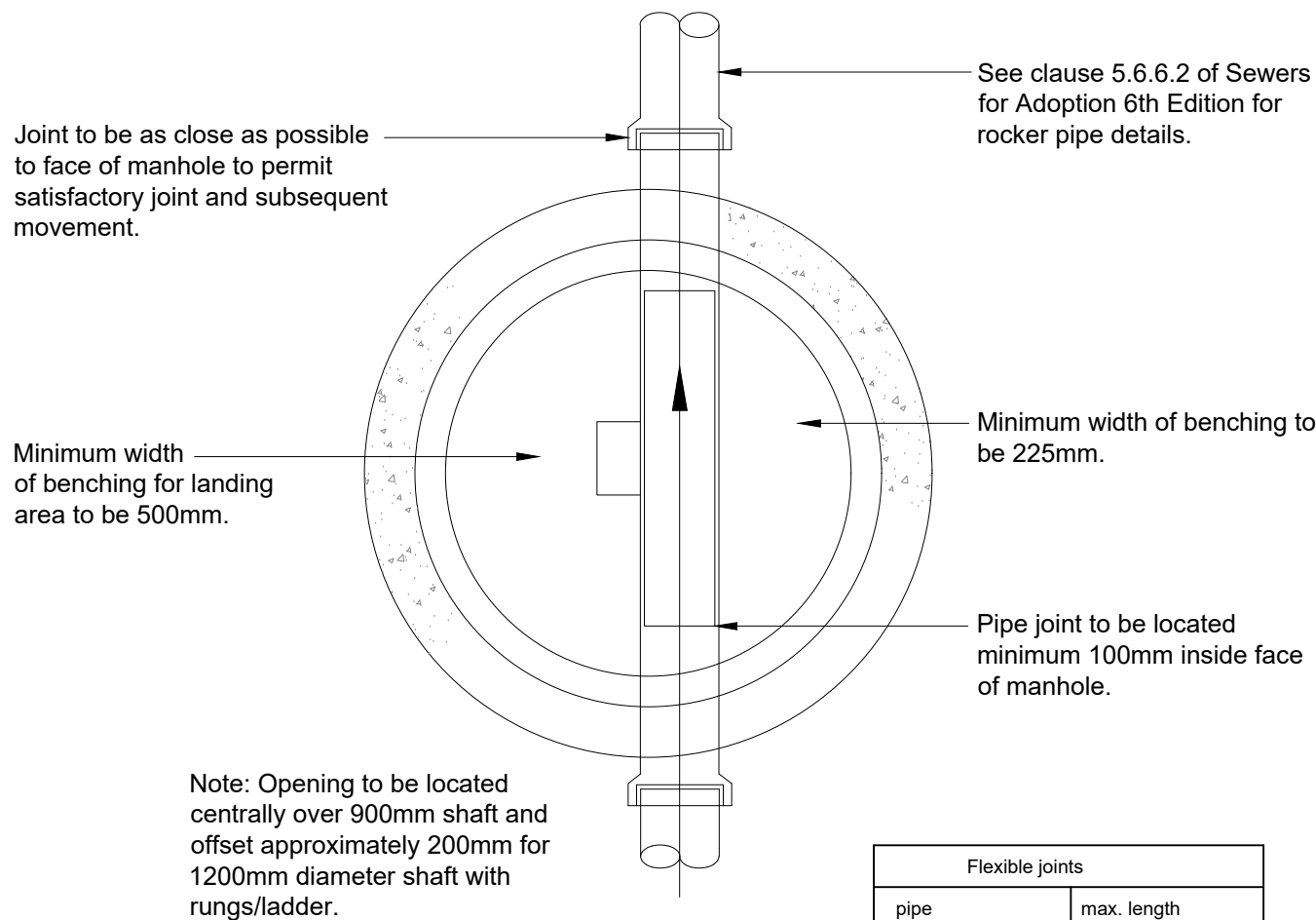


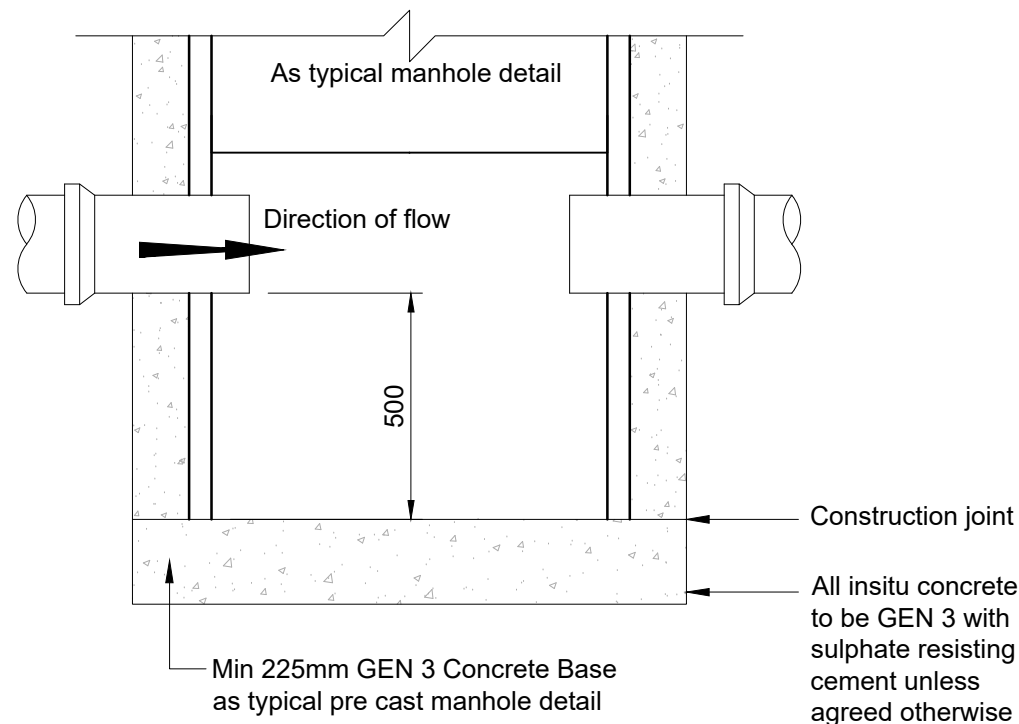
Depth from cover level to soffit of pipe 3m to 6m. For steps and access arrangements see table 2.3 of Sewers for Adoption 6th Edition.

Table 2.2	
Diameter of largest pipe in manhole (mm)	Internal diameter of manhole (mm)
Less than 375	1200
375 - 700	1500
750 - 900	1800
Greater than 900	Consult undertaker

