

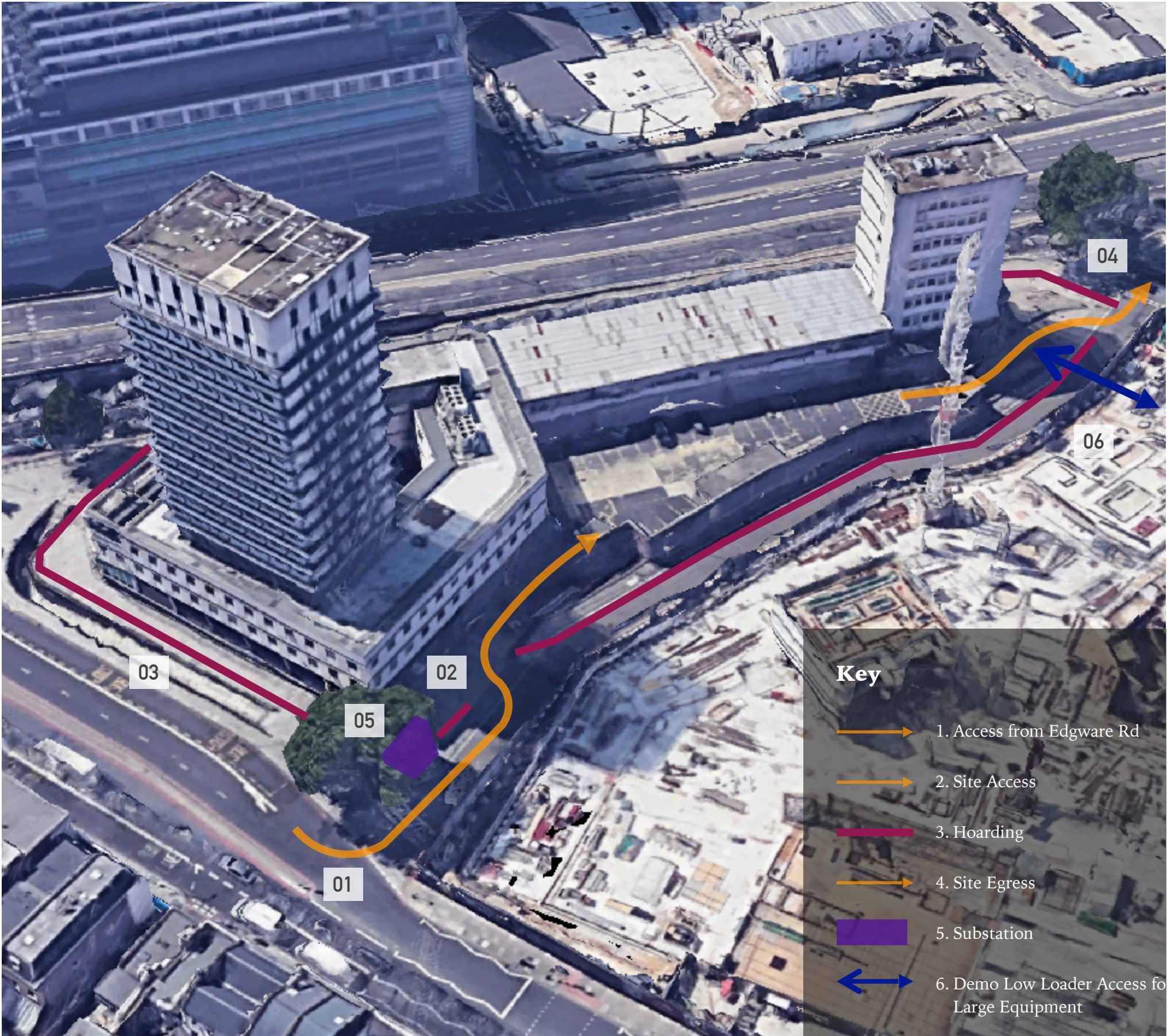
Initial Demolition Access

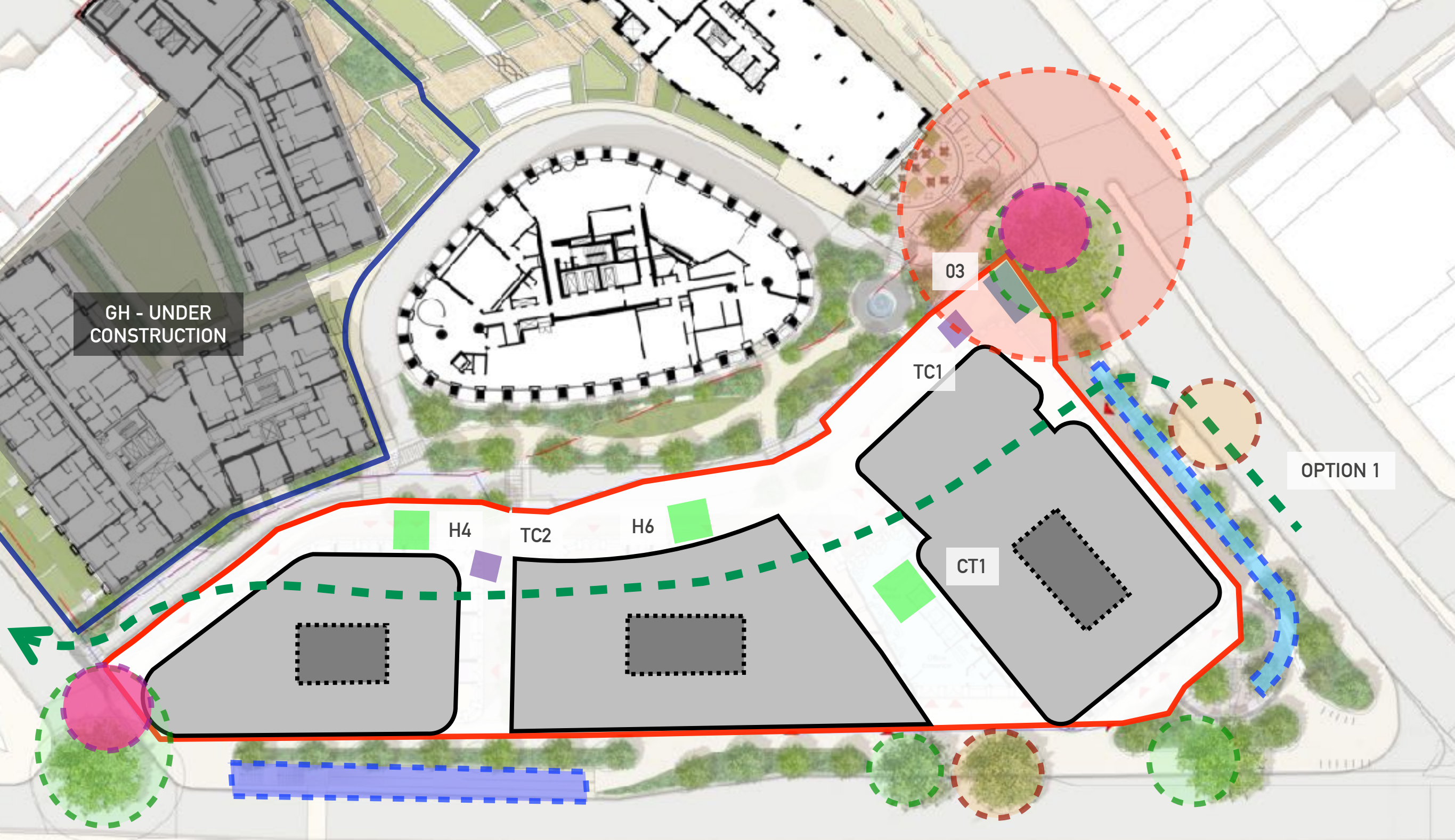
Initial site access has to be from Edgware Road to commence demolition from the existing PGPS courtyard.

Access in this location would be kept to a minimum as this area is high trafficked by pedestrians, cyclists and people waiting for the bus.




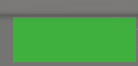




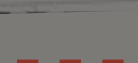



In order to mitigate risks to people in this area traffic Marshalls will be employed manage the traffic and left turn onto Newcastle Place.

As set out with the CLP guidance document issued by TFL the intention is to use the site next door to provide access for large plant for the initial stage of the demolition.



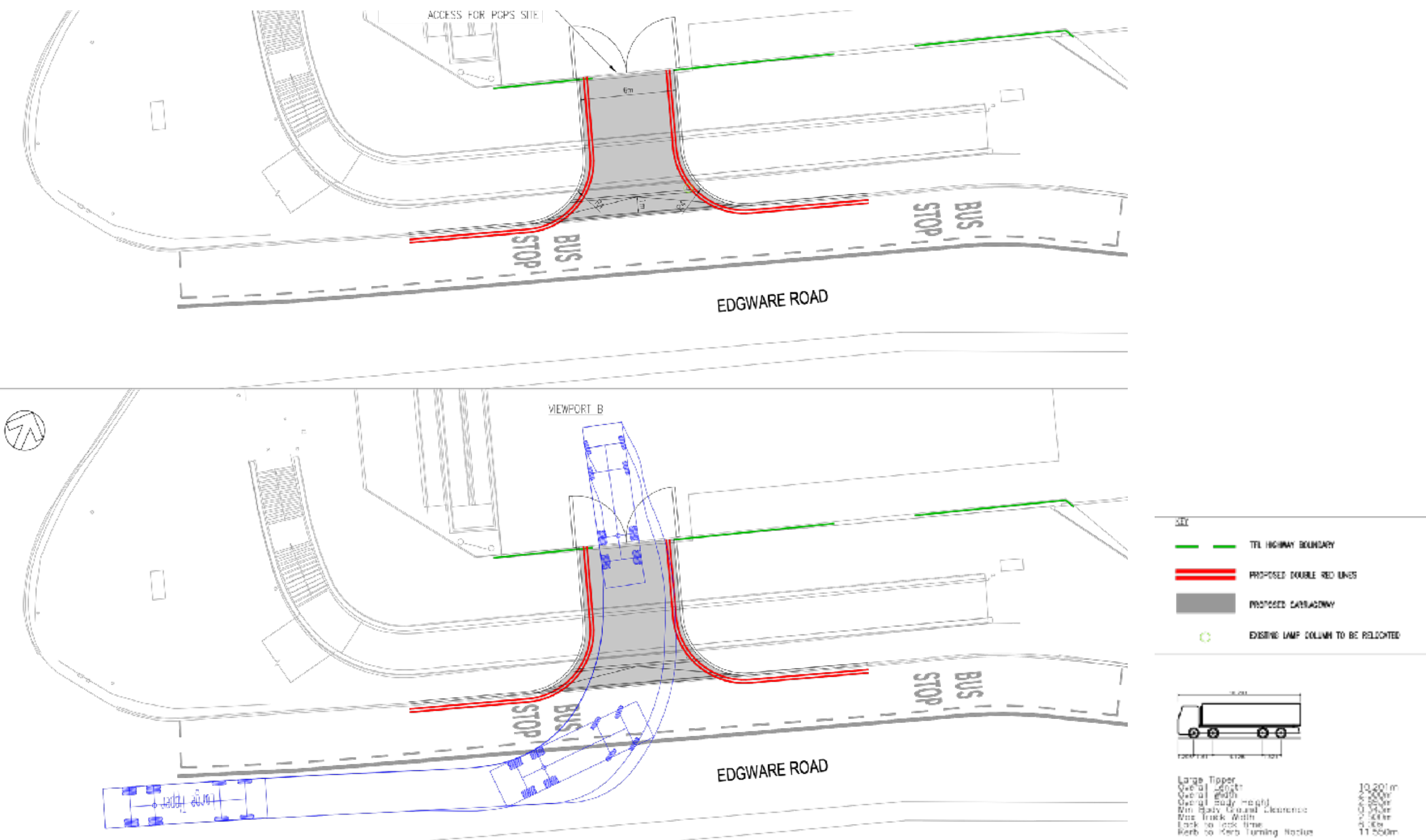


Option 01 - Site Access and Egress Constraints

- | | | | | | | | |
|------------------------------------------------------------------------------------|-----------------------------------------|-------------------------------------------------------------------------------------|------------------------------------------------------|---------------------------------------------------------------------------------------|-----------------------|---------------------------------------------------------------------------------------|-------------------------------|
|  | 1. Retained Trees |  | 4. Vehicular / Pedestrian Interface - High Risk Zone |  | 7. Building Footprint |  | 11. Hoists |
|  | 2. Tight Turning Radius for HGV / Artic |  | 5. Existing Subway (in use) |  | 8. Building Core |  | 12. Edgware Access Option |
|  | 3. Bus Stop |  | 6. Subway (not in use) |  | 9. Tower Crane |  | 13. Harrow Road Access Option |

