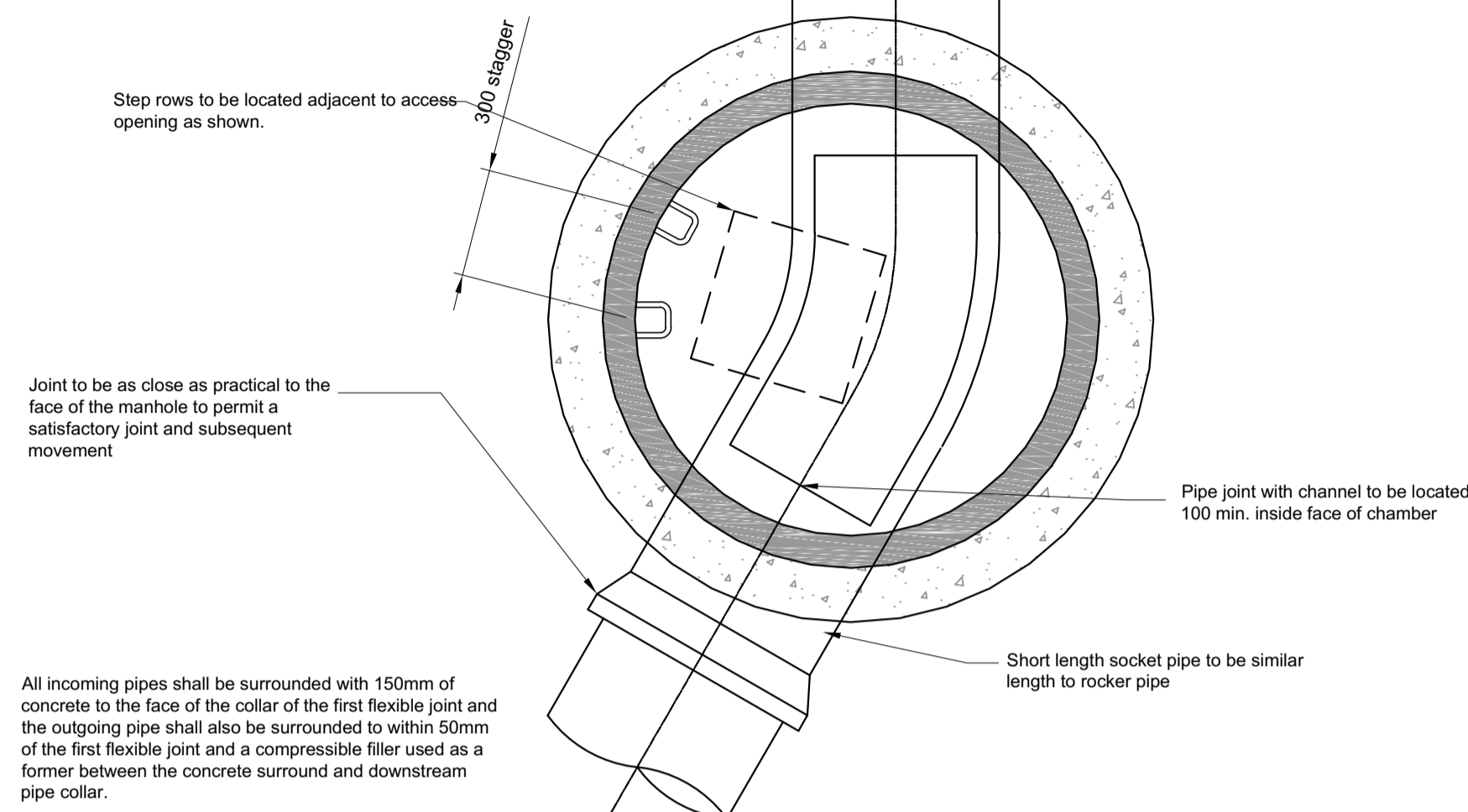
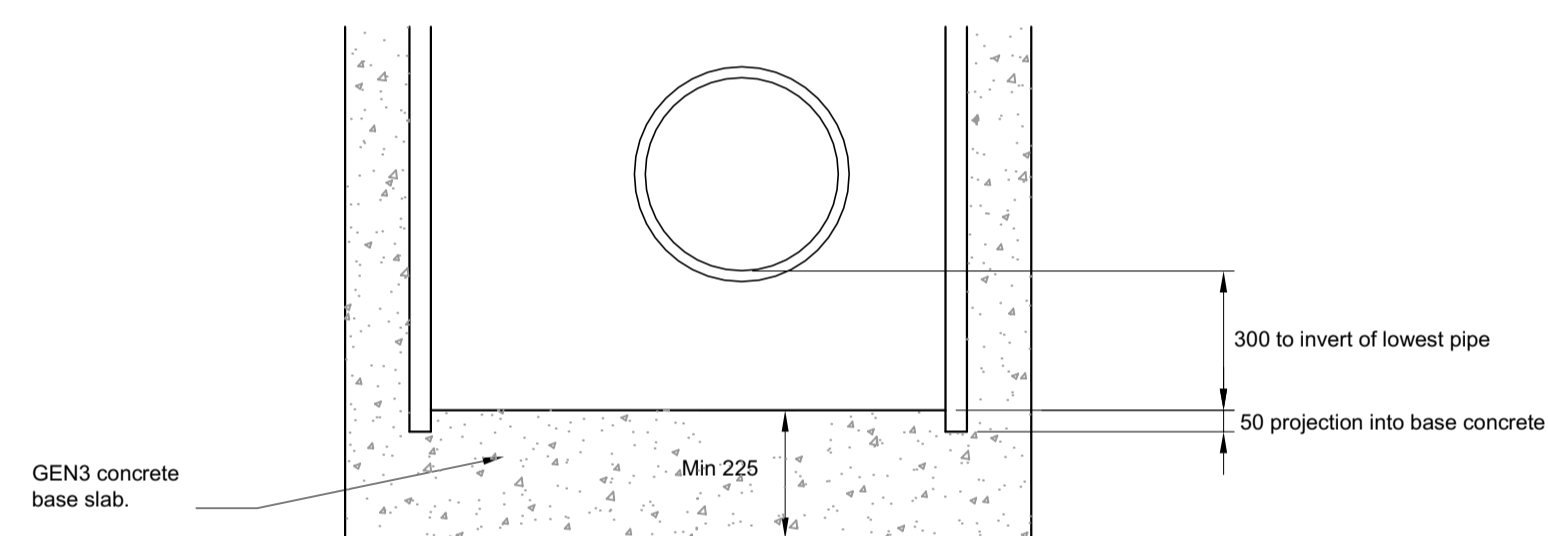


