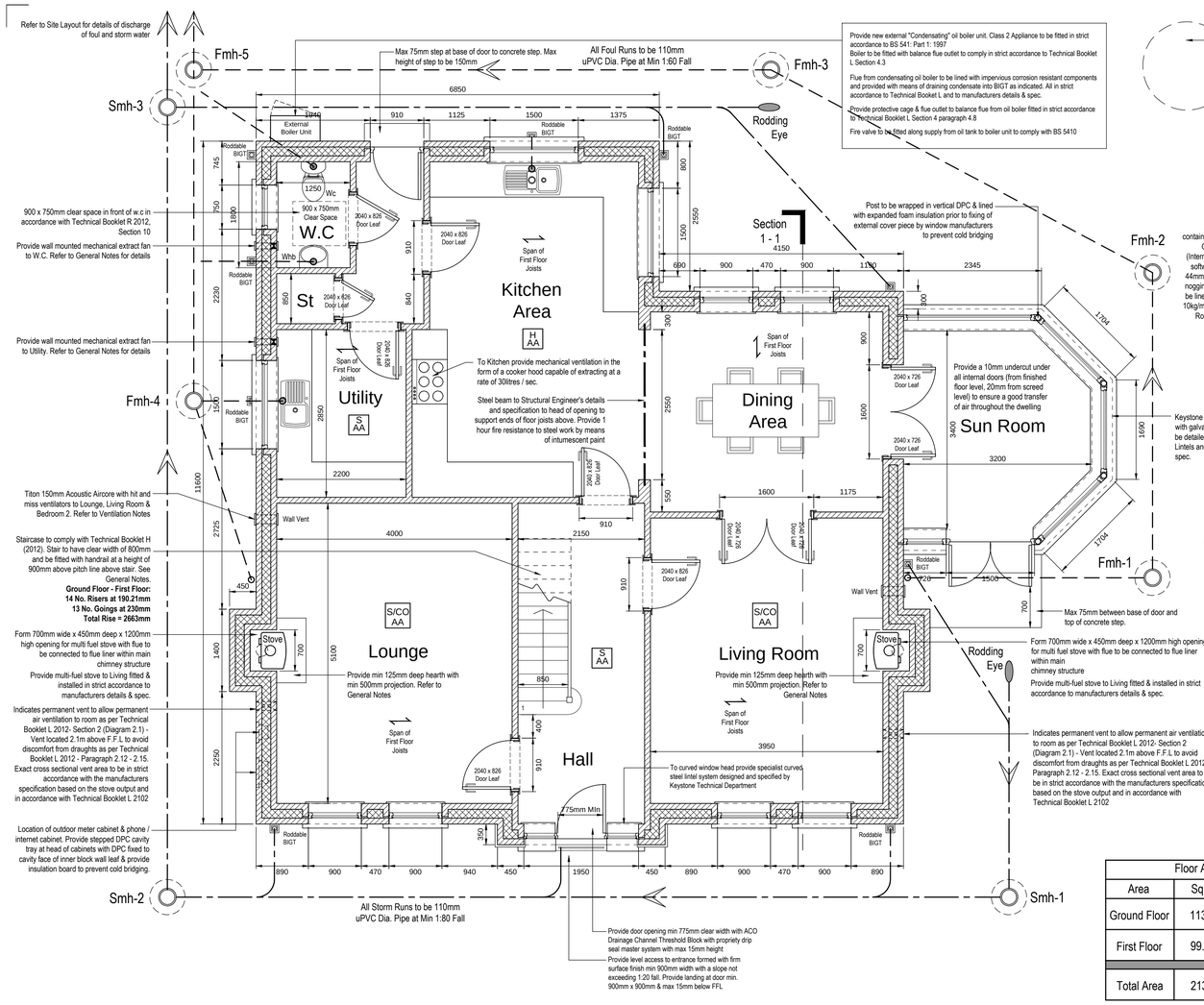
