

EXTENSION SPECIFICATIONS

ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH BUILDING REGULATIONS AND BRITISH CODES OF PRACTICE.

DIMENSIONS TO BE CHECKED ON SITE BEFORE WORK COMMENCES AND BUILDER TO REPORT ANY DISCREPANCIES BEFORE WORK COMMENCES. THIS INCLUDES AN ASSESSMENT OF WHETHER THERE WILL BE ANY SIGNIFICANT PROBLEM IN CARRYING OUT THE WORK ON SITE AS PER THE DRAWING.

THE BUILDER IS ASSUMED TO HAVE A WORKING KNOWLEDGE OF THE BUILDING REGULATIONS AND WORK ON SITE MUST FOLLOW THE LATEST BUILDING REGULATIONS AS AND WHEN THE LOCAL AUTHORITY SURVEYOR REQUIRES.

ANY LINTELS OVER WINDOW AND DOOR OPENINGS MAY HAVE TO BE EXPOSED ON SITE IN ORDER TO CONFIRM SUITABILITY TO SUPPORT THE ADDITIONAL LOADS. INADEQUATE LINTOLS WILL REQUIRE RENEWAL AS NECESSARY.

THE BUILDING OWNER IS RESPONSIBLE FOR SERVING ANY PARTY WALL NOTICES ON NEIGHBOURS PRIOR TO BUILDING WORKS COMMENCING.

THE BUILDER WILL HAVE TO REFER TO CALCULATION SHEETS FOR STRUCTURAL DETAILS IN ADDITION TO THE DRAWING FOR ITEMS SUCH AS CONNECTIONS.

WINDOWS AND DOOR

Unprotected areas

Please note the extent of unprotected area on an external wall, i.e. windows, doors, timber cladding etc, should not exceed:

- 5.6m² when the minimum distance between side of the building and the relevant boundary is 1m
 - 12m² when the minimum distance between the side of the building and the relevant boundary is 2m
 - 18m² when the minimum distance between the side of the building and the relevant boundary is 3m
 - 24m² when the minimum distance between the side of the building and the relevant boundary is 4m
 - 30m² when the minimum distance between the side of the building and the relevant boundary is 5m
 - no limit when the minimum distance between the side of the building and the relevant boundary is 6m
- (The above applies only to buildings which are 1m or more from any point of a relevant boundary)
- Other methods of calculation are given in Approved Document B1.

INTERNAL WALLS

INTERNAL STUD PARTITIONS

100mm x 50mm softwood treated timbers studs at 400mm ctrs with 50 x 100mm head and sole plates and solid intermediate horizontal noggins at 1/3 height or 450mm. Provide min 10kg/m³ density acoustic soundproof quilt tightly packed (eg. 100mm Rockwool or Iso wool mineral fibre sound insulation) in all voids the full depth of the stud. Partitions built off doubled up joists where partitions run parallel or provide noggins where at right angles, or built off DPC on thickened concrete slab if solid ground floor. Walls faced throughout with 12.5mm plaster board with skim plaster finish. Taped and jointed complete with beads and stops.

INTERNAL MASONRY PARTITIONS

Construct non load bearing internal masonry partitions using dense concrete blocks built off thickened floor slab and tied at 225mm centres with proprietary steel profiles or block bonded to all internal and external walls. Walls faced throughout with 12.5mm plasterboard on dabs with skim plaster finish or 13mm lightweight plaster.

INTERNAL LOADBEARING MASONRY PARTITIONS

Construct load bearing internal masonry partitions using dense concrete blocks built off concrete foundation. Concrete mix to conform to BS EN 206-1. Depth to engineers details and dependent on ground conditions to be agreed with BCO. Wall tied at 225mm centres with proprietary steel profiles or block bonded to all internal and external walls. Walls faced throughout with 12.5mm plasterboard on dabs with skim plaster finish or 13mm lightweight plaster.

SOLID FLOOR INSULATION UNDER SLAB

TO MEET MIN U VALUE REQUIRED OF 0.22 W/M²K SOLID GROUND FLOOR TO CONSIST OF 150MM CONSOLIDATED WELL-RAMMED HARCORE. BLINDED WITH 50MM SAND BLINDING. PROVIDE A 1200 GAUGE POLYTHENE DPM, DPM TO BE LAPPED IN WITH DPC IN WALLS. FLOOR TO BE INSULATED OVER DPM WITH 75MM KINGSpan KOOL THERM K3. 25MM 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, PROVIDE 100MM ST2 OR GEN2 GROUND BEARING SLAB CONCRETE MIX TO CONFORM TO BS 8500-2 OVER VCL. FINISH WITH 65MM SAND/CEMENT FINISHING SCREED WITH LIGHT MESH REINFORCEMENT. WHERE DRAIN RUNS PASS UNDER NEW FLOOR, PROVIDE A142 MESH 1.0M WIDE WITHIN BOTTOM OF SLAB MIN 50MM CONCRETE COVER OVER LENGTH OF DRAIN. WHERE EXISTING SUSPENDED TIMBER FLOOR AIR BRICKS ARE COVERED BY NEW EXTENSION, ENSURE CROSS-VENTILATION IS MAINTAINED BY CONNECTING TO 100MM DIA UPVC PIPES TO TERMINATE AT NEW 65MM X 215MM AIR BRICKS BUILT INTO NEW CAVITY WALL WITH 100MM CONCRETE COVER LAID UNDER THE EXTENSION. DUCTS TO BE SLEEVED THROUGH CAVITY WITH CAVITY TRAY OVER.

