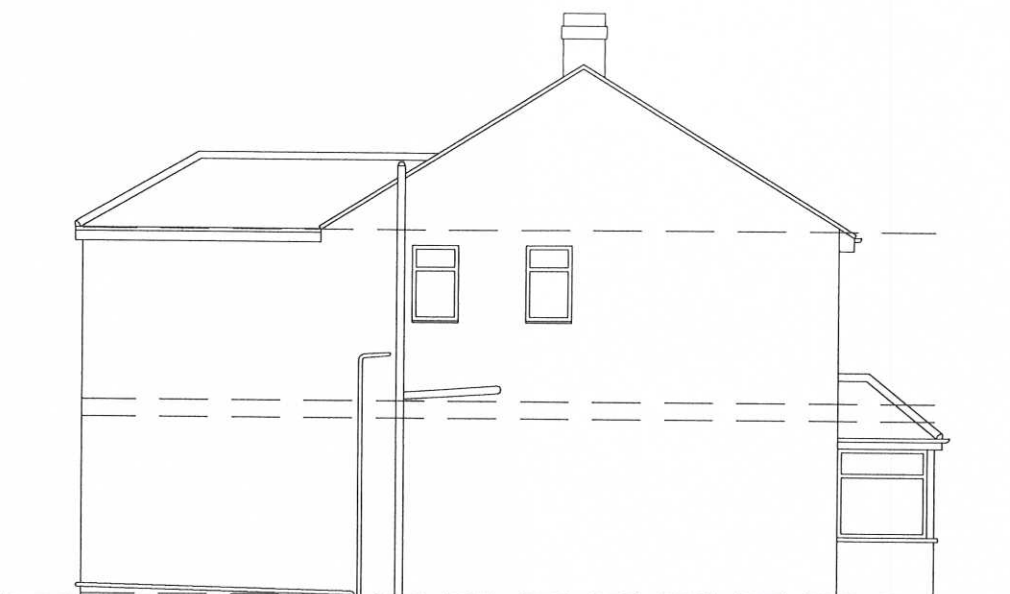




EXISTING FRONT ELEVATION  
SCALE 1:100



EXISTING REAR ELEVATION



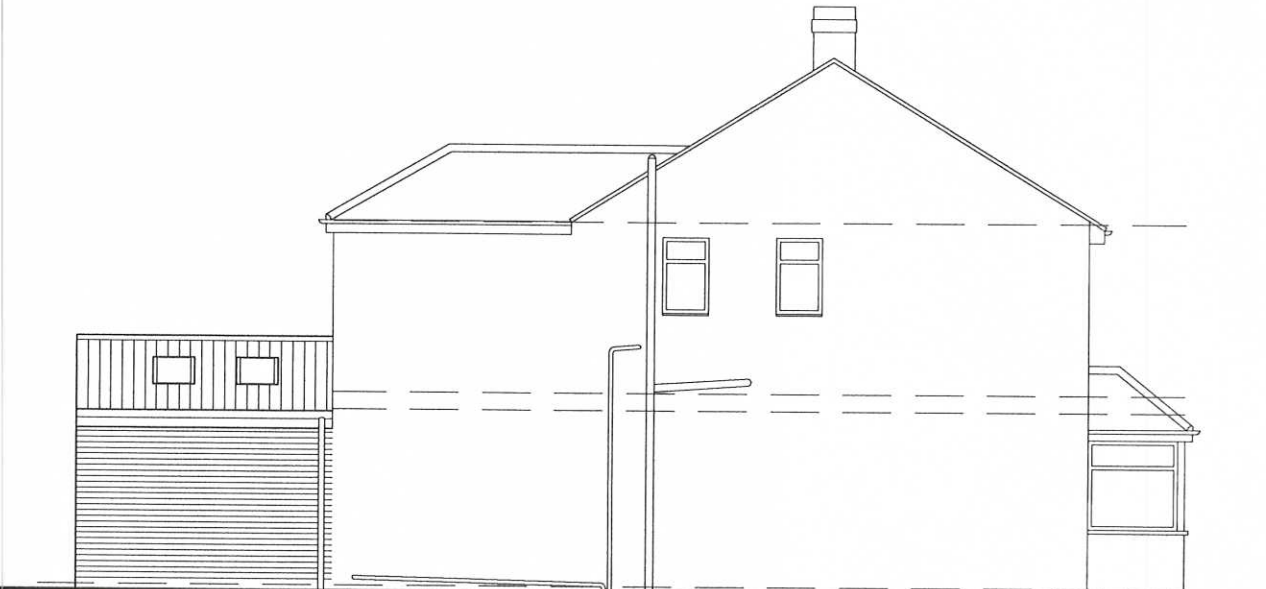
EXISTING SIDE ELEVATION



