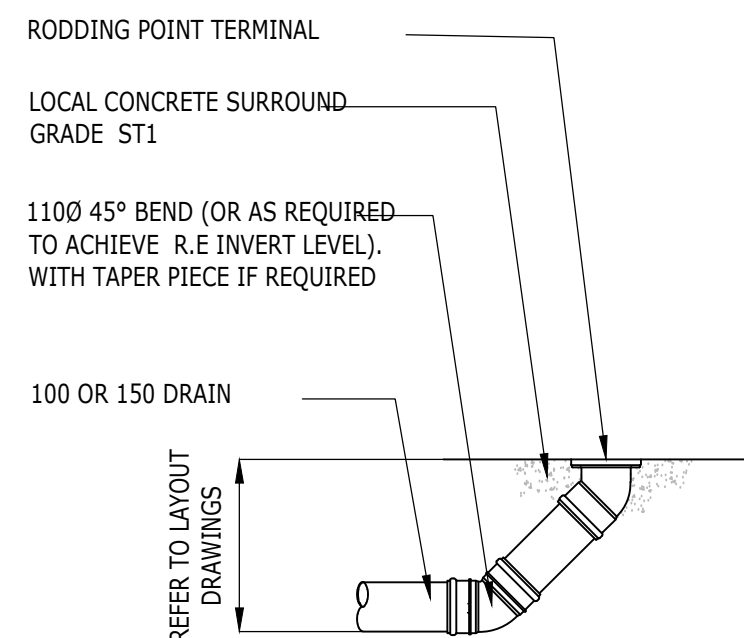
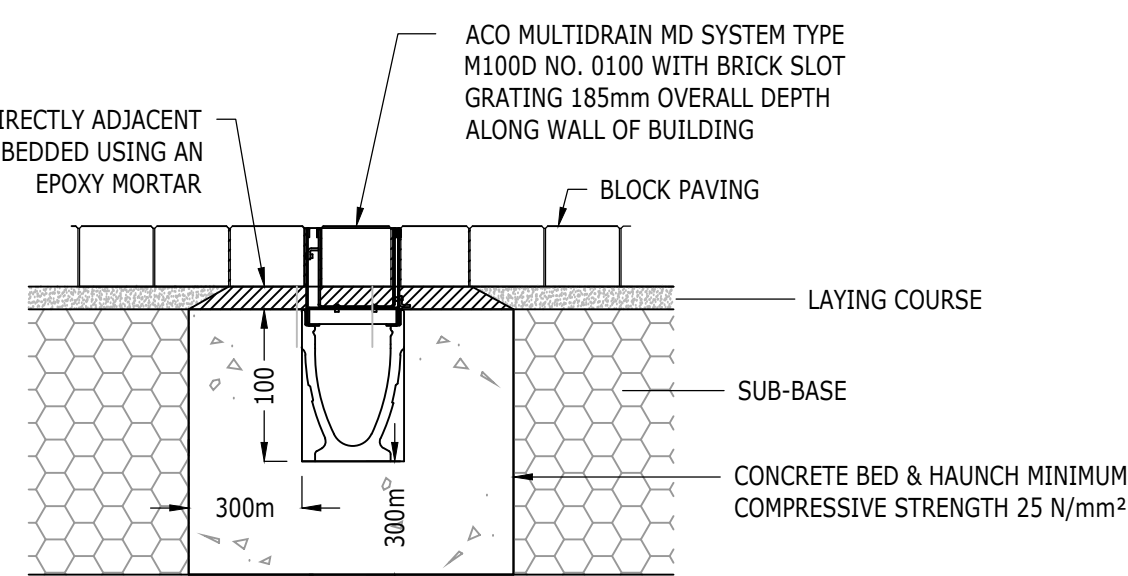
