



This drawing was based on the Architects Drawing No:
07015 - C - 23.100 Rev 5

FIRE NOTES
Fire extinguishers to be hung on purpose made boards and located in secure positions as indicated on plan.
Access to every exit and necessary ways of exit shall be indicated by signs in accordance with SABS 1186 to be displayed in prominent positions to facilitate egress. (Photo luminescent type)
Free and unimpeded access to the Fire escape must be provided during working hours.
Door giving access to the Fire escape must not be locked whilst the premises are occupied. A security device controller able from the inside only, as approved by the Fire Department may, however, be provided.
Fire escape doors to be clearly identified from the exterior of the building.
SABS 0400 REQUIREMENTS:
OCCUPANCY CLASSIFICATIONS - B2, J1, J2, G1
TT2 SAFETY DISTANCES - COMPLY
TT4 DIVISION AREA - COMPLY
Requirement
TABLE 3 - MAXIMUM DIVISION AREA, m2

Occupancy	No fixed automatic fire extinguishment installation	With fixed automatic fire extinguishment installation
	1 storey	2 storeys and over
A2, B2, B3, C1, C2, G1	5 000	No limit 10 000
A4, A5, D3, J3	No limit	No limit No limit
J1, J2	2500	No limit 5000

*. Maximum division area on any storey and all such divisions shall be interconnected.
- the water treatment plant to be separated by 2 hour fire walls from laboratory
- all hazardous substance store rooms to be separated by 2 hour fire walls

Conclusion
The laboratory has a total floor area of 1658m2 and does not need to be sprinkler protected.

TT5 FIRE RESISTANCE OF OCCUPANCY AND DIVISION SEPARATING ELEMENTS - COMPLY
(a) A1, A2, A3, A4, C1, C2
(b) A5
(c) B1, D1
(d) B2, B3, D2, D3, D4, F1, F2, F3, G1, J2, J3
(e) E1, E2, E3
(f) H1, H2, H3
(g) J1

TT7 FIRE STABILITY OF STRUCTURAL ELEMENTS OR COMPONENTS - COMPLY
TABLE 5 - STABILITY OF STRUCTURAL ELEMENTS OR COMPONENTS

Occupancy	Class of occupancy	1	2	3	4	5	6	7
High risk commercial service	B1	60	60	120	180	120		
Moderate risk commercial service	B2	30	60	120	120	120		
Low risk commercial service	B3	30	30	30	90	120	120	
Exhibition hall	C1	60	90	120	120	120		
Museum	C2	30	60	90	120	120		
Offices	G1	30	30	60	120	120		
High risk storage	J1	60	90	120	180	240		
Moderate risk storage	J2	30	60	90	120	180		
Low risk storage	J3	30	30	90	90	120		

