



SPECIFICATIONS

- 1) CONSULTATIONS WITH OTHER AUTHORITIES
- 2) The applicant is reminded of the need to consult with other departments such as Planning, Conservation, Environmental Health, Water Authorities, Private Sector Housing etc. Issues which may arise include:
  - 3) Parking and cycling facilities
  - 4) Conversion of listed buildings
  - 5) Conversion in conservation areas
  - 6) Crime prevention and security
  - 7) Disabled access provision
  - 8) Conversion to HMO and private sector housing requirement
  - 9) Flat layout requirements
  - 10) Room size requirements
  - 11) Design statements
  - 12) Other issues may also apply.

PARTY WALL ACT

The owner should they need to do so under the requirements of the Party Wall Act 1996 has a duty to serve a Party Wall 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
- Raising of wall or cutting of projections
- Demolition and rebuilding
- Underpinning
- Insertion of lead flashings
- Excavations within 3 metres of an existing structure where the new foundations will go deeper than adjoining foundations, or within 6 metres of an existing structure where the new foundations are within a 45 degree line of the adjoining foundations.

A Party wall agreement is to be in place prior to start of works on site.

The client must abide by the Construction Design and Management Regulations 2015. The client must appoint a contractor, if more than one contractor is to be involved, the client will need to appoint (in writing) a principal designer (to plan, manage and coordinate the planning and design work) and a principal contractor (to plan, manage and coordinate the construction and ensure there are arrangements in place for managing and organising the project).

The designer can take on the duties, provided there is a written agreement between you and the designer to do so.

The Health and Safety Executive is to be notified as soon as possible before construction work starts if the works:

- (a) Last longer than 30 working days and has more than 20 workers working simultaneously at any point in the project.
- Or:
- (b) Exceeds 500 person days.

MATERIALS AND WORKMANSHIP

All works are to be carried out in a workmanlike manner. All materials and workmanship must comply with Regulation 7 of the Building Regulations, all relevant British Standards, European Standards, Agreement Certificates, Product Certification of Schemes (Kite Marks) etc. Products conforming to a European technical standard or harmonised European product should have a CE marking.

DEMOLITION

Measures to be put in place during and after the demolition to ensure the protection of the public, public amenities and adjoining properties. Such measures to include: The shoring of adjoining buildings. The control of dust and noise generation. The weatherproofing of any parts of adjoining buildings which are left exposed by the demolition. The repairing and making good any damage to any adjacent building effected by the demolition. The removal of material or rubbish resulting from the clearance and demolition of the site. The disconnection, sealing or removal of any drain or sewer, as required. The making good of any disturbed ground. Any arrangements necessary for the disconnection of all services (e.g. gas, water, electricity). Consultation with the Health and Safety Executive, and Fire Authority should be sought if burning structures or materials on site. Consultation to be undertaken with the occupiers of adjacent buildings where applicable and a Party Wall agreement put in place. A planning application to demolish to be made where required. All demolition work to comply with the Construction (Design and Management) Regulations 1994 and a Health and Safety plan is to be provided by the principal contractor.

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, vapors etc on or in the ground covered, or to be covered by the building.

STRUCTURAL ELEMENTS

All new steelwork to be half hour fire protected. Steelwork sizes and bearing/connections to structural engineer's design and specification. All new Structural member sizes (joists, rafters, etc) to be confirmed by structural engineer.

SHARED DRAINS / SEWERS

Should an existing sewer be found to be a shared drain, it will be subject to building over agreement from Severn Trent Water. The client is responsible for applying for this agreement. Requirements include that the drain is to be surveyed by CCTV prior to building work and following completion. Any damaged sections to be replaced by the builder at the client's expense to a method statement agreed with Severn Trent Water. Further information on this topic can be found on the Severn Trent Water web site at [www.stwater.co.uk](http://www.stwater.co.uk).

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).

EXISTING STRUCTURE

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

To achieve U-value of 0.25W/m<sup>2</sup>K

The existing floor should be assessed to ensure any additional loads imposed on it can be carried safely or be strengthened where necessary. Provide a damp-proof membrane of at least 1200 gauge polyethylene over existing floor slab. Existing joists to be infilled with 90mm Xtratherm XTUF on battens or proprietary insulation clips.

VENTILATION OF FLOOR

Ensure cross ventilation under floor to outside air is maintained or provide ventilators in at least 2 opposite external walls of the building. Ventilation openings having an opening area of 1500mm<sup>2</sup> per metre run of perimeter wall or 500mm<sup>2</sup> per square metre of floor area whichever gives the greater opening area. All sleeper joists 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.

