

General Notes

- All drawings to be read in conjunction with all relevant specifications, architect's drawings and services engineer's drawings.
- For setting out refer to architect's drawings.
- All dimensions are in millimetres unless noted otherwise.
- Do not scale from the drawings or the computer digital data. Only figured dimensions to be used.
- For all waterproofing details - see architect's drawings.
- The contractor is to provide any temporary bracing necessary to maintain structural stability during construction.
- The works have been designed and shall be constructed in accordance with the following codes. This list is not exhaustive and is only intended to list the principal codes:
 - BS EN 1991-1-1:2002, BS EN 1991-1-7:2006: Code of practice for dead and imposed loads.
 - BS EN 1991-1-4:2005+A1:2010: Code of practice for wind loads.
 - BS EN 1991-1-3:2003: Code of practice for imposed roof loads.
 - BS EN 1997-1:2004 : Code of practice for foundations.
 - BS EN 1992-1-1:2004: Structural use of concrete.
 - BS EN 1993-1-1:2005, BS EN 1993-1-5:2006, BS EN 1993-1-10:2005, BS EN 1993-5:2007, BS EN 1993-6:2007, BS EN 1993-1-8:2005: Structural use of steelwork in buildings.
 - PD 6697:2010, BS EN 1996-3:2006, BS EN 1996-2:2006, BS EN 1996-1-1:2005+A1:2012: Structural use of un-reinforced masonry.
 - BS EN 1995-1-1:2004+A1:2008: Structural use of timber.
- The works have been designed for the finish state. The following superimposed loads have been used in the design:
 - Floor loads - See structural engineer's calculations.
 - Roof loads - See structural engineer's calculations.
- All works shall comply with the Building Regulations and other relevant statutory notices e.g. Health and Safety Bylaws, COSHH etc
- The client / appointed contractor must take their own assurances on:
 - Soil conditions on site and the gradient of land;
 - Suitability / existing methods of storm water drainage;
 - Trees (existing or removed) and their affect on foundations;
 - Position and condition of main sewer.
- Extensions/alterations to existing structures are subject to revision depending upon such being fully exposed. The client/thier contractor must take their own assurances that any structure designated for demolition/removal are not load bearing or that alternative methods of permanent support are put in place prior to removal. Existing walls, lintels and foundations that are intended to take additional loads, must first be fully exposed and checked for adequacy prior to the commencement of works.

Foundations

- The depth of the proposed foundations are subject to ground conditions and building control approval. These are to be minimum 1000mm deep subject to be founding in good ground of minimum 100kN/m² bearing stratum (based on London Clay).
- The excavations should be free from any mature tree roots. If there are

large trees in the vicinity then the foundations depth is to be in accordance with NHBC standards guidelines for building near trees.

- Where new foundations are to abut existing foundations, a soft joint of 75mm is to be formed using 'Claymaster' or similar approved unless noted otherwise on the drawings.
- Any foundations deeper than 1.5m should have suspended floors to avoid any heave. Where the foundations are cast within highly shrinkable soils, then anti-heave precautions such as compressible materials or void formers are to be applied to the foundations.

Notes for Timber

- These notes are to be read in conjunction with relevant architect's and services engineer's drawings and specification.
- All timber-work shall comply with BS EN 1995-1-1:2004+A1:2008.
- Roof area:
 - Roof joists shall be grade C24. Evidence of grading shall be provided before work commences;
 - Blocking and battens shall be grade C24 softwood;
 - The sizes shown on the drawings are finished sizes;
 - In joint zones wanes, shakes and knots are not permitted;
 - Timber to be carefully cut and planed to ensure tight fit and continuous bearing against metalwork;
 - All gaps between timber and metalwork to be resin-grouted, to the approval of the engineer.

- All connectors, bolts, nails etc. shall be organised to BS 7500.
- Adhesive shall be to BS1204: Part 1: 2007, Type WBP.
- All timber to be treated in accordance with the British Wood Preservative and Damp-proofing Association Community Specification C8 for 40 years desired service life.

Notes for Fire Resistance

- These notes are to be read in conjunction with relevant architect's services engineer's drawings and specifications.
- All horizontal doors to stairs enclosure and the kitchen to be filled with self-closing devices.
- Any glazing within the stair enclosure, including glazing to doors, to be fire-resisting.
- Mains powered interconnected smoke alarms to be provided to entrance lobby and all stairs landings.
- Class 1 flame spread to be provided to all new walls and ceilings.

Notes for Masonry

- These notes are to be read in conjunction with relevant architect's services engineer's drawings and specifications.
- All brickwork shall comply with PD 6697:2010, BS EN 1996-3:2006, BS EN 1996-2:2006, BS EN 1996-1-1:2005+A1:2012.
- All bricks shall have a minimum crushing strength of 20N/mm².

- Blockwork shall have a minimum crushing strength of 7N/mm².
- Mortar shall be a Class (ii) cement: lime putty: sand mix (1:1/2:4), unless indicated otherwise.
- All vertical joints shall be completely filled. Bricks shall be laid frog up. The voids in perforated bricks shall be filled.
- Fissured bricks or bricks with voids shall not be used.
- Horizontal chases are prohibited. Vertical chases and builderswork holes shall be agreed with the architect

Notes for Structural Steelwork

- These notes are to be read in conjunction with relevant architect's and services engineer's drawings and specifications.
- All steelwork shall comply with BS EN 1993-1-1:2005, BS EN 1993-1-5:2006, BS EN 1993-1-10:2005, BS EN 1993-5:2007, BS EN 1993-6:2007, BS EN 1993-1-8:2005.
- Unless noted otherwise stipulated structural steelwork shall conform to BS EN: Weldable structural steels.
- Unless noted otherwise all steel shall be grade S355. Steel grade shall conform with EC-3.
- Unless noted otherwise all butt welds shall be full penetration.
- Unless noted otherwise all fillet welds shall be full profile with a minimum leg length of 6mm.
- Unless noted otherwise all ordinary bolt assemblies shall be Grade 8.8.
- Unless noted otherwise all bolts shall be M16.
- Unless noted otherwise all holding down bolts shall be M16 Grade 8.8 anchored a minimum of 200mm depth into the supporting concrete with a 100 x 100 x 8 thick washer plate at the embedded head of the bolt.
- The clearance of base plates from supporting concrete shall be a minimum of 20mm and on completion of erection this shall be grouted solid under the full area of the base plate with 1:2 sand: cement grout.
- Corrosion protection:
 - Surface protection - blast clean to SA 2.5 quality BS EN ISO 8501-1.
 - Prefabricator primer - epoxy zinc phosphate hb: 50 microns (DFT).
 - Finishing coat - see arch's spec.
 - See arch's specification for details on colour and texture.
- Fire protection:
 - 30min - One layer of plasterboard and skim coat or intumescent paint to manufacturer's specification.
 - 60min - Two layers of plasterboard with joints staggered and skim coat or intumescent paint to manufacturer's specification.
- Weather protection: Any steelwork exposed to external weather is either to be galvanized or stainless steel UNO.
- All steel beams carrying load-bearing masonry walls wider than their flanges are to have 12mm thick top/bottom flange plates continuously welded along the length to suit the wall width UNO.

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Section
EXTENSION & LOFT CONVERSION
Stage
STRUCTURAL
Drawing Title
GENERAL NOTES
Drawing Status
FOR APPROVAL

ALL WORKS ARE TO BE CARRIED OUT IN A WORKMAN LIKE MANNER AND IN COMPLAINE WITH BUILDING REGULATIONS CONTROL REGULATIONS.

ALL STRUCTURAL WORKS IS TO START WHEN APPROVED BY BUILDING CONTROL REVIEW AND INSPECTIONS.

Revisions and Notes

Project No. 2024-08-IG10
Drawing No. BREG-0001
Revision 00
Scale at A3 1:100
Date 22-08-2024
Designed MM Checked MM
Drawn MM Approved MM



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Client Name

MR & MRS M DWIVEDI

Section

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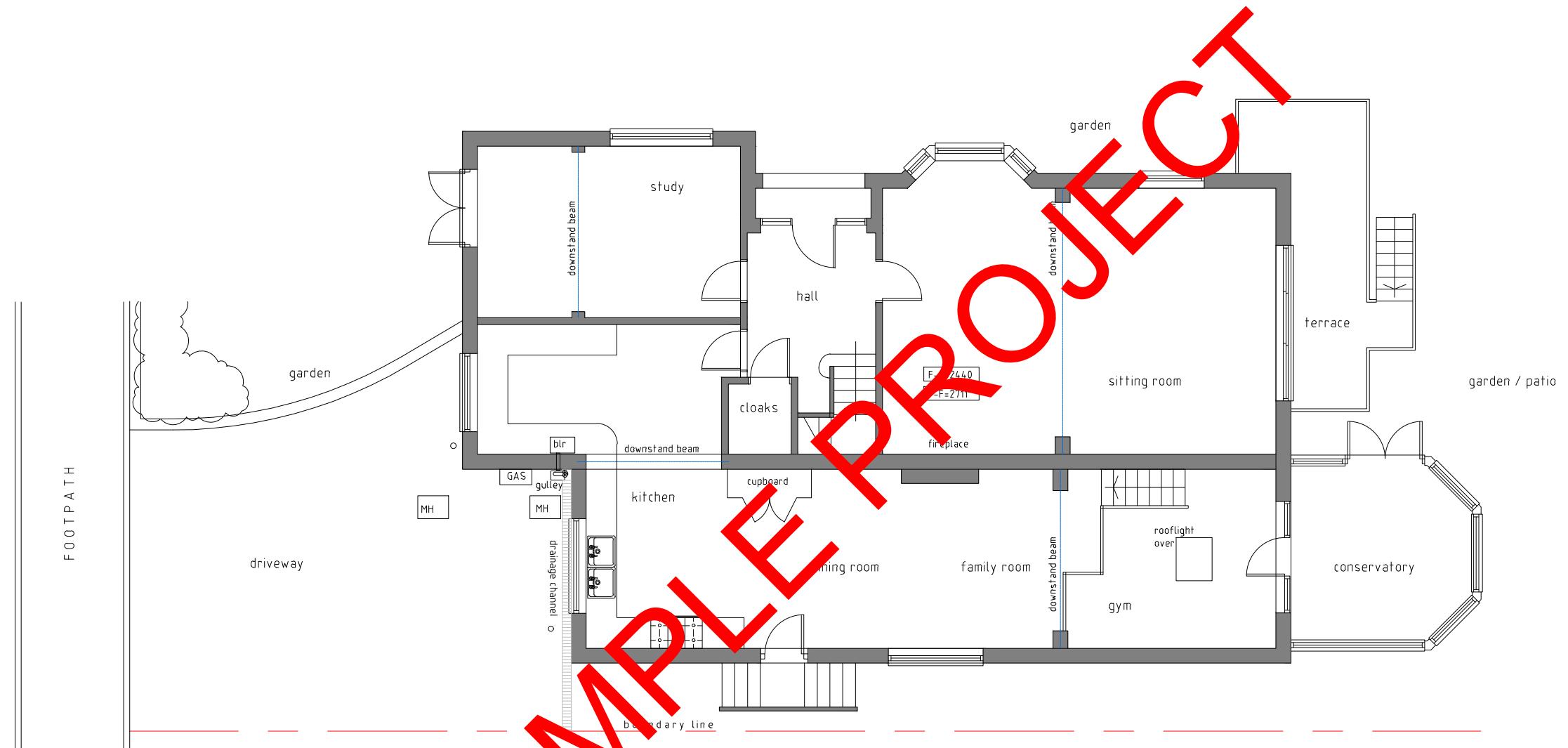
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EXISTING GROUND FLOOR PLAN

Scale 1:100

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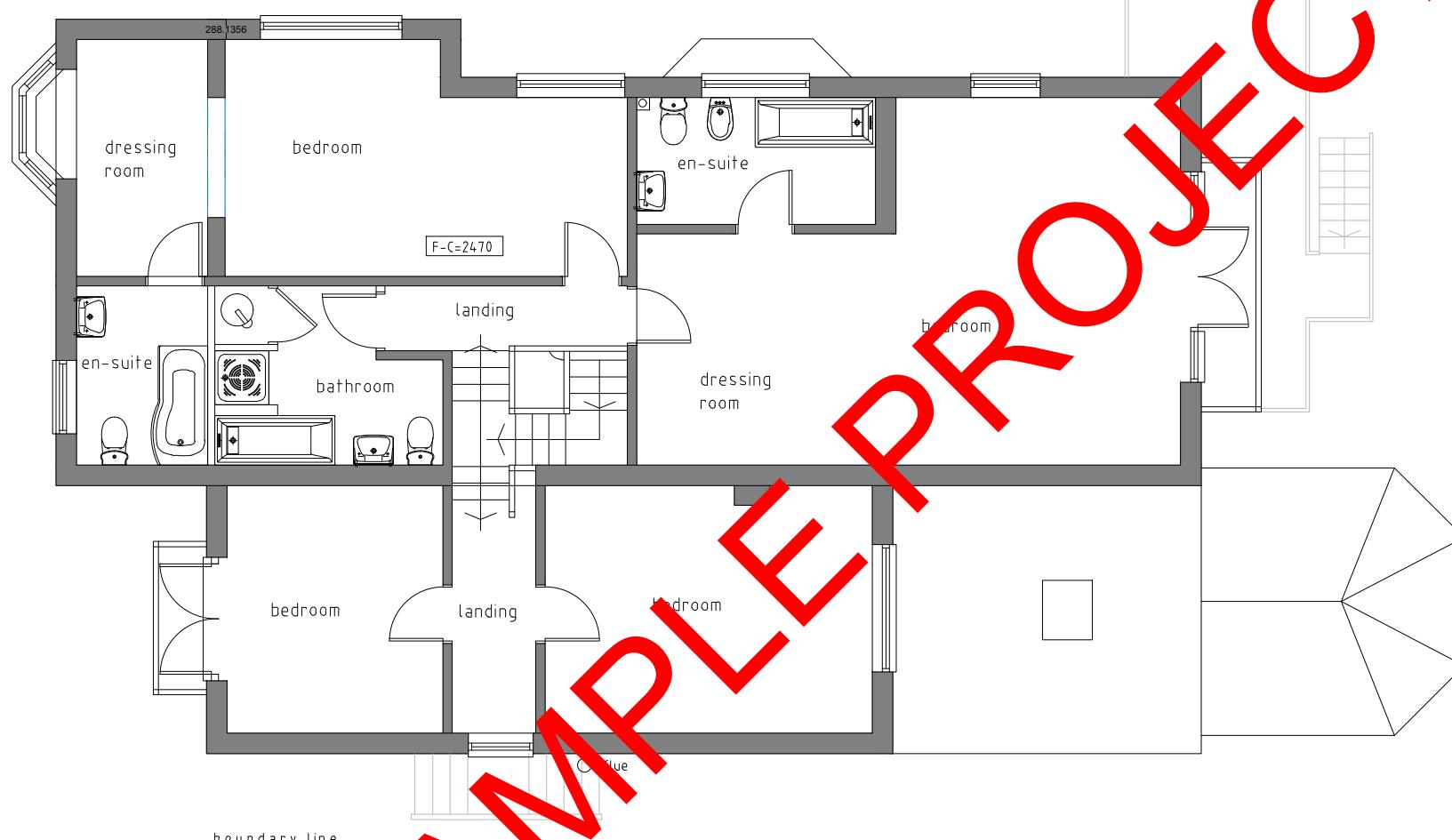
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EXISTING FIRST FLOOR PLAN
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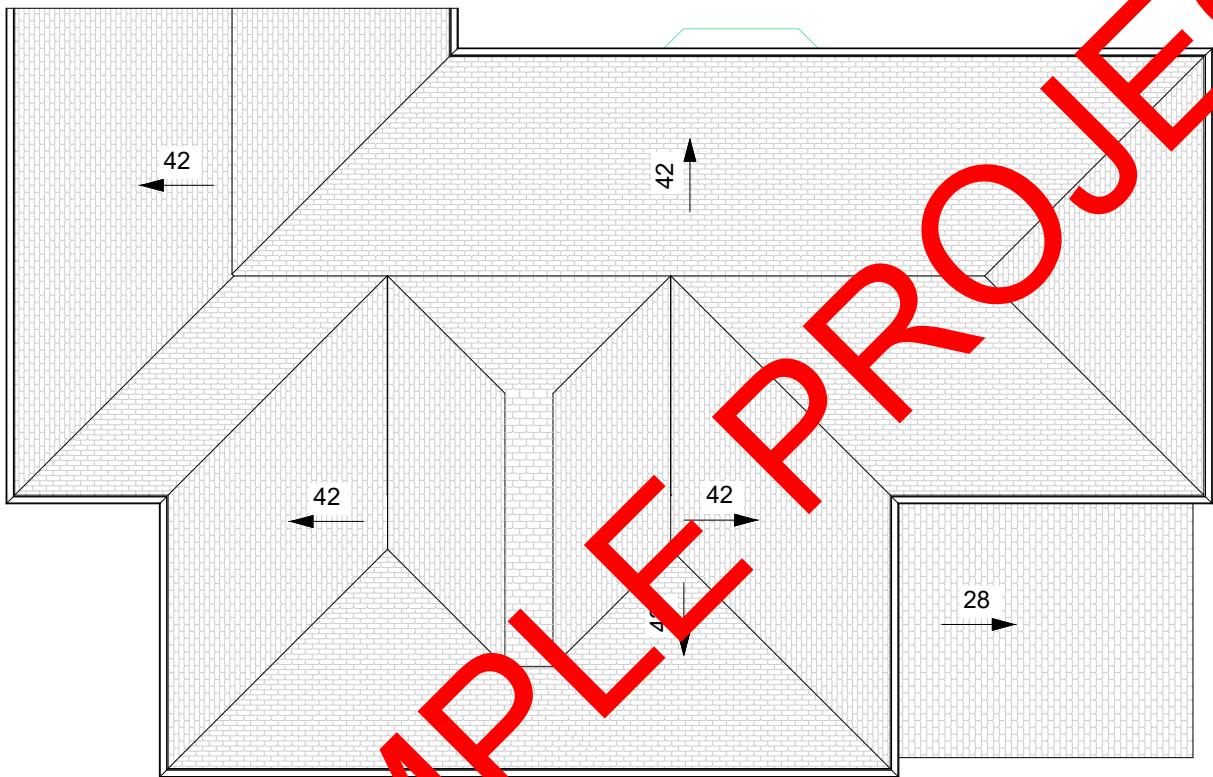
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EXISTING ROOF PLAN
Scale 1:100

