

- NOTES:
- ALL DIMENSIONS IN MILLIMETRES UNLESS STATED OTHERWISE.
 - ALL PRIVATE DRAINAGE WORKS ARE TO COMPLY WITH THE REQUIREMENTS OF BS 752 BUILDING DRAINAGE AND BUILDING REGULATIONS 2000 APPROVED DOCUMENT H 2002 EDITION. ALL ADOPTABLE DRAINAGE IS TO COMPLY WITH THE REQUIREMENTS OF SEVERN TRENT WATER AND SEWERS FOR ADOPTION (6th EDITION) INCLUDING THE RELEVANT PROVISIONS OF THE COMBINED ADDENDUM.
 - ALL MATERIALS, UNLESS SPECIFIED OTHERWISE, SHALL COMPLY WITH THE RELEVANT BRITISH STANDARD. SOURCES OF MATERIALS ARE TO BE AGREED WITH THE EMPLOYER'S REPRESENTATIVE/ENGINEER IN ADVANCE OF THE WORKS.
 - THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL OTHER ENGINEERING DRAWINGS AND DETAILS AND CONTRACT DOCUMENTATION
 - ANY DISCREPANCIES IN THE DETAILS SHOWN TO BE REPORTED TO THE EMPLOYER'S REPRESENTATIVE/ENGINEER PRIOR TO CONSTRUCTION.
 - LOCATION AND LEVELS OF EXISTING DRAINAGE RUNS ARE BASED UPON SEWER RECORD PLANS AND MUST BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF ANY DRAINAGE WORKS.
 - ALL EXISTING SERVICES TO BE LOCATED PRIOR TO THE COMMENCEMENT OF ANY DRAINAGE WORKS. WHERE NECESSARY PROTECTION OR DIVERSIONS TO BE UNDERTAKEN TO AVOID CONFLICT WITH THE PROPOSED WORKS.
 - ALL ADOPTABLE DRAINAGE AND FITTINGS TO BE FLEXIBLY JOINTED CLAYWARE TO BS EN295 OR CONCRETE TO BS5911 PART 100. FLEXIBLY JOINTED UPVC PIPES AND FITTINGS TO WIS No 4-13/05 MAY BE USED FOR PRIVATE BUILDING DRAINAGE SYSTEMS ONLY.
 - TYPICAL PIPE BEDDING TO DRAINAGE WHERE DEPTH TO SOFFIT IS GREATER THAN 600mm IN LANDSCAPED AREAS AND GREATER THAN 1200mm IN ADOPTABLE HIGHWAYS AND 900mm IN OTHER TRAFFICKED AREAS IS TO BE CLASS S (I.E. 10-14mm GRADED IMPORTED GRANULAR BED AND SURROUND FOR PIPES UP TO 525mm AND 20-40mm GRADED IMPORTED GRANULAR BED AND SURROUND FOR PIPES GREATER THAN 525 DIA)
 - WHERE DEPTH TO SOFFIT OF DRAINAGE PIPEWORK IS LESS THAN 600mm IN LANDSCAPED AREAS AND LESS THAN 1200mm IN ADOPTABLE HIGHWAYS AND 900mm IN OTHER TRAFFICKED AREAS THEN PIPEWORK IS TO BE PROTECTED WITH 175mm THICK C20P REINFORCED CONCRETE SLAB AS SHOWN ON DRAWING No WM02953003
 - BACKFILL TO DRAINAGE TRENCHES UNDER CARRIAGEWAYS TO BE TYPE 1 SUB-BASE MATERIAL, ELSEWHERE BACKFILL TO BE FREE DRAINING READY COMPATIBLE MATERIAL, FREE FROM FINE PARTICLES AND ORGANIC MATTER, FROZEN SOIL, CLAY LUMPS AND LARGE STONES. TO BE COMPACTED IN LAYERS NOT EXCEEDING 150mm THICK.
 - CONCRETE MIXES INDICATED ON THIS DRAWING ARE DESIGNED MIXES CONFORMING TO BS 8500-1: 2002.
