



tenos

▼ Hillingdon Hospital Redevelopment
Uxbridge

TS200656-R06-ISSUE 1
Outline Fire Statement

ASITE Reference: THHR_01-TEN-ZZ-ZZ-RP-FE-000004

for:

The Hillingdon Hospitals NHS Foundation Trust
Pield Heath Road
Uxbridge
UB8 3NN

THE INDEPENDENT FIRE SAFETY ENGINEERING CONSULTANTS

Issue and amendment record

Issue	Asite Revision	Date	Author	Checked by	Amendment details
Issue 1	P01	28 April 2022	M Bell	A Hay	First issue to Savills for comments

Important information

This report is copyright of Tenos Ltd and applies only to the Hillingdon Hospital Redevelopment in Uxbridge. It must not be used in support of any other project without the written agreement of Tenos Ltd. This report may only be forwarded to a third party if reproduced in full and without amendment to the content or presentation.

Except when specifically agreed in writing Tenos Ltd shall not be liable for any reliance placed on this report by any person other than the client named on the front page of this report.

The terminology "will" or "will be" as used in this report represents the recommendation/understanding of Tenos Ltd regarding the proposed design, construction or management of the facility. The validity of this report is dependent upon these items being implemented as described.

This report relates to a project that is subject to third party approval. It must be ensured that the contents of this report are agreed with all relevant approval bodies prior to implementation.

Contents:

1	■Introduction	4
2	■Fire safety design principles	5
3	■Policy D5 Inclusive Design	6
4	■Policy D12 Fire Safety Strategy	7
5	■Conclusions	9

Annexes:

A1	■Annex A1 - Drawings and information	10
A2	■Annex A2 - Site plan	11

1 Introduction

- 1.1 This report presents the Outline Fire Statement, required by the London Plan 2021 ("London Plan") for all major developments, in partial fulfilment for the hybrid planning application for Hillingdon Hospital Redevelopment.
- 1.2 The Outline Fire Statement documents why the new buildings need to be safe from fire and how that safety will be achieved. It sets out the scope of the fire safety considerations and the design objectives, which in this instance are driven by a statutory obligation to protect people in and around the building.
- 1.3 It describes the measures necessary to meet with Policy D12 and, in respect of means of escape via evacuation lifts, Policy D5 of the London Plan.
- 1.4 This report has been developed on the basis of the drawings and other design information listed in Annex A1.

Author

- 1.5 The Fire Statement has been prepared on behalf of Tenos Limited to accompany the hybrid planning application being submitted by the Applicant, Hillingdon Hospitals NHS Foundation Trust, to the London Borough of Hillingdon.
- 1.6 It has been prepared and reviewed by a Chartered Engineer and Member of the Institution of Fire Engineers in accordance with paragraph 3.12.9 of the London Plan.

Brief description of the development

- 1.7 The development site relating to the hybrid planning application will be located at The Hillingdon Hospitals NHS Foundation Trust, Pield Heath Road, Uxbridge, UB8 3NN.

Full application

- 1.8 Seeking planning permission for demolition of existing buildings and redevelopment of the site to provide the new Hillingdon Hospital, multi-storey car park and mobility hub, vehicle access, highways works, associated plant, generators, substation, new internal roads, landscaping and public open space, utilities, servicing area, surface car park/expansion space, and other works incidental to the proposed development.

Outline planning application

- 1.9 For the demolition of buildings and structures on the remaining site (excluding the Grade II Furze and Tudor Centre) for a mixed-use development comprising residential (Class C3) and supporting Commercial, Business and Service uses (Class E), new pedestrian and vehicular access; public realm, amenity space, car and cycling parking

Use

- 1.10 Comprising up to 327 residential units and (Use Class C3) and up to 800m² of town centre uses (Use Class E) in a series of buildings ranging in height from 3 up to 8 storeys with associated access and car parking for up to 302 vehicles and up to 515 cycle parking spaces, refuse storage, landscape and amenity areas and associated servicing.
- 1.11 An indicative site plan is provided in Figure 1.1. The full site plan is provided as IBI drawing number THHR_01-IBI-XX-XX-DR-A-100003.

