6 LONDON-WIDE NETWORK

6.1.1 This section of the TA provides information on the current use of the wider transport network, including how many people travel and their current modes/behaviours.

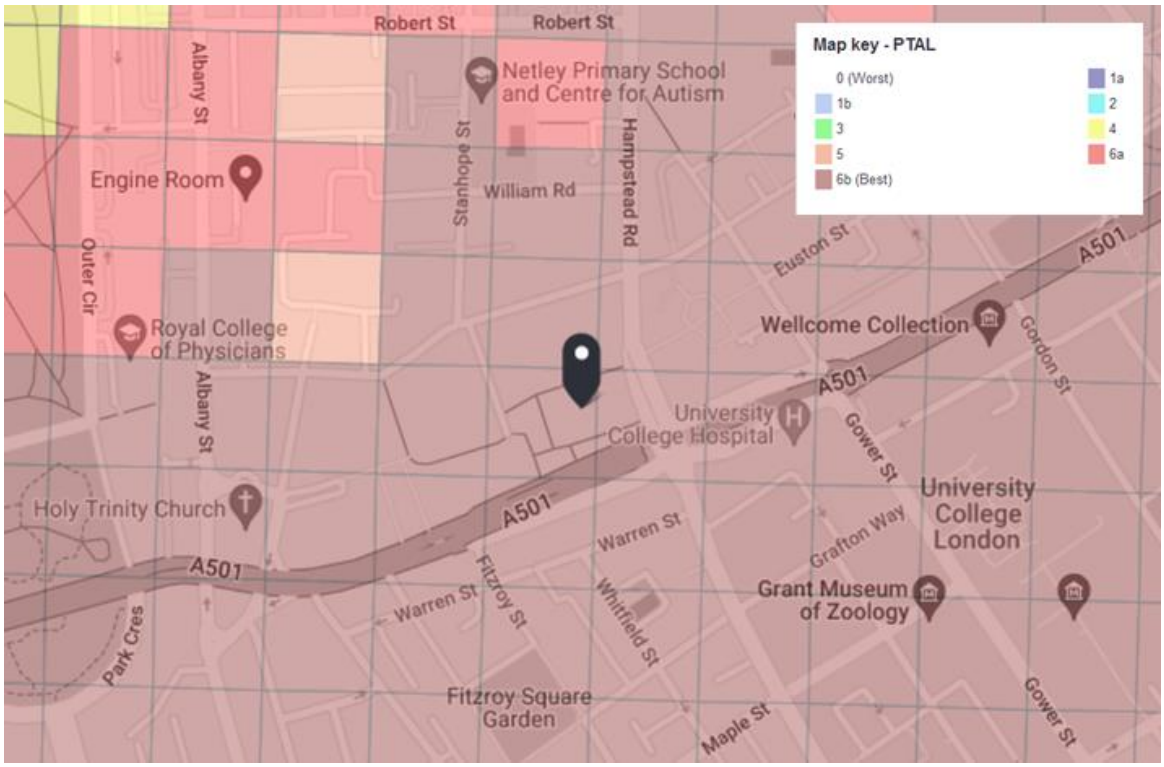
6.2 PUBLIC TRANSPORT NETWORK

PUBLIC TRANSPORT ACCESSIBILITY LEVEL (PTAL)

6.2.1 PTAL is used to assess the connectivity of a site to the public transport network in consideration of the access time and frequency of services. It considers rail stations within a 12-minute walk (960m) of the site and bus stops within an eight-minute walk (640m) and is undertaken using the AM peak hour operating patterns of public transport services. An Access Index (AI) score is calculated that is used to define a PTAL score.

6.2.2 TfL's online WebCAT tool shows the site AI is 85.4, indicating a PTAL of 6b (excellent). The WebCAT PTAL output is summarised in **Figure 6-1.**

Figure 6-1: Site PTAL map



BUS NETWORK

6.2.3 The site is located in close proximity to a comprehensive level of bus provision. The closest bus stops are situated on Hampstead Road, to the east of the site, which provides access to bus routes 24, 27, 29 and 134. Euston Road bus stop to the south of the site provides access to bus routes 18, 30 and 205.

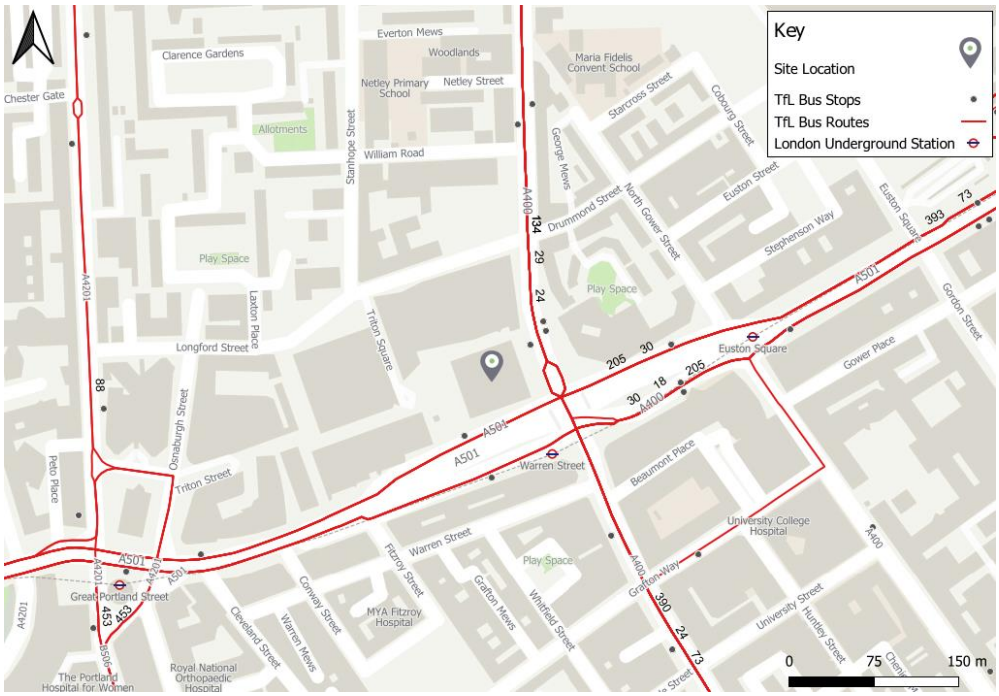
6.2.4 The local bus services and average peak hour frequency are summarised in **Table 6-1**.

Table 6-1: Local bus stop summary and frequency

SERVICE NUMBER	BUS STOP	ROUTE	FREQUENCY PER HOUR (BY DIRECTION)
18	Euston Road	Sudbury & Harrow Road Station – Euston Station	15
24	Hampstead Road	South End Green - Pimlico	6
27	Hampstead Road	Chalk Farm – Hammersmith Grove	6
29	Hampstead Road	Lordship Lane – Trafalgar Square	12
30	Euston Road	Hackney Wick – Marble Arch	6
73	Euston Square	Stoke Newington – Oxford Circus	10
134	Hampstead Road	North Finchley – Warren Street	7
205	Euston Road	Bow Church - Paddington	6
390	Euston Square	Archway - Victoria	7
		TOTAL	**75**

6.2.5 The table shows that the local bus stops provide access to 150 bus services per hour. The local bus routes are illustrated in **Figure 6-2.**

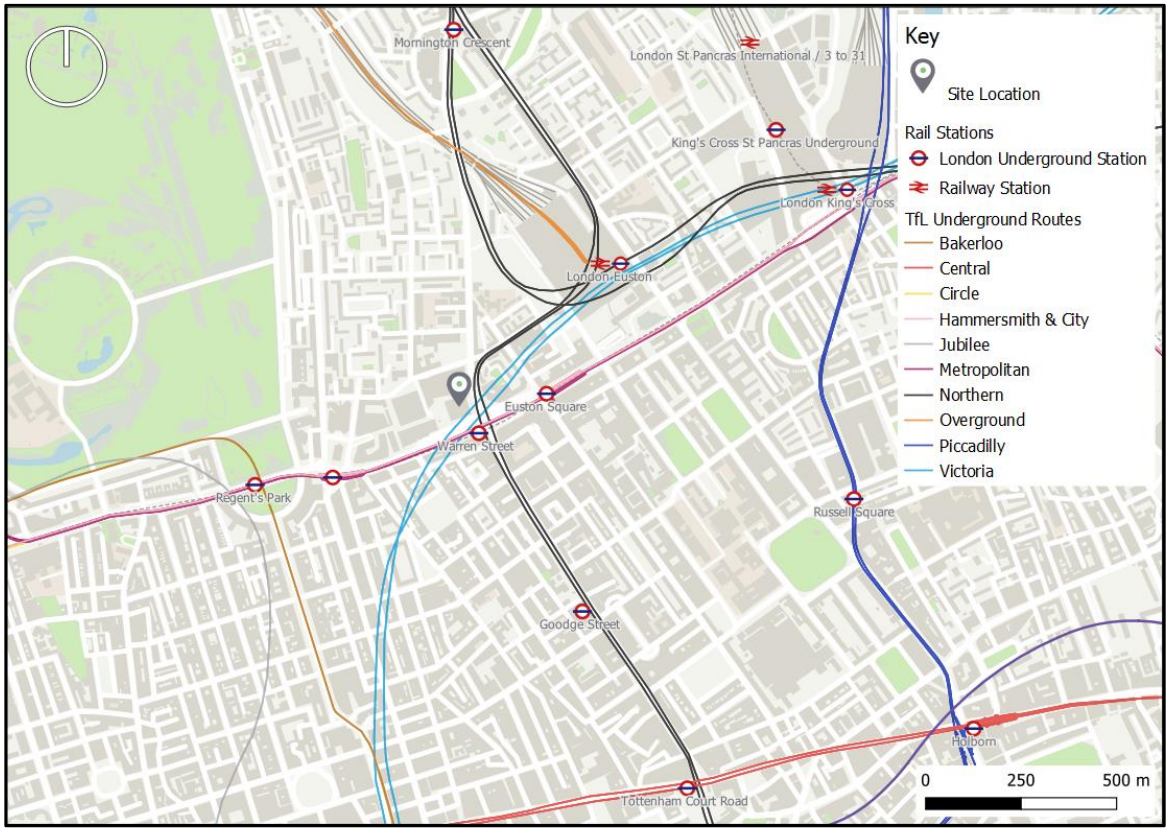
Figure 6-2: Local Bus Routes



LONDON UNDERGROUND AND RAIL NETWORK

6.2.6 **Figure 6-3** shows the nearest London Underground and rail networks within proximity (i.e., approximately 20-minute walk/10-minute cycle) of the site.

Figure 6-3: Underground and rail networks within proximity of the site



6.2.7 The site is situated within close proximity to a number of TfL Underground routes, making it a highly accessible location within London.

6.2.8 The site is also close to major stations such as Euston, St Pancras International and Kings Cross, which provide journeys to the rest of the UK and internationally via the Eurostar.

LONDON UNDERGROUND

6.2.9 **Tabe 7.11** shows the peak hour frequencies of Underground services from Warren Street, Euston Square and Regent's Park Stations.

Figure 6-4: Underground Services and Frequencies

STATION	SERVICE	DIRECTION	FREQUENCY PER HOUR	
			AM	PM
Euston Square	Circle	Inner Rail	6	6
		Outer Rail	6	6
	Metropolitan	Northbound	15	15
		Southbound	16	16
	Hammersmith and City	Inner Rail	6	6
		Outer Rail	6	6
Warren Street	Victoria	Northbound	36	36
		Southbound	36	36
	Northern	Northbound	22	23
		Southbound	23	24
Regent's Park	Bakerloo	Northbound	22	21
		Southbound	22	21
TOTAL			**216**	**216**

WARREN STREET

6.2.10 Warren Street station is located adjacent to the site on the opposite side of Euston Road to the south. The station is approximately 100m away and a two-minute walk. The station is served by the Victoria and Northern line and within TfL fare Zone 1.

EUSTON SQUARE

6.2.11 Euston Square station is located to the east of the site on the southern side of Euston Road although can be accessed from both sides of Euston Road. The station is approximately 280m away and a four-minute walk. The station is served by the Metropolitan, Circle and Hammersmith and City lines and is within TfL fare Zone 1.

REGENT'S PARK

6.2.12 Regent's Park station is located 550m to the west of the site along the A501 Euston Road, approximately a seven-minute walk. The station is served by the Bakerloo line and is located within TfL fare Zone 1.

EUSTON

6.2.13 Euston station is located 600m to the east of the site along the A501 Euston Road, approximately a nine-minute walk. The station is served by the Northern line. The station provides accessible access and is located within TfL fare Zone 1.

KINGS CROSS STATION

6.2.14 Kings Cross station is located 1.2km to the east of the site along the A501 Euston Road, approximately a 15-minute walk. The station is served by the Circle, Hammersmith & City, Metropolitan, Northern, Piccadilly, and Victoria lines. The station provides accessible access and is located within TfL fare Zone 1.

NATIONAL RAIL

EUSTON STATION

6.2.15 Euston Station is the terminus station for the Avanti West Coast, Caledonian Sleeper, and West Midlands Trains lines. The station provides services to destinations including Birmingham, Milton Keynes, Manchester, Edinburgh, and Glasgow.

6.2.16 The station is also served by the London Overground, which provides services to Watford via Willesden Junction and Wembley.

KINGS CROSS STATION

6.2.17 Kings Cross station provides services operated by Grand Central, Great Northern, Hull Trains, LNER, and Lumo. The station provides services to destinations including Kings Lynn, Letchworth Garden City, Leeds, Bradford, and Sunderland.

6.2.18 Thameslink operations from Kings Cross station provide services to Peterborough and Cambridge via Stevenage.

ST PANCRAS INTERNATIONAL

6.2.19 St Pancras International is located adjacent to Kings Cross station and provides services operated by EMR, Eurostar and Thameslink. The station provides services to UK destinations, including St Albans City, Ramsgate, Brighton, Sheffield, Gatwick Airport, Nottingham and Bedford.

6.2.20 The station also provides destinations in Europe, including Paris, Amsterdam and Brussels.

TFL OVERGROUND NETWORK

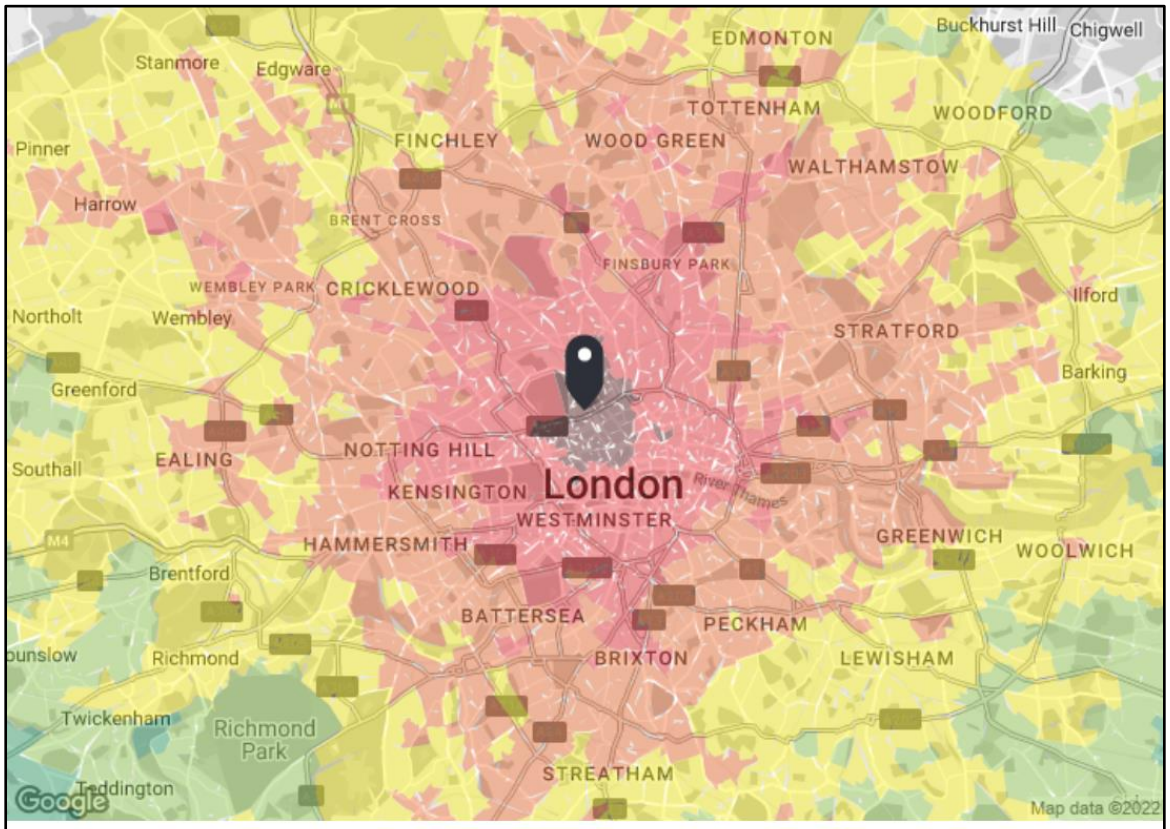
6.2.21 Euston station is located 600m to the east of the site along the A501 Euston Road, approximately a nine-minute walk. It is a terminus station of London Overground and provides access to key destinations such as Wembley and Watford.

6.2.22 The Overground provides four services per hour in each direction.

PUBLIC TRANSPORT TIME MAPPING

6.2.23 Time Mapping (TIM) is a tool developed by TfL within their WebCAT suite of tools to assess connectivity in terms of travel times, taking into account public transport service ranges and interchange opportunities. Time mapping for the site, travelling by public transport during the AM peak, is presented in **Figure 6-5**.

Figure 6-5: TIM mapping



TIM output for 2031 (Forecast)

Scenario: 2031 (Forecast) Mode: All public transport modes, Time of day: AM peak, Direction: From location

Euston Tower
Euston Tower, 286 Euston Rd, London NW1 3DP, UK
Easting: 529183, Northing: 182356

Code: WE089A25E

Map key - Travel Time

- < 15 mins
- 15 - 30 mins
- 30 - 45 mins
- 45 - 60 mins
- 60 - 75 mins
- 75 - 90 mins
- 90 - 105 mins
- 105 - 120 mins
- 120 - 135 mins

Map layers

- Travel Times

TRANSPORT FOR LONDON

6.3 FUTURE PUBLIC TRANSPORT ACCESSIBILITY

HIGH SPEED 2

6.3.1 High Speed 2 train services that will link London to Birmingham and the West Midlands will be departing from Euston station. No opening date for Phase One has been set yet, but services are likely to commence in the late 2020s and early 2030s.

6.3.2 There is currently uncertainty following the Government decision to pause most works associated with HS2 at Euston.

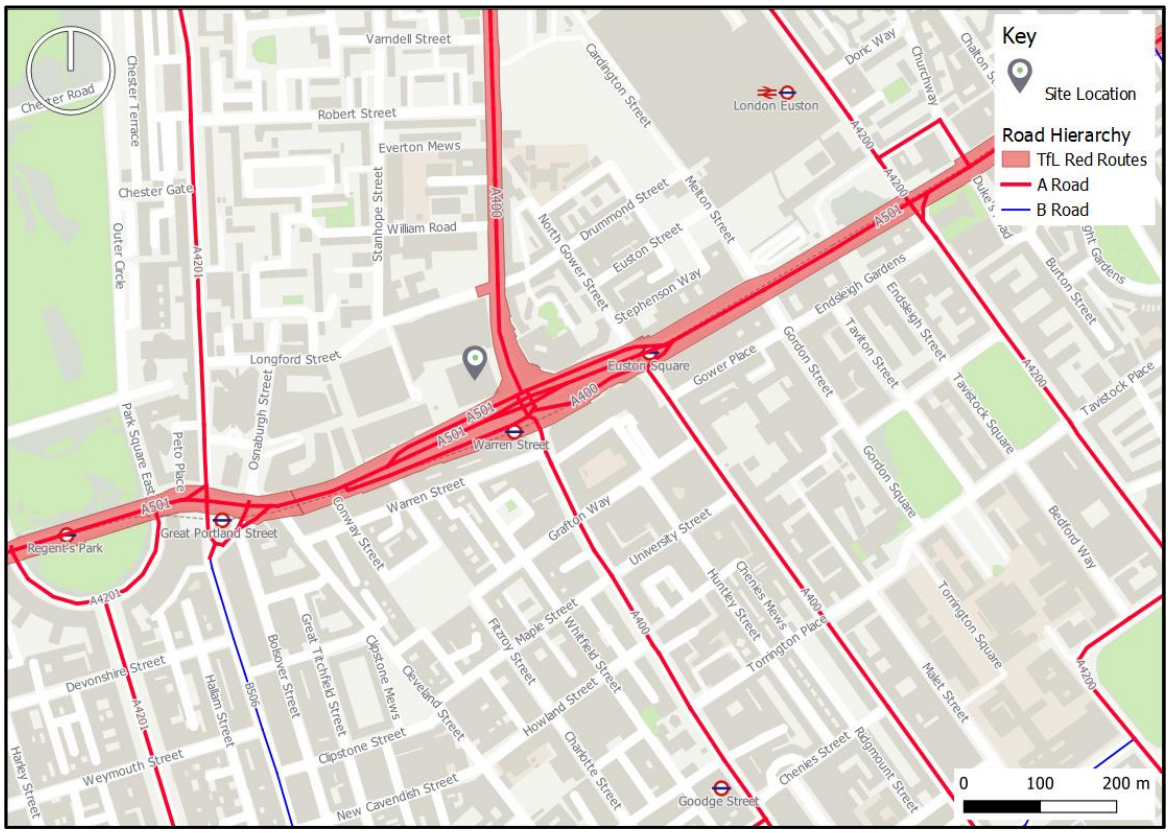
CROSSRAIL 2

6.3.3 Crossrail 2 is a proposed railway linking rail networks in Hertfordshire and Surrey to central London. Euston St Pancras station to the east of the Proposed Development and Tottenham Court Road to the south are key stations on the proposed route. The project is currently paused, although the land has continued to be safeguarded.

6.4 STRATEGIC HIGHWAY NETWORK

6.4.1 The site is located to the northwest of the junction between Euston Road and Hampstead Road, as shown in **Figure 6-6.**

Figure 6-6: Local Road Network



6.5 LOCAL HIGHWAY NETWORK

6.5.1 Euston Tower is bounded by the pedestrianised Brock Street to the north and Regent's Place Plaza to the west. To the east, the building is bounded by Hampstead Road and to the south is Euston Road, both of which form part of the Transport for London Road Network (TLRN).

6.5.2 Longford Street and Drummond Street provide access to the separate service vehicle ramp and the separate car and cycle ramp to access these facilities at the basement level.

6.5.3 Longford Street continues as Drummond Street to the east and intersects with Hampstead Road northeast of the site. Hampstead Road is a section of the A400 that runs from Charing Cross to Archway in north London.

6.5.4 Euston Road and Hampstead Road form a signalised junction at the southeast boundary of the site. Both are distributor roads that carry relatively high volumes of traffic.

EUSTON ROAD

6.5.5 Euston Road is a 20mph dual carriageway road located south of the site that forms part of the London Red Route and the London Inner Ring Road. It runs in a generally east-west direction, from Marylebone in the west to King's Cross in the east. It is noted that in accordance with 'Vision Zero' and as part of the planned changes by TfL to the London Red Routes, the speed limit of Euston Road will be changed from 30mph to 20mph.

6.5.6 In the vicinity of the site, it also forms the northern boundary of the London Congestion Charge (LCC) zone, but the road itself is not part of it.

6.5.7 Footpaths provided on either side of Euston Road are wide, and signalised pedestrian crossings are provided at its junction with Hampstead Road, allowing for easy and safe pedestrian movement. Adjacent to the southern boundary of the site, Euston Road also features a bus stop.

HAMPSTEAD ROAD

6.5.8 Hampstead Road is a 20-mph two-way single-carriageway located east of the site that forms part of the London Red Route. It runs in a north–south direction, connecting Tottenham Court Road south of the site to Camden High Street in the north.

6.5.9 Hampstead Road features a dedicated cycle route and advanced stop lines, allowing cyclists to be segregated from general traffic at junctions. In addition, wide footways are provided on either side of the carriageway, as well as numerous signalised pedestrian crossings provided at regular intervals along the road.

6.5.10 The road features numerous mixed-use residential and commercial buildings fronting onto the carriageway.

DRUMMOND STREET

6.5.11 Drummond Street is a 20mph two-way single-carriageway road located north of the site that runs in an east–west direction connecting to Euston Road at its eastern end and Longford Street at its Western End.

6.5.12 The road features no parking restrictions aside from single white lines along the northern side of the carriageway. The southern side of the carriageway features inset parking bays, allowing vehicles to park on either side of the road without obstructing traffic.

6.5.13 Well-maintained footpaths are provided on either side of the carriageway; however, pedestrian crossing locations are few and far between.

LONGFORD STREET

6.5.14 Longford Street is located northwest of the site and is a 20mph two-way single-carriageway road running in an east–west direction. It connects to Albany Street at its western end and Drummond Street at its eastern end.

6.5.15 The northern side of the carriageway features single yellow line parking restrictions, whilst the southern side of the carriageway features on-street parking bays. The road is fronted by a mixture of residential and commercial properties and provides a zebra crossing at its junction with Laxton Place and an uncontrolled crossing at its junction with Albany Street to assist pedestrian movement in the area.

7 TRAVEL DEMAND AND NETWORK IMPACT

7.1 INTRODUCTION

7.1.1 This section quantifies travel demand to determine the likely scale of the effect of the Proposed Development.

7.1.2 The Proposed Development will deliver offices and life science uses, along with ancillary retail and public use space. Following comments received from TfL at the pre-application stage, a Maximum office floorspace scenario has also been assessed as offices are occupied at a higher density than life science and will generate a higher number of people trips.

7.1.3 The Existing Permitted use of the building has been assessed along with the proposed uses to understand the net increase in trips, but the impact assessment is presented based on a wholly new development, rather than assessed against an increase in floorspace of the permitted use of the building.

7.2 EXISTING SITE PERMITTED TRIP GENERATION

7.2.1 The existing site permitted office use travel demand has been estimated using survey data extracted from the Trip Rate Information Computer System (TRICS) database based on the criteria below:

- Land Use – 02/A (Employment/Office)
- Region – Greater London
- PTAL - 5+
- Development Size: 5,000 sqm+

7.2.2 For the purpose of this assessment within the TA, all existing floorspace (including the retail units at ground level) has been assessed as office space, which generally generates more trips during the network peak hour.

7.2.3 The total person trip rates and person trips for the existing permitted use in the AM and PM peaks are shown in **Table 7-1.**

Table 7-1: Existing Permitted Use - Total Person Trip Rates and Trips

Time Period	Total Person Trip Rates (per 100sqm GFA)			Total Person Trips Forecast		
	In	Out	Total	In	Out	Total
AM Peak hour	2.307	0.202	2.509	1,223	107	1,330
PM Peak hour	0.15	2.152	2.302	80	1,141	1,220
Daily	8.946	8.855	17.801	4,741	4,693	9,435

7.2.4 The modal split for journeys to and from the Proposed Development has been calculated using journey-to-work data obtained from the 2011 census (MSOA Camden 021). The public transport mode share is dependent upon the local transport network, which is more accurately obtained from local Census data.

7.2.5 The 2011 census data has been used to calculate the proposed journey-to-work mode share, as the 2021 census was undertaken during the Covid pandemic where the government advised people to work from home. Due to this change in working patterns certain data was not collected and there was an increase in home working from 10.3% in 2011 to 31.2% in 2021, which affected the journey-to-work responses.

7.2.6 Therefore the 2011 data is more representative of the expected mode share and distribution.

7.2.7 **Table 7-2** provides the mode share for the existing permitted use within the Euston Tower.

Table 7-2: Mode Share – Existing Permitted Development

Mode	Permitted Site Use Mode Share
Pedestrians	7%
Cyclists	5%
Bus	11%
Underground	42%
Rail	33%
Car drivers	2%
Car passengers	0%
Total	**100%**

7.2.8 The resultant number of existing office trips that could be generated by the existing permitted use of Euston Tower is shown in **Table 7-3**.

Table 7-3: Existing Permitted Use Trips by Mode

Mode	AM Peak (08:00-09:00)			PM Peak (17:00-18:00)		
	Arrivals	Departures	Total	Arrivals	Departures	Total
Pedestrians	81	7	**88**	5	75	**81**
Cyclists	55	5	**60**	4	51	**55**
Bus	133	12	**144**	9	124	**132**
Underground	503	44	**547**	33	469	**502**
Rail	408	36	**444**	27	381	**407**
Car drivers	29	3	**32**	2	27	**29**
Car passengers	1	0	**2**	0	1	**1**
Total	**1211**	**106**	**1317**	**79**	**1130**	**1208**

7.2.9 **Table 7-3** shows that most trips that could be generated by the existing permitted development will be by public transport.

7.3 PROPOSED TRIP GENERATION

REVISED MODE SHARE

7.3.1 **Table 7-4** provides the mode share for the Proposed Development within the Euston Tower. The mode share has been revised to reflect the removal of circa 100 car parking spaces, and the cycle mode share has been revised to reflect the high-quality cycle parking provided at the Proposed Development.

Table 7-4: Revised Mode Share – Proposed Development

Mode	Revised Mode Share (Proposed Development)
Pedestrians	7%
Cyclists	10%
Bus	10%
Underground	40%
Rail	33%
Car drivers	0%
Car passengers	0%
Total	**100%**

OFFICE TRAVEL DEMAND

7.3.2 The trip generation for the office use within the Proposed Development has been calculated using the TRICS database, the same sites and associated trip rates have been used for the existing permitted use of the site.

7.3.3 The total person trip rates and person trips in the AM and PM peaks are shown in **Table 7-5.**

Table 7-5: Proposed Development – Office - Total Person Trip Rates and Trips (56,250 sqm)

Time Period	Total Person Trip Rates (per 100sqm GFA)			Total Person Trips Forecast		
	In	Out	Total	In	Out	Total
AM Peak hour	2.307	0.202	2.509	1298	114	1411
PM Peak hour	0.15	2.152	2.302	84	1211	1295
Daily	8.946	8.855	17.801	5032	4981	10013

LIFE SCIENCE TRAVEL DEMAND

7.3.4 The employee density for the laboratory spaces is expected to be at least 50% less compared to the office density. The UK's life sciences have critical mass in Cambridge where a number of technical papers have been produced reviewing employment density produced on behalf of Cambridge City Council. The *Greater Cambridge Employment and Housing Evidence Update (2023)*[1] states:

> *'Density for lab employees is generally reported as roughly 1:20 sqm NIA (lower than national average closer to 1:30)'*

7.3.5 The *Employment Land and Economic Development Study (2020)*[2] forecasts for commercial premises are set out below:

- *Office (E(g)(i)): an average of 11 sqm NIA and 14 sqm GEA per employee*
- *R&D (E(g)(ii)): an average of 20 sqm NIA and 28 sqm GEA per employee*

7.3.6 The London Employment Sites Database (2021)[3] sets out that life science uses are 36 sqm GIA per worker compared to 11.3sqm GIA per worker for office use.

7.3.7 Based on the data set out within the London Employment Sites Database and the guidance documents produced on behalf of Cambridge City Council, a trip rate of 50% of the office trips is appropriate for life science use within the Proposed Development.

7.3.0 The total person trip rates and person trips in the AM and PM peaks are shown in **Table 7-6.**

Table 7-6: Proposed Development – Life Science - Total Person Trip Rates and Trips (24,380 sqm)

Time Period	Total Person Trip Rates (per 100sqm GFA)			Total Person Trips Forecast		
	In	Out	Total	In	Out	Total
AM Peak hour	1.1535	0.101	1.2545	281	25	306
PM Peak hour	0.075	1.076	1.151	18	262	281
Daily	4.473	4.4275	8.9005	1091	1079	2170

OFFICE AND LIFE SCIENCE

7.3.1 The revised model share shown in **Table 7-2** has been applied to the peak hour trips, and the resultant peak hour by mode generated by the proposed office and life science uses is shown in **Table 7-7.**

1 https://consultations.greatercambridgeplanning.org/sites/gcp/files/2023-01/EBGCLPDSUEandHEvUJan23v2Jan23.pdf

2 https://www.greatercambridgeplanning.org/media/1399/greater-cambridge-employment-land-and-economic-development-evidence-study-gl-hearn-nov2020.pdf

3 https://www.london.gov.uk/sites/default/files/lesd_2021_final_report_22jun2022.pdf

Table 7-7: Proposed Development – Office and Life Science Trips by Mode

Mode	AM Peak (08:00-09:00)			PM Peak (17:00-18:00)		
	Arrivals	Departures	Total	Arrivals	Departures	Total
Pedestrians	108	9	117	7	101	108
Cyclists	156	14	170	10	146	156
Bus	167	15	182	11	156	167
Underground	633	55	689	41	591	632
Rail	514	45	559	33	479	513
Car drivers	0	0	0	0	0	0
Car passengers	0	0	0	0	0	0
Total	**1579**	**138**	**1717**	**103**	**1473**	**1575**

7.3.2 **Table 7-7** shows that most trips generated by the permitted development will be by public transport.

