

General Notes

GENERAL

All Price & Myers' drawings are to be read in conjunction with all relevant Architect's, Engineer's and Specialists' drawings and specifications.

Do not scale from any Price & Myers' drawing. All dimensions are in millimetres and levels in metres.

All waterproofing, DPC and DPM are to Architect's details. Any damp proof membranes shown on our drawings are indicative of their position within the construction only.

The extent of demolition work, fire protection to steelwork, floor separation details and acoustic isolation are to Architect's details.

SUBMISSION AND CHECKING

The Structural Engineer requires either an electronic copy or two paper copies of all drawings and calculations for temporary work, steel fabrication and sub-contractor design elements. These are to be issued allowing ten working days after receipt of drawings for preparation of comments by the Structural Engineer.

TEMPORARY WORKS

Temporary works design should comply with the requirements of BS 5975. Confirm details of the person responsible for all temporary works, the 'Temporary Works Co-ordinator' when returning the tender.

The Contractor is responsible for the design, installation and maintenance of all necessary temporary works to ensure the strength and stability of the building throughout the course of the works. The Contractor is to produce Method Statements outlining proposed sequence of works and details of temporary works to be used for comment by the Structural Engineer before starting work.

When installing beams into an opening wider than 3m in an existing structure, allow for the use of folding wedges, Harjaks or other means to pre-deflect the beam to give a mid-span deflection of span/400 before transferring load from temporary works into the beam.

FOUNDATIONS

Foundation sizes and depths are based on an allowable safe ground bearing pressure of 125 kN/m². All foundation details are subject to approval by the Building Inspector. The Structural Engineer and Building Inspector shall be given the opportunity of examining all excavations, filling and hardcore before they are concreted or covered up.

CONCRETE

Strip footings and trench fill, blinding	GEN1
Mass Concrete	GEN3
Reinforced Concrete - above ground	RC28/35
Foundation Concrete - reinforced	FND2

Concrete finishes to BS EN 13670 Table F.4:

- All formed surfaces are to be **ordinary** finish
- Tops of ground beams and floor slabs are to be uniformly levelled and tamped to give a **basic** unformed finish.

STEEL

All general steel sections and plate are to be grade S275. Hollow sections are to be grade S355.

The Contractor is to produce dimensioned fabrication drawings.

All bolted connections are to use grade 8.8 bolts with a minimum of two M16 bolts per member unless specifically indicated otherwise on details.

All welds are to be minimum 6mm leg length continuous fillet welds unless specifically noted otherwise.

All internal steelwork is to be blast cleaned to Sa 2.5 and painted with zinc phosphate primer - Sherwin-Williams' Macropoxy 400 or equal approved.

- For steelwork in dry internal spaces: 75 microns dry film thickness (dft)
- For steelwork in cavities: 250 microns dft.

All external steelwork is to be galvanised and painted to specification.

All steel work below ground, including bolts and baseplates is to be encased in concrete with minimum 50 cover.

MASONRY

Minimum characteristic strength is to be:

- 20N/mm² for all load bearing brickwork.
- 7N/mm² for all load bearing blockwork.

All lintels to have minimum 150 bearing at supports.

Sulfate-resisting cement is to be used below DPC level.

Pockets in party walls for padstones etc. are to be formed by carefully removing stretchers and snapping off headers where required.

MORTAR

Mortar Class / Traditional Mortar Mix Designation	Mortar Mix by Volume Cement: Lime: Sand			Min Compressive Strengths N/mm ²	
				7 days	28 days
M 12 Type (i)	1	0 - ¼	3	7.25	11
M 4 Type (iii)	1	1	5 - 6	1.85	2.75

TIMBER

All timber members are to be grade C24 unless noted otherwise. All timbers except upper floor joists are to be pressure-impregnated with preservative and cut ends brush treated.

Joists marked DJ are to be doubled joists bolted together using M10 black bolts at 600 centres with double sided tooth plate connectors.

All bolts into timber are to have 50 square x 3 thick mild steel washers below nut.

Solid blocking or herringbone strutting is to be provided between all timber joists or rafters as follows:

- 2.5m to 4.5m span: midspan and at each end support
- Spans longer than 4.5m: two rows equally spaced in span and at end supports. Outer joists or rafters to be blocked solidly to perimeter walls.

Wall plates for roofs are to be tied down using 1200 long 30 x 2.5 galvanized mild steel straps at 1200 centres with a 100 bob end. Straps are to be nailed to the top plate and plugged and screwed to the internal face of the wall. Refer to typical details.

