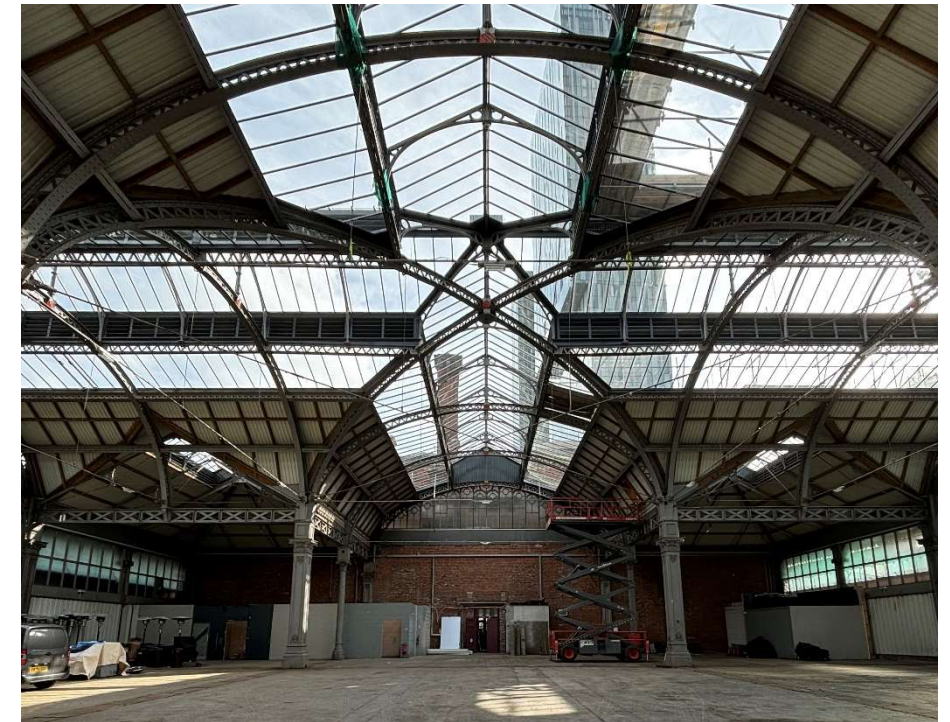




Upper Campfield

Liverpool Road, Manchester, M3 4NN

Full Planning Permission ref: 138377/FO/2023

Condition 26

Issue 01 – 19/02/2025

PROJECT3 architects

Full Planning Permission

Condition 26

No doors to commercial units (other than those designated as fire exits) shall open outwards onto adjacent pedestrian routes.

Response:

The restaurant bin store door opens outwards as required by MCC for the design of new waste storage areas.

All other ground floor doors are fire exit doors and are required to open outwards in the direction of escape as set out in Jensen Hughes fire strategy report section 6.3 and as identified on the proposed fire strategy plan.

Information provided:

- 01** Jensen Hughes fire strategy report, HM2502/R2 issue 4
- 02** Proposed fire strategy plan, ground floor, 0798-P3A-XX-XX-DR-A-12001-C04

01 Jensen Hughes fire strategy report, HM2502/R2 issue 4

Refer to section 6.3



Report

Project	Upper Campfield, Manchester
Report Title	Fire Strategy Report
Our Ref	HM2502/R2 Issue 4

Report

Project

Upper Campfield, Manchester

Report Title

Fire Strategy Report

Report No.

HM2502/R2

Issue No.

Issue 4

Issue Date.

24th January 2025

	Issue 1	Issue 2	Issue 3	Issue 4	Issue 5	Issue 6
Date	02/05/2024	30/07/2024	19/12/2024	24/01/2025		
By	AZ	AZ	AZ	AZ		
Checked	SE	SE	SE	SE		
Approved	HW	SE	SE	SE		

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- 9.0 FIREFIGHTING
- 10.0 FIRE SAFETY MANAGEMENT
- 11.0 INFORMATION, LIMITATIONS AND ASSUMPTIONS

1.0 INTRODUCTION

1.1 Description of Building

Upper Campfield was originally built as a Victorian market hall which is currently being used for exhibitions and storage for the Museum of Science and Industry. It is proposed to convert the building into a flexible studio space for media, digital and creative industries.

The works will include the addition of a mezzanine floor/Level 1 and a small plant room/Level 2. The building will feature 3 double height studios at the ground level as well as an open double height space in the centre of the building. The rest of the ground floor will include a scene dock, plant spaces, bin store and meeting/working spaces/green rooms. The mezzanine level will feature 3 flexible/studio spaces, to be used as studios/office/workspaces and some smaller associated ancillary rooms. Level 2 will feature a small plant room only.

The top storey height of the building (mezzanine level) will be approximately 3.8m above ground level.

Proposed plans are shown in Figure 1, Figure 2 and Figure 3.