RETAIL USES

EMPLOYEES

7.3.3 The London Employment Sites Database (2021), a first principles approach, was used to forecast the number of employees generated by the retail space. One employee per 17.5sqm was applied to the retail area (733sqm GIA) to establish the total number of employees (42).

7.3.4 A daily employment occupancy of 85% was applied, resulting in 36 employees travelling to and from the Proposed Development on a given day.

7.3.5 The office employee distribution peak hour arrival and departure proportions were applied to the total number of daily retail use employees, and the resultant morning and evening peak hour trips generated by employees of the retail use are shown in **Table 7-8.**

Table 7-8: Retail Employee Peak Hour – Total Trips

Time Period	Arrivals	Departures	Total
AM Peak Hour (0800 - 0900)	17	1	18
PM Peak Hour (1700 - 1800)	1	15	16

7.3.6 The revised model share shown in **Table 7-2** has been applied to the peak hour trips, and the resultant peak hour by mode generated by retail employees is shown in **Table 7-9.**

Table 7-9: Forecast Retail Employee Peak Hour Trips by Mode

Mode	AM Peak Hour (0800-0900)			PM Peak hour (1700-1800)		
	In	Out	Total	In	Out	Total
Pedestrians	1	0	1	0	1	1
Cyclists	2	0	2	0	2	2
Bus	2	0	2	0	2	2
Underground	7	0	7	0	6	6
Rail	5	0	6	0	5	5
Car drivers	0	0	0	0	0	0
Car passengers	0	0	0	0	0	0
Total	**17**	**1**	**18**	**1**	**15**	**16**

RETAIL VISITORS

7.3.7 It is expected that visitor trips will not be new trips generated on the local transport network. Instead, these will be pass-by and local trips on foot generated by the Proposed Development and other existing developments within the local area.

PUBLIC USE – LEARNING CENTRE

EMPLOYEES

7.3.8 A first principles approach was used to forecast the number of employees generated by the public use of learning space. Based on the London Employment Sites Database (2021), a density of 1 employee per 45sqm has been applied to the proposed 2,137sqm (GIA) to establish the total number of employees (47).

7.3.9 A daily employment occupancy rate of 85% has been applied, resulting in 40 daily employees.

7.3.10 The office employee distribution peak hour arrival and departure proportions were applied to the total number of daily public use space employees, and the resultant morning and evening peak hour trips generated by employees of the public use (learning centre space) are shown in **Table 7-10.**

Table 7-10: Public Use Employee Peak Hour – Total Trips

Time period	Arrivals	Departures	Total
AM Peak Hour (0800 - 0900)	19	1	20
PM Peak Hour (1700 - 1800)	1	17	18

VISITORS

7.3.11 The public-use learning space has a total person capacity of 390 daily visitors. The learning space may be used for all-day sessions, and on that basis, the peak hour arrival/departure established for employees has been used for the learning facility. **Table 7-11** sets out the total peak hour visitor trips to and from the learning facility.

Table 7-11: Public Use - Learning Centre Visitor Peak Hour - Total Trips

Time period	Arrivals	Departures	Total
AM Peak Hour (0800 - 0900)	155	7	162
PM Peak Hour (1700 - 1800)	7	142	149

TOTAL PUBLIC/LEARNING SPACE TRIP GENERATION

7.3.12 The total public use employee and visitor trip generation for the Proposed Development is set out in **Table 7-12**.

Table 7-12: Forecast Public Use – Learning Centre Peak Hour Trips

Time period	Arrivals	Departures	Total
AM Peak Hour (0800 - 0900)	174	7	181
PM Peak Hour (1700 - 1800)	7	159	166

7.3.13 The revised model share shown in **Table 7-2** has been applied to the peak hour trips, and the resultant peak hour by mode generated by the learning hub is shown in **Table 7-13.**

Table 7-13: Forecast Public Use – Learning Centre (Employees & Visitors) Peak Hour Trips by Mode

Mode	AM Peak Hour (0800-0900)			PM Peak hour (1700-1800)		
	In	Out	Total	In	Out	Total
Pedestrians	12	1	12	1	11	11
Cyclists	17	1	18	1	16	17
Bus	18	1	19	1	17	18
Underground	70	3	73	3	64	67
Rail	57	2	59	2	52	54
Car drivers	0	0	0	0	0	0
Car passengers	0	0	0	0	0	0
Total	**174**	**7**	**182**	**7**	**159**	**167**

7.4 DELIVERY AND SERVICING TRIPS

7.4.1 Servicing trips have been calculated from delivery log data provided by the Regent's Place Management Team. The delivery log provides 24-hour servicing and deliveries to all buildings within Regents Place, and data has been extracted for the occupied office buildings. The data shows Regent's Place campus generates a total of 0.194 servicing vehicle arrivals per 100 sqm per day.

7.4.2 The data used is comparable with the TRICS Sites identified in **Table 7-1,** which generate a total of 0.190 servicing vehicle arrivals per 100 sqm per day.

7.4.3 To inform the assessment for the life science deliveries, data from the Francis Crick Institute, located approximately 1.0km to the east, was used. The data provided shows the Crick Institute generate a total of 0.124 servicing vehicle arrivals per 100 sqm per day. The Crick Institute is a purpose-built research building with more than 100 separate research groups and over 2,000 staff and will therefore generate comparable servicing and delivery trips.

7.4.4 The following servicing rates have been applied:

- Office and Learning Space – 0.194 per 100sqm per day;
- Life Sciences – 0.124 per 100sqm per day; and
- Retails uses – 1.35 per 100sqm per day.

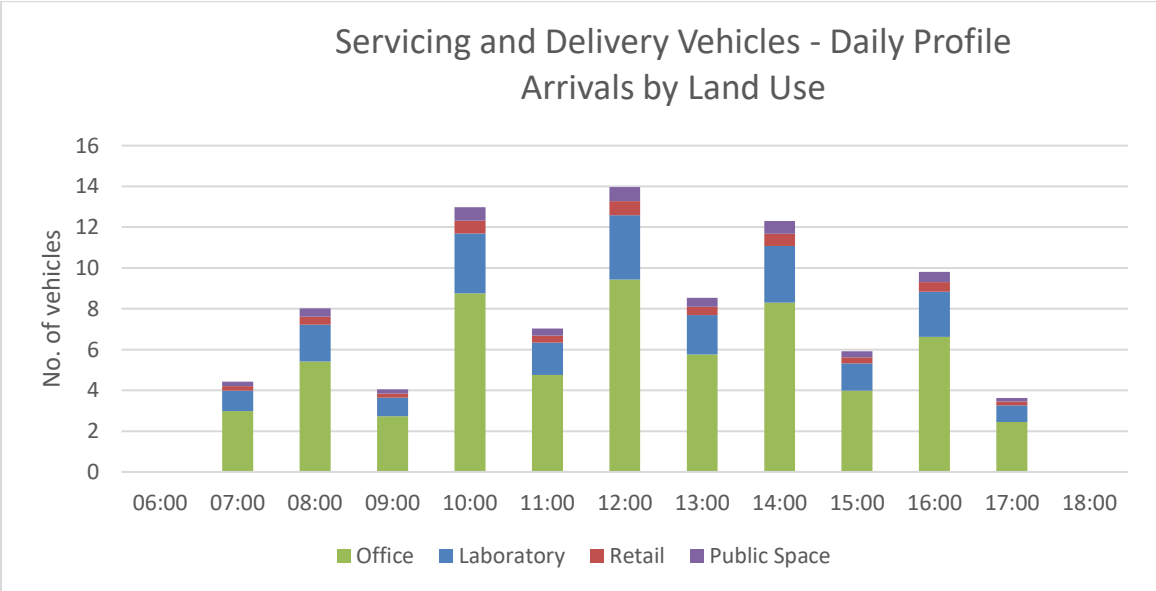
7.4.5 **Table 7-14** forecasts the daily servicing trips to the Proposed Development.

Table 7-14: Daily Servicing Vehicles

Land Use	Daily Servicing Trips
Office (Class E)	61
Life Science (Class E)	20
Retail (Class E)	4
Learning Use (Class F1)	5
TOTAL	**91**

7.4.6 **Figure 7-1** shows a daily profile for the expected servicing demands with 14 vehicles in the peak hour.

Figure 7-1: Delivery and Servicing Trips – Daily Profile



7.4.7 A Draft Delivery and Servicing Plan (DSP) will be implemented to minimise and manage deliveries. The DSP is provided within **APPENDIX C.**

7.5 TOTAL TRIP GENERATION

7.5.1 The forecast trips generated by the Proposed Development for the morning and evening peak hours are shown in **Table 7-15.**

Table 7-15: Total Development Trips by Mode

Mode	AM Peak Hour (0800-0900)			PM Peak hour (1700-1800)		
	In	Out	Total	In	Out	Total
Pedestrians	121	10	131	8	113	121
Cyclists	175	15	190	11	163	174
Bus	188	16	204	12	175	187
Underground	710	59	769	44	661	705
Rail	576	48	624	36	536	572
Car drivers	0	0	0	0	0	0
Car passengers	0	0	0	0	0	0
Total	**1770**	**148**	**1918**	**111**	**1648**	**1759**

7.6 NET DIFFERENCE – EXISTING PERMITTED USE AND PROPOSED DEVELOPMENT

7.6.1 **Table 7-16** and **Table 7-17** compare the AM And PM peak hour trips per mode for the existing permitted use of the building and the Proposed Development.

Table 7-16: Comparison of Permitted Use with The Proposed Development AM Peak Hour

Mode	Permitted Use			Proposed Development			Difference		
	Arrive	Depart	Total	Arrive	Depart	Total	Arrive	Depart	Total
Pedestrians	81	7	88	121	10	131	40	3	43
Cyclists	55	5	60	175	15	190	120	10	130
Bus	133	12	144	188	16	203	55	4	59
Underground	503	44	547	710	59	769	207	15	222
Rail	408	36	444	576	48	623	168	12	179
Car drivers	29	3	32	0	0	0	-29	-3	-32
Car passengers	1	0	2	0	0	0	-1	0	-2
Total	**1211**	**106**	**1317**	**1770**	**146**	**1916**	**559**	**40**	**599**

Table 7-17: Comparison of Permitted Use with The Proposed Development PM Peak Hour

Mode	Permitted Use			Proposed Development			Difference		
	Arrive	Depart	Total	Arrive	Depart	Total	Arrive	Depart	Total
Pedestrians	5	75	81	8	113	120	3	38	39
Cyclists	4	51	55	11	163	174	7	112	119
Bus	9	124	132	12	175	186	3	51	54
Underground	33	469	502	44	661	705	11	192	203
Rail	27	381	407	36	536	572	9	155	165
Car drivers	2	27	29	0	0	0	-2	-27	-29
Car passengers	0	1	1	0	0	0	0	-1	-1
Total	**79**	**1130**	**1208**	**111**	**1648**	**1758**	**32**	**518**	**550**

7.6.2 When compared to the permitted use, there is an increase of circa 600 trips in the AM peak and 550 trips in the PM peak hour.

7.7 SENSITIVITY ASSESSMENT

MAXIMUM OFFICE

7.7.1 Although the Proposed Development is designed to accommodate life sciences on floors 3 – 11 with increased floor to floor heights and additional plant, the proposed Class Use E(g) is flexible and therefore, as a sensitivity test, the life science floors have been assessed as office use for a worst-case demand scenario.

7.7.2 The total person trip rates and person trips in the AM and PM peaks are shown in **Table 7-18.**

Table 7-18: Sensitivity Test – Max Office - Total Person Trip Rates and Trips (80,630 sqm)

Time Period	Total Person Trip Rates (per 100sqm GFA)			Total Person Trips Forecast		
	In	Out	Total	In	Out	Total
AM Peak hour	2.307	0.202	2.509	1,860	163	2,023
PM Peak hour	0.15	2.152	2.302	121	1,735	1,865
Daily	8.946	8.855	17.801	7,213	7,140	14,353

7.7.3 The resultant number of maximum office trips generated by the Proposed Development is shown in **Table 7-19.**

Table 7-19: Sensitivity Test – Maximum Office Trips by Mode

Mode	AM Peak (08:00-09:00)			PM Peak (17:00-18:00)		
	Arrivals	Departures	Total	Arrivals	Departures	Total
Pedestrians	127	11	138	8	119	127
Cyclists	184	16	200	12	172	184
Bus	197	17	214	13	184	197
Underground	746	65	811	49	696	745
Rail	605	53	658	39	564	603
Car drivers	0	0	0	0	0	0
Car passengers	0	0	0	0	0	0
Total	**1860**	**163**	**2023**	**121**	**1735**	**1856**

7.7.4 **Table 7-19** shows that most trips generated by the permitted development will be by public transport.

RETAIL AND PUBLIC/LEARNING SPACE TRIPS

7.7.5 For the Max Office scenario assessment, the retail and public space trips will remain as set out in the sections above.

TOTAL TRIP GENERATION

7.7.6 The forecast trips generated by the Proposed Development for the morning and evening peak hours are shown in **Table 7-20.**

Table 7-20: Sensitivity Test - Max Office - Total Development Trips by Mode

Mode	AM Peak Hour (0800-0900)			PM Peak hour (1700-1800)		
	In	Out	Total	In	Out	Total
Pedestrians	140	12	152	9	131	140
Cyclists	203	17	220	13	189	202
Bus	217	18	236	14	202	216
Underground	823	69	891	52	766	818
Rail	667	56	723	42	621	663
Car drivers	0	0	0	0	0	0
Car passengers	0	0	0	0	0	0
Total	**2051**	**171**	**2222**	**129**	**1910**	**2039**

7.7.7 When compared to the Proposed Development, the Maximum office scenario generates circa 300 additional person trips in the AM and PM peak hours.

SERVICING TRIP GENERATION

7.7.8 For the Max Office assessment, the office servicing and delivery trips set out in **7.4.4** have been applied alongside the retail and public spaces. **Table 7-21** forecasts the daily servicing trips to the Proposed Development.

Table 7-21: Daily Servicing Vehicles

Land Use	Daily Servicing Trips
Office (Class E)	93
Retail (Class E)	4
Learning Use (Class F1)	5
TOTAL	**102**

7.7.9 The Max Office Scenario assessment shows an additional eleven daily deliveries with two additional delivery vehicles in the peak hour.

7.8 LONDON WIDE IMPACT ASSESSMENT

7.8.1 The development has been vacant for a number of years, and as agreed with TfL during the pre-application stage, the impact assessment is presented based on a wholly new development, rather than assessed against an increase in floorspace of the permitted use of the building.

TRIP DISTRIBUTION AND ASSIGNMENT

7.8.2 As set out above, the 2011 census data has been used to calculate the proposed journey-to-work mode share and distribution, as the 2021 census was undertaken during the Covid pandemic where the government advised people to work from home. Due to this change in working patterns certain data was not collected and there was an increase in home working from 10.3% in 2011 to 31.2% in 2021, which affected the journey to work responses.

7.8.3 Trips are distributed based on 2011 Census origin-destination data for travel to Camden (location of usual residence and place of work by method of travel to work). The most detailed output area for which data is available is at the Middle Level Super Output Area (MSOA) level, which includes the originating trip location for all employees working in Camden.

7.8.4 This is considered to be representative of the distribution of future employees at the Proposed Development and is shown in **Table 7-22**.

Table 7-22: Trip Distribution by Mode and Location for Travel to Camden.

Area		Underground	Train	Bus	Bicycle	On foot
Inner London Boroughs (Travel from Borough by Mode)	Camden	3.3%	0.7%	17.3%	10.1%	61.6%
	Hackney	3.1%	1.7%	10.3%	14.5%	2.8%
	Hammersmith and Fulham	3.4%	0.2%	0.9%	2.1%	0.1%
	Haringey	6.3%	0.5%	10.7%	6.2%	1.0%
	Islington	4.2%	0.6%	16.4%	15.9%	11.4%
	Kensington and Chelsea	2.1%	0.1%	2.5%	1.9%	0.3%
	Lambeth	7.3%	1.4%	2.5%	6.7%	0.5%
	Lewisham	1.5%	3.5%	1.5%	1.6%	0.2%
	Newham	3.4%	0.9%	0.6%	0.4%	0.1%
	Southwark	3.2%	1.7%	5.7%	5.0%	1.1%
	Tower Hamlets	4.8%	0.2%	1.4%	4.8%	0.7%
	Wandsworth	6.7%	1.9%	1.1%	6.8%	0.1%
	Westminster and the City of London	2.7%	0.3%	10.7%	4.7%	11.4%
Inner London (subtotal)		**51.9%**	**13.7%**	**81.6%**	**80.6%**	**91.3%**
Outer London		43.0%	33.3%	15.3%	16.7%	4.2%
Southeast		1.2%	24.8%	1.3%	1.1%	1.3%
East of England		3.2%	22.3%	0.9%	0.9%	0.9%

Rest of England	0.7%	5.8%	0.8%	0.7%	2.2%
TOTAL	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

7.8.5 Given that Census data only allows respondents to input their main travel mode, for instances where journeys are likely to be undertaken by multiple modes, trips have been assigned to both the main mode and final mode.

7.8.6 Some trips have multiple service or route choices, such as along bus corridors served by multiple routes or where Underground stations are served by two lines. In such instances, trips have been assigned to public transport services based on the frequency and travel time.

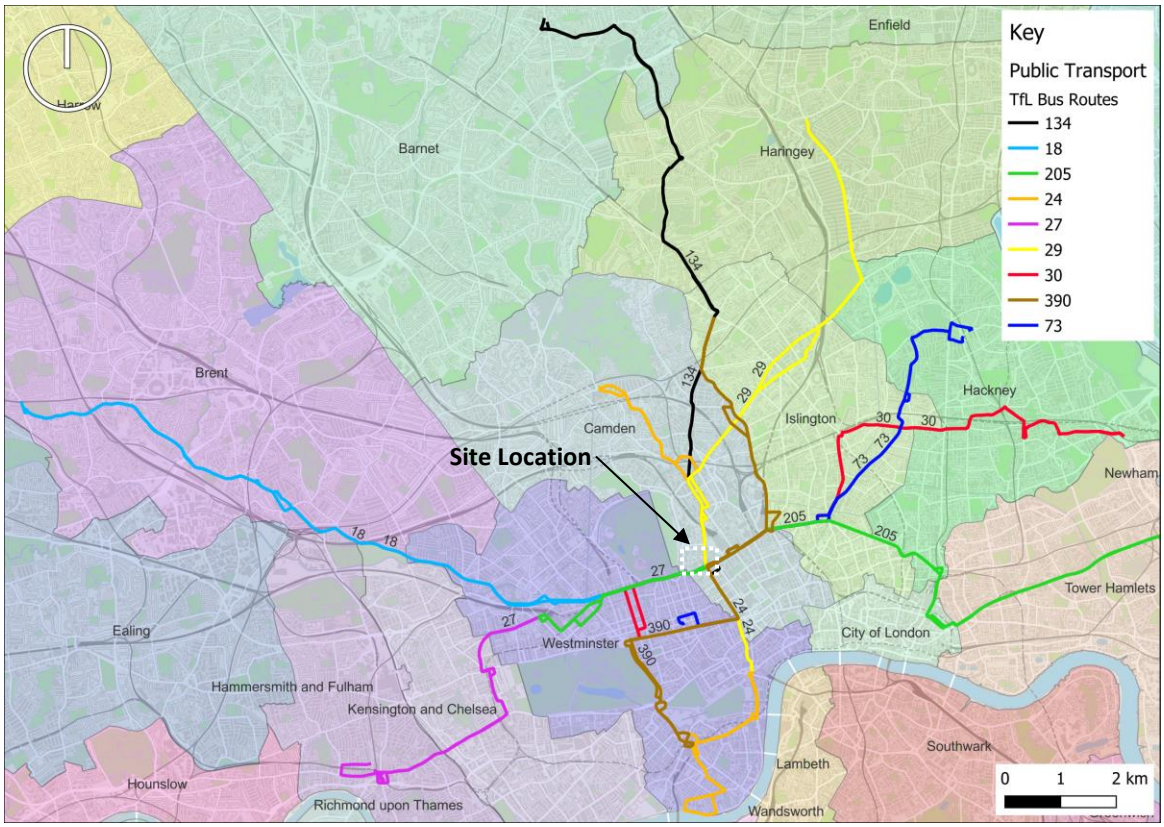
BUS NETWORK ASSESSMENT

7.8.7 The bus trips are forecast to be 203 and 186 trips in the AM and PM peak hours, respectively. These trips have been distributed based on the origin-destination Census data, as shown in **Table 7-22** and assigned to bus services based on route and frequency.

7.8.8 The PTAL assessment identified 19 services that can be used to access the site. Trips to and from the Proposed Development have been assigned manually to the most likely bus service available from the three closest bus stops.

7.8.9 In those instances where a bus trip could use one of many services (e.g., along high-frequency corridors), the trips have been split between the different bus services based on service frequency and travel time. For instance, bus trips to Islington have been assigned to the multiple buses available: 29, 30, 73, 134, 205 and 390. The bus routes associated with the closest bus stops are shown in **Figure 7-2.**

Figure 7-2: Bus Routes



7.8.10 The additional bus passenger increase for each service for the Proposed Development is summarised in **Table 7-23.**

Table 7-23: Additional Bus Passengers per Service – Proposed Development

Service	Stop	Peak Hour Frequency	Direction	AM Peak Hour (0800-0900)		PM Peak hour (1700-1800)	
				Arrival	Departure	Arrival	Departure
18	Euston Road	5 minutes	Eastbound	1.7	0.1	0.2	1.6
			Westbound	0.0	0.0	0.0	0.0
24	Hampstead Road	8 minutes	Northbound	1.2	0.1	0.1	1.1
			Southbound	0.8	0.1	0.1	0.7
27	Hampstead Road	10 minutes	Eastbound	1.4	0.1	0.1	1.3
			Westbound	0.0	0.0	0.0	0.0
29	Hampstead Road	6 minutes	Northbound	0.3	0.0	0.0	0.3
			Southbound	2.8	0.2	0.2	2.6
30	Euston Road	10 minutes	Eastbound	1.2	0.1	0.1	1.2
			Westbound	2.6	0.2	0.2	2.4
73	Euston Square	6 minutes	Northbound	0.0	0.0	0.0	0.0
			Southbound	1.2	0.1	0.1	1.2
134	Hampstead Road	9 minutes	Northbound	0.0	0.0	0.0	0.0
			Southbound	4.1	0.3	0.4	3.8
205	Euston Road	10 minutes	Eastbound	1.5	0.1	0.1	1.4
			Westbound	2.1	0.1	0.2	1.9
390	Euston Square	9 minutes	Northbound	0.3	0.0	0.0	0.3
			Southbound	1.8	0.1	0.2	1.7

7.8.11 **Table 7-23** shows the expected bus passengers generated by the Proposed Development is low during the peak hours. On average, 1.3 additional passengers per bus are generated by the Proposed Development, which is equivalent to less than 2% of capacity in the AM and PM peak periods.

SENSITIVITY ASSESSMENT – MAX OFFICE

7.8.12 The sensitivity test shows that an additional 32 trips in the AM peak and 30 trips in the PM will be generated by the Proposed Development. This would equate to an additional 0.2 person trips per bus service which is less than 0.3% of the bus capacity in the AM and PM peak hours.

RAIL TRIPS

7.8.13 Although the rail termini are the point where passengers reach central London several other modes of travel will be used to reach the Proposed Development.

7.8.14 Census data is based on 'main mode', which is defined as the mode that trips travel the greatest distance on, and therefore, many rail trips will also use the Underground, bus or cycle to access their destination.

7.8.15 TfL's Policy Analysis Research Report Central London Rail Termini: Analysing passengers' onward travel patterns (September 2011) investigated onward travel from rail termini and the potential for mode shift to reduce congestion on some parts of the transport network. As part of the Research Report, passengers were surveyed at 13 termini stations in 2010. One of the findings relating to onward distance travelled by modes was that:

> *"There is a "tipping point at around 1.5 kilometres, beyond which walking ceases to take account for the majority of trips. Although distance travelled is not the only factor affecting mode share, it is a very significant one which needs to be carefully considered when planning initiatives to achieve mode shift."*

7.8.16 It should also be noted that travel patterns vary depending on the rail station. Part Two of the Research Report includes passenger distribution by mode for individual stations. Stations located closest to Camden, such as Kings Cross, Euston and St. Pancras, had particularly high walk mode shares; 70-80% of onward journeys between 1km and 2km were on foot.

7.8.17 The onward mode (final mode) of rail trips to the site has been determined based on a review of the travel distance between the rail station and the site, the journey options and information contained within the Research Report.

7.8.18 To determine the use of the central London rail termini by rail passengers associated with the Proposed Development, reference has been made to data from the Office of Rail and Road[4] on the usage of train stations from March 2019 to February 2020 (pre-COVID).

7.8.19 The Proposed Development rail trips have been distributed proportionally amongst the busiest Central London Stations, as shown in **Table 7-24.**

[4] https://dataportal.orr.gov.uk/statistics/usage/estimates-of-station-usage

Table 7-24: Proposed Development - Rail Trips – By Station

Rail Station	% Distribution	AM Peak Hour Trips		PM Peak Hour Trips	
		Arrival	Departure	Arrival	Departure
London Bridge	14%	81	7	5	76
London Euston	10%	58	5	4	54
London Kings Cross	7%	42	3	3	39
London Liverpool Street	15%	85	7	5	79
London Paddington	10%	58	5	4	54
London St Pancras	8%	46	4	3	43
London Victoria	16%	95	8	6	88
London Waterloo	19%	112	9	7	104
TOTAL	**100%**	**576**	**48**	**36**	**536**

7.8.20 The TfL Report 'Analysing passengers' onward travel patterns' has been used to assess the modes used for onward travel.

7.8.21 The report sets out that onward journeys are made by:

- Underground – 40%
- On Foot – 36%
- Bus – 10%
- Rail – 9%
- Cycle – 2%
- Other – 3%

7.8.22 The mode used for onward travel was linked with the distance travelled, with different modes dominating different distances:

- 90% of trips on foot were less than 2km;
- 87% of bus trips were between 1 and 5 kilometres, and
- 88% of Underground journeys were longer than 2 kilometres.

7.8.23 Based on the modal splits set out within the TfL Report, the onward journey for rail passengers has been split by distance, mode, expected route and destination station or stop, as shown in **Table 7-25.**

Table 7-25: Proposed Development - Rail Trips – Onward Journey by Mode

Station	Distance to Site	Onward Journey Mode	Line/Service	Station/Stop	%age	AM Peak Hour Trips		PM Peak Hour Trips	
						Arrive	Depart	Arrive	Depart
London Bridge	5.2km	Underground	Northern	Euston	100%	81	7	5	76
London Euston	0.5km	Walk	-	-	100%	58	5	4	54
London Kings Cross	1.5km	Underground	Met/H&C	Euston Square	25%	10	1	1	10
		Bus	30/73/205/390	Uni College Hospital	25%	10	1	1	10
		Walk	-	-	50%	21	2	1	19
London Liverpool St	4.9km	Underground	Circle/Met/H&C	Euston Square	100%	85	7	5	79
London Paddington	2.8km	Underground	Circle/H&C	Euston Square	65%	38	3	2	35
			Bakerloo	Regents Park	25%	14	1	1	13
		Bus	18/27/205	Euston Road	10%	6	0	0	5
London St Pancras	1.5km	Underground	Victoria	Warren Street	25%	12	1	1	11
		Bus	30/73/205/390	Uni College Hospital	25%	12	1	1	11
		Walk	-	-	50%	23	2	1	22
London Victoria	4.0km	Underground	Victoria	Warren Street	100%	95	8	6	88
London Waterloo	3.4km	Underground	Northern	Warren Street	100%	112	9	7	104
TOTAL						**576**	**48**	**36**	**536**

SENSITIVITY ASSESSMENT – MAXIMUM OFFICE FLOOR AREA

7.8.24 The sensitivity test shows that an additional 100 trips in the AM peak and 91 trips in the PM will be generated by the Proposed Development on the rail network.

7.8.25 Once the additional trips are separated by arrival/departure station, this equates to a worst case increase of 18 passengers in the AM peak hour at Waterloo Station and 15 additional passengers in the AM peak hour at Victoria Station.

7.8.26 Once the additional AM and PM peak hour trips are disaggregated by onward journey mode there is an imperceptible increase on the network.

UNDERGROUND TRIPS

7.8.27 Proposed Development trips that use the London Underground as their main mode have been distributed onto the network based on the analysis shown in **Table 7-22.**

7.8.28 There are several London Underground stations that serve the site (Warren Street, Euston Square, Euston and Regents Park), served by several lines. The analysis calculates the proposed Underground trips per destination station. **Table 7-26** shows the distribution of proposed trips by line and station.

Table 7-26: Proposed Development - Underground Trips by Line and Station

Route/Line	Station	AM Peak Hour Trips	PM Peak Hour Trips	Total	Distribution
Bakerloo	Regents Park	14	13	27	2%
Circle/H&C/Metro	Euston Square	219	202	422	29%
Northern	Warren Street	119	109	228	16%
Northern	Euston	95	87	182	12%
Northern or Victoria	Warren Street	184	169	353	24%
Victoria	Warren Street	130	119	249	17%
TOTAL		**762**	**699**	**1461**	**100%**

7.8.29 **Table 7-26** shows that 57% of proposed underground trips are expected to use Warren Street Station, 29% will use Euston Square Station, 12% will use Euston Station, and 2% will use Regent's Park Station.

TOTAL UNDERGROUND AND RAIL PASSENGERS

7.8.30 As set out in **Table 7-25** proposed rail trips will use a different mode of onward travel to complete their journey. **Table 7-27** shows the expected underground and rail journeys by London Underground (LU) station.

Table 7-27; Proposed Development - Rail and Underground Trips by LU Station

Station	AM Peak Hour Flows		PM Peak Hour Flows	
	Entry	Exit	Entry	Exit
Regents Park	1	13	12	1
Euston Square	29	331	309	22
Warren Street	59	666	621	44
Euston	17	188	176	12

7.8.31 The assessment robustly assumes that all trips are new to these underground routes, whereas many workers will be relocating from other central London areas and will therefore already be on the public transport network.

SENSITIVITY ASSESSMENT – MAX OFFICE

UNDERGROUND TRIPS

7.8.32 The sensitivity test shows that an additional 123 trips in the AM peak and 113 trips in the PM will be generated by the Proposed Development on the underground network.

7.8.33 Based on the assessment set out in **7.8.28, Table 7-28** shows the distribution of proposed trips by underground line and station.

Table 7-28: Sensitivity Test – Max Office - Underground Trips by Line and Station

Route/Line	Station	AM Peak Hour Trips	PM Peak Hour Trips	Total	Distribution
Bakerloo	Regents Park	17	16	32	2%
Circle/H&C/Metro	Euston Square	257	236	494	29%
Northern	Warren Street	138	127	265	16%
Northern	Euston	111	102	214	12%
Northern or Victoria	Warren Street	215	197	412	24%
Victoria	Warren Street	152	140	292	17%
TOTAL		**891**	**818**	**1709**	**100%**

TOTAL RAIL AND UNDERGROUND PASSENGERS

7.8.34 **Table 7-27** shows the expected underground and rail journeys by London Underground (LU) station.

Table 7-29; Sensitivity Test – Max Office - Rail and Underground Trips by LU Station

Station	AM Peak Hour Flows		PM Peak Hour Flows	
	Entry	Exit	Entry	Exit
Regents Park	1	13	12	1
Euston Square	29	331	309	22
Warren Street	59	666	621	44
Euston	17	188	176	12

7.8.35 Warren Street station is expected to accommodate the majority of the underground trips to and from the Proposed Development with over 55% of all proposed underground trips using the station.

7.8.36 The assessment robustly assumes that all trips are new to these underground routes, whereas many workers will be relocating from other central London areas to the Proposed Development and will therefore already be on the public transport network.

7.9 WARREN STREET STATION ASSESSMENT

7.9.1 Warren Street Station is the closest station to the Proposed Development, and it is expected to have an additional 725 trips during the AM peak hour through the station. An assessment has been undertaken on the gate line and escalators at the station to assess the impacts of the Proposed Development.

