

## 1.4 Fire Safety Strategy

### 1.4.1 Fire Safety Strategy

The fire strategy drawings were provided by **G&A** and follow in this section.

Drawing No.	Drawing Title	Rev
P22036-FSA-EW-SI-DR-A-0303	Site Wide Fire Strategy	R01
P22036-FSA-MO-ZZ-DR-A-1257	Main Office Fire Strategy	R01
P22036-FSA-RU-ZZ-DR-A-1552	Fire Strategy	R01
P22036-FSA-ZZ-00-DR-A-1256	Warehouse Fire Strategy	R01
P22036-FSA-ZZ-ZZ-DR-A-1258	Distribution Office Fire Strategy	R01



**CDM Residual Risks**

In addition to the hazards/risks normally associated with the types of work detailed on this drawing, please note the following:

**Construction**

C1. Works adjacent to live overhead HV power lines and pylon.

C2. Below ground HV cables.

C3. Works adjacent to railway, dual carriageway and estate roads.

**Maintenance**

M1. Live overhead HV power lines and pylon.

M2. Below ground HV cables.

**Decommissioning / Demolition**

D1. Live overhead HV power lines and pylon.

D2. Below ground HV cables.

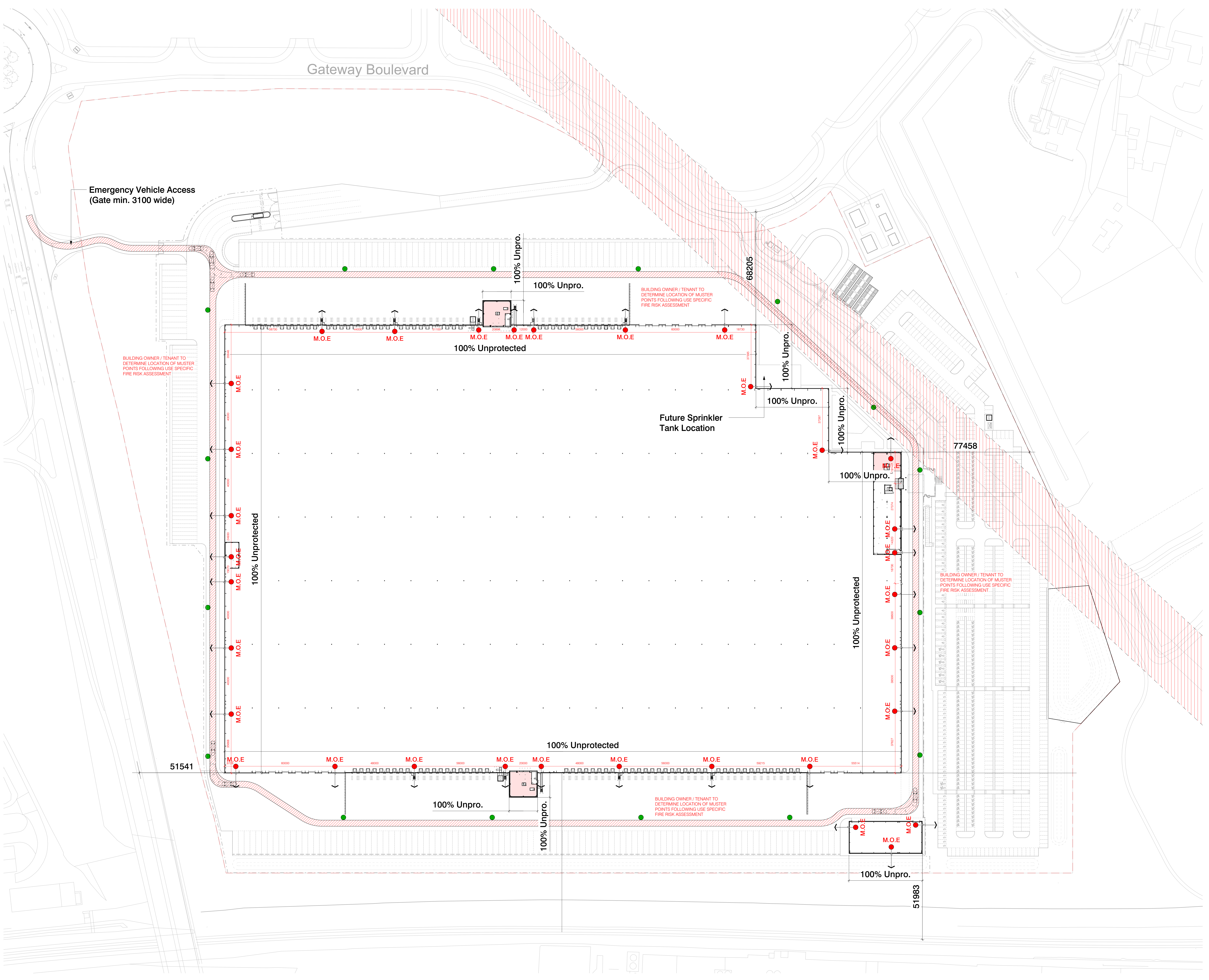
It is assumed that works will be carried out by a competent contractor working, where appropriate, to an approved method statement.

**Site-wide Fire Strategy Legend**

- Site Boundary
- Overhead Power Lines  
Line of and Clearance Zone
- Means of Escape  
Fire escapes from building
- M.O.E
- Fire Tender Access Route  
100% perimeter access required  
100% perimeter access provided
- Fire Hydrant  
Refer to WMBS drawings for details

These drawings are to be read in conjunction with the following consultant and sub-contractor drawings:

- Drainage drawings
- Levels drawings
- Electrical drawings
- Mechanical drawings



R01	RECORD ISSUE	12/10/23	CEW
C02	DOOR POSITIONS AMENDED / ADDED TO SUIT FIRE OFFICER / ENGINEER REQUEST. ALTERATIONS MADE TO SUIT. DAP-0019	26/09/23	MJB
C01	ROAD POSITION ADJUSTED AROUND Pylon. INCORPORATES CIP 006 E/W N 3 & CIP 006 (E/W N 4). ISSUED FOR CONSTRUCTION	17/05/23	MJB
P04	FIRE HYDRANT LOCATIONS ADDED TO DRAWING	31/03/23	MJB
P03	NOTES UPDATED	03/03/23	MJB
P02	PRELIMINARY ISSUE	20/01/23	MJB
P01	PRELIMINARY ISSUE	13/01/23	MJB
No.	Revision	Date	Initi

PLOT 4000  
**GATEWAY14**  
 SITE WIDE FIRE STRATEGY

Client

**JAYNIC**

**winvic**

**FRANK SHAW ASSOCIATES LIMITED ARCHITECTS**

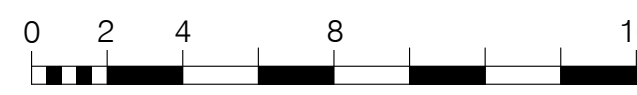


**Fire Strategy Legend**

- 120 Minute Fire Rated Wall
- 60 Minute Fire Rated Wall
- 30 Minute Fire Rated Wall
- SC Self closing device
- VP Vision Panel (fire resistant glazing to fire doors)
- PB Push bar ironmongery
- S12 Fire Action Sign
- S13 'Fire Door Keep Shut' signage
- S14 'Fire Door Keep Locked Shut' signage
- S20 'Fire Escape Keep Clear' signage
- S22 'Fire Exit' signage
- S25 'Push Bar to Open' signage
- S26 Directional arrow fire exit signage
- S27 'Fire Exit Keep Clear' signage
- S40 Refuge communicator & Keep Clear signage
- 120 Minute FR Door
- 60 Minute FR Door
- 30 Minute FR Door

- Ceiling / RAF cavity fire barrier
- Fire barrier
- CB Cavity barrier in Floor and ceiling voids - maximum 20m ctrs.
- Manual call point
- Smoke Detector and sounder
- Smoke Detector
- Heat Detector
- Sounder/ Beacon
- Fire alarm panel
- Denotes disabled refuge with call point
- 30min Fire Protection to Columns and any elements that may cause premature failure to critical load bearing structure.
- 60min Fire Protection to Columns and any elements that may cause premature failure to critical load bearing structure. Cladding within protected areas 60/15 fire rated.
- 120min Fire Protection to Columns and any elements that may cause premature failure to critical load bearing structure. continue protection min 1500mm for structural penetrations passing through.

- Small areas of not more than 4m2
- Other areas
- Other circulation spaces
- 2m
- Escape travel distances
- FIRE STRATEGY TO BE REVIEWED BY THE BUILDING CONTROL OFFICER



Scale 1: 200

Status

**RECORD ISSUE**

**CDM Residual Risks**

In addition to the hazards/ risks normally associated with the types of work detailed on this drawing, please note the following:

**Construction**  
C1. No applicable risks.

**Maintenance**  
M1. No applicable risks.

**Decommissioning / Demolition**  
D1. No applicable risks.

It is assumed that works will be carried out by a competent contractor working, where appropriate, to an approved method statement

**Fire Legend Notes**

This fire strategy is based on the BASE BUILD (CAT A) elements only and should be read in conjunction with M&E fire alarm and lighting design drawings and specification. Strategy drawings are subject to confirmation from Building Control and Fire Authority.

1. All fire safety signs comply to comply with BS 5499 2000 and be photoluminescent.
2. Refer to FSA Door schedules/drawings.
3. All fire fighting equipment to be by client fit out.
4. Walls to protected corridors to continue to underside of structure or structural slab and be finished to achieve 30 minutes fire resistance [Compressible joints will be required at head].
5. For the purposes of this drawing, when a 1/2 hr fire rating line is drawn adjacent to a 1 or 2 hr fire rated wall, the construction of that element must take the higher rating.
6. Final Exit doors are to be guarded with railings, or similar, to prevent accidents should an outward opening door be pushed open and to encourage the exit to be kept clear.
7. Elements of structure to comply with Table 23 of BS 9999. Steelwork should be sprayed or boxed in to achieve 1hr. [Note where composite floor decking is used the top face / flange should not be sprayed].
8. Refer to Site plan Fire Strategy for Fire boundary calculations / locations / fire tender access.
9. The building will have a total evacuation strategy, meaning that upon activation of the fire alarm all occupants will evacuate the building and go to a pre identified muster point(s).
10. Cavity barriers to be installed at all floor and wall junctions to Part B.
11. Emergency Lighting to be in accordance with BS 5266.
12. Smoke detection layout to engineers design.
13. Category M (manual) system is to be installed as Base Build as long as building remains empty - refer to Sub-contractor design drawings, to comply to BS 5839-1 (13). L2 standard fire alarm system to be installed in office and warehouse as part of fit out works.
14. It should be ensured that the fire alarm can be heard on the roof, and maintenance workers are notified of a potential fire. Otherwise, sounders or hand-held repeater alarms linked to the fire alarm and detection system should be provided to this area to alert maintenance workers.
15. Floor void fire barriers to be installed under doors on fire rated wall lines - refer to wall for rating.
16. Warehouse escape doors to be based on steel door sets [frame and door] S/O 1130x2170mm, positively fixed to Steel wind posts [insulation between webs, not spacing off of window posts].

