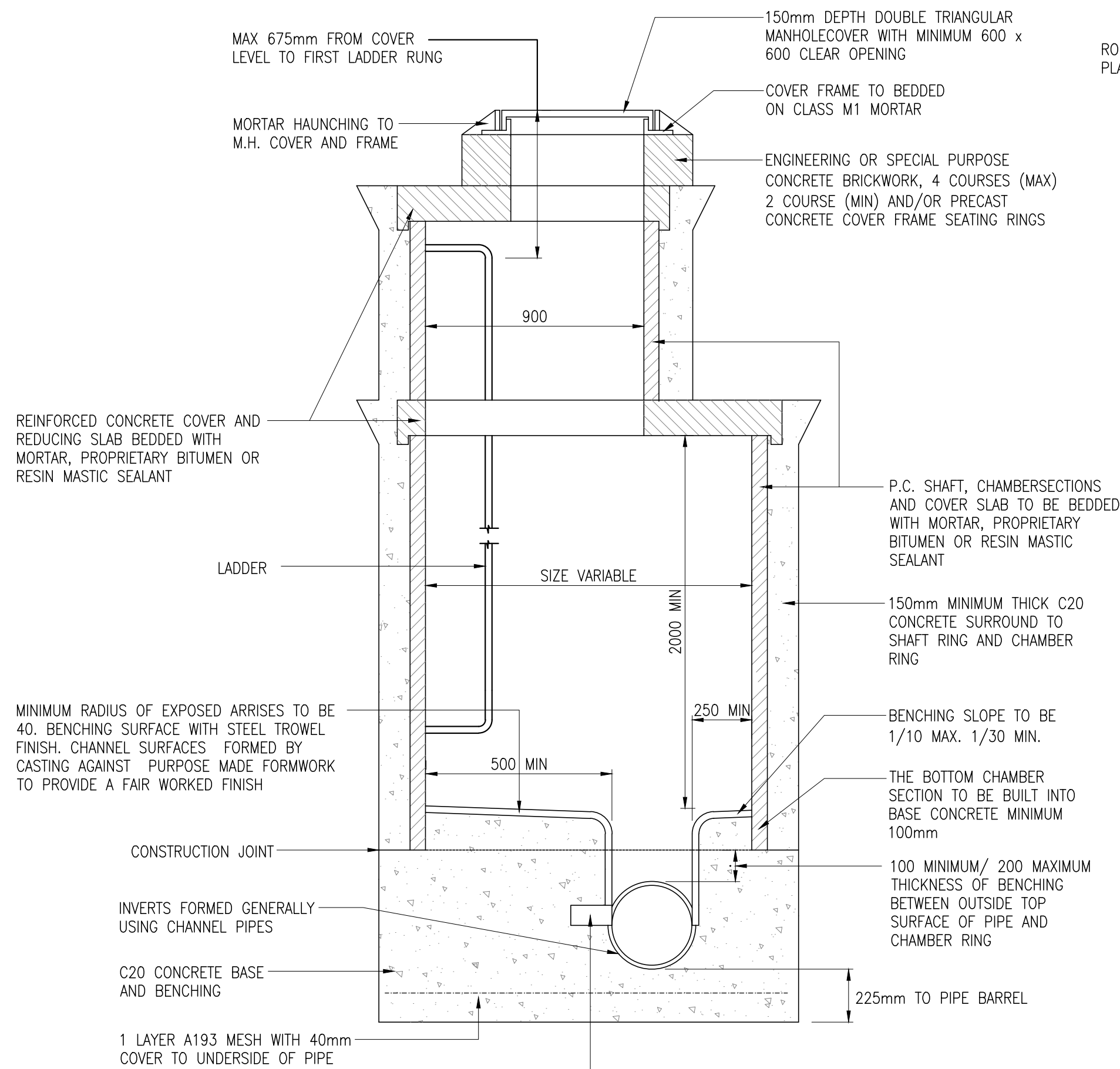
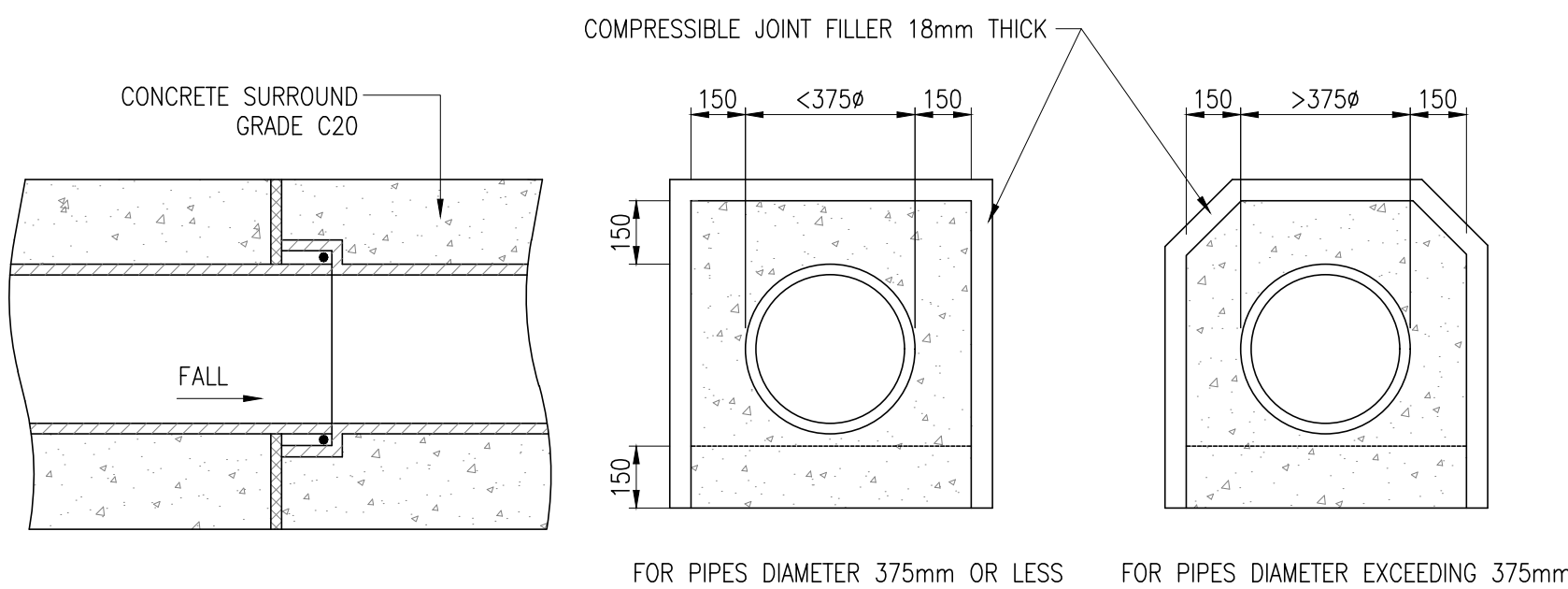