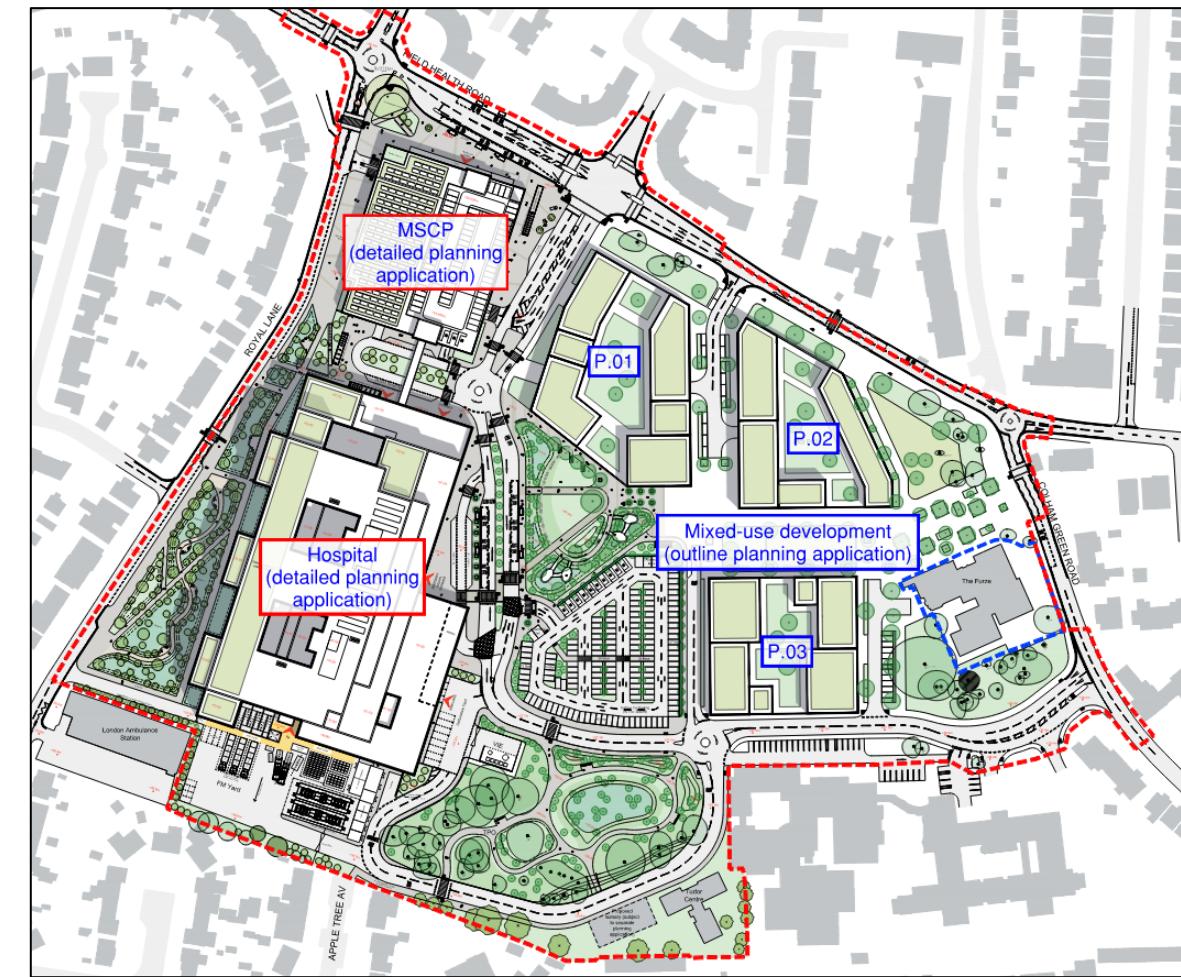


Figure 1.1: Indicative site plan

Consultation

Consultation with the fire and rescue service

- 1.12 Tenos has made the following consultations with the London Fire Brigade (LFB) in the preparation of the Outline Fire Statement for the development and in consideration of the access requirements for the application.

Water Team

- 1.13 Tenos has consulted with the London Fire Brigade Water Team on 4 March 2021 to determine the availability of water supplies for firefighting in the proposed development area. In particular, fire hydrants on Royal Lane, Pield Heath Road and the Hospital site road connecting Colham Green Road and Royal Lane.

