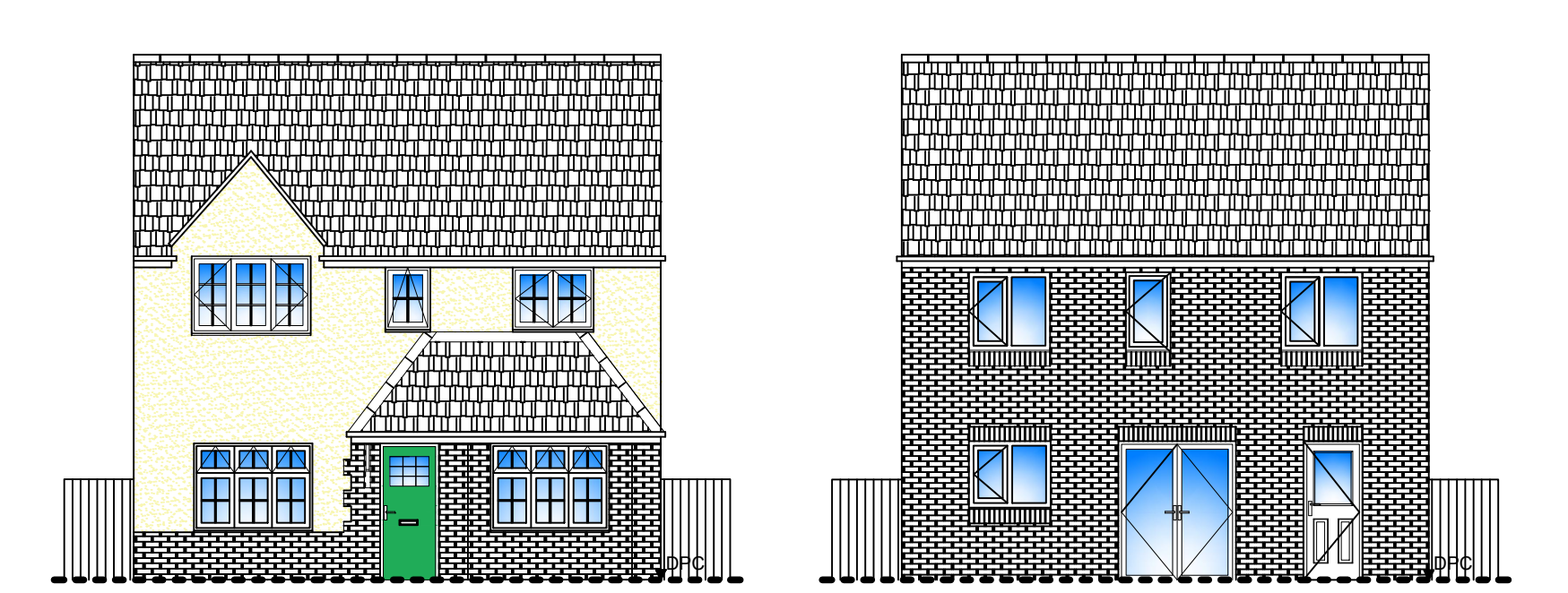
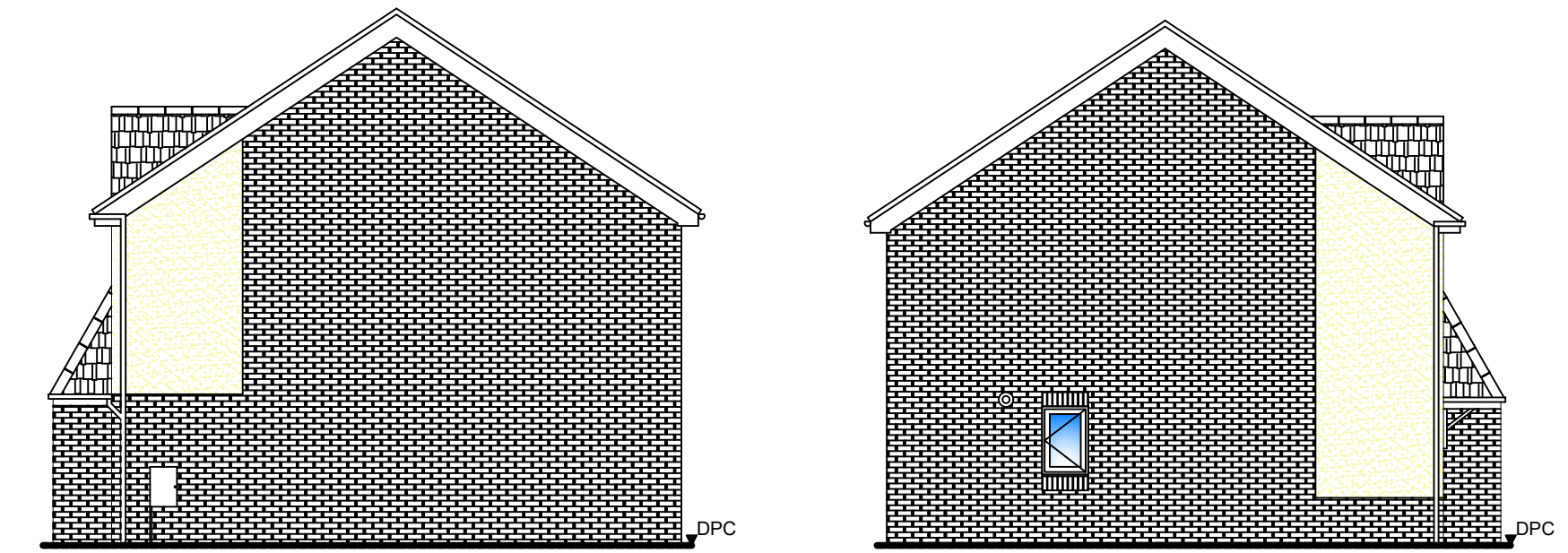