ESCAPE WINDOWS
Provide emergency egress windows to any newly created first floor habitable rooms and ground floor inner rooms. Windows to have an unobstructed openable area of 450mm high x 450mm wide, minimum 0.33m sq. 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.

ROOF LIGHTS
Min U-value of 1.6 W/m²K.
Roof-lights to be double glazed with 16mm argon gap and soft low-E glass. Window Energy Rating to be Band C or better. Roof lights to be fitted in accordance with manufacturer's instructions with rafters doubled up to sides and suitable flashings etc.

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 K (Part N in Wales) 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.

NEW AND REPLACEMENT WINDOWS
New and replacement windows to be double glazed with 16mm argon gap and soft coat low-E glass. Window Energy Rating to be Band C or better and to achieve U-value of 1.6 W/m²K. 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.

NEW AND REPLACEMENT DOORS
New and replacement doors to achieve a U-Value of 1.80W/m²K. Glazed areas to be double glazed with 16mm argon gap and soft low-E glass. Glass to be toughened or laminated safety glass to BS 6206, BS EN 14179 or BS EN ISO 12543-1:2011 and Part K (Part N in Wales) of the current Building Regulations.

NEW GAS BOILER
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.

ESCAPE WINDOWS
Provide emergency egress windows to any newly created first floor habitable rooms and ground floor inner rooms. Windows to have an unobstructed openable area of 450mm high x 450mm wide, minimum 0.33m sq. 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.

STRIP FOUNDATION

PROVIDE 225MM X 600MM CONCRETE FOUNDATION, CONCRETE MIX TO CONFORM TO BS EN 206-1 AND BS 8500-2. ALL FOUNDATIONS TO BE A MINIMUM OF 1000MM BELOW GROUND LEVEL. EXACT DEPTH TO BE AGREED ON SITE WITH BUILDING CONTROL OFFICER TO SUIT SITE CONDITIONS. ALL CONSTRUCTED IN ACCORDANCE WITH 2004 BUILDING REGULATIONS A1/2 AND BS 8004:1986 CODE OF PRACTICE FOR FOUNDATIONS. ENSURE FOUNDATIONS ARE CONSTRUCTED BELOW INVERT LEVEL OF ANY ADJACENT DRAINS. BASE OF FOUNDATIONS SUPPORTING INTERNAL WALLS TO BE MIN 600MM BELOW GROUND LEVEL. SULPHATE RESISTANT CEMENT TO BE USED IF REQUIRED. PLEASE NOTE THAT SHOULD ANY ADVERSE SOIL CONDITIONS BE FOUND OR ANY MAJOR TREE ROOTS IN EXCAVATIONS, THE BUILDING CONTROL OFFICER IS TO BE CONTACTED AND THE ADVICE OF A STRUCTURAL ENGINEER SHOULD BE SOUGHT.

TRENCH FOUNDATION

PROVIDE 750MM X 600MM TRENCH FILL FOUNDATIONS, CONCRETE MIX TO CONFORM TO BS EN 206-1 AND BS 8500-2. ALL FOUNDATIONS TO BE A MINIMUM OF 1000MM BELOW GROUND LEVEL. EXACT DEPTH TO BE AGREED ON SITE WITH BUILDING CONTROL OFFICER TO SUIT SITE CONDITIONS. ALL CONSTRUCTED IN ACCORDANCE WITH 2004 BUILDING REGULATIONS A1/2 AND BS 8004:1986 CODE OF PRACTICE FOR FOUNDATIONS. ENSURE FOUNDATIONS ARE CONSTRUCTED BELOW INVERT LEVEL OF ANY ADJACENT DRAINS. BASE OF FOUNDATIONS SUPPORTING INTERNAL WALLS TO BE MIN 600MM BELOW GROUND LEVEL. SULPHATE RESISTANT CEMENT TO BE USED IF REQUIRED. PLEASE NOTE THAT SHOULD ANY ADVERSE SOIL CONDITIONS OR DIFFERENCE IN SOIL TYPE BE FOUND OR ANY MAJOR TREE ROOTS IN EXCAVATIONS, THE BUILDING CONTROL OFFICER IS TO BE CONTACTED AND THE ADVICE OF A STRUCTURAL ENGINEER SHOULD BE SOUGHT.

