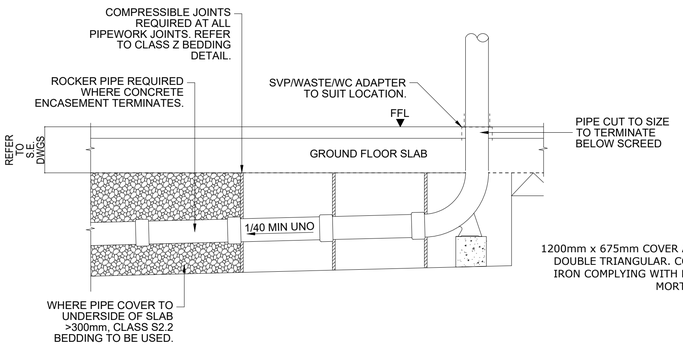
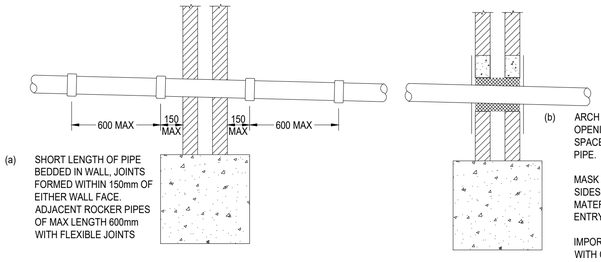


CONNECTION TO R.W.P/SWP/WASTE INSIDE BUILDING (GROUND FLOOR SLABS)

NOT TO SCALE



(a) SHORT LENGTH OF PIPE BEDDED IN WALL, JOINTS FORMED WITHIN 150mm OF EITHER WALL FACE. ADJACENT ROCKER PIPES OF MAX LENGTH 600mm WITH FLEXIBLE JOINTS

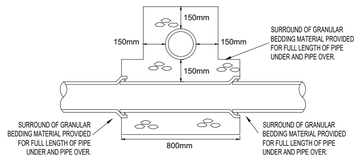
(b) ARCH OR LINTELLED OPENING TO GIVE 50mm SPACE ALL ROUND THE PIPE.

MASK OPENING BOTH SIDES WITH RIGID SHEET MATERIAL TO PREVENT ENTRY OF FILL OR VERMIN.

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

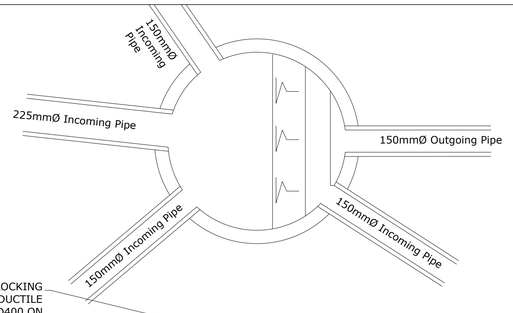
PIPES PENETRATING THROUGH WALLS

(NTS)

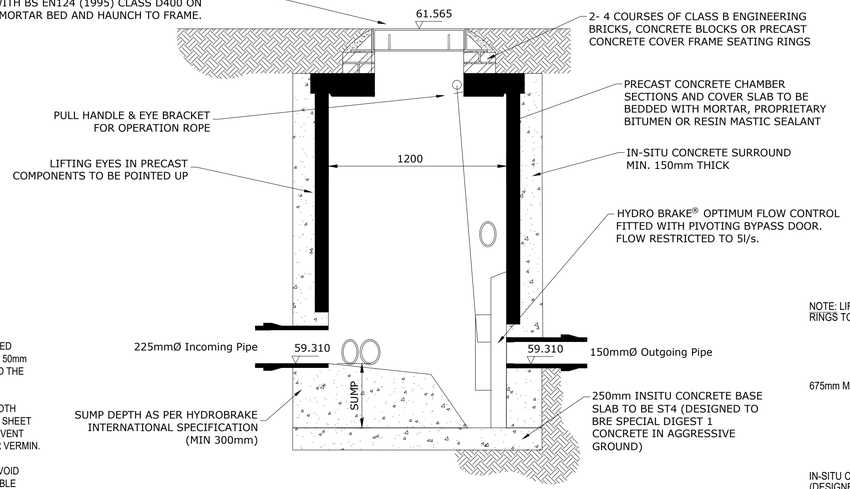


ADJACENT PIPES CROSS OVER DETAIL

(NTS)



