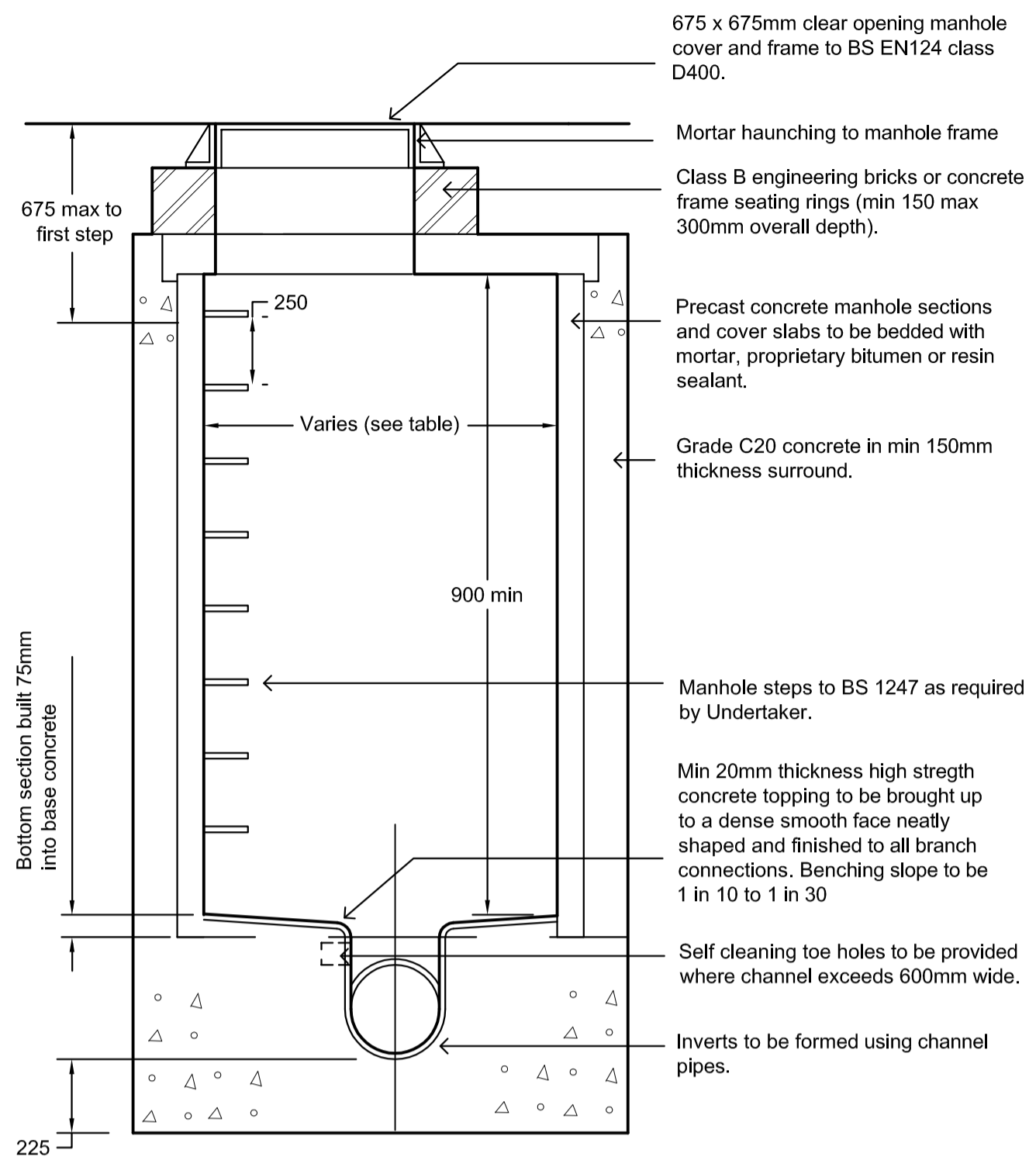


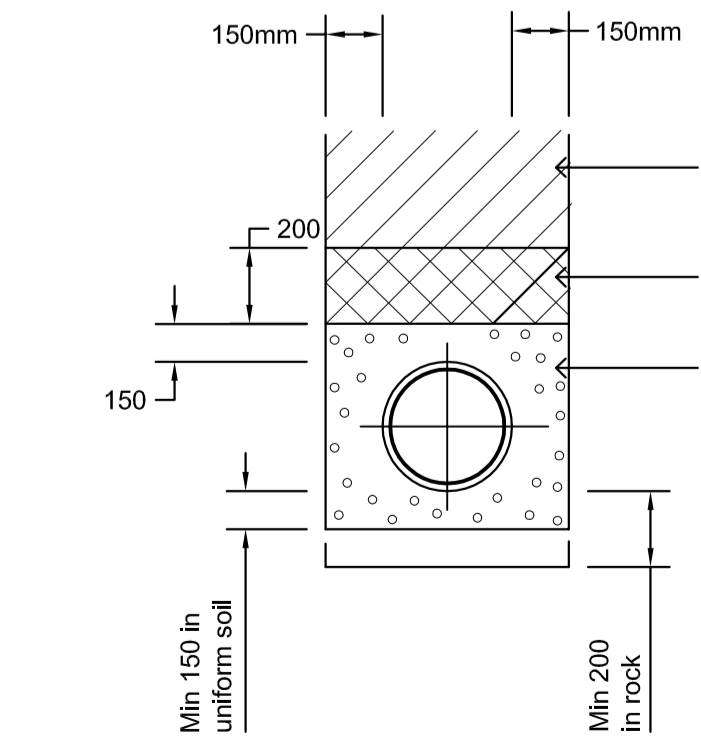
Type A Manhole

Depth from ground level to soffit of pipe 3m to 6m

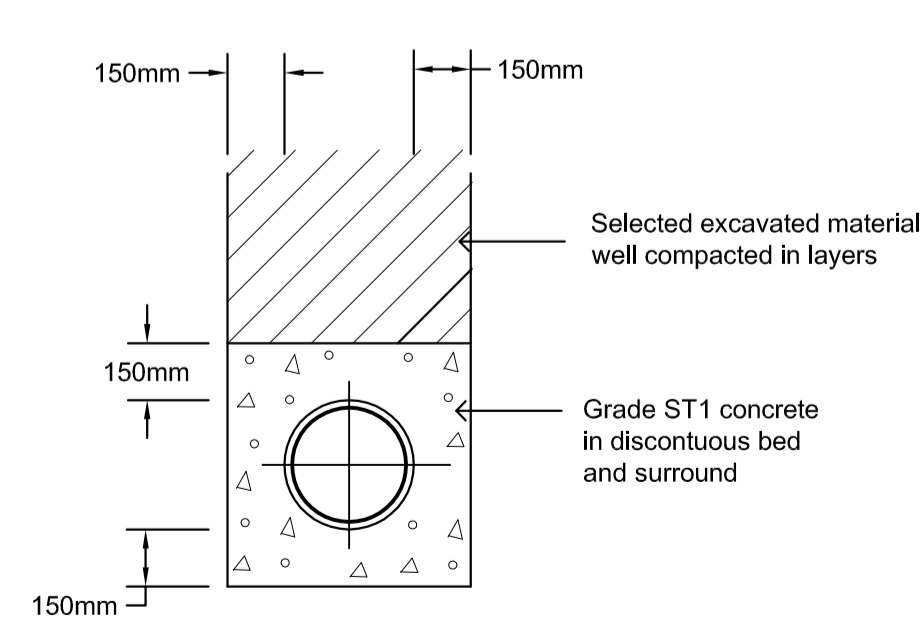


Type B Manhole