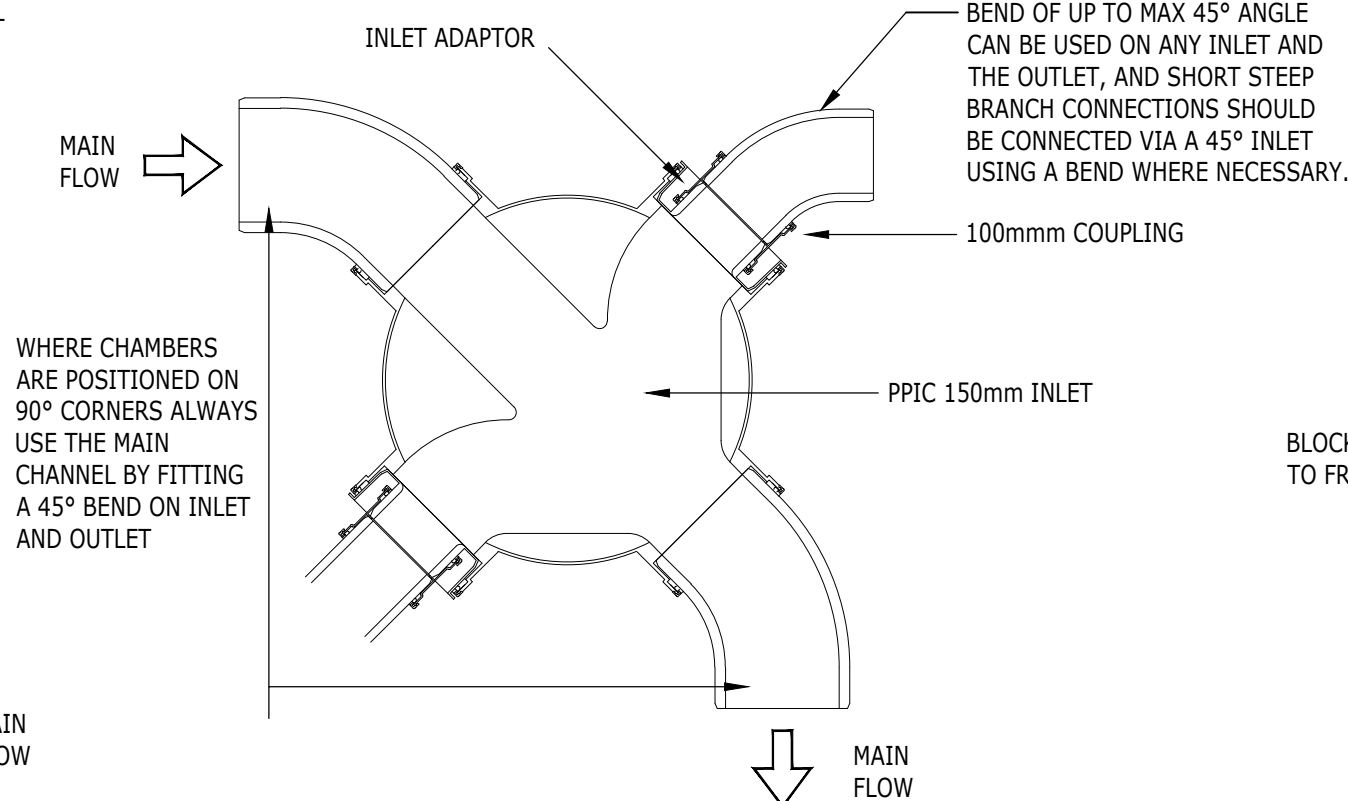
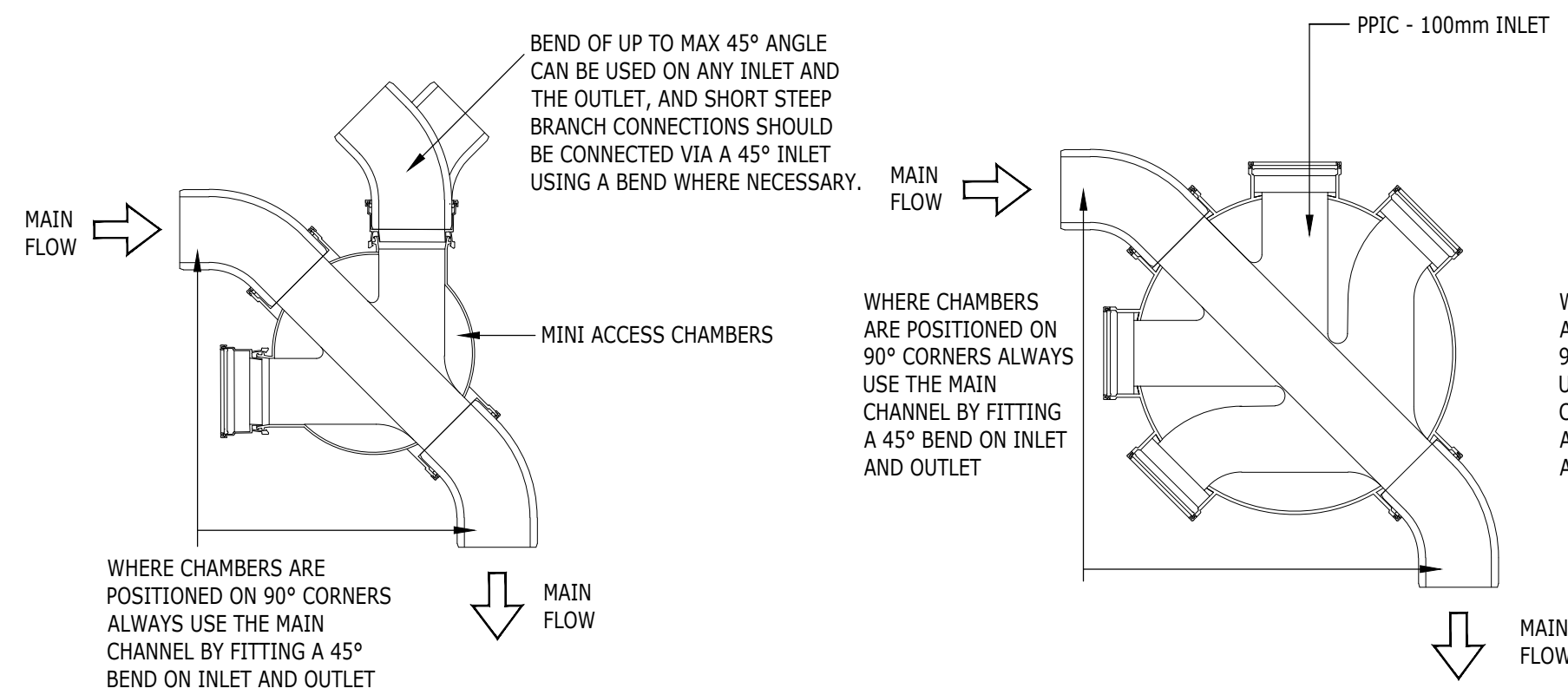




