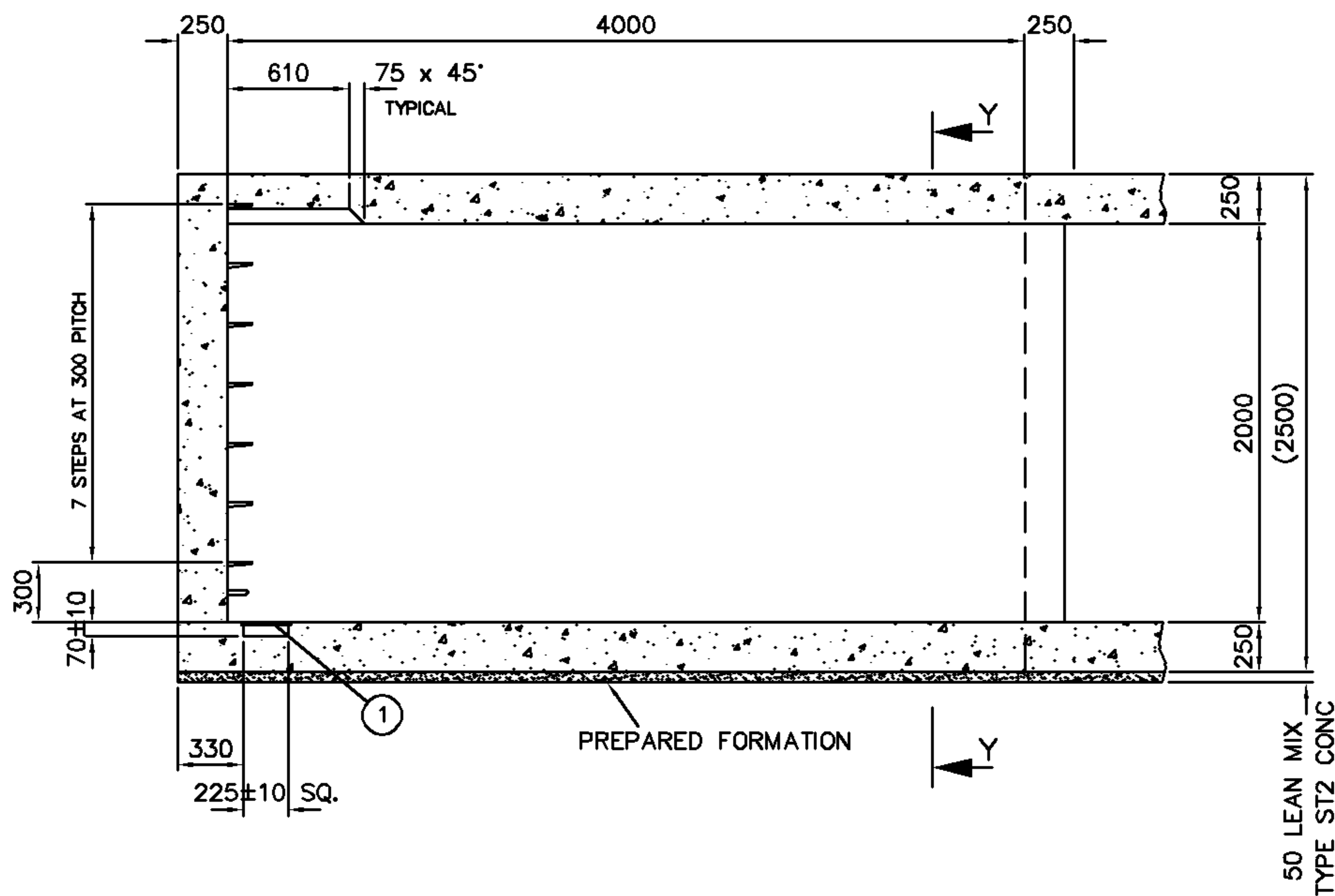
