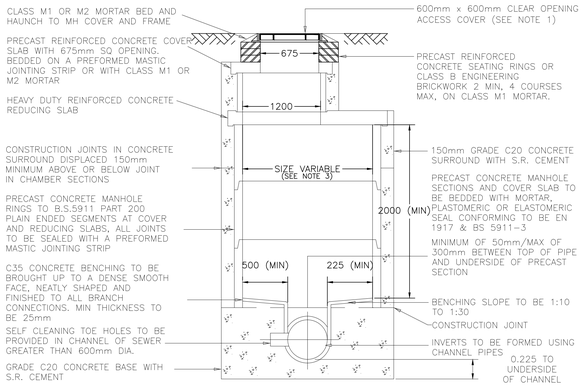
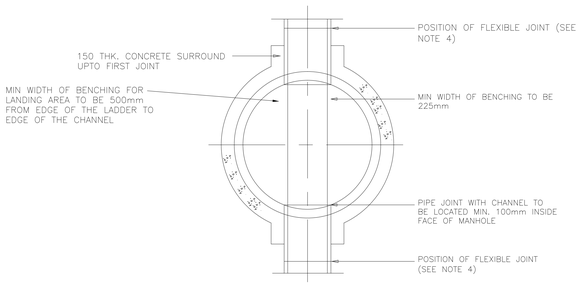


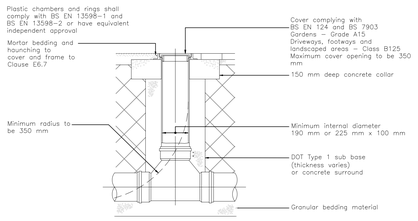
SECTIONAL ELEVATION



SECTIONAL PLAN

TYPE 1A

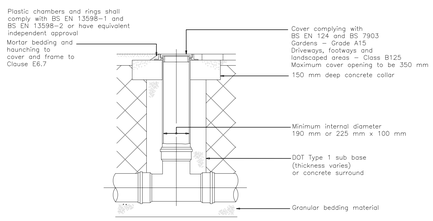
MAX DEPTH TO PIPE SOFFIT 3.0m TO 6.0m



Note: Where the access chamber is in the highway the Highway Authority can have specific requirements

No connections allowed

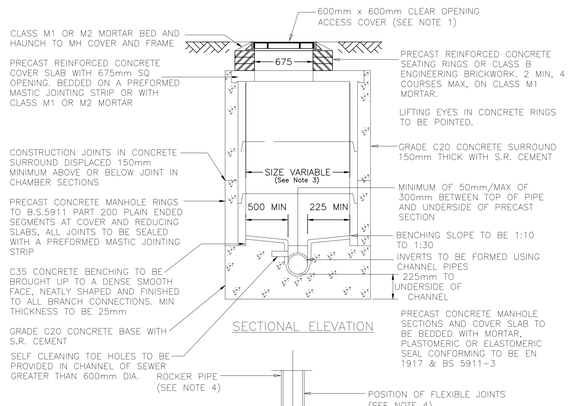
TYPICAL INSPECTION CHAMBER DETAIL
MAXIMUM DEPTH FROM COVER LEVEL TO SOFFIT OF PIPE 2M, NON–ENTRY



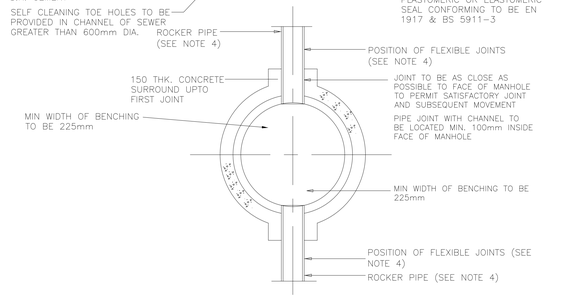
Note: Where the access chamber is in the highway the Highway Authority can have specific requirements

