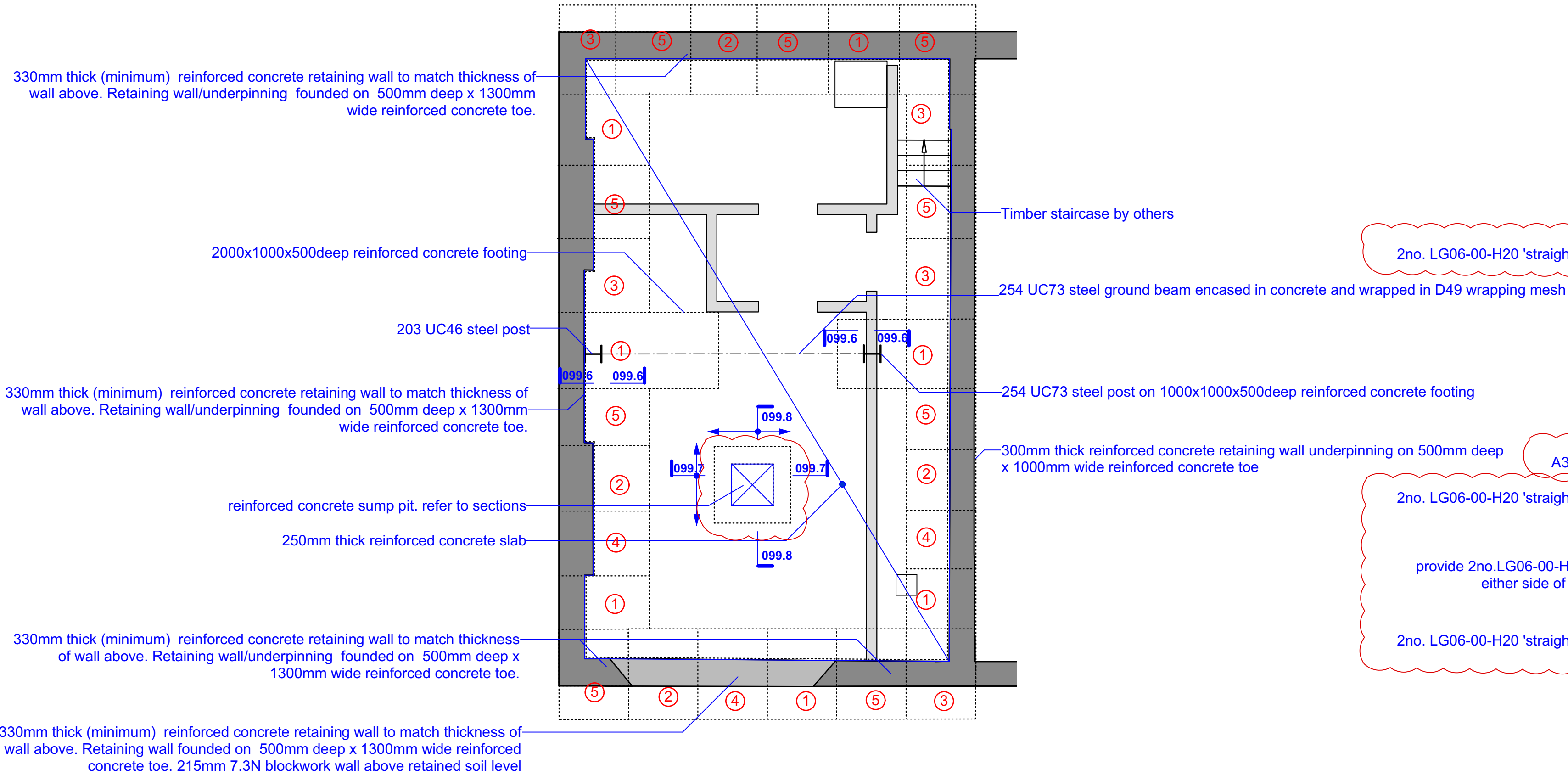


KEY

- existing structure
new load bearing structure.
refer to annotations
demolition
new non loadbearing partitions.
refer to architect's drawings

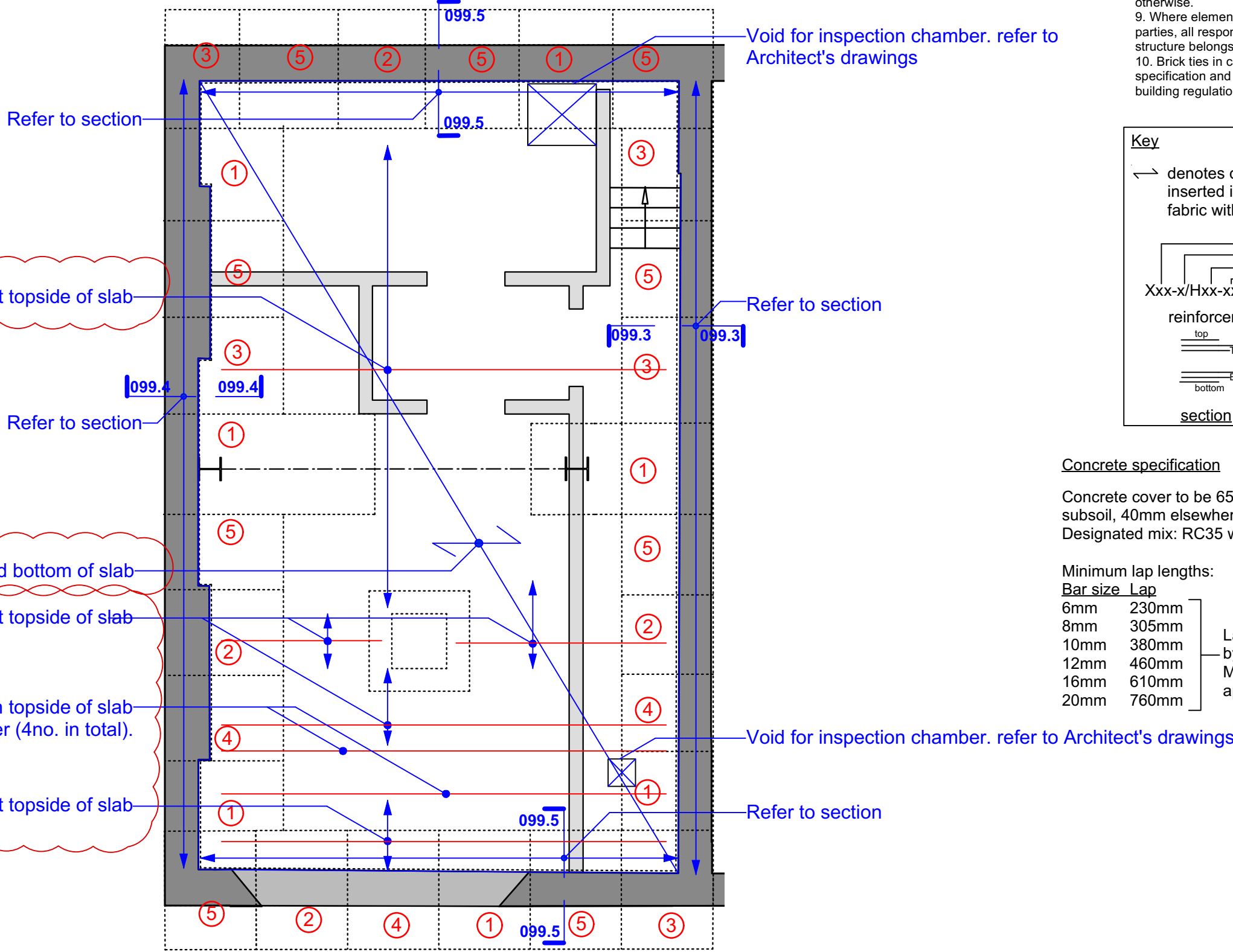
Note : (#) denotes suggested underpinning sequence. Allow 48hrs after concrete poured before excavating adjacent hit



099.1 STRUCTURAL LOWER GROUND FLOOR PLAN AS PROPOSED

Note : (#) denotes suggested underpinning sequence. Allow 48hrs after concrete poured before excavating adjacent hit

