IMPORTANT NOTE
THE SPECIFICATION IS TO BE READ IN CONJUNCTION WITH THE PLANS/SECTION DETAILS, AND OTHER ASSOCIATED STRUCTURAL DETAILS AS MAY BE PROVIDED.
ALL WORK IS TO BE CARRIED OUT TO THE LOCAL AUTHORITY PLANNING AND BUILDING REGULATIONS APPROVAL, AND THE CODES OF PRACTICE AND BRITISH STANDARDS AS NECESSARY.
ALL DIMENSIONS, LEVELS, SIZES, POSITIONS AND LOCATIONS OF PARTICULARS AS INDICATED ON DRAWINGS ARE TO BE VERIFIED BY THE APPOINTED CONTRACTOR ON SITE PRIOR TO ENGAGING IN WORKS. ANY DISCREPANCIES MUST BE REPORTED TO THE ARCHITECT/SURVEYOR/ENGINEER OR RESPONSIBLE PERSON/S IMMEDIATELY.
THE CONTRACTOR IS RESPONSIBLE FOR ENSURING COMPLIANCE WITH THE CDM REGULATIONS, AND APPROPRIATE HEALTH & SAFETY ON SITE PRECAUTIONS.

THE CLIENT/BUILDING OWNER MUST OBTAIN ANY NECESSARY PARTY WALL AGREEMENTS, PRIOR TO ENGAGING IN THE WORKS ON SITE.

TEMPORARY WORKS:
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 SHOULD CONFIRM DETAILS OF THE PERSON RESPONSIBLE FOR ALL TEMPORARY WORKS DESIGN (CALLED THE 'TEMPORARY WORKS DESIGNER / CO-ORDINATOR') WHEN RETURNING THE TENDER.

FULL DESIGN DETAILS (DRAWINGS AND CALCULATIONS) ARE REQUIRED FOR COMMENT BY THE ENGINEER FOR ALL TEMPORARY SUPPORT SYSTEMS. THREE COPIES OF ALL DETAILS FOR COMMENT ARE TO BE ISSUED ALLOWING TEN WORKING DAYS FOR PREPARATION OF COMMENTS BY THE ENGINEER.

CONTRACTOR DESIGN
THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND INSTALLATION OF THE FOLLOWING ELEMENTS:
- ALL TEMPORARY WORKS (SEE ABOVE)
- ALL STEEL CONNECTIONS UNO
- PILED FOUNDATION DESIGN
- ALL CLADDING DESIGN, INCLUDING DESIGN OF MASONRY FAÇADES, AND ALL FIXINGS AND FRAMEWORK REQUIRED TO CONNECT THE CLADDING BACK TO THE PRIMARY STRUCTURE
- MASONRY SUPPORT STEELWORK, BOTH VERTICALLY (E.G. SHELF ANGLES, LINTELS) AND LATERALLY (E.G. WINDPOSTS) AND THE FIXINGS BACK TO PRIMARY STRUCTURE
- ARCHITECTURAL METALWORK INCLUDING HANDRAILS, BALUSTRADES AND THEIR ASSOCIATED FIXINGS
- ALL STAIRCASE DESIGN INCLUDING ALL STRUCTURE REQUIRED TO SUPPORT STAIR OFF PRIMARY STRUCTURAL FRAME
- SECONDARY STEELWORK/GENERAL METALWORK, INCLUDING ALL FRAMING / SUPPORTS /CONNECTIONS/FIXING DESIGN INTO SUBSTRATES FOR ALL NON-STRUCTURAL SECONDARY ITEMS INCLUDING THE FOLLOWING:

-ACCESS LADDERS / WALKWAYS
-BUILDERS WORK / SUPPORTS TO SERVICES
-LIFT EQUIPMENT, GUIDERAILS, LIFTING HOOKS
-CLEANING CRADLES
-CEILINGS

- GLAZING DESIGN INCLUDING ALL ASSOCIATED FRAMEWORK/FIXINGS BACK TO PRIMARY STRUCTURE, INCLUDING FULL HEIGHT GLAZING, WINDOWS, ROOF LIGHTS AND BALUSTRADES
- NON-LOAD BEARING WALLS / PARTITIONS
- LOUVRE DESIGN AND FIXINGS BACK TO THE PRIMARY STRUCTURE

LOADING
IMPOSED LOADING:
STRUCTURAL FLOORS HAVE BEEN DESIGNED TO CARRY THE FOLLOWING UNIFORMLY DISTRIBUTED IMPOSED LOADS IN ACCORDANCE WITH BS EN 1991-1-1:

FLOOR LOADING	IMPOSED LOAD KN/m^2	PARTITION LOAD KN/m^2
INTERNAL FLOORS	1.5	1
ROOF	1	0

WIND LOADING:
THE GLOBAL WIND LOAD USED FOR THE DESIGN OF THE STABILITY SYSTEM HAS BEEN
CALCULATED USING BS EN 1991-1-4.

THE FUNDAMENTAL VALUE OF BASIC WIND VELOCITY (VB0) FOR THE SITE IS (24) ms^{-1}.

CLADDING AND ROOFING DESIGNERS ARE TO UTILISE BS EN 1991-1-4 TO DETERMINE PRESSURE COEFFICIENTS AND LOCALISED WIND PRESSURES FOR SHEETING/GLAZING FAÇADE/MASONRY SUPPORTS FIXING TO STRUCTURE.

SNOW LOADING:
GENERAL SNOW LOADING HAS BEEN INCLUDED IN ROOF DESIGN LOADINGS UNO ADDITIONAL ALLOWANCE SHOULD BE MADE FOR HEAPING IN ACCORDANCE WITH BS EN1991-1-3.