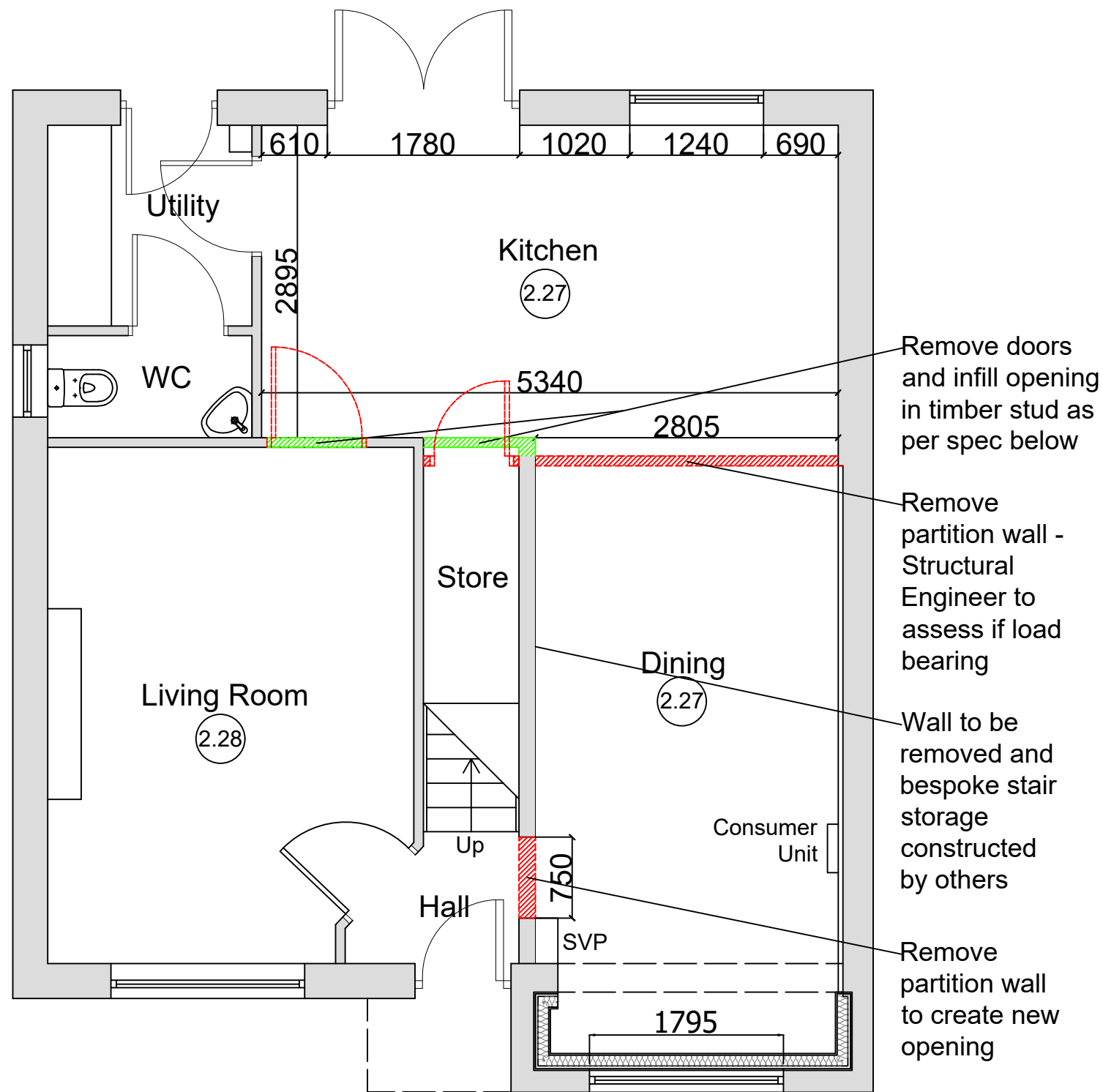