Retaining walls to be propped at head in temporary condition



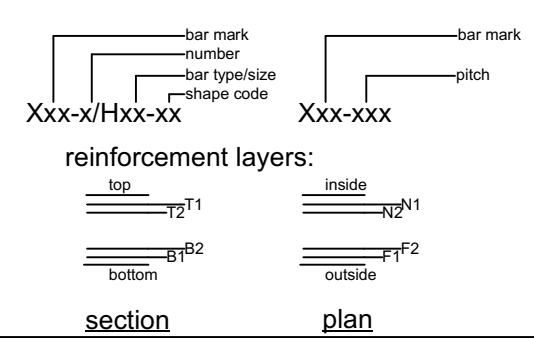
099.2 STRUCTURAL LOWER GROUND FLOOR REINFORCEMENT AS PROPOSED

General Notes:

1. Do not scale from this drawing.
2. This drawing is to be read in conjunction with all relevant Engineers and Architects drawings and specifications.
3. Report any discrepancies between this drawing and on site to the engineer prior to commencement of works.
4. Concrete to be RC35 where described to be reinforced concrete and FND2 where described as mass concrete with 40mm cover to steelwork unless noted otherwise.
5. All steel beams to be painted with zinc phosphate primer prior to installation of frame.
6. All necessary temporary propping to existing structure is the sole responsibility of the contractor.
7. All foundation depths to be approved by building control and founded on virgin sub-soil.
8. New sections of new masonry to be joined to existing masonry with stainless steel wall starters unless notified otherwise.
9. Where elements of structure are specified by third parties, all responsibility and liability for said elements of structure belongs to the third parties that specified them.
10. Brick ties in cavity wall construction to architects specification and in accordance with the relevant building regulations.

Key

denotes direction of steel bars in mesh inserted in the T1/B2 layer. Intermesh fabric with min. lap of two pitch lengths



Concrete specification

Concrete cover to be 65mm where in direct contact with subsoil, 40mm elsewhere to all reinforced elements
Designated mix: RC35 with sulphate resisting admixture

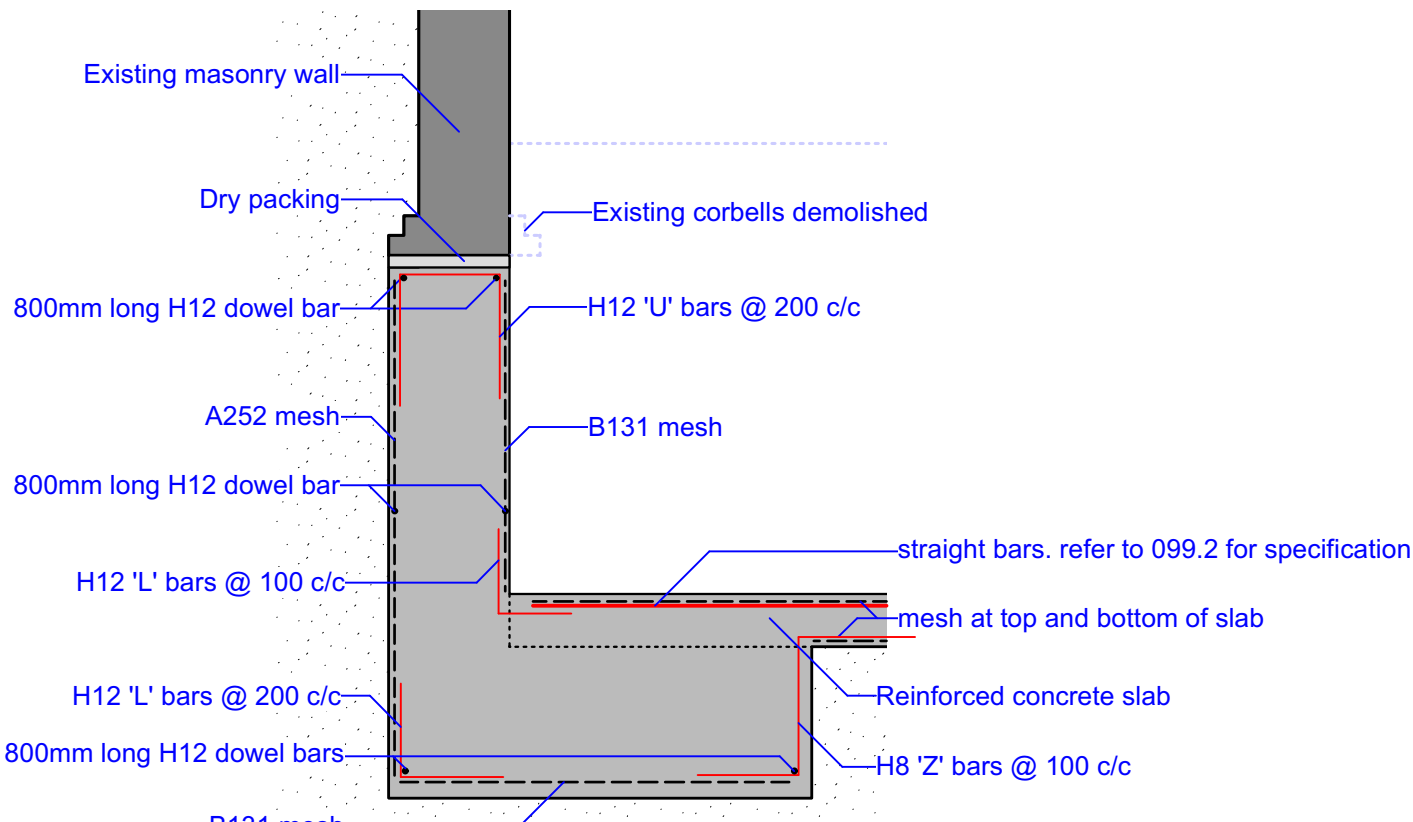
Minimum lap lengths:

Bar size	Lap
6mm	230mm
8mm	305mm
10mm	380mm
12mm	460mm
16mm	610mm
20mm	760mm

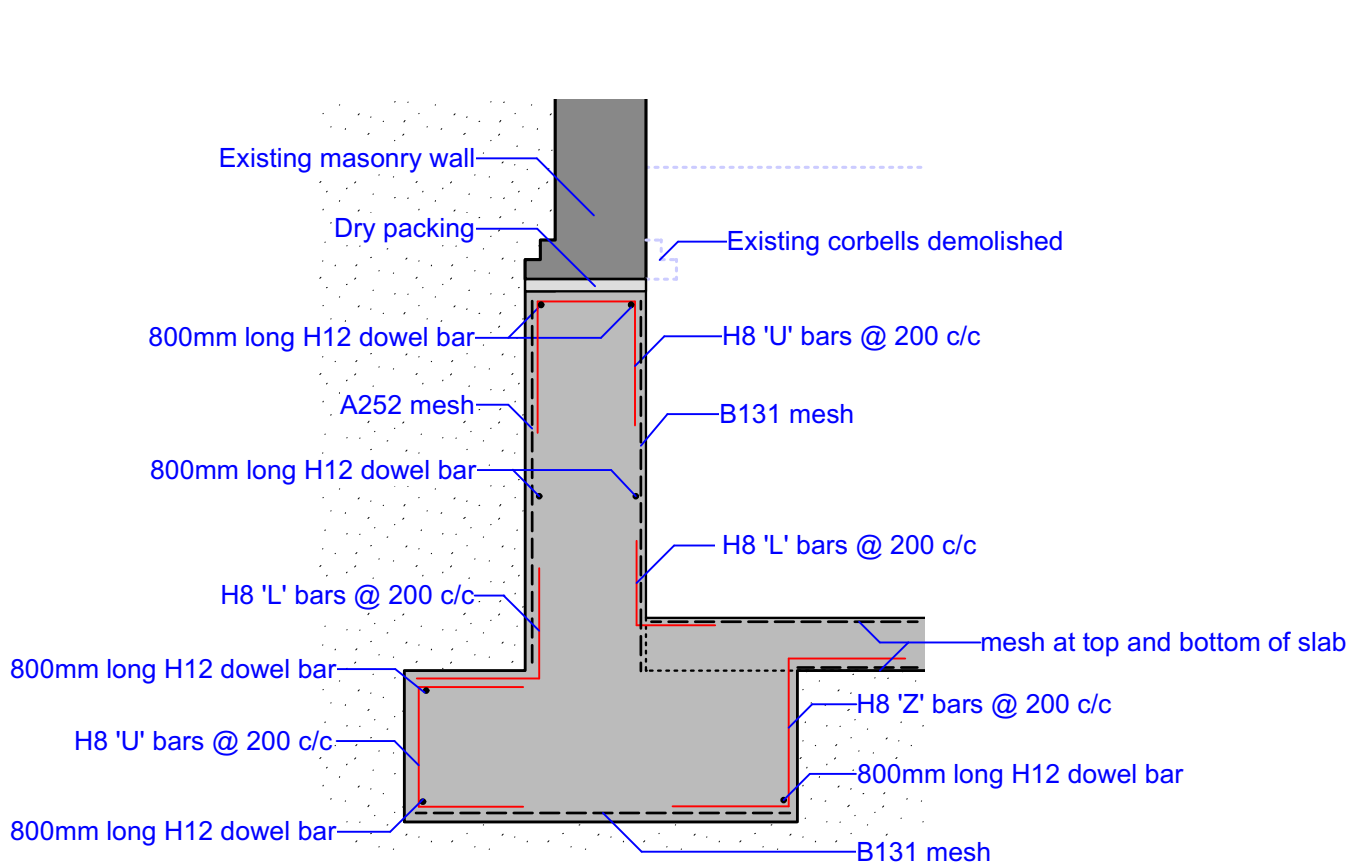
Lap lengths can be replaced by tension connectors. Use MBT-type by ANCON or equal approved