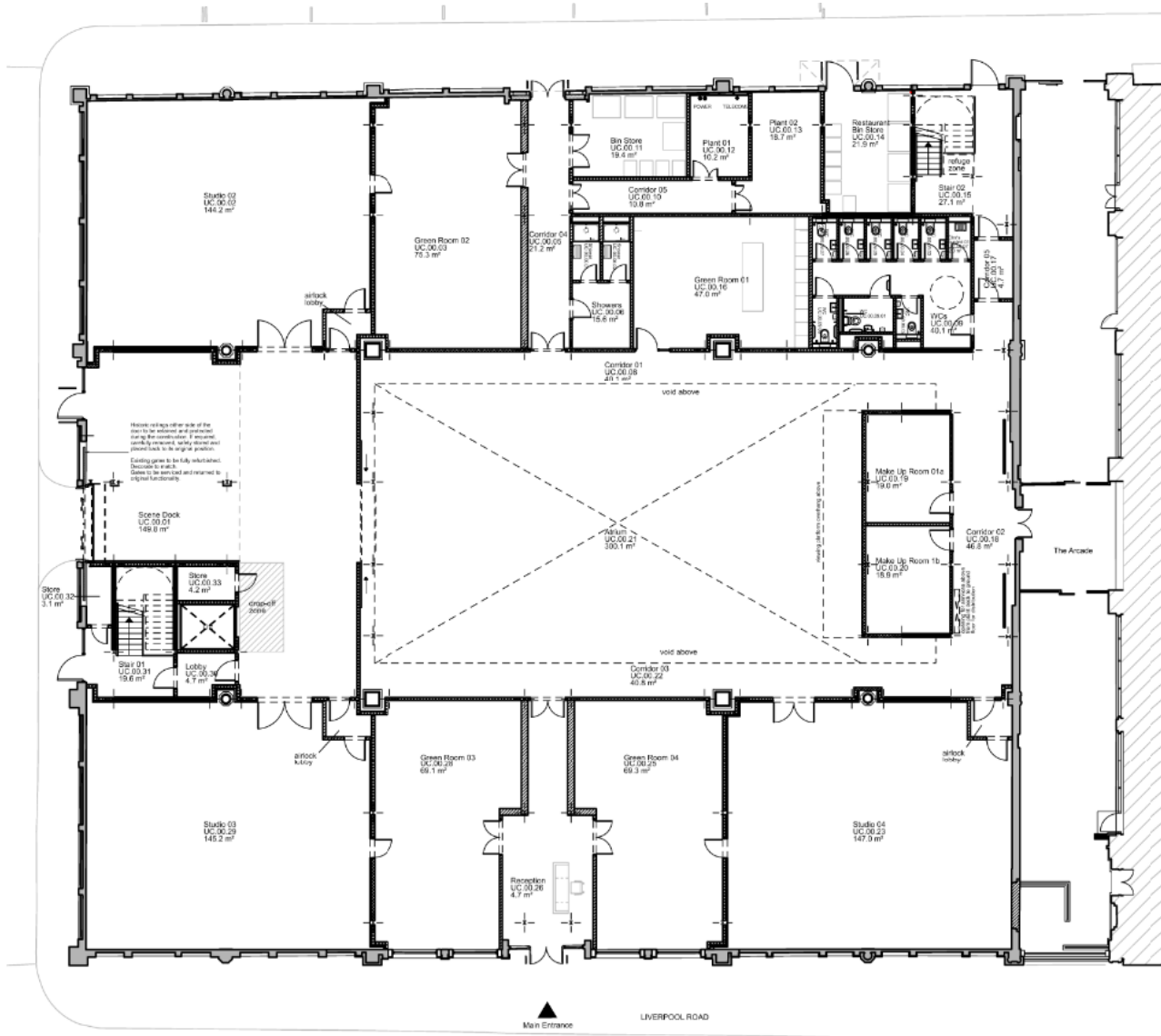


Figure 1: Ground Floor Plan

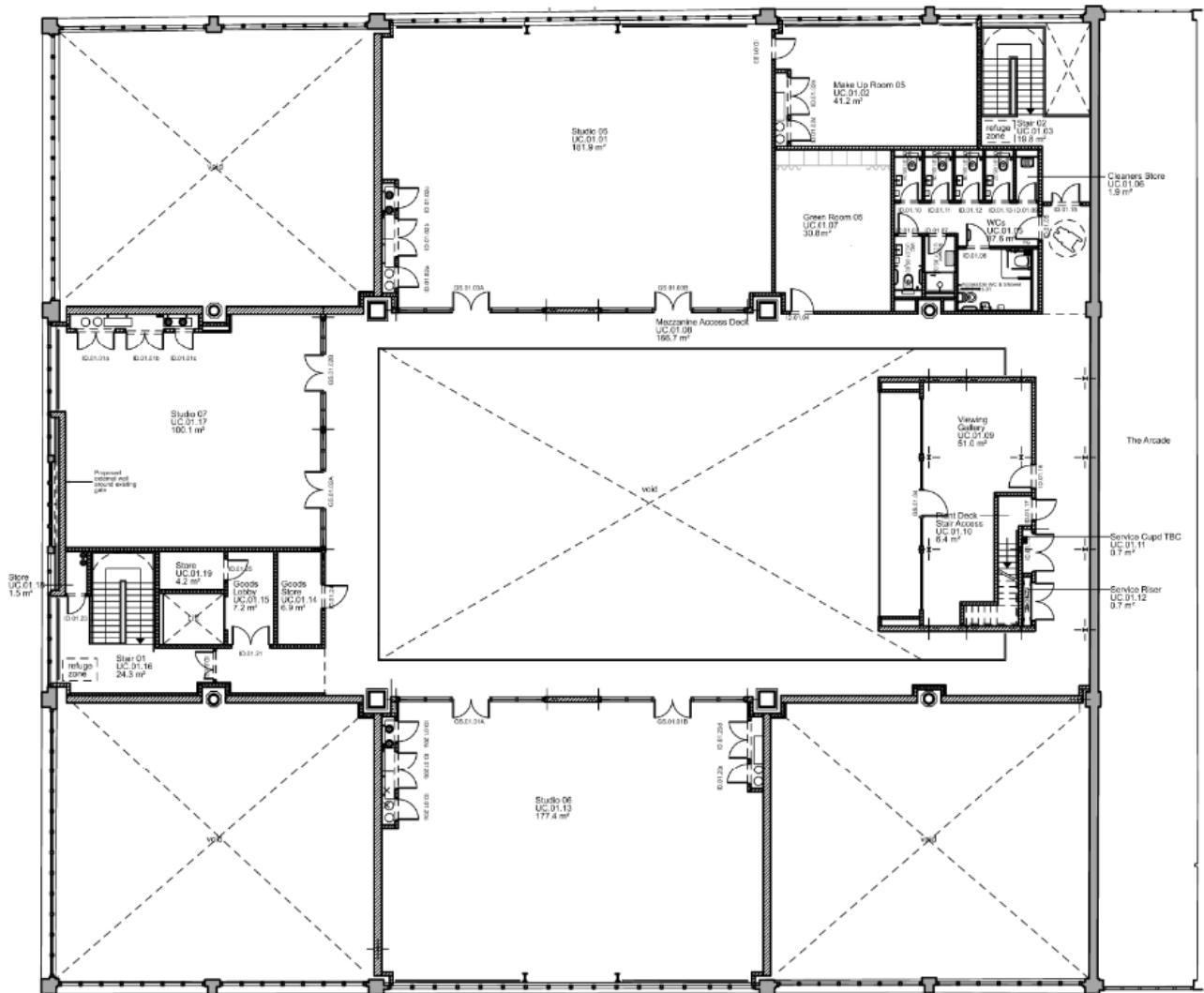


Figure 2: Mezzanine Floor Plan

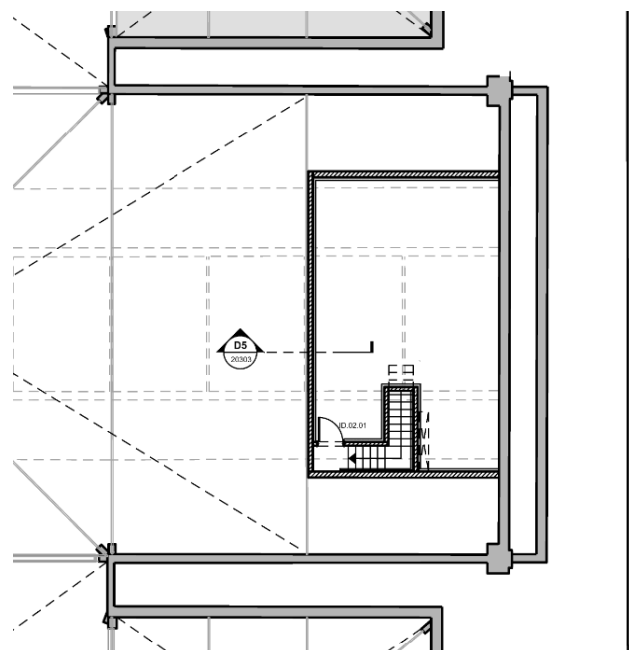


Figure 3: Plant Level Floor Plan

1.2 Aim of Report

This report details the fire strategy for the building. It is intended for submission to Building Control for approval and the Local Fire and Rescue Service for their consultation.

Jensen Hughes have not been provided with an existing fire strategy for the market hall. Therefore, the fire strategy has been prepared based on the plans provided and current Building Regulations guidance.

This report addresses life safety only and not property protection or insurance requirements.

2.0 BUILDING REGULATIONS AND BUILDING USE

2.1 Overview

The building will go from exhibition and storage use to non-public film and photography studio use. This is not defined as a material change of use under the Building Regulations.

The building will be operated by a single operator but will be used by multiple tenants, including short term lets and long term lets. The building will not be open to the public, it will not be used for 'audience' productions, and it will operate with a low-density occupancy. It has therefore been assessed as purpose group 3 – Office.

2.2 Building Regulations Guidance

The fire strategy has been developed based on the Building Regulations guidance in the *Approved Document B, Volume 2: 2019 incorporating 2020 and 2022 amendments* [ADB].

Where beneficial to the design, fire engineered solutions have been developed and have been included within the report.

2.3 Fire Loading and Risk Assessments

This fire strategy has been developed based on the typical risks that can be expected in a non-public film/TV/photography studio, in line with standard Building Regulations guidance.

The building will undergo a regular fire risk assessment, discussed further in Section 10.0. However, where specific and/or temporary risks are introduced into the building, such as an increase in fire loading or ignition risk within the building e.g. using a car as part of a shoot or using pyrotechnics, these will be appropriately risk assessed on a case-by-case basis and will have a robust management plan in place.

Any temporary changes to the fire strategy to support a particular risk e.g. pyrotechnics and changes to the fire alarm system, these changes will also be appropriately risk assessed on a case-by-case basis and will have a robust management plan in place. Any temporary fire strategy change will be reverted to this fire strategy report as soon as possible.

3.0 ATRIA

The central double height space is labelled an atrium. This space is a large double height space and is therefore an atrium from an architectural perspective. However, as the building does not have compartment floors, this is not an atrium from a fire strategy point of view.

Similarly, the double height studios are not atria.

The fire strategy design and fire risk of these spaces has still been considered, in line with standard Building Regulations guidance. However, these spaces have not been designed as an atrium and therefore they do not include additional 'atrium' design features e.g. smoke control.

4.0 ACTIVE FIRE SAFETY SYSTEMS

4.1 Sprinklers

The building is not provided with sprinklers as existing, and they will not be provided as part of the works. A satisfactory standard of safety will be achieved without them.

4.2 Automatic Fire Detection and Alarm

As an office use, the building could be provided with a manual fire alarm system for compliance. However, to support fire engineered solutions and design flexibility, the building will be provided with an automatic fire detection and alarm system to increase the standard of safety.

The fire alarm system will be at least an L2 standard.

There are complexities in the building design which include several open spaces, high ceiling spaces, voids between floors, acoustic curtains creating temporary sub-divisions of spaces, and large roof spaces. This will be addressed by the fire alarm specialist to ensure the fire alarm and detection system is designed appropriately.

The Upper Campfield building has an escape route via the adjacent Arcade, see Section 6.3. The fire alarm between the two will be linked, to ensure the Upper Campfield building is aware of a fire in The Arcade and the management can ensure that Upper Campfield occupants do not attempt to enter The Arcade in this case.

The Upper Campfield building will not evacuate due to fire in The Arcade and vice versa. They will operate as independent buildings in terms of evacuation. This will be reflected in the fire alarm design.

4.3 Smoke Control

4.3.1 Main Accommodation

It is understood that there are existing roof level vents. It is not known if they are smoke vents, however, smoke vents are not needed to support the building's fire strategy and therefore these do not need to be maintained as smoke vents.

4.3.2 'Atrium' Smoke Control

The design does not include atria and therefore there is no atria smoke control. See Section 3.0.

4.3.3 Scene Dock Smoke Control

The scene dock will be used for temporary storage and transitioning of materials and equipment associated with the studios. This space will not be used for permanent storage.

There is an existing vehicle entrance into the scene dock space. This will not be used. Vehicles will not enter the building. Therefore, this space does not require smoke control.

4.4 Emergency Lighting

Emergency lighting will be provided in accordance with the ADB and BS 5266.

4.5 Emergency Signage

Emergency signage will be provided in accordance with the ADB and BS 5499.

5.0 MEANS OF ESCAPE – GENERAL

5.1 Evacuation Strategy

The building will operate with a simultaneous evacuation strategy. All areas of the building will go into evacuation for a fire detected anywhere in the building.

5.2 Occupancy

Level 2 plant occupants escape down to the mezzanine level before reaching a storey exit. Therefore, the total occupancy limit at the mezzanine level includes level 2 occupants. The mezzanine and level 02 will be limited to 220 occupants in line with Section 5.3.2 and Section 6.5.

Given that the mezzanine studio doors open against the direction of escape, and the inner room arrangement (discussed in Section 5.11) any mezzanine level studio (and studio connecting rooms combined) will be limited to 60 occupants.

Any rooms that the only escape route is via the 'atrium' will be limited to 60 occupants. Any rooms where the exits open against the direction of escape will be limited to 60 occupants.

The ground floor occupancy will be limited in line with the ground floor escape capacity, discussed in Section 6.0.

5.3 Stairs

5.3.1 Stair Description

The first floor of the building will be served with two stairs, Stair 1 and 2, see Figure 4. The stairs will each be at least 1100mm wide.

Stair 3 will serve plant space at level 2. This stair will only go from the plant level to the first-floor level. Plant occupants would then need to transfer at the first floor to either Stair 1 or 2 to continue their escape to outside.

Stair 1 will be lobbied from the scene dock at ground floor. The stairs do not need to be accessed via a protected lobby elsewhere.

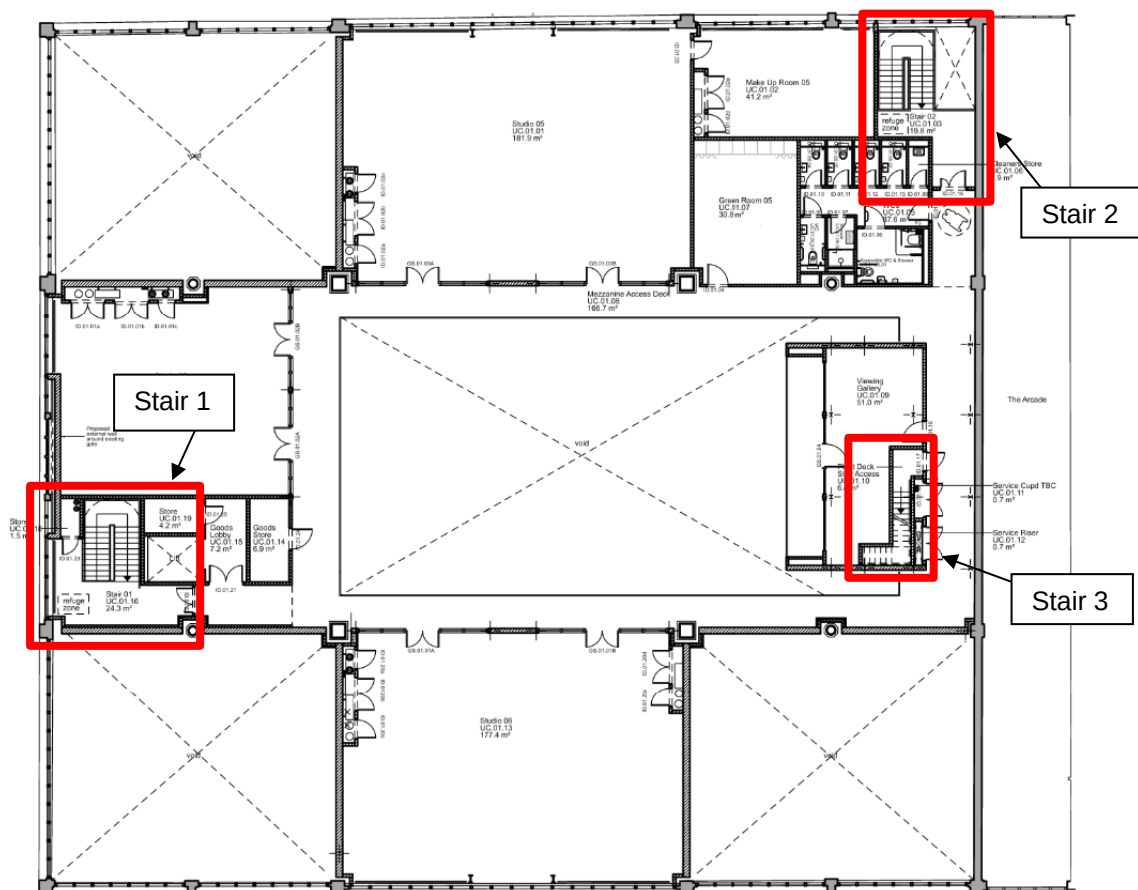


Figure 4: Stairs

5.3.2 Stair Capacity

Stair 3 will only serve the plant level and has therefore not been considered for calculating escape capacity. Stair 1 and 2 will each be at least 1100mm wide and serve one level above ground. This provides stair capacity for 220 occupants at first floor and the plant level (combined), after discounting one stair.