 - MANHOLE DIAMETERS SHOULD BE IN ACCORDANCE WITH THE TABLE BELOW:

DIAMETER OF LARGEST PIPE IN MANHOLE (mm)	INTERNAL DIAMETER OF MANHOLE (mm)
LESS THAN 375	1200
375-450	1500
500-700	1500
750-900	1800
950-1200	2100

*1350 WHERE DEPTH TO SOFFIT IS 1350-1500mm

14A FLEXIBLE JOINT SHALL BE PROVIDED AS CLOSE AS IS FEASIBLE TO OUTSIDE FACE OF ANY STRUCTURE INTO WHICH A PIPE IS BUILT, COMPATIBLE WITH THE SATISFACTORY COMPLETION AND SUBSEQUENT MOVEMENT OF THE JOINT. THE LENGTH OF THE NEXT PIPE (ROCKER PIPE) AWAY FROM THE STRUCTURE SHALL BE AS SHOWN IN THE TABLE BELOW.

NOMINAL DIAMETER (mm)	EFFECTIVE LENGTH (m)
150-600	0.6
675-750	1.0
825 AND OVER	1.25

- 15 ALL STEP IRONS TO BE POLYPROPYLENE ENCAPSULATED TO BS 1247 PARTS 1 & 2. DOUBLE STEP RUNGS (280mm MIN WIDTH AT 250mm MAXIMUM CENTRES); MAXIMUM DISTANCE FROM COVER LEVEL TO FIRST STEP TO BE 675mm.
