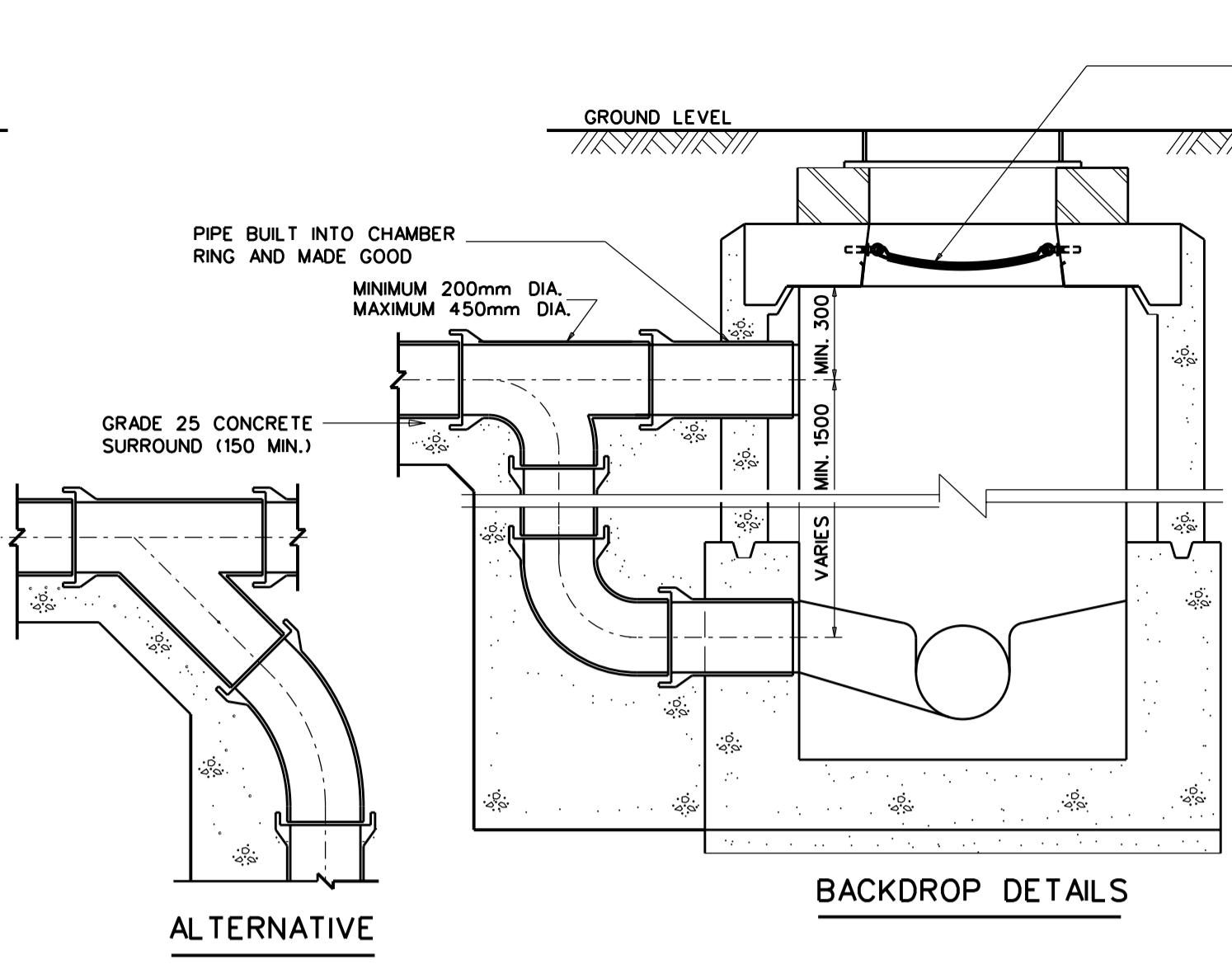
SECTION C-C

D	P	M	DC	Q	
				MIN.	MAX.
300 & 400	300	130	1050	2000	6000
450 & 500	300	130	1200	2100	6000
600 & 675	300	130	1350	2200	6000
750 & 825	300	150	1500	2400	6000
900 & 975	300	150	1800	2600	6000

