

Unvalidated References:

National Water Supply and Sewerage Act 1986
National Water Supply and Sewerage Act 1986
Building Act
National Water Supply and Sewerage Act 1986
National Water Supply and Sewerage Act 1986
Building Act 1971
Fire Service Act 1962
Public Health Act 1973
National Water Supply and Sewerage Act 1986
Employment Act 1978
Public Health Act 1973
Professional Engineers (Registration) Act 1986
Public Health Act 1973
Physical Planning Act 1989
National Water Supply and Sewerage Act 1986
Land Act 1996
Physical Planning Act 1989
Building Regulation 1971
National Water Supply and Sewerage Act 1986
National Water Supply and Sewerage Act 1986
Public Health Act 1973
Liquor (Licensing) Act 1963
Public Health Act 1973
National Water Supply and Sewerage Act 1986
Food Sanitation Act 1991
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Environmental Contaminants Act 1978
Industrial Safety, Health and Welfare Act 1961
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Inflammable Liquid Act 1953
Industrial Safety (Lifts) Order
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Inflammable Liquid Act 1953
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Industrial Safety, Health and Welfare Act 1961
Industrial Safety, Health and Welfare Act 1961
Physical Planning Act 1989
Building Regulation

This reprint of this Statutory Instrument incorporates all amendments, if any, made before 25 November 2006 and in force at 10 May 2002.

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Legislative Counsel
Dated 25 November 2006

INDEPENDENT STATE OF PAPUA NEW GUINEA.

No. of 1994.

Building Regulation 1994

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Building Regulation 1994

MADE by the Head of State, acting with, and in accordance with, the advice of the National Executive Council under the *Building Act 1971*.

Dated 200 .

PART I. – PRELIMINARY.

1. INTERPRETATION.

(1) In this Regulation, unless the contrary intention appears–

“**AS**” followed by a number, or an alpha-numeric code, means the current Australian Standard Code or Specification of that designation, as published by the Standards Association of Australia and includes all amendments and revisions thereto, which may subsequently be published by the Association to cover same subject matter;

“**Board**” means the Provincial Building Board, or the Building Authority, whichever is applicable, having jurisdiction over the area where the subject building is, or will be located;

“**Building Inspector**” means a Building Inspector appointed under Section 13;

“**Central Building Tribunal**” means the Central Building Tribunal established under Section 20 of the Act;

“**Chairman**” means Chairman of any of the Boards defined under “Board” in this Regulation;

“**declared area**” means an area declared to be a “Self-Help Housing Area” under Section 253;

“**declared area building**” means a building in a declared area other than a temporary building occupied by permission of a Board under Section 253;

“**dangerous business**” means an operation or enterprise involved in the manufacture of gun-powder or any detonating or explosive powder or of matches ignitable by friction or of any other substance liable to sudden

explosion, inflammation or ignition, or turpentine, vitriol, naphtha, varnish, fireworks or painted covers or oil cloths, or any other manufactures liable by reason of the nature or quantity of the materials employed therein to cause sudden fire or explosion, or create toxic liquids or gases;

“**erect**” includes re-erect;

“**Fire Service**” means the Fire Service established under the *Fire Service Act 1962*;

“**footing**” means the construction whereby the weight of the building is transferred to the ground supporting it;

“**front alignment**” means—

- (a) where a site has only one boundary adjoining a street—the street alignment; and
- (b) where a site has more than one boundary adjoining a street—the shortest street alignment, other than a truncation;

“**high set building**” means a building supported on piers or sheer walls creating an unenclosed and open space between the lowest habitable floor and ground level, the space so created being wholly or partly used usually for car parking or other utility or both;

“**low set building**” has a similar meaning to that of high set building, except that the height of the lowest habitable floor above ground level does not exceed 1,500mm and the space serves no other purpose than to provide clear and uninterrupted air circulation;

“**masonry**” means stone, brick, terra cotta block, solid or hollow concrete block, or other similar building unit or materials or a combination of them, laid down unit by unit and set in mortar;

“**owner**” means the person for the time being entitled to receive the rent of the land or premises in connection with which the word is used (whether on his own account or as the agent of, or as trustee for, any other person) or who would be entitled to receive the same if the land or premises were let at a rent;

“**permit**” means a permit to build granted under this Regulation;

“**PNGS**” followed by a number or an alpha-number code, means the current Papua New Guinea standard code or specification of that designation as published by the National Institute of Standards and Industrial Technology of Papua New Guinea and includes all amendments and revisions thereto, which may be subsequently published to cover the same subject matter;

“**Registered Structural Engineer**” means an Engineer registered by the Council of the Society of Professional Engineers of Papua New Guinea in accordance with Section 6;

- “required”** means required by or under this Regulation;
- “Seismic Zone 1”** means the area of Papua New Guinea, bounded by the International Boundaries of Papua New Guinea and the dashed lines, as shown and designated as Zone 1, on Plate 2 of this Regulation and as further described in detail in Schedule 1;
- “Seismic Zone 2”, “Seismic Zone 3” and “Seismic Zone 4”** means those areas shown, designated and described in a manner similar to that applied in the case of Seismic Zone 1;
- “set-back”** means any offset horizontally in the plane of an exterior wall of a structure;
- “sewerage authority”** means the sewerage authority within the meaning of the *Public Health Act 1973* and *National Water Supply and Sewerage Act 1986*;
- “single storey building”** means a building of not more than one storey, no account being taken of basement storeys in calculating the number of storeys in a building;
- “site”** means the allotment of land on which a building stands or is to be erected;
- “sole-occupancy unit”** means a room or other part of a building for occupation by one owner, lessee, tenant or other occupier to the exclusion of any other owner, lessee, tenant or other occupier;
- “sprinkler system”** means an automatic sprinkler system installation conforming to the requirements of PNGS 1211 Rules for Automatic Fire Sprinkler System;
- “storey”** means a space within a building which is situated between one floor level and the floor level next above, or if there is no floor above, the ceiling or roof above, but not—
- (a) a space that contains only—
 - (i) a lift shaft, stairway or meter room; or
 - (ii) a bathroom shower room water closet, or other sanitary compartment; or
 - (iii) accommodation intended for not more than three vehicles; or
 - (iv) a combination of the above; or
 - (b) a mezzanine
- “street alignment”** means that part of a boundary line adjoining a street;
- “the Society”** means the Society of Professional Engineers of Papua New Guinea;
- (2) In this Regulation—

- (a) a reference to the class of occupancy of a building shall be read as a reference to the relevant class specified in Section 26; and
- (b) abbreviations and symbols for units and multiples and sub-multiples of units have the same meaning as they have ascribed to them in PNGS 1000—“The International System of Units (SI) and its Application”; and
- (c) the numerical values prescribed are subject to tolerances according to—
 - (i) any appropriate code, rule, specification or provision adopted by reference in this Regulation; or
 - (ii) normal trade practice; or
 - (iii) good practice,as the case may require.

(3) A reference in this Regulation to a Form by number is a reference to a Form so numbered in Schedule 2.

(4) A reference in this Regulation to a Plate by number is a reference to a Plate so numbered in this Regulation.

2. APPLICATION.

(1) Subject to the succeeding provisions of this Regulation, this Regulation applies to the construction of a building and to alterations made to an existing building after the date of commencement of this Regulation, and the erection of a new building or the alteration of an existing building shall conform to the requirements prescribed in this Regulation.

(2) With the exception of Part XIII or as otherwise specifically provided, this Regulation does not apply to buildings in a declared area.

(3) This Regulation does not apply to buildings constructed for defence purposes by or under the authority of the Government of Papua New Guinea.

(4) Except as otherwise specifically provided, this Regulation does not apply to—

- (a) a building for the housing of employees within the meaning of the *Employment Act 1978*; or
- (b) a temporary building erected on the site of the construction of a building or of any works being carried out for a public body or corporation, to be used only by a builder or contractor and to be removed on the completion of the building or works; or
- (c) the construction of a building or the doing of any work where the construction or work was commenced before the date of commencement of this Regulation or is to be carried out under a contract entered into before the commencement of this Regulation.

(5) Notwithstanding any provision in this Regulation, the *Public Health Act 1973* and Regulations made thereunder shall continue to apply to all buildings in Papua New Guinea.

(6) A structure erected for the purpose of supporting a sign, advertisement, notice and the like shall conform to the requirements of Part XIV.1.

3. SEISMIC ZONING.

For the purpose of specifying loading requirements for earthquakes the country is divided, as shown on Plate 2, into zones classified as Seismic Zone 1, Seismic Zone 2, Seismic Zone 3 or Seismic Zone 4 which are described in Schedule 1.

4. PRESCRIBED WIND VELOCITIES.

To define the design wind velocities the country is divided as shown on Plate 1 and buildings and structures, and parts of buildings or structures, shall be designed to withstand loadings due to wind and forces being calculated in accordance with PNGS 1001 (Part 3).

PART II. – ADMINISTRATION.

5. APPLICATION FOR APPROVAL.

(1) An application to the Board for approval under Section 12 of the Act shall be in Form 1 and shall be accompanied by the fee as specified in the Fee Table in Schedule 3.

(2) The prescribed particulars for plans and specifications to accompany the application are—

- (a) a block plan drawn in ink to a scale of not less than 1:500 with dimensions of the allotment of land, where such allotment of land is at the intersection of two streets, and, if not, the position of the allotment in relation to the nearest street corner, the position and dimensions of the proposed building, the relation thereof to the boundaries of the allotment and to any existing buildings on the same or adjoining allotments, the levels of the site in relation to the adjoining street levels and the method of drainage proposed to be adopted; and
- (b) properly prepared plans of each floor level, elevations, sections and dimensions of the proposed building—drawn to a scale of not less than 1:100 together with drawings of necessary structural details, but where sufficient details of the structure drawn to a scale of not less than 1:20 are shown on the plans, plans may be drawn to a scale of less than 1:100; and
- (c) a description of the materials to be used in the construction and, where not indicated on the drawings, the sizes thereof with all other information not shown on the drawings, which is necessary to show that the building will, if constructed in accordance with the specifications, comply with the provisions of this Regulation; and
- (d) where a building is to be erected on the land, evidence satisfactory to the Board of any easement affecting the land, the ownership of the land and of the applicant's right to build; and
- (e) a statement showing the nature of the occupancy or occupancies for which each portion of the building is designed; and
- (f) an estimate of the cost of the proposed construction and, where so required by the Board, the name and address of the architect or engineer under whose supervision the construction is to be carried out; and
- (g) any additional information required under Section 10; and
- (h) certification of the structural adequacy and conformity as and when required under Section 6.

6. REQUIREMENTS FOR CERTIFICATION ETC.

(1) An application to the Board for approval to erect or alter a building or structure shall be accompanied by certification that the structure of the new or altered building or structure conforms with all the structural requirements of this Regulation and is structurally adequate for its proposed use and occupancy, but, unless the Board otherwise requests in writing, no such certification is required where—

- (a) the building is new and its footings are not supported on fill and it is—
 - (i) single storied and of Class I, Class II, or Class X occupancy; or
 - (ii) single storied, of Class IV occupancy and on the ground floor level of the building to which it is attached; or
 - (iii) not more than two storeys of Class I occupancy and having a height from finished ground level to eaves level not exceeding 5,500mm and located in Seismic Zone 3 or Seismic Zone 4; or
 - (iv) single storey high set of Class I, Class II or Class X occupancy and having a height from finished ground level to eaves level not exceeding 5,500mm and located in Seismic Zone 3 or Seismic Zone 4; or
- (b) the building is existing, is of Class I, Class II, Class IV, or Class X occupancy (except workshops greater than 200m² in area) and—
 - (i) is single storied; or
 - (ii) is not more than two storeys in height and located in Seismic Zone 3 or Seismic Zone 4; or
- (c) the structure, whether new or existing is—
 - (i) a garden wall; or
 - (ii) a free standing wall, not being a retaining wall; or
- (d) the Board is satisfied that an existing building cannot be altered to conform with all the structural requirements of this Regulation, in which case the alterations only need comply provided the existing structure is shown not to be affected by the alterations.

(2) The certification required by Subsection (1) shall include the following information:—

- (a) description to identify the structure and a list of the drawings covered by the certificate;
- (b) the relevant Papua New Guinea standards with which the structural design complies;
- (c) the Seismic Zone or Zones, the basic seismic coefficient, the structural type factor and the importance factor adopted in the design, in accordance with PNGS 1001 Part 4,

and such certificate shall be an original document signed personally by a registered structural engineer in accordance with Subsection (4).

(3) Where certification of a building or structure is required in accordance with Subsection (1), the application for approval shall be accompanied by—

- (a) a registered structural engineer's certificate in accordance with Subsection (2); and
- (b) structural drawings, presented in accordance with any relevant PNG standard on drawing practice which show—
 - (i) all structural elements, including footings and retaining walls; and
 - (ii) the types of materials to be used in the construction; and
 - (iii) the strength, or other required quality characteristics of the foundations and the materials of construction; and
 - (iv) any other information required by this Regulation, and all in sufficient detail to indicate clearly and to the satisfaction of the Board, the structure or part which has been certified.

(4) The certification required by Subsection (1), and the drawings and calculations referred to in Subsection (2) shall be signed by a person who is a registered structural engineer with the Society of Professional Engineers of Papua New Guinea for the purpose.

(5) An application for registration as a registered structural engineer shall be in writing and shall be lodged with the Society of Professional Engineers of Papua New Guinea who may request the applicant to provide full details of his qualifications and experience in structural design.

(6) An application under Subsection (5) may be made by any person who

- (a) is registered under the *Professional Engineers (Registration) Act 1986*; and
- (b) provides to the satisfaction of the Society of Professional Engineers of Papua New Guinea that he is experienced in structural design.

(7) The Society of Professional Engineers of Papua New Guinea may, after considering an application made under Subsection (5), register the applicant to sign certifications, drawings and calculations required to be signed by this Regulation, and such registration may be subject to such restrictions as the Council considers appropriate.

(8) The Society of Professional Engineers of Papua New Guinea may deregister any person registered under the provisions of this section—

- (a) if he ceases to be qualified for registration; or
- (b) if he signs a certification or drawing knowing that it does not comply with the requirements of this Regulation.

(9) The Society of Professional Engineers of Papua New Guinea shall cause a list of all persons registered according to Subsection (7) together with their postal address and any restrictions imposed under that subsection, or deregistered under Subsection (8), to appear in the National Gazette as follows:–

- (a) a list which shall cancel all previous lists of persons currently as structural registered engineers shall appear annually during the month of March; and
- (b) an addendum to the annual list of persons subsequently registered or deregistered shall appear quarterly during the months of June, September and December.

7. EXAMINATION AND APPROVAL OF PLANS.

(1) The Board shall examine for compliance with this Regulation the plans, specifications and information submitted and, subject to Sections 10 and 11, shall within 40 days after the lodging of the plans, specifications and information–

- (a) approve the application and grant to the applicant a written permit for the carrying out of the work; or
- (b) reject the application.

(2) If the application for approval is rejected, the Board shall state in writing its reasons for rejection and may in its discretion refund the whole or any portion of the fee tendered with the application.

(3) Pursuant to Subsection (1), the Board may require the applicant to refer the submitted plans, specifications and other information to professionally qualified and registered Architects and/or Engineers for an opinion as to the conformance or non-conformance of the proposal with this Regulation, before approving or rejecting the application.

8. DUTY TO ENSURE CERTAIN APPROVALS GRANTED ETC.

Before issuing a permit under Section 12, the Board shall satisfy itself that–

- (a)¹ the applicant has obtained any approval required under the *Public Health Act 1973*, the *Electricity Industry Act (Ch. 78)* the *Physical Planning Act 1989* and the *National Water Supply and Sewerage Act 1986*; and
- (b) the purpose for which the building is to be used is not in breach of a condition of lease, or a granted application for a lease or licence in force under the *Land Act 1996*; and
- (c) adequate means are available for–
 - (i) providing a continuous supply of potable water suitable and sufficient for the requirements of all the occupants of the building

¹ Section 8 Amended by S.R. 2006, No. 68.

calculated in accordance with the Papua New Guinea Fire Code PNGS 1629; and

- (ii) disposal of all sewerage and waste-water from the site.

9. POWER TO DISPENSE WITH PLANS, ETC.

The Board may dispense with the requirements that plans and specifications shall accompany an application for a permit where—

- (a) minor alterations only are proposed to be made to any existing building; or
- (b) it is proposed to build—
 - (i) a haus win or pergola; or
 - (ii) a tool house; or
 - (iii) a private boat house; or
 - (iv) a fuel shed; or
 - (v) a private cycle or motor shed; or
 - (iv) a fowl house or other structure intended for accommodation of domestic animals; or
 - (vii) a temporary building; or
 - (viii) a building within a Declared Area provided the Board is satisfied that the building complies with Part XIII.

10. POWER TO REQUIRE INFORMATION.

The Board may postpone consideration of an application for a permit until the applicant furnishes such plans or information as the Board, by notice in writing, requires.

11. GROUNDS FOR REFUSAL OF BUILDING PERMIT.

(1) Except as otherwise provided in this Regulation, the Board shall refuse an application for approval in any case in which the Board determines that the plans or specifications show a proposed contravention of this Regulation.

(2) A Board may refuse an application for approval in any case in which the design or the materials shown or specified in the plans or specifications of a building are considered by the Board to be unsuitable for the site upon which the building is to be built pursuant to Section 26 of the Act.

12. ISSUE OF PERMIT ETC.

- (1) Where the Board grants an application for approval it shall forthwith—

- (a) issue a permit in accordance with Form 2 and stamp both copies of the plans and specifications (if any) with the word “Approved” followed by–
 - (i) the name of the Board; and
 - (ii) the signature of a member of the Board; and
 - (iii) the date of the meeting at which the approval was given; and
 - (b) forward the permit together with one copy of the plans and specifications (if any) so stamped to the applicant.
- (2) A permit lapses after a period of 12 months from the date of issue, unless–
- (a) substantial building progress has been made; or
 - (b) it has been extended by the Board.

13. APPOINTMENT OF BUILDING INSPECTORS ETC.

(1) The Minister may, by notice in the National Gazette, appoint suitably qualified persons to be Building Inspectors for the purposes of this Regulation.

(2) The Board may authorize a Building Inspector or other suitably qualified person to carry out testing or examination of concrete, soil, steel, masonry, timber or other materials, the use of which is prescribed or allowed by this Regulation, and to advise the Board thereon.

14. POWER OF ENTRY.

(1) A member of the Board or a Building Inspector, or a person authorized by the Board may–

- (a) enter upon any land and inspect any building or building materials on the land; and
- (b) require that any person directing any building operations on any land shall–
 - (i) produce to him a permit; or
 - (ii) state the name and address of the person under whose authority he is directing the building operations.

(2) A person who–

- (a) refuses or fails to produce his permit or to supply information in his possession when required to do so under this Regulation; or
- (b) knowingly supplies false information; or
- (c) hinders or obstructs a person in the exercise of his powers or the performance of his functions under this Regulation,

is guilty of an offence.

Penalty: A fine not exceeding K200.00.

Default penalty: K10.00.

15. REQUIREMENTS FOR NOTICES.

(1) The Board may give a notice stating the time within which the required operation is to be performed.

(2) A notice under Subsection (1) may be renewed and updated from time to time.

(3) The provisions of this section shall not be construed so as to relieve any person from any penalty which he may have incurred before receiving a notice, order or request, nor render it incumbent on the Board, or a Building Inspector in any case to give such a notice or order or to make such a request.

16. INSPECTIONS AND POWER TO STOP WORK OR ORDER DEMOLITION.

(1) The Board shall be given 24 hours notice in writing, of the intention to place permanent footing materials on earthworks and—

- (a) no footing materials shall be so placed until the subject earth works have been inspected and/or otherwise approved by the Board; and
- (b) building construction shall not be permanently covered by any earthworks until such time as that construction has been inspected and/or otherwise approved by the Board.

(2) The Board may require that—

- (a) any part or parts of a building be inspected by a Building Inspector or other nominee, before, during or after construction of the part or parts; and
- (b) no further work be commenced until such time as the construction at the nominated stage has been so inspected and approved.

(3) The Board may require that any building or part of a building which has been constructed without a permit shall be demolished at the expense of the person directing building operations.

17. NOTIFICATION OF INTENTION TO EXCAVATE ADJACENT TO A BUILDING.

A person causing an excavation adjacent to a building shall, before commencing such excavation, give seven days' prior notice of his intention to the owner of the adjacent building and to the Board, and shall at the same time furnish to such owner particulars of the works he proposes to do.

18. NOTICE OF COMPLETION.

(1) A person, who erects a building or makes any alteration or addition to a building shall, within a reasonable time after the completion of the erection of the building or of the alteration or addition, give notice in writing to the Board.

Penalty: A fine not exceeding K200.00.

Default penalty: K10.00.

(2) The Board may require a person to whom Subsection (1) applies to provide certification that the building has been erected, altered or added to in accordance with the plans and specifications for the work approved by the Board pursuant to Section 12, and such certification shall be prepared and signed by the Architect, Engineer or Builder as required by the Board in each case.

(3) Failure to provide certification under this section shall be sufficient reason for refusing a Certificate of Completion under Section 19.

19. CERTIFICATION OF COMPLETION.

The Board, upon receipt of the notice specified in Section 18, may grant or refuse a certificate in Form 3 that the building has been completed in accordance with this Regulation.

20. OCCUPATION OF BUILDING.

(1) Subject to Subsection (2), a person shall not occupy, or authorize or permit any person to occupy a building which has been erected, added to or in any way altered since the commencement of this Regulation, unless a certificate under Section 19 has been issued.

Penalty: A fine not exceeding K200.00.

Default penalty: K10.00.

(2) Where—

(a) a person is in occupation at the time of any addition or alteration to an existing building, he may continue in occupation until the certificate is refused; and

(b) in the case of a temporary building, it thinks fit, the Board may permit a person to enter into permissive occupancy of the building for a period not exceeding two years and the Board may, if it is of the opinion that the occupant is making a genuine attempt to build to Declared Area standards, permit that person to remain in permissive occupancy of that building for further periods of not more than one year in each case, provided that the total period for which a person may be granted permissive occupancy of a temporary building shall not exceed five years; and

- (c) in any particular case it thinks fit, the Board may permit a person to enter into permissive occupancy of a building in respect of which a certificate has not been issued.

(3) Permission under Subsection (2)(c) may be cancelled by the Board at any time before the issue of a certificate of completion under Section 19.

21. CHANGE OF USE OR OCCUPANCY.

(1) A person shall not, without the approval of the Board, use or permit to be used a building constructed after the commencement of this Regulation, or change or permit to be changed the use of a building constructed before the commencement of this Regulation for any purpose of occupancy for which that building or a part of that building fails to comply with the requirements of this Regulation, in any of the following respects:—

- (a) where the building or part of the building has not been designed for or is not, in the opinion of the Board, capable of safely supporting the loading prescribed by PART X in respect of the use;
- (b) where the change of use would require an increase in the design loadings for seismic loading to meet the requirements of PART X;
- (c) where the change would require additional measures in regard to fire protection and means of egress in order to comply with PART VIII;
- (d) where the change of use to a residential occupancy would require additional measures in order to comply with this Regulation;
- (e) where the change would require approval under the *Physical Planning Act 1989*;
- (f) where the change of use would require additional measures in order to comply with the licensing requirements of an Act or Regulation in force in Papua New Guinea relating to the proposed use.

(2) The Board may, if it is satisfied by tests carried out at the expense of the applicant, that the building or part of the building will carry, with an approved factor of safety, the required loading, approve the change of use of occupancy subject to such conditions as it thinks fit.

(3) The Board, in granting an approval under this section may—

- (a) impose such conditions as it thinks fit, and may require a bond or deposit to ensure compliance with such conditions; or
- (b) in the case of premises specified in Subsection (1)(f), refer the application to a competent consultant, at the cost of the applicant, and be guided by any recommendation or information received from that consultant.