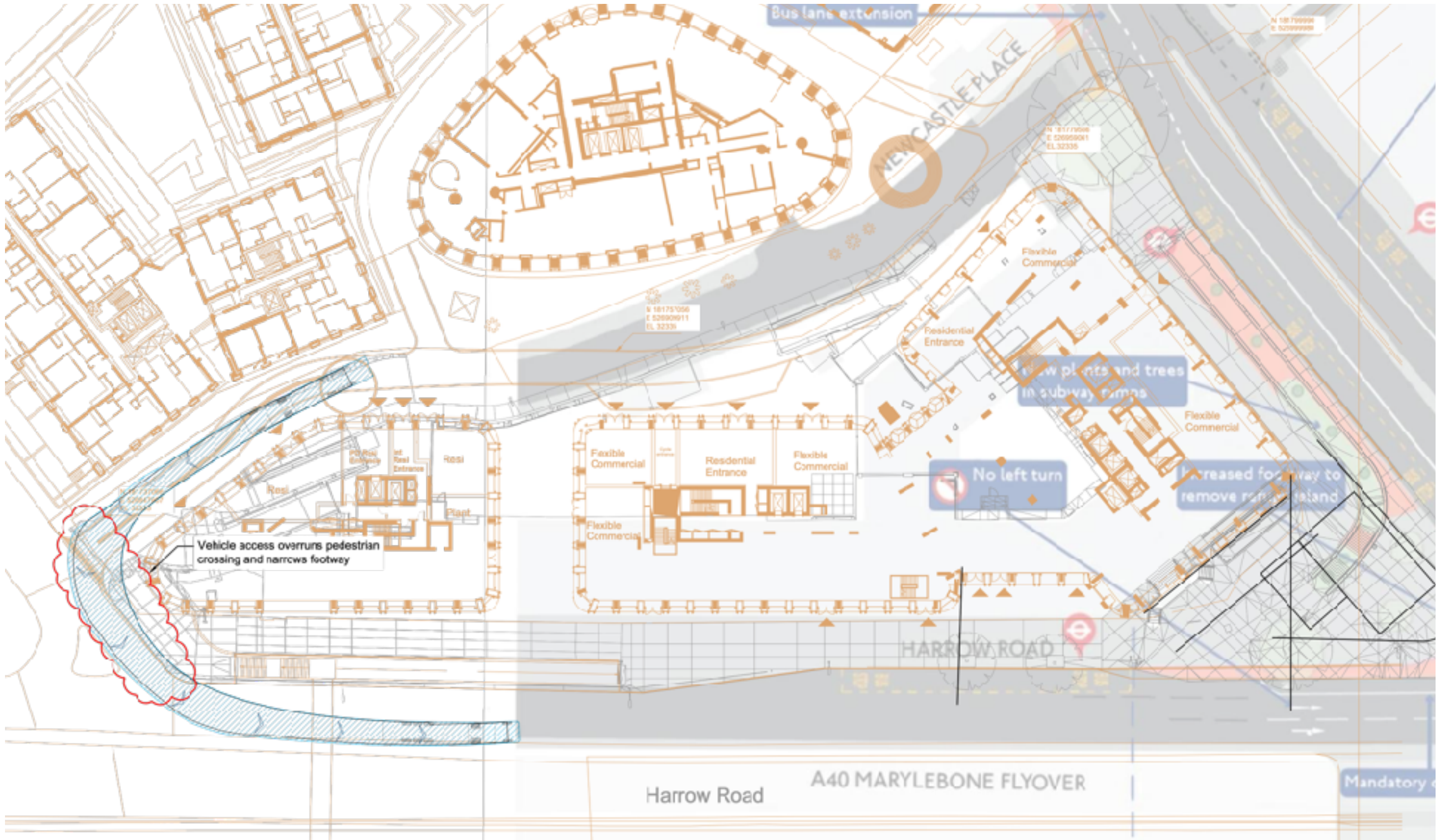
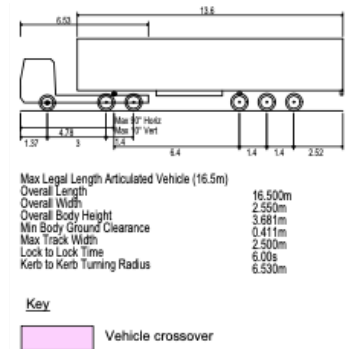
Option 01 - Access Tracked

Intial site access has to be from Edgware Road to commence demolition from the existing PGPS courtyard.



Option 01 - Access Tracked

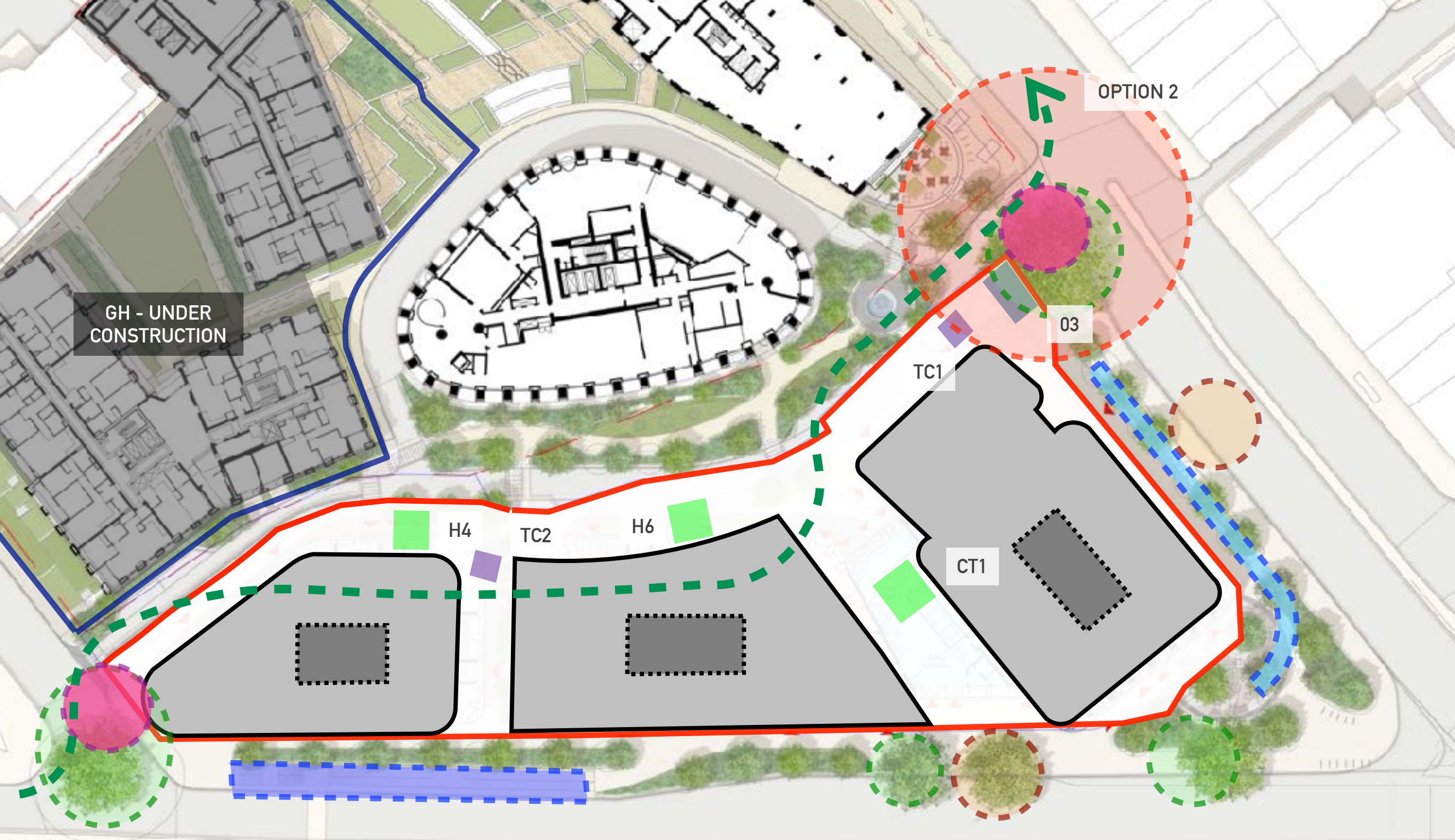
Initial site access has to be from Edgware Road to commence demolition from the existing PGPS courtyard.





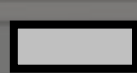
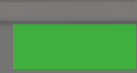







Option 01 - Access from Edgware Road

Access from Edgware Road reviewed against Policy and guidance set out in the introduction

	Compliant	Risk rating	Comments and risk mitigation
HSG151			
Eliminate reversing , provision of one way systems and turning areas	Y	1	One way system is established across site.
Provision of specific drive in areas	Y	1	Three gates would established early within the programme for specific
Delivery management system	Y	1	Berkeley operate a BMS (booking management system), however the bus stop on Edgware Rd is heavily used through out the day
Deliveries scheduled outside of pedestrian/bike peak hours	N	3	Berkeley operate a BMS, however the bus stop on Edgware Rd is heavily used through out the day.
Requirement to extend site boundary	Y	1	To establish hoarding lines and create crash decks above pedestrian routes
Full time traffic Marshall / banksman	Y	1	Traffic marshals will be employed to manage each gate and pedestrian crossings around the site perimeter
Code of Construction Practise			
Safety of the public must be ensured, with particular regard to vulnerable user such as pedestrians and cyclists	N	3	Construction traffic egress would have to turn right down Paddington Green putting g vulnerable users at risk: Westminster College and the Health Centre
Footways maintained except where this exceeds 2 metres when the HA may accept a reduction to a width of not less than 2 metres	Y	1	To establish hoarding lines and create crash decks above pedestrian routes
Lorries entering or leaving the site will only be allowed to traverse crossovers under the control of an agreed sufficient number of competent banksmen	Y	1	Traffic marshals will be employed to manage each gate and pedestrian crossings around the site perimeter
FORS Silver requirement for deliveries to site	Y	1	Berkeley policy requires FORS Silver as a minimum for all deliveries
CLOCS	Y	1	Berkeley policy requires accreditation to CLOCS for all deliveries
Construction Logistics Plan Guidance for Developers			
Use of strategic access routes	Y	1	Deliveries will be made from Edgware Road
Avoid routes that pass by schools, hospitals and health centres, or places used by older people, or people with disabilities or learning difficulties.	N	3	Construction traffic egress would have to turn right down Paddington Green putting g vulnerable users at risk: Westminster College and the Health Centre
Vehicles should be loaded and unloaded on-site.	Y	1	Deliveries will brought on to site for unloading
All deliveries and collections should be overseen and managed by a nominated person.	Y	1	Deliveries will be overseen by the Logistics Manager
You should carry out a swept path analysis for the prospective site using design plans, and take account of the expected vehicles that will enter and exit the site during the construction project.	Y	3	The Newcastle place junction is heavily constrained for an Articulated Vehicle to turn left. It also crosses a merging bus lane.

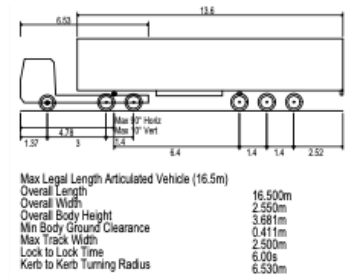


Option 2 - Site Access and Egress Constraints

- | | | | | | | | |
|------------------------------------------------------------------------------------|-----------------------------------------|-------------------------------------------------------------------------------------|------------------------------------------------------|---------------------------------------------------------------------------------------|-----------------------|---------------------------------------------------------------------------------------|---------------------------|
|  | 1. Retained Trees |  | 4. Vehicular / Pedestrian Interface - High Risk Zone |  | 7. Building Footprint |  | 11. Hoists |
|  | 2. Tight Turning Radius for HGV / Artic |  | 5. Existing Subway (in use) |  | 8. Building Core |  | 12. Edgware Access Option |
|  | 3. Bus Stop |  | 6. Subway (not in use) |  | 9. Tower Crane | | |

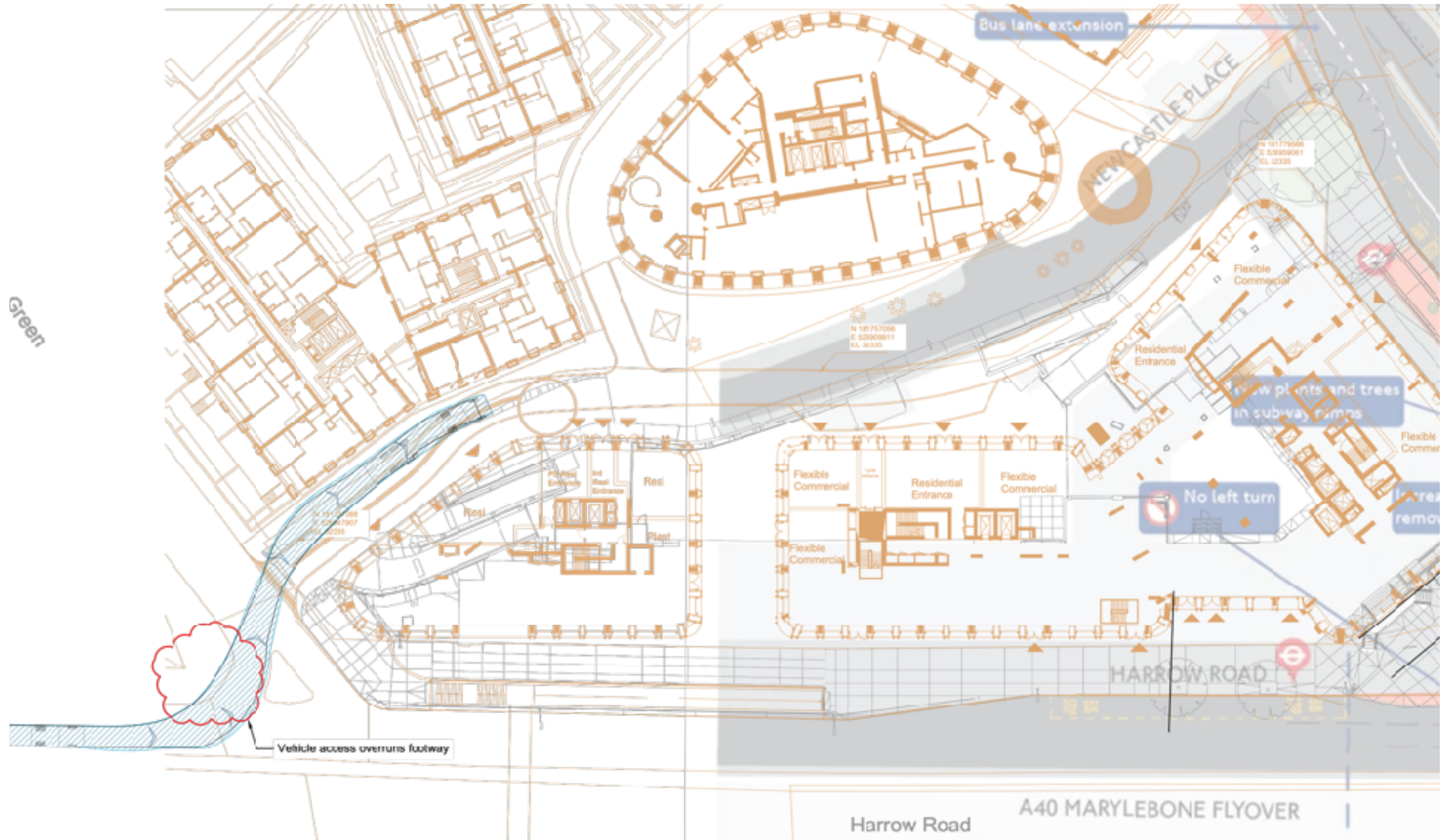
Option 02 - Access Tracked

Initial site access has to be from Edgware Road to commence demolition from the existing PGPS courtyard.