No connections allowed

TYPICAL INSPECTION CHAMBER DETAIL
MAXIMUM DEPTH FROM COVER LEVEL TO SOFFIT OF PIPE 0.6M, NON–ENTRY



SECTIONAL ELEVATION

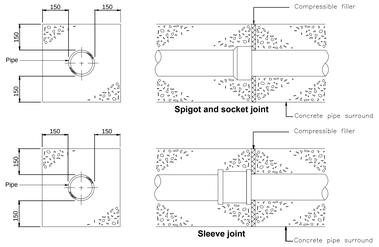


SECTIONAL PLAN

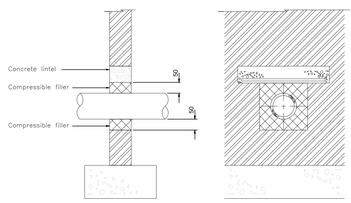
TYPE 2

MAX DEPTH TO PIPE SOFFIT 3.0m

JOINTS FOR CONCRETE ENCASED PIPES



PROTECTION OF PIPES PENETRATING SINGLE LEAF BOUNDARY WALLS



Not to scale, dimensions in millimetres

PIPE DIA	TRENCH WIDTH Tw
150	600
225	700
300	750
375	1050
450	1150
525	1200
600	1350
675	1450
750	1500
825	1600
900	1900
1050	2050
1200	2300

PIPE BEDDING DETAILS

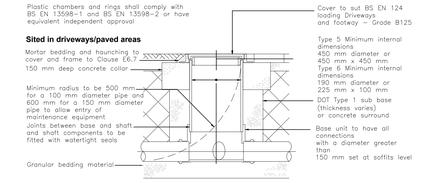
GRANULAR BEDDING & SURROUND

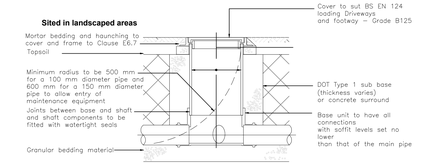
Granular bedding for pipes shall comply with Cl 2.88 of CESW, sized in accordance with the following table:

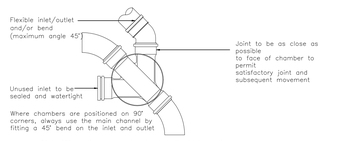
Nominal Bore of Pipe (mm)	Alternative Aggregate Sizes (mm)		CF Value Max
	Single-Sized	Graded	
100–150	10	–	0.2
225–300	10 or 14	14 to 5	0.2
375–525	10,14 or 20 14 or 20	14 to 5 or 20 to 5	0.2
Exceeding	14,20 or 40	14 to 5, 20 to 5 or 40 to 5	0.15
			0.5

BACKFILL TO TRENCHES

- Backfill within highways and paved areas shall be backfilled in accordance with local highway authority requirements or H.A.U.C. Specification for the reinstatement of Highways Appendix 1.
- Backfill outside hard areas shall be in accordance with the Specification for Highway Works Clause 505 Class 1, 2 or3. Material shall be placed and compacted in layers.
- A minimum of 150mm bed and surround is to be provided to all pipes.

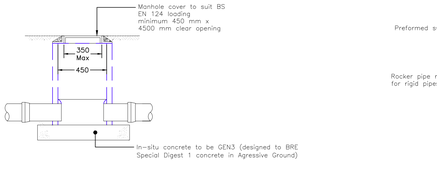




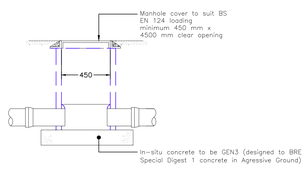


Note: Where the access chamber is in the highway the Highway Authority can have specific requirements

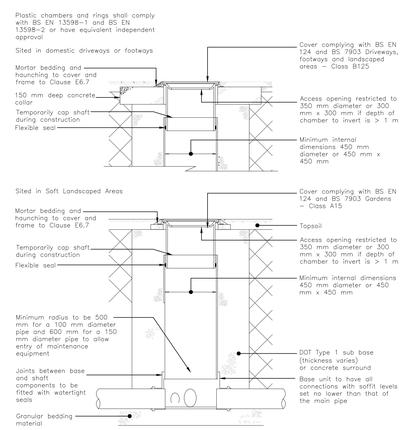
TYPICAL INSPECTION CHAMBER DETAIL
(FLEXIBLE MATERIAL DETAIL)
MAXIMUM DEPTH FROM COVER LEVEL TO SOFFIT OF PIPE 2M, NON–ENTRY