- 16 ALL MANHOLE / INSPECTION CHAMBER COVERS TO BE CLEARLY MARKED SW OR FW AS APPROPRIATE. SO AS TO BE CLEARLY VISIBLE FROM THE SURFACE. MANHOLE COVERS TO BE 675x675 CLEAR OPENING FOR PIPES LESS THAN 875mm DIA. AND 675x675 CLEAR OPENING FOR PIPES 875mm DIA. OR GREATER. MIN 675 x 675 ACCESS TO CHAMBERS FITTED WITH A LADDER OR FLOW CONTROL DEVICE.

Revision	Details	By	Check	Date	Suffix
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Drawing Number
J01195/A1/006

LAND AT NEWBRIDGE
BRITISH LEGION
FFORD KAYTON, LL143RB

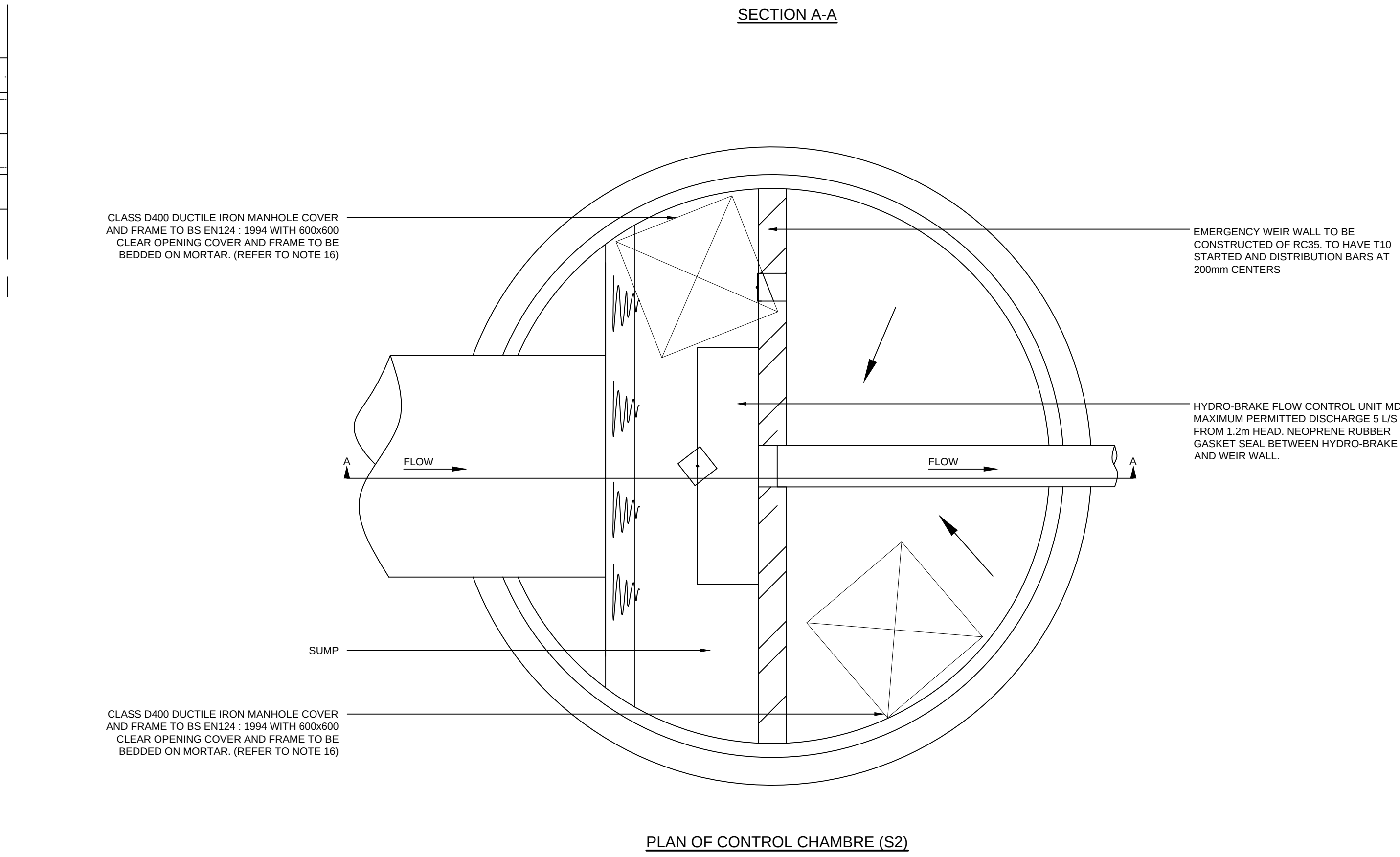
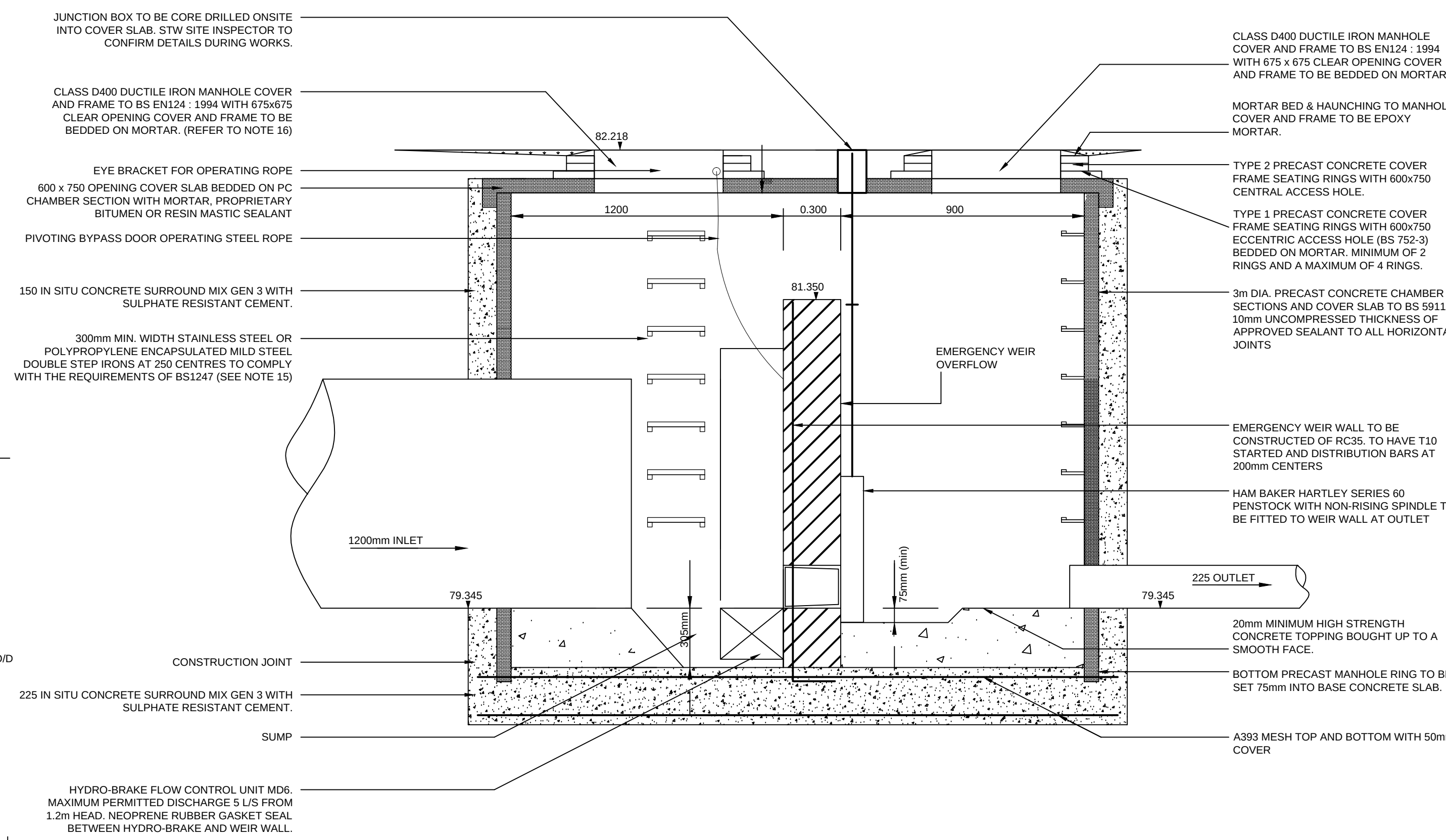
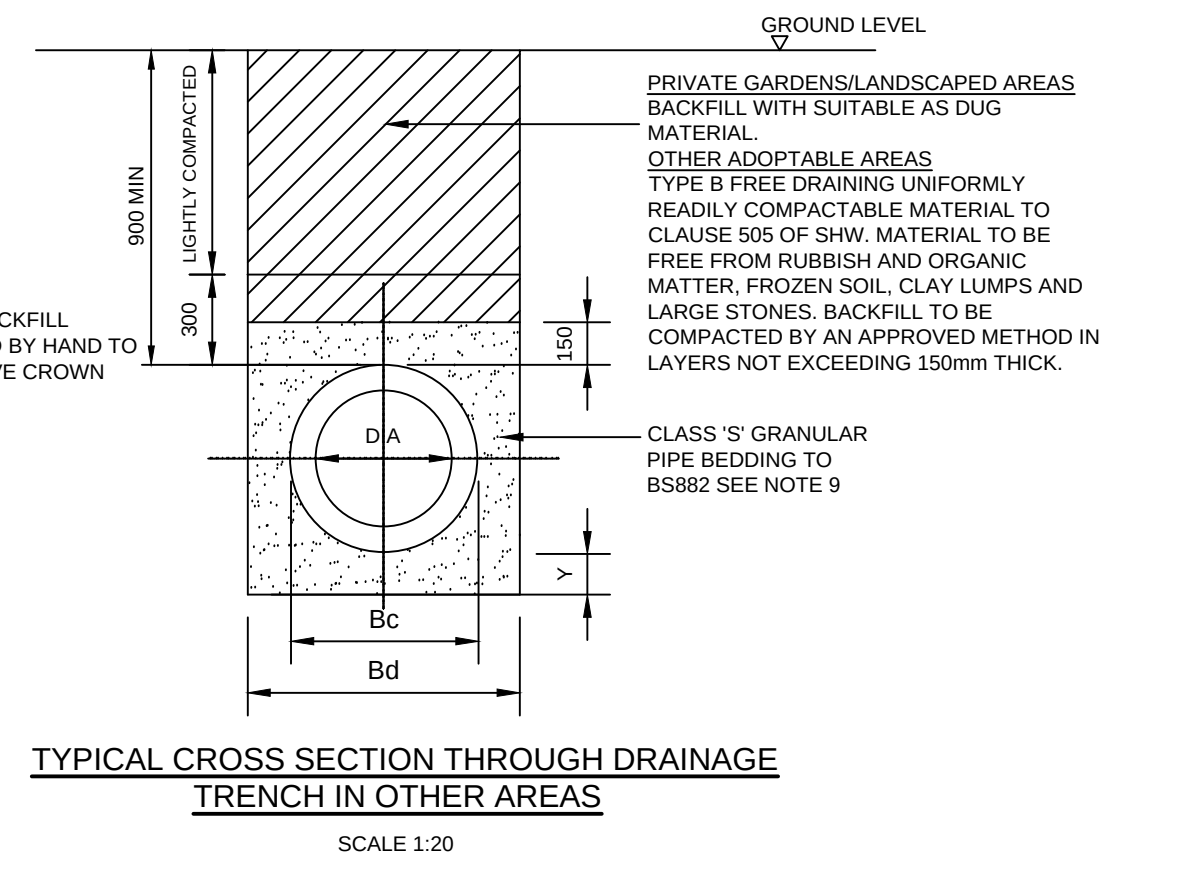
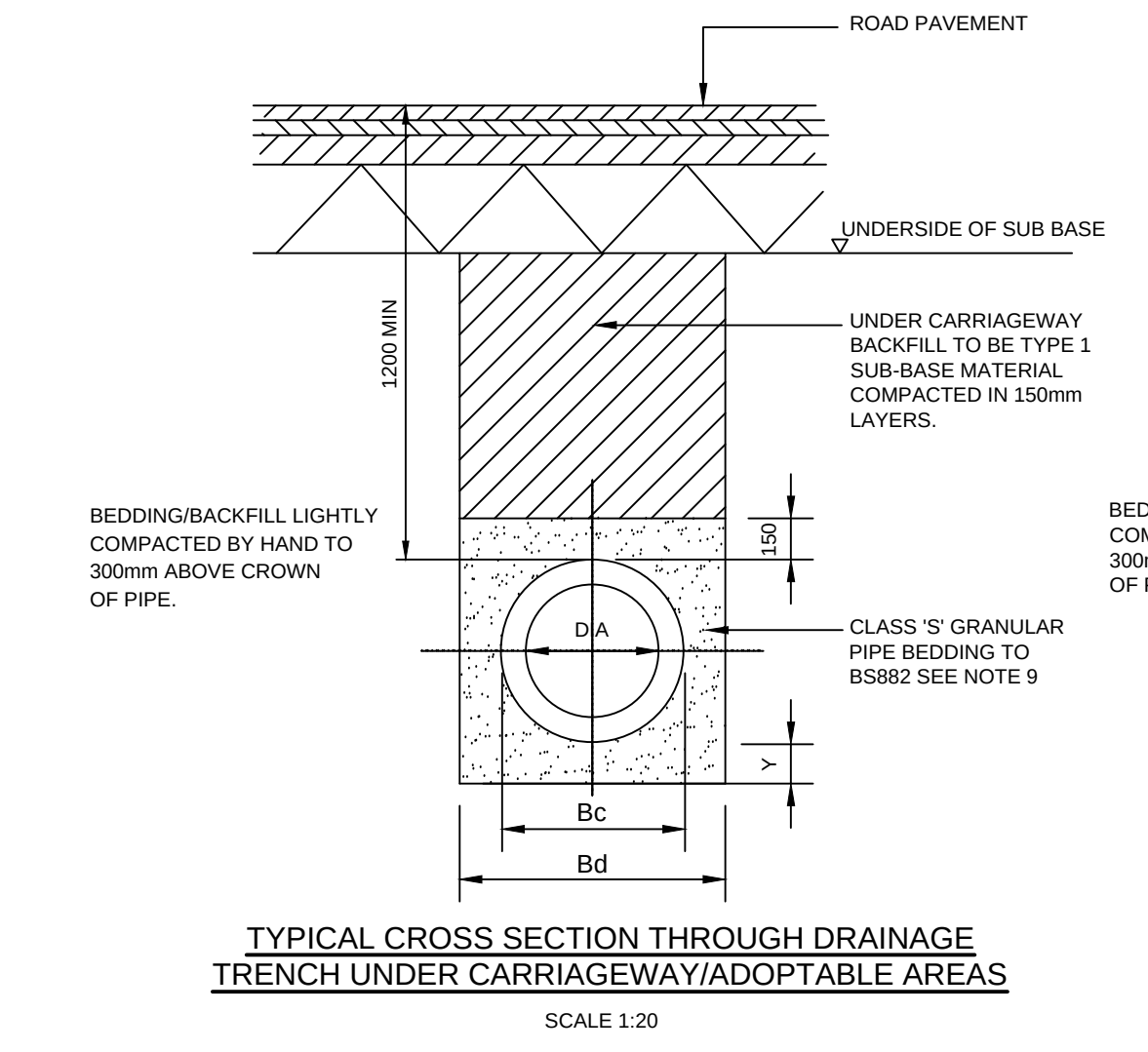
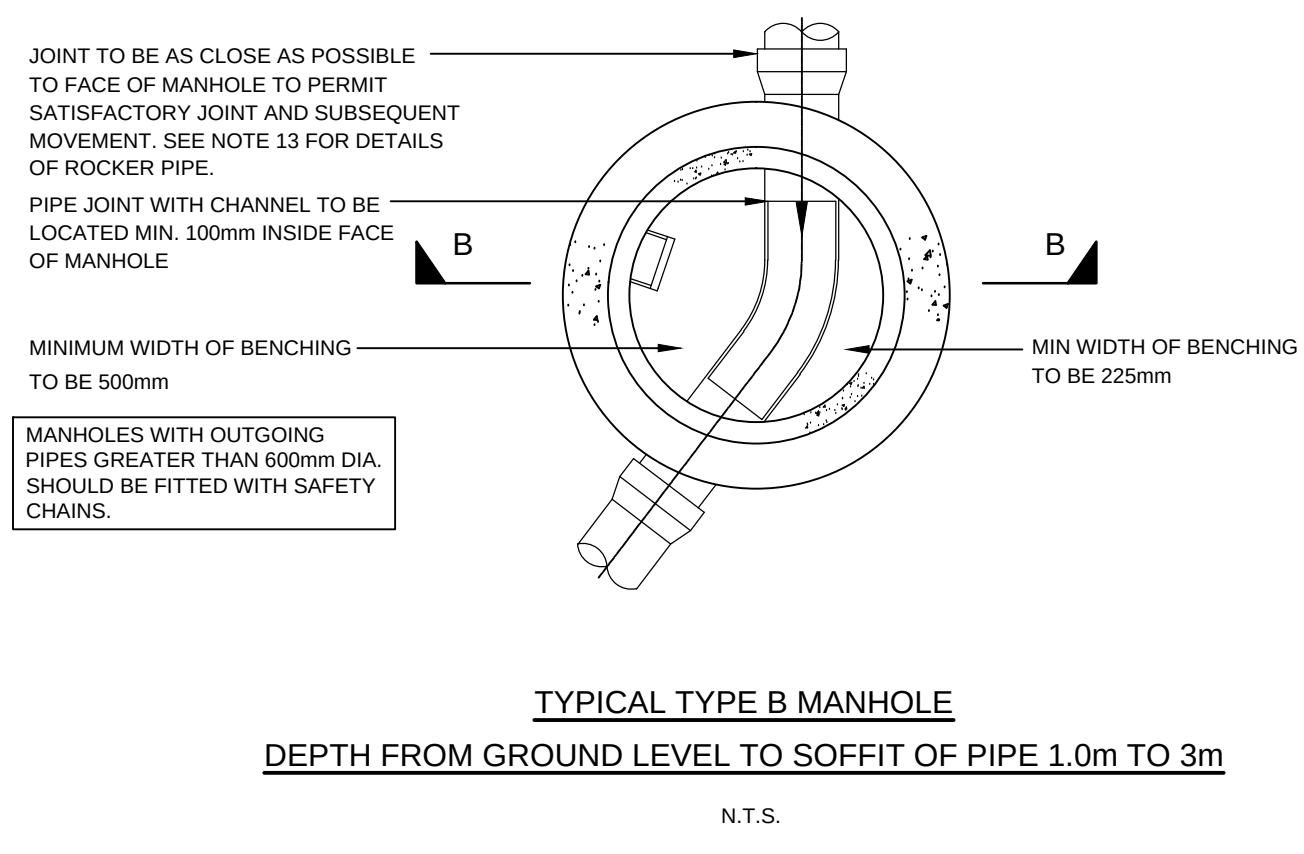
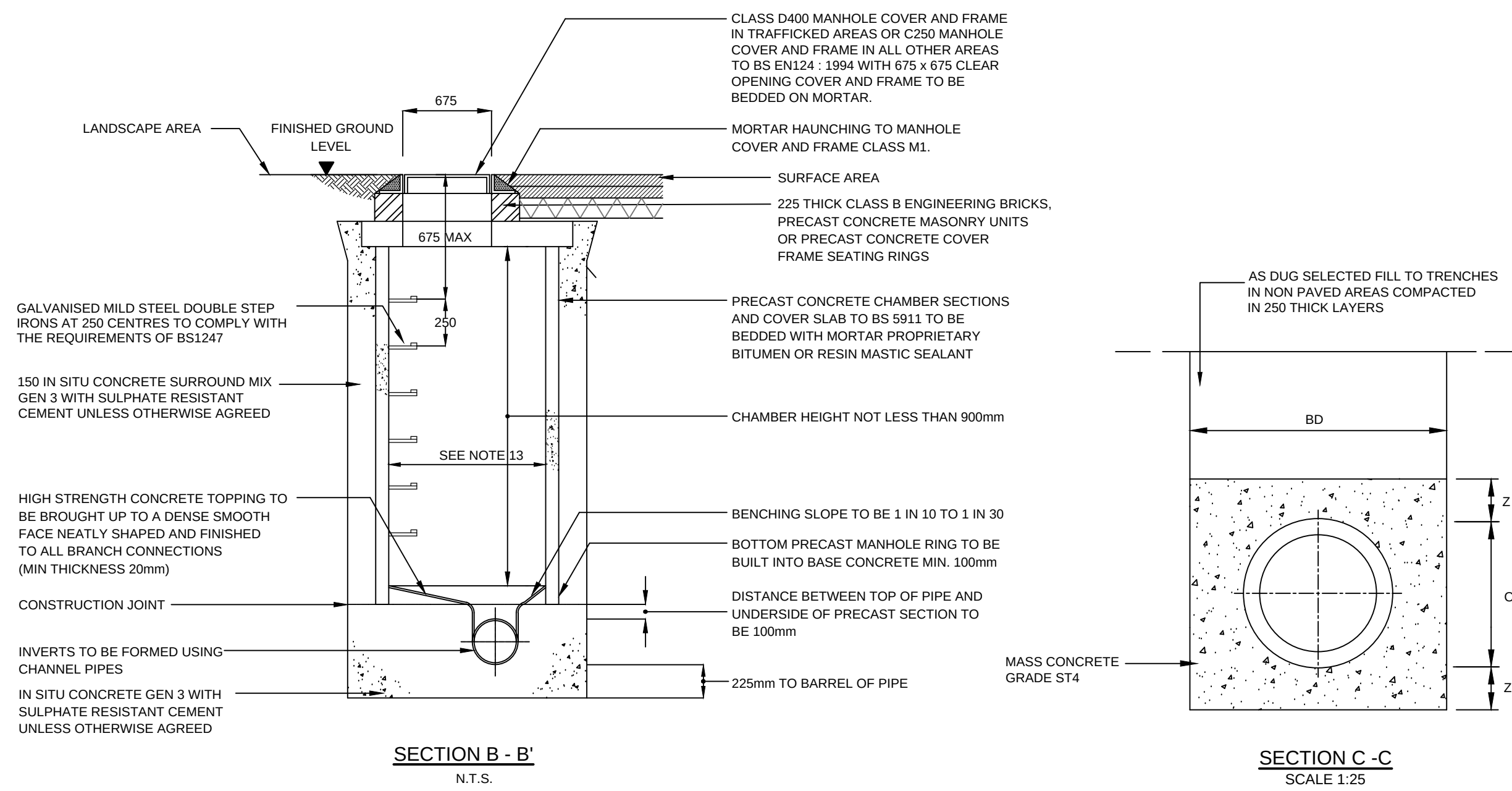
Drawing Title
SECTION 104
DRAINAGE CONSTRUCTION
DETAILS

Scale at A1 AS STATED	Detailed	Approved James Mewis
Drawn	Tech Chk JJM	Det Chk Date 21.03.2012

