

**CDM REGULATIONS 2015 – ANY HEALTH AND SAFETY CONTRACTURAL WORK AND MAINTENANCE GOING FORWARD IS THE RESPONSIBILITY OF THE COMPANIES EMPLOYED BY THE CLIENT  
RECOMMENDATIONS: THE OWNER MAY NEED TO OBTAIN CONSENT FROM LOCAL WATER AUTHORITY TO BUILD OVER OR NEAR ANY SEWERS WITHIN THEIR PROPERTY.**

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**ALL WORKS CARRIED OUT IN ACCORDANCE WITH SECTIONS AND NOTES. COPYRIGHT RESERVED. ALL DIMENSIONS TAKEN AS APPROVED BY CLIENT. DRAWING TAKEN AS APPROVED BY CLIENT  
DO NOT SCALE OR CONSTRUCT FROM THESE DRAWINGS. ALL DIMENSIONS ARE TO BE CHECKED ON SITE**

**ANY EXISTING STRUCTURE EXPECTED TO SUSTAIN ADDITIONAL LOADS OR CHANGE IN LOAD CONDITIONS TO BE EXPOSED AND ASSESSED FOR ADEQUACY AND REPAIRED OR REPLACED AS NECESSARY.**

**IF APPLICABLE UNDERSIDE OF NEW FOUNDATIONS TO BE A MIN 1.00M FROM GROUND LEVEL AND SIZES ARE BASED UPON A GROUND BEARING PRESSURE OF 105Kn M<sup>2</sup>. BOTH THE GROUND BEARING PRESSURE AND DEPTH OF NEW FOUNDATIONS ARE TO BE AGREED WITH B/I ON SITE BEFORE FOUNDATIONS CAST.**

**PLEASE BE AWARE THAT ANY TREES WITHIN 25M OF THE EXTENSION MAY REQUIRE A DESIGNED FOUNDATION.**

**ALL ITEMS, NOTES, DIMENSIONS AND GENERAL DESIGN CONTAINED ON THIS DRAWING ARE FOR GUIDANCE PURPOSES ONLY.**

**NOMINATED BUILDER OR PERSON RESPONSIBLE FOR THE PROJECT SHOULD MAKE A THOROUGH CHECK PRIOR TO COMMENCEMENT OF WORKS AGAINST SITE, DRAINAGE SERVICE DRAWINGS, CURRENT BUILDING REGULATIONS, BRITISH STANDARDS AND CODES OF PRACTICE**

**ANY STEELWORK BELOW DPC LEVEL TO BE PROTECTED AGAINST CORRISON WITH 50MM CONCRETE SURROUND BELOW GROUND LEVEL AND 2 COATS BITUMEN UP TO DPC LEVEL**

**CE marking to BS EN 1090 is now a legal requirement**

**Since July 2014, structural steelwork and aluminium fall under the Construction Products Regulation (CPR), which means aluminium or structural steel CE marking must be secured to show compliance with EN 1090-1 (the harmonised European standard that applies to structural metalwork). This covers any structural component that has been designed and fabricated to meet the BS EN 1991 series of standards (Euro code 3 and 9) for steel and aluminium structures in buildings. And you now need to show that they comply with BS EN 1090-1.**

**STRUCTURAL ENGINEERS CALCULATIONS TO BE CHECKED BY CLIENT/BUILDER BEFORE WORK COMMENCES AND TO TAKE PRECEDENCE OVER INFORMATION ON DRAWING ALSO BE ADVISED WHERE A 203MM WIDE BEAM ( OR SIMILAR) IS SUPPORTING A CAVITY WALL ABOVE IT WILL BE NECESSARY TO PROVIDE A 10MM PLATE (THE WIDTH OF THE WALL ABOVE) WELDED TO THE TOP OF THE BEAM.**

**PERMISSIBLE STRESS ON OLD MASONARY TO BE AGREED WITH BUILDING INSPECTOR ON SITE. (BRICKWORK TO BE 15Nmm<sup>2</sup> IN 1:1:6 MORTAR)**

**THE ORIGNATOR (WESTLEIGH DESIGN) WILL NOT ACCEPT ANY LIABILITY FOR MISTAKES THAT COULD OCCUR**

**NOTE 1: YOUR ATTENTION IS DRAWN TO THE PARTY WALL ETC. ACT 1996, WHICH REQUIRES YOU TO SERVE NOTICE ON YOUR NEIGHBOUR IF YOU INTEND TO ALTER, AFFECT OR WORK IN CLOSE PROXIMITY TO A PARTY WALL OR BOUNDARY.**