SAMPLE PROJECT

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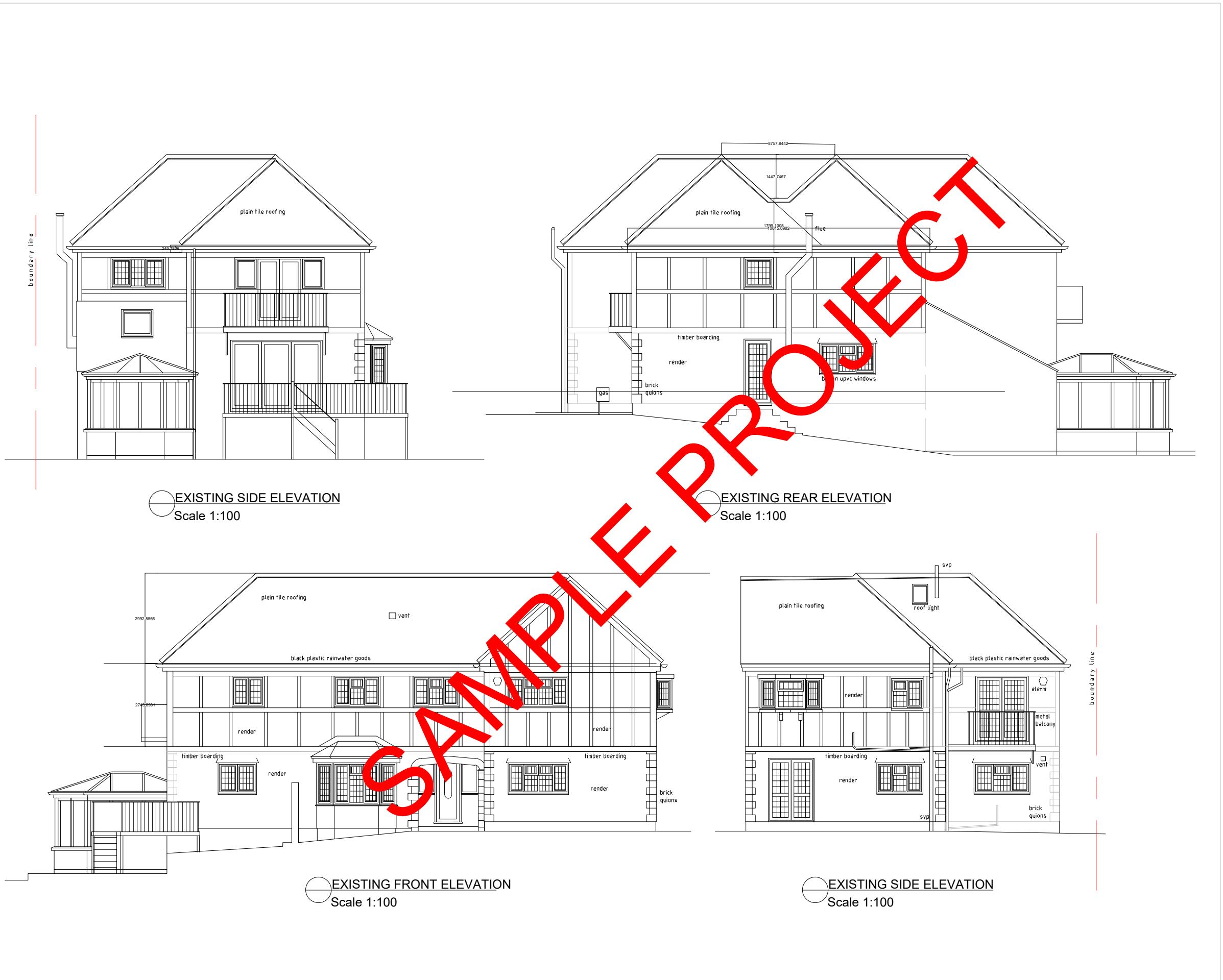
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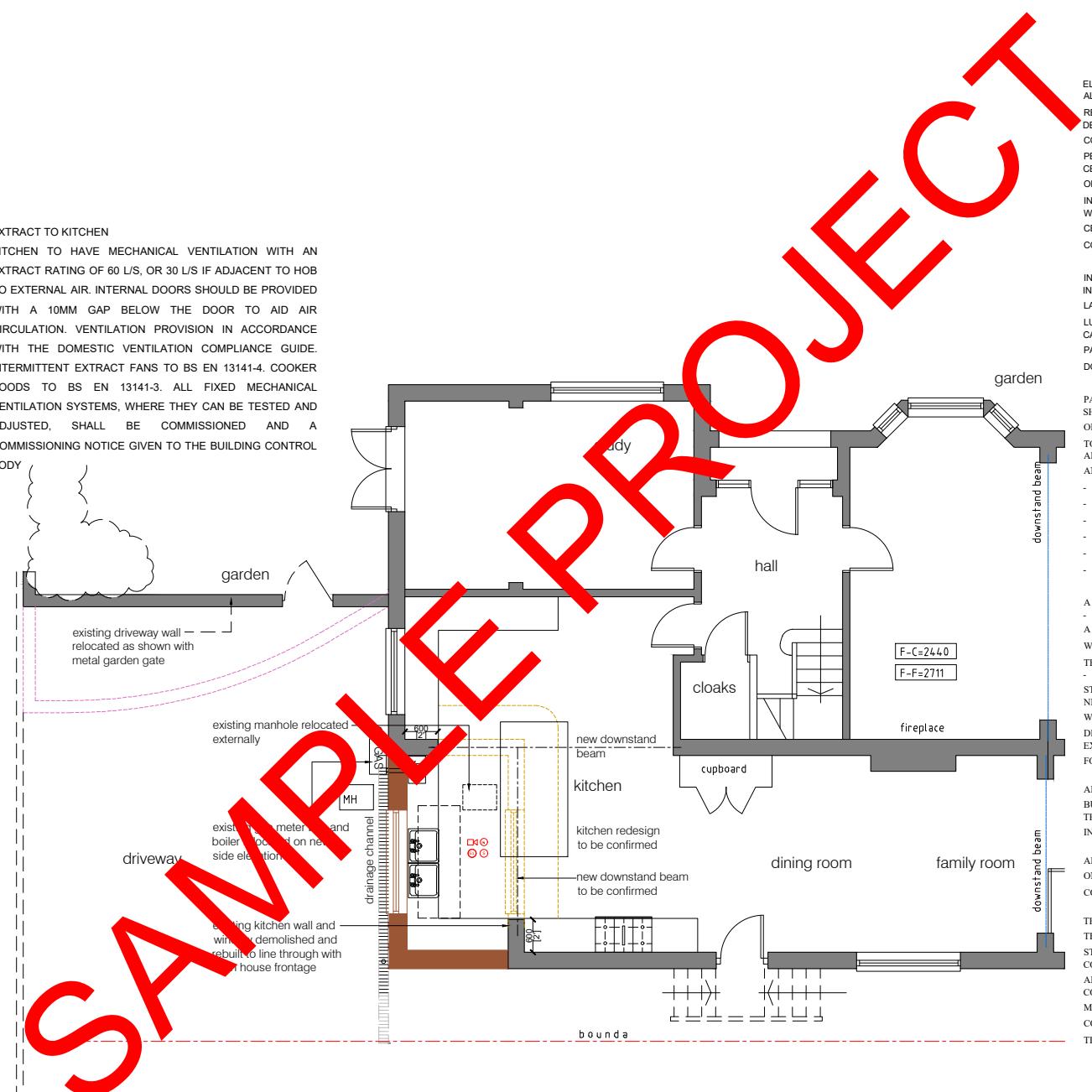
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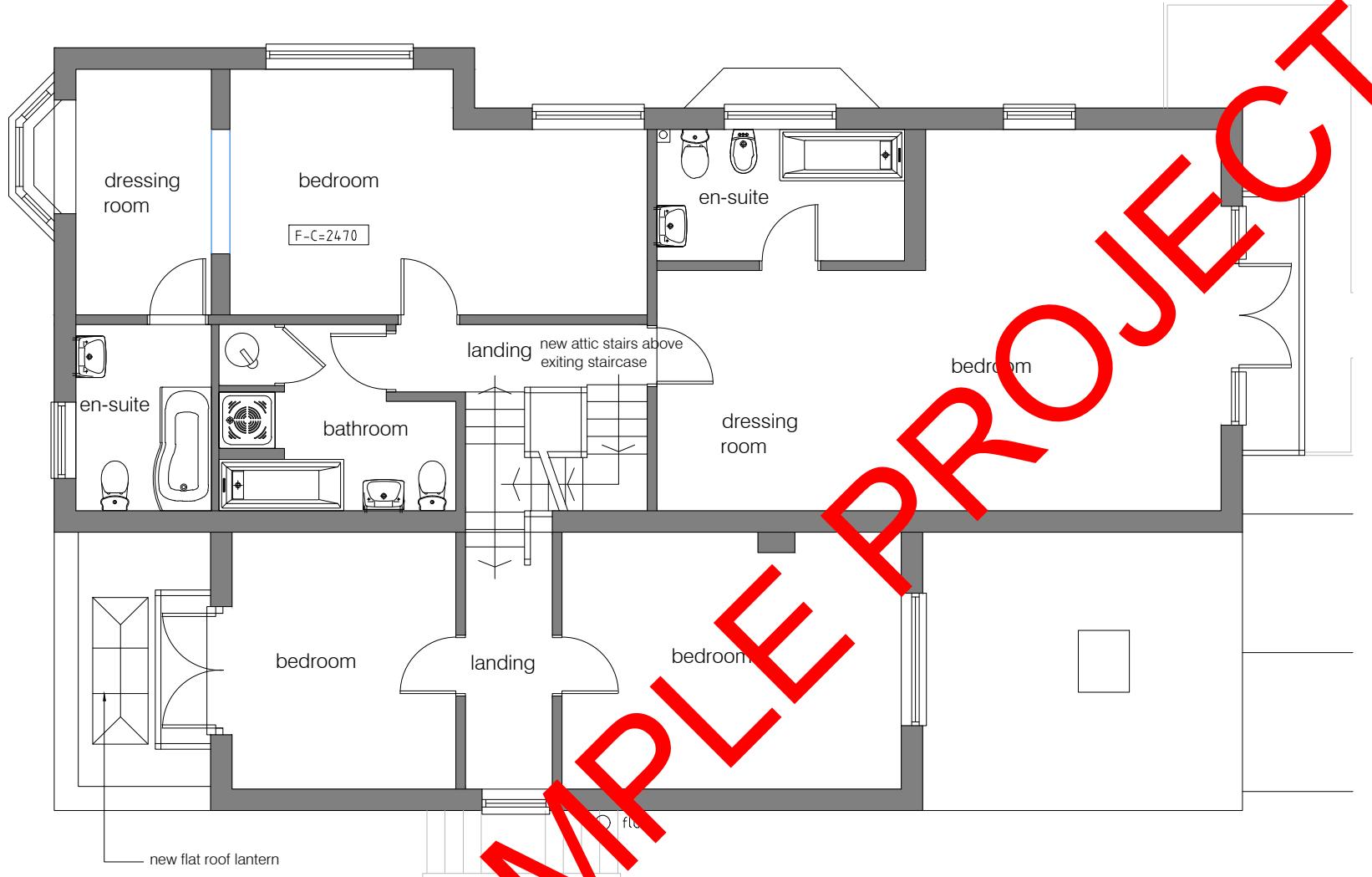
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<p>CAVITIES PROVIDE CAVITY TRAYS OVER OPENINGS AND WHERE ROOFS ABUT WALLS. ALL CAVITIES TO BE CLOSED AT EAVES AND AROUND OPENINGS USING THERMABATE OR SIMILAR NON COMBUSTIBLE INSULATED CAVITY CLOSERS. PROVIDE VERTICAL DPC'S AROUND OPENINGS AND ABUTMENTS. ALL CAVITY TRAYS MUST HAVE 150MM UPSTANDS AND SUITABLE CAVITY WEEP HOLES (MIN 2) AT MAX 900MM CENTRES.</p> <p>CAVITY BARRIERS 30 MINUTE FIRE RESISTANT CAVITY BARRIERS TO BE PROVIDED AROUND OPENINGS, AT TOPS OF WALLS, GABLE END WALLS, VERTICALLY AT JUNCTIONS WITH SEPARATING WALLS AND HORIZONTALLY AT SEPARATING FLOORS. CAVITY TRAYS TO BE PROVIDED OVER BARRIER WHERE REQUIRED. TRAYS AND CAVITY BARRIERS TO BE INSTALLED ACCORDING TO MANUFACTURER'S DETAILS.</p> <p>DETAILS OF ANY NEW BOILER AND PARTICULARLY THE VENTILATION AND FLUE PROVISION TO BE PROVIDED BY THE CONTRACTOR/CLIENT. ANY NEW GAS BOILER INSTALLATION WILL REQUIRE CERTIFICATION FROM A COMPETENT INSTALLER ON COMPLETION</p> <p>CONDENSING COMBINATION BOILERS SUCH AS VAILLANT ECOTEC PLUS 937 POWER STORE CONDENSING COMBI BOILER. ALL CONNECTIONS TO CH AND HW SYSTEM, POWER SUPPLY, DRAINS, VENTS, ETC TO BE INSTALLED AS PER MANUFACTURER'S INSTRUCTIONS.</p> <p>NEW RAINWATER PIPES TO BE CONNECTED TO THE EXISTING STORMWATER SYSTEM; WHERE THIS IS NOT POSSIBLE, NEW RAIN WATER SYSTEM TO BE CONNECTED TO A SOAKAWAY LOCATED 5 METRES FROM ANY BUILDING AND SIZED AT 1CUM PER 16.5SQM OF ROOF AREA DRAINED. ALL DETAILS TO BE AGREED WITH THE BUILDING CONTROL INSPECTOR PRIOR TO COMMENCEMENT.</p> <p>WHERE NEW DRAIN PIPES ARE PROVIDED, ACCESS TO BE PROVIDED AT THE FOLLOWING POINTS:</p> <ul style="list-style-type: none"> * AT OR NEAR HEAD OF DRAIN RUN * AT A BEND AND AT ANY CHANGE IN GRADIENT * AT A CHANGE IN PIPE SIZE * AT A JUNCTION (UNLESS EACH RUN CAN BE CLEARED FROM AN ACCESS POINT) <p>EXACT DETAILS TO BE CONFIRMED ON SITE.</p> <p>WHERE AND IF AN INTERNAL MANHOLE IS REMOVED, ENSURE THERE IS ADEQUATE RODDING ACCESS. ANY NEW PROPYLENE RODDING INSPECTION CHAMBER TO BE INSTALLED ACCORDING TO MANUFACTURER'S INSTRUCTIONS. NEW 150/100 BRANCH INSTALLED ON LINE WITH PROPRIETARY COUPLINGS AND EASY BEND CONNECTION FROM EXISTING SVP. EXACT DETAILS TO BE AGREED ON SITE.</p> <p>PROVIDE A DERGO VALVE AND RODDING EYE SUB-STACK CONNECTED TO THE EXISTING FW SYSTEM; EXACT LAYOUT OF ALL EQUIPMENT, DRAINAGE AND POWER REQUIREMENTS, ETC. TO BE FINALISED ON SITE.</p> <p>UNDERGROUND FOUL DRAINAGE</p> <p>UNDERGROUND DRAINAGE TO CONSIST OF 100MM DIAMETER UPVC PROPRIETARY PIPework TO GIVE A 1:40 FALL. SURROUND PIPES IN 100MM PEA SHINGLE. PROVIDE 600MM SUITABLE COVER (900MM UNDER DRIVES). SHALLOW PIPES TO BE COVERED WITH 100MM REINFORCED CONCRETE SLAB OVER COMPRESSIBLE MATERIAL. PROVIDE RODDING ACCESS AT ALL CHANGES OF DIRECTION AND JUNCTIONS. ALL BELOW GROUND DRAINAGE TO COMPLY WITH BS EN 1401-1.</p> <p>INSPECTION CHAMBERS</p> <p>UNDERGROUND QUALITY PROPRIETARY UPVC 450MM DIAMETER INSPECTION CHAMBERS TO BE PROVIDED AT ALL CONNECTIONS, CHANGES OF LEVEL, CHANGES IN DIRECTION, AND EVERY 45M IN STRAIGHT RUNS. INSPECTION CHAMBERS TO HAVE BOLT DOWN DOUBLE SEALED COVERS IN BUILDINGS AND BE ADEQUATE FOR VEHICLE LOADS IN DRIVEWAYS.</p> <p>ABOVE GROUND DRAINAGE</p> <p>ALL NEW ABOVE GROUND DRAINAGE AND PLUMBING TO COMPLY WITH BS EN 12056-2 FOR SANITARY PIPework. ALL DRAINAGE TO BE IN ACCORDANCE WITH PART H OF THE BUILDING REGULATIONS. WASTES TO HAVE 75MM DEEP ANTI-VAC BOTTLE TRAPS AND RODDING EYES TO BE PROVIDED AT CHANGES OF DIRECTION.</p> <p>SIZE OF WASTES PIPES AND MAX LENGTH OF BRANCH CONNECTIONS (IF MAX LENGTH IS EXCEEDED THEN ANTI-VAC TRAPS TO BE USED).</p> <p>WASH BASIN - 1.7M FOR 32MM PIPE 3M FOR 40MM PIPE.</p> <p>BATH/SHOWER - 3M FOR 40MM PIPE 4M FOR 50MM PIPE.</p> <p>WC - 6M FOR 100MM PIPE FOR SINGLE WC.</p> <p>ALL BRANCH PIPES TO CONNECT TO 110MM SOIL AND VENT PIPE TERMINATING MIN 900MM ABOVE ANY OPENINGS WITHIN 3M.</p> <p>OR TO 110MM UPVC SOIL PIPE WITH ACCESSIBLE INTERNAL AIR ADMITTANCE VALVE COMPLYING WITH BS EN 12380, PLACED AT A HEIGHT SO THAT THE OUTLET IS ABOVE THE TRAP OF THE HIGHEST FITTING.</p> <p>WASTE PIPES NOT TO CONNECT ON TO SVP WITHIN 200MM OF THE WC CONNECTION. SUPPLY HOT AND COLD WATER TO ALL FITTINGS AS APPROPRIATE.</p> <p>SOIL AND VENT PIPE</p> <p>SVP TO BE EXTENDED UP IN 110MM DIA UPVC AND TO TERMINATE MIN 900MM ABOVE ANY OPENINGS WITHIN 3M. PROVIDE A LONG RADIUS BEND AT FOOT OF SVP.</p> <p>AUTOMATIC AIR VALVE</p> <p>WC TO BE CONNECTED TO NEW 110MM UPVC SOIL PIPE WITH ACCESSIBLE INTERNAL AIR ADMITTANCE VALVE COMPLYING WITH BS EN 12380. AIR ADMITTANCE VALVE TO BE PLACED AT A HEIGHT SO THAT THE OUTLET IS ABOVE THE SPILL OVER LEVEL OF THE HIGHEST FITTING.</p>		<p style="text-align: right;">© 2023 PEPP's. All dimensions to be checked on site by the contractor and such dimensions to be their responsibility. All construction works must comply with the relevant British Standards and Building Regulations requirements. Any drawing errors and omissions to be reported to PEPP's</p>
 <p>PROPOSED GROUND FLOOR PLAN Scale 1:100</p>		<p>Section EXTENSION & LOFT CONVERSION</p> <p>Stage STRUCTURAL</p> <p>Drawing Title PROPOSED PLAN</p> <p>Drawing Status FOR APPROVAL</p> <p>Revisions and Notes</p> <p>ALL WORKS ARE TO BE CARRIED OUT IN A WORKMAN LIKE MANNER AND IN COMPLAINE WITH BUILDING REGULATIONS CONTROL REGULATIONS.</p> <p>ALL STRUCTURAL WORKS IS TO START WHEN APPROVED BY BUILDING CONTROL REVIEW AND INSPECTIONS.</p> <p>Project No. 2024-08-IG10 Drawing No. BREG-0006 Revision 00 Scale at A3 1:100 Date 22-08-2024 Designed MM Checked MM Drawn MM Approved MM</p> <p>PEPP PEARL ENGINEERS PLANNERS & PROJECT MANAGERS 02 TOWERFIELDS WESTERHAM ROAD BROMLEY, BR2 6HF Email: info@pearlepp.co.uk Web: www.pearlepp.co.uk Phone No.: 02035763199</p>

