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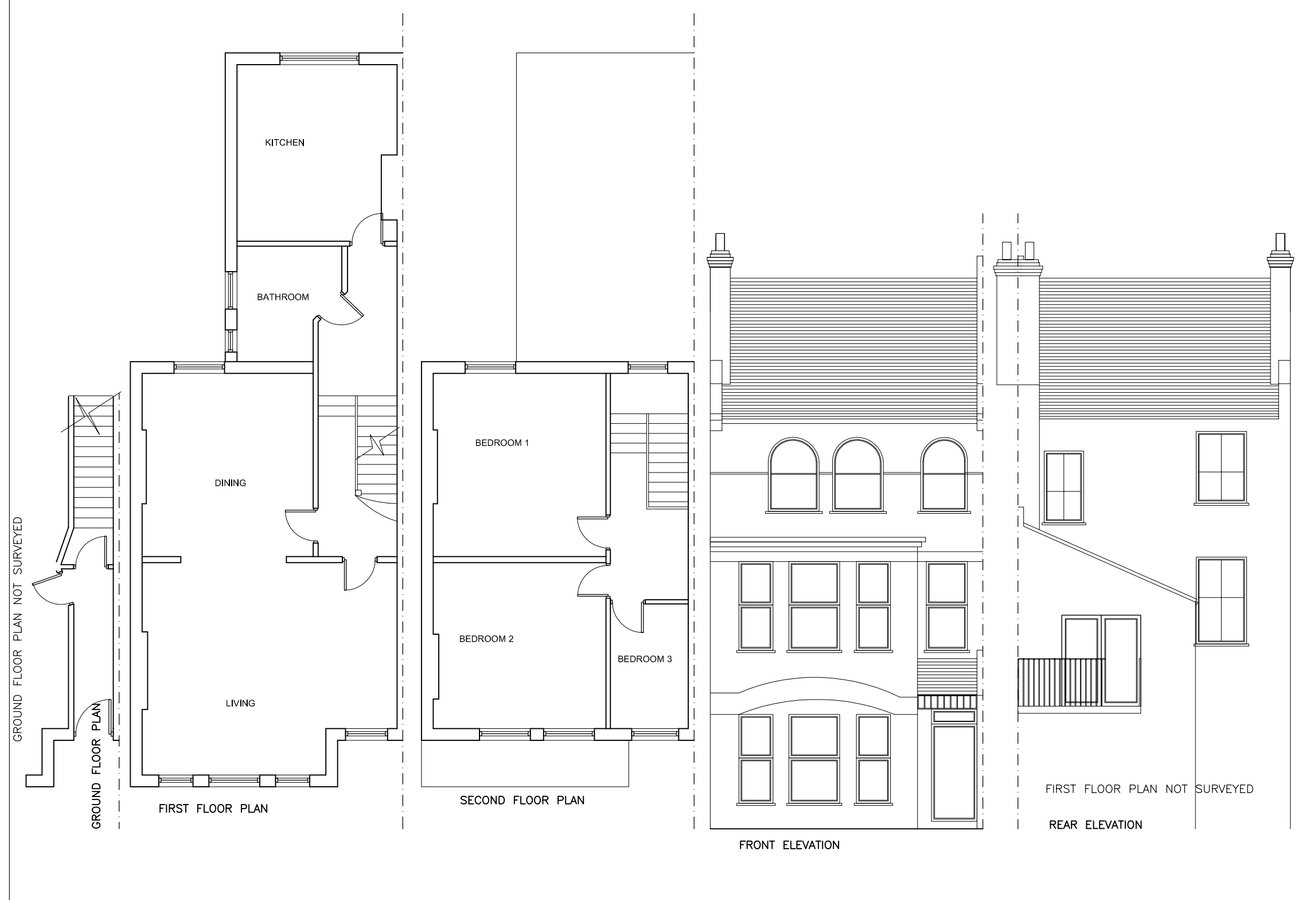
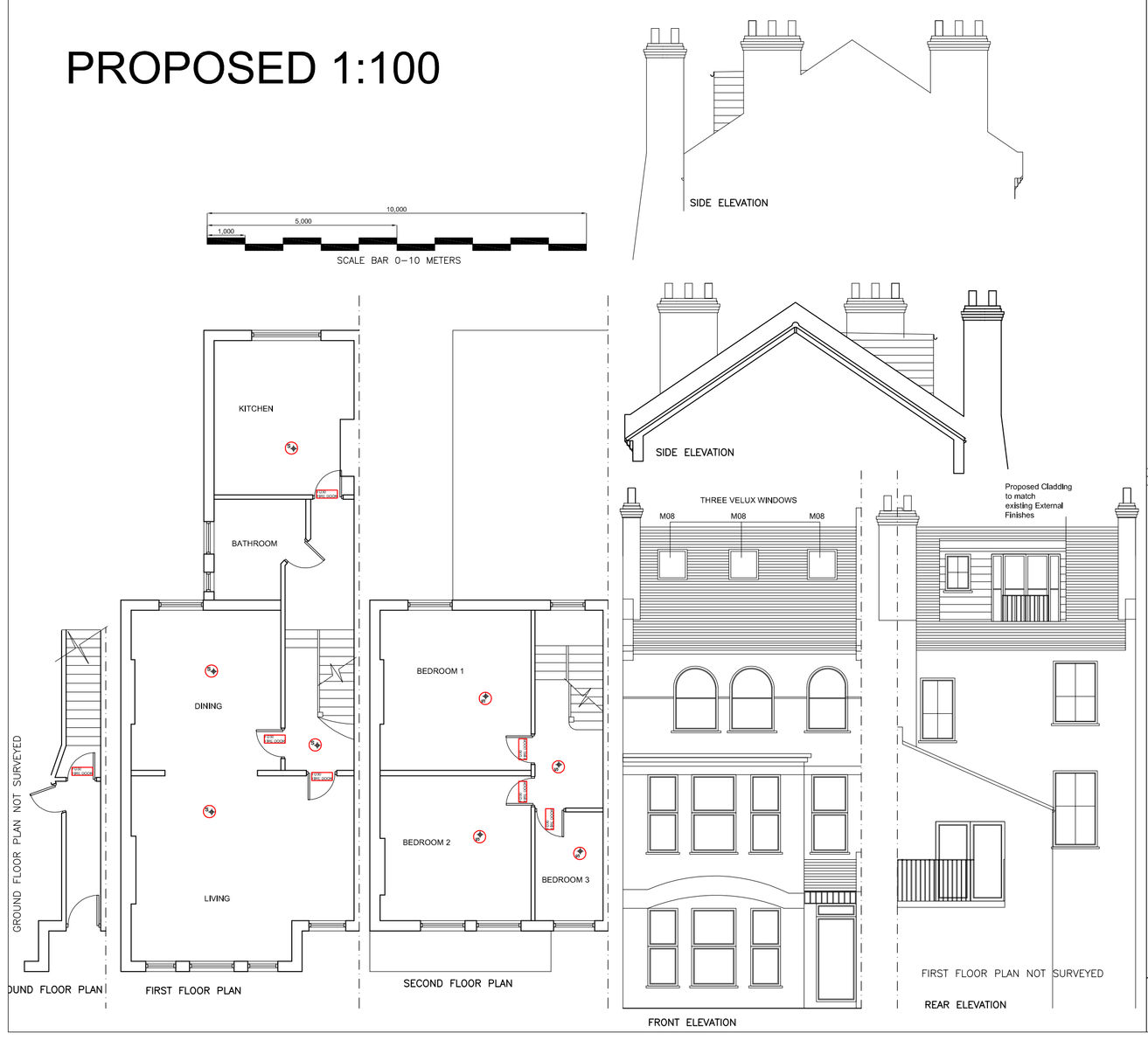
