Preview of the Proposed Amendments (2013) to the Uniform Building By-Laws 1984

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	PART I **PRELIMINARY**		
1.	**1. Interpretation.** In these By-laws, unless the context otherwise requires— … "dead load" means that static weight of all walls, partitions, floors, roofs and finishes, including all other permanent construction; … -None- … .	**1. Interpretation.** In these By-laws, unless the context otherwise requires— … "permanent load" means that static weight of all walls, partitions, floors, roofs and finishes, including all other permanent construction; … "MS EN" means the latest published edition of the Malaysian Standard which is identical to the European Standard; … .	“Permanent load” is used in MS EN 1991-1-1:2010: Actions on Structures – Part 1-1: General Actions – Densities, Self-weight, Imposed Loads for Buildings. To enable the latest published edition of the relevant MS EN to be applied in these By-laws to replace the British Standard.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
PART IA DEMOLITION OF BUILDINGS			
2.	-None-	**2A. Application of this Part.** This Part shall apply to the demolition of a building before reconstruction thereof.	To provide a new Part regulating any building demolition before reconstruction.
3.	-None-	**2B. Preparation and submission of demolition plan, etc.** (1) Before the demolition is commenced, one copy of the detailed demolition plan together with a copy of the stability report prepared in accordance with MS 2318:2010 (P) shall be submitted to the local authority. (2) The detailed demolition plan shall bear a cerficate by the submitting person as in Form A as set out in the Second Schedule to these By-laws to the effect that the details are in accordance with MS 2318:2010 (P) and that the submitting person accepts full responsibility.	To adopt MS 2318:2010 (P): Demolition of Buildings – Code of Practice (First Revision) in regards to the details of the demolition plan and the stability report.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
4.	-None-	**2C. Power of local authority to reject demolition plan and stability report.** Notwithstanding paragraph (2) of by-law 2B, the local authority may examine and in so doing may reject any demolition plan or stability report which is not in accordance with MS 2318:2010 (P) and if it rejects such plan or report it may require such submitting person to resubmit a new demolition plan or stability report in respect of the rejected portion.	The local authority may examine the plan and require the principal submitting person or submitting person to resubmit a plan.
5.	-None-	**2D. Notice of commencement or resumption of building operations.** (1) Notice of the intention to commence or resume the demolition of a building required under subsection (9) of section 70 of the Act shall be made in Form B as set out in the Second Schedule to these By-laws and shall include particulars of the intended work. (2) If the work is not commenced or resumed on the date given in such notice, a further notice in Form B as set out in the Second Schedule to these By-laws shall be given before the work may be commenced or resumed.	To provide that a notice of the commencement or the resumption of the demolition shall be given to the local authority before the work is carried out.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
6.	-None-	**2E. Methods of demolition.** The demolition works shall conform to MS 2318:2010 (P).	To adopt MS 2318:2010 (P) in regards to the methods of demolition.
7.	-None-	**2F. Duties of submitting person.** (1) The submitting person certifying the plan under paragraph (2) of by-law 2B shall be responsible for the proper execution of the demolition works and shall continue to be so responsible until the completion of the demolition works unless– (a) with the agreement of the local authority, another submitting person is appointed to take over; or (b) the local authority agrees to accept his withdrawal or replacement at the request of the owner provided that the demolition works has not commenced. (2) Where the local authority agrees to accept the submitting person's withdrawal or replacement under subparagraph (1)(b), the demolition works shall not commence until another submitting person is appointed to take over.	To provide the duties of the submitting person.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
		(3) Where any submitting person who has submitted the demolition plan has died or become bankrupt or cannot be found or has been deregistered from the register or for any other reason ceased to practice, the owner or occupier shall as soon as practicable appoint another submitting person to act for him and to submit adquate evidence to the local authority of the circumstances.	
8.	-None-	**2G. Exemption from this Part.** The local authority may if it deems fit exempt any minor demolition work from the requirements of this Part.	To provide for power to exempt if the nature of the demolition work does not warrant the measures provided in this Part.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	PART II **SUBMISSION OF PLANS FOR APPROVAL**		
9.	**3. Submission of plans for approval** (1) All plans for buildings submitted to the local authority for approval in addition to the requirements of section 70 of the Act shall– … (d) <u>have attached thereto a stamped copy of the relevant site plan approved by the competent planning authority and certified within twelve calendar months preceding the date on which the building plans are deposited unless otherwise exempted under any law relating to planning.</u>	**3. Submission of plans for approval** (1) All plans for buildings submitted to the local authority for approval in addition to the requirements of section 70 of the Act shall- … -Deleted-	This paragraph is proposed to be deleted to facilitate the concurrent processing system implemented at the One-Stop Centre (OSC). The system enables application for planning permission and building plans approval to be submitted to the OSC simultaneousy.
10.	**5. Supervision of work.** Where under these By-laws any plan, drawing or calculation in relation to any building is required to be submitted by a principal submitting person or submitting person, no erection or continued erection of that building shall take unless that principal submitting person or submitting person or any person duly authorized by him undertakes the supervision of the	**5. Supervision of work.** <u>(1)</u> Where under these By-laws any plan, drawing or calculation in relation to any building is required to be submitted by a principal submitting person or submitting person, no erection or continued erection of that building shall take place unless that principal submitting person or submitting person or any person duly authorized by him undertakes the supervision of the	

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	erection and the setting out, where applicable, of that building.	erection and the setting out, where applicable, of that building. (2) The erection of a building shall be carried out under the fulltime supervision of a construction site supervisor who is acrredited and certified by the Lembaga Pembangunan Industri Pembinaan Malaysia under the Lembaga Pembangunan Industri Pembinaan Malaysia Act 1994 [*Act 520*].	To ensure supervision of work to be carried out by by a person with relevant site supervision experience.
11.	**8. Plans to be deposited in triplicate.** (1) All building plans shall be deposited in triplicate or in as many copies as may be required by the local authority. (2) One set of the plans shall be on linen or other equally wear-resistant and durable material which, together with one other set, shall be retained by the local authority and the third set shall be returned after approval.	**8. Plans to be deposited in triplicate.** (1) All building plans shall be deposited in triplicate or in as many copies as may be required by the local authority. (2) One set of the plans shall be returned after approval.	The linen requirement is dispensed with to allow the usage of any other dependable medium or material.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
12.	**10. Plans required.** (1) All building plans in respect of any building shall, unless inapplicable, contain the following: (a) A site plan showing– … (iv) where required by the local authority the dimensions of the lot; … .	**10. Plans required.** (1) All building plans in respect of any building shall, unless inapplicable, contain the following: (a) A site plan showing– … (iv) where required by the local authority the dimensions <u>and area</u> of the lot;	Dimensions and area of the lot provides for a more perfect 2D mesures of the lot.
13.	**16. Details and calculation of structural plans.** (2) The detailed structure plans <u>shall be on linen and each copy</u> shall bear a certificate by the submitting person as in Form A as set out in the second schedule to these By-laws to the effect that the details are in accordance with there By-laws and that the submitting person accepts full responsibility.	**16. Details and calculation of structural plans.** (2) The detailed structure plans shall bear a certificate by the submitting person as in Form A as set out in the second schedule to these By-laws to the effect that the details are in accordance with there By-laws and that the submitting person accepts full responsibility.	To allow the usage of any other dependable medium or material.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	PART III **SPACE, LIGHT AND VENTILATION**		
14.	**34A. Building requirement for disabled persons.** … (6) The requirements of this by-law shall apply to any of the following buildings or any part thereof: (a) offices, banks, post offices, shops, department stores, supermarkets and other administrative and commercial buildings; except shophouses existing at the commencement of this by-law; (b) rail, road, sea and air travel buildings and associated concourses, car parking buildings and factories; (c) hospitals, medical centres, clinics and other health and welfare buildings; (d) restaurants, concert halls, threatres, cinemas, conference buildings, community buildings,	**34A. Building requirement for disabled persons.** … -Deleted-	The details should be referred to in the relevant standards, i.e. MS 1184.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	swimming pools, sports buildings and other refreshment, entertainment and recreation buildings; (e) religious buildings; (f) schools, colleges, universities, zoos, museums, art galleries, libraries, exhibition buildings and other educational, cultural and scientific buildings; and (g) hostels, hotels and other residential building other than single family private dwelling houses.		
15.	**38. Width of footway.** (1) The width of any verandah-way or uncovered footway shall not be less than 2.25 metres but piers or columns to a maximum depth of 600 millimetres from the boundary of the street may be permitted on such verandah-way or footway.	**38. Width of footway.** (1) The width of any verandah-way or uncovered footway shall not be less than 2.10 metres but piers or columns to a maximum depth of 600 millimetres from the boundary of the street may be permitted on such verandah-way or footway.	The reduction of the measurement to 7 feet or 2.10 metres is in line with the current practice.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
16.	-None-	**38A. Energy efficiency in buildings.** (1) New or renovated non-residential buildings with air-conditioned space exceeding 4,000 square metres shall be– (a) designed to meet the requirements of MS 1525 with regards to the Overall Thermal Transfer Value (OTTV) and the Roof Thermal Transfer Value (RTTV); and (b) provided with an Energy Management System. (2) The roof for all buildings (residential and non residential) shall not have a thermal transmittance (U-value) greater than– (a) 0.4 W/m2K for Light (under 50 kg/m2) weight roof; and (b) 0.6 W/m2K for Heavy (above 50 kg/m2) weight roof, unless provided with other shading or cooling means.	To facilitate the efficient use of energy, as requested by the Ministry of Energy, Green Tecnology and Water (KeTTHA).

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
17.	-None-	**38B. Protection of building structures against lightning strikes.** (1) The assessment of risks and provision of measures to protect building structures against lightning strikes shall comply with the requirements set out in MS IEC 62305. (2) For the purpose of paragraph (1), "MS IEC" means the latest published edition of the Malaysian Standard which is identical to the International Electrotechnical Commission Standard.	To ensure proper lightning strikes protection to be installed for public safety.
18.	**39. Natural lighting and ventilation.** (1) Every room designed, adapted or used for residential, business or other purposes except hospitals and schools shall be provided with natural lighting and natural ventilation by means of one or more windows having a total area of not less than 10% of the clear floor area of such room and shall have openings capable of allowing a free uninterrupted passage of air of not less than 5% of such floor area.	**39. Natural lighting and ventilation.** (1) Every room designed, adapted or used for residential, business or other purposes except hospitals and schools shall be provided with natural lighting and natural ventilation by means of one or more windows having a total area of not less than 10% of the clear floor area of such room and not less than half out of this 10% floor area shall have openings capable of allowing a free uninterrupted passage.	There are no substantive changes and the proposed amendment is only to clarify the technical meaning of this provision.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	(2) Every room used for the accommodation of patients in a hospital shall be provided with natural ventilation by means of one or more windows having a total area of not less than 15% of clear floor area of such room and shall have openings capable of allowing a free uninterrupted passage of air of not less than 10% of such floor area. (3) Every room used for the purpose of conducting classes in a school shall be provided with natural lighting and natural ventilation by means of one or more windows having a total area of not less than 20% of clear floor area of such rooms and shall have openings capable of allowing a free uninterrupted passage of air of not less than 10% of such floor area.	(2) Every room used for the accommodation of patients in a hospital shall be provided with natural lighting and natural ventilation by means of one or more windows having a total area of not less than 15% of clear floor area of such room and not less than two third out of this 15% floor area shall have openings capable of allowing a free uninterrupted passage. (3) Every room used for the purpose of conducting classes in a school shall be provided with natural lighting and natural ventilation by means of one or more windows having a total area of not less than 20% of clear floor area of such rooms and not less than half out of this 20% floor area shall have openings capable of allowing a free uninterrupted passage of air.	
19.	**41. Mechanical ventilation and air-conditioning.** (1)Where permanent mechanical ventilation or air-conditioning is intended, the relevant building by-laws relating to natural ventilation, natural lighting and heights of rooms may be waived at the discretion of the local authority.	**41. Mechanical ventilation and air-conditioning.** (1) Where permanent mechanical ventilation or air-conditioning is intended, the relevant building by-laws relating to natural ventilation, natural lighting and height of rooms shall not apply.	To exclude the application of the relevant provisions of these by-laws, instead of having to make application to the local authority for exemption.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	(2) Any application for the waiver of the relevant by-laws shall only be considered if in addition to the permanent air-conditioning system there is provided alternative approved means of ventilating the air-conditioned enclosure, such that within half an hour of the air-conditioning system failing, not less than the stipulated volume of fresh air specified hereinafter shall be introduced into the enclosure during the period when the air-conditioning system is not functioning.	(2) Permanent air-conditioning system shall be provided with alternate means of ventilating the air-conditioned enclosure, such that within half an hour of the air-conditioning system failing, not less than the stipulated volume of fresh air specified hereinafter shall be introduced into the enclosure during the period when the air-conditioning system is not functioning.	

