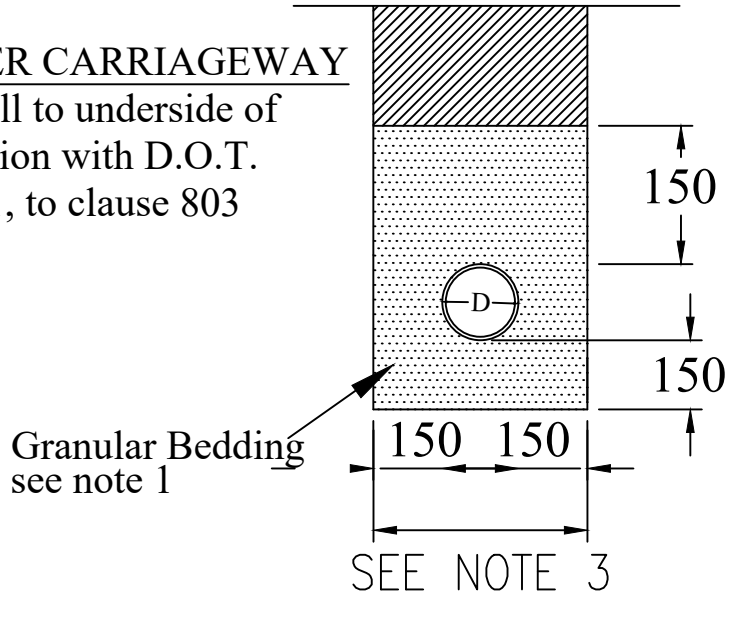
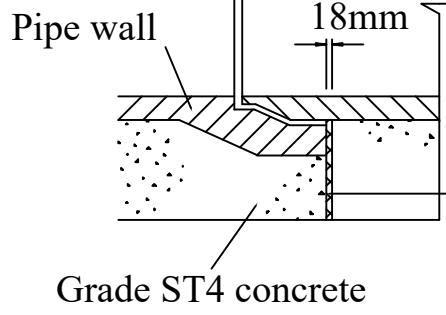
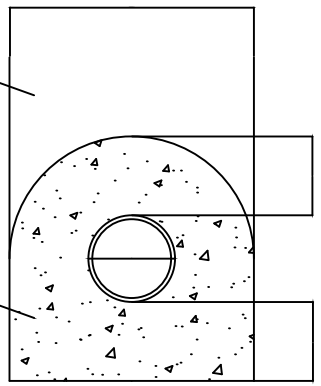


UNDER CARRIAGEWAY  
Backfill to underside of  
formation with D.O.T.  
Type 1, to clause 803