Vehicles and Equipment Team

- 1.14 The relevant vehicles which will attend the site are pump appliances and high reach appliances. Upon request for information of the LFB's taller vehicles we were provided with the following:

- Aerial appliance type A: Driving Height 4m with a turntable ladder of 64m
- Aerial appliance type B: Driving Height 3.5m with a turntable ladder of 32m
- Command unit (mobile office): 3.1m

2 ▲Fire safety design principles

Statutory fire safety requirements

Building Regulations

2.1 The building will be subject to the provisions of the Building Regulations 2010^{Error! Reference source not found.}, which are the primary basis for statutory control of building design in England and Wales.

Part B – Fire safety

2.2 For fire safety, the functional requirements of the Building Regulations are set out under the following headings:

- Requirement B1 - Means of warning and escape
- Requirement B2 - Internal fire spread (linings)
- Requirement B3 - Internal fire spread (structure)
- Requirement B4 - External fire spread
- Requirement B5 - Access and facilities for the fire service.

Regulation 7 – ‘Relevant buildings’

2.3 The development site includes buildings which will be classed as a ‘relevant building’ under Regulation 7(4) as it will have a storey (not including roof-top plant areas or any storey consisting exclusively of plant rooms) at least 18m above ground level and will contain one or more dwellings.

2.4 For ‘relevant buildings’, further, prescriptive statutory requirements apply in addition to those described above. Accordingly, Regulation 7(2) essentially bans the use of combustible materials (except for certain very limited exceptions) in the construction of the external walls and any ‘specified attachments’ (i.e. balconies and/or solar shading/solar panels).

Design guidance

2.5 General guidance regarding compliance with the Building Regulations is given in Approved Document B (ADB) Volume 1 (ADBv1) and Volume 2 (ADBv2) and this guidance will be adopted for the design of the MSCP, but the special requirements of hospitals, particularly the need to facilitate Progressive Horizontal Evacuation, are not specifically covered. ADB recommends the Firecode suite of documents, published by the Department of Health, as appropriate guidance on the design of fire precautions in hospitals.

2.6 There is no obligation to adopt the recommendations given in ADB, or other guidance documents, if the functional requirements of the Regulations are met in some other way. However, any alternative approach to compliance with the guidance in ADB should nonetheless clearly demonstrate that the requirements of the regulations have been fulfilled by some other acceptable means or method.

2.7 It should be noted that this approach does not apply to the requirements of Regulation 7 concerning the construction of the external walls and any ‘specified attachments’, i.e. the provisions in respect of this requirement will be applied in full.

Other (non-statutory) requirements

2.8 Legislation is concerned only with protecting the health and safety of people in and around a building and is not specifically intended to provide protection against damage or consequent financial and environmental losses.

2.9 No specific client, insurer, or funder requirements over and above meeting with statutory requirements have been reported to us as being relevant to this project.

3 Policy D5 Inclusive Design

- 3.1 As required by Policy D5 B(5), the scheme will be designed to incorporate safe and dignified emergency evacuation for all building users.
- 3.2 As a reserved matter, there is insufficient detail as to the internal layouts of the buildings and what measures will be required to be taken to provide suitable means of escape as a result.
- 3.3 Nonetheless, it is considered likely that the development, or at least the residential parts, will be provided with a lift and, accordingly will need to be provided with a suitably sized 'fire evacuation lift' capable of evacuating people who require level access from the building.
- 3.4 Material considerations for subsequent reserved matters applications include, inter alia:
 -  capacity assessment for the evacuation lift;
 -  evacuation strategy;
 -  an evacuation lift management plan;
 -  the standard of the evacuation lift (see below).

[Standard of fire evacuation lift](#)

- 3.5 The London Plan itself does not describe an appropriate standard for fire evacuation lifts.
- 3.6 Evacuation lifts should be provided in accordance with BS 9999 Annex G and to conform with BS EN 81-76.
- 3.7 Limited guidance is provided in statutory codes, such as ADBv1, or other relevant fire safety guidance, such as BS 9991, as to how the evacuation lift and associated refuge should be protected from the effects of fire in a residential building.
- 3.8 Our view is that the lift refuge position should have direct access to the lift and should be provided with the same standard of fire protection as the protected stairway.

4 Policy D12 Fire Safety Strategy

4.1 The fire strategy will be developed in accordance with the principles set out in Section 0 for the scheme and will meet with the requirements of the London Plan Policy D12.

