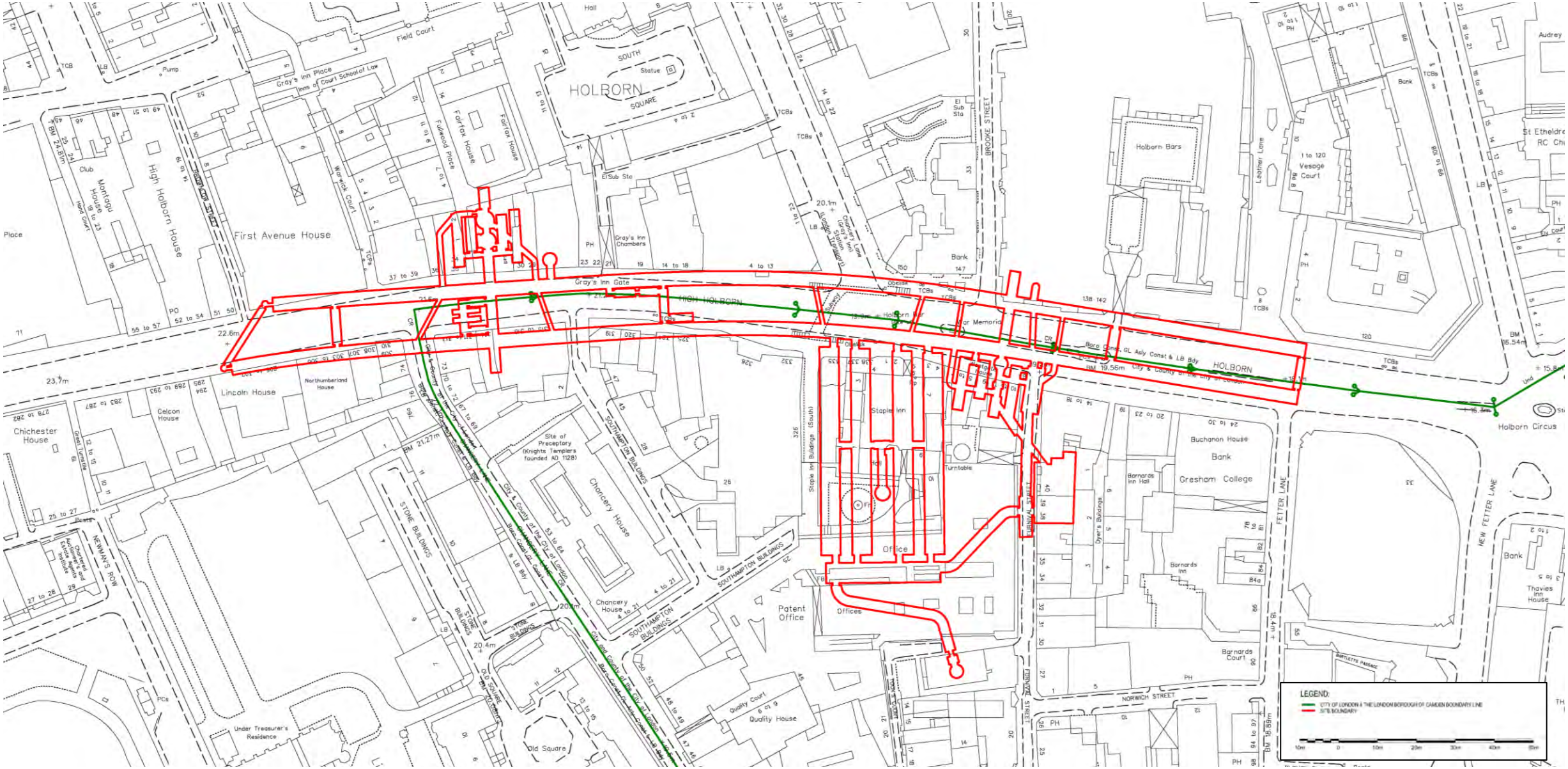
38 - 41 Furnival Street London EC4A 1JQ (CoL site)
31 - 33 High Holborn WC1V 6AX (Camden site)

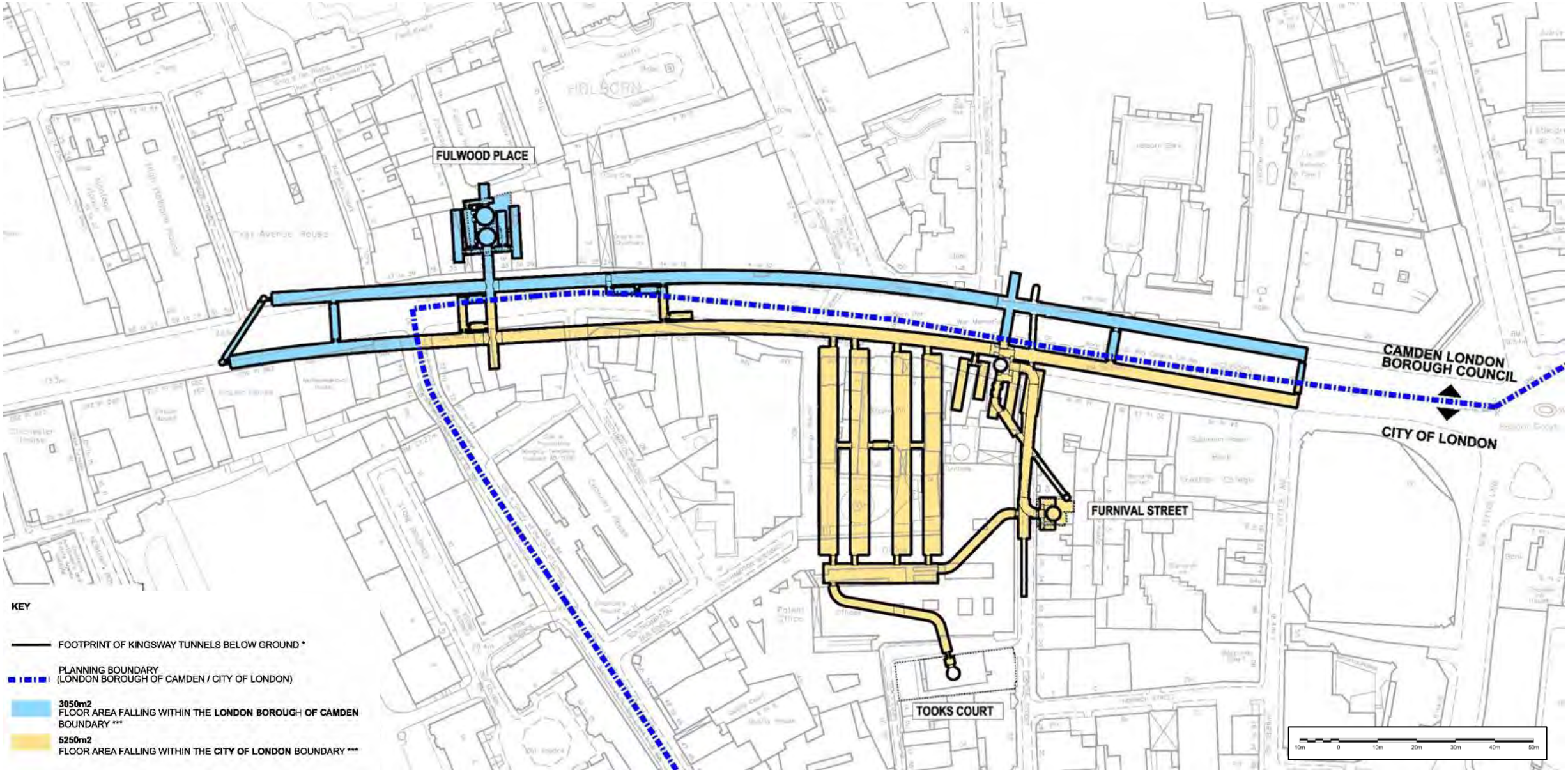
Planning & Transportation Committee

11 June 2024

Location Plan

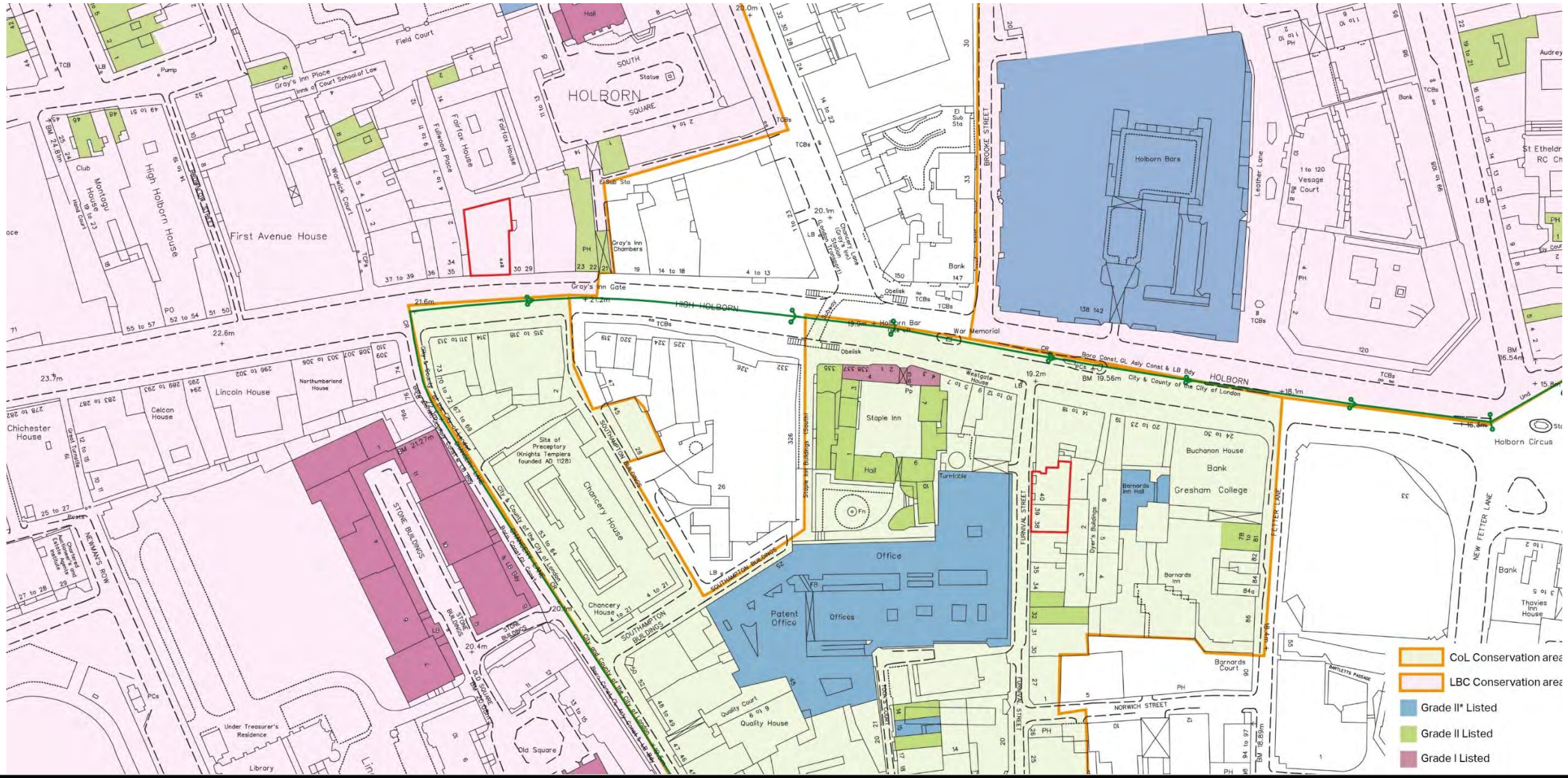


Site Plan Below Ground



Site Plan Below Ground

38 - 41 Furnival Street London (EC4A 1JQ) & 31 - 33 High Holborn (WC1V 6AX)



Location Plan – Conservation Areas & Listed Buildings

Location Plan – Residential Properties

Aerial View of Site

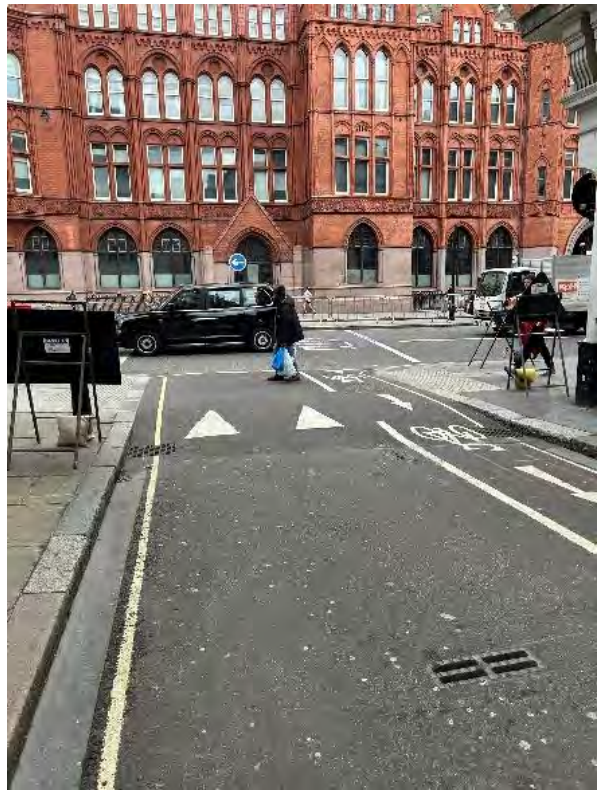
38-41 Furnival Street - Site Photos

40 – 41 Furnival Street

38-39 Furnival Street

Nos.40-41 and 38-39 Furnival Street - Site Photos

Views facing north at Holborn



Views facing south down to Furnival

Furnival Street – Existing Highway Arrangements

View facing north at Holborn

View facing south at Furnival St (site on the left)

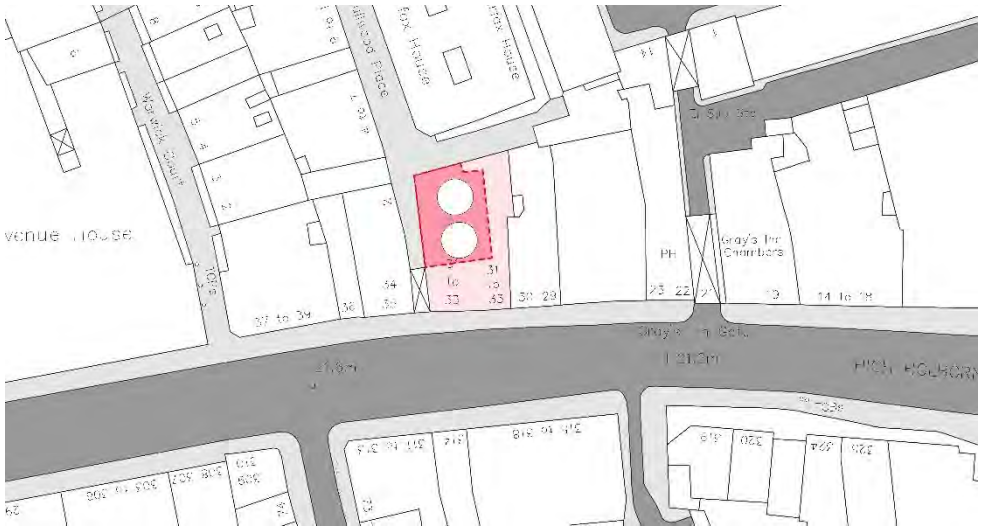
Views facing south at Furnival St (site on the right)

Existing Blue Badge parking space on Funrival St

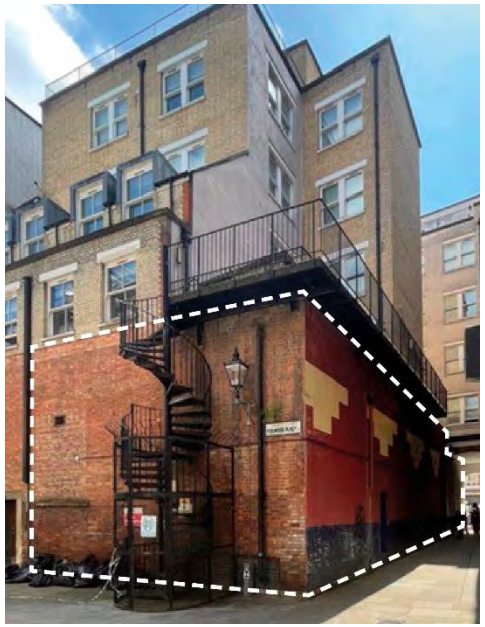
Furnival Street – Existing Highway Arrangements

31 – 33 High Holborn

31 – 33 High Holborn



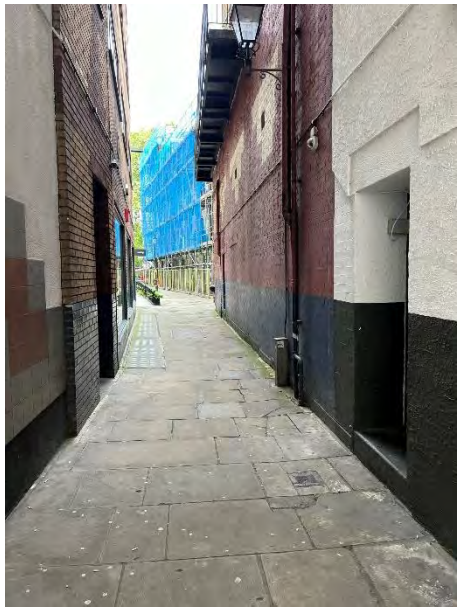
Fulwood Place



Fulwood Place

31 33 High Holborn (The Camden site) - Site Photos

High Holborn



Fulwood Place

Existing Highway Arrangements at the Camden site

1 Energy Generator

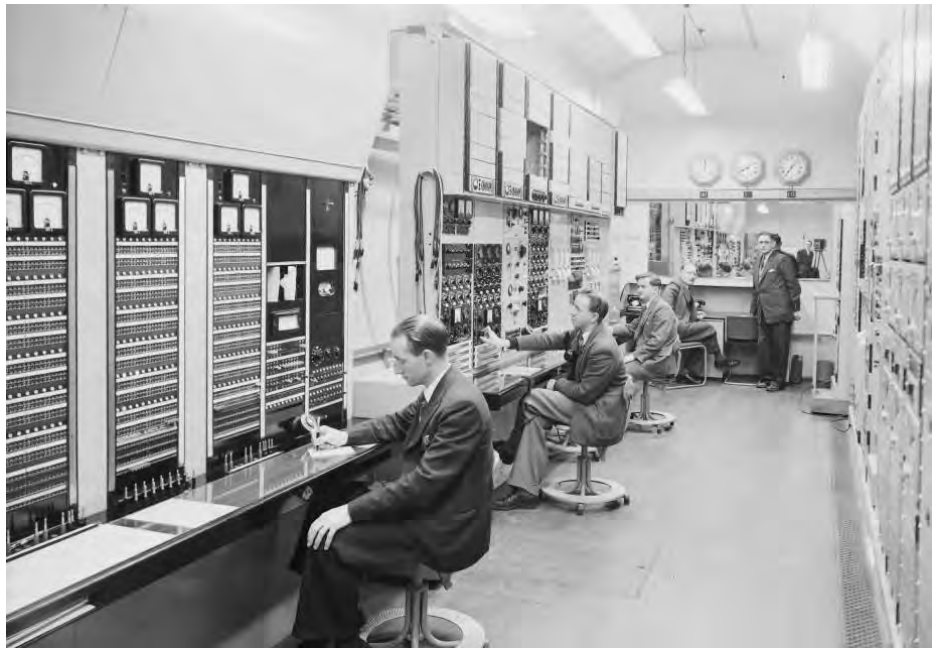
2 Energy Generator

3 Control Panel

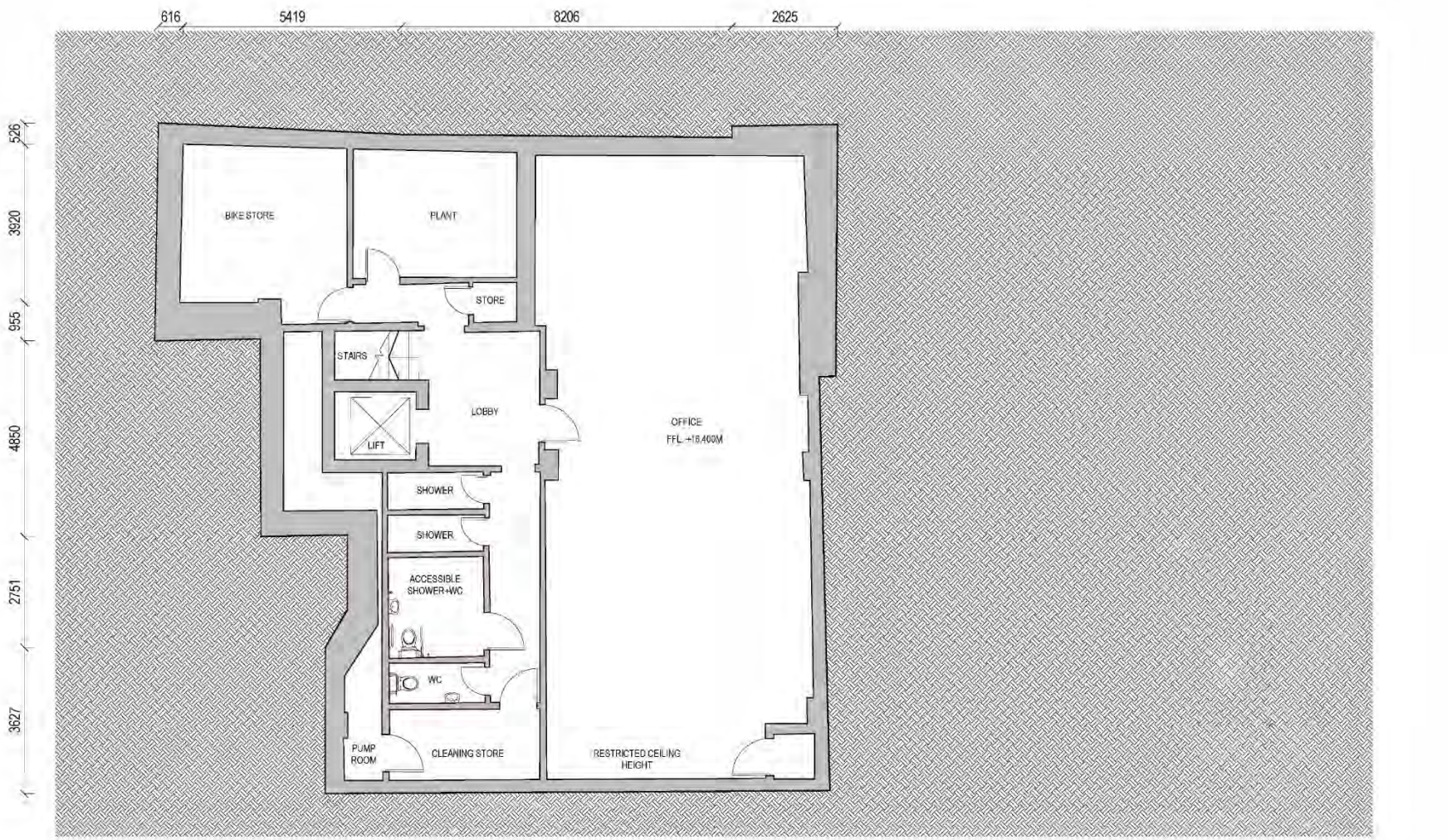
4 Energy Generator

5 Ventilation Plant

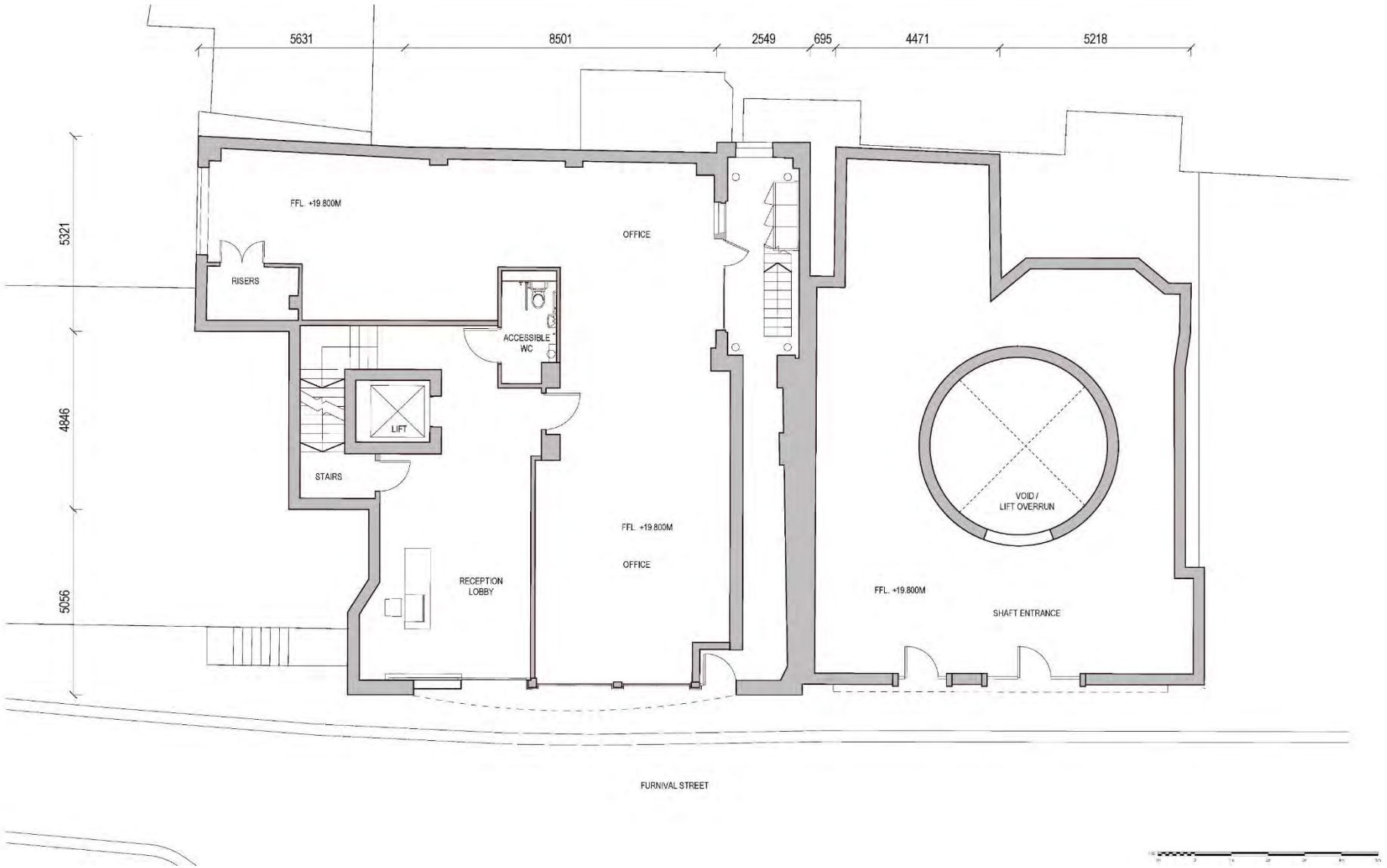
6 Telephone Main Distribution Frame



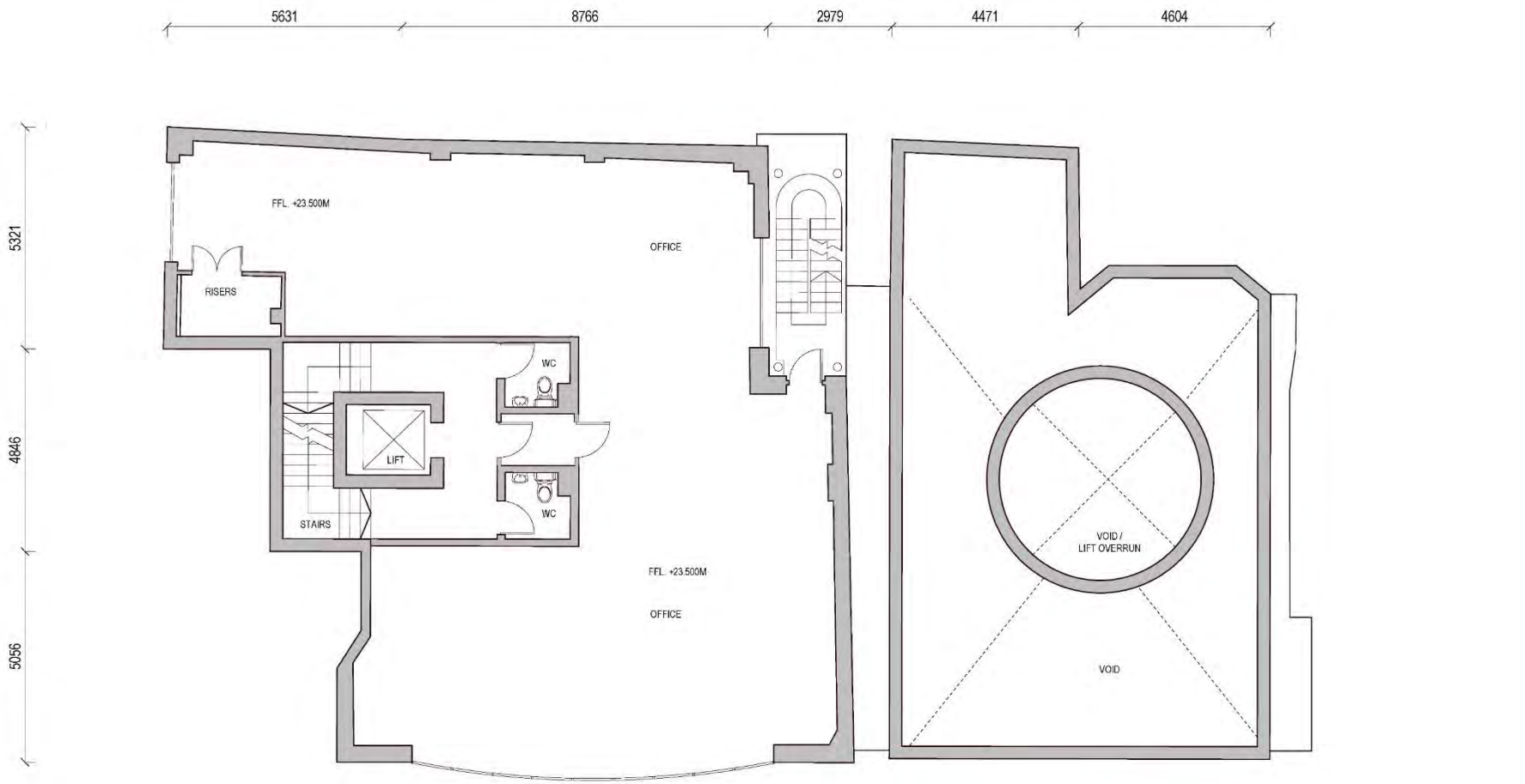
The Tunnels – Archive images of tunnels in operation



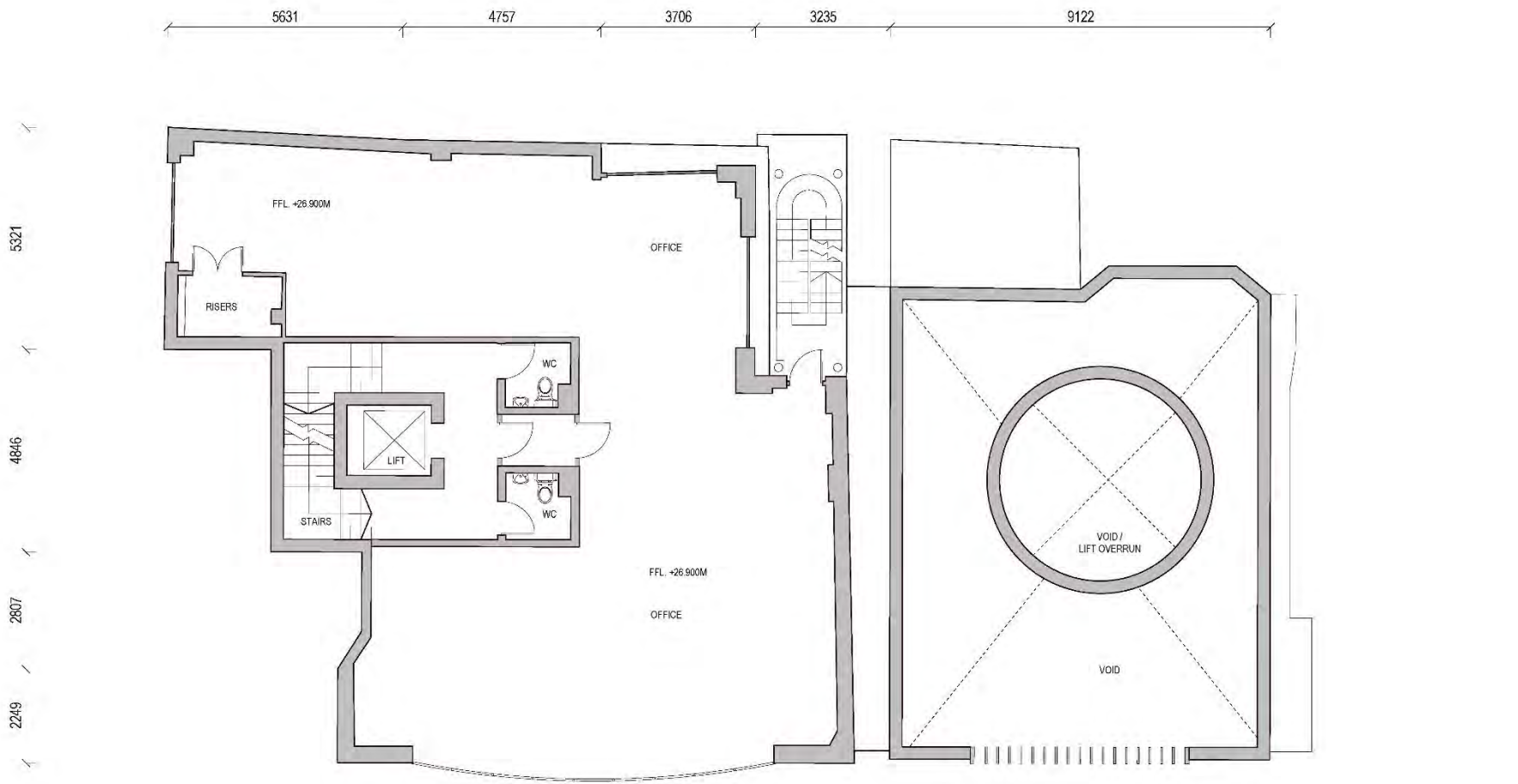
38-41 Furnival Street – Basement - Existing



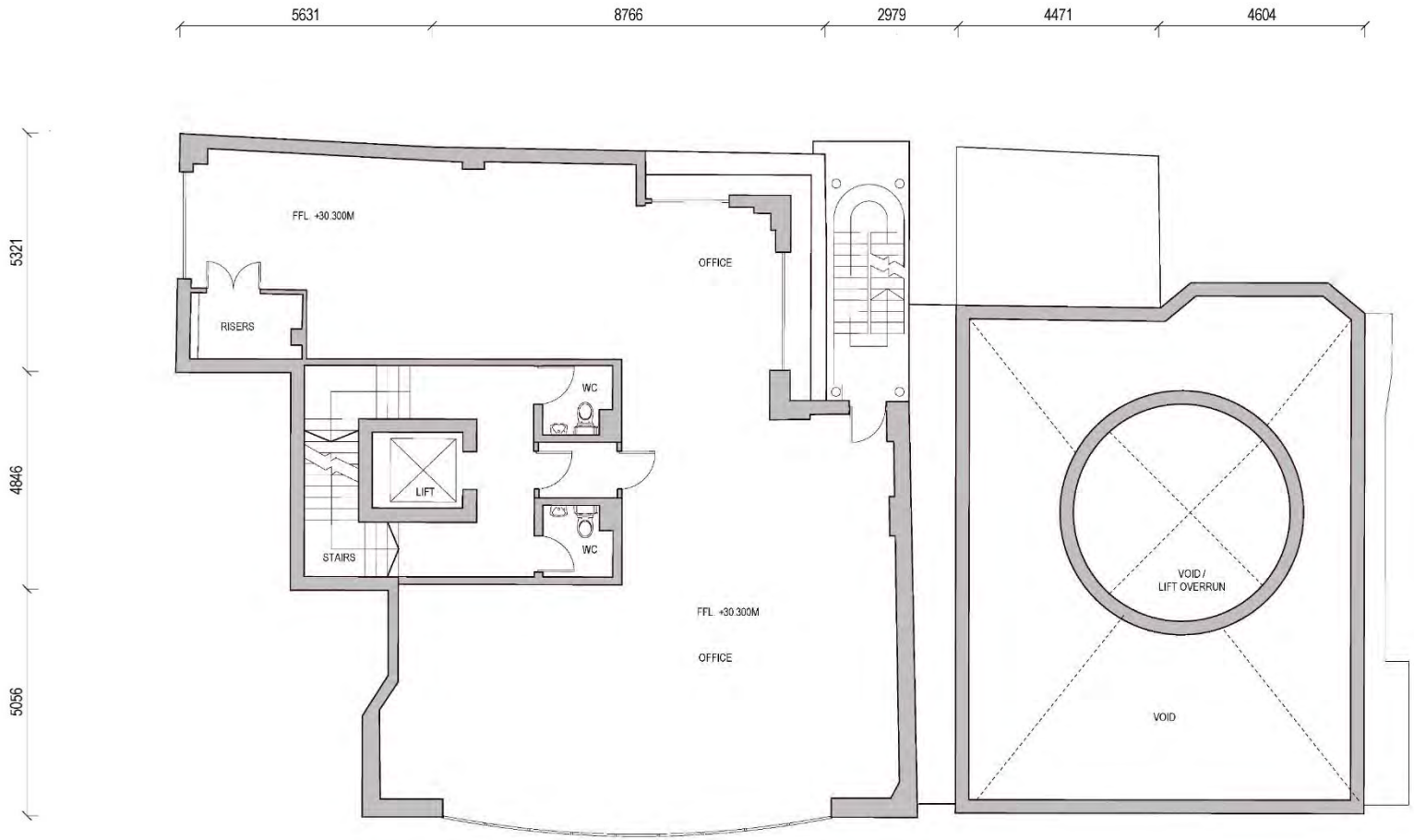
38-41 Furnival Street – Ground Floor - Existing



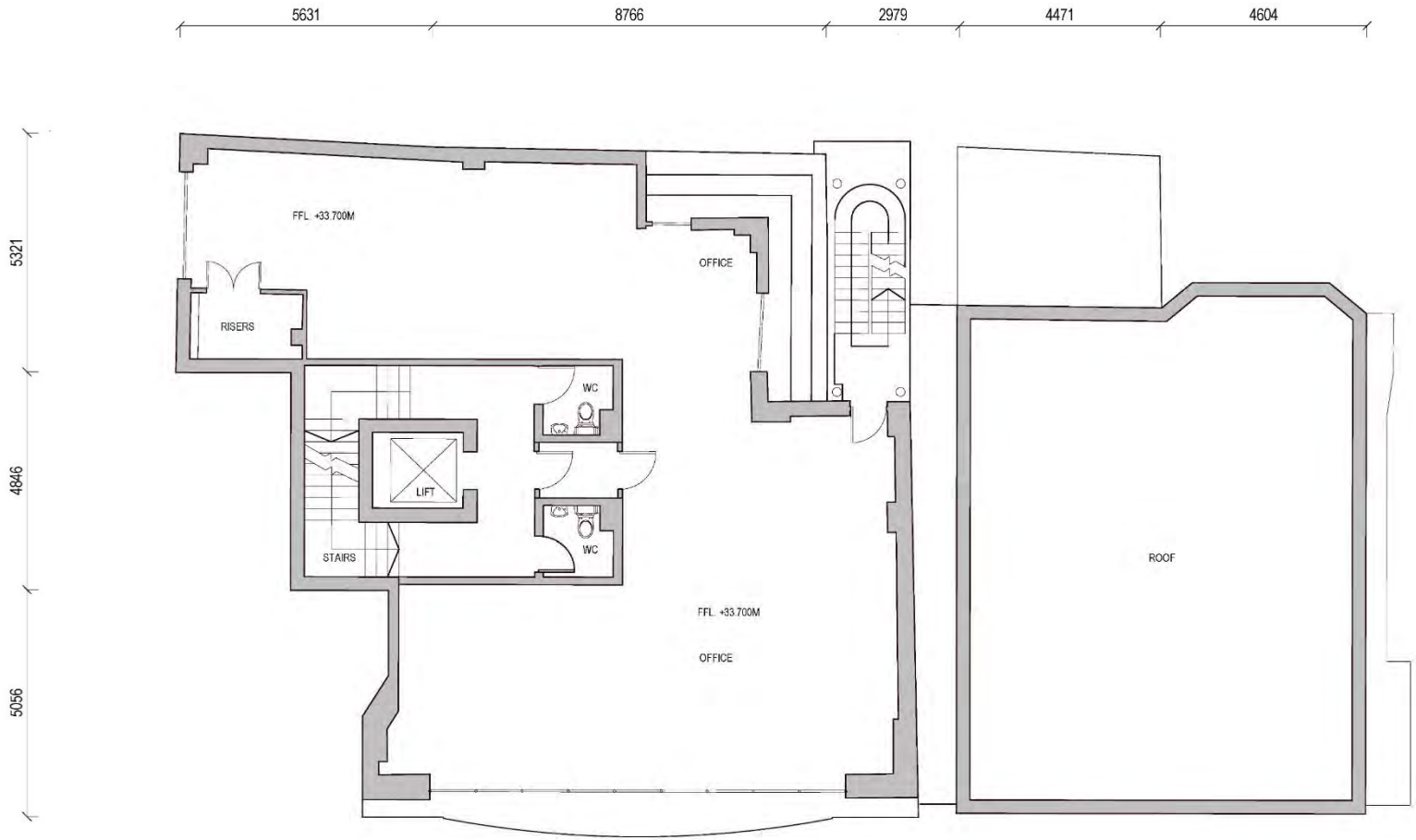
38-41 Furnival Street – Floor 01- Existing



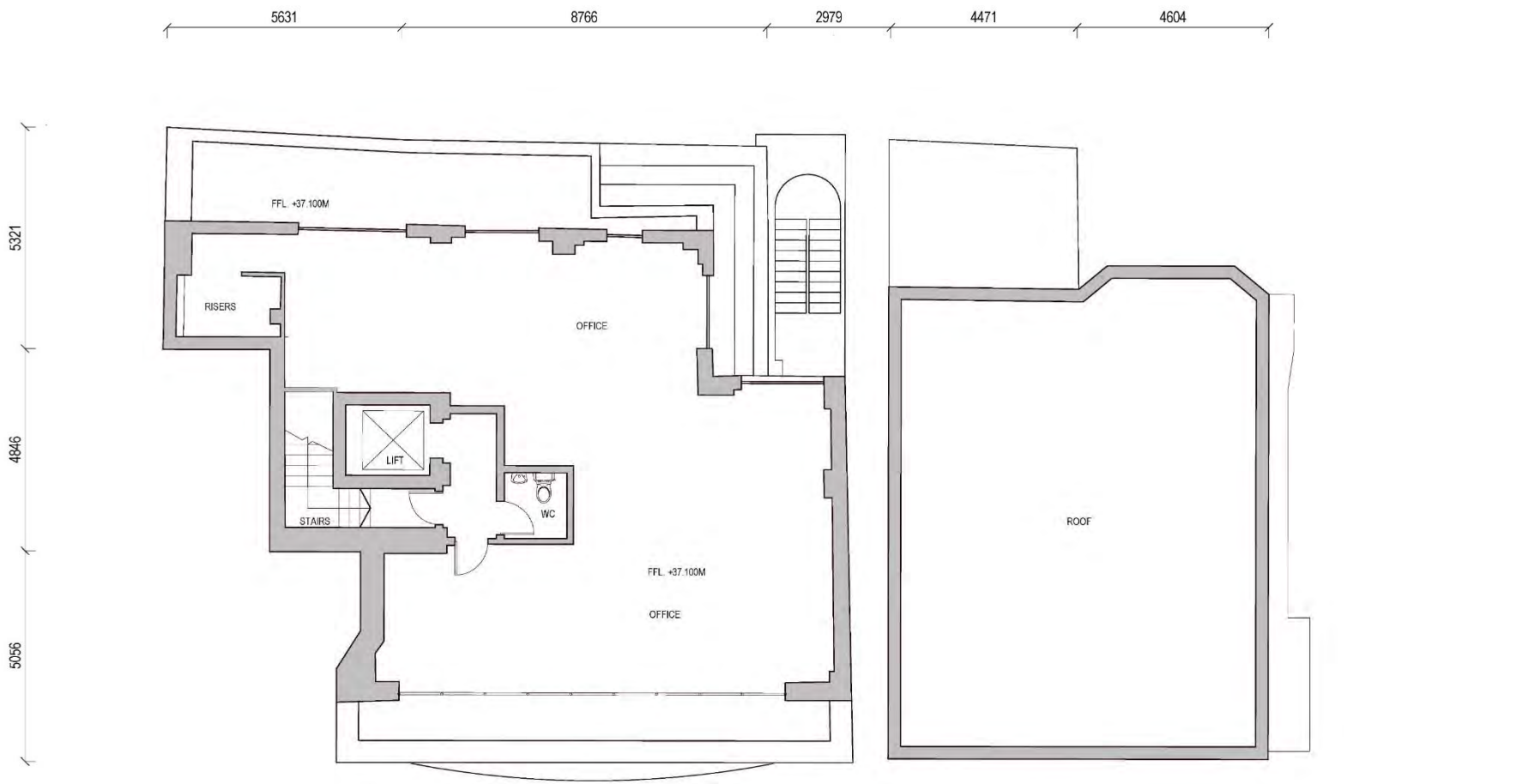
38-41 Furnival Street – Floor 02- Existing



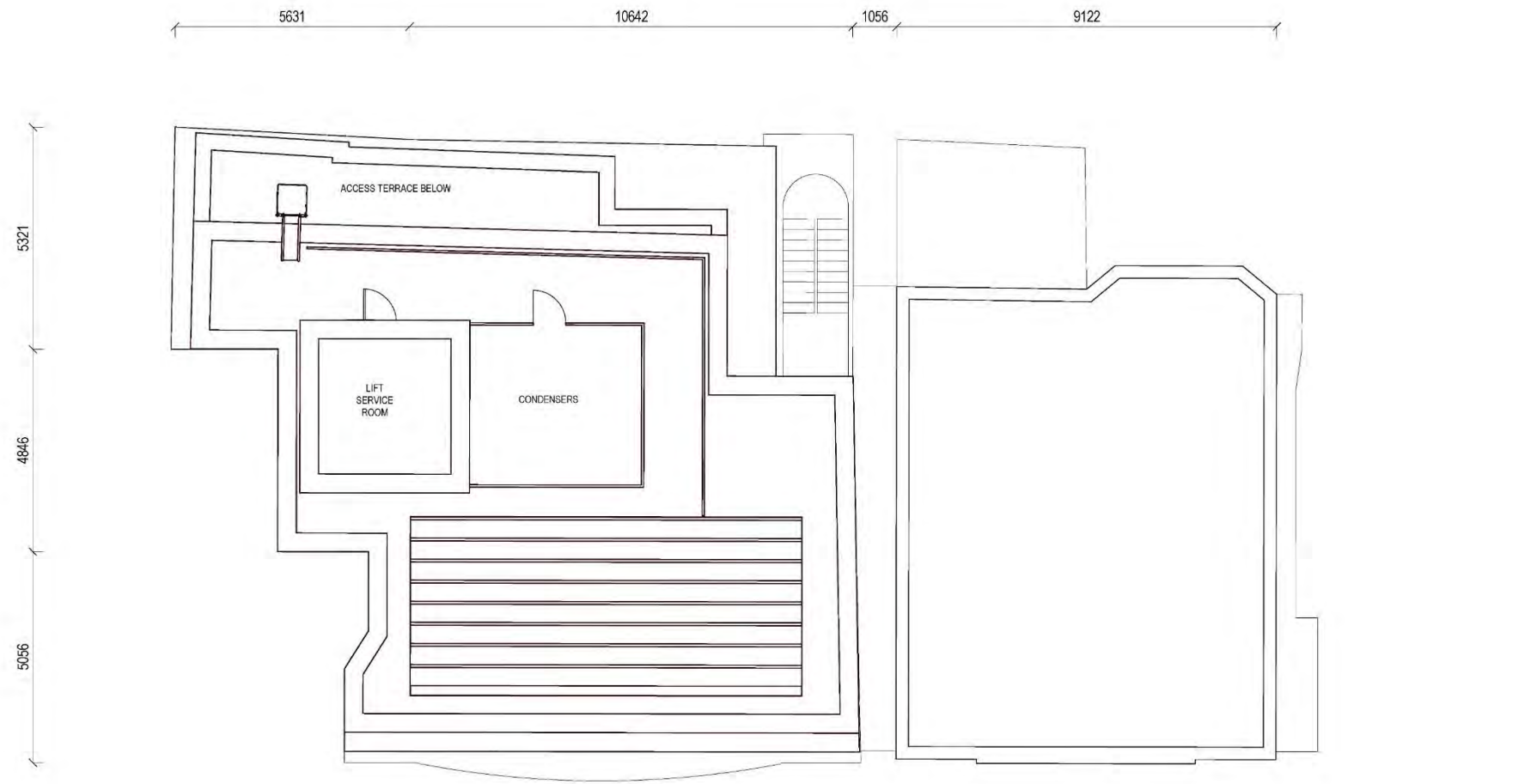
38-41 Furnival Street – Floor 03- Existing



