BUILDING REGULATIONS NOTES

Particular care must be taken if the existing external wall is single leaf construction with piers, checks for stability and defects must be performed.

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.

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 the Building Control Officer.

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).

SOLID EXTERNAL WALL
Construct wall at least 328mm thick using brickwork to match existing. Insulate wall on the inside using 77.5mm Celotex L4000 insulated plasterboard, insulation board mechanically fixed to timber battens to provide a nominal 25mm cavity between the masonry and insulation. Provide a vapour control layer under the insulation and finish with a 3mm plaster skim.

LINTEL SUPPORT FOR NEW WALL
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 dig a trench across the opening, 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.

EXTERNAL WALL UPGRADE

UPGRADING SINGLE SKIN PARTY WALL

The existing walls must be checked for stability and be free from defects as required by the Building Control Officer. Construct a studwork lining using 100mm x 50mm treated timbers with head & sole plates and noggins at 400mm ctrs. Insulation between studs; 100mm Celotex FR4000 between and Gyproc plasterboard with VCL 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. A lesser provision of insulation may be appropriate where meeting such a standard would result in a reduction of more than 5% in the internal floor area of the room.

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 use for 900mm sized nternal 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 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.

UPGRADING EXISTING CONCRETE FLOOR To achieve U-value of 0.25W/m²K
The existing solid floor slab must be checked for stability and be free from defects as required by Building Control. The floor will need upgrading to ensure adequate damp protection and to prevent heat loss. Fix 20mm softwood tongue and groove softwood boards or moisture resistant particle/chipboard grade type C4 to BS EN 312:2010 onto tanalised treated timber battens plugged and screwed into a concrete slab beneath. Lay boarding with staggered joints. Place 100mm Celotex GA4000 insulation between the battens (fully filling the void).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. Provide a 1200 gauge DPM linked to DPC in the walls over existing slab (if required). A lesser provision may be appropriate where meeting such a standard would create significant problems in relation to adjoining floor level.

SMOKE DETECTION
Where the new room does not have a external door smoke detection will be required. Mains operated linked smoke alarm detection system to BS EN 14604 and BS5839-6:2004 to at least a Grade D category LD3 standard to be mains powered with battery back up. 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 interlinked heat detector in the kitchen.

BACKGROUND AND PURGE VENTILATION
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°. 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 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.

NEW AND REPLACEMENT WINDOWS
To achieve U-value of 1.6 W/m²K New and replacement windows to be draught stripped and double glazed with 16mm argon gap and soft coat low-E glass. Window Energy Rating to be Band C or better. The door and window openings should be limited to 25% of the extension floor area plus the area of any existing openings covered by the extension. Windows in a cavity wall to have insulated damp proof course around opening. Windows in a solid wall to have insulated dry lining around the opening.

SAFETY GLAZING
All glazing in critical locations to be toughened or laminated safety glass to BS 6206, BS EN 14179 or BS EN ISO 12543-1:2011 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.

ELECTRICAL
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 Building Control on completion.

Electrical Installation
Details of the design, installation and testing of electrical installation along with information to allow people to use, maintain or alter electrical installation safely. To be installed in accordance with BS7671:2008 by a competent person registered with a self-certification scheme.

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 and the Domestic Building Services Compliance Guide.

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 bye laws, the Gas Safety (Installation and Use) Regulations 1998 and IEE Regulations.

NEW GAS BOILER (if required)
Heating and hot water will be supplied via a wall mounted condensing vertical balanced flue pressurised boiler with a min SEDBUK rating of 90%. No combustible materials within 50mm of the flue. System to be fitted with thermostatic radiator valves and all necessary zone controls and boiler control interlocks. The system will be installed, commissioned and tested by a "competent person" and a certificate issued that the installation complies with the requirements of PART L. All work to be in accordance with the Local Water Authorities bye laws, the Gas Safety (Installation and Use) Regulations 1998 and IEE Regulations.

RAINWATER DRAINAGE
New rainwater goods to be new 110mm UPVC half round gutters taken and connected into 68mm dia UPVC downpipes. Rainwater taken to new soakaway, situated a min distance of 5.0m away from any building, via 110mm dia UPVC pipes surrounded in 150mm granular fill. Soakaway to be min of 1 cubic metre capacity (or to depth to Local Authorities approval) with suitable granular fill and with geotextile surround to prevent migration of fines. If necessary carry out a porosity test to determine design and depth of soakaway.