STRUCTURE

BEAMS
SUPPLY AND INSTALL NEW STRUCTURAL ELEMENTS SUCH AS NEW BEAMS, ROOF STRUCTURE, FLOOR STRUCTURE, BEARINGS, AND PADSTONES IN ACCORDANCE WITH THE STRUCTURAL ENGINEER'S CALCULATIONS AND DETAILS. NEW STEEL BEAMS TO BE ENCASED IN 12.5MM GYPROC FIRELINE BOARD WITH STAGGERED JOINTS, GYPROC FIRECASE OR PAINTED IN NULLIFIRE S OR SIMILAR INTUMESCENT PAINT TO PROVIDE 1/2 HOUR FIRE RESISTANCE AS AGREED WITH BUILDING CONTROL. ALL FIRE PROTECTION TO BE INSTALLED AS DETAILED BY SPECIALIST MANUFACTURER.

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 USED FOR 900MM SIZED INTERNAL 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 ASSESSED TO BS 5977 PART 1. FOR OTHER STRUCTURAL OPENINGS PROVIDE PROPRIETARY INSULATED STEEL LINTELS SUITABLE FOR SPANS AND LOADINGS IN COMPLIANCE WITH APPROVED DOCUMENT A AND LINTEL MANUFACTURES STANDARD TABLES. STOP ENDS, DPC TRAYS AND WEEP HOLES TO BE PROVIDED ABOVE ALL EXTERNALLY LOCATED LINTELS.

OPENINGS AND RETURNS
AN OPENING OR RECESS GREATER THAN 0.1M² SHALL BE AT LEAST 550MM FROM THE SUPPORTED WALL (MEASURED INTERNALLY).

RESTRAINED TO STRUCTURE

STRAPPING FOR PITCHED ROOF
GABLE WALLS SHOULD BE STRAPPED TO ROOFS AT 2M CENTRES. ALL EXTERNAL WALLS RUNNING PARALLEL TO ROOF RAFTERS TO BE RESTRAINED AT ROOF LEVEL USING 1000MM X 30MM X 5MM GALVANISED MILD STEEL HORIZONTAL STRAPS OR OTHER APPROVED TO BSEN 845-1 BUILT INTO WALLS AT MAX 2000MM CENTRES AND TO BE TAKEN ACROSS MINIMUM 3 RAFTERS AND SCREW FIXED. PROVIDE SOLID NOGGINS BETWEEN RAFTERS AT STRAP POSITIONS. ALL WALL PLATES TO BE 100 X 50MM FIXED TO INNER SKIN OF CAVITY WALL USING 30MM X 5MM X 1000MM GALVANIZED METAL STRAPS OR OTHER APPROVED TO BSEN 845-1 AT MAXIMUM 2M CENTRES.

STRAPPING OF FLOORS
PROVIDE LATERAL RESTRAINT WHERE JOISTS RUN PARALLEL TO WALLS, FLOORS ARE TO BE STRAPPED TO WALLS WITH 1000MM X 30MM X 5MM GALVANISED MILD STEEL STRAPS OR OTHER APPROVED IN COMPLIANCE WITH BS EN 845-1 AT MAX 2.0M CENTRES. STRAPS TO BE TAKEN ACROSS MINIMUM OF 3 JOISTS. STRAPS TO BE BUILT INTO WALLS, PROVIDE 38MM WIDE X ¾ DEPTH SOLID NOGGINS BETWEEN JOISTS AT STRAP POSITIONS.

FLAT ROOF RESTRAINT
100M X 50MM C16 GRADE TIMBER WALL PLATES TO BE STRAPPED TO WALLS WITH 1000MM X 30MM X 5MM GALVANISED MILD STEEL STRAPS AT MAXIMUM 2.0M CENTRES FIXED TO INTERNAL WALL FACES.