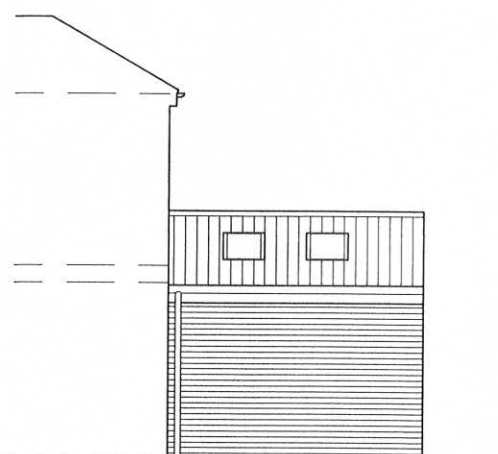
PROPOSED FRONT ELEVATION  
SCALE 1:100



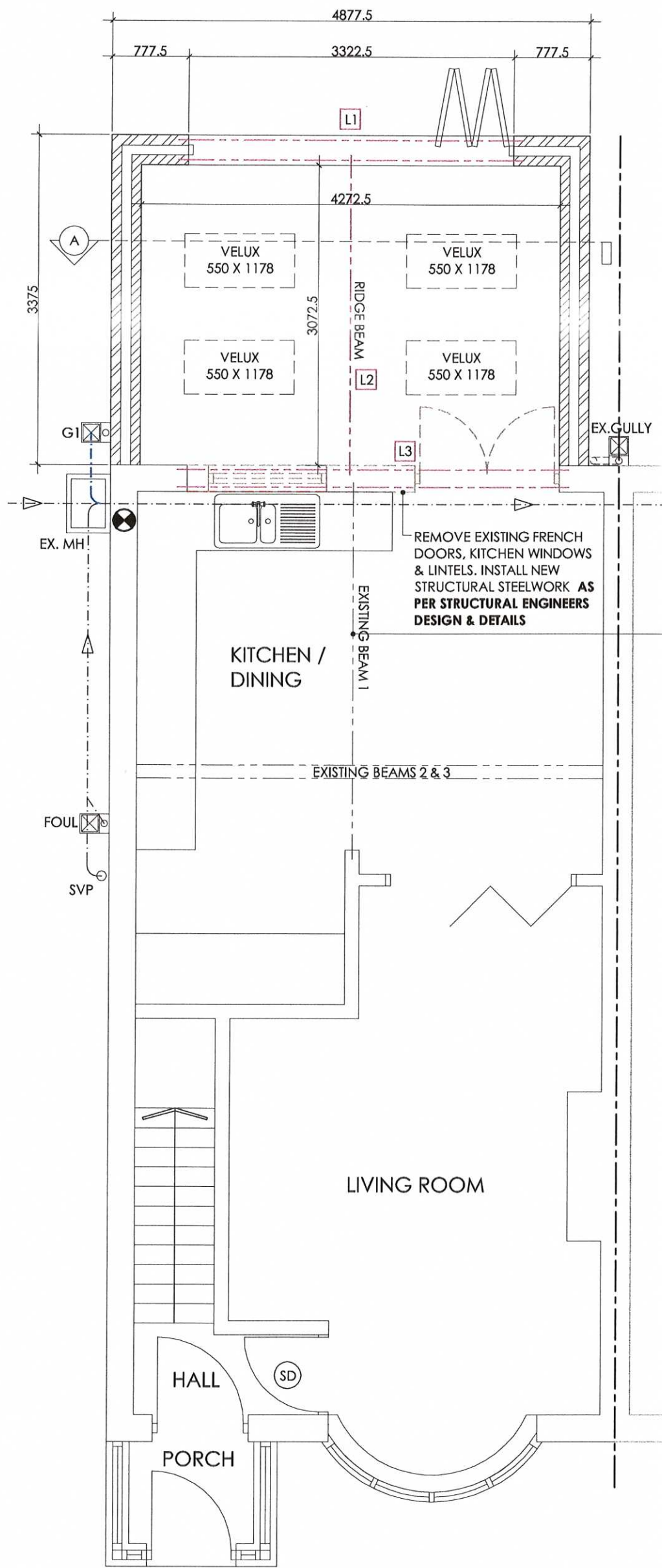
PROPOSED REAR ELEVATION



PROPOSED SIDE ELEVATION



PROPOSED SIDE ELEVATION (2)



