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15.7. Bay windows or balconies may project not more than 450 mm beyond the road alignment if—

(a) the road is not less than 12.2 m in width; and

(b) such projections—

(i) are limited in extent to not more than 50 per cent of any road frontage of the building at any level;

(ii) are not at any part within 1 350 mm of the adjoining property at the road alignment, and

(iii) are not at any part within 3.6 m of the road below.

15.8. Flagpoles may project beyond the road alignment if— Flagpoles.

(a) the poles or flags suspended therefrom are at least 3.6 m above the pathway level of the road;

(b) they do not project over the carriageway of the road; and

(c) no interference with public services is caused thereby.

15.9. All permissible projections other than footings shall be so constructed that they may be removed at any time after their erection without causing the building of which they are a part to become structurally unsafe and without causing a reduction in the fire-resistance rating of any structural member of the building required by this Ordinance.

Group V.—Fire Safety and Fire Resistance.

Part 16.—Fire-resisting Construction of Buildings.

16.1. (1) Unless otherwise permitted by this Ordinance, buildings of Classes II to IX inclusive shall be erected in one of the following types of construction:

(a) Type 1, in accordance with clause 16.7.

(b) Type 2, in accordance with clause 16.8.
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(c) Type 3, in accordance with clause 16.9.
(d) Type 4, in accordance with clause 16.10.
(e) Type 5, in accordance with clause 16.11.

(2) For the purposes of this Ordinance, a building that meets the requirements of this Part for one of the types of construction described in subclause (1) shall be deemed to be a building of fire-resisting construction.

(3) Type 1 construction shall be deemed to be the most fire-resistant and Types 2 to 5 the successively less fire-resistant of the types of fire-resisting construction.

Type of construction in a particular building.
The type required.

16.2. (1) The type of fire-resisting construction required in a building shall be the least fire-resistant type of construction permissible—

(a) under Part 17 if the building is not in a fire zone; or
(b) under Part 18 if the building is in a fire zone.

Types permissible.

(2) A building that is required by Part 17 or Part 18 to be of a particular type of fire-resisting construction may be erected in a more fire-resistant type of construction.

Fire-separated sections of a building.

16.3. Each section of a building that is fire-separated according to Part 23 from the remainder of the building shall be subject to this Part as though it were itself a building.

Fire protection for a support of another part.

16.4. A part of a building that gives direct or indirect vertical support to another part required to have a fire-resistance rating shall have a fire-resistance rating not less than the greater of—

(a) the fire-resistance rating required for the part it supports; and
(b) the fire-resistance rating, if any, required for the part itself,

and be non-combustible if the part it supports is required to be non-combustible.
16.5. The following materials, though combustible or containing combustible fibres, may be used wherever this Ordinance requires a non-combustible material:

(a) Plasterboard.

(b) Perforated gypsum lath with a normal paper finish.

(c) Fibrous-plaster sheet conforming to Australian Standard 2185 "Specification for Fibrous Plaster Products".

16.6. (1) A "fire-source feature" means, in relation to a building, and as the case requires—

(a) the farther boundary of a road adjoining the site; or

(b) a side boundary of the site, together with a 1.5 m straight projection of that boundary on to the road; or

(c) a rear boundary of the site; or

(d) an external wall of another building, not of a Class I or Class X, that stands on the site.

(2) Except as in subclause (3), a part of a structural member shall be deemed to be exposed to a fire-source feature if any of the horizontal straight line between that part and the fire-source feature, or a vertical projection thereof, is not obstructed by another part of the building that—

(a) has a fire-resistance rating of not less than 1 hour; and

(b) is neither transparent nor translucent.

(3) A part of a structural member shall not be deemed to be exposed to a fire-source feature if—

(a) the fire-source feature is an external wall of another building that stands on the site and the part concerned is more than 15 m above the highest part of that external wall; or
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(b) the fire-source feature is a side or rear boundary of the site and the part concerned is below the level of the finished ground at every relevant part of the boundary concerned.

(4) The “effective distance” between a part of a structural member and a fire-source feature to which it is exposed means the lesser of—

(a) the horizontal distance from that part to the fire-source feature, or a vertical projection thereof, measured at right angles to the vertical face of the part; and

(b) three times the horizontal distance from the fire-source feature to that part, measured at right angles to the fire-source feature or a vertical projection thereof.

or, if one of these distances cannot be found (because of the particular geometrical considerations concerned), then the other distance or triple-distance, as applicable.

(5) Where, in terms of this clause, various “effective distances” apply for different parts of a structural member, that member shall be so constructed that—

(a) the entire member has the fire-resistance rating applicable to that part having the least “effective distance” between itself and the relevant fire-source feature; or

(b) each such part of the member has the fire-resistance rating applicable according to its individual “effective distance” from the relevant fire-source feature,

but this provision shall not so operate as to permit exemption from clause 16.4.

Type I construction. Requirements.

16.7. (1) In a building required to be of Type 1 construction, each part mentioned in Table 16.7, and any beam or column incorporated in it, shall (subject to the modifications set out in this clause, clause 16.22 and clause 23.2 (3) (a))—

(a) be non-combustible except where a rating is not listed;
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(b) have a fire-resistance rating not less than that listed in the Table, for the particular class of building concerned; and

(c) be constructed according to subclause (11) or subclause (12) if applicable.

TABLE 16.7.

**Type 1 Construction: Fire Resistance Ratings of Structural Members.**

<table>
<thead>
<tr>
<th>Structural members</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>II</td>
<td>III</td>
<td>V</td>
<td>VI</td>
<td>VII</td>
<td>VIIIa</td>
<td>VIII</td>
</tr>
</tbody>
</table>
| External walls (including beams and columns incorporated in them) and other external structural members where, in terms of clause 16.6, the effective distance between the wall or other member and any fire-source feature to which it is exposed is—
| for loadbearing parts— | 3 | 3 | 3 | 4 | 3 | 4 | 3 |
| less than 4.5 m | 2 | 2 | 2 | 3 | 4 | 3 | 4 |
| 4.5 m to less than 6 m | 1 1/2 | 1 1/2 | 2 | 3 | 4 | 3 | 4 |
| 6 m or more | 1 | 1 1/2 | 2 | 3 | 4 | 3 | 4 |
| for non-loadbearing parts (including spandrels)— | 3 | 3 | 3 | 4 | 3 | 4 | 3 |
| less than 4.5 m | 2 | 2 | 2 | 3 | 4 | 3 | 4 |
| 4.5 m to less than 6 m | 1 1/2 | 1 1/2 | 2 | 3 | 4 | 3 | 4 |
| 6 m to less than 7.5 m | 1 | 1 1/2 | 2 | 3 | 4 | 3 | 4 |
| 7.5 m to less than 9 m | 1 | 1 1/2 | 2 | 3 | 4 | 3 | 4 |
| 9 m or more | 1 | 1 1/2 | 2 | 3 | 4 | 3 | 4 |
| Common walls and party walls | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Internal loadbearing walls and fire walls (including those bounding public corridors, public hallways, and the like, or between or bounding sole-occupancy units, and those of loadbearing shafts) | 1 1/2 | 1 1/2 | 2 | 3 | 4 | 3 | 4 |
| Lift shafts and stair shafts required to be fire-resisting that are not loadbearing | 1 1/2 | 1 1/2 | 2 | 2 | 2 | 2 | 2 |
| Ventilating, pipe, garbage, and like shafts neither intended for discharge of hot products of combustion nor loadbearing | 1 1/2 | 1 1/2 | 2 | 2 | 2 | 2 | 1 1/2 |
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<table>
<thead>
<tr>
<th>Structural members</th>
<th>Ratings (in hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Class of building</td>
</tr>
<tr>
<td></td>
<td>II</td>
</tr>
<tr>
<td>Internal non-loadbearing walls (including partition walls)—</td>
<td>1</td>
</tr>
<tr>
<td>bounding public corridors, public hallways, and the like</td>
<td>1</td>
</tr>
<tr>
<td>between or bounding sole-occupancy units</td>
<td>1</td>
</tr>
<tr>
<td>bounding a stairway that is not required to be enclosed by a fire-resisting shaft</td>
<td></td>
</tr>
<tr>
<td>Floors (including floor beams), roofs (including roof beams and trusses), and internal columns</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>1¼</td>
</tr>
</tbody>
</table>

NOTE: Class IV portions—fire-resistance ratings shall be as required by clauses 17.7 or 18.7.

(2) In a Class II building not in a fire zone a fire-resistance rating of 1¼ hours shall apply, as a modification of Table 16.7, for any structural member, except a common or party wall, required by that Table to have a fire-resistance rating exceeding 1½ hours.

(3) In a Class II building of Type 1 construction, where—

(a) a flat extends through two storeys; and

(b) all the walls bounding that flat are non-combustible and have a fire-resistance rating of not less than 1½ hours,

the floor separating the two storeys within the flat may be combustible and need not have a fire-resistance rating.