NOTE
NA = Not applicable
TT11 RAISED ACCESS AND SUSPENDED FLOORS OF COMBUSTIBLE MATERIAL - COMPLY
TT12 ROOF ASSEMBLIES AND COVERINGS - COMPLY
Non combustible roof insulation will be used A/A1/VH/1
TT13 CEILINGS - N/A
TT14 FLOOR COVERINGS - COMPLY
TT15 WALL FINISHES - COMPLY
TT16 PROVISION OF ESCAPE ROUTES - COMPLY
As indicated on the fire plans
TT17 EXIT DOORS - COMPLY
At least two escape doors are provided for all areas with greater than 25 persons
TT18 FEEDER ROUTES - COMPLY
TT19 EMERGENCY ROUTES - RATIONAL
Escape to outside at ground level is possible within 45m in all cases.
See document for more detail.
TT20 DIMENSIONS OF COMPONENTS OF ESCAPE ROUTES
TT21 WIDTH OF ESCAPE ROUTES - COMPLY
TT26 OPENINGS IN FLOORS - COMPLY
TT27 EXTERNAL STAIRWAYS AND PASSAGES - COMPLY
TT29 MARKINGS AND SIGNPOSTING - COMPLY
TT30 LIGHTING OF FEEDER AND EMERGENCY ROUTES - COMPLY
The building is provided with a standby generator.
TT31 FIRE DETECTION AND ALARM SYSTEMS - COMPLY
The building is provided with a full detection system. The detection system will be interfaced with the security system. See rational document.
TT33 WATER RETICULATION FOR FIRE FIGHTING PURPOSES - COMPLY
TT34 HOSE REELS - COMPLY
All areas to be within 30m of a fire hose reel
TT35 HYDRANTS - RATIONAL
No internal fire hydrants will be provided. One external dia 65mm Instantaneous fire hydrant with interlocking lugs adjacent to the Water Treatment Plant Sub-station can also be used for the Laboratory
TT37 PORTABLE FIRE EXTINGUISHERS - RATIONAL
As indicated on the fire plans.
1 x 9.0kg DCP & 5kg CO2 with every Fire Hose Reel.
Loose fire extinguishers in Laboratories and other areas as shown
TT42 SMOKE CONTROL - RATIONAL
*Operable windows for offices with windows.
TT55 ACCESS TO BUILDINGS FOR FIRE-FIGHTING AND RESCUE PURPOSES - COMPLY

Notes:

- All photoluminescent fire and directional signage must comply with SABS 1186 - 1 & 5 photoluminescent and to be installed in accordance with SABS 0400 - 1990.
- All photoluminescent fire and directional signs are to have a matt finish to the face of the signs and are to be framed with milled corners and concealed elbow joints. Frame to be manufactured from Aluminium
- All wall-mounted fire and directional signage to be concealed screwed to brickwork. No double-sided tape
- All suspended fire and directional signage to be hung on stainless steel wire
- Signage in office areas to be 150mm high
- Signage external to building to be ABS in non - photoluminescent
- Signage to external hydrants to be pole mounted and at 2000mm high
- Signs in lift lobbies 150mm high

Legend:

E1 = 1off
E2 = 1off
E3 = 8off
F4 = 1off
F5 = 1off
F6 = 1off
F13 = 7off
F30 = 3off
F24 = 2off

ISSUED FOR AS-BUILT
DAN VAN DER MERWE
PR NUMBER: 200070014

Legend:

- Ø65 Instantaneous fire hydrant with double inter-locking lugs (1off)
- 30m Fire hose reel (3off)
- 9.0 kg DCP fire extinguisher (6off)
- 5.0 kg CO2 fire extinguisher (8off)
- 2 Hour fire Wall
- Fire escape route
- Smoke baffle

DWG	REV	DATE	ISSUED FOR AS-BUILD	FM	PS	DvdM
D07	06	26/06/18	ISSUED FOR AS-BUILD						
D06	05	27/11/13	FE & FHR SIGNAGE ADDED	JL	JJ	JJ			
D05	04	30/08/12	ISSUED FOR CONSTRUCTION, FE & FHR ADDED	JL	JJ	JJ			
D04	03	30/04/09	ISSUED FOR CONSTRUCTION						
D03	02	02/02/09	ISSUED FOR REVIEW						
D02	01	01/08/08	GENERAL UPDATE						
D01	00	-	FIRST ISSUE						
D.O.	REV	DATE	INDEX REFERENCE	** REVISION **	REV BY	CHKD BY	AUTH BY	KKS APP	REFERENCE DRAWINGS
DWG REGISTR			AUTHORISED FOR ESSKOM BY	DATE					
DESIGN APPROVED	DvdM		M. Andre	30/04/09					
KKS APP			Chimera						
DO	DvdM								
AUTH									
CHKD BY	PS								
DRAWN BY	FM								
SCALE	1:100								

MEDUPI POWER STATION LABORATORY
GROUND FLOOR FIRE PROTECTION LAYOUT
Fire Protection Layout - FP-L4GF
0.84/926
SHEET 1 REV 6