COLD PITCHED ROOF INSULATION AT CEILING LEVEL

PITCH 22-45° (IMPOSED LOAD MAX 0.75 KN/M² - DEAD LOAD MAX 0.75 KN/M²)
TO ACHIEVE U VALUE OF 0.16 W/M²K
TIMBER ROOF STRUCTURES TO BE DESIGNED BY AN ENGINEER IN ACCORDANCE WITH NHBC TECHNICAL REQUIREMENT R5 STRUCTURAL DESIGN. CALCULATIONS TO BE BASED ON BS EN 1995-1-1. ROOFING TILES TO MATCH EXISTING ON 25 X 38MM TANALISED SW TREATED BATTENS ON SARKING FELT SUPPORTED ON 47 X 150MM GRADE C24 RAFTERS AT MAX 400MM CENTRES MAX SPAN 3.47M. RAFTERS SUPPORTED ON 100 X 50MM SW WALL PLATES. INSULATION AT CEILING LEVEL TO BE 150MM XR4000 CELOTEX BETWEEN CEILING JOISTS WITH A FURTHER 25MM OVER JOISTS. CONSTRUCT CEILING USING SW JOISTS AT 400MM CENTRES. FINISHED INTERNALLY WITH 12.5MM PLASTERBOARD AND MIN 3MM THISTLE MULTI-FINISH PLASTER. PROVIDE POLYTHENE VAPOUR BARRIER BETWEEN INSULATION AND PLASTERBOARD. PROVIDE OPENING AT EAVES LEVEL AT LEAST EQUAL TO CONTINUOUS STRIP 25MM WIDE IN TWO OPPOSITE SIDES TO PROMOTE CROSS-VENTILATION. MONO PITCHED ROOFS TO HAVE RIDGE/HIGH LEVEL VENTILATION EQUIVALENT TO A 5MM GAP VIA PROPRIETARY TILE VENTS SPACED IN ACCORDANCE WITH MANUFACTURER'S DETAILS. RESTRAINT STRAPPING - 100MM X 50MM WALL PLATE STRAPPED DOWN TO WALLS. CEILING JOISTS AND RAFTERS TO BE STRAPPED TO WALLS AND GABLE WALLS, STRAPS BUILT INTO CAVITY, ACROSS AT LEAST 3 TIMBERS WITH NOGGINS. ALL STRAPS TO BE 1000 X 30 X 5MM GALVANIZED STRAPS OR OTHER APPROVED TO BSEN 845-1 AT 2M CENTRES.

WARM PITCHED ROOF

PITCH 22-45° (IMPOSED LOAD MAX 0.75 KN/M² - DEAD LOAD MAX 0.75 KN/M²)
TO ACHIEVE MIN U-VALUE REQUIRED OF 0.18 W/M²K
TIMBER ROOF STRUCTURES TO BE DESIGNED BY AN ENGINEER IN ACCORDANCE WITH NHBC TECHNICAL REQUIREMENT R5 STRUCTURAL DESIGN. CALCULATIONS TO BE BASED ON BS EN 1995-1-1. ROOFING TILES TO MATCH EXISTING FIXED TO TILE BATTENS SECURED OVER BREATHABLE SARKING FELT TO RELEVANT BBA CERTIFICATE ALLOWING THE BREATHER FELT TO SAG AT LEAST 10MM OVER PRESERVATIVE-TREATED COUNTER BATTENS (MIN 38MM X 50MM). PROVIDE 60MM CELOTEX GA4000 INSULATION BOARDS UNDER THE COUNTER BATTENS AND 60MM CELOTEX GA4000 BETWEEN 47 X 150MM TIMBER RAFTERS STRENGTH CLASS C24 AT 400 C/C - TO GIVE A MAX 3.47M SPAN. A VAPOUR CONTROL LAYER SHOULD BE PROVIDED TO THE UNDERSIDE OF THE RAFTERS. FINISH WITH 12.5MM PLASTERBOARD AND SKIM. RESTRAINT STRAPPING - CEILING JOISTS TIED TO RAFTERS (IF RAISED COLLAR ROOF CONSULT STRUCTURAL ENGINEER). 100MM X 50MM WALL PLATE STRAPPED DOWN TO WALLS. CEILING JOISTS AND RAFTERS TO BE STRAPPED TO WALLS AND GABLE WALLS, STRAPS BUILT INTO CAVITY, ACROSS AT LEAST 3 TIMBERS WITH NOGGINS. ALL STRAPS TO BE 1000 X 30 X 5MM GALVANIZED STRAPS OR OTHER APPROVED TO BSEN 845-1 AT 2M CENTRES.

EXTERNAL WALLS

WALLS BELOW GROUND
ALL NEW WALLS TO HAVE CLASS A BLOCKWORK BELOW GROUND LEVEL OR ALTERNATIVELY SEMI ENGINEERING BRICKWORK IN 1:4 MASONRY CEMENT OR EQUAL APPROVED SPECIFICATION. CAVITIES BELOW GROUND LEVEL TO BE FILLED WITH LEAN MIX CONCRETE MIN 225MM BELOW DAMP PROOF COURSE. OR PROVIDE LEAN MIX BACKFILL AT BASE OF CAVITY WALL (150MM BELOW DAMP COURSE) LAID TO FALL TO WEEPHOLES.

