

NOTE :

THE USE OF THIS DETAIL ASSUMES

1. THE GROUNDWATER TABLE IS BELOW THE BASE OF THE MANHOLE.

CONTRACTOR TO ADVISE ENGINEER WHERE THE WATER TABLE LEVEL IS HIGHER THAN THE BASE OF MANHOLE

D400 LOCKABLE, NON ROCKING DUCTILE IRON COVER AND FRAME TO IS EN 124 "GULLY TOPS AND MANHOLE TOPS FOR VEHICULAR AND PEDESTRIAN AREAS". MINIMUM CLEAR OPENING TO 600mm DIA. RECESSED COVERS WITH PAVING INLAID TO BE USED IN PAVED AREAS TO MATCH THE SURROUNDING FINISH. PLEASE REFER TO 507.8 SR OF THE SITEMARK SPECIFICATION

2-4 COURSES OF CLASS B ENGINEERING BRICK TO BS 3921 & IS EN 771/772 "SPECIFICATION FOR CLAY BRICKS". BRICKS TO BE LAID IN ENGLISH BOND USING CEMENT/SAND (1:3 MIX) MORTAR WITH 10mm SOLID FILLED BED AND JOINTS FLUSH POINTED.

BRICKWORK AND FRAME HAUNCHED USING CEMENT/SAND (1:3 MIX) MORTAR

HEAVY DUTY PRECAST CONCRETE COVER TO COMPLY WITH BS EN 1917:2002 "CONCRETE MANHOLES AND INSPECTION CHAMBERS, UNREINFORCED, STEEL FIBRE AND REINFORCED" AND BS 5911-3:2012 SPECIFICATION FOR UNREINFORCED AND REINFORCED CONCRETE MANHOLES AND SOAKAWAYS

FRAMES TO SET ON CLASS 1 MORTAR WITH ADMIXTURE RONAFIX® OR SIMILAR APPROVED

CONCRETE SURROUND TO BE TAKEN UP FLUSH WITH COVER

JOINTING MATERIAL TO BE MORTAR, PROPRIETARY BITUMEN OR RESIN MASTIC SEALANT IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS

GRADE C16/20 CONCRETE SURROUND (VIBRATED), MINIMUM THICKNESS 150mm

LIFTING EYES IN PRECAST RINGS TO BE POINTED

STAGGER CONSTRUCTION JOINTS WITH JOINTS IN PRECAST RINGS BY MIN. 150mm

BENCHING SLOPE TO BE A MAX. 1:10, MIN OF 1:30. FINISH WITH SMOOTH HIGH STRENGTH CONCRETE APPLIED WITH STEEL TROWEL. MINIMUM THICKNESS 20mm. BENCHING TO BE NEATLY SHAPED TO ALL BRANCH CONNECTIONS

PRECAST UNITS SHALL COMPLY WITH BS 5911-3:2012 2002 "CONCRETE MANHOLES AND INSPECTION CHAMBERS, UNREINFORCED, STEEL FIBRE AND REINFORCED"

PROPRIETARY CONCRETE SURROUND FORMWORK TO PROVIDE MINIMUM OF 150mm CLEARANCE ALL ROUND OUTSIDE OF PRECAST RINGS

RAKE OF EXCAVATION DEPENDENT ON GROUND CONDITIONS. BACK FILL AROUND CONCRETE SURROUND WITH GRANULAR MATERIAL TYPE B TO CLAUSE 808 OF THE HA SPECIFICATION

CONSTRUCTION JOINT

CONCRETE SURROUND (MINIMUM POUR HEIGHT 2m)

