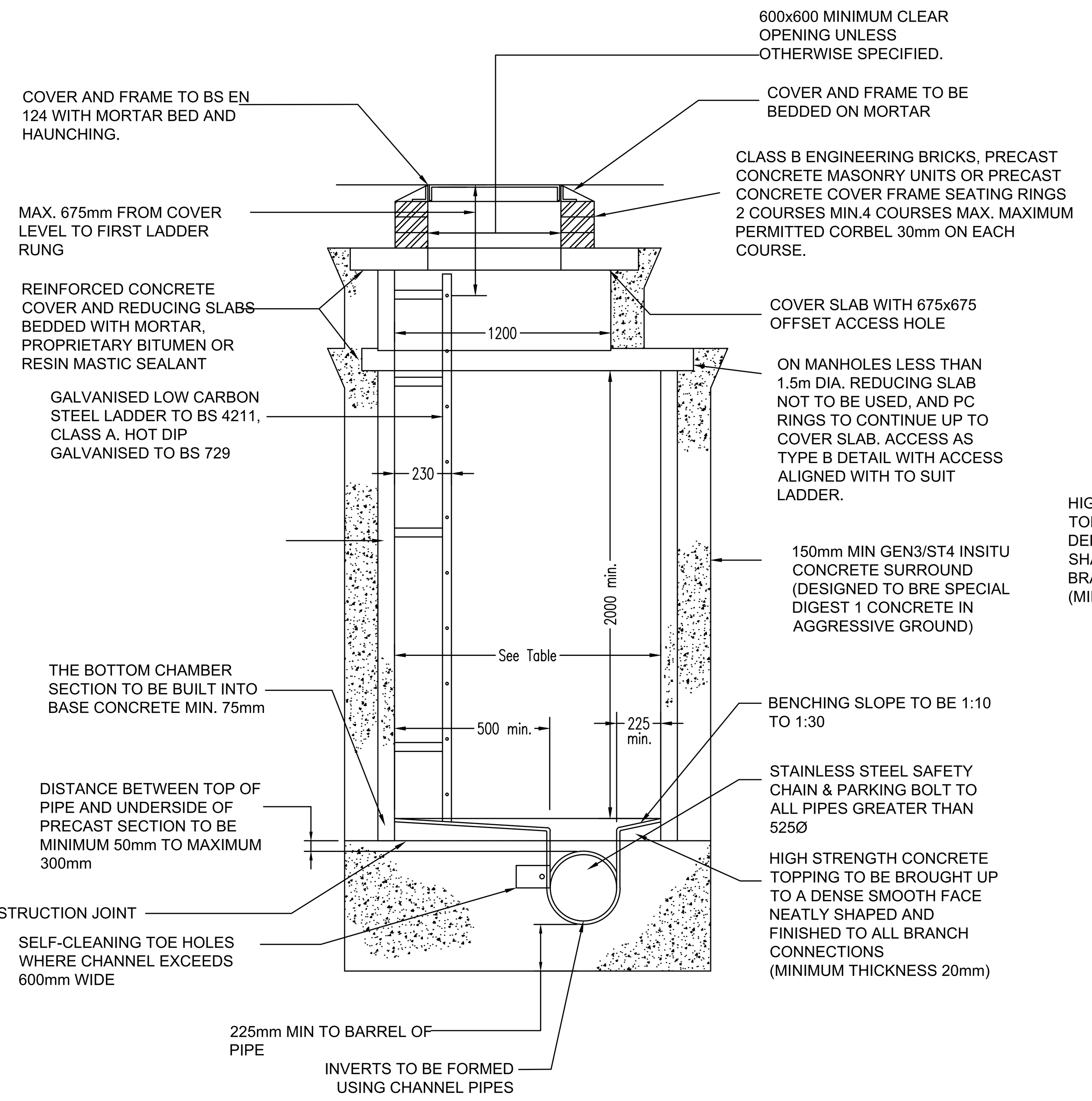