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	PART V STRUCTURAL REQUIREMENTS		
20.	**54. General requirements of loading.** (1) In determining, for the purposes of these By-laws, the loads to which any building will be subjected, the dead and imposed loads and wind loads shall be calculated in accordance with this Part: … . (2) In determining, for the purposes of this Part, the loads to which a building will be subjected– (a) dead loads shall be calculated in accordance with BSCP 3 Chap. V Part 1 or as provided hereinafter in this Part; (b) imposed loads shall be calculated in accordance with BSCP 3 Chap. V Part 1 or as provided hereinafter in this Part: Provided that, if any actual imposed load will exceed or is likely to exceed the load so calculated that actual load shall be substituted for the load so	**54. General requirements of loading.** (1) In determining, for the purposes of these By-laws, the loads to which any building will be subjected, the permanent and imposed loads and wind loads shall be calculated in accordance with this Part: … . (2) In determining, for the purposes of this Part, the loads to which a building will be subjected– (a) permanent loads shall be calculated in accordance with MS EN 1991-1-1 or as provided hereinafter; (b) imposed loads shall be calculated in accordance with MS EN 1991-1-1 or as provided hereinafter; Provided that, if any actual imposed load will exceed or is likely to exceed the load so calculated that actual load shall be substituted for the load so	Consequential amendment to by-law 1: Interpretation. To adopt MS EN 1991-1-1 to replace the British Code of Practice.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	calculated; and (c) wind loads shall be calculated in accordance with BSCP 3 Chap. V Part: Provided that - (aa) in no case shall the factor S 3 be taken as less than 1; and (bb) if a building falls outside the range of those for which that code gives them forces and pressure coefficients values shall be used which are appropriate in relation to that building; having regard to its construction, size, proportions, shape, profile and surface characteristics. (3) Advice on appropriate wind velocities applicable to a particular locality to which the building is to be located shall, whenever possible be obtained from the local meteorological office.	calculated; and (c) Wind loads shall be calculated in accordance with MS 1553. -Deleted-	To adopt MS 1553 to replace the British Code of Practice, and reference to details shall be made to the Standard.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
21.	**55. Dead and imposed loads.** (1) The provisions of this Part relating to dead and imposed loads shall apply to– … . (2) The dead and imposed loads provided hereinafter shall be in addition to and not in substitution of provision relating to– … .	**55. Permanent and imposed loads.** (1) The provisions of this Part relating to permanent and imposed loads shall apply to– … . (2) The permanent and imposed loads provided hereinafter shall be in addition to and not in substitution of provision relating to– … .	Consequential amendment to by-law 1: Interpretation.
22.	**56. Dead loads calculated from weights of materials used.** (1) Dead loads shall be calculated from unit weight given in BS 648 or from the actual known weights of the materials used. (2) Typical values for commonly used materials are laid out in the Fourth Schedule to these By-laws.	**56. Permanent loads calculated from weights of materials used.** (1) Permanent loads shall be calculated from unit weight given in accordance with MS EN 1991-1-1 or from the actual known weights of the materials used. (2) Typical values for commonly used materials are laid out in MS EN 1991-1-1.	To adopt MS EN to replace the British Standard and the Fourth Schedule to these by-laws.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
23.	**57. Weight of partitions.** Where partitions are shown in the plans, their actual weights shall be included in the dead load. To provide for partitions where their positions are not shown on the plans, the beams and the floor slabs where these are capable of effective lateral distributions of the load, shall be designed to carry, in addition to other loads, a uniformly distributed load per square metre of not less than one third of the weight per metre run of the finished partitions, but not less than 1kN/m^2 (102kgf/m^2) if the floor is used for office purposes.	**57. Weight of partitions.** Where partitions are shown in the plans, their actual weights shall be included in the permanent load. To provide for partitions where their positions are not shown on the plans, the beams and the floor slabs where these are capable of effective lateral distributions of the load, shall be designed to carry, in addition to other loads, a uniformly distributed load per square metre of not less than one third of the weight per metre run of the finished partitions, but not less than 1kN/m^2 if the floor is used for office purposes.	Consequential amendment to by-law 1: Interpretation. To delete "102kgf/m^2" because this metric measurement is no longer referred to in the current practice.
24.	**58. Contents of tanks and other receptacles.** The weight of tanks and other receptacles and of their contents shall be treated as dead loads; account shall be taken of the load conditions when a tank or receptacle is full and when it is empty.	**58. Contents of tanks and other receptacles.** The weight of tanks and other receptacles and of their contents shall be treated as permanent loads; account shall be taken of the load conditions when a tank or receptacle is full and when it is empty.	Consequential amendment to by-law 1: Interpretation.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
25.	**59. Imposed floor loads.** (1) The loads appropriate to the different uses to which the parts of a building or structure may be put are as specified in the Fourth Schedule to these By-laws. (2) The distributed loads specified therein are equivalent to uniformly distributed static loads per square metres of plan area and provide for the normal effects of impact and acceleration, but not for any special concentrated loads. (3) All floor slabs shall be designed to carry the appropriate distributed or concentrated imposed load whichever produces the greater stresses in the part of the floor slab under consideration. (4) In the design of floor slabs, concentrated loads shall be considered to be applied in the positions which produce the maximum stresses and, where deflection is the design criterion, in the positions which produce maximum deflections.	**59. Imposed floor loads.** All Imposed floor loads shall be calculated in accordance with MS EN 1991-1-1.	To adopt the MS EN 1991-1-1.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	(5) The concentrated imposed load need not be considered where the floor slabs are capable of effective lateral distribution of this load. (6) All beams shall be designed to carry the distributed load appropriate to the uses to which they are put. (7) Beams, ribs and joists spaced at not more than one metre centres may be designed as floor slabs. (8) Where in the Fourth Schedule to these By-laws no values are given for concentrated load, it may be assumed that the tabulated distributed load is adequate for design purposes.		
26.	**60. Mechanical stacking.** Where there is the possibility of the use of mechanical stacking machines, such as fork lift trucks, special provision shall be made in the design of the floors.	**60. Mechanical stacking.** Where there is the possibility of the use of mechanical stacking machines, such as fork lift trucks, special provision shall be made in the design of the floors in accordance with MS EN 1991-1-1.	To adopt the MS EN 1991-1-1.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
27.	**61. Imposed loads on ceilings, skylights and similar structures.** (1) The support of ceilings (other than false ceilings), ribs of skylights, frames and covering (other than glazing) if access hatches and similar structures shall be designed for the following loads: (a) 0.25kN/m^2 (25.5kgf/m^2) distributed uniformly over the whole area of area supported; and (b) 0.9kN (91.8kgf) concentrated over a length of 125 millimetres or, in the case of coverings, over a square of 125 millimetres side so placed as to produce maximum stresses in the affected members. (2)Where any member will in no circumstances need to support the weight of a man, the concentrated load provided in paragraph (1)(b) above may be neglected. Then concentrated load should be considered to act at the same time as the distributed load and may be	**61. Imposed loads on ceilings, skylights and similar structures.** (1) The support of ceilings (other than false ceilings), ribs of skylights, frames and covering (other than glazing) of access hatches and similar structures shall be designed in accordance with MS EN 1991-1-1.	To adopt the MS EN 1991-1-1.

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<tr><th>NO.</th><th>EXISTING PROVISION</th><th>PROPOSED AMENDMENT</th><th>Remarks</th></tr>
<tr><td></td><td>treated as a short term load.

(3) For the purpose of this by-law false ceiling means a ceiling which is built with a space between it and the structure above and which satisfies at least one of the following conditions relating to access to that space:
… .</td><td>

(2) For the purpose of this by-law false ceiling means a ceiling which is built with a space between it and the structure above and which satisfies at least one of the following conditions relating to access to that space:
… .</td><td></td></tr>
<tr><td>28.</td><td>62. Reductions in total imposed floor loads.

(1) Except as provided for in paragraphs (2) and (3), the reduction in assumed total imposed floor loads given in the Table 1 below may be taken in designing columns, piers, walls, their supports and foundations.

TABLE 1: REDUCTION IN TOTAL DISTRIBUTED IMPOSED FLOOR LOADS

<table><tr><td>Number of floors, including the roof, carried by member under consideration</td><td>Reduction in total distributed imposed load on all floors carried by the member under consideration</td></tr></table></td><td>62. Reductions in total imposed floor loads.

The reduction in assumed total imposed floor loads given in MS EN 1991-1-1 may be taken in designing columns, piers, walls, their supports and foundations.</td><td>To adopt the MS EN 1991-1-1.</td></tr>
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NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks

	%
1	0
2	10
3	20
4	30
5 to 10	40
over 10	50

(2) For the purposes of this by-law, a roof may be regarded as a floor. For factories and workshops design for imposed load of 5kN/m^2 (510kgf/m^2) or more, the reductions shown in the Table 1 may be taken provided that the loading assumed is not less than it would have been if all floors had been designed for 5k/N/m^2 (510kgf/m^2) with no reductions.

(3) Where a single span of a beam or girder supports not less than 46 square metres of floor at one general level, the imposed load may in the design of the beam or girder be reduces by 5% or each 46 square metres supported, subject to a maximum reduction of 25%. This reduction. or that given in the Table 1, whichever is greater, may be taken into account in the design of columns of other types of members supporting such a beam.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	(4) No reduction shall be made for only plant or machinery which is specifically allowed for or for buildings for storage purposes, warehouse, garage, and those office areas which are used for storage and filling purposes.		
29.	**63. Imposed roof loads.** (1) For the purpose of this by-law all slopes are measured from the horizontal, all loads are applied vertically and the 125 millimetres and 300 millimetres squares are measured on the roof slope. (2) On flat roofs and sloping roofs up to and including 10°, where access (in addition to that necessary for cleaning and repair) is provided to the roof, allowance shall be made for an imposed load of 1.5kN/m^2 (153kgf/m^2) measured on plan, or a load of 1.8kN (184kgf) concentrated on a square with a 300 millimetres side, measured in the plane of the roof, whichever produces the greater stresses in the part of the roof under considerations. (3) On flat roofs and sloping roofs up to	**63. Imposed roof loads.** For the purpose of this by-law, imposed roof load shall be designed in accordance with MS EN 1991-1-1.	To adopt the MS EN 1991-1-1.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	and including 10° where no access is provided to the roof except for maintenance, allowance shall be made for an imposed load of 0.25kN/m^2 (25.5kgf/m^2) measured in the plane of the roof, or a vertical load of 0.9kN (91.8kgf) concentrated on a square with 1225 millimetres side, measured in the plane of the roof, whichever produces the greater stresses in the part of the roof under consideration. (4) On surfaces where accumulation of rain water is possible the loads due to such accumulation of water and the imposed loads for the roofs as given above shall be considered separately and the more critical of the two shall be adopted in the design. (5) On roofs with a slope greater than 10°, and with no access provided to the roof (other than that necessary for cleaning and repair), the following imposed loads shall be provided: (a) for a roof-slope of 30° or less 0.25kN/m^2 (25.5kgf/m^2) measured on plane or a vertical load of 0.9kN (91.8kgf)		

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	concentrated on a square with a 300 millimetres side, whichever produces the greater stress. (b) for a roof slope of 75° or more no allowance is necessary. For roof slopes between 30° and 75°, the imposed load to be allowed for may be obtained by linear interpolation between 0.25kN/m^2 (25.5kgf/m^2) for a 30° roof slope and nil for a 75° roof slope. Note: ° = degrees		
30.	**64. Curved roofs.** The imposed load on a curved roof shall be calculated by dividing the roof into not less than five equal segments and by then calculating the load of each, appropriate to its mean slope, in accordance with paragraphs (2) and (3) of by-law 63.	**64. Curved roofs.** The imposed load on a curved roof shall be calculated in accordance with MS EN 1991-1-1.	To adopt the MS EN 1991-1-1.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
31.	**65. Roof coverings.** To provide for loads incidental to maintenance, all roof coverings, other than glazing, at a slope less than 45° shall be capable of carrying a load of 0.9kN (91.8kgf) concentrated on any square with a 125 millimetres side, measured in the plane of the roof.	**65. Roof coverings.** To provide for loads incidental to maintenance, all roof coverings, other than glazing, shall be in accordance with MS EN 1991-1-1.	To adopt the MS EN 1991-1-1.
32.	**67. Amount of suspended load.** Any panel point of the lower chord of such roof trusses or any point of such other primary structural members supporting roofs over garages, manufacturing or storage floors shall be capable of carrying safely a suspended concentrated load of not less than 9.0kN (918kgf) in addition to the imposed load on the roof.	**67. Amount of suspended load.** Any panel point of the lower chord of such roof trusses or any point of such other primary structural members supporting roofs over garages, manufacturing or storage floors shall be designed in accordance with MS EN 1991-1-1.	To adopt the MS EN 1991-1-1.
33.	**68. Dynamic loading.** (3) In the absence of sufficient data for such calculation, the increase in the imposed loads shall be as follows:	**68. Dynamic loading.** (3) In the absence of sufficient data for such calculation, the increase in the imposed loads shall be in accordance with MS EN 1991-1-1.	To adopt the MS EN 1991-1-1.

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<tr><th>Structure</th><th>Increase in imposed load (per cent)</th></tr>
<tr><td>For frames supporting lifts and hoists ... … … …</td><td>100</td></tr>
<tr><td>For foundation, footways and piers supporting lifts and hoistering apparatus ... … …</td><td>40</td></tr>
<tr><td>For light machinery, shaft or motor units …</td><td>not less than 20</td></tr>
<tr><td>For reciprocating light machinery or power units ... …</td><td>not less than 20</td></tr>
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(4) Concentrated imposed loads including impact and vibrating effects which may arise due to installed machinery shall be considered and provided for in the design. In any event the increase in imposed loads shall not be less than 20%.
</td>
<td>(4) Concentrated imposed loads including impact and vibrating effects which may arise due to installed machinery shall be considered and provided for in the design. In any event the increase in imposed loads shall not be less than 20% or the minimum standard specified in the MS EN 1991-1-1, whichever is the higher.</td>
<td></td>
</tr>
</table>

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
34.	**69. Crane gantry girders.** (1) In respect of crane gantry girders, the following allowances shall be deemed to cover all forces set up by vibration, shock from slipping of slings, kinetic action of acceleration and retardation and impact of wheel loads: (a) for loads acting vertically, the maximum static wheel loads shall be increased by 25% for an electric overhead crane and 10% for a hand-operated crane; (b) the horizontal force acting transverse to the rails shall be taken as the following percentage of the combined weight of the cab and the load lifted: (i) 10% for an electric overhead crane; and (ii) 5% for a hand-operated crane. The horizontal force shall be taken into account when	**69. Crane gantry girders.** In respect of crane gantry girders, all forces set up by vibration, shock from slipping of slings, kinetic action of acceleration and retardation and impact of wheel loads shall be designed in accordance with MS EN 1991-1-1.	To adopt the MS EN 1991-1-1.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	considering the lateral rigidity of the rails and their fastenings; (c) horizontal forces acting along the rails shall be taken at the following percentages of the static wheel loads which can occur on the rails: (i) 10% for an electric overhead crane; and (ii) 5% for a hand-operated crane. (2) The forces specified in paragraph (1) above shall be considered as acting at the rail level and being appropriately transmitted to the supporting system. (3) Gantry girders and their vertical supports shall be designed on the assumption that either of the horizontal forces specified in paragraph 1 may act at the same time as the vertical load. (4) The provisions of paragraphs (1), (2) and (3) shall apply only to a single crane operation and to simple forms of crane gantry construction and separate		

<table>
<tr><th>NO.</th><th>EXISTING PROVISION</th><th>PROPOSED AMENDMENT</th><th>Remarks</th></tr>
<tr><td></td><td>provisions shall be provided for in the calculation in respect of heavy cranes, high-speed operation or multiple crane on a single gantry.</td><td></td><td></td></tr>
<tr><td>35.</td><td>70. Parapets and balustrades.

Parapets and balustrades shall be designed for the minimum loads as provided in Table 2 below. The minimum loads are expressed as horizontal forces acting at handrail or coping level.

TABLE 2: HORIZONTAL LOADS ON PARAPETS AND BALUSTRADES

<table><tr><th rowspan="2">Use</th><th colspan="2">Intensity of horizontal load</th></tr><tr><th>N/m run</th><th>kgf/m run</th></tr><tr><td>Light access stairs, gangways and the like not more than 600mm wide</td><td>220</td><td>22.4</td></tr><tr><td>Light access stairs, gangways and the like not more than 600mm wide, stairways, landings and balconies,</td><td>360</td><td>36.7</td></tr></table></td><td>70. Parapets and balustrades.

