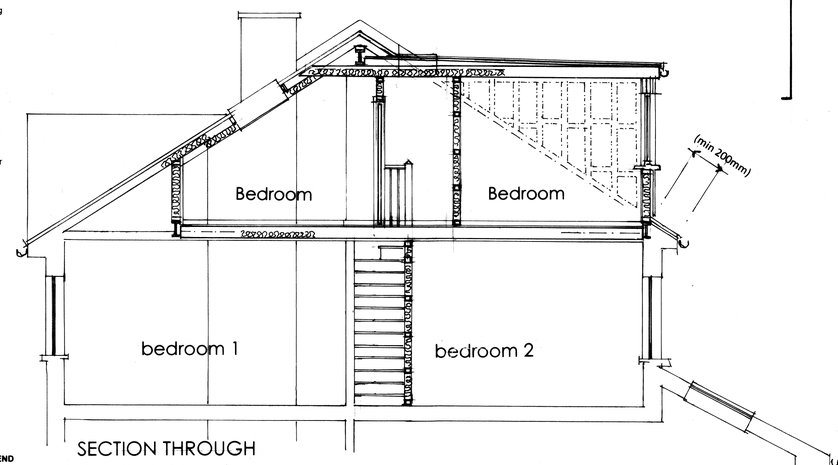
PROPOSED EAST ELEVATION

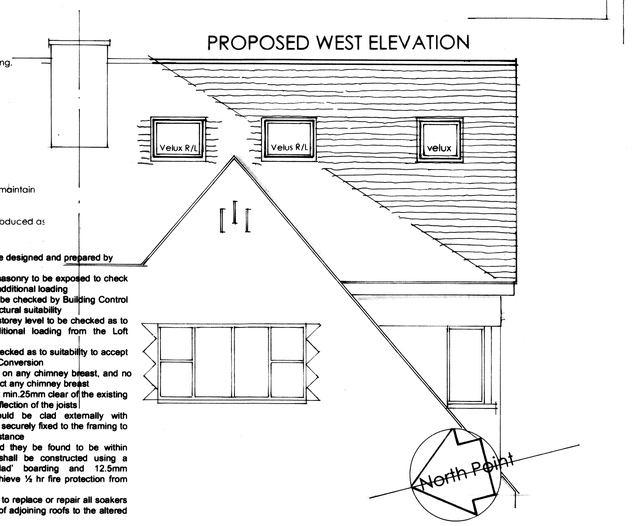
PROPOSED SOUTH ELEVATION

DORMER FLAT ROOF CONSTRUCTION
All joists to be secured using mild steel lateral restraint straps @ 1 metre centres and secured at each end using mild steel joist hangers
220 x 38 C16 timber joists at 400crs with exterior plywood
77mm - 0mm firring pieces with cross battens to afford ventilation. Ventilator fitted to flat roof
18mm exterior plywood (OSB3TG4).
Celotex XR4000 (200mm) between joists
Flat roof finished in lead grey GRP
12.5 foil backed plasterboard and plaster finish
ALL TO AFFORD 0.17 W/m2k
DORMER FACE AND END WALL
Dormer construction to be minimum 97 x 47 timber head and sole plates with 97 x 47 timber studs at 400 crs
Double studs at corners and side openings. Celotex FR5000 (100mm) between studs and FR5000 (25mm) over inner surface of studs, taped joints and 12.5 foil backed plasterboard. Clad externally in 18mm exterior quality plywood with battens and vertical tile hanging. Lead soakers where dormer abuts roof
ALL TO AFFORD 0.21 W/m2k

