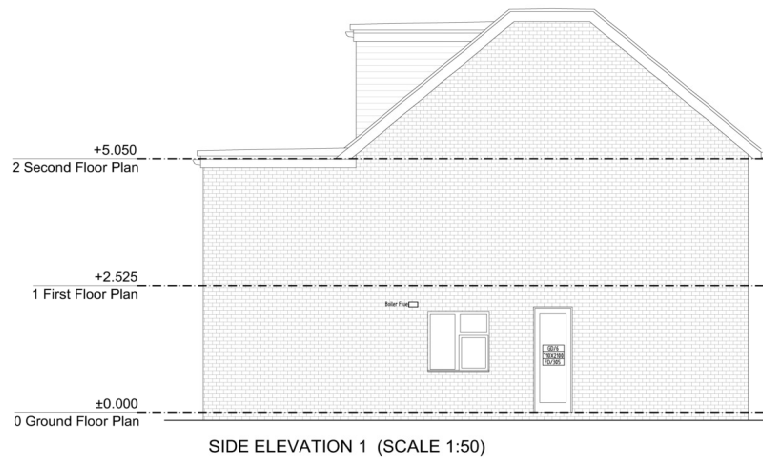
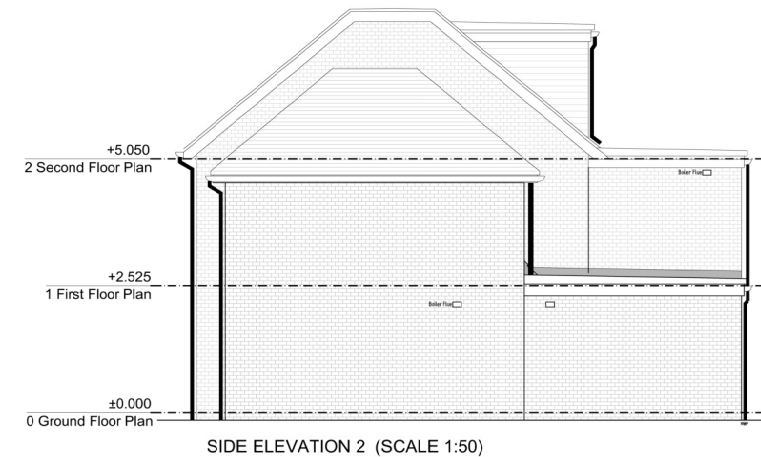
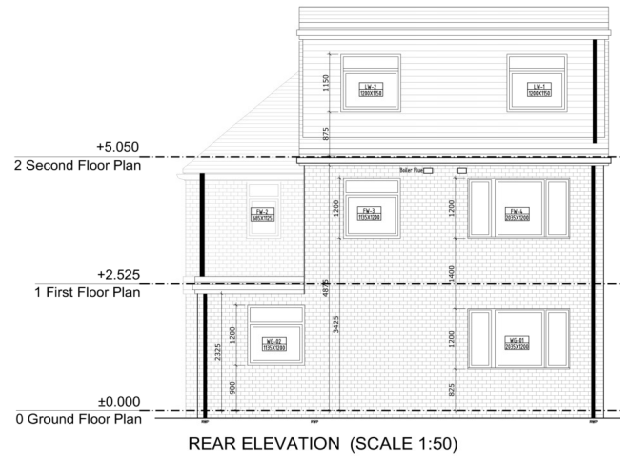
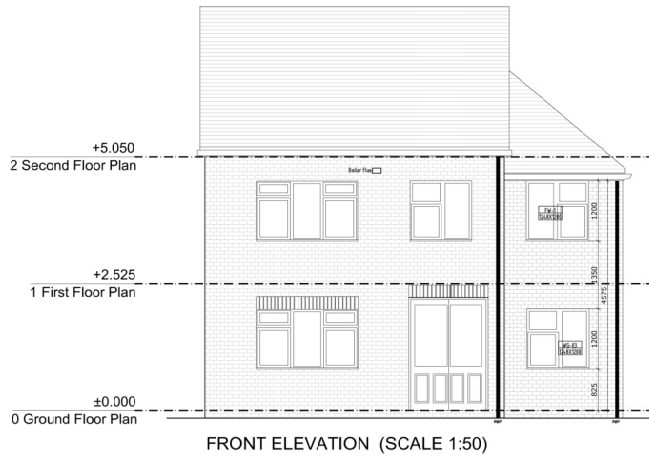