**Emergency Lighting**

Emergency Lighting is to be provided in accordance with BS5266 Part 1 2011 and to be read in conjunction with M&E consultant drawings.

Additionally, the following areas to be covered by emergency lighting:

- Change in level
- At each exit door inside and outside of the building
- Near a change of direction
- Near each manual call point
- Near fire fighting equipment
- To illuminate all fire escape routes, exit signs and safety signs
- Open plan office areas that exceed 60m2
- Plant rooms / electrical service risers
- Each flight of stairs
- Intersections of corridors
- Toilet / lobby / closet facilities that exceed 8m2 in floor area.

The standard of system for this type of building will usually be a non maintained 1 hour system.

When fit out works are undertaken, particular attention should be given to how the space between any aisles is lit so as to provide suitable illumination along the escape routes.

**Fire Resistance and Compartmentation**

The following items to be provided with fire resistance:

- Elements of Structure (Office) 60mins
- Elements of Structure (Warehouse) 60mins
- Compartment Wall Between Offices / Warehouse 120mins
- Cleaners Cupboards 30mins
- Stair Enclosures 30mins
- Lift Shafts 30mins
- Service Risers 60mins
- Cavity Barriers 30mins
- External wall within 1.8m of protected stairs 30mins
- Office Floors 60mins

Floors or ceilings that are above or below rooms that are enclosed within fire resistance should also have the same fire resistance period as the associated room (integrity / insulation / load bearing capacity).

It should be noted that where a loadbearing element supports another element of construction that achieves fire resistance, then the loadbearing elements should achieve the same fire resistance.

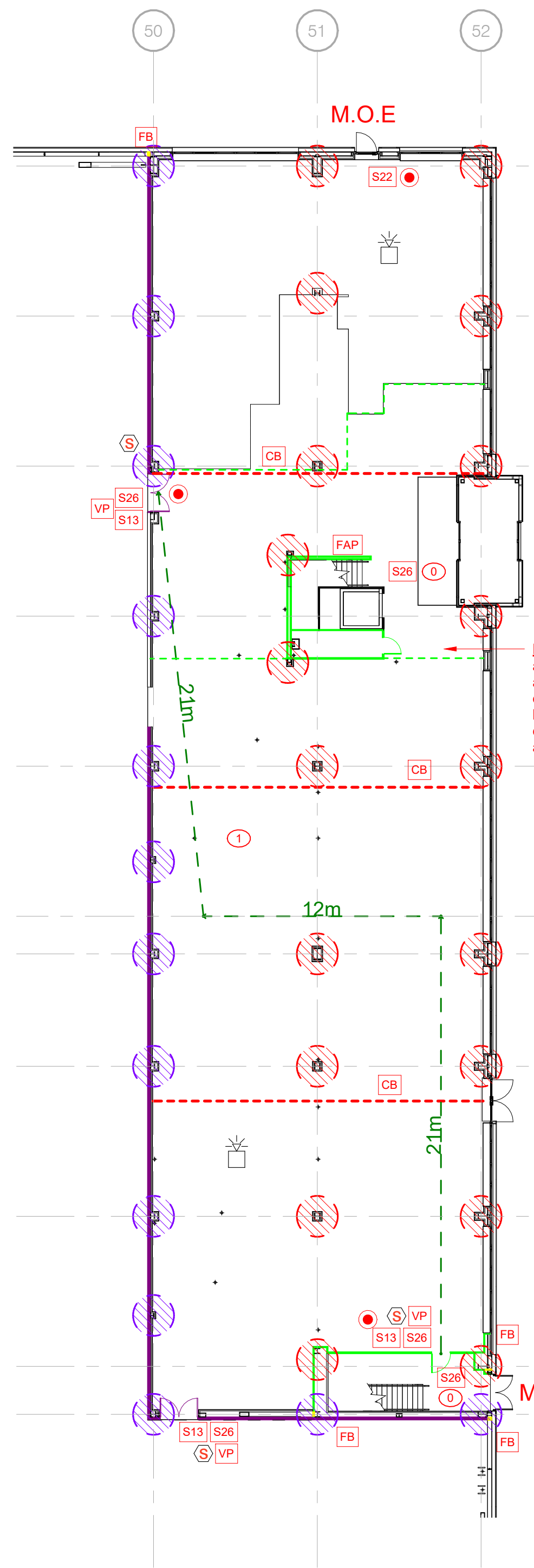
Walls to be sealed to u/s roof or floor slab with fire rated deflection head in accordance with manufacturers details

Horizontal and vertical cavity barriers to be installed at all compartment abutments.

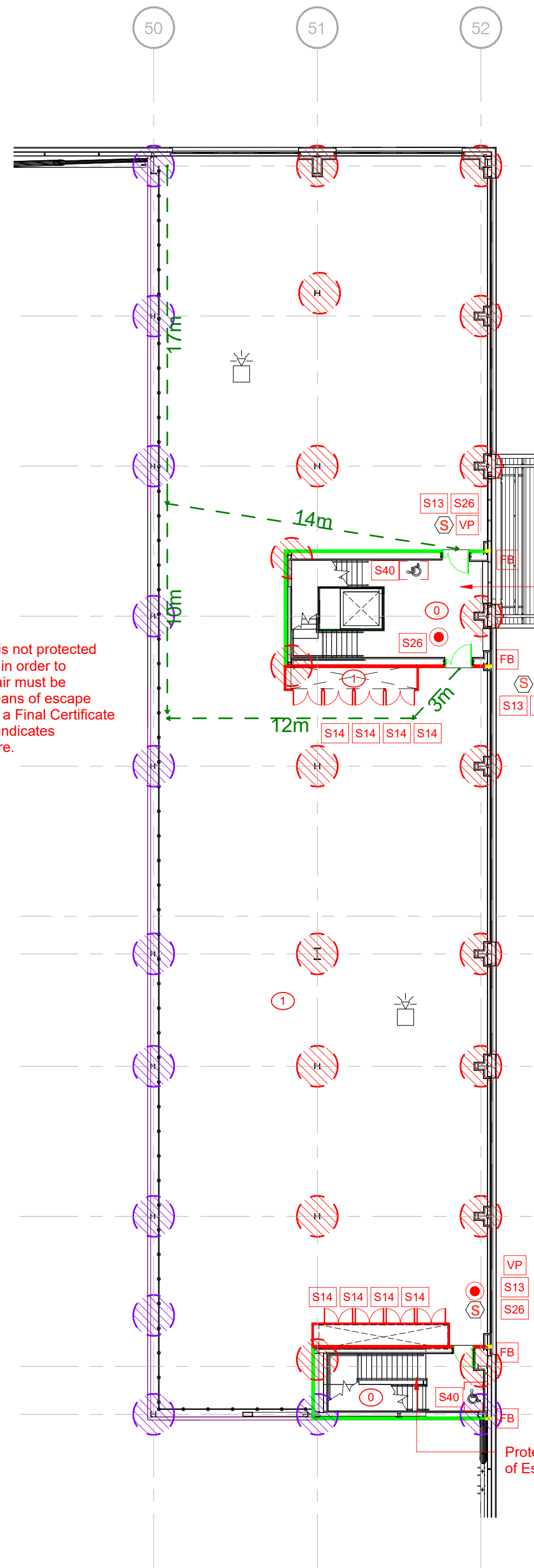
Ducts to have appropriately rated fire dampers where penetrating fire rated walls.

Mechanical & Electrical services to be sealed around using appropriately rated intumescent fire stop blocks where penetrating fire rated walls and floors.

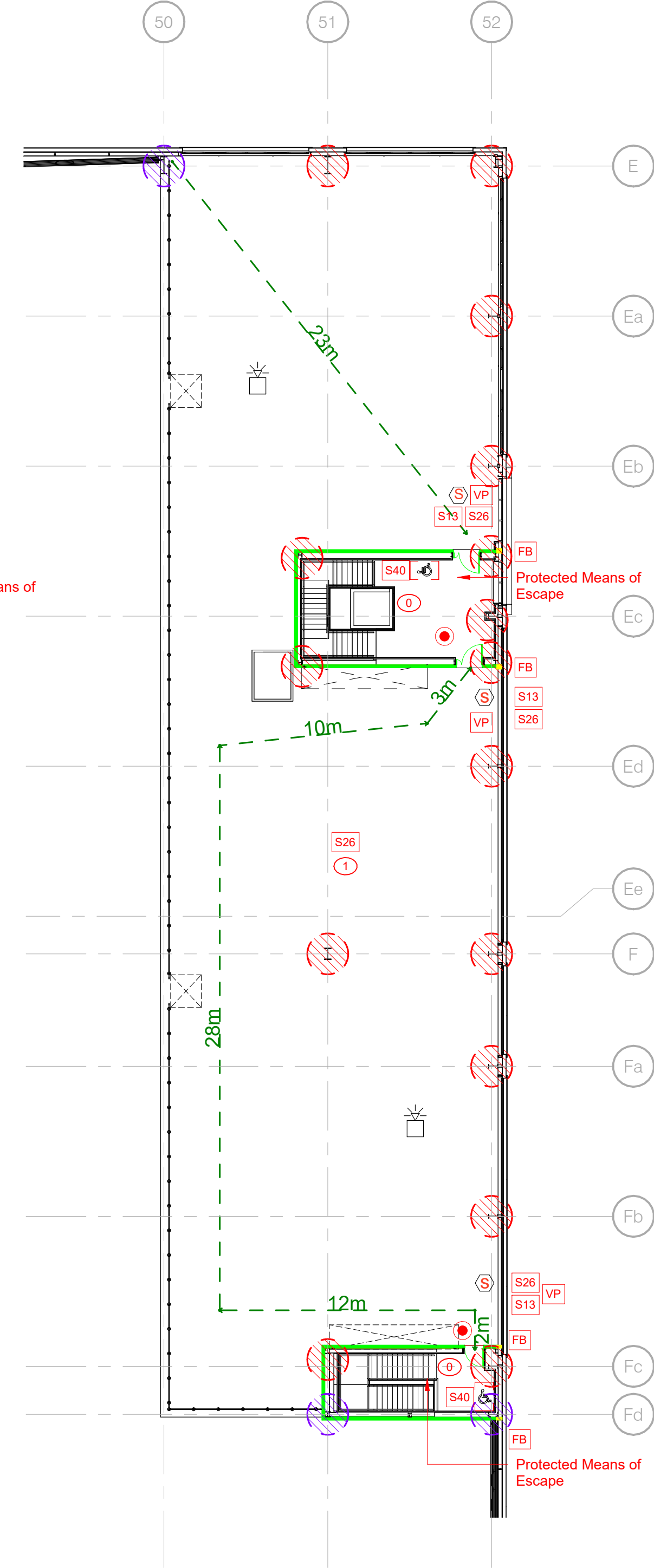
Sockets and switches located in fire rated partitions should be fire stopped (putty packs or intumescent gaskets).



