



M1 Piccadilly Ltd

Fire Statement

19 October 2021

Piccadilly Wharf Ltd

BB-PFS-11178-OF-01

Revision History

Version	Date	Author	Comments
01	19/10/2021	Hadrien Fruton	Initial Issue

Document reference

BB-PFS-11178-OF-01

Prepared by	Hadrien Fruton hadrienfruton@bbseven.com	2 Jordan Street Manchester M15 4PY
--------------------	--	--

Reviewed by	Simon Downing simon@bbseven.com	2 Jordan Street Manchester M15 4PY
--------------------	---	--

Prepared for	M1 Piccadilly Ltd fa@thelwgroup.eu	M1 Piccadilly Ltd 47-49 New Hall Lane Preston England PR1 5NY
---------------------	--	---

This document is the copyright of BB7 and has been prepared by BB7 for the sole use of the below named Client. The content of the document applies only to the named development and must not be used in support of any other development. No third party may rely upon this document without the prior and express written agreement of BB7 and it may only be distributed to third parties with the permission of BB7 and must be distributed in full and without amendment to content or presentation. BB7 accept no liability for any information contained in this document until payment has been received in full.

This document relates only to statutory requirements for Building Regulations compliance which focuses on life safety only. Additional fire safety measures may be necessary for insurance and other purposes and if you require these to be considered you must inform us. Where no reference is made within this report to a certain element, all detailed aspects of the design and construction will, unless explicitly stated otherwise in this report, be in accordance with the recommendations of the selected design guidance identified in the legislation section of this report and the appropriate British Standards.

The validity of this document is dependent upon the recommendations being implemented in full and as described. This document relates to a development that is subject to review from Approval Authorities. It should be ensured that the contents of the document are agreed with all the relevant approval bodies prior to implementation.

This document is based on our Client's or our Client's Representative's description of their requirements and is subject to assumptions that BB7 can reasonably be expected to make in accordance with our professional principles and experience. BB7 accept no liability for the accuracy of the information provided by our Client or any third parties and any information provided by to us and referred to herein has not been verified by BB7, unless otherwise expressly stated in the document.

BB7 shall not be held responsible or liable for the designs produced by any other consultants, sub-consultants or sub-contractors, including any original designs produced by others which we may adapt, modify or develop in the carrying out of the Services. The document is based on the drawings referenced. Any subsequent changes to the design which are not agreed with BB7 will invalidate the document.

BB7 is a trading name of Omega Fire Engineering Limited. Omega Fire Engineering Limited is a private limited company incorporated in England and Wales with registered number 06959525 and with its registered address at 23 Star Hill, Rochester, ME1 1XF UK, VAT reg No: 322570036

1. Application Information

1.1 Site Address

Site address line 1	48 Store Street
Site address line 2	
Site address line 3	
Town	Manchester
County	Greater Manchester
Site postcode (optional)	M1 2NJ

1.2 Description of the Development

Erection of 15 storey building (ground floor plus 14 floors) comprising apartments (Use Class C3) together with ancillary residential facilities and associated development.

1.3 Qualifications of the Author

Hadrien Fruton is a Chartered Fire Engineer with the Institution of Fire Engineers (IFE) with more than 8 years of experience as a fire engineer.

He has a bachelor's in Health, Safety and Environment, followed by an MSc in Fire Safety Engineering from the University of Ulster, and an MSc in Construction Project Management from Heriot-Watt University.