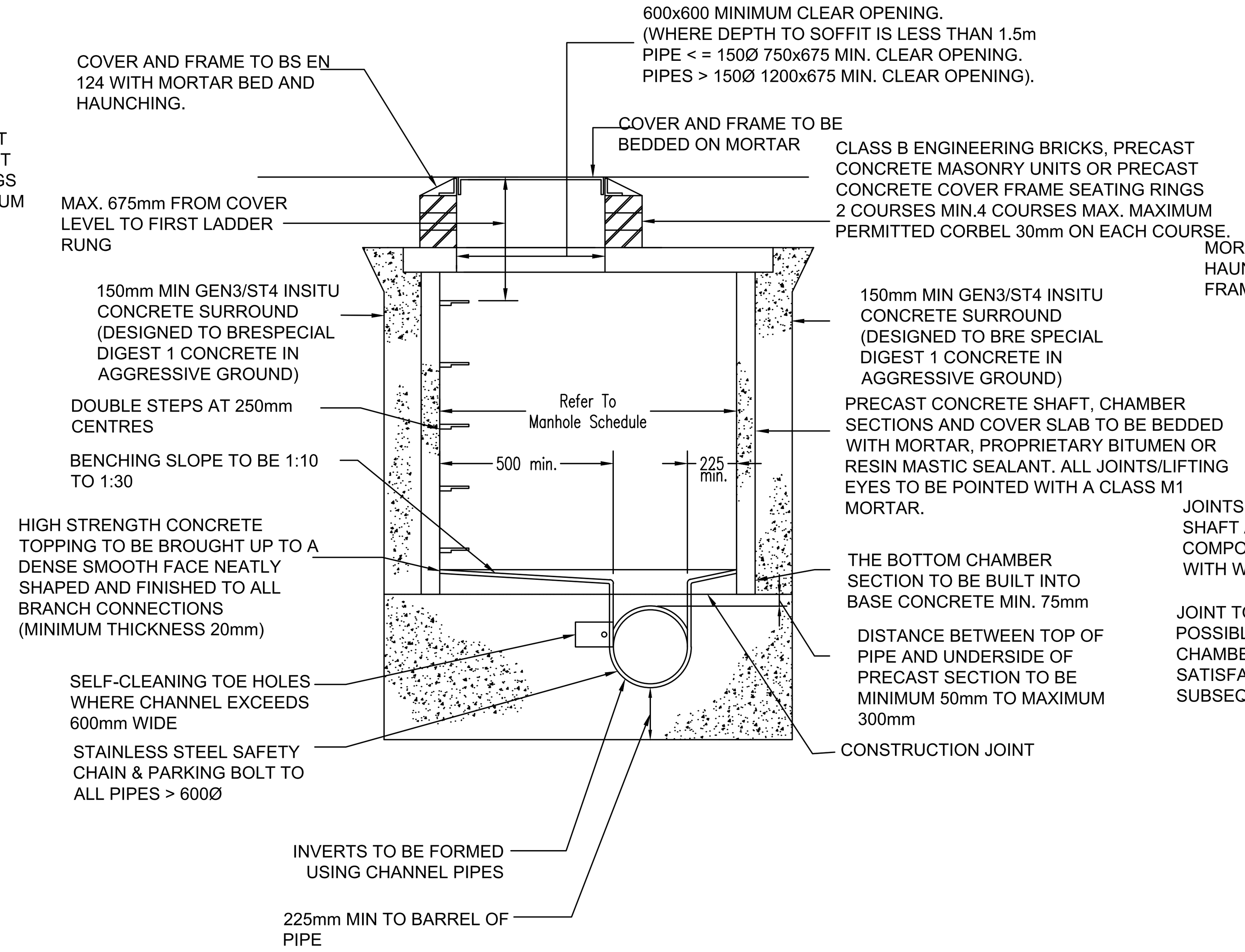