NON ENTRY CHAMBER / PPIC INSTALLATION DETAIL

TABLE 6. MINIMUM DIMENSIONS FOR MANHOLES AND OTHER CHAMBERS

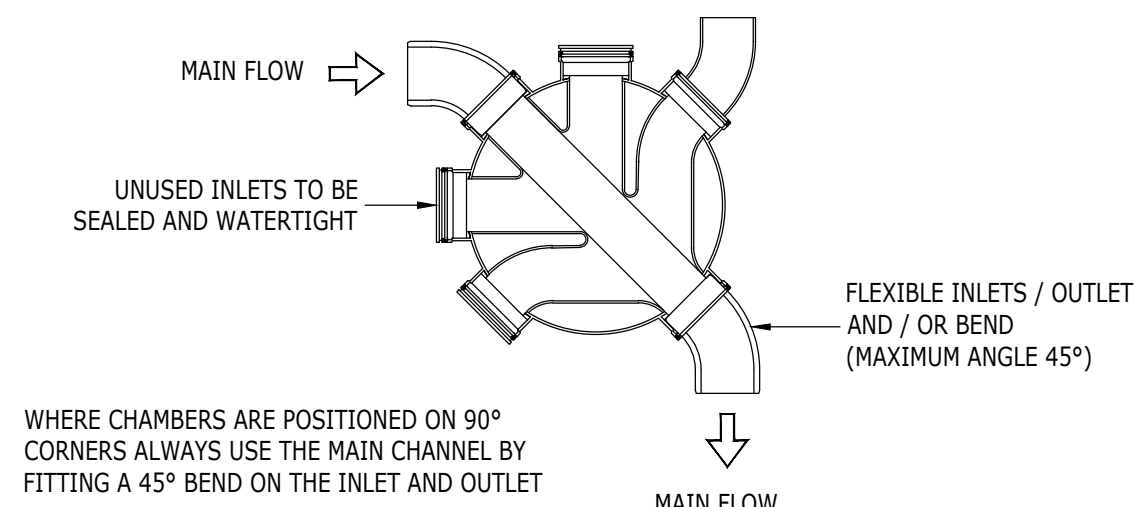
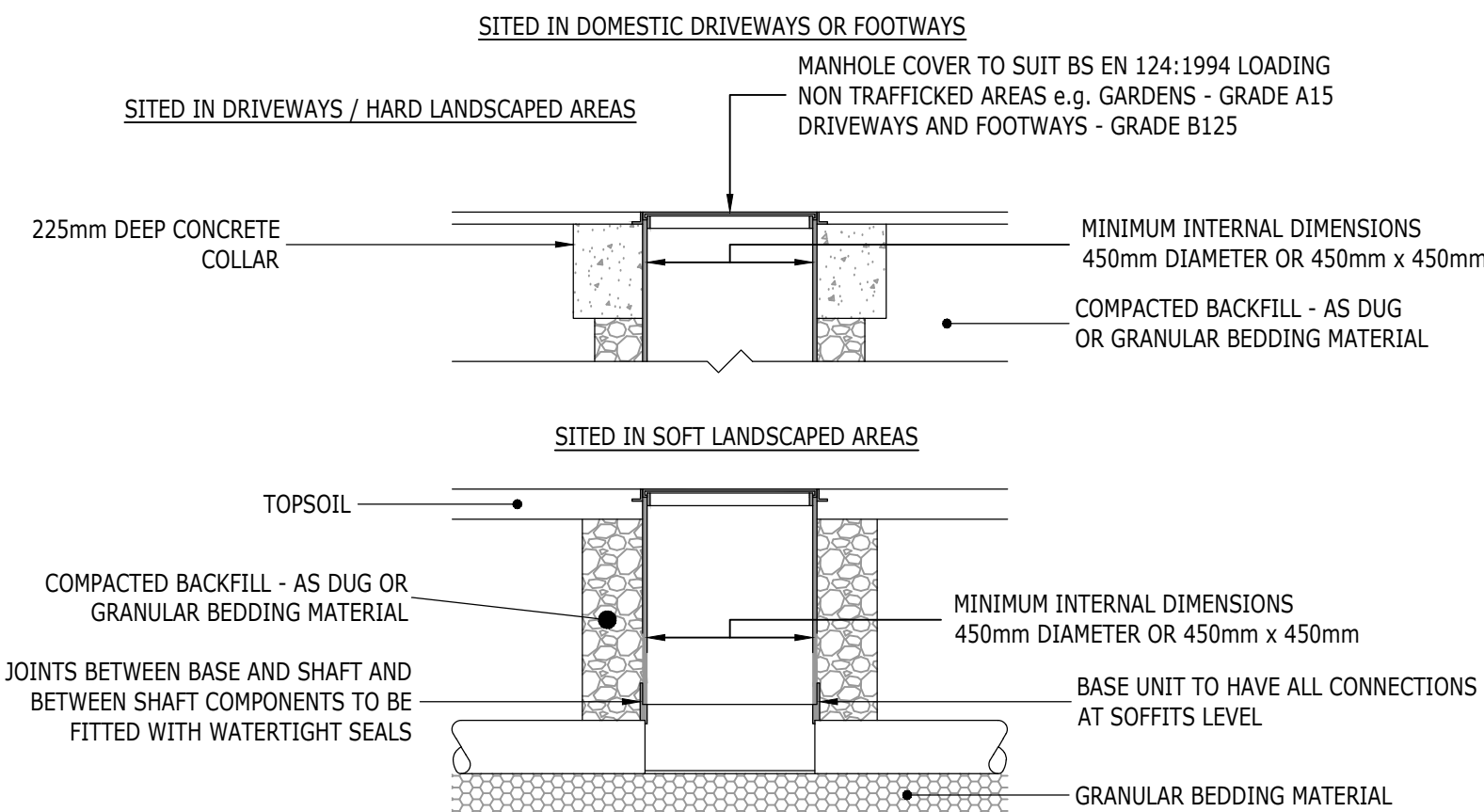
Min. internal dimensions ¹				Min clear opening size ¹		
	Size of largest Pipe (dn)	Length x width (mm x mm)	Circular (mm)	Length x width (mm x mm)	Circular (mm)	
Manhole	< 1.5m Deep to soffit	150	750x675 ⁷	1000 ⁷	750x750 ² 675x675 ²	na ³
		225	1200x675	1200		
		300	1200x750	1200		
		>300	1800x (dn+450)	The larger of 1800 or (DN+450)		
	> 1.5m Deep to soffit	225	1200x1000	1200	675x675	600
		300	1200x1075	1200		
		375-450	1350x1225	1200		
		>450	1800x (dn+775)	The larger of 1800 or (DN+450)		
Manhole shaft ⁴	> 3.0m deep to soffit of pipe	Steps ⁵	1050 x 800	1050	675 x 675	600
		Ladder ⁵	1200 x 800	1200		
	> 3.0m deep to soffit of pipe	Winch ⁶	900 x 800	900	600 x 600	600
Notes:						
1 Larger sizes may be required for manholes on bends or where there are junctions.						
2 May be reduced to 600 by 600 where required by highway loading considerations, subject to a safe system of work being specified.						
3 Not applicable due to working space needed.						
4 Minimum height of chamber in shafted manhole 2m from benching to underside of reducing slab.						
5 Min clear space between ladder or steps and the opposite face of the shaft should be approximately 900mm.						
6 Winch only - no steps or ladders, permanent removable.						
7 The minimum size of any manhole serving a sewer (i.e any drain serving more than one property) should be 1200mm x 675mm rectangular or 1200mm diameter.						