Parapets, balustrades and lower panel of cladding or curtain walls shall be designed for the minimum loads in accordance with MS EN 1991-1-1.</td><td>To adopt the MS EN 1991-1-1.</td></tr>
</table>

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<tr><th>NO.</th><th>EXISTING PROVISION</th><th>PROPOSED AMENDMENT</th><th>Remarks</th></tr>
<tr><td></td><td>
<table>
<tr><td>private and domestic</td><td></td><td></td></tr>
<tr><td>All other stairways, landings and balconies and all parapets and handrails to roof</td><td>740</td><td>75.5</td></tr>
<tr><td>Panic barriers</td><td>3,000</td><td>306.0</td></tr>
</table>
</td><td></td><td></td></tr>
<tr><td>36.</td><td>71. Vehicle barriers for car-parks.

(1) Where a barrier to withstand the force of a vehicle is required for a car-park it shall be designed to withstand a force F uniformly distributed over any length of 1.5 metres where–

$F = \frac{0.5MV^2 \text{ kN } (1000\ (0.5\ mv^2))\text{ kgf}}{\Delta c + \Delta b\ (\ 9.8\ (\Delta c + \Delta b))}$

m = mass of vehicle in kg
v = velocity in m/s
Δ c = deflexion of the vehicle in mm
Δ b = deflexion of the barrier in mm

(2) Where the car park has been designed on the basis that vehicles using it will not exceed 2500 kilograms</td><td>71. Vehicle barriers for car-parks.

All vehicle barriers including enclosing parapets and balustrades shall be designed to withstand the impact force of vehicle in accordance with MS EN 1991-1-1.</td><td>To adopt the MS EN 1991-1-1.</td></tr>
</table>

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	the following values shall be used to determine the force F: m = 1500 kg* v = 4.47 m/s Δ c = 100 mm unless better evidence is available. For a rigid barrier the force appropriate to vehicles up to 2500 kilogrammes shall be taken as 150 kN. *The mass of 1500 kg is taken as being more representative of the vehicle population than the extreme value of 2500 kg. (3) Where the car park has been designed for a vehicle exceeding 2500 kilogrammes the following values shall be used to determine the force F: m = the actual mass of the vehicle for which the car park is designed in kilograms. v = 4.47 m/s. Δ c = 100mm unless better evidence is available. (4) The impact force provided under paragraph (2) or (3) above shall be		

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	considered to act at bumper height. In the case of car parks intended for motor cars not exceeding 25010 kilogrammes this shall be taken as 375 millimetres the floor level. (5) Barriers to access ramps of car parks shall be designed to withstand one half* of the force determined in paragraph (2) or (3) above acting at a height of 610 millimetres above the ramp. Opposite the ends of straight ramps intended for downyard travel which exceed 20 metres in lenght the barrier shall be designed to withstand twice +the force determined in paragaraph (2) or (3) above acting at the height of 610 millimetres above the ramp. (6) The recommendations in these By-laws may be used to form the basis of designs either within or beyond the usual serviceability limits of materials. NOTES: * The mass of 1500 kg is taken as being more representative of the vehicle population than the extreme value of 2500 kg.		

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	+ The force in the paragraph (5) above is only half that of paragraph (2) or (3) because although the speed of vehicles may be greater the angle of impact is likely to be less. At the ends of straight ramps however not only is the speed likely to be greater but the angle of impact will also be greater so that the barrier must withstand a greater force is therefore double that given in paragraph (2) or (3).		
37.	**72. Basement walls and floors.** (3) In the design of basement floors and similar structures underground, the upward pressure of water, if any, shall be taken as the full hydrostatic pressure applied over the entire area.	**72. Basement walls and floors.** (3) In the design of basement floors and similar structures underground, the upward pressure of water, if any, shall be taken as the full hydrostatic pressure applied including any artesian pressure over the entire area.	To include all type of underground pressure.
38.	**73. Foundations.** -None-	**73. Foundations.** (1) The earthworks, the underground building works and the foundations for the building shall be designed based on the field and laboratory tests of a proper site investigation. The tests are to be initiated and supervised by a Professional Engineer	To ensure a proper site investigation is carried out.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
		with the relevant geotechnical experience.	
	(1) The foundations of a building shall–	(2) The foundations of a building shall–	
	(a) safely sustain and transmit to the ground the combined dead load, imposed load and wind load in a such manner as not to cause any settlement beyond the limits designed for or other movement which would impair the stability of, or cause damage to, the whole or any part of the building or of the any adjoining building or works;	(a) safely sustain and transmit to the ground the combined permanent load, imposed load and wind load in a such manner as not to cause any settlement beyond the limits designed for or other movement which would impair the stability of, or cause damage to, the whole or any part of the building or of the any adjoining building or works;	Consequential amendment to by-law 1: Interpretation.
	(b) be taken down to such a depth, or be so constructed, as to safeguard the building against damage by swelling and shrinking of the subsoil; and	(b) be taken down to such a depth, or be so constructed, as to safeguard the building against damage by soil settlement and movement; and	To cover any other causes of soil movement.
	(c) be capable of adequately resisting any attack by sulphates or any other deleterious matter present in the subsoil.	(c) be capable of adequately resisting any attack by sulphates or any other deleterious matter present in the subsoil.	
	(2) The requirements of paragraph (1) shall be deemed to be satisfied if the foundations of a building are constructed in accordance with the relevant	(3) The requirements of paragraph (2) shall be deemed to be satisfied if the foundations of a building are designed and constructed in accordance with MS EN 1997.	To adopt MS EN 1997.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	recommendation of the BSCP 2004– Foundations.		
39.	**74. Foundations of buildings not exceeding four storeys.** If the foundations form part of a building other than a factory or storage building, having not more than four storeys the requirements of by-law 73 shall be deemed to be satisfied if such foundations are constructed in accordance with BSCP 101 – Foundations and Substructures for Non-Industrial Buildings not more than Four Storeys.	-Deleted-	This provision is no longer relevant in the current practice.
40.	**75. Reinforced concrete foundations.** The requirements of by-law 73 shall be deemed to be satisfied as to such part of any foundation as is constructed of reinforced concrete if the work complies with BSCP 110 – The Structural Use of Concrete, BSCP 114, BSCP 115 or BSCP 116, where applicable.	**75. Reinforced concrete foundations.** Reinforced concrete foundation shall be designed and constructed in accordance with MS EN 1990, MS EN 1991 and MS EN 1992.	To adopt the specifed Standards.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
41.	**76. Strip foundations.** If the foundations of a building are constructed as strip foundations of plain concrete situated centrally under the walls, the requirements of by-law 74 shall be deemed to be satisfied if– (a) there is no made ground or wide variation in the type of subsoil within the loaded area and no weaker type of soil exists below the soil on which the foundations rest within such a depth as may impair the stability of the structure; (b) the width of the foundation is not less than the width specified in the Fourth Schedule to these By-laws; (c) the concrete is composed of cement and fine and coarse aggregate conforming to BS 882 and is of a nominal mix not learner than 50 kilogrammes cement: 0.3 cubic metre all-in aggregate; (d) the thickness of the concrete is not less than its projection from the base of the wall or footing and is in	-Deleted-	This provision is no longer relevant in the current practice.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	no case less than 150 millimetres; (e) where the foundations are laid at more than one level, at each change of level, the higher foundations extend over the unite with the lower foundations for a distance not less than the thickness of the foundations and in no case less than 300 millimetres; 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.		
42.	-None-	**76A. Buildings on hill slopes.** Every building to be constructed on hill slopes shall comply with any planning requirement as the local authority may determine.	To be in line with the current engineering practice.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
43.	**77. Brick footings.** (1) Where brick footings are provided in the foundations of a wall, they shall be in regular off-sets of 50 millimetres wide and the height from the bottom of such footings to the base of the wall shall be equal to at least two-thirds of the thickness of the wall at its base. Wherever possible, the bricks in the footings shall be laid as headers. (2) Brick footings in the foundations of a wall may be omitted if allowance is made for such omission in the thickness of the concrete foundations for the wall. (3) Where in the opinion of the principal submitting person or submitting person ground conditions are favourable, the foundations for non-load bearing internal walls may be formed by increasing the depth of the concrete floor slabs under such internal walls.	-Deleted-	This provision is no longer relevant in the current practice.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
44.	**78. Foundations below invert of drains.** (1) When a building or part of a building is erected at a distance from the centre of a drain less than the depth of the drain, except where the whole of such building is carried on piles other than timber piles, the bottom of the foundation of such building or part thereof shall be stepped down within an angle of 45° so that the bottom of the foundation of that part of the building situated within the aforesaid distance shall be at least 450 millimetres below the drain invert. (2) For the purpose of paragraph (1) of by-law 77, in framed building, the foundations shall be deemed to be foundations under the load-bearing columns.	**78. Foundations below invert of drains.** Within a distance not less than the depth of a drain measured from the closer edge of the drain, no part of a building shall be erected with its substructure foundation level higher than 450 millimetres below the drain invert level, unless the whole of such building is carried on piles other than timber piles.	Restructuring of the sentences to give clearer understanding.
45.	**79. Foundations under external and party walls.** Where an external wall is built against another external wall or against a party wall, the widths of concrete foundations specified in the Fourth Schedule to these By-laws shall be modified accordingly.	**79. Foundations under external and party walls.** Where an external wall is built against another external wall or against a party wall of an adjacent building lot, the extent of concrete foundations shall not extend beyond its own lot boundary	To specify the necessary requirement for foundations under external and party walls.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
46.	**80. Structure above foundations.** (1) The structure of a building above the foundations shall be designed and constructed to safety sustain and transmit to the foundations the combined dead and imposed loads and wind loads without such deflection or deformation as will impair the stability of, or cause damage to, the whole or any part of the building. (2) The requirements of paragraph (1) shall be deemed to be satisfied if the design and construction of the structure or part of the sructure complies with the following Codes of Practice of Standard Specifications: BS 449 – The Use of Structural Steel in Building; BSCP 110 – The Structural Use of Concrete; BSCP 111 – Structural Recommendations for Load Bearing Walls; BSCP 114 – Sructural Use of Reinforced Concrete in Building; BSCP 115 – The Structural Use of Prestressed Concrete in Buildings;	**80. Structure above foundations.** (1) The structure of a building above the foundations shall be designed and constructed to safety sustain and transmit to the foundations the combined permanent and imposed loads and wind loads without such deflection or deformation as will impair the stability of, or cause damage to, the whole or any part of the building. (2) The requirements of paragraph (1) shall be deemed to be satisfied if the design and construction of the structure or part of the structure complies with the following Standards: MS EN 1990 – Basis of Structural Design; MS EN 1991 – Actions on structures; MS EN 1992 – Design of concrete structures; MS EN 1993 – Design of steel structures; MS EN 1994 – Design of composite steel and concrete structures; MS EN 1995 – Design of timber structures; MS EN 1996 – Design of masonry structures; MS EN 1998 – Design of structures for earthquake resistance; and	Consequential amendment to by-law 1: Interpretation. To replace the British Standards and Codes of Pratice with MS EN.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	BSCP 116 – The Structural Use of Precast Concrete; BSCP 117 – Composite Construction in Structural Steel and Concrete; BSCP 118 – The Structural Use of Aluminium; BSCP 2007 – Design and Construction of Reinforced and Prestressed Concrete Structure for the Storage of Water and other Aqueous LIquids; BS 5337 – The Structural Use of Concrete for Retaining Aqueous Liquids; and MSCP – The Sructural Use of Timbers.	MS EN 1999 – Design of aluminum structures.	
	PART VI CONSTRUCTIONAL REQUIREMENTS		
47.	**81. Building site.** (1) No building shall be erected on any site which has been filled up with any matter impregnated with fecal, animal or vegetable matter, until the whole ground surface or site of such building such has been rendered or become innocuous and has been covered with a layer of hill earth, hardcore, clinker or ash rammed solid to at least 0.305 metre thickness.	**81. Building site.** (1) No building shall be erected on any site which has been filled up with any matter impregnated with fecal, animal or vegetable matter, until the whole ground surface or site of such building has been properly treated based on geotechnical techniques conforming to MS 1754 and MS 1756.	To adopt MS 1754 and MS 1756.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
48.	**83. Protection against soil erosion, etc.** (1) All air-wells and open spaces in and around buildings shall be suitably protected against soil erosion.	**83. Protection against soil erosion, etc.** (1) All slopes in and around buildings shall be suitably protected against soil erosion and slope failures and shall be monitored and maintained regularly.	Protection should not be limited to air-wells and open spaces, but to all slopes in and around a building.
49.	**84. Prevention of dampness.** (3) Every brick or masonry wall of a building founded on strip footings shall be provided with a damp proof course which shall be– … (b) beneath the level of the underside of the lowest timbers of the ground floor resting on the wall, or where the ground floor is a solid floor, not higher than level of the upper surface of the concrete or other similar solid material forming the structure of the floor.	**84. Prevention of dampness.** (3) Every wall of a building founded on foundation shall be provided with a damp proof course which shall be– … (b) beneath the level of the underside of the lowest portion of the ground floor resting on the wall, or where the ground floor is a solid floor, not higher than level of the upper surface of the concrete or other similar solid material forming the structure of the floor.	More relevant in the current engineering practice. To cover whatever material used for construction of the lowest portion of the ground floor.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
50.	**86. Party walls.** (1) All party walls shall generally be of not less than 200 millimetres total thickness of solid masonry or *insitu* concrete which may be made up of two separate skins each of not less than 100 millimetres thickness if consctructed at different times: Provided that in multi-storeyed flats and terrace houses of reinforced concrete or of protected steel framed construction having floors and roofs constructed to the requirements of these By-laws, the party wall thereof shall not be less than 100 millimetres total thickness. (2) Party walls in single storeyed houses may be in load-bearing 100 millimetres solid masonry or *insitu* concrete provided the requirements of Part V, VI and VII of these By-laws are complied with. (3) All party walls shall be carried above the upper surface of the roof to a distance of not less than 230 millimetres at right angles to such upper surface.	-Deleted-	By-law 141: Separating walls has already provided the necessary fire requirements served to prevent the spread of fire from one separate unit of house to another. As such the Fire Authority will only make reference to by-law 141.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	(4) Other non-combustible materials may be used for party walls provided the requirements of Part V, VI and VII of these By-laws are complied with.		
51.	**87. Openings in party walls** (1) Openings may be made or left in a party wall if- (a) such openings may be made with the consent of and in accordance with the requirements of the local authority; and (b) the owners of the properties concerned give written permission. (2) Every opening in a party wall shall be solidly built up with brick or stonework to the full thickness of the party wall and properly bonded therewith when the use of such opening is discontinued.	-Deleted-	Consequential amendment to by-law 86.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
52.	**88. Recess.** Where a recess is made in an external wall or a party wall– (a) the wall at the back of the recess shall be not less than 100 millimetres thick in an external wall and 200 millimetres thick in a party wall; … .	**88. Recess.** Where a recess is made in an external wall– (a) the wall at the back of the recess shall be not less than 100 millimetres thick in an external wall; … .	Consequential amendment to by-law 86.
53.	**89. Chases.** A chase made in a wall for pipes and other service facilities shall leave the wall at the back of the chase not less than 100 millimetres thick in external walls and not less than 100 millimetres thick in a party wall and shall be not wider than 200 millimetres.	-Deleted-	This provision is redundant as the statement is very general and concern best practice rather than requirement.
54.	**92. Projections in brickwork.** All projections in brickwork shall be corbelled but gradually and no projection shall extend more than 230 millimetres from the face of any wall unless built in strong cement mortar.	-Deleted-	Not relevant in the current engineering practice.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
55.	**93. Measurement of the length of a wall.** For the purposes of these by-laws– ,,, (ii) piers therein having a dimension measured parallel to the length of the wall of not less than twice the thickness of the wall and a dimension measured at right angles to the wall of not less than three times the thickness of the wall.	**93. Measurement of the length of a wall.** For the purposes of these by-laws– … (ii) column therein having a dimension measured parallel to the length of the wall of not less than twice the thickness of the wall and a dimension measured at right angles to the wall of not less than three times the thickness of the wall.	Column is more accurate term and it includes pier.
56.	**94. Use of 100 millimetres brickwork and concrete blocks in load-bearing.** Walls built of burnt bricks or of cement bricks 100 millimetres in thickness and walls in concrete blocks of a thickness of not less than 100 millimetres may be used for both internal and external load-bearing walls provided they are designed in accordance with by-law 80.	-Deleted-	This should be covered under the Fire Requirement Part.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
57.	**97. Timber built into party walls.** No timber such as joists, beams, wall plates, tile battens and ties shall be built into the thickness of any party wall unless there are not less than 100 millimetres of brickwork or cement between such timbers.	-Deleted-	This provision is proposed to be shifted to paragraph (4) of by-law 141 because it is the duty of the Fire Authority to ensure this requirement is satisfied.
58.	**99. Cooking facilities in residential buildings.** (1) Every residential building and every floor of a residential building which is or may be separately let for dwelling purposes shall be provided with a kitchen having a properly constructed fireplace with a flue and chimney as may be required by the local authority.	**99. Cooking facilities in residential buildings.** (1) Every residential building and every floor of a residential building which is or may be separately let for dwelling purposes shall be provided with a kitchen.	The Fire Authority does not approve this pratice.
	(2) The chimney and smoke flue shall be continued up above the roof and shall be of a thickness all round of not less than 100 millimetres of brick or concrete to a height of not less than 1.2 metres above the highest point in the line of junction with the roof.	(2) Where a common vertical kitchen exhaust riser is provided, the riser shall be continued up to a mechanical floor or roof for discharge to the open, and shall be constructed with fire resisting material of at least 2 hours rating in accordance with BS 476: Part 3.	More relevant in current practice.
	(3) Flues shall be not less than 230 millimetres in diametre and a separate	-Deleted-	