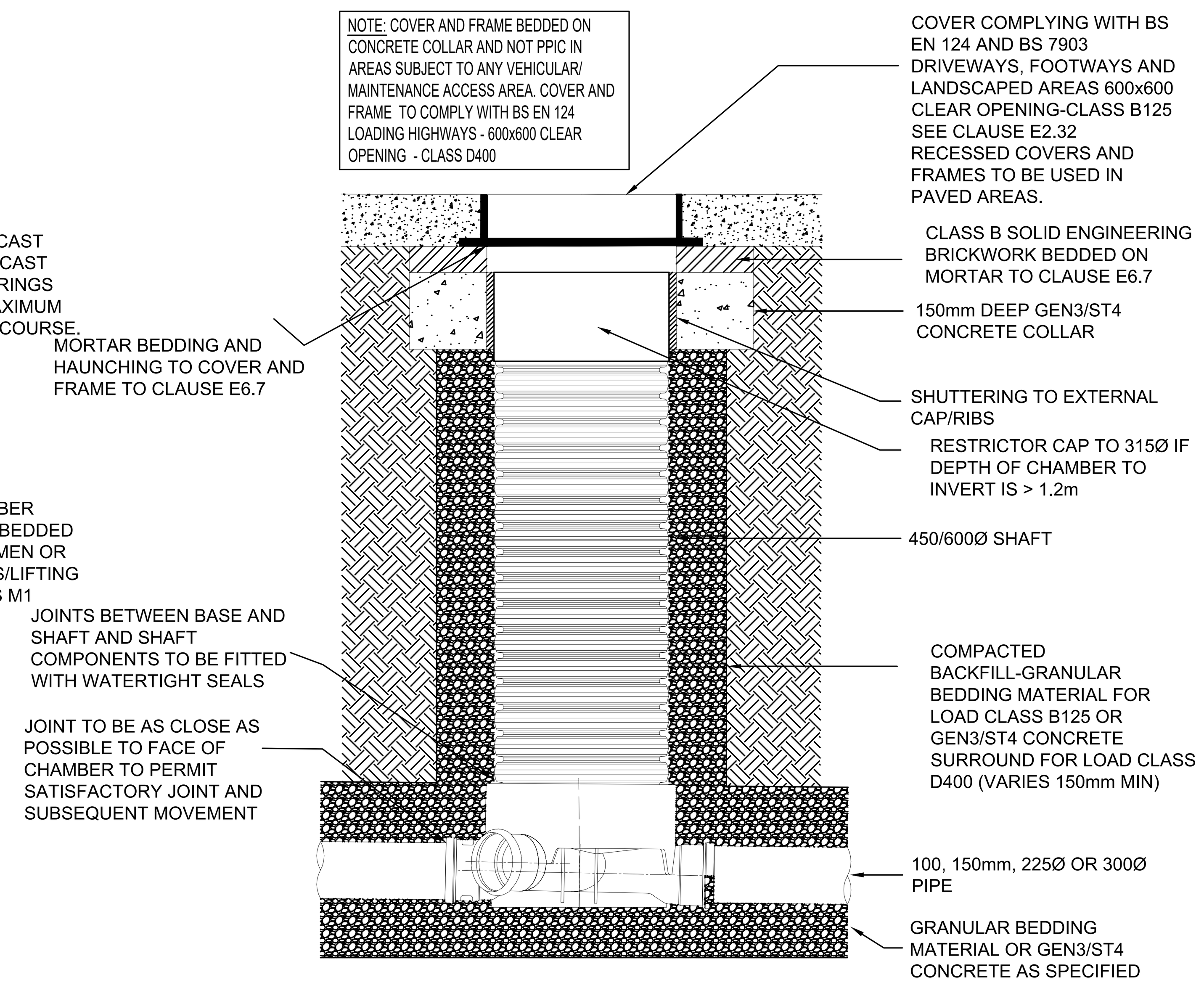