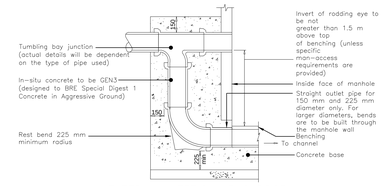
TYPICAL DEMARCATION CHAMBER DETAIL
DEPTH OF COVER LEVEL TO INVERT OF PIPE CHAMBER GREATER THAN 1.2M,
MAXIMUM LATERIAL DRAIN DIAMETER 150MM



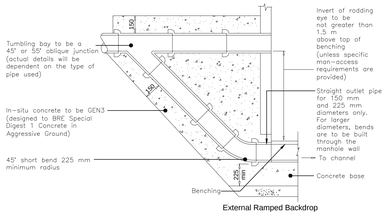
TYPICAL DEMARCATION CHAMBER DETAIL
DEPTH OF COVER LEVEL TO INVERT OF PIPE CHAMBER GREATER THAN 1.2M,
MAXIMUM LATERIAL DRAIN DIAMETER 150MM



TYPICAL INSPECTION CHAMBER DETAIL
(FLEXIBLE MATERIAL DETAIL)
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



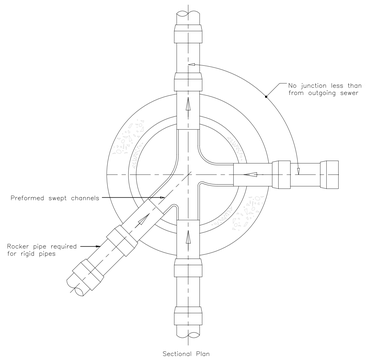
EXTERNAL VERTICAL BACKDROP



External Ramped Backdrop

EXTERNAL RAMPED BACKDROP
TYPICAL VERTICAL AND RAMPED BACKDROP DETAIL

Note: Steeper gradients are preferred to the use of backdrops. Type of backdrop to be used to be agreed with Undertaker.



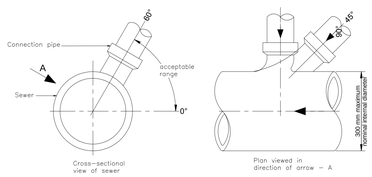
Sectional Plan

Rigid pipes built into manhole should have a flexible joint as close as feasible to the external face of the structure and the length of the next rocker pipe should be as shown.

Nominal diameter (mm)	Maximum effective length (m)
150 - 600	0.6
601 - 750	1.00
over 750	1.25

All pipes entering the bottom of the manhole to have soffits level.

TYPICAL ARRANGEMENT OF PIPE JUNCTIONS WITHIN MANHOLES
FIGURE B.14



CONNECTIONS TO SEWER

SPECIFICATION NOTES:

1) ACCESS COVER GRADES
BS EN 124
CLASS D 400 – CARRIAGEWAY AND PARKING AREAS
CLASS B 125 – FOOTWAYS ETC

2) ACCESS COVERS FOR TYPE 1A AND 2 MANHOLES TO HAVE MIN. 600mm x 600MM CLEAR OPENING.

3) PERMISSIBLE CHAMBER DIAMETERS FOR MANHOLE TYPES 1A AND 2

DIAMETER OF LARGEST PIPE IN MANHOLE (mm)	CHAMBER SECTION DIAMETER (mm)
LESS THAN 375	1200
375 – 450	1350
500 – 700	1500
750 – 900	1800
975 – 1050	2100
1200 – 1350	2400
1400 – 1500	2700
1650 – 1800	3000

4) PIPES BUILT INTO MANHOLES SHALL HAVE A FLEXIBLE JOINT AS CLOSE AS FEASIBLE TO THE EXTERNAL FACE OF THE STRUCTURE AND THE LENGTH OF THE NEXT ROCKER PIPE SHALL BE AS SHOWN