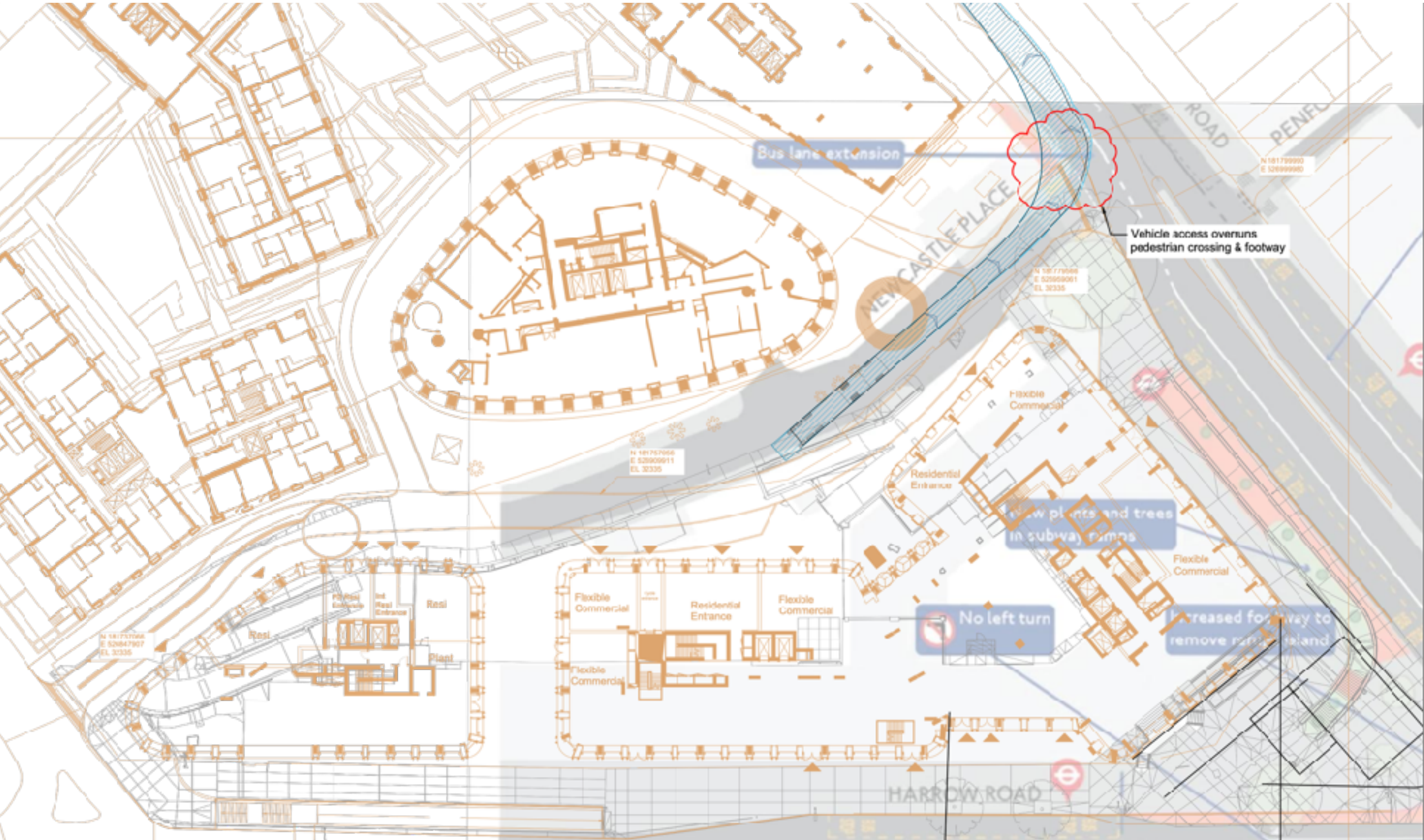
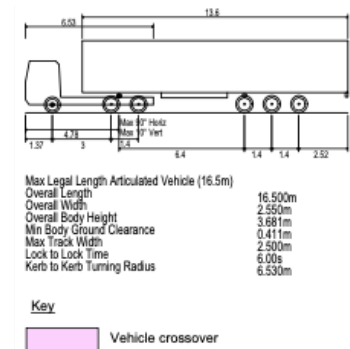
Key

 Vehicle crossover



Option 02 - Egress Tracked

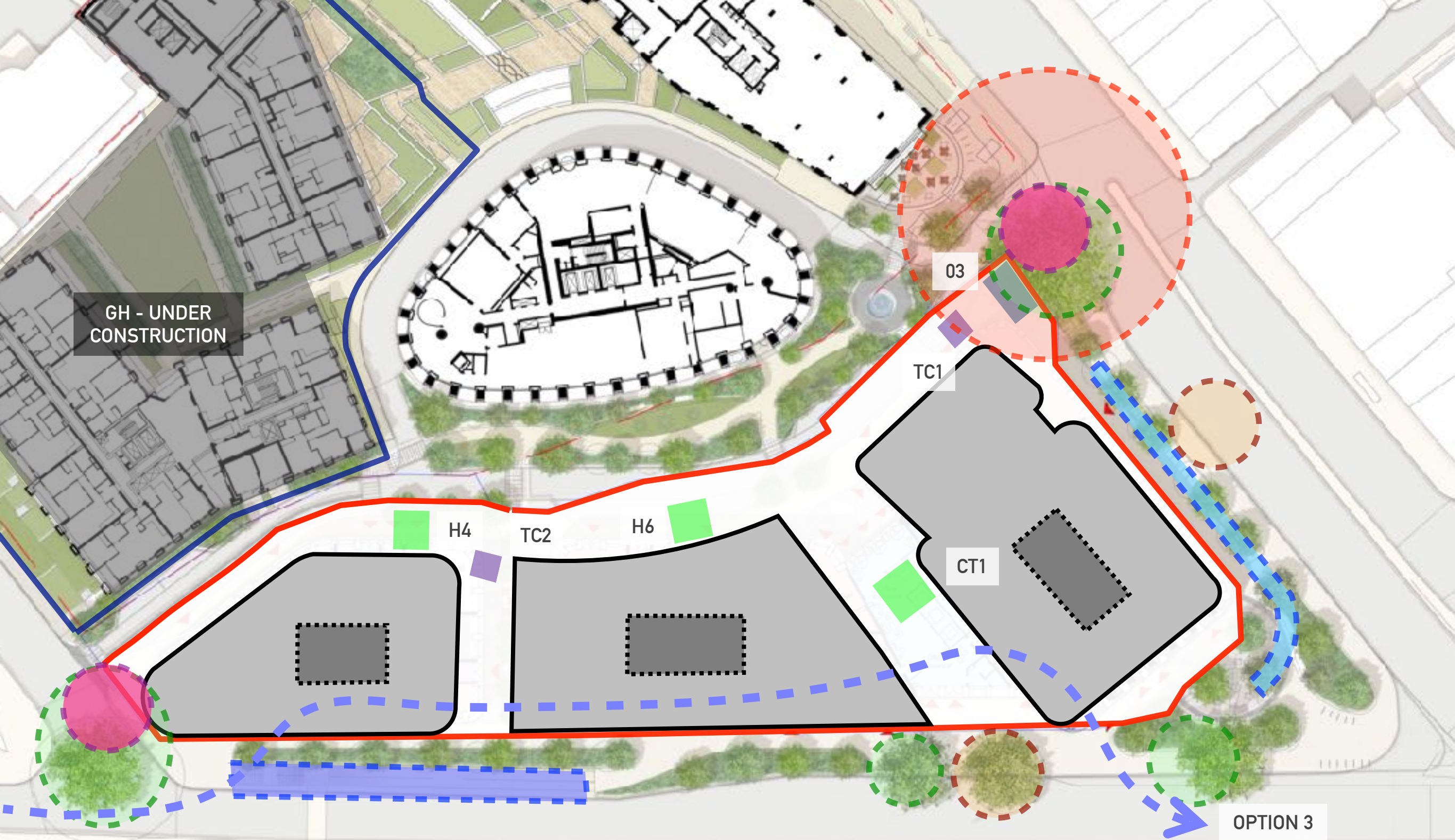
Initial site access has to be from Edgware Road to commence demolition from the existing PGPS courtyard.





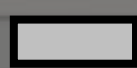
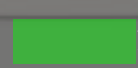







Option 02 - Access from Paddington Green / Egress Newcastle Place - Edgware Rd

Access from Paddington Green reviewed against Policy and guidance set out in the introduction

	Compliant	Risk rating	Comments and risk mitigation
HSG151			
Eliminate reversing , provision of one way systems and turning areas	Y	1	One way system is established across site.
Provision of specific drive in areas	Y	1	Three gates would established early within the construction sequence
Delivery management system	Y	1	Berkeley operate a BMS (booking management system), however the bus stop on Edgware Rd is heavily used through out the day
Deliveries scheduled outside of pedestrian/bike peak hours	N	3	Berkeley operate a BMS, however the bus stop on Edgware Rd is heavily used through out the day.
Requirement to extend site boundary	Y	1	To establish hoarding lines and create crash decks above pedestrian routes
Full time traffic Marshall / banksman	Y	1	Traffic marshals will be employed to manage each gate and pedestrian crossings around the site perimeter
Code of Construction Practise			
Safety of the public must be ensured, with particular regard to vulnerable user such as pedestrians and cyclists	N	3	Construction traffic egress would be on to Edward road which is heavily trafficked by pedestrians and cyclists
Footways maintained except where this exceeds 2 metres when the HA may accept a reduction to a width of not less than 2 metres	Y	1	To establish hoarding lines and create crash decks above pedestrian routes
Lorries entering or leaving the site will only be allowed to traverse crossovers under the control of an agreed sufficient number of competent banksmen	Y	1	Traffic marshals will be employed to manage each gate and pedestrian crossings around the site perimeter
FORS Silver requirement for deliveries to site	Y	1	Berkeley policy requires FORS Silver as a minimum for all deliveries
CLOCS	Y	1	Berkeley policy requires accreditation to CLOCS for all deliveries
Construction Logistics Plan Guidance for Developers			
Use of strategic access routes	N	2	Deliveries will be made from Paddington Green
Avoid routes that pass by schools, hospitals and health centres, or places used by older people, or people with disabilities or learning difficulties.	Y	1	The route avoids Westminster College and the Health Centre on Church St.
Vehicles should be loaded and unloaded on-site.	Y	1	Deliveries will brought on to site for unloading
All deliveries and collections should be overseen and managed by a nominated person.	Y	1	Deliveries will be overseen by the Logistics Manager
You should carry out a swept path analysis for the prospective site using design plans, and take account of the expected vehicles that will enter and exit the site during the construction project.	Y	3	The right turn from Paddington Green on to site is very tight as there is a traffic island with a protected tree. The Tree trunk would also partially reduce drivers visibility.

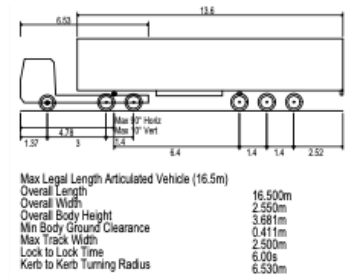


Option 3 - Site Access and Egress Constraints

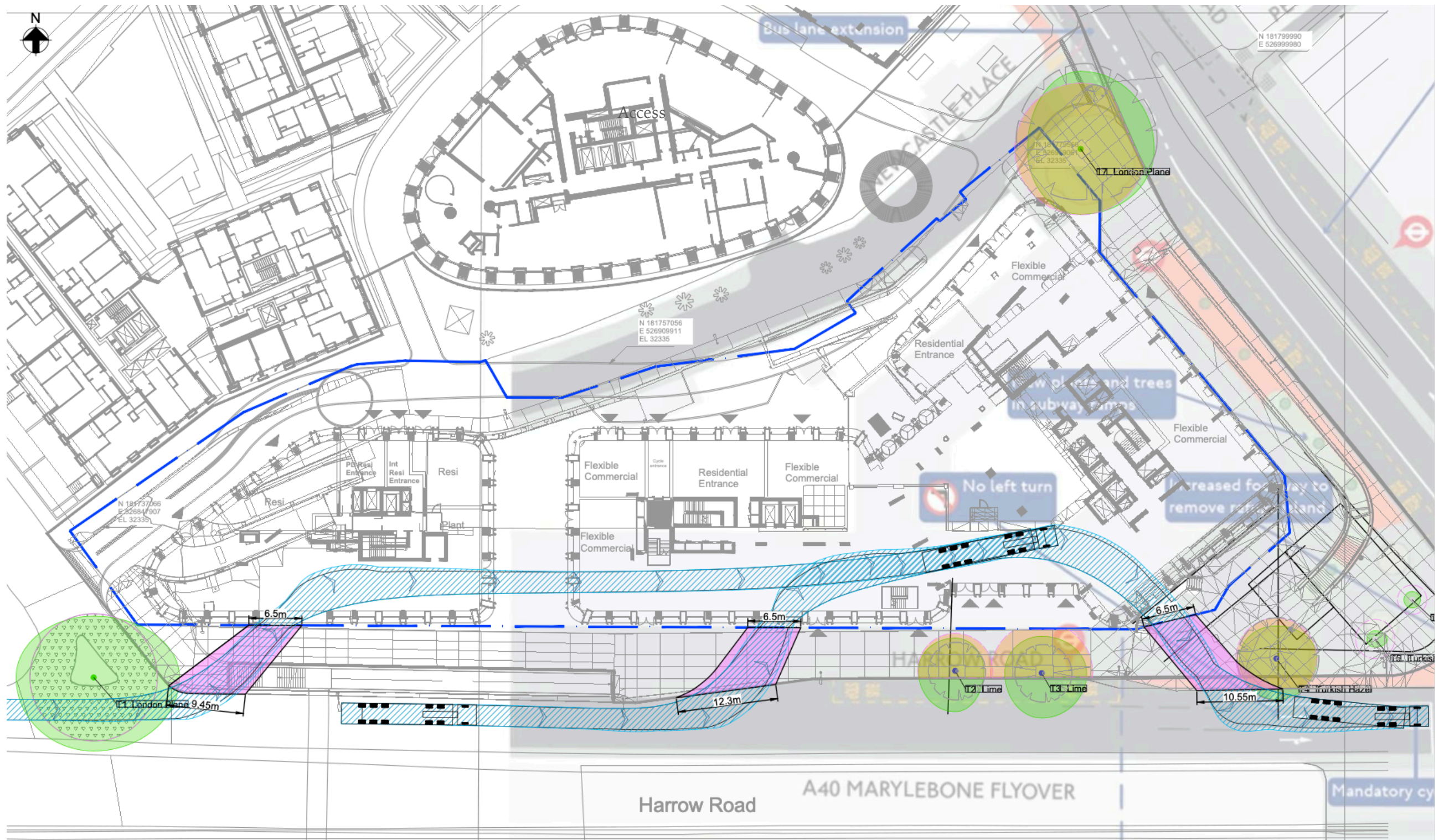
- | | | | | | | | |
|------------------------------------------------------------------------------------|-----------------------------------------|-------------------------------------------------------------------------------------|------------------------------------------------------|---------------------------------------------------------------------------------------|-----------------------|---------------------------------------------------------------------------------------|-------------------------------|
|  | 1. Retained Trees |  | 4. Vehicular / Pedestrian Interface - High Risk Zone |  | 7. Building Footprint |  | 11. Hoists |
|  | 2. Tight Turning Radius for HGV / Artic |  | 5. Existing Subway (in use) |  | 8. Building Core |  | 12. Harrow Road Access Option |
|  | 3. Bus Stop |  | 6. Subway (not in use) |  | 9. Tower Crane | | |

Option 03 - Tracked

Initial site access has to be from Edgware Road to commence demolition from the existing PGPS courtyard.