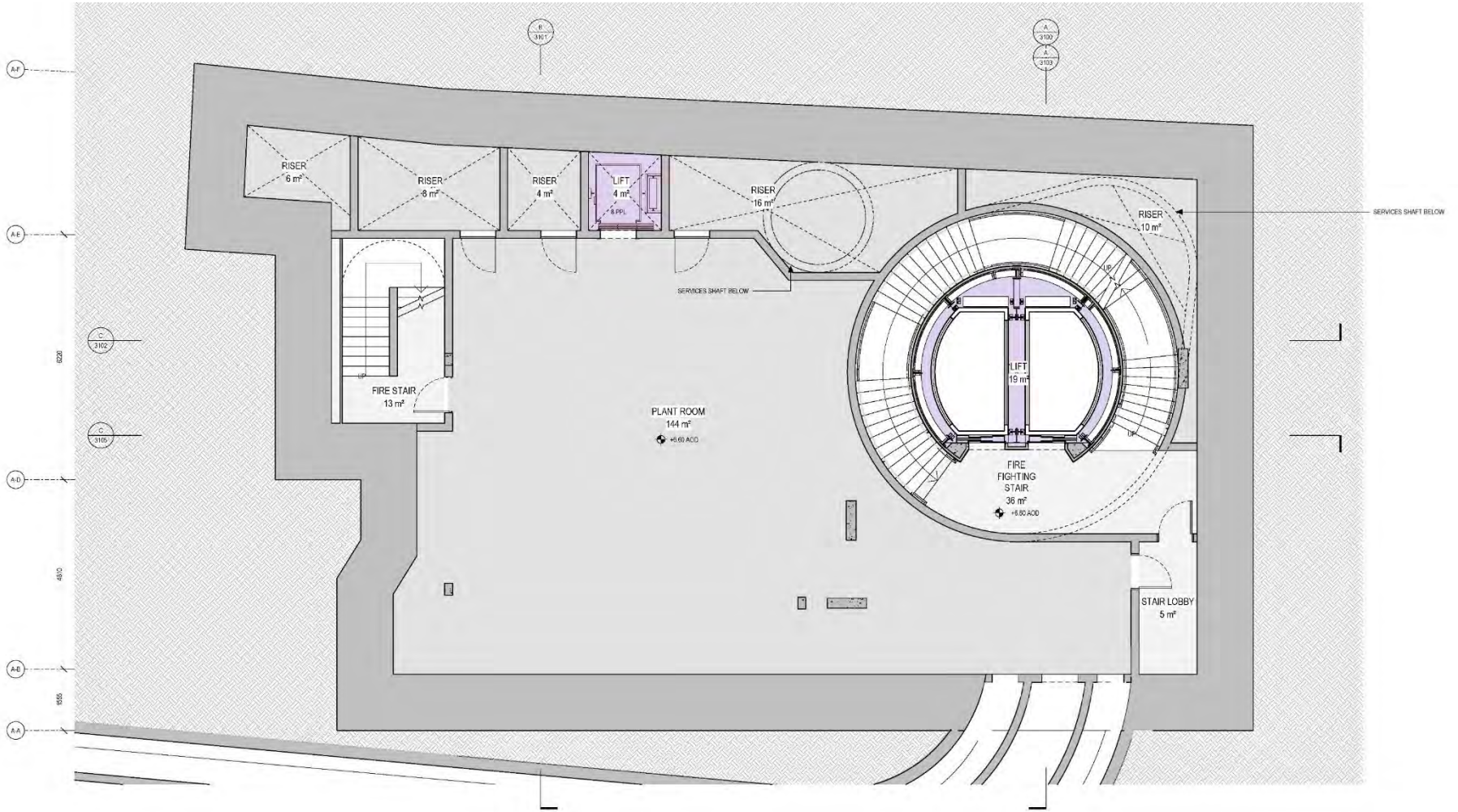
38-41 Furnival Street – Floor 04- Existing



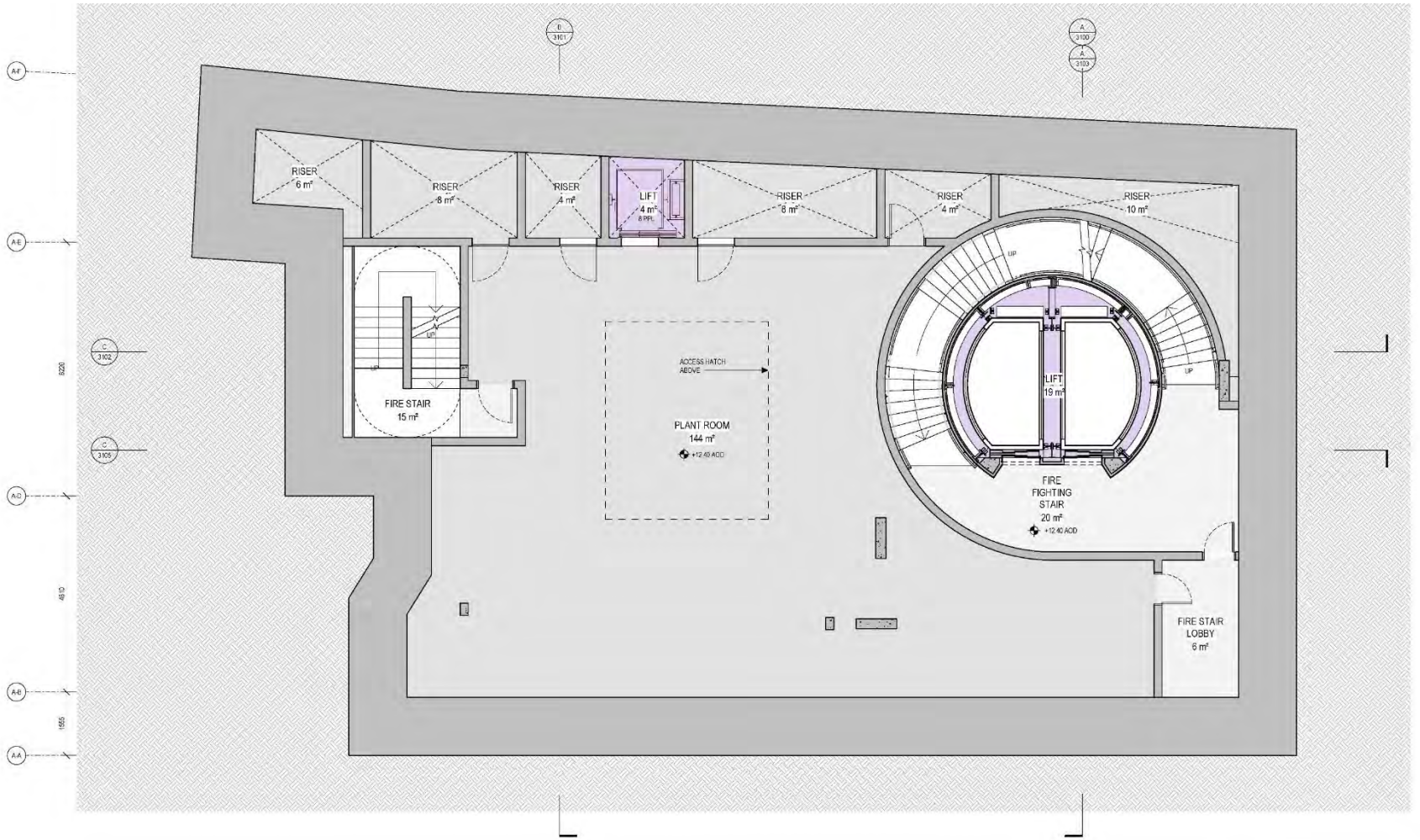
38-41 Furnival Street – Floor 05- Existing



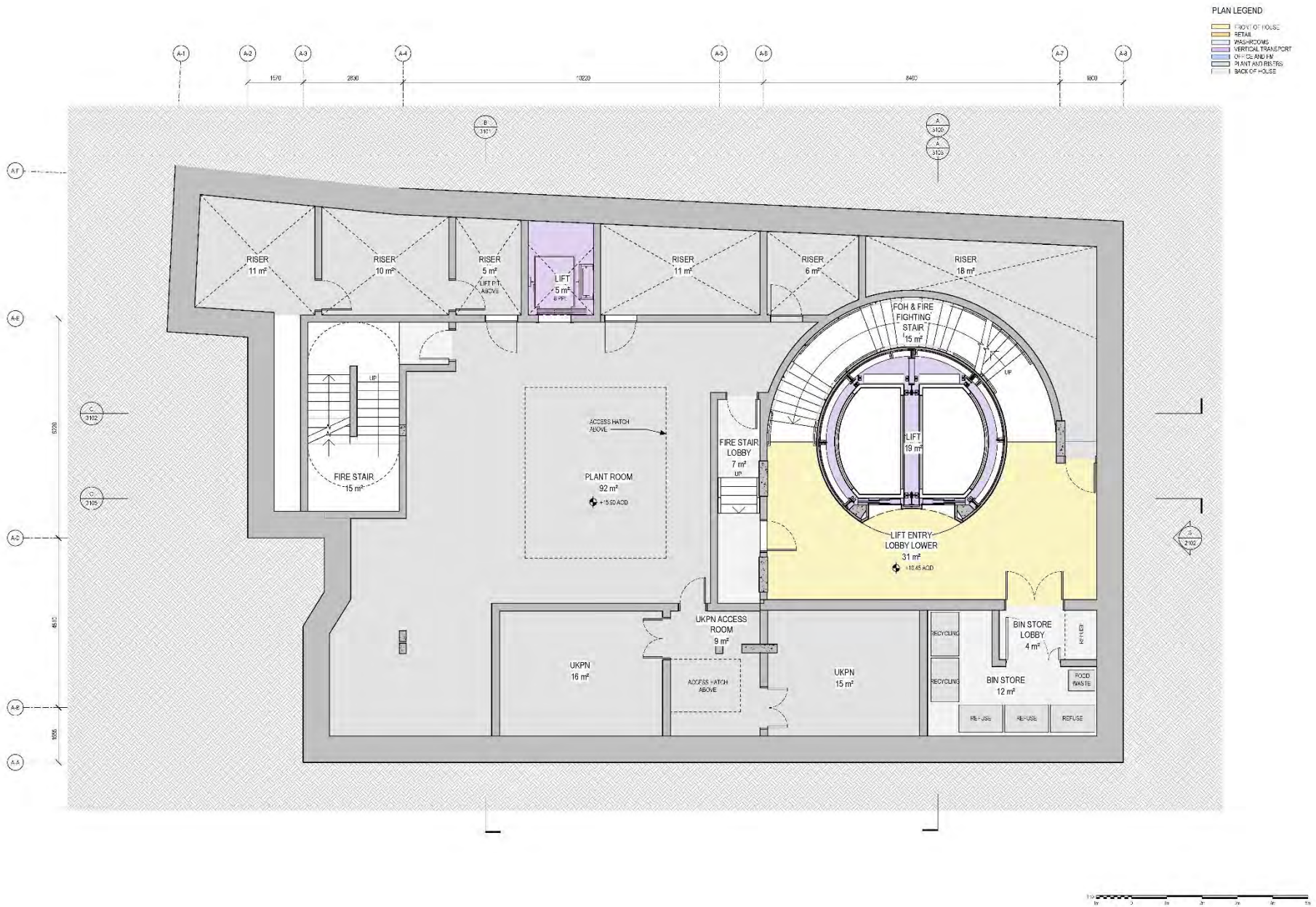
38-41 Furnival Street – Roof - Existing



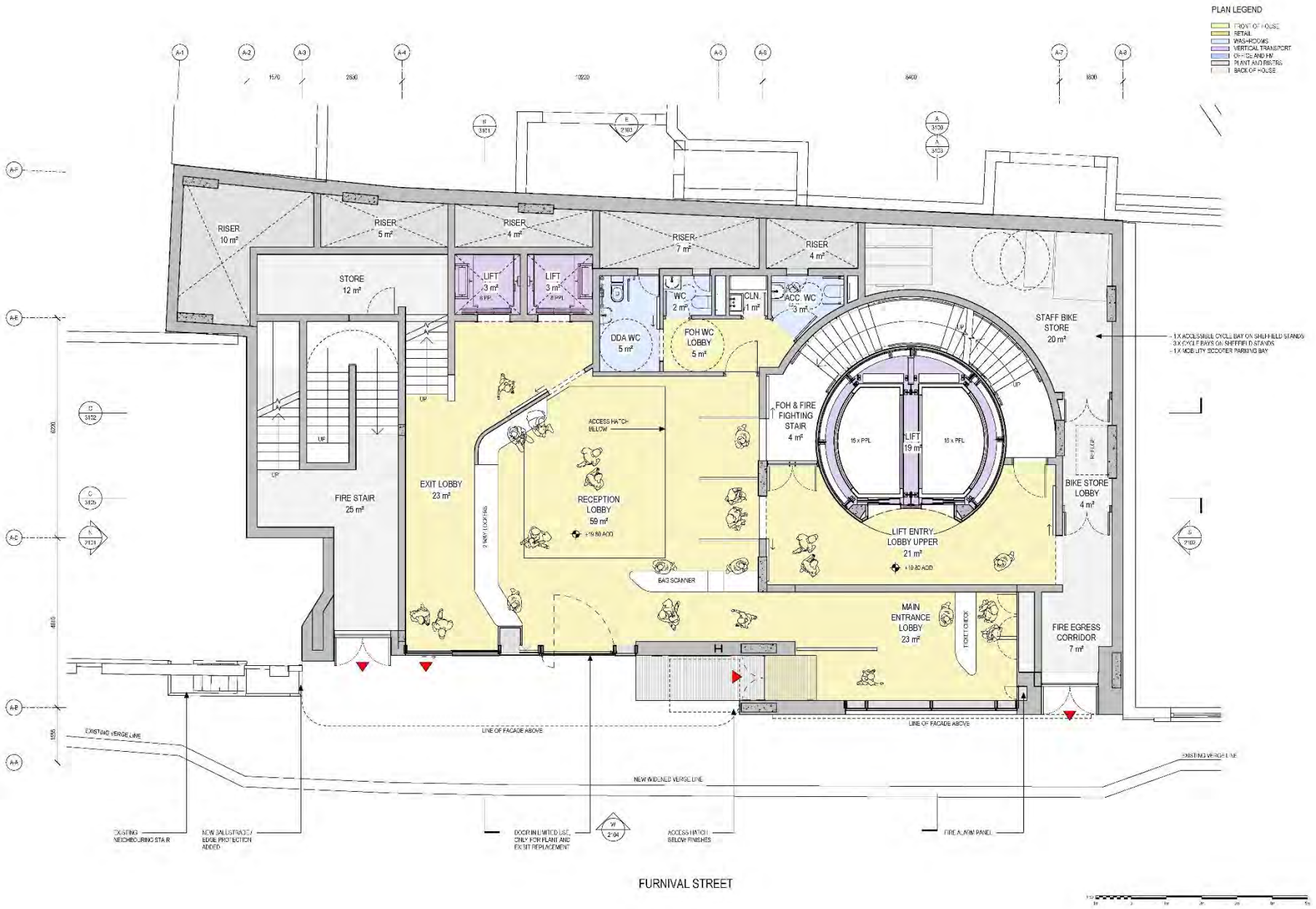
38-41 Furnival Street – Basement 03 - Proposed



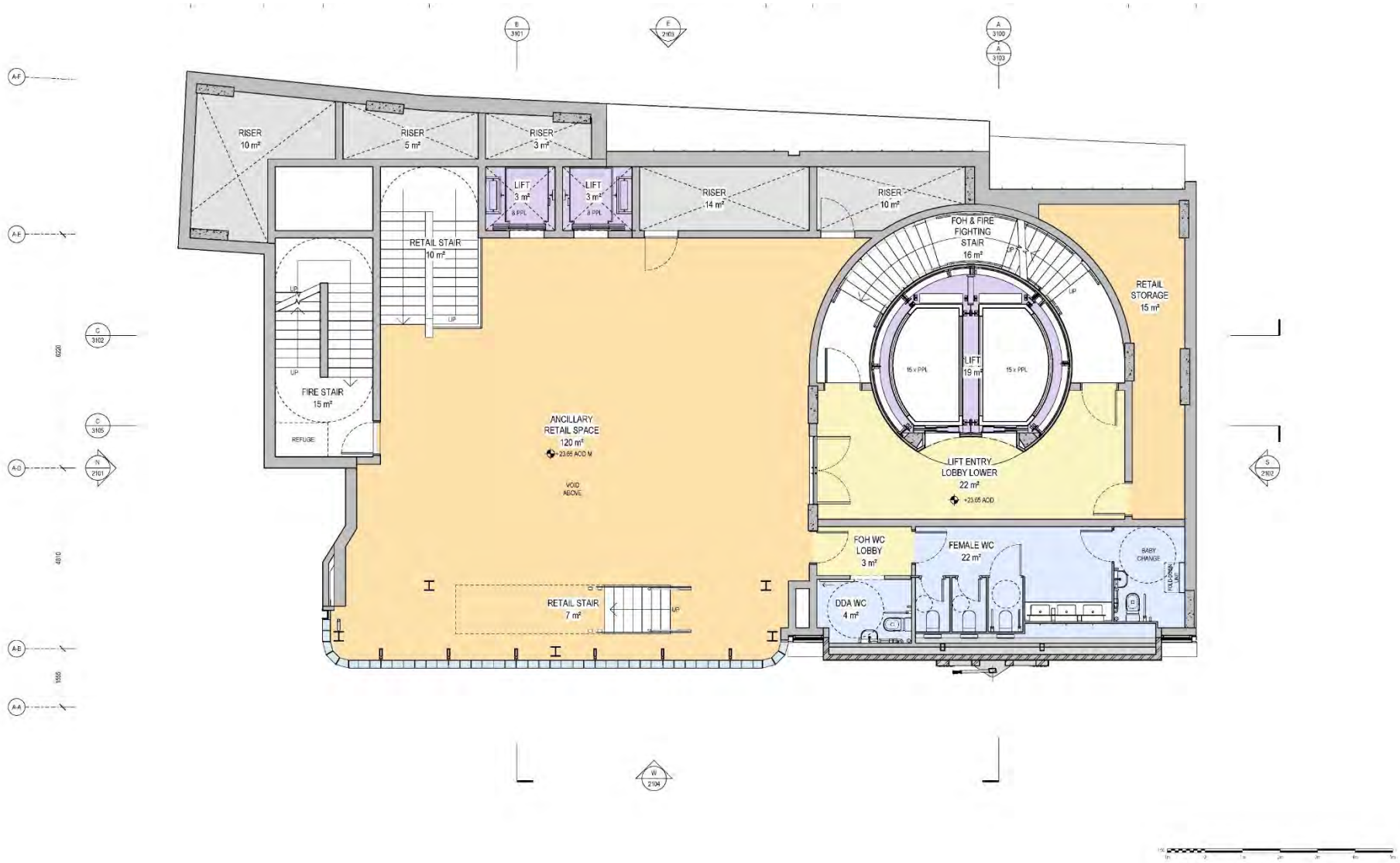
38-41 Furnival Street – Basement 02 - Proposed



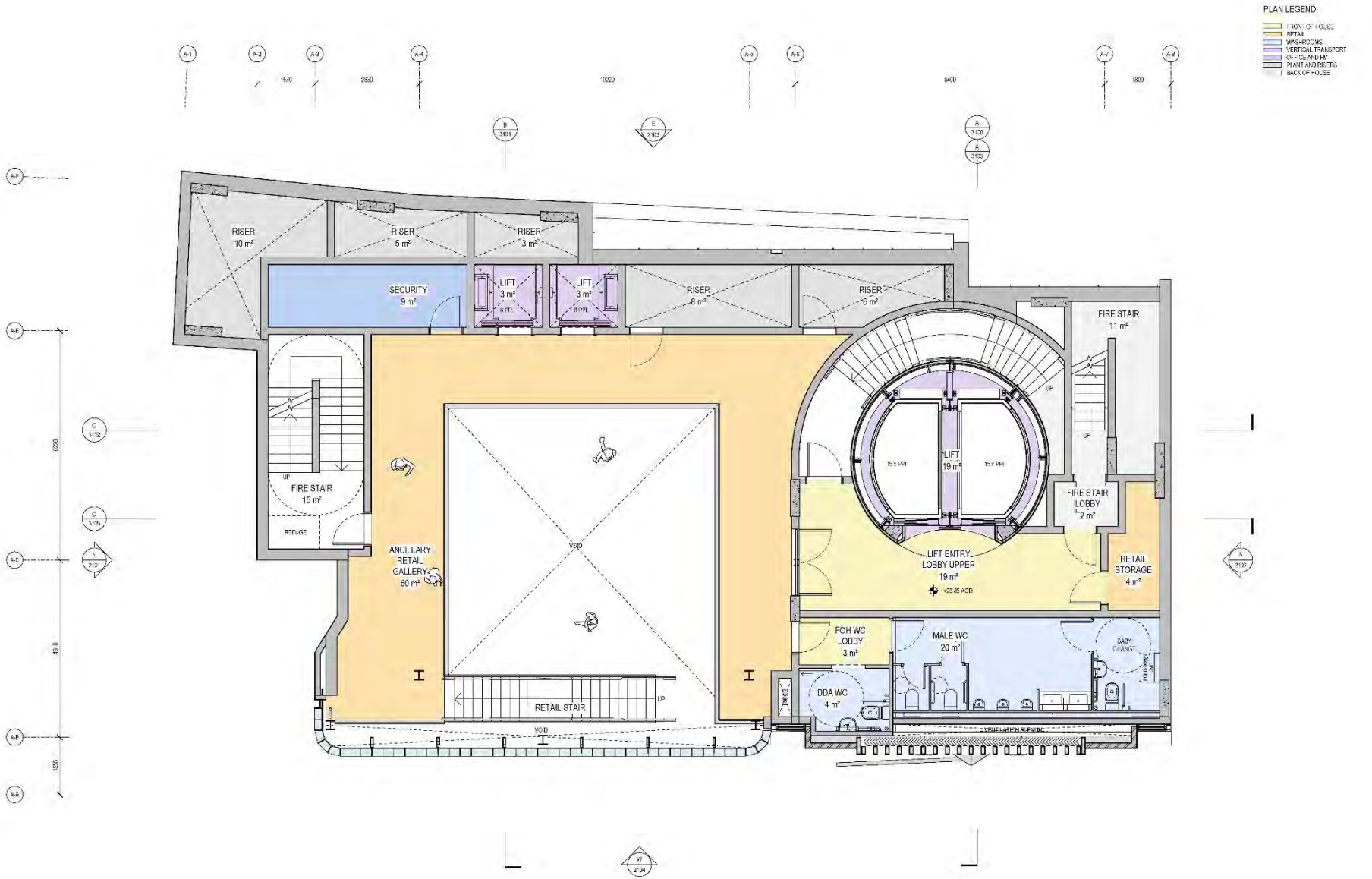
38-41 Furnival Street – Basement 01 - Proposed



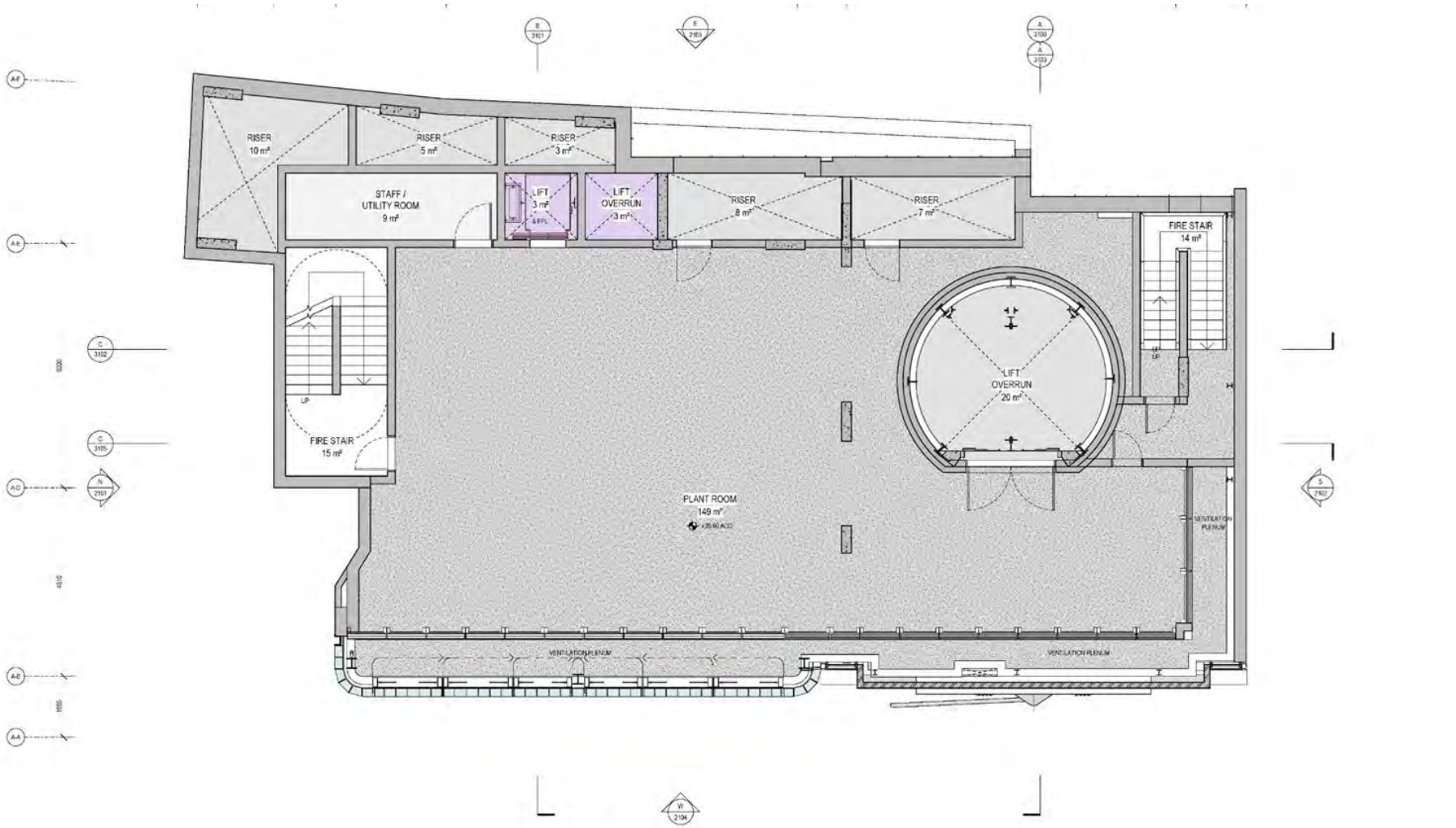
38-41 Furnival Street – Ground Floor - Proposed



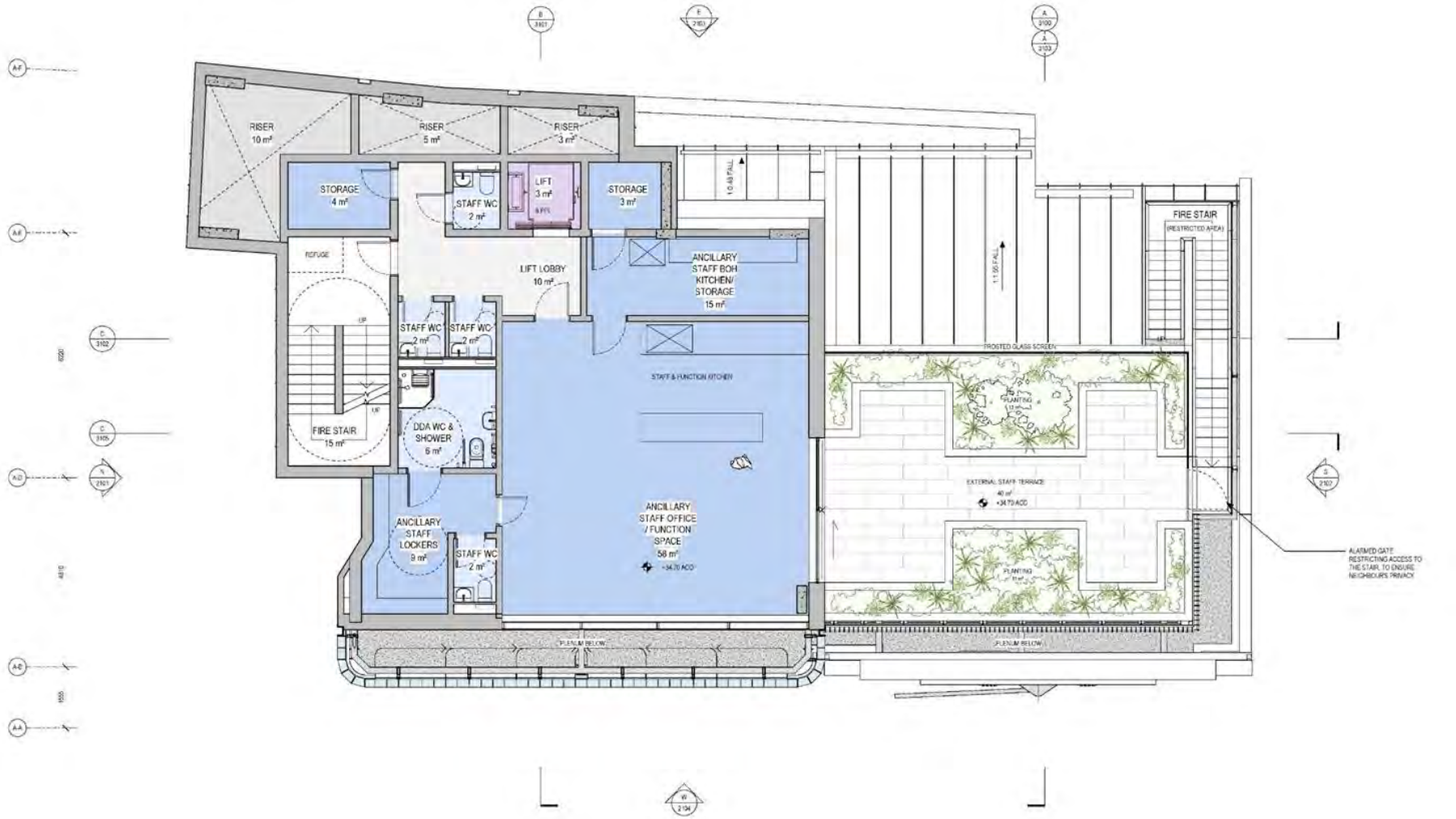
38-41 Furnival Street – Floor 01- Proposed



38-41 Furnival Street – Floor 02- Proposed

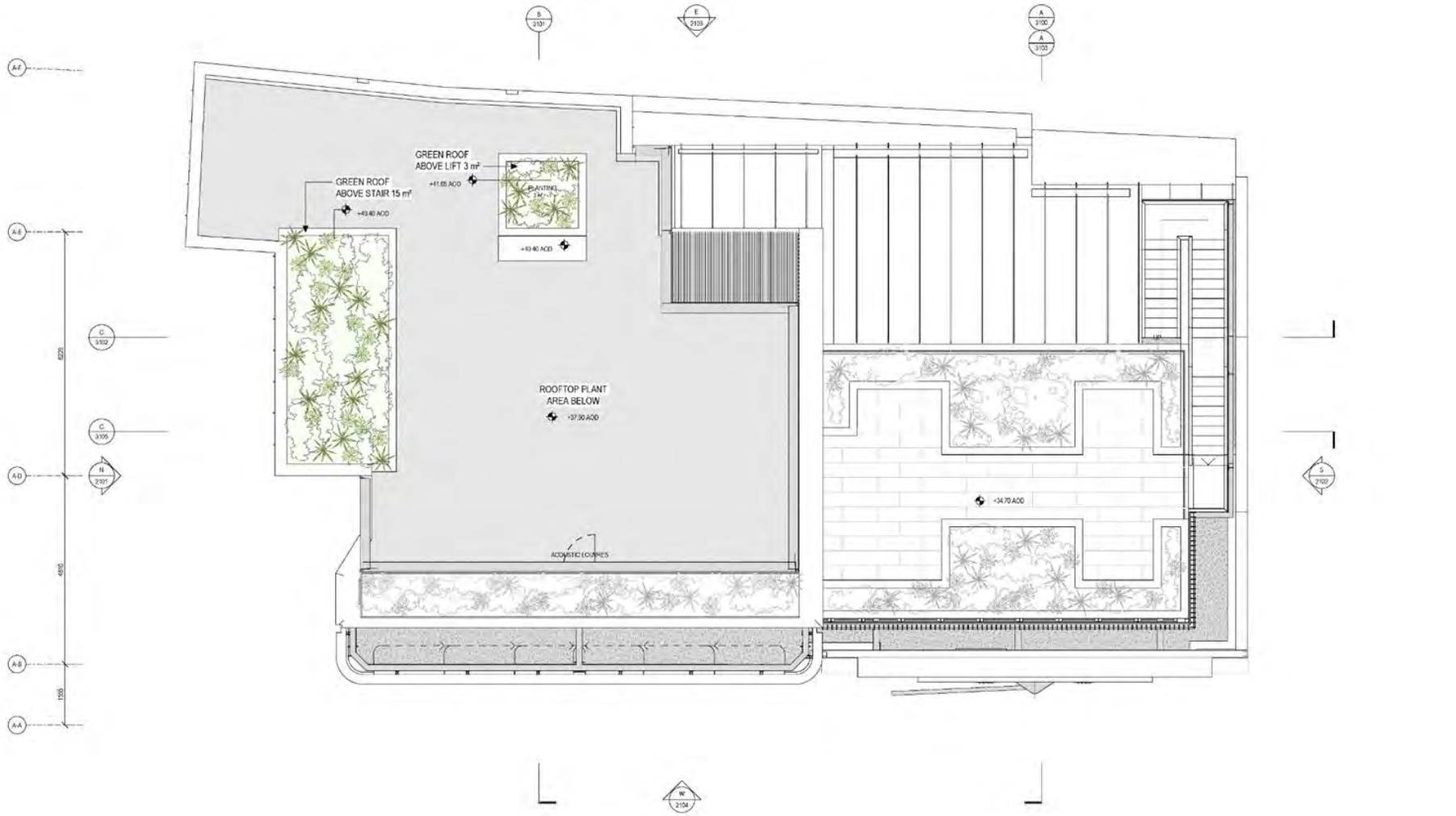


38-41 Furnival Street – Floor 03- Proposed

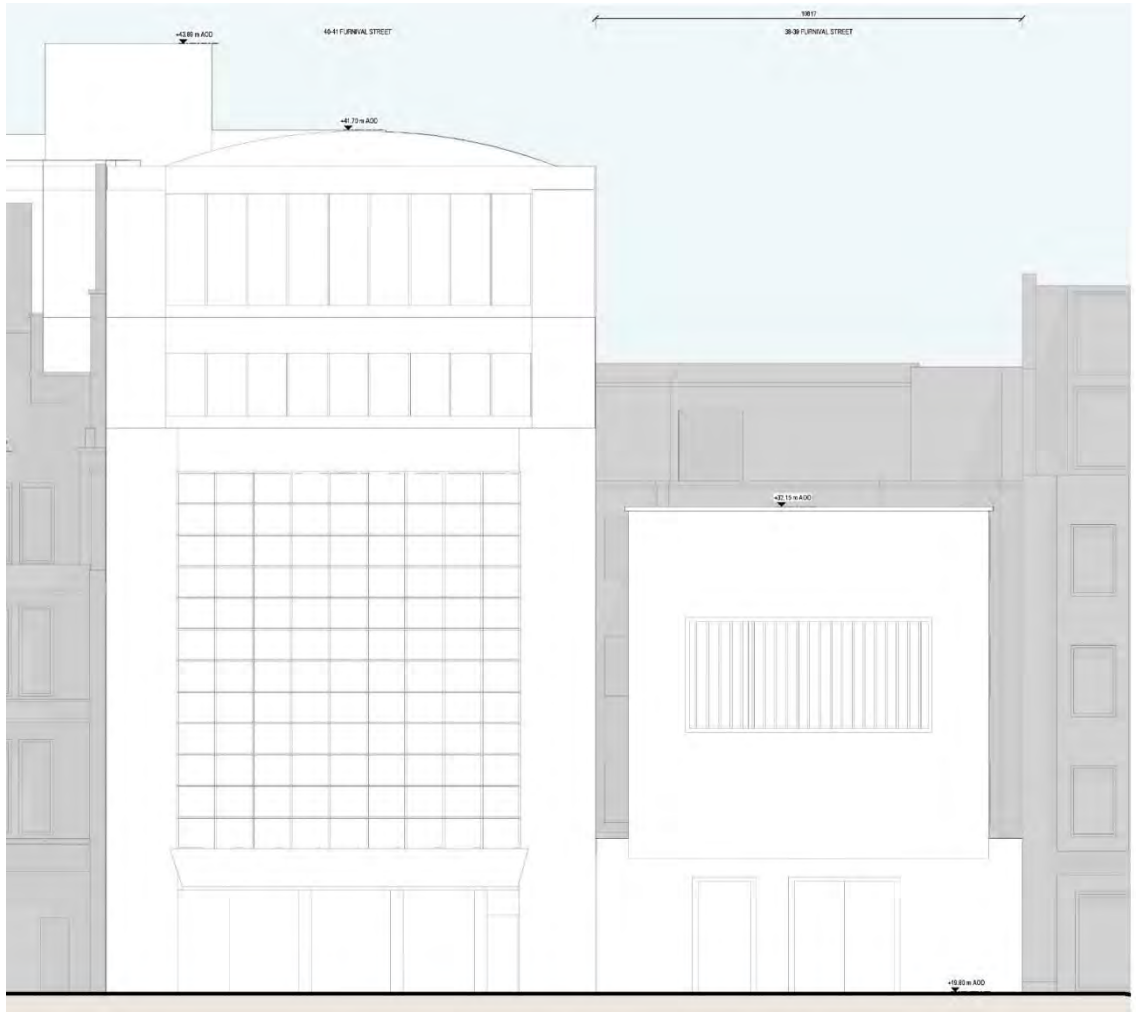


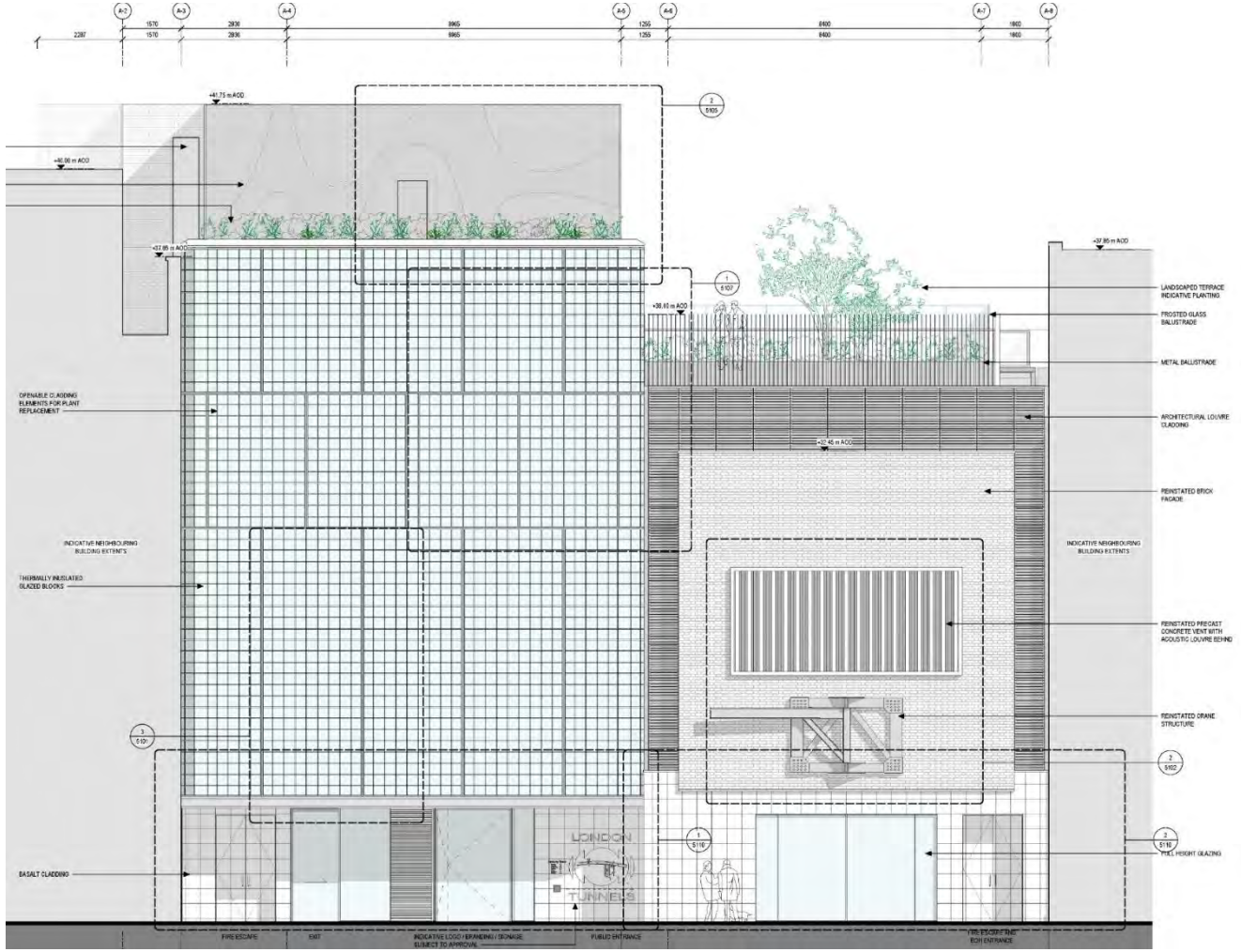
38-41 Furnival Street – Floor 04- Proposed

38-41 Furnival Street – Floor 05- Proposed



38-41 Furnival Street – Roof - Proposed

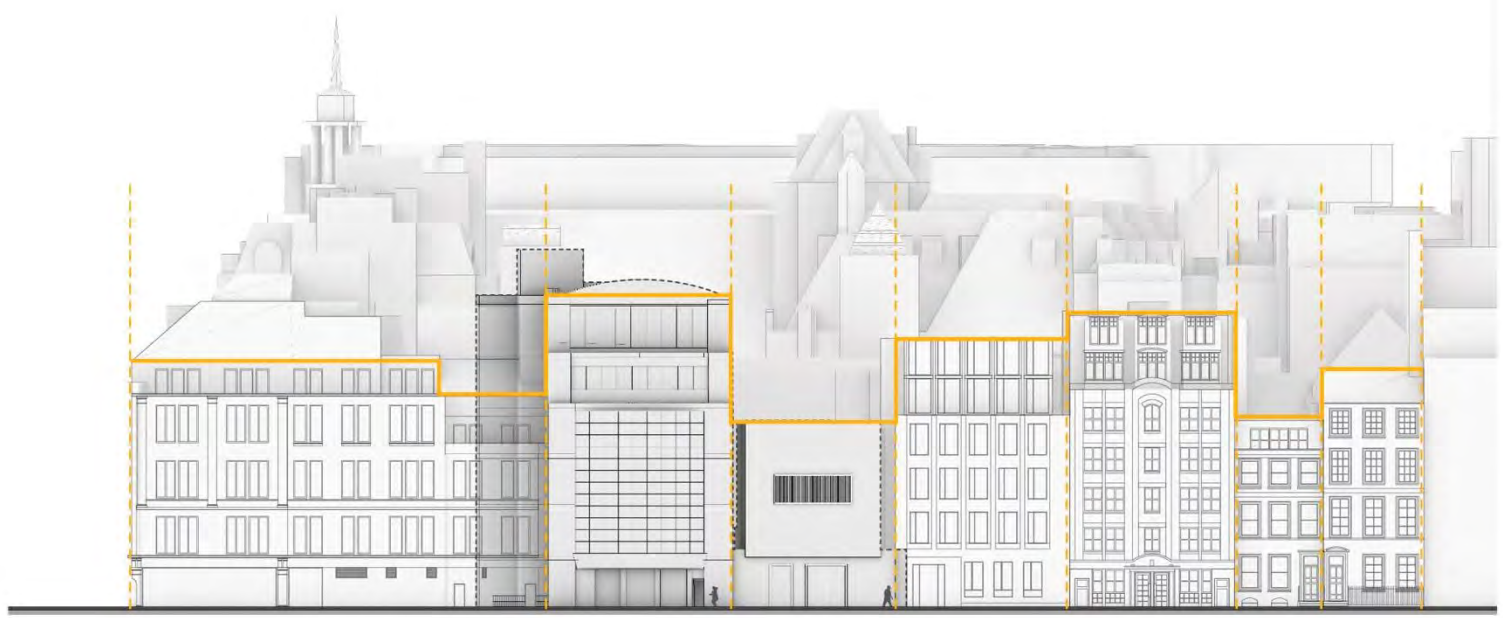




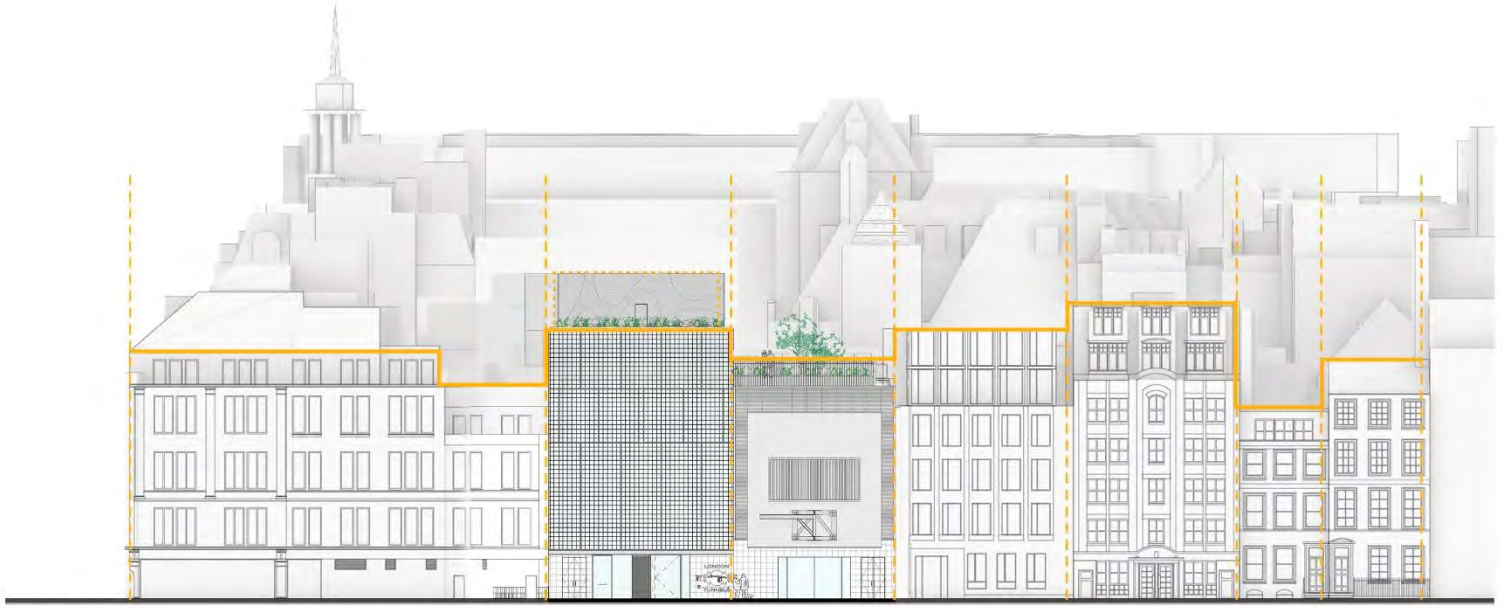
Existing

Proposed

38-41 Furnival Street – West Elevation – Existing (left) and Proposed (right)