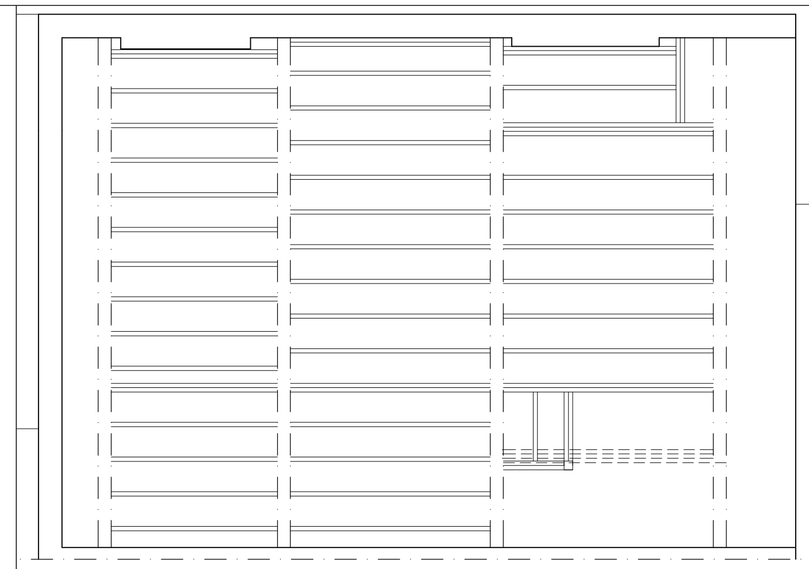
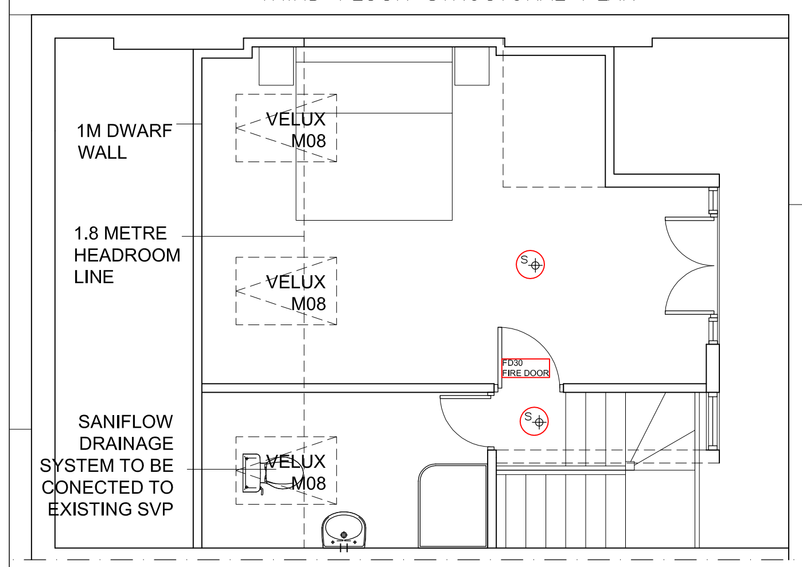