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All dimensions needs to be checked and adjusted on site. Boundaries of both sides needs to be checked. If Builder finds discrepancy in dimensions than it needs to be reported to the Architect as soon as possible.



#### SMOKE DETECTION

Mains operated linked smoke alarm detection system to BS EN 14604 and BS 5839-6:2019 to at least a Grade D category LD3 standard to be mains powered with battery back up to be placed in the hall way of each flat with an additional interlinked heat detector at ceiling level in kitchens if required by BCO. Smoke alarms should be sited so that there is a smoke alarm in the circulation space on all levels/ storeys and within 7.5m of the door to every habitable room. If ceiling mounted they should be 300mm from the walls and light fittings. Interlinked smoke detection to be provided in the common ways if required by Building Control in accordance with Approved Document B and the Regulatory Reform (Fire Safety) Order 2005. Grade D2, LD2 standard alarms to be provided if required by BCO.

#### COMMON STAIRS AND CORRIDORS

Common corridors and stairs should be protected, i.e. within a 30 minute fire resisting enclosure, and should lead directly to outside. Wall and ceiling surfaces are to have the appropriate linings to inhibit surface spread of flame in accordance with BS476. Meters located within the stairway should be enclosed with a secure cupboard which is separated from the escape route with fire resisting construction. All gas services within a protected stairway must be installed in accordance with The Gas Safety (Installation and Use) Regulations 1998.

#### UPGRADING PARTY WALL (warm adjoining spaces)

The existing 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. Apply plasterboard with mass of 10kg/m<sup>2</sup> or greater to the exposed face of the wall to ensure adequate sound insulation in accordance with Approved Document E.

#### STUD ASH-LAR/DWAF WALL

To achieve minimum U Value of 0.28W/m<sup>2</sup>K. 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 G4000 between plus 37.5mm Celotex PL4000 insulated plasterboard with VCL. 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.

#### 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 125mm Gyproc FireLine board with staggered joints. Gyproc FireCase or painted in Nullifire S or similar intumescent paint to provide 1/2 hour fire resistance as agreed with Building Control. All fire protection to be installed as detailed by specialist manufacturer.

#### FLOOR PENETRATIONS

Pipe services and ducts which pass through separating floors should be surrounded with 25mm sound absorbent mineral wool and enclosed in a duct of two layers of Gyproc FireLine board having a mass per unit area of at least 15kg/m<sup>2</sup> for their full height. Seal the joint between the casing and ceiling with tape. Gas services may require ventilation and should be installed in accordance with The Gas Safety (Installation and Use) Regulations 1998. Install Fire Collars to any drainage pipes penetrating compartment walls and floor.

#### Note:

For Structural information refer to Structural Engineers drawings.

All building work needs to be discussed with Building Control Officer before commencement of work.

If Officer requires any change to the drawings then it should be notified to the Architect as soon as possible

## Building Regulations Drawings



### ELEVATIONS

SCALE: 1:50 @ A1

DRG NO. WD002-I

DATE: 19/11/20

#### LEAD WORK AND FLASHINGS

All lead flashings, any valleys or soakers to be Code 5 lead and laid according to Lead Development Association. Flashings to be provided to all eaves and below window openings with welded upstands. Joints to be lapped min 150mm and lead to be dressed 200mm under tiles, etc. All work to be undertaken in accordance with the Lead Development Association recommendations.

#### 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. Provide min 10kg/m<sup>2</sup> density acoustic soundproof quilt tightly packed (eg. 100mm Rockwool or Iso wool 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, or built off DPC on thickened concrete slab if solid ground floor. Walls faced throughout with 12.5mm plaster board with skim plaster finish. Taped and jointed complete with beads and stops.