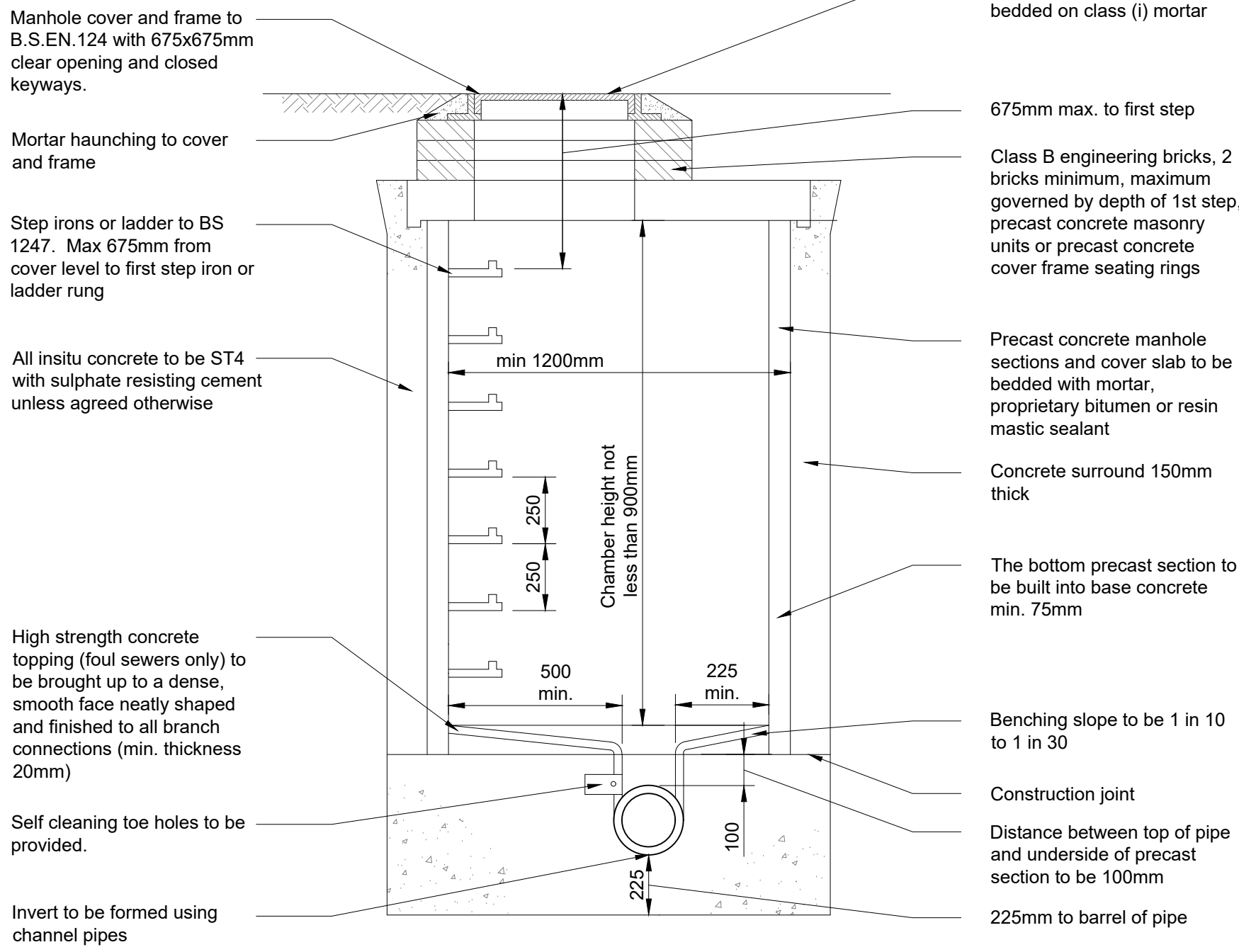


Flexible joints	
pipe diameter	max. length rocket pipes
100 & 150 (all spigot)	300mm
150 - 600	625mm
675 - 900	1250mm