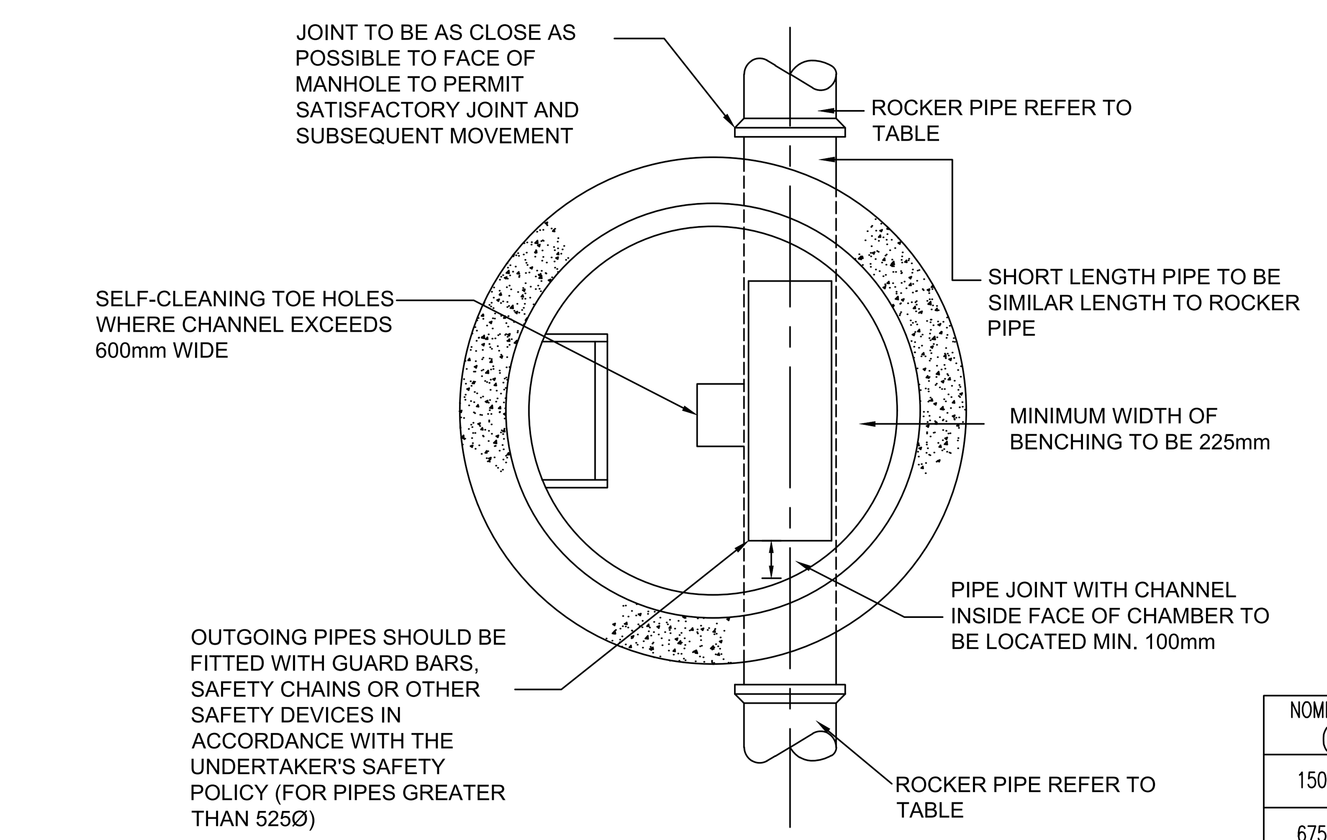
DIAMETER OF LARGEST PIPE IN MANHOLE (mm)	INTERNAL DIAMETER OF MANHOLE (mm)
LESS THAN 375mm	1200
375 - 450	1350
500 - 700	1500
750 - 900	1800

