



THE GOODSYARD

Design and Access Statement

September 2019 - Part 17 of 21



ballymore.



8.0

CRIME REDUCTION STATEMENT (CRS)

8.1 SITE-WIDE CRIME REDUCTION STATEMENT

8.1.1 Purpose of a Crime Reduction Statement (CRS)

A statement on crime reduction is a national planning requirement for all major outline and detailed planning applications. The statement should set out which measures have been taken to address reduction in crime and the fear of crime in the revised proposals as set out in the Safer Places-the Planning System and Crime Prevention (ODPM/Home office, 2003).

8.1.2 Structure

The following section has been structured as follows:

- Overview
- Existing crime reduction initiatives
- Stakeholder engagement outcomes
- Public consultation feedback relating to security and crime reduction
- Crime statistics
- Security principles
- Attributes from Safer Places used to highlight how crime reduction has been incorporated into the proposals

8.1.3 Overview

BGYRL is committed to ongoing engagement with key external stakeholders, such as the Met Police's Designing out Crime officers and Counter Terrorism officers

To ensure that the approach taken to security is both appropriate and considers the impact

on the wider community as well as the needs of BGYRL.

Security and crime reduction relates to the security strategy and the intention to design the Goodsyard site to minimise criminal opportunity, to protect the sites buildings and personnel assets, to maintain operational activities and to create a safe and secure environment for staff and visitors.

The Goodsyard security strategy, security operations and mitigation measures, have been developed through discussions with the Met police. These are designed to be proportional to the potential threats and risks identified for the site, and security activity is integrated within site operations to create a safe and secure environment.

The level of security within the illustrative and detailed proposals has been identified by carrying out a crime risk assessment and by analysing historical crime data, open source material, local knowledge and information provided by the security services. This information has then been used to inform the design process.

Security measures will be in place from an early stage and throughout construction to protect the site from theft of equipment, plant and criminal damage.

BGYRL and its consultant teams will continue with its commitment to work with key external stakeholders throughout each of the construction and operational phases of the project to ensure that the approach taken to security is appropriate at each stage.



Fig 8.1.1: Reference documents



Fig 8.1.2: Ideas week, June 2013

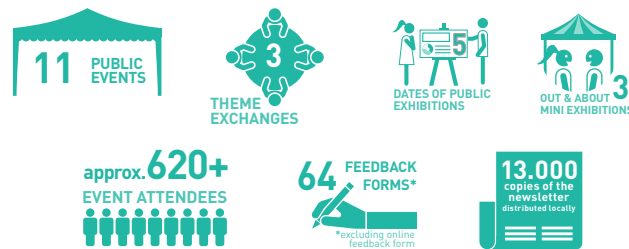


Fig 8.1.3: Interim Findings of November 2018's consultaion outreach



Fig 8.1.4: Public Exhibition, November 2018.

8.1.4 Existing Crime Reduction Initiatives

The Mayor of London's A safer City for all Londoners, Police and Crime Plan 2017-2021 has the following strategic priorities:

- Violence against women and girls
- Keeping children and young people safe
- Hate crime and intolerance

Hackney's Community Safety Partnership Plan 2016-2018 has set of the following strategic priorities:

- Gang crime, youth crime and disorder, victimisation and engagement
- Alcohol related crime and disorder, licensing and safer socialising
- Antisocial behaviour - nuisance neighbours and domestic noise
- Burglary, pedal cycle theft and cycle safety
- Domestic abuse and violence against women and girls (VAWG)
- Substance misuse, treatment and drug dealing

Tower Hamlets Community Safety Partnership Plan 2017-2021 has stated the following strategic priorities:

- Anti-social behaviour (ASB) including Drugs and Alcohol
- Violence
- Hate Crime, Community Cohesion and Extremism
- Reducing Re-offending

8.1.5 Stakeholder Engagement Outcomes:

Consultation and liaison has taken place with the Met police to facilitate opportunities to address crime and anti-social behaviour.

As a result of this consultation, recommendations have been provided that the team have embedded within the design.

8.1.6 Public Consultation Feedback Relating to Security and Crime Reduction:

A number of consultation events have taken place, May-October 2013, October-January 2019.

Security of the public open space was a concern in 2013. Anti-Social behaviour in public park spaces such as Allen Gardens was noted and that the masterplan should have the ability to close 'park spaces' down for security and maintenance. Comments were recorded on the need for good lighting.

At the October 2018 public exhibitions safety was mentioned by a small minority of attendees (2) of 620 attendees, the following feedback was received:

- *"Strongly agree, (with the proposed amendments to the heritage aspects of the proposal) provided the routes are well lit and secure/safe."*
- *"Agree (with the upgraded routes), but, it needs to feel safe at all times."*

The following sections will explore how the team have addressed these concerns.

8.1.7 Crime Statistics

The Goodsyard site is split across two safer neighbourhood areas Hoxton East and Shoreditch (Hackney) and Weavers (Tower Hamlets). The statistics suggest that Theft & handling and Violence against the person are the two highest crime types in each ward, with drugs (Weavers) and burglary (Hoxton and Shoreditch). Between October 2017 and October 2018 8651 crimes were committed in Hoxton and East Shoreditch with 4,592 reported in Weavers for the same period.

Fig 8.1.7 shows the locations and types of crimes being reported in the areas around the site. Locally within 0.5km of the site a total of 4400 crimes were reported within a 12-month period (September 2017-18). The highest three crimes were [1] other theft, [2] anti-social behaviour and [3] violence & sexual offences, the lowest reported crime in this period was possession of weapons. The crimes reported per month are generally consistent with a general range between 320 and 399 per month, there do not appear to be any seasonal variances.

At street level within 0.5km of the site Brick Lane had the highest number of reported crimes [427] with Great Eastern Street [300] and Bethnal Green Road [313] having the second and third highest. Commercial Street had the lowest reported crime [97] which is possibly due to the nature of the use type (shops) and the busy nature of the street.

The level of crime in the area is not untypical of similar parts of London within this context. The opportunity for additional criminality, associated with the Goodsyard, will be minimised by the site wide active security management and the crime reduction measures outlined over the following pages in this section.