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	flue shall be provided for each fireplace.		
59.	**100. Cooking facilities in quarters.** (1) In the case of one room or two room quarters for labourers, artisans or servants, a kitchen not less than 2.32 square metres in floor area may be provided. Such kitchen shall be provided with a properly constructed fireplace, flue and chimney, and shall be adequately lighted and ventilated. (2) Where it is intended to install in any residential building or floor in a residential building as specified in by-law 99 gas, electric or oil cookers for cooking purposes and the plan for such building is endorsed accordingly, fireplaces, flues and chimneys shall not be required. (3) For the purposes of by-laws 99 and 100, the expression "properly constructed fireplaces" means a concrete slab not less than 80 millimetres thick supported on brick or concrete piers with a smoke hood over such concrete slab constructed of	-Deleted-	Consequential amendment to by-law 99.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	incombustible materials at a height of 1.91 metres from the floor to the lower edge of such smoke hood. The smoke hood shall project 230 millimetres on each side and in front of the slab and shall be constructed with an angle of inclination of not less than thirty degrees.		
60.	**103. Timber floors.** (1) Where structural timber floors are permissible under these By-Laws they shall be designed of hardwood or of species of timber treated with a suitable wood preservative. (2) All timber floors joists shall be designed in accordance with these By-laws. (3) All timber trimming joists shall be at least 25 millimetres thickers than the joist of the adjoining floor.	-Deleted-	Not relevant in the current engineering practice.
61.	**104. Bearing for joists.** (1) All joists shall have at least 100 millimetres bearing on the walls and where supported on corbelled brickwork, such corbelling shall be continuous over-	-Deleted-	Consequential amendment to by-law 103.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	sailing courses. Separate corbels shall not be allowed. (2) No joists shall be built into the thickness of any party wall unless there is at least 100 millimetres of fire resisting material between the sides and end of such timbers.		
62.	**107. Handrails.** (1) Except for staircases of less than 4 risers, all staircases shall be provided with at least one handrail. (2) Staircases exceeding 2225 millimetres in width shall be provided with intermediate handrail for each 2225 millimetres of required width spaced approximately equally.	**107. Handrails.** (1) Except for staircases of less than 4 risers, all staircases shall be provided with at least one handrail. (2) Staircases exceeding 2200 millimetres in width shall be provided with intermediate handrail for each 2200 millimetres of required width spaced approximately equally.	To be in line with the current pratice.
63.	**109. Winders.** (1) Subject to the provisions of Part VII and VIII of these By-laws spiral staircases may be permitted as a secondary staircase in buildings where the topmost floor does not exceed 12.2 metres in height.	**109. Winders.** -Deleted-	To explain provision better and to clarify common misinterpretation.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	(2) Winding staircase may be permitted where they are not used as a required means of egress.	Winding and spiral staircase shall not form part of the exit route.	
64.	**111. Lighting and ventilation of staircases.** All staircases shall be properly lighted and ventilated according to the requirements of the local authority.	**111. Lighting and ventilation of staircases.** All staircases shall be properly lighted—at an average illuminance level of not less than 100 lux and ventilated according to the requirements as stipulated under by-laws 198 to 200 of Part VII.	To specify the requirement of lighting in this by-law and ventilation under the relevant by-laws under Part VII.
65.	**114. Timber roofs.** (1) Structural timber for roof construction shall be designed and constructed of timbers of adequate sizes which shall either be in hardwood or, if in other species of timber, shall be treated by a suitable wood preservative. (2) All built-in or concealed roof timbers shall be coated with wood preservative.	-Deleted-	Not relevant in the current engineering practice.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
66.	**117. Access to roof space** (1) Where the space beneath a roof is enclosed by a ceiling, access to such space shall be provided by means of a trap door at least 0.75 metre in any direction. (2) No verandah-way shall be constructed except to levels approved by the local authority and shall have a cross-fall of 25 millimetres towards the road or drain.	**117. Access to roof space** Where the space beneath a roof is enclosed by a ceiling, access to such space shall be provided by means of a trap door at least 600 millimetres in any direction. -Deleted-	600 milimetres is the acceptable and standard size. Not relevant in the current engineering practice.
67.	**118. Refuse chutes and alternate means for disposal of refuse.** (1) All residential buildings which are four storeys and above shall be provided with refuse chutes unless alternate means for the disposal of refuse such as container-based systems, in-sink waste disposal units, Garcheys system and one-site compression systems are installed. (2) Where such alternative means of refuse disposal are installed, they are subject to the approval of the local	-Deleted-	Not relevant in current practice. Selection of means of refuse disposal shall not be restricted to a few selected means.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	authority. (3) Where refuse chutes are to be provided, the number shall be determined by the local authority. (4) For non-residential buildings, no refuse chutes will be permitted. The removal of refuse and trash in such buildings shall be by way of the service lift or other means to the satisfaction of the local authority. (5) In multi-purpose buildings containing residential accomodation, refuse chutes shall be provided for the residential portions running through the building, but no openings will be permitted where such chutes pass through the non-residential portions of the building. (6) Other alternate means for the disposal of refuse as stated in paragraph (1) to the local authority may be provided to serve the residential portions of the building.		
68.	**120. Design and construction of refuse chutes.**		

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	The design and construction of all refuse chutes shall conform to the following requirements: (a) the chute shall be vertical for the whole lenght and shall be constructed with a smooth-finished impervious inner surface; (b) the internal diametre shall not be less than 400 millimetres; (c) adequate ventilation at the top of the chute shall be provided; (d) the chute shall discharge into a suitable metal receptacle or receptacles of not more than 0.95 cubic metre in capacity or as specified by the local authority; (e) openings into any refuse chute shall be fitted with a self-closing and tight-fitting flap or hopper; and (f) openings into refuse chutes shall not be located in any stairway enclosure or corridor, nor in a stairway protected lobby.	-Deleted-	Consequential amendment to by-law 118.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
69.	**121. Requirements for refuse receptacle chambers.** All refuse receptacles shall be housed in a chamber which shall– (a) be provided with concrete curbs for the refuse receptacles to stand on; (b) be adequately fly and vermin proofed; (c) be connected to and drained by a foul water drain; (d) open to the external air; (e) be lined throughout with glazed tiles; and (f) be located near to a water point.	-Deleted-	Consequential amendment to by-law 118.
70.	**122. Access to refuse receptacle chambers.** The approach access to the loading point from refuse chute chambers for the removal of refuse vehicles shall be at	-Deleted-	Consequential amendment to by-law 103.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	gradient to enable the refuse vehicles to approach it and shall be to the approval of the local authority: Provided that where direct access to refuse chutes for refuse vehicles is not possible, specific points for storing refuse receptacles shall be provided to the satisfaction of the local authority.		
71.	**123. Pipes and service ducts.** (1) Where ducts or enclosures are provided in any building to accommodate pipes, cables or conduits the dimensions of such ducts or enclosures shall be– (a) adequate for the accommodation of the pipes, cables or conduits and for crossings of branches and mains together with supports and fixing; and (b) sufficiently large to permit access to cleaning eyes, stop cocks and other controls there to enable repairs, extensions and modifications to be made to each or all of the service	-Deleted-	This provision is redundant as it is very general and concern best practice rather than requirement. The local authority does not regulate as long as the pipes and cables are covered and protected.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	accommodated. (2) The access openings to ducts or enclosures shall be long enough and suitably placed to enable lengths of pipe to be installed and removed.		
	PART VII **FIRE REQUIREMENTS**		
72.	**133. Interpretation.** In this Part and Part VIII unless the context otherwise requires– … "D.G.F.S." means the Director General of Fire Services, Malaysia or the relevant Fire Authority; … "dry rising system" means a vertical water main which is normally dry, of appropriate size, and fitted with hydrant outlets which can be charged with water by the Fire Authority's pumps via a fire service inlet and shall comply with BS 3980 and BSCP 402.101;	**133. Interpretation.** In this Part and Part VIII unless the context otherwise requires– … "D.G.F.R." means the Director General of Fire and Rescue, Malaysia or the relevant Fire Authority; … -Deleted-	To streamline with Fire Services Act 1988 (Act 341) (reprinted version). There is no necessity to define the term as there is no confusion as to its understanding in practice. The technical meaning applies.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	…	…	
	“fire alarm installation” means an installation capable of warning persons of an outbreak of fire. Such installation must have detectors conforming to the Rules of the Fire Officers’ Committee for Automatic Fire Alarm Installation, and installed in accordance with BSCP 1019;	-Deleted-	There is no necessity to define the term as there is no confusion as to its understanding in practice. The technical meaning applies.
	…	…	
	-None-	“Fire Authority” means the officer in charge of the relevant Fire and Rescue Department or any officer authorized by him in writing;	To define the term “Fire Authority”.
	…	…	
	“fire hydrant” means an installation of pipes, water tanks, pumps and hydrant outlets in a building to provide a ready means by which a jet of water can be delivered in any part of the building for the purpose of fire fighting and to comply with BSCP 402.101;	-Deleted-	There is no necessity to define the term as there is no confusion as to its understanding in practice. The technical meaning applies.
	…	…	
	“fire resistance period” means the period for which an element will meet the requirements in respect of transmission of heat or resistance to collapse with	“fire resistance period” means the period for which an element will meet the requirements in respect of transmission of heat or resistance to collapse with passage	For reference to be made to the equivalent Malaysian Standard.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	passage of flame when tested in accordance with BS 476; Part 1: 1953;	of flame when tested in accordance with MS 1073;	
	"fire resisting" means the construction so designated, including doors, has a minimum standard of fire-resistance of not less than half hour in accordance with the relevant Schedules of these By-laws or which achieves such standard when tested in accordance with BS 476: Part 8: 1972 except that, in the case of the doors– … ; …	"fire resisting" means the construction so designated, including doors, has a minimum standard of fire-resistance of not less than half hour in accordance with the relevant Schedules of these By-laws or which achieves such standard when tested in accordance with BS 476 except that, in the case of the doors– … ; …	For reference to be made to the overall Standard.
	"F.O.C." means Fire Officers' Committee of the United Kingdom; …	-Deleted- …	Not relevant in Malaysia.
	"hose reel installation" means an installation of pipes, water tanks, pumps and hose reels in a building to provide a ready means by which a jet of water can be delivered in any part of the building for the purpose of fire fighting and to comply with BSCP 402.101; …	-Deleted- …	There is no necessity to define the term as there is no confusion as to its understanding in practice. The technical meaning applies.
	"non-combustible" shall apply to materials as specified under BS 476;	"non-combustible" shall apply to materials as specified under BS 476;	For reference to be made to the overall Standard.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	Part 4 (1970);		
	-None-	"open corridor" means a corridor that has wall openings open to the atmosphere primarily for the adequate dissipation of smoke;	This new term is used in by-law 189 and in the Tenth Schedule.
	-None-	"open structure" means a structure that, at each level, has wall openings opening to the atmosphere;	This new term is used in the Tenth Schedule.
	…	…	
	"smoke stop door" means a door or pair of doors which when fitted in a frame satisfies the requirements of Section 7 of BS 476: Part 8: 1972 as to– … ;	"smoke stop door" means a door or pair of doors which when fitted in a frame satisfies the requirements of MS 1073 as to– ... ;	For reference to be made to the equivalent Malaysian Standard.
	"sprinkler installation" means an installation of water supplies, pump, pipes, valves and delivery points so arranged as to automatically detect a fire and attack it with water, sound an alarm and installed in accordance with the current edition of the F.O.C. Rules for Automatic Sprinkler Installation or other approved standards; …	-Deleted- …	There is no necessity to define the term as there is no confusion as to its understanding in practice. The technical meaning applies.
	"wet rising system" means any permanently charged vertical water main	-Deleted-	There is no necessity to define the term as there is no confusion as to

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	installed for firefighting purposes, of an appropriate size, and fitted with connections suitable for use by the Fire Authority's and to comply with the requirements of BSCP 402.101.		its understanding in practice. The technical meaning applies.
73.	**136. Provisions of compartment walls and compartment floors.** Any building, other than a single storey building, of a purpose group specified in the Fifth Schedule to these By-laws and which has– … : Provided that if any building is provided with an automatic sprikler installation which complies with the relevant recommendations of the F.O.C. Rules for Automatic Sprinkler Installation, 29th edition, this by-law has effect in relation to that building as if the limits of dimensions specified are doubled.	**136. Provisions of compartment walls and compartment floors.** Any building, other than a single storey building, of a purpose group specified in the Fifth Schedule to these By-laws and which has– … : Provided that if any building is provided with an automatic sprikler installation which complies with MS 1910, this by-law has effect in relation to that building as if the limits of dimensions specified are doubled.	To adopt MS 1910.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
74.	**137. <u>Floor in building exceeding 30 metres in height to be constructed as compartment floor</u>.** In any building <u>which exceeds</u> 30 metres in height, any floor which is more than 9 metres above ground floor level which separates one storey from another storey, other than a floor which is either within a maisonette or a mezzanine floor shall be constructed as a compartment floor. -None- -None-	**137. <u>Compartmentation by height</u>.** <u>(1)</u> In any building <u>not exceeding</u> 30 metres in height, any floor which is more than 9 metres above ground floor level which separates one storey from another storey, other than a floor which is either within a maisonette or a mezzanine floor shall be constructed as a compartment floor. <u>(2) In any building exceeding 30 metres in height, all floors shall be constructed as compartment floors, other than a compartment which is within a residential maisonette which may comprise two storey levels.</u> <u>(3) An atrium shall comply with the requirements of by-law 252A.</u>	To provide stricter requirements in relation to the extent of subdivision of a building as compartment floors.
75.	**139. Separation of fire risk area.** The following areas or uses shall be separated from the other areas of the occupancy in which they are located by fire resisting construction of elements of	**139. Separation of fire risk area.** <u>(1)</u> The following areas or uses shall be separated from the other areas of the occupancy in which they are located by fire resisting construction of elements of	

<table>
<tr><th>NO.</th><th>EXISTING PROVISION</th><th>PROPOSED AMENDMENT</th><th>Remarks</th></tr>
<tr><td></td><td>structure of a FRP to be determined by the local authority based on the degree of fire hazard:
… .