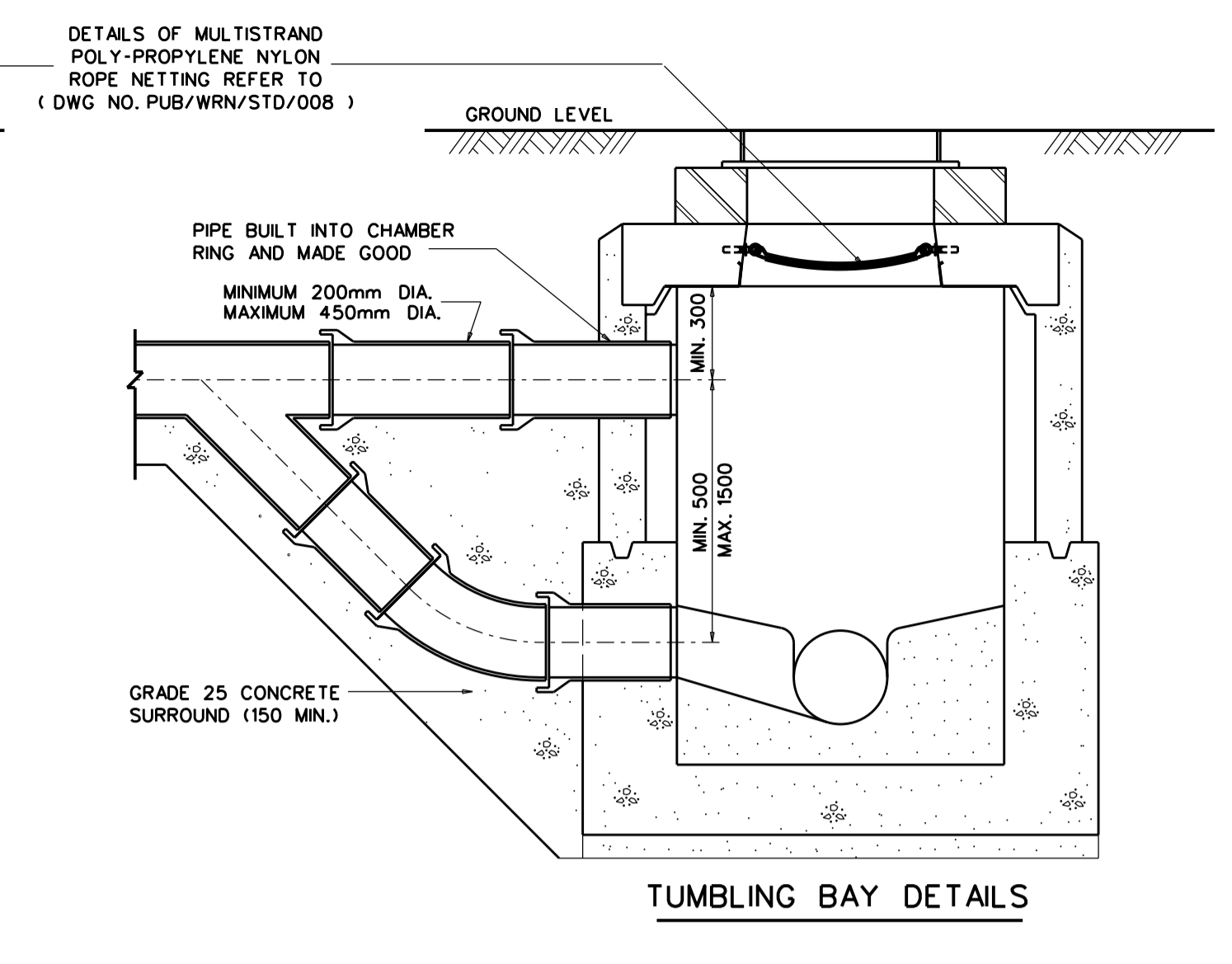
DIMENSIONS OF PRECAST CONCRETE MANHOLE
PRECAST CONCRETE MANHOLE



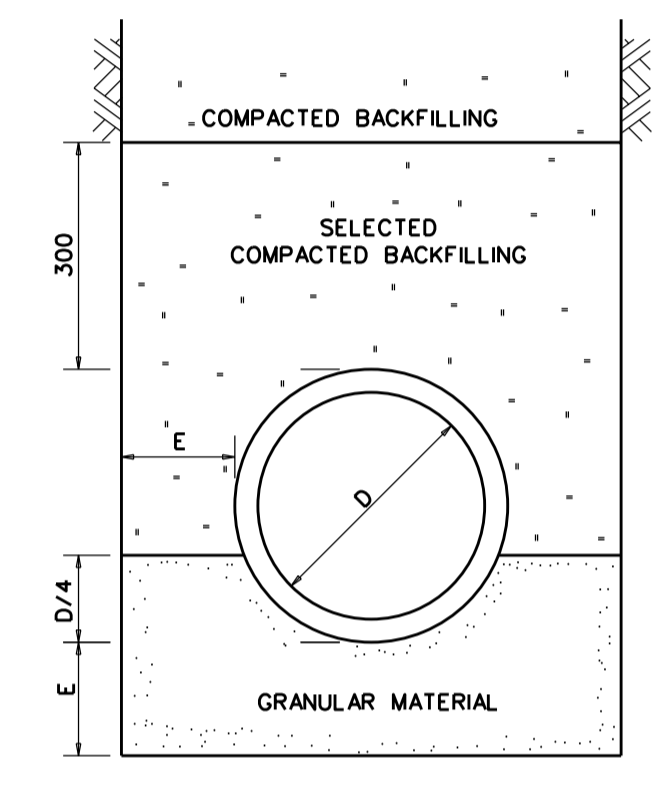
RAISED JUNCTION CONNECTION



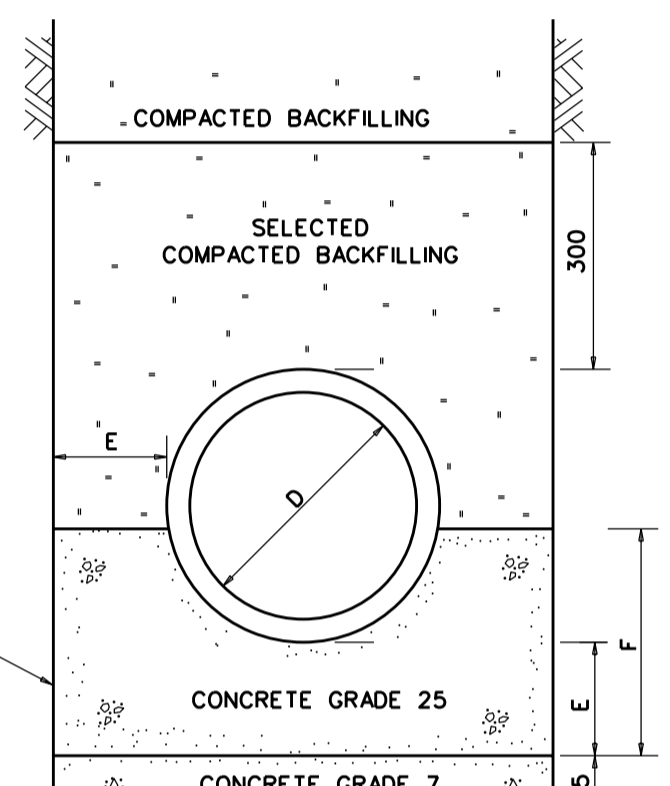
ALTERNATIVE



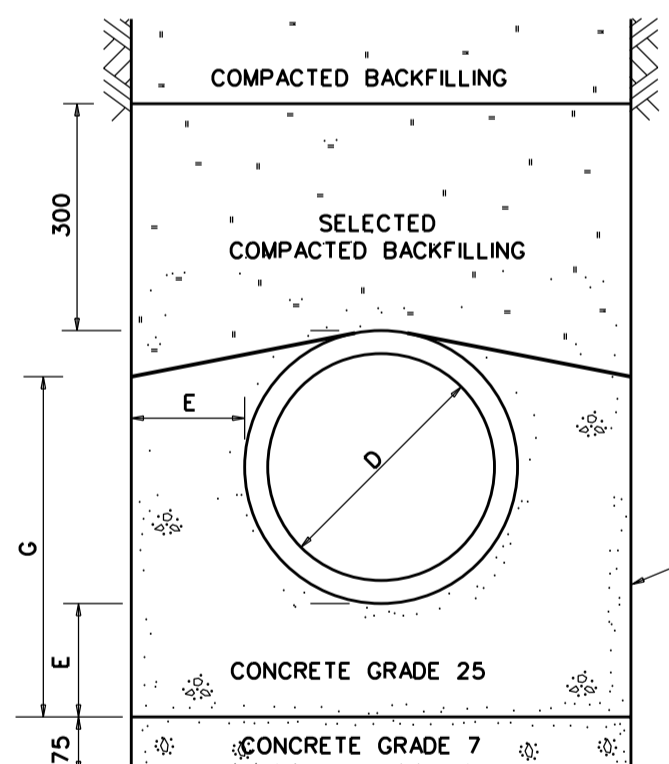
TUMBLING BAY DETAILS



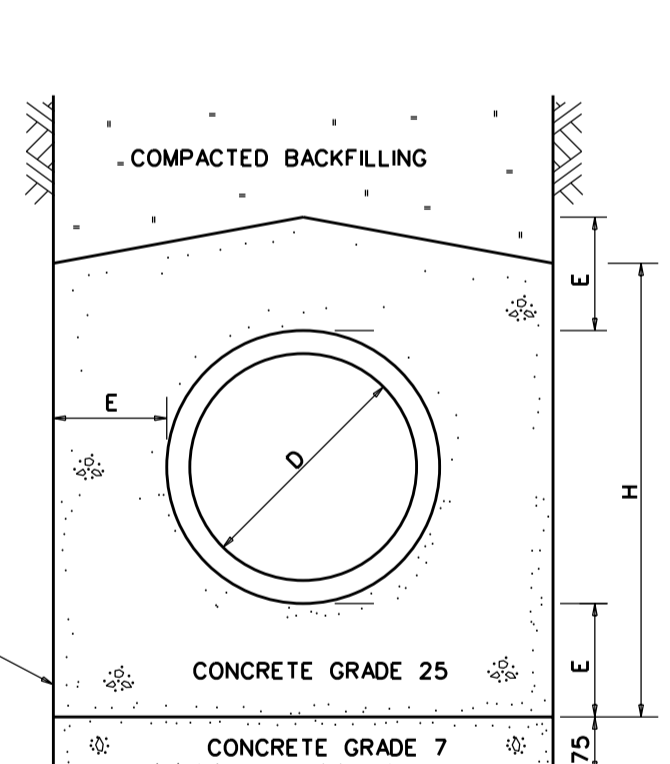
TYPE 'A' SECTION
SCALE 1:10



TYPE 'B' SECTION
SCALE 1:10



TYPE 'C' SECTION
SCALE 1:10

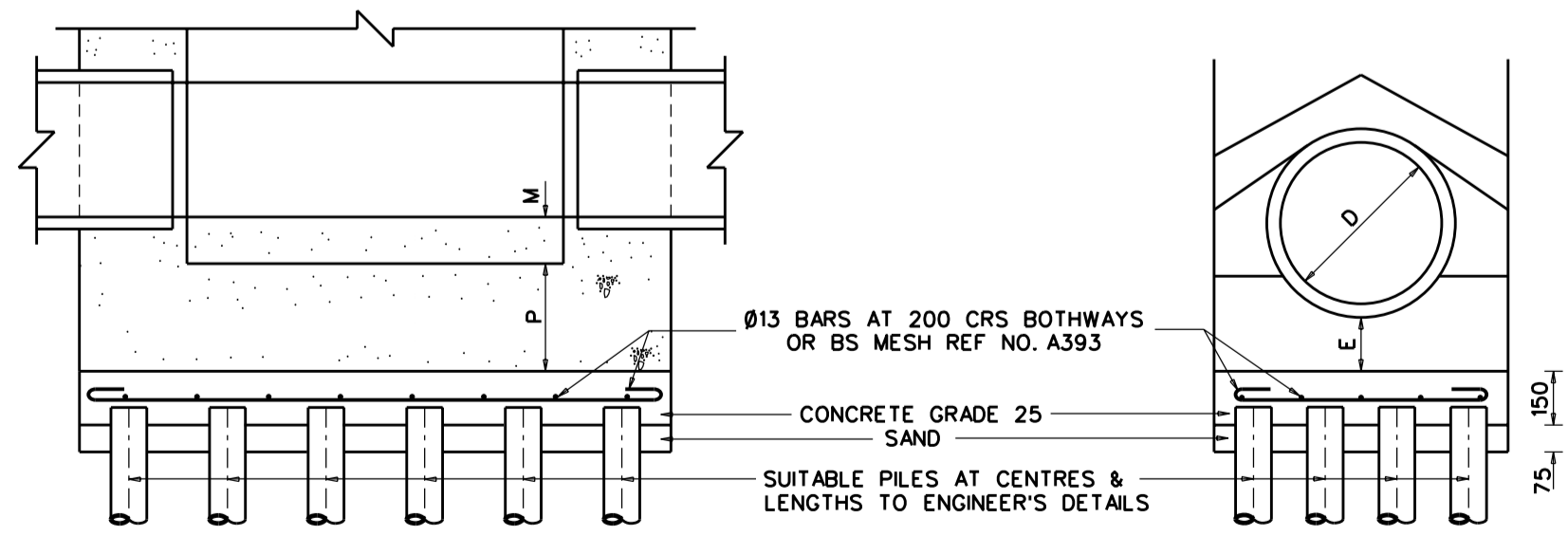


TYPE 'D' SECTION
SCALE 1:10

- NOTES ON SEWER LINES**
- THE DIAMETER, TYPE AND CLASS OF PIPE ARE TO BE INDICATED ON THE LONGITUDINAL SECTIONS TOGETHER WITH THE TYPE SECTION TO BE USED.