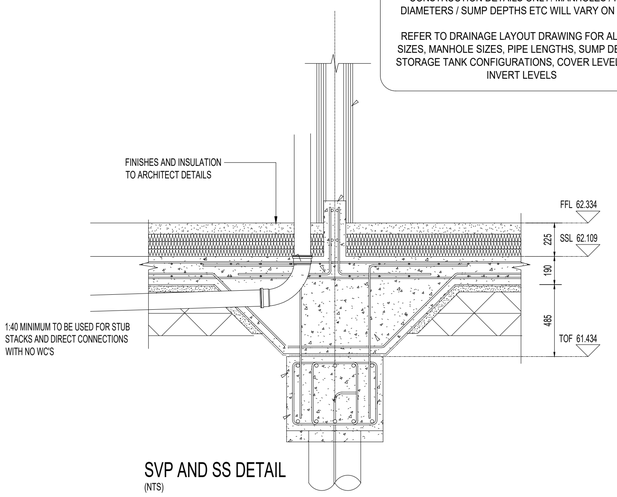
1200mm x 675mm COVER AND FRAME TO BE NON-ROCKING DOUBLE TRIANGULAR. COVER AND FRAME TO BE DUCTILE IRON COMPLYING WITH BS EN124 (1995) CLASS D400 ON MORTAR BED AND HAUNCH TO FRAME.



FLOW CONTROL SW MANHOLE DETAIL

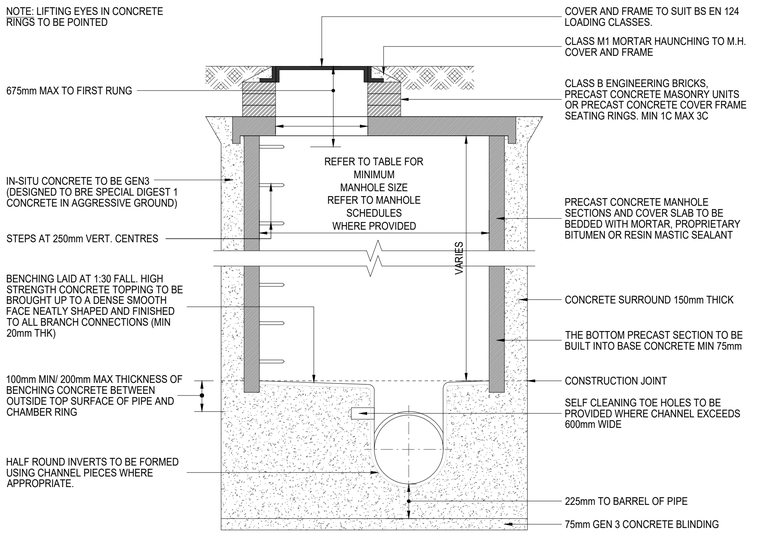
THE PURPOSE OF THIS DRAWING IS FOR TYPICAL CONSTRUCTION DETAILS ONLY. MANHOLES / PIPE DIAMETERS / SUMP DEPTHS ETC WILL VARY ON PLAN.

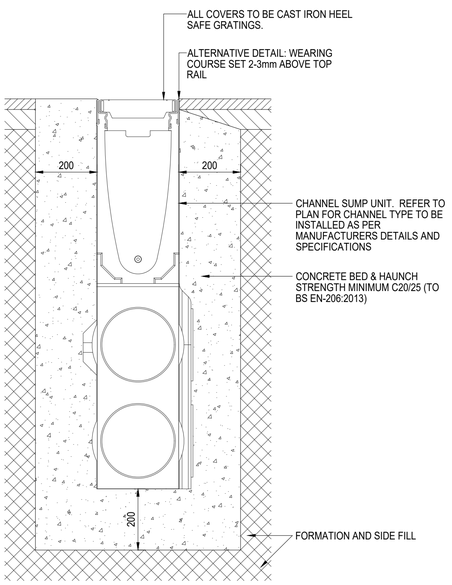
REFER TO DRAINAGE LAYOUT DRAWING FOR ALL PIPE SIZES, MANHOLE SIZES, PIPE LENGTHS, SUMP DEPTHS, STORAGE TANK CONFIGURATIONS, COVER LEVELS AND INVERT LEVELS



SVP AND SS DETAIL

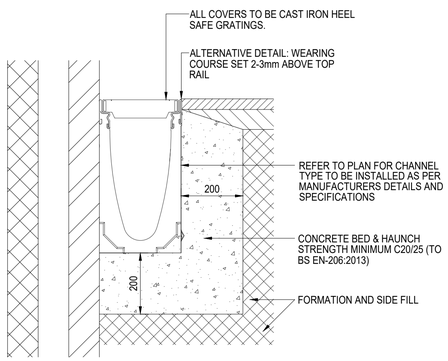
(NTS)