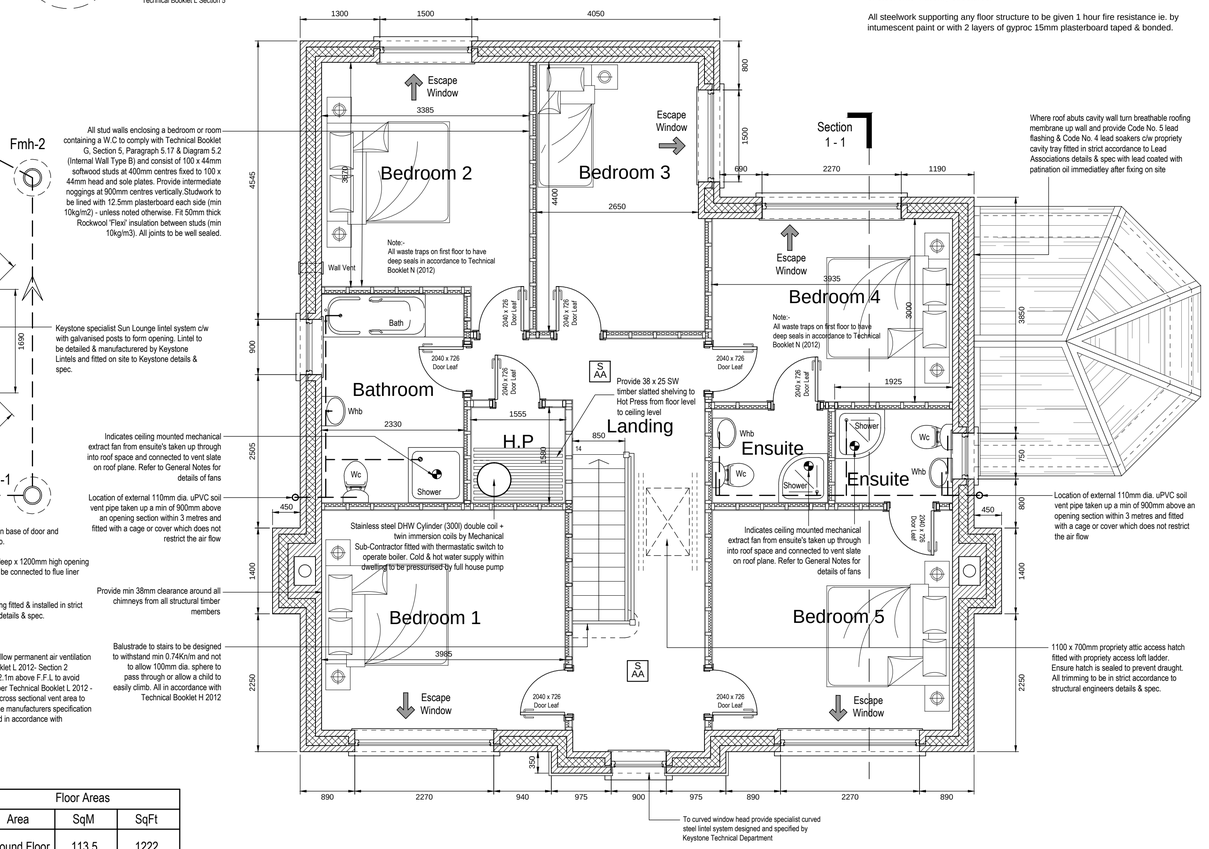