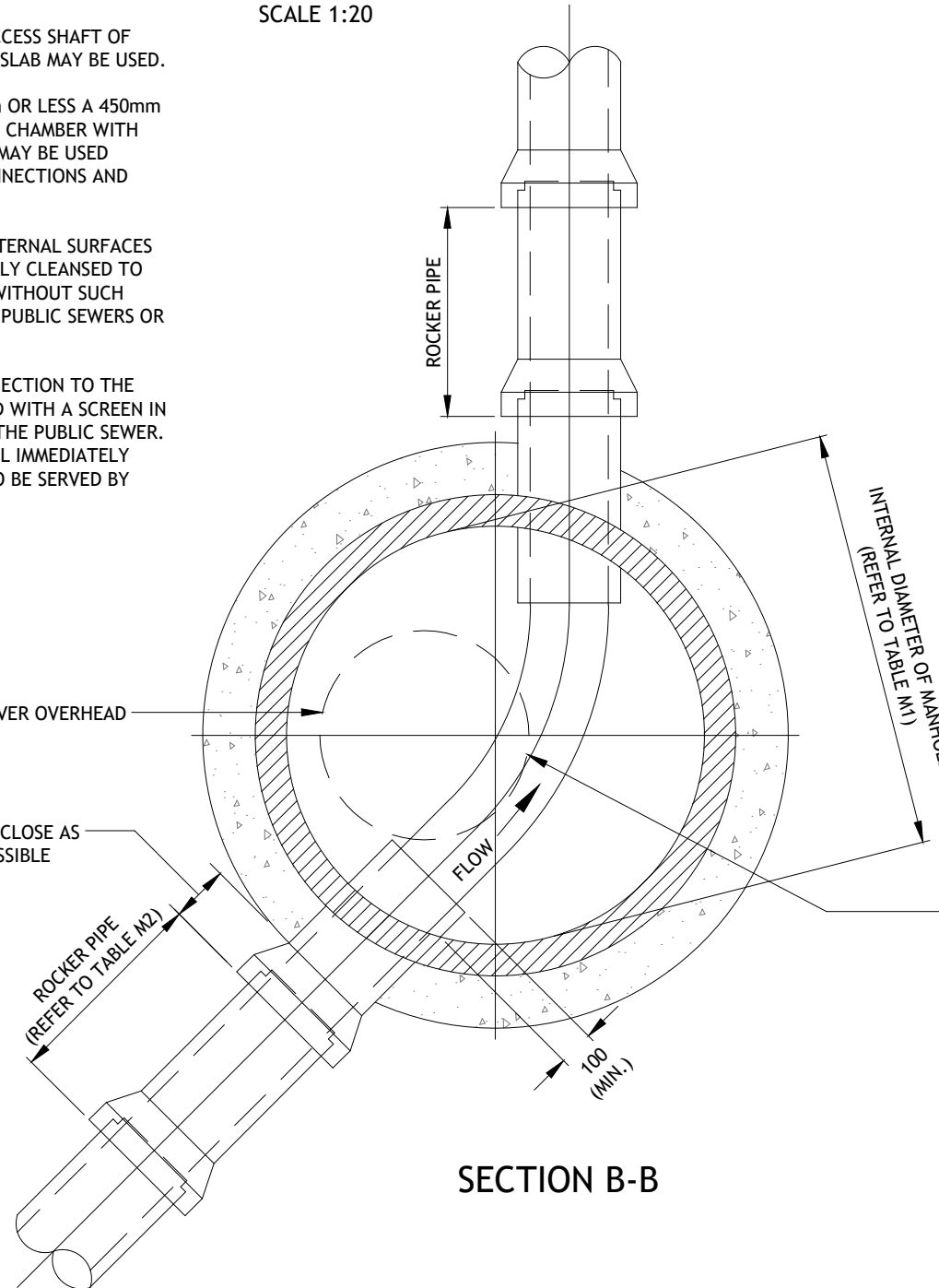
C30/37 IN-SITU CONCRETE BASE

C12/15 BLINDING

NOTE :

1. MANHOLES WITH OUTGOING PIPES GREATER THAN 600mm DIA. SHOULD BE FITTED WITH GUARD BARS, SAFETY CHAINS OR OTHER SAFETY DEVICES.
2. FOR DEPTHS TO INVERT >2.700m AN ACCESS SHAFT OF MIN. 900mm DIAMETER AND REDUCING SLAB MAY BE USED.
3. WHERE THE DEPTH TO INVERT IS 1.00m OR LESS A 450mm x 450mm (OR 450mm DIA.) INSPECTION CHAMBER WITH MINIMUM COVER SIZES OF 450mm DIA. MAY BE USED SUBJECT TO ACCOMMODATION OF CONNECTIONS AND APPROVAL OF THE LOCAL AUTHORITY.
4. ON COMPLETION OF CONSTRUCTION INTERNAL SURFACES OF MANHOLE & SEWERS TO THOROUGHLY CLEANSED TO REMOVE ALL DELETERIOUS MATERIAL, WITHOUT SUCH MATTER BEING PASSED FORWARD INTO PUBLIC SEWERS OR WATERCOURSES
5. FIRST MANHOLE UPSTREAM FROM CONNECTION TO THE (EXISTING) PUBLIC SEWER TO BE FITTED WITH A SCREEN IN ORDER TO PREVENT DEBRIS ENTERING THE PUBLIC SEWER. THE SCREEN NOT TO BE REMOVED UNTIL IMMEDIATELY PRIOR TO OCCUPATION OF PREMISES TO BE SERVED BY SEWER.