TABLE 3. BS EN 124 CLASSIFICATION - GULLY

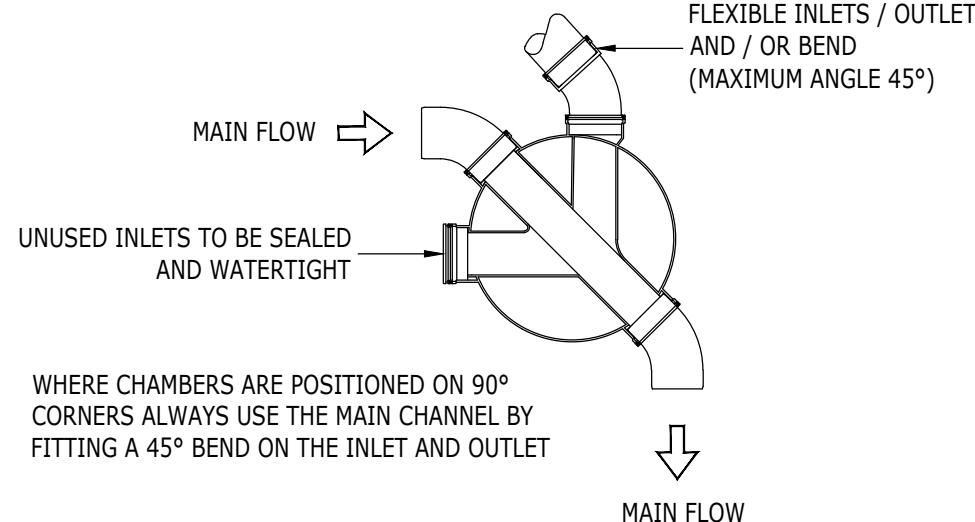
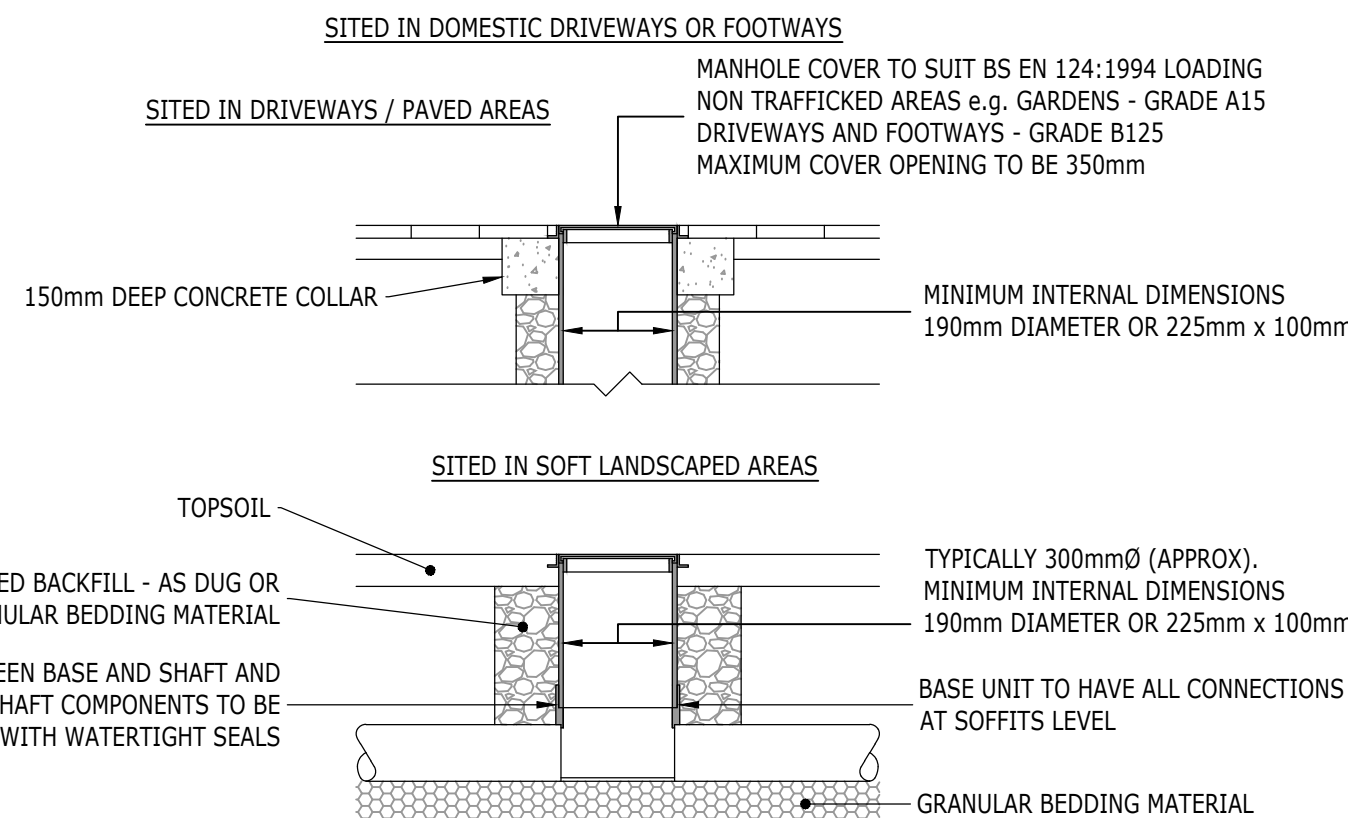
GROUP	CLASS	PLACE OF INSTALLATION	MINIMUM NOMINAL WIDTH
2	MIN. B 125	AREAS ONLY ACCESSABLE TO PEDESTRIANS	TO SUIT TYPE AND SIZE OF YARD GULLY DETAILEDType
3	MIN. C 250	ALL OTHER AREAS	450mm