-None-</td><td>structure of a FRP to be determined by the local authority based on the degree of fire hazard:
… .

<u>(2) For hospital and nursing home of Purpose Group II (Institutional), laboratories and kitchens shall not have sleeping accommodation above them and shall form separate compartments from in-patient treatment areas, public areas, staircase and lift discharge areas.</u></td><td>This provision is transferred from the existing Note (iv) under the Institutional item of the Tenth Schedule because this requirement is a planning matter (rather than fire protection systems) and therefore should be covered under this Part.</td></tr>
<tr><td>76.</td><td>140. Fire appliances access.

<u>All buildings in excess of 7000 cubic metres shall abut upon a street or road or open space of not less than 12 metres width and accessible to fire brigade appliances. The proportion of the building abutting the street, road or open space shall be in accordance with the following scale:</u>

<table><tr><th>Volume of building in cubic metre</th><th>Minimum proportions of perimetre of building</th></tr><tr><td>7000 to 28000</td><td>one-sixth</td></tr></table></td><td>140. Fire appliances access.

<u>(1) Accessway shall be provided within the site of a building to enable fire appliances to gain access to the building. Access openings shall also be provided along the external walls of buildings fronting the accessway to provide access into the building for fire fighting and rescue operations.</u>

<u>(2) The requirements of accessway shall be as follows:</u>

(a) <u>the accessway shall have a minimum width of 6 metres throughout its entire length and shall be able to accommodate the entry</u></td><td>To provide more detailed requirements concerning fire applicances access in line with the current fire fighting practice.</td></tr>
</table>

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	2800 to 56000 — one-fourth 56000 to 84000 — one-half 84000 to 112000 — three-fourths 112000 and above — island site	and manouvering of fire engine, extended ladders pumping appliances, turntable and hydraulic platforms; (b) the accessway shall be metalled or paved or laid with strengthened perforated slabs to withstand the loading capacity of stationary 30 tonnes fire appliance; (c) the accessway shall be positioned so that the nearer edge shall be not less than 2 metres or more than 10 metres from the centre position of the access opening, measured horizontally; (d) the accessway shall be laid on a level platform or if on an incline, the gradient shall not exceed 1:15. The access road shall be laid on a incline not exceeding a gradient of 1:8.3; (e) the dead-end accessway and fire engine access road shall not exceed 46 metres in length or if exceeding 46 metres, be provided with turning facilities;	

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
		(f) the outer radius for turning of accessway and fire engine access road shall comply with the requirements of the Fire Authority; (g) the overhead clearance of fire engine access road shall be at least 4.5 metres for passage of fire appliances; (h) public roads may serve as accessway provided that the location of such public roads is in compliance with the requirements of distance from access openings as the Fire Authority may specify; and (i) the accessway and the fire engine access road shall be kept clear of obstructions and others parts of the building, plants, trees or other fixtures shall not obstruct the path between the accessway and the access openings. (3) All corners of the accessway shall be marked as follows:	

<table>
<tr><th>NO.</th><th>EXISTING PROVISION</th><th>PROPOSED AMENDMENT</th><th>Remarks</th></tr>
<tr><td></td><td></td><td>(a) the marking of corners shall be in contrasting colour to the ground surfaces or finishes;

(b) the accessway provided on turfed area shall be marked with contrasting object (preferably reflective) that is visible at night. The markings are to be at an interval not more than 3 metres apart and shall be provided on both sides of the accessway; and
(c) a sign post displaying the wordings “Fire Engine Access – Keep Clear” shall be provided at the entrance of the accessway. Size of wordings shall not be less than 50 milimeteres.

(4) The proportion of the building in excess of 7000 cubic metres fronting the accessway shall be in accordance with the following scale:

<table><tr><td>Volume of building in cubic metre</td><td>Minimum proportions of perimetre of building</td></tr></table></td><td></td></tr>
</table>

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
		7000 to 28000 — one-sixth 2800 to 56000 — one-fourth 56000 to 84000 — one-half 84000 to 112000 — three-fourths 112000 and above — island site	
77.	**141. Separating walls.** - None-	**141. Separating walls.** <u>(4) No timber such as joists, beams, wall plates, tile battens and ties shall be built into the thickness of any separating wall unless there are not less than 100 millimetres of brickwork or cement between such timbers.</u>	This paragraph is moved from by-law 97 because it is a fire requirement.
78.	**144. Cladding on external wall.** (2) Any cladding on any external wall situated 1.2 metres or more from the relevant boundary shall, if the building is more than 18 metres in height, have a surface complying with the requirements	**144. Cladding on external wall.** (2) Any cladding on any external wall situated 1.2 metres or more from the relevant boundary shall, if the building is more than 18 metres in height, have a surface complying with the requirements	

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	specified for Class O in by-law 204 except that any part of such cladding below the height of 18 metres from the ground may consist of timber of not less than 10 millimetres finished thickness or of a material having a surface which, when tested in accordance with BS 476: Part 6: 1968, has an index of performance not exceeding twenty.	specified for Class O in by-law 204 except that any part of such cladding below the height of 18 metres from the ground may consist of timber of not less than 10 millimetres finished thickness or of a material having a surface which, when tested in accordance with BS 476, has an index of perfomance not exceeding twenty.	For reference to be made to the Standard as a whole.
79.	**154. Emergency mode of operation in the event mains power failure.** (1) On failure of mains power of lifts shall return in sequence directly to the designated floor, commencing with the fire lifts, without answering any car or landing calls and park with doors open. (2) After all lifts are parked the lifts on emergency power shall resume normal operation: Provided that where sufficient emergency power is available for operation of all lifts, this mode of	-Deleted-	This provision is shifted to new by-law 243A because it concerns about fire protection systems and therefore should be covered under Part VIII.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	operation need not apply.		
80.	**159. Open stages.** Open stages without proscenium walls may be permitted provided suitable protection devices to the satisfaction of the D.G.F.S. are installed.	**159. Open stages.** Open stages without proscenium walls may be permitted provided suitable protection devices to the satisfaction of the D.G.F.R. are installed.	Consequential amendment to by-law 133: Interpretation.
81.	**162. Fire doors in compartment walls and separating walls.** (5) Fire doors including frames shall be constructed to a specification which can be shown to meet the requirements for the relevant FRP when tested in accordance with section 3 of BS 476: 1951.	-Deleted-	Fire door specifications should be provided under by-law 163.
82.	**163. Half hour and one hour doors.** Fire doors conforming to the method of construction as stipulated below shall be deemed to meet the requirements of the specified FRP:	**163. Fire doors.** Fire doors including frames shall be constructed in accordance with MS 1073.	To adopt MS 1073.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	(a) doors and frames constructed in accordance with one of the following specifications shall be deemed to satisfy the requirements for doors having FRP of half-hour: (i) a single door 900 millimetres wide X 2 100 millimetres high maximum or double doors 1 800 millimetres X 2 100 millimetres high maximum constructed of solid hardwood core of not less than 37 millimetres laminated with adhesives conforming to either BS 745 "Animal Glues", or BS 1204, "Synthetic resin adhesive (phenolic and aminoplastic) for wood" Part 1, "Gap-filling adhesives " or BS 1444, "Cold-setting casein glue for wood", faced both sides with plywood to a total thickness of not less than 43 millimetres with all edges finished with a solid edge strip full width of the door.		

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	The meeting stiles of double doors shall be rabbeted 12 millimetres deep or may be butted provided the clearance is kept to a minimum; (ii) doors may be double swing provided they are mounted on hydraulic floor springs and clearance at floor not exceeding 4.77 millimetres and frame and meeting stiles not exceeding 3 millimetres; (iii) a vision panel may be incorporated provided it does not exceed 0.065 square metre per leaf with no dimension more than 1 370 millimetres and it is glazed with 6 millimetres Georgian Wired Glass in hardwood stops; (iv) doors constructed in accordance with BS No. 459; Part 3: 1951 Fire Check Flush Doors and Wood and Metal Frames (Half-Hour		

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	Type); (v) timber frames for single swing half-hour fire doors of overall width of 60 millimetres including 25 millimetres rabbet and depth to suit door thickness plus 34 millimetres stop; (vi) metal frames for half-hour fire doors shall be of sheet steel not lighter than 18 gauge of overall width 50 millimetres including 18 millimetres rabbet and depth to suit the door thickness plus 53 millimetres stop; (vii) timber or metal frames for double swing doors shall be as specified above with minimum clearances between frame and door; (b) doors and frames constructed in accordance with one of the following specifications shall be deemed to satisfy the requirements for doors having		

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	FRP of one hour: (i) a single door not exceeding 900 millimetres wide X 2100 millimetres high or double doors not exceeding 1800 millimetres X 2100 millimetres high constructed as for specification (a) for half-hour door but incorporating on both faces either externally or beneath the plywood faces a layer of asbestos insulating board to BS 3536 (not asbestos cement) not less than 3 millimetres thick; (ii) doors may swing one way only and double doors shall have 12 millimetres wide rabbet at the meeting stiles; (iii) a vision panel may be incorporated provided it does not exceed 10 square metres per leaf with no dimension more than 300 millimetres and it is glazed with 6 millimetres Georgian Wire		

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	Glass in hardwood stop; (iv) doors constructed in accordance with BS No. 459: Part 3: 1951: Fire Check Flush Doors and Wood and Metal Frames (One Hour Type): (v) frames for one hour doors shall be as for half-hour doors except that timber frames shall be pressure impregnated with 15% to 18% solution of monoammonium phosphate in water.		
83.	**165. Measurement of travel distance to exits.** (3) In the case of individual rooms which are subject to occupancy of not more than six persons, the travel distance shall be measured from the doors of such rooms: Provided that the travel distance from any point in the room to the room door does not exceed 15 metres.	**165. Measurement of travel distance to exits.** (3) In any of individual room which is subjected to occupancy of not more than six persons, the travel distance shall be measured from the door of such room: Provided that the area of the room does not exceed 15 square metres or any other area determined by the Fire Authority.	To clarify that this requirement is applicable to each individual room. Measurement based on floor area of a room provides stricter control.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
84.	**167. Storey exits.** (1) Except as provided for in by-law 194 every compartment shall be provided with at least two storey exits located as far as practical from each other and in no case closer not exceed than 4.5 metres and in such position that the travel distances specified in the Seventh Schedule to these By-laws are not exceeded.	**167. Storey exits.** (1) Except as provided for in by-law 194 every compartment shall be provided with at least two storey exits located as far as practical from each other and shall not be less than 5.0 metres and in such position that the travel distances specified in the Seventh Schedule to these By-laws are not exceeded.	To streamline with by-law 174.
85.	**168. Staircases.** (3) The required width of a staircase shall be the clear width between walls but handrails may be permitted to encroach on this width to a maximum of 75 millimetres.	**168. Staircases.** (3) The required width of a staircase shall be the clear width between walls but handrails may be permitted to encroach on this width to a maximum of 80 millimetres.	80 milimetres is more appropriate measurement.
86.	**169. Exit route.** No exit route may reduce in width along its path of travel from the storey exit to the final exit. -None-	**169. Exit route.** (1) No exit route may reduce in width along its path of travel from the storey exit to the final exit. (2) For hospital and nursing home of Purpose Group II (Institutional)–	This provision is transferred from the existing Notes (ii) and (iii) under the Institutional item of the Tenth

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
		(a) corridors and landings shall be be designed to accommodate stretcher and bed movement; and (b) design shall provide for horizontal evacuation of bed patients for at least 50% of the total bed patients from the floor concerned.	Schedule because these requirements are planning matters (rather than fire protection systems) and therefore should be covered under this Part.
87.	**172. Emergency exit signs.** (3) Every exit sign shall have the word "KELUAR" in plainly legible letters not less than 150 millimetres high with the principal strokes of the letters not less than 18 millimetres wide. The lettering shall be in red against a black background.	**172. Emergency exit signs.** (3) The design and installation of every emergency exit sign shall be in compliance with MS 983 and MS 619.	To adopt MS 983 and MS 619.
88.	**189. Enclosing means of escape in certain buildings.** (1) Every staircase provided under these By-laws in a building of four storeys or more, or in a building where the highest floor level is more than 1,200 millimetres	**189. Enclosing means of escape in certain buildings.** (1) Every staircase provided under these By-laws in a building of four storeys or more, or in a building where the highest floor level is more than 12 metres above	12 metres is the correct measurement, not 1,200 milimetres.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	above the ground level, or in any place of assembly, or in any school when such staircase is to be used as an alternative means of escape shall be enclosed throughout its length with fire resisting materials. -None-	the ground level, or in any place of assembly, or in any school when such staircase is to be used as an alternative means of escape shall be enclosed throughout its length with fire resisting materials. (2) In a building of Purpose Group IV (Office), open corridor design may have unenclosed staircases if provided with extended landings of not less than twice staircase width and walls separating the staircase from the occupancy be returned for a distance of not less than 1 metre along the frontage of adjacent occupancies.	This provision is transferred from the existing Note under the Office item of the Tenth Schedule because this requirement is a planning matter (rather than fire protection systems) and therefore should be covered under this Part. The original term “open balcony approach” is changed to “open corridor design” because the latter is more precise term. The purpose of this requirement is to prevent the spread of fire to the staircase.
89.	**194. Building with single staircase.** A single staircase may be permitted in any building the top most floor of which does not exceed 12 metres in height: Provided that such building complies with the following conditions:	**194. Building with single staircase.** A single staircase may be permitted in the following premises: (a) any dwellings at a height of 12 metres measured from the fire appliance access level to the highest and lowest floor; and	To provide better control concerning the usage of single staircase in order to mitigate the risk of fire.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	(a) each element of structure shall have a FRP of not less than one hour; (b) no room or storey of the building may be used for any occupancy other than for domestic or office purpose, except that the ground storey may be used for the purposes of a shop or car park: Provided that– (i) the staircase from the ground to first floor level shall be separated from the remainder of the ground floor by a wall having a FRP of not less than two hours; (ii) the wall enclosing the staircase at the main entrance be returned for a distance of not less than 450 millimetres along the frontage of any shop or car park; (iii) the maximum travel	(b) any shophouses or dwellings not exceeding two (2) storeys or the first storey not exceeding 6 metres from the ground level.	