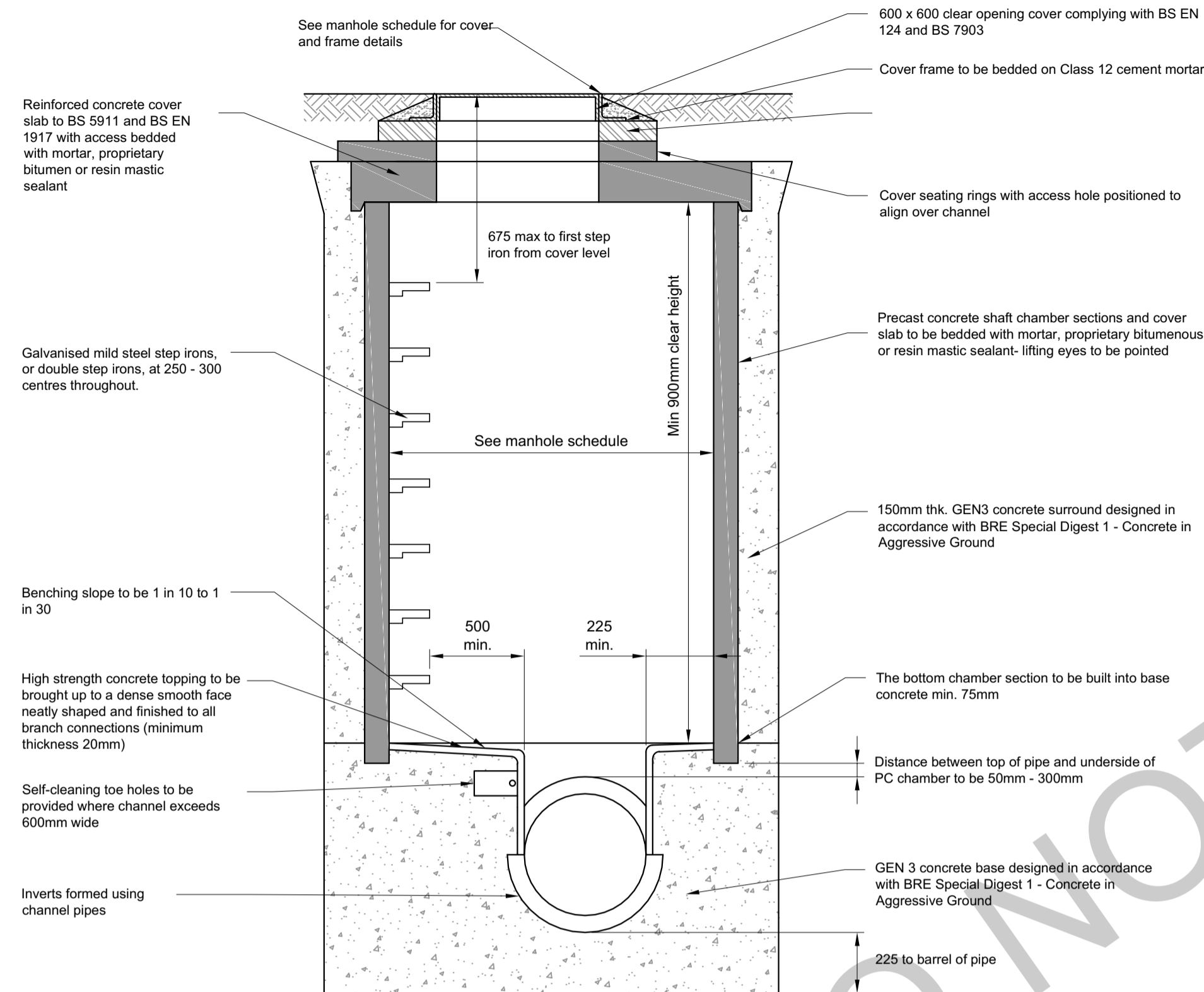
Pipe dia.	Rocker Pipe Length
150-600	500-750
675-750	750-1000
>750	1250



TYPICAL MANHOLE PLAN
(SCALE 1:20)

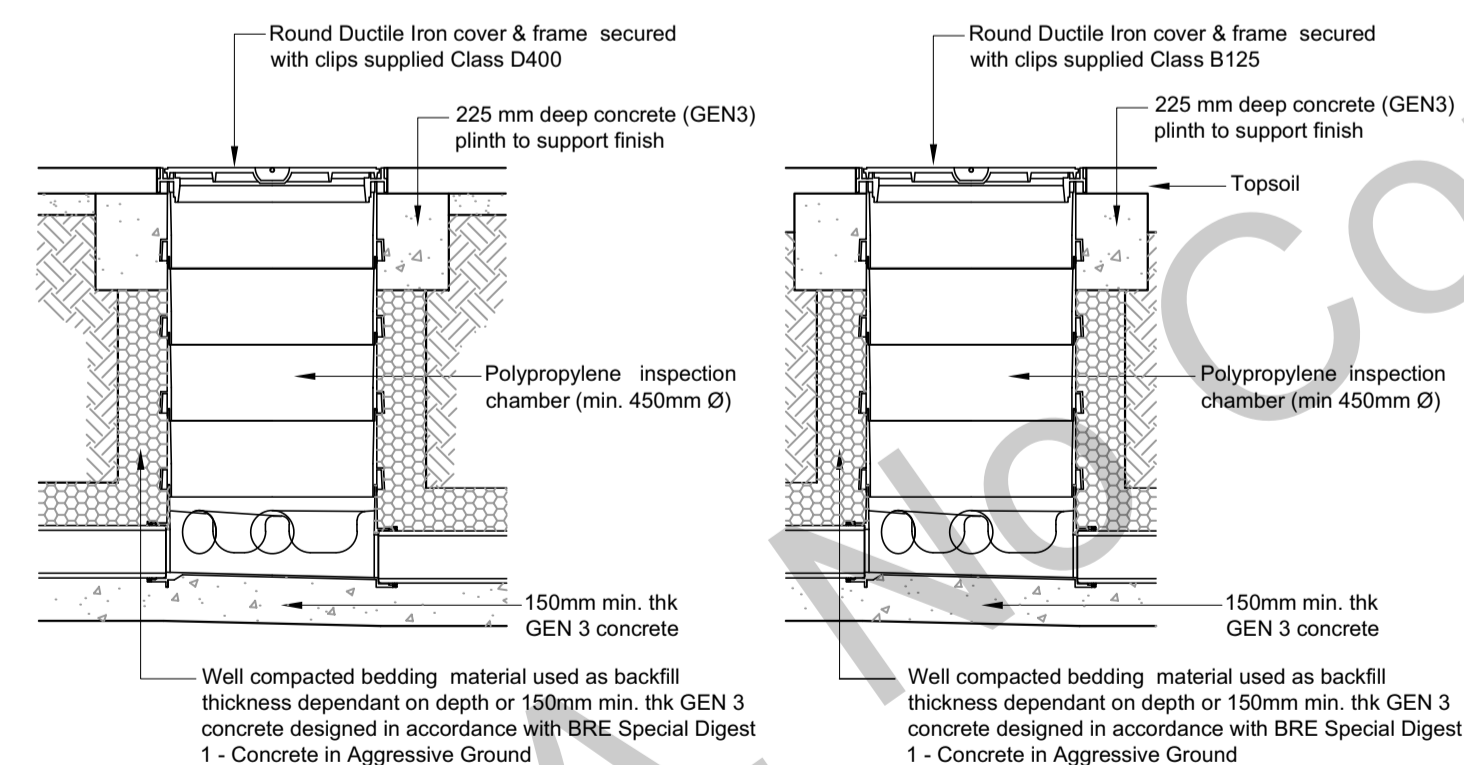


CATCH PIT DETAIL
(SCALE 1:20)

