4.5 Emergency power supplies

Secondary power supplies will be required to all equipment essential for functioning during a fire, including the fire detection and alarm systems and emergency lighting system. Further advice on emergency power supplies is provided in BS 8519.

4.6 Heating, ventilation and air conditioning systems (HVAC)

Ductwork will be designed in accordance with the recommendations of BS 9999, fire dampers will be provided within the thickness of the fire separating elements where non-fire resisting ductwork passes through fire resisting construction. Ductwork should be arranged so that it does not pass through the protected escape stairs.

Where practicable air transfer grilles should avoid being provided within fire resisting walls and doors. However, intumescent type grille may be fitted where the construction does not form a protected escape route. Where the wall or door forms part of a protected escape route, air transfer grilles should be avoided or fire and smoke dampers provided that operate on operation of the fire alarm system.

Examples of typical acceptable arrangements are provided in Figure 2 and Figure 3 below.

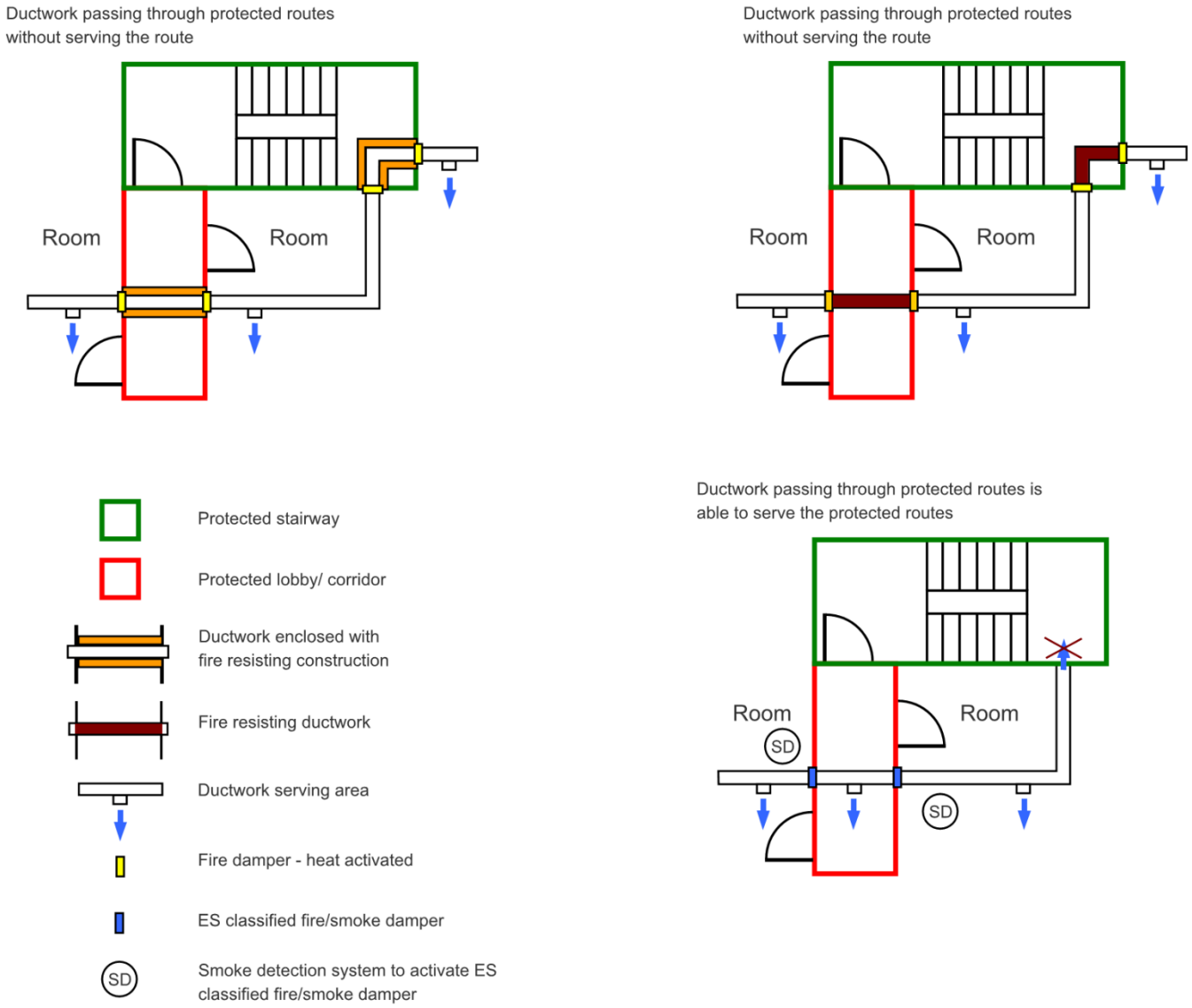


Figure 2: Examples of ductwork and damper arrangements

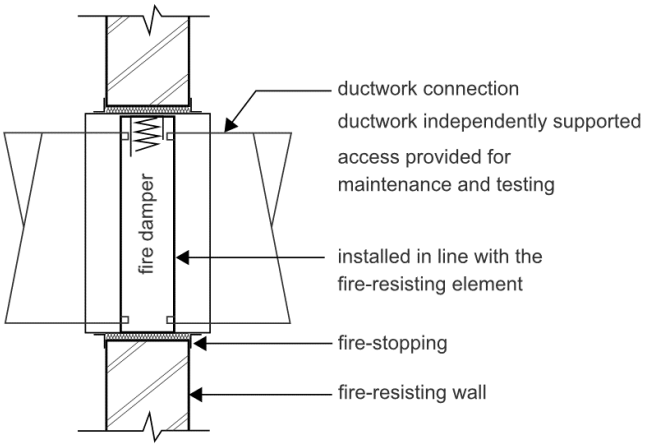


Figure 3: Installation of fire dampers

4.7 Emergency voice communication

Emergency voice communications (EVC) systems will be provided to all disabled refuges in accordance with BS 5839-9:2011 which would communicate with a master station at the fire alarm panel.