#### 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 to be continuous with the wall insulation but stopped back to allow a 50mm air gap above the insulation for ventilation.

#### SMOKE VENTILATION IN COMMON WAYS

Provide an automatic opening smoke vent with a geometric free area of at least 1.0m<sup>2</sup> located on an external wall at the top of the stair as high as practicable and so the top edge is at least as high as the top of the door. Vent to be opened on detection of smoke on any storey in the stair (vents to be placed on every level if required by BCO).

#### SOUND INSULATION UNDER STAIRS WHICH FORM A SEPARATING FUNCTION

Star treatment 1 as detailed in Approved Document E. Lay a soft covering over star treads of at least 6mm thickness and glue securely so the covering does not become a safety hazard. Construct a new independent ceiling under stairs ensuring a minimum clearance of 25mm (additional support can be provided by resilient hangers attached directly to the existing soffit if required). Provide 2 layers of plasterboard, minimum total mass per unit area 20kg/m<sup>2</sup>, under new ceiling with staggered joints. Fill void with 100mm mineral wool (e.g. Rockwool Flexi slab) with a minimum density 10kg/m<sup>3</sup>. Seal the perimeter of the independent ceiling with tape or sealant.

#### EXTRACT TO KITCHEN

Kitchens to have mechanical ventilation with an extract rating of 60l/sec or 33l/sec if adjacent to hob to external air, sealed to prevent entry of moisture. 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. Cooker hoods to BS EN 13141-3. 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.

#### UNDERGROUND FOUL DRAINAGE

Underground drainage to consist of 100mm diameter UPVC proprietary pipe work 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.

#### INSPECTION CHAMBERS

Underground quality proprietary UPVC 450mm diameter inspection chambers to be provided at all changes of level, direction, connections 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.

#### SOIL AND VENT PIPE

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.

#### MEANS OF ESCAPE – (Internal planning of flat)

All flats to be provided with a protected entrance hall (lobby) with half hour partitions between the hall and all rooms. Entrance hall to lead directly to a protected common hallway or lobby. The travel distance from the flat entrance door to the door to any habitable room not to be greater than 9m. Inner rooms are not acceptable. Flat entrance doors should be FD30. All doors from rooms on to the entrance hall must be FD20 rated fire doors to BS 476 (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.

#### TIMBER FRAMED SEPARATING WALL

Approved Document E Wall Type 4.1. Construct two parallel timber frames using 100mm x 50mm head & sole plates and vertical studs (with noggins) at 400mm centres or to structural engineer's details & calculations, ensuring a minimum distance of 200mm is provided between inside faces of the two frames. Provide two layers of plasterboard with staggered joints each side of frame, each sheet to have a minimum mass per unit area 10kg/m<sup>2</sup> (for example Gyproc Soundbloc). Provide 50mm of mineral wool batts, Crown Acoustic Partition Roll or Iso wool APR 1200, with a minimum density 10kg/m<sup>3</sup> between the studs of the frames. Stagger all sockets on opposite sides of the separating wall by a min of 150mm. Care to be taken at junctions to block air paths using timber blocking or joists as detailed in Approved Document E.

#### UPGRADING EXISTING SINGLE SKIN SEPERATING WALL

The existing 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. Construct an independent studwork lining using 100mm x 50mm treated timbers with head & sole plates and noggins at 400mm centres, leaving a gap of 15mm between the wall and the inner face of the studwork to ensure that airborne sound transmission is reduced. Seal the perimeter with tape or sealant. Wall to be lined with 30mm total thickness of 10kg/m<sup>2</sup> plasterboard with staggered joints and with at least 35mm of mineral wool quilt density 10kg/m<sup>3</sup> in the cavity between studs. Finish with 3mm plaster skim. The independent panel and its supporting frame must not be in contact with the existing wall.