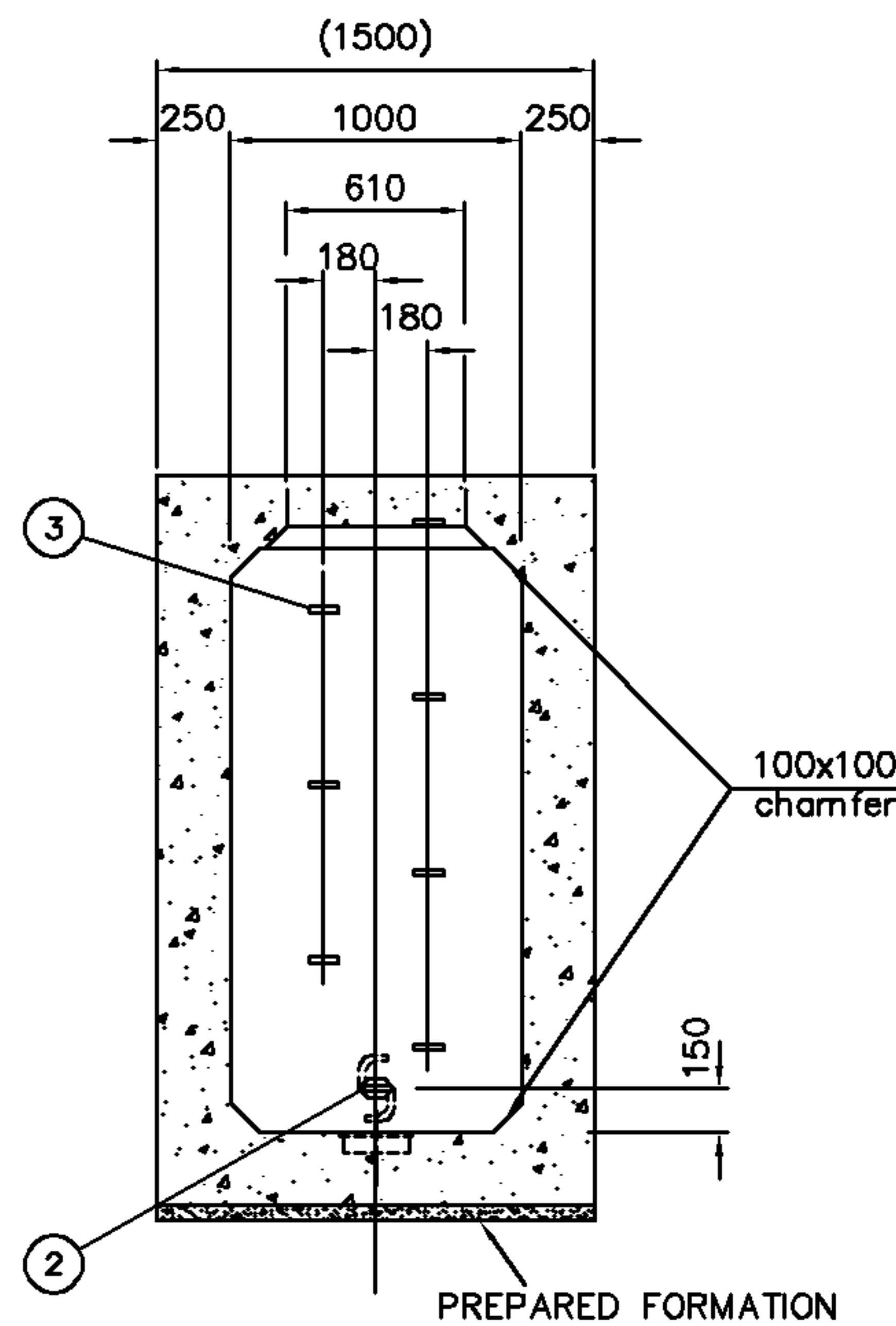