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	distance shall be 12 metres measured from the door of the room or area to the exit provided the path of travel from any point in the room to the room door does not exceed 12 metres; (iv) in ground and first storeys which have windows containing opening lights sufficiently near the adjacent ground level as to make emergency escape by this means reasonable a maximum travel distance up to 30 metres is permissible.		
90.	**197. Protected lobbies.** (2) In buildings exceeding 45 metres above ground level, such protected lobbies shall be pressurised to meet the requirements of Section 7 of the Australian Standard 1668, Part 1-1974 or any other system meeting the functional requirements of the D.G.F.S.	**197. Protected lobbies.** (2) In buildings exceeding 45 metres above ground level, such protected lobbies shall be pressurised to meet the requirements of Section 7 of the Australian Standard 1668, Part 1–1974 or any other system meeting the functional requirements of the D.G.F.R.	Consequential amendment to by-law 133: Interpretation.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
91.	-None-	**197A. Means of access and fire fighting in building over 18.0 metres high.** (1) Buildings in which the topmost floor is more than 18.0 metres above fire appliance access level shall be provided with means of gaining access and fighting fire from within the building consisting of fire fighting access lobbies, fire fighting staircases, fire lifts and dry or wet rising systems. (2) Fire fighting access lobbies shall be provided at every floor level and shall be so located that the level distance from the furthermost point of the floor does not exceed 45.0 metres. (3) Fire fighting access lobbies may be ommitted if the fire fighting staircase is pressurised to meet the requirements of by-law 200 and all fire fighting installations within the pressurised staircase enclosure do not intrude into the clear space required for means of egrees. (4) A fire fighting staircase shall be provided to give direct access to each fire fighting access lobby and shall be directly accessible from outside the building at fire appliance access level. This may be one of	Paragraphs (1) to (6) are shifted from the existing by-law 229 because these requirements are planning matters and therefore should be covered under this Part. There are proposed amendments to the measurement so as to be in line with the current practice, i.e. 18.3 to 18.0 metres in paragraph (1) and 45.75 to 45 metres in paragraph (2).

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
		the staircases required as a means of egrees from the building. (5) A fire lift shall be provided to give access to each fire fighting access lobby or in the absence of a lobby to the fire fighting staircase at each floor level. (6) The fire lift shall discharge directly into the fire fighting access lobby fire fighting staircase or shall be connected to it by a protected corridor. (7) In a building where the top occupied floor is over 18.5 metres above the fire appliance access level fire lifts shall be provided. (8) A penthouse occupying not more than 50% of the area of the floor immediately below shall be exempted from this measurement. (9) The fire lifts shall be located within a separate protected shaft if it opens into a separate lobby. (10) Fire lifts shall be provided at the rate of one lift in every group of lifts which	Paragraphs (7) to (10) are shifted from the existing by-law 243 as these are planning matters.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
		discharge into the same protected enclosure or smoke lobby containing the rising main, provided that the fire lifts are located not more than 61 metres travel distance from the furthermost point of the floor. (11) All lifts serving upper floors shall not extend to basement floors except where the basement floors only contain low fire loads or are used solely for car parking. In all the permitted situations, protected lobbies shall be provided which shall be interposed between the lift openings and the areas served.	This new provision is in line with the current practice. The expression "in all permitted situation" means if the lifts serving upper floors are allowed to be extended to basement floors. In this situation, enclosed lobbies (e.g. which are not open to the carparks) shall be provided.
92.	-None-	**197B. Fire fighting access lobbies.** Fire fighting access lobbies shall conform to the following requirements: (a) each lobby shall have a floor area of not less than 6.0 square metres; and (b) the openable area of windows or area of permanent ventilation shall be not less than 25% of the floor area of the lobby and, if ventilation is by means of openable windows, additional permanent ventilation	Transferred from the existing by-law 242 because it is a planning matter and therefore should be covered under this Part. In addition, there is a proposed amendment to substitute 5.57 square metres with 6.0 square metres so as to be in line with the current practice.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
		having a free opening of 464 square centimetres shall be provided except that mechanical pressurisation may be provided as an alternative.	
93.	**198. Ventilation of staircase enclosures.** (2) Openable windows shall meet the operational requirements of the D.G.F.S. (3) In buildings not exceeding three storeys above ground level, staircase enclosures may be unventilated, provided that access to them at all levels except the top floor is through ventilated lobbies.	**198. Ventilation of staircase enclosures.** (2) Openable windows shall meet the operational requirements of the D.G.F.R. -Deleted-	Consequential amendment to by-law 133: Interpretation. To clarify the confusion concerning the application of by-laws 198(3) and 199.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
94.	**199. Ventilation of staircase enclosures in buildings not exceeding 18 metres.** In buildings not exceeding 18 metres above ground level, staircase enclosures may be unventilated, provided that access to them at all levels except the top floor is through ventilated lobbies and the staircase enclosures are permanently ventilated at the top with least 5% of the area of the enclosures.	**199. Ventilation of staircase enclosures in buildings not exceeding <u>three storeys or</u> 18 metres.** In buildings not exceeding <u>three storeys or</u> 18 metres<u>, whichever is the earlier,</u> above ground level, staircase enclosures may be unventilated, provided that access to them at all levels except the top floor is through ventilated lobbies and the staircase enclosures are permanently ventilated at the top with least 5% of the area of the enclosures.	Refer to proposed amendment to by-law 198(3).
95.	**200. Ventilation of staircase enclosures in buildings exceeding 18 metres.** … (b) mechanically pressurisation of the staircase enclosure <u>to the standard of performance as specified in section 7 of the Australian Standard 1668, Part 1 1974 or any other system meeting the functional requirements of the D.G.F.S</u>.	**200. Ventilation of staircase enclosures in buildings exceeding 18 metres.** … (b) mechanically pressurisation of the staircase enclosure <u>designed and installed in accordance with MS 1472</u>.	To adopt MS 1472.
96.	**202. Pressurized system for staircases.** All staircases serving buildings of more than <u>45.75</u> metres in height where there	**202. Pressurized system for staircases.** All staircases serving buildings of more than <u>45</u> metres in height where there is no	To adopt MS 1472.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	is no adequate ventilation as required shall be provided with a basic system of pressurization– (a) where the air capacity of the fan shaft be sufficient to maintain an air flow of not less than 60 metres per minute through the doors which are deemed to be open; (b) where the number of doors which are deemed to be opened at the one time shall be 10% of the total number of doors opening into the staircase with a minimum number of two doors open; (c) where with all the doors closed the air pressure differential between the staircases and the areas served by it shall not exceed 5 millimetres water gauge; (d) where the mechanical system to prevent smoke from entering the staircase shall be automatically activated by a suitable heat	adequate ventilation as required shall be provided with a staircase pressurization system designed and installed in accordance with MS 1472.	

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	detecting device, manual or automatic alarm or automatic wet pipe sprinkle system; and (e) which meets the funcational requirement as may be agreed with the D.G.F.S.		
97.	**204. Classification of restriction of flame over surface wall and ceiling.** For the purpose of this Part and the Eight Schedule to these By-laws 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 construed, shall comply with the following requirements: Class O. Surface of no flame spread. (A) Any reference to a surface being Class O shall be construed as a requirement that– (a) the material of which the wall or ceiling is construed shall be non combustible throughout; or	**204. Classification of restriction of flame over surface wall and ceiling.** For the purpose of this Part and the Eight Schedule to these By-laws 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 construed, shall comply with the following requirements: Class O. Surface of no flame spread. (a) Any reference to a surface being Class O shall be construed as a requirement that– (i) the material of which the wall or ceiling is construed shall be non combustible throughout; or	

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	(b) the surface material, or if it is bonded throughout to a substrate, the surface material in conjuction with the substrate, shall when tested in accordance with BS 476; Part 6, 1968, have an index of performance (A) not exceeding 12 and a subindex (i) not exceeding 6:	(ii) the surface material, or if it is bonded throughout to a substrate, the surface material in conjunction with the substrate, shall when tested in accordance with BS 476.	Reference to be made to the Standards as a whole.
	Provided that the face of a plastic material having a softening point less than 120°C Centigrade when tested by method 102 C of BS 2782: 1970, shall only be regarded as a surface of Class O if– (i) the material is bonded throughout to a substrate which is not a plastic material and the material in conjunction with the substrate satisfies the test criteria prescribed in *(a)* above; or (ii) the material satisfies the test criteria prescribed in (b) above and is used as a	-Deleted-	No longer relevant in the current practice.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	lining of a wall so constructed that any surface which would be exposed if this lining were not present, satisfies the said test criteria and is the face of a material other than a plastic materil having a softening point less than 120°C. (B) Any reference to a surface being of a class other than Class O shall be construed as a requirement that the material of which the wall or ceiling is constructed 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 1, Section 2, 1953. (C) In relation to a requirement that a surface shall be of a class not lower than a specified class, Class O shall be regarded as the highest class followed in descending order by Class 1, Class 2, Class 3 and Class 4. … .	(b) Any reference to a surface being of a class other than Class O shall be construed as a requirement that the material of which the wall or ceiling is constructed 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. (c) In relation to a requirement that a surface shall be of a class not lower than a specified class, Class O shall be regarded as the highest class followed in descending order by Class 1, Class 2, Class 3 and Class 4. … .	

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
98.	**207. Exception relating to ceilings.** (1) Any part of the ceiling of a room or circulation space may consist of– (a) rigid polyvinyl chloride sheeting which is classified as self-extinguishing when tested in accordance with test method 508 A or BS 2782: 1970 if the face of the sheeting which is not the surface of the ceiling is exposed to the external air; or (b) one or more panels of such plastic materials as are permitted by paragraph (2) if the upper and lower surfaces of any part of the ceiling which is not formed by a panel of plastic material and the surfaces of all other parts of the structure which enclose the space over the ceiling are of a class not lower than that prescribed in the Eight Schedule to these By-law for the ceiling of such a room or circulation space. (2) Panels to which paragraph (1)(b)	**207. Exception relating to ceilings.** Walls and ceiling finishes in the form of thin sheet of not more than 1 millimetre thickness mounted on a non combustible substrate shall not be subject to the requirement of surface spread of flame provisions provided that this exception shall not apply to smoke stop or fire figthing lobbies, and exit staircase and passageway.	The original provision is no longer relevant in the current practice. It refers to certain construction specifications. New materials produced from new technology would be difficult to comply with these requirements. Therefore it is proposed to be deleted. The new provision proposed is to provide the exception to the requirements of by-law 204 and the conditions thereof. It is formulated for the purpose of control over construction materials used in areas for means of escape.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	refers may consist of one or more sheets or membranes of either– (a) polyvinyl chloride which has a degree of flammability of not more than 75 millimetres when tested in accordance with method 508 C of BS 2782; 1970 or which has very low flammability when tested and classified in accordance with method 508 D of BS 2782: 1970, if– (i) the nominal thickness of the sheet or membrane or, if a panel consist of two or more sheets or membranes, their nominal aggregate thickness does not exceed; and 0.99 millimetre; and (ii) no panel has an area exceeding 4.0876 square metres; or (b) any plastic material which has a		

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	softening point of not more than 120°C when tested by method 102 C of BS 2782: 1970, and a burning rate of not more than 50 millimetres per minute when tested in a thickness of 3 millimetres in accordance with method 508 A of BS 2872: 1970, if– (i) the nominal thickness of the sheet or membrance or, if a panel consists of two or more sheets or membranes, their nominal aggregate thickness does not exceed 30 millimetres; (ii) the aggregate area of the plastic material, if situated in a building or compartment of Purpose Group II, III or VII, does not exceed 30% of the floor area of floor area of the room or 15% of the floor are of the circulation space, as the case may be, or, if situated in a building or compartment of any other		

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	purpose group, does not exceed 50% of the floor area of the room or 15% of the floor area of the circulation space, as the case may be; (iii) no panel has any side exceeding 4.75 metres in length or an area exceeding 4.4 square metres if situated in a room or 2.0438 square metres if situated in acirculation space but if two or more panels are group so that each is less than 575 millimetres from another, the said maximum dimensions shall be applied to the smallest rectangle which would wholly enclose all such panels; and (iv) every panel is loosely mounted in such a way that it will fall out of its mountings when softtened by heat.		

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
99.	**211. Roofing materials.** (1) If any part of a roof cannot be designated under by-law 208 on account of the low softening temperature of its covering material, such part shall be not less than 12.2 metres ot twice the height of the building, whichever is the greater, form any point on a boundary unless such part is– (a) of an area not exceeding 3 square metres; and (b) separated from any other part of the same roof which is covered with the same material or any other material by a distance which is at least 1.53 metres wide and covered with non-combustible material, in which case such part shall be not less than 6 metres from any such point. (2) Nothing in this Part shall be prevent any part of a roof being constructed of such glass or rigid polyvinyl chloride sheeting as cannot be designated in	**211. Roofing materials.** (1) Surface or materials for roof covering and roof construction shall have a surface spread of flame rating not lower than class 1, except in the case of Purpose Groups I and III shown in Fifth Schedule of these By-laws and in buildings that are protected throughout with automatic sprinkler system. (2) D.G.F.R. may approve the use of combustible material for roof construction for buildings of Purpose Groups II, IV, V and VI as shown in Fifth Schedule to these By-laws if the following requirements are satisfied: (a) the building does not exceed four storeys; (b) the roof space between the roof and the ceiling shall be cavity barrier where required to comply with relevant provisions, and openings in cavity barriers shall be fire-stopped; and (c) if the underside of the roof serves	This provision is deleted and substituted with a new provision to provide less prescriptive requirements on the control over the materials to be used for roof construction.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	accordance with by-law 208 but which, in the case of sheeting, is classified as self-extiguishing when tested in accordance with method 508A of BS 2782: 1970, whether either– (a) that part of the roof is not less than 6 metres from any boundary; or (b) that part of the roof is less than 6 metres from any boundary, and the roof is that of a garage, conservatory or outbuilding having a floor area not exceeding 40 square metres whether or not attached to a forming part of another building, or is the roof of, or canopy over, a balcony, verandah, open carpark, covered way or detached swimming pool.	as ceiling to room or space, the elements of the underside or the roof shall comply with the relevant provision of by-law 204. (3) At the junctions with separating wall or compartment wall, the roof construction shall comply with the requirements as the Fire Authority may specify.	