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PROPOSED FIRST FLOOR PLAN

Scale 1:100

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GENERAL NOTES:

FIRE DOORS

ALL DOORS TO HABITABLE ROOMS WITHIN STAIR ENCLOSURE TO BE FD30 DOORS FITTED WITH A PERKOMATIC SELF CLOSER. 25X38MM DOOR STOPS GLUED AND SCREWED TO FRAME. THIS IS NOT REQUIRED FOR A TWO STORY (GROUND+FIRST FLOOR) BUILDING BUT STRONGLY RECOMMENDED. DOORS TO BE FULL PANEL DOORS WITH NO GLAZING.
IF THE DWELLING HAS A PROTECTED ROUTE FOR MEANS OF ESCAPE OR IS A 3 STOREY HOUSE NEW DOORS ON TO THE HALLWAY ARE TO BE HALF HOUR FIRE DOORS.

SMOKE DETECTERS:

L3 FIRE ALARM SYSTEM TO BS 5839 TO BE INSTALLED (PROTECTION OF ESCAPE ROUTES). MAINS POWERED SMOKE DETECTORS(SD), WITH BACKUP BATTERY, TO BE FITTED IN HALLWAY AND UPPER LANDINGS, ALL LINKED TO EACH OTHER AND ON AN INDEPENDENT CIRCUIT WITH A SEPERATE FUSE.

ALL SMOKE DETECTORS(SD) & ALARMS (TO BS 5446-1) TO BE MAINS POWERED, WITH BACKUP BATTERY AND TO BE FITTED IN THE CIRCULATION SPACE IN HALLWAY AND ALL UPPER LANDINGS, ALL LINKED TO EACH OTHER AND ON AN INDEPENDENT CIRCUIT WITH A SEPARATE FUSE. EXACT POSITIONS TO BE CONFIRMED ON SITE

SMOKE DETECTION

PROVIDE A LINKED SMOKE ALARM DETECTION SYSTEM TO BS EN 14604 AND BS 5839-6:2019 TO AT LEAST A GRADE D CATEGORY LD3 STANDARD. SYSTEM TO BE MAINS POWERED WITH BATTERY BACK UP. AT LEAST ONE SMOKE DETECTOR TO BE PROVIDED IN EACH HALLWAY AND LANDING. IN HALLWAYS EXCEEDING 7.5M IN LENGTH, NO POINT WITHIN THE HALLWAY SHOULD EXCEED 7.5M FROM THE NEAREST DETECTOR AND NO BEDROOM DOOR SHOULD BE FURTHER THAN 3M FROM THE NEAREST SMOKE ALARM. IF CEILING MOUNTED THEY SHOULD BE 300MM FROM THE WALLS AND LIGHT FITTINGS. WHERE THE KITCHEN AREA IS NOT SEPARATED FROM THE STAIRWAY OR CIRCULATION SPACE BY A DOOR, THERE SHOULD BE AN INTERLINKED HEAT DETECTOR IN THE KITCHEN.

MAINS-WIRED, INTERLINKED HEAT DETECTOR TO BE PROVIDED TO THE KITCHEN AND SMOKE DETECTORS TO PRINCIPAL LIVING ROOMS, IF REQUIRED BY BUILDING CONTROL.

SOCKETS TO BE AT 450 HIGH FROM FINISHED FLOOR LEVEL. SWITCHES TO BE @ 1400 HIGH ABOVE FINISHED FLOOR LEVELS.

ALL BATHROOM LIGHTS TO BE SWITCHED; SWITCHES TO BE OUTSIDE THE BATHROOM.

ALL BATHROOMS TO HAVE EXTRACTOR FANS, EXACT POSITIONS TO BE AGREED.

ALL BATHROOM RECESSED LIGHTS TO BE STEAM-PROOF.

DETAILS ON CABLING FOR COMPUTERS AND NETWORKING, TELEPHONE, SECURITY SYSTEM, MUSIC SYSTEM, DOOR ENTRY AND CONTROL SYSTEM, ETC. TO BE AGREED SEPARATELY.

ALL ELECTRICAL WIRING & INSTALLATIONS TO CONFORM TO BS7671 "REQUIREMENTS FOR ELECTRICAL INSTALLATIONS" AND ANY OTHER REGULATIONS APPLICABLE TO SIMILAR RESIDENTIAL HOUSES.

LEGEND	
(H)	HEAT DETECTOR
(S)	SMOKE DETECTOR
(FAS)	FIRE ALARM ELECTRONIC SOUNDER
(CS)	CEILING SPEAKER
(FD)	FIRE DOOR
(FE)	FIRE EXTINGUISHER LOCATION

ESCAPE WINDOWS

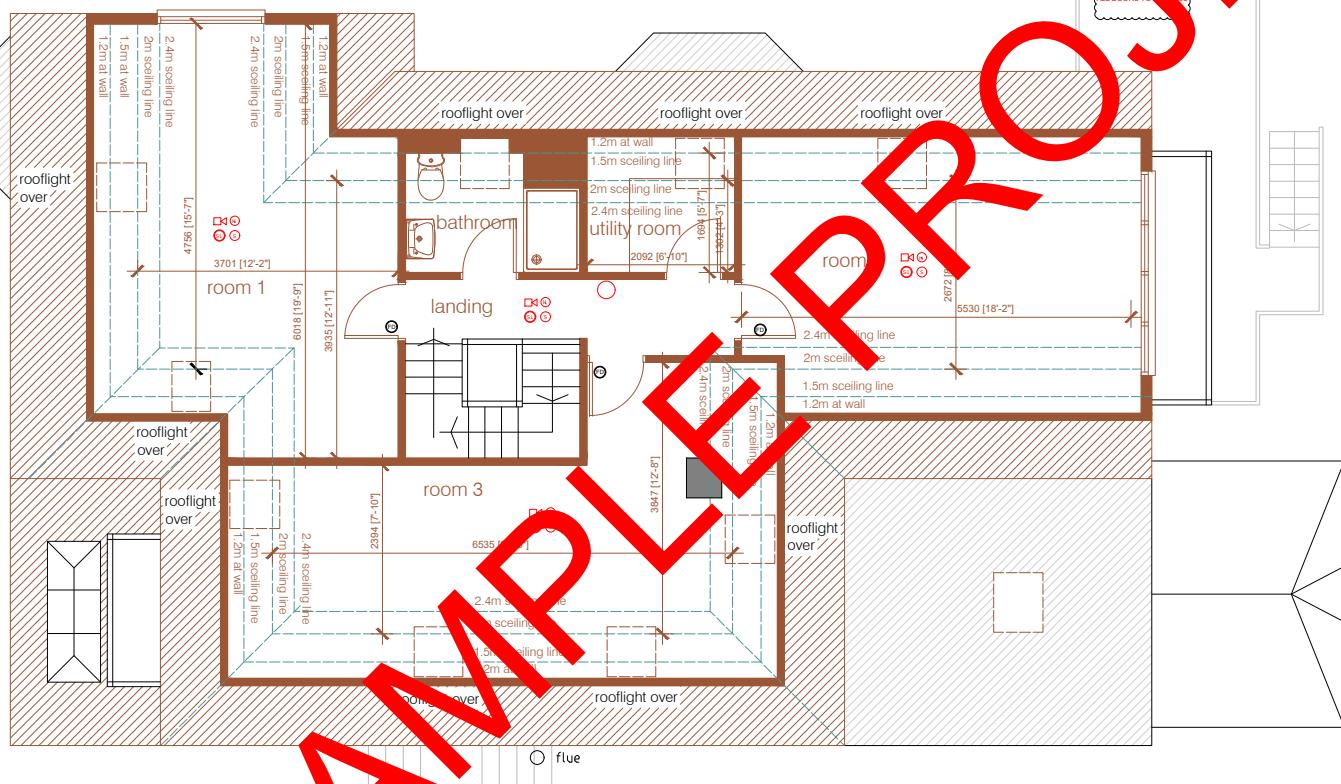
PROVIDE EMERGENCY EGGS WINDOWS TO ANY NEWLY CREATED FIRST FLOOR HABITABLE ROOMS AND GROUND FLOOR INNER ROOMS.
THE WINDOW SHOULD HAVE AN UNOBSTRUCTED CLEAR OPENABLE AREA THAT IS AT LEAST 0.33M² AND HAVE NO CLEAR DIMENSION LESS THAN 450MM HIGH OR 450MM WIDE.
THE BOTTOM OF THE OPENABLE AREA SHOULD BE NOT MORE THAN 1100MM ABOVE THE FLOOR.
THE WINDOW SHOULD ENABLE THE PERSON TO REACH A PLACE FREE FROM DANGER FROM FIRE.

EXTRACT TO BATHROOM

BATHROOM TO HAVE MECHANICAL VENT DUCTED TO EXTERNAL AIR TO PROVIDE MIN 15 L/S EXTRACTION. VENT TO BE CONNECTED TO LIGHT SWITCH AND TO HAVE 15 MINUTE OVER RUN IF NO WINDOW IN ROOM. INTERNAL DOORS SHOULD BE PROVIDED WITH A 10MM GAP BELOW THE DOOR TO AID AIR CIRCULATION. VENTILATION PROVISION IN ACCORDANCE WITH THE DOMESTIC VENTILATION COMPLIANCE GUIDE. INTERMITTENT EXTRACT FANS TO BS EN 13141-4. ALL FIXED MECHANICAL VENTILATION SYSTEMS, WHERE THEY CAN BE TESTED AND ADJUSTED, SHALL BE COMMISSIONED AND A COMMISSIONING NOTICE GIVEN TO THE BUILDING CONTROL BODY.

SAFETY GLAZING

ALL GLAZING IN CRITICAL LOCATIONS TO BE TOUGHENED OR LAMINATED SAFETY GLASS TO BS 6206, BS EN 14179 OR BS EN ISO 12543-1:2011 AND PART K (PART N IN WALES) OF THE CURRENT BUILDING REGULATIONS. I.E. WITHIN 1500MM ABOVE FLOOR LEVEL IN DOORS AND SIDE PANELS WITHIN 300MM OF DOOR OPENING AND WITHIN 800MM ABOVE FLOOR LEVEL IN WINDOWS.