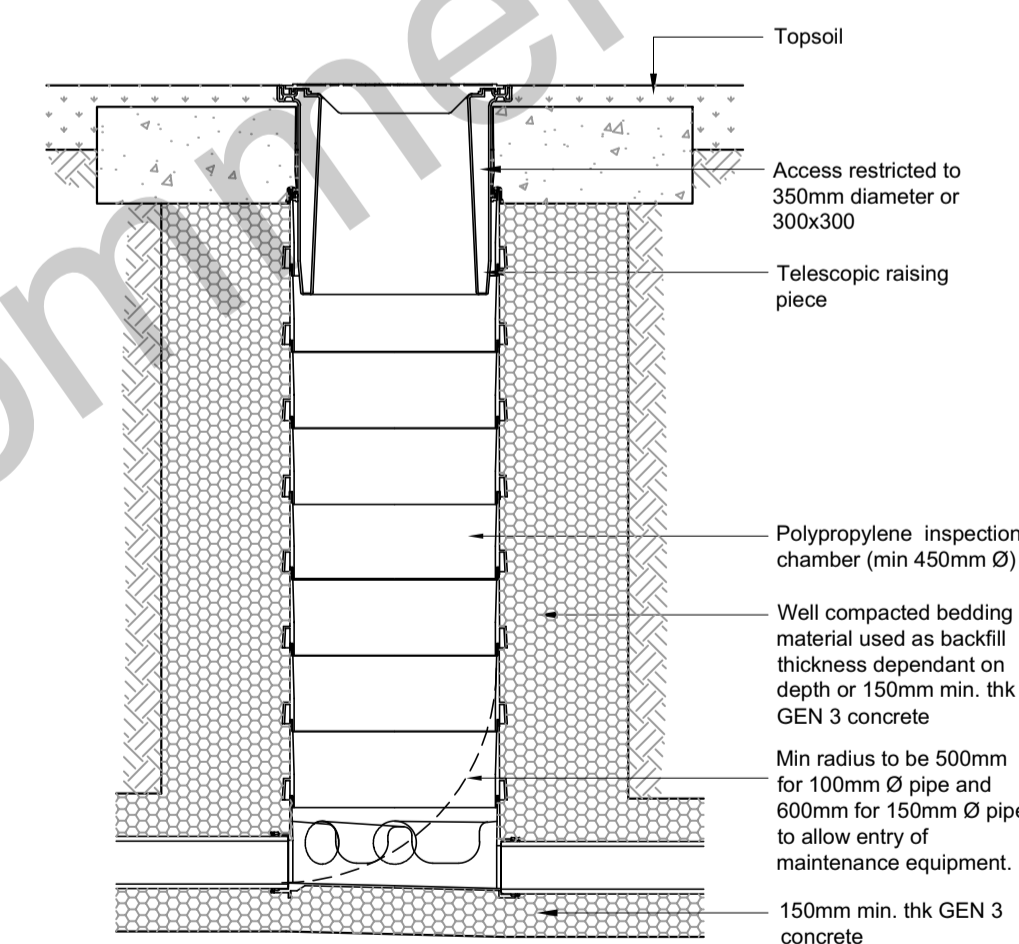


TYPICAL TYPE 2 CONCRETE MANHOLE (PCC) DETAIL
MAX. DEPTH FROM COVER LEVEL TO SOFFIT OF PIPE 3.0m
(SCALE 1:20)