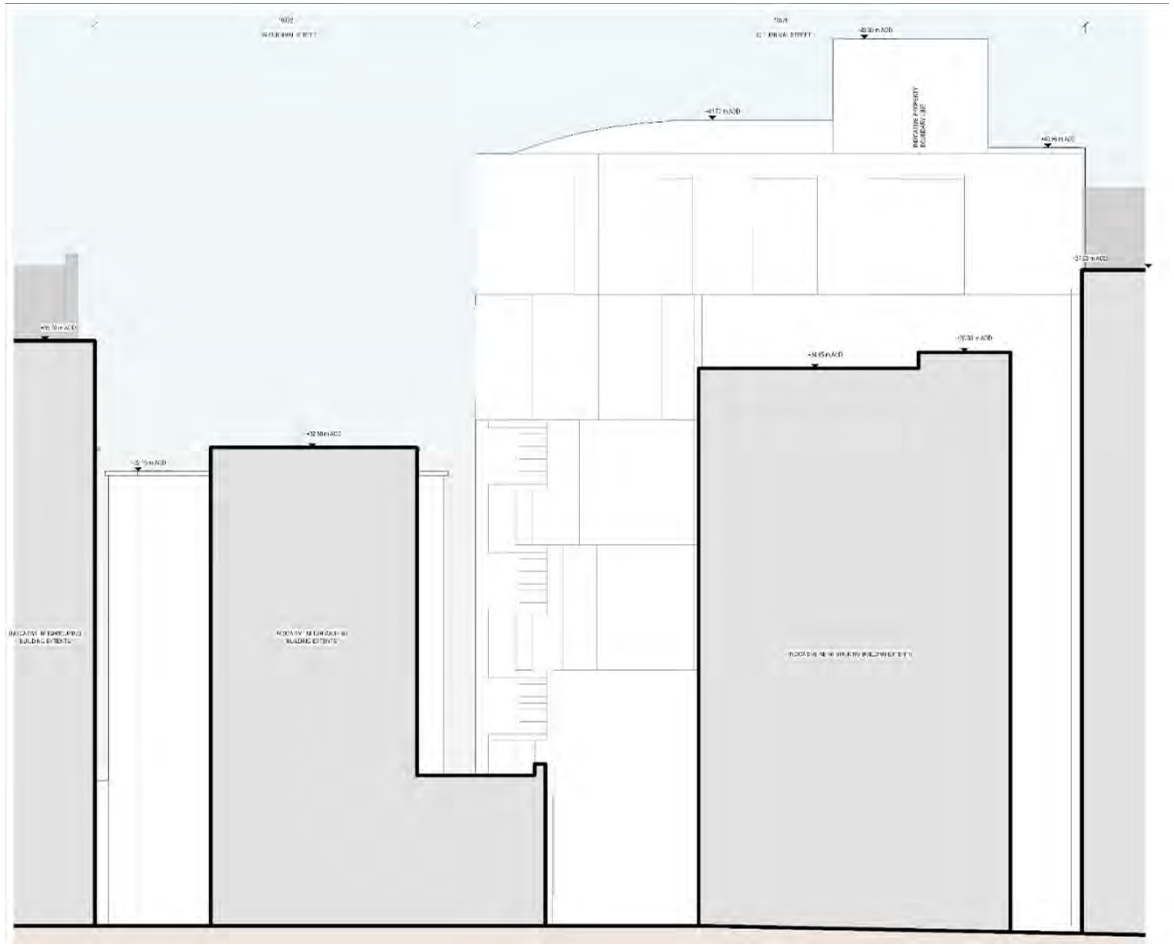


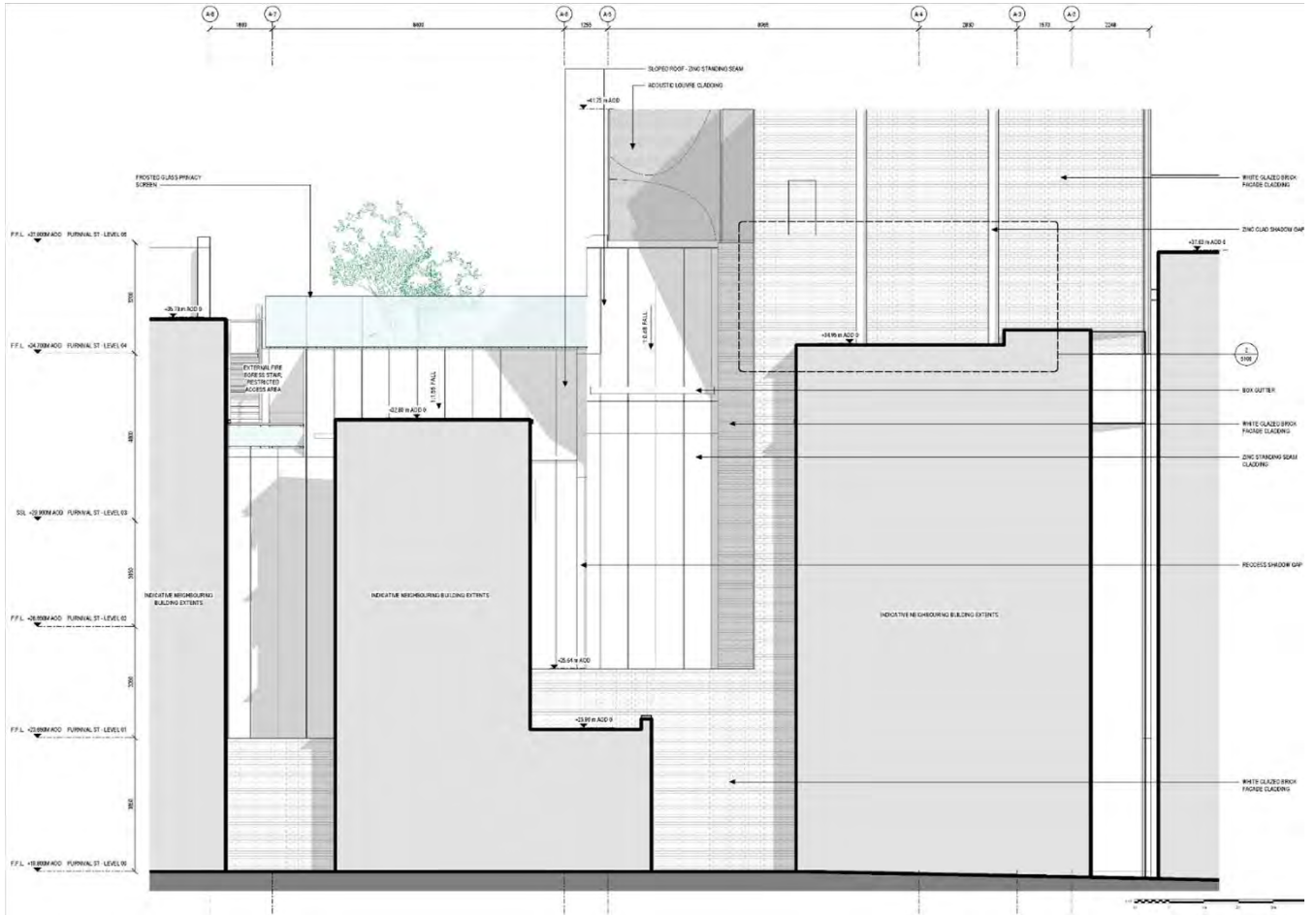
Existing Elevation



Proposed Elevation

38-41 Furnival Street – Existing and Proposed Long West Elevation

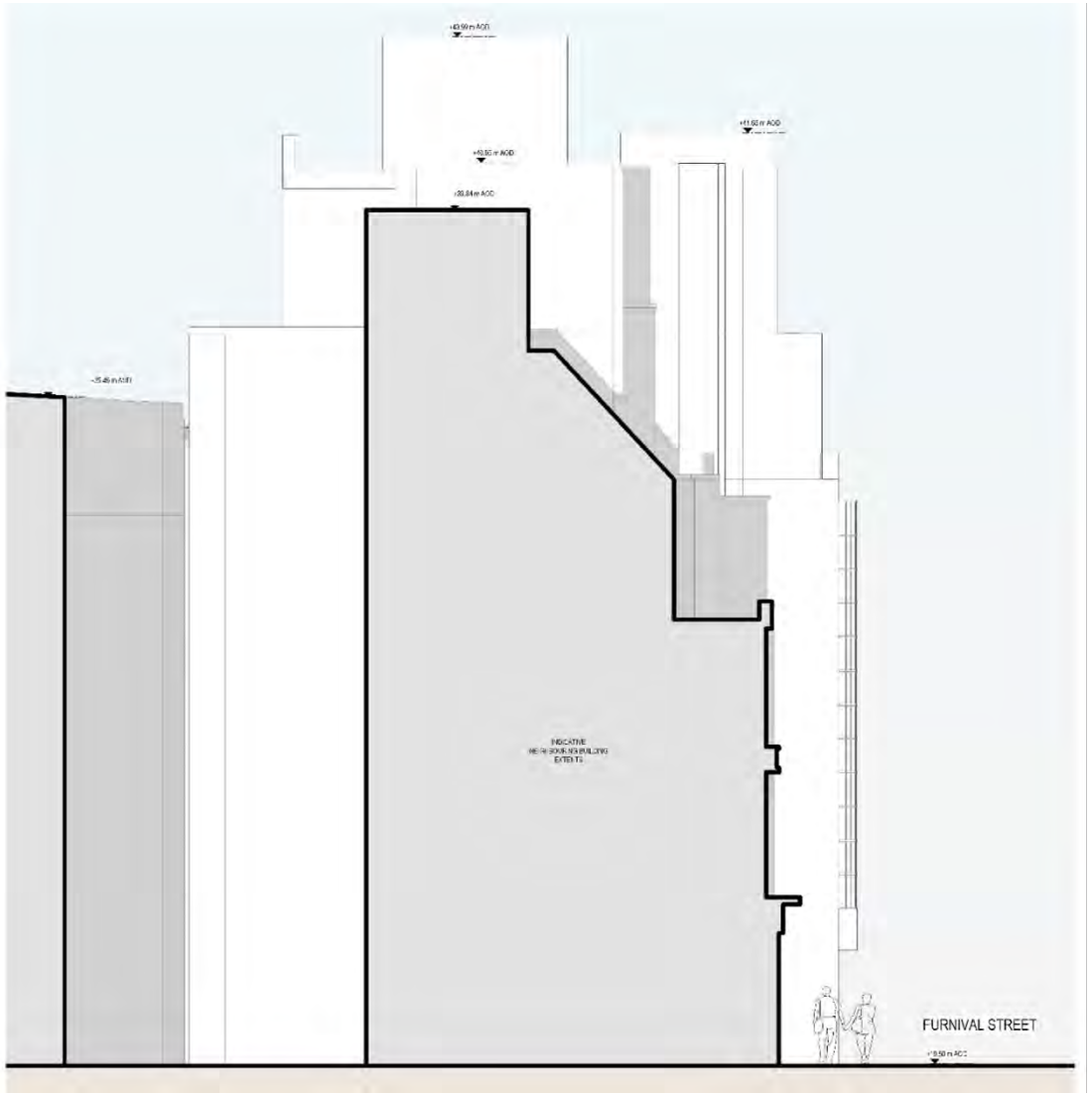




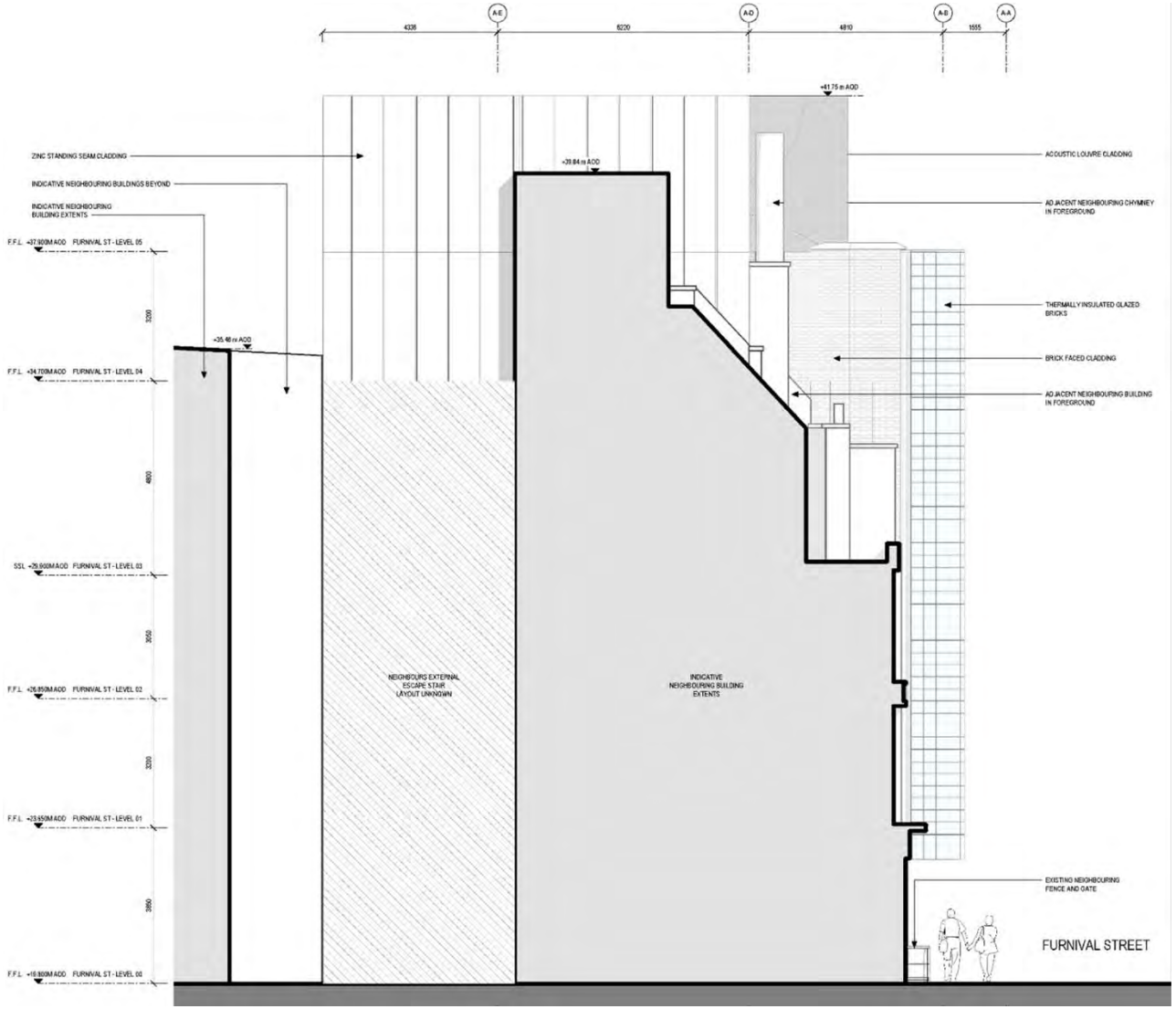
Existing

Proposed

38-41 Furnival Street – East Elevation – Existing (left) Proposed (right)

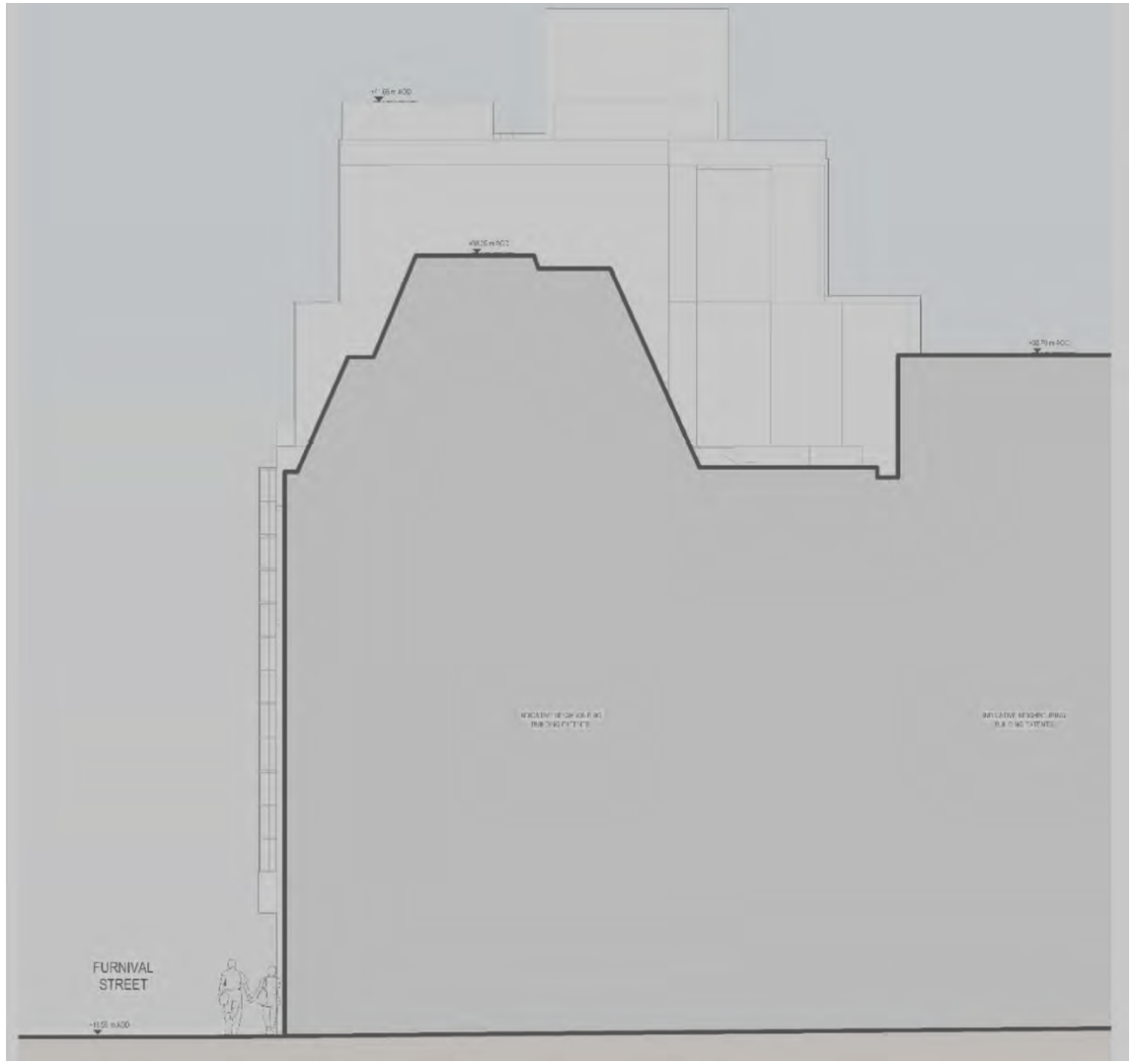


Existing

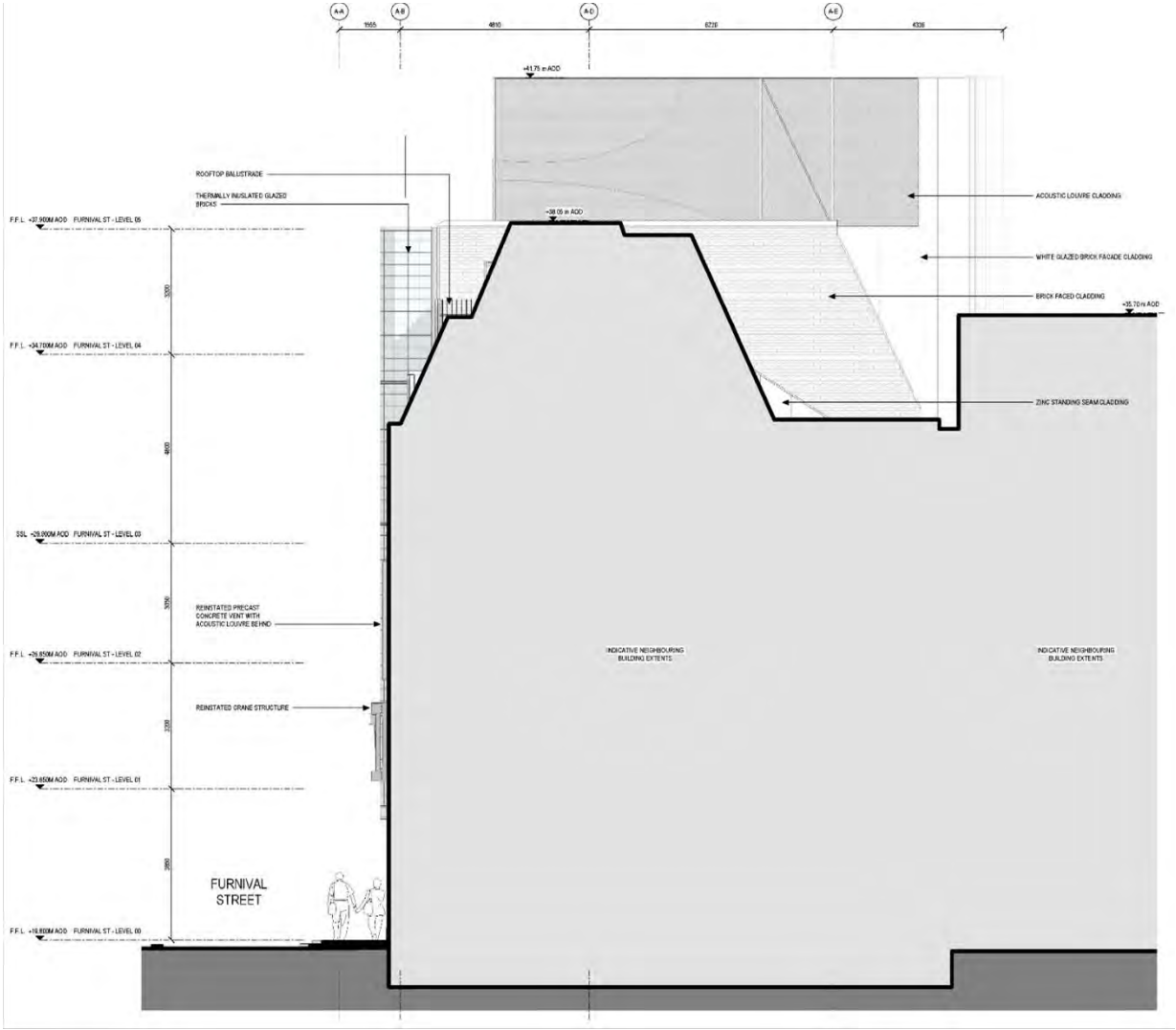


Proposed

38-41 Furnival Street – North Elevation – Existing (left) Proposed (right)

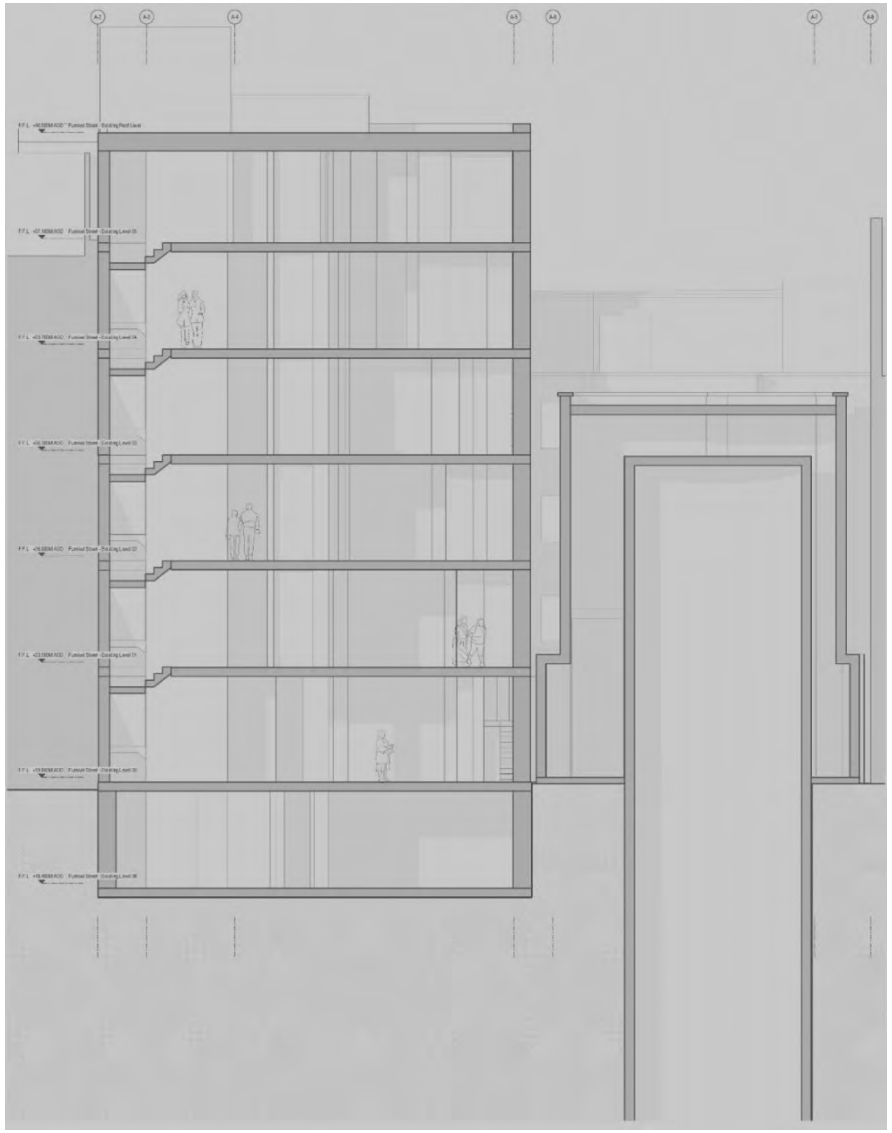


Existing

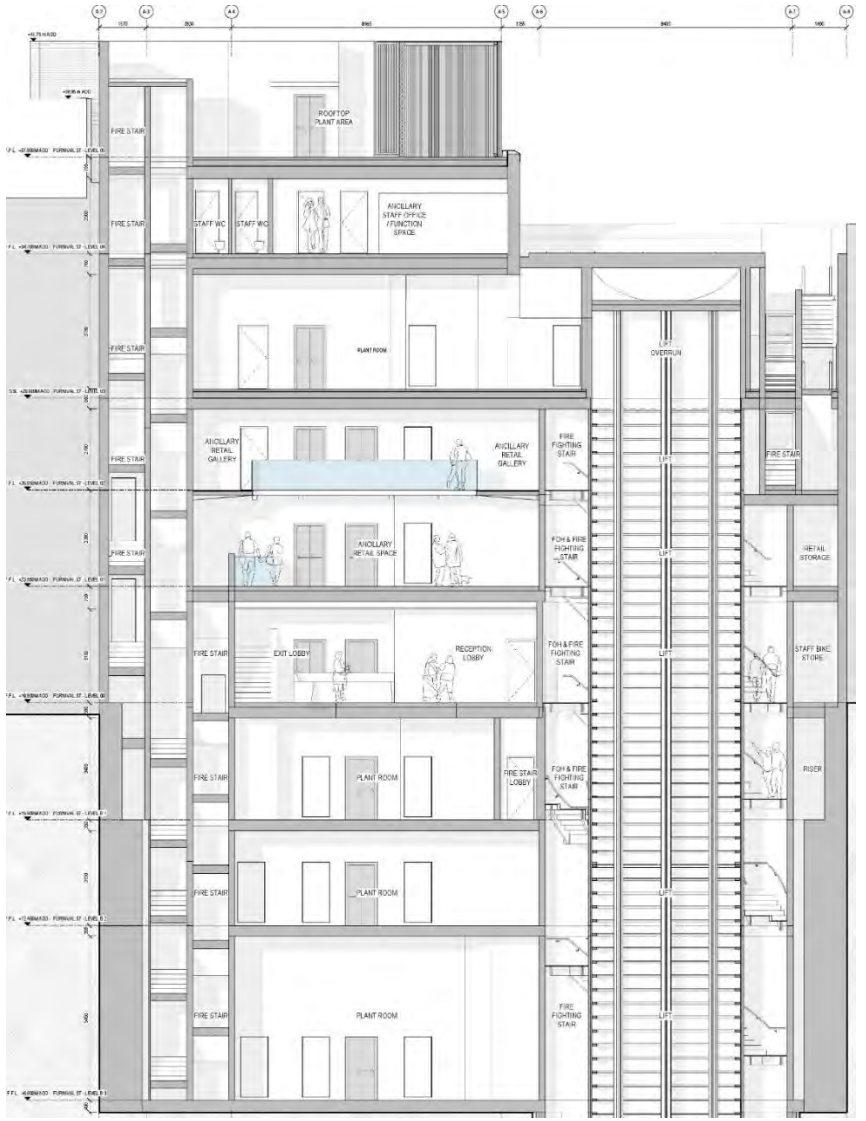


Proposed

38-41 Furnival Street – South Elevation – Existing (left) Proposed (right)

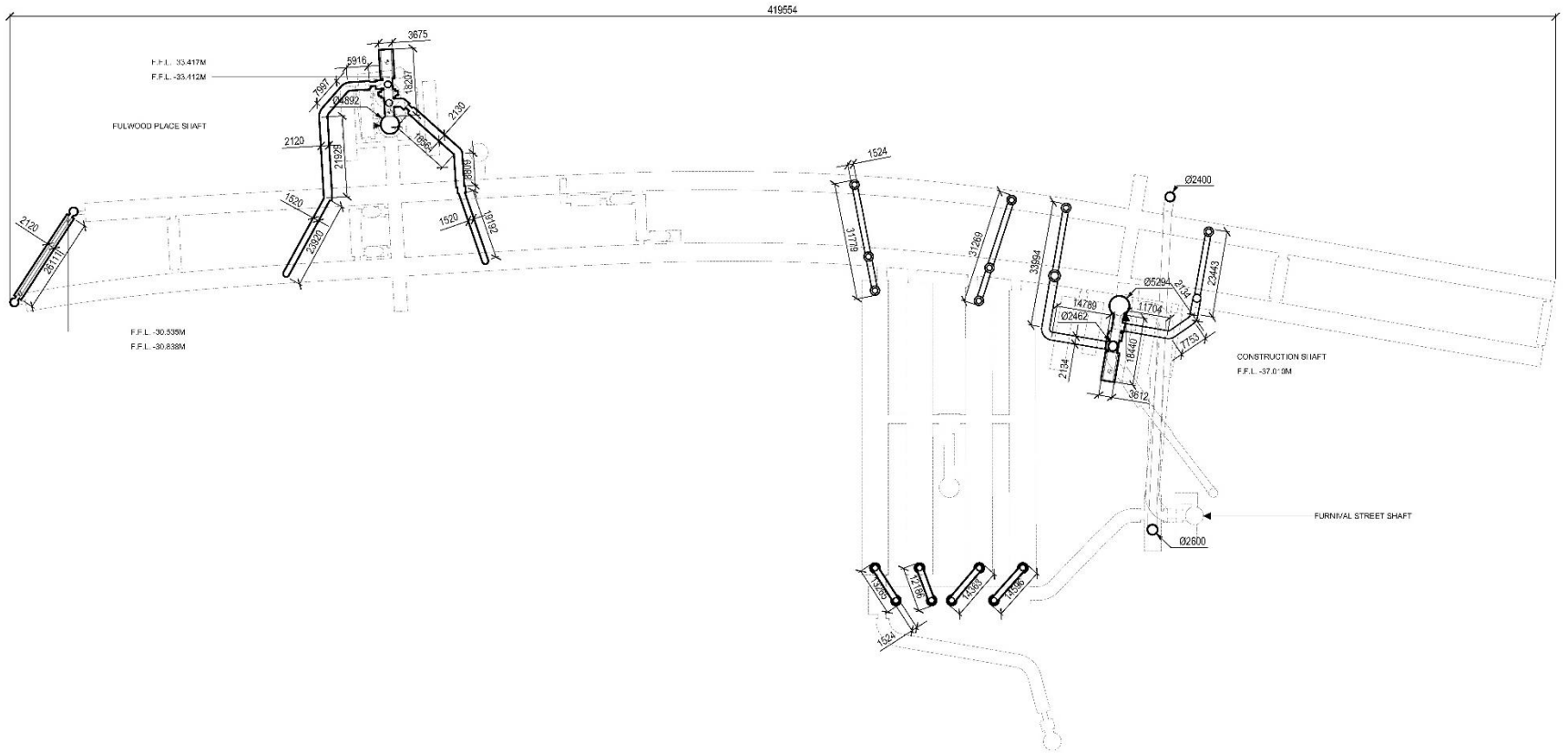


Existing

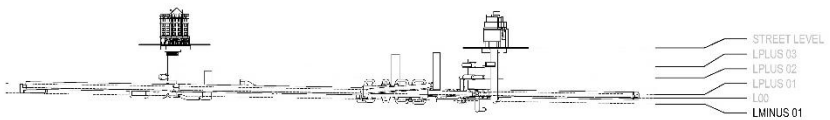


Proposed

38-41 Furnival Street – Cross Section – Existing (left) Proposed (right)



INDICATIVE ELEVATION
(NOT TO SCALE)



EXISTING EQUIPMENTS

EXISTING PARTITION WALLS

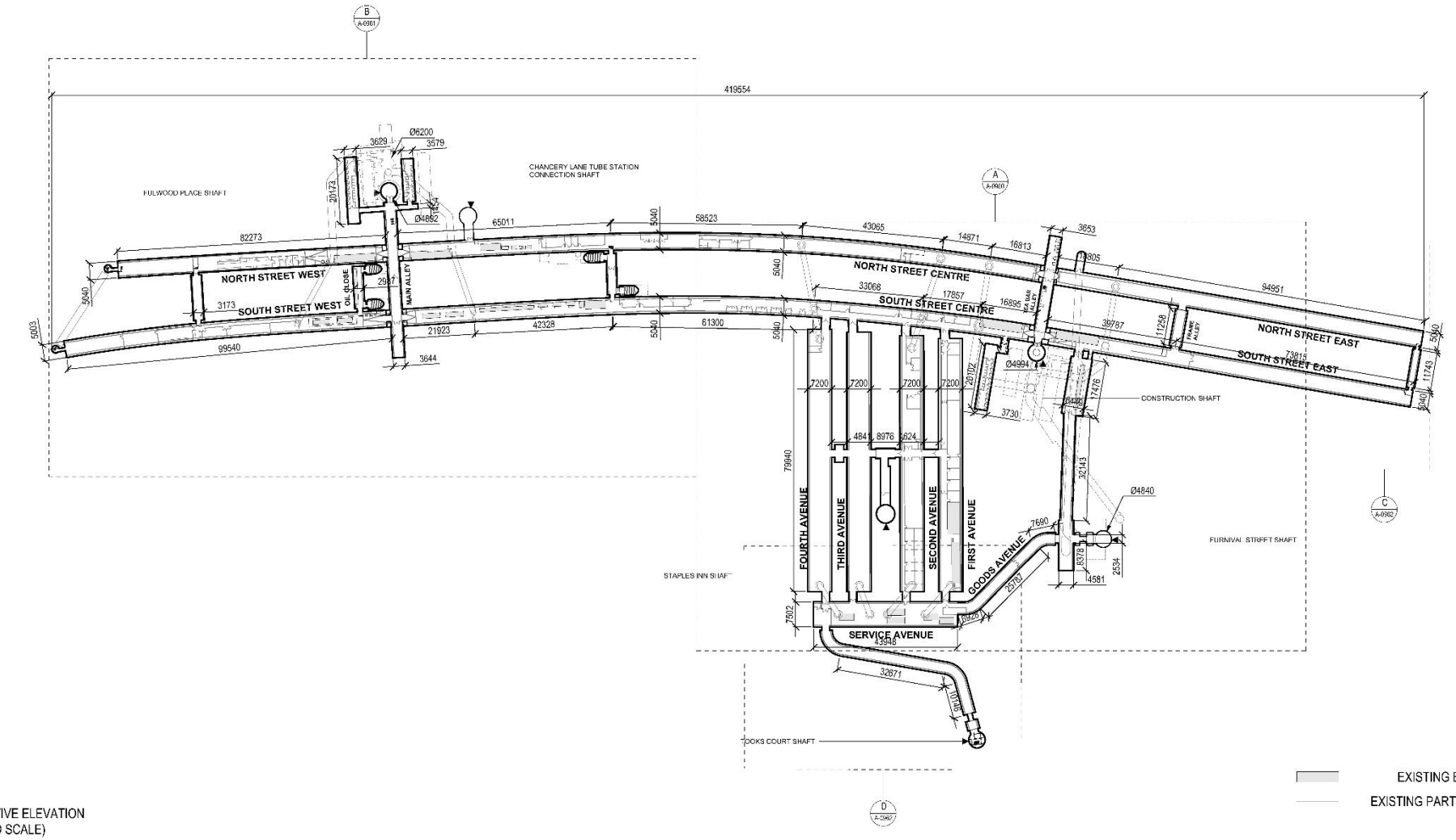
NOTE: LEVELS NOT ACCORDING TO OSM DATUM, REFER TO GENERAL NOTES

NOTE: REFER TO COST CONSULTANTS INFORMATION REGARDING AREAS

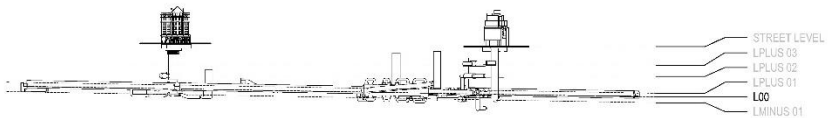
1:600

20m 0 20m 40m 60m 80m 100m

The Tunnels – Existing Plan – Level -1



INDICATIVE ELEVATION
(NOT TO SCALE)



EXISTING EQUIPMENTS

EXISTING PARTITION WALLS

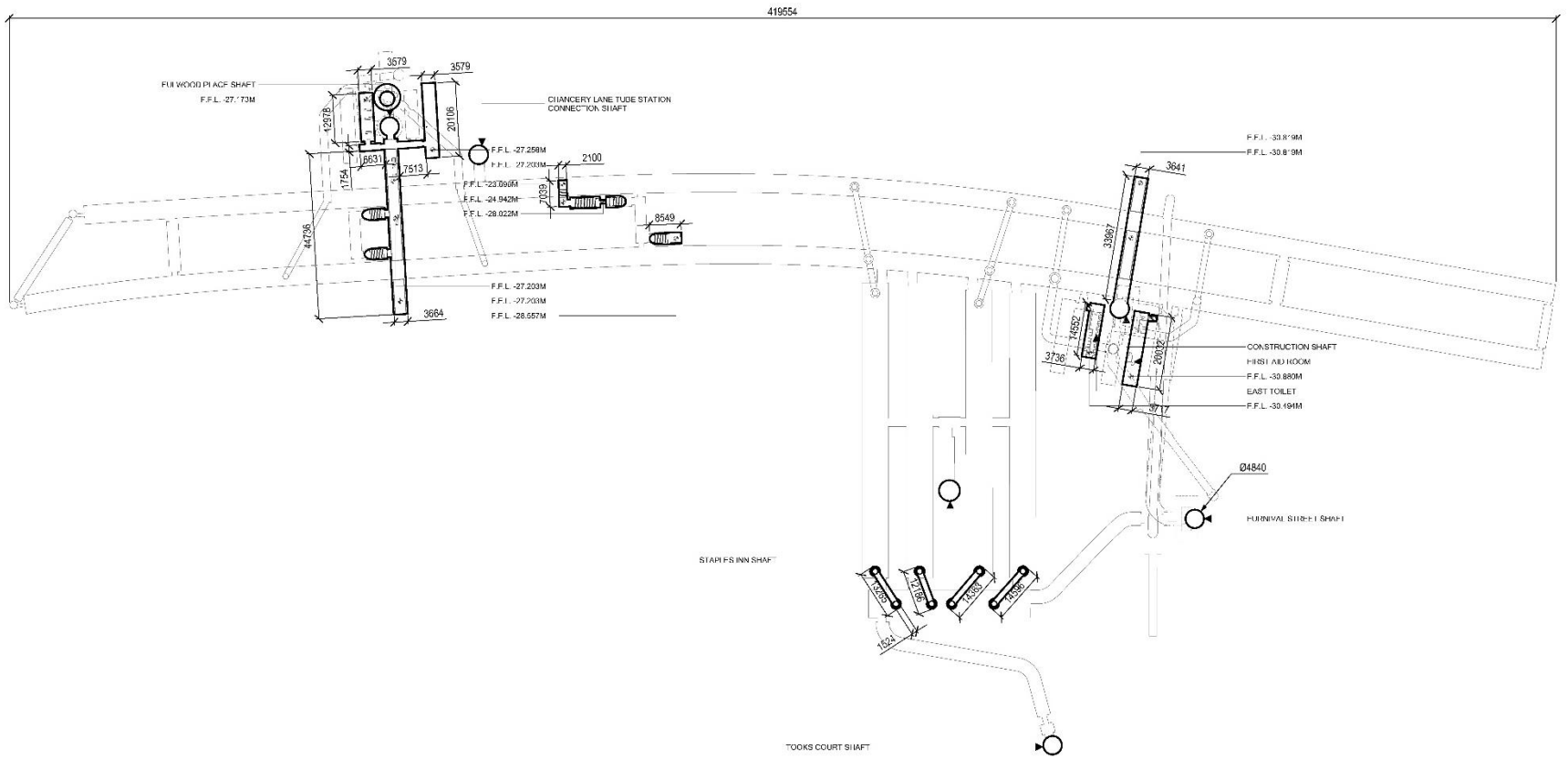
NOTE: LEVELS NOT ACCORDING TO OSM DATUM, REFER TO GENERAL NOTES

NOTE: REFER TO COST CONSULTANTS INFORMATION REGARDING AREAS

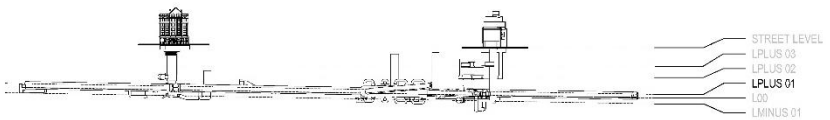
1:600

20m 0 20m 40m 60m 80m 100m

The Tunnels – Existing Plan – Level 0



INDICATIVE ELEVATION
(NOT TO SCALE)



EXISTING EQUIPMENTS

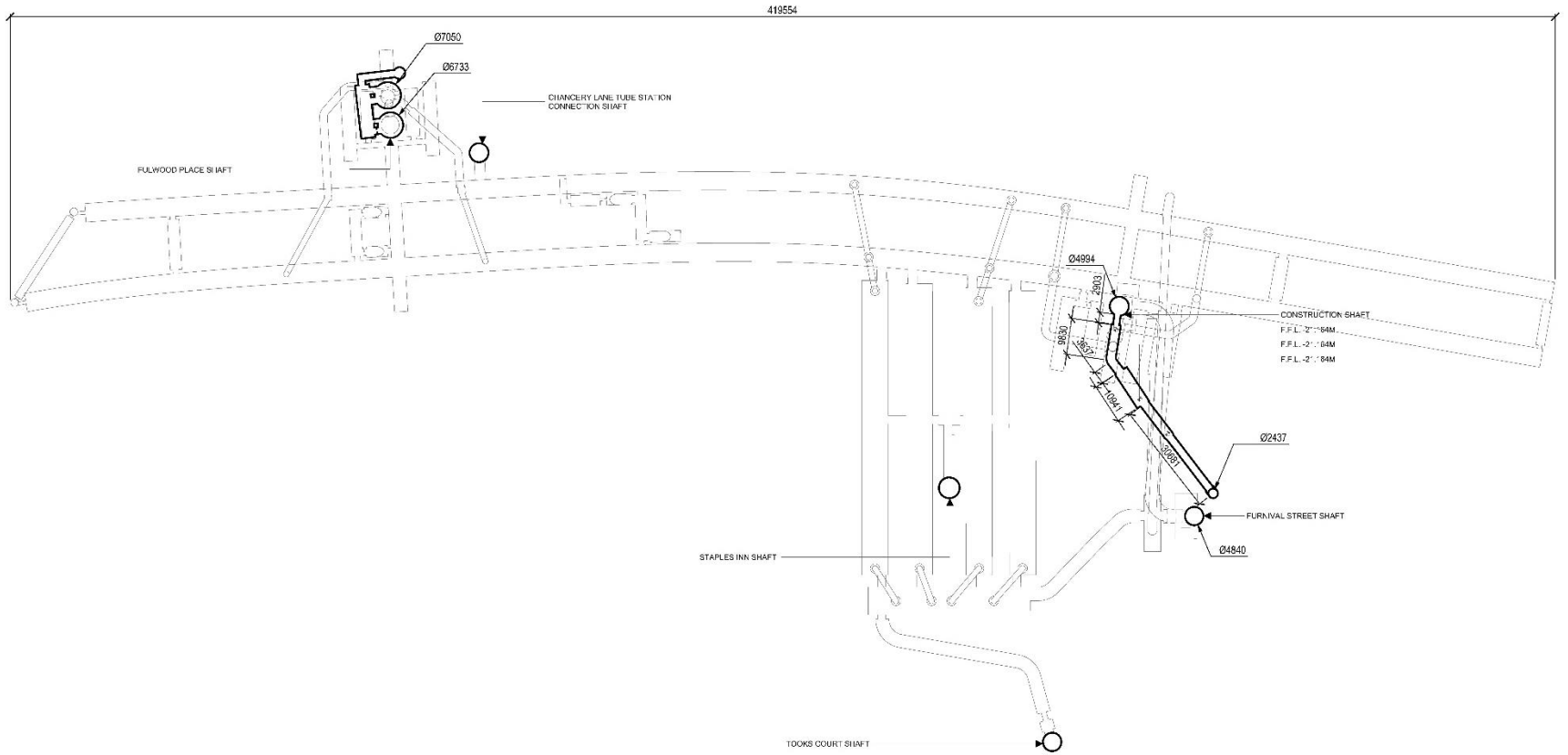
EXISTING PARTITION WALLS

NOTE: LEVELS NOT ACCORDING TO OSM DATUM, REFER TO GENERAL NOTES

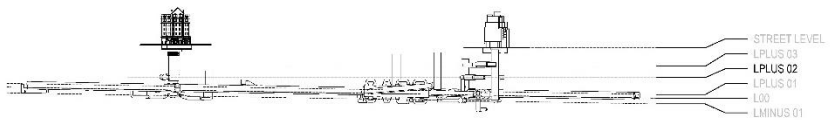
NOTE: REFER TO COST CONSULTANTS INFORMATION REGARDING AREAS

1:600
20m 0 20m 40m 60m 80m 100m

The Tunnels – Existing Plan – Level 1



INDICATIVE ELEVATION
(NOT TO SCALE)