PROPOSED GROUND FLOOR PLAN  
SCALE 1:50

\* PROVIDE MAINS OPERATED SMOKE DETECTORS / HEAT DETECTORS / CO DETECTORS TO POSITIONS INDICATED THUS -

\* MECHANICAL EXTRACTOR FANS IN WALL AND CEILING INDICATED THUS -

\* EXISTING GROUND FLOOR IS A SUSPENDED TIMBER FLOOR. SUB-FLOOR VENTILATION TO BE MAINTAINED TO EXISTING FLOORS

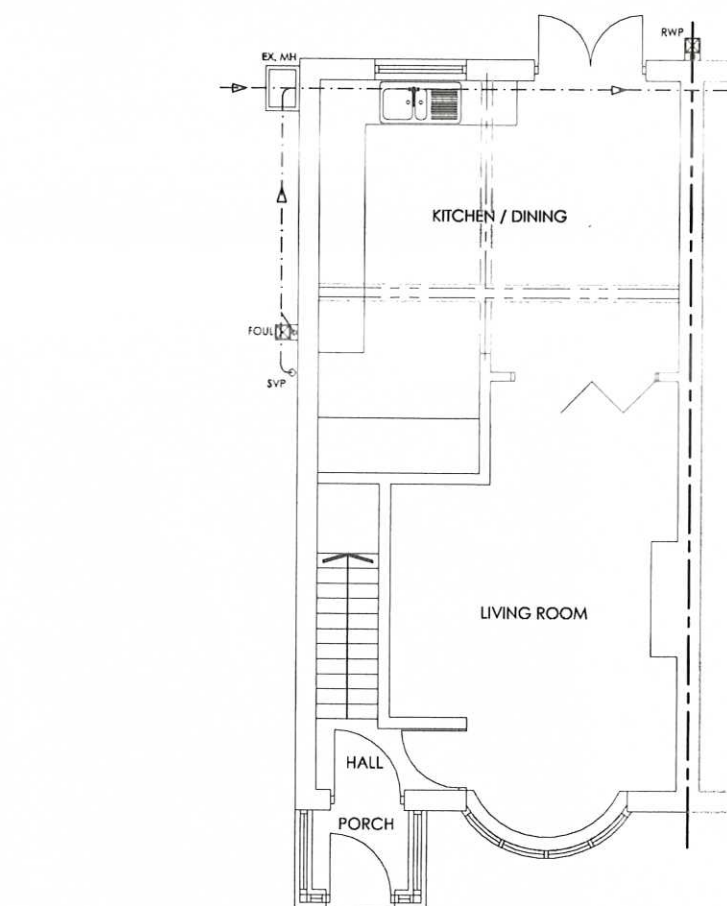
\* STRUCTURE- ALL EXISTING FOUNDS & LINTELS TAKING INCREASED LOADS ARE TO BE EXPOSED AND UPGRADED IF NECESSARY.

EXISTING DRAINAGE  
EXISTING DRAINAGE TO BE ABANDONED  
PROPOSED FOUL DRAINAGE  
PROPOSED SURFACE WATER DRAINAGE

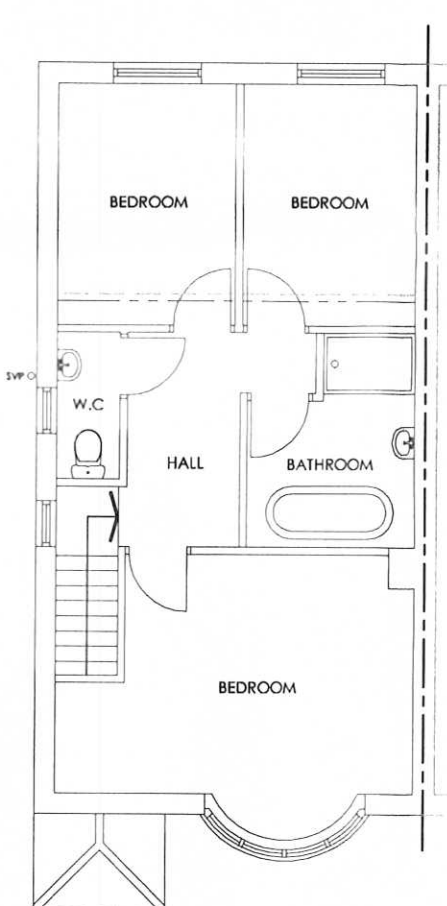
EXISTING BEAM 1 - TO - NEW BEAM (L3) CONNECTION  
PRIOR TO COMMENCEMENT OF WORKS:  
BUILDER TO EXPOSE EXISTING STRUCTURAL BEAM L4 & CONFIRM SPEC / DIMENSIONS TO STRUCTURAL ENGINEER.  
BUILDER TO CONFIRM IF FIRST FLOOR JOISTS ARE SUPPORTED BY THE EXISTING BEAM.

ASSUMED DESIGN OPTIONS:-  
IF EXISTING BEAM IS TIMBER, INSTALL BEAM 'L3', TRIM EXISTING BEAM & SUPPORT ON A JOIST HANGER.  
IF EXISTING BEAM IS STEEL, INSTALL NEW STRUCTURAL MEMBER 'L4' & CONNECT TO 'L3', AS PER STRUCTURAL ENGINEERS DESIGN.

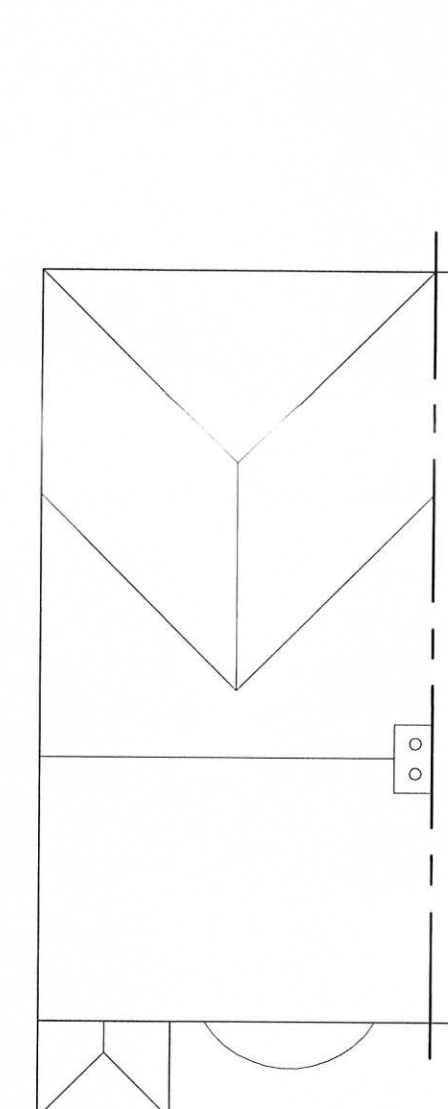
THE ASSUMED DESIGN OPTIONS ABOVE ARE PROVIDED FOR PRICING PURPOSES ONLY. DESIGN DETAILS OF BEAM CONNECTIONS, SUPPORT AND STRUCTURAL CALCULATIONS MUST BE OBTAINED FROM A SUITABLY QUALIFIED STRUCTURAL ENGINEER & SUBMITTED TO BUILDING CONTROL FOR APPROVAL PRIOR TO COMMENCEMENT OF WORKS