(4) In a building required to be of Type 1 construction, the following floors need not have a fire-resistance rating or be non-combustible:

(a) A floor laid directly on the ground.
(b) Where the building is a Class II, III, V or IX building—a floor, not laid directly on the ground, the space below which is not a storey and is not designed, constructed or adapted for—

(i) the accommodation of motor vehicles;

(ii) the accommodation of bathrooms, shower rooms, laundries, water closets or other sanitary compartments;

(iii) use as a work area; or

(iv) storage or any other ancillary purpose.

(5) In a Class V or IXb building, if any floor is designed for a live load not exceeding 3 kPa, a fire-resistance rating of 1\frac{1}{2} hours shall apply, as a modification of Table 16.7, for—

(a) the floor next above (including floor beams); or

(b) the roof, if that is next above (including roof beams).

(6) In a Class VII building having a rise of not more than six storeys, internal non-loadbearing walls (including partition walls) bounding public corridors, public hallways, and similar spaces may contain combustible framing, if the combustible material so concerned—

(a) has not been joined by means of glue unless by the process of—

(i) lamination; or

(ii) finger jointing,

in which case it may only be glued with resorcinol formaldehyde or resorcinol phenol formaldehyde glue; and

(b) has a mass per unit length in the aggregate of not more than 45 kg/m of partition wall measured horizontally.
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Class VII—open-deck parking stations: modifications for certain parts.

(7) For an open-deck parking station, the following fire-resistance ratings shall apply, as modifications of Table 16.7:

(a) For a column situated, in terms of clause 16.6, at an effective distance of less than 4.5 m from a fire-source feature to which it is exposed 3 hours.

(b) For any other column 2 hours.

(c) For an internal loadbearing wall or fire wall 2 hours.

(d) For a floor beam wherever more than half its cross-section is less than 3 m from an edge of a floor 2 hours.

(e) For a floor beam otherwise 1 hour.

(f) For a floor 1 hour.

(8) In a Class II, III or IX building having a rise of not more than six storeys, the roof need not comply with subclause (1) if—

(a) the roof covering is non-combustible; and

(b) the ceiling immediately below the roof has a resistance to the incipient spread of fire to the roof space of one hour, as determined in the Standard Fire Test.

(9) In a Class V, VI, VII, or VIII building having a rise of not more than six storeys, the roof need not comply with subclause (1) but if the building has a rise of more than three storeys—

(a) the roof covering shall be non-combustible; and

(b) the ceiling immediately below the roof shall have a resistance to the incipient spread of fire to the roof space of one hour, as determined in the Standard Fire Test.
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(10) That section of Table 16.7 specifying fire-resistance columns exposed through a window exposed to a fire-source feature. ratings according to effective distance extends also to those parts of an internal column that—

(a) face and are within 1.5 m of a window; and

(b) are exposed (in terms of clause 16.6) through that window to a fire-source feature.

(11) Every internal wall (including a partition wall) required by Table 16.7 to have a fire-resistance rating—

(a) shall extend to

(i) the underside of the floor, if any, next above; or

(ii) the underside of a roof complying with subclause (1); or

(iii) the roof covering of any other roof; or

(iv) a ceiling immediately below the roof and having a resistance to the incipient spread of fire to the roof space of one hour, as determined in the Standard Fire Test; and

(b) shall be so fixed to the floor, roof, or ceiling concerned as to be held by it against overturning in the event of fire.

(12) In a building of Type 1 construction—

(a) internal loadbearing walls and fire walls (including those that are parts of loadbearing shafts) shall be of concrete or masonry; and

(b) non-loadbearing—

(i) lift shafts and stair shafts required to be fire-resisting; and
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(ii) ventilating, pipe, garbage, and similar shafts that are not intended for discharge of hot products of combustion,

shall be of concrete, masonry, or plaster on metal lath or other material not less hard and dense than plaster on metal lath.

(13) Where, pursuant to subclause (8) or subclause (9), a roof that does not have a fire-resistance rating is used in a building having a rise of not more than six storeys, internal columns (excluding those referred to in subclause (10)) and internal loadbearing walls (excluding fire walls) in the storey immediately below that roof may have the following fire-resistance ratings instead of those listed in Table 16.7:

(a) Class II and Class III buildings—one hour;

(b) Class V, VI, VII and VIII buildings—one hour if the building has a rise exceeding three storeys, but otherwise no rating.

16.8. (1) In a building required to be of Type 2 construction—

(a) external walls, common or party walls, and any beams or columns incorporated in them shall be non-combustible; and

(b) each part mentioned in Table 16.8, and any beam or column incorporated in it, shall (subject to the modifications set out in this clause and clause 23.2 (3) (a))—

(i) have a fire-resistance rating not less than that listed in the Table, for the particular class of building concerned; and

(ii) be constructed according to subclause (10) or subclause (11) if applicable.
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**TABLE 16.8.**

**TYPE 2 CONSTRUCTION: FIRE-RESISTANCE RATINGS OF STRUCTURAL MEMBERS.**

<table>
<thead>
<tr>
<th>Structural members</th>
<th>Class of building</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>II</td>
</tr>
<tr>
<td>External walls (including beams and columns incorporated in them) and other external structural members where in terms of clause 16.6, the effective distance between the wall or other member and any fire-source feature to which it is exposed is—</td>
<td></td>
</tr>
<tr>
<td>for loadbearing parts—</td>
<td></td>
</tr>
<tr>
<td>less than 4.5 m</td>
<td>3 3 3</td>
</tr>
<tr>
<td>4.5 m to less than 6 m</td>
<td>2 2 2</td>
</tr>
<tr>
<td>6 m or more</td>
<td>1 1 1</td>
</tr>
<tr>
<td>for non-loadbearing parts—</td>
<td></td>
</tr>
<tr>
<td>(including spandrels)—</td>
<td></td>
</tr>
<tr>
<td>less than 4.5 m</td>
<td>3 3 3</td>
</tr>
<tr>
<td>4.5 m to less than 6 m</td>
<td>2 2 2</td>
</tr>
<tr>
<td>6 m to less than 7.5 m</td>
<td>1 1 1</td>
</tr>
<tr>
<td>7.5 m to less than 9 m</td>
<td>1 1 1</td>
</tr>
<tr>
<td>9 m or more</td>
<td>1 1 1</td>
</tr>
<tr>
<td>Common walls and party walls</td>
<td></td>
</tr>
<tr>
<td>Internal loadbearing walls and fire walls (including those bounding public corridors, public hallways, and the like, or between or bounding sole-occupancy units, and those of loadbearing shafts)</td>
<td></td>
</tr>
<tr>
<td>Lift shafts and stair shafts required to be fire-resisting that are not loadbearing</td>
<td>1 1 1</td>
</tr>
<tr>
<td>Ventilating, pipe, garbage, and like shafts neither intended for discharge of hot products of combustion nor loadbearing</td>
<td>1 1 1</td>
</tr>
<tr>
<td>Internal non-loadbearing walls (including partition walls)—</td>
<td></td>
</tr>
<tr>
<td>bounding public corridors, public hallways, and the like</td>
<td>1 1</td>
</tr>
<tr>
<td>between or bounding sole-occupancy units</td>
<td>1 1</td>
</tr>
<tr>
<td>bounding a stairway that is not required to be enclosed by a fire-resisting shaft</td>
<td>1 1</td>
</tr>
<tr>
<td>Floors (including floor beams), roofs (including roof beams and trusses), and internal columns</td>
<td>1 1</td>
</tr>
</tbody>
</table>

**Note:** Class IV portions—fire-resistance ratings shall be as required by clauses 17.7 or 18.7.
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(2) In a building of Type 2 construction, a floor or roof shall be deemed to have a fire-resistance rating of one hour if—

(a) the ceiling immediately below the floor or roof has a resistance to the incipient spread of fire to the space above itself of one hour, as determined in the Standard Fire Test; and

(b) in the case of a roof, the roof covering is non-combustible.

(3) In a building of Type 2 construction the following floors need not have a fire-resistance rating:

(a) A floor laid directly on the ground.

(b) A floor, not laid directly on the ground, the space below which is not a storey and is not designed, constructed or adapted for—

(i) the accommodation of motor vehicles; or

(ii) the accommodation of bathrooms, shower rooms, laundries, water closets, or other sanitary compartments; or

(iii) use as a work area; or

(iv) storage or any other ancillary purpose thereto.

(4) In a Class II building not in a fire zone a fire-resistance rating of 1½ hours shall apply, as a modification of Table 16.8, for any structural member, except a common or party wall, required by that Table to have a fire-resistance rating exceeding 1½ hours.

(5) In a Class II building of Type 2 construction a floor separating two storeys within a single flat need not have a fire-resistance rating if the walls bounding that flat are non-combustible.