NOMINAL DIAMETER (mm)	EFFECTIVE LENGTH (m)
150 – 600	0.60
675 – 750	1.00
OVER 750	1.25

5) ALL PIPES ENTERING AT THE BOTTOM OF THE MANHOLE TO HAVE THE SAME SOFFIT LEVEL

6) THE CHANNEL MAY BE PREFORMED HALF ROUND CHANNEL

7) WHERE A FUTURE CONNECTION IS SHOWN IN THE MANHOLE SCHEDULE THE PIPE SHALL BE SUPPLIED WITH A STOPPER

8) MANHOLES WITH OUTGOING PIPES GREATER THAN 600mm DIA SHALL BE FITTED FOR REMOVABLE SAFETY CHAIN HOOKS ONLY

9) REDUCTION SHAFT IS OPTIONAL FOR MANHOLES GREATER THAN 3.0m DEPTH

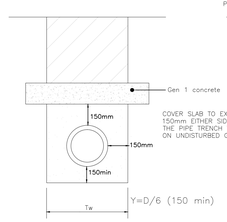
10) LADDERS SHALL BE EITHER STAINLESS STEEL OR GRP. FIXINGS TO BE STAINLESS STEEL

11) STEP RUNGS SHALL BE DOUBLE POLYPROPYLENE ENCAPSULATED

NOTES:

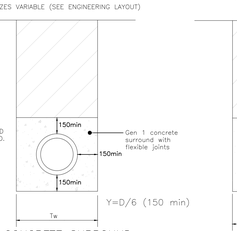
1. LOCATION OF THIS TYPE OF MANHOLE RESTRICTED TO AREAS WHERE PIPE DIAMETER DOES NOT EXCEED 450mm. AND WHERE CLASS B COVERS ARE TO BE USED.
2. PRECAST CONCRETE HEAVY DUTY COVER SLAB AND CHAMBER SECTIONS TO BS 5911, APPROPRIATELY PRIMED AND BEDDED ON CLASS M1 MORTAR, PROPRIETARY BITUMEN, OR RESIN MASTIC SEALANT.
3. REFER TO MANHOLE SCHEDULE FOR DETAILS OF COVERS, PIPE SIZES, INVERT LEVELS, MANHOLE DIAMETER, ETC.
4. PIPES TO BE LAID WITH THEIR SOFFITS LEVEL OR AS SPECIFIED ON THE CONTRACT DRAWINGS.
5. ALL CONSTRUCTION TO COMPLY WITH SEWERS FOR ADOPTION 7TH EDITION.
6. ALL FOUL SEWERS ARE TO BE INSPECTED BY SOUTHERN WATER AND ALL HIGHWAY DRAINS BY WEST SUSSEX COUNTY COUNCIL.

ROAD CONSTRUCTION



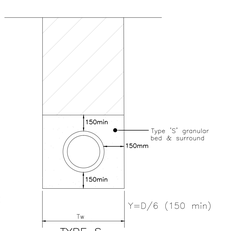
TYPE S WITH CONCRETE COVER SLAB

ROAD CONSTRUCTION OR ANY COVER LESS THAN 0.9M IN NON–TRAFFICKED AREAS AND LESS THAN 1.2M IN TRAFFICKED AREAS.
PIPE SIZES VARIABLE (SEE ENGINEERING LAYOUT)



CONCRETE SURROUND

ROAD CONSTRUCTION



TYPE S

REV. No.	DATE	DESCRIPTION	INITIALS
D	11.06.18	Ladder & step rungs removed.	AMc
C	18.05.18	Changes made to notes.	NB
B	14.05.18	Changes made to notes.	NB
A	26.03.18	Updated to client comments.	SS

Client: TaylorWimpey plc

Project: Westergate & Eastergate

Title: Sewer Construction Details Sheet 1

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CIVIL AND STRUCTURAL ENGINEERS
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Fax: 01235 523226

Scale	Date	Drawing No.	Rev
AsShown@A0	Oct' 17	5655:21	D
Checked AMc	Drawn WSR		

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