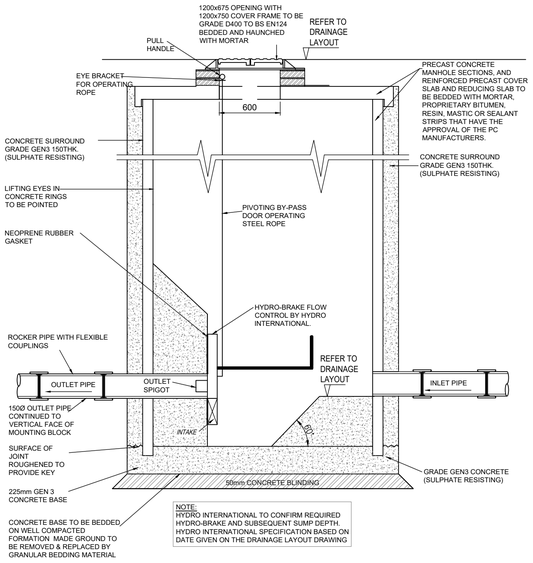


FLOW CONTROL MANHOLE DETAIL

CONTROL MANHOLE NOTES

ALL DIMENSION ARE IN MILLIMETERS

PRECAST CONCRETE UNITS TO BE BS5911 PART 200 AND TO BE CONSTRUCTED WITH A MINIMUM CLASS 3 SULPHATE RESISTING CEMENT.

ALL INSITU CONCRETE TO BE CLASS STANDARD MIX ST4 (GRADE C20) IN ACCORDANCE WITH SECTION 4 OF BS5328 PART 2.

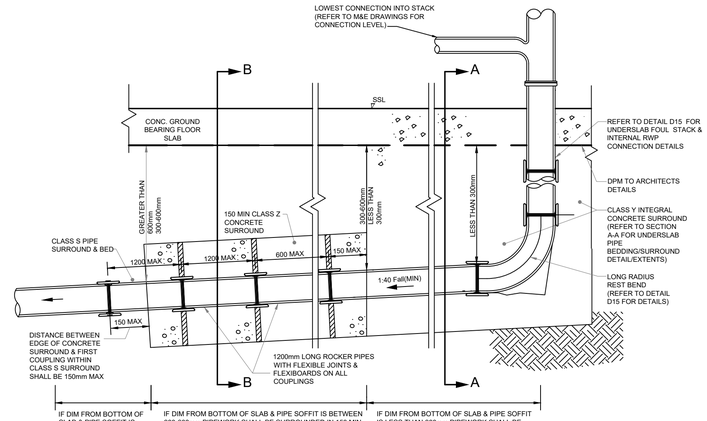
MATERIALS FOR JOINTING MANHOLE RINGS TO BE A RUBBER BITUMEN COMPOUND OF APPROVED MANUFACTURER 'IOKSTRIP' OR SIMILAR.

ALL BRICKWORK TO BE CLASS B ENGINEERING -2 COURSES MIN.4 COURSES MAX; 225mm THICK - BS5628 PART 3.

20mm THICK GRANOLITHIC CONCRETE BENCHING TO BE BROUGHT UP TO A DENSE SMOOTH FACE NEATLY SHAPED AND FINISHED TO ALL BRANCH CONNECTIONS. WHERE BENCHING IS LESS THAN 450mm WIDE, SLOPE TO BE 1:10; MORE THAN 450mm, 1:30

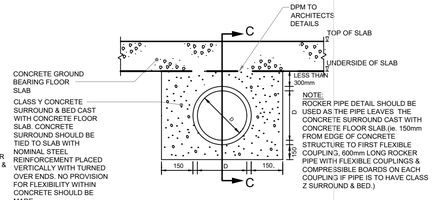
PIPES ENTERING MANHOLES TO HAVE A FLEXIBLE JOINT AS CLOSE AS FEASIBLE TO OUTSIDE FACE OF ANY STRUCTURE INTO WHICH THE PIPE IS BUILT IN ORDER TO FACILITATE MOVEMENT OF THE JOINT.