PROPOSED LOFT FLOOR PLAN
Scale 1:100

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Revisions and Notes

Project No. 2024-08-IG10

Drawing No. BREG-0008

Revision 00

Scale at A3 1:100

Date 22-08-2024

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<p>RAINWATER DRAINAGE</p> <p>NEW RAINWATER GOODS TO BE NEW 110MM UPVC HALF ROUND GUTTERS TAKEN AND CONNECTED INTO 68MM DIA UPVC DOWNPIPES. RAINWATER TAKEN TO NEW SOAKAWAY, SITUATED A MIN DISTANCE OF 5.0M AWAY FROM ANY BUILDING, VIA 110MM DIA UPVC PIPES SURROUNDED IN 150MM GRANULAR FILL. SOAKAWAY TO BE MIN OF 1 CUBIC METRE CAPACITY (OR TO DEPTH TO LOCAL AUTHORITY APPROVAL), FILLED WITH SUITABLE GRANULAR FILL AND PROVIDED WITH GEOTEXTILE SURROUND TO PREVENT MIGRATION OF FINES. IF NECESSARY CARRY OUT A POROSITY TEST TO DETERMINE DESIGN AND DEPTH OF SOAKAWAY.</p> <p>RAINWATER DRAINAGE</p> <p>NEW RAINWATER GOODS TO BE NEW 110MM UPVC HALF ROUND GUTTERS TAKEN AND CONNECTED INTO 68MM DIA UPVC DOWNPIPES. RAINWATER TAKEN TO NEW SOAKAWAY, SITUATED A MINIMUM DISTANCE OF 5.0M AWAY FROM ANY BUILDING, VIA 110MM DIA UPVC PIPES SURROUNDED IN 150MM GRANULAR FILL.</p> <p>SOAKAWAY USING CRATES</p> <p>TRENCH OF SOAKAWAY TO BE PROVIDED SLIGHTLY LARGELY THAN DESIGNED DEPTH AFTER POROSITY TEST (IF REQUIRED), BUT A MINIMUM OF JUST OVER 1 CUBIC METRES FROM INVERT LEVEL OF PIPE. LINE THE TRENCH WITH SUITABLE GEOTEXTILE AND PROVIDE A COMPACTED BED OF COARSE SAND TO BASE. INSTALL AQUACELL CRATE UNITS OR EQUIVALENT AS MANUFACTURER'S DETAILS. GEOTEXTILE TO BE WRAPPED AROUND CRATES. PROVIDE 100MM OF COARSE SAND BETWEEN THE TRENCH WALLS AND OVER THE AQUACELL STRUCTURE. BACKFILL WITH SUITABLE MATERIAL.</p> <p>BACKGROUND VENTILATION</p> <p>CONTROLLABLE BACKGROUND VENTILATION AT LEAST 1700MM ABOVE FLOOR LEVEL TO BE PROVIDED TO HABITABLE ROOMS AND KITCHENS AT A RATE OF MIN 10,000MM², AND TO BATHROOMS AT A RATE OF MIN 4000MM². TOTAL NUMBER OF VENTILATORS INSTALLED IN A DWELLINGS HABITABLE ROOMS TO BE AT LEAST 4 VENTILATORS FOR ONE BEDROOM DWELLINGS AND 5 VENTILATORS FOR DWELLINGS WITH MORE THAN ONE BEDROOM. BACKGROUND VENTILATORS TO BE TESTED TO BS EN 13141-1. BACKGROUND VENTILATOR EQUIVALENT AREA AND OPERATION TO BE MEASURED AND RECORDED. NOISE ATTENUATING BACKGROUND VENTILATORS SHOULD BE FITTED TO FAÇADES WITH SUSTAINED LOUD NOISE.</p> <p>PURGE VENTILATION</p> <p>MINIMUM TOTAL AREA OF OPENING IN ACCORDANCE WITH TABLE 1.4 APPROVED DOCUMENT F1. HINGED OR PIVOT WINDOWS WITH AN OPENING ANGLE OF 15 TO 30 DEGREES TO HAVE AN OPENABLE AREA IN EXCESS 1/10 OF THE FLOOR AREA OF THE ROOM. EXTERNAL DOORS AND SASH, HINGED OR PIVOT WINDOWS WITH AN OPENING ANGLE OF EQUAL TO OR GREATER THAN 30 DEGREES TO HAVE AN OPENABLE AREA IN EXCESS OF 1/20 OF THE FLOOR AREA OF THE ROOM. PURGE VENTILATION SHOULD BE CAPABLE OF EXTRACTING AT LEAST 4 AIR CHANGES PER HOUR PER ROOM DIRECTLY TO THE OUTSIDE. INTERNAL DOORS SHOULD BE PROVIDED WITH A 10MM GAP BELOW THE DOOR TO AID AIR CIRCULATION.</p>		<p>FLAT ROOF VENTILATION</p> <p>CROSS VENTILATION TO BE PROVIDED ON OPPOSING SIDES BY A PROPRIETARY EAVES VENTILATION STRIP EQUIVALENT TO 25MM CONTINUOUS WITH FLY PROOF SCREEN. FLAT ROOF INSULATION IS TO BE CONTINUOUS WITH THE WALL INSULATION BUT STOPPED BACK TO ALLOW A CONTINUOUS 50MM AIR GAP ABOVE THE INSULATION FOR VENTILATION. TRICKLE VENT</p> <p>REPLACEMENT WINDOWS SHOULD BE FITTED WITH TRICKLE VENTS REGARDLESS OF WHETHER THE WINDOWS BEING REPLACED HAD VENTS IN THEM OR NOT IF NO BACKGROUND VENTILATION ALTERNATIVE IS BEING INSTALLED. HABITABLE ROOMS AND KITCHENS: 8000MM² EA.</p> <p>ROOF LIGHTS</p> <p>MIN U-VALUE OF 1.6 W/MPK. ROOF-LIGHTS TO BE DOUBLE GLAZED WITH 16MM ARGON GAP AND SOFT LOW-E GLASS. WINDOW ENERGY RATING TO BE BAND C OR BETTER. ROOF LIGHTS TO BE FITTED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS, WITH RAFTERS DOUBLED UP TO SIDES AND SUITABLE FLASHINGS PROVIDED.</p>	<p>NEW AND REPLACEMENT WINDOWS</p> <p>NEW AND REPLACEMENT WINDOWS TO BE DOUBLE GLAZED WITH 16-20MM ARGON GAP AND SOFT COAT LOW-E GLASS. WINDOW ENERGY RATING TO BE BAND B OR BETTER AND TO ACHIEVE U-VALUE OF 1.4 W/MPK. THE DOOR AND WINDOW OPENINGS SHOULD BE LIMITED TO 25% OF THE EXTENSION FLOOR AREA PLUS THE AREA OF ANY EXISTING OPENINGS COVERED BY THE EXTENSION. INSULATED PLASTERBOARD TO BE USED IN REVEALS TO ABUT JAMBS AND TO BE CONSIDERED WITHIN REVEAL SOFFITS. FULLY INSULATED AND CONTINUOUS CAVITY CLOSERS TO BE USED AROUND REVEALS. WINDOWS AND DOOR FRAMES TO BE TAPE TO SURROUNDING OPENINGS USING AIR SEALING TAPE. WINDOWS TO BE FITTED WITH TRICKLE VENTS TO PROVIDE ADEQUATE BACKGROUND VENTILATION IN ACCORDANCE WITH APPROVED DOCUMENT F.</p>
<p>PROPOSED ROOF PLAN Scale 1:100</p>		<p>NEW AND REPLACEMENT DOORS</p> <p>NEW AND REPLACEMENT DOORS TO ACHIEVE A U-VALUE OF 1.4W/MPK. GLAZED AREAS TO BE DOUBLE GLAZED WITH 16-20MM ARGON GAP AND SOFT LOW-E GLASS. GLASS TO BE TOUGHENED OR LAMINATED SAFETY GLASS TO BS 6206, BS EN 14179 OR BS EN ISO 12543-1 AND PART K OF THE CURRENT BUILDING REGULATIONS. INSULATED PLASTERBOARD TO BE USED IN REVEALS TO ABUT JAMBS AND TO BE CONSIDERED WITHIN REVEAL SOFFITS. FULLY INSULATED AND CONTINUOUS CAVITY CLOSERS TO BE USED AROUND REVEALS. WINDOWS AND DOOR FRAMES TO BE TAPE TO SURROUNDING OPENINGS USING AIR SEALING TAPE.</p> <p>INTERNAL DOORS</p> <p>A LINTEL SUITABLE FOR THE LOADS ABOVE WILL BE REQUIRED TIMBER BEAMS ACCORDING TO THE STRUCTURAL CALCULATIONS. IF THE DWELLING HAS A PROTECTED ROUTE FOR MEANS OF ESCAPE OR IS A 3 STOREY HOUSE NEW DOORS ON TO THE HALLWAY ARE TO BE HALF HOUR FIRE DOORS.</p> <p>EXISTING TO NEW WALL</p> <p>CAVITIES IN NEW WALL TO BE MADE CONTINUOUS WITH EXISTING, WHERE POSSIBLE, TO ENSURE CONTINUOUS WEATHER BREAK. IF A CONTINUOUS CAVITY CANNOT BE ACHIEVED, WHERE NEW WALLS ABUTS THE EXISTING WALLS PROVIDE A MOVEMENT JOINT WITH VERTICAL DPC. ALL TIED INTO EXISTING CONSTRUCTION WITH SUITABLE PROPRIETARY STAINLESS STEEL PROFILES.</p> <p>STAIRS</p> <p>DIMENSIONS TO BE CHECKED AND MEASURED ON SITE PRIOR TO FABRICATION OF STAIRS. TIMBER STAIRS TO COMPLY WITH BS585 AND WITH PART K OF THE BUILDING REGULATIONS. MAX RISE 220MM, MIN GOING 220MM. TWO RISERS PLUS ONE GOING SHOULD BE BETWEEN 550 AND 700MM. TAPERED TREADS TO HAVE GOING IN CENTRE OF TREAD AT LEAST THE SAME AS THE GOING ON THE STRAIGHT. MIN 50MM GOING OF TAPERED TREADS MEASURED AT NARROW END. PITCH NOT TO EXCEED 42 DEGREES. THE WIDTH AND LENGTH OF EVERY LANDING SHOULD BE AT LEAST AS GREAT AS THE SMALLEST WIDTH OF THE FLIGHT. DOORS WHICH SWING ACROSS A LANDING AT THE BOTTOM OF A FLIGHT SHOULD LEAVE A CLEAR SPACE OF AT LEAST 400MM ACROSS THE FULL WIDTH OF THE FLIGHT. CUPBOARD DOORS MAY OPEN ACROSS THE TOP LANDING WHERE THE SWING IS A MINIMUM OF 400MM FROM THE TREAD. MIN 2.0M HEADROOM MEASURED VERTICALLY ABOVE PITCH LINE OF STAIRS AND LANDINGS. FOR LOFT CONVERSIONS HEADROOM AT TOP SHOULD BE MIN 1.8M AT SIDE OF STAIRS AND 1.9M AT CENTRE OF STAIRS. HANDRAIL ON STAIRCASE TO BE 900MM ABOVE THE PITCHLINE. HANDRAIL TO BE AT LEAST ONE SIDE IF STAIRS ARE LESS THAN 1M WIDE AND ON BOTH SIDES IF THEY ARE WIDER. ENSURE A CLEAR WIDTH BETWEEN HANDRAILS OF MINIMUM 600MM. BALUSTRADE DESIGNED TO BE UNCLIMBABLE AND SHOULD CONTAIN NO SPACE THROUGH WHICH A 100MM SPHERE COULD PASS.</p>	
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Section

EXTENSION & LOFT CONVERSION

Stage

STRUCTURAL

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Drawing Status

FOR APPROVAL

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Rewards and Notes

Project No. 2024-08-IG10

Drawing No. BREG-0010

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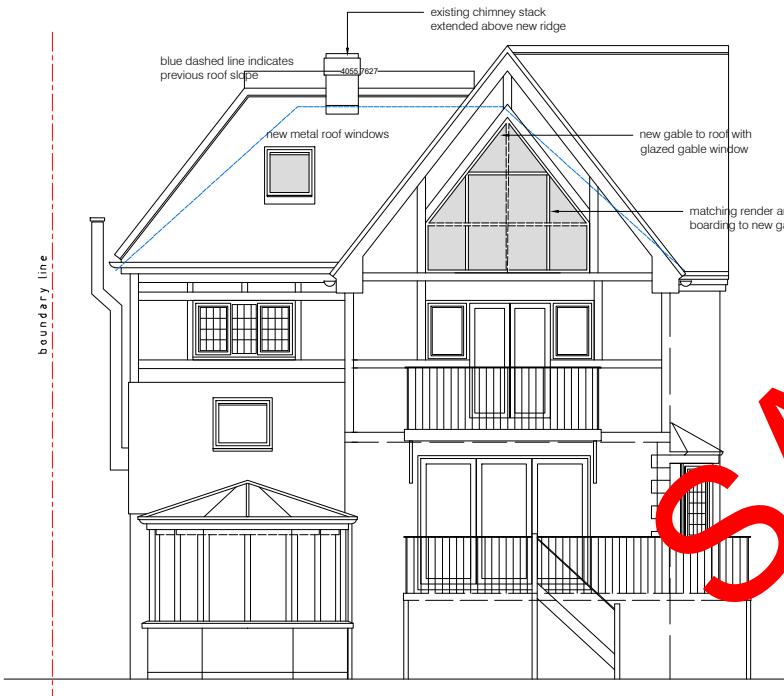
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PROPOSED FRONT ELEVATION
Scale 1:100