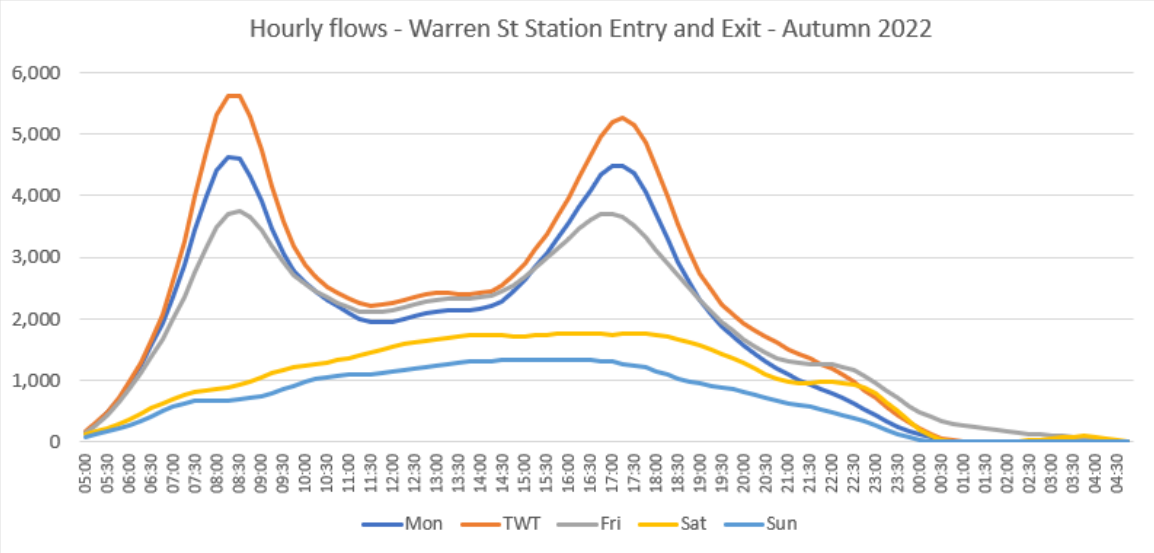
7.9.2 Warren Street station has ten gates, of which eight are standard, and two are wide gates. There are three escalators for access between the ticket hall and platform level.

7.9.3 The following assessment and analysis were presented to TfL during the pre-application process, where it was reviewed within TfL and concluded that there is currently capacity on the network to accommodate the demand associated with the development. LUL were content with both the gate line and escalator assessment.

CURRENT STATION USAGE

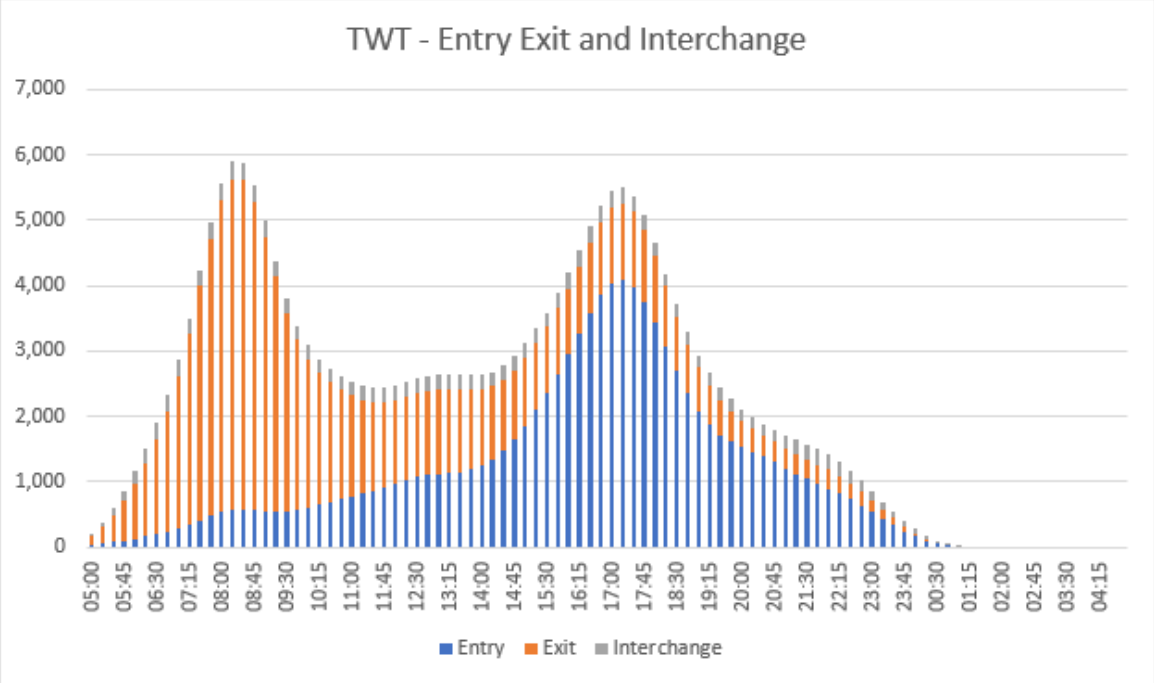
7.9.4 2022 TfL Numbat Data was used to assess the current station usage. **Figure 7-3** shows the hour flows entering and exiting the station. Based on the latest Numbat data, the average Tuesday, Wednesday, and Thursday flows are higher than both the Monday and Friday flows, suggesting work pattern changes post-pandemic. The figure also demonstrates two significant peaks associated with commuter travel.

Figure 7-3: Warren Street Station Hourly Flows



7.9.5 As mentioned above, Warren Street station is associated with commuter travel and, as shown in **Figure 7-4**, is highly tidal with AM peak hour station exits and PM peak hour entries. The figure also demonstrates a small amount of interchange between the Northern and Victoria Lines, which do not pass the gate line.

Figure 7-4: Warren Street Station - Entry, Exit and Interchange Flows

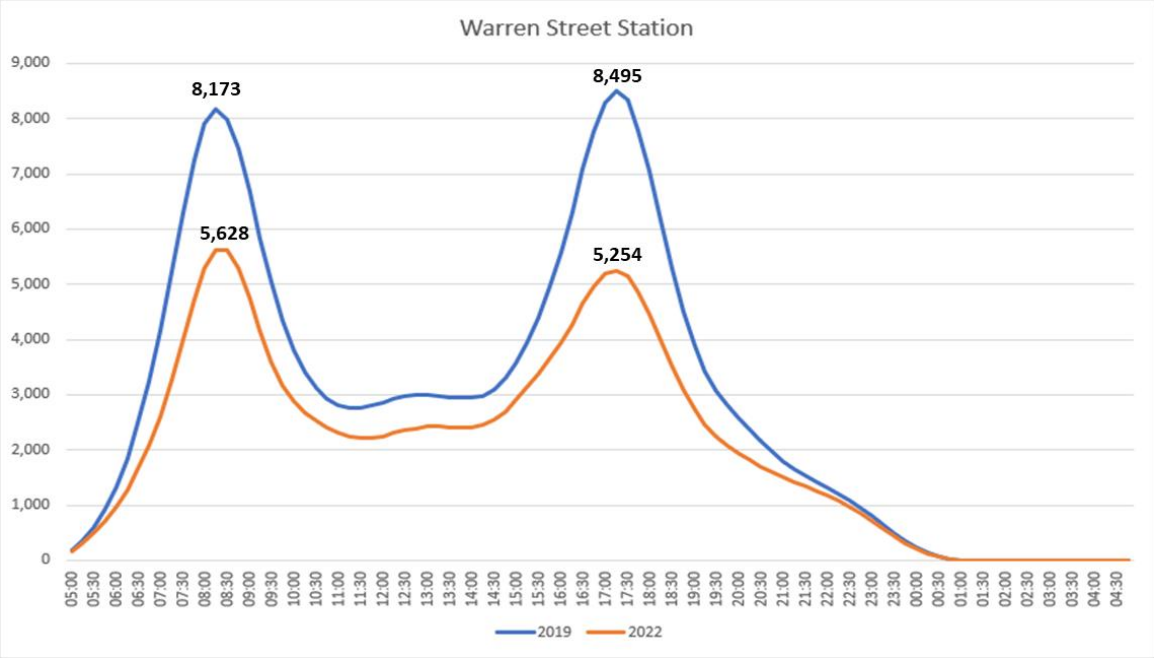


7.9.6 The busiest 15-minute period in the AM peak shows 1,473 station entries and exits (approx. 98 people per minute), and the PM peak shows 1,364 station entries and exits (approx. 91 people per minute)

STATION USAGE - 2019 TO 2022 COMPARISON

7.9.7 To understand the changes to travel patterns and the usage at Warren Street Station pre and post-pandemic, the 2019 station flows were compared to the 2022 flows, as shown in **Figure 7-5.**

Figure 7-5: Warren Street – 2019 vs 2022 flows



7.9.8 The total station flows are 32% lower in the AM peak, 38% in the PM peak and 31% over the day.

WIDER LONDON UNDERGROUND NETWORK ASSESSMENT

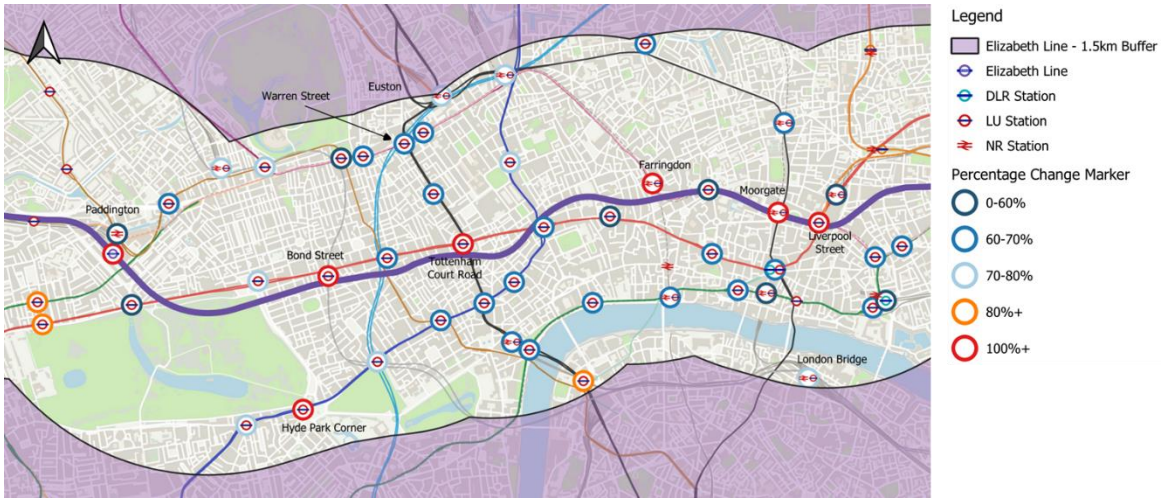
7.9.9 An assessment of the 2019 and 2022 Numbat data for total entry and exits across the entire London Underground Network shows a fall in usage of 17%. Warren Street station shows a fall of over 30% in total station entry/exit flows, which can partly be attributed to changes in working patterns post-pandemic and significant permanent changes to the network, i.e. the Elizabeth Line fully opening in May 2022, which has had impacts on travel patterns.

7.9.10 **Figure 7-6** demonstrates the percentage change between 2019 and 2022 in entry/exit flows in London Underground stations within 750m of the Elizabeth Line.

7.9.11 The figure shows that total entry/exit passenger flows at all Elizabeth Line stations have increased. Usage at the majority of other stations within the buffer zone has decreased between 30-40% from 2019 data. This demonstrates that on top of the change in working patterns and a reduction of 17% in total usage, these stations have experienced a shift in travel patterns linked to the Elizabeth Line.

7.9.12 Therefore, if working patterns do revert close to 2019 levels, the permanent changes to the network mean that several stations will still be well below the passengers flows that were experience in 2019, with Warren Street being one of those stations.

Figure 7-6: Elizabeth Line Impact



GATE LINE ASSESSMENT

2022 EXISTING STATION FLOWS

7.9.13 The gate line assessment is shown in **Table 7-30** based on the 2022 existing Warren Street Station entry and exit flows.

Table 7-30: Gate Line Assessment – 2022 Existing Station Flows

UTS Gate line Requirement		
	AM	**PM**
Entry Flow 5 min	58	427
Total Exiting Passengers	183	42
In Gates	0.5	3.4
Out Gates	3.7	0.8
In Gates (rounded)	1	4
Out Gates (rounded)	4	1
n=platform clearance time (min)	2	2
X (Extra Gates required)	1	1
Number of Gates Required	**6**	**6**

WAG Requirement		
Size of gate line	Lower boundary of the gate line	Minimum number of Wide gates
up to 6 (unidirectional gate line only)	*1*	*1*
up to 12	7	2
up to 18	13	3
more than 18	19	4

Required number of gates (Max. of AM and PM)	**6**
Minimum Wide aisle gates required	**2**

7.9.14 As shown in **Table 7-30**, six gates are required to accommodate the existing 2022 station flows. Warren Street Station currently provides ten gates and is therefore working well within capacity.

2022 EXISTING STATION FLOWS PLUS PROPOSED DEVELOPMENT

7.9.15 **Table 7-31** shows the Warren Street Station gate line assessment based on the existing 2022 station flows plus the Proposed Development flows.

Table 7-31: Gate Line Assessment – 2022 Existing Station Flows Plus Proposed Development

UTS Gate line Requirement		
	AM	**PM**
Entry Flow 5 min	64	485
Total Exiting Passengers	206	48
In Gates	0.5	3.9
Out Gates	4.1	1.0
In Gates (rounded)	1	4
Out Gates (rounded)	5	1
n=platform clearance time (min)	2	2
X (Extra Gates required)	1	1
Number of Gates Required	**7**	**6**

WAG Requirement		
Size of gate line	Lower boundary of the gate line	Minimum number of Wide gates
up to 6 (unidirectional gate line only)	1	1
up to 12	7	2
up to 18	13	3
more than 18	19	4

Required number of gates (Max. of AM and PM)	**7**
Minimum Wide aisle gates required	**2**

7.9.16 As shown in **Table 7-31**, seven gates are required to accommodate the existing 2022 station flows plus the Proposed Development. Warren Street Station currently provides ten gates and can therefore accommodate the additional Proposed Development flows within the existing gate line capacity.

2022 BASE WITH MAXIMUM OFFICE FLOWS

7.9.17 **Table 7-32** shows the Warren Street Station gate line assessment based on the existing 2022 station flows, plus, the maximum office scenario development flows.

Table 7-32: Gate Line Assessment – 2022 Existing Station Flows Plus Max Office Flows

UTS Gate line Requirement		
	AM	**PM**
Entry Flow 5 min	65	495
Total Exiting Passengers	209	49
In Gates	0.5	4.0
Out Gates	4.2	1.0
In Gates (rounded)	1	4
Out Gates (rounded)	5	1
n=platform clearance time (min)	2	2
X (Extra Gates required)	1	1
Number of Gates Required	**7**	**6**

WAG Requirement		
Size of gate line	Lower boundary of the gate line	Minimum number of Wide gates
up to 6 (unidirectional gate line only)	1	1
up to 12	7	2
up to 18	13	3
more than 18	19	4

Required number of gates (Max. of AM and PM)	**7**
Minimum Wide aisle gates required	**2**

7.9.18 As shown in **Table 7-32,** seven gates are required to accommodate the existing 2022 station flows plus the flows generated by the maximum office scenario. Warren Street Station currently provides ten gates and can therefore accommodate the additional maximum office scenario flows within the existing gate line capacity.

ESCALATOR ASSESSMENT

7.9.19 An assessment has been undertaken to review the escalator throughput for the 2022 base, 2022 base plus development flows and 2022 base plus sensitivity flows. There are currently three escalators at Warren Street which are appropriate to accommodate all assessed scenarios. The escalator assessment is shown in **Table 7-33.**

Table 7-33: Warren Street Station – Escalator Assessment

Escalator Assessment	2022 Base		2022 Base + Dev		2022 Base + Sen	
	AM	PM	AM	PM	AM	PM
Peak 15-minute exit flow	1327	298	1489	343	1517	351
Per minute average	88	20	99	23	101	23
Escalators required	0.88	0.20	0.99	0.23	1.01	0.23
Escalators required	**1**	**1**	**1**	**1**	**1**	**1**
Peak 15-minute entry flow	146	1067	160	1213	163	1237
Per minute average	10	71	11	81	11	82
Escalators required	0.10	0.71	0.11	0.81	0.11	0.82
Escalators required	**1**	**1**	**1**	**1**	**1**	**1**
Total Escalators Required	**2**	**2**	**2**	**2**	**2**	**2**

7.9.20 As shown in **Table 7-33**, there are sufficient escalators to accommodate the assessed scenarios, with two escalators required during each peak period.

WARREN STREET STATION ASSESSMENT SUMMARY

7.9.21 As shown in the assessment above the current Warren Street station configuration of ten gates and three escalators can accommodate the additional flows expected to be generated by the Proposed Development.

7.9.22 As set out in Paragraphs **7.9.9** to **7.9.12**, the permanent changes to the underground network with the opening of the Elizabeth Line mean that travel patterns have changed and Warren Street is expected to have additional station capacity.

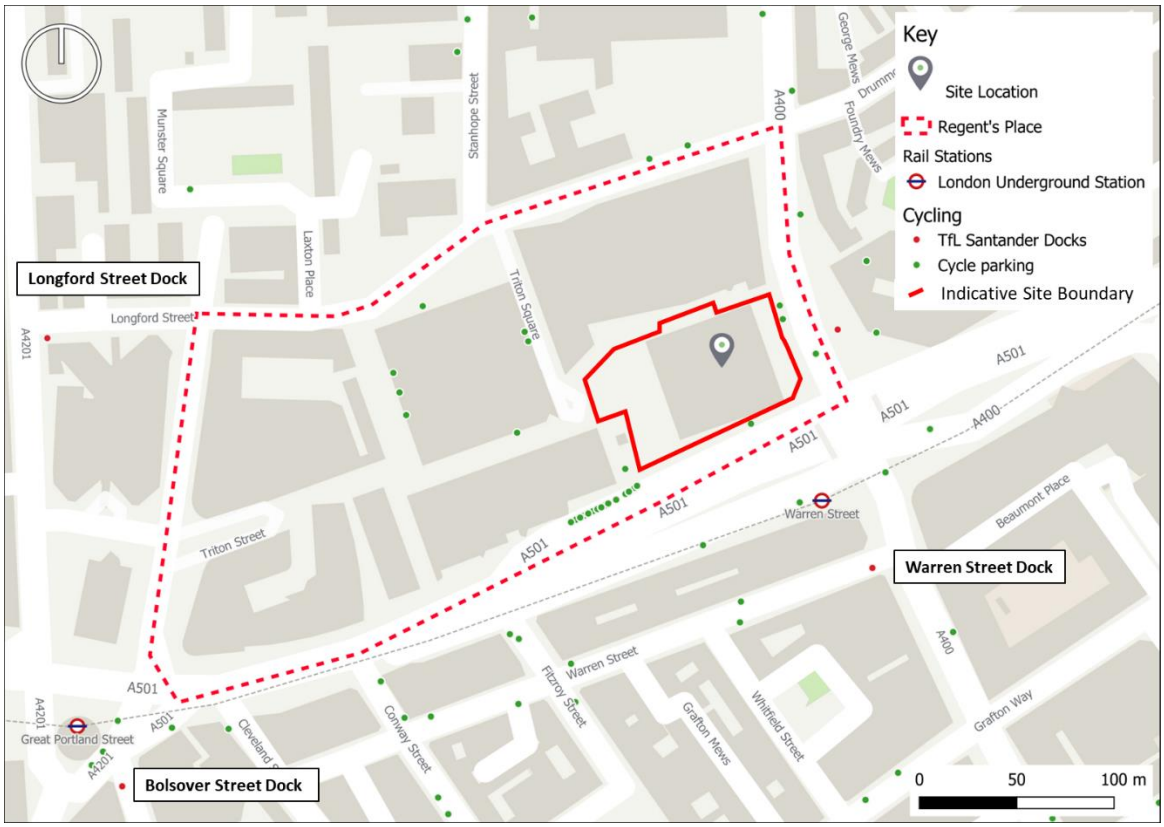
7.10 CYCLE HIRE DOCKING STATION ASSESSMENT

7.10.1 Following the pre-application response from TfL. There is a request for a contribution to:

Expand Cycle Hire capacity by creating a new docking station with the red line boundary.

7.10.2 **Figure 7-7** shows the location of the nearest cycle hire stations as well as the publicly accessible short-stay cycle parking.

Figure 7-7: Existing Cycle Hire Locations



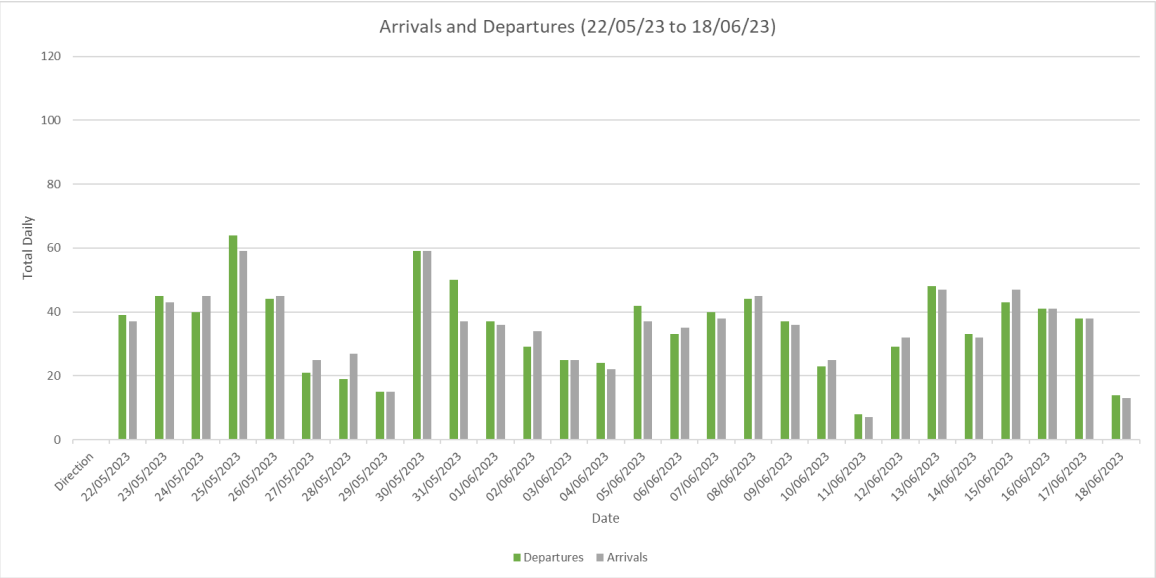
7.10.3 There are four cycle hire docking stations within 400m of the site with the closest located on the eastern footway of Hampstead Road adjacent to the Proposed Development. Between them, they offer access to 120 cycles. The locations of the docks and their capacity are:

- Hampstead Road, Euston (54 bicycles)
- Longford Street, The Regent's Park (21 bicycles)
- Bolsover Street, Fitzrovia (19 bicycles)
- Warren Street station, Euston (26 bicycles)

7.10.4 Cycle Hire usage data has been extracted from public TfL data[5] for the latest available month (22nd May 23 to 18th June 23). The data provides the date and time of each hire, along with the starting station, end station and duration of hire period.

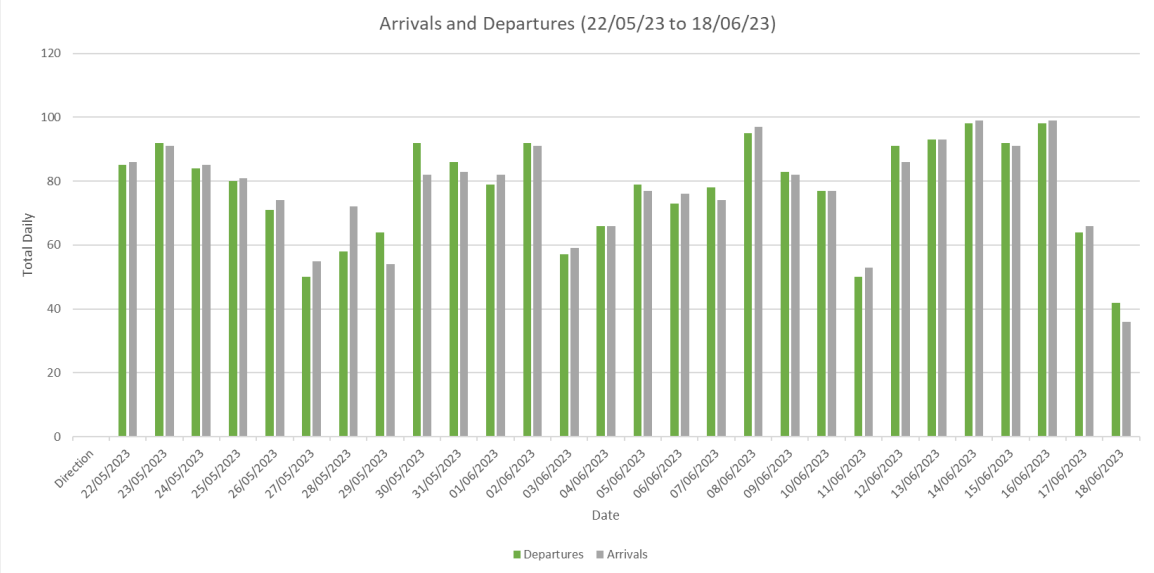
7.10.5 Where the starting or end station is Hampstead Road or Warren Street, this data has been extracted to produce a monthly arrival and departures profile by day as shown in **Figure 7-8** and **Figure 7-9.**

Figure 7-8: Hampstead Road Docking Station – Daily Usage



[5] cycling.data.tfl.gov.uk

Figure 7-9: Warren Street Docking Station – Daily Usage



7.10.6 The Hampstead Road hire station which consists of 56 docks has an average weekday daily usage of 41 arrivals and 40 departures. Warren Street hire station consists of 26 docks and has an average weekday daily usage of 84 arrivals and 85 departures.

7.10.7 A midweek (Tuesday, Wednesday and Thursday) hourly profile was extracted from the from the data to understand the average arrival and departure profile over a 24-hour period for both the Hampstead Road Warren Street docking station which are shown in **Figure 7-10** and **Figure 7-11.**

Figure 7-10: Daily Profile and Accumulation – Hampstead Road

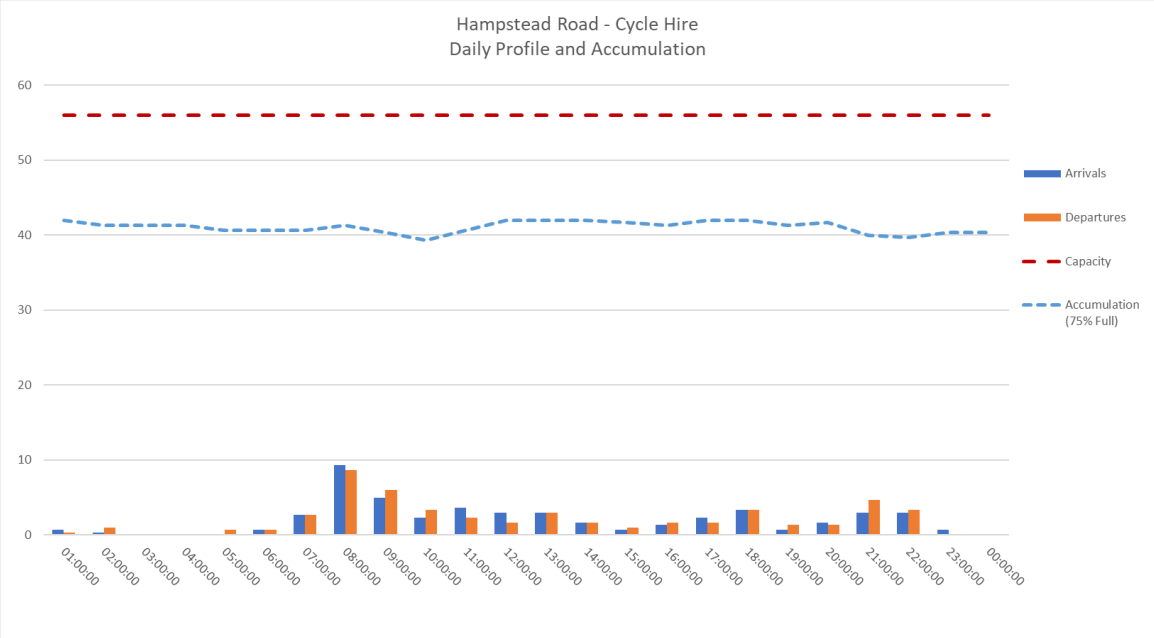
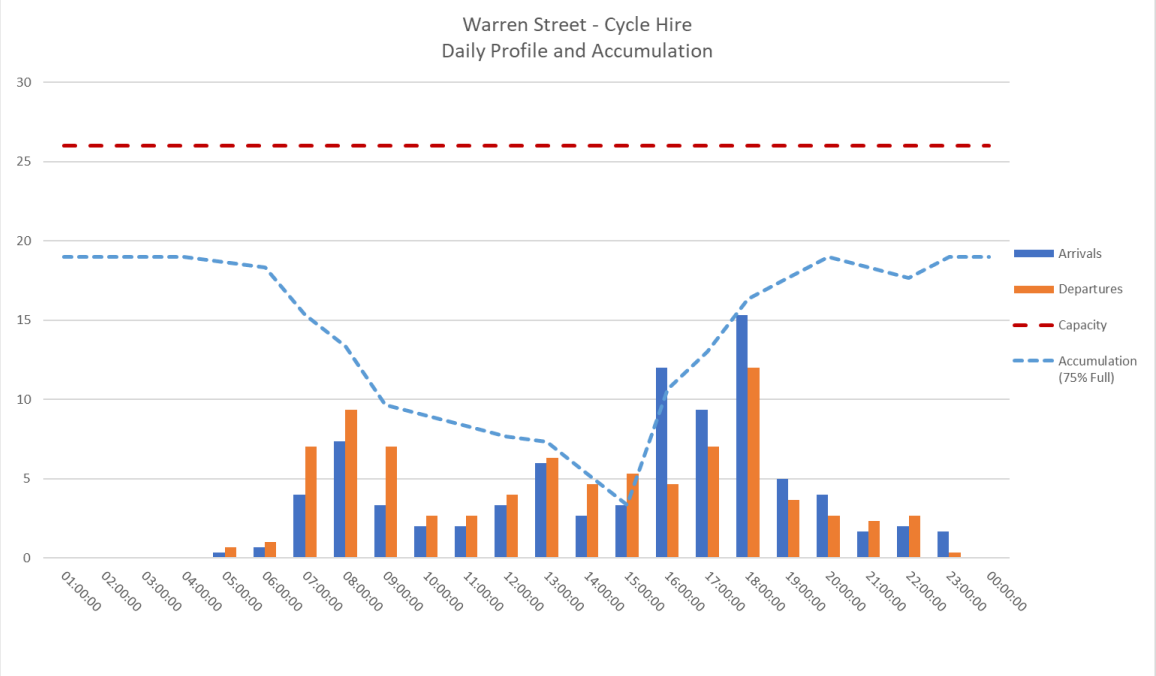


Figure 7-11: Daily Profile and Accumulation – Warren Street



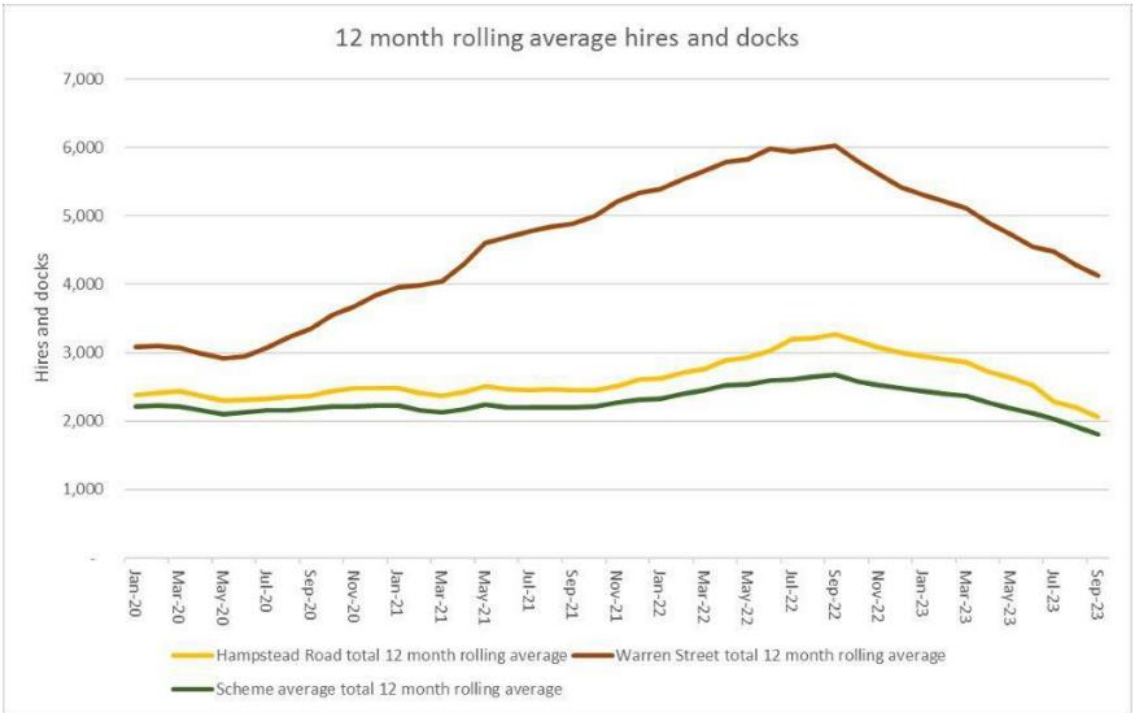
7.10.8 The Hampstead Road docking station shows a flat daily profile with a balanced number of docks and hires over the day, whereas the Warren Street profile shows a number of hires during the morning peak and a number of docks during the afternoon peak.