MINIMUM MANHOLE CHAMBER SIZES



TYPICAL INSPECTION CHAMBER (BASED ON POLYPIPE RANGE 450 & 600 CHAMBERS)

MAXIMUM DEPTH FROM COVER LEVEL TO SOFFIT OF PIPE 3m NON-ENTRY

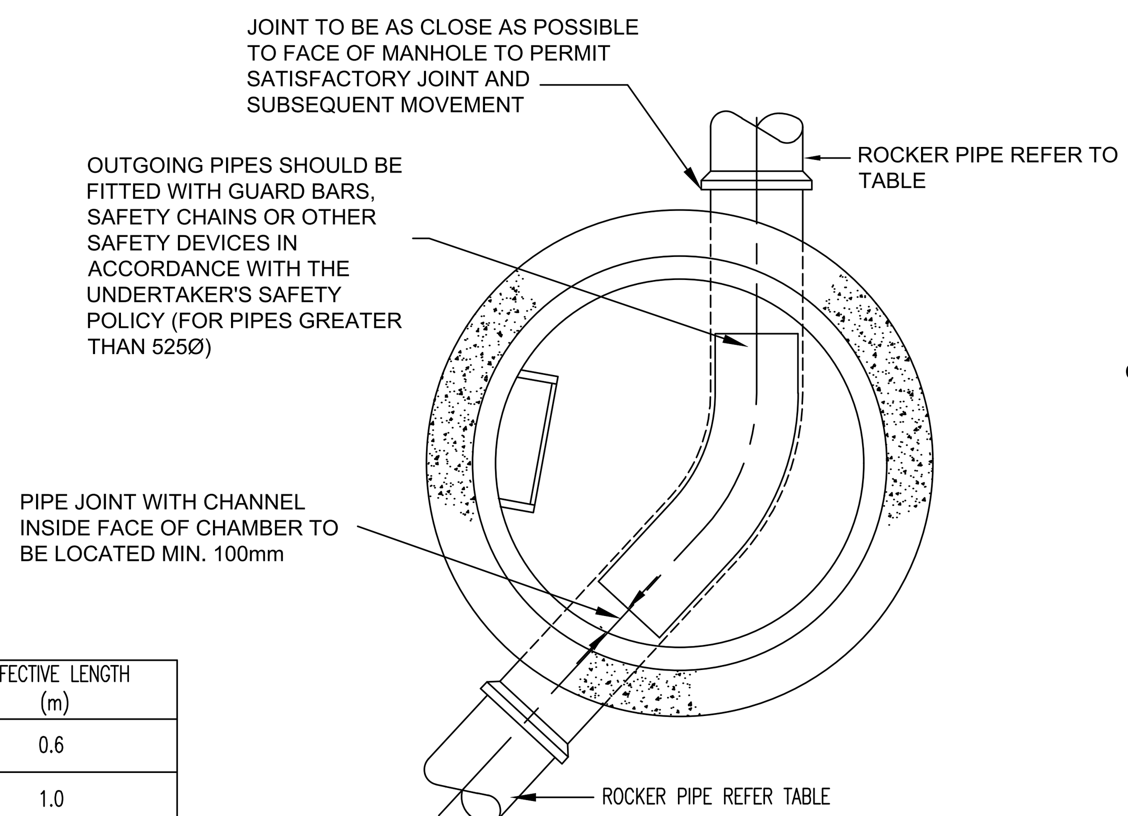


TYPICAL MANHOLE DETAIL TYPE A

NOMINAL DIA. (mm)	EFFECTIVE LENGTH (m)
150 to 600	0.6
675 to 750	1.0
825 & over	1.25