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PIPE DIA/TYPE	TRENCH WIDTH Bd	APPROX EXT PIPE DIA Bc	BEDDING THICKNESS Y
150	600	190	100
225	700	280	100
300	850	380	100
450	1150	575	100
525	1200	670	125
600	1350	770	130
900	1900	1100	185



- WARNING SIGN NOTES
- THE WARNING SIGNS ARE TO BE 40mm HIGH RED LETTERING ON A WHITE PLASTIC BASE
 - THE PLASTIC BASE DIMENSIONS ARE TO BE APPROXIMATELY 300mm X 300mm X 6mm
 - THE BASE IS TO BE RESISTANT TO ATTACK BY SEWERAGE ENVIRONMENT.
 - THE WARNING SIGN IS TO BE MOUNTED ON A REMOVABLE SAFETY GRID AVAILABLE FROM THE COVER MANUFACTURER.
 - THE SIGN IN THIS MANHOLE (S10) IS TO READ CAUTION - HYDRO-BRAKE LOCATED HERE.
 - A SIGN MUST BE FITTED IN THE UPSTREAM MANHOLE (S9) WHICH READS CAUTION - HYDRO-BRAKE DOWNSTREAM.
 - A SIGN MUST BE FITTED IN THE DOWNSTREAM MANHOLE (S11) WHICH READS CAUTION - HYDRO-BRAKE UPSTREAM.