THE LENGTH OF THE NEXT PIPE (ROCKER PIPELINES, BEDDING, LAYING AND JOINTING OF PIPES AND BACKFILLING OF TRENCHES SHALL BE IN ACCORDANCE WITH THE W.S.A.SPEC 'SEWERS FOR ADOPTION' - 6TH EDITION TOGETHER WITH ANY LOCAL AUTHORITY REQUIREMENTS.



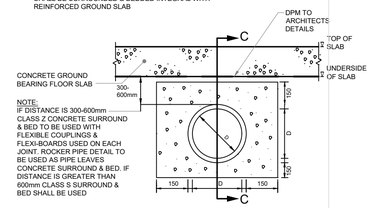
SECTION C-C

NOTES:
1. THIS DETAIL SHALL ONLY BE USED UNDER AREAS OF GROUND BEARING SLAB WHERE UNDER SLAB PIPEWORK CAN BE SUPPORTED BY UNDER SLAB FILL MATERIAL.
2. CONNECTION INTO INTERNAL MANHOLE OR MAIN UNDER SLAB RUN OR EXIT THROUGH FOUNDATION EDGE DETAIL AS PER DETAIL D (REFER TO DRAINAGE PLAN)



SECTION A-A
WHERE DISTANCE BETWEEN PIPE SOFFIT & UNDERSIDE OF CONCRETE GROUND BEARING FLOOR SLAB/GROUND BEAM IS LESS THAN 300mm

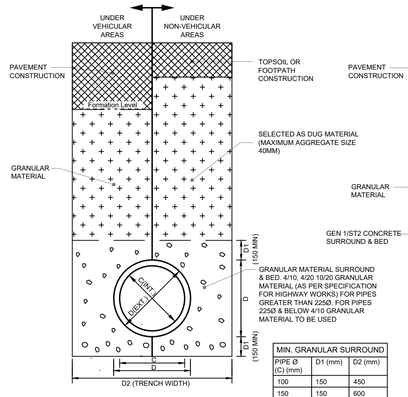
WHERE SOFFIT OF PIPE IS WITHIN 300mm OF UNDERSIDE OF CONCRETE FLOOR SLAB, THE PIPE SHALL BE SURROUNDED & BEDDED INTEGRAL WITH REINFORCED GROUND SLAB



WHERE SOFFIT OF PIPE IS BETWEEN 300 & 600mm FROM UNDERSIDE OF CONCRETE FLOOR SLAB, THE PIPE SHALL BE SURROUNDED & BEDDED IN ST4 CONCRETE. WHERE THIS DISTANCE EXCEEDS 600mm THE PIPE SHALL BE SURROUNDED & BEDDED IN GRANULAR MATERIAL

SECTION B-B
WHERE DISTANCE BETWEEN PIPE SOFFIT & UNDERSIDE OF CONCRETE GROUND BEARING FLOOR SLAB/GROUND BEAM IS GREATER THAN 300mm

TYPICAL UNDERSLAB PIPE BEDDING DETAILS FOR PIPEWORK UNDER GROUND BEARING SLAB
(FOR ALL UNDER SLAB PIPE DEPTHS)



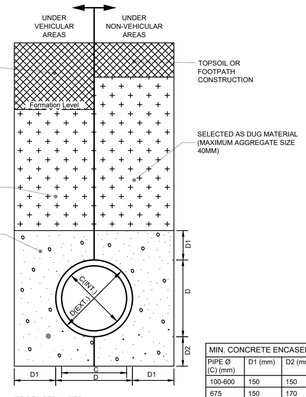
TO BE USED UNDER:

1. VEHICULAR AREAS WHERE COVER TO PIPE SOFFIT IS GREATER THAN 900mm.
2. ALL NON-VEHICULAR AREAS WHERE COVER TO PIPE SOFFIT IS GREATER THAN 600mm.

