BUILDING RULES 1997

Rules made under s. 45, 46 and 47.

BUILDING RULES 1997

(LN. 1997/061)

Expired on 12.6.2007*

12.6.1997

Amending enactments	Relevant current provisions	Commencement date
None		

* *See s.52 of the Public Health Act (1950-07)*

ARRANGEMENT OF RULES.

NOTE: Throughout the Arrangement of Rules italics indicate deemed to satisfy provisions.

BUILDING RULES 1997

BUILDINGS

Part C: Preparation of site and resistance to moisture

C1 Interpretation of Part C
C2 Preparation of site
C3 Protection of floors next to the ground
C4 Deemed-to-satisfy pro visions for suspended limber floors
CS Deemed-to-satisfy provisions for floors of solid construction incorporating timber
C6 Protection of walls against moisture
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Part D: Structural stability

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D6 Deemed-to-satisfy provision for foundations of buildings having not more than four storeys (other than factories or storage buildings)
D7 Deemed-to-satisfy provisions for strip foundations Table to rule D7
D8 Structure above foundation:
D9 Deemed-to-satisfy provision for structural work of steel
D10 *Deemed-to-satisfy provision for structural work of aluminium*
D11 *Deemed-to-satisfy provisions for structural work of reinforced, prestressed or plain concrete*
D12 *Deemed-to-satisfy provisions for structural work of timber*
D13 *Deemed- to-satisfy provisions for structural work of bricks, blocks or plain concrete*
D14 *Deemed-to-satisfy provision for walls of stone, flints or clunches of bricks*
D15 *Deemed-to-satisfy provision for chimneys of bricks, blocks or plain concrete*
D16 *Deemed-to-satisfy provision for composite construction in structural steel and concrete*
D17 Further requirements for the structure of certain buildings
D18 *Deemed-to-satisfy provision for localisation of structural failure*
D19 *Deemed-to-satisfy provisions for the structure of certain buildings constructed of reinforced. prestressed or plain concrete*
D20 Use of high alumina cement for structural work

Part E: Safety in fire

SECTION 1- STRUCTURAL FIRE PRECAUTIONS

SECTION II-MEANS OF ESCAPE IN CASE OF FIRE

Part F: Thermal insulation

Schedule 11: Thermal insulation

Schedule 12: Sound insulation

BUILDING RULES 1997

PART A

Interpretation and general

SECTION I-INTRODUCTORY.

Al Title and commencement

(1) These rules may be cited as the Building Regulations 1997.

(2) These Rules shall come into operation on the 1st day of June, 1984.

A2 Transitional provisions

(1) In this rule–

PLANS means any notice given and any plan, section, specification or written particulars deposited with the Development and Planning Commission, and

WORK means the erection of a building, the alteration or extension of a building, the execution of works, the installation of a fitting or the making of a material change of use.

2) These rules shall not apply to–

(a) plans which were deposited before 1st June 1984; or

(b) work carried out in accordance with such plans with or without any departure or deviation from those plans; or

(c) work completed before that date.

(3) Notwithstanding the revocation effected by rule A3, the Building Rules (formerly styled the Building Bye-Laws) as amended shall continue to apply to:–

(i) plans deposited in accordance with those rules before 1st June, 1984; and

(ii) work carried out in accordance with such plans with or without any departure or deviation from those plans;

A3 Revocation

The Building Regulations (formerly styled the Building Bye-Laws) are hereby revoked, but without prejudice to the validity of anything done thereunder before the date of the coming into operation of these rules and subject to the transitional provisions in rule A2.

SECTION II - INTERPRETATION

A4 Interpretation

(1) In these rules, unless the context otherwise require–

"BOUNDARY" in relation to a building, means the boundary of the land belonging to the building (such land being deemed to include any abutting part of a street, or public passageway but only up to the centre line thereof); and BOUNDARY OF THE PREMISES shall be construed so as to include any such part to the same extent:

"COMMISSION" means the Development and Planning Commission;

"CONSERVATORY" means a conservatory of which the roof (and the ceiling, if any), is transparent or translucent;

"GOVERNMENT" means the Government of Gibraltar;

"GARAGE" includes a carport;

"HABITABLE ROOM" means a room used or intended to be used for dwelling purposes but not (except where so expressly provided) any room used only for kitchen or scullery purposes;

"KITCHEN OR SCULLERY PURPOSES" means the purposes of preparing, storing, treating, cooking or manufacturing food or drink intended for human consumption or the cleansing of utensils or appliances which come into contact with such food or drink;

"MOVEABLE DWELLING" means any tent, van or other conveyance whether on wheels or not and any other similar structu?e being a jent, conveyance or structure which is used regularly, or at certairi seasons only, or intermitently for human habitation;

"NEWTON" means that force which when applied to a body having a mass of one kilogram gives it an acceleration of one metre per second squared;

"NON-COMBUSTIBLE" means capable of being classified as non-combustible if subjected to the test for non-combustibility prescribed in B5476: Part 4: 1970; and COMBUSTIBLE shall be construed accordingly;

"PARTIALLY EXEMPTED BUILDING" means a building referred to in rule M(2)(a);

"SITE," in relation to a building, means the area of ground covered or to be covered by the building, including its foundations; and

"UNDER FORMER CONTROL–"

(a) in relation to a building, means a building the erection of which was–

(i) completed before 1st June, 1984;

(ii) completed on or after 1st June, 1984 in accordance with plans deposited with the Government before that date, with or without any departures or deviations from those plans; or

(iii) begun before but completed on or after 1st June, 1984 (being a building the erection of which was exempt from compliance with the provisions of all relevant rules in force immediately before that date); and

(b) in relation to an alteration or extension of a building, or the execution of any works or installation of any fittings, means any such alteration or extension, execution or installation which was–

(i) completed before 1st June, 1984;

(ii) completed on or after 1st June, 1984 in accordance with plans deposited with the local authority before that date, with or without any departures or deviations from those plans; or

(iii) begun before but completed on or after 1st June, 1984 (being an alteration or extension, execution of works or installation of fittings which was exempt from compliance with the provisions of all relevant rules in force immediately before that date).

(2) In these rules–

(a) "BASEMENT STOREY" (except in Part E) means a storey which is below the ground storey; or, if there is no ground storey, means a storey the floor of which is situated at such a level or levels that some point on its perimeter is below the level of the finished surface of the ground adjoining the building in the vicinity of that point;

"GROUND STOREY" (except in Part E) means a storey the floor of which is situated at such a level or levels that any given point on its perimeter is at or about but not below the level of the finished surface of the ground adjoining the building in the vicinity of that point; or, if there are two or more such storeys, means the higher or highest of these;

"SINGLE STOREY BUILDING" means a building consisting of a ground store only; and

"UPPER STOREY" means any storey other than a basement storey or ground storey; and

(b) unless the context otherwise requires, wherever these rules describe a building or part by reference to a number of storeys, that number does not include basement storeys.

(3) The abbreviations and symbols listed in the Table to this paragraph are used in these rule–

Table to Rule A4(3)

Abbreviation or symbol	Definition
(1)	(2)
Bs	British Standard
CP	British Standard Code of Practice
dB	decibel
°	degree
°C	degree Celsius
Hz	hertz
kg	kilogram
kN	kilonewton
kW	kilowatt
m	metre
m^2	square metre
m^3	cubic metre
mm	millimetre
mm^2:	square millimetre
min	minute
N	newton
W	Watt

(4) In these rules–

(a) any reference to a Part, rule or schedule which is not otherwise identified is a reference to a Part or rule of, or schedule to, these rules;

(b) any reference to a Section which is not otherwise identified is a reference to that Section of the Part in which the reference occurs;

(c) any reference to a rule which is not otherwise identified is a reference to that rule of the schedule in which the reference occurs;

(d) any reference to a paragraph or subparagraph which is not otherwise identified is a reference to that paragraph of the rule, rule or schedule, or to that subparagraph of the paragraph, in which the reference occurs; and

(e) any note in a Table or schedule shall be treated for all purposes as a substantive provision.

(5) In these rules–

(a) any reference to an enactment shall, unless the context otherwise requires, be construed as a reference to that enactment as amended, modified, extended, applied or re-enacted by or under any subsequent enactment;

(b) any reference to a British Standard or British Standard Code of Practice shall be construed as a reference to a British Standard or a British Standard Code of Practice published by the British Standards Institution; and

(c) any reference to a publication shall be construed as follows–

(i) in rule B2 and in any other case where no date is included in the reference is to the edition thereof current at 30th November, 1983 together with any amendments, supplements or addenda thereto current at that date;

(ii) in any case where a date is included in the reference, the reference is to the edition of that date, together with such amendments thereto as are specified in Schedule 1; and

(iii) any reference to any publication is a reference to so much only thereof as is relevant in the context in which the reference occurs.

(6) (a) For the purposes of this paragraph, the expression WORK SIZE in relation to a building component manufactured to comply with, a British Standard means the size specified in the relevant British Standard as the size to which the component is

required to conform, account being taken of any permissible deviations specified in that British Standard.

(b) Subject to the provisions of sub-paragraph (c), where in these rules a size limit is expressly prescribed or necessarily implied for a dimension of 8 building component or assembly of such components, that limit shall apply as follows–

(i) if the dimension is that of a component complying with a British Standard which specifies a relevant work size, that limit shall apply to the relevant work size;

(ii) if the dimension is that of a timber component which does not comply with a British Standard relating to the particular component but consists of softwood which is dimensionally in accordance with BS447I: Part 1:1969 that limit shall apply to the basic size in the case of sawn timber and to the finished size in the case of planed timber;

(iii) if the dimension is the thickness of a wall or other assembly of bricks or blocks (being bricks or blocks complying with a British Standard which specifies a relevant work size) and that dimension is determined by one of the dimensions of a brick or block, that limit shall apply to the relevant work size of the brick or block; and

(iv) in all other circumstances, that limit shall apply to the actual size of the component or assembly of components.

(c) Notwithstanding the provisions of subparagraph (b), any reference to the internal diameter of a pipe shall be taken as a reference to its nominal diameter or size.

(7) In these rules–

(a) any reference to a building shall, unless the context otherwise requires, extend to and include any part of a building, and any reference to the purpose for which a building is used shall extend to, include or mean the purpose for which it is intended to be used; and

(b) any reference to a building or compartment of a specified purpose group shall be construed in accordance with the provisions of rule E2.

(8) In these rules, any of the following operations shall be deemed to be the erection of a building–

(a) the re-erection of any building or part of a building when an outer wall of that building or (as the case may be) that part of a building has been pulled down, or burnt down, to within 10 feet of the surface of the ground adjoining the lowest storey of that building or of that part of the building;

(b) the re-erection of any frame building or part of a frame building when that building or part of a building has been so far pulled down, or burnt down, as to leave only the framework of the lowest storey of that building or of that part of the building; and

(c) the roofing over of any open space between walls or buildings.

(9) Where any provision (in these rules called a deemed-to-satisfy provision) states that the use of a particular material, method of construction or specification shall be deemed to satisfy the requirements of any rule or part thereof, that provision shall not be construed so as to require any person necessarily to use such material, method of construction or specification.

SECTION III - APPUCATION

A5 Exemptions

(1) These rules do not apply to any buildings specified in section 55 of the Public Health Act[1] and shall not apply to any of the following buildings or to the execution of works or the installation of fittings in or in connection with such building–

(a) a building erected in connection with any mine or quarry other than a house or a building used as offices or showrooms; or

(b) a moveable dwelling;

(c) building, the construction of which is subject to the Explosives Act 1961[2];

(2) (a) For the purposes of this paragraph, PARTIALLY EXEMPTED BUILDING means any building, other than an air supported structure, which belongs to one of the classes described in Part A of Schedule 2.

(b) In the application of these rules to–

[1] 1950-07
[2] 1960-10

(i) the erection of any partially exempted building; or

(ii) the execution of any works or installation of any fittings in connection with any such building; or

(iii) the alteration or extension of any such building in such a way that it will remain a partially exempted building as so altered or extended,

it shall not be necessary to comply with any provision of these rules except the provisions specified in columns (2), (3) and (4) of Parts A and B of Schedule 2 in relation to the class to which such building belongs (which, in the case of an alteration or extension, means the class to which the building as altered or extended belongs).

A6 Application to erection of buildings

Subject to the provisions of rule A5, Parts A to L of these rules shall apply to the erection of a building.

A7 Application to alterations and extensions

(1) Subject to the provisions of rule A5, Parts A to L, shall apply to:–

(a) a structural alteration or extension of an existing building (irrespective of when that building was erected); and

(b) the existing building as affected by that alteration or extension to the extent (subject to the provisions of rules A9 and K3) of prohibiting any alteration or extension which would cause a new or greater contravention of any rule.

(2) In applying the rules under paragraph (1)(a), the alteration or extension shall be treated as if it were part of a building being newly erected identical to and to be used for the same purposes as the altered or extended building.

(3) In determining for the purposes of paragraph (1)(b) whether the alteration or extension would cause a new or greater contravention of any rule, the following provisions shall have effect–

(a) the rules shall be applied to the altered or extended building, such building being treated as if it were being newly erected in its proposed form for the purposes for which it will be used;

(b) the rules shall be applied to the existing building, such building being treated as if it were being newly erected in its existing form but for the purposes for which it will be used when altered or extended; and

(c) the alteration or extension shall be regarded as being such as would cause a new or greater contravention if (when the rules are applied as directed in sub-paragraphs (a) and (b)) the altered or extended building–

(i) contravenes any rule which does not apply to the existing building; or

(ii) contravenes any rule which is satisfied by the existing building; or

(iii) contravenes to a greater extent any rule which is contravened by the existing building.

A8 Application to works and fittings

Subject to any express provision to the contrary and to the provisions of rule A5–

Part A (Interpretation and general)

In Part B (Materials), rules B1 and B2

Part M (Heat-producing appliances and incinerators)

Part N (Drainage, private sewers and cesspools)

Part P (Sanitary conveniences)

shall apply to the execution of any works and the installation of any fitting (whether by way of new work or by way of replacement) to which any of those Parts respectively relate.

A9 Application to material change of use

(1) For the purposes of these rules, a change in the purposes for which a building or a part of a building is used shall be deemed to be a material change of use in any one of the following cases but in no other case:

CASE A
Where a building or a part of a building, being a building or part which was not originally constructed for occupation as a house or part thereof or

which, though so constructed, has been appropriated to other purposes, becomes used as a house or part thereof; and in such case the following provisions of these rules shall apply–

Part A (Interpretation and general)

Part C (Preparation of site and resistance to moisture) except C2 and C9

In Part E, Section I (Structural fire precautions) except rules E7 and E15

Part J (Refuse disposal)

In Part K (Open space, ventilation and height of rooms)

(a) if building not originally a house: rules K1, K2 and K4 to K7

(b) if originally a house: rules K1, K2, K3(4) and K4 to K7

In Part L (Chimneys, flue pipes, hearths and fireplace recesses

(a) buildings erected under former control: rules L1 to L3, L4 (except sub-paragraphs (1)(c)(ii) and (1)(d)), L5, L7 to L13 and L15 to L22

(b) other buildings: all rules.

CASE B

Where a building or a part of a building, being a building or part which was originally constructed for occupation as a house by one family only, becomes occupied by two or more families and is so altered or extended as to create separate dwellings; and in such case the following provisions of these rules shall apply–

Part A (Interpretation and general)

In Part E, Section I (Structural fire precautions)–

(a) buildings or parts of buildings which, as so altered or extended as aforesaid, comprise not more than one basement storey, a ground storey and two upper storeys: all rules except rules E7, E9(6), E10(4), E13 and E15

(b) other buildings or parts of buildings: all rules except rules E7 and E15

Part J (Refuse disposal)

In Part K (Open space, ventilation and height of rooms): rules K1, K2 and K4 to K7

in Part L (Chimneys, flue pipes, hearths and fireplace recesses–

(a) buildings erected under former control: rules L1 to L3, L4 (except sub-paragraphs (1)(c)(ii) and (1)(d)), L5, L7 to L13 and L15 to L22

(b) other buildings: all rules.

CASE C

Any case not falling within the definition of any other case specified in this paragraph, where the purpose for which a building, or part of a building, is used is changed to such an extent that the purpose group of that building or part, as determined by rule E2, is changed; and in such case (subject to the provisions of rule A5) the following provisions of these rules shall apply–

Part A (Interpretation and general)

In Part E, Section 1 (Structural fire precautions)–

(a) in every case other than those specified under sub-paragraph (b) and (c): all rules

(b) in any case where the purpose group of a building or part of a building is changed to purpose group II and, after any alteration or extension associated with the change of use has been completed, the height of that building or (if separated as described in rule E5(1)(b)) that part does not exceed 15 m measured in accordance with rule E3: all rules except rules E7, E9(6), E10(4) and E13 and except that rule E5(2) shall not apply so as to require a minimum period of fire resistance of more than one hour for an element of structure forming part of a basement storey

(c) in any case where the purpose group of a building or part of a building is changed to purpose group IV, V, VI, VII or VIII and, after any alteration or extension associated with the change of use has been completed, the height of that building or (if separated as described in rule E5(1)(b)) that part does not exceed 15 m measured in accordance with rule E3: all rules except, in so far only as it relates to a compartment floor, rule E9(6).

CASE D

Any case not falling within the definition of Case A where either–

(a) the purpose for which a building or part of a building was constructed to be used was such that it was expressly exempted from the requirements of all or any of the building bylaws or building rules in force at that time and the purpose for which it is used is changed to such an extent that, if it had been constructed for that purpose, it would not have been so exempted; or

(b) the purpose for which a building or part of a building is used is such that (irrespective of when that building or part was erected) it falls within any one of the descriptions of partially exempted buildings in Part A of Schedule 2 and the purpose for which it is used is changed to such an extent that it ceases to fall within that description;

and in such case (subject to the provisions of rule A5) the following provisions of these rules shall apply to the building or part of the building–

Part A (Interpretation and general)

Part B (Materials)

Part C (Preparation of site and resistance to moisture) except C2

Part D (Structural stability)

In Part E, Section I (Structural fire precautions) except rules E7 and E15

Part F (Thermal insulation)

Part G (Sound insulation)

Part H (Stairways, ramps, balustrades and vehicle barriers)

Part J (Refuse disposal)

In Part K (Open space, ventilation and height of rooms): rules K1, K2 and K4 to K7

In Part L (Chimneys, flue pipes, hearths and fireplace recesses)–

(a) buildings erected under former control: rules L1 to L3, L4 (except sub-paragraphs (1)(c)(ii) and (1)(d), L5, L7 to L13 and L15 to L22

(b) other buildings: all rule

(2) Where a material change of use neither involves nor is accompanied by an alteration or extension, the provisions referred to in paragraph (1) shall apply to the building or part of the building in which the change of use occurs as if it were a new building identical to the building as it exists and to be used for the same purpose or purposes as the building will have after the change of use.

(3) where a material change of use involves or is accompanied by an alteration or extension–

(a) the provisions referred to in paragraph (1) (other than rule A7) shall apply to the building or part of the building in which the change of use occurs as if it were part of a new building identical to the building as altered or extended and to be used for the same purpose or purposes as that building will have after the change of use; and

(b) the application of rule A7 by paragraph (1) shall be effective to apply any requirements additional to those directly applied by that paragraph.

SECTION IV – PROCEDURAL AND MISCELLANEOUS PROVISIONS

A10 Giving of notice and deposit of plans

(1) Subject to the provisions of paragraphs (2) and (3), any person who intends to–

(a) erect any building; or

(b) make any structural alteration of or extension to a building; or

(c) execute any works or install any fitting in connection with a building; or

(d) make any material change of use of a building,

shall, if any provision of these rules applies to such operation or such change of use, give notice and deposit plans, sections, specifications and written particulars in accordance with the relevant rules of Schedule 3.

(2) The provisions of paragraph (1) relating to the making of a structural alteration shall not apply to the carrying out of structural work associated with an operation to which either paragraph (3)(a) or (3)(b) relates if the extent of the work does not exceed that described therein.

(3) The provisions of paragraph (1) relating to the installation of a fitting shall not apply to–

(a) the installation of an appliance to which Part M relates (other than a high-rating appliance or an appliance described in sub-paragraph (b) of this paragraph) by way of replacement of an existing appliance if compliance with the relevant rules in that Part does not require the carrying out of any structural work other than such work as may be necessary in order to comply with rule M4(11); or

(b) the installation, whether or not by way of replacement, of a Class II gas appliance or of a Class I or Class II incinerator which employs gas as a means of igniting refuse if–

(i) the appliance is installed by, or under the supervision of, an approved Gas Engineer;

(ii) compliance with the relevant rules in Part M does not require the carrying out of. any structural work other than the construction of a flue pipe which is wholly within the room or internal space in which the appliance is installed and conveys the products of combustion from the appliance to an existing flue in a chimney or a flue pipe or to the external air through an existing opening in an external wall; or

(c) the installation of a fitting to which Part N or P relates by way of replacement of an existing fitting if compliance with the relevant rules in that Part does not require to carrying out of any structural work.

(4) In paragraph (3) of this rule, words and expressions have the same meaning as in Part M.

A11 Notice of commencement and completion of certain stages of work

(1) In this rule

(a) "BUILDER" means any person carrying out or intending to carry out any such operation as is referred to in rule A10(1)(a), (b) or (c) to which any of these rules apply; and

(b) in the calculation of a period of twenty-four hours in respect of the giving of twenty-four hours' notice under paragraph (2), no account shall he taken of a Saturday, Sunday, Christmas Day,

New Year's Day, Good Friday, Bank holiday or day appointed for public thanksgiving or mourning.

(2) Subject to the provisions of paragraph (6), a builder shall furnish the Government with–

(a) not less than twenty-four hours' notice in writing of the date and time when the operation will be commenced;

(b) not less than twenty-four hours' notice in writing before the covering up of any excavation for a foundation, any foundation, any damp-proof course or any concrete or other material laid over a site;

(c) not less than twenty-four hours' notice in writing before any drain or, private sewer to which these rules apply will be haunched or covered in any way; and

(d) notice in writing not more than seven days after the work of laying such drain or private sewer has been carried out, including any necessary work of haunching or surrounding the drain or private sewer with concrete and backfilling the trench.

(3) If the builder neglects or refuses to give any such notice, he shall comply with any notice in writing from the Government requiring him within a reasonable time to cut into, lay open or pull down so much of the building, works or fittings as prevents the Government from ascertaining whether any of these rules have been contravened.

(4) If the builder, in accordance with any notice in writing received from the Government which specifies the manner in which any building or works or fittings contravenes the requirements of these rules, has altered or added to the building, works or fittings so as to secure compliance with these rules, he shall, within a reasonable time after the completion of such alteration or addition. give notice in writing to the Government of its completion.

(5) Subject to the provisions of paragraph (6), the builder shall give to the Government notice in writing of–

(a) the erection of a building, not more than seven days after completion, or (if a building or part of a building is occupied before completion) not less than seven days before occupation as well as not more than seven days after completion;

(b) any alteration or extension of a building, not more than seven days after completion; and

(c) the execution of works or the installation of fittings in connection with a building, not more than seven days after completion.

(6) The requirements of paragraphs (2) and (5) shall not apply to the installation of any fitting if the giving of notices and tbe deposits of plans, sections, specifications and written particulars are not required under the provisions of rule A10.

A12 Application for dispensation or relaxation

Any application for a direction dispensing with or relaxing any requirement of these rules shall be submitted in duplicate in the form prescribed in Schedule 4.

A13 Exercise of power of dispensation or relaxation

(1) The power under section 48 of the Public Health Act to dispense with or relax any requirement of the rules specified below shall, in accordance with the said section be exerciseable by the Development and Planning Commission in relation to any application for dispensation or relaxation.

Part B (Materials)

Part C (Preparation of site and resistance to moisture)

Part E (Safety in fire) except when applied to–

(a) a building, or part of a building, which exceeds 7000 m^3 in capacity; or

(b) a building, or part of a building, in any complex of buildings in multi-occupation, being a complex which exceeds 4000 m^3 in area and consists of or incorporates a shopping precinct; or

(c) an air supported structure

Part F (Thermal insulation)

Part G (Sound insulation)

Part H (Stairways, ramps, balustrades and vehicle barriers)

Part J (Refuse disposal)

Part K (Open space, ventilation and height of rooms)

Part L (Chimneys, flue pipes, hearths and fireplace recesses)

Part M (Heat-producing appliances and incinerators)

Part N (Drainage, private sewers and cesspools)

Part P (Sanitary conveniences).

(2) Any notification by the Government to an applicant that they have refused his application for dispensation or relaxation of any requirement of these rules shall indicate the provisions of section 52 of the Public Health Act.

A14 Testing of drains and private sewers

A duly authorised officer of the Government shall be permitted to make such tests of any drain or private sewer as may be necessary to establish compliance with any of the provisions of Part N.

A15 Sampling of materials

A duly authorised officer of the Government shall at all times be permitted to take such samples of the materials to be used in the erection, alteration or extension of a building, or the execution of works or the installation of fittings, as may be necessary to enable the Government to ascertain whether such materials comply with the provisions of these rules.

A16 Short-lived or otherwise unsuitable materials

(1) Section 33 of the Public Health Act (which enables the Government to reject plans for the construction of buildings of materials specified in building rules as being materials which are, in the absence of special care, liable to rapid deterioration or are otherwise unsuitable for use in the construction of permanent buildings, or to impose a period after which such buildings must be removed and conditions as to their use) shall apply to–

(a) any sheet material whether flexible or rigid which constitutes the whole or part of an external wall or roof of a building and is supported directly or indirectly by air or other gaseous substances; and

(b) any material specified in Tables 1 or 2 of Schedule 5 if used as the weather-resisting part of any external wall or roof other than-

(i) a wall or roof of a partially exempted building within Class 1, 2, 3 or 7 as described in Part A of Schedule 2; or

(ii) an existing wall or roof of a building or part of a building in which a material change of use Case A, B or C (as defined in rule 9(1)) occurs.

(2) In determining for the purposes of paragraph (1)(b) whether a material is used as the weather-resisting part of an external wall or roof, no account shall be taken of that material being either–

(a) painted; or

(b) coated, surfaced or rendered with any other material which, when so used, does not in itself constitute effective resistance against weather.

PART B
Materials

B1 Fitness of materials

(1) Subject to the provisions of paragraph (2), any materials used–

(a) in the erection of a building;

(b) in the structural alteration or extension of a building;

(c) in the execution of works or the installation of fittings, being works or fittings to which any provision of these rules applies; or

(d) for the backfilling of any excavation on a site in connection with any building or works or fittings to which any provision of these rules applies,

shall be–

(i) of a suitable nature and quality in relation to the purposes for and conditions in which they are used;

(ii) adequately mixed or prepared; and

(iii) applied, used or fixed so as adequately to perform the functions for which they are designed.

(2) The requirements of paragraph (1) shall apply only in so far as they are necessary for ensuring public health and safety.

B2 Deemed-to-satisfy provisions regarding the fitness of materials

The use of any material or any method of mixing or preparing materials or of applying using or fixing materials which conforms with a British Standard or a British Standard Code of practice prescribing the quality of material or standards of workmanship shall be deemed to be a sufficient compliance with the requirements of rule B1(1) if the use of that material or method is appropriate to the purpose for and conditions in which it is used.

B3 Special treatment of softwood timber

Softwood timber used in the construction of a roof or floor or fixed within a roof or floor, including any ceiling joist within the void spaces of the roof or floor, shall be adequately treated with a suitable preservative to prevent infestation and decay

1950-07
EXPIRED
Subsidiary
1997/061

BUILDINGS

PART C
Preparation of site and resistance to moisture

C1 Interpretation of Part

In this Part–

EXCEPTED BUILDING–

(a) means a building which is intended to be used wholly for the storage of goods or for the accommodation of plant or machinery and in which the only persons habitually employed are engaged solely in the general care, supervision, rule, maintenance, storage or removal of such goods, plant or machinery; and

(b) without prejudice to the foregoing generality, includes a building which is intended to be used wholly for a purpose such that compliance with the requirements of any rule in this Part would not serve to increase protection to the health of persons employed in that building; and

FLOOR includes any base or structure between the surface of the ground, or the surface of any hardcore laid upon the ground, and the upper surface of the floor.

C2 Preparation of site

(1) The site of any building, other than an excepted building, shall be effectively cleared of turf and other vegetable or deleterious matter.

(2) wherever the dampness or position of the site of a building renders it necessary, the subsoil of the site shall be effectively drained or such other steps shall be taken as will effectively protect the building against damage from moisture.

(3) Where, during the making of an excavation in connection with a building, works or fittings, an existing subsoil drain is severed, adequate precautions shall be taken to secure the continued passage of subsoil water through such drain or otherwise to ensure that no subsoil water entering such drain causes dampness of the site of the building

C3 Protection of floors next to the ground

(1) Such part of a building (other than an excepted building) as is next to the ground shall have a floor which is so constructed as to prevent the passage of moisture from the ground to the upper surface of the floor.

(2) Any floor which is next to the ground shall be so constructed as to prevent any part of the floor being adversely affected by moisture or water vapour from the ground.

(3) No hardcore laid under such floor shall contain water-soluble sulphates or other deleterious matter in such quantities as to be liable to cause damage to any part of the floor.

C4 Deemed-to-satisfy provisions for suspended limber floors

Where a floor is constructed as a suspended floor and incorporates timber, the requirements of rule C3(1) and (2) shall be deemed to be satisfied if–

(a) the ground surface is covered with a layer of concrete not less than 100 mm thick, composed of cement and fine and coarse aggregate conforming to BS882: Part 2: 1973 in the proportions of 50 kg of cement to not more than 0.1 m^3 of fine aggregate and 0.2 m^3 of coarse aggregate, properly laid on a bed of hardcore consisting of clean clinker, broken brick or similar inert material free from water-soluble sulphates or other deleterious matter in such quantities as to be liable to cause damage to the concrete;

(b) the concrete is finished with a trowel or spade finish and so laid that its top surface is not below the highest level of the surface of the ground or paving adjoining any external wall of the building;

(c) there is a space above the upper surface of the concrete of not less than 75 mm to the underside of any wall plate, and of not less than 125 mm to the underside of the suspended timbers, and such space is clear of debris and has adequate through ventilation; and

(d) there are damp-proof courses in such positions as to ensure that moisture from the ground cannot reach any timber or other material which would be adversely affected by it.

C5 Deemed-to-satisfy provisions for floors of solid construction incorporating timber

Where a floor is constructed as a solid floor and incorporates timber, the requirements of rule C3(1) and (2) shall be deemed to be satisfied if–

(a) the ground surface is covered in the manner described in rule C4(a); and

(b) either–

(i) the concrete incorporates a dam-proof sandwich membrane consisting of a continuous layer of hot applied soft bitumen or coal tar pitch not less than 3 mm thick, or consisting of not less than three coats of bitumen solution, bitumen/rubber emulsion or tar/rubber emulsion; or

(ii) the timber is laid or bedded directly upon a damp-proof course of asphalt or pitchmastic not less than 12.5 mm thick; or

(iii) (where the floor incorporates wood blocks not less than 16 mm thick) the blocks are dipped in an adhesive of hot soft bitumen or coal tar pitch and so laid upon the concrete that the adhesive forms a continuous layer;

(c) such membrane, damp-proof course or layer of adhesive is–

(i) situated at a level not lower than the highest level of the surface of the ground or paving adjoining any external wall of the building; and

(ii) continuous with, or joined and sealed to, any barrier to moisture inserted in any adjoining floor, wall, pier, column or chimney so as to ensure compliance with any relevant requirements of rules C3 or C6; and

(d) where the timber is fixed to wooden fillets embedded in concrete, the fillets are treated in accordance with the provisions of BS3452: 1962 or BS4072:1974.

C6 Protection of walls against moisture

Any wall, pier or column of a building and any chimney shall be so constructed as not to transmit moisture from the ground–

(a) to any material which is used in its construction or in the construction of any other part of the building and is of such a nature as to be liable to be adversely affected by such moisture; or

(b) (unless the building is an excepted building or the chimney is a separate building) to the inside of the building.

C7 Deemed-to-satisfy provisions for protection of walls against moisture

The requirements of rule C6 shall be deemed to be satisfied if the wall, pier, column or chimney–

(a) has a damp-proof course which, in the case of an external wall or of a pier, column or chimney forming part of an external wall, is at a height of not less than 150 mm above the finished surface of the adjoining ground and any paving laid on the adjoining ground;

(b) has such other additional barriers to moisture in continuation of the damp-proof course required by sub-paragraph (a) as may be necessary to ensure that moisture is not transmitted to any timber or other material which would be adversely affected by it or (unless the building is an excepted building or the chimney is a separate building) to the inside of the building; and

(c) being a wall, pier, column or chimney which extends below the level of the damp-proof course required by sub-paragraph (a), is constructed below that level wholly of materials not likely to be adversely affected by moisture from the ground.

C8 Weather resistance of external walls

Any external wall, including any parapet, pier or column forming part of an external wall, and any chimney shall be so constructed as not to transmit moisture due to rain or snow to any part of the building which would be adversely affected by such moisture and (unless the building is an excepted building or the chimney is a separate building) shall be so constructed as adequately to resist the penetration of such moisture to the inside of the building.

C9 Prevention of damp in certain cavity walls

(1) Where damp-proof courses are inserted in the leaves of any cavity wall constructed of bricks or blocks in order to satisfy the requirements of rule C6, the cavity shall extend not less than 150 mm below the level of the lower damp-proof course unless the structure forming the bottom of the cavity complies with the requirements of paragraph (2) as to a bridging.

(2) In any such wall, wherever a cavity is bridged otherwise than by–

(a) a wall tie; or

(b) a bridging which occurs at the top of a wall in such a position that it is protected by a roof,

a damp-proof course or flashing shall be inserted in such a manner as will prevent the passage of moisture from the outer leaf to the inner leaf of the wall.

(3) Wherever there is an opening in such a wall, the jambs shall have a suitable vertical damp-proof course unless the cavity is closed in such other manner as will prevent the passage of moisture from the outer leaf to the inner leaf of the wall.

C10 Weather resistance of roofs

The roof of any building shall be weatherproof and so constructed as not to transmit moisture due to rain or snow to any part of the structure of the building which would be adversely affected by such moisture.

PART D
Structural stability

D1 Interpretation of Part

In this Part–

DEAD LOAD means the force due to the static mass of all walls, partitions, floors, roofs and finishes, including all other permanent construction;

IMPOSED LOAD means the load assumed to be produced by the intended occupancy or use, including distributed, concentrated impact, inertia and snow loads, but excluding wind loads; and

WIND LOAD means all loads due to the effect of wind pressure or suction.

D2 Calculation of loading

(1) For the purposes of paragraph (3)–

BEAM includes any joist, purlin, rafter, rib or truss;

FLOOR includes any part of a floor to be used as a corridor and any balcony used in connection with a floor;

PLAN AREA in relation to a floor, ceiling or roof means the area thereof measured on plan; and

SLAB includes boarding, roof decking and any beams which are spaced apart at a distance of not more than 1m between centres.

(2) Subject to the provisions of rule D17, in determining for the purposes of this Part the loads to which a building will be subjected–

(a) dead loads shall be calculated in accordance with CP 3: Chapter V: Part 1:1967;

(b) imposed loads shall be calculated–

(i) in accordance with CP3: Chapter V: Part 1:1967; or

(ii) in the case of the imposed load on a floor, ceiling or roof of a house having not more than three storeys and intended for occupation by one family only, either in accordance with that code or in accordance with paragraph (3):

Provided that, if any actual imposed load will exceed or is likely to exceed the load so calculated, such actual load shall be substituted for the load so calculated; and

(c) wind loads shall be calculated in accordance with CP3: Chapter V: Part 2:1972:

Provided that–

(i) in no case shall the factor S3 be taken as less than 1; and

(ii) if a building falls outside the range of those for which that code gives force and pressure coefficients, values shall be used which are appropriate in relation to that building, having regard to its construction, size, proportions, shape, profile and surface characteristics.

(3) The imposed load on any ceiling or roof of a house having not more than three storeys may be taken to be equivalent to a uniformly distributed load per square metre of plan area of not less than–

(a) in the case of a ceiling, 720N/m^2; or

(b) in the case of a roof (whether flat or pitched) to which there is only such access as may be necessary for the purposes of maintenance or repair, 720N/m^2 less 50N for every 3° by which the pitch exceeds 30°

D3 Foundations

The foundations of a building shall–

(a) safely sustain and transmit to the ground the combined dead load, imposed load and wind load in such a manner as not to cause any settlement or other movement which would impair the stability of, or cause damage to, the whole or any part of the building or of any adjoining building or works;

(b) be taken down to such a depth, or be so constructed, as to safeguard the building against damage by swelling, shrinking or freezing of the subsoil; and

(c) be capable of adequately resisting any attack by sulphates or any other deleterious matter present in the subsoil.

D4 Deemed-to-satisfy provision for foundations

The requirements of rule D3 shall be deemed to be satisfied if die foundations of a building are constructed in accordance with CP2004: 1972.

D5 Deemed-to-satisfy provisions for reinforced concrete foundations

(1) Subject to the provisions of paragraph (2), if the foundations of a building are constructed wholly or in part of reinforced concrete, the requirements of rule D3(a) shall be deemed to be satisfied, in so far as those parts of the foundations constructed of reinforced concrete are concerned, if the work complies with either–

(a) CP110: Part 1: 1972 as read with CP110: Part 2: 1972 and CP110:Part 3: 1972; or

(b) CP114: 1969.

(2) The recommendations of the publications specified in paragraph (1)(a) shall not be used in conjunction with those of the publication specified in paragraph (1)(b).

D6 Deemed-to-satisfy provision for foundations of buildings having not more than four storeys (other than factories or storage buildings)

If foundations form part of a building having not more than four storeys (other than a factory or storage building), the requirements of rule D3(a) shall be deemed to be satisfied if nich foundations are constructed in accordance with CP 101: 1972.

D7 Deemed-to-satisfy provisions for strip foundations

if the foundations of a building are constructed as strip foundations of plain concrete situated centrally under the walls, the requirements of rule D3(a) shall be deemed to be satisfied if–

(a) there is no made ground or wide variation in the type of subsoil within the loaded area and no weaker type of soil exists below the soil on which the foundations rest within such a depth as may impair the stability of the structure.

(b) the width of the foundations is not less than the width specified in the Table to this rule in accordance with the related particulars specified in the Table

(c) the concrete is composed of cement and fine and coarse aggregate conforming to BS882: Part 2: 1973 in the proportion of 50 kg of cement to not more than 0.1 m^3 of fine aggregate and 0.2 m^3 of coarse aggregate;

(d) the thickness of the 'concrete is not less than its projection from the base of the wall or footing and is in no case less than 150 mm,

(e) where the foundations are laid at more than one level, at each change of level the higher foundations extend over and unite with the lower foundations for a distance of not less than the thickness of the foundations and in no case less than 300 mm; and

(f) where there is a pier, buttress or chimney forming part of a wall, the foundations project beyond the pier, buttress or chimney on all sides to at least the sanie extent as they project beyond the wall.

Table to Rule D7 **Deemed-to-satisfy provisions**

Minimum width of strip foundations

Type of subsoil	Condition of subsoil	Field test applicable	Minimum width in millimetres for total load in kilonewtons per lineal metre of load bearing wall in of not more than–					
			20kN /m	30kN /m	40kN /m	50kN /m	60kN /m	70kN /m
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
I Rock	Not inferior	Requires at least a pneumatic	In each case equal to the width of wall					

	to sandstone, limestone or firm chalk	or other mechanically operated pick for excavation						
II Gravel Sand	 Compact Compact	Requires pick for excavation. Wooden peg 50 mm square in cross-section hard to drive beyond 150 mm	250	300	400	500	600	650
III Clay Sandy clay	 Stiff Stiff	Cannot be moulded with the fingers and requires a pick or pneumatic or other mechanically operated spade for its removal	250	300	400	500	600	650
IV Clay Sandy clay	 Firm Firm	Can be moulded by substantial pressure with the fingers and can be excavated with Graft or spade	300	350	450	600	750	850
V Sand Silty sand Clayey sand	 Loose Loose Loose	Can be excavated with a spade Wooden peg 50mm square in cross-section can be easily driven	400	600	Note: Foundations do not fall within the provisions of rule D7 if the total load exceeds 30kN/m			
VI Silt Clay Sandy clay Silty clay	 Soft Soft Soft Soft	Fairly easily moulded in the fingers and readily excavated	450	650	Note: In relation to types VI and VII, foundations do not fall within the provisions of rule D7 if the total load exceeds 30kN/m			
VII Silt Clay Sandy clay Silty clay	 Very soft Very soft Very soft Very soft	Natural sample in winter conditions exudes between fingers when squeezed in fist	600	850				

D8 Structure above foundations

The structure of a building above the foundations shall safely sustain and transmit to the foundations the combined dead load, imposed load and wind load without such deflection or deformation as will impair the stability of, or cause damage to, the whole or any part of the building.

D9 Deemed-to-satisfy provision for structural work of steel

The requirements of rule D8 shall be deemed to be satisfied as to any structural work of steel if the work complies with BS449: Part 2:1969 as read with Addendum No.1 (April 1975) to B5449: Part 2:1969 and Supplement No.1 (PD 3343) to BS 449: Part 1: 1970.

D10 Deemed-to-satisfy provision for structural work of aluminium

(1) Subject to paragraph (2), tile requirements of rule D8 shall be deemed to be satisfied as to any structural work in one of tile principal or supplementary aluminium, alloys designated in section 1.1 of CP 118: 1969 if the work complies with that publication.

(2) For the purposes of section 5.3 of CP 118: 1969, the structure shall be classified as a safe-life structure.

D11 Deemed-to-satisfy provisions for structural work of reinforced, prestressed or plain concrete

(1) Subject to the provisions of paragraph (2), the requirements of rule D8 shall be deemed to be satisfied as to any structural work (whether cast in-situ or precast) of reinforced, prestressed or plain concrete if the work complies with–

(a) CP110: Part 1: 1972 as read with CP110: Part 2: 1972 and CP110:Part 3: 1972; or

(b) in the case of work of reinforced, prestressed or precast concrete, CP114: 1969, CP115: 1969 or CP116: 1969 as read with CP116: Addendum No.1: 1970 whichever is appropriate.

(2) The recommendations of the publications specified in paragraph (1)(a) shall not be used in conjunction with those of any publication specified in paragraph (1)(b).

D12 Deemed-to-satisfy provisions for structural work of timber

The requirements of rule D8 shall be deemed to be satisfied as to any structural work of timber if–

(a) the work complies with CP 112: Part 2: 1971; or

(b) in the case of work which–

(i) consists of a floor, ceiling or roof of a house which has not more than three storeys and is intended to be occupied by one family only; and

(ii) includes any timber member within the meaning of Schedule 6, that member complies with the rules contained in that schedule and the work in all other respects complies with CP 112: Part 2: 1971; or

(c) in the case of work which consists of a roof of trussed rafter construction, the work complies with CP 112: Part 3: 1973.

D13 Deemed-to-satisfy provisions for structural work of bricks, blocks or concrete

(1) The requirements of rule D8 shall be deemed to be satisfied as to any structural work of bricks, blocks or plain concrete if–

(a) the work complies with CP111: Part 2: 1970; or

(b) the work complies with BS5628 Part I 1978 and Part II; or

(c) in the case of work comprising a wall constructed of bricks or blocks to which Schedule 7 applies, the thickness of such wall is determined in accordance with the rules of that Schedule and the work in all other respects complies with CP121: Part I: 1973; or

(2) The recommendations of the publications specified in paragraph 1(a) shall not be used in conjunction with those of any publication specified in paragraph 1(b).

D14 Deemed-to-satisfy provision for walls of stone, flints or Clunches of bricks

The requirements of rule D8 shall be deemed to be satisfied as to any wall constructed of stone, flints, clunches of bricks or other burnt or vitrified material, if such wall is one to which Schedule 7 applies and it is constructed in accordance with the rules of that schedule.

D15 Deemed-to-satisfy provision for chimneys of bricks, blocks or plain concrete

(1) The requirements of rule D8 shall ,be deemed to be satisfied as to any wholly external part of a chimney or similar structure constructed of bricks, blocks. or plain concrete which is not supported by adequate ties or otherwise made secure if its height, measured from the level of the highest point in line of junction with the roof, gutter or other part of the building and from, any higher level to the top of such external part (including in the case of a chimney, any pot or other flue terminal), is not more than four-and-half times its width at that level.

(2) For the purpose of this rule: the width of a chimney or similar structure at any level shall be taken to be the least horizontal dimension at that level which can be shown on an elevation of the chimney or structure from any direction.

D16 Deemed-to-satisfy provision for Composite construction in structural steel and Concrete

The requirements of rule D8 shall be deemed to be satisfied as to any composite construction in structural steel and concrete if the work complies with CP 117: Part 1: 1965.

D17 Further requirements for the structure of certain buildings

(1) In addition to the requirements of rule D8, the provisions of this rule shall apply to a building having five or more storeys (including basement storeys, if any).

(2) In this rule–

PORTION, in relation to a structural member, means that part of a member which is situated or spans between adjacent supports or between a support and the extremity of a member:

Provided that, in the case of a wall, a portion shall be taken to have a length which is the lesser of the following, namely, the 'length determined in accordance with the preceding provisions of this definition or two and a quarter times the height of the portion (or, if its height varies, its greatest height);

STOREY means that part of a building which is situated between either–

(a) the top surfaces of two vertically adjacent floors of the building; or

(b) the top surface of the uppermost floor and the roof covering of the building;

STRUCTURAL FAILURE means the failure of a structural member fully to perform its function in contributing to the structural stability of the building of which it forms part; and

STRUCTURAL MEMBER means a member essential to the structural stability of a building.

(3) In the application of this rule–

(a) dead load shall be determined in accordance with the provisions of rule D2(2)(a);

(b) imposed load shall be determined in accordance with the provisions of rule D2(2)(b) except that the imposed load on any structural member may be reduced by not more than two thirds for the purposes of paragraph (4) and shall be reduced by two thirds for the purposes of paragraph (5):

Provided that–

(i) any load especially allowed for plant, machinery or equipment shall not be reduced;

(ii) in the case of a warehouse, garage or building for storage purposes, no reduction shall be made; and

(iii) in the case of a factory or workshop, the load shall not be reduced below 5 kN/m^2;

(c) wind load may be taken as not less than one third of the load determined in accordance with the provisions of rule D2(2)(c); and

(d) the load which would cause structural collapse shall be assumed to exceed the combined dead load, imposed load and wind load on the structure together with, for the purposes of paragraph (5), the loads specified in sub-paragraphs (b) and (c) of that paragraph, by at least 5%.

(4) A building to which the provisions of this rule apply shall be so constructed that if any portion of any one structural member (other than a portion which satisfies the conditions specified in paragraph (5)) were to be removed–

(a) structural failure consequent on that removal would not occur within any storey other than the storey of which that portion forms part, the storey next above (if any) and the storey next below (if any); and

(b) any structural failure would be localised within each such storey.

(5) The conditions referred to in paragraph (4) are that the portion should be capable of sustaining without structural failure the following loads applied simultaneously–

(a) the combined dead load, imposed load and wind load;

(b) a load of 34 kN/m^2 applied to that portion from any direction; and

(c) the load, if any, which would be directly transmitted to that portion by any immediately adjacent part of the building if that part were subjected to a load of 34 kN/m^2 applied in the same direction as the load specified in subparagraph (b).

D18 Deemed-to-satisfy provision for localisation of structural failure

(1) In this rule, STOREY *and* STRUCTURAL FAILURE *have the meanings assigned by rule D17(2).*

(2) The requirements of rule D17(4)(b) shall be deemed to be satisfied if the area within which structural failure might occur would not exceed 70 m^2 or 15% of the area of the storey (measured in the horizontal plane) whichever is the less.

D19 Deemed-to-satisfy provisions for the structure of certain building's constructed of reinforced, prestressed or plain concrete

(1) Subject to the pro visions of paragraphs (2) and (3), of the structure of a building consists of work (whether cast in-situ or precast) of reinforced, prestressed or plain concrete, the provisions of rule D17 shall be deemed to be satisfied if–

(a) the work complies with the recommendations relating to the effect of misuse or accident in Section 2 of CP110: Part 1: 1972 and with all relevant recommendation, relating to the provision of ties in that publication; or

(b) in the case of work of reinforced, prestressed or precast concrete, the work complies with the recommendations relating to the effect of misuse or accident in clause 301 of CP114: 1969, CP115: 1969 or CP116:1969 as read with CP116: Addendum No.1: 1970 whichever is appropriate and with all relevant recommendations relating to the provision of ties in that publication.

(2) The recommendations of the publication specified in paragraph (1)(a) shall not be used in conjunction with those of any publication specified in paragraph (1)(b).

(3) If for the purposes of rule D11, reliance is placed on any one of the publications referred to in paragraph (1) of this rule, then reliance may be placed only on that publication for the purposes of this rule.

(4) For the purposes of CP 116: 1969 and CP 116: Addendum No.1: 1970, the building shall be classified as a Group 1 structure.

D20 Use of high alumina cement for structural work

Rule B2 and the deemed-to-satisfy provisions in this Part shall not apply in relation to structural work, including foundations, in which high alumina cement is used.

PART E
Safety in fire

SECTION I – STRUCTURAL FIRE PRECAUTIONS

E1 Interpretation of Section 1

(1) In this Section and in the schedules thereto–

BASEMENT STOREY means a storey which is below the ground storey; or, if there is no ground storey, means a storey the floor of which is situated at such a level or levels that some point on its perimeter is more than 1.2 m below the level of the finished surface of the ground adjoining the building in the vicinity of that point;

CAVITY and CAVITY BARRIER have the meanings assigned by rule E14(1);

COMPARTMENT means any part of a building which is separated from all other parts by one or more compartment walls or compartment floors or by both such walls and floors; and, if any part of the top storey of a building is within a compartment, that compartment shall also include any roof space above such part of the top storey;

COMPARTMENT WALL and COMPARTMENT FLOOR mean respectively a wall and a floor which complies with rule E9 and which is provided as such for the purposes of rule E4 or to divide a building into compartments for any purpose in connection with rule E5, E6 or E7;

DOOR includes any shutter, cover or other form of protection to an opening in any wall or floor of a building 6r in the structure surrounding a protected shaft, whether the door is constructed of one or more leaves;

ELEMENT OF STRUCTURE means–

(a) any member forming part of the structural frame of a building or any other beam or column (not being a member forming part of a roof structure only);

(b) a floor, including a compartment floor, other than the lowest floor of a building;

(c) an external wall;

(d) a separating wall;

(e) a compartment wall;

(f) structure enclosing a protected shaft;

(g) a loadbearing wall or loadbearing part of a wall; and

(h) a gallery;

EXTERNALLY NON-COMBUSTIBLE means externally consisting of or faced with noncombustible material;

FIRE STOP has the meaning assigned by rule E14(1);

GLAZING means light-transmitting material whether glass or not; and GIAZED shall be construed accordingly;

GROUND STOREY means a storey the floor of which is situated at such a level or levels that any given point on its perimeter is at or about, or not more than 1.2m below, the level of the finished surface of the ground adjoining the building in the vicinity of that point; or, if there are two or more such storeys, means the higher or highest of these;

HEIGHT OF A BUILDING has the meaning assigned by rule E3;

OPEN CARPORT means a carport which has not more than one storey and is open on two or more of its sides; and, for the purpose of this definition, a side which includes or consists of a door shall not for that reason be regarded as an open side;

PERMITTED LIMIT OF UNPROTECTED AREAS means the maximum aggregate area of unprotected areas in any side or external wall of a building or compartment, calculated as prescribed in Part I of Schedule 10;

PROTECTED SHAFT means a stairway, lift, escalator, chute, duct or other shaft which enables persons, things or, air to pass between different compartments and complies with the requirements, of rule E10;

RELEVANT BOUNDARY, in relation to a side or external wall of a building or compartment, means that part of, the boundary of the premises (as defined in rule A4(1)) or of the notional boundary (as prescribed in rule E7(1)(c)) which is adjacent to that side or wall and either coincides with, is parallel to or is at an angle of not more than 800 with that side or wall;

SEPARATING WALL means a wall or a part of a wall which is common to adjoining buildings; and

UNPROTECTED AREA, in relation to an external wall or side of a building, means–

(a) a window, door or other opening;

(b) any part of the external wall which has fire resistance less than that specified by this Sect ion for that wall; and

(c) any part of the external wall which has combustible material more than 1 mm thick attached or applied to its external face, whether for cladding or any other purpose.

(2) Any reference in this Section to a building shall, in any case where two or more houses adjoin, be construed as a reference to one of those houses.

(3) If any part of a building other than a single storey building–

(a) consists of a ground storey only;

(b) has a roof to which there is only such access as may be necessary for the purposes of maintenance or repair; and

(c) is completely separated from all other parts of the building by a compartment wall or compartment walls in the same continuous vertical plane,

that part may be treated, for the purposes of this Section, as a part of a single storey building.

(4) In relation to a building, or part of a building, of purpose group VI–

(a) the floor of a gallery (other than a loading gallery, fly gallery, stage grid, lighting bridge, or any gallery used for similar purposes or provided for the purpose of maintenance or repair) shall be regarded as the floor of a storey; and

(b) wherever in this Section a building is described by reference to a number of storeys, that number shall be construed as including any ground storey or upper storey formed by such a floor.