4.8 Fire safety signage

Every escape route, other than those in ordinary use, will be distinctively and conspicuously marked by emergency exit signage of adequate size. The signage will be consistent throughout the building and will comply with the recommendations of BS 5499-1 and BS 5499-4 and comprise of a graphical symbol, directional arrow and supplementary text.

Consideration needs to be given to any fit-out design and position of furniture, partitions and fixings that could obscure signage or the escape route. Therefore, this should be reviewed as part of any on-going fire risk assessments once the building is occupied.

Fire safety signs to identify fire-fighting equipment, fire alarm call points and disabled refuges along escape routes will be provided in accordance with Section 10.4.3 of BS 9999. Signs, in accordance with BS EN ISO 7010 will be provided on fire doors to indicate that they should be kept shut. An exception to this is any fire door held open by electromagnetic devices connected to the fire alarm.

All fire safety signs which indicate escape routes will be illuminated by means of natural lighting or artificial lighting. To cater for power failure, emergency lighting will be located to provide sufficient illumination to these signs such that they are clearly distinguishable by occupants.

4.9 First aid fire-fighting equipment

Although not a direct requirement for compliance with the Building Regulations, for the purposes of satisfying the requirements under the RRO, portable fire extinguishers should be provided in accordance with BS 5306-8:2012 along with suitable training provided to persons expected to use them. These provisions apply once the premises are occupied.

All equipment should be located so as to be readily available in all areas and strategically located in areas not likely to be involved in the early stages of a fire (adjacent to storey exits or by fire alarm points). Extinguishers should be mounted so that the carrying handle of larger, heavier extinguishers is circa 1,000 mm above the floor, but smaller extinguishers can be mounted so that the handle is circa 1,500 mm from the floor.

It is recommended that advice on the type and location of extinguishers is sought from the manufacturer/supplier and those responsible for the fire risk assessment. Typically, water-based fire extinguishers used for Class A fires are distributed around the building, generally located adjacent to exits and circulation routes. Additional types of fire

extinguisher, fire blankets, etc. may be required for other fire types, e.g. oils, electrical, etc. These should be located locally to the associated risk.

5.0

Means of escape

5.0 Means of escape

5.1 Evacuation arrangements

The means of escape for the building will be designed based on the simultaneous evacuation of the entire building.

A two-stage fire detection and alarm system can be considered by the end user provided they have suitable management procedures in place. This allows for single knock initial activations to be investigated by staff (on activation of a single device) so that the building does not enter into full evacuation unless a fire is confirmed by investigating staff, the investigation period expires, or a second detection device is activated. However, if more than one detector operates, or a manual call point is activated, then the evacuation signal should sound immediately. This strategy should be developed at subsequent stages of the design and agreed with the end user.

Escape routes in the building have been sized and located to demonstrate the travel distance and exit capacity recommendations set out in BS 9999 are achieved, when considering simultaneous evacuation.

5.2 Occupant loads

For the purposes of determining the means of escape requirements, the occupant loads have been determined based on the following:

- 32 persons per classroom (30 pupils and 2 staff)
- 7 m^2/persons in the Library
- 0.45 m^2/person for the Hall
- 7 m^2/person in the Kitchen
- 4 persons in the general office
- 3 persons per small group room, staff work room, SEN, heads office and interview rooms
- 2 persons in the office/meeting space
- 15 persons in the staff room

Table 2: Occupant loads per storey

Storey	**Occupant load** [persons]
Ground	649 (of which 400 can be in the Hall)
First	320

5.3 Number, location and arrangement of exits

5.3.1 General principles

5.3.1.1 Number of exits

Where a room, space, or storey has an occupant load greater than 60 persons, a minimum of two exits will be provided. Exits will be located such that the escape routes to the exits are in directions at least 45° apart. Where practicable all doors will open in the direction of escape and will always do so where the number of persons expected to use the door for escape exceeds 60 persons. This may result in some cross-corridor doors being double-swing due to more than 60 persons being located on either side.

5.3.1.2 Travel distances

The maximum recommended travel distances in areas with an A2 risk profile will be 22 m and 55 m for one-way and two-way travel. In community areas with a B2 risk profile, these would be reduced to 20 m and 50 m respectively. At roof level where access is for maintenance staff only, the distances will be 60 m and 100 m respectively. These are the actual travel distances measured around furniture and obstructions.

5.3.1.3 Sub-division and enclosure of corridors

Corridors greater than 12 m in length and connecting exits, will be sub-divided by fire resisting construction, with doors and screens provided approximately midway along the corridor.

Where access to rooms and spaces is via a dead-end corridor greater than 2.0 m in length, then the corridor will be separated from the rooms and spaces by fire resisting construction. Where the corridor exceeds 4.5 m in length, then the dead-end section of the corridor should also be separated from the remainder of the corridor by fire resisting screens and doors.

5.3.1.4 Inner rooms

Where inner rooms are formed (included rooms accessed from corridors containing lockers or breakout spaces), then this has been addressed by the provision of automatic fire detection being provided in the access room. This will warn occupants of the inner room during the early stages of a fire.

5.3.2 Ground floor

All teaching spaces are provided with final exits direct to outside and exits into the circulation space. The Main Hall is provided with two exits direct to outside, and third exit leading into the circulation space and the kitchen is also provided with a final exit to outside and an exit into the Hall. The other rooms and spaces are all provided with a single exit into the circulation space and this is sufficient for the number of persons in the room. From the circulation space there are exits available via the main entrance, and or the protected stairs.

A cross-corridor fire door should be provided approximately midway between the two exits into the stairs. As the majority of spaces on this floor have separate exits and the occupants reliant on the corridor for escape are less than 60 persons, the cross-corridor door does not need to be dual swing.

There is a dead-end section of corridor serving the general office and heads office which is 4.5 m long and will be arranged as a protected corridor.

The travel distances are all in accordance with the maximum stated Section 5.3.1.2.

5.3.3 First floor

The first floor is provided with two storey exits into the protected stairs at either end of the corridor. There is one instance of a dead-end corridor leading to the staff work room. This corridor is approx. 3.6 m long and will be separated from the adjacent spaces by fire resisting construction.

