

Scale 1:50

UPGRADING CAVITY PARTY WALL (cold adjoining space)

The existing party walls must be checked for stability and be free from defects as required by the Building Control Officer. Provide a scratch coat render to existing wall. Mechanically fix 62.5mm Celotex PL4000 insulated dry-lining board to 25 x 50 mm treated timber battens set at maximum 600mm centres on to exisitng wall and positioned horizontally at floor and ceiling level.

Fix using drywall screws or galvanised clout nails placed at 150mm centres. Tape joints and seal perimeter edges with mastic, to provide a vapour control layer (VCL). All work in accordance with BS 8212: 1995 (Code of practice for dry lining). To achieve minimum U Value of 0.28W/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 between and over studs; 60mm Celotex GA4000 between plus 37.5mm Celotex PL4000 insulated plasterboard with

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.g).

Title:

STEEL:

New steel beams to be encased in 12.5mm Gyproc fireline board with staggered ioints nailed to timber cradles or painted in Nullifire S or similar intumescent paint to provide 1/2 hour fire resistance

DORMER FLAT ROOF (Cold Deck Roof) (imposed load max 1.0 kN/m² - dead load max 0.75 kN/m²) To achieve U value of 0.18 W/m²K

To Structural Engineer's details. Flat roof to be single ply membrane roofing with aa fire rating as specialist specification, with a current BBA or WIMLAS Certificate on 22mm exterior grade plywood, laid on firrings to give a 1:40 fall on 47 x 145mm grade C24 timber joists at 400 centres max span 3.22m. Cross ventilation to be provided on opposing sides by a proprietary eaves ventilation strip to give 25mm continuous ventilation, with fly proof screen. Flat roof insulation is to be continuous with the wall insulation but stopped back to allow a 50mm air gap above the insulation for ventilation. Insulation to be Celotex GA4000 90mm between and 62.5mm Celotex PL4000 insulated plasterboard under joists placed over vapour barrier with skim plaster finish. Provide restraint to flat roof by fixing using of 30 x 5 x 1000mm ms galvanised lateral restraint straps at maximum 2000mm centres fixed to 100 x 50mm wall plates and anchored to wall. Workmanship to comply to BS 8000:4.

DORMER CONSTRUCTION

To achieve minimum U Value of 0.28W/m²K Structure to engineer's details and calculations. Tiles hung vertically on 25 x 38mm preservative treated battens (vertical counter battens to be provided to ensure vented and drained cavity if required) fixed to breathable membrane (having a vapour resistance of not more than 0.6 MNs/g) on 12mm thick WPD external quality plywood sheathing (or other approved). Ply fixed to treated timber frame studs constructed using: 150mm x 50mm head & sole plates and vertical studs (with noggins) at 400mm centres or to structural engineer's details & calculations. Insulation between studs only to be 100mm Celotex FR4000, provide a VCL and 12.5mm Knauf wall board over the studs. Finish with 3mm skim coat of finishing plaster. All junctions to have water tight construction, seal all perimeter ioints with tape internally and with silicon sealant externally. Dormer walls built off existing masonry walls to have galvanised mild steel straps placed at 900 centres. Dormer cheeks within 1m of the boundary to be lined externally with 12.5mm Supalux and 12.5mm fire line board internally to achieve 1/2 hour fire resistance from both sides. (Provide an additional 15mm pur insulation over studs to prevent cold bridging if required)

UPGRADE OF PITCHED ROOF

(imposed load max 0.75 kN/m² - dead load max 0.75 kN/m²) Vented roof - pitch 22-45°

To achieve U-value 0.18 W/m²K

Existing roof structure to be assessed and approved by building control before works commence on site. The existing roof condition must be checked and be free from defects as required by the Building Control Officer any defective coverings or felt to be replaced in accordance with manufacturer's details. Roof construction - 47 x 150mm Grade C24 rafters at max 400mm centres max span 3.85m. Insulation to be 100mm Celotex GA4000 between rafters and 52mm Celotex PL4000 insulated plasterboard under rafters.

