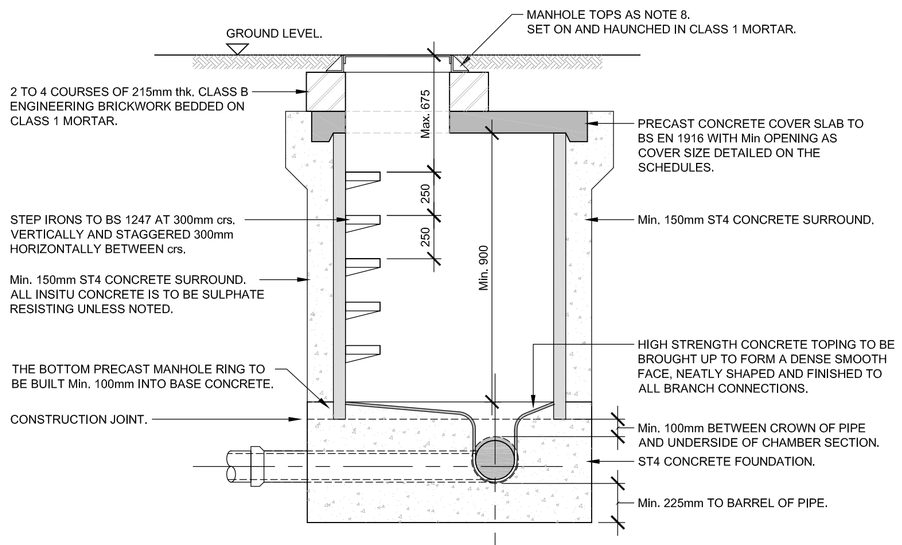
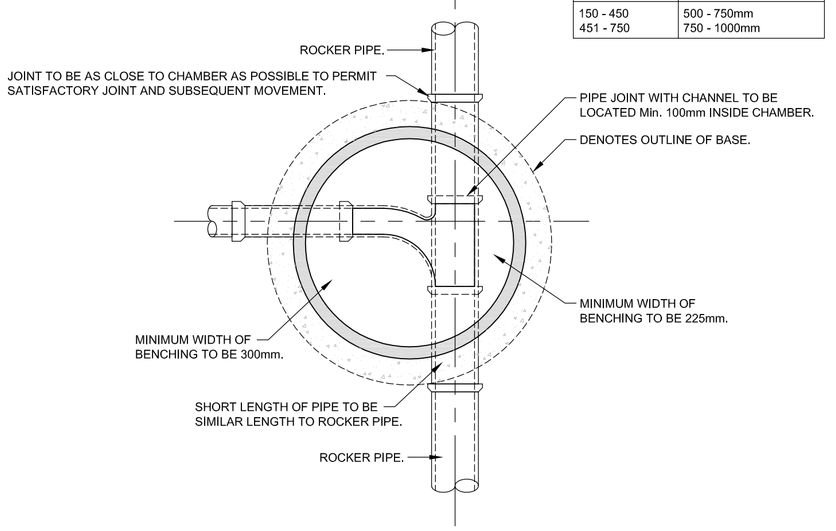
ARUN DISTRICT COUNCIL ALD903/DOC