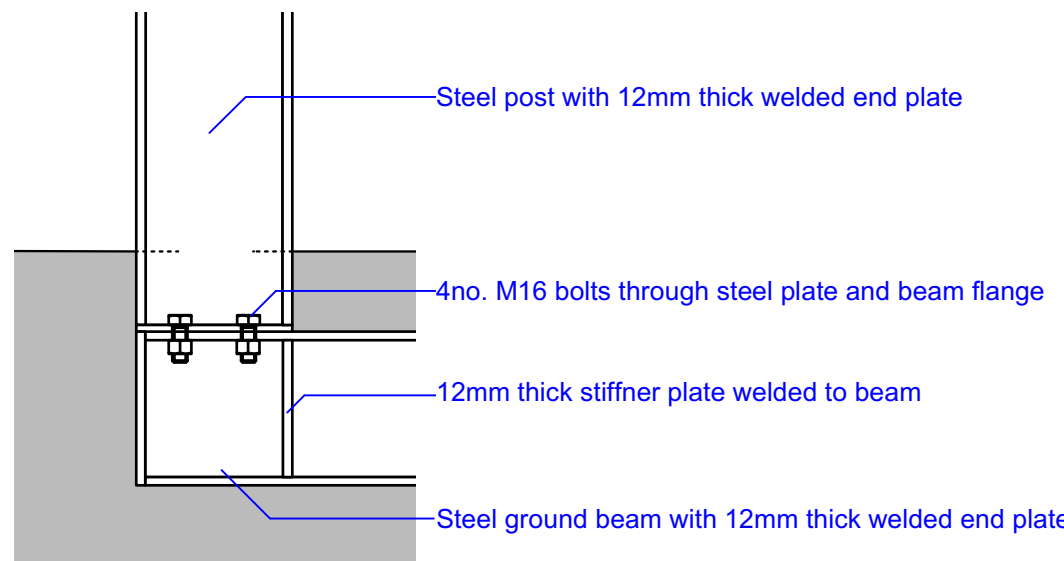
099.3 STRUCTURAL SECTION THROUGH FOUNDATIONS AS PROPOSED (Scale 1:25)



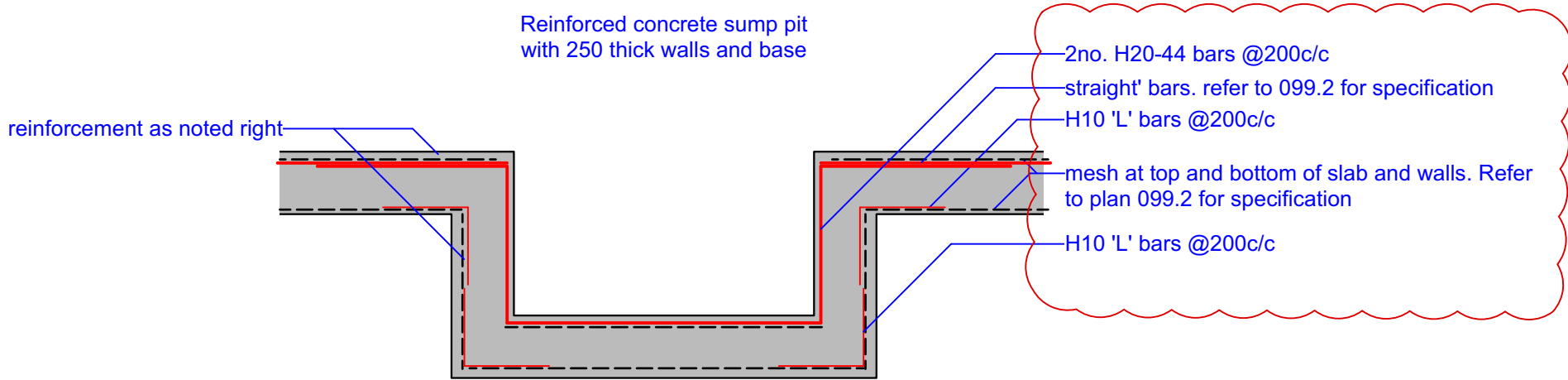
099.4 STRUCTURAL SECTION THROUGH FOUNDATIONS AS PROPOSED (Scale 1:25)



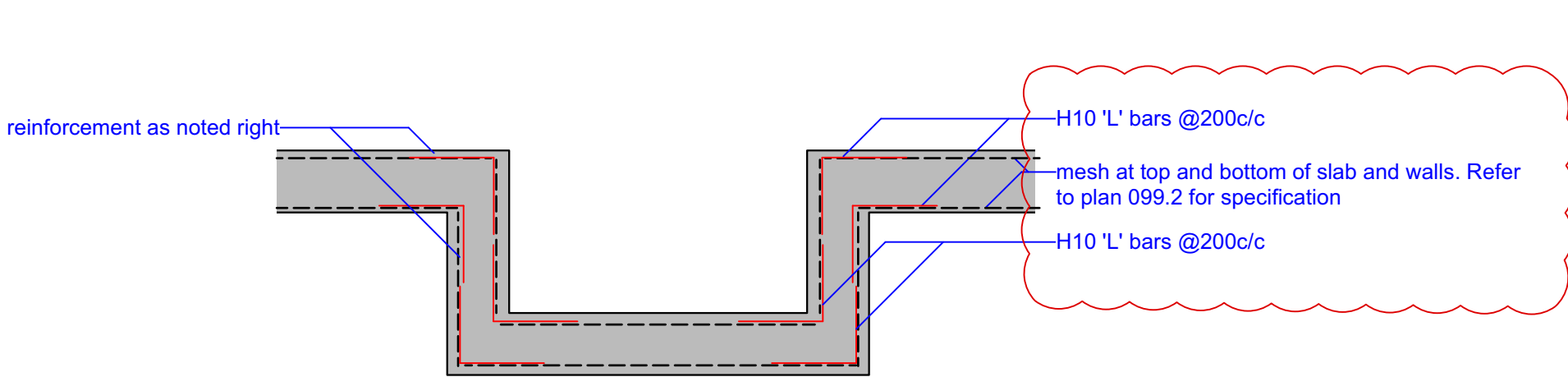
099.5 STRUCTURAL SECTION THROUGH FOUNDATIONS AS PROPOSED (Scale 1:25)



