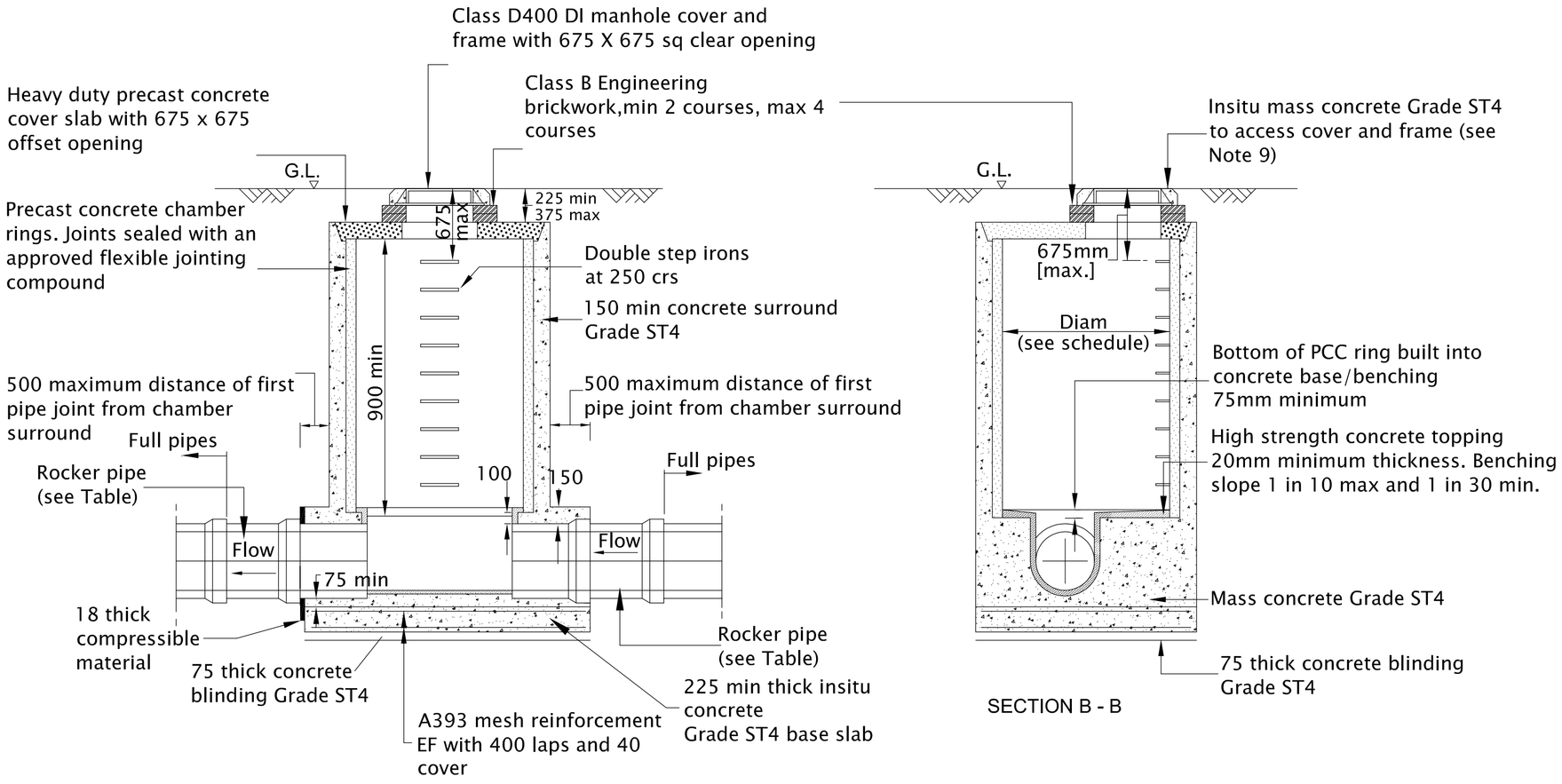
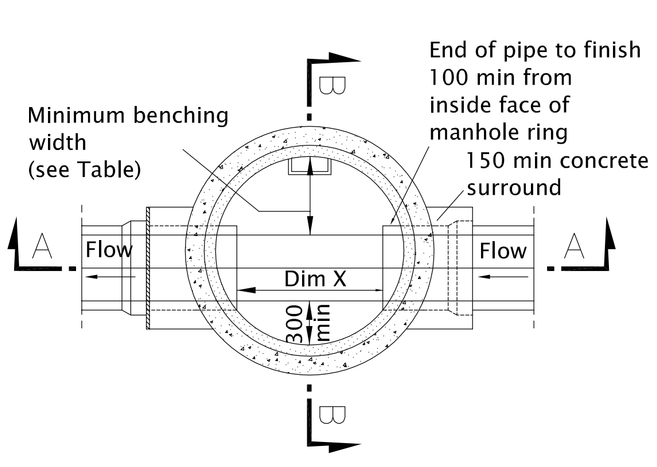