**Main Office // Ground Floor Plan**



**Main Office // First Floor Plan**



**Main Office // Second Floor Plan**

**Escape Dimensions**

Horizontal Means of Escape		Roof	
<b>Office - A3 Risk Profile</b>			
Maximum single escape	18m (2/3rds = 12m)	Maximum single escape	60m
Maximum alternate escape	45m (2/3rds = 30m)	Maximum alternate escape	200m
<b>Note:</b> assumes standard escape dimensions from BS 9999 table 11.			
<b>Warehouse - A3 Risk Profile</b>			
Maximum single escape	22m (2/3rds = 15m)	RRU - A3 Risk Profile	
Maximum alternate escape	58.5m (2/3rds = 39m)	Maximum single escape	18m (2/3rds = 12m)
		Maximum alternate escape	45m (2/3rds = 30m)
<b>Note:</b> assumes standard escape dimensions from BS 9999 table 11, + 30% for ceilings being in excess of 10m			

**Exit Capacity**

Warehouse	2268 people
Main Office (GF)	662
Main Office (FF)	108
Distribution Office 1 (GF)	60
Distribution Office 1 (FF)	60
Distribution Office 2 (GF)	60
Distribution Office 2 (FF)	60
RRU	216

**Minimum Widths**

Overall between stringers		
Office	1300mm	Warehouse
Access stair	N/A	N/A
Escape stair	1300mm	N/A
Final Escape Doors	See drwg	850mm
(clear opening)		

**Finishes Notes**

Internal shell finishes generally as follows:		
Walls:	Painted plasterboard	Class 0
	Ceramic tile	Class 0
	Exposed masonry	Class 0
	Steel liner sheet	Class 0
Ceilings:	Steel liner sheet	Class 0
	Painted concrete	Class 0
	Plasterboard ceiling	Class 0
	Mineral fibre ceiling	Class 0
	Rooflights	Class 0
	Skirtings: Timber skirtings	Class 3
	Coved sheet	Class -
	Coved ceramic tiles	Class 0
Floor:	Carpet tiling / Barrier Mat	Class -
	Sheet flooring	Class -
	Concrete slab	Class 0
	Ceramic tile	Class 0

R01	RECORD ISSUE	12/10/23	CEW
C02	UPDATED TO SUIT FIRE ENGINEER REPORT	26/05/23	MJB
C01	ISSUED FOR CONSTRUCTION	23/05/23	MJB
P03	NOTES UPDATED	03/03/23	MJB
P02	UPDATED TO BUILDING CONTROL COMMENTS - PROTECTED STAIR WALLS REDUCED TO 30MINS. COLUMNS TO SEPARATING WALLS INCREASED TO 120MINS. DOORS IN SEPARATING WALLS NOTED AS 120MINS. EXTERNAL STAIRS MOVED 1800MM FROM EXTERNAL WALLS. STATEMENT REGARDING GF STAIR AMENDED.	15/02/23	MJB

F01	PRELIMINARY ISSUE	03/02/23	MJB
No.	Revision	Date	Init

Job

PLOT 4000

**GATEWAY14**

STOWMARKET

Drawing

**MAIN OFFICE FIRE STRATEGY**

Client

**JAYNIC**

**winvic**

**FRANK SHAW ASSOCIATES LIMITED ARCHITECTS**

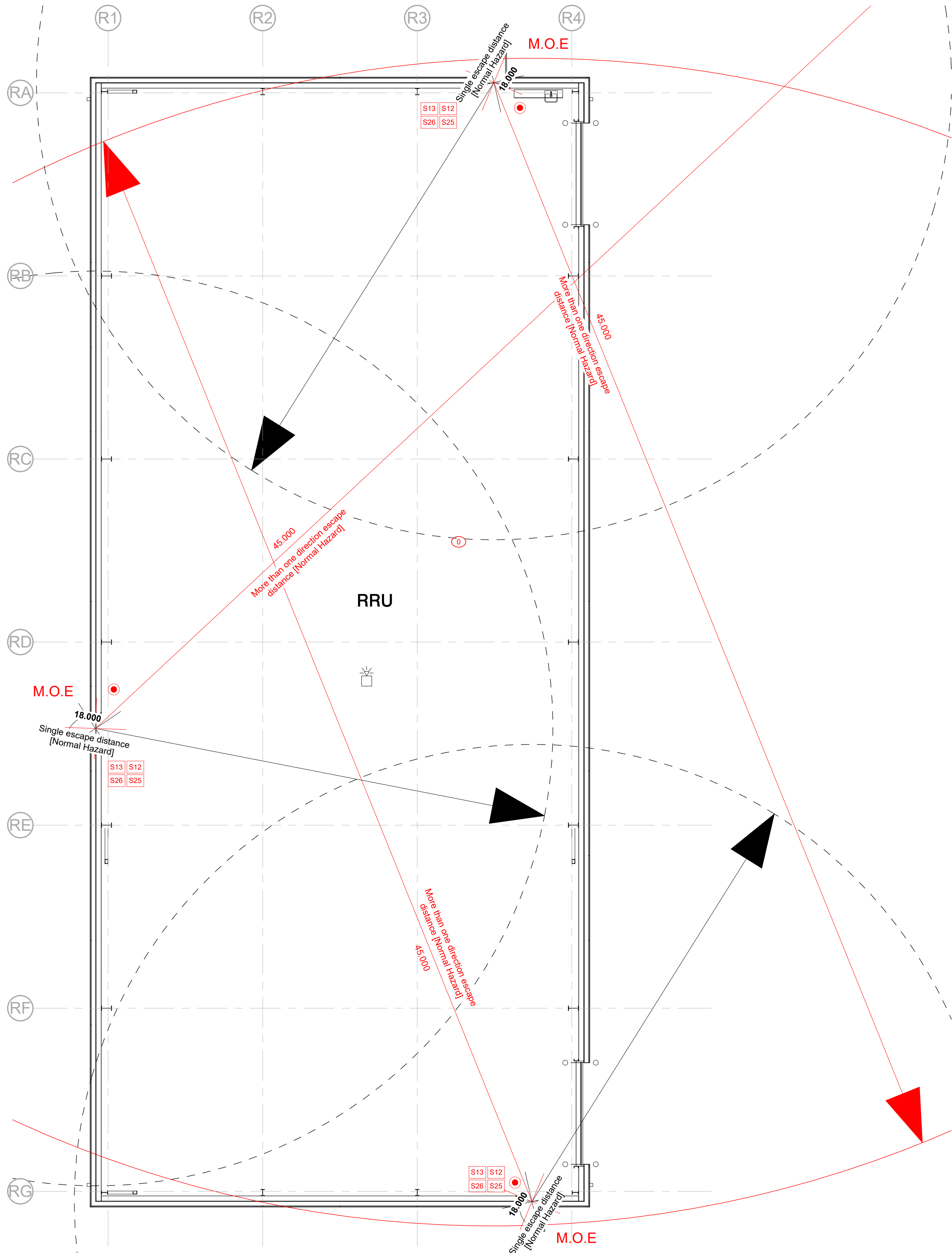
Penmore House Hasland Chesterfield Derbyshire S41 0SJ  
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Scale 1:200@A1 Drawn/Checked MJB

Job Number 21067 Date 30/01/23

Drawing Number P22036-FSA-MO-ZZ-DR-A-1257 Rev R01





**Fire Strategy Legend**

- █ 120 Minute Fire Rated Wall
- █ 60 Minute Fire Rated Wall
- █ 30 Minute Fire Rated Wall
- SC Self closing device
- VP Vision Panel (fire resistant glazing to fire doors)
- PB Push bar ironmongery
- S12 Fire Action Sign
- S13 Fire Door Keep Shut' signage
- S14 Fire Door Keep Locked Shut' signage
- S20 Fire Escape Keep Clear' signage
- S22 Fire Exit' signage
- S25 Push Bar to Open' signage
- S26 Directional arrow fire exit signage
- S27 Fire Exit Keep Clear' signage
- S40 Refuge communicator & Keep Clear signage
- 60 60 Minute FR Door
- 30 30 Minute FR Door
- Ceiling / RAF cavity fire barrier
- Fire barrier
- CB Cavity barrier in Floor and ceiling voids - maximum 20m ctrs.
- Manual call point
- S Smoke Detector and sounder
- S Smoke Detector
- H Heat Detector
- S Sounder/ Beacon
- FAP Fire alarm panel
- Denotes disabled refuge with call point
- 30min Fire Protection to Columns and any elements that may cause premature failure to critical load bearing structure.
- 60min Fire Protection to Columns and any elements that may cause premature failure to critical load bearing structure. Cladding within protected areas 60/15 fire rated.
- 120min Fire Protection to Columns and any elements that may cause premature failure to critical load bearing structure. continue protection min 1500mm for structural penetrations passing through.
- 3 Small areas of not more than 4m2
- 1 Other areas
- 0 Other circulation spaces
- 2m Escape travel distances

FIRE STRATEGY TO BE REVIEWED BY THE BUILDING CONTROL OFFICER

**Fire Legend Notes**

- This fire strategy is based on the BASE BUILD (CAT A) elements only and should be read in conjunction with M&E fire alarm and lighting design drawings and specification. Strategy drawings are subject to confirmation from Building Control and Fire Authority.
- All fire safety signs comply to comply with BS 5499 2000 and be photoluminescent.
  - Refer to FSA Door schedules/drawings.
  - All fire fighting equipment to be by client fit out.
  - Walls to protected corridors to continue to underside of structure or structural slab and be finished to achieve 30 minutes fire resistance [Compressible joints will be required at head].
  - For the purposes of this drawing, when a 1/2 hr fire rating line is drawn adjacent to a 1 or 2 hr fire rated wall, the construction of that element must take the higher rating.
  - Final Exit doors are to be guarded with railings, or similar, to prevent accidents should an outward opening door be pushed open and to encourage the exit to be kept clear.
  - Elements of structure to comply with Table 23 of BS 9999. Steelwork should be sprayed or boxed in to achieve 1hr. [Note where composite floor decking is used the top face / flange should not be sprayed].
  - Refer to Site plan Fire Strategy for Fire boundary calculations / locations / fire tender access.
  - The building will have a total evacuation strategy, meaning that upon activation of the fire alarm all occupants will evacuate the building and go to a pre identified muster point(s).
  - Cavity barriers to be installed at all floor and wall junctions to Part B.
  - Emergency Lighting to be in accordance with BS 5266.
  - Smoke detection layout to engineers design.
  - Category M (manual) system is to be installed as Base Build as long as building remains empty - refer to Sub-contractor design drawings, to comply to BS 5839-1 (13). L2 standard fire alarm system to be installed in office and warehouse as part of fit out works.
  - It should be ensured that the fire alarm can be heard on the roof, and maintenance workers are notified of a potential fire. Otherwise, sounders or hand-held repeater alarms linked to the fire alarm and detection system should be provided to this area to alert maintenance workers.
  - Floor void fire barriers to be installed under doors on fire rated wall lines - refer to wall for rating.
  - Warehouse escape doors to be based on steel door sets [frame and door] S/O 1130x2170mm, positively fixed to Steel wind posts [insulation between webs, not spacing off of window posts].