22. OFFENCES ETC.

(1) A person who—

- (a) does, or causes to be done, or knowingly permits or suffers to be done, or is concerned in doing, anything contrary to or otherwise than as provided by this Regulation; or
- (b) omits, or neglects to do, or knowingly permits or suffers to remain undone, anything which according to the true intent and meaning of this Regulation, ought to be done by him at the time and in the manner therein provided; or
- (c) does not refrain from doing anything which under this Regulation, he is required to abstain from doing; or
- (d) knowingly permits or suffers any condition or things to exist contrary to any provision contained in this Regulation; or
- (e) refuses or neglects to comply with any notice duly given to him under this Regulation; or
- (f) obstructs or hinders any officer of the Board, or any person appointed under this Regulation, in the performance of any duty to be discharged by such officer or person under or in exercise of any power conferred upon him by this Regulation,

is guilty of an offence.

Penalty: A fine not exceeding K2,000.00

Default penalty: A fine not exceeding K100.00

(2) Where a person (in this subsection referred to as “the defendant”) is charged with an offence under this section, he is entitled, upon information duly laid by him, to have any other person whom he charges as the actual offender brought before the court at the time appointed for hearing the charge against himself and if, after the commission of the offence has been proved, the defendant satisfies the court that he has used due diligence to ensure the observance of the provisions of this Regulation and that the other person has committed the offence in question without his knowledge, consent or connivance, the other person shall be convicted of the offence and the defendant shall be exempted from any penalty.

(3) A person who aids, abets, counsels, or procures, or by act or omission is in any way directly or indirectly knowingly concerned in, or party to, the commission of any offence against this Regulation, shall be deemed to have committed the offence and shall be punishable accordingly.

23. FEES.

(1) Fees payable to the Board are as specified in the Fee Table in Schedule 3.

(2) The fees for an act or thing referred to in the first column of the Fee Table are the fees set out in the second column of that Fee Table opposite that act or thing in the first column.

(3) In the calculation of the fees for a permit in respect of a new building, the area in square metres shall be assessed over the total gross area of all floors measured over the surrounding walls.

(4) In the calculation of the fees for a permit in respect of an alteration of, other than an addition to, an existing building, the area in square metres shall be assessed over the total gross area of all rooms or compartments to be altered, measured over the surrounding walls.

(5) In the calculation of the fees for a permit in respect of an addition to an existing building, the area in square metres shall be assessed over the total gross area of all floors of the actual additions, measured over the surrounding walls.

(6) Any costs payable to a consultant pursuant to Section 7(3) and Section 21(3)(b) and cost of testing pursuant to Section 21(2) shall be in addition to the fees calculated in accordance with Subsections (1) to (5) inclusive.

24. PRESCRIBED TIME FOR APPEAL.

(1) An appeal under Section 21(1) of the Act shall be made within 60 days after the date of the matter or thing complained of.

(2) The appellant shall serve on the Chairman of the Board a notice of appeal in Form 4.

(3) The Chairman, within seven days of the receipt of the notice of appeal, shall forward all relevant plans, specifications and other documents to the Central Building Tribunal and the Minister shall advise the Chairman of the Board within 60 days whether the appeal has been upheld or rejected.

PART III. – BUILDING CLASSIFICATION.**25. INTERPRETATION.**

For the purpose of this Part, unless the contrary intention appears–

“**assembly building**” means a building, or open or closed spectator stand, designed, constructed or adapted for the usual or occasional assembly of persons for–

- (a) civic, political, educational, transit, religious, social or recreational purposes; or
- (b) entertainment or amusement;

“**ductile**” means the capability of a material, structural element or system of elements, to undergo a limited number of repeated and reversing cycles of inelastic (post-yield) deformations while maintaining a substantial proportion of its elastic design load capacity;

“**fire station**” means a building designed, constructed or adapted for the accommodation of fire-fighting vehicles or fire-fighting appliances or both, but does not include any dormitory or residential portions attached thereto or included therein;

“**flat**” means a room or suite of rooms, designed, constructed or adapted as a separate domicile;

“**horizontally braced framing**” means a system of discrete structural members, interconnected by diagonal bracing or otherwise stiffened, to produce the effect of a horizontal diaphragm;

“**horizontal diaphragm**” means continuous construction in a horizontal plane, which has sufficient in-plane stiffness or rigidity to resist the horizontal design loads at that plane without bucking or appreciable distortion of the plan shape of the diaphragm;

“**institutional building**” means a building, designed, constructed or adapted as a clinic, convalescent home, hospital, infirmary, nursing home, sanatorium, asylum, pre-school centre, home or institute for orphans, poor, aged, sick, or physically or mentally handicapped persons, or similar institution;

“**open-deck parking station**” means a public garage in which all portions of the parking storeys are cross-ventilated by means of permanent openings in not fewer than two opposite, or approximately opposite sides, the openings in each case being not smaller in area than half the vertical area of the side concerned;

“**outbuilding**” means a structure ancillary of occupancy, such as an aviary, carport, conservatory, fowlhouse, garage, greenhouse, kennel, laundry, shed, sleepout, stable, home-workshop and other structures of a like nature;

“pre-school centre” means a building other than a school, designed, constructed, or adapted for the pre-school care or training of not less than six children;

“public garage” means a building designed, constructed or adapted for either the accommodation of four or more motor vehicles for parking purposes only, or the washing, cleaning or polishing only, of motor vehicles, or both;

“reinforced concrete construction” means construction complying with all the appropriate requirements of PNGS 1002;

“reinforced masonry construction” means construction complying with all the appropriate requirements of PNGS 1004;

“sarking type material” means a material such as reflective foil or other flexible membrane, of a type normally used for water-proofing, vapour proofing, thermal reflection or other similar purposes;

“school” means a building, designed, constructed or adapted for primary, secondary or tertiary education and includes technical, agricultural and theological colleges, universities, technical institutes, teacher-training colleges, school of mines, or similar establishments;

“service station” means a building designed, constructed, or adapted for either the mechanical repair and servicing of motor vehicles, or the storage and retailing of petroleum products or both;

“shear wall” means a wall of reinforced concrete, reinforced masonry or timber construction, specifically designed and constructed to resist the horizontal design loads, applied to it in a direction parallel to the longest plan dimensions of the wall, as well as any other design loads assigned thereto;

“sole-occupancy unit” means—

- (a) a flat; or
- (b) a room or suite of rooms in a building of Class III occupancy designed, constructed or adapted to include sleeping facilities; or
- (c) any portion of a building of Class V, VI, VII, VIII or IX occupancy, including a room or suite of rooms, designed, constructed or adapted for use in separate occupation by one or more persons pursuant to a right of title, whether contractual or proprietary, distinct from the right or title under which adjacent portions are occupied;

“space frame” means a three dimensional arrangement of inter-connected structural members, with or without horizontal diaphragms or horizontally braced frames, in which both the members and their connections to one another have been designed to resist the moment,

shear and axial forces due to all of the vertical design loads and all, or a pre-determined portion of the horizontal design loads;

“**steel construction**” means construction complying with all the appropriate requirements of PNGS 1003;

“**timber construction**” means construction complying with all of the appropriate requirements of the relevant Papua New Guinea Standard on Timber Construction.

26. CLASSIFICATION BY OCCUPANCY.

(1) Classification—For the purpose of this Regulation buildings or portions of buildings shall be classified into the following classes according to the nature of their use of occupancy:—

- (a) Class I residences which may comprise one or more buildings including any habitable outbuildings which in association constitute—
 - (i) a single dwelling-house, terrace house, townhouse, row house, villa house, or the like, which may be detached or separated by a common wall; or
 - (ii) a dwelling-house used as a boarding-house, hostel, group house, or the like, in which not more than 12 persons would ordinarily be resident; or
 - (iii) a residential building that does not exceed a rise of three storeys, contains only two sole-occupancy units located one above the other and each unit has direct egress to a road or open space;
- (b) Class II buildings containing two or more sole-occupancy units each being a separate dwelling, excluding buildings of Class I;
- (c) Class III residential buildings, other than buildings of Class I or II, which are a common place of living for a number of unrelated persons, including—
 - (i) a boarding-house, guest house, hostel, or lodging-house; and
 - (ii) a residential part of an hotel or motel; and
 - (iii) a residential part of a school; and
 - (iv) accommodation for the aged, disabled or children; and
 - (v) a residential part of a health-care building which accommodates members of staff;
- (d) Class IV flats in buildings that elsewhere are of Class V, VI, VII, VIII or IX, being in each case the only flat in the building;
- (e) Class V office buildings, being buildings for professional or commercial purposes, excluding buildings of Classes VI, VII, VIII or IX;

- (f) Class VI shops and other buildings for the sale of goods by retail or the supply of services direct to the public, including–
 - (i) eating rooms, tea rooms, coffee rooms, cafes, restaurants and milk and soft-drink bars; and
 - (ii) the non-residential portions of hotels and motels; and
 - (iii) hairdresser’s and barber’s shops, public laundries and undertaker’s establishments; and
 - (iv) service stations;
- (g) Class VII buildings that are–
 - (i) warehouses, being buildings for the storage of goods only or for the display of goods for sale by wholesale; or
 - (ii) public garages; or
 - (iii) fire stations;
- (h) Class VIIIa buildings that are–
 - (i) factories, being buildings in which a handicraft or a process in or incidental to the making, assembling, altering, repairing, renovating, preparing, ornamenting, finishing, cleaning, washing, or adapting of goods is carried on for trade, sale, or gain–
 - (A) those used for a handicraft or process not mentioned in Part XII being of Class VIIIa;
 - (B) those involving a process mentioned in Part XII being of Class VIIIb;
 - (ii) laboratories–
 - (A) those involving a process not mentioned in Part XII being of Class VIIIa; and
 - (B) those involving a process mentioned in Part XII being of Class VIIIb;
- (j) Class IX Buildings of a public nature, comprising–
 - (i) schools and institutional buildings as defined in Section 25 being of Class IXa; and
 - (ii) assembly buildings as defined in Section 25 being of Class IXb, but excluding portions of such buildings that are of Class III or used as laboratories;
- (k) Class X Outbuildings.

Unless the contrary intention appears, Class VIIIa, Class VIIIb, Class IXa and Class IXb are separate classifications.

(2) Where portions of a building each have different purposes, each such portion shall, subject to Subsection (4), be separately classified in accordance with this Regulation.

(3) A building or part of a building not included in the classes enumerated in Subsection (1) shall be classified by the Board into the class of occupancy it most closely resembles.

(4) Where less than 10% of a storey serves a purpose other than the purpose for which the storey is classified, but incidental to that purpose, and the incidental use does not create a substantial increase in fire hazard to the storey so classified, the Board may regard that part as being of the same class of occupancy as endorsed on the Certificate of Completion.

(5) No change to the use or occupancy of a building or part thereof, which would effectively change the classification applicable to that portion or building, shall be made without prior application to and approval of the Board in accordance with Section 21, and in accepting any such application, the Board shall require that the portion or building concerned meets all the requirements set down in this Regulation as being applicable to the classification of the new use of occupancy and shall delay granting any approval until such time as all those requirements have been met.

PART IV. – SITE REQUIREMENTS.

27. INTERPRETATION.

For the purpose of this Part, unless the contrary intention appears–

- (a) where a corner of allotment at the junction or intersection of streets has been rounded or truncated–
 - (i) the width of the frontage shall be measured from a point at the intersection of the prolonged side and front boundaries of that allotment; and
 - (ii) the area shall be calculated to the prolonged lines of side and front boundaries disregarding the rounded line or truncation; and
- (b) where a minimum distance from a boundary is set in this Regulation, the distance shall be measured horizontally from the boundary line to the outermost projection from the external wall, except that the extent or eaves projection shall be deemed to be the horizontal distance by which the projection exceeds 450mm; and
- (c) in determining open space at ground level in buildings of Class II occupancy, the area of open space does not include areas of common corridors, stairways, hallways, porches and the like; and
- (d) the area occupied by a building of Class I or Class II occupancy includes the areas occupied by all out-buildings except unroofed terraces.

28. BUILDINGS OVER EASEMENTS.

No building shall be constructed over any portion of a drainage or sewerage easement without the approval of the Departmental Head of the Department responsible for land and physical planning matters.

29. COMPLIANCE WITH SITE REQUIREMENTS.

A building constructed on a site shall conform to minimum requirements set down in this Part with regard to width of frontage, distance of external walls from boundaries and the area of the site.

30. SIZE OF SITE.

Sizes of sites for different classes of occupancy shall be determined by the appropriate authority.

31. MAXIMUM AREA OCCUPIED BY BUILDING.

(1) No building of Class I or Class II occupancy including appurtenances shall occupy more than half the total area of site, except that where a building of Class I occupancy was erected prior to the coming into force of *Building Regulation 1971* and

occupies more than half the total area of the site, a permit may be given for the construction of—

- (a) a garage, providing that the total area of buildings and appurtenances does not exceed 75% of the area of the site; or
- (b) a carport, providing that the total area of buildings and appurtenances does not exceed 75% of the area of the site.

(2) Except as provided in Subsection (1), the total area occupied by all the buildings, of any classification, including appurtenances on an allotment, shall not exceed two thirds of the area of the allotment.

(3) Subject to Subsection (4), not more than one building of Class I occupancy, exclusive of servants' quarters, shall be erected on any one allotment.

(4) More than one building of Class I occupancy may, at the discretion of the Board, be erected on an allotment provided—

- (a) the prior consent of the appropriate Physical Planning Board has been obtained; and
- (b) the total area occupied by all the buildings on the allotment does not exceed 30% of the area of the allotment; and
- (c) the space between the buildings is not less than 6,000mm; and
- (d) the area of the allotment is not less than 500m².

(5) A Board may, subject to the prior approval of the appropriate Physical Planning Board, where it is of the opinion that a variation is desirable to meet the circumstances of a particular case, upon application being made to it in writing in each case, vary the provisions of this section relating to the maximum area of a site which may be occupied by a building and appurtenances, including a garage or carport.

32. MINIMUM DISTANCE FROM BOUNDARIES.

(1) The distance of a building of Class I or Class II occupancy, except the distance of a multi-storey building, shall not be less than—

- (a) 4,500mm from a front alignment; and
- (b) 1,200mm from boundaries other than the front and street alignments; and
- (c) where the site abuts on more than one street, 3,000mm from street alignment other than the front alignment.

(2) The distance of a multi-storey building of Class I and Class II occupancy shall not be less than 3,000mm from the front alignment or any other boundary.

(3) Where a site is adjacent to another site with a building of Class I or Class II occupancy built on it, or is in a locality used or intended to be used primarily for the erection of dwellings—

- (a) no building other than an apartment house or building of Class X occupancy shall be constructed closer to a street alignment or boundary than would be permitted by this section if those buildings were of Class I or Class II occupancy; and
- (b) an apartment house shall not be constructed closer to a street alignment or boundary than would be permitted by this section if it were a building of Class II occupancy.

(4) Where the wall of a building on the adjoining site abuts a side or rear boundary of a site, subject to the provisions of Part VIII, a building may be erected on that portion of the side or rear boundary on which the other building abuts.

(5) Minimum distances from boundaries shall be measured to external walls or any part of a building which is more than 900mm above ground level, whichever is closer, and measurements shall not be taken to roof overhangs, provided that no overhang is closer than—

- (a) in the case of Subsection (1)(a)—3,600mm; and
- (b) in the case of Subsection (1)(b)—750mm; and
- (c) in the cases of Subsections (1)(c) and (2)—2,100mm.

(6) A Board may, subject to the prior approval of the Physical Planning Board, where it is of the opinion that a variation is desirable to meet the circumstances in a particular case, upon application being made to it in writing in each case, vary the provisions of this section relating to distances of buildings from front alignment, street alignment or other boundaries.

33. CLASS REQUIREMENTS.

(1) A building of Class I occupancy shall have—

- (a) clear access to a street; and
- (b) not less than 30m² of open space at ground level for each sole-occupancy dwelling as defined in Section 26(a)(i) and (iii); and
- (c) not less than 12m² of open space at ground level for each habitable room as defined in Section 26(a)(ii).

(2) A building of Class II occupancy shall have—

- (a) access to a street; and
- (b) not less than 30m² of open space at ground level for each flat.

(3) An apartment house, boarding house or lodging house constructed adjacent to a site with a building of Class I or Class II occupancy built on it or in a locality used or intended to be used primarily for the erection of dwellings shall have 12m² of open space at ground level for each habitable room.

(4) A building of Class IV occupancy shall have a space open to the air and without roof adjoining to the building for the use of occupants—

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- (a) not less than 45m² in area; and
- (b) of dimensions not less than 3,000mm in any direction,

and the space may be provided in the form of a flat roof at a level higher than that of the floor of the ground storey.

(5) A site with a building of Class IV occupancy (except a residence for the caretaker of a building of Class V, VII, VIII and IX occupancy) built on it shall have a side or rear boundary abutting to a street not less than 3,000mm in length and access to that street shall be provided.

PART V. – PROJECTIONS BEYOND STREET ALIGNMENT.

34. INTERPRETATION.

For the purposes of this Part, unless the contrary intention appears, the width of a street, with respect to a site, shall be determined by measuring the distance at right angles from the centre of the street alignment of that site to the street alignment on the opposite side.

35. MINIMUM HEIGHT ABOVE PAVEMENT.

Except if otherwise provided in this Regulation no projection including gates, doors, windows and shutters in fully opened position shall extend beyond the street alignment at a height less than 2,700mm above the level of the public footway, except–

- (a) where a shopfront is being constructed on an existing building, applied facings on existing piers may be permitted to project 50mm beyond the street alignment; and
- (b) louvred window shutters constructed in timber are permitted if they do not project more than 50mm beyond the street alignment when in fully opened position.

36. PROJECTIONS NOT TO BE STRUCTURAL.

No structural part of a building shall project beyond the street alignment, except in the case of–

- (a) windows and balconies, as provided by Section 37; and
- (b) service pipes, as provided by Section 41; and
- (c) awnings and sun blinds.

37. WINDOWS AND BALCONIES.

A balcony, balconette or window may project not more than 1,000mm beyond the street alignment over a street or road exceeding 10m in width, provided that–

- (a) no part of the projection is less than 3,000mm above the level of the street or nearer than 1,200mm to the centre of the nearest party-wall or to an adjoining building of different class of occupancy; and
- (b) the total width of all projections added together on any floor level does not exceed one-half of the length of wall on that floor level; and
- (c) no projecting window exceeds a total overall width of 3,700mm and the distance between projecting windows is not less than one-third of the overall width of either of those windows; and
- (d) projecting windows are not connected by a balcony any portion of which projects beyond the street alignment.

38. CATHEADS, HOISTS, ETC.

Catheads, hoists and the like shall not project beyond the street alignment.

39. VEHICLE DOCKS AND LOADING PLATFORMS.

Vehicle docks and loading platforms shall be so located that no portion of a vehicle occupying or adjoining those docks or loading platforms projects beyond the street alignment.

40. SERVICE PIPES.

Service pipes and rainwater heads may project beyond the street alignment provided that no part of the projection is less than 2,700mm above the level of the public footway and the projection does not exceed—

- (a) in the case of service pipes—200mm; or
- (b) in the case of rainwater heads—300mm.

PART VI. – BUILDING HEIGHT LIMITATIONS.**41. INTERPRETATION.**

In this Part, unless the contrary intention appears–

“finished ground level” means the final level, to which the soil, including fill, on a site or adjoining a building is finished;

“ground storey” means one where the floor is level with or above, but not below, the adjoining ground level and if there are more than one such floors the highest of these is not–

- (a) two or more metres below the finished ground level around the perimeter of the building; or
- (b) from which egress to a road or open space is attained only by a path of travel through a higher storey;

“mezzanine” means that space within a room which is situated between–

- (a) an intermediate floor constructed within the room; and
- (b) the floor level, ceiling or roof above, as the case may be,

and in which the intermediate floor does not extend across the full area of the room;

“storey” means that space within a building which is situated between one floor level and the floor level next above, or if there is no floor above, the ceiling or roof above, but does not include–

- (a) a space whose gross plan area does not exceed one third of the plan area of the storey above and which is designed, constructed or adapted for the accommodation of–
 - (i) a lift-shaft, stairway, meter room or store-room; or
 - (ii) a bathroom, shower room, laundry, water closet or sanitary compartment; or
 - (iii) not more than three vehicles; or
- (b) a mezzanine floor having a floor area less than one third of the area of the floor immediately below it or 150m², whichever is the smaller; or
- (c) a space between natural or finished ground and the next floor level above where the average height of such space does not exceed 1,700mm and the maximum height at any point does not exceed 2,500mm;

“rise in storey” means, in relation to a building, the greatest number of storeys in any part of its perimeter, counted above the finished ground adjacent to the external walls at that part but excluding any basement storey;

“height of a building” means–

- (a) the rise in storey of the buildings; or
- (b) the perpendicular distance measured from a horizontal plane at the average level of the finished ground around the perimeter of the building and a horizontal plane at the upper level of the topmost storey;

“width of a street” means the width determined in accordance with Section 43.

42. MAXIMUM BUILDING HEIGHT.

Unless otherwise provided in this Regulation, the height of a building shall not exceed the value determined by Section 43.

43. LIMITATION WITH RESPECT TO STREET WIDTH.

(1) The height of a building shall not exceed the least of–

- (a) 40 metres; or
- (b) where the site has a frontage to only one street or two streets of equal width, two and one half times the street width; or
- (c) where the site has a frontage to two streets of unequal width, two and one half times–
 - (i) the width of the wider street for a distance of 45 metres measured perpendicular to that frontage; and
 - (ii) the width of the narrower street for any balance of the site.

(2) Notwithstanding the provisions of Subsection (1)(b) and (c), the width of a street need not be taken as less than 5,000mm.

44. ANCILLARY CONSTRUCTION, DECORATIVE FEATURES.

Housing for services, equipment, tanks, decorative features, flagpoles, lanterns, lights, lightweight wireless masts, television dish, antenna, solar panel and the like, and parapets not more than 1,200mm in height may be constructed above the maximum building height provided that–

- (a) no additional accommodation is provided therein; and
- (b) no advertisement, hoarding, sign or lettering is provided thereon; and
- (c) no part interferes with the access of light required to any window in the building; and
- (d) except in the case of parapets, not more than one quarter of the length of frontage or 10,000mm (whichever is the lesser) is occupied thereby; and

- (e) such structures have themselves been designed to resist the required horizontal forces and due account has been taken of their effect on the design of the building structure.

45. POWER TO VARY.

(1) The Board may reduce the maximum height otherwise allowed, to be within an envelope determined by the appropriate Physical Planning Board for the particular site and in accordance with the *Papua New Guinea Fire Code*.

(2) Notwithstanding anything contained elsewhere in this Regulation and subject to the prior approval of the appropriate Physical Planning Board, the Board may, upon receipt of an application from an interested party with respect to a particular building, increase the maximum height otherwise allowable for that building, provided that—

- (a) the application is accompanied by a Certificate from a registered structural engineer to the effect that—
 - (i) adequate foundation investigations have been carried out on the site of the proposed building; and
 - (ii) the effect of earthquake forces on the building structure have been determined by an appropriate dynamic analysis in accordance with PNGS 1001, due and proper account being taken of site-structure inter-action; and
 - (iii) the structural elements resisting horizontal forces have been designed for flexural ductile yielding; and
 - (iv) the building is structurally adequate in all other respects; and
- (b) the application is accompanied by an undertaking that a clerk of works or resident engineer to be approved by the Board and experienced in seismic design and construction will supervise site work and, subsequently, there is confirmation in writing that the building has been constructed in accordance with the design in respect to seismic resistance; and
- (c) the type of fire resistant construction shall be Type A; and
- (d) the Board has otherwise satisfied itself that such an increase will not be detrimental to public health, safety or welfare; and
- (e) the Board shall not withhold consent under Section 43(1) if it is satisfied that, having regard to the proposed use to which the building is to be put, proper arrangements will be made and maintained for lessening, so far as is reasonably practicable danger from fire in the building to the satisfaction of the Chief Fire Officer; and
- (f) in granting consent under this Regulation the Board may, without prejudice to any other power to attach terms and conditions to the consent, give the consent subject to conditions restricting the user of the

building or part of building or relating to the provision and maintenance of proper arrangements for lessening so far as is reasonably practicable danger from fire in the building or part of the building to the satisfaction of the Chief Fire Officer.