7.10.9 The daily profile for Warren Street suggests that it is used by commuters linked to Warren Street Station (AM hires and PM docks) and it would not be expected that employees or visitors to the Proposed Development will use the Warren Street docking station.

7.10.10 The latest figures provided by TfL in **Figure 7-12** show that cycle hire in September 2023 was down circa 35% per cent, compared to September 2022 and it is the lowest number since 2013, when fewer bikes and docking stations were available.[6]

[6] https://www.bbc.co.uk/news/uk-england-london-66541858

Figure 7-12: TfL Cycle Hire Usage



7.10.11 The drop in usage of the TfL cycles could be attributed to two factors, the TfL hire charges were raised in September 2022, and the growth of other cycle hire operators such as Lime, Human Forest, Tier etc which offer electric bikes.

SUMMARY

7.10.12 It is not expected that employees or visitors to the Proposed Development will use the Warren Street cycle hire station, as the Hampstead Road docking station is adjacent to the development.

7.10.13 A small number of employees or visitors to the Proposed Development will use one of the cycle hire schemes available. As shown in the latest TfL data on cycle hire usage, the number of hires and docks is reducing. This will mean that fewer employees or visitors will use the docking station, which will increase the space capacity should employees or visitors wish to use it.

7.10.14 It is therefore unnecessary to provide a contribution to a new docking station when the data provided by TfL shows a significant reduction in use. The Hampstead Road docking station is currently underutilised with sufficient capacity to accommodate any increase in usage associated with the Proposed Development.

7.11 IMPACT ON LOCAL ROAD NETWORK

7.11.1 The Proposed Development is car-free and will generate negligible vehicle trips. The Proposed Development removes circa 100 car parking spaces within the basement and therefore reduce traffic generation when compared to the permitted sue of the site.

7.11.2 A total of 14 delivery and servicing vehicles are forecast in the peak hour (10:00-11:00), as set out in **Section 7.4**.

7.11.3 The Proposed Development will have a negligible impact on the local highway network.

7.12 LOCAL HIGHWAY IMPROVEMENTS

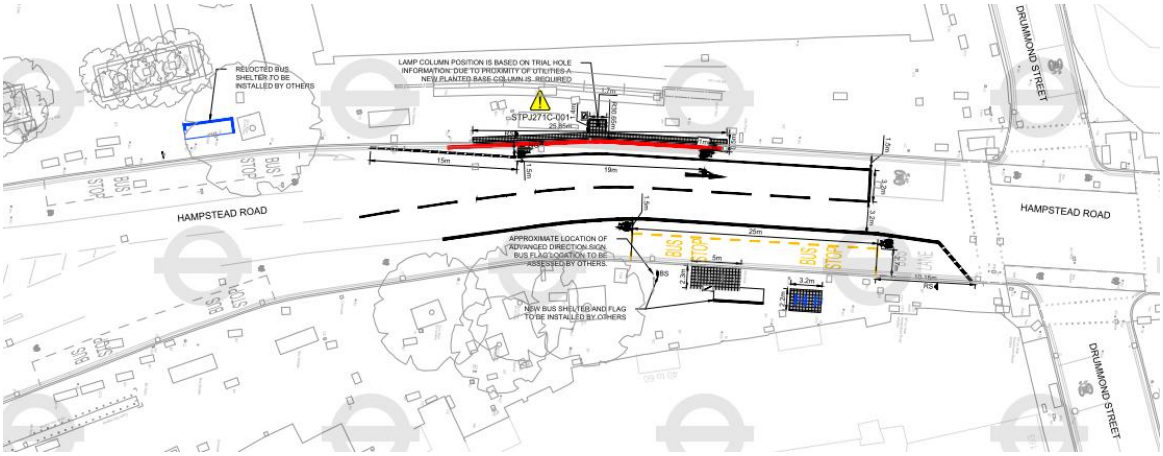
TFL– FUTURE OF TEMP - HAMPSTEAD ROAD

7.12.1 As part of the TfL improvements to sustainable travel, minor works are proposed on Hampstead Road between its junctions with Euston Road and Drummond Street. The proposed works include:

- A relocated northbound bus shelter;
- Minor northbound kerb works;
- Northbound cycle lane extended circa 20m to the south;
- New southbound bus stop, and shelter

7.12.2 An extract from TfL drawing number STPJ271C-ARC-010-02_01-DRG-HE-00002-C01 is shown in **Figure 7-13.**

Figure 7-13: Extract from Future of Temp – Hampstead Road



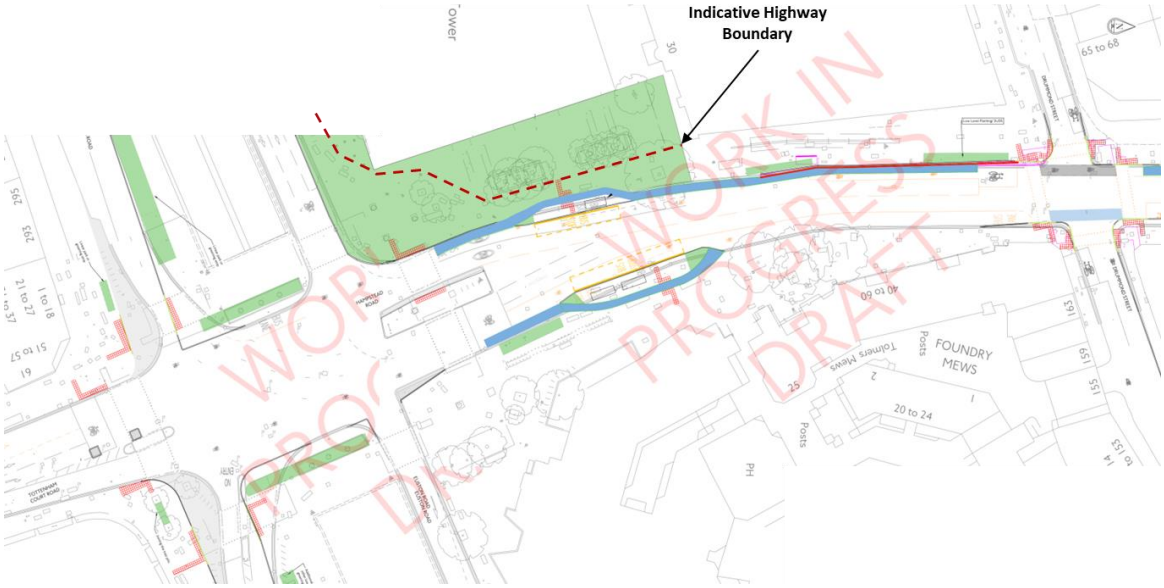
7.12.3 It is understood that these works are being delivered by TfL in Q4 of 2023 and are not part of the development proposals.

TFL EUSTON CIRCUS/HAMPSTEAD ROAD – GREENING OPTIONS

7.12.4 A Future Greening scheme is currently being developed by TfL which seeks to improve the Euston Circus junction and the Hampstead Road environment by providing additional greening along with improvements for pedestrians, cyclist and bus users.

7.12.5 **Figure 7-14** is TfL's outline proposals for potential greening options on the Hampstead Road corridor adjacent to the Site. The works include revisions to the north and southbound bus stops, kerb works at the Euston Circus junction and greening improvements at both the junction and Hampstead Road.

Figure 7-14: TfL Hampstead Road – Proposed Greening Scheme



7.12.6 Although these works are not related to the Proposed Development, discussions are taking place with TfL over the mechanism of delivering improvement works to the footways adjacent to the site which form part of the Transport for London Road Network.

7.13 MANAGEMENT STRATEGIES

7.13.1 A number of management plans will be implemented to ensure the Proposed Development encourages sustainable travel and operates efficiently. It is expected that these plans will be secured by planning conditions or obligations.

OUTLINE TRAVEL PLAN

7.13.2 As part of this application, an Outline Travel Plan (TP) has been prepared in accordance with TfL and DfT guidance, which sets out a range of preliminary management strategies and measures to support and encourage sustainable travel.

7.13.3 The overall aim/objective of any TP should be to minimise the impact of travel on the local and wider environment and to promote sustainable travel choices, such as walking, cycling and public transport.

7.13.4 The TP identifies the requirement for specific travel plans to be developed upon occupation of the site.

DRAFT DELIVERY & SERVICING PLAN

7.13.5 A Draft Delivery & Servicing Plan (DSP) will be prepared, setting out a management strategy to ensure the site can be serviced in an efficient and safe manner.

7.13.6 A DSP has been produced to support the planning application as a standalone document in order to manage refuse, delivery and service vehicle arrangements and overall accessibility. While it is recognised this will be a live document that will need to be adapted over the life of the development, the DSP sets out a range of management strategies and measures to ensure the site can be readily serviced in an efficient and safe manner without inconveniencing others.

CAR PARKING DESIGN AND MANAGEMENT PLAN

7.13.7 A Car parking Design and Management Plan (CPDMP) will be prepared, setting out a management strategy to ensure the proposed accessible parking on site can be designed and managed in an efficient and safe manner.

OUTLINE CONSTRUCTION LOGISTICS PLAN

7.13.8 An Outline Construction Logistics Plan (CLP) has been prepared setting out a construction logistics strategy to ensure the site can be accessed in an efficient and safe manner.

7.13.9 Ahead of deconstruction and construction, a contractor will be appointed who will ensure that a detailed CLP is prepared to satisfy planning conditions to secure its production prior to the commencement of any works. This will be prepared in accordance with TfL Construction Logistics Plan Guidance.

7.13.10 The detailed CLP will provide the necessary vehicle swept path drawings to confirm the safe site access/egress and manoeuvrability within the site for deconstruction and construction by various vehicle types, including any abnormal loads.

8 OUTLINE CONSTRUCTION LOGISTICS PLAN

8.1 INTRODUCTION

8.1.1 This section of the TA sets out the Outline Construction Logistics Plan (CLP) to support the planning application. It summarises the key transport-related matters during the construction works of the Proposed Development.

8.1.2 A detailed CLP will be prepared before construction and implemented and monitored throughout the construction programme.

8.1.3 An appropriate planning condition will secure the requirement for a detailed CLP, which will be prepared following TfL's Construction Logistics Planning Guidance (the 'Guidance') before the commencement of deconstruction and construction.

8.2 CONSTRUCTION LOGISTICS PLANNING POLICY

8.2.1 Relevant local and regional planning policies and guidance have been reviewed to provide context for deliveries and servicing concerning the development proposal.

LONDON PLAN (2021)

8.2.2 The London Plan is part of the statutory development plan and aims to ensure that London's transport is easy, safe, and convenient for everyone and actively encourages more walking and cycling.

8.2.3 Policy T7, 'Freight and Servicing', states that Construction Logistics and Delivery and Servicing Plans will be required and should be developed in accordance with Transport for London guidance and in a way that reflects the scale and complexities of developments.

TFL CONSTRUCTION LOGISTICS PLAN GUIDANCE

8.2.4 TfL issued the Guidance to ensure that CLPs of high quality are produced to minimise the impact of construction logistics on the road network.

8.2.5 The Guidance focuses on reducing the impact of construction in terms of the following:

- environmental impact: lower vehicle emissions and noise levels;
- road risk: improving the safety of road users;
- congestion: reduced vehicle trips, particularly in peak periods, and
- cost: efficient working practices and reduced deliveries.

8.2.6 CLPs provide a framework for understanding and managing construction vehicle activity into and out of the Proposed Development and should detail:

- the amount of construction traffic generated;
- the routes the construction vehicles will use and consideration of local impacts;
- the impact on relevant community considerations, and
- any traffic management that will be in place.

8.2.7 The Guidance states that an Outline CLP should be provided which gives the planning authority an overview of the expected logistics activity during the construction programme. A detailed CLP is submitted to a planning authority pursuant to and in the discharge of a condition imposed on the planning permission. It provides the planning authority with the logistics activity expected during the construction programme.

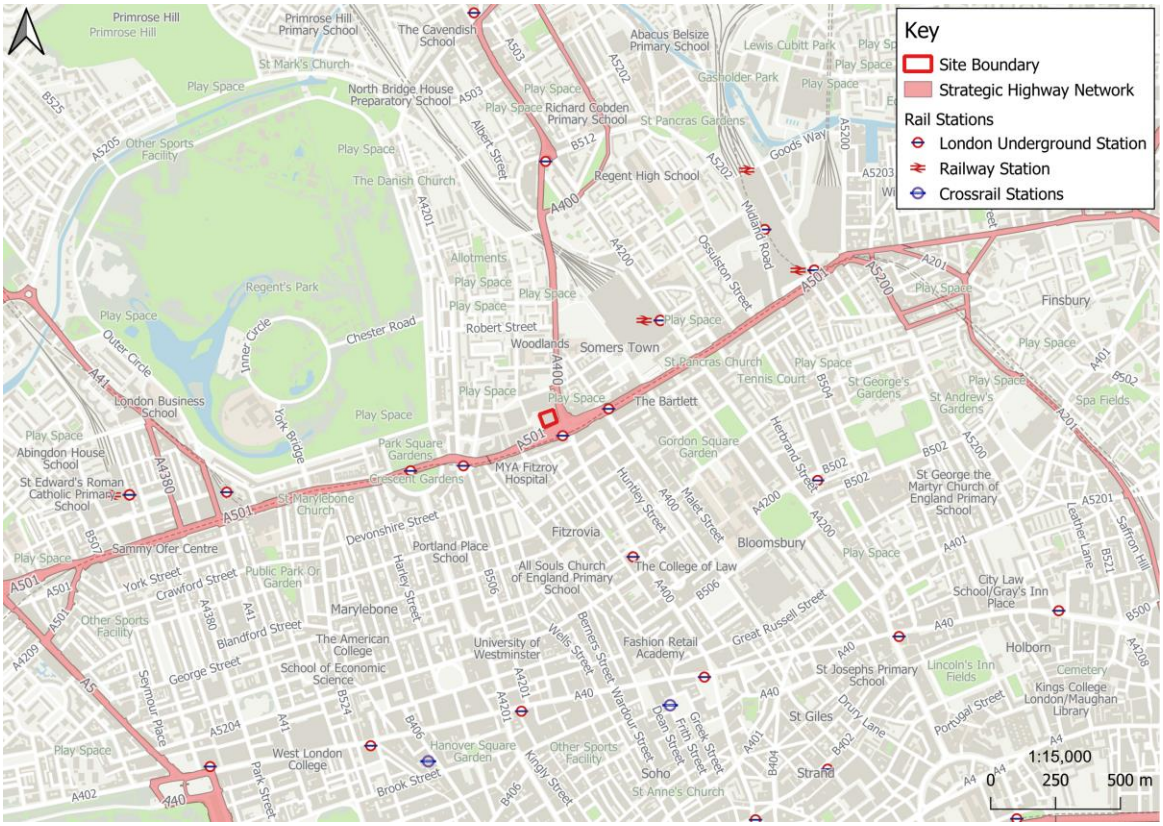
8.2.8 The Guidance suggests a range of measures and strategies that should be considered to reduce the impact of construction on the local environment.

CONTEXT PLANS

8.2.9 **Figure 8-1** shows the location of the Proposed Development in a regional context, including:

- Strategic roads that are likely to be used to access the Site; and
- Community considerations (i.e., stations and greenspace).

Figure 8-1: Site Location Within a Regional Context



8.2.10 **Figure 8-2** shows the location of the site in relation to the surrounding local area. **Figure 8-3** shows the site boundary plan showing the extent of footways, other buildings, cycle lanes and road markings

Figure 8-2: Site Located in the Context of the Local Transport Network

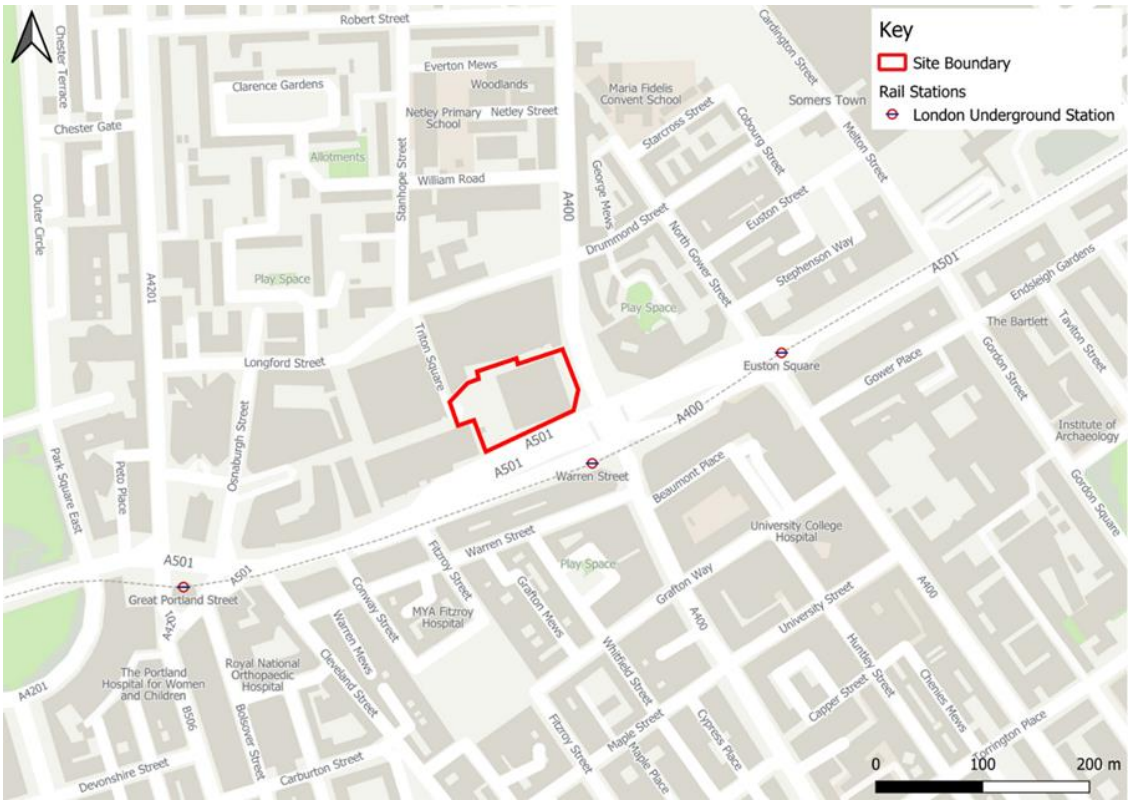
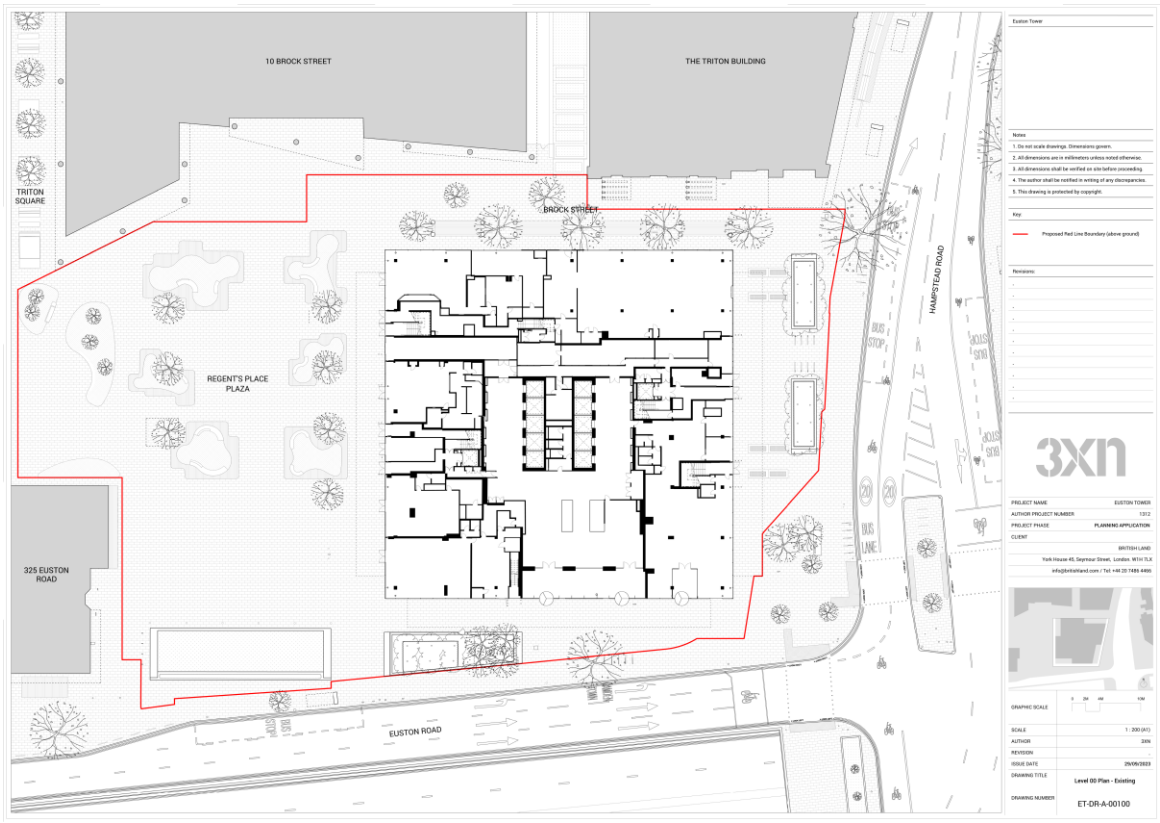


Figure 8-3: Planning Application Boundary Plan (Ground floor)



8.3 OBJECTIVES

8.3.1 The overall objectives of the CLP are to:

- **Lower emissions**;
- **Enhance safety** – improve vehicle and road users' safety; and
- **Reduce congestion** – reduce trips overall, especially in peak periods.

8.3.2 To support the realisation of these objectives, several sub-objectives are provided:

- Encourage construction workers to travel to the Site by non-car modes;
- Promote smarter operations that reduce the need for construction travel, or that reduce or eliminate trips in peak periods;
- Encourage the use of greener vehicles and sustainable freight modes;
- Manage the ongoing development and delivery of the CLP with construction contractors;
- Communicate Site delivery and servicing facilities to workers and suppliers; and
- Minimise queueing and disrupting the traffic along the surrounding roads.

8.4 CONSTRUCTION PROGRAMME

8.4.1 Planning for deconstruction and construction is understandably at a preliminary stage and may be subject to review and modification during detailed construction planning. For this reason, the following information is based on reasonable assumptions in the construction programme and the collective experience of the consulting team with similar projects. Nevertheless, the indicative programme at this stage is representative of a programme that is reasonable and achievable. The programme presents the likely sequence of activities, site logistics and the mitigation measures that will be implemented.

8.4.2 The development will be delivered over three main phases:

- Phase 1 – Site set up and Deconstruction to Ground Level
- Phase 2 – Enabling and substructure works and
- Phase 3 – Superstructure, envelope, and fit-out

8.4.3 The construction programme is expected to be of the order of 60 months. **Table 8-1** and **Figure 8-4** outlines the main activities to be undertaken and the approximate duration of the works. Some activities will occur concurrently. A copy of the indicative construction programme is provided in **APPENDIX G.**

Table 8-1: Indicative Sequence of Works and Estimated Duration

Construction Task/Activity	Start Date (Quarter and Year)	Completion Date (Quarter and Year)	Duration
Site Set-up and Deconstruction Works	Q1 2025	Q4 2026	24 months
Substructure – Piling and Basement Walls	Q1 2026	Q2 2027	14 months
Superstructure (slabs and steelworks)	Q3 2027	Q3 2029	27 months

Cladding	Q3 2027	Q2 2030	31 months
Finishes and Fitout	Q2 2027	Q1 2030	36 months
Testing and Commissioning	Q3 2029	Q2 2030	11 months
External Works (Landscaping and public realm)	Q2 2029	Q4 2029	8 months

Figure 8-4: Indicative Construction Programme

PROGRAMME																									
Stage	Duration (months)	2025				2026				2027				2028				2029				2030			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Site Set Up & Demolition Works	24	Feb 25							Nov 26																
Excavation	4				Oct 25	Jan 26																			
Piling & Basement Walls	14					Feb 26					Apr 27														
Super structure - Slabs	27										Apr 27								July 29						
Super structure - Steelwork	27										Apr 27								July 29						
Cladding	31											Sept 27										Apr 30			
Finishes and Fit out	36										Apr 27											Apr 30			
Testing & Commisioning	11																		Aug 29				Jun 30		
Landscape (Public Realm)	8																	May 29		Dec 29					

8.5 CONSTRUCTION METHODOLOGY

8.5.1 Prior to the commencement of any site works, all occupiers surrounding the site will be notified in writing of the nature and duration of the works to be undertaken. The name and contact details of the person responsible for the site works will be included in the introductory letter, and this will be used for all enquiries and complaints for the entire duration of the works. Updates of work will be provided regularly, and any complaints will be properly addressed as quickly as possible as part of the Contractor's commitment to the Considerate Contractors Scheme.

8.5.2 The safety of the public and protection of pedestrians will be provided for at all times by having the construction area, materials storage areas and waste storage areas either hoarded or fenced with lockable access. Relevant signage will be erected to ensure adequate warning/information regarding the health and safety of the public.

ENABLING WORKS

8.5.3 All construction site boundaries will be enclosed by clean, safe and well-maintained hoardings. These hoardings will be designed to allow the displaying of relevant signage and notice boards to ensure good communication with the local neighbourhood. Low-voltage bulkhead lights will be installed as part of the hoardings to ensure footpaths, signage, and notice boards are well-lit.

8.5.4 During this period, the office welfare accommodation will be set up along with access routes and temporary services.

DECONSTRUCTION

8.5.5 The initial period of the deconstruction programme will involve the installation and setup of the principal temporary works required for the deconstruction, namely a tower crane situated on top of the existing reinforced concrete lift core structure and the installation of a descending screen at the roof level, supported by a framework to enable the removal of the existing cladding.

8.5.6 As the works commence, the product of the deconstruction work will be moved to the ground level and basement levels for removal from the site. Deconstruction arisings will be transported to the basement level through an existing satellite lift shaft fitted with baffles, and demounted glass and metal mullions will be transported to ground level in a hoist situated in another satellite lift shaft.

8.5.7 Deconstruction arisings will be removed from the basement via eight-wheeled tipper vehicles that access the area from the Regent's Place Service Yard entrance on Longford Street, whereas demounted cladding and the like will be transported from the site via ground-level access from the Euston Road exit slip road entrance.

ENABLING WORKS AND SUBSTRUCTURE

8.5.8 As the deconstruction works progress, the ground to the second-floor structure will be removed, leaving the cross shape of the original building, known as the pinwheel, in place. Once this 'podium' structure is removed, the ground-level slab will be removed to open the existing basement to blue sky.

8.5.9 It is currently anticipated that the basement wall to the south and east elevations will require support in the temporary condition.

8.5.10 Following the removal of the ground-level slab and the grubbing out of the existing basement slab construction, a piling mat will be installed, from which new piles will be installed. This will include piles for tower crane bases and the like. Once the piling works are completed and tower cranes installed as required, pile cap/raft construction will follow as the deconstruction works of the existing pinwheel to the basement level conclude.

8.5.11 As the pile cap/raft slab works continue, the construction of vertical elements to the underside of the proposed ground-level slab will follow, as will the ground-level slab itself.

8.5.12 In addition to deconstruction works, it is anticipated that an element of enabling works for the proposed steelwork substructure will be incorporated into the central core as the deconstruction lowers the existing building.

SUPERSTRUCTURE, ENVELOPE AND FITOUT

8.5.13 Upon completion of the ground floor, superstructure steelwork and precast floor plank installation will commence.

8.5.14 Steelwork will be installed over three levels to accommodate the fascia bracing to the structure, followed by three levels of precast plank installation to provide the floor structure. This process will continue to rise up the building, utilising the tower cranes for installation.

8.5.15 Once the superstructure has reached an appropriate height, the installation of the unitised cladding panels will commence to follow the superstructure steelwork and precast planks.

8.5.16 Mechanical and electrical installation will occur concurrently with the superstructure and cladding works, and fitout works will follow once a floor is enclosed and weathertight.

8.5.17 Following the completion of the superstructure and cladding works, the external cranes and hoists will be dismantled.

EXTERNAL WORKS/LANDSCAPING

8.5.18 External works and landscaping for the Proposed Development will be undertaken at the end of the construction programme. Along with the proposed landscaping and public realm works, making good of any temporary arrangements and/or any damage to footpaths surrounding the site may be required.

8.6 SITE LOGISTICS

8.6.1 The efficient management of the Site logistics will be vital to the project's success. A key logistics strategy for a construction project is to ensure that the products and materials arrive on-site at the time and in the required quantities.

8.6.2 The contractors will ensure that the necessary pre-planning is undertaken and that the quality of the communication between those planning the project and those supplying the products and materials is maintained throughout the project.

8.7 VEHICLE ROUTING

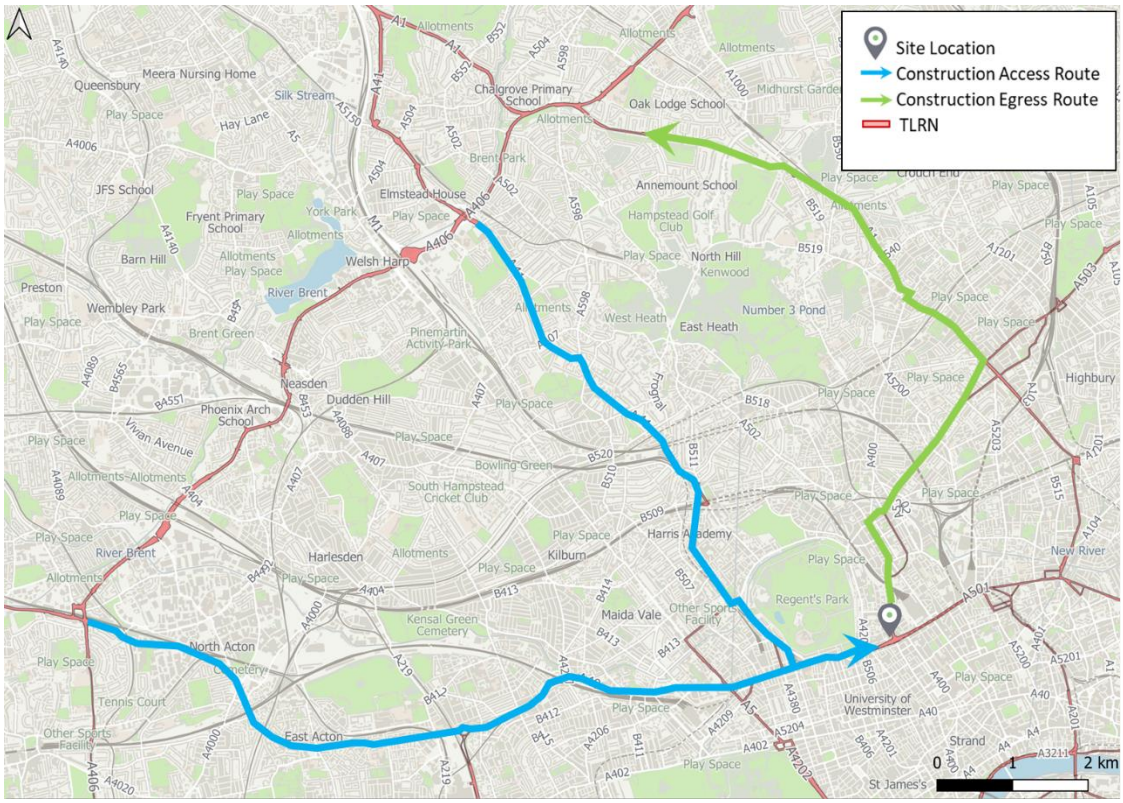
8.7.1 The contractor will use designated construction traffic routes for deliveries to the Site, waste removal, etc.