SOLID EXTERNAL BLOCK WALL

TO ACHIEVE MIN U-VALUE 0.28W/M²K
WALL CONSTRUCTED USING LIGHTWEIGHT AGGREGATE OR AERATED CONCRETE BLOCK, R VALUE 0.15, AT LEAST 215MM THICK, EG. TOPBLOCK SUPABLOC OR CELCON SOLAR. RAKE OUT JOINTS IN THE WALL TO A DEPTH OF AT LEAST 10MM AND APPLY TWO COATS OF RENDER AT LEAST 20MM THICK WITH A SCRAPED OR TEXTURED FINISH. THE RENDERING MIX TO COMPLY TO BS EN 13914-1:2005 WITH WATERPROOF ADDITIVE. INSULATE WALL ON THE INSIDE USING 63MM GYPROC THERMALINE PIR INSULATED PLASTERBOARD. BATTEN OUT TO PROVIDE A NOMINAL 25MM CAVITY BETWEEN THE MASONRY AND INSULATION. PROVIDE A VAPOUR CONTROL LAYER UNDER THE INSULATION.

FULL FILL CAVITY WALL (RENDERED FINISH)

TO ACHIEVE MINIMUM U VALUE OF 0.28W/M²K
20MM TWO COAT SAND/CEMENT RENDER TO COMPLY TO BS EN 13914-1:2005 WITH WATERPROOF ADDITIVE ON 100MM LIGHTWEIGHT BLOCK, K VALUE 0.16, (AIRCRETE, CELCON SOLAR, TOPBLOCK TOPLITE STANDARD). FULLY FILL THE CAVITY WITH 90MM ROCKWOOL CAVITY INSULATION AS MANUFACTURER'S DETAILS. INNER LEAF TO BE 100MM LIGHTWEIGHT, K VALUE 0.16, (AIRCRETE, CELCON SOLAR, TOPBLOCK TOPLITE STANDARD). INTERNAL FINISH TO BE 12.5 MM PLASTERBOARD ON DABS. WALLS TO BE BUILT WITH 1:1:6 CEMENT MORTAR.

FULL FILL CAVITY WALL (BRICK FINISH)

TO ACHIEVE MINIMUM U VALUE OF 0.28W/M²K
NEW CAVITY WALL TO COMPRISE OF 105MM FACING BRICK TO MATCH EXISTING. FULL FILL THE CAVITY WITH 100MM ROCKWOOL CAVITY INSULATION AS MANUFACTURER'S DETAILS. INNER LEAF TO BE 100MM LIGHTWEIGHT BLOCK, K VALUE 0.16, (AIRCRETE, CELCON SOLAR, TOPBLOCK TOPLITE STANDARD). INTERNAL FINISH TO BE 12.5MM PLASTERBOARD ON DABS. WALLS TO BE BUILT WITH 1:1:6 CEMENT MORTAR.

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.

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.

SITE PREPARATION

GROUND TO BE PREPARED FOR NEW WORKS BY REMOVING ALL UNSUITABLE MATERIAL, VEGETABLE MATTER AND TREE OR SHRUB ROOTS TO A SUITABLE DEPTH TO PREVENT FUTURE GROWTH. SEAL UP, CAP OFF, DISCONNECT AND REMOVE EXISTING REDUNDANT SERVICES AS NECESSARY. REASONABLE PRECAUTIONS MUST ALSO BE TAKEN TO AVOID DANGER TO HEALTH AND SAFETY CAUSED BY CONTAMINANTS AND GROUND GASES E.G. LANDFILL GASES, RADON, VAPOURS ETC. ON OR IN THE GROUND COVERED, OR TO BE COVERED BY THE BUILDING.

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). REASONABLE PROVISION SHALL ALSO BE MADE TO ENSURE THE EXTENSION IS CONSTRUCTED TO MINIMISE UNWANTED AIR LEAKAGE THROUGH THE NEW BUILDING FABRIC.

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 DPC'S AND WITH FLOOR DPM. VERTICAL DPC TO BE INSTALLED AT ALL REVEALS WHERE CAVITY IS CLOSED.

WALL TIES

ALL WALLS CONSTRUCTED USING STAINLESS STEEL VERTICAL TWIST TYPE RETAINING WALL TIES BUILT IN AT 750MM CTRS HORIZONTALLY, 450MM VERTICALLY AND 225MM CTRS AT REVEALS AND CORNERS IN STAGGERED ROWS. WALL TIES TO BE SUITABLE FOR CAVITY WIDTH AND IN ACCORDANCE WITH BS 5628-6.1: 1996 AND BS EN 845-1: 2003

CAVITIES

PROVIDE CAVITY TRAYS OVER OPENINGS. ALL CAVITIES TO BE CLOSED AT EAVES AND AROUND OPENINGS USING THERMABATE OR SIMILAR NON COMBUSTIBLE INSULATED CAVITY CLOSERS. PROVIDE VERTICAL DPCS AROUND OPENINGS AND ABUTMENTS. ALL CAVITY TRAYS MUST HAVE 150MM UPSTANDS AND SUITABLE CAVITY WEEP HOLES (MIN 2) AT MAX 900MM CENTRES.