(6) Where the roof of a building and the ceiling immediately below that roof comply with subclause (2), a fire-resistance rating of one hour shall apply as a modification of Table 16.8, for an internal loadbearing wall (excluding a fire wall) in the storey immediately below that roof.
(7) For an open-deck parking station the following fire-resistance ratings shall apply, as modifications of Table 16.8:

(a) For a column situated, in terms of clause 16.6, at an effective distance of—

(i) less than 4.5 m from a fire-source to which it is exposed ........................................ 2 hours;
(ii) 4.5 m to less than 9 m from such a feature ................................................................. 1 ½ hours;
(iii) 9 m or more from such a feature .................................................................................... 1 hour.

(b) For an internal loadbearing wall or fire wall ....................................................................... 2 hours.

(8) In a building of Type 2 construction, the roof and its internal supporting columns (excluding those referred to in subclause (9)) need not comply with subclause (1) if the rise of the building does not exceed two storeys.

(9) Those parts of an internal column in a building of Type 2 construction that—

(a) face and are within 1.5 m of a window; and

(b) are exposed (in terms of clause 16.6) through that window to a fire-source feature—

shall, if the effective distance between the fire-source feature and the part of the column concerned is less than 6 m, have a fire-resistance rating of not less than 1 ½ hours.

(10) A partition wall required by Table 16.8 to have a fire-resistance rating—

(a) shall extend to—

(i) the underside of the floor, if any, next above; or
(ii) the underside of a roof complying with subclause (1); or
(iii) a ceiling as described in subclause (2); and
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(b) shall—

(i) be so fixed to the floor, roof, or ceiling concerned as to be held by it against overturning in the event of fire; or

(ii) be of concrete or masonry carried on a wall of concrete or masonry below.

(11) In a building of Type 2 construction—

(a) internal loadbearing walls and fire walls (including those that are parts of loadbearing shafts) shall be of concrete or masonry; and

(b) non-loadbearing—

(i) lift shafts and stair shafts required to be fire-resisting; and

(ii) ventilating, pipe, garbage, and similar shafts that are not intended for discharge of hot products of combustion,

shall be of concrete, masonry, or plaster on metal lath or other material not less hard and dense than plaster on metal lath.

16.9. (1) In a building required to be of Type 3 construction—

(a) external walls, common or party walls, and any beams or columns incorporated in them shall be non-combustible;

(b) each part mentioned in Table 16.9, and any beam or column incorporated in it, shall (subject to the modifications set out in this clause)—

(i) have a fire-resistance rating not less than that listed in the Table, for the particular class of building concerned; and

(ii) be constructed according to subclause (6) or subclause (9) if applicable; and

(c) parts mentioned in subclause (5) shall be constructed in the way specified in that subclause.
### TABLE 16.9.

**Type 3 Construction: Fire-Resistance Ratings of Structural Members.**

<table>
<thead>
<tr>
<th>Structural members</th>
<th>Class of building</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>II</td>
</tr>
<tr>
<td>External walls (including beams and columns incorporated in them) and other external structural members where, in terms of clause 16.6, the effective distance between the wall and other member and any fire-spread feature to which it is exposed is—</td>
<td></td>
</tr>
<tr>
<td>for loadbearing parts—</td>
<td></td>
</tr>
<tr>
<td>less than 4.5 m</td>
<td>3</td>
</tr>
<tr>
<td>4.5 m to less than 6 m</td>
<td>2</td>
</tr>
<tr>
<td>6 m or more</td>
<td>1½</td>
</tr>
<tr>
<td>for non-loadbearing parts (including spandrels)—</td>
<td></td>
</tr>
<tr>
<td>less than 4.5 m</td>
<td>3</td>
</tr>
<tr>
<td>4.5 m to less than 6 m</td>
<td>2</td>
</tr>
<tr>
<td>6 m to less than 7.5 m</td>
<td>1½</td>
</tr>
<tr>
<td>7.5 m to less than 9 m</td>
<td>1</td>
</tr>
<tr>
<td>9 m or more</td>
<td>½</td>
</tr>
<tr>
<td>Common walls and party walls...</td>
<td></td>
</tr>
<tr>
<td>Internal loadbearing walls and fire walls (including those bounding public corridors, public hallways, and the like, or between or bounding sole-occupancy units, and those of loadbearing shafts)</td>
<td></td>
</tr>
<tr>
<td>Lift shafts and stair shafts required to be fire-resisting that are not loadbearing</td>
<td></td>
</tr>
<tr>
<td>Ventilating, pipe, garbage, and like shafts neither intended for discharge of hot products of combustion nor loadbearing</td>
<td></td>
</tr>
<tr>
<td>Internal non-loadbearing walls (including partition walls)—</td>
<td></td>
</tr>
<tr>
<td>bounding public corridors, public hallways, and the like</td>
<td>1</td>
</tr>
<tr>
<td>between or bounding sole-occupancy units</td>
<td>1</td>
</tr>
<tr>
<td>bounding a stairway that is not required to be enclosed by a fire-resisting shaft</td>
<td>1</td>
</tr>
</tbody>
</table>

*Note: Class IV portions—fire-resistance ratings shall be as required by clauses 17.7 or 18.7.*

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(2) In a Class II building not in a fire zone a fire-resistance rating of 1½ hours shall apply, as a modification of Table 16.9, for any structural member, except a common or party wall, required by that Table to have a fire-resistance rating exceeding 1½ hours.

(3) An internal loadbearing wall (excluding a fire wall) in a storey immediately below the roof shall not be required to comply with subclause (1), but in a Class II or Class III building—

(a) shall have a fire-resistance rating of not less than one hour if the wall bounds—

(i) a public corridor, public hallway, or the like; or

(ii) a sole-occupancy unit; or

(iii) a stairway that is not required to be enclosed by a fire-resisting shaft; and

(b) shall, if it is a wall referred to in paragraph (a), extend—

(i) to the underside of a ceiling having a resistance to the incipient spread of fire to the roof space of not less than one hour, as determined in the Standard Fire Test; or

(ii) to the underside of the roof covering if it is non-combustible; or

(iii) 450 mm above the adjoining roof covering if it is combustible,

and in the case of subparagraphs (ii) and (iii) shall not be crossed by timber purlins or other combustible material.

(4) For an open-deck parking station the following fire-resistance ratings shall apply, as modifications of Table 16.9:

(a) For a column situated, in terms of clause 16.6, at an effective distance of—

(i) less than 6 m from a fire-source feature to which it is exposed—1 hour;

(ii) 6 m or more from such a feature—Nil.

(b) For an internal loadbearing wall or fire wall—2 hours.
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(5) Where, in a building of Type 3 construction, a stair shaft supports a floor or any structural part thereof, the junction of—

(a) the stair shaft; and

(b) the floor or part,

shall, unless the floor or part has a fire-resistance rating of one hour or more, be so constructed that the floor or part, if sagging or falling as a result of fire, will be free to do so without causing structural damage to the shaft.

(6) In a Class II or Class III building, a partition wall required by Table 16.9 to have a fire-resistance rating shall extend—

(a) to the underside of the floor, if any, next above; or

(b) to the underside of a ceiling having a resistance to the incipient spread of fire to the space above itself of not less than one hour, as determined in the Standard Fire Test; or

(c) to the underside of the roof covering if it is non-combustible; or

(d) 450 mm above the adjoining roof covering if it is combustible,

and in the case of paragraphs (c) and (d) shall not be crossed by timber purlins or other combustible material.

(7) In a Class II or III building, or portion of a building, of Type 3 construction, the ceiling of the topmost or only storey shall have a resistance to the incipient spread of fire to the space above itself of not less than one hour as determined in the Standard Fire Test, except in a sole-occupancy unit in that storey where all the internal walls bounding the sole-occupancy unit that are required by this clause to have a fire-resistance rating extend to the roof covering and the roof covering is non-combustible.
(8) In a Class II, III or IX building, or portion of a building, of Type 3 construction, the following, if combustible or of metal, shall be covered with a fire-protective material in accordance with clause 16.12, unless the structural member concerned has a fire-resistance rating of not less than half an hour:

(a) The underside of a floor (including the sides and undersides of its floor beams, if any) where the floor is above a storey or above a space (not being a storey) that is designed, constructed, or adapted for—

(i) the accommodation of motor vehicles; or
(ii) the accommodation of bathrooms, shower rooms, laundries, water closets, or other sanitary compartments; or
(iii) use as a work area; or
(iv) storage or any other ancillary purpose thereto.

(b) A column supporting such a floor.

(9) In a building of Type 3 construction—

(a) internal loadbearing walls and fire walls (including those that are parts of loadbearing shafts) shall be of concrete or masonry; and

(b) non-loadbearing—

(i) lift shafts and stair shafts required to be fire resisting; and
(ii) ventilating, pipe, garbage, and similar shafts that are not intended for discharge of hot products of combustion,

shall be of concrete, masonry, or plaster on metal lath or other material not less hard and dense than plaster on metal lath.