## TYPICAL MANHOLE DETAIL - TYPE A



## Typical Catchpit Manhole Detail

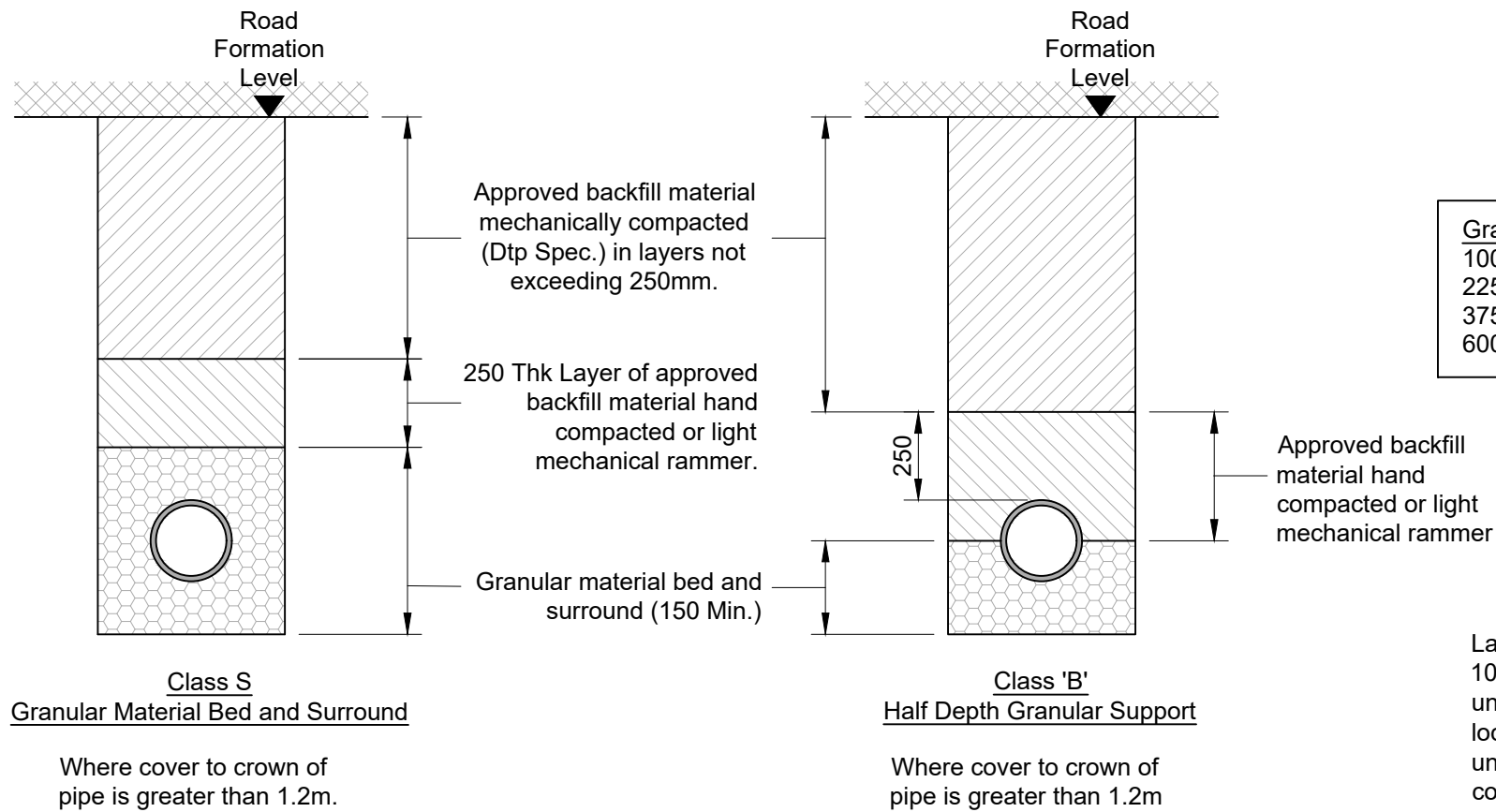