**NOTE 2: ALL ELECTRICAL WORK REQUIRED TO MEET THE REQUIREMENTS OF PART P (ELECTRICAL SAFETY) MUST BE DESIGNED, INSTALLED, INSPECTED AND TESTED BY A PERSON COMPETENT TO DO SO. PRIOR TO COMPLETION THE LOCAL COUNCIL NEEDS TO BE SATISFIED THAT PART P HAS BEEN COMPLETED WITH. THIS WILL REQUIRE AN APPROPRIATE BS761 ELECTRICAL INSTALLATION CERTIFICATE TO BE ISSUED FOR THE WORK BY A PERSON COMPETENT TO DO SO.**

**FOUNDATIONS:** Foundations to be of size and depth to suit site conditions. **FOUNDATION DEPTHS SUBJECT TO ANY TREES WITHIN THEIR LOCATION AND DEPTHS TO BE TO BUILDING INSPECTOR'S SATISFACTION.** Minimum 600mm wide and taken down to a minimum depth of 1m with 600mm minimum depth of concrete. Foundations to be taken down to invert level of any adjacent drains and within 1m of such drain runs. Foundation concrete should be composed of cement to BS 12:1978 and fine/coarse aggregate conforming to BS 882:1983 in proportions of 50kg of cement to not more than 0.1m of fine aggregate and 0.2m of coarse aggregate. Concrete Grade C35.

**SOLID FLOORS:** Solid ground floor slab to consist of 150mm well consolidated hardcore, 50mm blinding, 150mm concrete slab with layer of A192 mesh, . 1200 gauge damp proof membrane (to be contiguous with new damp proof course), 100mm Celotex GA4000 or equivalent floor insulation laid to manufacturers specification. Vapour barrier to be provided. 75mm sand cement screed. Screed to be reinforced with plastic or fibre glass particulars before laying. U value 0.18W/m<sup>2</sup>k. A 25mm upstand of insulation must be provided around the perimeter of floors, including where the floor slab touches outside wall (usually at door thresholds). Provide air ducts to ventilate any suspended floors via air bricks at external walls.

**CAVITY WALL:** Walls (cavity) below dpc level to be two leaves of semi-engineering bricks with 100mm cavity between, as shown on drawing (cavity not to be filled with concrete above 225mm below dpc). Above dpc level to be 112mm brickwork outer leaf and then 100mm thermolite shield block inner leaf plus 42.5mm PIR(Celotex) and 12.5mm plasterboard with 100mm cavity between both. Cavity filled with 100mm drytherm 32 cavity batts, all to achieve U value of U Value 0.18 W/m<sup>2</sup>k. The cavity wall insulation must be taken down below damp course level, finishing at the same level as the underside of the floor slab insulation. The cavity wall insulation and roof insulation must meet at the top of the wall (the detail used must also allow ventilation to be maintained if appropriate). Cavity wall insulation must be carried up to the full extent of gable walls. Vapour control layer required to warm side of wall insulation on internal skin. Where the cavity to the masonry walling is between 76mm and 100mm the wall ties must be spaced not less than 750mm horizontally and 450mm vertically. Two leaves tied together with patient stainless steel cavity wall vertical twist type ties or equivalent must be used in cavities 76mm or greater. All wall ties should comply with BS1243:1978. Wall ties at openings to be no more than 300mm vertical spacing within 225mm of reveals. Tray dpc to be provided over lintels. Blocks laid 1:1:6 mortar mix with brick-tor or similar mild steel reinforcement to every third course of block work. Provide proprietary movement joints at max 6m distance. Walls to have a 12mm lightweight plaster internally. Cavities should be closed with insulated cavity closures designed for purpose at all openings.

**FINISHES: MATERIALS USED IN THE CONSTRUCTION OF THE PROPOSED EXTENSION TO MATCH THOSE OF THE MAIN DWELLING.**

**NEW WALLS:** Damp proof courses to be lead core or other similar approved, lapped to a minimum 150mm at all joints and to be contiguous with dpm at 150mm above external ground level. Lintels (unless otherwise stated) to be Catnic steel lintels with 90mm mineral fibre insulation to inner void giving U-value of at least 0.18 W/m<sup>2</sup>k. Catnic lintels to have minimum 150mm end bearings. All wall and ceiling linings to be plasterboard and plastered to give Class A of surface spread of flame. Lead flashing to be provided at all roof and wall abutments. Lead flashing to be minimum Code 5. Lead to be let into mortar course a minimum 150mm above roof level. New walls secured to existing with furfix or similar connector. The strapping should be of a galvanised mild steel or similar and have a minimum cross section of 30mm x 5mm. Straps should be a minimum of 1m long and be spaced at not more than 2m centres. Suitable noggings must be used to support the entire length of the strap. Tray dpc provided to any cavity wall/roof abutment.