Trench backfilled with Granular sub-base  
6F1 / 6F2

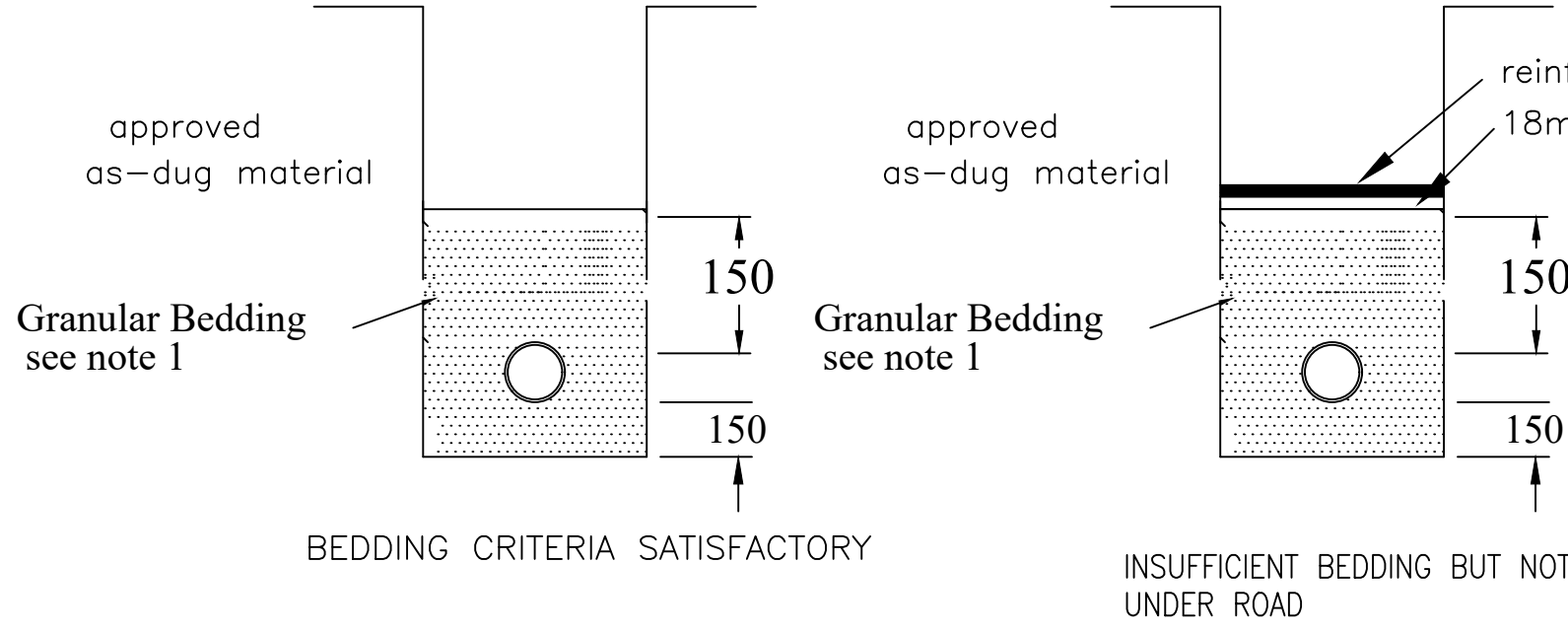
Concrete Grade ST 4 (C 20) bed  
and surround (to CI 2602)



