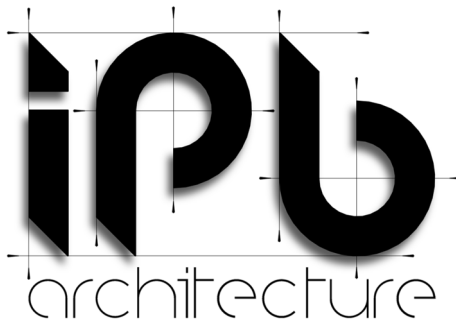


SPECIFICATION DOCUMENT

**PROPOSED CONVERSION AT:
42 SADLER ST.
MIDDLETON
M24 5UJ
FOR:**

**CJC PROPERTIES LTD.
PROJECT REF: IPB/22/1327**



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1.0 SPECIFICATION CLAUSES

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COMMENCEMENT OF WORKS / MAIN CONTRACTOR'S DUTIES:

Prior to commencement of any works the contractor is to visit site prior to submitting his tender/final quotation. It is to include in the price all works necessary to clear the site prior to commencing works. It is to clearly identify items of work not included in the tender figure necessary to achieve completion of works. This specification has been prepared for the purpose of obtaining building control approval only. The contractor is to provide a complete quote for the 'carrying out and completing the works'. All items should be priced for whether or not specifically stated within this specification. If in doubt, contact the client for clarification.

The contractor is to check and verify all dimensions on site and report any discrepancies to the designer immediately. The contractor should also report any discrepancy / inconsistencies between the contract drawings / documents and works and obtain client approval prior to proceeding. The drawings are not to be scaled, the contractor should work to illustrated dimensions only. The drawings are to be read in conjunction with all relevant documents and drawings including any structural or other specialist drawings and details. The owner and/or contractor should refer to and comply with any conditions as set out within any statutory approval such as planning permission, building regulations consent, etc.

The contractor is to comply in all respects with the current building regulations whether or not specifically stated on the drawings. All work is to comply strictly with the current building regulations. All work shall conform to the standards for 'materials and workmanship' identified in 'Regulation 7' of the current Building Regulations; i.e. using proper materials appropriate for the circumstances in which they are used; the contractors operations are to be carried out in a workmanlike manner; proper materials include materials which bear an E.C. mark, conform to a harmonised standard or European technical approval and conform to a BS or BBA certificate(s). Proprietary products are to be installed in strict accordance with the manufacturers' instructions and the current British standards and codes of practice.

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. The owner and/or contractor should refer to and consider the recommendations, measures and solutions as set out in any associated documentation such as contamination reports, flood risk assessments, etc. The site is to be kept tidy at all times, no refuse burned on site and normal hours of working observed.

CONSTRUCTION (DESIGN AND MANAGEMENT) REGULATIONS 2015:

The CDM 2015 places legal duties on virtually everyone involved in construction work. Those with legal duties are commonly known as 'duty holders'. Duty holders under the CDM 2015 are: Clients, Principal Designers, Designers, Principal Contractors, Contractors and Workers. The contractor and client are expected to understand their obligations under the CDM regulations and be fully aware of their application. The CDM 2015 requires most construction work to be notified to HSE. A project becomes notifiable where it lasts longer than 30 days AND has more than 20 workers, working simultaneously at any one point OR exceeds 500 person days. The contractor and/or client is to confirm with the Health & Safety Executive (HSE) whether the project is deemed as 'notifiable'. The contractor is to comply fully with the CDM Regulations and the Workplace (Health & Safety) Regulations and advise the Health and Safety Executive at all applicable stages before any appropriate work commences.

CLIENTS DUTIES:

All clients:

The client is to provide all essential documents relating to the property including Title Deeds at the design stage which refer to any legal information that detail the rights and obligations affecting the property such as boundary details, Restrictive Covenants, Easements, etc. The property Title Deeds should also include a location plan showing the property curtilage indicated with a red line.

Commercial clients:

The commercial client is responsible for making the arrangements by which the project will be managed and ensuring that those arrangements are maintained and reviewed throughout the life of the project. Where there is or is likely to be more than one contractor working on a project, the client must appoint both a Principal Designer (PD) and a Principal Contractor (PC) at the earliest opportunity and before construction starts. The client is also responsible for taking 'reasonable steps' to ensure both the PD and PC comply with their duties, for providing pre construction information (PCI), ensuring the construction phase plan and health and safety file are produced and for ensuring the health and safety file is handed over to any new owner of the structure.

Domestic clients:

The domestic client's responsibility is to appoint the principal designer and principal contractor where there is more than one contractor. If this does not happen, the Regulations automatically transfer the client's duties to the contractor or principal contractor of the project.

Principal Designer:

The Principal Designer will support the client in bringing together and providing the Pre Construction Information (PCI) and act as the conduit for disseminating that information to the various duty-holders who will need it at the right time.

The PD will work together with the PC throughout the life of their appointment to ensure the health and safety implications of design aspects and later changes are properly considered, support the PC in drawing up the construction phase plan as well as developing the health and safety file and providing it to the client at the end of the project.

The Regulations do recognise however that in some projects the PD may not be contracted throughout the whole life of the project especially when the design stage is complete. In this situation the responsibility for completing the health safety file and handing it to the client at the end of the project passes to the Principal Contractor.

PARTY WALLS:

The owner of the premises, should they need to do so, under the requirements of the Party Wall Act 1997 has a duty to serve a party structure notice on any adjoining owner if the building work involves works on or to an existing party wall including:

- Support of beam
- Insertion of DPC through wall
- Raise wall or cut off projections
- Demolition and rebuilding
- underpinning
- Insertion of lead flashings
- Excavations within 3 meters of an existing structure where the new foundations will go deeper than adjoining foundations or within 6 meters of an existing structure where the new foundations are within a 45 degree line of the adjoining foundations.

The owner should ensure that a party wall agreement has been made prior to commencement of the works on site should any of the above apply.

MATERIALS PROHIBITED:

Materials prohibited from use, except where used in accordance with "good practice in the selection of construction materials (2002)":

- High alumina cement in load bearing structures.
- Wood wool slabs used as permanent shuttering or in structural elements.
- Calcium chloride used as an additive in mixing concrete for use in reinforced concrete.