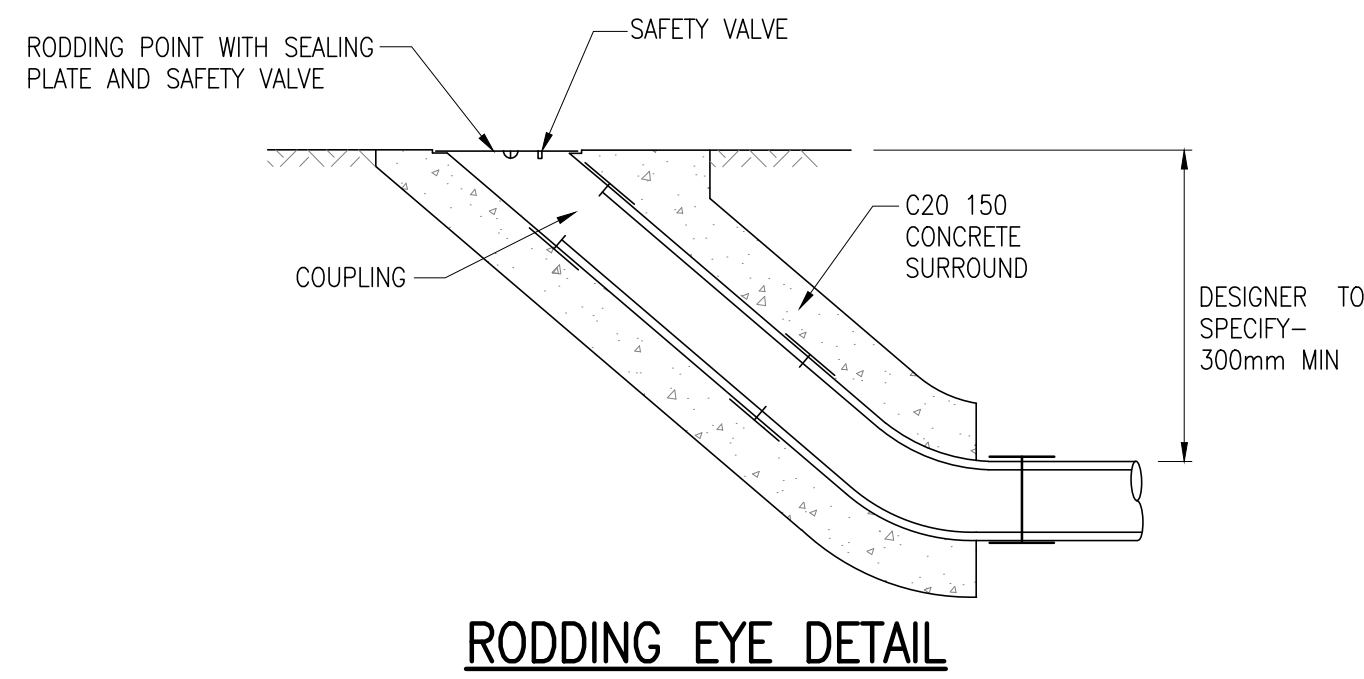