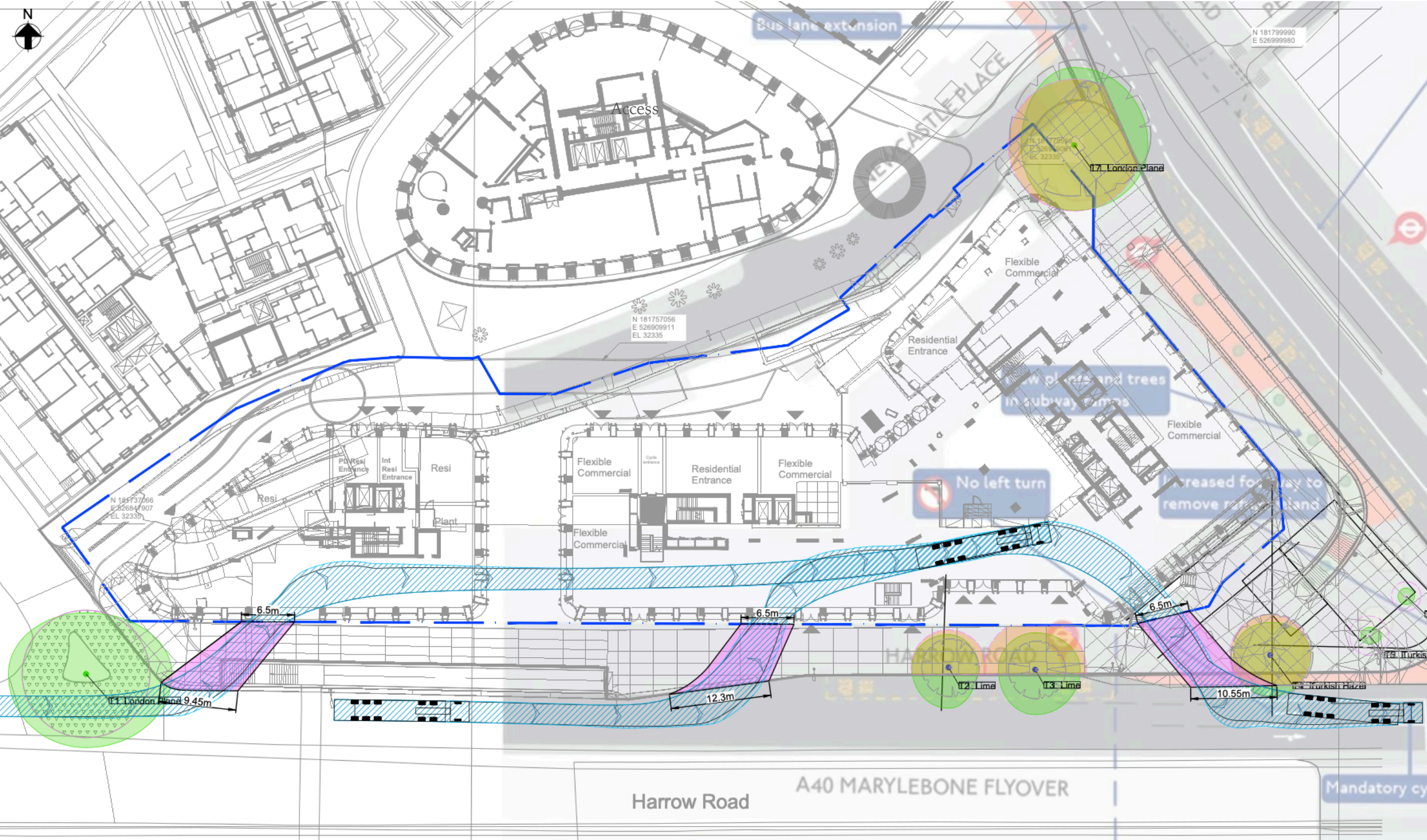
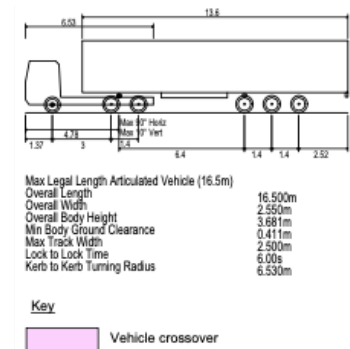


Key
 Vehicle crossover



Option 03 - Alternative West Gate Tracked

Intial site access has to be from Edgware Road to commence demolition from the existing PGPS courtyard.



Option 03 - Access from Harrow Road

Access from Harrow Road reviewed against Policy and guidance set out in the introduction

	Compliant	Risk rating	Comments and risk mitigation
HSG151			
Eliminate reversing , provision of one way systems and turning areas	Y	1	One way system is established across site.
Provision of specific drive in areas	Y	1	Three gates would established early within the construction sequence
Delivery management system	Y	1	Berkeley operate a BMS (booking management system), however the bus stop on Edgware Rd is heavily used through out the day
Deliveries scheduled outside of pedestrian/bike peak hours	Y	2	Berkeley operate a BMS and so as Harrow has less pedestrian / cyclist traffic planning of deliveries would be easier to schedule at off peaks times
Requirement to extend site boundary	Y	1	To establish hoarding lines and create crash decks above pedestrian routes
Full time traffic Marshall / banksman	Y	1	Traffic marshals will be employed to manage each gate and pedestrian crossings around the site perimeter
Code of Construction Practise			
Safety of the public must be ensured, with particular regard to vulnerable user such as pedestrians and cyclists	Y	2	Harrow Rd has lower pedestrian / cyclist traffic than Edgware Road. Crossovers would be managed by Traffic Marshalls
Footways maintained except where this exceeds 2 metres when the HA may accept a reduction to a width of not less than 2 metres	Y	1	To establish hoarding lines and create crash decks above pedestrian routes
Lorries entering or leaving the site will only be allowed to traverse crossovers under the control of an agreed sufficient number of competent banksmen	Y	1	Traffic marshals will be employed to manage each gate and pedestrian crossings around the site perimeter
FORS Silver requirement for deliveries to site	Y	1	Berkeley policy requires FORS Silver as a minimum for all deliveries
CLOCS	Y	1	Berkeley policy requires accreditation to CLOCS for all deliveries
Construction Logistics Plan Guidance for Developers			
Use of strategic access routes	Y	1	Deliveries will be made from Harrow Rd
Avoid routes that pass by schools, hospitals and health centres, or places used by older people, or people with disabilities or learning difficulties.	Y	1	Construction traffic egress would be kept away from Church St: Westminster College and the Health Centre
Vehicles should be loaded and unloaded on-site.	Y	1	Deliveries will brought on to site for unloading
All deliveries and collections should be overseen and managed by a nominated person.	Y	1	Deliveries will be overseen by the Logistics Manager
You should carry out a swept path analysis for the prospective site using design plans, and take account of the expected vehicles that will enter and exit the site during the construction project.	Y	1	The left turn from Harrow Rd can be managed with well designed crossovers without impacting protected trees. Access and egress allows visibility of bus drivers stopped at the bus stop.

Site Access / Egress Evaluation and Summary

Access and Egress Options Evaluation

Following the review of each site access route options against relevant policy and statutory guidance each option has been graded on a cumulative risk rating and number of non compliance against policy.

	No. of Non Compliance	Cumulative Risk rating	Comments
Option 01 - Access from Edgware Road / Egress Paddington Green	3	24	This is the highest risk option due to Edgward Rd foot fall and cyclists and and vulnerable users on Church St using the College and Health Centre
Option 02 - Access from Paddington Green / Egress Newcastle Place and Edgware Road	3	23	Option 2 reduces the risk on Church St to vulnerable users however there is still significant risk to pedestrians on Edgware Rd
Option 03 - Access and Egress on Harrow Road	0	18	This is the preferable solution as it predominantly confines construction traffic to the perimeter of the site with lowest pedestrian and cyclist footfall.

Access and Egress Options Summary

Site access option 3 from Harrow Road on both comparisons was the highest performing and compliant with policy.

This was mainly because this location removes site access from roads with the highest pedestrian and cyclist traffic, Edgware Road. The shape of the site constrains access points and means there are only 2 primary routes on the TLRN either Edgware Rd or Harrow Rd and of the 2 options Edgware Rd carries the highest risk of an incident.

In all 3 cases the longitudinal road across site help reduce the risk of stacking as vehicles can be brought onto site while waiting to be unloaded

Option 3 would be the preferred access and egress points through the construction stage as it posses least risk to members of the public.

There are a number of further measures that would be put in place to further mitigate any residual risk, which are high lighted on the next page.

Appendix D

Outline Delivery and Management Plan

Berkeley Homes (Central London) Limited

Paddington Green Police Station

Outline Delivery and Servicing Plan

Reference: PGPS/DSP

Issue | 18 November 2022

This report takes into account the particular instructions and requirements of our client. It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

Job number 277685

Ove Arup & Partners Limited

8 Fitzroy Street
London
W1T 4BJ
United Kingdom
arup.com

Contents

1.	Introduction	1
1.1	Background	1
1.2	Site location	1
1.3	Development proposals	1
1.4	Report purpose	2
1.5	Report structure	2
2.	Site characteristics	3
2.1	Site plan and location	3
2.2	Proposed delivery and servicing arrangement	4
3.	Objectives and Measures	9
3.1	Objectives	9
3.2	Measures	9
4.	Servicing trip rates and Targets	11
4.1	Servicing trip rates	11
4.2	Targets	12
5.	Monitoring the DSP	13
5.1	Monitoring surveys	13
5.2	Annual review	13

Tables

Table 1: Indicative servicing trips (vehicles)	11
Table 2: Comparison with Woodberry Estate servicing trip rates (vehicles)	11
Table 3: Forecast servicing trips (vehicles)	12

Figures

Figure 1: Site location plan	1
Figure 2: Proposed layout plan	3
Figure 3: Proposed vehicular accesses and circulation	4
Figure 4: WEG basement servicing area and swept path analysis	5
Figure 5: B2 Level – delivery and refuse arrangements	5
Figure 6: B1 Level – goods delivery arrangements	6
Figure 7: B1 Level – refuse arrangements	6
Figure 8: Swept path analysis – Loop street and Newcastle Place	7
Figure 9: Newcastle Place servicing strategy	8

Appendices

Appendix A	A-1
Technical drawings	A-1

1. Introduction

1.1 Background

Ove Arup & Partners ('Arup') has been commissioned by Berkeley Homes (Central London) Limited to provide transport advice to support the redevelopment of Paddington Green Police Station (PGPS).

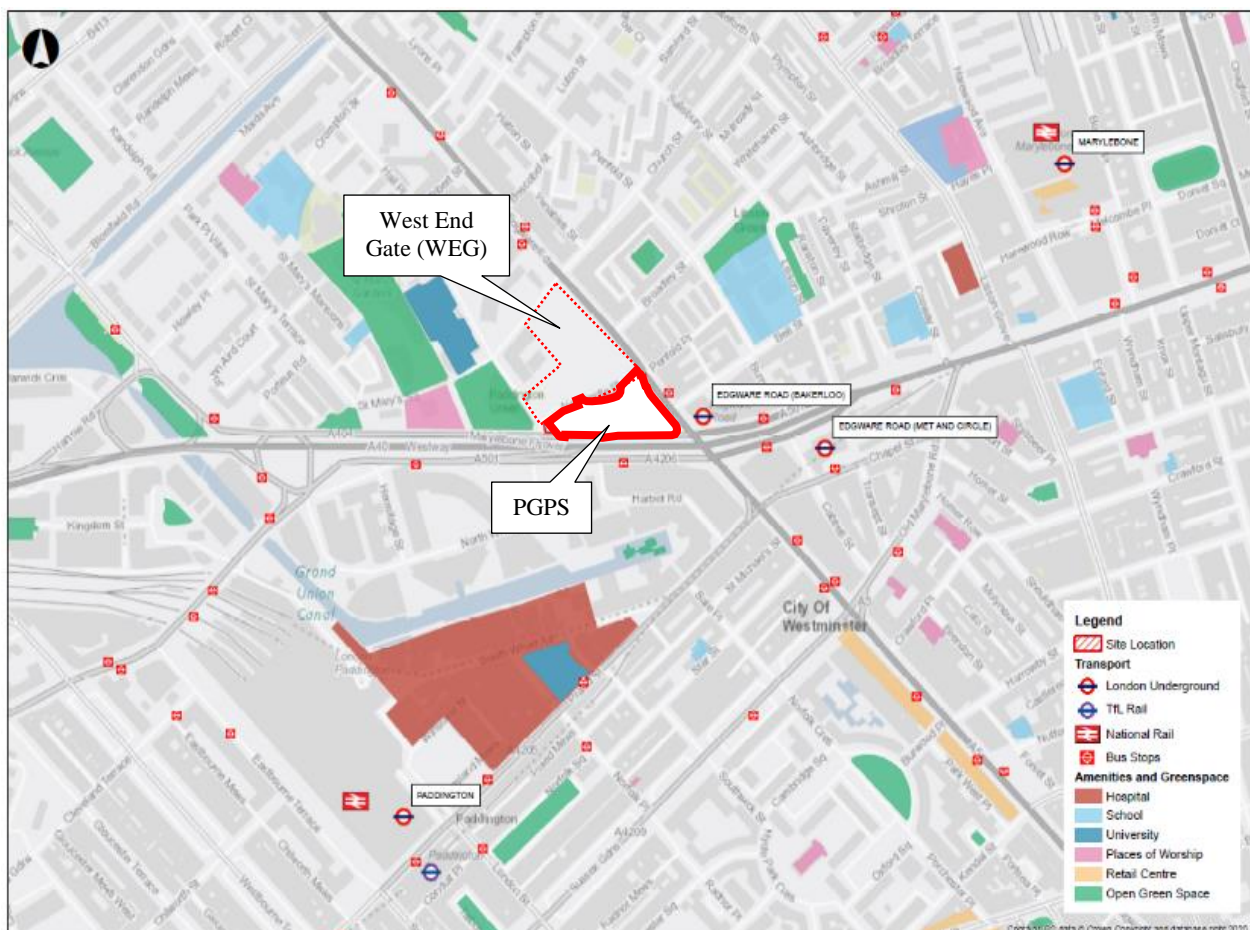
The local planning and highways authority is Westminster City Council (WCC). The highways authority for A5 Edgware Road and eastern section of A404 Harrow Road is Transport for London (TfL).