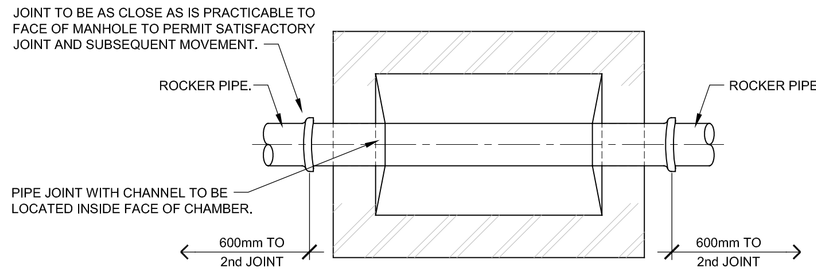


SECTION

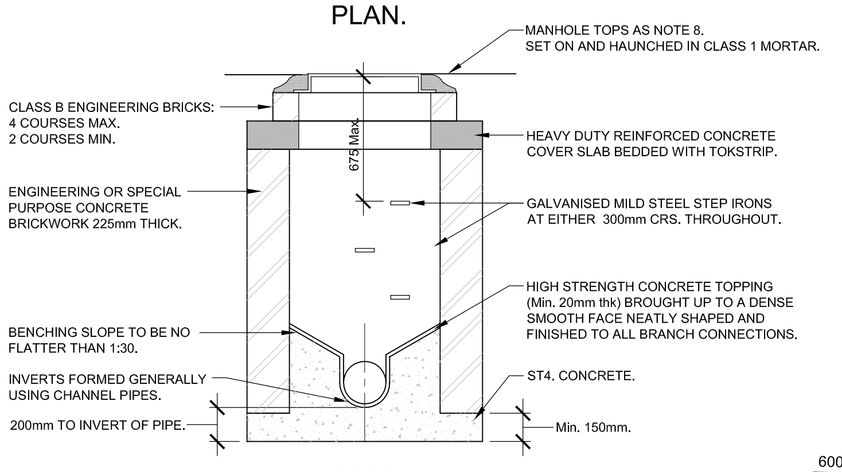
PIPE Ø	ROCKER PIPE LENGTH
150 - 450	500 - 750mm
451 - 750	750 - 1000mm



CIRCULAR MANHOLE DETAIL.



PLAN.



SECTION.

RECTANGULAR MANHOLE DETAIL.

(ALTERNATIVELY USE PRECAST CONCRETE CHAMBER SECTIONS INSTALLED TO MANUFACTURERS RECOMMENDATIONS)

TABLE 1.

TYPE	SIZE OF LARGEST PIPE (DN)	Min. INTERNAL DIMENSIONS [a]		Min. CLEAR OPENING SIZE [d]	
		RECTANGULAR LENGTH AND WIDTH	CIRCULAR DIAMETER	RECTANGULAR LENGTH AND WIDTH	CIRCULAR DIAMETER
MANHOLE <1.5m DEEP TO SOFFIT	≤150 225 300 >300	750 x 675 [g] 1200 x 675 1200 x 750 1800 x (DN+450)	1000 [g] 1200 1200 THE LARGER OF 1800 OR (DN+450)	750 x 675 [b] 1200 x 675 [b]	NA[c]
>1.5m DEEP TO SOFFIT	≤225 300 375-450 >450	1200 x 1000 1200 x 1075 1350 x 1225 1800 x (DN+775)	1200 1200 1200 THE LARGER OF 1800 OR (DN+775)	600 x 600	600
MANHOLE SHAFT [d] >3.0m DEEP TO SOFFIT	STEPS [e]	1050 x 800	1050	600 x 600	600
	LADDER [e]	1200 x 800	1200		
	WINCH [f]	900 x 800	900	600 x 600	600

NOTES:

[a] LARGER SIZES MAY BE REQUIRED FOR MANHOLES ON BENDS OR WHERE THERE ARE JUNCTIONS.

[b] MAY BE REDUCED TO 600 BY 600 WHERE REQUIRED BY HIGHWAY LOADING CONSIDERATIONS, SUBJECT TO SAFE SYSTEM OF WORK BEING SPECIFIED.

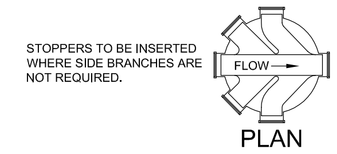
[c] NOT APPLICABLE DUE TO WORKING SPACE NEEDED.

[d] MINIMUM HEIGHT OF CHAMBER IN SHAFTED MANHOLE 2m FROM BENCHING TO UNDERSIDE OF REDUCING SLAB.

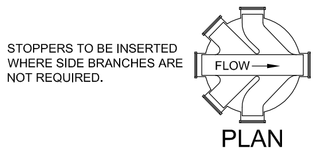
[e] MINIMUM CLEAR SPACE BETWEEN LADDERS OR STEPS AND OPPOSITE FACE OF SHAFT SHOULD BE APPROXIMATELY 900mm.