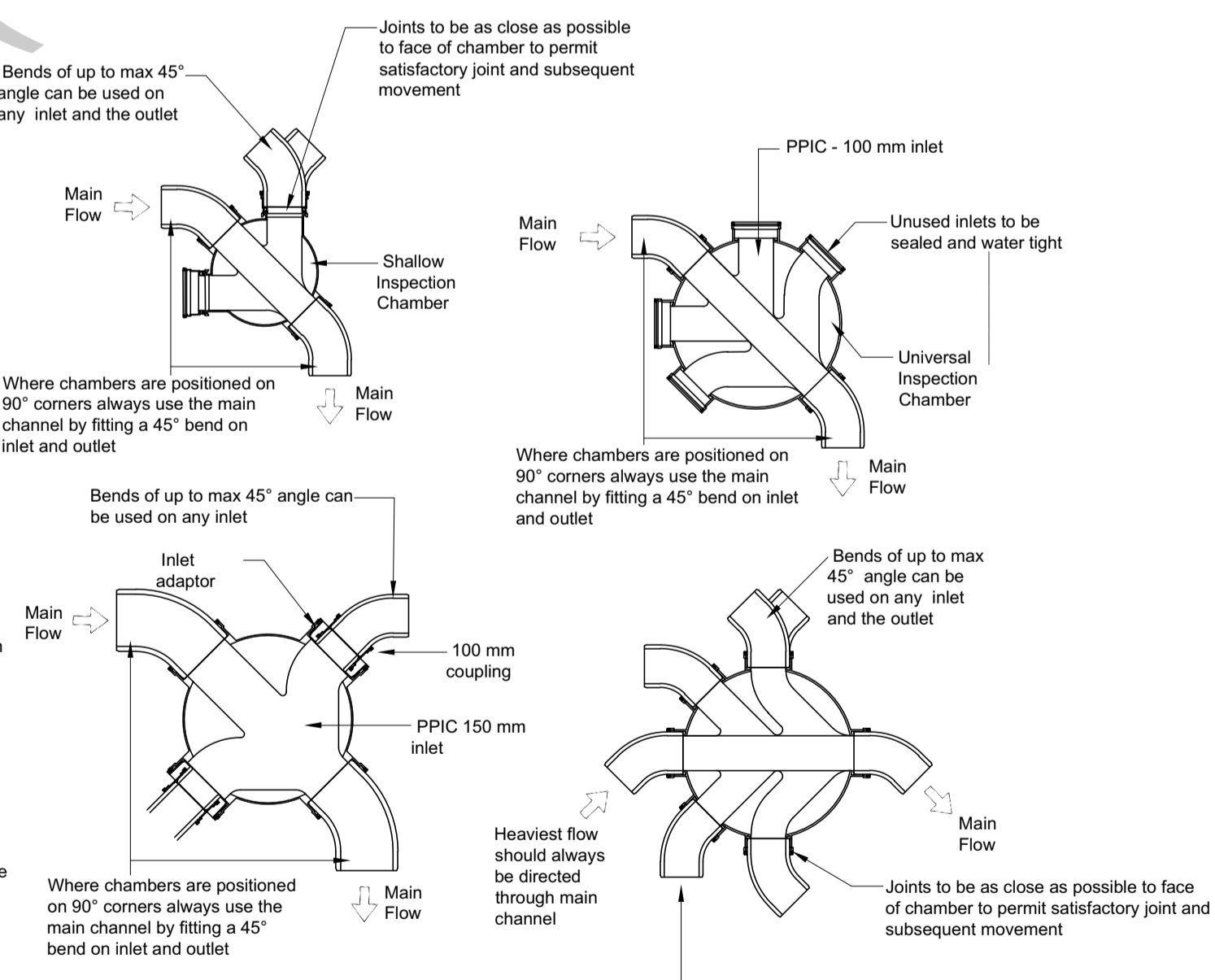
- GENERAL NOTES**
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS AND SPECIFICATIONS.
 - ALL ADAPTABLE DRAINAGE WORKS INCLUDING WORKS TO EXISTING PUBLIC SEWERS TO BE UNDERTAKEN IN ACCORDANCE WITH "SERIES FOR ADOPTION IN THE EDITION" AND "CIVIL ENGINEERING SPECIFICATION FOR THE WATER INDUSTRY IN EDITION" AND CONSTRUCTED TO THE RELEVANT STATUTORY INSTRUMENTS DETAILS.
 - ALL PRIVATE DRAINAGE WORKS TO BE IN ACCORDANCE WITH CERTAIN DRAINAGE SPECIFICATION "CIVIL ENGINEERING SPECIFICATION FOR THE WATER INDUSTRY IN EDITION" BS EN 752 2017 DRAIN AND SEWER SYSTEMS OUTSIDE BUILDINGS AND THE BUILDING REGULATIONS APPROVED DOCUMENT H.
 - DO NOT SCALE THIS DRAWING. ANY AMBIGUITIES, OMISSIONS AND ERRORS ON DRAWINGS SHALL BE BROUGHT TO THE ENGINEERS ATTENTION IMMEDIATELY. ALL DIMENSIONS MUST BE CHECKED / VERIFIED ON SITE.
 - DESIGN BASED ON TOPOGRAPHICAL SURVEY AND CCTV SURVEY INFORMATION AVAILABLE AT THE TIME OF THE DESIGN.
 - OUTFALL CONNECTIONS SUBJECT TO AGREEMENT WITH THE APPROVING AUTHORITY.
 - ALL DIMENSIONS ARE IN METRES AND LEVELS IN METRES ABOVE ORDNANCE DATUM UNLESS OTHERWISE NOTED.
 - COVER LEVELS, GULLY POSITIONS, AND BUILDINGS LOCATION ARE APPROXIMATE AND SHALL BE CONFIRMED BY ARCHITECT / LANDSCAPE ARCHITECT CONTRACTOR TO ALLOW FOR ADJUSTMENT TO SUIT AGREED POSITIONS AND FINISHED LEVELS AND CONFIRM ALL COVER LEVELS ON SITE.
 - ALL ACCESS FITTINGS, STACKS, RAMP AND GULLIES TO BE PROTECTABLE. ALL TO HAVE LOW LEVEL ACCESS PLATES UNLESS AN ALTERNATIVE MEANS OF ACCESS IS AGREED. ACCESS POINT TO BE ABOVE ANY GROUND FLOOR CONNECTED APPLIANCE SPILL LEVEL.
 - LARGE ACCESS FITTING REQUIRED ABOVE GROUND WHERE GREATER THAN 200 UP TO 200 TO A JUNCTION. SMALL ACCESS FITTING REQUIRED UP TO 100 TO A JUNCTION.
 - ALL GULLY AND CHANNEL DRAIN OUTLETS AND TERMINATION POINTS TO BE TRAPPED AND ROADABLE. INTERNAL GULLIES AND CHANNEL DRAINING TO BE SPECIFIED BY OTHERS.
 - INVERT LEVELS AT MANHOLES INSPECTION CHAMBERS TO BE USED TO SET OUT PIPEWORK. PIPE GRADIENTS ARE SHOWN INDICATIVELY ONLY.
 - ALL PIPE DIAMETERS GIVEN ARE NOMINAL INTERNAL PIPE DIAMETERS.
 - ALL SEWERS UNLESS AGREED OTHERWISE STATED, SHALL BE:
 - 150mm to 300mm DIA TO BE VERIFIED CLAY
 - 300mm DIA AND GREATER TO BE CLASS 2 OR CONCRETE PIPES
 - AS AN ALTERNATIVE THE CONTRACTOR MAY USE AN APPROVED UNPLASTICISED POLYVINYL CHLORIDE (PVCU) WITH APPROVAL FROM THE ENGINEER.
 - SEWER PIPES TO BE LAC IN MAXIMUM 3 METRE LENGTHS UNLESS THERE IS A SPECIFIC OPERATIONAL NEED TO LAY LONGER LENGTHS.
 - THE FIRST PIPE OUT OF MANHOLES TO BE AS SHORT AS PRACTICABLE SO AS TO PROVIDE A FLEXIBLE JOINT AS CLOSE AS POSSIBLE TO THE OUTSIDE FACE OF THE CONCRETE SURROUND AND CONNECTED TO A LENGTH OF ROCKER PIPE.
 - ALL NEW CONNECTIONS INTO EXISTING MANHOLES OR INTO EXISTING SEWERS TO BE SUFFICIENT LEVEL UNLESS OTHERWISE NOTED.
 - ALL ADAPTABLE DRAINAGE PIPES WILL REQUIRE A MINIMUM OF 150mm COVER, IN ACCORDANCE WITH SEWERAGE UNDERSTERS REQUIREMENTS, WHERE THIS IS NOT ACHIEVED, IT WILL BE NECESSARY TO AGREE THE BED AND SURROUND DETAIL.
 - ALL PRIVATE DRAINAGE PIPES WITH A COVER OF LESS THAN 600mm IN NON-TRAFFICED AREAS AND LESS THAN 1000mm IN TRAFFICED AREAS TO BE BEDDED AND SURROUNDED IN CONCRETE (CLASS 2), COMPRESSIBLE MATERIAL SHALL BE PROVIDED AT EVERY PIPE JOINT. WHERE COVER EXCEEDS THIS DEPTH, PIPES ARE TYPICALLY BEDDED AND SURROUNDED IN CLASS 2 REFER TO PIPE EMBEDEDMENT DETAILS DRAWING FOR SPECIFIC TYPES.
 - WHERE DRAINAGE PIPES ARE LESS THAN 300mm BELOW THE UNDERSIDE OF THE GROUND FLOOR SLAB, CONCRETE ENCASEMENT IS REQUIRED (CLASS 2), COMPRESSIBLE JOINTS ARE TO BE PROVIDED AT EVERY PIPE JOINT WITHIN THE CONCRETE.
 - WHERE PIPES ARE MORE THAN 300mm BELOW THE UNDERSIDE OF THE SLAB, CLASS 2, COMPRESSIBLE JOINTS ARE TO BE PROVIDED AT EVERY PIPE JOINT WITHIN THE CONCRETE.
 - WHERE FOUR SEWERS RUN ABOVE SURFACE SEWERS, CONCRETE PROTECTION MAY BE REQUIRED AT CROSSOVERS TO PREVENT ANY POTENTIAL CONTAMINATION.
 - ALL CONNECTIONS PASSING THROUGH BASES OR EDGE BEAMS TO BE IN SEALED SLEEVES. ALTERNATIVE CONNECTIONS MAY BE CHART WITH FLEXIBLE JOINTS NOT GREATER THAN 1500MM FROM FACE OF CONCRETE.
 - THE CHAMBER SIZE OF MANHOLES WITH MORE THAN ONE CONNECTION MAY NEED TO BE INCREASED TO ACCOMMODATE THE CONNECTIONS AND BEWES.
 - ALL MANHOLE COVERS IN BLOCKS LAB AND EXTERNAL PAVING AREAS TO HAVE RECESSED COVERS OF THE APPROPRIATE GRADE TO ACCEPT ARCHITECTS PAVING PROPOSAL.
 - ALL INTERNAL COVERS TO HAVE MECHANICALLY JOINTED CORNERS AND DOUBLE SEALED WITH RECESSED TRAY TO ALLOW FOR FINISHES.
 - UNLESS NOTED OTHERWISE IN THE MANHOLE SCHEDULE, ALL MANHOLE, GULLY AND CHANNEL COVERS (ROWWORKS) SHOULD BE THE FOLLOWING SPECIFICATION:
 - B15 LOAD CLASS IN PEDESTRIAN AREAS
 - D400 LOAD CLASS IN VEHICULAR AREAS
 - ALL PROPRIETARY PRODUCTS TO BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURERS REQUIREMENTS, INSTRUCTIONS AND RECOMMENDATIONS.