STEEL WORK NOTES
1. ALL STEELWORK TO BE GRADE S275 UNO TO BS EN 10025-2 AND IN ACCORDANCE WITH THE CURRENT EDITION OF THE NATIONAL STRUCTURAL STEELWORK SPECIFICATION CE MARKING VERSION AND STRUCTURAL ENGINEER'S SPECIFICATION AND BS EN 1993. ALL OPEN SECTIONS AND PLATES ARE TO BE TO BS EN 10025-1. ALL HOLLOW SECTIONS (RHS / SHS / CHS / OHS) ARE TO BE "CELSIUS 355" SECTIONS BY TATA OR EQUIVALENTLY GRADED TO BS EN 10210-1.
2. THE EXECUTION CLASS OF THE STEEL STRUCTURE IS EXC2 UNO.
3. SETTING OUT OF STEELWORK IS SHOWN TO THE CENTRE OF SYMMETRIC SECTIONS AND TO THE BACK FACE OF PFCS AND RSAS.
4. THE STEELWORK FABRICATOR SHALL PRODUCE AND SUBMIT TWO COPIES OF
5. DIMENSIONED FABRICATION DRAWINGS TO THE ENGINEER. THE ENGINEER REQUIRES TEN WORKING DAYS TO COMMENT. THE ENGINEER'S COMMENTS ON DRAWINGS WILL CENTRE ON COMPLIANCE WITH THE DESIGN INTENT AND EXCLUDE DIMENSIONAL CHECKS.
6. STABILITY ACHIEVED BY SWAY FRAME ACTION. ALLOW FOR ALL CONNECTIONS TO BE MOMENT CONNECTIONS UNO
7. ALL WELDS ARE TO BE 6MM FILLETS WELDS, FORMED BY CODED WELDERS. TEST CERTIFICATES TO BE PROVIDED FOR OPERATIVE.
8. ALL BOLTS TO BE 20MM DIAMETER 8.8 GRADE. MINIMUM OF 4 NO. BOLTS PER CONNECTION, UNLESS SHOWN OTHERWISE.
9. ALL BASE AND CAP PLATES PLATES ARE TO BE 15MM THICK WITH 6MM FILLET WELDS.
10. ALL STEELWORK BELOW GROUND TO BE CASED IN CONCRETE, 100MM MINIMUM SURROUND WITH D98 WRAPPING FABRIC.
11. FABRICATOR MAY USE ALTERNATIVE CONNECTION DETAILS SUBJECT TO ENGINEERS'S APPROVAL. THE FABRICATOR IS TO COMPLETE THE DESIGN, DRAWINGS AND CALCULATIONS OF ALL CONNECTIONS, USING DESIGN CONNECTION FORCES GIVEN BY THE ENGINEER. ALL STEELWORK CONNECTIONS TO EXISTING OR NEW, STEEL OR CONCRETE ARE TO BE CONTRACTOR DESIGNED.
12. CONCRETE MIXES TO BE: BEAM CASEMENT - C30 - (30 N/MM²)
13. ALL STEEL BEAMS AND COLUMNS ABOVE GROUND ARE TO BE FIRE PROTECTED USING `GYPROC GLASROC`S' BOARD TO ACHIEVE REQUIRED FIRE RATING OF 0.5 HOUR.
14. ALL STEELWORK TO BE BLAST CLEANED TO BS 7079 PART A1. PREPARATION GRADE SA 2.5 AND PAINTED WITH BLAST PRIMER. 25 MICRONS OF EPOXY ZINC PHOSPHATE WITH FURTHER POST FABRICATION PRIMER OF 50 MICRONS OF HIGH BUILD ZINC PHOSPHATE.
15. CONTRACTOR IS REQUIRED TO SUBMIT NEEDLING AND PROPPING PROPOSALS TO THE ENGINEER FOR COMMENTS, AND ALSO TO BUILDING CONTROL WITH METHOD STATEMENT
16. ALL DRY PACKING TO BE SEMI-DRY CEMENT/SAND MORTAR MIX (1:3 MIX) WELL RAMMED INTO POSITION.
17. PROVIDE STEEL FOLDING WEDGES BETWEEN BEAM AND WALL OVER AT THIRD POINTS ALONG SPAN OF BEAM. ALL VOIDS BETWEEN TO BE DRY PACKED. BEAM IS REQUIRED TO BE DEFLECTED BY APPROXIMATELY 10MM. THIS SHOULD BE MEASURED WITH SUITABLE MEASURING DEVICE, WHEN THIS WORK IS CARRIED OUT
18. BUILDER MUST SEEK FULL APPROVAL OF ALL WORKS FROM THE BUILDING CONTROL AND OBTAIN A COMPLIANCE CERTIFICATE AT THE END OF WORKS AND SUBMITTED TO THE CLIENT.
19. ALL EXTERNAL STEELWORK TO BE HOT DIP GALVANIZED.
20. ALL BOLTED CONNECTIONS ARE TO INCLUDE A MINIMUM OF 2NO M16 BOLTS PER MEMBER UNLESS SPECIFICALLY INDICATED OTHERWISE ALL BOLTS ARE TO BE GRADE 8.8 SHERADIZED TO BS 7371-8, CLASS 30. ALL BOLTS, NUTS AND WASHERS ARE TO BE TO IN LINE WITH THE REQUIREMENTS OF THE NSSS CE MARKING VERSION. WASHERS ARE TO BE PLACED BENEATH THE ROTATED ITEM.
21. ALL WELDS TO BE MINIMUM 6MM LEG LENGTH CONTINUOUS FILLET WELDS UNLESS SPECIFICALLY NOTED OTHERWISE. ALL FULL AND PARTIAL PENETRATION WELDS TO BE GROUND DOWN SMOOTH.
22. ALL SPLICES ARE TO BE DESIGNED FOR FULL STRENGTH AND SUCH THAT THE CONNECTION DOES NOT INCREASE THE OVERALL DEPTH OF THE SECTION UNLESS OTHERWISE NOTED ON THE DRAWINGS OR AGREED WITH THE ENGINEER.
23. FOR STEEL SHEET ROOFS THE CONTRACTOR IS TO DETAIL ALL TRIMMER PURLINS REQUIRED AT PENETRATIONS, HIPS AND VALLEYS.
24. FOR PAINT FINISHES REFER TO TABLE BELOW (SHERWIN-WILLIAMS PAINTS OR SIMILAR