As more than 60 persons could use escape through the cross-corridor fire doors in either direction, this door needs to open in both directions.

The travel distances are all in accordance with the maximum stated Section 5.3.1.2.

5.4 Exit and stair widths

5.4.1 Horizontal exits

For exits in an A2 risk profile, exit capacity is determined using a door width factor of 3.6 mm/person and 4.1 mm/person for a B2 risk profile. However, any door of clear width less than 1,050 mm is considered to have a capacity of 138 persons in A2 risk profile areas and 121 persons in B2 risk profile areas.

Where more than one exit is provided from a room, space or storey, the largest exit will be discounted, and the remaining exits must have sufficient width for the calculated occupancy.

Notwithstanding the above, there are also minimum exit width requirements, regardless of the number of persons, as follows:

- Corridors should not be less than 1,200 mm.
- For cross-corridor doors, the width of the doors should not be less than the required width of the corridor minus 150 mm.
- For unassisted wheelchair access is required, doors on escape routes should not be less than 850 mm;
- Elsewhere, the absolute minimum width of a door is 800 mm.

The measurement of clear width for exits is shown in Figure 4 below.

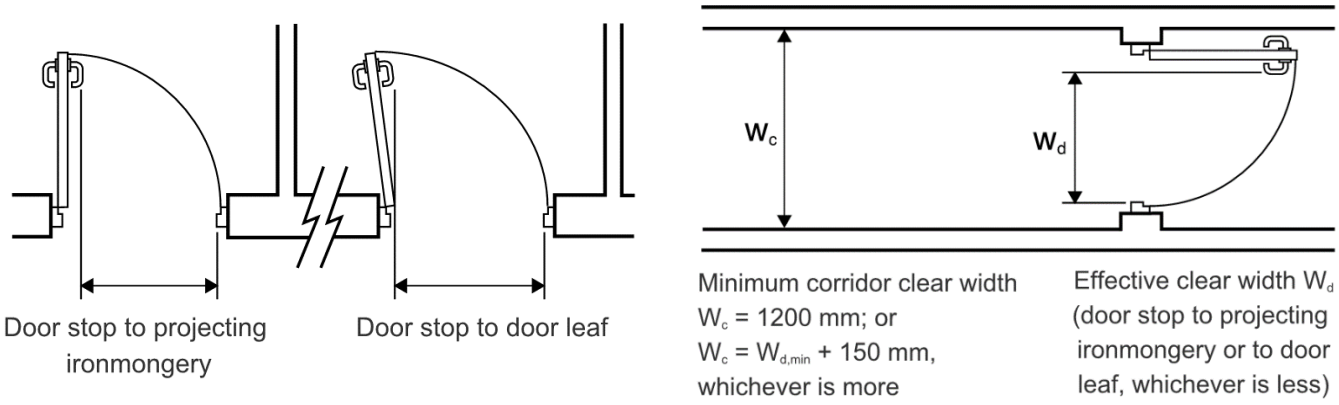


Figure 4: Measurement of escape widths

5.4.1.1 Ground floor

The ground floor is provided with a large number of exits, and with the exception of the final exits from the stairs and the Hall, each exit will not be less than 850 mm wide.

The final exits from the stairs will not be less than 1,440 mm wide, this being the equal to the required width of the stairs. It is not considered necessary to increase the width of these exits for merging flows on the basis that the majority of the rooms are all provided with final exits.

The final exits from the Hall will be not less than 1,640 mm wide and assumes that one of the final exits is discounted and the exit into the School on the basis that this exit does not open in the direction of escape.

These widths will also be suitable for the number of persons expected when the building is used out of normal hours.

5.4.1.2 First floor

The first floor is provided with two storey exits, and discounting one of the exits, each exit will need to be not less than 1,152 mm wide.

5.4.2 Stairs

As the stairs are not provided with protected lobbies it is necessary to discount a stair when assessing the required width. The stair width factor for a stair in an A2 risk profile serving a single storey is 4.5 mm/person and therefore, each stair will be not less than 1,440 mm wide.

5.5 Means of escape for mobility impaired occupants

Each protected stair will be provided with a disabled refuge on the upper floor. This will be a space not less than 900 mm x 1,400 mm, which will not reduce the width of the escape. Each refuge will be provided with an emergency voice

communication system as described in Section 4.7. This is to alert the staff coordinating the evacuation and for the occupants to be reassured that assistant will be forthcoming.

5.6 Assembly points

Once occupants have exited the building, there should be a suitable route to an assembly point that is large enough to accommodate the occupants. This should be located a sufficient distance from the buildings and allow occupants to move further away if necessary, e.g. leave the site. The location should also be located away from where fire-fighters are likely to be operating.

Where external escape routes are located within 1,800 mm of the external façade, then the façade will need to be fire resisting up to a height of 1,100 mm from the FFL. This is to allow occupants to escape safely past the building to reach the agreed assembly point.

The routes to the assembly points should be a suitable surface to allow all occupants to reach the assembly point. Any access control systems, e.g. secure gates, etc. should be able to be opened on the side approached by those escaping.

6.0

Internal fire spread

6.0 Internal fire spread

6.1 Linings of walls and ceilings

Although they are not likely to be the materials first ignited, the interior wall and ceiling surfaces can have a significant influence on how fast a fire may spread through the building. This is particularly important in circulation spaces, where the rapid spread of fire is most likely to prevent occupants from escaping. Therefore, any new linings of the walls and ceilings within the building should satisfy the surface spread of flame classification outlined in Table 3 below.

These provisions do not apply to the upper surfaces of floors and stairs and exclude door and window frames, architraves, skirting, picture rails and fixed furniture.

