

LAWRENSON ASSOCIATES

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BUILDING REGULATION & CONSTRUCTION SPECIFICATION

FOR

**EMMANUEL BAPTIST CHURCH,
FLEETWOOD LANE,
NETHERTON, BOOTLE
L30 0QG**

THIS SPECIFICATION IS TO BE READ IN CONJUNCTION WITH ALL LAWRENSEN ASSOCIATES LTD DRAWINGS.

ANY WORK COMMENCED ON SITE PRIOR TO OBTAINING FULL PLANNING AND BUILDING REGULATION APPROVAL FROM THE LOCAL AUTHORITY IS UNDERTAKEN ENTIRELY AT THE HOUSE OWNERS OWN RISK.

1. FOUNDATIONS

Prior to commencing work on site Builder must dig trial holes adjacent existing property to determine the nature of the ground.

Where existing foundations are subjected to increased loading expose foundations on site for assessment by Building Control Officer.

Refer to Structural Engineer if ground is not suitable for traditional strip footings or existing footings are inadequate for increased loading.

600mm wide x 200mm minimum thick strip footings taken down to a depth to the approval of the Local Authority Building Control Officer.

Concrete to be designated mix GEN1 or standard mix ST2, with a recommended consistence class of S3.

2. NEW EXTERNAL WALLS OFF NEW FOOTINGS

102.5mm facing brick outer leaf to match existing. Brickwork below DPC level to be frost resistant FN or FL type bricks.

100mm cavity with 100mm Dritherm 34 Super full fill insulation.

100mm solid concrete or aircrete block inner leaf, 3.5N minimum strength.

12.5mm plasterboard. All joints to be taped, filled and finished/skimmed in accordance with Manufacturer's recommendations.

To achieve a U-value of 0.28.

Stainless steel type 4 cavity wall ties at 450mm maximum centres vertically and 900mm maximum centres horizontally. Close up wall ties adjacent all windows and doors to 225mm maximum horizontal from opening and to 225mm maximum centres vertically.

3. MORTAR

1:1:6 Portland Cement:Lime:Sand or equivalent class M4 mortar.

4. D.P.C.'s

Provide DPC at ground floor level to all new masonry walls.

Provide insulated PVC vertical DPC's at all new door/window jambs and at all other places where the cavity may be bridged.

5. INTERNAL WALLS / PARTITIONS / MAKING GOOD.

If using masonry use 100mm solid concrete or aircrete block, 3.5N minimum strength. 12.5mm plasterboard to each side. All joints to be taped, filled and finished/skimmed in accordance with Manufacturer's recommendations. To achieve min 30 min resistance.

If using studwork use 75mm x 50mm timber studs at 400mm maximum centres. Provide noggings at all joints in plasterboard. 12.5mm plasterboard to each side. All joints to be taped, filled and finished/skimmed in accordance with Manufacturer's recommendations. All partitions around Bathrooms/WCs to be filled with 75mm thick insulation quilt. To achieve min 30 resistance.

6. FOUL DRAINAGE

100mm internal diameter, Hepsleeve or equivalent drains.

Pipes laid to 1 in 40 minimum gradient.

Provide flexible joints in all pipes at 150mm maximum and 750mm maximum from outside face of external walls and at junction with gullies.

Encase all pipes all round in 100mm minimum thick granular fill.

Top of pipe 650mm minimum below ground level.

All IC covers to have screw down lids.

All new and existing drains running under new extension to be fully encased in 150mm thick concrete all round. Provide reinforced concrete lintels over drains where they pass through walls. Encase ends of lintels with 50 thick mortar to protect exposed reinforcing bars.

Venting pipes which open to outside air should finish at least 900mm above any opening into the building within 3m of the pipe and should be finished with a wire cage or other perforated cover, fixed to the end of the ventilating pipe, which does not restrict the flow of air.

7. RAINWATER DRAINAGE

112mm internal diameter, half round gutter or equivalent.

68mm min diameter down pipe or equivalent.

Down pipes to discharge into grated roddable gullies.

8. GROUND FLOOR SLAB - CORRIDOR

18mm asphalt, self-levelling screed or power float finish

On 100mm thick concrete, designated mix GEN1 or Standard Mix ST2 with a recommended consistence class of S2.

On 1200 gauge Visqueen DPM continuous with wall DPC

On 105mm thick Jablite Jabfloor premium 70 insulation

On sand blinded mechanically consolidated clean stone hardcore, laid in 150mm maximum thick layers.

Provide 25mm thick insulation around edges of slab adjacent inner leaf.

To achieve a U-value of 0.22. P/A > 1.0.

9. LINTELS

All new external wall lintels to be insulated and have 150mm minimum end bearing.

Provide stop ends and cavity weep vents at 450mm centres.