16.10. In a building of Type 4 construction all parts mentioned in this clause shall be constructed in accordance with the relevant requirements set out herein.
Ordinance No. 70—Local Government Act, 1919.

(2) Each part mentioned in Table 16.10, and any beam or column incorporated in it, shall (subject to the modification set out in subclause (3))—

(a) be non-combustible; and

(b) have a fire-resistant rating not less than that listed in the Table, for the particular class of building concerned.

TABLE 16.10.

Type 4 Construction: Fire-Resistance Ratings of Structural Members.

<table>
<thead>
<tr>
<th>Structural members</th>
<th>Class of building</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>V</td>
</tr>
<tr>
<td>External walls (including beams and columns incorporated in them) and other external structural members where, in terms of clause 16.6, the effective distance between the wall or other member and any fire-source feature to which it is exposed is less than 3 m</td>
<td></td>
</tr>
<tr>
<td>Fire walls</td>
<td>1</td>
</tr>
</tbody>
</table>

Note: Class IV portions—fire-resistance ratings shall be as required by clauses 17.7 or 18.7.

(3) For an open-deck parking station a fire-resistance rating of 2 hours shall apply, as a modification of Table 16.10, for a fire wall (including one that is part of a shaft).

(4) External walls not mentioned in Table 16.10 and internal loadbearing walls (including those that are parts of load-bearing shafts) shall—

(a) be of concrete or masonry; or
(b) have their main framing (including its diagonal bracing) in steel or concrete, and their sheeting, if any, in non-combustible material, except for that part, if any, of an internal wall that supports only a roof.

Fire walls.

(5) Fire walls in a building of Type 4 construction shall be of concrete or masonry.

Internal columns.

(6) Internal columns, if any, that support a floor in a building of Type 4 construction shall be of—
   (a) steel, concrete, or masonry; or
   (b) hardwood having dimensions of not less than 125 mm × 125 mm.

Floors: general requirements.

(7) Floors in a building of Type 4 construction shall (subject to the modification set out in subclause (8))—
   (a) be non-combustible; or
   (b) have their main framing (including all floor beams and joists) in—
      (i) steel or concrete; or
      (ii) hardwood having dimensions of not less than 100 mm × 75 mm; or
      (iii) timber, other than hardwood, having dimensions of not less than 125 mm × 100 mm.

Concession for certain floors.

(8) In a building of Type 4 construction the following floors need not comply with subclause (7):
   (a) A floor laid directly on the ground.
   (b) A floor, not laid directly on the ground, the space below which is not a storey and is not designed, constructed, or adapted for—
      (i) the accommodation of motor vehicles; or
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(ii) the accommodation of bathrooms, shower rooms, laundries, water closets, or other sanitary compartments; or

(iii) use as a work area; or

(iv) storage or any other ancillary purpose thereto.

(9) A Class II, III or IX building of Type 4 construction shall, in addition to meeting the relevant requirements of this clause, comply with the provisions of clause 16.11 applicable to a building of the class concerned, regarding, as the case requires—

(a) the fire-resistance rating and construction of internal walls (including partition walls)—

(i) bounding public corridors, public hallways and the like; or

(ii) between or bounding sole-occupancy units; or

(iii) bounding a stairway;

(b) the level to which a wall referred to in paragraph (a) shall extend;

(c) the protection to be afforded to the underside of a floor and its supporting columns, if any; and

(d) the construction of the ceiling of the topmost storey.

(10) A Class IX building of Type 4 construction shall, in addition to meeting the relevant requirements of this clause, comply with the provisions of subclause (10) of clause 16.11 as though it were a building of Type 5 construction.

16.11. (1) In a building required to be of Type 5 construction all parts mentioned in this clause shall be constructed in accordance with the relevant requirements set out herein.

(2) Each part mentioned in Table 16.11, and any beam or column incorporated in it, shall (subject to the modifications set out in this clause) have a fire-resistance rating not less than that listed in the Table, for the particular class of building concerned.
Ordinance No. 70—Local Government Act, 1919.

### TABLE 16.11.

**TYPE 5 CONSTRUCTION: FIRE-RESISTANCE RATINGS OF STRUCTURAL MEMBERS.**

<table>
<thead>
<tr>
<th>Structural members</th>
<th>Ratings (in hours):</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>II</td>
</tr>
<tr>
<td>External walls (including beams and columns incorporated in them) and other external structural members where, in terms of clause 16.6, the effective distance between the wall or other member and any fire-source feature to which it is exposed is less than 3 m</td>
<td>1</td>
</tr>
<tr>
<td>Fire walls</td>
<td>1¼</td>
</tr>
<tr>
<td>Internal walls (including partition walls)—bounding public corridors, public hallways, and the like</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>between or bounding sole-occupancy units</td>
<td>1</td>
</tr>
<tr>
<td>bounding a stairway</td>
<td>1</td>
</tr>
</tbody>
</table>

**Note:** Class IV portions—fire-resistance ratings shall be as required by clauses 17.7 or 18.7.

(3) An external wall (including beams and columns in it) that is required by Table 16.11 to have a fire-resistance rating shall, subject to subclause (4), be non-combustible.

(4) Where an external wall is required by subclauses (2) and (3) to have a fire-resistance rating and be non-combustible, those requirements shall be deemed to have been met if the outer part of the wall has the required fire-resistance rating and is non-combustible.

(5) In a Class VII building of Type 5 construction for the storage or display of goods referred to in the Second Schedule, or in a Class VIIIb building of Type 5 construction, an external wall—

(a) that faces and is within 7.5 m of a boundary of an adjoining allotment of land; and
(b) that is not required by Table 16.11 to have a fire-
resistance rating,

shall be non-combustible or be sheeted externally with non-
combustible material.

(6) In a Class II or III building of Type 5 construc-
tion, internal walls (including partition walls) bounding a sole-
occupancy unit, or separating adjoining sole-occupancy units, need
not have a fire-resistance rating if there is no doorway or other
opening therein and—

(a) each sole-occupancy unit concerned has direct egress to
the ground or to an external balcony providing egress
in two different directions from the building; and

(b) the sheeting of those walls, if not backed by concrete or
masonry, is non-combustible.

(7) In a building containing two storeys and of Type 5 construction, fire walls shall be of concrete or masonry.

(8) In a Class II or Class III building a partition wall
required by Table 16.11 to have a fire-resistance rating shall
extend—

(a) to the underside of the floor, if any, next above; or

(b) to the underside of a ceiling having a resistance to the
incipient spread of fire to the space above itself of not
less than one hour, as determined in the Standard Fire
Test; or

(c) to the underside of the roof covering if it is non-
combustible; or

(d) 450 mm above the adjoining roof covering if it is
combustible,

and in the case of paragraphs (c) and (d) shall not be crossed by
timber purlins or other combustible material.
(9) In a Class II or III building, or portion of a building, of Type 5 construction, the ceiling of the topmost or only storey shall have a resistance to the incipient spread of fire to the space above itself of not less than one hour as determined in the Standard Fire Test, except in a sole-occupancy unit in that storey—

(a) where subclause (6) exempts all the internal walls bounding the sole-occupancy unit from the requirements of Table 16.11 and the ceiling is covered with a fire-protective material in accordance with clause 16.12; or

(b) where all the internal walls bounding the sole-occupancy unit that are required by this clause to have a fire-resistance rating extend to the roof covering and the roof covering is non-combustible.

(10) In a Class II, III or IX building, or portion of a building, of Type 5 construction, the following, if combustible or of metal, shall be covered with a fire-protective material in accordance with clause 16.12, unless the structural member concerned has a fire-resistance rating of not less than half an hour:

(a) The underside of a floor (including the sides and undersides of its floor beams, if any) where the floor is above a storey, or above a space (not being a storey) that is designed, constructed, or adapted for—

(i) the accommodation of motor vehicles; or

(ii) the accommodation of bathrooms, shower rooms, laundries, water closets, or other sanitary compartments; or

(iii) use as a work area; or

(iv) storage or any other ancillary purpose thereto.

(b) A column supporting such a floor.

16.12. The fire-protective covering or ceiling required by clauses 16.9 (8), 16.11 (9) and (10) for certain parts of a Class II, III or IX building, or portion of a building, of Type 3 or Type 5 construction shall be a lining or ceiling of—

(a) 13-mm plasterboard;

(b) 12-mm asbestos-silica board;
Ordinance No. 70—Local Government Act, 1919.

(c) 12-mm mesh-reinforced fibrous plaster in which the mesh is one of 13-mm x 13-mm x 0.710-mm welded wire located not more than 6 mm from the exposed face; or

(d) any other material not less fire-protective than 13-mm plasterboard,

the material in each case being of fire-protective grade and fixed in accordance with the normal trade practice applicable to the fixing of the material as a fire-protective covering.