(5) Any requirement in this Section that an element of structure, door or other part of a building shall have fire resistance of a specified period shall be construed as meaning that it shall be so constructed that a specimen constructed to the same specification, if exposed to test by fire in accordance with BS 476: Part 8: 1972, would (subject to any relevant provision in Table, 1 to this rule) satisfy the requirements of that test as to stability, integrity and insulation for not less than the specified period:

Provided that an element of structure, door or other part of a building shall be deemed to have the requisite fire resistance if–

(a) it is constructed to the same specification as that of a specimen which prior to 31st August 1973 was either exposed to test by fire in accordance with BS476: Part 1:1953 and (subject to any relevant provision in Table 1 to this rule) satisfied the requirements to that test as to collapse, passage of flame and insulation for not less than the specified period or was assessed by an appropriate authority as capable of satisfying those requirements; or

(b) in the case of a wall, beam, column, stanchion or floor to which Schedule 8 relates, it is constructed in accordance with one of the specifications set out in that schedule and the notional period of fire resistance given in that schedule as being appropriate to that type of construction and other relevant factors is not less than the specified period.

(6) Any reference in this Section to a roof or part of a roof of a specified designation shall be construed as a requirement that the roof or part shall be so constructed that a specimen constructed to the same specification, if exposed to test by fire in accordance with BS476: Part 3: l958, would comply with the relevant test criteria specified in relation to that designation:

Provided that any roof or part of a roof shall be deemed to be of the specified designation if it conforms with one of the specifications set out against that designation in Schedule 9.

(7) Any reference in this Section to a plastics material of a designated type shall be construed as a reference to a material which falls within the description relevant to that type given in column (2) of Table 2 to this rule and of which the appropriate number of specimens, if tested in accordance with BS2782: 1970 by the method of test prescribed in column (3) of that

Table, would comply with the test criteria prescribed in column (4) of that Table.

Table 1 to Rule E1

Provisions as to method of test and minimum period of fire resistance

Part of building		Method of test	Minimum period as to– BS476: Part 8:1972 Stability	Integrity	Insulation
			BS476: Part 1: 1953 *Collapse*	*Passage of flame*	*Insulation*
(1)		(2)	(3)	(4)	(5)
1.	External wall situated 1 m or more from relevant boundary (excluding any part of such a wall which is described in item 2)	exposure of inside of wall to test by fire	*	*	15 mm
2.	Any part of an external wall(being a wall situated 1mm or more from relevant boundary) which is required to comply with rule E7(5)(b)	exposure of each side of wall separately to test by fire–			
		(a) if inside of wall exposed to test by fire	*	*	15min
		(b) if outside of wall exposed to test by fire	†	†	†
3.	External wall situated less than 1 m from any point on relevant boundary	exposure of each side of structure separately to test by fire	*	*	*
4.	Separating wall				
5.	Compartment wall				
6.	Structure (other than an external wall) enclosing protected shaft				
7	Structure referred to in rules E13(2)(a) and E13(3)(b)				
8.	Wall referred to in rule E18(6)(b)	exposure of garage side of wall to test by fire	*	*	*
9.	Compartment floor	exposure of underside of floor to test by fire	*	*	*
10.	Floor of upper storey in building of purpose group I which has two storeys	exposure of underside of floor to test by fire	30 min‡	15 min‡	15 min‡
11	Casing referred to in rule	exposure of	30 min	30 min	30 min§

	E12(3)(c)	exterior to test by fire			
12.	Ceiling referred to in rule E14(6)(b)	exposure of underside to test by fire¶	30 min	30 min	30 min
13.	Cavity barrier referred to in rule E14(8)(a)	exposure of each side of barrier separately to test by fire	30 min	30 min	15 min
14.	Door other than a door described in item 15 or 16	exposure to test by fire when fitted in its frame	*	*	no require-ment
15.	Door referred to in both rule E11(5) and rule E9(1)(a)(i), E13(2)(c), E13(3)(c), E14(9)(c)(vi) or E18(6)(c)(ii)	exposure to test by fire when fitted in its frame	30 min	20 min	no require-ment
16.	Door referred to in both rule E11(6) and rule E10(7)(a) or E10(7)(b)	exposure to test by fire when fitted in any rebated frame	30 min	30 min	no require-ment

* denotes 'period of fire resistance specified'.

† denotes 'period of fire resistance specified by rule E5 or one hour whichever is the less'.

‡ These requirements are referred to in Part VII of Schedule 8 as 'Modified $^1/_2$ Hour'.

§ No requirement if the distance between the easing and any pipe within the enclosure other than **a** pipe penetrating the casing exceeds 50 mm.

¶ The ceiling shall be tested in accordance with BS 476: Part 8:1972 as for a floor but with the following modifications–

(a) Construction. The specimen of the ceiling and its supporting structure to be tested shall be representative of that to be used in practice and shall include any insulating material to be laid directly on the ceiling.

(b) Loading and restraint. No loading shall be applied and any restraint shall comply with clause 1.3.2.

(c) Determination of fire resistance. The fire resistance of the ceiling shall be judged on the compliance of the specimen with the three criteria specified in clause 1.5 and its fire resistance shall be determined in accordance with the provisions of clause 1.6.

Table 2 to Rule E1

Designation of plastics Materials

Type	Description of material	Method of test in accordance with BS 2782:1970	Criteria (to be satisfied by each specimen used for test purposes unless otherwise prescribed)
(1)	(2)	(3)	(4)
1	Any plastics material	102C	The softening point of the material (expressed as the arithmetic mean of the softening points of the two specimens used) does not exceed 120°C
2	Any plastics material which satisfies both tests	102C	The softening point of the material(expressed as the arithmetic mean of the softening points of the two specimens used) does not exceed 120°C
		508A	When tested in a thickness of 3 mm, the rate of burning does not exceed 50 mm/min
3	polyvinyl chloride	508A	(i) The flame does not reach the first mark; and (ii) the duration of flame or after-glow after the removal of the burner does not exceed 5 seconds
4	Polyvinyl chloride	508C	The distance of travel of the flame does not exceed 75 mm
5	Polyvinyl chloride	508D	(i) The specimen flames or glows for not more than 5 seconds; (ii) any material dropped from the specimen does not continue to burn after reaching the base of the test apparatus; (iii) charring or scorching does not extend over an area exceeding 200% of the area of the underside of the specimen; and (iv) the length of the Charred or scorched edge of the underside of the specimen does not exceed 50 mm

E2 Designation of purpose groups

(1) For the purposes of this Section, every building or compartment shall be regarded according to its use or intended use as falling within one of the purpose groups set out in the Table to this rule and, where a building is divided into compartments used or intended to be used for different purposes, the purpose group of each compartment shall be determined separately:

Provided that where the whole or part of a building or compartment (as the case may be) is used or intended to be used for more than one purpose, only the main purpose of use of that building or compartment shall be taken into account in determining into which purpose group it falls.

(2) Notwithstanding paragraph (1), a detached. building which consists only of a garage or an open carport or of both shall be regarded as falling

within purpose group I if the garage, the carport or each of them (as the case may be) has a floor area not exceeding 40 m^2.

Table to Rule E2		
Designation of purpose groups		
Purpose group	Descriptive title	Purposes for which building or compartment is intended to be used
(1)	(2)	(3)
I	Small residential	Private dwelling-house (not including a flat or maisonette)
II	Institutional	Hospital, home, school or other similar establishment used as living accommodation for, or for treatment, care or maintenance of, persons suffering from disabilities due to illness or old age or other physical or mental disability or under the age of five years, where such persons sleep in the premises
III	Other residential	Accommodation for residential purposes other than any premises comprised in groups I and II
IV	Office	Office, or premises used for office purposes, meaning thereby the purposes of administration, clerical work (including writing, hook-keeping, sorting papers, filing, typing, duplicating, machine-calculating, drawing and the editorial preparation of matter for publication), handling money and telephone and telegraph operating, or as premises occupied with an office for the purposes of the activities there carried on
V	Shop	Shop, or shop premises, meaning thereby premises not being a shop but used for the carrying on there of retail trade or business (including the sale to members of the public of food or drink for immediate consumption, retail sales by auction, the business of lending hooks or periodicals for the purpose of gain, and the business of a barber or hairdresser), and premises to which members of the public are invited to resort for the purpose of delivering there goods for repair or other treatment or of themselves carrying out repairs to. or other treatment of, goods
VI	Factory	Factory within the meaning ascribed to that word by section 5 of the Factories Act 1956[3]
VII	Other place of assembly	Place, whether public or private, tased for the attendance of persons for or in connection with their social, recreational, educational, business or other activities, and not comprised within groups I to VI
VIII	Storage and general	Place for storage, deposit or parking of goods and materials (including vehicles), and any other premises not comprised in groups I to VII

E3 Rules for measurement

In this Section–

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(a) the height of a building or (where relevant) of part of a building as described in rule E5(1)(b) shall be measured from the mean level of the ground adjoining the outside of the external walls of the building or part (as the case may be) to the level of half the vertical height of the roof of the building or part, or to the top of the walls or of the parapet (if any), whichever is the higher;

(b) (i) the area of any storey of a building or compartment shall be taken to be the total area of that storey bounded by the inner finished surfaces of the enclosing walls or, on any side where there is no enclosing wall, by the outermost edge of the floor on that side;

(ii) the area of any room or garage shall be taken to be the total area of its floor bounded by the inner finished surfaces of the walls forming the room or garage; and

(iii) the area of any part of a roof shall be taken to be the actual visible area of such part measured on a plane parallel to the pitch of the roof; and

(c) the cubic capacity of a building or compartment shall be ascertained by measuring the volume of space contained within the following surfaces and shall include the space occupied by any structure, shafts or ducts within the space to be so measured–

(i) the inner finished surfaces of the enclosing walls or, on any side where there is no enclosing wall, a plane extending vertically above the outermost edge of the floor on that side;

(ii) the upper surface of its lowest floor; and

(iii) in the case of a building or of a compartment which extends to a roof, the under surface of the roof or, in the case of any other compartment, the under surface of the ceiling of the highest storey within that compartment.

E4 Provision of compartment walls and compartment floors

(1) Any building of a purpose group specified in column (I) of the Table to this rule which has–

(a) any storey the floor area of which exceeds that specified as relevant to a building of that purpose group and height in column (3) of the Table; or

(b) a cubic capacity which exceeds that specified as so relevant in column (4) of the Table, shall be so divided into compartments by means of compartment walls or compartment floors or both that–

(i) no such compartment has any storey the floor area of which exceeds the area specified as relevant to the building in column (3) of the Table; and

(ii) no such compartment has a cubic capacity which exceeds that specified as so relevant in column (4) of the Table:

Provided that, if any building of purpose group V is fitted throughout with an automatic sprinkler system which complies with the relevant recommendations of CP402.201:1952 this paragraph shall have effect in relation to that building as if the limits of dimensions specified in columns (3) and (4) of the Table were doubled.

(2) In any building which exceeds 28 m in height, any floor which separates one storey from another storey, other than a floor which is–

(a) within a maisonette; or

(b) above the ground storey but at a height not exceeding 9 m above the adjoining ground, shall be constructed as a compartment floor.

(3) The following walls and floors shall be constructed as compartment walls or compartment floors–

(a) any floor in a building of purpose group II;

(b) any wall or floor separating a flat or maisonette from any other part of the same building;

(c) any wall or floor separating part of a building from any other part of the same building which is used or intended to be used mainly for a purpose falling within a different purpose group in the Table to rule E2; and

(d) any floor immediately over a basement storey if such storey–

(i) forms part of a building of purpose group I which has three or more storeys or a building or compartment of purpose group III or V; and

(ii) has an area exceeding 100 m^2.

Table to Rule E4

Dimensions of buildings and compartments

Purpose group		Height of building(in m)	Limits of dimensions	
			Floor area of storey in building or compartment (in m^2)	Cubic capacity of building or compartment (in m^3)
(1)		(2)	(3)	(4)
Part 1: Buildings other than single storey buildings				
II	Institutional	No limit	2000	No limit
III	Other residential	Not exceeding 28	3000	8500
		Exceeding 28	2000	5500
V	Shop	No limit	2000	7000
VI	Factory	Not exceeding 28	No limit	28000
		Exceeding 28	2000	5500
VII	Assembly	No limit	No limit	7000
VIII	Storage and general	Not exceeding 28	No limit	21000
		Exceeding 28	1000	No limit
Part 2: Single storey buildings				
II	Institutional	No limit	3000	No limit
III	Other residential	No limit	3000	No limit

E5 Fire resistance of elements of structure

(1) In this rule and in the Table to this rule–

(a) (subject to any express provision to the contrary) any reference to a building of which an element of structure forms part means the building or (if a building is divided into compartments) any compartment of the building of which the element forms part; and

(b) any reference to height means the height of a building, not of any compartment in the building, but if any part of the building is completely separated throughout its height both above and below ground from all other parts by a compartment wall or compartment walls in the same continuous vertical plane, any reference to height in relation to that part means the height solely of that part.

(2) Subject to the provisions of this rule and of rule E6, every element of structure shall have fire resistance of not less than the relevant period set out in the Table to this rule:

Provided that:

(a) any separating wall shall not have fire resistance of less than one hour;

(b) any compartment wall or compartment floor which separates a part of a building falling within purpose group II or Ill from any other part of the building falling within a purpose group other than purpose group II or III shall not have fire resistance of less than one hour;

(c) any element of structure which forms part of more than one building or compartment shall be so constructed as to comply with the greater or greatest of the relevant requirements specified in the Table; and

(d) any element of structure shall not have fire resistance of less than the minimum period required by these rules for any element which it carries.

(3) Any compartment wall separating a flat or maisonette from any other part of the same building shall not be required to have fire resistance exceeding one hour unless–

(a) the wall is a loadbearing wall or a wall forming part of a protected shaft; or

(b) the part of the building from which the wall separates the flat or maisonette is of a different purpose group and the minimum period of fire resistance required by the provisions of this rule for any element of structure in that part is one and a half hours or more.

(4) Nothing in paragraph (2) shall apply to–

(a) any part of an external wall which is non-loadbearing and may, in accordance with rule E7, be an unprotected area; or

(b) in the case of a single storey building or a building consisting of a ground storey and one or more basement storeys, any element of structure which forms part of the ground storey and consists of–

(i) part of an external wall which does not support a gallery and which may, in accordance with rule E7, be an unprotected area; or

(ii) a structural frame or a beam or column:

Provided that any beam or column (whether or not it forms part of a structural frame) which is within or forms part of a wall, and any column which gives support to a wall or gallery, shall have fire resistance of not less than the minimum period, if any, required by these rules for that wall or that gallery; or

(iii) an internal loadbearing wall or a loadbearing part of a wall unless that wall or part is, or forms part of, a compartment wall or a separating wall, or forms part of the structure enclosing a protected shaft or supports a gallery.

Table to Rule E5

Minimum periods of fire resistance

In this Table–

CUBIC CAPACITY means the cubic capacity of the building or, if the building is divided into compartments, the compartment of which the element of structure forms part; FLDOR AREA means the floor area of each storey in the building or, if the building is divided into compartments, of each storey in the compartment of which the element of structure forms part; and

PART, in column (1), means a part which is separated as described in rule E5(1)(b)

Part 1: Buildings other than single storey buildings

Purpose group	Maximum dimensions			Minimum period of fire resistance (in hours) for elements of structure* forming part of–		
	Height (in m)	Floor area (in m^2)	Cubic capacity (in m^3)	ground storey or upper storey	basement storey	
(1)	(2)	(3)	(4)	(5)	(6)	
I Small residential:						
House having not more than three storeys	No limit	No limit	No limit	$^1/_2$	1†	x
House having four storeys	No limit	250	No limit	1‡	1	
House having any number of storeys	No limit	No limit	No limit	1	$1^1/_2$	
IIInstitutional	28 over 28	2000 2000	No limit No limit	1 $1^1/_2$	$1^1/_2$ 2	
III Other residential:						
Building or part having not more than two storeys	No limit	500	No limit	$^1/_2$	1	x

	Building or part having three storeys	No limit	250	No limit	1‡	1	
	Building having any number of storeys	28	3000	8500	1	$1^1/_2$	
	Building having any number of storeys	No limit	2000	5500	$1^1/_2$	2	
IV	Office	7.5	250	No limit	$^1/_2$	1†	
		7.5	500	No limit	$^1/_2$	1	
		15	No limit	3500	1‡	1	
		28	5000	14000	1	$1^1/_2$	
		No limit	No limit	No limit	$1^1/_2$	2	
V	Shop	7.5	150	No limit	$^1/_2$	1†	x
		7.5	500	No limit	$^1/_2$	1	
		15	No limit	3500	1‡	1	
		28	1000	7000	1	2	
		No limit	2000	7000	2	4	y
VI	Factory	7.5	250	No limit	$^1/_2$	1†	x
		7.5	No limit	1700	$^1/_2$	1	
		15	No limit	4250	1‡	1	
		28	No limit	8500	1	2	
		28	No limit	28000	2	4	
		over 28	2000	5500	2	4	
VII	Assembly	7.5	250	No limit	$^1/_2$	1†	x
		7.5	500	No limit	$^1/_2$	1	
		15	No limit	3500	1‡	1	
		28	1000	7000	1	$1^1/_2$	
		No limit	No limit	7000	$1^1/_2$	2	
VIII	Storage and general	7.5	150	No limit	$^1/_2$	1†	
		7.5	300	No limit	$^1/_2$	1	
		15	No limit	1700	1‡	1	
		15	No limit	3500	1	2	
		28	No limit	7000	2	4	
		28	No limit	21000	4	4	
		over 28	1000	No limit	4	4	

Notes to Part 1

For the purpose of rule E5(2), the period of fire resistance to be taken as being relevant to an element of structure is the Period included in column (5) or (6), whichever is appropriate, in the line of entries which specifies dimensions with all of which there is conformity or, if there are two or more such lines, in the topmost of those lines.

* A floor which. is immediately over a basement storey shall be deemed to be an element of structure forming part of a basement storey.

† The period is half an hour for elements forming part of a basement storey which has an area not exceeding 50 m^2.

‡ This. period is reduced to half an hour in. respect of a floor which is not a compartment floor, except as to the beeens which support the floor or any part of the floor which contributes to the structural support of the building as a whole.

x The line of entries thus marked is applicable only to buildings, not to compartments, except in relation to purpose group III, see also rules E7(3) proviso (i) and E8(7) proviso (a).

y If the building is fitted throughout with an automatic sprinkler system which complies with the relevant recommendations of CP402.201:1952, any maximum limits specified in columns (3) and (4) shall be doubled.

Table to Rule E5 - continued

Minimum periods of fire resistance

Part 2 Single storey buildings

Purpose group		Maximum floor area (in m^2)	Minimum period of fire resistance (in hours) for elements of structure	
(1)		(2)	(3)	
I	Small residential	No limit	$^1/_2$	z
II	Institutional	3000	1	z
III	Other residential	3000	1	z
IV	Office	3000 No limit	$^1/_2$ 1	z
V	Shop	2000 3000 No limit	$^1/_2$ 1 2	z
VI	Factory	2000 3000 No limit	$^1/_2$ 1 2	z
VII	Assembly	3000 No limit	$^1/_2$ 1	z
VIII	Storage and general	500 1000 3000 No limit	$^1/_2$ 1 2 4	z

Notes to Part 2

For the purpose of rule E5(2), the period of fire resistance to be taken as being relevant to an element of structure is the period included in column (3) in the line of entries which specifies the floor area with which there is conformity or, if there are two or more such lines, in the topmost of those lines.

z See rules E7(3) proviso (i) and E8(7) proviso (b).

E6 Fire resistance of floors in conjunction with suspended ceilings

(1) In the Table to this rule–

(a) HEIGHT has the meaning assigned to that expression by rule E5(1)(b); and

(b) references to Class 0 and Class 1 shall be construed in accordance with sub-paragraphs (e) and (f) of rule El 5(1).

(2) In the application of rule E5 to floors, no account shall be taken of any fire resistance attributable to any suspended ceiling other than a suspended ceiling constructed as described in the Table to this rule.

Table to Rule E6

Suspended ceilings

Height (in m)	Type of floor	Required fire resistance of floor (in hours)	Description of suspended ceiling
(1)	(2)	(3)	(4)
Less than 15	Non-compartment	1 or less	Surface of ceiling exposed within the cavity not lower than Class 1
	Compartment	less than 1	
	Compartment	1	Surface of ceiling exposed within the cavity not lower than Class 0; supports and fixings for the ceiling non-combustible
15 or more	Any	1 or less	Surface of ceiling exposed within the cavity not lower than Class 0; and jointless; supports and filing for the ceiling non-combustible
No limit	Any	More than 1	Ceiling of non-combustible construction and jointless; supports and fixings for the ceiling non-combustible

E7 External walls

(1) For the purposes of this rule–

(a) any reference to Schedule 10 shall be construed as referring to the provisions of Part I of that schedule together with (at the option of the person intending to erect the building) the provisions of Part H, Part III or (if applicable) Part IV;

(b) any part of a roof shall be deemed to be part of an external wall or side of a building if it is pitched at an angle of 700 or more to the horizontal and adjoins a space within the building to which persons have access not limited to the purposes of maitttenance or repair; and

(c) if a building is to be erected on land which will be occupied in common with another building (whether it be the only other building or any one of a number of other buildings) and either the building to be so erected or that other building is a building of purpose group I (except a building described in rule E2(2) which complies with rule El8 or E19) or a building of purpose group II, III or VII–

(i) in the application of the provisions of this rule to any side or external wall of the building to be so erected which faces a side or external wall of that other building, a notional boundary shall be assumed to pass between those buildings;

(ii) such notional boundary shall be so situated as to enable the adjacent sides and external walls of both buildings to comply with the requirements of this rule; and

(iii) if that other building is an existing building, it shall be treated as if it were a new building of the same purpose group and having the same unprotected areas and fire resistance as the existing building.

(2) Any side of a building except as provided by rule E18 (Small garages) or E19 (Small open carports) shall comply with any relevant requirements relating to permitted limits of unprotected areas specified in Schedule 10.

(3) Any external wall which is situated within a distance of 1 m from any point on the relevant boundary and any external wall of a building which exceeds 15 m in height shall–

(a) be constructed wholly of non-combustible materials apart from any external cladding which complies with paragraph (4) or any internal lining which complies with rule E15; and

(b) be so constructed that any fire resistance required by these rules is attained by the noncombustible part alone:

Provided that the requirements of this paragraph shall not apply to–

(i) an external wall of a building which is within the limits of size indicated by the letter 'x' in Part 1 of the Table to rule E5 or of a building which is not divided into compartments and is within the limits of size indicated by the letter 'z' in Part 2 of that table if, in either case, that building does not exceed 15 m in height;

(ii) an external wall of a building, or part of a building, of purpose group III which consists of flats or maisonettes if that building has not more than three storeys or that part is separated as described in rule E5(1)(b) and has not more than three storeys; or

(iii) an external wall of a part of a building if that wall is situated I m or more from the relevant boundary and that part is separated as described in rule E5(I)(b) and does not exceed 15 m in height.

(4) Any external cladding which is situated within a distance of I m from any point on the relevant boundary and any external cladding on a building which exceeds 15 m in height shall have a surface complying with the requirements for Class 0 specified in rule E15(1)(e):

Provided that, if an external wall of such a building is I m or more from the relevant boundary, any part of such cladding below a height of 15 m from the ground may (subject to paragraph 5) consist of timber of not less than 9 mm finished thickness or of a material having a surface which, when tested in accordance with BS476: Part 6:1968, has an index of performance (1) not exceeding 20.

(5) Any part of an external wall of a building of purpose group VII having more than one storey shall comply with the following provisions if it is situated not more than 7.5 m above the finished surface of any adjoining ground or of any adjoining roof or other part of the building to which persons have access–

(a) in any such part of an external wall there shall be no unprotected area other than–

(i) a door; or

(ii) an opening which (whether glazed or not) would permit danger from external fire to be appreciated from the interior of the building;

(b) any such part (in addition to having not less fire resistance than that prescribed by rule E5) shall, if situated 1m or more from the relevant boundary, be so constructed that, if the outside were to be exposed to fire, it would resist the action of fire for not less than the period prescribed by rule E5 or one hour whichever is the less; and

(c) the external surface of any such part of an external wall, including any cladding and any glazed opening (other than a door) but not the frame of the latter–

(i) if situated within a distance of 1 m from any point on the relevant boundary, shall be of Class 0; or

(ii) if situated 1 m or more from the relevant boundary, shall (if tested in accordance with BS476: Part 6:1968) have an index of performance (1) not exceeding 12 and a sub-index (i_1) not exceeding 6.

(6) Any beam or column forming part of; and any structure carrying, an external wall which is required to be constructed of non-combustible materials shall comply with the provisions of paragraph (3) as to non-combustibility.

E8 Separating walls

(1) Subject to the exceptions specified in paragraph (2), any separating wall shall be imperforate and shall form a complete vertical separation between any buildings separated (including any roof spaces therein).

(2) Nothing in paragraph (1) shall prohibit–

(a) the passage through a separating wall of a pipe, if the pipe complies with rule E12; or

(b) an opening in a separating wall which is necessary as a means of escape from fire, if the opening is fitted with a door which–

(i) complies with the requirements of rule E11; and

(ii) has fire resistance which is not less than the period required by rule E5 for the separating wall.

(3) Subject to the exceptions specified in paragraph (4), any separating wall which forms a junction with a roof shall be carried above the upper surface of the covering of that roof to a distance of not less than 375 mm (measured at right angles to such upper surface).

(4) A separating wall shall not be required to comply with the provisions of paragraph (3)–

(a) if the buildings separated by the separating wall are so constructed that–

(i) any part of the roof which is within 1.5 m of the separating wall is designated AA, AB or AC;

(ii) the deck of such part of the roof is of solid or hollow slab construction of non-combustible material; and

(iii) the junction between the separating wall and such roof is fire-stopped; or

(b) if–

(i) each of the buildings separated by the separating wall is of purpose group I, III, IV or VII;

(ii) neither building exceeds 12.5 m in height;

(iii) any part of the roof which is within 1.5 m of the separating wall is covered with noncombustible material or asphalt; and

(iv) the junction between the separating wall and the roof covering is fire-stopped; or

(c) if–

(i) each of the buildings separated by the separating wall is a building of purpose group I having not more than three storeys;

(ii) any part of the roof which is within 1.5 m from the separating wall is designated AA, AB or AC; and

(iiii) the junction between the separating wall and the roof is fire-stopped.

(5) If any external wall is carried across the end of a separating wall, such external wall and separating wall shall be bonded together or the junction of such walls shall be fire-stopped.

(6) Any combustible material which is built into or carried through, across the end of or over the top of a separating wall shall not be of such a type or used in such a way as will render ineffective the resistance of that wall to the effects or spread of fire:

Provided that–

(a) if a building is constructed in compliance with the requirements of paragraph (4)(b), nothing in this paragraph shall prohibit the continuation over the top of the separating wall of–

(i) any boarding, with or without sarking felt or sarking paper, if such boarding is used as a base for the roof covering and the hoarding is solidly bedded on mortar or other not less suitable material where it rests on the separating wall; or

(ii) any wood wool slabbing, with or without sarking felt or sarking paper, if the slabbing is solidly bedded on mortar or other not less suitable material where it rests on the separating wall; or

(iii) any tiling or slating battens (other than such battens used in connection with (ii) above), if the battens are solidly bedded on mortar or other not less suitable material where they rest on the separating wall and the space between them is filled with mortar or other not less suitable material up to the underside of the roof covering; and

(b) if a building is constructed in compliance with the requirements of paragraph (4)(c), nothing in this paragraph shall prohibit the roof covering from passing over the top of the wall or any combustible material falling within the provisions of sub-paragraph (a)(i), (ii) or (iii) from forming part of a roof which is designated AA, AB or AC.

(7) Any separating wall shall be constructed wholly of non-combustible materials apart from any surface finish which complies with rule E15 and the required fire resistance shall be attained independently of any such combustible surface finish:

Provided that the requirements of this paragraph shall not apply to–

(a) a wall separating buildings which are not divided into compartments and are within the limits of size indicated by the letter 'x' in Part I of the Table to rule E5; or

(b) a wall separating single storey buildings which are not divided into compartments and are within the limits of size indicated by the letter 'z' in Part 2 of the Table to rule E5.

(8) Any beam or column forming part of; and any structure carrying, a separating wall which is required tp be constructed of non-combustible materials shall itself comply with the requirements of paragraph (7) as to non-combustibility.

E9 Compartment walls and compartment floors

(1) Any compartment wall or compartment floor shall be imperforate with the exception of any one or more of the following–

(a) (i) in the case of a compartment wall separating a flat or maisonette from any space in common use giving access to that flat or maisonette, an opening fitted with a door which complies with the requirements of rule E11 and has fire resistance of not less than half an hour; or

(ii) in any other case, an opening fitted with a door which complies with the requirements of rule E11 and has fire resistance of not less than the minimum period required by rule E5 for the wall or floor; or

(b) an opening for a protected shaft; or

(c) an opening for a ventilation duct (other than a duct in, or consisting of; a protected shaft) if any space surrounding the duct is fire-stopped and the duct is fitted with an automatic fire shutter where it passes through the wall or floor; or

(d) an opening for a pipe which complies with the requirements of rule E12; or

(e) an opening for a chimney, appliance ventilation duct or duct encasing one or more flue pipes, in each case complying with the relevant requirements of paragraph (5) and of Part L; or

(f) an opening for a refuse chute which complies with the requirements of Part J.

(2) Where a compartment wall or floor joins any compartment wall, external wall or separating wall or any structure enclosing a protected shaft, such structures shall be bonded together at the junction or the junction shall be fire-stopped.

(3) Where any compartment wall forms a junction with a roof, such wall shall be carried above the upper surface of the roof covering for a distance of not less than 375 mm, measured at right angles to the surface of the roof, unless either–

(a) the roof complies with the requirements of rule E8(4)(a); or

(b) the compartment wall is in a building of purpose group III, IV or VII not exceeding 12.5 m in height and the roof complies with the requirements of rule E8(4)(b)(iii) and (iv):

Provided that nothing in this paragraph shall prohibit the continuation over the top of the wall of any construction which complies with the requirements of rule E8(6).

(4) Any combustible material which is built into or carried through or across the ends of any compartment wall or compartment floor or carried over the top of any compartment wall shall not be of such a type or used in such a way as will render ineffective the resistance of that wall or floor to the effects or spread of fire.

(5) Any flue in a chimney, any passage in an appliance ventilation duct and any space within a duct encasing one or more flue pipes shall–

(a) if the chimney or duct passes through a compartment wall or compartment floor, be separated from that wall or floor and from each compartment adjoining that wall or floor by noncombustible construction having fire resistance of not less than half the minimum fire resistance required by rule E5 for that wall or floor; or

(b) if the chimney or duct forms part of a compartment wail, be separated from any compartment adjoining that wall by non-combustible construction having, at any level, fire resistance of not less than half the minimum fire resistance required by rule E5 for that wall at that level.

(6) Any compartment wall or compartment floor which is required by rule E5 to have fire resistance of one hour or more (except where that requirement arises solely by virtue of proviso (b) to rule E5(2)), shall be constructed wholly of noncombustible materials apart from–

(a) any floor finish; or

(b) any surface finish to a wall or ceiling which complies with the requirements of rule E15; or

(c) any ceiling which complies with a description specified in the Table to rule E6;

and, apart from any such ceiling, the required fire resistance of the wall or floor shall be obtained without assistance from any combustible material permitted by this sub-paragraph:

Provided that the requirements of this paragraph shall not apply to–

(a) the following walls and floors in a building, or a part, of purpose group III which consists of flats or maisonette–

(i) if that building has three storeys or that part is separated as described in rule E5(1)(b) and has three storeys, any wall or floor other than a wall within a basement storey or a floor immediately over a basement storey; or

(ii) if that building has four storeys or that part is separated as described in rule E5(1)(b) and has four storeys, any floor other than a floor immediately over a basement storey; or

(b) any existing floor in a building, or a part, of purpose group IV, V, VI, VII or VIII which is altered or extended if; after alteration or extension, that building does not exceed 15 m in height or that part is separated as described in rule E5(1)(b) and does not exceed 15 m in height.

(7) Any beam or column forming part of, and any structure carrying, any compartment wall or compartment floor which is required to be constructed of non-combustible materials, shall itself comply with the provisions of paragraph (6) as to non-combustibility.

E10 Protected shafts

(1) In this rule, PROTECTING STRUCTURE means any wall or floor or other structure which encloses a protected shaft other than–

(a) a wall which also forms part of an external wall, separating wall or compartment wall; or

(b) a floor which is also a compartment floor or a floor laid directly on the ground; or

(c) a roof.

(2) No protected shaft shall be constructed for use for any purposes additional to those specified in rule E1(1) other than for the passage of a pipe or duct or as sanitary accommodation or washrooms, or both.

(3) Subject to the provisions of this rule, any protected shaft shall be completely enclosed.

(4) (a) Any protecting structure which is required by rule E5 to have fire resistance of one hour or more shall be constructed wholly of non-combustible materials apart from any surface finish which complies with the requirements of rule E15:

Provided that the requirements of this sub-paragraph shall not apply to protecting structure which is situated within the ground storey or an upper storey of a building, or a part, of purpose group III consisting of flats or maisonettes if that building has three storeys or that part is separated as described in rule E5(1)(b) and has three storeys.

(b) Any beam or column forming part of; and any structure carrying protecting structure which is required to be constructed of non-combustible materials shall itself comply with the provisions of sub-paragraph (a) as to non-combustibility.

(5) Any wall, floor or other structure enclosing a protected shaft but not being protecting structure may contain such openings as shall be in accordance with other provisions of these rules.

(6) There shall be no opening in any protecting structure other than any one or more of the following–

(a) an opening for a pipe which complies with the requirements of rule E12; or

(b) an opening fitted with a door which has fire resistance complying with the provisions of paragraph (7) and complies with the provisions of rule E11; or

(c) (if the protected shaft contains a lift) an opening which complies with the provisions of paragraph (8); or

(d) (if the protected shaft serves as, or contains a ventilating duct) an inlet to or outlet from that duct or an opening for that duct.

(7) Any door fitted in an opening in protecting structure shall have fire resistance for the following minimum period–

(a) if the protected shaft is in a building of purpose group III, IV or VII and is wholly or partly above the level of the adjoining ground, not less than half an hour; or

(b) in any other case, either not less than half th~ period required by other provisions of this Section for the protecting structure surrounding the opening or not less than half an hour (whichever is the greater).

(8) Any protected shaft containing a lift or lifts–

(a) shall be ventilated to the external air by means of one or more permanent openings situated at the top of the shaft and having a total unobstructed area of not less than 0.1 m^2 for each lift in the shaft;

(b) shall not contain any pipe conveying gas or oil or any ventilating duct; and

(c) may have an opening in its protecting structure for the passage of the cables operating the lift into the room containing the lift motor:

Provided that, if the opening is at the bottom of the shaft, the opening shall be as small as practicable.

(9) (a) If a protected shaft serves as, or contains, a ventilating duct–

(i) the duct shall be fitted internally with automatic fire shutters so constructed, at such intervals and in such positions as may be necessary to reduce so far as practicable the risk of fire spreading from a compartment to any other compartment, or such other provision shall be made as will reduce such risk so far as practicable; and

(ii) the duct shall not be constructed of, or lined with, any material which substantially increases such risk.

(b) In addition, in the case of a protected shaft containing a ventilating duct, the shaft shall he so constructed with such additional barriers to fire between the duct and the shaft as may be necessary to reduce so far as practicable the risk of fire spreading from a compartment to any other compartment.

(10) if a protected shaft consists of a stairway, it shall not contain any pipe conveying gas or oil or any ventilating duct.

(11) if a protected shaft contains a pipe conveying gas, the shaft shall he adequately ventilated direct to the external air.

E11 Fire resisting doors

(1) This rule shall apply to any door which is required by the provisions of this Section to have fire resistance.

(2) In this rule–

AUTOMATIC SELF-CLOSING DEVICE does not include rising butt hinges except in relation to a door to which paragraph (5) applies; and

ELECTRO-MAGNETIC OR ELECTRO-MECHANICAL DEVICE SUSCEPTIBLE TO SMOKE refers only to any such device which will allow the door held open by it to close automatically upon the occurrence of each or any one of the following–

(a) detection of smoke by automatic apparatus suitable in nature, quality and location;

(b) manual operation of a switch fitted in a suitable position;

(c) failure of electricity supply to the device, apparatus or switch;

(d) if a fire alarm system is installed in the building, operation of that system.

(3) (a) Any door to which this rule applies shall (subject to paragraph (7)) he fitted with an automatic self-closing device.

(b) No means of holding any such door open shall be provided othei than a fusible link or, if the door is so constructed and installed that it can readily be opened manually, an electro-magnetic or electro-mechanical device susceptible to smoke.

(c) No part of a hinge on which any such door is hung shall be made either of combustible material or of non-combustible material having a melting point less than 800°C.

(4) Any door fitted in an opening which is provided as a means of escape in the event of fire or might be so used shall be so constructed and installed that it can readily be opened manually and shall not be held open

by any means other than an electro-magnetic or electro-mechanical device susceptible to smoke:

Provided that there may also be installed so as to close the same opening a door which cannot readily be opened manually if–

(a) such door is fitted with an automatic self-closing device and is held open by a fusible link;

(b) the manually openable door has fire resistance of not less than half an hour; and

(c) the required fire resistance is achieved by the two doors together.

(5) Any door to which reference is made in rule E9(1)(a)(i), E13(2)(c), E13(3)(c), E14(9)(c)(vi) or E18(6)(c)(ii) shall be either a single leaf door. swinging in one direction only or a double leaf door each leaf of which swings in the opposite direction from the other leaf.

(6) Any door which is fitted in protecting structure (as defined in rule E10(1)) and is not required by the provisions of rule E10(7) to have fire resistance of more than half an hour may consist of any single or double leaf door (the leaf or each leaf of which swings in one or both directions), other than a double leaf door both leaves of which swing in one and the same direction and have rebated meeting stiles, if–

(a) the door opens into a hall, lobby or corridor enclosed by walls or partitions having fire resistance of not less than half an hour; and

(b) the clearance between the leaf or leaves of any such door and its frame and (if the door has two leaves) between the leaves is as small as is reasonably practicable.

(7) Notwithstanding paragraph (3)(a), a door which is not fitted with a self-closing device may be installed in an opening in the structure which encloses a protected shaft containing exclusively a lift or lifts if either–

(a) the door has fire resistance for a period of not less than half an hour and there is also installed so as to close the same opening another door which is fitted with an automatic self-closing device, is held open by a fusible link and has fire resistance for a period not less than that prescribed by the relevant provisions of this Section for the structure surrounding the opening; or

(b) (unless the opening is in a compartment wall and is one of two openings provided at the same level to allow access to a lift

from different sides) the door has fire resistance for a period not less than that prescribed by relevant provisions of this Section for the structure surrounding the opening.

(8) Without prejudice to the requirements of paragraphs (4) to (7), two fire-resisting doors (each being either a single or a double leaf door) may be installed in an opening if each by itself is capable of closing the opening and the required fire resistance is achieved by the two doors together.

E12 Penetration of structure by pipes

(1) In this rule, PIPE–

(a) excludes a flue pipe and any pipe used for ventilation purposes other than a ventilating pipe as defined in rule N2(1); and

(b) includes pipe fittings and accessories.

(2) (a) Subject to the provisions of paragraph (3), the nominal internal diameter of that part of a pipe which passes through–

(i) an opening in a separating wall or protecting structure; or

(ii) an opening in a compartment wall or compartment floor other than any such opening which is wholly enclosed within a protected shaft; or

(iii) an opening in a cavity barrier,

shall not exceed the relevant dimension prescribed in the Table to this rule:

Provided that if; on either side of the structure penetrated and within a distance of 1 m (measured along the pipe) from the point of penetration, the pipe which penetrates the structure, being of specification (a), is connected to a pipe of specification (b) or (c) or, being of specification (b), is connected to a pipe of specification (c), the maximum internal diameter of the pipe shall be determined as though it were of the same specification as the pipe to which it is connected.

(b) Any opening shall be as small as is reasonably practicable and shall be fire-stopped around the pipe.

(3) Notwithstanding the requirements of paragraph (2)(a), a pipe which forms part of an above ground drainage system comprising pipes which

comply with specification (b) in the Table and have a nominal internal diameter not exceeding 150 mm in the case of a stack pipe or 100 mm in the case of a branch pipe may pass through an opening in a separating wall between houses or an opening in a compartment wall or compartment floor between flats or maisonettes if–

(a) the pipe, being a stack pipe, is contained in each storey within an enclosure or, being a branch pipe, discharges into a stack pipe contained within an enclosure formed in part by the wall penetrated by the branch pipe;

(b) any such enclosure–

(i) extends, in each storey, from the floor to the ceiling of that storey or, if the ceiling is suspended beneath a floor, to that floor;

(ii) has each side formed by a separating wall, compartment wall or external wall or by casing;

(iii) has an internal surface, excluding any supporting members, which complies with the requirements for Class 0 specified in rule E15(1)(e);

(iv) has no access panel situated in a hedroom or circulation space; and

(v) is not used for any other purpose except to accommodate pipes conveying water;

(c) any such casing–

(i) is imperforate except for any opening made for the passage of a pipe or fitted with an access panel;

(ii) consists of any material other than sheet metal; and

(iii) (including any access panel) has fire resistance of not less than half an hour; and

(d) any opening made for the passage of a pipe through a side of an enclosure or through a floor at the base or top of an enclosure (including, in the case of a maisonette, any floor within the dwelling) is as small as is reasonably practicable and is fire-stopped around the pipe.

Table to Rule E12

Maximum nominal Internal diameter of pipes

Specification of pipe		Maximum nominal internal diameter of pipe (in mm)
(1)		(2)
(a)	Pipe made of any non-combustible material which, if exposed to a temperature of 800°C, will not soften and will not fracture to such an extent as to permit flames or hot gases to pass through the wall of the pipe	150
(b)	Pipe made of lead or aluminium or alloy (other than thereof; asbestos-cement pipe; or unplasticised polyvinyl chloride pipe complying with BS4514: 1969	100 if it penetrates structure a separating wall) enclosing a protected shaft not regularly used for the passage of people 38 in all other cases
(c)	Pipe made of any other material	38

E13 Stairways

(1) Every stairway (including any landing thereof) which forms part of a building shall, whether the stairway is internal or external, he constructed of noncombustible material except–

(a) an internal stairway which is situated–

(i) within a maisonette; or

(ii) within any storey which comprises elements of structure for which the fire resistance required by this Section is less than one hour; or

(iii) within the ground storey or an upper storey of a building or part of purpose group III which consists of flats or maisonettes if that building has not more than three storeys or that part is separated as described in rule E5(1)(b) and has not more than three storeys; or

(iv) within a building or compartment of purpose group V but not within a protected shaft; or

(b) an external stairway which is situated between the ground and a floor or flat roof the level of which, at the head of the stairway, is not more than 6 m above the finished surface of the ground adjoining the foot of the stairway:

Provided that nothing in this paragraph shall prohibit the addition of any combustible material to the upper surface of any stairway or landing.

(2) Any building of purpose group I which has three or more storeys shall he so designed and constructed as to comply with the following provision–

(a) any internal stairway, together with any hall or landing associated therewith and any part of a floor which affords passage between flights of the stairway, shall he separated from all other parts of the building by structure which has fire resistance of not less than the minimum period required by rule E5 for elements of structure forming part of the storey in which it is situated;

(b) subject to paragraph (3), the space associated with the stairway and enclosed by the fire-resisting structure within the ground storey of the building shall extend to an external doorway which provides ready access to a place of safety outside the building (that is to say, a place in which persons would he in no danger from fire within the building); and

(c) any opening in the fire-resisting structure which gives access to a habitable room or kitchen shall he fitted with a door which has fire resistance of not less than half an hour and complies with the requirements of rule E11.

(3) The requirement of paragraph (2)(b) shall not apply if–

(a) the fire-resisting structure enclosing the stairway within the ground storey of the building contains two or more openings each of which affords a route to an external doorway which provides ready access to a place of safety outside the building;

(b) each such route is separated from any other such route by structure having not less fire resistance than the minimum period referred to in paragraph (2)(a); and

(c) any opening in such structure is fitted with a door which has fire resistance of not less than half an hour and complies with the requirements of rule E11.

E14 Provision and construction of cavity barriers and fire stops

(1) For the purposes of this rule–

(a) CAVITY means any space enclosed by the elements of a building (including a suspended ceiling) or contained within an element other than a room, cupboard, circulation space, protected shaft or the space within a flue, chute, duct, pipe, or conduit;

CAVITY BARRIER means construction provided to close a cavity against penetration of smoke or flame or provided within a cavity to restrict movement of smoke or flame within the cavity; and includes construction provided for another purpose if such construction conforms with the criteria required of a cavity barrier; and

FIRE STOP means a seal of noncombustible material provided to close an imperfection of fit between elements, components or construction in a building so as to restrict penetration of smoke or flame through that imperfection; and

(b) any requirement that a cavity shall he closed or that movement or penetration of smoke or flame shall be restricted means, where not more precisely defined, that the construction provided for such purpose shall be capable of performing such functions in relation to both smoke and flame.

(2) Subject to the exception in paragraph (5)–

(a) every cavity contained within an element shall be closed by a cavity barrier around the whole perimeter of the element and around the perimeter of any opening through the element; and

(b) if any element containing a cavity meets another such element, the cavities shall be so closed that they do not communicate one with another.

(3) Subject to the exceptions in paragraphs (5) and (6), every cavity shall be subdivided by means of a cavity barrier in the same plane as any element which–

(a) abuts against the element containing, or an element enclosing, the cavity; and

(b) consists of–

(i) any wall, floor, ceiling, roof or other structure which is required to have fire resistance for the purposes of Section I or II or would be so required if the building or part were being newly erected, other than a wall which is

required to have fire resistance solely because it is loadbearing; or

(ii) any frame fitted with a door which likewise is or would be required to have fire resistance.

(4) Subject to the exceptions in paragraphs (5) and (7), every cavity shall be subdivided by means of cavity barriers in such positions that the distance between cavity barriers (measured along the members bounding the cavity) does not exceed the distance, if any, specified in the Table to this paragraph.

Table to Rule E14(4)

Maximum distance between cavity barriers

Location of cavity	Purpose group of building or compartment	Class of surface exposed within the cavity, excluding the surface of any pipe, cable or conduit	Maximum distance
(1)	(2)	(3)	(4)
Between a roof and a ceiling	Purpose group I and flats or maisonettes within purpose group III	Any	No limit
	Purpose group II and III except flats and maisonettes	Any	15 m and, in addition, area limited to 100 m^2
	Any other purpose group	Any	20 m
Other than between a roof and a ceiling	Any purpose group	Class 0	20 m
		Other than Class 0	8 m

(5) Notwithstanding the requirements of paragraphs (2), (3) and (4), any cavity within a wall which complies with the following provisions may he unlimited as to extent and may communicate with another such cavity–

(a) the wall consists of two leaves, each being not less than 75 mm thick and constructed of non-combustible materials;

(b) the cavity does not exceed 100 mm in width and is closed by a cavity barrier at the top of the wall and at the top of any opening in the wall; and

(c) there is no combustible material exposed or situated within the cavity other than–

(i) insulating material which, except in the case of a wall forming part of a building of purpose group I, completely fills the cavity; or

(ii) timber lintels, window or door frames or the end faces of joists; or

(iii) pipes, conduits or cables; or

(iv) closers, flashings, damp proof courses or wall ties.

(6) The requirements of paragraph (3) shall not apply to–

(a) any cavity between a floor next to the ground or oversite concrete and the ground or oversite concrete; or

(b) any cavity within a floor or within, or enclosed by, a roof if the cavity is enclosed on the lower side by a ceiling which–

(i) extends throughout the building or compartment;

(ii) is not so constructed as to he demountable;

(iii) has fire resistance of not less than half an hour;

(iv) is imperforate save for openings that would be permissible under paragraph (9)(c) if the ceiling were a cavity barrier;

(v) has an upper surface of Class I;

(vi) has a lower surface which (if tested in accordance with BS 476:Part 6:1968) has an index of performance (I) not exceeding 12 and a sub-index (i_1) not exceeding 6; or

(c) any cavity within, or enclosed by, the roof of a building of purpose group I other than any such cavity which is situated immediately over a stairway enclosure to which rule E13(2) refers and is not separated from that enclosure by a ceiling as described in sub-paragraph (b) of this paragraph.

(7) The requirements of paragraph (4) shall not apply to–

(a) any cavity between a floor next to the ground or oversite concrete and the ground or oversite concrete if there is no access provided for persons to that cavity or the height of that cavity does not exceed 1 m; or

(b) any cavity between non-combustible sheeting forming a roof covering if–

(i) in the case of a cavity between flat sheets, the cavity is filled with insulating material having a surface of a class not lower than Class 1; or

(ii) in the case of a cavity between a corrugated sheet and a flat sheet, such insulating material separates the sheets and is in contact with both in line with each corrugation.

(8) (a) A cavity barrier which is required by any rule in this Section and is of such dimensions as to include within its surface a square having sides of 1 metre in length shall have fire resistance of not less than half an hour.

(b) A cavity barrier which is required by any rule in this Section and is of such dimensions as not to include within its surface such a square shall he constructed of–

(i) asbestos building or insulating board (but not asbestos-cement sheet) not less than 9 mm thick; or

(ii) plasterboard not less than 12.5 mm thick; or

(iii) steel not less than 3 mm thick; or

(iv) timber not less than 38 mm thick; or

(v) wire-reinforced mineral wool blanket not less than 50 mm thick; or

(vi) cement mortar, plaster or other non-combustible material not less than *25* mm thick;

or may he constructed in a manner wholly similar to construction capable of complying with sub-paragraph (a).

(9) A cavity barrier–

(a) shall be fixed in such a manner that its performance is unlikely to he rendered ineffective by movement of the building due to subsidence, shrinkage, or thermal change or by failure in a fire of its fixings or the material against which it abuts;

(b) shall he fitted tightly, to rigid construction or, if it abuts against slates, tiles, corrugated sheeting or other construction to which it cannot be so fitted, its junction with that construction shall be fire-stopped; and

(c) shall he imperforate with the exception of any one or more of the following–

(i) an opening for a pipe which complies with the requirements of rule E12; or

(ii) an opening for a cable or a conduit containing one or more cables; or

(iii) an opening fitted with an automatic fire shutter; or

(iv) an opening for a duct which is fitted with an automatic fire shutter where it passes through the barrier; or

(v) an opening for a continuous duct which is constructed of mild steel not less than 0.7 mm thick; or

(vi) an opening fitted with a door which complies with the requirements of rule E11 and has fire resistance of not less than half an hour.

(10) (a) Any opening provided through any part of an element of structure or a cavity barrier for the passage of a pipe, duct, conduit or cable shall be no larger than is necessary for that purpose and shall he fire-stopped.

(b) Fire-stopping around a pipe or duct shall he so arranged as not to restrict thermal movement.

(c) Non-rigid materials used for fire-stopping shall he reinforced with or supported by non-combustible materials to prevent displacement and in any case where the unsupported span would exceed 100 mm.

E15 Restriction of spread of flame over surfaces of walls and ceilings

(1) For the purposes of this rule and the Table hereto–

(a) CEILING includes any soffit and any rooflight or other part of a building which encloses and is exposed overhead within a room, circulation space or protected shaft;

CIRCULATION SPACE means any space which is solely or predominantly used as a means of access between a room and a protected shaft or between either a room or a protected shaft and an exit from the building or compartment;

ROOFLIGHT includes any domelight, lantern light, skylight or other element intended to admit daylight;

SMALL ROOM means a room which is totally enclosed and has a floor area not exceeding that specified in column (2) of the Table to this rule, according to the purpose group of the building or compartment; and

TRIM means any architrave, cover mould, picture rail, skirting or similar narrow member;

(b) any reference to the surface of a wall shall be construed as a reference to that surface including the surface of any glazing but excluding the surface of any unglazed portion of a door, any door frame, window frame, frame in which glazing is fitted, fireplace surround, mantleshelf, fitted furniture or trim;

(c) any reference to the surface of a ceiling shall be construed as a reference to that surface excluding the surface of the frame of any rooflight;

(d) any part of a ceiling which slopes at an angle of 700 or more to the horizontal and is not part of a rooflight shall be deemed to be a wall;

(e) any reference to a surface being of Class 0 shall be construed as a requirement that–

(i) the material of which the wall or ceiling is constructed shall be non-combustible throughout; or

(ii) the surface material (or, if it is bonded throughout to a substrate, the surface material in conjunction with the substrate) shall have a surface of Class I and, if tested in accordance with BS476:Part 6: 1968, shall have an index of performance (I) not exceeding 12 and a sub-index (i_1) not exceeding 6:

Provided that the face of any plastics material Type I shall not be regarded as a surface of Class 0 unless–

(a) the material is bonded throughout to a substrate which is not a plastics material and the material in conjunction with the substrate satisfies the test criteria prescribed in (ii) above; or

(b) the material satisfies the test criteria prescribed in (ii) above and is used as the lining of a wall so constructed that any surface which would be exposed if the lining were not present satisfies the said test criteria and is the face of any material other than a plastics material Type 1;

(f) any reference to a surface being of a class other than Class 0 shall be construed as a requirement that the wall or ceiling shall be so constructed that a specimen constructed to the same specification, if exposed to test by fire in accordance with BS476: Part 7: 1971, would comply with the test criteria as to surface spread of flame specified in relation to that class:

Provided that a wall or ceiling shall be deemed to have a surface of the requisite class if it is constructed to the same specification as that of a specimen which prior to 31st August 1973 was either proved to satisfy the relevant test criteria prescribed in clause 7 of BS476: Part 1:1953 or was assessed by an appropriate authority as capable of satisfying those criteria;
and

(g) in relation to a requirement that a surface shall be of a class not lower than a specified class, Class 0 shall be regarded as the highest class followed in descending order by Class 1, Class 2, Class 3 and Class 4.