**Emergency Lighting**

- Emergency Lighting is to be provided in accordance with BS5266 Part 1 2011 and to be read in conjunction with M&E consultant drawings.
- Additionally, the following areas to be covered by emergency lighting:
- Change in level
  - At each exit door inside and outside of the building
  - Near a change of direction
  - Near each manual call point
  - Near fire fighting equipment
  - To illuminate all fire escape routes, exit signs and safety signs
  - Open plan office areas that exceed 60m2
  - Plant rooms / electrical service risers
  - Each flight of stairs
  - Intersections of corridors
  - Toilet / lobby / closet facilities that exceed 8m2 in floor area.

The standard of system for this type of building will usually be a non maintained 1 hour system.

When fit out works are undertaken, particular attention should be given to how the space between any aisles is lit so as to provide suitable illumination along the escape routes.

**Fire Resistance and Compartmentation**

The following items to be provided with fire resistance:

• Elements of Structure (Office)	60mins
• Elements of Structure (Warehouse)	60mins
• Compartment Wall Between Offices / Warehouse	120mins
• Cleaners Cupboards	30mins
• Stair Enclosures	30mins
• Lift Shafts	30mins
• Service Risers	60mins
• Cavity Barriers	30mins
• External wall within 1.8m of protected stairs	30mins
• Office Floors	60mins

Floors or ceilings that are above or below rooms that are enclosed within fire resistance should also have the same fire resistance period as the associated room (integrity / insulation / load bearing capacity).

It should be noted that where a loadbearing element supports another element of construction that achieves fire resistance, then the loadbearing elements should achieve the same fire resistance.

- Walls to be sealed to u/s roof or floor slab with fire rated deflection head in accordance with manufacturers details
- Horizontal and vertical cavity barriers to be installed at all compartment abutments.
- Ducts to have appropriately rated fire dampers where penetrating fire rated walls.
- Mechanical & Electrical services to be sealed around using appropriately rated intumescent fire stop blocks where penetrating fire rated walls and floors.
- Sockets and switches located in fire rated partitions should be fire stopped (putty packs or intumescent gaskets).

**Escape Dimensions**

**Horizontal Means of Escape**

<b>Office - A3 Risk Profile</b>	
Maximum single escape	18m (2/3rds = 12m)
Maximum alternate escape	45m (2/3rds = 30m)

Note: assumes standard escape dimensions from BS 9999 table 11.

<b>Warehouse - A3 Risk Profile</b>	
Maximum single escape	22m (2/3rds = 15m)
Maximum alternate escape	58.5m (2/3rds = 39m)

Note: assumes standard escape dimensions from BS 9999 table 11, + 30% for ceilings being in excess of 10m

<b>Roof</b>	
Maximum single escape	60m
Maximum alternate escape	200m

Note: assumes standard escape dimensions from BS 9999 table 11.

<b>RRU - A3 Risk Profile</b>	
Maximum single escape	18m (2/3rds = 12m)
Maximum alternate escape	45m (2/3rds = 30m)

Note: assumes standard escape dimensions from BS 9999 table 11.

**Exit Capacity**

Warehouse	2268 people
Main Office (GF)	662
Main Office (FF)	108
Distribution Office 1 (GF)	60
Distribution Office 1 (FF)	60
Distribution Office 2 (GF)	60
Distribution Office 2 (FF)	60
RRU	216

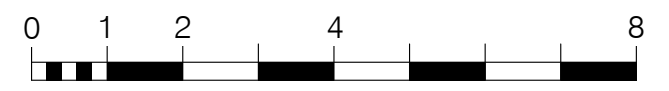
**Minimum Widths**

**Overall between stringers**

Access stair	1300mm	Office	1300mm	Warehouse	N/A
Escape stair	1300mm				N/A
Final Escape Doors (clear opening)	See drwg				850mm

**Finishes Notes**

Internal shell finishes generally as follows:		Skirtings: Timber skirtings	Class 3
		Coved sheet	Class -
		Coved ceramic tiles	Class 0
Walls:	Painted plasterboard	Class 0	
	Ceramic tile	Class 0	
	Exposed masonry	Class 0	
	Steel liner sheet	Class 0	
Ceilings:	Steel liner sheet	Class 0	
	Painted concrete	Class 0	
	Plasterboard ceiling	Class 0	
	Mineral fibre ceiling	Class 0	
	Rooflights	Class 0	
		Floor: Carpet tiling / Barrier Mat	Class -
		Sheet flooring	Class -
		Concrete slab	Class 0
		Ceramic tile	Class 0



Scale 1: 100

Status

**RECORD ISSUE**

**CDM Residual Risks**

In addition to the hazards/ risks normally associated with the types of work detailed on this drawing, please note the following:

- Construction**
- C1. Works adjacent to live overhead HV power lines and pylon.
  - C2. Below ground HV cables.

- Maintenance**
- M1. Live overhead HV power lines and pylon.
  - M2. Below ground HV cables.

- Decommissioning / Demolition**
- D1. Live overhead HV power lines and pylon.
  - D2. Below ground HV cables.

It is assumed that works will be carried out by a competent contractor working, where appropriate, to an approved method statement

R01	RECORD ISSUE	13/10/23	CEW
C01	ISSUED FOR CONSTRUCTION	23/05/23	MJB
F01	PRELIMINARY ISSUE	03/02/23	MJB
No.	Revision	Date	Initi

JOB

PLOT 4000

**GATEWAY14**

STOWMARKET

Drawing

**RRU FIRE STRATEGY**

Client

**JAYNIC**

**winvic**

**FRANK SHAW ASSOCIATES LIMITED ARCHITECTS**

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Scale	1: 100@A1	Drawn/Checked	MJB
Job Number	21067	Date	03/02/23
Drawing Number	P22036-FSA-RU-ZZ-DR-A-1552	Rev	R01



**Fire Strategy Legend**

- 120 Minute Fire Rated Wall
- 60 Minute Fire Rated Wall
- 30 Minute Fire Rated Wall
- Self closing device
- Vision Panel (fire resistant glazing to fire doors)
- Push bar ironmongery
- Fire Action Sign
- S13 Fire Door Keep Shut signage
- S14 Fire Door Keep Locked Shut signage
- S20 Fire Escape Keep Clear signage
- S22 Fire exit signage
- S25 Push Bar to Open signage
- S26 Directional arrow fire exit signage
- S27 Fire Exit Keep Clear signage
- S40 Refuge communicator & Keep Clear signage
- S120 120 Minute FR Door
- S60 60 Minute FR Door
- S30 30 Minute FR Door
- S Smoke Detector
- H Heat Detector
- S/B Sounder/ Beacon
- FAP Fire alarm panel
- D Denotes disabled refuge with call point
- S Ceiling / RAF cavity fire barrier
- FB Fire barrier
- CA Cavity barrier in Floor and ceiling voids - maximum 20m ctrs.
- M Manual call point
- S Smoke Detector and sounder
- S 30min Fire Protection to Columns, and any elements that may cause premature failure to critical load bearing structure.
- S 60min Fire Protection to Columns and any elements that may cause premature failure to critical load bearing structure. Cladding within protected areas 60/15 fire rated.
- S 120min Fire Protection to Columns and any elements that may cause premature failure to critical load bearing structure. continue protection min 1500mm for structural penetrations passing through.
- S Small areas of not more than 4m<sup>2</sup>
- S Other areas
- S Other circulation spaces
- S Escape travel distances
- S FIRE STRATEGY TO BE REVIEWED BY THE BUILDING CONTROL OFFICER

**Fire Legend Notes**

This fire strategy is based on the BASE BUILD (CAT A) elements only and should be read in conjunction with M&E fire alarm and lighting design drawings and specification. Strategy drawings are subject to confirmation from Building Control and Fire Authority.

1. All fire safety signs comply to comply with BS 5499 2000 and be photoluminescent.
2. Refer to FSA Door schedules/drawings.
3. All fire fighting equipment to be by client fit out.
4. Walls to protected corridors to continue to underside of structure or structural slab and be finished to achieve 30 minutes fire resistance (Compressible joints will be required at head).
5. For the purposes of this drawing, when a 1/2 hr fire rating line is down adjacent to a 1 or 2 hr fire rated wall, the construction of that element must take the higher rating.
6. Final Exit doors are to be guarded with railings, or similar, to prevent accidents should an outward opening door be pushed open and to encourage the exit to be kept clear.
7. Elements of structure to comply with Table 23 of BS 9999. Steelwork should be sprayed or boxed in to achieve 1hr. [Note where composite floor decking is used the top face / flange should not be sprayed].
8. Refer to Site plan Fire Strategy for Fire boundary calculations / locations / fire tender access.
9. The building will have a total evacuation strategy, meaning that upon activation of the fire alarm all occupants will evacuate the building and go to a pre identified muster point(s).
10. Cavity barriers to be installed at all floor and wall junctions to Part B.11. Emergency Lighting to be in accordance with BS 5266.
11. Smoke detection layout to engineers design.
12. Smoke detection (manual) system to be installed as Base Build as long as building remains empty - refer to Sub-contractor design drawings, to comply to BS 5838-1 (3). L2 standard fire alarm system to be installed in office and warehouse as part of fit out works.
14. It should be ensured that the fire alarm can be heard on the roof, and maintenance workers are notified of a potential fire. Otherwise, sounders or hand-held repeater alarms linked to the fire alarm and detection system should be provided to this area to alert maintenance workers.
15. Floor void fire barriers to be installed under doors on fire rated wall lines - refer to wall for rating.
16. Warehouse escape doors to be based on steel door sets (frame and door) SIO 1130x2170mm, positively fixed to Steel wind posts [insulation between webs, not spacing off of window posts].

**Emergency Lighting**

Emergency Lighting is to be provided in accordance with BS5266 Part 1 2011 and to be read in conjunction with M&E consultant drawings.

- Additionally, the following areas to be covered by emergency lighting:
- Change in level
  - At each exit door inside and outside of the building
  - Near a change of direction
  - Near each manual call point
  - Near fire fighting equipment
  - To illuminate all fire escape routes, exit signs and safety signs
  - Plant rooms / electrical service risers
  - Open plan office areas that exceed 60m<sup>2</sup>
  - Each flight of stairs
  - Intersections of corridors
  - Toilet / lobby / closet facilities that exceed 8m<sup>2</sup> in floor area.

The standard of system for this type of building will usually be a non maintained 1 hour system.

When fit out works are undertaken, particular attention should be given to how the space between any aisles is lit so as to provide suitable illumination along the escape routes.

