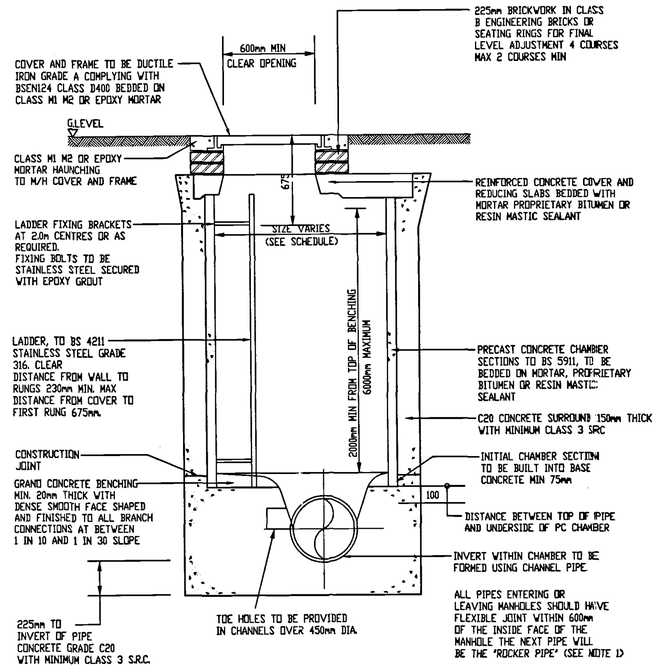
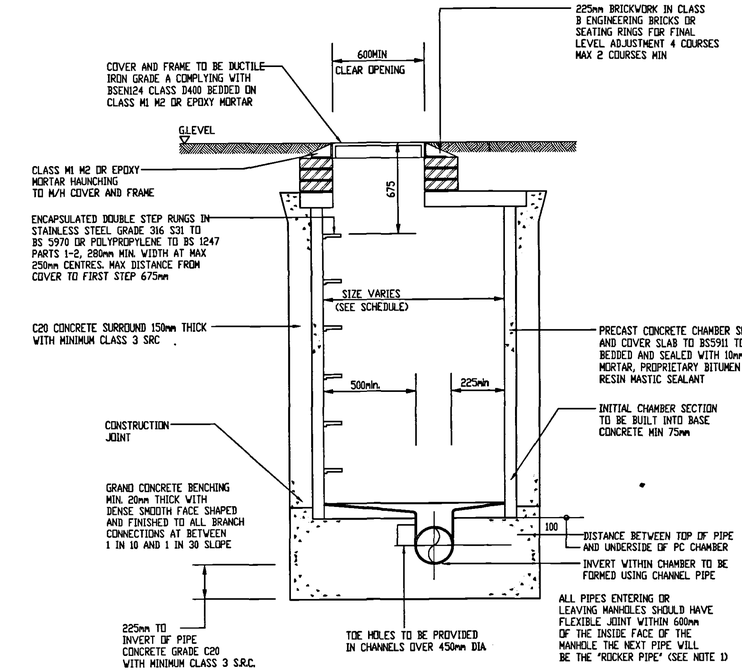
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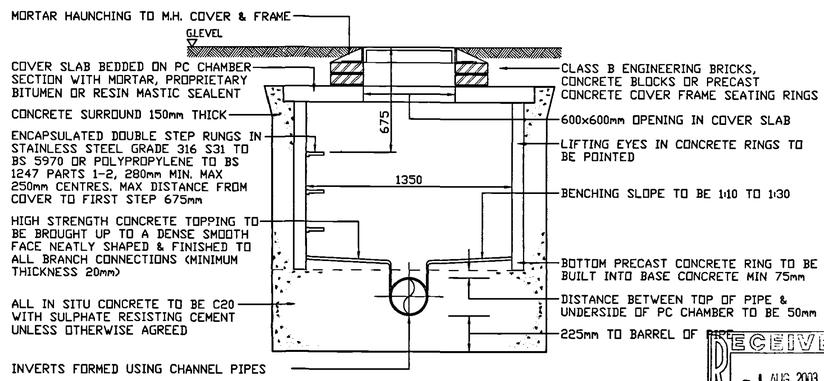
TYPE A MANHOLE TYPICAL SECTION

(MAX DEPTH FROM GROUND LEVEL TO SOFFIT OF PIPE 3.0m-6.0m)
(Scale 1:20)



