

Fire statement form

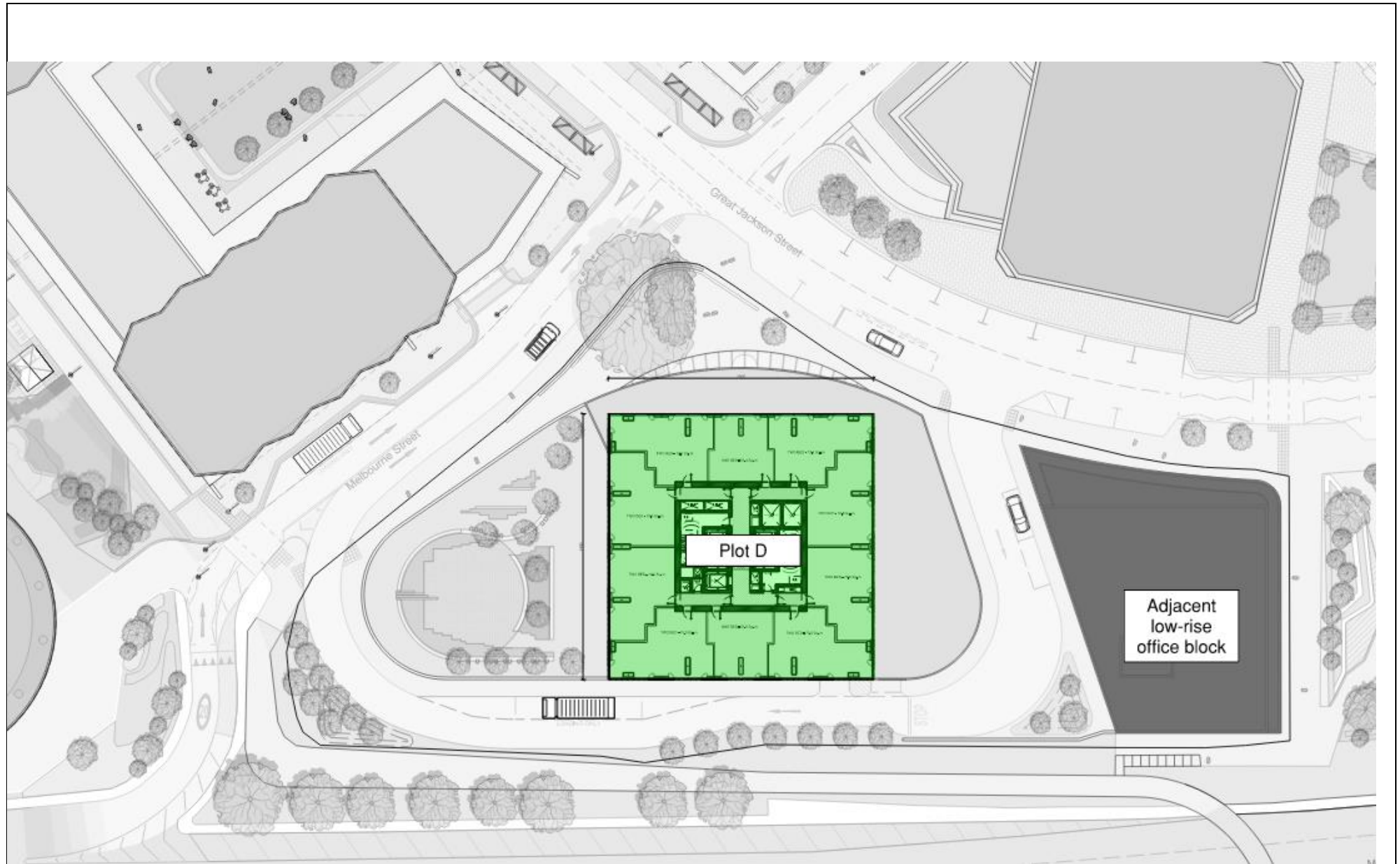
Application information	
1. Site address line 1	Plot D
Site address line 2	Great Jackson Street
Site address line 3	
Town	Manchester
County	Lancashire
Site postcode (optional)	
2. Description of proposed development including any change of use (as stated on the application form):	Full planning permission for the demolition of existing structures and the erection of one residential building to a height of 71 storeys comprising 642 homes (Use Class C3) with food and drink uses (Use Class E) and / or drinking establishment (Sui Generis); and one office building (Use Class E); with basement car parking, cycle parking, landscaping and public realm, servicing and access arrangements, highways alterations and associated works
3. Name of person completing the fire statement (as section 15.), relevant qualifications and experience. Guide: no more than 200 words	David McMahon – Principal Fire Engineer at Tenos BSc (Hons) Msc CEng MIFireE Chartered Engineer, registered through the Institution of Fire Engineers. 10 years' experience in fire engineering consultancy.
4. State what, if any, consultation has been undertaken on issues relating to the fire safety of the development; and what account has been taken of this. Guide: no more than 200 words	A fire strategy design review meeting for the Plot D development (and adjacent Crown Street Phase 3 development) was undertaken with the Greater Manchester Fire Service high-rise team and Manchester City Council Building Control on 30/11/2022, in which the principles for the proposed fire strategy were agreed. The minutes from this meeting have been appended to the end of this Fire Statement Form. A meeting was held with the Building Safety Regulator (BSR) on 07/12/2023 to discuss the arrangements at Plot D and the proposed addition of secondary ventilated lobbies at Level 70 following the BSR's substantive response to the application. Continued Consultation and design development will be implemented as the detailed design progresses prior to formal Building Regulations and Planning Gateway 2 submission.