**Fire Resistance and Compartmentation**

- The following items to be provided with fire resistance:
- Elements of Structure (Office) 60mins
  - Elements of Structure (Warehouse) 60mins
  - Compartment Wall Between Offices / Warehouse 120mins
  - Cleaners Cupboards 30mins
  - Stair Enclosures 30mins
  - Lift Shafts 30mins
  - Service Risers 60mins
  - Cavity Barriers 30mins
  - External wall within 1.8m of protected stairs 30mins
  - Office Floors 60mins

Floors or ceilings that are above or below rooms that are enclosed within fire resistance should also have the same fire resistance period as the associated room (integrity / insulation / load bearing capacity). It should be noted that where a loadbearing element supports another element of construction that achieves fire resistance, then the loadbearing elements should achieve the same fire resistance.

Walls to be sealed to u/s roof or floor slab with fire rated deflection head in accordance with manufacturers details.

Horizontal and vertical cavity barriers to be installed at all compartment abutments.

Ducts to have appropriately rated fire dampers where penetrating fire rated walls.

Mechanical & Electrical services to be sealed around using appropriately rated intumescent fire stop blocks where penetrating fire rated walls and floors.

Sockets and switches located in fire rated partitions should be fire stopped (gully packs or intumescent gaskets).

**Escape Dimensions**

Horizontal Means of Escape	
<b>Office - A3 Risk Profile</b>	
Maximum single escape	18m (2/3rds = 12m)
Maximum alternate escape	45m (2/3rds = 30m)
Note: assumes standard escape dimensions from BS 9999 table 11.	
<b>Warehouse - A3 Risk Profile</b>	
Maximum single escape	22m (2/3rds = 15m)
Maximum alternate escape	58.5m (2/3rds = 39m)
Note: assumes standard escape dimensions from BS 9999 table 11, + 30% for ceilings being in excess of 10m	

**Roof**

Maximum single escape	60m
Maximum alternate escape	200m
Note: assumes standard escape dimensions from BS 9999 table 11.	
<b>RRU - A3 Risk Profile</b>	
Maximum single escape	18m (2/3rds = 12m)
Maximum alternate escape	45m (2/3rds = 30m)
Note: assumes standard escape dimensions from BS 9999 table 11.	

**Exit Capacity**

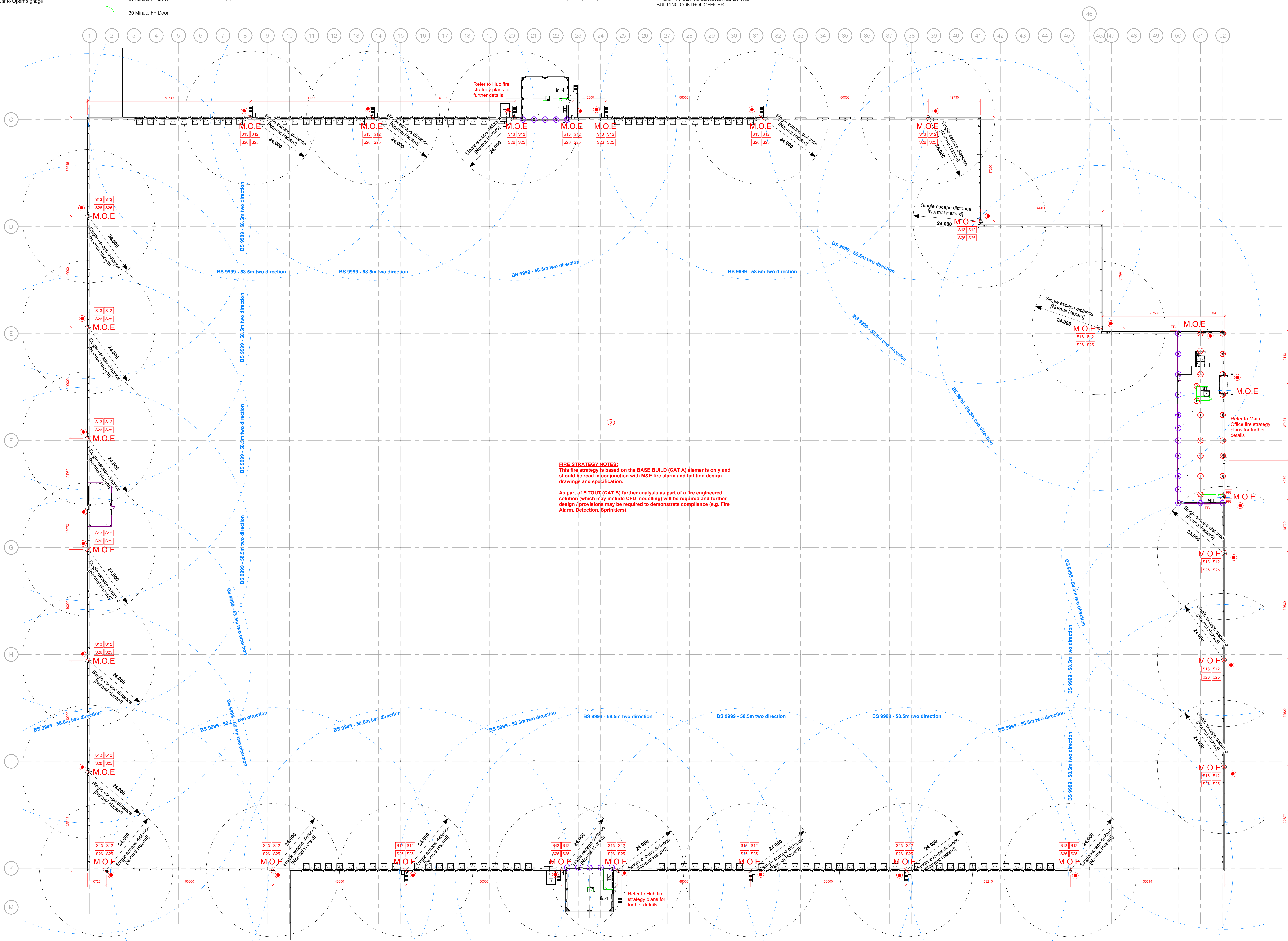
Warehouse	2268 people
Main Office (GF)	662
Main Office (FF)	108
Distribution Office 1 (GF)	60
Distribution Office 1 (FF)	60
Distribution Office 2 (GF)	60
Distribution Office 2 (FF)	60
RRU	216

**Minimum Widths**

Overall between stringers	
Office	1300mm
Warehouse	N/A
Access stair	1300mm
Escape stair	N/A
Final Escape Doors (clear opening)	See dwg/ 850mm

**Finishes Notes**

Internal shell finishes generally as follows:	
Walls:	Painted plasterboard Class 0
	Ceramic tile Class 0
	Exposed masonry Class 0
	Steel liner sheet Class 0
Skirtings:	Timber skirtings Class 3
	Coved sheet Class 0
	Coved ceramic tiles Class 0
Floor:	Carpet tiling / Barrier Mat Class -
	Sheet flooring Class -
	Concrete slab Class 0
	Ceramic tile Class 0
Ceilings:	Steel liner sheet Class 0
	Painted concrete Class 0
	Plasterboard ceiling Class 0
	Mineral fibre ceiling Class 0
	Rootlights Class 0



R01	RECORD ISSUE	12/10/23	CEW
C02	DOOR POSITIONS AMENDED / ADDED TO SUIT FIRE OFFICER / ENGINEER REQUEST. ALTERATIONS MADE TO SUIT. SAP-0019	26/06/23	MJB
C01	ISSUES FOR CONSTRUCTION	29/05/23	MJB
P02	NOTES UPDATED	02/02/23	MJB
P02	UPDATED TO BUILDING CONTROL COMMENTS. PROTECTED STAIR WALLS REDUCED TO 30MINS. COLLARS TO SEPARATING WALLS INCREASED TO 120MINS. DOORS IN SEPARATING WALLS NOTED AS 120MINS. EXTERNAL STAIRS MOVED 1500MM FROM EXTERNAL WALLS. STATEMENT REGARDING STAIR AMENDED.	03/02/23	MJB
P01	PRELIMINARY ISSUE	03/02/23	MJB
No.	Revision	Date	Initials

PLOT 4000

**GATEWAY14**  
[STAMP]

Drawing: WAREHOUSE FIRE STRATEGY

Client: **JAYNIC**

**winvic**

**FRANK SHAW ASSOCIATES LIMITED ARCHITECTS**

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1:500@AO MJB  
Scale: 1:500  
21067 03/02/23  
Drawing Number: P22036-FSA-ZZ-00-DR-A-1256 Rev  
R01



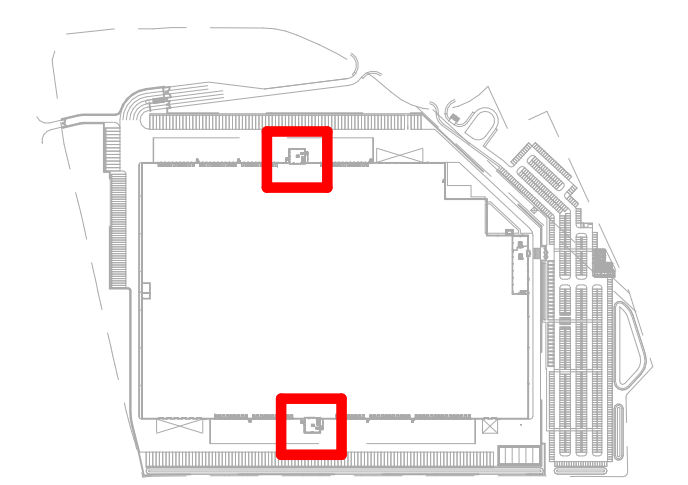
### Fire Strategy Legend

	120 Minute Fire Rated Wall		Fire Door Keep Shut sign		Directional arrow fire exit sign		Ceiling / RAF cavity fire barrier		Smoke Detector		30min Fire Protection to Columns and any elements that may cause premature failure to critical load bearing structure.		Small areas of not more than 4m2
	60 Minute Fire Rated Wall		Fire Door Keep Locked Shut sign		Fire Exit Keep Clear sign		Fire barrier		Heat Detector		60min Fire Protection to Columns and any elements that may cause premature failure to critical load bearing structure. Cladding within protected areas 60/15 fire rated.		Other areas
	30 Minute Fire Rated Wall		Fire Escape Keep Clear sign		Refuge communicator & Keep Clear sign		Cavity barrier in Floor and ceiling voids - maximum 20m ctrs.		Fire alarm panel		120min Fire Protection to Columns and any elements that may cause premature failure to critical load bearing structure. continue protection min 1500mm for structural penetrations passing through.		Other circulation spaces
	Self closing device		Fire Exit sign		120 Minute FR Door		Manual call point		Denotes disabled refuge with call point		Escape travel distances		
	Vision Panel (fire resistant glazing to fire doors)		Push Bar to Open sign		60 Minute FR Door		Smoke Detector and sounder						
	Push bar ironmongery				30 Minute FR Door								
	Fire Action Sign												

0 2 4 8 16  
Scale 1: 200  
Status  
**RECORD ISSUE**

**CDM Residual Risks**  
In addition to the hazards/ risks normally associated with the types of work detailed on this drawing, please note the following:  
**Construction**  
C1. No applicable risks.  
**Maintenance**  
M1. No applicable risks.  
**Decommissioning / Demolition**  
D1. No applicable risks.