TYPE 'B' MANHOLE TYPICAL SECTION

(MAX DEPTH FROM GROUND LEVEL TO SOFFIT OF PIPE 3.0m, MINIMUM DEPTH FROM TOP OF BENCHING TO UNDERSIDE OF BISCUIT 900mm)
(Scale 1:20)

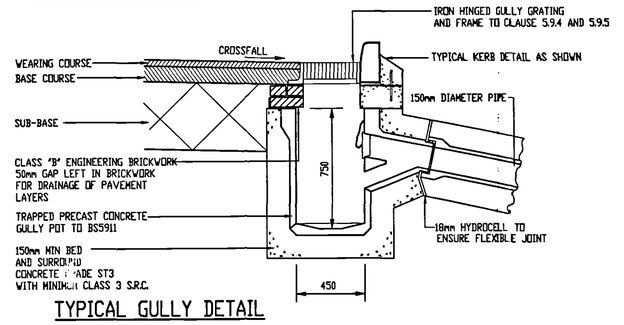


TYPE 'F' (TYPE 'X') MANHOLE TYPICAL SECTION

DEPTH FROM COVER LEVEL TO SOFFIT OF PIPE LESS THAN 1.45m
(Scale 1:20)

RECEIVED - 1 AUG 2003

IRON GULLY GRATING SHALL COMPLY WITH BS EN 124 AND SHALL BE OF CLASS D400 IN ACCORDANCE WITH CLAUSE 5 OF BS EN 124 AND SHALL BE KITEMARKED OR EQUIVALENT. GULLY COVERS SHALL BE HINGED BUT NOT REMOVABLE AND SHALL HAVE A NOMINAL CLEAR OPENING WIDTH OF AT LEAST 450mm WITH A MINIMUM AREA OF WATERWAY OF AT LEAST 900mm²



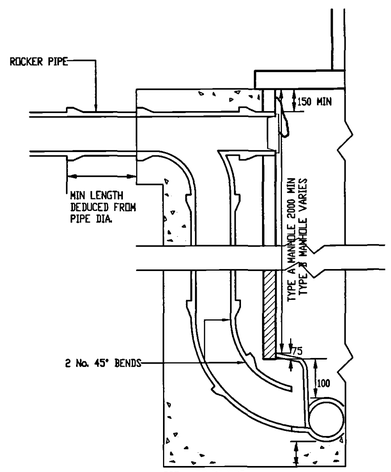
TYPICAL GULLY DETAIL

(Scale 1:20)



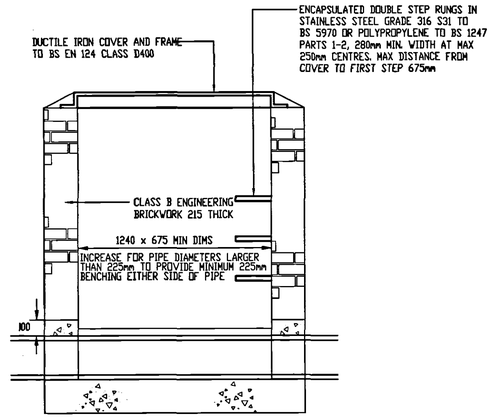
TYPICAL PIPE BED AND BACKFILL DETAIL

(Scale 1:20)



BACKDROP DETAIL

(Scale 1:20)



MIN. BENCHING TO PIPE TO BE 225
UPPER BRICKWORK TO BE CORBELLED DOWN TO 675 WHEN CHAMBER SIZE HAS BEEN INCREASED FOR LARGER PIPE DIAMETERS
MAX. PIPE SIZE TO BE 525 FOR TYPE C MANHOLES
ROCKER PIPE LENGTH TO BE MIN 600

TYPE C MANHOLE

(Scale 1:20)

NOTES

1. DO NOT SCALE THIS DRAWING.
2. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS STATED OTHERWISE.
3. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS.

MANHOLE CHAMBER SIZES	
DIA LARGEST PIPE IN MANHOLE	CHAMBER SECTION DIA REQUIRED
< 375	1200
375 - 450	1350
500 - 700	1500
750 - 1050	1800

THE SIZES STATED ABOVE ARE THE MINIMUM ACCEPTABLE, WHERE TWO OR MORE PIPES ENTER THE MANHOLE THE CHAMBER SIZE MUST BE SUFFICIENT TO ACCOMODATE THE REQUIRED BENCHING SHOWN.