PROPOSED 1:100

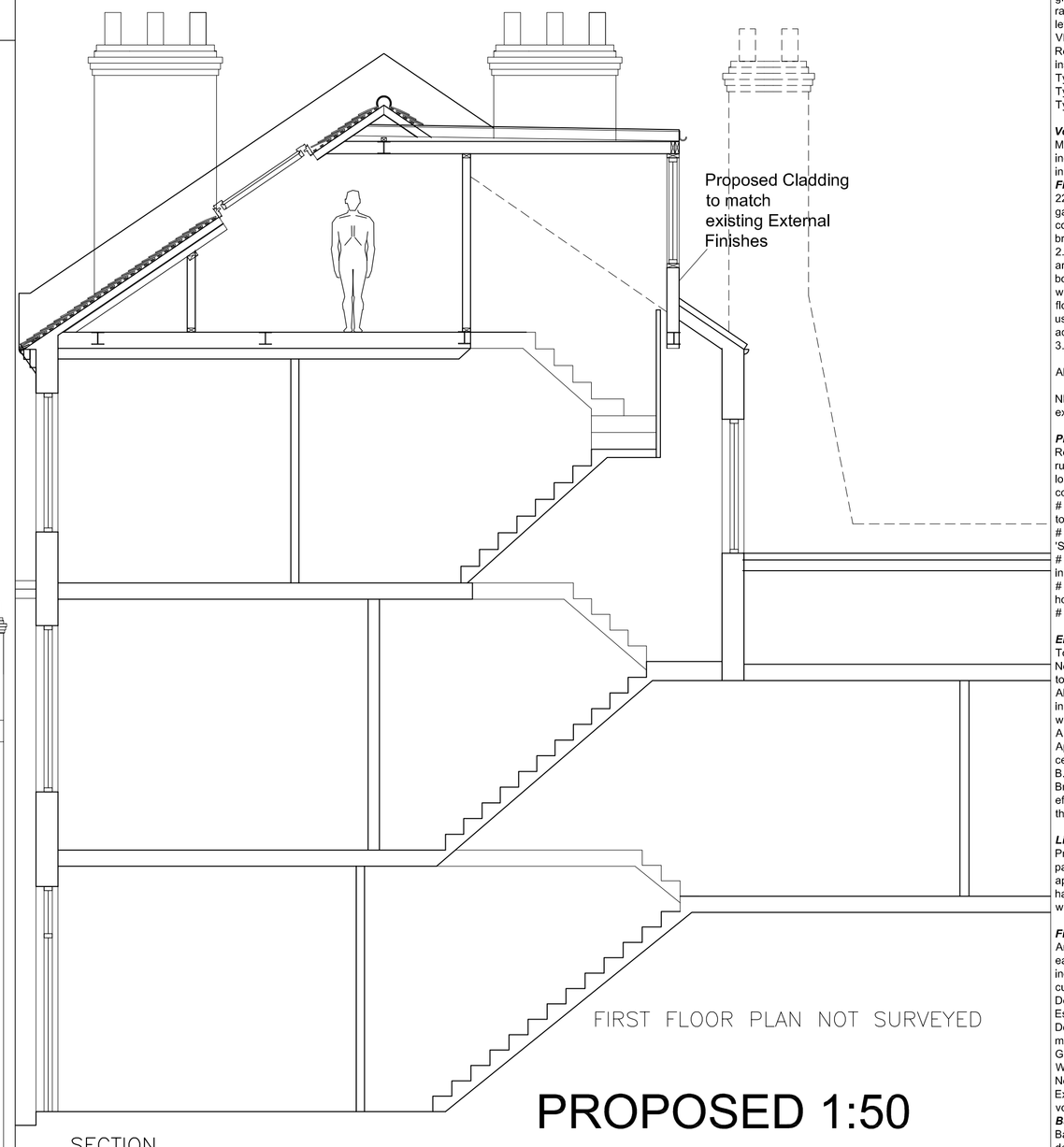




THIRD FLOOR STRUCTURAL PLAN



THIRD FLOOR PLAN



SECTION

PROPOSED 1:50

General Outline Specification:

Dormer Roof construction (Warm Deck)

12mm bitumen bedded chippings on 12mm proprietory 3 layer built up roofing type 3G to BS 747 on 1 30 mm Kingspan Thermoroof TR21 with bitumen impregnated glass tissue facings on both sides over proprietory vapour control layer over 19mm thick OSB board grade 2 or higher on timber firrlings laid to a min fall of 1:40 on joists to be tied to the wall/structure using galvanised steel ties @ 900mm c/c. Ceiling lined with 9.5mm foil backed plasterboard and skim to achive a total U value of 0. 18W/m,K.