STEEL ELEMENTS / EXPOSURE/ LOCATIONS	PAINT SYSTEM
WITHIN CAVITY	MACROPOXY® C400V3 ZINC PHOSPHATE PRIMER TO 175 MICRONS
INTERNAL	MACROPOXY® C400V3 ZINC PHOSPHATE PRIMER TO 75 MICRONS
EXTERNAL	HOT DIP GALVANISED TO 85 MICRONS
EXPOSED STEEL IN POOL AREA	MACROPOXY® C425 TO 250 MICRONS
WITH UNHEATED SPACES+INTERNAL PLANTROOMS	MACROPOXY® C400V3 ZINC PHOSPHATE PRIMER TO 125 MICRONS

MASONRY
ALL LOADBEARING BLOCKWORK IS TO HAVE A MINIMUM CHARACTERISTIC STRENGTH OF 7.0N/mm2.

ALL LOADBEARING BRICKWORK IS TO HAVE A MINIMUM CHARACTERISTIC STRENGTH OF 20N/mm2.

ALL INTERNAL PARTITIONS TO BE LIGHTWEIGHT BLOCKWORK. MAX DENSITY 10KN/m³

REFER TO THE ARCHITECT'S DRAWINGS AND SPECIFICATION FOR SETTING OUT OF MASONRY, MORTAR TYPES, COURSING AND BONDING REQUIREMENTS AND JOINTING DETAILS.

LINTELS, UNLESS NOTED OTHERWISE, TO INTERNAL WALLS AND INTERNAL SKINS TO BE:
UP TO 1500 SPAN: 100 DEEP PRESTRESSED LINTEL.
1501 TO 2500 SPAN: 140 DEEP PRESTRESSED LINTEL.
2501 TO 3500 SPAN: 215 DEEP PRESTRESSED LINTEL.

LINTELS TO BE TYPICALLY 100 WIDE WITH MULTIPLE LINTELS SUPPLIED TO SUIT WIDTH OF ALL LINTELS TO HAVE MINIMUM 150MM BEARING AT SUPPORTS, UNLESS NOTED OTHERWISE. LINTELS TO BE SUPPLIED BY SUPREME OR A SIMILAR APPROVED MANUFACTURER.

BRICKWORK BELOW AND WITHIN 150MM OF GROUND LEVEL TO BE LAID IN MORTAR USING SULPHATE-RESISTING CEMENT.

FOUNDATIONS
ALL EXISTING FOUNDATIONS AND UNDERGROUND OBSTRUCTIONS WITHIN THE FOUNDATION AREAS ARE TO BE REMOVED TO AVOID HARDSPOTS DEVELOPING UNDER THE NEW WORKS. LIVE SERVICES ARE TO BE IDENTIFIED, PROTECTED, REDIRECTED OR TERMINATED AS REQUIRED.

ALL FOUNDATION DRAWINGS TO BE READ IN CONJUNCTION WITH THE SITE INVESTIGATION IF APPLICABLE
1. THIS DRAWING TO BE READ IN CONJUNCTION WITH THE RELEVANT ENGINEERS, ARCHITECTS AND MECHANICAL SERVICE DRAWINGS.
2. ALL FOUNDATIONS TO BE C35 CONCRETE MINIMUM CEMENT CONTENT 300kg/m COMPRISING PORTLAND CEMENT AND GROUND GRANULATED BLAST FURNACE SLAG BETWEEN 70% AND 90% GRANULATED BLAST FURNACE SLAG BETWEEN 70% AND 90% MAX FREE WATER CEMENT RATIO 0.55 TO GIVE CLASS 2 SULPHATE PROTECTION TO BRE DIGEST 363.
3. FOUNDATION DEPTHS SHOWN ARE PROVISIONAL AND ARE SUBJECT TO SOILS INVESTIGATION, TREE SURVEY, DEPTH OF EXISTING, AGREEMENT WITH PARTY WALL SURVEYOR AND INSPECTION BY BUILDING CONTROL. HEAVE PROTECTION MAYBE REQUIRED REFER TO ENGINEER WHEN SOILS INFORMATION IS AVAILABLE
4. JOINTS IN FOOTINGS ARE NOT TO BE LOCATEDCLOSER THAN 1500mm FROM ANY RETURN/CORNERAND DOWELLED WITH 4No T20 - 1200LONG
5. ALL GROUND FLOOR TO BE SUSPENDED BEAM AND BLOCK OR TIMBER TO ARCHITECTS DETAILS OR GROUND BEARING SUBJECT TO NOTE.3. ABOVE.
6. BLOCKS BELOW DPC TO BE 7N MINIMUM 1500 KG/M DENSITY LAID IN 1 : 3 SR MORTAR
7. BLOCKS ABOVE DPC TO BE 7N 1350kg/m DENSITY LAID IN 1:1:6 MORTAR.
8. EXISTING WALLS BEAMS & FOUNDATIONS, IT IS THE RESPONSIBILITY OF THE CLIENT/BUILDER TO EXPOSE THE EXISTING WALLS BEAMS AND FOUNDATIONS AND REFER THE DETAILS TO THE STRUCTURAL ENGINEER SO THAT HE CAN VERIFY HIS DESIGN ASSUMPTIONS OR PROVIDE A RISK ASSESSMENT FOR THE CLIENT / BUILDER TO OBTAIN ANY NECESSARY AGREEMENTS IN ORDER TO PROGRESS THE WORKS.
9. THE SCALE SHOWN IS FOR DRAWING PURPOSES ONLY REFER TO ARHITECTS DRGS FOR SETTING OUT WHICH IS TO BE CONFIRMED BY SITE DIMENSIONS.
10. EXISTING BELOW GROUND SERVICES. IT IS THE RESPONSIBILITY OF THE CLIENT/BUILDER TO SURVEY EXISTING SERVICES AND OBTAIN ANY NECESSARY AGREEMENTS IN ORDER TO PROGRESS THE WORKS.
11. FOUNDATIONS WITHIN 30M OF TREES TO BE IN ACCORDANCE WITH NHBC GUIDELINES PART 4. IF ANY ADVERSE SOIL CONDITIONS OR ANY MAJOR TREE ROOTS IN EXCAVATION, THE BUILDING CONTROL OFFICER IS TO BE CONTACTED AND ADVICE OF A STRUCTURAL ENGINEER SHOULD BE SOUGHT. THE PRINCIPAL CONTRACTOR SHALL ARRANGE FOR ALL TREE SPECIES WITHIN THE ZONE OF INFLUENCE OF THE FOUNDATIONS TO BE IDENTIFIED BY A SPECIALIST AND SPECIES AND DISTANCES FROM THE FOUNDATIONS REPORTED TO STRUCTURAL ENGINEER IN WRITING FOR CONSIDERATION.