EXISTING EQUIPMENTS

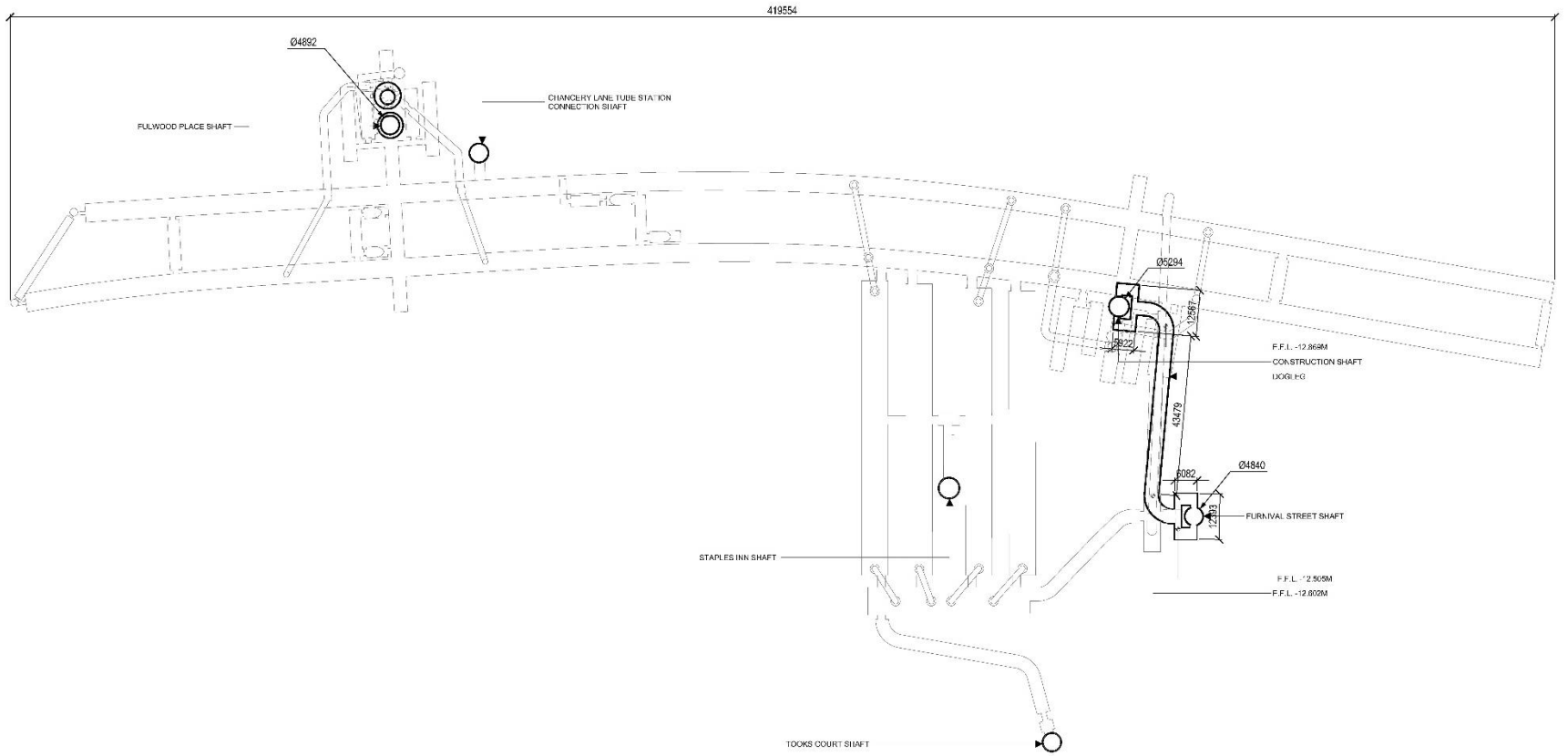
EXISTING PARTITION WALLS

NOTE: LEVELS NOT ACCORDING TO OSM DATUM, REFER TO GENERAL NOTES

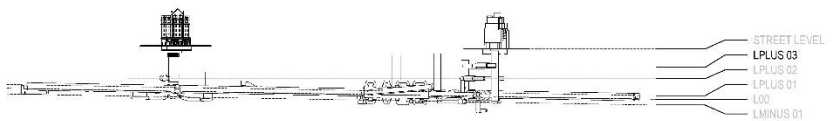
NOTE: REFER TO COST CONSULTANTS INFORMATION REGARDING AREAS

1:600
20m 0 20m 40m 60m 80m 100m

The Tunnels – Existing Plan – Level 2



INDICATIVE ELEVATION
(NOT TO SCALE)



EXISTING EQUIPMENTS

EXISTING PARTITION WALLS

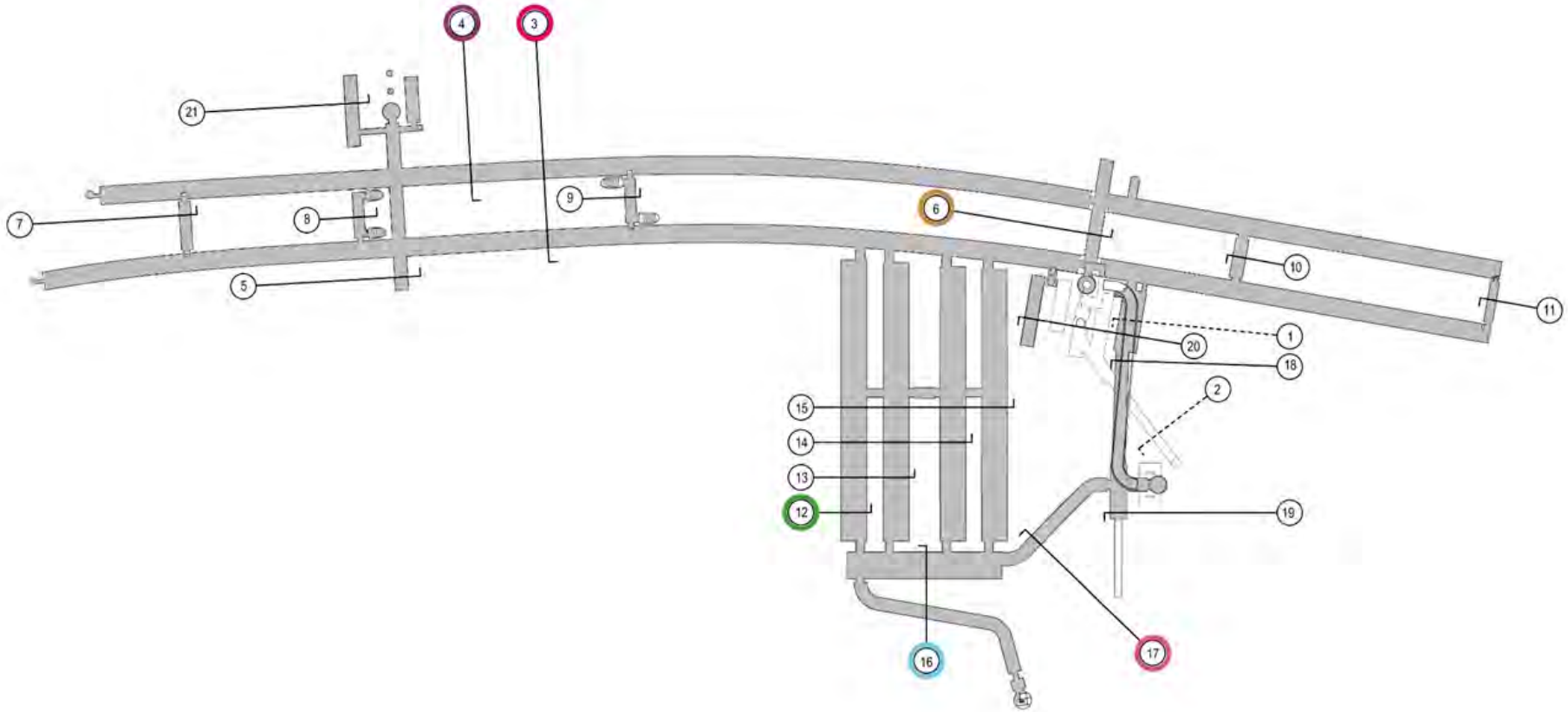
NOTE: LEVELS NOT ACCORDING TO OSM DATUM, REFER TO GENERAL NOTES

NOTE: REFER TO COST CONSULTANTS INFORMATION REGARDING AREAS

1:600

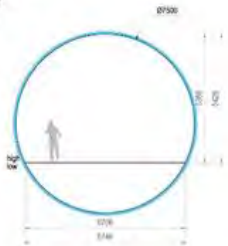
20m 0 20m 40m 60m 80m 100m

The Tunnels – Existing Plan – Level 3



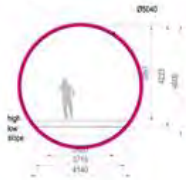
Section 17
Entrance Corridor

Section 16
Lobby

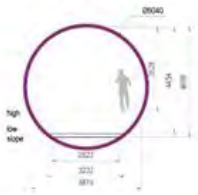


Section 12
Avenue

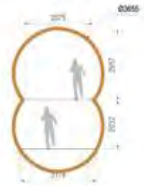
Section 3
South Street



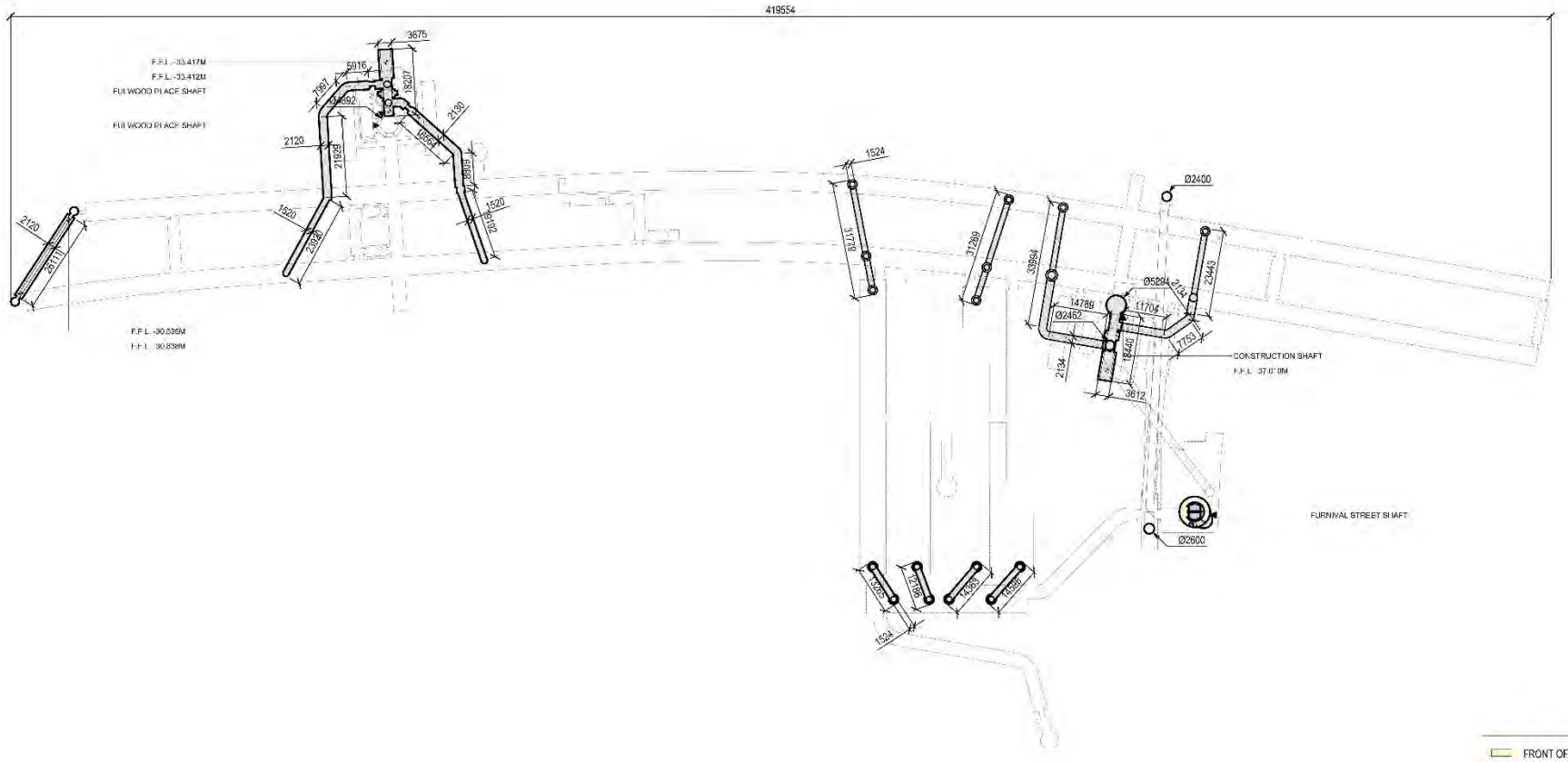
Section 4
North Street



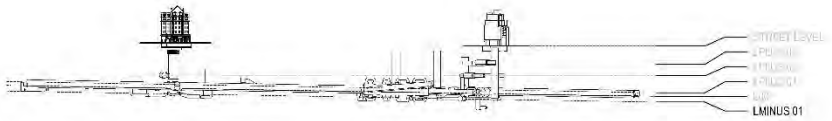
Section 6
Double-decker Alley



The Tunnels – Existing Tunnels Sections



INDICATIVE ELEVATION
(NOT TO SCALE)



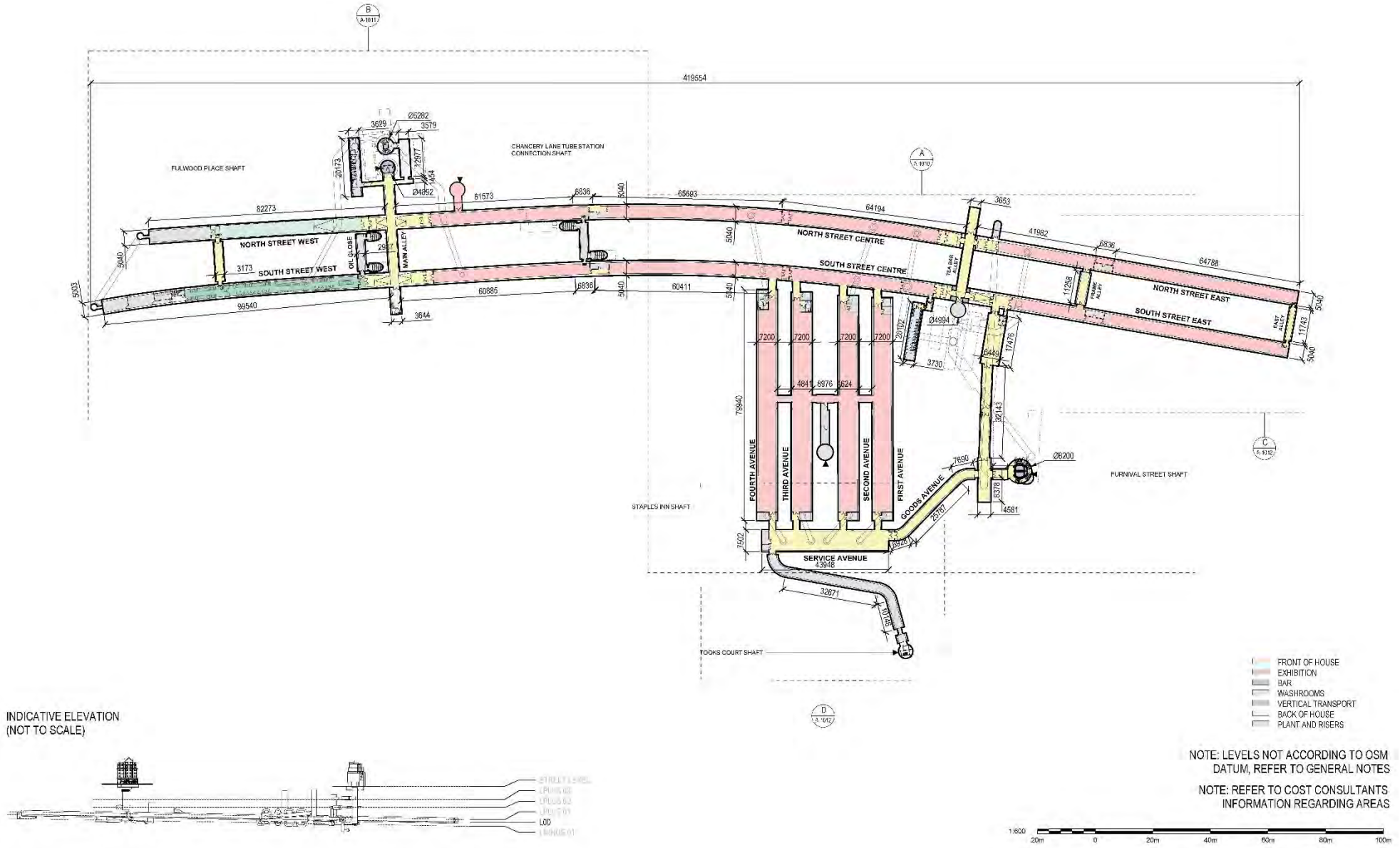
FRONT OF HOUSE
EXHIBITION
BAR
WASHROOMS
VERTICAL TRANSPORT
BACK OF HOUSE
PLANT AND RISERS

NOTE: LEVELS NOT ACCORDING TO OSM DATUM, REFER TO GENERAL NOTES

NOTE: REFER TO COST CONSULTANTS INFORMATION REGARDING AREAS

1:600
20m 0 20m 40m 60m 80m 100m

The Tunnels – Proposed Plan – Level -1



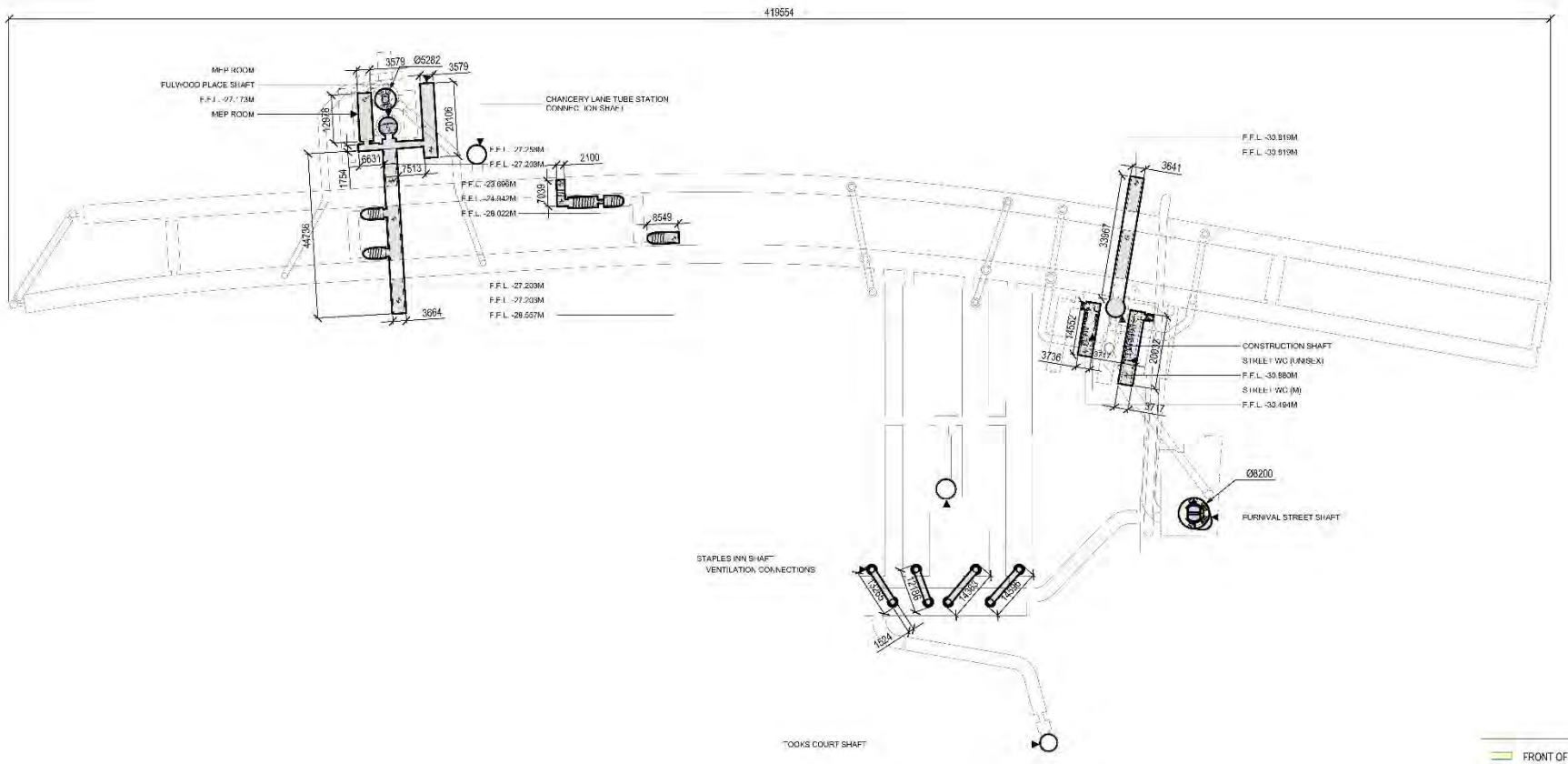
INDICATIVE ELEVATION
(NOT TO SCALE)

NOTE: LEVELS NOT ACCORDING TO OSM DATUM, REFER TO GENERAL NOTES

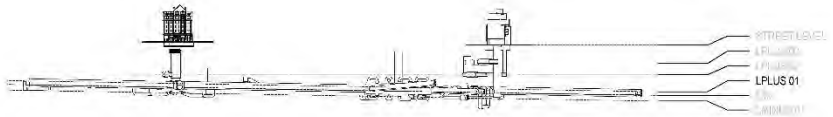
NOTE: REFER TO COST CONSULTANTS INFORMATION REGARDING AREAS

1:600
20m 0 20m 40m 60m 80m 100m

The Tunnels – Proposed Plan – Level 0



INDICATIVE ELEVATION
(NOT TO SCALE)



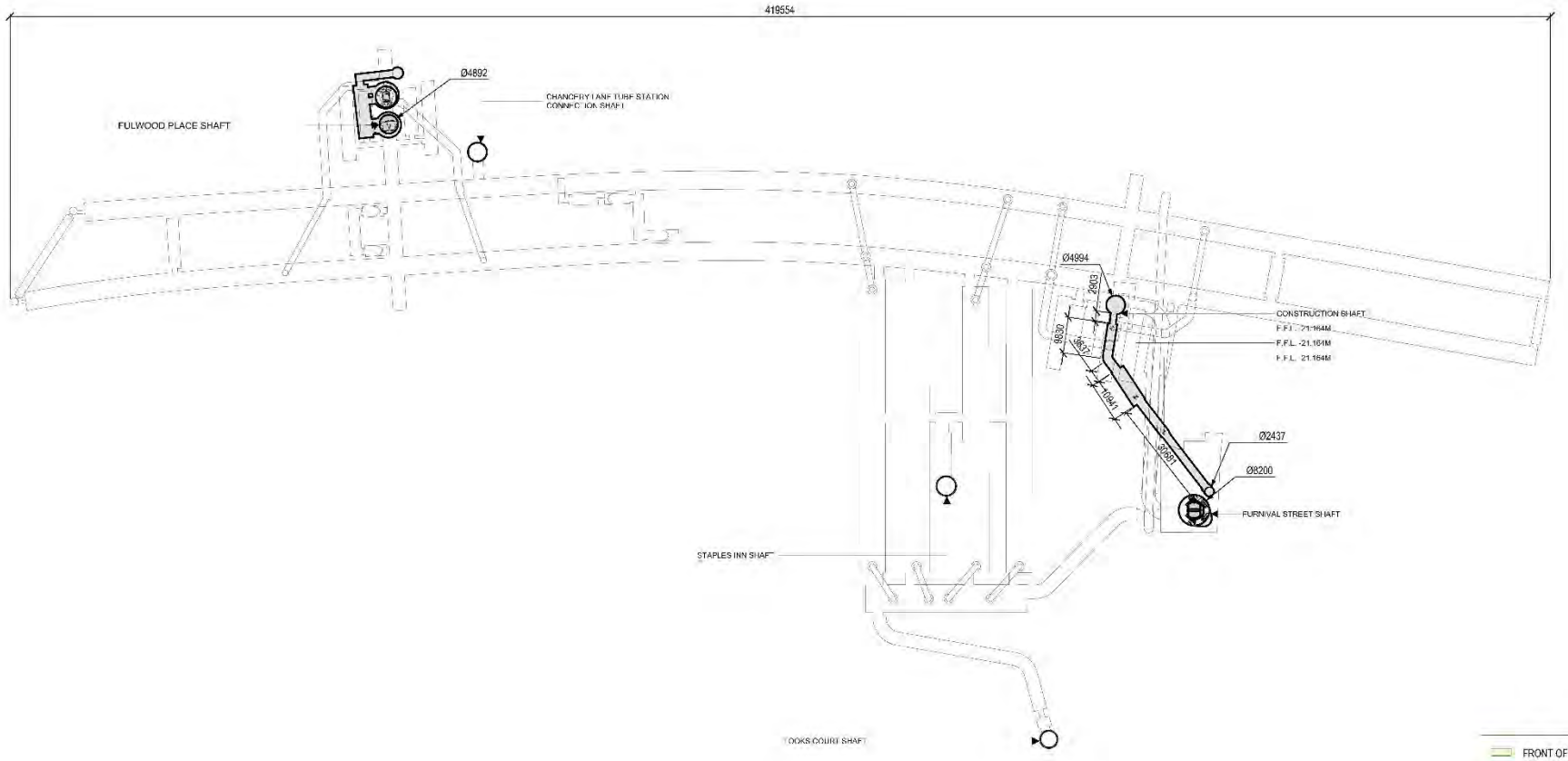
FRONT OF HOUSE
EXHIBITION
BAR
WASHROOMS
VERTICAL TRANSPORT
BACK OF HOUSE
PLANT AND RISERS

NOTE: LEVELS NOT ACCORDING TO OSM DATUM, REFER TO GENERAL NOTES

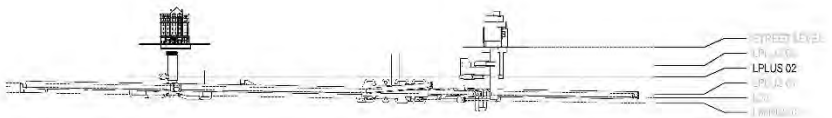
NOTE: REFER TO COST CONSULTANTS INFORMATION REGARDING AREAS

1:600
20m 0 20m 40m 60m 80m 100m

The Tunnels – Proposed Plan – Level 1



INDICATIVE ELEVATION
(NOT TO SCALE)



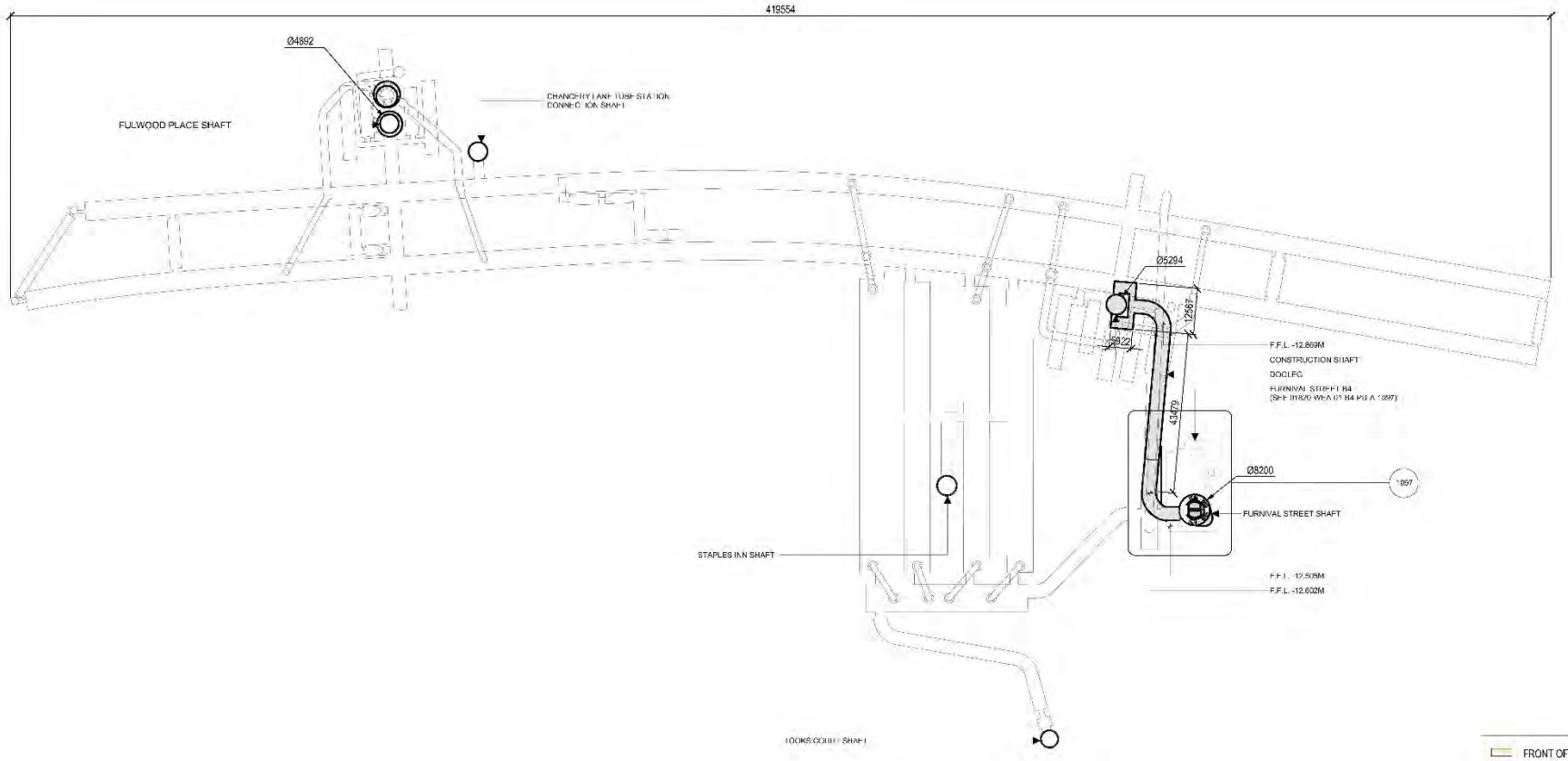
FRONT OF HOUSE
EXHIBITION
BAR
WASHROOMS
VERTICAL TRANSPORT
BACK OF HOUSE
PLANT AND RISERS

NOTE: LEVELS NOT ACCORDING TO OSM DATUM, REFER TO GENERAL NOTES

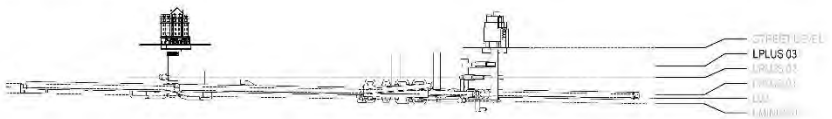
NOTE: REFER TO COST CONSULTANTS INFORMATION REGARDING AREAS

1:600
20m 0 20m 40m 60m 80m 100m

The Tunnels – Proposed Plan – Level 2



INDICATIVE ELEVATION
(NOT TO SCALE)



NOTE: LEVELS NOT ACCORDING TO OSM DATUM, REFER TO GENERAL NOTES

NOTE: REFER TO COST CONSULTANTS INFORMATION REGARDING AREAS

1:600
20m 0 20m 40m 60m 80m 100m

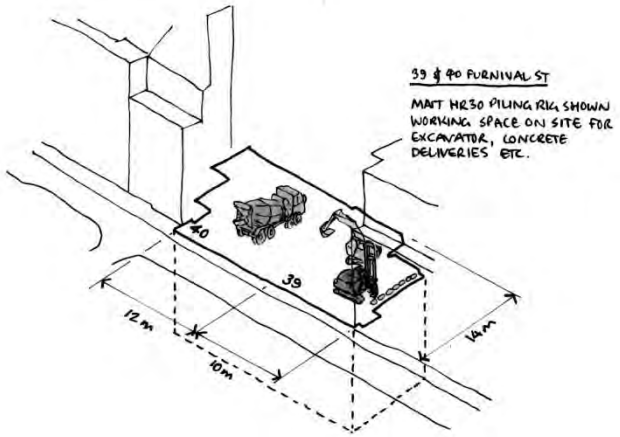
The Tunnels – Proposed Plan – Level 3

The requirement for the shaft enlargement dictates the need for an open excavation at 38-39 Furnival Street.

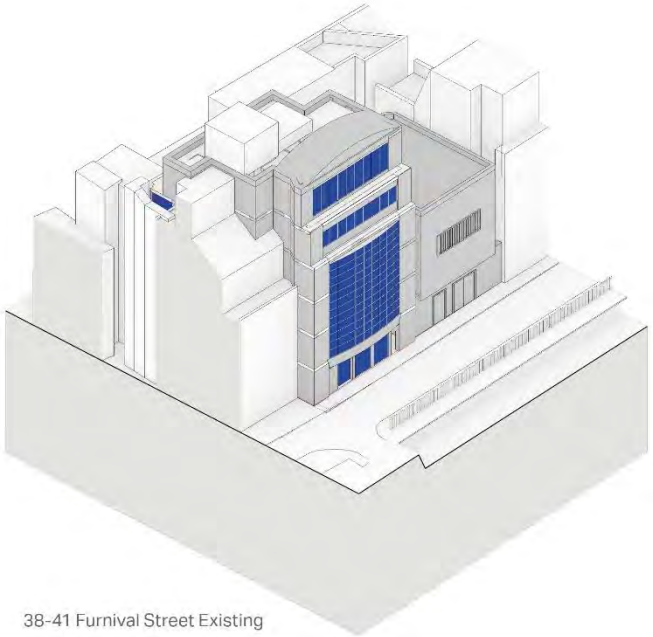
In addition to this, the new building at 38-41 Furnival street is required to host the majority of equipment to serve the tunnels.

The plant space requirement can not be accommodated above ground as it will exceed the permitted massing.

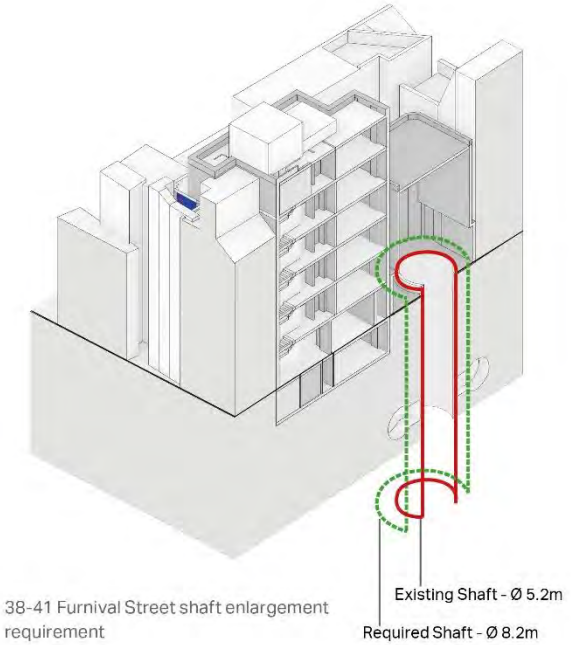
The retention of the buildings at 38-39 Furnival Street and 40-41 Furnival street has been carefully considered and deemed unfeasable, both practically and financially,



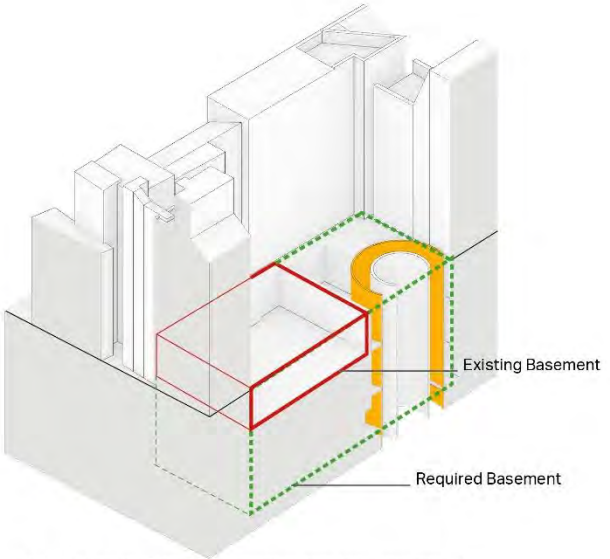
Indicative sketch comparing the size of the required piling rigs and trucks relative to the combined site footprint.



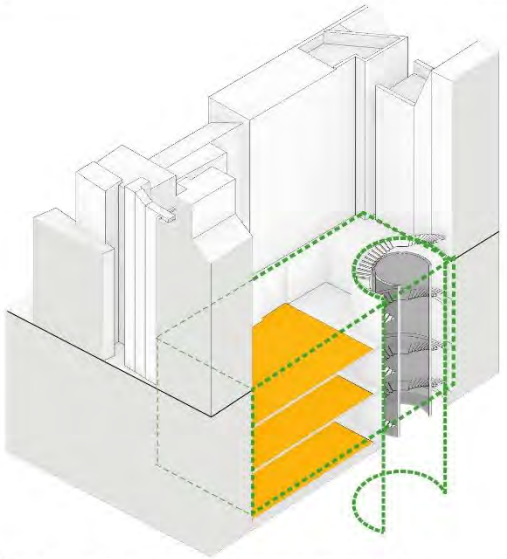
38-41 Furnival Street Existing



38-41 Furnival Street shaft enlargement requirement

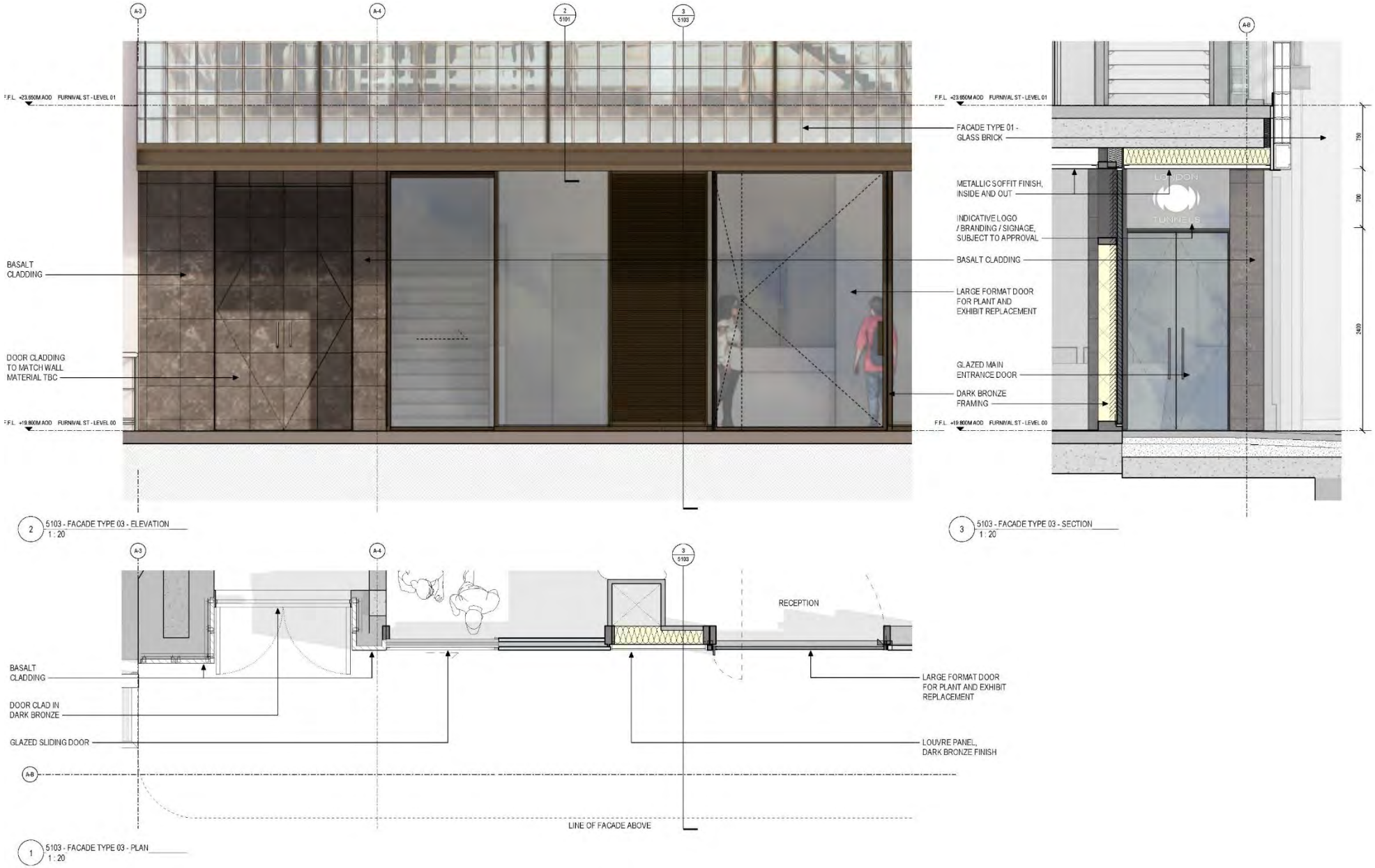


38-41 Furnival Street basement extension requirement

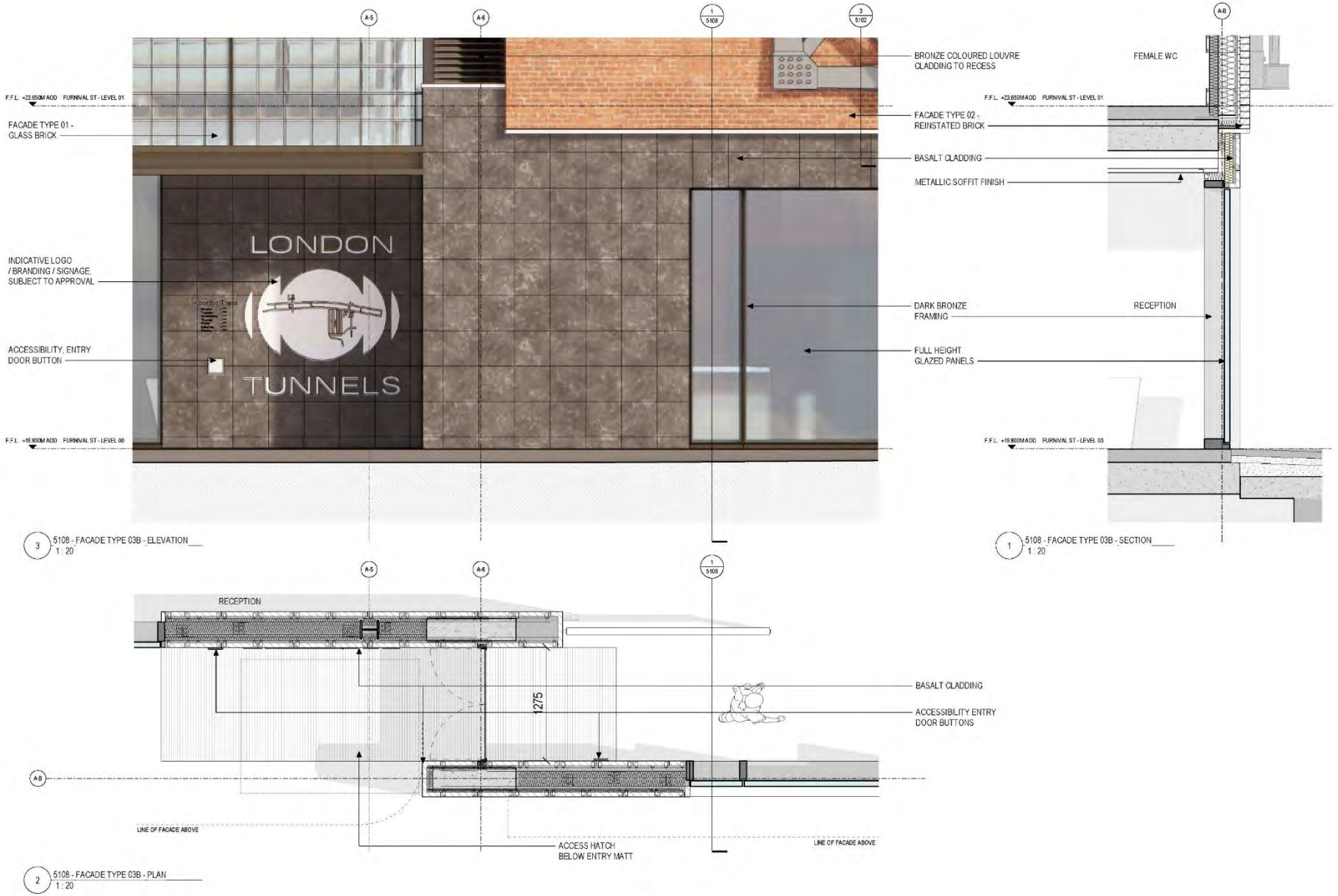


38-41 Furnival Street proposed extent below ground

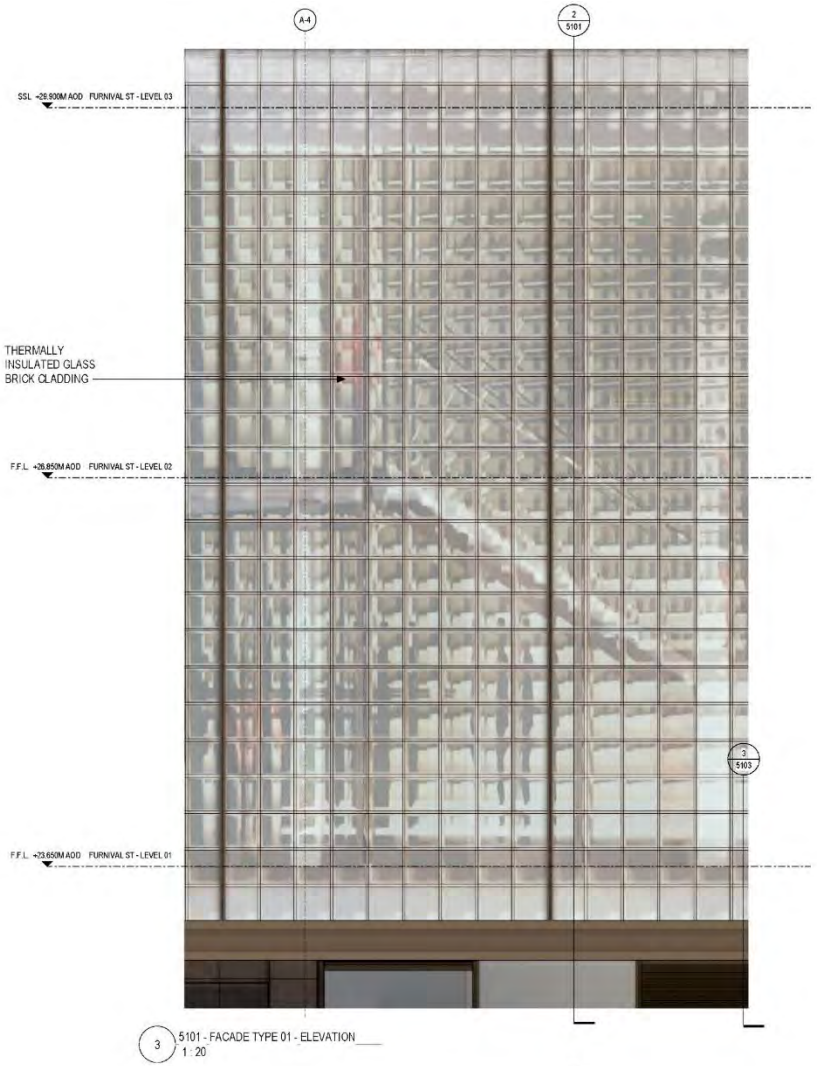
38-41 Furnival Street – Reason for Demolition



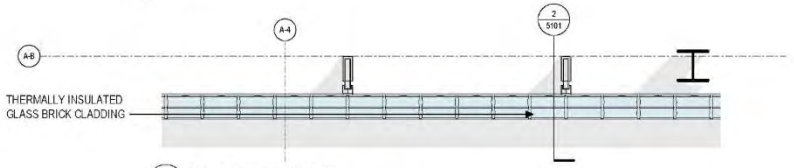
38-41 Furnival Street – Entrance – Ground Floor



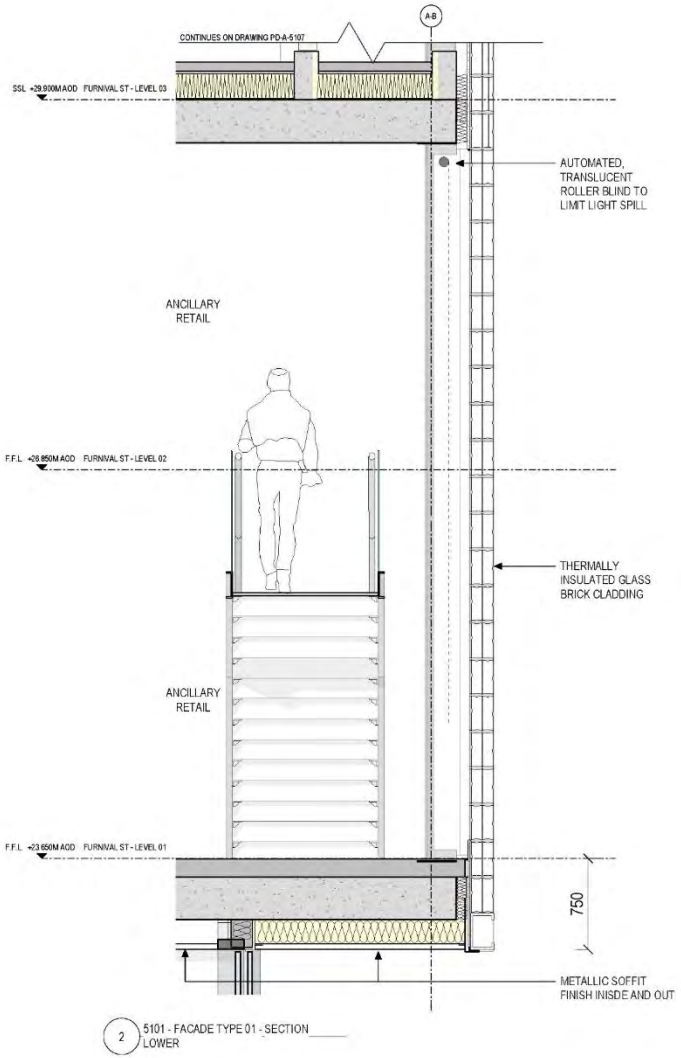
38-41 Furnival Street – Entrance – Ground Floor