## TYPICAL MANHOLE TYPE B

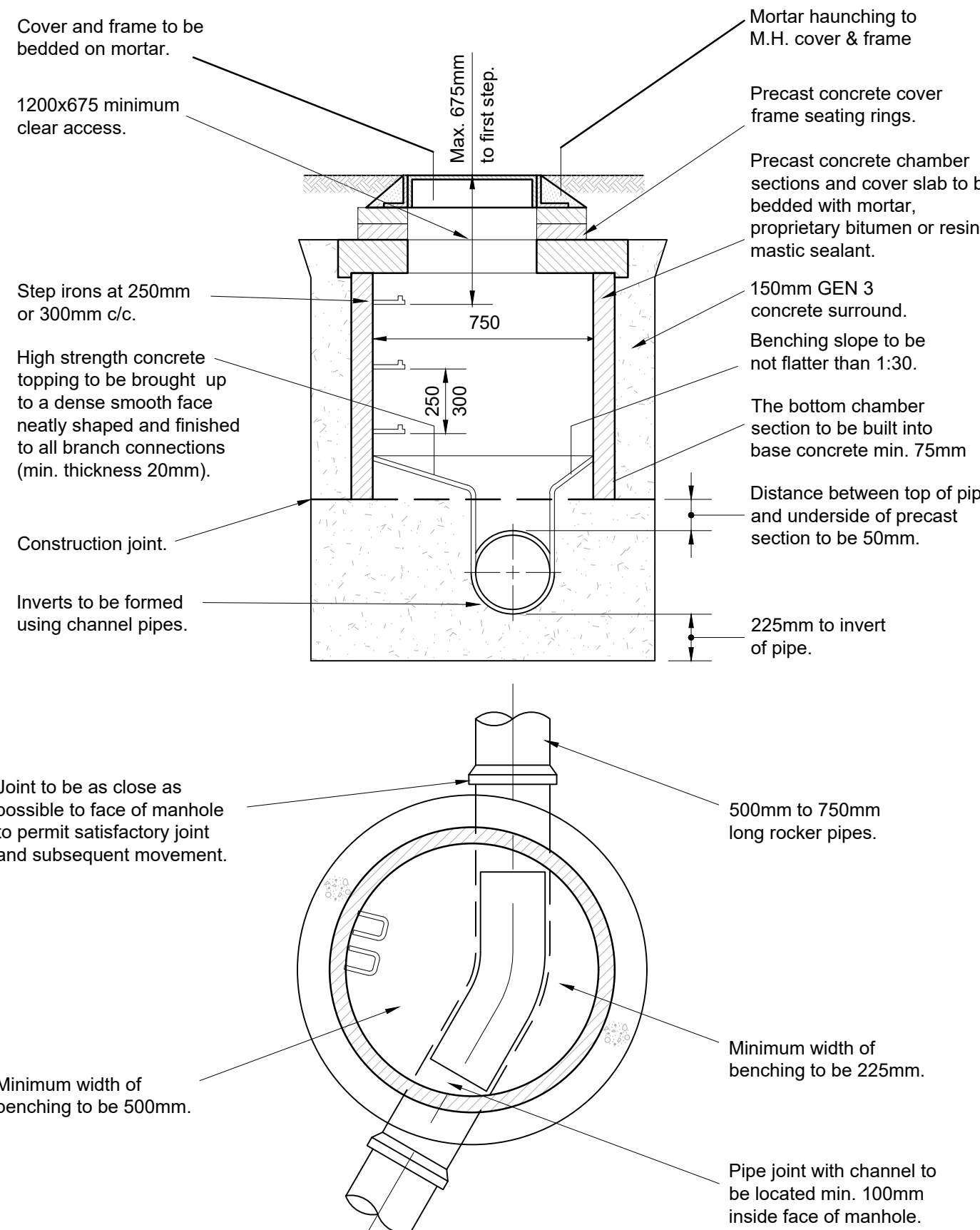
Max depth from cover level to soffit of pipe 3.0m