Dormer Cheeks

Plain tile hanging to dormer checks on 38 x 25mm battens on breather membrane on 9mm Supalux or similar on 12mm external grade sheathing ply on 100 x 50 sw timber frame work on tripled up rafters. 70mm Celotex FR4000 insulation between studs, finished internally with 9mm Supalux & 37.5mm Celotex PL4000 and skim all joints taped and sealed, all to achieve 0.24 W/m,K U Value. All to give 1 hour fire resistance. Trimmers and rafters around chimney to be located with 40mm distance.

Ventilated Pitched /Mansard Roofs

Existing/new roof slopes to have one layer of 7 5mm Celotex FR4000 insulation board cut between rafters and battens fixed to rafter to maintain 50mm air gap above insulation. Batten out underside of existing rafters to give rafter depth of 125mm to enable 50mm air circulation over insulation. Line inside face of rafters with 72.5mm Celotex PL4000 with integral 12.5mm plasterboard and skim to achieve min 0. 18 W/m,K U value.
ACCESS DOORS TO VOID STORAGE IN ROOF: To be thermally insulated to the standard of adjacent walls and provided with perimeter draught seals.
PITCHED/FLAT ROOF JUNCTION:a)Provide 100mm Rockwool blocking strip between rafters and flat roof to avold vented air entering into flat roof void beneath warm deck to the rear of the dormer.
b) Flat roof felt to be dressed up beneath the underfelt of the pitched roof to a height of at least 150mm high.
ROOF VENTILATION: Proprietary tile/slate vents to provide ventilation openings to the existing roof with an area at least equal to a continuous opening strip of 25mm to eaves and 5mm to ridge.
ROOF UNDERLAY:Twyvek Breathable felt "draped" over rafters with minimum 150mm lap.

Roof Void Insulation

100mm thick insulation laid between the joists and 100mm Kooltherm K12 (200mm overall) Rockwool insulation within ceiling void to achive a U value of 0.13 W/m,K or equal approved. Note:All timber floor deck boarding over insulation to be taken up to eaves for sound proofing.

Party Wall Construction/Dry Lining

Where party wall is to be extended to form any part of the rear roof extension the existing wall should be taken down to level courses to form a secure bed for the new brick work construction to match existing. A raked joint between the old and the work will not be satisfactory. Allow for replacement of and/or repair of flashings, soakers at the abutment of adjoining roofs to the altered party walls.
Wall dry lining of 72.5mm Celotex PL4000 taped as VCL with 25x 47 treated battens at 600mm centres (or 15mm cavity plaster on dabs) lined with skim. Ensure that any holes/gaps in the party wall are to be solidly filled prior to lining. All mechanicaly fastened to party wall to give 0. 28 W/m,K U value.

LEAD FLASHINGS; Provide code 5 lead flashings to dormer roof cheek abutments, to vertical tile wall and pitched roof junctions as noted on the drawings. Chase/step and point into walls, linked with stepped trays in cavity walls, linked with full DPC on parapet underthroated concrete copings.
LEAD WORKMANSHIP: All leadwork executed in accordance with Lead sheet manufacturer's association manual vol 1, 2 and 3. Rolled lead sheet to BSEN 12588:1999. Further guidance is given in the British Standard for lead roofing and cladding and a reference to this Standard could be in BS6915: 2001 'Design and Construction of fully supported lead sheet roof and wall coverings.

Dwarf Wall

New stud wall 50 x 100 studs at 400mm centres with 60mm Celotex FR4000 in between stud & 37.5mm Celotex PL4000 to face of studs with Integral foil backed plasterboard and skim inside . Studs bolted to rafters with M12 bolts and timber connections.

Internal Stud Walls

Internal walls 50 x 75 studs at 400 c/c fixed to 50 x 75 head and sole plates with 12.5mm Gyproc Soundblock plasterboard and skim finish. Staircase enclosure 12.5mm Gyproc Soundblock plasterboard (mass 10 Kg/m$_2$) or similar and skim both sides (half hour fire resistance). Double up joists where partition runs parralel to joists.
All new internal partitions to be fully filled with 100mm mineral wool insulation.

