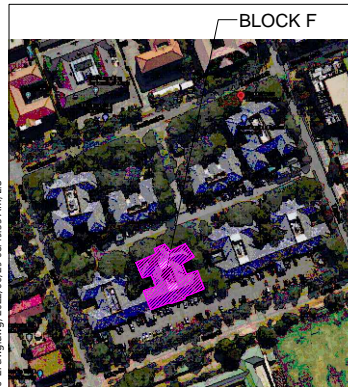


W:\SERVER01\Projects\2021\21B09-F-506-01-LAHAE LA SIRS BLOCK F-GROUND STOREY-PROPOSED FIRE SERVICES LAYOUT-2022-06-27.dwg, 2022/06/29 08:49:35 AM, LS

Local Authority stamp



SITE LOCATION

#### SCOPE OF WORKS CLARIFICATION

- FIRE CONTRACTOR**
  - SERVICE AND RE-USE EXISTING FIRE EXTINGUISHERS AND 4-OFF FIRE HOSE REELS.
  - SUPPLY & INSTALL NEW FIRE FIGHTING EQUIPMENT AS INDICATED ON PLAN.
  - SUPPLY & INSTALL NEW FIRE SIGNAGE AS INDICATED ON PLAN.
  - NEW EVACUATION PLANS & PROCEDURES.
- ELECTRICAL CONTRACTOR**
  - SUPPLY AND INSTALL EMERGENCY LIGHTING THROUGHOUT THE SPACE AS SHOWN ON PLAN, c/w BATTERY BACKUP.
  - EMERGENCY LIGHTS FROM GENERATOR SUPPLY.
  - EMERGENCY LIGHTS FOR ESCAPE PURPOSES.
- BUILDER**
  - SUPPLY AND INSTALL PANIC BARS c/w WHITE ON GREEN "PUSH BAR TO OPEN" SIGN
  - PROVIDING PENETRATIONS THROUGH CEILINGS AND WALLS AND MAKING GOOD THEREOF.
  - FIXING OF EXTINGUISHER BACKING BOARDS TO WALLS SUPPLIED BY FIRE CONTRACTOR.
  - SUPPLY & INSTALL NEW FIRE DOORS c/w 25mm STEEL FRAME AND DOOR CLOSER.
  - FIRE SEALING OF PENETRATIONS THROUGH FIRE WALLS.

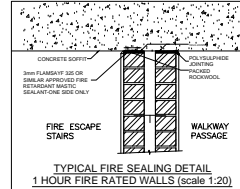
| FIRE SERVICES DESIGN SUMMARY SCHEDULE |        |                |     |  |
|---------------------------------------|--------|----------------|-----|--|
| 1. OCCUPANCY INFORMATION              |        |                |     |  |
| 1.1 FLOOR AREA:                       | 1118   | m <sup>2</sup> |     | OCCUPIED   |
| 1.2 OCCUPANCY CLASS:                  | G1     |                |     | OFFICE   |
| 1.3 POPULATION:                       | 1/STAT | 208            |     | NUMBER OF PEOPLE   |
| 1.4 ROUTES OF ESCAPE required:        |        |                |     | 1-OFF 1195mm & 1-OFF 1300mm WIDE   |
| 2. FIRE PROTECTION EQUIPMENT          |        |                |     |  |
| 2.1 FIRE HYDRANT:                     | 1/1000 | m <sup>2</sup> | = 1 | REQUIRED, 90 METERS APART  |
| 2.2 FIRE HOSE REEL:                   | 1/500  | m <sup>2</sup> | = 4 | REQUIRED, WITH 30 METER LONG HOSES                                       |
| 2.3 EXTINGUISHERS:                    | 1/200  | m <sup>2</sup> | = 8 | REQUIRED, 4.5 KG DCP TYPE  |
| 2.4 SPRINKLER PROTECTIONS:            | NO     |                |     | NOT REQUIRED   |
| 3. RELATED SERVICES                   |        |                |     |  |
| 3.1 FIRE DETECTION:                   | YES    |                |     | THROUGHOUT THE BUILDING IN ACCORDANCE WITH SANS 10139:2021 (Category I1) |
| 3.2 SMOKE VENTILATION:                | NO     |                |     | COMPARTMENTALISED LESS THAN 50m <sup>2</sup>                             |