PILED FOUNDATIONS (IF APPLICABLE):
THE SELECTION OF PILE TYPE, DESIGN AND INSTALLATION WILL BE THE RESPONSIBILITY OF
THE PILING SUB-CONTRACTOR SUBJECT TO THE FOLLOWING:
• PILES ARE TO BE DESIGNED TO CARRY THE WORKING LOADS INDICATED IN THE PILING TABLE.
• PILES ARE TO BE CAST TO A LEVEL MINIMUM 300 ABOVE THE TRIMMED CUT-OFF LEVEL SHOWN ON THE PILING SCHEDULE.

SPREAD FOUNDATIONS:
PAD AND STRIP FOOTINGS ARE TO BE FOUNDED IN LONDON CLAY TBC WITH AN ASSUMED SAFE BEARING CAPACITY OF (100) KN/M² TBC.

TIMBER:
ALL TIMBER MEMBERS ARE TO BE GRADE C24 TO BS EN 338 UNLESS NOTED OTHERWISE. TIMBER TO BE PRESSURE-IMPREGNATED WITH PRESERVATIVE AND CUT ENDS BRUSH TREATED.

JOISTS MARKED DJ ARE TO BE DOUBLED JOISTS, TJ ARE TO BE TRIPLE JOISTS, BOLTED TOGETHER USING M12 GRADE 8.8 BOLTS AT 600MM CENTRES ALONG SPAN. JOISTS TO BE DOUBLED-UP UNDER ALL PARTITION WALLS PARALLEL WITH SPAN, OR WITH SOLID BLOCKING UNDER WHERE PERPENDICULAR.

ALL BOLTS INTO TIMBER ARE TO HAVE 50SQ X 3 THICK MS 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 MS STRAPS AT 1200 CRS WITH 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 1200 LONG 30 X 5 GALVANIZED MS STRAPS AT 1200 CRS WITH 150 BOB END. STRAPS PERPENDICULAR TO JOISTS TO BE NAILED TO TOPS OF THREE JOISTS + SOLID BLOCKING INFILL USING 5 NO. 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 NO. 50 LONG, 3.4Ø NAILS. REFER TO TYPICAL DETAILS.

COMPOSITE PLY LAYERS TO TIMBER FLOORS TO BE GLUED AND SCREWED IN ACCORDANCE WITH BS EN 315 USING MIN 50MM LONG GALVANISED SCREWS @ 400CRS. LAPS IN PLYWOOD TO BE STAGGERED ACROSS FLOOR AREA. WHERE JOISTS SUPPORTING PLY DECKING SIT WITHIN THE DEPTH OF STEEL BEAMS THE LEVEL OF THE TOP OF THE JOISTS SHOULD BE A MINIMUM OF 10MM ABOVE THE LEVEL OF THE TOP OF THE STEEL TO ALLOW FOR SHRINKAGE OF THE TIMBER.

BUILDERS NOTES
HOLES LESS THAN 300MM SQUARE ARE GENERALLY NOT SHOWN ON STRUCTURAL DRAWINGS. REFER TO SERVICES ENGINEER'S / SUB-CONTRACTOR'S DRAWINGS.

ALL HOLES INCLUDING THOSE NOT SHOWN ON STRUCTURAL DRAWINGS MUST BE AGREED WITH THE ENGINEER.
HOLES IN SLABS WHICH HAVE BEEN CAST:

ALL BUILDERSWORK PROPOSALS TO BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR CHECKING PRIOR TO WORKS COMMENCING ON SITE. GENERALLY REINFORCEMENT AND EMBEDDED STRUCTURAL STEELWORK WILL NOT BE PERMITTED TO BE CUT, AND HOLES GREATER THAN 300MM WIDE WILL GENERALLY NOT BE ALLOWED. CONTRACTOR TO ALLOW FOR SCANNING AND EXPOSING ALL AREAS IN THE VICINITY OF PROPOSED BUILDERS WORK TO IDENTIFY, LOCATE, AND AVOID CUTTING REINFORCEMENT. CONTRACTOR TO ASSUME ALL OPENINGS ARE TO BE CORED/SAW CUT.

NO BUILDER'S WORK OPENINGS ARE TO BE CUT WITHOUT FIRST OBTAINING AGREEMENT TO PROCEED FROM THE CA.

OPENINGS IN BEAMS AND LOAD BEARING WALLS WILL GENERALLY NOT BE ALLOWED, UNLESS APPROVED BY THE ENGINEER.