TABLE 4. BS EN 124 CLASSIFICATION - DRAINAGE CHAMBERS

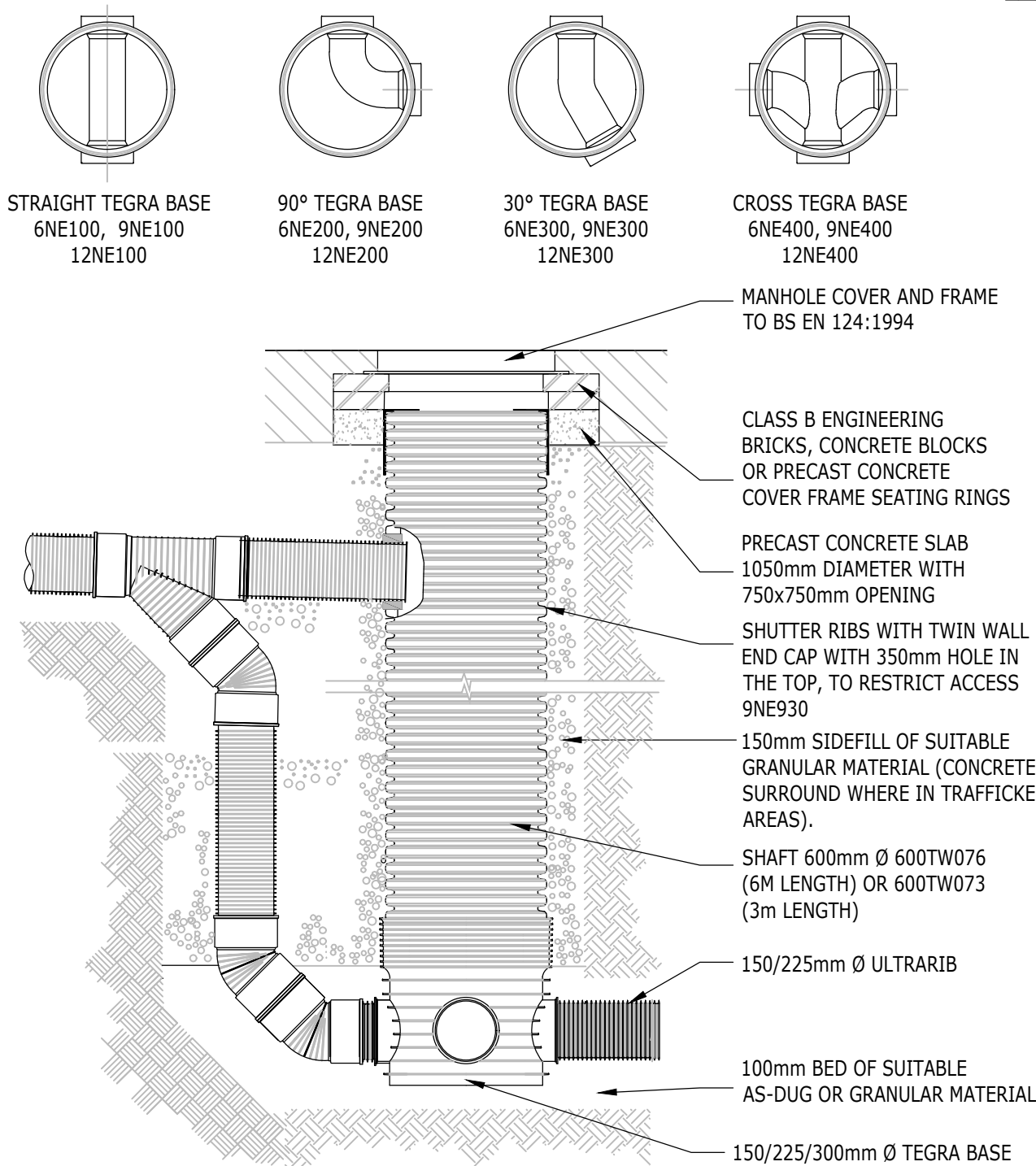
GROUP	CLASS	PLACE OF INSTALLATION
1	MIN. A 15	GARDEN AREAS OF PRIVATE HOUSES ONLY
2	MIN. B 125	FOOTWAYS, PARKING BAYS, AMENITY AREAS AND AREAS OF LANDSCAPING
3	MIN. C 250	N/A
4	MIN. D 400	ALL ESTATE ROADS AND PARKING ACCESS ROADS