099.6 STEEL DETAIL:GROUND BEAM TO POST CONNECTION



099.7 STRUCTURAL SECTION SUMP AS PROPOSED (Scale 1:25)



099.8 STRUCTURAL SECTION SUMP AS PROPOSED (Scale 1:25)

Project 91 Savernake Road

Drawing No. A075 099 Revision C

Drawing Title structural basement floor plan & reinforcement

Date 6/2/2019 Scale various

Status Stage D Project No. A075

CAD Ref. A075 proposed Drawn NM

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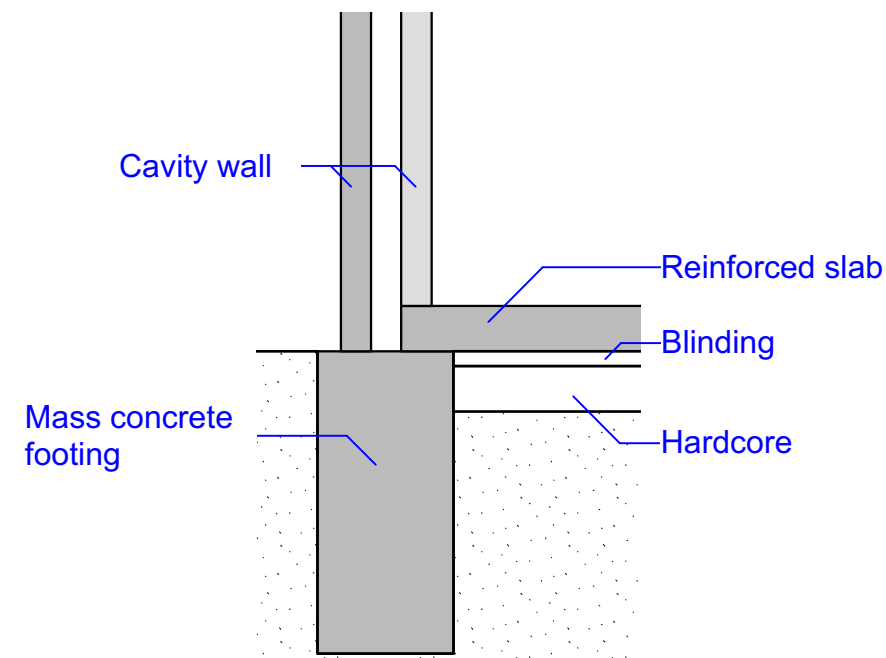
WEBHEATH WORKSHOPS

235 NETHERWOOD STREET

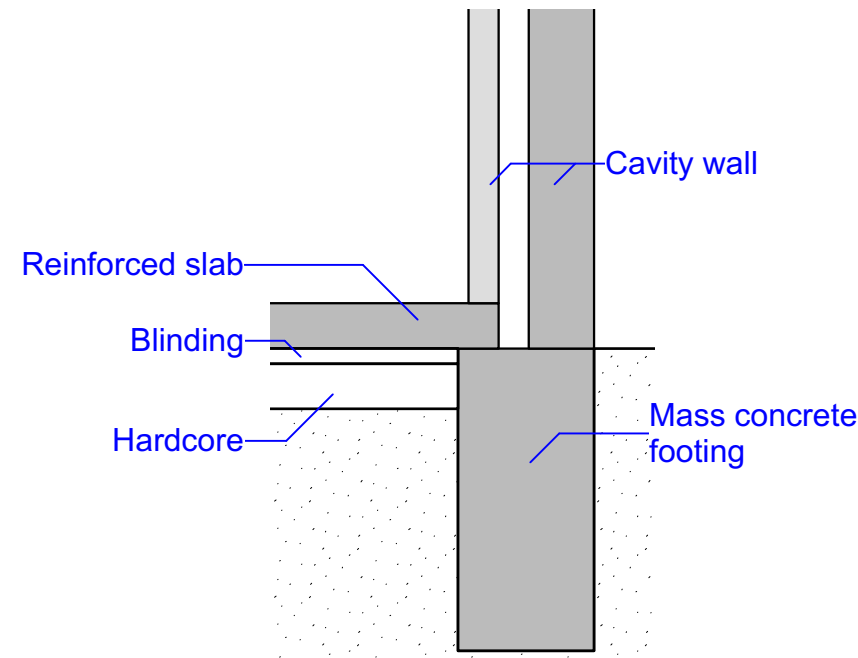
LONDON NW6 2JX

studio@formlondon.co.uk

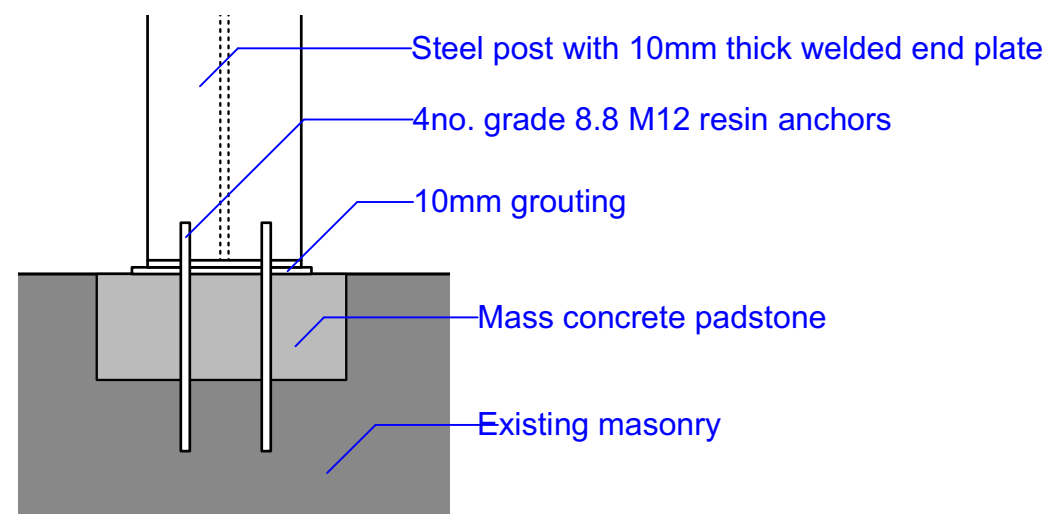
T 020 7284 2613



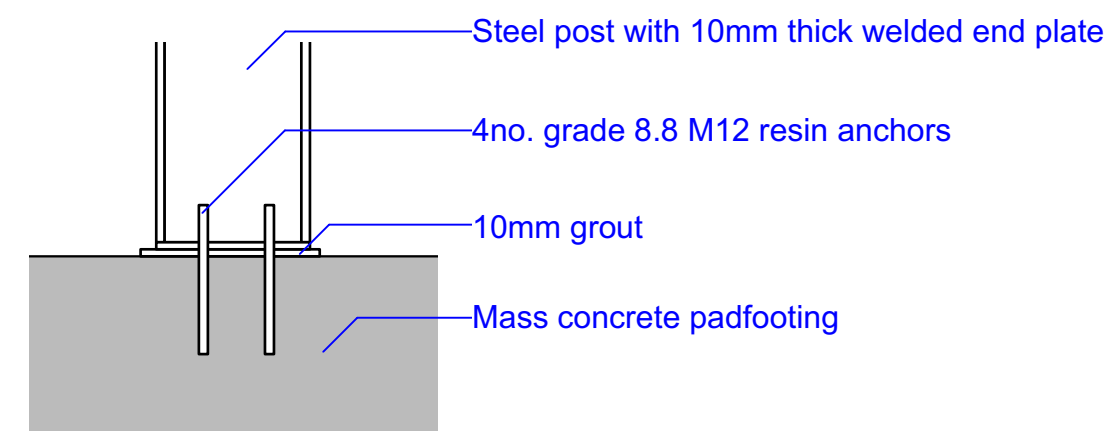
100.1 STRUCTURAL SECTION THROUGH FOUNDATIONS AS PROPOSED (Scale 1:25)



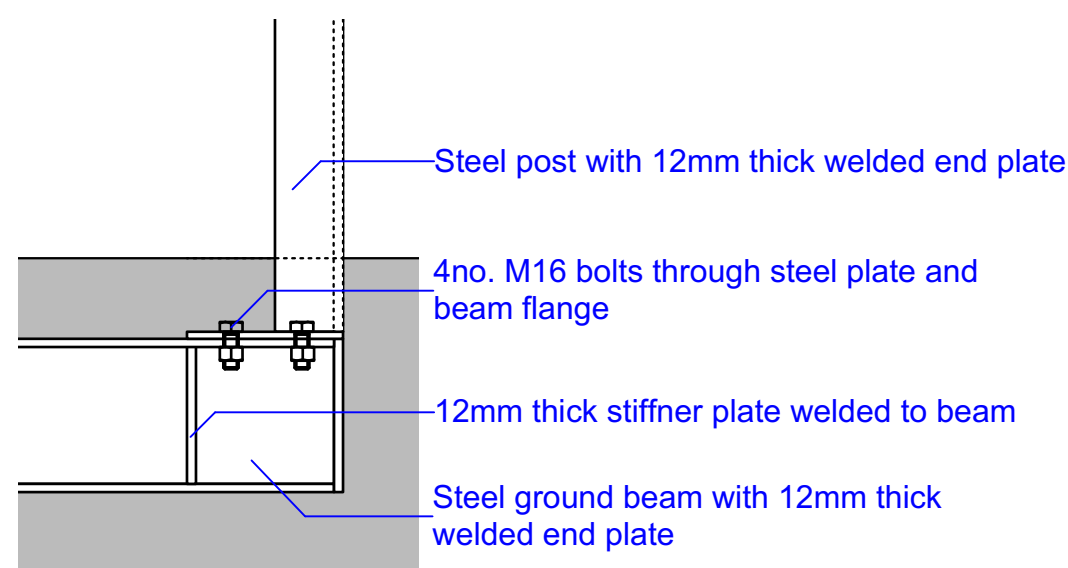
100.2 STRUCTURAL SECTION THROUGH FOUNDATIONS AS PROPOSED (Scale 1:25)