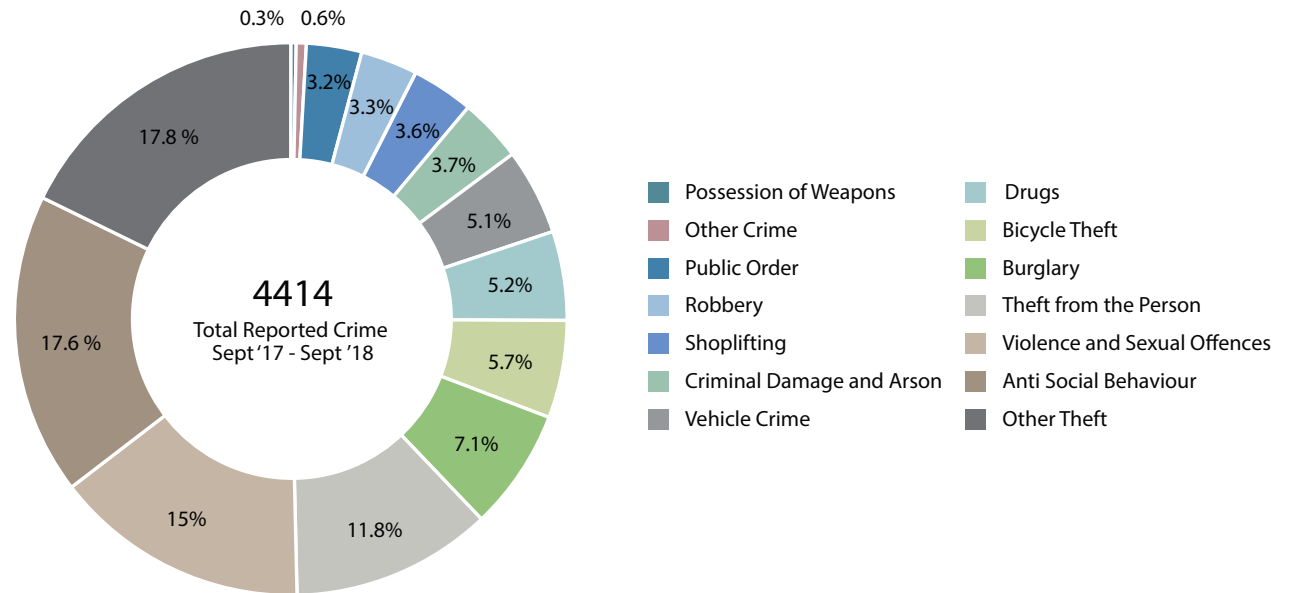


Fig 8.1.5: Total reported crime by type

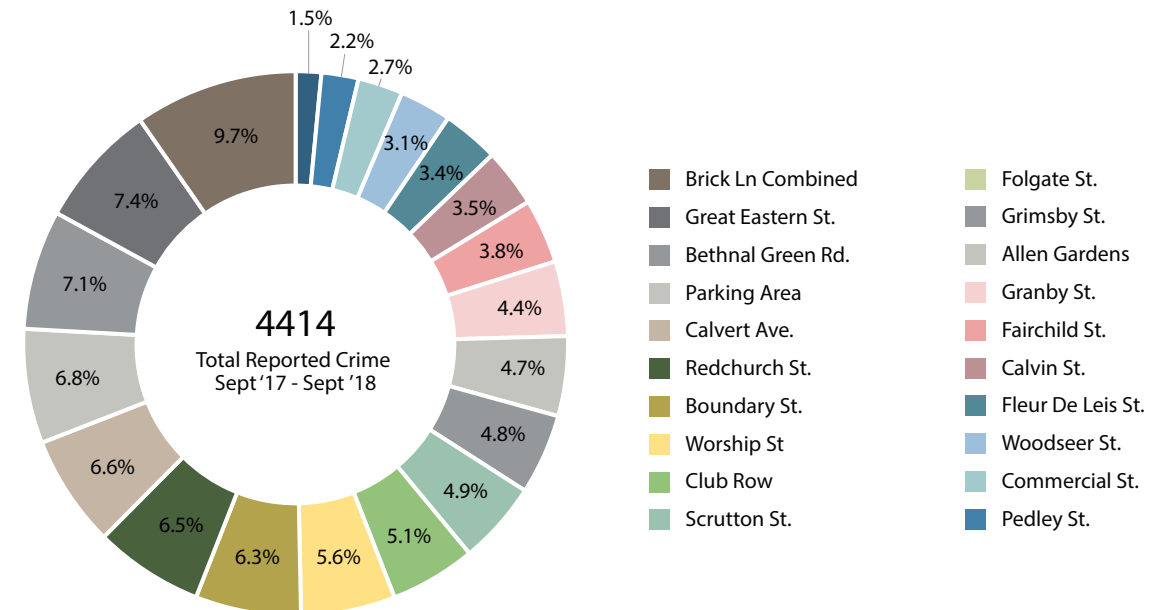


Fig 8.1.6: Total reported crime by street

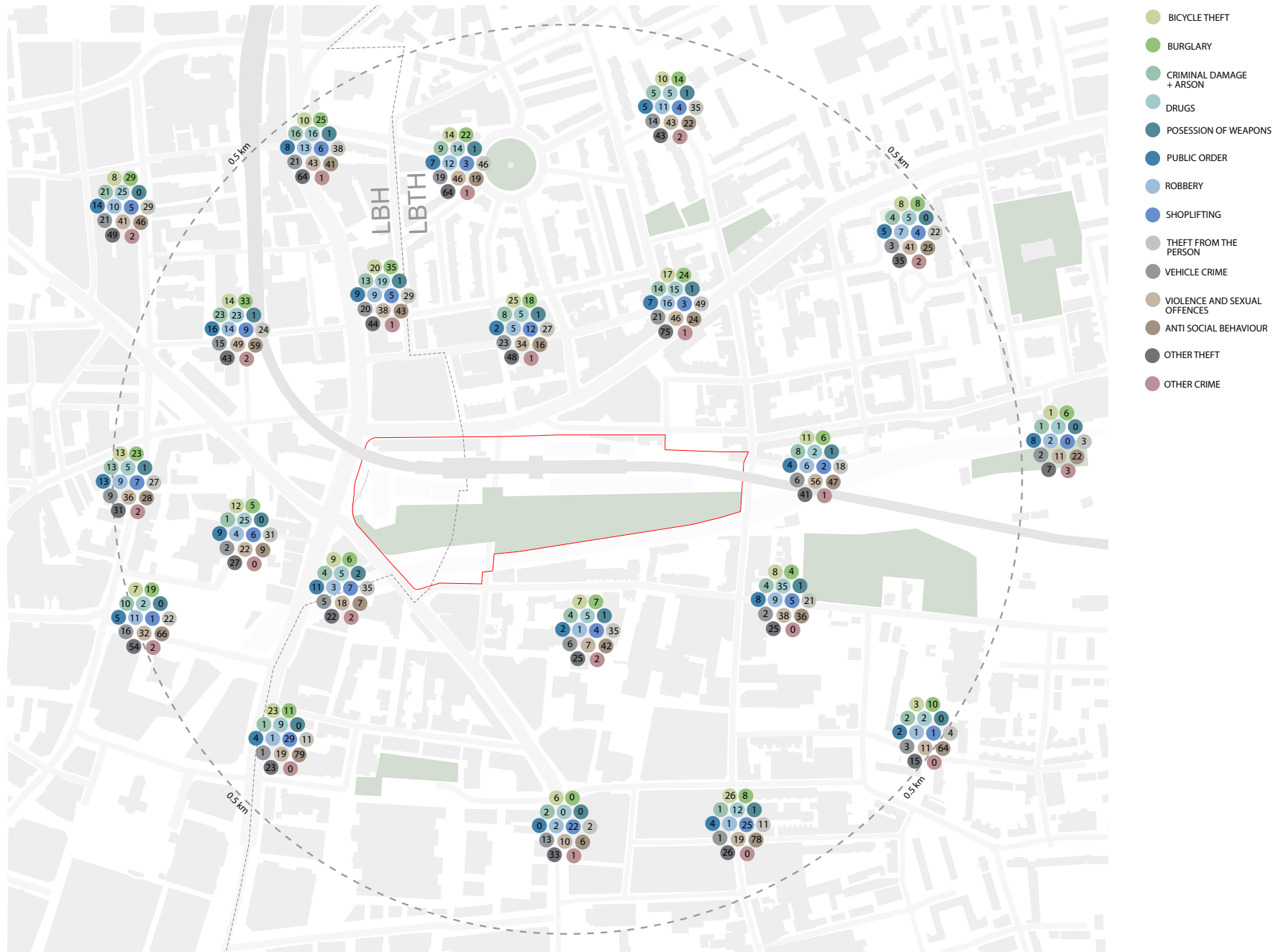


Fig 8.1.7: Locations and types of crime around the site

8.1.8 Security Principles

The security principles adopted across the Goodsyrd site include recommended specific counter terrorism protective security measures, and more general crime reduction design requirements to achieve Secured by Design Commercial 2015 version 2 (SBD) accreditation across the site and buildings.

The guide 'Safer Places: The Planning System and Crime Prevention' describes techniques for integrating safety and security into the UK planning process. It was withdrawn in 2014 but is still a useful guide to crime prevention and promoting community safety.

It states that "safety and security are essential to successful, sustainable communities. Not only are such places well-designed, attractive environments to live and work in, but they are also places where freedom from crime, and from the fear of crime, improves the quality of life."

Safer Places suggests an approach that includes references to the attributes that help to create a safer place. The seven attributes that help to create both a safer place and more widely sustainable communities and that are particularly relevant to crime prevention are:

- Access and movement
- Structure
- Surveillance
- Ownership
- Physical protection
- Activity
- Management and maintenance

In the following part of this section, these seven attributes have been used to illustrate how crime reduction measures have been incorporated into the Illustrative and detailed proposals.

8.1.9 Access and Movement

Definition: Places with well-defined routes, spaces and entrances that provide for convenient movement without compromising security. Successful places have a well-defined movement framework. The appropriate movement framework for a place depends upon the local context.

The following security and crime reduction measures have been incorporated into the Illustrative Proposed Masterplan:

- The Goodsyrd site has well defined boundaries. The boundary wall forms part of the perimeter along the Northern edge to Sclater Street. New Buildings (1, 2 and 4) are proposed to create boundaries and street edges to Bethnal Green Road and Shoreditch High Street. The Site is bound to the South by a railway viaduct and a new proposed building (building 3). Breaks in the boundaries are for pedestrian movement through the scheme.
- The existing north-south route through the site (Braithwaite Street) is complemented by four new north-south routes and two new east-west routes. These routes will be well defined, legible and well lit. Access to the podium level is via seven vertical access points located off the main pedestrian routes running through the scheme. Each node has a stair and a lift. The team has discussed the possibility of controlling access by having the ability to close a number of these points. The aim being to focus higher volumes of pedestrian movement on specific routes and as a result dissuade any potential crime occurring.
- The existing site is well connected to local and wider services and amenities for pedestrians, trains, buses, taxis and cyclists (see 'Section 2.6' for more information).

- Long-stay covered and secure SBD approved cycle storage areas are being provided for staff/residents within the specific building's security-controlled areas, and external SBD approved cycle parking is being provided for visitors at entry/egress points to the site which benefit from both formal and natural surveillance and which will be highly animated. Two cycle hubs are also being provided which provide secure (key card) access, to well lit, managed storage; cycle maintenance facilities are also provided.
- The site is proposed to be 'car free' vehicle movements are therefore minimised avoiding conflict between pedestrians and vehicles and creating a safer environment for users.
- The site has been designed to be inclusive to all users, regardless of age, gender or disability. All buildings and facilities across the site will have level access into them and all primary entrances will be directly accessed off the streets or platform level.
- A cohesive way finding strategy is to be developed as part of the comprehensive public realm and landscape strategy proposed in the Illustrative Proposed masterplan, which will enhance the legibility of the site.

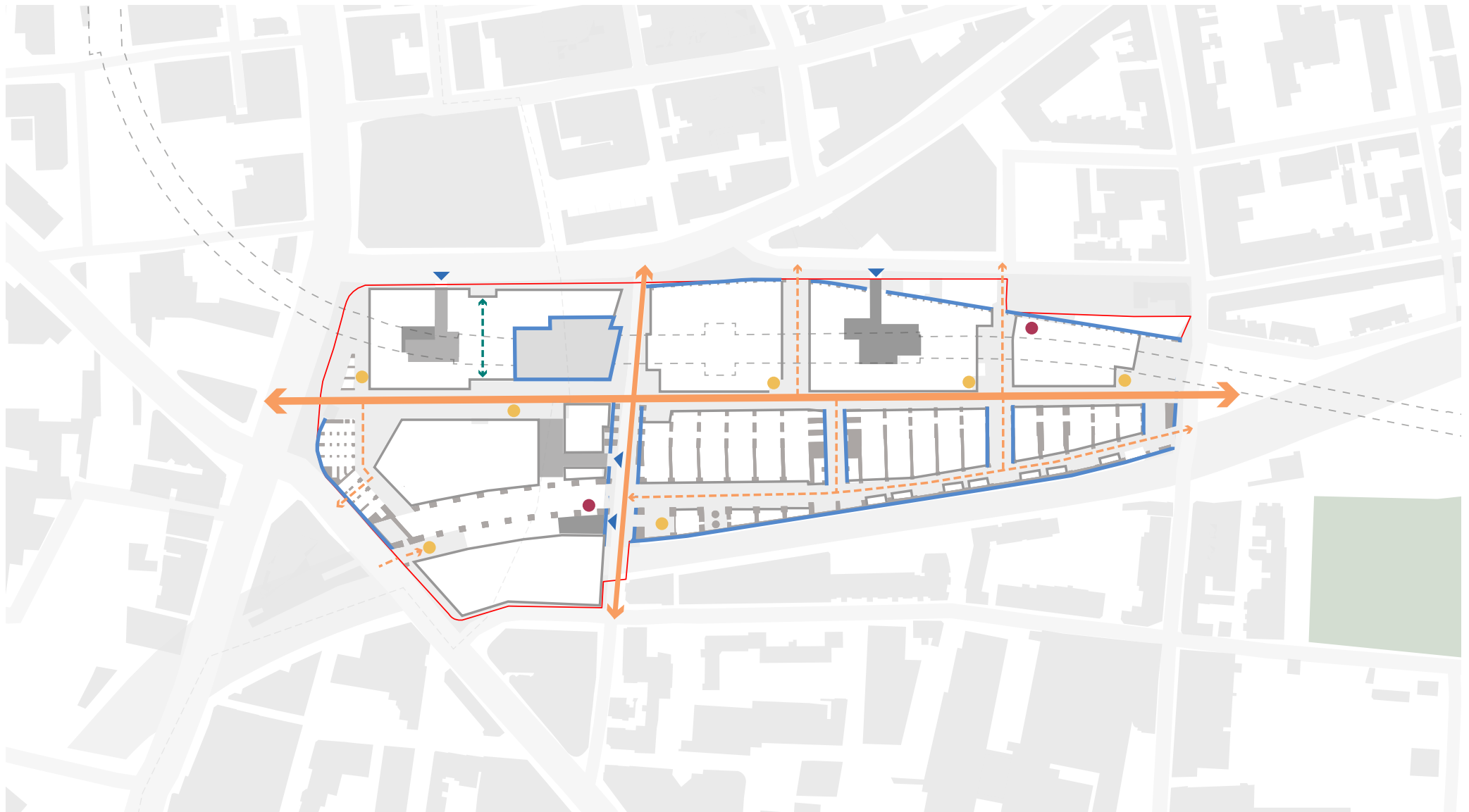


Fig 8.1.8: Access and Movement

- | | | |
|--------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------|
| — Application Outline Boundary | ● Cycle Hub | ▼ Service Yard Vehicle Access |
| — Proposed Building Facade | ● Proposed Vertical Access Points | ■ Service Yard |
| — Existing Retained Boundary / Barrier | ↔ Potential Pedestrian Access Through Building | ↔ Primary Pedestrian Access |
| | | ↔ Secondary Pedestrian Access |

8.1.10 Structure

Definition: Places that are laid out so that crime is discouraged and different uses do not cause conflict. The types of building and how they are laid out have major impacts on safety and sustainability.

Places should be structured to minimise opportunities for conflict, especially when designing for mixed use development. Remodelling or removing vulnerable buildings and spaces makes places more liveable. The restoration of historic elements of the built environment and run-down buildings can be an important element of crime prevention.

The following security and crime reduction measures have been incorporated into the Illustrative Proposed Masterplan:

- Crime prevention has been planned in from the outset; consultation and liaison has taken place with the Met Police, DOCO and CTSA officers to facilitate opportunities to address crime and anti-social behaviour. Two public consultations have taken place, these highlighted the security related concerns of local residents as outlined earlier - see Section 10.1.6
- A clear street structure has been introduced, whereby two main routes run through the site north-south and east-west. The other routes within the site boundary at ground and podium level break the site down into smaller appropriately sized blocks that mirror the size and nature of the surrounding streets. The proposed streets and podium level landscaped areas will be high quality public spaces designed to be open, welcoming, legible and safe. These areas by their nature will include crime reduction features such as discrete CCTV, concrete feature benches, bollards and planting that will not distract from the overall look and feel that is to be achieved.

- Active frontages have been introduced, at ground floor and podium levels providing discrete view onto 'the' public realm whilst maintaining appropriate levels of privacy for the occupants. It is envisaged that this frontage strategy will enhance passive security through out the site.
- The existing site has been vacant for some time, run-down and uncared for, possibly giving the impression that crime and anti-social behaviour is tolerated in the area. The building of new, high-quality buildings and the renovation of existing buildings and landscape should reduce crime levels and the perception of crime in the area. The existing grade II listed arches, wall and The Oriel gateway, plus other heritage items such as the Northern wall, Victorian building, Weavers cottages and Mission Chapel, are to be retained, refurbished and re-purposed (where applicable). This will ensure that a comprehensive step change in the perception of the site is applied across both new and existing buildings.

- The proposed landscape has been designed so that trees are located away from the buildings and do not obscure CCTV lines of site. Tree placement has also been considered so that they cannot be used as climbing aids onto buildings.

- A carefully considered and well designed lighting scheme will create a structured approach and hierarchy to the experience of the masterplan at night time.