5. Site layout plan with block numbering as per building schedule referred to in 6.

(consistent with other plans drawings and information submitted in connection with the application)

Site layout plan is:
inserted in the form

The Plot D development site will consist of a single residential tower (Plot D building) and an adjacent independent low-rise office building (not considered further within this Fire Statement), as highlighted on the site plan below:



The principles, concepts and approach relating to fire safety that have been applied to the development

6. Building schedule

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
Plot D	203.4m to top finished floor level. 71 storeys (excluding basement). 74 storeys including basement floors.	restaurant, cafe, hot food take- away, drinking establishme nt	Level 70	BS9999	no balconies	class A2-s1, d0 or better	simultaneou s	yes- commercial sprinklers, full	N/A non resi
Plot D	203.4m to top finished floor level. 71 storeys (excluding basement). 74 storeys including	flexible use	Levels 67 to 69	BS9999	no balconies	class A2-s1, d0 or better	simultaneou s	yes- commercial sprinklers, full	N/A non resi

	basement floors.								
Plot D	203.4m to top finished floor level. 71 storeys (excluding basement). 74 storeys including basement floors.	residential flats, maisonettes, studios	Levels 04 to 66	BS9991	no balconies	class A2-s1, d0 or better	stay put	yes-residential sprinklers, full	none
Plot D	203.4m to top finished floor level. 71 storeys (excluding basement). 74 storeys including basement floors.	flexible use	Ground floor, Level 01 & Level 02	BS9999	no balconies	class A2-s1, d0 or better	simultaneous	yes-commercial sprinklers, full	N/A non resi
Plot D	203.4m to top finished floor level. 71 storeys (excluding basement). 74 storeys including basement floors.	restaurant, cafe, hot food take-away, drinking establishment	Ground floor	BS9999	no balconies	class A2-s1, d0 or better	simultaneous	yes-commercial sprinklers, full	N/A non resi
Plot D	203.4m to top finished floor level.	car parking	Basement levels B1, B2 & B3	BS9999	no balconies	class A2-s1, d0 or better	simultaneous	yes-commercial sprinklers, full	N/A non resi

	71 storeys (excluding basement). 74 storeys including basement floors.								
	.								