CLOUDED INDICATES EXISTING EQUIPMENT

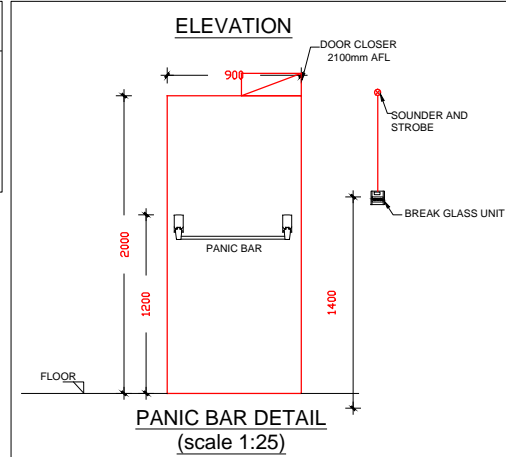
| ITEM | DESCRIPTION       | QTY |
|------|-------------------|-----|
| 1    | FIRE HYDRANT      | 1   |
| 2    | FIRE HOSE REEL    | 4   |
| 3    | FIRE EXTINGUISHER | -   |
| 3.1  | CO2               | -   |
| 3.2  | DCP               | 8   |

| FIRE DOOR SCHEDULE |         |             |            |             |             |        |           |             |           |
|--------------------|---------|-------------|------------|-------------|-------------|--------|-----------|-------------|-----------|
| DOOR TAG           | SWING   | FIRE RATING | DOOR SIZE  |             | NORMAL DOOR |        | PANIC BAR | DOOR CLOSER | HOLD OPEN |
|                    |         |             | WIDTH (mm) | HEIGHT (mm) | OPEN        | CLOSED |           |             |           |
| FD_1               | ONE WAY | 60 minute   | 1200       | 2100        | N/A         | YES    | NO        | YES         | YES       |
| FD_2               | ONE WAY | 60 minute   | 1200       | 2100        | N/A         | YES    | NO        | YES         | YES       |
| FD_3               | ONE WAY | 60 minute   | 1200       | 2100        | N/A         | YES    | NO        | YES         | YES       |
| FD_4               | ONE WAY | 60 minute   | 1200       | 2100        | N/A         | YES    | NO        | YES         | YES       |

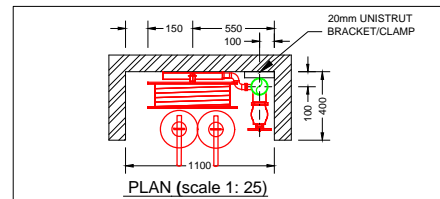
| FIRE SIGNS & EQUIPMENT COUNT |    |    |    |     |     |    |    |    |    |
|------------------------------|----|----|----|-----|-----|----|----|----|----|
| SYMBOL                       | E1 | E2 | E3 | E16 | E17 | F1 | F2 | F3 | F4 |
| REFERENCE                    |    |    |    |     |     |    |    |    |    |
| QUANTITY                     | 6  | 5  | 4  | 1   | 1   | 2  | 1  | 1  | 3  |



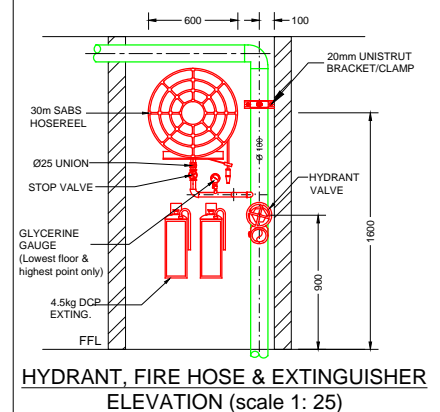
TYPICAL FIRE SEALING DETAIL  
1 HOUR FIRE RATED WALLS (scale 1:20)