- Aggregates for use in reinforced concrete which do not comply with British standard specifications current at the date of specification of the materials.
- Calcium silicate bricks or tiles.
- Asbestos or asbestos based products including crocidolite.
- Lead or any materials containing lead which may be ingested, inhaled or absorbed.
- Urea formaldehyde foam or materials which may be hazardous with reference to the limits set by the health & safety executive at the date of specification of the materials.
- Materials which are generally composed of mineral fibres either man-made or naturally occurring which have a diameter of 3 microns or less and a length of 200 microns or less, or which contain any fibres not sealed or otherwise stabilised to ensure that fibre migration is prevented.

2.0 UNDERGROUND DRAINAGE

EXISTING DRAINS:

- It will be the contractor's responsibility to check and verify the exact locations of drain runs before work commences on site. This should include invert levels, positions and condition of existing drains, sewers, inspection chambers and manholes
- The contractor should adequately protect existing drains and maintain normal operation during construction.

NEW DRAINS:

- Underground drainage to consist of 100mm diameter clay or uPVC proprietary pipe work laid at 1 in 40 min. gradient, jointed and backfilled to manufacturers' instructions / specification.
- Drains under buildings to be encased in 150mm concrete.
- Pipes penetrating through structural walls are to be protected with relieving arches or reinforced concrete lintels over with a 50mm clearance gap around pipe for movement and sealed using fibreboard inserts and mastic seal to wall face and pipe. First joint to be within 150mm of each side of wall face followed by a short length of "rocker" pipe no longer than 600mm.
- Provide roddable back-inlet gulleys.
- Any internal gullies to have screwed down sealed covers.
- Joint any differing pipes and fittings with adaptors recommended by pipe manufacturer. Joint using recommended lubricants, leaving recommended gaps at ends of spigots to allow for movement.
- Adequately protect pipelines from damage and ingress of debris. Seal all exposed ends during construction.
- Comply with manufacturer's recommendations/ instructions.
- All new pipework is to be tested prior to connection and agreed on site with building control surveyor. Arrange the work to minimise time between laying and testing. Backfill after successful testing. Design, construct and test underground drainage to BS EN 752:2008.
- All underground drainage is to comply with the current building regulations and BS 7158 and BS 801.

DRAIN PIPE EXCAVATION:

- From bottom of trench up to 300 mm above crown of pipe the trench must have vertical sides and be of a width as small as practicable but not less than external diameter of pipe plus 300mm or larger dimension if specified.

UPVC MANHOLES / INSPECTION CHAMBERS:

- Provide underground quality proprietary uPVC 450 / 600mm diameter inspection chambers 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.

CONNECTIONS TO SEWERS:

- Where necessary, connect new pipework to existing adopted sewer(s) to the requirements of the local sewerage authority or its agent.

3.0 FOUNDATIONS

FOUNDATIONS GENERALLY:

- It is assumed that existing ground conditions are suitable for traditional strip foundations. Any alternative foundations i.e. raft, piles, retaining walls, basement, etc., are to be designed by a suitably qualified structural engineer and constructed in accordance to his/her calculations and details.
- Foundations are to be constructed centrally positioned under all exterior, party and interior load bearing walls.
- Any existing foundations which will be subjected to additional loading must be exposed and proven adequate before work commences on site to the satisfaction of the building control surveyor and if unsuitable, to be underpinned in accordance with a suitably qualified structural engineer's calculations and details (conditional approval sought from building control).
- Foundations are to be set out as indicated on the drawings and constructed in accordance with the current Building Regulations Approved Document A 1/2 and BS 8004: 1986 Code of Practice for Foundations.

FOUNDATION EXCAVATION / TRENCH:

- Foundation excavation to be exposed, inspected and approved by the building control surveyor before pouring concrete.
- Foundations to be constructed at a minimum depth of 750- 1000mm below ground level to suitable sub-strata of adequate ground bearing capacity and below any adjacent drain inverts within 1 meter and/or surrounding trees (roots).
- Any adverse soil conditions or any major tree roots found in excavations to be reported to the building control surveyor and the advice of a structural engineer should be sought.
- Sulphate resistant cement to be used if required.

STRIP FOUNDATIONS:

- Strip concrete foundations to have a min. width of 600mm and thickness of 225mm projecting a min. 150mm either side of the supported wall.
- The concrete mix should be ST2 or GEN1.

TRENCH FILL FOUNDATIONS:

- Trench fill concrete foundations to have a minimum width of 450mm and a thickness 500mm projecting a min. 150mm either side of the supported wall.
- The concrete mix should be ST2 or GEN1.

ALTERNATIVE FOUNDATION DESIGNS:

- Alternative foundation designs, i.e. raft, piles, retaining walls & basement to be designed by a suitably qualified person and approved by building control before works commence on site.

- Where applicable, a suitable basement tanking system is to be assessed & designed by a tanking specialist suitable for the site conditions & proposed building construction to prevent the passage of moisture into the building, which must be approved by building control before works commence.
- Retaining walls require 100mm diameter slotted ground water drainage pipe laid around the outside base perimeter of any retaining wall at 1:60 gradient and taken to a suitable sized soakaway system.

STEPPED FOUNDATIONS:

- Stepped foundations should not exceed its thickness and should overlap by twice its thickness, or 300mm whichever is the greater.
- The height of the step should not be greater than the thickness of the foundation.

FOUNDATION WALLS BELOW DPC LEVEL:

- 325mm wide cavity walls up to 1m deep are to be constructed with two skins of 100mm wide 7N/mm² dense concrete blocks in 1:3 cement mortar
- Cavity walls over 1m deep are to be constructed with two skins of 140mm wide 7N/mm² dense concrete blocks in 1:3 cement mortar
- Alternatively use semi-engineering brickwork in 1:4 cement mortar
- 125mm wide cavity to be in-filled with lean mix concrete to within 225mm of lowest horizontal damp-proof course (DPC level).
- Brick/blockwork and mortar to be sulphate resisting where ground conditions dictate.
- Provide horizontal strip polymer (Hyload) DPC to both leafs to BS 743 laid minimum 150mm above external ground level.
- New DPC is to be made continuous with any existing DPC's and with floor damp-proof membrane (DPM).
- All materials to be frost resistant.