SECTION A-A  
SCALE 1:20



TYPICAL SURFACE WATER PRECAST CONCRETE MANHOLE WITH CAST IN SITU BASE  
SCALE 1:20

TABLE M1 - INTERNAL DIAMETER OF MANHOLES

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

NOTE :

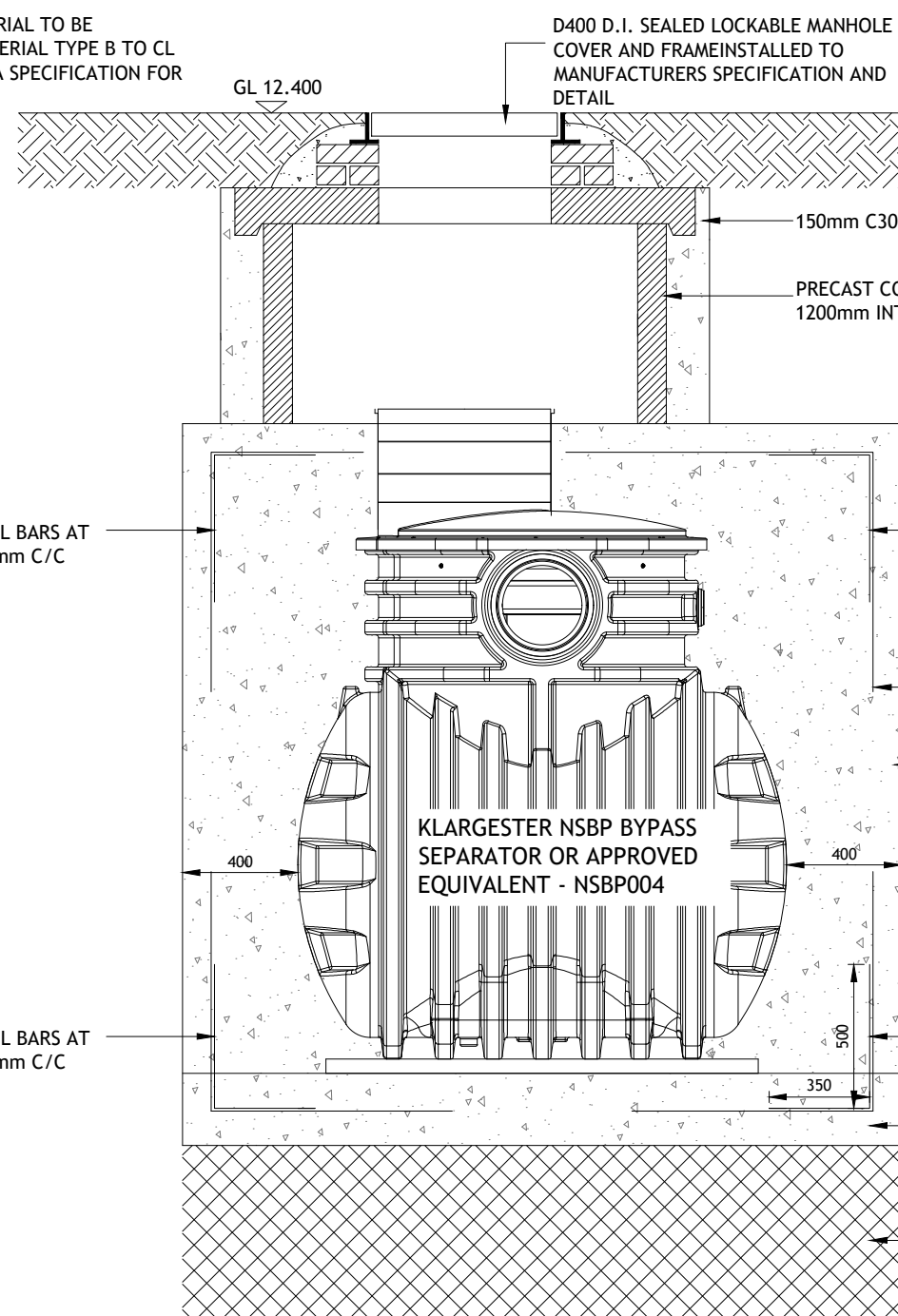
USE 1050 DIAMETER RINGS FOR PIPES LESS THAN 375mm DIAMETER WHERE DEPTH TO SOFFIT IS 1.35 - 1.5m

TABLE M2 - ROCKER PIPE LENGTH

NOMINAL PIPE DIAMETER (mm)	EFFECTIVE LENGTH (M)
150 to 600	0.6
675 to 750	1.0
Over 750	1.2

- MANHOLE COVER TO BE HINGED AT RIGHT ANGLES TO KERBLINE SO THAT THEY CLOSE IN DIRECTION OF TRAFFIC.
- MANHOLE COVERS ON ROADS SHOULD BE LOCATED IN THE MIDDLE OF TRAFFICKED LANES INSIDE WHEEL TRACKS
- COVER AND FRAME TO BE INSTALLED SO THAT NO PART OF THE UNIT IS RAISED OR SUNKEN IN A WAY THAT COULD CAUSE A HAZARD TO PEDESTRIAN OR VEHICULAR TRAFFIC