16.13. (I) In stairways that are required to be within fire-resisting shafts—

(a) the stairs and landings shall be constructed only of—

(i) reinforced or prestressed concrete in no part less than 75 mm thick, measured exclusive of topping; or

(ii) precast reinforced concrete, not prestressed, in no part less than 63 mm thick,

and any finish, surface, lining or the like shall comply with the provisions of clause 16.19; and

(b) structural members, if any, supporting stairs or landings shall be non-combustible and have a fire-resistance rating of not less than one-half hour, except that in the case of stairshafts fitted with an approved air-pressurising system in accordance with clause 55.8, steel supporting members may be used without structural fire protection if—

(i) the members have a ratio of surface area to mass not greater than $25 \times 10^3 \text{mm}^2/\text{kg};$

(ii) the members are supported so that thermal expansion under fire exposure does not impose lateral forces on the walls of the shaft; and

(iii) the stairway is designed so that any local structural failure of the stairway within any one storey will not result in collapse of the stairway within any other storey.
(2) In a Class II building having a rise of more than
two storeys, the stairs and landings (including any supporting struc-
tural members) of a required stairway that is not required to be
within a fire-resisting shaft shall—

(a) be constructed according to subclause (1); or

(b) be constructed only of—

(i) reinforced or prestressed concrete; or

(ii) steel in no part less than 6-mm thick; or

(iii) timber that has—

(A) a finished thickness of not less than
44 mm;

(B) an average density at a moisture content
of 12 per cent of not less than 800 kg/m³;
and

(C) not been joined by means of glue unless
by the process of lamination in which
the may only be glued with resorcinol
formaldehyde or resorcinol phenol for-
maldehyde glue.

16.14. Ramps and their landings, where required to be within
fire-resisting shafts, shall—

(a) be non-combustible; and

(b) have a fire-resistance rating of not less than one hour.

16.15. (1) Where a building has sections of different classes—

(a) the fire-resistance rating of a fire wall required between
the sections (including a Class IV portion, if any) shall
be as follows:
Ordinance No. 70—Local Government Act, 1919.

(i) Where the sections are served in any storey by the same public corridor, public hallway, or the like—1½ hours in that storey;

(ii) In every other case—the fire-resistance rating prescribed in this Part for the fire wall of both sections (if those ratings are the same) or for the fire wall of that section for which the greater rating is prescribed (if those ratings are different); and

(b) a fire-resistance rating that applies according to clause 16.7 or clause 16.8 for a floor in the lower section (if one section is below the other) shall apply also for the floor between the sections.

(2) A fire wall required to bound a room designed, constructed, or adapted for the housing of equipment such as lift, heating, ventilating, or air-conditioning plant or transformers, generators, or other electrical equipment, or other special equipment for the servicing of the building, shall have a fire-resistance rating not less than the greater of—

(a) 2 hours; and

(b) the rating for a fire wall prescribed in this Part for the particular class of the building in which the room is situated.

16.16. (1) The provisions of this Part relating to the construction of floors and any supporting columns shall, except as otherwise provided in this clause, apply to the floor of a mezzanine and its supporting columns, if any.

(2) Mezzanine floors and any columns supporting only those floors need not have a fire-resistance rating or be non-combustible if the following requirements are met:

(a) The area of the mezzanine floor shall not exceed 200 sq m or one-third of the area of the room concerned, whichever is the lesser.
(b) If a room includes two or more mezzanines and the floors of these mezzanines are at or near the same level, the aggregate area of such floors shall not exceed 200 sq m or one-third of the area of the room concerned, whichever is the lesser.

(c) Every wall or column that supports any part of the building except the mezzanine floor or floors shall—

(i) if it is at any point within 6 m of the mezzanine floor or floors; and

(ii) if it is required elsewhere in this Part to have a fire-resistance rating,

have a fire-resistance rating increased from that otherwise required, such increased rating to be that set out in Column 2 of Table 16.16 (2) (c) opposite the rating otherwise required as set out in Column 1 of that Table.

<table>
<thead>
<tr>
<th>Rating Otherwise Required (in hours)</th>
<th>Increased Rating (in hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2</td>
<td>1 1/2</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>1 1/2</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

Note: Where the fire-resistance rating otherwise required is 4 hours, no increase in rating is necessary.
16.17. A beam, column, or other framing member—

(a) that passes through a duct or a well within a shaft; and
(b) that is required to have a fire-resistance rating,

shall be of concrete, or be encased in concrete, and have a fire-
resistance rating of not less than 2 hours.

16.18. (1) In a Class II or Class III building, a ceiling—

(a) above a public corridor, public hallway, or the like, or above a stairway or ramp that is required to be bounded by fire-resisting walls; and
(b) not forming an integral part of the floor, or roof next above, and not being a ceiling with a resistance to the incipient spread of fire to the space above itself of not less than one hour,

shall be non-combustible, and, if in a building of Type 1, or Type 2 construction, shall have only non-combustible supports.

(2) The floor and the structure (or if more than one structure, the lower or lowest of the structures) enclosing the top of the shaft of a fire-isolated stairway shall—

(a) be non-combustible;
(b) in the case of a Class II or III building, have a fire-
resistance rating which is not less than 1 1/2 hours; and
(c) in the case of a Class V, VI, VII, VIII or IX building,
have a fire-resistance rating which is not less than 2 hours.

(3) Where subclause (2) applies to a floor and struc-
ture, clauses 16.7 (4), (8) and (9), 16.8 (2), (3) and (8), 16.9
(7), 16.10 (7) and (8) and 16.11 (9) do not apply to the floor and structure.
16.19. (1) Any material used in a Class II, III, IV, V, VI, VII, VIII or IX building shall have—

(a) in the case of a sarking-type material, a flammability index not greater than 26; or

(b) otherwise—

(i) a smoke-developed index not greater than 8 if the spread-of-flame index is greater than 5; and

(ii) in any case a spread-of-flame index not greater than 9,

except as provided in subclauses (2) and (3).

(2) A material not complying with subclause (1) may be used in a member or assembly of members if so constructed that—

(a) when assembled as proposed in a building the material is protected on all sides and edges from exposure to air;

(b) the member or assembly of members, when subjected to the Early Fire Hazard Test in accordance with Specification No. 8 “Special Fire Tests” as approved by the Minister for Local Government and published in the Gazette, shall have a smoke-developed index and a spread-of-flame index not exceeding those prescribed in subclause (1); and

(c) the member or assembly of members, when subjected to the conditions of the Standard Fire Test in accordance with Specification No. 8 “Special Fire Tests” as approved by the Minister for Local Government and published in the Gazette, shall retain the protection in position so that it continues to screen the materials from access to free air for a period of not less than 10 minutes.

(3) A material that, when in place, is completely covered on all faces by concrete or masonry not less than 50 mm thick shall be deemed to comply with subclause (1).
Ordinance No. 70—Local Government Act, 1919.

(4) In a fire-isolated stairway, fire-isolated passageway or fire-isolated ramp in a building described in subclause (1)—

(a) any material, other than a sarking-type material, used in a ceiling or as an attachment to or part of an attachment to a structural member or as the finish, surface, lining or the like of a structural member shall—

(i) have a spread-of-flame index not greater than 0;

(ii) have a smoke-developed index not greater than 2; and

(iii) if combustible, not exceed 1 mm in finished thickness and be attached directly to a non-combustible substrate;

(b) any sarking-type material used in the form of an exposed wall or ceiling, or as a finish or attachment thereto, shall have a flammability index not greater than 0; and

(c) subclauses (2) and (3) shall not apply to any material used in or as a component of a structural member.

(5) In a Class II, III or IX building, in any internal Class II, III and IX public corridor, internal public hallway or the like serving as a means of egress to a stairway required to be fire-isolated, or an external stairway used in lieu thereof, to a passageway required to be fire-isolated or to a ramp required to be fire-isolated—

(a) any material, other than a sarking-type material, used as the finish, surface, lining or the like or any attachment to or part of an attachment to any wall or ceiling shall in its entirety—

(i) have a spread-of-flame index not greater than 0; and

(ii) have a smoke-developed index not greater than 5; or

if only one of its surfaces complies with subparagraphs (i) and (ii), shall have its non-complying surface in continuous and intimate contact with a non-combustible substrate;
(b) any sarking-type material used in the form of an exposed 
wall or ceiling, or as a finish or attachment thereto, shall 
have a flammability index not greater than 5; and

(c) subclauses (2) and (3) shall not apply to any material 
used—

(i) in, or as a component of, a structural member;
(ii) as the finish, surface, lining or the like; or
(iii) as an attachment to or part of an attachment to 
any wall or ceiling.

Except as provided in subclause (4) (b), a 
sarking-type material in a building described in subclause (1) 
shall have a flammability index not greater than 5 when installed 
anywhere in—

(a) a building of Type 1 or Type 2 construction; or
(b) a roof space having any portion above a ceiling required 
to have a one-hour resistance to the incipient spread of 
fire.