5.3.3 Stair Design and Final Exits

Both Stair 1 and Stair 2 will discharge directly to outside, in line with Building Regulations guidance.

Stair 3 will discharge into a circulation space at the mezzanine level and occupants will then need to transfer to Stair 1 or 2 to continue their escape to outside. This arrangement is reasonable on the basis that the plant level will be used infrequently, and that when in use it will be for a low number of occupants at once and the building will have a high standard of automatic fire alarm and detection.

The final exits from the stairs will be at least as wide as the stair it serves and open in the direction of escape.

5.3.4 Merging Flow at the Final Exit

As discussed in Section 6.4, Zone 1 occupants can escape via Stair 1, therefore merging with the Stair 1 final exit.

For compliance with Building Regulations guidance, the final exit from Stair 1 should therefore be sized to accommodate the occupants escaping from the mezzanine level and the ground floor. The ADB calculation for the final exit width is conservative as it assumes that the stair is being used to capacity and then the final exit is increased in width to support the additional ground floor occupants.

However, at Upper Campfield, the upper-level occupancy will be limited to 220 occupancy, as discussed in Section 5.2 and 6.5. The Stair 1 final exit will be sized based on the number of occupants using the route, discussed below in two worst case fire scenarios.

If a fire discounts Stair 2, all 220 upper level occupants can escape via Stair 1. The door (850mm) directly to outside from the scene dock will be available for ground floor Zone 1 occupants, see Figure 5. This provides exits capacity for 110 occupants. Zone 1 at the ground floor is limited to 110 occupants as noted in Section 6.4. In this case, ground floor Zone 1 occupants do not need to escape via Stair 1 and there is no merging flow at the stair final exit. Therefore, the stair final exit can be 1.1m wide (i.e. as wide as the stair).

The alternative fire scenario is a fire discounting the scene dock exit that leads directly to outside, see Figure 5. In this case, all Zone 1 occupants (scene dock, studio 2 and studio 3) will exit via Stair 1, 110 in total as noted in Section 6.4. However, as Stair 1 is lobbied and Stair 2 is remote from this part of the building, both stairs are available to support upper level escape. Therefore half the mezzanine occupants (110) would use Stair 1, with the other half using Stair 2. Therefore, the total number of occupants using the Stair 1 final exit for escape is 220.

The stair has capacity for 220 occupants, and this is sufficient with a final exit at least 1100mm wide. Therefore, this is also sufficient to support the merging flow at the final exit for a total of 220 occupants, without increasing the stair final exit width further.

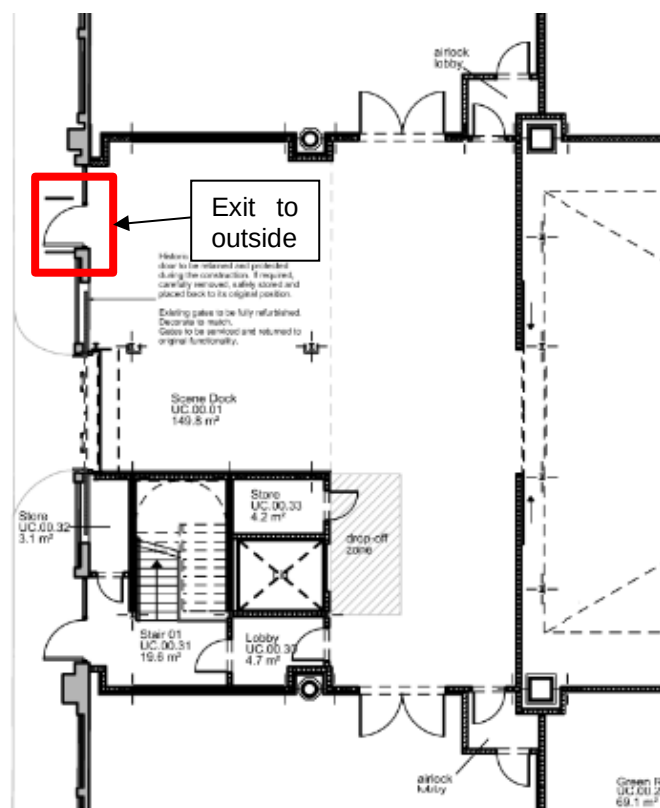


Figure 5: Zone 1 Exit Directly to Outside

5.4 Storey Exits

The storey exit capacity is detailed in Section 6.0.

5.5 Acoustic Curtain

There will be an acoustic curtain around the 'atrium'. This will be configured to open/retract automatically upon detection of fire to ensure that escape routes are not obstructed from this space.

There are two curtain opening configurations that can be adopted:

1. **Fully Retracted Curtain:** If the curtain is fully retracted in a fire event (power failure or device malfunction), there are no specific material restrictions required for the fire strategy, other than the standard requirements of the curtain manufacturer for commercial offices (typically BS 5867 Type A).

2. **Curtain Opening at One or Two Locations:** If the curtain is designed to open only at one or two locations, the curtain material will comply with BS 5867 part 1 and 2, Type B to increase the standard of safety. The openings will be at least 1050mm wide.

Note, if the curtain only opens in one location, the space inside (bounded by the curtains) will be limited to 60 occupants. The curtain openings will be located to comply with travel distance limits, see Section 5.10.

5.6 Escape Doors and Access Controls

Doors and individual door leaves along escape routes may be fitted with locks or access control devices for security purposes. However, any doors forming part of the escape route will be easily openable from the escape side without the need for a key or the need to manipulate more than one simple mechanism. Automatic access control along escape routes will release on fire detection, power failure, or device malfunction.

Sliding doors are discussed in Section 5.7.

Doors on hold-open devices, such as cross corridor doors will fail in the closed position upon fire detection, power failure, or device malfunction. Any door forming part of a stair enclosure will not be on a hold open device.

5.7 Sliding Doors

There will be a sliding door between the scene dock and 'atrium', see Figure 6. As discussed in Section 5.8 and 7.2.4, the wall facing on to the 'atrium' at ground floor will be a compartment wall, to reduce the risk of a fire within one of the rooms below the balcony, impacting the balcony escape above. Therefore, this door will form part of that compartment line and will stay closed in a fire event. The door will close automatically on activation of the fire alarm, power failure and/or device malfunction.

This has been accounted for in the escape strategy, as the escape capacity from Zones 1 and 2 do not rely on the scene dock sliding door exit, discussed in Section 6.4.

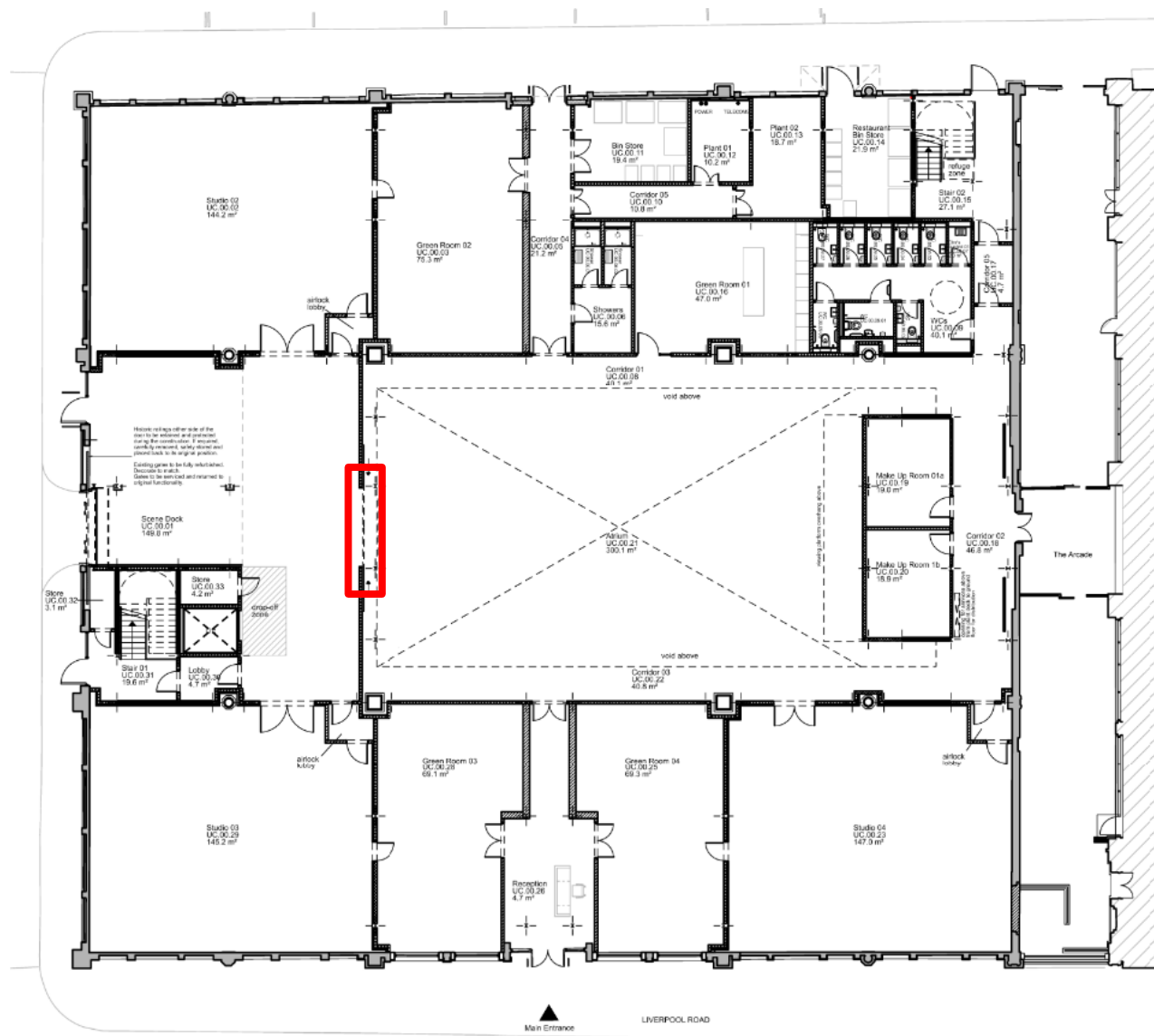


Figure 6: Scene Dock Sliding Door

5.8 Mezzanine Floor Void

For code compliance, escape routes should not be within 4.5m of the edge of openings between floors. This will not be achieved from the mezzanine level as some occupants will need to escape close to the balcony edge, see Figure 7. However, this arrangement is reasonable and is supported through a fire engineered approach, on the following basis:

- The layout at Upper Campfield is safer than a notional code compliant inner room arrangement. Based on the ADB guidance, an inner room would be acceptable with a single 0.1m² vision panel between the inner room and access room and manual fire alarm system. BS 7974 notes that pre-movement times could be 15 to 30 minutes in this case. There would be no specific fire load control or escape route clearance within the access room. The access room could also have a low ceiling. In this case, for a fire in the access room, inner room occupants could start their escape a relatively significant time after the access room fire has started, the fire could be close to the inner room escape routes, with high radiation intensity levels which could make the route impassable, in addition to the fire room being full of smoke, further preventing escape. At Upper Campfield, the mezzanine level occupants have several advantages:
 - There will be a high standard of automatic fire alarm, resulting in quick detection and alert to a fire and therefore the evacuation starting quickly after the fire starts developing. BS 7974 notes pre-movement times in the region of 30 seconds to three minutes for this arrangement