8.7.2 Access routes to and from the Site to be used by HGVs will be agreed upon with LBC and TfL before the initiation of the construction programme via the detailed CLP to minimise disruption to the road and pedestrian network. The strategic road network will be used as far as possible to reach the Site.

8.7.3 During all phases, access to the Site will be from Longford Street (Rigid HGV basement access only), Euston Road and Hampstead Road.

8.7.4 It is anticipated that the primary routes for construction traffic will be Euston Road and Hampstead Road. All vehicles will enter or exit the Site area from the Strategic Road Network (SRN) via the M25, M4 or the M1, or via the Transport for London Road Network to and from the Site. Using the SRN and TLRN are the most appropriate routes for construction vehicles and the addition of the expected construction traffic numbers associated with the Proposed Development will lead to an imperceptible change on these heavily trafficked routes.

Figure 8-5: Regional Routing Plan



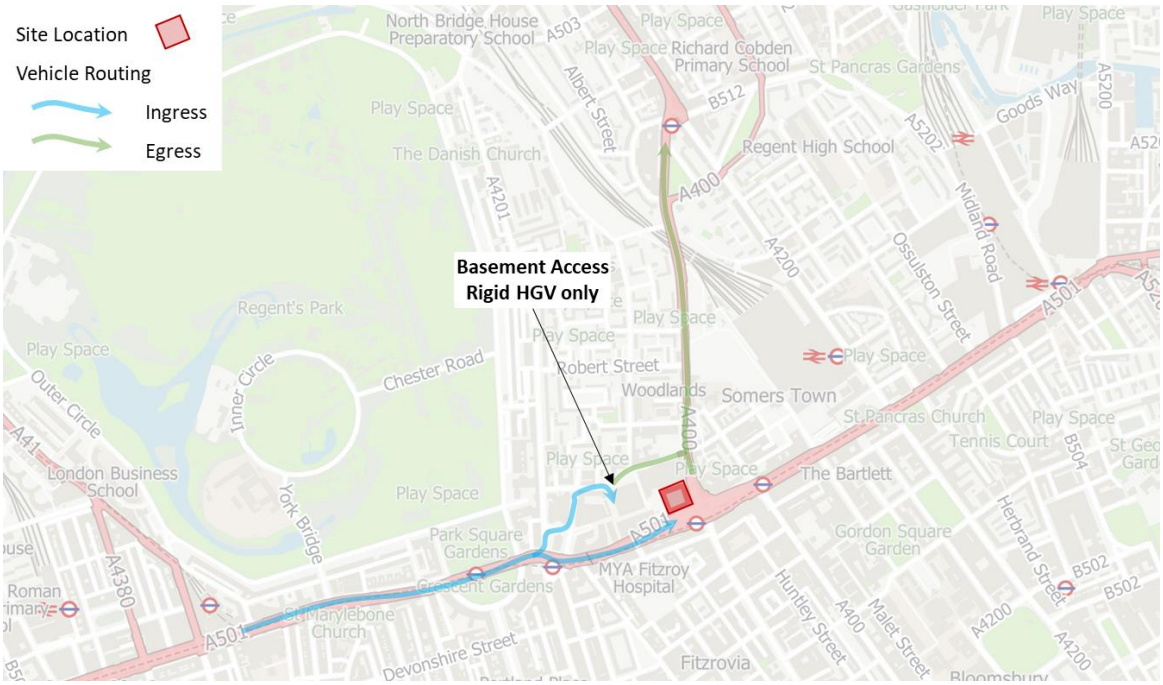
8.7.5 The regional plan in **Figure 8-5** shows the access from the Strategic Road Network (M4 and M1) via the A40 and A41. Local entry access is then via Euston Road to the site or Longford Street to access the existing basement. Egress is via Hampsted Road to the north and connecting to the Strategic Road Network via the A1.

8.7.6 The route avoids local residential streets and TfL designated cycle routes. It provides the most appropriate routing for access to the site.

8.7.7 All delivery vehicles to the Site will be informed by the contractor (once appointed) of the access strategy and requested to follow these routes (rather than other local residential roads) depending on the direction in which the respective deliveries originate.

8.7.8 **Figure 8-6** shows the proposed local vehicle routing.

Figure 8-6: Proposed construction vehicle routes



8.7.9 Once the contractor is appointed, further opportunities to maximise vehicle access to the Site will be investigated to reduce the construction programme and mitigate associated impacts.

8.7.10 These will be included within the submitted detailed Construction Environmental Management Plan and/or the Construction Traffic Management Plan, which are expected to be secured by a planning condition. A Draft Construction Management Plan Camden Proforma has been submitted with the planning application.

8.8 CONSTRUCTION LOGISTICS STRATEGY OPTIONS

SITE CONSTRAINTS

8.8.1 The Site is bound by Euston Road off slip (eastbound) to the south, Hampstead Road (two-way) to the east, Brock Street to the north and Regent's Place Plaza to the west both of which are pedestrianised.

8.8.2 Hampstead Road to the east of the Site comprises four traffic lanes, made up of a northbound bus and cycle lane, and a general traffic lane. Southbound is the same configuration with a shared bus and cycle lane and one general traffic lane. Adjacent to the northeast of the corner of the Site, the northbound Hampstead Road bus stop and flag are located as shown in **Figure 8-7**.

8.8.3 Vehicle access via Brock Street is restricted due to the existing Hampstead Road bus stop, the tree of importance (Category A) and overhangs from neighbouring buildings as shown in **Figure 8-7.**

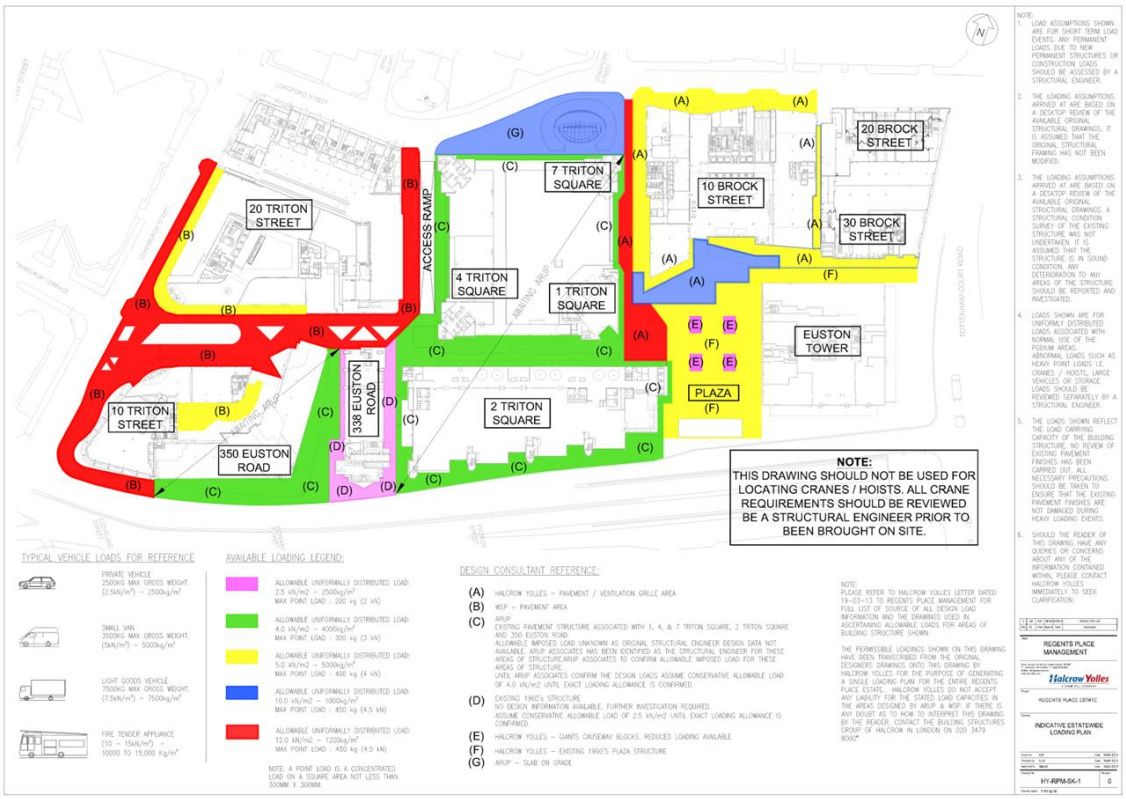
Figure 8-7: Hampstead Road Bus Stop

8.8.4 Euston Road off-slip to the south comprises three eastbound traffic lanes. The left flare comprises Bus Stop KA Warren Street and is a left turn only flare. The middle lane is straight on to Euston Road on-slip and North Gower Street. The right lane is straight on and right to Euston Road and Gower Street south. The Euston Road off-slip bus stop and shelter are shown in **Figure 8-8.**

Figure 8-8: Euston Road off-slip Bus Stop

8.8.5 The Regent's Place Plaza to the west of the Site has a 5T weight restriction over the basement below restricting vehicle access to the Site as shown in **Figure 8-9**.

Figure 8-9: Indicative Estate wide Loading Plan

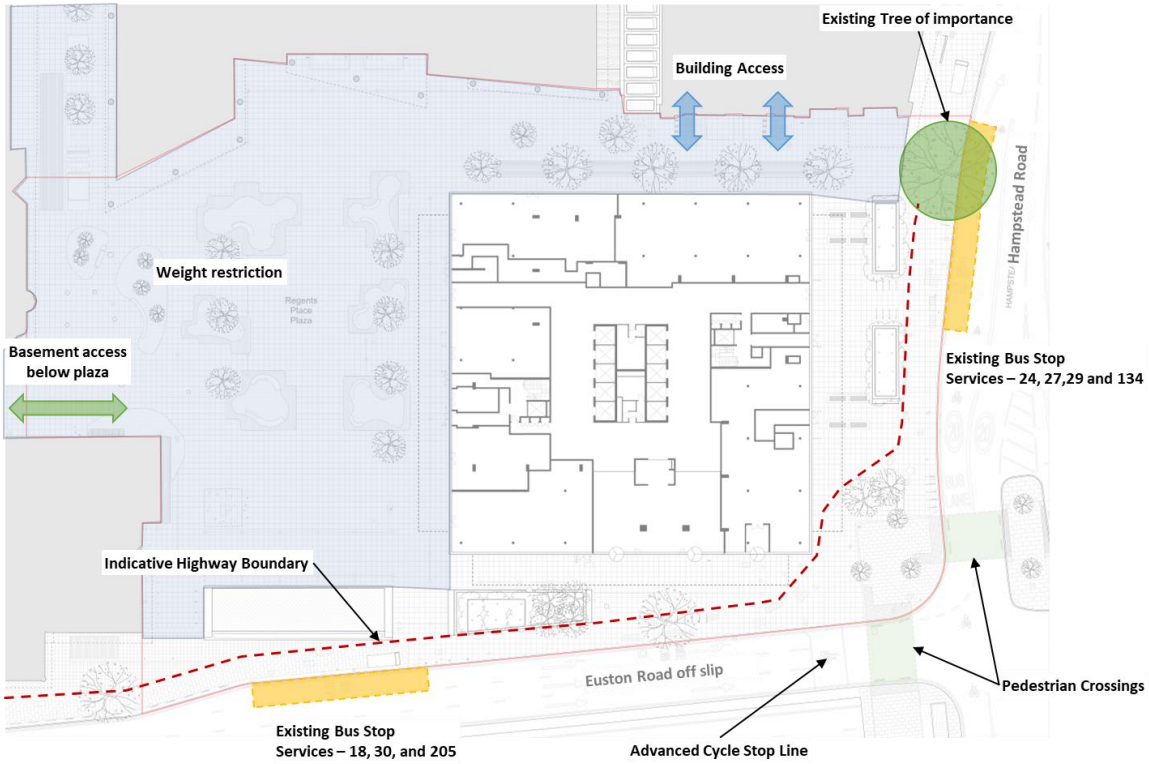


8.8.6 Due to constraints within the basement, vehicle access is restricted to rigid HGVs with a maximum height of 4.1m.

8.8.7 Based on vehicle access constraints to the Site, the Euston Road off-slip to the south and Hampstead Road to the east are the only vehicle access locations that can accommodate the articulated vehicles that are necessary during construction.

8.8.8 **Figure 8-10** shows the existing site constraints in terms of ground level vehicle access.

Figure 8-10: Existing Site Constraints



OPTION A – TRITON SQUARE, REGENTS PLACE PLAZA AND TLRN ACCESS

ACCESS SUMMARY

8.8.9 **Option A** proposes the use of Triton Square and Regent's Place Plaza as the vehicle access, manoeuvring and loading/unloading area. As the proposed deconstruction and construction requires access from two sides to make the most efficient use of the tower cranes, entry would also be required from Euston Road off-slip with exit onto Hampstead Road as shown in **Figure 8-11** to **Figure 8-14.**

Figure 8-11: Construction Logistics Strategy – Option A – Phase 0

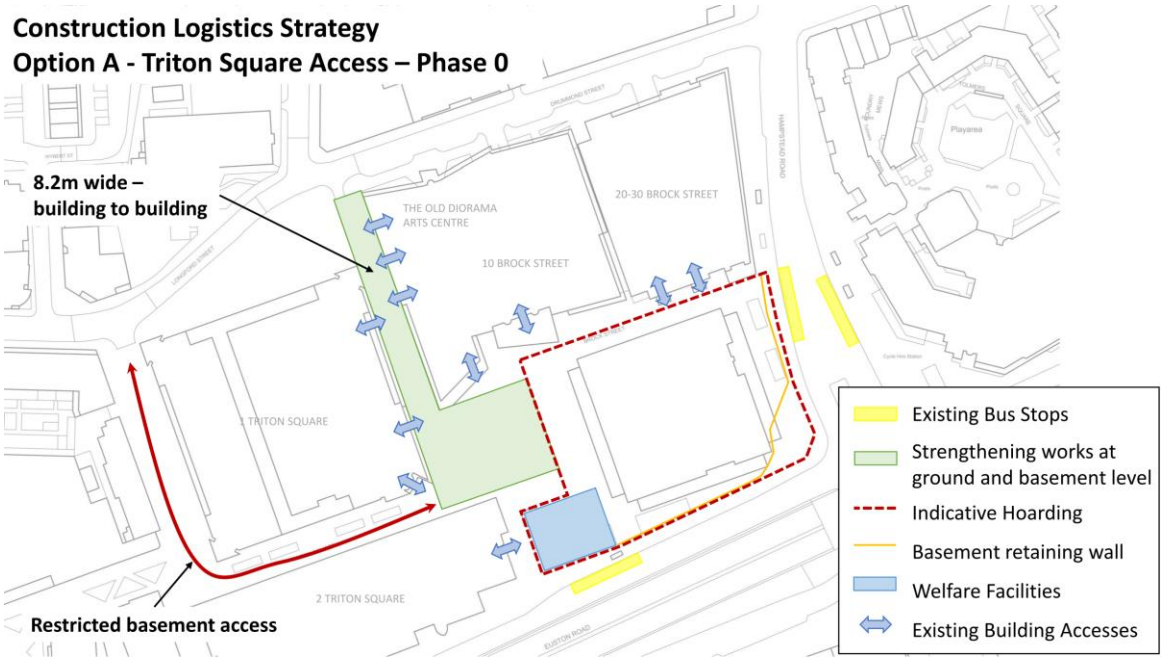


Figure 8-12: Construction Logistics Strategy – Option A – Phase 1

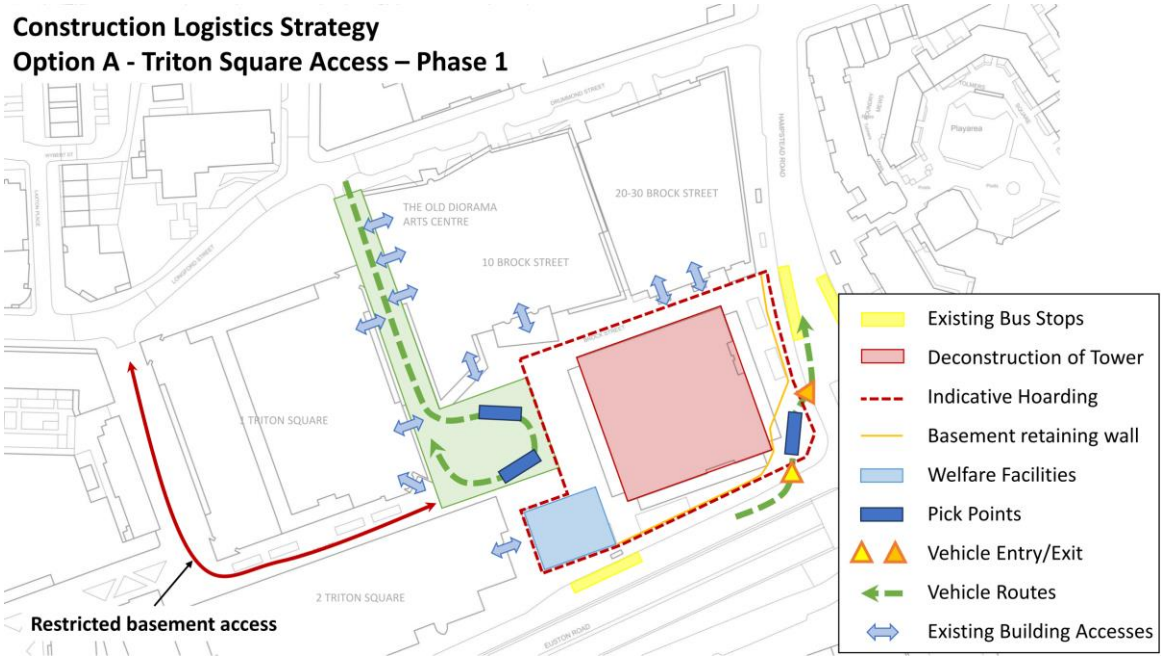


Figure 8-13: Construction Logistics Strategy – Option A – Phase 2

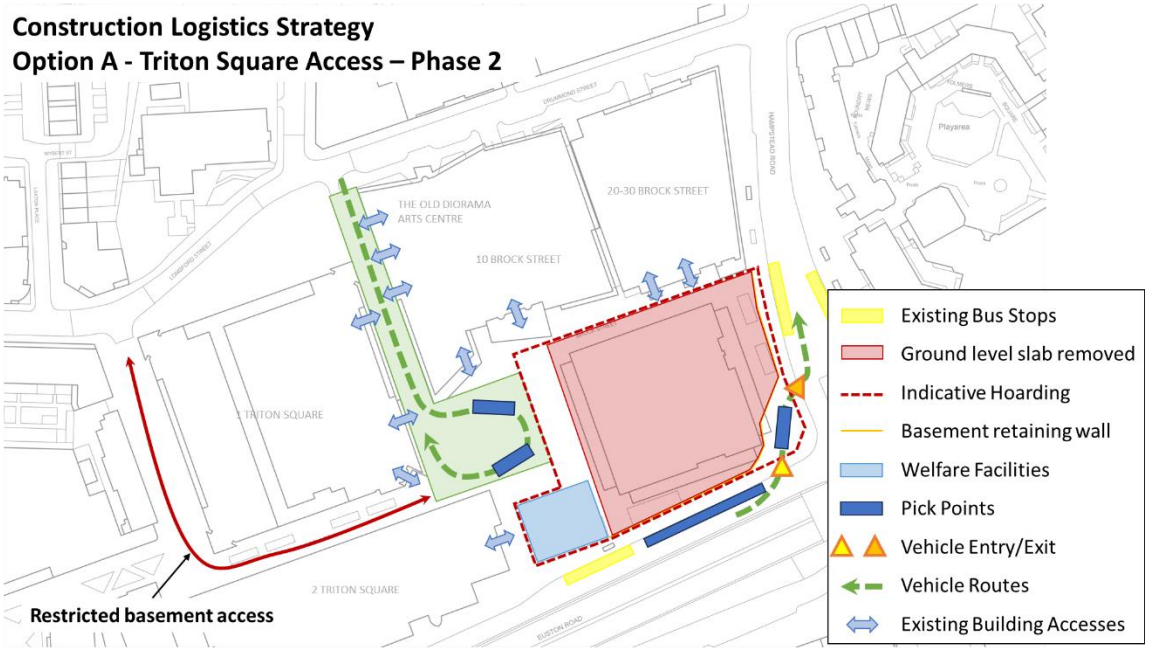
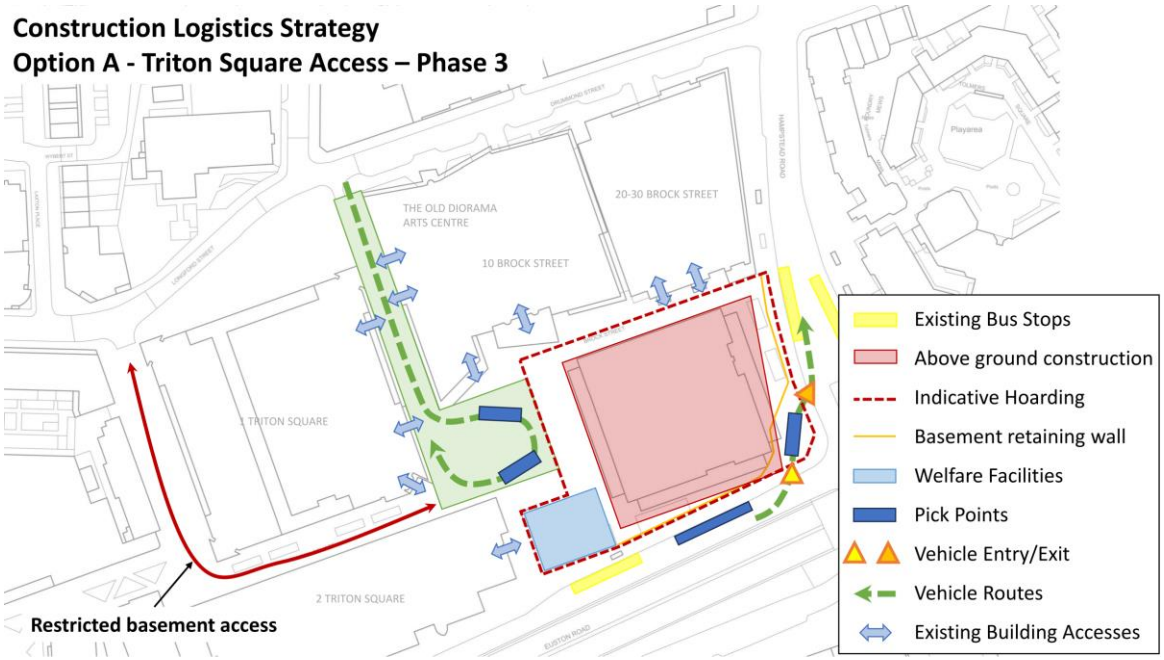


Figure 8-14: Construction Logistics Strategy – Option A – Phase 3



ENABLING WORKS REQUIRED

- Basement and ground level construction of new vehicle route over pedestrianised Triton Square and Regent's Place Plaza and within operational basement;
- Construction vehicle crossovers on Euston Road off-slip and Hampstead Road; and
- Site hoarding and welfare accommodation.

POTENTIAL IMPACTS

- Enabling works would take significant time and delay the start of the construction programme as the works need to be completed before Phase 1 (Deconstruction) can start;
- Triton Square pedestrian route is 8.0m wide with pedestrian and cycle access points on both sides. Can a safe construction route, that provides vehicle (construction and emergency) access be provided whilst retaining access to the buildings;
- Fire vehicle access required throughout construction. Fire tender route cannot be retained during enabling works. Significant hazard;
- Landscaping on Triton Square to be removed for whole construction programme;
- The basement servicing area may be out of action to accommodate the strengthening works – This impacts the operational requirements of 10 Brock Street and 20-30 Brock Street including the retail units at ground level, that are serviced from the shared loading bays;
- Construction vehicles may not be able to use the basement loading area due to structural/strengthening works;
- Basement impacts to parking areas and 10 Brock Street access routes. Potential loss of routes during both the enabling works and through the construction programme.
- Fire escapes along the route from 1 and 4 Triton Square, and The Old Diorama Arts Centre to be retained;
- The existing pedestrian access to Triton Square, Regents Plaza and Brock Street will be severely impacted by the enabling works and hoarding required for vehicle manoeuvring and loading/unloading within Triton Square and Regent's Place Plaza;
- Pedestrian Comfort Levels affected due to enabling works construction and the hoarding requirements for vehicle manoeuvring and loading/unloading within Triton Square and Regent's Place Plaza. PCLs affected for the entire construction programme;
- Lease and legal access agreements affected by enabling works both at ground level and within the basement;
- Significant impact to construction viability – significant financial costs associated with the enabling works and the extension to the construction programme;
- Construction vehicle crossovers required on Euston Road off-slip and Hampstead Road;
- On-street double length pit lane required on Euston Road off-slip during Phase 2 of construction and single length during Phase 3.

OPTION B - BASEMENT AND TLRN ACCESS – HAMPSTEAD ROAD BUS STOP SUSPENDED

ACCESS SUMMARY

8.8.10 **Option B** proposes the use of the existing basement, and entry via Euston Road with vehicles exiting in two locations on Hampstead Road. To facilitate the northern egress on Hampstead Road, it is proposed the northbound bus stop is suspended for the duration of the construction programme. High-level access proposals for each construction phase are shown in **Figure 8-15** to **Figure 8-17.**

Figure 8-15: Construction Logistics Strategy – Option B – Phase 1

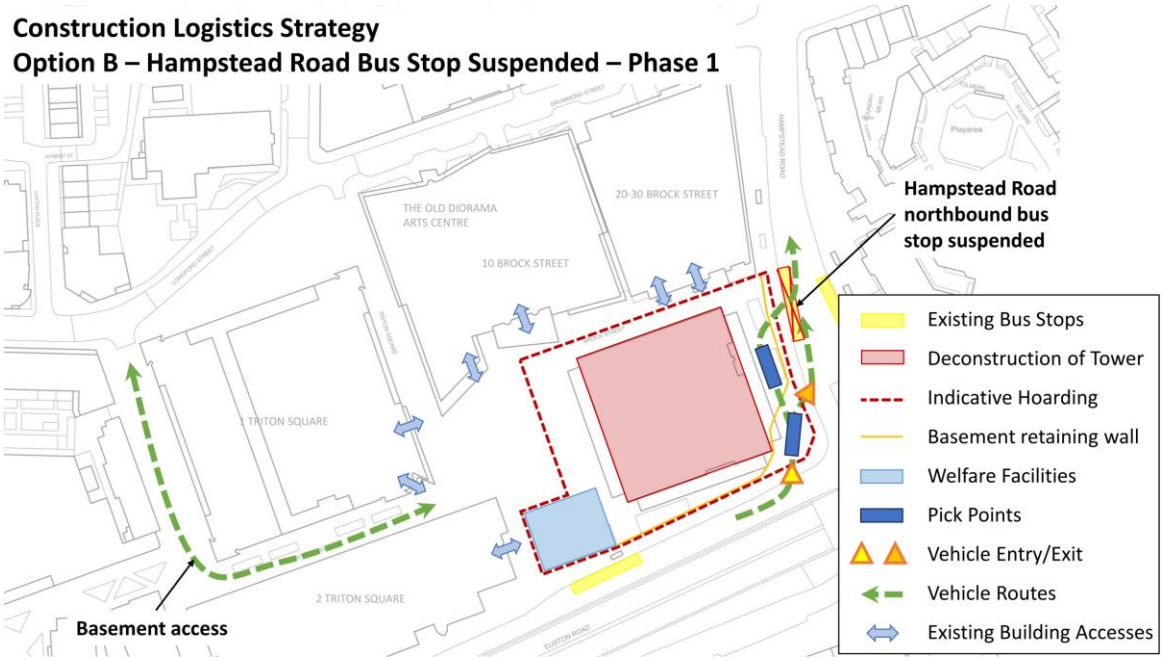


Figure 8-16: Construction Logistics Strategy – Option B – Phase 2

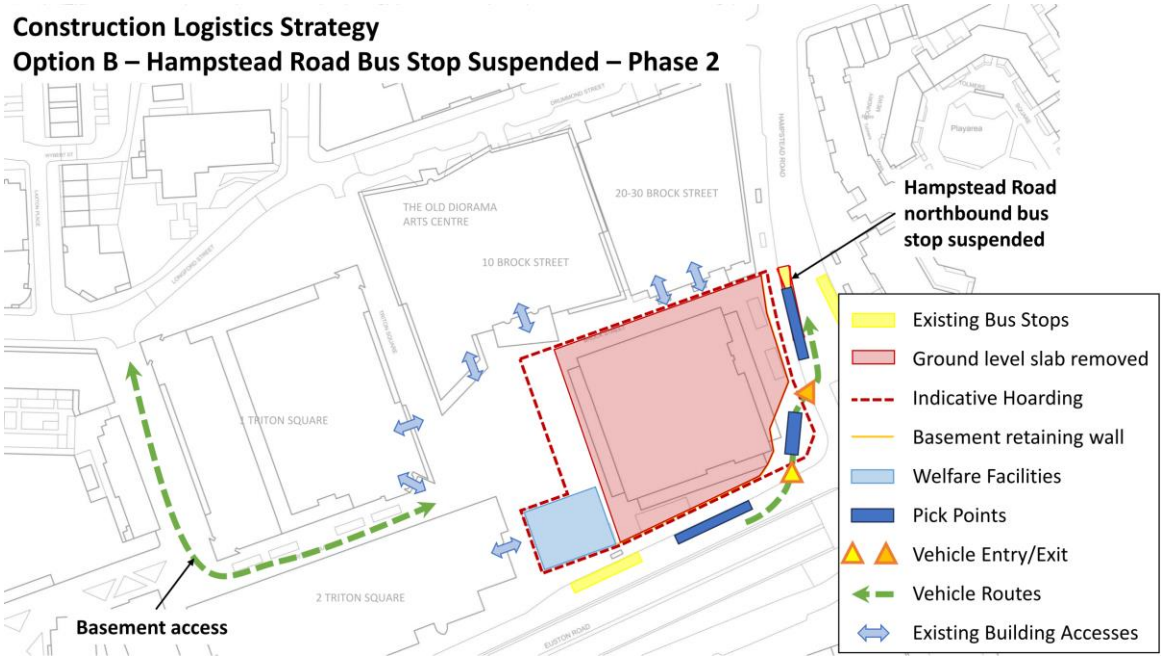
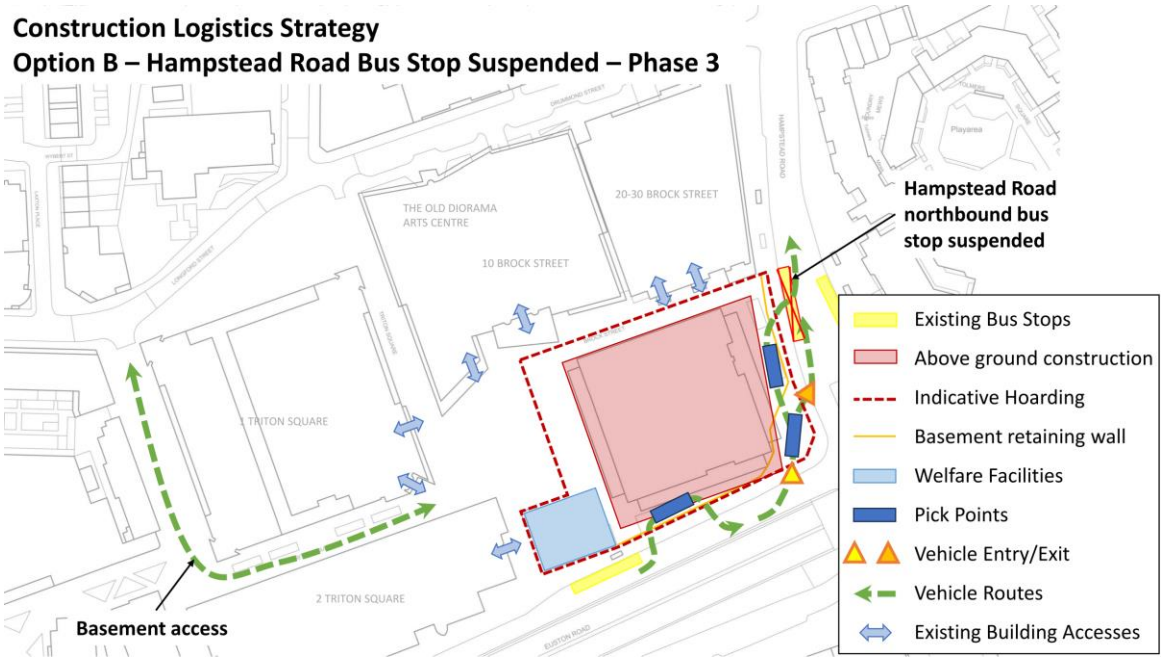


Figure 8-17: Construction Logistics Strategy – Option B – Phase 3



ENABLING WORKS REQUIRED

- Construction vehicle crossovers on Euston Road off-slip and two crossovers on Hampstead Road;
- Hampstead Road northbound bus stop to be suspended; and
- Site hoarding and welfare accommodation

POTENTIAL IMPACTS

- Significant disruption to bus users at Hampstead Road. The nearest bus stops are 250m north or between 150m and 175m to the south and southeast. The suspension of the bus stop would be for the duration of the constriction programme (60-months/5-years)
- Construction vehicle crossovers required on Euston Road off-slip and two on Hampstead Road;
- On-street pit lanes required on Euston Road off-slip and Hampstead Road during Phase 2 of construction.
- Significant impact to construction viability – significant financial costs associated with the suspension of the bus stop for the whole construction programme.

