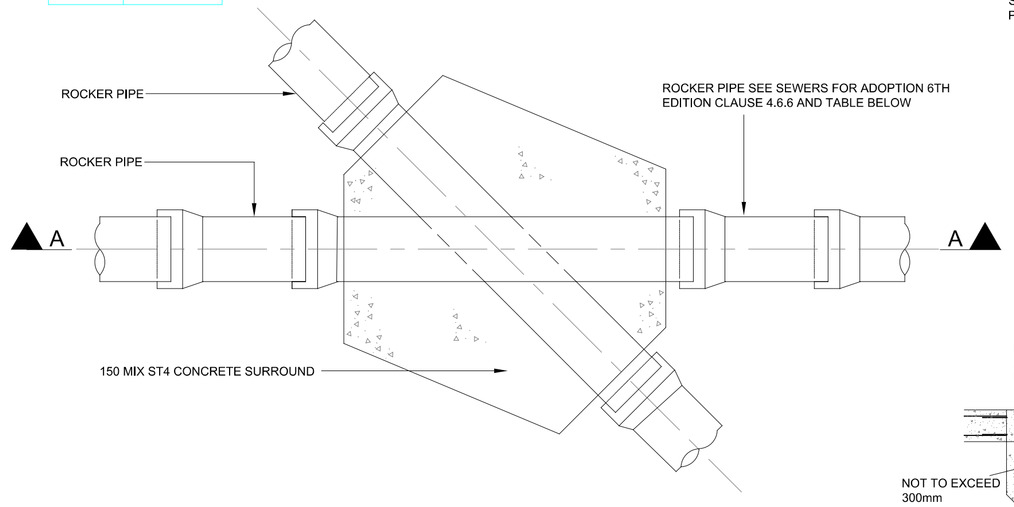
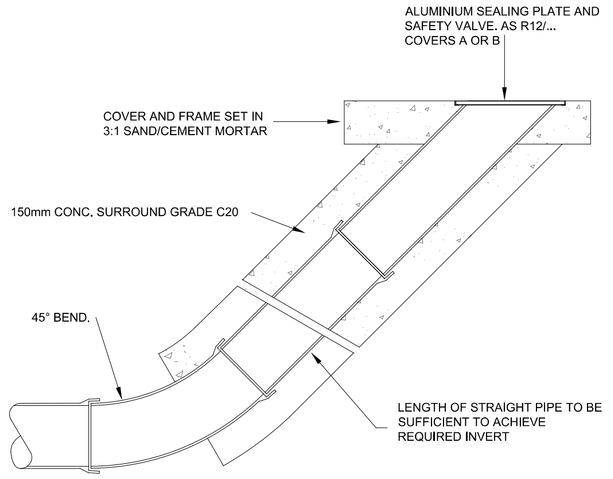


SECTION A-A

PLAN CROSSOVER DETAIL

PIPE DIA.	ROCKER PIPE LENGTH
150-600	600
675-750	1250





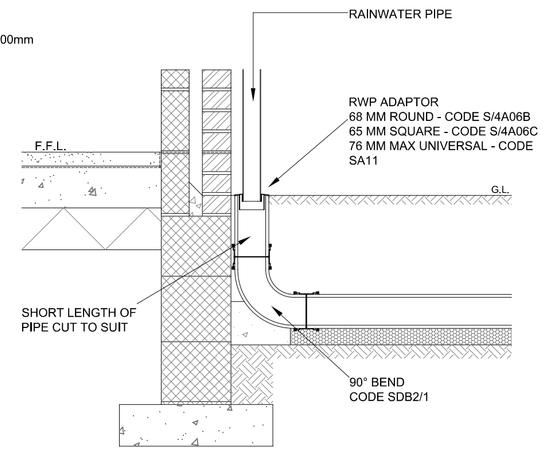
COVER AND FRAME TO BE :-

A. HEAVY DUTY,CAST IRON ,LAMPHOLE TYPE COVER IN HARDSTANDING AND AREAS ACCESSIBLE TO VEHICULAR TRAFFIC. INTERNAL SLABS SUBJECT TO FORK LIFT TRAFFIC.