PROPOSED SIDE ELEVATION
Scale 1:100



PROPOSED REAR ELEVATION
Scale 1:100



PROPOSED SIDE ELEVATION
Scale 1:100

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Drawing No. BREG-0011

Revision 00

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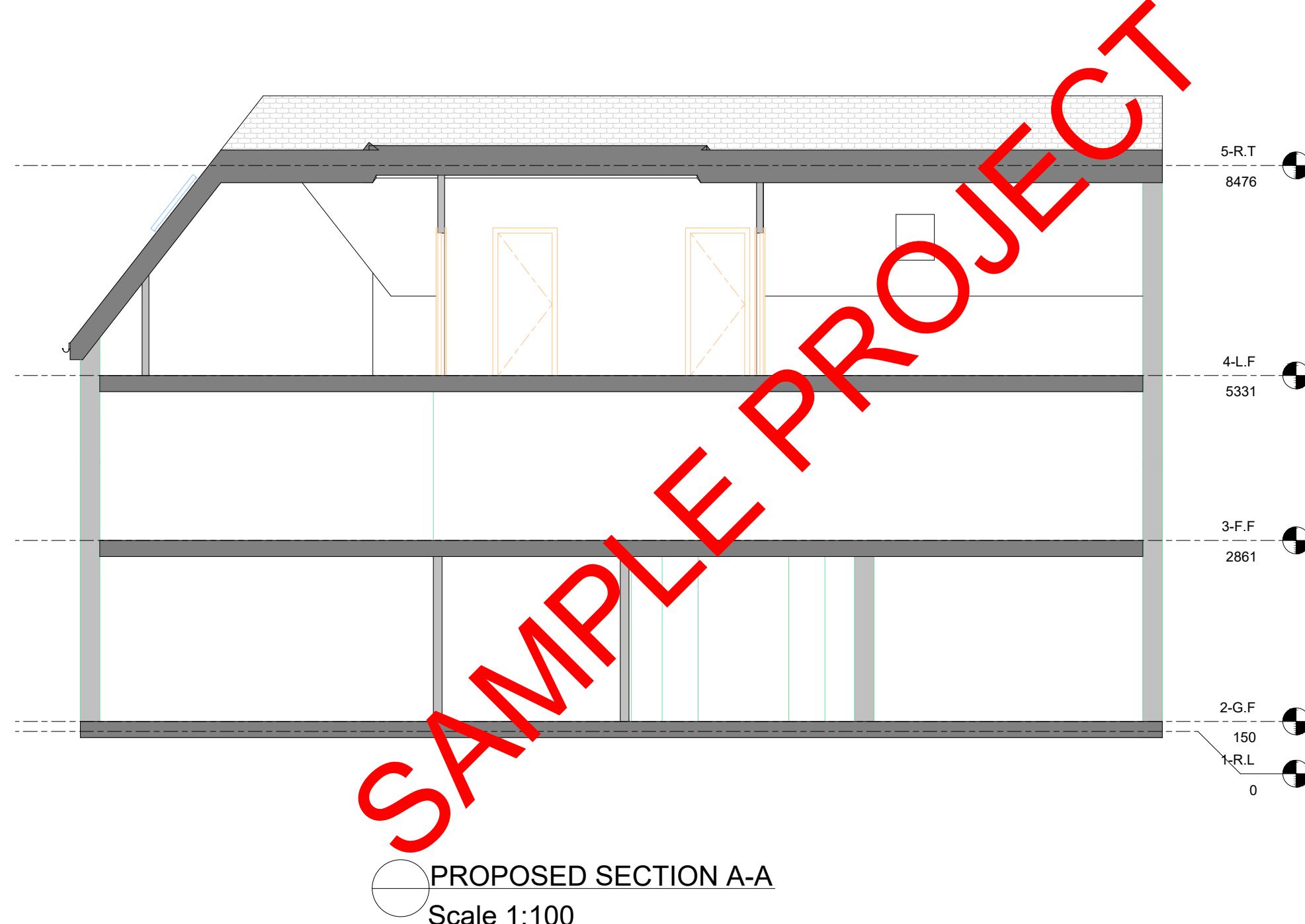
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<p>EXISTING STRUCTURE</p> <p>EXISTING STRUCTURE INCLUDING FOUNDATIONS, FLOOR, BEAMS, WALLS, ROOF AND LINTELS ARE TO BE EXPOSED AND CHECKED FOR ADEQUACY PRIOR TO COMMENCEMENT OF WORK AND AS REQUIRED BY BUILDING CONTROL. PARTICULAR CARE MUST BE TAKEN IF THE EXISTING EXTERNAL WALL IS SINGLE LEAF CONSTRUCTION WITH PIERS, CHECKS FOR STABILITY AND DEFECTS MUST BE PERFORMED.</p> <p>HEATING</p> <p>EXTEND ALL HEATING AND HOT WATER SERVICES FROM EXISTING AND PROVIDE NEW TVRS TORADIATORS. HEATING SYSTEM TO BE DESIGNED, INSTALLED, TESTED AND FULLY CERTIFIED BY A GAS SAFE REGISTERED SPECIALIST. ALL WORK TO BE IN ACCORDANCE WITH THE LOCAL WATER AUTHORITIES BY LAWS, GAS SAFETY REQUIREMENTS AND IEEE REGULATIONS.</p> <p>FIRE DETECTION AND ALARM SYSTEM SHOULD BE PROVIDED TO MEET GRADE B CATEGORY LD3 AS DESCRIBED IN BS 5839-6:2019. I.E. INTERLINKED AND ELECTRICALLY POWERED SMOKE ALARM/DETECTOR WITH BATTERY BACK UP SHOULD BE PROVIDED AT EACH LANDING.</p> <p>HEALTH AND SAFETY</p> <p>THE CONTRACTOR IS REMINDED OF THEIR LIABILITY TO ENSURE DUE CARE, ATTENTION AND CONSIDERATION IS GIVEN IN REGARD TO SAFE PRACTICE IN COMPLIANCE WITH THE HEALTH AND SAFETY AT WORK ACT 1974</p> <p>CDM REGULATIONS</p> <p>THE OWNER, SHOULD THEY NEED TO DO SO, MUST ABIDE BY THE CONSTRUCTION DESIGN AND MANAGEMENT REGULATIONS 1994 WHICH RELATE TO ANY BUILDING WORKS INVOLVING MORE THAN 500 MAN HOURS OR LONGER THAN 30 DAYS DURATION. IT IS THE CLIENT'S RESPONSIBILITY TO APPOINT A PLANNING SUPERVISOR ON ALL PROJECTS THAT REQUIRE COMPLIANCE WITH THE CDM REGULATIONS.</p> <p>SITE PREPARATION</p> <p>GROUND TO BE PREPARED FOR NEW WORKS BY REMOVING ALL UNSUITABLE MATERIAL, VEGETABLE MATTER AND TREE OR SHRUB ROOTS TO A SUITABLE DEPTH TO PREVENT FUTURE GROWTH. SEAL UP, CAP OFF, DISCONNECT AND REMOVE EXISTING REDUNDANT SERVICES AS NECESSARY. REASONABLE PRECAUTIONS MUST ALSO BE TAKEN TO AVOID DANGER TO HEALTH AND SAFETY CAUSED BY CONTAMINANTS AND GROUND GASES E.G. LANDFILL GASES, RADON, VAPOURS ETC. ON OR IN THE GROUND COVERED, OR TO BE COVERED BY THE BUILDING.</p>		<p>STRIP FOUNDATION</p> <p>PROVIDE 600MM X 800MM CONCRETE FOUNDATION, CONCRETE MIX TO CONFORM TO BS EN 206:2013 AND BS 8500-2. ALL FOUNDATIONS TO BE A MINIMUM OF 1000MM BELOW GROUND LEVEL, EXACT DEPTH TO BE AGREED ON SITE WITH BUILDING CONTROL OFFICER TO SUIT SITE CONDITIONS. ALL CONSTRUCTED IN ACCORDANCE WITH 2010 BUILDING REGULATIONS A1/2 AND BS 8004:2015 CODE OF PRACTICE FOR FOUNDATIONS. ENSURE FOUNDATIONS ARE CONSTRUCTED BELOW INVERT LEVEL OF ANY ADJACENT DRAINS.</p> <p>garden</p> <p>study</p> <p>hall</p> <p>cloak</p> <p>fireplace</p> <p>cupboard</p> <p>dining room</p> <p>family room</p> <p>garden</p> <p>downstand beam</p> <p>F-C=2440 F-F=2711</p> <p>downstand beam</p> <p>floor match to existing</p> <p>GROUND FLOOR FOUNDATION PLAN STRUCTURAL</p>	<p>© 2023 PEPP's. All dimensions to be checked on site by the contractor and such dimensions to be their responsibility. All construction works must comply with the relevant British Standards and Building Regulations requirements. Any drawing errors and omissions to be reported to PEPP's</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;">Section</td> <td colspan="2">EXTENSION & LOFT CONVERSION</td> </tr> <tr> <td>Stage</td> <td colspan="2">STRUCTURAL</td> </tr> <tr> <td>Drawing Title</td> <td colspan="2">STRUCTURAL PLAN</td> </tr> <tr> <td>Drawing Status</td> <td colspan="2">FOR APPROVAL</td> </tr> <tr> <td colspan="3">ALL WORKS ARE TO BE CARRIED OUT IN A WORKMAN LIKE MANNER AND IN COMPLIANCE WITH BUILDING REGULATIONS CONTROL REGULATIONS.</td> </tr> <tr> <td colspan="3">ALL STRUCTURAL WORKS IS TO START WHEN APPROVED BY BUILDING CONTROL REVIEW AND INSPECTIONS.</td> </tr> <tr> <td colspan="3">Revisions and Notes</td> </tr> <tr> <td colspan="3">Project No. 2024-08-IG10</td> </tr> <tr> <td colspan="3">Drawing No. BREG-0012</td> </tr> <tr> <td colspan="3">Revision 00</td> </tr> <tr> <td colspan="3">Scale at A3 1:100</td> </tr> <tr> <td colspan="3">Date 22-08-2024</td> </tr> <tr> <td>Designed MM</td> <td>Checked MM</td> <td>Approved MM</td> </tr> <tr> <td colspan="3">Drawn MM</td> </tr> </table> <p>PEPP PEARL ENGINEERS, PLANNERS & PROJECT MANAGERS 02 TOWERFIELDS WESTERHAM ROAD BROMLEY, BR2 6HF Email: info@pearlepp.co.uk Web: www.pearlepp.co.uk Phone No.: 02035763199</p>	Section	EXTENSION & LOFT CONVERSION		Stage	STRUCTURAL		Drawing Title	STRUCTURAL PLAN		Drawing Status	FOR APPROVAL		ALL WORKS ARE TO BE CARRIED OUT IN A WORKMAN LIKE MANNER AND IN COMPLIANCE WITH BUILDING REGULATIONS CONTROL REGULATIONS.			ALL STRUCTURAL WORKS IS TO START WHEN APPROVED BY BUILDING CONTROL REVIEW AND INSPECTIONS.			Revisions and Notes			Project No. 2024-08-IG10			Drawing No. BREG-0012			Revision 00			Scale at A3 1:100			Date 22-08-2024			Designed MM	Checked MM	Approved MM	Drawn MM		
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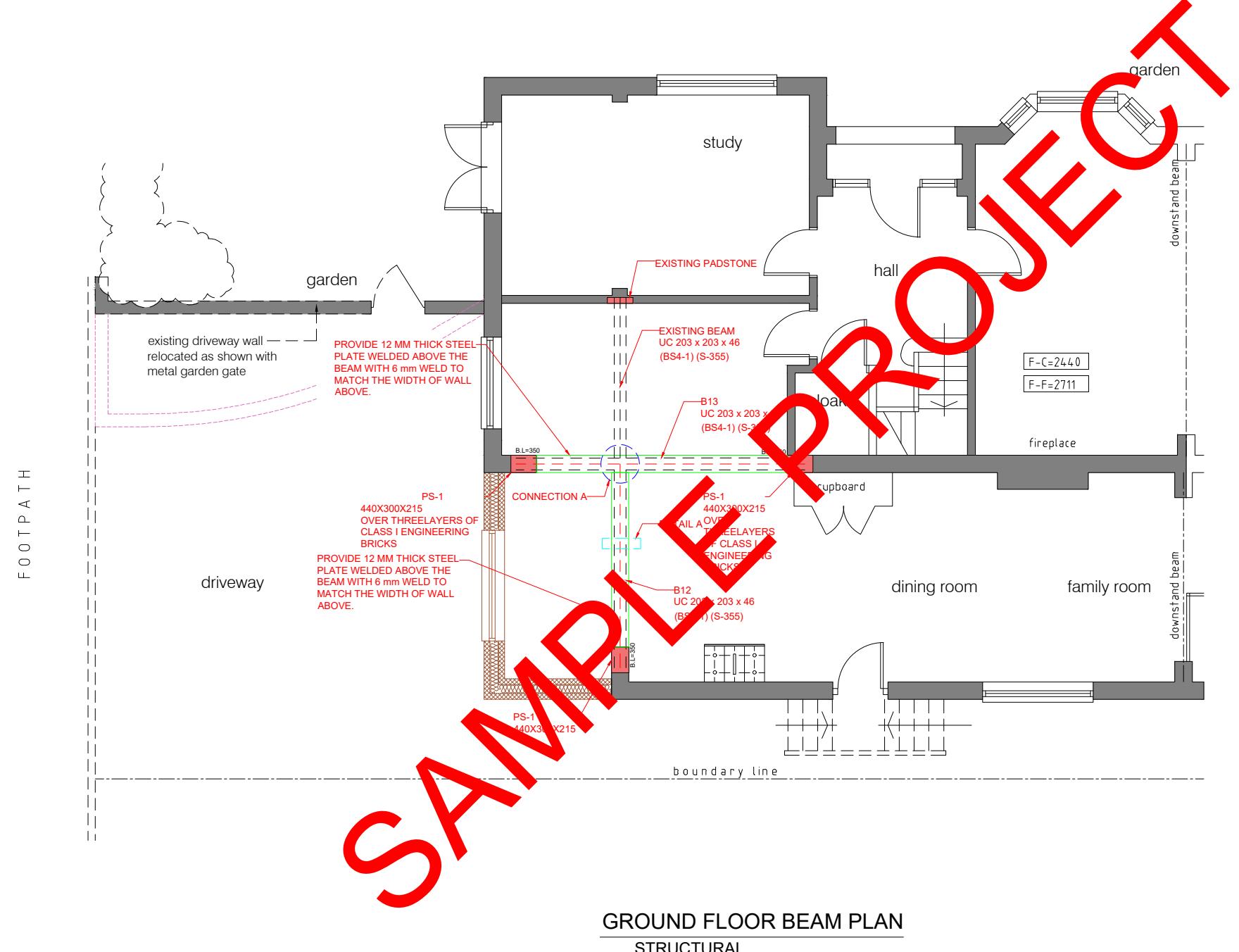
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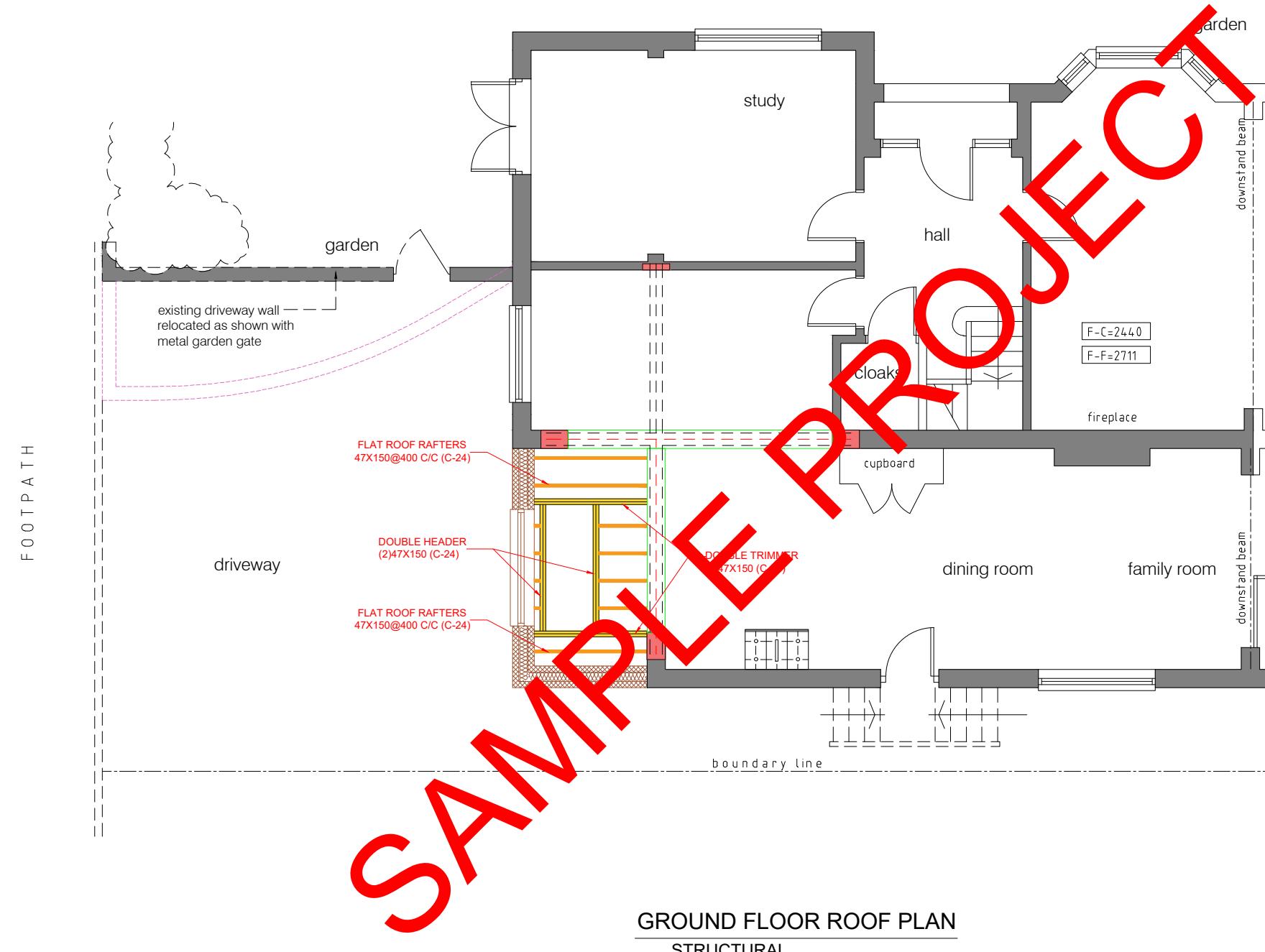
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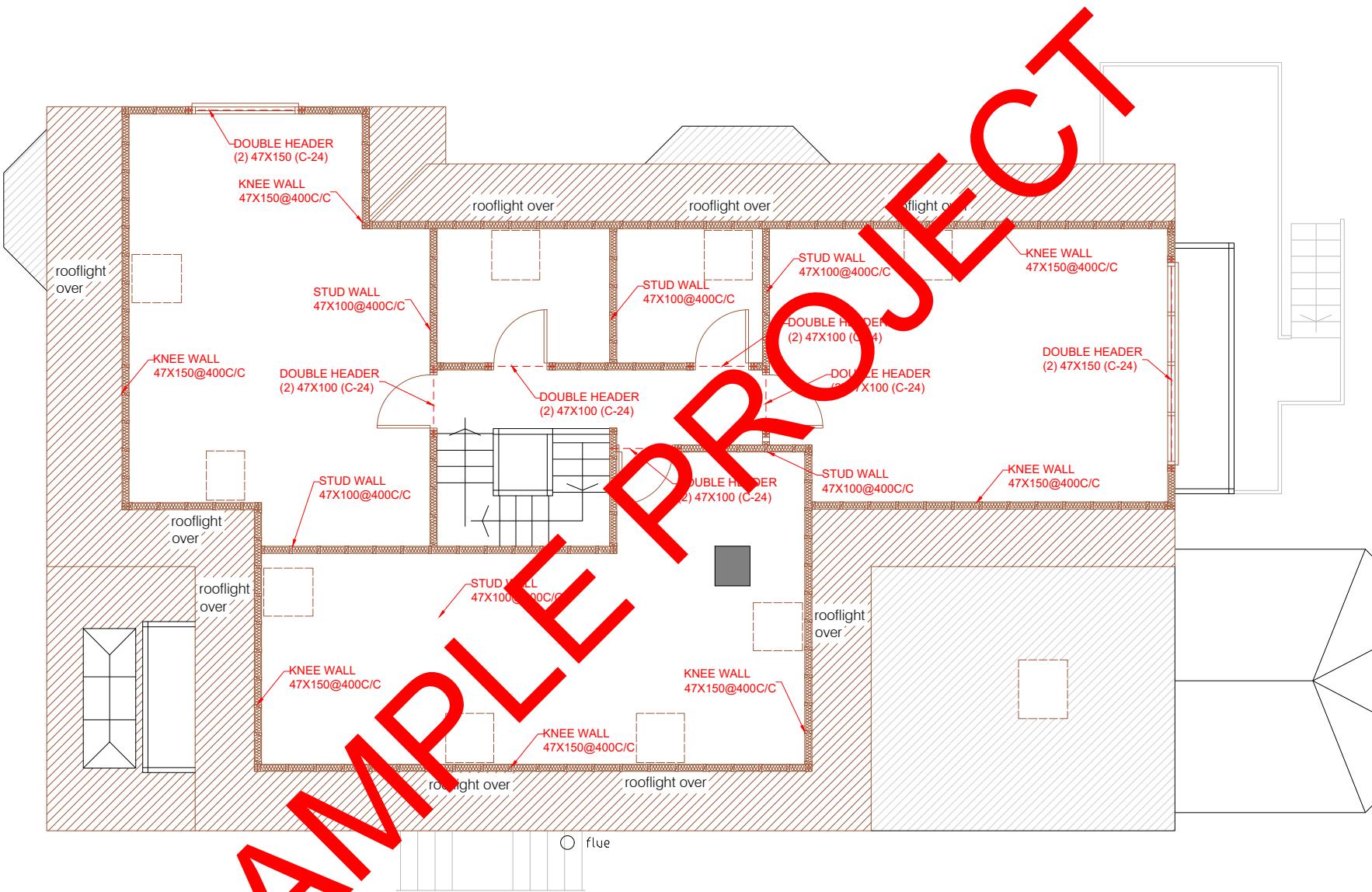
<p>STEELWORK</p> <p>ALL STRUCTURAL STEELWORK TO BE GRADE S355 UNLESS NOTED OTHERWISE. ALL STEEL TO BE PROTECTED AGAINST CORROSION BY PERMOGLAZE RED OXIDE PRIMER (OR SIMILAR) APPLIED ACCORDING TO MANUFACTURER'S INSTRUCTIONS. WHERE STEEL IS BUILT INTO EXTERNAL MASONRY OR SUBJECT TO MOIST CONDITIONS COAT WITH ISOCYANATE PITCH EPOXY ACCORDING TO MANUFACTURER'S INSTRUCTIONS.</p> <p>TO PROVIDE MINIMUM 1/2 HOUR FIRE RESISTANCE TO STEEL ENCASE IN EXPANDED METAL LATHING AND 12.5 MM GYPSUM PLASTER OR ALTERNATIVELY ENCASE IN 12.5 MM GYPROC FIRELINE BOARD WITH JOINTS TAPE AND FILLED OR COAT WITH FIRETEX F907 (BY LEIGH PAINTS) INTUMESCENT PAINT APPLIED STRICTLY IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. FOR ONE HOUR FIRE RESISTANCE USE 2 LAYERS OF GYPROC FIRELINE BOARDS OR SIMILAR APPROVED.</p> <p>THERMAL BRIDGING CARE SHALL BE TAKEN TO LIMIT THE OCCURRENCE OF THERMAL BRIDGING IN THE INSULATION LAYERS CAUSED BY GAPS WITHIN THE THERMAL ELEMENT, (I.E. AROUND WINDOWS AND DOOR OPENINGS). REASONABLE PROVISION SHALL ALSO BE MADE TO ENSURE THE EXTENSION IS CONSTRUCTED TO MINIMIZE UNWANTED AIR LEAKAGE THROUGH THE NEW BUILDING FABRIC.</p> <p>MATERIALS AND WORKMANSHIP ALL WORK WILL COMPLY WITH THE CURRENT BUILDING REGULATIONS AND WILL BE CARRIED OUT TO THE SATISFACTION OF THE BUILDING CONTROL INSPECTOR.</p> <p>ALL STAGES OF WORK ARE TO BE CHECKED AND AGREED ON SITE WITH THE BUILDING INSPECTOR BEFORE COVERING OVER.</p> <p>THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL THE TEMPORARY WORKS, THE STABILITY OF THE EXISTING STRUCTURE, EARTHWORKS, EXCAVATIONS, ETC; THE CONTRACTOR WILL ENSURE THAT THE BUILDINGS WILL BE ADEQUATELY SUPPORTED AT ALL STAGES OF CONSTRUCTION, INCLUDING ANY EARTHWORK SUPPORTS MADE NECESSARY BY EXCAVATIONS AND GROUND CONDITIONS. THE SUPPORTS AND PROPS TO BE PROVIDED TILL THE FINAL RETAINING WALL IS IN PLACE.</p>		<p style="text-align: right;">© 2023 PEPP's. All dimensions to be checked on site by the contractor and such dimensions to be their responsibility. All construction works must comply with the relevant British Standards and Building Regulations requirements. Any drawing errors and omissions to be reported to PEPP's</p>
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<p>LOFT FLOOR BEAM PLAN Scale 1:100</p>		