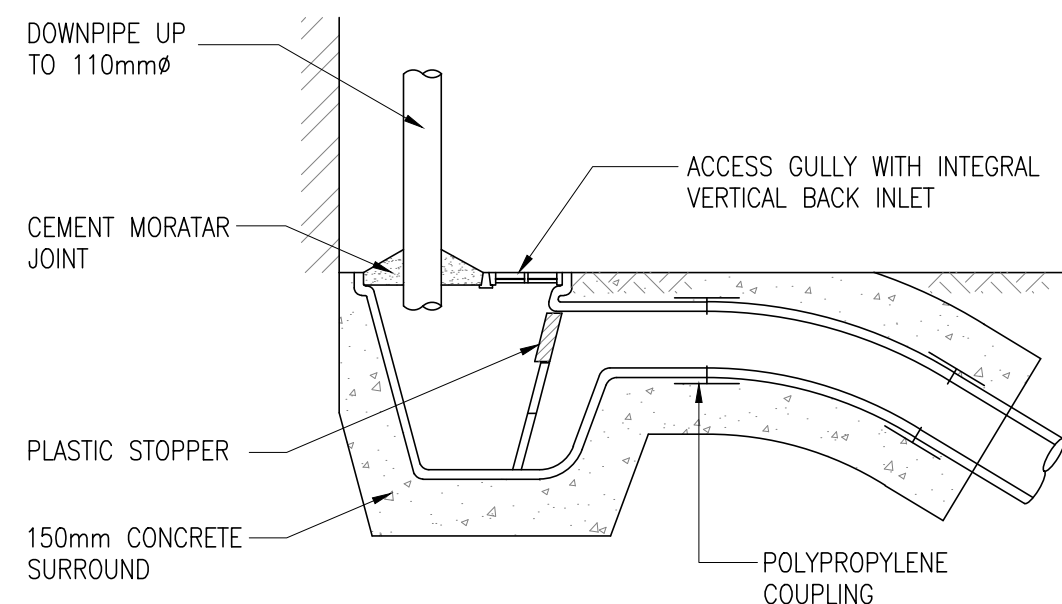
TYPICAL MANHOLE TYPE A
(DEPTH TO SOFFIT 3-6m)