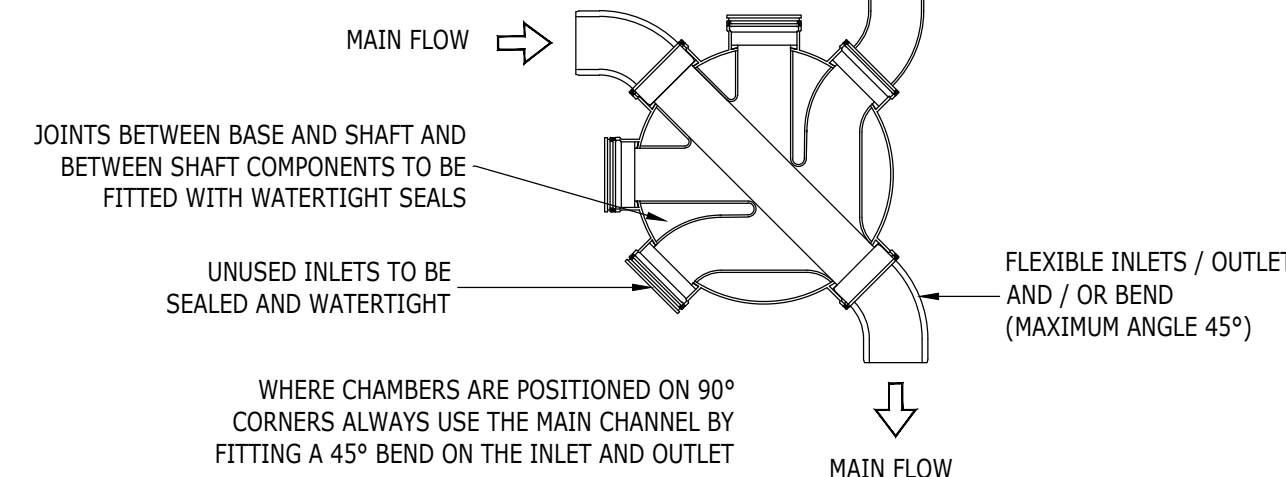
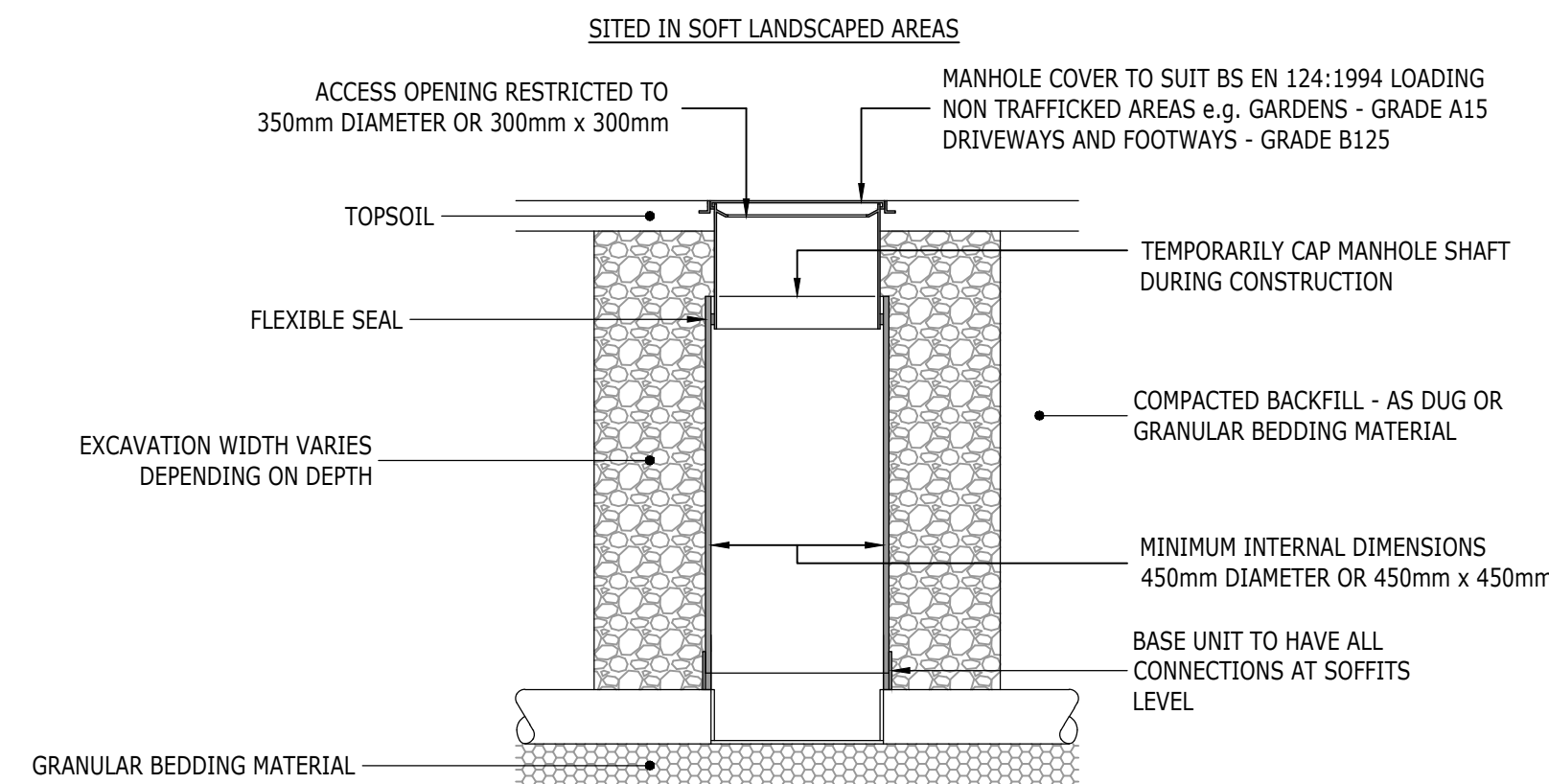
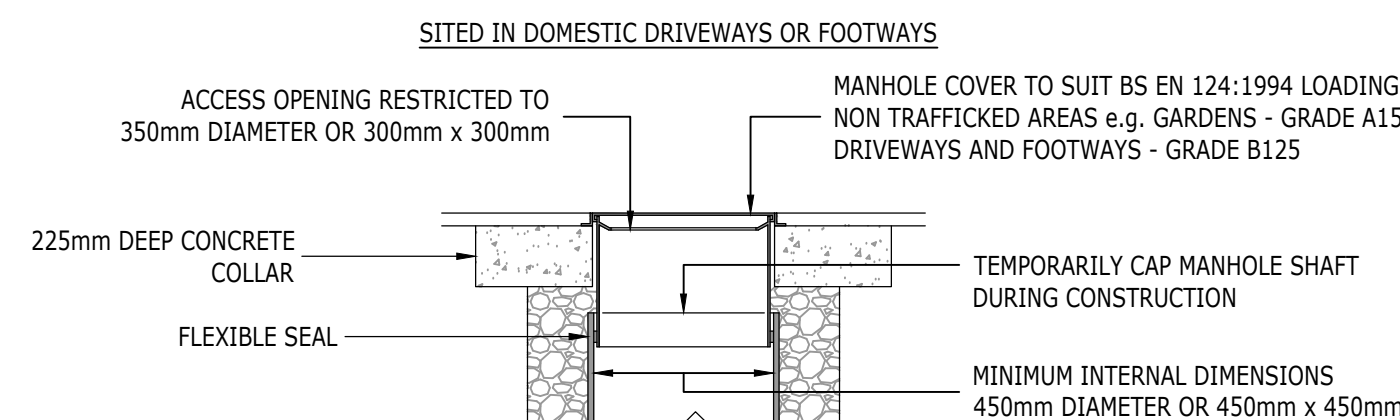