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<p style="text-align: center;">SECTION</p> <p>EXTENSION & LOFT CONVERSION</p> <p>Stage STRUCTURAL</p> <p>Drawing Title STRUCTURAL PLAN</p> <p>Drawing Status FOR APPROVAL</p> <p>ALL WORKS ARE TO BE CARRIED OUT IN A WORKMAN LIKE MANNER AND IN COMPLIANCE WITH BUILDING REGULATIONS CONTROL REGULATIONS.</p> <p>ALL STRUCTURAL WORKS IS TO START WHEN APPROVED BY BUILDING CONTROL REVIEW AND INSPECTIONS.</p> <p>Revisions and Notes</p> <p>Project No. 2024-08-IG10 Drawing No. BREG-0017 Revision 00 Scale at A3 1:100 Date 22-08-2024 Designed MM Checked MM Drawn MM Approved MM</p> <p>PEPP PEARL ENGINEERS, PLANNERS & PROJECT MANAGERS 02 TOWERFIELDS WESTERHAM ROAD BROMLEY, BR2 6HF Email: info@pearlepp.co.uk Web: www.pearlepp.co.uk Phone No.: 02035763199</p>		
<p>SAMPLE PROJECT</p> <p>LOFT FLOOR JOIST PLAN Scale 1:100</p>		

STUD ASHLAR/DWARF WALL

TO ACHIEVE MINIMUM U VALUE OF 0.18 W/M²K
CONSTRUCT STUD WALL USING 100MM X 50MM HEAD AND SOLE PLATES AND VERTICAL STUDS (WITH NOGGINS) AT 400MM CENTRES OR TO STRUCTURAL ENGINEER'S DETAILS AND CALCULATIONS. INSULATION TO BE 90MM CELOTEX GA4000 BETWEEN STUDS WITH 50MM CELOTEX GA4000 OVER. PROVIDE VCL AND 12.5MM PLASTERBOARD OVER INTERNAL FACE OF INSULATION. FINISH WITH 3MM SKIM COAT OF FINISHING PLASTER ALL JUNCTIONS TO HAVE WATER TIGHT CONSTRUCTION, SEAL ALL PERIMETER JOINTS WITH TAPE INTERNALLY AND WITH SILICON SEALANT EXTERNALLY.

INTERNAL STUD PARTITIONS
100MM X 50MM SOFTWOOD TREATED TIMBERS
STUDS AT 400MM CTRS WITH 50 X 100MM HEAD AND SOLE PLATES AND SOLID INTERMEDIATE HORIZONTAL NOGGINS AT 1/3 HEIGHT OR 450MM C/CS. PROVIDE MIN 10KG/M³ DENSITY ACOUSTIC SOUNDPROOF QUILT TIGHTLY PACKED (E.G.100MM ROCKWOOL OR ISOWOOL MINERAL FIBRE SOUND INSULATION) IN ALL VOIDS THE FULL DEPTH OF THE STUD. PARTITIONS TO BE BUILT OFF DOUBLED UP JOISTS WHERE PARTITIONS RUN PARALLEL OR PROVIDE NOGGINS WHERE AT RIGHT ANGLES, OR TO BE BUILT OFF DPC ON THICKENED CONCRETE SLAB IF SOLID GROUND FLOOR. WALLS FACED THROUGHOUT WITH 12.5MM PLASTERBOARD WITH SKIM PLASTER FINISH. PLASTERBOARD TO BE TAPED AND JOINED COMPLETE WITH BEADS AND STOPS.



LOFT FLOOR WALL & LINTEL PLAN
Scale 1:100

Section
EXTENSION & LOFT CONVERSION
Stage
STRUCTURAL
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STRUCTURAL PLAN
Drawing Status
FOR APPROVAL

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Revisions and Notes

Project No. 2024-08-IG10
Drawing No. BREG-0018
Revision 00
Scale at A3 1:100
Date 22-08-2024
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Revisions and Notes

Project No. 2024-08-IG10

Drawing No. BREG-0019

Revision 00

Scale at A3 1:100

Date 22-08-2024

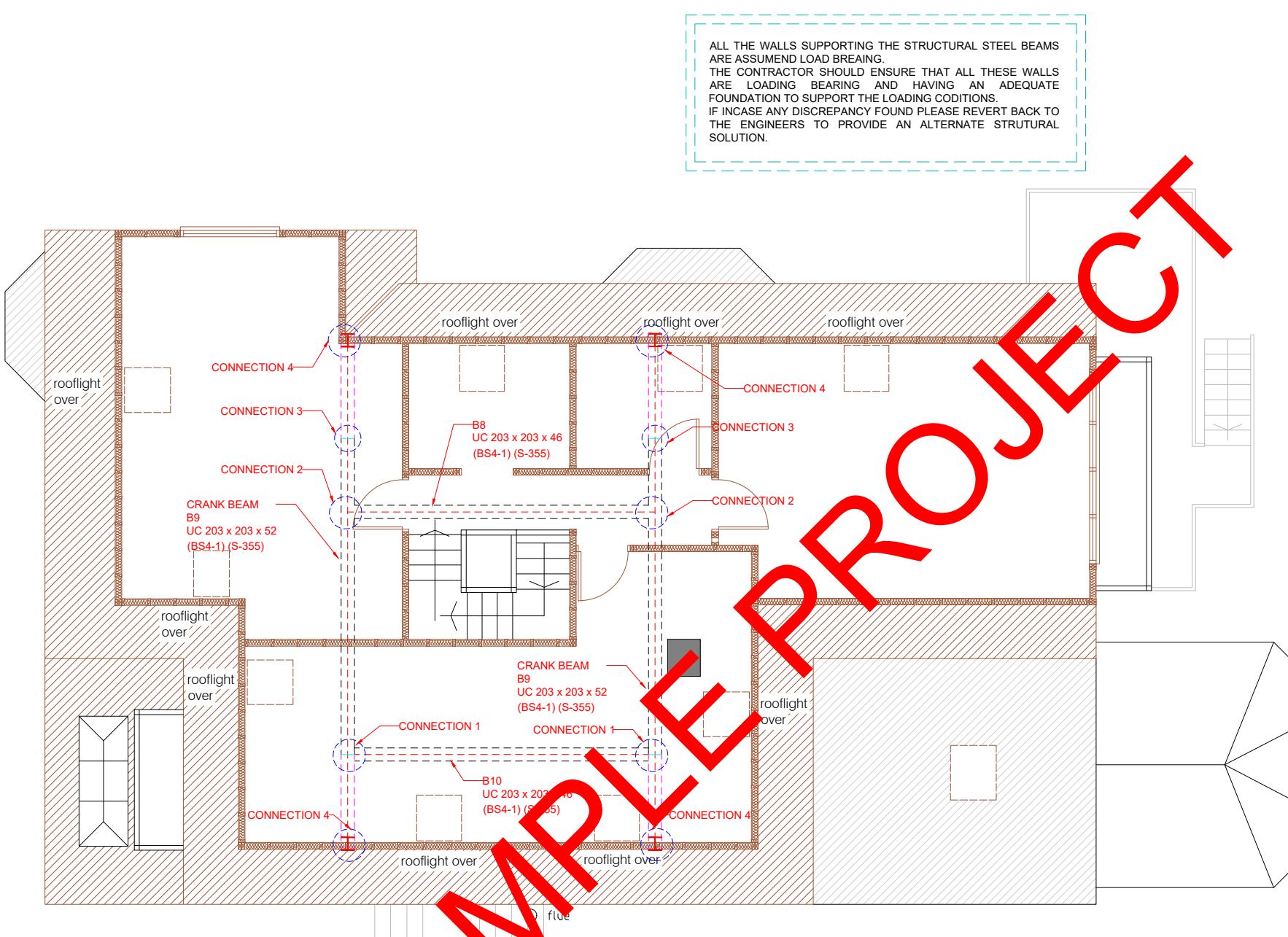
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LOFT FLOOR ROOF BEAM PLAN
Scale 1:100

STRUCTURAL ROOF PLAN
Scale 1:100

Section
EXTENSION & LOFT CONVERSION

Stage
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FOR APPROVAL

PITCHED ROOF

TIMBER ROOF STRUCTURES TO BE DESIGNED BY AN ENGINEER IN ACCORDANCE WITH NHBC TECHNICAL REQUIREMENT R5 STRUCTURAL DESIGN. CALCULATIONS TO BE BASED ON BS EN 1995-1-1. ROOFING TILES TO MATCH EXISTING FIXED TO TILE BATTENS SECURED OVER BREATHABLE SARKING FELT TO RELEVANT BBA CERTIFICATE ALLOWING THE 0.5MM KINGSpan NILVENT BREATHABLE MEMBRANE TO SAG AT LEAST 10MM OVER PRESERVATIVE TREATED COUNTER BATTENS (MIN 38MM X 50MM).

PROVIDE KOOLTHERM K107 (DOUBLE LAYERED) - 120MM BETWEEN THE RAFTER AND 40MM UNDER THE RAFTER 47 X 200MM GRADE C24 RAFTERS AT MAX 400MM CENTRES

A VAPOUR CONTROL LAYER SHOULD BE PROVIDED TO THE UNDERSIDE OF THE RAFTERS. FINISH WITH KOOLTHERM K118 37.5MM (12.5MM PLASTERBOARD INTERNAL FINISH)

RESTRAINT STRAPPING - RAFTERS TO BE STRAPPED TO WALLS, STRAPS BUILT INTO CAVITY, ACROSS AT LEAST 3 TIMBERS WITH NOGGINS. ALL STRAPS TO BE 1000 X 30 X 5MM GALVANIZED STRAPS OR OTHER APPROVED TO BSEN 845-1 AT 2M CENTRES.

STRAPPING FOR PITCHED ROOF

GABLE WALLS SHOULD BE STRAPPED TO ROOFS AT 2M CENTRES. ALL EXTERNAL WALLS RUNNING PARALLEL TO ROOF RAFTERS TO BE RESTRAINED AT ROOF LEVEL USING 1200MM X 30MM X 5MM GALVANISED MILD STEEL HORIZONTAL STRAPS OR OTHER APPROVED TO BSEN 845-1. STRAPS TO BE SCREW FIXED, BUILT INTO WALLS AT MAX 2000MM CENTRES, AND TAKEN ACROSS A MINIMUM OF 3 RAFTERS. PROVIDE SOLID NOGGINS BETWEEN RAFTERS AT STRAP POSITIONS. ALL WALL PLATES TO BE 100 X 50MM FIXED TO INNER SKIN OF CAVITY WALL USING 30MM X 5MM X 1200MM GALVANIZED METAL STRAPS OR OTHER APPROVED TO BSEN 845-1 AT MAXIMUM 2M CENTRES

