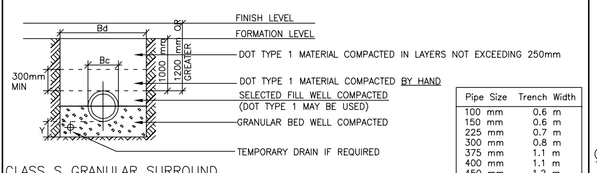
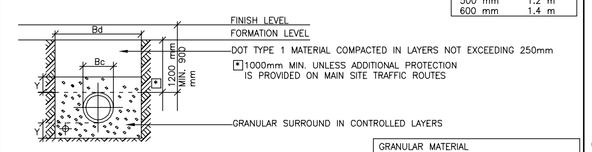
CLASS B GRANULAR BED

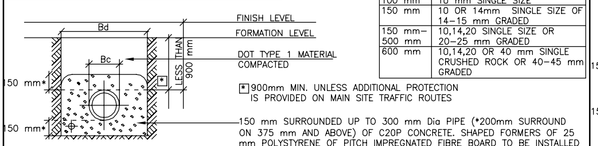


Pipe Size	Trench Width
100 mm	0.6 m
150 mm	0.6 m
225 mm	0.7 m
300 mm	0.8 m
375 mm	1.1 m
400 mm	1.1 m
450 mm	1.2 m
500 mm	1.2 m
600 mm	1.4 m

CLASS S GRANULAR SURROUND



CONCRETE BED & SURROUND (C.B.S.)



GRANULAR MATERIAL	
PIPE SIZE	AGGREGATE
100 mm	10 mm SINGLE SIZE
150 mm	10 OR 14mm SINGLE SIZE OF 14–15 mm GRADED
150 mm – 500 mm	10,14,20 SINGLE SIZE OR 20–25 mm GRADED
600 mm	10,14,20 OR 40 mm SINGLE CRUSHED ROCK OR 40–45 mm GRADED

150 mm SURROUNDED UP TO 300 mm Dia PIPE (*200mm SURROUND ON 375 mm AND ABOVE) OF C20P CONCRETE. SHAPED FORMERS OF 25 mm POLYSTYRENE OF PITCH IMPREGNATED FIBRE BOARD TO BE INSTALLED ON EACH JOINT ON ROCKER PIPES AT MANHOLES ETC. AND EVERY THIRD JOINT (NOT EXCEEDING 5 METRES) ON RUNS OF DRAIN

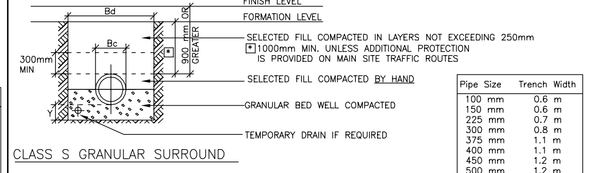
DIMENSION Y = – IN ROCK, CONCRETE OR MIXED SOILS CONTAINING ROCK BANDS, BOULDERS, LARGE FLINTS OR STONES OR OTHER IRREGULAR HARD SPOTS THAT RESULT IN UNEVEN TRENCH BOTTOM Y=1/4 Bc OR 200 mm WHICH EVER IS THE GREATER, BUT NOT LESS THAN 50mm UNDER COLLARS

NOTES – IN SOILS THAT PERMIT AN EVEN TRENCH BOTTOM TO BE EXCAVATED Y=1/6 Bc OR 150 mm WHICH EVER IS GREATER, BUT NOT LESS THAN 50 mm UNDER COLLARS