- and occupancy profile. Significantly better than the compliant manual equivalent arrangement.
 - The 'atrium' has a high ceiling, approximately 14m above ground level. This will provide a large smoke reservoir, and it will take more time for the smoke layer to build down to the escape route at mezzanine level compared to a notional compliant building which would typically have 2.5/3m ceiling height.
 - From all locations within 4.5m of the void edge, escape is available in two directions, therefore occupants can turn their back and escape away from a smoke plume from below.
 - The mezzanine level balcony is a circulation route, given the need for day-to-day circulation and the route being narrow, this inherently limits fire load within this space and keeps the escape route clear of obstructions. In any case, this will be managed day-to-day.
- The 'atrium' will have a low fire load, limited to materials, equipment and density of fire load to that which could be reasonably expected in an office/photography/film studio.
 - The perimeter of the 'atrium' base, i.e. below the balcony, will be maintained free of fire load to permit day-to-day circulation. This will be managed. This reduces the risk of a fire directly below the balcony escape route.
 - The rooms opening onto the 'atrium' base at the ground level will be compartmented from the 'atrium' further limiting the fire load within this zone and reducing the risk of a smoke plume directly under the balcony, the compartment line is shown in Figure 13.
 - The 4.5m void edge separation recommendation would apply equally to all building types, including retail/storage use which could have a high density of combustible materials, which could result in a fast or rapid-fire growth as well as the occupants being unfamiliar. The risk at Upper Campfield is equivalent to office use in terms of fire load and fire load density i.e. a medium fire growth rate. This ensures a longer safe escape time than a similar retail/storage building. Additionally, the occupants at Upper Campfield will be low density and familiar with the building, further increasing the standard of safety.

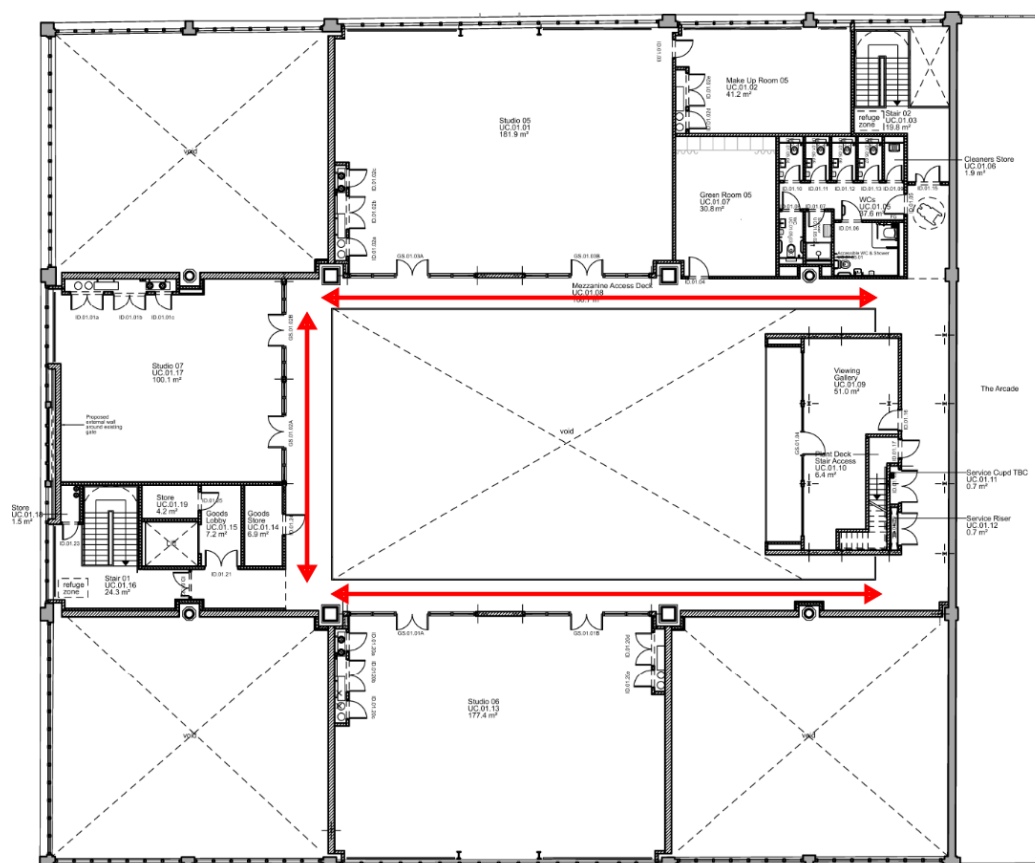


Figure 7: Escape Past Void Edge

5.9 Dead End Corridors

Dead end corridors more than 2m long e.g. serving the plant spaces at the ground level, will be protected corridors.

5.10 Travel Distances

Generally, single direction travel distance will be less than 18m and where more than one direction of escape is available the travel distance will be less than 45m, measured after fitout.

Single direction travel distances in plant rooms should be limited to 9m, after fitout for code compliance. The single direction travel distance in the plant room at level 2 will be approximately 10.5m, before fitout. However, this is reasonable on the basis that the plant use in this room will be low risk e.g. water storage/air handling equipment.

5.11 Inner Rooms

5.11.1 General

There will be several inner rooms (where the only escape route from one room, is through an access room). This includes all rooms that only open into the 'atrium' space.

Inner rooms are supported on the basis that the inner room occupancy is limited to 60, the travel distances from the inner room to a storey exit are within the recommended limits, see Section 5.10, and the building has a high standard of automatic fire detection and alarm, designed to be audible within the inner room.

5.11.2 Inner-Inner Rooms

Building Regulations guidance recommends against inner-inner room arrangements due to the increased risk of the most inner room occupants not being aware of a fire. This makes sense in a building which only has a manual standard of fire alarm, which would be code complaint at Upper Campfield. However, Upper Campfield will have a high standard of automatic fire alarm and detection, the system will be designed to raise the alarm in the inner most room for a fire anywhere in the building. This is a significant increase to the standard of safety and is reasonable to support inner-inner rooms arrangements.

The total occupancy of the inner room and inner-inner room will be limited to 60. An example inner room and inner-inner room arrangement is shown in Figure 8.

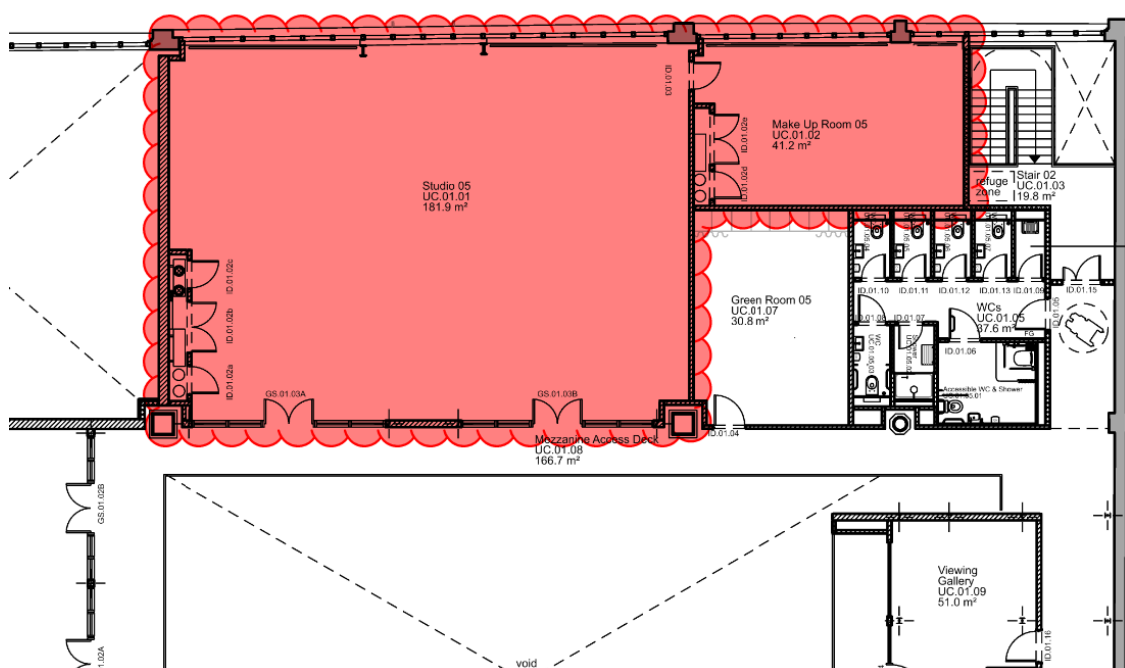


Figure 8: Example Inner-Inner Room

5.12 Disabled Occupants

Disabled refuges will be provided for both stairs at the mezzanine floor. The refuges will be at least 900mm x 1400mm and located in the stair. The refuge location will not reduce the required escape width and will be provided with a two-way emergency voice communication system.

There will be a robust management plan in place to ensure the safe evacuation of disabled occupants.

5.13 Bin Store

Building Regulations guidance recommends that bin stores should be accessed via permanently vented protected lobbies. The bin store will be accessed via a non-vented protected corridor.

Building Regulations guidance recommends these lobbies are vented, not for smoke control purposes, but to reduce the risk of the build-up of flammable gasses. It should be noted that in this case, the vent only needs to achieve 0.2m².

Instead of venting the bin store lobby at Upper Campfield, the bin store will instead have 1m² of permanent ventilation from the bin store directly to outside. This is a significant increase to the standard of safety compared to the lobby venting recommendation of Building Regulations guidance, as:

- The room will be permanently vented directly, also serving to prevent the build-up of flammable gasses.
- The vent to outside will be significantly larger than the lobby vent size recommendations.
- The vent in the bin store will also serve as a smoke vent, reducing the impact of a bin store fire on the rest of the building and the building's escape routes.

The bin store will also comply with the additional recommendations of the ADB, including:

- The room will form its own fire compartment.
- The bin store external wall openings will be clear of the building's escape routes, with at least 2.7m separation between the bin stores' external elevation and the Stair 2 final exit route.
- The bin store will not be located within a protected stair or protected lobby.

6.0 MEANS OF ESCAPE – STOREY EXIT CAPACITY ASSESSMENT

6.1 General

All rooms will have at least one 750mm wide exit and will be sufficient to support up to 60 occupants in that room.

All doors along escape routes will be at least 750mm wide. Specific exits scenarios are discussed in the following Sections.

6.2 Ground Floor Studios

There will be no doors directly to outside from ground floor studios, they will exit via ground floor common exits see Section 6.3. Additionally, the large double doors into each studio are intended for materials/equipment and will not be designed as exits.

Each ground floor studio will have at least one exit, at least 750mm wide. This is sufficient to support up to 60 occupants in each individual studio. These exits can open against the direction of escape.

6.3 Ground Floor Storey Exits

There are four exit routes at the ground floor, summarised below and shown in Figure 9:

1. Exit 1 via a corridor to Liverpool Road.
2. Exit 2 via the scene dock to Barton Street.
3. Exit 3 via a corridor to Tonman Street.
4. Exit 4 via the Arcade.