PROPOSED FRONT ELEVATION PROPOSED REAR ELEVATION



PROPOSED SIDE ELEVATION PROPOSED SIDE ELEVATION



PROPOSED GROUND FLOOR PLAN

EXISTING STRUCTURE
Existing structure including foundations, floor, beams, walls, roof and lintels are to be exposed and checked for adequacy prior to commencement of work and as required by Building Control.

A suitably qualified engineer appointed by the Client is to assess and confirm the existing internal walls prior to their removal to establish if load-bearing and additional support is required.

FOUNDATIONS
Trial hole to be excavated to ascertain whether the garage has a continuous foundation across the infill which is adequate to build off. If there is no foundation provide either:

OPTION 1
Provide new concrete foundation with a width at least the width of the new wall plus 300mm, mix to conform to BS EN 206:2013 (+A2:2021) and BS 8500-2. Depth be a minimum of 1000mm below ground level, to existing foundation depth and to the approval of Building Control to suit site conditions. All constructed in accordance with 2004 Building Regulations A1/2 and BS 8004:2015 Code of practice for foundations (+A1:2020). Ensure foundations are constructed below invert level of any adjacent drains. Sulphate resistant cement to be used if required. Please note that should adverse soil conditions, or any major tree roots in excavations be discovered, Building Control to be contacted and the advice of a Structural Engineer should be sought. OR;

OPTION 2
Alternatively, provide a suitable concrete lintel (2no 100 x 150mm deep concrete lintels (RMC) or 2no 100 x 140 pre-stressed lintels) to span the opening of a single garage door, for larger opening a lintel design will be required, cut lintels into the brickwork below the damp proof course or place onto the concrete foundation projections, provide minimum 150mm bearing to both sides, concrete fill the cavity below lintels to prevent vermin entering the dwelling. To be confirmed with structural engineer.

DPC
Provide horizontal strip polymer (hyload) damp proof course to both internal and external skins minimum 150mm above external ground level. New DPC to be made continuous with existing DPCs and with floor DPM. Vertical DPC to be installed at all reveals.

UPGRADING EXISTING SOLID FLOOR
To meet min U value required of 0.25 W/m²K - The existing solid floor slab must be checked for stability and be free from defects, as required by Building Control.