4.2 This section provides Tenos' assessment of the outline development proposals and commentary against the design features for the Hospital in order to comply with the London Plan Policy D12A requirements.

4.3 Note that all matters are reserved except for access. Accordingly, this section sets out a commitment to principles and details how the requirements of Policy D12 will be included in subsequent reserved matters submissions.

Construction

4.4 As a reserved matter, there is insufficient detail as to the materials to be used and the methods of construction, and what measures will be required to be taken to limit impact on surrounding area as a result.

Structural frame

4.5 Material considerations for subsequent reserved matters applications include, inter alia:

- ▶ combustibility of structure;
- ▶ methods of construction;
- ▶ proximity to relevant boundaries.

External walls

4.6 For the relevant buildings (see Section 2), in accordance with the statutory requirements under Regulations 7(2) and 7(3) of the Building Regulations, the materials used in the external wall will be Class A2-s1,d0 in accordance with European Classification A2-s1, d0 or Class A1, classified in accordance with BS EN 13501-1:2007+A1:2009.

Means of escape

4.7 As a reserved matter, there is insufficient detail as to the internal layouts of the buildings and what measures will be required to be taken to provide suitable means of escape as a result.

4.8 Fire safety design principles, relevant statutory requirements and codes of practice are identified in Section 2.

4.9 Material considerations for subsequent reserved matters applications include, inter alia:

- ▶ evacuation strategy;
- ▶ escape core requirements;
- ▶ smoke control for escape;
- ▶ travel distances;
- ▶ escape route widths;
- ▶ lift provision (see section 3);
- ▶ assembly points (related to access and will not obstruct emergency service activities).

Features which reduce the risk to life

4.10 As a reserved matter, there is insufficient detail as to the design of the buildings and what measures will be required to be taken to reduce the risk to life as a result.

4.11 However, many of the fire safety measures required will need to have due regard to the size, use and position of the buildings in order to meet the requirements set out in Section 2.

4.12 The fire safety design should be developed to provide the highest standards of fire safety considering the complete fire safety package and ensure that the statutory life safety requirements have been met.

4.13 An indicative list of features which are considered to be relevant to this development which will reduce to the risk to life and which will be material considerations for subsequent reserved matters applications include, inter alia:

- ▶ Electrical fire alarm system to BS 5839 -Part 6 (flats) and -Part 1 (non-residential).
- ▶ Disabled refuges, see section 3.
- ▶ Escape lighting to BS 5266.
- ▶ Smoke control to protect stairs and/or corridors (depending on the design approach) serving flats.
- ▶ Fire resistance and containment (elements tested to either the relevant part of BS 476 or classified in accordance with the relevant part of BS EN 13501).
- ▶ Fire suppression (sprinklers) to BS 9251 or BS EN 12845 for flats and commercial uses respectively.
- ▶ Dry fire mains (BS 9990) and (in certain buildings with a storey 18m or more above fire service access level) firefighting shafts with firefighting lifts (BS 9999).

Access for fire service personnel and equipment

Within the building

4.14 As a reserved matter, there is insufficient detail as to the internal layouts of the buildings and what measures will be required to be taken to provide suitable means of escape as a result.

4.15 However, facilities for the fire and rescue service should be provided to meet with the requirements described in Section 2. Including fire mains and, in the taller residential blocks, firefighting shafts and firefighting lifts. The location of access is dependent on the access to the site, which is described below.

Fire appliance access to the site

4.16 Multiple fire service vehicle access routes will be provided via the roadways around the site and the roadways to the buildings.

4.17 Water supplies are provided in the vicinity of the development site. London Fire Brigade's Water Team (LFBWT) provided hydrant locations via email on 5 March 2021. These comprise both public and private water mains.

4.18 It is envisaged that the public mains on Pield Heath Road (LFBWT reference 63434 and 57696) and the site's private mains (LFBWT reference P78372, P127715, P127216 and P127218) – which may need to be relocated as part of the works – will provide a suitable water supply to the fire service entry points or the buildings. However, this will need to be confirmed on site and as part of design development when the internal layouts are known.

4.19 The site access arrangements are presented in the Mott Macdonald vehicle tracking plans THHR_01-MMD-XX-XX-DR-U-2104-P02. See Annex A2.

4.20 Access will be provided to the majority of the perimeter of each of the three plots. There will be limited access to the south and north of plots P.02 and P.03 respectively and limited access to the east of Plot P.02.