46. NOTIFICATION OF VARIATION.

(1) If, in accordance with Section 45(1), the Board intends to reduce the maximum allowable building height with respect to a particular building application, it shall, with 28 days of lodgement of such an application, notify the applicant in writing accordingly and shall, at the same time, supply in writing details of the additional requirements that will be applied in respect to the height of buildings covered by the application.

(2) The Board shall, within 40 days of lodgement of an application in accordance with Section 45(2), notify the applicant in writing of the acceptance or rejection of the application by the Board and in the case of rejection shall state the reasons for such rejection.

PART VII. – HEALTH AND AMENITY.

Division 1.

General.

47. COMPLIANCE WITH NATIONAL WATER SUPPLY AND SEWERAGE ACT 1986..

The Regulation shall comply with the *National Water Supply and Sewerage Act 1986*.

Division 2.

Drainage.

48. DAMPNESS AND DRAINAGE OF SITES.

(1) The Board may permit a building to be constructed on land liable to be flooded or inundated by water if–

- (a) the surface of the lowest floor and all inlets to a sewerage system are constructed to approved level, but in no case lower than 300mm above the maximum flood level; and
- (b) approved measures are taken to prevent the retention of flood waters and flood debris beneath the building.

(2) Except as provided in Subsection (1), a building shall not be constructed upon land liable to be flooded or inundated by water.

49. LAND WITHOUT PROPER MEANS OF DRAINAGE.

(1) A building intended or adapted to be used wholly or partly for residential purposes shall not be constructed upon land which cannot at all times be efficiently drained by gravitation into some adjoining street, channel or drainage easement, on to, through or over which the drainage may lawfully be discharged.

(2) The Board may permit a building of Class V, VI, VII or VIII occupancy to be constructed on land without proper means of drainage as specified in Subsection (1) where the requirements of Section 50 are complied with.

50. STORMWATER DRAINS.

(1) A new building or an existing building that is being altered or extended shall be provided with an effective means to the satisfaction of the Board for–

- (a) the collection of stormwater discharged from the roof of the building; and
- (b) the intersection and collection of storm and surface water from the site the building is erected on; and

- (c) for the conveyance and/or distribution of the storm and surface water to the boundary of the site where it shall be discharged in such a manner as to be, as nearly as is practicable, the same as would have occurred before the site was developed.

(2) Alternatively, the Board may vary the provisions of Subsection (1) relating to discharge of stormwater at the boundary of the site and may require all stormwater to be conveyed by drains to a point where it may be lawfully discharged.

(3) Stormwater drains specified in Subsection (2) shall—

- (a) be constructed of cast iron, brick, stone, salt-glazed ware, UPVC, or other approved material; and
- (b) be constructed to regular falls and of sufficient capacity to carry the whole of the water collected; and
- (c) where the line of the drain crosses a public footway, be constructed in conformity with the requirements of the Board.

(4) Downpipes connected to drains for the collection of roof water may be exposed inside a building provided they are constructed in cast iron, wrought iron or galvanised sheet metal or UPVC or extruded aluminium of not less than 0.6mm thick.

(5) Downpipes located inside a building and encased in a manner making those downpipes inaccessible shall be of an approved non-corrosive material with all junctions and bends accessible.

51. TREATMENT OF GROUND BENEATH THE BUILDING.

Where the Board considers it necessary, the surface of the ground beneath a building shall be alternatively—

- (a) regraded and provided with adequate outlets to prevent accumulation of water beneath the floors; or
- (b) covered with approved damp resisting material.

52. SUBSOIL DRAINAGE.

Where the Board considers such action necessary, the subsoil at the site of a new building shall be drained by means of a system of subsoil drains properly laid to an approved outfall and the layout and type of drains and the method to be used for disposing of the subsoil water shall be approved by the Board.

Division 3.

Weatherproofing, Damp-proofing and Flashing.

53. ROOFS AND EXTERNAL WALLS.

(1) A roof shall be so constructed as to prevent the penetration of rain or other water to the inner parts of a building.

(2) An external wall (including an opening around a window and door) shall be so constructed as to prevent the penetration of rain or other water to the inner parts of a building.

(3) The Board may grant exemption from part or all of the requirements of Subsection (1) or (2) in the following cases:—

- (a) a building of Class VII, VIII or X occupancy, where the Board is satisfied in the particular case that there is no necessity to require compliance;
- (b) a garage, tool shed, privy-closet, or the like, forming a portion of a building used for other purposes.

54. BATHROOMS, SHOWER ROOMS, LAUNDRIES, WATER CLOSETS, ETC.

(1) The floor surfaces of a bathroom, shower room, slop sink compartment, laundry, closet compartment and urinal compartment shall be of a material impervious to moisture properly graded and drained and, except in the case of earth closet compartment, the junctions of the floor with the walls shall be so treated as to prevent the penetration of moisture into the walls.

(2) The walls—

- (a) immediately adjoining or behind a bath; or
- (b) of a shower compartment, including the walls about an open shower,

shall be finished to a height of not less than 1,800mm above the floor with cement render, ceramic tiles or other approved impervious finish.

(3) Except in a building of Class I, II or IV occupancy the walls of a closet compartment and urinal compartment shall be finished internally to a height of not less than 1,800mm above the floor with cement render, ceramic tiles or other approved impervious finish.

55. DAMP-PROOFING OF WALLS AND FLOORS.

(1) Except in a building that is subject to an exemption granted by the Board pursuant to Section 53, damp-proof courses shall be laid in masonry walls and piers in such a manner that moisture from the ground—

- (a) shall be prevented from reaching the lowest floor timbers and the walls above the lowest floor joists; and
- (b) shall be prevented from reaching the walls above the damp-proof courses; and
- (c) in the case of any suspended floor constructed of a material other than timber, shall be prevented from reaching the underside of such floor or the supporting beams or girders.

(2) Notwithstanding anything to the contrary in this section, where approved termite shields are used—

- (a) on piers; or
- (b) on masonry walls that extend no higher than the underside of the lowest floor timbers,

a damp-proof course shall not be required in those piers or masonry walls.

(3) Where, pursuant to Subsection (1), a damp-proof course is used, it shall be overlapped not less than 100mm at any joints.

(4) Where a concrete slab or paved floor is laid on the ground or on filling, moisture from the ground shall be prevented from reaching the inner surfaces of the floor and adjacent walls by the insertion of damp-proof courses or membranes or by other approved damp-proofing means.

(5) The Board may exempt from the requirements of Subsection (4)—

- (a) a building of Class VII, VIII or X occupancy where it is satisfied in a particular case that there is no necessity to prevent moisture from reaching the inner surfaces of the floor and adjacent walls; and
- (b) a garage, tool shed, privy-closet, or the like, forming a portion of a building used for other purposes; and
- (c) any building, if it is satisfied that the condition of the subsoil or the construction of the floor is such that moisture will be prevented from reaching the inner surfaces of the floor or walls without the insertion of damp-proof courses or membranes or the use of other damp-proofing means; and
- (d) the base of any stair, lift or like shaft which is satisfactorily drained by gravitational or mechanical means.

Division 4.

Provision of Bathrooms, Closets, Kitchens and Laundries.

56. INTERPRETATION.

In this Division—

“**closet fixture**” means a water closet pan, sanitary pan, cesspit or other receptacle for nightsoil;

“**laundry**” means a room designed, constructed or adapted primarily for the washing of clothes or other laundering purposes;

“**urinal**” means a stall capable of accommodating one individual user at a time, provided that where a continuous form of urinal is installed each 600mm of clear length is deemed to be one urinal.

57. GENERAL.

(1) In a building of Class I, II or IV occupancy a bathroom or shower room may include clothes washing facilities or a water closet, or both, if the floor area is increased in accordance with Section 67.

(2) Facilities for the washing of clothes shall not be installed in a kitchen or any room for the preparation, cooking or consumption of food.

(3) A bathroom shall have installed a plunge bath or alternatively a shower and access shall be provided to a water supply suitable for personal washing.

(4) Closets constructed in a group shall be separated by means of partitions extending to a height of not less than 1,800mm and each closet shall be provided with a door.

(5) Water closets for the different sexes, where adjoining, shall be separated by full height walls and conveniences for each sex shall be properly designated by conspicuous lettering or by other approved means.

(6) The construction and installation of water closets, urinals, shower compartments, sinks, troughs and the like shall conform to the *Public Health Act 1973* and the *National Water Supply and Sewerage Act 1986*.

(7) Pan closets constructed appurtenant to a building shall not be less than—

- (a) 3m from a boundary; and
- (b) 6m from a building (except an outbuilding).

58. BUILDING OF CLASS I OCCUPANCY.

(1) Every building of Class I occupancy shall be provided with—

- (a) a kitchen or facilities in another room for the preparation and cooking of food; and
- (b) a bath or shower; and
- (c) approved clothes washing facilities; and
- (d) a closet fixture.

(2) Where any of the facilities referred to in Subsection (1) are not included in the main building, they shall be set aside for the exclusive use of the occupants of the building of Class I occupancy.

59. BUILDING OF CLASS II OCCUPANCY.

(1) Every sole occupancy of a building of Class II occupancy shall be provided with—

- (a) a kitchen or facilities in another room for the preparation and cooking of food; and
- (b) a bath or shower; and

- (c) a closet fixture,

and these facilities shall, except for a closet fixture in an unsewered area, be provided within the sole occupancy.

(2) In a building of Class II occupancy there shall be provided at least one common laundry on every alternate floor, equipped with approved means of laundering and drying of clothes, provided that not less than one such laundry shall be provided for every four flats in the building, except that where adequate and satisfactory means of laundering are provided in each flat in the building, communal laundries need not be provided.

(3) A laundry may be combined with any other room, provided that it has separate drainage and provisions are made for storage of dirty clothes.

Division 5.

Building of Class III Occupancy.

60. BATHROOMS.

A building of Class III occupancy—

- (a) containing accommodation for not more than eight persons shall be provided with a bathroom; and
- (b) containing accommodation for more than eight persons shall be provided with—
- (i) one bathroom; and
 - (ii) additional bathrooms in proportion of one bathroom for every additional eight persons (or fraction thereof) if the building is connected to a public water supply or one bathroom for every additional 20 persons (or fraction thereof) if the building is not connected to a public water supply; and
- (c) may contain one soil fitting in a bathroom without an increase in the area of the bathroom.

61. WASH BASINS.

(1) In a building of Class III occupancy, wash basins connected with an approved drainage system, or alternatively some other approved means of performing personal ablutions, shall be provided.

(2) Where wash basins are not provided in all bedrooms in a building of Class III occupancy, the number of wash basins shall be not less than the number of bathrooms required by Section 60.

(3) Premises licensed under the *Liquor (Licensing) Act 1963* shall be provided with wash basins for the use of the public frequenting the premises as required by or under the Act.

Division 6.**Buildings of Class VI, VII, VIII and IX Occupancy.****62. WATER CLOSETS, URINALS AND WASH BASINS.**

Every building of Classes VI, VII, VIII and IX shall be provided with water closets, urinals, wash basins and the like in accordance with the *Public Health Act 1973* and the regulations thereunder and the *National Water Supply and Sewerage Act 1986*.

63. FLOORS AND WALLS IN SHOPS SELLING PERISHABLE FOOD.

In shops where perishable food is sold or displayed for sale, floors and walls shall comply with the *Food Sanitation Act 1991*.

Note The *Pure Food Act* (Chapter 233) was repealed and replaced by the *Food Sanitation Act 1991* (Act No. 29 of 1991).

Division 7.**Sizes of Rooms and Habitable Areas.****64. INTERPRETATION.**

For the purposes of this Division, unless the contrary intention appears—

“**dormitory**” means a habitable area or compartment in a school or institute of learning used for sleeping, or sleeping and private study;

“**habitable area**” means a fully or partially enclosed area used or intended to be used for human habitation and protected from weather by a roof, except a water closet, kitchen, bathroom, laundry, pantry and access way;

“**habitable compartment**” means part of a habitable area separate from other parts by partition walls not exceeding 2,100mm in height.

65. MINIMUM NUMBER OF HABITABLE AREAS.

The number of habitable areas for a dwelling in a building shall be not less than—

- (a) in the case of a building of Class I occupancy—two; or
- (b) in the case of a building of Classes II, III and IV occupancy—one.

66. MINIMUM SIZE OF HABITABLE AREAS.

A habitable area shall have a floor area not less than—

- (a) in the case of a building of Classes I, II, III, or IV occupancy where there is more than one habitable area in the dwelling unit—7.2m², provided that—

- (i) the dimensions of the area are not less than 2,200mm in either length or width and the total floor area left uncovered by built-in furniture is not less than 6.2m²; and
 - (ii) the second and subsequent habitable areas may be divided into habitable compartments; and
 - (iii) the floor area of a habitable compartment specified in Subparagraph (ii) is not less than 4.3m² and the dimensions are not less than 1,800mm in either length or width; and
- (b) in the case of a building of Classes I, II and IV occupancy with only one habitable area in the dwelling unit—14.4m² provided that the dimensions of the area are not less than 2,400mm in either length or width and the total floor area left uncovered by built-in furniture is not less than 13.0m²; and
- (c) in the case of a building of Class III occupancy with only one habitable area in the dwelling unit—
- (i) for boarding houses, guest houses, hostels, lodging houses, the residential portions of institutional buildings and the like—10.0m² provided that the dimensions of the area are not less than 2,300mm in either length or width and the total floor area left uncovered by built-in furniture is not less than 9.0m²; and
 - (ii) for flats and the residential portions of hotels and motels—12.4m² provided that the dimensions of the area are not less than 2,600mm in either length or width and total floor area left uncovered by built-in furniture is not less than 12.0m²; and
 - (iii) for dormitories; the minimum floor area, room dimensions and floor areas left uncovered by built-in furniture shall conform to the requirements of the following Table:—

TABLE (SECTION 66) – MINIMUM SIZE OF HABITABLE AREAS FOR SCHOOL DORMITORIES

Number of occupants	Minimum Floor Area (m ²)	Minimum Room Dimension (mm)	Minimum Floor Area (m ²)
For grades up to and including Grade 10.			
4	6.1	2350	3.1
6	10.4	1850	5.9
8	13.8	2600	7.8
10 and above	1.9 per occupant	3400	1.1 per occupant

Above Grade 10, and adult dormitories: private study area included

Number of occupants	Minimum Floor Area (m ²)	Minimum Room Dimension (mm)	Minimum Floor Area (m ²)
2-6	3.35 per occupant	2600	1.55 per occupant
8 and above		3600	2.3 per occupant

and

- (d) in the case of public buildings, sufficient to provide not less than 0.5m² of floor area per person except in seated areas where not less than 1m² shall be provided for each three persons, not including stage, aisles and other access areas.

67. MINIMUM SIZE OF BATHROOMS AND SHOWER ROOMS.

(1) A bathroom or shower room in a building of Class I, II, III or IV occupancy shall have a minimum floor area as follows:–

- (a) bathroom–2.2m²;
- (b) bathroom provided with a bath and a shower that is not above the bath–2.8m²;
- (c) shower room–1.1m².

(2) It shall not be necessary to increase the area of a bathroom or shower room to accommodate a wash basin, but where a water closet pan is installed, or the bathroom or shower room is designed to accommodate clothes washing facilities, the minimum floor areas prescribed by Subsection (1) shall be increased for each such facility as follows:–

- (a) water closet pan–0.7m²; and
- (b) washing machine without washtub (where this is additional to the provisions elsewhere of the clothes washing facilities required by Division 3)–0.7m²; and
- (c) washing machine and washtub–1.1m²; and
- (d) copper and washtub–1.1m²; and
- (e) clothes-drying cabinet–0.5m².

68. MINIMUM SIZE OF WATER CLOSETS.

A water closet in any class of building shall have–

- (d) a minimum floor area of 1.2m²; and

- (b) a minimum width of 750mm; and
- (c) a minimum height measured from the floor to the top of the top wall plate of 2,100mm.

69. MINIMUM HEIGHT OF HABITABLE AREAS.

In a building of Classes I, II, III and IV occupancy the height of a habitable area measured vertically from floor to ceiling or the underside of rafters, ceiling joists or floor joists, but not including structural members not closer than 1,800mm centres, whichever is the lowest, shall not be less than 2,200mm at any point, except where the habitable area is located in a roof space or an attic the height shall not be less than 2,200mm for not less than one-half of that area and shall not be less than 1,650mm at any point.

70. MINIMUM HEIGHTS OF ROOMS IN OFFICES, SHOPS AND FACTORIES.

In a building of Classes V, VI and VII occupancy the height of a room measured vertically from floor to ceiling or to the underside of rafters or ceiling joists, whichever is the lower, shall not be less than 2,700mm at any point, except that—

- (a) where the ceiling is pitched or sloping, the height shall be taken as the average height and shall not be less than 2,400mm at any point; and
- (b) where an air handling system is installed as an integral part of a room in a Class V or VI occupancy, the ceiling shall not be less than 2,400mm at any point, provided—
 - (i) no part of the air handling system projects below the ceiling; and
 - (ii) there are no circulating ceiling fans projecting below the ceiling with unprotected impeller blades; and
- (c) in a room used as a bakehouse, butchers smallgoods house or for ham and bacon curing, fish curing, meat preserving, jam making, fruit preserving, dairy produce manufacturing or the like, the height shall not be less than 3,600mm at any point; and
- (d) the Board shall vary these requirements as necessary to comply with the requirements of the *Industrial Safety Health and Welfare Act 1961* where a room or a building of Classes VI, VII, or IX occupancy is a factory as defined in that Act; and
- (e) a Board may, where it is of the opinion that a variation is desirable to meet the circumstances in a particular case, upon application being made to it in writing in each case, vary the provisions of this section relating to the height of a room from the floor to the ceiling or to the underside of rafters or ceiling joists.

71. PUBLIC BUILDINGS.

In a public building—

- (a) the minimum allowable height from the floor to the lowest projection on the ceiling of any storey of a building shall be according to the following Table where, for the purposes of this section only:—
 - (i) Class IXA(i), shall include an institutional building such as a benevolent home, hospital, nursing home, orphanage, prison, sanatorium or other building of instruction, and kitchen, messing, laundry and ablution facilities associated with any such building;
 - (ii) Class IXA(ii) shall include residential colleges and school classrooms;
 - (iii) Class IXB(i) shall include assembly buildings such as an assembly, concert or music hall or enclosure, gallery, church, temple, church hall, meeting house, theatre and any building of like nature;
 - (iv) Class IXB(ii) shall include libraries, lodge rooms, non-residential clubs, recreation clubs, pavilions or any building of a like nature;
 - (v) Class IXB(iii) shall include stands for spectators in assembly or sports grounds, gymnasia, open air theatres and buildings of a like nature;
- (b) the height of passages and corridors measured as specified in Section 71(a) shall not be less than 2,400mm at any point.

TABLE (SECTION 71) – MINIMUM HEIGHTS OF ROOMS IN PUBLIC BUILDINGS.

Type of Occupancy	Minimum Height
Class IXA(i)	2,700mm average with a minimum of 2,400mm
Class IXA(ii)	2,400mm to ceiling or underside of joists, trusses or rafters
Class IXB(i)	3,600mm
Class IXB(ii)	3,000mm
Class IXB(iii)	3,600mm average with a minimum of 2,100mm.

72. PROJECTIONS BELOW MINIMUM HEIGHTS.

In a building of Classes I, II, III, IV, V, VII and VIII occupancy—

- (a) beams, trusses, service pipes, ducts and the like may project below minimum heights set by this Regulation for ceiling, ceiling joists and rafters provided that—
 - (i) the area in plan of those projections does not exceed 20% of the floor area of the room; and

- (ii) the clear height measured vertically from the floor to the underside of any projection is not less than 2,100mm at any point; and
- (b) the height measured vertically from floor to ceiling or to the underside of ceiling joists, whichever is the lower, shall not be less than—
 - (i) 2,100mm in a lavatory block; or
 - (ii) 2,200mm in a corridor, passage, counter-and cashier-recess and the like.

73. MEZZANINE FLOORS.

(1) A mezzanine floor shall not be constructed in any storey where the clear height of that storey from floor to ceiling is less than 4.5m.

(2) Not more than two mezzanine floors shall be constructed above one another in any storey.

(3) The height from the main floor to the underside of the mezzanine or from the floor of the mezzanine to the ceiling over it shall not be less than 2,300mm, except that this may be reduced to 2,100mm if the space is to be used solely for storage or display purposes.

(4) The width of a mezzanine floor shall not exceed the least value determined from the following:—

- (a) the value given in the following Table corresponding to its ceiling height;
- (b) if placed along opposite sides of a room, one sixth of the dimension between the walls, so occupied;
- (c) if placed across the end of a room, one third of the length of the room.

(5) Unless otherwise permitted by this Regulation, the area of a mezzanine floor shall not exceed the proportion of the room area given in the following Table corresponding to the ceiling height of the mezzanine as noted therein.

(6) Lighting, ventilation and means of egress for mezzanine floors shall comply with the appropriate requirements of this Regulation.

TABLE (SECTION 73) – HEIGHT, WIDTH AND AREA OF MEZZANINE FLOORS

Ceiling (mm)	Height Maximum Width (mm)	Floor
2,100	2500	One third the area of floor immediately below

Ceiling (mm)	Height	Maximum Width (mm)	Floor
2,300		3000	One fifth the area of floor immediately below
2,500		3600	One quarter of area of floor immediately below
2,750 or greater		4500	One third of area of floor immediately below

74. MINIMUM HEIGHT OF BATHROOMS, SHOWER ROOMS WATER CLOSETS AND LAUNDRIES.

(1) In a building of Class I, II, III or IV occupancy every—

- (a) bathroom; and
- (b) shower room; and
- (c) water closet; and
- (d) laundry,

shall be for at least two-thirds of the floor not less than 2,100mm in height and shall not in any portion be less than 1,500mm in height, except as permitted pursuant to Subsection (2).

(2) Where any wall of a—

- (a) bathroom; or
- (b) shower room; or
- (c) water closet; or
- (d) laundry,

is not perpendicular to the floor, the minimum height of 1,500mm referred to in Subsection (1) shall not apply to that portion of the room adjacent to such wall if—

- (e) the angle formed by the floor and a line drawn from the junction of the floor and the wall to a point on the wall 1,500mm above the floor level is not less than 70% and
- (f) the Board is satisfied that there will be no undue interference with the intended functioning of the room.

(3) Where, pursuant to Subsection (2), any portion of a—

- (a) bathroom; or
- (b) shower room; or
- (c) water closet; or
- (d) laundry,

is less than 1,500mm in height, such portion shall not be counted as floor area in calculating, for the purposes of Subsection (1), the proportion of the area of the floor that is less than 2,100mm in height.

75. KIOSKS.

(1) For the purposes of this section, “kiosk” means a stall or enclosed compartment for the sale or distribution of goods into which the public does not enter.

(2) A kiosk may be constructed in a position approved by the Board.

(3) A kiosk shall have—

- (a) a height of not less than 2,400mm measured from floor to ceiling or to the underside of rafters or ceiling joists, whichever is the lower; and
- (b) a dimension not less than 1,050mm in either length or width; and
- (c) a floor area not less than 1.4m², except that, where the kiosk is occupied by more than one person, the floor area shall be not less than 2m² for each such person; and
- (d) adequate ventilation communicating directly with the external air.

Division 8.

Lighting.

Subdivision 1AA. – .