Pie completion sound testing to be carried out by a suitably qualified person with appropriate third party accreditation (either UKAS accreditation or be a member of the Association of Noise Consultants Registration Scheme). Separating walls to provide at least half hours fire resistance from both sides in compliance with Approved Document B Volume 2.

#### SMOKE VENTILATION IN COMMON WAYS

Provide an automatic opening smoke vent with a geometric free area of at least 1.0m<sup>2</sup> located on an external wall at the top of the stair as high as practicable and so the top edge is at least as high as the top of the door. Vent to be opened on detection of smoke on any storey in the stair (vents to be placed on every level if required by BCO).



**Note:**  
For Structural information refer to Structural Engineers drawings.  
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If Officer requires any change to the drawings then it should be notified to the Architect as soon as possible

TIMBER FLOOR WITH PLATFORM FLOOR  
(as detailed in Approved Document E1 and Knauf Separating floors 4.3 – manufacturers details to be followed)

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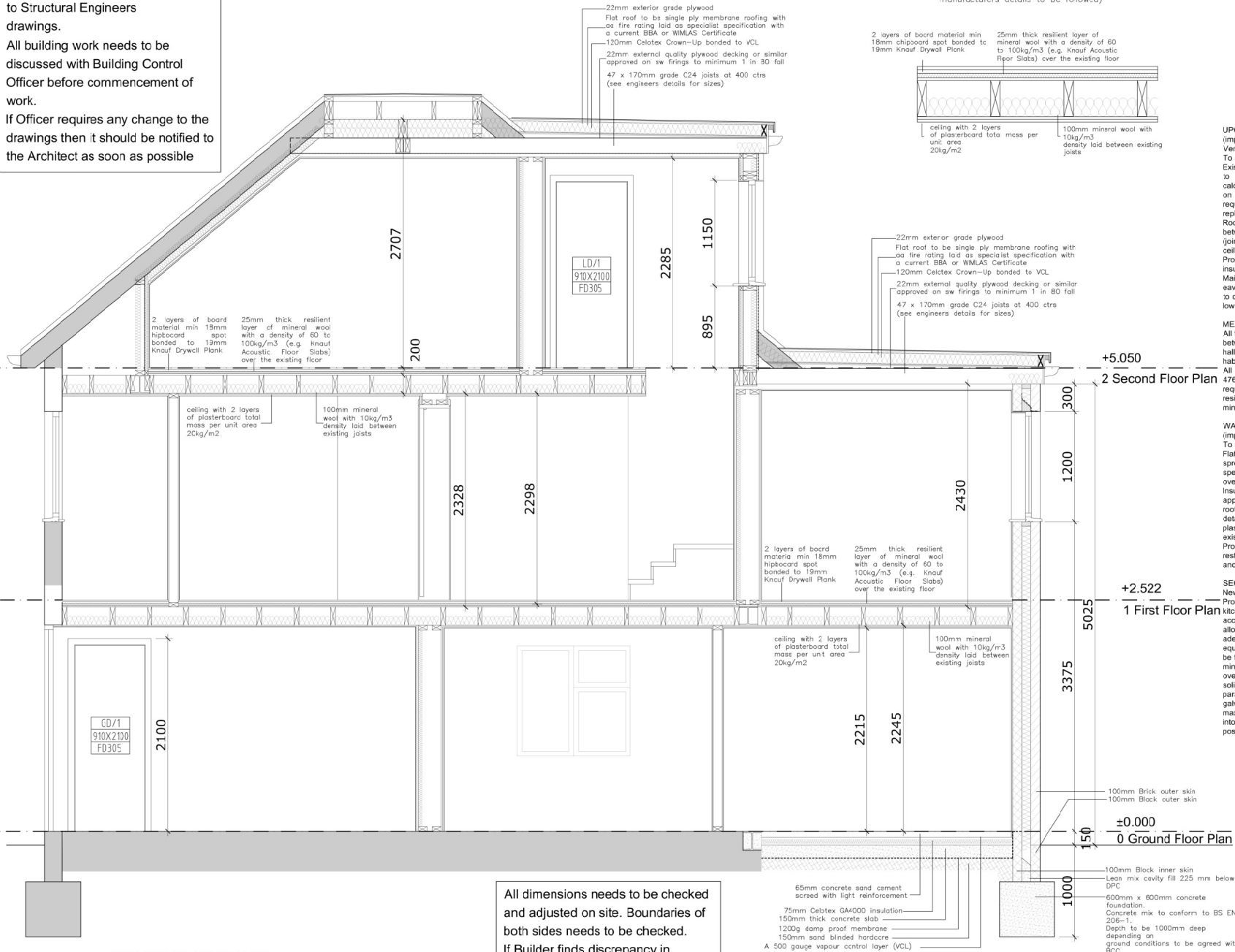
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**UPGRADE OF PITCHED ROOF**  
(imposed load max 0.75 kN/m<sup>2</sup> - dead load max 0.75 kN/m<sup>2</sup>)  
Vented roof – pitch 22-45°  
To achieve U-value 0.18 W/m<sup>2</sup>K  
Existing roof structure to be assessed by a structural engineer and any alterations to be carried out in strict accordance with structural engineer's details and calculations which must be 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 - Size TBC on site insulation to be 50mm Celotex GA4000 (rilled between rafters and 70mm under rafters. Fix 12.5mm foil backed plasterboard (joints staggered) and 5mm skim coat of finishing plaster to the underside of all ceilings using galvanized plasterboard rails.  
Provide a cavity of 25mm by fixing battens between plasterboard and under rafter insulation (recommended where insulation under rafters exceeds 50mm).  
Maintain a 53mm 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 manufacturers details.