Table 3: Classification of linings of walls and ceilings

Location	National Classification (In accordance with BS 476-7)	European Classification (In accordance with BS EN 13501-1)
Rooms not more than 30 m^2 in area	3	D-s3, d2
All other rooms	1	C-s3, d2
Circulation spaces	0	B-s3, d2

6.2 Loadbearing elements of structure

All elements of structure forming part of the structural frame will be provided with not less than 30 minutes fire resistance on the basis that the topmost occupied storey is not more than 5 m above ground level and the building has an A2/B2 risk profile. This is as per Table 23 *Fire resistance periods for elements of structure (independent of ventilation conditions)* of BS 9999:2017. For the purposes of the fire strategy, elements of structure are defined as:

- A member forming part of the structural frame of the building;
- A loadbearing wall;
- A floor;
- An external wall, where such a wall is either loadbearing, or is required to be provided with fire resistance to satisfy space separation (See Section 7.1.2);
- A compartment wall (See Section 6.3 with regards to fire resistance requirements – Any structure supporting a compartment wall is required to have the same level of fire resistance as the wall).

Elements that only support the roof of the building do not necessarily require fire resistance. However, where the roof forms the function of a floor, e.g. rooftop plant areas, structural elements supporting these areas should be provided with a minimum of 30 minutes fire resistance.

6.3 Compartmentation of fire resisting enclosures

6.3.1 Compartment floors

The building is not provided with compartment floors and these are not necessary for the purposes of Building Regulations.

6.3.2 Compartment walls

The building is not provided with compartment walls and these are not necessary for the purposes of Building Regulations.

6.3.3 Fire resisting enclosures

In addition to the compartmentation above, the following rooms and spaces that are either considered to be protected escape routes or places of a higher fire risk and will be enclosed in a minimum of 30 minutes fire resistance, except where stated:

- Protected stairs;
- Lift shaft;
- Electrical service cupboards / risers and flues;
- Storerooms and cleaner's cupboards larger than 1 m^2;
- Server room;
- Kitchen;
- Reprographics room;
- Special risk classrooms, e.g. workshops, food room, science labs;
- Plant room (increased to 60 minutes where it contains higher than low-voltage electrical equipment, boilers, fuel storage or similar high-risk plant or uses);
- Construction separating dead-end corridors from the adjacent spaces;
- Cross-corridor doors, walls and screens either side of the doors will be provided with 30 minutes fire resistance to prevent smoke by-passing the cross-corridor separation.

6.3.4 Smoke retarding construction

Either side of the cross-corridor fire doors sub-dividing the exits will be formed of smoke retarding construction. Whilst this is not necessarily fire resisting, the construction will be imperforate with any openings sealed and any doors provided with self-closing devices and cold smoke seals.

6.3.5 Cloak areas in classrooms

In the infant, junior and reception classrooms there are dedicated areas proposed for cloaks. In the reception rooms this area is within the circulation/draught lobby which connects the classroom with the final exit to outside and the reception WCs. As these areas are not separate cloaks storage rooms, for the purposes of satisfying the Building Regulations, there is no requirement for any fire separation between the cloak spaces and the rest of the accommodation of which they are part. We would, however, recommend that the lobbies containing the cloak areas in the reception classrooms are provided with a smoke detector as part of the L2 category of detection and alarm system to provide an early warning of a fire starting in that space.

It is acknowledged that some guidance for schools recommends that cloak rooms in schools are always enclosed in fire resisting construction due to the potential for arson attack. Arson and property protection recommendations are outside the scope of the Building Regulations and the scope of this report unless specific provisions are instructed to be included. Therefore, we would recommend that the School and their insurer are consulted on this issue to determine whether additional provisions are required.

In our view, the provision of automatic detection in the spaces, the clear lines of sight available through the glazing in the lobby doors and passive supervision opening to the toilets, as well as the profile of the students accessing these areas, i.e. reception age pupils, all contribute to a reduction in the risk from the cloak spaces arrangement.

6.4 Concealed spaces (floors, ceilings and roof voids)

Cavity barriers will be provided as follows:

- Above any cross-corridor fire doors;
- Above any protected escape routes not carried the full storey height
- Any smoke retarding construction not continued the full storey height,

- To sub-divide any cavities, so that they do not exceed 20 m in any direction (this can be increased to 40 m where the space below the cavity is open plan, provided that the surfaces within the cavity achieve Class 1 or better, and there are cavity barriers above any walls bordering the open-plan room); and
- To close any cavities, e.g. around windows doors and openings for services passing through a cavity wall.

All cavity barriers should achieve a minimum of 30 minutes fire resistance (integrity) and 15 minutes fire resistance (insulation). They should be tightly fitted in accordance with the manufacturer's instruction and, where practicable, mechanically fixed in position.

Within stud walls and around any openings, e.g. fire resisting door frames the cavity barriers may be formed of:

- Steel at least 0.5 mm thick; or
- Timber at least 38 mm thick; or
- Polythene-sleeved mineral wool, or mineral wool slab, in either case under compression when installed in the cavity; or
- Calcium silicate, cement-based or gypsum-based boards at least 12 mm thick.

6.5 Protection of openings and services

All openings and joints between fire separating elements will be adequately fire stopped and all openings for services that pass through fire separating elements will be:

- Kept as few in number as possible;
- Kept as small as practicable; and
- Fire stopped (which is the case of pipes or ducts allow for thermal movement).

The selection of fire stopping products and materials will take account of the size and nature of the gap and any anticipated differential movement.

6.5.1 Fire doors

Doors, shutters, and curtains within fire resisting construction will be fire doors achieving the same level of fire resistance as the wall and fitted with self-closing devices, unless the fire door is normally kept locked shut, e.g. storerooms. Fire doors to protected stairs and any service risers may be half the fire resistance of the wall, but in no case less than 30 minutes fire resistance.

Cold (flexible-edged) smoke seals will be provided to all doors forming part of protected escape route, i.e. the protected stairs, cross-corridor doors and doors to dead-ends.

Hold-open devices, which release the door on activation of fire alarm system, may be provided (as per Section 4.4) where the doors could provide a hindrance to normal circulation. The doors provided with these devices will be determined by the client, design team, and/or fire risk assessor.