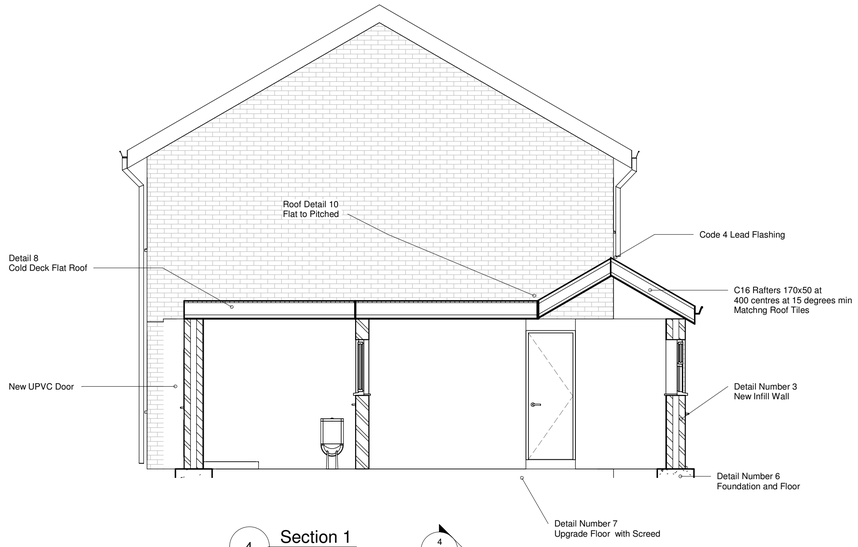
UNDERGROUND FOUL DRAINAGE
Underground drainage to consist of 100mm diameter UPVC proprietary pipe work to give a 1:40 fall. Surround pipes in 100mm pea shingle. Provide 600mm suitable cover (900mm under drives). Shallow pipes to be covered with 100mm reinforced concrete slab over compressible material. Provide rodding access at all changes of direction and junctions. All below ground drainage to comply with BS EN 1401-1: 2009.

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.

Public Sewers
If within 3mtrs of a public sewer then Severn Trents permission shall be obtained in writing giving their consent. A drainage survey will be carried out by CCTV before commencing work and at completion and a copy of the report sent to Severn Trent.

ABOVE GROUND DRAINAGE
All new above ground drainage and plumbing to comply with BS EN 12056-2:2000 for sanitary pipework. All drainage to be in accordance with Part H of the Building Regulations. Wastes to have 75mm deep anti vac bottle traps and rodding eyes to be provided at changes of direction.
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 BS EN 12380, placed at a height so that the outlet is above the trap of the highest fitting.
Waste pipes not to connect on to SVP within 200mm of the WC connection.
Supply hot and cold water to all fittings as appropriate.