Fig 8.1.9: Street hierarchy and legibility



Fig 8.1.10: Refurbishment and re-purposing vacant fabric



Fig 8.1.11: Lighting structure and hierarchy

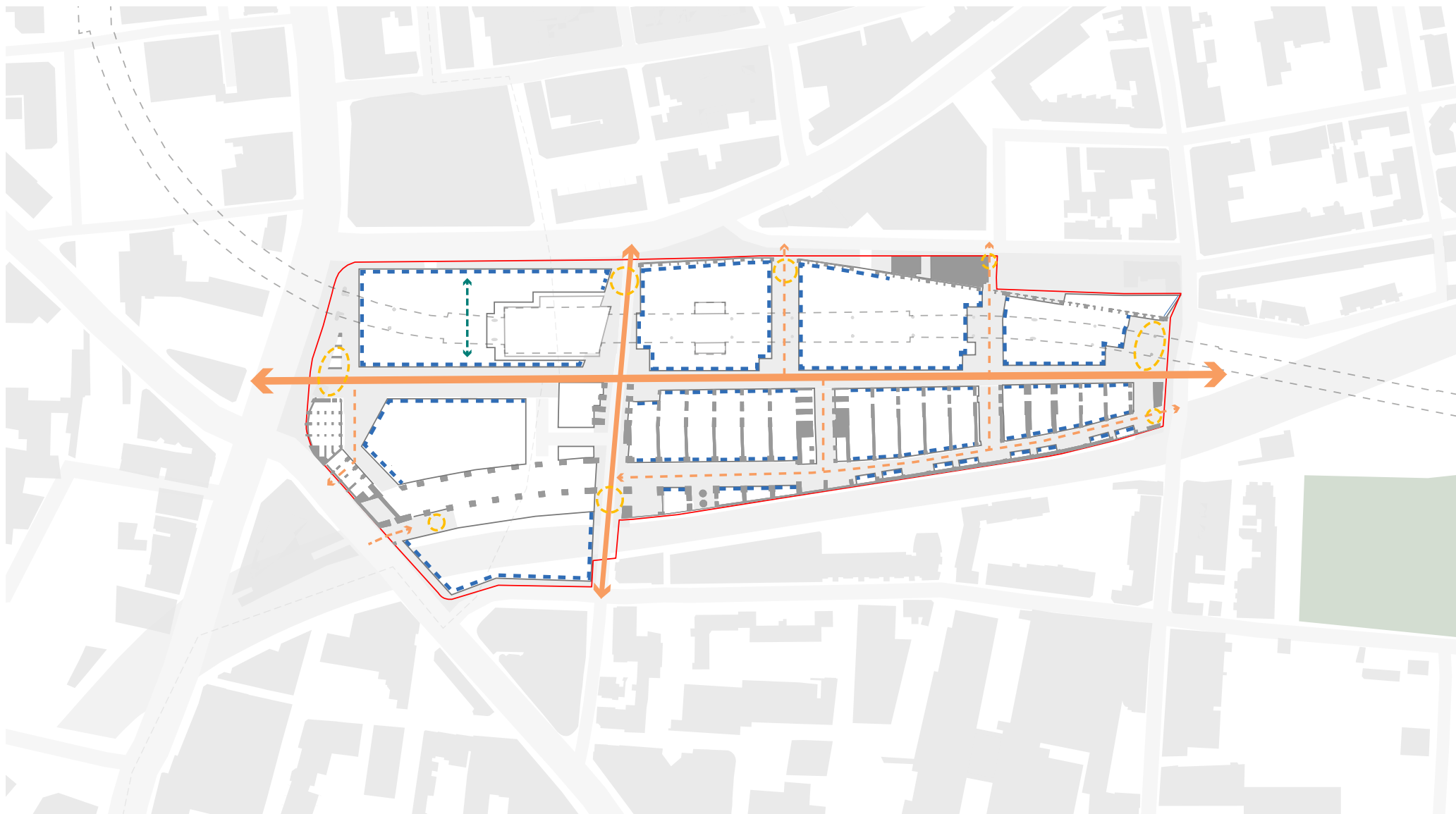


Fig 8.1.12: Structure

- Application Outline Boundary
- Development Plot
- Building / Structure Retained
- Site Entrance Threshold
- ↔ Primary Pedestrian Access
- ↔ Secondary Pedestrian Access
- Active Frontage
- ↔ Potential Pedestrian Access Through Building

8.1.11 Surveillance

Definition: Places where all publicly accessible spaces are overlooked.

Well-designed layouts of buildings and space create well-overlooked places.

Parked cars can be particularly vulnerable to crime and, unless they are in a private garage, must be overlooked.

Well-designed public lighting increases the opportunity for surveillance at night and sends out positive messages about the management of an area.

CCTV can have a positive impact on crime, especially when implemented as part of a wider package.

The following security and crime reduction measures have been incorporated into the Illustrative Proposed Masterplan:

- All new buildings have been positioned and designed to overlook the existing public highways and newly created streets through the scheme. Active uses are proposed at ground level.
- The buildings on the podium have been designed to overlook the publicly accessible space and have active uses and frontages at podium level.
- Inactive facades have been limited where possible and are typically clustered around the service yard gates.
- Natural surveillance, combined with appropriate lighting, will be maximised and actively monitored in appropriate publicly accessible areas in and around access points throughout the site. The use of glass in public areas will assist with maintaining open visibility.
- No onsite carparking is provided, as the site is car free.
- Cycle storage will be actively monitored via CCTV and two staffed cycle hubs are proposed.
- Lighting throughout the site will make spaces attractive as well as playing a critical role in supporting personal safety, supporting personal security, supporting both active and natural surveillance for site security, making the site accessible for a wide range of users and making the site legible and easy to navigate.
- CCTV is to be extensively provided internally and externally across the site, supported by appropriate lighting, access and alarm monitoring systems around the site.
- The CCTV network will be connected to a sitewide Building Management System and will be constantly monitored by security personnel. This will allow for a 'dynamic lockdown', should it be required.
- Relevant CCTV footage may be shared with the local police force to assist with crime reduction in the area.



Fig 8.1.13: Natural surveillance of public spaces



Fig 8.1.14: Active uses and spill out



Fig 8.1.15: Cycle hubs proposed on the site

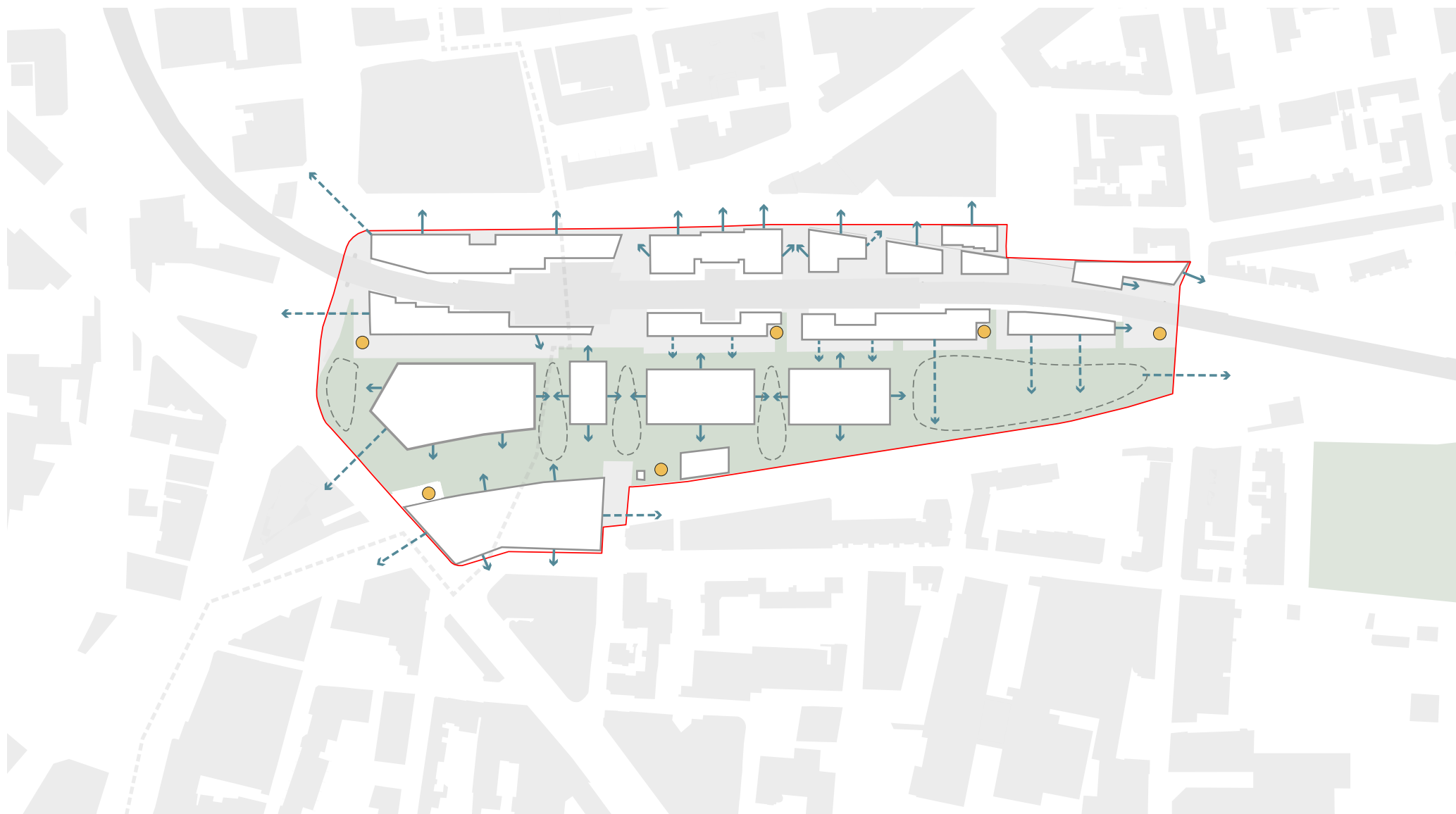


Fig 8.1.16: Surveillance at Podium Level

- Application Outline Boundary Activity Nodes
- Near View to Landscaping/
Building Vertical Circulation Points
- Distant View to Landscaping/
Building

8.1.12 Ownership

Definition: Places that promote a sense of ownership, respect, territorial responsibility and community.

Places should have clear distinction between public, semi-private/communal and private space.

Where the use of barriers is inappropriate, creative approaches to defining the boundaries between public, communal and private space may contribute to crime prevention.

Allowing neighbourhoods to express their identity can generate feelings of ownership and reduce crime.

The following ownership measures have been incorporated into the Proposed Masterplan:

- There will be a clear definition between front of house and back of house areas on the site. Public focused facilities will be located on the pedestrian focused streets at ground level and private deliveries and service access will be via gated service yards. Site management and maintenance will ensure that service deliveries that require trolleyed access are undertaken outside of 'core' hours. Staff access to buildings will be via secure entrance points within their building receptions. This strategy creates a clear segregation of staff, visitors and services.
- The site boundary treatment will be improved, with the existing boundary walls cleaned and restored.
- Private external terraces are proposed on the commercial office roofs. Semi-private 'spill-out' space is to be provided outside of the food & beverage areas at podium and ground levels. Over one hectare of open public space is to be provided on the site.

- Private residential amenity space is generally provided at roof level. The spaces will cater for older residents and also integrate play provision for under 5's. Therefore the strategy is to create gardens that are well loved, looked after and from a security point of view, well overlooked and self policed.
- The Goodsyard masterplan is unique addition to the Shoreditch area and it is expected that it will become a major local employer and generate and contribute to the existing community around its facilities and operations - this in itself may lead local residents to feel a sense of ownership to the site.