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
100.	-None-	**211A. Materials For Construction.** (1) Materials used in the construction of building elements shall comply with the requirements stated under this Part in addition to the performance requirements such as for fire resistance and limit to spread of flame. (2) Instumescent paints is allowed to be used for protection of structural steel member of all building provided that– (a) the paints shall be of proprietary system that has been tested to achieve the fire resistance performance as required in BS 476; and (b) coating of instumescent paint onto structural steel, and subsequent maintenance shall conform to BS 8202. (3) In buildings which are protected by automatic sprinkler system, fire rated glass can be used for the construction of compartment wall, compartment floors, enclosure to smoke stop lobby, fire fighting lobby, protected shafts not containing exit	To emphasise that the materials for the construction of building shall conform to performance specifications.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
		staircase and fire lift, subject to the following: (a) the wall and doors shall have necessary fire resistance, including insulation, when subject to test under BS 476 for the wall and MS 1073 for the door; and (b) the walls and door shall meet the Class A of impact performance requirements when subject to test under BS 6206 or AS 2208. (4) Walls, ceiling, roof covering and finishes shall not contain any plastic material. (5) For the purpose of this by-law, "AS" means the latest published edition of the Australian Standard.	
101.	**222. Fire resistance for walls.** (4) … : Provided that, for the purposes of these by-laws, the wall shall be capable of satisfying the requirements of clause 11c of section 3 of BS 476: Part 1: relating to insulation, for a period of not less than fifteen minutes.	**222. Fire resistance for walls.** (4) … : Provided that, for the purposes of these by-laws, the wall shall be capable of satisfying the requirements of clause 11c of section 3 of BS 476 relating to insulation, for a period of not less than fifteen minutes.	For reference to be made to the Standard as a whole.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
102.	**223. Fire resistance for floors above ground floor.** Any floor above the ground storey of a house falling within Purpose Group 1 shall, if the underside of such floor is exposed to test by fire in accordance with BS 476: Part 1: 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 fifteen minutes.	**223. Fire resistance for floors above ground floor.** 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 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 fifteen minutes.	For reference to be made to the Standards as a whole.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
103.	**PART VIII** **FIRE ALARMS, FIRE DETECTION, FIRE EXTINGUISHMENT AND FIRE FIGHTING ACCESS**	**PART VIII** **FIRE DETECTION, FIRE ALARM AND FIRE EXTINGUISHMENT**	"FIRE ALARM" is inserted after "FIRE DETECTION" because the fire fighting systems will detect and warn later. "FIRE FIGHTING ACCESS" is deleted because it is a planning matter and should be covered under Part VII.
104.	**225. Detecting and extinguishing fire.**	**225. Detecting, warning and extinguishing fire.**	
	(1) Every building shall be provided with means of detecting and extinguishing fire and with fire alarms together with illuminated exit signs in accordance with the requirements as specified in the Tenth Schedule to these By-laws.	(1) Every building shall be provided with means of detecting, warning and extinguishing fire in accordance with the requirements as specified in the Tenth Schedule to these By-laws.	The fire fighing systems should be able to detect, warn and extinguish fire. The requirement of "illuminated exit signs" has already been covered under by-law 172.
	(2) Every building shall be served by at least one fire hydrant located not more than 91.5 metres from the nearest point of fire brigade access	(2) Every building shall be served by at least one fire hydrant located not more than 45 metres from the fire brigade access, designed and installed in accordance with MS 1489. In any case, hydrants shall be located not more than 90 metres apart.	To streamline with MS 1489. The term "nearest point of" is deleted to avoid confusion.
	(3) Depending on the size and location of the building and the provision of access for fire appliances, additional fire hydrants shall be provided as may be required by the Fire Authority.	(3) Depending on the size and location of the building and the provision of access for fire appliances, additional fire hydrants shall be provided as may be required by the D.G.F.R.	To streamline with the current practice.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
105.	-None-	**226A. Hose reel systems.** Hose reel systems shall be designed and installed in accordance with MS 1489.	To streamline with the relevant Malaysian Standard.
106.	**227. Portable extinguishers.** Portable extinguisher shall be provided in accordance with the relevant codes of practice and shall be sited in prominent positions on exit routes to be visible from all directions and similar extinguishers in a building shall be of the same method of operation.	**227. Portable extinguishers.** Portable extinguisher shall be designed and installed in accordance with MS 1539.	To streamline with the relevant Malaysian Standard.
107.	**228. Sprinkler valves.** (1) Sprinkler valves shall be located in a safe and enclosed position on the exterior wall and shall be readily accessible to the Fire Authority. (2) All sprinkler systems shall be electricity connected to the nearest fire station to provide immediate and automatic relay of the alarm when activated.	**228. Sprinklers systems.** Sprinkler systems shall be designed and installed in accordance with MS 1910.	To streamline with the relevant Malaysian Standard. Paragraph (2) has already been provided under by-law 238.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
108.	**229. Means of access and fire fighting inbuilding over 18.3 metres high.** (1) Buildings in which the topmost floor is more than 18.3 metres above fire appliance access level shall be provided with means of gaining access and fighting fire from within the building consisting of fire fighting access lobbies, fire fighting staircases, fire lifts and dry or wet rising systems. (2) Fire fighting access lobbies shall be provided at every floor level and shall be so located that the level distance from the furthermost point of the floor does not exceed 45.75 metres.	**229. Means of access and fire fighting inbuilding over 18 metres high.** (1) Buildings in which the topmost floor is more than 18 metres above fire appliance access level shall be provided with means of gaining access and fighting fire from within the building consisting of fire fighting access lobbies, fire fighting staircases, fire lifts and dry or wet rising systems. (2) Fire fighting access lobbies shall be provided at every floor level and shall be so located that the level distance from the furthermost point of the floor does not exceed 45 metres.	To be in line with the current practice.
109.	**230. Installation and testing of dry rising system.** (1) Dry riser systems shall be provided in every building in which the topmost floor is more than 18.3 metres but less than 30.5 metres above fire appliance access level. (2) A hose connection shall be provided in each fire fighting access lobby.	**230. Dry riser systems.** (1) Dry riser systems shall be provided in every building in which the topmost occupied floor is more than 18 metres but less than 30 metres above fire appliance access level. (2) Dry riser systems shall be designed and installed in accordance with MS 1489 such that all parts of the floor are within 45 metres from a landing valve.	To clarify that topmost floor is the occupied floor because in certain building, the topmost floor is M&E room. To streamline with the relevant Malaysian Standard. Also to be consistent with the new by-law 197A(2).

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	(3) Dry risers shall be of minimum "Class C" pipes with fittings and connections of sufficient strength to withstand 21 bars water pressure.	-Deleted-	These are covered by MS 1489.
	(4) Dry risers shall be tested hydrostatically to withstand not less than 14 bars of pressure for two hours in the presence of the Fire Authority before acceptance.	-Deleted-	
	(5) All horizontal runs of the dry rising systems shall be pitched at the rate of 6.35 millimetres in 3.05 metres.	-Deleted-	
	(6) The dry riser shall be not less than 102 millimetres in diametre in buildings in which the highest outlet is 22.875 metres or less above the fire brigade pumping inlet and not less than 152.4 millimetres diametre where the highest outlet is higher than 22.875 metres above the pumping inlet.	-Deleted-	
	(7) 102 millimetres diametre dry risers shall be equipped with a two-way pumping inlet and 152.4 millimetres dry risers shall be equipped with a four-way	-Deleted-	

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	pumping inlet.		
110.	**231. Installation and testing of wet rising system.** (1) Wet rising systems shall be provided in every building in which the topmost floor is more than 30.5 metres above fire appliance access level. (2) A hose connection shall be provided in each fire fighting access lobby. (3) Wet risers shall be of minimum 152.4 millimetres diametre and shall be hydrostatically tested at a pressure 50% above the working pressure required and not less than 14 bars for at least twenty-four hours. (4) Each wet riser outlet shall comprise standard 63.5 millimetres instantaneous coupling fitted with a hose of not less than 38.1 millimetres diametre equipped with an approved typed cradle and a variable fog nozzle.	**231. Wet riser systems.** (1) Wet rising systems shall be provided in every building in which the topmost occupied floor is more than 30 metres above fire appliance access level. (2) Wet riser systems shall be designed and installed in accordance with M.S. 1489 such that all parts of the floor are within 45 metres from a landing valve. -Deleted- -Deleted-	To streamline with the relevant Malaysian standard.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	(5) A wet riser shall be provided in every staircase which extends from the ground floor level to the roof and shall be equipped with a three-way 63.5 millimetres outlet above the roof line. (6) Each stage of the wet riser shall not exceed 61 metres, unless expressly permitted by D.G.F.S but in no case exceeding 70.15 metres.	-Deleted- -Deleted-	
111.	**233. Foam inlets.** Boiler rooms and storage areas below ground level where automatic extinguishing installations are not provided shall be equipped with foam inlets.	-Deleted-	Boiler rooms and storage areas refer to special hazardous areas and this requirement has already been covered under Note 2 of Group VI under the Tenth Schedule to these By-laws. Furthermore, the suitability of the use of foam inlets should be determined by the Fire Authority.
112.	**234. Underground structures and windowless buildings to have foam inlets.** All underground structures, windowless buildings depending on the type of occupancy, storage, processes or type of protection installed shall be provided	-Deleted-	These buildings refer to special hazardous areas and should be covered under the Tenth Schedule.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	with foam inlets as may be required by the Fire Authority.		
113.	**235. Fixed installation.** Fixed installations shall either be total flooding system or unit protection system depending upon the nature of hazard process and occupancy as may be required by the Fire Authority.	**235. Fixed extinguishing systems.** Fixed extinguishing systems shall either be total flooding system or unit protection system depending upon the nature of hazard process and occupancy as may be required and approved by the D.G.F.R.	To clarify that the system is meant for fire extinguishment.
114.	**236. Special hazards.** Places constituting special hazards or risk due to the nature of storage, trade, occupancy or size shall be required to be protected by fixed installations, protective devices, systems and special extinguishers as may be required by the Fire Authority.	**236. Special hazards.** Places constituting special hazards or risk due to the nature of storage, trade, occupancy or size shall be required to be protected by fixed installations, protective devices, systems and special extinguishers as may be required by the D.G.F.R.	In line with the current practice.
115.	**237. Fire Alarms.** (1) Fire alarms shall be provided in accordance with the Tenth Schedule to these By-laws. (2) All premises and buildings with gross floor area excluding car park and storage	**237. Fire Detection and Fire Alarm Systems.** Fire detection and fire alarm systems shall be designed and installed in accordance with MS 1745. -Deleted-	To streamline with the relevant Malaysian Standard.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	areas exceeding 9290 square metres or exceeding 30.5 metres in height shall be provided with a two-stage alarm system with evacuation (continuous signal) to be given immediately in the affected section of the premises while an alert (intermittent signal) be given in adjoining section. (3) Provision shall be made for the general evacuation of the premises by action of a master control.	-Deleted-	
116.	**238. Command and control centre.** Every large premises or building exceeding 30.5 metres in height shall be provided with a command and control centre located on the designated floor and shall contain a panel to monitor the public address, fire brigade communication, sprinkler, waterflow detectors, fire detection and alarm systems and with a direct telephone connection to the appropriate fire station by-passing the switchboard.	**238. Fire Command Centre.** Where it is specified in the Tenth Schedule to these By-Laws that a fire command centre shall be provided, the fire commond centre shall be located on the designated floor with easy fire appliances access and shall contain a panel to monitor the public address, fireman intercom, sprinkler, waterflow detectors, fire detection and alarm systems and with a computerised monitoring system connected to the appropriate fire station by-passing the	More relevant with the current practice.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
		switchboard.	
117.	**239. Voice communication system.** … (b) in every office area exceeding 92.9 square metres in area; … .	**239. Voice communication system.** … (b) in every office area exceeding 100 square metres in area; … .	To provide more convenient measurement and technically there is not much different between 92.9 and 100 metres.
118.	**240. Electrical isolating switch.** (1) Every floor or zone of any floor with a net area exceeding 929 square metres shall be provided with an electrical isolation switch located within a staircase enclosure to permit the disconnection of electrical power supply to the relevant floor or zone served. (2) The switch shall be of a type similar to the fireman's switch specified in the Institution of Electrical Engineers Regulations then in force.	**240. Electrical isolating switch.** (1) Every floor or zone of any floor with a net area exceeding 1000 square metres shall be provided with an electrical isolation switch complying with IEC 60947-3 and located within a staircase enclosure to permit the disconnection of electrical power supply to the relevant floor or zone served. (2) For purpose for this by-law, "IEC" means the latest published edition of the International Electrotechnical Commission Standard.	To provide more convenient measurement. Also to adopt the relevant Standard.
119.	**241. Special requirements for fire alarm systems.** In places where there are deaf persons and in places where by nature of the occupancy audible alarm system is	**241. Special requirements for fire alarm systems.** In places where there are deaf persons and in places where by nature of the occupancy audible alarm system is undesirable,	To streamline with the relevant Malaysian Standard.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	undesirable, visible indicator alarm signals shall be incorporated in addition to the normal alarm system.	special requirement for fire alarm systems shall be installed in accordance with MS 1745.	
120.	**242. Fire fighting access lobbies.** Fire fighting access lobbies shall conform to the following requirements: (a) each lobby shall have a floor area of not less than 5.57 square metres; and (b) the openable area of windows or area of permanent ventilation shall be not less than 25% of the floor area of the lobby and, if ventilation is by means of openable windows, additional permanent ventilation having a free opening of 464 square centimetres shall be provided except that mechanical pressurisation may be provided as an alternative.	-Deleted-	Shifted to new by-law 197B.
121.	**243. Fire lifts.** (1) In a building where the top occupied floor is over 18.5 metres above the fire	-Deleted-	Shifted to new by-law 197A(7) – (10).