Floor Areas		
Area	SqM	SqFt
Ground Floor	113.5	1222
First Floor	99.7	1073
Total Area	213.2	2295

Proposed Ground Floor Plan



Proposed First Floor Plan

Steelwork

All steelwork to be in accordance to BS 5950 Parts 1, 2, 3, 4, 5 & 6. All Steelwork to be in strict accordance to **Structural Engineer's** details and specification. All Steel within Masonry Walls, Foundations etc. to be Galvanised and Wrapped in Hyload DPC.

Provide 600mm x 100mm x 150mm deep precast concrete padstones at all bearing points of steel onto masonry structures.

All steelwork supporting any floor structure to be given 1 hour fire resistance ie. by intumescent paint or with 2 layers of gyproc 15mm plasterboard taped & bonded.

Dimensions & Levels

All dimensions & levels to be checked by **Contractor** prior to commencement of any work on site. Any dimensional or level error should be reported to the **Architect** before work commences.

Materials & Workmanship

All workmanship & materials to be in strict accordance with BS 5628:Part 3: 1985

Foundations

Foundations to be in strict accordance to BS 8004:1986. Foundation trenches to be excavated to a suitable depth ie. firm bearing strata & to the approval of the **Structural Engineer**. Minimum depth of cover to be 600mm. These foundations have been designed to be adequate if bearing on subsoil type III or better as defined in Table 5.1 of Technical booklet 'D' to The Building regulations 2012. If Subsoil of this type is not found at normal depth then an alternative foundation design based on a soil investigation report by an Structural Engineer will be submitted.
Stepped foundations to overlap by twice the height of the step or 300mm whichever is the greater. All Concrete to be 30N to BS 5328 1981.

Manholes

All manholes to be constructed in either Clay Bricks / Blocks to BS 3921:1985 or in precast concrete to BS 5911 parts 2 & 200 respectively. Any manholes deeper than 1100mm shall be fitted with step irons. All manhole covers to be of suitable material to meet BS EN 124.
Provide Heavy duty Class D400 double triangular, black coated cover and frame for vehicular areass.
Provide Medium duty Class B125, blackcoated cover and frame to pedestrian areas.

Drainage

All drainage pipework to be in strict accordance to BS 4660:1989. The drainage system to have a minimum number of changes in direction and gradient with access points located where changes occur.
Where drains run under the building, provide 150mm deep RC lintels over pipework & 50mm flexicell packing around pipes.
Pipes to be laid at min depths :-
Gardens – 600mm for both 100mm & 150mm uPVC
Driveways - 700mm for 100mm & 1100mm for 150mm pipes
All trenches / pipe runs near buildings ie. 1m should be filled with concrete up to level of foundations.

Damp Proof Courses (DPC)

Vertical & horizontal DPC's to be Hyload bonded, laps to be not less than 150mm at all joints & heat welded. Bonding to DPC's at cills, thresholds etc. to be lapped at 200mm & bonded with Hyload contact adhesive.

Radon Protection (DPM)

Provide preformed Radon Cavity barriers and Radon membrane in lieu of DPM. Where membrane is below concrete slab a pre-formed slab edge barrier is to be used. Preformed universal corners are to be used where required. Where service pipes penetrate the membrane provide universal pipe seals. All components are to be sealed together with Radon proof Butyl tape.

Radon Protection

Provide 1 No. preformed PVC Radon sump with multiple pipe inlet and outlet positions and surface ventilation slot for every 250sqm of floor area. Also provide underfloor ventilation by air bricks with a minimum ventilation area of 6,000mm2 at a maximum of 2m Crs to Vent the hardcore fill. The RADON sump is to be vented to a roof terminal via. a 110mm Dia. PVC pipe (Solvent Sealed) (See Substructure Blockwork & Drainage Setting Out Drawings for Locations)

Refer to *"BRE Report BR 413: Radon@ guidance on protective measures for new dwellings in Northern Ireland"*

Ground Floor Construction

Provide 50mm Deep Larsens FloTherm Liquid Screed (Laid in Strict Accordance to Manufacturers Specification) on 500 Guage Vapour Barrier (All Joints Taped & Sealed) Laid Over 150mm Depth of PIR Kingspan, Quinnthermn or Extratherm Floorboard Insulation Made up in 2 layers with Bottom layer 50mm Depth & Top Layer 100mm Depth on 150mm Deep Concrete Floor Slab with Radon Shield (DPM) Membrane Under Slab laid over 50mm Sand Blinding on Min 300mm & Maximum of 600mm Depth of Consolidated Hardcore Base.
If hardcore exceeds 600mm in depth provide reinforcing to concrete floor slab in accordance to **Structural Engineer's** detail & specification.

First Floor Construction

220 x 50mm C16 floor joists at 400mm centres in strict accordance with Structural Engineer's details and specification. Provide solid bridging at centre of span. Floor to be in accordance with Technical Booklet G, Section 5, paragraph 5.22 (Internal Floor Type C). Fix 18mm WBP plywood decking (min 15kg/m2), screw fixed to top of floor joists. Provide 100mm thick Rockwool Flexi insulation (min 10kg/m3) between joists, fixed in accordance with Rockwool's recommendations. To underside of joists fix 12.7mm Gyproc foilbacked plasterboard (min 10kg/m2) to underside of floor joists, fixed in accordance with manufacturer's instructions
Ends of joists to be supported on blockwork walls with min 90mm bearing and / or proprietry galvanised joist hangers. Provide intermediate bracing. Notches and holes in floor joists shall be within the limits shown in Diagram 2.1 of Technical Booklet D 2012.