TYPICAL INSPECTION CHAMBER (IC) DETAIL
MAX DEPTH 1.2m



DEEP INSPECTION CHAMBER (IC) DETAIL
DEPTHS BETWEEN 1.2m AND 3.0m
(SCALE 1:20)



INSPECTION CHAMBER BASE DETAILS
(SCALE 1:20)

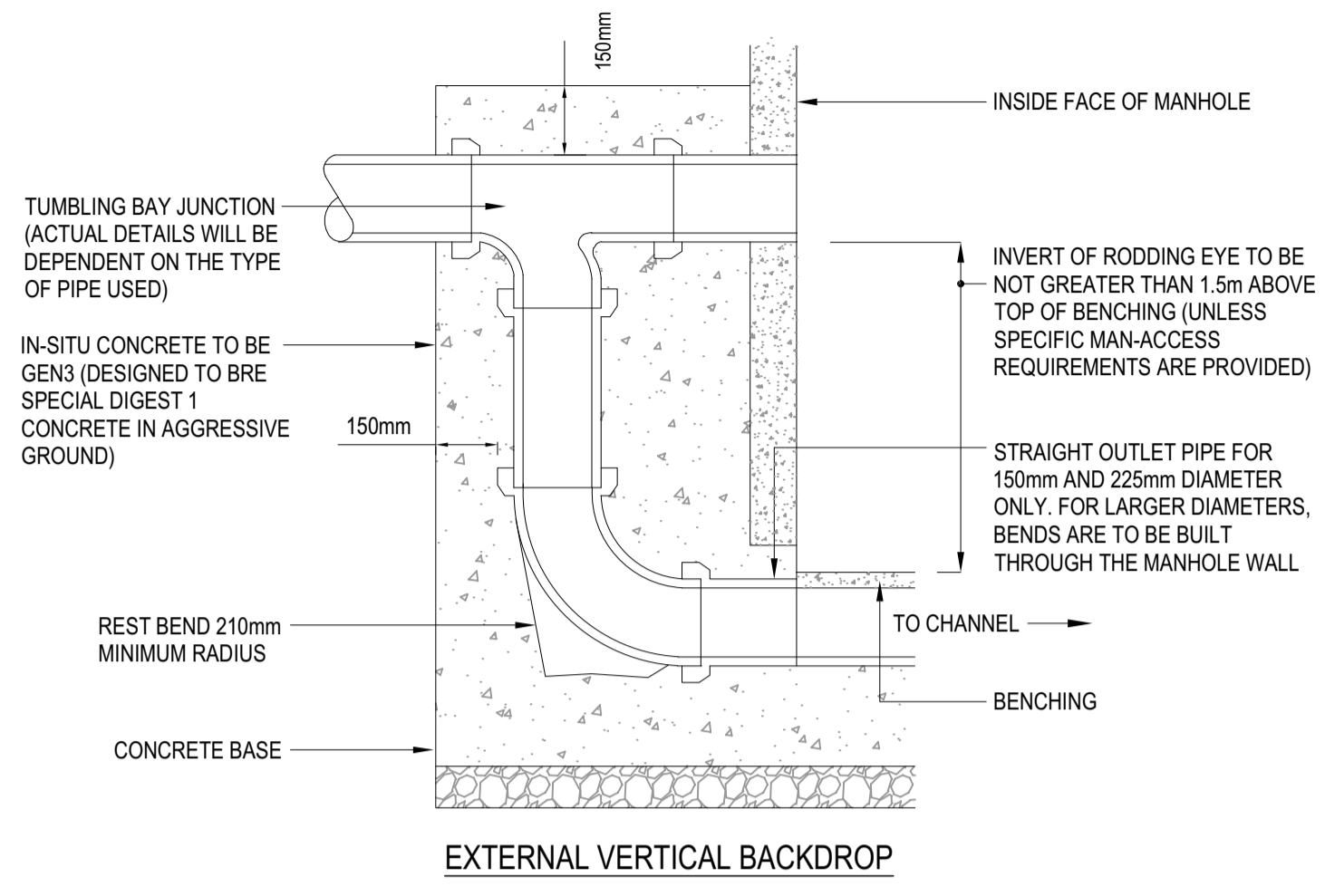
- Notes:**
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS AND SPECIFICATIONS.
 - DO NOT SCALE THIS DRAWING. ANY AMBIGUITIES, OMISSIONS AND ERRORS ON DRAWINGS SHALL BE BROUGHT TO THE ENGINEERS ATTENTION IMMEDIATELY. ALL DIMENSIONS MUST BE CHECKED / VERIFIED ON SITE.
 - ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE.
 - FOR GENERAL NOTES REFER TO DRAWING.
 - INFILTRATION ASSUMED POSSIBLE IN THIS SCENARIO, TO BE CONFIRMED BY BRE 365 INFILTRATION TESTING.
 - WALLFORD STORAGE ESTIMATION USED TO ANALYZE THE RUNOFF AND STORAGE
 - A TOTAL OF 462.5M3 OF STORAGE AVAILABLE IN SUBBASE USING MINIMUM DEPTH OF 185mm
 - PERMEABLE SURFACE AND BUILD UP DESIGNED TO PROVIDE TREATMENT PRIOR TO INFILTRATION.
 - FORMATION DEPTH TO BE NO GREATER THAN 1m BELOW GL SO SHALLOW INFILTRATION CAN BE UTILIZED.
 - AN EA PERMIT MAY BE REQUIRED FOR DISCHARGE TO GROUND WATER.
 - DRAINAGE MUST ONLY BE DECOMMISSIONED ONCE A FULL CONNECTIVITY SURVEY HAS BEEN CARRIED OUT AND ALL CONNECTIONS ARE CONFIRMED TO BE REDUNDANT.