The existing floor will need upgrading to ensure adequate damp protection and to prevent heat loss. Provide 1200 gauge polythene DPM or 3 coats RIW over existing concrete slab (if required), DPM to be lapped in with DPC in walls. Floor to be insulated over slab and DPM with min 70mm thick Celotex GA4000, 25mm Celotex insulation to continue around floor perimeters to avoid thermal bridging.

A VCL should be laid over the insulation boards and turned up 100mm at room perimeters behind the skirting, all joints to be lapped 150mm and sealed. Finish with 65mm sand/cement finishing screed with light mesh reinforcement.

Care should be taken to ensure any existing airbricks for the main house are not obstructed by this work. If so, they should be extended through the new floor to external air.

EXTERNAL WALLS
OPTION 1 (SOLID WALL)
To achieve min U-value 0.18 W/m²K
Wall constructed using brickwork to match existing at least 328mm thick. Insulate wall on the inside using 100mm Celotex GA4000 insulation. Finish with 12.5mm plasterboard over vcl and 3mm skim coat of finishing plaster. Batten out to provide a nominal 25mm cavity between the masonry and insulation (50mm cavity to be provided if required by building control).

Wall into be provided with a Vandex slurry internally if required by Building Control.

New brickwork infill wall to garage opening to be toothed & bonded every other course to existing wall or alternatively tied using Furfix or similar metal profiles plugged & screwed to existing wall, vertical DPC and movement joint to be provided at abutment.

OPTION 2 - CAVITY WALL
To achieve min U-value 0.18 W/m²K
New cavity wall to comprise 100mm external skin of face brickwork, stainless steel wall ties at 900mm horizontal and 450mm vertical to BS1234, 75mm PIR insulation board to cavity to leave 50mm clear cavity width to external skin, 100mm blockwork internal with 12.5mm plasterboard on 15mm plaster dabs & 3mm skim finish. Walls to achieve a minimum U-Value of 0.18 W/m²K). Cavity to be sealed at eaves with non-combustible cavity barrier such as 6mm masterboard or 12mm gypsum based board. Cavity to be closed at window reveals with Kingspan Kooltherm vertical cavity closer or similar to suit cavity width and are to lap into cavity tray with weepholes, min.2 per opening. Window frame to be pointed externally with an approved mastic compound and sealed from the inside generally with expanding polyurethane foam. Cavity trays to extend a minimum of 25mm beyond the cavity closure and in turn to be closed at their end with proprietary cavity tray stop ends. Tray to rise a minimum of 150mm above the top of the opening.

WINDOW
New window to garage opening to be uPVC double glazed, same size and height as living room with a 20mm air gap and low-e glazing. Provide new similar insulated DPC around opening. New window to meet a minimum 1.4 W/m²K u-value with horizontal and vertical DPC to cills and reveals.

All glazing in critical locations to be toughened or laminated safety glass to BS EN 12600:2002, BS EN 14179 or BS EN ISO 12543-1 and Part N of the current building regulations. i.e. within 1500mm above floor level in doors and side panels within 300mm of door opening and within 800mm above floor level in windows.

EXISTING GARAGE WALLS
Walls that do not require upgrading to receive new 12.5mm plasterboard on dabs and 3mm skim coat of finishing plaster.

NEW INTERNAL WALLS
75mm x 50mm softwood treated timbers studs at 400mm ctrs with 50 x 100mm head and sole plates and solid intermediate horizontal nogginns at 1/3 height or 450mm c/c's. Provide min 10kg/m³ density acoustic soundproof quilt tightly packed (e.g.100mm Rockwool or Isowool mineral fibre sound insulation) in all voids the full depth of the stud. Partitions to be built off doubled up joists where partitions run parallel or provide nogginns where at right angles. Walls faced throughout with 12.5mm plasterboard with skim plaster finish. Plasterboard to be taped and jointed complete with beads and stops.

VENTILATION
New habitable garage to have rapid ventilation via window of an operable area at least 1/20th (5%) of the floor area. Windows also to incorporate background ventilation via trickle vents.

MEANS OF ESCAPE
Provide emergency egress windows to any newly created first floor habitable rooms and ground floor inner rooms.