ROCKER PIPE TABLE

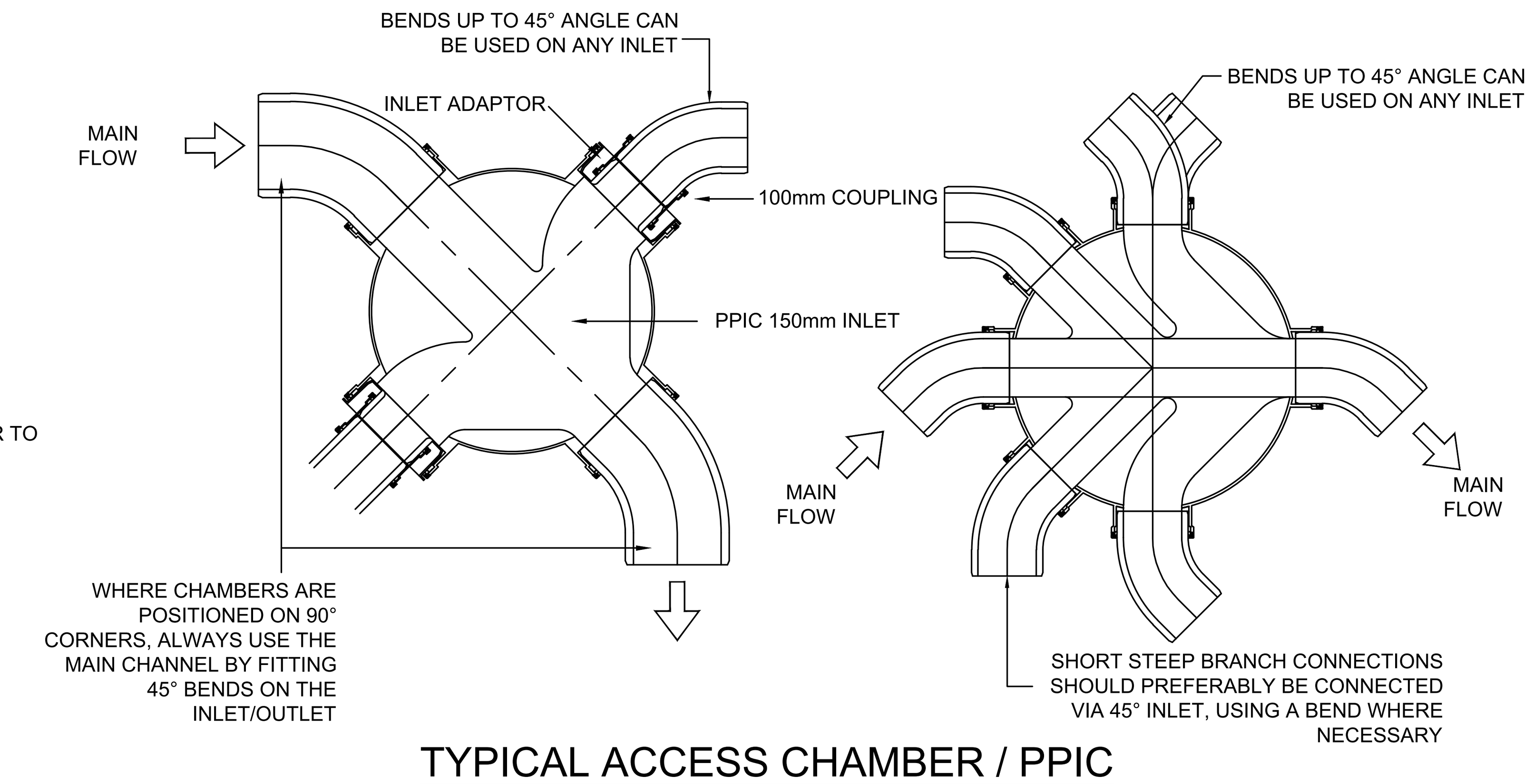
DEPTH FROM GROUND LEVEL TO SOFFIT OF PIPE 3m TO 6m
FOR CHAMBERS LESS THAN 1500Ø A TYPE B MANHOLE SHALL BE USED