1) FOR PIPES EXCEEDING 600 mm DIA REFER TO ENGINEER
2) IN WET OR SOFT GROUND SEEK GUIDANCE FROM ENGINEER
3)THE BEDDINGS MAY BE MODIFIED FOR CERTAIN SUB–SOIL CONDITIONS AT THE ENGINEERS DISCRETION
4) THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADDITIONAL PROTECTION IN AREAS SUBJECT TO LOADS FROM SITE TRAFFIC. THE CONTRACTOR SHALL IDENTIFY THESE ZONES AND RESTRICT TRAFFIC ELSEWHERE
5) SEE ALSO BS 8301
6) FOR GREATER TRENCH WIDTHS SEEK GUIDANCE FROM ENGINEER

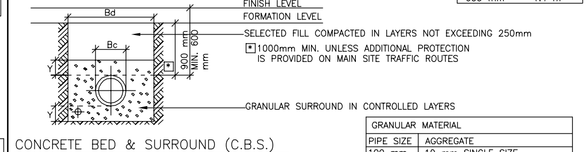
Title	BEDDING DETAILS LORRY ACCESS AREAS
Detail No.	D200,.0

CLASS B GRANULAR BED

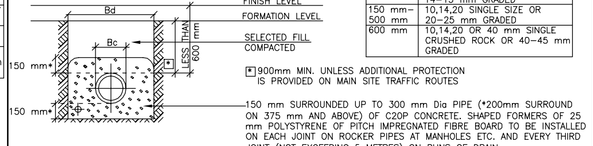


Pipe Size	Trench Width
100 mm	0.6 m
150 mm	0.6 m
225 mm	0.7 m
300 mm	0.8 m
375 mm	1.1 m
400 mm	1.1 m
450 mm	1.2 m
500 mm	1.2 m
600 mm	1.4 m

CLASS S GRANULAR SURROUND



CONCRETE BED & SURROUND (C.B.S.)



GRANULAR MATERIAL	
PIPE SIZE	AGGREGATE
100 mm	10 mm SINGLE SIZE
150 mm	10 OR 14mm SINGLE SIZE OF 14–15 mm GRADED
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600 mm	10,14,20 OR 40 mm SINGLE CRUSHED ROCK OR 40–45 mm GRADED

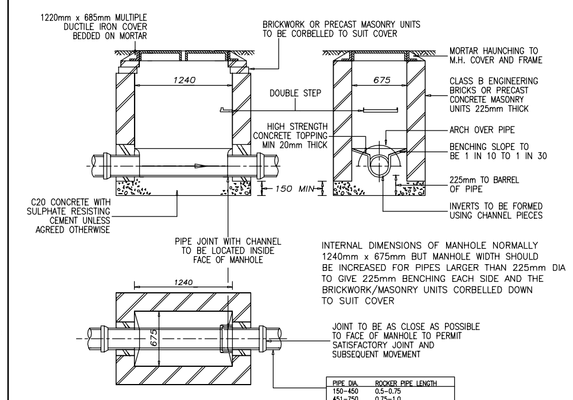
150 mm SURROUNDED UP TO 300 mm Dia PIPE (*200mm SURROUND ON 375 mm AND ABOVE) OF C20P CONCRETE. SHAPED FORMERS OF 25 mm POLYSTYRENE OF PITCH IMPREGNATED FIBRE BOARD TO BE INSTALLED ON EACH JOINT ON ROCKER PIPES AT MANHOLES ETC. AND EVERY THIRD JOINT (NOT EXCEEDING 5 METRES) ON RUNS OF DRAIN

DIMENSION Y = – IN ROCK, CONCRETE OR MIXED SOILS CONTAINING ROCK BANDS, BOULDERS, LARGE FLINTS OR STONES OR OTHER IRREGULAR HARD SPOTS THAT RESULT IN UNEVEN TRENCH BOTTOM Y=1/4 Bc OR 200 mm WHICH EVER IS THE GREATER, BUT NOT LESS THAN 50mm UNDER COLLARS

NOTES – IN SOILS THAT PERMIT AN EVEN TRENCH BOTTOM TO BE EXCAVATED Y=1/6 Bc OR 150 mm WHICH EVER IS GREATER, BUT NOT LESS THAN 50 mm UNDER COLLARS