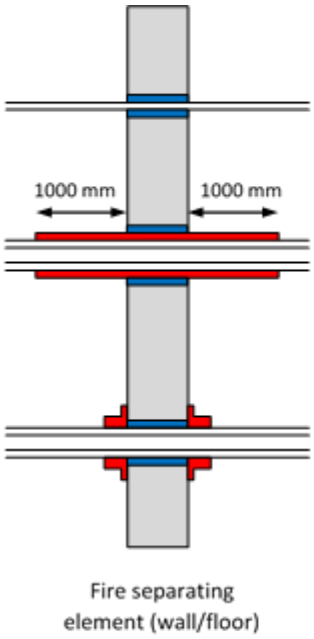
6.5.2 Ventilation ductwork

Where ductwork passes through fire resisting construction, it will be designed in accordance with Section 4.6 of this Report. The following areas are considered to be protected escape routes:

- The protected stairs;

6.5.3 Fire-stopping of pipes

Pipes that pass-through fire resisting construction, unless they are contained within a protected shaft, will satisfy the provisions detailed in Figure 5 below:



- **Fire stopping only** – maximum allowable diameters:
  - **160 mm** – non-combustible pipes.
  - **110 mm** – pipes of lead, aluminium, aluminium alloy, fibre-cement or uPVC through protected shafts (excluding stairways and lifts shafts).
  - **40 mm** – pipes of any other material or situation.
- **Sleeving** – pipes of lead, aluminium, aluminium alloy, fibre-cement or uPVC with a maximum diameter of 160 mm can be provided with a sleeve of non-combustible pipe. The sleeving needs to extend 1000 mm either side of the fire-separating element.
- **Proprietary seals** – suitable for any pipe diameter. Install in accordance with manufacturer's instructions.

Figure 5: Fire stopping for pipes

7.0

External fire spread

7.0 External fire spread

7.1 Construction of external walls

7.1.1 Material classifications

Elements of the external walls will achieve the classifications stated in Table 4 with respect to surface spread of flame and combustibility.

Table 4: Material classification of external walls with respect to fire

Element of external wall construction	Classification in accordance with BS EN 13501-1
External wall surfaces	Class B-s3, d2 or better
Insulation and filler material (e.g. forming part of the external wall build-up or forming part of any core material of sandwich panels, spandrel panels, etc.)	No limitations

7.1.2 Fire resistance

To limit the potential for fire spread between buildings, it is necessary to provide a sufficient separation distance between them. The separation distance required depends on the size of the fire compartment, the amount of unprotected area provided on the opposing façade and the provision of an automatic sprinkler system. The Enclosing Rectangles Method outlined in BR 187: *External fire spread – Building separation and boundary distances Second edition* has been used to determine the requirements for limiting external fire spread for this building.

The location of the relevant boundaries in relation to the School building are shown in Figure 6 below. These are measured to the site boundaries in three directions and to the centreline of Home Farm Drive to the front of the school. The Figure also shows the sections of the school building which are single and two stories for the purposes of the assessment

Based on the enclosing rectangle method, the building is found to be sufficiently separated from the site boundary, therefore, no fire resistance is required to the external facades for the purposes of fire spread between neighbouring buildings.

Where the protected escape stair forms an internal angle with the building, the external façade of the stair will be fire resisting for a period of 30 minutes for a distance of 1,800 mm from the point where the stair and accommodation walls meet.

Where external escape routes are located within 1,800 mm of the external façade, then the façade will need to be provided with 30 minutes fire resisting (from the inside) up to a height of 1,100 mm from the FFL.

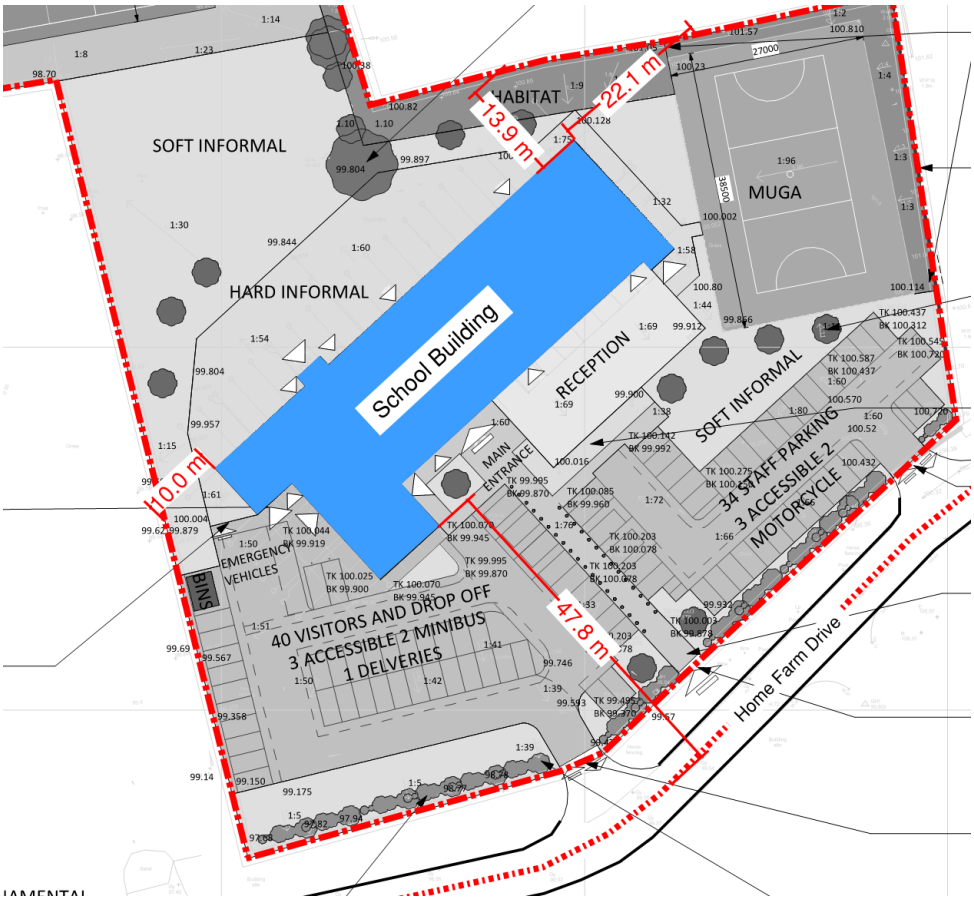


Figure 6: Location of relevant boundaries for the purposes of external fire spread and space separation

7.1.3 Provision of cavity barriers in external walls

Normally, cavity barriers should be provided in any cavities formed within the external wall construction as follows:

- To close any openings, e.g. windows, doors, service penetrations, etc.
- In line with any compartment walls.
- To sub-divide a cavity such that it does not exceed 20 m.