REV.	DESCRIPTION	DATE	DRW.	CHK.
P02	TITLE BOX UPDATED	06.01.22	DE	HS
P01	INITIAL ISSUE	01.04.21	DE	HS

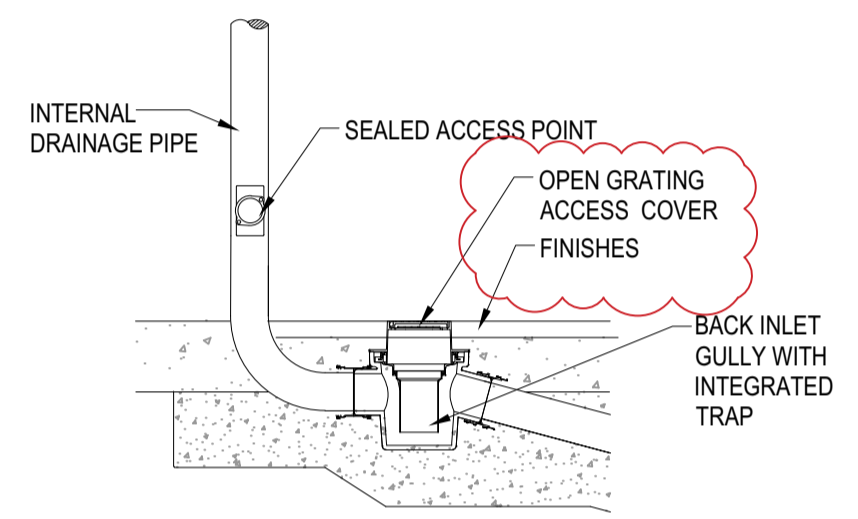


PROJECT	MSCP ENABLING WORKS		
TITLE	DRAINAGE STANDARD DETAILS		
STATUS	PURPOSE OF ISSUE FOR REVIEW/COMMENT		
DE	HS	DATE 01/04/2021	
SCALE (@A1)	PROJECT NUMBER 077416		
FILE DRAWING NUMBER	20200-CUR-MSCP-EX-DR-D-9390	REV.	P02

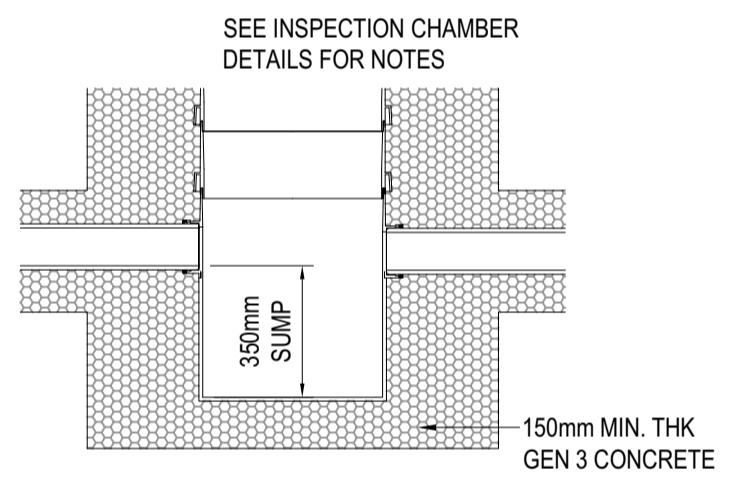
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS AND SPECIFICATIONS.
- DO NOT SCALE THIS DRAWING. ANY AMBIGUITIES, OMISSIONS AND ERRORS ON DRAWINGS SHALL BE BROUGHT TO THE ENGINEERS ATTENTION IMMEDIATELY. ALL DIMENSIONS MUST BE CHECKED / VERIFIED ON SITE.
- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
- SULPHATE RESISTANT CEMENT (C20-DC2) AND PRECAST CONCRETE PRODUCTS MUST BE USED OR A LABORATORY REPORT PROVIDED TO PROVE THAT SUCH PRECAUTIONS ARE NOT REQUIRED.