Stair

Made to give equal risers of no greater than 220mm and equal goings of no less than 220mm. Match pitch of new stair 42 degrees. Width of new stair average of 840mm. Handrail provided to winder side of stair set 900mm above pitch line. Vertical spindles set at 99mm max spacing balustrades as handrail. Maintain a clear 2.0m headroom above the full length of the new stair flight and maintained above existing. Min of 50mm going is required to the staircase winders. Going to the winders to be at least wide as the straight flight, measured at the centreof the curved stair. Double up floor joists at landing/ stairwell opening and newel timber post taken down to floor level below to support winders/quarter landing.
Contractor to discuss with building inspector full stair design and provide proposal to surveyour prior to instalatlon on site

External Windows/Doors

(opening areas to be kept to an overall 25% or less of the extension floor area)

All windows& doors to be UPVC unless otherwise stated to be Pilkington 'K' glass double glazed units to be double glazed , 4mm(Optifloat glass)/16mm(argon filled soft low-E-coating)/4mm(Pilkinton K glass) to achive U value of 1.5 W/m,K and 1.8W/m,K for all new doors with more than 50% glazing..
Natural ventilation to be provided with openings with an area of at least 1/20th of the floor area of relevant room.
All windows/doors to be fitted with ventilators to provide background ventilation of 8000 mm$_2$ to habitable rooms.
New shower/bathroom to have a trickle vent 4000mm$_2$ (lf fitted with window)
Compliance to part N:
"Glazing -materials and protection" of the Building Regs and Pilkington 'K' Toughned glass glazing to comply with the requirements of BS 6206 and Building regs part 'L'. For Size of windows and doors refer to elevations and plans. Safety glazing to comply with BS 6206 at all critical locations with toughned glass.

Velux Roof Windows

All Velux windows to be double glazed , 4mm(Optifloat glass)/16mm(argon filled soft low-E-coating)/4mm(Pilkinton K glass) to achive U value of 1.5 W/m,K and fitted to manufacturers instructions, trimmed both side with doubled up rafters providing top and bottom trimmers, escape Velux 500 x 850mm clear when open, set 800-1100mm off floor level. Double trimmers around roof light openings and to be bolted.
VELUX ROOFLIGHTS:
References as indicated on plans. Sizes vary as noted below. All flashings and installation as per manufacturer's instructions. Class 1 surface spread of flame clasicfcaltion AA.

Type GGL-S06 1180 x 1140mm,	Type GPL-M08 1400 x 940mm
Type GGL-M04 780 x 980mm,	Type GGL- M06 780 x 1180mm
Type GGL-C04 550 x 980mm,	Type GGL-C02 550 x 780mm

Ventilation

Mechanical ventilator to bathroom to achieve 15 l/s extraction with 15min overrun (intermitent operation) independently operated where there is window, ducted to external air, (link to light switch where there is no window in room). Provide 10mm gap under door for air replacement. Background ventilation to be 5000mm sq to all rooms.

Floor

22mm T & G chipboard flooring (15 kg/m$_2$) screwed to softwood joist (see structural plan for joist sizes) on beams, galvanised joists hangers or notched into the beam web. Joist and beams to be 25mm clear of existing ceiling construction and 50mm clear of chimney flues. No stuctural timbers to be located within 50mm of the chimney breasts. Double floor joist under all partitions and around chimney breasts. Where the span of the joists exceeds 2.5m but less than 4.5m then a central row of strutting is required to them, if the span exceeds 4.5m then two rows are required and should be placed at 1/3rd and 2/3rd of the span. All multiple beams to be bolted at 300 c/c uslng bolted connections which should be staggered and allernated on each slide at structural steelwork to be Fire rated with intumescent paint or two layers of 12.5mm plasterboard. Support (where necessary) existing ceilling from new floor with straps etc. Any timber jolsts supported in party wall to be suported on joist hangers. Note:For Bathrooms use 22mm ply, floor boards or moisture resistant chipboard to BS 7331 or BS EN 312 Pt 5:1997, laid and fixed accordance to manufacturer's recommendations. Provide floor joist with noggins at midspan where span exceeds 3.0m

All timber floor deck & 100mm mineral wool insulation to be taken up to eaves for sound proofing.