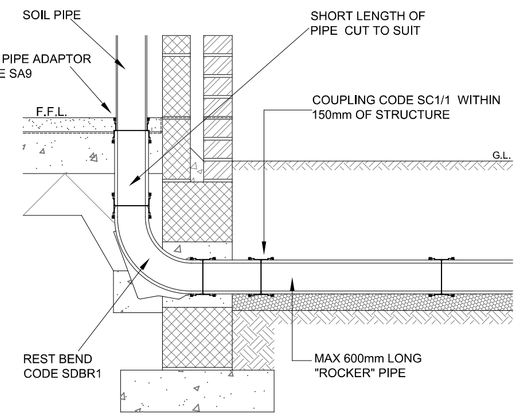
B. LIGHT DUTY,GALVANISED,SCREW FIXED,RODDING EYE TYPE ELSEWHERE.

C. COVER SLAB TO BE 200mm THICK. CONCRETE AS PER SURROUNDING SLAB CONCRETE.

TYPICAL RODDING EYE DETAIL

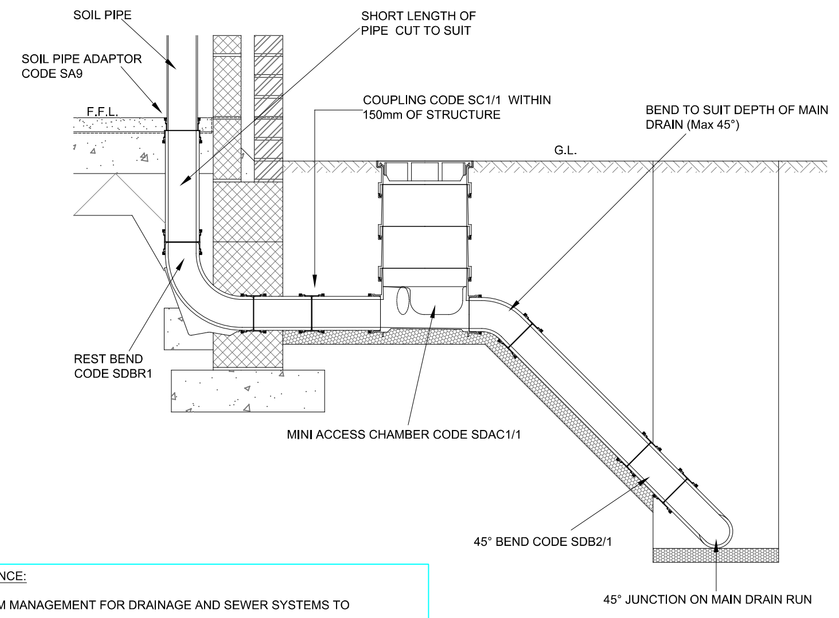


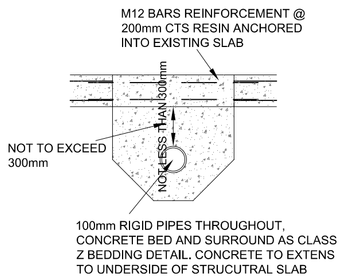
TYPICAL EXTERNAL RAINWATER PIPE DETAIL



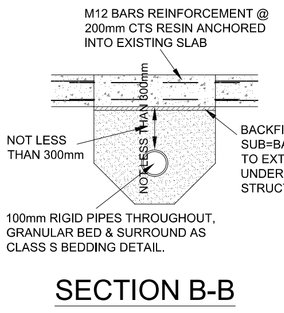
TYPICAL SOIL & VENT PIPE / STUB STACK / W.C. PIPE DETAIL

MINI ACCESS CHAMBER POSITIONED OFF MAIN DRAIN RUN APPLICATION DETAIL GEN3





SECTION A-A



SECTION B-B

NOTES:

1. CONCRETE BED AND SURROUND SHALL BE PROVIDED AS SECTION A-A WHERE DISTANCE BETWEEN UNDERSIDE OF SLAN AND PIPE SOFFIT IS LEES THAN OR EQUAL TO 300mm.