UPGRADE OF EXISTING TIMBER SUSPENDED FLOOR

To achieve U-value of 0.25W/m<sup>2</sup>K  
The existing floor should be assessed to ensure any additional loads imposed on it can be carried safely or be strengthened where necessary. Provide a damp-proof membrane of at least 1200 gauge polyethylene over existing floor slab. Existing joists to be infilled with 90mm Ecotherm Eco-Versal on battens or proprietary insulation clips.  
Ventilation of Floor Ensure cross ventilation under floor to outside air is maintained or provide ventilators in at least 2 opposite external walls of the building. Ventilation openings having an opening area of 1500mm<sup>2</sup> per metre run of perimeter wall or 500mm<sup>2</sup> 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.

UPGRADE OF EXISTING FLOOR WITH AN INDEPENDENT CEILING

(As detailed in Approved Document E1)  
The existing floor should be assessed to ensure any additional loads imposed on it can be carried safely or be strengthened where necessary. Any required remedial works to be undertaken before the floor treatment is provided. If the floor boards are considered unsuitable for upgrade the floor boards are to be replaced with boarding of a minimum thickness of 12mm. Gaps in the timber boarding should be sealed by overlaying with hardboard or filled with sealant. Upgrade existing ceiling by providing 2 layers of plasterboard under existing ceiling with a total mass per unit area 20kg/m<sup>2</sup> with staggered joints.

NEW INDEPENDENT CEILING

Construct a new independent ceiling under existing ceiling using C24 timber joists (sizes to structural engineer's details) fixed to the surrounding wall only; ensure a minimum clearance of 25mm is provided between the top of the independent ceiling joists and the underside of the existing floor (additional support can be provided by resilient hangers attached directly to the existing floor base if required). Lay 100mm mineral wool with a minimum density 10kg/m<sup>3</sup> between the joists and provide 2 layers of plasterboard minimum total mass per unit area 20kg/m<sup>2</sup> under new ceiling with staggered joints. The top of the independent ceiling to be at least 125mm from the underside of the existing floor. Seal the perimeter of the independent ceiling with tape or sealant.

Where the window head is near to the existing ceiling the new independent ceiling may be raised to form a pelmet recess.  
Pre completion sound testing to be carried out to new floor by a suitably qualified person with appropriate third party accreditation (either UKAS accreditation or a member of the Association of Noise Consultants Registration Scheme).

IT IS THE CONTRACTORS RESPONSIBILITY IS TO CONSULT WITH AN ACOUSTIC ENGINEER TO ENSURE THE COMPLIANCE ALL ASPECTS OF APPROVED DOCUMENT E THIS CONSTRUCTION HAS THE POTENTIAL TO COMPLY WITH THE REQUIREMENTS OF THE BUILDING REGULATIONS WHEN FORMING A SEPARATING FLOOR FROM AN EXISTING FLOOR BY MATERIAL CHANGE OF USE. COMPLIANCE CAN ONLY BE DEMONSTRATED BY A PACKAGE OF SOUND TESTING AGREED WITH BUILDING CONTROL.

UPGRADING EXISTING CONCRETE FLOOR

To achieve U-value of 0.25W/m<sup>2</sup>K  
The existing solid floor must be checked for stability and be free from defects as required by Building Control. The floor will need upgrading to ensure adequate damp protection and to prevent heat loss. Fix 20mm softwood nohead and groove softwood boards or moisture resistant particle/chipboard grade type C4 to BS EN 312 onto lintalised treated timber battens plugged and screwed into a concrete slab beneath. Lay boarding with staggered joints. Place 50mm Xtratherm Thin-R insulation between the battens (fully filling the void).

A VCL should be laid over the insulation boards and turned up 100mm at room perimeters behind the skirting, all joints to be lapped 150mm and sealed. Provide a 1200 gauge DPM linked to dpc in the walls over existing slab (if required).

A lesser provision of insulation may be appropriate where meeting such a standard would create significant problems in relation to adjoining floor level.

FLOOR PENETRATIONS

Pipe services and ducts which pass through separating floors should be surrounded with 25mm sound absorbent mineral wool and enclosed in a duct of two layers of Gyproc FireLine board having a mass per unit area of at least 15kg/m<sup>2</sup> for their full height. Seal the joint between the casing and ceiling with tape Gas services may require ventilation and should be installed in accordance with The Gas Safety (Installation and Use) Regulations 1998.