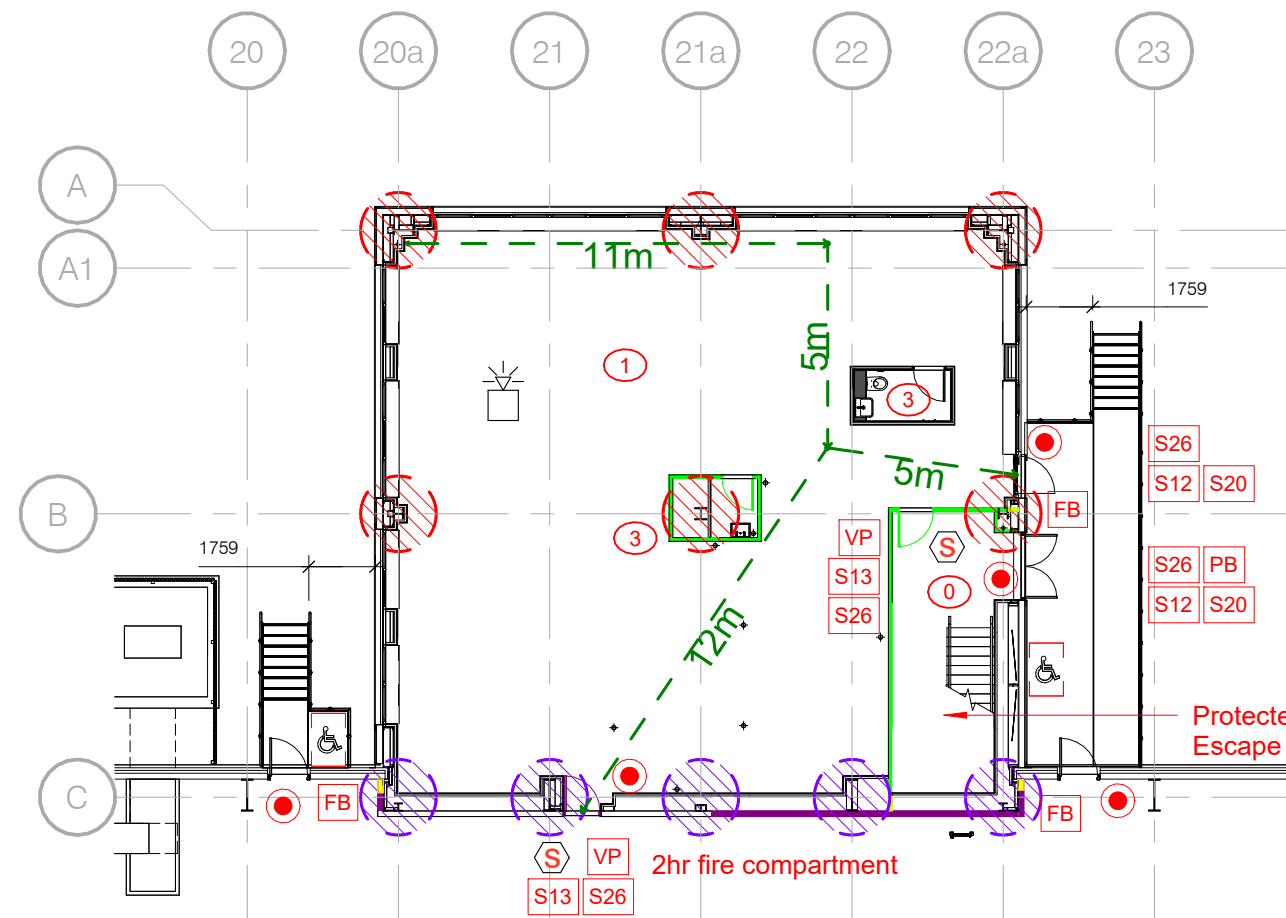
It is assumed that works will be carried out by a competent contractor working, where appropriate, to an approved method statement



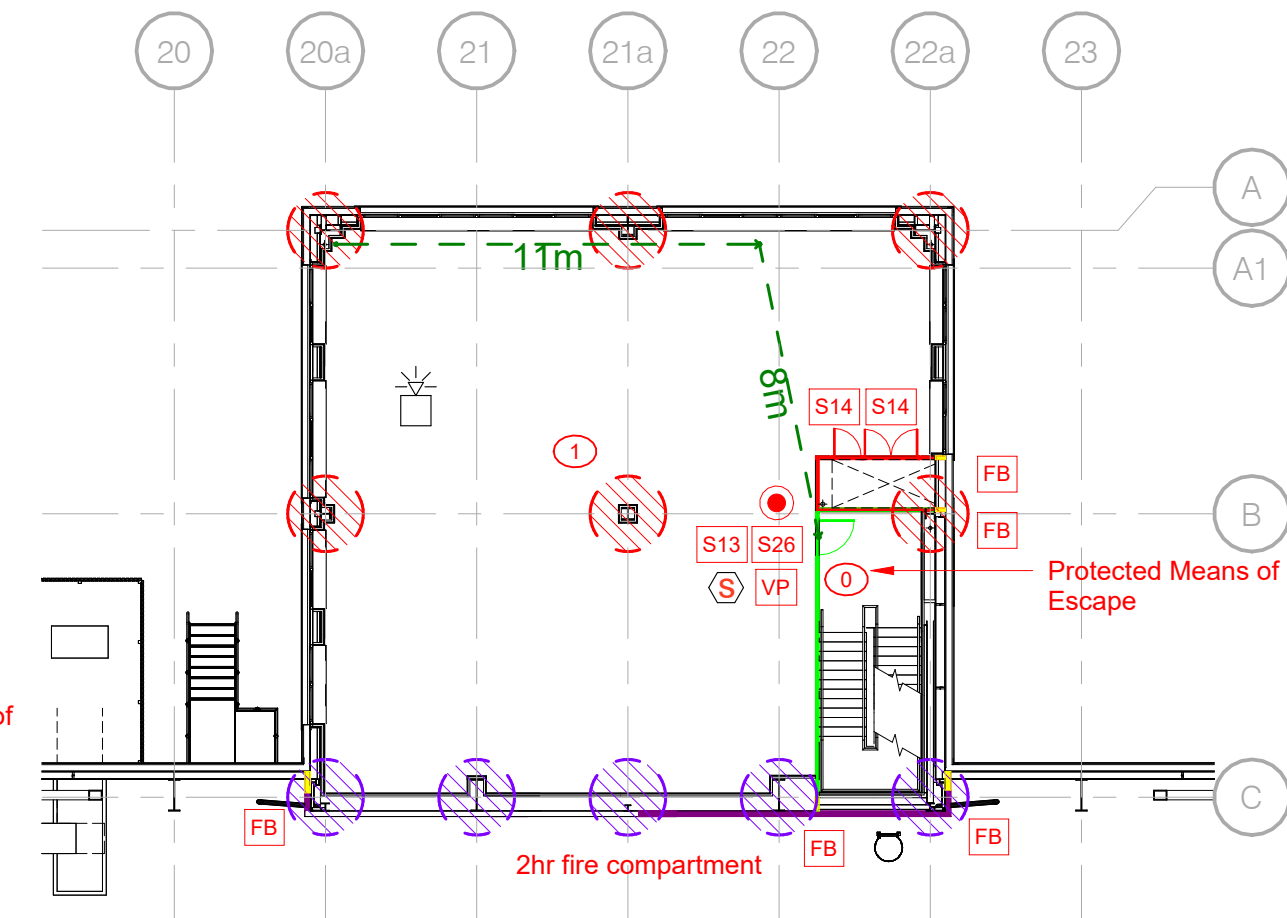
### Fire Legend Notes

This fire strategy is based on the BASE BUILD (CAT A) elements only and should be read in conjunction with M&E fire alarm and lighting design drawings and specification. Strategy drawings are subject to confirmation from Building Control and Fire Authority.

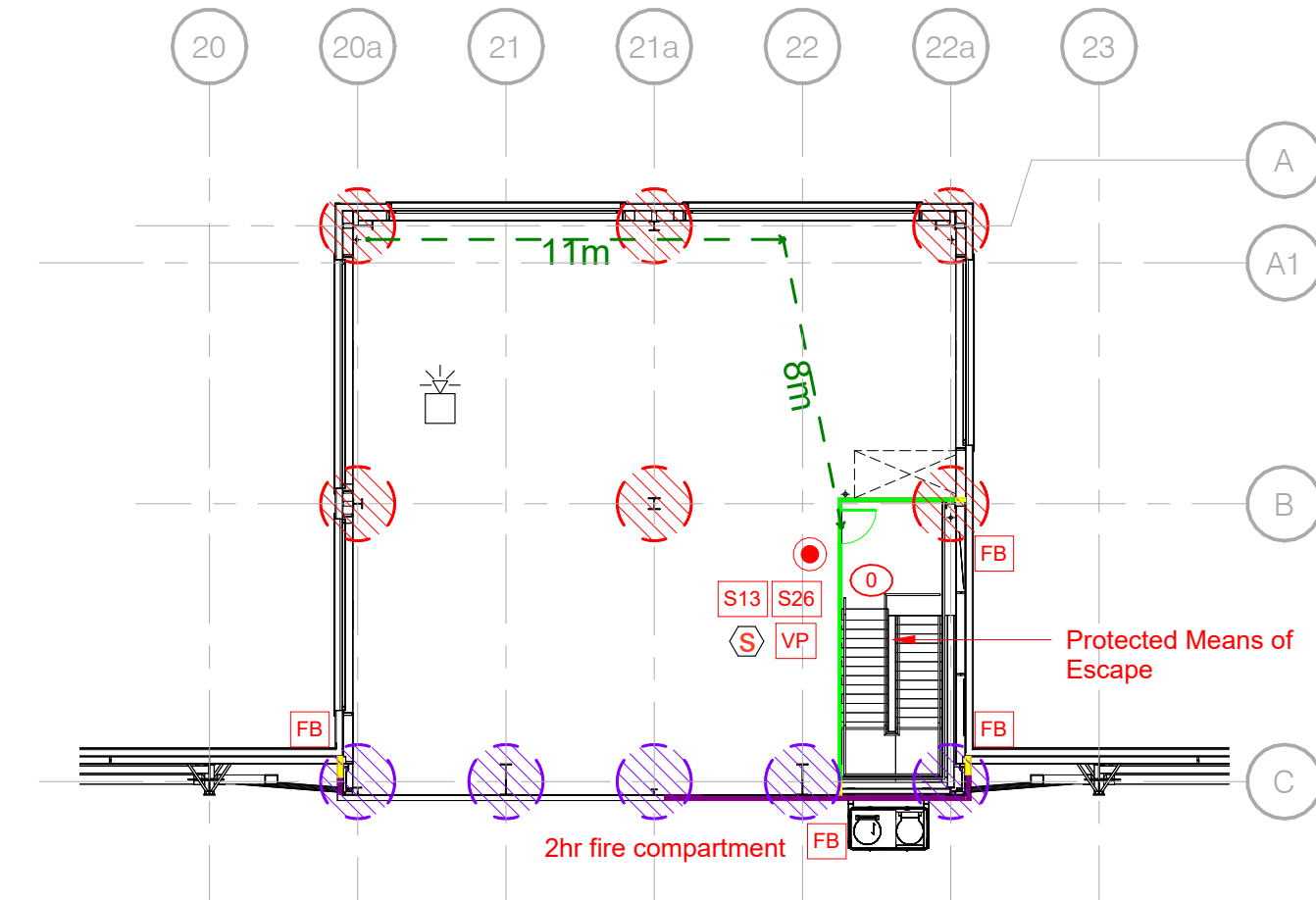
- All fire safety signs comply to comply with BS 5499 2000 and be photoluminescent.
- Refer to FSA Door schedules/drawings.
- All fire lighting equipment to be by client fit out.
- Walls to protected corridors to continue to underside of structure or structural slab and be finished to achieve 30 minutes fire resistance [Compressible joints will be required at head].
- For the purposes of this drawing, when a 1/2 hr fire rating line is drawn adjacent to a 1 or 2 hr fire rated wall, the construction of that element must take the higher rating.
- Final Exit doors are to be guarded with railings, or similar, to prevent accidents should an outward opening door be pushed open and to encourage the exit to be kept clear.
- Elements of structure to comply with Table 23 of BS 9999. Steelwork should be sprayed or boxed in to achieve 1hr. [Note where composite floor decking is used the top face / flange should not be sprayed].
- Refer to Site plan Fire Strategy for Fire boundary calculations / locations / fire tender access.
- The building will have a total evacuation strategy, meaning that upon activation of the fire alarm all occupants will evacuate the building and go to a pre identified muster point(s).
- Cavity barriers to be installed at all floor and wall junctions to Part B.
- Emergency Lighting to be in accordance with BS 5266.
- Smoke detection layout to engineers design.
- Category M (manual) system is to be installed as Base Build as long as building remains empty - refer to Sub-contractor design drawings, to comply to BS 5839-1 (13). L2 standard fire alarm system to be installed in office and warehouse as part of fit out works.
- It should be ensured that the fire alarm can be heard on the roof, and maintenance workers are notified of a potential fire. Otherwise, sounders or hand-held repeater alarms linked to the fire alarm and detection system should be provided to this area to alert maintenance workers.
- Floor void fire barriers to be installed under doors on fire rated wall lines - refer to wall for rating.
- Warehouse escape doors to be based on steel door sets [frame and door] S/O 1130x2170mm, positively fixed to Steel wind posts [insulation between webs, not spacing off of window posts].