1) FOR PIPES EXCEEDING 600 mm DIA REFER TO ENGINEER
2) IN WET OR SOFT GROUND SEEK GUIDANCE FROM ENGINEER
3)THE BEDDINGS MAY BE MODIFIED FOR CERTAIN SUB–SOIL CONDITIONS AT THE ENGINEERS DISCRETION
4) THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADDITIONAL PROTECTION IN AREAS SUBJECT TO LOADS FROM SITE TRAFFIC. THE CONTRACTOR SHALL IDENTIFY THESE ZONES AND RESTRICT TRAFFIC ELSEWHERE
5) SEE ALSO BS 8301
6) FOR GREATER TRENCH WIDTHS SEEK GUIDANCE FROM ENGINEER

Title	BEDDING DETAILS LIGHT TRAFFIC AREAS
Detail No.	D200.1



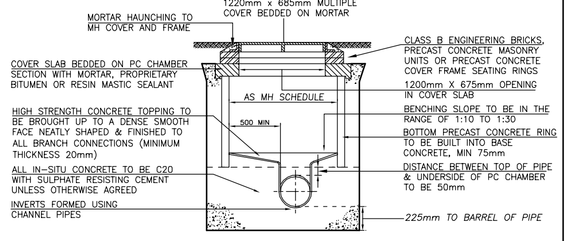
PIPE DIA.	ROCKER PIPE LENGTH
150–450	0.5 – 0.75
451–750	0.75–1.0
>750	SEEK GUIDANCE

Title	BRICK MANHOLE DEPTH LESS THAN 1M
Detail No.	D202.0

TYPICAL MANHOLE DETAIL

DEPTH FROM GROUND LEVEL TO SOFFIT OF PIPE 1.0m TO 1.45m

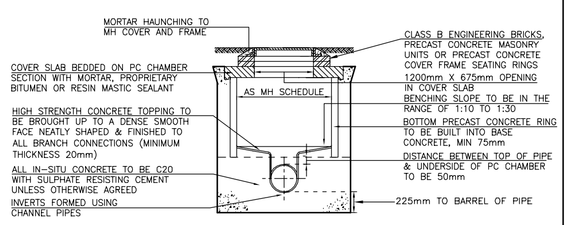
SELECTION OF THIS TYPE OF MANHOLE RESTRICTED TO LOCATIONS WHERE GRADE B COVERS ARE TO BE USED



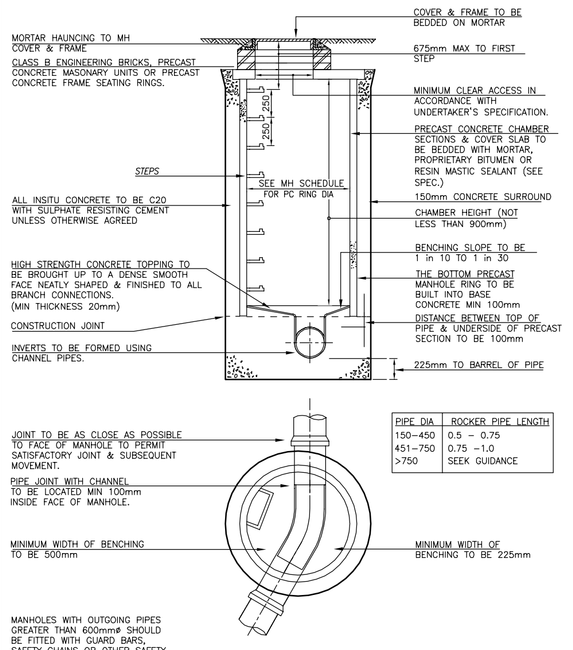
TYPICAL MANHOLE DETAIL

DEPTH FROM GROUND LEVEL TO SOFFIT OF PIPE LESS THAN 1.0m

APPROVAL OF THE UNDERTAKER MUST BE GIVEN FOR THE INSTALLATION OF THIS TYPE OF MANHOLE. SELECTION OF THIS TYPE OF MANHOLE RESTRICTED TO LOCATIONS WHERE GRADE B COVERS ARE TO BE USED