76. INTERPRETATION.

For the purpose of this Division—

“**light transmitting area**”, when applied to a window, shall mean the total area in the plane of the window capable of transmitting light and shall be measured exclusive of framing members, glazing bars and other obstructions;

“**window**” includes roof lights, glass panels, glass bricks, glass louvres, glazed sashes, glazed doors, or other devices capable of transmitting natural light directly from the exterior of a building to the area concerned, but does not include doors or other devices not capable of transmitting natural light from the exterior of a building to the area concerned when in the closed position.

77. ARTIFICIAL LIGHTING.

In all classes of occupancy (except in buildings of Classes I and IV occupancy and flats in buildings of Class II occupancy) where artificial lighting is provided, the illumination value of artificial lighting shall be not less than and not more than 10% in excess of the illumination value set out opposite the description of the appropriate task in AS 1680—"Code of Practice for Interior Lighting and the Visual Environment".

78. PROVISION OF NATURAL LIGHT.

(1) Natural lighting shall be provided, in the following buildings, to the areas listed:-

- (a) building of Classes I, II and IV occupancy—all habitable areas;
- (b) building of Classes III occupancy—bedrooms and dormitories;
- (c) building of Class IX occupancy—all bedrooms, dormitories, wards and other rooms used for sleeping purposes.

(2) Natural lighting required by Subsection (1) shall be provided by means of windows having an aggregate light transmitting area of not less than one-tenth of the floor area of the room concerned.

79. SITUATION OF WINDOWS.

The required windows of a room shall face—

- (a) a court or space open to the sky; or
- (b) an open verandah, carport or the like provided such verandah, carport or the like shall not be enclosed above a height of 900mm above its floor, and the roof to such verandah, carport or the like shall be at least 2,000mm above its floor.

80. NATURAL LIGHTING FROM ADJOINING ROOMS.

Notwithstanding the requirements of Section 81, a room in a building of Classes I, II or IV may be lighted by way of a glazed area or other opening facing directly into an adjoining room (including an enclosed verandah) subject to the following conditions:-

- (a) such glazed area or other clear opening shall be not less in area than one-tenth of the floor area of the room concerned;
- (b) the adjoining room shall be provided with windows having an aggregate light transmitting area of not less than one-tenth of the combined floor areas of the rooms concerned;
- (c) the areas specified in Paragraphs (a) and (b) may be reduced by the area of any window in the first-mentioned room transmitting natural light directly to that room.

81. PROVISIONS OF ARTIFICIAL LIGHT.

(1) Where, in any area not mentioned in Section 78(1), natural lighting by means of windows to a standard equivalent to that required by Section 78 for areas mentioned in that section is not provided, a system of artificial lighting shall be provided to the areas listed in the following buildings:–

- (a) buildings of Classes I and IV occupancy–water closets, bathrooms, shower rooms, airlocks and laundries;
- (b) buildings of Class II occupancy–water closets, bathrooms, shower rooms, airlocks, laundries, common stairways and other spaces designed for the common use of the occupants of the building;
- (c) buildings of Classes III, V, VI, VII, IX and X occupancy–all rooms intended to be occupied by any person for any purpose and all corridors, lobbies, internal stairways and other spaces intended for movement or egress.

(2) The Board may exempt a room from the requirements of Subsection (1) if it is satisfied that by reason of–

- (a) the nature of the use of the room; or
- (b) the periods of occupation,

there will be no undue hazard to occupants seeking egress in case of emergency.

82. ARTIFICIAL LIGHTING OF STAIRWAYS AND RAMPS.

Required stairway and ramps shall be provided with artificial lighting by means of separate electrical wiring circuits from the main switchboard for the exclusive use of the stairway or ramp.

Subdivision 1. – Light Courts.**83. INTERPRETATION.**

For the purpose of this Subdivision, unless the contrary intention appears–

“**angle of light**” with reference to a window in the wall of a light court, means the angle formed by the vertical plane of the face of the wall and a line drawn from a point in the vertical plane and on the basic light level of the wall bisecting diagonally a rectangle having for two of its sides the basic height and the basic width of the light court;

“**basic height of light court**” with reference to a wall of a light court, means vertical distance from the basic light level of the wall to the level of the top of the parapet or eaves of the opposite wall of the light court;

“**basic light level**” of a wall of a light court means the level of the lowest horizontal line on the lowest window or windows in the wall which permits light to be admitted through such a window or windows into the room or floor lighted thereby as required by this Regulation;

“basic width of light court”, with reference to a wall of a light court, means the shortest horizontal distance measured at right angles from the face of the wall at the basic light level to the vertical plane of the face of the wall or parapet of the topmost storey on the opposite boundary of the light court, or, if none, to the vertical plane of the opposite boundary of the light court;

“light court” means a court wholly open at the top, constructed or adapted for admitting light to a building, and includes the parts of any light court of adjoining buildings abutting on the common court, provided that reciprocal light easements thereover have been permanently created, and includes also a street over which the building is permanently entitled to access of light;

“light transmitting area”, when applied to windows, shall mean the total area in the plane of the window capable of transmitting light and shall be measured exclusive of framing members, glazing bars and other obstructions;

“wall of a light court” includes the wall or walls enclosing one side of a light court, notwithstanding that at the level of any upper storeys any part of the wall is set back from the vertical plane of the lowest wall;

“width of light court” means the shortest distance measured at right angles from the face of a wall of a light court at any given level to the face of the opposite wall, at the same level, or, if there is no opposite wall, to the vertical plane of the opposite boundary of the light court.

84. ANGLES OF LIGHT.

Except by permission of the Board, a window in a building of Classes I, II, III, IV, V and VIII occupancy abutting on a light court shall have an angle of light not less than the angle of light resultant from the ratio of basic height to basic width of light court as set out in the following Table applicable to that window and shall receive at that angle of light unobstructed light from the sky, provided that—

- (a) where the opposite boundary of the light court on which the window abuts is also the boundary of an adjoining property, the window need not receive unobstructed light, but shall be deemed to have the required angle of light if a window at the same basic light level erected on the opposite boundary would have the angle of light resultant from the ratio applicable according to the class of building under Division 2 of the following Table; and
- (b) the foregoing provisions of this section do not, unless otherwise directed by the Board, apply to the office section of a building in any class of occupancy if that office section constitutes only a minor part of the occupancy; and
- (c) windows of rooms not specified in Section 78(1) and windows of rooms on the ground and first storeys of a building of Classes V or VIII

occupancy of more than five storeys in height shall not be required to have the angle of light prescribed by this section:—

TABLE 84 (SECTION 84) – MINIMUM ANGLE OF LIGHTS.

Location of window and class of building	Ratio of basic height to basic width
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DIVISION 1

Where windows other than those in Division 3 of this Table are erected in opposite sides of light court—

- (a) in a building of 3 to 1
Classes I, II and IV
occupancy
- (b) in a building of 4½ to 1
Classes III, V and
VII occupancy

DIVISION 2

Where windows other than those mentioned in Division 3 of this Table are erected in one only of two opposite sides of a light court—

- (a) in a building of 2½ to 1
Classes I, II and IV
occupancy
- (b) in a building of 3½ to 1
Classes III, V and
VII occupancy

DIVISION 3

Where windows are lighted from a light court which opens on to a street not less than 10m in width and is of uniform width for its full depth from such street alignment, not more than twice the width of such light court—

- (a) All classes 6 to 1
occupancy

85. WIDTH OF LIGHT COURT.

The minimum width of a light court is—

- (a) in the case of a building of Classes I, II, IV, V and VIII occupancy, at the basic light level measured from a wall in which a window is constructed, not less than 13% of the basic height of the light court; and
- (b) in the case of a building of Class VII occupancy, not less than 13% or, where the light court abuts on a right-of-way, 10% of the basic height of the court; and
- (c) for all buildings more than one storey in height, not less 1,800mm; and
- (d) in the case of a light court having windows in one wall or opposite walls only, from any wall which neither contains a window required to have an angle of light nor is opposite to a wall containing such a window, not less than 1,800mm, and where the number of storeys abutting on such a light court exceeds three, not less at the level of each additional storey than the width at the level of the storey immediately below, plus 300mm.

86. BUILDINGS ABUTTING ON A STREET INTERSECTED BY ANOTHER STREET.

Where a building abuts wholly or partly on a street which is a light court and the street is intersected by or connected with another street at right angles, the Board may permit windows not having the required angle of light to be constructed in that section of the wall of the building abutting on the light court and located within a distance of half the width of the court on one or both sides of the intersecting street.

87. LIGHT COURTS SERVING LAVATORIES AND THE LIKE.

The provisions of Sections 84, 85 and 86 do not apply to light courts serving lavatories and sanitary conveniences and such a court shall have a minimum width of 1,200mm.

88. STRUCTURES IN LIGHT COURTS.

Vents, ducts, flues, service pipes and the like shall be permitted in light courts provided that—

- (a) those structures are of non-combustible materials; and
- (b) where the combined area of those structures based on their horizontal projection between any two floors of the building exceeds 10% of the area of the light court at the plane of that horizontal projection, the area of the light court shall be increased by not less than the excess.

Division 9.
Ventilation.

89. PROVISION OF VENTILATION.

(1) Every habitable area, office, shop, factory, workroom, sanitary compartment, bathroom, shower room, laundry, kitchen and any other room designed to be occupied by any person for any purpose shall be provided with either—

- (a) natural ventilation complying with this Regulation; or
- (b) a mechanical ventilation or air-conditioning system complying with Division 10.

(2) The Board may exempt a room from the requirements of Subsection (1) if it is satisfied that such exemption will not result in conditions that are detrimental to the health of the occupants of the room.

90. NATURAL VENTILATION.

(1) Unless otherwise stated in this Regulation, natural ventilation required by Section 89 shall be provided by means of permanent openings or windows, doors or other devices which are capable of being opened, having an aggregate opening or opening area of not less than—

- (a) where buildings are below 500m above sea level—20%; or
- (b) where buildings are at or above 500m above sea level—10%,

of the floor area of the room they are required to ventilate.

(2) Unless otherwise stated in this Regulation required natural ventilation devices shall open to—

- (a) a court, vent shaft or space open to the sky; or
- (b) an open verandah, open carport or the like.

(3) A vent shaft or a fully enclosed court serving as the source of required natural ventilation to an abutting room shall comply with the following requirements:—

- (a) the top shall be open to the sky;
- (b) if it has a cross-sectional area of less than 18m² it shall be provided with permanent ventilation openings comprising one or more horizontal air intakes or passages which—
 - (i) communicate directly with a road or open space leading to a road; and
 - (ii) are situated at or below the level of the lowest required natural ventilation device serviced by such vent shaft or fully enclosed court; and

- (iii) have an aggregate cross-sectional area of not less than 0.5m² or 5% of the horizontal cross-sectional area of the shaft, whichever is the greater; and
- (iv) are not less than 0.1m² in cross-sectional area in any one such air intake or passage;
- (c) it shall have a minimum internal horizontal–
 - (i) dimension of 1,200mm; and
 - (ii) cross-sectional area of 1.5m²;
- (d) no other room shall open on to the same vent shaft as a water closet, urinal apartment, airlock or bathroom;
- (e) the area of a ventilating shaft and the maximum number of water closets or urinals to be served by any one shaft shall be as shown in the following Table but no dimension of the shaft shall be less than 1,200mm.

TABLE (SECTION 90) – AREA OF VENTILATING SHAFT

Height of ventilating shaft	Minimum area of ventilating shaft	Maximum number of closet pans or urinal stalls on any vent shaft	permissible
1 or 2	1.4m ²	4	
3 or 4	1st and 2nd storeys 1.4m ²	10	
	3rd storey 1.8m ²		
	Top storey 2.1m ²		

(4) Notwithstanding the requirements of Subsection (1), a room in a building of Class I, II or IV occupancy or in a sole-occupancy unit of a building of Class III occupancy may be ventilated by way of a clear opening or a window, door or other device capable of being opened, which faces directly into an adjoining room (including an enclosed verandah) subject to the following conditions:–

- (a) such clear opening, window, door or other device shall have a ventilating area of not less than that specified in Subsection (1) for the room concerned;
- (b) the adjoining room shall be provided with a clear opening or a window, door or other device having a ventilating area of not less than one-twentieth of the combined floor areas of the rooms concerned;
- (c) in the case of a building of Class II, III or IV occupancy the adjoining rooms shall be within the same sole-occupancy unit.

(5) The ventilating areas specified in Subsection 4(a) and (b) may be reduced by the ventilating area of any clear opening, window, door or other device capable of being opened in the first mentioned room which opens directly to the exterior of the building.

(6) Notwithstanding the requirements of Subsection (1), a partitioned space or room in a building of Class V, VI, VII, VIII or IX occupancy may be ventilated by way of a clear opening or an openable device (excluding a door) which faces into another room that is naturally ventilated in accordance with Subsections (1) and (2) or mechanically ventilated or air-conditioned in accordance with Division 10 subject to the following conditions:—

- (a) the opening or openable device shall have an airway of not less than one-tenth of the floor area of the partitioned space or room; and
- (b) in measuring the area of the opening or openable device for the purposes of this subsection, any part thereof that is more than 3,600mm above the level of the floor shall be excluded from the calculations.

91. NATURAL VENTILATION FOR KITCHENS AND LAUNDRIES.

Natural ventilation for kitchens and laundries in buildings of all classes of occupancy shall comply with Section 89 except that the aggregate ventilating area as described in that section need not exceed one-tenth of the floor area of the room required to be ventilated.

92. AIRLOCKS FOR WATER CLOSETS AND URINAL APARTMENTS.

(1) Except as provided in Subsection (2), a water closet or urinal apartment within a building shall not open directly into a room used—

- (a) for human habitation; or
- (b) for the manufacture, preparation or storage of food for human consumption; or
- (c) as a factory, workshop or work place,

unless an airlock is provided having a floor area not less than 0.67m² for each closet pan or urinal, and where there are multiple units not less than 1.8m² in area.

(2) An airlock specified in Subsection (1) may be omitted—

- (a) in a building of Class III occupancy where a water closet is in a bathroom opening off a bedroom; or
- (b) where the water closet, urinal apartment or other apartment containing soil fittings is mechanically ventilated as specified by this Regulation, and the closet or apartment does not open off a room used for the manufacture, preparation, storage or consumption of food, or as a factory, workshop or work place.

(3) In a building of Class I or Class II occupancy a hall, passage, lobby or staircase may be considered as an airlock, if it has a floor area not less than 1.8m² and the ventilation conforms to Section 93.

93. NATURAL VENTILATION OF AIRLOCKS.

(1) An airlock shall be provided with a vent or vents near the ceiling level carried as directly as practicable to the open air, having an effective airway not less than 7,400mm² or 1:500 of the floor area of the airlock (whichever is the greater) and not discharging directly on to a room used for the manufacture, preparation or storage of food for human consumption.

(2) Glazed louvers fixed in an open position near the ceiling level may be used in place of ventilation required by this section if the louvers have a clear ventilating area of not less than 16,000mm² for each closet pan or urinal stall.

94. NATURAL VENTILATION OF WATER CLOSETS, ETC.

(1) A water closet or urinal apartment shall be provided with a vent or vents conforming to Section 93(1).

(2) Glazed louvers extending near the level of the ceiling may be used in place of ventilation specified in Subsection (1) if the louvers provided an equivalent area of ventilation.

95. ALTERNATIVE VENTILATION OF WATER CLOSETS, ETC.

Notwithstanding Sections 93 and 94, where an airlock, water closet or urinal apartment is provided with artificial lighting having a separate switch within each compartment or airlock, it may be ventilated by mechanical ventilation conforming to the requirements of Division 7 or in the case of buildings not exceeding four storeys in height by means of a ventilating shaft conforming to the requirements of Section 90(3).

96. NATURAL VENTILATION OF BATHROOMS AND SHOWER ROOMS.

(1) Natural ventilation for a bathroom in all classes of occupancy shall comply with Section 90 except that the aggregate ventilating area as described in that section shall be one tenth of the floor area of the bathroom to be ventilated.

(2) Natural ventilation to a shower room or a shower recess shall be as provided for bathrooms in Subsection (1) except that fixed louvre-type ventilation of not less than 7,500mm² shall be provided.

(3) Where—

- (a) a shower recess opens from a bedroom or a bathroom; or
- (b) a bath is installed in a bedroom and is enclosed by doors,

the ventilation specified in Subsection (2), if not provided directly to the recess, shall be provided in the bedroom or bathroom.

97. VENTILATION IN ARCADES.

Where any shop, room or space opens to an arcade, the Board may, subject to such conditions as it considers desirable, exempt such shop, room or space from the requirements of Division 6.

98. VENTILATION OF FACTORIES.

Each room in a building of Class VIII occupancy shall be provided with controllable ventilation conforming to the requirements of Section 103 or a system of mechanical ventilation conforming to the requirement of Division 10 or to the satisfaction of the Departmental Head of the Department responsible for labour matters and the Board, in accordance with the *Environmental Contaminants Act 1978*.

99. CONTROLLABLE VENTILATION FOR FACTORIES.

A room or place in a building of Class VIII occupancy—

- (a) in addition to the permanent ventilation openings specified in Section 90(2), windows or doorways openable to the outside air shall be provided for ventilation to give a minimum area of unobstructed airway not less than 5% of the floor area of the room and half of this area shall, if practicable, be between floor level and 2,200mm from the floor, with openings so distributed that there is a passage of air across all parts of the room; and
- (b) where a workroom with windows on one wall or on two contiguous walls only is more than 9m wide, or where a workroom is more than 18m wide, a mechanical plenum ventilating system, fans, punkahs or other means of inducing air movement shall be provided.

100. SPECIAL REQUIREMENTS FOR VENTILATING FACTORIES.

Notwithstanding Sections 98 and 99, a factory and a portion of a factory shall be so ventilated as to render harmless any gases, vapours, dust or impurities generated in the course of the manufacturing process, and such fans or mechanical ventilating system or other approved means of ventilation shall be installed to prevent the inhalation of gases, vapours, dust or impurities by any person working in the factory as the Departmental Head of the Department responsible for labour matters is satisfied comply with the requirements of the *Industrial Safety, Health and Welfare Act 1961*.

101. VENTILATORS IN FACTORIES.

(1) Inlet ventilators shall—

- (a) consist of ducts, shafts or hoppers opening slanting upwards but otherwise as directly as possible into the room either through the external walls or through the windows in those walls; and

- (b) as far as practicable be evenly distributed along the external walls in such a position as to ensure a passage of air across all parts of the workrooms; and
- (c) have the upper edges of their external openings below the lower edges of the internal openings for the fully-open position of the latter; and
- (d) have the lower edges of the internal openings from 2,000mm to 2,200mm above the level of the floor of the room being ventilated.

(2) Outlet ventilators shall consist of flues, shafts or tubes distributed as evenly as practicable and extending vertically without avoidable bends or angles from the ceiling line through the roof to a height not lower than the level of the ridge unless dispensed with or varied with the special approval in writing of the Board, with the lower portions of those flues, shafts or tubes formed as bell mouths gradually tapered upwards, each bell mouth presenting an opening having twice the area required at the outlet of the flue, shaft or tubes except that—

- (a) in a building consisting of a ground floor only and in the uppermost storey of a building containing more than one storey, 1/3 of the total required area of the outlet opening may be provided by means of openings situated in the window heads not more than 450mm below the ceiling or immediately below the wall plates and extending through the external walls and properly shielded outside, a space of not less than 50mm being provided between the inner face of the shield and the nearest opposite surface; and
- (b) on each storey below the uppermost storey in a building containing more than one storey the outlets may be entirely provided by means of such openings immediately below the wall plates or in the window-heads; and
- (c) in a building that has no ceiling or in which the ceiling or roof lining is attached to the purlins or rafters and continued up to the apex of the roof, approved ridge ventilators may be substituted for flues, shafts or tubes required by this section.

(3) Unless otherwise specified under the *Industrial Safety, Health and Welfare Act 1961* for special trades, the effective airway of inlet and outlet ventilation of a room shall be not less than 1:500 of the floor area.

(4) All inlet or outlet ventilators and openings shall be so constructed as to be capable of being readily cleaned out and shall not communicate with any cavity or space in the thickness of the wall nor with the space between any ceiling and floor or roof covering above the ceiling.

(5) Flues, ducts, shafts, tubes or hoppers shall be constructed of sheet metal no thinner than 0.6mm or other approved material, and shall be fitted with regulating valves and appliances for opening and closing them in varying degrees.

102. VENTILATION OF LIGHT COURTS.

Where a light court, wholly or in part open at the top and constructed or used for admitting light and air to a building of Class I, II, III, IV or V occupancy is constructed in connection with such a building, and the height of the light court from the eaves or top of the parapet to the ceiling at the ground storey exceeds the length or breadth of the light courts, then—

- (a) where the light court is at the time of construction enclosed on every side, ventilation shall be provided by means of—
 - (i) a system of mechanical ventilation capable of giving six changes of air per hour and designed to introduce plenum air from a clean source and to distribute the air from the bottom of the light court in such a manner as to ensure even distribution over all sections of the light well which are pierced by windows, louvers or vents; or
 - (ii) a flue constructed between the lower end of the light court and the outer air having a throughway the least sectional area of which measures not less than 0.45m² or 5% of the average horizontal area of the light court, whichever is the greater (but in no case shall the maximum sectional area of the ventilating flue be required to exceed 1.8m², and the flue shall not be less than 450mm across in any direction and shall be constructed in such a manner that it can be cleaned out); or
- (b) where the light court is situated upon an allotment boundary and where at the time of construction of the light court the walls of buildings on adjoining allotments are such as to make the provisions of Paragraph (a) applicable, either the flue required by Paragraph (a)(ii) shall be provided during construction of the light court or approved provision shall be made for the future installation, at such time as the light court becomes completely enclosed, of the system of mechanical ventilation, required by Paragraph(a)(ii) and the owner of the building in connection with which the light court is constructed, shall, if and when called on by the Board, complete the installation of the system of mechanical ventilation.

103. VENTILATION OF PUBLIC GARAGES AND PARKING STATIONS.

Every storey of a public garage or parking station shall be provided with either—

- (a) a mechanical ventilation or air-conditioning system complying with Division 10; or
- (b) a system of permanent natural ventilation to the approval of the Board.

Division 10.

Air Handling Systems.

104. MANUFACTURE AND INSTALLATION OF EQUIPMENT.

(1) The manufacture and installation of mechanical ventilation and air conditioning system and ancillaries shall conform to the requirement of appropriate PNG Standards or, in the event of there being no PNG Standard, to the requirements of the relevant Australian or British standard.

(2) Notwithstanding the provisions of Subsection (1), all mechanical ventilation and air conditioning system shall be approved by the Board before commencement of installation.

(3) Air handling systems shall conform to the requirements of PNGS 1189, Part 1—"Fire Precautions in Buildings with Air Handling Systems".

105. SUBMISSION OF DESIGN.

Mechanical ventilation and air conditioning systems shall be fully designed and all relevant drawings and calculations, expected space usage, occupancy and proof that any proposed purification treatment for introduced outside air and exhaust air is satisfactory shall be submitted before final approval by the Board.

106. OPERATION AND INSPECTION OF EQUIPMENT.

Where a mechanical ventilation or air conditioning system is installed in a building—

- (a) the system shall be operated at all times when the area is ventilated is occupied; and
- (b) the owner of the building or his representative shall take the necessary steps to ensure the efficient operation of the system in conformity with the requirements set down in this Regulation; and
- (c) the owner of the building or his representative shall allow the Board to inspect the system on completion and at other reasonable times and shall co-operate with the Board in operating the plant for testing purposes.