OPTION C - BASEMENT AND TLRN ACCESS – HAMPSTEAD ROAD BUS STOP RELOCATED

ACCESS SUMMARY

8.8.11 **Option C** proposes the use of the existing basement, and entry via Euston Road with vehicles exiting in two locations on Hampstead Road. To facilitate the northern egress on Hampstead Road, it is proposed to relocate the northbound bus stop approx. 18m north for the duration of the construction programme. The high-level access proposals for each construction phase are shown in **Figure 8-18** to **Figure 8-20.**

Figure 8-18: Construction Logistics Strategy – Option C – Phase 1

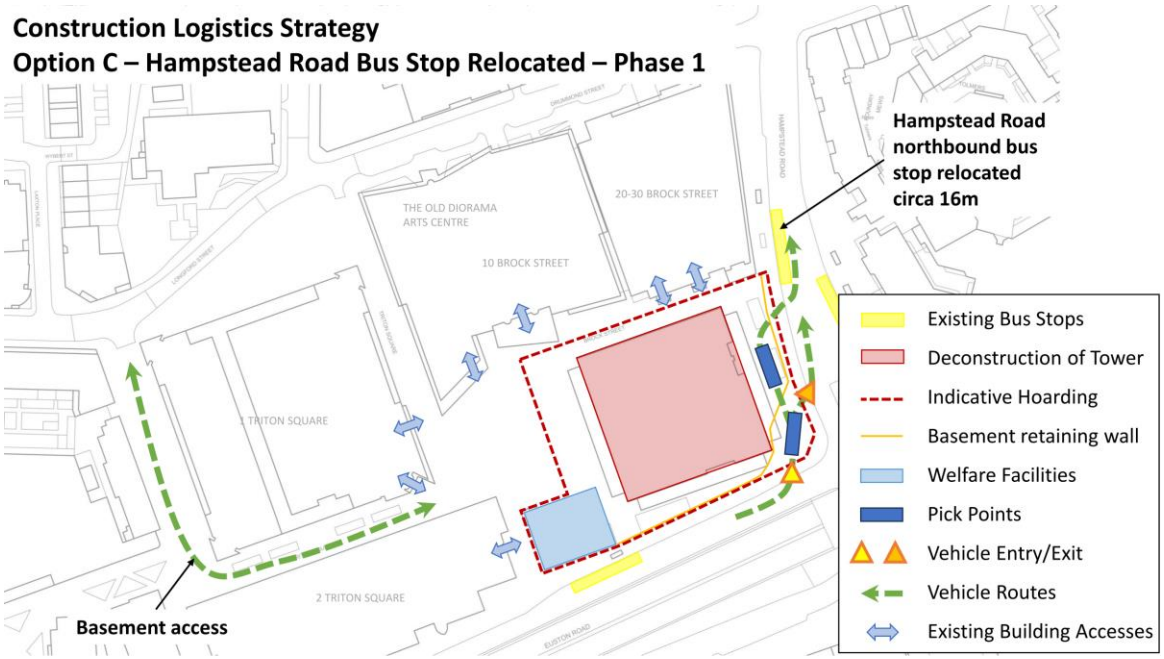


Figure 8-19: Construction Logistics Strategy – Option C – Phase 2

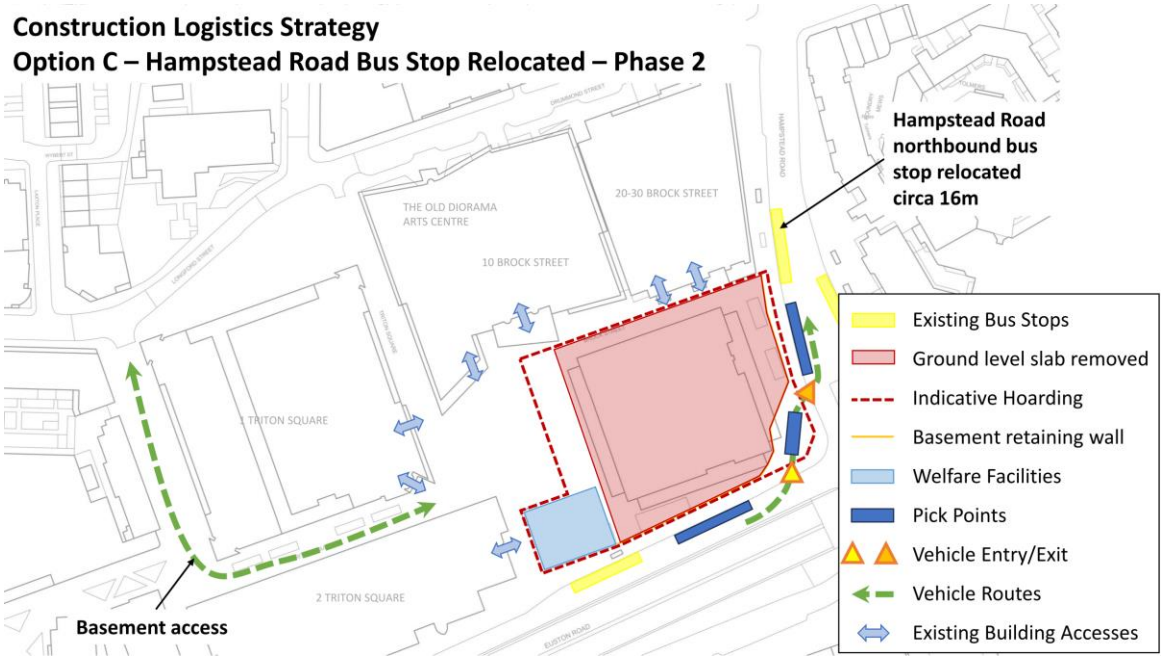
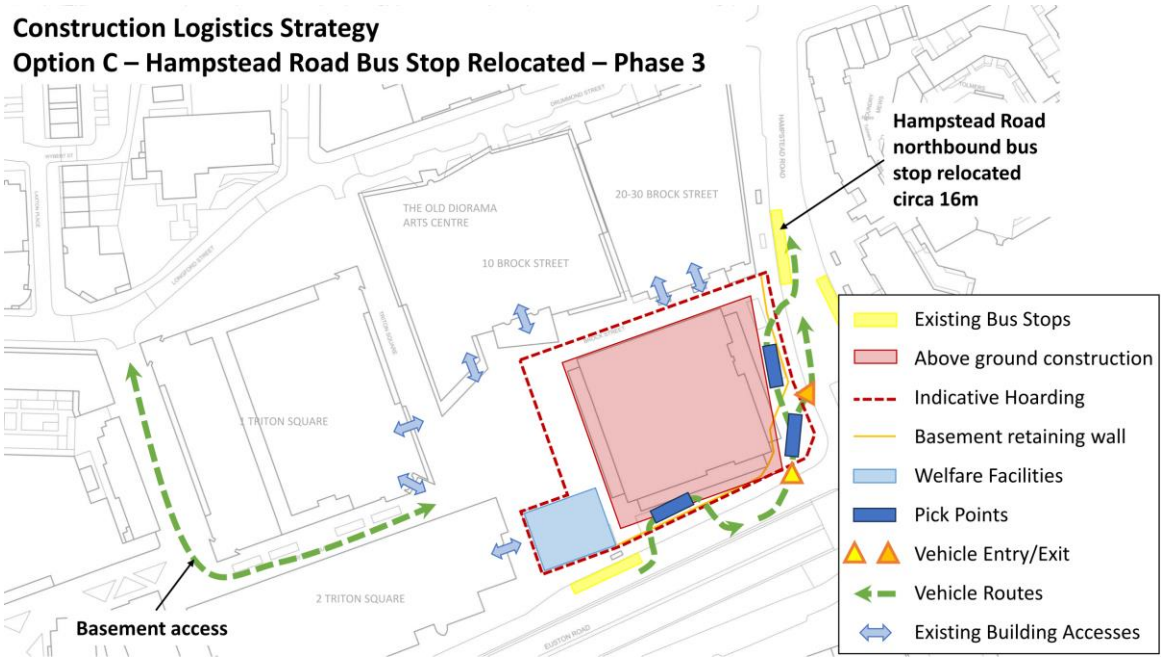


Figure 8-20: Construction Logistics Strategy – Option C – Phase 3



ENABLING WORKS REQUIRED

- Construction vehicle crossovers on Euston Road off-slip and two crossovers on Hampstead Road;
- Hampstead Road northbound bus stop to be relocated (existing shelter to be reused); and
- Site hoarding and welfare accommodation

POTENTIAL IMPACTS

- Minor disruption to bus users at Hampstead Road. The bus stop is proposed to be relocated 18m north and the redundant bus shelters to be reused. The relocation of the bus stop would be for the duration of the constriction programme (60-months/5-years)
- Construction vehicle crossovers required on Euston Road off-slip and two on Hampstead Road;
- On-street pit lanes required on Euston Road off-slip and Hampstead Road during Phase 2 of construction.
- Minor impact to construction viability – minor financial costs associated with the relocation of the bus stop for the entire construction programme.

OPTION D - BASEMENT AND TLRN ACCESS – HAMPSTEAD ROAD BUS STOP RETAINED

ACCESS SUMMARY

8.8.12 **Option D** proposes the use of the existing basement, and entry via Euston Road with vehicles exiting onto Hampstead Road on one location. For this option is it proposed to retain the northbound Hampstead Road bus stop for the duration of the construction programme. High-level access proposals for each construction phase are shown in **Figure 8-21** to **Figure 8-23.**

Figure 8-21: Construction Logistics Strategy – Option D – Phase 1

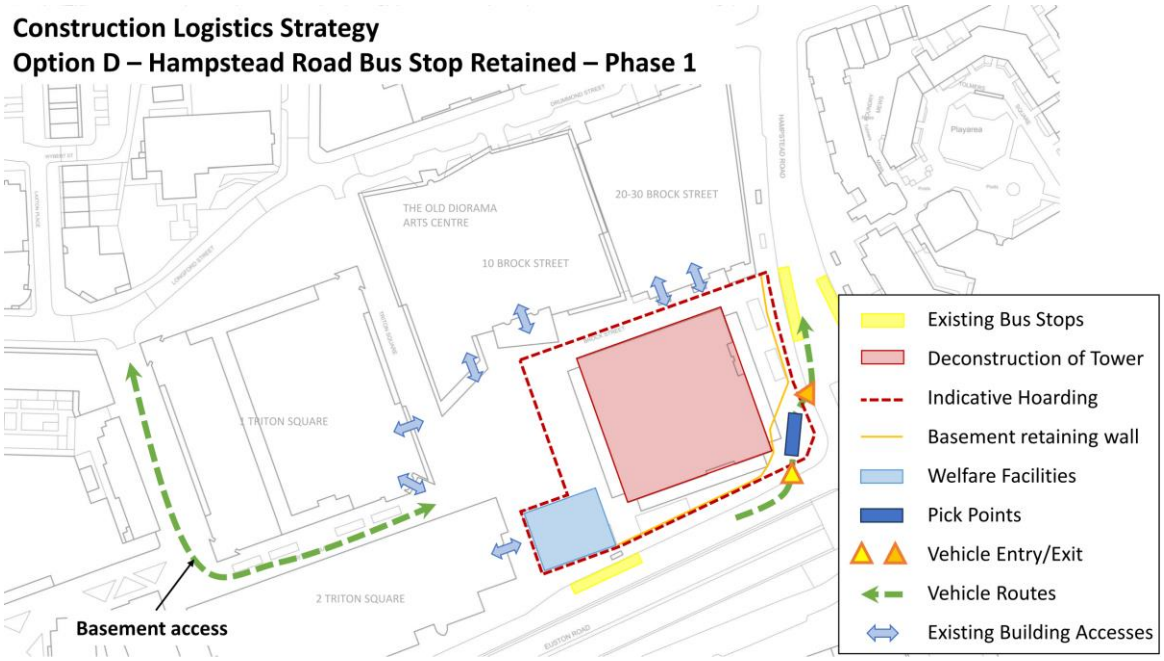


Figure 8-22: Construction Logistics Strategy – Option D – Phase 2

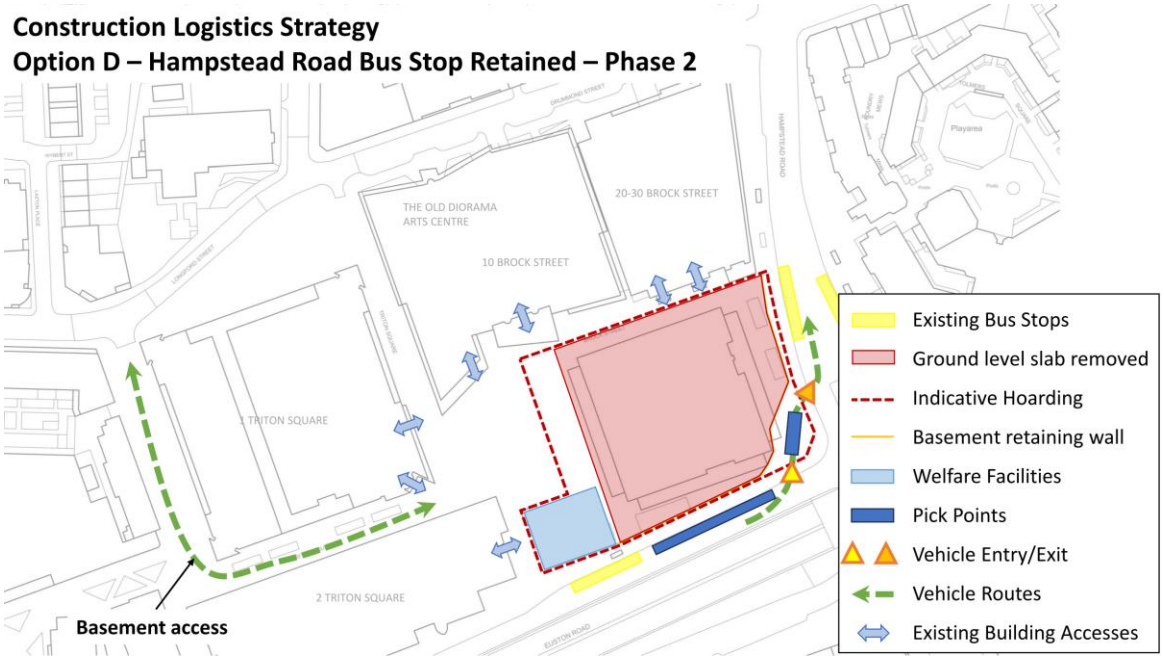
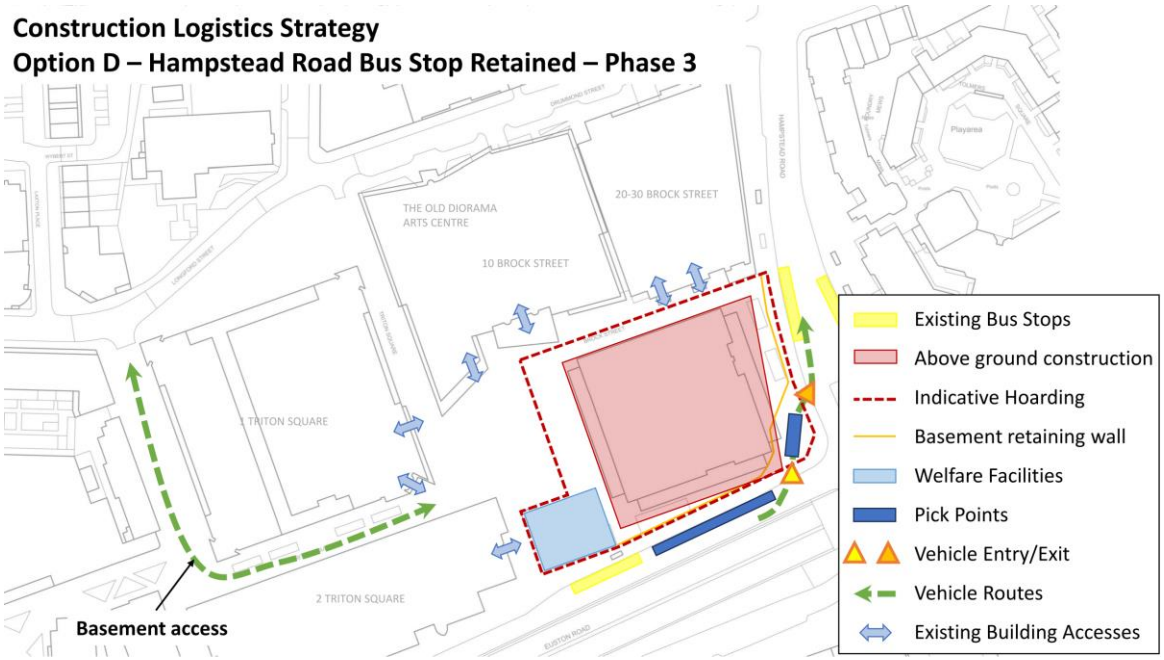


Figure 8-23: Construction Logistics Strategy – Option D – Phase 3



ENABLING WORKS REQUIRED

- Construction vehicle crossover on Euston Road off-slip and on Hampstead Road;
- Site hoarding and welfare accommodation

POTENTIAL IMPACTS

- Minor disruption to bus users at Hampstead Road. The extension to the construction programme will mean the hoarding line will be in place for the duration of the construction programme (eight years)
- Construction vehicle crossovers required on Euston Road off-slip and Hampstead Road;
- On-street double length pit lane required on Euston Road off-slip during Phase 2 and Phase 3 of construction.
- Significant impact to construction viability – major financial costs associated with the extension of the entire construction programme by circa three years.

SUMMARY OF CONSTRUCTION LOGISTICS STRATEGY OPTIONS

8.8.13 Larger version of the Construction Logistic Options and Phasing Plans are contained within **APPENDIX H**

8.8.14 Whilst it is understood that there will always be impact with such significant construction works adjacent to a busy transport network, the options discussed above have been analysed and their impacts reviewed against a number of users including pedestrian, cyclists, bus users and general road users, along with the construction programme and financial viability of the construction.

8.8.15 The summary set out in **Table 8-2** to **Table 8-5** and included in **APPENDIX I** shows a 'Traffic Light' impact study of the various users against each construction logistic strategy options.

Table 8-2: Impact Study – Option A

Option A - Triton Square Access						
Construction Phase		Phase 0 - Basement, Plaza and Access Route - Enabling Works	Phase 1 - Deconstruction to Ground Level	Phase 2 - Deconstruction of Ground Level Slab and Return to Ground	Phase 3 - Above Ground Construction	Summary
Initial Construction Programme		24 months	24 months	16 months	40 months	84 months*/8 Years
All Users	Buses	No change	Hampstead Road Site Egress - Construction vehicles crossing cycle lane, under management.	Hampstead Road Site Egress - Construction vehicles crossing cycle lane, under management.	Hampstead Road Site Egress - Construction vehicles crossing cycle lane, under management.	Hampstead Road Site Egress - Construction vehicles crossing cycle lane, under management.
	General Traffic	Additional construction traffic on Longford Street, Drummond Street and the pedestrianised Triton Square and Regent's Place Plaza	Hampstead Road Site Egress - Construction vehicles crossing cycle lane, under management.	Hampstead Road Site Egress - Construction vehicles crossing cycle lane, under management.	Hampstead Road Site Egress - Construction vehicles crossing cycle lane, under management.	Hampstead Road Site Egress - Construction vehicles crossing cycle lane, under management.
	Cycles	Additional construction traffic on Longford Street, Drummond Street and the pedestrianised Triton Square and Regent's Place Plaza	Hampstead Road Site Egress - Construction vehicles crossing cycle lane, under management.	Hampstead Road Site Egress - Construction vehicles crossing cycle lane, under management.	Hampstead Road Site Egress - Construction vehicles crossing cycle lane, under management.	Hampstead Road Site Egress - Construction vehicles crossing cycle lane, under management.
	Pedestrians	Additional construction traffic on Longford Street, Drummond Street and the pedestrianised Triton Square and Regent's Place Plaza - Regents Place Plaza would be closed for the Construction Programme	Hoarding, scaffolding and gantry on both Euston Road and Hampstead Road - Regent's Place Plaza closed and significant impact on Triton Square	Hoarding, scaffolding and gantry on both Euston Road and Hampstead Road - Regent's Place Plaza closed and significant impact on Triton Square	Hoarding, scaffolding and gantry on both Euston Road and Hampstead Road - Regent's Place Plaza closed and significant impact on Triton Square	Hoarding, scaffolding and gantry on both Euston Road and Hampstead Road - Regent's Place Plaza closed and significant impact on Triton Square
Safety	Pedestrians	Additional construction traffic on Longford Street, Drummond Street and the pedestrianised Triton Square and Regent's Place Plaza	Hoarding, scaffolding and gantry on both Euston Road and Hampstead Road - Regent's Place Plaza closed and significant impact on Triton Square. Construction entry and exit points crossing footways	Hoarding, scaffolding and gantry on both Euston Road and Hampstead Road - Regent's Place Plaza closed and significant impact on Triton Square. Construction entry and exit points crossing footways	Hoarding, scaffolding and gantry on both Euston Road and Hampstead Road - Regent's Place Plaza closed and significant impact on Triton Square. Construction entry and exit points crossing footways	Hoarding, scaffolding and gantry on both Euston Road and Hampstead Road - Regent's Place Plaza closed and significant impact on Triton Square. Construction entry and exit points crossing footways. Eight years of significant impact to pedestrians
	Cycles	Additional construction traffic on Longford Street, Drummond Street and the pedestrianised Triton Square and Regent's Place Plaza	Hampstead Road Site Egress - Construction vehicles crossing cycle lane, under management.	Hampstead Road Site Egress - Construction vehicles crossing cycle lane, under management.	Hampstead Road Site Egress - Construction vehicles crossing cycle lane, under management.	Hampstead Road Site Egress - Construction vehicles crossing cycle lane, under management.
	Construction Vehicles	Construction activity and hoarding lines will affect pedestrian movements within Triton Square and the Plaza.	Adequate space will be provided on-site for the loading and unloading of construction vehicles. Access to site to be managed	Pit lane required on Euston Road off-slip	Adequate space will be provided on-site for the loading and unloading of construction vehicles. Access to site to be managed	Construction vehicles conflict with all rod users when entering and leaving the site. All access from the TLRN will be under managed conditions.
	Vehicle Volumes	Additional construction traffic on Longford Street, Drummond Street and the pedestrianised Triton Square and Regent's Place Plaza	Additional construction vehicles on Additional construction traffic on Longford Street, Drummond Street and both Euston Road off-slip and Hampstead Road - Negligible increase in overall vehicles	Additional construction vehicles on Additional construction traffic on Longford Street, Drummond Street and both Euston Road off-slip and Hampstead Road - Negligible increase in overall vehicles	Additional construction vehicles on Additional construction traffic on Longford Street, Drummond Street and both Euston Road off-slip and Hampstead Road - Negligible increase in overall vehicles	Additional construction vehicles on Additional construction traffic on Longford Street, Drummond Street and both Euston Road off-slip and Hampstead Road - Negligible increase in overall vehicles
Buses and Bus Stops Impacts	Boarders	No change	Hoarding, scaffolding and gantry on both Euston Road and Hampstead Road and Hampstead Road Site Egress	Hoarding, scaffolding and gantry on both Euston Road and Hampstead Road and Hampstead Road Site Egress	Hoarding, scaffolding and gantry on both Euston Road and Hampstead Road and Hampstead Road Site Egress	Hoarding, scaffolding and gantry on both Euston Road and Hampstead Road and Hampstead Road Site Egress
	Alighters	No change	Hoarding, scaffolding and gantry on both Euston Road and Hampstead Road and Hampstead Road Site Egress	Hoarding, scaffolding and gantry on both Euston Road and Hampstead Road and Hampstead Road Site Egress	Hoarding, scaffolding and gantry on both Euston Road and Hampstead Road and Hampstead Road Site Egress	Hoarding, scaffolding and gantry on both Euston Road and Hampstead Road and Hampstead Road Site Egress
	Onboard	No change	Hoarding, scaffolding and gantry on both Euston Road and Hampstead Road and Hampstead Road Site Egress	Hoarding, scaffolding and gantry on both Euston Road and Hampstead Road and Hampstead Road Site Egress	Hoarding, scaffolding and gantry on both Euston Road and Hampstead Road and Hampstead Road Site Egress	Hoarding, scaffolding and gantry on both Euston Road and Hampstead Road and Hampstead Road Site Egress
	Bus speeds	No change	Hoarding, scaffolding and gantry on both Euston Road and Hampstead Road and Hampstead Road Site Egress	Hoarding, scaffolding and gantry on both Euston Road and Hampstead Road and Hampstead Road Site Egress	Hoarding, scaffolding and gantry on both Euston Road and Hampstead Road and Hampstead Road Site Egress	Hoarding, scaffolding and gantry on both Euston Road and Hampstead Road and Hampstead Road Site Egress
Footway Impact and Pedestrian flows	Pedestrians	Construction activity and hoarding lines will affect pedestrian movements within Triton Square and the Plaza, and on both Euston Road and Hampstead Road.	Construction activity and hoarding lines will affect pedestrian movements within Triton Square and the Plaza, and on both Euston Road and Hampstead Road.	Construction activity and hoarding lines will affect pedestrian movements within Triton Square and the Plaza, and on both Euston Road and Hampstead Road.	Construction activity and hoarding lines will affect pedestrian movements within Triton Square and the Plaza, and on both Euston Road and Hampstead Road.	Construction activity and hoarding lines will affect pedestrian movements within Triton Square and the Plaza, and on both Euston Road and Hampstead Road.
	PCL assessment	Construction activity and hoarding lines will affect pedestrian movements within Triton Square and the Plaza.	PCL assessment shows worst case 'B' during construction for Euston Road, Hampstead Road and Brock Street. Additional assessment for Triton Square and Regents Place Plaza required.	PCL assessment shows worst case 'B' during construction for Euston Road, Hampstead Road and Brock Street. Additional assessment for Triton Square and Regents Place Plaza required.	PCL assessment shows worst case 'B' during construction for Euston Road, Hampstead Road and Brock Street. Additional assessment for Triton Square and Regents Place Plaza required.	PCL assessment shows worst case 'B' during construction for Euston Road, Hampstead Road and Brock Street. Additional assessment for Triton Square and Regents Place Plaza required.
Lane Rental Charges	Developer	No change	No change	Pit lane required on Euston Road off-slip	No change	Pit lane required on Euston Road off-slip during Phase 2
Air Quality	All users	Construction Vehicle Activity closer to residents on Drummond Street	Construction Vehicle Activity	Construction Vehicle Activity	Construction Vehicle Activity	Construction Vehicle Activity
Construction Programme/Duration	All users	24 month programme extension - Significant enabling works	No change from preliminary Programme	No change from preliminary Programme	No change from preliminary Programme	24 month programme extension due to significant enabling works
Construction Cost/Viability	All users	24 month programme extension & Significant enabling works	No change from preliminary construction costs	No change from preliminary construction costs	No change from preliminary construction costs	Significant additional construction costs for enabling works and 24 month programme extension

Table 8-3: Impact Study – Option B

Option B - Hampstead Road Northbound Bus Stop Suspended					
Construction Phase		Phase 1 - Deconstruction to Ground Level	Phase 2 - Deconstruction of Ground Level Slab and Return to Ground	Phase 3 - Above Ground Construction	Summary
Initial Construction Programme		24 months	16 months	40 months	60 months*/5-Years
TLRN/Road Users	Buses	Hampstead Road Bus Stop suspended	Hampstead Road Bus Stop suspended	Hampstead Road Bus Stop suspended	Suspension of Hampstead Road bus stop for entire construction programme
	General Traffic	No change	No change	No change	No change
	Cycles	Shared bus and cycle lane retained - bus stop removed	Bus and cycle lane suspended - cycles to be with general traffic	Shared bus and cycle lane retained - bus stop removed	With the exception of Phase 2, cyclists will continue to use the shared bus and cycle lane
	Pedestrians	Hoarding and gantry on both Euston Road and Hampstead Road Construction vehicle crossovers; one on Euston Road and two on Hampstead Road	Hoarding and gantry on both Euston Road and Hampstead Road Construction vehicle crossovers; one on Euston Road and two on Hampstead Road	Hoarding and gantry on both Euston Road and Hampstead Road Construction vehicle crossovers; one on Euston Road and two on Hampstead Road	Hoarding and gantry on both Euston Road and Hampstead Road Construction vehicle crossovers; one on Euston Road and two on Hampstead Road
Road Safety	Pedestrians	Hoarding and gantry on both Euston Road and Hampstead Road Construction vehicle crossovers; one on Euston Road and two on Hampstead Road	Hoarding and gantry on both Euston Road and Hampstead Road Construction vehicle crossovers; one on Euston Road and two on Hampstead Road	Hoarding and gantry on both Euston Road and Hampstead Road Construction vehicle crossovers; one on Euston Road and two on Hampstead Road	Hoarding and gantry on both Euston Road and Hampstead Road Construction vehicle crossovers; one on Euston Road and two on Hampstead Road
	Cycles	Shared bus and cycle lane retained - bus stop removed	Bus and cycle lane closed - cycles to be with general traffic	Shared bus and cycle lane retained - bus stop removed	With the exception of Phase 2, cyclists will continue to use the shared bus and cycle lane
	Construction Vehicles	Adequate space will be provided on-site for the loading and unloading of construction vehicles. Access to site to be managed	Pit lane required on Euston Road off-slip	Adequate space will be provided on-site for the loading and unloading of construction vehicles. Access to site to be managed	Construction vehicles conflict with all road users when entering and leaving the site. All access from the TLRN will be under managed conditions.
	Vehicle Volumes	Additional construction vehicles on Additional construction traffic on Longford Street, Drummond Street and both Euston Road off-slip and Hampstead Road - Negligible increase in overall vehicles	Additional construction vehicles on Additional construction traffic on Longford Street, Drummond Street and both Euston Road off-slip and Hampstead Road - Negligible increase in overall vehicles	Additional construction vehicles on Additional construction traffic on Longford Street, Drummond Street and both Euston Road off-slip and Hampstead Road - Negligible increase in overall vehicles	Additional construction vehicles on Additional construction traffic on Longford Street, Drummond Street and both Euston Road off-slip and Hampstead Road - Negligible increase in overall vehicles
Buses and Bus Stops Impacts	Boarders	Hampstead Road Bus Stop suspended	Hampstead Road Bus Stop suspended	Hampstead Road Bus Stop suspended	Suspension of Hampstead Road bus stop for entire construction programme
	Alighters	Hampstead Road Bus Stop suspended	Hampstead Road Bus Stop suspended	Hampstead Road Bus Stop suspended	Suspension of Hampstead Road bus stop for entire construction programme
	Onboard	No change	No change	No change	No change
	Bus speeds	No change	60m of bus lane on Hampstead Road to be suspended, buses to join general traffic lane	No change	No change
Footway Impact and Pedestrian flows	Pedestrians	Hoarding, scaffolding and gantry on both Euston Road and Hampstead Road	Hoarding, scaffolding and gantry on both Euston Road and Hampstead Road	Hoarding, scaffolding and gantry on both Euston Road and Hampstead Road	Hoarding, scaffolding and gantry on both Euston Road and Hampstead Road
	PCL assessment	PCL assessment shows worst case 'B' during construction	PCL assessment shows worst case 'B' during construction	PCL assessment shows worst case 'B' during construction	PCL assessment shows worst case 'B' during construction
Lane Rental Charges	Developer	No charge - on street pit lanes not required	Pit lanes required on both Euston Road off-slip and Hampstead Road	No charge - on street pit lanes not required	Pit lanes and lane rental charges required during Phase 2
Total Cost/Economic Impact	Developer	Hampstead Road Bus Stop suspended	Hampstead Road Bus Stop suspended Pit lane required on Euston Road off-slip and Hampstead Road	Hampstead Road Bus Stop suspended	Suspension of Hampstead Road bus stop for entire construction programme
	TfL	Hampstead Road Bus Stop suspended	Hampstead Road Bus Stop suspended Pit lane required on Euston Road off-slip	Hampstead Road Bus Stop suspended	Suspension of Hampstead Road bus stop for entire construction programme
Air Quality	All users	Construction Vehicle Activity	Construction Vehicle Activity	Construction Vehicle Activity	Construction Vehicle Activity
Construction Programme/Duration	All users	No change from preliminary Programme	No change from preliminary Programme	No change from preliminary Programme	No change from preliminary Programme
Construction Cost/Viability	All users	No change from preliminary construction costs	No change from preliminary construction costs	No change from preliminary construction costs	No change from preliminary construction costs