**MEANS OF ESCAPE – (Internal planning of flat)**  
All flats to be provided with a protected entrance hall (lobby) with half hour partitions between the hall and all rooms. Entrance hall to lead directly to a protected common hallway or lobby. The travel distance from the flat entrance door to the door to any habitable room not to be greater than 9m. Inner rooms are not acceptable.  
All doors from rooms on to the entrance hall must be FD20 rated fire doors to BS 476 (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.

**WARM FLAT ROOF**  
(imposed load max 1.0 kN/m<sup>2</sup> - dead load max 0.75 kN/m<sup>2</sup>)  
To achieve U value 0.18 W/m<sup>2</sup>K  
Flat roof to be single ply membrane roofing providing aa fire rating for surface spread of flame with a current BBA or WIMLAS Certificate and laid to specialist specification. Single ply membrane to be fixed to 22mm exterior quality plywood over 120mm Celotex XR4000.  
Insulation bonded to vcl on 22mm external quality plywood decking or similar approved on sw frings to minimum 1 in 80 fall on sw treated 47 x 170mm C24 flat; roof joists at 400mm ctrs to give a max span of 4.51m or as Structural Engineer's details and calculations. Underside of joists to have 12.5mm foil backed plasterboard and skim. Provide cavity tray to existing house where new roof abuts existing house.  
Provide restraint to flat roof by fixing 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.

**SECOND FLOOR JOISTS**  
New second floor – (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 BS EN 312). 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 298 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 ¾ depth solid noggins between joists at strap positions.



All dimensions needs to be checked and adjusted on site. Boundaries of both sides needs to be checked.  
If Builder finds discrepancy in dimensions than it needs to be reported to the Architect as soon as possible.

**Building Regulations Drawings**

SECTION AA

SCALE: 1:20 @ A1      DRG NO. WD003-I

DATE: 02/11/20

SECTION AA (SCALE 1:20)

Note:  
For Structural information refer to Structural Engineers drawings.  
All building work needs to be discussed with Building Control Officer before commencement of work.  
If Officer requires any change to the drawings then it should be notified to the Architect as soon as possible

NEW STAIRCASE (Within flat)  
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. 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. Allow for all structure as designed by a Structural Engineer.eme)

All dimensions needs to be checked and adjusted on site. Boundaries of both sides needs to be checked.  
If Builder finds discrepancy in dimensions than it needs to be reported to the Architect as soon as possible.