Subclause (6) does not apply in respect of a 
sarking-type material installed in that portion of a roof space in 
a building of Type 3, 4 or 5 construction which is above a ceiling 
not required to have a one-hour resistance to the incipient spread 
of fire, if the sarking-type material used in that portion of the roof 
space is separated from any sarking-type material used in the 
adjacent portion by a wall—

(a) having a fire-resistance rating of at least one hour; and

(b) extending from below the level of the ceiling (or below 
the level of the lower ceiling if the portions of the roof 
space are above ceilings which are at different levels) 
to—

(i) the underside of the roof covering if the latter is 
non-combustible; or
(ii) 450 mm above the adjoining roof covering if the 
latter is combustible,

and any sarking-type material extending across the thickness of 
the wall has a flammability index not greater than 5.
Ordinance No. 70—Local Government Act, 1919.

(8) A material being—

(a) plaster, cement render, concrete, terrazzo, ceramic tiles or the like; or

(b) a material referred to in clause 16.12,

shall be deemed to comply with subclauses (1), (4) and (5).

(9) Paint or the like, formulated specifically to reduce flame spread on combustible surfaces shall not be used for the purposes of achieving compliance with a spread-of-flame index, a smoke-developed index or a flammability index required by this clause.

(10) A spread-of-flame index, smoke-developed index and flammability index required by this clause shall not apply to—

(a) timber-framed windows; or

(b) handrails or skirtings having a spread-of-flame index not exceeding 4; or

(c) timber-faced fire doors; or

(d) electrical switches, outlets, cover plates or the like manufactured from materials complying with subclause (1); or

(e) materials used for—

(i) a roof covering in continuous contact with a substrate;

(ii) adhesives; or

(iii) damp-proof courses, flashing, caulking, sealing, ground moisture barriers or the like; or
(f) conventional paint, varnish, paint formulated specifically to reduce flame spread, lacquer or similar finishes, excluding—

(i) nitro-cellulose lacquer; or

(ii) coatings commonly known as "high-build" paint.

(11) Unless otherwise expressed in this Ordinance, a combustible material may be used as a finish, surface, lining or the like of, or as an attachment or part of an attachment to, a structural member required to have a fire-resistance rating or to be non-combustible if the combustible material or its use, as the case may require, complies with this clause.

16.20. (1) For the purposes of this clause, clause 19.1 shall apply in determining the number of storeys a building contains.

(2) Where, in a building that contains one storey only, a steel column is incorporated in an external wall that is required to have a fire-resistance rating, the column need not have a fire-resistance rating.

(3) Where, in a building that contains more than one storey, a steel column that supports a roof truss or beam at an external wall has either no fire-resistance rating or a rating that is less than that required for the wall—

(a) the truss or beam and the column shall be so constructed that in the event of fire they will not tend to overturn the wall; and

(b) the wall shall be so constructed that it does not at any time depend upon the column for support.
Ordinance No. 70—Local Government Act, 1919.

16.21. (1) This clause applies to any building of Type 1 or Type 2 construction.

(2) Any article or material that is attached to, or forms part of, the outer face of an external wall of a building to which this clause applies shall be non-combustible.

(3) Nothing in subclause (2) requires an article specified in Column 1 of Table 16.21 to be non-combustible if the article complies with—

(a) such requirements, if any, as are specified opposite the article in Column 2 of that Table; and

(b) such requirements, if any, as are imposed in respect of the article by any other provision of this Ordinance.

<table>
<thead>
<tr>
<th>Column 1</th>
<th>Column 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type of article</strong></td>
<td><strong>Requirements</strong></td>
</tr>
<tr>
<td>An article consisting of— (a) a stairway; or (b) a balustrade.</td>
<td>The article shall not be attached to a building which— (a) is within a fire zone; and (b) has a rise of more than 2 storeys.</td>
</tr>
<tr>
<td>An article consisting of a handrail to— (a) a stairway; or (b) a balcony, other than a handrail which forms part of a balustrade.</td>
<td>The article shall not be situated more than 25 m above the floor of the lowest storey from which direct egress to a road or open space is provided.</td>
</tr>
<tr>
<td>An article consisting of a display window, its frame, its mullions and any transom upon which it is set.</td>
<td>The article shall not be situated in a storey which is above a storey from which direct egress to a road or open space is provided.</td>
</tr>
<tr>
<td>An article consisting of— (a) a window (other than a display window), its frame, its mullions and any transom upon which it is set; or (b) a door (other than a fire door) and its frame.</td>
<td>The article shall not— (a) be situated in a storey which is more than 2 storeys above the lowest storey from which direct egress to a road or open space is provided; or (b) be situated in, or form part of, an opening which is required by clause 22.4 (1) to be protected in accordance with clause 22.4 (2).</td>
</tr>
</tbody>
</table>
### Table 16.21—continued.

<table>
<thead>
<tr>
<th>Column 1</th>
<th>Column 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type of article</strong></td>
<td><strong>Requirements</strong></td>
</tr>
<tr>
<td>An article consisting of— (a) a window shutter; (b) an awning, or a sun-blind or a hood, which is made of fabric, together with any supporting framework; (c) guttering; (d) a downpipe; (e) an electrical wiring conduit; or (f) a flag pole.</td>
<td>The article shall not be situated in a storey which is more than 2 storeys above the lowest storey from which direct egress to a road or open space is provided.</td>
</tr>
<tr>
<td>An article consisting of— (a) a servery hatch; or (b) a service hatch.</td>
<td>The article shall not exceed 0.5 m² in area.</td>
</tr>
<tr>
<td>An article consisting of a timber-faced fire door.</td>
<td>No requirements.</td>
</tr>
<tr>
<td>An article consisting of the purlins or battens of a non-combustible awning.</td>
<td>The article shall not be situated more than 6 m above the floor of the lowest storey from which direct egress to a road or open space is provided.</td>
</tr>
<tr>
<td>An article consisting of a sign.</td>
<td>The article shall comply with the requirements of subclause (4).</td>
</tr>
</tbody>
</table>

(4) A combustible sign that is attached to, or forms part of, the outer face of an external wall of a building to which this clause applies shall comply with the following requirements:—

(a) the sign shall be situated not less than 6 m from any external stairway which, pursuant to clause 24.11, constitutes a required exit in lieu of a fire-isolated stairway;

(b) where the sign is situated less than 1 100 mm from any unprotected opening—

(i) it shall not be situated less than 1 100 mm from any other unprotected opening which is located in the same external wall, but not in the same storey, as that in which that opening is located; and
(ii) it shall not be situated less than 1100 mm from any other unprotected opening (being an opening which gives access to a space within the building that is separated by a fire wall from the space to which that opening gives access) which is located in the same external wall, and in the same storey, as that in which that opening is situated;

(c) where the sign is situated more than 6 m above the floor of the lowest storey from which direct egress to a road or open space is provided—

(i) its anchorages and framework shall be constructed of non-combustible material; and

(ii) it shall be situated not less than 3 m from any fire-source feature to which it is exposed;

(d) the sign shall not be attached to any part of an external wall consisting of a spandrel, slab or other construction which is required by clause 22.3 (2) to be provided in relation to that wall.

(5) For the purposes of this clause, an article, or material is attached to an external wall if it is attached to any other article or material that is attached to that wall.

(6) In this clause—

(a) a reference in relation to an article, to the lowest storey from which direct egress to a road or open space is provided is a reference to—

(i) the lowest storey in the building from which such egress is provided through the same facade of the building as that to which the article is attached, or of which the article forms part; or

(ii) where no such access is provided through that facade—the lowest storey in that building from which such access is provided; and

(b) a reference to an unprotected opening is a reference to an opening which is not protected in accordance with clause 22.4 (2).
16.22. A roof required by clause 16.7 to have a fire-resistance rating and to be non-combustible may be covered with built-up roofing consisting of successive layers of bitumen-impregnated, tar-impregnated, or similar roofing felt.

16.23. In a building of Type 1 or Type 2 construction, a roof, not complying with this Part as to fire-resisting construction, may be superimposed on a concrete-slab roof if—

(a) the superimposed roof and any construction between it and the concrete slab roof are non-combustible throughout; and

(b) the concrete-slab roof complies with this Part as to fire-resisting construction.

16.24. A non-combustible structure situated on a roof and containing one or more of the following only—

(a) hot-water or other water tanks; or

(b) ventilating ductwork; or

(c) ventilating fans and their motors; or

(d) air-conditioning chillers; or

(e) window-cleaning equipment; or

(f) lift equipment; or

(g) other service units that are non-combustible and do not contain combustible fluids,

need not comply with the other provisions of this Part.

16.25. (1) Every lintel shall have the fire-resistance rating, if any, required for the part of the building in which it is situated, except as in subclause (2).
(2) Steel angles, plates, or bars comprising lintels that span openings—

(a) in walls of buildings containing only one storey; or

(b) in non-loadbearing walls of Class II buildings; or

(c) not exceeding 3 m in width, and bridged by non-loadbearing masonry; or

(d) not exceeding 1.8 m in width, and bridged by loadbearing masonry, being part of a solid wall or part of one of the leaves of a cavity wall, the masonry in each case being not more than 150 mm in thickness,

shall not be subject to subclause (1) unless the lintels help to support fire doors or fire shutters.

