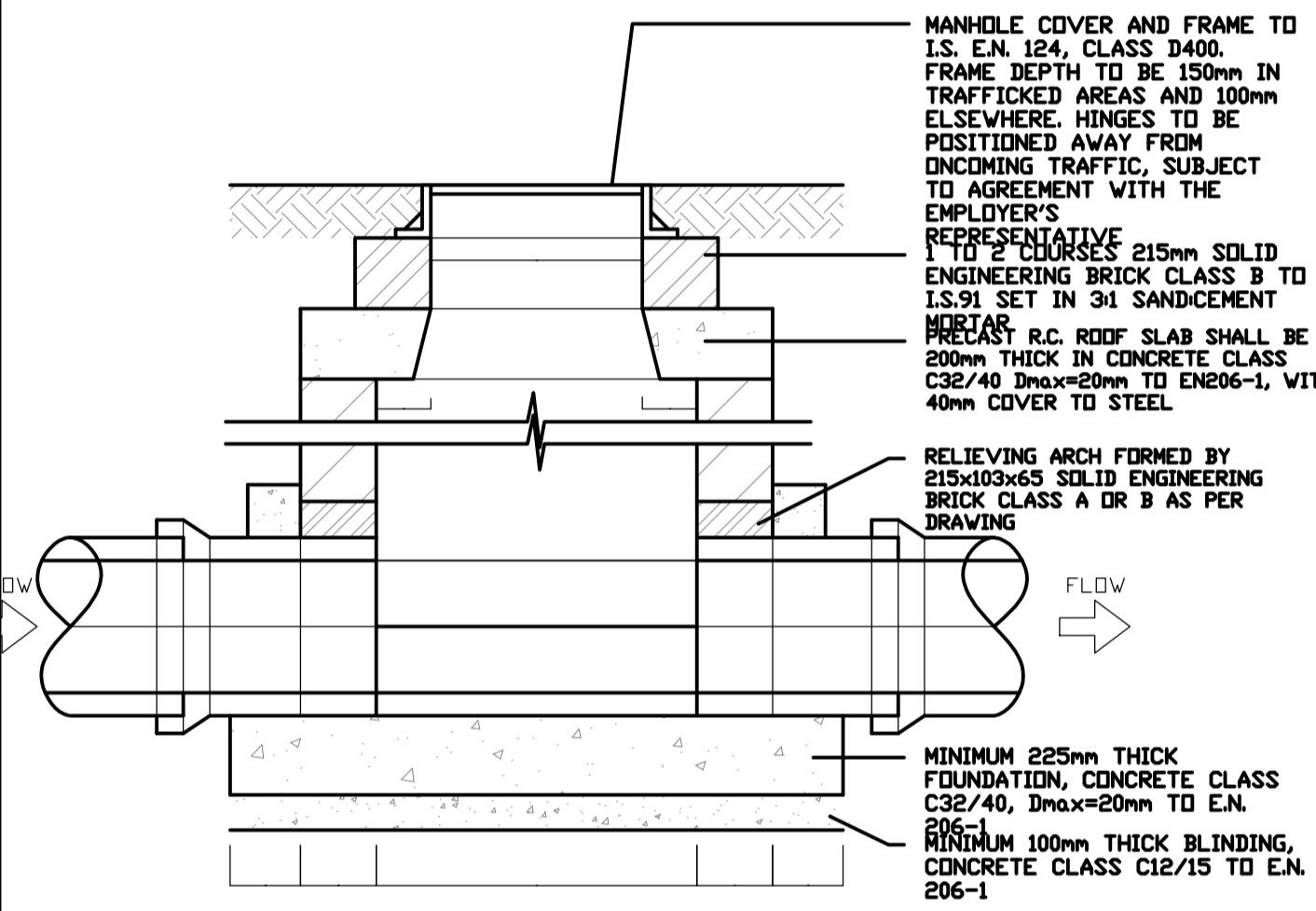