107. REQUIREMENTS FOR BUILDINGS TO BE AIR-CONDITIONED.

(1) Where an air-conditioning system is installed in any new building of any class or in an existing building of Class V, VI, VII, VIII or IX occupancy, the following shall apply:—

- (a) all external floors and ceiling/roofing to air conditioned areas shall be thermally insulated compatible with the required comfort and environmental conditions of the space, and to conserve the energy used for heating or cooling of the building; and

- (b) all external walls (excluding glazed areas) to air conditioned areas, shall be thermally insulated compatible with the required comfort and environmental conditions of the space, and to conserve the energy used for heating or cooling the building; and
- (c) all windows in external walls, unless fully shaded, shall be of the reflective, multiple glazed reflective, heat absorbing types; and
- (d) no louver type windows or shutters shall be fitted to air-conditioned areas; and
- (e) all external doors in buildings of Classes V, VI, VII, VIII and IX occupancy shall be fitted with self closing mechanisms.

(2) A certificate signed by a registered mechanical engineer, or such other person approved by the Board and authorized to certify such installations, certifying that the design of the air-conditioning system and the building comply with the requirements of Division 10 shall be submitted for approval prior to the installation of any air-conditioning system in any new building and in any existing building of Class V, VI, VIII or IX occupancy.

108. QUANTITY OF INTRODUCED AIR.

The ventilation requirements for mechanical ventilation and air-conditioning systems shall be generally in accordance with PNGS 1189 Part 2—"Ventilation Requirements".

109. DISTRIBUTION OF INTRODUCED AIR.

Generally outside air shall be evenly distributed through the enclosed space requiring mechanical ventilation, provided that, where an area within an enclosed space has an abnormally high density of occupants compared to the rest of the enclosed space, or the area has a source of heat or moisture, the quantity of outside air distributed to this area shall be proportionally increased.

110. LOCATION OF AIR INTAKES.

Outside air intakes shall be so located that air entering the building contains no more bacteria, dust, heat, moisture odours or any contaminant than the normal outside air in the locality in which the building is situated.

111. PURIFICATION OF INTRODUCED OUTSIDE AIR.

Where it is not feasible to provide the normal outside air specified in Section 110, the introduced outside air shall be purified to at least the equivalent of the normal outside air prior to entering the enclosed space.

112. CONTAMINATED AIR.

Where, within an area of enclosed space, there is a process which will produce contaminated air, or if the space is so used that contaminated air will result, the ventilation system shall be so arranged that there is no flow of contaminated air to the rest of the building.

113. EXHAUSTED AIR.

(1) Air shall not be exhausted from a building so as to constitute danger, health hazard or nuisance to the occupants of adjoining buildings, properties or public spaces.

(2) Where, in the opinion of the Board, exhausted air may constitute danger, health hazard or nuisance, purification equipment having the capacity to remove all contaminants from the air shall be installed to the satisfaction of the Board.

Division 11.

Noise Transmission.

114. APPLICATION.

(1) Subject to this section, this Division shall apply to buildings of Classes II and III occupancy having a rise of three or more storeys.

(2) In buildings of Classes II and III occupancy having a rise of not more than two storeys the Board may require that the building shall comply with any or all of the provisions of this Division.

(3) Pursuant to Subsections (1) and (2), unless the contrary intention appears, this Division shall apply to the external walls and roof, if any, of a room containing air-conditioning plant, generating plant or the like, appurtenant to a building of any classification.

115. INTERPRETATION.

A form of construction required by this Division to have a certain Sound Transmission Class shall, subject to Section 121, be—

- (a) one that has achieved not less than the required value when tested in accordance with AS 1276—“Methods for Determination of Sound Transmission Class and Noise Isolation of class of Building Partitions”;
or
- (b) one that is deemed, pursuant to Section 120, to have not less than the required value.

116. REQUIRED SOUND INSULATION.

(1) A wall dividing separate flats or a wall dividing a flat from a plant room, lift shaft, stairway, public corridor, hallway or the like shall have a Sound Transmission Class of not less than 40.

(2) A wall dividing a bathroom, laundry or kitchen in one flat from a habitable area (other than a kitchen) in an adjoining flat shall have a Sound Transmission Class of not less than 45.

(3) An external wall or roof, if any, to a plant room containing machinery for air-conditioning, lift motors, power generation and the like shall have a Sound Transmission Class of not less than 45, unless such machinery is suitably muffled or otherwise individually insulated against sound transmission to the approval of the Board.

(4) The exhaust from a motor or cooling system contained in a plant room mentioned in Subsection (3) shall be suitably baffled or muffled so that the resultant sound pressure level measured at any point on the boundary of the site does not exceed 70db.

(5) A floor dividing separate flats shall have a Sound Transmission Class of not less than 40.

117. DUCTS.

A duct shall not pass through a wall dividing a habitable area, other than a kitchen, in one flat from a bathroom, laundry or kitchen in an adjoining flat.

118. SOIL AND WASTE PIPES.

(1) This section shall not apply to those sections of a soil or waste pipe serving only one flat and located wholly within that flat.

(2) Soil and waste pipes, including those that pass through a floor, shall be separated from the rooms of any flat immediately adjacent thereto by construction having the following Sound Transmission Class:^¾

Type of Room immediately adjacent	Sound Transmission Class of not less than^¾
Habitable rooms other than kitchens	40
Kitchens	30
All other rooms	30

119. ISOLATION OF PUMPS.

A flexible coupling shall be used at the point of connection between the service pipes in a building and any circulating or other pump.

120. SOUND TRANSMISSION CLASS DEEMED TO APPLY TO CERTAIN CONSTRUCTION.

(1) For the purpose of Division 8 the forms of construction that—

- (a) are listed in the following Table; and
- (b) comply with the requirements of Subsections (2), (3), (4), (5) and (6) as applicable,

shall be deemed to have the Sound Transmission Class stated in the second column of that Table.

(2) Masonry units shall be laid with all joints, including those between the masonry and any adjoining construction, filled solid.

(3) Joints between concrete slabs and any adjoining construction shall be filled solid.

(4) Fire-grade plasterboard shall be a special grade as manufactured for use in fire-resisting construction, and fixed according to the following rules:—

- (a) where one layer is required to be fixed to studs it shall be screw-fixed to the studs with joints staggered on opposite faces;
- (b) where two layers are required, the first layer shall be fixed according to Paragraph (a) and the second layer shall be fixed so that the joints do not coincide with those of the first layer and each sheet shall be fixed to the first layer with nails, screws or adhesive, or a combination of those methods as appropriate;
- (c) joints between sheets shall be taped and filled solid;
- (d) joints between sheets and adjoining construction shall be filled solid.

(5) Plasterboard, being plasterboard other than fire-grade quality, shall be fixed in the same way as that described for fire-grade plasterboard in Subsection (4) to the extent that the nature of the material will allow.

(6) Where the construction involves the use of steel studs—

- (a) the studs shall be of not less than 0.60mm thickness and not less than 63.5mm in depth; and
- (b) the studs shall be fixed to steel top and bottom plates of sufficient depth to secure fixing of the plasterboard; and
- (c) all steel members at the perimeter of the wall shall be securely fixed to the adjoining structure and shall be bedded thereto in resilient compound or caulked so that there are no voids.

TABLE (SECTION 120) – Sound transmission class deemed to apply to certain construction.

Construction	Sound Transmission Class not less than
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Construction	Sound Transmission Class not less than
Walls	
Dense concrete masonry blocks, 190mm thick having a total mass per unit area of 215kg/m ² . Dense concrete masonry blocks, 140mm thick having a wall thickness of not less than 44mm and having—	
(a) 50mm x 50mm timber battens spaced at not more than 610mm centres screw-fixed on one face of the blocks into rubber or similarly resilient plugs with rubber inserts; and	
(b) the face of the battens clad with 13mm thick standard plasterboard; and	
(c) a total mass per unit area of not less than 220kg/m ² .	45
125mm thick in-situ concrete slab	
100mm thick in-situ dense concrete slab	
100mm thick precast concrete slab without joints.	
Steel studs having two layers of 16mm thick fire-grade plasterboard fixed to each face. Steel studs having—	
(a) one layer of 13mm thick fire-grade plasterboard fixed to one face; Before fixing, 50mm thick mineral wool or glass-fibre blanket shall be stapled to the back of each sheet so that the sheet is completely covered; and	
(b) two layers of 13mm thick fire-grade plasterboard fixed to the other face,	
Steel studs having—	

Construction	Sound Transmission Class not less than
(a) 50mm thick mineral wool or glass-fibre batts wedged firmly between the studs; and	
(b) one layer of 16mm fire-grade plasterboard fixed to one face; and	
(c) one layer of fire-grade plasterboard fixed to the other face, the inner layer consisting of 16mm thick fire-grade plasterboard and the outer layer consisting of 13mm thick plasterboard.	

Floors.

125mm thick in-situ concrete slab

100mm thick in-situ dense concrete slab

100mm thick precast concrete slab with joints

Timber floor comprising—

- (a) timber joists not less than 175mm x 50mm; and
- (b) tongue-and-grooved boards not less than 19mm thick and secured to 75mm x 50mm blocking between joist and laid over but not fixed thereto; and 45
- (c) 25mm thick glass-fibre blanket laid over entire floor, including tops of joists before boards are laid; and
- (d) 75mm thick mineral wool cut to fit tightly between joists and laid on 10mm thick plasterboard fixed to underside of joists.

Construction	Sound Transmission Class not less than
Duct of other Construction Separating Soil and Waste Pipes from Flats	
Masonry not less than 90mm thick with all joints including those between the masonry and any adjoining construction, filled solid. Two layers of 10mm standard plasterboard—	
(a) fixed to timber studs not less than 75mm x 50mm spaced at not more than 407mm centres; and	30
(b) with the joints in the two layers of plasterboard staggered; and	
(c) with all joints, including those between the plasterboard and any adjoining construction filled solid.	

121. ACCEPTANCE OF ALTERNATIVE FORMS OF CONSTRUCTION.

Where it is proposed to use a form of construction that—

- (a) has not been tested according to AS 1276—“Methods for the Determination of Sound Transmission Class and Noise Isolation Class of Building Partitions”; and
- (b) does not comply with Section 120,

the Board may approve the use of that form of construction upon production of a report, from an acoustic laboratory with facilities for and engaged in the making of airborne sound transmission tests and approved by the Board, that, in the opinion of the authority concerned, the proposed construction would be capable of achieving the required Sound Transmission Class.

PART VIII. – PROVISIONS FOR FIRE.**122. PROVISIONS FOR FIRE.**

The provisions for fire in relation to buildings shall be in accordance with the Papua New Guinea Fire Code PNGS 1629.

123. INSPECTIONS BY FIRE AUTHORITY.

(1) The Fire Authority or its authorized inspecting officers may, at any reasonable time during normal business hours, inspect any required fire-isolated exit including any corridor, hallway, external balcony, or other path of travel leading to that required exit and shall not unreasonably be denied access thereto for that purpose.

(2) Where during an inspection, made pursuant to Subsection (1), a breach of this Regulation with respect to fire isolated exits is observed by an inspecting officer, the Fire Authority shall, within 24 hours, report such breach to the Board and the Board shall within seven days of receipt of the report take such action as appropriate to cause the removal of the breach.

124. NOTICES RELATING TO FIRE STAIRS.

(1) Every fire-isolated stairway shall have a notice displayed in a conspicuous position at the landing on each storey level in or to the effect of the following:–

"OFFENCES RELATING TO FIRE STAIRS.

By virtue of the Building Act 1971 and the Regulation thereunder, it is an offence to

1. Place anything in this stairway or any associated passageway leading to the exterior of the building, which may impede the free passage of persons.
2. Interfere with or cause obstruction or impediment to the normal operation of the self-closing fire-doors providing access to this stairway.
3. Remove, damage, or otherwise interfere with this notice.

MAXIMUM PENALTY K400".

(2) In any notice displayed in accordance with Subsection (1), the words **"OFFENCES RELATING TO FIRE STAIRS"** and the words and figures **"MAXIMUM PENALTY K400"** shall be in letters and figures not less than 9mm in height and all letters and figures in the remainder of the notice shall be not less than 3mm in height.

125. PROVISION FOR ESCAPE: CLASS 1 OCCUPANCY BUILDINGS.

(1) The following are the requirements in respect of exits from a Class 1 occupancy buildings:–

- (a) there shall be not less than two exits on each storey containing habitable rooms;
- (b) the exits shall be placed as far apart as practicable and in any event shall be not less than 6m apart measured along the path of travel;

- (c) the second exit on the entry storey and the alternate exit on each storey shall be to the outside of the building on that floor and may be an unobstructed opening in the form of an opening window, a removeable wall panel or similar, being not less than 500mm by 750mm;
- (d) the second exit on each storey when constructed in accordance with Paragraph (c) shall—
 - (i) have a sill height between 750mm and 900mm above the floor; and
 - (ii) be easily accessible in the case of an emergency; and
 - (iii) be readily openable without a key from the inside of the building by a single hand action on a single device which is located between 750mm and 1,200mm above the floor;
- (e) where one or more bedrooms are located in a storey, the exit shall be in a bedroom or corridor common to the bedrooms;
- (f) egress ways shall be provided from the second exits with sills 3,600mm or more above ground level and the egress may be in the form of a ladder permanently attached to the building which can be lowered in an emergency to within 2,400mm of the ground.

(2) The requirements in Subsection (1) are in addition to the requirements of the *Papua New Guinea Fire Code*, PNGS 1629.

PART IX. – HAZARDOUS OCCUPANCIES.**126. INTERPRETATION.**

For the purpose of this Part, unless the contrary intention appears–

“hazardous goods” means goods in which a principal material is one of the materials listed in Section 127;

“hazardous handicraft” means a handicraft in which the principal material involved is one of the materials listed in this Section 127;

“hazardous process” means a process–

- (a) appertaining or incidental to the making, assembling, altering, repairing, renovating, preparing, ornamenting, finishing, cleaning, washing, or adapting of either hazardous goods or materials listed in Section 127; or
- (b) performed or carried out in a laboratory and in which a principal material is one of the materials listed in Section 127.

127. MATERIALS OF ABNORMAL FIRE HAZARD.

For the purpose of this Regulation the following materials shall be deemed to constitute an abnormal fire hazard:–

- (a) bitumen, tar, or any product thereof, including–
 - (i) asphalt; and
 - (ii) caulking and sealing compounds; and
 - (iii) surfacing materials;
- (b) cork;
- (c) enamel, lacquer, paint, or varnish;
- (d) explosive, fireworks, or matches;
- (e) fibre or any fibrous product, including–
 - (i) bristles, cloth, cord, felt, fur, raw fibres, straw, and thread; and
 - (ii) made-up products of cotton, flax, hemp, jute, silk, synthetic fibres or wool, including bedding, carpets, and upholstery;
- (f) flammable gas or flammable liquid, including–
 - (i) liquefied petroleum gas; and
 - (ii) natural gas and coal gas; and
 - (iii) hydrogen;
- (g) fodder or any foodstuff–

- (i) including grain and kernels (whether as cereal or crushed and milled); and
- (ii) excluding fresh food such as fish, fruit, meat, and vegetables;
- (h) gum, polish, resin, or wax, or any product thereof, including linoleum, oilcloth, and tarpaulin;
- (i) inorganic chemicals such as—
 - (i) calcium carbide, potassium nitrate, and sodium nitrate; and
 - (ii) metallic sodium and phosphorous; and
 - (iii) finely powdered metal;
- (j) leather, skin, or any product thereof, including boots, shoes, furs, and clothing;
- (k) oil (animal, mineral, or vegetable), including animal fats and refined oils, or any product thereof;
- (l) organic chemicals comprising—
 - (i) alcohol or any alcoholic liquor; or
 - (ii) any industrial solvent; or
 - (iii) any synthetic resin; or
 - (iv) any cellulose product; or
 - (v) any peroxide; or
 - (vi) any like material;
- (m) paper or any paper product, including—
 - (i) books, cardboard, and fibre containers; and
 - (ii) newsprint;
- (n) plastic or any plastic product, including cellulose acetate and nitro-cellulose (such as celluloid or pyroxylyn);
- (o) timber or any timber product, including fibreboard, particle board, and plywood.

128. SPACES OF ABNORMAL FIRE HAZARD.

A space within a building—

- (a) used for—
 - (i) the storage of hazardous goods, or materials of abnormal fire hazard, or the display of such goods or materials for sale by retail or wholesale; or
 - (ii) a hazardous handicraft; or
 - (iii) a hazardous process; or

- (b) in which, in the opinion of the fire Authority, the potential severity of combustion that may arise in the event of an outbreak of fire equals or exceeds the severity of combustion implicit in Paragraph (a),

shall be deemed to be a space of abnormal fire hazard.

PART X. – DESIGN AND CONSTRUCTION.***Division 1.******General Structural Design and Design Loadings.*****129. GENERAL.**

Buildings and parts of buildings shall be designed and constructed so as to minimise all hazards to public health and safety, and to protect the safety of their occupants and adjacent property.

130. DESIGN.

(1) Except as specifically provided by this Regulation, all buildings shall be designed in accordance with methods of design that admit of a rational analysis in accordance with the established principles of mechanics and of structural design.

(2) The general structural design method (as distinct from detailed design appropriate to particular construction materials as required elsewhere in this Regulation) and the design loadings shall be approved as appropriate to achieve the following:–

- (a) that all loads likely to be sustained during the life of the building are sustained with an adequate margin of safety; and
- (b) that deformations of the building do not exceed acceptable levels; and
- (c) that in events that occur occasionally, such as moderate earthquakes and severe winds, structural damage be avoided and other damage be minimized; and
- (d) that in events that occur very seldom, such as major earthquakes and extreme winds, collapse be avoided, and the probability of injury to or loss of life of people in and around the building be minimized, it being accepted that some structural and non structural damage may occur.

(3) General structural design and design loading complying with PNGS 1001 PARTS 1, 2, 3 and 4 will satisfy the requirements of this Division.

131. FIRE RESISTANCE.

Where a building element is required to have a specific fire resistance rating, the design of that element shall take account of the details and type of construction appropriate to that rating as specified in this Regulation.

132. SERVICEABILITY.

Design and construction shall take due account of maintaining, at all times, the functional serviceability of a building and its parts, appropriate to its use and/or proposed occupancy during the expected life of the building and special measures shall be taken to ensure maintenance of such serviceability in those buildings

required or expected to provide communal or emergency services during and/or immediately following a natural disaster such as a major fire, earthquake or cyclonic storm.

133. NON-STRUCTURAL ELEMENTS.

(1) Non structural elements of a building shall be designed and constructed to be stable under their own weight and other applicable loadings and shall be attached to the structural elements so as to prevent their dislodgement or collapse when subject to the design earthquake motions.

(2) The connections between non-structural elements and structural elements shall comply with the requirements of PNGS 1001 Part 4.

134. HOLES, BLOCKOUTS, DUCTS, ETC.

All holes, blockouts, ducts and the like required for the provisions of air-conditioning, ventilation, electricity, telephone, telecommunication, drainage or any other service shall, as far as possible, be provided at the time of construction of a building and it shall not be permissible to penetrate, remove material from or otherwise alter structural members for the purpose of installing such services without the prior approval, in writing, of the Board.

Division 2.

Detailed Structural Design.

Subdivision 1. – General.

135. GENERAL.

(1) Detailed design of a building or parts of a building, as distinct from general structural design and design loadings which are covered by Division 1, shall be in accordance with the established properties and behaviour of all the constituent materials and elements.

(2) The detailed design shall be in accordance with a code of design practice appropriate to achieve adequate strength, serviceability and, where necessary, ductility to sustain the various loading conditions required under Division 1.

Subdivision 2. – Materials of Construction.

136. CONCRETE.

Structures and elements of plain, reinforced or prestressed concrete shall comply with the requirements of PNGS 1002–“Code of Practice for Concrete Structures”.

137. STEEL.

Steel structures and elements shall comply with the requirements of PNGS 1003—“Code of Practice for Steel Structures”.

138. MASONRY.

Masonry structures and elements shall comply with the requirements of PNGS 1004—“Code of Practice for Reinforced Masonry Structures”.

139. TIMBER.

Timber structures and elements shall comply with the requirements of PNGS 1292¾“Code of Practice for the Design of Timber Structures”.

140. ALUMINIUM.

(1) Aluminium structures and elements shall comply with the requirements of AS 1664, except that the Design Loads and the analysis of the forces arising therefrom shall be determined in accordance with PNGS 1001.

(2) Aluminium shall not be used as part of a building’s structural system where that part is designed or required to resist forces primarily due to earthquake loads.

141. COLD-FORMED STEEL.

Light-gauge, cold-formed steel structures and elements shall comply with the requirements of AS 1538, except that the Design Loads and the analysis of the forces arising therefrom shall be determined in accordance with PNGS 1001.

142. COMPOSITE STRUCTURES.

Structures composed of two or more of the types specified in Sections 136 to 141 inclusive shall have the component parts designed, detailed and constructed in accordance with the Code appropriate to the material or the type and where the different types of structure join or meet, the joints or junctions shall be designed, detailed and constructed to meet the most severe criteria appropriate to the relevant types.

143. GLASS STRUCTURES AND GLAZING.

Structures comprised of or including glass or glazing in their fabric shall comply with the requirements of AS 1288 except that the design loads and the analysis of forces arising therefrom shall be determined in accordance with PNGS 1001.

144. OTHER STRUCTURES.

(1) Where it is proposed to use for the structure of a building a type of structure or system of construction not specifically referred to in PNGS 1001, the Board may approve an application to construct the building provided that it is able to satisfy itself beyond reasonable doubt that—

- (a) the building has been designed and detailed, and will be constructed in accordance with the other structural requirements of this Regulation; and
- (b) when completed, the building will be structurally adequate if subjected to the Design Loads derived from PNGS 1001.

(2) In considering an application referred to in Subsection (1), the Board may—

- (a) require the applicant to submit computational and other substantiating evidence that the conditions specified in Subsection (1)(a) and (b) have been or shall be met; or
- (b) accept a certificate of structural adequacy issued by a registered structural engineer—
 - (i) setting forth the conditions specified in Subsection (1)(a) and (b); and
 - (ii) stating in detail the bases on which the person issuing the certificate has relied on relevant specifications, rules, codes of practice or publications with respect to design, detailing and construction.

Subdivision 3. – Footings.**145. INTERPRETATION.**

For the purpose of this Regulation terms relating to footings types, soil types and soil conditions shall be as defined in Britain Standard BS 8004 or its successor.

146. GENERAL.

(1) In addition to the requirements of Division 2, building footings shall be designed so as to ensure that the movements of footings remain within the limits that can be tolerated by the building without adversely affecting the building's functional requirements.

(2) Footings shall comply with the requirements of British Standard BS 8004—“Code of Practice for Foundations” or its successor.

147. SITE INVESTIGATIONS.

(1) Before footings are designed and the method of construction is determined, a site investigation shall be carried out in order to determine—

- (a) the nature of the ground and its bearing capacity; and
- (b) the probable behaviour of the ground under seasonal changes or under changes in groundwater level; and
- (c) the existence of conditions liable to cause ground movement, such as—
 - (i) unstable slopes in landslip areas; and
 - (ii) areas susceptible to subsidence; and
 - (iii) areas containing material that is subject to internal combustion; and
 - (iv) underground watercourses; and
 - (v) drains, pits, cavities and the like; and
 - (vi) existing footings or other structures; and
- (d) the groundwater level and the drainage and flooding conditions both on and adjacent to the site; and
- (e) the behaviour of nearby buildings, particularly with regard to any seasonal ground movement, the type and depth of footings and the pressure under them; and
- (f) whether or not sulphates or other substances are present in sufficient concentrations to cause damage to the material of the footings; and
- (g) the type, position and likely effect of existing trees and vegetation.

(2) The site investigation required by Subsection (1) shall comply with the requirements of and be carried out in accordance with BS 5930—“Code of Practice for Site Investigations”.

148. COHESIVE SOILS.

On cohesive soils with pronounced swelling shrinking characteristics the footings shall be taken down to such a depth, or be so designed and constructed that neither the building nor any of its elements are likely to suffer any significant damage from swelling and shrinkage movement of the ground.