16.26. The design of every method of attachment or installation—

(a) of a facing or finish to a part of a building required to have a fire-resistance rating; or

(b) of ducting or any other service to such a part,

shall provide for the attachment or installation to proceed without impairing the potential fire-resistance performance of that part.

16.27. (1) This clause applies to a building built over a public road, railway, bus terminal, or similar public facility.

(2) The fire-resistance rating of each structural member in, immediately above, or immediately alongside the public facility concerned shall be not less than that determined by the Council, having regard to—

(a) the particular circumstances; and

(b) the other provisions of this Part.

(3) The Council may require that any column or floor subject to subclause (2) shall be of reinforced or prestressed concrete, or structural steel encased in concrete.
17.1. (1) For the purposes of this Ordinance, the rise in storeys of a building shall be calculated in accordance with the rules set out in this clause.

(2) The greatest number of storeys in a building at any part of its perimeter, counted above the finished ground adjacent to the external walls at that part, shall be deemed to be the rise in storeys of the building.

(3) When any part of an external wall abuts the boundary of an adjoining allotment of land, the natural ground level at the relevant part of the boundary shall be regarded as the finished ground in reckoning the number of storeys at the part of the wall concerned.

(4) In applying subclause (3), if there is any doubt as to the natural ground level (because of prior excavation or other cause) this level shall be assessed to the satisfaction of the Council.

(5) In counting the number of storeys above the finished ground at any part of an external wall, a storey shall be excluded from the reckoning if—

(a) it is situated at the top of the building and contains only heating, ventilating, lift or other equipment, water tanks, or similar service units; or

(b) it is situated partly below the finished ground against that part of the wall and extends not more than 1 m above the average level of that ground, the measurement being taken to—

(i) the underside of the ceiling; or

(ii) where there is no ceiling, the underside of the construction at the top of the storey,

except that, if the length of that part of the wall exceeds 12 m, the average level of the finished ground against it, used in the measurement, shall be the average for that 12-m section of its length where the ground is lowest.
Ordinance No. 70—Local Government Act 1919.

(6) In calculating the rise in storeys of a building which incorporates one or more mezzanines—

(a) any mezzanine having a floor area of more than 200 sq m; and

(b) two or more mezzanines at or near the same level in a room and having an aggregate floor area of more than 200 sq m,

shall, notwithstanding the provisions of clause 1.3 (1), be regarded as a storey in that portion of the building in which they are situated.

(7) Any storey that has an internal height of more than 5.2 m shall be regarded as—

(a) one storey, if it is the only storey above the ground; or

(b) two storeys in any other case.

(8) The rise in storeys of a section of a building that is fire-separated according to Part 23 from the remainder of the building shall be determined as though the section were itself a building.

17.2. (1) The type of fire-resisting construction required in a building of Class II, III, V, VI, VII, VIII or IX—

(a) except in a fire zone; and

(b) except as conceded in clauses 17.4, 17.5 and 17.6 for certain Class II buildings, and in clause 17.8 for open-deck parking stations,

shall be that stated in the relevant column of Table 17.2.
TABLE 17.2.
TYPE OF FIRE-RESISTING CONSTRUCTION REQUIRED EXCEPT IN A FIRE ZONE.

<table>
<thead>
<tr>
<th>Rise in storeys</th>
<th>Class of building</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>II</td>
</tr>
<tr>
<td>6 or more</td>
<td>Type 1</td>
</tr>
<tr>
<td>5</td>
<td>Type 2</td>
</tr>
<tr>
<td>4</td>
<td>Type 2</td>
</tr>
<tr>
<td>3</td>
<td>Type 3</td>
</tr>
<tr>
<td>2</td>
<td>Type 3</td>
</tr>
<tr>
<td>1</td>
<td>Type 5</td>
</tr>
</tbody>
</table>

Note: Class IV portions—fire-resisting construction shall be as required by clause 17.7.

(2) A section of a building that is fire-separated according to Part 23 from the remainder of the building shall be subject to subclause (1) as though the section were itself a building.

(3) In a building of mixed classifications, the type of fire-resisting construction required shall be that type of construction that is the most fire-resistant of the types arising from the application of subclause (1) at each storey, based on the assumptions that—

(a) a classification applying to the particular storey applies also to the storeys vertically below it; and

(b) the particular storey and those vertically below it comprise an entire building.

17.3. (1) For the purposes of this clause, "lightweight construction" means—

(a) that variety of fire-resisting construction in which the construction affording fire-protection—

(i) is not in continuous contact with the principal construction that it fire-protects; or

(ii) is of sheet or board material, plaster, render, sprayed, application, or other material similarly susceptible to damage by pressure or abrasion; and
Ordinance No. 70—Local Government Act, 1919.

(b) that variety of fire-resisting construction which incorporates or comprises—

(i) concrete containing pumice, perlite, vermiculite, or other soft material; or

(ii) masonry having a thickness of less than 70 mm.

(2) Subject to subclause (3), in a building having a rise exceeding four storeys, a beam or column, or a wall required to have a fire-resistance rating, not being a partition wall, shall not incorporate or be of lightweight construction if it is in—

(a) any Class VI, VII, or VIII portion; or

(b) any portion, regardless of its classification, that is below the level of a Class VI, VII, or VIII portion.

(3) Subclause (2) shall not apply where any Class VI portion concerned is designed, constructed, or adapted for use as—

(a) a cafe or restaurant; or

(b) a tea room, coffee room, or milk or soft-drink bar; or

(c) a hairdresser's or barber's shop; or

(d) a shop of any other kind, the normal functioning and servicing of which would not, in the opinion of the Council, represent undue risk of damage to the lightweight construction of any beam, column, or wall.

17.4. (1) A building that is entirely of Class II and that is not in a fire zone shall be subject to subclause (2), instead of clause 17.2, if it is so designed that—

(a) no portion of any flat is vertically above any portion of another flat; and

(b) the floor between each flat and any garage below is constructed of reinforced or prestressed concrete.
Type of construction required.

(2) The type of fire-resisting construction required in a building referred to in subclause (1) shall be as follows, according to the greatest number of storeys contained in any flat, and irrespective of its rise in storeys—

(a) For three storeys contained ........................................ Type 2.
(b) For one or two storeys contained ................................ Type 5.

Buildings of Classes II and III having a rise of two storeys: concession as to type of construction.

17.5. A Class II or Class III building having a rise of two storeys may be of Type 5 construction if it complies with the special provisions of Part 24 as to means of egress from sole-occupancy units in such a building.

17.6. (1) Where the Council approves of the conversion of an existing building from Class I to Class II, the converted building shall be of that type of fire-resisting construction stated in the relevant column of Table 17.2, subject to the concession of clauses 17.4 or 17.5, if applicable, and to the concession for external walls set out in subclause (2) of this clause.

(2) The external walls of a building described in subclause (1) shall not be required to have a fire-resistance rating or be non-combustible if the building—

(a) is not in a fire zone; and
(b) contains not more than two storeys.

Concession for external walls in certain buildings.

17.7. In a Class IV portion of a building a structural member shall comply with the following:

(a) A wall or partition wall that separates the Class IV portion from the remainder of the building shall have—
(i) that fire-resistance rating and construction; or
(ii) other construction permitted by Part 16, applicable to a Class II portion in similar circumstances.
Ordinance No. 70—Local Government Act, 1919.

(b) A structural member not referred to in paragraph (a) shall have—

(i) that fire-resistance rating and construction; or

(ii) other construction permitted by Part 16, applicable to a similar member located in the building of which the Class IV portion forms part.

17.8. An open-deck parking station need not comply with the other requirements of this Part if—

(a) it contains not more than three storeys; and

(b) it is of Type 4 construction in which—

(i) the floors are of concrete; and

(ii) all the columns and floor beams are of steel or concrete.

Group V.—Fire Safety and Fire Resistance.

Part 18.—Construction Required in Fire Zones.

18.1. A building shall be deemed to be in a fire zone if not less than half its total volume, measured over the roof and the external walls, is situated within the zone.

18.2. In a primary fire zone, the type of fire-resisting construction required in a building of Class II, III, V, VI, VII, VIII or IX shall be determined in accordance with Table 18.2.

Table 18.2.

<table>
<thead>
<tr>
<th>Type of Fire-Resisting Construction Required in a Primary Fire Zone.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rise in storeys</td>
</tr>
<tr>
<td>-----------------</td>
</tr>
<tr>
<td>3 or more</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>1</td>
</tr>
</tbody>
</table>

Note: Class IV portions—fire-resisting construction shall be as required by clause 18.7.
18.3. In a secondary fire zone, the type of fire-resisting construction required in a building of Class II, III, IV, VI, VII, VIII or IX shall be that stated in the relevant column of Table 18.3.