(2) The surface of a wall or ceiling in a room, circulation space or protected shaft shall be of a class not lower than that specified as relevant in the Table to this rule:

Provided that–

(a) a wall of a room may have a surface. of any class not lower than Class 3 to the extent permitted by paragraph (3);

(b) an external wall of a room may have openings glazed in the manner permitted by rule E16(2) and openings so glazed may be disregarded for the purposes of paragraph (3); and

(c) a ceiling may either have a surface of any class not lower than Class 3 to the extent permitted by paragraph (4) or may consist of plastics material to the extent permitted by rule E16(3).

(3) Any part of the surface of a wall in a room may be of any class not lower than Class 3 if the area of that part (or, if there are two or more such

parts in a room, the aggregate area of those parts) does not exceed the lesser of the following–

(a) half the floor area of the room; or

(b) (in the case of a building or compartment of purpose group I, II, or III) 20 m^2 or (in any other case) 60 m^2

(4) Any part of the surface of a ceiling may be of any class not lower than Class 3 if that part of the surface is the face of a layer of material the other face of which is exposed to the external air and–

(a) (i) the ceiling is that of a room in a building or compartment of purpose group I, II, III, IV, V or VII or that of a circulation space in a building or compartment of any purpose group;

(ii) the area of that part does not exceed 5 m^2 and

(iii) the distance between that part and any other such part is not less than 2.8 m if each part is a rooflight which complies with the provisions of paragraph (5) or 3.5 m in any other case; or

(b) (i) the ceiling is that of a room in a building or compartment of purpose group VI or VIII;

(ii) the area of that part does not exceed 5 m^2;

(iii) the distance between that part and any other such part is not less than 1.8 m; and

(iv) that part and all other such parts are evenly distributed over the whole area of the ceiling and together have an area which does not exceed 20 % of the floor area of the room; or

(c) the ceiling is that of a balcony, verandah, open carport, covered way or loading bay which (irrespective of its floor area) has at least one of its longer sides wholly and permanently open; or

(d) the ceiling is that of a garage, conservatory or outbuilding which (irrespective of whether it forms part of a building or is a building which is attached to another building or wholly detached) has a floor area not exceeding 40 m^2.

(5) The provisions referred to in paragraph (4)(a)(iii) are–

(a) that the rooflight is so designed and installed that every part of the internal surface of the light–transmitting material is above the general plane of the ceiling by no less than one quarter of the greatest dimension of that material measured internally on plan; and

(b) that any exposed internal surface (other than the frame of the roof-light) between the light-transmitting material and the general plane of the ceiling is of a class not lower than that required for the surface of the ceiling.

Table to Rule E15

Surfaces of walls and ceilings

Purpose group of building or compartment		Maximum floor area of small room (in m^2)	Class of surface for both walls and ceilings(except where separately specified)		
			Small rooms (see col.(2))	Rooms other than small rooms	Circulation spaces and protected shafts
(1)		(2)	(3)	(4)	(5)
I	Small residential:				
	House having not more than two storeys	4	3	1 (Wall) 3 (Ceiling)	1 (Wall) 3 (Ceiling)
	Any other house	4	3	1	0
II	Institutional	4	1	0 (Wall) 1 (Ceiling)	0
III	Other residential	4	3	1	0
IV	Office	30	3	1	0
V	Shop	30	3	1	0
VI	Factory	30	3	1	0
VII	Assembly	30	3	1	0
VIII	Storage and general	30	3	1	0

E16 Exceptions permitting the use of certain plastics materials

(1) The provisions of rule E15(1) shall apply for the interpretation of this rule.

(2) Any glazing which is fitted in an opening situated in an external wall enclosing a room may consist of a single layer of rigid sheeting of plastics material Type 3.

(3) Any part of the ceiling of a room or circulation space may consist of

(a) rigid sheeting of plastics material Type 3 if the face of the sheeting which is not the surface of the ceiling is exposed to the external air; or

(b) one or more panels of such plastics materials as are permitted by paragraph (4) if the upper and lower surfaces of any part of the ceiling which is not formed by a panel of plastics material and the surfaces of all other parts of the structure which enclose the space over the ceiling are of a class not lower than that prescribed in the Table to rule El 5 for the ceiling of such a room or circulation space.

(4) Panels to which paragraph (3)(b) refers may consist of one or more sheets or membranes of either–

(a) plastics material Type 2 if–

(i) the nominal thickness of the sheet or membrane (or, if a panel consists of two or more sheets or membranes, their nominal aggregate thickness) does not exceed 3 mm;

(ii) the aggregate area of the plastics material, if situated in a building or compartment of purpose group II, III or VII, does not exceed 30% of the floor area of the room or 15% of the floor area of the circulation space, as the case may be, or, if situated in a building or compartment of any other purpose group, does not exceed 50% of the floor area of the room or 15% of the floor area of the circulation space, as the case may be;

(iii) no panel has any side exceeding 5 m in length or an area exceeding 4 m^2 if situated in a room or 2 m^2 if situated in a circulation space; but if two or more panels are grouped so that each is less than 575 mm from another, the said maximum dimensions shall be applied to the smallest rectangle which would wholly enclose all such panels; and

(iv) every panel is loosely mounted in such a way that it will fall out of its mountings when softened by heat; or

(b) plastics material Type 4 or 5 if–

(i) the nominal thickness of the sheet or membrane (or, if a panel consists of two or more sheets or membranes, their nominal aggregate thickness) does not exceed 1 mm; and

(ii) no panel has an area exceeding 4 m^2.

E17 Roofs

(1) No part of the roof of a building which–

(a) has a cubic capacity exceeding 1500 m^3; or

(b) is wholly or partly of purpose group VI or VIII; or

(c) is a house in a continuous terrace of more than two houses, shall be so constructed as to he designated BD, CA, CB, CC, CD, DA, DB, DC or DD or be covered with thatch or wood shingles.

(2) Any part of a roof which is designated BA, BB or BC shall be not less than 6 m from any point on a boundary.

(3) Any part of a roof which is designated AD, BD, CA, CC or CD or is covered with thatch or wood shingles shall be not less than the following distance from any point on a boundary–

(a) 6 m if such part is–

(i) of an area not exceeding 3 m^2; and

(ii) separated from any other such part by an area of roof at least 1.5 m wide and covered by non-combustible material; or

(b) 12 m in any other case.

(4) Any part of a roof which is designated DA, DB, DC or DD shall be–

(a) not less than 22 m from any point on a boundary;

(b) of an area not exceeding 3 m^3; and

(c) separated from any other part of the same roof which is so designated by an area of roof at least 1.5 m wide and covered with non-combustible material.

(5) If any part of a roof cannot be designated under rule E1(6) on account of the low softening temperature of its covering material, such part shall he not less than the following distance from any point on a boundary–

(a) 6 m if such part is–

(i) of an area not exceeding $3m^2$; and

(ii) separated from any other such part by an area of roof at least 1.5 m wide and covered by non-combustible material; or

(b) 12 m or twice the height of the building, whichever is the greater, in any other case.

(6) Nothing in this rule shall prevent–

(a) any part of a roof being constructed of glass or rigid sheeting of plastics material Type 3 being in either case material which cannot be designated in accordance with rule E1(6) if either–

(i) that part of the roof is not less than 6 m from any boundary; or

(ii) that part of the roof is less than 6 m from any boundary, and the roof is that of a garage, conservatory or outbuilding having a floor area not exceeding 40 m^2 (whether or not attached to or forming part of another building) or is the roof of, or a canopy over, a balcony, verandah, open carport, covered way or detached swimming pool; or

(b) any part of a roof being constructed of a layer of material described in column (1) of the Table to this rule if–

(i) the inner surface of that layer constitutes part of a ceiling and complies with rule E15(4);

(ii) the area of roof which separates that part from any other such part is covered by non-combustible material; and

(iii) that part is not less than the distance specified in that Table from any point on a boundary.

Table to Rule E17

Minimum distance of certain parts of a roof from boundary

Description of material	Minimum distance from boundary (in m)
(1)	(2)

1. Material designated AD, BD, CA. CB, CC or CD or not capable of designation owing to low softening temperature	6
2. Material designated DA, DB, DC or DD	22

E18 Small garages

(1) The following provisions (subject to the provisions of rule E19 regarding small open carports) shall apply to any garage which has a floor area not exceeding 40 m^2.

(2) If such garage is a separate building and–

(a) is not less than 2 m from any boundary and any house within the boundary; or

(b) (being less than 2 m from any boundary) complies with the requirements of paragraph (3); or

(c) (being less than 2 m from any house within the boundary) complies with the requirements of paragraph (4), it shall not be required to comply with any rule in this Section except rule E17 and any other provisions expressly referred to in this rule.

(3) Any such garage which is less than 2 m from any boundary shall be so constructed that any part of an external wall which is less than 2 m from the boundary is externally non-combustible and the walls of the garage have an internal surface which fulfils the requirements for Class 0 specified in rule E15(1)(e).

(4) Any such garage which is less than 2 m from any house within the same boundary shall be so constructed that any part of an external wall which is less than 2 m from such house is externally non-combustible and the walls of the garage have an internal surface which fulfils the requirements for Class 0 specified in rule E15(1)(e); but these requirements shall not apply if every part of any external wall of such house which is less than 2 m from the garage–

(a) is externally non-combustible;

(b) has resistance to external fire of not less than half an hour; and

(c) has no unprotected area which exceeds 0.1 m^2 or is less than 1.5 m from any other unprotected area in that part.

(5) In the application of paragraphs (3) and (4), any exposed surface of a frame member forming the structure of a wall shall not be deemed to be part of the internal surface of that wall.

(6) If a garage to which paragraph (I) applies is attached to or forms part of a house, it shall be so constructed that–

(a) any floor immediately over such garage has fire resistance of not less than half an hour;

(b) any wall between such garage and such house has fire resistance of not less than half an hour; and

(c) any opening in such wall is–

(i) at its lowest point, not less than 100 mm above the level of the garage floor; and

(ii) fitted with a door, shutter or cover which has fire resistance of not less than half an hour and complies with the requirements of rule E11.

E19 Small open carports

(1) Any open carport (as defined in rule E1(1)) which has a floor area not exceeding 40 m^2 and complies with any condition specified in paragraph (2) shall not be required to comply. with any rule in this Section except rule E17.

(2) The conditions referred to in paragraph (1) are as follow–

(a) that such carport is a detached building; or

(b) that such carport is part of a detached building which consists additionally only of a garage which also has a floor area not exceeding 40 m^2 and would, if it were a separate building, comply with the provisions of rule E18; or

(c) that such carport is a single storey part of a building which consists additionally only either of a house alone or of a house and garage (the garage having a floor area not exceeding 40 m^2) and that, if the presence of the carport were disregarded–

(i) the house, where there is no garage, would comply with the requirements of rule E7; or

(ii) the house and garage, if they would then constitute one building, would comply with the requirements of rule E7; or

(iii) the house and the garage, if they would then constitute separate buildings, would comply with the requirements of rules E7 and E18 respectively:

Provided that, where this rule applies by virtue of the erection of an open carport as an extension to an existing house or garage or both, the conditions in sub-paragraphs (b) and (c) shall be applicable as though any reference therein to compliance with rules E7 and E18, or either of them, were omitted.

SECTION II–MEANS OF ESCAPE IN CASE OF FIRE

E20 Application of Section II

This Section shall apply to–

(a) any part of a building which consists of a flat or maisonette so situated that its floor or, in the case of a maisonette, at least one of its floors is 6m or more above the surface of the ground adjacent to any side of the building; and

(b) any building, or part of a building, which falls within sections 2(a),(b) and (c) of the City Fire Brigade and Fire Services Act 1976.

E21 Interpretation of Section II

(1) In this Section–

BASEMENT STOREY has the meaning assigned by regulation El(1);

BUILDING excludes any partially exempted building as defined in rule AS(2)(a); and

OFFICE and SHOP respectively include PREMISES USED FOR OFFICE PURPOSES and SHOP PREMISES as defined in column (3) of the Table to rule E2.

(2) In so far as rule E22 necessitates structural fire precautions, its requirements shall be additional to those of Section I.

E22 Provision of means of escape

In any building, or part of a building, to which this Section applies, there shall be provided–

(a) means of escape consisting of exits and escape routes of such number, size, layout, design, and construction as may reasonably be required in the circumstances of the case to enable the occupants to reach a place of safety in the event of fire; and

(b) such other works (other than means of fighting fire) as may be necessary for securing that such means of escape can be safely and effectively used at all material times.

E23 Deemed-to-satisfy provisions for the provision of means of escape

Without prejudice to the requirements of Section I, the requirements of rule E22 shall be deemed to be satisfied if the building or part of a building complies with the relevant recommendations of CP 3: Chapter IV: Part 1: 1971 (fiats and maisonettes), CP 3: Chapter IV: Part 2: 1968 (shops and departmental stores) or CP 3: Chapter IV: Part 3: 1968 (office buildings) as the case may be.

PART F
Thermal insulation

Application of Part F

Fl. This Part shall apply to any building or any part of a building if that building or part is intended to be used exclusively for the purposes of one or more dwellings, but shall not apply to the roof, external wall or floor of any garage, boathouse, conservatory, shed or store comprised in such building or such part.

Interpretation of Part F

F2.–(1) In this Part–

"opening" includes any doorway, window, skylight, hinged panel, louvre or ventilator in the structure of an external wall or roof, and also any part of an external wall or roof which is constructed of glass blocks;

"surface heat transfer coefficient" means the rate of heat transfer in watts between each square metre of surface and the surrounding air when there is a difference in temperature of 1 degree Celsius between the surface and the surrounding air;

"surface resistance" means the reciprocal of the surface heat transfer coefficient; and

"thermal transmittance coefficient" means the rate of heat transfer in watts through 1 square metre of the structure when there is a difference in temperature of 1 degree Celsius between the air on the two sides of the structure.

(2) For the purposes of this Part–

(a) any part of a roof which has a pitch of more than 700 to the horizontal shall be treated as an external wall; and

(b) any floor which so projects or is otherwise so situated that its upper surface only is exposed to the external air shall be treated as the roof of that part of the building beneath it.

Roofs

F3. Any roof of a building or part of a building to which this part applies shall, with the exception of any opening therein, be so constructed that, when the sum of surface resistances of–

(a) the external surface of the roof; and

(b) the internal surface of the roof or the lower surface of the ceiling of the storey immediately below the roof

is taken as 0.15, the thermal transmittance coefficient of the roof, or of the roof in Conjunction with any such ceiling, is not more than 1.42.

Walls of rooms wholly or partly in a roof

F4.–(1) Where any room is constructed wholly or partly in the roof of a building or of any part of a building to which this Part applies, any wall separating such a room from the roof space shall, with the exception of any opening, be so constructed that, when the sum of the surface resistances of the internal surface of the wall and the external surface of the roof is taken as 0.18, the thermal transmittance coefficient of the wall in conjunction with the roof is not more than 1.70.

(2) In this rule, the expression “wall” includes any partition.

External walls

F5. Any external wall of a building or of any part of a building to which this Part applies including its internal surface finish, shall, with the exception of any opening, be so constructed that, when the sum of the surface resistances of the internal and external surfaces of the wall is taken as 0.18, the thermal transmittance coefficient of the wall is not more than 1.70.

Floors

F6.–(1) Where the underside of any floor of a building or of any part of a building to which this Part applies is permanently exposed to the external air, the floor shall be so constructed that, when the sum of the surface resistances of the upper and lower surfaces of the floor is taken as 0.18, the thermal transmittance coefficient of the floor is not more than 1.42.

(2) Where any floor of a building or of any part of a building to which this Part applies is next to the ground and is constructed as a suspended floor, that floor shall be so constructed as to comply with the requirements of paragraph (1) unless–

(a) the floor is resistant to the passage of air; and

(b) the space beneath the floor is fully enclosed apart from any opening for ventilation which may be constructed in order to comply with the provisions of rule C3.

Deemed-to-satisfy provisions regarding thermal insulation

F7.–(1) *The requirements of rule F3 shall be deemed to be satisfied if the type of roof and the type of insulation are in accordance with one of the specifications contained in Table A of Schedule 11.*

(2) *The requirements of rule F4 shall be deemed to be satisfied if the type of roof and the type of insulation are in accordance with one of the specifications contained in Table B of Schedule 11.*

(3) *The requirements of rule FS shall be deemed to be satisfied the external wall is constructed in accordance with any relevant specification contained in Table C of Schedule 11.*

(4) The requirements of rule F6(1) shall be deemed to be satisfied if the type of floor and the type of insulation are in accordance with one of the specifications contained in Table D of Schedule 11.

PART G
Sound insulation

G1 Sound insulation of walls

(1) Any wall which–

(a) separates any dwelling from another dwelling or from another building; or

(b) separates any habitable room in a dwelling from any other part of the same building which–

(i) is not used exclusively with that dwelling; and

(ii) is a place used for purposes other than occasional repair or maintenance, or is a machinery room or tank room,

shall in conjunction with its associate structure be so constructed as to provide adequate resistance to the transmission of airborne sound.

(2) Any wall which separates any habitable room in a dwelling front any refuse chute in the same building shall have an average mass (calculated over any portion of the wall measuring 1 metre square and including the mass of any plaster) of not less than 1320 kg/m^2.

(3) Any wall which separates any part of a dwelling, other than a habitable room, from any refuse chute in the same building shall have an average mass (calculated over any portion of the wall measuring 1 metre square and including the mass of any plaster) of not less than 220 kg/m^2.

G2 Deemed-to-satisfy provisions for sound insulation of walls

The requirements of rule G1(1) shall be deemed to be satisfied if–

(1) the wall and its associated structure are identical with, or are similar to and unlikely to provide less resistance to the transmission of sound than, a wall and its associated structure which, when tested in accordance with rule G6 at all frequencies set out in the Table to this rule, limit the transmission of airborne sound so that the reduction at each frequency given in column (1) of that Table does not fall short of the appropriate value given in column (2) of that Table by an amount which causes the aggregate of such deviations to exceed 23 dB; or

(2) the wall is constructed in accordance with any of the specifications contained in Part 1 of Schedule 12 and the wall–

(a) extends for a distance of at least 460 mm beyond an external flanking wall; or

(b) is tied into or bonded to one leaf of an external flanking wall of bricks, blocks or concrete–

(i) which is of a construction having an average mass (calculated over any portion of the leaf measuring 1 metre square) of not less than 120 kg/m^2; and

(ii) in which any window or door opening on one side of the separating wall is not less than 690 mm. measured horizontally, from any such opening on the other side of that wall unless the height of each opening does not exceed two thirds of the height of the storey and the external flanking wall above and below the openings extends for a distance of not less than 3 m, measured horizontally, on both sides of the separating wall; or

(c) extends to the outer face of an external flanking wall of timber or other light construction other than tile hanging and at the top and bottom of each storey is tied into or bonded to–

(i) a solid floor next to the ground; or

(ii) a suspended concrete floor having an average mass (calculated over any portion of the floor measuring 1 metre square) of not less than 220 kg/m^2; or

(iii) a concrete roof having an average mass (calculated over any portion of the roof measuring 1 metre square) of not less than 145 kg/m^2.

Table to Rule G2 **Deemed-to-satisfy provisions**
Sound reduction: walls

Frequency (in Hz) (1)	Sound reduction (in dB) (2)
100	40
125	41
160	43
200	44
250	45
315	47
400	48
500	49
630	51

800	52
1000	53
1250	55
1600	56
2000	56
2500	56
3150	56

G3 Sound insulation of floor

(1) Any floor which separates a dwelling situated below that floor from–

(a) another dwelling; or

(b) any other part of the same building which–

(i) is not used exclusively with that dwelling; and

(ii) is a place used for purposes other than occasional repair or maintenance, or is a machinery room or tank room, shall in conjunction with its associated structure be so constructed as to provide adequate resistance to the transmission of airborne and impact sound.

(2) Any floor (other than a floor to which paragraph (1) applies) which separates a dwelling situated above that floor from any other part of the same building which–

(a) is not used exclusively with that dwelling; and

(b) is a place used for purposes other than occasional repair or maintenance, or is a machinery room or tank room, shall in conjunction with its associated structure be so constructed as to provide adequate resistance to the transmission of airborne sound.

G4 Deemed-to-satisfy provisions for the insulation of floors required to resist the transmission of airborne and impact sound

The requirements of rule G3(1) shall be deemed to be satisfied if–

(1) the floor and its associated structure are identical with, or are similar to and unlikely to provide less resistance to the transmission of sound than, a floor and its associated structure which, when tested in accordance with rule G6 at all the frequencies set out in the Table to this rule–

(a) limit the transmission of airborne sound so that the sound reduction at each frequency given in column (1) of that Table

does not fall short of the appropriate value given in column (2) of that Table by an amount which causes the aggregate of such deviations to exceed 23 dB; and

(b) limit the transmission of impact sound so that the sound pressure level produced in any part of the dwelling at each frequency given in column (1) of that Table does not exceed the appropriate value given in column (3) of that Table by an amount which causes the aggregate of such deviations 10 exceed 23 dB; or

(2) the floor is constructed in accordance with any of the specifications contained in Part II of Schedule 12 and–

(a) in the case of a concrete floor, the floor extends to the outer face of the inner leaf of any adjoining external wall and is tied into or bonded to every adjoining separating wall and every other internal wall which gives support to the floor; or

(b) in the case of a timber floor–

(i) the floor is bounded below. on at least three sides by walls having an average mass (calculated over any portion of the wall measuring 1 metre square) of not less than 415 kg/m^2; and

(ii) every external flanking wall extends for not less than 600 mm, measured vertically from the underside of the floor, without any window or door opening therein other than a window or door opening above a balcony forming an extension to the floor.

G5 Deemed-to-satisfy provisions for the insulation of floors required to resist the transmission of airborne sound only

The requirements of rule G3(2) shall be deemed to be satisfied if–

(1) the floor and its associated structure are identical with, or are similar to and unlikely to provide less resistance to the transmission of sound than, a floor and its associated structure which, when tested in accordance with rule G6 at all the frequencies set out in the Table to this rule, limit the transmission of airborne sound so that the reduction at each frequency given in column (1) of that Table does not fall short of the appropriate value given in column (2) of that Table by an amount which causes the aggregate of such deviations to exceed 23 dB; or

(2) the floor is constructed in accordance with any of the specifications contained in Part II or Part III of Schedule 12, subject to the conditions of

rule G4(2)(a) if the floor is a concrete floor or the conditions of rule G4(2)(b) if the floor is a timber floor.

Table to Rule G4 and G5 — Deemed-to-satisfy provisions
Sound reduction: floors

Frequency (in Hz)	Sound reduction (in dB)	Octave band sound pressure level (in dB)
(1)	(2)	(3)
100	36	63
125	38	64
160	39	65
200	41	66
250	43	66
315	44	66
400	46	66
500	48	66
630	49	65
800	51	64
1000	53	63
1250	54	61
1600	56	59
2000	56	57
2500	56	55
3150	56	53

G6 Measurement of sound transmission

(1) For the purposes of rules G2, G4 and G5, the measurements of sound transmission and the values of sound transmission in relation to any wall or floor shall be determined in accordance with the following provisions of this rule:

Provided that–

(a) where the construction of any part of a wall or floor differs from that of the remaining part of the wall or floor, each part shall be treated for the purposes of this rule as a separate wall or floor; and

(b) every wall or floor or part of a wall or floor in a building with nominally identical construction shall be treated as forming part of a single wall or floor as the case may be.

(2) Measurements shall be in accordance with Sections TWO A and THREE A of BS 2750: 1956, and the method of normalising the results for both airborne and impact sound shall be that given in clause 3e(ii) thereof

(3) The value of the sound transmission of a particular construction shall be taken to be the average of measurements made between not less

than four pairs of rooms each pair having a separating wall or floor, as the case may be, of an area of not less than 7 m^2 and each room having a volume of not less than 25 m^2.

PART H

Stairways, ramps, balustrades and vehicle barriers

H1 Interpretation of Part H

(1) In this Part–

ASSOCIATED LANDING means that portion of any floor, balcony, platform or similar place, or of any paving or ground, which is situated at the top or bottom of a stairway, ramp or stepped ramp;

BALCONY includes a gallery;

BALUSTRADE includes a wall, screen or railing;

DEEMED LENGTH has the meaning assigned by paragraph (2)(a);

DWELLING means a house, flat or maisonette;

FLIGHT means that part of a stairway or stepped ramp which consists of a step or consecutive steps;

GOING–

(a) in relation to a tread, means the distance (measured on plan) between its nosing and the nosing of the tread, ramp or landing next above it; and

(b) in relation to a landing, means the distance (measured on plan) across the landing along the projection of the centre line of the flight, ramp or section thereof at the top or bottom of which the landing is situated;

LANDING–

(a) means a platform situated between consecutive flights of a stairway; and

(b) unless the context otherwise requires, includes an associated landing;

LENGTH, in relation to a tread, means the least distance (measured on plan) between the sides of the tread;

NOSING means the front edge of a tread and includes the edge of the top surface of any landing or ramp which is situated at the top of a flight;

PARALLEL TREAD means a tread having a uniform width throughout that part of its length which is within the width of the stairway;

PITCH means the angle between the pitch line and the horizontal;

PITCH LINE means a notional line which connects the nosings of all treads in a flight with the nosing of the landing or ramp at the top of the flight, extends down to the landing or ramp at the bottom of the flight and (subject to the provisions in relation to head J in the Table to rule H3) forms the greatest possible angle to the horizontal;

RAMP means any part of a building which provides a route of travel for pedestrians or wheelchair users and has an inclined surface;

RISE means the vertical distance–

(a) between two consecutive treads; or

(b) between a tread and the top surface of a landing or ramp immediately above or below that tread; or

(c) if a threshold forms or surmounts the nosing of a tread or landing, between the top of the threshold and the top surface of the tread or landing at the bottom of the step;

SMALL ROOM means any room having a floor area not exceeding 4 m^2 in the case of a building or compartment of purpose group I, II or III or 30 m^2 in any other case;

STAIRWAY means any part of a building which provides a route of travel and is formed by a single flight or by a combination of two or more flights and one or more intervening landings;

STEP does not include any threshold which–

(a) has a height not exceeding 40 mm in the case of an internal doorway or 75 mm in the case of an external doorway; or

(b) is provided for the purposes of rule E18(6)(c);

STEPPED RAMP means any part of a building which provides a route of travel and is formed by a combination of one or more flights and one or more ramps;

TAPERED TREAD means a tread which has a greater width at one side than at the other and a going which changes at a constant rate throughout its length;

TREAD means the upper surface of a step;

VEHICLE PARK does not include a car showroom, a garage or carport of purpose group I or a single storey building comprising two or more garages each of which has an area not exceeding 40 m^2; and

WIDTH–

(a) in relation to a tread, means the least distance from the nosing of the tread to the face of the riser or, if there is no riser$_1$ to the back edge of the tread; and

(b) in relation to a stairway, ramp or stepped ramp or section thereof, means its unobstructed width, that is to say, clear of handrails and other projections; and, for this purpose, no account shall be taken of any string not exceeding 30 mm in thickness.

(2) For the purposes of this Part–

(a) if consecutive tapered treads are of different lengths, each such tread shall be deemed to have a length equal to the length of the shorter or shortest of those treads; and DEEMED LENGTH shall be construed accordingly;

(b) any reference to a specified purpose group shall be construed as a reference to that purpose group as designated in the Table to rule E2;

(c) the purpose group of a building or compartment shall be determined in accordance with rule E2 except that, if a building or compartment is used or intended to be used for more than one purpose, it shall be regarded as being df the purpose group appropriate to that one of the uses in relation to which this Part prescribes the most onerous standard; and

(d) any portion of a stairway, ramp or stepped ramp serving more than one compartment shall, if the compartments are of

different purpose groups, be regarded as serving that one of the compartments in relation to which this Part prescribes the most onerous standard.

H2 General requirements for stairways, ramps and stepped ramps

(1) Any stairway, ramp or stepped ramp shall comply with the following requirements in so far as they are relevant–

(a) subject to paragraph (2)(a), there shall be a landing at the top and bottom of–

(i) any stairway;

(ii) any ramp which does not form part of a stepped ramp; and (iii) any stepped ramp;

(b) subject to paragraph (2)(b), any such landing and any landing situated between consecutive flights of a stairway shall be level and free from obstruction;

(c) over the whole width of any stairway, ramp or stepped ramp (including its associated landings) there shall be clear headroom of not less than 2 m measured vertically from the pitch line or, where there is no pitch line, from the top surface of any ramp or landing;

(d) if any flight or ramp is subdivided into sections–

(i) the width of each section shall be not less than 1 m; and

(ii) a handrail shall be provided between adjacent sections;

(e) subject to paragraph 2(c), no door, shutter or threshold shall be placed across any flight or ramp or (except a wicket gate) between any landing and any flight or ramp;

(f) if any stairway, ramp or stepped ramp (other than one which is external and serves exclusively one dwelling) is intended to serve as a means of escape or might be so used–

(i) equipment for artificially lighting all parts thereof (including its associated landings) shall be installed; and

(ii) any such installation shall either incorporate means whereby the lighting may be controlled by any person using the stairway, ramp or stepped ramp or means

whereby the lighting may be caused to operate whenever light is required by such a person; and

(g) if any tread, ramp or landing is permitted by rule H3 or H4 to be formed of slats or perforated material and is so formed, no opening in any part of the upper surface thereof within the width of the flight, ramp or landing shall exceed 20 mm in width.

(2) Notwithstanding the requirements of paragraphs (1)(a), (1)(b) and (1)(e) respectively–

(a) the provision of a landing between an external doorway of a building and a stairway or ramp shall not be required if–

(i) the door opens inwards; and

(ii) the total rise of the stairway or ramp does not exceed 600 mm;

(b) a landing of even ground or paving at the top or bottom of an external flight or ramp may slope at a gradient not exceeding 1 in 12; and

(c) a door or shutter may be placed in line with a single step which provides access to a shop window or small room.

H3 Further requirements for stairways

(1) Subject to the provisions of paragraph (2), any stairway (including its associated landings) shall comply with the requirements set out in the Table to this rule in so far as they are relevant.

(2) For the purposes of paragraph (1), any stairway serving a building or compartment of purpose group II or VII in respect of which column (4) of the Table to this rule is relevant to part and column (S) is relevant to the remainder shall be considered as a stairway to which column (4) is relevant to the whole if the part to which column (4) is relevant is the part furthest from the nearest accessibie way out of the building.

(3) Any stairway shall be so constructed that–

(a) there are not more than 36 rises in consecutive flights without a change in the direction of travel of 30° or more;

(b) the pitch of any flight is not greater than the pitch of any other flight which is further from the nearest accessible way out of the building; and

(4) Any flight shall be so constructed that

(a) subject to the provisions of paragraph (5), each tread (irrespective of whether its nosing is straight or curved on plan) is either a parallel tread or a tapered tread;

(b) subject to the provisions of paragraph (6), the rise of any step is uniform throughout its length and is the same as the rise of every other step in the flight;

(c) each tread is level;

(d) the width of each tread, measured at any part, is not less than the going of the tread at that part;

(e) the length of each tread is not less than the width of the stairway;

(f) the nosing of any tread which has no riser below it overlaps on plan the back edge of the tread next below it by not less than 15 mm;

(g) all parallel treads have the same going;

(h) all consecutive tapered treads have–

(i) the same going measured at the centre of the length (or, if applicable, the deemed length) of each tapered tread;

(ii) the same rate of taper; and

(iii) their narrow ends at the same side of the flight; and

(j) if the flight form part of a building of purpose group I, a building or compartment of purpose group II used by persons under the age of five years or a building or compartment of purpose group III, there is no open rise or opening in a riser of such size as would permit the passage through it of a sphere having a diameter of 100 mm.

(5) Notwithstanding the requirements of paragraph (4)(a), either side or both sides of the two treads at the bottom of a flight may be rounded or splayed if the tread otherwise complies with the requirements for a parallel or tapered tread.

(6) The requirements of paragraph (4)(b) shall not apply to a step which is at the top or bottom of a flight and adjoins ground or paving outside a

building if that step has a rise measured at the centre of the flight which is the same as the rise of the other steps in the flight.

(7) The treads and landings of any stairway to which column (4) of the Table to this rule relates shall not be constructed of slats or perforated material.

Table to Rule H3

Specific requirements for stairways

Head	Building or compartment of purpose group I or III–	Building or compartment of purpose group I or III–	Building or compartment of purpose group II or VII–	Building or compartment of purpose group II,III, IV, V, VI, VII or VIII–
	any stairway within a dwelling or serving exclusively one dwelling	any stairway for common use in connection with two or more dwellings	any stairway– (a) within or serving a building or compartment of purpose group II other than a stairway for use solely by staff; or (b) serving a part of a building or compartment of purpose group VII more than 100m^2 in area and used for assembly purposes	any stairway other than a stairway to which either column (2), (3) or (4) relates
(1)	(2)	(3)	(4)	(5)
A. Width of stairway (subject to the provisions of Section II of Part E)	Not less than– (a) 600 mm in the case of a stairway providing access only to– (i) one room, not being a living room or (ii) a bathroom and a watercloset; or (b) 800 mm in any other case	Not less than 900 mm	Not less than 1 m	Not less than– (a) 800 mm in the case of a stairway within or serving a part of a building or compartment which is not kitchen; or capable of being used or occupied by more than 50 persons; or (b) 1 m in any other case
B. Additional requirement for stairways over 1.8 m in width	–	–	Each flight to be so subdivided into sections that each section is– (a) not less than 1 m nor more than l.8m in width; and (b) separated from any other such section by a handrail complying with the requirements	Each flight to be so subdivided into sections that each section is– (a) not less than 1 m nor more than l.8m in width; and (b) separated from any other such section by a handrail complying with the requirements

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			set out against head K	set out against head K
C. Pitch of flight	Not exceeding 42°	Not exceeding 38°	–	–
D. Number of rises per flight. This requirement shall not apply to any step giving access to a dais, stage, shop window or a small room only or situated at an external doorway	Except at the bottom of a stairway, not fewer than 2 nor more than 16	Not fewer than 2 nor more than 16	Not fewer than 3 nor more than 16	Not fewer than 3 nor more than 16
E. Height of rise	Not less than 75 mm nor more than 220.mm	Not less than 75 mm nor more than 190 mm	Not less than 75 mm nor more than 180 mm	Not less than 75 mm nor more than 190 mm
F. Going of step (subject to.the provisions of head J)	Not less than 220 mm	Not less than 240 mm	Not less than 280 mm	Not less than 250 mm
G. Aggregate of the going and twice the rise of a step (subject to the. provisions of head J) This requirement shall not apply to a flight which has only one rise	Not less than 550 mm nor more than 700 mm	Not less than 550 mm nor more than 700 mm	Not less than 550 mm nor more than 700 mm	Not less than 550 mm nor more than 700 mm
H. Going of landings (subject to the provisions of Section II of part E)	Not less than the width of the stairway	Not less than the width of the stairway	Not less than the width of the stairway or (if the stair the stairway or (if the stairway is subdivided) width of the wider or widest section	Not less than the width of the stairway or (if the stair the stairway or (if the stairway is subdivided) width of the wider or widest section
J. Tapered treads	(a) The going of any part of a tread within the width of the stairway to be not less than 75 mm *(b) The going to be not less than 220 mm *(c) The aggregate of the going and twice the rise to be not less than 550 mm nor more than 700 mm *(d) The pitch to be not more than 42° * For the purposes of (b), (c) and (d) above, the going,	(a) The angle (measured on plan) formed by the nosing of the tread and the nosing of the tread or landing immediately above it to be not more than 15° *(b) The going to be not less than 240 mm *(c) The aggregate of the going and twice the rise to be not less than550 mm nor more than700mm *(d) The pitch to be not more more than 38° *For the purposes of (b), (c) and (d) above, the going,	(a) The angle (measured on plan) formed by the nosing of the tread and the nosing of the tread or landing immediately above it to be not more than 15° *(b) The going to be not less than 280 mm *(c) The aggregate of the going and twice the rise to be not less than550 mm nor more than700mm *For the purposes of (b) and(c) above, the going and rise shall	(a) The going of any part of a tread within the width of the stairway to be not less than 75 mm (b) The angle (measured on plan) formed. by the nosing of the tread and the nosing of the tread or landing immediately above it to be, in the case of a stairway 1 m or more in width, not morethan 15° *(c) The going to be not less than 250 mm *(d) The aggregate of the going and twice the rise to be not less than 550 mm nor more than 700mm *For the purposes of (c) (d) above, the going and rise shall

	rise and pitch shall be measured at the central points of the length (or, where applicable, the deemed length) of a tread if the stairway is less than 1 m in width, or at points 270 mm from each end of the length (or where applicable the deemed length) of a tread if the stairway is 1 m or more in width	rise and pitch shall be measured at points 270 mm from each end of the length (or where applicable the deemed length) of a tread	be measured at points 270 mm from each end of the length (or where applicable the deemed length) of a tread	be measured at the central points of the length (or, where applicable, the deemed length) of a tread if the stairway is less than 1 m in width, or at points 270 mm from each end of the length (or where applicable the deemed length) of a tread if the stairway is 1 m or more in width
K. Handrails These requirements shall not apply to any side of a flight formed by fixed seating	Irrespective of the purpose group of the building or compartment– (a) any flight with a total rise of more than 600 mm shall be provided with a handrail– (i) on each side of the flight if the width of the flight is 1 m or more; (ii) on the side where the tapered treads have the greater going if the flight is less than I m in width and contains tapered treads; and (iii) on at least one side in any other case; and (b) any such handrail shall– (i) be so designed as to afford adequate means of support to persons using the flight; (ii) be continuous for the length of the flight (except that any handrail need not extend beside the two steps at the foot of a stairway); (iii) be securely fixed at a height of not less than 840 mm nor more than 1 m (measured vertically above the pitch line); and (iv) be terminated by a scroll or other suitable means			

H4 Further requirements for ramps

(1) Subject to the provisions of paragraph (2), any ramp (including its associated landings) shall comply with the requirements set out in the Table to this rule in so far as they are relevant.

(2) For the purposes of paragraph (I), any ramp serving a building or compartment of purpose group II or VII in respect of which column (4) of the Table to this rule is relevant to part and column (5) is relevant to the remainder shall be regarded as a ramp to which column (4) is relevant to the whole if the part to which column (4) is relevant is the part furthest from the nearest accessible way out of the building.

(3) Any ramp to which column (4) of the Table to this rule relates shall not be constructed of slats or perforated material.

Table to Rule H4

Specific requirements for ramps

Head	Building or compartment of purpose group I or III–	Building or compartment of purpose group I or III–	Building or compartment of purpose group II or VII–	Building or compartment of purpose group II, III, IV, V, VI, VII or VIII–
	any ramp within a	any ramp for	any ramp–	any ramp other than a

	dwelling or serving exclusively one dwelling	common use in connection with two or more dwellings	(a) within or serving a building or compartment of purpose group II other than a ramp for use solely by staff; or (b) serving a part of a building or compartment of purpose group VII more than 100 m^2 in main area and used for assembly purposes	ramp to which either column (2), (3) or (4) relates
(1)	(2)	(3)	(4)	(5)
A. Width of ramp (subject to the provisions of Section II of Part E)	Not less than– (a) 600 mm in the case of a ramp providing access only to– (i) one room, not being a living room or kitchen; or (ii) a bathroom and a watercloset; or (b) 800 mm in any other	Not less than 900 mm	Not less than 1 m	Not less than– (a) 800 mm in the case of a ramp within or serving a part of a building or compartment which is not capable of being used or occupied by more than 50 persons; or (b)1 m in any other case case
B. Slope of ramp	Not more than I in 12	Not more than 1 in 12	Not more than 1 in 12	Not more than 1 in 12
C. Going of landings (subject to the provisions of Section 11 of Part E)	Not less than the width of the ramp	Not less than the width of the ramp	Not less than the width of the ramp or (if the ramp is subdivided) the width of the wider or widest section	Not less than the width of the ramp or (if the ramp is subdivided) the width of the wider or widest section
D. Handrails These requirements shall not apply to any side of a ramp formed by fixed seating	Irrespective of the purpose group of the building or compartment– (a) any ramp with a total rise of more than 600 mm shall be provided with a handrail– (i) on each side if the width of the ramp is 1 m or more; and (ii) on at least one side in any other case; and (b) any such handrail shall– (i) be so designed as to afford adequate means of support to persons using the ramp; (ii) be continuous for the length of the ramp; (iii) be securely fixed at a height of not less than 840 mm nor more than 1 m (measured vertically above the top surface of the ramp); and (iv) be terminated by a scroll or other suitable means			

H5 Further requirements for stepped ramp.

Any stepped ramp (including its associated landings) shall be so constructed that–

(a) any flight and any associated landing situated at the top or bottom of a flight complies with the relevant requirements of rule H3;

(b) any ramp and any associated landing situated at the top or bottom of a ramp complies with the relevant requirements of rule H4; and

(c) the length of any ramp is not less than 1 m nor more than 2 m measured along the centre line of the route of travel.

H6 Guarding of stairways, ramps, stepped ramps, landings, balconies and other places

(1) A balustrade shall be provided in each of the following position–

(a) at each side of any flight or ramp except (if there is no opening or hole in the ground or floor near the bottom of the stairway–

(i) beside the two steps at the bottom of a stairway; or

(ii) beside a stairway with a total rise of not more than 600 mm; and

(b) at the perimeter of each of the following wherever such provision is necessary to ensure reasonable safety for persons having access thereto–

(i) any landing or floor;

(ii) any part of a balcony, platform, roof, vehicle park or other place to which persons have access for purposes other than maintenance or repair;

(iii) any rooflight in such a part of a roof; and

(iv) the ground or paving adjacent to any area into which an external stairway or ramp descends to an extent exceeding 600 mm (measured vertically) below the level of that ground or paving.

(2) Any balustrade required by paragraph (1) shall be designed as a guard and so constructed as to comply with the following provision–

(a) subject to paragraph (3), the height of the balustrade (measured vertically from the pitch line in the case of a balustrade guarding a flight or from the top surface of the place guarded in any other case) shall be not less than the height prescribed in the Table to this rule;

(b) the balustrade shall be capable of resisting the appropriate load specified in Table 3 of CP3: Chapter V: Part 1:1967;

(c) any glazed part of the balustrade shall be formed of glass blocks, toughened glass or laminated safety glass; and

(d) if the balustrade forms part of a building of purpose group I, a building or compartment of purpose group il used by persons under the age of five years or a building or compartment of purpose group III, there shall be no opening in the balustrade of such size as would permit the passage through it of a sphere having a diameter of 100 mm except (in the case of a balustrade guarding a flight) any triangular opening formed by a tread, a rise and the bottom edge of the balustrade if that bottom edge is not more than 50 mm above the pitch line.

(3) Notwithstanding the requirements of paragraph (2)(a), the top of a portion of any balustrade guarding a landing at the top of a flight or ramp may be continuous With, and at the same angle as, the top of a balustrade guarding that ‘light or ramp.

Table 10 Rule H6

Minimum height of balustrade

Description of balustrade	Minimum height of balustrade
(1)	(2)
1. Balustrade (including any superimposed padded rest) which guards a balcony in a building of purpose group VII and is immediately in front of fixed seating	790 mm
2. Balustrade guarding a flight which is within a dwelling or serves only one dwelling	840 mm
3. Balustrade guarding a flight other than a balustrade described in item 2	900 mm
4. Balustrade guarding a ramp landing or floor which is within a dwelling or serves only one dwelling	
5. Any balustrade not described in items 1 to 4	1.1 m

H7 Vehicle barriers

Any floor or roof used as a vehicle park and any part of a building used as a vehicular route thereto shall be guarded (except across any. entrance or exit} at every part of the perimeter of the area so used which is at or above the level of any adjacent floor, vehicular route, street or ground by a barrier complying with clause 9 of CP 3: Chapter V: Part 1:1967.

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PART J

Refuse disposal

J1 Refuse storage container chambers constructed in buildings comprising more than one dwelling

(1) This rule shall apply to any chamber which forms part of a building comprising more than one dwelling and which is constructed to accommodate refuse storage containers into which refuse may be delivered through a hopper or chute.

(2) Such chamber shall be so constructed that–

(a) the walls, floor and roof are made of suitable noncombustible material, and any part of a wall or floor which separates the chamber from the building of which it forms part is constructed as ir it were a compartment wall or compartment floor within the meaning of Section 1 of Part E having fire resistance of one hour or such fire resistance as is required by rule E5 (whichever is the greater);

(b) the inner surfaces of the chamber are impervious to moisture;

(c) the floor of the chamber is laid to a fall towards a trapped guiley situated inside or immediately outside the chamber;

(d) it has as its sole means of access–

(i) for the removal and replacement of the containers, a flush door which is situated in an external wall of the chamber and has fire resistance of not less than half an hour as defined in rule E1(5); and

(ii) for the deposit of refuse in the containers, either a refuse chute which complies with the provisions of rule J2, or a hopper which complies with the provisions of rule J4; and

(e) (where delivery is by way of hopper only) it is ventilated to the external air by means of–

(i) a fly-proof ventilator placed as high as practicable in an external wall of the chamber and so positioned as not to

transmit foul air in such a manner as to become prejudicial to health or a nuisance; or

(ii) a pipe or shaft which complies with rule J3.

J2 Refuse chutes in buildings comprising more than one dwelling

(1) This rule shall apply to any refuse chute constructed for use with a refuse storage container chamber to which rule J1 applies.

(2) Such refuse chute shall be–

(a) constructed of suitable non-combustible materials of such thickness, and so put together and arranged, as to prevent the ignition of any part of the building in the event of any refuse within the chute, or in the chamber at the bottom of the chute, catching fire;

(b) so constructed that the inner surfaces of the chute are impervious to moisture;

(c) so constructed as to prevent the lodgement of any refuse within the chute;

(d) circular in cross-section with an internal diameter of not less than 375 mm;

(e) fitted with adequate means of access for inspection and cleansing;

(f) fitted, for the insertion of refuse, with one or more hoppers which comply with the provisions of rule J4;

(g) ventilated to the external air by means of a pipe or shaft which complies with the provisions of rule J3; and

(h) fitted at its lower extremity with a shutter capable of closing the outlet of the chute.

J3 Pipes or shafts ventilating refuse storage container chambers or refuse chutes

Any pipe or shaft ventilating either a refuse storage container chamber to which rule J1 applies or a refuse chute to which rule J2 applies shall–

(a) comply with the provisions of rule J2(2)(a);

(b) be not less than 17000 mm^2 in cross–sectional area;

(c) be so constructed that the outlet is protected against the entry of rain; and

(d) be carried upwards to such a height and so positioned as not to transmit foul air in such a manner as to become prejudicial to health or a nuisance.

J4 Hoppers for refuse storage container chambers or refuse chutes

(1) This rule shall apply to any hopper constructed for use with a refuse storage container chamber to which rule J1 applies or with a refuse chute to which rule J2 applies.

(2) Such hopper shall–

(a) situated in a place which is either freely ventilated or has adequate means of ‘mechanical ventilation;

(b) constructed of suitable non-combustible material;

(c) so constructed and installed as–

(i) efficiently to discharge any refuse placed in it into the refuse storage container or refuse chute;

(ii) to he incapable of remaining in any position other than the open or the closed position; and

(iii) to prevent, as far as possible, whether in an open or closed position, the emission of dust or foul air from the refuse storage container chamber or refuse chute; and

(d) in the case of a hopper for use in conjunction with a refuse chute, so constructed and installed as not to project into the chute.

(3) No such hopper shall be situated within a dwelling.

PART K

Open space, ventilation and height of rooms

K1 Open space outside windows of habitable rooms

(1) In this rule–

LOWER WINDOW LEVEL means the lowest level of the glass in a window, or 1.2 m above the floor of the room containing the window, whichever is higher;

THE WALL means any wall containing a window in respect of which any calculation under this rule is to he made, and include–

(a) where the window is in two walls at the corner of a room, either one of those walls or a plane joining the vertical extremities of the window opening; and

(b) where the window is in a curved wall, a plane joining the vertical extremities of the window;

TOP OF THE WALL mean–

(a) if the building has a flat roof, the underside of that roof; or

(b) if it has a pitched roof, the lowest part of the eaves of that roof; or

(c) if the roof (whether flat or pitched) has a parapet, the top of that parapet;

UPPER WINDOW LEVEL means the highest level of the glass in a window; WINDOW includes any glazed opening in an external wall of a building, but does not include any part of such a wall which is constructed of glass blocks; and

WINDOW HEIGHT means the height from the lower window level to the upper window level.

(2) This rule shall apply to any habitable room (except a room used for the lawful detention of persons other than mentally disordered persons) which has one or more window–

(3) If such room has one window only, there shall be a minimum zone of open space outside the window such as to leave adjacent to the window

an upright shaft of space wholly open to the sky (with the exception of any projection permitted by paragraph (6)), the base of the shaft being formed by a plane inclined upwards at an angle of 30° to the horizontal from the wall at the lower window level and its sides coinciding with the following four vertical planes–

(a) an outer plane which is parallel to the wall and which–

(i) is at a distance from the wall of 2m, or such distance as may be required by paragraph (7), or (subject to a limit of 8 m) one third the distance between the upper window level and the top of the wall containing the window, whichever is greatest;

(ii) has a width equal to its required distance from the wall; and

(iii) is so located that some part of it is directly opposite some part of the window;

(b) an inner plane which coincides with the external surface of the wall and which–

(i) has a width such that the product of that width and the window height equals one tenth of the floor area of the room containing the window; and

(ii) is located wholly between the sides of the window or, where it is required to be wider than the window, is so located that it extends across the whole width of the window, and overlaps it on either or both sides; and

(c) two lateral planes joining the corresponding extremities of the inner plane and outer plane.

(4) If such room has two or more windows, there shall be either–

(a) a zone of open space outside any one window which complies with the requirements of paragraph (3); or

(b) zones of open space outside two or more of such windows, in each case complying with the requirements of paragraph (3) except that the width of the inner planes shall be such that the total of the products of the width of each inner plane and the corresponding window height equals one tenth of the. floor area of the room.

(5) Any zone of open space required by this regulation shall be wholly–

(a) unobstructed by any rising ground or by any building or other structure or erection (with the exception of any projection permitted by paragraph (6)); and

(b) over–

(i) land exclusively belonging to the building containing the window; or

(ii) the portion of any street or public passageway adjacent to the building or the land, but only to the centre line thereof; or

(iii) land which may under rule K2 be treated as available for the purposes of this sub-paragraph; or

(iv) over any such land and any such portion of a street, or public passageway as aforesaid.

(6) The following projections shall be permitted in front of the inner plane described in paragraph (3)(b)–

(a) the structure of the window if it is a bay Window or oriel window; or

(b) a conservatory on the same storey as the window; or

(c) a verandah or other similar projection which is on the same storey as the window and either has a roof of glass or other translucent material or projects not more than 1.5 m horizontally in front of the inner plane; or

(d) any projection above the upper window level extending not more than 1.5 m horizontally in front of the inner plane.

(7) If any projection permitted by paragraph (6)(d) extends more than 600 mm in front of the inner plane, the minimum distance between the outer plane and inner plane specified in paragraph (3)(a)(i) shall be increased by the amount in excess of 600 mm by which such projection extends horizontally in front of the inner plane:

Provided that nothing in this paragraph shall affect the calculation of the width of the outer plane specified in paragraph (3)(a)(ii).

K2 Shared land on housing estates

For the purposes of rule K1(5)(b)(iii) (which specifies the land over which the zone of open space is to be located), if–

(a) there is any land laid out and developed as an estate with defined boundaries and buildings containing habitable rooms are erected or intended to be erected on that land; and

(b) such arrangements by contract or otherwise are made by the developer as will ensure that defined land within the estate will be used in common by the occupants of the buildings as of right for the purposes of amenity,

any part of such land so used in common (other than land over which the minimum zone of open space relevant to a window in any other building on the estate is located) may be treated as available in respect of a window in any building on such estate.