Maximum depth from ground level to soffit of pipe 3m

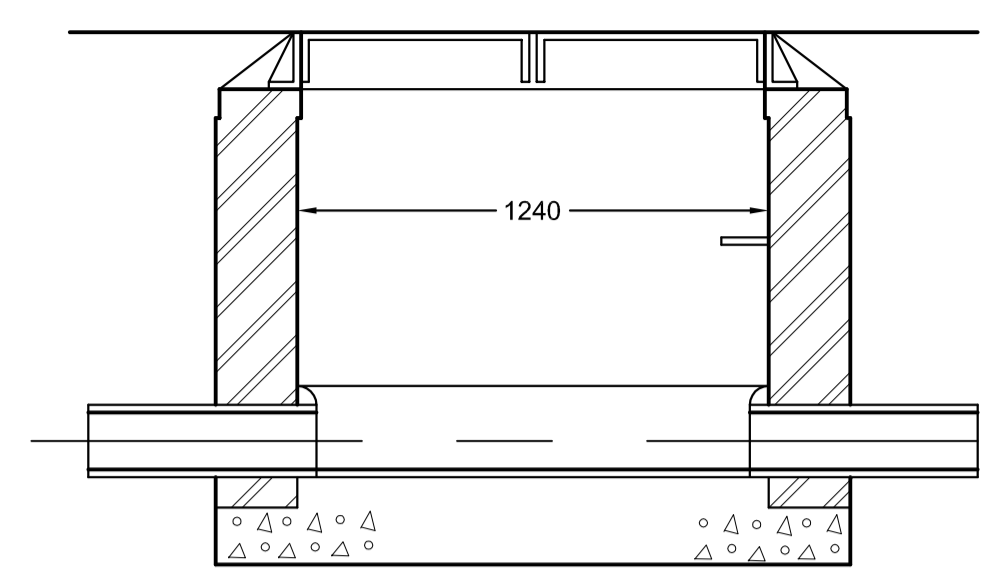


Class S Bedding



Concrete Protection

Concrete protection shall be interrupted at each pipe joint by shaped compressible filler