7. Specific technical complexities

Explain any specific technical complexities in terms of fire safety (for example green walls) and/or departures from information in building schedule above

Guide: no more than 500 words

The Plot D building will be arranged around two adjacent, but separated, stair and lift cores at the centre of the building footprint.

Each stair/lift lobby will be ventilated by means of a single mechanical smoke extract shaft, activated by smoke detection within the associated common corridor and lobby (i.e. system in each half of floor activates independently). Each extract shaft system will incorporate pressure sensors and a fan inverter, so that extract rates can be ramped up and down to prevent excessive pressure differentials. As the common corridor travel distances will not exceed 7.5m, they will not be ventilated.

The mechanical shaft systems serving the stair/lift lobbies at the above Ground floors will continue down to serve the lobbies at the three basement floors. The basement car parking will be provided with sprinklers and an impulse jet fan and mechanical extract smoke ventilation system (providing 10ACH). It is proposed that basement plant rooms and ancillary rooms will not be provided with dedicated smoke ventilation provisions, but will be provided with access doors directly from the ventilated car parking, such that smoke within these rooms may be ventilated via the car parking smoke ventilation system.

The external wall construction will meet the requirements of Regulation 7(2) with regards to the external wall construction. External terraces for residents will be accessed at Levels 01 and 02 and whilst the furniture, finishes and materials of the terrace is subject to further development and consideration, in line with initial discussions with Greater Manchester Fire Service high-rise team and Manchester City Council Building Control on 30/11/2022 (see appended minutes), it is proposed that greening/trees/etc on the terraces will be provided at least 4m away from the façade of the tower.

In addition to the BS 9251 sprinkler system serving the residential accommodation, the building will be provided with two separate BSEN12845 commercial sprinkler systems; one serving Levels 01 down to B3 and one serving Levels 67 to 70.

8. Issues which might affect the fire safety of the development

Explain how any issues which might affect the fire safety of the development have been addressed.

Guide: no more than 500 words

The Plot D building will be fully sprinklered and of reinforced concrete construction, providing a minimum of 120 minutes structural fire resistance.

All residential apartments will implement a 'stay put' evacuation strategy, whilst the residents' amenity, ancillary, and restaurant accommodation (i.e. at Levels 67 to 70, Ground floor, Level 01 and the three basement car parking levels) will implement simultaneous evacuation strategies.

Although the provision of more than one stair to serve the upper apartment floors is not a requirement of the current BS 9991, it is proposed that the central core will be provided with two protected escape stairs that are accessed from separate mechanically ventilated lift lobbies; namely, a main firefighting stair and a secondary escape stair. The secondary stair will terminate at Ground floor, whilst the firefighting stair will continue down to serve the basement floors but will be sub-divided at Ground floor by means of a cross-landing wall and door.

To ensure compliant travel distances and adequate escape capacity, an additional escape stair will serve the three basement floors and will discharge direct to outside at Ground floor. This additional basement stair will rise up within the footprint of, but will be separated by impermeable 120 minute compartment construction from, the adjacent low-rise office building.

The Level 70 public restaurant will be accessed via dedicated lifts (which will not serve any other floor level) from the restaurant entrance space at Ground floor. However, means of escape from the restaurant will be provided by means of access to both stairs within the dual central core arrangement. The provision of restaurant escape via the main tower core was agreed with Greater Manchester Fire Service high-rise team and Manchester City Council Building Control within the fire strategy design review meeting on 30/11/2022 (see appended minutes).

Following consultation with the Building Safety Regulator, additional lobbies will be provided to the stairs at the restaurant level to reduce the risk of smoke ingress to the stair. The lobbies will be ventilated directly to roof level with 1.5m² free area. On the basis that the restaurant is at the uppermost floor level, is sprinklered, provided with additional smoke ventilation lobbies, ventilation is provided at head of both stairs and is separated from the residential apartment levels below by multiple compartment floors, we consider that the fire safety design minimises the potential for a fire in the restaurant area to impact on the means of escape arrangements from the residential areas and that this arrangement suitably mitigates the risk that the guidance in BS 9991 seeks to address.