1.2 Site location

The site is bounded by Edgware Road to the east, A404 Harrow Road to the south, Paddington Green to the west and Newcastle Place to the north. The site location is shown in Figure 1.

To the north of Newcastle Place is a development known as West End Gate (WEG) which is currently under construction by Berkeley Homes. WEG will provide a total of 844 new homes, as well as retail and restaurant land uses. WEG includes the associated 14-17 Paddington Green development. Block A of WEG, known as 'The Westmark', the 30-storey tower, is located to the north of Newcastle Place, directly opposite the site. A double basement (levels B1 and B2) is provided at WEG which is accessed from Church Street. The proposed development will complement the adjacent WEG development and create a destination within Westminster.

Figure 1: Site location plan



1.3 Development proposals

The proposal is to redevelop the former police station and deliver 556 residential homes, flexible commercial space and community uses. The development is car-free with the exception of 17 accessible car parking spaces, to be provided within the basement car park, together with the cycle parking. The scheme comprises

partial closing off of Newcastle Place to general traffic / development-generated vehicles, to deliver a high-quality public realm. PGPS deliveries and servicing activities will take place within the WEG basement and on the ground level laybys along Newcastle Place and the loop street (north of The Westmark).

1.4 Report purpose

This DSP has been prepared in accordance with TfL's Delivery and Servicing Plan Guidance (December 2020) to set out the proposed delivery and servicing strategy for the proposals, including the physical design and layouts, and measures to ensure that deliveries and servicing are appropriately managed to minimise impact.

The DSP will be implemented by Berkeley Homes as the role of developer and property manager. A DSP for WEG was prepared in October 2019 to discharge planning condition (planning ref: 19/08655/ADFULL and 19/08654/ADFULL). This DSP focuses on the delivery strategy for the PGPS development and takes into account measures already proposed for the WEG basement.

1.5 Report structure

This report is set out as follows:

- Chapter 2 – Site characteristics
- Chapter 3 – Objectives and measures
- Chapter 4 – Servicing trip rates and targets
- Chapter 5 – Monitoring the DSP

2. Site characteristics

This chapter sets out the characteristics and the proposed delivery and servicing arrangements for the PGPS development.

2.1 Site plan and location

The proposed development comprises three blocks (I, J and K). Vehicular access on ground level to each of the blocks is available along Newcastle Place which is one-way (westbound). The services yard in the WEG basement and the PGPS basement is accessed from Church Street. The site layout plan is presented in Figure 2, and the access points are shown in Figure 3.

Figure 2: Proposed layout plan

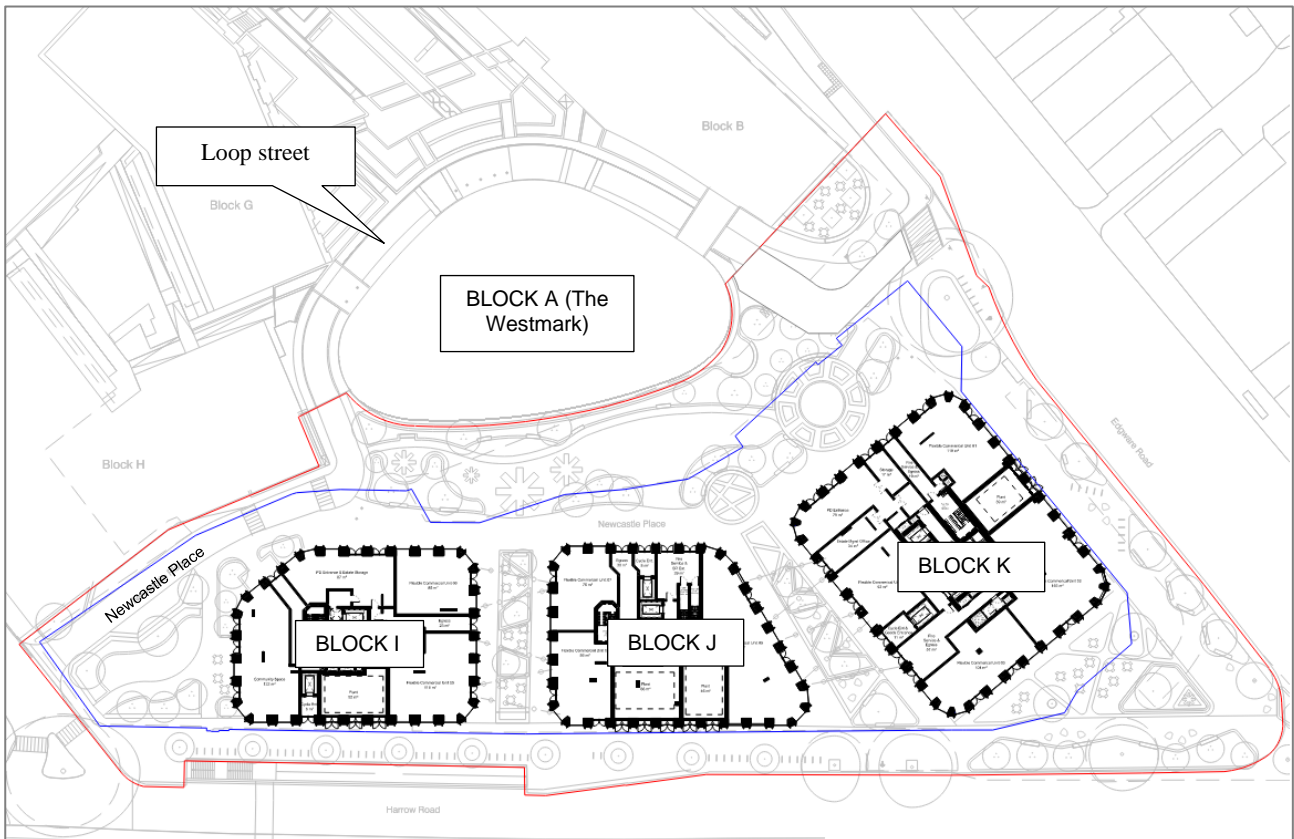


Figure 3: Proposed vehicular accesses and circulation



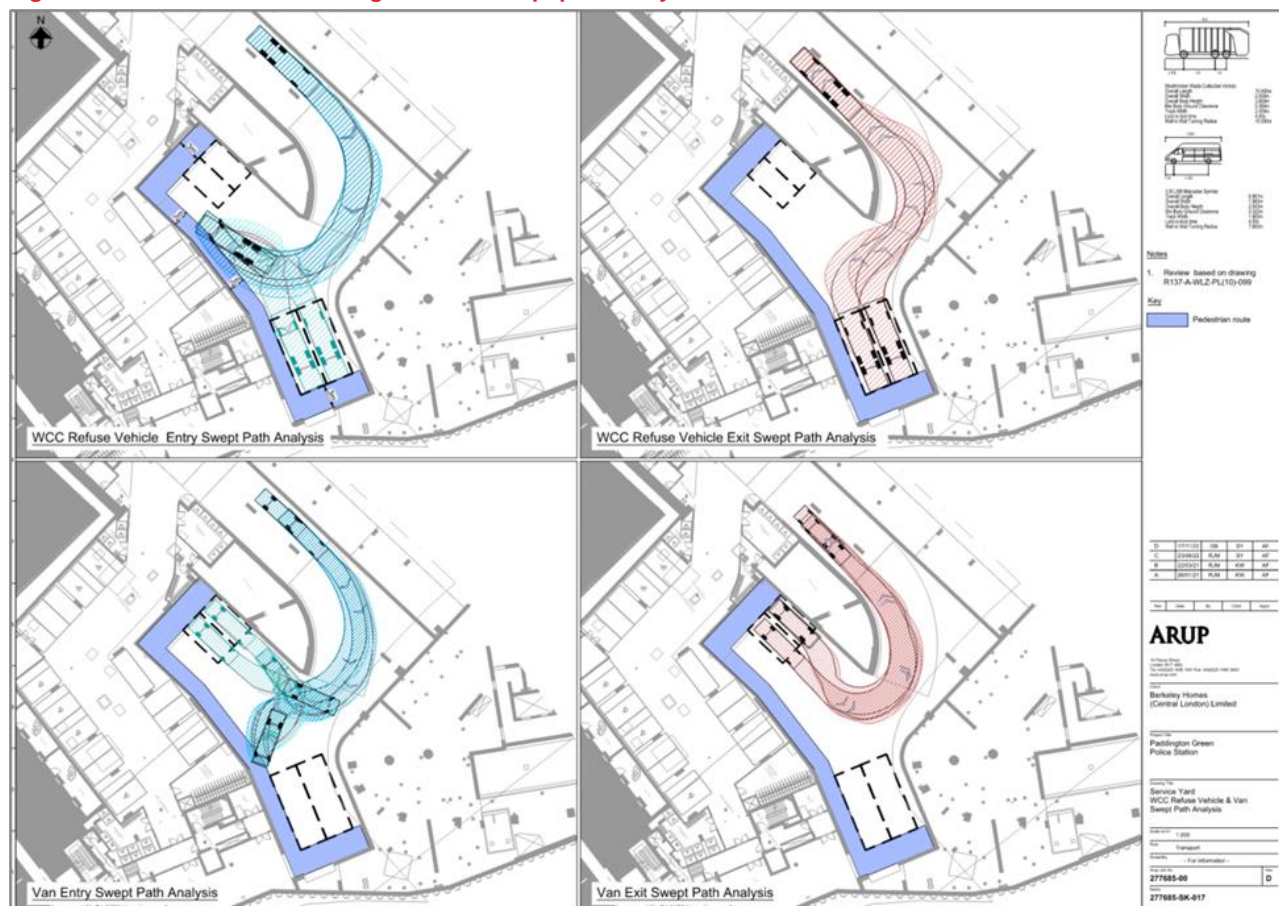
2.2 Proposed delivery and servicing arrangement

2.2.1 WEG basement

The WEG basement is accessed from Church Street and the design and access arrangements were consented as part of the WEG applications. A servicing area is provided at the B2 Basement and the design has been developed further to show the area can accommodate two HGV bays and two LGV bays.

The layout of the servicing area at WEG B2 basement is shown in Figure 4 together with a pedestrian route and the swept path of refuse vehicle and goods vehicles. A scaled drawing with further swept paths is contained in Appendix A.

Figure 4: WEG basement servicing area and swept path analysis



Goods and bins will be transported to the PGPS B2 basement via a lift in the B1 basement. B2 arrangements for goods offloading and refuse collection are shown in Figure 5. The goods movements across B1 from B2 are shown in Figure 6 and bin movements across B1 bin stores and B2 collection area are shown in Figure 5. The Estate Management Team will then transport the bins from the PGPS B1 bin stores to PGPS B2 basement service yard via a lift prior to collection.