BACKFILL MATERIAL TO BE GRANULAR MATERIAL TYPE B TO CL 808 OF THE NRA SPECIFICATION FOR ROADWORKS

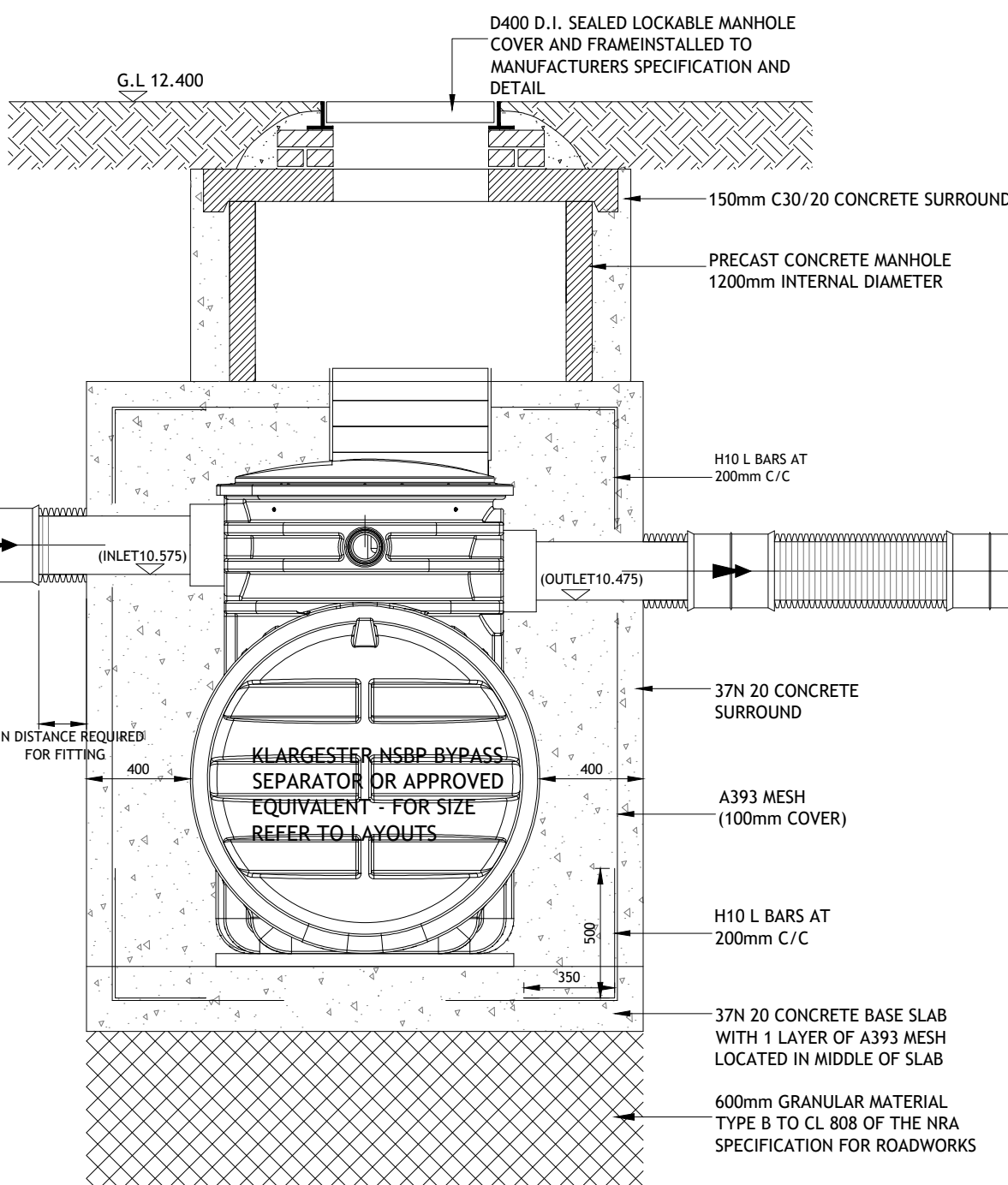


KLARGESTER NSBP BYPASS SEPARATOR OR APPROVED EQUIVALENT  
SCALE 1:25

PRECAST CONCRETE CHAMBER SECTIONS AND COVER SLAB TO BE BEDDED WITH PROPRIETARY BITUMEN OR RESIN MASTIC SEALANT OR AN ELASTOMERIC RING

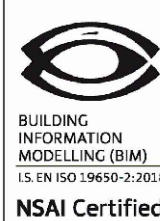
NOTE

SEPARATOR TO BE FITTED WITH AN OIL LEVEL ALARM SYSTEM SO THAT IT WILL RESPOND TO AN ALARM CONDITION WHEN THE SEPARATOR REQUIRES EMPTYING.



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