Title	CIRCULAR PCC MANHOLE DEPTH 1M - 1.4.5M
Detail No.	D202.3



PIPE DIA	ROCKER PIPE LENGTH
150–450	0.5 – 0.75
451–750	0.75 –1.0
>750	SEEK GUIDANCE

Title	CIRCULAR PCC MANHOLE DEPTH 1.45M - 3M
Detail No.	D202.4

GENERAL NOTES:

1. All dimensions to be checked on site. All details and dimensions relating to sub–contractors or suppliers work must be checked and agreed between the sub–contractor or supplier and the main contractor.

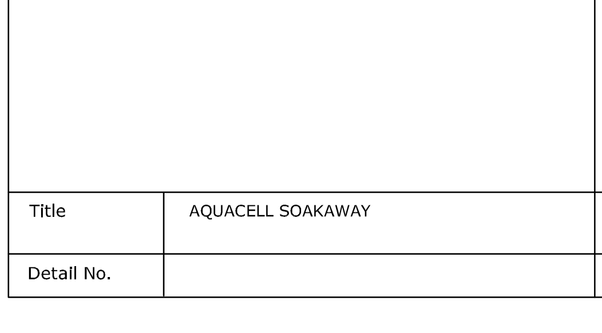
2. This drawing is to be read in conjunction with all relevant architects, services and engineers drawings and specifications.

3. The location, size, depth and identification of existing services that may be shown or referred to on this drawing have been assessed from non intrusive observations , record drawings or the like. The contractor shall safely carry out intrusive investigations, trial holes or soundings prior to commencing work to satisfy himself that it is safe to proceed and that the assessments are accurate. Any discrepancies shall be notified to gsp prior to works commencing.

4. Tender or billing drawings shall not be used for construction or the ordering of materials.

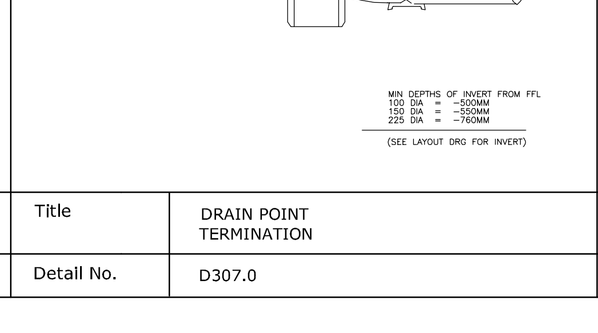
5. Do not scale. All dimensions and levels to be site confirmed.

6. Copyright : This drawing must not be copied, amended nor reproduced without the prior written agreement of gsp.

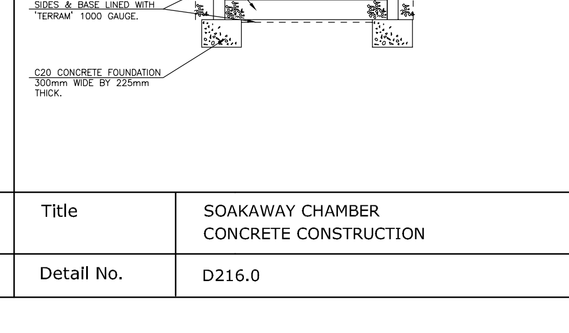


NOTE) ANY 450mm INSPECTION CHAMBER WITH A DEPTH EXCEEDING 1.1m THE INSPECTION CHAMBER MUST REDUCE TO 300mm dia AT THE 1.1m DEPTH TO THE COVER LEVEL, AS DETAIL ABOVE.