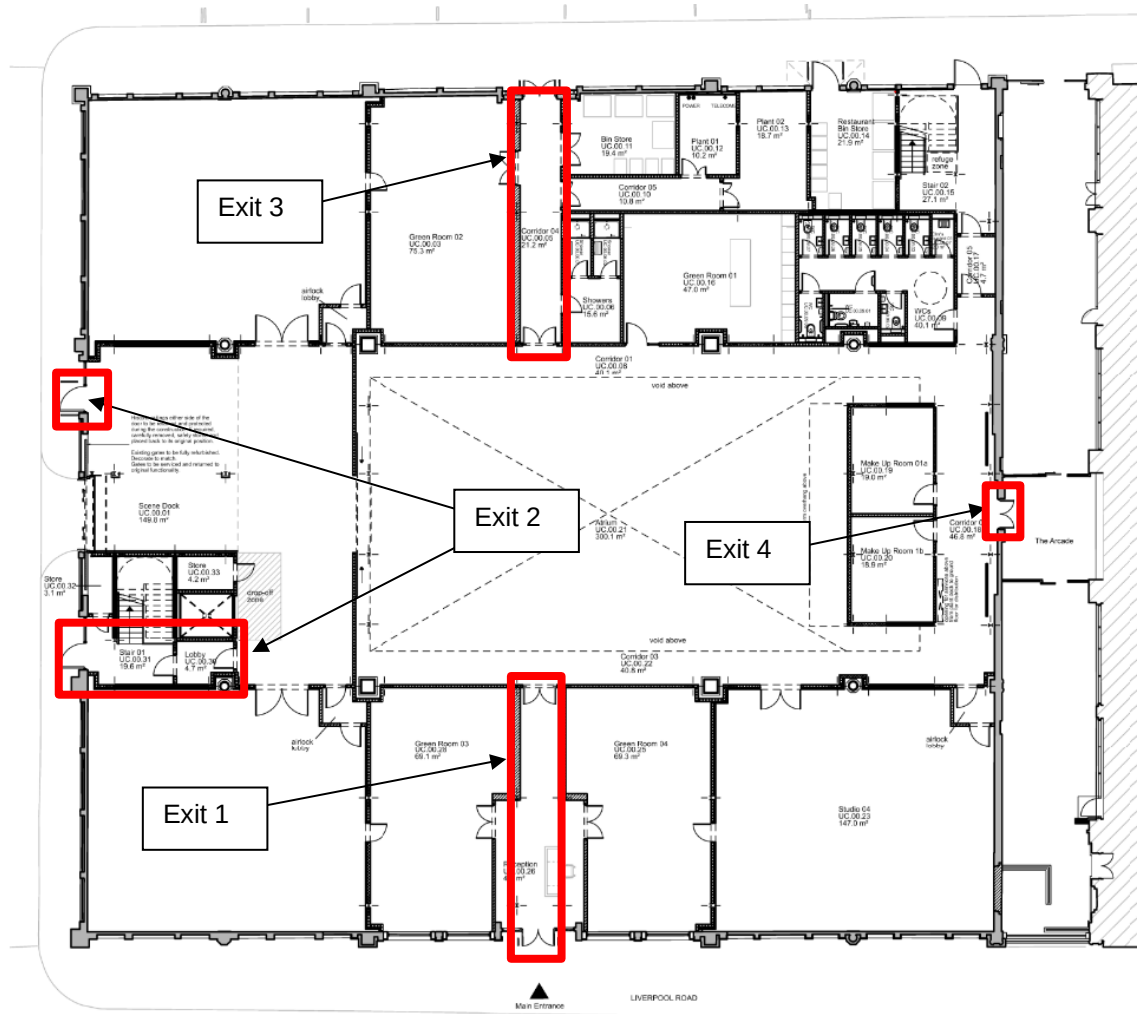


Figure 9: Ground Floor Exits

Given the layout, Exit 2 only provides

Occupants from ground floor Zone 1 can escape via the Scene Deck, direct to outside or via Stair 1, see Figure

Occupants from ground floor Zone 2 can escape via Exit 1, 2 or 4. These exits and any doors leading to the

Escape via Stair 2 for ground floor occupants is not required and will not be signed for escape from the ground

Exit 4 will exit via an adjacent driveway. The Access: This is an existing condition as well and not being made



6.5 Mezzanine

The mezzanine level will be served with two storey exits, one via each of Stair 1 and Stair 2. The exits will at least be 1050mm wide and open in the direction of escape. After discounting one exit due to a fire, this provides escape capacity for 220 mezzanine level (plus level 02 plant) occupants.

6.6 Second Floor

The level 2 plant room will be served with a single 750mm wide exit via Stair 3. This will be sufficient to support the low plant occupancy.

7.0 STRUCTURE AND COMPARTMENTATION

7.1 Structure

Any changes or additions to the existing building's structure, including floors, will achieve at least 30 minutes fire resistance.

This increases to 60 minutes for any structure supporting the party walls (to The Arcade).

Where the roof is not a floor, the structure only supporting the roof does not need to be fire resisting unless it is either:

- Playing a role in the overall structural stability of the building, and/or
- Is supporting internal compartmentation, see Section 7.2, and/or
- Is supporting fire resisting external walls, see Section 8.0.

Construction achieving structural fire resistance only, need only achieve the fire resistance performance for loadbearing capacity. Where construction protecting the structure also forms part of the fire compartmentation line, see Section 7.2, this will increase to loadbearing capacity, integrity, and insulation performance.

7.2 Compartmentation

7.2.1 General

Fire compartmentation lines will achieve fire resistance for integrity, and insulation performance. This will also include load bearing capacity, where the compartment line is also structural.

The mezzanine level will generally not form a compartment floor, and this is not required. The floor will therefore only be fire resisting for structural fire protection. However, where the mezzanine forms part of the compartmentation enclosure of other rooms/uses e.g. the bin store, scene dock or plant rooms etc, then that part of the mezzanine level will form a compartment floor/ceiling to the room below. This will achieve the same fire performance as the rest of the room.

Shafts, such as stairs, lifts and service risers will be enclosed in 30 minutes fire compartment. The goods lift is addressed in Section 7.2.2. Stair 1 will be accessed by a 30 minute protected lobby at ground level.

Where walls of the stairs/shafts do not reach underside of the roof, the stair/shaft will have a fire resisting ceiling achieving 30-minute fire resistance from both sides.

Plant/storerooms, including bin stores will each form 30 minutes fire compartments. The bin store will be accessed via a 30-minute protected corridor.

The scene dock will form a 30-minute fire compartment. Note the discussion on the scene dock's sliding door in Section 5.7.

Dead-end corridors (such as the ground floor plant room corridor) will be 30 minute protected corridors.

Party walls are addressed in Section 8.2.

7.2.2 Goods Lift

For code compliance, the goods lift shaft should form a 30-minute fire compartment at both levels, however, the shaft will not be fire separated from the scene dock, at ground level. This arrangement is reasonable on the basis that the shaft is fire compartmented from the rest of the building, by fully fire compartmenting the shaft at the mezzanine level with 30 minutes fire compartmentation shown in Figure 11. Therefore, the lift effectively forms an upwards extension of the scene dock, which together is fully fire separated from the rest of the building.

Note, the fire line is taken around the lift lobby, this is because lift doors do not achieve a smoke seal, therefore the lobby fire line will achieve the fire resistance and smoke seal at the mezzanine level. This approach should prevent a scene dock or good's lift fire from spreading to the mezzanine level.

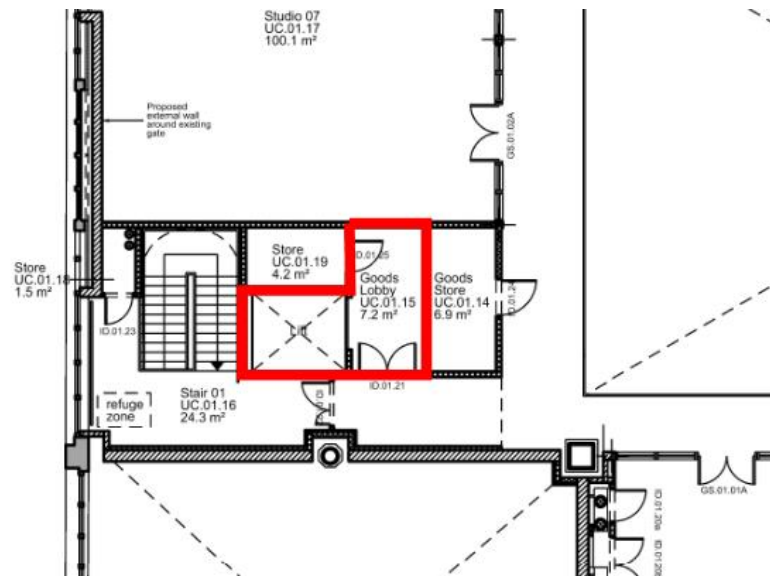


Figure 11: 30 Minute Good's Lift Fire Compartment at Mezzanine Level

7.2.3 Double Height Studios

The studios/workspaces will generally not form fire compartments. However, the three corner studios, see Figure 12, will be constructed as full height, 30 minute fire compartments to reduce the risk of external fire spread, as discussed in Section 8.1.

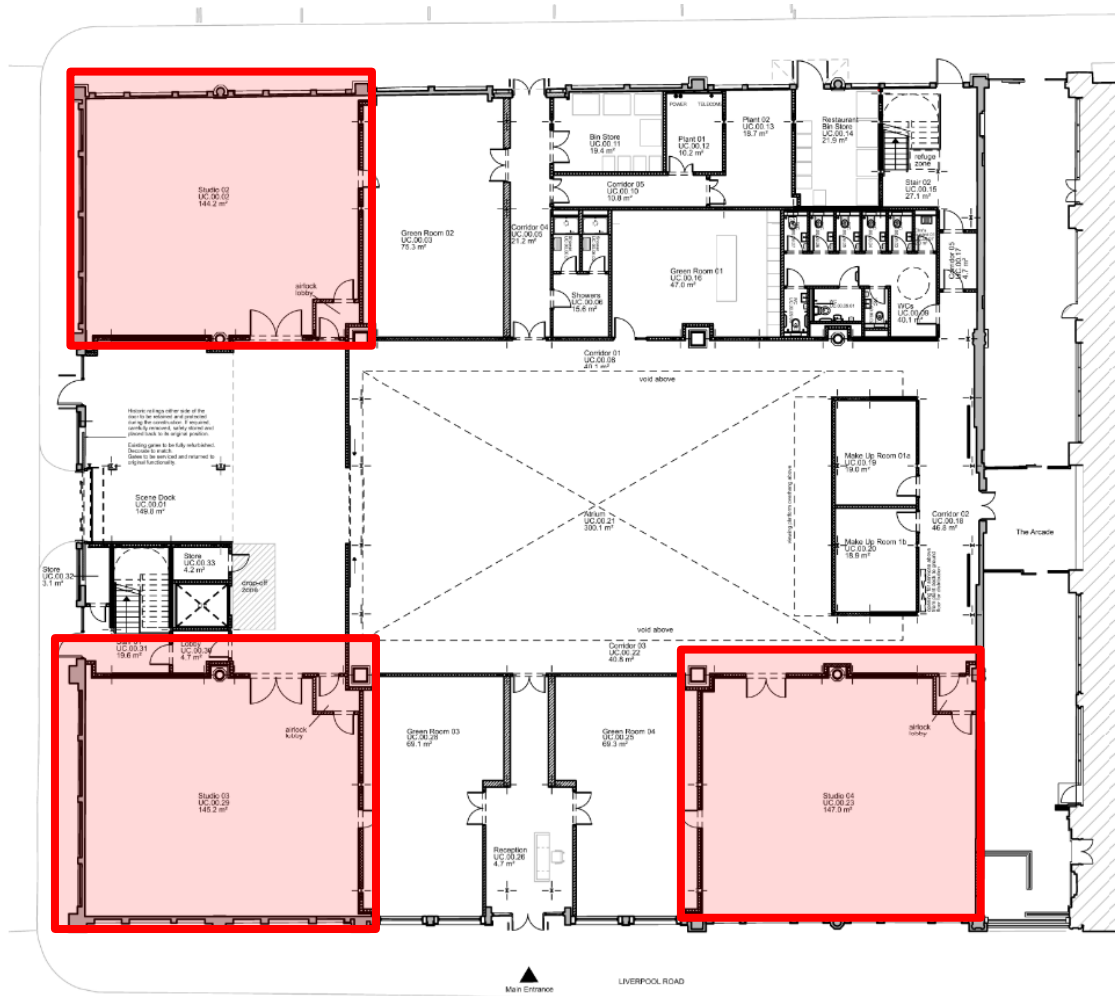


Figure 12: Compartment Studios

7.2.4 Ground Floor 'Atrium' Enclosure

To support the arrangement of escape past the mezzanine void edge, the walls opening into the 'atrium' at the ground floor will be 30 minute fire compartment walls as shown in Figure 13 and discussed in Section 5.8.