NB : 100mm (10KG/m^3) Rockwool and chicken wire laid between and fixed to new joists to BRE Digest 208, if the existing lath and plaster ceiling has a thickness of less than 22mm. All to achieve 1/2 hour fire resistance.

Plumbing

Resite any tanks and pipes into roof void or new cupboard. Bath, shower, basin and bidet waste pipes to be 40mm, runs over 3 mtrs to be 50mm all connected via 75mm deep seal traps. Provide Durgo valve for runs more than 4m long raised above wash hand basin level. WC waste pipe to be 110mm dia with 50mm deep seal trap, all connected separately to existing SVP or new 110mm UPVC branch pipe.
All waste pipes 1:40 fall, rodding access at all change of direction for above Ground drainage. Existing vent pipe to extend 900mm above any window opening within 3m and fitted terminate with cage.
Where connection via gravity system cannot be achieved S & I a pumped macerator drainage system such as 'Saniflow' and install in accordance with manufacturer's instructions.
Gutter to be upvc 100mm diameter with 63mm dia. downpipe connected to a upvc trapped with roddable back inlet gulley.
Extend existing space heating and hot water system to new radiators, provide thermostatic controls and all new hot water pipes to be lagged.
Insulation of storage vessels and new pipework (to BS1565, BS699, BS3198 0r BS7206 as appropriate)

Electrics

To be installed in accordance with latest revised edition of the IEE Regs. Remove all redundant electric wiring. New wiring to be fully concealed in trunking/conduits in walls throughout. Position of switches, sockets and fittings to be agreed with client.
All electrical work to required to meet the requirements of part P (Electrical Safety) must be designed, installed, inspected and tested by a person competent to do so. Upon completion of works, the following are to be deposited within 30 days at the BBS Building Control Offices.
A. An electrical test and installation certificate is required in accordance with the requirementsof BS 7671:2000 and Appendix B of Approved document P (2006 edition) signed by a competetant person who is able to issue such certificates, OR
B. A certificate is required from a person carrying out the building work who is registered by BRE Certification Ltd, British Standards Institution, ELECSA Ltd, NICEIC Certification Services Ltd, or NAPIT Certification Limited to the effect that the requirements of the Building Regulations 4 and 7 have been satisfied in relation to the installtion of the fixed low or extra-low voltage domestic electrical installation.

Lighting

Provide energy efficient lightling equaling the greater of one per 25m ^{2} of dwelling floor area (excluding garages) or part thereof: OR one per 4 new fixed lightling fittings OR provide light fittings (including lamp, control gera and appropriate housing, reflector, shade or diffuser or other device for controlling the output light) that only take lamps having a luminous efficacy greater than 40 lumens per circuit-Watt. External lighting should automatically swithch off when not in use.

Fire Precautions/Safety

An inter linked mains operated smoke detector with battery back up to be installed within the staircase enclosure at each landing level and confirm to BS 5446 P1 the mains supply to the smoke alarm should comprise a single independent circuit at the dwellings main distribution board. The smoke alarm circuit should preferably be a residual current device.
Detectors should not be within 300mm of any verticle faces or light fittings.
Escape door between rooms to be min 600 wide x2030high
Doors to all rooms (except bathrooms and showers) leading on to the staircase throughout the height of the building must be FD20/E20.
Glazing within or above doors to habitable rooms on each floor level to be minimum 30 minutes fire resisiting.
Where SVP penetrates floor it shoiud be encased to achieve 30 minutes fire resistance.
New stair enclosure, partition & floor, floor within escape route to be within 30 minute fire resisting construction.
Existing exposed floor area within the escape route Is to be filled with 100mm Insulation on chicken wire in the floor void.

Balcony Guarding

Balcony guarding to be 1100mm high above the highest adjacent accessible level and should be of non-climable design with maximum 100mm spacings between any element. Additionally the guarding and its fixings into the building to be fully weathered. Fix guarding with 3no M12 bolts to either side and be capable of safely resisting a horizantal loadings of 0.74kN/m applied at the top of the guarding.

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This drawing is not to be scaled. Only figured dimensions to be taken. Any discrepencies to be reported to the Absolute Lofts prior to setting out or ordering of any materials

General Notes:

1 All workmanship and materials, service installations and demolitions to comply with the latest relevant Building Regulations, British Standards, Code of Practice and IEE Regulations. All dimensions and levels must be checked and verified prior to any ordering manufacture or construction. Any discrepancies to be brought to the attention of the CA.
2 These drawings to be read in conjunction with the Structural Engineers calculation sheets.
3 Contractor to ensure that NO part of elements of the building works encroach in the land of the neighbouring property. Any elements which overhang over the neighbouring/land boundary, shall require consent of the adjoinling owner prior to commencement of the works. The Client shall obtain all such permissions including PARTY WALL AGREEMENT.
4 All material used to be in accordance with specification on these drawings and any compliance notes. Any material change to be brought to the attention of the CA/Client and his approval obtained accordingly.
5 All finishes, fittings, electrics and heating to owners requirements (these will be instructed under separate schedule by the client).

All internal walls, floors, ceiling, external building works to the building and ground works to be made good to match existing where disturbed by new works.

Please note that costs arising from any chimneys that may need to be removed or raised a part of the works will need to be agreed as and extra over and above cost with CONTRACTOR.

All existing walls that are intended to accept additional loadings from the new works including their foundations should be inspected in consultation with the BCO on site to verify their load bearing capacity and structural condition. It may be necessary to partially or completely rebuild walls ans/or underpin foundations.

Fixings into party wall

Any joists fixed ot the party wall to be on glavanised steel joist hangers resin bolted into wall
All partitons and stair strings fixed ot the party wall to be long screw and plug fixed

Fire protection to steels

all new steels supporting elements of structurale to be $\frac{1}{2}$ hr fire protected with intumescant paint with a surface layer that will provide satisfactory environmental resistance and resistance to abrasion.
The system must provide min fire resistance of 30mins in the shell and 60mins in commnon areas.
The paint should be obrained form one manufacturer to avoid degradation between incompatible products

ABOVE GROUND DRAINAGE
a) The system should be designed and installed to retain water seals In traps under working conditions
b) Each fitling should provided with a 75mm deep-seal tubular trap (exept to WCs with a 50 mm trap)
c) Pipework should be of diameter appropriate for the connected fitting and the length of run of the pipe
d) Where fittings cannot be connected to SVP individually, a common pipe is acceptable provided
d1) lavatory basins and other high level fittings be separately drainded from showers, and other low levels fittings
d2) the diameter of the common pipe should be dependent upon the number of fittings discharging into it and the length and number of bends in the pipe and no less than 50mm diameter
d3)individual pipes should discharge Into the upper 1/3rd of the perimeter of commnon pipe
d4) venting to the end of the pipe is required where it discharges into naturally vented SVP, the common pipe can be vented with AVV
e) Pipe work should be securely clipped to the building structure, and set to fall at 11/4 to 21/2 towards the point of discharge
f) Pipe work should be provided with rodding acces at all bends and at ends of runs
g)the SVP should terminate to atmosphere with a durable cage set at least 900mm above any opening into a building within 3.00m

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Project

LOFT CONVERSION AT
8 CAUSTON ROAD
LONDON
N6 5ES

Client

MARK LATTIMER AND NATASHA WALTER
8 CAUSTON ROAD
LONDON
N6 5ES

Drawing Title

EXISTING AND PROPOSED
PLANS, SECTIONS
AND ELEVATIONS

Scale	Drawn	Checked	Authorised
1:50, 1:100	MvD 11JUN2011	SS	SS

Drawing Number	Rev
D_11_8CAU_001	E