K3 Preservation of zones of open space

(1) No building shall be so altered or extended as to cause the zone of open space outside the window or windows of any habitable room in the building to contravene the provisions of rule K1 or (if that zone already contravenes those provisions) to cause the zone to contravene those provisions to any greater extent:

Provided that a private dwelling-house erected under former control may be altered or extended the rear by the addition of a kitchen, scullery, wash-house, watercloset or bathroom if there is an area of open space of not less than 6 m^2 at ground level which is adjacent to the part of the house so altered or extended and exclusively belonging to such house.

(2) If any building constructed under former control is re-erected alter having been burnt down or pulled down to the extent described in rule A4(8)(a) or (b), the area of open space at ground level adjacent to and exclusively belonging to the building as re~rected shall be not less extensive than the area of open space which existed immediately before the building was burnt down or pulled down.

(3) No building or other structure or erection shall be so erected, altered or extended as to cause the zone of open space outside any window of a habitable room in any other building to be diminished so as to contravene the provisions of rule K1 or (if the existing zone of open space already contravenes those provisions) to cause the zone of open space to contravene those provisions to any greater extent.

(4) Where any building or part of a building was originally constructed as a. private dwelling-house and has been appropriated to other purposes, nothing in this Part shall prohibit its use as a private dwelling-house if the

area of open space at ground level, adjacent to and exclusively belonging to the building is not less extensive than the area of open space. which existed immediately before the appropriation to other purposes took place.

K4 Means of ventilation

(1) For the purposes of this regulation–

HABITABLE ROOM includes a room used for kitchen or scullery purposes but does not include a room intended to be used for the lawful detention of any person other than a mentally disordered person; and

VENTILATION OPENING means any openable part of a window or any hinged panel, adjustable louvre or other means of ventilation which opens directly to the external. air, but excluding any opening associated with a mechanically operated system.

(2) If any storey of a building contains a dwelling or part of a dwelling, that storey shall have effective means of ventilation.

(3) Subject to the provisions of paragraph (5), any habitable room shall (unless it is adequately ventilated by mechanical means) have one or more ventilation openings so constructed that–

(a) their total area is equal to not less than one twentieth of the floor area of the room; and

(b) some part of such area is not less than 1.75 m above the floor.

(4) For the purposes of paragraph (3), a door which opens directly to the external air shall be deemed to be a ventilation opening if–

(a) such door contains a ventilator with an area of not less than 10000 mm^2 capable of being opened (without the door being opened); or

(b) the room contains one or more ventilation openings having a total area of not less than 10000 mm^2, in addition to such door.

(5) A habitable room opening into an enclosed verandah, conservatory or similar place shall be deemed to comply with the provisions of this rule if such room and such enclosed place together have one or more ventilation openings which, if they ventilated a room having a floor area equal to the combined floor areas of such habitable room and such enclosed place, would comply with the requirements of paragraph (3).

K5 Ventilation openings on to courts

(1) For the purposes of this rule–

TOP OF THE WALL has the meaning assigned by rule K1(1); and

VENTILATION OPENING has the meaning assigned by rule K4(1).

(2) No ventilation opening constructed in compliance with the requirement of rule K4 shall be so situated as to open on to a court enclosed on every side unless the distance from the ventilation opening to the opposite wall of the court is either–

(a) 8 m or more; or

(b) not less than one third the vertical distance between the top of such opening and the top of the wall containing the opening.

(3) No ventilation opening constructed in compliance with the requirements of rule K4 shall be so situated as to open on to a court which has one side unobstructed by any building or other erection and of which the length, measured from such unobstructed side, exceeds twice the width unless such ventilation opening–

(a) is in the side of the court opposite the unobstructed side; or

(b) (if it is situated in either of the long sides) is within a distance from the unobstructed side not exceeding twice the width of the court; or

(c) (if it is situated in either of the long sides) is in such a position that the distance from such opening to the opposite wall of the court is either–

(i) or more; or

(ii) not less than one third the vertical distance between the top of such opening and the top of the wall containing the opening.

K6 Ventilation of larders

(1) Any larder for the storage of perishable food (other than an enclosed space having means of refrigeration) shall (unless it is adequately ventilated by mechanical means) be ventilated to the external air by means of–

(a) one or more windows; or

(b) two or more ventilators capable of being closed, of which one is in the upper part and another in the lower part of the larder.

(2) Any such window or windows shall be–

(a) fitted with a durable fly–proof screen; and

(b) so constructed that a total area of not less than 85000 mm^2 is capable of being opened.

(3) Any such ventilator shall be–

(a) fitted with a durable fly-proof screen;

(b) so constructed as to permit (when open) the passage of air through an opening having an unobstructed area of not less than 4500 mm^2; and

(c) either situated in an external wall of the building or separately connected with the external air by a duct not less than 16000 mm^2 in cross-sectional area and having a smooth internal surface.

K7 Ventilation of common stairways

Any part of a stairway shall have adequate means of ventilation if it is–

(a) intended for common use within any building constructed for occupation as separate dwellings by more than one family;

(b) above the ground storey; and

(c) not open to the external air.

K8 Height of habitable rooms

(1) Any habitable room in a building shall be so constructed that (except beneath a beam or beneath the ceiling to a bay window) the. height of such room shall be not less than 2.3 m:

Provided that, if such room is wholly or partly in the roof of the building, its height shall be not less than 2.3 m over an area of the floor of the room equal to not less than one half of the area of that room measured on a plane 1.5 m above the floor.

(2) The height of such room measured beneath any beam in that room and the clear headroom in any bay window in such room shall be not less than 2 m.

(3) For the purposes of this rule, no account shall be taken of the projection of any joist or rafter in the ceiling of a room.

PART L

Chimneys, flue pipes, hearths and fireplace recesses

L1 Application and interpretation of Part L

(1) In this Part–

APPLIANCE means–

(a) a heat-producing appliance (including a cooker) which is designed to burn–

(i) solid fuel (in this Part called a SOLID FUEL APPLIANCE); or

(ii) oil (in this Part called an OIL-BURNING APPLIANCE); or

(iii) gaseous fuel (in this Part called a GAS APPLIANCE); and

(b) an incinerator employing any means of igniting refuse, including electricity;

APPLIANCE VENTILATION DUCT means a duct forming a passage which in one part serves to convey combustion air to one or more gas appliances, in another part serves to convey the products of combustion from one or more gas appliances to the external air and intermediately serves both purposes;

CHIMNEY includes any part of the structure of a building forming any part of a flue other than a flue pipe;

CLASS I APPLIANCE means–

(a) a solid fuel appliance or oil-burning appliance having, in either case, an output rating not exceeding 45 kW; or

(b) an incinerator having a refuse combustion chamber exceeding 0.03 m^3 but not exceeding 0.08 m^3 in capacity,

and CLASS I shall be construed accordingly;

CLASS II APPLIANCE means–

(a) a gas appliance having an input rating not exceeding 45 kW; or

(b) an incinerator having a refuse combustion chamber not exceeding 0.03 m^3 in capacity,

and CLASS II shall be construed accordingly;

CONSTRUCTIONAL HEARTH means a hearth forming part of the structure of a building;

DISCHARGE means the discharge of the products of combustion;

EXTERNAL WALL includes any external cladding or internal lining;

FLOOR includes any ceiling which is applied or fixed to the underside of the floor;

FLUE means a passage for conveying the discharge of an appliance to the external air and includes any part of the passage in an appliance ventilation duct which serves the purpose of a flue;

FLUE PIPE means a pipe forming a flue but does not include a pipe built as a lining into either a chimney or an appliance ventilation duct;

GAS FIRE means a flued gas appliance for beating one room, mainly by the emission of radiant heat, and not comprising any water heating component;

HIGH-RATING APPLIANCE means–

(a) a solid fuel appliance or oil-burning appliance having, in either case, an output rating exceeding 45 kW; or

(b) a gas appliance having an input rating exceeding 45 kW; or

(c) an incinerator having a refuse combustion chamber exceeding 0.08 m^3 in capacity,

and HIGH-RATING shall be construed accordingly;

INSULATED METAL CHIMNEY means a chimney comprising a flue lining, non-combustible thermal insulation and a metal outer casing;

MAIN FLUE means a flue serving more than one appliance;

ROOF includes any ceiling which is applied or fixed to the underside of a roof and is in a plane parallel to that of the roof covering;

ROOM-SEALED APPLIANCE means a gas appliance which draws its combustion air from a point immediately adjacent to the point where it discharges its products of combustion and is so designed that the inlet, outlet and combustion chamber of the appliance, when installed, are isolated from the room or internal space in which the appliance is situated except for a door for ignition purposes;

SUBSIDIARY FLUE means a flue conveying the discharge of one appliance into a main flue; and

SUPERIMPOSED HEARTH means a hearth not forming a part of the structure of a building.

(2) (a) The provisions of this rule and of rule L2(1)(a), (4)(a) and (6) shall apply to the construction of a chimney which is a separate building.

(b) The provisions of this rule and of the rules specified in rule L22(1) shall apply to the construction of an insulated metal chimney which serves a Class I or Class II appliance.

(c) Except as specified in this paragraph, the provisions of this Part shall not apply to chimneys described in this paragraph.

(3) Any provision in this Part which applies to a chimney, flue pipe, fireplace recess or constructional hearth serving a Class I appliance shall also apply where a solid fuel fire is intended to burn directly on a hearth without the installation of any appliance whatsoever.

(4) In relation to any Class I oil-burning appliance to which reference is made in rule M5, rules L3 to L7 and L10 shall not apply unless compliance therewith is required by the provisions of rule M4.

L2 General structural requirements

(1) (a) Any chimney, flue pipe, constructional hearth or fireplace recess (whether serving a high-rating, Class I or Class II appliance) shall be–

(i) constructed of non-combustible materials of such a nature, quality and thickness as not to be unduly affected by heat, condensate or the products of combustion; and

(ii) so constructed and of such thickness, or, in the case of a flue pipe, so placed or shielded, as to prevent the ignition of any part of any building.

(b) Nothing in sub-paragraph (a)(i) shall prohibit–

(i) the placing in a chimney or fireplace recess serving a Class I or Class II appliance of a damp-proof course of combustible material if it is solidly bedded in mortar; or

(ii) the placing in a chimney or fireplace recess serving a Class I appliance of any combustible material in a position not prohibited by rule L10; or

(iii) the use of flue blocks having suitable combustible material incorporated during manufacture between the inner wall and surrounding material of the flue block or, if necessary to provide an expansion gap, the placing of such material between a flue lining and the surrounding material in a chimney; or

(iv) the laying of combustible material upon the surface of a hearth in a position not prohibited by rule 144(2).

(2) Any chimney or flue pipe (whether serving a high-rating, Class I or Class II appliance) shall be so constructed as to prevent any products of combustion escaping internally into the building.

(3) Any flue pipe (whether serving a high-rating, Class I or Class II appliance) shall–

(a) be so placed or shielded as to ensure that, whether the pipe is inside or outside the building, there is neither undue risk of accidental damage to the flue pipe nor undue danger to persons in or about the building;

(b) be properly supported and

(c) discharge either into a chimney or into the external air.

(4) (a) The outlet of any flue other than a flue described in sub-paragraph (b) shall be so situated as to prevent the discharge therefrom into the external air from entering any opening in a

building in such concentration as to be prejudicial to health or a nuisance.

(b) The outlet of a flue which serves a Class I or Class II appliance and is not the flue of a chimney which is a separate building shall comply with rule L13 or L21 as the case may be.

(5) If provision is made for a solid fuel fire to burn directly on a hearth, secure means of anchorage for an effective fireguard shall be provided in the adjoining structure.

(6) If a flue serves an appliance which burns solid fuel or oil or is an incinerator, an opening into the flue shall be constructed so as to enable the flue to be cleaned and shall be fitted with a closely fitting cover of noncombustible material:

Provided that the requirements of this paragraph shall not apply if, while the appliance is in position, the flue is accessible for cleaning through the appliance or (if the flue communicates with a fireplace recess) through the appliance or the fireplace recess.

L3 Fireplace recesses for Class I appliances

(1) Any fireplace recess serving a Class I appliance shall have a constructional hearth which complies with the requirements of rule L4.

(2) Subject to paragraph (3), any fireplace recess serving a Class I appliance which is constructed of bricks or blocks of concrete or burnt clay or of concrete cast *in situ* shall be so constructed that–

(a) the jamb on each side of the recess is not less than 200 mm thick;

(b) the back of the recess is a solid wall not less than 200 mm thick or a cavity wall each leaf of which is not less than 100 mm thick; and

(c) any such thickness extends for the full height of the recess:

Provided that–

(i) if the recess is situated ili an external wall and no combustible external cladding is carried across the back of the recess, the back of the recess may be a solid wall less than 200 mm thick but not less than 100 mm thick; and

(ii) if any part of a wall, other than a wall separating buildings or dwellings within a building, serves as the back of each of two recesses built on opposite sides of the wall, that part of the wall may be a solid wall less than 200 mm but not less than 100 mm thick.

(3) For the purposes of paragraph (2), no account shall be taken of the thickness of any part of a fireback or other appliance or the thickness of any material between an appliance and the fireplace recess.

(4) No opening shall be made in the back of a fireplace recess other than an opening which–

(a) is made solely for the purpose of allowing the passage of convected air; and

(b) does not communicate with a flue.

L4 Constructional hearths for Class I appliances

(1) Any constructional hearth serving a Class I appliance shall–

(a) be not less than 125 mm thick;

(b) (if it adjoins a floor constructed wholly or partly of combustible material, or if combustible material is laid on the hearth as a continuation of the finish of the adjoining floor in accordance with the provisions of paragraph (2)) be so constructed that any part of the exposed surface of the hearth, which is not more than 150 mm, measured horizontally, from the said floor or combustible material, is not lower than the surface of the floor and not lower than the remainder of the exposed surface of the hearth; and either

(c) (if it is constructed in conjunction with a fireplace recess)–

(i) extend within the recess to the back and jambs of the recess;

(ii) project not less than 500 mm in front of the jambs; and

(iii) extend outside the recess to a distance of not less than 150 mm beyond each side of the opening between the jambs; or

(d) (if it is constructed otherwise than in conjunction with a fireplace recess) be of such dimensions as to contain a square having sides measuring not less than 840 mm.

(2) No combustible material shall be laid on a constructional hearth serving a Class I appliance as a continuation of the finish of the adjoining floor which–

(a) (if the appliance is installed directly upon or over the constructional hearth) would be nearer to the base of the appliance when installed than the distances specified in rule M4(4); or

(b) (if the appliance is installed upon or over a superimposed hearth which complies with the requirements of rule M4(3)(c)) would extend under the superimposed hearth to a distance of more than25 mm or be nearer to the base of the appliance when installed than 150 mm, measured horizontally.

(3) No combustible material, other than timber fillets supporting the edges of a hearth where it adjoins a floor, shall be placed under a constructional hearth serving a Class I appliance within a distance of 250 mm, measured vertically, from the upper surface of the hearth unless such material is separated from the underside of the hearth by an air space of not less than 50 mm.

(4) Nothing in this rule shall prohibit–

(a) the construction of a pit to hold the ash container of an appliance if–

(i) the sides and bottom of the pit are constructed of non-combustible material not less than 50 mm thick;

(ii) there is no opening in the sides or bottom of the pit other than the outlet of any duct constructed in compliance with sub-paragraph (b) or (if a side of the pit is formed by an external wall of the building) an opening situated so as to permit the removal of the container from outside the building and fitted with a closely fitting cover of non-combustible material;

(iii) no combustible material is built into a wall below or beside the pit within 225 mm of the inner surface of the pit; and

(iv) any combustible material placed elsewhere than in a wall below or beside the pit is separated from the outer

surface of the pit by an air space of not less than 50 mm; or

(b) the construction below the upper surface of a constructional hearth of a duct to be used solely for the admission of combustion air to an appliance either from outside the building or (if the floor adjoilling the hearth is a floor next to the ground and is constructed as a suspended floor) from the space beneath the floor if the duct is smoke-tight and constructed of non-combustible material.

L5 Walls and partitions adjoining hearths for Class I appliances

Subject to the requirements of rule M4(7), if any part of a wall or partition, other than a wall forming the back or a jamb of a fireplace recess which complies with the requirements of rule L3, adjoins, or is within 150 mm of, a constructional hearth serving a Class I appliance, that part shall be constructed to a height of not less than 1.2 m above the upper surface of the hearth of solid non-combustible material not less than 75 mm thick.

L6 Chimneys for Class I appliances

(1) Any chimney serving a Class I appliance shall be either–

(a) lined with any one of the following–

(i) clay flue linings complying with BS 1181:1971; or

(ii) rebated or socketed flue linings made from kiln-burnt aggregate and high alumina cement; or

(iii) clay pipes and fittings which comply with BS65 & 540: Part 1:1971 and are of British Standard type, socketed, imperforate and acid resistant; or

(b) constructed of concrete flue blocks made of, or having inside walls made of, kiln-burnt aggregate and high alumina cement and so made that no joints between blocks other than bedding joints adjoin any flue:

Provided that, notwithstanding the requirements of this paragraph, a chimuey may be lined with a flexible flue liner if–

(i) the chimney is already lined or constructed in accordance with this paragraph; or

(ii) the chimney is not so lined or constructed but was erected under former control.

(2) Any linings or blocks described in paragraph (1) shall be jointed and pointed with cement mortar and any linings described in paragraph (1)(a) shall be so built into the chimney that the socket of each component is uppermost.

(3) If a chimney serving a Class I appliance is either–

(a) constructed of bricks or blocks of concrete or burnt clay or of concrete cast *in situ* and in any case lined with one of the materials specified in paragraph (1)(a); or

(b) constructed of flue blocks in compliance with paragraph (1)(b),

any flue in the chimney shall be surrounded and separated from any other flue in the chimney by solid material not less than 100 mm thick, excluding the thickness of any flue lining:

Provided that–

(i) if the chimney forms part of a wall separating buildings or dwellings within a building and is not back-to-back with another chimney, that part of the chimney which is below the roof and separates a flue from the adjoining building or dwelling shall comprise either a solid wall not less than 200 mm thick or a cavity wall, each leaf of which is not less than 100 mm thick; and for the purposes of this subparagraph, any such thickness shall not include the' thickness of any flue lining; or

(ii) if the chimney forms part of an external wall and is constructed of blocks complying with paragraph (1)(b), and there is a distance of not less than 140 mm between the flue and any timber external cladding or other combustible material adjoining the outer surface of that part of the chimney which separates the flue from the external air, such part may be less than 100 mm thick but not less than 65 mm thick.

(4) If a flue in a chimney serving a Class I appliance communicates with a fireplace recess, the dimensions of every part of the flue, measured in cross-section, shall be such as will contain a circle having a diameter of not less than 175 mm:

Provided that nothing in this paragraph shall prohibit restriction of the flue to form a throat.

(5) If a flue in a chimney serving a Class I appliance does not communicate with a fireplace recess, the flue shall terminate at its lower end in a chamber which–

(a) has means of access for inspection and cleaning fitted with a non-combustible closely fitting cover; and

(b) is capable of containing a condensate collecting vessel.

(6) No part of a flue in a chimney serving a Class I appliance shall make an angle with the horizontal of less than 450

(7) Nothing in this rule shall apply to any part of a flue in a chimney pot or other flue terminal.

L7 Flue pipes for Class I appliances

(1) No flue pipe serving a Class I appliance (whether encased or not) shall pass through any roof space, floor, internal wall or partition:

Provided that nothing in this rule shall prohibit a flue pipe from passing through–

(a) a floor supporting a chimney, so as to discharge vertically into the bottom of a flue in that chimney; or

(b) a wall forming part of a chimney, so as to discharge into the side of a flue in that chimney.

(2) The cross-sectional area of any flue pipe serving a Class I appliance shall not be less than the cross-sectional area of the outlet of that appliance.

(3) For the purposes of this rule, the expression ROOF SPACE shall not include any void between the roof covering and any ceiling which is applied or fixed to the underside of the roof and is in a plane parallel to that of the roof covering.

L8 Deemed-to-satisfy provisions regarding materials for flue construction of flue pipes for Class I appliances

A flue pipe serving a Class I appliance shall be deemed to satisfy such requirements of rule L2(1)(a)(i) as relate to the nature, quality and thickness of its materials if–

(a) it is constructed of cast iron complying with BS 41:1973 or of mild steel not less than 4.75 mm thick; or

(b) (being a pipe serving an appliance which is neither an open fire nor capable of being used as an open fire) any part of the pipe which is within 1.8 m of its junction with the appliance is constructed of materials specified in sub-paragraph (a) and any other part of the pipe is of heavy quality asbestos-cement complying with BS835: 1973; or

(c) (being a pipe serving a free-standing appliance which is an open fire and is not capable of being used as a closed stove) the pipe connects the outlet of the appliance to a chimney, is not mare than 460 mm long and is made of sheet steel haying a thickness of not less than 1.2 mm.

L9 Deemed-to-satisfy provisions regarding placing and shielding of flue pipes for Class I appliances

(1) A flue pipe serving a Class I appliance shall be deemed to satisfy such requirements of rule L2(1)(a)(ii) as relate to its placing or shielding af it complies with the relevant provisions of this rule.

(2) If the flue pipe passes through a roof or external wall otherwise than for the purpose of discharging in the manner described in rule L10(2) or (3), the flue pipe shall be–

(a) at a distance of not less than three times its external diameter from any combustible material forming part of the roof or wall; or

(b) (i) (in the case of a pipe passing through a roof) separated from any combustible material forming part of the roof by solid non-combustible material not less than 200 mm thick; or

(ii) (in the case of a pipe passing through an external wall) separated from any combustible material forming part of the wall by solid non-combustible material not less than 200 mm thick (if the combustible material is below or beside the pipe)I or not less than 300 mm thick (if the combustible material is above the pipe); or

(c) enclosed in a sleeve of metal or asbestos-cement which–

(i) is carried through the roof or wall to project not less than 150 mm beyond any combustible material forming part of the roof or wall;

(ii) has between the sleeve and the pipe a space of not less than 25 mm packed with non-combustible thermal insulating material; and

(iii) (if the roof or wall is of hollow construction with an air space between the outer surface of the sleeve and any combustible material in tile roof or wall) is so fitted that such material is not less than 25 mm from tile outer surface of the sleeve and not less than one and a half times the external diameter of the pipe from the outer surface of the pipe; or

(iv) (if the roof or wall is of solid construction) is so fitted that any combustible material forming part of the roof or wall is not less than a 190 mm from the outer surface of the pipe and is separated from the outer surface of the sleeve by solid non-combustible material not less than 115 mm thick.

(3) Where the flue pipe is adjacent to a wall or partition, it shall be at a distance of–

(a) not less than three times its external diameter from any combustible material forming part of the wall or partition; or

(b) not less than one and a half times its external diameter from any such combustible material, lf such material is protected by a shield of non-combustible material which–

(i) is so placed that there is an air space of not less than 12.5 mm between the shield and the combustible material or between the shield and any non-combustible material which covers the combustible material; and

(ii) is of such width, and is fixed between the wall or partition and the pipe in such a position in relation to the pipe, that it projects on either side of it for a distance of not less than one and a half times the external diameter of the pipe.

(4) If the flue pipe passes under any floor, roof or ceiling, it shall be at a distance of–

(a) not less than four times its external diameter from any combustible material forming part of the floor, roof or ceiling; or

(b) not less than three times its external diameter from any such combustible material, if such material is protected by a shield of non-combustible material which–

(i) has an air space of not less than 12.5 mm between the shield and the combustible material or between the shield and any non-combustible material which covers the combustible material; and

(ii) is of such width and is fixed between the pipe and the floor, roof or ceiling in such a position in relation to the pipe that it projects on either side of it for a distance of not less than two and a half times the external diameter of the pipe.

L10 Proximity of combustible material – Class I appliances

(1) Subject to paragraphs (2) and (3), no combustible material shall be so placed in any chimney or fireplace recess serving a Class I appliance, or in any wall of which such a chimney or recess forms part, as to be nearer to a flue, to the inner surface of the recess, or to an opening into a flue or through the back or jambs of the recess, than 150 mm (in the case of a wooden plug) or 200 mm (in the case of any other material).

(2) Where a flue pipe serving a Class I appliance discharges into the side of a flue in a chimney, any combustible material placed in the chimney, or in any wall of which the chimney forms part, shall be separated from the flue pipe by solid non-combustible material not less than 200 mm thick (if such material is beside or below the pipe) or not less than 300 mm thick (if such material is above the pipe).

(3) Where a flue pipe serving a Class I appliance discharges into the bottom of a flue in a chimney supported by a slab, floor or roof, any combustible material forming part of or placed in the slab, floor or roof shall be separated from the flue pipe by solid non-combustible material not less than 200 mm thick.

(4) Where the thickness of solid non-combustible material surrounding a flue in a chimney serving a Class I appliance is less than 200 mm, no combustible material, other than a floorboard, skirting board, dado rail, picture rail, mantel-shelf or architrave, shall be so placed as to be nearer than 38 mm to the outer surface of the chimney.

(5) No metal fastening which is in contact with combustible material shall be so placed in any chimney or fireplace recess serving a Class I appliance, or in any wall of which such a chimney or recess forms part, as to be nearer than 50 mm to a flue, to the inner surface of the recess, or to an opening into a flue or through the back or jambs of the recess.

L11 Openings into flues for Class I appliances

No opening shall be made into any flue in a chimney or flue pipe serving a Class I appliance except–

(a) an opening made for inspection or cleaning and fitted with a closely fitting cover of non-combustible material; or

(b) an air inlet which is in the same room or internal space as tile appliance, is fitted with a cover of non-combustible material and is capable of being closed; or

(c) an opening which is in the same room or internal space as the appliance and is fitted with a draught stabiliser or explosion door of non-combustible material.

L12 Flues communicating with more than one room or internal space – Class I appliance

No flue in a chimney or flue pipe serving a Class I appliance shall communicate with more than one room or internal space in a building:

Provided that nothing in this rule shall prohibit–

(a) the installation of a back-to-back grate; or

(b) the installation of two or more gas-fired incinerators in accordance with the requirements of rule M6(2); or

(c) the making of an opening which complies with the description contained in rule L11(a) for the purpose of giving access to a flue from a room or internal space other than that in which the appliance is installed.

L13 Outlets of flues for Class I appliances

The outlet of any flue in a chimney or flue pipe serving a Class I appliance shall be so situated that the top of such chimney or flue pipe (exclusive of any chimney pot or other flue terminal) is not less than–

(a) 1 m above the highest point of contact between the chimney or flue pipe and the roof:

Provided that, where a roof has a pitch on both sides of the ridge of not less than 100 with the horizontal and the chimney or flue pipe passes through the roof at or within 600 mm of the ridge, the top of the chimney or flue pipe (exclusive of any

chimney pot or other flue terminal) may be less than I m but not less than 600 mm above the ridge;

(b) 1 m above the top of any part of a window or skylight capable of being opened, or of any ventilator, air inlet to a ventilation system or similar opening, which is situated in any roof or external wall of a building and is not more than 2.3 m, measured horizontally, from the top of the chimney or flue pipe; and

(c) 1 m above the top of any part of a building (other than a roof, parapet wail or another chimney or flue pipe) which is not more than 2.3 m, measured horizontally, from the top of the chimney or flue pipe.

L14 Chimneys for Class II appliances

(1) Subject to the provisions of paragraph (5), any chimney serving a Class II appliance, not being an appliance ventilation duct, shall be either–

(a) lined with any one of the following–

(i) acid-resistant tiles embedded in, and pointed with, high alumina Cement mortar; or

(ii) pipes which comply with specification (a) of rule L16; or

(iii) clay flue linings which comply with BS 1181:1971 and are jointed and pointed with high alumina cement mortar; or

(b) constructed of dense concrete blocks made of, or having inside walls made of, high alumina cement, and in either case jointed and pointed with high alumina cement mortar:

Provided that nothing in sub-paragraph (b) shall prohibit the use of bricks or of dense concrete blocks made otherwise than with high alumina cement, in either case jointed and pointed with cement mortar, for the construction of a chimney without flue linings if–

(i) the flue serves one appliance only;

(ii) the appliance served by the flue is of a type described in column (2) of the Table to this rule; and

(iii) the length of the flue is such as is permitted by the Table having regard to the particulars of the flue and the type of appliance specified therein.

(2) Any flue in a chimney serving a Class II appliance (including an appliance ventilation duct) shall be surrounded and separated from any other flue in the chimney by solid material not less than 25 mm thick:

Provided that where two or more flue pipes are encased in a duct, nothing in this paragraph shall require such flue pipes to be so separated.

(3) No fastening, other than a noncombustible support to a flue liner, shall be built into, or placed in, any chimney serving a Class 11 appliance (including an appliance ventilation duct) within 25 mm of any flue.

(4) Nothing in this rule shall apply to any part of a flue in a chimney pot or other flue terminal.

(5) Notwithstanding the requirements of paragraph (1), a chimney serving a Class 11 appliance (not being an appliance ventilation duct) may be lined with a flexible flue liner if–

(a) the chimney is already lined or constructed in accordance with that paragraph; or

(b) the chimney is not so lined or constructed but was erected under former control.

Table to Rule L14

Maximum length of certain flues

Situation of flue	Type of appliance	Maximum length of flue (in m)	
		If flue is circular or square, or is rectangular and has the major dimension not exceeding three times the minor minor dimension	If flue is rectangular and has the major dimension exceeding three times the dimension
(1)	(2)	(3)	(4)
(a) Flue formed by a chimney or flue pipe which is internally situated(that is to say, otherwise than as (b) below)	Gasfire	21	12
	Heater installed in drying cabinet or airing cupboard or instantaneous water heater	12	Not permitted
	Air heater or continuously burning water heater	6	Not permitted
(b) Flue formed by a	Gas fire	11	6

chimney having one or more external walls; or by a flue pipe which is situated externally or within a duct having one or more external walls	Heater installed in drying cabinet or airing cupboard or instantaneous water heater	6	Not permitted

L15 Flue pipes for Class II appliances

Any flue pipe serving a Class II appliance shall, if it is constructed of pipes of the spigot and socket type, have the socket of each component uppermost.

L16 Deemed-to-satisfy provisions regarding materials for the construction of flue pipes for Class II appliances

A flue pipe serving a Class II appliance shall be deemed to satisfy such requirements of rule L2(I)(a) as relate to the nature, quality and thickness of its materials if it complies with any of the following specifications–

(a) clay pipes and fittings which comply with BS65 & 540: Part J: 1971, are of British Standard type, socketed, imperforate and acid resistant and are jointed and pointed with high alumina cement mortar; or

(b) cast iron spigot and socket flue pipes and fittings which comply with BS4I: 1973 and are coated on the Inside with acid-resistant vitreous enamel and jointed with an acid-resistant compound or

(c) sheet metal flue pipes and fittings which comply with BS 715: 1970
excluding the reference to epoxy resin from Table 2 of that publication; or

(d) stainless steel pipes and fittings; or

(e) asbestos-cement flue pipes and fittings which–

(i) Comply with BS835: 1973 or (except where they form a flue serving an incinerator) BS567: 1973; and

(ii) (unless the flue serves one appliance only. and that appliance is of a type specified in column (2) of the Table to rule L14, and the length of the flue is such as is

permitted by that Table having regard to the particulars of the flue and the type of appliance specified therein), are coated on the inside with an acid-resistant compound which either is prepared from vinyl acetate polymer or has a rubber derivative base; and are jointed with an acid-resistant compound.

L 17 Deemed–to-satisfy provisions regarding placing and shielding of flue pipes for Class II appliances

(1) A flue pipe serving a Class II appliance shall be deemed to satisfy such requirements of rule L2(1)(a)(ii) as relate to its placing and shielding if–

(a) no part of the flue pipe is less than 50 mm from any combustible material; and

(b) where it passes through a roof floor, ceiling, wall or partition constructed of combustible materials, the flue pipe is enclosed in a sleeve of non-combustible material and is separated from the sleeve by an air space of not less than 25 mm.

(2) A flue pipe serving a Class II appliance (being a pipe which is situated neither in the room or internal space in which the appliance is installed nor in an enclosed space to which no person has access) shall be deemed to satisfy such requirements of rule L2(3)(a) as relate to the placing and shielding of a pipe within a building if–

(a) it is enclosed, either separately or together with one or more other flue pipes serving Class II appliances. in a casing constructed of suitable, but not necessarily imperforate. non-combustible material;

(b) there is a distance of at least 25 mm between the inside of the casing and the outside of any flue pipe; and

(c) no combustible material is built into, or enclosed within, the casing.

L18 Sizes of flues for Class II appliances

(1) The measurements in cross–section of a flue serving a Class II appliance (except where any part of that flue is in a ridge terminal) shall be such that–

(a) no dimension is less than 63 mm; and

(b) if the flue is rectangular in section and is not in an appliance ventilation duct, the major dimension is not more than–

(i) six times the minor dimension if the flue serves only one gas fire; or

(ii) five times the minor dimension if the flue serves only one appliance other than a gas fire; or

(iii) one and a half times the minor dimension if the flue is a main flue; or

(c) if the flue is rectangular in section and is in an appliance ventilation duct, the major dimension is not more than twice the minor dimension.

(2) The cross-sectional area of a flue serving one Class II gas fire shall be not less than 12000 mm^2 and the area of the aperture in any local restrictor unit in the flue shall be not less than 6000 mm^2

(3) The cross-sectional area of a flue serving one Class II appliance other than a gas fire shall be not less than the area of the outlet of that appliance.

(4) The cross-sectional area of a main flue serving two Class II gas appliances (other than gas fires) installed in the same room or internal space shall be not less than the larger of the following, that is to say–

(a) the area of the larger of the outlets of the appliances; or

(b) the area specified in the Table to this rule, according to the total itiput rating of the appliances.

(5) Subject to the requirements of rule M10(d)(iv), the nominal cross-sectional area of a main flue serving two or more Class II appliances installed in different storeys of a building shall be not less than 40000 mm^2.

(6) The cross-sectional area of a flue in an appliance ventilation duct shall be such as will ensure that the requirements of rule M10(b)(iii) are satisfied.

Table to Rule L18

Minimum cross-sectional area of a flue serving two Class II gas appliances (other than gas fires) installed in the same room or internal space

Total input rating of appliances (in kW)	Minimum cross-sectiona1 area of flue (in mm^2)

Exceeding (1)	Not exceeding (2)	(3)
–	13	3750
13	18	5750
18	30	7000
30	35	9000
35	45	11500

L19 Openings into flues for Class II appliances

No opening shall be made into a flue serving a Class II appliance except–

(a) an opening made for inspection or cleaning and fitted with a gas–tight cover of non-combustible material; or

(b) (if the flue serves an appliance other than a room-sealed appliance or incinerator) an opening which is in the same room or internal space as the appliance and serves as an air inlet or is fitted with a draught diverter or a draught stabiliser.

L20 Flues communicating with more than one room or internal space – Class II appliances

(1) No flue serving a Class II appliance shall communicate with more than one room or internal space in a building except–

(a) a flue constructed to serve two or more Class II gas appliances installed in accordance with rule M10; or

(b) a flue constructed to serve two or more Class II incinerators installed in accordance with rule M11:

Provided that nothing in this paragraph shall prohibit the making of an opening as described in rule L19(a) for the purpose of giving access to a flue from any room or internal space other than that in which the appliance is installed.

(2) A main flue serving two or more Class II gas appliances installed in different storeys of a building (being neither a flue in an appliance ventilation duct nor a flue through which the passage of the products of combustion is assisted by a mechanically operated system of extraction) shall be so constructed that–

(a) it is not formed by a chimney comprising part of an external wall or by a flue pipe encased in a duct comprising part of an external wall or situated externally;

(b) it is without offsets;

(c) it is not inclined at an angle greater than 100 from the vertical; and

(d) each appliance discharges into it by way of a subsidiary flue complying with paragraph (3).

(3) A subsidiary flue serving a Class II gas appliance, being a flue which discharges into a main flue to which paragraph (2) relates, shall–

(a) discharge into such main flue at a point not less than 1.2 m above the outlet of the appliance which it serves; and

(b) make an angle of not less than 450 with the horizontal except where any other angle is necessary for the purpose of connecting the subsidiary flue to the appliance or to the main flue.

L21 Outlets of flues for Class II appliances

(1) The outlet of any flue serving a Class II appliance shall–

(a) fitted with a flue terminal designed to allow free discharge, to minimise down-draught and to prevent the entry of any matter which might restrict the flue;

(b) so situated externally that a current of air may pass freely across it at all times; and

(c) so situated in relation to any opening (that is to say, any part of a window or skylight capable of being opened or any ventilator, air inlet to a ventilation system or similar opening in any roof or external wall of a building) that–

(i) (if the appliance is a gas appliance) no part of the outlet is less than 600 mm from any opening; or

(ii) (if the appliance is an incinerator) no part of the outlet is less than 1 m above the top of any opening situated less than 2.3 m, measured horizontally, from the outlet.

(2) The outlet of a main flue serving two or more Class II gas appliances installed in different storeys of a building (being neither a flue in an appliance ventilation duct nor a flue through which the passage of the products of combustion is assisted by a mechanically operated system of extraction) and into which each appliance discharges by way of a subsidiary flue shall be so situated that–

(a) the outlet is not less than 6 m above any appliance served by the flue; and

(b) where the chimney or flue pipe passes through a pitched roof, the outlet is above the level of the ridge of the roof; or

(c) where the chimney or flue pipe passes through a flat roof, the outlet is not below the highest of the following levels–

(i) 600 mm above the roof; or

(ii) 600 mm above any parapet which is within 1.5 m, measured horizontally, from the outlet; or

(iii) the level of the top of any other part of the structure which is within 1.5 m, measured horizontally, from the outlet; or

(iv) a level corresponding to the height of any part of the structure which is at a distance exceeding 1.5 m, measured horizontally, from the outlet reduced by one third of the difference between such distance and 1.5 m.

L22 Insulated metal chimneys serving Class I or Class II appliances

(1) An insulated metal chimney serving a Class I or Class II appliance shall be so constructed as to comply with the relevant requirements of rules L2(4) and (6), L6(4) and (7), L11, L12, L13, L18(1), (2), (3) and (4), L19, L20(1) and L21 and with the provisions of paragraph (2) of this rule:

Provided that rule L20(1)(a) shall have effect as though there were substituted for the reference to rule M10 a reference to rule M10(a).

(2) The provisions to which reference is made in paragraph (1) are as follows–

(a) the chimney shall be constructed of components complying with BS4543:1970;

(b) joints between components shall not be situated within the thickness of any wall, floor, ceiling or roof;

(c) if the chimney serves a Class I appliance, no part of the flue shall make an angle with the horizontal of less than 600 except where necessary to connect the chimney to the appliance;

(d) no combustible material shall be so placed as to be nearer to the outer surface of the chimney than the distance (X) adopted for the purposes of the test procedure specified in Appendix C to BS4543:1970;

(e) the chimney shall be readily accessible for inspection and replacement throughout its length;

(f) if any part of the chimney is situated within a cupboard or storage space–

(i) that part shall be enclosed by a removable casing constructed of suitable imperforate material;

(ii) the distance between the inside of the casing and the outside of the chimney shall be not less than the distance specified in subparagraph (d); and

(iii) no combustible material shall be enclosed within the casing; and

(g) no part of the chimney shall pass through or be attached to any building or part of a building other than a building or part in the same occupation as that within which the appliance served by the chimney is situated.

PART M
Heat-producing appliances and incinerators

M1 Interpretation of Part M

In this Part–

(a) the provisions of rule L1(1) shall apply except that neither APPLIANCE nor INCINERATOR shall include an incinerator employing electricity as a means of igniting refuse; and

(b) PERMANENT VENT means a purpose made opening or duct which is designed to allow the passage of air at all times; and

VENTILATION OPENING has the meaning assigned by rule K4(1).

M2 Prevention of emission of smoke – clean Air

In any building (other than a building erected under former control) there shall not be installed for the purposes of heating or cooking in that or any other building any appliance which discharges the products of combustion into the atmosphere unless that appliance is designed to burn as fuel either gas, coke or anthracite:

M3 High-rating appliances

No high-rating appliance shall be installed in a building unless–

(a) it discharges into a flue;

(b) the outlet of the flue is so situated as to comply with the requirements of rule L2(4)(a);

(c) any chimney, flue pipe, fireplace recess or constructional hearth which serves it, complies with the relevant requirements of rule L2(1), (2), (3) and (6);

(d) any other part of the building is so constructed, situated or protected as to ensure that it will not be ignited by heat from the appliance; and

(e) provision is made for the introduction of combustion air in sufficient quantity to ensure the efficient operation of the appliance and the proper discharge from the appliance through the flue which serves it.

M4 Class I appliances

(1) Subject to the special provisions relating to certain Class I oil-burning appliances set out in rule M5, no Class I appliance shall be installed in a building unless the installation complies with the provisions of this rule.

(2) Provision shall be made for the introduction of combustion air into the room or other internal space in which the appliance is installed in sufficient quantity to ensure the efficient operation of the appliance and (except in the case of an appliance to which rule M5(4)(b) refers) the proper discharge from the appliance through the flue which serves it.

(3) The appliance shall be placed upon or over–

(a) a constructional hearth which complies with the relevant provisions of Part L; or

(b) a constructional hearth built under former control and conforming with the relevant provisions of Part L excluding rules LA(l)(c)(ii) and M(1)(d); or

(c) a superimposed hearth constructed of noncombustible materials, not less than 48 mm thick and placed wholly or partly upon a constructional hearth which complies with either sub-paragraph (a) or subparagraph (b).

(4) Where the appliance is installed upon or over a constructional hearth without an intervening superimposed hearth, the distance measured horizontally from the base of the appliance to the edges of the hearth, or (if combustible material is laid on the hearth as a continuation of the finish of the adjoining floor) from the base of the appliance to the combustible material, shall be not less than–

(a) at the front, 300 mm (if the appliance is an open fire or a stove which can, when opened, be operated as an open fire) or 225 mm (in any other case); and

(b) at the back and sides, 150 mm or (if the hearth extends to a wall or partition) such smaller distance as will not contravene the requirements of paragraph (7).

(5) If the appliance is installed upon or over a supposed hearthmire, the appliance shall he so placed that–

(a) it is wholly over the constructional hearth beneath that superimposed hearth;

(b) no part of the base of the appliance is within 150 mm, measured horizontally, from any combustible material beside or upon the constructional hearth; and

(c) the distance measured horizontally from the base of the appliance to the edges of the superimposed hearth is not less than the dimensions given in paragraph (4).

(6) if the appliance is not a free-standing appliance and is placed upon or over a constructional hearth in a fireplace recess, the recess shall be so constructed as to comply with the relevant provisions of Part L.

(7) The appliance shall be so placed that no part of its back or sides is within 150 mm, measured horizontally, from a wall or partition (other than a wall forming part of a fireplace recess which complies with the relevant provisions of Part L) unless that pan of the wall or partition which is situated between the floor and the level of 300 mm above the top of the appliance is–

(a) constructed of solid non-combustible material; and

(b) not less than 200 mm thick (if the wall or partition is less than 50 mm from the appliance) or 75 mm thick (in any other case).

(8) Any part of the building (other than a wall or partition to which the provisions of paragraph (7) relate) which is in proximity to the appliance and above the level of the adjoining floor shall, if it is constructed of combustible materials, be so situated or protected as to ensure that it will not be ignited by heat from the appliance.

(9) The appliance shall discharge into–

(a) a flue in a chimney which complies with the relevant provisions of Part L; or

(b) a flue in a chimney built under former control and conforming with the relevant provisions of Part L excluding rule L6; or

(c) a flue in a flue pipe which complies with the relevant provisions of Part L.

(10) Subject to the exception in respect of incinerators contained in rule M6(2), the flue into which the appliance discharges shall serve no other appliance:

Provided that nothing in this paragraph shall prohibit the installation of two solid fuel appliances or two oil-burning appliances so as to discharge into the same flue if–

(a) both appliances are in the same room;

(b) each appliance is a closed slow-burning appliance;

(c) the aggregate rating of the appliances does not exceed 45 kW; and

(d) the cross-sectional area of the flue is not less than the area of the larger of the flue connections.

(11) An appliance which is an open fire and is not capable of being used as a closed stove shall not be installed unless secure means of anchorage for an elfcctive fireguard are, if not provided in the appliance itself, provided in the adjoining structure.

M5 Special provisions for certain Class I oil-burning appliances

(1) In this rule any reference to hearth temperature, surface temperature or flue gas temperature is a reference to that temperature as determined respectively in accordance with Test procedure No.11, Measurement method 8 or Measurement method 3 prescribed in BS4876:1972.

(2) Paragraphs (3), (4) and (5) of rule M4 shall not apply to the installation of a Class I oil-burning appliance if–

(a) the hearth temperature of the appliance does not exceed 100^{o} C and is so limited by means other than the interposition of unprotected insulating material between the burner and the base of the appliance; and

(b) the appliance is placed on, or incorporates, an imperforate rigid seating which is constructed of non–absorbent, noncombustible material and is of such dimensions that no part of the front, back or sides of the appliance extends (if projected on plan) beyond the edges of the seating.

(3) Paragraphs (6), (7) and (8) of rule M4 shall not apply to the installation of a Class I oil-burning appliance if the surface temperature of the side panels of the appliance does not exceed 100^{o} C.

(4) Paragraph (9) of rule M4 shall not apply to the installation of a Class I oil-burning appliance if–

(a) the flue gas temperature of the appliance does not exceed 260^{o} C and the appliance discharges into–

(i) a flue in a chimney (not being an appliance ventilation duct) which is lined or constructed as prescribed in rule L14 (excluding the proviso to paragraph (1) thereof); or

(ii) a flue in a flue pipe which complies with rule L15 and with any one of the specifications set out in rule L16 (excluding the words in brackets in specification (e)(ii) therein) and is installed in accordance with rule L17; or

(b) the appliance has an output rating not exceeding 3 kW and is designed to operate without being connected to a flue.

M6 Additional provisions and exceptions for Class I incinerators

(1) No Class T incinerator shall be installed in a building unless–

(a) an after-burner or other means of smoke elimination is fitted; and

(b) there are means of access for cleaning the flue which serves it.

(2) Notwithstanding anything contained in rule M4(10), a gas-fired incinerator may be installed in each of two or more storeys of a building so as to discharge into the same flue if–

(a) the discharge through the flue is assisted by a mechanically operated system of extraction;

(b) there are means for automatically cutting off the gas supply in the event of failure of the system of extraction; and

(c) each incinerator is fitted with a flame-failure device.

M7 Deemed-to-satisfy provisions for the supply of combustion air 10 Class l appliances

(1) The provisions of this rule shall not apply if the room or space in which the appliance is installed is served by a warm air heating system or by a mechanical ventilation or air conditioning system.

(2) The requirements of rule M4(2) shall be deemed to be satisfied if the room or space in which the appliance is installed has–

(a) in the case of an open fire which is not capable of being used as a closed stove or of an appliance to which rule M5(4)(b) refers, a ventilation opening; or

(b) in any other case, a permanent vent which–

(i) *has an unobstructed cross-sectional area of not less than the minimum area specified in the Table to this rule; and*

(ii) *communicates directly either with the external air or with a void space which is situated beneath the lowest floor of the building and has a permanent vent the unobstructed cross-sectional area of which is not less than the minimum area prescribed for the purposes of subparagraph (b)(i).*

Table to Rule M7	**Deemed-to-satisry provisions**
Minimum unobstructed cross-sectional area of permanent vent	
Number of appliances installed in room or space	**Minimum unobstructed cross-sectional area of permanent vent**
(1)	(2)
1	Area equivalent to– (i) cross-sectional area of flue connection; or (ii) 550 mm^2 for each kilowatt (or part thereof) of the maximum output per hour of the appliance, whichever is the greater
2 or more	Area equivalent to– (i) cross-sectional area larger or largest flue connection; or (ii) 550 mm^2 for each kilowatt (or part thereof) of the aggregate maximum output per hour of the appliances, whichever is the greater

M8 Class II appliances

(1) No Class II appliance shall be installed in a building unless the installation complies with the provisions of this rule.

(2) Unless the appliance is a room-sealed appliance or is a gas heater installed in a cabinet or cupboard as specified in rule M9(1)(c)(ii), provision shall be made for the introduction of combustion air into the room or other internal space in which the appliance is installed in sufficient quantity to ensure the efficient operation of the appliance and, in the case of a flued appliance, the proper discharge from the appliance through the flue which serves it.

(3) Below the appliance there shall be a hearth constructed of non-combustible material not less than l2.5 mm thick which–

(a) extends not less than 150 mm beyond the back and sides of the appliance or, if there is a wall within 150 mm from the appliance, up to that wall; and

(b) extends forward not less than 225 mm, measured horizontally, from any flame or incandescent material within the appliance:

Provided that this paragraph shall not apply if the appliance–

(i) is so installed that no part of any flame or incandescent material is less than 225 mm above the floor; or

(ii) satisfies the test requirements specified in clause 14 of BS 1250: Part 1: 1966.

(4) The back, top and sides of the appliance, including any draught-diverter associated with it, shall be separated from any combustible material forming part of the building (other than the floor or hearth beneath the appliance) by a shield of non-combustible material not less than *25* mm thick or by an air space of not less than 75 mm:

Provided that this paragraph shall not apply if the appliance satisfies the test requirements specified in clause 14 of 135 1250: Part 1:1966.

(5) Subject to the exceptions in respect of gas appliances contained in rule M9, the appliance shall discharge into either–

(a) a flue in a chimney, appliance ventilation duct or flue pipe which complies with the relevant provisions of Part L relating to Class II appliances; or

(b) a flue in a chimney built under former control which complies with the relevant provisions of Part L relating to Class II appliances (excluding rule L14); or

(c) in the case of a gas fire, a flue in a chimney which complies with the relevant provisions of Part L relating to Class 1 appliances (excluding, if the chimney was built under former control, rule L6).

(6) Subject to the exceptions contained in rule M10 (in the case of a Class II gas appliance) or rule M11 (in the case of a Class II Incinerator), the flue into which the appliance discharges shall serve no other appliance.

(7) An appliance which is required by paragraph (5) to discharge into a flue shall not be installed in a bathroom unless–

(a) the appliance is a room-sealed appliance; or

(b) (i) the appliance has an input rating not exceeding 12 kW and does not heat water for a bath; and

(ii) the room has a permanent vent which communicates directly with the external air and has an unobstructed cross-sectional area which is not less than that of the flue or 7500 mm^2 whichever is the greater.

M9 Exceptions permitting discharge of Class II gas appliances otherwise than into a flue

(1) Notwithstanding anything contained in rule M8(5)–

(a) a gas cooker may be installed so as to discharge into the room in which it is situated if the room has a ventilation opening;

(b) a room-sealed gas appliance may be installed so as to discharge directly into the external air if–

(i) the inlet and outlet of the appliance are incorporated in a terminal which is designed to allow free intake of combustion air and discharge of the products of combustion and to prevent the entry of any matter which may restrict the inlet or outlet;

(ii) where the outlet is wholly or partly beneath any opening (that is to say, any ventilation opening, permanent vent, inlet to a ventilation system or similar opening), no part of the outlet is within 300 mm, measured vertically, from the bottom of that opening; and

(iii) where the outlet of the appliance is less than 2 m above the level of any ground, balcony, flat roof or place to which any person has access and which adjoins the wall in which the outlet is situated, the outlet is protected by a guard of durable material;

(c) a gas heater may be installed in a drying cabinet or airing cupboard so as to discharge otherwise than into a flue if–

(i) the cabinet or cupboard has an outlet into a flue which has a cross-sectional area of not less than 12000 mm^2 and complies with the provisions of Part L relating to flues serving Class II appliances and the room in which the cabinet or cupboard is situated has a ventilation opening; or

(ii) the cabinet or cupboard has an inlet and an outlet connected to an appliance ventilation duct constructed in compliance with the relevant provisions of Part L and the door of the cabinet or cupboard, when opened, operates so as automatically to close the inlet and outlet; or

(iii) the input rating of the appliance does not exceed 2 kW and the room or internal space in which the cabinet or cupboard is situated has means of ventilation which comply with the requirements of paragraph (2);

(d) a water heating gas appliance may be installed so as to discharge otherwise than into a flue if the room or internal space in which the appliance is situated has a capacity exceeding 6 m^3 and has means of ventilation which comply with the requirements of paragraph (2) and the appliance does not heat water for a bath and complies with any one of the following specifications–

(i) an instantaneous water heater having an input rating not exceeding 12 kW; or

(ii) a storage water heater having an input rating not exceeding 3 kW or, if the storage capacity does not exceed 45 litres, having an input rating not exceeding 4.5 kW; or

(iii) a wash-boiler or washing-machine having an input rating not exceeding 6 kW; or

(iv) a water heating appliance (other than an instantaneous water heater, storage water heater, wash-boiler or washing-machine) having an input rating not exceeding 3 kW; and

(e) a space heating gas appliance may be installed so as to discharge otherwise than into a flue if the room or internal space in which the appliance is situated has means of ventilation which comply with the requirements of paragraph (2) and the input rating of the appliance does not exceed–

(i) (if the appliance is installed in a room) 150W per 3 m^3 space of in that room; or

(ii) (if the appliance is installed in an internal space other than a room) 300 W per 3 m^3 of space surrounding the appliance:

Provided that if more than one space heating gas appliance is so installed in a room or internal space, the total rating of the appliances shall not exceed the rating specified in this sub-paragraph.