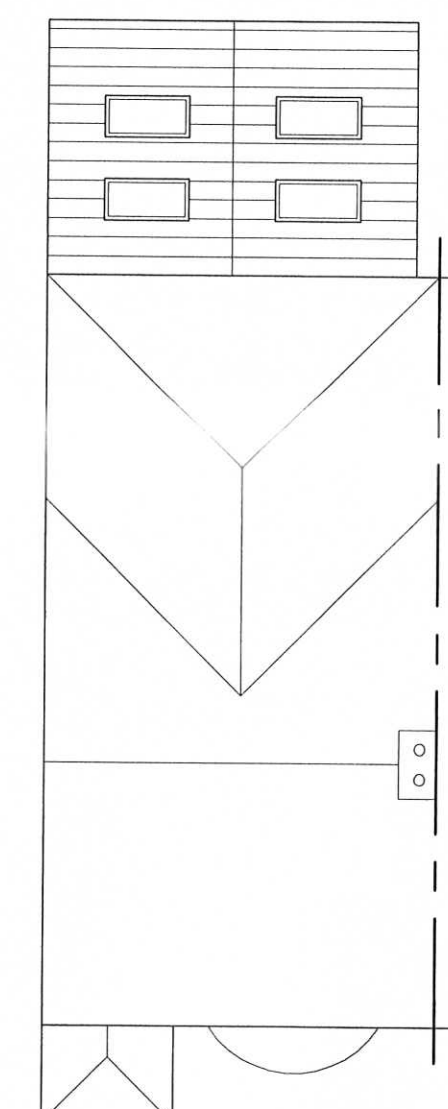
EXISTING GROUND FLOOR PLAN  
SCALE 1:100