Table 8-4: Impact Study – Option C

Option C - Hampstead Road Bus Stop Relocated					
Construction Phase		**Phase 1**	**Phase 2**	**Phase 3**	**Summary**
Construction Duration		**24 months**	**16 months**	**40 months**	**60 months*/5-Years**
TLRN Users	**Buses**	Hampstead Road Bus Stop relocated 16m north - redundant bus shelters to be reused	Hampstead Road Bus Stop relocated 16m north - redundant bus shelters to be reused	Hampstead Road Bus Stop relocated 16m north - redundant bus shelters to be reused	Hampstead Road Bus Stop relocated 16m north - redundant bus shelters to be reused
	General Traffic	No change	No change	No change	No change
	Cycles	Cycles to be with general traffic until joining existing cycle lane north of the bus stop	Cycles to be with general traffic until joining existing cycle lane north of the bus stop	Cycles to be with general traffic until joining existing cycle lane north of the bus stop	Cycles to be with general traffic until joining existing cycle lane north of the bus stop
	Pedestrians	Hoarding, scaffolding and gantry - Vehicle accesses will be fully managed by trained traffic marshals	Hoarding, scaffolding and gantry - Vehicle accesses will be fully managed by trained traffic marshals	Hoarding, scaffolding and gantry - Vehicle accesses will be fully managed by trained traffic marshals	Hoarding, scaffolding and gantry - Vehicle accesses will be fully managed by trained traffic marshals
Road Safety	**Pedestrians**	Hoarding, scaffolding and gantry - Vehicle accesses will be fully managed by trained traffic marshals	Hoarding, scaffolding and gantry - Vehicle accesses will be fully managed by trained traffic marshals	Hoarding, scaffolding and gantry - Vehicle accesses will be fully managed by trained traffic marshals	Hoarding, scaffolding and gantry - Vehicle accesses will be fully managed by trained traffic marshals
	Cycles	Cycles to be with general traffic until joining existing cycle lane north of the bus stop	Cycles to be with general traffic until joining existing cycle lane north of the bus stop	Cycles to be with general traffic until joining existing cycle lane north of the bus stop	Cycles to be with general traffic until joining existing cycle lane north of the bus stop
	Construction Vehicles	Adequate space will be provided on-site for the loading and unloading of construction vehicles. Access to site to be managed	Pit lane required on Euston Road off-slip	Adequate space will be provided on-site for the loading and unloading of construction vehicles. Access to site to be managed	Construction vehicles conflict with all road users when entering and leaving the site. All access from the TLRN will be under managed conditions.
	Vehicle Volumes	Additional construction vehicles on Additional construction traffic on Longford Street, Drummond Street and both Euston Road off-slip and Hampstead Road - Negligible increase in overall vehicles	Additional construction vehicles on Additional construction traffic on Longford Street, Drummond Street and both Euston Road off-slip and Hampstead Road - Negligible increase in overall vehicles	Additional construction vehicles on Additional construction traffic on Longford Street, Drummond Street and both Euston Road off-slip and Hampstead Road - Negligible increase in overall vehicles	Additional construction vehicles on Additional construction traffic on Longford Street, Drummond Street and both Euston Road off-slip and Hampstead Road - Negligible increase in overall vehicles
Buses and Bus Stops Impacts	**Boarders**	Hampstead Road Bus Stop relocated 16m north - redundant bus shelters to be reused	Hampstead Road Bus Stop relocated 16m north - redundant bus shelters to be reused	Hampstead Road Bus Stop relocated 16m north - redundant bus shelters to be reused	Hampstead Road Bus Stop relocated 16m north - redundant bus shelters to be reused
	Alighters	Hampstead Road Bus Stop relocated 16m north - redundant bus shelters to be reused	Hampstead Road Bus Stop relocated 16m north - redundant bus shelters to be reused	Hampstead Road Bus Stop relocated 16m north - redundant bus shelters to be reused	Hampstead Road Bus Stop relocated 16m north - redundant bus shelters to be reused
	Onboard	No change	No change	No change	No change
	Bus speeds	No change	Minor Delay - 60m of bus lane on Hampstead Road to be suspended	No change	No change
Footway Impact and Pedestrian flows	**Pedestrians**	Hoarding, scaffolding and gantry on both Euston Road and Hampstead Road	Hoarding, scaffolding and gantry on both Euston Road and Hampstead Road	Hoarding, scaffolding and gantry on both Euston Road and Hampstead Road	Hoarding, scaffolding and gantry on both Euston Road and Hampstead Road
	PCL assessment	PCL assessment shows worst case 'B' during construction	PCL assessment shows worst case 'B' during construction	PCL assessment shows worst case 'B' during construction	PCL assessment shows worst case 'B' during construction
Lane Rental Charges	**Developer**	No charge - on street pit lanes not required	Pit lanes required on both Euston Road off-slip and Hampstead Road	No charge - on street pit lanes not required	Pit lanes required on both Euston Road off-slip and Hampstead Road during Phase 2
Total Cost/Economic Impact	**Developer**	Hampstead Road Bus Stop relocated 16m north - redundant bus shelters to be reused	Hampstead Road Bus Stop relocated 16m north - redundant bus shelters to be reused Pit lanes required	Hampstead Road Bus Stop relocated 16m north - redundant bus shelters to be reused	Hampstead Road Bus Stop relocated 16m north - redundant bus shelters to be reused Pit lanes required
	TfL	Hampstead Road Bus Stop relocated 16m north - redundant bus shelters to be reused	Hampstead Road Bus Stop relocated 16m north - redundant bus shelters to be reused	Hampstead Road Bus Stop relocated 16m north - redundant bus shelters to be reused	Hampstead Road Bus Stop relocated 16m north - redundant bus shelters to be reused
Air Quality	**All users**	Additional construction vehicles on both Euston Road off-slip and Hampstead Road	Additional construction vehicles on both Euston Road off-slip and Hampstead Road	Additional construction vehicles on both Euston Road off-slip and Hampstead Road	Additional construction vehicles on both Euston Road off-slip and Hampstead Road
Construction Programme/Duration	**All users**	No change from preliminary Programme	No change from preliminary Programme	No change from preliminary Programme	No change from preliminary Programme
Construction Cost/Viability	**All users**	No change from preliminary construction costs	No change from preliminary construction costs	No change from preliminary construction costs	No change from preliminary construction costs

Table 8-5: Impact Study – Option D

Option D - Hampstead Road Bus Stop Retained					
Construction Phase		**Phase 1**	**Phase 2**	**Phase 3**	**Summary**
Construction Duration		**24 months**	**24 months**	**80 months**	**110 months*/9 Years**
Road Users	**Buses**	Hampstead Road Bus Stop relocated 16m north - redundant bus shelters to be reused	Hampstead Road Bus Stop relocated 16m north - redundant bus shelters to be reused	Hampstead Road Bus Stop relocated 16m north - redundant bus shelters to be reused	Hampstead Road Bus Stop relocated 16m north - redundant bus shelters to be reused
	General Traffic	No change	No change	No change	No change
	Cycles	Cycles to be with general traffic until joining existing cycle lane north of the bus stop	Cycles to be with general traffic until joining existing cycle lane north of the bus stop	Cycles to be with general traffic until joining existing cycle lane north of the bus stop	Cycles to be with general traffic until joining existing cycle lane north of the bus stop
	Pedestrians	Hoarding, scaffolding and gantry - Vehicle accesses will be fully managed by trained traffic marshals	Hoarding, scaffolding and gantry - Vehicle accesses will be fully managed by trained traffic marshals	Hoarding, scaffolding and gantry - Vehicle accesses will be fully managed by trained traffic marshals	Hoarding, scaffolding and gantry - Vehicle accesses will be fully managed by trained traffic marshals - Pedestrian affected for circa 9-years
Road Safety	**Pedestrians**	Hoarding, scaffolding and gantry - Vehicle accesses will be fully managed by trained traffic marshals	Hoarding, scaffolding and gantry - Vehicle accesses will be fully managed by trained traffic marshals	Hoarding, scaffolding and gantry - Vehicle accesses will be fully managed by trained traffic marshals	Hoarding, scaffolding and gantry - Vehicle accesses will be fully managed by trained traffic marshals - Pedestrian affected for circa 9-years
	Cycles	Cycles to be with general traffic until joining existing cycle lane north of the bus stop	Cycles to be with general traffic until joining existing cycle lane north of the bus stop	Cycles to be with general traffic until joining existing cycle lane north of the bus stop	Cycles to be with general traffic until joining existing cycle lane north of the bus stop
	Construction Vehicles	Adequate space will be provided on-site for the loading and unloading of construction vehicles. Access to site to be managed	Pit lane required on Euston Road off-slip	Adequate space will be provided on-site for the loading and unloading of construction vehicles. Access to site to be managed	Construction vehicles conflict with all road users when entering and leaving the site. All access from the TLRN will be under managed conditions.
	Vehicle Volumes	Additional construction vehicles on Additional construction traffic on Longford Street, Drummond Street and both Euston Road off-slip and Hampstead Road - Negligible increase in overall vehicles	Additional construction vehicles on Additional construction traffic on Longford Street, Drummond Street and both Euston Road off-slip and Hampstead Road - Negligible increase in overall vehicles	Additional construction vehicles on Additional construction traffic on Longford Street, Drummond Street and both Euston Road off-slip and Hampstead Road - Negligible increase in overall vehicles	Additional construction vehicles on Additional construction traffic on Longford Street, Drummond Street and both Euston Road off-slip and Hampstead Road - Negligible increase in overall vehicles
Buses and Bus Stops Impacts	**Boarders**	Hampstead Road Bus Stop relocated 16m north - redundant bus shelters to be reused	Hampstead Road Bus Stop relocated 16m north - redundant bus shelters to be reused	Hampstead Road Bus Stop relocated 16m north - redundant bus shelters to be reused	Hampstead Road Bus Stop relocated 16m north - redundant bus shelters to be reused
	Alighters	Hampstead Road Bus Stop relocated 16m north - redundant bus shelters to be reused	Hampstead Road Bus Stop relocated 16m north - redundant bus shelters to be reused	Hampstead Road Bus Stop relocated 16m north - redundant bus shelters to be reused	Hampstead Road Bus Stop relocated 16m north - redundant bus shelters to be reused
	Onboard	No change	No change	No change	No change
	Bus speeds	No change	Minor Delay - Double length pit lane requied on Euston Road off-slip	Minor Delay - Double length pit lane requied on Euston Road off-slip	Minor Delay - Double length pit lane requied on Euston Road off-slip during Phase 2 and 3
Footway Impact and Pedestrian flows	**Pedestrians**	Hoarding, scaffolding and gantry on both Euston Road and Hampstead Road	Hoarding, scaffolding and gantry on both Euston Road and Hampstead Road	Hoarding, scaffolding and gantry on both Euston Road and Hampstead Road	Hoarding, scaffolding and gantry - Vehicle accesses will be fully managed by trained traffic marshals - Pedestrian affected for circa 9-years
	PCL assessment	PCL assessment shows worst case 'B' during construction	PCL assessment shows worst case 'B' during construction	PCL assessment shows worst case 'B' during construction	PCL assessment shows worst case 'B' during construction
Lane Rental Charges	**Developer**	No charge - on street pit lanes not required	Double length pit lane required on Euston Road off-slip	Double length pit lane requied on Euston Road off-slip	Minor Delay - Double length pit lane requied on Euston Road off-slip during Phase 2 and 3
Total Cost/Economic Impact	**Developer**	No change	Double length pit lane required on Euston Road off-slip	No change	Double length pit line and lane charges required during Phase 2
	TfL	No change	No change	No change	No change
Air Quality	**All users**	Additional construction vehicles on both Euston Road offslip and Hampstead Road	Additional construction vehicles on both Euston Road offslip and Hampstead Road	Additional construction vehicles on both Euston Road offslip and Hampstead Road	Additional construction vehicles on both Euston Road offslip and Hampstead Road
Construction Programme/Duration	**All users**	No change from preliminary Programme	Minor programme Increase	Significant Programme Increase	Significant Programme Increase
Construction Cost/Viability	**All users**	No change from preliminary construction costs	Minor programme Increase - leading to additional construction costs	Significant Programme Increase leading to additional construction costs	Significant Programme Increase leading to additional construction costs

8.8.16 **Option C** provides the least impact on all users listed above and has the shortest construction programme which reduces the time where certain users are impacted. i.e. pedestrians are impacted due the hoarding line and reduced footway widths for five years in Option C or eight years in Options A or nine years in Option D.

8.8.17 The impacts to all users on the relocation of the Hampstead bus stop are listed below:

- Minor impact to all bus users
- Minor impact on bus delay – construction vehicle access points – Phase 2 pit lanes on both Euston Road and Hampstead Road
- Shortest construction programme (5-years)
- Minor impact to cyclists – required to join general traffic for approx. 80m until joining existing cycle lane.
- Minor impact to pedestrians on Hampstead Road and Euston Road due to the hoarding line and construction vehicle access points.
- Pit lanes on both Euston Road and Hampstead Road required during Construction Phase 2

8.8.18 Overall, the relocation of the Hampstead Road northbound bus stop, is the least impactful on all users and provides the most efficient construction programme.

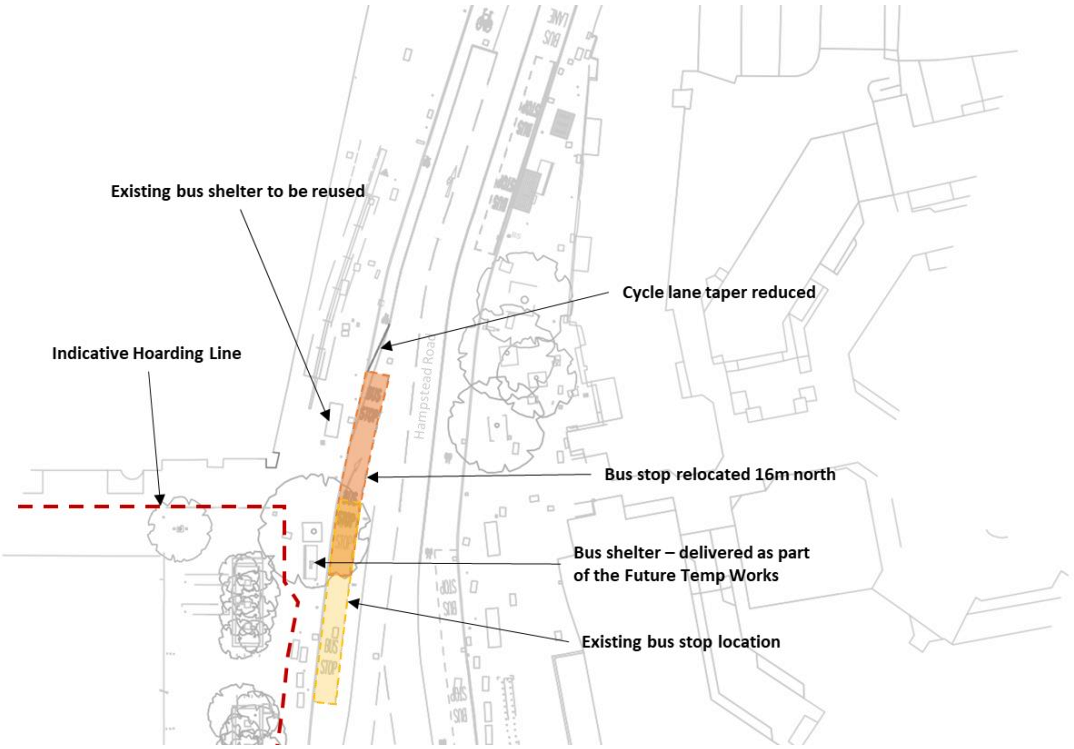
8.8.19 To facilitate the construction of the Hampstead Road egress points during Phases 1 and 3 and the introduction of a pit lane during Phase 2. It is proposed to relocate the northbound bus stop on Hampstead Road 18m to the north and re-use the redundant bus shelters associated with the previous location of the bus stop.

8.8.20 The proposed relocation retains the southbound carriageway, including the latest TfL (Future of Temp Works) proposals as set out in **Section 7.11.**

8.8.21 As part of the proposals, the shared northbound cycle lane is removed from the bus lane between the junction with Euston Road and to rejoin the existing cycle lane circa 80m north.

8.8.22 The proposed bus stop relocation is shown in **Figure 8-24** and a scaled plan is included in **APPENDIX J.**

Figure 8-24: Proposed Hampstead Road Bus Stop Relocation



SITE ACCESS

8.8.23 The proposed logistics plan for the Site incorporates the following key features:

- Use of the existing basement servicing area will be maximised, but is limited due to vehicle height and length constraints;
- Products and materials will be delivered to the Site by vehicle and unloaded within the Site boundary. Marshals will strictly control any movements through the access, and short-term temporary barriers will be erected to safeguard pedestrians where required; and
- Access and egress to the site are to be controlled by banksman.

CONSTRUCTION VEHICLE ACCESS

8.8.24 Vehicular movements to and from the site will be controlled and managed. Separate access gates will be provided for pedestrian and vehicular access to the site. A plan of the immediate site will be provided to all delivery companies, clearly showing the access and exit points for all vehicles.

8.8.25 To facilitate the construction of the development, a qualified banksman will be on hand to ensure the safe access and egress of construction vehicles. As set out within the Health and Safety Executive (HSE) guidance, the traffic marshal directing vehicle movements will be trained and authorised.

8.8.26 Trained traffic marshals will be responsible for facilitating unloading/loading goods to the Site/from the correct offloading zone and storage areas to ensure safe unloading practices.

8.8.27 The main access points for construction vehicles will be:

- via the existing Longford Street basement access, which cannot accommodate articulated vehicles;
- from the Euston Road off slip and exiting the site onto Hampstead Road; or
- via proposed pit lanes on Euston Road off slip and Hampstead Road during Construction Phase 2.

Figure 8-25: Proposed Site Layout and Vehicle Access

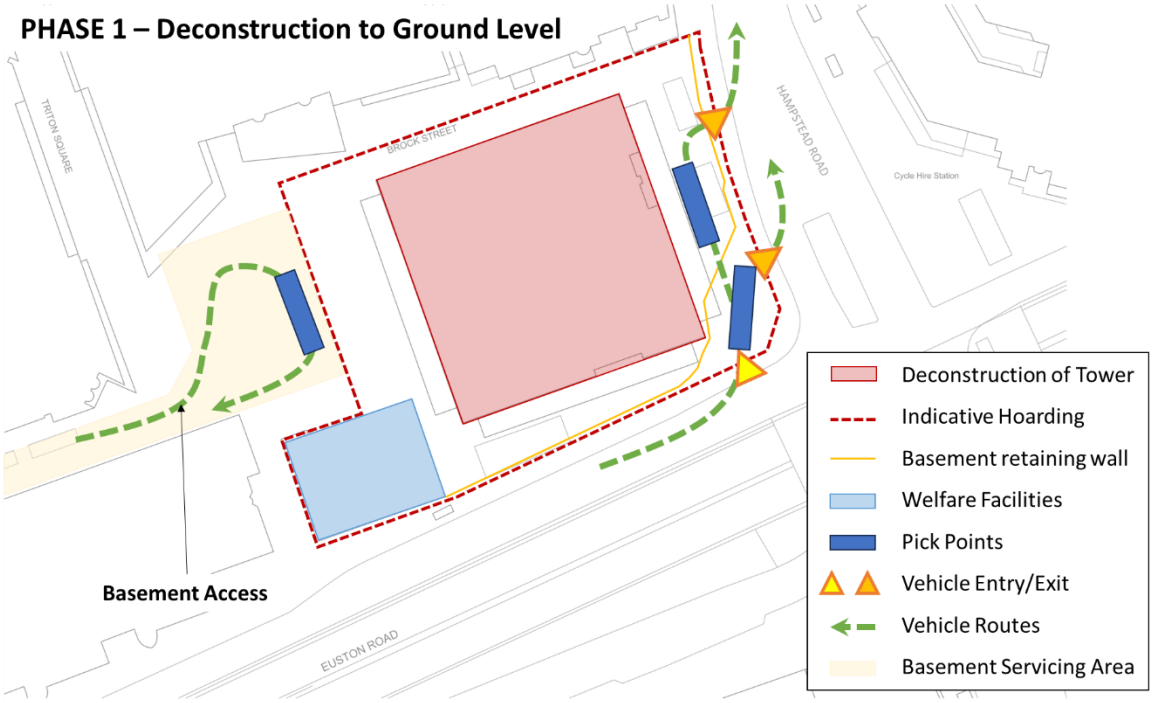
8.8.28 Secure gates and wheel cleaning facilities (if needed) will be established at the construction gates.

8.8.29 To minimise the likelihood of congestion during the construction period, strict monitoring and control of vehicles entering and egressing the sites will be implemented. Construction deliveries will be carefully planned, with delivery times agreed with each sub-contractor and supplier using a booking system. Delivery schedules will be produced in order to look at the profiles of up-and-coming deliveries and to regulate deliveries to avoid any potential queueing.

8.8.30 **Figure 8-26** shows the proposed construction logistics layout plan for Phase 1, which includes the reduction in the width of Brock Street to the north and the narrowing of Hampstead Road (western footway) and Euston Road (northern footway) to a clear 2.5m in width. Vehicle access is gained from Euston Road off slip, and vehicles exit northbound onto Hampstead Road.

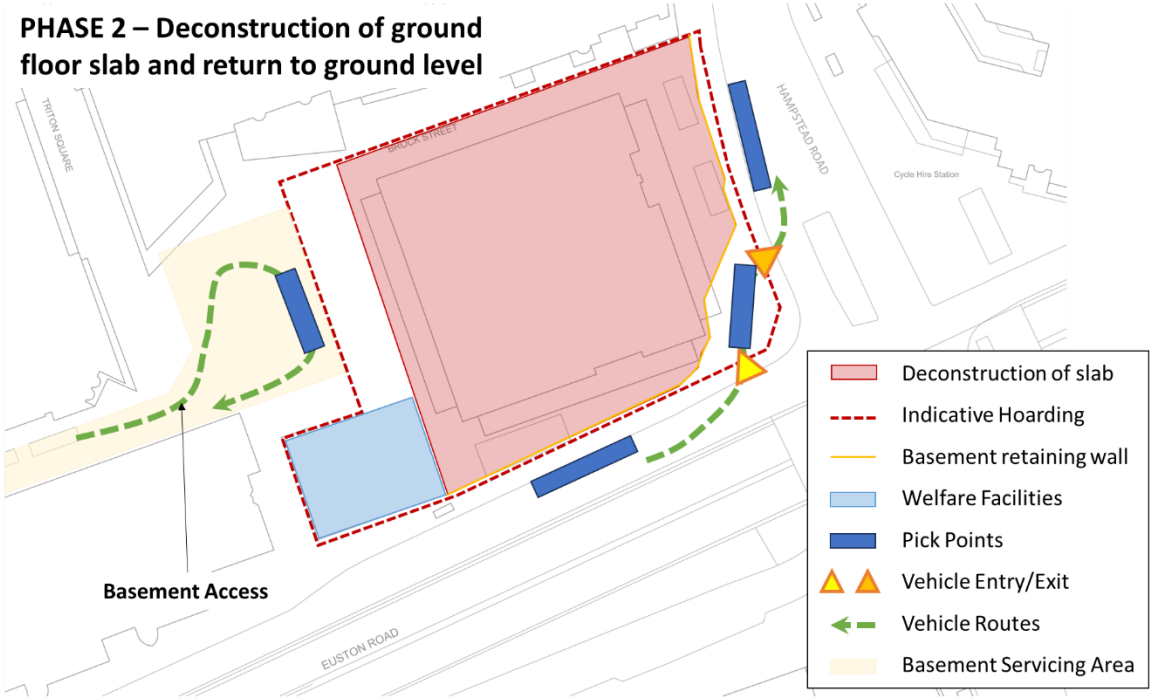
8.8.31 As part of the access strategy for all construction phases, it is proposed to relocate the existing northbound Hampstead Road bus stop by circa 18m north to allow construction vehicles to egress the Site. The proposed relocation is covered in more detail in **Section 8.10.**

Figure 8-26: Construction Vehicle Access – Phase 1



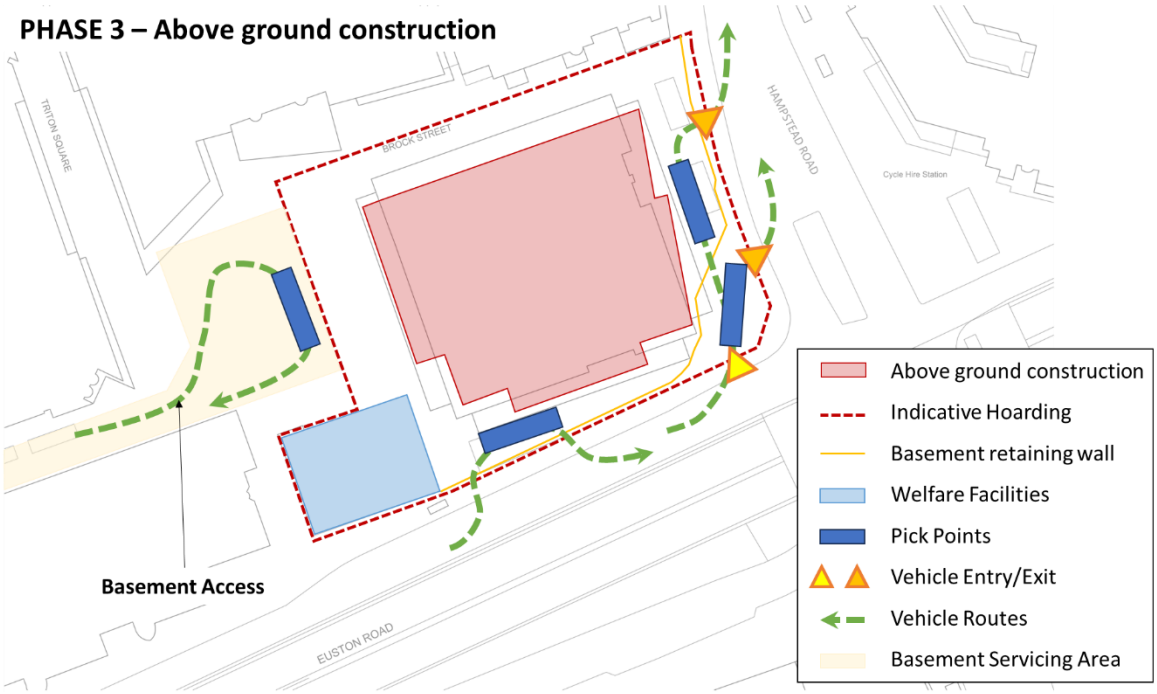
8.8.32 **Figure 8-27** shows the proposed construction logistics layout plan for Phase 2, which includes the reduction in the width of Brock Street to the north and the narrowing of Hampstead Road (western footway) and Euston Road (northern footway) to a clear 2.5m in width. As the ground level slab is removed during Phase 2, pit lanes are to be provided on both Euston Road off-slip and Hampstead Road.

Figure 8-27: Construction Vehicle Access – Phase 2



8.8.33 **Figure 8-28** shows the proposed construction logistics layout plan for Phase 1, which includes the reduction in the width of Brock Street to the north and the narrowing of Hampstead Road (western footway) and Euston Road (northern footway) to a clear 2.5m in width. Vehicle access is gained in two locations from Euston Road off slip, and vehicles exit northbound onto Hampstead Road.

Figure 8-28: Construction Vehicle Access – Phase 3



PERSONNEL ACCESS

8.8.34 Given the accessible location of the Site, most operatives are anticipated to arrive by public transport. No operative parking will be permitted or encouraged.

8.8.35 Pedestrian access to the Site will always be segregated from vehicle traffic, with clear signage to maintain the Site's safety and the public. Personnel access is proposed to the west of the Site via Regents Place Plaza.

8.8.36 Once the contractor is appointed, further opportunities to maximise access to the construction Site will be investigated to reduce the construction programme and mitigate associated impacts.

8.8.37 These will be included within the submitted detailed Construction Environmental Management Plan and/or the Construction Traffic Management Plan, which are expected to be secured by a planning condition. A Draft Construction Management Plan Camden Proforma has been submitted with the planning application.

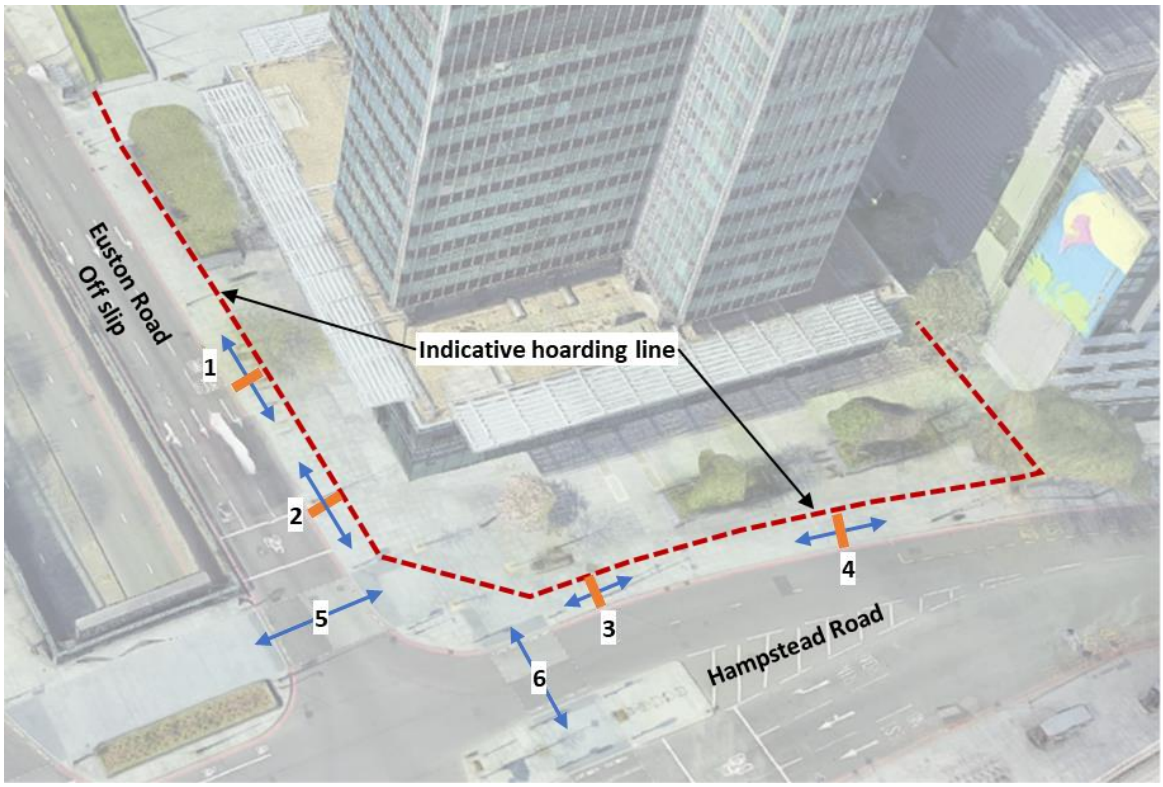
8.9 CONSTRUCTION – PEDESTRIAN COMFORT LEVEL ASSESSMENT

8.9.1 A PCL assessment has been undertaken of existing flows on the surrounding footways during the peak hour throughout the construction period, the results of which are shown in **Table 8-6**.