2. WHERE PIPES WITH FLEXIBLE JOINTS ARE USED THE CONCRETE PROTECTION SHALL BE INTERUPTED OVER ITS FULL CROSS SECTION AT EACH JOINT BY A SHAPED COMPRESSIBLE FILLER.

3. IF PIPES SURROUNDED IN CONCRETE, THE JOINTS SHALL BE PROTECTS FROM THE INGRESS OF CONCRETE BY WRAPPING THEM WITH TWO COATS OF MASTIC BANDAGE TAPE.

FUTURE MAINTENANCE:

ALL SEWER SYSTEM MANAGEMENT FOR DRAINAGE AND SEWER SYSTEMS TO BS EN 752:2017.

THE SD FOUL WATER DRAINAGE PIPE SIZES AND GRADIENTS ARE DESIGNED TO BE SELF-CLEANSING ALBIET REGULAR MAINTENANCE AND INSPECTIONS ARE REQUIRED FORLONG-TERM EFFICIENCY. ALL PRIVATE DEVELOPMENTS WILL REQUIRE REGULAR SWEEPING OF HARD SURFACES TO HELP REDUCE SILTS BEING WASHED INTO DRAINAGE SYSTEM. AS WELL AS ENSURING THAT THE DRAINAGE SYSTEM IS CLEAR OF DEBRIS, REGULAR INSPECTIONS WILL HELP DETERMINE WHETHER THERE ARE PERFORMANCE ISSUES WITHIN THE DRAINAGE SYSTEM GENERALLY.

DURING CONSTRUCTION THE CONTRACTOR MUST ENSURE THAT CONSTRUCTION MATERIALS AND GENERAL DETRITUS DO NOT ENTER THE DRAINAGE SYSTEM. SILT TRAPS TO BE CHECKED WEEKLY DURING CONSTRUCTION AND / OR AFTER HEAVY RAINFALL. ALL DRAINAGE PIPELINES ARE TO BE SUBJECT TO A CCTV SURVEY BEFORE HANDOVER TO ENSURE THAT THERE ARE NO DEFECTS IN THE SYSTEM.

General Construction Notes:

All calculations / drawings are to be read in conjunction with all other engineering and architectural drawings.

Do not scale from drawings, any discrepancies between drawings of different scales and between drawings and specifications where appropriate to be brought to the attention of the engineer for clarification or rectification.

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1. DO NOT SCALE FROM THIS DRAWING.
2. ANY DISREPNANCIES WITH ANY OF THE DRAWINGS SHALL BE REPORTED TO THE ENGINEER.
3. THE LEVELS AND LOCATIONS OF ALL EXISTING SURFACES SHALL BE VERIFIED ON SITE BY THE CONTRACTOR BEFORE COMMENCING ANY CONSTRUCTION WORK.
4. ALL ABANDONED, BURIED OBSTRUCTIONS ENCOUNTERED DURING THE CONSTRUCTION OF HIGHWAY OR DRAINAGE WORKS ARE TO BE BROKEN OUT TO BED LEVEL OF DRAINS AND SEWERS, AND TO THE FORMATION OF CARPARKS AND DRIVES ETC. AND TO SUFFIENT DEPTH TO ALLOW FOR LAYING SERVICE COMPANY'S MAINS AND SERVICES.
5. CONTRACTO MUST COMPLY WITH ALL CURRENT LEGISLATION RELATING TO CDM, HEALTH & SAFETY AND COSHH.
6. ALL MATERIAL IN EXCESS OF 20kg (IE. KERBS, MANHOLE UNITS COVE, ETC.) SHALL BE MECHANICALLY LIFTED AND LAID WHERE POSSIBLE AT ALL TIMES.
7. ALL COVERS, GRATINGS AND ACCESS PLATES ETC, SHOULD BE APPROPIATE TO INSTALLED ENVIROMENT. GENERALLY A15, WITH B125 USED IN ALL DRIVEWAYS, ROADS AND POSSIBLE OVERUN AREAS.
8. GULLIES, GULLEY CONNECTIONS, DRAINS, MANHOLES, CATCHPITS, SOAKAWAYS, HEADWALLS AND OTHER DRAINAGE STRUCTURES INTENDED TO CONVEY HIGHWAY WATER ARE TO BE CONSTRUCTED IN ACCORDANCE WITH SPECIFICATION ISSUED BY THE LOCAL AUTHORITY.
9. ALL FOUL AND SOTRM WATER DRAINS WHICH ARE NOT TO BE ADOPTED AS PUBLIC SEWERS UNDER SECTION 104 AGREEMENT SHALL BE CONSTRUCTED USING UPVC PIPES OR SIMILAR APPROVED, BEDDED AND BACKFILLED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS AND TO BUILDING REGULATION PART H, BS EN 752 & BRE SD1.
10. ALL BUILDING DRAINAGE TO BE 100mm DIAMETER LAID AT A MINIMUM GRADIENT OF 1 IN 80 (FW) AND 1 IN 100 (SW) UNLESS OTHERWISE SPECIFIED.
11. SEWERS AND DRAINS OF DIFFERENT DIAMETERS SHOULD BE LAID SOFFIT TO SOFFIT.
12. INSPECTION CHAMBERS ON PRIVATE DRAINS SHALL BE NON-ACCESS PREFORMED POLYPOPYLENE.