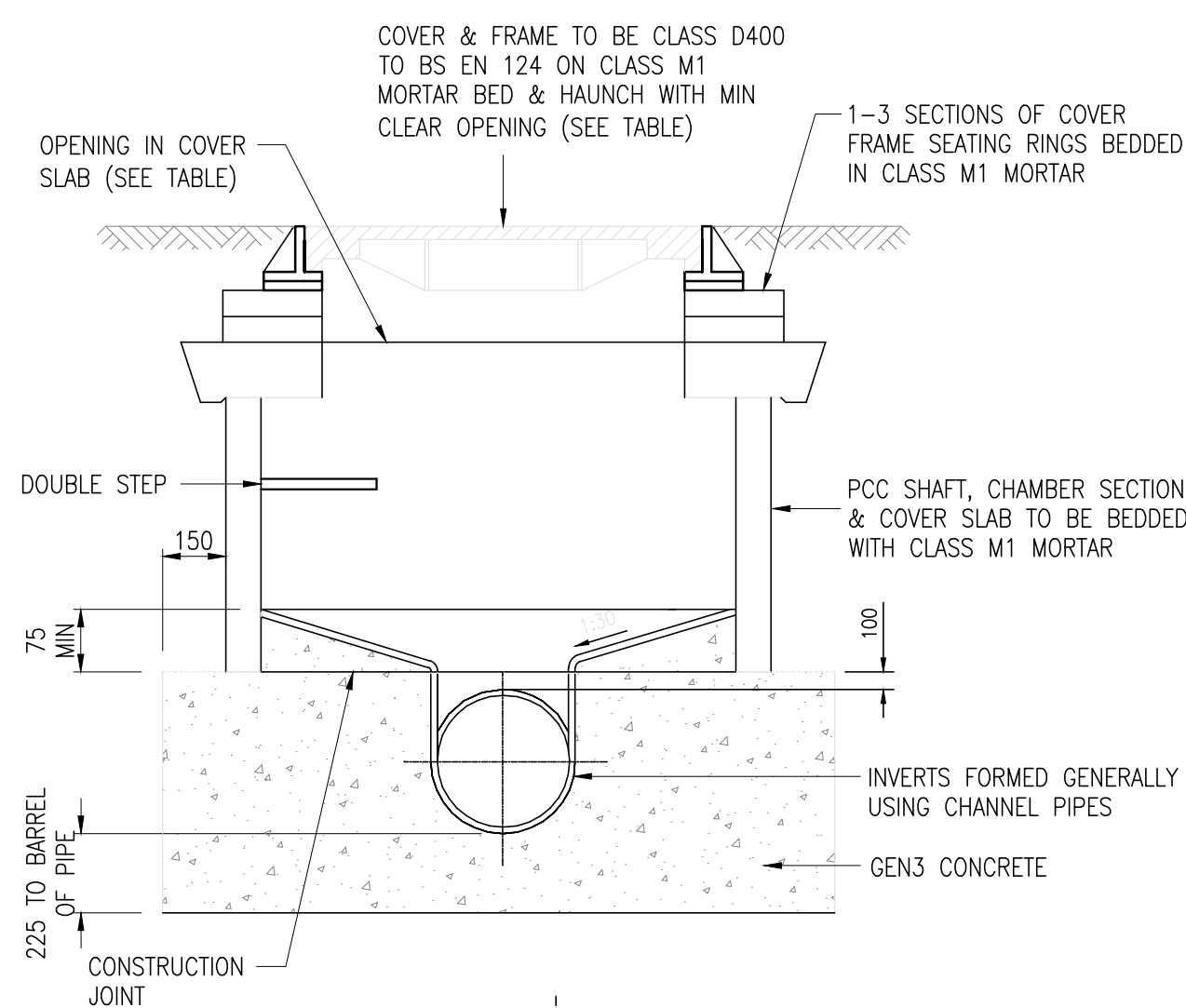
DETAILS OF FLEXIBLE JOINT FOR PIPES WITH CONCRETE SURROUND (150mm THICK) PROVIDED AT EACH PIPE JOINT