Flexcell (or similar  
approved)  
bitumen impregnated  
joint  
filler

BEDDING DETAIL FLEXIBLE JOINT FOR USE WITH  
CONCRETE BEDDING AND SURROUND  
DEPTH IN ROAD LESS THAN 1.2m to CROWN

UNDER CARRIAGEWAY

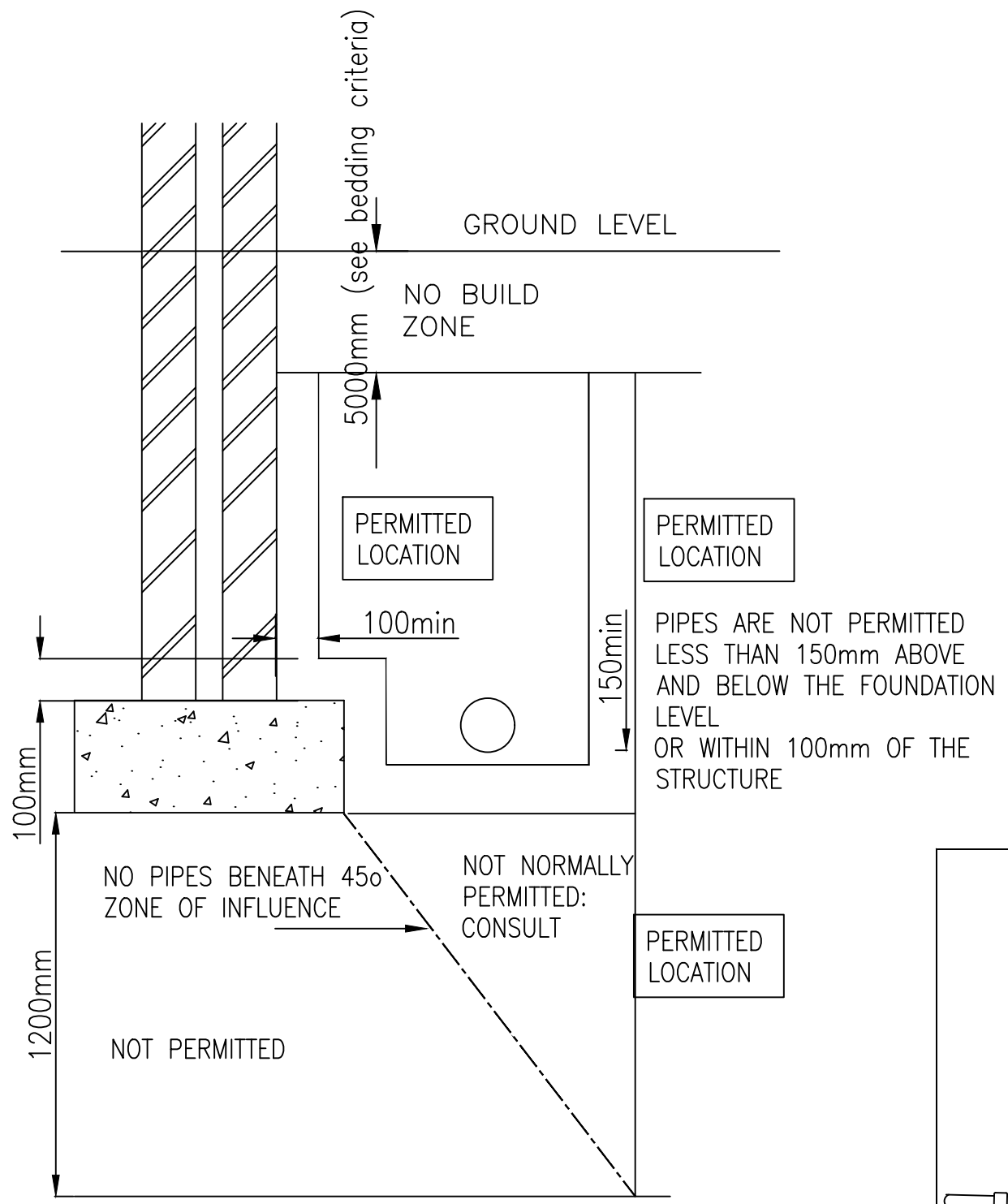


COVER CRITERIA:

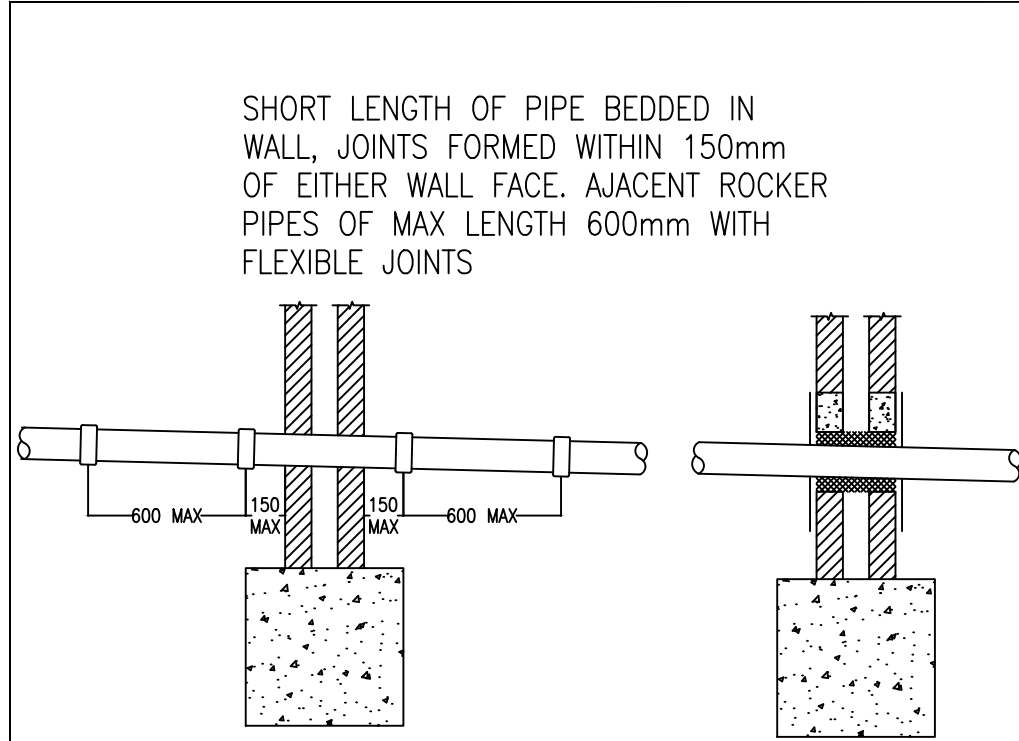
|                                                         |                                        |
|---------------------------------------------------------|----------------------------------------|
| MINIMUM COVER REQUIRED TO CROWN FOR ADOPTABLE DRAINAGE: |                                        |
| DOMESTIC GARDENS AND PATHS                              | 0.35m                                  |
| DRIVEWAYS LIGHT PARKING AREAS                           | 0.5m (NO ACCESS TO VEHICLES OVER 7.5t) |
| DRIVEWAYS LIGHT PARKING AREAS                           | 0.9m (ACCESS TO VEHICLES OVER 7.5t)    |
| PUBLIC OPEN SPACE                                       | 0.9m                                   |
| ROADS                                                   | 1.2m                                   |
| COVER LESS THAN ABOVE WILL REQUIRE PROTECTION.          |                                        |