INFILLING OF OPENINGS AROUND SERVICES TO ARCHITECT'S OR SERVICES ENGINEER'S REQUIREMENTS. WHERE A LOAD BEARING INFILL IS REQUIRED THIS IS TO BE DESIGNED BY THE CONTRACTOR. DETAILS TO BE SUBMITTED TO THE CA FOR COMMENT.

CONCRETE PLINTHS ARE TO BE PROVIDED TO ACT AS BASES FOR MECHANICAL PLANT WHERE REQUIRED BY SERVICES ENGINEER. DIMENSIONS OF PLINTHS ARE TO SUIT THE MECHANICAL PLANT USED. DRAWINGS ARE TO BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR CHECKING OF PLANT WEIGHTS ON FLOORS.

NOTCHES/HOLES IN TIMBER
NOTCHES / HOLES IN TIMBER SHOULD BE AVOIDED IF POSSIBLE. THE CONTRACTOR IS TO SUBMIT PROPOSALS FOR ANY HOLES AND NOTCHES TO THE STRUCTURAL ENGINEER FOR CONFIRMATION PRIOR TO WORKS COMMENCING ON SITE, AND ALLOW FOR VISUAL INSPECTION BY THE ENGINEER OF ANY EXISTING JOISTS.

THE FOLLOWING PROVIDES GUIDANCE ON TYPICAL PREFERRED LOCATIONS OF PROPOSED HOLES/NOTCHES IN NEW JOISTS. THESE WILL BE SUBJECT TO REVIEW AND CONFIRMATION BY THE STRUCTURAL ENGINEER THAT THEY ARE APPLICABLE FOR EACH SPECIFIC LOCATION:
NOTCHES:
- MINIMUM 100MM SPACING:
- DEPTH (MAXIMUM): 0.125 X JOIST DEPTH.
- DISTANCE FROM SUPPORTS: BETWEEN 0.07 AND 0.25 X SPAN

HOLES (LOCATE AT CENTRE OF JOIST):
- DIAMETER (MAXIMUM): 0.25 X JOIST DEPTH.
- CENTRES (MINIMUM): 3 X DIAMETER OF LARGEST HOLE.

DISTANCE FROM SUPPORTS: BETWEEN 0.25 AND 0.4 OF SPAN.

CONCRETE IN SITU
CONCRETE TO BE IN ACCORDANCE WITH THE SPECIFICATION, BS 8500: PART 2 AND BS EN 206.

CONCRETE FINISHES TO BE AS FOLLOWS:
- ALL FORMED SURFACES TO BE ORDINARY TO BS EN 13670 AND IN ACCORDANCE WITH THE NATIONAL STRUCTURAL CONCRETE SPECIFICATION (NSCS) UNLESS NOTED OTHERWISE.
- ALL UNFORMED SURFACES TO BE BASIC TO BS EN 13670 AND IN ACCORDANCE WITH THE NSCS UNLESS NOTED OTHERWISE.

PRECAST CONCRETE:
ALL PC FLOORING, FACADE AND STAIR UNITS ARE TO BE DESIGNED BY THE SUB-CONTRACTOR IN ACCORDANCE WITH THE SPECIFICATION & BS EN 1992-1. THE SYSTEM USED SHALL BE DESIGNED TO CARRY THE LOADINGS AS STIPULATED IN THE ABOVE TABLES.

THE SUB-CONTRACTOR SHALL PRODUCE AND SUBMIT DIMENSIONED LAYOUT DRAWINGS AND CALCULATIONS TO THE ENGINEER FOR COMMENT AND BUILDING REGULATIONS SUBMISSION TEN WORKING DAYS BEFORE MANUFACTURE. THE SUB-CONTRACTOR IS TO INDICATE ANY AREAS OF IN-SITU CONCRETE REQUIRED TO COMPLETE THE FLOORS. THE STAIRCASE SUBCONTRACTOR SHALL ALSO INDICATE THE LINES OF SUPPORT OF THE STAIRCASE UNIT.

IMPORTANT NOTE
The specification is to be read in conjunction with the plans/section details, and other associated Structural details as may be provided.
All work is to be carried out to the Local Authority Planning and Building Regulations Approval, and the Codes of Practice and British Standards as necessary.
All dimensions, levels, sizes, positions and locations of particulars as indicated on drawings are to be verified by the appointed Contractor on site prior to engaging in works. Any discrepancies must be reported to the Architect/Surveyor/Engineer or responsible person/s immediately.
The Contractor is responsible for ensuring compliance with the CDM Regulations, and appropriate Health & Safety on site precautions.

The Client/Building Owner must obtain any necessary PARTY WALL AGREEMENTS, prior to engaging in the works on site.

STRUCTURAL DETAILS ONLY REFER TO ARCHITECTURAL DRAWING FOR BUILDING REGULATION DETAILS/SPECIFICATION

Rev.	Date	Comment

0 1m 2

SNB Associates Ltd,
Consulting Civil/Structural Engineers
Mobile: 07932 977 383
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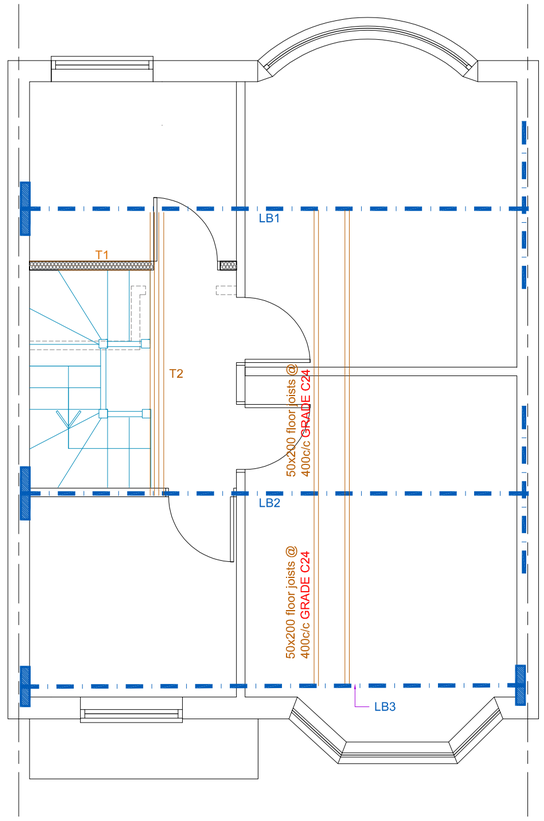
Client	Mr Tony Smith
Site Address	42 Jubilee Drive, Ruislip, Hillingdon, HA4 0PQ
Project Title	LOFT CONVERSION
Status	STRUCTURAL DESIGN BUILDING REGULATIONS
Drawn	SNB
Approved by:	Shailesh Bhudia MEng CEng MICE
Date	18.05.2023
Scale	1:50 @ A2
Drawing Title	GENERAL NOTES DRAWING