Figure 5: B2 Level – delivery and refuse arrangements

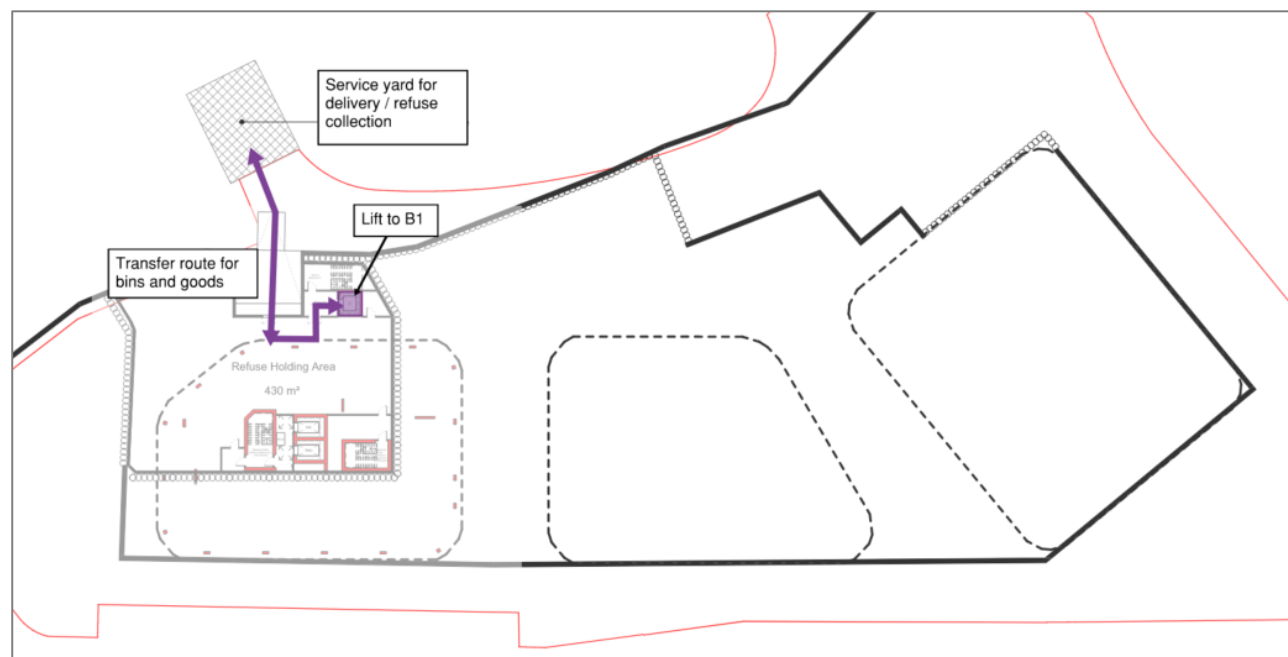


Figure 6: B1 Level – goods delivery arrangements

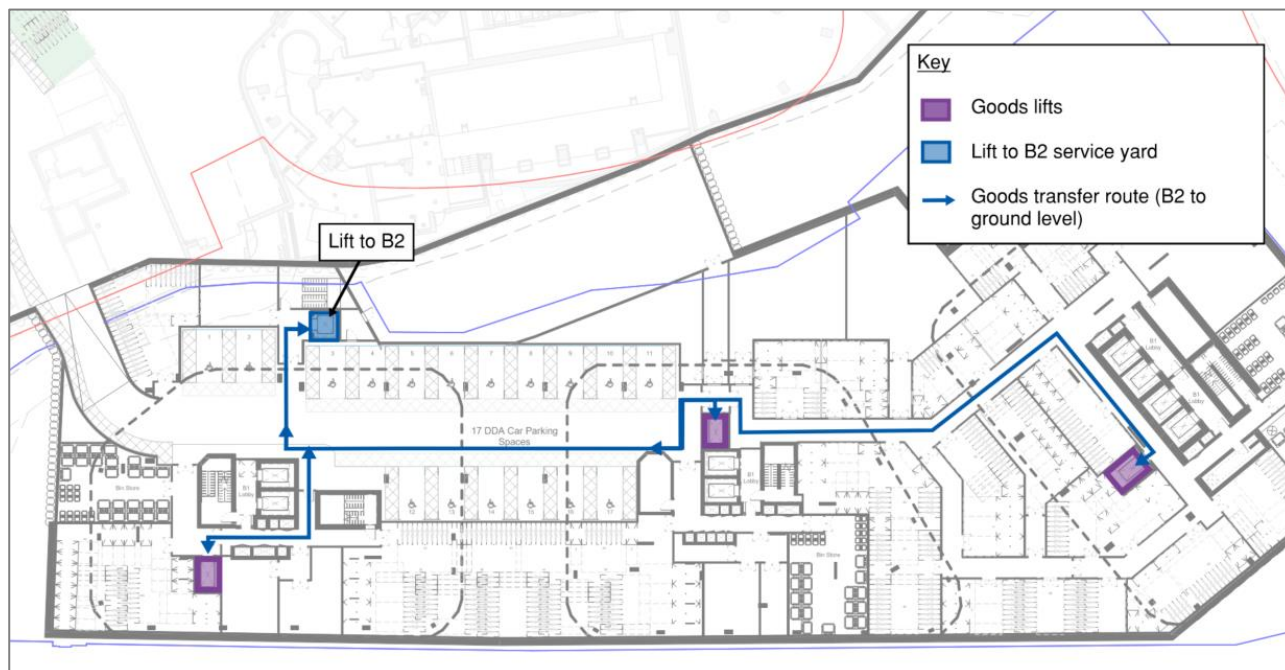
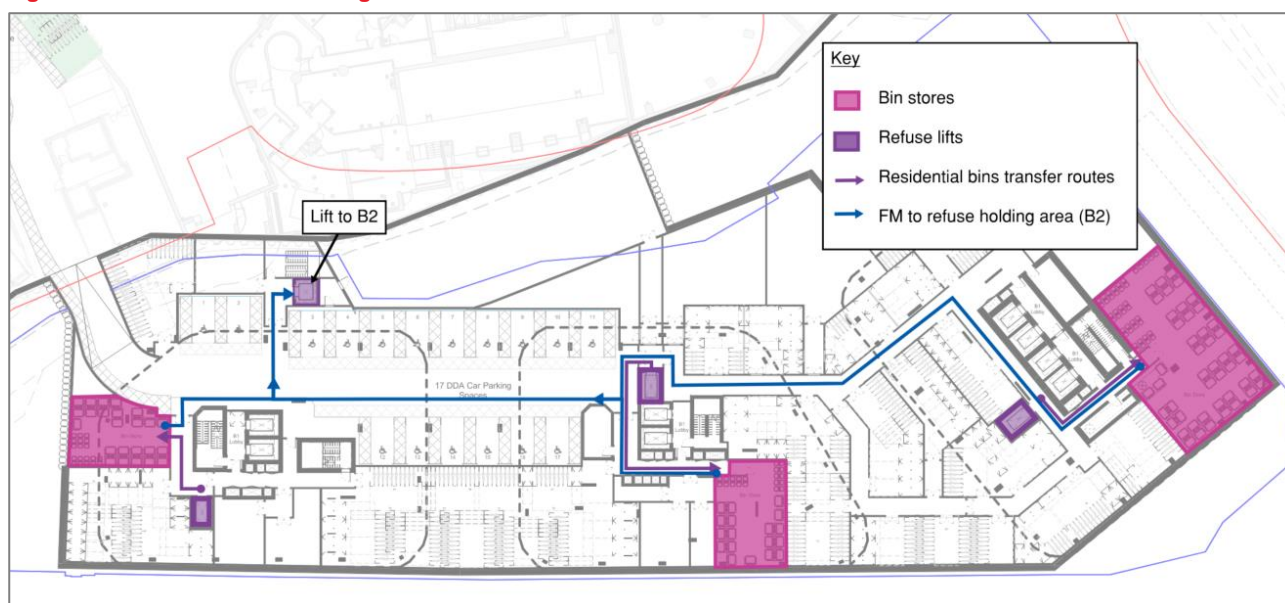


Figure 7: B1 Level – refuse arrangements



A separate Operational Waste Management Plan prepared by Arup is submitted with the planning application.

2.2.2 Newcastle Place

2.2.2.1 Consented function

Newcastle Place has a consented vehicular access to the WEG development around The Westmark. An on-street loading bay has been consented on Newcastle Place, located near a parcel store south of The Westmark and is proposed for residential deliveries.

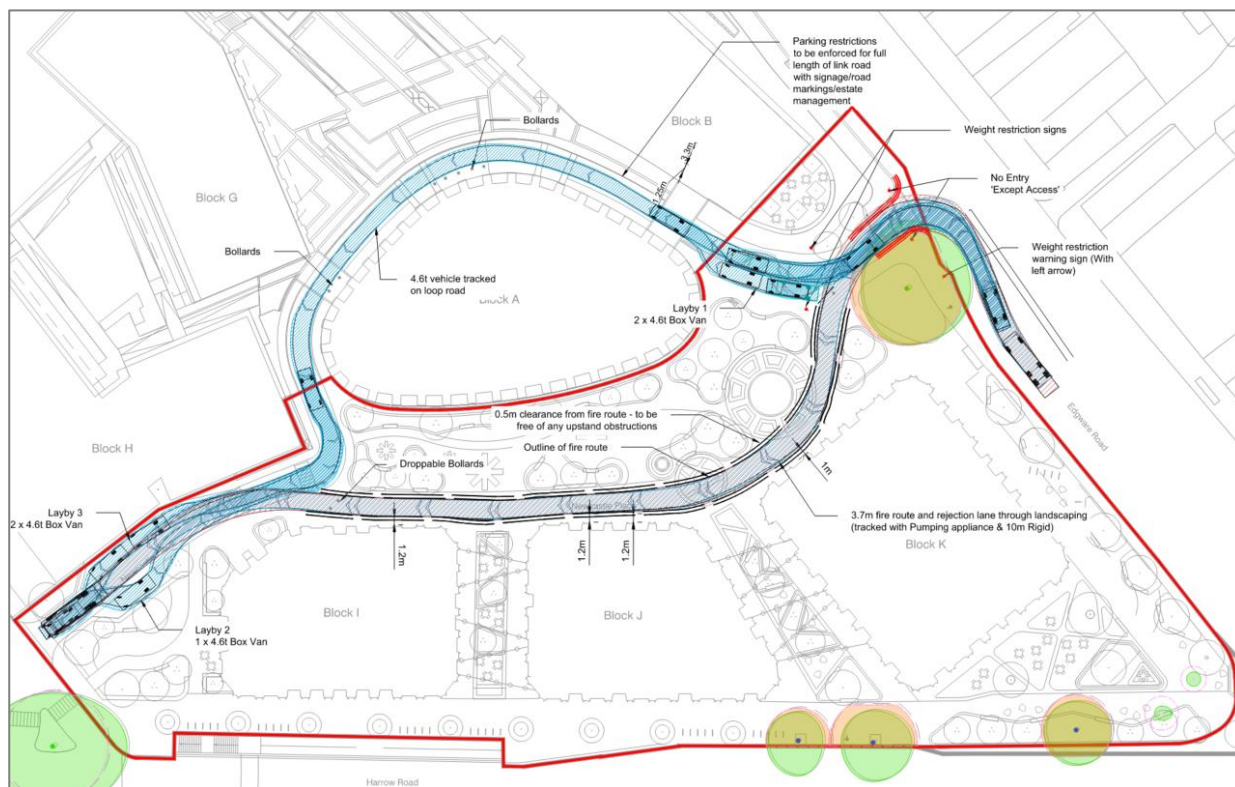
2.2.2.2 Proposed design

Newcastle Place will be treated as a pedestrianised zone, with emergency / rejection vehicle access permitted along its length. The revised submission maximises the provision of landscaping adjacent the building blocks

and incorporates a play area (south of The Westmark). The design principles of the Newcastle Place have been consulted and agreed with GLA and TfL in the pre-application stage.

There will be uncontrolled access for vehicles up to 7.5T around the northern side of The Westmark, along the existing one-way loop street (westbound). Weight restriction signage will be placed at the junction with Edgware Road. Any larger goods vehicles that have inadvertently accessed Newcastle Place would be permitted through the controlled pedestrianised zone, which would otherwise be controlled by the bollard precluding access. The swept path analysis is illustrated in Figure 8.

Figure 8: Swept path analysis – Loop street and Newcastle Place



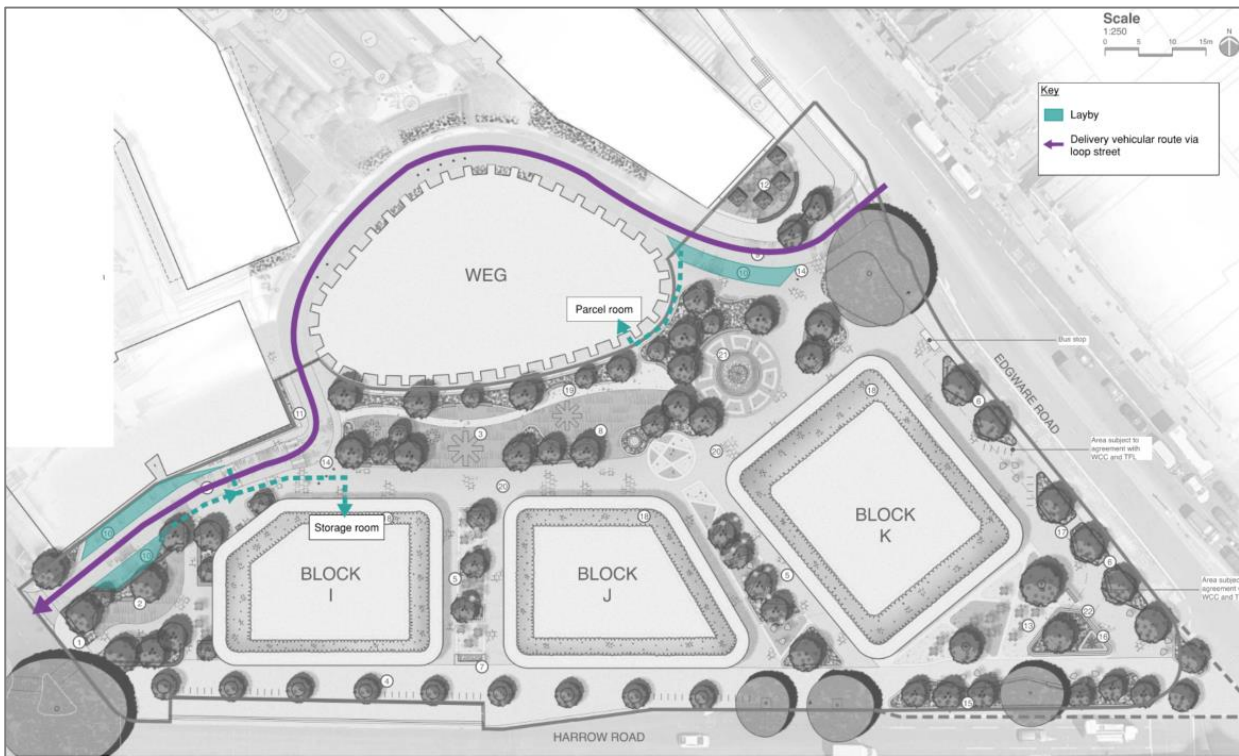
2.2.2.3 Proposed delivery and servicing arrangements

All commercial deliveries, residential bulky deliveries and refuse collection will take place in the WEG B2 basement. Any special residential deliveries or residential move in / move out activities can also be pre-booked in the basement.

Residential deliveries via vehicles up to 7.5T will use the laybys along the loop street and Newcastle Place for PGPS and WEG. Laybys are incorporated into the landscape design, positioned within close proximity to the entrance of each building block. This includes a layby close to the Newcastle Place / Edgware Road junction to re-provide for the existing layby to The Westmark (previously consented for WEG, planning ref: 16/12162/FULL), and two laybys to the western end of Newcastle. These laybys are located in close proximity to the post room of the blocks.

The landscape plan is shown Figure 9. The swept path analysis of Newcastle Place and the loop street is contained in Appendix A.

