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## PROJECT NAME ADDRESS

# FIRE SAFETY ENGINEERING DESIGN REPORT

Date

#### 1.0 Introduction

1.01 This report describes the fire safety requirements and the provisions for this project. This fire safety report has been prepared by \_\_\_\_\_\_(Architect), \_\_\_\_\_\_(Structural & Civil Engineering) and \_\_\_\_\_\_(Building Services Engineering) respectively to meet the performance requirements of the National Building Code of Fiji 2004 referred to in this document as NBCF. The Commentary of notes below is to be read in conjunction with drawings appended to this submission and the NBCF.

#### 2.0 Description of the Building Complex

- 2.01 The development is located on \_\_\_\_\_\_\_ on the side yard set back is \_\_m. The rear yard setback is \_\_m. These setback dimensions are in accordance with the \_\_\_\_ provisions and Town Planning Act, chapter 139, November1999. The building has \_\_\_\_\_ storeys including ground floor. ( This section should be part of the Table format as given below)
- 2.02 The building structure is a ....... (*this should be part of the Table format as given below*)

### 2.03 Schedule of Floor Areas

Building Level	Total Floor Area m <sup>2</sup>	Occupancy

### 3.0 Definition and Classification of Structures

3.01 The following definitions apply to the development in accordance with the NBCF:

NBCF reference	Definition/Parameter	Data	Application Areas
SECTION <b>A</b> A3.2 Classification of buildings and	Class of Building		
Structures	Class of Building		

#### 4.0 Design Requirements and Provisions

- 4.01 The design provisions for this project have been carried out in accordance to the NBCF as scheduled in the table below.
- 4.02 SECTION NC Fire Resistance class 2-9 Buildings, SECTION ND Access and Egress class 2-9 Buildings, SECTION NE Services and Equipment class 2-9 Buildings.

NBCF reference	Deemed-to-Satisfy Provisions	Application to Project Design	Solution Provided
SECTION N	C FIRE RESISTANCE		
NC1 FIRE	RESISTANCE & STABILITY		
NC1.1	Type of construction required under table NC1.1		
NC2 COM	PARTMENTATION & SEPARATION		
NC2.2	General floor area limitations		
NC2.3	Large isolated building		
NC2.4	Requirements for open spaces and vehicular access		
NC2.5	Class 9a Buildings		
NC2.6	Separation of openings in external walls		
NC2.7	Separation by fire walls		
NC2.8	Separation of classifications in same storeys		
NC2.9	Separation of classifications in different storeys	None required in the design	
NC2.10	Separation of lift shafts		
NC2.11	Stairways and lifts in one shaft		
NC2.12	Separation of equipment		
NC2.13	Electricity substations		

NC3 PRO	DTECTION OF OPENINGS	
NC3.2	Protection of openings in external walls	
NC3.3	Separation of openings in different fire compartments	
NC3.4	Acceptable method of protection	
NC3.5	Doorways in fire walls	
NC3.6	Sliding fire doors	
NC3.7	Protection of doorways in horizontal exits	
NC3.8	Openings in fire-isolated exits	
NC3.9	Service penetrations in fire-isolated exits	
NC3.10	Openings in fire-isolated lift shafts	
NC3.11	Bounding construction: Class 2, 3 and 4 buildings	
NC3.12	Openings in floors for services	
NC3.13	Openings in shafts	
NC3.14	Openings for service installations	
NC3.15	Installations deemed-to-satisfy	

SECTION ND ACCESS AND EGRESS			
ND1 PROV	ND1 PROVISION FOR ESCAPE		
ND1.2	Number of exits required		
ND1.3	When smoke of fire-isolated exits are required		
ND1.4	Exit travel distances		
ND1.5	Distance between alternative exits		
ND1.6	Dimension of exits		
ND1.7	Travel via smoke or fire-isolated exits		
ND1.8	External stairways		
ND1.9	Travel via non-fire-isolated stairways of ramps		
ND1.10	Discharge from exits		
ND1.11	Horizontal exits		
ND1.12	Non-required stairways, ramps or escalators		
ND1.13	Number of persons accommodated		
ND1.14	Measurement of distances		
ND1.15	Method of measurement		

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ND2 CONSTRUCTION OF EXITS				
ND2.2	Fire isolated stairways or ramps			
ND2.3	Non-fire-isolated stairways of ramps			
ND2.4	Separation of rising and descending stair flights			
ND2.5	Open access ramps and balconies			
ND2.6	Smoke lobbies			
ND 2.7	Installations in exits and paths of travel			
ND2.8	Enclosure of space under fire-isolated stairs or ramps			
ND2.9	Width of stairways			
ND2.10	Ramps			
ND2.11	Fire-isolated passageways			
ND2.12	Roof as an open space			
ND2.13	Treads and risers			
ND2.14	Landings			
ND2.15	Thresholds			

ND2.16	Balustrades	
ND2.17	Handrails	
ND2.18	Fixed platforms, walkways and ladders	
ND2.19	Doorways and doors	
ND2.20	Swinging doors	
ND2.21	Operation of latch	
ND2.22	Re-entry from fire-isolated exits	
ND3 ACCE	SS FOR PEOPLE WITH DISABILITIES	
ND3.2	Access to buildings	
ND3.3	Parts of buildings to be accessible	
ND3.4	Concessions	

SECTION NE SERVICES AND EQUIPMENT					
NE1 FIRE F	NE1 FIRE FIGHTING EQUIPMENT				
NE1.2	Fire mains and water supply				
NE1.3	Riser main system				
NE1.4	Where hydrants are required				
NE1.5	Hose reels				
NE1.6	Sprinklers				
NE1.7	Portable fire extinguishers				
NE1.8	Fire and smoke alarms				
NE1.9	Fire control centres				
NE1.10	Fire Precautions during construction				
NE1.11	Provision for special hazards				
NE2 SMOKE CONTROL					
NE2.1	Smoke venting				
NE2.2	Exclusion of smoke from fire-isolated exits				
NE2.3	Natural smoke venting				

NE2.4	Air-handling systems			
NE2.5	Roof vents			
NE2.6	Smoke exhaust systems			
NE2.7	Pressurisation.			
NE3 LIFT IN	NE3 LIFT INSTALLATIONS			
NE3.2	Stretcher facility in lifts			
NE3.3	Warning against use of lifts in fire or earthquake			
NE3.4 s	Emergency lifts			
NE4 EMER	GENCY LIGHTING, EXIT SIGNS AND WARNING SYSTE	MS		
NE4.2	Emergency lighting requirements			
NE4.3	Measurement of Distance.			
NE4.4	Design and operation of emergency lighting.			
NE4.5	Exit signs.			
NE4.6	Direction signs.			
NE4.7	Class2, 3, and 4 buildings: Exemption			
NE4.8	Design and operation of exit signs			

#### 5.0 Conclusions

5.01 The design consultants have implemented the fire safety requirements of the National Building Code of Fiji into the designs to the best of their knowledge and interpretation of the Fire Codes in the NBCF. It is the intention that this document provides the basis for approval on all matters in relation to the Fire Codes.

Director	Principal	Director
Building Services Engineer	Architect	Structural Engineer

- Architects are required to be a current practising member of the Fiji Association of Architects
- Structural Engineers and Building Services Engineers are required to be a current practising member of the Fiji Institute of Engineers.
- Please provide evidence of Professional Indemnity Insurance applicable to providing technical advice relating to the fire safety provisions of the National Building Code of Fiji.