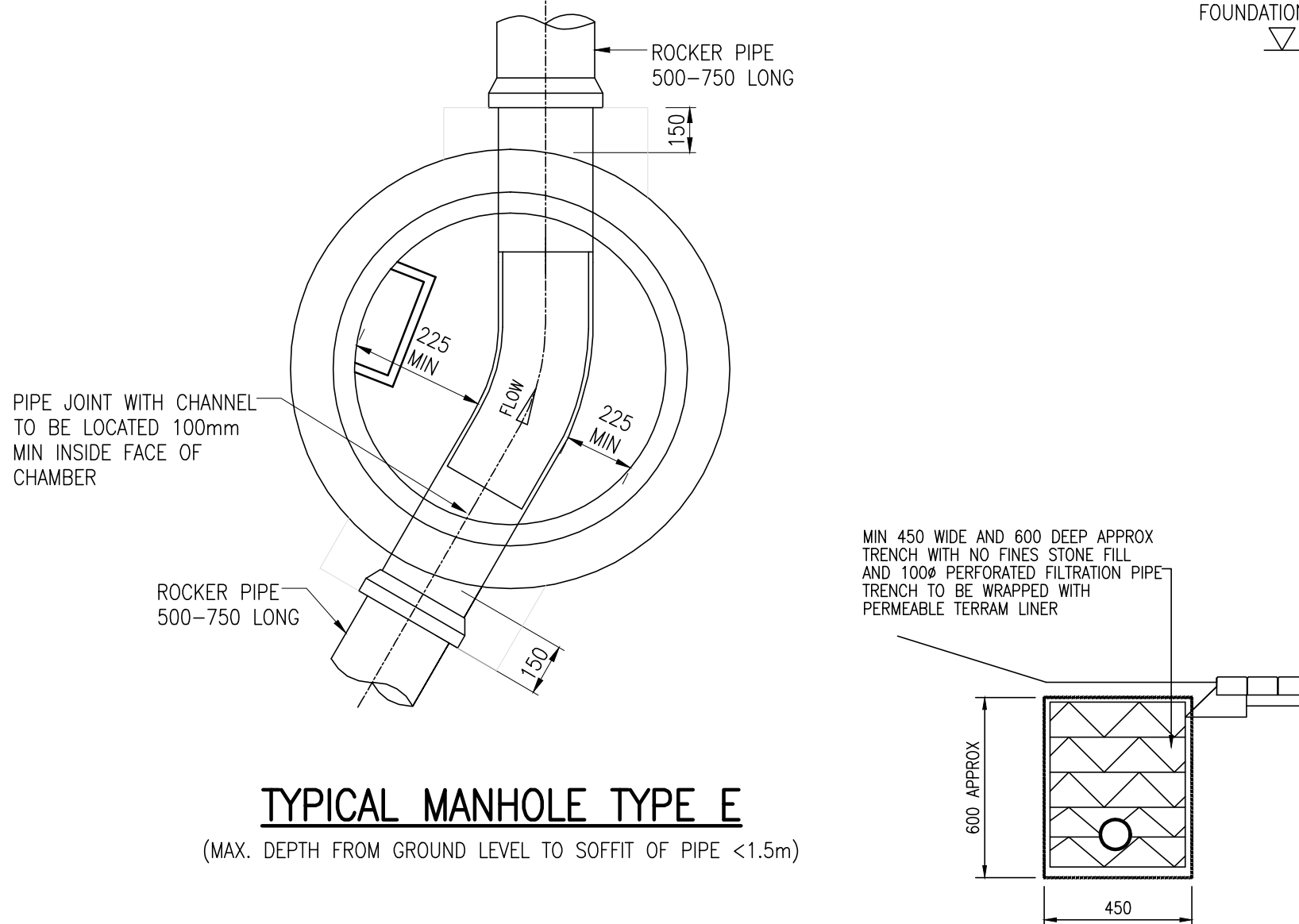
RODDING EYE DETAIL



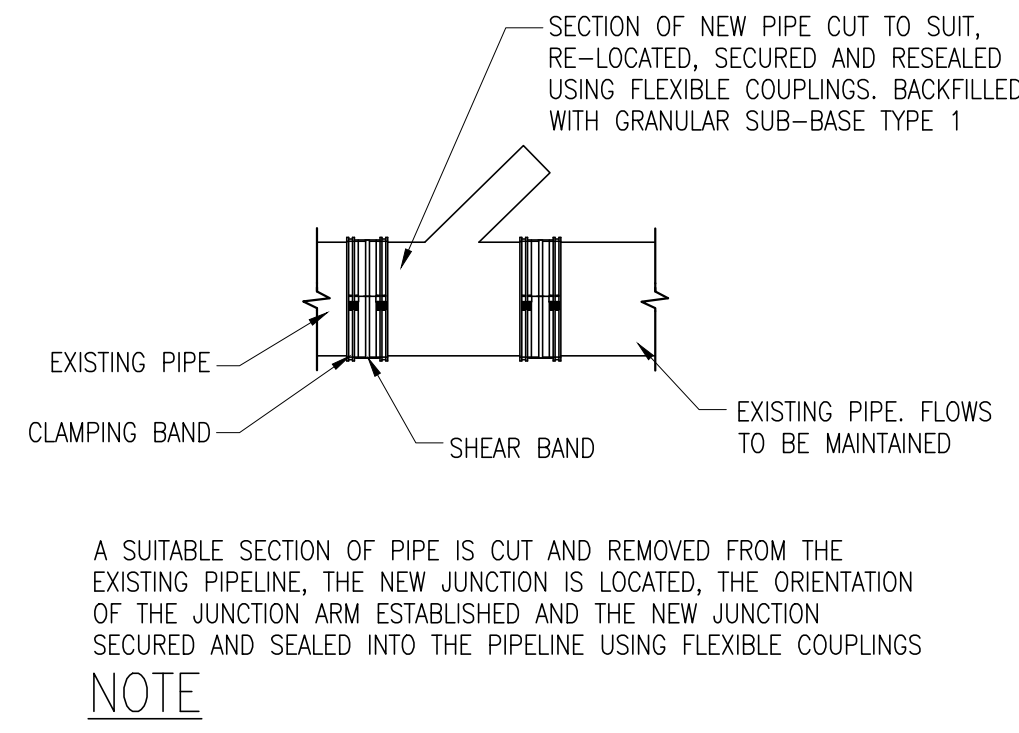
ACCESS GULLY DETAIL



TYPICAL MANHOLE TYPE E
(MAX. DEPTH FROM GROUND LEVEL TO SOFFIT OF PIPE <1.5m)