Fig 8.1.17: Private external terraces



Fig 8.1.18: Private residential amenity



Fig 8.1.19: Sense of ownership to public spaces

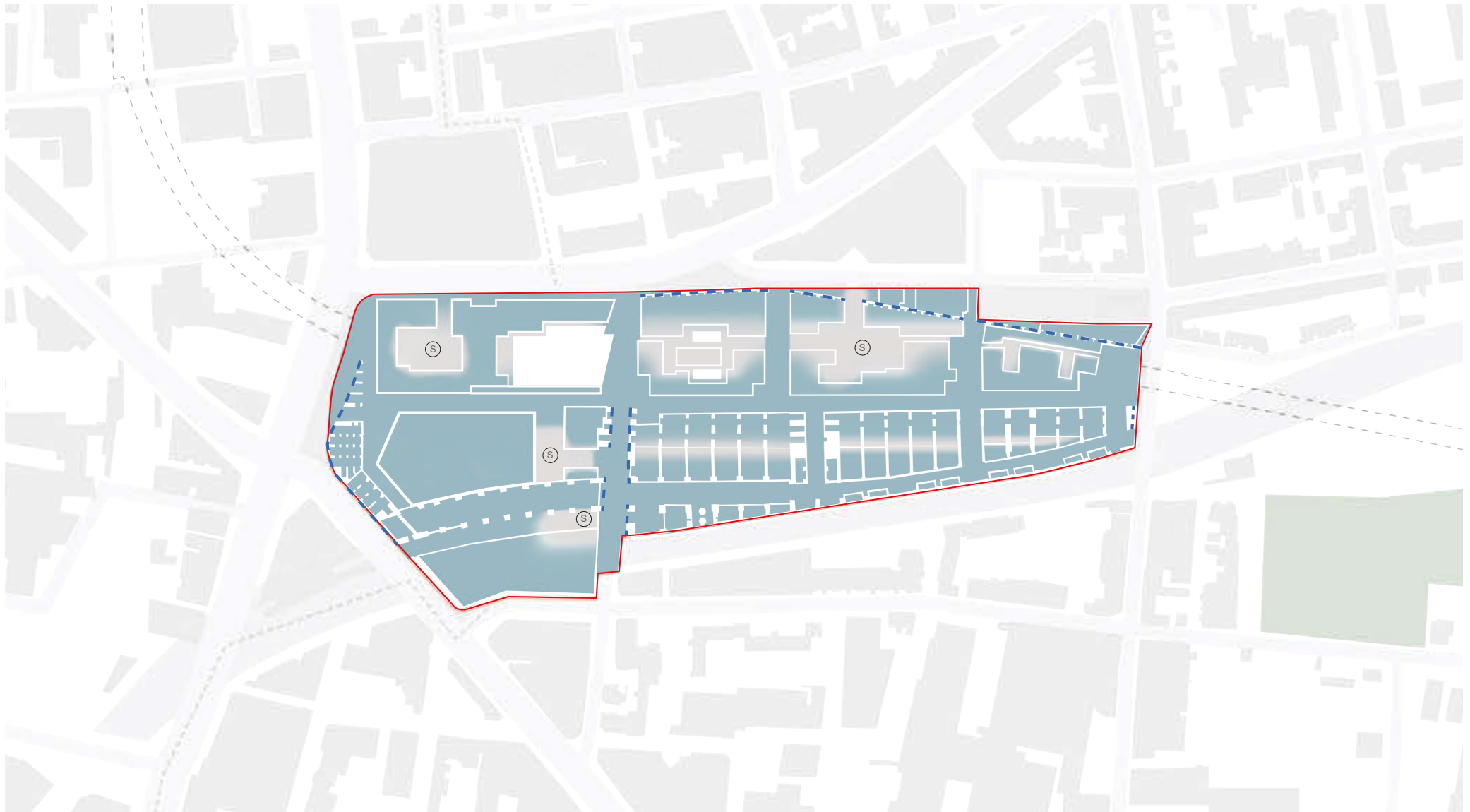


Fig 8.1.20: Ownership, front of house and back of house areas

- Application Outline Boundary
- Existing Boundary Walls Cleaned and Restored
- Front of House
- Back of House
- S Service Yard

8.1.13 Physical Protection

Definition: Places that include necessary, well designed security features.

One of the most effective ways to prevent property crime is to make the property itself as secure as possible. Many security measures may be installed without compromising the quality of the local environment.

The following security and crime reduction measures have been incorporated into the Illustrative Proposed Masterplan:

- Secured by Design Commercial 2015 version 2 accreditation is to be achieved across the relevant parts of the masterplan - this will ensure that the site is 'target hardened', making it more difficult to commit offences and instil a feeling of safety in users.
 - Physical security measures have been carefully designed in from the outset so that they do not adversely impact the overall appearance of the campus or give the impression of an area that is unsafe.
 - The pedestrian arrival points of access into the site will where required, incorporate concrete feature benches, bollards and bands of planting as Hostile Vehicle Mitigation (HVM) measures in a discrete way that does not affect the overall impression of it being an open and welcoming site. The extent, detail and positioning of these measures will be undertaken at the next stage of design in liaison with the CTSA officers at the Metropolitan Police.
 - Hydraulic bollards are proposed to be used where service and emergency service vehicles require access to the site that would otherwise be pedestrian access only
 - Fixed bollards or street furniture is proposed where vehicle access is prohibited.
- All buildings will have dynamic lockdown procedures, following published Home Office guidance 'Run Hide Tell'.
 - All buildings are to use dedicated post rooms. The site wide strategymay include a centralised post room. All post rooms on site will conform to PAS 97:2015 ' Mail Screening and Security Specifications'.



Fig 8.1.21: Open and welcoming thresholds



Fig 8.1.22: Discrete furniture acting as HVM



Fig 8.1.23: Physical protection creating safe environments

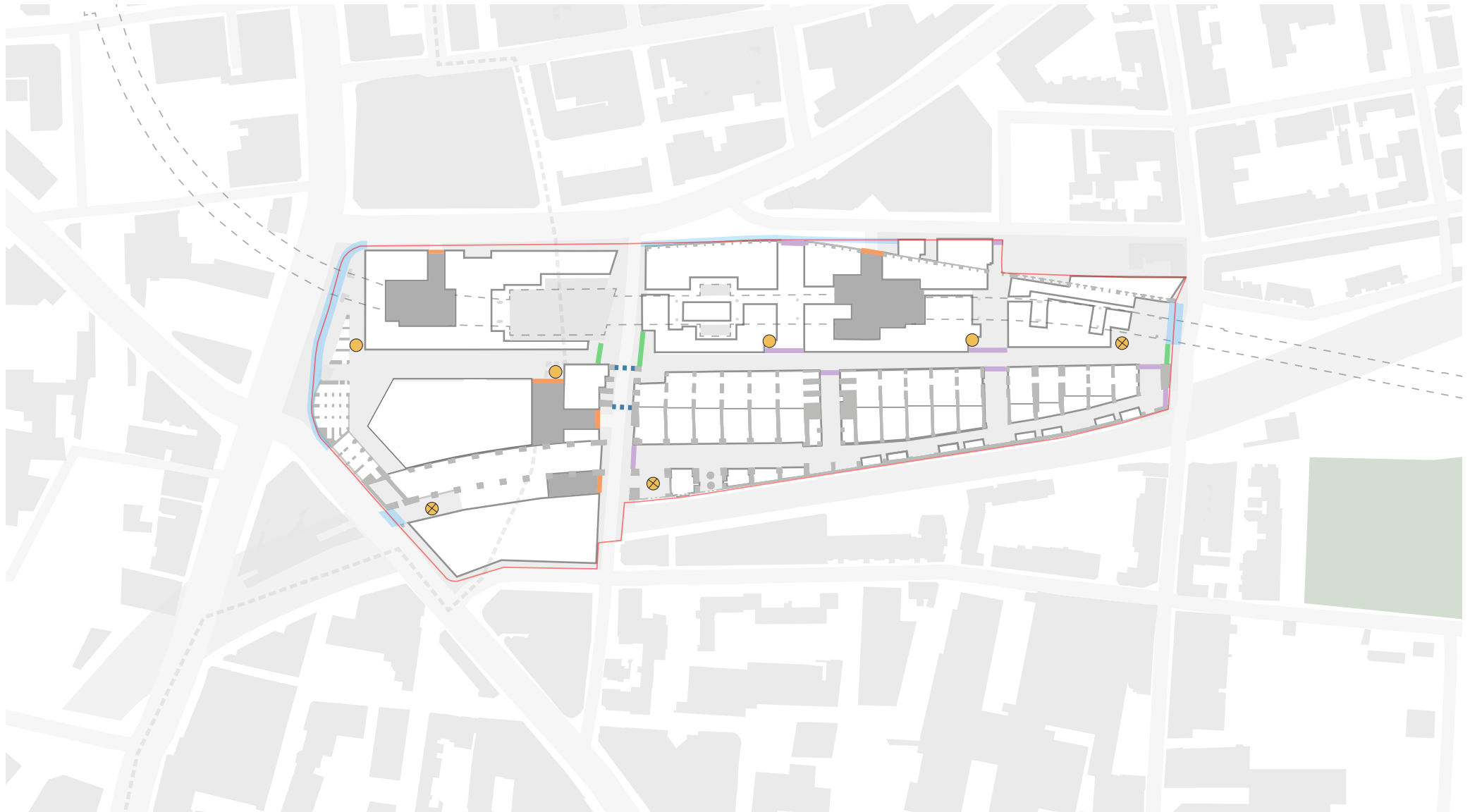


Fig 8.1.24: Physical Protection

- | | | | |
|------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| Application Outline Boundary | ■■■ Fixed Bollards | Vertical Access | Service Yard |
| ■■■ HVM Measures | — Hydraulic Bollards | <div style="position: absolute; top: 50%; left: 50%; transform: translate(-50%, -50%); font-size: 10px;">X</div> Vertical Access (Gated) | |
| — Gated Access Service Yard | — Gates (Usually Permeable) | 24 Hour Pedestrian Access | |

8.1.14 Activity

Definition: Places where the level of human activity is appropriate to the location and creates a reduced risk of crime and a sense of safety at all times. Attracting a large number of law-abiding users is a character of good places. They are also safer. Attracting the right mix of uses can generate greater activity and surveillance.

The development of an evening economy is a good way of diversifying uses and extending activity throughout the day and night. However, careful thought must be given to the other attributes to minimise the resultant crime risk.

The following security and crime reduction measures have been incorporated into the Illustrative Proposed Masterplan:

The masterplan is proposed to be a mixed use site that encourages activity throughout.

Welcoming and attractive public squares and streets, that bring a mix of law-abiding people to use the space should discourage crime and anti-social behaviour.

The two new public squares at ground level have been designed as a welcoming public thresholds to the new east-west route through the scheme; These extensive mingling/circulating spaces, will also catering for pulses of numerous pedestrians at peak times of the day. These spaces will create and enhance the environment, using high-quality paving materials, seating and artwork. It will have activities for different types of people and, as such, it should attract individuals of different ages, lifestyles and economic status.

The addition of art in public areas encourages activity, makes the location more interesting and attractive to a wide range of users, which in turn, reduces crime.

Activity on the platform level varies in type as the experiential environment changes with each character area. The platform will be used throughout the day and into the evening, therefore the type of activity and use will change throughout a 24 hour period. The activity across this daily cycle will need to be carefully curated in order to create a safe environment throughout the platform level, particularly after dark.

The main east west axis is formed by the No 1 Bank and the Continental Fruit Bank, along this promenade a series of garden spaces, and seating terraces associated with commercial use are provided. At each end of the east west axis are two balcony spaces that mediate between the upper platform and the surrounding streets. Activities provided upon the platform will include play, al fresco dining, spaces to exercise, relax, congregate and circulate through and community use will be provided through communal growing areas.



Fig 8.1.25: Creation of places to meet and greet.



Fig 8.1.26: Examples of activity within public areas



Fig 8.1.27: Creation of places to enjoy fitness, health and wellbeing

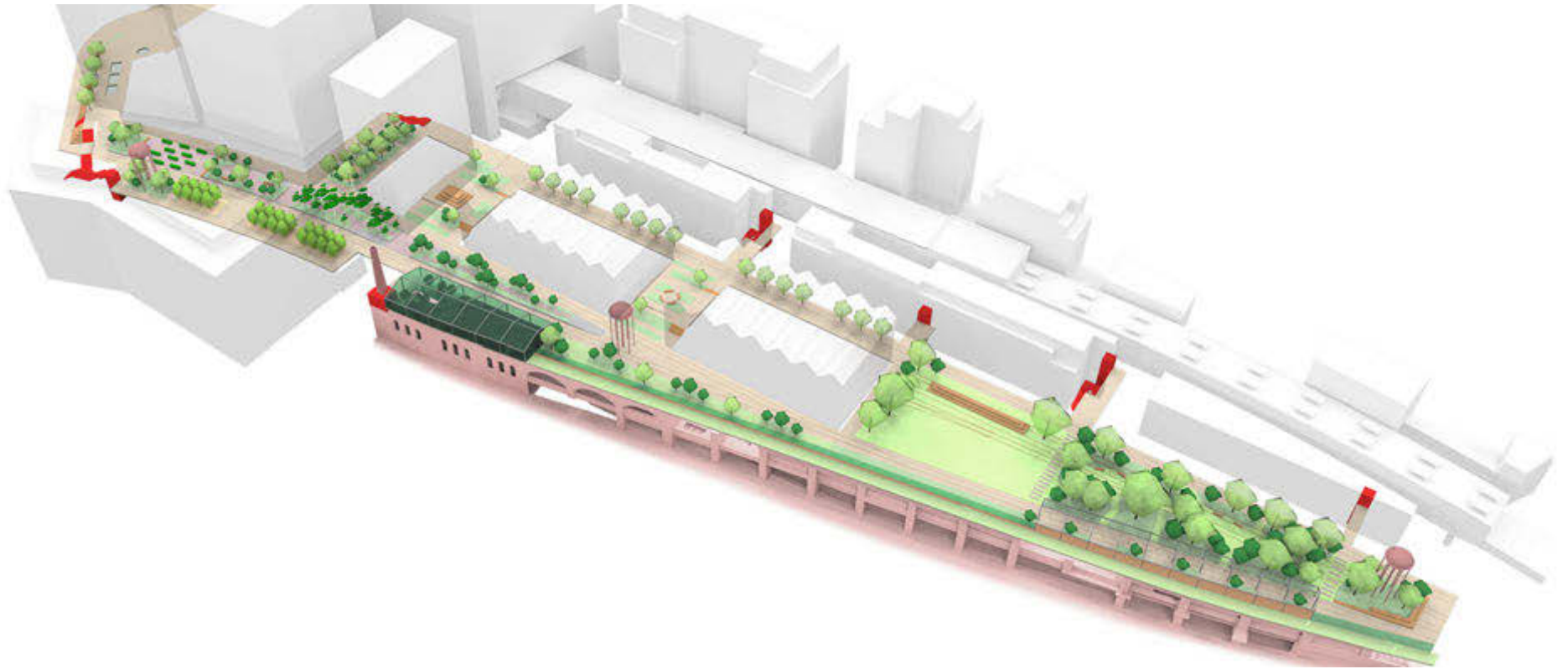


Fig 8.1.30: Platform overview, highlighting creation of vibrant , varied activity areas



Fig 8.1.28: Artists impression of, 'the loading dock'



Fig 8.1.29: Artists impression of, 'the field'

8.1.15 Management and Maintenance

Definition: Places that are designed with management and maintenance in mind, to discourage crime in the present and the future.