Type C Manhole

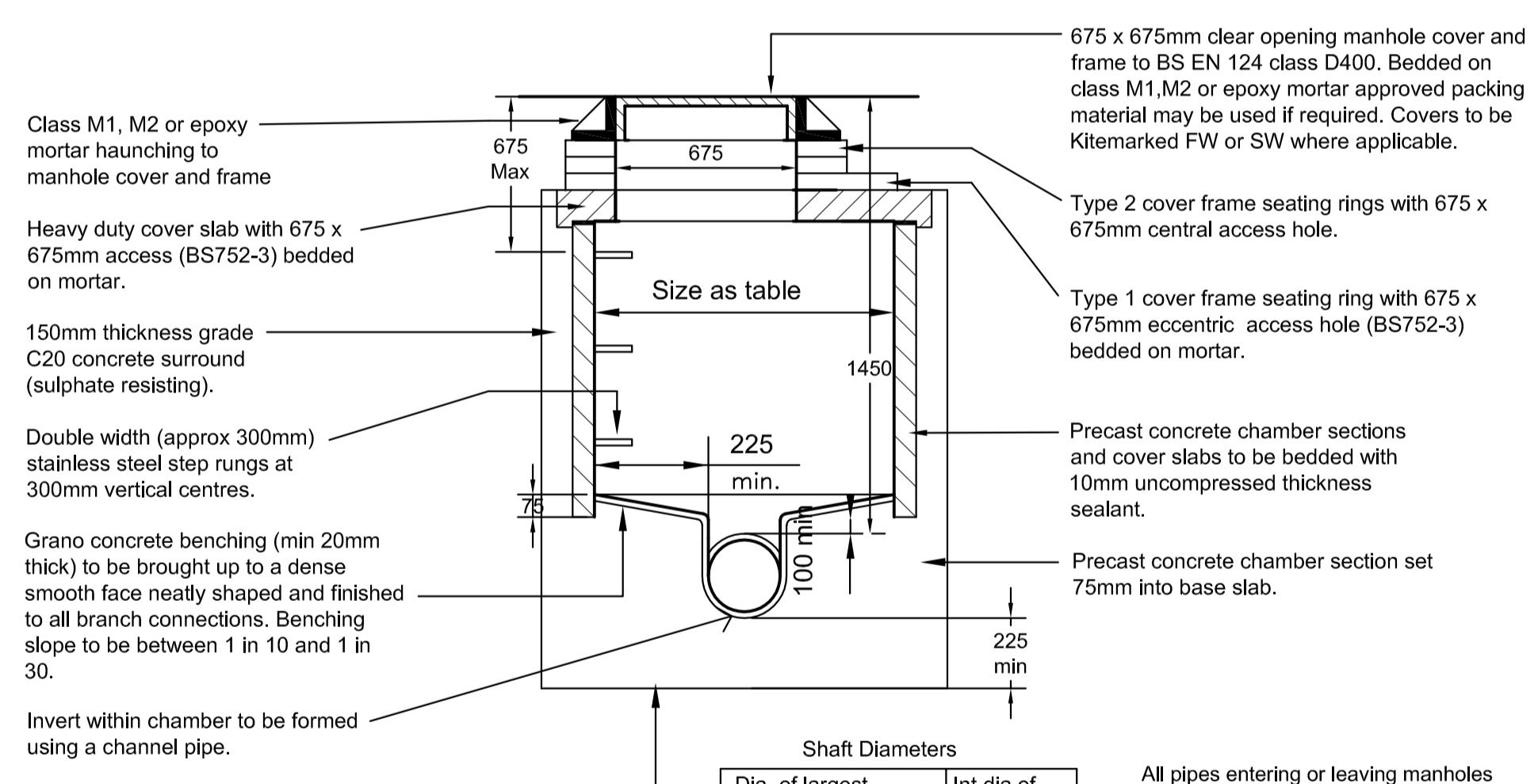
Depth from ground level to soffit of pipe 1.0m to 1.5m

Diameters of manholes

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

Rocker Pipes

Pipe diameter (mm)	Effective length (m)
150-600	0.60m
675-750	1.00m
825 and over	1.25m