DEPTH TO INVERT	MINIMUM SIZE
< 1.2m	DN450
> 1.2m	DN600

IN ACCORDANCE WITH BUILDING REGULATIONS PART H & BS EN 752

13. POSITION OF SOIL PIPES, STUBSTACKS, WC OUTLETS, RAINWATER DOWNPIPES, ETC. POSITIONS SHALL BE CHECKED AGAINST ARCHITECTS DRAWINGS TO ENSURE COMPATABILITY.
14. WHERE BACK INLET GULLIES ARE USED THEY SHOULD BE RODDABLE.
15. ALL STUB STACK TO BE FITTED WITH AIR ADMITTANCE VALVE WHERE BRANCH DRAIN EXCEEDS 12m EXCEPT AT HEAD OF RUN.
16. RAINWATER DOWNPIPES TO BE CONNECTED DIRECTLY TO DRAINS VIA REMOVABLE ADAPTER TO PERMIT ACCESS FOR RODDING.
17. POSITIONS OF YARD AND HOUSE GULLIES ARE NOMINAL AND MAY BE ADJUSTED ON SITE. ACO DRAINS TO BE INSTALLED AT THE END OF DRIVES AS INDICATED. ALL GULLY GRATINGS IN DRIVES AND PARKING AREAS WHOULD BE OF SUFFICIENT STRENGTH TO WITHSTAND VEHICULAR LOADING.
18. LINTELS OR SLEEVES ARE TO BE PROVIDED FOR DRAINS PASSING THOUGH FOUNDATION PRICKWORK.
19. ALL GULLY CONNECTIONS TO BE 150mm DIAMETER.
20. ALL GULLY CONNECTIONS OTHER THAN MANHOLES TO BE 'Y' JUNCTIONS.
21. ALL DRAIN RUNS ARE TO BE FLUSHED THROUGH AND BUILDING MATERIALS REMOVED WHERE NECESSARY AT THE TIME OF FINAL TEST BY BUILDING INSPECTOR AND PRIOR TO OCCUPATION.
22. ALL SOAKAWAYS TO BE POSITIONED A MINIMUM 5.0m FROM BUILDINGS WHERE UTILISED.
23. ALL FINISHED FLOOR LEVELS ARE SHOWN ON THE DRAWING FOR GUIDANCE ONLY AND MAY NEED TO BE ADJUSTED ON SITE. HOWEVER, THERE IS TO BE NO DEVIATION WITHOUT PRIOR APPROVAL.
24. BOREHOLES WHERE INDICATED ARE SUBJECT TO THE APPROVAL OF THE ENVIROMENT AGENCY.
25. DUE TO THE SHALLOW FALLS TO THE FOUL DRAINAGE SYSTEM, A HIGH DEGREE OF WORKMANSHIP IS REQUIRED THROUGHOUT. ALL JUNCTION CONNECTIONS TO MAIN DRAIN RUNS ARE TO BE MADE WITH 45 DEGREE 'Y' OBLIQUE JUNCTIONS. ANY BENDS INTRODUCED IN RUNS SHALL BE AT INSPECTION CHAMBER AND SHALL BE LIMITED TO 30 DEGREES WHERE POSSIBLE AND NEVER MORE THAN 45 DEGREES.