BEDDING CLASS S

BEDDING DETAIL FOR ADOPTABLE MAIN DRAINAGE  
FLEXIBLE AND RIGID PIPES



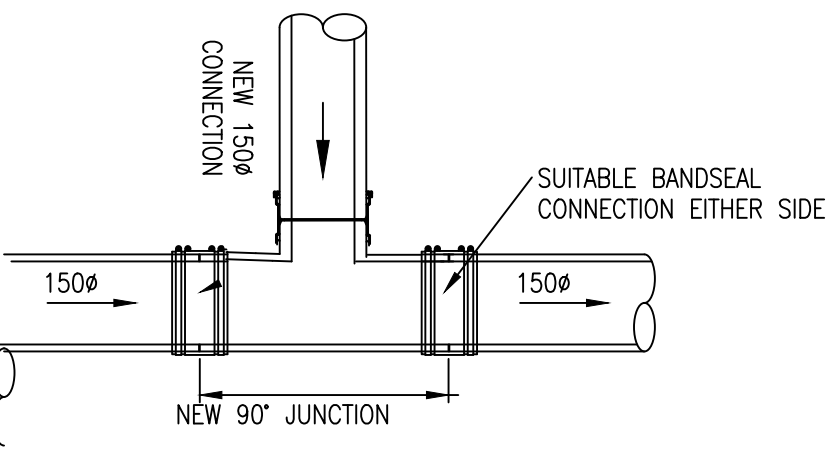
PERMITTED LOCATIONS OF SEWERS / LATERALS  
IN PROXIMITY TO BUILDINGS  
[SECTION 104 ITEM]