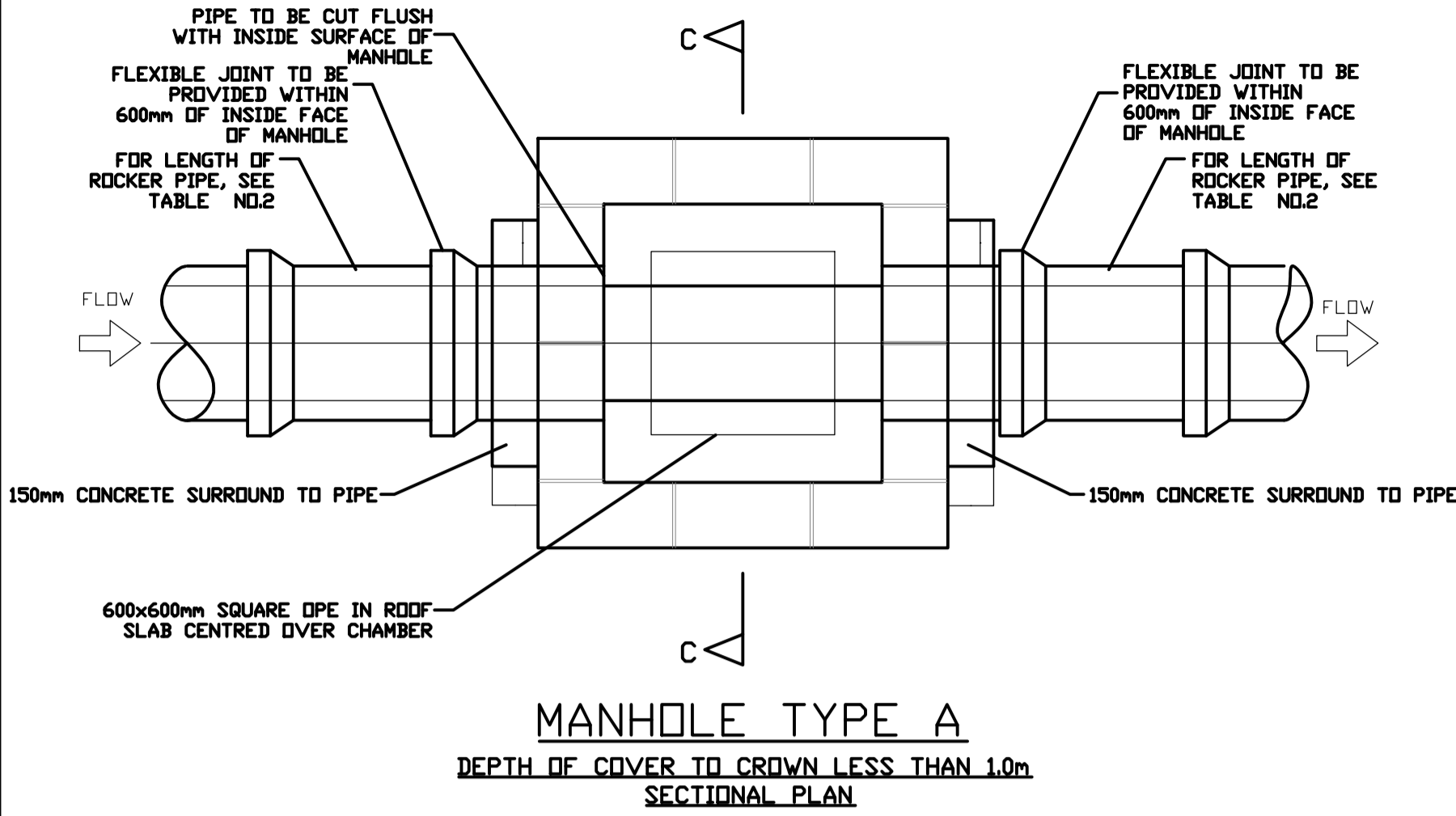