CHANNEL DRAIN SUMP OUTFALL DETAIL

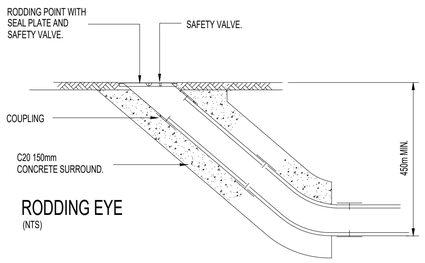
SCALE 1:10



CHANNEL DRAIN IN BITUMINOUS CONSTRUCTION

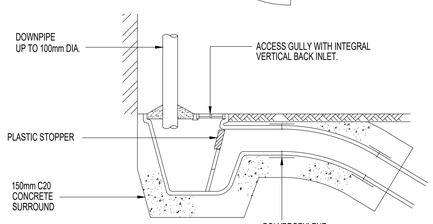
SCALE 1:10

BS EN 124 LOADING CLASSES	
LOADING CLASS	DESCRIPTION
A15	VERY LIGHT DUTY FOR PEDESTRIAN AREAS
B125	DOMESTIC DRIVEWAYS
C250	SMALL PRIVATE CAR PARKS
D400	MAIN ROADS AND PUBLIC CAR PARKS.
E600	INDUSTRIAL ESTATES, LOADING BAYS & CARGO HANDLING YARDS.
F900	DOCKS & AIRPORTS. EXTREME HEAVY DUTY OPERATIONS.



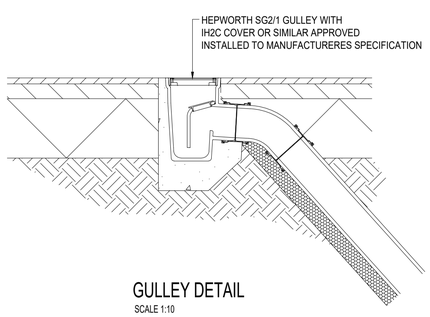
RODDING EYE

(NTS)



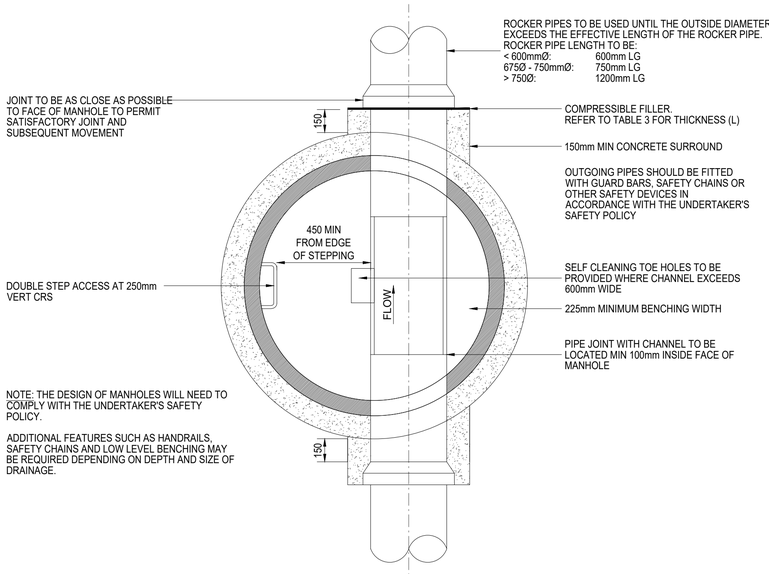
ACCESS GULLY DETAIL TO SUB-STATION

(NTS)



GULLEY DETAIL

SCALE 1:10



MANHOLE TYPE B
MAXIMUM DEPTH FROM COVER LEVEL TO SOFFIT OF PIPE < 3.0m

NOT TO SCALE

GENERAL NOTES

THIS DRAWING TO READ IN CONJUNCTION WITH ALL RELEVANT STRUCTURAL AND ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.

ALL DIMENSIONS TO BE CHECKED ON SITE BY THE CONTRACTOR / FABRICATOR PRIOR TO COMMENCEMENT OF WORKS.

ALL DIMENSIONS ARE IN MILLIMETRES UNLESS STATED OTHERWISE.

ALL WORKS TO BE CARRIED OUT IN STRICT ACCORDANCE WITH THE ENGINEER'S SPECIFICATIONS, RELEVANT BRITISH STANDARDS AND WHERE APPLICABLE LOCAL AUTHORITIES REQUIREMENTS.