NEW AND REPLACEMENT DOORS  
New and replacement doors to achieve a U-Value of 1.80W/m<sup>2</sup>K. Glazed areas to be double glazed with 16mm 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 (Part N in Wales) of the current Building Regulations. All entrance doors to flats are fitted with thumb turn locks to be easily operable from inside in case of fire, without the use of a key

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.

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.

EXTRACT TO BATHROOM  
Bathroom to have mechanical vent ducted to external air to provide min 15 litres / sec 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.

EXTRACT TO W/C  
W/C to have mechanical ventilation ducted to external air with an extract rating of 15l/s operated via the light switch. Vent to have a 15min 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.

STAIRS  
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. 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. Allow for all structure as designed by a Structural Engineer.

DORMER CONSTRUCTION  
To achieve minimum U Value of 0.28W/m<sup>2</sup>K  
Structure to engineer's details and calculations. Tiles hung vertically on 25 x 35mm 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) and 12mm thick W.B.P external quality plywood sheathing (or other approved). Ply fixed to treated timber frame studs constructed using 150mm x 50mm head and sole plates and vertical studs (with noggin) at 400mm centres or to structural engineer's details and calculations. Insulation between studs to be 60mm Celotex GA4000, provide VCL and 37.5 Celotex PL4000 insulated plasterboard over studs. 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. Dormer walls built off existing masonry walls to have galvanised mild steel straps placed at 900 centres. Dormer cheeks with in 1m of the boundary to be lined externally with 12.5mm Supalux and 12.5mm Gyproc FireLine board internally to achieve 1/2 hour fire resistance from both sides.

FLOOR WITH A PLATFORM FLOOR  
(As detailed in Approved Document E1)  
Ceiling should be  
a) Providing 100mm thick mineral wool with a minimum density 10kg/m<sup>3</sup> between the joists in the floor cavity of the existing floor and  
b) Installing 2 layers of plasterboard minimum total mass per unit area 20kg/m<sup>2</sup>, under existing ceiling laid with staggered joints.  
Perimeter of ceiling to be sealed with tape or sealant.

A platform floor to be created by providing a 25mm thick resilient layer of mineral wool with a density of 60 to 100kg/m<sup>3</sup> (e.g. Knauf Acoustic Floor Slabs) and carried up the edges of the room to isolate the floating layer from the wall surface. Over this provide 2 layers of board material 18mm chipboard spot bonded to 19mm Knauf Drywall Plank, glued together with staggered joints.  
Reflex the floor deck and fix FloorJoan Easy Edge Strip to the perimeter wall with the integral self adhesive strip.  
Install timber battens on resilient strips at the floor perimeter and thresholds. A 5mm gap to be provided between the skirting and floating layer, gap to be filled with flexible sealant.  
Do not bridge the floating layer and the base or surrounding walls e.g. with services or fixings that penetrate the resilient

AI construction to be in accordance with Knauf 4.3 Separating Floors.  
Pre completion sound testing to be carried out by a suitably qualified person with appropriate third party accreditation (either UKAS accreditation or be a member of the Association of Noise Consultants Registration Scheme).

SOUND INSULATION UNDER STAIRS WHICH FORM A SEPARATING FUNCTION  
Stair treatment 1 as detailed in Approved Document E  
Lay a soft covering over stair treads of at least 6mm thickness and glue securely so the covering does not become a safety hazard. Construct a new independent ceiling under stairs ensuring a minimum clearance of 25mm (additional support can be provided by resilient hangers attached directly to the existing scffit if required). Provide 2 layers of plasterboard, minimum total mass per unit area 20kg/m<sup>2</sup>, under new ceiling with staggered joints. Fill void with 100mm mineral wool (e.g. Rockwool Flexi slab) with a minimum density 10kg/m<sup>3</sup>. Seal the perimeter of the independent ceiling with tape or sealant.