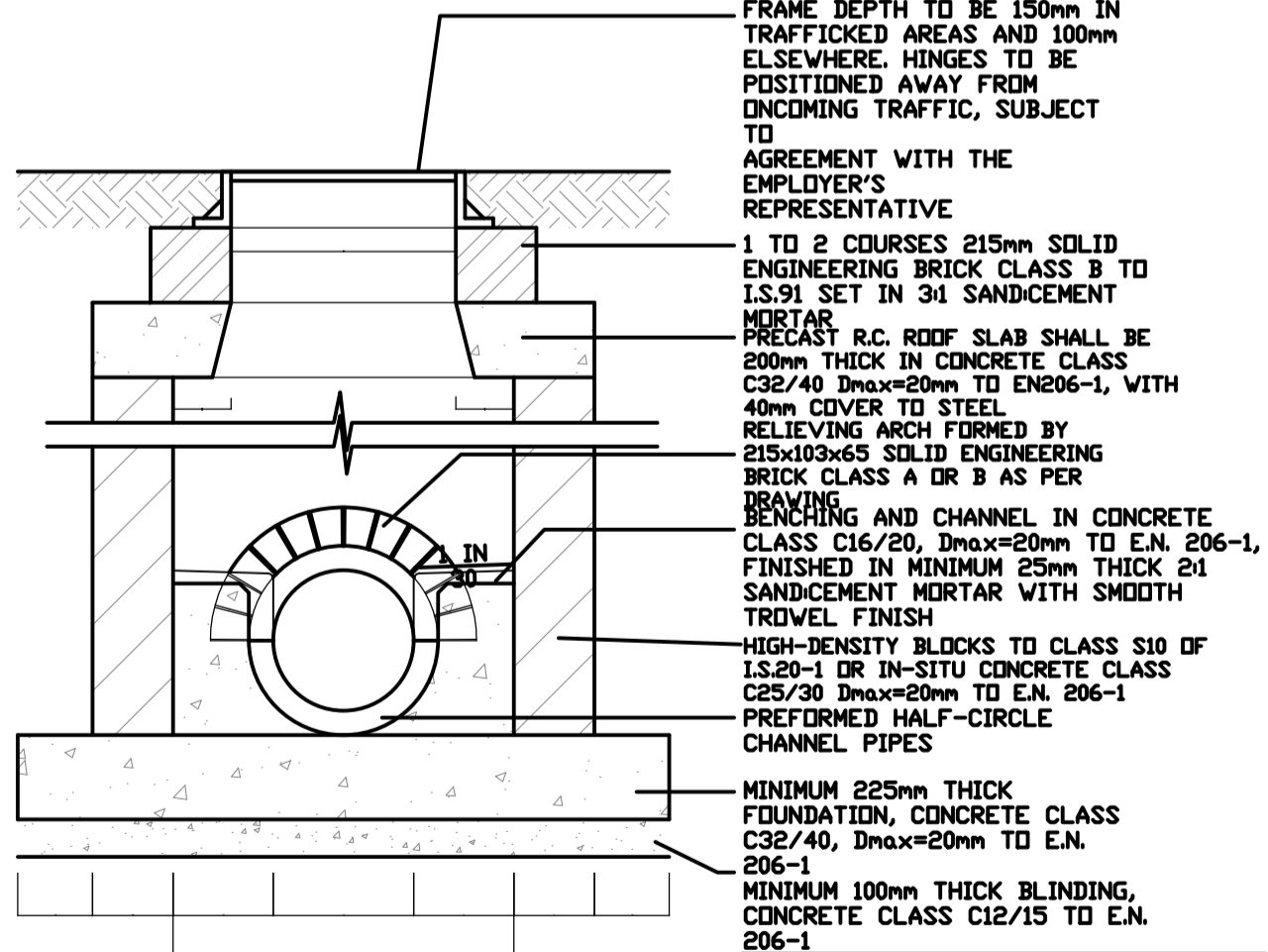