Figure 9: Newcastle Place servicing strategy



While vehicles (7.5t or smaller) have uncontrolled access via the loop street, bollard control is proposed either side of the pedestrianised route as it meets the loop street on Newcastle Place. The indicative arrangement of the bollards is presented in Figure 21, detailed design of the positioning of the bollards will be reviewed in a later stage.

When required the bollard will be controlled (dropped) by the Estate Management Team (the bollards are expected to be operated through intercom connection to reception). Large / emergency vehicles are expected to be very occasional, if at all.

2.2.3 Summary

In summary, the proposed delivery and servicing strategy for PGPS is as follows:

- All commercial deliveries and refuse collection to take place in the WEG B2 basement. Any special residential deliveries or residential move in / move out activities can also be pre-booked in the basement.
- Ad-hoc residential deliveries will take place on-street using the laybys on Newcastle Place and the loop street. Newcastle Place will be partially closed off for general vehicular access to deliver a high quality public realm. Goods vehicles will enter Newcastle Place and route around the north of The Westmark via the loop street, and re-join Newcastle Place to exit via the Paddington Green junction. Vehicular access will be uncontrolled along the loop street for vehicles that up to 7.5T.
- Access via the public realm which facilitates emergency access / rejection HGV route will be controlled by bollards to retain pedestrian priority through this space.

3. Objectives and Measures

This chapter sets out the proposed objectives of the DSP and the measures to meet the objectives.

3.1 Objectives

The objectives of this DSP considers the following policies:

- London Plan (2021) Policy D3 on Optimising site capacity through the design-led approach –
“Development proposals should:facilitate efficient servicing and maintenance of buildings and the public realm, as well as deliveries, that minimise negative impacts on the environment, public realm and vulnerable road users”
- London Plan (2021) Policy T7 Deliveries, servicing and construction
“Development proposals should facilitate safe, clean, and efficient deliveries and servicing. Provision of adequate space for servicing, storage and deliveries should be made off-street, with on-street loading bays only used where this is not possible.”
- Mayors Transport Strategy (2018) Proposal 15 - The Mayor, through TfL, will work with the boroughs, businesses and the freight and servicing industry to reduce the adverse impacts of freight and service vehicles on the street network. The Mayor aims to reduce the number of lorries and vans entering central London in the morning peak by 10 per cent by 2026.

This DSP will seek to achieve the following objectives:

- Demonstrate that goods and services can be delivered, and waste removed, in a safe, efficient, and environmentally friendly way.
- Reduce the impact of freight activity on local residents and the environment.

3.2 Measures

The DSP measures have been identified in terms of physical infrastructure and operational efficiency.

3.2.1 Physical infrastructure

3.2.1.1 Servicing and delivery facilities

To meet the objective to demonstrate that servicing and deliveries can take place in an efficient way, the proposed loading bay provision in the basement and laybys along on the loop street and Newcastle Place have been designed to meet the estimated demand. Details are provided in Section 4.1.

The locations of the on-street laybys are provided within close proximity to the residential post stores to reduce dwell times.

Any special deliveries to the site, such as plant maintenance vehicles will need to be pre-arranged with Berkeley Homes. The delivery time and duration will be negotiated to minimise the impact on the daily servicing requirements of the development. Out of peak hour deliveries will be encouraged for such activities wherever possible.

3.2.1.2 Secure basement access

The arrangement to access to the basement servicing area is set out in the WEG DSP and the strategy reduces the impact on public highway and demonstrates that access can be provided in a safe manner:

“Access to the basement servicing area will be served by a high speed shutter type arrangement on ingress and egress at ground level. Refuse vehicles and regular commercial vehicles will also be offered a key fob / RFID tag to avoid potential delay. A control point will be provided for access to 24 hour on-site

management to provide access to general service vehicles. The egress shutter will operate automatically for all egress vehicle movements.”

3.2.1.3 Risk assessment of servicing areas

A risk assessment of servicing activities and areas would be undertaken by suitably trained site management staff prior to use. The assessment will examine the following issues:

- Adequate manoeuvring space for the vehicles
- Interaction with pedestrians
- Adequate unloading area
- Level route from vehicle to destination
- Interaction with vehicles and
- Visibility of management staff.

Waste storage and management

All refuse collection will be undertaken within the site in the basement. The management team will move the bins to the presentation area in WEG (B2 level), as shown in Figure 5, which is located c.10m from the refuse collection vehicle loading point.

Sufficient waste storage has been provided and a separate Operational Waste Management Plan is submitted with the planning application. It is expected that WCC will collect all residential waste and commercial deliveries will be undertaken separately by either WCC or private contractor. Refuse collection would be co-ordinated between PGPS and WEG.

3.2.2 Operational efficiency

3.2.2.1 Delivery restriction & enforcement

Residential peak hour deliveries will effectively be self-regulating / limited due to delivery drivers typically seeking to avoid peak hour conditions on the local road network in London, resulting in most suppliers seeking to avoid non-essential deliveries during the peak hours wherever possible.

For the commercial deliveries, interpeak deliveries will be promoted to reduce impact on the highway network during peak times.

3.2.2.2 Communication of delivery procedures

The delivery procedures in operation on the site will be communicated to all commercial occupants and residents as part of any welcome packs and literature.

The communication strategy will in keeping with the WEG DSP which sets out the following:

- All commercial operators will be provided with written/mailed instructions on how to book deliveries and the procedures to be adopted.
- Suppliers will be encouraged to use car and transit vehicles to deliver goods where possible.
- The management team will work with delivery companies (including food retailers) to minimise the number of arrivals per day and to consolidate deliveries, where possible.
- The management team will ensure that deliveries remain in the vicinity of the site for as little time as required and that vehicle engines are switched off while stationary (where possible).
- The concierge will have the ability to receive goods from courier deliveries (i.e. online retailers such as Amazon) if a resident is not available to minimise the number of repeat trips on the network; and
- The on-site management team will seek to minimise, where possible, deliveries during the peak hours.

4. Servicing trip rates and Targets

This chapter sets out the servicing trip rates for the different uses in the proposed development and indicative targets.

4.1 Servicing trip rates

The delivery and servicing trip rates were presented in the Transport Assessment Scoping Report for discussion with TfL and WCC during the pre-application process for the April 2021 application. The trip rates which have been used and the estimated servicing trips for the residential and retail uses are provided in Table 1. It is expected the small community space will only generate ad-hoc deliveries and have therefore not included in this assessment.

Table 1: Indicative servicing trips (vehicles)

	Servicing trip rates per unit, or per 100 sqm			Indicative servicing vehicles		
	AM Peak	PM Peak	Daily	AM Peak	PM Peak	Daily
Residential	0.004	0.004	0.079	2	2	44
Retail	0.289	0.000	1.375	3	0	16
Total	-	-	-	6	2	60

As shown in Table 1, it is estimated that the site would generate around six delivery vehicles in the AM peak, and two delivery vehicles in the PM peak. The above forecast suggests that up to 60 deliveries could be expected daily. Further information on the trip rates are provided below.

4.1.1 Residential

As the WEG TA servicing trip rates were obtained pre-pandemic (from the approved WEG Transport Assessment dated July 2016), to understand if these servicing trip rates are still applicable in forecasting future servicing demand for the proposed development, a comparison has been made with another similar Berkeley Homes residential-led development. A servicing survey was undertaken at Woodberry Down Estate (Hackney) in October 2021, the vehicular trip rates have been extracted for comparison with the WEG TA trip rates. The peak servicing period was observed to be 20:00-21:00 at Woodberry Down, which is consistent with WEG, for which the former observed 0.032 trips per dwelling and the latter with 0.012 trips per dwelling. A comparison of the network peak hours servicing trip rates is shown in Table 2.

Table 2: Comparison with Woodberry Estate servicing trip rates (vehicles)

	AM Peak	PM Peak	Daily
WEG trip rates	0.004	0.004	0.079
Woodberry Estate surveys	0.002	0.002	0.18
Variance	+0.002	+0.002	-0.721

As shown in in Table 2, the Woodberry surveys show higher daily trip rates, but reduction in peak hours trips. In light of the above, whilst the daily trips may be higher, the TA focuses on the peak hour impacts on the surrounding roads, therefore, the WEG trip rates with higher peak hour trip rates remain appropriate to robustly forecast the peak hour service trips of the proposed development.

Table 3: Forecast servicing trips (vehicles)

	AM Peak	PM Peak
Residential	2	2
Retail	3	0
Total	6	2

As shown in Table 3, it is forecast that the site would generate around six delivery vehicles in the AM peak, and two delivery vehicles in the PM peak. For a robust case, the servicing trip rates do not include an allowance for potential consolidation of delivery trips with WEG. This would be undertaken by parcel carriers for operational efficiency purposes and would be encouraged as part of the DSP.

The WEG trip rates used are expected to be a robust assessment, particular when applied across both WEG and PGPS development, which equates to a total of c.1,400 homes. No assumptions are made on consolidation for a robust assessment.

4.1.2 Retail

The proposed development will provide flexible commercial space, including uses such as cafes and restaurants. The retail trip rates are taken from the approved WEG Transport Assessment (July 2016). A review of the TRICS database was undertaken but there was very limited information available on suitable land uses.

Arup carries out surveys of mixed use developments within London to provide trip rates for a variety of land uses. Arup's data shows the following servicing trip rates:

- 0.52 vehicles per 100 sqm GIA per day for A1 Retail
- 1.80 vehicles per 100 sqm GIA per day for A3 Café / Restaurant

The proposed trip rate of 1.375 vehicles per 100 sqm is therefore considered to be appropriate for a range of retail uses, with more weight towards cafes and restaurants.

4.1.3 Loading bay capacity

An assessment has been undertaken on the number of peak WEG and PGPS delivery vehicles expected in the basement and on Newcastle Place.

In the basement, up to 9 deliveries could be expected in an hour for the commercial uses. This could be accommodated in the four loading bays with an average dwell time of c.20 minutes.

4.2 Targets

In accordance with TfL guidance, targets are required to reduce delivery trips and their impacts over time. Targets should be SMART: Specific, Measurable, Achievable, Realistic and Timely.

It should be noted that residential delivery trips are difficult to control, but Berkeley Homes will work with the office and commercial occupiers to achieve the targets.

The indicative targets are:

- Promote office and commercial occupiers to use delivery partners using low or no emission vehicles. An increase of 20% low or no emission vehicles using the site over 5 years.
- Work with delivery companies and encourage common procurement between different commercial tenants to consolidate deliveries where possible. A reduction of 10% deliveries on a typical weekday over 5 years.

5. Monitoring the DSP

The DSP will be implemented by Berkeley Homes and delivery and servicing activities will be monitored against the objectives set out in this document, making adjustments as necessary to address issues and improve upon operation. This is in accordance with TfL guidance. It is expected that Berkeley Homes will monitor both WEG and PGPS servicing and deliveries at the same time.

5.1 Monitoring surveys

There is phased occupation of WEG and monitoring of parcel numbers are already being undertaken.