Four evacuation lifts will be provided in the main core with one firefighting lift to serve the upper floors, which will terminate at Ground floor.

The lifts stated for restaurant are not specified as evacuation lifts, with occupants of the restaurant level having access to the evacuation lifts in the main core.

The mechanical shaft systems serving the stair/lift lobbies at the above Ground floors will continue down to serve the lobbies at the basement floors.

Secondary power for life safety systems will be provided by means of a dedicated standby generator located at Ground floor of the building.

External fire spread between the Plot D building and the adjacent low-rise office building has been considered in accordance with BRE 187. On the basis of initial assessment, compartment floors will be provided at each floor level in both the Plot D building and the low-rise office building.

9. Local development document policies relating to fire safety

Explain how any policies relating to fire safety in relevant local development documents have been taken into account.

Guide: no more than 500 words

No specific local development documents relevant to fire safety are applicable. Therefore, the design will follow latest Building Regulations guidance documents.

Emergency road vehicle access and water supplies for firefighting purposes

10. Fire service site plan

Explanation of fire service site plan(s) provided in 14. including what guidance documents have informed the proposed arrangements for fire service access and facilities?

Guide: no more than 200 words

As indicated by means of the red dashed lines on the Fire Service site plan in 14 below, Fire Service vehicle access to the Plot D building will be provided via the surrounding public highways (Great Jackson Street and Melbourne Street) and site roads, in accordance with the recommendations of BS 9991 and BS 9999. Fire Service vehicle parking will be available directly adjacent to the building on the surrounding public highways and site roads and from these parking locations access into the building will be possible via the main building entrance (see green arrow on the Fire Service site plan in 14 below), the access door into the firefighting shaft (see red arrow on the Fire Service site plan in 14 below), and the wet fire main inlet valve (located adjacent to the firefighting shaft access door).

The basement smoke extract outlet point is highlighted in blue on the Fire Service site plan in 14 below, in order to demonstrate separation between smoke outlet and the building main entrance and firefighting stair entry/discharge door.

Existing fire hydrants are located in proximity to the building, as indicated on the Fire Service site plan in 14 below – the exact flow rates are subject to confirmation.

11. Emergency road vehicle access

Specify emergency road vehicle access to the site entrances indicated on the site plan

Guide: no more than 200 words

As indicated in the Fire Service site plan in 14 below, Fire Service vehicle access will be provided to the Plot D building via the surrounding public highways (Great Jackson Street and Melbourne Street) and site roads. From these parking locations, access will be possible to the main building entrance (see green arrow on the Fire Service site plan in 14 below), the access door into the firefighting shaft (see red arrow on the Fire Service site plan in 14 below), and the wet fire main inlet valve (located adjacent to the firefighting shaft access door).

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

12. Siting of fire appliances

Guide: no more than 200 words

As described above and in the Fire Service site plan in 14 below, Fire Service vehicle parking will be provided adjacent to the building on the surrounding public highways and site roads.