**NOTES:**

- DO NOT SCALE FROM THIS DRAWING. USE STATED DIMENSIONS ONLY. IF IN DOUBT, CONSULT THE ENGINEER.
- LEVELS REFER TO O.S. DATUM MALIN HEAD.
- THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE SPECIFICATION.
- FOR ALL INLETS, OUTLETS AND BRANCHES MATCH CROWN LEVELS UNLESS INDICATED OTHERWISE ELSEWHERE.
- BLINDING CONCRETE SHALL BE CLASS C12/15 TO EN 206-1. BLINDING SHALL BE A MINIMUM THICKNESS OF 100mm.
- FOUNDATION CONCRETE SHALL BE CLASS C32/40 D<sub>max</sub>=20mm TO EN 206-1. FOUNDATIONS SHALL BE A MINIMUM THICKNESS OF 225mm.
- PRECAST MANHOLE CHAMBER WALLS, COVER SLABS AND REDUCING SLABS TO BE CONSTRUCTED TO I.S. EN 1917 AND I.S. 420 2004
- FOR BEDDING AND SEALING OF CHAMBER RINGS, THE TOP RING (TO PRE-CAST COVER SLAB) AND BOTTOM RING TO BE BEDDED WITH CEMENT MORTAR. FOR INTERMEDIATE RINGS, JOINTS TO BE SEALED WITH TYPE 2 RUBBER GASKETS AND JOINTING RINGS TO BS 2494.
- PRE-CAST MANHOLES TO BE SURROUNDED WITH A MINIMUM OF 150mm THICK CONCRETE CLASS C32/40 D<sub>max</sub>=40mm TO EN 206-1.
- BENCHING AND PIPE CHANNEL PIPE SURROUND - CONCRETE CLASS C16/20 D<sub>max</sub>=20mm TO EN 206-1.
- BENCHING FINISHED IN MINIMUM 25mm THICK 2:1 SAND/CEMENT MORTAR WITH A SMOOTH TROWEL FINISH, AT 1 IN 30 SLOPE TOWARDS CHANNEL.
- 1 TO 2 COURSES OF SOLID ENGINEERING BRICKS CLASS B TO I.S.9141983 SET IN 3:1 SAND/CEMENT MORTAR.
- MANHOLE COVERS AND FRAMES TO BE CLASS D400 OR E600 TO I.S. EN 124. 150mm DEEP FRAME FOR ROADS AND 100mm DEEP FOR FOOTPATHS AND GREEN AREAS. NON-ROCK DESIGN, CLOSED KEYWAYS, MANUFACTURED FROM SPHEROIDAL GRAPHITE CAST IRON (DUCTILE CAST IRON), COVER AND FRAME COATED IN BITUMEN OR OTHER APPROVED MATERIAL. COVER TO HAVE A MINIMUM MASS OF 140kg/m<sup>2</sup>. FRAME BEARING AREA SHALL BE 80,000mm<sup>2</sup> MINIMUM. FRAMES SHALL BE DESIGNED TO PREVENT COVERS FALLING INTO MANHOLE. FRAMES SHALL BE BEDDED ON APPROVED MORTAR TO MANUFACTURER'S INSTRUCTIONS.
- MANHOLE COVERS, FRAMES, REGULATING COURSES AND SLAB DPES TO PROVIDE CLEAR OPENING OF 600mmX600mm (OR 600mm DIAMETER).
- SAFETY CHAINS TO BE PROVIDED ON PIPES THAT EXCEED 450mm IN DIAMETER. MILD STEEL SAFETY CHAIN SHALL BE 10mm NOMINAL SIZE GRADE M16 NON-CALIBRATED CHAIN, TYPE 1, COMPLYING WITH BS4942 PART 2 OR EQUIVALENT.
- STANDARD RUNGS AT 300mm c/c VERTICALLY AND GALVANIZED TO THE LATEST VERSION OF BS 729 OR EQUIVALENT. NOTE: STEPS IRONS ARE NOT ACCEPTABLE.
- LADDER STRINGERS SHOULD BE ADEQUATELY SUPPORTED FROM THE MANHOLE WALL AT INTERVALS OF NOT MORE THAN 2.0m. STRINGERS SHOULD BE BOLTED TO CLEATS TO FACILITATE RENEVAL.
- DISTANCE FROM THE TOP RUNG OF THE LADDER TO GROUND LEVEL MUST BE A MAXIMUM OF 675mm.
- ALL LADDERS, RUNGS, SAFETY CHAINS ETC SHALL BE HOT DIP GALVANIZED TO BS729 OR EQUIVALENT.
- MANHOLE OPENINGS TO BE SITUATED FURTHEST FROM THE NEAREST CARRIAGEWAY. MANHOLE STEPS / ACCESS TO BE POSITIONED TO ALLOW VIEWING OF ONCOMING TRAFFIC.
- SHORT LENGTH PIPE AND PIPE JOINT EXTERNAL TO MANHOLE SHALL NOT EXCEED 600mm FROM THE INNER FACE OF MANHOLE WALL.
- BLOCK WORK SHALL BE BEDDED AND JOINTED USING MORTAR TO I.S. 406. BEDS AND VERTICAL JOINTS SHALL BE COMPLETELY FILLED WITH MORTAR AS THE BLOCKS ARE LAID. JOINTS SHALL BE FLUSH POINTED AS THE WORK PROCEEDS.
- RELIEVING ARCH FORMED BY 215x103x65 SOLID ENGINEERING BRICK CLASS A OR B AS PER DRAWING. RELIEVING ARCHES USED IN BRICK OR BLOCK WORK MANHOLES EXTEND OVER FULL THICKNESS OF WALL. A DOUBLE ARCH IS TO BE FORMED FOR PIPE DIAMETERS GREATER THAN 600mm.
- ALL MANHOLES TO BE WATERTIGHT TO THE SATISFACTION OF THE ENGINEER.