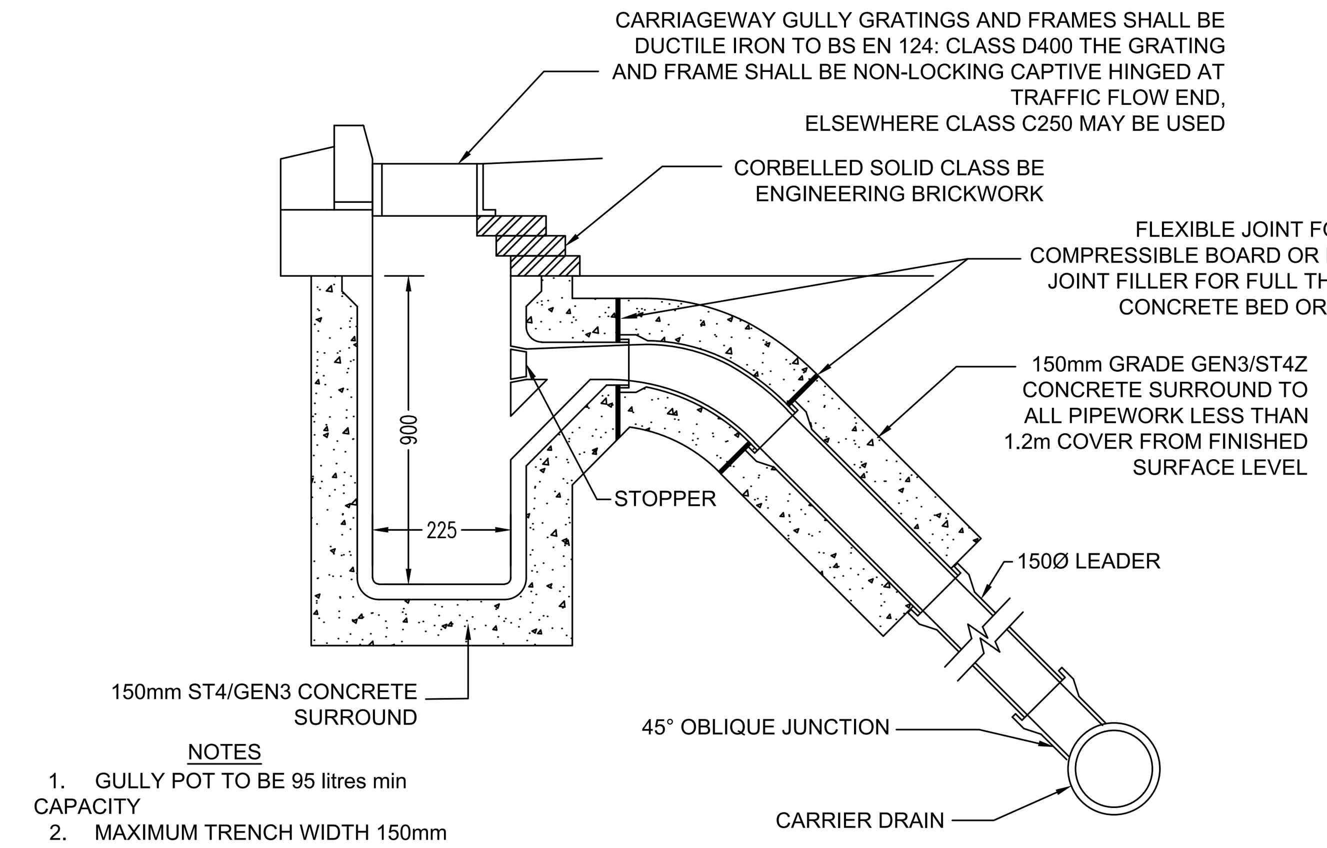
TYPICAL MANHOLE DETAIL TYPE B DEPTH TO SOFFIT OF PIPE 1.5m* TO 3.0m

NOTE: P.C.C CHAMBER RINGS USED FOR MANHOLES LESS THAN 1500 TO SOFFIT WITHIN HIGHWAYS FOR LOAD CLASS D400 SHALL BE 675X675 CLEAR OPENING. ALL MAINTENANCE SHALL BE CARRIED OUT FROM THE SURFACE. NO STEP RUNGS SHALL BE PROVIDED. THE COVER OPENING SHALL BE LOCATED OVER THE OUTGOING PIPE.

FOR MAINTENANCE, ANY MANHOLE CONSTRUCTED WITHOUT DOUBLE STEPS OR A LADDER SHALL BE ACCESSED BY WINCH ONLY.



TYPICAL ACCESS CHAMBER / PPIC INSTALLATION DETAIL



NOTES
1. GULLY POT TO BE 95 litres min CAPACITY
2. MAXIMUM TRENCH WIDTH 150mm GULLY LEAD 600mm.
3. NUMBER OF BENDS MAY VARY DUE TO SITE DIFFERENCES.
4. CONCRETE SURROUND OF PIPES SHALL ALWAYS FINISH AT A JOINT.