3 5101 - FACADE TYPE 01 - ELEVATION
1 : 20

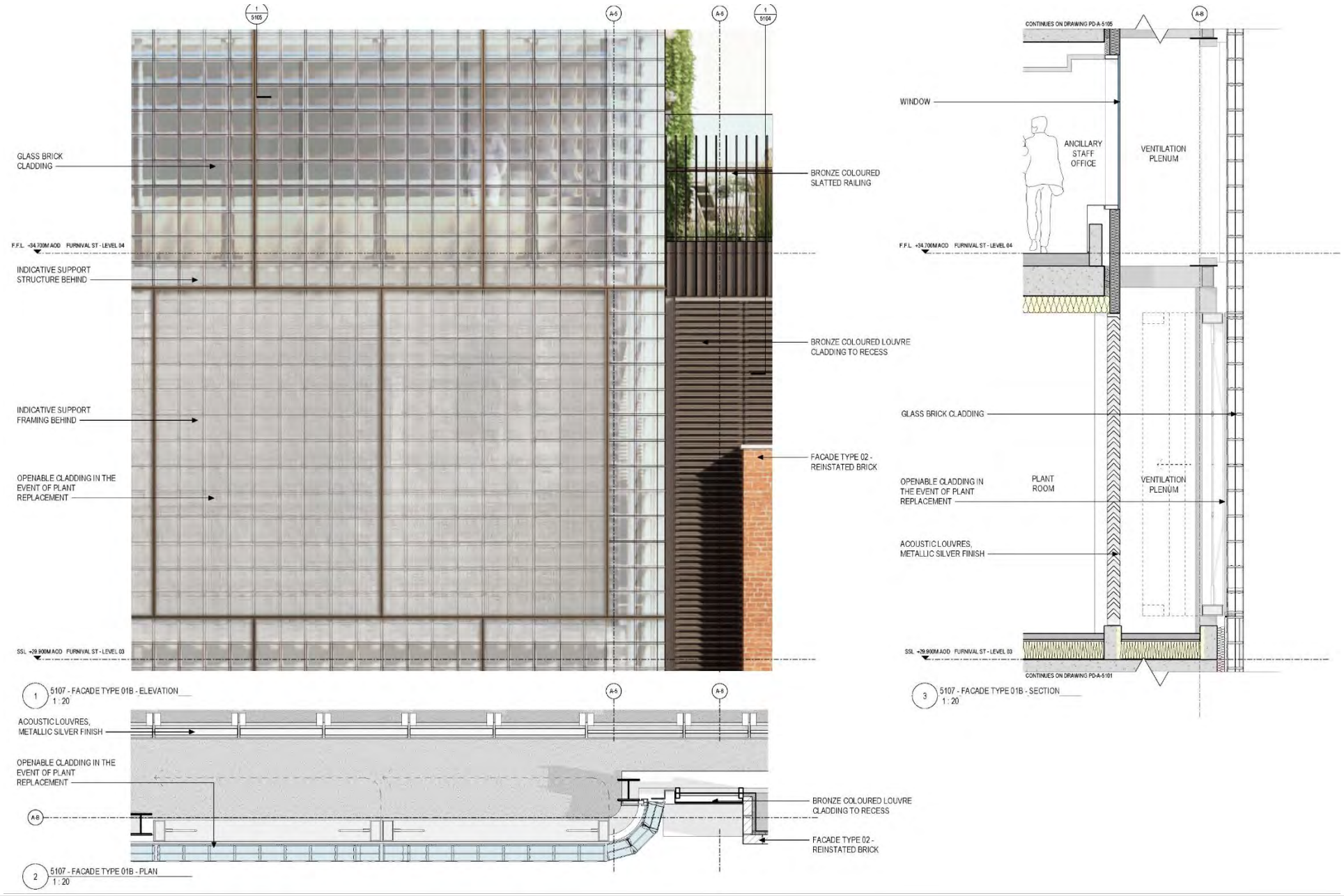


4 5101 - FACADE TYPE 01 - PLAN
1 : 20

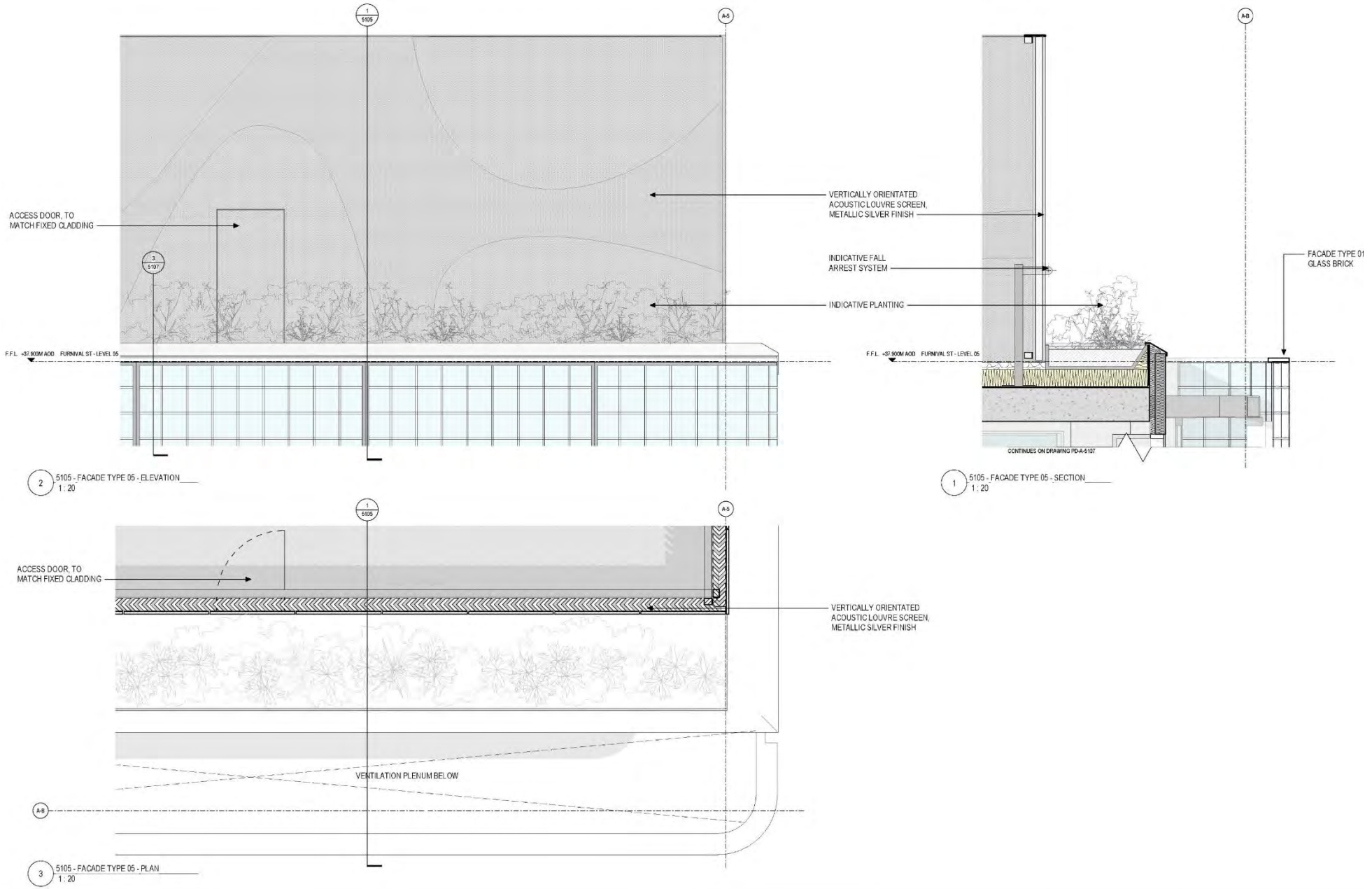


2 5101 - FACADE TYPE 01 - SECTION
LOWER

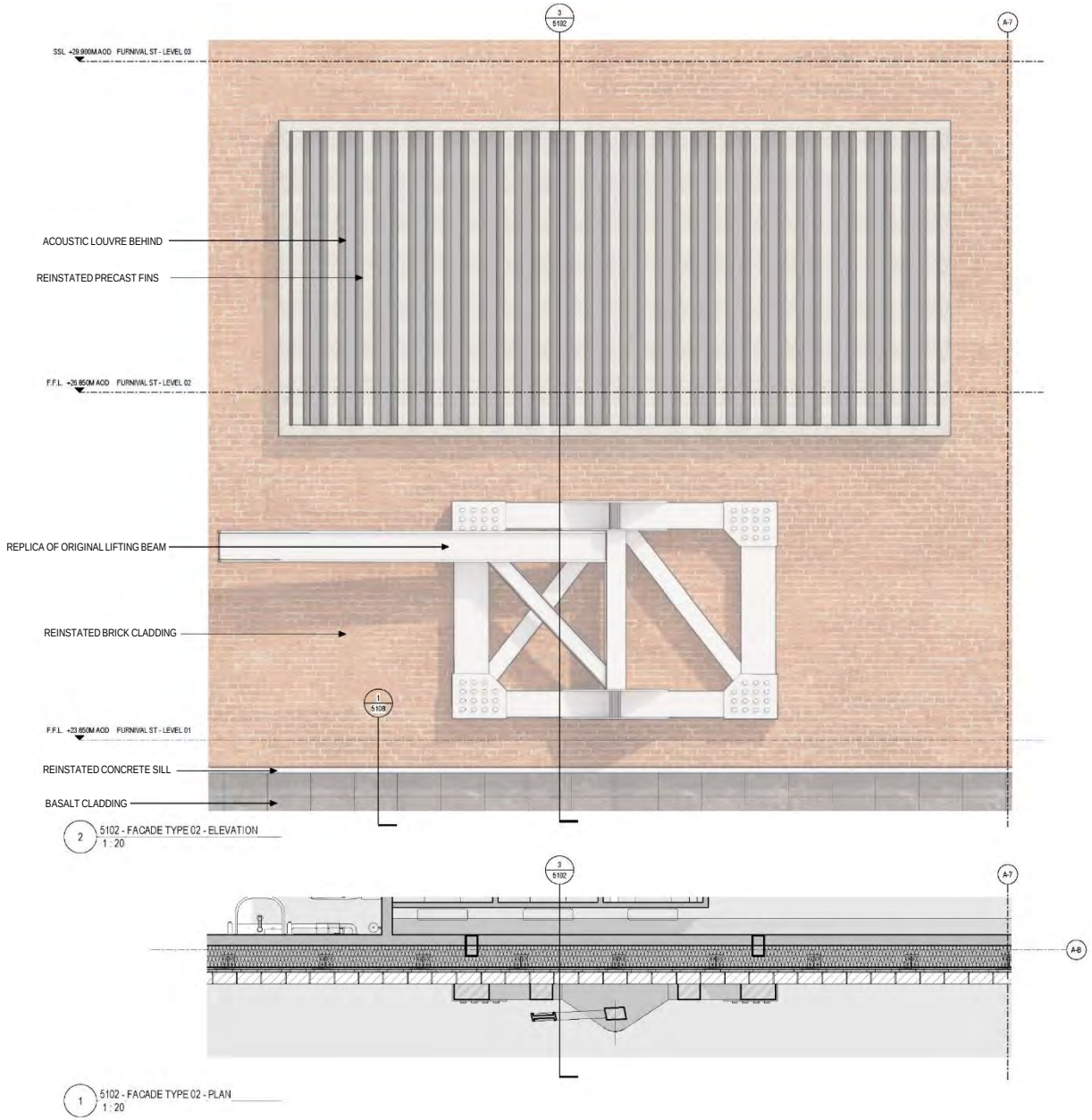
38-41 Furnival Street – Typical Facade Bay 01

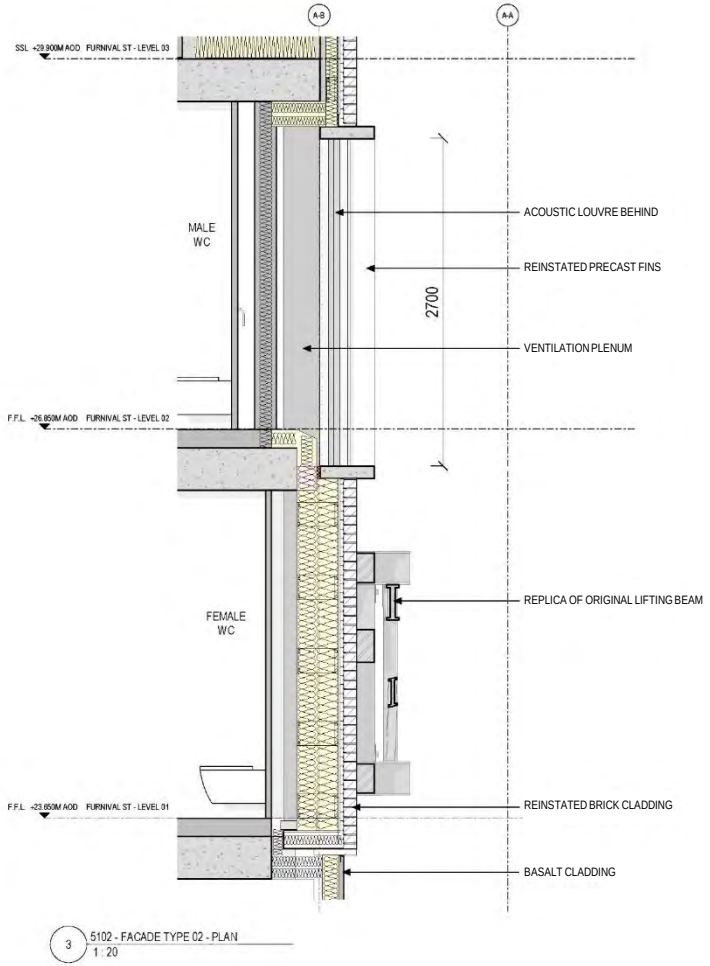


38-41 Furnival Street – Typical Facade Bay 02



38-41 Furnival Street – Typical Facade Bay 03





38-41 Furnival Street – Typical Facade Bay 04

Furnival Street – Entrance - CGI

The left image is not taken from the same angle, it is used for reference.

Furnival Street – Existing and CGI

The left image is not taken from the same angle, it is used for reference.

Furnival Street – Existing and CGI

Furnival Street – CGI

The Ground Floor of the combined Furnival Street building provides the main public entrance to the Proposed Scheme. This is where the public will be greeted and security checked before making their way via the double deck lifts to Tunnel level.

There are some BOH support spaces such as lockers and WC.s located centrally.

The FOH areas are constrained to the north and south by dedicated evacuation corridors and to the east by risers serving the tunnels.

The facade line to 40-41 Furnival is set back 1.6 meters from its original alignment to provide a covered space on entrance and exit.

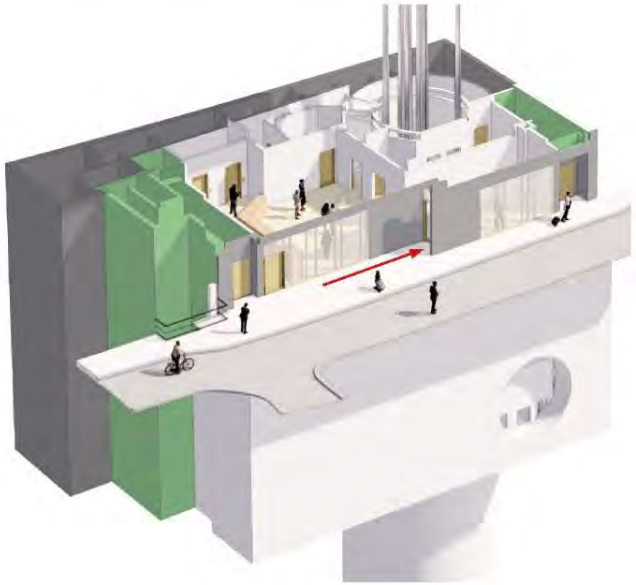
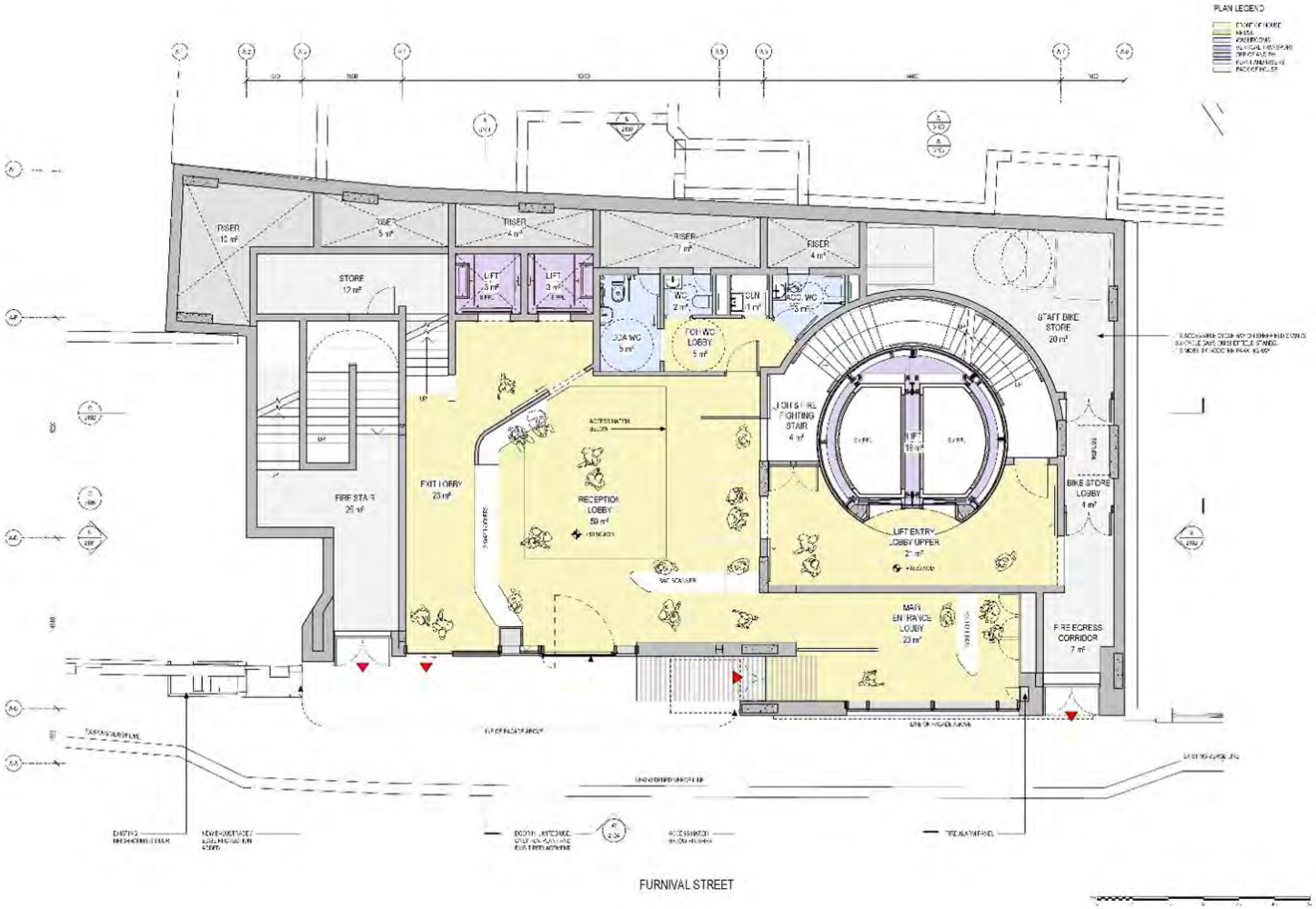
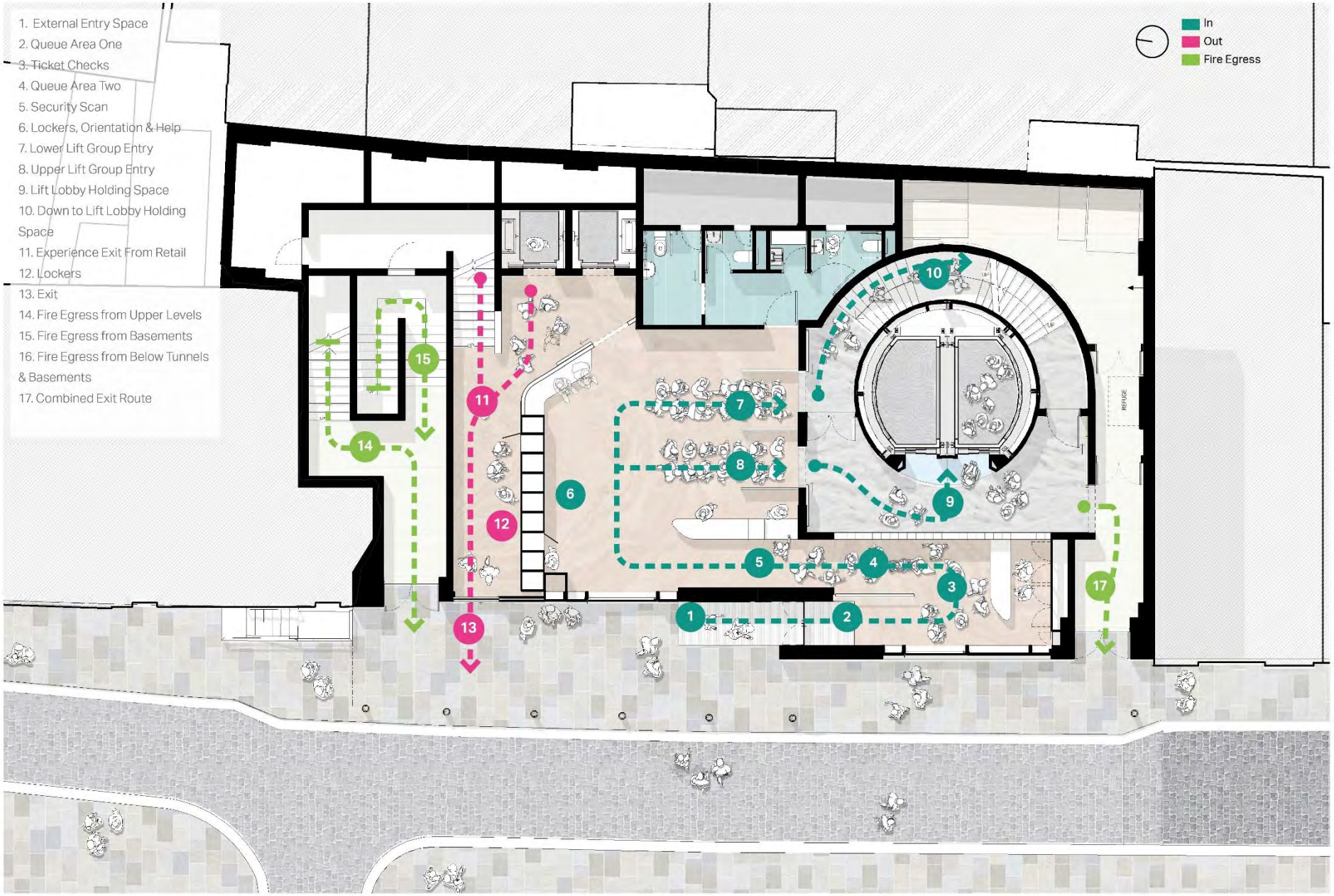


Figure 96. Ground Floor axonometric view



Furnival Street – Entrance - Proposed



Furnival Street – Visitors Entrance Sequence - Proposed

The Security Strategy looks at protecting the tunnels from an internal attack within the tunnels (a Person Borne IED or a bladed MTA). Therefore mitigations have featured heavily around the management of visitors into the tunnels and their associated luggage.

CTSA and DOCO engagement has been carried out with both City of London and Metropolitan Police, to inform design and to advise on threat levels.

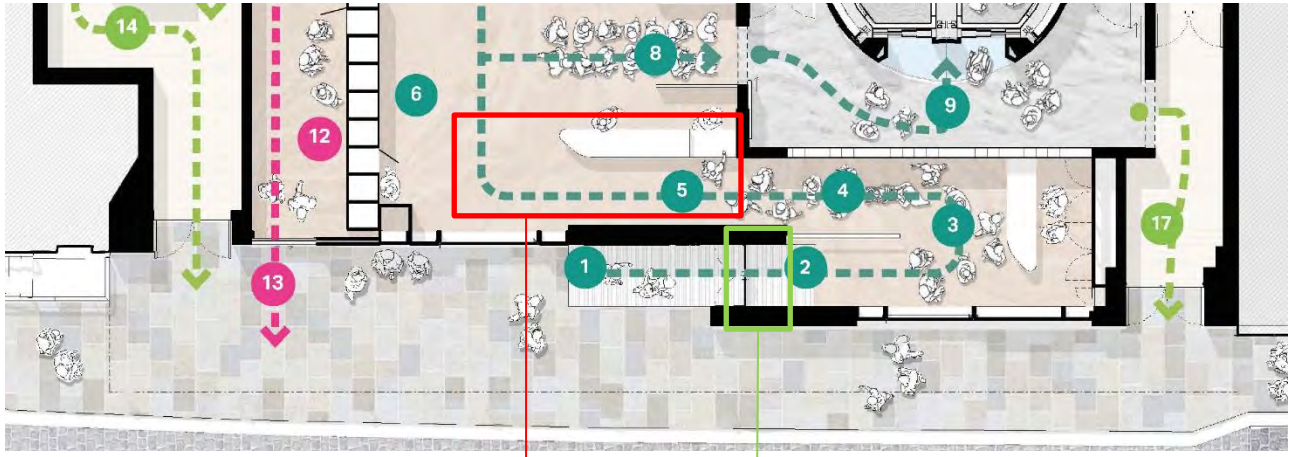
Robust search and screening will be carried out at both building entrances, a scanner for individuals, supplemented by bag scanning and searching. Security personnel will manage the screening within the reception areas.

All visitors will be required to pre-book, at this point recommendations on luggage and a list of prohibitive items will be provided to help reduce the amount of luggage being brought into the exhibition. Lockers will be available within the Furnival Street reception to secure items that do not need to be taken down into the tunnels.

Visitors will be split into smaller groups who will be escorted at all times and access control will be in place to prevent unauthorised access into back of house areas. The site will benefit from Video Surveillance Systems (VSS) which will be monitored by an on-site Security Control room (SCR).

For visitors just using the bar, Fulwood Place entrance will be used, pre booking will be required and search and bag checks are to be carried out. As the bar will be open outside of exhibition hours, access control will be designed to ensure there is no access from the car to any other areas within the tunnels.

As there will be no queuing on the street (at either entrances) HVM will not be required for this project.



Bag Scanner

Detection:

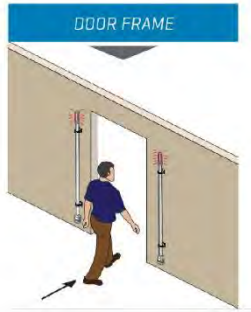
Bladed weapons

Explosive materials

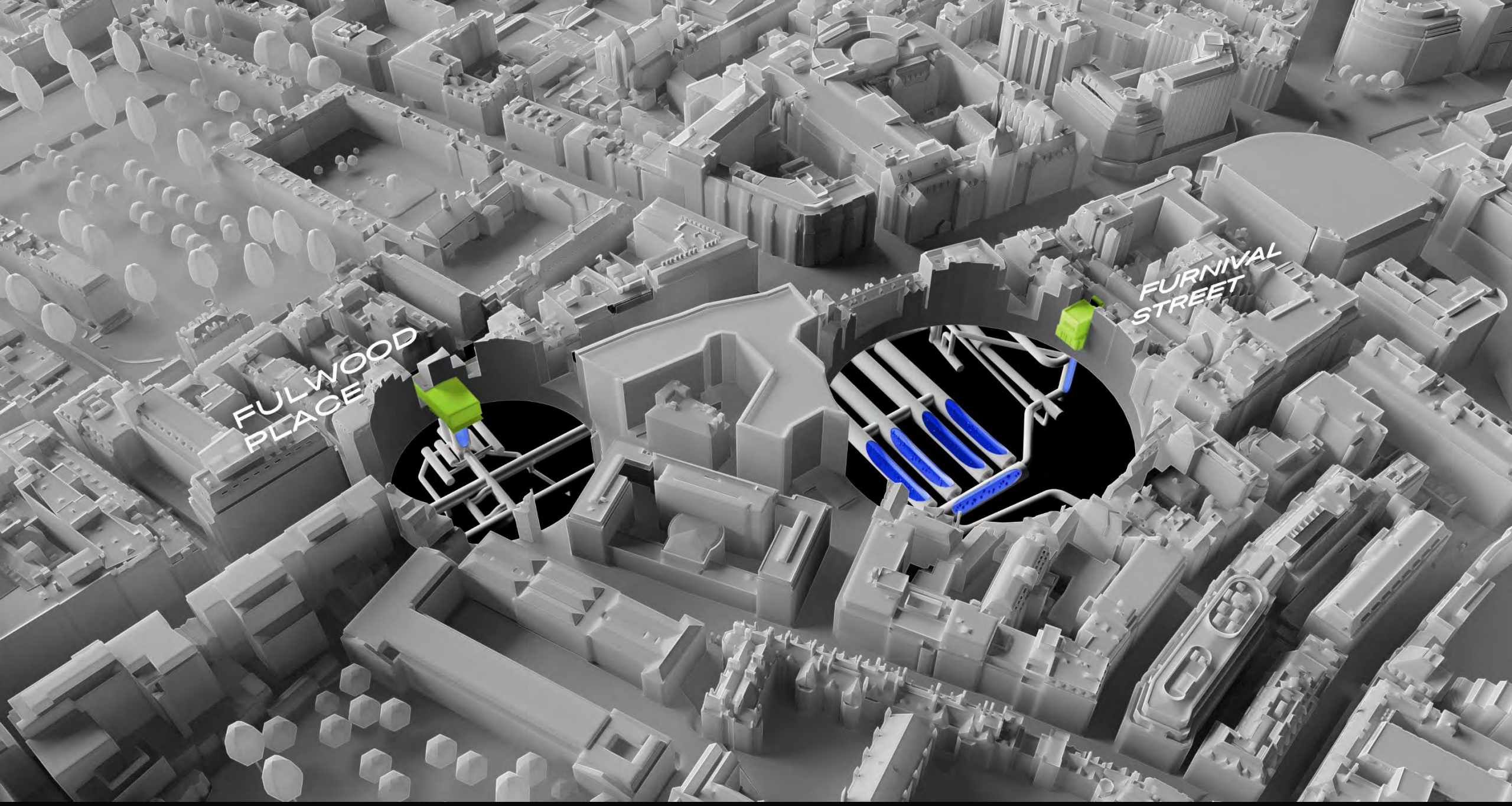
Protest Materials

Metal Items

Walk Though Scanners

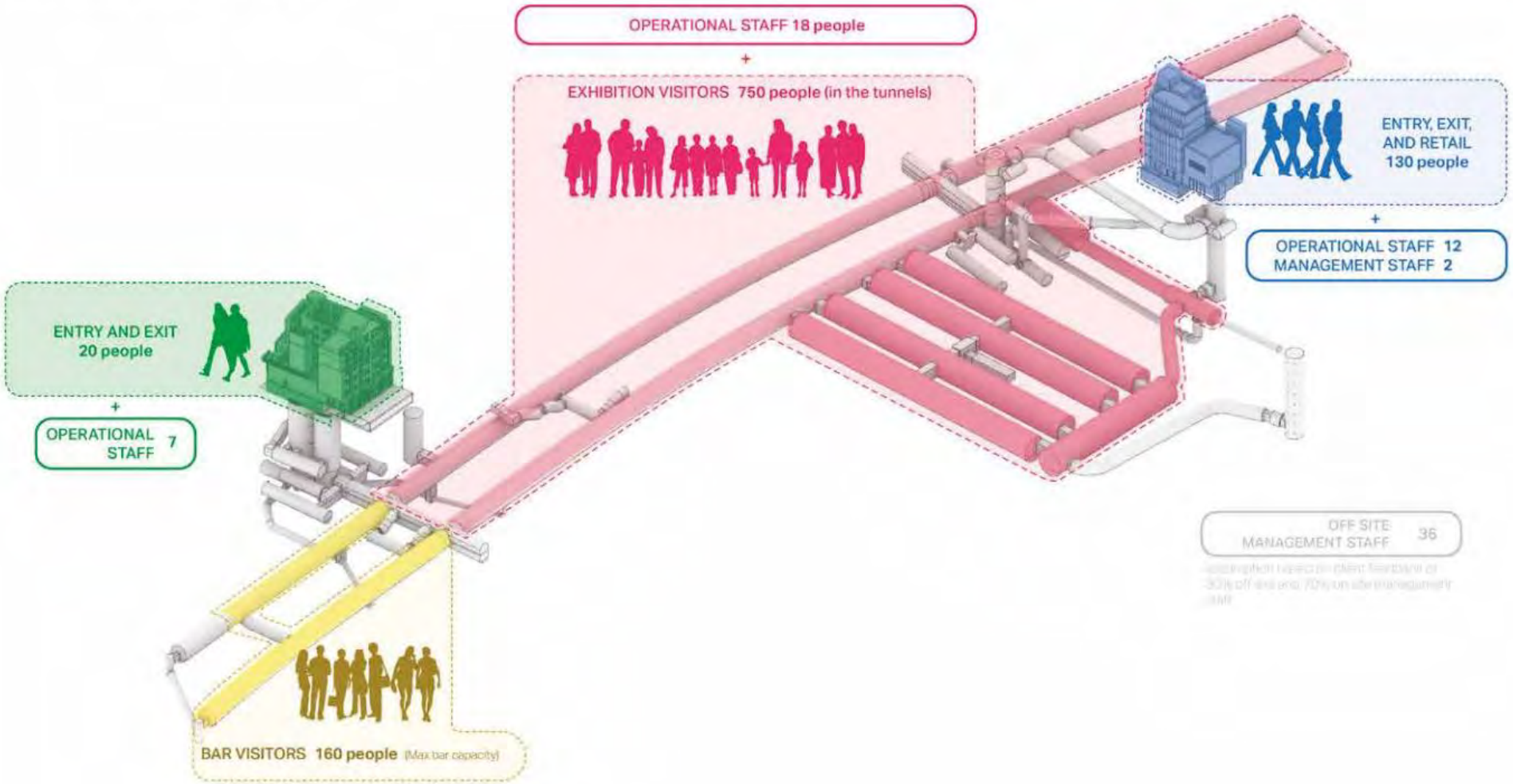


Security Strategy

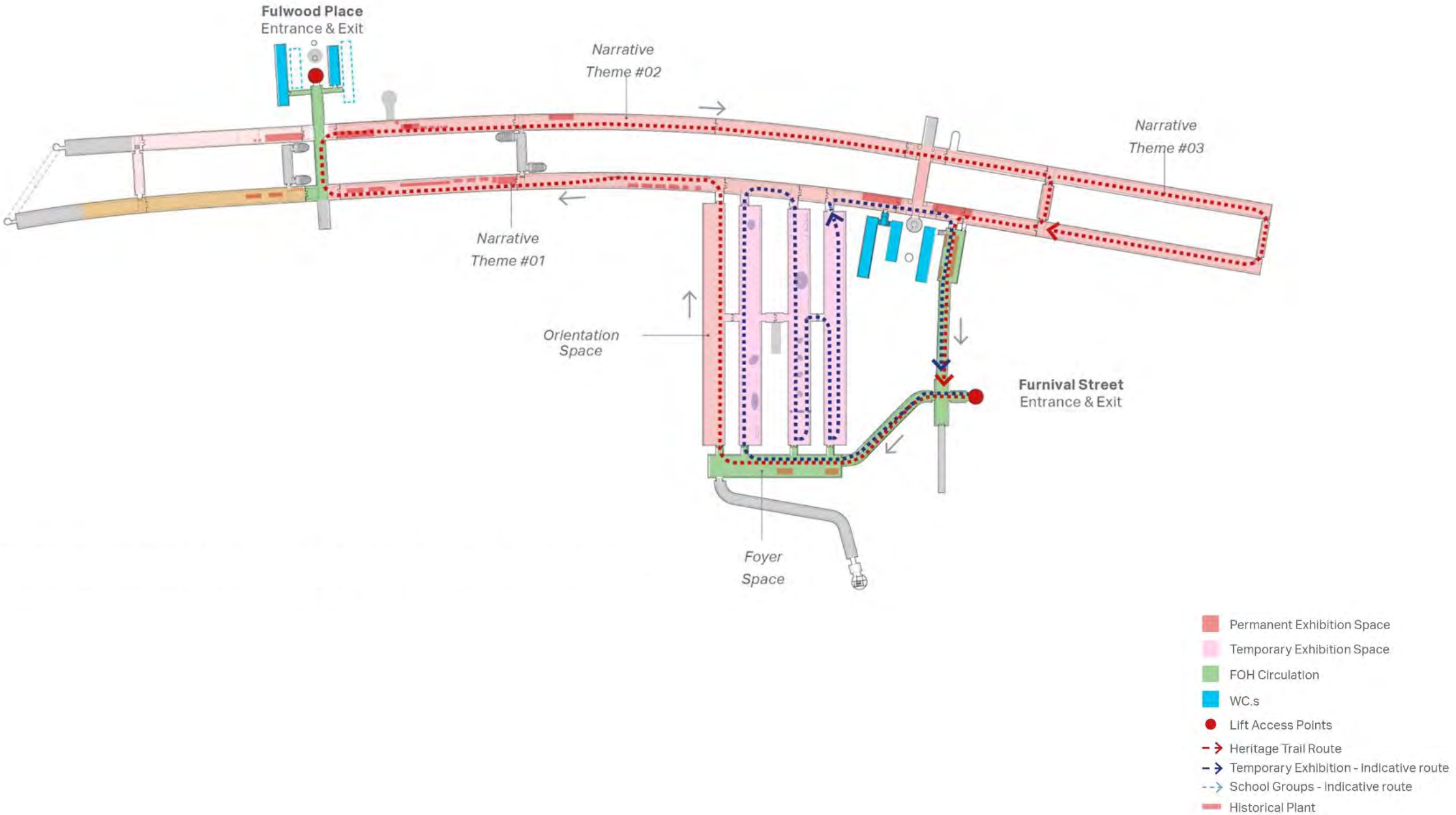


Tunnels Access from Surface

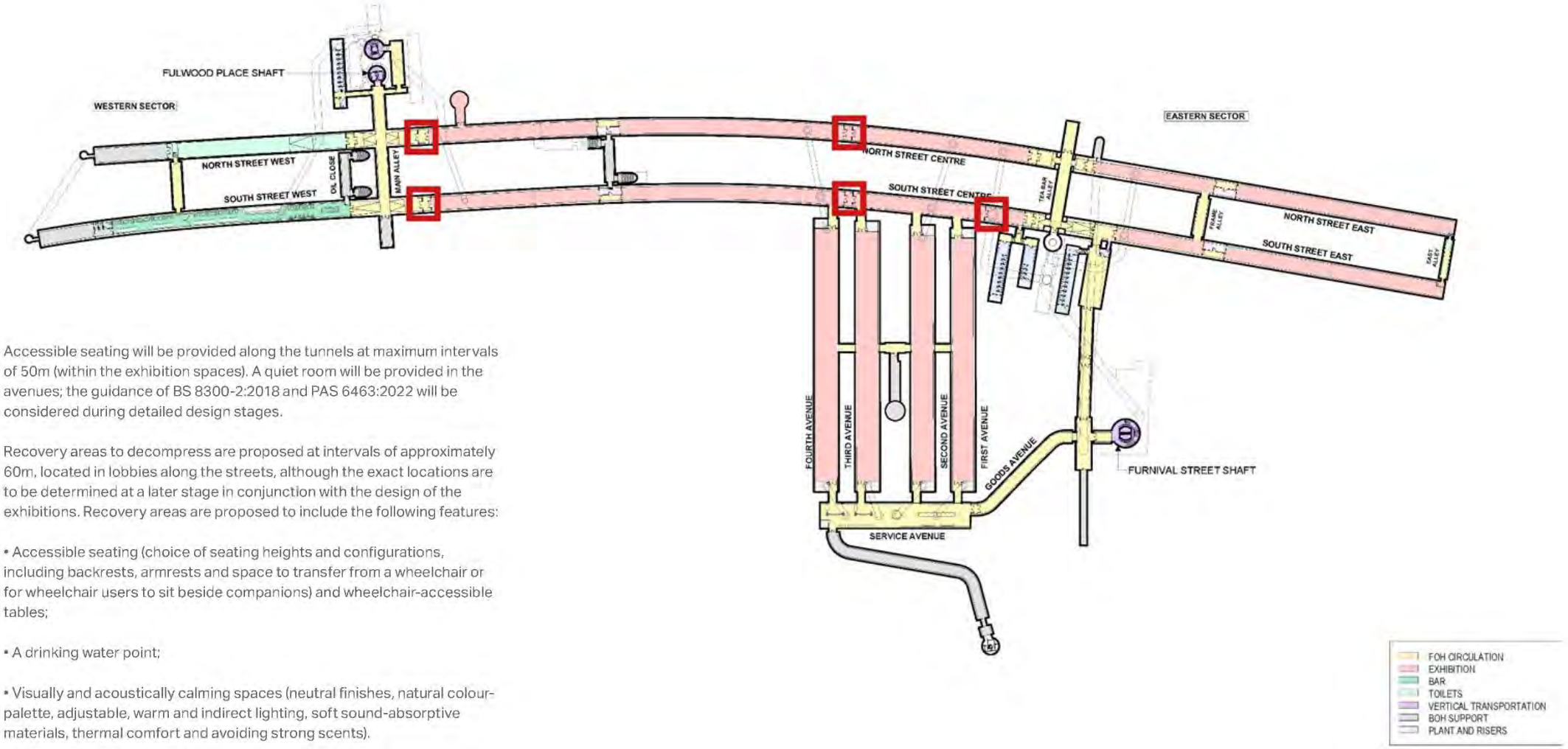
Simultaneous Maximum Occupancy



The Tunnels – Zoning Diagram



The Tunnels – Circulation Diagram



Accessible seating will be provided along the tunnels at maximum intervals of 50m (within the exhibition spaces). A quiet room will be provided in the avenues; the guidance of BS 8300-2:2018 and PAS 6463:2022 will be considered during detailed design stages.

Recovery areas to decompress are proposed at intervals of approximately 60m, located in lobbies along the streets, although the exact locations are to be determined at a later stage in conjunction with the design of the exhibitions. Recovery areas are proposed to include the following features:

- Accessible seating (choice of seating heights and configurations, including backrests, armrests and space to transfer from a wheelchair or for wheelchair users to sit beside companions) and wheelchair-accessible tables;
- A drinking water point;
- Visually and acoustically calming spaces (neutral finishes, natural colour-palette, adjustable, warm and indirect lighting, soft sound-absorptive materials, thermal comfort and avoiding strong scents).
- Physical segregation from visitors circulation

The Tunnels – Indicative Recovery Areas

The permanent heritage exhibition will bring to life the fascinating history of the tunnels and the people that used them.

The thematic arrangement will focus on three key narrative themes;

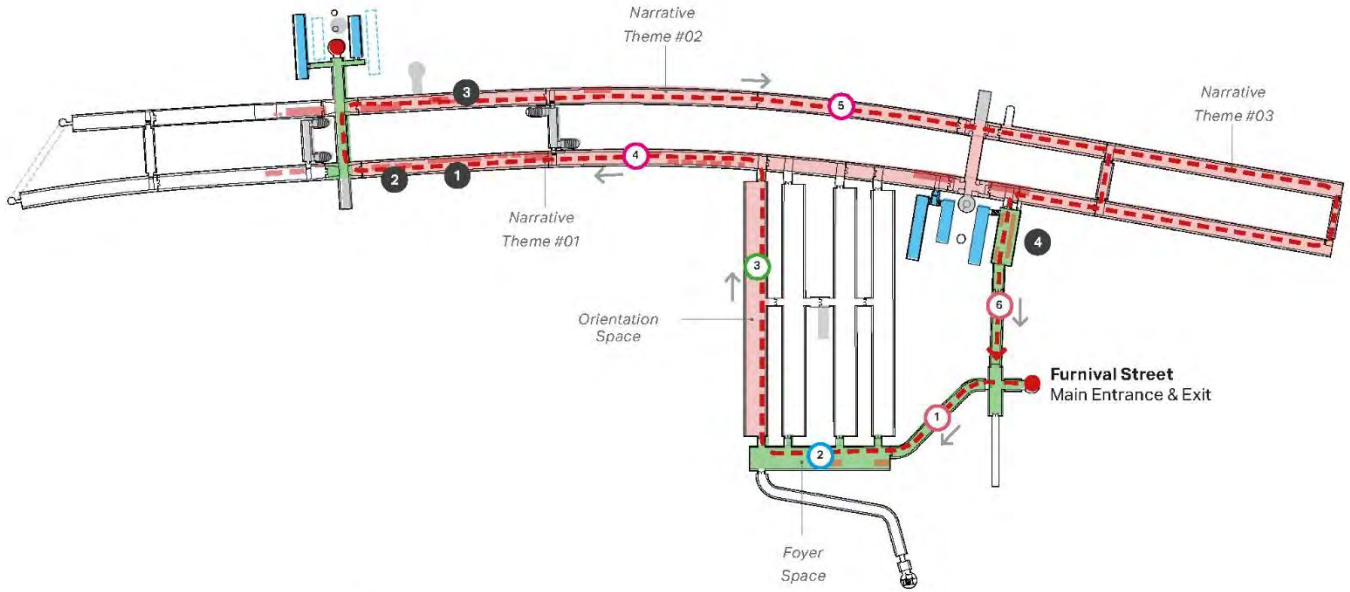
- The London Blitz and the building of the Deep Level Shelters.

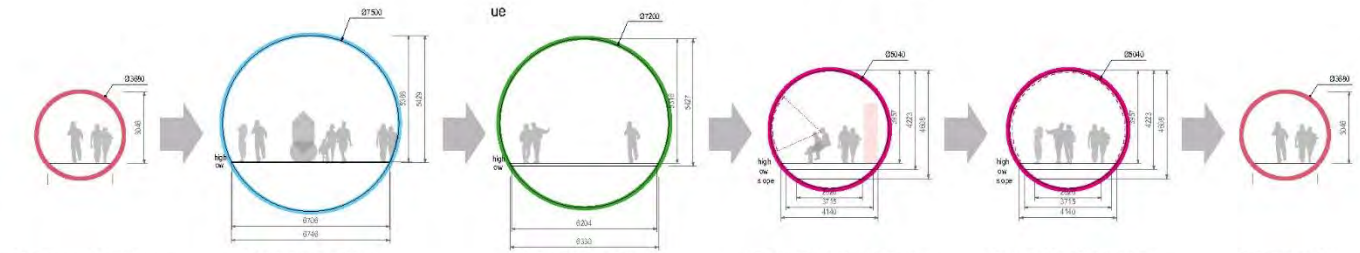
- The Use of The Tunnels by the Special Operations Executive (SOE) formed in 1940 as a secret service under the aegis of the Minister of Economic Warfare.

- The Cold War and the Tunnels secret life as the TZK or Trunk Zone Exchange Kingsway and the London terminal of the first Transatlantic telephone cable TAT 1.

It is intended that these narratives will be brought to life through the immersive use of large scale AV and digital interactivities.

It is anticipated that the key elements of the heritage infrastructure that can be incorporated in the heritage trail and narrative whilst delivering a safe and accessible circulation route will remain.