### A. Rocker/Short pipe lengths

Pipe Ø (mm)	Rocker pipe length (m)
150-600	0.6
650-750	1.0
825 and over	1.25

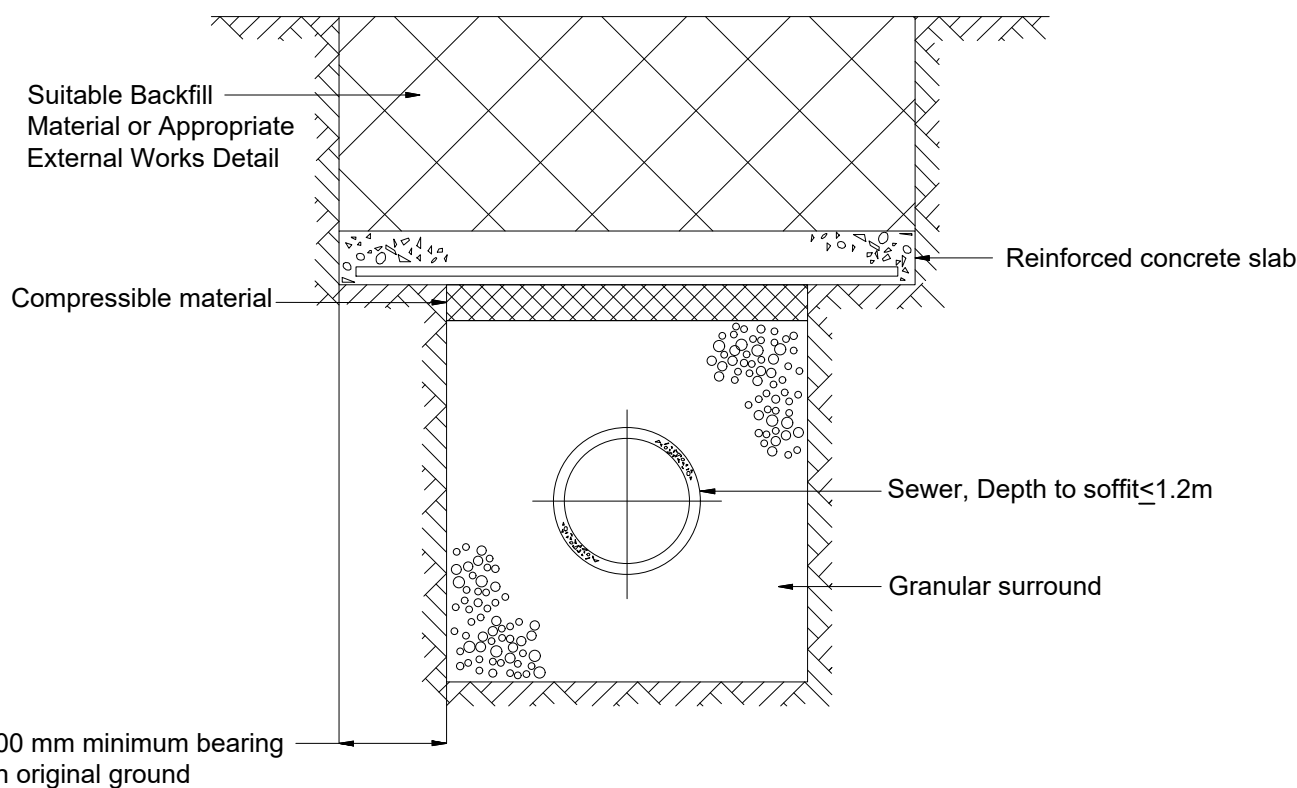


## Typical Pipe Bedding Details



## Typical Manhole Detail - Type C

(Depth to invert 1.0 to 1.5m below ground level).



## Protection of Pipes Laid at Shallow Depths

Protection For Pipes Laid at Shallow Depths

(Depth to soffit < 1.2m)