UPGRADE OF SOLID EXTERNAL WALL

To achieve min U-value 0.30W/m<sup>2</sup>K  
Existing wall to be exposed and checked for its suitability. Insulate existing wall on the inside using 50mm Celotex GA4000 insulation board fixed to 25 x 50mm battens at 600mm centres to provide a nominal 25mm cavity between the masonry and insulation (50mm cavity to be provided if required by building control).  
Fix a vapour control layer on the warm side of the insulation. Finish 12.5 plasterboard with a plaster skim. All work in accordance with BS 8212: (Code of practice for dry lining).

UPGRADE OF EXISTING BRICK WALL

To achieve min U-value 0.30W/m<sup>2</sup>K  
Existing wall to be exposed and checked for its suitability. Insulate existing wall on the inside using 50mm Celotex GA4000 insulation board fixed to 25 x 50mm battens at 600mm centres to provide a nominal 25mm cavity between the masonry and insulation (50mm cavity to be provided if required by building control).  
Fix a vapour control layer on the warm side of the insulation. Finish 12.5 plasterboard with a plaster skim. All work in accordance with BS 8212: (Code of practice for dry lining).

Apply 20mm of suitable reinforced render with waterproof additive with a scraped or textured finish. Render to be applied directly to the insulation incorporating emul or glass fibre mesh. Movement joints to be provided compatible with the render system. All work to be in accordance with render manufacturer's details and BS EN 13141-4. Where surface is uneven it is recommended that a bedding compound be applied prior to fixing the insulation boards. Line wall internally with 12.5mm plasterboard and 3mm skim where required.

UPGRADING EXISTING SINGLE SKIN PARTY WALL

The existing walls must be checked for stability and be free from defects as required by the Building Control Officer. Provide a scratch coat render to existing wall. Construct an independent studwork lining using 100mm x 50mm treated timbers with head & sole plates and noggins at 400mm centres, leaving a gap of 15mm between the wall and the inner face of the studwork to ensure that airborne sound transmission is reduced. Seal the perimeter of the wall with tape or sealant. Wall to be lined with 30mm total thickness of plasterboard (minimum 20kg/m<sup>2</sup>) with staggered joints and with at least 35mm of mineral wool quilt density 10kg/m<sup>3</sup> between studs. Finish with 3mm plaster skim.

Pre completion sound testing to be carried out by a suitably qualified person with appropriate third party accreditation (either UKAS accreditation or a member of the Association of Noise Consultants Registration Scheme).

IT IS THE CONTRACTORS RESPONSIBILITY IS TO CONSULT WITH AN ACOUSTIC ENGINEER TO ENSURE THE COMPLIANCE ALL ASPECTS OF APPROVED DOCUMENT E THIS CONSTRUCTION HAS THE POTENTIAL TO COMPLY WITH THE REQUIREMENTS OF THE BUILDING REGULATIONS WHEN FORMING A SEPARATING FLOOR FROM AN EXISTING FLOOR BY MATERIAL CHANGE OF USE. COMPLIANCE CAN ONLY BE DEMONSTRATED BY A PACKAGE OF SOUND TESTING AGREED WITH BUILDING CONTROL.

UPGRADING SOLID PARTY WALL

As detailed in Approved Document E Wall Type 1.1  
The existing walls must be checked for stability and be free from defects as required by the Building Control Officer. Provide a scratch coat render to existing wall. Construct an independent studwork lining using 100mm x 50mm treated timbers with head & sole plates and noggins at 400mm centres, leaving a gap of 15mm between the wall and the inner face of the studwork to ensure that airborne sound transmission is reduced. Seal the perimeter of the wall with tape or sealant. Wall to be lined with 30mm total thickness of plasterboard (minimum 20kg/m<sup>2</sup>) with staggered joints and with at least 35mm of mineral wool quilt density 10kg/m<sup>3</sup> between studs. Finish with 3mm plaster skim.

Pre completion sound testing to be carried out by a suitably qualified person with appropriate third party accreditation (either UKAS accreditation or a member of the Association of Noise Consultants Registration Scheme).