(2) No appliance described in paragraph (1)(c)(iii), (d) or (e) shall be installed in a room or internal space so as to discharge otherwise than into a flue unless such room or space has–

(a) a ventilation opening; and

(b) if the capacity of the room or space is within the limits specified in column (2) of the Table to this rule, a permanent vent which–

(i) communicates either directly with the external air or with a ventilated hall, passage or internal space (not being a habitable room); and

(ii) has an unobstructed cross-sectional area which is not less than the minimum area specified in column (3) of the Table, according to the type of appliance and the capacity of the room or internal space in which the appliance is installed.

Table to Rule M9

Minimum unobstructed area of permanent vent

Type of appliance	Capacity of room or internal space in which the appliance is installed (in m^3)	Minimum unobstructed area of vent (in mm^2)
(1)	(2)	(3)
Instantaneous water heating appliance	exceeding 6 but not exceeding 11	3250
Any other water heating appliance	Exceeding 6 but not exceeding 11	9500
	Exceeding 11 but not exceeding 21	3250
Space heating appliance; or heater installed in drying cabinet or airing cupboard	not exceeding 57	9500(if vent opens directly to external air) or 19000 (in any other case)
	Exceeding 57	As above, but increased by 3250 and 6500 respectively for each kW or part thereof by which the input rating of the appliance exceeds 3 kW

M10 Exceptions permitting discharge from two or more Class II gas appliances into the same flue

Notwithtanding anything contained in rule M8(6)–

(a) two or more Class II gas appliances (other than gas fires) may be installed in the same room or internal space so as to discharge into the same flue if–

(i) the flue is a main flue which complies with the relevant provisions of Part L; and

(ii) each appliance is fitted with a draught-diverter;

(b) a Class II room-sealed gas appliance may he installed in a room or internal space in each of two or more storeys of a building so as to discharge into the same appliance ventilation duct if–

(i) the duct complies with the relevant provisions of Part L;

(ii) any appliance having an input rating exceeding 7.5 kW is equipped with a flame-failure device; and

(iii) under any conditions of normal operation of the appliances, the combustion air entering the uppermost appliance will not contain more than 2% in volume of carbon dioxide;

(c) a Class II gas appliance may be installed in a room or internal space in each of two or more storeys of a building so as to discharge into the same flue if

(i) the flue is a main flue which complies with the relevant provisions of Part L;

(ii) the discharge through the flue is assisted by a mechanically operated system of extraction;

(iii) there are means for automatically cutting off the gas supply in the event of failure of the system of extraction; and

(iv) each appliance is fitted with a flame-failure device; and

(d) a Class II gas appliance may be installed in a room or internal space in each of two or more storeys of a building so as to discharge into the same flue if–

(i) in each such room or internal space the number of windows or parts of windows capable of being opened, and the number of such wuidows or parts of windows

having a similar aspect, are the same as in each other such room or internal space;

(ii) the flue is a main flue which complies with the relevant provisions of Part L;

(iii) each appliance discharges into the main flue by way of a subsidiary flue which complies with the relevant provisions of Part L;

(iv) all appliances are of the same type, being any one of the types specified in the Table to this rule, and the number and total input rating of such appliances do not exceed those specified in the table according to the type of appliance and the cross-sectional area of the main flue; and

(v) each appliance is fitted with a flame-failure device.

Table to Rule M10

Class II gas appliances discharging by way of subsidiary flues into a main flue

Type of appliance	Nominal cross-sectional area of main flue			
	Not less than 40000 but less than 62000 mm^2		62000 mm^2 or more	
	Maximum number of appliances	Total rating (in kW)	Maximum numberof appliances	Total rating (in kW)
(1)	(2)	(3)	(4)	(5)
Convector fire with controlled flue flow. having a maximum rate of flow of 70 m^3/hr	5	30	7	45
Instantaneous water heater	10	300	10	450
Storage water heater. central heating unit or air heater	10	120	10	180

M11 Additional provisions and exceptions for Class II incinerators

(1) No Class II incinerator shall be installed in any building unless there are means of access for cleaning the flue.

(2) Notwithstanding anything contained in regulation M8(6), a Class 11 incinerator may be installed in each of two or more storeys of a building so as to discharge into the same flue if–

(a) (i) the flue is a main flue which complies with the relevant provisions of Part L; and

(ii) each incinerator discharges into the main flue through a subsidiary flue complying with the relevant provisions of Part L; or

(b) (i) the flue is a main flue which complies with the relevant provisions of Part L;

(ii) the discharge through the flue is assisted by a mechanically operated system of extraction; and

(iii) there are means for automatically cutting off the gas supply in the event of failure of the system of extraction; and

(c) in either case each incinerator is fitted with a flame-failure device.

M12 Deemed-to-satisfy provisions for the supply of combustion air to Class II appliances

(1) The provisions of this rule shall not apply if the room or space in which the appliance is installed is served by a warm air heating system or by a mechanical ventilation or air conditioning system.

(2) The requirements of rule M8(2) shall be deemed to be satisfied if the room or space in which the appliance is installed has–

(a) in the case of a gas fire, a ventilation opening; or

(b) in the case of a fluid appliance other than a gas fire, a permanent vent which complies with the requirements specified in rule M7(2)(b); or

(c) in the case of a flueless appliance, such means of ventilation as are specified in rule M9(1).

1950-07
EXPIRED
Subsidiary
1997/061

PART N
Drainage, private sewers and cesspools

N1 Application of Part N

(1) Rules N10 to N16 shall apply to any part of a drainage system intended for use in connection with a building if that part is either wholly below the ground or is a continuation, in the direction of the flow, of any part of the drainage system which is below the ground.

(2) Rules N4 to N9 shall apply to any part of the drainage system of a building other than a part described in paragraph (1).

(3) This Part shall not apply to any drain used solely for the conveyance of subsoil water.

N2 Interpretation of Part N

(1) In this Part–

INPECTION CHAMBER means any chamber constructed on a drain so as to provide access thereto for inspection and cleansing;

RAINWATER PIPE means a pipe (not being a drain) which conveys only rainwater;

SOIL APPLIANCE includes a watercloset or urinal receptacle, bed-pan washer, bed-pan sink and slop sink;

SOIL PIPE means a pipe (not being a drain) which conveys soil water either alone or together only with waste water or rainwater or both;

VENTILATING PIPE means a pipe (not being a drain) open to the external air at its highest point, which ventilates a drainage system either by connection to a drain or to a soil pipe or waste pipe and does not convey any soil water, waste water or rainwater;

WASTE APPLIANCE includes a slipper bath, lavatory basin, bidet, domestic sink, cleaner's bucket sink, drinking fountain, shower tray, wash fountain, washing trough and washtub;

WASTE PIPE means a pipe (not being a drain or overflow pip~) which conveys waste water, either alone or together only with rainwater; and

WASTE WATER means used water not contaminated by soil water or trade effluent.

(2) Any reference in this Part to a pipe shall, unless the context otherwise requires, include a reference to a number of pipes and fittings jointed together to form a continuous line of pipes.

N3 Water seals in traps

Such provision shall be made in the drainage system of a building, whether above or below the ground, as may be necessary to prevent the destruction under working conditions of the water seal in any trap In the system or in any appliance which discharges into the system.

N4 Soil pipes, waste pipes and ventilating pipes

(1) Subject to paragraphs (2) and (3), any soil pipe, waste pipe or ventilating pipe shall be of adequate size for its purpose but in no case shall the internal diameter of a soil pipe or waste pipe be less than the internal diameter of any pipe or of the outlet of any appliance which discharges into it.

(2) Without prejudice to the generality of paragraph (1), the internal diameter of a soil pipe shall be not less than–

(a) 50 mm if it exclusively serves one or more urinals; or

(b) 75 mm in any other case.

(3) Without prejudice to the generality of paragraph (1), the internal diameter of a waste pipe shall be not less than 32 mm if it serves a lavatory basin.

(4) Any soil pipe, waste pipe or ventilating pipe shall–

(a) be composed of suitable materials of adequate strength and durability;

(b) have all joints formed in a manner appropriate to the materials of which the pipe is composed and in such a way that the joints shall–

(i) remain airtight;

(ii) not cause electrolytic corrosion due to the association of dissimilar materials; and

(iii) not form any obstruction in the interior of the pipe;

(c) (if it is necessary to have a bend) be so constructed that the bend does not form an acute angle but has the largest practicable radius of curvature and that there is no change in the cross-section of the pipe throughout the bend;

(d) be adequately supported throughout its length without restraining thermal movement, any fitting which gives such support being securely attached to the building;

(e) be so constructed as to be capable of withstanding a smoke or air test for a minimum period of three minutes at a pressure equivalent to a head of not less than 38 mm of water;

(f) be so placed as to be reasonably accessible for maintenance and repair throughout its length; and

(g) have such means of access as are necessary to permit internal cleansing.

N5 Further requirements (or soil pipes and waste pipes

(1) Any soil pipe from a soil appliance and any waste pipe from a waste appliance shall have fitted close to such appliance a suitable and readily accessible trap of adequate diameter, having an adequate water seal and means of access for internal cleansing:

Provided that this paragraph shall not apply to–

(a) any soil pipe serving only a soil appliance or any waste pipe serving only a waste appliance if the appliance has an integral trap; or

(b) any waste pipe serving a bath or lavatory basin where two or more baths or lavatory basins are so fixed in a range that such waste pipe discharges into a semi-circular and accessible open channel of glazed stoneware, or other equally suitable material, formed or fixed in, on or above the floor immediately beneath such baths or lavatory basins and discharging over or into a suitable trap; or

(c) any waste pipe serving a lavatory basin or shower tray if a number of lavatory basins or shower trays or both are so fixed in a range that each such waste pipe discharges into a common waste pipe which–

(i) does not exceed 5 m in length;

(ii) is fitted with a suitable trap; and

(iii) has means of access suitable and adequate for the internal cleansing of the trap and of the whole length of the pipe.

(2) Subject to paragraph (3)–

(a) a soil pipe or waste pipe serving an appliance situated within a building shall not be placed outside the external walls thereof unless the building is–

(i) a building erected under former control (including such a building as altered or extended); or

(ii) a building having not more than three storeys; and

(b) a waste pipe which is situated outside the external walls of a building shall not discharge waste water into a hopper head or in any other way which would expose the water to the external air.

(3) Notwithstanding the requirements of paragraph (2), any waste pipe which serves an appliance situated within any part of a building the floor of which part is at or about the level of the adjoining ground may discharge into an external trap if the trap has a suitable grating so fitted that the discharge of waste water is effected above the level of the water in the trap but below the level of the grating and the pipe discharges in such a way as not to cause dampness in any building.

N6 Overflow pipes

Any overflow pipe connected to a waste appliance shall either–

(a) discharge into a waste pipe in such a way as to be disconnected from the drainage system by the trap installed in accordance with rule N5(1); or

(b) otherwise so discharge as not to cause dampness in, or damage to, any part of any building.

N7 Further requirements for ventilating pipes

Any ventilating pipe shall be–

(a) carried upwards to such a height and so positioned as not to transmit foul air in such a manner as to become prejudicial to health or a nuisance; and

(b) fitted at its topmost end with a durable wire cage or other cover which does not unduly restrict the flow of air.

N8 Rainwater gutters

Any gutter which is on a building and intended for collecting rainwater shall be–

(a) of adequate size for its purpose;

(b) composed of suitable materials of adequate strength and durability;

(c) adequately supported throughout its length without restraining thermal movement, any fitting which gives such support being securely attached to the building;

(d) so arranged as not to cause dampness in, or damage to, any part of a building;

(e) so jointed in a manner appropriate to the material or materials of which it is composed as to remain watertight; and

(f) fitted with an adequate outlet or outlets so placed as to drain the whole length of the gutter.

N9 Rainwater pipes

(1) Any rainwater pipe which is situated outside a building shall be–

(a) of adequate size for its purpose;

(b) composed of suitable materials of adequate strength and durability;

(c) adequately supported throughout its length without restraining thermal movement, any fitting which gives such support being securely attached to the building; and

(d) so arranged as not to cause dampness in, or damage to, any part of a building.

(2) Any rainwater pipe which is situated within a building shall be–

(a) of adequate size for its purpose; and

(b) 80 constructed that it complies with the requirements of rule N4(4).

(3) No rainwater pipe shall be constructed so as to discharge into, or to connect with, any pipe or drain used or intended to be used for conveying soil water or waste water unless provision is made in the design of the sewerage system for the discharge of rainwater.

N10 Materials and construction of drains and private sewers

(1) Any drain or private sewer shall–

(a) be of sufficient strength having regard to the manner in which it is bedded or supported and the maximum loads and forces to which it may be sutjected, and (where necessary) protected against injury;

(b) (together with its joints and fittings) be constructed of materials of sufficient durability having regard to the matter passing through it and (if below ground) the nature of the ground and subsoil water through which it passes;

(c) have all joints formed in such a manner–

(i) as is appropriate to the materials of which such drain or sewer is made;

(ii) that the joints remain watertight under all working conditions, including any differential movement as between the pipe and the ground or any structure through or under which it passes; and

(iii) that the joints do not form any obstruction in the interior of such drain or private sewer;

(d) be laid in a straight line between points where changes of direction or gradient occur; and

(e) be so designed and constructed, of such size and (unless the contents are pumped) laid at such a gradient as to ensure that it is self-cleansing and efficiently carries away the maximum volume of matter which may be discharged into it.

(2) The internal diameter of any drain or private sewer shall, at any point, be not less than that of the outlet of any appliance, pipe or drain the discharge from which passes through it at that point:

Provided that the internal diameter shall not be less than 100 mm in the case of any drain or private sewer which is intended for the conveyance of soil water or water contaminated with trade effluent, or not less than 75 mm in any other case.

(3) Where any drain or private sewer passes through a building, that part which is within the building shall–

(a) be adequately supported throughout its length without restricting thermal movement, any fitting giving such support being securely attached to the building; and

(b) be so placed as to be reasonably accessible throughout its length for maintenance and repair.

N11 Tests for drains and private sewers

Any drain or private sewer shall, after the work of laying the drain or private sewer has been carried out (including any necessary work of haunching or surrounding the drain or private sewer with concrete and backfilling the trench), be capable of withstanding a suitable test for watertightness.

N12 Means of access to drains and private sewers

(1) Any drain or private sewer shall have such means of access as may be necessary for inspection and cleansing and, without prejudice to the generality of the foregoing–

(a) there shall be an inspection chamber–

(i) at each point where there is such a change of direction or gradient as would prevent any part of the drain or private sewer being readily cleansed without such a chamber;

(ii) on a drain within 12.5 m from a junction between that drain and another drain, a private sewer or a public sewer unless there is an inspection chamber situated at that junction;

(iii) on a private sewer within 12.5 m from a junction between that sewer and another private sewer or a public sewer unless there is an inspection chamber situated at that junction; and

(iv) at the highest point of a private sewer unless there is a rodding eye at that point; and

(b) no part of a drain or private sewer shall be at a distance of more than 45 m (measured along the line of the drain or private sewer) from an inspection chamber situated on the same drain or private sewer.

(2) Subject to the requirements of paragraph (3), any such inspection chamber shall–

(a) be so designed and constructed of brickwork, concrete or other not less suitable and durable material as to–

(i) sustain the loads which may be imposed upon it;

(ii) exclude subsoil water; and

(iii) be watertight;

(b) be of such size and form as to permit ready access to the drain or private sewer for inspection, cleansing and rodding;

(c) have a removable and non-ventilating cover of adequate strength, constructed of suitable and durable material;

(d) where the depth of the inspection chamber so requires, have such step-irons, ladder or other fitting as will provide safe access to the level of the drain or private sewer; and

(e) where the 'part of the drainage system within the inspection chamber is constructed of open channels, be provided with benching having a smooth impervious finish and so formed as to guide the flow of matter towards the pipe into which the main channel discharges and to provide a safe foothold.

(3) Any inspection chamber within a building, other than an inspection chamber giving access to part of a drain or private sewer which is constructed with inspection fittings having watertight covers, shall be–

(a) so constructed, in conjunction with its frame and cover, as to be watertight when subjected to the maximum internal pressure which could be caused by blockage of the draining system at any point below the inspection chamber; and

(b) fitted with a removable and non–ventilating cover of adequa4e strength, constructed of suitable and durable material which is–

(i) fitted in a frame with an airtight seal; and

(ii) secured to the frame by removable bolts made of corrosion-resistant material.

N13 Inlets to drains to be trapped

Any inlet to a drain, other than a junction between the drain and a soil pipe, a waste pipe or a ventilating pipe, shall be effectively trapped by means of a suitable trap having a seal not less than 50 mm in depth:

Provided that this rule shall not apply to any inlet to a drain used solely for the conveyance of surface water from a roof if such drain is intercepted by a suitable trap, having a seal not less than 50 mm in depth, from any drain or sewer used for the conveyance of water contaminated by soil water, waste water, or trade effluent.

N14 Trenches for drains and private sewers

(1) Where any drain or private sewer is constructed adjacent to a loadbearing part of a building, such precautions shall be taken as may be necessary to ensure that the trench in which the drain or private sewer is laid in no way impairs the stability of the building.

(2) Except where the nature of the ground makes it unnecessary, where any drain or private sewer is adjacent to a wall and the bottom of the trench is lower than the foundation of the wall, the trench shall be filled in with concrete to a level which is not lower than the bottom of the foundation of the wall by more than the distance from that foundation to the near side of the trench less 150 mm:

Provided that, where the trench is within I m of the foundation of the wall, the trench shall be filled in with concrete to the level of the underside of the foundation.

(3) The concrete filling required by the foregoing paragraph shall have such expansion joints as are necessary to ensure that no continuous length of filing exceeds 9 m.

N15 Drains or private sewers passing through or under walls or under buildings

Where any drain or private sewer passes through a wall (including the wall of an inspection chamber or cesspool) or under a wall or any other part of a building, such precautions shall be taken as may be necessary to prevent damage to, or loss of watertightness in, the drain or private sewer by differential movement.

N16 Junctions

(1) Any connection between–

(a) a branch drain and ally other drain; or

(b) a drain and a private sewer or public sewer; or

(c) a private sewer and a public sewer,

shall be so made that the tributary drain or sewer discharges its contents into the other drain or sewer obliquely in the direction of flow in that other drain or sewer.

(2) Any connection between a drain and a public sewer, or between a private sewer and a public sewer, shall be so made that the connection will remain watertight and otherwise satisfactory under all working conditions.

N17 Cesspools, septic tanks and similar structures

(1) Any cesspool (including a settlement tank, septic tank or other tank for the reception or disposal of foul matter from any building) shall be–

(a) so constructed as to be impervious to both liquid from the inside and subsoil water from the outside; and

(b) so sited–

(i) as not to render liable to pollution any spring, stream, well, adit or other source of water which is used, or is likely to be used, for drinking, domestic or kitchen or scullery purposes;

(ii) that there is ready means of access for cleansing it and removing its contents without carrying them through any building in which any person resides or is employed in any manufacture, trade or business or to which the public has access; and

(iii) as not to be in such proximity to any building in which any person resides or is employed in any manufacture, trade or business or to which the public has access as to be liable to become a source of nuisance or a danger to health.

(2) Any cesspool, not being a settlement tank or a septic tank, shall be–

(a) of suitable depth to enable it to be emptied completely;

(b) properly covered so as to be impervious to surface water and rainwater;

(c) fitted with a suitable manhole cover for the purposes of inspection (including inspection of the inlet), emptying and cleansing;

(d) adequately ventilated;

(e) without any outlet for overflow or discharge other than the outlet provided for emptying or cleansing; and

(f) of a capacity, measured below the level of the inlet, of not less than 18 m^3.

(3) Any settlement tank or septic tank shall be–

(a) of suitable depth;

(b) of adequate size, having in no case a capacity of less than 2.7 m^3;

(c) covered or fenced in; and

(d) if covered, adequately ventilated and constructed with means of access for the purposes of inspection (including inspection of the inlet and outlet), emptying and cleansing.

PART P

Sanitary conveniences

P1 waterclosets

(1) This rule shall apply to any watercloset fitting installed for use in connection with a building.

(2) The receptacle shall have a smooth and readily cleansed non–absorbent surface and shall be so constructed and fitted as to discharge through an effective trap of suitable dimensions and thence, without storage, to a soil pipe or a drain.

(3) The flushing apparatus shall be capable of securing the effective cleansing of the receptacle.

(4) No part of the receptacle shall be directly connected with any pipe other than a soil pipe, flush pipe, trap vent pipe or drain.

P2 Urinals

(1) This rule shall apply to any urinal or urinal fitting constructed or installed for use in connection with a building.

(2) The urinal shall have one or more slabs, stalls, troughs, bowls or other suitable receptacles which–

(a) have a smooth and readily cleansed non–absorbent surface;

(b) have an outlet fitted with an effective grating and trap; and

(c) are so constructed as to facilitate cleansing.

(3) No urinal or urinal fitting shall be constructed or installed unless it is furnished with a flushing apparatus which is capable of securing the effective cleansing of the receptacle.

(4) No part of the receptacle shall be directly connected to any pipe other than a soil pipe, flush pipe, trap vent pipe or drain.

P3 Sanitary accommodation

(1) In this rule SANITARY ACCOMMODATION means a room or space constructed for use in connection with a building an which contains watercloset fittings or urinal fittings, whether or not it also contains other sanitary or lavatory fittings:

Provided that, if any such room or space contains a cubicle or cubicles so constructed as to allow free circulation of air throughout the room or space, this rule shall be treated as applying to the room or space as a whole and not to the cubicle or cubicles separately.

(2) No sanitary accommodation shall open directly into–

(a) a habitable room unless the room is used solely for sleeping or dressing purposes; or

(b) a room used for kitchen or scullery purposes; or

(c) a room in which any person is habitually employed in any manufacture, trade or business.

(3) Any sanitary accommodation which includes a watercloset fitting and can be entered directly from a room used for sleeping or dressing

purposes shall be so constructed that it can also be entered without passing through any such room unless–

(a) (in the case of a dwelling) there is other such sanitary accommodation within the dwelling which can be entered without passing through any such room; or

(b) (in the case of a private dwelling-house) there is other such sanitary accommodation outside such house which is used exclusively with such house; or

(c) (in any other case) there is within the building other such sanitary accommodation which is available for common use.

(4) Sanitary accommodation shall have either–

(a) a window, skylight or other similar means of ventilation which opens directly into the external air and of which the area capable of being opened is not less than one-twentieth of the floor area; or

(b) mechanical means of ventilation which effects not less than three changes of air per hour and discharges directly into the external air.

P4 Earthclosets

(1) This rule shall apply to any earthcloset constructed for use in connection with a building.

(2) (a) Any earthcloset which is not a chemical closet shall be so constructed. that it can be entered only from–

(i) the external air; or

(ii) a room or space which can itself only be entered directly from the external air.

(b) No earthcloset whether it is a chemical closet or not) shall open directly into–

(i) a habitable room or

(ii) a room used for kitchen or scullery purposes or

(iii) a room in which any person is habitually employed in any manufacture or, trade or business.

(3) (a) Any earthcloset which can be entered directly from the external air shall have a sufficient opening for ventilation directly to the external air, situated as near to the ceiling as practicable.

(b) Any earthcloset which cannot be entered from the external air shall have a window, skylight or other similar means of ventilation which opens directly into the external air and of which the area capable of being opened is not less than one twentieth of the floor area.

(4) Any earthcloset shall be so situated as not to render liable to pollution any spring, stream, well, adit or other source of water which is used, or is likely to be used, for drinking, domestic or kitchen or scullery purposes.

(5) The floor of the earthcloset shall be of non-absorbent material and, if the earthcloset can be entered directly from the external air, shall in every part, including the part beneath the seat, be not less than 75 mm above the surface of the adjoining ground and have a fall or inclination towards the entrance door of not less than 1 in 25.

(6) The receptacle shall be of non-absorbent material so constructed and placed that its contents shall not escape by leakage or otherwise or be exposed to rainfall or to the drainage of any waste water or liquid refuse.

(7) The receptacle and other fittings of the earthcloset shall be so constructed and arranged that the use, maintenance and clearance of the earthcloset shall not be prejudicial to health or a nuisance.

(8) No part of the receptacle or of the interior of the earthcloset shall have outlet to a drain.

BUILDING RULES 1997

SCHEDULE 1

Rule A4(5)(c)(ii)

Amendments to publications to which specific reference is made in these rules

Table 1: British Standards

Publication	Amendment slip		Context
	Serial number	Reference number	
(1)	(2)	(3)	(4)
BS 4: Part 1:1972	1	AMD 1785	Schedule 8, Part V, Section A, Note Schedule 8, Part V, Section B, Note
BS 41:1973	–	–	L8(a) L16(b)
BS 65 & 540: Part 1:1971	1	AMD 1202	L6(1)(a)(iii) L16(a)
BS 144:1973	1	AMD 1427	Schedule 5, Table 5, item 1
BS 449: Part 2:1969	1 2 3 4 5	AMD 416 AMD 523 AMD 661 AMD 1135 AMD 1787	D9 Schedule 8, Part V, section A(A), item 1(b) Schedule 8, Part V, section B(A), item 1(b)
Addendum No.1 (April 1975) to BS 449: Part 2:1969	1	AMD 1765	
Supplement No.1 (PD 3343) to BS 449: Part 1: 1970	1	AMD 734	
BS 476: Part 1: 1953	1 2	AMD 409 AMD 686	E1(5), proviso (a) Table 1 to El, subheading E15(1)(1), proviso
BS 476: Part 3: 1958	1	PD 3276	E1(6)
BS 476: Part 4: 1970	–	–	A4(1)
BS 476: Part 6: 1968	1	AMD 549	E7(4), proviso E7(5)(c)(ii) E14(6)(c)(vi) E15(1)(e)(ii)
BS 476: Part 7:1971	–	–	E15(1)(f)
BS 476: Part 8:1972	–	–	E1(5) Table 1 to E1, subheading Table 1 to E1, footnote
BS 567:1973	–	–	L16(e)(i)
BS 690: Part 2:1971	–	–	Schedule 5, Table 1, item 2 Schedule 5, Table 2, item 2
BS 690: Part 3:1973	1	AMD 1619	Schedule 5, Table 1, item 2 Schedule 5, Table 2, item 2
BS 690: Part 4:1974			Schedule 5, Table 1, item 2

			Schedule 5, Table 2, item 2
BS 715: 1970	–	–	L16(c)
BS 747: Part 2:1970	–	–	Schedule 9, Part 1, Note Schedule 9, Part IV(B), Note
BS 835: 1973	–	–	L8(b) L16(e)(i)
BS 881 & 589: 1974	–	–	Schedule 5, preamble, (a) Schedule 6, rule 1(c)
BS 882: Part 2: 1973	1	AMD 1780	C4(a) D7(c)
BS 913: 1973	–	–	Schedule 5, Table 5, items 1 and 2
BS 1105: 1972	–	–	Schedule 8, Part V, section B(B), item 7
BS 1142: Part 2: 1971	–	–	Schedule 5, Table 1, item 3
BS 1181: 1971	–	–	L6(1)(a)(i) L14(1)(a)(iii)
BS 1243: 1972	–	–	Schedule 7, rule 12(1)(b)
BS 1250: Part 1: 1966	–	–	M8(3)(b)(ii) M8(4), proviso
BS 1297: 1970	–	–	Schedule 6, rule 2(b)(ii)
BS 2750: 1956	1	PD 5065	G6(2)
BS 2782: 1970	1 2 3	AMD 936 AMD 999 AMD 1524	E1(7) Table 2 to E1
BS 2989: 1975	–	–	Schedule 5, Table 1, item 6(a) Schedule 5, Table 2, item 4(a)
BS 3051: 1972	–	–	Schedule 5, Table 5, item 2
BS 3083: 1959	–	–	Schedule 5, Table 1, item 6(a) Schedule 5, Table 2, item 4(a)
BS 3452: 1962	–	–	C5(d)
BS 3590: 1970	–	–	Schedule 8, Part VII, footnote ‡ Schedule 8, Part VIII, footnote ‘A’
BS 4011: 1966	1	AMD 1775	Schedule 7, rule 2(2)
BS 4072: 1974	–	–	B4(a) C5(d) Schedule 5, Table 5, item 3
BS 4471: Part 1:1969	1	AMD 730	A4(6)(b)(ii)
BS 4514:1969	1 2	AMD 712 AMD 1288	Table to E12, specification (b)
BS 4543: 1970	1 2	AMD 749 AMD 919	L22(2)(a) L22(2)(d)
BS 4876: 1972	–	–	M5(1)
BS 4978:1973	–	–	Schedule 6, rule 1(d)
BS 5056:1974	–	–	Schedule 5, Table 5, item 4
CP3: Chapter IV: Part 1: 1971	1 2	AMD 1151 AMD 1077	E23
CP3: Chapter IV: Part 2: 1968	–	–	E23
CP3: Chapter IV: Part 3: 1968	1	PD 6407	E23
CP3: Chapter V: Part 1: 1967	1 2 3	AMD 141 AMD 5117 AMD 1024	D2(2)(a) D2(2)(b) H6(2)(b) H7

CP3: Chapter V: Part 2: 1972	–	–	D2(2)(c)
CP101: 1972	1	AMD 1754	D6
CP110: Part 1:1972	1	AMD 1553	D5(1)(a) D(11)(1)(a) D19(1)(a)
CP110: Part 2:1972	–	–	D5(1)(a) D11(1)(a)
CP110: Part 3:1972	–	–	D5(1)(a) D11(1)(a)
CP111: Part 2:1970	1	AMD 744	D13(a)
CP112: Part 2:1971	1 2	AMD 1265 AMD 1846	D12(a) D12(b)(ii) Schedule 6, rule 1(b)
CP112: Part 3.1973	–	–	D12(c)
CP114: 1969	1 2	AMD 1241 AMD 1552	D5(1)(b) D11(1)(b) D19(1)(b)
CP115: 1969	1 2	AMD 1242 AMD 1551	D11(1)(b) D19(1)(b)
CP116: 1969	1 2	AMD 1239 AMD 1550	D11(1)(b) D19(1)(b) D19(4)
CP116: Addendum No 1:1970	–	–	
CP117: Part 1: 1965	–	–	D16
CP118: 1969	1	AMD 1129	D10(1) D10(2)
CP121: Part 1: 1973	1	AMD 1751	D13(b)
CP144: Part 3: 1970	–	–	Schedule 5, Table 2, item 3 Schedule 9, Part IV B, item 1
CP221: 1960			Schedule 5, Table 1, item 4
CP402.201: 1952	1 2 3	PD 2998 PD 4054 PD 5724	E4(1), proviso Table to E5, Part 1, footnote y
CP2004: 1972	1	AMD 1755	D4

Table 3: Other publications

Publication (1)	**Amendment (2)**	**Context (3)**
Standard Grading Rules for Canadian Lumber 1970 published by the National Lumber Grades Authority	–	Schedule 6, rule 1(e)
Standard Industrial Classification (Third Edition 1968) issued by the Central Statistical Office	–	Schedule 2, Part A, Class 8

Schedule 2

BUILDING RULES 1997

Rule A5(2)(a)

Partially exempted buildings

Part A: Buildings

class	Building partially exempted from the provisions of these rules	Provisions with which compliance is required		
		As to notices	As to materials	As to buildings
	(1)	(2)	(3)	(4)
1.	A single storey building (not being a building within class 5 or a building used for any trade or business) which– (i) is used by day only for private occupation or used exclusively for recreational or storage purposes (such as a summer-house, poultry-house, aviary, green-house, conservatory, orchard-house, boat-house, coal-shed, garden tool shed, potting-shed or cycle shed); (ii) is wholly detached from any other building; and (iii) has a floor area not exceeding 30 m^2	Rules A10 and A11 (if proposal includes work to which any rule listed in column (4) applies)	Rule B1 (in so far as it relates to work to which any rule listed in column (4) applies)	Part E and rule K3(3) (unless the building– (i) has a capacity not exceeding 30 m^3; and (ii) is not less than 2 m from any building which is within the same boundaries and is either of purpose group I other than a building described in rule E2(21 or is of purpose group II or III) Part L
2.	A building which is used only in connection with and during the construction, alteration, extension or repair of any building or other work	Rules A10 and A11 (if proposal includes work to which any rule listed in column (4) applies)	Rule BI (in so far as it relates to work to which any rule listed in column (4) applies)	Parts C and D (unless the building is a single storey building) Part L
3.	A building being any monument specified in the First, Second and Third Schedules to the Museum and Antiquities Act*	Rules A 10 and A11 (if proposal includes work to which Part L applies)	Rule B I (in so far as it relates to work to which Part L applies)	Part L
4.	A building which– (i) is used, for a limited period only, in connection with the sale or letting of buildings or building plots in the course of the development of an estate; (ii) is erected on or in close proximity to the estate; and (iii) is wholly detached from any other building	Rules A10 and A11	Rule B I (in so far as it relates to work to which any rule listed in column (4) applies)	Parts C and D (unless the building is a single storey building) Part L

* *Repealed by the Gibraltar Heritage Trust Ord. (1989-12) as from 1.5.1989.*

5.	A single storey building which– (i) is used as a garage; (ii) is wholly detached from any other building; and (iii) has a floor area not exceeding 30 m^2	Rules A10 and A11	Part B	Part E (subject, where applicable, to rule E18 or E19) Rule K3(3) Part L
6.	A single storey building (not being a building within Class 7 or Class 8) which– (i) is used exclusively for the storage of materials or products, for the accommodation of plant or machinery or for the housing of livestock; (ii) is a building wherein the only persons habitually employed are engaged solely in the general care, supervision, rule, maintenance, storage or removal of the materials, products, plant, machinery or livestock in the building; and (iii) is wholly detached from any other building	Rules A10 and A11	Part B	Parts C and D (unless– (i) the building is used solely for agriculture or (ii) the building has a capacity not exceeding 100m^3) Part E(except rule E15) Rule K3(3) Part L

7.	A greenhouse (other than a building within Class I or a building wherein the primary purpose is the selling of goods by retail) having a ground storey only the floor of which is not more than 1.2 m below the level of the adjoining ground and which– (i) has not less than three-quarters of its total external area comprised of glass (including glazing bars) or of a single or double skin of plastics material having a total light transmission of not less than 65%; (ii) is used solely for agricultural purposes; (iii)is wholly detached from any building which contains dwelling accommodation; and (iv) is so situated that no part of it is within the permitted boundary of any building which is of purpose group I (other than a building described in rule E2(2)), purpose group II or purpose group II and has been or is being erected on land occupied in common with the greenhouse. For the purpose of sub-paragraph (iv) hereof, PERMITTED BOUNDARY means a notional line drawn round that other building at the least distance from every part of it which would ensure that, if the line were the actual boundary and that building were newly constructed, there would be no contravention of rule E7 in relation to it	Rules A10 and A11	Rule BI (in so far as it relates to work to which Part L applies) Rule B3	Part L

8.	A building which– (i) is used exclusively for the accommodation of plant or machinery whether or not such plant or machinery forms any part of the structure. (ii) forms part of and is within the curtilage of a works; (iii) is a building wherein the only persons habitually employed are engaged solely in the general care, supervision, rule or maintenance of such plant or machinery; and (iv) is wholly detached from any other building	Rules A10 and A11	Part B	Parts C and D (unless the building is a single storey building having a capacity not exceeding 100 m^3) Rules E5 and E6 (unless the building is so situated that each side may, in accordance with rule E7, consist entirely of an unprotected area) Rules E7 and E17 Rule K3(3) Part L

Part B: Works and fittings

Buildings partially exempted from the provisions of these rules	Provisions with which compliance is required		
	As to notices	As to materials	As to works and fittings
(1)	(2)	(3)	(4)
Classes l, 2, 4 and 7	Rules A10 and A11	Rule B1 (in so far as it relates to matters governed by the provisions to listed in column (4))	Part M Part N (except in relation surface water dranage) Part P
Classes 3,.5, 6 and 8	Rules A10 and A11	Rule Bl (in so far as it relates to matters governed by the provisions listed in column (4))	Parts M, N and P

SCHEDULE 3
Rule A 10(1)

Giving of notice and deposit of plans

Rule A: General

The following provisions shall be observed in relation to the giving of any notices and the deposit of any plans, sections, specifications and particulars referred to in the other rules of this schedule:

1. Notices and particulars shall be in writing.

2. Drawings shall he executed or reproduced in a clear and intelligible manner with suitable and durable materials. Plans and sections shall be to a scale of not less than 1:100 or, if the building is so extensive as to render a smaller scale necessary, not less than 1:200; block plans shall be to a scale of not less than 1:1250; and key plans shall be to a scale of not less than 1:2500. The scale shall be indicated on all plans, sections and other drawings and the north point on all block plans and key plans.

3. Every notice, drawing or other document shall be signed by the person required to furnish it to the Government or by his duly authorised agent and, if it is signed by such agent, it shall state the name and address of the person on whose behalf it has been furnished.

4. Every such application shall be sent or delivered to the Government in accordance with the Town Planning (Applications) Rules, 1976.

Rule B: Erection of buildings (other than partially exempted buildings)

The notice to be given and the plans, specifications and particulars to be deposited by a person intending to erect a building which is neither wholly exempted nor partially exempted within the meaning of rule A5(2) are as follows:

1. Notice of intention to erect a building not wholly or partially exempted from the operation of these rules.

2. Particulars, so far as necessary to show whether the building complies with all such requirements of these rules as apply to it, of–

   (a) the intended use of the building;

   (b) the materials of which the building will be constructed;

   (c) the mode of drainage; and

   (d) the means of water supply.

3. A block plan showing–

   (a) the size and position of the building and its relationship to adjoining buildings;

   (b) the width and position of every street adjoining the premises; and

(c) the boundaries of the premises and the site and position of every other building and of every garden, yard and other open space within such boundaries.

4. A key plan showing the position of the site when it is not sufficiently identifiable from the block plan.

5. A plan of every floor and roof of the building and a section of every storey of the building upon which shall be shown (where not already shown on the particulars and plans required by Items 2 to 4), so far as necessary to enable the Government to determine whether the building complies with these rule–

(a) the levels of the site of the building, of the lowest floor of the building and of any street adjoining the premises, in relation to one another and above some known datum;

(b) the position of the damp-proof courses and any other barriers to moisture;

(c) the position, form and dimensions of the foundations, walls, windows, floors, roofs, chimneys and several parts of the building;

(d) the intended use of every room in the building;

(e) the provision made In the structure for protection against fire;

(f) the provision made in the building or part for means of escape in case of tire and for securing that such means can be safely and effectively used at all material times; and

(g) the provision made in the structure for insulation against the transmission of heat and sound.

Rule C: Erection of partially exempted buildings

The notice to be given and the plans, sections, specifications and particulars to be deposited by a person intending to erect a partially exempted building within the meaning of rule A5(2) if compliance with the provisions of rule A10 is required by Part A of Schedule 2 are as follows:

1. Notice of intention to erect a partially exempted building.

2. Particulars, so far as necessary to show whether the building falls within the relevant class of exemption in Schedule 2 and complies with all such requirements of these rules as apply to it, of–

(a) the intended use of the building;

(b) the materials of which it will be constructed; and

(c) the mode of drain age.

3. A block plan showing the size and position of the building and its relationship to adjoining buildings and indicating its distance from the boundaries of the premises.

4. A key plan showing the position of the site when it is not sufficiently identifiable from the block plan.

5. Plans and sections of the building showing the particulars required by Item 5(a) to (e) of Rule B, so far as may he necessary to enable the Government to determine whether the building complies with these rules.

Rule D: Alterations and extensions

The notice to be given and the plans, sections, specifications and particulars to be deposited by a person intending to malt: any alteration of or extension to a building are as follows:

1. Notice of intention to alter or extend a building–

2. In the case of alterations not involving any extension of a building–

(a) the plans and sections required by Item 5 of either Rule B or Rule C (whichever is appropriate) of the alterations and of the building so far as affected by the alterations, so far as necessary to establish whether the proposals comply with these rules; and

(b) a key plan showing the position of the site when it is not sufficiently identifiable from such plans.

3. In the case of an extension of a building–

(a) the plans, sections, specifications and particulars referred to in Items 2, 3, 4 and 5 of either Rule B or Rule C (whichever is appropriate) in relation to the extension as if the extension were the building therein referred to; and

(b) the plans and sections as required by Item 5 of Rule B or Rule C (whichever is appropriate) of the building so far as affected by the extension,

so far as necessary to enable the Government to determine whether the proposals comply with the requirements of these rules.

Rule E: Additional requirements

Where a duly authorised officer of the Government considers it to be necessary for the purposes of examining any proposals submitted in accordance with Rule B, C, D or G, he may require the deposit of any of the following drawings and particulars in addition to plans, sections, specifications and particulars required by such rule:

1. A specification of any particular material or materials proposed to be used.

2. The proportions of the materials in any concrete or mortar of the specified minimum strength of the concrete or mortar.

3. Calculations of loading and strength:

   Provided that where the dimensions of a structural memher accord with the provisions of rules D7, D12(b), D13(b), D14 or D15 as the case may he, calculations of strength to demonstrate the adequacy of those dimensions shall not he required.

4. Drawings showing details of particular construction.

5. Calculations relating to the permitted limit of unprotected areas in any side of the building in accordance with rule E7.

6. In the case of a building, or part of a building, which falls within section 2(a)(b) and (c) of the City Fire Brigade and Fire Services Act 1976.

7. Drawings showing the dimensions of space adjoining the windows of habitable rooms.

Rule F: Works and fittings

The notice to he given and the plans, sections, specifications and particulars to he deposited by a person intending to execute any works or install any fittings to which rule A8 relates are as follows:

1. Notice of intention to execute works or install fittings in connection with a building.

2. Particulars of the works or fittings so far as necessary to establish whether they comply with all such requirements of these rules as apply to them.

3. Where it is proposed to execute works of drainage or to construct or install a watercloset fitting, urinal fitting, earthcloset or cesspool (including a settlement tank, septic tank or other tank for the reception or disposal of foul matter from buildings), a block plan. Such plan shall, if the execution of works or installation of fittings is in connection with an operation to which Rule B, C or D relates, he the block plan required by such Rule and the block plan shall in any case show, so far as necessary to establish whether the proposals comply with all such requirements of these rules as apply to them–

   (a) the position of the works or fittings;

   (b) the lines of drainage; the size, depth and inclination of every drain and the means of access to be provided for the inspection and cleansing of the drains;

   (c) the position and level of the outfall of the drains; and

   (d) where the drainage is intended to he connected to a sewer, the position of the sewer.

4. Where it is proposed to construct or install a watercloset fitting, urinal fitting. earthcloset or cesspool (including a settlement tank, septic tank or other tank for the reception or disposal of foul matter from buildings), plans and sections of the works or fittings, so far as necessary to show that they comply with all such requirements of these rules as apply to them.

5. A key plan showing the position of the site when it is not sufficiently identifiable from the block plan.

Rule G: Material changes of use

The notice to be given and the plans, specifications and particulars to he deposited by a person intending to make any material change of use to which these rules are applied by rule A9, in addition to anything required by Rule D in a case to which that rule relates, are as follows:

1. Notice of intention to make, and a description of, any change in the purposes for which the building or part of the building is used.

2. A block plan showing the size and position of the building and its relationship to adjoining buildings.

3. A key plan showing the position of the site when it is not sufficiently identifiable from the block plan.

Public Health

BUILDING RULES 1997
SCHEDULE 4

Rule A12:– Application form for dispensation or relaxation.

PUBLIC HEALTH ACT SECTION 48.
RELAXATION OF BUILDING RULES

To THE SECRETARY, DEVELOPMENT AND PLANNING COMMISSION.

I/We hereby apply under section 48 of the Public Health Act, for a direction dispensing with or relaxing the requirement(s) of building rules as specified below in connection with the proposed building or works shown on the accompanying plans (see note 1).

Particulars to be completed

1. State briefly the nature of proposed building or works
2. State address of premises or location of site
3. Has the work already been carried out? (see note 2)
4. State the requirement(s) of building rules sought to be dispensed with or relaxed
5. State grounds for the application (see notes 3 and 4) (continue overleaf if necessary)

Applicant:
Full name . . . . . (Mr./Mrs./Miss)
Address. . . . . .
. . . . . .
. . . . . .
Date. . . . . Signed. . . . . ..
Applicant/Authorised to sign on behalf of applicant
(Delete whichever is not applicable)

If signed by agent:

Name of agent. . . . . .
Profession or capacity in which acting. . . . . .

BUILDING RULES 1997

Address of agent. . . . . .
. . . . . .
Telephone Number. . . . . .

Grounds for the application *(continued)*

Notes for guidance of applicants

1. ACCOMPANYING PLANS means such drawings and/or particulars as will show the nature, extent and effect on the project as a whole of the dispensation or relaxation applied for The application should indicate why it is considered that the operation of the requirement(s) is unreasonable,

SCHEDULE 5

Rule A16(1)

Short-lived or otherwise unsuitable materials

In this schedule–

(a) species of tiniber are identified by standard names in accordance with BS 881 & 589:1974; and

(b) VACUUM IMPREGNATION means a treatment in which the timber is placed in a closed container subjected to a vacuum and then flooded with preservative before the vacuum is released.

Table 1: Materials to which the provisions of section 53 of the Public Health Act 1936 apply If used as the weather-resisting part of an external wall

1. Any of the following materials without exception–

(a) canvas or cloth

(b) felt

(c) fibrous plaster

(d) plaster board

(e) straw slabs

(f) wood chipboard

(g) wood wool building slabs.

2. Any asbestos-cement sheets or slates other than sheets or slates complying with BS 690:Part 2:1971, BS 690: Part 3:1973 or BS 690: Part 4:1974.

3. Any fibre building board other than tempered harboard complying with the appropriate specification In BS 1142: Part 2: 1971.

4. Any plastering or rendering on wood laths or metal lathing other than a rendered finish on metal lathing which complies with the recommendations of CP 221: 1960.

5. Any plywood other than plywood which is not less than 8 mm thick and is satisfactorily manufactured for external use.

6. Any sheet steel other than–

(a) galvanised sheet steel complying with Class 1A of BS 2989:1975 or Type 200 of B53083: 1959; or

(b) sheet steel which is vitreous enamelled or coated with bitumen or other organic substance of like durability during the course of manufacture.

7. Timber boarding other than boarding which–

(a) is manufactured from–

(i) the heartwood of timber specified in Table 3; or

(ii) timber specified in Table 4 after being subjected to a preservative treatment specified in Table 5; and

(b) has a thickness of not less than–

(i) in the case of feather-edge boarding, 16 mm at the thicker edge and 6 mm at the thinner edge; or

(ii) in any other case, 16 mm.

Schedule 5

Table 2: Materials to which the provisions of section 53 of the Public Health Act 1936 apply If used as the weather-resisting part of a roof

1. Any of the following materials without exception–

(a) canvas or cloth

(b) fibre building board

(c) fibrous plaster

(d) plaster or rendering on wood laths or metal lathing

(e) plasterboard

(f) plywood

(g) straw slabs

(h) timber hoarding

(j) wood chipboard

(k) wood wool building slabs.

2. Any asbestos-cement sheets or slates other than sheets or slates complying with BS 690: Part 2 :1971, BS 690: Part 3: 1973 or BS 690: Part 4:1974.

3. Any felt other than felt used in a roof covering of a type and construction complying with the recommendations of CP 144: Part 3:1970.

4. Any sheet steel other than–

(a) galvanized sheet steel complying with class 1A of BS 2989: 1975 or Type 200 of BS 3083:1959; or

(b) sheet steel which is vitreous enameled or coated with bitumen or other organic substance of like durability during the course of manufacture.

Table 3: Species of timber for use in natural state

Hardwoods		Softwoods
(1)		(2)
Afrormosia	Keruing, Indonesian	Cedar, western red
Afzelia	Keruing, Malayan	Sequoia
Agba	Keruing, Saban	
Dahoma	Keruing, Sarawak	
Danta	Mahogany, African	
Gedu nohor	Makoni	
Guarea	Meranti, dark red	
Gurjun, Andaman	Meranti, light red	
Gurjun, Burma	Niangon	
Gurjun, Indian	Oak, European	
Idigbo	Opepe	
Iroko	Sapele	
Kapur	Teak	
Kempas	Utile	

Schedule 5

Table 4: Species of timber for use after being subjected to a preservative treatment prescribed In Table 5

Hardwoods (1)	Softwoods (2)
Abura Elm	Fir, Douglas Hemlock, western Larch, European Larch, japanese Redwood (European) or Scots pine Spruce, Sitka Whitewood or European spruce

Table 5: Preservative treatments for timber	
Type of preservative (1)	Method of application (2)
1. Coal tar oil to BS 144:1973	In accordance with BS 913: 1973
2. Coal tar oil to BS3051: 1972	(a) In accordance withBS9l3 1973; or (b) in the case of redwood (European) or Scots pine, steeping for not less than one hour
3. Copper/chrome/arsenic composition to BS 4072: 1974	In accordance with BS 4072: 1974
4. Copper naphthenate Type 1 to BS 5056: 1974 5. Pentachlorophenol: a solution containing not less than 5% in a suitable organic solvent 6. Tri-butyl-tin-oxide: a solution containing not less than 1.0% in a suitable organic solvent	(a) Vacuum impregnation; or (b) in the case of redwood (European) or Scots pine, steeping for not less than one hour

SCHEDULE 6	Deemed-to-satisfy provisions
Rule D12(b)(ii)	
Rules for determining the dimensions of certain timber members	

1. Interpretation of Schedule 6

In this schedule–

(a) FLAT ROOF includes a roof the pitch of which is 10^{o} or less to the horizontal;

SPACING means the distance between the centres of any two adjacent timber members of the same type, measured in a plane parallel to that plane of the floor, ceiling or roof structure of which each such member forms part;

SPAN means the distance between the centres of any two adjacent bearings or other forms of Support given to a timber member, measured in a plane parallel to the plane of the floor, ceiling or roof structure of which that member forms part; and

TIMBER MEMBER means a piece of solid timber of any of the types more particularly specified in the headings to the Tables to this schedule;

(b) DOUGLAS FIR-LARCH, HEM-FIR and SPRUCE-PINE-FIR refer to timbers of those Species which are collectively so designated in Table 1A in CP 112: Part 2:1971;

(c) species of timber, other than those to which paragraph (b) refers, are identified by standard names in accordance with BS 881 & 589:1974;

(d) GS, MGS, SS, MSS, M50 and M75 refer to grades of those designations determined in accordance with BS4978: 1973; and

(e) No. 2 refers to the grade of that designation determined in accordance with the Structural Joists and Planks Section of the Standard Grading Rules for Canadian Lumber dated 1970 and published by the National Lumber Grades Authority.

2. Application of Schedule 6

The dimensions of a timber member may be determined by reference to a Table to this schedule if–

(a) the imposed load to be sustained by the floor, ceiling or roof of which the member forms part does not exceed the load specified in subparagraph (a), (b) or (c) of rule D2(3) whichever is appropriate;

(b) (i) in the case of binder, beam, joist, purlin or rafter, the timber is of a species, origin and grade specified in the Table to this rule; or

(ii) in the case of a floorboard, the board complies in all respects with BS 1297: 1970; and

(c) the Table to which reference is made is appropriate having regard to the type of member and (except in the case of Table 25) the grade of timber specified in the subheading thereto.