**CAVITY TRAYS** to be provided over air bricks venting existing suspended floors and over lintels in external cavity walls with stopped ends and weepholes. Cavity trays at abutment of roofs and adjacent cavity wall also to have lapped and sealed joints stopped ends and weepholes and be linked with the upstands flashing.

**CAVITIES** being cut continuous at vertical abutment of new and existing cavity walls or a vdpc inserted on the line of the cavity through the full thickness of the existing brickwork. Where the cavities cannot be cut continuous a vdpc should be provided behind the blockwork lapped to two coat bitumen to the existing wall full height and approx. 1m horizontally.

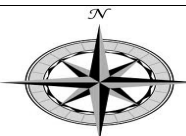
**STRUCTURAL TIMBERS:** to be treated with approved timber preservatives and to be grade C24. Floor joists etc. must be set on joist hangers (and not built into the wall itself).

**WINDOWS:** All windows to be double-glazed and of a size not less than 10% of the floor area of each room. Window openings to provide a minimum of 1/20<sup>th</sup> of the floor area of each room. Ensure rooms have purge ventilation in accordance with Approved Document F(1/20<sup>th</sup> of the floor area for windows opening 30° or more, otherwise 1/10<sup>th</sup> of floor area). Glazing in timber or plastic frames – double glazing with 16mm gap and a 'soft' low E coating or double glazing with 16mm air gap. Argon filled and soft low E coating. (U value 1.4W/m<sup>2</sup>k.) Trickle vents should be located a minimum of 1.7m above finish floor level. Means of escape window frame to be minimum 450mm wide by minimum 750mm high. Bottom of window to be no higher than 1100mm above ground level.

**POSITION AND HEIGHT OF ALL WINDOWS TO BE CHECKED BY CLIENT/BUILDER BEFORE CONSTRUCTION COMMENCES.**

**EXTERNAL DOORS** should achieve the required area weighted average U-values specified in New Table. Doors (50% glass) – U-value=1.4 W/m<sup>2</sup>k or, centre pane U-value = 1.4 W/m<sup>2</sup>k. Glazing in relevant positions should comply with the requirements of Approved Document i.e safety glass.

**WESTLEIGH DESIGN**



**PROPOSED SINGLE STOREY REAR EXTENSION  
MR J MICHAELS HILLSIDE 3 GUILTON KENT CT3 2HL  
REF: 061123/SPECIFICATION NOTES**

**NOTE: WINDOWS AND GLAZED DOORS SHOULD BE FENSA APPROVED**

**DRAINAGE:** All underground drains to be of underground quality PVC pipes (e.g. Hunter-Marley etc) bedded and surrounded in 150mm peashingle to manufacturers recommendations. Large radius bend at base of S&VP's. Drains passing through walls/foundations to be bridged with precast RC lintels. Where drainage passes through sub-structure a 50mm air space to be provided all around the drain in accordance with AD H diagram 7. Manholes to have a minimum internal size of 600mm x 450mm with 150mm thick concrete base (concrete mix 1:2:4) Walls to be 225mm thick class B semi-engineering bricks (mortar mix 1:3) with fair faced brick-work internally and flush pointed. Vitrified clay main straight channel and branches benched in sand /cement 1:3 trowelled smooth (external manholes to have galvanised mild steel cover and frames). Fall of drains to be min. 1:40. All new drainage and sanitary pipework, including layout, materials, bedding/surround etc. must be discussed and approved on site by a Building Control Surveyor prior to installation. Air and running tests will be required on completion of works.

**RAINWATER** disposal to be by 100mm half round PVC gutter with 75mm dia. PVC down pipes connected to 100mm dia. Hepsleeve or similar drain run, bedded and surrounded in 100mm of peashingle discharging into soakaway sited at least 7m from any building. Soakaway to be size and depth to suit ground conditions. Soakaway construction to be 100mm concrete base with honeycomb brick walls (no gap greater than 25mm) with 150mm reinforced concrete lid.

**CEILINGS** – 12.5mm foil backed plasterboard to be provided to ceilings with 7mm plaster skim.

**BACKGROUND VENTILATION** to the new room(s) is required to comply with Part F Table 1.7 (equivalent areas) and provided to habitable rooms by means of controllable and secure ventilation opening having a total area of not less than 8,000 mm<sup>2</sup> located to avoid drafts (trickle ventilator) hit or miss ventilator. Open Plan Kitchen/Diners to have minimum of 3 trickle vents in a room (8000mm<sup>2</sup> each) Part F Table Para.1.52. Background ventilation to bathroom and utility room to give 4000 mm<sup>2</sup> as above. Existing Home Ventilation Guide required to be given to the homeowner by the builder to explain how to use and ventilate efficiently.