Note the discussion in Section 5.7 regards the scene dock sliding doors.

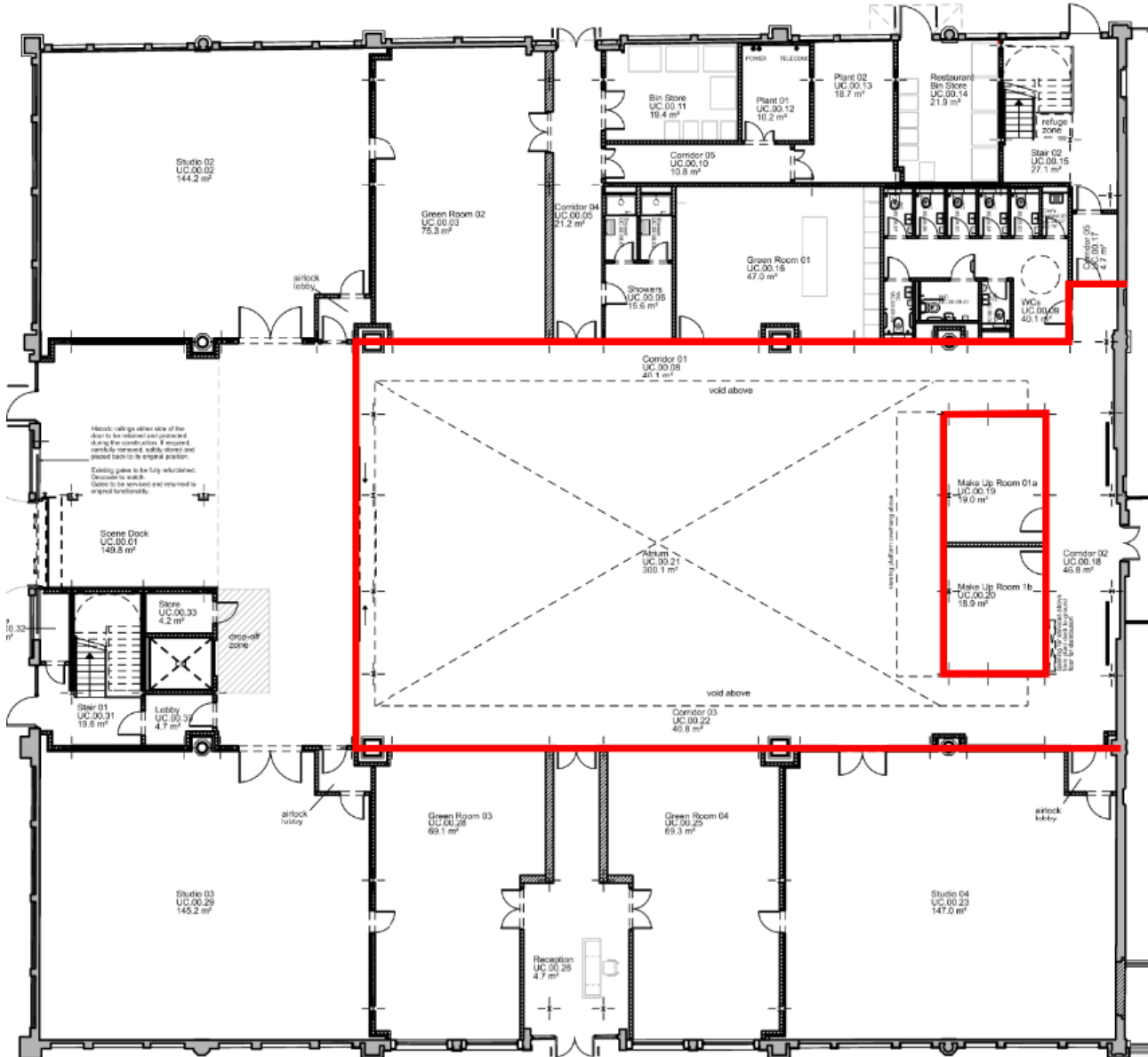


Figure 13: Protected 'Atrium' Enclosure

7.3 Fire Stopping and Services

Fire stopping will be provided in line with the recommendations of the ADB and achieve the same fire performance as the compartment construction.

Services/risers will not be accessed from the stair or stair final exit route.

Where services pass through compartment lines, they will either be fully enclosed in fire resisting construction to the same period as the compartment, or be fire stopped to the same period at the compartment line. The appropriate methods used will be in line with ADB guidance.

Junctions between compartment lines, penetrations/holes within compartment lines, or where compartment lines meet the external wall will be fire stopped to the same period of fire resistance as the compartment construction.

7.4 Cavity Barriers

Cavity barriers will be provided in line with the recommendations of the ADB. This will include the recommendations of Figure 14.

Cavity barriers will achieve at least 30 minutes fire resistance for integrity and 15 minutes for insulation.

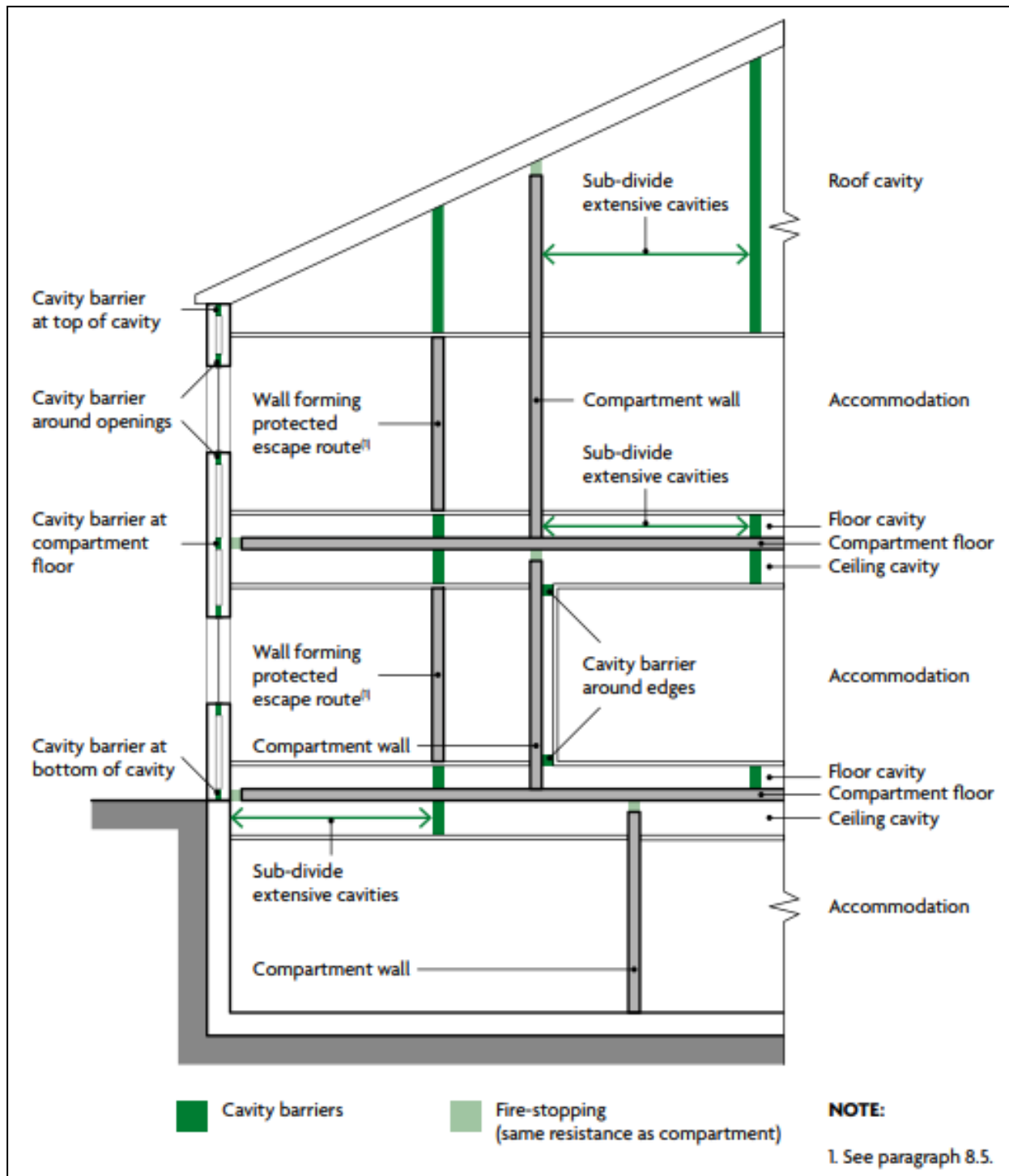


Figure 14: Provision of Cavity Barriers – Reproduced from Approved Document B – Volume 2

7.5 Surface Linings

Wall and ceiling linings will achieve at least the following classification summarised in Table 1.

Area	National Class	European Class
Small Room no larger than 30m ²	3	D-s3, d2
Other Rooms	1	C-s3, d2
Circulation Spaces	0	B-s3, d2

Table 1: Wall and Ceiling Linings Classification

7.6 Fire Doors

Fire doors will be provided in line with the recommendations of the ADB.

7.7 Roof Coverings

The roof covering will generally achieve at least Class B_{ROOF}(t4). However, where the boundary distance is greater than 6m, this specification will reduce to at least C_{ROOF}(t4).

8.0 EXTERNAL WALLS

8.1 External Fire Spread

The building is existing, the existing fire resistance achieved by the external walls has not been confirmed. Given the large size of the building, calculations indicate that approximately 60 to 70% of the North, South and West elevations should be fire resisting, to comply with current standards.

Given the existing condition, the external walls will not be upgraded to be fire resisting where they are not already. Instead, the existing standard of safety achieved in the building will be increased, by reducing the risk of external fire spread. This will be achieved by:

- Changing the building use from exhibition and storage to Studios, therefore reducing the fire load in the building.
- Increasing sub-division and fire compartmentation, where the building was previously an open space, it will now be divided into individual rooms, and studios, with each corner studio forming its own fire compartment, therefore reducing the size of the largest fire compartment, compared to existing.