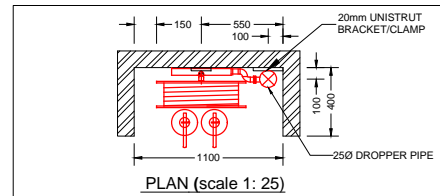
PANIC BAR DETAIL  
(scale 1:25)



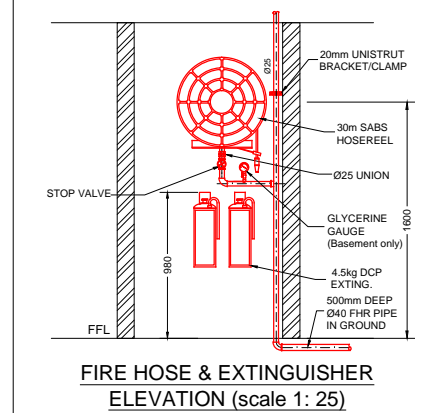
PLAN (scale 1:25)



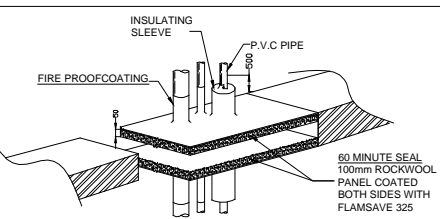
HYDRANT, FIRE HOSE & EXTINGUISHER  
ELEVATION (scale 1:25)



PLAN (scale 1:25)



FIRE HOSE & EXTINGUISHER  
ELEVATION (scale 1:25)



TYPICAL CABLE FIRE PROOFING DETAIL  
(scale 1:25)

#### FIRE INSTALLATION NOTES

**PORTABLE FIRE EXTINGUISHERS**  
FIRE EXTINGUISHERS SHALL BE 4.5kg AND 9kg DRY CHEMICAL POWDER TYPE AND SHALL COMPLY WITH SABS 810.  
ALL FIRE EXTINGUISHERS SHALL BE MOUNTED ON WOODEN BACKING BOARDS.

**FIRE HOSE REELS**  
FIRE HOSE REELS SHALL CONFORM TO SABS 543.  
ALL FIRE HOSE REELS SHALL BE COMPLETE WITH 30 METERS OF HOSE AND SHALL HAVE A MINIMUM FLOW RATE OF 0.5 l/s AT 300 kPa.

**FIRE HYDRANTS**  
FIRE HYDRANTS SHALL COMPLY WITH SABS 543 AND HAVE A MINIMUM FLOW RATE OF 20 l/s AT 300 kPa.

**PIPING**  
NO PIPEWORK TO BE EMBEDDED IN SCREED OR CONCRETE FLOORS.  
ALL PIPEWORK SHALL CONFORM TO SABS 62 (STEEL, MEDIUM).

THE DISTANCE BETWEEN PIPE SUPPORT BRACKETS FOR THE HORIZONTAL & VERTICAL PIPEWORK, SHALL NOT EXCEED THE FOLLOWING:  
NOMINAL DIAMETER      MAXIMUM SPACING  
< 65 MM      4M  
> 65MM      <100MM

PIPING SHALL BE PROPERLY CLEANED OFF SITE, FROM RUST & LOOSE MILL SCALE WITH A HARD WIRE, & DECREASED PRIOR TO APPLICATION OF A RED OXIDE PRIMER. FINAL COATS OF PAINT TO BE 2 OFF SIGNAL RED, HIGH GLOSS ENAMEL TO SABS 630. ALL BRACKETS, SUPPORTS & FITTINGS TO BE GALVANIZED. ALL SCREWED JOINTS TO COMPLY WITH BS 21 OR SIMILAR. SEALING OF JOINTS WILL BE WITH HEMP, STOGG OR PTFE TAPE. HYDRAULIC PRESSURE TESTING SHALL BE DONE TO 15 BAR FOR A PERIOD OF 24 HOURS.