149. DEPTH OF FOOTINGS.

The base of a footing on the perimeter of a building shall be not less than 300mm below the lowest adjacent finished ground surface except where the ground is comprised of intact rock.

150. SHALLOW FOOTINGS.

Notwithstanding the requirements of Section 146, the following conditions shall be satisfied for all shallow foundations:—

- (a) the footings shall be constructed of concrete with a minimum characteristic strength of 20 MPa;

- (b) where the footings are required to distribute loading longitudinally, or where the angle of spread of load from a wall or column base to the bottom surface of a footing exceeds 45° from the vertical, reinforcement shall be provided in accordance with the requirements of PNGS 1002;
- (c) isolated footings shall be tied together in at least two directions as required by PNGS 1001;
- (d) the minimum thickness of the footings shall be 200mm;
- (e) concrete for the footings shall not be placed underwater.

151. DYNAMIC LOADING CONDITIONS.

Where dynamic loading conditions apply, allowable bearing pressures shall be assessed by special investigation of the particular conditions.

152. SPECIFICATION OF IMPOSED BEARING PRESSURES.

The maximum designed bearing pressure for all footings shall be clearly stated on the relevant plans.

153. ALLOWABLE BEARING PRESSURE FOR MINOR BUILDINGS.

For minor buildings the maximum allowable bearing pressure for the ground may be determined in accordance with well established local practice, where that practice includes successful experience with soils of similar types and conditions supporting similar footings, in which case documentary evidence shall be submitted to the satisfaction of the Board to prove the similarity of these conditions.

Division 3.

Earthworks.

154. INTERPRETATION.

For the purpose of this Division, unless the contrary intention appears—

“**back filling**” means the replacement of the previously excavated materials into the space from which they were taken, or the placement of excavated or imported materials over or against building elements to bring the ground surface to its required level or slope, or the materials used for this purpose;

“**earthworks**” means all or any of, excavation, filling and backfilling;

“**excavation**” means the removal of materials from exposed ground surface to a depth below that surface, or the space left by such removal;

“**filling**” means the placing of excavated or imported materials on the ground surface to alter the shape, level or slope of the surface or the materials used for this purpose.

155. BACKFILLING.

(1) Backfilling shall be properly placed and compacted to the required density.

(2) Where backfilling is to be placed against or over other building construction, care shall be exercised during the backfilling operations to prevent damage or injury to the construction.

(3) No backfilling shall be placed over or against other construction unless such construction has been specifically designed and constructed for the purpose.

Division 4.

Retaining Walls.

156. INTERPRETATION.

For the purpose of this Division, unless the contrary intention appears—

“**retaining wall**” means a free standing or anchored wall providing permanent support to excavation or filling and specifically designed for the purposes and certified by a registered structural engineer;

“**garden wall**” means a free standing wall which shall be designed and constructed in accordance with the requirements of this Division and the relevant PNG Standards applicable to the materials of their construction.

157. DESIGN OF RETAINING WALLS.

Retaining walls shall be designed and constructed in accordance with the requirements of this Division and the relevant PNG standards applicable to the materials of their construction.

158. DRAINAGE.

(1) Retaining walls and garden walls shall, where possible, be permanently drained by means of weep holes and/or agricultural-type drains, located so as to prevent—

- (a) weakening of the foundations under the wall footing; and
- (b) the build-up of hydrostatic pressures behind the wall.

(2) Where circumstances prevent the construction of drainage referred to in Subsection (1), the wall shall be designed for a hydrostatic pressure, due to a head of water equal to the height of the wall, in addition to any other required design loads.

159. GARDEN WALLS.

(1) Garden walls greater than 900mm high shall not be built on a boundary and garden walls greater than 1,500mm high shall not be built elsewhere on a site.

(2) Garden walls up to 900mm high may be constructed on a boundary provided that—

- (a) the surface slope of the retained material, measured upwards from the horizontal plane at the top of the wall, does not exceed 15°; and.
- (b) a plane at 40°; to the horizontal, from the closet bottom edge of building or retaining-wall footing on the retained side of the wall, does not intersect any part of the garden wall or its footing; and
- (c) the wall does not provide support to the edge of a driveway or carriageway which is the sole means of vehicular access to the site or to any building thereon, otherwise support shall be provided by a retaining wall.

(3) Garden walls up to 1,500mm high may be constructed on a site provided that—

- (a) no part of the exposed face of the wall is closer than one-half times its height to a boundary or a building; and
- (b) the provisions of Subsection (2)(a) to (c) apply, otherwise support shall be provided by a retaining wall.

Division 5.

Construction.

160. SAFETY.

(1) Construction shall be carried out in a safe manner in accordance with established safety practices.

(2) Hoardings, safety barriers, guard, guard rails, warning signs and lights and the like, shall be erected prior to commencement of construction and maintained throughout the construction period in order to protect from accidental injury the passing public or persons on or about the construction area, all in accordance with this Regulation.

(3) All excavation and filling shall be executed in a safe and workmanlike manner and shall comply with the following requirements:—

- (a) water shall be removed or diverted from excavations in a manner that will not cause nuisance or damage to adjacent property and as the Board may direct;
- (b) excavations and filling shall be properly shored or otherwise supported to prevent movement of the soil and/or adjacent structure.

161. SUPERVISION.

All building construction, and particularly the construction of the structural elements, shall be supervised by skilled or otherwise qualified persons experienced in the type of construction concerned.

162. SUITABILITY OF MATERIALS.

(1) A material that is proposed to be used in the erection of a building shall not be so used if the material—

- (a) is faulty; or
- (b) is unsuitable for the purpose for which it is proposed to be used; or
- (c) is dangerous to health; or
- (d) has been used in the construction of any cesspit, drain or sewer; or
- (e) does not comply with any relevant requirement of this Part.

(2) The Board may test any material that is proposed to be used in the erection of a building to ascertain whether the use of the material is or is not prohibited by Subsection (1).

(3) Where the Board tests any material pursuant to Subsection (2), the Board shall inform the person who proposes to use the material in the erection of a building as to whether the use of the material is or is not prohibited by Subsection (1).

163. SPECIALISED CONSTRUCTION.

Where so required by the Board, specialized types of construction shall only be carried out by skilled, certificated or otherwise approved persons.

Division 6.***Floors.*****164. FLOORS IN CONTACT WITH GROUND.**

A floor constructed with its underside at or below ground level shall—

- (a) be of concrete not less than 100mm thick; and
- (b) comply with the requirements of Division 3 whether or not it forms part of the footing of a building.

165. FLOORS ABOVE GROUND LEVEL.

Unless otherwise provided in this Regulation, floors above ground level may be constructed of any material suitable for the purpose and complying with Division 1.

166. CONCRETE FLOORS.

(1) A reinforced concrete floor, not less than 100mm thick shall be provided—

- (a) in the ground and basement storeys of a shop, factory, working area, hospital and buildings of the like nature; and
- (b) except where otherwise required in this Regulation and except in a private dwelling, in a room where food is manufactured, processed or stored.

(2) A concrete floor required by Subsection (1) may be surfaced with an appropriate and durable material provided that no spaces capable of harbouring vermin are left between the concrete and the surfacing.

167. STEELWORK FLOORS.

(1) Floors above ground level composed entirely of structural steelwork may only be used for—

- (a) main floors in buildings of Classes VII and VIII occupancy; or
- (b) plant room floors or the like in other Classes of buildings.

(2) Steelwork may be used as a support for other materials in a floor or may be used, in conjunction with other materials, to form a floor of composite construction.

168. TIMBER FLOORS.

(1) A building on which the floor immediately above the ground is a timber floor, but not of solid timber bedded on concrete, shall have a clear space of not less than 600mm from the ground to the underside of the floor joists.

(2) Where the underfloor space referred to in Subsection (1) is enclosed, the following openings to that space shall be provided:—

- (a) sufficient openings, not less than 500mm wide and 600mm high, to permit access for inspection of the underside of each portion of the floor; and
- (b) sufficient openings, protected against the entry of vermin by gratings or the like in the external walls, to provide a net ventilating area of not less than 11,500mm² of free air space in each 1,500mm run of external wall; and
- (c) openings, additional to any provided under Paragraph (a), not less than 34,500mm² in area in each 1,500mm run of internal sub-floor wall,

and all openings shall be arranged so as to permit a continuous circulation of air to pass under the whole of the timber floor.

169. FLOORS OF COMPOSITE CONSTRUCTION.

(1) Composite floors of concrete and steel construction shall comply with the relevant requirements of PNGS 1002 and PNGS 1003 and the other requirements of this Regulation as applicable and where proprietary steel decking is used as permanent formwork to or as an integral part of the concrete construction, its application and use shall be in strict accordance with the manufacturer's recommendations.

(2) The materials of the formers shall comply with Section 144 and the formers shall be cast or fixed into the concrete so that they will not be fractured or dislodged when the floor is subjected to the design earthquake motions and other design loads.

170. OPENINGS THROUGH FLOORS.

Where openings are formed through floors, the edges of such openings shall be adequately supported by beam, trimmers or the like, in a manner appropriate to the construction, so as to prevent detrimental deformation of the floor at, or adjacent to, the openings.

Division 7.***Walls, Partitions and Linings.*****171. INTERPRETATION.**

For the purpose of this Division, unless the contrary intention appears—

“**cavity wall**” means an external wall consisting of two leaves, mechanically tied to one another, separated by a vertical air space or cavity and in which one leaf is, or both leaves are, designed and constructed to transmit design loads other than their own weight;

“**common wall**” means an external wall, not being a party wall that is common to adjoining buildings;

“**external wall**” means an outer wall of a building which is not a party wall or a common wall;

“**free standing wall**” means a wall outside a building that is not horizontally supported or restrained at its top;

“**partition**” means a movable panel or panels, not extending beyond one storey, used to subdivide a space within a building;

“**partition wall**” means a wall, within a sole occupancy unit, that does not extend beyond one storey and is used permanently to subdivide the space within that unit;

“**party wall**” means a wall within a building that separates two or more sole occupancy units, or that separates such units from a public space or corridor;

“**veneer wall**” means a cavity wall in which the internal leaf only is designed and constructed to transmit design loads other than its own weight.

172. EXTERNAL WALLS.

(1) External walls shall be constructed of durable materials and the walls and any joints or openings in them shall be weatherproof.

(2) Where the external wall to a habitable area is to be constructed of materials that are not themselves impermeable to moisture and its external face is not lined or otherwise treated so as to be impermeable to moisture, the wall shall be constructed as a cavity wall.

173. CAVITY WALLS.

(1) The minimum thickness of a cavity wall other than a veneer wall shall be 130mm and the width of the cavity shall not be less than 50mm or greater than 75mm.

(2) The cavity shall be—

- (a) clear of rubbish or debris at all times; and
- (b) properly ventilated throughout its height; and
- (c) permanently drained at its bottom,

and otherwise constructed and protected so as to prevent moisture or damp penetrating to the interior leaf.

174. VENEER WALLS.

(1) The minimum thickness of a veneer wall shall be 200mm and the cavity shall comply with Section 173 except that the minimum width of the cavity may be reduced to 20mm.

(2) The veneer shall be firmly tied to the load bearing leaf and shall be continuously supported, horizontally and vertically, at each floor level.

(3) The ties connecting the leaves and any exposed metal item supporting the dead load of the veneer shall be of non-corrodable metal, or of hot-dip galvanized steel, or of steel having an equivalent anti-corrosion treatment.

175. PARTY WALLS.

(1) Party walls shall be continuous from floor to ceiling and shall be constructed of a solid material, or of stud framing lined on both sides with rigid durable materials.

(2) Party walls shall have—

- (a) a minimum thickness of 90mm; and
- (b) together with any openings in them, a fire-resistance rating of not less than one hour; and
- (c) a Sound Transmission Classification of not less than 40.

176. PARTITION WALLS AND PARTITIONS.

Partition walls and partitions shall—

- (a) be constructed of materials which have a rigidity and durability suitable to their intended use; and
- (b) shall be suitably attached, top and bottom, to the structure so as to prevent their dislodgement when the building is subjected to the design earthquake motions; and

- (c) shall have a minimum thickness of–
 - (i) 90mm in the case of partition walls; or
 - (ii) the sum of its length and three times its height, divided by 200, all dimensions being in millimetres and in the case of partitions, the length of a partition being taken as–
 - (A) its overall length; or
 - (B) the length between intermediate vertical supports, intersecting partitions or walls,whichever is the lesser.

177. FREE STANDING WALLS.

Free standing walls may be constructed of any material suitable to their purpose and shall rest upon and be firmly attached to a suitable continuous footing and, unless structurally designed in accordance with Division 7 shall–

- (a) be not closer than one and one-half times their height to a boundary or a building; and
- (b) have a ratio of height to thickness of less than 10.

178. LININGS.

(1) Linings to stud or otherwise framed walls shall–

- (a) comply with the fire resistance requirements of this Regulation; and
- (b) be firmly attached on all sides to the framing; and
- (c) be sufficiently rigid to withstand likely loadings on their exposed faces without significant deflection.

(2) The Board may, at its discretion, allow the use of soundly woven matting materials as linings for partition walls or partitions and, if so allowed, may require that such materials be treated by an approved process to protect them against insect or fungal attack.

179. RETAINING WALLS.

(1) All walls, pursuant to Section 1 of the Act, retaining earth embankments, heaped soil, filling, and the like shall be designed and constructed in accordance with this Regulation.

(2) For the purpose of this section, design and construction carried out in accordance with the “Foundation Design Manual” published by the Department responsible for works matters shall be deemed to be satisfactory.

Division 8.

Roofs and Roof Structures.

180. WEATHER PROOFING.

(1) Roofs shall be designed and constructed so as to be weatherproof and in particular to prevent the ingress of free water to the interior of the building or structure.

(2) The Board may grant exemption from the requirements of Subsection (1) for all, or a portion of the roofs of a building of Class VII, VIII or IX occupancy if it is satisfied in the particular case that such exemption will not be detrimental to the proposed use of occupancy of the building or portion thereof.

181. DRAINAGE.

(1) The roof or roofs of every building shall be constructed with a least sufficient fall to prevent rain water from ponding thereon and shall be provided with a complete drainage system of gutters and downpipes or the like adequately to collect and discharge rainwater falling on the roof area.

(2) The Board may grant partial or total exemption from the need to provide gutters and/or downpipes as required in Subsection (1) provided that such exemption—

- (a) does not lead to the discharge of roofwater onto a boundary, a public area or a public way; or
- (b) is not detrimental to the proper drainage of the site.

182. FIXING AND ANCHORAGE.

(1) Roof sheeting and other exposed elements of the roof covering shall be firmly fixed and anchored to their supporting elements so as not to be dislodged when subjected to the design wind or earthquake forces.

(2) Roof supporting elements shall be designed, detailed and constructed to resist the loads imposed by the exposed roof elements or their own supporting elements.

183. CONSTRUCTION ON FLAT ROOFS.

(1) A pitched roof may be constructed directly above a flat roof provided that—

- (a) the flat roof has a fire-resistance rating of not less than 1¼ hours; and
- (b) a flat walk-way not less than 900mm wide is provided all around the pitched roof.

(2) Where it is permitted to construct superstructures on a flat roof, the superstructures themselves may have either pitched or flat roofs and shall—

- (a) be fixed to the roof or supporting structure so as to withstand the design wind or earthquake forces acting on them without dislodgement; and
- (b) be provided with a clear space not less than 1,500mm wide adjacent to at least one side of the superstructure; and
- (c) have a clear space not less than 900mm wide provided between themselves and any other adjacent superstructure.

184. ENCLOSURE OF FLAT ROOFS.

(1) Where an external wall of a building is required by this Regulation to be carried up past the roof level as a parapet for fire protection purposes, the parapet shall be in accordance with such requirement except where the provisions of this section require the parapet to be higher or thicker.

(2) Where a building has entirely, or in part, a flat roof and access to that roof is provided by means of a lift, ramp or stair, the flat roof shall be enclosed around its full extent with—

- (a) a solid parapet not less than 1,200mm high; or
- (b) a solid parapet not less than 1,000mm high surmounted by an approval metal guard rail to a total height of 1,200mm; or
- (c) a balustrade not less than 1,200mm high.

(3) Where a balustrade is provided in accordance with Subsection (2), it shall have—

- (a) a width of aperture in any direction not more than 125mm; and
- (b) vertical balusters spaced at not more than 125mm apart; and
- (c) no toe-hold between the heights of 150mm and 760mm.

(4) Parapets and balustrades as required by this section shall comply with Section 183(2)(a).

185. SAFETY PRECAUTIONS IN THE CONSTRUCTION OF ROOFS.

A roof sheathed with fibre-cement sheets or other brittle materials shall have incorporated in its construction immediately under these sheets such safety measures as the Board may specify.

Division 9.

Fixed Platforms, Walkways and Ladders.

186. APPLICATION.

Where, for the purpose of maintenance, repair or replacement, access to machinery, plant equipment and the like is provided within or without a building by means of fixed platforms, walkways, stairways or ladders, such means of access shall

be designed, detailed and constructed in accordance with PNGS 1081, except that Design Loads shall be determined in accordance with PNGS 1001.

187. NOTICES.

Where access in accordance with Section 186 is provided within or without a building, a notice to the effect that such access is restricted to approved personnel only shall be clearly displayed at the entrance to that access.

188. PROVISION OF PROTECTIVE BALUSTRADES OR GUARDS.

(1) The Board may require the provision of a protective balustrade or guard along the side of any portion of a building to which persons may ordinarily gain access and which is not subject to Sections 184 and 186 and along the side of any part of access to a building, if that side—

- (a) is not bounded by a wall; and
- (b) is more than 1m above the finished level of the building floor or ground; and
- (c) the Board considers the absence of a balustrade or guard would represent an undue hazard to persons having access to that portion or part.

(2) A balustrade or guard required under Subsection (1) shall be no less than 860mm in height, such height in the case of a stairway being measured above the nosings of stair treads.

189. REFRIGERATION AND COOLING CHAMBERS.

(1) Refrigeration and cooling chambers which are of sufficient size to permit the entry of a person shall be provided with—

- (a) a door which can at all times be opened from inside without a key; and
- (b) an approved alarm device located outside but controllable only from within the chamber.

(2) The door referred to in Subsection (1)(a) shall be set in an opening having a clear width of not less than 600mm and shall open outwards.

190. STRONG ROOMS.

Strong rooms in buildings shall be provided with—

- (a) internal lighting controllable only from within the room; and
- (b) a pilot light located outside the room but controllable only by the switch for the internal lighting referred to in Paragraph (a); and
- (c) an approved alarm device located outside but controllable only from within the room.

191. WINDOWS TO BE CAPABLE OF BEING CLEANED.

The exterior of all windows are to be capable of being cleaned, and windows above 6m from the ground or 3.7m above an external flat surface or slightly sloping roof sufficient for safety shall be—

- (a) constructed so they can be cleaned from the interior of the building; or
- (b) be capable of being cleaned by other means such as from a building maintenance unit complying with the requirements of the *Industrial Safety Health and Welfare Act 1961*.

192. PROVISION OF SAFETY GLASS.

(1) For the purposes of this section any one of the following shall be deemed to be safety glass:—

- (a) wired glass not less than 6mm in thickness;
- (b) laminated glass having an overall thickness of not less than 6mm and comprising two or more layers of glass and one or more plastic interlayers permanently bonded together under heat and pressure;
- (c) heat-treated (toughened) glass not less than 5mm in thickness and which is permanently marked with the words “safety glass” or “toughened safety glass” or other words which afford a ready means of identifying the safety characteristics of the glass.

(2) Glass used within 1.8m of the floor in any panel or door screening a shower or bath shall be safety glass.

(3) Subject to Subsection (4), safety glass shall be used in—

- (a) every glass door; and
- (b) every fixed glass panel that is so located in relation to other parts of the building as to be capable of being mistaken as a doorway or unimpeded path of travel.

(4) Subsection (3) shall not apply to glass doors or glass panels which—

- (a) comprise part of a building of Class I occupancy; or
- (b) comprise part of a flat; or
- (c) are provided with a frame, decoration or other device sufficient to make the glass plainly distinguishable.

Division 10.***Restoration and Alteration of Existing Buildings.*****193. RESTORATION OF BUILDINGS.**

Where a building or part of a building is destroyed, demolished or pulled down to the extent of more than 50% of its volume, exclusive of footing, for the purpose of

restoring, reconstructing or repairing, the building shall be restored, reconstructed or repaired in accordance with the provisions of this Regulation.

194. RE-ERECTION OF BUILDINGS.

Where a building or part of a building which exceeds the maximum building height permitted under this Regulation is destroyed by fire or other cause beyond the owner's control, the building shall not be reconstructed except in conformity with the provisions of this Regulation.

195. MAJOR ALTERATIONS AND ADDITIONS.

Alterations, additions and repairs to a building shall conform to the provisions of this Regulation—

- (a) where alterations or repairs are made to more than 50% of the volume of the building within a period of five years; or
- (b) where alterations or repairs are required at any one time in excess of 50% of the current value of the building, not deducting from the value any loss caused by fire or other reasons; or
- (c) where the existing use or occupancy of part of a building is changed and the building does not conform to the requirements of this Regulation for the proposed new occupancy; or
- (d) where they involve the construction of an additional storey on an existing building.

196. MINOR ALTERATIONS AND REPAIRS.

Minor alterations and repairs not covered by Sections 194 to 196 inclusive may be made with the same type of materials as used in the original construction provided that—

- (a) not more than 25% of the roof covering of a building is replaced in any period of 12 months unless the entire roof covering is made to conform to the requirements of this Regulation; and
- (b) new roofing, the requirements of this Regulation, may be placed over existing roofing when the existing roofing and the roof framing are such as to permit the new roofing to be properly supported and securely fastened to the satisfaction of the Board; and
- (c) where an increase in the thickness of an existing wall is approved by the Board, that increase shall—
 - (i) be constructed of materials similar to that of the existing wall; and
 - (ii) in the case of masonry walls—
 - (A) have a minimum thickness of 100mm; and

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- (A) be bonded to the existing wall to a depth of not less than 100mm for not less than 25% of its area.

197. RESTORATION AND ALTERATION TO FACTORIES.

Notwithstanding the provisions in Sections 194 to 197 inclusive, restoration of and alteration to a factory as defined in the *Industrial Safety, Health and Welfare Act 1961* are subject to the provisions of that Act.

PART XI. – BUILDING SERVICES.***Division 1.******Services and Equipment.*****198. GAS INSTALLATIONS.**

Where gas is stored or a gas appliance installed in or appurtenant to a building, the storage or installation shall be in accordance with the *Inflammable Liquid Act 1953*.

199. ELECTRICAL INSTALLATIONS.

²Electrical apparatus and appliances and installations for lighting, heating and power or for other applications of electricity shall conform to the Electricity Industry Act (Ch. 78) and PNGS 1022.

200. LIFTS.

A lift installation shall conform to the requirements of the *Industrial Safety (Lifts) Order No. 1 of 1968* made under the *Industrial Safety, Health and Welfare Act 1961*.

201. ESCALATORS.

One or more escalators for the transport of passengers may be installed in a building provided that those escalators are designed, constructed, installed and operated in conformity with the provisions of AS 1735–“Lift Code”.

202. MECHANICAL VENTILATION.

Installation of mechanical ventilating equipment shall conform to the requirements of Part VII.

203. TELECOMMUNICATION CONDUITS AND CABLES.

Where conduits, ducts or cables are required or are provided for telephone, telex, data transmission and the like, the number, dimensions, materials of construction and method of installation of those conduits, ducts or cables shall comply with the requirements of the Papua New Guinea Telecommunication Authority.

² Section 199 Amended by S.R. 2006, No. 68.

Division 2.***Chimneys, Fireplaces and the Like.*****204. MATERIALS FOR CHIMNEYS.**

(1) A chimney shall be constructed of—

- (a) reinforced concrete or solid masonry properly bonded and solidly put together with mortar; or
- (b) sheet metal; or
- (c) other suitable, hard and incombustible material properly and solidly put together.