13. Suitability of water supply for the scale of development proposed

Guide: no more than 200 words

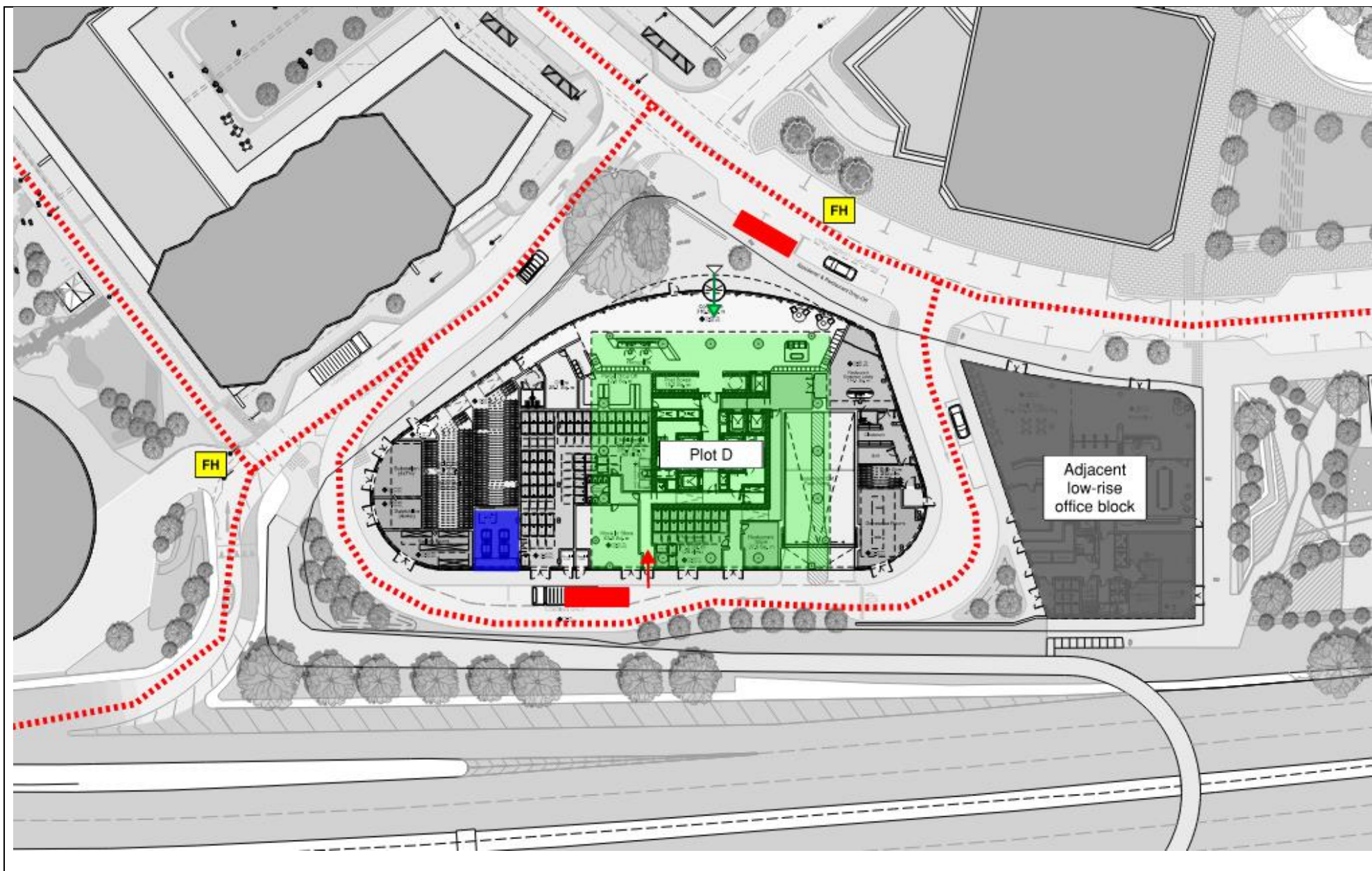
Existing fire hydrants are located in proximity to the site, as indicated via the yellow 'FH' symbols on the Fire Service site plan in 14 below – the exact flow rates are subject to confirmation of suitability.

Nature of water supply:
hydrant- public

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

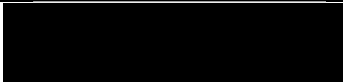
14. Fire service site plan

Fire service site plan is:
inserted in the form



Fire statement completed by

15. Signature



16. Date

21/12/2023