NOTE:
ALL PIPEWORK SHALL HAVE FLEXIBLE COUPLINGS

MIN. GRANULAR SURROUND		
PIPE Ø (C) (mm)	D1 (mm)	D2 (mm)
100	150	450
150	150	600
225	150	700
300	150	850
375	200	1050
450	200	1150
525	200	1200
600	200	1350
675	200	1450
750	200	1500

CLASS S PIPE BEDDING & SURROUND
(TO BE USED FOR PLASTIC, VITRIFIED CLAY & CONCRETE PIPEWORK)



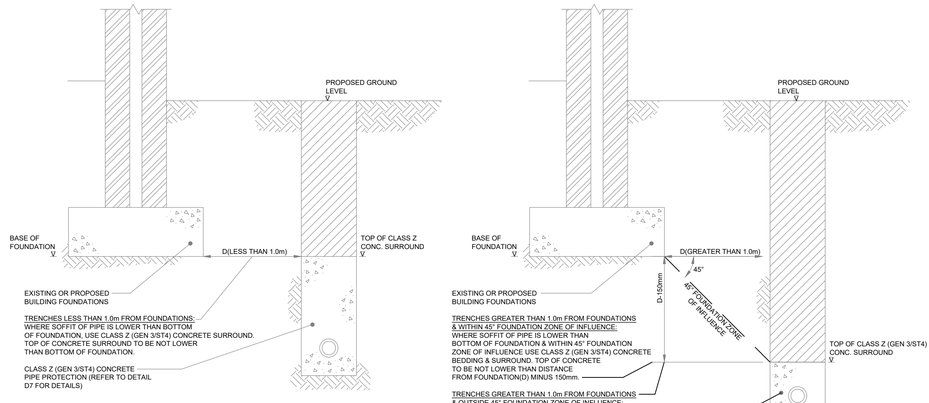
TO BE USED UNDER:

1. VEHICULAR AREAS WHERE COVER TO PIPE SOFFIT IS EQUAL TO OR LESS THAN 900mm.
2. ALL NON-VEHICULAR AREAS WHERE COVER TO PIPE SOFFIT IS EQUAL TO OR LESS THAN 600mm.

NOTE:
ALL PIPEWORK WITH CLASS Z (GEN 3/ST4) CONCRETE SURROUND SHALL HAVE FLEXIBLE COUPLINGS WITH FLEXI-BOARDS ON ALL JOINTS (REFER TO DETAIL D8)

MIN. CONCRETE ENCASEMENT		
PIPE Ø (C) (mm)	D1 (mm)	D2 (mm)
100-600	150	150
675	150	170
750	150	190
825	150	210
900	150	225
975	150	250
1050	150	270
1200	170	300
1350	180	350
1500	200	375
1650	220	420

CLASS Z PIPE BEDDING & SURROUND
(TO BE USED FOR PLASTIC, VITRIFIED CLAY & CONCRETE PIPEWORK)



DRAINAGE TRENCH LESS THAN 1.0m FROM EXISTING/PROPOSED FOUNDATIONS

DRAINAGE TRENCH GREATER THAN 1.0m FROM EXISTING/PROPOSED FOUNDATIONS

PIPE PROTECTION ADJACENT TO EXISTING/PROPOSED FOUNDATIONS

rev	amendments	by	date
P1	Preliminary Issue	MDS	05.05.23

ccs consulting
MANCHESTER+LONDON+LEEDS

Client:
Watson Construction Ltd

Project:
Levenshulme Road, Gorton

Title:
Below Ground Drainage Details
Sheet 2 of 3

Drawing Status:	Date Created:	Drawing Scale:
Preliminary	May '23	N.T.S

23-2405/ A1 / 205 P1

Project Leader:	Drawn By:	Initial Review:
LS	MS	LS

Preliminary Issue - For Discussion Purposes Only

A1