[f] WINCH ONLY - NO STEPS OR LADDERS. PERMANENT OR REMOVABLE.

[g] 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.

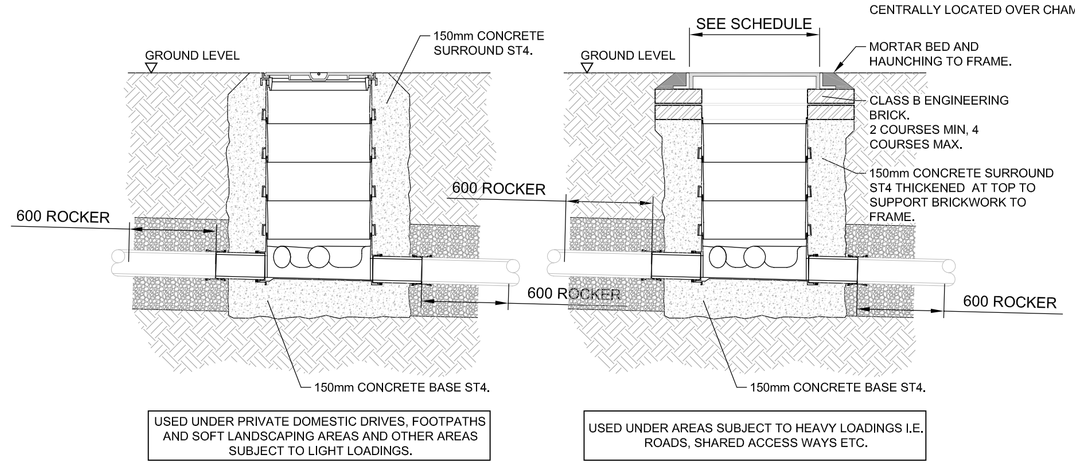


PLAN



PLAN

MANHOLE TOP (SEE NOTE 8). COVER FRAME MUST NOT BEAR ONTO WALL OF CHAMBER AND BE CENTRALLY LOCATED OVER CHAMBER.

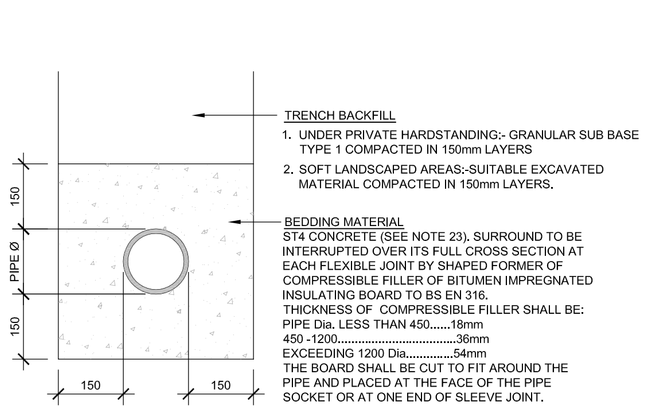


SECTION

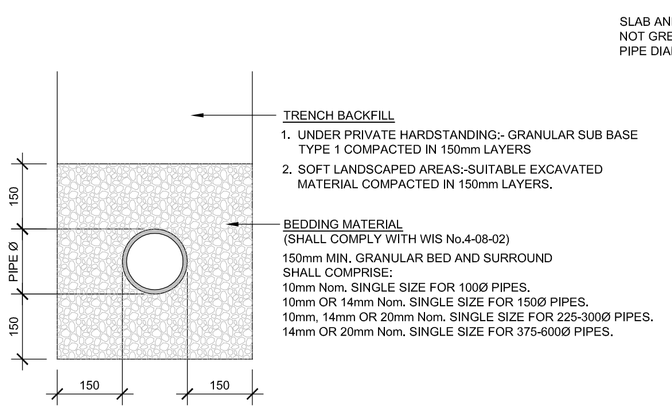
SECTION

POLYPROPYLENE INSPECTION CHAMBER (PPIC)

FOR DEPTHS UP TO 1.2m.