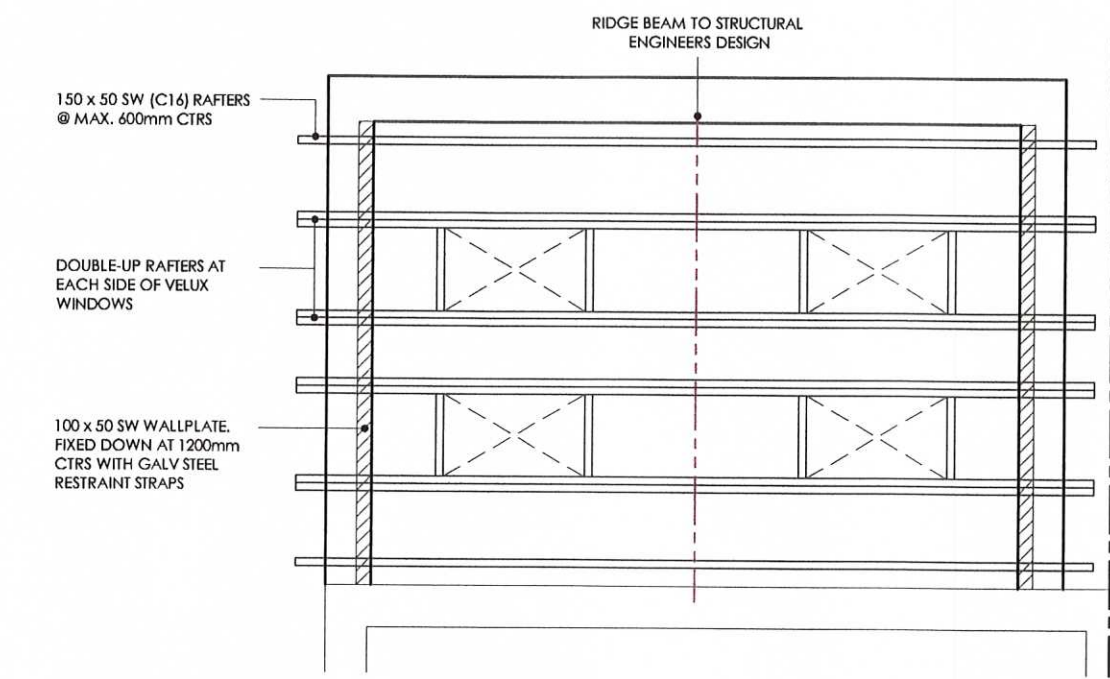
EXISTING FIRST FLOOR PLAN



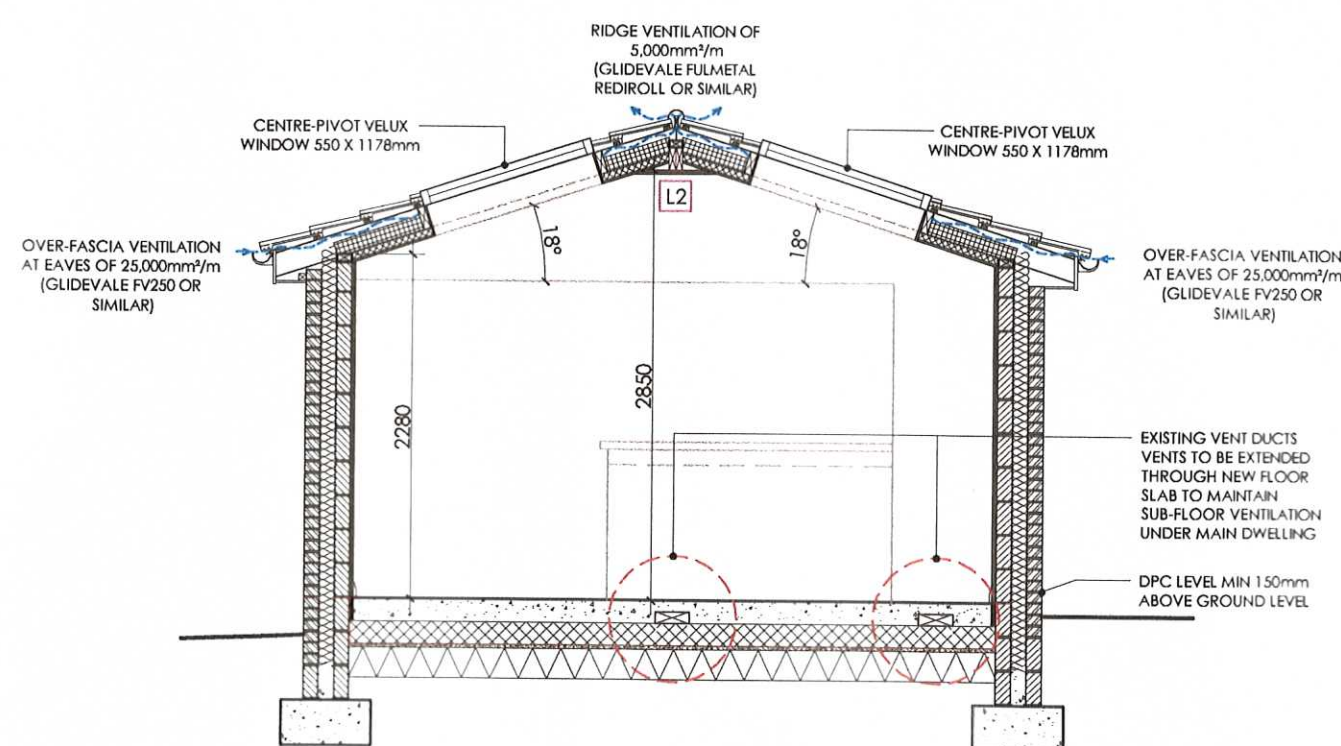
EXISTING ROOF PLAN  
SCALE 1:100



PROPOSED ROOF PLAN  
SCALE 1:100



RAFTER LAYOUT  
SCALE 1:50



PROPOSED SECTION A-A  
SCALE 1:50

#### DRAINAGE:-

ALL BELOW-GROUND DRAINAGE TO BE IN ACCORDANCE WITH BS EN 1401 & TO BE min. 110mmØ uPVC LAID ON min. 100mm PEA GRAVEL BED & LAID TO FALL A MIN. OF 1:40 & CONNECTED TO EXISTING DRAINAGE SYSTEM. PROVIDE NEW RODABLE TRAPPED GULLIES TO POSITIONS INDICATED G.1 & G.2. ALL SVPs TO HAVE PROTECTIVE BIRDGAGES. NEW SHALLOW INSPECTION CHAMBERS TO POSITIONS SHOWN WITH C20 GRADE CONCRETE BEDDING. NEW INSPECTION CHAMBERS TO BE 400mmØ POLYPROPYLENE TYPE WITH DUCTILE IRON COVERS. IF I.C. SITED IN HARD LANDSCAPING I.e. PAVING OR DRIVEWAY, CAST 225mm DEEP CONCRETE RING AROUND TOP OF NEW I.C. TO SUPPORT HARD LANDSCAPING ABOVE.  
ALL ABOVE-GROUND DRAINAGE TO BE uPVC FITTINGS TO BS EN 12056-2. BATH/SINK & SHOWER UNITS TO HAVE 40mmØ WASTES VIA 76mm TRAPS. WHIBS TO HAVE 32mmØ WASTE VIA 76mm TRAPS. W.C. PANS TO HAVE 110mmØ WASTES. ALL INTERNAL DRAINS TO RUN TO SVP OR STUB STACK. STUB STACKS TO BE 110mmØ uPVC PIPE FITTED WITH AN AIR ADMITTANCE VALVE (AAV) LOCATED ABOVE THE OVERFLOW LEVEL OF THE HIGHEST ADJACENT APPLIANCE ATTACHED TO IT. AAV TO BE LOCATED EITHER IN ROOF SPACE OR IN VENTILATED BOXING. ALL DRAINAGE PASSING UNDER A BUILDING TO BE ENCASED IN 150mm CONCRETE. ANY DRAIN PASSING THRO A FOUNDATION TO BE SUPPORTED USING PRE-CAST CONCRETE LINTELS. ALL DRAINAGE TO BE TO THE COMPLETE SATISFACTION OF THE LOCAL AUTHORITY BUILDING CONTROL OFFICER.