EXISTING TO NEW WALL

CAVITIES IN NEW WALL TO BE MADE CONTINUOUS WITH EXISTING WHERE POSSIBLE TO ENSURE CONTINUOUS WEATHER BREAK. IF A CONTINUOUS CAVITY CANNOT BE ACHIEVED, WHERE NEW WALLS ABUTS THE EXISTING WALLS PROVIDE A MOVEMENT JOINT WITH VERTICAL DPC. ALL TIED INTO EXISTING CONSTRUCTION WITH SUITABLE PROPRIETARY STAINLESS STEEL PROFILES.

CAVITY BARRIERS

30 MINUTE FIRE RESISTANT CAVITY BARRIERS TO BE PROVIDED AT AT TOPS OF WALLS, GABLE END WALLS AND VERTICALLY AT JUNCTIONS WITH SEPARATING WALLS & HORIZONTALLY AT SEPARATING WALLS WITH CAVITY TRAY OVER INSTALLED ACCORDING TO MANUFACTURERS DETAILS.

LEAD WORK AND FLASHINGS
ALL LEAD FLASHINGS, ANY VALLEYS OR SOAKERS TO BE CODE 5 LEAD AND LAID ACCORDING TO LEAD DEVELOPMENT ASSOCIATION. FLASHINGS TO BE PROVIDED TO ALL JAMBS AND BELOW WINDOW OPENINGS WITH WELDED UPSTANDS. JOINTS TO BE LAPPED MIN 150MM AND LEAD TO BE DRESSED 200MM UNDER TILES, ETC. ALL WORK TO BE UNDERTAKEN IN ACCORDANCE WITH THE LEAD DEVELOPMENT ASSOCIATION RECOMMENDATIONS.

LEAD VALLEYS
LEAD-LINED VALLEYS TO BE FORMED USING CODE 5 LEAD SHEET. VALLEY LEAD AND TWO TILING FILLETS TO BE SUPPORTED ON MIN 19MM THICK AND 225MM WIDE MARINE PLY VALLEY BOARDS ON EITHER SIDE OF THE RAFTERS. LEAD TO BE LAID IN LENGTHS NOT EXCEEDING 1.5M WITH MIN 150MM LAP JOINTS AND BE DRESSED 200MM UNDER THE TILES. ROOFING TILES TO BE BEDDED IN MORTAR PLACED ON A TILE SLIP TO PREVENT DIRECT CONTACT. VALLEY TO HAVE A MINIMUM 100MM WIDE CHANNEL (125MM MINIMUM FOR PITCHES BELOW 30°). ALL WORK TO BE IN ACCORDANCE WITH THE ROOF CLADDING MANUFACTURERS AND THE LEAD DEVELOPMENT ASSOCIATION RECOMMENDATIONS.

SMOKE DETECTION
Mains operated linked smoke alarm detection system to BS EN 14604 and BS5839-6:2004 to at least a Grade D category LD3 standard and 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 every habitable room. If ceiling mounted they should be 300mm from the walls and light fittings. Where the kitchen area is not separated from the stairway or circulation space by a door, there should be an interlinked heat detector in the kitchen.

Issue	Notes	Drawn	Date
Express Plans			
Suite 12, 29 Belmont Road, Uxbrdge, UB8 1QS Tel: 07375 455206 Email: hello@expressplans.uk			
Client Mr&Mrs. Hill 3a Burgess Close Hayling Island PO11 9QT			
Drawing Title			
SPECIFICATIONS			
Scale NTS	Date 05/03/18	Checked AZ	Drawn By AZ
Drawing Number D08			Revision

NOTES
PLEASE NOTE THAT BEFORE BUILDING WORKS COMMENCES IT IS THE RESPONSIBILITY OF THE BUILDER OR OWNER TO SERVE PARTY WALL NOTICES TO ALL NEIGHBORS

VENTILATION

BACKGROUND AND PURGE VENTILATION

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

Purge ventilation - New Windows/rooftlights to have openable area in excess of 1/20th of their floor area, if the window opens more than 30° or 1/10th of their floor area if the window opens less than 30°

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.

VENTILATION OF TIMBER SUSPENDED FLOOR

Provide cross-ventilation under floor to outside air by ventilators in at least 2 opposite external walls of the building. Ventilation openings having an opening area of 1500mm² per metre run of perimeter wall or 500mm² per square metre of floor area whichever gives the greater opening area. All sleeper walls or similar under floor obstructions shall be of honeycombed construction or have similar provision for distribution of ventilation. The under floor space shall be free from debris. Ducts to be sealed using gas proof tap if they pass through a radon barrier.