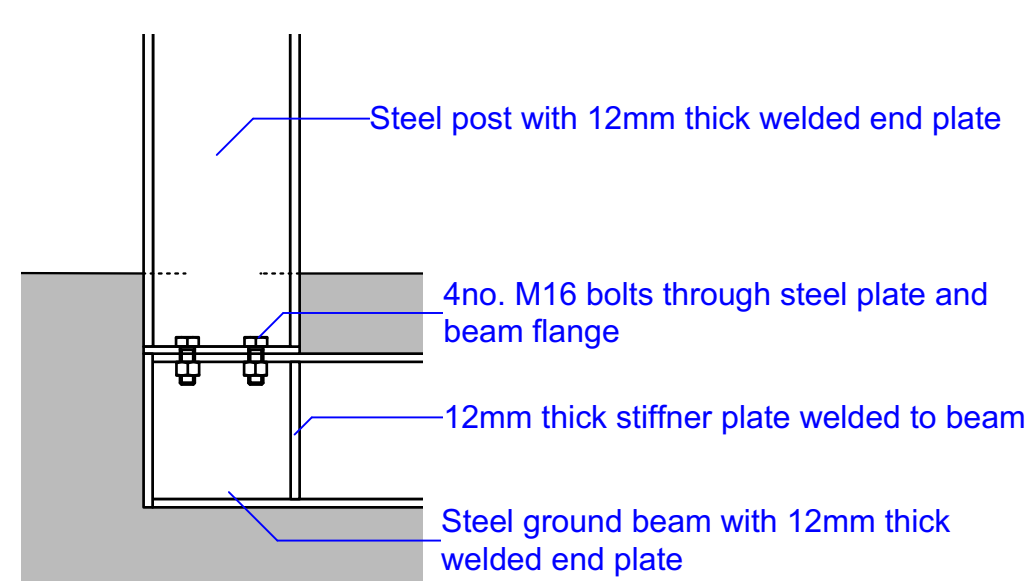
100.3 STEEL DETAIL: POST TO PADSTONE CONNECTION



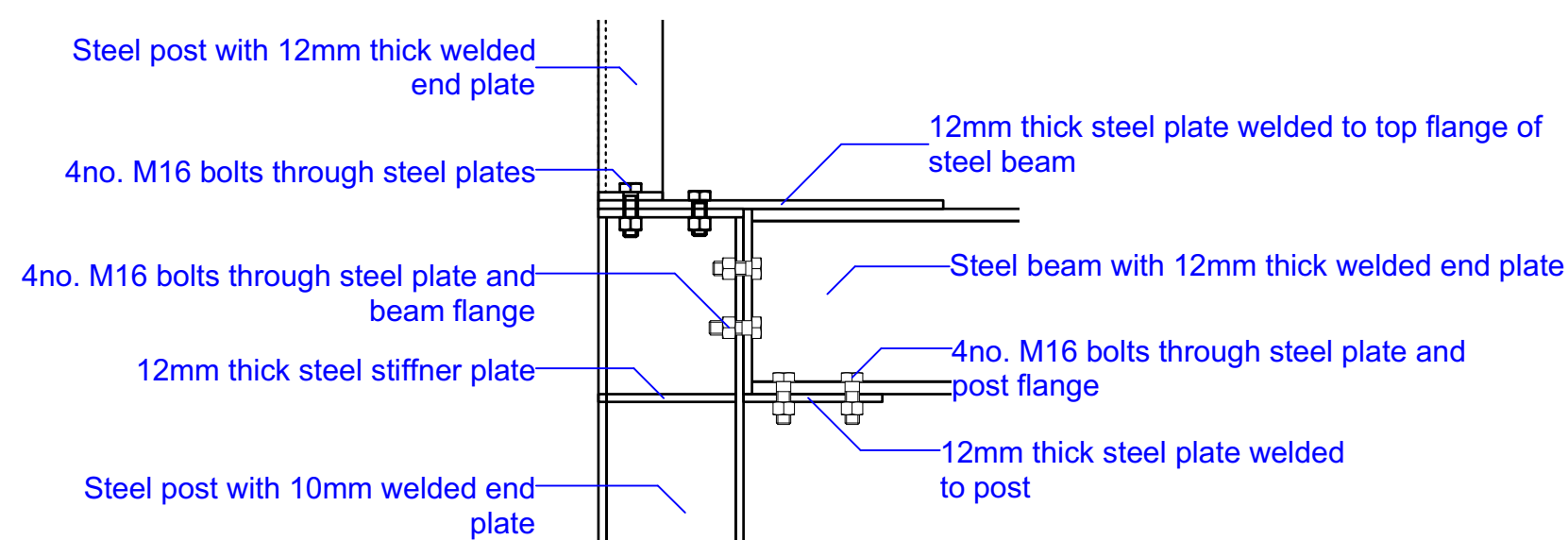
100.4 STEEL DETAIL: POST TO PADFOOTING CONNECTION



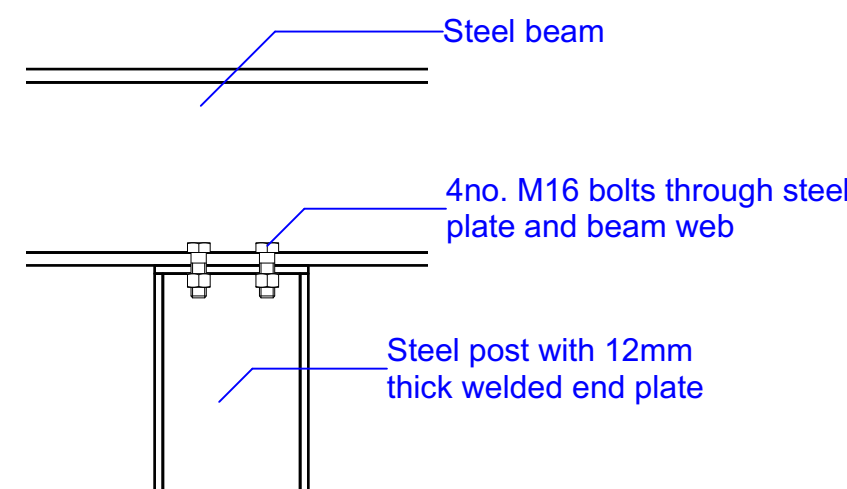
100.5 STEEL DETAIL: GROUND BEAM TO POST CONNECTION



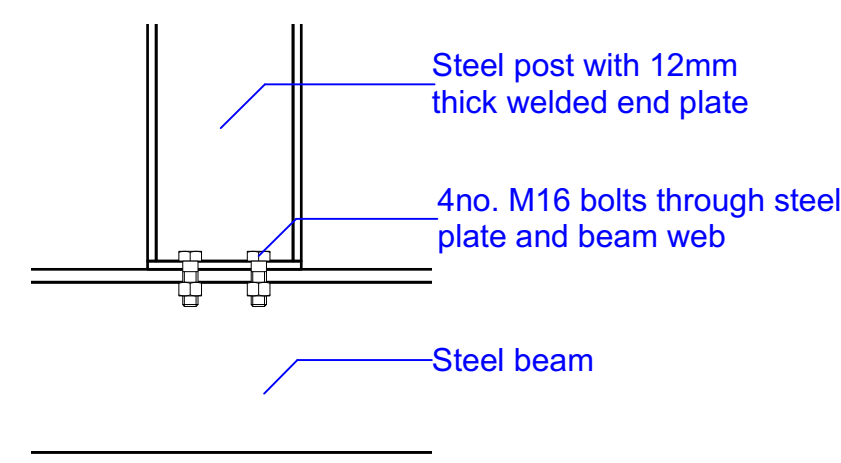
100.6 STEEL DETAIL: GROUND BEAM TO POST CONNECTION