The window should have an unobstructed clear openable area that is at least 0.33m² and have no clear dimension less than 450mm high or 450mm wide.

The bottom of the openable area should be not more than 1100mm above the floor.

The window should enable the person to reach a place free from danger from fire.

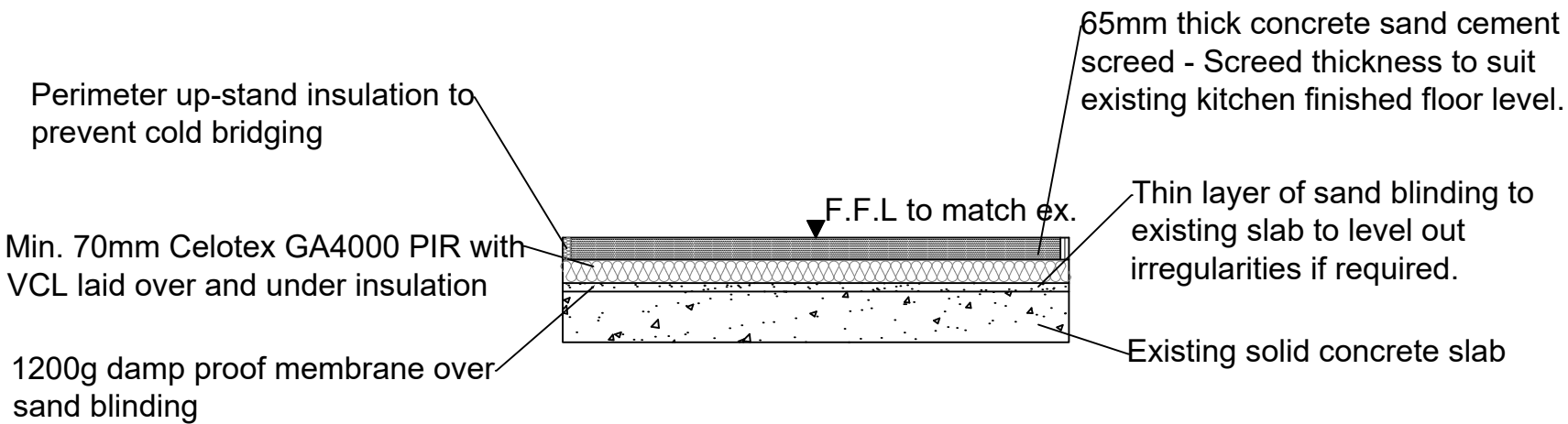
SMOKE ALARMS
Smoke alarms are to be designed and installed to BS5839, Grade D, Category LD3 standard and located a maximum distance of 7.5m from all habitable rooms within the ground-floor. New smoke alarms to be fitted min 300mm from light fittings and walls. Alarms must be connected to a separately fused mains electricity supply with battery back-up and installation must comply with current IEE regulations.

ELECTRICAL
All new electrical work is to meet the requirements of Part P (Electrical Safety) and to be designed, installed, inspected and tested by a competent person to certify compliance with BS 7671.