IT IS THE CONTRACTORS RESPONSIBILITY IS TO CONSULT WITH AN ACOUSTIC ENGINEER TO ENSURE THE COMPLIANCE ALL ASPECTS OF APPROVED DOCUMENT E THIS CONSTRUCTION HAS THE POTENTIAL TO COMPLY WITH THE REQUIREMENTS OF THE BUILDING REGULATIONS WHEN FORMING A SEPARATING FLOOR FROM AN EXISTING FLOOR BY MATERIAL CHANGE OF USE. COMPLIANCE CAN ONLY BE DEMONSTRATED BY A PACKAGE OF SOUND TESTING AGREED WITH BUILDING CONTROL.

UPGRADING PARTY CAVITY WALL

The existing walls must be checked for stability and be free from defects as required by the Building Control Officer. Provide scratch coat render to existing wall. Apply plasterboard with mass of 10kg/m<sup>2</sup> (e.g. Gyproc Soundbloc) or greater to the both faces of the wall to ensure adequate sound insulation in accordance with Approved Document E.  
Pre completion sound testing to be carried out by a suitably qualified person with appropriate third party accreditation (either UKAS accreditation or a member of the Association of Noise Consultants Registration Scheme).

IT IS THE DESIGNERS RESPONSIBILITY IS TO CONSULT WITH AN ACOUSTIC ENGINEER TO ENSURE THE COMPLIANCE ALL ASPECTS OF APPROVED DOCUMENT E THIS CONSTRUCTION HAS THE POTENTIAL TO COMPLY WITH THE REQUIREMENTS OF THE BUILDING REGULATIONS WHEN FORMING A SEPARATING FLOOR FROM AN EXISTING FLOOR BY MATERIAL CHANGE OF USE. COMPLIANCE CAN ONLY BE DEMONSTRATED BY A PACKAGE OF SOUND TESTING AGREED WITH BUILDING CONTROL.

JUNCTIONS WITH EXTERNAL OR LOAD BEARING WALLS

Flanking transmission to be controlled along adjoining walls by lining all adjoining masonry walls with either an independent layer of plasterboard and mineral wool or a laminate of plasterboard and mineral wool where necessary.

SOLID EXTERNAL WALL

Minimum total mass per unit area 415kg/m<sup>2</sup>  
As detailed in British Gyproc Separating Walls  
Construct solid separating wall using dense aggregate blocks laid flat, blocks to have a density of 1840kg/m<sup>3</sup>. Finish with 15mm Thistle plaster with a minimum mass per unit area of 10kg/m<sup>2</sup> on each face of wall.  
IT IS THE DESIGNERS RESPONSIBILITY IS TO CONSULT WITH AN ACOUSTIC ENGINEER TO ENSURE THE COMPLIANCE ALL ASPECTS OF APPROVED DOCUMENT E THIS CONSTRUCTION HAS THE POTENTIAL TO COMPLY WITH THE REQUIREMENTS OF THE BUILDING REGULATIONS WHEN FORMING A SEPARATING FLOOR FROM AN EXISTING FLOOR BY MATERIAL CHANGE OF USE. COMPLIANCE CAN ONLY BE DEMONSTRATED BY A PACKAGE OF SOUND TESTING AGREED WITH BUILDING CONTROL.

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 ctrs. Provide min 10kg/m<sup>3</sup> density acoustic soundproof quilt tightly packed (e.g. 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. Walls faced throughout with 12.5mm Gyproc FireLine board with skim plaster finish. Taped and jointed complete with beads and stops.

PIPES PASSING THROUGH SEPARATING WALLS

Provide adequate fire stopping where pipes pass through walls using proprietary systems including acoustic intumescent sealant, intumescent collars and fire sleeves to ensure the appropriate level of fire and sound resistance is maintained.

INSULATION AT CEILING LEVEL

To achieve U value of 0.16 W/m<sup>2</sup>K  
Insulation at ceiling level to be 100mm Rockwool insulation laid between ceiling joists with a further 170mm layer over joists (cross direction).

Where required construct new 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. Allow for all structure as designed by a Structural Engineer.

UPGRADE OF EXISTING FLOORS WITHIN

(Please refer to Approved Document B Volume 2 Section 2.1 - multi-storey)  
Joists to be 50mm minimum from chimney breasts (joist size to structural engineer's details and calculations). Provide min 20mm 1 and g chipboard or timber board flooring (in areas such as kitchens, utility rooms and bathrooms floors to be moisture resistant grade in accordance with BS EN 312). Identification marking must be laid upper most to allow easy identification.