Rev	Date	Description
A	09.02.24	INITIAL STRUCTURAL ARRANGEMENT ADDED

Client

MR A SALIBA

Job Title

FOUR ACRES,
DUNT LANE,
HURST

Drawing Title

TYPICAL DRAINAGE DETAILS

RWA CONSULTING
CIVIL & STRUCTURAL ENGINEERS
RWA CONSULTING ENGINEERS Ltd
8 Station Approach, Wendover, Bucks HP22 6BN
Tel: 01296 624924
Email: Engineer@rwaconsulting.co.uk

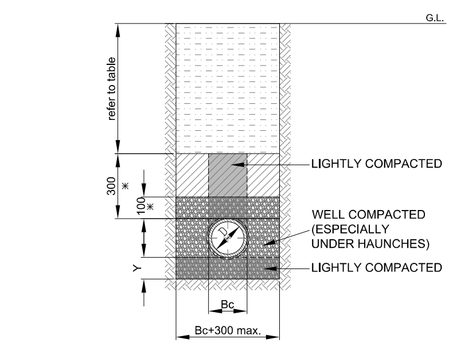
Scale	Date	Drawn
NTS	FEB '24	DW

Dwg No.	Checked	Rev
15906-11		A

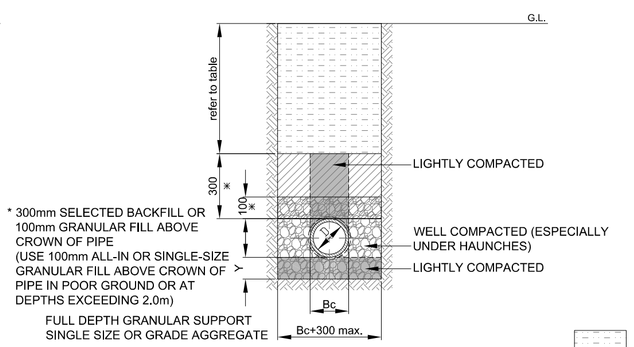
General & Selected Backfill Material																						
Table 6/2 (DoT Specification for Highway Works Vol. 1 Series 600)																						
Percentage by passing the size shown																						
Class	Size (mm)		Size (mm) BS Series													Size (microns) BS Series					Size (microns)	
	500	300	125	90	75	37.5	28	14	10	6.3	5	3.35	2	1.18	600	300	150	63	2			
1A			100															<15				
1B			100															<15				
6F1					100	75-100			40-95		30-85				10-50			<15				
6F2			100	80-100	65-100	45-100			15-60		10-45				0-25			0-12				

Granular Fill Material			
nominal diameter of pipe (DN) (mm)	max. particle size (mm)	class of bedding	bedding material aggregate to BS 882: 1992 Tables 4 & 5
100	10	S, B, F	10mm nominal single-size
		N	sand within grading limits C, M & F
150	15	S, B, F	10 or 14mm nominal single-size or 14 to 5mm graded
		N	sand to zones 1 to 4
225-525	20	S, B, F	10,14 or 20mm nominal single-size or 14 to 5mm graded or 20 to 5mm graded
		N	all-in aggregate or sand within grading limits C, M & F
525+	40	S, B, F	10,14 or 20mm nominal single-size or 14 to 5mm graded or 20 to 5mm graded
		N	all-in aggregate or sand within grading limits C, M & F