10. FLAT ROOF OVER CORRIDOR

Firestone EPDM fully adhered rubber membrane installed in accordance with manufacturers recommendations on 200mm Kingspan TR27 LPC/FM insulation fully bonded to min 1000 gauge polythene or reinforced aluminium foil Vapour Control Layer which in turn is fully bonded to 18mm thick WBP exterior grade ply deck on 47mm x 97mm C16 timber rafters at 400mm maximum centres. Lay to a fall of not less than 1 in 80.

New wall plates 75mm x 100mm C16 timber, strapped to internal leaf with 30mm wide x 2.5mm thick x 1000mm long mild steel straps at 2000mm maximum centres.

Under draw with 12.5mm plasterboard. All joints to be taped, filled and finished/skimmed in accordance with Manufacturer's recommendations.

To achieve a U-value of 0.18.

11. VENTILATION

All WCs to have extract ventilation fans giving an extract rate of 15 litres per second. All fans to be operated from light switches and to have a 15-minute over run. Or provide continuous running fans, e.g. Vent Axia Lo-Carbon or similar.

Kitchen to have extract ventilation fans giving an extract rate of 30 litres per second, via cooker hood. If ventilation is not to be through cooker hood, provide extract ventilation fans giving an extract rate of 60 litres per second.

Provide mechanical extract in I.T. Suite to achieve an extract rate of 20l/s per machine during use.

All fans to be ducted to external air.

12. WINDOWS

All new external windows to be double-glazed and to have a maximum U-value of 1.6W/m²K.

All new external doors to have a maximum U-value of 1.8W/m²K.

All new windows to habitable rooms to have opening lights at least equal to 1/20th of the floor area of the rooms in which they are located.

New 'escape' windows are to have an opening light at least 450mm wide and at least 450mm high providing an area of at least 0.33 m². (e.g. 450mm wide x 750mm high = 0.34m²). The bottom of the openable area should not be more than 1100mm above the floor and should not be less than 800mm (this can be reduced to 600mm for a roof light) above the floor.

All new windows to habitable rooms to be fitted with trickle vents - 8000mm² per room. All new windows to kitchens, utility rooms and bathrooms to be fitted with trickle vents - 4000mm² per room.

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All window-opening controls to be less than 1700mm above floor level.

All glazing to windows within 800mm of the floor and all glazing to doors within 1500mm of the floor and all glazing to within 300mm horizontally of any glazed doors to be in toughened safety glass to comply with Part K of the Building Regulations.

13. SANITARY FITTINGS

Wash hand basins to be fitted with 32mm minimum diameter traps, 75mm deep anti-syphon seals and 40mm minimum diameter pipes.

WC pans to be fitted with 100mm minimum diameter traps, 50mm deep anti-syphon seals and 100mm minimum diameter pipes. Provide rodding points as necessary.

All new taps must be fitted with an inline blending valve to limit the hot water supply to a maximum temperature of 48°C in order to prevent scalding.

Provide Doc M W.C. pack with all associated rails and accessories. Ensure all rails are fixed with fixings appropriate to the substrata.

14. HEATING

If existing heating system requires alteration then the system should only be altered by a GAS SAFE registered contractor.

Flue positions must comply with Approved Document J (diagram 34).

Consideration should be given to provide Carbon Monoxide Detectors in all rooms containing gas burning appliances.

New biomass boiler by others.

Underfloor heating specification to be confirmed.

15. FIRE PRECAUTIONS

Existing fire alarm system to be extended to accommodate these proposals.

Provide automatic smoke detection and fire alarm system.

All new and doors to be FD30S fitted with intumescent smoke seals. See drawing 4868 101 for further information on door specification.

All elements of structure to have 60 minutes fire resistance.

The roller shutter between the Kitchen and the Seating Area is to be a 30 minute shutter linked to the fire alarm set up to fail in the closed position.

16. ELECTRICAL

All wiring and electrical work must be designed, installed, inspected and tested in accordance with the requirements of BS 7671, the IEE 17th Edition, Wiring Guidance and Building Regulation s Part P (Electrical Safety).

On completion of the works a copy of the Installer's Electrical Installation/Test Certificate compliant with BS 7671 is to be provided to the Client and the Local Authority.

AND

Prior to covering all wiring/cables the applicant/installer is to ensure that the installation is inspected by a competent person and on completion of the work, in addition to the Installation Certificate, an additional competent person's Electrical Installation Test Certificate compliant with BS 7671 is to be provided to the Client and the Local Authority.

Positions of all lights, sockets, switches etc. to be agreed with client and to be positioned 450mm minimum and 1200mm maximum above finished floor level.

Provide energy efficient lighting to all new light fittings. Provide fixed lighting having a luminous efficacy of greater than 40 lumens per circuit watt. Examples of lamps that achieve this efficacy include fluorescent tubes and compact fluorescent lamps [not GLS tungsten lamps with bayonet caps or Edison screw bases].

All other fixed building services (i.e. fixed systems for heating, hot water services, air conditioning or mechanical ventilation) that are installed must meet the energy efficiency standards set out in the Non-Domestic Building Services Compliance Guide, CLG, 2010