In order to rationalise the arrangement and number of cavity barriers in the external wall it is proposed to provide cavity barriers in line with every module joint rather than around opening. This offsets the cavity barrier from the openings, but by providing cavity barriers in line with the junction of each module, the maximum distances reduce significantly and reduces the risk of fire spread in the cavity to that of a single module. We therefore believe that this strategy will effectively limit the potential for the unseen spread of fire in a cavity and the impact this can have on the buildings occupants.

An indicative example of this arrangement is shown in Figure 7 below.

Figure 7: Cavity barrier arrangement in the external wall construction (red indicates the location of cavity barriers)

In addition to these barriers, a barrier will be provided at the base of the external wall to separate the void space under the building from the external wall cavity.

Cavity barriers within the external wall construction will achieve a fire resistance of not less than 30 minutes for integrity and 15 minutes for insulation. Where provided around an opening or in external stud-walls the cavity barriers may be formed of:

- Steel at least 0.5 mm thick; or
- Timber at least 38 mm thick; or
- Polythene-sleeved mineral wool, or mineral wool slab, in either case under compression when installed in the cavity; or
- Calcium silicate, cement-based or gypsum-based boards at least 12 mm thick.

Where practicable, the cavity barriers should be tightly fitted to rigid construction and mechanically fixed in place.

7.2 Construction of roofs

The building is located within 12 m from a site boundary and therefore the roof will be designed to achieve a minimum classification BA, BB, BC (national classification) or $C_{ROOF}(t4)$ (European classification) or better.

8.0

Access and facilities for the fire service

8.0 Access and facilities for the fire service

8.1 Water supplies

There should be sufficient hydrants located near to the building for use by the fire service. The location and suitability of hydrants is determined by the fire service based on their risk assessment. This is to ensure that there is sufficient flow and pressure in the main to support fire-fighting activities, which can vary based on the location, size, height and use of the building.

Where the building is part of a new site and new development, new public or private water hydrants would need to be provided. There should be a hydrant available within 90 m distance of an entrance into the building.

8.2 Vehicle access

The building has a total floor area of less than 8,000 m^2 and therefore access will be provided to not less than 15 % of the perimeter of the building which is measured as approximately 30 m. Access is available into the drop-off car park, which provides suitable access into the building via the main entrance and the sports hall entrances. This route needs to be tracked to ensure an appliance can enter and exit the site.

Roadways should not be less than 3.7 m wide between kerbs, reduced to 3.1 m between gateways. Appliances should not have to reverse more than 20 m. Where this is not practicable, suitable turning facilities will be required.

8.3 Internal facilities

Due to the size and height of the building no internal provisions are required specifically for firefighting.

9.0

Fire safety management

9.0 Fire safety management

A suitable fire safety management plan will be developed by the School, taking into account the information contained within this fire strategy report.

The management should be able to identify and react to any changes as they occur, e.g. changes to the occupancy and fire growth characteristics, etc. and through a suitable fire risk assessment identify and implement any alternative protection and management measures that may be required as a result.

The management of fire safety should be integrated with other management systems for the school and it is likely that a number of individuals and/or companies, i.e. fire alarm contractor, will be responsible for fire safety. Staff should be provided with training appropriate to their role.

Specific fire safety responsibilities for certain staff will include:

- Checking the building to ensure everyone has evacuated;
- Assisting in the evacuation of disabled persons;
- Guiding persons to the nearest exit;
- Using first-aid fire-fighting equipment;
- Contacting and liaising with the fire service.

It is recommended that a fire safety manual is created that contains all the design information and operational records for the building relating to fire safety. This will need to be compiled by the both those responsible for the design and construction of the school, together with those responsible for operating and managing the school. The fire safety manual should include:

- A description of the assumptions and design philosophies for the building, i.e. the fire safety strategy (this document);
- Site and floor plans detailing escape routes, assembly points, fire service access, etc.;
- Evacuation procedure;
- Full description of all passive and active fire protection systems within the building, compartment walls, fire detection systems, etc., including all certification documents;
- Fire risk assessments;
- Maintenance and test records of fire safety systems;
- Staff training records.

The fire safety manual should be kept up to date on a routine and regular basis by the fire safety manager or a competent person nominated for the task and should also record feedback from staff and other users of the building. If any fire safety equipment is found to be unreliable, records should be kept of the problems experienced. If deemed necessary, this information should be provided to the particular manufacturer.

The fire safety manual should be reviewed, and its procedures tested annually, or whenever alterations are made to the building, in accordance with a documented procedure. The review should include:

- All plant and equipment interface controls, to ensure that equipment is all in working order and that maintenance procedures are being followed;
- All staff duties and training procedures;
- Records, as-built drawings and specifications of the fire protection measures;
- Responses to any false alarms, “near misses” or real fires that have occurred since the previous review.

The fire safety manual should aid that those responsible in complying with the Regulatory Reform Order and should be kept on site at all times. At least one maintained identical copy should be retained in a separate location away from the premises.