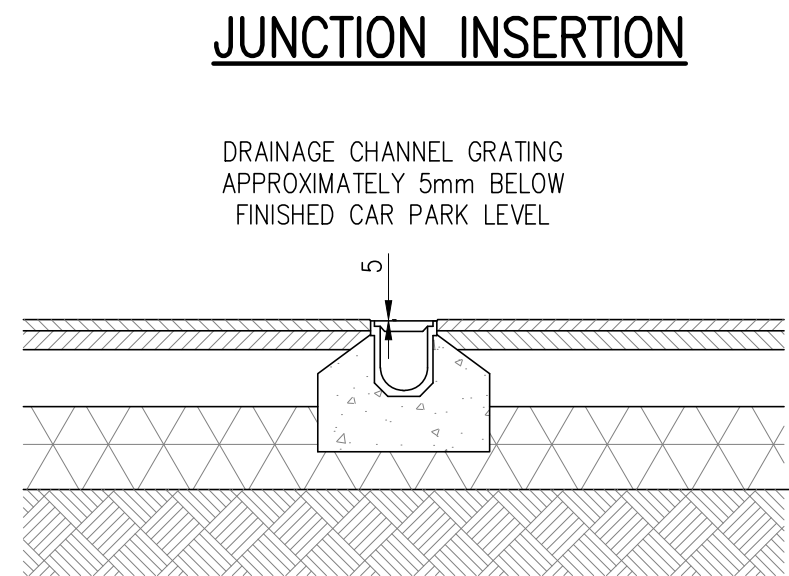


FILTER DRAIN DETAIL

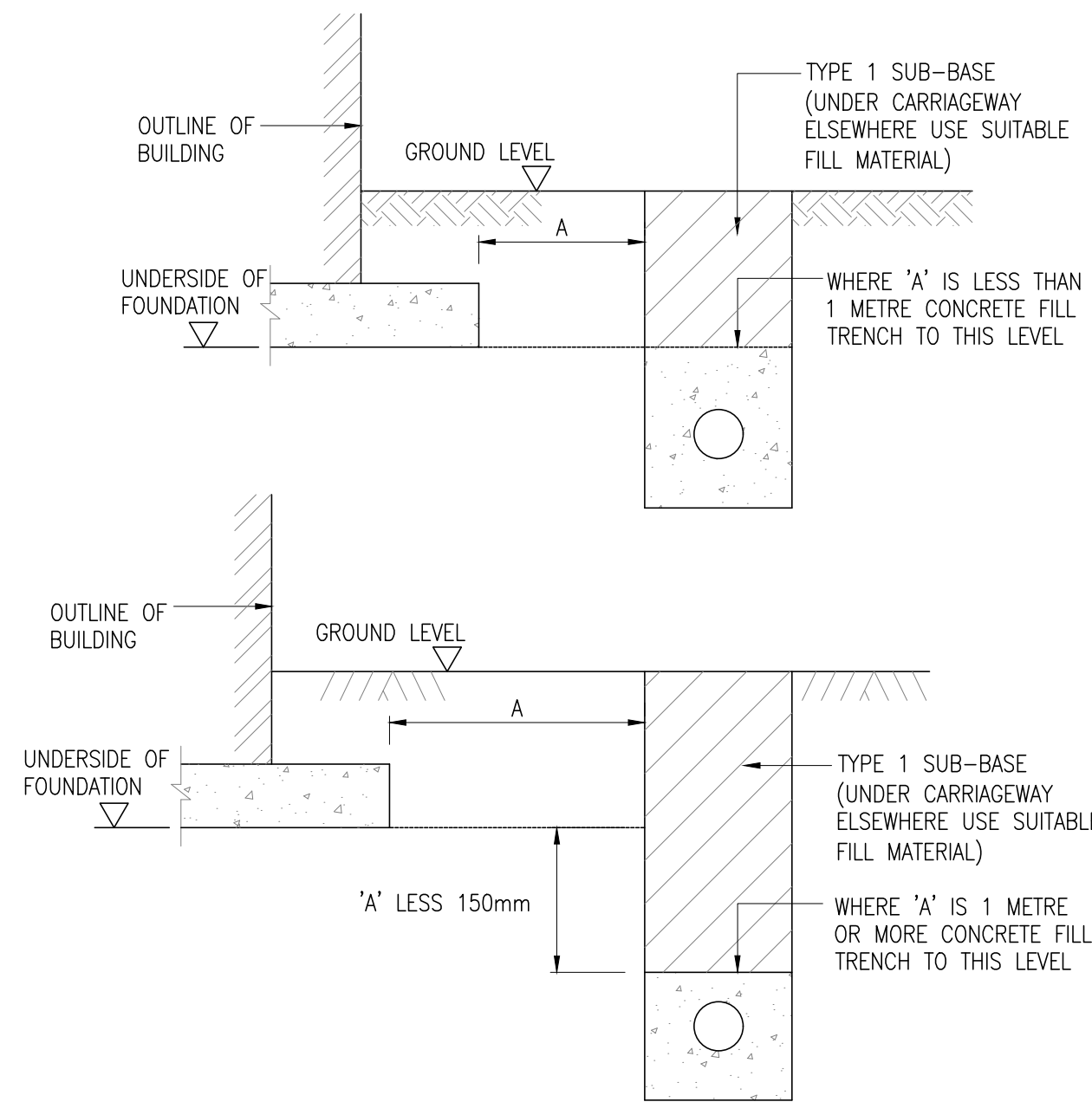


JUNCTION INSERTION

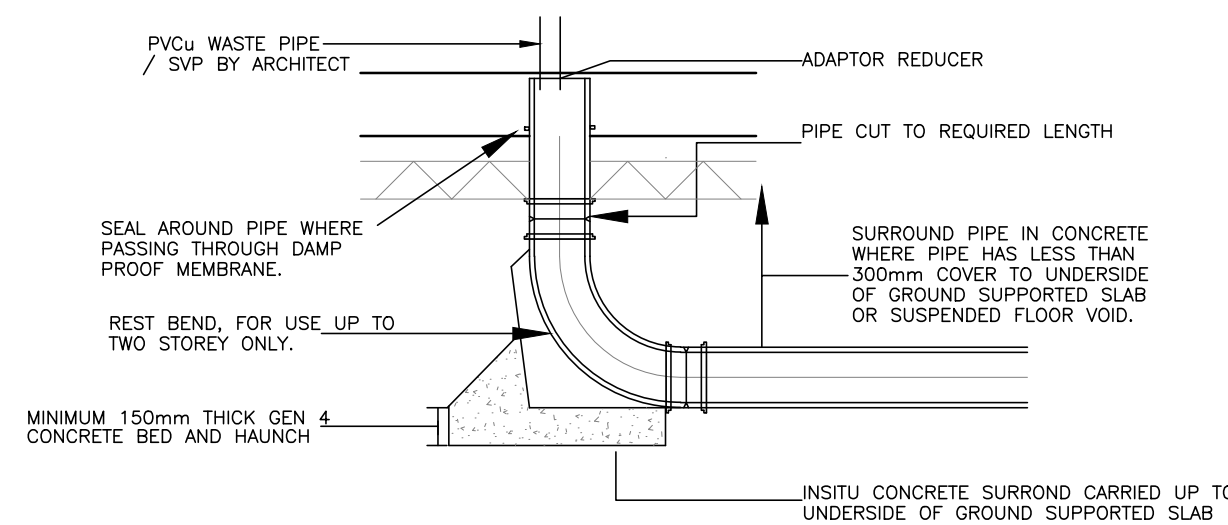
- THE REPLACEMENT PIPE OR JUNCTION SHOULD LEAVE A TOTAL LENGTH OF 20MM LESS THAN THAT BETWEEN THE CUT ENDS OF THE EXISTING PIPELINE.
- COUPLINGS SHOULD BE TIGHTENED EITHER STARTING WITH THE SHEAR BAND FOLLOWED BY THE CLAMPING BANDS OR WORKING ACROSS THE COUPLINGS FROM ONE OF THE CLAMPING BANDS. IT IS IMPORTANT TO ENSURE THAT THE ENDS OF THE PIPES ARE CUT SQUARE AND THAT THERE IS SUFFICIENT CLEARANCE BETWEEN THE ENDS OF THE PIPES TO ALLOW FLEXIBLE MOVEMENT TO TAKE PLACE.