BLOCK AND BEAM FLOOR VENTILATION

Provide cross-ventilation of the under floor to outside air by ventilators in at least 2 opposite external walls of the building. Ventilation openings having an opening area of 1500mm² per metre run of perimeter wall or 500mm² per square metre of floor area, whichever is the greater.

PITCHED ROOF VENTILATION

Maintain a 50mm air gap above insulation in the roof pitch to ventilate roof. Provide opening at eaves level at least equal to continuous strip 25mm wide and opening at ridge equal to continuous strip 5mm wide to promote ventilation.

FLAT ROOF VENTILATION

Cross-ventilation to be provided on opposing sides by a proprietary eaves ventilation strip equivalent to 25mm continuous with fly proof screen. Flat roof insulation is to be continuous with the wall insulation but stopped back to allow a 50mm air gap above the insulation for ventilation.

FIXED EXTERNAL LIGHTING

External light fittings to be fitted as calculated in the DER and in compliance with the Domestic Building Services Compliance Guide.

Light fitting to be either:

a. lamp capacity not greater than 100 lamp-watts per light fitting and provided with automatic movement detecting devices (PIR) and automatic daylight sensors ensuring lights shut off automatically when not required. Or

b. lamp efficacy greater than 45 lumens per circuit-watt; fitted with manual controls and automatic day light cut-off sensors so that lights switch off when daylight is sufficient.

EXTRACT FOR SHOWER ROOM

Provide mechanical extract ventilation to shower room ducted to external air capable of extracting at a rate of not less than 15 litres per second. Vent to be connected to light switch and to have 15 minute over run if no window in the room. 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. Intermittent extract fans to BS EN 13141-4. All fixed mechanical ventilation systems, where they can be tested and adjusted, shall be commissioned and a commissioning notice given to the Building Control Body.

EXTRACT TO BATHROOM

Bathroom to have mechanical vent ducted to external air to provide min 15 litres / sec extraction. Vent to be connected to light switch and to have 15 minute over run if no window in room. 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. Intermittent extract fans to BS EN 13141-4. All fixed mechanical ventilation systems, where they can be tested and adjusted, shall be commissioned and a commissioning notice given to the Building Control Body.

EXTRACT TO W/C

W/C to have mechanical ventilation ducted to external air with an extract rating of 15l/s operated via the light switch. Vent to have a 15min overrun if no window in room. 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. Intermittent extract fans to BS EN 13141-4. All fixed mechanical ventilation systems, where they can be tested and adjusted, shall be commissioned and a commissioning notice given to the Building Control Body.

EXTRACT TO UTILITY ROOM

To utility room provide mechanical ventilation ducted to external air capable of extracting at a rate of 30 litres per second. 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. Intermittent extract fans to BS EN 13141-4. All fixed mechanical ventilation systems, where they can be tested and adjusted, shall be commissioned and a commissioning notice given to the Building Control Body.

EXTRACT TO KITCHEN

Kitchen to have mechanical ventilation with an extract rating of 60l/sec or 30l/sec if adjacent to hob to external air, sealed to prevent entry of moisture. 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. Intermittent extract fans to BS EN 13141-4. Cooker hoods to BS EN 13141-3. All fixed mechanical ventilation systems, where they can be tested and adjusted, shall be commissioned and a commissioning notice given to the Building Control Body.

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.

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.

SOIL AND VENT PIPE

Svp to be extended up in 110mm dia UPVC and to terminate min 900mm above any openings within 3m. Provide a long radius bend at foot of SVP.

AUTOMATIC AIR VALVE

Ground floor fittings from WC to be connected to new 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 and connected to underground quality drainage encased with pea gravel to a depth of 150mm.

PIPEWORK THROUGH WALLS

Where new pipework passes through external walls form rocker joints either side wall face of max length 600mm with flexible joints with short length of pipe bedded in wall.

Alternatively provide 75mm deep pre-cast concrete plank lintels over drain to form opening in wall to give 50mm space all round pipe: mask opening both sides with rigid sheet material and compressible sealant to prevent entry of fill or vermin.

TANKED PROTECTION.

Vandex Super

Type A waterproofing in accordance with BS 8102: 1990 to give a protection level of grade 2 (suitable for concrete surfaces and storage areas only as detailed in BBA certificate).

Ensure that all materials and products are compatible. Assess structure for suitability of tanking system and ensure substructure is free draining. The concrete surface must be examined for defects and repaired in accordance with manufacturer's details if required. All retaining elements are to be detailed by a Structural Engineer.

All materials and products to be installed by a competent contractor strictly in accordance with the manufacturer's recommendations, BS 8102 and BBA certificate.