To upgrade to half hour fire resistance and provide adequate sound insulation lay minimum 150mm Rockwool insulating material or equivalent on chicken wire between joists. Chicken wire to be fixed to the joists with nails or staples these should penetrate the joists side to a minimum depth of 20mm, in accordance with BRE-Digest 208 1988. Joists spans over 2.5m to be strutted at mid span use 38 x 38mm herringbone strutting or 38mm solid strutting (at least 2/3 of joist depth). Provide lateral restraint where joists run parallel to walls. Floors are to be strapped to walls with 100mm 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 3 no. joists. Provide 38mm wide x 5 depth solid noggins between joists at strap positions.

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 ctrs. Provide min 10kg/m<sup>3</sup> density acoustic soundproof quilt tightly packed (e.g. 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. Walls faced throughout with 12.5mm Gyproc FireLine board with skim plaster finish. Taped and jointed complete with beads and stops.

ENTRANCE DOORS

Entrance doors to be a FD30 hung with 3 steel hinges with a melting point of at least 800°C and fitted with a self-closing device and intumescent strip. All fire doors to be tested in accordance with BS 476.

DOORS WITHIN (Protected lobby)

From a protected lobby into the flat entrance by providing half hour fire resistance to all partitions. All doors on to lobby must be FD20 rated fire doors to BS 476 (fitted with intumescent strips rebated around sides and top of door or frame if required by BCO). Where applicable, any glazing in fire doors to be half hour fire resisting and glazing in the walls forming the escape route enclosure to have 30 minutes fire resistance and be at least 1.1m above the floor level.

NEW STAIRCASE Dimensions to be checked and measured on site prior to fabrication of stairs. Timber stairs to comply with BS855 and with Part K of the Building Regulations. Max rise 220mm, min going 220mm. Two risers plus one going should be between 550 and 700mm.

Tapered treads to have going in centre of tread at least the same as the going on the straight. Min 50mm going of tapered treads measured at narrow end. Pitch not to exceed 42 degrees. The width at right angle of every landing should be at least as great as the smallest width of the flight. Doors which swing across a landing at the bottom of a flight should leave a clear space of at least 400mm across the full width of the flight.

Min 2.0m headroom measured vertically above pitch line of stairs and landings. Handrail on staircase to be 900mm above the pitchline, handrail to be at least one side if stairs are less than 1m wide and on both sides if they are wider. Ensure a clear width between handrails of minimum 600mm. Balustrading designed to be non-imbale and should contain no space through which a 100mm sphere could pass. Allow for all structure as designed by a Structural Engineer.

SOUND INSULATION UNDER STAIRS WHICH FORM A SEPARATING FUNCTION

Stair treatment 1 as detailed in Approved Document E  
Lay a soft covering over stair treads of at least 6mm thickness and glue securely so the covering does not become a safety hazard. Construct a new independent ceiling under stairs ensuring a minimum clearance of 25mm (additional support can be provided by resilient hangers attached directly to the existing soffit if required). Provide 2 layers of plasterboard, minimum total mass per unit area 20kg/m<sup>2</sup> under new ceiling with staggered joints. Fill void with 100mm mineral wool (e.g. Rockwool Flexi slab) with a minimum density 10kg/m<sup>3</sup>. Seal the perimeter of the independent ceiling with tape or sealant.

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 the certificate to be given to Building Control on completion of the work.

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 lumen lamps. Not less than three energy efficient light fittings per four of all the light fittings in the dwelling spaces to comply with Part L of the current Building Regulations.

HEATING

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

MEANS OF ESCAPE – (Internal planning)

All flats to be provided with a protected entrance hall (lobby) with half hour partitions between the hall and all room. Entrance hall to lead directly to a protected common hallway or lobby. The travel distance from the flat entrance door to the door to any habitable room not to be greater than 9m. Inner rooms are not acceptable.

All doors from rooms on to the entrance hall must be FD20 rated fire doors to BS 476 (fitted with intumescent strips rebated around sides & top of door or frame if required by BCO). Where applicable, any glazing in fire doors to be half hour fire resisting and glazing in the walls forming the escape route enclosure to have 30 minutes fire resistance and be at least 1.1m above the floor level.

SMOKE DETECTION

Mains operated linked smoke alarm detection system to BS EN 14604 and BS 5839-6:2019 to at least a Grade D category LD3 standard to be mains powered with battery back up to be placed in the hall way of each flat with an additional interlinked heat detector in the entrance hall. All smoke alarms should be sited so that there is a smoke alarm in the habitable space on all levels/ storeys and within 7.5m of the door to every bathroom. If ceiling mounting they should be 300mm from the walls and light fittings.