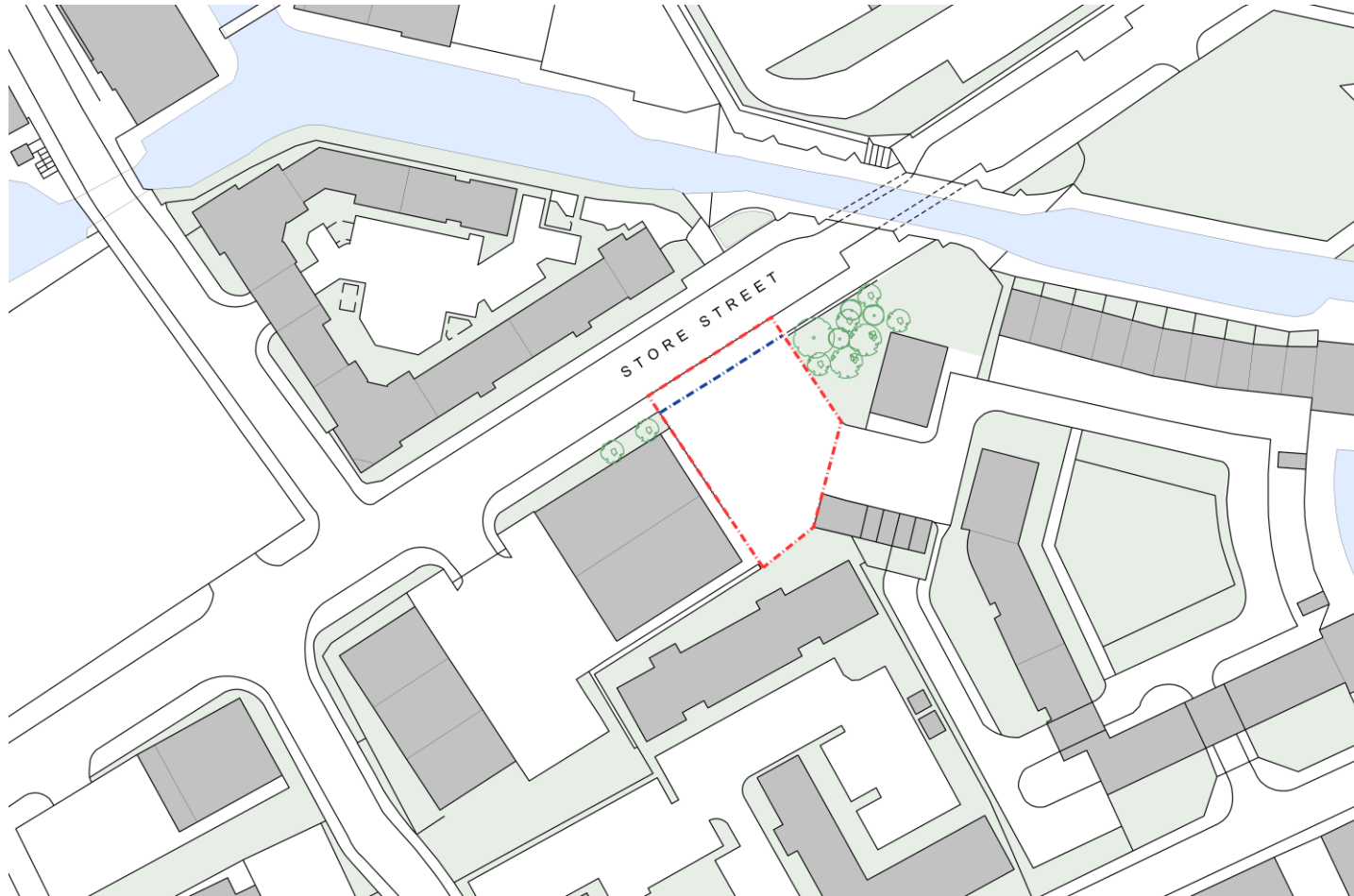
He has a wide range of experience in residential buildings in and outside of London. He worked on buildings with various height (from small dwelling houses to 100m tall towers), offering private and/or affordable accommodation, mixed-use residential buildings, single stair residential buildings, open-plan apartment layouts, various smoke ventilation strategy for common corridors, sprinklered and unsprinklered buildings, and various types of façade design.

1.4 Consultation

No other consultation has been undertaken on issues relating to the fire safety of the development. A RIBA Stage 2 fire safety strategy report has been written by BB7 on the 15th June 2021 [Ref:BB-OFS-11178-OF-01].

1.5 Site Layout Plan

The figure below shows in blue the site ownership boundary and in red the application boundary.



2. Fire Safety Principles

2.1 Summary

Site information				Building information			Resident safety information		
a) block no. as per site layout plan above	b) block height (m) number of storeys excluding those below ground level number of storeys including those below ground level	c) proposed use (one per line)	d) location of use within block by storey	e) standards relating to fire safety/ approach applied	f) balconies	g) external wall systems	h) approach to evacuation	i) automatic suppression	j) accessible housing provided
Block 1	Height of the top storey above ground: 43.2m 15 storeys (Ground to Level 14). No basement	residential flats, maisonettes, studios	Ground floor to Level 14	BS9991	no balconies	class A2-s1, d0 or better	stay put	yes-residential sprinklers, full	M4(2)

2.2 Specific Technical Complexities

This section details any specific localised items identified in the development and detailed in the Outline Fire Safety Strategy report produced by BB7:

1. Protection to firefighting stair at Ground floor level

The stair is currently shown as discharging direct to external as well as internally. Where accommodation is accessed directly from the stair (i.e. the entrance/reception and lift area), a protected ventilated lobby will need to be provided. The protected lobby should be provided via 120 minute solid fire resisting construction, therefore separating the stair and lifts from the area of fire load within the entrance area. Doors may be provided on hold-open devices if desired. The ventilation for the lobby may be provided via a 1.5m² AOV to external, 1.5m² natural smoke shaft, or a 0.8m² mechanical vent.