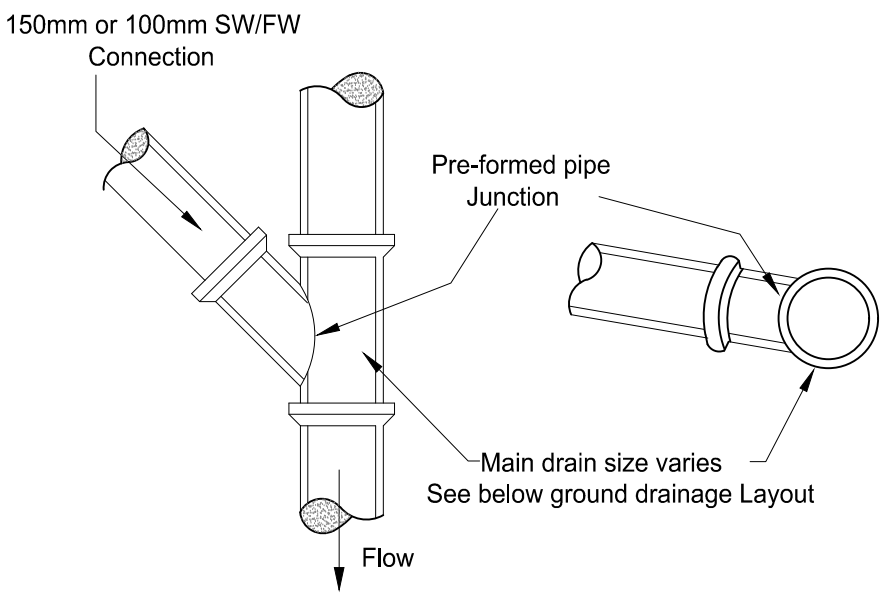
nts

Granular bedding and sidefill material to be:-

100 & 150 dia.	- 10 single size stone	(graded not permitted).
225 & 300 dia.	- 10 or 20 single size stone	(or 20 to 5 graded).
375 to 500 dia	- 20 single size stone	(or 20 to 5 graded).
600 dia. +	- 20 or 50 single size stone	(or 20 or 40 to 5 graded).

Approved backfill material to be Dtp Type 1 or selected, as-raised, readily compactable material free from organic matter, frozen soil, builders rubbish, clay lumps larger than 75mm and stones larger than 35mm. (Water industry C.E. Spec. Cl. 2.50.3 - Type B.)

Lay & compact to a thickness of not less than 50mm for sleeve jointed pipes, 100mm for socket jointed pipes, over full width of trench. Where trench bottom is uneven due to hard spots or other reason, increase depth by 100mm. Scoop out locally at couplings/sockets and lay pipes digging slightly into bed & resting uniformly on thier barrels. Adjust to line & gradient. After initial testing, lay & compact more granular material uniformly to halfway up each side of pipe. Backfill (250mm for adoptable sewers) above crown of pipe with protective cushion of Dtp Type 1 or selected fill, free from vegetable matter, rubbish, frozen soil & material retained on a 40mm sieve. Compact by hand (or light mechanical rammer) in 100mm layers.