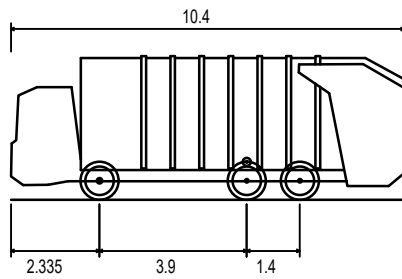
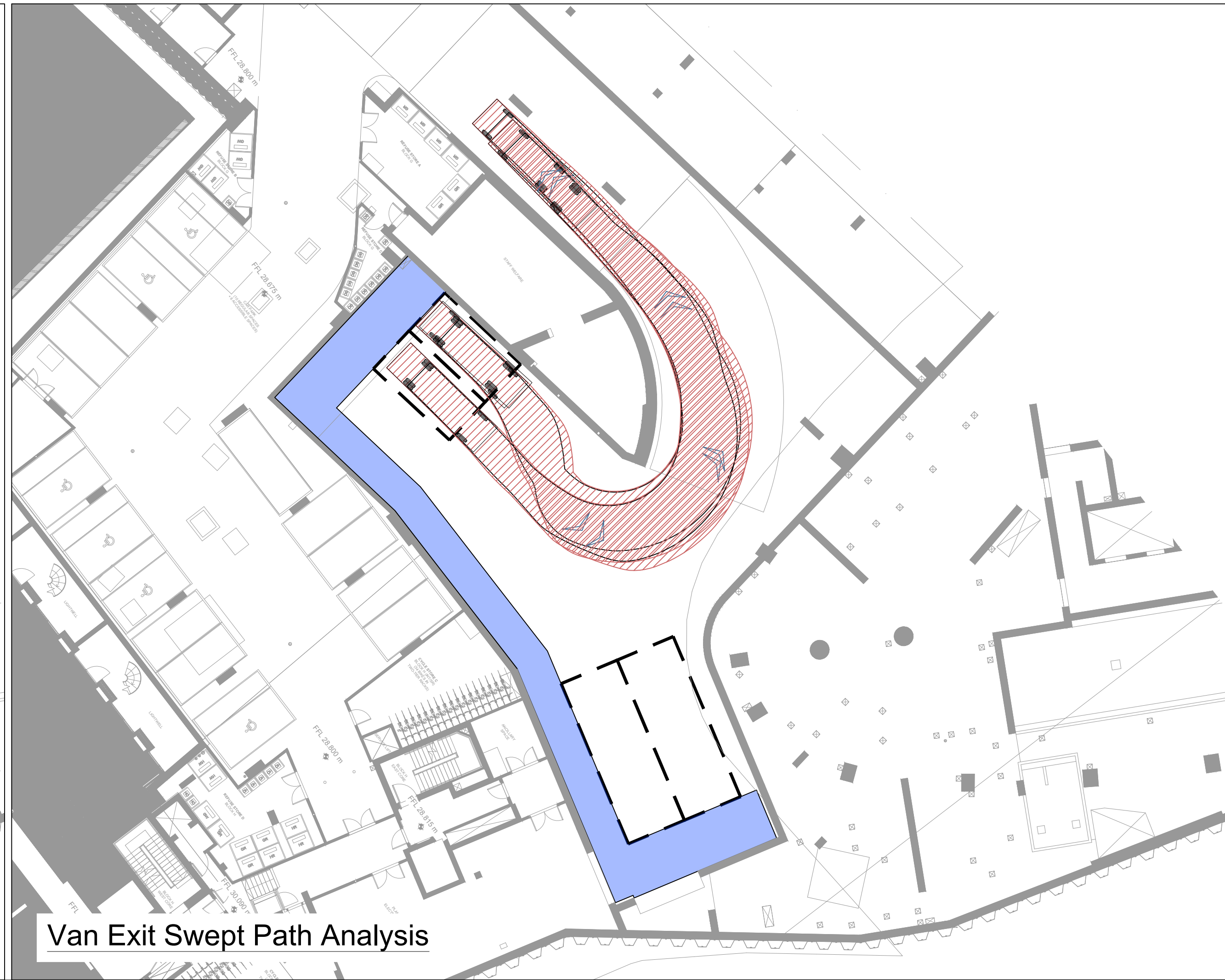
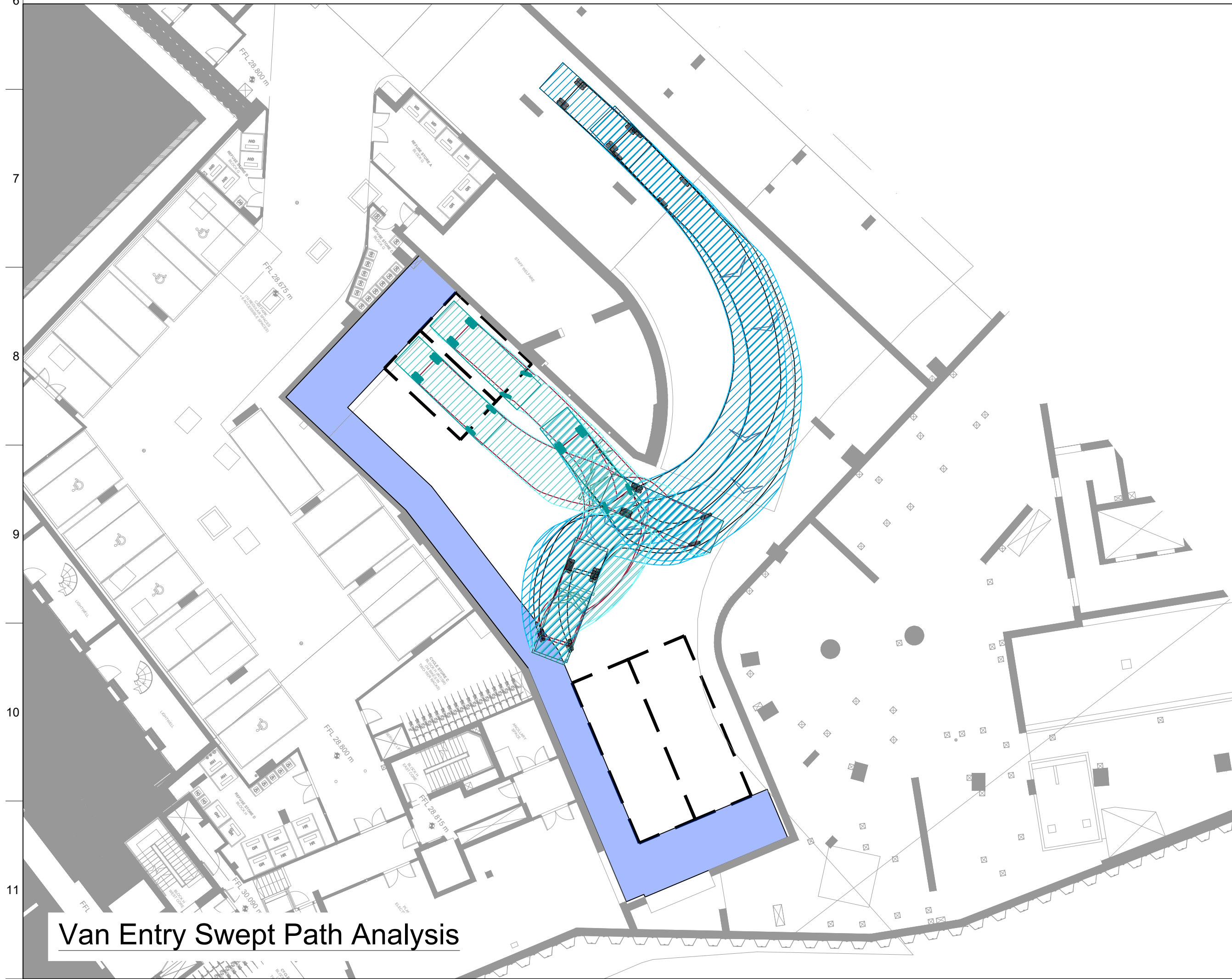
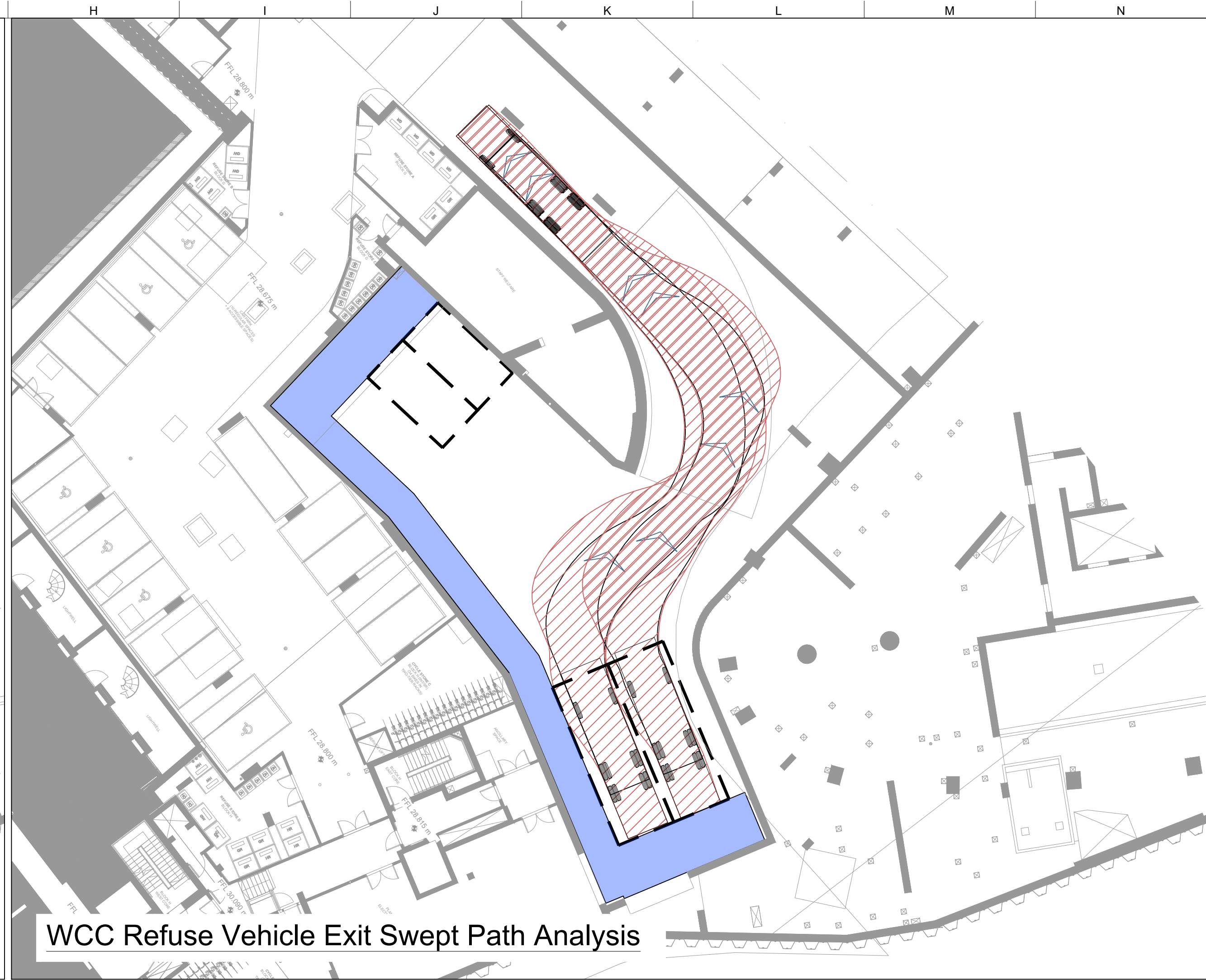
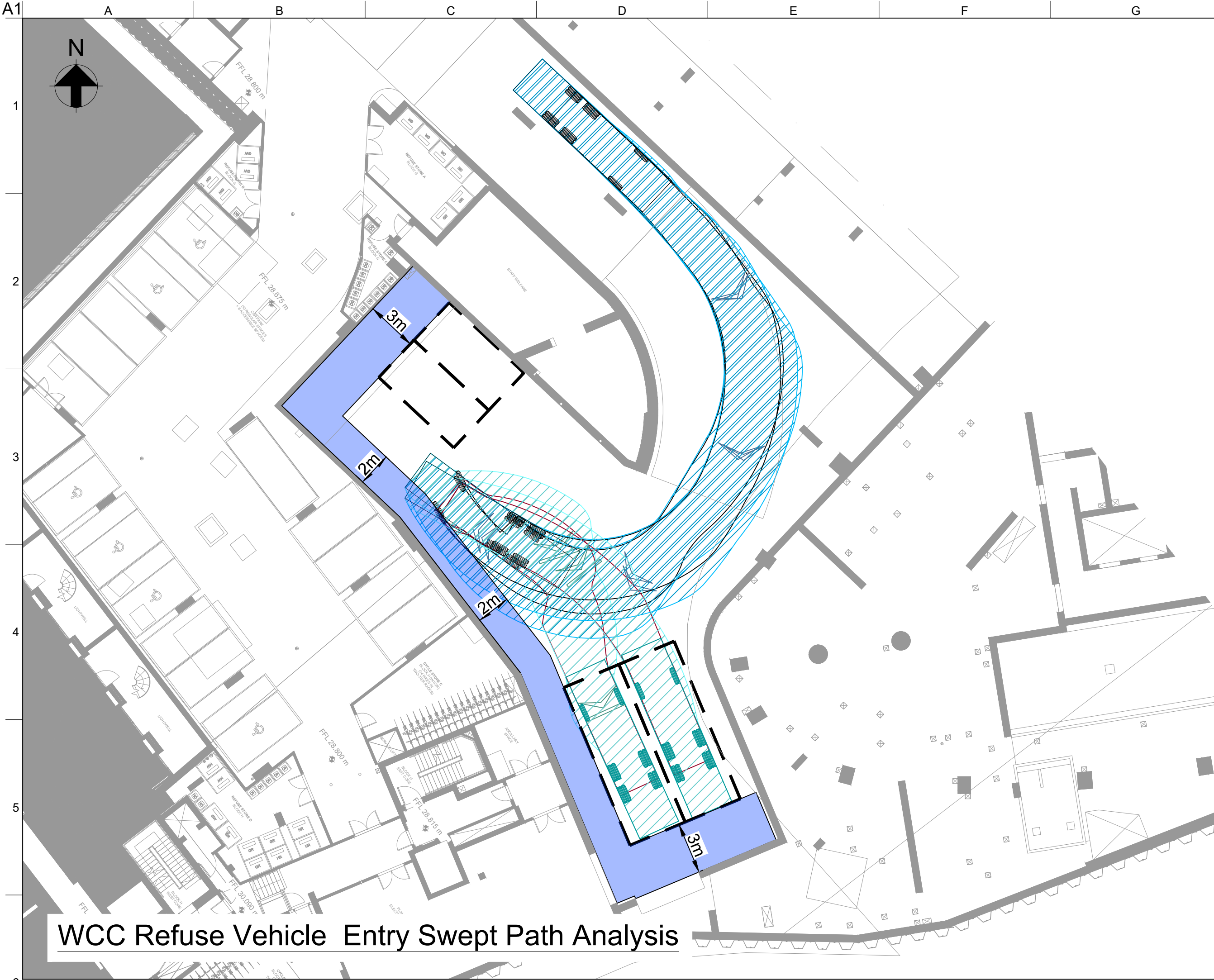
It is proposed that continual monitoring of parcels will take place as WEG and PGPS are occupied, and the number of vehicles using the basement and Newcastle Place will also be captured as part of the controlled access to both these areas.

5.2 Annual review

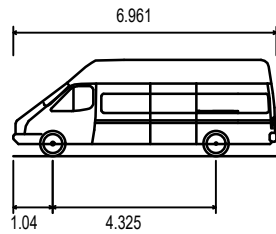
The results of the ongoing monitoring surveys will be reviewed annually, for up to 5 years of completion of PGPS, or earlier to be agreed with WCC in the event that the targets are met early. The review will capture trends in deliveries, such as vehicle type, frequencies and dwell times, and a review of emerging policies will also be considered.

Appendix A

Technical drawings



Westminster Waste Collection Vehicle
Overall Length 10.400m
Overall Width 2.500m
Overall Body Height 3.800m
Min Body Ground Clearance 0.368m
Track Width 2.450m
Lock to lock time 4.00s
Wall to Wall Turning Radius 10.000m



3.5t LWB Mercedes Sprinter
Overall Length 6.961m
Overall Width 1.963m
Overall Body Height 2.550m
Min Body Ground Clearance 0.322m
Track Width 1.900m
Lock-to-lock time 4.00s
Wall to Wall Turning Radius 7.500m

Notes

1. Review based on drawing R137-A-WLZ-PL(10)-099

Key

 Pedestrian route

D	17/11/22	DB	SY	AF
C	23/06/22	RJM	SY	AF
B	22/03/21	RJM	KW	AF
A	26/01/21	RJM	KW	AF

Rev	Date	By	Chkd	Appd
-----	------	----	------	------

ARUP

13 Fitzroy Street
London W1T 4BQ
Tel +44(0)20 7638 1531 Fax +44(0)20 7580 3924
www.arup.com

Client
Berkeley Homes
(Central London) Limited

Project Title
Paddington Green
Police Station

Drawing Title
Service Yard
WCC Refuse Vehicle & Van
Swept Path Analysis

Scale at A1 1:200

Role Transport

Suitability - For Information -

Arup Job No
277685-00

Name
277685-SK-017

Rev
D