**MANHOLE TYPE A**  
DEPTH OF COVER TO CROWN LESS THAN 1.0m  
SECTION D-D



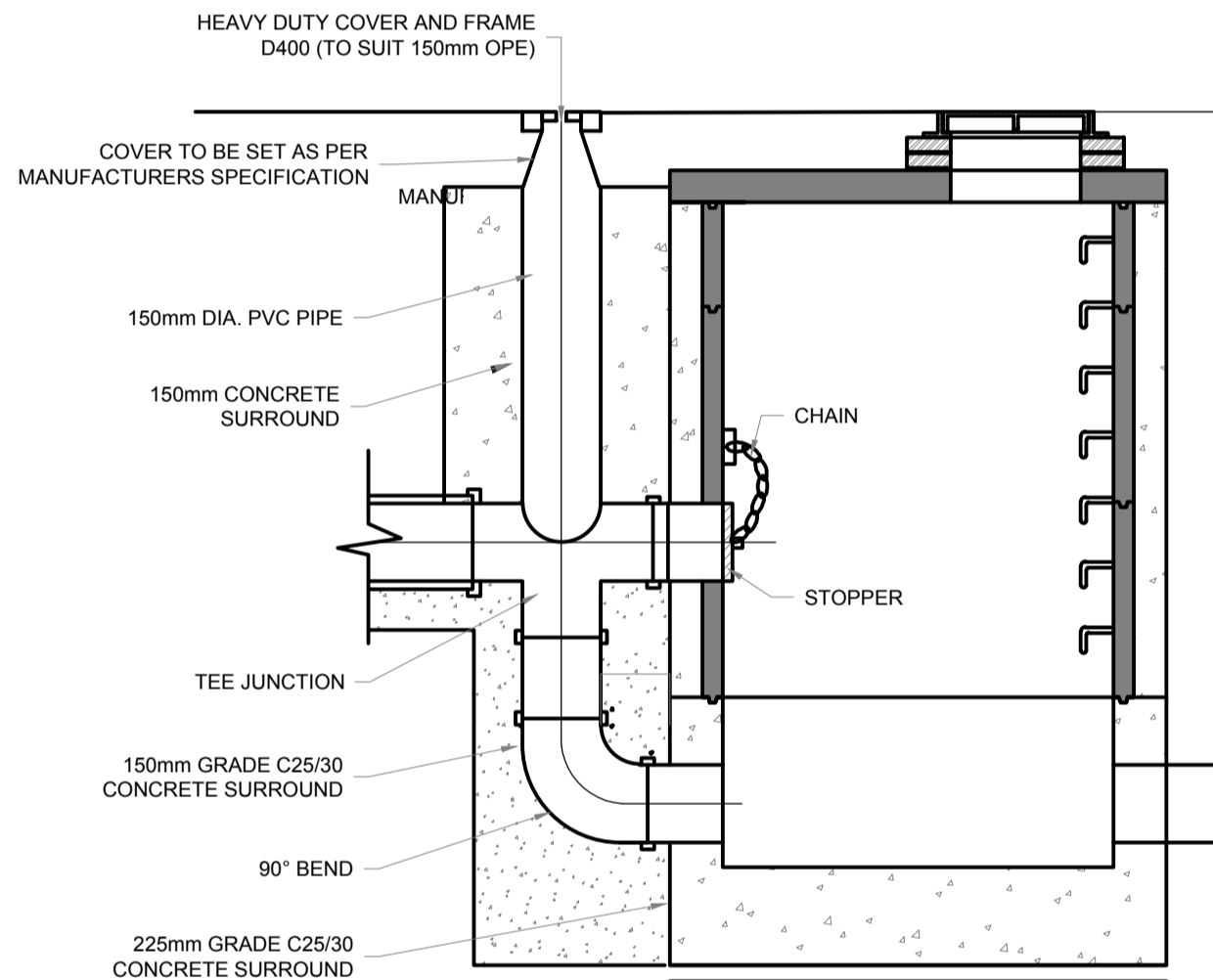
**MANHOLE TYPE A**  
DEPTH OF COVER TO CROWN LESS THAN 1.0m  