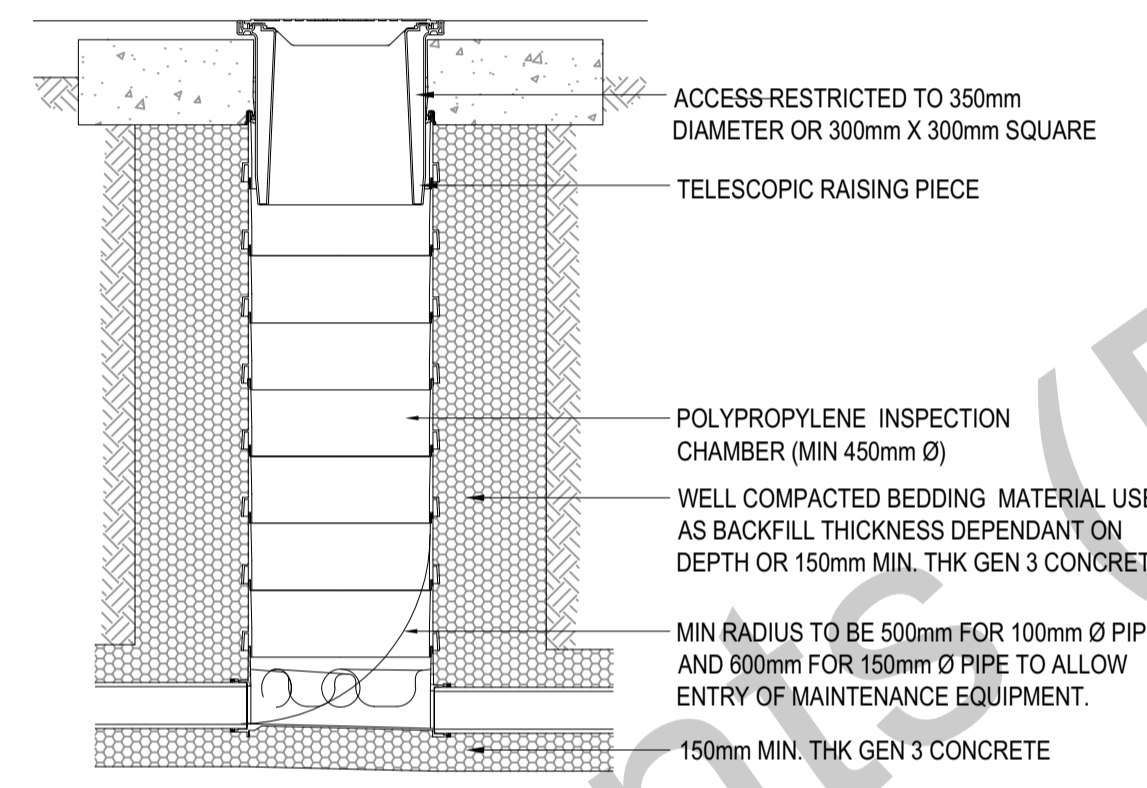
EXTERNAL VERTICAL BACKDROP



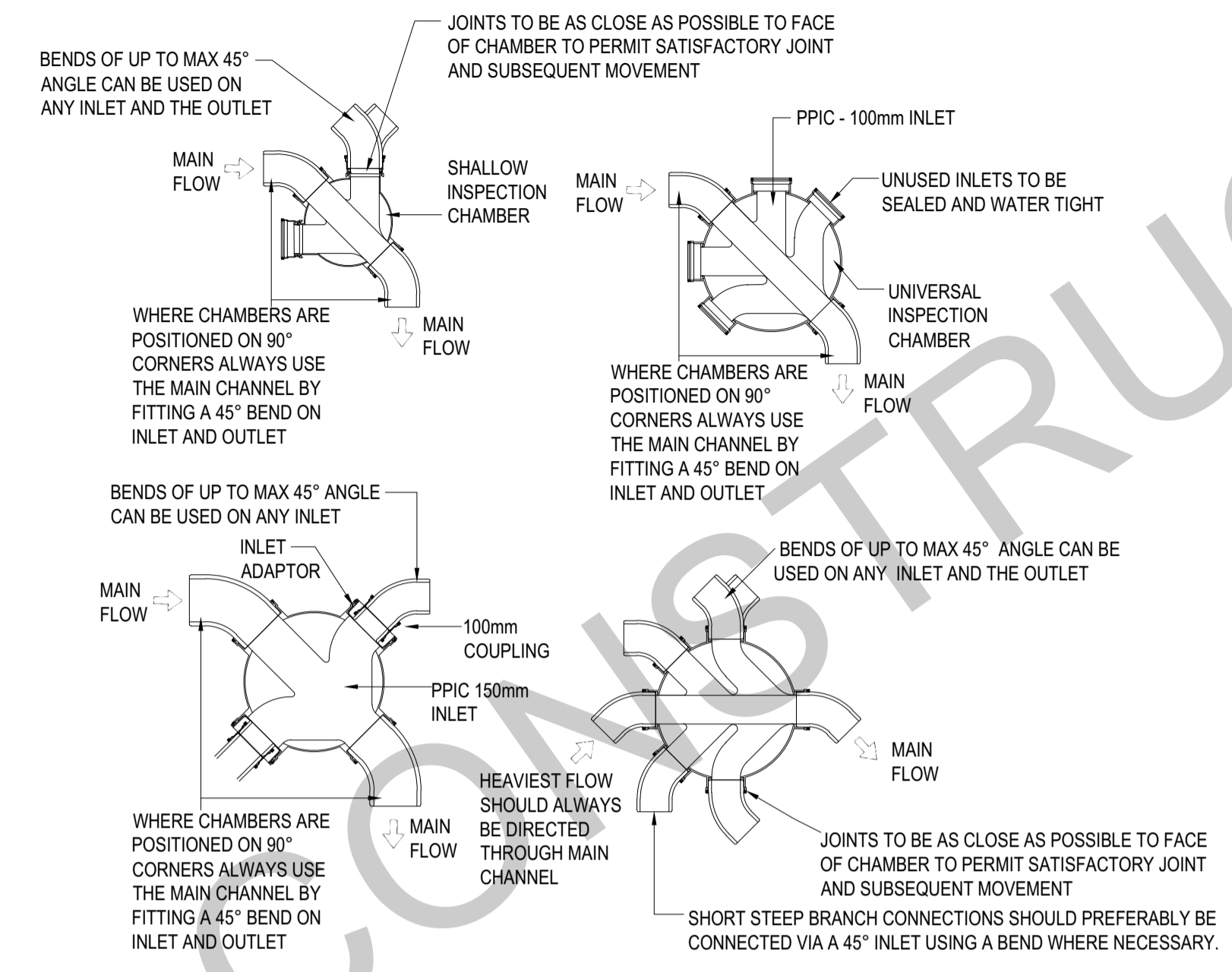
INTERNAL BACK INLET GULLY TRAP



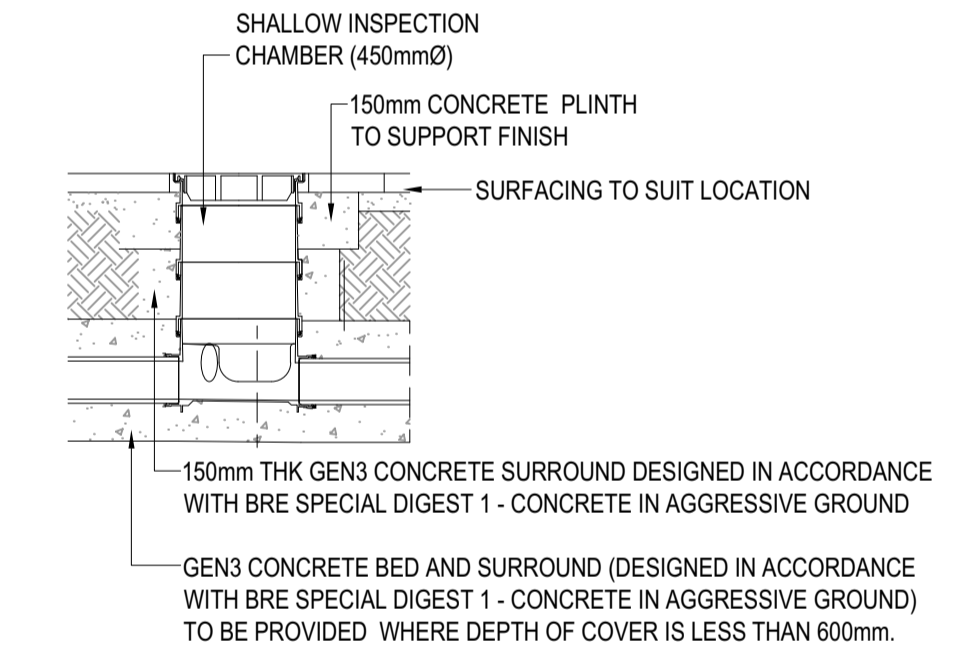
PPIC CATCHPIT BASE DETAIL



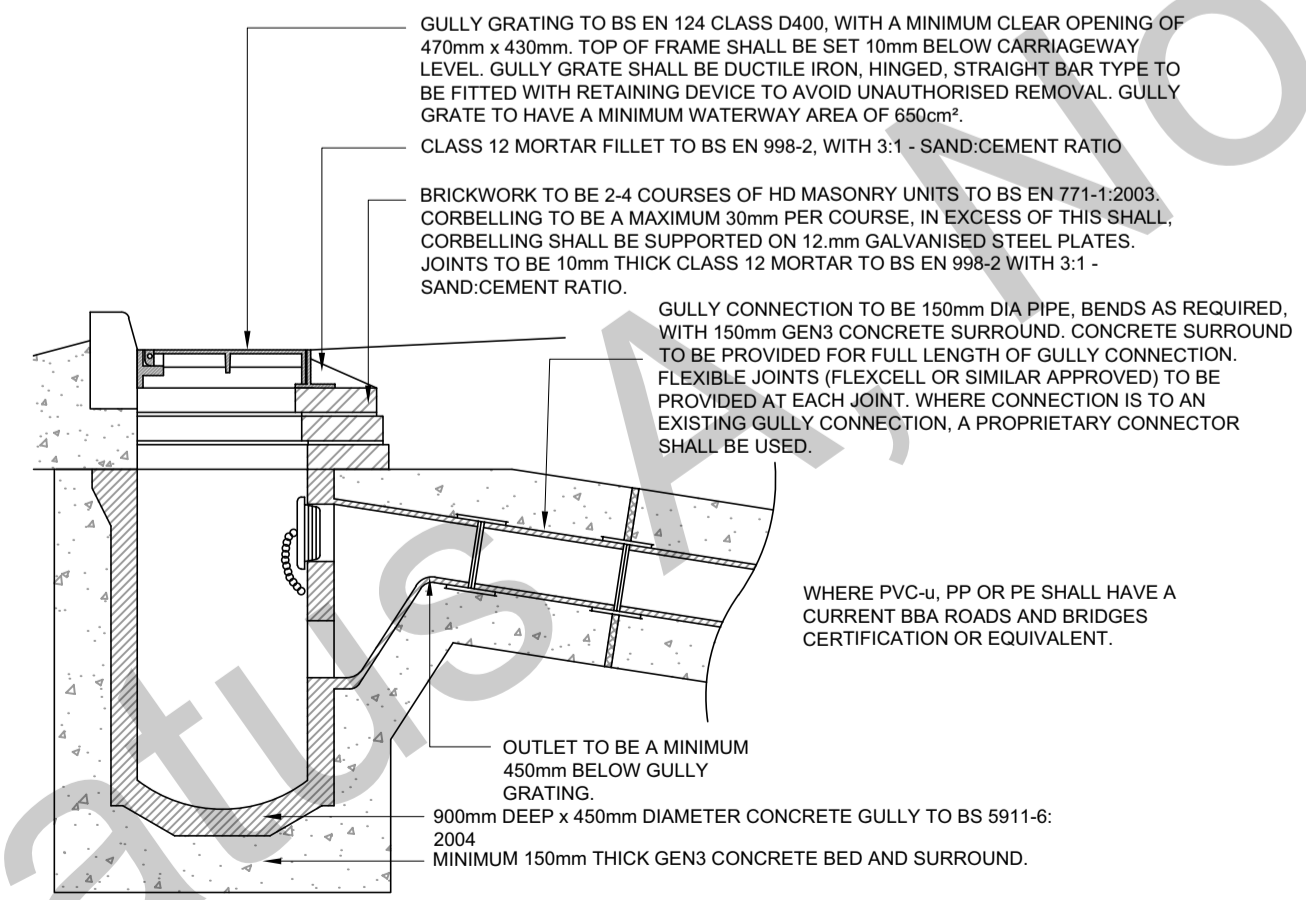
DEEP INSPECTION CHAMBER DEPTHS BETWEEN 1.2m AND 3.0m