4.0 GROUND FLOOR

BASEMENT FLOOR:

- min 22mm softwood tongue and groove softwood boards or moisture resistant particle/chipboard grade type c4 to BS5669 as required. Alternatively provide 75mm cement & sand screed laid on 75mm thick Kingspan Kooltherm K3 rigid insulation boards laid on 2 layers of bituthene tanking on 200mm thick concrete slab on 1200 gauge polythene dpm turned up at ends laid on 150 clean, sulphate free, sand blinded, well consolidated hard-core over natural ground cleared of any vegetation & black soil.

5.0 EXTERNAL WALLS

THERMAL PERFORMANCE:

- Walls to meet the thermal performance as set out in Part L 1A of the current Building Regulations.
- Walls to achieve a "U" Value of 0.18 W/m²k or better. Note that insulation type and thickness will be subject to the energy assessors SAP calculation.

UPGRADED EXTERNAL SOLID WALLS (INTERNAL WALL INSULATION)

Note: Advice to be sought from a suitably Qualified Energy Assessor Consultant for guidance and design.

- Any existing or new external solid walls are to be upgraded in accordance with Part 'L' of the current building regs.
- Provide 75mm thick Kingspan Kooltherm K 1 18 insulated plasterboard on 25 x 50mm s.w. timber battens and/or 100 x 50mm s.w. timber studwork at 600mm cts on strips of DPC.
- Alternatively provide 70mm thick British Gypsum Gyproc Thermaline Super boards using the Gyplyner 25mm fixing cavity system.
- Finish with 3mm thick skim coat.
- Any existing external solid walls that have had plaster / render finishes removed and are to be renewed should be upgraded to comply with approved Doc 'L'.
Where these wall finishes have been removed provide insulation system as above.
- Walls to be tanked to specialist design and details.

Installation is to be strictly in accordance with manufacturer's details and recommendations.

6.0 INTERNAL WALLS

INTERNAL LOADBEARING BLOCKWORK WALLS:

- 7N/mm² 100mm wide concrete blockwork on foundation. Refer to structural engineers details for thickness and loadbearing capacity of all loadbearing blockwork.
- Block walls to be finished with 13mm plaster.
- Include for all angle and stop beads.
- Walls in sanitary accommodation areas to be tiled to the clients requirements to full height fixed on to cement & sand render using water resistant adhesive.

TIMBER STUD PARTITIONS:

- Provide 75 x 50mm s.w. studding at max 450mm centres generally with one row of staggered noggins at mid height.

TIMBER STUD PARTITIONS TO SANITARY ACCOMODATION:

- Provide full fill acoustic absorbing quilt insulation between studs, tightly fitted with closely butted joints, leaving no gaps. Use fastenings where necessary to prevent slumping.
- Provide accurately positioned and securely fixed framing to support fixtures, fittings and services.
- Provide 25mm WBP plywood or cementitious board to walls to perimeter of baths and shower areas: Marine Plywood manufactured to an approved national standard.

NEW BUILD SEPARATING PARTY WALLS: (APPROVED DOC 'E'):

Note: Advice to be sought from a suitably Qualified Acoustic Consultant for guidance and design.

OPTION A:

- Type: Cavity Blockwork.
- Provide 2 leaves of 100mm thick lightweight aggregate blockwork (min. Density of 1350 – 1600kg/m³) with a min. 75mm nominal cavity between leaves.
- Provide 70mm thick 'Isover RD Party Wall Roll' between leaves.
- Provide 100mm wide x 1200mm long 'Isover ULTIMATE™ Cavity Barriers' in concealed cavities to give sound protection and to reduce the thermal bypass effect by providing edge-sealing to the separating cavity wall at external wall and roof junctions. Cavity Barriers to meet requirements of Approved Document E Acoustic Building Regulations.
- Wall ties to be 'Tie type A' butterfly ties in accordance with Approved Document 'E'.
- Wall surface finished with 15mm thick Gyproc wallboard (nominal 9.8 kg/m²) mounted on dabs.
- Part 'E' acoustic requirement for new build – 45 dnt,w + ctr db.

Note: This construction detail will require pre-completion sound testing if the project is not registered with Robust Details Ltd. Installation is to be strictly in accordance with manufacturer's details and recommendations.

NEW BUILD SEPARATING PARTY WALLS: (APPROVED DOC 'E'):

Note: Advice to be sought from a suitably Qualified Acoustic Consultant for guidance and design.

OPTION B:

- Type: Solid blockwork.
- Provide 215mm wide solid blockwork laid flat (min. Density of 1850 – 2300kg/m³). Wall surface finished with 15mm thick sand/cement render and dry lined with 15mm thick Gyproc Soundbloc using dry liner basic system.
- Alternative specification is to be in accordance with specialist design and details.

Note: This construction detail will require pre-completion sound testing if the project is not registered with Robust Details Ltd. Installation is to be strictly in accordance with manufacturer's details and recommendations.

NEW BUILD SEPARATING PARTY WALLS: (APPROVED DOC 'E'):

Note: Advice to be sought from a suitably Qualified Acoustic Consultant for guidance and design.

OPTION C:

- Type: Metal frame stud.
- Provide GypWall classic with Gypframe Acoustuds
- Overall construction nominal width 208mm
- Gypframe 146 as 50 acoustud at 600mm centres
- 150mm Isover APR 1200 in the cavity and lined with a double layer of 15mm Gyproc SoundBloc each side

Note: This construction detail will require pre-completion sound testing if the project is not registered with Robust Details Ltd. Installation is to be strictly in accordance with manufacturer's details and recommendations.

NEW BUILD SEPARATING PARTY WALLS: (APPROVED DOC 'E'):

Note: Advice to be sought from a suitably Qualified Acoustic Consultant for guidance and design.