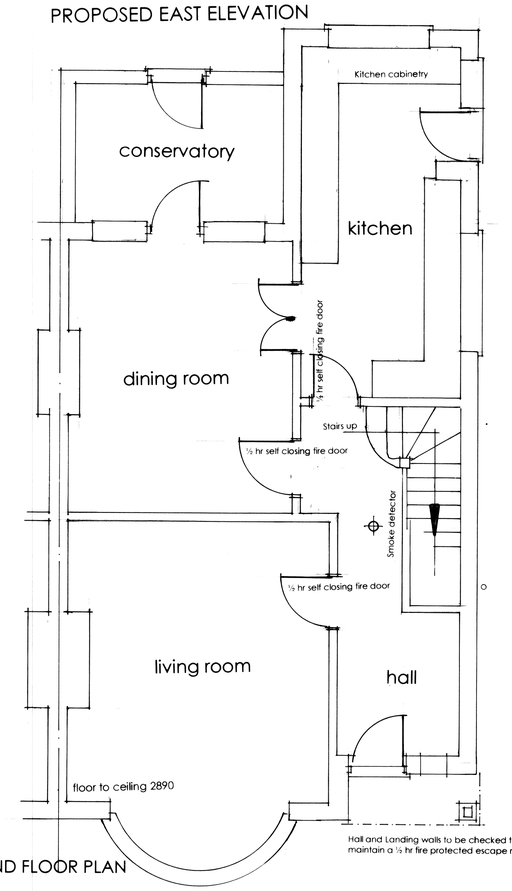


SECTION THROUGH

GABLE END
Existing hip roof removed and new gable end wall constructed in 140 x 47 (24) timber studs at 400 crs
60mm Celotex GA4000 between studs
100mm cavity with 50mm Celotex GA4000
100mm Celcon blockwork with timber battens and vertical tile hanging
12.5 foil backed plasterboard and set internally
ALL TO AFFORD 0.18 W/m2k
ROOFLIGHTS
2 number GPL top hung MK06 (1178 x 718)
Rafters to be doubled up to support rooflights.
KNEE WALLS
97 x 47 sole and head plates
Sole plate set upon structural steel
with 97 x 47 timber studding at 400crs
80mm Celotex GA400 between studding
15mm + 12.5 Celotex PL4000 to inner surface of studding, plaster and set
ALL TO AFFORD 0.26 W/m2k
SKEILING/ROOF
145 x 47 (24) rafters at 400crs from ridge to knee wall
50mm cavity to be maintained and formed in rafters
50mm Celotex GA4075 between the rafters
60mm + 12.5 Celotex PL4000 to underside of rafters, plaster and set
ALL TO AFFORD 0.18W/m2k
FIRST FLOOR
195 x 47 (24) floor joists at 400 crs
Add 150mm mineral fibre between floor joists to both maintain heat and reduce airbourne sounds
ROOF CONSTRUCTION
Purlins and struts removed and structural steelwork introduced as by **Structural Engineer's** design and calculation

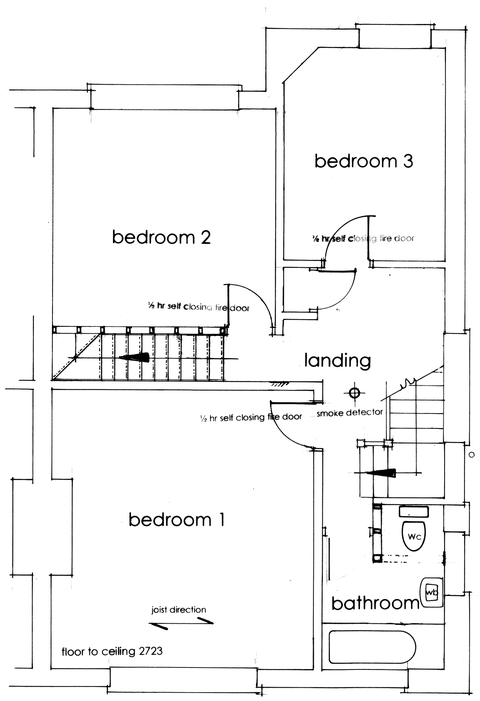


PROPOSED WEST ELEVATION

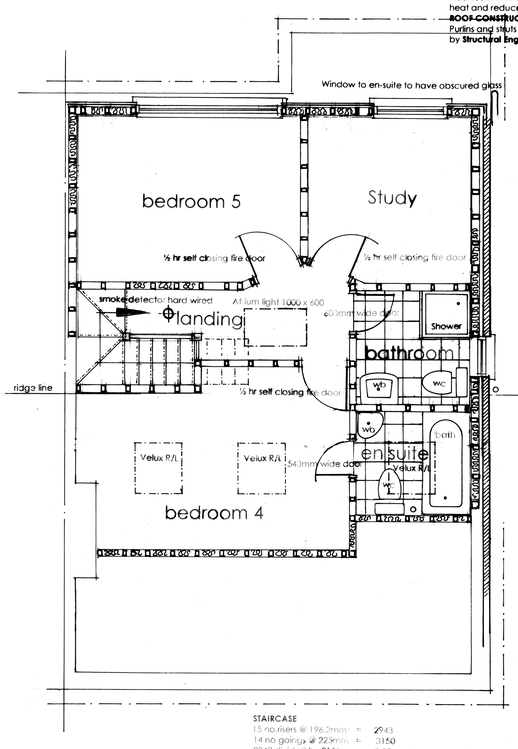


GROUND FLOOR PLAN

Hall and Landing walls to be checked to maintain a ½ hr fire protected escape route