SECTION THROUGH DRAINAGE CHANNEL



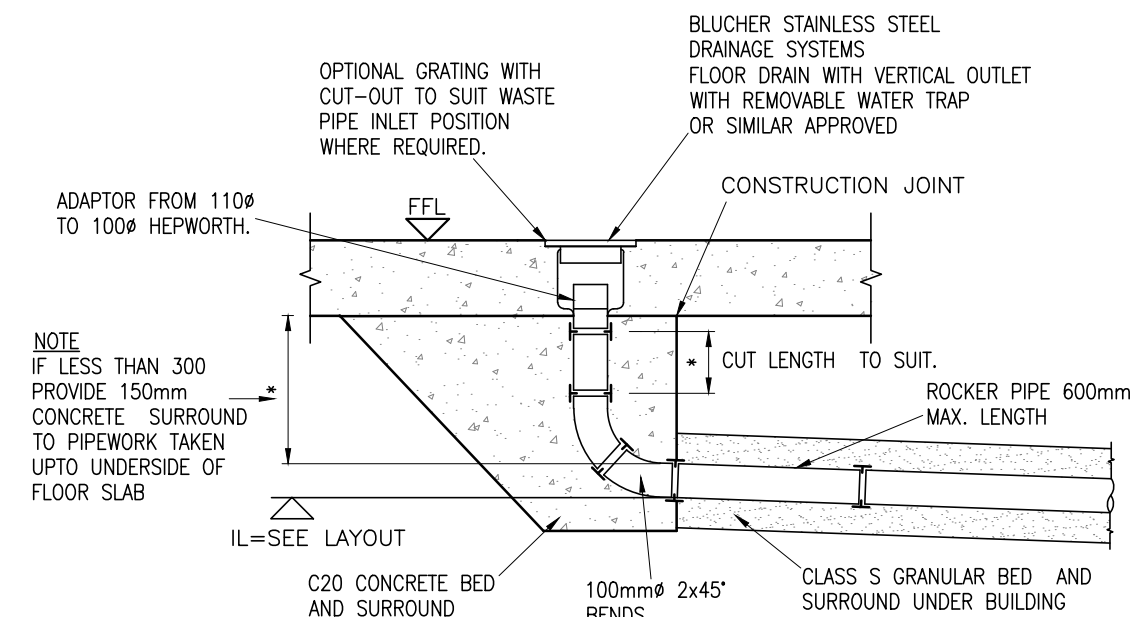
TRENCH DETAIL FOR FW AND SW PIPE RUNS NEAR BUILDING FOUNDATIONS



TYPICAL DRAIN CONNECTION
(FOR BUILDINGS 3 STOREYS HIGH OR LESS)