(2) Subsection (1)(c) shall be deemed to be complied with by the use of material that complies with the test for materials for flues, furnace casings, hearths and similar purposes prescribed in AS 1530—“Methods for Fire Test on Building Materials and Structures”.

205. CONSTRUCTION OF CHIMNEYS.

A chimney shall be—

- (a) built upon footings as prescribed by Part X; or
- (b) carried on steel girders bearing directly on walls having the necessary strength and stability; or
- (c) carried upon corbels of masonry, steel, concrete or reinforced concrete, the work so corbelled being constructed for the full width of the jamb and projecting not more than 360mm from the face of the wall.

206. CONSTRUCTION OF HEARTHES.

(1) A hearth constructed of stone, slate, bricks, tiles, concrete or other incombustible material shall be fixed under and in front of a fireplace opening.

(2) A hearth shall—

- (a) be solidly and securely supported; and
- (b) have a thickness of not less than 90mm; and
- (c) extend not less than 150mm beyond each end of the fireplace opening; and
- (d) project not less than 350mm from the face of the chimney breast; and
- (e) be so laid that its surface is not lower than the floor of the room in which the hearth is situated.

207. JAMBS.

Jambs of a fireplace opening shall be not less than 190mm in thickness on each side of the opening.

208. FIREPLACE BACKS.

(1) Subject to Subsection (2), the back of a fireplace opening from the hearth up to a height of 300mm above the arch or lintel shall be constructed of—

- (a) solid masonry at least 190mm thick; or
- (b) reinforced concrete at least 150mm thick; or
- (c) reinforced concrete faced with masonry or fire brick of a total thickness of 150mm.

(2) Openings for stoves or fire-back grates may be of brickwork 90mm thick.

209. CHIMNEY BREASTS.

The breast of a chimney shall be of incombustible material at least 100mm in thickness.

210. ARCHES AND LINTELS.

An arch of brick, stone or concrete, or a lintel of steel or reinforced concrete, of sufficient strength to support the breast of the fireplace shall be built over the opening of a fireplace.

211. LOCATION OF STEAM PIPES.

A pipe for conveying steam or smoke or other products of combustion shall not discharge into a street, or be fixed on the front of a building facing a street.

212. FLUE PIPES FOR GAS APPLIANCES.

Flue pipes for gas appliances shall be constructed as prescribed by the *Inflammable Liquid Act 1953*.

213. FLUE PIPES FOR STOVES AND HEATERS.

(1) Flue pipes for fuel bath heaters, slow combustion stoves, heating appliances or solid fuel hot water services, shall be carried through the roof to a height of not less than 450mm.

(2) The projecting portion of the flue pipe referred to in Subsection (1) shall be provided with an outer sleeve 25mm clear of the flue pipe commencing at the ceiling level and terminating in a approved cowl, cap or terminal.

Division 3.***Chimney and the like not used for Trade Purposes.*****214. HEIGHT OF CHIMNEYS.**

A chimney shall be carried up at least 300mm higher than any portion of the roof structure within a horizontal distance of 3,600mm, and unless adequately secured, shall have a height, measured from the highest point of the junction with the adjoining roof or gutter, or not more than six times its least width.

215. ANGLE OF CHIMNEYS.

Chimneys shall not be inclined at an angle more than 45° to the vertical, except that a larger angle may be permitted provided that approved soot doors of not less than 25,000mm² in area are provided.

216. THICKNESS OF CHIMNEYS CONSTRUCTED AT ANGLE.

Where the upper side of a chimney is constructed at an angle of more than 45° to the vertical, the thickness of the upper side shall not be less than 190mm.

217. SOOT DOORS.

A soot door shall not be less than 400mm away from woodwork.

218. ROUNDING OF ANGLES.

Angles at a change of direction of a chimney shall be properly rounded.

219. TREATMENT OF INSIDE FACE OF CHIMNEYS.

The inside face of a chimney shall be rendered or lined with fire-resisting materials throughout its length.

220. PLUGS IN CHIMNEYS.

Timber plugs shall not be used nearer than 125mm or iron fastenings nearer than 50mm to the inside of a flue or chimney opening.

221. USE OF TIMBER.

Timber shall not be used within a distance of 50mm from the outer face of a chimney or flue or from the lower face of a hearth.

222. DISTANCE OF PIPES.

A pipe for conveying smoke or other products of combustion shall not be constructed nearer than 225mm to combustible materials, unless—

- (a) the material is protected by a covering of non-combustible material and an air space of not less than 100mm is provided between the covering and the pipe with lagging of incombustible material; or
- (b) a non-combustible thermal insulating material not less than 38mm in thickness is provided around the pipe and is enclosed by a non-corrodible metal alcove of not less than 0.5mm.

223. CUTTING AWAY CHIMNEY BREAST IN PARTY WALLS.

A chimney breast or shaft built with or in a part wall shall not be cut away without the approval of the Board.

224. FLASHING.

A chimney stack shall be effectively flashed at its junction with the roof.

225. CONSTRUCTION NEAR STOVES AND HEATERS.

(1) The floor under a stove or heating appliance not heated by gas or electricity and the surrounding floor for the space of 350mm in front and 225mm elsewhere shall be formed of materials of an incombustible and non-conducting nature not less than 75mm in thickness.

(2) Every portion of a combustible wall within a distance of 300mm from the stove or heating appliance shall be protected with fire-resisting materials.

226. CONSTRUCTION OF FLOORS UNDER GAS OR ELECTRIC STOVES.

The floor under an oven or stove heated by gas or electricity shall be formed of incombustible and non-conducting materials, unless a space of not less than 150mm is provided between the floor and the bottom of the oven or stove.

Division 4.

Chimney used for Trade Purposes.

227. CONSTRUCTION OF MASONRY CHIMNEY SHAFTS.

(1) Except where certification and details of design are submitted to and approved by the Board, a masonry chimney shaft used for the purposes of trade or business shall be constructed as follows:—

- (a) where the shaft is detached, it shall be built with a batter from the base to the top at the rate of at least 1mm in every 100mm of height; and
- (b) the thickness of the masonry at the top of the shaft and for 7,500mm below the top shall be not less than 190mm, where the external dimension does not exceed 1,500mm and not less than 360mm, where the external dimension is greater than 1,500mm; and

- (c) of other portions of the shaft, every 7,500mm shall not be less than 100mm thicker than the 7,500mm immediately above; and
- (d) a cap, cornice, pedestal, plinth, string course or other variation from the masonry shall be additional to the minimum thickness specified above; and
- (e) the least width of the base of the shaft, if rectangular in shape, shall not be less than 10% of the proposed height of the shaft and, if not rectangular in shape, not less than 1/12 of the height, when the height of the shaft is measured from the top of the footings.

(2) Notwithstanding Subsection (1), in Seismic Zones 1 and 2 chimney shafts shall not be constructed in masonry.

228. CHIMNEY SHAFTS OF MATERIALS OTHER THAN MASONRY.

Certification and details of designs for chimney shafts of reinforced concrete, sheet metal or of other materials conforming to Section 227(1)(c) shall be submitted to the Board for approval.

229. DISTANCE OF FLUES FROM COMBUSTIBLE MATERIALS.

A flue for conveying smoke or other products of combustion shall not be placed nearer than 190mm to combustible materials, and lagging used shall be of incombustible materials.

230. DISTANCE OF STEAM PIPES FROM COMBUSTIBLE MATERIALS.

A pipe for conveying steam or air at a temperature exceeding 100°C shall not be fixed nearer than 50mm to combustible material and lagging used shall be of incombustible material.

231. CONSTRUCTION OF FLOOR CEILINGS NEAR OVENS AND THE LIKE.

(1) A floor or part of a floor under or within 1,800mm of an oven, boiler or furnace shall be constructed of materials having a fire-resistance rating of not less than three hours.

(2) Subject to Subsection (3), a floor, ceiling or roof, or part of a floor, ceiling or roof, above and within a distance of 1,800mm from an oven, boiler or furnace shall be constructed of materials having a fire-resistance rating of not less than three hours.

(3) Where the heating unit is adequately self-insulated to the satisfaction of the Board, Subsection (2) does not apply.

232. CONSTRUCTION OF WALLS NEAR OVENS AND THE LIKE.

A wall or part of a wall within a distance of 1,800mm from an oven, boiler or furnace shall be constructed of materials having a fire-resistance rating of not less than three hours.

Division 5.***Sanitation.*****233. SANITARY ACCOMMODATION.**

Unless otherwise provided for in this Regulation, sanitary conveniences shall be connected to a public sewerage system or to a septic tank system and shall conform to the requirements set out in the *Public Health Act 1973* and the *National Water Supply and Sewerage Act 1986* and the regulations made under those Acts.

234. FOUL WATER DRAINS.

(1) A closed drain carrying foul water from a building shall conform to the *Public Health Act 1973* and the *National Water Supply and Sewerage Act 1986* and the regulations under those Acts.

(2) Where a closed foul water drain exceeds 6m in length it shall have at or near its upper end an educt vent carried up above the highest part of the roof with a bird proof cowl or wire basket fitted on top of the educt vent and shall be air disconnected from every waste pipe or downpipe discharging into the drain.

235. DISCHARGE OF FOUL WATER DRAINS.

(1) A foul water drain shall discharge—

- (a) to an approved point; or
- (b) to a system of subsoil absorption drains or covered soak pit after the removal of grease and solid matter; or
- (c) to a sufficient area of absorbent soil not less than 6m distant from the building or from a street; or
- (d) to an impervious tank or pit.

(2) The discharge into a tank or pit referred to in Subsection (1)(d) shall be removed as often as is necessary, and disposed of to the satisfaction of the Board in a manner not causing any nuisance, danger to health or pollution to a river, stream, watercourse, lake, lagoon, swamp or marsh, and in accordance with the *Water Resources Act 1982*.

236. DISCHARGE OF PIPE DRAINS.

Where the foul water drain from a building discharges into an underground drainage system, the sewerage authority may require the installation of a grease trap fitted to the pipe drain from the building.

237. HOUSEHOLD DRAINAGE AND SEWERAGE.

(1) In sewered areas, household drainage and sewerage shall be discharged into sewers, and the sanitary plumbing and drainage installation shall conform to the requirements of this Regulations and to the *Public Health Act 1973* and the *National Water Supply and Sewerage Act 1986* and the regulations made under those Acts.

(2) In unsewered areas—

- (a) sinks, water troughs, baths and lavatory basins shall be provided with waste pipes of approved material installed in accordance with PNGS 1532, discharging into drains outside the building; and
- (b) covered or underground drains conveying household drainage or sewage shall be efficiently trapped or air-disconnected from discharge materials and be airtight, and shall have sufficient falls; and
- (c) open drains for conveying house-hold drainage or sewage shall be of approved materials with watertight joints, and shall be constructed to have sufficient falls.

Division 6.

Drainage, Plumbing and Water Supply.

238. GENERAL.

The *Public Health Act 1973* and regulations made thereunder and the *National Water Supply and Sewerage Act 1986* and regulations made thereunder apply in respect of drainage, plumbing and water supply.

PART XII. – SPECIAL CLASS REQUIREMENTS.

Division 1.

Building of Class VI Occupancy.

239. SHOPFRONTS.

(1) A shopfront shall not exceed two storeys in height above the level of the public footpath in front of a shop, unless the Board is satisfied that the glass structure and glazing complies with Section 143 and where the shopfront exceeds two storeys the application shall be certified by a registered structural engineer.

(2) No part of a frame to a shopfront shall be fixed–

(a) nearer than 75mm to the centre of a reinforced concrete party wall; or

(b) nearer than 100mm to the centre of a masonry party wall; or

(c) nearer than 100mm to the face of a wall of adjoining premises where those premises have a separate wall.

(3) An arch or lintel constructed of brick, stone, reinforced concrete or other material having a fire-resistance rating of not less than one hour shall be provided over a shopfront opening.

(4) A shopfront opening may be framed wholly or partly in structural steel or reinforced concrete conforming to Part X.

(5) That part of a shopfront constructed not less than 2,700mm above the pavement may project beyond the street alignment–

(a) not more than 300mm in streets exceeding 10m in width; or

(b) not more than 200mm in streets less 10m in width.

(6) Mouldings shall not project more than 12mm beyond the street alignment at a height less than 2,700mm above the pavement.

240. WALLS ABOVE SHOPFRONTS.

Subject to Part VIII, walls between the head of shopfronts frames and underside of awning or lintel cover openings may be constructed of timber or other approved material.

241. MIRRORS AND SHOW CASES.

Mirrors and show cases shall be fixed flat against a wall, pier or pilaster in such a way that no portion shall project beyond the street alignment.

242. FACINGS.

(1) Tiling or other applied facing on a wall, pier or pilaster shall not project beyond the street alignment at a height less than 2,700mm above the pavement.

(2) Where a shopfront is being constructed on an existing building, facing applied to piers only may project no more than 50mm beyond the street alignment.

243. STALL BOARDS.

Stall boards under a shopfront shall be constructed of brickwork, stonework, concrete or other material having a fire-resistance rating of not less than one hour.

Division 2.

Building of Class VIII Occupancy.

244. AIR SPACE.

From the floor level to a height of 300mm, the free air space in a workroom in a building of Class VIII occupancy shall be not less than 12m³ per person employed in the work room.

245. DINING ROOMS, BATHROOMS, CHANGE AND REST ROOMS.

Dining rooms, bathrooms, change rooms or rest rooms for the use of employees in factories shall be constructed in accordance with the *Industrial Safety, Health and Welfare Act 1961* or, where no special provisions are prescribed in that Act, to the approval of the Board (taking into account the nature of the manufacturing process and the number of employees concerned).

246. WASHING FACILITIES.

Washing facilities shall be provided in a factory in accordance with the *Industrial Safety, Health and Welfare Act 1961*.

247. DRINKING WATER.

A factory shall be provided with bubblers with mouth guard or other approved devices for the supply of clean wholesome drinking water, in numbers approved by the Board (taking into account the number of persons employed in the factory) and so placed as to be accessible to employees at all times.

Division 3.

Buildings of Class X Occupancy.

248. SLEEP-OUTS.

Not more than two detached sleep-outs may be constructed appurtenant to—

- (a) a building of Class I, III or IV occupancy; or
- (b) a dwelling in a building of Class II occupancy on a site accommodating not more than two flats,

and a sleep-out shall not—

- (c) be constructed–
 - (i) closer to the front alignment than the building that is appurtenant to; or
 - (ii) closer to any other boundary of the site than the minimum distance prescribed by this Regulation for such a building; or
- (d) be less than 3m from any other building or sleep-out on the site; or
- (e) have an area other than that specified in this Regulation for habitable areas, except that openings having an effective airway not less in area than 12.5% of the floor area shall be deemed to comply with the provisions of Division VII. 6; or
- (f) contain facilities for the preparation of food.

249. WORKSHOPS, SHEDS AND THE LIKE.

Workshops coming within the classification of factories as defined in Part III, sheds, and similar structures may be constructed subject to the following conditions:–

- (a) where attached to a building of another class, they shall be constructed of similar materials to the main building and, with regard to distance from boundaries, shall conform to the requirements of this Regulation for the main building;
- (b) where detached from the main building, they shall be not less than 3m from a dwelling on an adjoining site, not less than 15m from the front alignment and not less than the distance specified in this Regulation for other boundaries for the main building;
- (c) where they are less than 1200mm from the boundary of the site, the wall nearest to the boundary shall be constructed of approved incombustible materials provided that no part of the structure within the boundary shall exceed 3m in height and no means of access may be provided to the roof from the side boundary.

250. LAUNDRIES.

A detached laundry may be constructed appurtenant to a dwelling if–

- (a) it does not exceed 15m² in area; and
- (b) it conforms to Section 249(b) and (c).

251. BATHING, WADING AND SWIMMING POOLS.

(1) Inner faces of walls to all permanent bathing, wading and swimming pools shall be not closer to boundaries than the distance specified in this Regulation for a building of Class I occupancy, and walls or structures nearby shall be underpinned if required by the Board.

(2) An indoor or outdoor permanent bathing, wading or swimming pool exceeding 900mm in depth shall conform to the following requirements:—

- (a) the pool shall be of the recirculation type in which the water circulation is maintained through the pool by a pump, the water drawn from the pool being clarified and disinfected before being returned to the pool by an approved method;
- (b) the pool shall be capable of being completely emptied to the satisfaction of the Board and the Waterboard;
- (c) the pool shall be watertight with smooth surfaces constructed of non-absorbent, non-slip material;
- (d) the pool shall be demonstrated to be structurally sound;
- (e) the concourse around the pool shall be constructed with a non-slip material and be graded away from the pool;
- (f) egress from the pool shall be provided;
- (g) the pool shall be enclosed in accordance with AS 2818 Section 9.

PART XIII. – DECLARED AREA BUILDINGS.

252. INTERPRETATION.

In this Part, “declared area” means an area declared to be a Self-Help Housing Area under Section 253.

253. DECLARATION.

The Minister may, on the advice of the statutory Physical Planning Board, by notice in the National Gazette, declare an area to be a Self-Help Housing Area.

254. APPLICATION OF THIS PART.

(1) This Part applies only to any residential building in a declared area with a floor area less than 90sqm erected for domestic use by an owner-occupier, provided that the building does not exceed two storeys in height.

(2) The purpose of this Part is to enable a family to construct a home which meets minimum requirements of health and structural stability and to limit the spread of fire.

255. PERMISSION OF THE BOARD.

A person holding legal occupancy to an allotment in a declared area may commence building in accordance with this Part without the requirements of a building permit, provided that that person gives notice to the Board of the intention to build according to the Schedule.

256. MAXIMUM AREA OF THE BUILDING.

The total ground coverage of all buildings on an allotment shall not exceed one-half of the area of the plot.

257. DISTANCE FROM BOUNDARIES.

(1) A building may be erected up to the boundary of the allotment adjoining a public road or, in the case where a ‘building line’ has been established by the Physical Planning Board, up to the building line.

(2) No part of a building with an external wall of timber or other flammable material shall be located less than 1.2m from a boundary adjoining a neighbouring building allotment.

(3) A building with an external wall of stone or brick may be built up to the side boundary of an allotment provided that the wall—

- (a) projects laterally 300mm beyond any flammable materials; and
- (b) projects 300mm above any adjoining flammable materials; and
- (c) has no external openings.

258. HABITABLE SPACE.

(1) Any habitable room or covered space (i.e. for living, sleeping or eating) shall have a floor area of at least 5m² and be at least 2m wide, provided that a building with only one habitable area shall have a total minimum floor area of 10m².

(2) The headroom in each habitable room or cooking space shall be the minimum of 2m over at least two thirds of the floor area.

(3) Each allotment shall be provided with cooking, ablution and toilet facilities, which may be separated from, or included in, the dwelling.

259. LIGHT AND VENTILATION.

Habitable rooms, enclosed cooking areas and toilets shall have external openings for ventilation equivalent to at least 5% of the floor area, and openings (which may be closeable) to permit the entry of natural light equivalent to at least 10% of the floor area.

260. MATERIALS AND CONSTRUCTION.

Materials and construction of a house shall be as follows:—

- (a) materials used may be either of a proprietary kind (e.g. fibreboard, iron, steel, plastic, cement, fibreglass etc.), or a natural material (e.g. round pole timbers, thatched grasses, bamboo, shakes, shingles, clay coronous, etc.) or a mixture of both as deemed suitable for the purpose;
- (b) footings shall be structurally sound and adequate to support the load transmitted to them;
- (c) cement stabilized earth or concrete floors shall be raised at least 150mm above the surrounding ground level;
- (d) timber floors shall be raised above the ground with an air gap of at least 500mm between the ground and the underside of any timber;
- (e) wall frames shall be constructed to give adequate support to the roof and structural timber wall frames shall be braced to provide stability and to keep the wall linings rigid;
- (f) the use of concrete blocks, suspended concrete slabs and reinforced concrete shall require a permit from the Board before construction;
- (g) brick or stone construction may be used without a permit from the Board, provided that—
 - (i) the total height of a wall shall not exceed 2.5m; and
 - (ii) the wall shall be supported at right angles to its face by an intersecting wall or pier and the distance between these lateral supports shall not exceed 2.5m; and
 - (iii) the site is located in Seismic Zone 3 or 4;

- (h) roofs shall be adequately tied down to the walls and covered with a material impervious to the penetration of rain;
- (i) the width of any stair shall be not less than 750mm and shall have a pitch not exceeding 45% and uniform spaced treads not less than 200mm wide.

261. ELECTRICAL INSTALLATIONS.

³All electrical installations shall be in accordance with the Electricity Industry Act (Ch. 78) and regulations and by-laws thereunder.

262. WATER SERVICES.

(1) Where piped water is not available in a declared area, covered clean water storage shall be provided on each allotment adequate to cater for the household needs.

(2) Excess surface water shall be drained away from the house and, where there is not a reticulated disposal system, household waste water shall be disposed of by an absorption pit.

(3) No absorption pit shall be closer than 3m to any building or allotment boundary.

263. SANITATION.

The following are the requirements in respect of sanitation in a house:–

- (a) a toilet shall be provided for each house allotment;
- (b) a toilet situated within, or attached to, a house shall be a water closet and shall not be accessible directly from any area used for the preparation, cooking or storage of food unless the toilet is located in an ablutions room with a floor area at least 2m²;
- (c) a toilet within or attached to a house shall have a floor of impermeable material falling to an outlet;
- (d) a pit-type toilet shall be located not less than 6m from a habitable room or area used for preparation, cooking or storage of food;
- (e) a pit-type toilet shall have a fly-proof cover or water seal, and shall be at least 3m deep;
- (f) a detached pit-type toilet may not be located within 2m of any similar toilet.

³ Section 261 Amended by S.R. 2006, No. 68.

264. ADJACENT ALLOTMENTS.

Adjacent allotmentholders who have legally consolidated their allotments and have taken joint title, may construct a common building or group of buildings and where this has been done this Part applies as if the consolidated allotments are one.

265. OFFENCE.

It is deemed an offence under the Act for a building to be constructed in a declared area contrary to this Part or, in the case of a non qualifying building, without a building permit.

266. OCCUPATION OF BUILDING.

A residential building in a declared area may be occupied without a certificate of completion.

267. TECHNICAL GUIDANCES.

This Part should be read in conjunction with the following publication:–

“Low Cost House Building–A Construction Handbook for the Guidance of Self-Help Home Builders. Department of Works, Papua New Guinea.”

PART XIV. – MISCELLANEOUS PROVISIONS.***Division 1.******Signboards, Hoardings, Advertisements and the Like.*****268. SUPPORTING STRUCTURES.**

A structure erected for the purpose of supporting signs, advertisements, notices and the like (such as bill-boards, hoardings, banners or other framework) shall be constructed in accordance with a design and of materials approved by the Board, so that—

- (a) no part of the structure projects more than 300mm beyond the street alignment, and no projection is at a height less than 2,400mm from the level of the footpath; and
- (b) where the structure is erected above a street or public footway, it has sufficient clearance to allow unimpeded movement of traffic; and
- (c) the structure does not constitute a hazard to vehicular, pedestrian, or air traffic by the distraction or obstruction of visibility.

269. SIGNS NOTICES, ADVERTISEMENTS AND THE LIKE.

(1) A sign, notice, advertisement and the like shall not be erected or displayed without the written approval of the Board.

(2) An alteration or addition to, and the transferring of an existing sign, notice or advertisement are subject to the approval of the Board.

(3) A permit issued by the Board shall be for a specified period, and is subject to the payment of a prescribed fee and to such conditions as are imposed by the Board, declaring that the fee for a temporary sign is the same as for a permanent sign and shall be as shown in Schedule 2.

(4) The owner or occupier of land, a building or a structure to which a sign, notice, advertisement or the like is attached shall keep the structure, sign, notice, advertisement or the like in good repair and clean to the satisfaction of the Board.