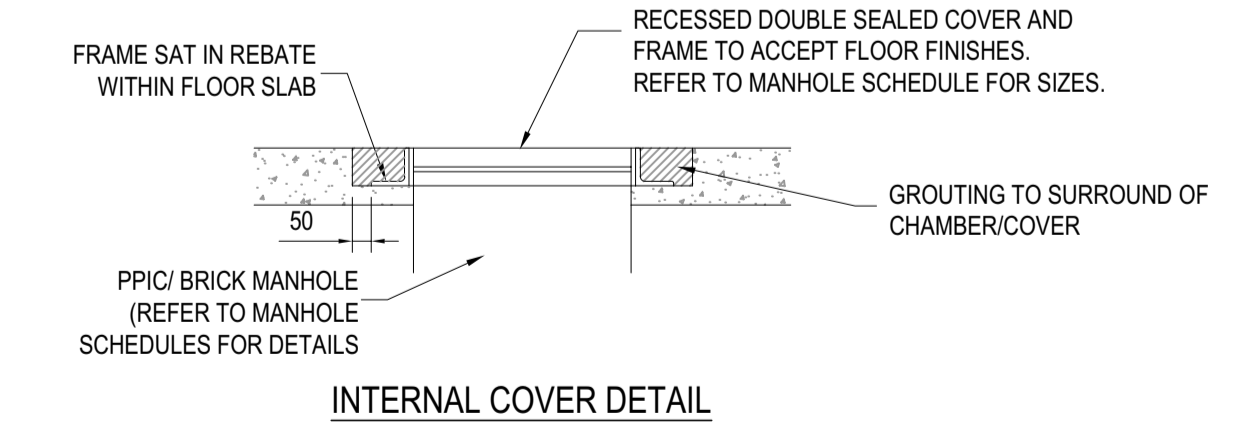
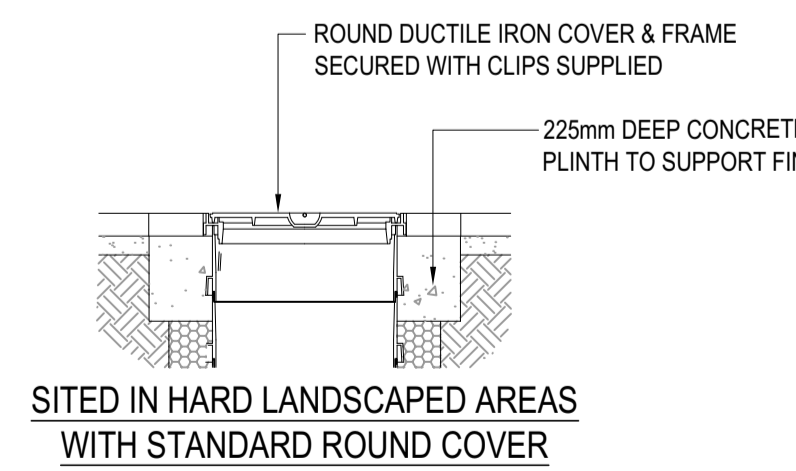
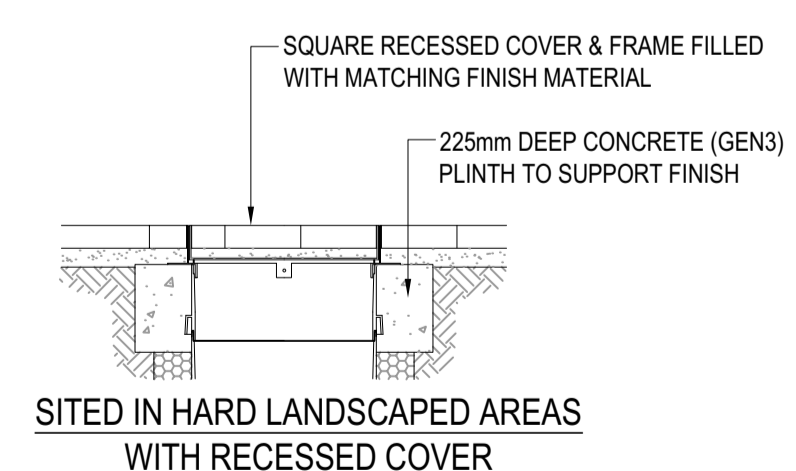
INSPECTION CHAMBER BASE DETAILS



SHALLOW INSPECTION CHAMBER MAX DEPTH 0.6m



ROAD GULLY (RG)



INTERNAL COVER DETAIL

REV.	DESCRIPTION	DATE	DRW.	CHK.
C02	Changes clouded	18.10.22	MW	MW
C01	ISSUED FOR CONSTRUCTION	25.05.22	EBR	MW
P05	STAGE 4 UPDATE	31.01.22	TH	ATL
P04	STAGE 4 ISSUE	17.12.21	ATL	CS
P03	DRAFT STAGE 4 ISSUE	21.07.21	MW	MW
P02	DRAFT STAGE 4 ISSUE	28.08.21	MW	DS

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PROJECT		NMGH MSCP	
TITLE		Drainage Details sheet 1	
STATUS	PURPOSE OF ISSUE		
S4	FOR CONSTRUCTION		
DRAWN BY	CHECKED BY	DATE	
MW	DS	28/06/2021	
SCALE (@A1)	PROJECT NUMBER		
1:20	07805		
FILE DRAWING NUMBER	REV.		
20200-CUR-NM110-ZZ-DR-C-9251	C02		