GENERAL NOTES

- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN
- ALL ADAPTABLE DRAINAGE SHALL BE CONSTRUCTED IN ACCORDANCE WITH 'SEWERS FOR ADOPTION' 6TH EDITION 3. 4. 5. 6. 7. 8. 9. 10. 11.
- ALL EXISTING INVERT LEVELS TO BE CHECKED BY THE CONTRACTOR AT THE START OF WORKS AND ANY OTHER DISCREPANCIES NOTIFIED TO THE ENGINEER. ALL LEVELS ARE BASED ON TOPOGRAPHICAL SURVEY INFORMATION PROVIDED BY OTHERS.
- ALL MATERIALS TO BEAR THE RELEVANT B.S. KITEMARK AND COMPLY FULLY WITH THE SPECIFICATIONS. ALL CONCRETE & CONCRETE PRODUCTS MUST USE SULPHATE RESISTANT CEMENT (UNLESS THE SITE INVESTIGATION REPORT PROVES THAT SULPHATE ATTACK FROM SOILS AND GROUNDWATER WILL NOT OCCUR TO WITHSTAND A CLASS 3 CONDITION).
- ALL OPENING NOTICES ETC. AS REQUIRED UNDER HIGHWAYS ACTS ETC. ARE TO BE OBTAINED PRIOR TO COMMENCEMENT OF WORKS. ALL WORKS ARE TO BE INSPECTED BY L.A., NHBC OR UNITED UTILITIES AS APPLICABLE.
- WHERE 'ULTRA RIB' UPVC PIPES (OR SIMILAR APPROVED) ARE USED IN ADAPTABLE DRAINAGE THEY SHALL STILL BE HANDLED AND LAID IN ACCORDANCE WITH THE SPECIFICATION AND GUIDANCE ISSUED BY THE HIGH PERFORMANCE PIPE ASSOCIATION. A CLASS 5 BED AND SURROUND MUST BE USED FOR SUCH PIPES.
- TRENCH BACKFILL IN HIGHWAYS / CAR PARKS TO WITHIN 1M OF HIGHWAY SHALL BE A SUITABLE GRANULAR MATERIAL ALL IN ACCORDANCE WITH SEWERS FOR ADOPTION CL 3.3.4. BACKFILL MATERIAL IN OTHER AREAS SHALL BE SELECTED EXCAVATED MATERIAL FREE FROM STONES LARGER THAN 40MM, LUMPS OF CLAY OVER 100MM, TIMBER, FROZEN MATERIAL OR VEGETABLE MATTER.
- UPVC PIPES AND FITTINGS SHALL COMPLY WITH WIS 4-35-01. CLAY PIPES AND FITTINGS SHALL BE EXTRA STRENGTH TO BSEN 295 AND BS 65. CONCRETE PIPES AND FITTINGS SHALL COMPLY WITH BS 5911. PIPES SHALL BE CLASS H.
- A CLASS 5 BED MUST BE PROVIDED TO UPVC PIPES, A CLASS B BED MAY BE USED FOR V.C. AND CONCRETE PIPES.
- INSPECTION CHAMBERS SHALL BE:
 - TYPE A - 250mmØ UPTO 0.6m DEEP (GARDEN DRIVE AREAS ONLY)
 - TYPE B - 450mmØ 0.6 - 1.5m DEEP (GARDEN DRIVE AREAS ONLY)
 - TYPE C - 1200mmØ 1.2 - 3m DEEP
 - TYPE D - 450mmØ WITH 350mm CATCHPIT
- BACKFILL TO DRAINAGE TRENCHES ABOVE PIPE BEDDING AND SURROUND WITHIN ROAD AND CAR PARK AREAS TO BE GRANULAR FILL COMPLYING WITH CLASS 6F2 OR DOT TYPE 1 OR QUARRY SCALPING GRADED FROM 75mm DOWN.
- A CONCRETE SURROUND IS NOT NORMALLY REQUIRED TO MANHOLES UNLESS INSTALLED IN AREAS OF UNSTABLE GROUND, UNDER CONDITIONS OF FLOATION OR WHERE SUBJECTED TO EXCEPTIONAL OR ECCENTRIC LOADS, IN WHICH CASE A 150mm SURROUND OF AT LEAST 20N/mm² CONCRETE SHOULD BE PROVIDED. ANY JOINTS SHOULD BE STAGGERED WITH THE PRECAST CONCRETE JOINTS.
- DOUBLE STEPS SHALL BE PLASTIC ENCAPSULATED CARBON TO BS EN 1247-2 MANHOLE STEPS. STEP IRONS AT 300cirs. HORIZONTALLY & VERTICALLY MAY BE USED AS AN ALTERNATIVE TO DOUBLE STEPS.
- ALL WORK TO BE IN ACCORDANCE WITH 'SEWERS FOR ADOPTION SIXTH EDITION' AND UNITED UTILITIES WATER PLC'S STANDARD CONSTRUCTION DETAILS



INTERNAL FLOOR DRAIN
(1:20)

P01	03.02.2023	RIBA STAGE 3 - PRELIMINARY ISSUE	JJR	JRS	PB
REV	DATE	DESCRIPTION	BY	CHK	APP
DRAWING STATUS: PRELIMINARY					
CLIENT: NORTHERN CARE ALLIANCE NHS FOUNDATION TRUST					
ARCHITECT: DMWR ARCHITECTS					
PROJECT: ROCHDALE INFIRMARY CAR PARK					
TITLE: BELOW GROUND DRAINAGE TYPICAL DRAINAGE DETAILS - SHEET 2 OF 2					
STATUS: S2	PROJECT No: 222-146	PROJECT: CPC267 - AJP - XX - 00 - DR - C - 0003	PROJECT ORIGINATOR: AJP	PROJECT LEVEL: XX	PROJECT TYPE: DR
SCALE @ A1: N.T.S.	DESIGNED: JJR	DRAWN: JJR	CHECKED: JRS	APPROVED: PB	DATE: FEB 2023