Table to Rule 2: Species, origin and grade of timber to which Tables 1 to 24 relate

Species	Origin	Grade	
		in relation to which Tables 1 to 12 are appropriate	in relation to which Tables 13 to 24 are appropriate
(1)	(2)	(3)	(4)
1. Fir, Douglas	Home-grown or imported	GS or MGS	SS or MSS
2. Hemlock, western	Imported	GS or MGS	SS or MSS
3. Larch, European	Home-grown	GS or MGS	SS or MSS
4. Larch, Japanese	Home-grown	GS or MGS	SS or MSS
5. Pine, American pitch	Imported	GS or MGS	SS or MSS
6. Pine, Caribbean pitch	Imported	GS or MGS	SS or MSS
7. Pine, Scots	Home-grown	GS or MGS	SS or MSS
8. Redwood	Imported	GS or MGS	SS or MSS
9. Spruce, Norway	Home-grown	M75	–
10. Spruce, Sitka	Home-grown	M75	–
11. Spruce, western white	Imported	M50	–
12. Whitewood	Imported	GS or MGS	SS or MSS
13. Douglas fir-larch	Imported from Canada	No.2	–
14. Hem-fir	Imported from Canada	No.2	–
15. Spruce-pine fir	Imported from Canada	No.2	–

Table 1: Floor joists

GS, MGS, M50, M75 or No.2 grade timber

Size of joist (in mm)	Dead load (in kg/m^2) supported by joist, excluding the mass of the joist

	Not more than 25			More than 25 but not more than 50			More than 50 but not more than 125		
	Spacing of joists (in mm)								
	400	450	600	400	450	600	400	450	600
	Maximum span of joist (in m)								
38 x 75	1.05	0.95	0.72	0.99	0.90	0.69	0.87	0.79	0.62
38 x 100	1.77	1.60	123	1.63	1.48	1.16	1.36	1.24	1.00
38 x 125	2.53	2.35	1.84	2.33	2.12	1.69	1.88	1.73	1.40
38 x 150	3.02	2.85	2.48	2.83	2.67	2.26	2.41	2.23	1.83
38 x 175	3.51	3.32	2.89	3.29	3.11	2.71	2.82	2.66	2.27
38 x 200	4.00	3.78	3.30	3.75	3.55	3.09	3.21	3.03	2.64
38 x 225	4.49	4.24	3.70	4.21	3.98	3.47	3.61	3.41	2.96
44 x 75	1.20	1.08	0.83	1.13	1.02	.0.79	0.98	0.89	0.70
44 x 100	2.01	1.82	1.41	1.83	1.67	1.31	1.51	1.39	1.12
44 x 125	2.71	2.56	2.09	2.54	2.38	1.90	2.08	1.92	1.56
44 x 150	3.24	3.06	2.67	3.04	2.87	2.50	2.60	2.45	2.03
44 x 175	3.77	3.56	3.10	3.53	3.34	2.91	3.02	2.86	2.48
44 x 200	4.29	4.06	3.54	4.02	3.80	3.31	3.45	3.26	2.83
44 x 225	4.81	4.55	3.97	4.51	4.27	3.72	3.87	3.66.	3.18
50 x 75	1.35	1.22	0.93	1.26	1.14	0.89	1.08	0.99	0.78
50 x 100	2.22	2.03	1.58	2.03	1.85	1.46	1.66	1.53	1.23
50 x 125	2.84	2.72	2.33	2.70	2.55	2.10	2.27	2.09	1.71
50 x 150	3.40	3.26	2.84	3.23	3.05	2.66	2.76	2 61	2.21
50 x 175	3.95	3.78	3.30	3.75	3.55	3.09	3.22	3.04	264
50 x 200	4.51	4.31	3.76	4.27	4.04	3.52	3.67	3.46	3.01
50 x 225	5.06	4.83	4.22	4.79	4.53	3.95	4.11	3.89	3.39
63 x 150	3.66	3.52	3.17	3.50	3.38	2.97	3.09	292	254
63 x 175	4.25	4.10	3.68	4.07	3.93	3.45	3.59	3.40	296
63 x 200	4.84	4.67	4.20	4.64	4.48	3.93	4.09	3.87	3.37
63 x 225	5.43	5.24	4.70	5.21	5.02	4.41	4.59	4.34	3.78
75 x 200	5.10	4.93	4.51	4.90	4.72	4.27	4.43	4.20	3.67
75 x 225	5.72	5.52	5.06	5.49	5.30	4.79	4.97	4.71	4.11

Table 2: Ceiling joists

GS, MGS, M50, M75 or No.2 grade timber

Size of joist (in mm)	Dead load (in kg/m^2) supported by joist, excluding the mass of the joist					
	Not more than 25			More than 25 but not more than 50		
	Spacing of joists (in mm)					
	400	450	600	400	450	600
	Maximum span of joist (in m)					
38 x 75	1.88	1.80	1.57	1.71	1.61	1.40
38 x 100	2.50	2.39	2.08	2.27	1.14	1.86
38 x 125	3.11	2.97	2.59	2.82	2.67	2.32
38 x 150	3.72	3.55	3.10	3.37	3.19	2.78
3 x 175	4.32	4.12	3.60	3.92	3.71	3.23

38 x 200	4.92	4.69	4.10	4.46	4.22	3.68
38 x 225	5.51	5.25	4.60	4.99	4.73	4.13
44 x 75	1.97	1.90	1.68	1.83	1.73	1.51
44 x 100	2.61	2.52	2.23	1.43	2.30	2.00
44 x 125	3.25	3.14	2.78	3.03	2.86	2.49
44 x 150	3.89	3.75	3.32	3.62	3.42	2.98
44 x 175	4.52	4.36	3.86	4.20	3.97	3.47
44 x 200	5.14	4.96	4.39	4.77	4.52	3.95
44 x 225	5.76	5.56	4.92	5.34	5.06	4.43
50 x 75	2.05	1.9~	1.79	1.91	1.84	1.60
50 x 100	2.72	2.62	2.38	2.53	2.44	2.13
50 x 125	3.39	3.26	2.95	3.15	3.04	2.65
50 x 150	4.04	3.90	3.53	3.77	3.63	3.17
50 x 175	4.70	4.53	4.10	4.38	4.22	3.68
50 x 200	5.34	5.16	4.66	4.99	4.79	4.19
50 x 225	5.98	5.78	5.22	5.59	5.37	4.70

Table 3: Binders or beams supporting joists to which Table 2 relates

GS, MGS, M50, M75 or No.2 grade timber

Size of binder or beam(in mm)	Dead load (in kg/m^2) supported by joist as calculated for the purposes of Table 2									
	Not more than 25 Spacing of binders or beams (in m)					More than 25 but not more than 50				
	1.20	1.50	1.80	2.10	2.40	1.20	1.50	1.80	2.10	2.40
	Maximum span of binder or beam (in m)									
38 x 75	1.08	0.96	0.88	0.82	0.76	0.97	0.87	0.79	0.73	0.69
38 x 100	1.43	1.28	1.17	1.09	1.02	1.29	1.16	1.06	0.98	0.31
38 x 125	1.79	1.60	1.46	1.36	1.27	1.61	1.44	1.32	1.22	1.14
38 x 150	2.14	1.92	1.75	1.63	1.52	1.93	1.73	1.58	1.46	1.37
38 x 175	2.49	2.24	2.04	1.90	1.77	2.25	2.01	1.84	1.71	1.60
38 x 200	2.85	155	2.33	2.16	2.03	2.57	2.30	2.10	1.95	1.82
38 x 225	3.20	2.87	2.62	2.43	1.28	2.88	2.58	1.36	1.19	2.05
44 x 75	1.16	1.04	0.95	0.83	0.82	1.04	0.93	0.85	0.79	0.74
44 x 100	1.54	1.38	1.26	1.17	1.09	1.39	1.24	1.13	1.05	0.98
44 x 125	1.92	1.72	1.57	1.46	1.37	1.73	1.55	1.42	1.31	1.23
44 x 150	2.30	2.06	1.89	1.75	1.64	2.07	1.86	1.70	1.57	1.47
44 x 175	2.68	2.40	2.20	2.04	1.91	2.41	2.16	1.98	1.83	1.72
44 x 200	3.05	174	2.51	2.33	2.18	1.76	2.47	1.26	1.09	1.96
44 x 225	3.43	3.08	2.82	2.61	2.45	3.09	2.78	1.54	1.35	2.20
50 x 75	1.23	1.10	1.01	0.93	0.87	1.11	0.99	0.91	0.84	0.79
50 x 100	1.64	1.47	1.34	1.24	1.16	1.48	1.32	1.21	1.12	1.05
50 x 125	2.04	1.83	1.68	1.55	1.45	1.84	1.65	1.51	1.40	1.31
50 x 150	2.45	2.20	2.01	1.86	1.74	2.21	1.98	1.81	1.68	1.57
50 x 175	2.85	2.56	2.34	2.17	2.03	2.57	2.30	2.11	1.95	1.83
50 x 200	3.25	1.92	1.67	2.48	2.32	2.93	1.63	2.41	1.23	1.09
50 x 225	3.65	3.28	3.00	1.78	2.61	3.29	2.95	1.70	1.51	1.35
63 x 150	2.74	2.46	2.25	2.09	1.95	2.47	2.22	2.03	1.88	1.76
63 x 175	3.19	2.86	1.62	1.43	2.28	2.88	2.58	2.36	2.19	2.05

63 x 200	3.63	3.26	2.99	2.77	2.60	3.28	2.94	2.69	2.50	2.34
63 x 225	4.07	3.66	3.35	3.11	2.92	3.68	3.30	3.03	2.81	2.63
75 x 200	3.94	3.55	3.25	3.02	2.83	3.56	3.20	2.93	2.72	1.55
75 x 225	4.42	3.98	3.65	3.39	3.17	4.00	3.59	3.29	3.06	2.86

Table 4: Joists for flat roof with access only for the purposes of maintenance or repair

GS, MGS, M50, M75 or No.2 grade timber

Size of joist (in mm)	Dead load (in kg/m^2) supported by joist, excluding the mass of the joist								
	Not more than 25			More than 25 but not more than 50			More than 50 but not more than 125		
	Spacing of joists (in mm)								
	400	450	600	400	450	600	400	450	600
	Maximum span of joist (in m)								
38 x 75	1.88	1.81	1.65	1.64	1.58	1.44	1.56	1.50	1.37
38 x 100	2.50	2.40	2.19	2.19	2.11	1.92	2.08	2.00	1.82
38 x 125	3.11	1.99	2.73	2.73	2.63	2.39	2.59	2.50	2.27
38 x 150	3.72	3.58	3.27	3.26	3.14	2.87	3.11	2.99	2.72
38 x 175	4.32	4.16	3.81	3.80	3.66	3.34	3.62	3.48	3.17
38 x 200	4.92	4.74	4.34	4.33	4.17	3.81	4.12	3.97	3.62
38 x 225	5.51	5.32	4.87	4.86	4.68	4.28	4.63	4.46	4.07
44 x 75	1.97	1.90	1.73	1.72	1.66	1.51	1.64	1.58	1.44
44 x 100	2.61	2.52	2.30	2.29	2.21	2.01	2.18	2.10	1.91
44 x 125	3.25	3.14	2.86	2.86	2.75	2.51	2.72	2.62	2.38
44 x 150	3.89	3.75	3.43	3.42	3.29	3.00	3.25	3.13	2.86
44 x 175	4.52	4.36	3.98	3.98	3.83	3.50	3.79	3.65	3.33
44 x 200	5.14	4.96	4.54	4.53	4.37	3.99	4.32	4.16	3.80
44 x 225	5.76	5.56	5.10	5.09	4.90	4.48	4.85	4.67	4.26
50 x 75	2.05	1.98	1.80	1.80	1.73	1.58	1.71	1.64	1.50
50 x 100	2.72	2.62	2.39	2.39	2.30	2.10	2.27	2.19	1.99
50 x 125	3.39	3.26	2.98	2.98	2.87	2.61	2.83	2.73	2.49
50 x 150	4.04	3.90	3.57	3.56	3.43	3.13	3.39	3.26	2.98
50 x 175	4.70	4.53	4.15	4.14	3.99	3.64	3.94	3.80	3.47
50 x 200	5.34	5.16	4.72	4.72	4.55	4.16	4.49	4.33	3.95
50 x 225	5.98	5.78	5.30	5.29	5.10	4.67	5.04	4.86	4.44

Table 5: Joists for flat roofs with access not limited to the purposes of maintenance or repair

GS, MGS, M50, M75 or No.2 grade timber

Size of joist (in mm)	Dead load (in kg/m^2) supported by joist, excluding the mass of the joist		
	Not more than 25	More than 25 but not more than 50	More than 50 but not more than 125

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	Spacing of joists (in mm)								
	400	450	600	400	450	600	400	450	600
	Maximum span of joist (in m)								
38 x 75	1.29	1.16	0.89	1.14	1.03	0.81	1.09	0.99	0.78
38 x 100	1.96	1.86	1.51	1.79	1.65	1.31	1.70	1.55	1.24
38 x 125	2.60	2.50	2.22	2.38	2.27	1.87	2.28	2.16	1.75
38 x 150	3.11	3.00	2.73	2.87	2.76	2.45	2.77	2.67	2.28
38 x 175	3.63	3.49	3.18	3.34	3.22	2.85	3.23	3.11	2.71
38 x 200	4.14	3.98	3.63	3.81	3.67	3.26	3.68	3.55	3.09
38 x 225	4.64	4.47	4.08	4.28	4.12	3.66	4.14	3.98	3.47
44 x 75	1.40	1.33	1.02	1.29	1.17	0.92	1.22	1.11	0.88
44 x 100	2.10	1.99	1.72	1.91	1.81	1.48	1.83	1.73	1.39
44 x 125	2.73	2.63	2.38	2.51	2.41	2.09	2.42	2.31	1.95
44 x 150	3.26	3A4	2.87	3.01	2.90	2.63	2.91	2.80	2.50
44 x 175	3.80	3.66	3.34	3.53	3.37	3.06	3.38	3.26	2.91
44 x 200	4.33	4.17	3.81	4.00	3.85	3.50	3.86	3.72	3.32
44 x 225	4.86	4.68	4.28	4.49	4.32	3.93	4.34	4.18	3.73
50 x 75	1.49	1.41	1.15	1.38	1.30	1.02	1.34	1.23	0.98
50 x 100	2.22	2.11	1.85	2.01	1.91	1.63	1.94	1.84	1.54
50 x 125	2.84	2.74	2.49	2.62	2.52	2.26	2.53	2.43	2.14
50 x 150	3.40	3.27	2.99	3.13	3.02	2.75	3.03	2.92	2.66
50 x 175	3.95	3.81	3.48	3.65	3.51	3.20	3.53	3.40	3.09
50 x 200	4.51	4.34	3.97	4.16	4.01	3.66	4.02	3.87	3.53
50 x 225	5.06	4.88	4.45	4.67	4.50	4.11	4.52	4.35	3.96
63 x 150	3.66	3.52	3.22	3.37	3.25	2.96	3.26	3.14	2.86
63 x 175	4.25	4.10	3.74	3.93	3.78	3.45	3.79	3.66	3.33
63 x 200	4.84	4.67	4.27	4.47	4.31	3.94	4.33	4.17	3.80
63 x 225	5.43	5.24	4.79	5.02	4.84	4.42	4.86	4.68	4.27
75 x 200	5.10	4.93	4.51	4.72	4.55	4.16	4.57	4.40	4.02
75 x 225	5.72	5.52	5.06	5.30	5.11	4.67	5.12	4.94	4.52

Table 6: Purlins supporting sheeting or decking for roofs having a pitch of 10° or more

GS, MGS, M50, M75 or No.2 grade timber

Size of purlin (in mm)	Dead load (in kg/m²) supported by purlin, excluding the mass of the purlin																	
	Not more than 25						More than 25 but not more than 50						More than 50 but not more than 75					
	Spacing of purlins (in m)																	
	0.90	1.20	1.50	1.80	2.10	2.40	0.90	1.20	1.50	1.80	2.10	2.40	0.90	1.20	1.50	1.80	2.10	2.40
	Maximum span of purlin (in m)																	
50 x 100	2.20	1.91	1 71	1.57	1.45	1.35	1.97	1.71	1.53	1.40	1.30	1.21	1.76	1.56	1.40	1.28	1.18	1.11
50 x 125	2.74	2 38	2 14	1.95	1.81	1.70	2.46	2.13	1.91	1.75	1.62	1.52	2.19	1.95	1.75	1.60	1.48	1.38
50 x 150	3.28	2 85	2 56	2.34	2:17	2.03	2.94	2.56	2.29	2.09	1.94	1.82	2.63	2.33	2.09	1.91	1.77	1.66
50 x 175	3.81	3 32	2 98	2.73	2.53	2.37	3.42	2.98	2.67	2.44	2.26	2.12	3.05	172	2.44	2.23	2.07	1.93
50 x 200	4.34	3 78	3.40	3.11	2.89	170	3.90	3.39	3.04	2.79	2.38	2.42	3.48	3.10	2.78	2.54	2.36	2.21
50 x 225	4.87	4 25	3.82	1.49	3.24	164	4.37	3.81	3.42	3.13	2.90	2.72	3.91	3.48	3.13	2.86	2.65	2.48
63 x 150	3.66	3.19	2.86	2.62	2.43	2.28	3.20	2.86	2.57	2.35	2.18	2.04	2.82	2.58	2.34	2.14	1.99	1.86
63 x 175	4.25	3.71	3.33	3.05	2.83	2.65	3.71	3.33	2.99	2.73	2.53	2.37	3.28	3.00	2.73	2.50	2.31	2.17
63 x 200	4.84	4.23	3.80	3.48	3.23	3.03	4.22	3.79	3.41	3.12	2.89	2.71	3.74	342	3.11	2.85	2.64	2.47
63 x 225	5.42	4.74	4.26	3.91	3.63	3.40	4.73	4.26	3.82	3.50	3.25	3.04	4.19	3.84	3.50	3.20	2.97	2.78

Table 7: Common or jack rafters for roofs having a pitch more than 10° but not more than 22½° with access only for the purposes of maintenance or repair

GS, MGS, M50, M75 or No.2 grade timber

Size of rafter (in mm)	Dead load (in kg/m²) supported by rafter, excluding the mass of the rafter								
	Not more than 50			More than 50 but not more than 75			More than 75 but not more than 100		
	Spacing of rafters (in mm)								
	400	450	600	400	450	600	400	450	600
	Maximum span of rafter (in m)								
38 x 100	2.42	2.28	1.97	2.20	2.08	1.79	103	1.92	1.65
38 x 125	3.01	2.84	2.46	2.74	159	2.23	153	2.39	2.06
38 x 150	3.60	3.39	2.94	3.28	3.09	2.67	3.03	186	2.46
44 x 75	1.96	1.85	1.60	1.79	1.68	1.45	1.65	1.55	1.34
44 x 100	2.60	2.45	2.12	2.37	2.24	1.93	2.19	2.06	1.78
44 x 125	3.23	3.05	2.65	2.95	2.78	2.41	2.73	2.57	2.22
44 x 150	3.86	3.65	3.16	3.53	3.33	2.88	3.26	3.08	2.66
50 x 75	2.09	1.97	1.71	1.91	1.80	1.55	1.76	1.66	1.43
50 x 100	2.77	2.61	2.27	2.53	2.38	2.06	2.34	2.20	1.90
50 x 125	3.44	3.25	2.82	3.14	2.97	2.57	2.91	2.74	2.37
50 x 150	4.10	3.88	3.37	3.75	3.54	3.07	3.48	328	2.84

Table 8: Purlins supporting rafters to which Table 7 relates

GS, MGS, M50, M75 or No.2 grade timber

Size of purlin (in mm)	Dead load (in kg/m^2) supported by rafter as calculated for the purposes of Table 7																	
	Not more than 50						More than 50 but not more than 75						More than 75 but not more than 100					
	Spacing of purlins (in m)																	
	1.50	1.80	2.10	2.40	2.70	3.00	1.50	1.80	2.10	2.40	2.70	3.00	1.50	1.80	2.10	2.40	2.70	3.00
	Maximum span of purlin (in m)																	
50 x 100	1.35	1.23	1.14	1.07	1.01	0.95	1.23	1.13	1.04	0.98	0.92	0.87	1.14	1.04	0.97	0.91	0.85	0.81
50 x 125	1.68	1.54	1.42	1.33	1.26	1.19	1.54	1.41	1.30	1.22	1.15	1.09	1.43	1.30	1.21	1.13	1.07	1.01
50 x 150	2.01	1.84	1.71	1.60	1.51	1.43	1.85	1.69	1.56	1.46	1.38	1.31	1.71	1.56	1.45	1.36	1.28	1.21
50 x 175	2.35	2.15	1.99	1.86	1.76	1.67	2.15	1.97	1.82	1.70	1.61	1.53	2.00	1.82	1.69	1.58	1.49	1.42
50 x 200	2.68	2.45	2.27	2.13	2.01	1.90	2.46	2.24	2.08	1.95	1.84	1.74	2.28	2.08	1.93	1.81	1.70	1.62
50 x 225	3.01	2.75	2.55	2.39	226	2.14	2.76	2.52	2.34	2.19	2.07	1.96	2.56	2.34	2.17	2.03	1.92	1.82
63 x 150	2.26	2.06	1.91	1.79	1.69	1.60	2.07	1.89	1.75	1.64	1.55	1.47	1.92	1.75	1.63	1.52	1.43	1.36
63 x 175	2.63	2.40	2.23	2.09	1.97	1.87	2.41	2.20	2.04	1.91	1.80	1.71	2.24	2.04	1.89	1.77	1.67	1.59
63 x 200	3.00	2.74	2.54	2.38	2.25	2.13	2.75	2.52	2.33	2.18	2.06	1.95	2.55	2.33	2.16	2.03	1.91	1.81
63 x 225	3.37	3.08	2.86	2.68	2.53	2.40	3.09	2.83	2.62	2.45	2.32	2.20	2.87	2.62	2.43	2.28	2.15	2.04
75 x 175	2.86	2.62	2.43	2.27	2.15	2.04	2.62	2.40	2.23	2.08	1.97	1.87	2.44	2.23	2.06	1.93	1.82	1.73
75 x 200	3.27	2.99	2.77	2.60	2.45	2.33	3.00	2.74	2.54	2.38	2.24	2.13	2.78	2.54	2.36	2.21	2.08	1.98
75 x 225	3.67	3.36	3.11	2.92	2.75	2.62	3.36	3.08	2.85	2.67	2.52	2.40	3.12	2.86	2.65	2.48	2.34	2.22

Table 9: Common or jack rafters for roofs having a pitch more than $22^1/_2{}^o$ but not more than 30^o with access only for the purposes of maintenance or repair

GS, MGS, M50, M75 or No.2 grade timber

Size of rafter (in mm)	Dead load (in kg/m^2) supported by rafter, excluding the mass of the rafter								
	Not more than 50			More than 50 but not more than 75			More than 75 but not more than 100		
	Spacing of rafters (in mm)								
	400	450	600	400	450	600	400	450	600
	Maximum span of rafter (in m)								
38 x 100	2.68	2.53	2.19	2.44	2.30	1.99	2.25	2.12	1.84
38 x 125	3.33	3.15	2.73	3.04	2.87	2.48	2.80	2.65	2.29
38 x 150	3.98	3.76	3.27	3.63	3.43	2.97	3.35	3.16	2.74
44 x 75	2.17	2.05	1.78	1.97	1.86	1.61	1.82	1.72	1.49
44 x 100	2.88	2.72	2.36	2.62	2.47	2.14	2.42	2.28	1.98
44 x 125	3.58	3.38	2.94	3.26	3.08	2.67	3.01	2.84	2.47
44 x 150	4.27	4.04	3.51	3.89	3.68	3.20	3.60	3.40	2.95
50 x 75	2.31	2.18	1.89	2.10	1.98	1.72	1.94	1.83	1.59
50 x 100	3.06	2.89	2.51	2.79	2.63	2.29	2.58	2.43	2.11
50 x 125	3.80	3.59	3.13	3.47	3.28	2.85	3.21	3.03	2.63
50 x 150	4.53	4.29	3.74	4.14	3.91	3.40	3.83	3.62	3.14

Table 10: Purlins supporting rafters to which Table 9 relate

GS, MGS, M50, M75 or No.2 grade timber

Size of purlin (in mm)	Dead load (in kg/m^2) supported by rafter as calculated for the purposes of Table 9																	
	Not more than 50						More than 50 but not more than 75						More than 75 but not more than 100					
	Spacing of purlins (in m)																	
	1.50	1.80	2.10	2.40	2.70	3.00	1.50	1.80	2.10	2.40	2.70	3.00	1.50	1.80	2.10	2.40	2.70	3.00
	Maximum span of purlin (in m)																	
50 x 100	1.41	129	120	1.12	1.06	1.00	129	1.18	1.09	1.02	0.96	0.92	120	1.09	1.01	0.95	0.89	0.85
50 x 125	1.77	1.61	1.50	1.40	1.32	1.25	1.61	1.47	137	1.28	121	1.14	1.49	1.36	1.26	1.18	1.12	1.06
50 x 150	2.12	1.94	1.79	1.68	1.58	1.50	1.93	1.77	1.64	1.53	1.45	1.37	1.79	1.64	1.52	1.42	1.34	1.27
50 x 175	2.47	2.26	2.09	1.96	1.85	1.75	2.25	2.06	1.91	1.79	1.69	1.60	2.09	1.91	1.77	1.65	1.56	1.48
50 x 200	2.82	2.57	2.39	2.23	2.11	2.00	2.57	2.35	2.18	2.04	1.92	1.83	2.38	2.18	2.02	1.89	1.78	1.69
50 x 225	3.16	2.89	2.68	2.51	2.37	2.25	2.89	2.64	2.45	2.29	2.16	2.05	2.68	2.45	2.27	2.12	2.00	1.90
63 x 150	2.37	2.17	2.01	1.88	1.78	1.69	2.17	1.98	1.84	1.72	1.62	1.54	2.01	1.83	1.70	1.59	1.50	1.42
63 x 175	2.76	2.53	2.34	2.19	2.07	1.96	2.52	2.31	2.14	2.00	1.89	1.79	2.34	2.14	1.98	1.85	1.75	1.66
63 x 200	3.15	2.88	2.67	2.50	2.36	2.24	2.88	2.63	2.44	2.29	2.16	2.05	2.67	2.44	2.26	2.12	2.00	1.90
63 x 225	3.54	3.24	3.00	2.81	2.66	2.52	324	2.96	2.75	2.57	2.43	2.30	3.00	2.74	2.54	2.38	2.25	2.13
75 x 175	3.01	2.75	2.55	2.39	226	2.14	2.75	2.51	2.33	2.18	2.06	1.96	2.52	2.33	2.16	2.02	1.91	1.81
75 x 200	3.43	3.14	2.91	2.73	2.57	2.44	3.13	2.87	2.66	2.49	2.35	2.23	2.87	2.66	2.46	2.31	2.18	2.07
75 x 225	3.85	3.53	3.27	3.07	2.89	2.75	3.52	3.22	2.99	2.80	2.64	2.51	3.23	2.99	2.77	2.59	2.45	2.32

1950-07
EXPIRED
Subsidiary
1997/061

Table 11: Common or jack rafters for roofs having a pitch more than 30° but not more than 42½° with access only for the purposes of maintenance or repair

GS, MGS, M50, M75 or No.2 grade timber

Size of rafter (in mm)	Dead load (in kg/m²) supported by rafter, excluding the mass of the rafter								
	Not more than 50			More than 50 but not more than 75			More than 75 but not more than 100		
	Spacing of rafters (in mm)								
	400	450	600	400	450	600	400	450	600
	Maximum span of rafter (in m)								
38 x 100	2.84	2.69	2.33	2.58	2.44	2.11	2.38	2.24	1.94
38 x 125	3.54	3.34	2.91	3.21.	304	2.63	2.96	2.80	2.42
38 x 150	4.22	3.99	3.48	3.84	3.63	3.15	3.54	3.33	2.90
44 x 75	2.30	2.17	1.89	2.09	1.97	1.71	1.93	1.82	1.57
44 x 100	3.05	2.88	2.51	2.77	2.62	2.27	2.56	2.41	2.09
44 x 125	3.79	3.59	3.12	3.45	3.26	2.83	3.18	3.01	2.61
44 x 150	4.53	4.28	3.73	4.12	3.90	3.39	3.81	3.59	3.12
50 x 75	2.45	2.31	2.01	2.21	2.10	1.82	2.01	1.93	1.68
50 x 100	324	3.07	2.67	2.92	2.79	2.42	2.67	2.57	2.23
50 x 125	4.03	3.81	3.32	3.63	3.47	3.02	3.33	3.20	2.78
50 x 150	4.31	4.55	3.97	4.33	4.14	3.61	3.97	3.82	3.32

Table 12: Purlins supporting rafters to which Table 11 relates

GS, MGS, M50, M75 or No.2 grade timber

Size of purlin (in mm)	Dead load (in kg/m^2) supported by rafter as calculated for the purposes of Table 11																	
	Not more than 50						More than 50 but not more than 75						More than 75 but not more than 100					
	Spacing of purlins (in m)																	
	1.50	1.80	2.10	2.40	2.70	3.00	1.50	1.80	2.10	2.40	2.70	3.00	1.50	1.80	2.10	2.40	2.70	3.00
	Maximum span of purlin (in m)																	
50 x 100	1.49	1.36	1.26	1.18	1.11	1.05	1.35	1.24	1.15	1.07	1.01	0.96	1.25	1.14	1.06	0.99	0.93	0.89
50 x 125	1.86	1.70	1.57	1.47	1.39	1.32	1.69	1.54	1.43	1.34	1.26	1.20	1.56	1.43	1.32	1.24	1.17	1.11
50 x 150	2.22	2.03	1.88	1.76	1.66	1.58	2.03	1.85	1.72	1.61	1.51	1.44	1.87	1.71	1.58	1.48	1.40	1.33
50 x 175	2.59	2.37	2.20	2.06	1.94	1.84	2.36	2.16	2.00	1.87	1.77	1.68	2.18	1.99	1.85	1.73	1.63	1.55
50 x 200	2.96	2.71	2.51	2.35	2.22	2.10	2.70	2.46	228	2.14	2.02	1.91	2.49	2.28	2.11	1.97	1.86	1.77
50 x 225	3.32	3.04	2.82	2.64	2.49	2.36	3.03	2.77	2.57	2.40	227	2.15	2.80	2.56	2.37	222	2.09	1.99
63 x 150	2.49	228	2.11	1.98	1.87	1.77	2.27	2.08	1.92	1.80	1.70	1.61	209	1.92	1.78	1.66	1.57	1.49
63 x 175	2.90	2.65	2.46	2.30	2.17	2.06	2.64	2.42	2.24	2.10	1.98	1.88	2.43	2.23	2.07	1.94	1.83	1.74
63 x 200	3.31	3.03	2.81	2.63	2.48	2.36	3.02	2.76	2.56	2.40	2.26	2.15	2.77	2.55	2.36	2.21	2.09	1.98
63 x 225	3.72	3.40	3.16	2.96	2.79	2.65	3.39	3.10	2.88	2.69	2.54	2.41	3.12	2.87	2.66	2.49	2.35	2.23
75 x 175	3.15	2.89	2.68	2.51	2.37	2.25	2.80	2.63	2.44	2.29	2.16	2.05	2.57	2.42	2.26	2.11	1.99	1.89
75 x 200	3.59	3.30	3.06	2.87	2.71	2.57	3.20	3.01	2.79	2.61	2.46	2.34	2.93	2.77	2.58	2.41	2.28	2.16
75 x 225	4.03	3.71	3.44	3.22	3.04	2.89	3.59	3.38	3.13	2.93	2.77	2.63	3.30	3.11	2.90	2.71	2.56	2.43

Table 13: Floor joists

SS or MSS grade timber

Size of joist (in mm)	Dead load (in kg/m^2) supported by joist, excluding the mass of the joist								
	Not more than 25			More than 25 but not more than 50			More than 50 but not more than 125		
	Spacing of rafters (in mm)								
	400	450	600	400	450	600	400	450	600
	Maximum span of joist (in m)								
38 x 75	1.41	1.32	1.01	1.35	1.23	0.96	1.15	1.05	0.84
38 x 100	2.11	2.00	1.71	2.00	1.90	1.57	1.77	1.63	1.32
38 x 125	2.74	2.63	2.39	2.62	2.52	2.25	2.34	2.23	1.83
38 x 150	3.28	3.15	2.87	3.14	3.02	2.75	2.82	2.72	2.35
38 x 175	3.81	3.67	3.35	3.65	3.52	3.20	3.29	3.17	2.76
38 x 200	4.35	4.19	3.82	4.16	4.01	3.66	3.76	3.62	3.16
38 x 225	4.88	4.70	4.29	4.68	4.51	4.11	4.22	4.06	3.54
44 x 75	1.51	1.43	1.16	1.45	1.37	1.09	1.29	1.18	0.94
44 x 100	2.25	2.13	1.87	2.13	2.02	1.77	1.89	1.80	1.47
44 x 125	2.87	2.76	2.52	2.74	2.64	2.40	2.47	2.37	2.02
44 x 150	3.43	3.31	3.01	3.29	3.16	2.88	2.96	2.85	2.55
44 x 175	3.99	3.85	3.51	3.83	3.68	3.36	3.45	3.32	2.97
44 x 200	4.55	4.39	4.00	4.36	4.20	3.83	3.94	3.79	3.39
44 x 225	5.11	4.93	4.50	4.90	4.72	4.31	4.42	4.26	3.81
50 x 75	1.60	1.51	1.30	1.53	1.45	1.21	1.39	1.30	1.04
50 x 100	2.38	2.26	1.98	2.25	2.14	1.89	1.99	1.90	1.61
50 x 125	2.99	2.88	2.62	2.86	2.75	2.51	2.58	2.48	2.21
50 x 150	3.57	3.44	3.14	3.42	3.30	3.01	3.09	2.97	2.71
50 x 175	4.16	4.01	3.66	3.98	3.84	3.50	3.60	3.46	3.15
50 x 200	4 74	4.57	4.17	4.54	4.38	3.99	4.10	3.95	3.60
50 x 225	5.32	5.13	4.68	5.10	4.91	4.49	4.61	4.44	4.05
63 x 150	3.84	3.70	3.38	3.68	3.55	3.24	3.32	3.20	2.92
63 x 175	4.47	4.31	3.94	4.28	4.13	3.77	3.87	3.73	3.40
63 x 200	5.09	4.91	4.49	4.88	4.71	4.30	4.41	4.25	3.88
63 x 225	5.71	5.51	5.04	5.48	5.28	4.83	4.95	4.77	4.36
75 x 200	5.37	5.18	4.74	5.15	4.97	4.54	4.66	4.49	4.10
75 x 225	6.02	5.81	5.32	5.78	5.57	5.10	5.23	5.04	4.61

Table 14: Ceiling joists

SS or MSS grade timber

Size of joist (in mm)	Dead load (in kg/m^2) supported by joist, excluding the mass of the joist					
	Not more than 25			More than 25 but not more than 50		
	Spacing of rafters (in mm)					
	400	450	600	400	450	600
	Maximum span of joist (in m)					
38 x 75	1.98	1.90	1.73	1.84	1.77	1.61
38 x 100	2.62	2.53	2.30	2.44	2.35	2.14
38 x 125	327	3.15	2.87	3.04	2.93	2.67
38 x 150	3.91	3.77	3.44	3.64	3.51	3.20
38 x 175	4.54	4.38	4.00	4.23	4.08	3.72
38 x 200	5.17	4.99	4.56	4.82	4.65	425
38 x 225	5.80	5.59	5.12	5.41	5.22	4.77
44 x 75	2.07	1.99	1.82	1.93	1.85	1.69
44 x 100	2.75	2.65	2.42	2.56	2.46	2.24
44 x 125	3.42	3.30	3.01	3.19	3.07	2.80
44 x 150	4.09	3.94	3.60	3.81	3.67	3.35
44 x 175	4.75	4.58	4.19	4.43	4.27	3.90
44 x 200	5.41	5.22	4.78	5.05	4.87	4.45
44 x 225	6.06	5.85	5.36	5.66	5.46	4.99
50 x 75	2.16	2.08	1.9	2.01	1.93	1.76
50 x 100	2.86	2.76	2.52	2.66	2.57	2.34
50 x 125	3.56	3.43	3.14	3.32	3.20	2.92
50 x 150	4.25	4.10	3.75	3.97	3.82	3.49
50 x 175	4.94	4.77	4.36	4.61	4.45	4.06
50 x 200	5.62	5.42	4.97	5.25	5.06	4.63
50 x 225	6.29	6.08	5.57	5.88	5.68	5.20

Table 15: Binders or beams supporting joists to which Table 14 relates

SS or MSS grade timber

Size of binder or beam(in mm)	Dead load (in kg/m^2) supported by joist as calculated for the purposes of Table 14									
	Not more than 25					More than 25 but not more than 50				
	Spacing of binders or beams (in m)									
	1.20	1.50	1.80	2.10	2.40	1.20	1.50	1.80	2.10	2.40
	Maximum span of binder or beam (in m)									
38 x 75	1.29	1.15	1.05	0.98	0.91	1.16	1.04	0.95	0.88	0.82
38 x 100	1.71	1.54	1.40	1.30	1.22	1.54	1.38	1.26	1.17	1.09
38 x 125	2.14	1.92	1.75	1.62	1.52	1.93	1.73	1.58	1.46	1.37
38 x 150	2.56	2.30	2.10	1.95	1.82	2.31	2.07	1.89	1.75	1.64
38 x 175	2.98	2.68	2.45	2.27	2.12	2.69	2.41	2.20	2.04	1.91
38 x 200	3.40	3.05	2.79	2.59	2.42	3.07	2.75	2.52	2.33	2.18
38 x 225	3.82	3.43	3.14	2.91	2.72	3.45	3.09	2.83	2.62	2.45

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44 x 75	1.38	1.24	1.13	1.05	0.98	1.25	1.12	1.02	0.94	0.88
44 x 100	1.84	1.65	1.51	1.40	1.31	1.66	1.49	1.36	1.26	1.18
44 x 125	2.30	2.06	1.88	1.74	1.63	2.07	1.85	1.70	1.57	1.47
44 x 150	2.75	2.47	2.26	2.09	1.96	2.48	2.22	2.03	1.88	1.76
44 x 175	3.20	2.87	2.63	2.44	2.28	2.89	2.59	2.37	2.19	2.05
44 x 200	3.65	3.28	3.00	2.78	2.61	3.30	2.96	2.70	2.51	2.35
44 x 225	4.10	3.68	3.37	3.13	2.93	3.70	3.32	3.04	2.82	2.64
50 x 75	1.47	1.32	1.21	1.12	1.05	1.33	1.19	1.09	1.01	0.94
50 x 100	1.96	1.76	1.61	1.49	1.39	1.77	1.58	1.45	1.34	1.25
50 x 125	2.45	2.19	2.01	1.86	1.74	2.20	1.98	1.81	1.67	1.57
50 x 150	2.93	2.63	2.40	2.23	2.09	2.64	2.37	2.16	2.01	1.88
50 x 175	3.41	3.06	2.80	2.60	2.43	3.07	2.76	2.52	2.34	2.19
50 x 200	3.89	3.49	3.19	2.96	2.77	3.51	3.15	2.88	2.67	2.50
50 x 225	4.36	3.92	3.59	3.33	3.12	3.94	3.53	3.23	3.00	2.81
63 x 150	3.17	2.94	2.69	2.50	2.34	2.96	2.65	2.42	2.25	2.10
63 x 175	3.69	3.42	3.13	2.91	2.72	3.44	3.09	2.82	2.62	2.45
63 x 200	4.21	3.90	3.57	3.32	3.11	3.92	3.52	3.22	2.99	2.80
63 x 225	4.72	4.38	4.01	3.72	3.49	4.40	3.95	3.62	3.36	3.15
75 x 200	4.44	4.14	3.89	3.61	3.38	4.16	3.83	3.51	325	3.05
75 x 225	4.99	4.65	4.36	4.05	3.80	4.67	4.30	3.94	3.66	3.43

Table 16: Joists for flat roofs with access only for the purposes of maintenance or repair

SS or MSS grade timber

Size of joist (in mm)	Dead load (in kg/m^2) supported by joist, excluding the mass of the joist								
	Not more than 25			More than 25 but not more than 50			More than 50 but not more than 125		
	Spacing of rafters (in mm)								
	400	450	600	400	450	600	400	450	600
	Maximum span of joist (in m)								
38 x 75	1.98	1.90	1.73	1.73	1.66	1.51	1.64	1.58	1.44
38 x 100	2.62	2.53	2.30	2.30	2.21	2.02	2.19	2.10	1.92
38 x 125	3.27	3.15	2.87	2.87	2.76	2.52	2.73	2.62	2.39
38 x 150	3.91	3.77	3.44	3.43	3.31	3.01	3.27	3.14	2.86
38 x 175	4.54	4.38	4.00	3.99	3.85	3.51	3.80	3.66	3.34
38 x 200	5.17	4.99	4.56	4.55	4.39	4.00	4.34	4.18	3.81
38 x 225	5.80	5.59	5.12	5.11	4.93	4.50	4.87	4.69	428
44 x 75	2.07	1.99	1.82	1.81	1.75	1.59	1.72	1.66	1.51
44 x 100	2.75	2.65	2.42	2.41	2.32	2.11	2.29	2.21	2.01
44 x 125	3.42	3.30	3.01	3.01	2.89	2.64	2.86	2.75	2.51
44 x 150	4.09	3.94	3.60	3.60	3.46	3.16	3.42	3.30	3.00
44 x 175	4.75	4.58	4.19	4.18	4.03	3.68	3.98	3.84	3.50
44 x 200	5.41	5.22	4.78	4.77	4.60	4.20	4.54	4.38	3.99
44 x 225	6.06	5.85	5.36	5.35	5.16	4.71	5.10	4.91	4.48
50 x 75	2.16	2.08	1.89	1.89	1.82	1.66	1.80	1.73	1.57
50 x 100	2.86	2.76	2.52	2.51	2.42	2.20	2.39	2.30	2.09
50 x 125	3.56	3.43	3.14	3.13	3.01	2.75	2.98	2.87	2.61
50 x 150	4.25	4.10	3.75	3.74	3.61	3.29	3.56	3.43	3.13
50 x 175	4.94	4.77	4.36	4.35	4.20	3.83	4.15	4.00	3.65
50 x 200	5.62	5.42	4.97	4.96	4.78	4.37	4.73	4.56	4.16
50 x 225	6.29	6.08	5.57	5.56	5.37	4.91	5.30	5.11	4.67

Table 17: Joists for flat roofs with access not limited to the purposes of maintenance or repair

SS or MSS grade timber

Size of joist (in mm)	Dead load (in kg/m^2) supported by joist, excluding the mass of the joist								
	Not more than 25			More than 25 but not more than 50			More than 50 but not more than 125		
	Spacing of rafters (in mm)								
	400	450	600	400	450	600	400	450	600
	Maximum span of joist (in m)								
38 x 75	1.41	1.33	1.16	1.31	1.24	1.09	1.27	1.20	1.05
38 x 100	2.11	2.00	1.75	1.91	1.82	1.60	1.84	1.75	1.55
38 x 125	2.74	2.63	2.39	2.52	2.42	2.15	2.43	2.32	2.06
38 x 150	3.28	3.15	2.87	3.02	2.90	2.64	2.91	2.80	2.55

38 x 175	3.81	3.67	3.35	3.51	3.38	3.08	3.39	3.27	2.98
38 x 200	4.35	4.19	3.82	4.01	3.86	3.52	3.87	3.73	3.40
38 x 225	4.88	4.70	4.29	4.50	4.34	3.95	4.35	4.19	3.82
44 x 75	1.51	1.43	1.24	1.39	1.32	1.16	1.35	1.28	1.13
44 x 100	2.25	2.13	1.87	2.03	1.94	1.71	1.96	1.86	1.65
44 x 125	2.87	2.76	2.52	2.64	2.54	2.28	2.55	2.45	2.19
44 x 150	3.43	3.31	3.01	3.16	3.04	2.77	3.06	2.94	2.68
44 x 175	3.99	3.85	3.51	3.68	3.55	3.23	3.56	3.43	3.12
44 x 200	4.55	4.39	4.00	4.20	4.05	3.69	4.06	3.91	3.56
44 x 225	5.11	4.93	4.50	4.72	4.54	4.14	4.56	4.39	4.00
50 x 75	1.60	1.51	1.32	1.45	1.40	1.23	1.43	1.36	1.20
50 x 100	2.38	2.26	1.98	2.15	2.04	1.81	2.06	1.96	1.74
50 x 125	2.99	2.88	2.62	2.75	2.65	2.41	2.66	2.56	2.31
50 x 150	3.57	3.44	3.14	3.30	3.17	2.89	3.18	3.07	2.79
50 x 175	4.16	4.01	3.66	3.84	3.69	3.37	3.71	3.57	3.25
50 x 200	4.74	4.57	4.17	4.37	4.21	3.84	4.23	4.07	3.71
50 x 225	5.32	5.13	4.68	4.91	4.73	4.32	4.75	4.57	4.17
63 x 150	3.84	3.70	3.38	3.55	3.42	3.12	3.43	3.30	3.01
63 x 175	4.47	4.31	3.94	4.13	3.98	3.63	3.99	3.84	3.51
63 x 200	5.09	4.91	4.49	4.70	4.53	4.14	4.55	4.38	4.00
63 x 225	5.71	5.51	5.04	5.28	5.09	4.65	5.11	4.92	4.49
75 x 200	5.37	5.18	4.74	4.97	4.79	4.37	4.80	4.63	4.23
75 x 225	6.02	5.81	5.32	5.57	5.37	4.91	5.39	5.20	4.75

Table 18: Purlins supporting sheeting or decking for roofs having a pitch of 10° or more

SS or MSS grade timber

Size of purlin (in mm)	Dead load (in kg/m²) supported by rafter as calculated for the purposes of Table 11																	
	Not more than 25						More than 25 but not more than 50						More than 50 but not more than 75					
	Spacing of purlins (in m)																	
	0.90	1.20	1.50	1.80	2.10	2.40	0.90	1.20	1.50	1.80	2.10	2.40	0.90	1.20	1.50	1.80	2.10	2.40
	Maximum span of purlin (in m)																	
50 x 100	2.57	2.29	2.05	1.87	1.74	1.62	2.07	1.89	1.76	1.66	1.55	1.45	1.52	1.66	1.54	1.45	1.38	1.32
50 x 125	3.19	2.85	2.56	2.34	2.17	2.03	2.55	2.36	2.20	2.07	1.94	1.81	2.27	2.07	1.93	1.82	1.73	1.65
50 x 150	3.79	3.41	3.06	2.80	2.60	2.43	3.08	2.82	2.63	2.48	2.32	2.17	2.72	2.48	2.31	2.18	2.07	1.98
50 x 175	4.39	3.97	3.56	3.26	3.02	2.83	3.58	3.28	3.06	2.98	2.71	2.53	3.16	2.89	2.69	2,53	2.41	2.31
50 x 200	4.98	4.53	4.07	3.72	3.45	3.23	4.08	3.74	3.49	3.29	3.09	2.89	3.60	3.29	3.07	2.89	2.75	2.64
50 x 225	5.57	5.08	4.57	4.18	3.88	3.63	4.57	4.19	3.91	3.70	3.47	3.25	4.04	3.70	3.44	3.25	3.09	2.96
63 x 150	4.05	3.73	3.43	3.14	2.91	2.72	3.31	3.03	2.83	2.67	2.54	2.43	2.92	2.67	2.49	2.34	2.23	2.14
63 x 175	4.68	4.32	3.99	3.65	3.39	3.17	3.84	3.52	3.29	3.11	2.96	2.83	3.40	3.11	2.89	2.73	2.60	2.49
63 x 200	5.30	4.91	4.55	4.16	3.86	3.62	4.37	4.01	3.75	3.54	3.37	3.23	3.87	3.54	3.30	3.11	2.96	2.84
63 x 225	5.91	5.48	5.10	4.67	4.34	4.07	4.89	4.49	4.20	3.97	3.79	3.63	4.34	3.97	3.70	3.50	3.33	3.19

Table 19: Common or jack rafters for roofs having a pitch more than 10° but not more than 22° with access only for the purposes of maintenance or repair

SS or MSS grade timber

Size of rafter (in mm)	Dead load (in kg/m²) supported by rafter as calculated for the purposes of table 19								
	Not more than 50			More than 50 but not more than 75			More than 75 but not more than 100		
	Spacing of rafters (in mm)								
	400	450	600	400	450	600	400	450	600
	Maximum span of rafter (in m)								
38 x 100	2.88	2.72	2.36	2.63	2.48	2.15	2.44	2.30	1.98
38 x 125	3.59	3.39	2.94	3.28	3.09	2.68	3.03	2,86	2.47
38 x 150	4.29	4.05	3.52	3.92	3.70	3.21	3.63	3.42	2.96
44 x 75	2.33	2.20	1.91	2.13	2.01	1.74	1.95	1.86	1.61
44 x 100	3.10	2.92	2.54	2.83	2.67	2.31	2.59	2.47	2.14
44 x 125	3.85	3.64	3.16	3.52	3.32	2.88	3.22	3.08	2.66
44 x 150	4.60	4.35	3.78	4.20	3.97	3.45	3.85	3.68	3.19
50 x 75	2.48	2.34	2.04	2.22	2.14	1.86	2.03	1.95	1.72
50 x 100	3.29	3.11	2.70	2.95	2.84	2.47	2.69	2.59	2.28
50 x 125	4.09	3.87	3.37	3.66	3.53	3.07	3.35	3.23	2.84
50 x 150	4.88	4.62	4.02	4.37	4.21	1.68	4.00	3.86	3.40

Table 20: Purlins supporting rafters to which Table 19 relates

SS or MSS grade timber

Size of purlin (in mm)	Dead load (in kg/m^2) supported by rafter as calculated for the purposes of Table 19																	
	Not more than 25						More than 25 but not more than 50						More than 50 but not more than 75					
	Spacing of purlins (in m)																	
	1.50	1.80	2.10	2.40	2.70	3.00	1.50	1.80	2.10	2.40	2.70	3.00	1.50	1.80	2.10	2.40	2.70	3.00
	Maximum span of purlin (in m)																	
50 x 100	1.18	1.47	1.36	1.28	1.20	1.14	1.40	1.32	125	1.17	1.06	0.96	1.28	1.21	1.15	1.03	0.91	0.82
50 x 125	1.97	1.84	1.70	1.59	1.50	1.43	1.75	1.65	1.56	1.46	1.33	1.20	1.60	1.51	1.43	1.28	1.14	1.03
50 x 150	2.36	2.20	2.04	1.91	1.80	1.71	2.09	1.97	1.87	1.75	1.59	1.43	1.92	1.81	1.72	1.54	1.37	1.23
50 x 175	2.75	2.57	2.38	2.23	2.10	1.99	2.44	2.30	2.18	2.04	1.85	1.67	2.24	2.11	2.00	1.79	1.60	1.44
50 x 200	3.14	2.93	2.72	2.54	2.40	2.28	2.79	2.63	2.49	2.33	112	1.91	2.55	2.40	2.29	2.05	1.82	1.64
50 x 225	3.52	3.29	3.05	2.86	2.70	2.56	3.13	2.95	2.80	2.62	138	2.14	2.87	2.70	2.57	2.30	2.05	1.84
63 x 150	2.54	2.40	2.28	2.14	2.02	1.92	2.26	2.13	2.02	1.94	1.83	1.76	2.07	1.95	1.85	1.77	1.71	1.55
63 x 175	2.96	2.79	2.66	2.50	2.36	2.24	2.63	148	136	2.26	2.16	2.05	2.41	2.27	2.16	2.07	1.99	1.81
63 x 200	3.38	3.19	3.03	2.85	2.69	2.55	3.00	2.83	2.69	158	2.46	2.34	2.75	2.59	2.47	2.36	2.27	2.06
63 x 225	3.79	3.58	3.41	3.20	3.02	2.87	3.37	3.18	3.03	2.90	2.77	2.63	3.09	2.91	2.77	2.65	2.55	2.32
75 x 175	3.13	2.95	2.81	2.69	2.57	144	2.78	2.62	2.50	2.39	2.30	2.22	2.55	2.40	2.29	119	2.11	2.03
75 x 200	3.56	3.37	3.21	3.07	2.93	2.78	3.17	2.99	2.85	2.73	2.63	2.54	2.91	2.74	2.61	2.50	2.40	2.32
75 x 225	4.00	3.78	3.60	3.45	3.29	3.13	3.56	3.36	3.20	3.07	2.95	2.85	3.27	3.08	2.93	181	2.70	2.61

Table 21: Common or jack rafters for roofs having a pitch more than 22° but not more than 30° with access only for the purposes of maintenance or repair

SS or MSS grade timber

Size of rafter (in mm)	Dead load (in kg/m^2) supported by rafter as calculated for the purposes of table 21								
	Not more than 50			More than 50 but not more than 75			More than 75 but not more than 100		
	Spacing of rafters (in mm)								
	400	450	600	400	450	600	400	450	600
	Maximum span of rafter (in m)								
38 x 100	3.13	3.02	2.62	2.76.	2.66	2.38	2.52	143	2.20
38 x 125	3.89	3.75	3.27	3.44	3.31	2.97	3.14	3.03	2.74
38 x 150	4.64	4.48	3.91	4.11	3.96	3.56	3.76	3.62	3.28
44 x 75	148	2.39	2.12	2.18	2.10	1.92	1.99	1.92	1.75
44 x 100	3.28	3.16	2.82	2.89	2.79	2.55	2.64	2.55	2.32
44 x 125	4.06	3.92	3.51	3.60	3.47	3.17	3.29	3.17	2.89
44 x 150	4.84	4.68	4.19	4.29	4.14	3.79	3.93	3.79	3.46
50 x 75	2.58	2.48	2.26	2.27	2.19	2.00	2.07	2.00	1.82
50 x 100	3.40	3.29	3.00	3.01	2.90	2.65	2.75	2.65	2.42
50 x 125	4.22	4.07	3.73	3.74	3.61	3.30	3.42	3.30	3.01
50 x 150	5.02	4.85	4.46	4.46	4.31	3.94	4.09	3.94	3.60

Table 22: Purlins supporting rafters to which Table 21 relates

SS or MSS grade timber

Size of purlin (in mm)	Dead load (in kg/m^2) supported by rafter as calculated for the purposes of Table 21																	
	Not more than 50						More than 50 but not more than 75						More than 75 but not more than 100					
	Spacing of purlins (in m)																	
	1.50	1.80	2.10	2.40	2.70	3.00	1.50	1.80	2.10	2.40	2.70	3.00	1.50	1.80	2.10	2.40	2.70	3.00
	Maximum span of purlin (in m)																	
50 x 100	1.61	1.52	1.43	1.34	1.26	1.20	1.43	1.35	1.28	1.22	1.15	1.05	1.31	1.23	1.17	1.12	1.00	0.90
50 x 125	2.01	1.90	1.79	1.67	1.58	1.50	1.79	1.68	1.60	1.53	1.44	1.31	1.63	1.54	1.46	1.40	1.25	1.12
50 x 150	2.41	2.27	2.15	2.01	1.89	1.80	2.14	2.02	1.92	1.83	1.73	1.57	1.96	1.85	1.75	1.68	1.50	1.35
50 x 175	2.81	2.65	2.50	2.34	2.21	2.10	2.49	2.35	2.23	2.14	2.02	1.83	2.28	2.15	2.04	1.96	1.74	1.57
50 x 200	3.20	3.02	2.86	2.67	2.52	2.39	2.85	2.68	2.55	2.44	2.30	2.09	2.61	2.46	2.34	2.24	1.99	1.79
50 x 225	3.60	3.40	3.21	3.00	2.84	2.69	3.20	3.01	2.87	2.74	2.59	2.35	2.93	2.76	2.63	0.00	1Z4	2.02
63 x 150.	2.60	2.45	2.33	2.23	2.12	2.02	2.31	2.17	2.07	1.98	1.90	1.84	2.11	1.99	1.89	1.81	1.74	1.68
63 x 175	3.02	2.85	2.72	2.60	2.48	2.35	2.69	2.53	2.41	2.31	2.22	2.14	2.46	2.32	2.21	2.11	2.03	1.96
63 x 200	3.45	3.25	3.10	2.97	2.83	2.68	3.07	2.89	2.75	2.63	2.53	2.45	2.81	2.65	2.52	2.41	2.32	2.24
63 x 225	3.87	3.65	3.48	3.33	3.18	3.02	3.44	3.25	3.09	2.96	2.85	2.75	3.16	2.98	2.83	2.71	2.61	2.52
75 x 175	3.19	3.02	2.87	2.75	2.65	2.56	2.84	2.68	2.55	2.44	2.35	2.27	2.60	2.46	2.34	2.24	2.15	2.08
75 x 200	3.64	3.44	3.28	3.14	3.02	2.92	3.24	3.06	2.91	2.79	2.68	2.59	2.97	2.80	2.67	2.55	2.46	2.37
75 x 225	4.09	3.86	3.68	3.53	3.40	3.28	3.64	3.43	3.27	3.13	3.01	2.91	3.34	3.15	3.00	2.87	2.76	2.67

Table 23: Common or jack rafters for roofs having a pitch more than 30° but not more than 42° with access only for the purposes of maintenance or repair

SS or MSS grade timber

Size of rafter (in mm)	Dead load (in kg/m^2) supported by rafter, excluding the mass of the rafter								
	Not more than 50			More than 50 but not more than 75			More than 75 but not more than 100		
	Spacing of rafters (in mm)								
	400	450	600	400	450	600	400	450	600
	Maximum span of rafter (in m)								
38 x 100	3.20	3.09	2.78	2.82	2.72	2.48	2.58	2.48	126
38 x 125	3.97	3.84	3.47	3.51	3.39	3.09	3.21	3.09	2.82
38 x 150	4.74	4.58	4.15	4.20	4.05	3.70	3.84	3.70	3.38
44 x 75	2.53	2.44	2.23	2.23	2.15	1.96	2.03	1.96	1.78
44 x 100	3.35	3.23	2.96	2.96	2.85	2.60	2.70	2.60	2.37
44 x 125	4.15	4.01	3.67	3.67	3.54	3.24	3.36	3.24	2.96
44 x 150	4.94	4.78	4.39	4.39	4.23	3.87	4.02	3.87	3.54
50 x 75	2.63	2.54	2.32	2.32	2.24	2.04	2.12	104	1.86
50 x 100	3.48	3.36	3.08	3.08	2.97	2.71	2.81	2.71	2.47
50 x 125	4.31	4.16	3.82	3.82	3.69	3.37	3.50	3.37	3.08
50 x 150	5.13	4.96	4.56	4.56	4.40	4.03	4.18	4.03	3.68

Table 24: Purlins supporting rafters to which Table 23 relates

SS or MSS grade timber

Size of purlin (in mm)	Dead load (in kg/m^2) supported by rafter as calculated for the purposes of Table 21																	
	Not more than 50						More than 50 but not more than 75						More than 75 but not more than 100					
	Spacing of purlins (in m)																	
	1.50	1.80	2.10	2.40	2.70	3.00	1.50	1.80	2.10	2.40	2.70	3.00	1.50	1.80	2.10	2.40	2.70	3.00
	Maximum span of purlin (in m)																	
50 x 100	1.65	1.55	1.48	1.41	1.33	126	1.46	1.38	1.31	125	120	1.15	1.34	126	120	1.14	1.09	0.98
50 x 125	2.06	1.94	1.84	1.76	1.66	1.38	1.82	1.72	1.63	1.56	1.50	1.43	1.67	1.57	1.49	1.43	1.37	1.23
50 x 150	2.46	2.32	2.21	2.11	1.99	1.89	2.19	106	1.96	1.87	1.80	1.72	2.00	1.89	1.79	1.72	1.64	1.47
50 x 175	2.87	2.71	2.57	2.46	2.32	2.20	2.55	2.40	2.28	2.19	2.10	2.00	2.33	120	109	2.00	1.91	1.72
50 x 200	3.27	3.09	2.94	2.81	2.65	2.52	2.91	2.74	2.61	2.50	2.40	129	2.66	2.51	2.39	228	2.18	1.96
50 x 225	3.68	3.47	3.30	3.16	2.98	2.83	3.27	3.08	2.93	2.81	2.70	2.57	2.99	2.82	2.68	2.57	2.45	2.20
63 x 150	2.65	2.50	2.38	2.28	2.20	2.12	2.36	2.22	2.11	2.02	1.95	1.88	2.16	2.03	1.93	1.85	1.78	1.72
63 x 175	3.09	2.92	2.77	2.66	2.56	2.47	2.74	2.59	2.46	2.36	2.27	2.19	2.52	2.37	2.25	2.16	2.08	2.01
63 x 200	3.52	3.33	3.17	3.03	2.92	2.82	3.13	2.95	2.81	2.69	2.59	2.50	2.87	2.71	2.57	2.46	2.37	2.29
63 x 225	3.95	3.73	3.56	3.41	3.28	3.17	3.52	3.32	3.16	3.02	2.91	2.81	3.23	3.04	2.89	2.77	2.67	2.57
75 x 175	3.26	3.08	2.93	2.81	2.71	2.62	2.90	2.74	2.60	2.49	2.40	2.32	2.66	2.51	2.39	2.28	2.20	2.12
75 x 200	3.72	3.51	3.35	3.21	3.09	2.99	3.31	3.12	2.97	2.85	2.74	2.65	3.04	2.86	2.72	2.61	2.51	2.42
75 x 225	4.17	3.94	3.76	3.60	3.47	3.35	3.72	3.51	3.34	3.20	3.08	2.98	3.41	3.22	3.06	2.93	2.83	2.73

Table 25: Softwood tloor boards (tongued and grooved)

Finished thickness of board (in mm) (1)	Maximum span of board (in nim) (2)
16	505
19	600
21	635
28	790

Deemed-to-satisfy provisions

Rules D13(b) and D14

Rules for satisfying requirements as to structural stability of certain walls

PART I: APPLICATION, INTERPRETATION AND RULE FOR MEASUREMENT

1. Application

(1) Subject to the conditions specified in paragraph (2) in respect of the building and in paragraph (3) in respect of the wall, the provisions of this schedule shall apply to–

(a) any external wall, compartment wall or internal loadbearing wall forming part of the ground storey or an upper storey of a residential building having not more than three storeys;

(b) any separating wall which is common to two such buildings; and

(c) any external wall or internal loadbearing wall of a small building or annexe described in rule 14,

being, in each case, a wall of a type more particularly described in Part III of this schedule.