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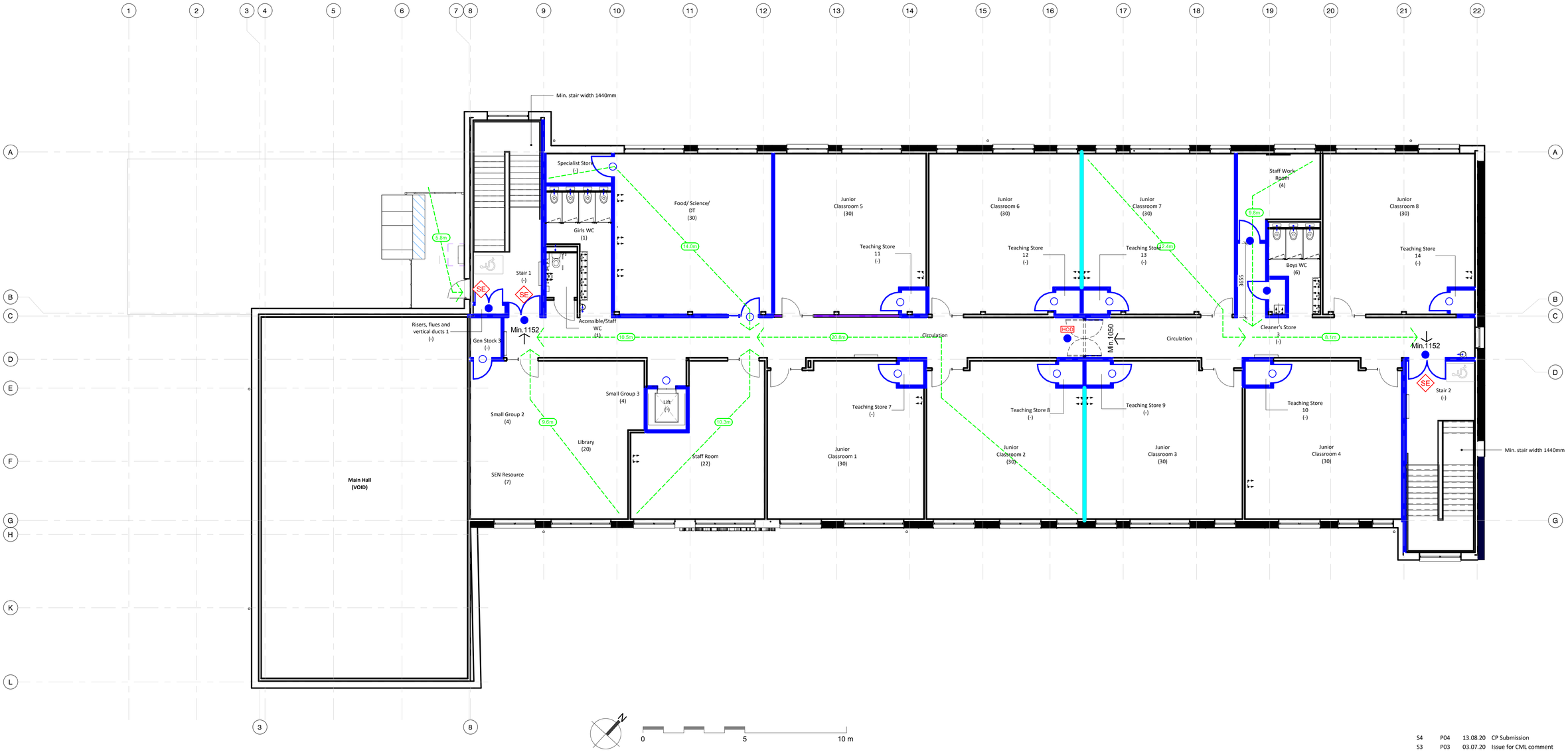


Fire Strategy Legend

Fire Door/ Partition Ratings:

- 30 Minutes Fire Rated Construction
- 60 Minutes Fire Rated Construction
- FD60S fire door with smoke seals
- FD60 fire door
- FD30 fire door with smoke seals
- FD30 fire door
- FAP — Fire Alarm Master Panel
- FARP — Fire Alarm Repeat Panel
- CLOSE — Door Closer

Fire Symbols:

- 1050 — Min Exit Width (all > 850)
- Travel Distance (Escape Route)
- Smoke Retarding Construction
- Disabled Refuge Space
- FE — Final Exit
- SE — Storey Exit
- HO — Hold open device to release on alarm
- * — Door to open/unlock on detection of a fire

Room Annotation:

Name ← Room Name
(2) ← Room Occupancy (as stated in the SoA.)

Note:
Fire strategy as provided by the fire consultant has been adopted.
Please refer to fire consultant strategy for further information.

Notes:

1. Fire strategy to be based on BS 9999.
2. Building classified with an A2 risk profile, with hall also assessed with a B2 risk profile, assuming that this space could be used outside of normal hours by public
3. Automatic detection to be provided to a Category L2 standard in accordance with BS 5839-1.
4. Emergency lighting to be provided in accordance with BS 5266-1 and BS EN 1838. The system will be a maintained system with 180 minute duration.
5. No sprinklers to be provided for Building Regulations, and the risk profile and measures have been developed based on no fire suppression being provided.
6. Means of escape has been determined on simultaneous evacuation of the building.
7. All doors to be a minimum of 850mm wide, except where stated.
8. Stairs to be a minimum of 1440mm wide, this will allow a maximum of 320 persons on the first floor (based on 10 classes of 32, which includes for a class in the Library).
9. Elements of structure to be provided with not less than 30 minutes fire resistance.
10. Fire resistance to walls and doors as shown on the plan.
11. No requirement for the external facade to be fire resisting for the purposes of space separation. However, fire resistance may be required to the external facade where external escape routes are located within 1800mm of the building. Where this is the case, the wall should achieve 30 minutes fire resistance from the inside, up to 1100mm from floor level.
12. Access for a fire appliance to be provided to not less than 15% of the perimeter. Currently this can be achieved via the car park. Roadways should be a minimum 3.7m between kerbs.
13. Hydrants to be provided within 90m of an entrance to the building, measured along a route suitable for laying hose.