Provide a cavity of 25mm by fixing battens between plasterboard and under rafter insulation (recommended where insulation under rafters exceeds 50mm). Finish with 5mm skim coat of finishing plaster to the underside of all ceilings using galvanized plasterboard nails

Maintain a 50mm air gap above insulation to ventilate roof. Provide opening at eaves level at least equal to continuous strip 25mm wide and opening at ridge equal to continuous strip 5mm wide to promote ventilation or provide equivalent high and low level tile vents in accordance with manufactures details

UPGRADE OF EXISTING FLOORS

Ensure first floor achieves modified half-hour fire resistance. New second floor –Joists to be 50mm minimum from chimney breasts. (joist size to structural engineer's details and calculations) Provide min 20mm t and g chipboard or timber board flooring. In areas such as kitchens, utility rooms and bathrooms flooring to be moisture resistant grade in accordance with BS7331:1990). Identification marking must be laid upper most to allow easy identification. To upgrade to half hour fire resistance and provide adequate sound insulation lay minimum 150mm Rockwool insulating material or equivalent on chicken wire between joists and extended to eaves. Chicken wire to be fixed to the joists with nails or staples these should penetrate the joists side to a minimum depth of 20mm, in accordance with BRE-Digest 208 1988. Joists spans over 2.5m to be strutted at mid span use 38 x 38mm herringbone strutting or 38mm solid strutting (at least 2/3 of joist depth). Provide lateral restraint where joists run parallel to walls. Floors are to be strapped to walls with 1000mm x 30mm x 5mm galvanised mild steel straps or other approved in compliance with BS EN 845-1 at max 2.0m centres, straps to be taken across minimum 3 no. joists. Straps to be built into walls. Provide 38mm wide x 3/4 depth solid noggins between joists at strap positions.

INTERNAL STUD PARTITIONS

100mm x 50mm softwood treated timbers studs at 400mm cts 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 (eg. 100mm Rockwool or Isowool mineral fibre sound insulation) in all voids the full depth of the stud. Partitions built off doubled up joists where partitions run parallel or provide noggins where at right angles. Walls faced throughout with 12.5mm plaster board with skim plaster finish. Taped and jointed complete with beads and stops.

NEW STAIRCASE

Site Add

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. Min 2.0m headroom measured vertically above pitch line of stairs and landings. However, if there is not enough space to achieve this height the headroom will be satisfactory if the height measured at the centre of the stair width is I.9 m reducing to 1.8m at one side of the stair. 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. Balustrading designed to be unclimbable and should contain no space through which a 100mm sphere could pass.

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- ALL DIMENSIONS ARE IN MILLIMETER.
- 2. VERIFY ALL DIMENSIONS AND CONDITIONS BEFORE BUILDING OR STARTING CONSTRUCTION. NOTIFY THE DESIGNER IMMEDIATELY OF ANY DISCREPANCY OR VARIATION.
- 3. ALL WORK TO COMPLY WITH CURRENT BUILDING REGULATIONS AND CODES OF PRACTICE

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	Date:	
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STEEL:

New steel beams to be encased in 12.5mm Gyproc fireline board with staggered joints nailed to timber cradles or painted in Nullifire S or similar intumescent paint to provide 1/2 hour fire resistance

MATERIALS AND WORKMANSHIP

All works are to be carried out in a workmanlike manner. All materials and workmanship must comply with Regulation 7 of the Building Regulations, all relevant British Standards, European Standards, Agreement Certificates, Product Certification of Schemes (Kite Marks) etc. Products conforming to a European technical standard or harmonised European product should have a CE marking..

HEALTH AND SAFETY

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.