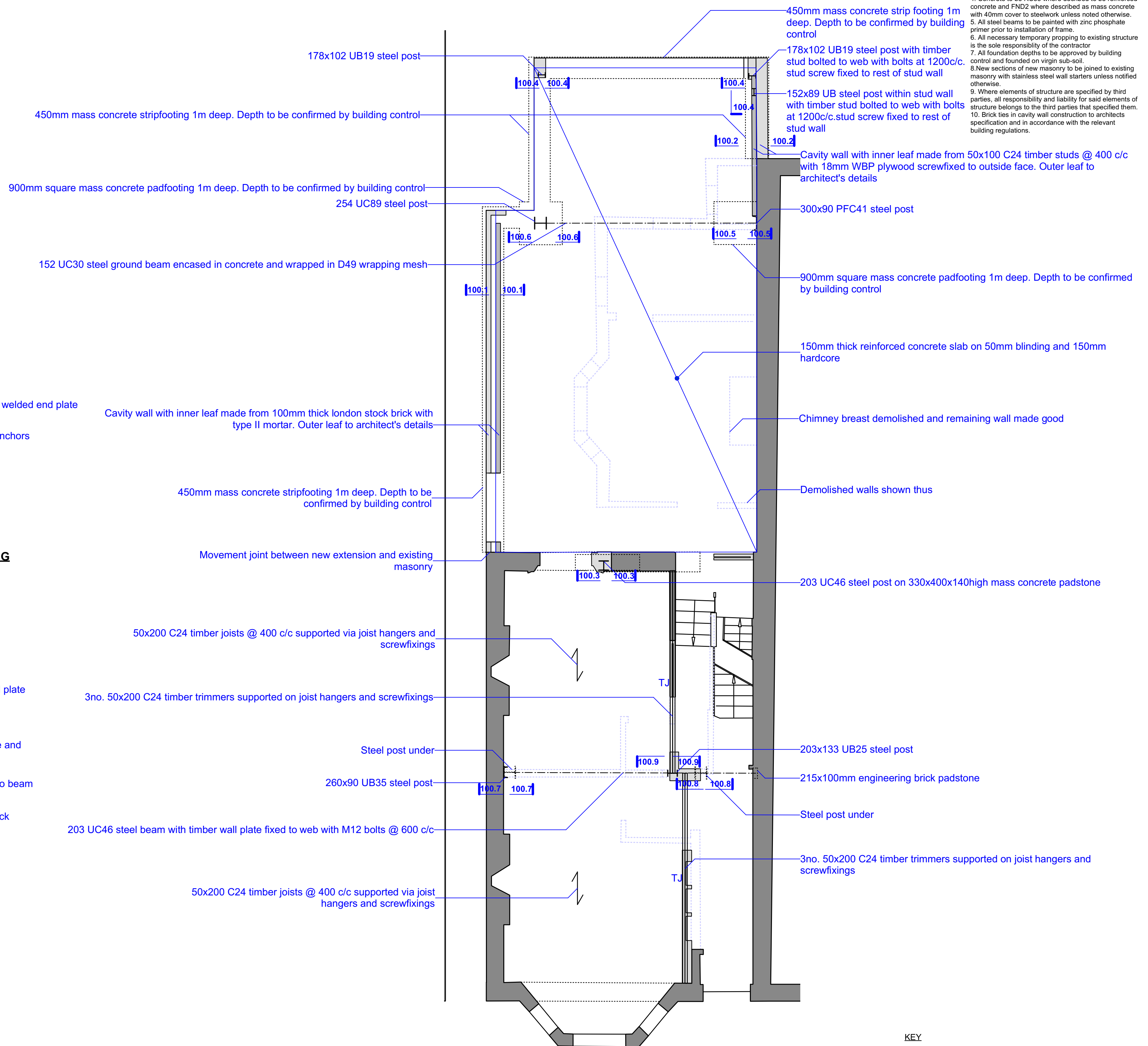
100.7 STEEL DETAIL: BEAM TO POST CONNECTION



100.8 STEEL DETAIL: BEAM TO POST CONNECTION



100.9 STEEL DETAIL: BEAM TO POST CONNECTION



100.10 STRUCTURAL UPPER GROUND FLOOR PLAN AS PROPOSED

KEY	
	existing building fabric
	new load bearing structure, refer to annotations
	demolition
	new non loadbearing partitions, refer to architect's drawings

AS BUILT

General Notes:
1. Do not scale from this drawing.
2. This drawing is to be read in conjunction with all relevant Engineers and Architects drawings and specifications.
3. Report any discrepancies between this drawing and on site to the engineer prior to commencement of works.
4. Concrete to be RC35 where described to be reinforced concrete and FND2 where described as mass concrete with 40mm cover to steelwork unless noted otherwise.
5. All steel beams to be painted with zinc phosphate primer prior to installation of frame.
6. All necessary temporary propping to existing structure is the sole responsibility of the contractor.
7. All foundation depths to be approved by building control and founded on virgin sub-soil.
8. New sections of new masonry to be joined to existing masonry with stainless steel wall starters unless notified otherwise.
9. Where elements of structure are specified by third parties, all responsibility and liability for said elements of structure belongs to the third parties that specified them.
10. Brick ties in cavity wall construction to architects specification and in accordance with the relevant building regulations.

Project	91 Savernake Road
Drawing No.	A075 100
Revision	B
Drawing Title	structural upper ground floor plan
Date	6/2/2019
Scale	1:50
Status	Stage D Project No. A075
CAD Ref.	A075 proposed Drawn NM
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studio@formlondon.co.uk	
T 020 7284 2613	

KEY
existing masonry
new load bearing structure, refer to annotations
demolition
new non loadbearing partitions, refer to architect's drawings

152x89 UB16 steel beam to support glazing and to be connected to the beam across.

178x102 UB19 steel beam

Steel post under

Steel post under

178x102 UB19 tie beam

Glazing by others

254 UC89 steel beam with timber wall plate fixed to web with M12 bolts @ 600 c/c

Steel post under

305 UC118 or 406x178 UB67 steel beam with timber wall plate fixed to web with M12 bolts @ 600 c/c

50x200 C24 timber joists @ 300 c/c supported on joist hangers and screwfixings. 18mm WBP plywood to be screwfixed to topside of joists

Glazing by others with positive fixings to glazed side wall and existing masonry walls

Last stud resin fixed to wall with M12 resin anchors @ 600 c/c with 175mm penetration into masonry

New masonry wall made from london stock brick and type II mortar. New wall to be toothed into existing masonry

100x100 C24 timber post

Provide 203x102 UB23 beam supported on steel beam/330x100x140deep mass concrete padstone.

Internal opening: 3no. R22a precast concrete lintel by SUPREME CONCRETE or equivalent approved. Lintel supported on steel post/beam via steel brackets and M12 bolts/resin anchors

External opening over: use Catnic lintel to suit thickness of wall

Lintel to have 150mm min bearing on supporting wall below

Timber wall plate fixed to wall with M12 resin anchors @ 600 c/c with 175mm penetration into masonry

Existing floor joists propped cut and resupported on new wall plates. 18mm WBP plywood to be screwfxed to topside of joists

Timber wall plate fixed to wall with M12 resin anchors @ 600 c/c with 175mm penetration into masonry

203 UC46 steel beam with timber wall plate fixed to web with M12 bolts @ 600 c/c

Steel post under

Timber wall plate fixed to wall with M12 resin anchors @ 600 c/c with 175mm penetration into masonry

Existing floor joists replaced with 50x200 C24 timber joists (minimum) @ 360 c/c on joist hangers and screwfixings. 18mm WBP plywood to be screwfixed to topside of joists

Timber wall plate fixed to wall with M12 resin anchors @ 600 c/c with 175mm penetration into masonry

steel to column connection as built by contractor shown in grey.

provide 6mm fillet weld between post and beam continuous along its length at this point

101.3 STEEL DETAIL: BEAM TO POST CONNECTION

Steel beam with 12mm thick welded end plate

4no. M16 bolts through steel plates

4no. M16 bolts through steel plate and beam flange

12mm thick steel plate welded to flange of steel post

Steel post with 10mm welded end plate

101.4 STEEL DETAIL: BEAM TO POST CONNECTION

101.5 STEEL DETAIL: BEAM TO POST CONNECTION

DETAILS TO BE SAME AS LEFT HAND SIDE UNLESS NOTED OTHERWISE

101.10 STEEL DETAIL: BEAM TO POST CONNECTION

Steel post with 10mm welded end plate

Steel beam with 10mm welded steel plate with 4no. M12 bolts through web of steel post

Existing wall extended to architect's details

Steel post under

Chimney breast demolished and remaining wall made good

Provide 178x102 UB16 beam supported on steel beam/215x100mm engineering brick padstone.