Interlinked smoke detection to be provided in the common ways if required by Building Control in accordance with Approved Document B and the Regulatory Reform (Fire Safety) Order 2005. Grade D2, LD2 standard alarms to be provided if required by BCO.

SMOKE VENTILATION IN COMMON WAYS

Provide an automatic opening smoke vent with a geometric free area of at least 1.0m<sup>2</sup> located on an external wall at the top of the stair as high as practicable and so the top edge is at least as high as the top of the door. Vent to be opened on detection of smoke on any storey in the stair (vents to be placed on every level if required by bco).

COMMON STAIRS AND CORRIDORS

Common corridors and stairs should be protected, i.e. within a 30 minute fire resisting enclosure, and should lead directly to outside. Wall and ceiling surfaces are to have the appropriate linings to inhibit surface spread of flame in accordance with BS476.

Meters located within the stairway should be enclosed with a secure cupboard which is separated from the escape route with fire resisting construction. All gas services within a protected stairway must be installed in accordance with The Gas Safety (Installation and Use) Regulations 1998.

BACKGROUND AND PURGE VENTILATION

Background ventilation - Controlable background ventilation via trickle vents to be provided to new habitable rooms at a rate of min 5000mm<sup>3</sup> and to kitchens, bathrooms, WCs and utility rooms at a rate of 5000mm<sup>3</sup>

Purge ventilation - Windows/rooftlights to have openable area in excess of 200mm<sup>2</sup> in each room, if the window opens more than 30° or 1/10th of the 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.

EXTRACT TO BATHROOM

Bathroom to have mechanical vent ducted to external air if required min 15 litres / sec extraction. Vent to be connected to light switch and to have 15 mm minimum void in roof 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 KITCHEN

Kitchen to have mechanical ventilation with an extract rating of 60/sec or 30/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.

PITCHED ROOF VENTILATION

Maintain a 50mm air gap above insulation in the roof pitch to ventilate roof. Provide opening in accordance with Approved Document G. Cold water supply to be provided 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 continuous 50mm air gap above the insulation for ventilation.

RAINWATER DRAINAGE

New rainwater goods to be new 110mm upvc half round gutters taken to and connected into 68mm dia upvc downpipes.

FOUL DRAINAGE

All existing foul water drainage to be tested for leakage, exposed for inspection (as required by BCO) and repaired or replaced where necessary.

All new above ground drainage and plumbing to comply with BS EN 12056-2 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 - 17m for 32mm pipe 4m for 40mm pipe  
Bathroom - 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 prEN 12380, placed at a height so that the outlet is above the top of the highest fitting. Waste pipes not to connect within 200mm of the WC connection. Supply hot and cold water to all fittings as appropriate.

NEW WINDOWS

New windows to be double glazed with 16mm argon gap and soft low-E glass. Window Energy Rating to be Band C or better and to achieve U-value of 1.6 W/m<sup>2</sup>K.

Where new windows are to be provided; if the area of openings is more than 25 per cent of the total floor area either the area of opening should be reduced to be not greater than 25 per cent or some compensation feature should be provided as described in paragraph 4.15 Approved Document L1b and as agreed with Building Control.

NEW EXTERNAL DOORS

New external doors to achieve a U-Value of 1.80W/m<sup>2</sup>K. 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.

ROOFLIGHTS

Min U-value of 1.6 W/m<sup>2</sup>K.  
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.

Where new windows are to be provided; if the area of openings is more than 25 per cent of the total floor area either the area of opening should be reduced to be not greater than 25 per cent or some compensation feature should be provided as described in paragraph 4.15 Approved Document L1b and as agreed with Building Control.

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 and Part K (Part N in Wales) of the current building regulation, 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.

PART C

1- Site Preparation and Resistance to Contaminants  
Reasonable precautions must be taken to ensure protection from contaminants and ground gases e.g. landfill gases, radon, vapours etc. in accordance with Approved Document C.

2- Resistance to Moisture

Assess all moisture risks including precipitation, wind driven spray, moisture emanating from the ground, as well as interstitial and surface condensation. Make appropriate provision to reduce all risks in accordance with the requirements of Approved Document C2.  
Ventilation to roof voids to be provided and any new roof insulation should be kept sufficiently clear of the eaves to maintain adequate ventilation.  
The ability of the walls, floors and roof to resist the passage of moisture to the inside of the building to be assessed and damp proof courses and membranes to be provided where necessary.