FIRST FLOOR PLAN



STAIRCASE
15 no.risers @ 196.2mm = 2943
14 no going @ 223mm = 3150
2943 divided by 3150 = 0.93
Tan theta = 43 degree pitch to stairs

1. Structural Calculations to be designed and prepared by John Bender Associates
2. Foundations to extended masonry to be exposed to check their suitability as to sustaining additional loading
3. Condition of these walls to be checked by Building Control Officer on site to verify their structural suitability
4. Lintels to openings at first storey level to be checked as to their suitability to accept additional loading from the Loft Conversion
5. Existing spine wall to be checked as to suitability to accept additional loading from the Loft Conversion
6. No loading shall be placed on any chimney breast, and no beam pad-stones should intersect any chimney breast
7. New floor joists shall be set min.25mm clear of the existing ceiling to prevent damage by deflection of the joists
8. The dormer framing should be clad externally with minimum 10mm WBP grade ply securely fixed to the framing to provide satisfactory racking resistance
9. The dormer cheeks should they be found to be within 1.00mm of a site boundary shall be constructed using a underling of 6mm 'Masterclad' boarding and 12.5mm plasterboard internally all to achieve ½ hr fire protection from both sides
10. Allowance should be made to replace or repair all soakers and flashings at the abutments of adjoining roofs to the altered party walling
11. Doors opening onto the staircase enclosure at existing storey levels should be fitted with a mechanical self closing device. Any glazed panels in a door, or fanlights over a door shall be re-glazed using 6mm wired glass or similar
12. New staircase enclose in the new Loft Conversion shall have ½ hr fire protection and the doors into the new Loft Conversion should be FD20 grade self closing
13. The Velux rooflight to the new Loft Conversion to be at least 850mm high and 500mm wide when open 1.1m vertically from internal FFL, positioned to allow access for rescue by ladder from the ground
14. A smoke alarm to be fitted to the staircase enclosure at each storey level, interlinked and connected to a regular used lighting circuit when the system includes a stand-by power supply
15. New joists should be located a minimum 40mm clear of any chimney breast
16. The roof ventilation voids should be not less than 50mm height internally, this between upper face of insulation and the underside of the roof sarking and should be vented to the atmosphere with a system of ventilation that will provide at least 25000mm2 per linear metre clear area at two opposite sides of the roof. The ventilators should be designed to resist insect or other infestation and to prevent rainwater ingress to the roof voids when fitted
17. Ridge ventilation into the remnant loft space to be provided by introduction of roof ventilators to afford 5000mm2 per linear metre
18. The discharge of the rainwater to be as shown on the drawings, the existing guttering and rwp's to be inspected in consultation with the BCO on site. The rainwater to discharge into a sw or combined drainage system and not a soakaway New flat roof over Kitchen/Breakfast area to be of Warm Deck Construction using 90mm insulated roof boarding together with a suitable vapour barrier
19. All new external walls to be provided with lateral restraint straps and the roof structure adequately held down using 30 x 5mm GMS wall plate straps at a maximum 2.00m centres securely mechanically fixed to the wall plate and external walling
20. The bathrooms/wc to be provided with mechanical ventilation to give a rate of at least 3 air changes per hour, and be controlled by the light switch or a PIR device and should over-run for at least 15 minutes

0m 1m 2m 3m 4m 5m

SCALE BAR 1:50 @ A1

CDM REGULATIONS
The client's attention is drawn to the current Construction Design & Management Regulations 2020 which relate to any building work involving more than 500 man hours or longer than thirty days duration. It is the client's responsibility to appoint a planning supervisor on all projects which require compliance with these regulations.

The Party Wall etc Act 1996
Under the Party Wall Act 1996 the client has a duty to ensure compliance if the works involve; works on an existing wall shared with another property or excavating near adjoining building. It is the client's responsibility to employ where necessary, a party wall surveyor to deal with all party wall matters

"A" REVISION
Second floor layout reconfigured to client's request
Position of new staircase to second floor repositioned
January 2022

client:
Mr & Mrs A. Grant

address:
57 Bedford Avenue
Barnet
Herts
EN5 2ER

drawing:
Hip to Gable roof conversion with rear dormer

scale:	date:	drawn
1/50 @ A1	Dec 2021	

J H A Designs
18 Maryland Road Hawkenbury Tunbridge Wells Kent TN2 5HE
Telephone 01892 523890
Email jand90@aol.com

drawing number:
1433-1A