OPTION D:

- Type: Gyproc DriLyner SI wall lining system
- Provide Gyproc DriLyner SI wall lining system with 52mm thick Gyproc TriLine boards on dabs applied to one side of the separating wall(s) with plaster the other side.

Note: This construction detail will require pre-completion sound testing if the project is not registered with Robust Details Ltd. Installation is to be strictly in accordance with manufacturer's details and recommendations.

7.0 INTERMEDIATE FLOORS

TIMBER JOISTS:

- S.w. timber joist sizes as shown on drawings
- s.w. timber joists to be supported on loadbearing walls or galvanised mild steel hangers
- joists to be supported on hangers where they run into party walls
- Provide triple joists spiked together below s.w. partitions
- Provide 22mm T & G floor boards or floor grade decking
- Provide a gun applied sealant to all gaps

STRUTTING:

- Strutting to be installed and securely fixed between floor joists as follows:
 1. Joist spans of 2.5 to 4.5m: One row at centre span
 2. Joist spans over 4.5m: Two rows equally spaced or at 1/3 positions
- Strutting to be one of the following:
 1. Herringbone strutting: At least 38 x 38mm softwood and located clear of top and bottom edges
 2. Solid strutting: At least 38mm thick softwood and the full depth of joist
- Fix solid strutting at all joist bearings which are not built in
- Partitions running parallel to joists are to be supported on 100 x 50mm noggins
- Provide perimeter noggins to support floorboards and plasterboard

LATERAL RESTRAINT STRAPS:

- Provide 1000 x 30 x 5mm galvanised mild steel or stainless steel lateral restraint straps at max. 2m centres and 500mm from corners, fixed across min. 3 joists and built into walls.
- Provide 38mm wide x ¾ depth solid noggins between joists at strap positions. Noggins to extend at least half the depth of the joist

JOIST HANGERS:

- To BS EN 845-1:2013, part 1
- Size and type to suit joist, design load and crushing strength of supporting construction
- Material/finish to be either;
 1. Post galvanised steel to BS EN ISO 1461:2009, minimum zinc coating 460 g/m²
 2. Pre-galvanised steel to BS EN 10143:2006, minimum zinc coating 600 g/m²
 3. Austenitic stainless steel to BS EN 10029:2010, BS EN 10048:1997, BS EN 10051:2010 or BS EN 10090:1998.

INSULATION BETWEEN JOISTS:

- A minimum thickness of 100mm glass mineral wool insulation, with a minimum density of 10kg/m³, to be installed between all floor joists to comply with Part E of the Building Regulations
- Floors over garages to have full-fill glass mineral wool insulation between joists

TIMBER BOARD FLOORING:

- Tongued and grooved softwood to BS 1297:2004.
- Thickness to be 18mm for joists at 450mm centres and 19mm for joists at 600mm centres.

PLYWOOD FLOORING:

- Plywood to an approved national standard. Bonding quality to BS EN 314-2:1993: Class 2 in bathrooms and kitchens, Class 1 elsewhere. Appearance class to BS EN 635: Class 11
- Thickness to be a min. 16mm
- Tongued and grooved all edges. Lay with long edges running across joists. End joints to be central over joists and staggered
- Fix flooring to joists with 50 x 3.35mm annular ring shank nails spaced at 150 mm centres around floor perimeter and along short edges of each board, and 300 mm centres along intermediate supports
- Fixings to be 25 mm from long edges and not less than 10 mm from short edges
- Joint treatment: Bonded with PVA adhesive to BS EN 204:2001, class D3
- Expansion provision: Leave 10 mm clear expansion gap around floor perimeter of floor area and any upstands. Form intermediate expansion/movement joints as recommended by flooring manufacturer

PARTICLEBOARD FLOORING:

- As specified above in 'Plywood Flooring' but with:
- Particleboard to BS EN 312:2010, Type P5.
- Thickness to be 18/19mm with supports at 450mm maximum centres 22mm with supports at 600mm maximum centres.

CEILINGS:

- Timber joist soffit to have a min. 12.5mm plasterboard & skim
- Utility/W.C. ceilings are to have plasterboard with a min. density of 10kg/m²
- Garage ceilings to have 12.5mm 'Gyproc fireline' moisture resistant boards with edges fire-stopped with a fire resistant sealant to achieve 30 minutes fire resistance

CONVERSIONS:

INTERMEDIATE SEPARATING TIMBER FLOORS (APPROVED DOC 'E'):

Note: Advice to be sought from a suitably Qualified Acoustic Consultant for guidance and design.

- Prosound Reductoclip timber joists ceiling system with 100mm thick Rockwool acoustic mineral wool insulation between joists.
- All in accordance with approved document 'E'

Note: This construction detail will require pre-completion sound testing if the project is not registered with Robust Details Ltd. Installation is to be strictly in accordance with manufacturer's details and recommendations.

CEILINGS TO ENTRANCE HALLS, CORRIDORS, HALLWAYS, STAIRS & STAIR ENCLOSURES

- Ceilings to entrance halls, corridors, hallways, stairs & stair enclosures to be provided with Artec ceiling tiles (Gyptone Quattro 41 on Casoline mf) or other approved to give a class c acoustic absorber to satisfy the requirements of Approved Doc. E (E3 reverberation in common parts of buildings containing flats)

ROBUST DETAILS AND SOUND TESTING OF SEPARATING WALLS / FLOORS

ROBUST DETAILS:

- If sound testing is to be avoided, the separating walls and floors are to be registered with and built to Robust Details Standards
- Copies of the relevant Robust Detail registration certificates are to be provided for the Building Control Surveyor at the outset to prove that the project has been registered
- The Robust Detail checklists are to be completed and signed by the Site Manager/Supervisor and submitted to the Building Control at the relevant stage

SOUND TESTING OF SEPARATING WALLS / FLOORS:

- To show that the separating walls and floors comply with the requirements E 1; the person carrying out the work shall:
 - 1. Ensure that appropriate sound insulation testing is carried out in accordance with a procedure approved by the secretary of state; and*
 - 2. Give a copy of the results of the testing referred to in a) above to the building control body*
- The results of the testing referred to above shall be: -
 - 1. Recorded in a manner approved by the secretary of state; and*
 - 2. Be given to the building control body not later than 5 days after they have been carried out*
- In the event of a failed set of tests, appropriate remedial treatment should be applied to the rooms that failed the test.
- The testing and remedial treatment procedure must be repeated until compliance with requirement E 1 is achieved.
- The developer must demonstrate to the building control body that the build meet the performance standards. Normally this would be done by (a) additional testing, and/or (b) applying the appropriate remedial treatment to the other rooms

and/or (c) demonstrating that the cause of failure does not occur in other parts of the building.