Entrance Corridor
(Goods Avenue)

Exhibition Lobby
(Service Avenue)

Orientation Gallery
(Fourth Avenue)

Permanent Exhibition - Heritage Trail
(South Street)

Permanent Exhibition - Heritage Trail
(North Street)

Exit Corridor
(Goods Avenue)

1 Trunk Exchange

2 Generator

3 Generator

4 Main Distribution Frame

The Tunnels – Heritage Exhibition Route

The Tunnels – Heritage Exhibition - CGI

The Tunnels – Heritage Exhibition - CGI

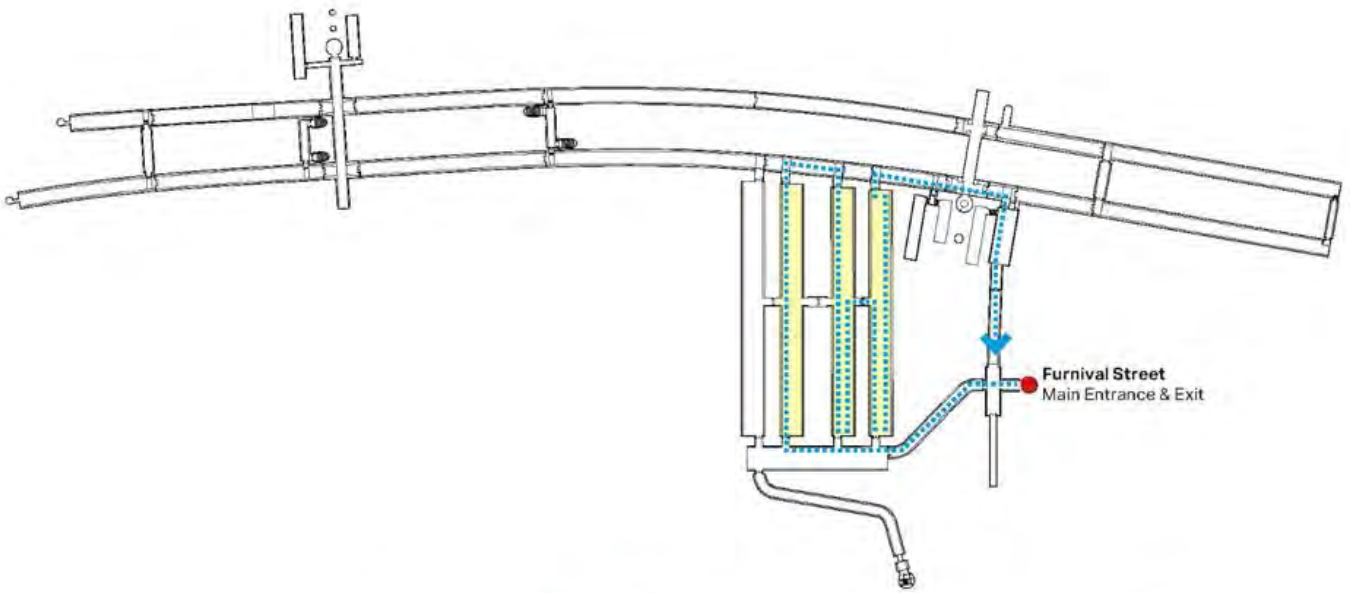
Alongside the heritage aspects of the tunnels, their unique environment provides a perfect background for a wide range of multi-sensorial cultural experiences, where sounds, smell, light levels and temperature can be carefully curated .

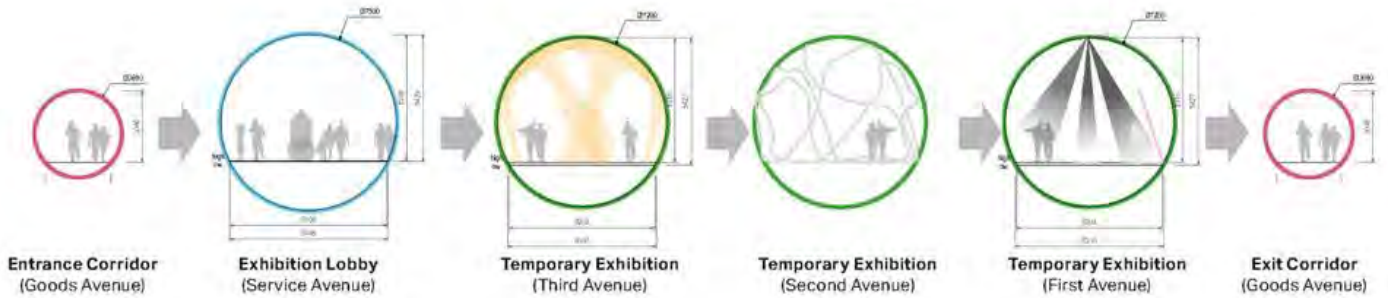
The Avenue tunnels offer the greatest volume (at over 7m diameter) and therefore flexibility to suit a wide range of events.

The Avenues surfaces will be used to showcase different digital environments, either with the use of cutting edge digital screens or with high resolution projectors. The setting will allow these spaces to create fully immersive environments that will transport visitors to unique real or imaginary spaces.

The digital nature of the content will provide the opportunity to collaborate with digital artists and alike to showcase the latest trends in digital art.

These spaces can also be adapted for a multitude of cultural events, expanding the use of the asset for other creative disciplines.





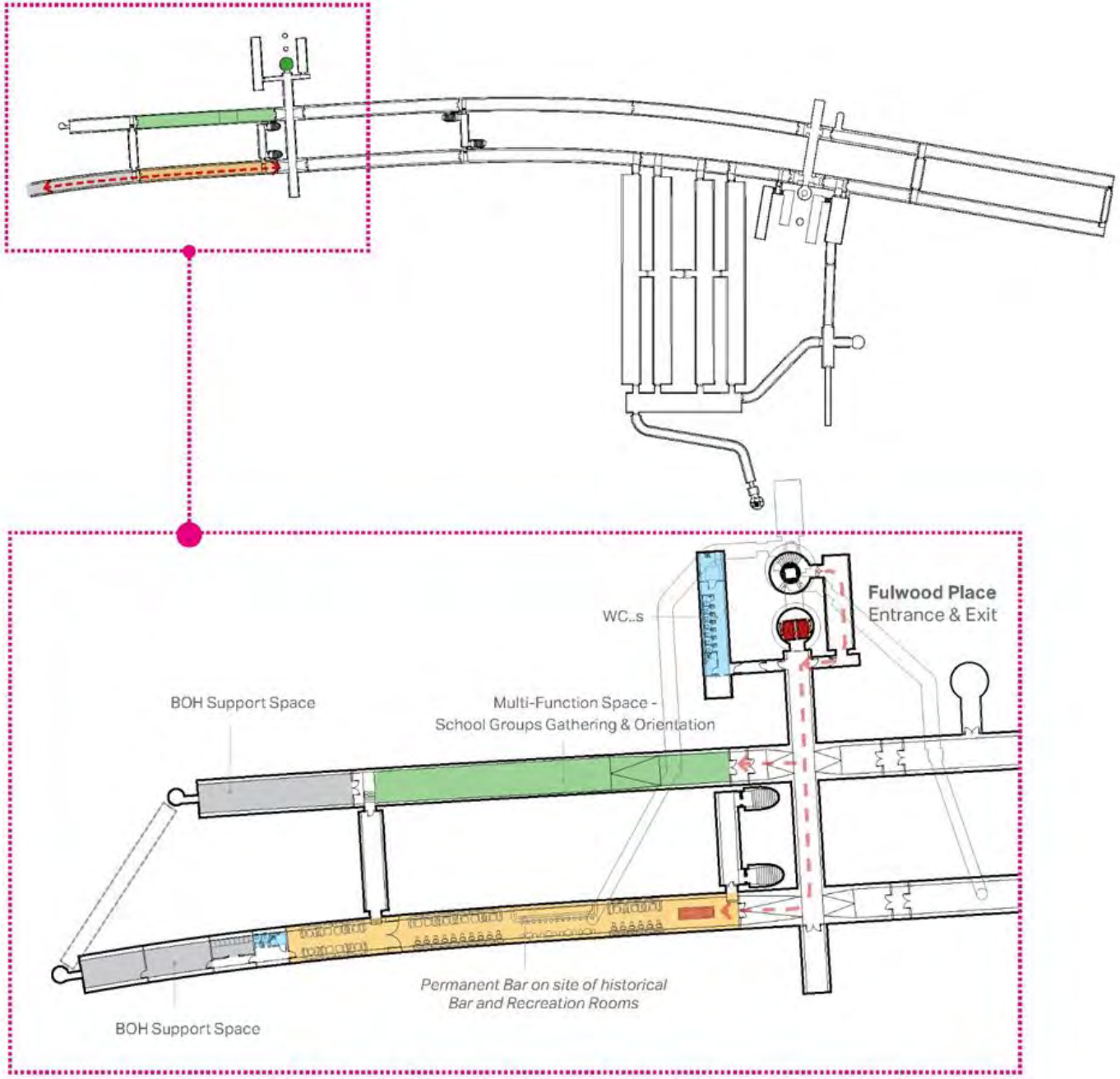
The Tunnels – Cultural Exhibition Route

The Tunnels – Cultural Exhibition – CGI

The Bar will sit on the site of the historical Bar and Recreation Rooms.

It is intended that this will provide a timely and atmospheric amenity break along the Heritage route. The Bar area will also be available for after hours events.

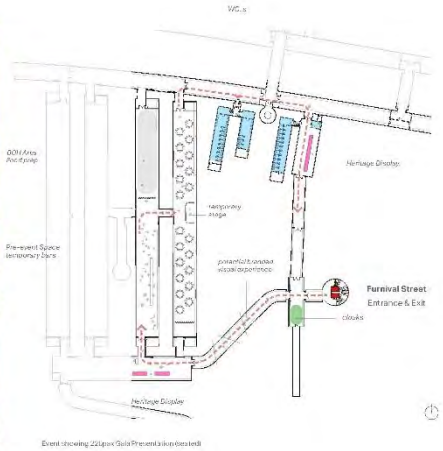
The Multi-function space within the North Street West will support these functions and can act as a Orientation/Class Room Space during the period of School Visits.



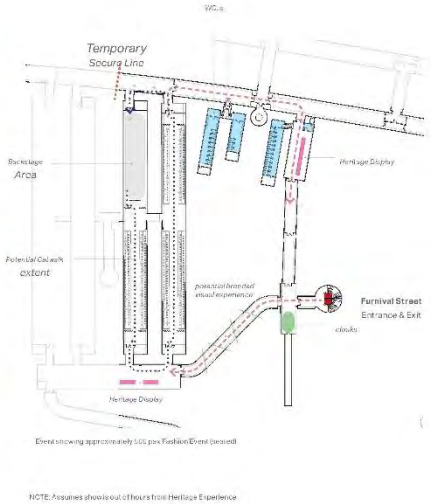
The Tunnels – The Bar and School Groups Orientation area

The Tunnels – The Bar – CGI

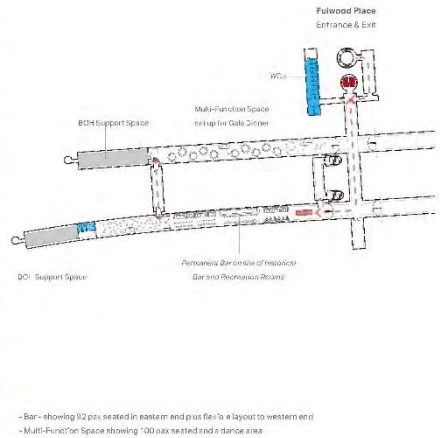
Gala Event



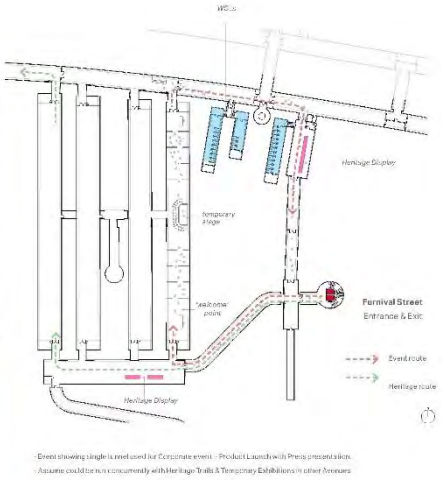
Fashion Show



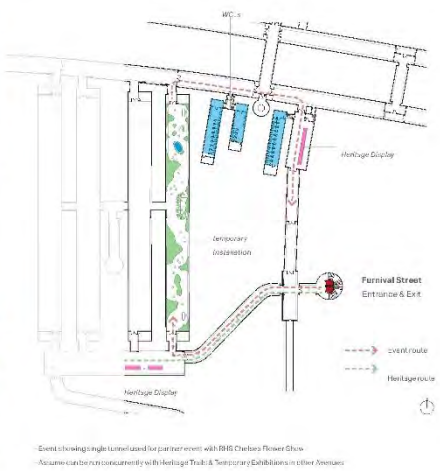
Bar – Corporate Event



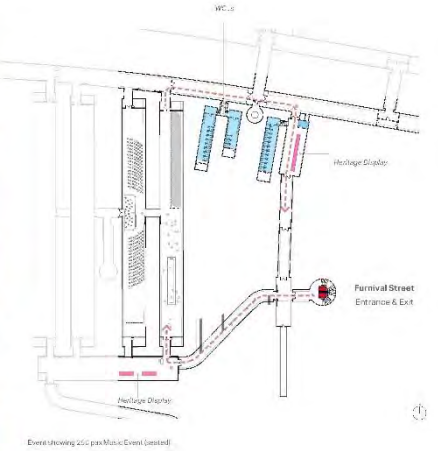
Product Launch



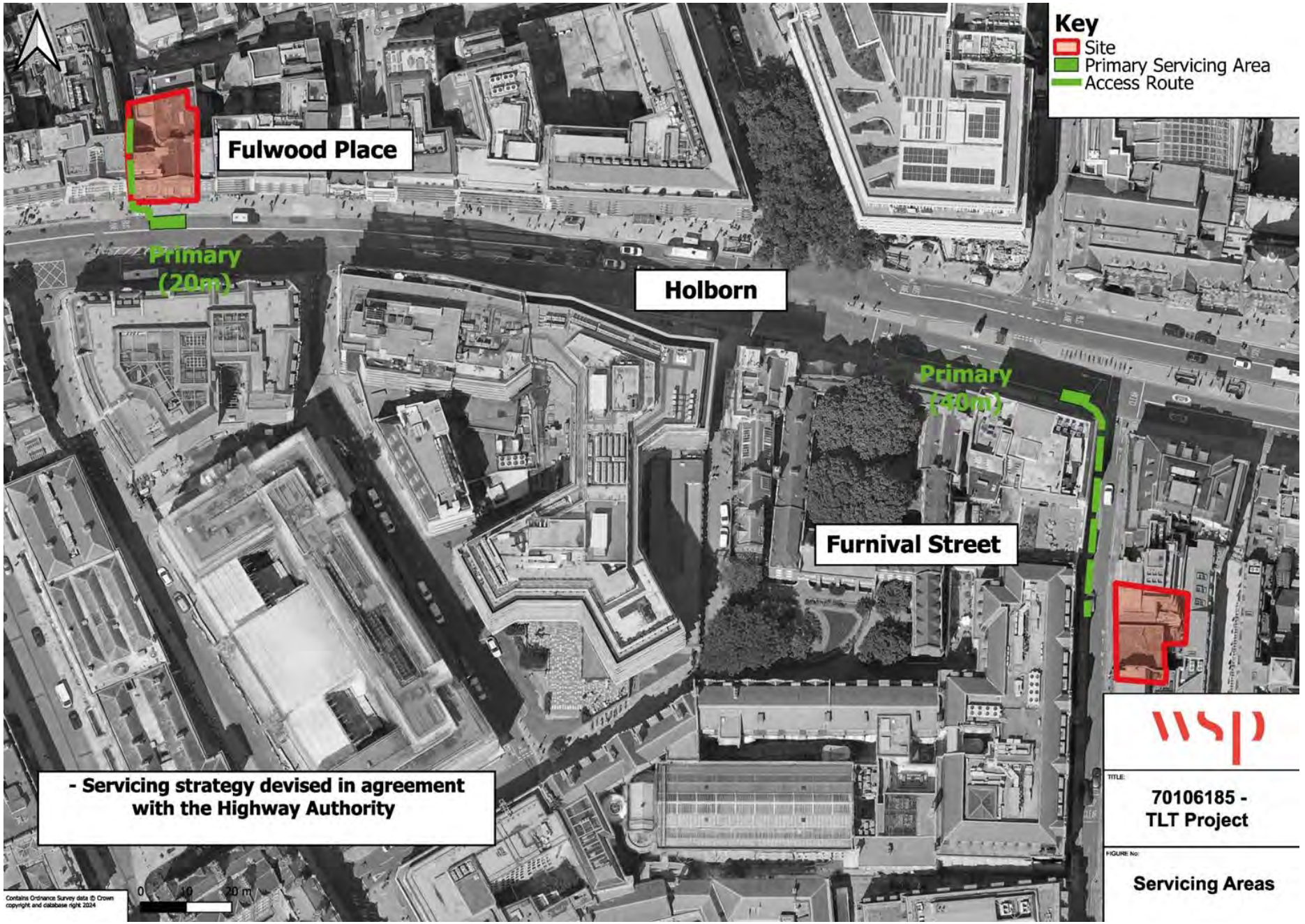
Flower Show



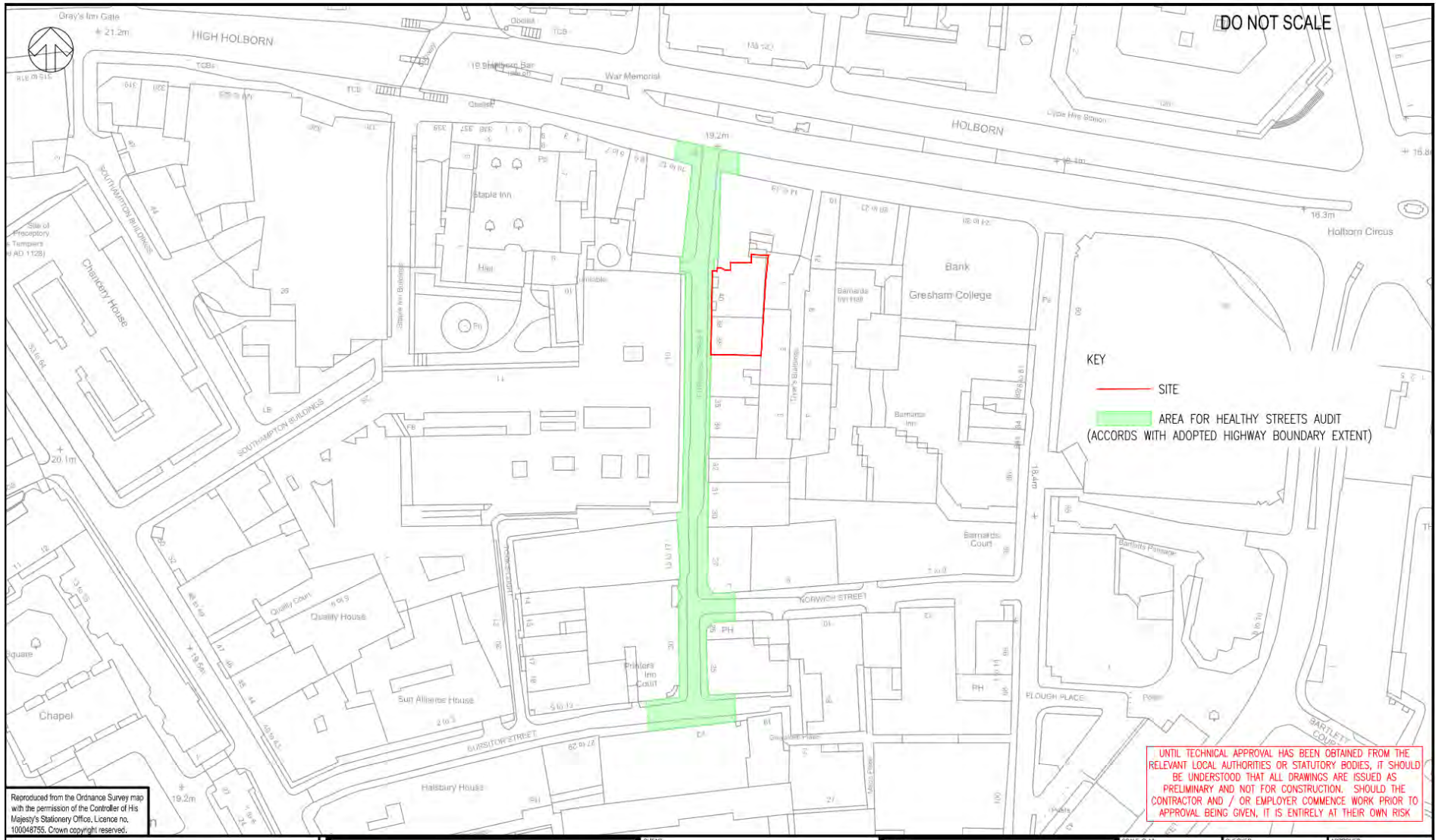
Music Event



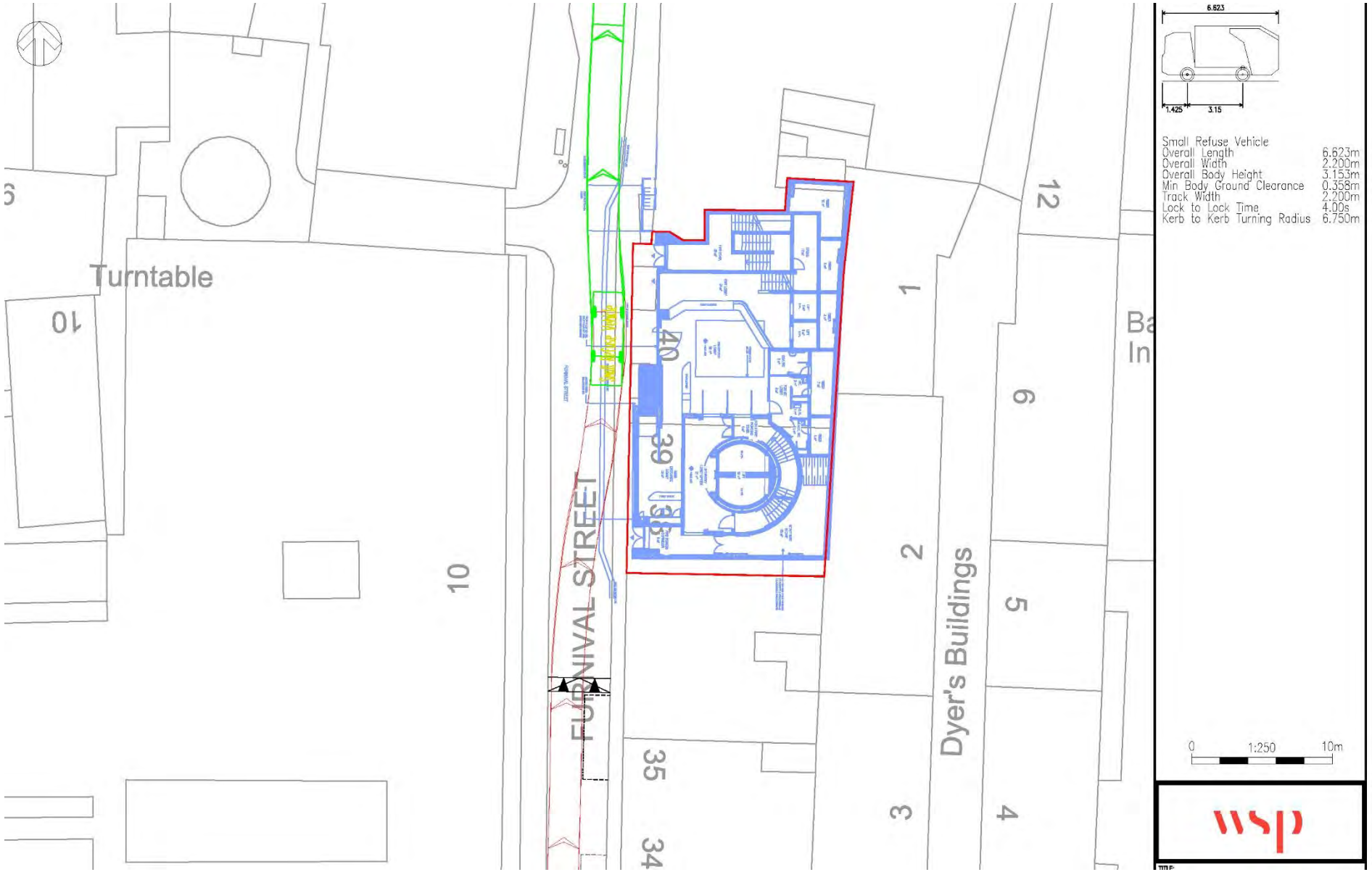
The Tunnels – Occasional Special Events



Loading and Unloading Areas for Deliveries – Primary from Holborn

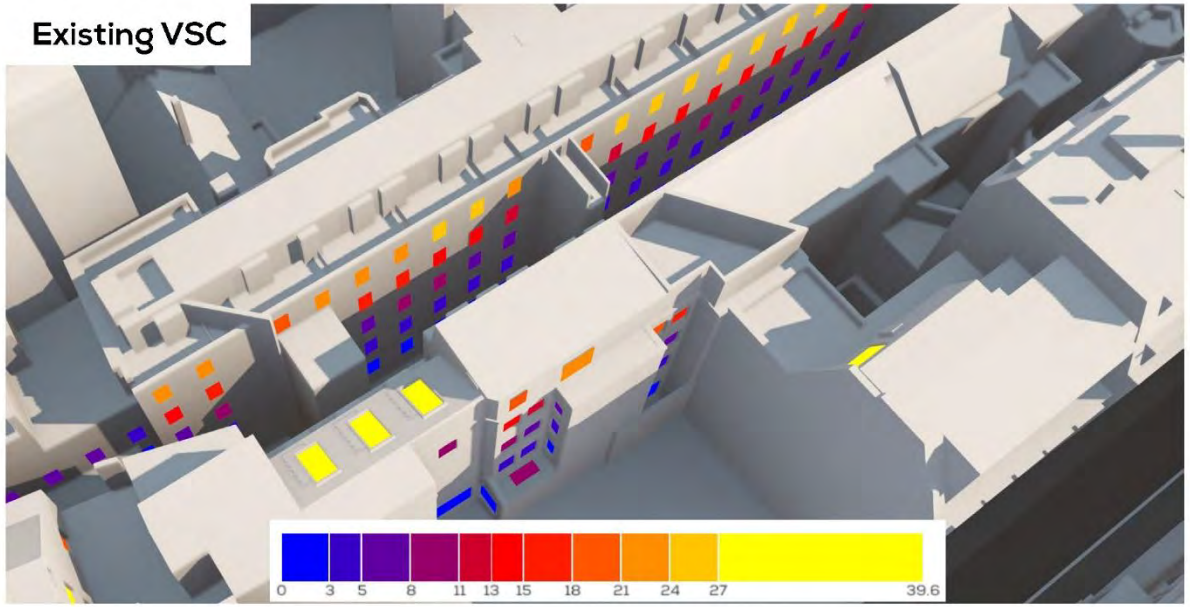


Furnival Street – Extent of Section 278 works in line with Healthy Street Plan

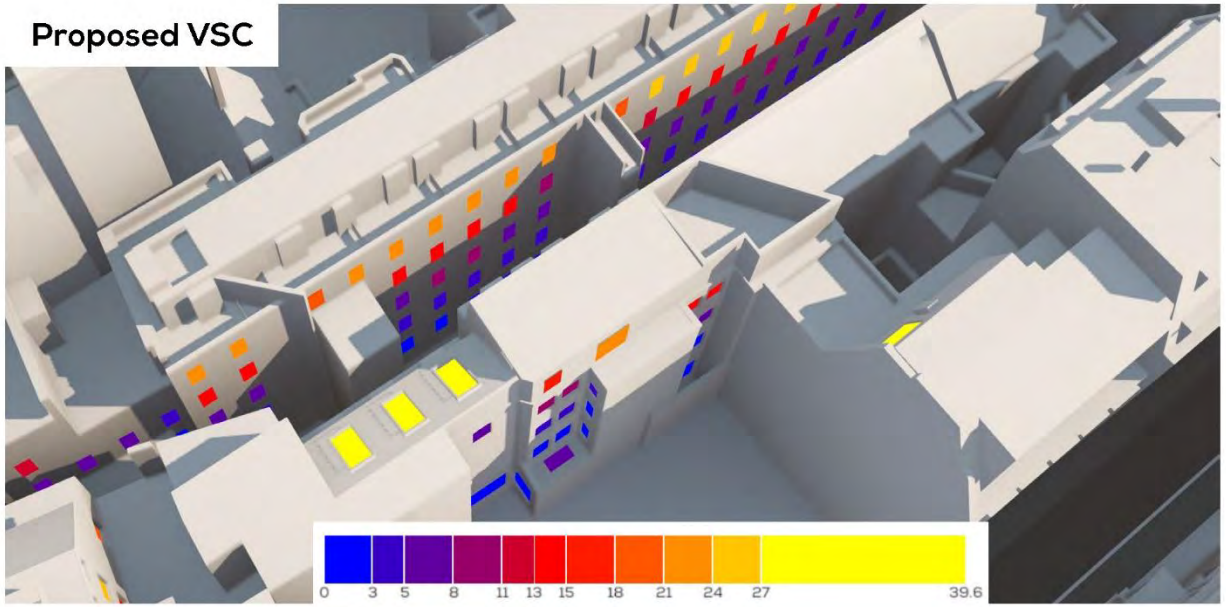


Furnival Street – (Private) Waste Collection Vehicle Swept path analysis

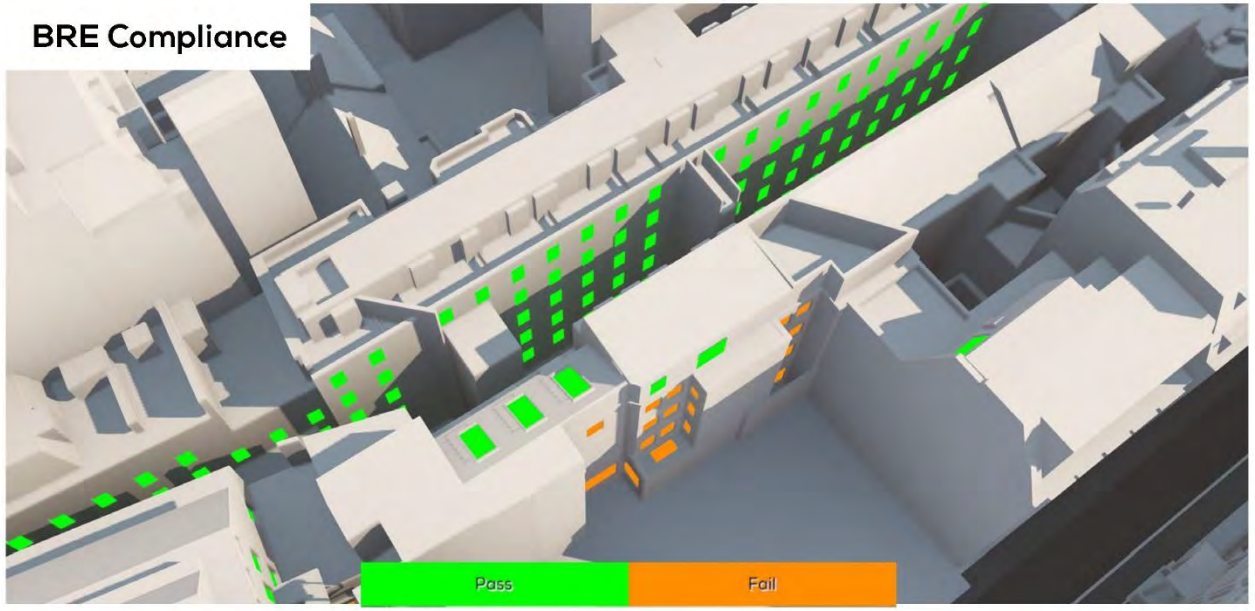
Existing VSC



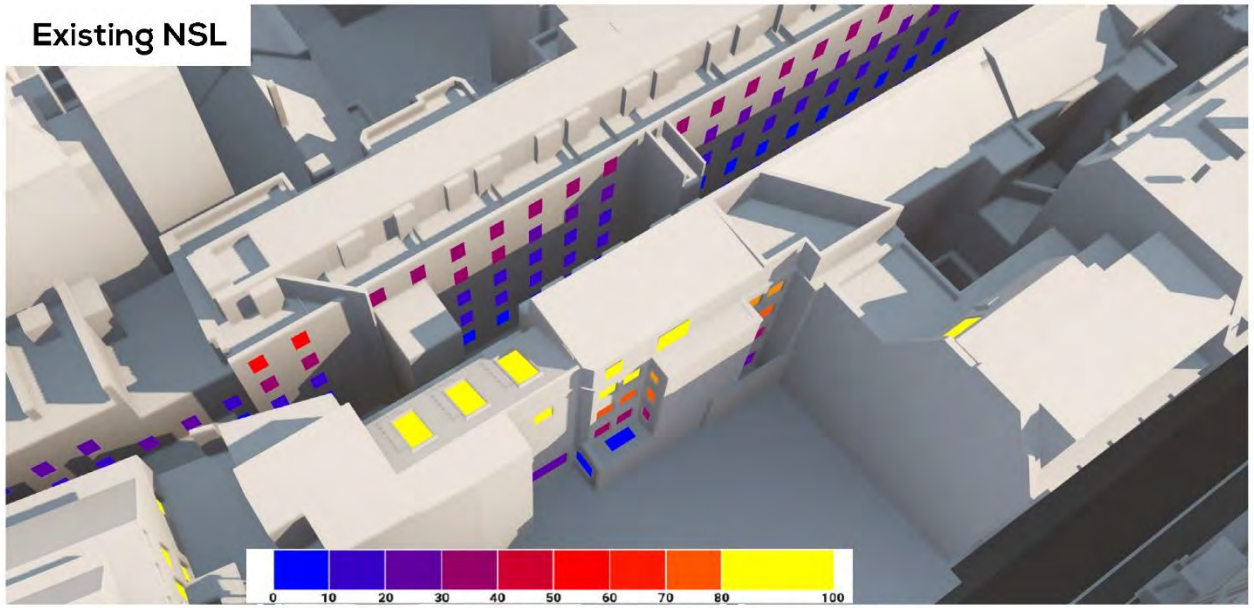
Proposed VSC



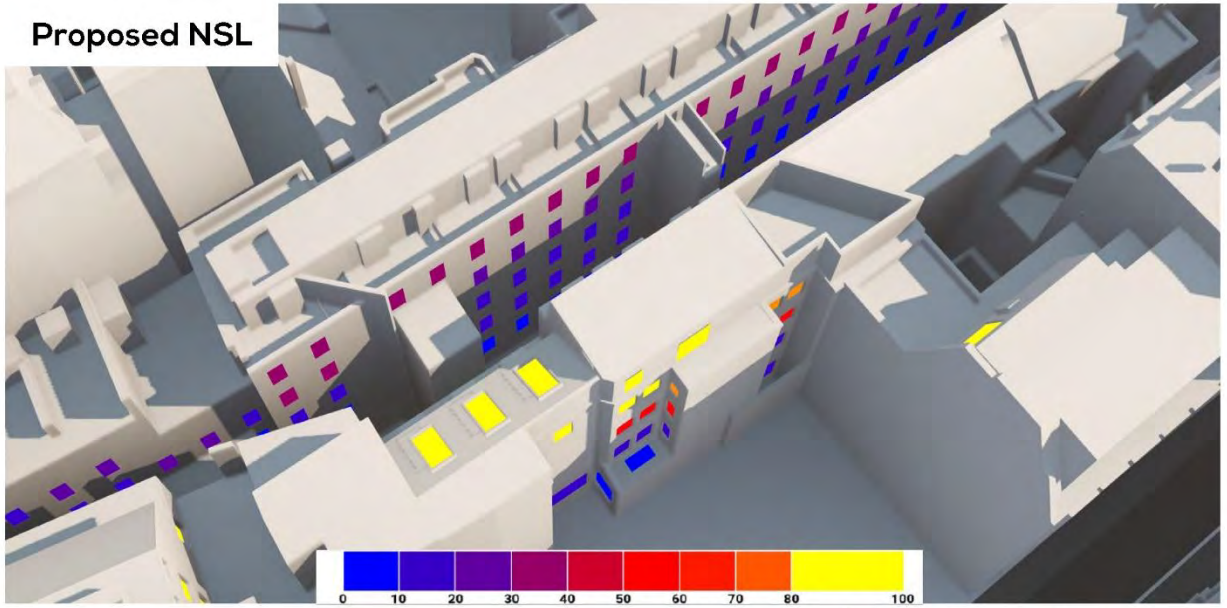
BRE Compliance



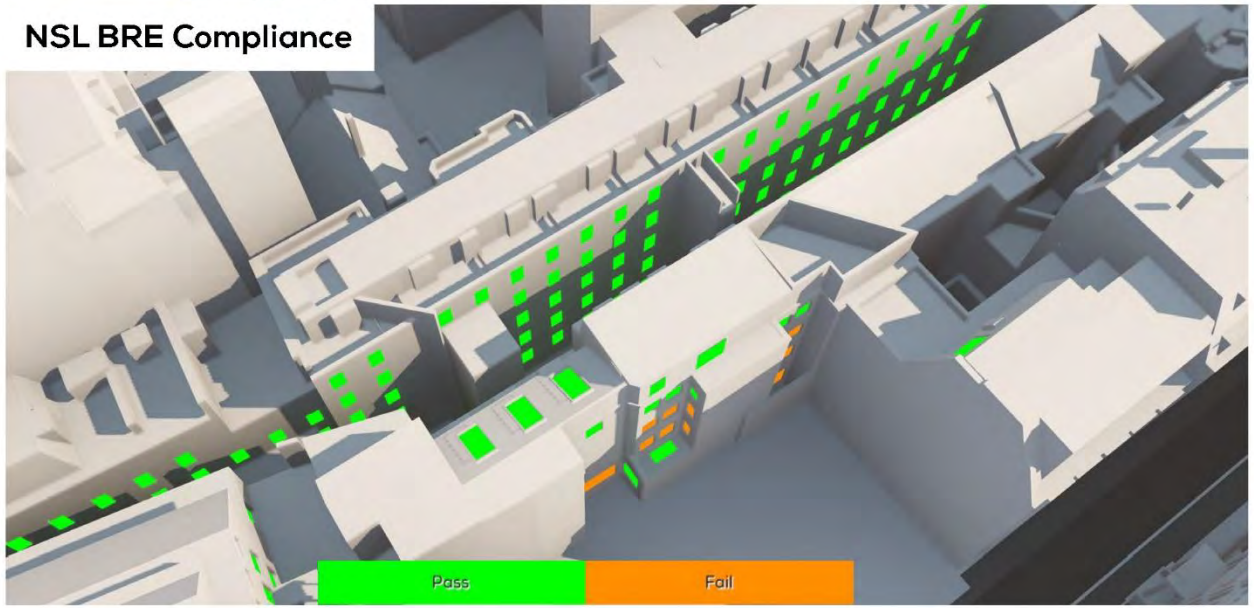
Existing NSL



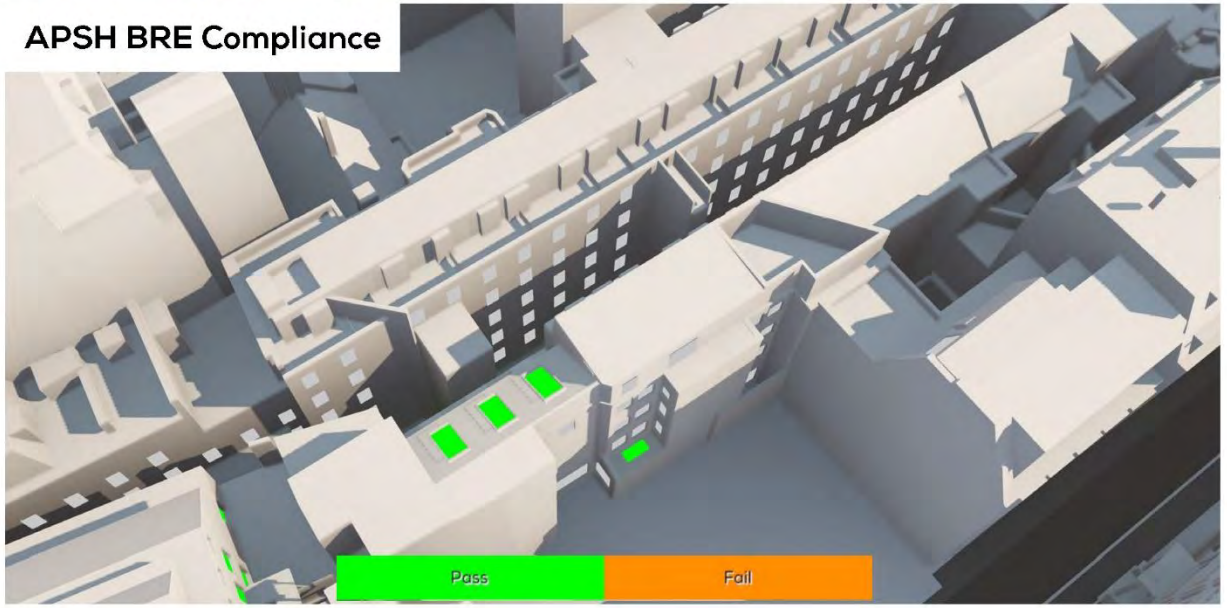
Proposed NSL



NSL BRE Compliance



APSH BRE Compliance



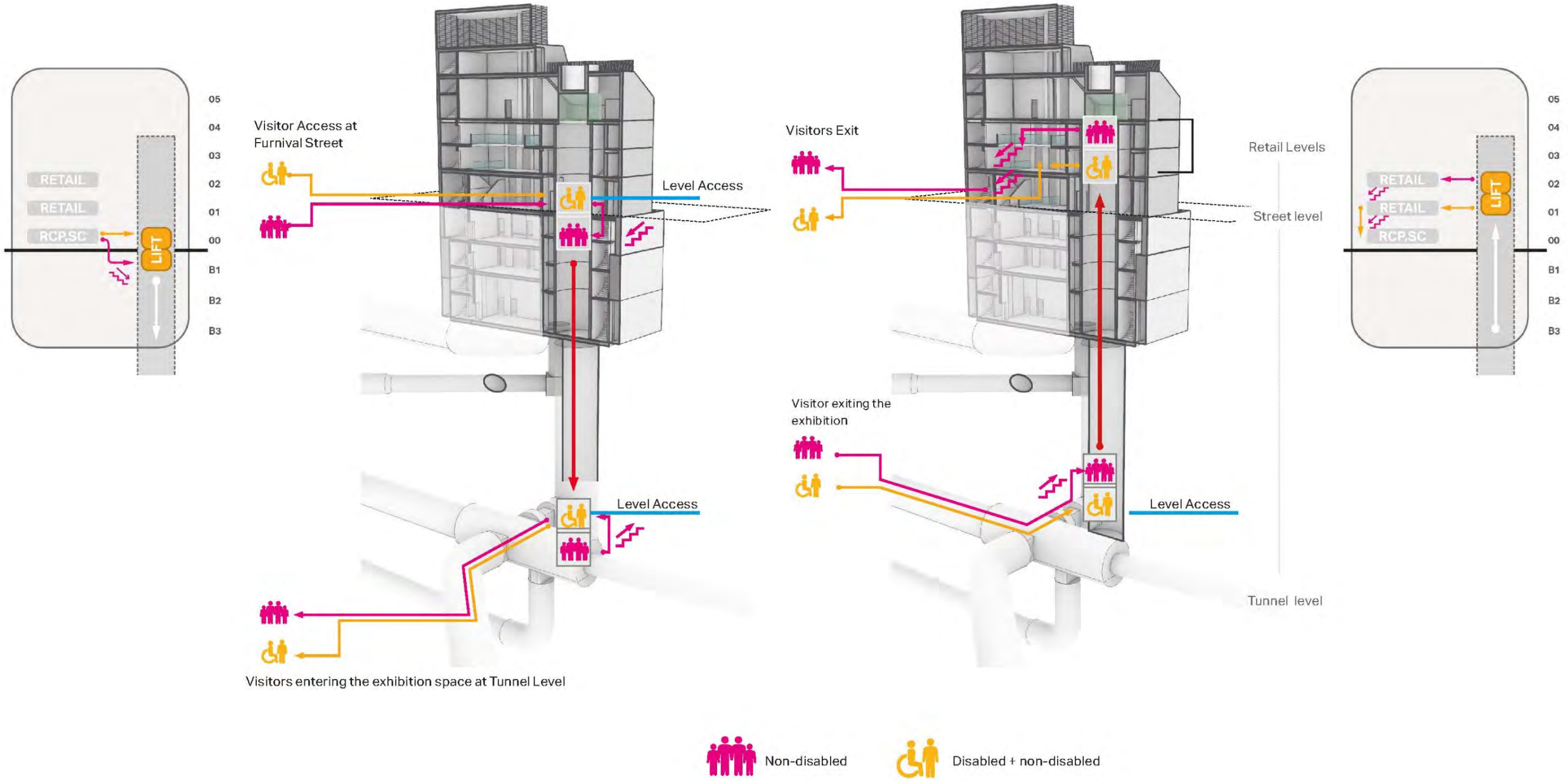
Furnival Street – Daylight / Sunlight Impacts – NSL + APSH

						VSC (WINDOW)				NSL				APSH (WINDOW)					
FLOOR	ROOM	PROPERTY TYPE	ROOM USE	ROOM NOTES	WINDOW	EX. %	PR. %	LOSS	LOSS %	EX. %	PR. %	LOSS SQM	LOSS %	EX.		PR.		LOSS %	
														ANNUAL	WINTER	ANNUAL	WINTER	ANNUAL	WINTER
1-6 DYERS BUILDINGS																			
B01	R1	RESIDENTIAL	LKD	1 LOORPLANS	W1/B01	0.4	0.3	0.1	25.0%	23.6	23.1	0.3	2.2%						
			LKD		W//B01 / HZ (2)	12.2	12.2	0	0.0%					5	0	5	0	0.0%	0.0%
			LKD		W8/B01 / HZ (2)	8.7	8.7	0	0.0%					10	2	10	2	0.0%	0.0%
	R2	RESIDENTIAL	BEDROOM	1 LOORPLANS	W2/B01	0.3	0.2	0.1	33.3%	0.8	0.8	0.0	2.5%						
	R3	RESIDENTIAL	BEDROOM	1 LOORPLANS	W3/B01	0.2	0.2	0	0.0%	1	1	0.0	0.0%	0	0	0	0	0.0%	0.0%
	R4	RESIDENTIAL	LKD	1 LOORPLANS	W4/B01	0.3	0.3	0	0.0%	14.9	14.5	0.2	2.9%						
			LKD		W8/B01 / HZ (2)	8.5	8.5	0	0.0%					0	0	0	0	0.0%	0.0%
1 00	R1	RESIDENTIAL	LOBBY	1 LOORPLANS	W1/1 00	1.2	0.7	0.5	41.7%	15.4	8.5	1.4	44.8%						
			LOBBY		W8/1 00	1.8	1.8	0	0.0%					3	0	3	0	0.0%	0.0%
			LOBBY		W//1 00	1.8	1.8	0	0.0%					4	0	4	0	0.0%	0.0%
	R2	RESIDENTIAL	BEDROOM	1 LOORPLANS	W2/1 00	0.4	0.3	0.1	25.0%	62.5	42.4	2.0	32.1%						
			BEDROOM		W3/1 01 / HZ (2)	10.4	6.3	4.1	39.4%					5	0	0	0	100.0%	0.0%
	R3	RESIDENTIAL	BEDROOM	1 LOORPLANS	W3/1 00	0.5	0.4	0.1	20.0%	2.2	2.1	0.0	0.8%	0	0	0	0	0.0%	0.0%
	R4	RESIDENTIAL	HOME OFFICE	1 LOORPLANS	W4/1 00	1.2	0.6	0.6	50.0%	21.7	7	1.2	67.7%						
1 01	R2	RESIDENTIAL	LKD	1 LOORPLANS	W2/1 01	4.3	1.2	3.1	72.1%	30.6	13.5	8.5	55.8%						
			LKD		W4/1 01	3.2	1	2.2	68.8%										
			LKD		W5/1 01	2	1.4	0.6	30.0%										
			LKD		W6/1 01	1.6	1.1	0.5	31.2%					0	0	0	0	0.0%	0.0%
			LKD		W//1 01	2.8	1.6	1.2	42.9%										
			LKD		W8/1 01	3.3	1.8	1.5	45.5%										
			LKD		W10/1 01	4	4	0	0.0%					4	2	4	2	0.0%	0.0%
			LKD		W11/1 01	4.2	4.2	0	0.0%					2	0	2	0	0.0%	0.0%
			LKD		W12/1 01	4.3	4.3	0	0.0%					5	1	5	1	0.0%	0.0%
			LKD		W13/1 01	4.2	4.2	0	0.0%					7	1	7	1	0.0%	0.0%
1 02	R2	RESIDENTIAL	LKD	1 LOORPLANS	W2/1 02	8.3	4.2	4.1	49.4%	51.1	35.4	7.8	30.9%						
			LKD		W3/1 02	6.5	3.4	3.1	47.7%										
			LKD		W4/1 02	3.6	2.7	0.9	25.0%										
			LKD		W5/1 02	4.1	3.3	0.8	19.5%					6	0	4	0	33.3%	0.0%
			LKD		W8/1 02	7.5	5.1	2.4	32.0%										
			LKD		W//1 02	7.6	5	2.6	34.2%										