2. External fire spread and space separation

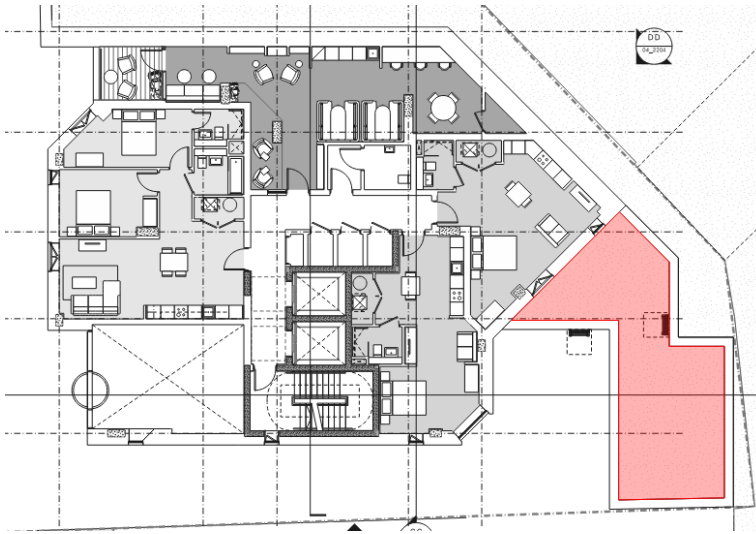
On initial assessment, some protected areas will be required on the east, south and west façades at all levels. This has been indicated within the table below. Note, not all areas have been incorporated within this assessment as a detailed analysis should be undertaken during the next design stage once compartment sizes have been fixed and a site plan is available.

Table 4: External Fire Spread

Floor	Facade	Use	Width of Panel (m)	Height of Panel (m)	Distance to Boundary (m)	Unprotected Area (%)	Protected Area (%)
Ground	North-East	Cycle Store	6.1	3.4	2.4	66%	34%
	South-East	Plant	13.9	3.4	1.1	19%	81%
	West	Reception	6.9	6.4	3.4	58%	42%
1 st	North-East	Residents Lounge	15.5	3.3	2.1	81%	19%
	South-East	Apartment 1A	5.1	3.3	1.1	48%	52%
2 nd -5 th	South-East	Apartment 1E	11	3	1.1	46%	54%
12 th	West	Apartment 3A	8.8	9.8	3.4	69%	31%
13 th	North-East	Apartment 3B	7.5	6.9	2.4	59%	41%
	South-East	Apartment 3B	8	6.9	1.1	21%	79%

3. Provision of green roof

A green roof will be provided at First floor level as shown in red in the figure below. Best practice guidance for green roofs and green walls (also called living walls) provided in “Fire Performance of Green Roofs and Walls”, published by the DCLG, and in the “GRO Green Roof Code” from the Green Roof Organisation will be followed.



2.3 Issues which might affect the fire safety of the development

This section details any non-compliant items identified and reproduced in several areas of the development, or items that could make the fire safety strategy developed for the building non-viable anymore. Those items are also detailed in the Outline Fire Safety Strategy report produced by BB7:

1. Open plan apartments

Open plan apartments exceeding 8m x 4m with open kitchens are not recommended in BS 9991:2015. BB7 has developed an alternative solution to justify the open kitchen design which includes detailed fire engineering analysis and necessary justification.

2. Protection to the internal escape stair in the duplex

As the height of the duplex apartments exceed 4.5m from the entrance level to the topmost floor of the apartment, the apartments should be provided with a protected stair (in conjunction with the automatic sprinkler system). This should achieve the fire-resistance requirements of a protected entrance hall, i.e. 30 minutes fire resisting construction with FD 30 doors.