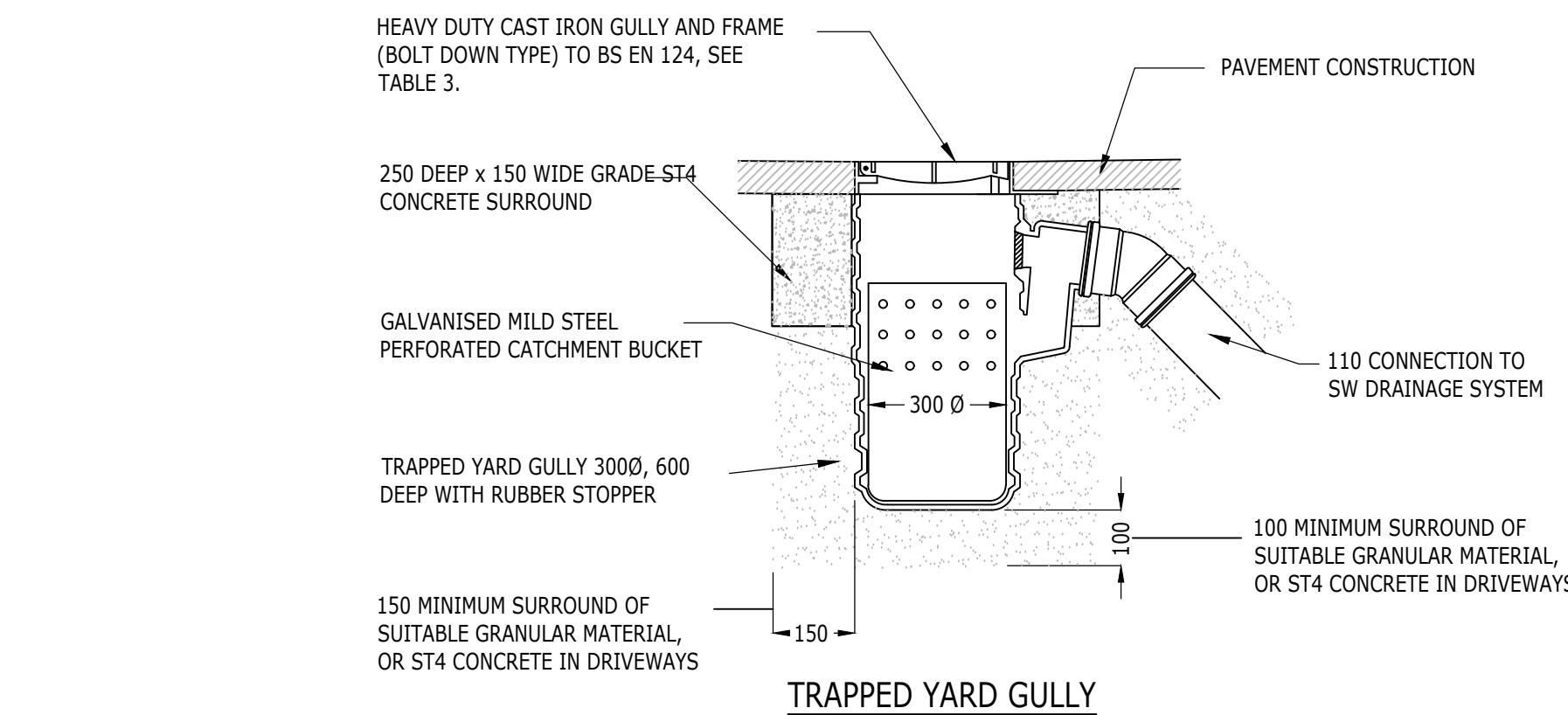
TYPICAL ACCESS CHAMBER DETAIL - TYPE 5
MAXIMUM DEPTH FROM COVER LEVEL TO SOFFIT OF PIPE < 1m, NON ENTRY