External Walls

Walls shall not exceed 12m in length, measured from centre to centre of buttressing walls, piers or chimneys providing restraint.

Outer Leaf:-
To All External Faces Provide 100mm Concrete blockwall to BS 5628 with a compressive strength of 10.5 N/mmSQ

Cavity:-
Provide 150mm clear cavity with thick plate type wall ties to comply with BS EN 845-1 with the embedded depth of the tie not less than 50mm in both leaves & In Strict Accordance to manufacturers Details & Specification. Pump cavity with Springvale Ecobead Platinum full fill cavity wall insulation. Close Cavity with 12mm Supalux board.

Inner Leaf:-
To Inner Wall leafs Provide 100mm Concrete blockwall to BS 5628 with a compressive strength of 10.5 N/mmSQ. Internal face of all external walls to new extensions to be lined with 50mm Gyproc insulated plasterboard with skim finish fixed with plaster dabs per manufacturers instructions and recommendations.

Internal Walls:-
100mm Concrete blockwall Unless otherwise noted on Floor Plans - to BS 5628 with a compressive strength of 10.5 N/mmSQ.

External Openings

All window and door openings to have 50mm Kingspan Kooltherm K8 insulation fitted behind outer leaf. Provide 150mm width of vertical DPC to external face of opening min 150mm overlap with stepped DPC at head and DPC at threshold / cill. *All door & window openings should be sealed to limit air infiltration as outlined in section 1.35 of Technical Booklet F 2012.*

On all openings unless otherwise noted provide 100mm wide x 215mm deep Prestressed Concrete Lintel with 215 x 215mm splayed lintel to inner leaf with stepped DPC. Pack between lintel with Kingspan Kooltherm K8 cavity board to prevent cold bridging.

To window openings provide 140mm deep precast concrete cill with stepped DPC around all hidden faces and 38mm Kingspan Kooltherm K8 insulation board along back face of cill.

At door thresholds provide 140mm deep x 100mm precast concrete threshold block with DPC around hidden faces and 20mm Kingspan Thermafloor TF70 laid at back of threshold block to prevent cold bridging. To Principal Entrance provide, Aco Drainage Channel System Connected to Storm Drainage and Provide Propriety Threshold bar to door max 15mm high for level access all to comply with Technical Booklet R Section 7

Self Contained Smoke Alarms

S/CO AA **This Symbol on Drawing Indicates Smoke /Carbon Monoxide detector c/w Sounder**

S AA **This Symbol on Drawing Indicates Smoke Alarm c/w Sounder**

H AA **This Symbol on Drawing Indicates Heat detector c/w Sounder**

Dwelling to be Fitted with an Automatic Fire Detection and Fire Alarm system complying in strict Accordance BS 5839 part 6: 2004 of at least Grade B Category LD2 standard Including a smoke detector or detectors in the principal habitable room and a heat detector or detectors in every kitchen.

(1) Alarms shall be provided in locations indicated on floor plans
Alarms shall be fitted on the ceiling at least 300mm from any light fitting.
Alarms on circulation spaces shall not be more than 7.5M from every door to a Living room or kitchen and not more than 3M from every bedroom door.
(2) Alarms shall contain all components necessary to detect smoke/heat and give audible alarm.
(3) Alarms shall be permanentally wired to a regularly used light circuit.
(4) Where more than one smoke alarm is provided each shall be connected so that all give audible alarm if any detects smoke.
(5) A backup power supply to each alarm shall be provided by either a primary or secondary battery or capacitor.
(6) Provide Ionisation Type Smoke Alarm within Attic Space
(7) A Certificate for design, installation and commissioning to be forwarded to Building Control on Completion

Sound Insulation Testing & Notice of results

In accordance with Regulation 53 (Technical Booklet G 2012) The Building Contractor carrying out the work shall for the purpose of ensuring compliance with Regulation 49 - (a) ensure that appropriate sound insulation testing is carried out in accordance with a procedure approved by the Department; and
(b) not more than 5 days after completion of the testing give a notice in writing to the district council stating the results of the sound insulation testing referred to in sub-paragraph (a).