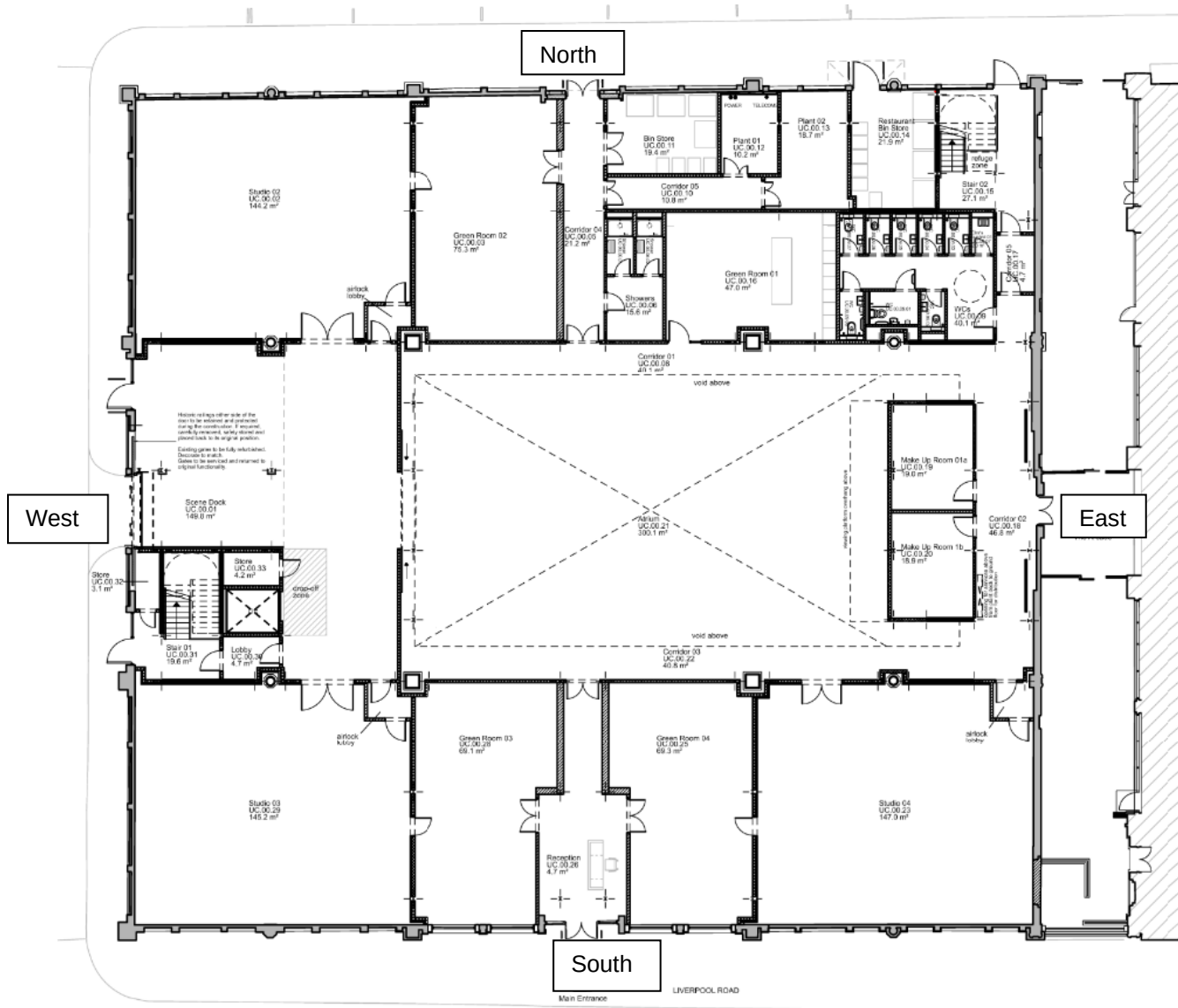


Figure 15: Elevation Naming

Where works are carried out to the external walls, they will be done so like-for-like, i.e. if where the works are carried out, the wall was fire resisting as existing, the new wall will also be fire resisting (30 minutes for integrity and 15 minutes for insulation, where the works are more than 1m from the relevant boundary).

8.2 Party Wall

The wall highlighted in Figure 16, between the Upper Campfield building and The Arcade is a party wall and will achieve 60 minutes fire resistance for integrity and insulation, performance in both directions, including any openings e.g. windows, doors, services etc.

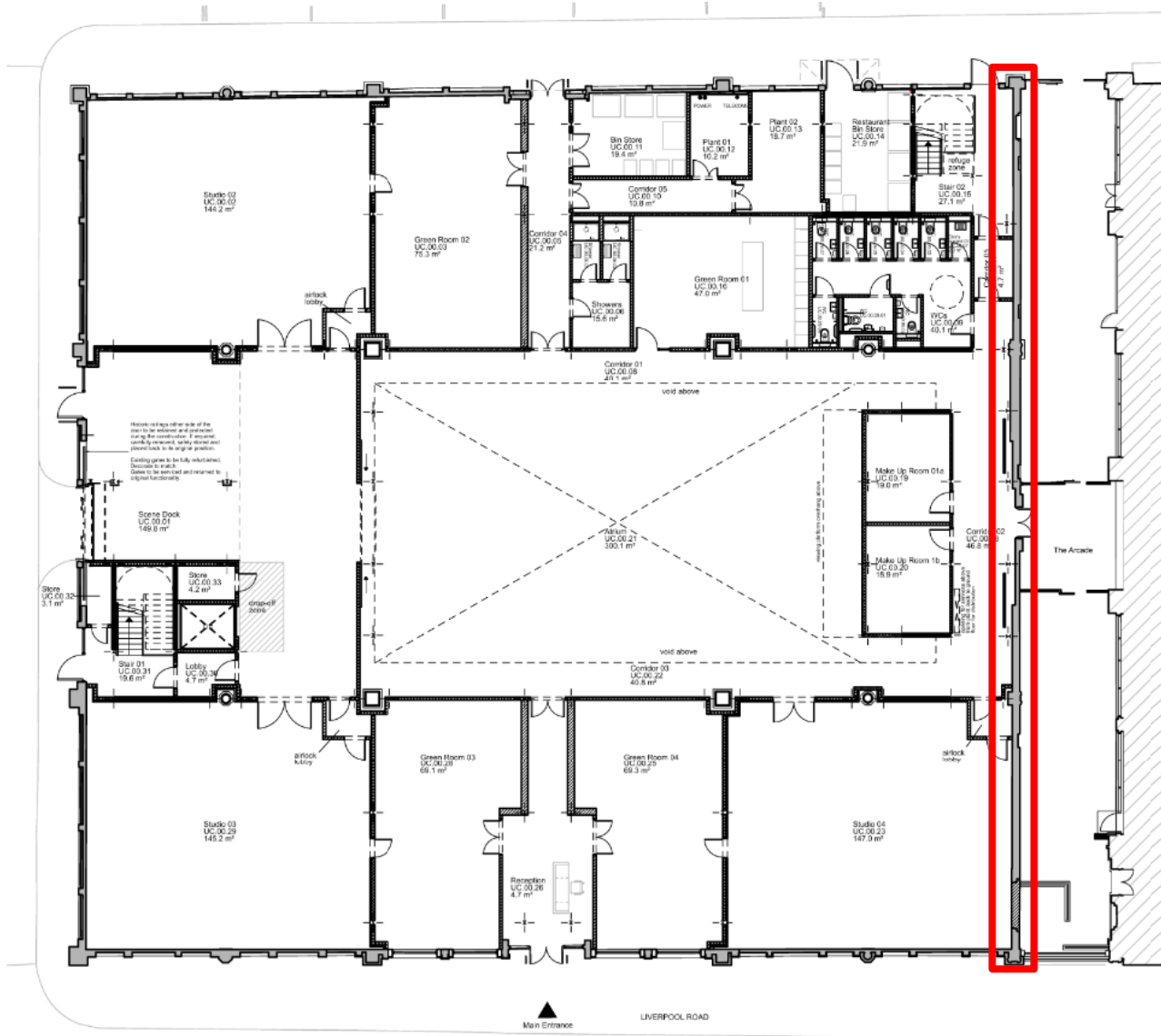


Figure 16: Party Wall

8.3 External Wall Materials

The building's top floor height is less than 18m above ground level. There is no restriction on the combustibility of materials used within the external walls to comply with Building Regulations guidance.

Where external wall works are carried out, the outer surface of the external walls will be limited to Class B-s3, d2 to reduce the risk of external fire spread, discussed in Section 8.1.

8.4 External Wall Cavity Barriers

Where works are carried out to the external walls, cavity barriers will be provided in line with the recommendations of the ADB, summarised below:

- At all compartment lines – walls and floors.
- Around all openings in the external wall (e.g. windows, doors, ducts, etc).
- To close the edges of cavities (e.g. the top, bottom and side of the wall, where the wall ends).
- To divided extensive cavities (typical cavities longer than 20m in any direction).

Cavity barriers will achieve 30 minutes fire resistance for integrity and 15 minutes for insulation.

9.0 FIREFIGHTING

9.1 Firefighter Access and Facilities

The building does not have any firefighting facilities as existing (e.g. dry risers, firefighting lifts), and they are not required.

There will be a high standard of fire vehicle access to the building from the surrounding roads, providing more than the recommended 15% perimeter access for fire vehicles.

9.2 Fire Hydrants

The building will be served by the same fire hydrants as existing.

10.0 FIRE SAFETY MANAGEMENT

10.1 General

Once the building is occupied, it is the responsibility of the management to ensure that all fire safety systems are tested and maintained to ensure their continuous effectiveness. The management should: -

- Be aware of all the fire safety features provided and their purpose.
- Ensure a competent person is present in the building during all occupied times.
- Liaise with and seek the advice of the fire authority.

10.2 Staff

Staff should be trained by competent persons. The training should be at regular intervals and should ensure that all staff know what to do if a fire is discovered; the correct response on hearing a fire alarm, and the correct escape procedures from every part of the building.

A management structure should be provided to ensure that in the case of fire staff are aware of their responsibilities, which should be clearly defined. A chain of command should be provided with clear lines of responsibility, authority, and accountability.

10.3 Fire Safety Manual

Before a building is occupied, a fire safety manual should be completed. The purpose of the manual is to clearly define the nature of the fire safety systems provided for the building. It should include: -

- An explanation of the overall fire safety strategy
- Evacuation procedures
- Design documentation to describe the use of each fire safety system.
- Staff roles in the event of a fire: their responsibility, authority and accountability
- A detailed maintenance routine

The Fire Safety Manual should be reviewed periodically and when any alterations are made to the building. Details of the suggested contents of the fire safety manual are provided in Section 19 of the Approved Document B and Annex H of BS 9999 Code of practice for fire safety in the design management and use of buildings.

10.4 Maintenance and Housekeeping

It is the role of management to ensure that maintenance is carried out in accordance with the relevant British Standards, so that all fire safety systems are operational in the event of a fire. It is also important that good housekeeping practices are followed. The building management should be aware of any hazardous substances or practices within the building, which increase the risk of fire.

10.5 The Regulatory Reform (Fire Safety) Order 2005

This Order places a duty on the 'responsible person' to ensure, 'as far as is reasonably practical' the safety of his employees and to take such general fire precautions as may be reasonably required to ensure that the premises are safe [i.e. for non-employees].

Under the Order, there is a requirement to carry out and continually update an assessment of the risk of fire to people in and around the premises/building, and to assess and maintain the measures to reduce those risks to an acceptable level. Where there are five or more employees, the risk assessment must be recorded.