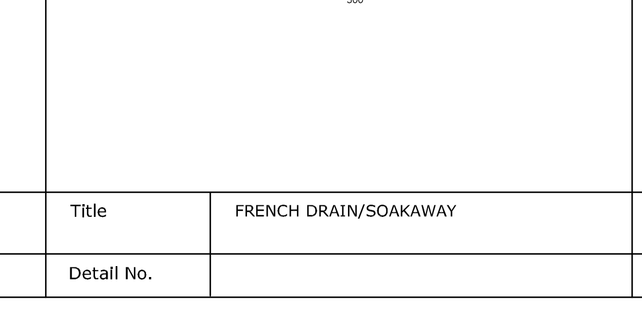
Title	450mm INSPECTION CHAMBER
Detail No.	D202.6



Title	RWP CONNECTION TO DRAIN INTO MANHOLE
Detail No.	D203.5



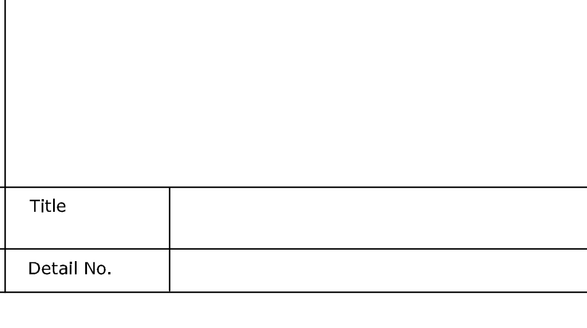
Title	SHALLOW ACCESS INSPECTION CHAMBER
Detail No.	D202.18



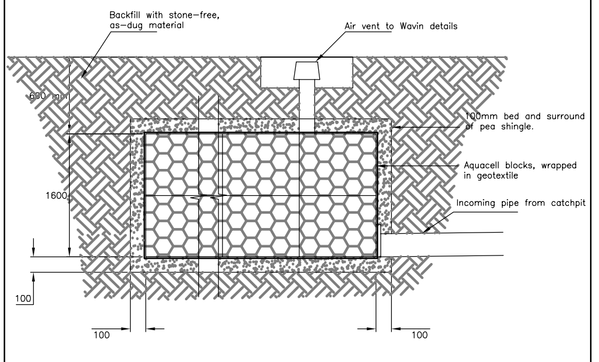
NOTES

1. ROCKER PIPES 600mm LONG FOR 100 TO 450 DIA PIPEWORK (1000mm LONG UP TO 750 DIA) ON OUTLET AND EACH ENTRY STARTING 150mm FROM CONCRETE SURROUND.
2. FOR CHAMBERS DEEPER THAN 3000mm STEP IRONS TO BE REPLACED WITH GALVANISED LADDER TO B.S.4211 AND 729.

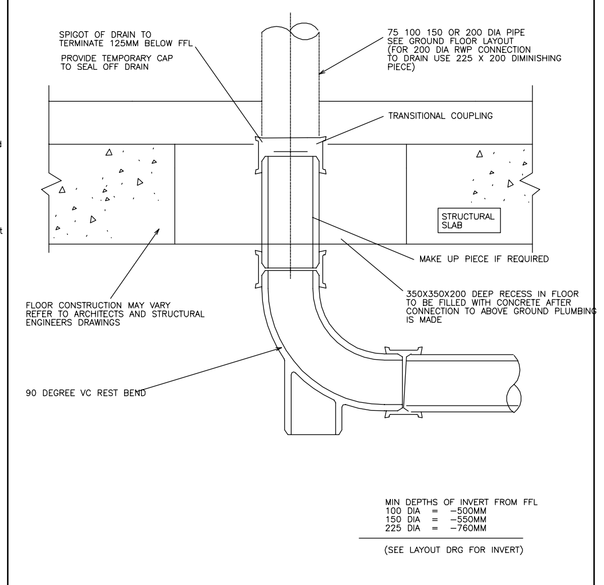
Title	CATCHPIT POLYPROP CONST
Detail No.	D210.4