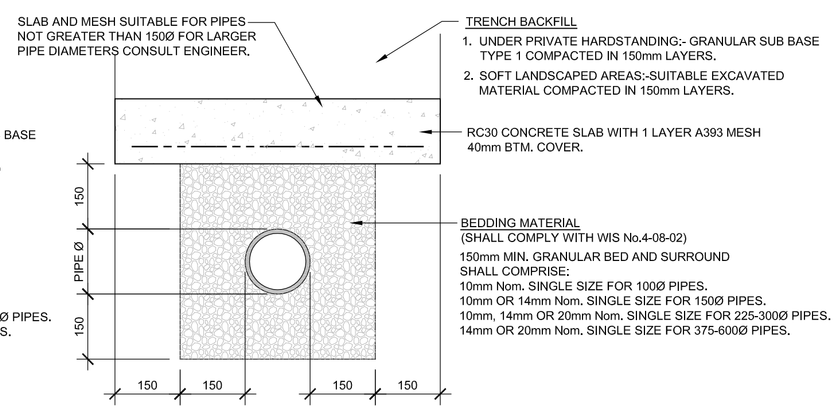
CONCRETE PROTECTION - RIGID PIPES



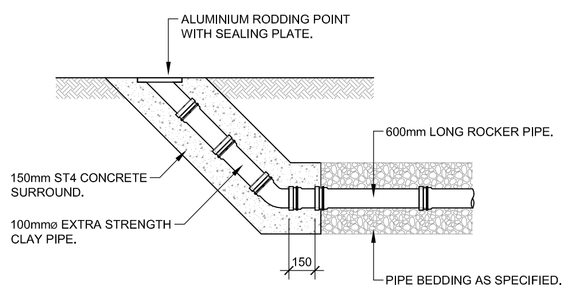
GRANULAR SURROUND

BED AND SURROUND DETAILS

REFER TO NOTE 11

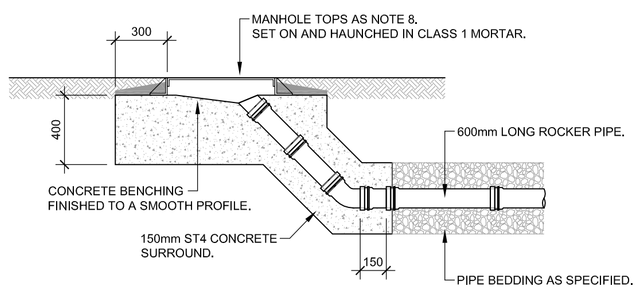


CONCRETE PROTECTION - FLEXIBLE PIPES



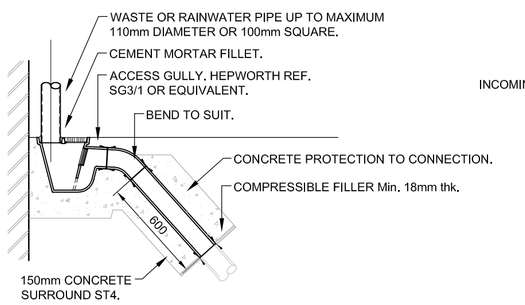
RODDING EYE DETAIL

1:25

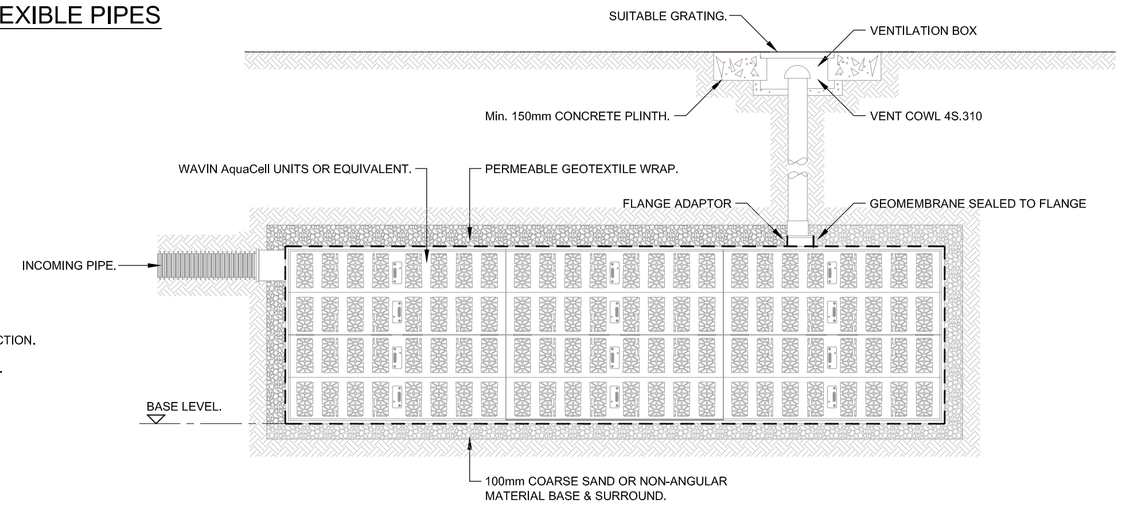


HEAVY DUTY RODDING EYE DETAIL

1:25



ACCESS GULLY DETAIL



WAVIN AquaCell SOAKAWAY DETAIL

TO BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS

1:25

WREN

General Notes:

1. DO NOT SCALE THIS DRAWING.
2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ENGINEERS AND ARCHITECTS DRAWINGS, SCHEDULES AND SPECIFICATIONS.
3. ALL WORKS SHALL BE INSTALLED & TESTED IN ACCORDANCE WITH SEWERS FOR ADOPTION 7th ED, SPECIFICATION FOR HIGHWAY WORKS, THE BUILDING REGULATIONS AND ALL RELEVANT BRITISH STANDARDS.
4. FOR PRECISE LOCATIONS OF RWP's, SVP's AND GULLIES, REFER TO ARCHITECTS' DRAWINGS.
5. FOR PRECISE SETTING OUT REFER TO ARCHITECTS' DRAWINGS.
6. MANHOLE AND INSPECTION CHAMBER COVER, INVERT LEVEL AND SIZES SHOWN ON MANHOLE SCHEDULES.
7. COVER LEVELS TO BE ADJUSTED LOCALLY TO SUIT FINISHED LEVELS.
8. INTERNAL MANHOLE TOPS TO BE CLASS C250 DOUBLE SEALED, BOLT DOWN UNITS, RECESSED TO ACCEPT FLOOR FINISHES WHERE APPLICABLE.
   EXTERNAL MANHOLE TOPS TO BE DUCTILE IRON CLASS D400 WITH THE EXCEPTION OF CLASS B125 IN CAR PARKING AREAS AND CLASS A15 ONLY IN PEDESTRIAN AREAS AND FOOTWAYS ALL TO BS EN 124 MINIMUM CLEAR OPENING AS TABLE 1, WITH CLOSED KEYWAYS, UNLESS NOTED.
9. LEVELS TO EXISTING CHAMBERS, MANHOLES AND SEWERS TO BE VERIFIED ON SITE PRIOR TO DRAINAGE WORKS COMMENCING.
10. GULLIES:-
    GULLIES Ref. 'RG' SHALL BE TRAPPED PC CONCRETE 900mm dp. x 450mm Dia. WITH 150mmø OUTLET AND 150mm ST4 CONCRETE SURROUND. GULLIES Ref. 'YG' SHALL BE TRAPPED PC CONCRETE/CLAY EXTRA STRENGTH 600mm dp. x 300mm Dia. WITH 100mmø OUTLET AND 150mm ST4 CONCRETE SURROUND. TO BE DUCTILE IRON CLASS D400 WITH THE EXCEPTION OF CLASS B125 IN CAR PARKING AREAS AND CLASS A15 IN PEDESTRIAN AREAS AND FOOTWAYS, ALL TO BS EN 124.
11. BEDDING SHALL BE 150mm GRANULAR BED SURROUND WHERE COVER:
    i) GREATER THAN 450mm FOR 100mmø RIGID PIPES IN SOFT LANDSCAPED AREAS.
    ii) GREATER THAN 600mm FOR ALL PIPE DIA'S GREATER THAN 100mm IN SOFT LANDSCAPE AREAS.
    iii) GREATER THAN 900mm FOR PIPES IN TRAFFICKED AREAS.
    iv) GREATER THAN 1.2m FOR PIPES IN ADOPTED AREAS.