- Testing will be a condition of the approval unless the dwellings are registered with robust details limited and built in accordance with the relevant robust detail specification.
- Approval of the plan does not imply the proposed construction will satisfy the sound insulation testing.

8.0 ROOF

- N/A

9.0 STEEL LINTELS & BEAMS

STEEL LINTELS & BEAMS GENERALLY:

- Proprietary mild steel galvanised lintels to external and internal walls
- Provide cavity trays combined with stop-ends and proprietary weep-hole units in exposed positions in compliance with BS 8215:1991
- Lintels and steel beams to have a min. 150mm end bearings or specified by manufacturer / structural engineer
- Lintels and steel beams to be encased with Gyproc Fireline boards or 2 layers of 12.5mm plasterboard to achieve 30 minutes fire resistance
- Steel beams to be supported on concrete pad-stones on loadbearing walls / piers as designed and specified by a qualified structural engineer

EXTERNAL CAVITY WALL LINTELS:

- Manufacturer: Catnic
- Type: CG 110/125 (Standard)
- Type: CH 110/125 (Heavy Duty)
- Type: CX 110/125 (Extra Heavy Duty)

INTERNAL WALL LOADBEARING LINTELS:

- Manufacturer: Catnic
- Type: Box

10.0 INTERNAL FINISHES

FINISHES GENERALLY:

- All finishes to floors, walls, ceilings, etc. are to be agreed with the client
- Manufacturer's instructions regarding installation of products are to be observed

DRY LINING GENERALLY:

- Fixing, jointing and finishing materials and accessories, where not specified otherwise, to be as recommended by the board manufacturer
- Handle and store materials in accordance with BS 8212:1995, section 5. Do not use damaged boards
- Fix boards only in areas which have been made weather tight. Prevent frost damage
- Fix boards securely and firmly to suitably prepared and accurately levelled backgrounds. Finish neatly to give flush, smooth, flat surfaces free from bowing and abrupt changes of level

PLASTERBOARD:

- For general purpose, provide 12.5mm thick Wallboard with skim finish.
- For fire-rated partitions provide 15mm thick Wallboard where 30 minutes fire resistance is required or 2 layers of 12.5mm thick Wallboard with staggered joints where 60 minutes fire resistance is required.
- Fix using galvanised steel wire nails with round flat heads to BS 1202-1:2002, size 40 x 2mm.
- Finish with 3mm thick skim coat plaster finish
- Seal any gaps at junctions of linings and cavity barriers with perimeter abutments, service penetrations, etc. using tightly packed mineral wool or approved intumescent sealant, to prevent penetration of smoke and flame
- For 2 layer boarding, stagger joints between layers
- Tapered edged plasterboards to be lightly butted
- Square edged plasterboards to be finished with textured plastic compound with 3 mm gap.

ADDITIONAL SUPPORTS FOR FIXTURES AND FITTINGS:

- Provide accurately positioned and securely fixed framing to support fixtures, fittings and services
- Provide additional framing, accurately positioned and securely fixed, to give full support to board edges and lining perimeters in accordance with board manufacturer's recommendations

SKIM COAT PLASTER FINISH:

- Board finish skim coat plaster to BS EN 13279-1:2008 and BS EN 13279-2:2014, class B

- Thickness to be 2 - 3 mm thick

PAINTING AND DECORATING:

- Preparation to BS 6 1 50:2006, Section 4
- Plaster/plasterboard surface suitable for direct decoration
- All paint & decoration materials / products to the clients requirements
- Initial coat: One thinned coat applied prior to commencement of second fix works
- Finishing coat: Two full coats
- Colour: to clients requirements

WALL TILING:

Kitchens:

- Provide 450 high tiled splash backs above all kitchen units or to underside of wall cupboards; and from floor to 450 mm above adjacent work surfaces in cooker position

Bathrooms:

- Tile to ceiling around baths and 450 mm above wash basins

Shower enclosure:

- Tile from top of shower tray or floor finish to underside of ceiling to perimeter walls

All other wash hand basins:

- 450 mm above basin

Ceramic wall tiles:

- Tiles: To BS EN 1 44 1 1:20 1 2, group B Size: 150 x 150mm nominal
- Colour: to client's requirements
- Background Base: Plaster/Plasterboard/Plywood
- Preparation: Use primers/sealers recommended by adhesive manufacturer
- Bedding: Thin bed adhesive
- Adhesive: Water resistant organic based
- Grouting material: Water resistant as recommended by adhesive manufacturer
- Joint width and depth: to manufacturers recommendations
- Accessories: Plastics tile edge trim where the edges are exposed. Point junction between tiles and sanitary/kitchen fittings with silicone-based sealant to BS EN ISO 1 1 600:2003+A 1:20 1 1, Type B with fungicide

1.1.0 WINDOWS

WINDOWS GENERALLY:

- All new window types are to be to the client's requirements
- Windows to be in accordance with the local Planning Authority, Building Regulations Part Q (Security) and FENSA requirements (as appropriate)
- Windows to be manufactured in accordance with BS 7590 & ISO 9001 and to have B.S. / kite mark identification etching
- Windows are to be installed by an approved installer
- All windows must carry a minimum 10 Year guarantee against manufacturing defects
- All dimensions are to be checked on site by contractor prior to manufacture and installation

BRITISH STANDARDS:

- Timber windows to conform to BS 644: 2012
- PVC-U windows to conform to BS 7412:2007
- Aluminium Windows to conform to BS 4873:2009

WINDOWS:

- Hermetically sealed double-glazed units to BS 5713: 1979, comprising UPVC framed double glazed units with 4mm thick glass to each pane and 22mm argon filled sealed air gap cavity and 'soft' type low emissivity coating to inner pane
- Window frame is to contain trickle vents in accordance with Part F of the current building regs
- Windows are to be equal to at least 1/20th of room floor area
- All glazing within 800mm of the finished floor level and to side windows within 300mm of doors and in doors up to 1500mm high is to be safety glazing. Safety glazing to be laminated glass to meet the safety performance as set out in Part N of the current building regulations and conform to BS6206: 1981
- Bathroom, En-suite, W.C. to be obscure glazing

THERMAL PERFORMANCE:

- All external windows / Double glazed units to meet the thermal performance as set out in Part L 1A of the current Building Regulations
- Window frame is to be thermally broken and provided with sufficient draught stripping
- All windows to achieve a "U" Value of 1.4 W/m²K or better. Note that window type and gap between panes will be subject to the energy assessors SAP calculation.

EMERGENCY EGRESS WINDOWS:

- Provide emergency egress windows to any newly created first floor habitable rooms and ground floor inner rooms. The window should enable the person to reach a place of safety
- Emergency egress windows are to be readily openable and to have an unobstructed openable area at least 740mm high and 450mm wide (min. 0.33m²) and bottom of openable area to be no more than 1100mm above the floor
- Emergency egress windows to be in accordance with the Building Regulations Approved Document B 1 Section 2

MANIFESTATION:

- Glass entrance doors and glazed screens to be clearly defined with manifestation on the glass at two levels, 850mm to 1000mm and 1400mm to 1600mm above the floor level. Manifestation to contrast visually with the background seen through the glass (both sides from inside and outside) in all lighting conditions.
- Manifestation to be in the form of a logo or sign at least 150mm high (repeated on glazed screens) or a decorative feature such as broken lines or continuous bands, at least 50mm high.
- Glass Manifestation to be in accordance with the Workplace Health & Safety Welfare Approved code of practice L24 Regulation 14, the Building regulations 2000: Part M and BS 6262 Part 4 Safety.

SEALING:

- All window frames to be sealed around their perimeter
- Sealant to be provided to front and back of all new windows frames to minimize air leakage

WINDOW IRONMONGERY:

- High level adjustable flush trickle ventilators incorporating external weather proofing canopy to provide background ventilation in accordance with the Building Regulations Part F
- Windows are to be secured with 'snap shut' type locks and compliant with Part M. It is recommended that all ironmongery is to be by a 'Secured By Design' supplier

12.0 DOORS

EXTERNAL DOORS GENERALLY:

- Doors to be in accordance with the local Planning Authority, Building Regulations Part Q (Security) and FENSA requirements (as appropriate)
- All door sets / combination frames must carry a minimum 10 Year guarantee against manufacturing defects
- All dimensions are to be checked on site by contractor prior to manufacture and installation

THERMAL PERFORMANCE:

- All doors to achieve a "U" Value of 1.8 W/m²K or better. Note that door type will be subject to the energy assessors SAP calculation.

EXTERNAL COMPOSITE DOORS:

- Material: GRP doors to be CFC and HCFC free, with an ozone depletion potential (ODP) of zero and a global warming potential (GWP) of less than 5
- All doors to be of a type/style as indicated on the drawings or agreed with the client
- Frames to be factory assembled pre-hung units
- Fixing as recommended by manufacturer and in accordance with Accredited Construction Details
- Colour to be agreed with the client and the Local Planning Authority
- Factory Finish with Grained Effect or to clients requirements

EXTERNAL TIMBER DOORS:

- Note: Only to be used if "U" Value of 1.4 W/m²K or better can be achieved, otherwise use composite doors
- Preservative treatment to be as British Wood Preserving and Damp-proofing Association Commodity Specification C5
- Timber to receive paint or stain finish to the clients requirements
- Leaf size to be confirmed by the client

GLAZING TO DOORS & SIDELIGHTS:

- Where glazing in doors is below 800mm from F.F.L. or within 300mm to the side of a door opening to a height of 1500mm, glazing to be laminated glass to conform to BS6206: 1981 and marked accordingly

IRONMONGERY TO EXTERNAL DOORS THRESHOLDS:

- Extruded aluminium incorporating weatherboard and replaceable gaskets, maximum height of threshold section 15 mm and to comply with Part M of Building Regulations
- Fixing to follow manufacturer's instructions/recommendations

INTERNAL TIMBER DOORS:

- Type: To clients requirements

FIRE RESISTING TIMBER DOOR/DOORSETS:

- Provide evidence in the form of a product conformity certificate, test report or engineering assessment that fire door/door-set will comply with the specified requirements for fire resistance

PAINTING AND DECORATING:

- All to clients requirements

13.0 ELECTRICAL INSTALLATION

ELECTRICAL INSTALLATION GENERALLY:

- All wiring and electrical work to be designed, installed, inspected and tested in accordance with the requirements of BS7671, the IEE 17th edition wiring guidance and building regulation 'Part P' (electrical safety)
- All wiring and electrical work to be carried out by a competent person registered with an electrical self-certification scheme authorised by the secretary of state
- The competent person is to provide a self-certification certificate and a BS7671 electrical installation test certificate within 30 days of the electrical works' completion
- The detailed design of the installation is the responsibility of the Contractor and notwithstanding anything included in the Specification must comply with the requirements of the latest Edition of the Regulations for the Electrical Equipment of Buildings issued by the Institution of Electrical Engineers (hereinafter referred to as the "IEE Regulations")
- Meters shall be installed so as to be readable from the outside and shall be fitted in an approved box supplied by the Electricity Supplier and built into the external skin of the cavity wall.
- The property shall be served by a consumer unit easily accessible to the householder and fitted with miniature circuit breakers and a Residual Current Circuit Breaker giving overall protection to socket outlets and any external services. Consumer units should be located generally 1.2m above finished floor level and be provided with a lockable cover
- All socket outlets shall be positioned 450mm above finished floor level except above worktops. All socket outlets shall be switched and shall be wired from a 13A ring main system
- Light switches shall be positioned generally 1050 mm above
- Manufacturer's installation, operating and maintenance manuals should be provided to the client at Practical Completion

FIXED SERVICES LIGHTING:

- 100% of new or replacement light fittings should be low energy light fittings with lamps having a luminous efficacy greater than 45 lamp lumens per circuit-watt and a total output greater than 400 lamp lumens
- Amount and positions of light fittings are to be to the client's requirements.
- All lighting is to comply with Part L of the current Building Regulations.