SECTION C-C

**TABLE NO. 2**

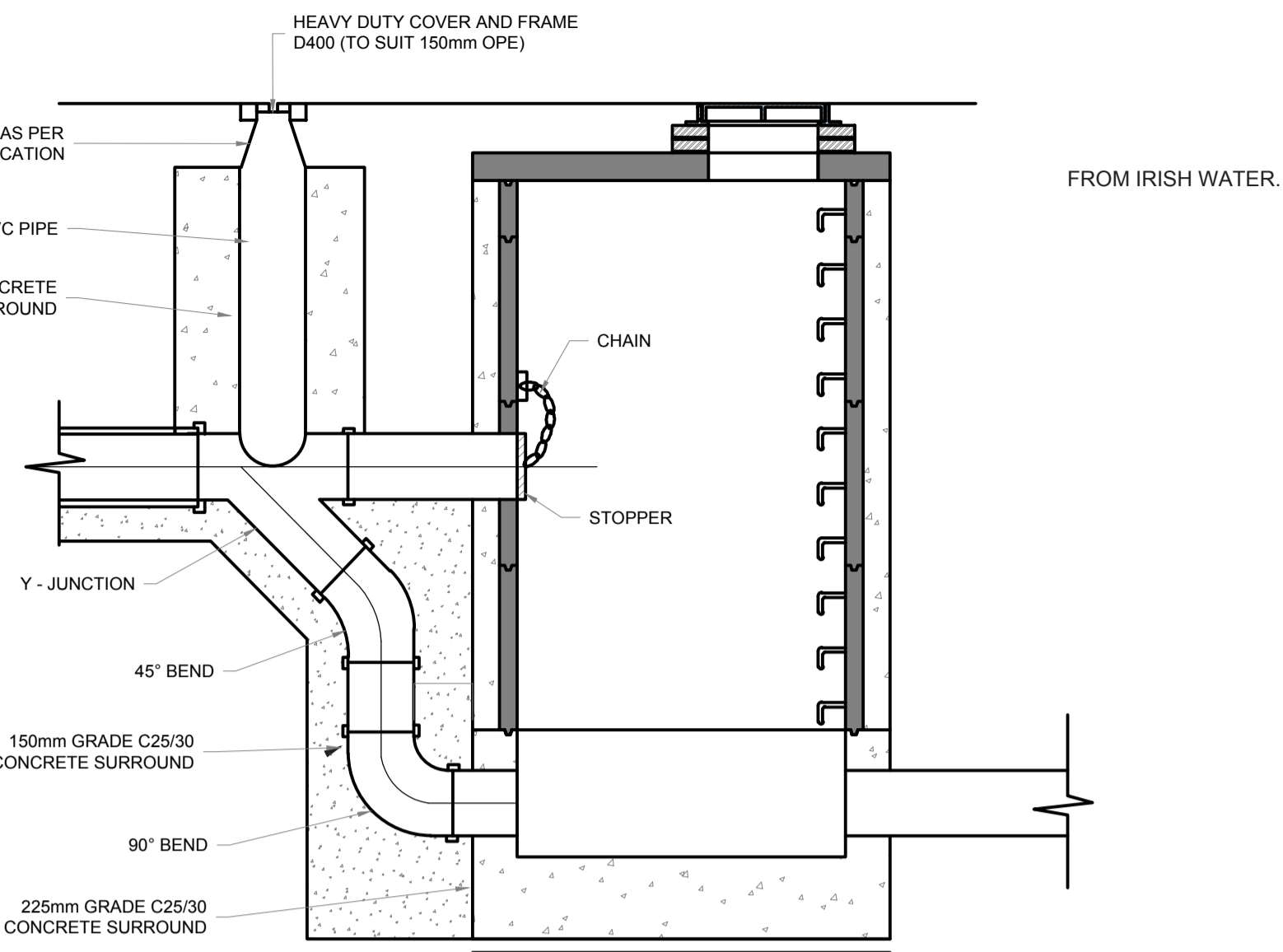
DIA. OF PIPE (mm)	LENGTH OF ROCKER PIPE (mm)
150-600	600
675-750	1000
7750	1250