    ALL OTHER CASES INCLUDING GULLY CONNECTIONS USE Min.150mm CONCRETE PROTECTION.
12. ACCESS SHALL BE PROVIDED AT THE BASE OF ALL RWP's USING INTEGRAL ACCESS PLATES. RWP TO DISCHARGE VIA SEALED COVER INTO LENGTH OF VERTICAL BELOW GROUND PIPEWORK ABOVE A 90° REST BEND SUPPORTED ON A 150mm CONCRETE BED.
13. PRIVATE PIPE RUNS TO ENTER INTO TOP HALF OF EXISTING SEWERS. ALL NEW PIPE CONNECTIONS TO BE VIA Y-JUNCTIONS.
14. PIPES AT MANHOLES TO BE SOFFIT TO SOFFIT UNLESS NOTED.
15. IF A DRAIN PASSES BESIDE A BUILDING THE FOUNDATIONS OF THE BUILDING SHOULD BE TAKEN DEEP ENOUGH SO AS NOT TO SURCHARGE THE DRAIN ON 45° SPREAD OF LOADING.
16. ENSURE MIN. 150mm CLEAR DISTANCES BETWEEN PIPES CROSSING.
17. PIPES SHALL BE AT A Min. GRADIENT 1:40 UNLESS THE INVERT LEVELS OR SCHEDULES INDICATE OTHERWISE.
18. PIPEWORK SHALL BE CLAY OR CONCRETE, FOUL DRAINAGE TO BE 100mmø, SURFACE WATER DRAINAGE TO BE 150mmø UNLESS NOTED.
19. ALL Exg. DRAINS TO BECOME REDUNDANT SHALL BE EXCAVATED OR SEALED WITH CEMENT GROUT, BACKFILL TO EXCAVATED DRAINS SHALL BE AS BED & SURROUND DETAILS, NOTES 1, 2 OR 3.
20. THE MINIMUM DEPTH OF REST BENDS BELOW THE LOWEST FOUL WATER CONNECTION SHALL BE 450mm.
21. PIPES PASSING THROUGH FOUNDATIONS AND STRUCTURES SHALL BE SLEEVED AND HAVE FLEXIBLE PIPE JOINTS LOCATED ON BOTH SIDES IN ACCORDANCE WITH THE BUILDING REGULATIONS.
22. ALL MORTAR SHALL BE 3:1 SAND:CEMENT UNLESS NOTED.
23. ALL CONCRETE SHALL BE C40 IN ACCORDANCE WITH BS EN 206-1 & BS 8500 WITH SULPHATE RESISTING CLASS DS-2, CLASSIFICATION AC-2.
24. FOR FLOOR SLAB REINSTATEMENT DETAILS REFER TO GDP STRUCTURES DRAWINGS.

PRELIMINARY

Rev.	Date:	By:	Chkd:	Revision Notes:
1	25.04.19	RG	PS	PRELIMINARY ISSUE FOR INFORMATION.

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Client:

Project:

WESTERGATE HOUSE
DENMANS LANE
WESTERGATE

Drawing:

DRAINAGE DETAILS, SHEET 1.

Scale: As shown. at A1

Drawn: RG | Checked: PS | Date: Apr. '19

Job No: 19-016-S(52)405 | Drawing No: | Rev: 1