Future modifications / 'Golden Thread'

- 4.21 A fire strategy will be prepared for the building (and the Fire Statement updated to account for design matters that are currently reserved as part of this application) as part of design development.
- 4.22 The internal arrangements of the blocks will need to allow for the site access provided in the development of their designs and consider the other matters (as reserved) described above in this section.
- 4.23 The design of the development will be advanced on the basis that the buildings will be properly managed. Where project-specific management procedures are identified, the specific fire safety procedures that will need to be included within the fire safety management plan will be detailed within the fire strategy.
- 4.24 Regulation 38 of the Building Regulations 2010 requires that fire safety information be given to the person responsible for the occupied building. Therefore, copies of the finalised fire strategy report and other relevant fire safety information should be issued to the responsible person.
- 4.25 Once the building is in use the management regime should be established and maintained and any variation in that regime should be subject to a suitable fire risk assessment.
- 4.26 The fire strategy, together with the relevant fire drawings will be sufficient to inform the fire risk assessment and provide a suitable record for the implementation of effective fire safety management and change control processes.

5 Conclusions

- 5.1 This report presents the Outline Fire Statement prepared by Tenos Ltd. in support of the outline planning application, for the Hillingdon Hospital site, to demonstrate that matters relating to fire safety, as they relate to land use planning matters, have been considered at an early stage of the project and that the requirements of the London Plan 2021, i.e. to achieve the highest standards of fire safety, have been satisfied.
- 5.2 It describes the measures necessary to meet with Policy D12 in relation to access and provides material considerations for including relevant information in subsequent reserved matters submissions, including in respect of means of escape via evacuation lifts as set out by Policy D5 of the London Plan.
- 5.3 The Outline Fire Statement documents why the buildings need to be safe from fire and how that safety will be achieved. It sets out the scope of the fire safety considerations and the design objectives, which in this instance are driven by a statutory obligation to protect people in and around the building in so far as these can reasonably be established at the outline planning stage.
- 5.4 It is considered, however, that the currently established design proposals are a suitable basis from which to develop subsequent reserved matters applications.

A1 ▾ Annex A1 - Drawings and information

Information

A.1.1 Consultation with stakeholders as described in Section 1.

A.1.2 The following information has been used in the preparation of this report:

- Draft THH Outline Application Parameter Plans, Prior and Partners received 28/03/2022.
- Draft THH Design Codes, Prior and Partners received 28/03/2022

Drawings

Table A1.1 - Drawings used in preparing this report

Reference	Title/ description	Rev.	Author
Transport planning information			
THHR_01-MMD-XX-XX-DR-U-1100	Phase 1 Tracking 1	P02	Mott Macdonald
THHR_01-MMD-XX-XX-DR-U-1101	Phase 1 Tracking 2	P02	Mott Macdonald
THHR_01-MMD-XX-XX-DR-U-1102	Phase 1 Tracking 3	P02	Mott Macdonald
THHR_01-MMD-XX-XX-DR-U-1103	Phase 1 Tracking 4	P02	Mott Macdonald
THHR_01-MMD-XX-XX-DR-U-1104	Phase 1 Tracking 5	P02	Mott Macdonald
THHR_01-MMD-XX-XX-DR-U-1105	Phase 1 Tracking 6	P02	Mott Macdonald
THHR_01-MMD-XX-XX-DR-U-1106	Phase 1 Tracking 7	P02	Mott Macdonald
THHR_01-MMD-XX-XX-DR-U-2100	Phase 2 Tracking 1	P02	Mott Macdonald
THHR_01-MMD-XX-XX-DR-U-2101	Phase 2 Tracking 2	P02	Mott Macdonald
THHR_01-MMD-XX-XX-DR-U-2102	Phase 2 Tracking 3	P02	Mott Macdonald
THHR_01-MMD-XX-XX-DR-U-2103	Phase 2 Tracking 4	P02	Mott Macdonald
THHR_01-MMD-XX-XX-DR-U-2104	Phase 2 Tracking 5	P03	Mott Macdonald
Site plan			
THHR_01-IBI-XX-XX-DR-A-100003	Site plan	P08	IBI Group