Job No	Drawing No	Rev
23052	JUBD42-STRBR - 1	



Proposed First Floor Plan

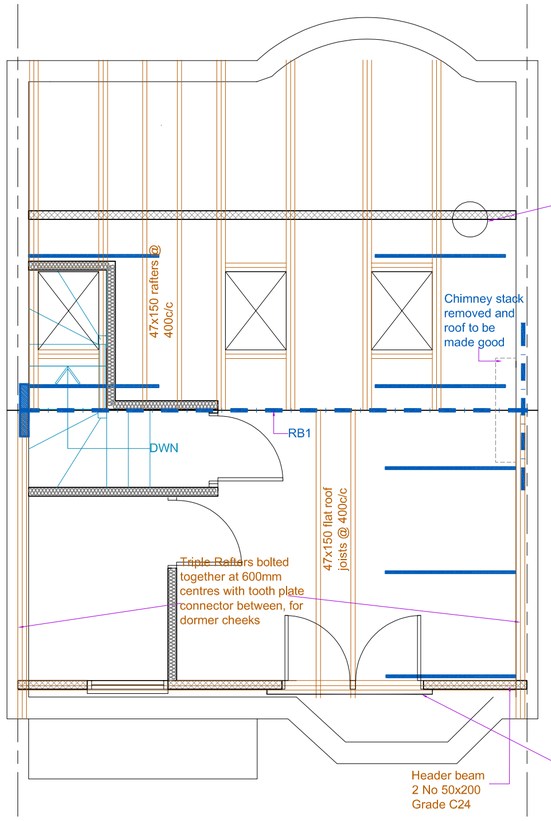
BEAM POSITION TO BE CLARIFIED ON-SITE TO AVOID ANY CONJUNCTION WITH THE CHIMNEY BREAST.

SUBJECT TO EXSITING SUPPORT OF THE CHIMNEY BREAST , WHERE LOFT BEAM IS LOADING INTO CHIMNEY ZONE, 203x102UB23 SPREADER BEAMS TO BE USED MIN 250MM BEARING EITHER SIDE OF CHIMNEY ZONE (BEDDED ON 2 COURSE ENG BRICKS IN 1:3 MORTAR). OR 600x100x25thk MS BEARING PLATE

FINAL STAIRCASE TRIMMERS TO BE AGREED ON SITE, STAIRCASE SUPPLIER TO DESIGN AND SUPPLY STAIRCASE, ENGINEER TO BE ADVISED ACCORDINGLY

All beams to have 12mm dia. holes through beam web @ 1000mm centres to allow M10 bolts to fix timber packing plates.

1500mm long MS Restraint straps at 1200mm centres to tie wall back to the rafters and floor joists. Straps to be taken across 3No joists/rafters and screw fixed.



Proposed Second Floor Plan

LOAD BEARING STUD PARTITION
50 x 100 @ 400 GRADE - C24 LINED ONE SIDE WITH 12mm WBP PLY NAILED THROUGH OUT WITH 50mm RING SHANK NAILS @150c/c DOUBLE STUDS AT CORNERS AND UNDER HIPS & VALLEY RAFTERS BOLTED M12 @ 500c/c

RJ = 50 x 150 @ 400 GRADE - C24 DOUBLE JOISTS EITHER SIDE OF ROOF LIGHTS HIPS, VALLEYS AND RIDGE PROVIDE 50 x 225 - C24

FRJ = 50 x 150 @ 400 TRIPPLE JOISTS UNDER ALL DORMER SKIN/CHEEK WALLS UNO. STRUTTING AT MID SPAN

ALL RAFTER TO BE BIRDS MOUTHED ONTO WALLPLATE. WALL PLATE TO BE FULLY STRAPED TO WALL. RAFTER TO BE BOLTED TO CEILING JOISTS AT EAVES LEVEL WITH M12 BOLTS WITH TOOTH PLATE CONNECTORS

GLASS BALUSTRADE TO BE DESIGNED BY SPECIALIST SUPPLIER IN ACCORDANCE WITH BS6180:1999

LOFT STRUCTURES SCHEDULE

Floor Joist: 50x200 @ 400 c/c **Grade C24**

Rafter Joists 50x150 @ 400 c/c **Grade C24**

Flat Roof Joists 50x150 @ 400 c/c **Grade C24**

T1: 2 No 50x200 **Grade C24**

T2: 3 No 50x200 **Grade C24**

Wall plate spreader **Flitch Beam** 2 No 50x200 Grade C24+15thk MS Plate bolted together at 450crs staggered M12 bolts

TYPICAL DOUBLE JOIST FOR ALL STUD WORK UNLESS NOTED OTHERWISE

R1: 152x152x37UC bearing on 400x100x25thk MS Bearing Plate and 203x102UB23 spreader beam over chimney zone