STATUS	REV	DATE	DESCRIPTION
S4	P04	13.08.20	CP Submission
S3	P03	03.07.20	Issue for CML comment
S3	P02	21.04.20	Draft CP Isuue
S3	P01	09.04.20	Draft CP's for CAL comment

CLIENT
Caledonian Modular

REVISED BY
JL

CHECKED BY
RB

ORIGINATOR NO
153608

CONSULTANT
STRIDE TREGLOWN
www.stridetreglown.com

PROJECT
Buckton Fields Primary School
Village of Boughton, Brampton Lane
Northampton
NN6 8AA

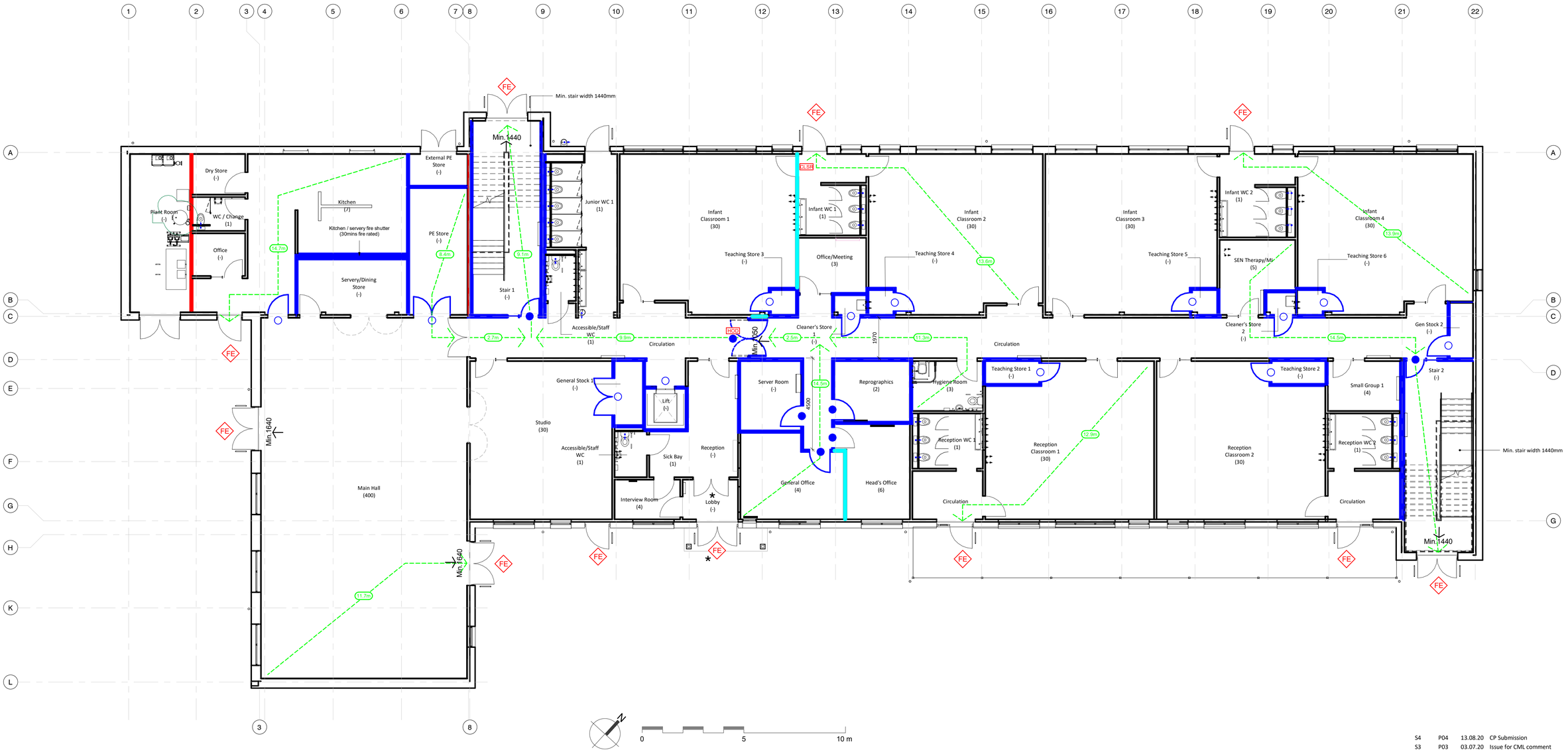
DRAWING TITLE
First Floor Fire Strategy

SUITABILITY STATUS
S4 : SUITABLE FOR STAGE APPROVAL

SCALE
1 : 100 @ A1

PROJECT | ORIGINATOR | ZONE | LEVEL | TYPE | ROLE | CLASS. | NUMBER
FS0816-STL-XX-01-DR-A-00-8101

REVISION
P04



Fire Strategy Legend

Fire Door/ Partition Ratings:

- 30 Minutes Fire Rated Construction
- 60 Minutes Fire Rated Construction
- FD60S fire door with smoke seals
- FD60 fire door
- FD30 fire door with smoke seals
- FD30 fire door
- FAP — Fire Alarm Master Panel
- FARP — Fire Alarm Repeat Panel
- CLSR — Door Closer

Fire Symbols:

- 1050 — Min Exit Width (all > 850)
- Travel Distance (Escape Route)
- Smoke Retarding Construction
- Disabled Refuge Space
- FE — Final Exit
- SE — Storey Exit
- HO — Hold open device to release on alarm
- * — Door to open/unlock on detection of a fire

Room Annotation:

Name ← Room Name
(2) ← Room Occupancy (as stated in the SoA.)

Note:
Fire strategy as provided by the fire consultant has been adopted.
Please refer to fire consultant strategy for further information.

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ORIGINATOR NO
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CONSULTANT
STRIDE TREGLOWN
www.stridetreglown.com

PROJECT
Buckton Fields Primary School
Village of Boughton, Brampton Lane
Northampton
NN6 8AA

DRAWING TITLE
Ground Floor Fire Strategy

SUITABILITY STATUS
S4 : SUITABLE FOR STAGE APPROVAL

SCALE
1 : 100 @ A1

PROJECT | ORIGINATOR | ZONE | LEVEL | TYPE | ROLE | CLASS. | NUMBER
FS0816-STL-XX-GF-DR-A-00-8100

REVISION
P04