18mm WBP plywood to be screwfied to either side of stud walls with joints staggered

50x200 C24 timber joists @ 300 c/c supported on joist hangers and screwfixings. 18mm WBP plywood to be screwfixed to topside of joists

50x100 C24 timber post resin fixed to wall at head and at third down its interval

Note: this area of brickwork meets the crack repair critiria listed above. Additional strengthening could be provided by fixing EML mesh to inside face of brickwork before plastering. Check with client / architect if this is possible

50x200 C24 timber joists @ 300 c/c supported on joist hangers and screwfixings. 18mm WBP plywood to be screwfixed to topside of joists

Timber wall plate fixed to wall with M12 resin anchors @ 600 c/c with 175mm penetration into masonry

2no. 50x200 C24 timber trimmers supported on joist hangers and screwfixings

Steel post under

Additional 50x200 C24 timber joists to be placed between existing joists to give new joist spacing of 180 c/c. 18mm WBP plywood screwfixed to topside of joists with joints staggered

Last stud resin fixed to wall with M12 resin anchors @ 600 c/c with 175mm penetration into masonry

Timber wall plate fixed to wall with M12 resin anchors @ 600 c/c with 175mm penetration into masonry

Additional 50x200 C24 timber joists to be placed between existing joists to give new joist spacing of 180 c/c. 18mm WBP plywood screwfixed to topside of joists with joints staggered

Existing floor joists retained. 18mm WBP plywood to be screwfxed to topside of joists

Timber wall plate fixed to wall with M12 resin anchors @ 600 c/c with 175mm penetration into masonry

Note: top right corner of brickwork meets the crack repair critiria listed above. Join front facade to flank party wall

Crack repair:

Where there is are cracks in mortar/bricks or where there is blown mortar we recommend that any broken bricks be removed and replaced and the cracks raked out and repointed with lime mortar.

Assumed direction of existing roof joists

2no. 50x200 C24 timber trimmers supported on joist hangers and screwfixings

Timber post under

None load bearing stud partitions

2no. 50x100 C24 doubled up timber studs

2no. 50x175 C24 timber trimmers supported on joist hangers and screwfixings

New stud wall made from 50x100 C24 timber studs @ 400 c/c. Double up studs on either side of all openings.18mm WBP plywood to be screwfied to either side of stud walls with joints staggered

Steel post already installed

10mm thick plate welded between toes of channel

101.9 STEEL DETAIL: POST IN PLAN

Steel beam to post already installed

welded steel plate as described in the plan detail shown above.

101.9 STEEL DETAIL: BEAM TO POST CONNECTION

Steel post already installed

10mm thick plate welded between toes of channel

101.8 STEEL DETAIL: POST IN PLAN

Notched steel beam with 12mm thick welded end plate

Steel beam to post already installed

4no. M12 bolts through steel plate and beam web

welded steel plate as described in the plan detail shown above.

101.8 STEEL DETAIL: BEAM TO POST CONNECTION

Notched steel beam with 12mm thick welded end plate

4no. M12 bolts through steel plate and beam web

Steel beam

101.6 STEEL DETAIL: BEAM TO BEAM CONNECTION

Steel beam

4no. M24 bolts through steel plate and beam web

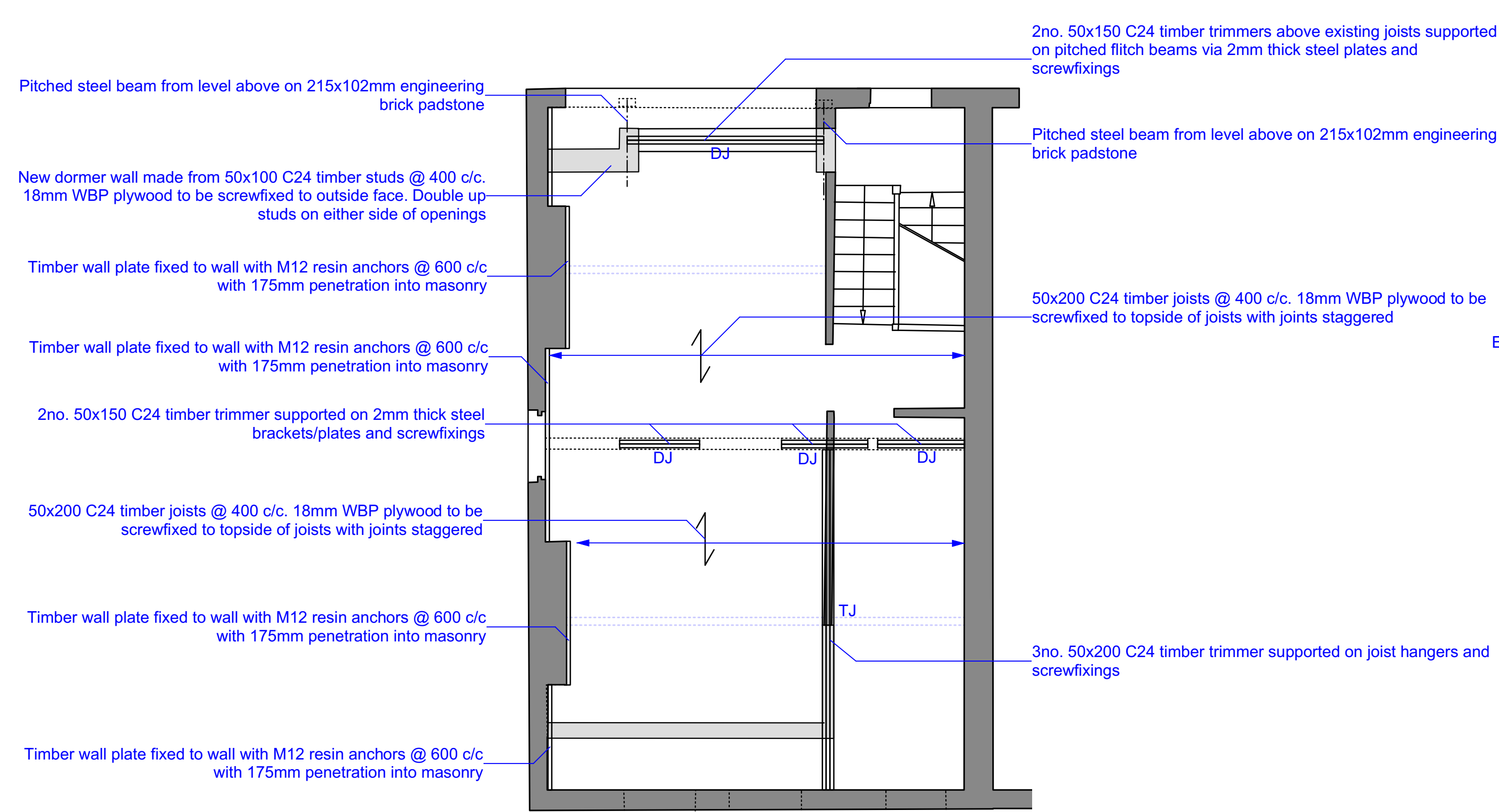
Notched steel beam with 12mm thick welded end plate