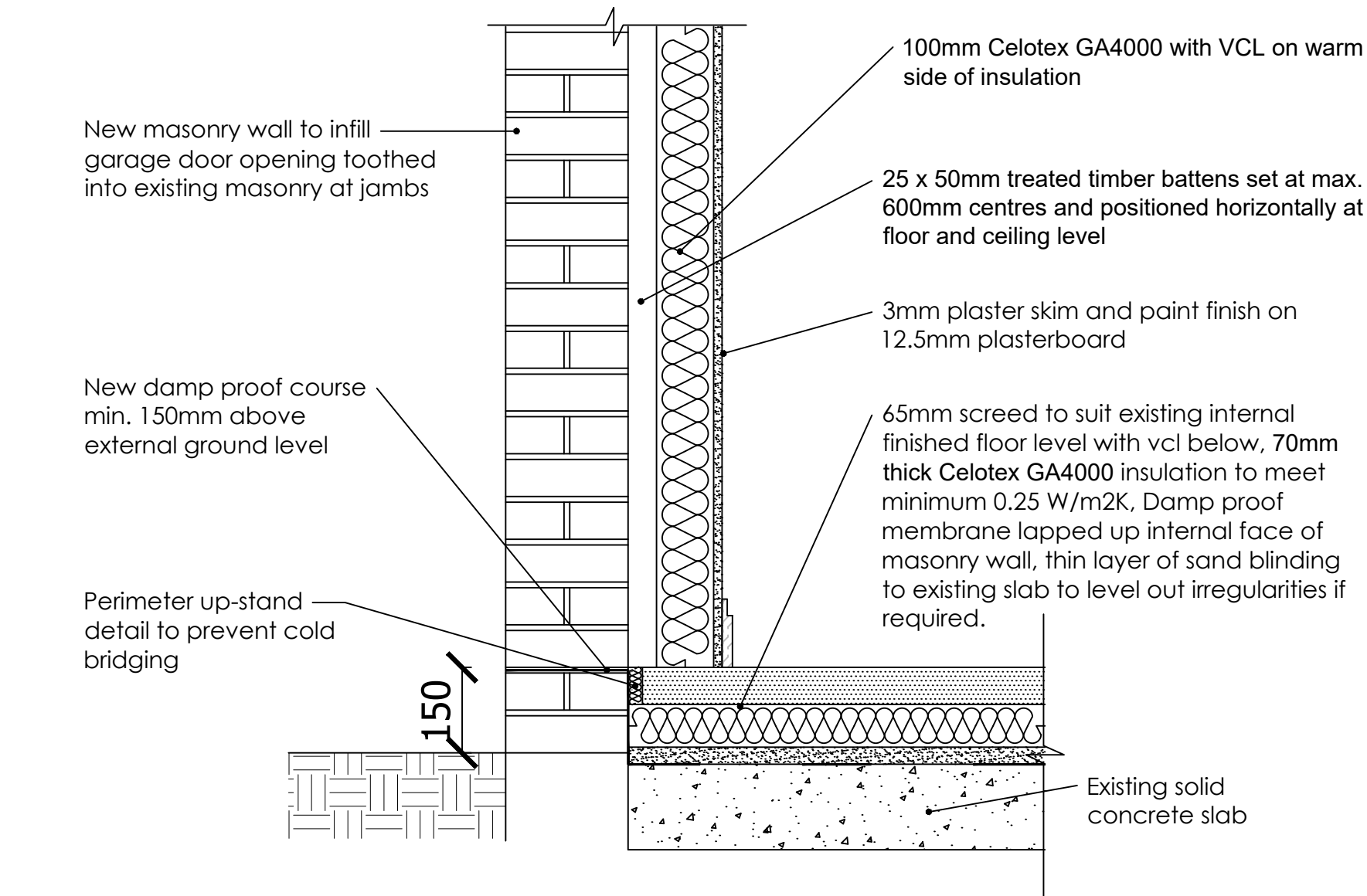
Switch and socket outlets for lighting and other equipment will be located at appropriate heights between 450mm and 1200mm above finished floor level.

Existing consumer unit within garage to be relocated to agreed location by suitably qualified engineer.