A2 ▾ Annex A2 - Site plan

A.2.1 The marked-up site plan is provided as an image below

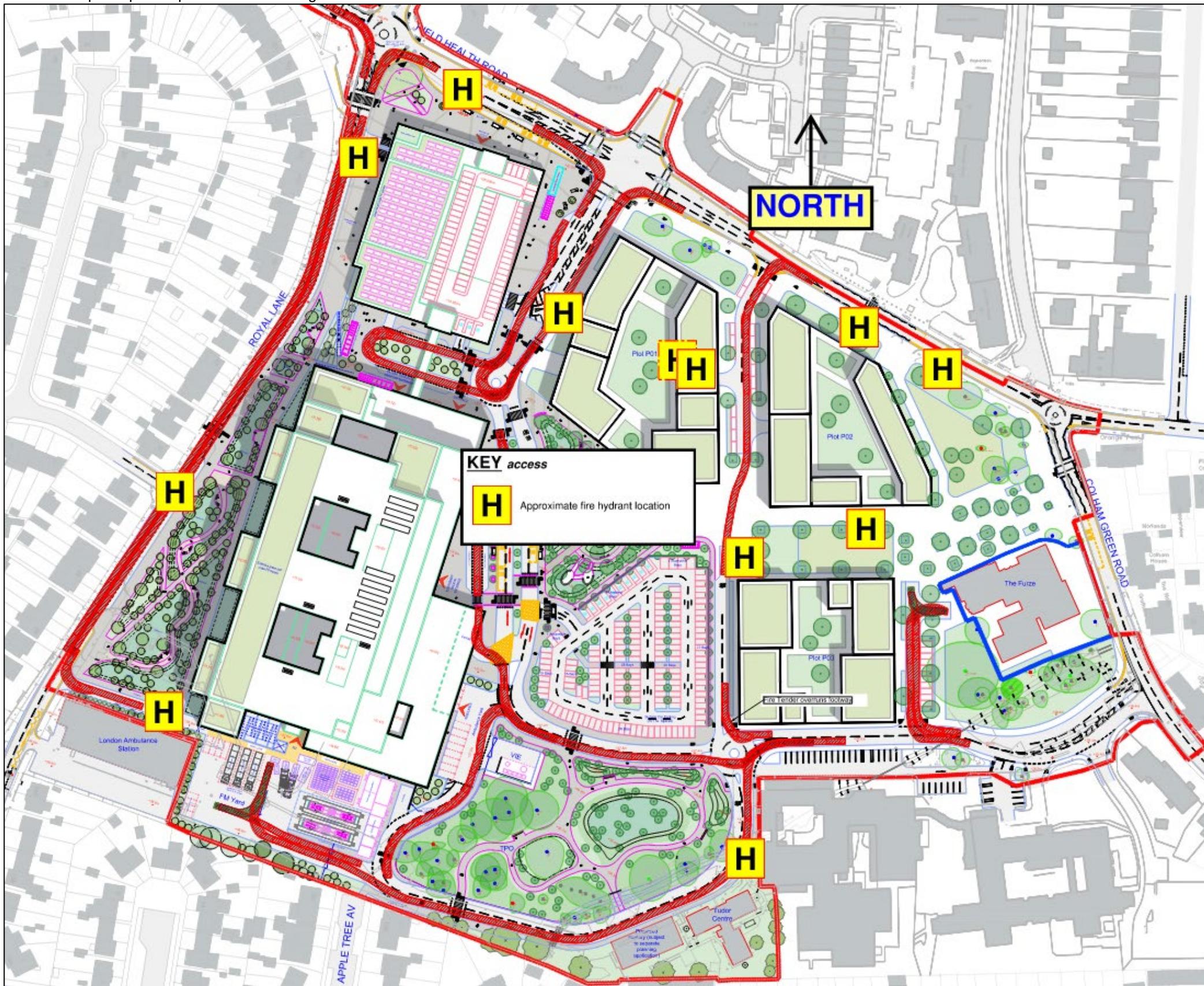


Figure A2.1: Schematic plan showing the key site facilities/arrangements for fire service access

tenos

61 Queen Street
London
EC4R 1EB
T: +44 (0)20 7490 9920

MacLaren House
Talbot Road
Manchester
M32 0FP
T: +44 (0)161 872 6798

130 Aztec West
Almondsbury
Bristol
BS32 4UB
T: +44 (0)117 332 4845

E: info@tenos.com

www.tenos.com