 - THE CLASS AND TYPE OF PIPE ARE TO BE STRUCTURALLY SUFFICIENT FOR THE TYPE SECTION SHOWN AND THE TRENCH DEPTHS etc.
 - TYPE 'A' SECTION TO BE USED FOR FLEXIBLE PIPES SUCH AS DUCTILE IRON AND FOR RIGID PIPES (WITH FLEXIBLE JOINTS) SUCH AS VITRIFIED CLAY AND CONCRETE PIPES IN FIRM GROUNDS.
 - BREAK JOINTS AS SHOWN ARE TO BE FORMED IN ALL TYPE 'B', 'C', AND 'D' SECTIONS WHERE FLEXIBLE JOINT PIPES ARE USED.

- NOTES ON MANHOLES**
- BASES, BENCHING AND POINTING OF BRICK OR PRECAST CONCRETE MANHOLES AND THE WHOLE OF CAST-IN-SITU CONCRETE MANHOLES ARE TO BE CONSTRUCTED WITH ORDINARY PORTLAND CEMENT, UNLESS OTHERWISE STATED.
 - BENCHINGS TO MANHOLES TO BE TROWELLED TO THE SOFFIT OF THE OUTGOING SEWER RISING BY 75mm TO THE MANHOLE WALLS. CURVED AND JUNCTION BENCHINGS TO BE FORMED TO A RADIUS ON THE CENTRE LINE OF CHANNEL OF NOT LESS THAN 1/2D. FOR LARGE DEGREE BENDS AND MULTIPLE JUNCTIONS MANHOLE, SPECIAL OR ENLARGED MANHOLES ARE REQUIRED.
 - FOR SEWERS OVER 975mm DIAMETER AND MANHOLES MORE THAN 6m DEEP TO INVERT SEE SPECIAL MANHOLE DETAILS.
 - FOR ALL SEWERS OVER 675mm DIAMETER SAFETY CHAINS/ROPES ARE TO BE PROVIDED AT THE ENTRANCE OF THE DOWNSTREAM PIPE.
 - MEDIUM DUTY MANHOLE FRAMES & COVERS ARE TO BE USED IN GARDENS AND TURFED GROUND.
 - HEAVY DUTY MANHOLE FRAMES & COVERS ARE TO BE USED ON ALL ROADS, CAR PARKS AND WHERE VEHICULAR TRAFFIC IS EXPECTED.
 - MANHOLE COVER SHALL BE LAID FLUSH WITH PAVED, TILED AND ROAD SURFACES. ON TURFED GROUNDS, THE MANHOLE COVER SHALL BE LAID 50mm HIGHER THAN THE SOIL LEVEL.

NOTE ON R.C. ROOF SLABS
ALL R.C. ROOF SLABS ARE TO BE CAST WITH MIN. 1.5mm THICK PVC OR HDPE PROTECTIVE LININGS TO THE UNDERSIDE OF SLABS, INCLUDING ALL NECESSARY SEALING BY ANGLE FILLETS, WELDINGS AND TESTING.



FOR MANHOLE

FOR TYPE 'B', 'C' OR 'D' SECTION

PILES AND FOUNDATION
WHEREVER REQUIRED TO BE USED

D	D/4	E	F	G	H
300 - 450	115	150	300	450	600
500 - 600	150	150	350	600	850
650 - 750	190	150	400	700	1000
800 - 900	225	150	425	800	1150
950 - 1050	275	225	560	1000	1350
1100 - 1200	300	225	600	1120	1500
1300 - 1800	D/4	300	D/2	D-75	D-450