**TABLE NO.3**

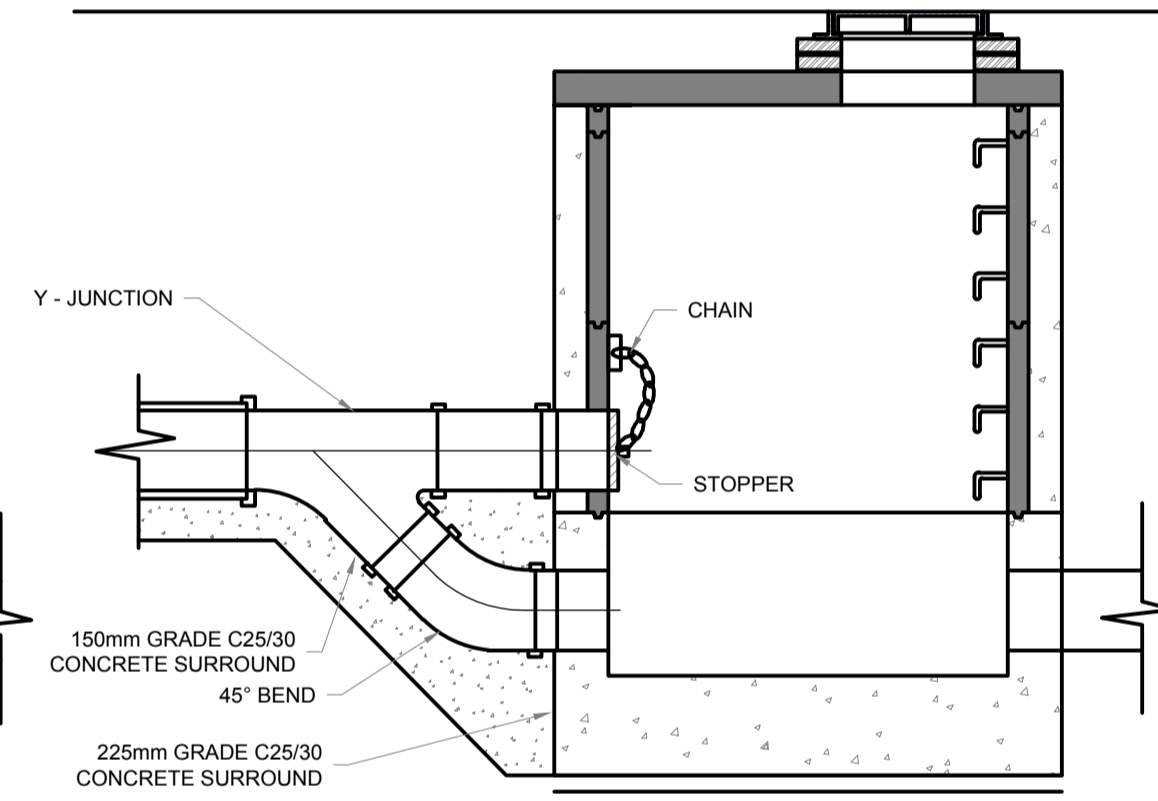
Diameter of Incoming Pipe (mm)	Diameter of Backdrop Pipe (mm)
100	100
150	150
225	300
300	375
375	375
450	450
525	450
600	450
750	600



150mm - 450mm DIA. (INCL.) DROP GREATER THAN 900 AND LESS THAN 1700mm  
500mm - 900mm DIA. (INCL.) DROP GREATER THAN 1300mm AND LESS THAN 2300mm  
**TYPE G2**  
SCALE 1:20