A good quality public realm can stimulate the desirable level of human activity and influence the behaviour of users. The planning system can influence a range of management systems that help to make places look good and work well.

The following security and crime reduction measures have been incorporated into the Illustrative Proposed Masterplan:

- Materials have been chosen on the basis of a thorough whole life cost analysis and the ability to achieve a design life of 60 years. They have also been selected to maximise their robustness and life expectancy, and to reduce maintenance requirements
- Suitable areas of hardstanding have been incorporated within the landscape treatment to the perimeter of all buildings, to allow for safe maintenance access, for example facade repairs, plant replacement etc.
- Once the Goodsyard is operational, it will be managed directly by a site wide management team on behalf of the JV; any maintenance works will be undertaken by its facilities management contractor. There will be a comprehensive cleaning and maintenance regime for all buildings and landscape on the campus in order to keep it attractive and tidy and to give the perception of being cared for - details of this regime will be developed at a later stage in the project.
- It is particularly important that soft landscaping will be regularly maintained in the vicinity of security features such as boundary fences, access control points, their approaches and areas where CCTV provides formal surveillance so that they are not

compromised by plant growth or overhanging branches over time. Tree canopies will be regularly maintained to ensure that branch growth will not overhang security fences, provide climbing aides to circumnavigate fences, reach non-public areas on site or perimeter buildings

- Security control room to be embedded within the masterplan to allow for management , monitoring and tracking across the site.
- CCTV is to be extensively provided across the site.
- The CCTV network will be connected to a sitewide Building Management System and will be constantly monitored by the on-site management company.
- Use of technology to mitigate against hostile vehicles from entering the site.
- Blast mitigation measures will be assessed at the next stage of design; these measures may need to be built into the glazing and structure of the new buildings proposed on the site.
- Security related equipment will be of a high standard at installation, and where required, will be vandal resistant. Security related equipment failures or damage will be identified and repaired or replaced quickly by approved contractors and suppliers.



Fig 8.1.31: Robust material material selection



Fig 8.1.32: Low voltage LED lighting minimising maintenance



Fig 8.1.33: Robust, achievable landscape management plan in place

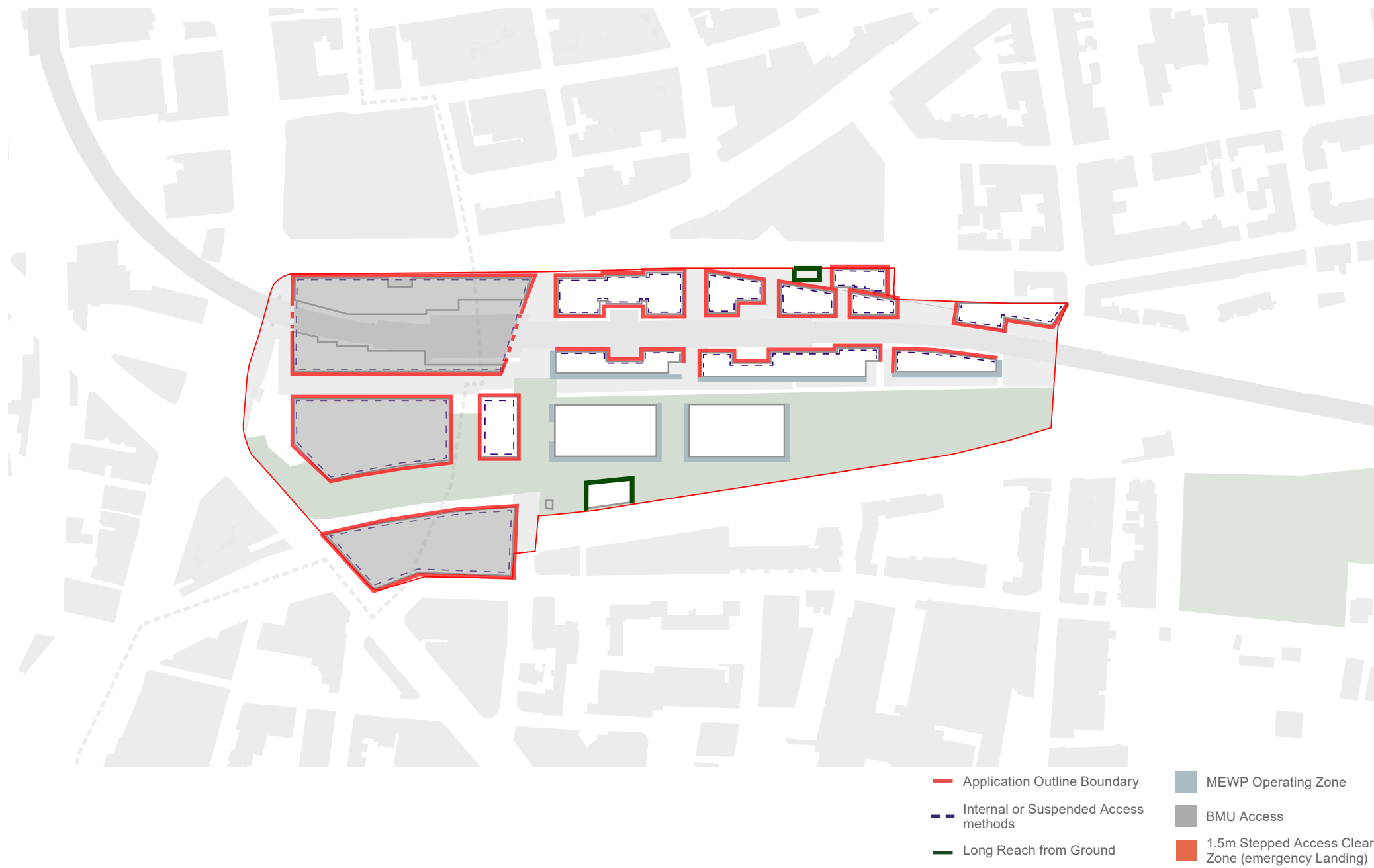


Fig 8.1.34: Illustrative facade access diagram

8.2 DETAILED PLOTS CRIME REDUCTION STATEMENT

8.2.1 Plot 2

Plot 2 is submitted as a detailed component within the outline masterplan application. The detailed design was informed by security considerations and follows the guidance provided in *Secured by Design Commercial Developments 2015 (Version 2)*.

Consultation with the Metropolitan Police took place, in which the detailed design of Plot 2 was discussed in the context of the masterplan. The issues that were discussed in these meetings have been incorporated into the proposal.

Building 2 interacts with the public realm at both street and Platform level. On both levels the building's footprint follows a simple geometry, maintaining clear visibility lines and avoiding any recesses or 'dark corners'.

The active frontages at ground and Platform level overlook the public realm and enhance the public's safety through natural surveillance. These façades will be fully glazed using a curtain wall with secure glazing retention system, in accordance with the guidance provided in *Secured by Design Commercial Developments 2015 (Version 2)*.

The shared service yard between Plot 2 and Plot 8 will be enclosed with secure gates and the entry and exit of vehicles will be controlled and monitored.



Fig 8.2.1: Plot 2 - Ground Floor Plan

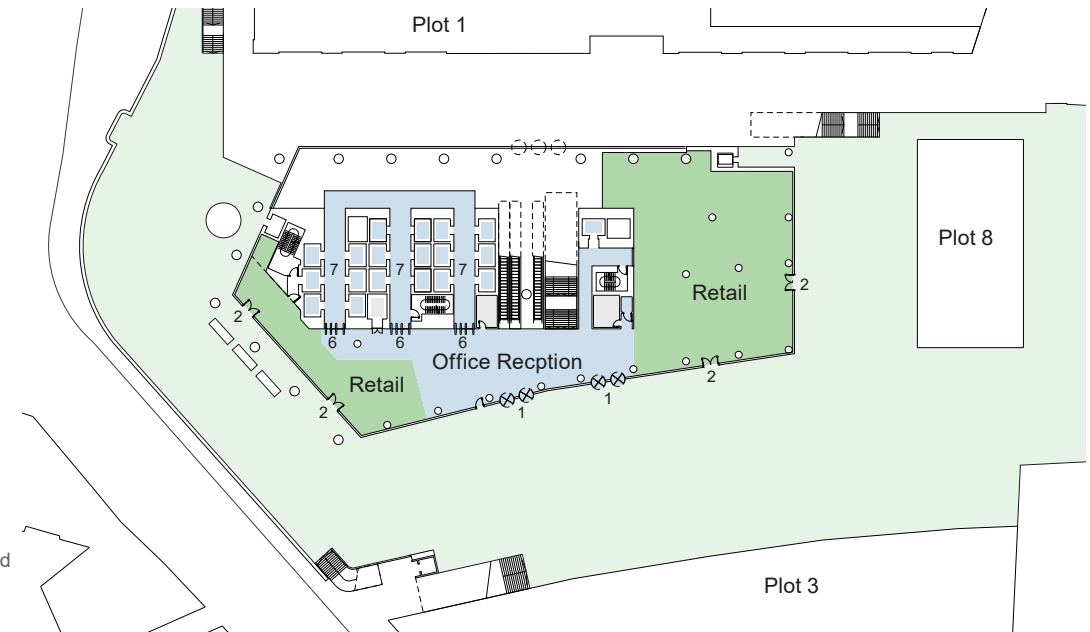


Fig 8.2.2: Plot 2 - Platform Level Plan

1. Office entrance
2. Retail entrance
3. Cycle store entrance
4. Secure gates to service yard
5. Post/scanning room
6. Speedgates
7. Lifts to office floors

All waste will be stored in secure areas. Recyclable waste will be stored in a dedicated room in the basement. Residual waste will be stored in a compactor within the secure service yard.

A dedicated post room, including scanning facilities to comply with PAS 97:2015, is provided at ground floor level with direct delivery entrance from the service yard.

Long-stay covered and secured cycle store is provided within Plot 2. Access is through a dedicated entrance, which is lobbied to prevent tailgating. A second security line will be provided at the doors leading from the cycle store to the main office areas. CCTV will be installed within the cycle store.

Laminated glazing will be used for all the façade elements within Plot 2. A blast mitigation study will be carried out at the next design stages to inform the detailed design.

There are two main entrances for the office employees and visitors, one from Middle Road at street level (north façade) and one from the south at Platform level.

These entrances will be monitored by the reception staff and it is envisaged that the main reception desk at Platform level will be complemented by a small meet and greet station within the ground floor entrance foyer. Audible personal attack alarm will be installed at both desks.

Reception will be staffed during all working hours. The out-of-hours arrangements will be subject to the management strategy of the building but would possibly include locking all entrance door and maintaining a single route out for employees using their fob or ID card.

18 passenger lifts lead from the Platform level reception to the office floors. Access to the lift lobbies will be controlled by speedgates or a similar solution, requiring fob/ID card, or authorisation from reception in the case of visitors.

The number and position of the entrances into the retail units have been carefully considered to ensure they can be suitably monitored and controlled. The final security arrangements for the retail units will depend on the nature of the retail and the level of permeability between them and the office reception areas.

The height and massing of the building makes access to any of the flat roofs or balconies by intruders from the outside extremely difficult. All flat roofs incorporate a concrete slab and no rooflights are proposed.