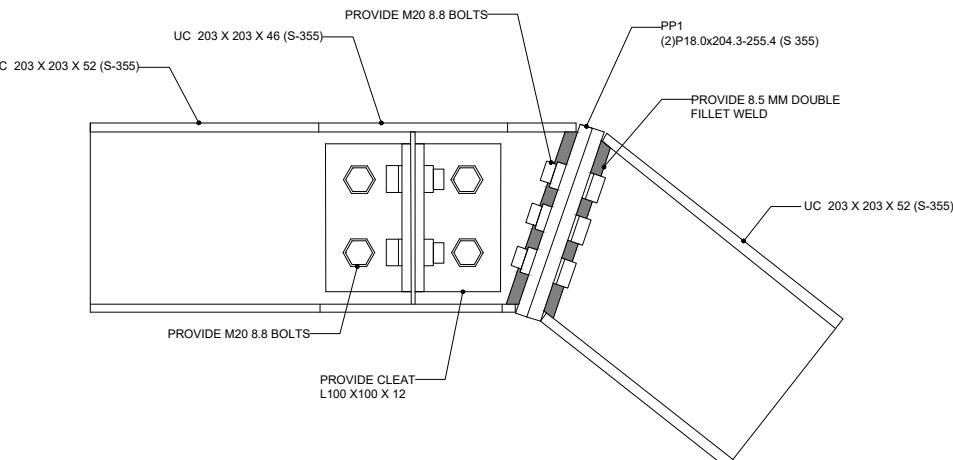
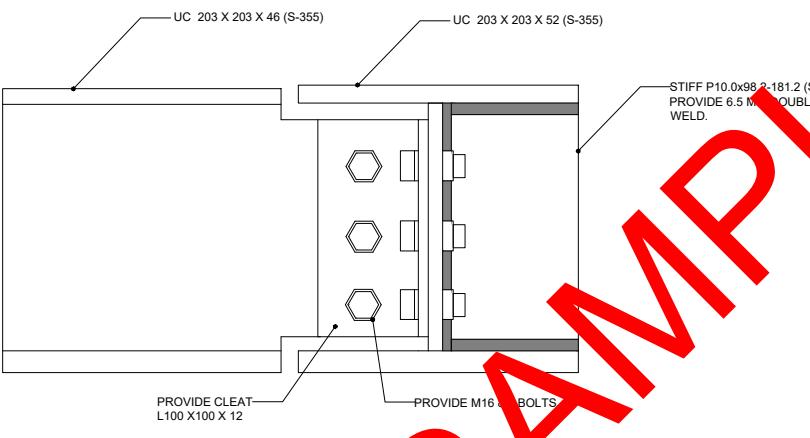
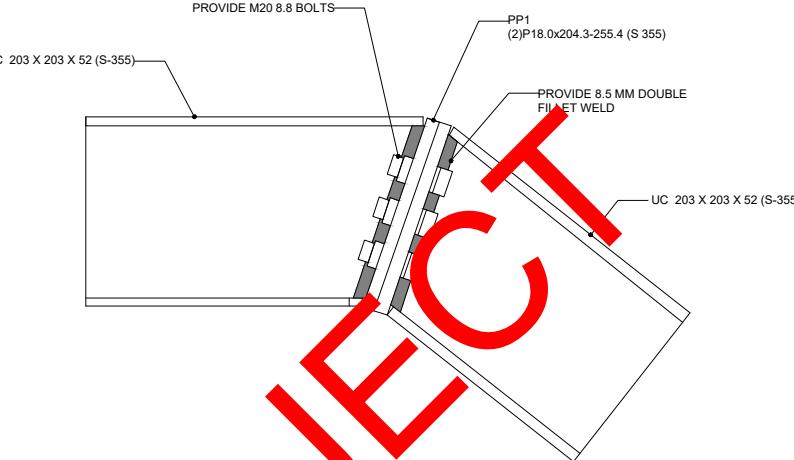
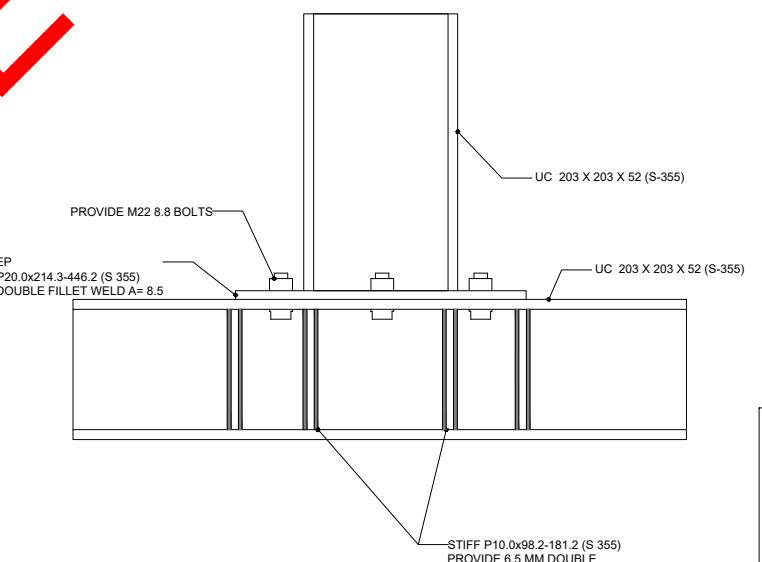
Revisions and Notes

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Project No. 2024-08-IG10
Drawing No. BREG-0020
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Scale at A3 1:100
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		<p>Section EXTENSION & LOFT CONVERSION Stage STRUCTURAL Drawing Title STRUCTURAL DETAILS Drawing Status FOR APPROVAL</p>	
		<p>ALL WORKS ARE TO BE CARRIED OUT IN A WORKMAN LIKE MANNER AND IN COMPLAINE WITH BUILDING REGULATIONS CONTROL REGULATIONS. ALL STRUCTURAL WORKS IS TO START WHEN APPROVED BY BUILDING CONTROL REVIEW AND INSPECTIONS. Revisions and Notes</p>	
		<p>Project No. 2024-08-IG10 Drawing No. BREG-0021 Revision 00 Scale at A3 N/A Date 22-08-2024 Designed MM Checked MM Drawn MM Approved MM</p>	
CONNECTION 1		CONNECTION 3	
CONNECTION 2		CONNECTION 4	
SAMPLE PROJECT			
NOTE FOR CONNECTION FABRICATION DETAIL SEE STRUCTURE REPORT.			



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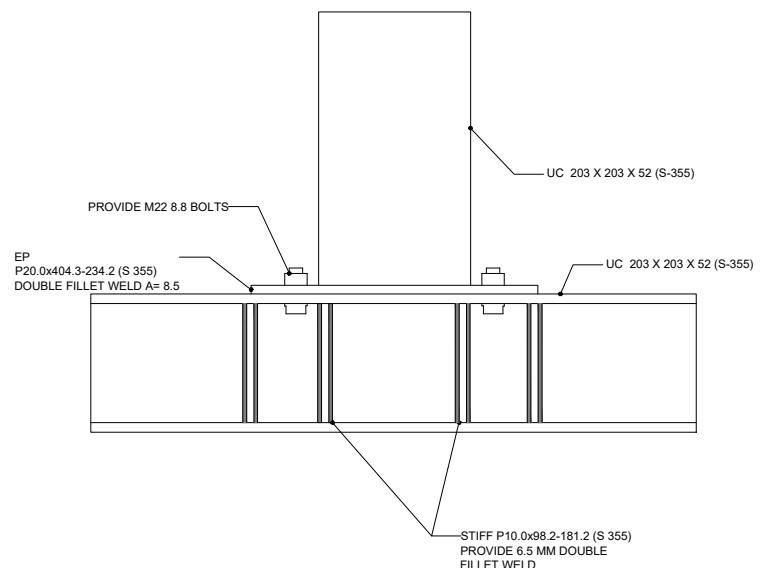
Revisions and Notes

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Drawing No. BREG-0022
Revision 00
Scale at A3 N/A
Date 22-08-2024
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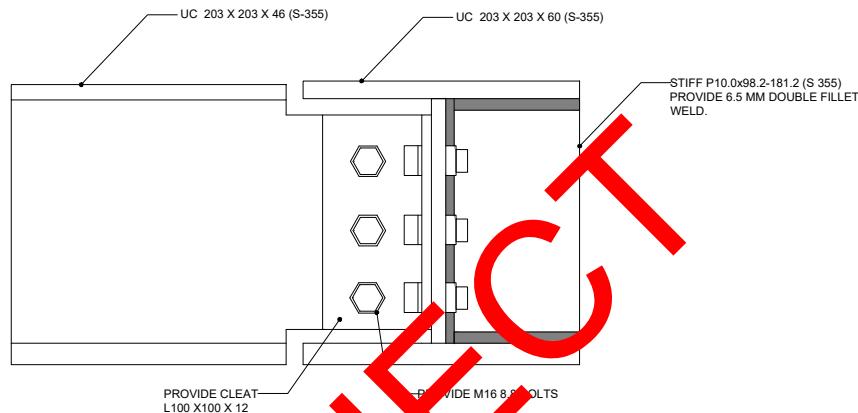


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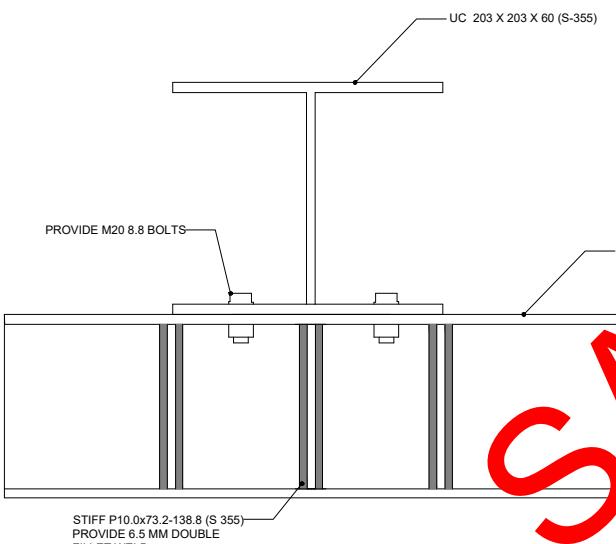
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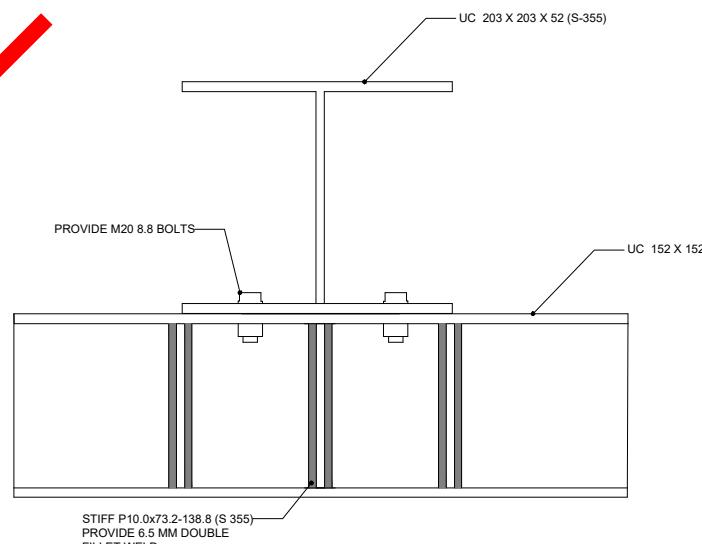
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CONNECTION 6



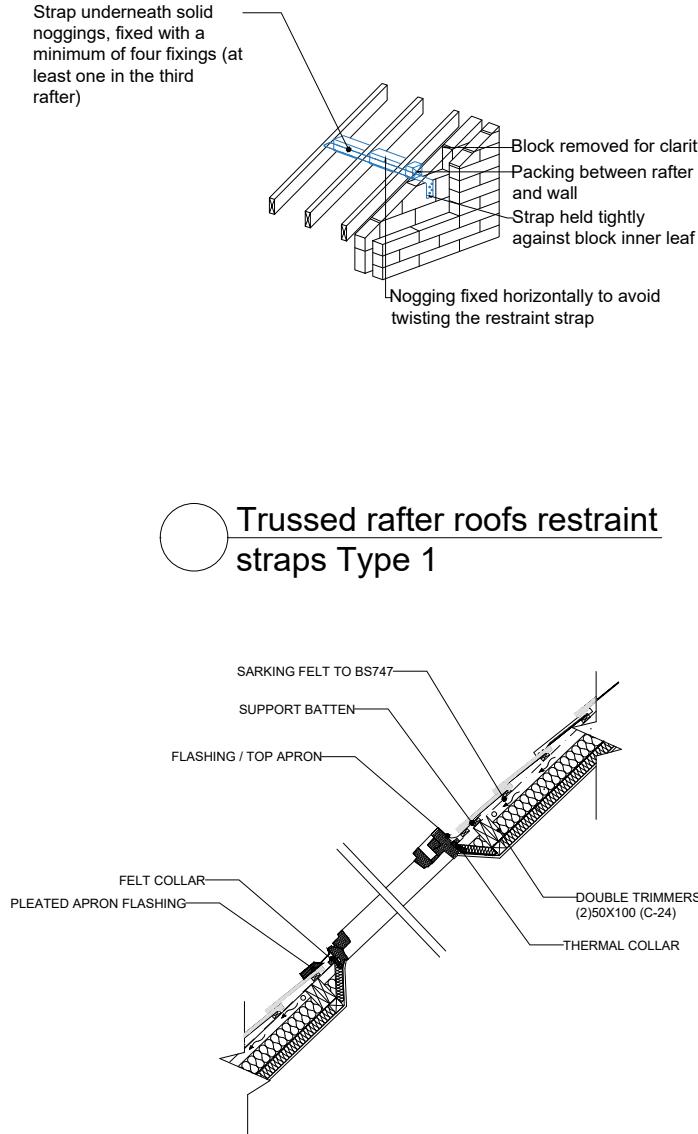
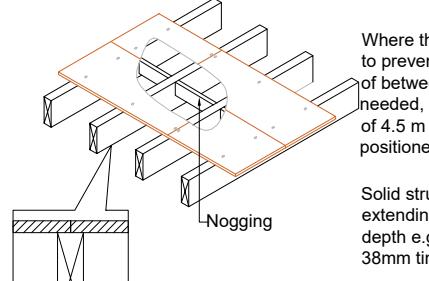
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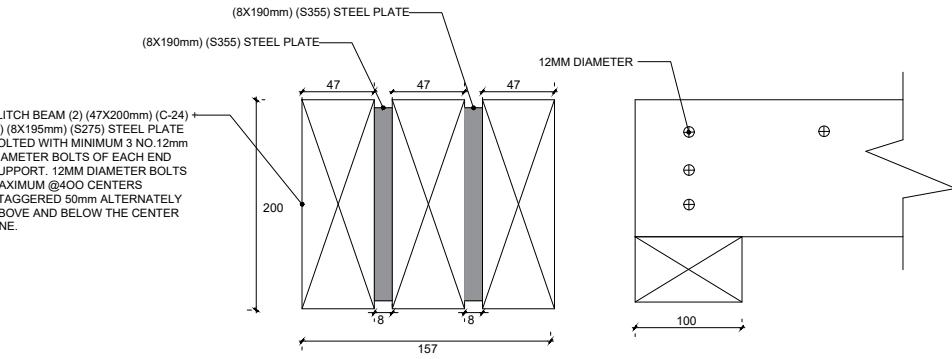
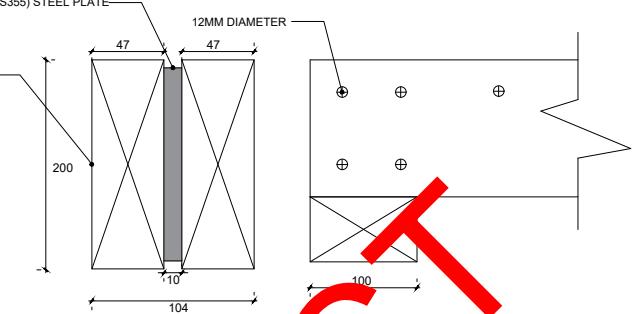
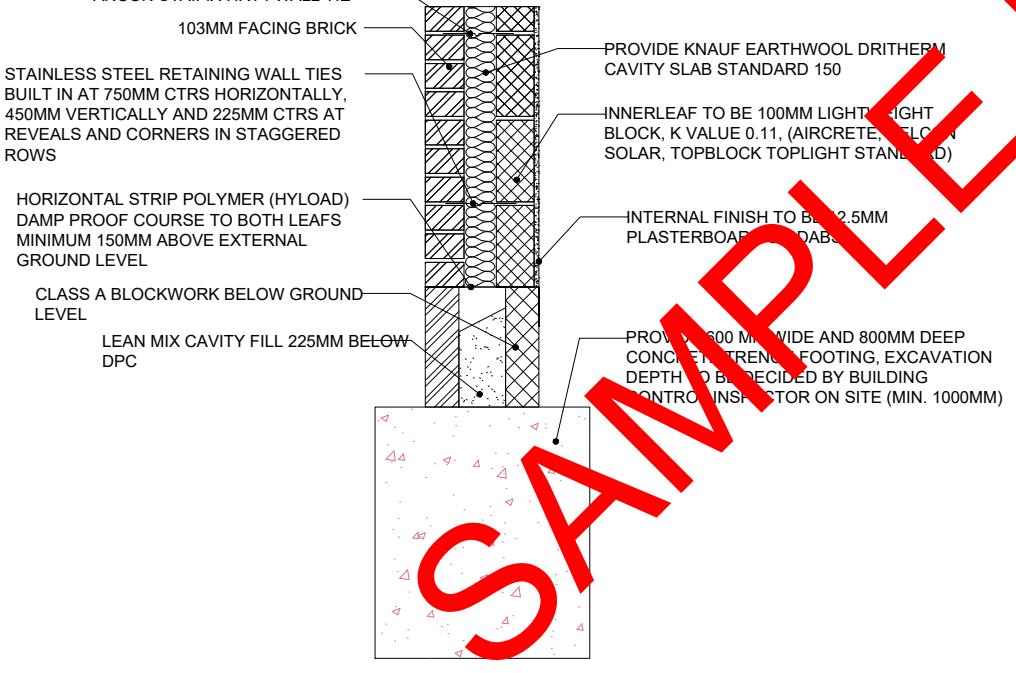
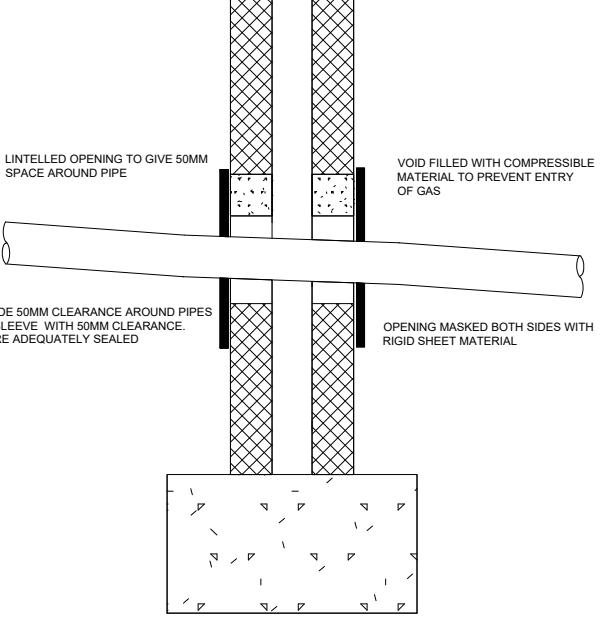
CONNECTION 8

NOTE
FOR CONNECTION FABRICATION DETAIL SEE STRUCTURE REPORT.