## Typical 'Y' Junction Connection



### NOTES

- DO NOT SCALE THIS DRAWING. WORK TO FIGURED DIMENSIONS ONLY. ALL DIMENSIONS ARE IN MILLIMETRES (mm) UNLESS NOTED OTHERWISE.
- This drawing is to be read in conjunction with all relevant Architects, Engineers and Specialist's drawings and their respective Specifications.
- All work to comply with the relevant British Standards, Codes of Practice and the Building Regulations.
- Any discrepancies between all working drawings, specifications and schedules of all disciplines to be immediately notified to CTP for clarification/correction prior to construction of relevant structure.
- All private drainage works shall be constructed in accordance with Building Regulations Approved Document H (latest edition) and BS EN 752.
- Prior to commencement of the works the contractor shall liaise with all relevant authorities to obtain their requirements, work method approval and where appropriate the intended choice of materials.
- Refer to topographical survey for details of existing site conditions and bench marks.
- Prior to commencement of the works the contractor shall liaise with all relevant authorities to locate, protect and where necessary divert all existing services affected by the works.
- The contractor shall ensure the stability of all excavations is maintained at all times and all excavations shall be kept free of standing water.
- All works in, or adjacent to, the public highway shall be in accordance with the requirements of the Highway Authority. The contractor shall obtain all necessary licenses required to carry out the works within the public highway.
- All works to new or existing public sewers shall be to the approval of the local water authority and in accordance with 'Sewerage Sector Guidance' - Latest Edition.
- Prior to commencement of the works all drainage outfall points, whether existing sewer, drain or watercourse, shall be verified on site by the contractor. If the outfall point is found to be higher or significantly lower than shown on the drawings then the design engineer shall be notified immediately (significant redesign of drainage and levels may be necessary). Prior to commencement of construction on-site the contractor shall install all off-site drainage connections, or satisfy himself that there are no obstructions or other reasons why the drain connections can not be made.
- All cover levels shown on this drawing are approximate, exact levels of new covers and frames are to be determined on site to match level and profile of finished surface.
- The construction of all existing chambers, gullies and their covers, gratings and frames to be improved, repaired or replaced as necessary to suit their location within the finished development.
- All covers, gratings and frames to chambers, gullies, channels etc, shall be of the correct load class to suit their location.  
Load Class A15- Pedestrian areas (not accessible by vehicles)  
Load Class B125- Private drives  
Load Class C250- Basements / parking bays / lightly trafficked roads  
Load Class D400- Main roads
- All existing chambers, gully channels, pipes and other drainage apparatus shall be protected from damage during the works. The contractor shall take all necessary measures to ensure that no material enters the drains (other than that which they are designed to carry).
- Refer to site investigation report for existing ground conditions and any special requirements for buried concrete (special requirements for buried concrete shall include all pre-cast and in-situ concrete and mortars). Where appropriate refer to contamination reports for details of chemicals affecting choice of materials and other additional requirements.
- All pre-cast and in-situ concrete and mortars used in the construction of foul drains and sewers shall be made from sulphate resisting cement.
- Unless noted otherwise all pipework shall be constructed from 'super strength' vitrified clay to BS 65, BS EN 295 or UPVC to BS EN 1401 bedded and backfilled as per the manufacturer's recommendations and the above listed publications.
- The contractor's attention is drawn to Diagrams 7 and 8 of 'The Building Regulations Approved Document H' showing details of drains laid below and near to buildings. Where ground beams are used, their level shall be set to avoid clashing with drain connections.
- Exact location of gullies to be determined on site to suit low points. The contractor shall ensure that all finished surfaces are laid to falls that are sufficient for all surface water to drain without surface ponding.
- For the exact location of soil pipes, substacks, W.C.'s and other drainage connections refer to the large scale architectural building plans.
- Rainwater downpipes that do not connect directly to an access point, shall be fitted with a rodding access.
- All drainage channels to be by ACO or similar and to be of a type, size and capacity suitable for their location.
- Private access fittings, inspection chambers and manholes shall be constructed to the dimensions shown in Tables 11 and 12 of The Building Regulations Approved Document H and from the materials listed in Table 14. Access points, inspection chambers and manholes shall be constructed from products designed/rated for the location in which they are to be used. They shall be installed in accordance with the manufacturer's/supplier's recommendations.
- Prior to commencement of any works the existing drainage must be traced to ensure that no 'live' connections remain, any such connections must be reported to the contract administrator, prior to diversion into the new drains.
- Pipes at manholes to be soffit to soffit unless noted otherwise.
- Pipes shall be at a min. gradient 1:40 (1:80 if minimum 1 WC is connected), unless proposed invert levels indicate otherwise.

## PRELIMINARY

P1	Preliminary Issue	10.04.24	SF	LB
Revision	Amendments	Date	Rev'd	Ch'd
Created by	Drawn/checked	Date	Scale	
SF	April 2024		CIVILS	



Suffolk House 154 High Street  
Sevenoaks Kent TN13 1XE UK  
UK: +44 (0)1732 740195  
www.ctp-llp.com

Project Title

Hook Meadows  
Westergate

Drawing Title

Drainage Details  
Sheet 1 of 3

Drawing Number

1:250 @A1  
Unless Noted Otherwise

B0457-1505

P1



SCALE 1:20