Stairs

Stairs to be designed and fitted to meet BS 5578
See Floor Plans for details of riser heights. Goings to be 230mm.
The clear width of staircase between handrails should be a minimum of 800mm with a clear headroom along full extent of stairs of not less than 2000mm measured vertically from pitchline.
All landings to be not less than width of staircase and shall be clear of any obstructions.
Tapered treads
Goings at any point shall be minimum of 50mm. If Stairway is 1000mm or more the going to be measured 270mm from each side of stairs with each going equal in width. A handrail should also be fitted on the outside of the tapered edge.
Handrails
Handrail shall be fitted along full length of stairs and be so designed to provide adequate horizontal support as defined in section 1 of Technical Booklet H. Handrail to be fixed at a height of 900mm measured vertically off the pitch line of the stairs. Handrails at first floor level and landings to be 1100mm from finished floor level.
Balustrade
All balustrades should be designed so as not to allow the passage of 100mm sphere and not allow a child easily climb. The handrail & balustrades at all positions should be so designed to withstand a horizontal force of **0.74 kN/m**

Plumbing

All sanitary pipework to comply with BS 864 parts 2 & 5 and to BS 2871 part 1.
Provide soil vent pipe to the highest foul manhole within the drainage system and to all soil stack pipes from first floor sanitary accomodation. Provide air admittance valve to soil vents terminating in accordance to section 1 of Technical Booklet N.
All hot water pipework under floors and within attic space to be insulated with a minimum thickness to give a thermal conductivity of not more than 0.945 w/msq.K. (Insulation to be NITRILE rubber type)

Electrical

Building to be wired in strict accordance to the 16th edition of IEE regulations. and Part R of the Building Regulations.
Work to be carried out by an N.I.C.E.I.C registered contractor who will provide test certification on completion of the work.
All sockets on Principal floor (Entrance Storey) to be 450mm above floor level (measured to the bottom of the switch plate) and switches, doorbell, pull cords to be positioned not more than 1200mm above floor level (measured to the top of the switch plate).

Heating Control

(1) The Primary heating to be provided by a "Condensing Oil" Boiler Unit All Fitted & Supplied by Specialist Sub-Contractor.
(2) Space heating system controlled by room thermostat or thermostatic radiator valves & fitted with time clock/programmer & controls to limit boiler cycling.
(3) Heating pipes to be thermally insulated with insulated material equal to the diameter of the pipe or 40mm whichever is the lesser.
(4) Hot water pipes within 1m of the hot water cylinder, including the vent pipe, primary flow & return shall be thermally insulated.
(5) Hot water cylinder to be fully insulated and fitted with a high limit thermostat & wired through heating controls to automatically switch boiler off when required temperature has been reached.
(6) Water mains to be fully insulated along full length of pipe.
(7) Provide feed & expansion tank and provide cold water storage tank. Both tanks to be fully insulated except at base and both tanks to be fitted with insulated lid/cover. All in accordance to BS 1212 & current water supply regulations.
(8) The installation of the unvented hot water storage system to be carried out by a person holding a current Registered Operative Identity Card for the installation of unvented hot water systems in accordance with Technical Booklet P, Section 1, Paragraph 1.4
(9) Where the operating temperature of domestic hot water in the storage vessel is capable of exceeding 80 degrees centigrade under normal operating conditions the outlet from the storage vessel shall be fitted with a device such as an in-line hot water supply tempering valve in accordance with BS EN 15092.
(10) The hot water to a bath shall be limited to 48 degrees centigrade by the use of an in-line blending valve or other appropriate temperature control device, with a maximum temperature stop and a suitable arrangement of pipework in accordance with Technical Booklet P, Section 3.

Notice Plates For Boilers, Heating Appliances & Flues

Provide a durable notice (such as a laminated sheet) to convey the following for each boiler, appliance, hearth and flues:-
Location of the hearth, flue box, boiler / appliance.
The type of appliance that can be safely used with the flue installed.
The manfacture , size and type of flue installed.
The details of the installer of the hearth, fireplace, flue or chimney and the date of the installation.
Details of the installer of fixed appliances togrther with Operating and Maintenance instructions.

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PROJECT: PROPOSED DWELLING AT SITE 36 RIVERVIEW MANOR, STRABANE ROAD, CASTLEDERG
CLIENT: KLLC

TITLE: PROPOSED FLOOR PLANS
JOB / DRAWING NO.: 1837 / 003
DATE: 21.05.20
SCALE: 1:50 @ A1

REV:

N