**TABLE 18.3.**

**Type of Fire-Resisting Construction Required in a Secondary Fire Zone.**

<table>
<thead>
<tr>
<th>Rise in storeys</th>
<th>Class of building</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>II</td>
</tr>
<tr>
<td>4 or more</td>
<td>Type 1</td>
</tr>
<tr>
<td>3</td>
<td>Type 2</td>
</tr>
<tr>
<td>2</td>
<td>Type 3</td>
</tr>
<tr>
<td>1</td>
<td>Type 3</td>
</tr>
</tbody>
</table>

*Note: Class IV portions—fire-resisting construction shall be as required by clause 18.7.*

18.4. A section of a building that is fire-separated according to Part 23 from the remainder of the building shall be subject to clause 18.2 or clause 18.3, as the case requires, as though the section were itself a building.

18.5. In a building of mixed classifications, the type of fire-resisting construction required in a fire zone shall be that type of construction that is the most fire-resistant of the types arising from the application of clause 18.2 or clause 18.3, as the case requires, at each storey, based on the assumptions that—

(a) a classification applying to the particular storey applies also to the storeys vertically below it; and

(b) the particular storey and those vertically below it comprise an entire building.

18.6. Clause 17.3 regarding restrictions on the use of lightweight construction in certain buildings extends to buildings in a fire zone.
18.7 In a Class IV portion of a building a structural member shall comply with the following:—

(a) A wall or partition wall that separates the Class IV portion from the remainder of the building shall have—

(i) that fire-resistance rating and construction; or
(ii) other construction permitted by Part 16, applicable to a Class II portion in similar circumstances.

(b) A structural member not referred to in paragraph (a) shall have—

(i) that fire-resistance rating and construction; or
(ii) other construction permitted by Part 16, applicable to a similar member located in the building of which the Class IV portion forms part.

18.8. A Class I building in a fire zone, if containing more than two storeys, shall have external walls of concrete or masonry.

18.9. A Class X building in a fire zone, if containing more than one storey, shall have external walls of concrete or masonry.

18.10. An open-deck parking station need not comply with the other requirements of this Part if—

(a) the number of storeys it contains does not exceed the number stated in Table 18.10, according to the category of fire zone in which the building is situated and the average area across each storey measured to the outside of the building and irrespective of any internal walls (including fire walls);

(b) the area across any storey is not less than the area across a storey at a higher level; and

(c) the building is of Type 4 construction in which—

(i) floors of concrete or concrete and steel decking are provided at each parking level;

(ii) the floors are structurally continuous across all floor beams, and have a fire-resistance rating of \( \frac{1}{2} \) hour or more;
(iii) the floor beams which have any part less than 3 m from the outside of a floor, have a fire-resistance rating of 1½ hours or more;

(iv) the other floor beams and the columns are of steel or concrete; and

(v) any part of an internal column that—

(A) is exposed, in terms of clause 16.6, to a fire-source feature; and

(B) has an effective distance of less than 9 m between itself and the fire-source feature, has a fire-resistance rating of 2 hours or more.

TABLE 18.10.

MAXIMUM PERMISSIBLE NUMBER OF STOREYS ACCORDING TO CATEGORY OF FIRE ZONE AND AVERAGE AREA ACROSS EACH STOREY.

In this Table, the area across a storey includes the areas above the ramps that lead down from the storey.

<table>
<thead>
<tr>
<th>Category of fire zone</th>
<th>Maximum permissible number of storeys for an average area across each storey (in square metres) of—</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Less than 650</td>
</tr>
<tr>
<td>Primary</td>
<td>5</td>
</tr>
<tr>
<td>Secondary</td>
<td>4</td>
</tr>
</tbody>
</table>

GROUP V.—FIRE SAFETY AND FIRE RESISTANCE.

PART 19.—Floor-area Limitations.

19.1. (1) In this Part, the number of storeys contained in a building shall be deemed not to include a storey situated at the top of the building and containing only heating, ventilating, lift, or other equipment, water tanks, or similar service units and the floor area of such a storey shall not be taken into account for the purposes of this Part.
Ordinance No. 70—Local Government Act, 1919.

(2) For the purposes of this Part, a Class VII or Class VIII building shall be deemed to contain only one storey if—
(a) it contains two storeys in one or more portions and only one storey in the remainder of the building; and
(b) the sum of the floor areas of the storeys in the portion or portions containing two storeys does not exceed one-fourth of the floor area of the remainder of the building.

19.2. (1) This clause applies to Class V, VI, VII and VIII buildings of Type 2, 3, 4, or 5 construction, subject to the exemptions permissible under clauses 19.3 and 19.4 in regard to certain buildings containing only one storey.

(2) In a building to which this clause applies, the sum of the floor areas of all storeys shall not (subject to subclause (3)) exceed the relevant maximum floor area set out in Table 19.2.

(3) In a building containing two or more storeys, the relevant maximum floor area set out in Table 19.2 shall apply to each storey, instead of the sum of all storeys, if—
(a) every floor (including its vertical supports) between the storeys has a fire-resistance rating of not less than 2 hours;
(b) the storeys are not interconnected by escalators;
(c) every lift well, stairway, or ramp is bounded by a shaft that has a fire-resistance rating of not less than two hours; and
(d) the external walls, in a building of Type 4 or Type 5 construction, are of concrete or masonry.

(4) Where a storey is divided into sections by fire walls, the following rules shall apply:
(a) If the building contains only one storey, the relevant maximum floor area set out in Table 19.2 shall apply to each such section as though it were a complete building.
(b) If the building contains two or more storeys and complies with subclause (3), the relevant maximum floor area set out in Table 19.2 shall apply to each such section as though it were a complete storey.
TABLE 19.2.

MAXIMUM FLOOR AREAS ACCORDING TO TYPE OF FIRE-RESISTING CONSTRUCTION, CLASSIFICATION, AND WHETHER OR NOT A SPRINKLER SYSTEM IS INSTALLED.

(In square metres.)

In this Table, the maximum floor areas apply to—

(a) the total floor area throughout a single or multi-storey building; or

(b) the floor areas of each storey of a building if the provisions of subclause (3) of clause 19.2 are met.

| Type of fire-resisting construction of building | Class V | | Class VI |
|---|---|---|
| | Not sprinklered | Sprinklered | Not sprinklered | Sprinklered |
| Type 2 | 5 500 | 9 000 | 3 500 | 5 500 |
| Type 3 | 5 500 | 9 000 | 3 500 | 5 500 |
| Type 4 | 4 500 | 7 500 | 3 000 | 4 500 |
| Type 5 | 2 800 | 4 500 | 2 000 | 2 800 |

<table>
<thead>
<tr>
<th>Type of fire-resisting construction of building</th>
<th>Class VII</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>For storage or display of goods not referred to in Second Schedule (Medium or low hazard).</td>
</tr>
<tr>
<td></td>
<td>Not sprinklered</td>
</tr>
<tr>
<td>Type 2</td>
<td>5 500</td>
</tr>
<tr>
<td>Type 3</td>
<td>5 500</td>
</tr>
<tr>
<td>Type 4</td>
<td>4 500</td>
</tr>
<tr>
<td>Type 5</td>
<td>2 800</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Class VIIIa (Medium or low hazard)</th>
<th>Class VIIIb (High hazard)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not sprinklered</td>
</tr>
<tr>
<td>Type 2</td>
<td>5 500</td>
</tr>
<tr>
<td>Type 3</td>
<td>5 500</td>
</tr>
<tr>
<td>Type 4</td>
<td>4 500</td>
</tr>
<tr>
<td>Type 5</td>
<td>2 800</td>
</tr>
</tbody>
</table>
19.3. A building containing only one storey and having a floor area not exceeding 18 000 m² shall not be subject to the floor-area limitations specified in clause 19.2 if—

(a) an open space, not less than 18 m in width, is provided on or associated with the site of the building in accordance with clause 19.5; or

(b) the building is of Type 2 or Type 3 construction and complies with the following requirements:

(i) The space below the roof shall be divided into compartments in accordance with clause 19.6;

(ii) The building shall be provided with approved automatic smoke-and-heat vents in accordance with clause 19.7;

(iii) Every external wall facing the boundary of an adjoining allotment of land shall be provided with a parapet in accordance with clause 19.8, except where the provisions of that clause permit the height of the parapet to be reduced to nil; and

(iv) Windows and other openings in every external wall facing the boundary of an adjoining allotment of land shall be so limited in area as to comply with clause 19.9.

19.4. (1) A Class VI, VII, or VIII building containing only one storey and having a floor area exceeding 18 000 m² shall not be subject to the floor-area limitations specified in clause 19.2 if—

(a) an open space, not less than 24 m in width, is provided on or associated with the site of the building in accordance with clause 19.5; or