TYPICAL ROAD GULLY DETAIL

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THE LOCATION, SIZE AND DEPTH OF ALL EXISTING DRAINS/SEWERS AND SERVICES SHALL BE ESTABLISHED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF WORKS ON SITE. ANY DISCREPANCIES FROM THE INFORMATION INDICATED ON THESE DRAWINGS SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENGINEERS.
ALL LEVELS AND DIMENSIONS SHALL BE VERIFIED ON SITE PRIOR TO COMMENCEMENT OF ANY WORKS. ANY DISCREPANCIES SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENGINEERS.
SEWERS MUST HAVE 5 METRES CLEARANCE FROM TREES AND HEDGES, (PLEASE ALSO REFER TO FIGURE 2.3 ON PAGE 33 IN 'SEWERS FOR ADOPTION' 6TH EDITION FOR RESTRICTIONS ON TREE PLANTING ADJACENT TO SEWERS).
THE ADOPTABLE SEWERS SHOULD BE A MINIMUM OF 1M AND MANHOLES 0.5M FROM KERB FACES AND SERVICE MARGINS.
ALL CONNECTIONS TO PUBLIC SEWERS TO BE A MINIMUM OF 150MM 'Ц' VIA A 45' JUNCTION.
SEWERS TO BE LAID IN CLASS "S" BEDDING (150MM GRANULAR BED AND SURROUND). WHERE DEPTH OF COVER TO TOP OF THE SEWER IS LESS THAN 1.2M IN HIGHWAYS AND VERGES (OR LESS THAN 900MM IN NONE VEHICULAR ACCESS AREAS) THEN A CONCRETE SLOB SHOULD BE PROVIDED ABOVE THE GRANULAR BED AND SURROUND
MANHOLE COVERS SHALL/MUST HAVE A CLEAR OPENING OF 675MM AND SHALL BE CK.SS 0400 TO BS EN 124 WITH 150MM DEEP FRAMES IN HIGHWAYS. WHERE A B125 COVER AND FRAME HAS BEEN APPROVED, THIS MUST NOT BE COATED IN PLASTIC AND MUST HAVE LIFTING EYES SUITABLY SIZED TO ACCOMMODATE STANDARD LIFTING KEYS. SCREW DOWN COVERS ORE NOT ACCEPTABLE.
COVER SLABS MUST CARRY THE B51 KITEMARK OR WILL BE REJECTED BY THE IWNL/YW/ICOSA INSPECTOR. WHERE THE CLEAR OPENING OF THE KITEMARKED PRODUCT IS DIFFERENT TO THAT OF THE COVER AND FRAME, A LOADING BEARING SLAB SHOULD BE FITTED ABOVE THE COVER SLAB TO BRING THE SIZE DOWN TO 675X675MM FOR THE IWNL/YW/ICOSA SPECIFIED COVER SIZE. PLEASE REFER TO THE CONCRETE PIPE SYSTEMS ASSOCIATION (CPSA), 'TECHNICAL BULLETIN' ISSUED AUTUMN 2004 FOR KITEMARKED COVER SLAB OPENING SIZES.
PLASTIC CHANNEL SECTIONS IN MANHOLES ARE NOT ACCEPTABLE AND CLAYWARE IS PREFERABLE. PLASTIC CHANNELS ARE DIFFICULT TO SET IN CONCRETE AND A SATISFACTORY FINISH CANNOT BE OBTAINED ON THE BENCHING.
MAXIMUM DEPTH OF DEMARCATION CHAMBER TO BE 2M, WHERE DEPTH NEEDS 2M, MANHOLE TO BE CONSTRUCTED AS TYPE B MANHOLE.
CHAMBER HEIGHT (NOT LESS THAN 900MM) BENCHING SLOPE TO BE 1:10 TO I:30 OUT WITH BETWEEN MIN 75MM AND MAX 375MM HEIGHT BENCHING) INVERTS TO BE FORMED PRECAST SECTION TO BE 50MM 225MM TO BARREL OF PIPE DEMARCATION CHAMBERS TO BE A MIN. 450MM CHAMBERS FOR 100MM FOUL & 150MM
SURFACE WATER PIPES UP TO 1.2M DEEP. FOR DEPTHS GREATER THAN 1.2M, RESTRICTED ACCESS OPENING TO 350MM IS REQUIRED FOR SAFETY REASONS.

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title: DRAINAGE CONSTRUCTION DETAILS - SHEET 1
date: 02.04.2025
scale @ A1 NTS
job no: 411 drg no: 002 #