ANY AMBIGUITIES, OMISSIONS AND ERRORS ON DRAWINGS, SHALL BE BROUGHT TO THE ENGINEERS ATTENTION IMMEDIATELY.

THE CONTRACTOR SHALL CONFIRM THE LOCATION AND LEVEL OF EXISTING DRAINAGE OUTFALLS PRIOR TO COMMENCEMENT OF THE DRAINAGE WORKS.

EXACT LOCATIONS OF PROPOSED MANHOLES AND INSPECTION CHAMBERS TO BE DETERMINED ON SITE

ALL PIPES BUILT INTO THE MANHOLE INVERTS SHALL BE INSTALLED WITH SOFFITS LEVELS UNO.

CONNECTIONS TO ROAD GULLEYS SHALL BE IN 150MM NOMINAL BORE. CONNECTIONS TO OTHER TERMINAL FITTINGS SHALL BE IN 100MM NOMINAL BORE PIPE UNO.

COVER LEVELS SHOWN ARE APPROXIMATE AND SHALL BE ADJUSTED AND CONFIRM ON SITE BY THE CONTRACTOR.

PIPEWORK AND FITTINGS SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS EXCEPT WHERE NOTED OTHERWISE:

CLAYWARE PIPES TO BS EN 295

100 AND 150MM DIAMETER, MINIMUM CRUSHING STRENGTH 40KN/M ON CLASS F BEDDING.

TRENCHES IN HIGHWAYS AND CAR PARKING AREAS SHALL BE BACKFILLED WITH TYPE 1 GRANULAR SUB-BASE.

SOFT SPOTS IN THE TRENCH FORMATION SHALL BE REMOVED AND REPLACED WITH GRANULAR BEDDING UNLESS INSTRUCTED OTHERWISE.

GULLEY COVERS SHALL BE GRADE B CAPTIVE HINGED DUCTILE IRON TO BS EN 124 BLACK COATED.

UNLESS NOTED OTHERWISE MANHOLE COVERS SHALL BE DUCTILE IRON TO BS EN 124 BLACK COATED WITH 600 X 600 GRADE A.

CONNECTIONS IN PIPES BETWEEN MANHOLES RUNS SHALL BE FORMED BY USING PURPOSE MADE JUNCTION FITTINGS TO BS65. BEND FITTINGS SHALL BE PROVIDED WHERE APPROPRIATE TO DIRECT THE FLOW INTO THE MAIN RUNS.

ALTERNATIVELY MAIN PIPES MAY BE DIAMOND CORED TO TAKE LATERAL CONNECTIONS WITH A SADDLE FITTING TO BS EN 295 AND 150MM C20 CONCRETE SURROUND.

THE CONTRACTOR SHALL CONFIRM THE LOCATION OF ALL EXISTING STATUTORY UNDERTAKERS APPARATUS AND SERVICE CONNECTIONS BY TRIAL PITS PRIOR TO OPENING UP FOR THE WORKS.

BASED UPON SITE INVESTIGATION RESULTS:

DESIGN SULFATE CLASS: DS-1
ACEC CLASSIFICATION: AC-1s
DESIGN CHEMICAL CLASS: DC-1

MAIN CONTRACTOR TO ENSURE ALL GROUND EXCAVATIONS ARE STABLE AND SECURELY SHORED. ADVICE ON THIS MATTER MAY BE OBTAINED FROM THE STRUCTURAL ENGINEER.

DESIGN CONTINGENCY

FOR COST PURPOSES THE CONTRACTOR IS TO INCLUDE THE FOLLOWING CONTINGENCY (% OF PRIMARY CIVILS DESIGN COST) AT THE RELEVANT PROJECT STATUS INDICATED ON THE DRAWING.

RIBA STAGE S2 - CONCEPT DESIGN - 25%
RIBA STAGE S3 - SPATIAL COORDINATION - 15%
RIBA STAGE S4 - TECHNICAL DESIGN - 10%
RIBA STAGE A5 - PRODUCTION INFORMATION - 5%

Rev	Description	Date	By	Chkd
P02	HYDROBRAKE MANHOLE DETAIL ADDED	05.11.25	TC	TC
P01	PRELIMINARY ISSUE	10.04.25	MB	TC

Drawing Status
S3

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Client
GREAT PLACES

Project
GREY MARE LANE
MANCHESTER
M11 3DQ

Drawing Title
TYPICAL DRAINAGE DETAILS
SHEET 2 OF 2

Date	Drawn By	Checked By
APRIL '25	MB	TC

Scale at A1	Project Number
AS SHOWN	34338

Sheet Number	Revision
34338-SUT-ZZ-XX-DR-C-6651	P02