All duplex apartments are currently provided with an enclosed landing at the upper levels which serve the bedrooms, however the stair is open at all levels including access level where it discharges directly into the kitchen/dining area. This is not considered in accordance with the guidance recommendations, as such the stair at access level to the flat (serving the kitchen area) will need to be enclosed.

Alternatively, if the stair is desired to be kept open at access level (i.e. living/dining area), the stair will need to be enclosed in fire resisting construction at all upper levels, creating a protected entrance hall area for bedrooms before leading either into the stair or to the alternative exit into the common corridor which is currently provided at each upper duplex level. As this is an alternative solution, if this approach is to be adopted, it will need to be discussed and agreed with the Building Regulations Approval Authorities.

3. Lack of adequate management during the use of the building

There is a residential amenity/lounge area located on the 1st floor of the building which has a maximum envisaged occupancy of c.28 persons, as such occupants of this space would be required to use the stair core in order to evacuate, thus a disabled refuge will be required at this level in the stair core.

The refuge should be provided with an emergency voice communication (EVC) system in accordance with BS 5839-9 and should consist of Type B outstations. It will need to be confirmed if the building is to be manned 24/7. Should this be the case, the EVCs are to be linked to the reception where the building staff are expected to be present. If the building staff are only present during normal office hours, then it will need to be confirmed whether the EVCs can be linked to an offsite monitoring station during out of hours.

4. Absence of adequate maintenance of the fire safety measures during the life of the building.

The fire safety strategy is based on certain active and passive fire safety measures being provided (e.g. firefighting shaft, sprinkler system, dry fire main, smoke ventilation system, compartmentation, emergency lighting, etc.). Should these systems not be maintained during the life of the building as required under the Regulatory Reform (Fire Safety) Order 2005, the fire safety strategy could be rendered void.

2.4 Local development document policies relating to fire safety

There are no additional planning policies relating to fire safety for this development.

3. Fire Service Access and Water Supplies

3.1 Fire Service Site Plan Details

The site plan on the next page is showing:

- Fire Brigade access via the Store Street which is an existing public road. As it is an existing public road, it is suitable for both pump and high reach appliances.
- The entrance of the building will be via that road as well.
- Firefighting will be done internally via a firefighting shaft as the building is greater than 18m from Ground to the top storey.
- It is therefore not expected that perimeter access will be required for this building.
- The firefighting shaft will include a firefighting lift, a smoke ventilated firefighting stair with a fire main on every floor level including Ground, a smoke ventilated common corridor/ lobby.
- A dry fire main will be provided in the firefighting stair as the height of the top storey is less than 50m above Ground floor level.
- As it is a residential building with a stay-put policy, there is no requirement to provide an evacuation assembly point.
- No dedicated evacuation lift will be provided.
- The closest fire hydrants' signages have been found, however the yellow "fire hydrant" plate on the pavement or road has not been found, only plates identified as "water". Their suitability as fire hydrants will be confirmed during the next design stage.

3.2 Emergency road vehicle access

The pump appliance will park on Store Street in front of the building. It will be within 18m of the façade of the building where the fire main inlet will be provided and of the entrance point to the building.

Is the emergency vehicle tracking route within the site to the siting points for appliances clear and unobstructed?

yes

3.3 Siting of fire appliances

As the building will be provided with a firefighting shaft, access to the development is only required to a pump appliance, in line with Section 50.1.3 of BS 9991:2015.

Store Street is an existing public (adopted highway). It is a straight road with a width of 9.5m and at least 7m clear between marked parking bays along either side. The road width reduces to 4m and with a clearance height of 4.6m where it passes beneath an aqueduct to the east of the proposal site. Store Street is a two-way vehicle route that is currently used by various types of traffic, including large vehicles.

Store Street meets the criteria for both pump and high reach vehicles as detailed in Table 13.1 of ADB Vol.1 (Note: BS 9991:2015 does not provide any typical fire and rescue service access route specification).

There will be not sufficient room for large vehicles within the site ownership boundary of the development, and as such no vehicle tracker for a fire appliance has been undertaken.

3.4 Suitability of water supply for the scale of development proposed

Nature of water supply:

hydrant- public

Does the proposed development rely on existing hydrants and if so are they currently usable / operable?