EXTERNAL LIGHTING:

- Any external lighting scheme should be designed in consultation with the police CPDA so as to be compliant with Secured by Design requirements with proposals being provided to the client prior to incorporation into the works
- External light fittings are to be energy efficient greater than or equal to 40lm/w (circuit) fluorescent or compact fluorescent

- Any external lighting is to be provided in accordance with paragraph 1.57 of AD L 1

CABLES AND FITTINGS:

- The design and installation shall take due account of good practice when installing cables and/or fittings in fully insulated partitions and ceilings and have regard to BRE BR262, Thermal Insulation: avoiding risks, section 2.3.
- For service runs within the insulated void use suitable ductwork to prevent overheating of the cables
- Any rising services are to include fire collars to all ceiling junctions

FIRE DETECTION / ALARM SYSTEMS:

- Fire detection and fire alarm systems are to be in accordance with the relevant recommendations of BS 5839 part 6
- Smoke and heat alarms to be mains operated interlinked and have a standby power supply such as a battery or capacitor and conform to BS 5446 parts 1 & 2 respectively
- 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
- Guidance on installation is provided in Approved Document 'B' - B1 1.10 to 1.24 for most common situations
- 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 (i.e. open-plan arrangement)
- Any down-lighters or spotlights are to give a minimum 30 minutes fire resistance
- Doors on escape routes to be fitted with simple fastening that can be readily operated from the side approached by people making an escape. The operation of these fastenings is to be readily apparent and without having to manipulate more than one mechanism and without the use of a key.
- Large dwelling houses of 2 storeys (excluding basement storeys) where the area of the ground floor exceeds 200m², should be fitted with a fire detection and fire alarm system of Grade B category LD3 - Refer to BS 5839 part 6.
- Large dwelling houses of more than 3 storeys (excluding basement storeys) should be fitted with a grade 'A' category LD2 system as described in BS 5839 part 6, with detectors sited in accordance with the recommendations of BS 5839 part 1 for a category L2 system.

EMERGENCY LIGHTING:

- Emergency lighting to be in accordance with BS 5266 Part 1: 2005 and BS EN 1838: 1999
- Emergency lighting is required to all escape routes, unilluminated areas, open plan areas, rooms with no windows and staircases in central cores (staircase to be wired on a separate circuit)

- Upon completion, an electrical installation and test certificate is to be issued by the electrical contractor

ELECTRICAL POINTS:

- The type, amount and positions of all electrical points will be to the client's requirements.

CARBON MONOXIDE DETECTION:

- Mains powered carbon monoxide detectors with battery backup to be provided in accordance with the manufacturer's recommendations

FIRE PROTECTION TO BASEMENT:

- Basement storey including the floor over is to have a minimum 60 minutes fire resisting construction. Stairs (flights and landings) are to be constructed of materials of limited combustibility.
- Basement space to be provided with one or more natural smoke outlets not less than 1/40th of the floor area connected directly to the open air where the floor area is more than 200m² and the floor is more than 3m below the adjacent ground level. A system of mechanical extraction may be provided as an alternative to natural venting provided that the basement storey is fitted with an approved sprinkler system. The air extraction system should come into operation automatically on activation of the sprinkler system or alternatively by the automatic fire detection system.

14.0 PLUMBING AND HEATING

HEATING:

- All of the work relating to heating and hot water installations will be subject to building control and all relevant information and full certification are to be submitted to the Building Control body upon completion of the work
- Gas central heating installations are to be installed by a 'Gas Safe' registered Contractor in accordance with Gas Safe requirements
- Central heating installations to comply with BS 5449 : 1990
- Meters shall be installed so as to be reachable from the front externally and shall be fitted in an approved box supplied by the Gas/Water Supplier and built into the external skin of the cavity wall or installed at ground level in a semi-concealed type box
- Where possible radiators or heater units should be sited under windows to overcome cold down draughts
- The building owner is to be provided with sufficient information about the building, fixed building services, controls and their maintenance requirements, so that the building may be operated in such a manner as to use no more fuel and power than is reasonable.

BOILER:

- New gas boiler must be of a condensing type with a minimum efficiency SEDBUK rating of 89% (SEDBUK 2009)
- Boilers shall be wall hung and preferably sited in the kitchen and must be easily accessible for servicing and maintenance
- Service pipes to be insulated and boiler control interlocks together with zone, timing and temperature controls are required
- Thermostatic control valves (TRV's) are required to all new radiators
- Gas heating systems shall be programmable as to operating times and hot water temperature
- Corrosion inhibitors must be provided to all wet systems on installation
- Heating pipework to be copper of not less than 15mm diameter
- Pipework should be run within floor zones wherever possible
- Extensive ducting of pipes in floor screeds shall be avoided
- There shall be no joints in concealed pipework
- Controlled services including ventilation, heating and hot water systems should be commissioned in accordance with procedures in the domestic building services compliance guide and the domestic ventilation compliance guide

WATER:

- All work relating to cold and hot water supply, water efficiency, sanitary conveniences, washing facilities, bathrooms, kitchens and food preparation areas must satisfy the relevant requirements of Part G (Sanitation, hot water safety and water efficiency). In particular: The hot water temperature to a bath must be

limited to a maximum of 48°C by means of an in-line blending valve or other appropriate temperature control device, with a maximum temperature stop and a suitable arrangement of pipe work

- In new dwellings and dwellings formed by change of use: the potential whole house potable water consumption should not exceed 125 litres per person per day. The contractor must give the Building Control Body (BCB) a notice/certificate specifying the potential consumption of wholesome water per person per day in relation to the completed dwelling calculated in accordance with the methodology set out in the document *"The Water Efficiency Calculator for New Dwellings"*