1 GARAGE CONVERSION SPEC
1 : 50



4 Section 1
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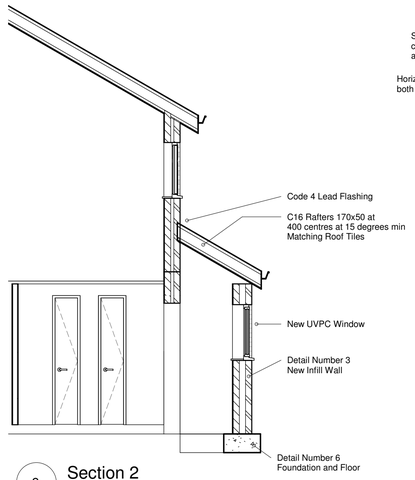

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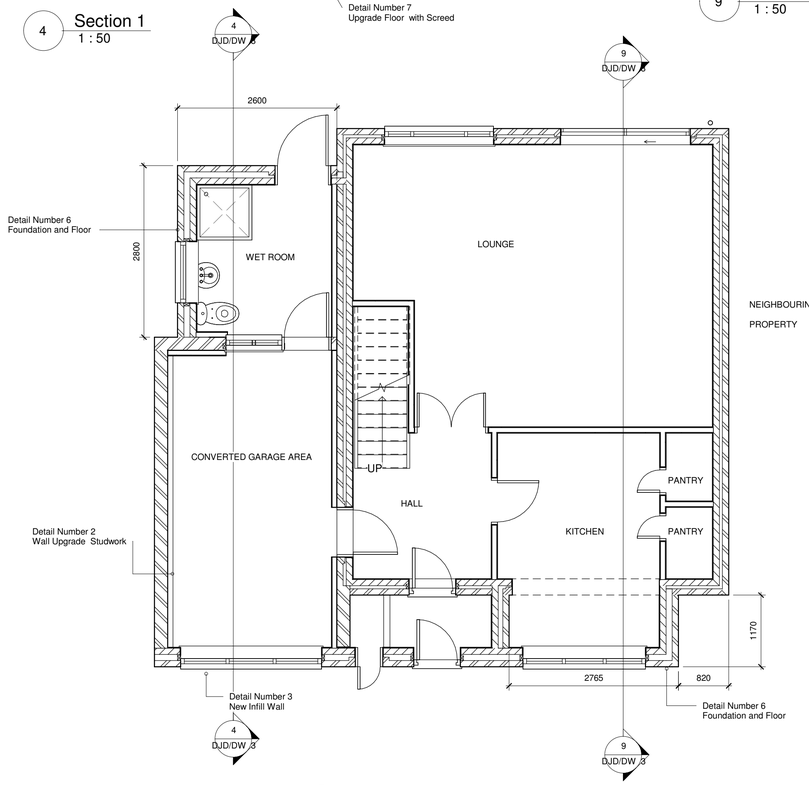
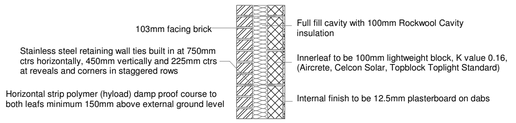


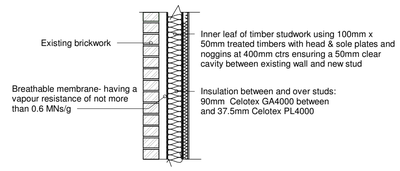
5 Proposed Ground Floor
1 : 50

FULL FILL CAVITY WALL



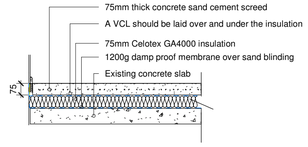
3 NEW INFILL WALL
1 : 20

UPGRADE OF HALF BRICK WALL



2 Wall Upgrade.studwork
1 : 20

UPGRADE OF GROUND FLOOR



7 UPGRADE FLOOR WITH SCREED
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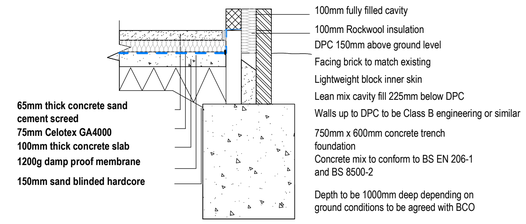

6 Foundation and Floor Detail2
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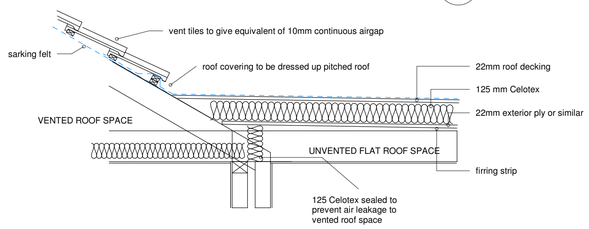
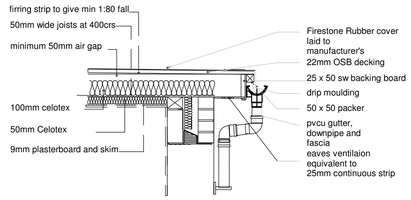


10 ROOF DETAIL FLAT TO PITCHED
1 : 20



8 Cold Deck Flat Roof
1 : 20

DJ BUILDING DESIGN
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PROJECT	Garage Conversion with Wet Room and Kitchen Extension
ADDRESS	20 FAIRLAWN, ALBRIGHTON, WOLVERHAMPTON
CLIENT	NICOLA MARY HUISH
TITLE	DETAILS
SCALE (@ A1) As indicated	DATE 27/05/2021 15:46:58
DRAWING NUMBER DJD/DW 3	REV 1