Distribution Office 1 // Ground Floor Plan



Distribution Office 1 // First Floor Plan



Distribution Office 1 // Second Floor Plan

1 : 200

### Emergency Lighting

Emergency Lighting is to be provided in accordance with BS5266 Part 1 2011 and to be read in conjunction with M&E consultant drawings.

Additionally, the following areas to be covered by emergency lighting:

- Change in level
- At each exit door inside and outside of the building
- Near a change of direction
- Near each manual call point
- Near fire fighting equipment
- To illuminate all fire escape routes, exit signs and safety signs
- Open plan office areas that exceed 60m2
- Plant rooms / electrical service risers
- Each flight of stairs
- Intersections of corridors
- Toilet / lobby / closet facilities that exceed 8m2 in floor area.

The standard of system for this type of building will usually be a non maintained 1 hour system.

When fit out works are undertaken, particular attention should be given to how the space between any aisles is lit so as to provide suitable illumination along the escape routes.

### Fire Resistance and Compartmentation

The following items to be provided with fire resistance:

- Elements of Structure (Office) 60mins
- Elements of Structure (Warehouse) 60mins
- Compartment Wall Between Offices / Warehouse 120mins
- Cleaners Cupboards 30mins
- Stair Enclosures 30mins
- Lift Shafts 30mins
- Service Risers 60mins
- Cavity Barriers 30mins
- External wall within 1.8m of protected stairs 30mins
- Office Floors 60mins

Floors or ceilings that are above or below rooms that are enclosed within fire resistance should also have the same fire resistance period as the associated room (integrity / insulation / load bearing capacity).

It should be noted that where a loadbearing element supports another element of construction that achieves fire resistance, then the loadbearing elements should achieve the same fire resistance.

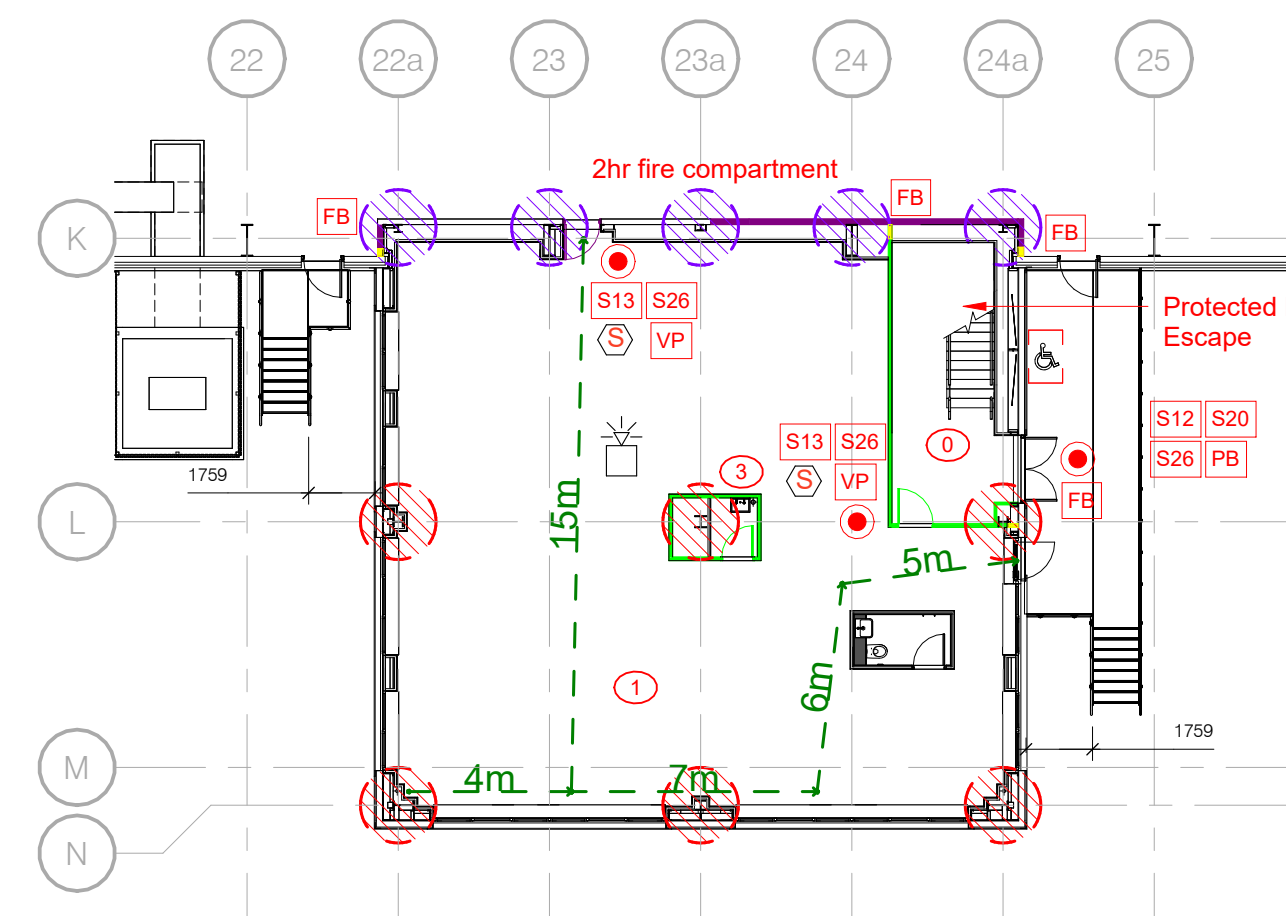
Walls to be sealed to u/s roof or floor slab with fire rated deflection head in accordance with manufacturers details

Horizontal and vertical cavity barriers to be installed at all compartment abutments.

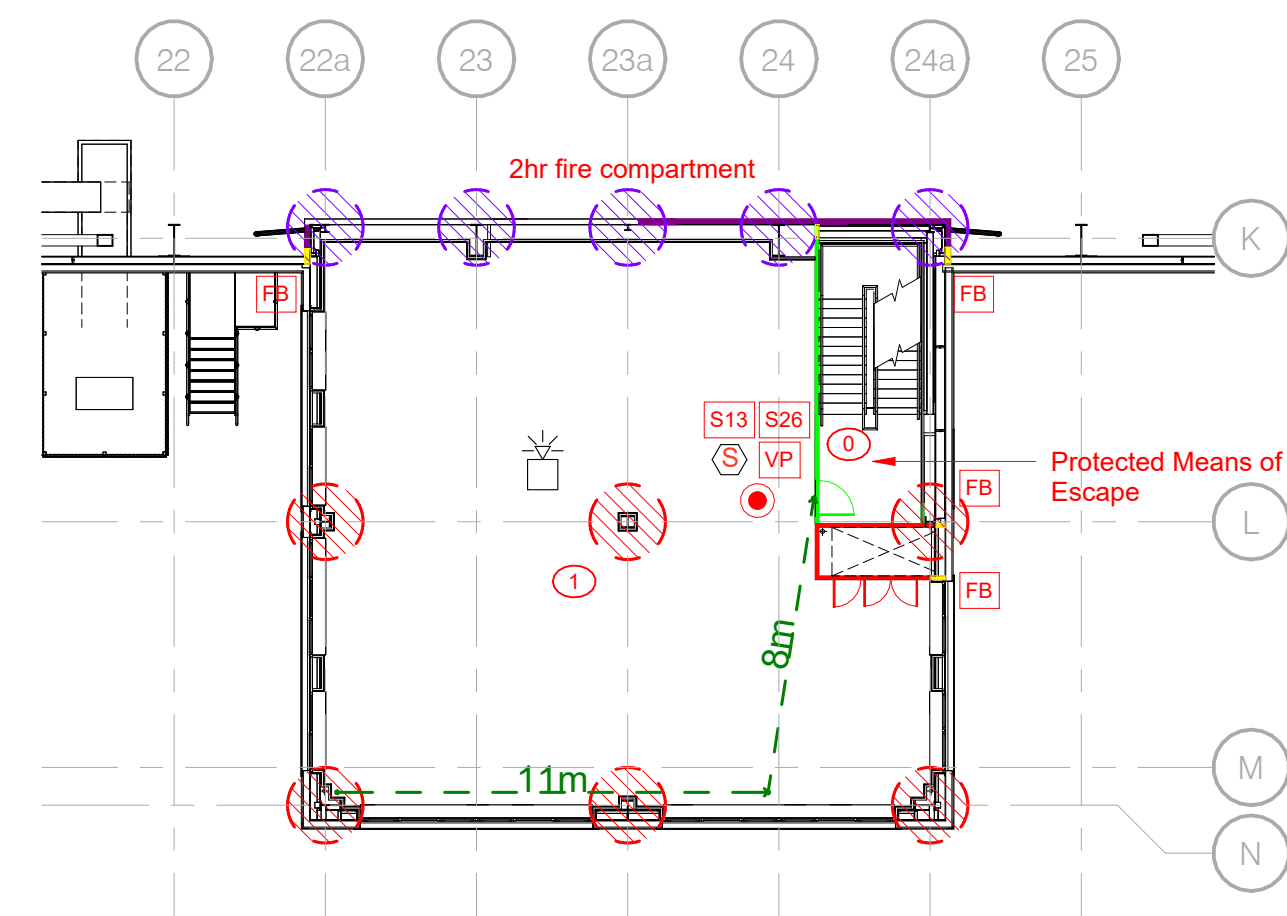
Ducts to have appropriately rated fire dampers where penetrating fire rated walls.