#### FOUNDATIONS:-

TO BE min. 400x300mm REINFORCED STRIP FOUNDATIONS LAID ON SUITABLE LOAD BEARING STRATA AT A DEPTH AS DETERMINED IN NHBC STANDARDS CHAPTER 4.2 'BUILDING NEAR TREES'. FOUNDATION DEPTH TO BE CONFIRMED BY A STRUCTURAL ENGINEER & APPROVED BY L.A. BUILDING CONTROL INSPECTOR FOLLOWING ON-SITE INSPECTION OF NEW TRENCHES & THEIR PROXIMITY TO ANY NEARBY TREES. ALL IN ACCORDANCE WITH BS EN 1997 PARTS 1 & 2 AND PART A OF THE BUILDING REGS. REINFORCEMENT IN FOUNDATIONS TO RECEIVE A MIN. OF 40mm CONCRETE COVER. REINFORCEMENT TO BE A142 MESH UNLESS OTHERWISE STATED IN STRUCTURAL ENGINEERS DESIGN. ALL NEW FOUNDATIONS MUST BE BELOW INVERT LEVEL OF ANY NEARBY DRAINAGE. INVERTS SHOULD BE CHECKED BEFORE WORK BEGINS. EXCAVATIONS EXISTING FOUNDATIONS TAKING INCREASED LOADINGS TO BE EXPOSED & INSPECTED TO SATISFACTION OF L.A. BUILDING CONTROL INSPECTOR PRIOR TO COMMENCEMENT OF WORKS.

#### GROUND FLOOR:-

TO BE FLOOR FINISH ON 150mm THICK REINFORCED CONCRETE SLAB ON 150mm KINGSPAN THERMAFLOOR TF70 (OR EQUAL) RIGID FLOOR INSULATION ON 1200g VISQUEEN DAMP PROOF MEMBRANE. ON 25mm SAND BINDING ON 200mm WELL COMPACTED M.O.T. TYPE 1 GRANULAR SUB-BASE. ALLOW 30mm THICK RIGID INSULATION UP STAND TO PERIMETER OF CONCRETE SLAB. FINISHED FLOOR LEVEL TO MATCH EXISTING BUILDING. DPM IN NEW FLOOR TO OVERLAP WITH DPM IN EXISTING FLOOR. ALL LAYS TO BE min. 150mm & FULLY TAPED AS PER MANUFACTURERS' RECOMMENDATIONS. PROVIDE NEW RIGID uPVC DUCTING WITHIN FLOOR SLAB TO MAINTAIN SUB-FLOOR VENTILATION BENEATH EXISTING FLOORS. SEE PROPOSED SECTION A-A.  
ALL TO ACHIEVE A U VALUE OF 0.22W/m2K.

#### EXTERNAL BRICKWORK WALLS:-

TO BE 102.5mm FACING BRICK OUTER LEAF TO MATCH EXISTING. 100mm CAVITY WITH FULL FILL ROCKWOOL INSULATION CAVITY WALL BATTIS, 100mm 3.6m AIRCRETE BLOCKWORK INNER LEAF & 12.5mm FINISH INSULATION TO CONTINUE BELOW LOWEST LEVEL OF FLOOR INSULATION BY min 150mm. WALL TIES TO DD140 & SPACED AS FOLLOWS:- EVERY 750mm HORIZONTALLY, EVERY 450mm VERTICALLY & EVERY 225mm AT DOOR & WINDOW REVEALS. ALL SET OUT IN STAGGERED PATTERN. WALLS BELOW GROUND LEVEL TO BE ENGINEERING BRICKS. PROVIDE WEAK MIX CONC CAVITY FILL BELOW GROUND LEVEL MIN. OF 225mm BELOW D.P.C. ALL NEW BRICK/BLOCKWORK TO BE TIED TO EXISTING ON WALL STARTER BARS. PROVIDE INTERNAL & EXTERNAL D.P.C.'s IN POSITIONS INDICATED ON SECTION DRAWINGS. ALL CAVITIES TO BE MADE CONTINUOUS & CLOSED AT EAVES. ALL CAVITY CLOSERS TO BE INSULATED TYPE & 30 MINS FIRE RESISTANT. PROVIDE STEPPED & NORMAL CAVITY TRAYS WHERE NECESSARY I.e. ABOVE ALL LINTELS. AT ALL ABUTMENTS OF ROOFS TO BRICKWORK (MUST LINK TO CODE 4 LEAD FLASHING)  
ALL TO ACHIEVE A U VALUE OF 0.28W/m2K.