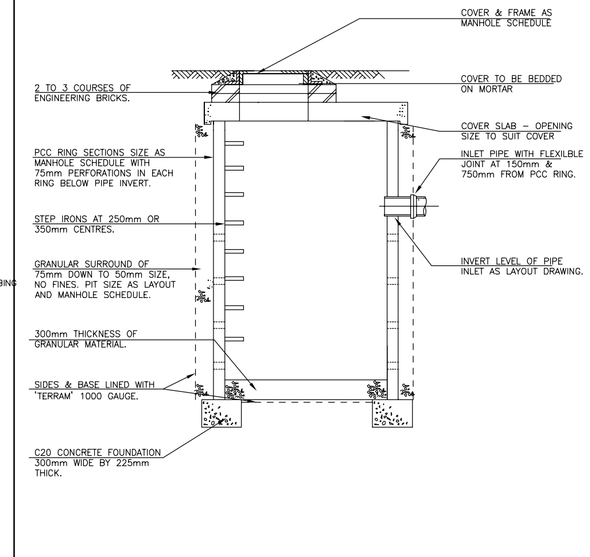
Title	ROAD GULLY
Detail No.	D208.1



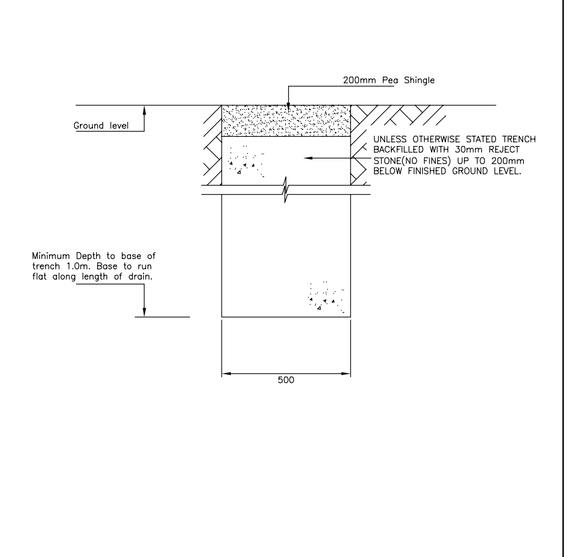
Title	AQUACELL SOAKAWAY
Detail No.	



Title	DRAIN POINT TERMINATION
Detail No.	D307.0



Title	SOAKAWAY CHAMBER CONCRETE CONSTRUCTION
Detail No.	D216.0



Title	FRENCH DRAIN/SOAKAWAY
Detail No.	

Title	
Detail No.	

PREFIXES TO DRAWING NUMBERS SHALL SIGNIFY THE FOLLOWING :–

P = PRELIMINARY SHALL NOT BE USED FOR CONTRACT OR CONSTRUCTION PURPOSES.

T = TENDER SHALL NOT BE USED FOR CONSTRUCTION PURPOSES.

C = CONSTRUCTION THESE ARE THE ONLY DRAWINGS THAT SHALL BE USED FOR CONSTRUCTION PURPOSES.

R = RECORD RECORD OF ACTUAL COMPLETED WORK.

REV	DATE	DESCRIPTION	BY
A	11.8.09	FRENCH DRAIN ADDED.	SFC
P	22.7.09	INITIAL ISSUE	SFC

Gyoury Self
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Also at Fareham and St Albans

PRELIMINARY

CLIENT: EAST SUSSEX COUNTY COUNCIL

ARCHITECT: NPS SOUTH EAST LTD

JOB TITLE: CRADLE HILL CP SCHOOL SEAFORD

DRAWING TITLE: DRAINAGE DETAILS

DRAWN	CHECKED	CHECKED
GTA	SFC	

DATE: JULY 2009 SCALE @ A2: NTS

JOB No.	STAGE	DRAWING No.	REV.
H16170	P	503	A