Manhole Type X

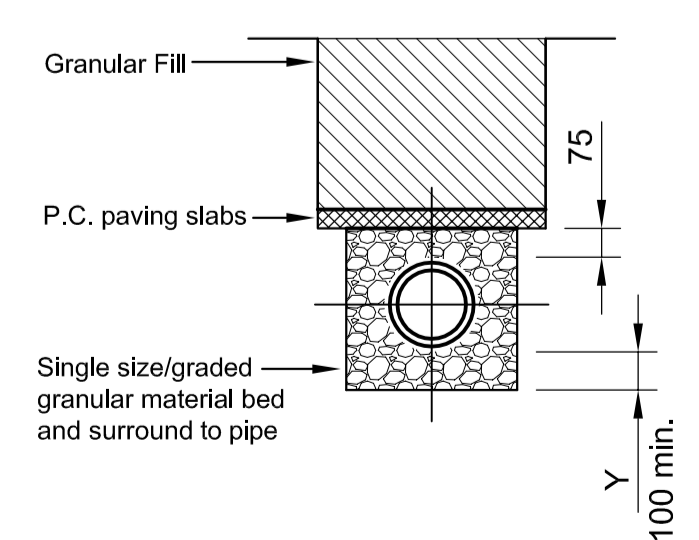
Depth to soffit up to 1.45m
Maximum pipe diameter 450mm

Shaft Diameters

Dia. of largest pipe in MH (mm)	Int dia of MH (mm)
Less than 375	1200
375 - 450	1500

NOTE: If pipe diameter exceeds 450mm use MH type B

All pipes entering or leaving manholes shall have a flexible joint within 600mm of the inside face of the manhole. The next pipe shall be a short "rocker pipe" 600mm long.



Type Q Bedding

The Contractor is to check and verify in conjunction with the Architects details all setting out points, building and site dimensions, levels and sewer level levels of connection points and ensure that they are fully compliant with the contents and of requirements in the Investigation report before work starts.
The Contractor is to comply in all respects with current Building Regulations, British Standard Specifications, Building Regulations etc., whether or not specifically stated on this drawing.
This drawing is not intended to show details of ground conditions or ground constraints. Each area of ground relied upon to support any structure described (including drainage) must be investigated by the Contractor any areas of formation for each structure which do not accord with the anticipated conditions as described in the site investigation report are to be immediately notified to the Engineer, where applicable. Any suspect fill ground or ground constraints on or within the ground should be further investigated by a suitable report. Any earthworks shown indicate a fall slope for guidance only and should be investigated further by a suitable geotechnical expert.
Where existing trees are shown to be retained they should be subject to a full Arboricultural Inspection for safety. All trees are to be preserved so far as possible and any trees to be removed are to be removed in accordance with the proposed tree plan, where applicable. A foundation is to be provided to accommodate the proposed tree plan, where applicable.
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GENERAL NOTES
1. This drawing is to be read in conjunction with relevant architectural and engineering drawings.
2. Levels indicated in blocks are Finished floor levels and are 150mm above adjacent finished ground levels unless otherwise shown.
3. Levels of the existing road at the point of tie-in with proposed site road must be checked prior to commencement of works.
4. Any discrepancies between the details shown and actual on site conditions to be reported immediately to the engineer prior to commencement of works.

ADOPTABLE ROADS AND SEWERS
1. Roads, footways and parking bays which form part of the highway to be adopted under Section 38 of the Highways Act 1980 shall comply with the requirements of the Adopting Authority.
2. Sewers to be adopted under Section 104 of the Water Industries Act 1991 shall comply with the Water Authorities Association "Sewers for Adoption 6th Edition" with any amendments specified by the Adopting Water Authority.
3. All pipes to be used in adoptable sewerage shall be either dayware to BS EN 295 or concrete to BS EN 1916 and BS 5911: Part 1 with Class S bedding unless otherwise stated. With approval of the Adopting Authority solid wall concentric external rib reinforced uPVC pipes complying with the relevant provisions of BS EN 13476 may be used.
4. Where cover to a pipe is more than 1200mm under adoptable carriageway the trench shall be filled to formation of the carriageway with well compacted DTP Type 1 material.
5. Where cover to a pipe is less than 1200mm under adoptable carriageway it shall be provided with concrete protection in accordance with the specification of the adopting authority and back filled to formation of the carriageway with well compacted DTP Type 1 material. Where concrete bed and surround is specified flexibility of joints is to be maintained by using compressible bitumen impregnated fibreboard at each pipe joint.
6. All existing drainage invert levels, diameters and locations are to be checked by the Contractor prior to the commencement of any proposed drainage work. Any difference between actual and drawn details is to be reported to the Engineer immediately.
7. Positions of existing services/statutory undertakers apparatus adjacent to or crossing proposed sewers is to be checked by the Contractor prior to starting work.

PRELIMINARY DRAWING
SUBJECT TO APPROVAL

Rev.	Description	Date	By



Project
Pennycroft Lane
Uttoxeter

Title
Construction Details
Adoptable Drainage



Scale	Drawn
NTS @ A1	LJ
Date	Checked
November 2014	SCM
File	Drawing
14102/dwgs/civils/current	14102 / 310