A suitably designed and fit for purpose monitored intruder alarm and public address system will be installed. The use of movement detectors to control the lighting in the office areas will be considered. Apart from the environmental benefits of such system, this would have security benefits, identifying the presence and progress of intruders.

8.2.2 Plot 7

8.2.3 Introduction

Plot 7 is submitted as a Listed Building Consent (LBC) within the outline masterplan application. The design of the architecture and spaces around this have been heavily informed by security considerations and aligns the guidance provided in *Secured by Design Commercial Developments 2015 (Version 2)*.

The following sections and figures will demonstrate the key, pertinent security considerations that Plot 7 has embodied within the design.

8.2.4 Building Shell

The Plot 7 proposal is driven by the existing heritage structures and shop front requirements.

It is proposed that the full height glazed shopfronts and use of glass in public areas will assist with maintaining open visibility across the site.

The shopfront design provides no climbing aids.

8.2.5 Layout

It is proposed that all shopfronts will have front entrance locations; no side entrances are proposed.

Where recessed doorways are proposed (in four specific locations, indicated in the key plan below) it is proposed that CCTV be provided to avoid rough sleeping. For set-back shopfronts it is proposed that in addition to CCTV, a proactive site management strategy be implemented to ensure these covered spaces remain safe and free from vagrancy.

All storage locations will be contained within back of house areas. All plant locations will be secure compounds with CCTV.



← Front entrance

↗ CCTV

Fig 8.2.4: Axonometric of a typical A1 cafe shopfront, with a recessed doorway, set back from the viaduct frontage

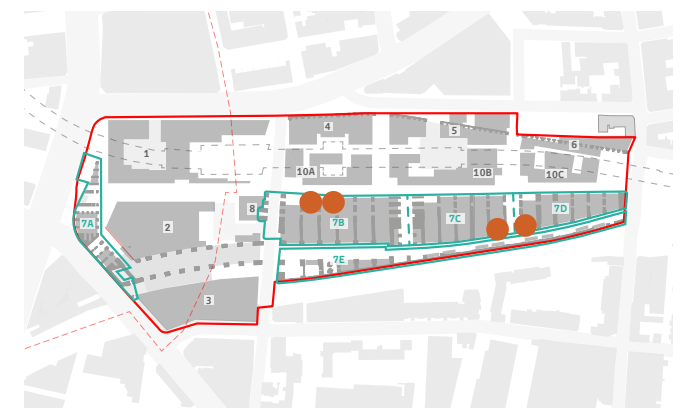
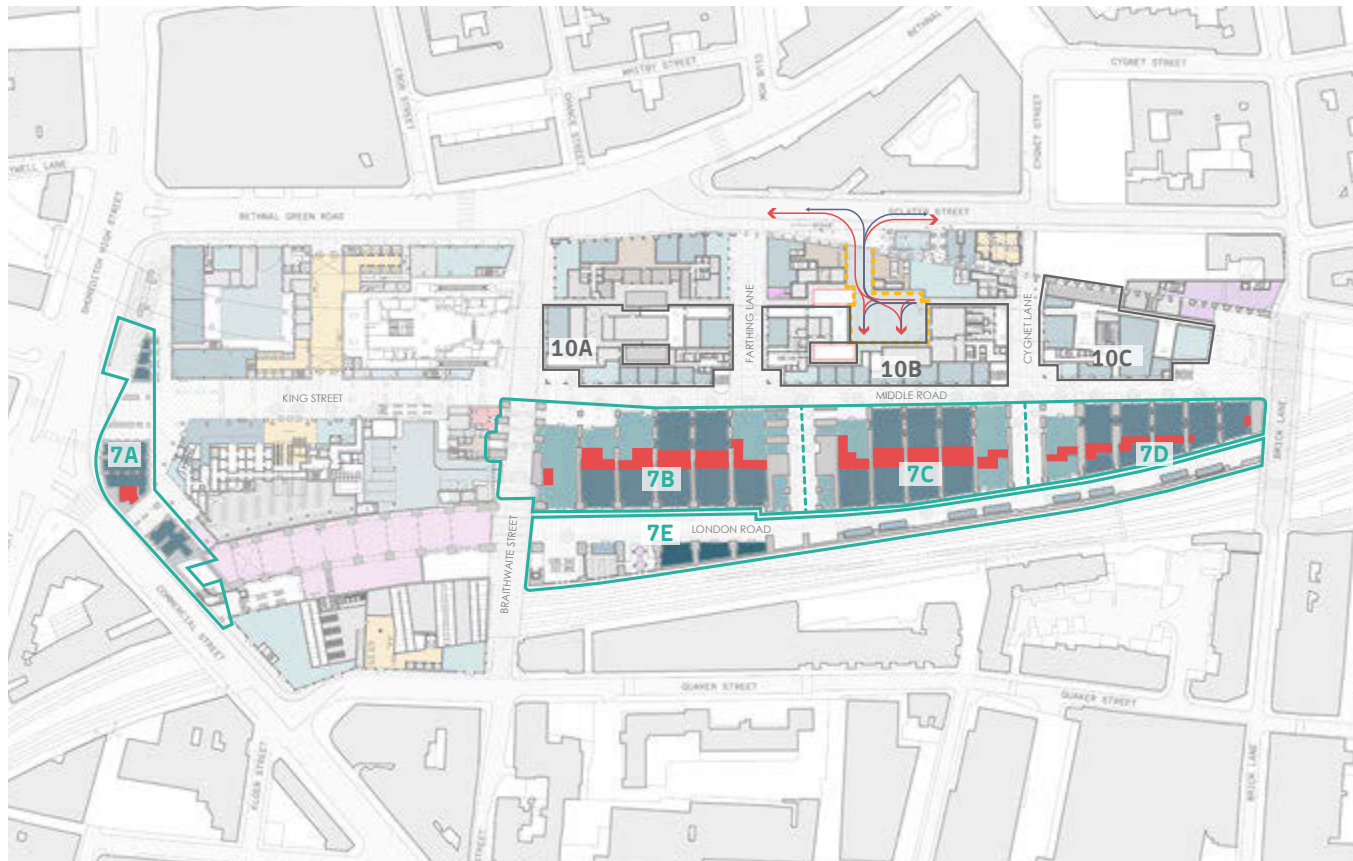


Fig 8.2.3: Locations of shopfronts with recessed doorways



- Plot 7 Boundary
- A1
- A3
- Servicing into the Plot 5 service yard
- Refuse storage - individual units in Plots 7B, 7C, 7D
- Refuse storage shared provision for Plot 7A
- Refuse storage - further remote storage provided



Fig 8.2.5: Plot 7 refuse strategy

Fig 8.2.6: Illustrative Plot 7 elevation showing uplighting of heritage structures

8.2.6 Waste Storage

All secure storage for Plot 7 will be provided within individual units, as indicated on the plan opposite, and trollyed for collection to the Plot 5 service yard.

All waste storage will have lockable lids.

8.2.7 Lighting

Lighting to designated pedestrian and vehicular routes within site is to comply with identified lighting standards as noted in BS5489:2013.

The scale of the lighting - i.e. the mounting heights of the luminaires - will respond to the use of the route. Where pedestrians are a primary user the lighting will be kept at a human scale to improve ambience, heighten perceptions of personal security and aid wayfinding.

Where possible, the illumination of streets and lanes will be provided with building-mounted area lighting luminaires. These will be mounted at platform level to ease access for maintenance, ensure that a pedestrian friendly scale is maintained and to limit light trespass. Dimmable 3000K LED sources will be used to allow the colour and intensity of light to be balanced with the rest of the site. The LEDs will utilise asymmetric forward-through optics with full horizontal cut-off to limit upwards light spill. The luminaires will not be tilted upwards above the horizontal.

The lighting design will gently reveal the textures and materiality of architectural features so that they appear passively lit and naturally animated after dark.

Within the retail units out of hours lighting is to be operated by detection devices which will automatically switch lights on and off due to movement activity or the lack of it in each space.

9.0

FIRE SAFETY STRATEGY

9.1 INTRODUCTION

The fire safety strategy will be designed in accordance with BS 9999:2017 [1] for the retail, office hotel and assembly and recreation. This will satisfy the functional requirements of the Building Regulations 2010 [4]; in some instances, a fire engineering justification will be required.

Where not explicitly described within this report it is assumed that, in all other respects, the building will be designed to comply with the relevant sections of BS 9999, BS 9991, or the supporting British Standards referenced therein.

Any proposed fire engineered solutions within the report should be discussed and agreed with the Approving Authorities, if required, as reserved matters applications come forwards.

9.1.1 General Fire Safety Measures

In accordance with BS 9999, the risk profiles given in Table 9.1.1 will be assigned for each area. The residential premises are assessed following the guidance of BS 9991, which does not provide any risk profile.

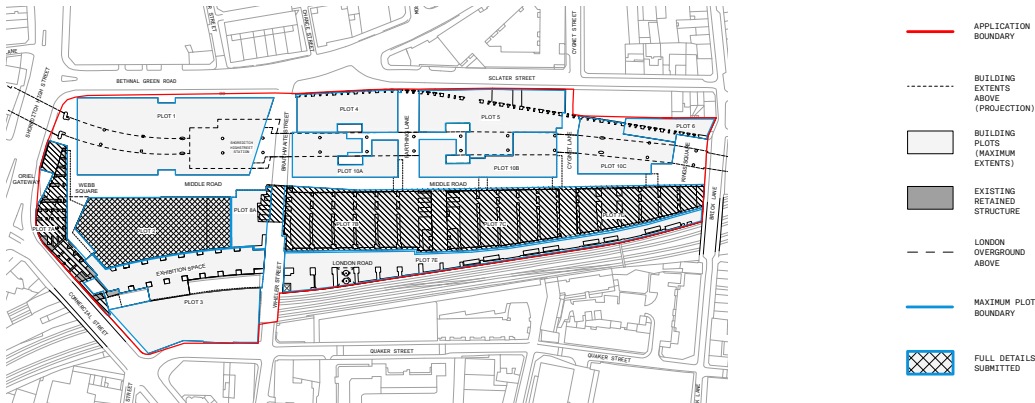


Fig 9.1.1: Ground Floor masterplan with blocks indicated

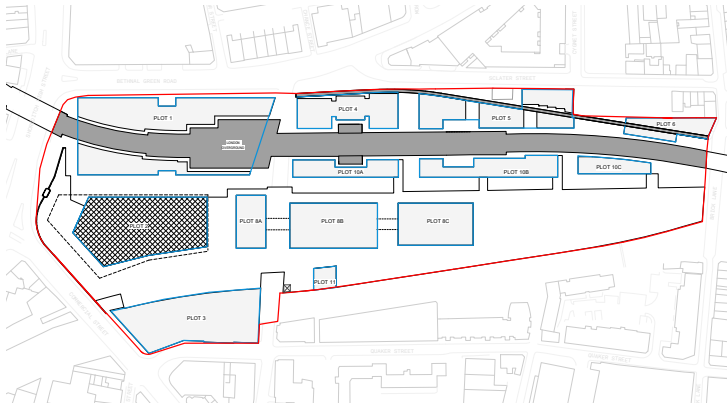


Fig 9.1.2: Podium level masterplan with blocks indicated

Purpose area	Occupancy characteristic	Sprinkler protection	Fire growth rate	Risk profile
Office	Awake and familiar (A)	Yes	Slow (1)	A1
Retail	Awake and unfamiliar (B)	Yes	Medium (2)	B2
Retail	Awake and unfamiliar (B)	No	Fast (3)	B3
Hotel	Likely to be asleep and short term occupancy (Ciii)	Yes	Slow (1)	Ciii1
Assembly and recreation	Awake and unfamiliar (B)	No	Medium (2)	B2
Medical ^{Note 1}	Occupants receiving medical care (D)	Yes	Slow (1)	D1
Plant rooms	Awake and familiar (A)	Yes	Medium (2)	A2
Note 1: Doctor's surgery to be designed in accordance with HTM 05-02 (2015) [5].				

Table 9.1.1: Summary of risk profiles

9.2 SITE-WIDE FIRE SAFETY STRATEGY

9.2.1 B1 – Means of Escape and Warning

9.2.2 Residential Premises

It is proposed to adopt a 'stay put' evacuation strategy for the residential premises of the development. That is, only the occupants of the apartment of fire origin will evacuate on activation of the fire detection and alarm system and the other occupants will remain in place.

The apartment layout will be based on two principles, either a protected entrance hall or an open-plan design.