LB1: 203x203x46UC bearing on 600x100x25thk MS Bearing Plate and 203x102UB23 spreader beam over chimney

LB2: 203x203x46UC bearing on 600x100x25thk MS Bearing Plate and 203x102UB23 spreader beam over chimney

LB3: 203x203x46UC bearing on 450x100x25thk MS Bearing Plates

SUBJECT TO EXSITING SUPPORT OF THE CHIMNEY BREAST , WHERE LOFT BEAM IS LOADING INTO CHIMNEY ZONE, 203x102UB19 SPREADER BEAMS TO BE USED MIN 250MM BEARING EITHER SIDE OF CHIMNEY ZONE (BEDDED ON 2 COURSE ENG BRICKS IN 1:3 MORTAR)

CDM REGULATIONS

IN ACCORDANCE WITH THE CDM REGULATIONS 2007 THIS DRAWING HAS BEEN PREPARED WITH DUE ATTENTION TO IDENTIFYING ANY UNUSUAL DESIGN HAZARDS THAT A REASONABLY COMPETENT CONTRACTOR EXPERIENCED IN THIS TYPE OF WORK MAY NOT BE EXPECTED TO IDENTIFY.

IMPORTANT NOTE

The specification is to be read in conjunction with the plans/section details, and other associated Structural details as may be provided.
All work is to be carried out to the Local Authority Planning and Building Regulations Approval, and the Codes of Practice and British Standards as necessary.
All dimensions, levels, sizes, positions and locations of particulars as indicated on drawings are to be verified by the appointed Contractor on site prior to engaging in works. Any discrepancies must be reported to the Architect/Surveyor/Engineer or responsible person/s immediately.
The Contractor is responsible for ensuring compliance with the CDM Regulations, and appropriate Health & Safety on site precautions.

The Client/Building Owner must obtain any necessary PARTY WALL AGREEMENTS, prior to engaging in the works on site.

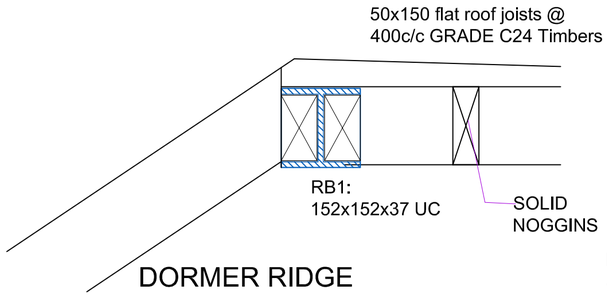
STRUCTURAL DETAILS ONLY REFER TO ARCHITECTURAL DRAWING FOR BUILDING REGULATION DETAILS/SPECIFICATION

Rev.	Date	Comment

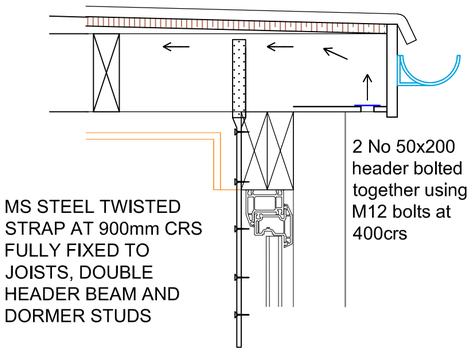
0 1m 2

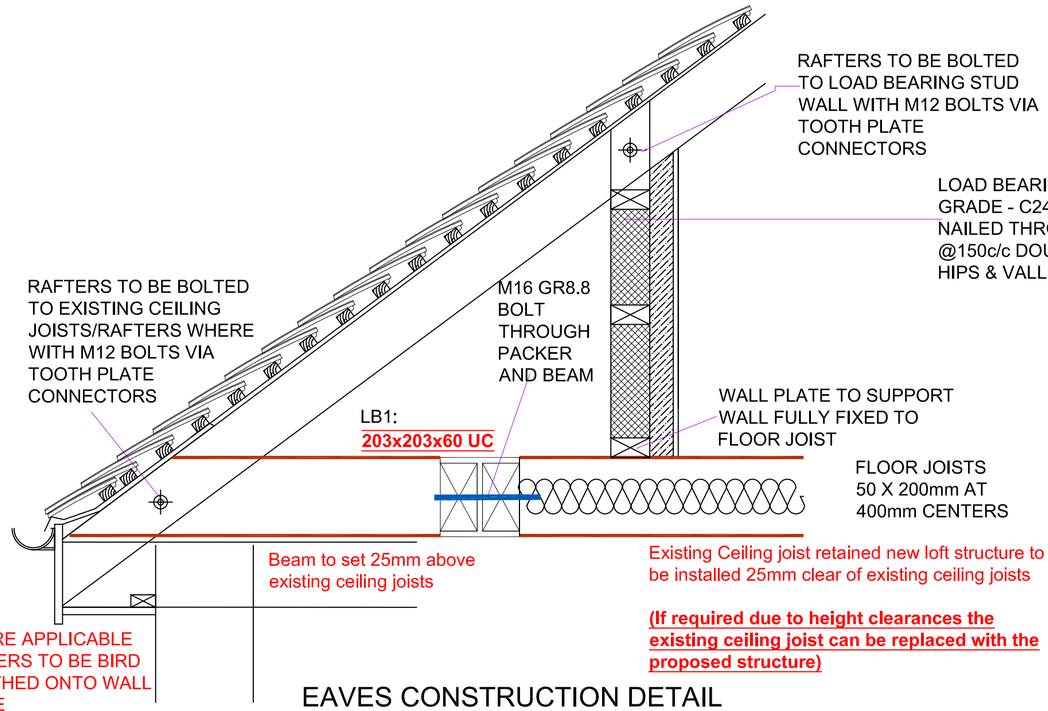
Client	Mr Tony Smith
Site Address	42 Jubilee Drive, Ruislip, Hillingdon, HA4 0PQ
Project Title	LOFT CONVERSION
Status	STRUCTURAL DESIGN BUILDING REGULATIONS
Drawn SNB	Shailesh Bhudia MEng CEng MICE
Date 18.05.2023	Scale 1:50 @ A2
Drawing Title	STRUCTURAL PLAN AND DETAILS