101.7 STEEL DETAIL: BEAM TO BEAM CONNECTION

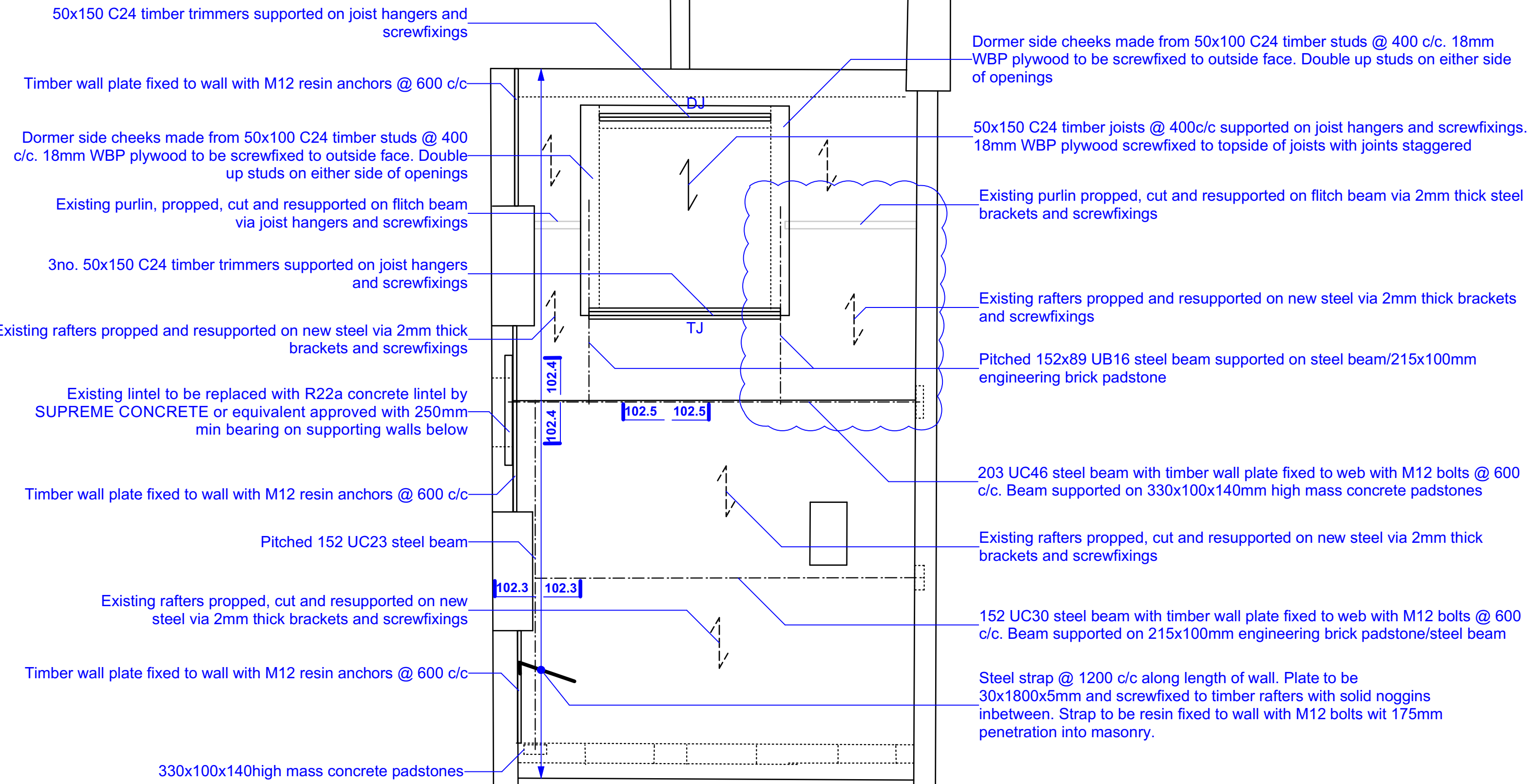
General Notes:
1. Do not scale from this drawing.
2. This drawing is to be read in conjunction with all relevant Engineers and Architects drawings and specifications.
3. Where elements of structure are specified by third parties, all responsibility and liability for said elements of structure belongs to the third parties that specified them.
4. All doubled up (DJ) / tripled up (TJ) beams to be fixed together with 10mm diameter threaded bars @ 600mm centres with square end plates and nuts.
5. All steel beams to be painted with zinc phosphate primer prior to installation of frame.
6. All necessary temporary propping to existing structure is the sole responsibility of the contractor.
7. Report any discrepancies between this drawing and on site to the engineer prior to commencement of works
8. Where WBP plywood is specified the plywood is to comply with EN636, Class 3
9. Where resin anchors are listed, resin should be HIT HY by HILTI or equivalent approved
10. Where a joist hanger is specified for a fitch beam, refer to the manufacturer's literature for number of fixings required

AS BUILT

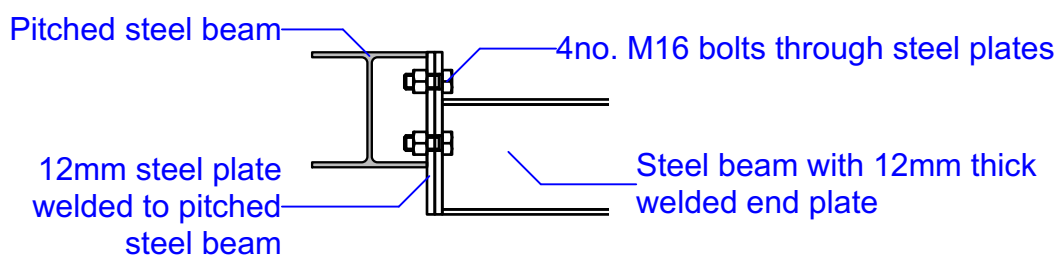
- General Notes:
1. Do not scale from this drawing.
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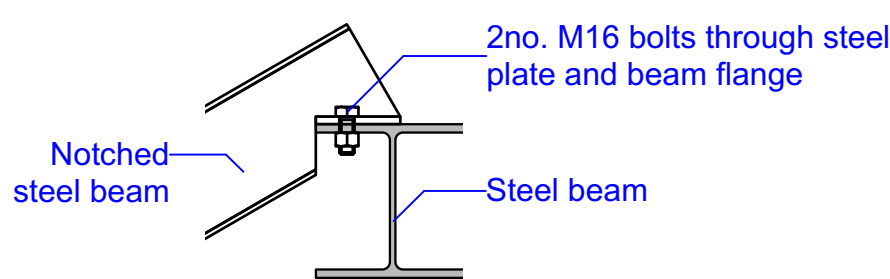
102.2 STRUCTURAL THIRD FLOOR PLAN AS PROPOSED



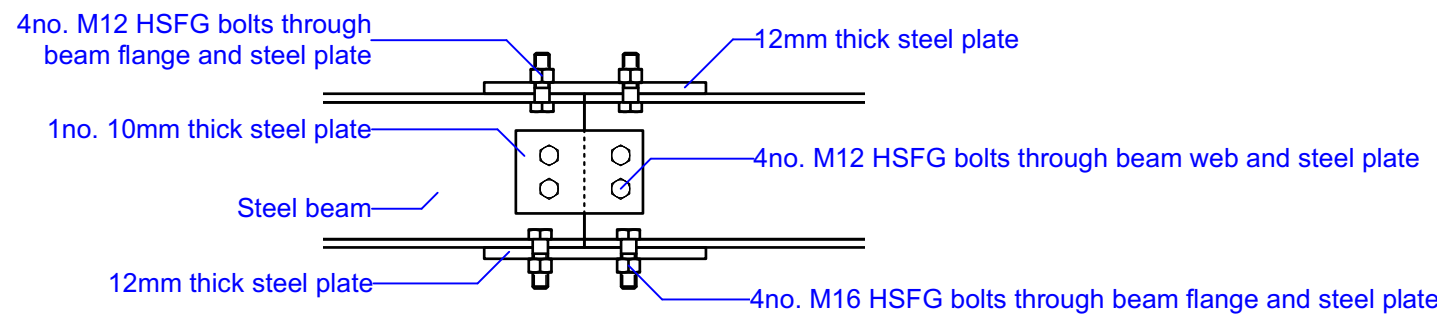
102.3 STRUCTURAL ROOF PLAN AS PROPOSED



102.3 STEEL DETAIL: BEAM TO BEAM CONNECTION



102.4 STEEL DETAIL: BEAM TO BEAM CONNECTION



102.5 STEEL DETAIL: BEAM TO BEAM CONNECTION

- KEY
- Existing building structure
 - new load bearing structure, refer to annotations
 - demolition
 - new non loadbearing partitions, refer to architect's drawings

Project	91 Savernake Road
Drawing No.	A075 102
Revision	A
Drawing Title	structural 3rd and roof plan
Date	6/2/2019
Scale	1:50
Status	Stage D
Project No.	A075
CAD Ref.	A075 proposed
Drawn	NM

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