Concrete surfaces to be prepared for waterproofing system by being bush hammered, scabbled or sandblasted and then wetted down.

Apply two coats of Vandex Super Crystalline

Waterproofing, to the wall and floor slab surface with a trowel or suitable spray equipment.

Provide a coved fillet with a suitable mortar at wall and floor junction Ensure continuity between wall and floor waterproofing and around the structure.

Penetrations through waterproofing to be kept to a minimum and detailed by specialist waterproofing manufacture where unavoidable.

Vandex Premix to be used as a final coat in areas where enhanced resistance to mechanical abrasion is required. Provide 77.5mm Celotex PL4000 insulated plasterboard dry-ling and floor finish as required strictly in accordance with manufacturer's recommendations.

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.

WOOD BURNING STOVE

Ensure the wood burning stove is installed by an APHC, HETAS, NAPIT or NICEIC accredited specialist in compliance with Part J. Supply a suitable flue, hearth and CO / Carbon Monoxide alarm and provide ventilation to ensure the necessary combustion air and to prevent the depletion of oxygen in the room. There must not be an extractor fan fitted in the same room as the stove. A notice plate giving operating and maintenance instructions must be provided and fixed in an obvious place and the Part J installation checklist is to be completed and a copy given to Building Control.

OIL HEATING APPLIANCES UP TO 45kW

Oil burning appliances up to 45kW to be installed, commissioned and tested by an installer registered with OFTEC, in compliance with Approved Document J. On completion, building control is to be provided with a copy of the commissioning certificates.

OIL STORAGE TANKS

Oil tanks up to 3500 litres.

Oil tanks to be:

-placed on a 50mm thick a concrete base which extends 300mm beyond the base of the tank

-located in the open air, 1.8m min from buildings or flues and 760mm from boundaries.

-provided with a proprietary fire resistant pipe and valve system.

If there is a risk of pollution to water courses or drains, the tank should either be:

-internally bunded.

Or:

-provided with an impervious masonry bund equal to capacity of 110% of its volume.

DRAINED CAVITY WATER PROOFING SYSTEM

Type C drained protection in accordance with BS 8102: 1990 -

RIW Cavity Drain System as BBA certificate for use in new constructions.

Ensure that all materials and products are compatible. Assess structure for suitability of tanking system. The surface must be examined for defects and repaired in accordance with manufacturer's details if required. All retaining elements are to be detailed by a Structural Engineer.

All materials and products to be installed by a competent contractor strictly in accordance with the manufacturer's recommendations, BS 8102 and BBA certificate.

Prepare wall by cleaning with a stiff brush. Provide a high density polythene (HDPE) cavity drain membrane, e.g. RIW Cavity Drain, fixed using RIW brick plugs to wall and floor slab staggered at 1m centres. Fixings to be sealed using RIW Sealing Rope.

The horizontal and vertical sheets should be butt jointed at the base of the wall and the joint covered with a pre-formed RIW Wall/Floor Junction piece and sealed with proprietary sealing tape.

The floor membrane is to be covered by reinforced concrete or screed at least 65mm thick.

Provide a suitable drainage channel, e.g. RIW Aqua Channel within the slab around the perimeter of the floor and install a sump and mechanical pump as manufacturer's details with suitable access if required.

Drainage channel to be provided with an adequate fall to a suitable soakaway. Ensure suitable access points and rodding eyes at every 10m and every change of direction.

Penetrations through waterproofing to be kept to a minimum and filled with RIW flexible sealant or sealing rope detailed by RIW specialist waterproofing manufacturer where unavoidable.

In very high water table area an additional moisture barrier may be required.

Construct an independent timber frame with preservative treated timber studwork using 100mm x 50mm treated timbers with head and sole plates and noggins at 400mm ctrs ensuring an adequate clear cavity between wall and new stud for cavity drain membrane.

Insulation requirements

Insulation between and over studs to be 90mm Celotex FR4000 between and 37.5mm Celotex PL4000 insulated plaster board with VCL over studs.

10.ELECTRICAL WORKS

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 THE COUNCIL.

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.

NOTES

PLEASE NOTE THAT BEFORE BUILDING WORKS COMMENCES IT IS THE RESPONSIBILITY OF THE BUILDER OR OWNER TO SERVE PARTY WALL NOTICES TO ALL NEIGHBORS

Issue	Notes	Drawn	Date
<div>Express Plans</div>			
Suite 12, 29 Belmont Road, Uxbrdge, UB8 1QS Tel: 07375 455206 Email: hello@expressplans.uk			
Client Mr&Mrs. Hill 3a Burgess Close Hayling Island PO11 9QT			
Drawing Title SPECIFICATIONS			
Scale NTS	Date 05/03/18	Checked AZ	Drawn By AZ
Drawing Number D09			Revision