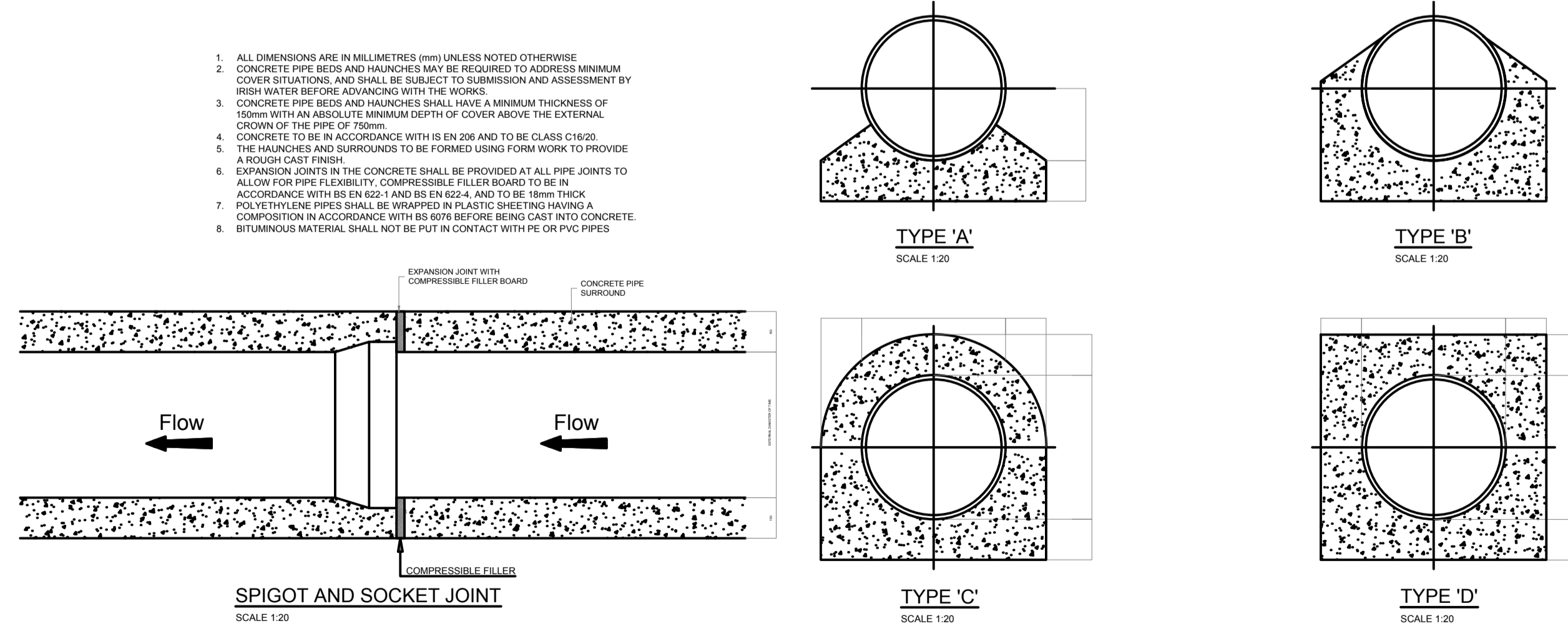


150mm - 450mm DIA. (INCL.) DROP GREATER THAN 1700mm  
500mm - 900mm DIA. (INCL.) DROP GREATER THAN 2300mm  
**TYPE G1**  
SCALE 1:20



150mm - 450mm DIA. (INCL.) DROP GREATER THAN 600mm AND LESS THAN 900m  
500mm - 900mm DIA. (INCL.) DROP GREATER THAN 600mm AND LESS THAN 1300mm  
**TYPE G3**  
SCALE 1:20

**BACKDROP MANHOLES**



**SPIGOT AND SOCKET JOINT**  
SCALE 1:20

**PLANNING DRAWING.**  
NOT FOR CONSTRUCTION.  
ALL LEVELS GIVEN ARE RELATIVE TO ORDNANCE DATUM.  
THIS DRAWING HAS BEEN ISSUED FOR INFORMATION PURPOSES ONLY AND MUST NOT BE USED FOR CONSTRUCTION UNDER ANY CIRCUMSTANCES

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Rev No.	Date	Revision Note	Drn by	Chkd by
C01	25.04.19	SUITABLE FOR PLANNING	DOM	MK
C02	22.10.2019	STAGE COMPLETE - PLANNING	MK	PR

Rev No.	Date	Revision Note	Drn by	Chkd by

- FOR SETTING OUT REFER TO ARCHITECT'S DRAWINGS.
- THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL OTHER ARCHITECTURAL AND ENGINEERING DRAWINGS AND ALL OTHER RELEVANT DRAWINGS AND SPECIFICATIONS.
- DO NOT SCALE THIS DRAWING. USE FIGURED DIMENSIONS ONLY.
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Client: GLENVEAGH HOMES LIMITED  
Project: RESIDENTIAL DEVELOPMENT CARPENTERSTOWN ROAD  
Title: PROPOSED DRAINAGE STANDARD DETAILS 2

Code	Originator	Zone	Level	Type	Role	Number	Status	Revision
G451	OCSC	XX	XX	DR	C	0521	A1	C02

Date: 25.04.19 Scale: SHWN @ A1 Drn by: DOM Chkd by: MK Aprvd by: AOB