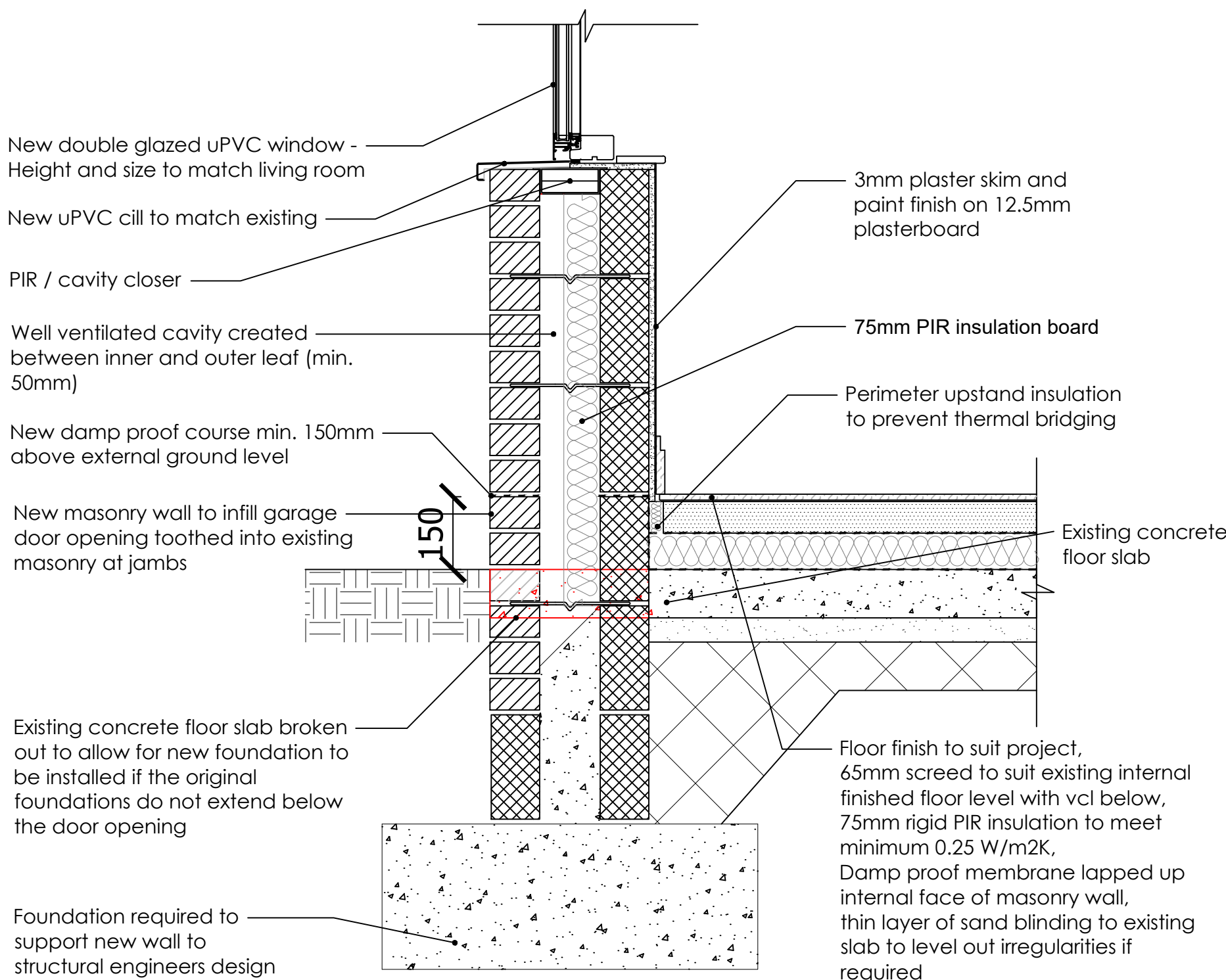
HEATING
Extend all heating and hot water services from existing and provide new TRVs to radiators. Heating system to be designed, installed, tested and fully certified by a GAS SAFE registered specialist. All work to be in accordance with the Local Water Authorities bye laws, the Gas Safety (Installation and Use) Regulations 1998 and IEE Regulations.



SOLID GARAGE FLOOR DETAIL



OPTION 1 - SOLID WALL DETAIL



OPTION 2 - CAVITY WALL DETAIL

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Do not scale this drawing. Measurements to be taken on-site.

Rev	Date	Comments
...L.../...Gadd & Jones Ltd/Gadd & Jones Ltd Logo.png		
Gadd & Jones Ltd c/o Suit 81 Homes House 253 Cowbridge Road West Cardiff CF5 5TF		
CLIENT Kier & Morgan		
JOB TITLE 12 Riverview Avenue, Trelewis, CF64 6EF Proposed Garage Extension		
DRAWING TITLE Proposed Ground Floor Plan Front Elevation and Details		
SCALE	1:100 / 1:50 / 1:20 / 1:10	Setup Size A1
DRAWN	DG	
DATE	September 2024	
DRAWING NUMBER	Proposed 03	Rev