(5) Notwithstanding the other provisions of this section a sign, notice, advertisement or the like shall not be erected in a position or in a manner constituting a distraction or obstruction of visibility.

270. EXEMPTIONS.

Subject to this Part, the following signs, notices, advertisements and the like (other than illuminated signs) may be displayed without the approval of the Board:—

- (a) functional advertisements of a statutory body;
- (b) miscellaneous advertisements relating to premises on which they are displayed, if they do not project past the street alignment;

- (c) advertisements or signs relating to a person, partnership, company or the like carrying on a profession, business or trade at the premises where the advertisement or sign is displayed, if they do not exceed 0.27m² in area;
- (d) advertisements or signs relating to an educational, medical, religious or benevolent institution or the like, or to a residential hotel, block of flats, club, boarding house, hostel or the like, if they are displayed within the premises and do not exceed 1.08m² in area;
- (e) advertisements or signs relating to the announcement of building operations for the duration of the building operations, if they do not exceed 2.16m² in area;
- (f) advertisements relating to the sale or letting of property on which they are displayed, if they do not exceed 2m² in area;
- (g) advertisements displayed on business premises, where they contain only the name of the person, firm or company the nature of the business and the nature of type of goods sold;
- (h) advertisements displayed within a building.

271. POWERS OF THE BOARD IN CASE OF NON-COMPLIANCE.

(1) Where a sign, notice, advertisement or the like is erected contrary to this Division, the Board shall serve notice on the owner of the building, land or structure to which the sign, notice, advertisement or the like as the case may be is attached, requiring him to pull down or repair, within a time to be specified in the notice, the sign, notice, advertisement or the like, as the case may be.

(2) Where, within the time specified in a notice under Subsection (1), the owner does not pull down or repair the sign, notice, advertisement or structure specified therein to the satisfaction of the Board, the owner is guilty of an offence.

Penalty: A fine not exceeding K200.

Penalty Default: A fine not exceeding K50.

272. OFF-STREET PARKING FACILITIES.

(1) In a township declared for the purposes of this Part by the Head of State, acting on advice, by notice in the National Gazette, a Board shall not grant an application for the approval of the plans and specifications of a proposed building or alterations unless the plans and specifications make provision for off-street parking facilities to be provided within the boundaries of the area on which the building stands or is to be erected, in accordance with the requirements of the *Physical Planning Act 1989*.

(2) Where the Board is of the opinion that the requirements for the Physical Planning Board are unreasonable in any particular circumstances and that greater or lesser off-street parking facilities ought reasonably to be provided in a particular

case, it may request a variation from the Physical Planning Board of those requirements.

Division 2.

Precautions during Construction and Pulling Down of Buildings.

273. PROTECTION OF THE PUBLIC.

(1) Where a building is constructed or pulled down at or adjoining a street alignment, precautions shall be taken to ensure the safety of the public using the street and particulars of the precautions shall be submitted to and be approved by the Board before work is commenced.

(2) Where excavations connected with the construction or pulling down of a building are made in or adjoining a street, those excavations shall be—

- (a) adequately fenced; and
- (b) at night lighted to prevent injury to the public; and
- (c) where considered necessary by the Board, properly timbered to prevent damage to the street.

274. PROTECTION OF WORKMEN.

Where excavations connected with the construction or pulling down of a building required to be timbered, the timbering shall be constructed so as to afford adequate protection for workmen to the satisfaction of the Board.

275. PROTECTION OF ADJACENT PROPERTY.

(1) Where excavation or demolition is to be made in proximity to an existing building, the walls of that building shall be shored, underpinned or protected as necessary to ensure stability, to the satisfaction of the Board.

(2) Where the footing of an existing building is of material likely to become unstable as a result of the excavation of adjoining ground, additional precautions shall be taken to ensure its stability and any underpinning shall be in conformity with the requirements of this Regulation.

(3) Where the footing of an existing building consists of hard stable rock the requirements of Subsection (1) relating to underpinning may, with the approval of the Board, be dispensed with.

276. TEMPORARY RAMPS.

Where a temporary ramp is required to provide access to excavations in connection with building operations, it shall—

- (a) have a minimum width of 3,000mm; and
- (b) have a guide or kerb on each side at least 225mm in height and 150mm in width adequately connected to the ramp; and

- (c) shall be constructed to a suitable grade and have the necessary strength and stability.

277. HEIGHT OF WALLS DURING CONSTRUCTION.

No wall or portion of a wall shall, during its construction, be built to a height greater than 1,500mm or six times its thickness, whichever is the greater, above an adjoining wall unless it is supported by temporary shores, proper scaffolding or buttresses at intervals not greater than 30 times the thickness of the wall, until such time as roof or floor ties or cross walls are in position.

278. PULLING DOWN OF BUILDING.

The following requirements in connection with the pulling down of buildings shall be complied with:—

- (a) unless otherwise approved by the Board, storey after storey shall be completely removed;
- (b) materials being removed from a building shall be placed upon the floor or floors of the building, but shall be lowered to the ground immediately upon displacement and removed from the site unless otherwise approved by the Board;
- (c) no portion of an external wall abutting on a street or road shall be pulled down except between such hours as the Board directs;
- (d) for the purpose of preventing or lessening nuisance from dust, material displaced from a building shall be kept sprayed with water.

279. ALTERATION TO BUILDINGS.

Where alterations are being made to a building, every portion of the building likely to become structurally insecure by reason of those alterations shall be adequately shored up and supported to the satisfaction of the Board.

280. PERMIT FOR PULLING DOWN OR REMOVAL.

No building or substantial portion of a building shall be pulled down or removed unless a permit for the pulling down or removal has been issued by the Board.

Division 3.***Ruinous and Dangerous Buildings.*****281. POWER OF ENTRY.**

Where the Board has cause to believe that a building or part of a building is in a ruinous state or is dangerous to the public, it may enter therein or thereon and make such inspection and reasonable tests as may be necessary to determine

whether the building or part of the building is in a ruinous state or dangerous to the public.

282. PROTECTION OF PUBLIC.

Where, after inspection referred to in Section 281, the Board is satisfied that a building, part of a building, a fixture attached to a building, or a fence on or within 3m of a street alignment is in a ruinous state or dangerous to the public or to the occupiers of the building, the Board may—

- (a) cause a proper hoarding, fence or prop to be erected for the protection of the public and of the occupiers; and
- (b) where necessary, cause the adjoining to be properly shored up.

283. NOTICE TO OWNER.

Where circumstances so warrant, the Board shall serve notice on the owner of a building, fixture or fence specified in Section 282 requiring him, within a time to be specified in the notice, to pull down, secure or repair the building or part of the building, or part of the building, fixture or fences, as the case may be.

284. POWER OF BOARD.

Where, within the time specified in the notice under Section 283 the owner does not pull down, secure or repair the building, fixture or fence specified in the notice to the satisfaction of the Board, the Board may exercise in relation to that building, fixture or fence the powers conferred by this Regulation, as if the same were a building, fixture or fence constructed contrary to this Regulation.

Division 4.

Fences and the Like.

285. FENCES.

A fence (including an ornamental hedge) shall not be constructed to a height greater than 1,200mm above the level of the footpath except with the consent of the Board.

286. HOODS, PERGOLAS AND THE LIKE.

Hoods, pergolas or ornamental heads to gateways or fences shall be constructed in accordance with a design and of materials approved by the Board, provided that no part of such a hood, pergola or ornamental head projects more than 300mm beyond the street alignment and there is no projection at a lower height than 2,700mm from the level of the footpath.

287. DIVERSION OF SEEPAGE.

A retaining wall of brick or concrete shall have seepage diverted in a manner approved by the Board, but seepage shall not be discharged on to a public footpath.

288. BARBED-WIRE.

Barbed-wire erected adjacent to a street—

- (a) shall be set back not less than 150mm from the street alignment up to a height of 2,300mm above the level of the street; and
- (b) shall not project beyond the street alignment; and
- (c) shall require the approval of a Board.

Division 5.***Awnings and Sun Blinds.*****289. STREET AWNINGS.**

No awning or sun blind shall be constructed to project over a street, unless approved by the Physical Planning Board.

290. CONSTRUCTION.

An awning or sun blinds projecting over a street shall be—

- (a) supported by cantilever brackets off the main structures; and
- (b) constructed of incombustible materials, except that, where the underside of an awning is lined with incombustible material, the purlins and rafters may be of timber.

291. HEIGHTS ABOVE PAVEMENTS.

(1) An awning shall—

- (a) be set back not less than 650mm from the kerb at a height of not less than 3,000mm; or
- (b) terminate in line with the kerb or within 750mm of the line of the kerb at a height not less than 3,800mm above the pavement.

(2) The height of any part of a sunblind shall not be less than 2,300mm above the pavement and shall not project more than 2,400mm from the building to which it is attached

(3) Notwithstanding Subsections (1) and (2) the Board may, in special cases, permit or require an awning and sun blind to be erected at heights and distances other than those specified in Subsections (1) and (2).

292. AWNING ROOFS.

(1) The roof of an awning shall—

- (a) have fall towards the building of not less than 1 in 25, except, where the roof covering is of continuous metal sheeting, the Board may permit a fall of not less than 1 in 100, in which case the fall may be to the sides of the awning; and
- (b) be covered with fire resisting material which is impervious to moisture and conforms to the provisions of this Regulation with regard to roofing; and
- (c) be provided with a gutter of approved material; and
- (d) be provided with a downpipe or pipes of wrought iron, cast iron or other approved material chased into walls or piers or so set back that it does not project beyond the face of the building, and those downpipes shall discharge into the street channel or underground storm water drain.

(2) The Board may exempt from the provisions of Subsection (1) an awning of light-weight metal construction which does not project more than 2,400mm from the building to which it is attached and which is set back not less than 750mm from the kerb at a height not less than 2,400mm above the pavement.

293. AWNING CEILINGS.

Where so required by the Board, the underside of an awning shall be lined with incombustible material.

PART XV. – ACCESS FOR PERSONS WITH DISABILITIES.**294. APPLICATION OF PART.**

Subject to Section 297, this Part applies to buildings of Classes III, V, VI, VII, VIII and IX occupancy.

295. ACCESS TO BUILDINGS.

Access for persons with disabilities shall be provided to buildings as set out in the following Table by means of a continuous path of travel in accordance with AS 1428.1.–

- (a) from a road boundary of the allotment; and
- (b) from any carpark space on the allotment (whether within or outside the building)–
 - (i) that is set aside for people with disabilities using the building; or
 - (ii) if there are no carpark spaces set aside for them, from any carpark area that serves the building; and
- (c) from any other building on the allotment to which access for people with disabilities is required.

TABLE (SECTION 295) – REQUIREMENTS FOR ACCESS FOR PEOPLE WITH DISABILITIES

Class of Building	Access Requirements
Class 3	
(a) Common areas of buildings that are required to be accessible.	The entrance floor and to all public areas on every floor.
(b) If the building contains–	To and within–
More than 20 units.	One sole-occupancy unit
More than 49 but not more than 99 units.	2 sole-occupancy units
More than 99 units.	3 sole-occupancy units
(c) If accommodation is provided for more than 20 persons other than in sole-occupancy units–	
up to 49 beds	2 beds

Class of Building	Access Requirements
more than 49 but not more than 99 beds	4 beds
more than 99 beds	6 beds
Note that for the purposes of this Table, a double bed counts as 1 bed.	6 beds
Class V and VII	To and within the entrance floor if its floor area is more than 500m ² .
Class VII	To and within the entrance floor if the total floor area of the building is more than 3000m ² .
Class VIII	To and within the entrance floor if the total floor area of the building, excluding any part used as a laboratory, is more than 1000m ² .
and	
Class V, VI, VII and VIII	To and within any floor if irrespective of floor area, the floor is not more than 190mm at the point of entrance above or below the adjacent finished ground level; and within any other floor to which vertical access by way of a ramp, step ramp or kerb ramp complying with AS 1428.1 or a passenger lift is provided.
Class IXa To all areas normally accessible to patients/ residents	Applies to buildings of this class other than prisons, and only to buildings located in provincial cities or outside the capitals if they contain more than 100 beds.
Class IXb and IXc To all areas normally accessible to patients/ residents	Applies to buildings in provincial capital cities only and buildings designed to seat/ cater for more than 50 persons.

Class of Building	Access Requirements
Class IXd To all areas normally accessible to patients/ residents	Applies to buildings designed to seat/ cater for more than 50 persons.

296. PARTS OF BUILDINGS TO BE ACCESSIBLE.

(1) Access for persons with disabilities shall be provided—

- (a) from the doorway at the entrance floor providing access to any sanitary compartment required for the use of people with disabilities; and
- (b) to areas normally used by the occupants, excluding any plantroom, commercial kitchen, cleaners' store room, maintenance accessway, rigging loft, or the like.

(2) A path of travel providing required access must not include a stairway, turnstile, revolving door, escalator or other impediment which would prevent a person in a wheelchair using it.

(3) Access, finishes and fittings, including passageways, ramps, steps ramps or kerb ramps, passenger lifts, signs, doorways and other parts of the building required by this Part shall comply at least with the provisions of AS 1428.1, excluding any references within the Standard to AS 1735.12.

297. CONCESSIONS.

It is not necessary to provide access for persons with disabilities to—

- (a) more than 30% of the public space in a restaurant, cafe, bar, function room, or the like, in building of a Class VI or Class IXb occupancy; or
- (b) a mezzanine; or
- (c) a space not regarded as a storey by definition; or
- (d) more than one car parking space for each 100 spaces in a public carpark; or
- (e) any area if access would be inappropriate because of the particular purpose for which the area is used.

PART XVI. – REPEAL.

298. REPEAL.

The following Regulations are hereby repealed:–

- (a) *Building Regulation* (Chapter 301);
- (b) *Building (Building Inspectors) Regulation 1985* (No. 14 of 1985);
- (c) *Building (Amendment) Regulation 1986* (No. 9 of 1986);
- (d) *Building (Amendment) Regulation 1992* (No. 1 of 1992);
- (e) *Building (Amendment No. 2) Regulation 1992* (No. 2 of 1992).

PART XVII. – SAVINGS AND TRANSITIONAL PROVISIONS.**299. INTERPRETATION.**

In this Part, “the repealed Regulations” means the Regulations repealed by Section 298.

300. PERMITS, ETC., GRANTED UNDER REPEALED REGULATIONS.

A permit issued under, or certificate granted under, the repealed Regulations and valid and in force immediately before the coming into operation of this Regulation, shall continue, on that coming into operation, to have full force and effect for the term for which they were issued or granted or until they sooner expire or are revoked according to law as if the repealed Regulations had not been repealed, and the repealed Regulations are saved to the extent necessary to give effect to this provision.

301. APPLICATIONS, ETC., UNDER REPEALED REGULATIONS.

(1) Subject to this section, where—

- (a) prior to the coming into operation of this Regulation, an application had been made under the repealed Regulations; and
- (b) on that coming into operation, the procedure in respect of that application has not been completed,

that application may continue to be dealt with in accordance with the provisions of the repealed Regulations and the repealed Regulations are saved to the extent necessary to give effect to this provision.

(2) The provisions of Subsection (1) shall apply for a period of one year after the coming into operation of this Regulation.

302. SAVING IN RESPECT OF WORKING DRAWINGS FOR BUILDING DESIGN SUBSTANTIALLY IN PROGRESS ON THE COMING INTO OPERATION OF THIS REGULATION.

(1) Subject to this section, where, on the coming into operation of this Regulation—

- (a) working drawings for a building design are substantially in progress; and
- (b) such drawings and designs have been prepared to accord with the provisions of the repealed Regulation,

the application for approval thereof and the procedure relative to such application may proceed under the repealed Regulations as if the repealed Regulations had not been repealed, and the repealed Regulations are saved to the extent necessary to give effect to this provision.

(2) The provisions of Subsection (1) shall apply for a period of one year after the coming into operation of this Regulation.

303. ACTIONS, ETC., NOT TO ABATE.

Where, immediately prior to the coming into operation of this Regulation, any action, arbitration, proceeding or prosecution was pending or existing by or against a person or body under the repealed Regulation, it does not, on that coming into operation, abate or discontinue, or be in any way affected by any provision of this Regulation, but it may be prosecuted, continued and enforced by, against or in favour of the person or body as if this Regulation had not been made.

304. CATEGORY 'A' AREAS.

An area declared under Schedule 4 of the repealed Regulations for the purposes of the repealed Regulations is deemed to be declared area under this Regulation.

305. REFERENCE IN OTHERS, ACTS, ETC.

Where—

- (a) any Act, or subordinate enactment other than this Regulation; or
- (b) any document or instrument wherever made or executed,

contains a reference, express or implied, to the repealed Regulations, or any provision thereof, that reference shall, on the coming into operation of this Regulation, be read and construed and have effect as a reference to this Regulation and to the equivalent provision thereof.

SCHEDULE 1 – SEISMIC ZONES IN PAPUA NEW GUINEA.

Reg. Sec. 3

- (1) Seismic zones are defined by boundaries described as follows:–
- (a) Boundary No. 1 extends from the intersection of latitude 6°S and the border with Irian Jaya on longitude 141°E south east-wards to the intersection of latitude 8°S and longitude 144°E then due east to the intersection of latitude 8°S and longitude 146°30'E then south-eastwards to the intersection of latitude 10°S and longitude 149°30'E then due east to the intersection of latitude 10°S and 155°E on the easternmost border of Papua New Guinea.
 - (b) Boundary No. 2 extends from the intersection of latitude 4°37'S and the border with Irian Jaya on longitude 141°E due to the south-eastwards to the intersection of latitude 8°S and longitude 148°E then due east to the intersection of latitude 8°S and longitude 154°E on the easternmost border of Papua New Guinea.
 - (c) Boundary No. 3 extends from the intersection of latitude 2°S and longitude 141°E on the border with Irian Jaya south-eastwards to the intersection of latitude 3°S and longitude 145°E then south-eastwards to the intersection of latitude 5°S and longitude 147°E then due east to the intersection of latitude 5°S and 150°E then north-eastwards to the intersection of latitude 3°S and longitude 152°E then due east to the intersection of latitude 3°S and longitude 154°E then south-eastwards to the intersection of latitude 7°S and longitude 157°E.
 - (d) Boundary No. 4 extends from the intersection of latitude 1°S and longitude 141°E on the border with Irian Jaya eastwards to the intersection of latitude 2°S and longitude 154°E then south-eastwards to the intersection of latitude 6°S and longitude 157°E on the easternmost border of Papua New Guinea.
 - (e) Boundary No. 5 extends from the intersection of latitude 8°S and longitude 157°E north-westwards to the intersection of latitude 6°S longitude 150°E then north-wards to the intersection of latitude 4°S and longitude 152°E then due east to the intersection of latitude 4°S and longitude 153°30'E then south-eastwards to its point of origin.
- (2) Seismic zones are shown in Plate 1 and are described as follows:–
- (a) Seismic Zone 1 comprises all those parts of the country lying within Boundary No. 5.

- (b) Seismic Zone 2 comprises all those parts of the country lying within Boundary No. 2 and Boundary No. 3, but excluding those parts of the country lying within Boundary No. 5.
- (c) Seismic Zone 3 comprises all those parts of the country lying within Boundary No. 1 and Boundary No. 2, and within Boundary No. 3 and Boundary No. 4.
- (d) Seismic Zone 4 comprises all those parts of the country lying south of Boundary No. 1 and north of Boundary No. 4.

SCHEDULE 2

Reg. Sec. 1(4).

PAPUA NEW GUINEA.

Building Act 1971.

Form 1 – Application for approval.

Reg., Sec. 5 Form 1.

To the Chairman, ... Building Board/Authority*.

... apply/applies* for approval to erect/alter* the building described in this application in accordance with the attached plans numbered ... and the attached specifications.

Particulars Relating to this Application.

1. Applicant
 - (a) Name (print): ... (b) Postal Address: ... (c) Status: ...
 The applicant is the occupier of the land/the owner of the land*.
 (or)
 The Applicant is +—
 an architect a builder a contractor an engineer an employee a person other than an architect, builder, contractor, engineer or employee engaged or employed by the occupier of the land/the owner of the land*.
2. Land on which the building or proposed building is or will be situated.
 - (a) Description

Allotment ...	Section ...	City (or Town) of ...
	(or)	
Portion ...	Milinch ...	Fouttil of ...
 - (b) Area:
 - (c) Type of lease (if applicable);
 - (d) Name of occupier;
 - (e) Name of owner;
 - (f) Status of occupier +—
 owner of land ... lessee ... sub-lessee ... other ...
3. In the case of a building to be erected or altered—
 - (a) Purpose or purposes for which the building is to be used (e.g., shop, dwelling-house, etc.);
 - (b) Classification of building as set out in Part I. of Schedule 3;
 - (c) Type of construction of building as set out in Part I. of Schedule 3.

Certificate of Applicant.

I certify that the purpose or purposes for which the building is to be used—

- (a) is/are* not in breach of a condition/conditions* of any grant, granted application, lease, licence or permit made, granted or preserved in force by the *Land Act 1996*; and
- (b) are "authorized purposes" within the meaning of the *Physical Planning Act 1989*.

Dated ... 20 ...

(*Signature of Applicant.*)

- * Strike out whichever is inapplicable.
- + Where necessary the applicant is required to complete this form by inserting a tick in the space marked where the information immediately following that space is appropriate.

PAPUA NEW GUINEA.

Building Act 1971.

Form 2 – Permit.

Reg., Sec. 12 Form 2.

The ... Building Board has approved the application of (*insert name, description and address of applicant*) to erect/alter* a building as a (*insert occupancy, classification of building e.g. Class I., II., etc.*) in accordance with the attached plans and specifications and in accordance with the *Building Regulation*.

Dated ... 20 ...

Member of the Building Board.
for the Building Board.

* Strike out whichever is inapplicable.

PAPUA NEW GUINEA.

Building Act 1971.

Form 3 – Certificate of completion.

Reg., Sec. 19 Form 3.

This is to certify that a building has been completed by (*insert name, description and address*) on allotment (*insert situation of allotment*) at ... in accordance with the approved plans and specifications, and in accordance with the provisions of the *Building Regulation*. The occupancy classification of the building is:

Dated ... , 20 ...

Member of the Building Board.
for the Building Board.

PAPUA NEW GUINEA.

Building Act 1971.

Form 4 – Notice of appeal.

Reg., Sec. 24 Form 4.

To the Chairman of the ... Building Board.
Take notice that I appeal against the ... of the ... Building Board set out below.
The grounds of my appeal and a statement of my case are attached.
Dated ... , 20 ...

(*Signature of Applicant*).
(*Address of Applicant*).

Refusal, Requirement or Order appealed against:

SCHEDULE 3 – FEES.

		Act. Sec. 26(e)	Reg. Sec. 23
Act or thing		Fee	
1.	For the grant of a permit for the erection (including additions to existing buildings) of:–	K	
	(a) Occupancy Classifications I (Single dwelling-building), IX, X		
	(i) not exceeding 100 m ²	per m ²	0.40
	(ii) each m ² exceeding 100 m ²	per m ²	0.80
	(iii) minimum		20.00
	(b) Occupancy Classifications I (Multiple dwelling-building), II, III, V, VI, VII, VIII, IX		
	(i) The first 1000m ²	per m ²	1.80
	(ii) Each m ² exceeding 1000m ² to 3000m ²	per m ²	1.50
	(iii) Each m ² exceeding 3000m ²	per m ²	1.20
	(iv) minimum		40.00
2.	For the grant of a permit to erect a sign, hoarding or fence	40.00	
3.	For an application in respect to an alteration to an existing building Area assessed in accordance with Section 23 of the Regulation.	50% of the fee payable for a building of the same class.	

Sch. 3*Building Regulation 1994*

	Act or thing	Fee
4.	For a certificate, act, matter or thing not otherwise specified in this Schedule.	40.00

A fee will not be payable for the issuance of a certificate of completion.

Building Regulation 1994