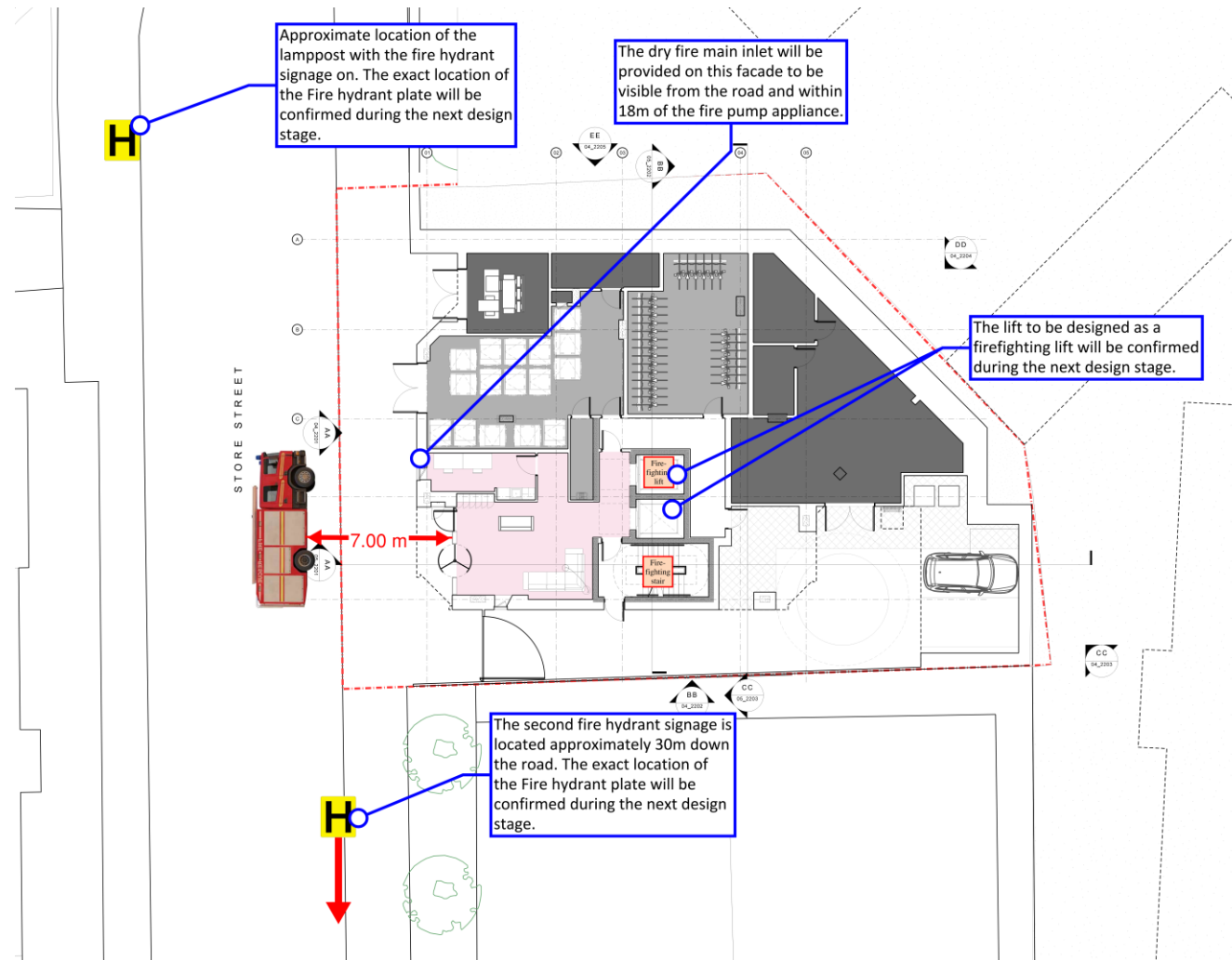
don't know

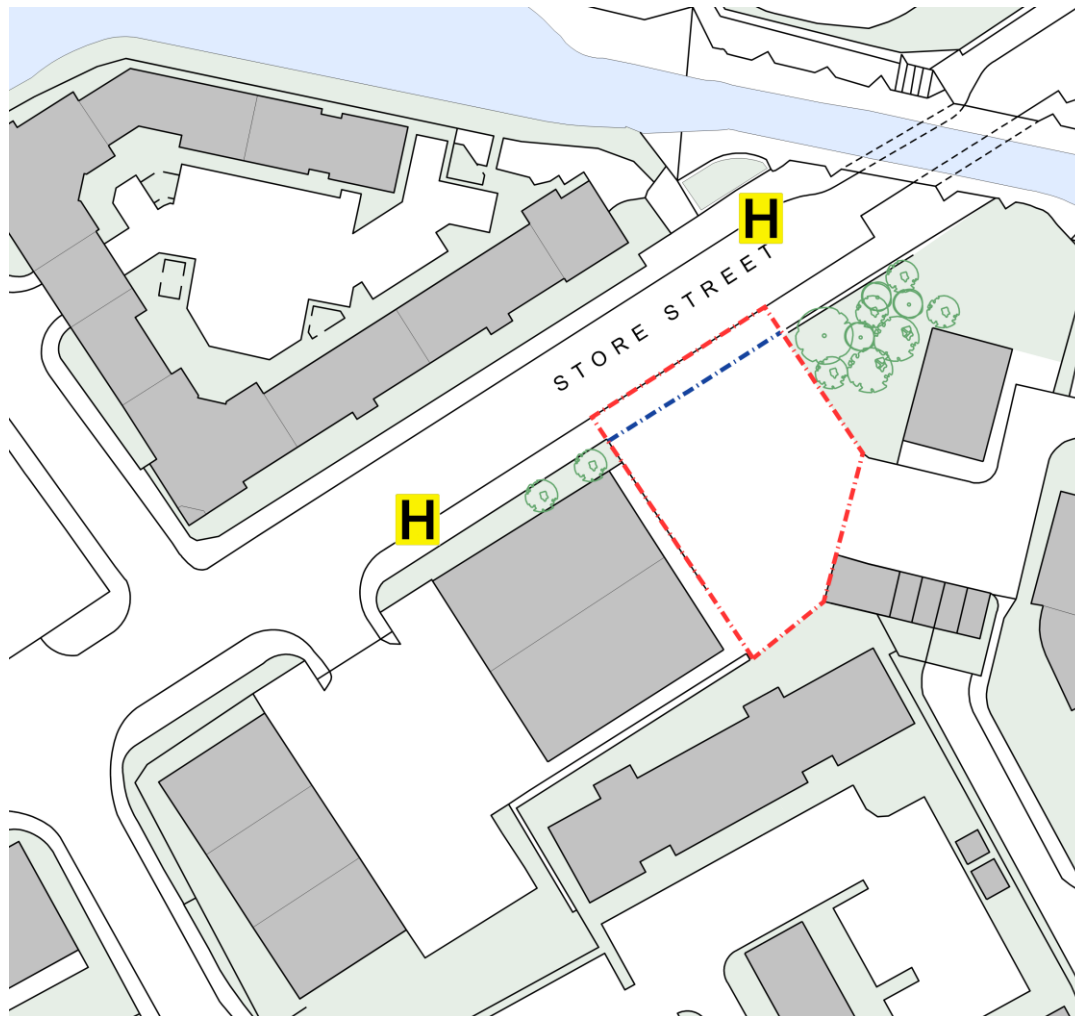
A survey has not yet been provided by the water provider and therefore the exact location of the closest fire hydrant is currently unknown. From a search on Google Street view, two fire hydrants signs could be found:

- One on a lamppost in Store St opposite the development, approximately 5-10m up the road and just before the aqueduct
- One on the adjacent warehouse wall, next to the BEEV Car Charger, approximately 30m down the road.

The yellow "Fire Hydrant" plate was nonetheless not found on the street, only a plate written "Water" in close proximity to each yellow fire hydrant signage. The design team will liaise with the water company to confirm the status of those two hydrants.

3.5 Fire Service Site Plan





Fire statement completed by	
Signature	Hadrien Fruton
Date	19/10/2021

Imagination powered by borderless thinking

LONDON AND THE SOUTH EAST

23 Star Hill
Rochester
Kent
ME1 1XF

NORTH EAST

Century Way
Thorpe Park
Business Park
Leeds
LS15 8ZA

SCOTLAND

Pentagon Centre
26-38 Washington Street
Glasgow
G3 8AZ

NORTH WEST

2 Jordan Street
Manchester
M15 4PY

NORTHERN IRELAND

Nextspace
Antrim Enterprise Park
58 Greystone Road
Antrim
BT41 1JZ

CENTRAL AND EAST

Castle Hill House
Huntingdon
Cambridgeshire
PE29 3TE

IRELAND

Unit G
Mountpleasant Business
Centre
Mountpleasant Avenue
Rathmines
Dublin
D06 K762