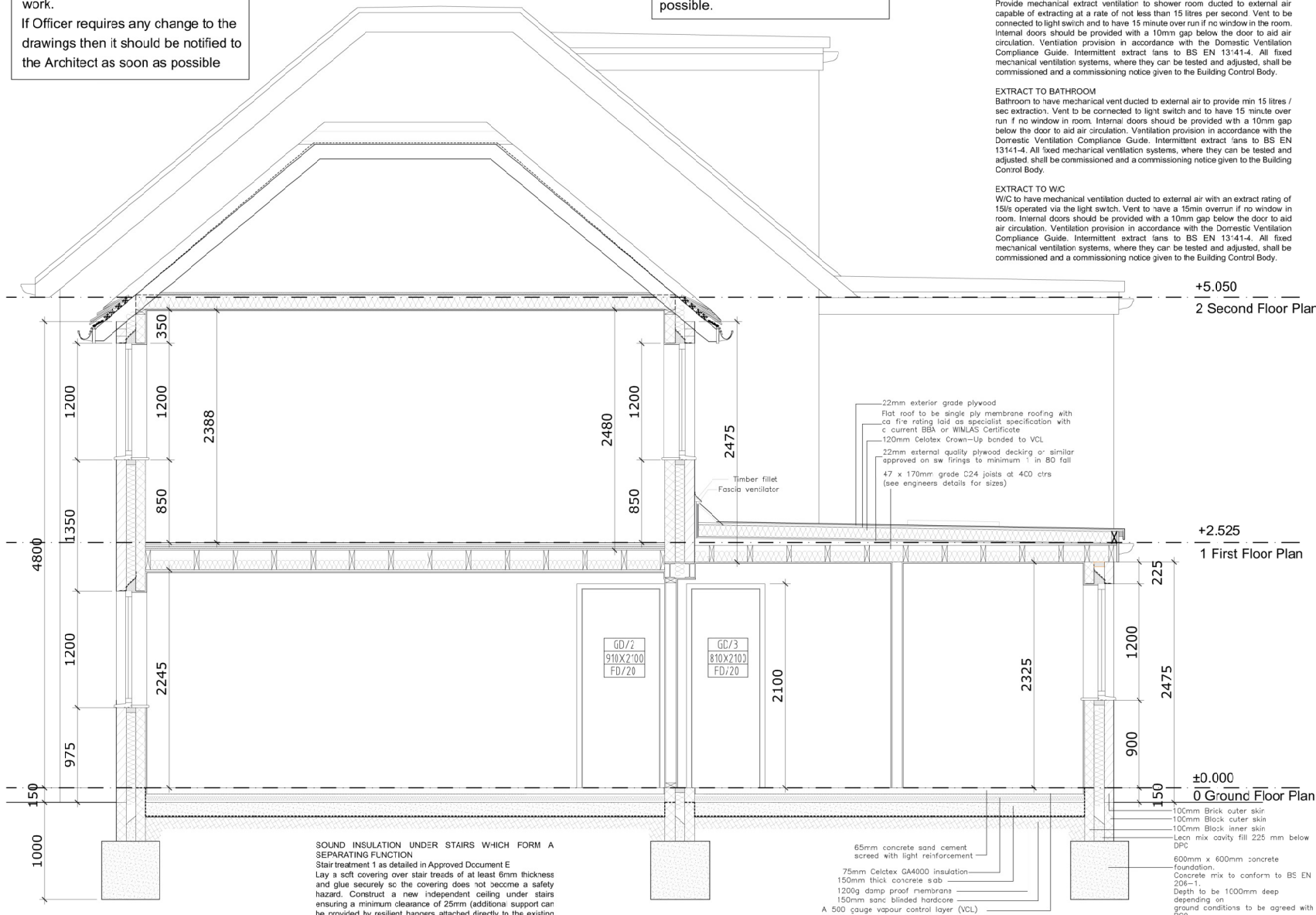
## Building Regulations Drawings

SECTION BB

SCALE: 1:20 @ A1

DRG NO. WD004-I

DATE: 19/11/20



SECTION BB (SCALE 1:20)