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	appliance access level fire lifts shall be provided. (2) A penthouse occupying not more than 50% of the area of the floor immediately below shall be exempted from this measurement. (3) The fire lifts shall be located within a separate protected shaft if it opens into a separate lobby. (4) Fire lifts shall be provided at the rate of one lift in every group of lifts which discharge into the same protected enclosure or smoke lobby containing the rising main, provided that the fire lifts are located not more than 61 metres travel distance from the furthermost point of the floor.		
122.	-None-	**243A. Emergency mode of operation in the event mains power failure.** (1) On failure of mains power of lifts shall return in sequence directly to the designated floor, commencing with the fire lifts, without answering any car or landing calls and park with doors open.	Shifted from the existing by-law 154.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
		(2) After all lifts are parked the lifts on emergency power shall resume normal operation: Provided that where sufficient emergency power is available for operation of all lifts, this mode of operation need not apply.	
123.	**244. Standards required.** All fire fighting installations and appliances shall conform to the current edition of the following standards: (a) Fire Hydrants … … BS 750:1977 and BS CP 402.101:1952 (b) Hydraulic Hose Reels BS 5306 Part 1:1976 (c) Portable Extinguishers BS CP 402 Part 3:1964 (d) Dry/Wet Rising Mains BS 3980:1966 BS 5306 Part 1:1976 BS 750:1964 (e) Foam Inlets … …	-Deleted- -Deleted- -Deleted- -Deleted- -Deleted-	Has been described in by-law 225(2). Has been described in by-law 226. Has been described in by-law 227. Has been described in by-laws 230(2) and 231(2). No longer relevant in the current

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	BS 3980:1966		practice.
	(f) Automatic Sprinklers FOC Rules 29th Edition: 1973	-Deleted-	Has been described in by-law 228.
	(g) Fire Alarm Systems FOC Rules:1973 BS CP 1019:1972 BS 3116 Part 1:1970 BS 3116 Part 4:1974 BS 5446 Part 1:1977	-Deleted-	Has been described in by-law 237
	(h) Fire Dampers … … AS 1682:1974	-Deleted-	Has been described in by-law 156(1).
	(i) Fire Lifts ... … BS 2655: Part 1: Appendix E	-Deleted-	Has been described in by-law 155(3).
	(j) Smoke Control … AS 1668: Part 1:1974	-Deleted-	Has been described in by-laws 252(b) and 251.
124.	**245. Approval of D.G.F.S.** (1) All fire fighting installations and appliances other than those conforming to the standards listed in by-law 244 shall be of those as tested and approved by the D.G.F.S.	**245. Approval of D.G.F.R.** (1) Any construction, development or installation of fire fighting equipment or fire safety installation other than those conforming to the requirements provided in Parts VII and VIII of these By-laws shall be submitted to and approved by the D.G.F.R.	To be in line with the current practice.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
		before the commencement of work.	
	(2) Plans, drawings and calculations of all fixed installations shall be submitted to the Fire Authority in a manner prescribed by the D.G.F.S. before commencement of work.	(2) Plans, drawings and calculations of all fire fighting installations shall be submitted to the Fire Authority in a manner prescribed by the D.G.F.R. before commencement of work.	To be in line with the current practice.
	(3) Every plan, drawing or calculation in respect of any automatic sprinklers or other fixed installations shall be submitted together with the relevant forms as prescribed in the Tenth Schedule to these By-laws.	-Deleted-	To streamline with the current practice. The Forms in the Tenth Schedule should be applicable only upon completion. And the existing Form G9 under the Second Schedule to these By-laws has already covered the certification of completion concerning fire proctection systems.
125.	**246. Certification on completion.** When the fixed installation has been completed and final tests carried out the person submitting the plans shall certify to the Fire Authority on Form B as set out in the Tenth Schedule to these By-laws that the work has been completed and the necessary tests carried out in accordance with the current D.G.F.S. rules for various fixed installations.	-Deleted-	Form B has been replaced by Form G9.
126.	**247. Water storage.**	-Deleted-	Water storage for the fire fighting

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	(1) Water storage capacity and water flow rate for firefighting systems and installations shall be provided in accordance with the scale as set out in the Tenth Schedule to these By-laws. (2) Main water storage tanks within the building, other than for hose reel systems, shall be located at ground, first or second basement levels, with fire brigade pumping inlet connections accessible to fire appliances. (3) Storage tanks for automatic sprinkler installations where full capacity is provided without need for replenishment shall be exempted from the restrictions in their location.		systems has been specified in MS 1489 (referred to in by-law 231) and MS 1910 (referred to in by-law 228).
127.	**248. Marking on wet riser, etc.** (1) Wet riser; dry riser, sprinkler and other fire installation pipes and fittings shall be painted red. (2) All cabinets and areas recessed in walls for location of fire installations and extinguishers shall be clearly identified to	**248. Marking on wet riser, etc.** (1) Wet riser; dry riser, sprinkler and other fire installation pipes and fittings shall be identified in red colour. (2) All cabinets and areas recessed in walls for location of fire installations and extinguishers shall be clearly identified to	To clarify that the whole pipes need not be painted red so long as it can be identified in red colour. D.G.F.R includes the Fire Authority.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	the satisfaction of the Fire Authority or otherwise clearly identified.	the satisfaction of the D.G.F.R. or otherwise clearly identified.	
128.	**251. Smoke vents to be adequate to prevent dangerous accumulation of smoke.** Where smoke venting facilities are installed for purposes of exit safety in accordance with the requirements of this Part they shall be adequate to prevent dangerous accumulation of smoke during the period of time necessary to evacuate the area served using available exit facilities with a margin of safety to allow for unforeseen contingencies.	**251. Smoke vents to prevent dangerous accumulation of smoke.** Smoke control systems where specified shall be designed and installed in accordance with MS 1780.	To adopt MS 1780.
129.	**Smoke vents to be openable by Fire Authority.** The discharge apertures of all manual smoke vents shall be so arranged as to be readily openable by the Fire Authority working from the exterior.	-Deleted-	Has been covered by MS 1780.
130.	-None-	**252A. Atriums in buildings.** An atrium may be permitted in a building provided that–	To streamline with the current practice.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
		(a) the horizontal dimension is not less than 6 metres and the area of opening is not less than 95 square metres; (b) the exits are separately enclosed from the atrium though exit access may be within the atrium; (c) the atrium is open and unobstructed; (d) the building is fully protected by automatic sprinklers; (e) sprinklers may be omitted for ceiling of the atrium if it is more than 17 metres above the floor; (f) a smoke control or smoke exhaust system of the atrium and adjacent spaces be provided as per Table 1 below or other approved standards; (g) the smoke control or smoke exhaust system shall be activated by– (i) smoke detectors located at the top of the atrium and adjacent to each return air intake from	

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
		the atrium; (ii) the automatic sprinkler system; (iii) the automatic detector system (but not the manual break glass system); and (iv) manual controls readily accessible to the Fire Authority; and (h) the atrium be separated from adjacent spaces by one hour fire resistance fire barriers except that– (i) any three levels of the building may open directly to the atrium without enclosure; and (ii) glass walls may be used in lieu of fire barriers where automatic sprinklers are spaced 1.8 metres or less apart along both sides of the glass wall, not more than 0.3 metres from the glass so that the surface of the glass is wet upon operation of the sprinklers. The glass shall be float glass held in place by a	

<table>
<tr><th>NO.</th><th>EXISTING PROVISION</th><th>PROPOSED AMENDMENT</th><th>Remarks</th></tr>
<tr><td></td><td></td><td>gasket system allowing the frame to deflect without the glass before the sprinklers operate.

TABLE 1: ATRIUM SMOKE EXHAUST SYSTEM

<table>
<tr><th rowspan="2">Height of Atrium in M</th><th rowspan="2">Volume of Atrium Cubric M</th><th colspan="2">Smoke Exhaust System (whichever is greater)</th><th rowspan="2">Air Supply (Lowest Level)</th></tr>
<tr><th>Cubic M/ Sec or</th><th>Air Change / Hour</th></tr>
<tr><td>17 or less</td><td>17,000 or less</td><td>19</td><td>6</td><td>Gravity - natural flow due to differnce in density. 75% of exhaust</td></tr>
<tr><td>17 or</td><td>17,000</td><td>19</td><td>4</td><td>Gravity 17%</td></tr>
</table>
</td><td></td></tr>
</table>

<table>
<tr><th>NO.</th><th>EXISTING PROVISION</th><th>PROPOSED AMENDMENT</th><th>Remarks</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><td>less</td><td>or less</td><td></td><td></td><td>of Exhaust</td></tr>
<tr><td>17 or more</td><td>-</td><td>-</td><td>4</td><td>Mechanical 75% of Exhaust</td></tr>
</table>
</td><td></td></tr>
<tr><td>131.</td><td>253. Emergency power system.

(5) Current supply shall be such that in the event of failure of the normal supply to or within the building or group of buildings concerned, the emergency lighting or emergency power, or both emergency lighting and power will be available within 10 seconds of the interruption of the normal supply. The supply system for emergency purposes shall comprise one or more of the following approved types:
… .</td><td>253. Emergency power system.

(5) Current supply shall be such that in the event of failure of the normal supply to or within the building or group of buildings concerned, the emergency lighting or emergency power, or both emergency lighting and power will be changed over within 60 seconds immediately after the interruption of the normal supply. The supply system for emergency purposes shall comprise one or more of the following approved types:
… .</td><td>The current system is not able to achieve the existing requirement of “available within 10 seconds”.</td></tr>
<tr><td>132.</td><td>-None-</td><td>253A. Emergency lights.

Emergency lighting shall be installed to provide sufficient illumination for escape purposes. Such lighting shall be of the self-contained type to MS 619 or supplied with emergency power from an emergency power system or central battery bank. In all cases, the duration of emergency illumination in the event of failure of normal supply shall not be less than one hour.</td><td>This requirement is transferred from Note 4 of the Tenth Schedule to these By-laws with amendment to be in line with the current practice.</td></tr>
</table>

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	PART IX MISCELLANEOUS		
133.	**256. Buildings exempted.** Except for by-law 141 and paragraph (2) of by-law 225 the provisions under Part VII and VIII of these By-laws shall not apply to private dwelling houses, detached or semi-detached and terrace houses intended for single family occupancies.	**256. Buildings exempted.** Except for by-laws 134 and 141 and paragraph (2) of by-law 225 the provisions under Part VII and VIII of these By-laws shall not apply to private dwelling houses, detached or semi-detached and terrace houses intended for single family occupancies.	By-law 134 which provides the designation of purpose groups of buildings should not be exempted by this provision.
134.	**257. Malaysian standard Specification and Code of Practice to prevail over British Standard Specification and Code of Practice.** In these By-laws where there is any reference to the British Standard Specifications or British Code of Practice and there is, whether on the date of the coming into operation of these By-laws or subsequently, a corresponding Malaysian Standard Specification or Malaysian Code of Practice in respect of that subject, the Malaysian Standard Specification or Malaysian Code of Practice shall be deemed to have	**257. Application of standard or code of practice.** Where any standard or code of practice is referred to in these By-laws, and there is subsequently published a corresponding Malaysian Standard or any other corresponding standard or code of practice which is acceptable to the local authority or D.G.F.R., as the case may be, on the same subject matter, the corresponding Malaysian Standard or standard or code of practice shall be deemed to have superseded such standard or code of	To ensure the inclusiveness of the latest published edition of the relevant standards.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	superseded the British Standard Specification or British Code of Practice respectively and shall be deemed to apply.	practice referred to and shall be complied with.	
135.	**258. Failure to buildings.** (1) In the event of any failure to any building or part of the building, whether in the course of construction or after completion, the principal submitting person or submitting person who– (a) submitted the plans, drawings or calculations for such building; (b) supervised the setting out of such building; (c) certified that the setting out was carried out in accordance with the approved site plan; (d) supervised the construction of such building; (e) certified that the proper supervision of such building as	**258. Failure to buildings.** (1) In the event of any failure to any building or part of the building, whether in the course of erection or after completion, the principal submitting person or submitting person who– (a) submitted the plans, drawings or calculations for such building; (b) supervised the setting out of such building; (c) certified that the setting out was carried out in accordance with the approved site plan; (d) supervised the erection of such building; (e) certified that the proper supervision of such building as	To include failure to building in the course of demolition.

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	carried out; shall within one week of the occurrence of such failure or such further period as may be specified by the local authority within whose jurisdiction such building is situated– (aa) report such failure; (bb) explain the cause of failure; and (cc) if such failure occurred during the construction of such building, state the remedial action taken. (2) Such principal submitting person or submitting person shall submit such further information in such manner and within such period as may be specified by the local authority. (3) Where the local authority has reason to believe that a failure to any building or part of a building has occurred which failure has not been reported to such local authority it shall serve a notice on the principal submitting person or	carried out; shall within one week of the occurrence of such failure or such further period as may be specified by the local authority within whose jurisdiction such building is situated– (i) report such failure; (ii) explain the cause of failure; and (iii) if such failure occurred during the erection of such building, state the remedial action taken. (2) Such principal submitting person or submitting person shall submit such further information in such manner and within such period as may be specified by the local authority. (3) Where the local authority has reason to believe that a failure to any building or part of a building has occurred which failure has not been reported to such local authority it shall serve a notice on the principal submitting person or submitting person	

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	submitting person who– (a) submitted the plans, drawings or calculations for such building; (b) supervised the setting out of such building; (c) certified that the setting out was carried out in accordance with the approved site plan; (d) supervised the construction of such building; (e) certified that proper supervision of such building was carried out; requiring him within one week of such service to– (aa) state whether such failure occurred; (bb) explain why he failed to report such failure;	who– (a) submitted the plans, drawings or calculations for such building; (b) supervised the setting out of such building; (c) certified that the setting out was carried out in accordance with the approved site plan; (d) supervised the erection of such building; (e) certified that proper supervision of such building was carried out; requiring him within one week of such service to– (i) state whether such failure occurred; (ii) explain why he failed to report such failure;	

NO.	EXISTING PROVISION	PROPOSED AMENDMENT	Remarks
	(cc) if such failure occurred during the construction of such building, state the remedial action taken. (4) Any principal submitting person or submitting person who fails to comply with paragraph (1), (2) or (3) shall be guilty of an offence. (5) Notwithstanding that any plan, drawing or calculation has been approved by the local authority, the responsibility for the failure of any building or part of a building shall *prima facie* lie with the principal submitting person or submitting person who submitted such plan, drawing or calculation. (6) The principal submitting person or submitting person as mentioned under paragraph (1)(a) of by-law 7 shall be subject to the same provision as specified under this by-law.	(iii) if such failure occurred during the erection of such building, state the remedial action taken. (4) Any principal submitting person or submitting person who fails to comply with paragraph (1), (2) or (3) shall be guilty of an offence. (5) Notwithstanding that any plan, drawing or calculation has been approved by the local authority, the responsibility for the failure of any building or part of a building shall *prima facie* lie with the principal submitting person or submitting person who submitted such plan, drawing or calculation. (6) The principal submitting person or submitting person, as the case may be, as mentioned under paragraph (1)(a) of by-law 2F or paragraph (1)(a) of by-law 7 shall be subject to the same provision as specified under this by-law.	