#### ROOF:-

TO BE 'WARM ROOF' CONSTRUCTION COMPRISING CONCRETE INTERLOCKING ROOF TILES TO MATCH EXISTING COLOUR & STYLE (MUST BE SUITABLE FOR USE ON A PITCHED ROOF OF APPROX 18°). ON 38x25mm SW TREATED TILING BATTENS. ON IMPERMEABLE ROOFING UNDERLAY. ON 150x30mm RAFTERS AT 450mm CTRS. RAFTERS NOT COVERED OVER 100 x 50mm WALLPLATES AT EAVES & ABOVE STEEL BEAM AT APEX - BEAM AS PER STRUCTURAL ENGINEERS DESIGN. ALL TIMBER TO BE CLASS C16. WALLPLATES TO BE HELD IN PLACE USING 200x300x3mm MILD STEEL HOLDING-DOWN STRAPS AT MAX. 1200mm CTRS. DOUBLE UP RAFTERS TO BOTH SIDES OF VELUX WINDOWS. ALLOW CONTINUOUS 25mm VENTILATION GAP AT EAVES (GUIDEVALE PV250 FASCIA VENTILATOR OR SIMILAR). ENSURE THAT THERE IS A CONTINUOUS 50mm AIR GAP BETWEEN UNDERSIDE OF ROOFING FELT AND INSULATION. ALLOW A CONTINUOUS 50mm VENTILATION GAP AT THE RIDGE (GUIDEVALE FUMETAL REDIROLL OR SIMILAR). SECURELY FIX 100mm KINGSPAN THERMA PITCH TP10 BETWEEN RAFTERS. FIX 62.5mm KINGSPAN KOOLTHERM K18 INSULATED PLASTERBOARD (50mm INSULATION, 12.5mm PBOARD) BELOW RAFTERS & SKIM FINISH.  
ALL TO ACHIEVE A U VALUE OF 0.18 Wm2K

#### WINDOWS & DOORS:-

PROVIDE HORIZONTAL & VERTICAL INSULATED CAVITY CLOSERS TO ALL NEW OPENINGS. ALL OPENING SASHES TO BE AT LEAST 1/20th OF THE AREA OF THE ROOM THEY SERVE. PROVIDE TRICKLEVENTS TO ALL NEW WINDOWS FOR BACKGROUND VENTILATION. OCCUPABLE ROOM UP TO 10m sq. 4000mm sq. - GREATER THAN 10m sq. - AT THE RATE OF 400mm sq. OF FLOOR AREA. KITCHENS & BATHROOMS 8000mm sq. ALL NEW WINDOWS TO BE DOUBLE GLAZED & TO COMPLY WITH APPROVED DOCUMENT 'N' & 'L1' OF THE BUILDING REGULATIONS. ALL WINDOWS MUST BE CERTIFIED AS W.E.R. BAND 'C' OR TO A 'U' VALUE NOT IN EXCESS OF 1.6 Wm2K. ALL DOORS MUST PROVIDE A 'U' VALUE NOT IN EXCESS OF 1.8 Wm2K. ALL WINDOWS TO HABITABLE ROOMS ARE TO HAVE A CLEAR OPENING OF AT LEAST 750x450mm AND HAVE AN AREA OF 0.33m sq. & NOT MORE THAN 1100mm FROM FLOOR LEVEL. ESCAPE WINDOWS DO NOT HAVE KEYLOCKS. GLAZING TO BE Pilkington K GLASS (OR SIMILAR) WITH 20mm AIR GAP BETWEEN GLAZING. ALL GLAZING LESS THAN 800mm ABOVE FLOOR LEVEL LESS THAN 1500mm IN A DOOR OR SIDE PANEL OF A DOOR - TO BE SAFETY GLASS (IE MUST BREAK SAFELY AS DEFINED IN BS 6206: 1981). PROVIDE OBSCURE GLAZING TO BATHROOM & EN-SUITE WINDOWS.

#### VELUX ROOF LIGHTS:-

TO BE VELUX GGU CENTRE-PIVOT (550 X 1178mm). COLOUR: WHITE - WITH MOULDED POLYURETHANE FINISH. LAMINATED INNER PANE WITH CLEAR AND CLEAN COATING ON TOUGHENED OUTER PANE. TO BE FITTED WITH 180° ROTATING HINGES. PROVIDE VELUX ZCT 200 ROD CONTROL FOR EASE OF OPENING/CLOSING WINDOWS. VELUX ROOF LIGHTS TO INCLUDE ALL FIXINGS, TRIMMERS & FLASHINGS AS MANUFACTURERS INSTRUCTIONS

ALL WINDOWS MUST BE CERTIFIED AS W.E.R. BAND 'C' OR TO A 'U' VALUE NOT IN EXCESS OF 1.6 Wm2K

#### RAINWATER GOODS:-

GENERALLY TO BE 112mm DIA. HALF ROUND uPVC GUTTERS & 68mm DIA. DOWNPIPES IN COLOUR TO MATCH EXISTING.