- The apartments with a protected entrance hall should have all habitable rooms exiting into the hallway with a travel distance not exceeding 9m from the flat entrance door to the door of any habitable room.
- Open-plan flats do not have a protected hall but have bedrooms that are inner rooms and are accessed directly from the living room or kitchen. In accordance with BS 9991, open-plan apartments should be provided with a Category LD1 fire detection and alarm system and a residential sprinkler system. The open-plan flats should meet the following recommendations:
 - The size of the open-plan flat should not exceed 16m x 12m if the kitchen is enclosed separately;
 - The size of the open-plan flat should not exceed 8m x 4m if the kitchen is not enclosed;
 - Open-plan flats should be situated on a single level only; and
 - The ceilings should have a minimum height of 2.25m

- However, it is proposed to have apartments that exceed the maximum size recommended in BS 9991. Therefore, a fire engineered solution supported by a Computational Fluid Dynamics (CFD) analysis may be required to justify the apartments layouts. This is to be discussed and agreed with the Approving Authorities.

It is proposed to provide the open-plan apartments with Category LD1 fire detection and alarm system and the protected entrance hall apartments with Category LD2 in accordance with BS 5839-6:2013 [6].

The travel distances in the common corridors should be limited to 7.5m in a single direction in the residential blocks not provided with a sprinkler system and 15m in the residential blocks provided with a sprinkler system along with a smoke extract system. If these 15m travel distance in a single direction is exceeded, a fire engineered consisting of two mechanical smoke ventilation shafts, known as a Double Reversible Mechanical Extract (DRME) should be provided. This may have to be justified by means of a CFD analysis. This is to be discussed and agreed with the Approving Authorities.

Each residential block will be served by a single stair at least 1100mm wide. The final exit or protected passageway from the stair to the outside should be at least as wide and provided with the same standard of fire protection as the stair it serves.

9.2.3 Office Accommodation

It is proposed to adopt simultaneous (Plots 3 and 5) or phased (Plots 1 and 2) evacuation strategies for the office plots.

Simultaneous: On activation of the fire detection and alarm system, the plot of fire origin will evacuate simultaneously and immediately.

Phased: The normal sequence of evacuation

should be: upon activation of the fire detection and alarm system, the occupants of the floor of origin will evacuate first then the remainder of the floors in groups of two. The following conditions should be met in any building design on the basis of a phased evacuation:

- The stairways should be approached by protected lobbies;
- Every floor should be a compartment floor;
- The building should be provided with a fire detection and alarm system conforming to at least a Category L2 system incorporating a voice alarm;
- An emergency voice communication system should be provided with outstations at each floor level which communicate with a master station located in the building control room; and
- Lifts should be approached by protected lobbies. On the upper floors, this could be provided either with fire doors or a fire curtain between the Lift Lobby and the office accommodation.

It is proposed to provide a Category L2 fire detection and alarm system in the office spaces in accordance with BS 5839-1:2017 [7]. This is considered to be an enhancement on the recommended manual system recommended for risk profile A1 buildings operating a simultaneous evacuation.

The actual travel distances in the office space are recommended to be within 29.9m in a single direction and 74.7m when more than one direction is available for buildings operating a simultaneous evacuation and 26m and 65m for buildings operating a phased evacuation.

The maximum occupancy of the office space will be determined depending on the storey exits and stairs capacity for each building.

It is recommended to provide disabled refuges of dimensions 1400mm x 900mm on every means

of escape route not providing level escape to the outside. These should be provided in each the protected stair or lobby enclosure and fitted with an Emergency Voice Communication (EVC) device in accordance with BS 5839-9:2011 [8].

9.2.4 Hotel Accommodation

It is proposed that the hotel (Plot 8) operates a simultaneous evacuation. That is, upon activation of the fire detection and alarm system, all occupants of the building evacuate immediately.

It is proposed to provide the hotel accommodation with a Category L1 automatic fire detection and alarm system in accordance with BS 5839-1.

The travel distance from any point in the building, to the nearest place of relative safety, should be limited to the following distances:

- Hotel bedrooms - 9m (single direction);
- Corridors (hotel) - 9m (single direction) and 35m (multiple direction); and
- Elsewhere (hotel)- 18m (single direction) and 35m (multiple directions) such as plant rooms, restaurant, storage room.

The stairs should discharge directly to a final exit or by way of a protected exit passageway to a final exit. The exit passageway should maintain the same fire resistance enclosure and width as the stairway it serves.

It is recommended to provide disabled refuges of dimensions 1400mm x 900mm on every means of escape route not providing level escape to the outside. These should be provided in each the protected stair or lobby enclosure and fitted with an Emergency Voice Communication (EVC) device in accordance with BS 5839-9.

Retail Units

It is proposed that the retail units operate:

- Independent simultaneous evacuation for all retail units; except
- The retail units opening onto London Road will be separated into evacuation zones as the road will be covered and will be treated as a single-storey mall. All the retail units in an evacuation zone will evacuate simultaneously on activation of the fire detection and alarm system anywhere in the evacuation zone.

It is proposed to provide the hotel accommodation with a Category L1 automatic fire detection and alarm system in accordance with BS 5839-1.

The actual travel distances in the retail units should be limited to:

- 23m in a single direction and 57.5m when alternative directions are available for retail units fitted with a sprinkler system (risk profile B2 with a 15% enhancement for automatic fire detection and alarm system); or
- 16m in a single direction and 40m when alternative directions are available for retail units not fitted with a sprinkler system (risk profile B3).
- It is recommended to provide disabled refuges of dimensions 1400mm x 900mm on every means of escape route not providing level escape to the outside. These should be provided in each the protected stair or lobby enclosure and fitted with an Emergency Voice Communication (EVC) device in accordance with BS 8539-9.

9.2.5 Assembly And Recreation

It is proposed to adopt a simultaneous evacuation strategy for the assembly and recreation accommodation.

It is proposed to provide the hotel accommodation with a Category L1 automatic fire detection and alarm system in accordance with BS 5839-1.

The actual travel distances should be within 23m

in a single direction and 57.5m when more than one direction is available.

The maximum occupancy of the assembly and recreation spaces will be determined depending on the storey exits and stairs capacity.

It is recommended to provide disabled refuges of dimensions 1400mm x 900mm on every means of escape route not providing level escape to the outside. These should be provided in each the protected stair or lobby enclosure and fitted with an Emergency Voice Communication (EVC) device in accordance with BS 8539-9.

9.2.6 Medical

The patient dependency is required to be confirmed in accordance with HTM 05-02 as this impacts the fire safety design. It is currently assumed that the Doctor's Surgery in Plot 5 Block A is for independent patients; however, this needs to be confirmed.

As stated in HTM 05-02, for medical centre for independent patients, the guidance of ADB is sufficient, with a purpose group 5 (Assembly and recreation).

It is proposed to adopt an independent simultaneous evacuation strategy for the medical centre.

The actual travel distances should be within 18m in a single direction and 45m when more than one direction is available.

It is recommended to provide disabled refuges of dimensions 1400mm x 900mm on every means of escape route not providing level escape to the outside. These should be provided in each the protected stair or lobby enclosure and fitted with an Emergency Voice Communication (EVC) device in accordance with BS 8539-9.

9.2.7 B2 – Internal Fire Spread (Linings)

The surface linings of walls and ceilings should meet the classifications outlined in Table 9.2.1.

9.2.8 B3 – Internal Fire Spread (Structure)

The recommended fire resistance of the elements of structure can be found in Table 9.2.2 for each plot which depends on the height of the building.

It is proposed to provide sprinkler systems throughout the buildings with a height over 30m. These should be:

- Residential sprinkler systems in accordance with BS 9251:2014 [9] for the residential premises; and
- Commercial sprinkler systems in accordance with BS EN 12845:2015 [10] for the other occupancies. It is proposed to have one sprinkler tank serving all commercial sprinkler

Location	National class	European class
Small rooms of area not more than: 4m ² in residential accommodation; and 30m ² in non-residential accommodation.	3	D-s3, d2
Other rooms and circulation spaces within dwellings	1	C-s3, d2
Other circulation spaces, including the common areas of blocks of flats	0	B-s3, d2

Table 9.2.1: Classifications of linings

systems in the development. As discussed in Section Error! Reference source not found. It is also proposed to provide commercial sprinklers in Plots 8 (Blocks B and C), 9 and parts of 7 to mitigate for the non-code compliant fire-fighting access. This is to be discussed and agreed with the Approving Authorities.

The development should be provided with back-up power supplies for the life safety systems in the development. A single development wide life safety generator would be sufficient for life safety purposes. This is considered to be reasonable on the basis that the entire development has been designed based on the assumption that a single fire will occur within the development at any one time. Should the client wish to consider property protection, a generator capable of supporting the demand of more than one building would be required.

Plot	Fire resistance of elements of structure (mins)
1	120
2	120
3	90
4	120
5	A 120
	B 90
	C 60
	D 60
	E 60

Table 9.2.2: Fire resistance of elements of structure

9.2.9 B4 – External Fire Spread

An initial external fire spread assessment was undertaken for the Ground Floor and Podium level in accordance with BR 187 (1991) “External fire spread: building separation and boundary distances” [11]. The results and the assumptions of this analysis can be found in Appendix A.

Every block has a storey that exceeds 18m in height. Either the external walls should satisfy the performance criteria described in BRE report BR 135 [12] or each element of the external wall build up, including any insulation product, filler material (not including gaskets, sealants or similar) etc. should be of limited combustibility.

In addition, the external wall surface should achieve Class 0 (National Classification) or Class B-s3, d2 or better (European Classification) surface spread of flame classification, and cavity barriers in any external wall cavity are required in accordance with Clause 19 of BS 9991:2015 or Clause 33.1 of BS 9999.

Plot	Fire resistance of elements of structure (mins)
6	90
7	30
8	A 120
	B 60
	C 60
10	120
11	60

9.2.10 B5 – Access and Facilities for the Fire Service

All plots more than 18m in height should be provided with at least a fire-fighting shaft. Fig 9.2.1 shows a typical residential fire-fighting shaft and Fig 9.2.2 a typical non-residential fire-fighting shaft. The fire-fighting shafts should comprise of:

- A fire-fighting stair at least 1100mm clear width;
- A fire-fighting lift;
- A fire main with an outlet at all levels;
- A ventilated common corridor for the residential fire-fighting shaft or a ventilated lobby for the office fire-fighting shafts;
- 120 minutes fire resistance enclosure around the fire-fighting stair and lift;
- 60 minutes fire resistance construction between fire-fighting stair and lift; and
- An AOV at least 1m² at the top of the stairs.

In accordance with BS 9991 and BS 9999, when a building is more than 50m in height, the fire main should be installed in the form of a wet riser. Furthermore, it is proposed to have a site wide wet riser tank that will serve all plots provided with a wet riser and have two or more central fire main inlets for the development. It is also proposed to provide separate wet riser inlets at Ground Floor next to the access route to Plots 8 and 11 serving the same water tank.

All points within the plots should be within 45m from a fire main outlet when the building is not sprinklered or 60m hose distance from a fire main outlet when sprinklers are provided.

The fire main inlets should be provided within 18m of a pumping appliance access route, typically on the façade of the buildings and visible from the access route. The fire-fighting vehicle access route is shown in Fig 9.2.3 and Fig 9.2.4. The fire-fighting access route should meet the specifications given in Table 9.2.1.

There is no direct fire-fighting access to Plots 8 (Blocks B and C) and 11 at Ground Floor as there is no vehicle access on the Podium. As this is a deviation from the guidance of BS 9999 and BS 9991, it is proposed to provide the following features. This is to be discussed and agreed with the Approving Authorities.

- Provide external stairs from Ground Floor to Podium level for the fire-fighting to travel up to the buildings entrances. These stairs should be at least 1100mm wide.
- Provide Plots 8 and 11 with wet riser systems to compensate for the walking distance for the fire-fighting despite being less than 50m in height.
- Provide sprinkler systems to Plots 8 and 11 throughout to facilitate the fire-fighting activities. This will be used as a mitigation feature for Plot 8 (Blocks B and C) and Plot 11 as these are less than 30m in height. There is no direct access to London Road and the retail units are more than 60m hose laying distance from any fire-fighting appliance access route. It is therefore proposed to provide sprinkler protection to the retail units opening onto London Road and wet riser outlets at regular interval on London Road. This is to be discussed and agreed with the Approving Authorities.