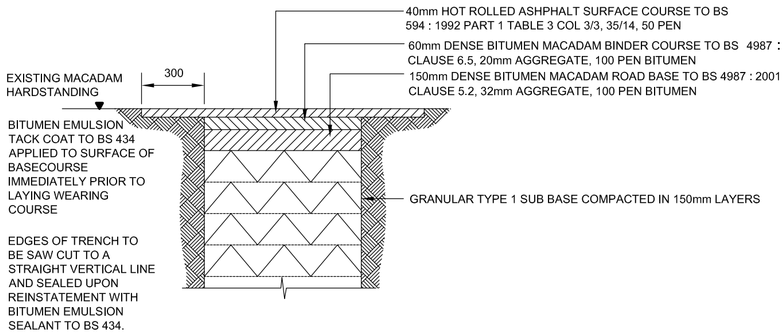
SECTION A - A

SECTION B - B



SECTIONAL PLAN

TYPE B MANHOLE CHAMBER



TRENCH REINSTATEMENT DETAIL IN EXISTING TARMACADAM AREAS

SCALE 1:20

B.S. 410 TEST SIEVE	%PASSING TYPE A20
63mm	–
37.5mm	100
20mm	85–100
14mm	–
10mm	0–25
5mm	0–5
2.36mm	–

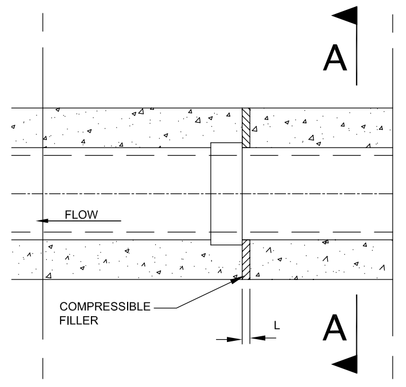
PIPE BEDDING MATERIAL

NOTE:-WHERE COVER DEPTH FROM FORMATION IS LESS THAN 1200mm CLASS SC PIPE BED TO BE PROVIDED

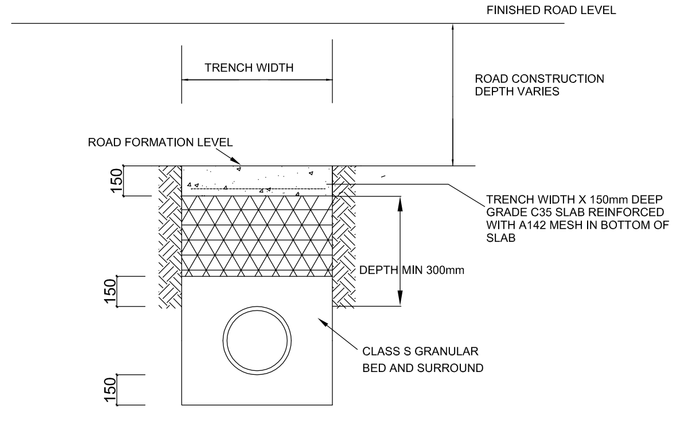
MANHOLE SIZE	
DIA. OF LARGEST PIPE IN MANHOLE	INTERNAL DIAMETER OF MANHOLE (mm)
LESS THAN 375	1200
375 – 450	1500
500 – 700	1500
750 – 900	1800
975 – 1350	2100
1950	3000