SAMPLE PROJECT

 <p>Trussed rafter roofs restraint straps Type 1</p>		<p>Strap underneath solid noggings, fixed with a minimum of four fixings (at least one in the third rafter)</p> <p>Block removed for clarity</p> <p>Packing between rafter and wall</p> <p>Strap held tightly against block inner leaf</p> <p>Nogging fixed horizontally to avoid twisting the restraint strap</p>	 <p>Where the joists span over 2.5m, strutting is required to prevent joists twisting when loaded. For spans of between 2.5 and 4.5 m one row of strutting is needed, at the mid span position. For spans in excess of 4.5 m two rows of strutting will be required, positioned at the one third and two third span positions.</p> <p>Solid strutting should be at least 38 mm thick timber extending to at least three quarters the joist depth e.g. 200 x 50mm joists would need at least 150 38mm timber used as strutting.</p>	<p>FLOOR NOGGING DETAIL</p> <p>UC 100 X 203 X 46 (S-355)</p> <p>UC 203 X 203 X 86 (S-355)</p> <p>UC 203 X 203 X 46 (S-355)</p> <p>PROVIDE CLEAT L100 X 100 X 10</p> <p>PROVIDE M20 8.8 BOLTS</p> <p>PROVIDE CLEAT L100 X 100 X 10</p>	<p>HIP RAFTER STRAP DETAIL</p> <p>Timber hip-member</p> <p>Timber wall plate</p> <p>Diagonal timber the plate</p> <p>Steel restraint straps to prevent spread of hip rafter</p> <p>Timber wall plate</p>	<p>NOTE FOR CONNECTION FABRICATION DETAIL SEE STRUCTURE REPORT.</p>	<p>© 2023 PEPP's. All dimensions to be checked on site by the contractor and such dimensions to be their responsibility. All construction works must comply with the relevant British Standards and Building Regulations requirements. Any drawing errors and omissions to be reported to PEPP's</p> <p>Section EXTENSION & LOFT CONVERSION</p> <p>Stage STRUCTURAL</p> <p>Drawing Title STRUCTURAL DETAILS</p> <p>Drawing Status FOR APPROVAL</p> <p>ALL WORKS ARE TO BE CARRIED OUT IN A WORKMAN LIKE MANNER AND IN COMPLAINE WITH BUILDING REGULATIONS CONTROL REGULATIONS.</p> <p>ALL STRUCTURAL WORKS IS TO START WHEN APPROVED BY BUILDING CONTROL REVIEW AND INSPECTIONS.</p> <p>Revisions and Notes</p> <p>Project No. 2024-08-IG10</p> <p>Drawing No. BREG-0023</p> <p>Revision 00</p> <p>Scale at A3 N/A</p> <p>Date 22-08-2024</p> <p>Designed MM Checked MM</p> <p>Drawn MM Approved MM</p> <p>PEPP PEARL ENGINEERS PLANNERS & PROJECT MANAGERS 02 TOWERFIELDS WESTERHAM ROAD BROMLEY, BR2 6HF Email: info@pearlepp.co.uk Web: www.pearlepp.co.uk Phone No.: 02035763199</p>
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SAMPLE PROJECT

 <p>FLITCH BEAM 1 DETAIL</p> <p>FLITCH BEAM (2) (47x200mm) (C-24) + (2) (8x195mm) (S275) STEEL PLATE BOLTED WITH MINIMUM 3 NO.12mm DIAMETER BOLTS OF EACH END SUPPORT. 12MM DIAMETER BOLTS MAXIMUM @400 CENTERS STAGGERED 50mm ALTERNATELY ABOVE AND BELOW THE CENTER LINE.</p>  <p>FLITCH BEAM 2 DETAIL</p> <p>FLITCH BEAM (2) (47x200mm) (C-24) + (1) (10x195mm) (S275) STEEL PLATE BOLTED WITH MINIMUM 4 NO.12mm DIAMETER BOLTS OF EACH END SUPPORT. 12MM DIAMETER BOLTS MAXIMUM @400 CENTERS STAGGERED 50mm ALTERNATELY ABOVE AND BELOW THE CENTER LINE.</p>		<p>© 2023 PEPP's. All dimensions to be checked on site by the contractor and such dimensions to be their responsibility. All construction works must comply with the relevant British Standards and Building Regulations requirements. Any drawing errors and omissions to be reported to PEPP's</p> <p>Section EXTENSION & LOFT CONVERSION Stage STRUCTURAL Drawing Title STRUCTURAL DETAILS Drawing Status FOR APPROVAL</p> <p>ALL WORKS ARE TO BE CARRIED OUT IN A WORKMAN LIKE MANNER AND IN COMPLAINE WITH BUILDING REGULATIONS CONTROL REGULATIONS.</p> <p>ALL STRUCTURAL WORKS IS TO START WHEN APPROVED BY BUILDING CONTROL REVIEW AND INSPECTIONS.</p> <p>Revisions and Notes</p> <p>Project No. 2024-08-IG10 Drawing No. BREG-0024 Revision 00 Scale at A3 N/A Date 22-08-2024 Designed MM Checked MM Drawn MM Approved MM</p> <p>PEPP PEARL ENGINEERS, PLANNERS & PROJECT MANAGERS 02 TOWERFIELDS WESTERHAM ROAD BROMLEY, BR2 6HF Email: info@pearlepp.co.uk Web: www.pearlepp.co.uk Phone No.: 02035763199</p>
 <p>FULL FILL CAVITY WALL FOOTING U-value 0.17 W/m²k</p>		 <p>PIPES PASSING THROUGH WALL (LINTEL)</p> <p>LINTELLED OPENING TO GIVE 50MM SPACE AROUND PIPE VOID FILLED WITH COMPRESSIBLE MATERIAL TO PREVENT ENTRY OF GAS</p> <p>PROVIDE 50MM CLEARANCE AROUND PIPES OR A SLEEVE WITH 50MM CLEARANCE. ENSURE ADEQUATELY SEALED OPENING MASKED BOTH SIDES WITH RIGID SHEET MATERIAL</p>

SAMPLE PROJECT

SAMPLE PROJECT

Provide EPDM MEMBRANE
THERMAROOF TR27 - double layered (90mm +100mm)
VAPOUR CONTROL LAYER
18MM EXTERNAL QUALITY PLYWOOD DECKING OR SIMILAR APPROVED ON SW FIRINGS TO MINIMUM 1 IN 40 FALL

CEILINGS OF 12.5MM PLASTERBOARD OVER VAPOUR BARRIER WITH SKIM PLASTER FINISH.
47 X 150MM GRADE C24 JOISTS AT 400MM CTRS &
47 X 200MM GRADE C24 JOISTS AT 400MM CTRS

WARM FLAT ROOF
U-value 0.15 W/m²K

Rafter fixed to Wall-Plate with Framing Anchor or Truss Clip
50X100MM TIMBER-WALL PLATE

STRAP ANCHORED WALL AND RAFTER @INTERVALS NOT EXCEED 600MM

VERTICAL STRAPPING AT EAVES

ROOFING TILES TO MATCH EXISTING
25 X 38MM TANALISED SW TREATED BATTENS
0.5mm KINGSPAN NILVENT BREATHABLE MEMBRANE
MEMBRANE TO SAG AT LEAST 10MM OVER COUNTER BATTENS (MIN 38MM X 50MM)

KOOLTHERM K107 (double layered) - 120MM BETWEEN THE RAFTER AND 40MM UNDER THE RAFTER
-47 X 200MM GRADE C24 RAFTERS AT MAX 400MM CENTRES
-VAPOUR CONTROL LAYER TO UNDERSIDE OF RAFTERS
-KOOLTHERM K118 37.5mm (12.5mm plasterboard internal finish)

WARM PITCHED ROOF
U-value 0.14 W/m²K

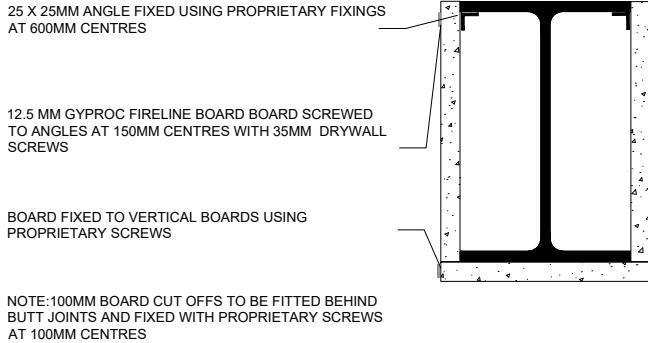
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Revisions and Notes			
Project No. 2024-08-IG10			
Drawing No. BREG-0025			
Revision 00			
Scale at A3 N/A			
Date 22-08-2024			
Designed	MM	Checked	MM
Drawn	MM	Approved	MM

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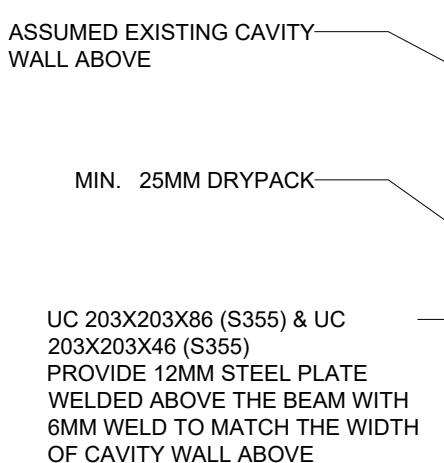
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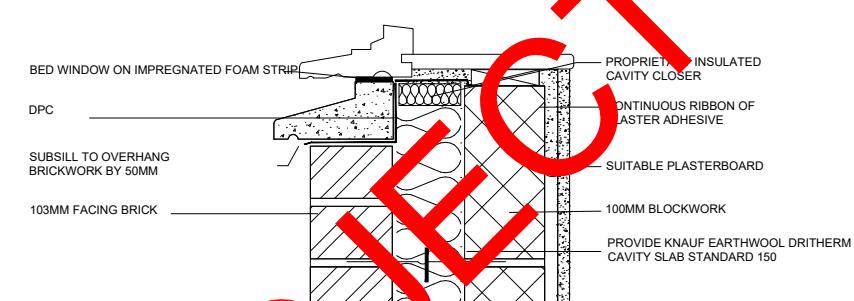


FIRE PROTECTION OF STEEL BEAM

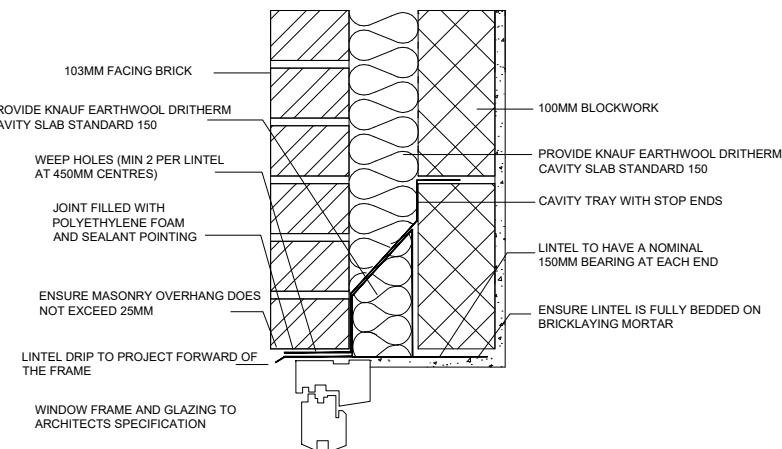
(GYPROC FIRE BOARD - AS SECTION 6:2012 OF MANUFACTURER'S DETAILS)



DETAIL - A



WINDOW SILL



WINDOW HEAD AND LINTEL

Section
EXTENSION & LOFT CONVERSION

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Revisions and Notes

Project No. 2024-08-IG10

Drawing No. BREG-0026

Revision 00

Scale at A3 N/A

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SAMPLE PROJECT

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Section

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Revisions and Notes

Project No. 2024-08-IG10

Drawing No. BREG-0027

Revision 00

Scale at A3 N/A

Date 22-08-2024

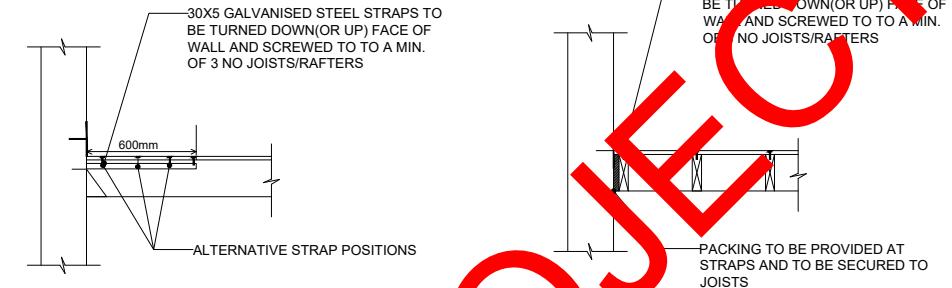
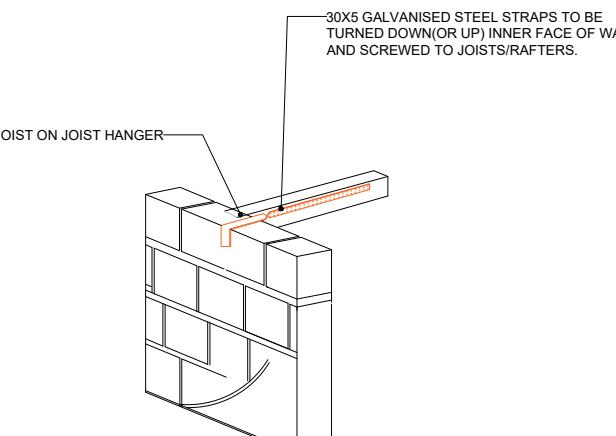
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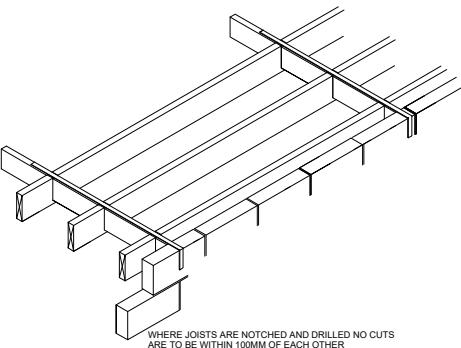


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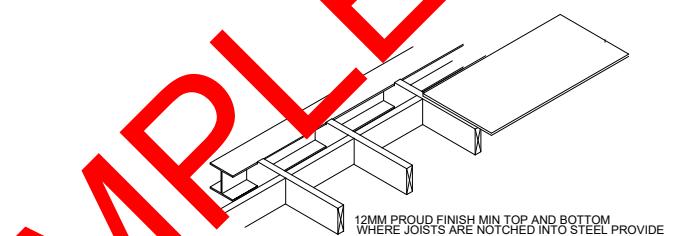


STRAP DETAIL FOR WALL

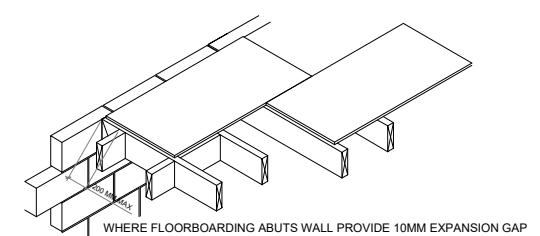


RESTRAINT STRAPPING - NHBC 6.4 - S1

JOIST PERPENDICULAR TO WALL JOIST PARALLEL TO WALL



STEELWORK - NHBC 6.4 - S8



CHIPBOARD FLOORING -NHBC 6.4 - S18

SAMPLE PROJECT