A Fire Risk Assessment should be carried out:-

1. On completion of the building fit out, and strictly before first occupation of the building.
2. Regularly, particularly where any changes occur such as changes in the use of the building, the number or nature of occupants, or building works.
3. We would recommend that a fire risk assessment is carried out at least annually.

Other legal duties include: -

1. Keeping a record of the Fire Safety Arrangements. These are the preventative and protective measures for the building.
2. A person must be nominated for any special role identified in an emergency plan.
3. Employees must be consulted about nominations to perform special roles, and about any proposals for improving the fire precautions.
4. Other employers in the building must be informed about any significant risks, which might affect the safety of their employees, and there must be co-operation with them in measures to reduce the risk.
5. Those having control over the workplace have a responsibility to ensure compliance with the regulations in those parts of the building over which they have control.
6. A suitable and readily available method of calling the emergency services must be established.
7. Employees are required to co-operate in ensuring that the workplace is safe from fire.

The order also adopts 'Principles of Prevention'. These include: -

- Avoiding risks;
- Evaluating the risks which cannot be avoided;
- Combating the risks at source;
- Adapting to technical progress;
- Replacing the dangerous by the non-dangerous or less dangerous [particularly with respect to hazardous substances];
- Developing a coherent overall prevention policy which covers technology, organisation of work and the influence of factors relating to the working environment, and;
- Giving appropriate instructions to employees.

11.0 INFORMATION, LIMITATIONS AND ASSUMPTIONS

The information limitations and assumptions used in the preparation of this report are noted below: -

Documents and drawings

This report is based on documents and drawings issued to us:

The following documents are draft issues:

0798-P3A-XX-XX-DR-A-04001-C09

0798-P3A-XX-XX-DR-A-04002-C07

0798-P3A-XX-XX-DR-A-04003-C04

Building Regulations

This report considers building regulations, which deal with life safety. Property protection and insurance issues are not addressed in this report and should be consulted separately.

Other Limitations

Complying with the recommendations of this report will not guarantee that a fire will not occur.

Unless otherwise described in this report, the fire strategy assumes that the building design, the mechanical and electrical systems, construction methods and materials specifications will comply with current Building Regulations guidance, and relevant British Standards and Codes of Practice. The design of mechanical and electrical systems such as fire alarm and sprinklers is a specialist area. Fire Strategy recommendations are given in this report, however, the design and specifications need to be developed at the appropriate stage in consultation with the specialist designers of these systems.

This report has been prepared for the sole benefit, use and information of Allied London and the liability of Jeremy Gardner Associates Limited, its directors and employees in respect of the information contained in the report will not extend to any third party.

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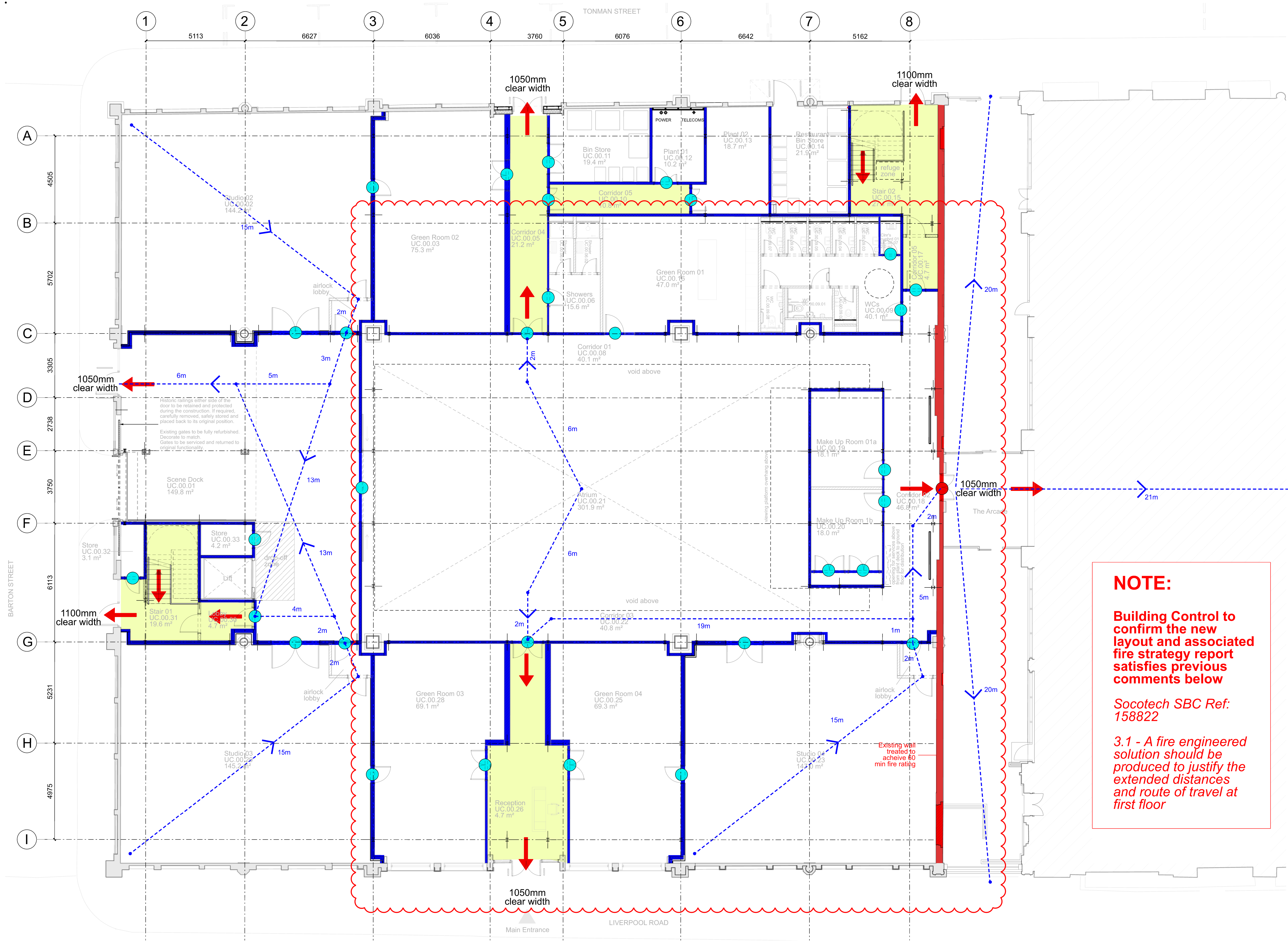
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02 Proposed fire strategy plan, ground floor, 0798-P3A-XX-XX-DR-A-12001-C04



KEY:

60 minutes fire resistance

30 minutes fire resistance

Protected corridor

FD.60S - fire rated door 60 minutes + smoke seal

FD.30S - fire rated door 30 minutes + smoke seal

Escape routes

Travel distance

NOTES

This Fire Strategy drawing is subject to review and approval by Building Control. The Contractor is to ensure all relevant approvals have been granted prior to installation.

The fire strategy drawing should be read in conjunction with the report and documentation prepared by Jensen Hughes.

The Contractor must ensure that installation of all fire stopping, sealing and protection works including installation of cavity barriers or mechanical & electrical items are fully documented and offered to the Building Control Officer for inspection prior to covering up or concealing of each element.

Fire doors should be installed in the compartmentation line in accordance with the recommendations of the British Standards and to the rating indicated both within this Fire Strategy and within the door schedule.

Fire Plans to be read in conjunction with M&E Fire Alarm Drawings.

Any services passing through a compartmentation line which exceed 160mm diameter or steel/cast iron or 40mm for PVC/copper are to be fire stopped with approved proprietary materials including a collar or damper as applicable to maintain the integrity of the wall.

Refer to M&E Fire Alarm Drawings to position of automatic door detents.

All fire stopping and protection works are to be carried out by an accredited specialist sub-contractor who will provide all necessary accreditations, certification and data sheets to cover the works and materials.

This drawing must be read in conjunction with all relevant structural, mechanical and electrical drawings schedules and specifications.

For details of fire detection and alarm systems including break glass call points and emergency lighting locations refer to the Electrical Engineer's design specification.

Any enclosed voids greater than 800mm high must have smoke detection installed as part of the detection system.

Fire escape signage should be in accordance with BS 5499, Part 1 and European standards.

Emergency lighting including lighting to escape routes is to be in accordance with BS 5266, Part 1 and current European standards.

Surface spread of flame ratings to all materials used to line walls and ceilings within circulation routes is to meet the requirements of Class 0.

Refuges to incorporate an emergency voice communication system to the fire panel.

NOTE:

Building Control to confirm the new layout and associated fire strategy report satisfies previous comments below

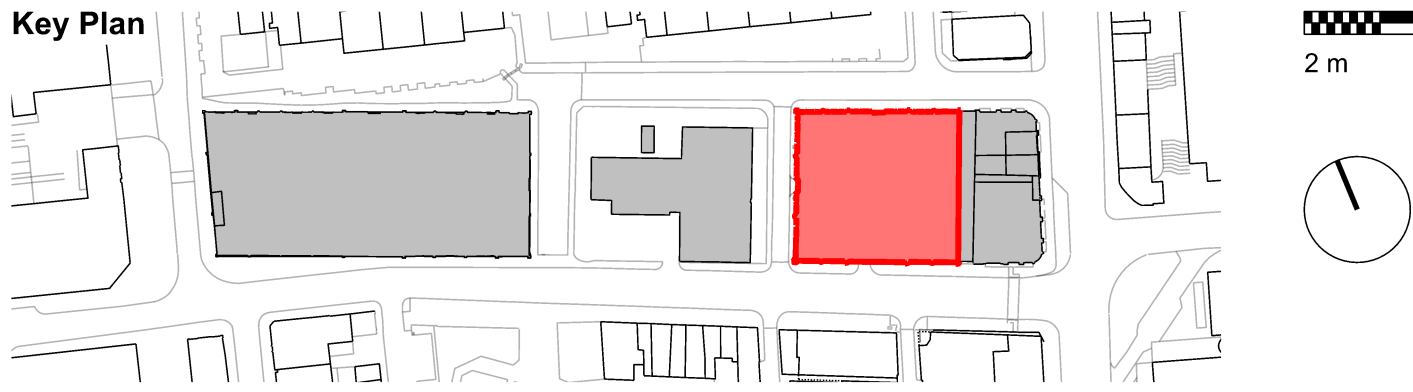
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3.1 - A fire engineered solution should be produced to justify the extended distances and route of travel at first floor

N.b.
Please consider all elements on C04 to superceed that of C03.

UPPER CAMPFIELD
Proposed Fire Strategy Plan - Ground Floor

Notes:	Rev:	Date:	Description:	By:
Do not scale from this drawing.	C01	28/06/24	Construction Issue	CS
All dimensions are in millimetres unless otherwise noted.	C02	15/07/24	Updated to fire report	CS
All dimensions to be checked on site before proceeding with work.	C03	18/07/24	Updated to fire report	CS
All omissions and discrepancies to be reported in writing to Project 3 Architects Ltd.	C04	28/01/25	Revised scheme & fire report	CP
Areas indicated on this drawing are approximate and indicative only.				
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Title:
Proposed Fire Strategy Plans
Ground Floor

Status:
CONSTRUCTION

Drawing Number:
0798-P3A-XX-DR-A-12001

Scale @ ISO A1:
1:100

Revision:
C04