General & Selected Backfill Material								
Table 6/1 (DoT Specification for Highway Works Vol. 1 Series 600)								
Percentage by passing the size shown								
class	general material description	typical use	permitted constituents (subject to requirements of cl. 601 & appx. 6/1)	Material Properties Required for Acceptability (in addition to requirements on use of fill materials in Cl. 601 & testing in Cl. 631)				compaction requirements in cl. 612
				property (see exceptions in prev. col.)	defined & tested in accordance with:	acceptable limits within:		
						lower	upper	
1A	well graded granular material	general fill	any material, or combination of materials, other than material designated as class 3 (properties (i),(ii) & (iv) in next col., shall not apply to chalk), recycled aggregate,	(i) grading	BS 1377: Pt. 2	Tab. 6/2	Tab. 6/2	Tab. 6/4 Method 2
				(ii) uniformity coefficient	BS 1377: Pt. 2	10		
				(iii) mc	BS 1377: Pt. 2	Appx. 6/1	Appx. 6/1	
				(iv) MCV	Cl. 632	Appx. 6/1	Appx. 6/1	
				(v) IDD of chalk	Cl. 634		Appx. 6/1	
1B	uniformly graded granular material	general fill	any material, or combination of materials, other than chalk, recycled aggregate,	(i) grading	BS 1377: Pt. 2	Tab. 6/2	Tab. 6/2	Tab. 6/4 Method 3
				(ii) uniformity coefficient	see note 5		10	
				(iii) mc	BS 1377: Pt. 2	Appx. 6/1	Appx. 6/1	
				(iv) MCV	Cl. 632	Appx. 6/1	Appx. 6/1	
6F1	selected granular material (fine grading)	capping	any material, or combination of materials, other than unburnt colliery spoil & argillaceous rock & chalk, recycled aggregate, property (vi) in next col. shall not apply if class A (asphalt) content is 20% or less.	(i) grading	BS 1377: Pt. 2	Tab. 6/2	Tab. 6/2	Tab. 6/4 Method 6
				(ii) optimum mc	BS 1377: Pt. 4 (vibrating hammer method)			
				(iii) mc	BS 1377: Pt. 2	optimum mc - 2%	optimum mc	
				(iv) Los Angles coffiolent	Cl. 635		60	
				(v) class A (asphalt) content	Cl. 710		50%	
				(vi) bitumen content	BS EN 12697-1 or BS EN 12697-39		2.0%	
6F2	selected granular material (coarse grading)	capping	any material, or combination of materials, other than unburnt colliery spoil & argillaceous rock, (property (i) in next col. shall not apply to chalk), recycled aggregate, property (vi) in next col. shall not apply if class A (asphalt) content is 20% or less	(i) grading	BS 1377: Pt. 2	Tab. 6/2	Tab. 6/2	Tab. 6/4 Method 6
				(ii) optimum mc	BS 1377: Pt. 4 (vibrating hammer method)			
				(iii) mc	BS 1377: Pt. 2	optimum mc - 2%	optimum mc	
				(iv) Los Angles coffiolent	Cl. 635		50	
				(v) class A (asphalt) content	Cl. 710		50%	
				(vi) bitumen content	BS EN 12697-1 or BS EN 12697-39		2.0%	