SANITARY / WASTE PIPEWORK:

- Trapped waste connections shall be provided to all sanitary appliances
- Sanitary pipework to be uPVC deep seal anti-siphonic traps. W.C. to be 100mm diam; bath, shower & sink to be 40mm diam; wash hand basin to be 32mm diam and combined to be 50mm diam at minimum 1:55 fall and fixed with support brackets at max. 600mm cts
- 110mm soil and vent pipe extending min. 900mm above any opening lights within 3m and with cage termination
- Provide a long radius bend at foot of SVP
- No connection to S&VP within 200mm of branch
- Soil and vent pipes shall be concealed in adequately insulated ducts where located internally
- Soil and waste pipework shall have adequate rodding access for clearing blockages to all runs of the system
- Waste pipework to be a minimum of 150mm off of the floor
- Sanitary pipework to be in accordance with BS EN 12056: 2000, Parts 1 to 5
- Provide matching 110 x 75mm semi-elliptical profile upvc r.w. gutters with 68mm diam. downpipes or 112 x 60mm rectilinear profile upvc r.w. gutters with 65mm square downpipes to BS EN 607 & BS 6367: 1983
- Provide rainwater calculations and install correct number of downpipes accordingly where required

INCOMING WATER MAIN:

- Main to be one piece alkathene pipework with underground fittings to be gun metal to BS864 and to be insulated if required by the Water Authority

HARD WATER:

- A 'Magnaclean' magnetic scale reducer or agreed alternative is required to be installed in each dwelling in accordance with the manufacturer's instructions

FITTINGS AND FURNISHINGS GENERALLY:

- All fittings and furnishings (kitchen units / appliances and bathroom suites) are to be sourced and installed to the client's requirements

15.0 VENTILATION

BACKGROUND VENTILATION:

- Provide controllable background ventilation through overhead window trickle ventilators to BS EN 13141-3 within the window frame located min. 1.7m above the floor level with simple flap control giving a constant 5000mm² equivalent area in habitable rooms and 2500mm² equivalent area in kitchens, utility rooms and bathrooms to meet approved document 'F' 2010
- Trickle ventilators to meet or exceed the worst-case requirements of BS 6375: P1: 1989 for resistance to water penetration

MECHANICAL EXTRACT VENTILATION:

- Xpelair, Vent-Axia or similar approved Humidistat & Timer type Mechanical extract fan to be provided with minimum intermittent extraction rates of 6 lts/sec to sanitary accommodation, 15 lts/sec to bathrooms/en-suite's, 30 lts/sec to utility room, 30 lts/sec to kitchen adjacent to hob or 60 ltrs/sec elsewhere
- Continuous extract rates to be 6 lts/sec to sanitary accommodation, 8 lts/sec to bathrooms, en-suite's, utility room's and 13 lts/sec to kitchen
- Extract fans may be operated manually or automatically by sensor or controller
- Fan vents to terminate through external wall wherever possible
- Rooms not containing openable windows to have fan fitted with a min. 15 minute overrun facility controlled by the operation of the light switch and ducted to external air
- Rooms ventilated by mechanical extract to be provided with air inlet via a 10mm gap under the door
- If an open flue appliance is present (e.g. a Gas fire), a flue spillage test should be carried out by 'Gas Safe' registered contractor to ensure the extract fans do not affect the safe operation of the appliance
- Owners are to be provided with sufficient information to operate the ventilation system to provide adequate air flow not later than 5 days after completion
- A commissioning notice for fixed mechanical ventilation systems is required to be supplied to building control (in accordance with the Domestic Ventilation Compliance guide)
- Extract ducts passing through roof voids or other cold areas shall be lagged and include a condensation trap

16.0 STAIRCASE

- N/A

17.0 ENERGY EFFICIENCY

Note: Advice to be sought from a suitably Qualified Energy Assessor Consultant for guidance and design.

SAP CALC's / RATINGS:

- SAP calc's / ratings are to be calculated for compliance against Part L 1 A in accordance with the current building regulations
- Works are to be carried out in strict accordance with the details as stated in the 'As-Designed' SAP calcs document i.e. insulation requirements, heating system, air pressure testing requirements, etc. Refer to the relevant SAP Calcs for details.
- An Energy Performance Certificate will be required once the building is complete which provides an energy rating that must be used for building control purposes and marketing of the property

ACCREDITED CONSTRUCTION DETAILS:

- Works are to be carried out in strict accordance with the "Accredited Construction Details" to reduce air leakage
- The relevant checklists for the form of construction are to be signed and dated by Site Manager/Supervisor to confirm that details have been complied with
- Copies of the completed checklists are to be forwarded to Building Control for approval to show compliance

AIR PERMEABILITY AND PRESSURE TESTING:

- Air pressure testing is to be carried out upon completion of the dwelling by a Competent Qualified Person and test results are to be forwarded to the Building Control body to show compliance with the requirement of Part L 1 A of the current Building Regulations
- Reasonable provision shall be made to ensure the building is constructed to minimise unwanted air leakage through the building fabric
- The Building fabric is to be constructed to ensure that there are no gaps in the insulation layers and there are no significant thermal bridges at junctions, between elements and around window & door openings
- Insulation to walls, floor and roof is to be continuous throughout to limit thermal bridging and air leakage
- Ensure that all window & door openings are fully draught-proofed and all gaps are fully sealed around service penetrations

18.0 ACCESS & FACILITIES FOR DISABLED

- Disabled persons toilet accommodation including fittings is to be installed in accordance with diagram 18 of Approved Document M
- Doors to toilets should open outwards
- All electrical switches and sockets are to be between 450 & 1200mm above floor level.
- Access to the main entrance and approach is to be in accordance with clauses 6.1 to 6.15 (Approved Doc. 'M'.)
- Main entrance door is to allow min. clear opening of 775mm (1000mm door set) and have a low accessible threshold
- All internal doors to rooms to have min. clear opening of 800mm (900mm door set)