PIPES PENETRATING THROUGH WALLS

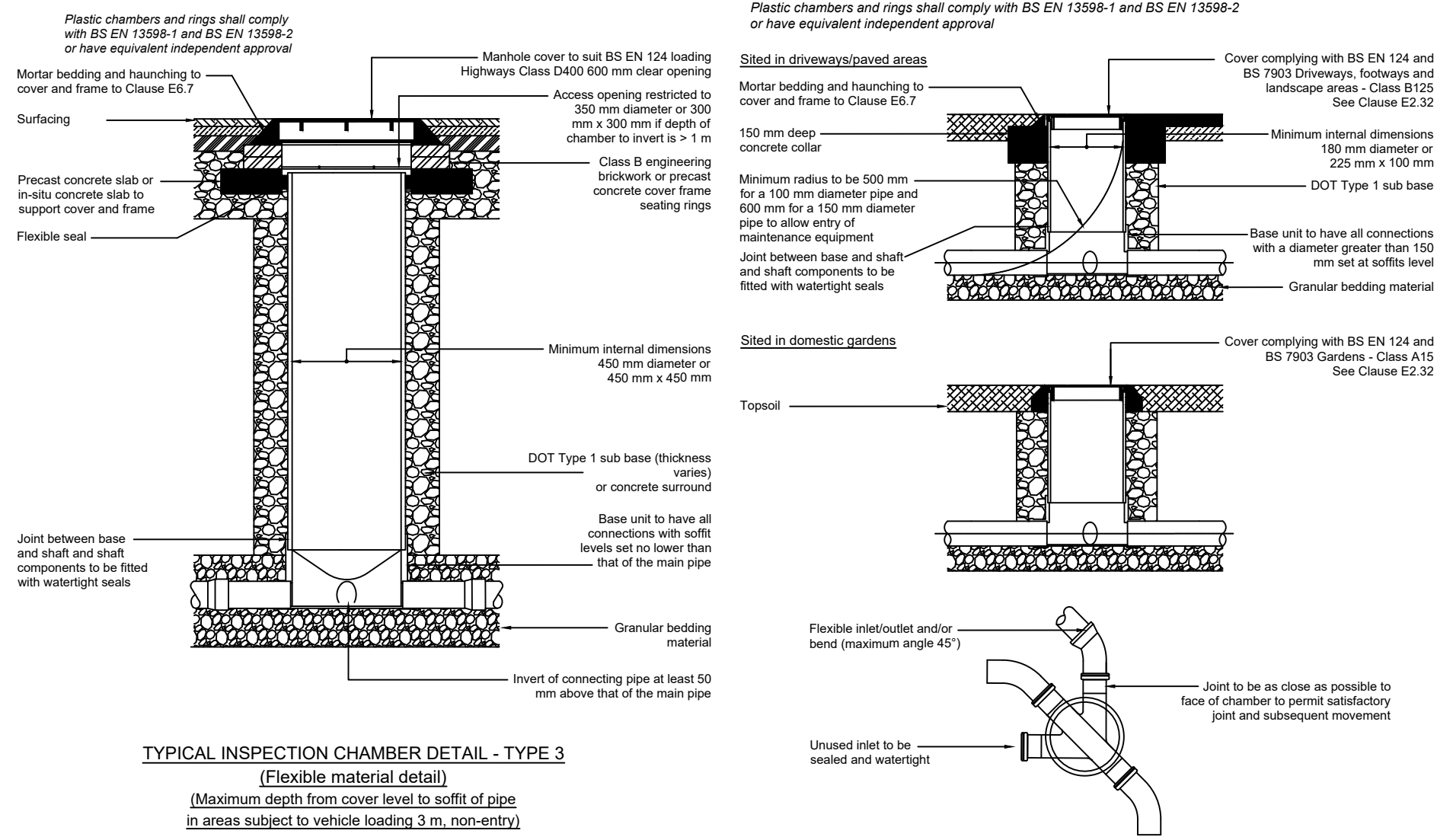
(b) ARCH OR LINTELLED OPENING  
TO GIVE 50mm SPACE ALL ROUND  
THE PIPE.