Mechanical & Electrical services to be sealed around using appropriately rated intumescent fire stop blocks where penetrating fire rated walls and floors.

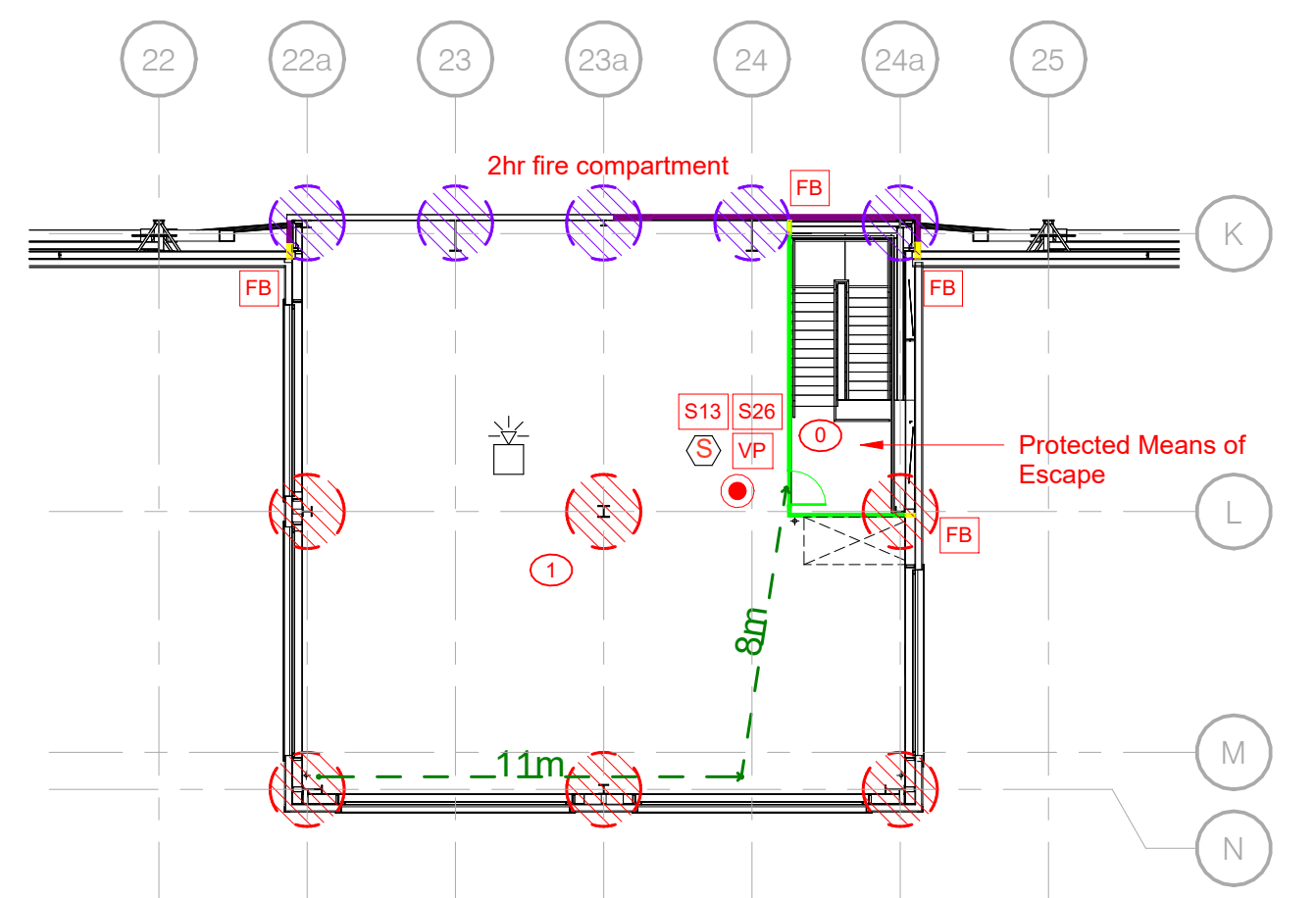
Sockets and switches located in fire rated partitions should be fire stopped (putty packs or intumescent gaskets).



Distribution Office 2 // Ground Floor Plan



Distribution Office 2 // First Floor Plan



Distribution Office 2 // Second Floor Plan

### Escape Dimensions

Horizontal Means of Escape

<b>Office - A3 Risk Profile</b>		
Maximum single escape	18m (2/3rds = 12m)	
Maximum alternate escape	45m (2/3rds = 30m)	

Note: assumes standard escape dimensions from BS 9999 table 11.

<b>Warehouse - A3 Risk Profile</b>		
Maximum single escape	22m (2/3rds = 15m)	
Maximum alternate escape	58.5m (2/3rds = 39m)	

Note: assumes standard escape dimensions from BS 9999 table 11, + 30% for ceilings being in excess of 10m

<b>Roof</b>		
Maximum single escape	60m	
Maximum alternate escape	200m	

Note: assumes standard escape dimensions from BS 9999 table 11.

<b>RRU - A3 Risk Profile</b>		
Maximum single escape	18m (2/3rds = 12m)	
Maximum alternate escape	45m (2/3rds = 30m)	

Note: assumes standard escape dimensions from BS 9999 table 11.

### Exit Capacity

Warehouse	2268 people
Main Office (GF)	662
Main Office (FF)	108
Distribution Office 1 (GF)	60
Distribution Office 1 (FF)	60
Distribution Office 2 (GF)	60
Distribution Office 2 (FF)	60
RRU	216

### Minimum Widths

Overall between stringers

	<b>Office</b>	<b>Warehouse</b>
Access stair	1300mm	N/A
Escape stair	1300mm	N/A
Final Escape Doors (clear opening)	See drwg	850mm

### Finishes Notes

Internal shell finishes generally as follows:

<b>Walls:</b>	Painted plasterboard	Class 0	<b>Skirtings:</b>	Timber skirtings	Class 3
	Ceramic tile	Class 0		Coved sheet	Class -
	Exposed masonry	Class 0		Coved ceramic tiles	Class 0
	Steel liner sheet	Class 0	<b>Floor:</b>	Carpel tiling / Barrier Mat	Class -
				Sheet flooring	Class -
				Concrete slab	Class 0
				Ceramic tile	Class 0
<b>Ceilings:</b>	Steel liner sheet	Class 0			
	Painted concrete	Class 0			
	Plasterboard ceiling	Class 0			
	Mineral fibre ceiling	Class 0			
	Rooflights	Class 0			

R01	RECORD ISSUE	12/10/23	CEW
C02	UPDATED TO SUIT FIRE ENGINEER REPORT	26/05/23	MJB
C01	ISSUED FOR CONSTRUCTION.	23/05/23	MJB
P03	NOTES UPDATED.	03/03/23	MJB
P02	UPDATED TO BUILDING CONTROL COMMENTS - COLUMNS TO SEPARATING WALLS INCREASED TO 120MINS. DOORS IN SEPARATING WALLS NOTED AS 120MINS. EXTERNAL STAIRS MOVED 1800MM FROM EXTERNAL WALLS.	15/02/23	MJB
F01	PRELIMINARY ISSUE	03/02/23	MJB
No.	Revision	Date	Initis

PLOT 4000  
**GATEWAY14**  
STOWMARKET

Drawing  
**DISTRIBUTION OFFICE FIRE STRATEGY**

Client  
**JAYNIC**



**FRANK SHAW ASSOCIATES LIMITED ARCHITECTS**

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Scale	1:200@A1	Drawn/Checked	MJB
Job Number	21067	Date	30/01/23
Drawing Number	P22036-FSA-ZZ-ZZ-DR-A-1258	Rev	R01

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## **SECTION 1.4: FIRE STRATEGY**

### **1.4.2 Description of Fire Detection System Employed and Fire Detection Criteria**

**Information provided by Walter Miles, the Electrical Services**



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## SECTION 1.4: FIRE STRATEGY

### 1.4.3 Occupier's Responsibilities

The Regulatory Reform (Fire Safety) Order 2005 replaces most fire safety legislation with one simple order. It means that any person who has some level of control in premises must take reasonable steps to reduce the risk from fire and make sure people can safely escape if there is a fire.

#### Regulatory Reform (Fire Safety) Order 2005

##### What are the main rules under the order?

You must:

- carry out a fire-risk assessment identifying any possible dangers and risks
- consider who may be especially at risk
- get rid of or reduce the risk from fire as far as is reasonably possible and provide general fire precautions to deal with any possible risk left
- take other measures to make sure there is protection if flammable or explosive materials are used or stored
- create a plan to deal with any emergency and, in most cases, keep a record of your findings
- tell staff or their representatives about the risks you've identified, provide staff information, fire safety instruction and training
- review your findings when necessary

Due to the nature of the completed facility, it is strongly recommended that a competent fire risk assessor is appointed to assist with the fire risk assessment process.

The register of fire risk assessors and auditors maintained by the Institution of Fire Engineers may be a good starting point for locating one, visit <http://www.ife.org.uk/Fire-Risk-Assessors-Register> for further details.

##### Who is responsible for meeting the order?

In England and Wales, if you're an employer, owner, landlord or occupier of business or other non-domestic premises, you're responsible for fire safety and are known as the 'responsible person'.

##### Further Information

The following websites contain further detailed information and guides:

<https://www.gov.uk/workplace-fire-safety-your-responsibilities>

<https://www.gov.uk/government/publications/making-your-premises-safe-from-fire>

<http://www.legislation.gov.uk/ukxi/2005/1541/contents/made> [www.communities.gov.uk/firesafety](http://www.communities.gov.uk/firesafety)

<http://www.ife.org.uk/Fire-Risk-Assessors->