(2) The conditions in respect of the building to which reference is made in paragraph (1) are–

(a) that the design wind speed (Vs) for the building, derived in accordance with rule D2(2)(c) from the basic wind speed (V) multiplied by factors S1, S2 and S3, does not exceed 44 m/sec if, for the purposes of determining factor S2–

(i) Class B building size is assumed; and

(ii) allowance is made for the height above ground of the building if it is situated on or near a cliff or escarpment;

(b) that the imposed load on any floor, ceiling or roof of the building, determined in accordance with the provisions of rule D2, does not exceed–

(i) 2.0 kN/m^2 distributed or 1.8 kN concentrated on any floor above the ground storey; or

(ii) 0.25 kN/m^2 distributed and 0.9 kN concentrated, or alternatively 720 N/m^2 distributed, on any ceiling; or

(iii) 0.75 kN/m^2 distributed or 0.9 kN concentrated on any roof;

(c) that the building is so designed that–

(i) no part of any wall or roof thereof is higher than 15 m above the level of the lowest finished surface of the ground adjoining the building; and

(ii) at the level of the finished surface of the ground adjoining the building and at any higher level, the width of the building and the width of any wing thereof which projects more than twice its own width from the remainder of the building are at least one half of the height of the building and one half of the hcight of the wing respectively, measured in either case from that level to the highest part of any wall or roof thereof;

(d) that the building is either–

(i) wholly bounded, or bounded on all but one of its sides, by walls each of which complies with rule 11, 12, 13 or 14 or with rules 4(1)(a), (b) and (c) and 4(3); or

(ii) comprises sub-divisions each of which is so bounded; and

(e) that the area of each storey within the building or, if the building is subdivided as described, each part of a storey within a sub-division does not exceed–

(i) 70 m^2 if the building, or sub-division, is wholly bounded by such walls; or

(ii) 30 m^2 if the building or sub-division, is bounded by such walls on all but one of its sides.

(3) The conditions in respect of the wall to which reference is made in paragraph (1) are–

(a) that the wall is constructed of bricks or blocks properly bonded and solidly put together with mortar or, in the case only of a wall of a type to which rule 11 is relevant, of stone, flints, clunches of bricks or other burnt or vitrified material laid otherwise than in horizontal beds or courses and solidly put together with mortar;

(b) (subject to rule 14(1)(d)) that each end of the wall is bonded or otherwise securely tied to a buttressing wall, pier or chimney;

(c) that the wall does not exceed 12 m in height or length;

(d) that the wall in each storey of its height extends the full height or that storey;

(e) that the wall does not support floor members having a span exceeding 6 m measured between the centres of their bearings or other forms of support given to the members;

(f) that, if the level of the finished surface of the ground or the surface of the oversite concrete at one side of the wall differs from that at the other side of the wall, the thickness of the wall (being a solid wall or a cavity wall having the cavity filled with fine concrete up to the higher of those levels) or the sum of the thicknesses of the leaves of the wall (being any other cavity wall) is not less than one quarter of that difference, the thickness being measured in either case at the higher level;

(g) that the wall (except when transmitting wind load) does not sustain or transmit any lateral thrust other than that due to the circumstances described in sub-paragraph (f); and

(h) that the wall does not transmit a combined dead load and imposed load exceeding 70 kN/m at its base.

2. Interpretation

(1) In this schedule unless the context otherwise requires–

BASE in relation to a wall means the underside of that part of the wall which immediately rests upon the footings or foundations or other structure by which the wall is carried;

BUTTRESSING WALL includes a return wall;

COMPARTMENT WALL has the meaning assigned by rule E1(1);

FLOOR LATERAL SUPPORT has the meaning assigned by paragraph (3);

PIER includes a buttress;

REQUIRED TNICKNESS means the thickness required by these Rules;

ROOF LATERAL SUPPORT has the meaning assigned by paragraph (3);

SEPARATING WALL has the meaning assigned by rule E1(1) and includes a wall which is common to adjoining houses;

SUPPORTED WALL means a wall to which support is afforded by a buttressing wall, pier or chimney or by floor lateral support or roof lateral support as the case may be;

WALL shall be construed in accordance with rule 4(2); and

WIDTH in relation to a building or wing of a building means at any level the least horizontal dimension of the building or wing which can be shown at that level on an elevation of its wall structure from any direction.

(2) Notwithstanding the provisions of rule A4(6)(b)(iv), if a wall or other assembly is to be constructed of bricks or blocks which do not comply with a British Standard but have modular dimensions derived from BS 4011:1966 and a size limit prescribed in this schedule applies to a dimension of that wall or assembly which would be determined by one of the dimensions of a brick or block, that dimension may deviate from the prescribed size limit by an amount not exceeding the deviation from work size permitted by a British Standard which relates to bricks or blocks, as the case may be, of the same material.

(3) For the purposes of this schedule, FLOOR LATERAL SUPPORT and ROOF LATERAL SUPPORT mean support afforded to a wall so as to restrict movement of that wall in either direction at right angles to its length by a floor or roof as the case may be, which–

(a) is adequate as a frame or diaphragm to transfer the lateral forces to walls, buttressing walls, piers or chimneys which comply with the relevant rules of this schedule; and

(b) holds or restrains the supported wall by connections which are specified in the Table to this rule or by other means which are capable of transmitting the lateral forces.

Table to Rule 2: Specification of connections

Description of floor (1)	Description of roof (2)	Specification of connections between floor or roof and supported wall (3)	Circumstances to which reference is made in column (3) (4)
1. Concrete floor	1. Concrete roof	1. Irrespective of the direction of span of the floor or roof, a bearing onto the supported wall of not less than 90 mm– (a) throughout the length of the wall; or (b) if the circumstances described in column (4) are relevant throughout the length of each, portion of the wall which is situated on either side of the opening	The circumstances to which reference is made in column (3) are as follow– (a) part of the supported wall is adjacent to an opening in a floor or roof for a stairway or other purpose, (b) the opening extends for a distance not exceeding 3 m measured parallel to the wall; and (c) there is no other interruption of the lateral support
2. Concrete or timber floor	2. Concrete or timber roof	2. Mild steel anchors which have a minimum cross-section of 30 mm x 5 mm and are provided so as to anchor the floor or roof to the supported wall– (a) at intervals of not more than 2 m; or (b) if the circumstances described in column (4) are relevant, at such intervals on either side of the opening as will result in the provision of as many anchors as would be provided if	

		there were no opening	
3 Floor which– (a) forms part of a house having not more than two storeys; and (b) has timber members spanning so as to penetrate into the supported wall at intervals of not more than 1.2 m	3. Roof which– (a) has a pitch of 15° or more; (b) is tiled or slated; (c)is of a type known by local experience to be resistant to damage by wind gusts; and (d) has main timber members spanning onto the supported wall at intervals of not more than 1.2 m	3. Bearing by each timber member of not less than 90 mm (if bearing is directly on the supported wall) or 75 mm (if bearing is on a timber wall-plate)– (a) throughout the length of the wall; or (b) if the circumstances described in column (4) are relevant, throughout the length of each portion of the wall which is situated on either side of the opening	The circumstances to which reference is made in column (3) are as follows– (a) part of the supported wall is adjacent to an opening in a floor or roof for a stairway or other purpose; (b) the opening extends for a distance not exceeding 3 m measured parallel to the wall; and (c) there is no other interruption of the lateral support
4. Concrete or timber floor	4. Concrete or timber roof	4. Continuous contact or intermittent contact (that is to say, contact at intervals of not more than 2 m) between each side of the supported wall and a floor or roof, such contact being provided on each side– (a) either– (i) throughout the length of the wall; or (ii) if the circumstances described in column (4) are relevant, throughout the length of each portion of the wall which is situated on	

	either side of the opening; and (b) at or ahout the same level and (if intermittent contact is provided on both sides of the wall) at or about the same positions on plan

3. Rule for the measurement of the height of a storey and the height and length of a wall

(1) For the purposes of this schedule, the height of a storey and the height and length of a wall shall be measured in accordance with this rule.

(2) The height of the ground storey of a building shall be measured from the base of the wall and the height of an upper storey shall be measured from the level of the underside of the floor of that storey in each case to whichever of the following levels is appropriate–

(a) the level of the underside of the floor next above it; or

(b) if there is no such floor and the storey does not comprise a gable, the level of the roof lateral support; or

(c) if there is no such floor and the storey comprises a gable–

(i) the level midway between the base of the gable and the top of the roof lateral support along the line of the roof slope; or

(ii) if, in addition to roof lateral support along the line of the roof slope, there is lateral support at or about the level of the ceiling, the level of that lateral support.

(3) The height of 1 wall shall be measured–

(a) in the case of a wall not comprising a gable, from its base to the highest point excluding any parapet which does not exceed 1.2 m in height; or

(b) in the case of a compartment wall or a separating wall comprising a gable, from its base to the base of the gable; or

(c) in the case of any other wall comprising a gable, from its base to a level midway between the base of the gable and the top thereof.

(4) The length of a wall shall be measured from the centre of the buttressing wall, pier or chimney at one end of the wall to the centre of the buttressing wall, pier or chimney at the other end of the wall.

PART II: DESIGN AND CONSTRUCTION OF WALLS TO WHICH SCHEDULE 7 APPLIES

4. Provision of buttressing walls, piers and chimneys

(1) Subject to rule 14(1)(d), any wall to which this schedule applies shall be bonded or otherwise securely tied at each end to a buttressing wall, pier or chimney which–

(a) is so designed and constructed as to afford lateral support to that wall from the base to the top of that wall;

(b) is constructed of materials having not less resistance to crushing than that required fur the materials of which the supported wall is constructed and is solidly put together with mortar; and

(c) notwithstanding paragraphs (4) and (5), is of such a size as will ensure the stability of the supported wall,

(2) If buttressing walls, piers or chimneys complying with the provisions of this rule are bonded or otherwise securely tied to any wall to which this schedule applied intermediately between those provided at the ends of that wall in accordance with paragraph (1)–

(a) that wall may be regarded as being divided thereby into distinct lengths;

(b) any such distinct length shall for the purposes of this schedule be deemed to be a wall; and

(c) any reference in this schedule to a wall to which this schedule applies shall be construed as a reference to any such distinct length.

(3) Any such buttressing wall shall–

(a) be bonded or otherwise securely tied at on end to the supported wall and at the other end to a buttressing wall, pier or chimney;

(b) be so designed and constructed that–

(i) any opening or recess (other than an opening or recess not exceeding 0.6 m^2 in area) is not nearer to the point of junction with the supported wall than 550 mm; and

(ii) the number, size and position of any openings or recesses in the wall are not such as to impair the lateral support afforded to the supported wall;

(c) measure in length not less than one sixth of the height of the supported wall; and

(d) if it is not a wall to which rule 11, 12, 13 or 14 applies, measure in thickness not less than the greater of the following dimensions–

(i) one half of the thickness prescribed for a wall of the same height and length by rule 11 less 5 mm; or

(ii) 75 mm if it forms part of a house and the supported wall does not as a whole exceed 6 m in height and 10 m in length; or

(iii) 90 mm in any other case.

(4) Any such pier may project on one or both sides of the supported wall and shall–

(a) extend from the base of that wall to the roof lateral support or, if there is no such support, to the top of that wall;

(b) have at any level (except in the case of a pier to which rule l4(1)(d) refers)–

(i) a dimension, measured at right angles to the length of that wall and so as to include the thickness of that wall at that level, of not less than three times the required thickness of that wall; and

(ii) a width of not less than 190 mm.

(5) Any such chimney shall have–

(a) a horizontal sectional area (excluding any fireplace opening or flue) of not less than the area required by paragraph (4) for a pier; and

(b) an overall thickness of not less than twice the required thickness of the supported wall.

5. Loading

Any load carried by a wall to which this schedule applies shall be properly distributed.

6. Openings and recesses

(1) Adequate means of supporting the superstructure shall be provided over every opening and recess in any wall to which this schedule applies.

(2) The number, size and position of openings or recesses in any such wall shall not be such as to impair the stability of the wall or any adjoining wall or any part thereof.

(3) Without prejudice to the requirements of paragraph (2), in any wall to which this schedule applies–

(a) at each side of every opening or recess there shall be provided a length of wall not less in extent (measured parallel to the length of the wall) than one sixth of the width of the opening or recess;

(b) any part of the wall between two openings or recesses shall be not less in length than one sixth of the combined width of both openings or recesses; and

(c) the aggregate width of all openings and recesses formed at any level shall not exceed two thirds of the length of the wall at that level.

7. Chases

(1) The number, size or position of chases in any wall to which this schedule applies shall not be such as to impair the stability of the wall or any part of the wall.

(2) Without prejudice to the requirements of paragraph (1)–

(a) no vertical chase shall be formed in any such wall to a greater depth than one third of the thickness of the wall or, if the wall

is a cavity wall, of that leaf of the wall in which the chase is formed; and

(b) no horizontal chase shall be formed in any such wall to a greater depth than one sixth of the thickness of the wall or, if the wall is a cavity wall, of that leaf of the wall in which the chase is formed.

8. Overhanging

The extent to which any part of a wall to which this schedule applies overhangs a part below it shall not be such as to impair the stability of the wall or any part of the wall.

9. Bricks and blocks

(1) Bricks or blocks used in any wall to which this schedule applies (other than a wall constructed of materials to which reference is made in rule 11(3)(b)) shall–

(a) be composed of–

(i) burnt clay, siliceous sand and lime, crushed siliceous rock and lime, or concrete (including aerated concrete or concrete made with lightweight aggregate); or

(ii) square-dressed natural stone laid on natural bed;

(b) have an aggregate volume of solid material not less than 50% of the total volume of the brick or block calculated from its overall dimensions; and

(c) have a resistance to crushing (expressed in newtons per square millimetre of gross horizontal area) of not less than 5 N/mm^2, being bricks, or 2.8 N/mm^2, being blocks, if–

(i) the bricks or blocks are used for the construction of a wall of a residential building having one or two storeys or for the construction of any part of a wall, except the outer leaf of an external cavity wall, which is situated in the upper-most two storeys of a residential building having three storeys; and

(ii) the height of each storey in which the wall or part is situated (less, in the case of a ground storey, the vertical distance between the base of the wall and the upper surface of the ground floor) does not exceed 2.7 m; or

(d) have a resistance to crushing of not less than 7 N/mm^2 in any other circumstances.

(2) For the purposes of this rule, aerated concrete and concrete made with lightweight aggregate shall be deemed to be solid material.

10. Mortar

Mortar used in any wall to which this schedule applies shall–

(a) cement-lime mortar composed of Portland cement (either ordinary, rapid-hardening or blast furnace), calcium lime (either non-hydraulic or semi-hydraulic) and fine aggregate in the proportion (measured by volume of the materials when dry) of one part of cement, one part of lime and not more than six parts of fine aggregate; or

(b) any other type of mortar of equivalent strength or greater strength if appropriate.

PART III: THICKNESS OF WALLS TO WHICH SCHEDULE 7 APPLIES

11. Thickness of certain, external walls, compartment walls and separating walls

(1) Subject to paragraph (2), this rule shall apply to any external wall, compartment wall or separating wall which–

(a) is constructed as a solid wall of materials to which paragraph (3) refers; and

(b) is provided, irrespective of its length, with roof lateral support by every roof which forms a junction with it and, if its length exceeds 3 m, with floor lateral support by every floor which forms a junction with it.

(2) This rule shall not apply to–

(a) any parapet to such a wall; or

(b) any part of an external wall which is constructed as a bay for, or as a gable over, a bay window and is situated above the level of the sill of the lowest window opening in that bay.

(3) The thickness of any such wall–

(a) if constructed of bricks or blocks, shall (subject to rule 14) be–

(i) not less than the thickness specified in column (3) of the Table to this rule according to its height and length; and

(ii) in any storey, not less than one sixteenth part of the height of that storey; or

(b) if constructed of stone, flints, clunches of bricks or other burnt or vitrified material, shall be not less than one and one third times the thickness required by this paragraph for a wall constructed of bricks or blocks; and

(c) irrespective of the materials of which it is constructed, shall in any part, he not less than the thickness of any other part of the wall which that part supports.

Table to Rule 11: Minimum thickness of certain external walls, compartment walls and separating walls

Height of wall (1)	length of wall (2)	Minimum thickness of wall (3)
Not exceeding 3.5 m	Not exceeding 12 m	190 mm for the whole of its height
Exceeding 3.5 m but not exceeding 9 m	Not exceeding 9 m	190 mm for the whole of its height
	Exceeding 9 m but not exceeding 12 m	290 mm from the base for the height of one storey, and 190 mm for the rest of its height
Exceeding 9 m but not exceeding 12 m	Not exceeding 9 m	290 mm from the base for the height of one storey, and 190 mm for the rest of its height
	Exceeding 9 m but not exceeding 12 m	290 mm from the base for the height of two storeys, and 190 min for the rest of its height

12. Thickness of certain cavity walls

(1) This rule shall apply to any external wall, compartment wall or separating wall which is constructed as a cavity wall of two leaves, each leaf being constructed of bricks or blocks, and complies with the following conditions–

(a) the wall is provided, irrespective of its length, with roof lateral support by every roof which forms a junction with it and, if its length exceeds 3 m, with floor lateral support by every floor which forms a junction with it;

(b) the leaves are each not less than 90 mm in thickness at any level and are securely tied together by ties complying with BS

1243:1972 or other not less suitable ties, the ties being placed at distances apart not exceeding 900 mm measured horizontally and 450 mm measured vertically; and, in addition, there is provided as near as practicable to any opening a tie to every 300 mm of height if the leaves are not connected by a bonded jamb;

(c) the width of the cavity at any level is neither less than 50 mm nor more than–

(i) 100 mm if vertical-twist type ties are used and are placed at distances apart not exceeding 750 mm measured horizontally and 450 mm measured vertically; or

(ii) 75 mm in any other case; and

(d) if the height of courses does not permit the spacing of cavity ties in accordance with sub-paragraph (b) or (c), the spacing is varied but the number of ties per unit area is maintained.

(2) The sum of the thickness of the two leaves of any such wall and 10 mm shall not be less than the thickness which would he required by rule 11 for a solid wall of the same height and length,

13. Thickness of certain Internal loadbearing walls

(1) This rule shall apply to any internal loadbearing wall (not being a compartment wall or a separating wall) which–

(a) is constructed as a solid wall of bricks or blocks; and

(b) has floor or roof lateral support at the top of each storey.

(2) The thickness of any such wall shall comply with the following provisions–

(a) if the wall is situated otherwise than as described in sub-paragraph (b), the sum of the thickness of that wall and 5 mm shall not he less than half the thickness which would he required by rule 11 for an external wall, compartment wall or separating wall of the same height and length; or

(b) if the wall is situated in the lowest storey of a building having three storeys and carries load from the floors of both upper storeys, the thickness of that wall shall not he less than the thickness required by sub-paragraph (a) or 140 mm whichever is the greater.

14. Thickness of external walls of certain small buildings and annexes

(1) This rule shall apply to any external wall which–

(a) forms part of–

(i) a building having one storey other than a residential building if the width of that building (measured in the direction of the span of the roof) does not exceed 9 m and the height of its walls does not exceed 3 m; or

(ii) an annexe (which expression includes a porch, verandah, loggia, conservatory, greenhouse, garage, tool shed, fuel store, watercloset, lavatory, wash-house or outbuilding) if such annexe does not exceed 3 m in height and forms part of or is attached to a residential building, whether or not it opens directly into that building;

(b) is constructed as a solid wall of bricks or blocks;

(c) is not subjected to any load other than wind load and the distributed load of the roof of the building or annexe of which it forms part; and

(d) (unless it is a wall of less than 2.5 min height and length) is bonded at each end and intermediately to buttressing walls or piers which–

(i) are so placed that the wall is divided into distinct lengths each of which does not exceed 3 m; and

(ii) are of such size as will ensure the stability of the supported wall and, in the case of piers, are each not less than 190 mm square in horizontal section including the thickness of the wall.

(2) Notwithstanding rule 11(3)(a), the thickness of any such external wall shall not be less than 90 mm.

15. Thickness of parapets

The thickness of any parapet to a wall to which this schedule applies shall not be less than the greater of the following dimensions–

(a) one quarter of its height; and

(b) if the parapet is of solid construction, the thickness of the wall on which it is carried or 190 mm whichever is the less; or

(c) if the parapet is of cavity construction, the thickness of the wall on which it is carried or the least thickness required by rule 12 whichever is the less.

SCHEDULE 8 **Deemed-to-satisfy provisions**

Rule E1(5), proviso(a)

Notional periods of fire resistance

In the following Table–

(a) CLASS I AGGREGATE means foamed slag, pumice, blast-furnace slag, pelleted fly ash, crushed brick and burnt clay products (including expanded clay), well-burnt clinker and crushed limestone; and

CLASS 2 AGGREGATE means flint gravel, granite and all crushed natural stones other than limestone;

(b) any reference to plaster means–

(i) in the case of an external wall 1 m or more from the relevant boundary, plaster applied on the internal face only; or

(ii) in the case of any other wall, plaster applied on both faces; or

(iii) if to plaster of a given thickness on the external face of a wall, except in the case of a reference to vermiculite-gypsum or perlite-gypsum plaster, rendering on the external face of the same thickness; or

(iv) if to vermiculite-gypsum plaster, vermiculite-gypsum plaster of a mix within the range of 1½ to 2:1 by volume; and

(c) in the case of a cavity wall, the load is assumed to be on the inner leaf only except for fire resistance period of four hours.

Part I: Walls

A Masonry construction

Construction and materials	Minimum thickness excluding plaster (in mm) for period of fire resistance of–									
	Loadbearing					Non–loadbearing				
	4 hours	2 hours	1½ hours	1 hour	½ hour	4 hours	2 hours	1½ hours	1 hour	½ hour
1. Reinforced concrete, minimum concrete cover to main reinforcement of 25 mm:										
(a) unplastered	180	100	100	75	75					

(b) 12.5 mm cement-sandplaster	180	100	100	75	75					
(c) 12.5 mm gypsum-sand plaster	180	100	100	75	75					
(d) 12.5 mm vermiculite-gypsum plaster	125	75	75	63	63					
2. No-fines concrete of Class 2 aggregate:										
(a) 12.5 mm cement-sand plaster						150				
(b) 12.5 mm gypsum-sand plaster						150				
(c) 12.5 mm venaiculite-gypsum plaster						150				
3. Bricks of clay, concrete or sand-lime:										
(a) unplastered	200	100	100	100	100	170	100	100	75	75
(b) 12.5 mm cement-sand plaster	200	100	100	100	100	170	100	100	75	75
(c) 12.5 mm gypsum-sand plaster	200	100	100	100	100	170	100	100	75	75
(d) 12.5 mm perlite-gypsum plaster (to clay bricks only)	100	100	100	100	100	100	100	100	75	75
(e) 12.5 mm vermiculite-gypsum plaster	100	100	100	100	100	100	100	100	75	75
4. Concrete blocks of Class 1 aggregate:										
(a) unplastered	150	100	100	100	100	150	75	75	75	50
(b) 12.5 mm cement-sand plaster	150	100	100	100	100	100	75	75	75	50
(c) 12.5 mm gypsum-sand plaster	150	100	100	100	100	100	75	75	75	50
(d) 12.5 mm vermiculite-gypsum plaster	100	100	100	100	100	75	75	62	50	50
5. Concrete blocks of Class 2 aggregate:										
(a) unplastered		100	100	100	100	150	100	100	75	50
(b) 12.5 mm cement-sand plaster		100	100	100	100	150	100	100	75	50
(c) 12.5 mm gypsum-sand plaster		100	100	100	100	150	100	100	75	50
(d) 12.5 mm vermiculite-gypsum plaster	100	100	100	100	100	100	75	75	75	50
6. Autoclaved aerated concrete blocks, density 47-1200 kg/m^3	180	100	100	100	100	100	62	62	50	50
7. Hollow concrete blocks, one cell in wall thickness, of Class 1 aggregate:										
(a) unplastered		100	100	100	100	150	100	100	100	75
(b) 12.5mm cement-sand plaster		100	100	100	100	150	100	75	75	73
(c) 12.5 mm gypsum-sand plaster		100	100	100	100	150	100	75	75	75
(d) 12.5 mm vermiculite-gypsum plaster		100	100	100	100	100	75	75	62	62
8. Hollow concrete blocks, one cell in wall thickness, of class 2 aggregate:										
(a) unplastered						150	150	125	125	125
(b) 12.5 mm cement-sand plaster						150	150	125	125	100
(c) 12.5 mm gypsum-						150	150	125	125	100

sand plaster										
(d) 12.5 mm vemiculite-gypsum plaster						125	100	100	100	75
9. Cellular clay blocks not less than 50% solid:										
(a) 12.5 mm cement-sand plaster									100	75
(b) 12.5 mm gypsum-sand plaster									100	75
(c) 12.5 mm vermiculite-gypsum plaster						200	100	100	100	62
10. Cavity wall with outer leaf of bricks or blocks of clay, composition, concrete or sand-lime, not less than 100 mm thick and–										
(a) Inner leaf of bricks or blocks of clay:composition, concrete or sand-lime	100	100	100	100	100	75	75	75	75	75
(b) inner leaf of solid or hollow concrete bricks or blocks of class 1 aggregate	100	100	100	100	100	75	75	75	75	75
11. Cavity wall with outer leaf of cellular clay blocks as 9 above and inner leaf of autoclaved aerated concrete blocks, density 475-1200 kg/m^3	150	100	100	100	100	75	75	75	75	75

Part I: Walls – continued

B. Framed and composite construction (non-loabearing)

Construction and materials	Period of fire resistance (in hours)
1. Steel frame with external cladding of 16 mm rendering on metal lathing and internal lining of autoclaved aerated concrete blocks, density 480-1120 kg/m^3, of thickness of–	
50 mm	2
62 mm	3
75 mm	4
2. Steel frame with external cladding of 100 mm concrete blocks and internal lining of 16 mm gypsum plaster on metal lathing	4
3. Steel frame with external cladding of bricks of clay, concrete or sand-lime 100 mm thick and internal lining of asbestos insulating board of thickness of 9 mm	3
4. Steel frame with external cladding of 16 mm rendering on metal lathing and internal lining of–	
9 mm asbestos insulating board	$^1/_2$
16 mm gypsum plaster on metal lathing	1
5. Steel or timber frame with facings on each side of–	
(a) metal lathing with cement-sand or gypsum plaster of thickness of–	
19 mm	1

12.5 mm	1/2
(b) metal lathing with vermiculite-gypsum or perlite-gypsum plaster of thickness of–	
25mm	2
19 mm	1 1/2
12.5 mm	1
(c) 9.5 mm plasterboard with gypsum plaster of thickness of 5 mm	1/2
(d) 9.5 mm plasterboard with vermiculite-gypsum plaster of thickness of–	
25 mm	2
16 mm	1 1/2
10 mm	1
5 mm	1/2
(e) 12.5 mm plasterboard–	
unplastered	1/2
with gypsum plaster of thick ness of 12.5 mm	1
(f) 12.5 mm plasterboard with vermiculite-gypsum plaster of thickness of–	
25 mm	2
16 mm	1 1/2
10 mm	1
(g) 19 mm plasterboard (or two layers of 9.5 mm fixed to break joint) without finish	1
(h) 19 mm plasterboard (or two layers of 9.5 mm) with vermiculite-gypsum plaster of thickness of–	
16 mm	2
10 mm	1 1/2
(j) 12.5 mm fibre insulating board with gypsum plaster of thickness of 12.5 mm	1/2
(k) asbestos insulating board not less than 9 mm thick with 9 mm fillets to face of studs	1/2
(1) asbestos insulating board not less than 12 mm thick	1/2
(m) 25 mm wood wool slabs with gypsum plaster of thickness of 12.5 mm	1
6. Compressed straw slabs in timber frames finished on both faces with gypsum plaster of thickness of 5 mm	1
7. Plasterboard 9.5 mm cellular core partition–	
(a) unplastered	1/2
(b) 12.5 mm gypsum plaster	1/2
(c) 22 mm vermiculite-gypsum plaster	2
8. Plasterboard 12.5 mm cellular core partition–	
(a) unplastered	1/2
(b) 12.5 mm gypsum plaster	1
(c) 16 mm vermiculite-gypsum plaster	2
9. Plasterboard 19 mm finished on both faces with 16 mm gypsum plaster	1
10. Plasterboard 12.5 mm bonded with neat gypsum plaster to each side of 19 mm plasterboard	1 1/2
11. Three layers of 19 mm plasterboard bonded with neat gypsum plaster	2
12. Wood wool slab with 12.5 mm rendering or plaster of thickness of–	
75 mm	2
50 mm	1
13. Compressed straw slabs, with 75 mm by 12.5 mm wood cover strips to joints, of thickness of 50 mm	1/2

Part I: Walls – continued

C. External walls (non-loadbearing) more than 1 m from the

relevant boundary	
Construction and materials	Period of fire resistance (in hours)
1. Steel frame with external cladding of noncombustible sheets and internal lining of–	
(a) 9 mm asbestos insulating board	4
(b) 12.5 mm cement-sand or gypsum plaster on metal lathing	4
(c) sprayed asbestos of thickness of 12.5 mm	4
(d) two layers of 9.5 mm plasterboard	$^1/_2$
(e) 9.5 mm plasterboard finished with gypsum plaster of thickness of 12.5 mm	$^1/_2$
(f) 12.5 mm plasterboard finished with 5 mm gypsum plaster	$^1/_2$
(g) 50 mm compressed straw slabs	$^1/_2$
(h) 50 mm compressed straw slabs finished with 5 mm gypsum plaster	1
2.† Timber frame with external cladding of 10 mm cement-sand or cement-lime rendering and internal lining of–	
(a) 9 mm asbestos insulating board	1
(b) 16 mm gypsum plaster on metal lathing	1
(c) 9.5 mm plasterboard finished with 12.5 mm gypsum plaster	1
(d) 12.5 mm plasterboard finished with 5 mm gypsum plaster	1
(e) 50 mm compressed straw slabs	1
(f) aerated concrete block–	
50 mm	3
62 mm	4
75 mm	4
10 mm	4
3. Timber frame with external cladding of 100 mm clay, concrete or sand-lime bricks or blocks, finished internally with–	
(a) asbestos insulating board	4
(b) 16 mm gypsum plaster on metal lathing	4
4.† Timber frame with external cladding of weather boarding or 9.5 mm plywood and internal lining of–	
(a) 9 mm asbestos insulating board	$^1/_2$
(b) 16 mm gypsum plaster on metal lathing	$^1/_2$
(c) 9.5 mm plasterboard finished with 12.5 mm gypsum plaster	$^1/_2$
(d) 12.5 mm plasterboard finished with 5 mm gypsum plaster	$^1/_2$
(e) 50 mm compressed straw slabs	$^1/_2$
(f) 75 mm wood wool slabs faced each side with asbestos-cement	2
(g) aerated concrete block–	
50 mm	3
62 mm	4
75 mm	4
100mm	4

Part U: Reinforced concrete columns	
Construction and materials	Minimum dimension (in mm) of concrete column* above, excluding finish, for a fire resistance of–

† The presence of a combustible vapour barrier within the thickness of these constructions shall not be regarded as affecting these periods of fire resistance.

		4 hours	2 hours	1½ hours	1 hour	½ hour
1. (a)	without plaster	450	300	250	200	150
(b)	with 12.5 mm cement-sand or gypsum-sand plaster on mesh reinforcement fixed around column	300	225	150	150	150
(c)	finished with 12.5 mm encasement of vermiculite-gypsum plaster	275	200	150	120	120
(d)	with 2.5 mm hard drawn steel wire fabric, of maximum pitch 150 mm in each direction, placed in concrete cover to main reinforcement	300	225	200	150	150
(e)	with limestone or light-weight aggregate as coarse aggregate	300	225	200	200	150
2.	Built into any separating wall†, compartment wall or external wall‡:–					
(a)	without plaster	180	100	100	75	75
(b)	finished with 12.5 mm of vermiculite-gypsum plaster	125	75	75	63	63

* The minimum dimension of a circular column is the diameter.
† No part of column projecting beyond either face of wall.
‡ Having not less fire resistance than that of the column and extending to the full height of; and not less than 600 mm on each side of, the column.

Part III: Reinforced concrete beams

Construction and materials		Minimum concrete cover (in mm), excluding finish, to main reinforcement for a fire resistance of–				
		4 hours	2 hours	1½ hours	1 hour	½ hour
(a)	without plaster	63	45	35	25	12.5
(b)	finished with 12.5 mm vermiculite-gypsum plaster	25	12.5	12.5	12.5	12.5
(c)	with 12.5 mm cement-sand or gypsum-sand plaster on mesh reinforcement fixed around beam	50	30	20	12.5	12.5

Part IV: Prestressed concrete beams with post-tensioned steel

Cover reinforcement	Additional protection	Minimum concrete cover to tendons (in mm) for a fire resistance of–			
		4 hours	2 hours	1½ hours	1 hour
None	(a) none				38
	(b) vermiculite concrete slabs		38	25	25

	(permanent shuttering) 12.5 mm thick				
	(c) plaster 12.5 mm thick on mesh reinforcement fixed around beam		50	38	25
	(d) vermiculite-gypsum plaster 12.5 mm thick or sprayed asbestos 10 mm thick		38	25	25
Light mesh reinforcement (having a minimum concrete cover of 25 mm) to retain the concrete in position around the tendons	(a) none	100	63	63	
	(b) plaster 12.5 mm thick on mesh reinforcement	90			
	(c) vermiculite concrete slabs (permanent shuttering) 12.5 mm thick	75			
	(d) vermiculite concrete slabs (permanent shuttering) 25 mm thick	50			
	(e) vermiculite-gypsum plaster 12.5 mm thick	75			
	(f) vermiculite-gypsum plaster 22 mm thick	50			
	(g) sprayed asbestos 10 mm thick	75			
	(h) sprayed asbestos 19 mm thick	50			

Part V: Structural steel

A. Encased steel stanchions (mass per metre not less than 45 kg)

(Note: In the following table, figures in brackets are applicable only in relation to universal columns of serial size 203 x 203 (8 x 8) as designated in BS 4: Part 1:1972)

Construction and materials	Minimum thickness (in mm) of protection for a fire resistance of–				
	4 hours	2 hours	$1^1/_2$ hours	1 hour	$^1/_2$ hours
(A) Solid protection* (unplastered)					
1. Concrete not leaner than 1:2:4 mix with natural aggregates–					
(a) concrete not assumed to be loadbearing, reinforced †	50	25	25	25	25
(b) concrete assumed to be loadbearing, reinforced in accordance with BS449: Part 2:1969¶	75	50	50	50	50

2.	Solid bricks of clay, composition or sand-lime	75	50	50	50	50
3.	Solid blocks of foamed slag or pumice concrete reinforced in every horizontal joint	62	50	50	50	50
4.	Sprayed asbestos of density 140-240 kg/m^3	(70)	(30)	(25)	(20)	(10)
5.	Sprayed vermiculite-cement		38	32	19	12.5
(B)	**Hollow protection‡**					
1.	Solid bricks of clay, composition or sand-lime reinforced in every horizontal joint, unplastered	115	50	50	50	50
2.	Solid blocks of foamed slag or pumice concrete reinforced § in every horizontal joint, unplastered	75	50	50	50	50
3.	Metal lathing with gypsum or cement-lime plaster of thickness of		38§	25	19	12.5
4.(a)	Metal lathing with vermicu1ite-gypsum or perlite-gypsum plaster of thickness of	50§	19	16	12.5	12.5
(b)	Metal lathing spaced 25 mm from flanges with vemiculite-gypsum or perlite-gypsum plaster of thickness of	44	19	12.5	12.5	12.5
5.	Gypsum plasterboard with 1.6 mm wire binding at 100 mm pitch–					
(a)	9.5 mm plasterboard with gypsum plaster of thickness of				12.5	12.5
(b)	19 mm plasterboard with gypsum plaster of thickness of		12.5	10	7	7
6.	Gypsum plasterboard with 1.6 mm wire binding at 100 mm pitch–					
(a)	9.5 mm plasterboard with vermiculite-gypsum plaster of thickness of		16	12.5	10	7
(b)	19 mm plasterboard with vermiculite-gypsum plaster of thickness of	32§	10	10	7	7
7.	Metal lathing with sprayed asbestos of thickness of	(70)	(30)	(25)	(20)	(10)
8.	Vermiculite-cement slabs of 4:1 mix reinforced with wire mesh and finished with plaster skim. Slabs of thickness of	63	25	25	25	25
9.	Asbestos insulating boards of density 510-880 kg/m^3 (screwed to 25 mm thick asbestos battens for $^1/_2$ hour and 1hour periods)		25	19	12	9

B Encased steel beams (mass per metre not less than 30 kg)

(Note: In the following table, figures in brackets are applicable only in relation to universal beams of serial size 254 x 146 (10 x 5$^3/_4$) as designated in BS 4: Part 1:1972)

(A)	**Solid protection* (unplastered)**					
1.	Concrete not leaner than 1:2:4 mix with natural aggregates–					
(a)	concrete not assumed to be loadbearing, reinforced†	63	25	25	25	25

(b)	concrete assumed to be loadbearing, reinforced in accordance with BS 449: Part 2:1969¶	75	50	50	50	50
2.	Sprayed asbestos of density l40-240 kg/m^3	(70)	(30)	(25)	(20)	(10)
3.	Sprayed vermiculite-cement		38	32	19	12.5
	(B) Hollow protection‡					
	1. Metal lathing–					
	(a) with cement–lime plaster of thickness of		38	25	19	12.5
	(b) with gypsum plaster of thickness of		22	19	16	12.5
	(c) with vermiculite-gypsum or perlite-gypsum plaster of thickness of	32	12.5	12.5	12.5	12.5
	2. Gypsum plasterboard with 1.6 mm wire binding at 100 mm pitch–					
	(a) 9.5 mm plasterboard with gypsum plaster of thickness of				12.5	12.5
	(b) 19 mm plasterboard with gypsum plaster of thickness of		12.5	10	7	7
	3. Plasterboard with 1.6 mm wire binding at 100 mm pitch–					
	(a) 9.5 mm plasterboard nailed to wooden cradles finished with gypsum plaster of thickness of					12.5
	(b) 9.5 mm plasterboard with vermiculite-gypsum plaster of thickness of		16	12.5	10	7
	(c) 19 mm plasterboard with vermiculite-gypsum plaster of thickness of	32§	10	10	7	7
	(d) 19 mm plasterboard with gypsum plaster of thickness of				12.5	
	4. Metal lathing with sprayed asbestos of density 140-240 kg/m^3 and of thickness of	(70)	(30)	(25)	(20)	(10)
	5. Asbestos insulating boards of density 510-880 kg/m^3 (screwed to 25 mm thick asbestos battens for. $^1/_2$ hour and 1 hour periods)		25	19	12	9
	6. Vermiculite-cement slabs of 4:1 mix reinforced with wire mesh and finished with plaster skim: slabs of thickness of	63	25	25	25	25
	7. Gypsum-sand plaster 12.5 mm thick applied to heavy duty (Type B as designated in BS 1105:1972) wood wool slabs of thickness of		50	38	38	38

Notes to all sections of Part V.

* SOLID PROTECTION means a casing which is bedded close to the steel without intervening cavities and with all joints in that casing made full and solid.

† Reinforcement shall consist or steel binding wire not less than 2.3 mm in thickness, or a steel mesh weighing not less than 0.48 kg/m^2. In concrete protection, the spacing of that reinforcement shall not exceed 150 mm in any direction.

‡ HOLLOW PROTECTION means that there is a void between the protective material and the steel. All hollow protection to columns shall be effectively sealed at each floor level.

§ Light mesh reinforcement required 12.5 mm to 19 mm below surface unless special corner heads are used.

¶ As read with Addendum No.1 (April 1975) to BS 449: Part 2:1969 and Supplement No.1 (PD 3343) to BS 449: Part 1:1970.

Part VI: Structural aluminium

Encased aluminium alloy stanchions and beams (mass per metre not less than 16kg)

Construction and materials	Minimum thickness (in mm) of protection for a fire resistance of–				
	4 hours	2 hours	1 1/2 hours	1 hour	1/2 hour
(A) Solid protection*					
1. Sprayed vermiculite-cement				44	19
(B) Hollow protection‡					
1. Metal lathing with vermiculite-gypsum or perlite-gypsum plaster of thickness of		32	22	16	12.5
2. Metal lathing finished with neat gypsum plaster of thickness of				19	12.5
3. Gypsum plasterboard 19 mm thick with 1.6 mm wire binding at 100 mm pitch finished with gypsum-vermiculite plaster of thickness of		22	16	10	10
4. Asbestos insulating board of density 510-880 kg/m^3 (screwed to 25 mm thick asbestos battens for the 1/2 hour period)			34	21	9

* SOLID PROTECTION means a casing which is bedded close to the alloy without intervening cavities and with all joints in that casing made full and solid.

‡ HOLLOW PROTICTION means that there is a void between the protected material and the alloy. All hollow protection to columns shall be effectively sealed at each floor level.

Part VII: Timber floors

Construction and materials	Minimum thickness (in mm) of protection for a fire resistance of–		
	1 hour	1/2 hour	modified * 1/2 hour
(A) Plain edge boarding on timber joists not less than 38 m wide with ceiling of–			
(i) timber lath and plaster thickness of plaster			16
(ii) timber lath and plaster with plaster of minimum		12.5	

	thickness of 16 mm covered on underside with plasterboard of thickness		
(iii)	metal lathing and plaster-thickness of plaster–		
	(a) gypsum	16	
	(b) vermiculite	12.5	
(iv)	one layer of plasterboard of thickness		12.5
(v)	one layer of plasterboard of minimum thickness of 9.5 mm finished with gypsum plaster of thickness		12.5
(vi)	one layer of plasterboard of minimum thickness of 12.5 mm finished with gypsum plaster of thickness	12.5	
(vii)	two layers of plasterboard of total thickness	25	19
(viii)	two layers of plasterboard each of minimum thickness of 9.5 mm finished with gypsum plaster of thickness	5	
(ix)	one layer of fibre insulating hoard of minimum thickness of 12.5 mm finished with gypsum plaster of thickness	12.5	
(x)	one layer of asbestos insulating board of minimum thickness	12	
(xi)	wood wool slab 25 mm thick finished with gypsum plaster of thickness	5	

(B)	**Tongued and grooved boarding of not less than 16 mm (finished) thickness† on timber joists not less than 38 mm wide with ceiling of–**			
(i)	timber lath and plaster– thickness of plaster			16
(ii)	timber lath and plaster with plaster of minimum thickness of 16 mm covered on underside with plasterboard of thickness		9.5	
(iii)	metal lathing and plaster– thickness of plaster			
	(a) gypsum	22	16	
	(b) vermiculite	12.5	12.5	
(iv)	one layer of plasterboard of thickness			9.5
(v)	one layer of plasterboard of minimum thickness of 9.5 mm finished with–			
	(a) gypsum plaster of thickness		12.5	
	(b) vermiculite-gypsum plaster of thickness	12.5		
(vi	one layer of plasterboard of minimum thickness of 12.5 mm finished with gypsum plaster of thickness		5	
(vii)	two layers of plasterboard of total thickness		22	
(viii)	one layer of fibre insulating board of minimum thickness of 12.5 mm finished with gypsum plaster of thickness			5
(ix)	one layer of asbestos insulating board of minimum thickness		9	
(x)	one layer of asbestos insulating board of minimum thickness of 12 mm finished on top with glass fibre or mineral wool of thickness	25		
(xi)	wood wool slab 25 mm thick finished with–			
	(a) gypsum plaster of thickness		5	
	(b) vermiculite-gypsum plaster of thickness	10		

(C)	**Tongued and grooved boarding of not less than 21 mm (finished) thickness† on timber joists not less than 175 mm deep by 50 mm wide with ceiling of–**			
(i)	timber lath and plaster–			
	thickness of plaster		16	
(ii)	metal lathing and plaster–			
	thickness of plaster		16	
(iii)	metal lathing and sprayed asbestos‡ to thickness of	19	12.5	
(iv)	one layer of plasterboard of thickness			9.5
(v)	one layer of plasterboard of minimum thickness of 9.5 mm finished with–			
	(a) gypsum plaster of thickness			
	(b) vermiculite-gypsum plaster of thickness		12.5	
(vi)	one layer of plasterboard of minimum thickness of 12.5 mm finished with gypsum plaster of thickness	12.5	5	
(vii)	two layers of plasterboard of total thickness		19	
(viii)	one layer of fibre insulating board of thickness			12.5
(ix)	one layer of fibre insulating board of minimum thickness of 12.5 mm finished with gypsum plaster of thickness		12.5	
(x)	one layer of asbestos insulating board of thickness		6	
(xi)	wood wool slab 25 mm thick finished with–			
	(a) gypsum plaster of thickness		5	
	(b) vermiculite-gypsum plaster of thickness		10	

* MODIFIED $^{1}/_{2}$ HOUR refers to the requirements specified in item 10 in Table 1 to rule E1.

† or an equivalent thickness of wood chipboard.

‡ Sprayed asbestos in accordance with BS 3590:1970.

Part VIII: Concrete floors						
Construction and materials	Minimum thickness of solid substance including screed(in mm)	Ceiling finish for a fire resistance of–				
		4 hours	2 hours	l$^{1}/_{2}$ hours	1 hour	$^{1}/_{2}$ hour
Solid flat slab or filler joist floor. Units of channel or T section	90	25mm Vor 25 mm A	10 mm V or l2.5 mm A	l0 mm V or l2.5 mm A	7 mm V or 7 mm A	nil
	100	19 mm V or19 mm A	7 mm V	7 mm V	nil	nil
	125	l0 mm Vor l2.5 mm A	nil	nil	nil	nil
	150	nil	nil	nil	nil	nil
Solid flat slab or filler joist floor with 25 mm wood wool slab ceiling base	90			12.5 mm G	nil	nil
	100		nil	nil	nil	nil
	125	12.5 mm G	nil	nil	nil	nil
	150	nil	nil	nil	nil	nil
Units of inverted U section with minimum thickness at crown	63					nil
	75				nil	nil
	100		nil	nil	nil	nil
	150	nil	nil	nil	nil	nil
Hollow block construction or units of box or I section	63					nil
	75				nil	nil
	90		nil	nil	nil	nil
	125	nil	nil	nil	nil	nil
Cellular steel with concrete topping	63	12.5 mm V suspended on metal lathing or12.5 mm A (direct)	12.5 mm G suspended on metal lathing	12.5 mm G suspended on metal lathing	12.5 mm G suspended on metal lathing	nil

V = vermiculite-gypsum plaster.
A = Sprayed asbestos in accordance with BS 3590:1970.
G = gypsum plaster.
Note: Where a column relating to ceiling finish contains no entry opposite a specification, the notional period of fire resistance specified in that column, is not applicable.

SCHEDULE 9 Deemed-to-satisfy provisions
Rule E1(6)

Notional designations of roof coverings

Part I: Pitched roofs covered with slates or tiles

Covering material (1)	Supporting structure (2)	Designation (3)
1. Natural slates 2. Asbestos-cement slates 3. Clay tiles 4. Concrete tiles	1. Timber rafters with or without underfelt, sarking, boarding, wood wool slabs, compressed straw slabs, plywood, wood or flax chipboard, or fibre insulating board	AA
5. Strip slates of bitumen felt Class 1 or 2	2. Timber rafters and boarding, plywood, wood wool slabs, compressed straw slabs, wood or flax chipboard, or fibre insulating board	CC
6. Bitumen felt strip slates Type 2E, with underlayer of bitumen felt Type 2B or 2C	3. Timber rafters and boarding, plywood, wood wool slabs, compressed straw slabs, wood or flax chipboard, or fibre insulating board	BB

Note: Any reference in this Part of the schedule to bitumen felt of a specified class or type is a reference to bitumen felt as so designated in BS 747: Part 2:1970.

Part II: Pitched roofs covered with preformed self-supporting sheets

Details of covering		Supporting structure	Designation
Material (1)	Construction (2)	(3)	(4)
Corrugated sheets of– (i) galvanised steel; (ii) aluminium; (iii) composite steel and asbestos; (iv) asbestos-cement; or (v) PVC coated steel	1. Single skin without underlay or with underlay of– (i) asbestos insulating board; (ii) plasterboard; (iii) fibre insulating board; (iv) compressed straw slab; or (v) wood wool slab	Structure of timber, steel or concrete	AA
Corrugated sheets of– (i) galvanised steel; (ii) aluminium; (iii) composite steel and asbestos; (iv) asbestos-cement;	2. Double skin without interlayer or with inter layer of– (i) resin-bonded glass fibre; (ii) bitumen-bonded	Structure of timber, steel or concrete	AA

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or (v) PVC coated steel	glass fibre; (iii) mineral wool slab or blanket; (iv) polystyrene; or (v) polyurethane	
Part III: Pitched or fiat roofs covered with fully supported material		
Covering material (1)	Supporting structure (2)	Designation (3)
1. Aluminium sheet 2. Copper sheet 3. Zinc sheet 4. lead sheet	1. Timber joists and– (i) tongued and grooved boarding; or (ii) plain edged boarding	AA*
5. Mastic asphalt 6. Vitreous enamelled steel sheet	2. Steel or timber joists with deck of– (i) wood wool slab; (ii) compressed straw slab; (iii) wood or flax chipboard; (iv) fibre insulating board; or (v) 9.5 mm plywood	AA
	3. Concrete or clay pot slab (cast in situ or precast); or non-combustible deck of steel, aluminium or asbestos-cement (with or without insulation)	AA

* Note: Lead sheet supported by timber joists and plain edged boarding shall be deemed to be of designation BA.

Part IV: Roof covered with bitumen felt.

Part IV(A): Flat roof covered with bitumem felt

A flat roof comprising a covering of bitumen felt shall (irrespective of the felt specification) be deemed to be of designation AA if the felt is laid on a deck constructed of any of the materials prescribed in the Table in Part IV(B) and has a surface finish of (a) bitumen bedded stone chippings covering the whole surface to a depth of not less than 12.5 mm, (b) bitumen bedded tiles of a non-combustible material, (c) sand and cement screed or (d) macadam

Part IV(B): Pitched roofs covered with bitumen felt

Details of felt			Combustible deck			Non-combustible deck		
Number of layers	Type of upper layer	Type of under-layer(s)	Deck of either of the following (having minimum thickness stated) plywood (6 mm); wood or flax chipboard (12.5 mm); T & G boarding (16 mm finished); or PE boarding (19 mm finished)	Deck of compressed straw slab	Deck of screeded wood wool slab	Asbestos-cement or steel single skin or cavity deck (without overlay or with overlay of fibre insulating board	Aluminium single skin or cavity deck with overlay of fibre insulating board	Concrete or clay pot slab (cast in situ or precast)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. Two or three layers built up in accordance with CP 144: Part 3: 1970	1. Type 1E	Type 1B or 1D or type 1C (minimum mass l3 kg/10m^2)	CC	AC	AC	AC	AC	AB
1. Two or three layers built up in accordance with CP 144: Part 3: 1970	2. Type 2E	Type 1B or 1D or type 1C (minimum mass l3 kg/10m^2)	BB	AB	AB	AB	AB	AB
	3. Type 2E	Type 2B or 2C	AB	AB	AB	AB	AB	AB
	4. Type 3E	Type 3B or 3G	BC	AC	AB	AB	AB	AB
2. Single layer	Type lE		CC	AC	AC	AC	CC	AC

Note: Any reference in this Part of this schedule to bitumen felt of a specified type is a reference to bitumen felt as so designated in BS 747: Part 2:1970

SCHEDULE 10

Rule E7(2)

Calculation of permitted limits of unprotected areas

Part I: General rules applicable to this Schedule

1. The permitted limit of unprotected areas in any side of a building or compartment shall be calculated by reference to the requirements of Part II, III or IV (whichever is applicable under rule E7).

2. For the purposes of this schedule, the expression UNPROTECTED AREA has the meaning assigned by rule E1(1), but in calculating the size of unprotected areas or the permitted limit of unprotected areas, the following provisions shall apply–

(a) where any part of an external wall is an unprotected area only because it has combustible material attached to it as cladding, the area of that unprotected area shall be deemed to be half the area of such cladding; and

(b) no account shall be taken of any of the following–

(i) an unprotected area which does not exceed 0.1 m^2 and which is not less than 1.5 m from any other unprotected area in the same side of the building or compartment (unless that other falls within (iii) below); or

(ii) one or more unprotected areas having an area (or, if more than one, an aggregate area) not exceeding 1 m^3 and not less than 4 m from any other unprotected area in the same side of the building or compartment (except any such area as is specified in (i) above); or

(iii) an unprotected area in any part of an external wall which forms part of a protected shaft; or

(iv) an unprotected area in the side of a building not divided into compartments, if the ajea is not less than 28 m above any ground adjoining that side of the building.

Part II: Rules for calculation by reference to an enclosing rectangle

3. The conditions of this Part of this schedule shall be satisfied if a building or compartment is so situated that no point on the relevant boundary is either between the relevant plane of reference and the side of the building or compartment or at a distance from the relevant plane of reference which is less than the distance specified in the Tables to this Part of this schedule, according to the purpose group of the building or compartment, the dimensions of the enclosing rectangle and the unprotected percentage.

4. For the purposes of this Part of this schedule–

ENCLOSING RECTANGLE means the smallest rectangle on the relevant plane of reference which would–

(a) enclose all the outer edges of any unprotected areas of the building or, if the building is divided into compartments, of the compartment (other than any part of an unprotected area which is at an angle of more than 80^{o} to the plane of reference), the outer edges being for this purpose, projected on the plane of reference by lines to such plane;

(b) have two horizontal sides; and

(c) have height and width falling within those listed in Table 1 or 2 in this schedule;

PLANE OF REFERENCE means any vertical plane which touches the side or some part of the side of a building or compartment, but which (however far extended) does not pass within the structure of such building or compartment (and for this purpose, any balcony, coping or similar projection shall be deemed not to be part either of that side or of the structure); and the relevant plane of reference shall in each case be taken as that most favourable in that respect to the person erecting the building; and

UNPROTECTED PERCENTAGE means the percentage of the area of the enclosing rectangle which is equal to the aggregate of the unprotected areas taken into account in calculating the enclosing rectangle and as projected on it.

Table 1: Buildings or compartments of purpose groups I Small residential, II Institutional, III Other residential, IV Office and VII Assembly

Width of enclosing rectangle in metres	Distance in metres from relevant boundary for unprotected perentalile not exceeding								
	20	30	40	50	60	70	80	90	100
Enclosing rectangle 3 m high									
3	1.0	1.0	1.0	1.5	1.5	1.5	2.0	2.0	2.0
6	1.0	1.0	1.5	2.0	2.0	2.0	2.5	2.5	3.0
9	1.0	1.0	1.5	2.0	2.5	2.5	3.0	3.0	3.5
12	1.0	1.5	2.0	2.0	2.5	3.0	3.0	3.5	3.5
15	1.0	1.5	2.0	2.5	2.5	3.0	3.5	3.5	4.0
18	1.0	1.5	2.0	2.5	2.5	3.0	3.5	4.0	4.0
21	1.0	1.5	2.0	2.5	3.0	3.0	3.5	4.0	4.5
24	1.0	1.5	2.0	2.5	3.0	3.5	3.5	4.0	4.5
27	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.0	4.5
30	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.0	4.5
40	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.0	5.0
No limit	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.0	5.0
Enclosing rectangle 6 m high									
3	1.0	1.0	1.5	2.0	2.0	2.0	2.5	2.5	3.0
6	1.0	1.5	2.0	2.5	3.0	3.0	3.5	4.0	4.0
9	1.0	2.0	2.5	3.0	3.s	4.0	4.5	4.5	5.0
12	1.5	2.5	3.0	3.5	4.0	4.5	5.0	5.0	5.5
15	1.5	2.5	3.0	4.0	4.5	5.0	5.5	5.5	6.0
18	1.5	2.5	3.5	4.0	4.5	5.0	5.5	6.0	6.5
21	1.5	2.5	3.5	4.0	5.0	5.5	6.0	6.5	7.0
24	1.5	2.5	3.5	4.5	5.0	5.5	6.0	7.0	7.0
27	1.5	2.5	3.5	4.5	5.0	6.0	6.5	7.0	7.5
30	1.5	25	3.5	4.5	5.0	6.0	6.5	7.0	8.0
40	1.5	2.5	3.5	4.5	5.5	6.5	7.0	8.0	8.5
50	1.5	2.5	3.5	4.5	5;5	6.5	7.5	8.0	9.0
60	1.5	2.5	3.5	5.0	5.5	6.5	7.5	8.5	9.5
80	1.5	2.5	3.5	5.0	6.0	7.0	7.5	8.5	9.5
100	1.5	25	3.5	5.0	6.0	7.0	8.0	8.5	10.0
No limit	1.5	2.5	3.5	5.0	6.0	7.0	8.0	8.5	10.0
Enclosing rectangle 9 m high									
3	1.0	1.0	1.5	2.0	2.5	2.5	3.0	3.0	3.5
6	1.0	2.0	2.5	3.0	3.5	4.0	4.5	4.5	5.0
9	1.5	2.5	3.5	4.0	4.5	5.0	5.5	5.5	6.0
12	1.5	3.0	3.5	4.5	5.0	5.5	6.0	6,5	7.0
15	2.0	3.0	4.0	5.0	5.5	6.0	6.5	7.0	7.5
18	2.0	3.5	4.5	5.0	6.0	6.5	7.0	8.0	8.5
21	2.0	3.5	4.5	5.5	6.5	7.0	7.5	8.5	9.0
24	2.0	3.5	5.0	5.5	6.5	7.5	8.0	9.0	9.5
27	2.0	3.5	5.0	6.0	7.0	7.5	8.5	9.5	10.0
30	2.0	3.5	5.0	6.0	7.0	8.0	9.0	9.5	10.5
40	2.0	3.5	5.5	6.5	7.5	8.5	9.5	10.5	11.5
50	2.0	4.0	5.5	6.5	8.0	9.0	10.0	11.5	12.5
60	2.0	4.0	5.5	7.0	8.0	9.5	11.0	11.5	13.0
80	2.0	4.0	5.5	7.0	8.5	10.0	11.5	12.5	13.5
100	2.0	4.0	5.5	7.0	8.5	10.0	11.5	12.5	14.5

120	2.0	4.0	5.5	7.0	8.5	10.0	11.5	12.5	14.5
No limit	2.0	4.0	5.5	7.0	8.5	10.5	12.0	12.5	15.0
Enclosing rectangle 12 m high									
3	1.0	1.5	2.0	2.0	2.5	3.0	3.0	3.5	3.5
6	1.5	2.5	3.0	3.5	4.0	4.5	5.0	5.0	5.5
9	1.5	3.0	3.5	4.5	5.0	5.5	6.0	6.5	7.0
12	1.5	3.5	4.5	5.0	6.0	6.5	7.0	7.5	8.0
15	2.0	3.5	5.0	5.5	6.5	7.0	8.0	8.5	9.0
18	2.5	4.0	5.0	6.0	7.0	7.5	8.5	9.0	10.0
21	2.5	4.0	5.5	6.5	7.5	8.5	9.0	10.0	10.5
24	2.5	4.5	6.0	7.0	8.0	8.5	9.5	10.5	11.5
27	2.5	4.5	6.0	7.0	8.0	9.0	10.5	11.0	12.0
30	2.5	4.5	6.5	7.5	8.5	9.5	10.5	11.5	12.5
40	2.5	5.0	6.5	8.0	9.5	10.5	12.0	13.0	14.0
50	2.5	5.0	7.0	8.5	10.0	11.0	13.0	14.0	15.0
60	2.5	5.0	7.0	9.0	10.5	12.0	13.5	14.5	16.0
80	2.5	5.0	7.0	9.0	11.0	13.0	14.5	16.0	17.0
100	2.5	5.0	7.5	9.5	11.5	13.5	15.0	16.5	18.0
120	2.5	5.0	7.5	9.5	11.5	13.5	15.0	17.0	18.5
No limit	2.5	5.0	7.5	9.5	12.0	14.0	15.5	17.0	19.0
Enclosing rectangle 15 m high									
3	1.0	1.5	2.0	2.5	2.5	3.0	3.5	3.5	4.0
6	1.5	2.5	3.0	4.0	4.5	5.0	5.5	5.5	6.0
9	2.0	3.0	4.0	5.0	5.5	6.0	6.5	7.0	7.5
12	2.0	3.5	5.0	5.5	6.5	7.0	8.0	8.5	9.0
15	2.0	4.0	5.5	6.5	7.0	8.0	9.0	9.5	10.0
18	2.5	4.5	6.0	7.0	8.0	8.5	9.5	10.5	11.0
21	2.5	5.0	6.5	7.5	8.5	9.5	10.5	11.0	12.0
24	3.0	5.0	6.5	8.0	9.0	10.0	11.0	12.0	13.0
27	3.0	5.5	7.0	8.5	9.5	10.5	11.5	12.5	13.5
30	3.0	5.5	7.5	8.5	10.0	11.0	12.0	13.5	14.0
40	3.0	6.0	8.0	9.5	11.0	12.5	13.5	15.0	16.0
50	3.5	6.0	8.5	10.0	12.0	13.5	15.0	16.5	17.5
60	3.5	6.5	8.5	10.5	12.5	14.0	15.5	17.0	18.0
80	3.5	6.5	9.0	11.0	115	15.0	17.0	18.5	20.0
100	3.5	6.5	9.0	11.5	14.0	16.0	18.0	19.5	21.5
120	3.5	6.5	9.0	11.5	14.0	16.5	18.5	20.5	22.5
No limit	3.5	6.5	9.0	12.0	14.5	17.0	19.0	21.0	23.0
Enclosing rectangle 18 m high									
3	1.0	1.5	2.0	2.5	2.5	3.0	3.5	4.0	4.0
6	1.5	2.5	3.5	4.0	4.5	5.0	5.5	6.0	6.5
9	2.0	3.5	4.5	5.0	6.0	6.5	7.0	8.0	8.5
12	2.5	4.0	5.0	6.0	7.0	7.5	8.5	9.0	10.0
15	2.5	4.5	6.0	7.0	8.0	8.5	9.5	10.5	11.0
18	2.5	5.0	6.5	7.5	8.5	9.5	11.0	11.5	13.0
21	3.0	5.5	7.0	8.0	9.5	10.5	11.5	12.5	13.0
24	3.0	5.5	7.5	8.5	10.0	11.0	12.0	13.0	14.0
27	3.5	6.0	8.0	9.0	10.5	11.5	12.5	13.5	14.5
30	3.5	6.5	8.0	9.5	11.0	12.0	13.5	14.5	15.5
40	4.0	7.0	9.0	11.0	12.0	13.5	15.0	16.5	17.5
50	4.0	7.0	9.5	11.5	13.0	15.0	16.5	18.0	19.0
60	4.0	7.5	10.0	12.0	14.0	16.0	17.5	19.5	20.5
80	4.0	7.5	10.0	13.0	15.0	17.0	19.0	21.0	22.5
100	4.0	7.5	10.0	13.5	16.0	18.0	20.5	22.5	24.0

120	4.0	7.5	10.0	14.0	16.5	19.0	21.0	23.5	25.5
No limit	4.0	8.0	10.0	14.0	17.0	19.5	22.0	24.0	26.5
Enclosing rectangle 21 m high									
3	1.0	1.5	2.0	2.5	3.0	3.0	3.5	4.0	4.5
6	1.5	2.5	3.5	4.0	5.0	5.5	6.0	6.5	7.0
9	2.0	3.5	4.5	5.5	6.5	7.0	7.5	8.5	9.0
12	2.5	4.0	5.5	6.5	7.5	8.5	9.0	10.0	10.5
15	2.5	5.0	6.5	7.5	8.5	9.5	10.5	11.0	12.0
18	3.0	5.5	7.0	8.0	9.5	10.5	11.5	12.5	13.0
21	3.0	6.0	7.5	9.0	10.0	11.0	12.5	13.5	14.0
24	3.5	6.0	8.0	9.5	10.5	12.0	13.0	14.0	15.0
27	3.5	6.5	8.5	10.0	11.5	13.0	14.0	15.0	16.0
30	4.0	7.0	9.0	10.5	12.0	13.0	14.5	16.0	16.5
40	4.5	7.5	10.0	12.0	13.5	15.0	16.5	18.0	19.0
50	4.5	8.0	11.0	13.0	14.5	16.5	18.0	20.0	21.0
60	4.5	8.5	11.5	13.5	15.5	17.5	19.5	21.0	22.5
80	4.5	8.5	12.0	14.5	17.0	19.0	21.0	23.5	25.0
100	4.5	9.0	12.0	15.5	18.0	20.5	22.5	25.0	27.0
120	4.5	9.0	12.0	16.0	18.5	21.5	23.5	26.5	28.5
No limit	4.5	9.0	12.0	16.0	19.0	22.0	25.0	26.5	29.5
Enclosing rectangle 24 m high									
3	1.0	1.5	2.0	2.5	3.0	3.5	3.5	4.0	4.5
6	1.5	2.5	3.5	4.5	5.0	5.5	6.0	7.0	7.0
9	2.0	3.5	5.0	5.5	6.5	7.5	8.0	9.0	9.5
12	2.5	4.5	6.0	7.0	8.0	8.5	9.5	10.5	11.5
15	3.0	5.0	6.5	8.0	9.0	10.0	11.0	12.0	13.0
18	3.0	5.5	7.5	8.5	10.0	11.0	12.0	13.0	14.0
21	3.5	6.0	8.0	9.5	10.5	12.0	13.0	14.0	15.0
24	3.5	6.5	8.5	10.0	11.5	12.5	14.0	15.0	16.0
27	4.0	7.0	9.0	11.0	12.5	13.5	15.0	16.0	17.0
30	4.0	7.5	9.5	11.5	13.0	14.0	15.5	17.0	18.0
40	4.5	8.5	11.0	13.0	14.5	16.0	18.0	19.0	20.5
50	5.0	9.0	12.0	14.0	16.0	17.5	19.5	21.0	22.5
60	5.0	9.5	12.5	15.0	17.0	19.0	21.0	23.0	24.5
80	5.0	10.0	13.5	16.5	18.5	21.0	23.5	25.5	27.5
100	5.0	10.0	13.5	17.0	20.0	22.5	25.0	27.5	29.5
120	5.5	10.0	13.5	17.5	20.5	23.5	26.5	29.0	31.0
No limit	5.5	10.0	13.5	18.0	21.0	24.0	27.5	30.0	32.5
Enclosing rectangle 27 m high									
3	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.0	4.5
6	1.5	2.5	3.5	4.5	5.0	6.0	6.5	7.0	7.5
9	2.0	3.5	5.0	6.0	7.0	7.5	8.5	9.5	10.0
12	2.5	4.5	6.0	7.0	8.0	9.0	10.5	11.0	12.0
15	3.0	5.5	7.0	8.5	9.5	10.5	11.5	12.5	13.5
18	3.5	6.0	8.0	9.0	10.5	11.5	12.5	13.5	14.5
21	3.5	6.5	8.5	10.0	11.5	13.0	14.0	15.0	16.0
24	3.5	7.0	9.0	11.0	12.5	13.5	15.0	16.0	17.0
27	4.0	7.5	10.0	11.5	13.0	14.0	16.0	17.0	18.0
30	4.0	8.0	10.0	12.0	13.5	15.0	17.0	18.0	19.0
40	5.0	9.0	11.5	14.0	15.5	17.5	19.0	20.5	22.0
50	5.5	9.5	12.5	15.0	17.0	19.0	21.0	22.5	24.0
60	5.5	10.5	13.5	16.0	18.5	20.5	22.5	24.5	26.5
80	6.0	11.0	14.5	17.5	20.5	22.5	25.0	27.5	29.5
100	6.0	11.0	15.5	19.0	21.5	24.5	27.0	30.0	32.0

120	6.0	11.3	15.5	19.5	22.5	26.0	28.5	32.0	34.0
No limit	6.0	11.5	15.5	20.0	23.5	27.0	29.5	33.0	35.0

Table 2: Building or compartments of purpose groups V Shop, VI Factory and VIII Storage and general

Enclosing rectangle 3 m high									
3	1.0	1.5	2.0	2.0	2.5	2.5	2.5	3.0	3.0
6	1.5	2.0	2.5	3.0	3.0	3.5	3.5	4.0	4.0
9	1.5	2.5	3.0	3.5	4.0	4.0	4.5	5.0	5.0
10	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	5.5
15	2.0	2.5	3.5	4.0	4.5	5.0	5.5	6.0	6.0
18	2.0	2.5	3.5	4.0	5.0	5.0	6.0	6.5	6.5
21	2.0	3.0	3.5	4.5	5.0	5.5	6.0	6.5	7.0
24	2.0	3.0	3.5	4.5	5.0	5.5	6.0	7.0	7.5
27	2.0	3.0	4.0	4.5	5.5	6.0	6.5	7.0	7.5
30	2.0	3.0	4.0	4.5	5.5	6.0	6.5	7.5	8.0
40	2.0	3.0	4.0	5.0	5.5	6.5	7.0	8.0	8.5
50	2.0	3.0	4 0	5.0	6.0	6.5	7.5	8.0	9.0
60	2.0	3.0	4.0	5.0	6.0	7.0	7.5	8.5	9.5
80	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	9.5
No limit	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
Enclosing rectangle 6 m high									
3	1.5	2.0	2.5	3.0	3.0	3.5	3.5	4.0	4.0
6	2.0	3.0	3.5	4.0	4.5	5.0	5.5	5.5	6.0
9	2.5	3.5	4.5	5.0	5.5	6.0	6.5	7.0	7.0
12	3.0	4.0	5.0	5.5	6.5	7.0	7.5	8.0	8.5
15	3.0	4.5	5.5	6.0	7.0	7.5	8.0	9.0	9.0
18	3.5	4.5	5.5	6.5	7.5	8.0	9.0	9.5	10.0
21	3.5	5.0	6.0	7.0	8.0	9.0	9.5	10.0	10.5
24	3.5	5.0	6.0	7.0	8.5	9.5	10.0	10.5	11.0
27	3.5	5.0	6.5	7.5	8.5	9.5	10.5	11.0	12.0
30	3.5	5.0	6.5	8.0	9.0	10.0	11.0	12.0	12.5
40	3.5	5.5	7.0	8.5	10.0	11.0	12.0	13.0	14.0
50	3.5	5.5	7.5	9.0	10.5	11.5	13.0	14.0	15.0
60	3.5	5.5	7.5	9.5	11.0	12.0	13.5	15.0	16.0
80	3.5	6.0	7.5	9.5	11.5	13.0	14.5	16.0	17.5
100	3.5	6.0	8.0	10.0	12.0	13.5	15.0	16.5	18.0
120	3.5	6.0	8.0	10.0	12.0	14.0	15.5	17.0	19.0
No limit	3.5	6.0	8.0	10.0	12.0	14.0	16.0	18.0	19.0
Enclosing rectangle 9 m high									
3	1.5	2.5	3.0	3.5	4.0	4.0	4.5	5.0	5.0
6	25	3.5	4.5	5.0	5.5	6.0	6.5	7.0	7.0
9	3.5	4.5	5.5	6.0	6.5	7.5	8.0	8.5	9.0
12	3.5	5.0	6.0	7.0	7.5	8.5	9.0	9.5	10.5
15	4.0	5.5	6.5	7.5	8.5	9.5	10.0	11.0	11.5
18	4.5	6.0	7.0	8.5	9.5	10.0	11.0	12.0	12.5
21	4.5	6.5	7.5	9.0	10.0	11.0	12.0	13.0	13.5
24	5.0	6.5	8.0	9.5	11.0	12.0	13.0	13.5	14.5
27	5.0	7.0	8.5	10.0	11.5	12.5	13.5	14.5	15.0
30	5.0	7.0	9.0	10.5	12.0	13.0	14.0	15.0	16.0
40	5.5	7.5	9.5	11.5	13.0	14.5	15.5	17.0	17.5
50	5.5	8.0	10.0	12.5	14.0	15.5	17.0	18.5	19.5
60	5.5	8.0	11.0	13.0	15.0	16.5	18.0	19.5	21.0
80	5.5	8.5	11.5	13.5	16.0	17.5	19.5	21.5	23.0
100	5.5	8:5	11.5	14.5	16.5	18.5	21.0	22.5	24.5

120	5.5	8.5	11.5	14.5	17.0	19.5	21.5	23.5	26.0
No limit	5.5	8.5	11.5	15.0	17.5	20.0	225	24.5	27.0
Enclosing rectangle 12 m high									
3	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	5.5
6	3.0	4.0	5.0	5.5	6.5	7.0	7.5	8.0	8.5
9	3.5	5.0	6.0	7.0	7.5	8.5	9.0	9.5	10.5
12	4.5	6.0	7.0	8.0	9.0	9.5	11.0	11.5	12.0
15	5.0	6.5	8.0	9.0	10.0	11.0	12.0	13.0	13.5
18	5.0	7.0	8.5	10.0	11.0	12.0	13.0	14.0	14.5
21	5.5	7.5	9.0	10.5	12.0	13.0	14.0	15.0	16.0
24	6.0	8.0	9.5	11.5	12.5	14.0	15.0	16.0	16.5
27	6.0	8.0	10.5	12.0	13.5	14.5	16.0	17.0	17.5
30	6.5	8.5	10.5	12.5	14.0	15.0	16.5	17.5	18.5
40	6.5	9.5	12.0	14.0	15.5	17.5	18.5	20.0	21.0
50	7.0	0.0	13.0	15.0	17.0	19.0	20.5	23.0	23.0
60	7.0	10.5	13.5	16.0	18.0	20.0	21.5	23.5	25.0
80	7.0	11.0	14.5	17.0	19.5	21.5	23.5	26.0	27.5
100	7.5	11.5	15.0	18.0	21.0	23.0	25.5	28.0	30.0
120	7.5	11.5	15.0	18.5	22.0	24.0	27.0	29.5	31.5
No limit	7.5	12.0	15.5	19.0	22.5	25.0	28.0	30.5	34.0
Enclosing rectangle 15 m high									
3	2.0	2.5	3.5	4.0	4.5	5.0	5.5	6.0	6.0
6	3.0	4.5	5.5	6.0	7.0	7.5	8.0	9.0	9.0
9	4.0	5.5	6.5	7.5	8.5	9.5	10.0	11.0	11.5
12	5.0	6.5	8.0	9.0	10.0	11.0	12.0	13.0	13.5
15	5.5	7.0	9.0	10.0	11.5	12.5	13.5	14.5	15.0
18	6.0	8.0	9.5	11.0	12.5	13.5	14.5	15.5	16.5
21	6.5	8.5	10.5	12.0	13.5	14.5	16.0	16.5	17.5
24	6.5	9.0	11.0	13.0	14.5	15.5	17.0	18.0	19.0
27	7.0	9.5	11.5	13.5	15.0	16.5	18.0	19.0	20.0
30	7.5	10.0	12.0	14.0	16.0	17.0	18.5	20.0	21.0
40	8.0	11.0	13.5	16.0	18.0	19.5	21.0	22.5	23.5
50	8.5	12.0	15.0	17.5	19.5	21.5	23.0	25.0	26.0
60	8.5	12.5	15.5	18.0	21.0	23.5	25.0	27.0	28.0
80	9.0	13.5	17.0	20.0	23.0	25.5	28.0	30.0	31.5
100	9.0	14.0	18.0	21.5	24.5	27.5	30.0	32.5	34.5
120	9.0	14.0	18.5	22.5	25.5	28.5	31.5	34.5	37.0
No limit	9.0	14.5	19.0	23.0	27.0	30.0	34.0	36.0	39.0
Enclosing rectangle 18 m high									
3	2.0	2.5	3.5	4.0	5.0	5.0	6.0	6.5	6.5
6	3.5	4.5	5.5	6.5	7.5	8.0	9.0	9.5	10.0
9	4.5	6.0	7.0	8.5	9.5	10.0	11.0	12.0	12.5
12	5.0	7.0	8.5	10.0	11.0	12.0	13.0	14.0	14.5
15	6.0	8.0	9.5	11.0	12.5	13.5	14.5	15.5	16.5
18	6.5	8.5	11.0	12.0	13.5	14.5	16.0	17.0	18.0
21	7.0	9.5	11.5	13.0	14.5	16.0	17.0	18.0	19.5
24	7.5	10.0	12.0	14.0	15.5	16.5	18.5	19.5	20.5
27	8.0	10.5	12.5	14.5	16.5	17.5	19.5	20.5	21.5
30	8.0	11.0	13.5	15.5	17.0	18.5	20.5	21.5	22.5
40	9.0	12.0	15.0	17.5	19.5	21.5	23.5	25.0	26.0
50	9.5	13.0	16.5	19.0	21.5	23.5	26.0	27.5	29.0
60	10.0	14.0	17.5	20.5	23.0	26.0	27.5	29.5	31.0
80	10.0	15.0	19.0	22.5	26.0	28.5	31.0	33.5	35.0

100	10.0	16.0	20.5	24.0	28.0	31.0	33.5	36.0	38.5
120	10.0	16.5	21.0	25.5	29.5	32.5	35.5	39.6	41.5
No limit	10.0	17.0	22.0	26.5	30.5	34.0	37.0	41.0	43.5
Enclosing rectangle 21 m high									
3	2.0	3.0	3.5	4.5	5.0	5.5	6.0	6.5	7.0
6	3.5	5.0	6.0	7.0	8.0	9.0	9.5	10.0	10.5
9	4.5	6.5	7.5	9.0	10.0	11.0	12.0	13.0	13.5
12	5.5	7.5	9.0	10.5	12.0	13.0	14.0	15.0	16.0
15	6.5	8.5	10.5	12.0	13.5	14.5	16.0	16.5	17.5
18	7.0	9.5	11.5	13.0	14.5	16.0	17.0	18.0	19.5
21	7.5	10.0	12.5	14.0	15.5	17.0	18.5	20.0	21.0
24	8.0	10.5	13.0	15.0	16.5	18.0	20.0	21.0	22.0
27	8.5	11.5	14.0	16.0	18.0	19.0	21.0	22.5	23.5
30	9.0	12.0	14.5	16.5	18.5	20.5	22.0	23.5	25.0
40	10.0	13.5	16.5	19.0	21.5	23.0	25.5	27.0	28.5
50	11.0	14.5	18.0	21.0	23.5	25.5	28.0	30.0	31.5
60	11.5	15.5	19.5	22.5	25.5	28.0	30.5	32.5	33.5
80	12.0	17.0	21.0	25.0	28.5	31.5	34.0	36.5	38.5
100	12.0	18.0	22.5	27.0	31.0	34.5	37.0	40.0	42.0
120	12.0	18.5	23.5	28.5	32.5	36.5	39.5	43.0	45.5
No limit	12.0	19.0	25.0	29.5	34.5	38.0	41.5	45.5	48.0
Enclosing rectangle 24 m high									
3	2.0	3.0	3.5	4.5	5.0	5.5	6.0	7.0	7.5
6	3.5	5.0	6.0	7.0	8.5	9.5	10.0	10.5	11.0
9	5.0	6.5	8.0	9.5	11.0	12.0	13.0	13.5	14.5
12	6.0	8.0	9.5	11.5	12.5	14.0	15.0	16.0	16.5
15	6.5	9.0	11.0	13.0	14.5	15.5	17.0	18.0	19.0
18	7.5	10.0	12.0	14.0	15.5	16.5	18.5	19.5	20.5
21	8.0	10.5	13.0	15.0	16.5	18.0	20.0	21.0	22.0
24	8.5	11.5	14.0	16.0	18.0	19.5	21.0	22.5	24.0
27	9.0	12.5	15.0	17.0	19.0	20.5	22.5	24.0	25.5
30	9.5	13.0	15.5	18.0	20.0	21.5	23.5	25.0	26.5
40	11.0	14.5	18.0	20.5	23.0	25.0	27.5	29.0	30.5
50	12.0	16.0	19.5	22.5	25.5	27.5	30.0	32.0	33.5
60	12.5	17.0	21.0	24.5	27.5	30.0	32.5	35.0	36.5
80	13.5	18.5	23.5	27.5	31.0	34.5	37.0	39.5	41.5
100	13.5	20.0	25.0	29.5	33.5	37.0	40.0	43.0	45.5
120	13.5	20.5	26.5	31.0	36.0	39.5	43.0	46.5	49.0
No limit	13.5	21.0	27.5	32.5	37.5	42.0	45.5	49.5	52.0
Enclosing rectangle 27 m high									
3	2.0	3.0	4.0	4.5	5.5	6.0	6.5	7.0	7.5
6	3.5	5.0	6.5	7.5	8.5	9.5	10.5	11.0	12.0
9	5.0	7.0	8.5	10.0	11.5	12.5	13.5	14.5	15.0
12	6.0	8.0	10.5	12.0	13.5	14.5	16.0	17.0	17.5
15	7.0	9.5	11.5	13.5	15.0	16.5	18.0	19.0	20.0
18	8.0	10.5	12.5	14.5	16.5	17.5	19.5	20.5	21.5
21	8.5	11.5	14.0	16.0	18.0	19.0	21.0	22.5	23.5
24	9.0	12.5	15.0	17.0	19.0	20.5	22.5	24.0	25.5
27	10.0	13.0	16.0	18.0	20.0	22.0	24.0	25.5	27.0
30	10.0	13.5	17.0	19.0	21.0	23.0	25.0	26.5	28.0
40	11.5	15.5	19.0	22.0	24.5	26.5	29.0	30.5	32.5
50	12.5	17.0	21.0	24.0	27.0	29.5	32.0	34.5	36.0
60	13.5	18.5	22.5	26.5	29.5	32.0	35.0	37.0	39.0

80	14.5	20.5	25.0	29.5	33.0	36.5	39.5	42.0	44.0
100	15.5	21.5	27.0	32.0	36.5	40.5	43.0	46.5	48.5
120	15.5	22.5	28.5	34.0	39.0	43.0	46.5	50.5	53.0
No limit	15.5	23.5	29.5	35.0	40.5	44.5	48.5	52.0	55.5

Part III: Rules for calculation by reference to aggregate notional area

5. The conditions of this Part of this schedule shall he satisfied if a building is so constructed that the aggregate notional area of the unprotected areas in the side of a building or compartment does not exceed–

(a) 210 m^2 (if the building or compartment is of purpose group 1, II, III, IV or VII); or

(b) 90 m^2 (if the building or compartment is of purpose group V, VI or VIII), such calculation being made by reference to any one of a series of vertical data, measured. at intervals of not more than 3 m from one another along the relevant boundary.

6. For the purposes of this Part of this schedule–

AGGREGATE NOTIONAL AREA means the aggregate of the areas of any unprotected areas in the side of a building or compartment, each such area being multiplied by the Factor specified in Table 3 according to the distance of such unprotected areas from the vertical datum;

THE DATUM LINE means the line joining a vertical datum to the nearest point of the side of the building or compartment; and

VERTICAL DATUM means a vertical line of unlimited height at any point on the relevant boundary.

7. For the purposes of this Part of this schedule, no account shall he taken of any unprotected area in the side of a building or compartment which is–

(a) screened from the vertical datum by any part of an external wall which is not an unprotected area; or

(b) outside a horizontal arc having its centre at a point through which the vertical datum passes and having a radius measuring 50 m and extending 90^o on either side of the datum line; or

(c) facing away from the vertical datum or making an angle not exceeding 10, with a line drawn from it to the vertical datum.

Table 3: Factors		
Distance of unprotected area from vertical datum (in m)		Factor
Not less than	less than	
(1)	(2)	(3)
1	1.2	80
1.2	1.8	40
1.8	2.7	20
2.7	4.3	10
4.3	6.0	4
6.0	8.5	2
8.5	12.0	1
12.0	18.5	0.5
18.5	27.5	0.25
27.5	50	0.1
50	No limit	0

Part IV: Rules for calculation in respect of certain buildings of purpose group I or III

8. The provisions of this Part of this schedule apply only to any building of purpose group I or III which has not more than three storeys and of which no side (measured on an elevation) exceeds 24 m in length.

9. The conditions of this Part of this schedule shall be satisfied if the distance between any part of a side of a building and the relevant boundary is not less than the minimum distance specified in Table 4 according to the length of such side and the total area of any unprotected areas to he taken into account.

Table 4: Permitted unprotected areas in certain residential buildings		
Minimum distance (in metres) between side of building and boundary	length of side (in metres) not exceeding	Total area of unprotected areas (in square metres) not exceeding
(1)	(2)	(3)
1	24	5.6
2.5	24	15
5.0	12	up to the whole area of the wall
6	24	up to the whole area of the wall

SCHEDULE 11 Deemed-to-satisfy provisions

Rule F7

Thermal insulation

Table A. Roofs

Type of roof	*Type of insulation*
1. Any roof	*Any of the following in the roof or in a ceiling–* *(i) wood wool slabs not less than 50 mm thick;* *(ii) compressed straw slabs not less than 50 mm thick;* *(iii) nodulated slag wool to a thickness of not less than 38 mm;* *(iv gypsum granules to a thickness of not less than 25 mm;* *(v) exfoliated vermiculite to a thickness of not less than 25 mm;* *(vi) corkboard not less than 25 mm thick;* *(vii) fibre insulating board not less than 25 mm thick;* *(viii) mat, slab or quilt, not less than 25 mm thick, of eel grass, mineral wool (glass, rock or slag) or cellulose acetate fibre;* *(ix) expanded polystyrene not less than 19 mm thick; or* *(x) nodulated polystyrene not less than 25 mm thick.*
2. Pitched roof of slates or of this table tiles on sarking felt or sarking paper; or of asbestos-cement sheets; or of metal sheets	*(a) Any type of insulation specified in item 1 as appropriate for any type of roof.* *(b) Any of the following in the roof or in a ceiling* *(i) wood wool slabs not less than 38 mm thick– ;* *(ii) mat, slab or quilt, not less than 19 mm thick, of eel grass, mineral wool (glass, rock or slag) or cellulose acetate fibre;* *(iii) fibre insulating board not less than 19 mm thick finished with or without plaster; or* *(iv) compressed straw slabs not less than 38 mm thick.* *(c) Any ceiling and any of the following with an air space between it and the ceiling–* *(i) fibre insulating board not less than 12.5 mm thick;* *(ii) expanded polystyrene not less than 12.5 mm thick;* *(iii) single- or double-sided paper-reinforced aluminium foil;*

	(iv) insulating gypsum plasterboard not less than 9.5 mm thick; or *(v) tongued and grooved softwood boarding not less than 21 mm (finished) thick.* *(d) Any ceiling and crumpled aluminium foil or combined corrugated and flat aluminium foil (corrugation in contact with ceiling).*
3. Pitched or flat roof of asbestos-cement decking or metal decking.	*(a) Any type of insulation specified in item 1 of this table as appropriate for any type of roof* *(b) Fibre insulating board not less than 12.5 mm thick over the decking with any of the following, with or without an air space between it and the decking, wider the decking or incorporated in the decking–* *(i) wood wool slabs not less than 25 mm thick;* *(ii) mat, slab or quilt, not less than 19 mm thick, of eel grass, mineral wool (glass, rock or slag) or cellulose acetate fibre;* *(iii) fibre insulating board not less than 12.5 mm thick; or (iv) expanded polystyrene, not less than 12.5 mm thick.* *(c) Fibre insulating board, not less than 12.5 mm thick, over the decking with any of the following under the decking with an air space between it and the decking–* *(i) double-sided paper-reinforced aluminium foil;* *(ii) single-sided paper-reinforced aluminium foil laid with foil face not in contact with a ceiling;* *(iii) insulating gypsum plasterboard not less than 9.5 mm thick;* *(iv) asbestos insulating board not less than 6 mm thick; or* *(v) plywood or hardboard not less than 6 mm thick.* *(d) Fibre insulating board not less than 12.5 mm thick over the decking with crumpled aluminium foil or combined corrugated and flat aluminium foil under the decking.*
4. Pitched or flat roof of any waterproof material on boarding not less than 16 mm thick on joists or	*(a) Any type of insulation specified in item I of this table as appropriate for any type of roof* *(b) Any of the following in the roof or in a ceiling–* *(i) wood wool slabs, not less than 38 mm thick;*

rafters; or pitched roof of slates or tiles on sarking felt or sarking paper on boarding not less than 16 mm thick on joists or rafters	*(ii) mat, slab or quilt, not less than 19 mm thick, of eel grass, mineral wool (glass, rock or slag) or cellulose acetate fibre; or* *(iii) fibre insulating board not less than 19 mm thick.* *(c) Any of the following with an air space between it and the boarding–* *(i) fibre insulating board not less than 12.5 mm thick;* *(ii) expanded polystyrene not less than 12.5 mm thick;* *(iii) double-sided paper-reinforced aluminium foil;* *(iv) single-sided paper-reinforced aluminium foil laid on a ceiling with the foil face not in contact with the ceiling; or* *(d) Crimpled aluminium foil or combined corrugated and flat aluminium foil laid on the boarding.*
5. Pitched or flat roof of concrete or structural hollow beams or slabs	*(a) Any type of insulation specified in item 1 of this table as appropriate for any type of roof* *(b) Any of the following laid over the concrete–* *(i) wood wool slabs not less than 38 mm thick;* *(ii) a screed not less than 50 mm thick of vermiculite concrete;* *(iii) a screed not less than 75 mm thick of cellular or aerated concrete; or* *(iv) a screed not less than 100 mm thick, of concrete, made with foamed slag, expanded clay or sintered pulverised fuel ash*

Table B. Walls of rooms wholly or partly in a roof

Type of roof	*Type of insulation*
1. Any roof ...	*(a) Any type of wall and any of the following in the roof or in the wall–* *(i) wood wool slabs not less than 25 mm thick;* *(ii) compressed straw slabs not less than 25 mm thick;* *(iii) fibre insulating board not less than 16 mm thick;* *(iv) mat, slab or quilt, not less than 12.5 mm thick, of eel grass, mineral wool (glass, rock or slag) or cellulose acetate fibre;* *(v) expanded polystyrene not less than 12.5 mm thick;* *(vi) corkboard not less than 12.5 mm thick; or*

	(vii) combined corrugated and flat aluminium foil. *(b) A wall constructed of–* *(i) blockwork not less than 62 mm thick (excluding plaster) made with solid blocks of cellular or aerated concrete having a density of not more than 960 kg/m^3;* *(ii) blockwork not less than 100 mm thick made with solid blocks of clinker, foamed slag, expanded clay or sintered pulverised fuel ash concrete having a density of not more than 1440 kg/m^3;* *(iii) blockwork not less than 100 mm thick. made with hollow blocks of clay or hollow blocks of cellular or aerated concrete having a density of not more than 1440 kg/m^3;* *(iv) gypsum plasterboard dry partition consisting of two sheets separated by a cellular paper core; or* *(v) compressed straw slabs not less than 50 mm thick.* *(c) A wall formed with any lining fixed to timber studding and with any of the following insulating materials–* *(i) single- or double-sided paper-reinforced aluminium foil with an air space between it and the lining;* *(ii) fibre insulating board not less than 6 mm thick with an air space between it and the lining; or* *(iii) insulating plasterboard with an air space between it and the lining.*
2. Pitched roof of slates or tiles on sarking felt or sarking paper on boarding not less than 16 mm thick.	*(a) Any type of wall and any type of insulation specified in sub-paragraph (a) of item 1 of this table as appropriate for any type of roof, used in the roof or in the wall.* *(b) A wall constructed of–* *(i) blockwork not less than 62 mm thick (excluding plaster) made of solid blocks of clinker, foamed slag, expanded clay or sintered pulverised fuel ash concrete having a density of not more than 1440 kg/m^3;* *(ii) blockwork not less than 62 mm thick (excluding plaster) made of hollow blocks of clay or hollow blocks of cellular or*

aerated concrete having a density of not more than 1440 kg/m^3; or

(iii) gypsum plasterboard dry partition consisting of two sheets separated by a cellular paper core.

(c) A wall constructed of timber udding with either of the following fixed to the studding–

(i) fibre insulating board not less than 12.5 mm thick used as a lining, or in addition to a lining with airspace between it and the lining;

(ii) insulating plasterboard, used as a lining or in addition to a lining with an airspace between it and the lining.

Table C. External walls

1. A wall haying a cavity not less than 50 mm in width and constructed of–

(a) *two leaves of brickwork, each leaf not less than 100 mm thick, plastered or rendered on one side of one of the leaves;*

(b) two leaves of hollow or solid blocks of concrete having a density of not more than 1920 kg/m^3, each leaf not less than 100 mm thick, plastered or rendered on one side of one of the leaves:

(c) two leaves of hollow or solid blocks of concrete haying a density of more than 1920 kg/m^3, each leaf not less than 150 mm thick, plastered or rendered on one side of one of the leaves;

(d) two leaves of differing construction, each leaf made of materials, thickness and density to satisfy the requirements of sub-paragraph (a), (b) or (c) (as the case may be), plastered or rendered of one side of one of the leaves;

(e) an external leaf which is constructed of the materials, thickness and density to satisfy the relevant requirements of sub-paragraph (a), (b) or (c) (as the case may be) and an inner leaf not less than 75 mm thick of–

(i) hollow blocks of clay;

(ii) hollow or solid blocks of cellular or aerated concrete having a density of not more than 1600 kg/m^3;

(iii) timber studding lined on one side with any material and lined on the other side with fibre insulating board not less than 12.5 mm thick or with insulating gypsum plasterboard not less than 9.5 mm thick; or

(iv) compressed straw slabs not less than 50 mm thick;

(f) two leaves, each not less than 75 mm thick consisting of–

(i) hollow blocks of clay; or

(ii) hollow or solid blocks of cellular or aerated concrete having a density of not more than 1600 kg/m^3.

2. A wall not less thon 200 mm thick, consisting of cellular or aerated concrete having a density of not more than 1440 kg/m^3.

3. A wall not less than 250 mm thick, consisting of cellular or aerated concrete having a density of more than 1440 kg/m^3 but not more than 1600 kg/m^3.

4. A wall not less than 300 mm thick, consisting of concrete having a density of more than 1600 k/m^3 but not more than 1760 kg/m^3.

5. A wall not less than 350 mm thick, consisting of natural stone or of concrete, in either case backed internally with hollow or solid blocks of cellular or aerated concrete having a density of not more than 1440 kg/m^3 and a thickness of not less than 100 mm.

Table D. Floors

Type of floor	*Type of insulation*
1. Suspended floor of boarding not less than 16 mm thick on timber joists, having its underside exposed to the outer air.	*(a) Wood wool slabs not less than 38 mm thick fixed tongued and grooved under the joists.* *(b) Any ceiling with any of the following between the ceiling and the floor boards–* *(i) fibre insulating board not less than 12.5 mm thick;* *(ii) expanded polystyrene not less than 12.5 mm thick;* *(iii) crumpled aluminium foil, or combined corrugated and flat aluminium foil laid with the corrugated surface downwards if in contact with the ceiling;*

	(iv) single- or double-sided paper-reinforced aluminium foil laid with an air space between it and the ceiling; *(v) mat, slab or quilt, not less than 19 mm thick, of eel grass, mineral wool (glass, slag or rock) or cellulose acetate fibre;* *(vi) nodulated slag wool to a thickness of not less than 38 mm;* *(vii) exfoliated vermiculite to a thickness of not less than 25 mm;* *(viii) gypsum granules to a thickness of not less than 25 mm; or* *(ix) nodulated polystyrene not less than 25 mm thick.*
2. Suspended floor of concrete or structural hollow beams or slabs having its underside exposed to the outer air.	*Any of the following fixed under the concrete–* *(i) wood wool slabs not less than 50 mm thick;* *(ii) expanded polystyrene not less than 19 mm thick; or* *(iii) corkboard not less than 25 mm thick.*

SCHEDULE 12 Deemed-to-satisfy provisions

Rules G2(2), G4(2) and G5(2)

Sound Insulation

Part I: Walls providing resistance to the transmission of airborne sound

Rule G2(2)

Specification (1)	Construction of wall (2)
1.	A solid wall consisting of– (a) bricks or blocks with plaster not less than 12.5 mm thick on at least one face; or (b) dense concrete cast in situ or panels of dense concrete haying all joints solidly grouted in mortar; or

	(c) lightweight concrete with plaster not less than 12.5 mm thick on both faces of the wall, in each case the average mass of the wall (calculated over any portion of the wall measuring 1 metre square and including the mass of any plaster) being not less than 415 kg/m^2.
2	A wall having a cavity not less than 50 mm wide constructed of two leaves each consisting of bricks, blocks or dense concrete with plaster not less than 12.5 mm thick on both faces of the wall, and having any wall ties of the butterfly wire type, the average mass of the wall (calculated over any portion measuring 1 metre square and including the mass of the plaster) being not less than 415 kg/m^2.
3.	A wall having a cavity not less than 75 mm wide constructed of two leaves each consisting of lightweight concrete with plaster not less than 12.5 mm thick on both faces of the wall and having any wall ties of the butterfly wire type, the average mass of the wall (calculated over any portion of the wall measuring 1 metre square and including the mass of the plaster) being not less than 250 kg/m^2

Part II: Floors providing resistance to the transmission of airborne and impact sound

Rules G4(2) and G5(2)

Specification (1)	Construction of floor (2)
1.	A floor consisting of– (a) a solid concrete slab; or (b) a slab of concrete beams and hollow infilling blocks of clay or concrete or (c) a slab of hollow concrete beams, in each case having an average mass (calculated over any portion of the floor measuring 1 metre square and including the mass of any screed or ceiling plaster directly bonded to the slab but excluding the mass of any floating floor or suspended ceiling) of not less than 365 kg/m^2
2.	Boarding nailed to battens laid to float upon a layer of glass

	fibre or mineral wool quilt, in either case capable of retaining its resilience under imposed loading, the layer being draped over wooden joists, beneath which a ceiling of lath and plaster or of plasterboard, in either case not less than 19 mm thick, has been constructed, with pugging on the ceiling such that the combined mass of the ceiling and pugging is not less than 120 kg/m^2

Part III: Floors providing resistance to the transmission of airborne sound only

Rule G5(2)

Specification (1)	Construction of floor (2)
1	A floor consisting of a solid concrete slab having an average mass (calculated over any portion of the floor measuring 1 metre square and including the mass of any screed or ceiling plaster directly bonded to the slab but excluding the mass of any floating floor or suspended ceiling) of not less than 365 kg/m^2 and having any type of floor finish.