IMPORTANT: FILL VOID WITH  
COMPRESSIBLE SEALANT TO PREVENT  
ENTRY OF GAS



TYPICAL SADDLE DETAIL  
SCALE 1:20

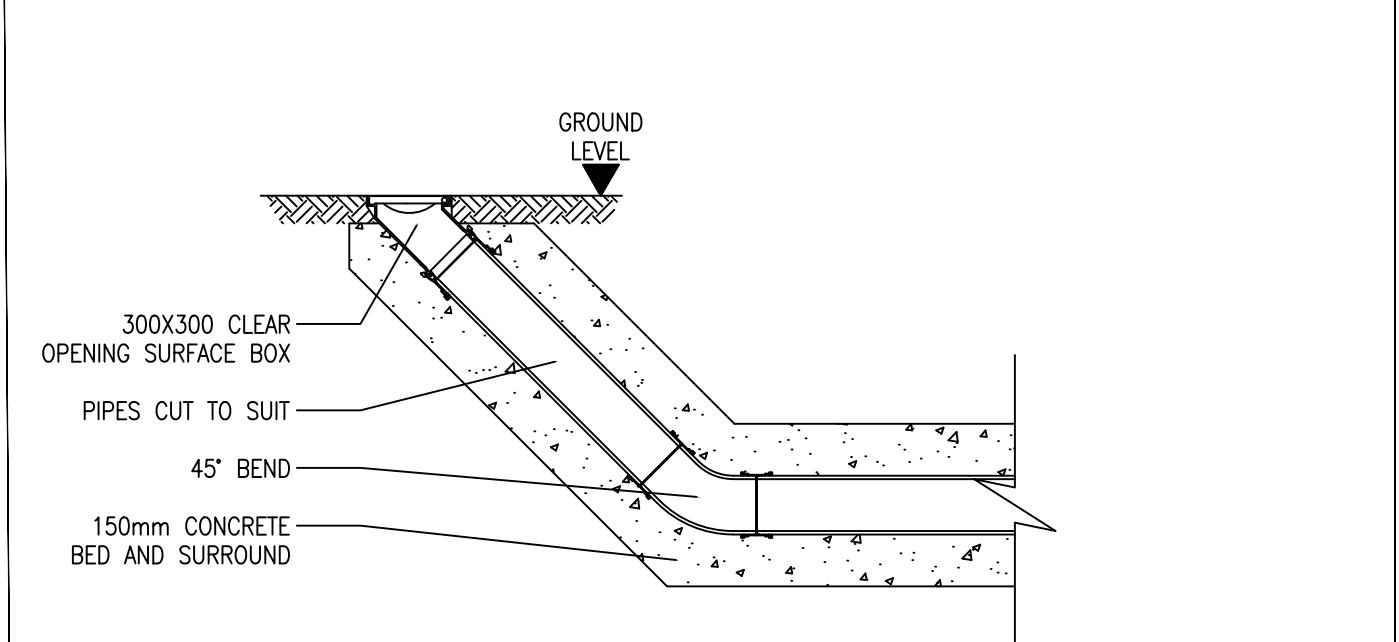
PRIVATE DRAINAGE ITEMS



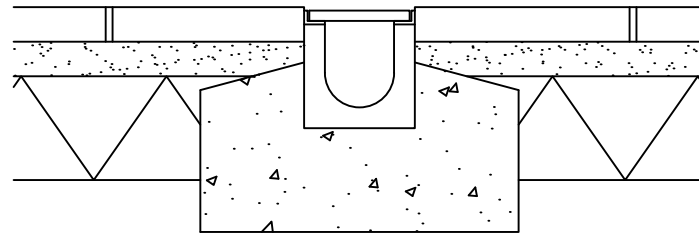
PRIVATE DRAINAGE

|                                                        |                       |
|--------------------------------------------------------|-----------------------|
| MANHOLE / CHAMBERS:                                    |                       |
| OVER 3m DEEP                                           | TYPE 1 CONCRETE RINGS |
| NOT OVER 3m, SERVING 10 OR MORE PROPERTIES             | TYPE 2 CONCRETE RINGS |
| OVER 2m/NOT OVER 3m DEEP / MORE THAN 3 PROPERTIES      | TYPE 3 PPIC CHAMBER   |
| 2m DEEP OR LESS, SERVING LESS THAN 4 PROPERTIES        | TYPE 4 PPIC CHAMBER   |
| BACKFILL:                                              |                       |
| TYPE 1, TYPE 2, 150mm CONCRETE SURROUND [ WELSH WATER] |                       |
| TYPE 3: DOT-TYPE 1 SUB-BASE SURROUND                   |                       |
| TYPE 4: DOT-TYPE 1 SUB-BASE SURROUND                   |                       |