Job No	Drawing No	Rev
23052	JUBD42-STRBR - 2	

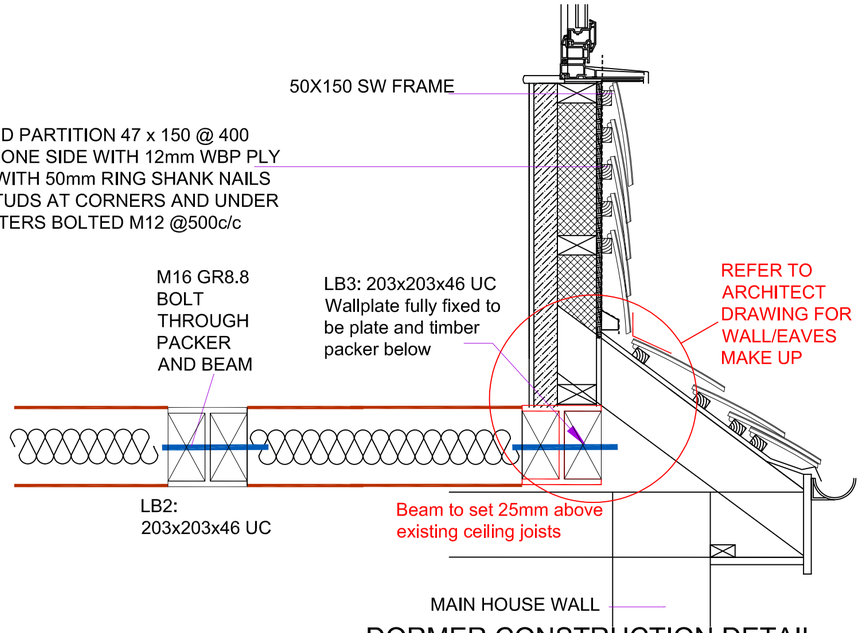


DORMER RIDGE CONSTRUCTION DETAIL





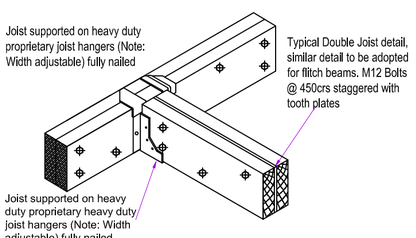
EAVES CONSTRUCTION DETAIL



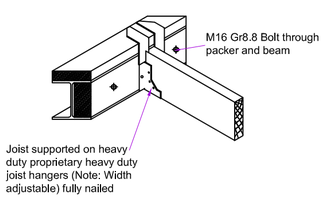
DORMER CONSTRUCTION DETAIL

CDM REGULATIONS

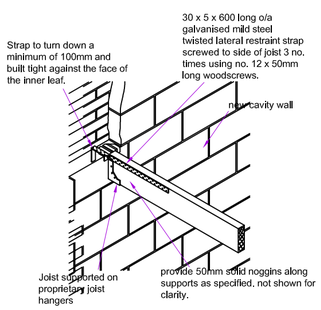
IN ACCORDANCE WITH THE CDM REGULATIONS 2007 THIS DRAWING HAS BEEN PREPARED WITH DUE ATTENTION TO IDENTIFYING ANY UNUSUAL DESIGN HAZARDS THAT A REASONABLY COMPETENT CONTRACTOR EXPERIENCED IN THIS TYPE OF WORK MAY NOT BE EXPECTED TO IDENTIFY.



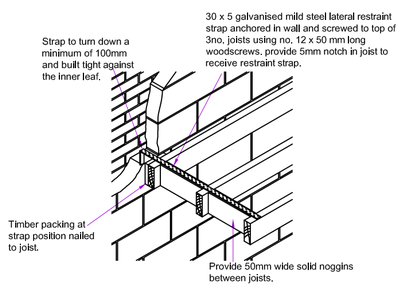
DOUBLE JOIST DETAIL



BEAM- JOIST CONNECTION DETAIL



LATERAL RESTRAINT TO NEW CAVITY WALL PERPENDICULAR TO JOISTS.



LATERAL RESTRAINT TO NEW CAVITY WALL PARALLEL TO JOISTS.

IMPORTANT NOTE

The specification is to be read in conjunction with the plans/section details, and other associated Structural details as may be provided.
All work is to be carried out to the Local Authority Planning and Building Regulations Approval, and the Codes of Practice and British Standards as necessary.
All dimensions, levels, sizes, positions and locations of particulars as indicated on drawings are to be verified by the appointed Contractor on site prior to engaging in works. Any discrepancies must be reported to the Architect/Surveyor/Engineer or responsible person/s immediately.
The Contractor is responsible for ensuring compliance with the CDM Regulations, and appropriate Health & Safety on site precautions.

The Client/Building Owner must obtain any necessary PARTY WALL AGREEMENTS, prior to engaging in the works on site.

STRUCTURAL DETAILS ONLY REFER TO ARCHITECTURAL DRAWING FOR BUILDING REGULATION DETAILS/SPECIFICATION

Rev.	Date	Comment

0 1m 2

Client	Mr Tony Smith
Site Address	42 Jubilee Drive, Ruislip, Hillingdon, HA4 0PQ
Project Title	LOFT CONVERSION
Status	STRUCTURAL DESIGN BUILDING REGULATIONS
Drawn	SNB Shailesh Bhudia MEng CEng MICE
Date	18.05.2023
Scale	1:50 @ A2
Drawing Title	STRUCTURAL DETAILS

Job No	Drawing No	Rev
23052	JUBD42-STRBR - 3	