MANHOLE SIZES

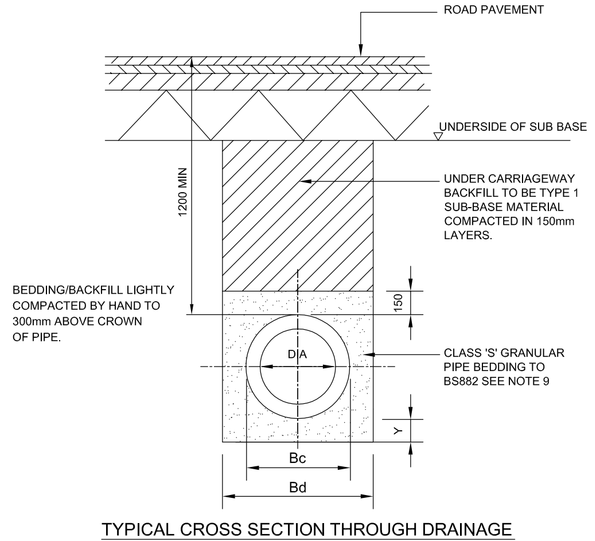
TABLE APPLIES FOR TRENCHES UNDER CARRIAGEWAY AND IN LANDSCAPED AREAS			
PIPE DIA/TYPE	TRENCH WIDTH Bd	APPROX EXT PIPE DIA Bc	BEDDING THICKNESS Y
150	600	190	100
225	700	280	100
300	850	380	100
450	1150	575	100
525	1200	670	125
600	1350	770	130
900	1900	1100	185



FLEXIBLE JOINT DETAIL

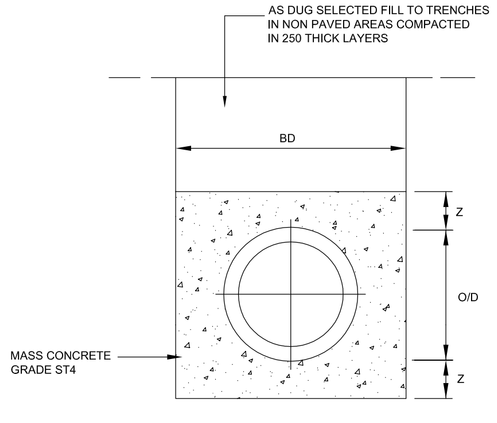


PIPE BEDDING CLASS Z



TYPICAL CROSS SECTION THROUGH DRAINAGE TRENCH UNDER ROADWAY

SCALE 1:20



SECTION A -A

SCALE 1:25

CONCRETE BED AND SURROUND TYPE SC

N.T.S

NOTES:

1. ALL DIMENSIONS IN MILLIMETRES UNLESS STATED OTHERWISE.
2. 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.
3. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL OTHER ENGINEERING DRAWINGS AND DETAILS AND CONTRACT DOCUMENTATION
4. ANY DISCREPANCIES IN THE DETAILS SHOWN TO BE REPORTED TO THE EMPLOYER'S REPRESENTATIVE/ENGINEER PRIOR TO CONSTRUCTION.
5. 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.
6. 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.
7. ALL ADOPTABLE DRAINAGE AND FITTINGS TO BE FLEXIBLY JOINTED CLAYWARE TO BS EN295 OR CONCRETE TO BS5911 PART 100.
8. 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 525Ø AND 20 - 40mm GRADED IMPORTED GRANULAR BED AND SURROUND FOR PIPES GREATER THAN 525Ø)
9. 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 150mm THICK C20P CONCRETE BED AND SURROUND.
10. BACKFILL TO DRAINAGE TRENCHES UNDER CARRIAGEWAYS TO BE TYPE 1 SUB-BASE MATERIAL, ELSEWHERE BACKFILL TO BE FREE DRAINING READILY COMPATIBLE MATERIAL, FREE FROM RUBBISH AND ORGANIC MATTER, FROZEN SOIL CLAY LUMPS AND LARGE STONES. TO BE COMPACTED IN LAYERS NOT EXCEEDING 150mm THICK.
11. CONCRETE MIXES INDICATED ON THIS DRAWING ARE DESIGNED MIXES CONFORMING TO BS 8500-1, 2002.
12. 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

14. A 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 STAINLESS STEEL (GRADE 316 S31 BS 5970) OR 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. 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.
17. 1500mm DIAMETER STORAGE PIPES , ALTERNATIVE MATERIAL HIGH DENSITY TWIN WALL POLYETHYLENE PIPES BY ASSET WEHOLITE INTERNATIONAL OR SIMILAR.

Rev	Description	Chk'd/App'd	Date

Issue PRELIMINARY

Client/Architect
J.C.M. ESTATES

Contract
RESIDENTIAL DEVELOPMENT
ST JOHNS SCHOOL, MILL LANE
WETLEY ROCKS, STAFFS MOORLANDS

Title
ADOPTABLE DRAINAGE
CONSTRUCTION DETAILS

KEYTECH DEVELOPMENT DESIGN LTD
46 SANDBACH ROAD, CONGLETON,CHESHIRE CW12 4LW
Phone/Fax: 01260 275760,e-mail: garylennett172@btinternet.com

Date 18-06-15 **Scale** NTS
Original size A1
Drawn GB
Checked **Approved**

Drawing No. **Revision.**
K569-104