**STEEL WORK:** Steel work to be encased to provide 30 minute fire resistance in accordance with the Board Manufacturers recommendations to include frame work and boarding. Steel work to structural calculations. Steel beams to be encased with two layers of 12.5mm plasterboard fixed to 50mm x 25mm timber cradle with 7mm of gypsum plaster. Steel beams to rest on concrete padstones minimum end bearing of 225mm Twin beams to be diaphragm bolted together with spacers at 900mm centres. Steel Grade 43. All steel beam bottom flanges bolted to top of padstones using 2No. M12 dia. bolts each end. Where the Engineer designs a single steel beam to support a 225mm or 300mm wall a 20mm steel plate to be bolted or welded to either the top flange (internal beam) or bottom flange (external beam) where picking up outer masonry brick or block skin.

**GLAZING:** Safety glazing being provided in doors and adjacent side panels to a height of 1500mm in addition to where below 800mm. The glazing in windows within 800mm of the floor where the external ground level is in excess of 600mm below the floor level the glazing should be toughened/laminated and non openable.

**SOUND REGS FOR NEW STUD WALLS** – To comply with Approved Document E (Sound Insulation) the partitions to bedrooms and bathrooms should be clad with two layers of plasterboard each side of timber or metal studs, each layer of a mass of 10 Kg/m<sup>2</sup> (wall type A) or, alternatively, (wall type B) a single layer of plasterboard of mass 10 Kg/m<sup>2</sup> each side with a minimum of 25mm mineral wool (mass 10 Kg/m<sup>2</sup>) suspended in the cavity. 12.5mm wallboard does not meet a mass of 10 Kg/m<sup>2</sup>. Use 15mm wallboard, gyptic Soundbloc (12.5mm), Gyproc wallboard TEN (12.5mm), Lafarge E check Wallboard (12.5mm), or similar

**ROOF TIMBERS** - to be strapped down to masonry with suitable holding down/vertical with restraint straps 1m in length and at a maximum of 2m centres. All to B I satisfaction. Maximum U-value of pitched roof (insulation at ceiling level) to be 0.16W/m<sup>2</sup>k

**FLAT ROOF LIGHTS** The proposed roof lights to be installed and weathered in strict accordance with the manufacturers recommendations.

**WARM ROOF:** (U value 0.15W/m<sup>2</sup>k) Roof to be covered with fibre glass application to manufacturers recommendations on 18mm board on Kingspan Thermaroof TR27 150mm thick. Provide vapour control barrier to flat roof. Ply/USB boarding over furring pieces giving a fall of 1:60 nailed to joists size as indicated on plans. (Minimum size 150mm x 50mm). Underside of joists covered with 12.5mm thick plasterboard and plaster skim. Roof covering to achieve B Roof (t4) within 6 metres from boundaries. The external surface of the flat roof covering to achieve a half hour fire resistance and a Class O or Class A-A resistance to surface spread of flame.

**AUTOMATIC SMOKE DETECTION SYSTEM:** To be fitted:- BS5839 on independent circuit with battery back up. Detectors to be fitted/positioned a) in hallway near front door b) on each landing.

**NEW U-VALUES TABLE AS OF JUNE 2022**

<b>THERMAL ELEMENT</b>	<b>NEW U-VALUE</b>
New Floor	0.18 W/m <sup>2</sup> k
New Cavity Walls	0.18 W/m <sup>2</sup> k
Timber Frame Walls	0.18 W/m <sup>2</sup> k
Pitched Roof (Flat Ceiling)	0.15 W/m <sup>2</sup> k
Pitched Roof (Vaulted Ceiling)	0.15 W/m <sup>2</sup> k
Flat Roof (Cold Deck)	0.15 W/m <sup>2</sup> k
Flat Roof (Warm Deck)	0.15 W/m <sup>2</sup> k
Retained roof Up Grades Flat Roof Flat Ceiling Vaulted	0.16 W/m <sup>2</sup> k 0.16 W/m <sup>2</sup> k 0.16 W/m <sup>2</sup> k
Windows	1.4 W/m <sup>2</sup> k
External Doors > 60% Glazing	1.4 W/m <sup>2</sup> k Band C
Other External Doors	1.4 W/m <sup>2</sup> k Band B
Roof Light	2.2 W/m <sup>2</sup> k