**SYMBOLIC SAFETY SIGNAGE**  
SYMBOLIC SAFETY SIGNAGE SHALL COMPLY WITH SABS 1186 PART V AND SHALL BE OF THE PHOTOLUMINESCENT TYPE.  
SIGNAGE SHALL BE INSTALLED SUCH AS TO CLEARLY INDICATE THE POSITIONS OF ALL FIRE EQUIPMENT AND ESCAPE ROUTES. EACH FLOOR LEVEL SHALL BE NUMBERED IN THE ESCAPE STAIRS. SIGNAGE ON DRAWING IS AN INDICATION OF SIGNAGE REQUIRED. FINAL SIGNAGE TO BE DETERMINED ON SITE.  
ADDITIONAL SIGNAGE TO BE ADDED SHOULD IT BE REQUESTED BY THE LOCAL AUTHORITIES.  
FINAL FIRE SIGNAGE IS TO BE DETERMINED ON SITE WITH THE COUNCIL'S FIRE OFFICER.

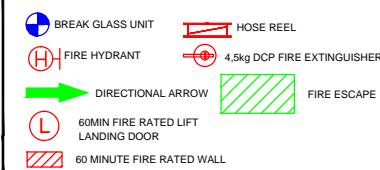
**FIRE DOORS**  
FIRE DOORS OF THE RATING AND WIDTH AS INDICATED ON THE DRAWINGS, SHALL BE INSTALLED AND SHALL COMPLY WITH SANS 1253. ALL FIRE DOORS TO BE FITTED WITH SELF CLOSING MECHANISMS.

**FIRE ALARM / DETECTION**  
FIRE DETECTION AND ALARM SYSTEM SHALL BE INSTALLED AS INDICATED ON THE DRAWINGS AND IN ACCORDANCE WITH SANS 10139.

**ESCAPE DOORS**  
ALL ESCAPE DOORS SHALL BE COMPLETE WITH FIRE ESCAPE FROMMONGERY.

**FIRE ESCAPE ROUTES**  
FIRE ESCAPE ROUTES, INCLUDING CORRIDORS AND STAIRWAYS SHALL HAVE MINIMUM WIDTH OF 1500mm UNLESS SHOWN OTHERWISE. ALL ESCAPE ROUTES SHALL HAVE A FIRE RESISTANCE AS INDICATED. ALL EMERGENCY ROUTES SHALL HAVE A FIRE RESISTANCE AS INDICATED ON THE DRAWINGS.

#### FIRE SERVICES LEGEND



#### FIRE DESIGN CONFIRMATION

|  |     |
|--|-----|
| DEEMED TO SATISFY WITH SANS 10400                    | N/A |
| RATIONAL ASSESSMENT                                  | YES |
| RATIONAL DESIGN EQUIVALENT OR SUPERIOR TO SANS 10400 | N/A |

ISSUE DATE: 2022-06-27

REVISION: C

FOR INFORMATION

FOR APPROVAL

FOR TENDER

FOR CONSTRUCTION

AS-BUILT

#### REVISIONS

| No | Date       | Description  | Rev | By  | Ckd | By |
|----|------------|--|-----|-----|-----|----|
| A  | 02/06/2021 | ISSUED FOR INFORMATION   | A.D | H.R |     |    |
| B  | 09/06/2021 | DRAWING UPDATED W.R.T<br>- FIRE HYDRANT OMITTED<br>- FIRE RATED WALL ADDED | S.M | H.R |     |    |
| C  | 2022/06/27 | DRAWING UPDATED TO SUIT<br>- NEW ARCHITECTURE                              | L.S | H.R |     |    |



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|   |                         |             |            |
|---|-------------------------|-------------|------------|
| PROJECT   | LAHAE LA SIRS - BLOCK F |             |            |
| DWG TITLE   | BROOKLYN                |             |            |
| DWG NUMBER  | 21B09-F-506-01          |             |            |
| DESIGNED BY   | LN SIBIYA               | SCALE       | 1:100 @ A1 |
| CHECKED BY  | H.D ROUX                | ECOA NUMBER | 201070151  |
| APPROVED BY   | H.D ROUX                | ECOA NUMBER | 201070151  |
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