PLAN

THIS DRAWING SHOWS A 4.0M SHAFT WHICH MAY BE EXTENDED TO A MAX. 10.0M.



SECTION X-X



SECTION Y-Y

SCHEDULE			
ITEM	DESCRIPTION	DRAWING	QTY
1	GRATING SUMP No.2A	CN9165	1
2	IRON ANCHOR No.4	CN1162	1
3	STEPS MANHOLE No.1	CN1961	7
4	FRAME & COVER	CN15572	1

NOTES

- THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL OTHER DRAWINGS, DOCUMENTATION AND SPECIFICATIONS RELATING TO THIS TYPE OF STRUCTURE.
- WORKMANSHIP, MATERIALS AND METHOD OF CONSTRUCTION ARE TO COMPLY WITH ALL CURRENT RELEVANT CONTRACT DOCUMENTS, BRITISH STANDARDS, EUROCODES AND CODES OF PRACTICE (RELEVANT TO THE CONSTRUCTION INDUSTRY) AND ACCEPTED CONSTRUCTION PRACTICE.
- ALL EXISTING SERVICES POSITIONS ARE TO BE VERIFIED ON SITE BY THE CONTRACTOR PRIOR TO STARTING THE WORKS.
- ALL ACCEPTED SAFE DIGGING PRACTICES AND SAFE METHODS OF WORKING ARE TO BE EMPLOYED DURING THE INSTALLATION OF THE MANHOLE STRUCTURE.
- CONCRETE TO BE GRADE C35/45 WITH A WATER CEMENT RATIO 0.4. MIN. CEMENT CONTENT 380kg/m<sup>3</sup>. AGGREGATE MAX. SIZE 20mm. ALL IN ACCORDANCE WITH BS8500 (BS EN206).
- SHAFT TO BE CONSTRUCTED IN ACCORDANCE WITH CN1153 AND POSITIONED AS REQUIRED. STEPS AND LADDER TO BE ORIENTATED TO FACE THE ONCOMING TRAFFIC. DETAILS SHOWN ARE TYPICAL POSITIONS.
- ANY BRICKS USED TO FORM SHAFT OR ADJUST FRAME AND COVER LEVEL TO BE (MINIMUM) CLASS B ENGINEERING BRICKS. MORTAR TO BE 1:5 CEMENT:SAND RATIO (MAXIMUM) OR 1:1:5 CEMENT:LIME:SAND CLASS (III).
- BRICKS AND MORTAR TO BE IN ACCORDANCE WITH BS EN 1996.
- REINFORCEMENT TO BE GRADE B500B OR B500C CONFORMING TO BS4449: 2005 (CLAUSE 1712 SHW).
- BAR SCHEDULE AND BENDING TO CONFORM TO BS8666.
- MINIMUM COVER 55mm TO ANY CONCRETE FACE PROPRIETARY APPROVED SPACERS TO BE UTILISED.
- ADDITIONAL BARS MAY BE UTILISED TO TIE / SUPPORT MAIN BARS AS REQUIRED.
- MAXIMUM SPACING OF REINFORCING BARS TO BE 150mm C/C.
- SUMP TO BE POSITIONED BELOW SHAFT. TYPICAL POSITION SHOWN.
- ANCHOR IRONS MUST BE POSITIONED AT LEAST 230mm FROM ANY DUCT OR WALL OPENING. ANCHOR IRONS MUST BE POSITIONED 150mm FROM ANY WALL, ROOF OR FLOOR. FLOOR ANCHOR IRONS SHOULD BE PLACED BELOW SHAFT.
- STANDARD DEPTHS OF COVER TO THE TOP OF THE ROOF ARE:-
  - 150mm FOOTWAY
  - 450mm CARRIAGEWAY
- ALL WORKS TO BE UNDERTAKEN IN ACCORDANCE WITH THE SPECIFICATION FOR HIGHWAY WORKS (SHW) AND ALL SUBSEQUENT AMENDMENTS.
- ALL BACKFILL MATERIAL IS TO BE CLASS 6N TYPE.
- ALL CONSTRUCTION JOINTS TO BE AS PER CLAUSE 1710 SHW.
- INTERNAL CORNER CHAMFER DETAILS TO BE AS PER APPENDIX D OF BD 31/01 THE DESIGN OF BURIED CONCRETE BOX AND PORTAL FRAME STRUCTURES.
- CONTRACTOR TO PROVIDE A GENERAL ARRANGEMENT DRAWING SHOWING THE POSITION OF THE STRUCTURE IN RELATION TO THE HIGHWAY AND ITS FEATURES, INCLUDING RELATIVE LEVELS TO HIGHWAY SURFACE.
- CONTRACTOR TO PROVIDE PROGRAMME OF CONSTRUCTION SEQUENCE DETAILING TIMING OF POURS AND COMMENCEMENT OF BACKFILL.
- CONCRETE TESTING TO BE UNDERTAKEN IN ACCORDANCE WITH BT SPECIFICATION.

TOLERANCES:- CN15456	
ANCHOR IRON POSITION	±50mm
TOP OF DEPTH PLATE	±4mm
BEDDING MATERIAL	±5
CEMENT MORTAR	-20mm
BRICKWORK MORTAR JOINTS	±5mm
VOIDAGE	0.5%
WALL FLATNESS	±11mm
F & C LEVEL WITH HIGHWAY NIL	
F & C ROCKING NIL	
F & C SURROUND IN UNMADE	±5mm
F & C UNSUPPORTED OVER BOX	+5mm
INTERNAL LENGTH & WIDTH	±25mm
INTERNAL HEIGHT	±15mm
SHAFT DIMENSIONS	810mm -10mm +15mm
SHAFT POSITION IN ROOF	±100mm
STEEL BARS ALIGNMENT	
VERT & HORIZ	±15mm
NEAR FACE TO FAR FACE	±15mm
STEEL CAGE GRID PATTERN	±10mm
STEEL DEPTH OF COVER	±5mm
STEEL DEPTH TO LUG	±5mm
STEP POSITION	±15mm
STEP HORIZONTAL	±5mm
SUMP POSITION	±25mm
SUMP DEPTH	±10mm
ROUND SUMP 230#	±5mm
VERTICALITY OF WALLS	±15mm
SLAB THICKNESS	-10 TO +150mm

DIMENSIONS IN mm UNLESS OTHERWISE STATED

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DO NOT SCALE

ORIGINAL SCALE 1:20

A1 A2	DRN RFG C S CKD M.S.	ANY MODIFICATION TO THE DRAWING OR THE USE OF ALTERNATIVE ITEMS TO THOSE SPECIFIED <b>MUST</b> BE AGREED WITH THE DESIGNER.	MATERIAL -	OMS Drawing Review Hatching added Prepared formation notes added  BT OMS 25.08.15	E			STANDARD SIDE SHAFT MAX 10 METRES GENERAL ARRANGEMENT		REFERENCES SPEC: BS4449,BS8666, BS5606,BS EN1992,LN550. DRGS: CN1059,CN1153,CN1161 CN1162,CN1165,CN1961, CN15572,CN15572,CN15572 SPECS: BS8500, BS EN206
	CERTIFICATION DESIGNER M DA RIOS CLIENT M DA RIOS		VARIOUS LOCATIONS							
DATE 04/07/94			FINISH -		AMENDMENT		ISSUE	Openreach	ALA944	CN 14951