SEWER NOTES:

1. ROCKER PIPE DETAILS

SEWER DIA. (mm)	EFFECTIVE LENGTH (mm)
150 TO 600	600
675 TO 750	1000
825 AND OVER	1250

2. ALL JOINTS BETWEEN PRECAST CONCRETE MANHOLE COMPONENTS SHALL HAVE A MINIMUM UNCOMPRESSED THICKNESS OF 10mm OF PROPRIETARY BITUMEN OR RESIN MASTIC SEALANT
3. CHAMBERS AND MANHOLES WITH OUTGOING PIPES OF GREATER THAN 600mm DIA. SHALL BE FITTED WITH REMOVABLE STAINLESS STEEL (GRADE 316) SAFETY CHAINS OR POLYPROPYLENE ROPE
4. MANHOLES GREATER THAN 6m IN DEPTH SHALL BE SUBJECT TO SPECIFIC DESIGN
5. ALL MANHOLE COVERS ARE TO BE MARKED 'FW' OR 'SW' AS APPROPRIATE AND SHALL CARRY THE 'AW' LOGO
6. ALL SEWERS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH THE PROCEDURES AND SPECIFICATIONS CONTAINED IN 'SEWERS FOR ADOPTION' (5th Edition - Jul- 2001)
7. STORM AND FOUL BRANCH CONNECTIONS ARE TO BE LAID AT GRADIENTS OF BETWEEN 1:10 AND 1:80 AND SHALL BE 150mm IN DIAMETER UNLESS OTHERWISE SPECIFIED
8. GULLY CONNECTION: TO BE LAID AT GRADIENTS OF AT LEAST 1:150 AND SHALL BE 150mm IN DIAMETER UNLESS OTHERWISE SPECIFIED
9. ALL IN-SITU CONCRETE SHALL BE MINIMUM GRADE C20 AND SHALL CONTAIN A MINIMUM CLASS 3 SRC (GEN 3 TO BS5328)
10. PRECAST CONCRETE COVER AND REDUCING SLABS TO BE HEAVY DUTY REINFORCED CONCRETE TO BS 5911
11. BACKDROPS ARE ONLY TO BE USED WHERE GRADIENTS STEEPER THAN THE MAX PERMISSILE ARE UNAVOIDABLE, THE BACKDROP RODDING EYE IS NOT PERMITTED IN THE UPPER ACCESS SHAFT OF TYPE A MANHOLES
12. PIPES UPTO 225mm DIA TO BE CLAY IN ACCORDANCE WITH BS EN 295 AND BS 65
PIPES 300mm DIA AND ABOVE TO BE CONCRETE IN ACCORDANCE WITH BS 5911 - PART 10
RISING MAINS SHALL BE BLACK MDPE SDR11 AS WI 4-32-03 AND JOINTS AND FITTINGS TO BE IN ACCORDANCE WITH WI 4-32-04
OTHER APPROVED PIPE MATERIALS TO BE IN ACCORDANCE WITH THEIR RELEVANT NS.
13. MANHOLE COVERS AND FRAMES SHALL BE MANUFACTURED IN CAST IRON OR DUCTILE IRON AND SHALL COMPLY WITH THE REQUIREMENTS OF BS EN 124 AND SHALL BE KITEMARKED OR EQUIVALENT.

Rev.	Amendments	Rev'd By	Date
R	Type 'F' manhole depth amended.	SO	JUN 03
Q	Step rungs added to Type F MH.	SO	JUN 02
P	Type X MH removed, Type C & F MH's amended	SO	JAN 02
N	Minor amendements	SO	JAN 02
M	Type F manhole added, Note 13. added, note added to Gully Detail and Note 6. amended.	SO	DEC 01
L	Type C manhole added	SO	Nov 01
K	Reducing ring removed from Type A MH	SO	Sep 01
J	Cap added to Backdrop Detail	SO	Sep 01
H	Cover and cover slab amended on Type X MH	SO	Sep 01
G	Step rungs added to type X MH	JB	Jun 01
F	Type C manhole removed.	JPB	Feb 01
E	Various minor amendments	JB	Dec 00
D	Note 7. amended	JB	Oct 00
C	Various minor amendments	JB	Jul 00
B	Various minor amendments	JB	Jun 00
A	Various minor amendments	JPB	May 00

Client: STANDARD DETAILS

Project: DRAINAGE DETAILS

Title: PROPOSED MANHOLE AND TYPICAL GULLY DETAILS

Job No:

Drawing No: STND/SEW/01R

Status: STANDARD DETAILS

Scale: SHOWN | Date: MAY 00

Project Engineer: PW | Drawn By: JPB | Checked By:

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-7 AUG 2003
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