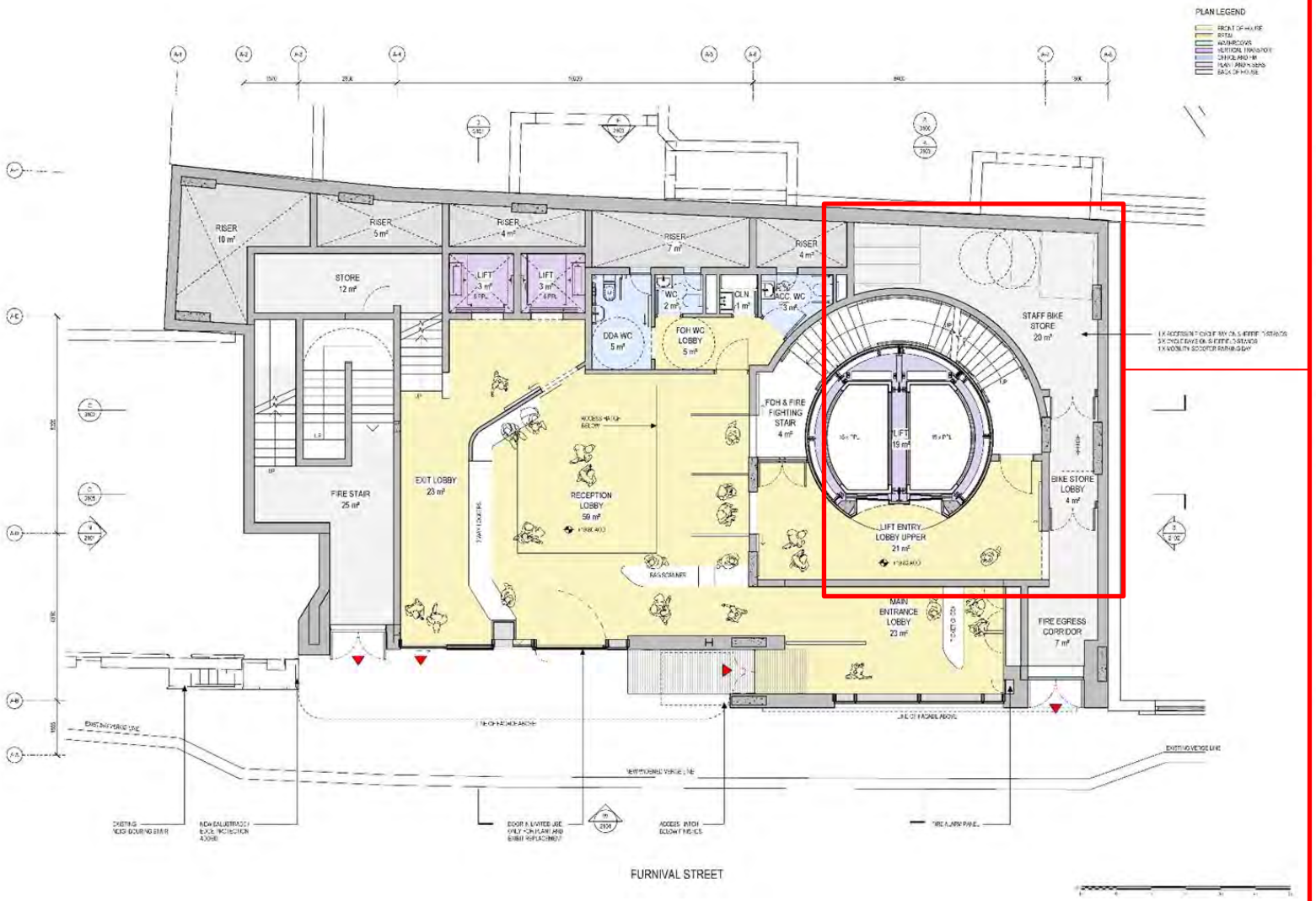
Furnival Street – Daylight / Sunlight Impacts – 1 to 6 Dyers Building Results

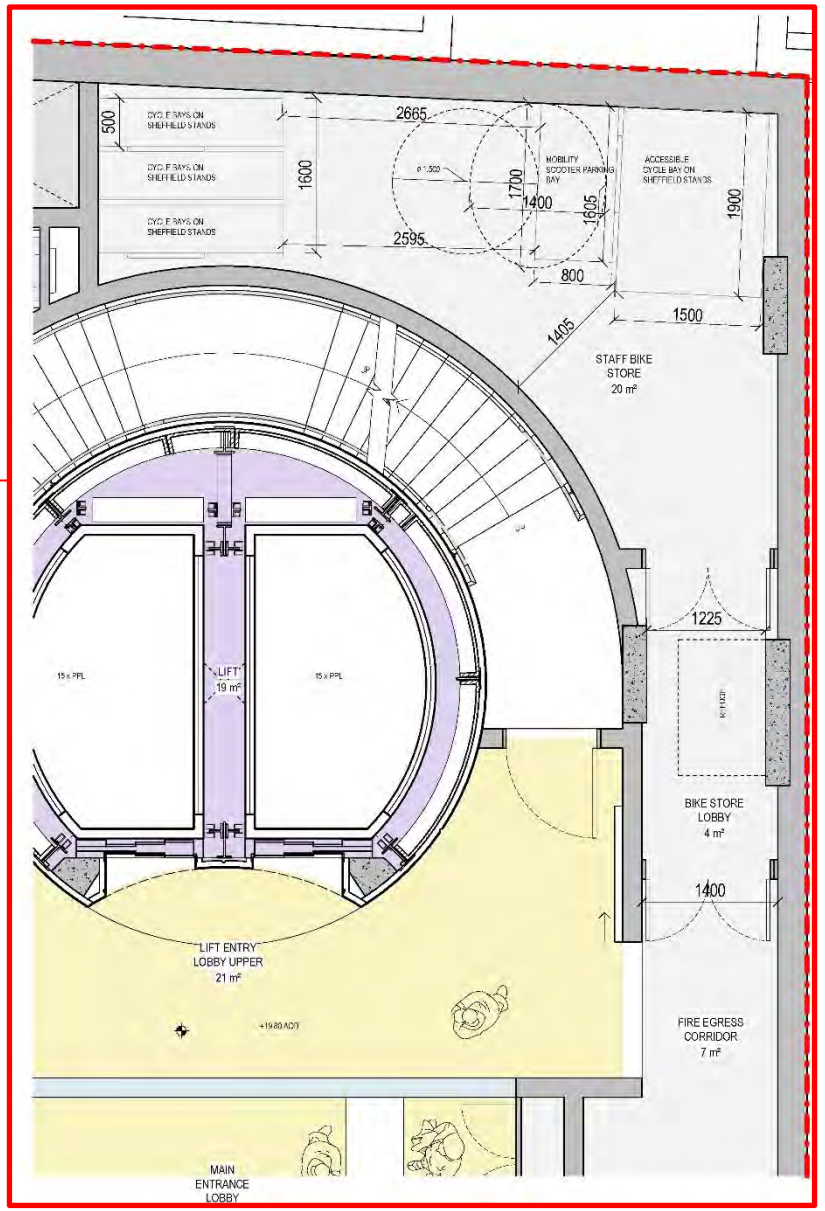
						VSC (WINDOW)				NSL				APSH (WINDOW)					
FLOOR	ROOM	PROPERTY TYPE	ROOM USE	ROOM NOTES	WINDOW	EX %	PR %	LOSS	LOSS %	EX %	PR %	LOSS GDV	LOSS %	EX		PR		LOSS %	
														ANNUAL	WINTER	ANNUAL	WINTER	ANNUAL	WINTER
1 - SILVERS BUILDINGS (CONTINUED)																			
			LKD		W9/1 02	8	8	0	0.0%					8	3	8	3	0.0%	0.0%
			LKD		W10/1 02	9	9	0	0.0%					8	0	8	0	0.0%	0.0%
			LKD		W11/1 02	9.3	9.3	0	0.0%					11	1	11	1	0.0%	0.0%
			LKD		W12/1 02	9.2	9.2	0	0.0%					12	1	12	1	0.0%	0.0%
1 03	R2	RESIDENTIAL	LIVING ROOM	1 LOORPLANS	W2/1 03 (dup.)	8.9	5.9	3	33.7%	95	92.5	0.4	2.6%						
			LIVING ROOM		W3/1 03	13.9	9.6	4.3	30.9%										
			LIVING ROOM		W5/1 03	12.2	8.7	3.5	28.7%										
			LIVING ROOM		W14/1 03	18.2	18.2	0	0.0%					24	5	24	5	0.0%	0.0%
			LIVING ROOM		W15/1 03	18.2	18.2	0	0.0%					24	6	24	6	0.0%	0.0%
	R3	RESIDENTIAL	UNKNOWN	1 LOORPLANS	W2/1 03	8.9	5.9	3	33.7%	100	100	0.0	0.0%						
			UNKNOWN		W16/1 03	18.6	18.6	0	0.0%					23	2	23	2	0.0%	0.0%
			UNKNOWN		W1//1 03	18.5	18.5	0	0.0%					2/	5	2/	5	0.0%	0.0%
			UNKNOWN		W18/1 03	15./	15./	0	0.0%					22	5	22	5	0.0%	0.0%
			UNKNOWN		W1/1 04 / INC (2)	/7.9	/4./	3.2	41%					66	1/	6/	1/	-1.5%	0.0%
			UNKNOWN		W2/1 04 / INC (2)	/6.1	/4	2.1	2.8%					59	5	58	5	1./%	0.0%
			UNKNOWN		W10/1 04 / INC (2) (du	/3.8	69.8	4	5.4%					63	1/	60	1/	4.8%	0.0%
	R4	RESIDENTIAL	LKD	1 LOORPLANS	W4/1 03	6.2	4.8	1.4	22.6%	5/.8	5/.4	0.2	0.8%						
			LKD		W//1 03	18	14.1	3.9	21./%										
			LKD		W8/1 03	16.8	13.1	3./	22.0%										
			LKD		W10/1 03	12.1	12.1	0	0.0%					21	5	21	5	0.0%	0.0%
			LKD		W11/1 03	14.2	14.2	0	0.0%					12	4	12	4	0.0%	0.0%
			LKD		W12/1 03	16.3	16.3	0	0.0%					18	4	18	4	0.0%	0.0%
			LKD		W13/1 03	17.9	17.9	0	0.0%					23	4	23	4	0.0%	0.0%
1 04	R2	RESIDENTIAL	BEDROOM	1 LOORPLANS	W3/1 04	19.6	17.3	2.3	11.7%	98.2	98.2	0.0	0.0%						
			BEDROOM		W8/1 04	26.3	26.3	0	0.0%					3/	/	3/	/	0.0%	0.0%
			BEDROOM		W9/1 04	26.3	26.3	0	0.0%					38	/	38	/	0.0%	0.0%
	R3	RESIDENTIAL	BEDROOM	1 LOORPLANS	W4/1 04	24	22.3	1./	/.1%	96.8	96.9	0.0	-0.1%						
			BEDROOM		W5/1 04	25.6	25.6	0	0.0%					33	6	33	6	0.0%	0.0%
			BEDROOM		W6/1 04	25.8	25.8	0	0.0%					36	/	36	/	0.0%	0.0%
			BEDROOM		W//1 04	26.2	26.2	0	0.0%					3/	8	3/	8	0.0%	0.0%
	R4	RESIDENTIAL	BEDROOM	FLOORPLANS	W10/F04 / INC (2)	73.8	69.8	4	5.4%	95.1	95.1	0.0	0.1%	63	17	60	17	4.8%	0.0%

Furnival Street – Daylight / Sunlight Impacts – 1 to 6 Dyers Building Results

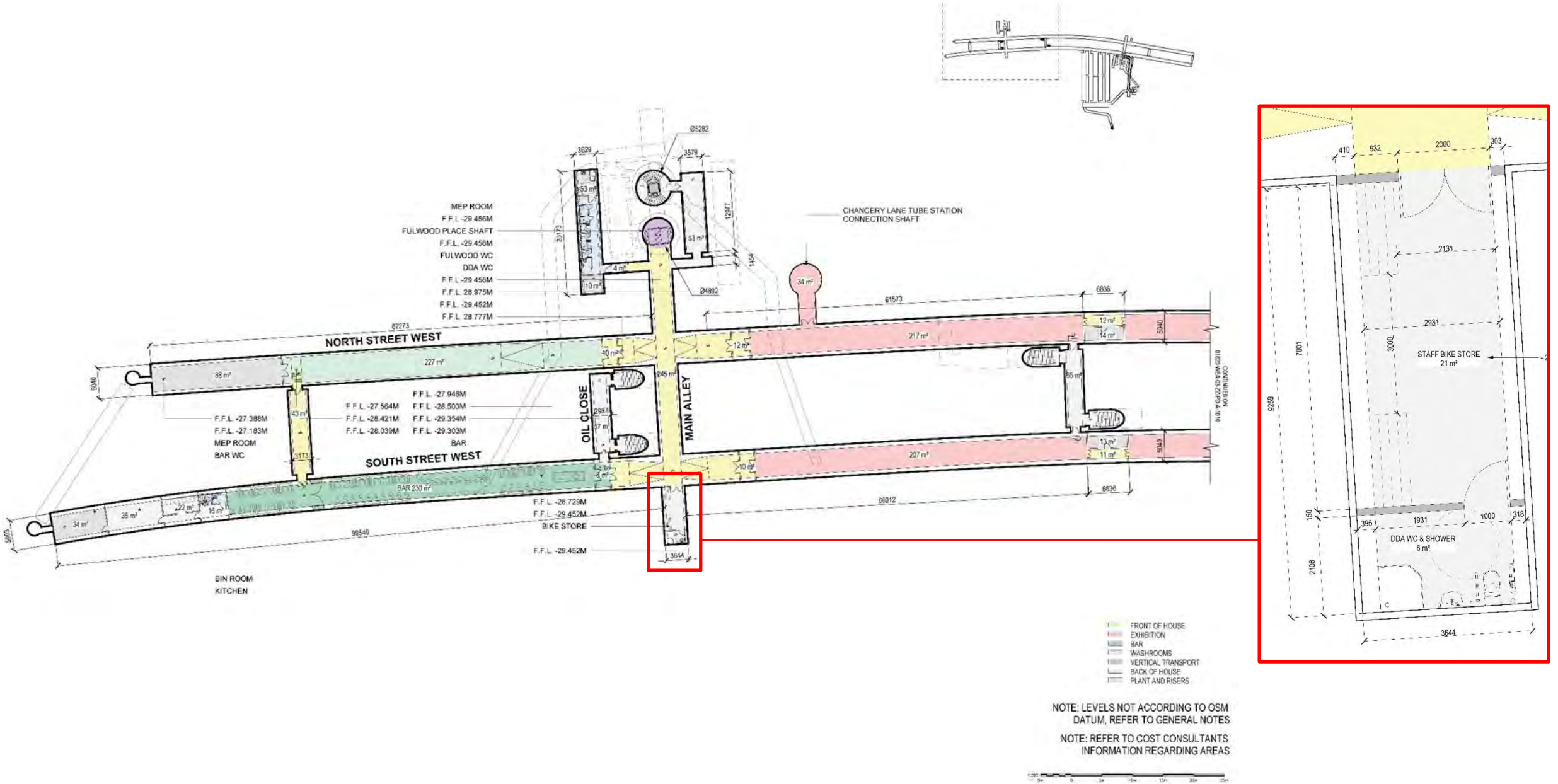


Vertical Transportation – Visitors Access and Exit from tunnels



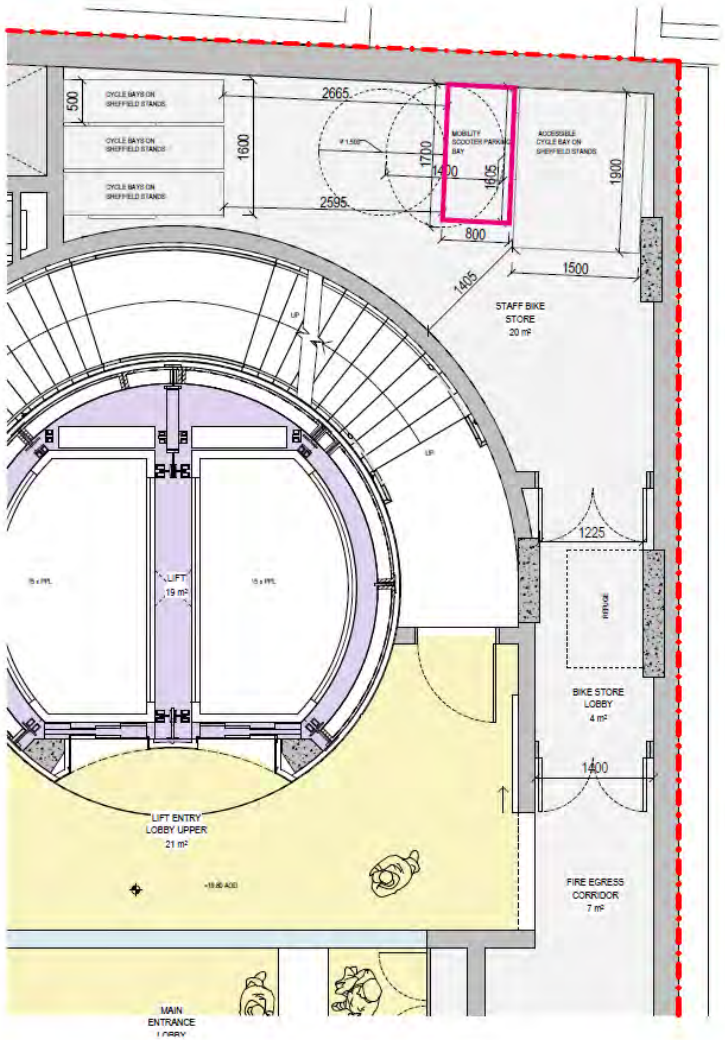


Furnival Street – Staff Cycle Parking Space

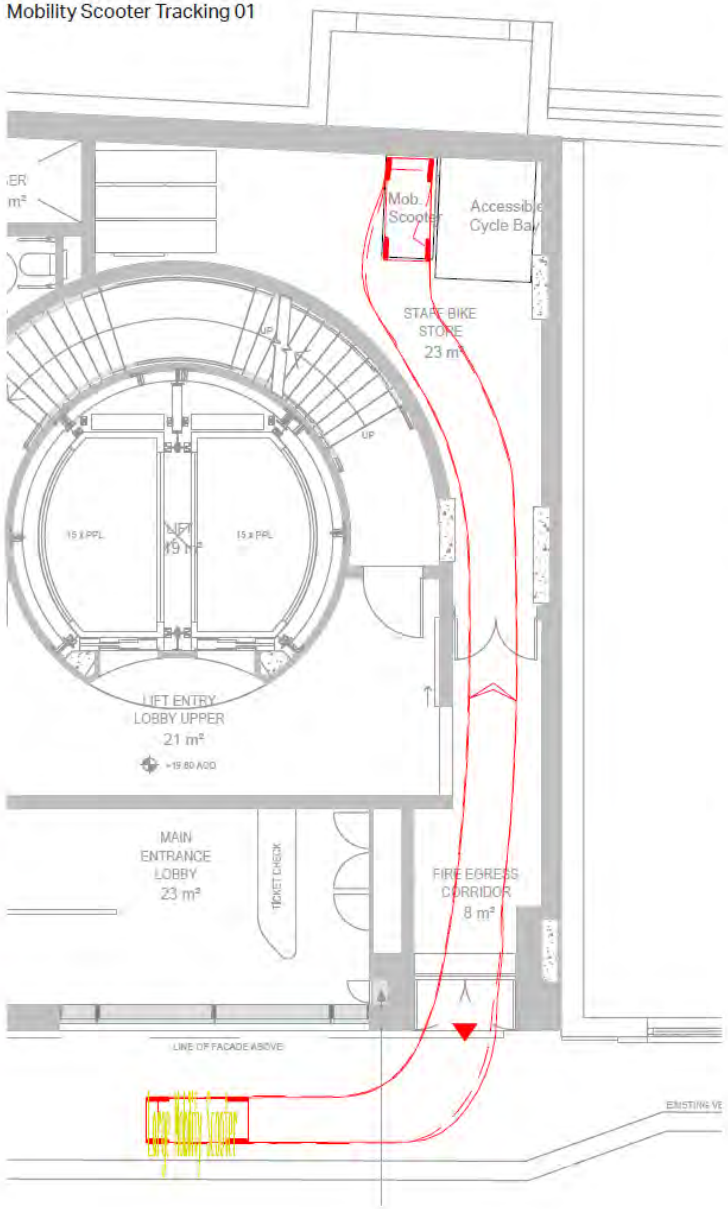


Tunnels – Staff Cycle Parking Space

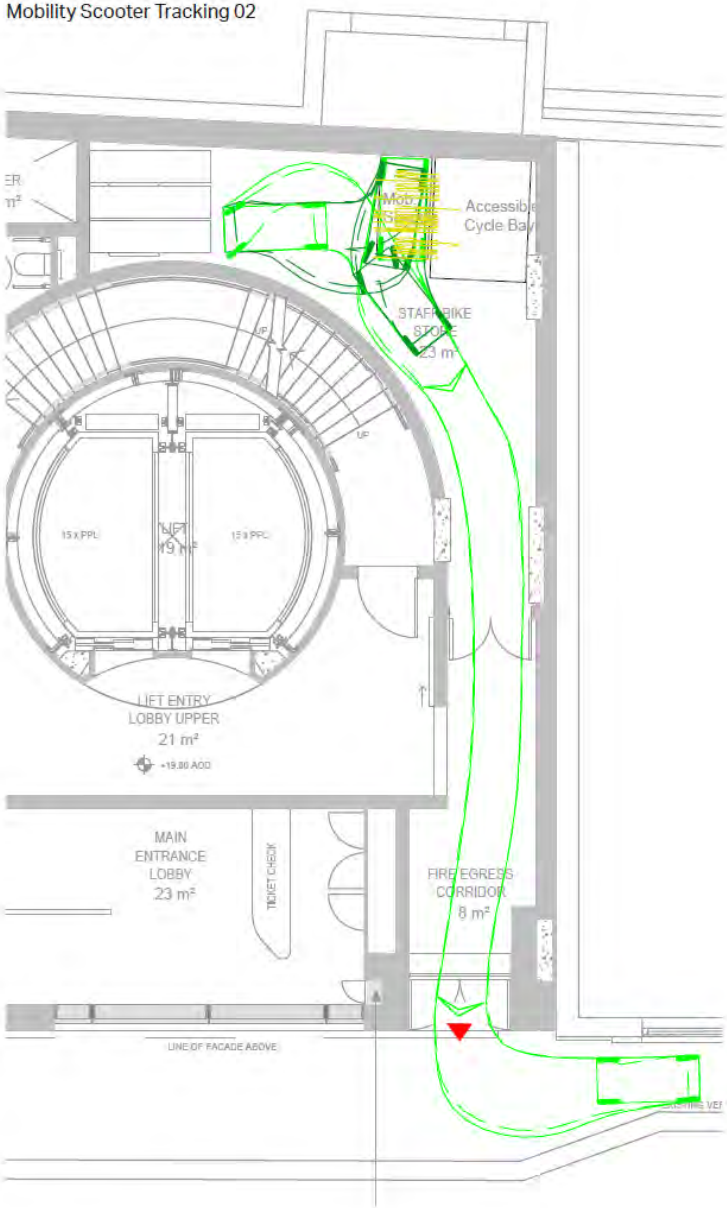
Allocation of Mobility Scooter Parking Space



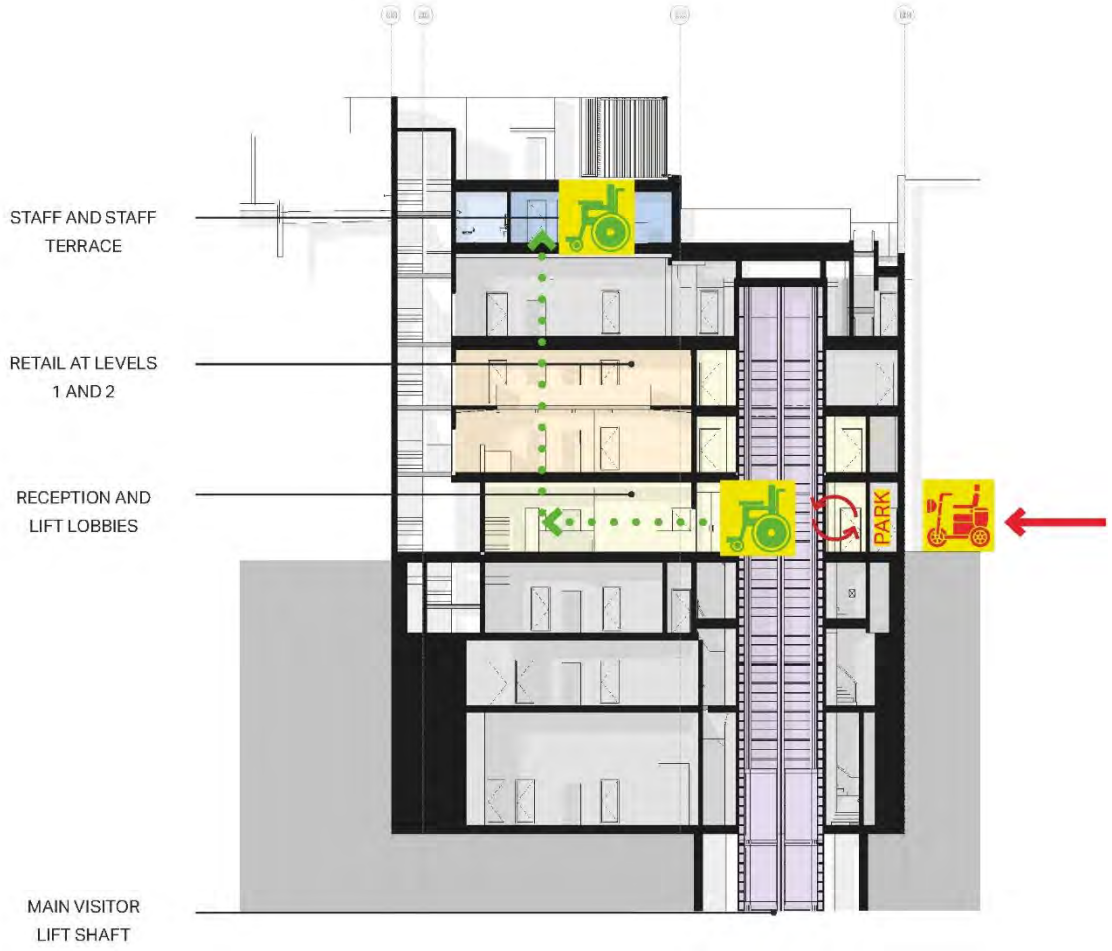
Mobility Scooter Tracking 01

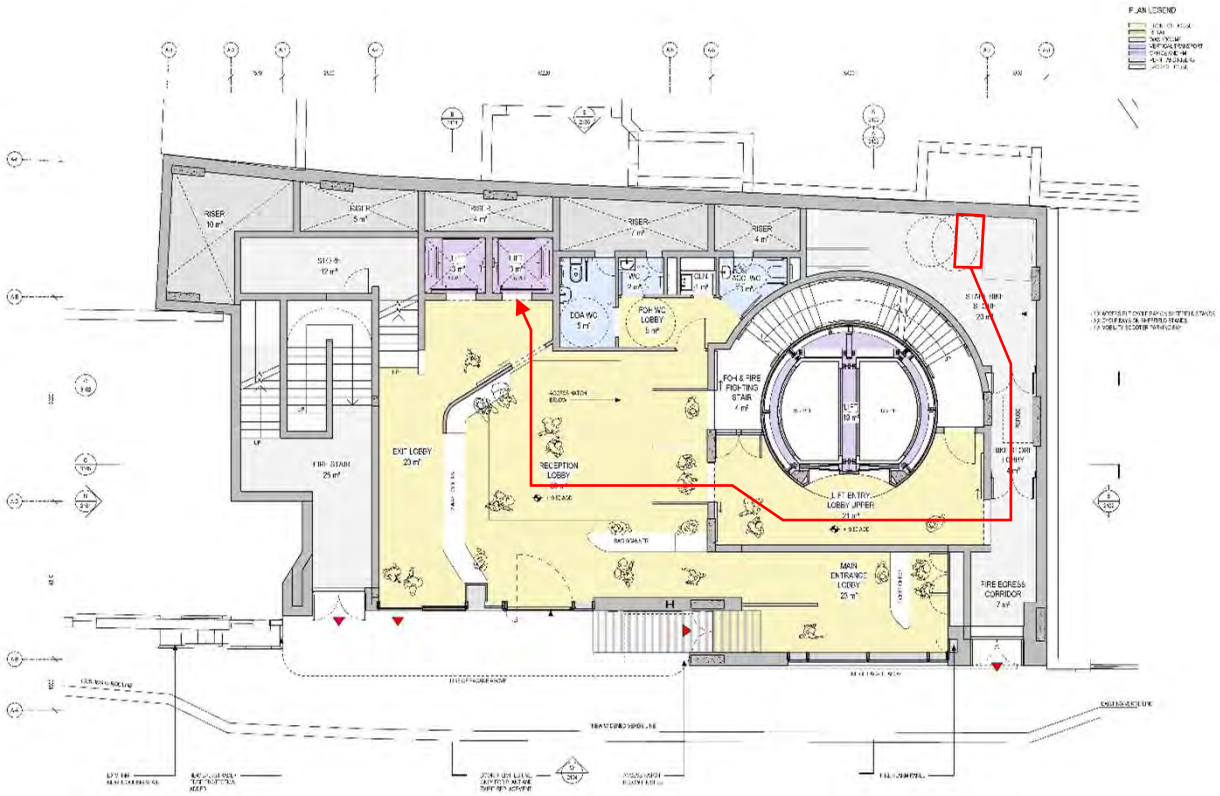


Mobility Scooter Tracking 02

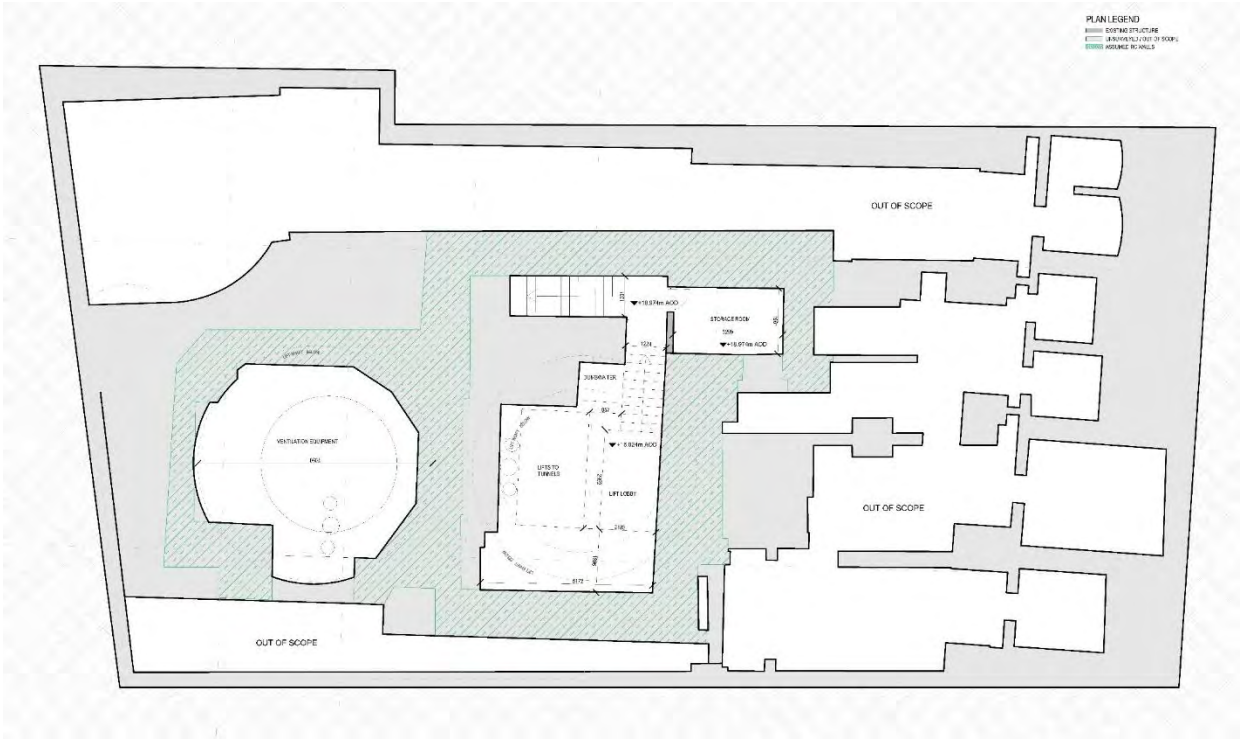


Furnival Street – Mobility Scooter Parking Space

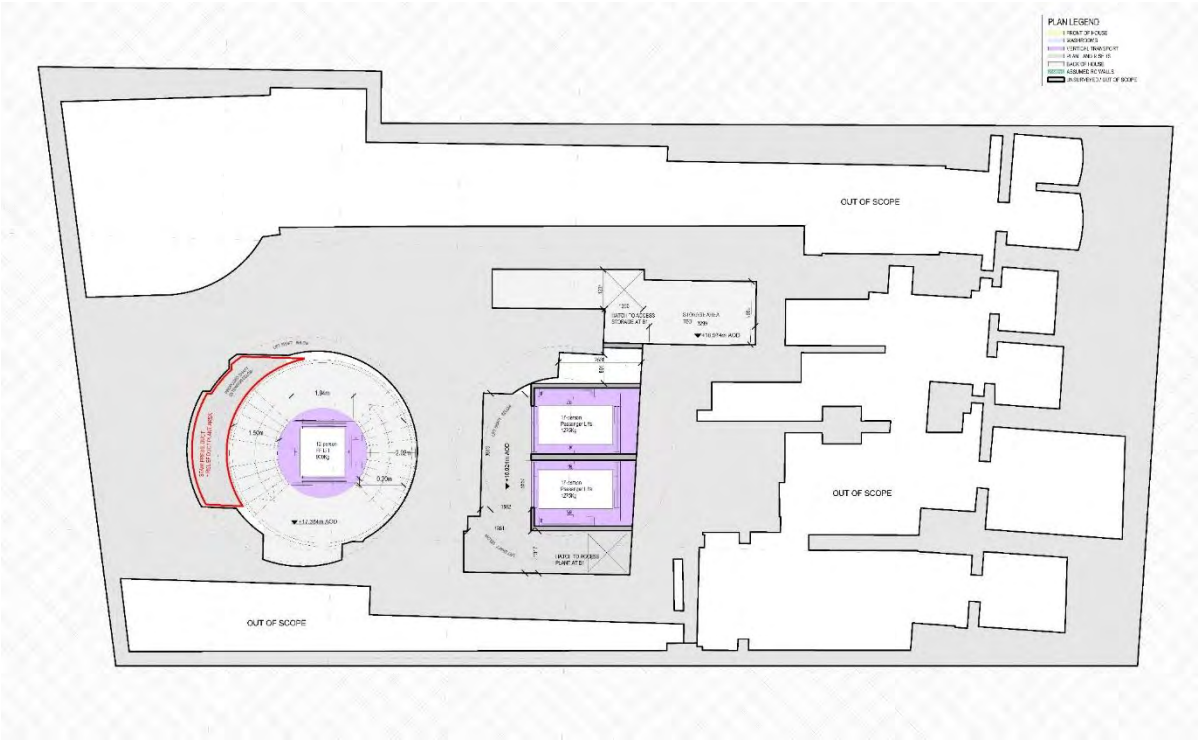




Furnival Street – Mobility Scooter Staff user – Access to office level

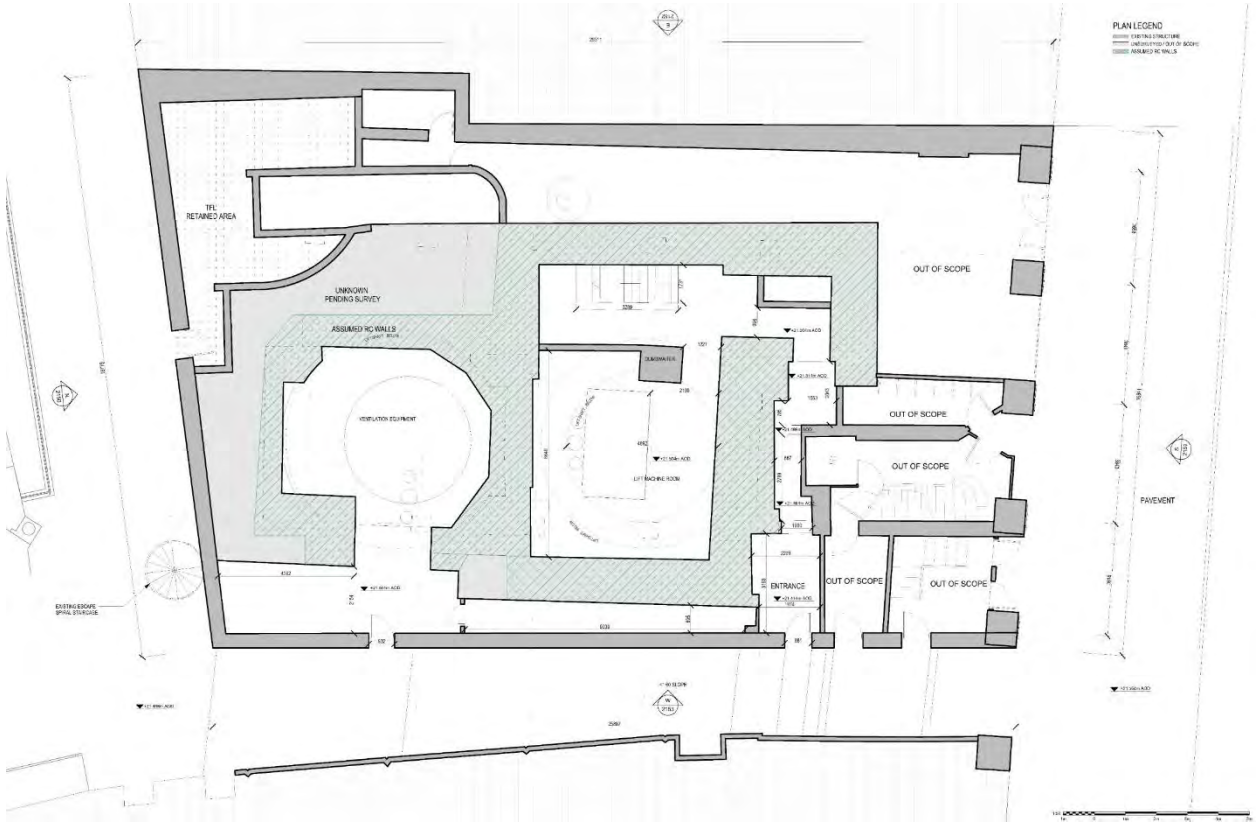


Existing

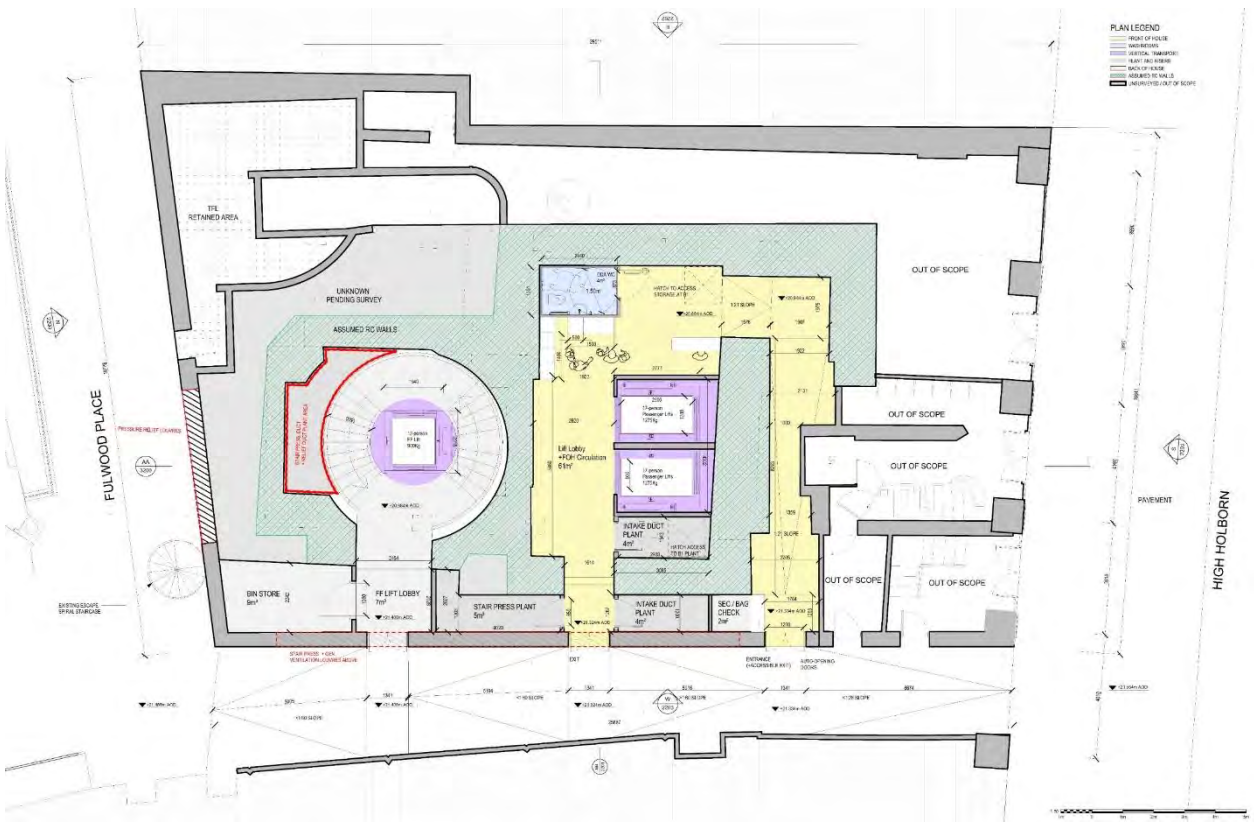


Proposed

(The Camden site) 31-33 High Holborn – Existing (left) and Proposed (right)

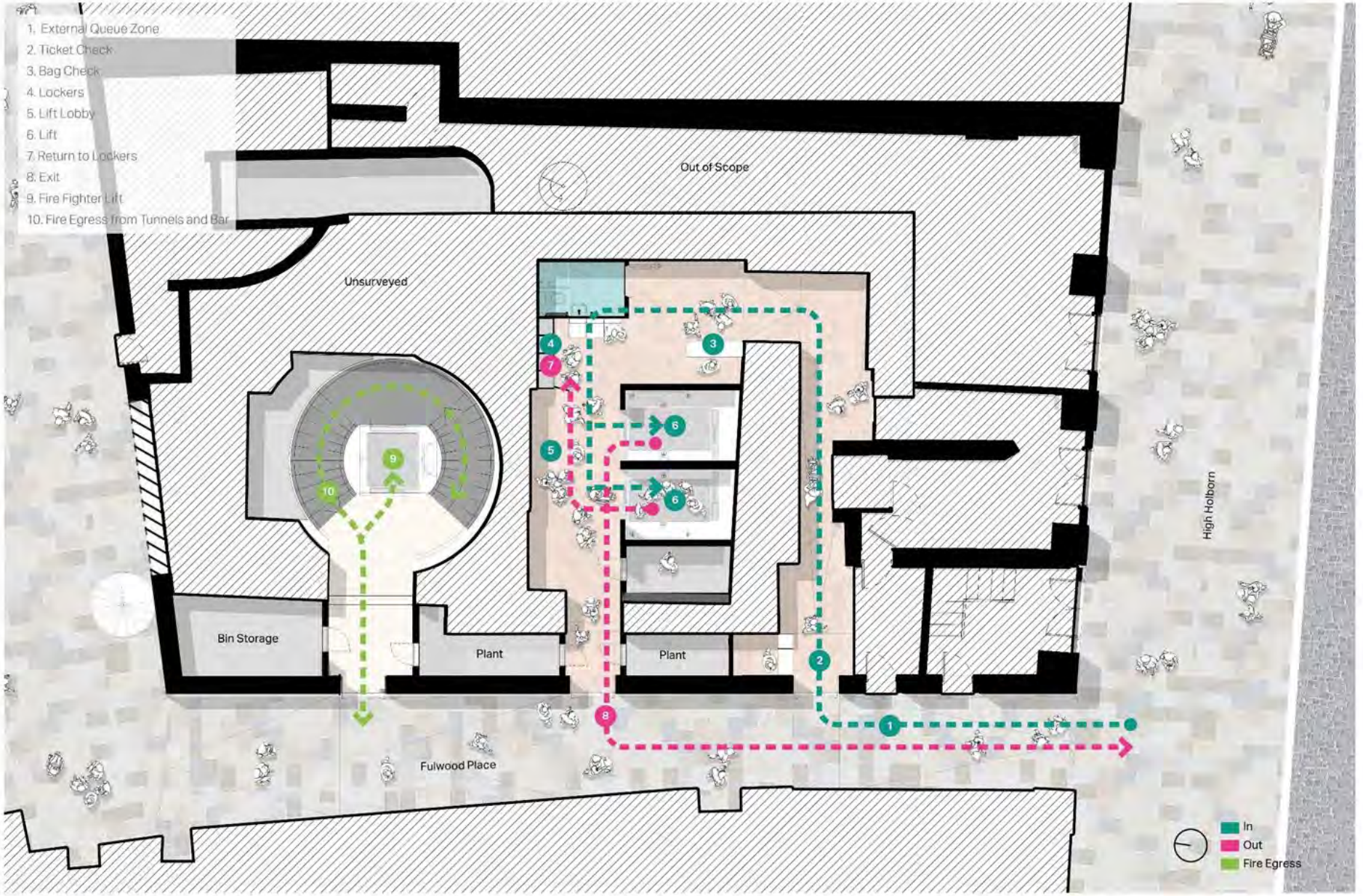


Existing



Proposed

(The Camden site) 31-33 High Holborn – Existing (left) and Proposed (right)



(The Camden site) 31-33 High Holborn – Proposed Visitors Circulation

Existing Elevation

Proposed Elevation

(The Camden site) 31-33 High Holborn – Existing and Proposed South Elevation

Sanitary accommodation

- Bathroom facilities are detailed in section 7 of the DAS.
- Gender Neutral Toilets are available on all floors and in the tunnels.
- Female-exclusive toilets are located at Level 2 and in the tunnels.
- Male-exclusive toilets are located at Level 1 and in the tunnels.
- Accessible toilets are provided on all floors.
- All accessible toilets are gender neutral
- Baby changing areas are available at L01 + L02 and in all tunnels.