#### LINTELS/STRUCTURAL STEELWORK:-

NEW STRUCTURAL MEMBERS AS INDICATED ON PLAN AS FOLLOWS:-  
L1 - RECTANGULAR HOLLOW SECTION STEELWORK WITH 300mm WIDE PLATE WELDED ONTO BOTTOM SUPPORTING INNER & OUTER LEAF OF NEW CAVITY WALL ABOVE BI-FOLD DOOR OPENING.  
L2 - UNIVERSAL STEEL BEAM SUPPORTING NEW RAFTERS AT THE RIDGE.  
L3 - UNIVERSAL STEEL BEAMS SUPPORTING EXISTING WALL ABOVE L4.  
L4 - DETAILS OF THIS BEAM & ITS CONNECTION TO L3 TO BE CONFIRMED FOLLOWING OPENING-UP WORKS TO CONFIRM THE TYPE/SIZE OF THE EXISTING BEAM. SEE NOTE ON PROPOSED FLOOR PLAN.

ALL TO BE IN-ACCORDANCE WITH STRUCTURAL ENGINEERS DESIGN & DETAILS. ALL BEAMS SET ON PADSTONES - TO BE GRADE C30 CONCRETE. ALL NEW LINTELS TO BE ENCASED IN 150mm PLASTERBOARD WITH SKIM FINISH TO PROVIDE A MINIMUM OF 30mins FIRE PROTECTION.

#### ELECTRICAL WORK:-

ALL ELECTRICAL WORK REQUIRED TO MEET THE REQUIREMENTS OF PART P (ELECTRICAL SAFETY) MUST BE DESIGNED, INSTALLED, INSPECTED AND TESTED BY A PERSON COMPETENT TO DO SO. PRIOR TO COMPLETION THE COUNCIL SHOULD BE SATISFIED THAT PART P HAS BEEN COMPLIED WITH. THIS MAY REQUIRE AN APPROPRIATE BS 7671 ELECTRICAL INSTALLATION CERTIFICATE TO BE ISSUED FOR WORK BY A PERSON COMPETENT TO DO SO. ALL NEW SWITCHES AND SOCKETS TO BE BETWEEN 450 & 1200 FROM GROUND LEVEL. A MINIMUM OF 75% OF ALL NEW LIGHT FITTINGS TO HABITABLE ROOMS MUST EITHER ONLY ACCEPT LOW ENERGY LAMPS OR BE SUPPLIED WITH LAMPS WITH INTEGRATED CONTROL GEAR THAT HAVE A MINIMUM LUMINOUS EFFICACY OF 45 LUMENS PER CIRCUIT-WATT, AS PER DOMESTIC BUILDING SERVICES COMPLIANCE GUIDE. SECTION 12 PAGE 123. ROOMS WITH THESE FITTINGS ARE TO BE THE MOST FREQUENTLY USED.

#### SMOKE DETECTION:-

PROVIDE SMOKE DETECTOR TO EACH FLOOR IN POSITIONS INDICATED ON PLAN. ALL DETECTORS ARE TO BE LINKED & POWERED BY MAINS ELECTRICITY SUPPLY & ARE TO BE ON AN INDEPENDENT CIRCUIT. DETECTORS ARE TO BE POSITIONED IN CIRCULATION SPACE WITHIN 7.5m OF ALL HABITABLE ROOMS.

#### MECHANICAL VENTILATION:-

PROVIDE MECHANICAL EXTRACTOR FANS TO KITCHEN, UTILITY & BATHROOMS. KITCHEN - 60 LITRES/SECOND EXTRACTOR FAN. 15 LITRES/SECOND. BATHROOMS - 15 LITRES/SECOND CONNECTED TO ROOM LIGHTS WITH 15mins OVER-RUN.

#### GENERAL:-

- ALL WORK TO COMPLY WITH THE BUILDING REGULATIONS.
- ALL DIMENSIONS TO BE CHECKED ON SITE.
- REFUSE COLLECTION TO BE MAINTAINED.
- EXTEND NEW ELECTRICAL SYSTEM TO CLIENTS REQUIREMENTS.
- EXTEND NEW HEATING SYSTEM TO CLIENTS REQUIREMENTS.
- ANY WORK TO PARTLY UNDO TO HAVE WRITTEN PERMISSION OF ADJOINING OWNER PRIOR TO COMMENCEMENT OF WORKS.
- ALL NEW RADATORS TO BE FITTED WITH TRVs EXCEPT IN BATHROOMS & ROOMS CONTAINING A THERMOSTAT.
- STRUCTURAL ENGINEERS DETAILS & CALCULATIONS TO BE PROVIDED FOR STEELWORK L1-L3. FURTHER CALCULATIONS MAY BE REQUESTED BY BUILDING CONTROL.
- DESIGN DETAILS & CALCULATIONS TO BE PROVIDED FOR RAFTERS OVER KITCHEN EXTENSION. TO BE SUBMITTED TO L.A. BUILDING CONTROL PRIOR TO INSTALLATION.

ST0939 / 15 HFUL

### PROPOSED SINGLE STOREY EXTENSION TO REAR OF DWELLING

4 STATION ROAD, EAST BOLDON. NE36 0LD

### EXISTING & PROPOSED PLANS, ELEVATIONS & SECTIONS

SCALE:-	SHEET SIZE:-	DATE:-	REV:-
VARIOUS	A1	SEPT 2014	A