CDM REGULATIONS

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

PARTY WALL ACT

The owner, should they need to do so under the requirements of the Party Wall Act 1996, has a duty to serve a Party Structure Notice on any adjoining owner if the building work involves works on or to an existing Party Wall including:

- Support of beam
- Insertion of DPC through wall
- Raising a wall or cutting off projections
- Demolition and rebuilding
- Underpinning
- Insertion of lead flashings
- Excavations within 3 meters of an existing structure where the new foundations will go deeper than adjoining foundations, or within 6 meters of an existing structure where the new foundations are within a 45 degree line of the adjoining foundations.

A Party wall agreement is to be in place prior to start of works on site.

SITE PREPARATION

BASIC RADON PROTECTION

Provide a 1200g (300 um) radon membrane under floor slab lapped 300mm double welted and taped with gas proof tape at joints and service entry points. Carry membrane over cavity and provide suitable cavity tray and weep holes

SITE PREPARATION

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

STRUCTURE

EXISTING STRUCTURE

Existing structure including foundations, beams, walls and lintels carrying new and altered loads are to be exposed and checked for adequacy prior to commencement of work and as required by the Building Control Officer.

BEAM AND FIRE PROTECTION

BEAMS

Supply and install new structural elements such as new beams, roof structure, floor structure, bearings, and padstones in accordance with the Structural Engineer's calculations and details. New steel beams to be encased in 12.5mm Gyproc fireline board with staggered joints nailed to timber cradles or painted in Nullifire S or similar intumescent paint to provide 1/2 hour fire resistance

LINTELS

- For uniformly distributed loads and standard 2 storey domestic loadings only

Lintel widths are to be equal to wall thickness. All lintels over 750mm sized internal door openings to be 65mm deep pre-stressed concrete plank lintels. 150mm deep lintels are to be used for 900mm sized internal door openings. Lintels to have a minimum bearing of 150mm on each end. Any existing lintels carrying additional loads are to be exposed for inspection at commencement of work on site. All pre-stressed concrete lintels to be designed and manufactured in accordance with BS 8110, with a concrete strength of 50 or 40 N/mm² and incorporating steel strands to BS 5896 to support loadings assessed to BS 5977 Part 1

For other structural openings provide proprietary insulated steel lintels suitable for spans and loadings in compliance with Approved Document A and lintel manufacture standard tables. Stop ends, DPC trays and weep holes to be provided above all externally located lintels.

RESTRAINT & STRAPPING

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 1000mm x 30mm x 5mm galvanised mild steel horizontal straps or other approved to BSEN 845-1 built into walls at max 2000mm centres and to be taken across minimum 3 rafters and screw fixed. 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 1000mm galvanized metal straps or other approved to BSEN 845-1 at maximum 2m centres.

STRAPPING OF FLOORS

Provide lateral restraint where joists run parallel to walls, floors are to be strapped to walls with 1000mm x 30mm x 5mm galvanised mild steel straps or other approved in compliance with BS EN 845-1 at max 2.0m centres, straps to be taken across minimum of 3 joists. Straps to be built into walls. Provide 38mm wide x $^3\!4$ depth solid noggins between joists at strap positions

FLAT ROOF RESTRAINT

Title:

 $100m\ x\ 50mm\ C16$ grade timber wall plates to be strapped to walls with $1000mm\ x\ 30mm\ x\ 5mm$ galvanised mild steel straps at maximum 2.0m centres fixed to internal wall faces

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 minimise unwanted air leakage through the new building fabric.

ELECTRICAL WORKS

All electrical work required to meet the requirements of Part P (electrical safety) must be designed, installed, inspected and tested by a competent person registered under a competent person self certification scheme such as BRE certification Ltd, BSI, NICEIC Certification Services or Zurich Ltd. An appropriate BS7671 Electrical Installation Certificate is to be issued for the work by a person competent to do so. A copy of a certificate will be given to the Council.

INTERNAL LIGHTING

Install low energy light fittings that only take lamps having a luminous efficiency greater than 45 lumens per circuit watt and a total output greater than 400 lamp lumens. Not less than three energy efficient light fittings per four of all the light fittings in the main dwelling spaces to comply with Part L of the current Building Regulations

HEATING

Extend all heating and hot water services from existing and provide new TVRs to radiators. 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.