TYPICAL ACCESS CHAMBER DETAIL - TYPE 6
MAXIMUM DEPTH FROM COVER LEVEL TO SOFFIT OF PIPE < 0.6m, NON ENTRY



TYPICAL 600mmØ INSPECTION CHAMBER DETAIL - TYPE 3
MAXIMUM DEPTH FROM COVER LEVEL TO SOFFIT OF PIPE FOR AREAS NOT SUBJECT TO VEHICLE LOADING OR AREAS SUBJECT TO LIGHT VEHICLE LOADING < 3m > 5m, NON ENTRY



TYPICAL ACCESS CHAMBER DETAIL - TYPE 3
MAXIMUM DEPTH FROM COVER LEVEL TO SOFFIT OF PIPE FOR AREAS NOT SUBJECT TO VEHICLE LOADING OR AREAS SUBJECT TO LIGHT VEHICLE LOADING < 3m, NON ENTRY

- NOTES
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE RELEVANT SPECIFICATION, INC. RISK ASSESSMENTS (SEE ALSO CDM NOTES BELOW) AND ALL OTHER RELATED DRAWINGS ISSUED BY THE ENGINEER.
 - DO NOT SCALE FROM THIS DRAWING. WORK FROM FIGURED DIMENSIONS ONLY.
 - NO DEVIATION FROM THE DETAILS SHOWN ON THIS DRAWING IS PERMITTED WITHOUT PRIOR PERMISSION FROM THE ENGINEER.
 - ALL PRIVATE DRAINAGE IS TO COMPLY AND BE LAID IN ACCORDANCE WITH CURRENT PART H OF BUILDING REGULATIONS, BS 8301 AND BS 5955.
 - ALL WORKS FOR ADOPTION UNDER A SECTION 104, 185 OR 98 AGREEMENT SHALL BE CARRIED OUT TO THE NATIONAL WATER COUNCIL GUIDE 'SEWERS FOR ADOPTION' 6TH EDITION AND SOUTHERN WATER'S REQUIREMENTS.
 - REFER TO ARCHITECT'S HOUSE TYPE (WORKING) DRAWINGS FOR EXACT POSITION OF DRAINAGE POINTS.
 - POSITION & INVERT LEVELS OF ALL EXISTING MANHOLES, SEWERS AND LATERALS TO BE CONFIRMED PRIOR TO CONSTRUCTION & ANY DISCREPANCIES REPORTED TO THE ENGINEER.
 - ALL DRAIN AND SEWER PIPES ARE TO BE LAID SOFFIT TO SOFFIT, UNLESS SHOWN OTHERWISE (SEE ALSO MANHOLE SCHEDULE DRAWINGS).
 - ALL PLOT DRAINAGE TO BE 100mm Ø UNLESS SHOWN OTHERWISE, LAID IN ACCORDANCE WITH BS 8301.
 - ALL MATERIALS SHALL COMPLY TO THE BS1 KITE MARK CERTIFICATION SCHEME AND MUST BE MARKED ACCORDINGLY.
 - COVER AND FRAMES TO MANHOLES/INSPECTION CHAMBERS TO COMPLY WITH BS EN124. REFER TO PRIVATE DRAINAGE CONSTRUCTION DETAILS DRAWING.
 - WHERE FINISHED GROUND LEVELS FALL TOWARDS BUILDING, AN OPEN GULLY IS TO BE PROVIDED AT THE FOOT OF ALL RAINWATER PIPES. ALL RAINWATER PIPES TO HAVE RODDING ACCESS.
 - FINAL POSITIONS OF INSPECTION CHAMBERS WITHIN PRIVATE AREAS ARE SUBJECT TO CONFIRMATION ON SITE TO SUIT PIPE CONFIGURATIONS AND CHAMBER INLET POSITIONS.
 - WHERE A DRAIN RUN PASSES THROUGH A WALL OR FOUNDATION IT IS NECESSARY TO:
i) FORM AN OPENING USING A CONCRETE LINTEL WITH AT LEAST 50mm CLEARANCE AROUND THE PIPE AND THE OPENINGS MASKED WITH RIGID SHEET MATERIAL TO PREVENT ENTRY OF FILL OR VERMIN, OR:
ii) BUILD IN A LENGTH OF PIPE WITH ITS JOINTS AS CLOSE AS POSSIBLE TO THE WALL FACES (150mm MAXIMUM) AND CONNECTED ON EACH SIDE TO 600mm LONG ROCKER PIPES WITH FLEXIBLE JOINTS.
 - PLOT DRAINAGE TO BE BEDDED ON GRANULAR MATERIAL AND BACKFILLED WITH SUITABLE CLEAN MATERIAL, AS DESCRIBED ON THE PRIVATE DRAINAGE CONSTRUCTION DETAILS DRAWINGS. SEE ALSO SHALLOW DRAINAGE TRENCH DETAIL AND PIPE RUNS NEAR BUILDINGS DETAIL FOR CONCRETE BED AND SURROUND PIPE PROTECTION MEASURES WHERE APPLICABLE.
 - BACKFILL SHOULD BE PLACED IN LAYERS NOT EXCEEDING 300mm (UNCOMPACTED THICKNESS). EACH LAYER BEING WELL COMPACTED. MECHANICAL COMPACTION EQUIPMENT SHOULD NOT BE USED UNTIL THERE IS A MINIMUM OF 450mm OF COMPACTED MATERIAL ABOVE THE CROWN OF THE PIPE.
 - ALL DRAIN CONNECTIONS BENEATH THE HIGHWAY ARE TO HAVE MINIMUM 150mm CONCRETE BED AND SURROUND, WHERE COVER IS LESS THAN 1.2m.
 - REFER TO PRE-TENDER HEALTH & SAFETY PLAN & CONSTRUCTION PHASE HEALTH & SAFETY PLAN PRIOR TO THE COMMENCEMENT OF WORKS.
- CDM NOTES:
- THE ATTENTION OF THE CLIENT AND THE PRINCIPAL CONTRACTOR IS DRAWN TO THE FOLLOWING POTENTIAL RISKS IN CONJUNCTION WITH THE PROPOSED ON-SITE AND OFF-SITE WORKS AS DESIGNED FOR THIS PROJECT.
 - WORKS IN THE VICINITY OF LIVE SERVICES INCLUDING GAS, ELECTRICITY AND BT WILL BE NECESSARY AND THE ADVICE OF ALL STATUTORY SERVICE COMPANIES MUST BE SOUGHT BEFORE ANY WORKS COMMENCE.
 - WORKS WITHIN AND ADJUTING THE EXISTING HIGHWAY WILL ENTAIL TRAFFIC HAZARDS AND ALL APPROPRIATE SAFETY MEASURES INCLUDING BARRIERS, SIGNS AND LIGHTING MUST BE UNDERTAKEN TO THE APPROVAL OF THE LOCAL AUTHORITY, THE HIGHWAY AUTHORITY AND THE POLICE DEPARTMENT.
 - HAZARDOUS MATERIALS INCLUDING CEMENT AND BITUMINOUS MATERIALS ARE SPECIFIED AND THE MANUFACTURERS ADVICE ON SAFE HANDLING PROCEDURES MUST BE OBTAINED AND MADE CLEAR TO ALL OPERATIVES.
 - THE CONTRACTOR WILL BE RESPONSIBLE FOR LOCATING ALL EXISTING SERVICES WITHIN THE VICINITY OF THE WORKS HAND DUG AND ENSURE THESE ARE PROTECTED THROUGHOUT THE DURATION OF THE WORKS. ALL UTILITY PLANT SHOULD BE CLEARLY MARKED ON THE GROUND PRIOR TO COMMENCEMENT OF THE WORKS.
 - THE CONTRACTOR MUST ENSURE ALL WORKING AREAS ARE FULLY SECURE.

CONSTRUCTION
ISSUE

C1	CONSTRUCTION ISSUE	DAM	DP	DM	07.08.20
----	--------------------	-----	----	----	----------

Rev	Description	Dn	Chk	App	Date
-----	-------------	----	-----	-----	------

ARDENT CONSULTING ENGINEERS

Third Floor
The Haimark Building
52-56 Leadenhall Street
London
EC3M 5JE

Tel: 020 7680 4088
Web: www.ardent-ce.co.uk
E-mail: enquiries@ardent-ce.co.uk

worksafe
consultant
www.smeaistd.com

SSIP
SAFETY
INTEGRITY
PROFESSION

Client
LINDEN HOMES SOUTH

Project Title:
**WOODCROFT LANE,
LOVEDEAN, PHASE 2**

Drawing Title:
**PLOT DRAINAGE DETAILS
SHEET 2**

A1 Scale	Date	Designed by
NTS	FEB 2020	DAM
Drawn by	Checked by	Approved by
DAM	DP	DM
Drawing Number	192931-087	
		Rev C1