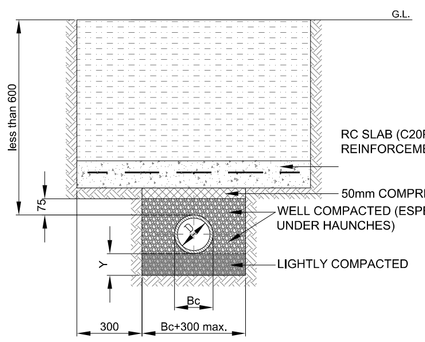


CLASS O BEDDING - FLEXIBLE PIPES

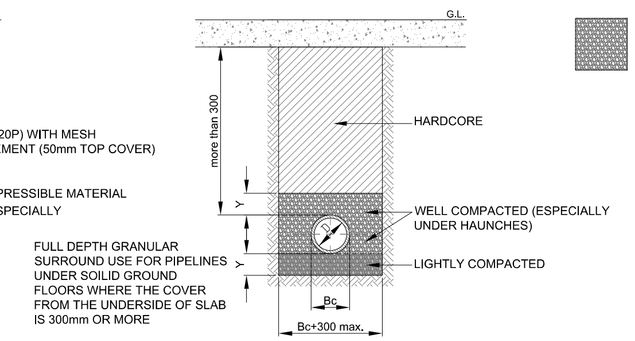


CLASS P BEDDING - FLEXIBLE PIPES

BEDDING DETAILS FOR FLEXIBLE PIPES



CLASS Q BEDDING - FLEXIBLE PIPES



CLASS W BEDDING - FLEXIBLE PIPES

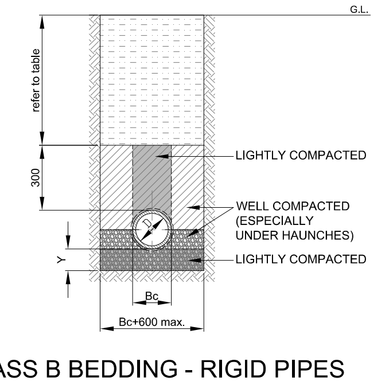
GENERAL BACKFILL MATERIAL

SELECTED BACKFILL MATERIAL

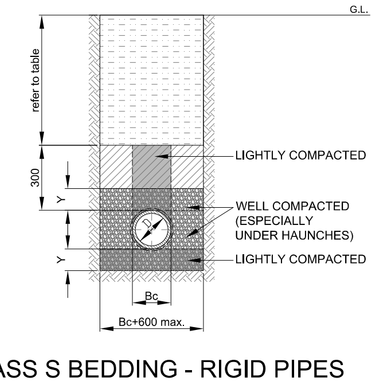
ALL-IN GRANULAR MATERIAL

SINGLE-SIZE GRANULAR MATERIAL

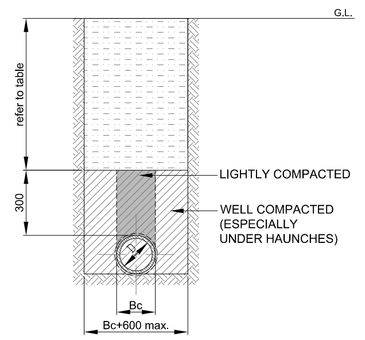
BEDDING DETAILS FOR RIGID PIPES



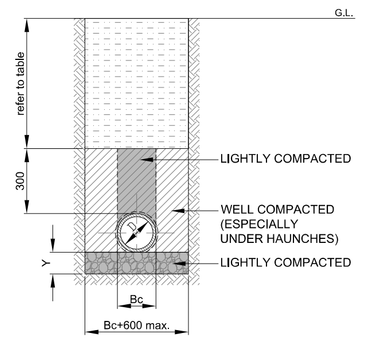
CLASS B BEDDING - RIGID PIPES



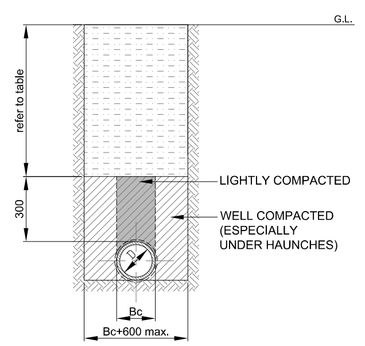
CLASS S BEDDING - RIGID PIPES



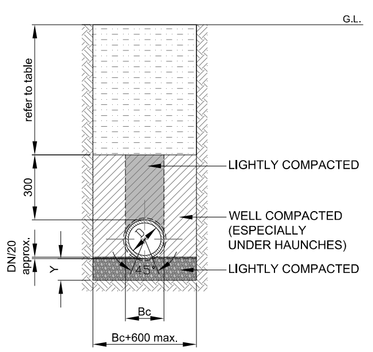
CLASS D BEDDING - RIGID PIPES



CLASS N BEDDING - RIGID PIPES



CLASS C BEDDING - RIGID PIPES



CLASS F BEDDING - RIGID PIPES