MEANS OF ESCAPE -

Fire doors Form a protected escape stairway by providing half hour fire resistance to all partitions as well as floors and ceilings above and below rooms. Stairway to be protected at all levels - from the loft room/rooms then leading directly to an external door at ground level (no inner rooms allowed). All doors on to the stairway must be FD20 rated fire doors to BS 476-22:1987 (fitted with intumescent strips rebated around sides & top of door or frame if required by BCO). Where applicable, any glazing in fire doors to be half hour fire resisting and glazing in the walls forming the escape route enclosure to have 30 minutes fire resistance and be at least 1.1m above the floor level or stair pitch line.

RAINWATER DRAINAGE

New rainwater goods to be new 110mm upvc half round gutters taken to and connected into 68mm dia upvc downpipes

FOUL DRAINAGE

Above ground drainage to comply with BS.5572.1978. for sanitary pipework. All drainage in accordance with part H of the Building Regulations. Wastes to have 75mm deep anti vac bottle traps and rodding eyes at changes of direction. All plumbing to be to BS 5572.

Size of wastes pipes and max length of branch connections (if max length is exceeded then anti vacuum traps to be used)
Wash basin - 1.7m for 32mm pipe 4m for 40mm pipe
Bath/shower - 3m for 40mm pipe 4m for 50mm pipe
W/c - 6m for 100mm pipe for single wc
All branch pipes to connect to 110mm soil and vent pipe
terminating min 900mm above any openings within 3m.
Or to 110mm upvc soil pipe with accessible internal air
admittance valve complying with prEN 12380, placed at a height
so that the outlet is above the trap of the highest fitting
Waste pipes not to connect within 200mm of the wc connection.
Supply hot and cold water to all fittings as appropriate.

WINDOW

ROOF LIGHTS

Min U-value of 1.6 W/m²K.

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 manufactures instructions with rafters doubled up to sides and suitable flashings etc.

VENTILATION

BACKGROUND AND PURGE VENTILATION

Background ventilation - Controllable background ventilation via trickle vents to BS EN 13141-3 within the window frame to be provided to new habitable rooms at a rate of min 5000mm²; and to kitchens, bathrooms WCs and utility rooms at a rate of 2500mm²

Purge ventilation - New windows/rooflights to have openable area in excess of 1/20th of the floor area, if the window opens more than 30° or 1/10th of the floor area if the window opens less than 30°

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.

EXTRACT FOR SHOWER ROOM

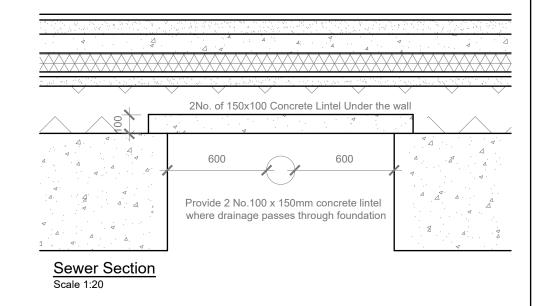
Provide mechanical extract ventilation to shower room ducted to external air capable of extracting at a rate of not less than 15 litres per second. Vent to be connected to light switch and to have 15 minute over run if no window in the room. Internal doors should be provided with a 10mm gap below the 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

PITCHED ROOF VENTILATION

Maintain a 50mm air gap above insulation in the roof pitch to ventilate roof. Provide opening at eaves level at least equal to continuous strip 25mm wide and opening at ridge equal to continuous strip 5mm wide to promote ventilation.

FLAT ROOF VENTILATION

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



GENERAL NOTES:

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Specifications

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	Date:	
	Drawing No.:	
	Drawn By:	



Location Plan
Scale 1:1250



Block Plan Scale 1:500



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Title:

Location & Block Plans



Site Address	Scale: 1:1250/500@A
	Date:
	Drawing No.:
	Drawn By:

