STATUTORY INSTRUMENTS

1965 No. 1373

BUILDING AND BUILDINGS

The Building Regulations 1965

Made ---6th July 1965Laid before Parliament22nd July 1965Coming into Operation1st February 1966



LONDONHER MAJESTY'S STATIONERY OFFICE 1965

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THE MINISTER OF PUBLIC BUILDING AND WORKS in exercise of the powers conferred on him under sections 53, 61, 62, 64 and 90 of the Public Health Act 1936(a), as amended by section 11 and Schedule 1 Part III of the Public Health Act 1961(b), section 24 of the Clean Air Act 1956(c), sections 4 and 6 of the Public Health Act 1961 and the Transfer of Functions (Building Control) Order 1964(d) and of all other powers enabling him in that behalf, after consultation with the Building Regulations Advisory Committee and such other bodies as appear to him to be representative of the interests concerned, hereby makes the following regulations:—

PART A

GENERAL

Commencement, citation and interpretation

- A1.—(1) These regulations shall come into operation on 1st February 1966 and may be cited as The Building Regulations 1965.
- (2) The Interpretation Act 1889(e) shall apply for the interpretation of these regulations as it applies for the interpretation of an Act of Parliament.

General interpretation

- A2.—(1) In these regulations, unless the context otherwise requires—
- "boundary" means, in relation to a building, boundary of the land belonging to the building (such land being deemed to include any abutting portion of any street, canal or river but only up to the centre line thereof); and "boundary of the premises" shall be construed so as to include any such portion to the same extent;
- "combustible" means capable of being classified as combustible if subjected to the test for combustibility prescribed in BS 476: Part I: 1953; and "non-combustible" shall be construed accordingly;
- "habitable room" means a room used or intended to be used for dwelling purposes including sleeping or dressing, 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;
- "local authority" means the local authority having the function of enforcing these regulations;
- "partially exempted building" means a building referred to in regulation A4(2);

⁽a) 26 Geo. 5. & 1 Edw. 8. c. 49. (b) 9 & 10 Eliz. 2. c. 64. (c) 4 & 5 Eliz. 2. c. 52. (d) S.I. 1964/263 (1964 I, p. 457). (e) 52 & 53 Vict. c. 63.

"single storey building" means a building having not more than one storey other than basement storeys; and any reference to a building having, or having not more than, a specified number of storeys, is to the number of storeys other than basement storeys;

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

"under former control"-

- (a) in relation to any building, means a building the erection of which was—
 - (i) completed before the date of coming into operation of these regulations, or
 - (ii) completed after that date in accordance with plans deposited with the local authority before that date, with or without any departures or deviations from the plans, or
 - (iii) begun before but completed after that date (being a building the erection of which was exempt from compliance with the provisions of all relevant byelaws in force immediately before that date), and
- (b) in relation to any 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 the date of coming into operation of these regulations, or
 - (ii) completed after that date in accordance with plans deposited with the local authority before that date, with or without any departures or deviations from the plans, or
 - (iii) begun before but completed after that date (being an alteration or extension, execution of works or installation of fittings, which was exempt from compliance with the provisions of all relevant byelaws in force immediately before that date).
- (2) In these regulations, 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 the 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 frame-work of the lowest storey of the building or of that part of the building; and
 - (c) the roofing over of any open space between walls or buildings.
- (3) In these regulations, unless the context otherwise requires, any reference to a building shall 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.

- (4) In relation to the storeys of a building—
- "basement storey" means any storey which is below the ground storey or, if there is no ground storey, any storey the floor of which is wholly or partly below the level of the adjoining ground;
- "ground storey" means a storey the floor of which is situated at or about, but not below, the level of the adjoining ground or, if there is more than one such storey, the higher or highest of these;
- "upper storey" means any storey other than a ground storey or basement storey.
- (5) (a) In these regulations, 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.
- (b) Any reference to any publication shall be construed as a reference to the latest edition of that publication as at the date of making these regulations, including any amendments thereto published at that date, but only to so much of that publication as is relevant to the material, component, method of construction or operation in the circumstances in which it is proposed to be used or carried out.
- (c) In these regulations and the schedules and tables to these regulations the following abbreviations are used—
 - "BS" means British Standard;
 - "CP" means British Standard Code of Practice;
 - "B.Th.U." means British Thermal Unit.
- (6) In these regulations, any reference to a Part, regulation or schedule shall be construed as a reference to a Part or regulation of, or schedule to, these regulations.

Deemed-to-satisfy provisions

A3. No provision in these regulations stating that the use of a particular material, method of construction or specification shall be deemed to satisfy the requirement of any regulation or part thereof shall be construed so as to require any person necessarily to use such material, method of construction or specification.

Exemptions

- A4.—(1) These regulations do not apply to any buildings specified in section 71 of the Public Health Act 1936; and shall not apply to any of the following buildings, or the execution of works or the installation of fittings in or in connection with such buildings—
 - (a) a building erected in connection with any mine or quarry other than a house or a building used as offices or show-rooms;
 - (b) a moveable dwelling to which section 269 of the Public Health Act 1936, or any similar provision in a local Act applies;
 - (c) a building used exclusively for the accommodation of hop-pickers or other persons engaged temporarily in agricultural or horticultural activities;

- (d) a building the construction of which is subject to the Explosives Acts 1875 and 1923(a).
- (2) For the purposes of this regulation, the expression "partially exempted building" means any building which belongs to one of the classes described in Schedule 1.
 - (3) In the application of these regulations to—
 - (a) the erection of any partially exempted building; or
 - (b) the execution of any works or installation of any fittings in connection with such building; or
 - (c) the alteration or extension of 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 provisions of these regulations except the provisions specified in columns (2), (3) and (4) of Schedule 1 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).

Application to erection of buildings

A5. Subject to the provisions of regulation A4, Parts A to L inclusive of these regulations shall apply to the erection of any building not under former control.

Application to alterations and extensions

- A6.—(1) Subject to the provisions of regulation A4, Parts A to L inclusive shall apply to:
 - (a) a structural alteration or extension of a building (whether that building was erected under former control or not), such alteration or extension being treated for the purpose of applying these regulations as if it was part of the New Building (which expression in this regulation means a building to be erected identical to, and to be used for the same purpose or purposes as, the building as altered or extended); and
 - (b) a building (whether that building was erected under former control or not) to which an alteration or extension is made, such existing building being treated for the purpose of applying these regulations as if it was part of the New Building:

Provided that (subject to the provisions of regulations A8 and K3) the application of these regulations to the existing building shall be effective only to the extent of prohibiting any alteration or extension which would result in that building either—

- (i) contravening any regulation which would not be applicable or which it would not contravene or
- (ii) contravening any regulation to a greater extent than it would contravene that regulation
- if it was treated as a building to be erected and to be used for the purpose or purposes for which it will be used as part of the New Building.

(2) This regulation shall not apply to the carrying out of any alteration or extension under former control.

Application to works and fittings

A7.—(1) Subject to the provisions of regulation A4 and to any express provision to the contrary—

Part A (General)

In Part B (Materials), regulation B1

Part M (Heat-producing appliances and incinerators)

Part N (Drainage, private sewers and cesspools)

Part P (Sanitary conveniences)

Part Q (Ashpits, wells, tanks and cisterns)

shall apply to the execution of any works and the installation of any fittings (whether by way of new work or by way of replacement) to which any of these regulations relate.

(2) This regulation shall not apply to the execution of any works or the installation of any fittings under former control.

Application to material change of use

A8.—(1) Subject to the provisions of section 62 of the Public Health Act 1936, for the purposes of these regulations 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 regulations shall apply—

Part A (General)

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

Part E (Structural fire precautions) except regulations E7 and E14 Part J (Refuse disposal)

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

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

regulations K1, K2, K3(4) and K4 to K7

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

(a) buildings erected under former control:

regulations L1 to L3, L4 (except sub-paragraphs (1)(c)(ii) and (1)(d), L5, L7 to L13 and L15 to L21

(b) other buildings: all regulations.

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 regulations shall apply—

Part A (General)

Part E (Structural fire precautions) except regulations E7 and E14 Part J (Refuse disposal)

In Part K (Open space, ventilation and height of rooms)—regulations K1, K2 and K4 to K7.

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

- (a) buildings erected under former control: regulations L1 to L3, L4 (except sub-paragraphs (1)(c)(ii) and (1)(d)), L5, L7 to L13 and L15 to L21
- (b) other buildings: all regulations.

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 regulation E2, is changed; and in such case (subject to the provisions of regulation A4) the following provisions of these regulations shall apply—

Part A (General)

Part E (Structural fire precautions).

- 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 bye-laws or building regulations 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 (whether it was erected under former control or not) it falls within any one of the descriptions of partially exempted buildings in Schedule 1 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 regulation A4) the following provisions of these regulations shall apply to the building or part of the building—

Part A (General)

Part B (Materials)

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

Part D (Structural stability)

Part E (Structural fire precautions) except regulations E7 and E14

Part F (Thermal insulation)

Part G (Sound insulation)

Part H (Stairways and balustrades)

Part J (Refuse disposal)

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

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

- (a) if building erected under former control: regulations Li to L3, L4 except sub-paragraphs (1)(c)(ii) and (1)(d)), L5, L7 to L13 and L15 to L21
- (b) if building not erected under former control: all regulations.
- (2) Where a material change of use neither involves nor is accompanied by an alteration or extension, the provisions referred to in paragraph (1) of this regulation shall apply to the building or part of the building in which the change of use occurs as if it was 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) of this regulation (other than regulation A6) shall apply to the building or part of the building in which the change of use occurs as if it was 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;
 - (b) the application of regulation A6 by paragraph (1) shall be effective to apply any requirements additional to those directly applied by that paragraph.

Giving of notices and deposit of particulars and plans

A9.—(1) Any person who intends to—

- (a) erect any building; or
- (b) make any structural alteration of or extension to a building; or
- (c) (subject to paragraphs (2) and (3) of this regulation) execute any works or instal any fittings in connection with a building; or
- (d) make any material change of use of a building, shall, if any provisions of these regulations apply to such operation or

such change of use, give notices and deposit plans, sections, specifications and written particulars in accordance with the relevant rules of Schedule 2.

- (2) The provisions of paragraph 1 shall not apply in any case where it is intended to instal fittings (other than a Class II gas appliance or a high-rating appliance as defined in regulation L1) by way of replacement of existing fittings of the same nature, and no structural work is involved.
- (3) The provisions of paragraph 1 shall not apply to the installation in a building of a Class II gas appliance as defined in regulation L1 (whether anew or by way of replacement), if such appliance is installed by, or under the supervision of, an Area Board established under the Gas Act 1948(a) and no structural work is involved.

Notice of commencement and completion of certain stages of work

- A10.—(1) For the purposes of this regulation—
- the expression "builder" means any person carrying out or intending to carry out any such operation as is referred to in regulation A9(1)(a), (b) and (c) to which any of these regulations apply;
- the expression "24-hours' notice" shall not include a Saturday, Sunday, Christmas 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 local authority with—
 - (a) not less than 24-hours' notice in writing of the date and time at which the operation will be commenced; and
 - (b) not less than 24-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; and
 - (c) not less than 24-hours' notice in writing before any drain or private sewer to which these regulations apply will be haunched or covered in any way; and
 - (d) notice in writing not more than 7 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 back-filling the trench.
- (3) If the builder neglects or refuses to give any such notice, he shall comply with any notice in writing from the local authority 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 local authority from ascertaining whether any of these regulations have been contravened.
- (4) If the builder, in accordance with any notice in writing received from the local authority which specifies the manner in which any building or works or fittings contravenes the requirements of these regulations, has altered or added to the building or works or fittings so as to secure compliance with these regulations, he shall within a reasonable time after the completion of such alteration or addition, give notice in writing to the local authority of its completion.
- (5) Subject to the provisions of paragraph (6), the builder shall give to the local authority notice in writing of—

- (a) the erection of a building, not more than 7 days after completion, or (if a building or part of a building is occupied before completion) not less than 7 days before occupation as well as not more than 7 days after completion;
- (b) any alteration or extension of a building, not more than 7 days after completion; and
- (c) the execution of works or the installation of fittings in connection with a building, not more than 7 days after completion.
- (6) The requirements of this regulation shall not apply to the installation of any fitting if the giving of notices and the deposit of plans, sections, specifications and written particulars are not required under the provisions of regulation A9.

Testing of drains and private sewers

A11. A duly authorised officer of the local authority 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.

Sampling of materials

A12. A duly authorised officer of the local authority 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 local authority to ascertain whether such materials comply with the provisions of these regulations.

Exercise of power of dispensation or relaxation

A13. The power to dispense with or relax any requirement of these regulations in relation to a particular case under section 6(1) of the Public Health Act 1961 shall be exercisable by the local authority (instead of by the Minister after consultation with the local authority) in relation to any requirement other than a requirement contained in any regulation in Part A, Part D or Part E:

Provided that this regulation shall not apply to any application made by a local authority.

Forms of application for dispensation or relaxation

- A14.—(1) Any application for a direction dispensing with or relaxing any requirement of these regulations shall be submitted in duplicate and shall—
 - (a) if the applicant is a local authority, be submitted in the forms prescribed in Part A of Schedule 3; and
 - (b) in any other case, be in the form prescribed in Part B of that Schedule.
- (2) Any notification by the local authority to an applicant that they have refused his application for dispensation or relaxation of any requirement of these regulations shall include a note on the provisions of section 7(1), (3) and (6) of the Public Health Act 1961 relating to appeals.

PART B

MATERIALS

Fitness of materials

- **B1.** 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 regulations apply; 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 regulations 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.

Deemed-to-satisfy provisions regarding the fitness of materials

B2. 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 regulation B1 if the use of that material or method is appropriate to the purpose for and conditions in which it is used.

Short-lived or otherwise unsuitable materials

- **B3.**—(1) Section 53 of the Public Health Act 1936 (which enables local authorities to reject plans for the construction of buildings of materials specified in building regulations 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 such materials as are described in the Table to this regulation, to the extent specified in paragraphs (2) and (3) of this regulation.
- (2) The use for which the said materials shall be deemed to be unsuitable is their use as the weather-resisting part of any external wall or roof, either without exception or with the exceptions specified in the Table to this regulation.
- (3) In determining for the purposes of this regulation 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.

Table to Regulation B3
(Materials unsuitable for permanent buildings)

	Description of	Particulars of unsuitability			
	material (1)	External walls (2)	Roofs (3)		
1	. Woodwool building slabs	Unsuitable without exception	Unsuitable without exception		
2	. Plasterboard	,,	,,		
3	. Fibrous plaster	,,	, ,,		
4	. Canvas or cloth	"	,,		
5	. Felt	·,,	Unsuitable except felt used in a roof covering of a type and construction complying with the recommendations of CP 144.101: 1961		
6.	Softwood boarding	Unsuitable except softwood boarding manufactured from western red cedar or, if it is impregnated with preservative in accordance with the recommendations of CP 98:1964, from any other species of timber having, in either case, a thickness of not less than—(i) in the case of featheredge boarding, \(\frac{1}{2}\) inch at the thicker edge and \(\frac{1}{2}\) inch at the thinner edge; or (ii) in all other cases, \(\frac{1}{2}\) inch	Unsuitable without exception		
7.	Fibre building board	Unsuitable except tempered hardboard which complies with the appropriate specification in BS 1142:1961			
8.	Wood chipboard	Unsuitable without exception ,,			
9.	Straw slabs	,,	"		
10.	Plywood	Unsuitable except where not less than $\frac{5}{16}$ inch thick and satisfactorily manufactured for external use	29		

TABLE TO REGULATION B3 (continued)

Description of	Particulars of unsuitability			
material (1)	External walls (2)	Roofs (3)		
11. Plastering or rendering on wood laths or metal lathing	Unsuitable except a rendered finish on metal lathing which complies with the recommendations of CP 221:1960	Unsuitable without exception		
12. Sheet steel	Unsuitable except sheet steel galvanized in conformity with BS 2989:1958 to produce a minimum coating weight of 2 oz. per square foot including both sides, or vitreous enamelled, or coated with bitumen or other organic substances of like durability during the course of manufacture	Unsuitable except sheet steel galvanized in conformity with BS 2989:1958 to produce a minimum coating weight of 2 oz. per square foot including both sides, or vitreous enamelled, or coated with bitumen or other organic substances of like durability during the course of manufacture		
13. Asbestos- cement sheeting	Unsuitable except asbestos- cement sheeting conforming with BS 690:1963	Unsuitable except asbestos- cement sheeting conforming with BS 690:1963		

Special treatment of softwood timber in certain areas

- **B4.**—(1) This regulation shall apply only in the area of any local authority specified in Schedule 4.
- (2) Softwood timber used in the construction of a roof or fixed within a roof, including any ceiling joist within the void spaces of the roof, shall be adequately treated with a suitable preservative to prevent infestation by the house longhorn beetle ($Hylotrupes\ bajulus\ L$.).

Deemed-to-satisfy provisions for the special treatment of softwood timber in certain areas

- **B5.** The requirements of regulation B4(2) shall be deemed to be satisfied if the timber is—
 - (a) treated in accordance with the provisions of BS 3452: 1962; or
 - (b) impregnated under pressure with an aqueous solution of copper-chromearsenate and any surfaces subsequently exposed by cutting the timber for fitting into the building are thoroughly treated by dipping, spraying or brushing those surfaces with an aqueous solution of not less than 10 per cent of copper-chrome-arsenate; or
 - (c) completely immersed for not less than 10 minutes in either—
 - (i) a solution of chlorinated phenols, metallic naphthenates or chlorinated naphthelenes in an organic solvent; or

(ii) a coal-tar oil,

and any surfaces subsequently exposed by cutting the timber for fitting into the building are thoroughly treated by dipping, spraying or brushing those surfaces with the same type of preservative.

BUILDINGS

PART C

PREPARATION OF SITE AND RESISTANCE TO MOISTURE

Interpretation of Part C

- C1.—(1) In this Part, "excepted building" means a building which is intended to be used wholly for 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, regulation, maintenance, storage or removal of such goods, plant or machinery.
- (2) Without prejudice to the generality of paragraph (1), in any regulation in this Part "excepted building" includes a building which is intended to be used wholly for a purpose such that compliance with the requirements of that regulation would not serve to increase protection to the health of persons employed in that building.
- (3) In this Part, "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.

Preparation of site

- C2.—(1) The site of any building, other than an excepted building, shall be effectively cleared of turf and other vegetable 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 or works and 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.

Protection of floors next to the ground

- C3.—(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.

Deemed-to-satisfy provisions for suspended timber floors

- **C4.** Where a floor is constructed as a suspended floor and incorporates timber, the requirements of regulation 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 4 inches thick, composed of cement and fine and coarse aggregate conforming to BS 882: 1954 in the proportions of 112 lbs. of cement to not more than 3\frac{3}{4} cubic feet of fine aggregate and 7\frac{1}{2} cubic feet 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; and
 - (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; and
 - (c) there is a space above the upper surface of the concrete of not less than 3 inches to the underside of any wall plate, and of not less than $4\frac{1}{2}$ inches 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.

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

- **C5.** Where a floor is constructed as a solid floor and incorporates timber, the requirements of regulation C3(1) and (2) shall be deemed to be satisfied if—
 - (a) the ground surface is covered in the manner described in regulation C4(a); and
 - (b) either—
 - (i) the concrete incorporates a damp-proof sandwich membrane consisting of a continuous layer of hot applied soft bitumen or coal-tar pitch not less than $\frac{1}{8}$ inch 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 ½ inch thick; or
 - (iii) (where the floor incorporates wood blocks not less than $\frac{5}{8}$ inch 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; and
 - (c) such membrane, damp-proof course or layer of adhesive is-
 - (i) situated at a level not less than 6 inches above the highest level of the surface of the ground or paving adjoining any external wall of the building; and
 - (ii) carried up the walls adjoining the floor to the level of the upper surface of the floor; and
 - (iii) continuous with, or joined and sealed to, any damp-proof course inserted in any wall, pier, buttress, column or chimney adjoining the floor; and

- (d) where the timber is fixed to wooden fillets embedded in concrete, the fillets are either—
 - (i) treated in accordance with the provisions of BS 3452: 1962; or
 - (ii) impregnated under pressure with an aqueous solution of copperchrome-arsenate and any surfaces subsequently exposed by cutting the timber for fitting into the building are thoroughly treated by dipping, spraying or brushing those surfaces with an aqueous solution of not less than 10 per cent. of copper-chrome-arsenate.

Protection of walls against moisture

- C6. 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; and
 - (b) (unless the building is an excepted building or the chimney is a separate building) to the inside of the building.

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

- C7. The requirements of regulation 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 6 inches above the finished surface of the adjoining ground and any paving laid on the adjoining ground; and
 - (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.

Weather resistance of external walls

C8. 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.

Prevention of damp in cavity walls

C9.—(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 regulation C6, the cavity shall extend not less than 6 inches 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) of this regulation 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.

Weather resistance of roofs

C10. 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

Interpretation of Part D

D1. In this Part-

- "dead load" means the weight of all roofs, floors, walls, partitions and other similar permanent construction; and
 - "imposed load" means any load other than the dead load.

Calculation of loading

- **D2.** In determining for the purposes of this Part the loads to which any building will be subjected—
 - (a) dead loads and imposed loads other than wind loads shall be calculated in accordance with Schedule 5:

Provided that-

- (i) in any case where any actual imposed load to which a building will be subjected will exceed or is likely to exceed the imposed load calculated in accordance with Schedule 5, such actual load shall be substituted for the load so calculated; and
- (ii) in any case where plant, machinery or equipment will produce exceptional dynamic effects, there shall be substituted for the imposed load calculated in accordance with Schedule 5 such greater amount as would, as a static load, produce stresses of a magnitude and kind approximating to that induced dynamically; and
- (b) wind loads shall be calculated in accordance with the recommendations of CP 3: Chapter V (1952):

Provided that, in relation to any overhang of the roof of a building, the design pressure for the purposes of the said Code shall be obtained by multiplying the equivalent static pressure as determined under the said Code by—

- (i) 0.5 for the positive pressure beneath the windward overhang; and
- (ii) 0.3 for the negative pressure beneath the leeward overhang.

Foundations

- D3. The foundations of a building shall—
- (a) safely sustain and transmit to the ground the combined dead load and imposed 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; and
- (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.

Deemed-to-satisfy provision for foundations

D4. The requirements of regulation D3 shall be deemed to be satisfied if the foundations of a building are constructed in accordance with the relevant recommendations of Civil Engineering Code of Practice No. 4 (1954)—"Foundations".

Deemed-to-satisfy provision for reinforced concrete foundations

D5. The requirements of regulation D3(a) shall be deemed to be satisfied as to such part of any foundations as is constructed of reinforced concrete if the work complies with CP 114:1957.

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

D6. If foundations form part of a building having not more than four storeys (other than a factory or storage building), the requirements of regulation D3(a) shall be deemed to be satisfied if such foundations are constructed in accordance with CP 101:1963.

Deemed-to-satisfy provisions for strip foundations

- **D7.** If the foundations of a building are constructed as strip foundations of plain concrete situated centrally under the walls, the requirements of regulation 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; and
 - (b) the width of the foundations is not less than the width specified in the Table to this regulation in accordance with the related particulars specified in the Table; and

- (c) the concrete is composed of cement and fine and coarse aggregate conforming to BS 882:1954 in the proportion of 112 lbs. of cement to not more than $3\frac{3}{4}$ cubic feet of fine aggregate and $7\frac{1}{2}$ cubic feet of coarse aggregate; and
- (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 6 inches; and
- (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 12 inches; 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 same extent as they project beyond the wall.

TABLE TO REGULATION D7 (Minimum width of strip foundations)

(1)		(2)	(3)	M	nimum	width i	(4) Minimum width in inches for total load in	s for tot	al load	in
Tyne of subsoil	soil	Condition of subsoil	Field test applicable	ton	s per li	neal foc of nc	al foot of load-bec of not more than	id-bearii than	ıg walli	ви
				1 2 ton	र्दे ton	1 ton	$\frac{1}{2}$ $\frac{2}{3}$ 1 14 15 ton ton tons tons	$1\frac{1}{2}$ tons	13 tons	2 tons
88 Rock I	:	Not inferior to sandstone limestone or firm chalk	Requires at least a pneumatic or other mechanically operated pick for excavation		In eac	h case e	In each case equal to width of wall	width c	of wall	
Gravel Sand	::	Compact	Requires pick for excavation. 2 inch wooden peg hard to drive more than a few inches	6	6	12	12 15 18 21	18	21	24
Clay Sandy clay	::	Stiff	Cannot be moulded with the fingers and requires a pick or pneumatic or other mechanically-operated spade for its removal	6	9/	12	15	18	21	24
Clay Sandy clay	::	} Firm	Can be moulded by substantial pressure with the fingers and can be excavated with graft or spade	103	13	15	10½ 13 15 18 22½	223	27	30

	Note: In relation to types V, VI and VII, foundations do not fall within the provisions of regulation D7 if the total load exceeds I ton per lineal foot.				
24	27	36			
18	21	27			
12	143	18			
Can be excavated with a spade. 2 inch wooden peg can be easily driven	Fairly easily moulded in the fingers and readily excavated	Natural sample in winter conditions exudes between fingers when squeezed in fist			
:	:	:			
:	:	:			
Loose	Soft	\ Very soft			
: : :	::::	::::			
V Sand Silty Sand Clayey Sand	VI Silt Clay Sandy clay Silty clay	VII Silt Clay Sandy clay Silty clay			

Structure above foundations

D8. The structure of a building above the foundations shall safely sustain and transmit to the foundations the combined dead load and imposed load without such deflection or deformation as will impair the stability of, or cause damage to, the whole or any part of the building.

Deemed-to-satisfy provision for structural work of steel

D9. The requirements of regulation D8 shall be deemed to be satisfied as to any structural work of steel if the work complies with BS 449: 1959.

Deemed-to-satisfy provision for structural work of aluminium

D10. The requirements of regulation D8 shall be deemed to be satisfied as to any structural work in one of the aluminium alloys specifically referred to in the "Report on the Structural Use of Aluminium" published by the Institution of Structural Engineers in January 1962, if the work complies with the relevant recommendations of that Report.

Deemed-to-satisfy provision for structural work of reinforced concrete

D11. The requirements of regulation D8 shall be deemed to be satisfied as to any structural work of reinforced concrete if the work complies with CP 114:1957.

Deemed-to-satisfy provision for structural work of prestressed concrete

D12. The requirements of regulation D8 shall be deemed to be satisfied as to any structural work of prestressed concrete if the work complies with CP 115:1959.

Deemed-to-satisfy provision for structural work of precast concrete

D13. The requirements of regulation D8 shall be deemed to be satisfied as to any structural work of precast concrete if the work complies with CP 116:1965.

Deemed-to-satisfy provisions for structural work of timber

- **D14.** The requirements of regulation D8 shall be deemed to be satisfied as to any structural work of timber if—
 - (a) the work complies with CP 112:1952; or
 - (b) in the case of work comprising a floor, ceiling or roof of a house having not more than three storeys and intended to be occupied by one family only, and including any timber member within the meaning of Schedule 6, that member complies with the rules of that schedule, and the work in all other respects complies with CP 112:1952.

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

- **D15.** The requirements of regulation D8 shall be deemed to be satisfied as to any structural work of bricks, blocks or plain concrete if—
 - (a) the work complies with CP 111:1964; or
 - (b) in the case of work comprising a wall constructed of bricks or blocks to which Schedule 7 applies, such wall is constructed in accordance with the rules of that Schedule.

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

D16. The requirements of regulation 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.

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

- **D17.**—(1) The requirements of regulation 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, at the level of the highest point in line of junction with the roof, gutter or other part of the building and at any higher level, the width of such chimney or structure is not less than one-sixth of its height measured from that level to the top of such external part, including (in the case of a chimney) any pot or other flue terminal.
- (2) For the purposes of this regulation, the width of a chimney or similar structure at any level shall be taken as the smallest width which can be shown on an elevation of the chimney or structure from any direction.

PART E

STRUCTURAL FIRE PRECAUTIONS

Interpretation of Part E

E1.—(1) In this Part and in Schedules 8 and 9—

- "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 for the purposes of this Part, if any part of the top storey of a building is within a compartment, the 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 regulation E9 and which is provided as such for the purposes of regulation E4 or to divide a building into compartments for any purpose in connection with regulations E5 or E7;
- "door" includes any shutter, cover or other form of protection to an opening in any wall or floor of a building, or 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 load-bearing wall or load-bearing part of a wall; and

- (h) a gallery;
- "externally non-combustible" means externally faced with, or otherwise externally consisting of, non-combustible material;
- "fire resistance" has the meaning ascribed to that expression in regulation E6(1);
- "fire stop" means a barrier or seal which would prevent or retard the passage of smoke or flame within a cavity or around a pipe or duct where it passes through a wall or floor or at a junction between elements of structure; and "fire-stopped" shall be construed accordingly;
 - "height of a building" has the meaning ascribed to it in regulation E3;
- "permitted limit of unprotected areas" means the maximum aggregate area of unprotected areas in any side or external wall of a building or compartment, which complies with the requirements of Schedule 9 for such building or compartment;
- "protected shaft" means a stairway, lift, escalator, chute, duct or other shaft which enables persons, things or air to pass between different compartments, and which complies with the requirements of regulation E10;
- "the relevant boundary", in relation to any side of a building or compartment (including any external wall or part of an external wall), means (unless otherwise specified) that side, unless there is adjacent to that side land belonging to such building or compartment (such land being deemed to include any abutting portion of any street, canal or river up to the centre line thereof) in which case the relevant boundary means that part of the boundary of such land which is either parallel to, or at an angle of not more than 80 degrees with, that wall or side;
- "separating wall" means a wall or a part of a wall which is common to two adjoining buildings;
- "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 Part for that wall; and
 - (c) any part of the external wall which has combustible material more than $\frac{1}{32}$ inch thick attached or applied to its external face, whether for cladding or any other purpose.
- (2) Any reference in this Part to a roof or part of a roof of a specified designation shall be construed as meaning a roof or part of a roof so constructed as to be capable of satisfying the relevant test criteria specified in respect of that designation of roof in BS 476: Part 3: 1958:

Provided that any roof or part of a roof shall be deemed to be of such a designation if—

- (a) it conforms with one of the specifications set out against the designation in Schedule 10; or
- (b) a similar part made to the same specification as that roof is proved to satisfy the relevant test criteria.
- (3) Any reference in this Part to a building shall, in any case where two or more houses adjoin, be construed as a reference to one of those houses.

Designation of purpose groups

E2. For the purposes of this Part 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 regulation 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.

Table to Regulation E2 (Designation of purpose groups)

Nun of purp gro	f pose	Descriptive title	Purposes for which building or compartment is intended to be used
Ι	•••	Small residential	Private dwellinghouse (not including a flat or maisonette) not comprising more than (1) a ground storey; (2) one upper storey; and (3) a basement storey or basement storeys.
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 5 years, where such persons sleep in the premises.
Ш	•••	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
v	•••	Shop	work (including writing, book-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. 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 books 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
VI	•••	Factory	treatment of, goods. Factory within the meaning ascribed to that word by s. 175 of the Factories Act 1961(a) (but not including slaughterhouses and other premises referred to in paragraphs (d) and (e) of sub-section (1) of that Section).
VII		Other place of assembly	Place, whether public or private, used 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.

Rules for measurement

E3. In this Part-

- (a) the height of a building, or (where relevant) of part of a building as described in regulation E5(3)(b), means the height of such building or part, measured from the mean level of the ground adjoining the outside of the external walls of the building 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) the area of—
 - (i) any storey of a building or compartment shall be taken to be the total area in that storey bounded by the finished inner 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) 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;
 - (iii) 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;
- (c) the cubic capacity of a building or compartment shall be ascertained by measuring the volume of space contained within—
 - (i) the finished inner 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; and
 - (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;

including the space occupied by any other walls, or any shafts, ducts, or structure within the space to be so measured.

Provision of compartment walls and compartment floors

- E4.—(1) Any building (other than a single storey building) of a purpose group specified in column (1) of the Table to this regulation and 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 to this regulation; 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.
- (2) In any building which exceeds 90 feet 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 30 feet 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 (Institutional);
 - (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 regulation E2; and
 - (d) any floor immediately over a basement storey if—
 - (i) such basement storey has an area exceeding 1,000 square feet; and
 - (ii) the building or compartment of which such basement forms part is of purpose group III or V.

TABLE TO REGULATION E4 (Dimensions of buildings and compartments)

		Limits of dimensions		
Purpose group	Height of building	Floor area of storey (in thousand square feet) Cubic capacity (in thousand cubic feet		
(1)	(2)	(3)	(4)	
II (Institutional) III (Other residential) V (Shop) " VI (Factory) VIII (Storage and general) " "	Any height Not exceeding 90 feet Exceeding 90 feet Any height Not exceeding 90 feet Exceeding 90 feet Not exceeding 90 feet Exceeding 90 feet	20 30 20 20 No limit 20 No limit 10	No limit 300 200 250 1,000 200 750 No limit	

Note: Purpose groups I, IV and VII are excluded from this Table as there are no limits applicable under this regulation.

Fire resistance

- E5.—(1) Subject as otherwise provided by this regulation, every element of structure shall be so constructed as to have fire resistance for not less than whichever of the periods specified in Table A to this regulation is relevant, having regard to the purpose group of the building of which it forms part and the dimensions specified in that Table.
 - (2) (a) In addition to any relevant requirement under paragraph (1)—
 - (i) any external wall shall have fire resistance of not less than half an hour:
 - (ii) any separating wall shall have fire resistance of not less than 1 hour.

- (b) Nothing in paragraph (1) or in sub-paragraph (a) of this paragraph shall apply to any part of an external wall which is non-loadbearing and may, in accordance with regulation E7 be an unprotected area.
- (3) (a) In this regulation and in Table A to this regulation (subject to the provisions of sub-paragraph (b) of this paragraph and any other 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.
- (b) In this regulation and in Table A to it, 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.
- (c) If any element of structure forms part of more than one building or compartment and the requirements for fire resistance specified in Table A to this regulation in respect of one building or compartment differ from those specified in respect of any other building or compartment of which the element forms part, such element shall be so constructed as to comply with the greater or greatest of the requirements specified.
- (4) Any element of structure shall have fire resistance of not less than the minimum period required by these regulations for any element which it carries.
- (5) 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 1 hour unless—
 - (i) the wall is a load-bearing wall or a wall forming part of a protected shaft; or
 - (ii) 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 regulation for any element of structure in that part is 1½ hours or more.
- (6) In the application of this regulation 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 Table B to this regulation.

Table A to Regulation E5

(Periods of Fire Resistance)

Notes applicable to both Parts of Table A

- (i) The fire resistance periods to be taken as relevant in a purpose group are the periods shown on the topmost line specifying dimensions with all of which the building or compartment is in conformity (but see also regulation E5(2)).
 - (ii) "N/L" indicates that no limit is applicable.
- (iii) For the purposes of this table, a floor which is immediately above a basement storey is deemed to be an element below ground.

Part 1—Buildings having more than one storey (other than basement storeys)

Furi 1—Buildings naving more than one storey (other than basement storeys)						
_	Dimensions, unle	specifying max ss otherwise ind	imum limits icated	Minimum fire res	period of istance	
Purpose group (1)	Height (in feet)	Floor area (in thousand square feet) (3)	Capacity (in thousand cubic feet) (4)	Elements above ground (in hours)	Elements below ground (in hours) (6)	
<u> </u>	N/L	N/L	N/L	$\frac{1}{\frac{1}{2}}$	1(a)	x
II	90	20	N/L	1	$\frac{1(a)}{1\frac{1}{2}}$	
	over 90	20	N/L	1 1/2	2	
Ш	25 50 90 over 90	5 2·5 30 20	N/L N/L 300 200	$1(b)$ 1 $1\frac{1}{2}$	1 1 1½ 2	Х
IV	25 25 50 90 N/L	2·5 5 N/L 50 N/L	N/L N/L 125 500 N/L	$\begin{array}{c c} 0 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ \frac{1}{2} \end{array}$	1(c) 1 1 1 1½ 2	х
V	25 25 50 90 N/L	1·5 5 N/L 10 20	N/L N/L 125 250 250	$0 \\ 1(b) \\ 1 \\ 2$	1(c) 1 1 2 4	Х
VI	25 25 50 90 90 over 90	2·5 N/L N/L N/L N/L N/L 20	N/L 60 150 300 1,000 200	$0 \\ 1(b) \\ 1 \\ 2 \\ 2$	1(c) 1 1 2 4 4	X
VII	25 25 50 90 N/L	2·5 5 N/L 50 N/L	N/L N/L 125 500 N/L	$ \begin{array}{c} 0 \\ \frac{1}{2} \\ 1(b) \\ 1 \\ 1\frac{1}{2} \end{array} $	$1(c)$ 1 1 $1^{\frac{1}{2}}$ 2	х
VIII	25 25 50 50 90 90 over 90	1·5 3 N/L N/L N/L N/L 10	N/L N/L 60 125 250 750 N/L	0 1(b) 1 2 4 4	1(c) 1 2 4 4	X

Notes to Part 1

x The items thus marked are applicable only to buildings, not to compartments, except in relation to purpose group III (Other residential); see also regulations E7(2)(a) and E8(7)(a).

⁽a) The period is half an hour for elements forming part of a basement storey which has an area not exceeding 500 square feet.

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

(c) No fire resistance is required if the elements form part of a basement storey which has an area not exceeding 500 square feet.

TABLE A TO REGULATION E5—continued.

(Periods of Fire Resistance)—continued.

Part 2—Buildings having not more than one storey (other than basement storeys)

		s specifying limits unless indicated	Min	imum period	of fire resista	ince	
			Elements above ground			,	
Purpose group	Floor area (in thousand square feet)	Capacity (in thousand cubic feet)	Compart- ment walls (in hours)	Separating walls or structure enclosing a protected shaft (in hours)	External walls (in hours)	Elements below ground (in hours)	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	
Ι	N/L	N/L	_	1	$\frac{1}{2}$	1(*)	Z
II	30	N/L	$\frac{1}{2}$	1	1/2	1	z
III	30	N/L	$\frac{1}{2}$	1	1/2	1	z
IV	30 N/L	N/L N/L	1/2 -	1 1	1 1	1(†) 1½	Z
V	20 30 N/L	N/L N/L N/L	1 1	1 1 2	1 1 2	1(*) 2 4	z
VI	20 30 N/L	N/L N/L N/L	1 1	1 1 2	1 1 2	1(†) 2 4	z
VII	30 N/L	N/L N/L	1/2 -	1	1 1	1(†) 1½	z
VIII	5 10 30 N/L	N/L N/L N/L N/L	1 1 2 -	1 1 2 4	1 1 2 4	1(†) 2 4 4	z

Notes to Part 2

^(*) See note (a) to Part 1 of this Table.

^(†) See note (c) to Part 1 of this Table.

z Indicates the sizes of buildings which are referred to in regulations E7(2)(a) and E8(7)(a).

Table B to Regulation E5 (Suspended ceilings)

	· · · · · · · · · · · · · · · · · · ·		
Height of building	Type of floor	Required fire resistance of floor	Description of suspended ceiling
Less than 50 feet	Non-compartment	1 hour or less	Surface of ceiling exposed within the cavity not lower than Class 1 (as
	Compartment		
	Compartment	1 hour	Surface of ceiling exposed within the cavity not lower than Class O (as to surface spread of flame); supports and fixings for the ceiling non-combustible.
50 feet or more	Any	1 hour or less	Surface of ceiling exposed within the cavity not lower than Class O (as to surface spread of flame) and jointless; supports and fixings for the ceiling non-combustible.
Any	Any	More than 1 hour	Ceiling of non-combustible construction and <i>joint-less</i> ; supports and fixings for the ceiling non-combustible.

Note: References to Classes are to Classes as specified in regulation E14.

Tests of fire resistance

- **E6.**—(1) For the purposes of regulation E5, requirements as to fire resistance shall be construed as meaning that an element of structure shall be capable of resisting the action of fire for the specified period under the conditions of test appropriate to such element in accordance with BS 476: Part I: 1953, subject to such modifications or applications of such conditions of test as are prescribed in this regulation.
- (2) Any compartment floor shall, if the underside of such floor is exposed to test by fire, have fire resistance for not less than the minimum period required by the provisions of regulation E5 for elements of structure forming part of the compartment immediately below such floor.
- (3) Any structure (other than an external wall) enclosing a protected shaft shall, if each side of the wall is separately exposed to test by fire, have fire resistance for not less than the minimum period required by the provisions of regulation E5.
- (4) Any compartment wall or separating wall shall, if each side of the wall is separately exposed to test by fire, have fire resistance for not less than the minimum period required by regulation E5.

- (5) Any part of an external wall which constitutes, or is situated less than 3 feet from any point on, the relevant boundary shall, if each side of the wall is separately exposed to test by fire, have fire resistance for not less than the minimum period required by regulation E5.
- (6) Any part of an external wall which is situated 3 feet or more from the relevant boundary and which is required by the provisions of these regulations to have fire resistance, shall, if the inside of the wall is exposed to test by fire, have fire resistance for not less than the minimum period required by regulation E5:

Provided that, for the purposes of this paragraph, the wall shall be capable of satisfying the requirements of clause 11c of section 3 of BS 476: Part 1: 1953 as to insulation for not less than 15 minutes.

- (7) Any floor above the ground storey of a house falling within purpose group I shall, if the underside of such floor is exposed to test by fire in accordance with BS 476: Part I:1953, be capable of satisfying the requirements of that test as to freedom from collapse for a period of not less than half an hour and as to insulation and resistance to passage of flame for not less than 15 minutes.
- (8) Any element of structure shall be deemed to have the requisite fire resistance if—
 - (a) it is constructed in accordance with one of the specifications given in Schedule 8, 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 requisite fire resistance: or
 - (b) a similar part made to the same specification as that element is proved to have the requisite fire resistance under the conditions of test prescribed in the foregoing paragraphs of this regulation.

External walls

- E7.—(1) Any side of a building (other than a small garage which is a separate building and complies with the relevant requirements of regulation E16) shall comply with any relevant requirements relating to the permitted limits of unprotected areas specified in Schedule 9 unless the building is so situated that such side might in accordance with Schedule 9 consist entirely of an unprotected area.
- (2) (a) Any external wall (other than an external wall of a building which is within the limits of size indicated by the letter "x" in Part I of Table A to regulation E5 or of a building not divided into compartments and within the limits of size indicated by the letter "z" in Part 2 of that Table) which constitutes, or is situated within a distance of 3 feet from any point on, the relevant boundary, and
- (b) any external wall of a building exceeding 50 feet in height (other than an external wall of a part of that building which is less than 50 feet in height, and completely separated from all other parts as specified in regulation E5(3)(b) and which is situated 3 feet or more from the relevant boundary) shall be so constructed as—
 - (i) not to include any combustible material except any internal lining which complies with regulation E14, or any external cladding not required by paragraph (3) of this regulation to be non-combustible, and

- (ii) to enable any required fire resistance to be attained by the non-combustible part alone.
- (3) (a) Any cladding on any external wall, if such cladding is situated within a distance of 3 feet from any point on the relevant boundary, shall be non-combustible.
- (b) Any cladding on any external wall situated 3 feet or more from the relevant boundary shall, if the building is more than 50 feet in height, have a surface complying with the requirements specified for Class O in regulation E14, except that any part of such cladding below a height of 50 feet from the ground may consist of timber of not less than $\frac{3}{8}$ inch finished thickness.
- (c) Any beam or column forming part of, and any structure carrying, an external wall which is required to be of non-combustible materials shall comply with the provisions of paragraph (2) as to non-combustibility.
 - (4) For the purposes of this regulation—
 - (a) 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 70 degrees or more to the horizontal and adjoins a space to which persons have access not limited to the purposes of maintenance or repair;
 - (b) any reference to Schedule 9 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) either the provisions of Part II or those of Part III or, if the building is one to which Part IV applies, those of that Part or of Parts II or III.

(5) If—

- (a) any building is to be erected on land occupied with any other building, or two or more detached buildings are to be erected on land in common occupation; and
- (b) either of those buildings is of purpose groups I or III (other than a small garage which is a separate building and complies with regulation E16),
- in the application of the provisions of this regulation to any external wall of any building to be so erected which faces an external wall of such other building—
 - (i) the relevant boundary shall be a notional boundary passing between those buildings and such boundary must be capable of being situated in such a position as to enable the external walls of those buildings to comply with the requirements of this regulation; and
 - (ii) if such other building is an existing building, it shall be deemed to be a building to be erected on the site which it occupies, being of the same purpose group and having the same unprotected areas and fire resistance as the existing building.

Separating walls

E8.—(1) Subject to the exception specified in paragraph (2), any separating wall shall be imperforate and shall form a complete vertical separation between any buildings separated (including any roof space therein).

- (2) Nothing in paragraph (1) shall prohibit the passage through a separating wall of a pipe if the pipe—
 - (a) is not a flue pipe, and
 - (b) has a diameter not exceeding 1 inch (if it is made of combustible material) or 6 inches (if it is made of non-combustible material), and
 - (c) is fire-stopped where it passes through the 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 15 inches (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 5 feet of the separating wall is under regulation E1(2) designated AA, AB or AC; and
 - (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 groups I, III, IV or VII; and
 - (ii) neither building exceeds 40 feet in height; and
 - (iii) any part of the roof which is within 5 feet of the separating wall is covered with non-combustible 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 of purpose group I or is a three-storey house falling within purpose group III; and
 - (ii) any part of the roof which is within 5 feet from the separating wall is designated AA, AB or AC; and
 - (iii) 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) No combustible material shall be carried through, into or across the ends of or over the top of any separating wall of such a type or in such a way as to render ineffective the resistance of such separating wall to the effects of fire and the 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 boarding is solidly bedded on mortar or other not less suitable material where it rests on the separating wall; or
 - (ii) any woodwool 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 in 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) and (iii) above from forming part of a roof which is designated AA, AB or AC.
- (7) (a) Any separating wall (other than a wall separating buildings not divided into compartments within the limits of size indicated by the letter "x" in Part 1 of Table A to regulation E5 or a wall separating single-storey buildings falling as buildings not divided into compartments within the limits of size indicated by the letter "z" in Part 2 of Table A to regulation E5) shall be constructed wholly of non-combustible materials, apart from any surface finish to a wall which complies with the requirements of regulation E14, and the required fire resistance for the wall shall be obtained without assistance from such combustible material.
- (b) Any beam or column forming part of, and any structure carrying, a separating wall which is required to be constructed of non-combustible materials shall itself comply with the requirements of sub-paragraph (a) as to non-combustibility.

Special requirements as to compartment walls and compartment floors

- **E9.**—(1) Any compartment wall or compartment floor shall be imperforate with the exception of any one or more of the following:
 - (a) an opening fitted with a door which complies with the requirements of regulation E11 and has fire resistance which is not less than—
 - (i) in the case of a wall separating a flat or maisonette from any space in common use giving access to that flat or maisonette, half an hour; or
 - (ii) in any other case, the period required by the provisions of regulation E5 for the wall or floor;
 - (b) an opening for a protected shaft;
 - (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;

- (d) an opening for a pipe which complies with the requirements of regulation E8(2);
- (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 Part L;
- (f) an opening for a refuse chute which complies with the requirements of Part J.
- (2) Where a compartment wall or compartment floor forms a junction with any structure comprising any other compartment wall, or any external wall, separating wall or 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 15 inches, measured at right angles to the surface of the roof, unless either—
 - (a) the roof complies with the requirements of regulation E8(4)(a); or
 - (b) the compartment wall is in a building of purpose groups III, IV or VII not exceeding 40 feet in height, and the roof complies with the requirements of regulation 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 E8(6).

- (4) No combustible material shall be built into or carried through, into or across the ends of any compartment wall or compartment floor or over the top of any compartment wall of such a type or in such a manner as to render ineffective the resistance of such wall or floor to the effects of fire and the spread of fire.
- (5) Where any chimney, appliance ventilation duct or duct encasing one or more flue pipes passes through a compartment floor or compartment wall—
 - (a) any flue in the chimney; or
 - (b) the passage in the appliance ventilation duct; or
 - (c) the space within the duct encasing the flue pipe or pipes,
- shall be separated from that compartment floor or compartment wall and from each compartment adjoining that floor or wall by non-combustible construction having fire resistance of not less than half the minimum fire resistance required by regulation E5 for the compartment floor or compartment wall through which it passes.
- (6) If any chimney, appliance ventilation duct or duct encasing one or more flue pipes forms part of a compartment wall—
 - (a) any flue in the chimney; or
 - (b) the passage in the appliance ventilation duct; or
 - (c) the space within the duct encasing the flue pipe or pipes,

shall be separated from any compartment adjoining that wall by non-combustible construction which will, at any level, have fire resistance of not less than half the minimum fire resistance required by regulation E5 for the compartment wall at that level.

- (7) (a) Any compartment wall or compartment floor which is required by regulation E5 to have fire resistance of 1 hour or more, shall be constructed wholly of non-combustible materials apart from—
 - (i) any floor finish; or
 - (ii) any surface finish to a wall or ceiling which complies with the requirements of regulation E14; or
 - (iii) any ceiling which complies with the description specified in Table B to regulation E5;
- 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.
- (b) 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 sub-paragraph (a) as to non-combustibility.

Protected shafts

- **E10.**—(1) No protected shaft shall be constructed for use for any purposes additional to those specified in regulation E1(1) other than the accommodation of any pipe or duct, or as sanitary accommodation or washrooms, or both.
- (2) Subject to the provisions of this regulation, any protected shaft shall be completely enclosed.
- (3) In this regulation, the words "protecting structure" mean 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.
- (4) Any protecting structure which is required by the provisions of regulation E5 to have a fire resistance of one hour or more, and any beam or column forming part of that structure and any structure carrying such protecting structure shall be constructed of non-combustible materials throughout, with the exception of any external surface finish which complies with the requirements of regulation E14 as to wall surfaces.
- (5)(a) 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 regulations.
- (b) There shall be no opening in any protecting structure other than any one or more of the following—
 - (i) an opening for a pipe,
 - (ii) an opening fitted with a fire-resisting door which complies with the provisions of paragraph (7);

- (iii) (if the protected shaft contains a lift) an opening which complies with the provisions of paragraph (8); and
- (iv) (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.
- (6) Any opening for a pipe shall be effectively fire-stopped.
- (7) Any fire-resisting door fitted in an opening in any protecting structure shall in addition to complying with the provisions of regulation E11 have fire resistance for the following minimum periods—
 - (a) if the protected shaft is in a building of purpose groups 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 the period required by other provisions of this Part 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 1 square foot for each lift in the shaft; and
 - (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 be so constructed with 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.

Fire-resisting doors

- E11.—(1) The provisions of this regulation shall apply to any door which is required to have fire resistance by the provisions of this Part.
- (2) Any door in a wall separating a flat or maisonette from any space in common use giving access to that flat or maisonette and any door between

- a house and a small garage which is required by the provisions of regulation E16(5)(c)(ii) to have fire resistance of not less than half an hour shall—
 - (a) 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; and
 - (b) if exposed to test by fire in accordance with Section 3 of BS 476: Part 1: 1953, satisfy the requirements of that test, when fitted in its frame, as to—
 - (i) freedom from collapse for not less than 30 minutes, and
 - (ii) resistance to passage of flame for not less than 20 minutes, but with no minimum period as to insulation.
- (3) (a) Any door in the structure enclosing a protected shaft which is not required by the provisions of regulation E10(7) to have fire resistance of more than half an hour, and which opens into a hall, lobby or corridor enclosed by walls or partitions having fire resistance of not less than half an hour, may consist of—
 - (i) a single leaf door swinging in one direction only, or
 - (ii) a double leaf door, each leaf of which swings in the opposite direction from the other leaf, or
 - (iii) a single leaf door swinging in both directions, or
 - (iv) a double leaf door, each leaf of which swings in both directions.
- (b) Any such door, or each leaf of any such door, shall, if exposed to test by fire in accordance with Section 3 of BS 476: Part 1: 1953, satisfy the requirements of that test, when fixed in any rebated frame, as to both freedom from collapse and resistance to passage of flame for not less than 30 minutes, but with no minimum period as to insulation.
- (c) As to any such door falling within sub-paragraph (a)(iii) or (iv), the clearance between the leaf or leaves of the door and the frame and (where there are two leaves) between the leaves shall be as small as is reasonably practicable.
- (4) Any door other than those specified in paragraphs (2) and (3) shall, if exposed to test by fire in accordance with the test referred to in those paragraphs, when fitted in its frame, satisfy the requirements of that test as to freedom from collapse and resistance to passage of flame for the relevant period prescribed by any other provision in this Part (but with no minimum period in respect of insulation).
- (5) (a) Any door shall be fitted with an automatic self-closing device either actuated by a fusible link or without such a link:

Provided that no door in an opening in the structure of a protected shaft shall be fitted with an automatic self-closing device actuated by a fusible link unless there is also in the same opening a door which complies with the requirements of paragraph (3) and is fitted with an automatic self-closing device without a fusible link.

(b) For the purposes of this regulation the expression "automatic self-closing device" does not include rising butt hinges, except as to a door to which paragraph (2) applies.

- (6) No door shall be hung on butts of nylon or other plastic material or on butts with bushes of nylon or other plastic material.
- (7) For the purposes of this regulation, if two separate doors (whether single or double leaf doors) are installed in an opening, it shall be sufficient if the required fire resistance is achieved by the two doors together or by either of them separately.

Stairways

- E12. Any stairway or landing of a stairway, other than a stairway which is within—
 - (a) a maisonette, or
 - (b) a building or compartment of which the required fire resistance for elements of structure is less than 1 hour,

shall be constructed of non-combustible materials:

Provided that nothing in this regulation shall have the effect of prohibiting the addition of any combustible material to the upper surface of any such stairway or landing.

Fire-stopping

- E13.—(1) Any fire stop required by the provisions of this Part shall be so formed and positioned as to prevent or retard the passage of flame.
 - (2) Any fire stop shall-
 - (a) if provided around a pipe or duct or in a cavity, be made of non-combustible material or (if it is in a floor or wall constructed of combustible material) of timber not less than 1½ inches thick, and
 - (b) if provided around a pipe or duct, be so constructed as not to restrict essential thermal movement.
- (3) Any fire stop formed as a seal at the junction of two or more elements of structure shall be made of non-combustible material if all such elements are required by this Part to be non-combustible.
 - (4) Any cavity in an element of structure which-
 - (a) is continuous throughout the whole or part of such element, and
 - (b) has a surface of combustible material exposed within the cavity which is of a class lower than Class O in regulation E14,

shall be fire stopped-

- (i) at any junction with another element of structure or with a ceiling under a roof; and
- (ii) in such a position that there is no continuous cavity (without a fire stop) which in one plane exceeds either 25 feet in a single dimension or 250 square feet in area,

but nothing in this paragraph shall prohibit the insertion of combustible filling in a cavity.

Restriction of spread of flame over surfaces of walls and ceilings

E14.—(1) For the purposes of this regulation and its Table, any reference to a surface being of a specified class shall be construed as a requirement

that the material of which the wall, ceiling or soffit is constructed, shall comply with the following provisions—

- (a) where the surface is required to be of Class O, the material shall—
 - (i) be non-combustible throughout; or
 - (ii) comprise a base or background which is non-combustible with the addition of a surface not exceeding $\frac{1}{32}$ inch thick so that the spread of flame rating of the combined product is not lower than Class I in clause 7 of BS 476: Part I: 1953; or
 - (iii) comprise a base or background which is combustible but with any exposed face finished with a layer not less than $\frac{1}{8}$ inch thick of non-combustible material and with the other face not exposed to air:
- (b) where the surface is required to be of a Class other than Class O it shall comply with the relevant test criteria as to surface spread of flame specified in relation to that Class in clause 7 of BS 476: Part I: 1953.
- (2) Subject to the provisions of paragraph (3), the surface of any wall, ceiling or soffit in any room, circulation space or protected shaft shall be of a class not lower than that specified as relevant in the Table to this regulation, according to the purpose group of the building or compartment within which the surface is situated and whether it is in a room, small room, circulation space or protected shaft.
- (3) Nothing in this regulation shall prohibit any part or parts of the surface of the wall of a room being of any class not lower than Class 3 if the total area of such parts does not exceed the lesser of the following—
 - (a) half the floor area of the room, or
 - (b) 200 square feet (in the case of purpose groups I, II or III) or 600 square feet (in the case of purpose groups IV, V, VI, VII, or VIII).
 - (4) For the purposes of this regulation—
 - (a) "circulation space" means any space which is solely used as a means of access between a protected shaft and either a room or an exit from the building or compartment;
 - (b) "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 regulation, according to the purpose group of the building or compartment;
 - (c) "trim" means any architrave, cover mould, picture rail, skirting or similar narrow member;
 - (d) any part of a ceiling or soffit which slopes at an angle of 70 degrees or more to the horizontal, shall be deemed to be a wall;
 - (e) any reference to the surface of a wall, ceiling or soffit shall be construed as a reference to that surface excluding any door, door frame, window, window frame, fireplace surround, mantelshelf, fitted furniture or trim;
 - (f) Class O is to be regarded as the highest class of degree of resistance to spread of flame, followed in descending order by Class 1, Class 2, Class 3 and Class 4.

TABLE TO REGULATION E 14 (Surfaces of walls, ceilings and soffits)

Purpose group of building or compartment		Maximum floor area	Minimum class of surface for both walls, ceilings and soffits (except where separately specified)		
		of small room in square feet	Small rooms (see col. (2))	Rooms other than small rooms	Circulation spaces and protected shafts
(1)		(2)	(3)	(4)	(5)
I	(Small residential)	40	3	(Wall) 1 (Ceiling) 3	(Wall) 1 (Ceiling) 3
II	(Institutional)	40	1	(Wall) 0 (Ceiling) 1	0
Ш	(Other residential)	40	3	1	0
ΪV	(Office)	300	3	î	ŏ
Ÿ	(Shop)	300	3	Î.	ŏ
\mathbf{VI}	(Factory)	300	3	1	0
VII	(Assembly)	300	3 3 3 3 3	1 .	0
VIII	(Storage and general)	300	3	1	0

Roofs

E15.—(1) No part of the roof of a building which—

- (a) has a cubic capacity exceeding 50,000 cubic feet; or
- (b) is wholly or partly of purpose groups VI or VIII; or
- (c) is a house in a continuous terrace of more than two houses, shall be so constructed as to be designated (in accordance with regulation E1(2)) 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 so designated BA, BB or BC, shall be not less than 20 feet from any point on a boundary.
- (3) Any part of a roof which is so designated AD, BD, CA, CB, CC or CD, or is covered with thatch or wood shingles, shall be not less than 40 feet from any point on a boundary unless such part is—
 - (a) of an area not exceeding 30 square feet, and
 - (b) separated from any other part of the same roof which is so designated or covered with thatch or wood shingles by an area of roof which is at least 5 feet wide and which is covered by non-combustible material,

in which case such designated part or part covered with thatch or wood shingles shall be not less than 20 feet from any such point.

- (4) Any part of a roof which is so designated DA, DB, DC or DD shall be—
 - (a) not less than 75 feet from any point on a boundary; and
 - (b) of an area not exceeding 30 square feet; and

- (c) separated from any other part of the same roof which is so designated by an area of roof which is at least 5 feet wide and covered with non-combustible material.
- (5) If any part of a roof cannot be designated under regulation E1(2) on account of the low softening temperature of its covering material, such part shall be not less than 40 feet or twice the height of the building (whichever is the greater) from any point on a boundary, unless such part is—
 - (a) of an area not exceeding 30 square feet; and
 - (b) separated from any other part of the same roof which is covered with the same material or any other material which for the same reason cannot be so designated, by an area of roof which is at least 5 feet wide and covered with non-combustible material,

in which case such part shall be not less than 20 feet from any such point.

Small garages

- **E16.**—(1) The following provisions shall apply to any garage which has a floor area not exceeding 400 square feet.
 - (2) If such garage is a separate building and-
 - (a) is not less than 6 feet from any boundary or any house within the boundary; or
 - (b) (being less than 6 feet from any boundary) complies with the requirements of paragraph (3); or
 - (c) (being less than 6 feet from any house within the boundary) complies with the requirements of paragraph (4);
- it shall not be required to comply with any regulation in this Part except regulation E15 and any other provisions expressly referred to in this regulation.
- (3) Any such garage which is less than 6 feet from any boundary shall be so constructed that any part of an external wall which is less than 6 feet from the boundary is externally non-combustible and the walls of the garage have an internal surface which fulfils the requirements for Class O specified in regulation E14(1)(a).
- (4) Any such garage which is less than 6 feet from any house within the same boundary shall be so constructed that any part of an external wall which is less than 6 feet from such house is externally non-combustible and the walls of the garage have an internal surface which fulfils the requirements for Class O specified in regulation E14(1)(a); but these requirements shall not apply if every part of any external wall of such house which is less than 6 feet from the garage—
 - (a) is externally non-combustible; and
 - (b) has resistance to external fire of not less than half an hour; and
 - (c) has no unprotected area which exceeds 150 square inches or is less than 5 feet from any other unprotected area in that part.
- (5) If a garage to which paragraph (1) 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; and

- (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 4 inches 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 which complies with the requirements of regulation E11.

PART F

THERMAL INSULATION

Application of Part F

F1. 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, sky-light, 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 co-efficient" means the amount of heat in British Thermal Units transferred per hour between each square foot of surface and the surrounding air when there is a difference in temperature of 1 degree Fahrenheit between the surface and the surrounding air;
- "surface resistance" means the reciprocal of the surface heat transfer co-efficient; and
- "thermal transmittance co-efficient" means the number of British Thermal Units transmitted per hour through 1 square foot of the structure when there is a difference in temperature of 1 degree Fahrenheit 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 70 degrees 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 outer 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 0.85, the thermal transmittance co-efficient of the roof, or of the roof in conjunction with any such ceiling, is not more than 0.25.

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 1.00, the thermal transmittance co-efficient of the wall in conjunction with the roof is not more than 0.30.
 - (2) In this regulation, 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 1.00, the thermal transmittance co-efficient of the wall is not more than 0.30.

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 1.00, the thermal transmittance co-efficient of the floor is not more than 0.25.
- (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) of this regulation 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 regulation C3.

Deemed-to-satisfy provisions regarding thermal insulation.

- F7.—(1) The requirements of regulation 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 regulation 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 regulation F5 shall be deemed to be satisfied if the external wall is constructed in accordance with any relevant specification contained in Table C of Schedule 11.
- (4) The requirements of regulation 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

Sound insulation of walls

- G1.—(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 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 from any refuse chute in the same building shall have an average weight (calculated over any portion of the wall measuring 1 yard square and including the weight of any plaster) of not less than 270 lbs. per square foot.
- (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 weight (calculated over any portion of the wall measuring 1 yard square and including the weight of any plaster) of not less than 45 lbs. per square foot.

Deemed-to-satisfy provisions for sound insulation of walls

G2. The requirements of regulation G1(1) shall be deemed to be satisfied if the wall is constructed in accordance with any of the specifications set out in the Table to this regulation.

Table to Regulation G2 (Specifications for walls)

Specification	A. Solid walls
I	A solid wall consisting of bricks or blocks not less than 8 inches thick with plaster not less than ½ inch thick on at least one face and having an average weight (calculated over any portion of the wall measuring one yard square and including the weight of the plaster) of not less than 85 lbs. per square foot.
2	A solid concrete wall consisting of in situ concrete or panels of concrete having all joints solidly grouted in mortar and of which— (a) the average weight (calculated over any portion of the wall measuring one yard square and including the weight of any plaster) is not less than 85 lbs. per square foot; or (b) the concrete is not less than 7 inches thick and— (i) is without plaster on either face and has a density of not less than 145 lbs. per cubic foot; or (ii) is plastered on each face to a thickness of not less than ½ inch, and has a density of not less than 130 lbs. per cubic foot.
3	A solid wall consisting of lightweight concrete plastered on each side to a thickness of not less than ½ inch and of which— (a) the average weight (calculated over any portion of the wall measuring one yard square and including the weight of the plaster) is not less than 85 lbs. per square foot; or (b) the concrete is not less than 12 inches thick and has a density of not less than 75 lbs. per cubic foot.

Specification	B. Cavity walls		
4	A wall having a cavity not less than 2 inches wide constructed of two leaves each consisting of bricks, blocks or dense concrete not less than 4 inches thick with plaster not less than ½ inch thick on both faces of the wall, and having any wall ties of the butterfly wire type, the average weight of the wall (calculated over any portion measuring 1 yard square and including the weight of the plaster) being not less than 85 lbs. per square foot.		
5	A wall having a cavity not less than 3 inches wide constructed of two leaves each consisting of clinker or foamed slag concrete which— (a) is not less than 4 inches thick and has a density of not less than 60 lbs. per cubic foot; or (b) is not less than 3 inches thick and has a density of not less than 80 lbs. per cubic foot, and in either case with plaster not less than ½ inch thick on both faces and having any wall ties of the butterfly wire type.		

Sound insulation of floors

G3.—(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 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 be so constructed as to provide adequate resistance to the transmission of airborne sound.

Deemed-to-satisfy provisions for sound insulation of floors

- **G4.**—(1) In this regulation and in the Table to this regulation the weight of any floor consisting of slabs shall include the weight of any screed or ceiling plaster integral with or directly bonded to the slabs but excluding the weight of any floating floor or suspended ceiling.
 - (2) The requirements of regulation G3 shall be deemed to be satisfied if—
 - (a) in a case to which regulation G3(1) refers, the floor is constructed in accordance with any of the specifications set out in Part I of the Table to this regulation; or
 - (b) in a case to which regulation G3(2) refers, the floor is constructed in accordance with the specification set out in Part II of the Table to this regulation.

Table to Regulation G4 (Specifications for floors)

Part I

Specification	Construction of floor
I	A structural 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 weight (calculated over any portion of the floor measuring 1 yard square) of not less than 75 lbs. per square foot with either of the following laid upon it: (i) rubber on sponge rubber underlay having a total thickness of not less than \(\frac{1}{16} \) inch thick.
2	A structural 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 weight (calculated over any portion of the floor measuring 1 yard square) of not less than 45 lbs. per square foot with any of the following laid upon it— (i) boarding nailed to battens so laid as to float upon a layer of glass fibre or mineral wool quilt, in either case capable of retaining its resilience under imposed loading; (ii) any covering directly applied to concrete or other cementitious screed, not less than 1½ inches thick, so laid as to float upon a layer of glass fibre or mineral wool quilt, in any case capable of retaining its resilience under imposed loading; (iii) rubber on sponge rubber underlay having a total thickness of not less than ½ inch, or cork tiles not less than ½ inch thick, in either case laid upon a dense airtight sealing layer upon lightweight screed, not less than 2 inches thick, of a density of not more than 70 lbs. per cubic foot.
<i>3</i>	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 lath and plaster ceiling, \(\frac{3}{2}\) inch thick, has been constructed with pugging on the ceiling of a weight of not less than 17 lbs. per square foot.
	Part II
4	A structural floor consisting of solid concrete slabs having an average weight (calculated over any portion of the floor measuring 1 yard square) of not less than 75 lbs. per square foot, with any type of floor.

PART H

STAIRWAYS AND BALUSTRADES

Interpretation of Part H

H1.—(1) In this Part—

- "common stairway" means a stairway of steps with straight nosings on plan which is intended for common use within any building, or part of a building, constructed for occupation as separate dwellings by more than one family;
- "notional width" has the meaning ascribed to it in paragraph (2)(c) of this regulation;
- "parallel step" means a step of which the nosing is parallel to the nosing of the step or landing next above it;
- "pitch line" means a notional line drawn from the floor or landing below a stairway to connect the nosings of all the treads in a flight of stairs;
- "private stairway" means a stairway of steps with straight nosings on plan which is—
 - (a) within a building; and
 - (b) intended solely for use in connection with a dwelling occupied by one family only;
- "tapered step" means a step the nosing of which is not parallel to the nosing of the step or landing next above it.
- (2) For the purposes of this Part—
- (a) the going of a step shall be measured on plan between the nosing of its tread and the nosing of the tread of the step or landing next above it; and
- (b) (subject to the provisions of sub-paragraph (c)) the width of a stairway shall be measured between the centre line of the handrail on the one side and on the other side the centre line of the handrail, or, if there is no handrail, the surface of the wall, screen or balustrade facing the stairway or railing;
- (c) if a stairway contains consecutive tapered steps of differing widths, all such tapered steps shall be deemed to have a notional width equal to the width of the narrowest part of those tapered steps, measured from the side of the stairway where the treads are narrower.

Private stairways

- **H2.** Any private stairway shall be so constructed that—
- (a) between consecutive floors there is an equal rise for every step or landing; and
- (b) between consecutive floors there is an equal going for every parallel step; and
- (c) over the whole width or (in the case of tapered steps) the notional width of the stairway there is—
 - (i) headroom of not less than 6 feet 6 inches, measured vertically above the pitch line, and
 - (ii) clearance of not less than 5 feet, measured at right angles to the pitch line; and

- (d) the nosing of the tread of any step or landing which has no riser below it, overlaps on plan the back edge of the tread of the step below it by not less than $\frac{5}{8}$ inch; and
- (e) the sum of the going of a parallel step plus twice its rise is not less than 22½ inches and not more than 25 inches; and
- (f) the rise of a step is not more than 8 inches and the going of a step not less than $8\frac{1}{2}$ inches; and
- (g) the pitch of the stairway is not more than 42 degrees; and
- (h) the stairway contains no tapered steps, except as permitted by regulation H4(2) or (3).

Common stairways

- **H3.** Any common stairway shall be so constructed that—
- (a) it complies with regulation H2(a), (b), (c), (d) and (e); and
- (b) the rise of a step is not more than $7\frac{1}{2}$ inches and the going of a step not less than 9 inches; and
- (c) the pitch of the stairway is not more than 38 degrees; and
- (d) the stairway has not more than 16 rises in any flight; and
- (e) the stairway contains no tapered steps, except as permitted by regulation H4(2).

Tapered steps

- **H4.**—(1) In the application to tapered steps of regulation H2 and H3 by paragraph (2) of this regulation, the going and pitch of tapered steps shall be measured in the vertical planes of the pitch lines connecting the nosings of consecutive steps at a distance of $10\frac{1}{2}$ inches from the extremities of the width (or, where applicable the notional width) of such steps, and the sum of the going plus twice the rise shall be—
 - (a) not less than $22\frac{1}{2}$ inches, and
 - (b) not more than 25 inches (where the angle of taper is 10 degrees or less) or 28 inches (in any other case).
- (2) Any private stairway or common stairway may include tapered steps so constructed that—
 - (a) the greatest and least goings of consecutive tapered steps are uniform; and
 - (b) the width of the nosing of the lowest of any consecutive tapered steps is equal to the width of the nosing of the parallel step or landing next above such tapered steps; and
 - (c) the tapered steps otherwise comply with any relevant requirements of regulation H2 or regulation H3 (as the case may be).
- (3) Any private stairway which is not less than 2 feet 6 inches nor more than 3 feet 3 inches wide may include tapered steps so constructed that—
 - (a) the nosing of the tread of any such step makes a uniform angle on plan of not less than 20 degrees with the nosing of the tread of the step or landing next above it; and
 - (b) any such tapered step—
 - (i) has a going measuring not less than 3 inches throughout its actual width; and
 - (ii) has a rise of not more than 8 inches; and

- (iii) complies with regulation H2(a), (c) and (d); and
- (iv) has its least going uniform with that of any consecutive tapered step; and
- (c) the width of the nosing of the lowest of any consecutive tapered steps is equal to the width of the nosing of the parallel step or landing next above such tapered steps.

Guarding of stairways and landings

- **H5.**—(1) Any private stairway or common stairway shall be guarded on each side by a wall or securely fixed screen, balustrade or railing extending to a height of not less than 2 feet 9 inches measured vertically above the pitch lines
- (2) The side of any landing or similar space forming part of a stairway or directly overlooking a stairwell shall be guarded by a wall or securely fixed screen, balustrade or railing extending to a height above the floor of such landing or space of (in the case of a private stairway) 3 feet or (in the case of a common stairway) 3 feet 6 inches.
- (3) Any flight of steps in a private stairway or common stairway with an aggregate rise of more than 2 feet shall have a continuous handrail fixed securely at a height of not less than 2 feet 9 inches nor more than 3 feet 3 inches measured vertically above the pitch line—
 - (a) on each side of the stairway, if the least width of the stairway is 3 feet 6 inches or more; or
 - (b) on one side of the stairway, in any other case.

Balustrades, parapets and railings on balconies and external areas

H6. Any balcony, platform, roof or other external area to which any person habitually has access from a building for any purpose other than maintenance or repair and which is above the uppermost level of the ground storey of the building, shall have a balustrade, parapet or railing, not less than 3 feet 6 inches in height and of such extent, construction and material as to afford reasonable safety for any person using such balcony, platform, roof or other external area.

PART J REFUSE DISPOSAL

Refuse storage container chambers constructed in buildings comprising more than one dwelling

- **J1.**—(1) This regulation 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 non-combustible material, and any part of a wall or floor which separates the chamber from the building of which it forms part is constructed as if it was a compartment wall or compartment floor within the meaning of Part E having fire resistance of one hour or such fire resistance as is required by regulation E5 (whichever is the greater); and
 - (b) the inner surfaces of the chamber are impervious to moisture; and
 - (c) the floor of the chamber is laid to a fall towards a trapped gulley situated inside or immediately outside the chamber; and

- (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 half an hour as defined in regulation E6; and
 - (ii) for the deposit of refuse in the containers, either a refuse chute which complies with the provisions of regulation J2, or a hopper which complies with the provisions of regulation J4; and
- (e) (where delivery is by way of hopper only) it is ventilated to the external air by means of—
 - (i) a flyproof 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 regulation J3.

Refuse chutes in buildings comprising more than one dwelling

- J2.—(1) This regulation shall apply to any refuse chute constructed for use with a refuse storage container chamber to which regulation 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; and
 - (b) so constructed that the inner surfaces of the chute are impervious to moisture; and
 - (c) so constructed as to prevent the lodgement of any refuse within the chute; and
 - (d) circular in cross-section with an internal diameter of not less than 15 inches; and
 - (e) fitted with adequate means of access for inspection and cleansing; and
 - (f) fitted, for the insertion of refuse, with one or more hoppers which comply with the provisions of regulation J4; and
 - (g) ventilated to the external air by means of a pipe or shaft which complies with the provisions of regulation J3; and
 - (h) fitted at its lower extremity with a shutter capable of closing the outlet of the chute.

Pipes or shafts ventilating refuse storage container chambers or refuse chutes

- J3. Any pipe or shaft ventilating either a refuse storage container chamber to which regulation J1 applies or a refuse chute to which regulation J2 applies shall—
 - (a) comply with the provisions of regulation J2(2)(a); and
 - (b) be not less than 28 square inches in cross-sectional area; and
 - (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.

Hoppers for refuse storage container chambers or refuse chutes

- **J4.**—(1) This regulation shall apply to any hopper constructed for use with a refuse storage container chamber to which regulation J1 applies or with a refuse chute to which regulation J2 applies.
 - (2) Such hopper shall be—
 - (a) situated in a place which is either freely ventilated or has adequate means of mechanical ventilation; and
 - (b) constucted of suitable non-combustible material; and
 - (c) so constructed and installed as-
 - (i) efficiently to discharge any refuse placed in it into the refuse storage container or refuse chute; and
 - (ii) to be 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 the 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

Open space outside windows of habitable rooms

K1.—(1) In this regulation—

- "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;
- "lower window level" means the lowest level of the glass in a window, or 4 feet above the floor of the room containing the window, whichever is higher;
 - "upper window level" means the highest level of the glass in a window;
- "window height" means the height from the lower window level to the upper window level;
- "the wall" means any wall containing a window in respect of which any calculation under this regulation is to be made, and includes—
 - (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" means-
 - (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.
- (2) This regulation 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 windows.
- (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 degrees 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 12 feet, or such distance as may be required by paragraph (7) of this regulation, or (subject to a limit of 50 feet) one half the distance between the upper window level and the top of the wall containing the window, whichever is greatest; and
 - (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; and
 - (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, canal or river adjacent to the building or the land, but only to the centre line thereof; or

- (iii) land which may under regulation 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, canal or river 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 5 feet horizontally in front of the inner plane; or
 - (d) any projection above the upper window level extending not more than 5 feet horizontally in front of the inner plane.
- (7) If any projection permitted by paragraph (6)(d) extends more than 2 feet 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 2 feet 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).

Shared land on housing estates

- **K2.** For the purposes of regulation K1(5)(b) (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
 - (b) buildings containing habitable rooms are erected or intended to be erected on the land, and
- (c) 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.

Preservation of zones of open space

K3.—(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 regulation K1, or (if that zone already contravenes those provisions) to cause the zone to contravene the provisions to any greater extent:

Provided that a private dwellinghouse erected under former control may be altered or extended at the rear by the addition of a kitchen, scullery, washhouse, water closet or bathroom, if there is an area of open space of not less than 100 square feet 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 after having been burnt down or pulled down to the extent described in regulation A2(2)(a) or (b), the area of open space at ground level adjacent to and exclusively belonging to the building as re-erected 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 regulation 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 (whether under former control or not) as a private dwellinghouse and has been appropriated to other purposes, nothing in this Part shall prohibit its use as a private dwellinghouse 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.

Means of ventilation

- K4.—(1) For the purposes of this regulation and of regulation K5—
- "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;
- "ventilation opening" means any part of any window which is capable of being opened 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 5 feet 9 inches 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 15 square inches 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 15 square inches, 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 regulation

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).

Ventilation openings on to courts

- K5.—(1) For the purposes of this regulation, the expression "top of the wall" has the meaning specified in regulation K1(1).
- (2) No ventilation opening constructed in compliance with the requirements of regulation 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) 50 feet or more; or
 - (b) not less than half 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 regulation 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) 50 feet or more; or
 - (ii) not less than half the vertical distance between the top of such opening and the top of the wall containing the opening.

Ventilation of larders

- **K6.**—(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 130 square inches is capable of being opened.
 - (3) Any such ventilator shall be-
 - (a) fitted with a durable fly-proof screen; and
 - (b) so constructed as to permit (when open) the passage of air through an opening having an unobstructed area of not less than 7 square inches; and

(c) either situated in an external wall of the building or separately connected with the external air by a duct not less than 25 square inches in cross-sectional area and having a smooth internal surface.

Ventilation of common stairways

- K7. Any part of a stairway which is—
- (a) intended for common use within any building constructed for occupation as separate dwellings by more than one family; and
- (b) above the ground storey; and
- (c) not open to the external air, shall have adequate means of ventilation.

Height of habitable rooms

K8.—(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 7 feet 6 inches:

Provided that, if such room is wholly or partly in the roof of the building, its height shall be not less than 7 feet 6 inches 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 5 feet above the floor.

- (2) The height of such room, measured beneath any beam in that room, and the clear head-room in any bay window in such room, shall be not less than 6 feet 6 inches.
- (3) For the purposes of this regulation, 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

Application and interpretation of Part L

L1.—(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;

but does not include any appliance consuming electricity or any electrical incinerator;

"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;
- "constructional hearth" means a hearth forming part of the structure of a building;
 - "Class I appliance" means-
 - (a) a solid fuel appliance or oil-burning appliance having, in either case, an output rating not exceeding 150,000 British Thermal Units per hour; or
 - (b) an incinerator having a refuse combustion chamber exceeding 1 cubic foot but not exceeding 3 cubic feet in capacity,
- and "Class I" shall be construed accordingly;
 - "Class II appliance" means-
 - (a) a gas appliance having an input rating not exceeding 150,000 British Thermal Units per hour; or
 - (b) an incinerator having a refuse combustion chamber not exceeding 1 cubic foot in capacity,
- and "Class II" shall be construed accordingly;
 - "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;
 - "high-rating appliance" means-
 - (a) a solid-fuel appliance or oil-burning appliance having, in either case, an output rating exceeding 150,000 British Thermal Units per hour: or
 - (b) a gas appliance having an input rating exceeding 150,000 British Thermal Units per hour; or
 - (c) an incinerator having a refuse combustion chamber exceeding 3 cubic feet in capacity,
- and "high-rating" shall be construed accordingly;
 - "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;

- "superimposed hearth" means a hearth not forming a part of the structure of a building.
- (2) (a) Regulation L2(1)(a) shall apply to the construction of any chimney which is a separate building, and the outlet of any flue in such a chimney 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) No other provision of this Part shall apply to the construction of any chimney which is a separate building.
- (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.

General structural requirements

- L2.—(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 regulation 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 regulation L4(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; and
 - (b) be properly supported; and
 - (c) discharge either into a chimney or into the external air.

- (4) The outlet of any flue in a building which is used wholly for one or more of the following purposes, that is to say, as a residence or residences, a shop or shops or an office or offices shall—
 - (a) if it serves a high-rating appliance, 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; or
 - (b) if it serves a Class I or Class II appliance, comply with the requirements of regulation L13 or regulation L21 (as the case may be).

Fireplace recesses for Class I appliances

- L3.—(1) Any fireplace recess serving a Class I appliance shall have a constructional hearth which complies with the requirements of regulation 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 8 inches thick; and
 - (b) the back of the recess is a solid wall not less than 8 inches thick or a cavity wall each leaf of which is not less than 4 inches thick; and
 - (c) any such thickness extends for the full height of the recess:

Provided that-

- (i) if the recess is situated in 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 8 inches thick but not less than 4 inches 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 8 inches but not less than 4 inches thick.
- (3) For the purposes of paragraph (2) of this regulation, 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.

Constructional hearths for Class I appliances

- L4.—(1) Any constructional hearth serving a Class I appliance shall—
- (a) be not less than 5 inches thick; and
- (b) (if it adjoins a floor constructed wholly or partly of combustible material, or if combustible material is laid on the hearth as a con-

tinuation of the finish of the adjoining floor in accordance with the provisions of paragraph (2) of this regulation) be so constructed that any part of the exposed surface of the hearth, which is not more than 6 inches, measured horizontally, from the said floor or combustible material, is not lower than the surface of the floor and not lower that 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; and
 - (ii) project not less than 20 inches in front of the jambs; and
 - (iii) extend outside the recess to a distance of not less than 6 inches 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 2 feet 9 inches.
- (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 regulation M4 (3); or
 - (b) (if the appliance is installed upon or over a superimposed hearth which complies with the requirements of regulation M4 (2)(c)) would extend under the superimposed hearth to a distance of more than 1 inch or be nearer to the base of the appliance when installed than 6 inches, 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 10 inches, 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 2 inches.
 - (4) Nothing in this regulation 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 2 inches thick; and
 - (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) of this paragraph, 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; and
 - (iii) no combustible material is built into a wall below or beside the pit within 9 inches 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 2 inches; 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 adjoining 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.

Walls and partitions adjoining hearths for Class I appliances

L5. Subject to the requirements of regulation M4(6), 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 regulation L3, adjoins, or is within 6 inches of, a constructional hearth serving a Class I appliance, that part shall be constructed to a height of not less than 4 feet above the upper surface of the hearth of solid non-combustible material not less than 3 inches thick.

Chimneys for Class I appliances

- L6.—(1) Any chimney serving a Class I appliance shall be either—
- (a) lined with any one of the following, namely:—
 - (i) rebated or socketed clay flue linings complying with BS 1181:1961;
 - (ii) rebated or socketed flue linings made from kiln-burnt aggregate and high alumina cement;
 - (iii) glazed vitrified clay pipes and fittings complying with BS 65:1963;
 - (iv) glass (vitreous) enamelled salt-glazed fireclay pipes and fittings complying with BS 540: 1964;
- (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.
- (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 4 inches 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 8 inches thick or a cavity wall, each leaf of which is not less than 4 inches thick; and for the purposes of this sub-paragraph, 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) of this regulation, and there is a distance of not less than $5\frac{1}{2}$ inches 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 4 inches thick but not less than $2\frac{5}{8}$ inches 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 7 inches:

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 close-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 45 degrees.
- (7) Nothing in this regulation shall apply to any part of a flue in a chimney pot or other flue terminal.

Flue pipes for Class I appliances

L7.—(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 regulation 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 regulation 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.

- Deemed-to-satisfy provisions regarding materials for the construction of flue pipes for Class I appliances
- **L8.** A flue pipe serving a Class I appliance shall be deemed to satisfy such requirements of regulation 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: 1964 or of mild steel not less than $\frac{1}{16}$ inch 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 6 feet 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 BS 835: 1959; 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 more than 1 foot 6 inches long and is made of sheet steel having a thickness of not less than 18 Standard Wire Gauge.
- Deemed-to-satisfy provisions regarding placing and shielding of flue pipes for Class I appliances.
- **L9.**—(1) A flue pipe serving a Class I appliance shall be deemed to satisfy such requirements of regulation L2 (1)(a)(ii) as relate to its placing or shielding if it complies with the relevant provisions of this regulation.
- (2) If the flue pipe passes through a roof or external wall otherwise than for the purpose of discharging in the manner described in regulation 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 8 inches 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 8 inches thick (if the combustible material is below or beside the pipe), or not less than 12 inches 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 6 inches beyond any combustible material forming part of the roof or wall; and
 - (ii) has between the sleeve and the pipe a space of not less than I inch 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 the roof or wall) is so fitted that such material is not less than 1 inch from the 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 $7\frac{1}{2}$ inches 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 $4\frac{1}{2}$ inches 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, if 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 $\frac{1}{2}$ inch 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 $\frac{1}{2}$ inch 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 floor, roof or ceiling 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 two-and-a-half times the external diameter of the pipe.

Proximity of combustible material—Class I appliances

- L10.—(1) Subject to paragraphs (2) and (3) of this regulation, 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 6 inches (in the case of a wooden plug) or 8 inches (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 8 inches thick (if such

material is beside or below the pipe) or not less than 12 inches 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 8 inches thick.
- (4) Where the thickness of solid non-combustible material surrounding a flue in a chimney serving a Class I appliance is less than 8 inches, no combustible material, other than a floor-board, skirting board, dado rail, picture rail, mantle shelf or architrave, shall be so placed as to be nearer than 1½ inches 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 2 inches 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.

Openings into flues for Class I appliances

- L11. 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 close-fitting cover of non-combustible material; or
 - (b) an air inlet which is in the same room or internal space as the 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 noncombustible material.

Flues communicating with more than one room or internal space—Class I appliances

L12. 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 regulation shall prohibit—

- (i) the installation of a back-to-back grate; or
- (ii) the installation of two or more gas-fired incinerators in accordance with the requirements of regulation M6(2); or
- (iii) the making of an opening which complies with the description contained in regulation 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.

Outlets of flues for Class I appliances

- L13. 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) 3 feet 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 10 degrees with the horizontal, and the chimney or flue pipe passes through the roof at or within 2 feet of the ridge, the top of the chimney or flue pipe (exclusive of any chimney pot or other flue terminal) may be less than 3 feet but not less than 2 feet above the ridge; and

- (b) 3 feet 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 7 feet 6 inches, measured horizontally, from the top of the chimney or flue pipe; and
- (c) 3 feet above the top of any part of a building (other than a roof, parapet wall or another chimney or flue pipe) which is not more than 7 feet 6 inches, measured horizontally, from the top of the chimney or flue pipe.

Chimneys for Class II appliances

- **L14.**—(1) Any chimney serving a Class II appliance, not being an appliance ventilation duct, shall be either—
 - (a) lined with any one of the following, namely—
 - (i) acid-resistant tiles embedded in, and pointed with, high alumina cement mortar; or
 - (ii) pipes which comply with either specification (a) or specification (b) of regulation L16; 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; and

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- (ii) the appliance served by the flue is of a type described in column (2) of the Table to this regulation; 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 1 inch thick:

Provided that where two or more flue pipes are encased in a duct, nothing in this regulation shall require such flue pipes to be so separated.

- (3) No fastening, other than a non-combustible support to a flue liner, shall be built into, or placed in, any chimney serving a Class II appliance (including an appliance ventilation duct) within 1 inch of any flue.
- (4) Nothing in this regulation shall apply to any part of a flue in a chimney pot or other flue terminal.

TABLE TO REGULATION L14 (Maximum length of certain flues)

(1)	(2)	(3)	(4)	
		Maximum length of flue in feet		
Situation of flue	Type of appliance	If flue is circular or square, or is rectangular and has the major dimension not exceeding three times the minor dimension	If flue is rectangular and has the major dimension exceeding three times but not exceeding five times the minor dimension	
(a) Flue formed by a	Gas fire	70	40	
chimney or flue pipe which is internally situated (that is to say, otherwise than as (b) below)	Heater installed in drying cabinet or airing cupboard; or instantaneous water heater	40	(not permitted)	
	Air-heater or continuously burning water heater	20	(not permitted)	
(b) Flue formed by a chimney having one	Gas fire	35	20	
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	20	(not permitted)	

Flue pipes for Class II appliances

L15. 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.

Deemed-to-satisfy provisions regarding materials for the construction of flue pipes for Class II appliances

- **L16.** A flue pipe serving a Class II appliance shall be deemed to satisfy such requirements of regulation L2(1)(a) as relate to the nature, quality and thickness of its materials if it complies with any of the following specifications:
 - (a) glazed vitrified clay pipes and fittings which comply with BS 65:1963 and are jointed and pointed with high alumina cement mortar;
 - (b) glass (vitreous) enamelled salt-glazed fireclay pipes and fittings which comply with BS 540: 1964 and are jointed and pointed with high alumina cement mortar:

- (c) cast iron spigot and socket flue pipes and fittings which comply with BS 41:1964 and are coated on the inside with acid-resistant vitreous enamel and jointed with an acid-resistant compound;
- (d) sheet-steel flue pipes and fittings which comply with BS 715: 1962 and are coated on the inside with acid-resistant vitreous enamel;
- (e) stainless steel pipes and fittings;
- (f) asbestos-cement flue pipes and fittings which—
 - (i) comply with BS 835: 1959 or (except where they form a flue serving an incinerator) BS 567: 1963; and
 - (ii) (unless the flue serves one appliance only, and that appliance is of a type specified in column (2) of the Table to regulation 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.

Deemed-to-satisfy provisions regarding placing and shielding of flue pipes for Class II appliances

- **L17.**—(1) A flue pipe serving a Class II appliance shall be deemed to satisfy such requirements of regulation L2(1)(a)(ii) as relate to its placing and shielding if—
 - (a) no part of the flue pipe is less than 2 inches 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 1 inch.
- (2) If a flue pipe serving a Class II appliance is situated other than in the room or internal space in which the appliance is installed, or an enclosed space to which no person has access, such pipe shall be deemed to satisfy such requirements of regulation L2(3)(a) as relate to the placing and shielding of a pipe within a building, if such pipe is encased, either separately or together with one or more other flue pipes serving Class II appliances, in a duct which—
 - (a) is constructed of solid non-combustible material not less than 1 inch thick; and
 - (b) has no opening made into it other than an opening made for the purpose of access to the space within the duct and fitted with a gas-tight cover of non-combustible material; and
 - (c) has no combustible material built into it or enclosed within it.

Sizes of flues for Class II appliances

- L18.—(1) The measurements in cross-section of a flue serving a Class II appliance shall be such that—
 - (a) no dimension is less than $2\frac{1}{2}$ inches; 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) five times the minor dimension, if the flue serves only one appliance; or
- (ii) 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 space-heating appliance shall be not less than 20 square inches and the area of the aperture in any local restrictor unit in the flue shall be not less than 10 square inches.
- (3) The cross-sectional area of a flue serving one Class II appliance other than a space-heating appliance 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 appliances 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 regulation, according to the combined input rating of the appliances.
- (5) Subject to the requirements of regulation M9 (d) (iv), the nominal crosssectional area of a main flue serving two or more Class II appliances installed in different storeys of a building shall be not less than 64 square inches.
- (6) The cross-sectional area of a flue in an appliance ventilation duct shall be such as will ensure that the requirements of regulation M9 (b) (iii) are satisfied.

TABLE TO REGULATION L18

(Minimum cross-sectional area of a flue serving two Class II appliances installed in the same room or internal space)

Combined input rating of appliances in B.Th.U. per hour		Minimum cross-sectional area of flue in square inches (3)
(1) Exceeding	(2) Not exceeding	
45,000 60,000 100,000 120,000	45,000 60,000 100,000 120,000 150,000	6 9 11 14 18

Openings into flues for Class II appliances

- L19. 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 gastight 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.

Flues communicating with more than one room or internal space—Class II appliances

- **L20.**—(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 regulation M9; or
 - (b) a flue constructed to serve two or more Class II incinerators installed in accordance with regulation M10:

Provided that nothing in this paragraph shall prohibit the making of an opening as described in regulation 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; and
 - (b) it is without offsets; and
 - (c) it is not inclined at an angle greater than 10 degrees from the vertical;
 - (d) each appliance discharges into it by way of a subsidiary flue complying with paragraph (3) of this regulation.
- (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 4 feet above the outlet of the appliance which it serves; and
 - (b) make an angle of not less than 45 degrees 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.

Outlets of flues for Class II appliances

- L21.—(1) The outlet of any flue serving a Class II appliance shall be—
- (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; and
- (b) so situated that a current of air may pass freely across it at all times;
- (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 2 feet from any opening; or
- (ii) (if the appliance is an incinerator) no part of the outlet is less than 3 feet above the top of any opening if such opening is less than 7 feet 6 inches, 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 20 feet 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) 2 feet above the roof;
 - (ii) 2 feet above any parapet which is within 5 feet, measured horizontally, of the outlet;
 - (iii) the level of the top of any other part of the structure which is within 5 feet, measured horizontally, of the outlet;
 - (iv) a level corresponding to the height of any part of the structure which is at a distance exceeding 5 feet, measured horizontally, from the outlet reduced by one third of the difference between such distance and 5 feet.

WORKS AND FITTINGS

PART M

HEAT-PRODUCING APPLIANCES AND INCINERATORS

Interpretation of Part M

M1. The provisions of regulation L1(1) shall apply for the interpretation of this Part.

Prevention of emission of smoke—(Clean Air)

M2. 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:

Provided that nothing in this regulation shall prohibit the installation of—

(i) a furnace which complies with Section 3 of the Clean Air Act 1956; or

- (ii) an appliance of a class exempted conditionally or unconditionally from the provisions of Section 11 of the Clean Air Act 1956 (which relates to smoke control areas) by any order for the time being in force under subsection (4) of that section; or
- (iii) a solid fuel appliance with a bottom grate unsuitable for burning coke or anthracite but designed so as to be capable of use with an alternative bottom grate which is suitable for burning such fuel.

High-rating appliances

- M3. No high-rating appliance shall be installed in a building unless—
- (a) it discharges into a flue; and
- (b) (if the building is used wholly for any of the purposes specified in regulation L2(4)) the outlet of the flue is so situated as to comply with the requirements of regulation L2(4)(a); and
- (c) any chimney, flue pipe, fireplace recess or constructional hearth which serves it, complies with the relevant requirements of regulation L2(1), (2) and (3); and
- (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.

Class I appliances

- M4.—(1) No Class 1 appliance shall be installed in a building unless the installation complies with the following provisions of this regulation.
 - (2) 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 provisions of Part L, other than regulations L4(1)(c) (ii) or L4(1)(d); or
 - (c) a superimposed hearth constructed of non-combustible materials, not less than $1\frac{7}{8}$ inches thick and placed wholly or partly upon a constructional hearth which complies with either sub-paragraph (a) or sub-paragraph (b) of this paragraph (as the case may be).
- (3) 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, 12 inches (if the appliance is an open fire or a stove which can, when opened, be operated as an open fire) or 9 inches (in any other case); and
 - (b) at the back and sides, 6 inches, or (if the hearth extends to a wall or partition) such smaller distance as will not contravene the requirements of paragraph (6).

- (4) If the appliance is installed upon or over a superimposed hearth, the appliance shall be so placed that—
 - (a) it is wholly over the constructional hearth beneath that superimposed hearth; and
 - (b) no part of the base of the appliance is within 6 inches, measured horizontally, of 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 (3) of this regulation.
- (5) If the appliance is not a free-standing appliance and is placed on 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.
- (6) The appliance shall be so placed that no part of its back or sides is within 6 inches, measured horizontally, of 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 part of the wall or partition which is situated between the floor and the level of 12 inches above the top of the appliance is—
 - (a) constructed of solid non-combustible material; and
 - (b) not less than 8 inches thick (if the wall or partition is less than 2 inches from the appliance) or 3 inches thick (in any other case).
- (7) Any part of the building (other than a wall or partition to which the provisions of paragraph (6) relate) which is in proximity to the appliance and above the level of the adjoining floor and is constructed of combustible materials, shall be so situated or protected as to ensure that it will not be ignited by heat from the appliance.
- (8) Subject to the exception in respect of oil-burning appliances contained in regulation M5, 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 regulation L6; or
 - (c) a flue in a flue-pipe which complies with the relevant provisions of Part L.
- (9) Subject to the exception in respect of incinerators contained in regulation 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; and
- (b) each appliance is a closed slow-burning appliance; and

- (c) the aggregate rating of the appliances does not exceed 150,000 British Thermal Units per hour; and
- (d) the cross-sectional area of the flue is not less than the area of the larger of the flue connections.

Exceptions permitting discharge of Class I oil-burning appliances otherwise than in accordance with regulation M4(8)

M5. Notwithstanding anything contained in regulation M4(8), a Class I oil-burning appliance may discharge into the room or internal space in which it is installed, if the appliance is designed to operate without being connected to a flue and has an output rating not exceeding 10,000 British Thermal Units per hour.

Additional provisions and exception for Class I incinerators

- M6.—(1) No Class I 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 regulation M4(9), 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; and
 - (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.

Class II appliances

- M7.—(1) No Class II appliance shall be installed in a building unless the installation complies with the following provisions of this regulation.
- (2) Below the appliance there shall be a hearth constructed of non-combustible material not less than $\frac{1}{2}$ inch thick which—
 - (a) extends not less than 6 inches beyond the back and sides of the appliance or, if there is a wall within 6 inches from the appliance, up to that wall; and
 - (b) extends forward not less than 9 inches, 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 9 inches above the floor; or
- (ii) satisfies the test requirements specified in clause 14 of BS1250: Part I: 1962.
- (3) 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 1 inch thick or by an air space of not less than 3 inches:

Provided that this paragraph shall not apply if the appliance satisfies the test requirements specified in clause 14 of BS1250: Part I: 1962.

- (4) Subject to the exceptions in respect of gas appliances contained in regulation M8 the appliance shall discharge into either—
 - (a) a flue in a chimney or appliance ventilation duct 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 and conforming with the relevant provisions of Part L relating to Class I appliances (excluding regulation L6) or by the relevant provisions of Part L relating to Class II appliances (excluding regulation L14); or
 - (c) a flue in a flue-pipe which complies with the relevant provisions of Part L relating to Class II appliances.
- (5) Subject to the exceptions contained in regulation M9 (in the case of a Class II gas appliance) or regulation M10 (in the case of a Class II incinerator), the flue into which the appliance discharges shall serve no other appliance.

Exceptions permitting discharge of Class II gas appliances otherwise than into a flue

- M8.—(1) Notwithstanding anything contained in regulation M7(4)—
- (a) a gas cooker may be installed so as to discharge into the room in which it is situated;
- (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; and
 - (ii) where the outlet is wholly or partly beneath any opening (that is to say, any part of a window capable of being opened or any ventilator, inlet to a ventilation system or similar opening), no part of the outlet is within 1 foot, measured vertically, of the bottom of that opening; and
 - (iii) where the outlet of the appliance is less than 6 feet 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 crosssectional area of not less than 20 square inches and complies with the provisions of Part L relating to flues serving Class II appliances; 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 6,000 British Thermal Units per hour 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) of this regulation;

- (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 means of ventilation which comply with the requirements of paragraph (2) of this regulation and the appliance complies with any one of the following specifications—
 - (i) an instantaneous water heater having an input rating not exceeding 40,000 British Thermal Units per hour; or
 - (ii) a storage water heater having an input rating not exceeding 10,000 British Thermal Units per hour or, if the storage capacity does not exceed 10 gallons, having an input rating not exceeding 15,000 British Thermal Units per hour; or
 - (iii) a wash-boiler or washing-machine having an input rating not exceeding 20,000 British Thermal Units per hour; 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 10,000 British Thermal units per hour:

Provided that no water heating appliance other than a room-sealed appliance shall be installed in a room for the purpose of supplying hot water to a bath fitted in that room, unless the capacity of the room exceeds 200 cubic feet and the input rating of the appliance does not exceed 500 British Thermal Units per hour per 100 cubic feet of space in that room;

- (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) of this regulation and the input rating of the appliance does not exceed—
 - (i) (if the appliance is installed in a room) 500 British Thermal Units per hour per 100 cubic feet of space in that room; or
 - (ii) (if the appliance is installed in an internal space other than a room) 1,000 British Thermal Units per hour per 100 cubic feet 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 aggregate 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) of this regulation 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 window capable of being opened; and
 - (b) if the capacity of the room or space is within the limits specified in column (2) of the Table to this regulation, 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 Regulation M8
(Minimum unobstructed area of permanent vent)

(1)	(2)	(3)
Type of appliance	Capacity of room or internal space in which the appliance is installed, in cubic feet	Minimum unobstructed area of vent, in square inches
Instantaneous water heating appliance	Exceeding 200 but not exceeding 400	5
Any other water besting	Exceeding 200 but not exceeding 400	15
Any other water heating appliance	Exceeding 400 but not exceeding 750	5
Space heating appliance; or heater installed in drying cabinet or airing cupboard	Not exceeding 2,000	15 (if vent opens directly to external air) or 30 (in any other case)
	Exceeding 2,000	As above, but increased by 5 and 10 respectively for every 4,000 B.Th.U. per hour or part thereof by which the input rating of the appliance exceeds 10,000 B.Th.U. per hour

Exceptions permitting discharge from two or more Class II gas appliances into the same flue

- M9. Notwithstanding anything contained in regulation M7(5)—
- (a) two or more Class II gas appliances 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 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 appliance ventilation duct if—
 - (i) the duct complies with the relevant provisions of Part L; and
 - (ii) any appliance having an input rating exceeding 25,000 British Thermal Units per hour 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 per cent. 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; and
 - (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
 - (iv) each appliance is fitted with a flame-failure device;
- (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 windows or parts of windows having a similar aspect, are the same as in each other such room or internal space; and
 - (ii) the flue is a main flue which complies with the relevant provisions of Part L; and
 - (iii) each appliance discharges into the main flue by way of a subsidiary flue which complies with the relevant provisions of Part L; and
 - (iv) all appliances are of the same type, being any one of the types specified in the Table to this regulation, and the number and aggregate 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 Regulation M9
(Class II gas appliances discharging by way of subsidiary flues into a main flue)

	Nominal cross-sectional area of main flue				
Type of appliance	Not less than less than inc	96 square	96 or more square inches		
(1)	Maximum number of appliances (2)	Total rating in B.Th.U. (3)	Maximum number of appliances (4)	Total rating in B.Th.U. (5)	
Convector fire with controlled flue flow, having a maximum rate of flow of 2,500 cubic feet per hour	5	100,000	7	150,000	
Instantaneous water heater	10	1,000,000	10	1,500,000	
Storage water heater, central heating unit or air heater	10	400,000	10	600,000	

Additional provisions and exceptions for Class II incinerators

- M10.—(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 M7(5), a Class II 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; and
 - (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) each incinerator is fitted with a flame-failure device.

PART N

DRAINAGE, PRIVATE SEWERS AND CESSPOOLS

Application of Part N

- N1.—(1) Regulations N10 to N16 shall apply to any part of a drainage system intended for use in connection with a building, where 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) Regulations N4 to N9 shall apply to any part of the drainage system of a building other than a part to which paragraph (1) of this regulation applies.
- (3) This Part shall not apply to any drain used solely for the conveyance of sub-soil water.

Interpretation of Part N

N2.—(1) In this Part—

- "inspection 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 pipe) 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, and any reference to the internal diameter of a pipe shall be taken as a reference to its nominal diameter or size.

Water seals in traps

N3. 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.

Soil pipes, waste pipes and ventilating pipes

- N4.—(1) Subject to paragraphs (2) and (3) of this regulation, 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) of this regulation, the internal diameter of a soil pipe shall be not less than—
 - (a) 2 inches, if it exclusively serves one or more urinals; or
 - (b) 3 inches, in any other case.
- (3) Without prejudice to the generality of paragraph (1) of this regulation, the internal diameter of a waste pipe shall be not less than $1\frac{1}{4}$ inches, 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; and
 - (ii) not cause electrolytic corrosion due to the association of dissimilar materials; and
 - (iii) not form any obstruction in the interior of the pipe: and
 - (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; and

- (d) be adequately supported throughout its length without restraining thermal movement, any fitting which gives such support being securely attached to the building; and
- (e) be so constructed as to be capable of withstanding a smoke or air test for a minimum period of 3 minutes at a pressure equivalent to a head of not less than 1½ inches of water; and
- (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.

Further requirements for soil pipes and waste pipes

N5.—(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;
- (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 where 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 15 feet in length; and
 - (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) No soil pipe or waste pipe shall be placed outside the external walls of a building not under former control:

Provided that this paragraph shall not apply to any waste pipe from a waste appliance situated in any part of a building the floor of which part is at or about the level of the adjoining ground, if that waste pipe discharges into a trap which 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 in such a way as not to cause dampness in any building.

Overflow pipes

- N6. 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 regulation N5, or
- (b) otherwise so discharge as not to cause dampness in, or damage to, any part of any building.

Further requirements for ventilating pipes

- N7. 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.

Rainwater gutters

- N8. Any gutter which is on a building and intended for collecting rainwater shall be—
 - (a) of adequate size for its purpose; and
 - (b) composed of suitable materials of adequate strength and durability; and
 - (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; and
 - (e) jointed in a manner appropriate to the material or materials of which it is composed so as to remain watertight; and
 - (f) fitted with an adequate outlet or outlets so placed as to drain the whole length of the gutter.

Rainwater pipes

- N9.—(1) Any rainwater pipe which is situated outside a building shall be—
- (a) of adequate size for its purpose; and
- (b) composed of suitable materials of adequate strength and durability; and
- (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) so constructed that it complies with the requirements of regulation N4(4); and
- (b) of adequate size for its purpose.
- (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.

Materials and construction of drains and private sewers

- N10.—(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 subjected, and (where necessary) protected against injury; and
- (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 sub-soil water through which it passes; and
- (c) have all joints formed in such a manner—
 - (i) as is appropriate to the materials of which such drain or sewer is made; and
 - (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; and
- (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 4 inches 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 3 inches 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.

Tests for drains and private sewers

N11. 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.

Means of access to drains and private sewers

- N12.—(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 40 feet 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 40 feet 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 150 feet (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) of this regulation, 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 sub-soil water, and
- (iii) be watertight; and
- (b) be of such size and form as to permit ready access to the drain or private sewer for inspection, cleansing and rodding; and
- (c) have a removable and non-ventilating cover of adequate strength, constructed of suitable and durable material; and
- (d) where the depth of the inspection chamber so requires, have such stepirons, 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 drainage system at any point below the inspection chamber; and
 - (b) fitted with a removable and non-ventilating cover of adequate 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.

Inlets to drains to be trapped

N13. 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 2 inches in depth:

Provided that this regulation 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 2 inches in depth, from any drain or sewer used for the conveyance of water contaminated by soil water, waste water, or trade effluent.

Trenches for drains and private sewers

- N14.—(1) Where any drain or private sewer is constructed adjacent to a load-bearing 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 6 inches:

Provided that, where the trench is within 3 feet 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 filling exceeds 30 feet.

Drains or private sewers passing through or under walls or under buildings N15. 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.

Junctions

- N16.—(1) Any connection between—
- (a) a branch drain and any 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.

Cesspools, septic tanks and similar structures

- N17.—(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 sub-soil 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; and
 - (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; and
 - (b) properly covered so as to be impervious to surface water and rainwater; and
 - (c) fitted with a suitable manhole cover for the purposes of inspection (including inspection of the inlet), emptying and cleansing; and
 - (d) adequately ventilated; and
 - (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 4,000 gallons.

- (3) Any settlement tank or septic tank shall be-
- (a) of suitable depth; and
- (b) of adequate size, having in no case a capacity of less than 600 gallons; and
- (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

Waterclosets

- P1.—(1) This regulation shall apply to any water closet 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.

Urinals

- **P2.**—(1) This regulation 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; and
 - (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.

Sanitary accommodation

P3.—(1) In this regulation, "sanitary accommodation" means a room or space constructed for use in connection with a building and 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, then this regulation 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 which 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, but this paragraph shall not apply if—
 - (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 dwellinghouse) 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 change of air per hour and discharges directly into the external air.

Earthclosets

- **P4.**—(1) This regulation 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, 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 3 inches above the surface of the adjoining ground and have a fall or inclination towards the entrance door of not less than $\frac{1}{2}$ inch to 1 foot.
- (6) The receptacle shall be of non-absorbent material so contructed 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.

PART Q

ASHPITS, WELLS, TANKS AND CISTERNS

Ashpits used in connection with buildings

- Q1. (1) This regulation shall apply to any ashpit constructed for use in connection with a building.
 - (2) Such ashpit shall be-
 - (a) sited at a distance of not less than 10 feet from any building in which any person resides or is employed in any manufacture, trade or business, or to which the public has access; and
 - (b) situated in such a way 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; and
 - (c) constructed in such a way as to be fully enclosed and weatherproof and also proof, so far as possible, against insects and rodents; and
 - (d) fitted with a door in such a position as not to allow the escape of the contents; and
 - (e) adequately ventilated; and
 - (f) (if it serves a building consisting of one dwelling only) of a capacity of not more than 20 cubic feet.
- (3) There shall be ready means of access for cleansing the ashpit and, if practicable, for 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.
- (4) The floor of the ashpit shall be not less than 3 inches above the surface of the adjoining ground, and shall be made of flagstones, concrete or other suitable material.
 - (5) The walls of the ashpit shall be constructed of-
 - (a) hard smooth brickwork, not less than 4 inches thick, in cement mortar;
 - (b) common brickwork, not less than 8 inches thick, rendered on the inside with cement and sand in suitable proportions; or
 - (c) other suitable and impervious materials of sufficient thickness.
 - (6) No part of the interior of the ashpit shall have outlet to a drain.

Wells supplying water for human consumption

- **Q2.**—(1) This regulation shall apply to any well constructed for use in connection with a building and intended to supply water for human consumption.
- (2) The ground adjoining such well shall, for a distance of not less than 4 feet in every direction, be covered with impervious paving (in this regulation referred to as "the paving") constructed so as to slope away from the well.
- (3) Such well shall be so situated as not to be liable to pollution from any source, and the sides of the well shall be rendered impervious for such a depth as to prevent contamination through the adjoining ground.
- (4) If such well is a dug well, it shall be so constructed as to be readily accessible for cleansing and the top of the well shall be surrounded by a curb extending not less than 6 inches above the level of the paving and so constructed as to prevent the entry of surface water.
- (5) If such well is a bored well, its lining tube shall project not less than 6 inches above the level of the paving and such projection shall be surrounded with concrete not less than 6 inches thick, or with other adequate means of protection, for its full height.
 - (6) Any such well from which water is drawn by a bucket shall have—
 - (a) a hinged cover which will effectively close the well when not in use; and
 - (b) a stand for the bucket not less than 6 inches above the level of the paving.
- (7) Any such well from which water is drawn by a pump shall have a cover so fitted as to prevent the entry of surface water or other matter.

Tanks and cisterns used for storage of rainwater for human consumption

- Q3. (1) This regulation shall apply to any tank or cistern constructed or fitted for use in connection with a building and intended to be used for the storage of rainwater for human consumption.
- (2) Such tank or cistern shall be adequately ventilated and so covered as to prevent pollution, and, where there is a fixed cover, the tank or cistern shall have a manhole fitted with a cover of sufficient size to allow the tank or cistern to be cleansed.
- (3) Such tank or cistern shall have an overflow pipe and the overflow pipe and any ventilator shall be so arranged as to prevent pollution.
- (4) Where such tank or cistern is either wholly or partly below the level of the adjoining ground—
 - (a) its walls, floor and roof shall be constructed of bricks, concrete or other suitable material in such a manner as to be impervious; and
 - (b) all pipes connected to it shall be of durable material, and the joint between any pipe and the tank or cistern shall be watertight.
- (5) Any draw-off tap or the end of any suction pipe fitted to such tank or cistern shall be fitted not less than 3 inches above the bottom of the tank or cistern.

Charles Pannell,
Minister of Public Building
and Works.

Dated 6th July 1965.

SCHEDULE 1 PARTIALLY EXEMPTED BUILDINGS PART A—BUILDINGS

Regulation A4

Provisions with which compliance is required	As to notices As to materials (2) (3)	Regulations A9 and A10 (if proposals include work to which part L governed by Part L) relates)	Regulations A9 and A10 (if proposals include it relates to matters work to which part L governed by Part L)	Regulations A9 and A10 Regulation B1 (in so far as (if proposals include it relates to matters work to which part L governed by Part L) relates)
Buildings partially exempted from	the provisions of these regulations (1)	A building which is used by day only for private occupation and not for any trade or business, or used exclusively for recreational or storage purposes (such as a summer-house, poultry-house, aviary, greenhouse, conservatory, orchard-house, boathouse, coal-shed, garden tool-shed, potting shed or cycle shed), if such building is— (i) not more than 1,000 cubic feet in capacity; and (ii) not less than 6 feet from any boundary of the premises (unless it is a boat-house and the boundary is a waterway); and (iii) not less than 6 feet from any other building within the same boundaries	A building used only in connection with and during the construction, alteration or repair of any building or other work.	A building being— (i) any monument specified in the Schedule to the Ancient Monuments Protection Act 1882(a); (ii) any monument for the time being specified in a list published under Section 12 of the Ancient Monuments Consolidation
Class		_	7	м

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Part L	Regulation E16 Regulation K3 Part L	Part E (except Regulation E14) Regulation K3 Part L	
Regulations B1 and B3	Part B	Part B	(b) 3 & 4 Geo. 5. c. 32.
Regulations A9 and A10	Regulations A9 and A10	Regulations A9 and A10	(q)
A building 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 if it is— (i) erected on or in close proximity to the estate; and (ii) wholly detached from any other building	A building used as a garage or car port if it is— (i) wholly detached from any other building; and (ii) not more than 300 square feet in floor area	A single-storey building which is wholly detached and is used exclusively for the storage of materials or products, for the accommodation of plant or machinery, or for the housing of livestock, and wherein the only persons habitually employed are engaged solely in the general care, supervision, regulation, maintenance, storage or removal of the materials, products, plant, machinery or livestock in the building	(a) 45 & 46 Vict. c. 73.
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		101	

(a) 45 & 46 Vict. c. 73.

SCHEDULE 1 (continued)
PARTIALLY EXEMPTED BUILDINGS (continued)
PART B—Works and fittings

is required	As to works and fittings (4)	Part M Part N (except in relation to surface water drainage) Parts P and Q	Parts M, N, P and Q
Provisions with which compliance is required	As to materials (3)	Regulations A9 and A10 Regulation B1 (in so far as it relates to matters governed by the provisions listed in column (4))	Regulations A9 and A10 Regulation B1 (in so far as it relates to matters governed by the provisions listed in column (4))
Provisio	As to notices (2)	Regulations A9 and A10	Regulations A9 and A10
su		:	:
rovisio		:	:
the p		:	:
1 from	(1)	:	:
empte		:	:
ally ex	tions	:	:
Buildings partially exempted from the provisions of these regulations (1)		Classes 1, 2 and 4	Classes 3, 5 and 6

SCHEDULE 2

GIVING OF NOTICES AND DEPOSIT OF PLANS Regulation A9

General

- Rule A. 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 other particulars shall be in writing.
 - 2. Drawings shall be 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 inch to every 8 feet or, if the building is so extensive as to render a smaller scale necessary, not less than 1 inch to every 16 feet; block plans shall be to a scale of not less than 1/250; 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 local authority 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 document, together with a duplicate thereof, shall be sent or delivered to the offices of the local authority.

Erection of buildings

- Rule B. The following are the notices to be given and the plans, specifications and particulars to be deposited by a person intending to erect a building which is neither wholly nor partially exempted within the meaning of regulation A4:
 - 1. Notice of intention to erect a building not wholly or partially exempted from the operation of these regulations.
 - 2. Particulars, so far as necessary to show whether the building complies with all such requirements of these regulations as apply to it, of—
 - (a) the intended use of the building; and
 - (b) the materials of which the building will be constructed; and
 - (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; and
 - (b) the width and position of every street adjoining the premises; and
 - (c) the boundaries of the premises and the size 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 local authority to determine whether the building complies with these regulations—
 - (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; and
 - (b) the position of the damp-proof courses and any other barriers to moisture; and
 - (c) the position, form and dimensions of the foundations, walls, windows, floors, roofs, chimneys and several parts of the building; and
 - (d) the intended use of every room in the building; and

- (e) the provision made in the structure for protection against fire and for insulation against the transmission of heat and sound.
- Rule C. The following are the notices to be given and the plans, sections, specifications and particulars to be deposited by a person intending to erect-
- (a) (where the proposals relate to operations to which the requirements of Part L apply) a building in Classes 1, 2 or 3 in Schedule 1; or
- (b) a building in Classes 4, 5 or 6 in that Schedule:
- 1. Notice of intention to erect a building partially exempted from the operation of these regulations.
- 2. Particulars, so far as necessary to show whether the building falls within the relevant Class of exemption in Schedule 1 and complies with all such requirements of these regulations as apply to it, of-
 - (a) the intended use of the building; and
 - (b) the materials of which it will be constructed; and
 - (c) the mode of drainage.
- 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 upon which shall be shown, so far as necessary to enable a local authority to determine whether the building complies with these regulations, the position, form and dimensions of the several parts of the building.

Alterations and extensions

- Rule D. The following are the notices to be given and the plans, sections, specifications and particulars to be deposited by a person intending to make any alteration of or extension to a building:
 - 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 of this schedule (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 regulations; 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 of this schedule (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 of this schedule (whichever is appropriate) of the building so far as affected by the extension
 - so far as necessary to enable the local authority to determine whether the proposals comply with the requirements of these regulations.

Additional requirements

- Rule E. Where a duly authorised officer of the local authority considers it to be necessary for the purposes of examining any proposals submitted in accordance with Rules B, C, D or G of this schedule, 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 or the specified minimum strength of the concrete or mortar.

- 3. Calculations of loading and strength except where reliance is placed on regulations D7, D14(b), D15(b), D16 or 17.
 - 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 regulation E7.
- 6. Drawings showing the dimensions of space adjoining the windows of habitable rooms.

Works and fittings

- Rule F. The following are the notices to be given and the plans, sections, specifications and written particulars to be deposited by a person intending to execute any works or install any fittings to which regulation A7 relates, other than—
 - (a) fittings (except a Class II gas appliance or a high-rating appliance as defined in regulation L1) intended to be installed by way of replacement of existing fittings of the same nature where no structural work is involved; or
 - (b) the installation in a building of a Class II gas appliance as defined in regulation L1 (whether anew or by way of replacement), if such appliance is installed by, or under the supervision of, an Area Board established under the provisions of the Gas Act 1948 and no structural work is involved:
 - 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 regulations 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, cesspool (including a settlement tank, septic tank or other tank for the reception or disposal of foul matter from buildings) or well, a block plan. Such plan shall, if the execution of works or installation of fittings is in connection with operations to which Rules B, C or D of this Schedule relate, be 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 regulations as apply to them—
 - (a) the position of the works or fittings; and
 - (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; and
 - (c) the position and level of the outfall of the drains; and
 - (d) where the drainage is intended to be connected to a sewer, the position of the sewer.
 - 4. Where it is proposed to construct or install a watercloset fitting, urinal fitting, earthcloset, cesspool (including a settlement tank, septic tank or other tank for the reception or disposal of foul matter from buildings), well, water tank or cistern for the storage of rainwater for human consumption, plans and sections of the works or fittings, so far as necessary to show that they comply with all such requirements of these regulations as apply to them.
 - 5. A key plan showing the position of the site when it is not sufficiently identifiable from the block plan.

Material changes of use

- Rule G. The following are the notices to be given and the plans, specifications and particulars to be deposited by a person intending to make any change of use to which these regulations are applied by regulation A8, in addition to anything required by Rule D of this Schedule in a case to which that rule relates:
 - 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.

Regulation A14

SCHEDULE 3

Forms of Application for Dispensation or Relaxation Part A

PUBLIC HEALTH ACT 1961, SECTION 6 RELAXATION OF BUILDING REGULATIONS

APPLICATION BY A LOCAL AUTHORITY

To: The Minister of Public Building and Name of Local Authority	above-named authority under section of the control of the control of the control of the control of the accompanying plans (see note)
PARTICULARS TO	BE COMPLETED
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?	
4. State the requirement(s) of building regulations sought to be dispensed with or relaxed	
5. State grounds for the application (see note overleaf)	
(continue overle	af if necessary)
Address	(Signed)
	Town Clerk/Clerk of the Council
	Date
Grounds for the Application (continued)	

Note

The accompanying plans should include such drawings and/or particulars, bearing in mind Schedule 2 to the Regulations, as will show in detail the nature and extent of the dispensation or relaxation applied for. The application should indicate why it is considered that the operation of the regulation(s) is unreasonable.

PART B

PUBLIC HEALTH ACT 1961, SECTION 6

RELAXATION OF BUILDING REGULATIONS

Application other than by a Local Authority

	the proposed building or works shown
PARTICULARS TO	BE COMPLETED
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 regulations sought to be dispensed with or relaxed	
5. State grounds for the application (see Notes 3 and 4)	
(continue overle	af if necessary)
Date (S	igned)
Applicant	
Authorised to sign on behalf of applicant	
(Strike out whichever is not applicable)	
If signed by Agent: Name of agent	
Profession or capa	city in which acting
Address of agent	
Telephone Numbe	r

Grounds for Application (continued).

NOTES FOR GUIDANCE OF APPLICANTS

- 1. "Plans" means all those plans, sections, specifications and particulars required to be submitted for approval to the local authority in accordance with Schedule 2 to The Building Regulations 1965.
- 2. Schedule 1 to the Public Health Act 1961 excludes the power to relax or dispense where the local authority, before the making of the application, has become entitled under section 65(3) of the Public Health Act 1936 to pull down, alter or remove the works concerned, or there is a Court order for this to be done. Applicants should refer to that schedule, which also deals with the position while an application is pending in respect of completed work.
- 3. The application should state, having regard to the nature and extent of the relaxation or dispensation sought, why the applicant considers that the operation of the specified requirement(s) is unreasonable in relation to the particular circumstances of the case. Under Section 6 of the Public Health Act 1961, it is only upon this ground that the local authority or the Minister can grant dispensation or relaxation.
- 4. Where Section 7 of the Public Health Act 1961 applies, there is a right of appeal to the Minister of Public Building and Works against the refusal of this application. Notice of Appeal must be in writing, setting out the grounds of appeal, and a copy must be sent to the local authority. Appeal must be within one month from the date on which the local authority notify the applicant of their refusal; but if the local authority do not notify the applicant of any decision within two months beginning with the date of this application (or such extended period as may be agreed between them in writing) a right of appeal arises as if the local authority had refused the application and notified the applicant of their decision at the end of that period.

AREAS WHERE SPECIAL TREATMENT OF SOFTWOOD TIMBER IS REQUIRED

The following local authorities are the local authorities in whose areas the provisions of regulation B4 (Special treatment of softwood timber in certain areas) apply:

Chertsey Urban District Council
Easthampstead Rural District Council
Esher Urban District Council
Farnborough Urban District Council
Farnham (Surrey) Urban District Council
Frimley and Camberley Urban District Council
Guildford Rural District Council
Hartley Wintney Rural District Council
Staines Urban District Council
Sunbury-on-Thames Urban District Council
Walton and Weybridge Urban District Council
Woking Urban District Council

SCHEDULE 5

RULES FOR THE CALCULATION OF LOADING Regulation D2

Dead loads

- 1.—(1) For the purpose of calculating the dead load of any part of a building, the weight of any material shall be determined by test or, in the case of any material specified in BS 648: 1964, the weight may be deemed to be as specified therein.
- (2) In calculating the dead load of any tank or other receptable forming part of or installed in a building, there shall be taken into account the weight of its contents when filled to capacity.
- (3) Where the position of any partition is shown on the plans furnished to the local authority, its weight shall be included in the dead load.
- (4) Where it is intended to erect any partition which is not shown on the plans, the beams (and the floor slabs when they are capable of distributing the load effectively over the area of the floor) shall be designed to carry, in addition to other loads, a uniformly distributed load per square foot of not less than 10 per cent of the weight per foot run of the finished partition:

Provided that, if the floor is a floor of a building intended to be used for office purposes, the design shall be based on a load so calculated or on an additional load of 20 pounds per square foot, whichever is the greater.

Imposed floor loads

- 2.—(1) In this rule and in the Table to this rule—
- "beams" means all beams or ribs other than beams or ribs spaced apart at a distance of not more than 3 feet between centres;
- "fixed seating" means seating which is securely fixed to the floor on which it rests and which is unlikely to be removed;
- "floor" includes any part of that floor to be used as a corridor and any balcony used in connection with that floor; and
- "slabs" includes boarding and beams or ribs spaced apart at a distance of not more than 3 feet between centres.
- (2) The imposed load on any floor, stairway, landing, or structurally independent step, and the imposed load due to floor loads on any beam, girder, column, pier or structural frame, and on any support or foundation to any one of the foregoing, shall be determined in accordance with the following provisions of this rule.

(3) Subject to rule 3, the imposed load on any floor of a class described in column (2) of the Table to this rule shall be taken to be the minimum imposed load specified in column (3) of the Table in respect of a floor of that class:

Provided that-

- (i) in the case of slabs or beams (not being cantilever slabs or beams) the load specified in column (4) in the case of slabs, or in column (5) in the case of beams, shall be substituted for that in column (3) if it causes higher stresses; and
- (ii) in the case of a cantilever balcony, the projection of the cantilever shall be regarded as the span for the purposes of columns (4) or (5).
- (4) The imposed load on a stairway or landing shall be taken to be as follows, according to the class of floor (as specified in column (1) of the Table to this rule) with which it is used—

Class 1-30 lbs. per square foot;

Class 2, 3 or 4-60 lbs. per square foot;

Class 5, 6, 7 or 8—100 lbs. per square foot:

Provided that, in the case of any structurally independent step, the imposed load shall be taken to be whichever of the following loads causes the greater stresses—

- (i) a load calculated in accordance with the foregoing provisions of this paragraph, or
- (ii) a load of 300 lbs. concentrated in a position to cause the greatest stresses.

TABLE TO RULE 2 (Minimum imposed floor loads)

(Withinfully Imposed floor founds)										
	Floor	Minimum imposed load								
Class	Description	Pounds per square foot of floor area	Slabs Pounds per foot width of slab uniformly distributed over span	Beams Pounds uniformly distributed over the span of the beam						
(1)	(2)	(3)	(4)	(5)						
1	Floors of houses having not more than three storeys and the upper floors of maisonettes, in either case designed for occupation by one family.	30	240	1,920						
2	Floors (other than those described in Class 1) of buildings or parts of buildings used for residential purposes including tenements; floors of hospital wards, bedrooms and private sitting rooms in hotels, and dormitories.	40	320	2,560						
3	Floors of offices above the entrance floor; floors of light workrooms without storage; floors used for the parking of vehicles not exceeding 2½ tons gross weight.	50	400	3,200						

Table to Rule 2 (continued) (Minimum imposed floor loads)

	Floor	Minir	num imposed	l load
Class	Description	Pounds per square foot of floor area	Slabs Pounds per foot width of slab uniformly distributed over span	Beams Pounds uniformly distributed over the span of the beam
(1)	(2)	(3)	(4)	(5)
4	Floors of banking halls; office entrance floors and office floors below entrance floor and floors of classrooms in schools.	60	480	3,840
5	Floors used for the display and sale of merchandise; of workrooms, places of assembly with fixed seating, churches and chapels, restaurants and circulation spaces in machinery halls, power stations and similar buildings where such spaces are not occupied by plant or equipment.		640	5,120
6	Floors of warehouses, workshops, factories and similar buildings or parts of buildings used for lightweight loads; office floors used for storage and filing purposes; and floors of places of assembly without fixed seating, including public rooms in hotels, dance halls and similar buildings.	100	800	6,400
7	Floors of warehouses, workshops, factories and similar buildings or parts of buildings used for mediumweight loads; floors of garages for vehicles not exceeding 4 tons gross weight.	150	For garage floors only, 1½ times the maximum wheel load but not less than 2,000 pounds deemed to be distributed over a floor area	
8	Floors of warehouses, workshops, factories and similar buildings or parts of buildings used for heavy-weight loads; floors of bookstores and stationery stores; roofs and pavement lights over basements projecting beneath a pathway to which pedestrians have access (such roofs and lights being regarded as floors for this purpose).	200		ches square.

Reduction of total imposed floor loads

- 3.—(1) In the application of this schedule to any column, pier, wall or structural frame (including its supports and foundations) which—
 - (a) forms part of a building other than a warehouse, garage or other building used wholly or predominantly for storage; and
 - (b) carries two or more floors,

the total imposed load due to floor loads as calculated in accordance with rule 2 may be reduced by the percentage specified in the Table to this rule according to the number of floors carried:

Provided that, in the case of a factory or workshop, the total imposed load shall not be less than it would be if the imposed wad on each floor carried was taken to be 100 lbs. per square foot without any reduction.

- '(2) Where a single span of a beam or girder supports not less than 500 square feet of floor at one general level and the floor is not used for storage purposes, the imposed load as calculated in accordance with rule 2 may, as regards such beam or girder, be reduced by 5 per cent. for each 500 square feet supported, subject to a maximum reduction of 25 per cent.
- (3) In the application of this schedule to any column, pier, wall or structural frame supporting a beam or girder referred to in paragraph (2), and to any supports and foundations for such column, pier, wall or structural frame, the imposed load may be reduced either by the percentage specified in paragraph (2) or by that specified in the Table to this rule.
- (4) No load specifically allowed for plant, machinery or equipment shall be reduced in pursuance of this rule.

TABLE TO RULE 3 (Reduction of total imposed load)

Number of floors supported (1)	Reduction (2)
2	10 per cent.
3	20 per cent.
4	30 per cent.
5 or more	40 per cent.

Imposed lateral loads on parapets, balustrades and railings

- 4.—(1) In this rule, "light access stairway" means a stairway intended to be used only for access to plant, machinery or equipment for the purposes of inspection, cleaning, maintenance or repair and having a width, between the handrails or between a wall and a handrail, of not more than 20 inches.
- (2) In the application of this schedule to any parapet, balustrade or railing, together with the connections and members which give it direct structural support, the imposed lateral load shall be taken to be a load which is applied horizontally at coping or handrail level and at right angles thereto, and, subject to the provisions of paragraph (3), is not less than—
 - (a) if the parapet, balustrade or railing is on a light access stairway 15lbs. per foot run:
 - (b) if the parapet, balustrade or railing is—
 - (i) on a stairway, landing or balcony leading to a floor designated as class 1 in the Table to rule 2;

- (ii) on a stairway or landing leading to a floor designated as class 2 in such Table and such stairway or landing is within a maisonette or house designed for occupation by one family; or
- (iii) on a private balcony having an area not exceeding 30 square feet and connecting with a floor designated as class 2 in such Table...

25 lbs. per foot run;

- (c) if the parapet, balustrade or railing is on a stairway, landing or balcony forming part of a building intended to be used as a grandstand, stadium or similar place where persons may be expected
 - to congregate 200 lbs. per foot run;
) in any other case 50 lbs. per foot run;
- (d) in any other case 50 lbs. per foot run; (3) Where a higher imposed lateral load is anticipated or where the wind load calculated in accordance with regulation D2(b) exceeds the imposed lateral load calculated in accordance with the foregoing provisions of this rule, the greater load shall be adopted for the purpose of this rule.

Imposed loads on roofs

- 5.—(1) In this rule, "per square foot" means for each square foot of the area of the horizontal plane covered by the roof.
- (2) The imposed load, other than wind load, on a roof and its supports shall be calculated in accordance with this rule.
- (3) In the case of a roof to which there is only such access as may be necessary for the purposes of maintenance or repair, the minimum imposed load for a roof with a pitch not exceeding 30 degrees shall be 15 lbs. per square foot, and for a roof with a pitch greater than 30 degrees the minimum imposed load shall be 15 lbs. per square foot less 1 lb. for every 3 degrees by which the pitch exceeds 30 degrees.
- (4) In the case of a roof to which there is access in addition to any such access as may be necessary for the purposes of maintenance or repair, the minimum imposed load shall be 30 lbs. per square foot, subject to a minimum load of 240 lbs. per foot width of the roof slab or covering uniformly distributed over the span and 1,920 lbs. uniformly distributed over the span on any beam or truss.

SCHEDULE 6

Regulation D14

RULES FOR DETERMINING THE DIMENSIONS OF CERTAIN TIMBER MEMBERS

Interpretation of Schedule 6

- 1. In this schedule and in the Tables to this schedule-
- "flat roof" includes a roof the pitch of which is 10 degrees or less to the horizontal;
- "per square foot" means for each square foot of the area of the horizontal plane covered by the floor, ceiling or roof, as the case may be;
- "spacing" means the distance between the centres of any two adjacent timber members of the same type, measured in a plane parallel to the 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 the said 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 in this schedule.

Application of Schedule 6

- 2. This schedule applies to any timber member if-
- (a) in the case of a member of a type to which any one of Tables 1 to 11 of this schedule relates—
 - (i) the member consists of timber of a species classified as Softwood, Group II in CP112:1952; and
 - (ii) the actual dimensions of the member are equal to or greater than the relevant dimensions shown as the nominal size in the Table relating to a member of that type less the amounts of the tolerances given in BS 1860: Part I: 1959; or
- (b) in the case of a floor board to which Table 12 of this schedule relates—
 - (i) the board complies in all respects with BS 1297: 1961; and
 - (ii) the actual span of the board does not exceed the maximum span specified in that Table, having regard to the minimum finished thickness and width and type of board specified in that Table; and
- (c) the imposed load to be sustained by the floor, ceiling or roof of which the timber member forms part does not exceed—
 - (i) in the case of any floor or of any flat roof to which there is access in addition to such access as may be necessary for the purposes of maintenance or repair, 30 lbs. per square foot;
 - (ii) in the case of a ceiling, 15 lbs. per square foot;
 - (iii) 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, where the pitch of the roof does not exceed 30 degrees, 15 lbs. per square foot, or, where the pitch is greater than 30 degrees, 15 lbs. per square foot less 1 lb. for every 3 degrees by which the pitch exceeds 30 degrees.

TABLE 1 FLOOR JOISTS

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TABLE 2
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KOOFS W	(2) Dead load in pounds per square foot supported by joist, excluding the weight of the joist	٠ د		24 in.		ft. in.	2 7 7 8 8 3 9 8 8 3 1 1 1 1 1 1 1 1 6 6 6 6 6 6 6 6 6 6 6	3 4 4 7 7 7 7 7 1 10 6 0 1 13 7 7 1 13 7 7 1 13 7 7 1 13 7 7 1 13 7 7 1 1 1 1	9 8 8 11 4 8 8 8 14 8 8 8 8 14 8	13 10 15 7						
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INCE OK	e weight	more		24 in.		ft. in.	2 4 4 0 4 4 0 4 4 4 4 4 4 4 4 4 4 4 4 4	3 0 6 9 8 3 9 8 11 1 12 6	8 11 10 6 12 0 13 6	12 9 14 4						
KEFAIR	of the jo	More		16 in.		ft. in.	3 3 3 6 11 8 4 4 9 10 11 3 12 8 12 8 12 8 12 8 12 8 12 8 12 8	3 11 5 9 7 9 10 8 12 3 13 10	9 10 11 6 13 2 14 10	14 0 15 9						
	oist	More than 15 but not more than 20		18 in.		ft. in.	2 11 6 7 6 7 8 1 9 5 10 10 12 2	3 8 7 5 7 5 10 3 11 10 13 4	9 6 111 12 9 14 4	13 6 15 3						
		1 15 but not than 20		21 in.		ft. in.	2 4 2 11 7 7 7 7 9 0 0 10 4 4 11 7 7 11 7 7 7 7 7 7 7 7 7 7 7 7 7	3 6 11 9 12 13 8 12 8 8	9 0 10 7 12 1 13 8	12 10 14 6						
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TABLE 4

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TABLE 5

Fables 1 and 3 relate	(2) Dead load in pounds per square foot supported by joist as calculated for the purposes of Tables 1 or 3	More than 10 but not more than 20	Spacing of beams	t. 4ft. 5ft. 6ft. 7ft. 8ft. 9ft. 10ft.	Maximum span of beam	in ft. in.	10 2 7 2 4 2 1 111 110 1 8 1 7 1 4 5 3 11 3 7 3 4 3 1 2 11 2 9 8 5 2 4 8 4 3 3 11 2 9 4 6 1 5 5 5 0 4 7 4 4 4 1 3 10 11 7 0 6 3 5 8 5 3 4 1 4 8 4 5 0 7 7 11 7 1 6 5 6 0 5 7 5 3 5 0	1 510 53 49 45 41 311 38 7 610 61 57 52 410 47 44 7 710 70 65 511 57 53 50 3 810 711 73 69 63 511 57	4 7 6 6 9 6 2 5 8 5 4 5 0 4 9 11 8 7 7 9 7 1 6 6 6 1 5 9 5 6 11 9 9 8 9 8 0 7 5 6 11 6 6 6 2
BEAMS SUPPORTING JOISTS TO WHICH TABLES 1 AND 3 RELATE	nds per square foot supported b	Not more than 10	Spac	7 ft. 8 ft. 9 ft. 10 ft.	Maximur	in. ft. in. ft. in. ft.	2 2 2 0 1 11 1 1 1 1 1 2 9 2 7 2 3 3 3 4 1 5 2 1 1 3 10 3 5 11 5 6 5 3 5 11 5 1 6 8 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	5 9 5 5 1 4 4 4 4 4 6 8 6 3 5 10 5 7 6 7 0 6 7 6	6 4 5 11 5 7 5 7 4 6 10 6 5 6 8 3 7 9 7 3 6 1
BEAMS S	Dead load in pou	Not m	1	4 ft. 5 ft. 6 ft.		ft. in. ft. in. ft. in. ft.	211 311 4 11 5 9 3 2 6 10 6 1 5 7 7 10 7 0 6 5 8 10 7 11 7 2	6 6 5 10 5 4 7 8 6 10 6 3 8 9 7 10 7 2 9 11 8 10 8 1	8 5 7 6 6 10 9 7 8 7 7 11 10 10 9 9 9 8 11
		I	(1) Nominal	in inches	1	19	××××××× ×4×,0,0,000	7,757 2,82,76 3,82,76 4,82,76 7,82,76	

TABLE 6

BINDERS OR BEAMS SUPPORTING JOISTS TO WHICH TABLES 2 AND 4 RELATE

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	for t	tha				ft.	264000		100
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	calc		eam		Maximum span of binder or beam	.ij	470 mm C C C;	9614	~-:·
	st as		or b	4 ft.	der (l	2 4 4 8 6 4 4 9 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	7 8 8 9 110 110 1	9 8 11 1 12 5
	ioi		ers (bin	ft.			
d by	25g		yind	10 ft.	Jo t	ij.	1012567	9999	976
	(2) Dead load in pounds per square foot supported by joist as calculated for the purposes of Tables 2 or		of t	10	spar	Ħ.	4w4v0rr	870%	6
			Spacing of binders or beams		H H	ii.	0882244	44m4	3 1
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					120				

TABLE 7

Common or Jack rafters for roofs having a pitch of less than 40° but not less than 35°

	nan 20		24 in.		ft. in.	4 11 6 7 8 4	8
	More than 15 but not more than 20		21 in.		ft. in.	5 3 7 0 8 10	0 / 0 8 % /
e rafter	than 15 but		18 in.		ft. in.	2 6 4 6 3 4 6	6 0 8 0 10 1
weight of th	More		16 in.		ft. in.	27 6 8 8 7	6 2 8 4 10 5
cluding the	ın 15		24 in.		ft. in.	5 7 9 0 0	6 0 8 0 10 1
(2) Dead load in pounds per square foot supported by rafter, excluding the weight of the rafter	more than 10 More than 10 but not more than 15	Spacing of rafters	21 in.	an of rafter ft. in.	1	5 7 8 9 7 7 8 9 7 8 9 7 8 9 9 9 9 9 9 9 9	6 3 8 4 10 6
(2) supported			18 in.	Maximum span of rafter	ft. in.	6 0 8 1 10 1	6 7 8 9 11 0
square foot			16 in.	4	ft. in.	6 3 8 5 10 6	6 10 9 1 11 5
pounds per			24 in.		ft. in.	5 11 7 11 10 0	6 9 9 0 11 4
Dead load in			18 in. 21 in.		ft. in.	6 4 8 6 10 7	7 1 9 6 11 10
Д	Not more				ft. in.	6 9 9 1 11 5	7 5 9 11 12 5
			16 in.		ft. in.	7 1 9 6 11 11	7 9 10 4 12 10
	3	11. 12. 14. 14. 14. 14. 14. 14. 14. 14. 14. 14	222 ××× ×4×				

TABLE 8

COMMON OR JACK RAFIERS FOR ROOFS HAVING A PITCH OF 40° OR MORE

	ıan 20		24 in.		ff. in.	5 1 6 10 8 7	5 6 5 6 5 6
	More than 15 but not more than 20		21 in.		ft. in.	5 4 7 2 9 0	5 10 7 10 9 10
e rafter	than 15 but		18 in.		ft. in.	5 7 9 5 9 5	6 1 8 2 10 3
(2) Dead load in pounds per square foot supported by rafter, excluding the weight of the rafter	More		16 in.		ft. in.	5 10 7 10 9 10	6 4 8 6 10 8
ccluding the	n 15		24 in.		ft. in.	5 7 7 6 9 5	6 1 8 2 10 3
by rafter, ex	than 10 More than 10 but not more than 15	Spacing of rafters	21 in.	n of rafter	ft. in.	5 10 7 10 9 10	6 5 8 7 10 9
(2) t supported			18 in.	Maximum span of rafter	ft. in.	6 2 8 3 10 4	6 8 9 0 11 3
square foo			16 in.	Ma	ft. in.	6 5 8 7 10 9	6 11 9 4 11 8
red spunod 1			24 in.		ft. in.	6 3 8 4 10 6	6 11 9 4 11 7
Dead load in			21 in.		ft. in.	6 8 8 11 11 2	7 3 9 9 12 2
	Not more than 10		18 in.		ft. in.	7 0 9 5 11 9	7 7 10 2 12 8
			16 in.		ft. in.	7 3 9 9 12 2	7 11 10 7 13 2
	(11. 12. 14. 14. 15. 14. 15. 16. 17. 18. 18. 18. 18. 18. 18. 18. 18. 18. 18	222 ××× 642				

TABLE 9
PURLINS SUPPORTING RAFTERS TO WHICH TABLE 7 RELATES

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	(2) Dead load in pounds per square foot supported by rafter as calculated for the purposes of Table 7	Not more than 10															
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TABLE 10
PURLINS SUPPORTING RAFTERS TO WHICH TABLE 8 RELATES

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(2) Dead load in pounds per square foot supported by rafter as calculated for the purposes of Table 8	15	,	10 ft.		ft. in.	3 5 4 3 5 11 6 10 8 7	2018 800 800 800 800	987												
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				12	25							

TABLE 12 FLOOR BOARDS

(1)	(2)		3) pan of board
Nominal thickness of board	Minimum finished thickness of board	Tongued and grooved board (finished face width not less than 2½ inches excluding tongue)	Plain edged board (finished face width not less than 5 ³ / ₄ inches)
in.	in.	in.	in.
1 1 1 ₄ 1 1	16 32 32 35 35 35 16 16	18 21 24 30 36	14 16 18 21 24

Regulation D15

SCHEDULE 7

RULES FOR SATISFYING REQUIREMENTS AS TO STRUCTURAL STABILITY OF CERTAIN WALLS

Application of Schedule 7

- 1. This schedule applies to any wall of a type described in this schedule which—
- (a) forms part of any storey of a building other than a basement storey; and
- (b) is constructed of bricks or blocks which comply with rule 4 and are properly bonded and solidly put together with mortar, or is constructed of stone, flints, clunches of bricks or other burnt or vitrified material laid otherwise than in horizontal beds or courses and jointed in mortar; and
- (c) (except in the case of a wall to which rule 13 relates and which is less than 8 feet in height and length) has at each end either a pier, buttress, buttressing wall or chimney.

Interpretation of Schedule 7

2.-(1) In this schedule-

- "base", in relation to a wall, means the underside of that part of the wall which immediately rests upon the footings or foundation or other structure by which the wall is carried;
- "separating wall" means a wall or part of a wall which is common to two adjoining buildings.
- (2) For the purposes of this schedule, "buttressing wall" means a wall, including a return wall, which affords lateral support to any other wall (hereinafter called "the supported wall") and which—
 - (a) measures in length from its junction with the supported wall not less at any level than two-and-a-half times its thickness, 22 inches or one-sixth of its height measured from that level to the top (whichever is the greatest); and
 - (b) has no opening or recess (other than an opening or recess not exceeding 6 square feet in area) nearer to the point of junction with the supported wall than a distance not less than two-and-a-half times its thickness or 22 inches (whichever is the greater); and

- (c) is constructed of bricks or blocks which comply with rule 4 and are properly bonded and solidly put together with mortar, or constructed in accordance with rule 11; or is constructed of stone, flints, clunches of bricks or other burnt or vitrified material, laid otherwise than in horizontal beds or courses, and jointed in mortar; and
- (d) is bonded or otherwise securely tied to the supported wall; and
- (e) if it is an internal load-bearing wall to which rule 9 relates, complies with the requirements of that rule, or, in any other case, has a thickness of at least one-half of that prescribed in respect of the supported wall by rule 7 or 8 (as the case may be):

Provided that the thickness of the wall shall be not less than-

- (i) 3 inches, if it forms part of a house and the supported wall does not as a whole exceed 20 feet in height and 35 feet in length; or
- (ii) 4 inches, in any other case.

Loading

3. Any load carried by a wall to which this schedule applies shall be properly distributed.

Strength of bricks or blocks

- 4.—(1) Bricks or blocks used in any wall to which this schedule applies shall—
- (a) be composed of burnt clay, siliceous sand and lime, crushed siliceous rock and lime, or concrete (including aerated concrete or concrete made with light-weight aggregate); and
- (b) have an aggregate volume of solid material not less than 50 per cent of the total volume of the brick or block, calculated from its overall dimensions; and
- (c) where the wall is a wall of a house of one or two storeys or of a building of one or two storeys which is divided into flats, have a resistance to crushing of not less than 400 lbs. per square inch of gross horizontal area; or
- (d) where the wall is a wall of any other building, have a resistance to crushing of not less than—
 - (i) 1,500 lbs. per square inch, if the bricks or blocks are solid; or
 - (ii) 750 lbs. per square inch of gross horizontal area, if the bricks or blocks are hollow.
- (2) For the purposes of this rule—
- (a) a brick or block shall be deemed to be-
 - (i) solid if the aggregate volume of solid material is not less than 75 per cent of the total volume of the brick or block, calculated from the overall dimensions;
 - (ii) hollow if the aggregate volume of solid material is less than 75 per cent of the total volume of the brick or block, calculated from the overall dimensions;
- (b) aerated concrete and concrete made with light-weight aggregate shall be deemed to be solid material.

Rules for measuring height of storeys and height of walls

- 5.—(1) For the purposes of this schedule, the height of a storey or 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 from the level of the underside of the floor of that storey, in each case to the level of the underside of the floor next above it or, if there is no such floor, then to the top of the wall, or, in a storey comprising a gable, to half the height of the gable.

- (3) The height of-
- (a) a separating wall comprising a gable shall be measured from its base to the base of the gable; and
- (b) any other wall comprising a gable shall be measured from its base to half the height of the gable; and
- (c) any wall not comprising a gable shall be measured from its base to the highest part excluding any parapet which does not exceed 4 feet in height.

Rules for measuring length of walls

- 6.—(1) For the purposes of this schedule, the length of a wall shall be measured in accordance with this rule.
- (2) A wall shall be deemed to be divided into distinct lengths by piers, buttresses, chimneys or buttressing walls, of any of the following types:
 - (a) a pier or buttress which—
 - (i) extends upwards from the base of the wall to within a distance from the top of the wall equal to three times the least thickness of the wall; and
 - (ii) at any level, projects from the wall to a distance not less than twice the thickness of the wall at that level; and
 - (iii) at any level, has a horizontal sectional area (excluding that portion of the wall bonded to, or within the pier or buttress) of not less than that of a pier or buttress of a projection and width equal to twice the thickness of the wall at that level; and
 - (iv) has a width of not less than 8 inches;
 - (b) a chimney which has a horizontal sectional area, excluding any fire place opening or flue, of not less than the area required for a pier or buttress, and an overall thickness of not less than twice the thickness of the wall it is deemed to divide;
 - (c) a buttressing wall as defined in rule 2(2).
- (3) Any measurement of length of a wall shall be made from the centre of the pier, buttress, chimney or buttressing wall.

Thickness of certain external walls and separating walls

- 7.—(1) This rule shall apply to any external wall or separating wall which—(a) forms part of—
 - (i) a single-storey building; or
 - (ii) a building of two storeys or more, if the imposed load on each floor above the ground storey when determined in accordance with the provisions of regulation D2 is less than 60 lbs. per square foot; and
- (b) does not exceed 40 feet in height.
- (2) Subject to rules 10 to 17, the thickness of any such external wall or separating wall constructed of bricks or blocks shall be not less than that specified in column (3) of the Table to this rule according to its height and length.
- (3) In addition, the thickness of the wall, in any storey, for not less than one quarter of the length of that wall shall be not less than one-sixteenth part of the height of that storey:

Provided that—

- (a) if any part of the wall is of a thickness less than one-sixteenth part of the height of the storey, those parts of the wall which are of the thickness required by this paragraph shall be so distributed as safely to carry the loads transmitted to the wall; and
- (b) the thickness of the wall beneath that storey shall be not less than the thickness of that part of the wall which it supports.
- (4) In the case of a wall constructed of stone, flints, clunches of bricks or other burnt or vitrified material, the thickness of the wall shall be not less than one-and-one-third times the thickness required by this rule for a wall of bricks or blocks.

TABLE TO RULE 7

(Thickness of certain external walls and separating walls)

(I) Height of wall	(2) Length of wall	(3) Thickness of wall
Not exceeding 12 feet	Any length	8 inches for the whole of its height
Exceeding 12 feet but not exceeding 30 feet	Not exceeding 30 feet	8 inches for the whole of its height
	Exceeding 30 feet	12 inches from the base for the height of one storey, and 8 inches for the rest of its height
Exceeding 30 feet but not exceeding 40 feet	Not exceeding 30 feet	12 inches from the base for the height of one storey, and 8 inches for the rest of its height
	Exceeding 30 feet	12 inches from the base for the height of two storeys, and 8 inches for the rest of its height

Thickness of certain other external walls and separating walls

- 8.—(1) This rule shall apply to any external wall or separating wall which—
- (a) forms part of a building other than a building described in rule 7(1)(a); and
- (b) does not exceed 40 feet in height; and
- (c) having a height given in column (1) of the Table to this rule, does not exceed in length the length given in column (2) for a wall of that height.
- (2) Subject to rules 10, 11 and 13 to 17, the thickness of any such external wall or separating wall constructed of bricks or blocks shall, at any level, be not less than 12 inches:

Provided that, subject as aforesaid, the wall of the topmost storey of the building shall have a thickness of not less than 8 inches.

- (3) In addition, the thickness of the intermediate parts of the wall between the base and 16 feet below the top shall be not less than the thickness which would be obtained if the wall were to be built solidly throughout the space between straight lines drawn on each side joining the thickness at the base to the thickness at 16 feet below the top.
- (4) No offsets shall be made in the wall between its base and top except at the level of lateral supports.
- (5) In addition, the thickness of the wall in any storey, for not less than one quarter of the length of that wall, shall be not less than one-fourteenth part of the height of that storey:

Provided that-

(a) if any part of the wall has a thickness less than one-fourteenth part of the height of the storey, those parts of the wall which are of the thickness

- required by this paragraph shall be so distributed as safely to carry the loads transmitted to the wall; and
- (b) the thickness of the wall beneath that storey shall be not less than the thickness of that part of the wall which it supports.
- (6) In the case of a wall constructed of stone, flints or clunches of bricks or other burnt or vitrified material, the thickness of the wall shall be not less than one-and-one-third times the thickness required by this rule for a wall constructed of bricks or blocks.

TABLE TO RULE 8
(Thickness of other external walls and separating walls)

(1) Height of wall	(2) Length of wall
Not exceeding 25 feet	Unlimited
Exceeding 25 feet but not exceeding 30 feet.	45 feet
Exceeding 30 feet but not exceeding 40 feet.	35 feet

Thickness of certain internal load-bearing walls

9. Any internal load-bearing wall (not being a separating wall, or a wall within a dwelling having one or two storeys) shall have a thickness of not less than half the thickness required by rule 7 or 8 (as the case may be) for an external wall or separating wall of the same height but twice the length.

Thickness of certain external walls and separating walls of pier construction

10. Subject to rule 12, if an external wall or a separating wall is built with piers distributed throughout its length and with a pier at each end, the mean thickness of the wall (that is to say, the horizontal sectional area of the wall and piers divided by the length of the wall) shall not be less than the thickness required by rule 7 or 8 (as the case may be) and the thickness of the wall between the piers shall be not less than 8 inches.

Cavity walls

- 11.—(1) This rule shall apply to any wall constructed as a cavity wall of two leaves, each leaf being constructed of bricks or blocks complying with rule 4, properly bonded and solidly put together with mortar.
- (2) The leaves shall be securely tied together with ties complying with BS 1243: 1964 or with other not less suitable ties, the ties being placed at distances apart not exceeding 3 feet horizontally and 18 inches vertically, and in addition, there shall be provided, as near as practicable to any opening, a tie to each foot of height if the leaves are not connected by a bonded jamb.
- (3) The cavity shall be not less than 2 inches nor more than 3 inches in width at any level.

- (4) The leaves shall each be not less than 4 inches in thickness at any level.
- (5) The overall thickness of the wall shall be not less than—
- (a) the thickness required to comply with paragraphs (3) and (4) of this rule; or
- (b) the thickness which would be required for a solid wall by rule 7 or 8 (as the case may be) increased by the width of the cavity, whichever is the greater.
- (6) Nothing in paragraph (4) or (5) of this rule shall prohibit the construction of a wall as a cavity wall having an inner leaf not less than 3 inches in thickness it—
 - (a) the wall forms part of a single storey private dwellinghouse or of the upper storey of a private dwellinghouse having two storeys; and
 - (b) such inner leaf has a length not exceeding 25 feet, and a height not exceeding 10 feet or (if the wall is a gable wall) 15 feet; and
 - (c) all courses are put together with mortar which is not weaker than 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 the volume of the materials when dry, of one part of cement, two parts of lime and not more than nine parts of fine aggregate; and
 - (d) there are not less than twice the number of wall ties required by the provisions of paragraph (2) of this rule; and
 - (e) the roof load is supported partly by the outer leaf.

External walls of certain small buildings and annexes

- 12. An external wall which is constructed of bricks or blocks and which forms part of—
 - (a) a single storey building other than a house, if the width of such building, measured in the direction of the span of the roof, does not exceed 30 feet and the height of its walls does not exceed 10 feet; or
 - (b) an annexe (which expression includes a verandah, loggia, garage, greenhouse, tool shed, fuel store, watercloset, lavatory, washhouse or other outbuilding) if such annexe does not exceed 10 feet in height and is attached to a house, whether or not it opens directly into the house,

may be not less than 4 inches in thickness if-

- (i) (unless it is a wall of less than 8 feet in height and length) the wall is bonded at each end and intermediately with piers or buttressing walls which are not less than 8 inches square in horizontal section, including the thickness of the wall, or such greater size as may be necessary to give stability, and are so placed that the wall is divided into distinct lengths, each length not exceeding 10 feet; and
- (ii) the wall is solidly put together with mortar which is not weaker than 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 the volume of the materials when dry, of one part of cement, one part of lime and not more than six parts of fine aggregate; and
- (iii) the wall is not subjected to any load other than the distributed load of the roof of the building or annexe of which it forms part, and is not subjected to any lateral thrust from such roof.

Bays and gables over bay windows

13. Rules 7 and 8 shall not apply to any part of an external wall which is—(a) constructed as a bay for a bay window or as a gable over a bay window; and

- (b) above the level of the cill of the lowest window opening in such bay; and
- (c) put together with mortar of the type specified in rule 11(6)(c).

Parapets

14. The thickness of any parapet to an external wall shall be not less than 8 inches or the thickness of the wall on which it is carried (whichever is the less) and its height shall not exceed six times its thickness.

Openings and recesses

- 15.—(1) Adequate means of supporting the superstructure shall be provided over every opening and recess.
- (2) The number, size or position of openings or recesses in a wall shall not be such as to impair the stability of the wall or any part of the wall.

Chases

- 16.—(1) No vertical chase shall be formed in any 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.
 - (2) No horizontal chase shall be formed in any 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.
 - (3) The number, size or position of chases in a wall shall not be such as to impair the stability of the wall or any part of the wall.

Overhanging not to impair stability

17. The extent to which any part of a wall overhangs a part below it shall not be such as to impair the stability of the wall or any part of the wall.

Regulation E6

SCHEDULE 8

NOTIONAL PERIODS OF FIRE RESISTANCE

In this Table:

- (a) "Class I aggregate" means foamed slag, pumice, blastfurnace slag, pelleted fly ash, crushed brick and burnt clay products (including expanded clay), well-burnt clinker and crushed limestone.
 - " 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 3 ft. 0 ins. or more from the relevant boundary, plaster applied on the internal face only;
 - (ii) in the case of any other wall, plaster applied to both faces;
- (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;
 - (iv) if to vermiculite-gypsum plaster, vermiculite-gypsum plaster of a mix within the range of $1\frac{1}{2}$ to 2.1 by volume.
- (c) Load assumed to be on inner leaf only except for fire resistance period of 4 hours.

Part I: Walls

A. Masonry construction										
	Minim	um thic	kness in	inches (e	xcluding	plaster)	for peric	Minimum thickness in inches (excluding plaster) for period of fire resistance of	resistan	fo oz
Construction and materials		Γo	Loadbearing	6 0			Non-l	Non-loadbearing	Sı	
	4 hours	2 hours	I ¹ 2 hours	I hour	1. hour	4 hours	2 hours	$egin{array}{c c c c c c c c c c c c c c c c c c c $	I hour	1 hour
I. Reinforced concrete, minimum concrete cover to main reinforcement of 1 inch: (a) unplastered (b) \frac{1}{2} inch cement-sand plaster (c) \frac{1}{2} inch sypsum-sand plaster (d) \frac{1}{2} inch vermiculite-gypsum plaster	7772	4440	4000	נה נה נה נה	נה נה נה נה			,		
2. No-fines concrete of Class 2 aggregate: (a) ½ inch concrete-sand plaster (b) ½ inch gypsum-sand plaster (c) ½ inch vermiculite-gypsum plaster						000				

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SCHEDULE 8—continued

NOTIONAL PERIODS OF FIRE RESISTANCE—continued

Part I: Walls—continued

		Minit	num thic	kness in	inches (e	xcluding	plaster)	Minimum thickness in inches (excluding plaster) for period of fire resistance of	od of fire	resistan	fo as
	Construction and materials		Lo	Loadbearing	bo			Non-	Non-loadbearing	ing	
		4 hours	2 hours	I_{hours}^{1}	I	1. hour	4 hours	2 hours	I [‡] hours	l	1. hour
134	3. Bricks of clay, concrete or sand-lime: (a) unplastered (b) \(\frac{1}{2}\) inch cement-sand plaster (c) \(\frac{1}{2}\) inch gypsum-sand plaster (d) \(\frac{1}{2}\) inch vermiculite-gypsum or perlite-gypsum* plaster	∞∞∞4	4444	4444	4444	4444	0 0 0 4 W4 K44 W4	4444	4444	w w w w	w w w w
1	4. Concrete blocks of Class I aggregate: (a) unplastered (b) \(\frac{1}{2}\) inch cement-sand plaster (c) \(\frac{1}{2}\) inch gypsum-sand plaster (d) \(\frac{1}{2}\) inch vermiculite-gypsum plaster	0004	4444	4444	4444	4444	044m	wwww	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	8877	2222
1	5. Concrete blocks of Class 2 aggregate: (a) unplastered (b) ½ inch cement-sand plaster (c) ½ inch gypsum-sand plaster (d) ½ inch vermiculite-gypsum plaster	4	4444	4444	4444	4444	0004	w44w	w44w	נה נה נה נה	2222
1 1	6. Autoclaved aerated concrete blocks density 30-75 lbs. per cubic foot	7	4	4	4	4	4	23	23	2	2

۲.	7. Hollow concrete blocks one cell in wall thickness of Class I										
	(a) umplastered (b) ½ inch cement-sand plaster (c) ½ inch gypsum-sand plaster (d) ½ inch vermiculite-gypsum plaster (d) ½ inch vermiculite-gypsum plaster		4444	44444	4 4 4 4 44 44 44	44444	9994	444¢	## n n n	45 m 25	~~~ 1 2
∞	8. Hollow concrete blocks one cell in wall thickness of Class 2 aggregate: (a) unplastered						2000	0004	ひひひ4	からひみ	N44W
9.	Cellular clay blocks not less than 50% solid: (a) ½ inch cement-sand plaster (b) ½ inch gypsum-sand plaster (c) ½ inch vermiculite-gypsum plaster						80	4	4	444	22.23
10.	10. Cavity wall with outer leaf of bricks or blocks of clay, composition, concrete or sand-lime, not less than 4 inches thick and: (a) inner leaf of bricks or blocks of clay, composition, concrete or sand-lime (b) inner leaf of solid or hollow concrete blocks or brick of Class I aggregate	4 4	A A	A 4	4 4	4 4	4 ω	w w	w w	w w	w w
11.	11. Cavity wall with outer leaf of cellular clay blocks as 9 above and inner leaf of autoclaved aerated concrete blocks, density 30-75 lbs. per cubic foot	9	4	4	4	4	es	e	es.	en .	es .

* Perlite-gypsum plaster to clay bricks only.

Part I: Walls-continued

B. Framed and composite construction (non-loadbearing)

		Construction	on and	materi	als			f	Period of ire resistance in hours
1.	Steel frame with lathing and interdensity 30–70 lbs.	nal lining	of auto	claved	aerate	endering d concr	g on m ete blo	etal cks,	
	2 inches					•••	•••	•••	2 3
	$2\frac{1}{2}$ inches .		•••	•••	•••	•••	•••	•••	3 4
	3 inches .	•• •••	•••	•••	•••	•••	•••	•••	4
2.	Steel frame with internal lining of							and 	4
3.	Steel frame with sand-lime 4 inche board of thickness	external o	cladding d interi	r of br	icks of	f clay,	concret	e or ting 	3
4.	Steel frame with lathing and intern			of §	inch r	enderin	g on m	etal	
	3 inch asbe 5 inch gyps					•••	•••	•••	$I^{\frac{1}{2}}$
5.	Steel or timber fr	ame with f	acings o	on each	n side o	of—			
	(a) metal lath ness of:	ning with c	ement-s	and or	gypsu	m plaste	er of th	ick-	
	$\frac{3}{4}$ inch .		•••	•••	•••	•••	•••	•••	1
	$\frac{1}{2}$ inch .		•••	•••	•••	•••	•••	•••	1 /2
	(b) metal lat plaster of t			ulite-g	ypsum	or per	lite-gyp	sum	
	1 inch .				•••			•••	2
	₹ inch .		•••	•••	•••	•••	•••	•••	$I_{\frac{1}{2}}^{\frac{1}{2}}$
	$\frac{1}{2}$ inch .		•••	•••	•••	•••	•••	•••	1
	(c) $\frac{3}{8}$ inch pl		with g	gypsun	n plast	er of t	hicknes	s of	
	$\frac{3}{16}$ inch .		•••	•••	•••	•••	•••	•••	1 /2
	(d) ³ / ₈ inch p gypsum plo				culite-g	ypsum	or per	·lite-	
	$1\ inch$.		•••			•••	•••	•	2
	§ inch .				•••	•••	•••	•••	$\frac{l^{\frac{1}{2}}}{l^{\frac{1}{2}}}$
	$\frac{3}{8}$ inch.		•••	. • • •	•••	•••	•••	•••	$\frac{I}{\frac{1}{2}}$
					•••	•••		•••	2
	(e) § inch p thickness o						plastei 	r <i>of</i>	$\frac{1}{2}$
	(f) $\frac{3}{8}$ inch population of the	erforated p thickness of	lasterbo f	oard w	ith veri	miculite	(or per	rlite)	
	1 inch.			•••	•••		•••	•••	2
	§ inch .			•••	•••	•••	•••	•••	$l^{\frac{1}{2}}$
	$\frac{3}{8}$ inch.		•••	•••	•••	•••	•••	•••	1
	(g) $\frac{1}{2}$ inch pla	asterboard–	_						
	unplaste with gy <u>p</u>	red psum plaste	 r of thi	 ickness	of $\frac{1}{2}$ in	 ıch	•••	•••	$1^{\frac{1}{2}}$
				400					

Part I: Walls—continued

	Construction and materials	fire resistanc in hours
	(h) $\frac{1}{2}$ inch plasterboard with vermiculite (or perlite) plaster of thickness of—	pf
	I inch	$\begin{array}{ccc} \dots & 2 \\ \dots & \frac{l_{\frac{1}{2}}}{l} \end{array}$
	(i) $\frac{3}{4}$ inch plasterboard (or 2 layers of $\frac{3}{8}$ inch fixed to brea joint) without finish	-
	(j) $\frac{3}{4}$ inch plasterboard (or 2 layers of $\frac{3}{8}$ inch) with vermiculit (or perlite) plaster of thickness of—	te
	$\frac{5}{8}$ inch	$\begin{array}{ccc} \dots & 2 \\ \dots & I_{\frac{1}{2}} \end{array}$
	(k) $\frac{1}{2}$ inch insulating fibreboard with gypsum plaster of thickness of $\frac{1}{2}$ inch	$\frac{1}{2}$
	(1) asbestos insulating board not less than $\frac{3}{8}$ inch thick wit $\frac{3}{8}$ inch fillets to face of studs	½
	(n) 1 inch woodwool slabs with gypsum plaster of thickness	$ \begin{array}{ccc} $
6.	Compressed straw slabs in timber frames finished on both face	es.
7.	with gypsum plaster of thickness of $\frac{3}{10}$ inch Plasterboard $\frac{3}{8}$ inch cellular core partition—	1
	(a) unplastered (b) $\frac{1}{2}$ inch gypsum plaster (c) $\frac{7}{8}$ inch vermiculite-gypsum plaster	$\begin{array}{ccc} & & \frac{1}{2} \\ & & \frac{1}{2} \\ & & 2 \end{array}$
8.	Plasterboard $\frac{1}{2}$ inch cellular core partition— (a) unplastered (b) $\frac{1}{2}$ inch gypsum plaster (c) $\frac{5}{8}$ inch vermiculite-gypsum plaster	$\begin{array}{ccc} \ddots & \frac{1}{2} \\ \ddots & I \\ \ddots & 2 \end{array}$
9.	Plasterboard $\frac{3}{4}$ inch finished on both faces with $\frac{5}{8}$ inch gypsun plaster	n . 1
10.	Plasterboard $\frac{1}{2}$ inch bonded with neat gypsum plaster to each sid of $\frac{3}{4}$ inch plasterboard	$\stackrel{'}{\cdot}$ $I^{\frac{1}{2}}$
11.	Three layers of $\frac{3}{4}$ inch plasterboard bonded with neat gypsum plaste	r 2
12.	Woodwool slab with $\frac{1}{2}$ inch render or plaster of thickness of— 3 inches	. 2
13.	2 inches	. I s
C.	to joints, of thickness of 2 inches	· ½
1.	Steel frame with external cladding of non-combustible sheets with internal lining of—	h
	(a) asbestos insulating board of thickness of $\frac{3}{8}$ inch (b) metal lathing with cement-sand or gypsum plaster of thick ness of $\frac{1}{2}$ inch	. 4 - . 4
		•

Part I: Walls-continued

	Construction	and mate	erials			•	Period of fire resistance in hours
	(c) sprayed asbestos of thic	ckness of	$\frac{1}{2}$ inch	•••	•••	•••	4
	(d) 2 layers of $\frac{3}{8}$ inch plast	erboard	•••	•••	•••		$\frac{1}{2}$
	(e) $\frac{3}{8}$ inch plasterboard finess of $\frac{1}{2}$ inch	iished wii		n plaste	er of th	ick-	1
	(f) $\frac{1}{2}$ inch plasterboard finis			vosum	plaster		1/2
	(g) 2 inch compressed stra		10	, y p z z z z z z	p.m.s.c.	•••	1/2
			 	 41. 3 £			. 2
	(h) 2 inch compressed stra plaster	w siabs ji 		in 16 u	ıcn gyp 	sum 	1
*2.	Timber frame with external cement-lime rendering and inte	cladding rnal clade	of $\frac{3}{8}$ inc	h cem	ent-sana	d or	
	(a) $\frac{3}{8}$ inch asbestos insulati	ng board	•••			•••	1
	(b) § inch gypsum plaster	on metal	lathing				1
	(c) 🖁 inch plasterboard fini	shed with	1 inch g	ypsum j	olaster		1
	(d) ½ inch plasterboard fini					•	1
	(e) 2 inch compressed stray		10				1
	(f) aerated concrete blocks		•••	•••	•••	•••	•
	2 inch						3
	$2 \text{ inch } \dots$ $2\frac{1}{2} \text{ inch } \dots$		•••	•••	•••	•••	4
	3 inch	··· ···	•••	•••	•••		4
	4 inch	•••	•••	•••	•••		4
3.	Timber frame with external c sand-lime bricks or blocks, fini				concrete	e or	
	(a) asbestos insulating boat	rd	•••				4
	(b) $\frac{5}{8}$ inch gypsum plaster	on metal	lathing	•••	•••		4
*4.	Timber frame with external in the inch plywood and internal lin		of wea	ther b	oarding	or	
	(a) $\frac{3}{8}$ inch asbestos insulati	ng board	•••	•••	•••		$\frac{1}{2}$
	(b) $\frac{5}{8}$ inch gypsum plaster of	on metal	lathing		•••		$\frac{1}{2}$
	(c) $\frac{3}{8}$ inch plasterboard finite	shed with	½ inch gy	psum p	olaster		$\frac{1}{2}$
	(d) ½ inch plasterboard fini	shed with	$\frac{3}{16}$ inch §	gypsum	plaster		$\frac{1}{2}$
	(e) 2 inch compressed stray	v slabs	•••	•••	•••		$\frac{1}{2}$
	(f) 3 inch woodwool slabs f	aced each	side with	h asbesi	os-ceme	ent	2
	(g) aerated concrete blocks	<u> </u>					
	2 inch		•••	•••	•••		3
	$2\frac{1}{2}$ inch		•••	•••	•••	• • •	4
			•••	•••	•••	•••	4
	4 inch		***	•••	•••	•••	4

^{*}The presence of a combustible vapour barrier within the thickness of these constructions will not affect these periods of fire resistance.

PART II: REINFORCED CONCRETE COLUMNS

Construction and materials	Minimum dimension of concrete column* without finish (in inches) for a fire resistance of—					
	4 hours	2 hours	$\frac{1\frac{1}{2}}{hours}$	1 hour	hour	
1. (a) without plaster (b) with ½ inch cement-sand or gypsum-sand plaster on mesh reinforcement fixed	18	12	10	8	6	
around column (c) finished with $\frac{1}{2}$ inch encasement of vermi-	17	11	9	7	6	
culite-gypsum plaster (d) with hard drawn steel wire fabric 12 S.W.G. of maximum 6 inch pitch in each direction placed in concrete cover to main	12	9	8	6	5	
reinforcement (e) with limestone or lightweight aggregate	12	9	8	8	6	
as course aggregate	12	9	8	8	6	
2. Built into †any separating wall, compartment wall or external wall!—						
(a) without plaster (b) finished with $\frac{1}{2}$ inch of vermiculite-gypsum	7	4	4	3	3	
plaster	6	4	3	3	3	

st The minimum dimension of a circular column is the diameter.

PART III: REINFORCED CONCRETE BEAMS

Construction and materials	Minimum concrete cover without finish to main reinforcement (in inches) for a fire resistance of—					
	4 hours	2 hours	$\begin{array}{ c c } I^{\frac{1}{2}} \\ hours \end{array}$	1 hour	1/2 hour	
(a) without plaster	$\frac{2\frac{1}{2}}{2}$	2	$l^{\frac{1}{2}}$	1	1/2	
(b) finished with ½ inch vermiculite-gypsum plaster (c) with ½ inch cement-sand or gypsum-sand	1	$\frac{1}{2}$	1/2	$\frac{1}{2}$	1/2	
plaster on mesh reinforcement fixed round beam	2	$I^{\frac{1}{2}}$	1	$\frac{1}{2}$	$\frac{1}{2}$	

[†] 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 2 feet on each side of, the column.

PART IV: PRESTRESSED CONCRETE BEAMS WITH POST-TENSIONED STEEL

Cover reinforcement	Additional protection	Minimum concrete cover to tendons (in inches) for a fire resistance of—				
	-	4 hours	2 hours	$\frac{1\frac{1}{2}}{hours}$	1 hour	
None	(a) none (b) vermiculite concrete slabs (permanent shuttering) ½ inch thick (c) plaster ½ inch thick on mesh		11/2	1	$l^{\frac{1}{2}}$	
$(d) ve_{\frac{1}{2}}$	reinforcement fixed around beam (d) vermiculite-gypsum plaster ½ inch thick or sprayed asbestos § inch thick		2 1½	1½ 1	1	
Light mesh rein- forcement (having a minimum con- crete cover of I inch) to retain the concrete in position around the tendons	(a) none (b) plaster ½ inch thick on mesh reinforcement (c) vermiculite concrete slabs	4 3½	21/2	2½		
	(permanent shuttering) ½ inch thick (d) vermiculite concrete slabs (permanent shuttering) 1 inch thick	3				
	(e) vermiculite-gypsum plaster ½ inch thick (f) vermiculite-gypsum plaster	3	·			
	\$\frac{1}{8}\$ inch thick (g) sprayed asbestos \$\frac{1}{8}\$ inch thick (h) sprayed asbestos \$\frac{1}{4}\$ inch thick	2 3 2				

	Minimum thickness (in inches) of protection for a fire resistance of—					
Construction and materials	4 hours	2 hours	$l^{\frac{1}{2}}$ hours	1 hour	$\frac{\frac{1}{2}}{hour}$	
(A.) Solid Protection* (unplastered) 1. Concrete not leaner than 1:2:4 mix with natural aggregates—						
(a) concrete not assumed to be loadbearing, reinforced† (b) concrete assumed to be loadbearing, rein-	2	1	1	1	1	
forced in accordance with BS 449:1959	3	2	2	2	2	
2. Solid bricks of clay, composition or sand-lime	3	2	2	2 2	2 2	
3. Solid blocks of foamed slag or pumice concrete	21		_	1	2	
reinforced† in every horizontal joint 4. Sprayed asbestos—9 to 15 lbs. per cubic foot	$\frac{2\frac{1}{2}}{1\frac{3}{4}}$	2 3	2 5	2 3	2	
5. Sprayed vermiculite-cement	14	$l^{\frac{3}{4}}$	$I_{\frac{1}{4}}^{\frac{5}{8}}$	3 8 3 4	1 2	
(B.) Hollow Protection‡ 1. Solid bricks of clay, composition or sand-lime reinforced in every horizontal joint, unplastered	4 1	2	2	2	2	
2. Solid blocks of foamed slag or pumice concrete reinforced§ in every horizontal joint, un-	_		_			
plastered 3. Metal lath with gypsum or cement-lime	3	2	2	2	2	
plaster of thickness of		1½§	1	<u>3</u>	1/2	
perlite-gypsum plaster of thickness of (b) metal lath spaced 1 inch from flanges with vermiculite-gypsum or perlite-	2§	<u>3</u>	<u>5</u> 8	$\frac{1}{2}$	1/2	
gypsum plaster thickness of 5. Gypsum plasterboard with 16 S.W.G. wire binding at 4 inch pitch—	13/4	<u>3</u> 4	1/2	1/2	1/2	
(a) \(\frac{3}{8}\) inch plasterboard with gypsum plaster of thickness of \(\delta\) \(\delta\). (b) \(\frac{3}{4}\) inch plasterboard with gypsum plaster				1/2	1/2	
of thickness of		$\frac{1}{2}$	<u>3</u> 8	1/4	4	
(a) \(\frac{3}{8}\) inch plasterboard with vermiculitegypsum plaster of thickness of \(\ldots\) \(\ldots\)		5. 8	1/2	<u>3</u>	1	
(b) \(\frac{3}{4}\) inch plaster board with vermiculitegypsum plaster of thickness of \(\ldots\) \(\ldots\)	1 1 8	3	3	1/4	1	
gypsum plaster of thickness of	148	8	8	4	4	

^{*} 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 of steel binding wire not less than 13 S.W.G. in thickness, or a steel mesh weighing not less than 1 pound per square yard. In concrete protection, the spacing of that reinforcement shall not exceed 6 inches 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 $\frac{1}{2}$ to $\frac{3}{4}$ inch below surface unless special corner beads are used.

A. Encased steel stanchions (Weight per foot not less than 30 lbs.)—continued

Construction and materials	Minimum thickness (in inches) of protection for a fire resistance of—					
	4 hours	2 hours	1½ hours	1 hour	1/2 hour	
(B.) Hollow Protection*—continued 7. Metal lath with sprayed asbestos of thickness of 8. Vermiculite-cement slabs of 4:1 mix rein-	13/4	34	5 8	3/8	38	
forced with wire mesh and finished with plaster skim. Slabs of thickness of 9. Asbestos insulating boards of density 32 to 55 lbs. per cubic foot (screwed to 1 inch thick	21/2	1	1	1	1	
asbestos battens for $\frac{1}{2}$ hour and 1 hour periods)		1	3 4	1/2	38	

B. Encased steel beams (Weight per foot not less than 20 lbs.)

Construction and materials	Minimum thickness (in inches) of protection for a fire resistance of—					
	4 hours	2 hours	$l\frac{1}{2}$ hours	1 hour	$\frac{\frac{1}{2}}{hour}$	
(A.) Solid Protection† (unplastered) 1. Concrete not leaner than 1:2:4 mix with natural aggregates— (a) concrete not assumed to be loadbearing, reinforced‡ (b) concrete assumed to be loadbearing, reinforced in accordance with BS 449:1959 2. Sprayed asbestos—9 to 15 lbs. per cubic foot 3. Sprayed vermiculite-cement	2½ 3 1¾	1 2 3 1 1 1	$I = 2 \frac{5}{14}$	1 2 38 34	1 2 3 8 1 2	
(B.) Hollow Protection* 1. Metal lathing— (a) with cement-lime plaster of thickness of (b) with gypsum plaster of thickness of (c) with vermiculite-gypsum or perlite-gypsum plaster of thickness of	11/4	1\frac{1}{2}\frac{1}{8}	I $\frac{3}{4}$ $\frac{1}{2}$	3458	1212	

^{*} 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.

[†] 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 of steel binding wire not less than 13 S.W.G. in thickness, or a steel mesh weighing not less than 1 pound per square yard. In concrete protection, the spacing of that reinforcement shall not exceed 6 inches in any direction.

B. Encased steel beams (Weight per foot not less than 20 lbs.)—continued

Construction and materials	Minimum thickness (in inches) of protection for a fire resistance of—						
	4 hours	2 hours	$l^{\frac{1}{2}}$ hours	1 hour	hour		
(B.) Hollow Protection*—continued 2. Gypsum plasterboard with 16 S.W.G. wire binding at 4 inch pitch— (a) \(\frac{3}{8} \) inch plasterboard with gypsum plaster of thickness of (b) \(\frac{3}{4} \) inch plasterboard with gypsum plaster of thickness of 3. Plasterboard with 16 S.W.G. wire binding at 4 inch pitch— (a) \(\frac{3}{8} \) inch plasterboard nailed to wooden cradles finished with gypsum plaster of thickness of		1/2	ক্ষ	12 14	1/2 1/4		
(b) $\frac{3}{8}$ inch plasterboard with vermiculitegypsum plaster of thickness of		<u>5</u>	1/2	38	1/4		
(c) \(\frac{3}{4}\) inch plasterboard with vermiculitegypsum plaster of thickness of \(\ldots\)	14†	38	<u>3</u>	1/4	1/4		
(d) \(\frac{2}{4} \) inch plasterboard with gypsum plaster of thickness of \(\ldots \) \(\ldo		1/2					
 4. Metal lathing with sprayed asbestos 9 to 15 lbs. per cubic foot of thickness of 5. Asbestos insulating boards of density 32 to 	13/4	3 4	<u>3</u> 8	3 8	<u>3</u> 8		
55 lbs. per cubic foot (screwed to 1 inch thick asbestos battens for ½ hour and 1 hour periods) 6. Vermiculite cement slabs of 4:1 mix reinforced		1	<u>3</u> 4	1/2	38		
with wire mesh and finished with plaster skim. Slabs of thickness of 7. Gypsum-sand plaster $\frac{1}{2}$ inch thick applied to	$2\frac{1}{2}$	1	1	1	1		
heavy duty (Type B) woodwool slabs of thickness of		2	$l\frac{1}{2}$	$I\frac{1}{2}$	$I^{\frac{1}{2}}$		

^{*} 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 $\frac{1}{2}$ to $\frac{3}{4}$ inch below surface unless special corner beads are used.

PART VI: STRUCTURAL ALUMINIUM

Encased aluminium alloy stanchions and beams (Weight per foot not less than 11 lbs.)

Construction and materials		Minimum thickness (in inches) of protection for a fire resistance of—						
	4 hours	2 hours	$l\frac{1}{2}$ hours	1 hour	1/2 hour			
(A.) Solid Protection* 1. Sprayed asbestos—9 to 15 lbs. per cubic foot 2. Sprayed vermiculite-cement		17/8	11/4	1 ³ / ₄	3/8 3/4			
(B.) Hollow Protection† 1. Metal lath with vermiculite-gypsum or perlite-gypsum plaster of thickness of 2. Metal lath finished with neat gypsum plaster of thickness of 3. Gypsum plasterboard \(\frac{3}{4}\) inch thick with 16		11/4	78	5,60 3,4	1/2 1/2			
S.W.G. wire binding at 4 inch pitch finished with gypsum-vermiculite plaster of thickness of 4. Asbestos insulating board of density 32 to 55		78	5 8	<u>3</u>	3 8			
lbs. per cubic foot (screwed to 1 inch thick asbestos battens for the $\frac{1}{2}$ hour period)			1 3	78	<u>3</u> 8			

^{*} 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.

PART VII: TIMBER FLOORS

Construction and materials	Minimum thickness (in inches) for fire resistance of—				
	1 hour	1/2 hour	modified ½ hour		
(A) Plain edge boarding on timber joists not less than 1½ inches wide with ceiling of— (i) timber lath and plaster— thickness of plaster (ii) timber lath and plaster with plaster of minimum thickness of § inch covered on underside with plasterboard of thickness (iii) metal lath and plaster—		1/2	**************************************		
thickness of plaster (a) gypsum (b) vermiculite (iv) one layer of plasterboard of thickness (v) one layer of plasterboard of minimum thickness of $\frac{3}{8}$ inch finished with gypsum		5 8 1 2	1/2		

[†] Hollow protection 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.

	for fire	(in inches) of—	
Construction and materials	1 hour	hour	modified ½ hour
(vi) one layer of plasterboard of minimum thickness of $\frac{1}{2}$ inch finished with gypsum			
plaster of thickness gypsum		1/2	
(vii) two layers of plasterboard of total thick-			
ness (viii) two layers of plasterboard each of minimum thickness of $\frac{3}{8}$ inch finished with		1	34
gypsum plaster of thickness		3 16	
(ix) one layer of insulating fibreboard of minimum thickness of ½ inch finished			
with gypsum plaster of thickness			1 1
(x) one layer of asbestos insulating board of			2
minimum thickness		$\frac{1}{2}$	
(xi) woodwool slab 1 inch thick finished with gypsum plaster of thickness		3 16	
D) 77		10	
B) Tongued and grooved boarding not less than inch (nominal) thickness* on timber joists not			
less than $1\frac{1}{2}$ inches wide with ceiling of—			
(i) timber lath and plaster—			
thickness of plaster (ii) timber lath and plaster with plaster of			5 8
minimum thickness of $\frac{8}{5}$ inch covered on			
underside with plasterboard of thickness		3/8	
(iii) metal lath and plaster—	7	_	
thickness of plaster (a) gypsum (b) vermiculite	7 8 1 2	58 1 2	
(iv) one layer of plasterboard of thickness	2	2	3 8
(v) one layer of plasterboard of minimum thickness of $\frac{3}{6}$ inch finished with—			
thickness of \S inch finished with— (a) gypsum plaster of thickness		1/2	
(b) vermiculite-gypsum plaster of thick-		2	
ness	$\frac{1}{2}$		
(vi) one layer of plasterboard of minimum			
thickness of ½ inch finished with gypsum plaster of thickness		3 16	
(vii) two layers of plasterboard of total thick-			
ness		7	
(viii) one layer of insulating fibreboard of minimum thickness of $\frac{1}{2}$ inch finished			
with gypsum plaster of thickness			3 16
(ix) one layer of asbestos insulating board of			
minimum thickness (x) one layer of asbestos insulating board of		3	
minimum thickness of $\frac{1}{2}$ inch finished on			
top with glass fibre or mineral wool of			
thickness	1		1

^{*} Or an equivalent thickness of wood chipboard.

PART VII: TIMBER FLOORS—continued

	Minimum thickness (in inches) for fire resistance of—					
Construction and materials	1 hour	$\frac{\frac{1}{2}}{hour}$	modified $\frac{1}{2}$ hour			
(xi) woodwool slab 1 inch thick finished with— (a) gypsum plaster of thickness (b) vermiculite-gypsum plaster of thickness (C) Tongued and grooved boarding not less than 1 inch (nominal) thickness* on timber joists not	<u>3</u> 8	3 16				
less than 7 inches deep by 2 inches wide with ceiling of— (i) timber lath and plaster— thickness of plaster	34 4	58 58 12 16	38			
ness (viii) one layer of insulating fibreboard of thickness (ix) one layer of insulating fibreboard of minimum thickness of ½ inch finished with gypsum plaster of thickness (x) one layer of asbestos insulating board of thickness (xi) woodwool slab 1 inch thick finished with— (a) gypsum plaster of thickness (b) vermiculite-gypsum plaster of thickness	e pic	34 12 14 36	1/2			

^{*} Or an equivalent thickness of wood chipboard. † Sprayed asbestos in accordance with BS 3590:1963.

PART VIII: CONCRETE FLOORS

	A Kinima think		1 2011	mists for a few manites		
Construction and materials	Minimum inickness of solid substance		Ceuing J	Ceiling finish for a fire resistance of—	nce oj—	
	including screed (inches)	4 hours	2 hours	14 hours	I hour	½ hour
Solid flat slab or filler joist floor. Units of channel	33	I inch V or I inch A	3 inch V or 2 inch A	3 inch V or ½ inch A	‡ inch V or ‡ inch A	nil
	4	3 inch V or	4 inch V	‡ inch V	nil	nil
	S	4 inch A 3 inch V or	nil	nil	nil	nil
	9	ž inch A nil	nil	nil	nil	nil
Solid flat slab or filler joist floor with 1 inch wood- wool slab ceiling base	3.4	k inch G nil	nil nil	½ inch G nil nil nil	nil nil nil	, nil nil nil
Units of inverted U section with minimum thickness at crown	£ 8 4 9	nil	nil	nil	nil nil	nil nil nil
Hollow block construction or units of box or I section	ర్షబట్టా	nil	nil	nil	nil	nil nil nil
Cellular steel with concrete topping	23	y inch V suspended on metal lathing or y inch A (direct)	½ inch G suspended on metal lathing	hinch G suspended on metal lathing	½ inch G suspended on metal lathing	nil
			_	_	_	

"G"—gypsum plaster.

" A"—Sprayed asbestos in accordance with BS 3590:1963.

" V"—vermiculite-gypsum plaster.

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44/33439

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 Parts II, III or IV of this Schedule (whichever is applicable under regulation E7).
- 2. For the purposes of this Schedule, the expression "unprotected area" has the meaning ascribed to it by regulation E1, but in calculating the size of unprotected areas or the permitted limit of unprotected areas, the following provisions shall
 - (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;
 - (b) no account shall be taken of any of the following-
 - (i) an unprotected area which does not exceed 150 square inches and which is not less than 5 feet from any other unprotected area in the same side of the building or compartment (unless that other falls within (iii) below);
 - (ii) one or more unprotected areas having an area (or if more than one an aggregate area) not exceeding 10 sq. ft. and being not less than 12 ft. from any other unprotected area in the same side of the building or compartment (except any such area as is specified in (i) above).
 - (iii) an unprotected area in any part of an external wall which forms part of a protected shaft;
 - (iv) an unprotected area in the side of a building not divided into compartments, if the area is not less than 90 feet 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-
 - "relevant boundary" means that part of the boundary of the land which is on the side of a building constituting the subject of this calculation, and which is either parallel to that side, or at an angle of not more than 80° with that side;
 - "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:
 - "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° to the plane of reference), the outer edges being for this purpose projected on the plane of reference by lines perpendicular to such plane; and
 - (b) have two horizontal sides; and
 - (c) have height and width falling within those listed in the Tables to this
 - Part of this Schedule; "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.

. TABLES TO PART II OF SCHEDULE 9

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	**	Γ	Distance unprof	in feet fr	om relevercentage	ant bou	ndary fo eeding	r	
in feet	20	30	40	50	60	70	80	90	100
			Enc	closing re	ectangle	10 feet h	igh		
10 20 30 40 50 60 70 80 90 100 150 N/L	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	3 4 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	4 5 6 6 6 6 7 7 7 7	5 6 7 8 8 8 8 8 8 8 8 8	5 7 8 9 9 10 10 10 10 10	6 8 9 10 10 11 11 11 11 12 12 12	6 8 10 11 11 12 12 13 13 13 13 13	7 9 11 12 13 13 14 14 14 14 15 15	7 10 11 12 13 14 15 15 15 16 16
			Enc	losing re	ectangle :	20 feet h	igh		
10 20 30 40 50 60 70 80 90 100 150 200 250 300 N/L	3 3 4 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	4 6 7 8 8 8 9 9 9 9 9 9 9 9 9 9 9	5 8 9 10 10 11 11 12 12 12 13 13 13 13	6 9 11 12 13 14 14 15 15 16 16 16	7 10 12 13 14 15 16 17 17 18 19 19	8 11 13 15 16 17 18 19 20 20 22 23 23 23 23	8 12 15 16 18 19 20 21 22 22 25 25 26 26	9 13 16 18 19 21 22 23 24 25 27 28 29 29	10 13 16 19 21 22 23 24 25 26 29 31 32 32 33

Width of enclosing rectangle		I	Distance unpro	in feet fi tected pe				r	
in feet	20	30	40	50	60	70	80	90	100

Enclosing rectangle 30 feet high

	l								l
10	3	4	6	7	8	9	10	11	11
20	4	7	9	11	12	13	15	16	16
30	5	9	11	13	14	16	18	19	20
40	5 5	10	13	15	17	19	21	22	23
50	6	11	14	17	19	21	23	24	26
60	6 7	12	15	18	20	22	24	27	28
70	7	12	15	19	21	24	26	28	30
80	7	12	16	19	22	25	27	30	32
90	7	12	16	20	23	26	28	31	33
100	7	13	17	21	24	27	29	32	34
150	7	13	18	22	26	30	33	37	39
200	7	13	19	23	28	. 33	36	39	43
250	7	13	19	24	29	33	37	41	45
300	7	13	19	24	29	34	38	42	46
N/L	7	13	19	24	29	34	38	43	47

Enclosing rectangle 40 feet high

Width of enclosing rectangle in feet		Ε	Distance unprof	in feet fr tected pe	om relev ercentage	ant bou	ndary fo eeding	r	
in feet	20	30	40	50	60	70	80	90	100
			Enc	losing re	ectangle	50 feet h	igh		
10 20 30 40 50 60 70 80 90 100 150 200 250 300 N/L	3 5 6 7 7 8 9 10 10 10 11 11 11 11	5 8 10 12 14 15 17 18 18 19 20 21 21 22 22	6 10 14 16 18 20 21 23 24 25 27 29 30 30 31	8 13 17 20 22 24 25 27 28 29 33 36 37 38 39	9 14 19 22 24 27 29 31 32 33 38 41 43 45 46	10 16 21 24 27 30 32 34 36 37 43 47 50 52 54	11 18 23 26 29 32 35 37 39 40 47 51 55 58 60	13 19 24 28 32 35 37 39 41 43 51 57 61 64 66	13 21 26 30 33 36 39 42 44 46 60 65 69
			Enc	closing r	ectangle	60 feet l	nigh		
10 20 30 40 50 60 70 80 90 100 150 200 250 300 N/L	3 5 6 7 8 9 10 11 11 13 14 14 14	5 8 12 14 15 17 18 20 21 21 24 25 25 26 26	6 11 15 18 20 22 24 25 26 27 31 33 35 35 36	8 14 18 21 24 26 28 30 32 33 38 41 43 44 45	9 15 20 24 27 29 31 33 35 37 43 47 50 52 54	11 17 22 26 30 32 35 37 39 41 48 53 57 59 62	12 19 24 29 32 35 38 41 43 45 53 58 63 66 69	13 21 27 31 35 38 41 43 46 48 57 64 69 73 76	14 222 28 33 36 40 43 46 49 51 61 68 73

Width of enclosing rectangle		I			om relevercentage		ndary fo eeding		ta i i i i i i i i i i i i i i i i i i i
in feet	20	30	40	50	60	70	80	90	100

Enclosing rectangle 70 feet high

10 3 5 6 8 10 11 12 14 15 20 5 9 11 14 16 18 20 22 23 30 7 12 15 19 21 24 26 28 30 40 8 15 19 22 25 28 31 33 35 50 9 17 21 25 29 32 35 37 39 60 9 18 24 28 31 35 38 41 43 70 10 20 25 30 34 38 41 45 47 80 11 21 27 32 36 40 44 47 50 90 12 22 29 34 38 42 47 50 53 100 12 24 3						,				,
80 11 21 27 32 36 40 44 47 50 90 12 22 29 34 38 42 47 50 53 100 12 24 30 36 40 45 49 52 55 150 14 26 35 42 47 53 58 62 66 200 15 28 38 46 52 59 64 70 75 250 15 29 40 48 56 63 69 76 81 300 16 29 41 50 59 66 73 81 86	20 30 40 50 60	7 8 9 9	9 12 15 17 18	11 15 19 21 24	14 19 22 25 28	16 21 25 29 31	18 24 28 32 35	20 26 31 35 38	22 28 33 37 41	23 30 35 39 43
200 15 28 38 46 52 59 64 70 75 250 15 29 40 48 56 63 69 76 81 300 16 29 41 50 59 66 73 81 86	80	11	21	27	32	36	40	44	47	50
	90	12	22	29	34	38	42	47	50	53
	100	12	24	30	36	40	45	49	52	55
	200	15	28	38	46	52	59	64	70	75
	250	15	29	40	48	56	63	69	76	81
	300	16	29	41	50	59	66	73	81	86

Enclosing rectangle 80 feet high

10	3	5	7	8	10	11	13	14	15
20	5	9	12	15	17	19	21	23	24
30	7	12	16	19	22	25	27	30	32
40	8	15	20	24	27	30	32	35	37
50	10	18	23 25	27	31 33	34	37	39	42 46
60	10	20	25	30	33	37	41	43	46
70	11	21	27	32	36	40	44	47 51 54	50
80	12	22	29	35	39	43	47	51	53
90	12	24	31	37	41	46	50	54	56
100	13	25	32	39	43	48	52	56	59
150	16	29	38	46	51 57	58	63	67 76	72
200	17	31	42	50	57	64	70	76	81
250	17	33	44	53	62	69	75	83	88
300	18	33	45	56	65	73	80	89	94
N/L	18	34	46	58	67	76	84	93	99
,								<u> </u>	

Width of enclosing rectangle	Distance in feet from relevant boundary for unprotected percentage not exceeding											
in feet	20	30	40	50	60	70	80	90	100			
-			Enc	losing re	ctangle	90 feet h	igh					
10 20 30 40 50 60 70 80 90 100 150 200 250 300 N/L	3 5 7 9 10 11 12 12 13 14 17 19 19 20 20	5 9 12 16 18 21 22 24 25 27 32 34 36 37 38	7 12 16 20 24 26 29 31 32 34 41 45 48 50 51	8 15 20 24 28 32 34 37 39 42 49 54 58 61 63	10 17 23 28 32 35 38 41 44 46 55 61 67 71 74	11 20 26 31 36 39 42 46 48 51 61 69 74 79 83	13 22 28 34 39 43 47 50 53 55 67 75 81 86 91	14 24 31 36 41 46 50 54 57 59 72 81 89 96	15 25 33 39 44 49 53 56 60 63 76 87 95 102 107			

Table 2—Buildings or compartments of purpose groups V (shop), VI (factory) and VIII (storage and general)

Width of enclosing rectangle	Distance in feet from relevant boundary for unprotected percentage not exceeding											
in feet	20	30	40	50	60	70	80	90	100			
			Enc	closing re	ectangle	10 feet h	nigh					
10 20 30 40 50 60 70 80 90 100 150 200 250 350 N/L	4 5 6 6 6 6 7 7 7 7 7 7 7	5 7 8 9 9 10 10 10 10 10 10 10 10 10	6 8 10 11 11 12 12 13 13 13 13 13 13 13 13	7 10 11 12 13 14 15 15 16 16 17 17 17	8 11 13 14 15 16 17 17 18 18 19 20 20 20 20	9 12 14 16 17 18 19 19 20 20 22 23 23 23 24 24	9 13 15 17 18 19 21 22 23 25 26 26 27 27	10 14 16 18 20 21 22 23 24 25 27 29 29 30 30 30	10 14 17 19 21 23 24 25 26 27 30 31 32 32 32 33			

Vidth of aclosing		Distance in feet from relevant boundary for unprotected percentage not exceeding											
ectangle in feet	20	30	40	50	60	70	80	90	100				
			E	nclosing	rectangl	e 20 feet	high						
10 20 30 40 50 60 70 80 90 100 150 200 250 350 400 N/L	5 8 9 10 10 11 11 12 12 12 13 13 13 13 13 13	7 10 12 13 14 15 16 17 17 18 19 19 19 19	8 12 15 16 18 19 20 21 22 22 25 26 26 26 26	10 13 16 19 21 22 23 24 25 26 29 31 32 32 33 33	11 15 19 21 23 25 27 28 29 30 34 36 37 38 39 39	12 16 20 23 26 28 30 31 33 34 38 40 42 44 45 46	13 18 22 25 27 30 31 34 35 36 42 45 48 49 50 51 52	14 19 23 27 29 32 34 36 38 40 46 49 52 54 56 57 58	14 20 24 28 31 34 36 40 42 48 53 56 61 62				

Enclosing rectangle 30 feet high

							,		
10	6	8	10	11	13	14	15	16	17
20	9	12	15	16	19	20	22	23	24
30	11	14	18	20	23	25	27	28	30
40	13	17	21	23	26	28	30	32	34
50	14	19	23	26	29	32	34	36	38
60	15	20	24	28	32	34	37	40	42
70	15	21	26	30	34	37	40	42	45
80	16	22	27	32	36	39	42	45	48
90	16	23	28	33	38	41	44	48	50
100	17	24	29	34	39	43	46	50	53
150	18	26	33	39	45	50	54	58	63
200	19	28	36	43	49	54	60	65	69
250	19	29	37	45	52	58	64	70	75
300	19	29	38	46	54	60	68	74	79
350	19	29	38	47	56	63	70	77	83
400	19	29	39	48	57	64	72	79	86
N/L	19	29	39	48	57	66	73	81	89
•	i .							1	

Width of enclosing rectangle		Distance in feet from relevant boundary for unprotected percentage not exceeding											
in feet	20	30	40	50	60	70	80	90	100				

Enclosing rectangle 40 feet high

10	6	9	11	12	14	16	17	18	19
20	10	13	16	19	21	23	25	27	28
30	13	17	21	23	26	28	30	32	34
40	15	20	24	27	30	33	35	38	40
50	16	22	26	30	34	37	39	42	44
60	18	24	29	33	37	40	43	46	48
70	19	25	31	35	40	43	46	49	52
80	20	27	32	37	42	46	49	53	56
90	20	28	34	39	44	48	52	56	59
100	21	29	35	41	46	51	55	58	61
150	23	33	40	47	54	60	65	70	74
200	24	35	44	52	60	67	72	78	83
250	24	36	47	56	64	71	78	85	90
300	25	37	: 49	59	67	75	83	91	96
350	25	38	50	60	70	78	87	94	101
400	25	38	50	61	72	80	90	98	105
N/L	25	38	51	62	74	82	92	102	109
•				1			l		ŀ

Enclosing rectangle 50 feet high

	1	· · · · · · · · · · · · · · · · · · ·		<u> </u>	1	1	1	ī.	1
10	6	9	11	13	15	17	18	20	21
20	10	14	18	21	23	26	27	29	31
30	14	19	23	26	29	32	34	36	38
40	16	22	26	30	34	37	39	42	44
50	18	24	29	33	38	41	44	47	50
60	20	27	32	36	41	45	48	51	54
70	21	29	35	39	44	49	51	55	58
80	23	31	37	42	47	53	55	59	62
90	24	32	39	44	50	55	58	63	66
100	25	33	40	46	52	57	61	66	69
150	27	38	47	54	62	69	73	79	84
200	29	41	51	60	70	77	83	89	95
250	30	43	55	65	75	83	90	98	104
300	30	45	58	69	79	88	96	104	111
350	31	46	60	72	82	92	101	110	117
400	31	47	62	74	85	95	106	115	122
N/L	31	47	62	75	88	98	109	119	127
/~	1		,	, ,					
	·								

Width of enclosing rectangle in feet		Distance in feet from relevant boundary for unprotected percentage not exceeding											
	20	30	40	50	60	70	80	90	100				
			Enc	losing re	ectangle	60 feet h	igh						
10 20 30 40 50 60 70 80 90 100 150 200 250 300 350 400 N/L	6 11 15 18 20 22 24 25 26 27 31 33 35 35 36 37 37	9 15 20 24 27 29 31 33 35 37 43 47 50 52 54 55	12 19 24 29 32 35 38 41 43 45 53 58 63 66 69 71 73	14 22 28 33 36 40 43 46 49 51 61 68 73 78 82 85 87	16 25 32 37 41 45 48 52 55 58 69 78 85 90 94 98 101	18 28 34 40 45 49 52 56 60 63 76 86 93 99 104 109 113	19 30 37 43 48 53 57 60 64 67 81 92 101 107 114 119	21 32 40 46 51 56 60 65 69 72 87 99 108 117 124 129 135	23 34 42 48 54 60 64 68 73 78 92 103 116 125 132 138				

10	6	10	12	15	17	19	21	22	24
20	11	16	20	23	27	30	31	34	36
30	15	21	26	30	34	37	40	42	45
40	19	25	31	35	40	43	46	49	52
50	21	29	35	39	44	49	51	55	58
60	24	31	38	43	48	52	57	60	64
70	25	34	41	47	53	57	62	66	70
80	27	36	44	50	56	61	66	70	74
90	29	38	47	53	60	64	69	74	78
100	30	40	49	55	63	68	73	78	82
150	35	47	58	66	75	82	89	95	100
200	38	52	64	75	85	94	102	108	114
250	40	56	69	81	93	103	111	119	126
300	41	59	73	86	100	110	119	128	137
350	42	61	77	91	105	116	125	137	146
400	42	62	80	96	109	121	131	143	153
N/L	42	63	82	99	113	125	137	149	159
,								1	

Width of enclosing rectangle in feet	·	Distance in feet from relevant boundary for unprotected percentage not exceeding											
	20	30	40	50	60	70	80	90	100				

Enclosing rectangle 80 feet high

10	7	10	13	15	17	19	21	23	25
20	12	17	21	24	28	31	34	36	38
30	16	22	27	32	36	39	42	45	48
40	20	27	32	37	42	46	49	53	56
50	23	31	37	42	47	53	55	59	62
60	25	33	41	46	52	56	60	65	68
70	27	36	44	50	56	61	66	70	74
80	29	39	47	53	60	65	70	75	80
90	31	41	50	56	64	68	74	80	84
100	32	43	52	59	67	72	78	84	88
150	38	51	63	72	81	88	94	102	109
200	42	57	70	81	92	101	108	116	122
250	44	62	75	88	101	111	120	128	135
300	45	65	80	94	109	120	129	139	147
350	46	67	84	99	114	126	137	148	158
400	47	69	88	104	120	132	143	156	166
N/L	48	70	90	108	124	138	149	163	174

Enclosing rectangle 90 feet high

			· · · · · · · · · · · · · · · · · · ·						
10	7	10	13	15	18	20	22	24	26
20	12	17	22	25	29	33	35	38	40
30	16	23	28	33	38	41	44	48	50
40	20	28	34	39	44	48	52	56	59
50	24	32	39	44	50	55	58	63	66
60	26	35	43	49	55	60	64	69	73
70	29	38	47	53	60	64	69	74	78
80	31	41	50	56	64	68	74	80	84
90	32	44	53	60	68	73	79	85	90
100	34	46	55	63	72	76	83	89	94
150	41	55	67	76	86	94	100	108	114
200	45	61	75	87	99	107	116	124	131
250	48	67	81	95	108	119	127	137	144
300	50	71	86	102	116	130	138	149	157
350	51	74	91	107	124	137	147	159	168
400	52	76	95	112	129	143	155	167	178
N/L	53	78	99	117	134	149	161	176	187

Part III. Rules for calculation by reference to aggregate notional area

- 5. The conditions of this Part of this Schedule shall be 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) 2,300 square feet (if the building or compartment is of purpose groups I, II, III, IV, or VII), or
 - (b) 1,000 square feet (if the building or compartment is of purpose groups 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 10 feet 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 the Table to this Part of this Schedule according to the distance of such unprotected area from the vertical datum;
- "vertical datum" means a vertical line of unlimited height at any point on the relevant boundary;
- "the datum line" means the line joining a vertical datum to the nearest point of the side of the building or compartment.
- 7. For the purposes of this Part of this Schedule, no account shall be 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 160 feet and extending 90° 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 OF FACTORS

Distance of un from vertical d	Factor	
Not less than	Less than	
3	4	80
4	6	40
6	9	20
9	14	10
14	20	4
20	28	2
28	40	1
40	60	1 2
60	90	4
90	160	10
160	No limit	0

PART IV. Rules for calculation in respect of certain buildings of purpose groups I or III

- 8. The provisions of this Part of this Schedule apply only to any building of purpose groups I or III, which does not exceed 25 feet in height and of which no side (measured on an elevation) exceeds 80 feet 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 the Table to this Part of this Schedule according to the length of such side and the total area of any unprotected areas to be taken into account.

Table to Part IV of Schedule 9
(Permitted unprotected areas in certain residential buildings)

Minimum distance between side of building and boundary (1)	Length of side not exceeding (2)	Total area of unprotected areas not exceeding (3)
3 feet 8 feet	80 feet 80 feet	60 square feet 160 square feet
16 feet	40 feet	Up to the whole area
20 feet	80 feet	of the wall.

SCHEDULE 10

NOTIONAL DESIGNATIONS OF ROOF CONSTRUCTIONS PART I: PITCHED ROOFS COVERED WITH SLATES OR TILES

	Covering material	Supporting structure	Designation
	1. Natural slates 2. Asbestos-cement slates 3. Clay tiles 4. Concrete tiles	Timber rafters with or without underfelt on sarking or boarding, woodwool slabs, compressed straw slabs, wood chipboard or insulating fibreboard	44
	5. Bitumen felt strip slates, asbestos or fibre based	Timber rafters and boarding	22
160	6. Bitumen felt strip slates, asbestos based, mineral surfaced with an underlayer of self-finished asbestos felt minimum 30 lbs.	Timber rafters and boarding	BB
	PART II: PITCH	PART II: PITCHED ROOFS COVERED WITH PREFORMED SELF-SUPPORTING SHEETS	
	Covering material	Supporting structure	Designation
	Corrugated sheets of— (a) galvanised steel, or (b) aluminium, or (c) composite steel and asbestos sheets, or (d) asbestos-cement	Main structure of timber, steel or concrete and covering in either— (a) single-skin construction without underlay or with underlay of— (i) asbestos insulating board, or (ii) plasterboard, or (iii) fibreboard treated to achieve Class I in spread of flame test*, or (iv) compressed straw slab, or (v) woodwool slab, or (v) woodwool slab, or (v) double-skin construction without interlayer of resin-bonded or bitumen-bonded glass fibre	44

* The test referred to in BS 476: Part I: 1953

PART III: PITCHED OR FLAT ROOFS COVERED WITH FULLY SUPPORTED MATERIAL

			Supporting structure	
Covering material	Timber joists and boarding not less than \{\frac{1}{2}} inch thick	and boarding z inch thick	Steel or timber joists with deck of (a) woodwool slabs, or (b) compressed straw slabs 2 inches thick, or	Slab of concrete or clay pot, in situ or precast concrete; or non-combustible deck of steel.
:	Tongued and grooved	Plain edged	(c) wood chipboard not less than $\frac{2}{4}$ inch thick, or (d) insulating fibreboard not less than I inch thick	aluminium or asbestos-cement with or without insulation
Huminium, copper or zinc sheets	AA	44	44	44
Lead sheet	AA	ВА	AA	AA
Mastic asphalt	AA	AA	44	AA

PART IV: ROOFS COVERED WITH BITUMEN FELT

Steel or tim	i		
COMBUSTIBLE DEC		TAILS OF FELT: TYPE, WEIGHT, BASE AND FINISH	ILS OF FELT:

Part IV: Roofs covered with bitumen felt	COMBUSTIBLE DECK NON-COMBUSTIBLE DECK	mber stressed inch skin berting skin cavity between skin skin bywood stressed inch skin cavity bywood stressed inch skin bywood bywood bywood stressed wool strew shool strew shool in accordance bywood slabs slabs will big strew slabs sla			AA AA AA AA AA	AA AA AA AA AA AA	AA AA AA AA AA	44 44 44 44 44 44	44 44 44 44 44	44 44 44 44 44 44	AA AA AA AA AA	44 44 44 44 44 44
		Timber	joists with I inch (nom.)	P.E. or T. & G. boarding (lower layer nailed)	AA	AA	AA	44	AA	AA	AA	AA
	VEIGHT, BASE AND FINISH		,	Upper layer	Type IC, self finished (a)	bitumen felt mini- (b) mum 30 pounds	Type 2B, self finished (a)	or ugnity sanded bitumen asbestos (b) felt minimum 30 pounds	elf.	ollumen asbestos felt minimum 30 (b) pounds	Type 5A, bitumen (a)	giass jure jeu mini- mum 30 pounds (b)
	DETAILS OF FELT: TYPE, W	DETAILS OF FELT: TYPE, WEIGHT, BASE AND FINISH Under layer or layers Upper layer				or ignity sumen onu- men felt, minimum 30 pounds	2. Type 1C, self finished	or iignity sanaea oitu- men felt, minimum 30 pounds	3. Type 2B, self finished or lightly sanded bitu-	men asvessos feu, mint- mum 30 pounds	4. Type 5A, bitumen glass	pounds
A. Flat roofs		1				162	Flat roof with	two or infee layer felt, 30 pounds/100 sq. ft., bitu-	1	ween layers of felt	<u> </u>	

Any reference in this Part of this Table to a Type of layer of felt is a reference to that type as listed in BS 747:1961.

(a)—with bitumen-bedded mineral chippings \(\frac{2}{3} \) inch \(\frac{2} \) inch \(\frac{2}{3} \) inc Notes:

B. Pitched roofs

DECK		Concrete or clay pot slab,	cast in situ or precast	AC	44	44	AB	AC
NON-COMBUSTIBLE DECK	Steel or	deck: deck: single skin or cavity	Overlaid insulating fibreboard in accordance with BS 1142.1961 (Section One 2b)	AC	AA	44	AB	AC
O-NON-	Asbe cem cav dee Ove ii with with (SS)			AC	44	44	AB	AC
	Steel or timber beams	Sup- porting	wood- wool slabs	AC	AA	44	AB	AC
COMBUSTIBLE DECK	Steel or tin	Sup- porting	com- pressed straw slabs	AC	AB	AB	AC	AC
COMBUSTI	,	Stressed skin plywood cavity	deck thickness of plywood \frac{3}{2} inch	22	BB	AB	BC	20
	Timber	joists with I inch (nom.)	P.E. or T. & G. boarding (lower layer nailed)	22	BB	AB	BC	22
VEIGHT, BASE AND FINISH			Upper layer	Type IE, mineral surfaced bitumen felt 80 pounds	Type 2C, mineral surfaced asbestos bitumen felt 80 pounds	Type 2C, mineral surfaced bitumen asbestos felt 80 pounds	Type 5B, mineral surfaced bitumen, glass fibre felt 60 pounds	1
DETAILS OF FELT: TYPE, V	DETAILS OF FELT: TYPE, WEIGHT, BASE AND FINISH Under layer or layers Upper layer		I. Type IC, self finished or lightly sanded bitu- men felt, minimum 30 pounds	2. Type 1C, self finished or lightly sanded bitu- men felt, minimum 30 pounds	3. Type 2B, self finished or lightly sanded bitumen asbestos felt, minimum 30 pounds	4. Type 5A, bitumen glass fibre felt, minimum 30 pounds	Type 1E, mineral surfaced bitumen felt, 80 pounds	
					Pitched roof with two or three layer felt 30	sq. ft. bitu- men bond- ing com- pound bet-	ween uyers of felt	Pitched roof with single layer felt

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SCHEDULE 11

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) woodwool slabs not less than 2 inches thick; (ii) compressed straw slabs not less than 2 inches
 - (ii) compressed straw stabs not less than 2 inches thick;
 - (iii) nodulated slag wool to a thickness of not less than $l\frac{1}{2}$ inches;
 - (iv) gypsum granules to a thickness of not less than I inch;
 - (v) exfoliated vermiculite to a thickness of not less than 1 inch;
 - (vi) corkboard not less than 1 inch thick;
 - (vii) insulating fibreboard not less than 1 inch thick:
 - (viii) mat, slab or quilt, not less than 1 inch thick, of eel grass or of mineral wool (glass, rock or slag) or cellulose acetate fibre;
 - (ix) expanded polystyrene not less than $\frac{3}{4}$ inch thick; or
 - (x) nodulated polystyrene not less than 1 inch thick.
- 2. Pitched roof of slates or 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 of this table as appropriate for any type of roof.
- (b) Any of the following in the roof or in a ceiling-
- (i) woodwool slabs not less than $1\frac{1}{2}$ inches thick;
 - (ii) mat, slab or quilt, not less than \(\frac{1}{2}\) inch thick, of eel grass or of mineral wool (glass, rock or slag) or cellulose acetate fibre;
 - (iii) insulating fibreboard not less than $\frac{3}{4}$ inch thick finished with or without plaster; or
 - (iv) compressed straw slabs not less than 1½ inches thick.
- (c) Any ceiling and any of the following with an air space between it and the ceiling—
 - (i) insulating fibreboard not less than $\frac{1}{2}$ inch thick; (ii) expanded polystyrene not less than $\frac{1}{2}$ inch
 - (ii) expanded polystyrene not less than ½ inch thick;
 (iii) double- or single-sided paper-reinforced alu-
 - minium foil;
 - (iv) insulating gypsum plasterboard not less than $\frac{3}{8}$ inch thick; or
 - (v) tongued and grooved softwood boarding not less than 1 inch 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) Insulating fibreboard not less than ½ inch thick over the decking with any of the following, with or

Type of insulation

- without an air space between it and the decking, under the decking or incorporated in the decking—
 (i) woodwool slabs not less than 1 inch thick;
 - (ii) mat, slab or quilt, not less than \(\frac{3}{4}\) inch thick, of eel grass or of mineral wool (glass, rock or slag) or cellulose acetate fibre;
 - (iii) insulating fibreboard not less than ½ inch thick; or
 - (iv) expanded polystyrene, not less than ½ inch thick.
- (c) Insulating fibreboard, not less than ½ inch 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 $\frac{3}{8}$ inch thick;
 - (iv) asbestos insulating board not less than ¼ inch thick; or
 - (v) plywood or hardboard not less than \(\frac{1}{4}\) inch thick.
- (d) Insulating fibreboard not less than ½ inch 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 \(\frac{1}{8}\) inch thick on joists or rafters; or pitched roof of slates or tiles on sarking felt or sarking paper on boarding not less than \(\frac{1}{8}\) inch thick on joists or rafters.
- (a) Any type of insulation specified in item 1 of this table as appropriate for any type of roof.
- (b) Any of the following in the roof or in a ceiling—
 (i) woodwool slabs, not less than 1½ inches thick;
 - (ii) mat, slab or quilt, not less than \(\frac{3}{4}\) inch thick, of eel grass or of mineral wool (glass, rock or slag) or cellulose acetate fibre; or
 - (iii) insulating fibreboard not less than $\frac{3}{4}$ inch thick.
- (c) Any of the following with an air space between it and the boarding—
 - (i) insulating fibreboard not less than ½ inch thick;
 - (ii) expanded polystyrene not less than ½ inch 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
 (v) insulating gypsum plasterboard not less than
 \$\frac{3}{2}\$ inch thick.
- (d) Crumpled 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) woodwool slabs not less than 1½ inches thick;
 (ii) a screed of vermiculite concrete to a thickness of not less than 2 inches;

Type of insulation

- iii) a screed of cellular or aerated concrete to a thickness of not less than 3 inches; or
- (iv) a screed of concrete, to a thickness of not less than 4 inches, 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) woodwool slabs not less than 1 inch thick;
 - (ii) compressed straw slabs not less than 1 inch thick:
 - (iii) insulating fibreboard not less than $\frac{5}{8}$ inch thick;
 - (iv) mai, slab or quilt, not less than ½ inch thick, of eel grass or of mineral wool (glass, rock or slag) or cellulose acetate fibre;
 - (v) expanded polystyrene not less than ½ inch thick:
 - (vi) corkboard not less than $\frac{1}{2}$ inch thick; or
 - (vii) combined flat and corrugated aluminium foil.
 - (b) A wall constructed of-
 - (i) blockwork not less than $2\frac{1}{2}$ inches thick (excluding plaster) made with solid blocks of cellular or aerated concrete not exceeding 60 pounds per cubic foot in density;
 - (ii) blockwork not less than 4 inches thick made with solid blocks of clinker, foamed slag, expanded clay or sintered pulverised fuel ash concrete not exceeding 90 pounds per cubic foot in density;
 - (iii) blockwork not less than 4 inches thick made with hollow blocks of clay or hollow blocks of cellular or aerated concrete not exceeding 90 pounds per cubic foot in density;
 - (iv) gypsum plasterboard dry partition, consisting of two sheets separated by a cellular paper core; or
 - (v) compressed straw slabs not less than 2 inches 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) insulating fibreboard not less than \(\frac{1}{4} \) inch 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 $\frac{5}{8}$ inch 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.

Type of insulation

- (b) A wall constructed of-
 - (i) blockwork not less than $2\frac{1}{2}$ inches thick (excluding plaster) made of solid blocks of clinker, foamed slag, expanded clay or sintered pulverised fuel ash concrete of a density not exceeding 90 pounds per cubic foot;
 - (ii) blockwork not less than $2\frac{1}{2}$ inches thick (excluding plaster) made of hollow blocks of clay or hollow blocks of cellular or aerated concrete, of a density not exceeding 90 pounds per cubic foot; or
 - (iii) gypsum plasterboard dry partition consisting of two sheets separated by a cellular paper core.
- (c) A wall constructed of timber studding with either of the following fixed to the studding—
 - (i) insulating fibreboard not less than ½ inch thick used as a lining, or in addition to a lining with an 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 having a cavity not less than 2 inches in width and constructed of—
- (a) two leaves of brickwork, each leaf not less than 4 inches 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 120 pounds per cubic foot, each leaf not less than 4 inches thick, plastered or rendered on one side of one of the leaves;
- (c) two leaves of hollow or solid blocks of concrete having a density of more than 120 pounds per cubic foot, each leaf not less than 6 inches 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 on 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 3 inches thick of—
 - (i) hollow blocks of clay;
 - (ii) hollow or solid blocks of cellular or aerated concrete having a density of not more than 100 pounds per cubic foot;
 - (iii) timber studding lined on one side with any material and lined on the other side with insulating fibreboard not less than $\frac{1}{2}$ inch thick or with insulating gypsum plasterboard not less than $\frac{3}{8}$ inch thick; or
 - (iv) compressed straw slabs not less than 2 inches thick;
- (f) two leaves, each not less than 3 inches 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 100 pounds per cubic foot.
- 2. A wall not less than 8 inches thick, consisting of cellular or aerated concrete having a density of not more than 90 pounds per cubic foot.

- 3. A wall not less than 10 inches thick, consisting of cellular or aerated concrete having a density of more than 90 pounds per cubic foot but not more than 100 pounds per cubic foot.
- 4. A wall not less than 12 inches thick, consisting of concrete having a density of more than 100 pounds per cubic foot but not more than 110 pounds per cubic foot.
- 5. A wall not less than 14 inches 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 90 pounds per cubic foot and a thickness of not less than 4 inches.

Table D. Floors

Type of floor

Type of insulation

- Suspended floor of tongued and grooved boarding not less than \(\frac{5}{8}\) inch thick on timber joists, having its underside exposed to the outer
- (a) Woodwool slabs not less than $1\frac{1}{2}$ inches thick fixed under the joists.
- (b) Any ceiling with any of the following between the ceiling and the floor boards—
 - (i) insulating fibreboard not less than ½ inch thick;
 - (ii) expanded polystyrene not less than ½ inch 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) double- or single-sided paper-reinforced aluminimum foil laid with an air space between it and the ceiling;
 - (v) mat, slab or quilt, not less than ³/₄ inch thick, of eel grass, or of mineral wool (glass, slag or rock) or cellulose acetate fibre;
 - (vi) nodulated slag wool to a thickness of not less than $1\frac{1}{2}$ inches;
 - (vii) exfoliated vermiculite to a thickness of not less than 1 inch;
 - (viii) gypsum granules to a thickness of not less than 1 inch; or
 - (ix) nodulated polystyrene not less than 1 inch
- 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) woodwool slabs not less than 2 inches thick;
- (ii) expanded polystyrene not less than ¾ inch thick; or
- (iii) corkboard not less than 1 inch thick.

EXPLANATORY NOTE

(This Note is not part of the Regulations.)

These regulations are made by the Minister of Public Building and Works, under Section 4 of the Public Health Act 1961. They will apply generally throughout England and Wales, with the exception of the Inner London Boroughs (the area of the former L.C.C.) where the London Building Acts will continue to prevail. The regulations will take the place of the building byelaws made by individual local authorities.

Some regulations which lay down mandatory requirements are followed by "deemed-to-satisfy" provisions, to which regulation A3 refers. In certain cases, these "deemed-to-satisfy" provisions refer to schedules in which details of materials or methods of construction are given, but neither these provisions nor the schedules impose any obligation to use any particular material or method. "Deemed-to-satisfy" provisions are printed in italics for easy reference.

The total or partial exemption of certain types of buildings is dealt with in regulation A4.

In general, the subject matter of the regulations is similar to that of the model byelaws, commonly adopted as building byelaws by local authorities, and the powers under which they are made are the same. In the following respects however there are considerable alterations or innovations. Part E (Structural fire precautions) introduces several new concepts, and is fundamentally altered from the byelaws. Part G (Sound insulation) is a new section, since this subject was not covered by the Byelaws. Part H (Stairways and balustrades) and Part J (Refuse disposal) are also new. Part K (Open space, ventilation and height of rooms) introduces concepts which differ considerably from the byelaw provisions.

Local authorities who have the duty to enforce the regulations are given power to dispense with or relax the requirements of certain of the regulations as set out in regulation A13.

Schedules 2 and 3 of the regulations contain details of the information to be given to local authorities, and specimen forms of application for relaxation of any of the requirements of the regulations.

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