Lateral restraint straps for floors are to be minimum 900 long 30 x 5 galvanized mild steel straps at 1200 centres with 150 a bob end. Straps perpendicular to joists are to be nailed to tops of three joists + solid blocking infill using 5, 75 long, 3.8Ø nails. Straps parallel to joists are to be let-in to the top of the joists and nailed in place using 6, 50 long, 3.4Ø nails. Refer to typical details.

All new timber partitions are to be built off double joists or solid timber blocking between floor joists.

Structural timber members may only be drilled or cut for services as follows unless specified otherwise on the Engineer's drawings:

- Single notches, either top or bottom; maximum 0.125 x joist depth and no longer than twice the joist width, located between 0.125 and 0.25 x the span from the supports.
- Holes; maximum diameter 0.25 x joist depth, located between 0.25 and 0.4x the span from the supports. Hole spacing is to be a minimum of 3 hole diameters.

BELOW GROUND DRAINAGE

MANHOLES & INSPECTION CHAMBERS

Concrete manholes / inspection chambers by Milton Precast, or similar approved. Polypropylene inspection chambers by Wavin, or similar approved.

PIPES

Pipes to be vitrified clay. 100 diameter unless noted otherwise. Maximum rocker pipe length 600.

Initial below ground nominal 100 diameter foul and surface water lateral/branch pipes shall be laid no flatter than 1:40 and 1:60 respectively unless noted otherwise. Where necessary, to avoid clashes, lateral connections may be laid to nominal falls and ramp at 45 degrees to manhole invert or pipe junction.

All pipes with cover more than 600 are to be laid in class 'S' surround in external areas; for cover less than 600 pipes are to be laid in class 'Z' surround. If pipework is below a reinforced concrete slab use Class Y or W surround. All pipes under foundations are to be laid Class Z surround.

Selected fill for backfilling shall consist of uniform readily compactible as-dug material, free from vegetable matter, rubbish, frozen soil and material retained on a 40mm sieve.

Where branch pipes are to connect directly onto a main run provide above ground rodding access at head of branch run and:

- When connecting 100 or 150 diameter branches to a main run of 300 diameter or larger use a preformed saddle fitting.
- Otherwise connections shall be made with a preformed oblique junction swept in the direction of flow.

All bends in pipework shall be long radius. All gullies are to be trapped and roddable.

DISUSED PIPES

Confirm pipework is no longer in use before abandoning / demolishing. All pipework within building envelope to be:

- Demolished; should be removed and replaced with well compacted clean fill material.
- Abandoned; should to be grouted up with concrete at both ends.

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CONSTRUCTION

The Contractor is to make the Section 106 application to the Water Authority for a new connection to a public sewer and is to receive consent before making the connection.

The Contractor shall allow for the temporary and permanent support and diversion works as necessary, to all existing services to the satisfaction of the Public Utilities. The Contractor shall establish the location, size and depth of all existing drains/sewers and services before the start of works on site.

All connections to existing drainage are to be confirmed on receipt of condition survey.

SETTING OUT

All levels and dimensions shall be checked on site before the start of any works.

All cover levels, FWP / RWP and gully locations are shown as indicative only. The Architect is to confirm all locations, cover levels and termination positions of vent pipes.

Landscape layout, and finished levels to be confirmed by Architects. The Contractor is to co-ordinate manhole positions and levels with landscape drawing requirements in hard landscaped areas to tie-in with the finishes proposed, i.e. block pavements & paving. Manhole covers shall be set to same level and fall as adjacent ground.

Setting out dimensions given for the centre of cover opening are "guide" positions. Positions of inspection chambers may require manual adjustment on site due to confinement and congestion of pipe runs.

The Contractor is to position cover slabs / manhole openings to allow access over benching from the bottom of ladder or steps.

Manhole to manhole runs should be kept straight and not be extended in length without approval of the Engineer.

COMPLETION

The Contractor should carry out a drainage CCTV survey after completion of private pipework to demonstrate that the constructed drainage is in accordance with the design.

MEMBER SCHEDULE

STEEL COLUMNS & BEAMS

SC1 - 150x150x16.0 SHS (S355)
SC2 - 120x120x12.5 SHS (S355)
SC1 - 305x305x97 UC

SB1 - 203x203x86 UC
SB2 - 254x254x132 UC
SB3 - 305x305x97 UC
SB4 - 152x152x37 UC
SB5 - 200x90x30 PFC
SB6 - 203x203x71 UC