Fig 9.2.1: Components of a firefighting shaft residential buildings only

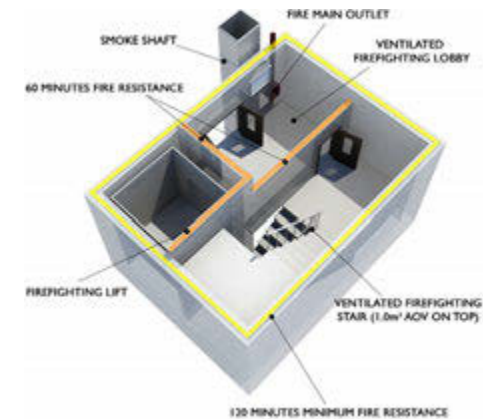


Fig 9.2.2: Components of a firefighting shaft residential buildings only

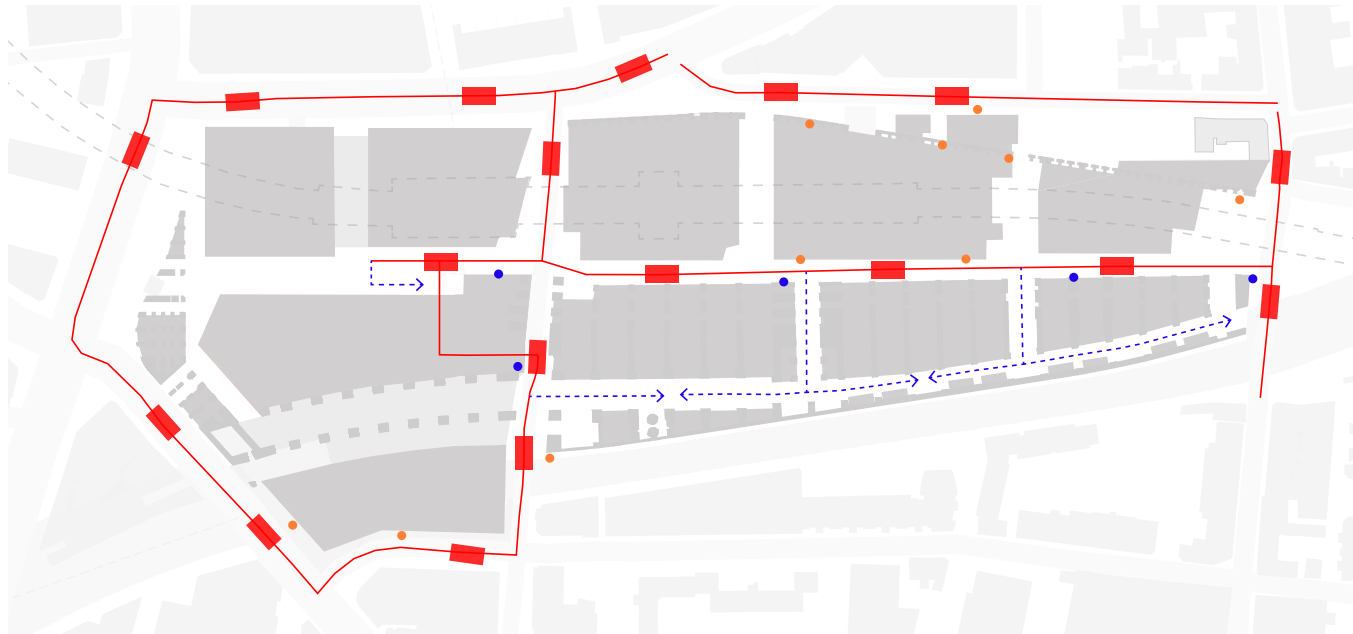


Fig 9.2.3: Fire-fighting vehicle access route at Ground Floor

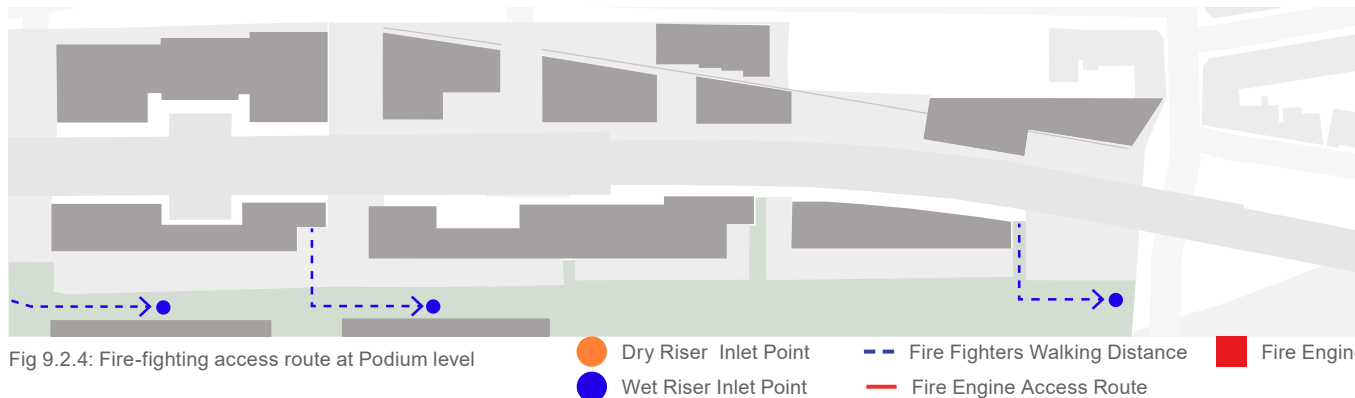


Fig 9.2.4: Fire-fighting access route at Podium level

Appliance type	Min. width of road between kerbs (m)	Min. width of gateways (m)	Min. turning circle between kerbs (m)	Min. turning circle between walls (m)	Min. clearance height (m)	Min. carrying capacity (t)
Pump	3.7	3.1	16.8	19.2	3.7	14 ^{Note 1}

Note 1: 12.5 tonnes in accordance to ADB; however, 14t in accordance with the LFEPA Fire safety guidance Note, Access for Fire Appliances, GN29 [13].

Table 9.2.1: Road specifications for pumping appliance access

The basement should be provided with a smoke ventilation system. It is proposed to provide smoke ventilation to the plant rooms as the basement is more than 3m deep. This can be provided by either natural smoke ventilation of area not less than 2.5% of the room floor area evenly distributed around the perimeter of the building, or a mechanical smoke ventilation system providing at least 10 air changes per hour. If mechanically smoke ventilated, the basement should be provided with commercial sprinkler protection.

9.3 DETAILED PLOTS FIRE STRATEGY SUMMARY

9.3.1 Plot 2

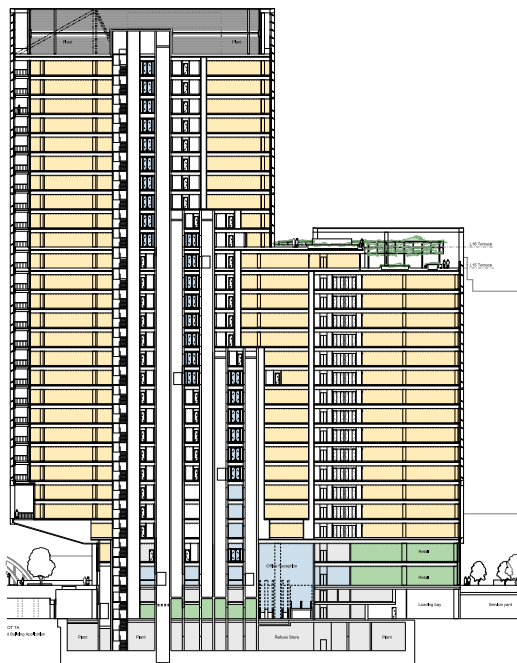


Fig 9.3.1: Section

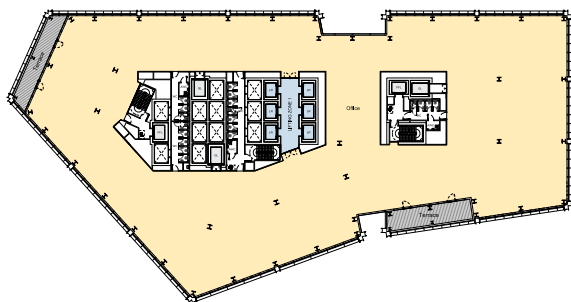


Fig 9.3.2: Levels 4-8 proposed plan

Provision	Comment
Use	Retail (Ground and First Floor) and office (First to 25 th Floor)
Number of storeys	30 (i.e. Basement, Ground, Ground Mezzanine, Platform, Platform Mezzanine and First to 25 th Floor)
Building height	113m from access level to the topmost occupied floor level
Risk Profile	Retail: B2 (occupants awake and unfamiliar and medium fire growth rate) Office: A1 (occupants awake and familiar and slow fire growth rate)
Evacuation strategy	Retail: Independent simultaneous evacuation Office: Phased evacuation
Fire detection and alarm	Retail: Category L1 fire detection and alarm system Office: Category L2 fire detection and alarm system with voice alarm
Maximum travel distances	Retail: 23m in a single direction and 57.5m in multiple directions; Office: 26m in a single direction and 65m in multiple directions.
Stairs	Two fire-fighting stairs and one means of escape stair
Final exits	Final exits should be at least as wide as the stairs discharging into them.
Smoke control	Smoke ventilation in both fire-fighting shafts (i.e. lobbies and stairs)
Disabled egress	Provided on all non-level means of escape routes
Elements of structure	120 minutes fire resistance
Compartmentation	Compartment floors throughout with potential atria joining floors
Sprinkler protection	Commercial sprinkler system provided throughout the building
Fire Service access	Two fire-fighting shafts serving floors up to the 15 th Floor and one from the 16 th to 25 th Floor.
Vehicle access	Within 18m of the fire-fighting access into the building
Fire mains	One wet riser main in each fire-fighting shaft
Further consideration	Atria design in accordance with BS 9999; Occupancy limitations in office and retail

Provision	Comment
Use	Retail
Number of storeys	One (i.e. Ground Floor)
Building height	N/A
Risk Profile	Sprinklered units: B2 (occupants awake and unfamiliar and medium fire growth rate); Unsprinklered units: B3 (occupants awake and unfamiliar and rapid fire growth rate).
Evacuation strategy	Independent simultaneous evacuation for all retail units; except The retail units opening onto London Road will be separated into evacuation zones as the road will be covered and will be treated as a single-storey mall. All the retail units in an evacuation zone will evacuate simultaneously on activation of the fire detection and alarm system anywhere in the evacuation zone.
Fire detection and alarm	Category L1 fire detection and alarm system
Maximum travel distances	Sprinklered units: 23m in a single direction and 57.5m in multiple directions; Unsprinklered units: 16m in a single direction and 40m in multiple directions.
Stairs	N/A
Final exits	N/A
Smoke control	Smoke control required for London Road single-storey mall, see description below
Disabled egress	Provided on all non-level means of escape routes
Elements of structure	30 minutes fire resistance
Compartmentation	Compartmentation between all retail units
Sprinkler protection	Commercial sprinklers for the units opening onto London Road
Fire Service access	See Fig 9.2.3
Vehicle access	See Fig 9.2.3
Fire mains	See Fig 9.2.3
Further consideration	Occupancy limitations for each retail unit; Retail units to be sprinklered; Compartmentation between units for future flexibility; Smoke ventilation and evacuation zones for London Road; and Fire-fighting access into London Road and wet riser outlets locations.

9.3.2 Plot 7

9.3.3 London Road

London Road will be designed as a single-storey mall as it is proposed to be fully covered, in accordance with the guidance of BS 186 (1990). The smoke extract ventilation system should be either:

- Provide smoke extract ventilation to every retail unit; or
- Separate the covered mall into several evacuation zones and provide smoke extract ventilation to the mall in each different zone. This would require creating smoke reservoir for each evacuation zone and the smoke extract ventilation would be provided in each and could be either natural or mechanical.

Fig 9.3.3 shows an example of evacuation zones with smoke reservoirs in red with the distance between smoke reservoir screens within 60m. Detailed calculations would be required to determine the size of natural ventilation or the mechanical volume flow rate required for each reservoir.

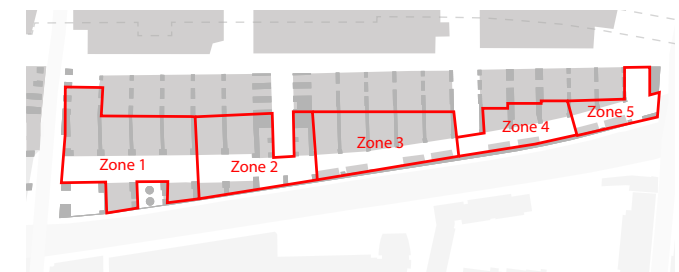


Fig 9.3.3: Example of evacuation zones for London Road retail units