2 INLETS PER SIDE, (5 IN/ONE OUT) 450mm MIN. DIAMETER  
ONE INLET PER SIDE 180 MIN DIAMETER (MINI-ACCESS CHAMBER=MAC)  
WHERE SIDE BRANCHES ARE NOT TO BE USED STOPPER TO BE  
INSERTED TO BLANK OFF CONNECTION



TYPICAL RODDING EYE DETAIL  
SCALE 1:20



CHANNEL DETAIL  
SCALE 1:20

SURFACING TO ARCHITECTS  
REQUIREMENTS  
100mm CHANNEL FITTED WITH MEDIUM  
DUTY SAFE GRATING

GENERAL NOTES

1. GRANULAR BEDDING  
SINGLE SIZED OR GRADED IN ACCORDANCE WITH  
ACCOMPANYING TABLE.  
AGGREGATES TO B.S. 882.

| NOMINAL BORE<br>OF PIPE (mm) | SINGLE-SIZED<br>(mm) | GRADED<br>(mm)     |
|------------------------------|----------------------|--------------------|
| 100-125                      | 10                   | -                  |
| 150-200                      | 10 OR 14             | 14-5               |
| 225-300                      | 10, 14 OR 20         | 14-5 OR 20-5       |
| 375-500                      | 14 OR 20             | 14-5 OR 20-5       |
| EXCEEDING 500                | 14, 20 OR 40         | 14-5, 20-5 OR 40-5 |

2. SELECTED BACKFILL  
TO BE IN ACCORDANCE WITH THE CIVIL ENGINEERING SPECIFICATION  
FOR THE WATER INDUSTRY, CLAUSE 2.46.3 AND SEWERS FOR  
ADOPTION (7th EDITION) 4.2.24 AND 4.5.2.

| NOMINAL INTERNAL<br>PIPE DIA (mm) | MINIMAL TRENCH<br>WIDTH (mm) | MAXIMUM TRENCH WIDTH<br>UP TO 300mm ABOVE<br>CROWN OF PIPE (mm) |
|-----------------------------------|------------------------------|-----------------------------------------------------------------|
| 100                               | 410                          | -                                                               |
| 150                               | 600                          | 750                                                             |
| 225                               | 600                          | 825                                                             |
| 300                               | 650                          | 900                                                             |
| 375                               | 725                          | 975                                                             |
| 450                               | 800                          | 1050                                                            |
| 600                               | 950                          | 1200                                                            |

4. DEPTH OF BEDDING BELOW PIPE  
\* SLEEVE JOINTED PIPES: GREATER THAN 50mm OR 1/6 DIA.  
\* SOCKET JOINTED PIPES: GREATER THAN 100mm OR 1/6 DIA.  
IN ROCK/HARD MATERIAL  
\* SLEEVE JOINTED PIPES: GREATER THAN 150mm OR 1/4 DIA.  
\* SOCKET JOINTED PIPES: GREATER THAN 200mm OR 1/4 DIA.

5. FOR PIPE STRENGTH AND TYPE SEE NOTES ON  
DRG. No. 1258/01  
6. ALL IN SITU. CONCRETE SHALL COMPLY WITH B.S. 5328: 1991  
TO MEET CLASS 1 SOIL CONDITIONS.

PRELIMINARY  
PENDING WATER APPROVAL

| Rev | Description | Date | Drwn | Chkd |
|-----|-------------|------|------|------|
|     |             |      |      |      |

KANE DESIGN  
Civil Engineering Design  
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LL12 8HH  
Tel: 01 978 855888

Client  
SG ESTATES Ltd

Project  
PROPOSED DEVELOPMENT at  
PONT ADAM, RUABON, WREXHAM LL14 6EG

Title  
DRAINAGE DETAILS

| DRAWING NUMBER | SCALE   | NOT TO SCALE | @ A1     |
|----------------|---------|--------------|----------|
| 1348/05        | DATE    | 03.05.17     | REVISION |
|                | DRAWN   | AK           |          |
|                | CHECKED | AK           |          |