Male WC

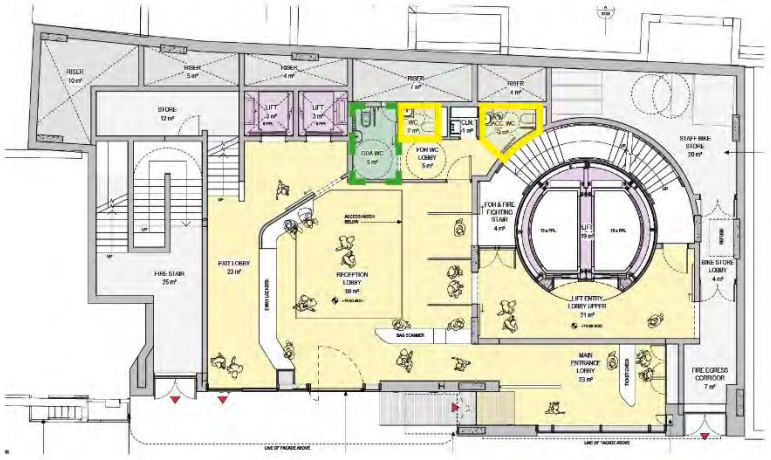
Female WC

Gender Neutral WC

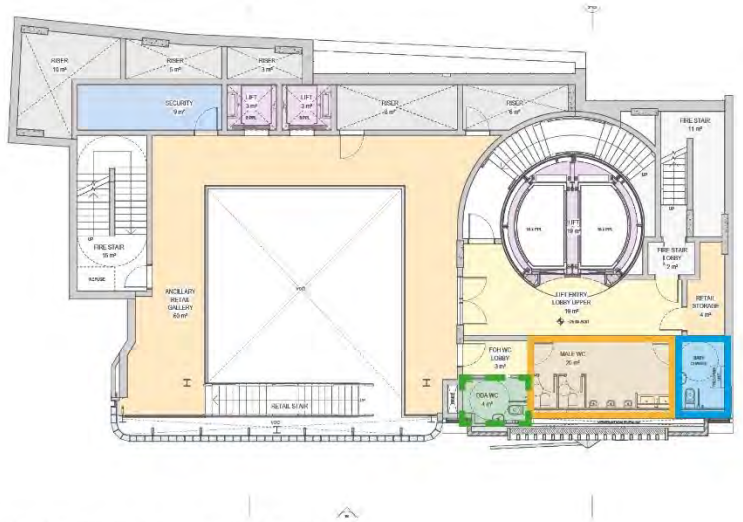
Accessible WC

Baby Changing

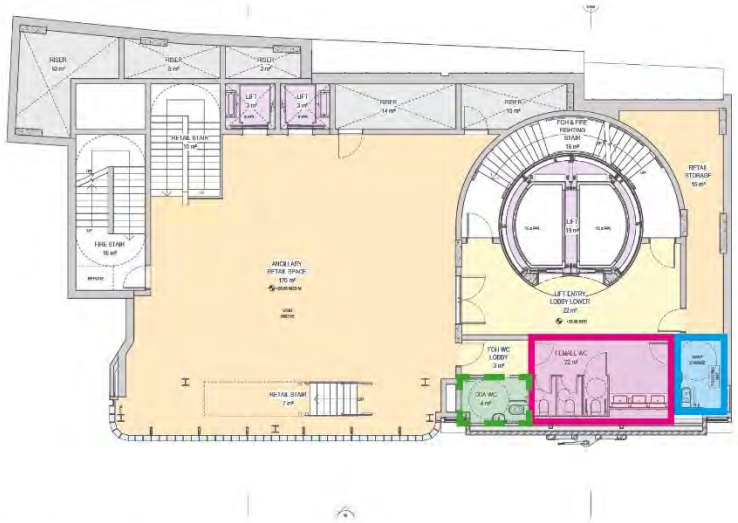
Changing Place



39-40 Furnival Street - Level 0 Floor Plan



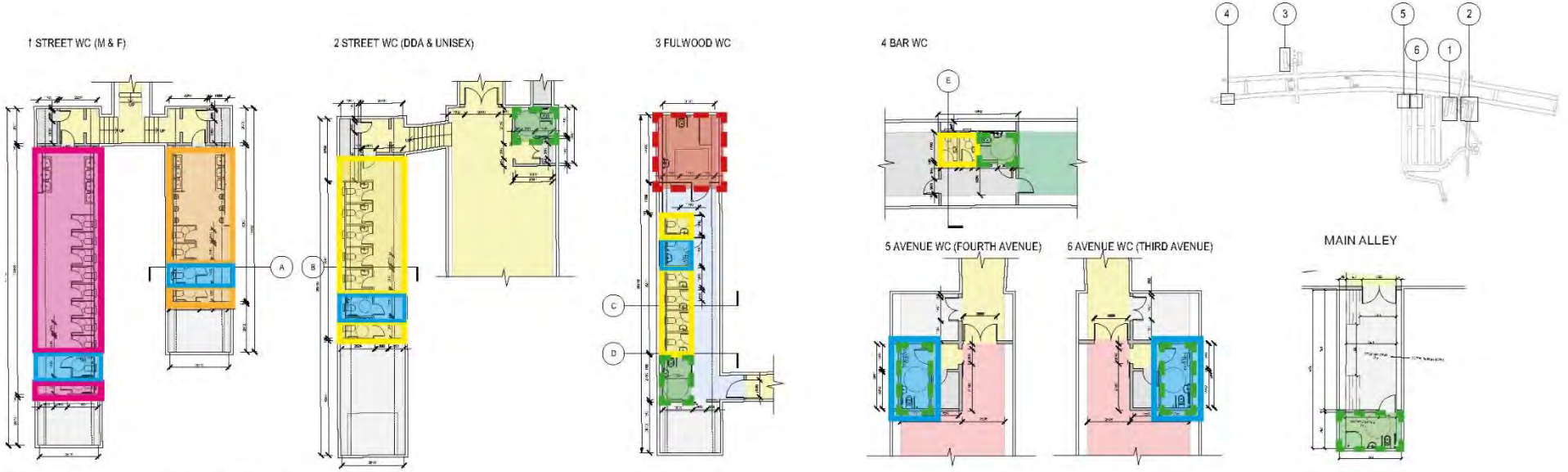
39-40 Furnival Street - Level 2 Floor Plan



39-40 Furnival Street - Level 1 Floor Plan

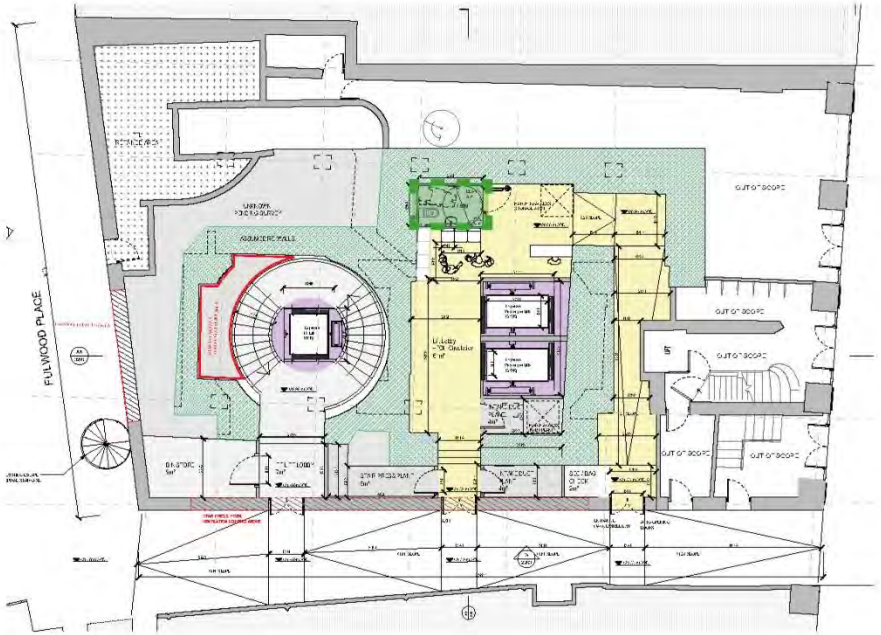
39-40 Furnival Street - Level 4 Floor Plan

Proposed Scheme Toilets Mix – 38-41 Furnival Street



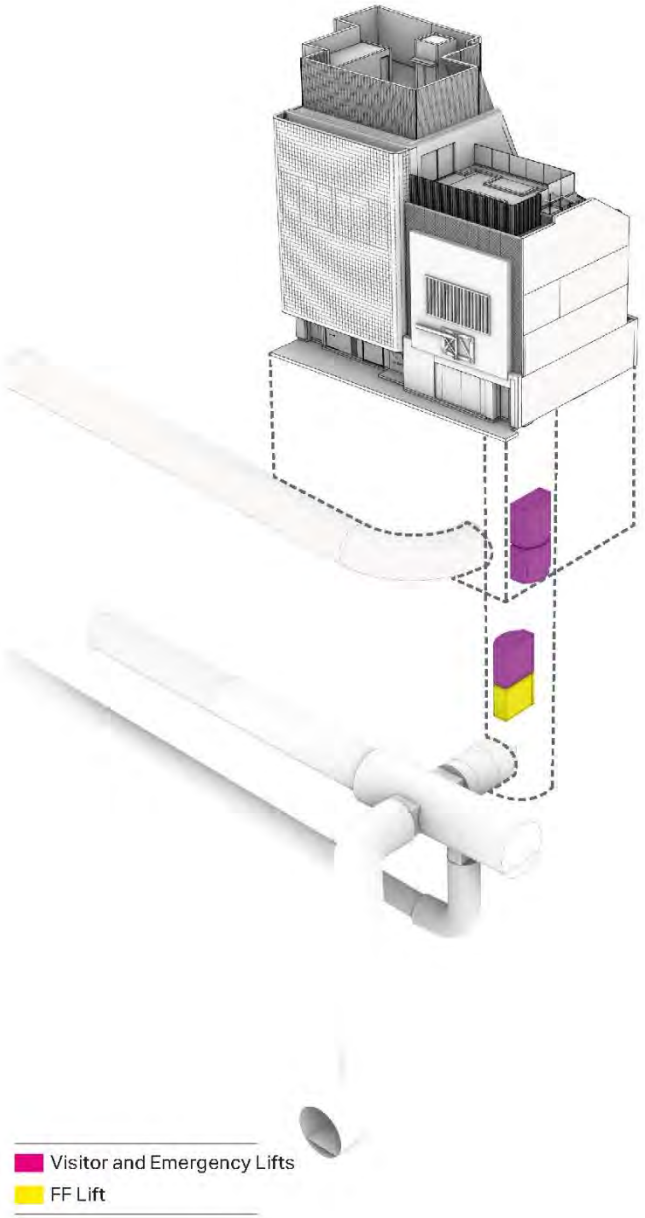
Sanitary accommodation in the Tunnels

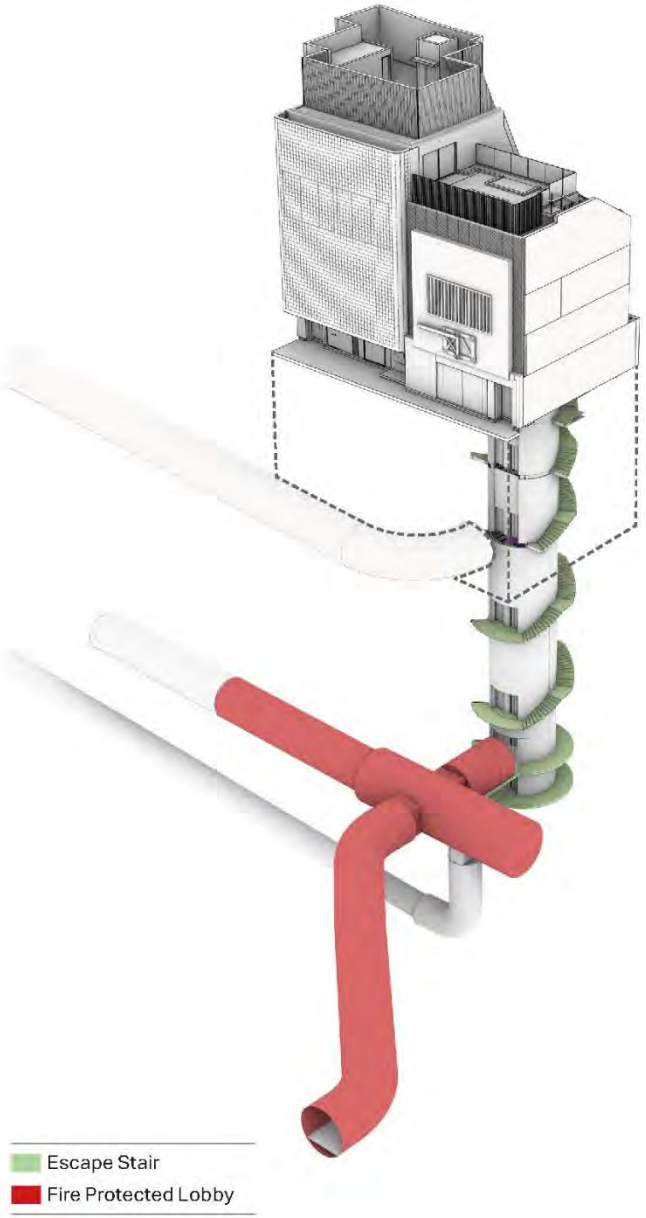
- Male WC
- Female WC
- Gender Neutral WC
- Accessible WC
- Baby Changing
- Changing Place



Sanitary accommodation in 31 - 33 High Holborn

Proposed Scheme Toilets Mix – Tunnels & 31-33 High Holborn (The Camden site)





Furnival Street Shaft

38-41 Furnival Street and its associated shaft will function as the main entrance to the tunnels.

The shaft is also required to provide firefighters access to the tunnels and evacuation. For this, the shaft will be pressurised and connected to a fire protected lobby at tunnels level.

Requirements

The tunnel access requirements at this location are summarised below:

- 1 Fire Fighter lift - Pressurized.
- 1 Emergency lift - Pressurized.
- 1 spiral Escape stair - Pressurized.
- Escape stair and lift must share protected lobby.
- Set of lifts must be provided for resilience - rescue if needed.

In order to accommodate these requirements spatially, the strategy for Furnival Street proposes the construction of a new wider shaft, from grade, down to the level of the tunnels.

Evacuation Strategy – Tunnels to 38-41 Furnival Street

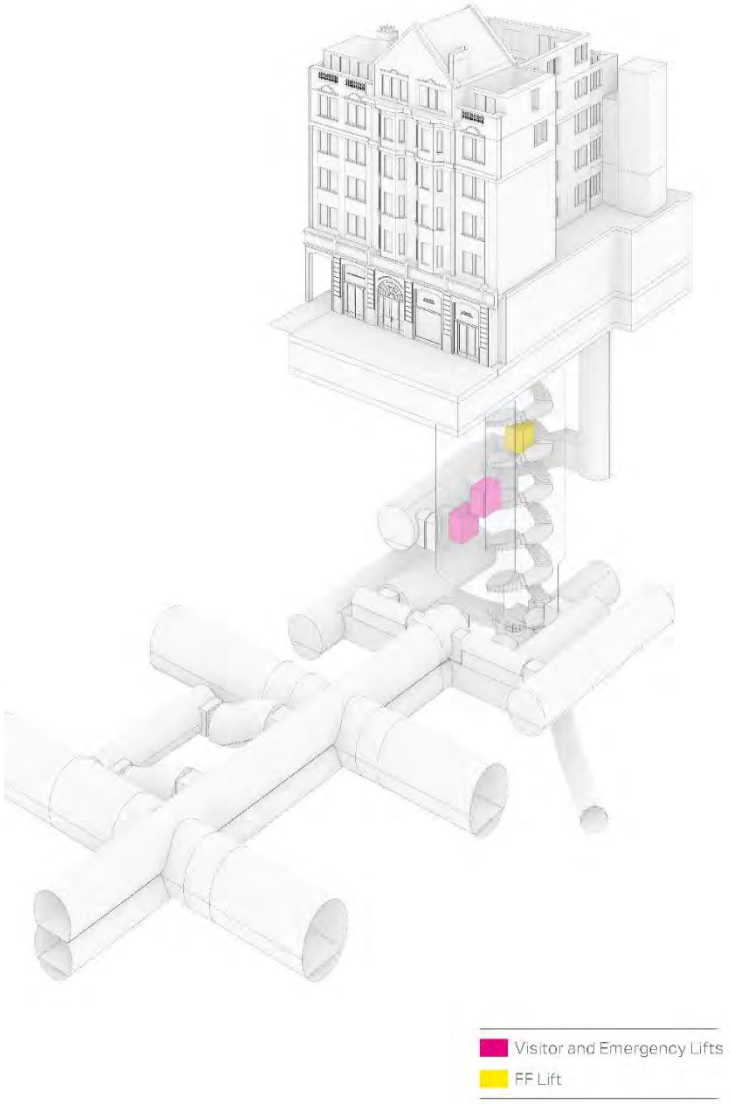


Figure 144. Fire Fighter and Visitor Lifts

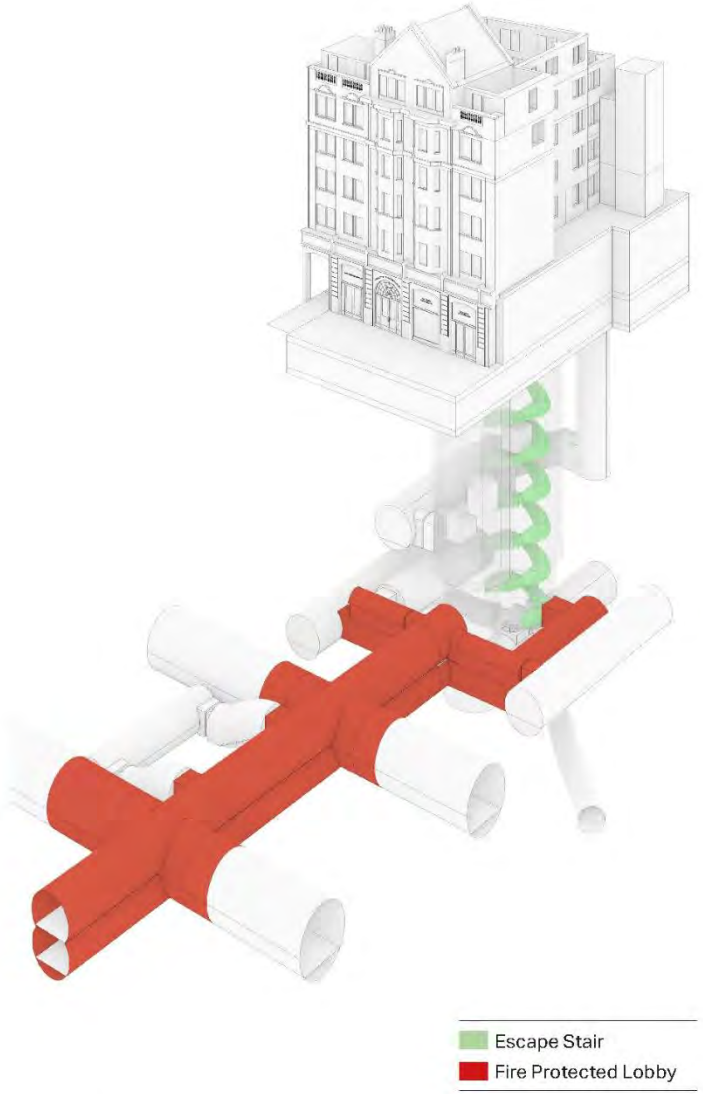


Figure 145. Escape Stairs and Fire Protected Lobby

The southern shaft at 31-33 High Holborn is designated for visitor access and emergency escape, while the northern shaft houses the firefighting lift alongside fire escape stairs.

The imperative for extending the northern shaft to tunnel level arises from compliance with the mandated minimum of 250 square meters for fire-sterile pressurized tunnels, ensuring optimal safety standards throughout.

Evacuation Strategy – Tunnels to 31-33 High Holborn (The Camden site)

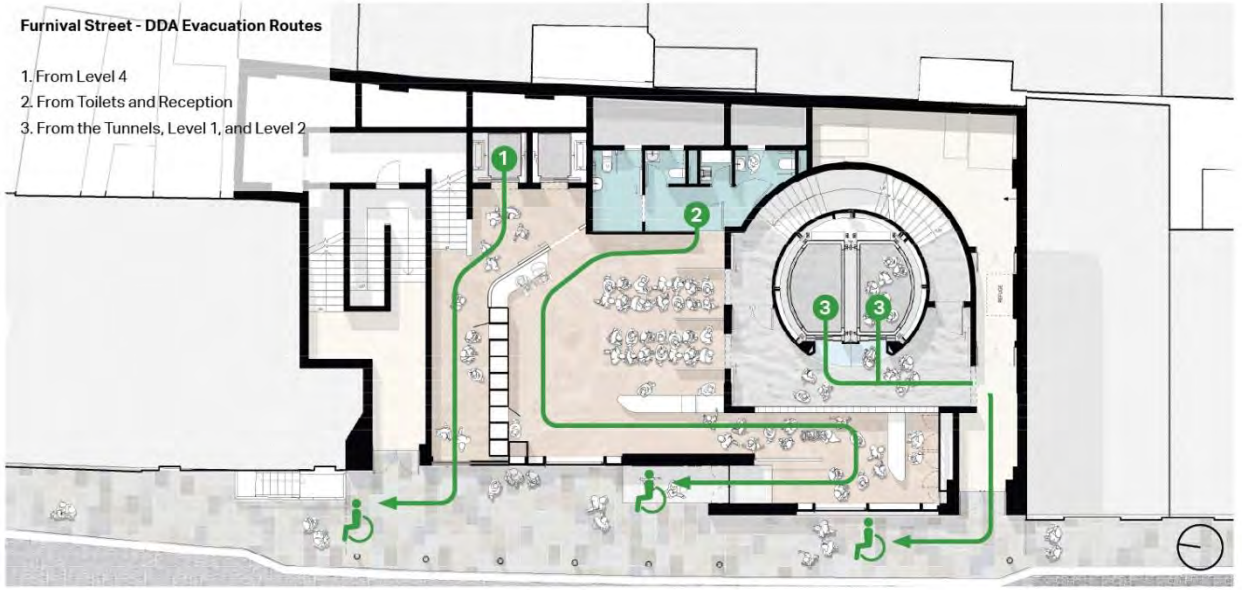


Figure 1. DDA Evacuation routes at 38-41 Furnival Street

The City site

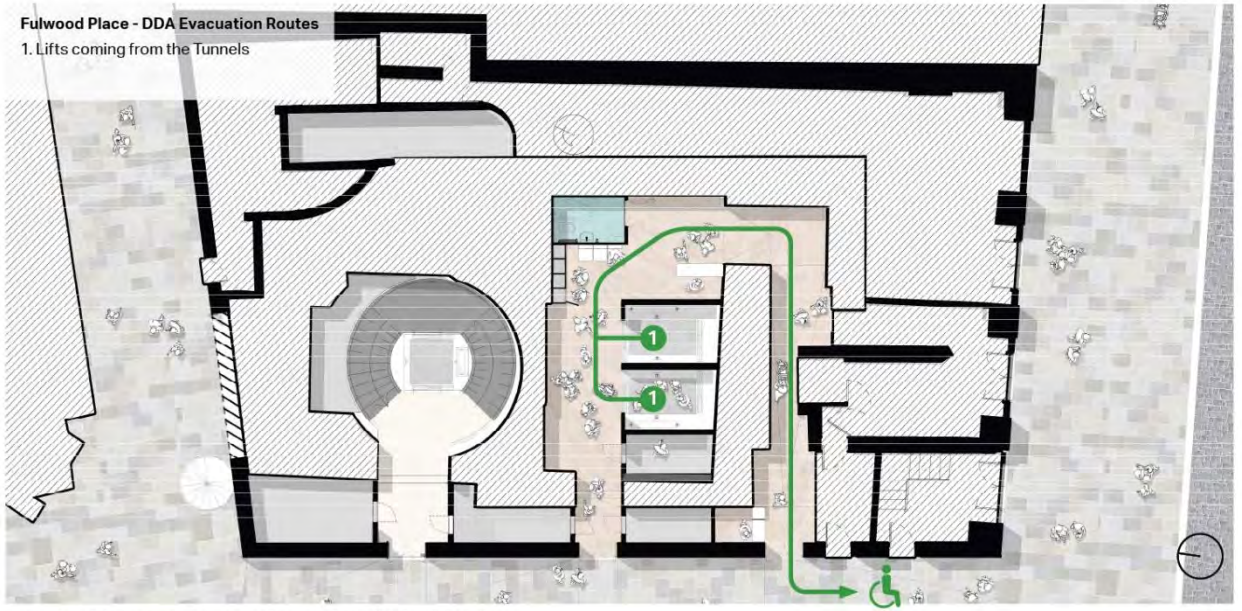


Figure 2. DDA evacuation routes at Fulwood Place (31-33 High Holborn)

The Camden site

Accessible Evacuation Routes

Tunnels Evacuation and Firefighting

Public occupants within the tunnels are to have at least two means of escape from each fire compartment. Compartmentalisation is proposed as schematically shown to limit the design of the fire and smoked logged space, enable progressive evacuation, and facilitate effective firefighting.

Pressurized refuge/holding zones and shafts are to be considered at Furnival St and Fulwood Place shafts as places of relative safety. Occupants can queue in the protected refuge areas to evacuate via the evacuation stairs or lifts. The protected refuge areas are to have no fire load and non-combustible linings.

Smart signage and wayfinding are proposed to be installed in the tunnels to assist wayfinding, inclusive of "Exit" and "No Exit" signs that would activate on a cause-and-effect basis and depending on the location the fire is detected. An addressable fire detection system and voice alarm system are also proposed to be installed.

Firefighting Shafts

Furnival St and Fulwood Place shafts are pressurised firefighting shafts with firefighting stairs and lifts. Firefighting outlet connections will be provided in the protected lobby at the tunnel level as well as strategic locations within the tunnels. The water supply for manual firefighting would be the town's main water network, boosted in pressure by the fire engine.

Rendezvous Point

RVP (rendezvous point) in this building will be the Furnival St building (Euston Fire Brigade Zone).

Output Sequence of the detection system is proposed to be as follows (Per BS 9992):

- Single detector or MCP alarm leads to alert condition through the PA system to staff;
- No further manual intervention for a specific time interval (e.g., 2 minutes), an evacuation message shall be given;
- Staff intervention, a second timed interval for investigation or reset of the system if false alarm is allowed at panel;
- Failure to acknowledge leads to simultaneous Evacuation message;
- Activation of a sprinkler system or two separate detection devices initiates an alarm condition within the timer sequence;

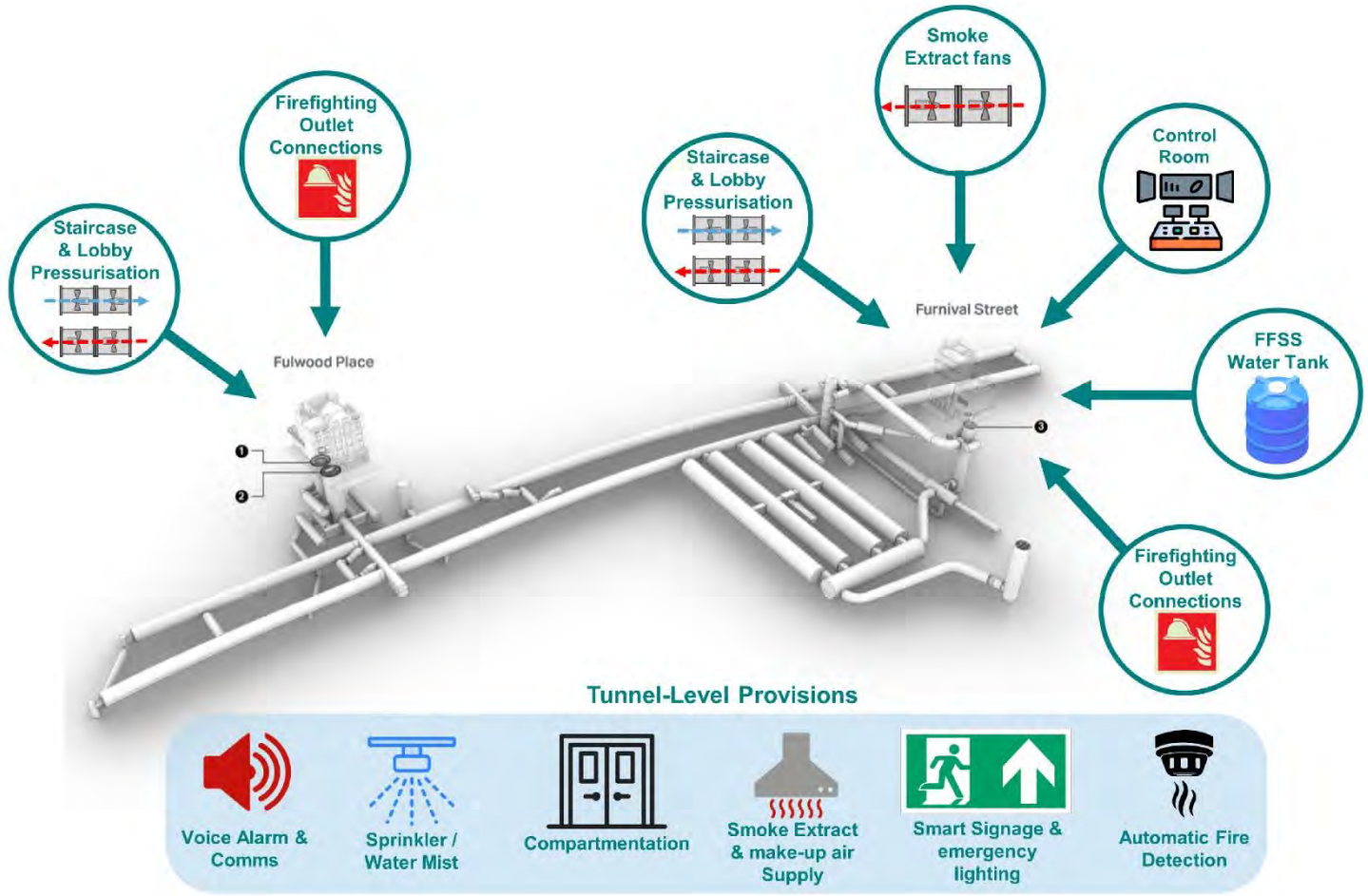
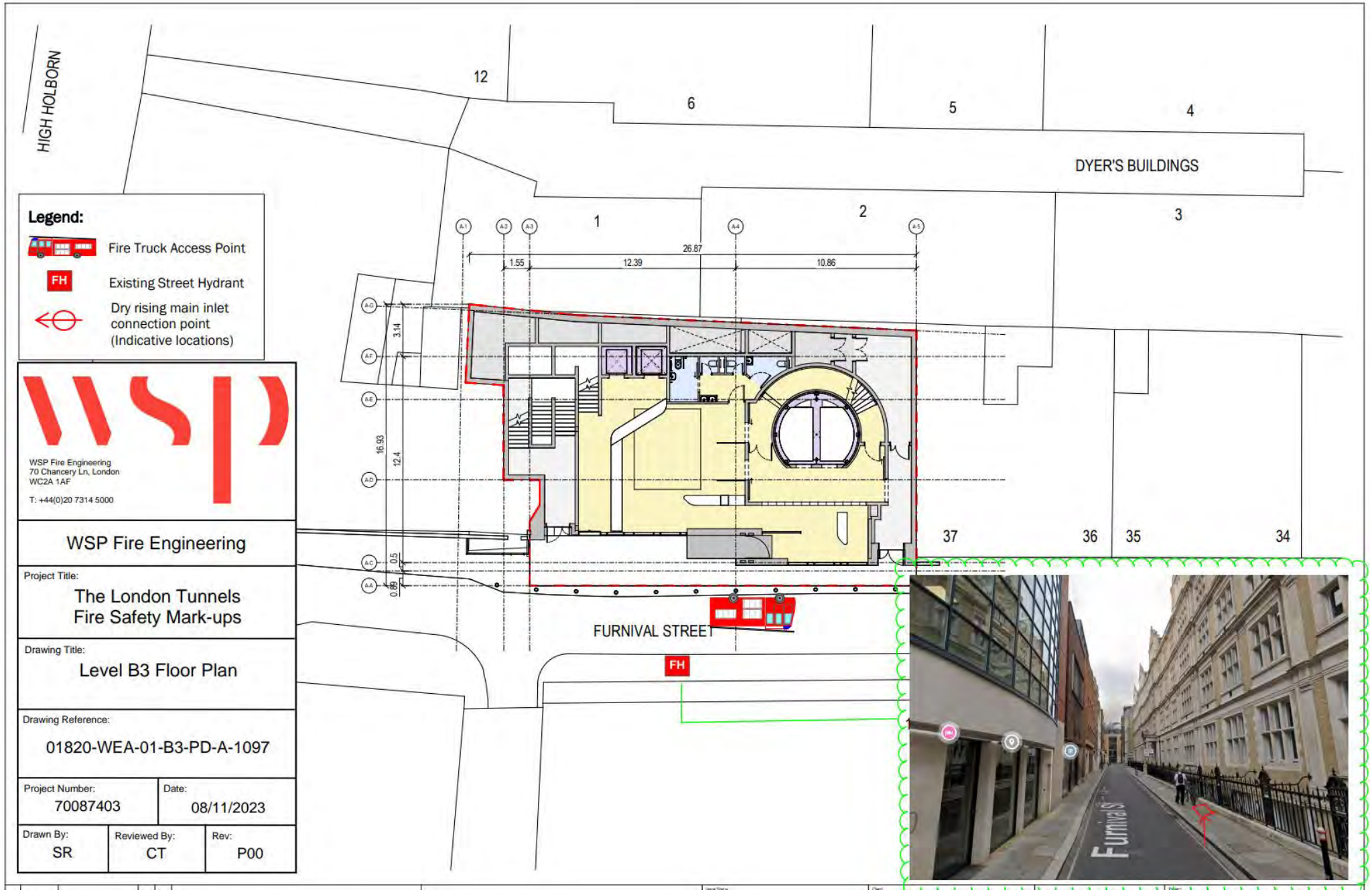
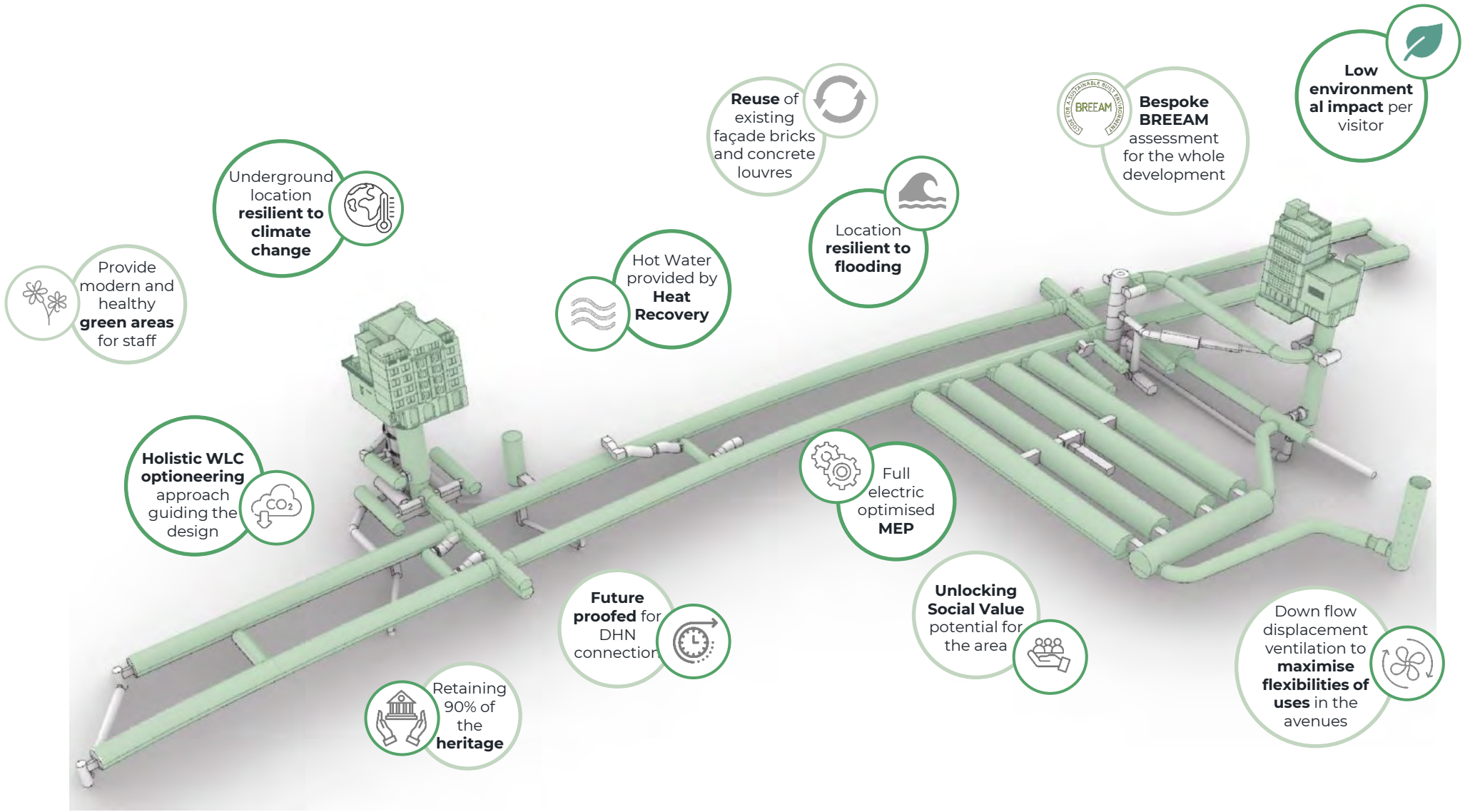


Figure 162. Fire Safety Measures



Fire Strategy – Fire Truck Access – 38-41 Furnival Street



Sustainability Fact Sheet

ASSESSED OPTIONS

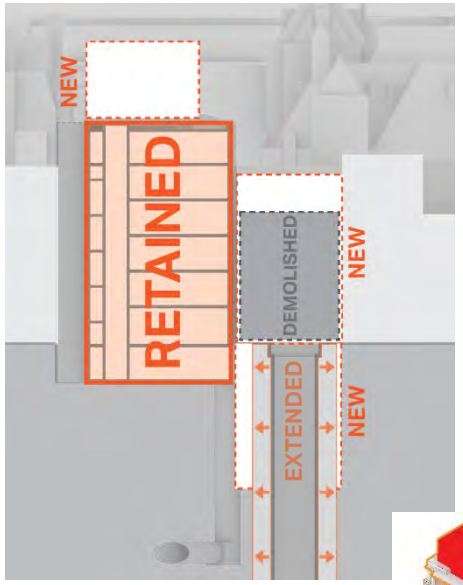
Various levels of retention for 40-41 Furnival Street have been considered.

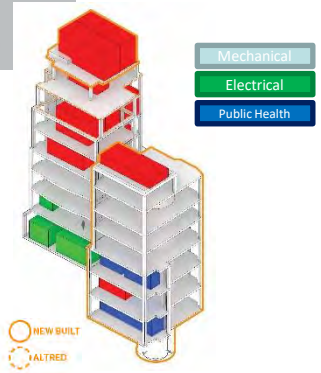
Retention of 38-39 Furnival Street has been investigated and shown to be infeasible. The building's demolition is necessary for safe construction and access to enable the London Tunnels project. Retention/reclamation of historic features are considered.

Selected option

OPTION 01

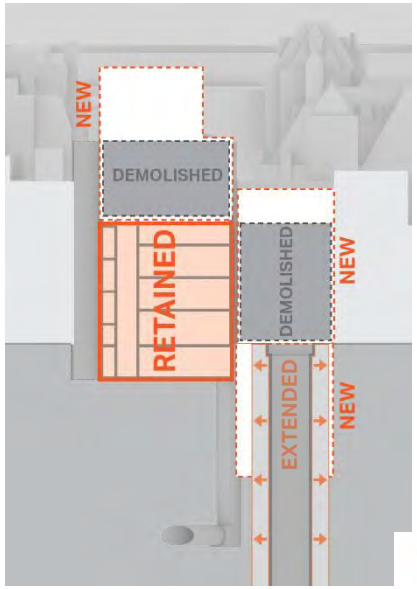
Maximum building retention + extension

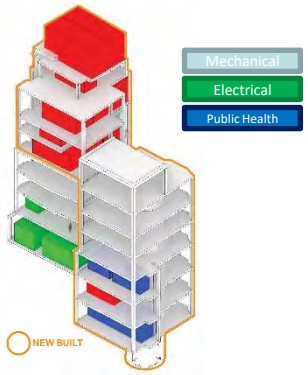




OPTION 02

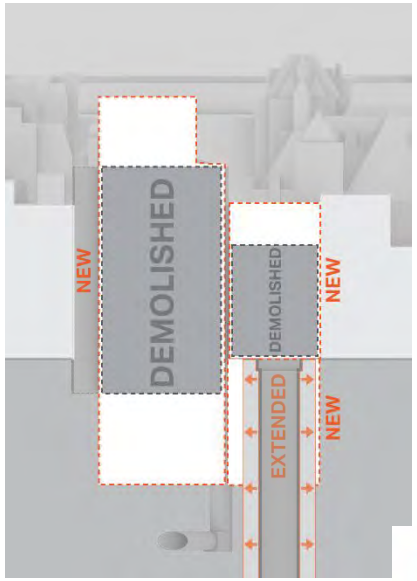
Major Refurbishment + Extension

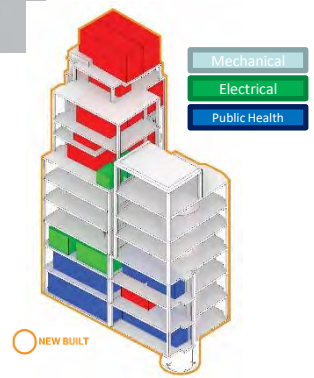


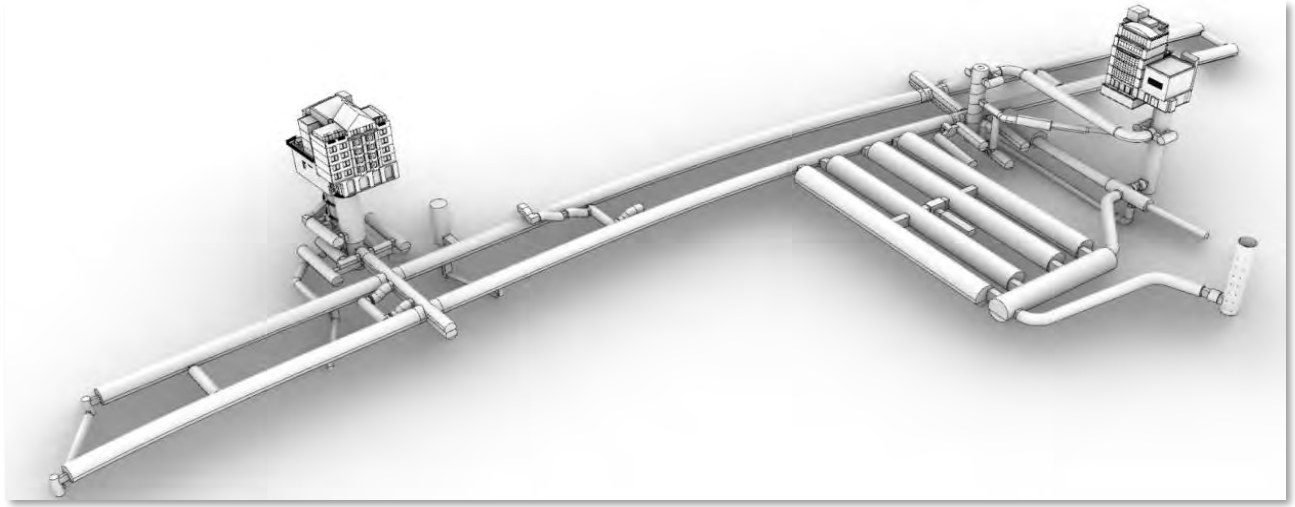


OPTION 03

New Build







LONDON TUNNELS MUSEUM

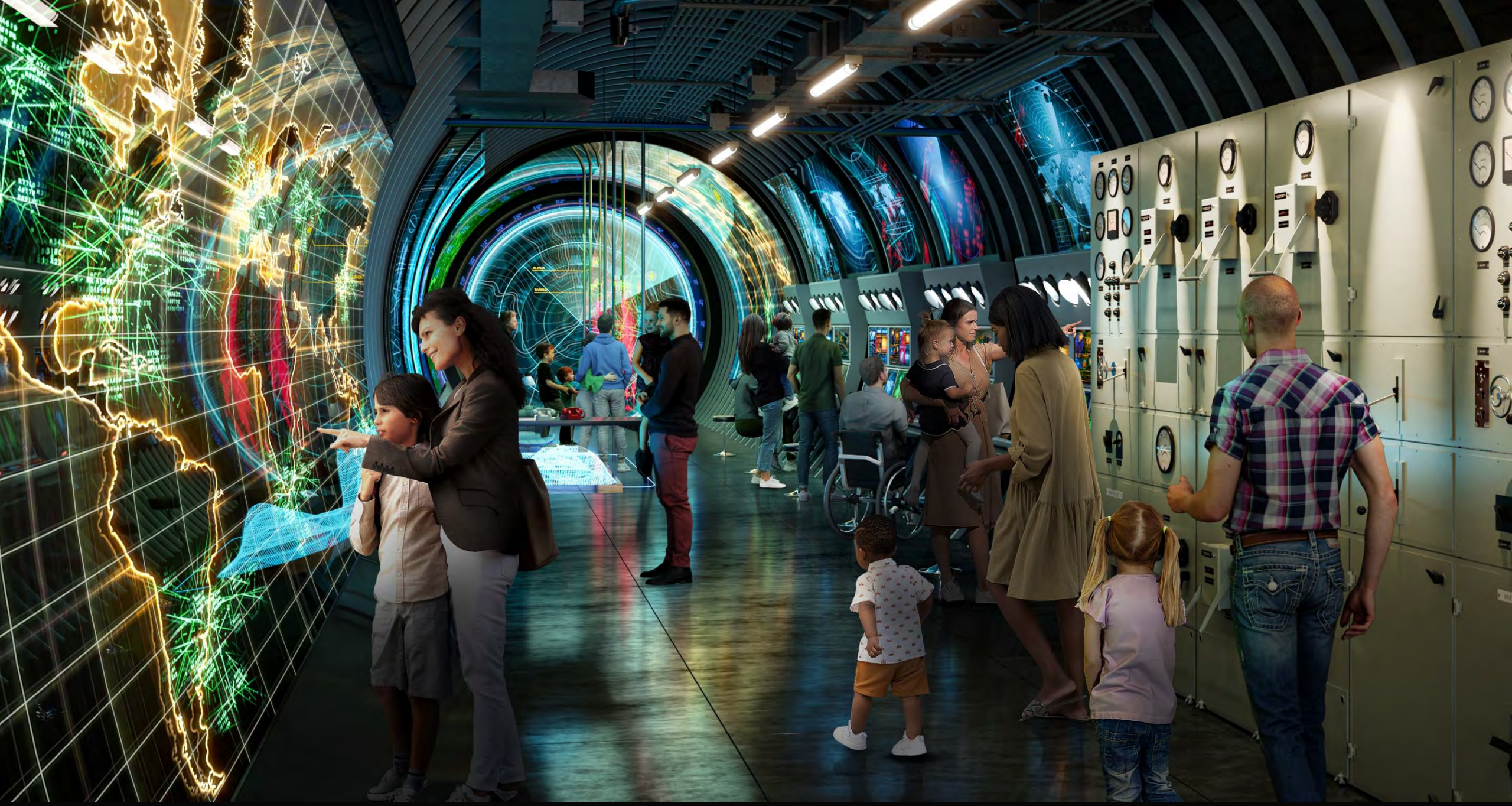
- **Year**: 2029
- **Size**: 10,037 sqm
- **Visitors/year**: 2,000,000
- **WLC total** ~ 17,555 tCO2e
- **WLC/sqm** ~1,650 kg CO2e/m^2
- **WLC/visitor** ~ 150 gCO2e/ visitor (60 years)

A NEW MUSUEM BUILD
LIVERPOOL EVERYMAN THEATRE

- **Year**: 2013
- **Size**: 4,690sqm
- **Visitors/year**: ~120,000 (400 capacity)
- **WLC total** 4,845 tCO2e
- **WLC/sqm** 1,033 kg CO2e/m^2
- **WLC/visitor** ~ 670 gCO2e/ visitor (60 years)

RETENTION FOCUS MUSEUM IN THE COL
MUSEUM OF LONDON WEST SMITHFIELD

- **Year**: 2026
- **Size**: 49,996 sqm
- **Visitors/year**: 2,000,000 (~5000 capacity)
- **WLC total** ~ 29,997t CO2e
- **WLC/sqm** ~ 600 kg/co2e/m2 +(~ 300 for MEP TM65)
- **WLC/visitor** ~ 250 gCO2e/ visitor (60 years)



The Tunnels – Heritage Exhibition – CGI

Next Planning & Transportation Committee

2nd July 2024