Table 8-6: Pedestrian comfort analysis - pedestrian conditions during the construction period

Ref.	Link	Link Type	Peak Hour Flow	Clear Footway Width	PCL
1	Euston Road	Office and Retail	1,583	2.5m	B+
2	Euston Road	Office and Retail	1,583	2.5m	B+
3	Hampstead Road	Office and Retail	1,068	2.05m*	B
4	Hampstead Road	Office and Retail	1,068	2.5m	A-

*Existing landscaping and street furniture



8.9.2 The PCL assessment indicates that:

- On Euston Road (northern footway), pedestrian conditions will be comfortable with peak hour PCLs of B+;
- On Hampstead Road South (western footway), the PCL is expected to be B in the peak hour;
- On Hampstead Road North (western footway), the PCL is expected to be A- in the peak hour;

8.9.3 Based on TfL's 'pedestrian comfort guidance technical note,' a PCL of 'B' is considered to be 'comfortable'.

8.9.4 The PCLs on all links are considered acceptable given that the construction scenario is temporary and will improve following the completion of construction works and opening of the Proposed Development. The contractor will review opportunities to maximise footway widths throughout the construction programme.

8.10 STRATEGIES TO REDUCE CONSTRUCTION IMPACTS

8.10.1 A few strategies and measures are planned to reduce the impacts of construction and construction traffic on the local area. The planned measures can be categorised as follows:

- Committed - measures that will be implemented as part of the CLP;
- Proposed - measures that are feasible and likely to be implemented. Once a contractor is appointed, these measures will be studied further and confirmed within the detailed CLP; and
- Considered - measures that are unlikely to be implemented or feasible but could be investigated or become relevant in the future.

8.10.2 **Table 8-7** summarises the planned measures for constructing the Proposed Development based on the checklist provided in TfL's CLP guidance.

Table 8-7: Construction Planned Measures

PLANNED MEASURES	COMMITTED	PROPOSED	CONSIDERED
MEASURES INFLUENCING CONSTRUCTION VEHICLES AND DELIVERIES			
Safety and environmental standards and programmes	X		
Adherence to designated routes	X		
Delivery scheduling	X		
Re-timing for out-of-peak deliveries			X
Re-timing for out-of-hours deliveries			X
Use of holding areas and vehicle call-off areas	X		
Use of logistics and consolidation centres			X
Vehicle choice	X		
MEASURES TO ENCOURAGE SUSTAINABLE FREIGHT			
Freight by water			X
Freight by rail			X
MATERIAL PROCUREMENT MEAURES			
Design for manufacture and assembly and off-site manufacture			X
Re-use of material on the Site		X	
Smart procurement		X	
OTHER MEASURES			
Collaboration with other Sites in the area			X
Implement a Staff Travel Plan	X		

8.10.3 The CLOCS (Construction Logistics and Community Safety) standard will be signed up to, which will ensure that the construction contractor (as well as suppliers and sub-contractors) follow safe practices in the management of their operations, vehicles, drivers and construction sites.

8.10.4 All construction vehicle operators will be required to be accredited in line with the Fleet Operator Recognition Scheme (FORS). FORS accreditation confirms that a fleet operator can demonstrate that appropriate systems and policies exist to ensure drivers are suitably fit, qualified and licenced to operate vehicles which are properly maintained, equipped and insured. It is a mechanism by which adherence to the CLOCS standard can be assured and monitored.

8.10.5 A delivery scheduling system is planned to allow for the control and management of the timings of deliveries. Booking availability will be determined by unloading space available activities on site and managed carefully to minimise impacts on the local transport network. A comprehensive daily logistics schedule will be maintained, and unauthorised deliveries will be turned away until the approved procedure has been followed.

8.10.6 Construction staff on site will be prepared for the arrival of all vehicles to prevent vehicles needing to wait on the public highway. Deliveries will be made 'just in time' to minimise the amount of space required on site for construction materials. Hard copies of daily delivery schedules will be displayed at prominent locations, e.g., provided at the gate/ offloading points, at hoists and also issued to drivers, forklift drivers and any other materials handling equipment operators, all of whom need to be in constant radio communication with one another. All radio users will be trained on correct radio procedures and protocols.

8.10.7 To prevent the contamination of local roads, a proprietary wheel wash system and a jet wash will be in place inside the site delivery gates. The system will clean the wheels and undercarriage of vehicles during the deconstruction, substructure and superstructure phases. The traffic marshal will then check each vehicle for cleanliness before allowing the vehicle to leave the site. Additionally, working practises will be selected to minimise the release of dust, for example, through water suppression during cutting operations.

8.10.8 Any abnormal loads will be planned in advance and agreed upon with the Highways Authority.

8.10.9 The use of an off-site construction consolidation centre will be investigated; however, the booking system will allow deliveries to be managed efficiently. Where possible, vehicles will be fully loaded, thereby minimising the number of vehicle trips made by tipper trucks and concrete mixing trucks.

8.10.10 Smart procurement will be encouraged in order to share suppliers and minimise the number of construction vehicle trips. All suppliers will be made aware of access and routing requirements.

8.10.11 The use of water and rail modes to transport freight is unlikely to be practical given that there will be limited demolished or muck-away material to remove. Off-site manufacture and re-use of material will be investigated and proposed where practical. Once appointed, the contractor will develop a plan to maximise smart procurement.

8.10.12 A staff Travel Plan will be prepared by the contractor as part of the Detailed CLP to encourage the use of sustainable modes considering the good level of public transport accessibility. Car parking for construction workers will not be provided. Staff cycle parking facilities will be provided.

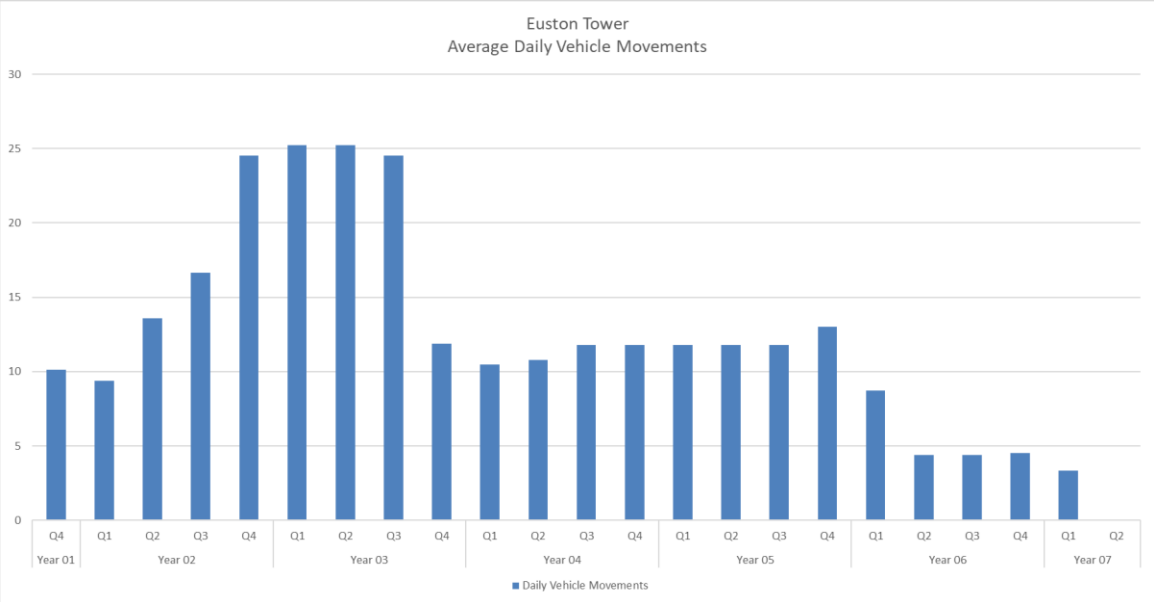
8.10.13 Construction is anticipated to take place during normal construction working hours (08:00 – 18:00 Mon-Fri, 08:00-13:00 Saturday). Is it anticipated that there might be some work carried out outside of these hours (e.g., concrete pours).

8.10.14 Once appointed, the contractor will investigate the opportunity to collaborate with other local construction sites.

8.11 ESTIMATED VEHICLE MOVEMENTS

8.11.1 Based on the indicative programme and construction information, the estimated number of construction vehicle trips (two-way) for both LGVs and HGVs is summarised in **Figure 8-29**. The anticipated monthly number of vehicles is expected to peak during Q3 of the third year of the deconstruction and construction period. The peak will generate approximately 50 two-way vehicle movements per day.

Figure 8-29: Estimated Construction Vehicles



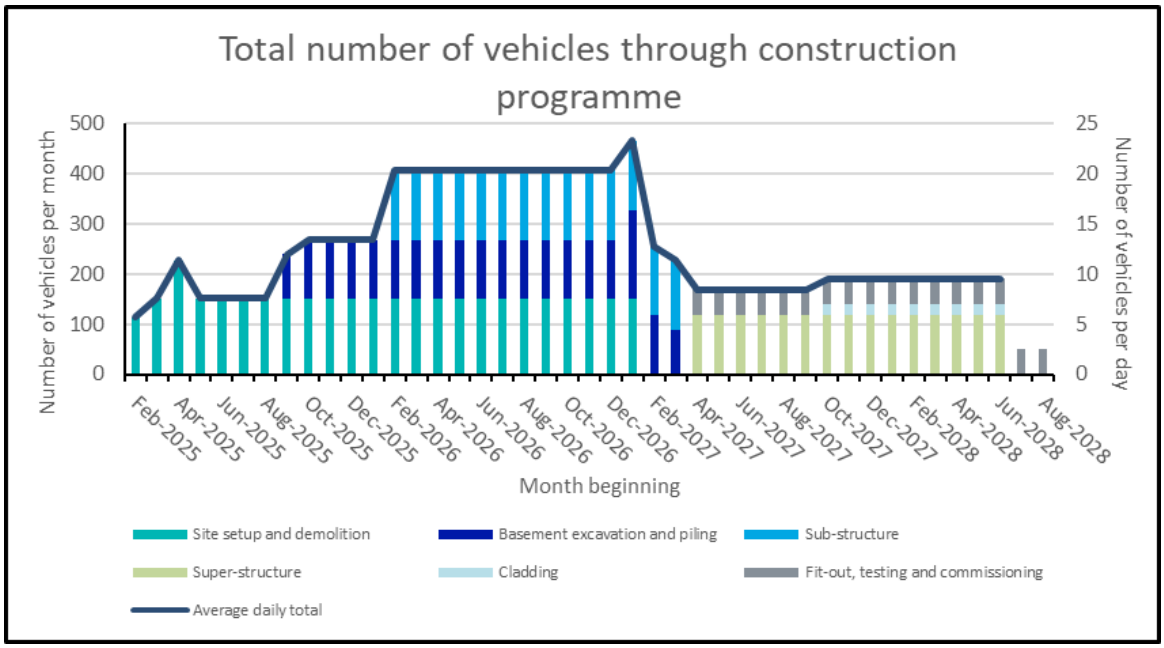
8.11.2 The number of vehicles accessing the site summarised in **Table 8-8** has been estimated based on our previous experience, proposed programme, and construction methodology.

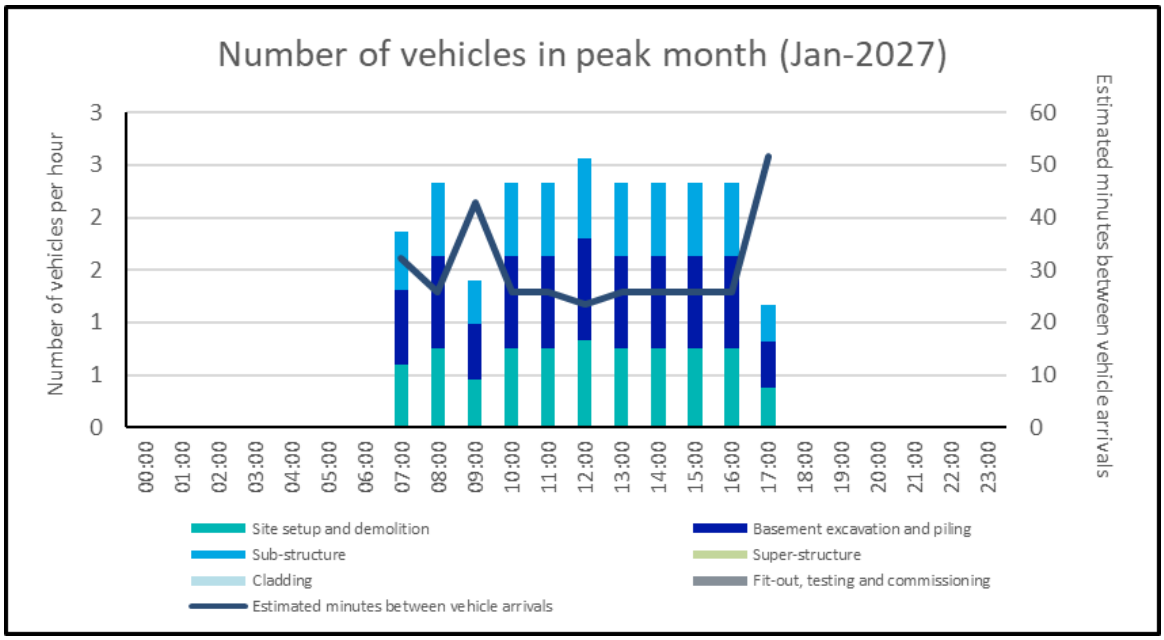
Table 8-8: Estimated Construction Vehicles – Monthly and Daily

Construction Task/Activity	Period of Stage	Estimated Number of Monthly Trips	Peak No. of Trips (Daily)
Site Set-up and Demolition Works	Q1 2025 – Q4 2026	226	11
Substructure – Piling and Basement Walls	Q1 2026 - Q2 2027	314	16
Superstructure (slabs and steelworks)	Q3 2027 - Q3 2029	119	5
Cladding	Q3 2027 - Q2 2030	21	1
Finishes and Fitout	Q2 2027 - Q1 2030	108	5
Testing and Commissioning	Q3 2029 - Q2 2030		
Peak period of Construction	**Q1 2027**	**466**	**25**

8.11.3 **Figure 6-1** illustrates the peak hourly volumes of construction vehicles anticipated during construction based on estimations of construction material volumes and the programme within **Figure 8-4.**

Figure 8-30: TfL CLP Tool Graphs





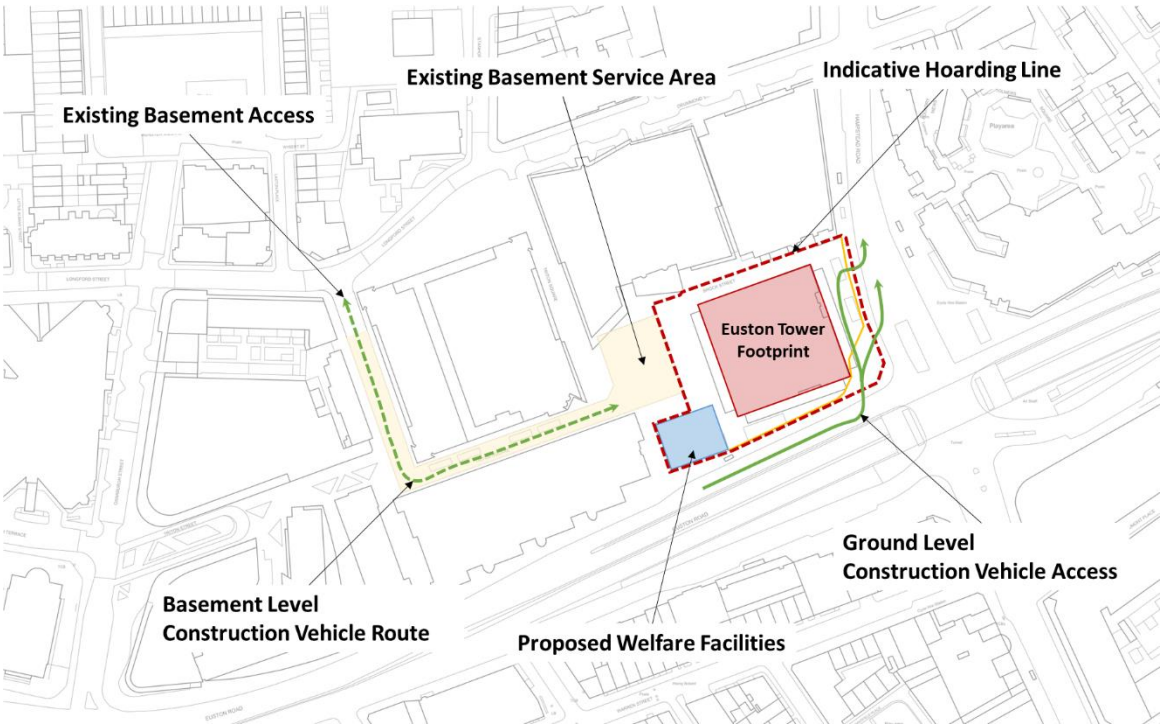
8.11.4 Around ten construction vehicle arrivals and ten construction vehicle departures are expected on a typical/average day. Peak demand is expected to generate circa 25 vehicle arrivals and 25 vehicle departures per day.

8.11.5 The peak demands can be accommodated on the transport network with minimal impact. Vehicles will access and egress directly from the strategic road network.

8.11.6 No construction staff car parking will be provided on site and no construction workers are expected to travel by car.

8.11.7 As set out above, it is proposed that all construction vehicles will access the Site from the west and enter via the existing basement on Longford Street or via new construction vehicle crossovers on Euston Road off-slip. All construction vehicles will exit the site to the north via Hampstead Road from the existing basement or via new construction vehicle crossovers on Hampstead Road. The indicative construction logistics strategy is shown in **Figure 8-31.**

Figure 8-31: Indicative Construction Logistics Strategy



VEHICLE ROUTING AND ESTIMATED MOVEMENT BY PHASE

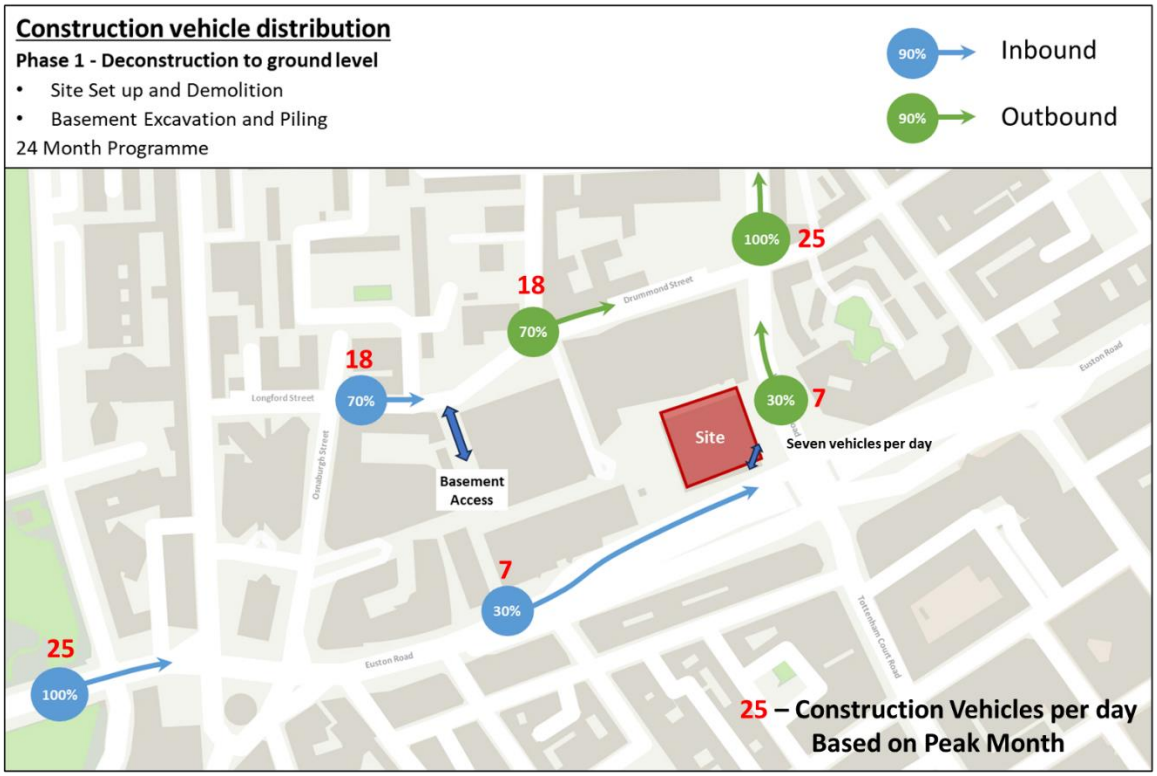
8.11.8 Where possible, use of the existing basement will be maximised, but access is restricted by vehicle length and height, meaning that larger articulated vehicles have to access the site at ground level. Based on the estimated vehicle movements for each construction task, vehicles have been distributed between the basement access and ground level site access for each phase of construction.

PHASE 1 – DECONSTRUCTION TO GROUND LEVEL

- Site setup and deconstruction - 90% via basement, 10% at ground level.
- Basement excavation and piling - 50 % via basement and 50% at ground level.

8.11.9 It is expected that the peak month for construction vehicles will occur during Phases 1 and 2 where an estimated 25 vehicles per day (50 two-way movements) are expected. The construction vehicle distribution is shown in **Figure 8-32.**

Figure 8-32: Construction Vehicle Distribution – Phase 1

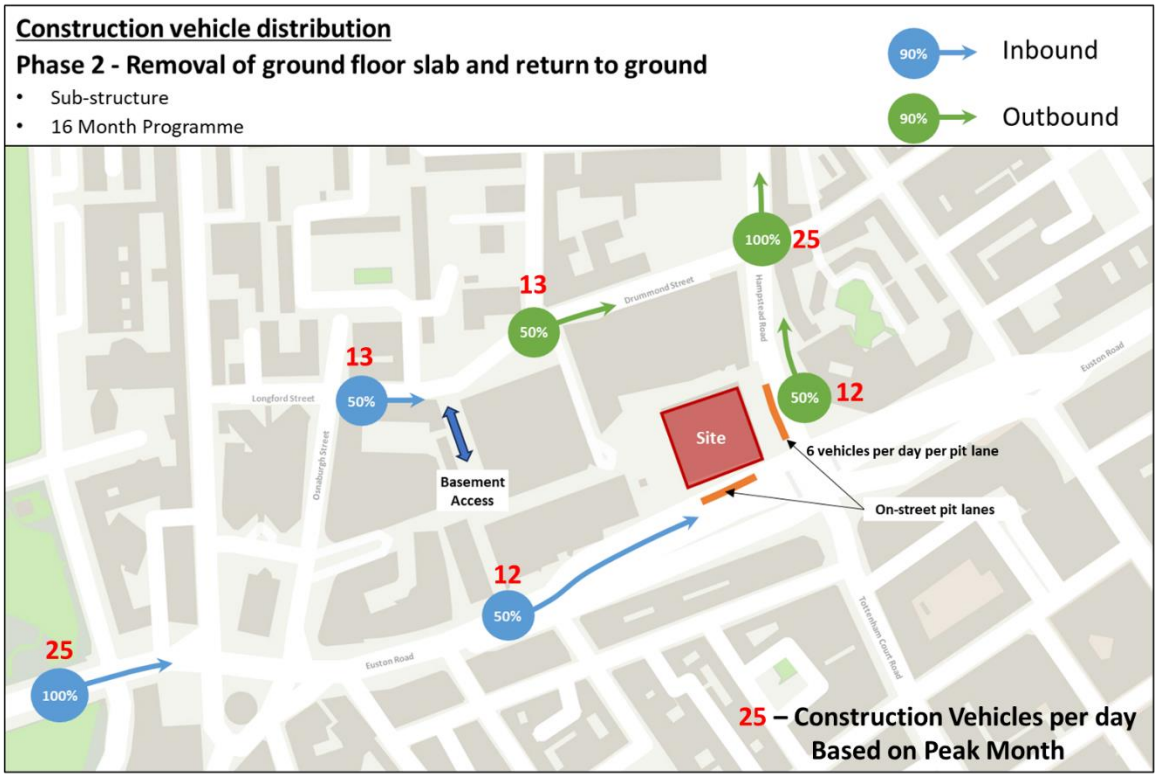


PHASE 2 – DECONSTRUCTION OF GROUND SLAB, AND RETURN TO GROUND LEVEL

- Sub-structure - 50 % via basement and 50% at ground level.

8.11.10 It is expected that the peak month for construction vehicles will occur during Phases 1 and 2 where an estimated 25 vehicles per day (50 two-way movements) are expected. The construction vehicle distribution is shown in **Figure 8-33.**

Figure 8-33: Construction Vehicle Distribution – Phase 2

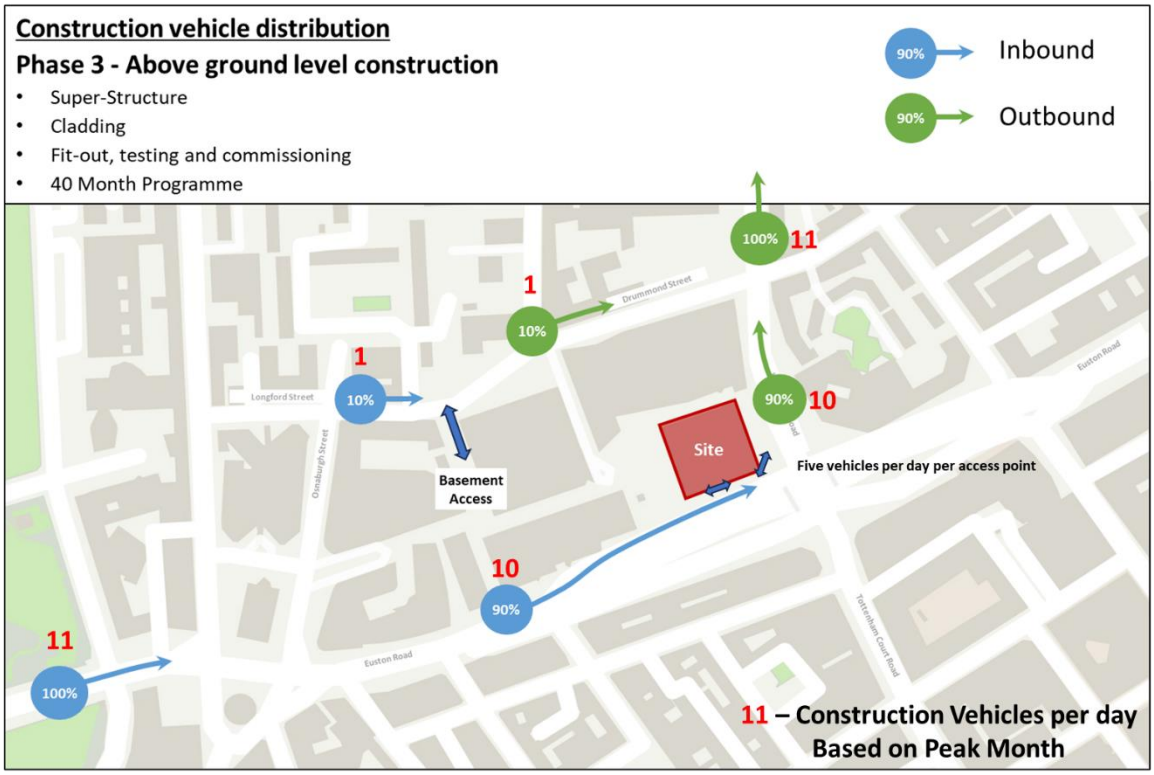


PHASE 3 – ABOVE GROUND CONSTRUCTION

- Super-structure - 10% via basement and 90% at ground level.
- Cladding - 10% via basement and 90% at ground level.
- Fitout, testing and commissioning - 10% via basement and 90% at ground level.
- Public Realm - 10% via basement and 90% at ground level.

8.11.11 It is expected that during Phase 3, the peak construction trips will be reduced from Phases 1 and 2, and it is estimated that a peak of eleven vehicles per day (22 two-way movements) are expected. The construction vehicle distribution is shown in **Figure 8-34.**

Figure 8-34: Construction Vehicle Distribution – Phase 3



8.12 IMPLEMENTATION, MONITORING AND UPDATING

IMPLEMENTING

8.12.1 In the first instance, the Outline CLP will be issued to LBC and TfL for review as part of the planning application. The local community will be consulted to identify any concerns about construction activity and traffic. An appropriate planning condition/obligation will secure the requirement for a detailed CLP to be submitted and approved before the Proposed Development's commencement. The principal contractor will prepare the detailed CLP.

8.12.2 The principal contractor will be responsible for implementing the CLP. It is expected that a Contractor and Driver Handbook will be used to distribute information which makes sure that all contractors are aware of their obligations.

8.12.3 The key measures identified to manage and control the impacts of construction traffic and travel by staff are expected to be:

- Commitment to meet CLOCS / FORS accreditation;
- Use of delivery scheduling system;
- Designated construction traffic routes, ensuring all HGVs use appropriate strategic roads and
- Travel Plan for construction staff.

MONITORING

8.12.4 A coordinator will be appointed to undertake the day-to-day management of the CLP and will be the first point of contact for dealing with any Site issues. The CLP will be regularly monitored.

8.12.5 Data sharing is a key principle for construction's success and continuous improvement. A list of items will be agreed upon, and specific data will be disseminated. This is expected to include the following:

- Compliance
  - FORS compliance
  - Routing compliance
- Data from the delivery scheduling system and the recorded log of vehicle movements to the Site:
  - Vehicle type and size
  - Duration on site
- Safety issues, including any injuries or near misses
- Breaches and complaints
- Staff travel survey

8.12.6 The contractor will review opportunities to maximise footway widths throughout the construction programme.

UPDATING

8.12.7 The outline CLP will be developed into a detailed CLP once a contractor is appointed and following the grant of any planning permission.

8.12.8 Once the contractor is appointed, further opportunities to maximise vehicle access/egress of the construction Site will be investigated to reduce the construction programme and mitigate associated impacts.

8.12.9 These will be included within the submitted detailed Construction Environmental Management Plan and/or the Construction Traffic Management Plan, which is expected to be secured by a planning condition. A Draft Construction Management Plan Camden Proforma has been submitted with the planning application.

8.12.10 The detailed CLP will be prepared following consultation with LBC and TfL and will require the approval of the highway authorities. This will ensure that all construction activities on the Site accord with relevant policy requirements.

8.12.11 After the detailed CLP is submitted and approved, the CLP will be an evolving document to account for any changes to the construction strategy and incorporate monitoring results and any consequent changes. It will be reviewed internally every month and/or at any time there is a significant change in the construction process. This will ensure that the document remains relative to the realities of the Site at any point in time.

8.12.12 The CLP will be kept on-site and updated by the Principal Contractor in consultation with the highway authority.

8.13 SUMMARY

8.13.1 The TfL Guidance focuses on reducing the impact of construction and providing a framework for understanding and managing construction vehicle activity into and out of the Proposed Development.

	REDUCING THE IMPACT AND MANAGING CONSTRUCTION VEHICLE ACTIVITY	SOLUTIONS / MECHANISMS
Environmental Impact	Lower vehicle emissions	FORS accreditation which helps improve fleet performance in key areas such as vehicle emissions.
	Noise Levels	Noise Monitoring systems. Appropriate and well-maintained hoardings constructed on the boundaries of adjacent noise-sensitive premises.
Road Risk	Safety of Road Users	The CLOCS (Construction Logistics and Community Safety) standard will be signed up to, which will ensure that the construction contractor (as well as suppliers and sub-contractors) follow safe practices in the management of their operations, vehicles, drivers and construction sites. Designated construction traffic routes, ensuring all HGVs use appropriate strategic roads.
Congestion	Reduced Vehicle Trips	A delivery scheduling system is planned to allow for the control and management of the timings of deliveries. Booking availability will be determined by unloading space available activities on site and managed carefully to minimise impacts on the local transport network. A comprehensive daily logistics schedule will be maintained, and unauthorised deliveries will be turned away until the approved procedure has been followed
Cost	Working Practices	The CLOCS (Construction Logistics and Community Safety) standard will be signed up to, which will ensure that the construction contractor (as well as suppliers and sub-contractors) follow safe practices in the management of their operations, vehicles, drivers and construction sites. All construction vehicle operators will be required to be accredited in line with the Fleet Operator Recognition Scheme (FORS). FORS accreditation confirms that a fleet operator can demonstrate that appropriate systems and policies exist to ensure drivers are suitably fit, qualified and licenced to operate vehicles which are properly maintained, equipped and insured. It is a mechanism by which adherence to the CLOCS standard can be assured and monitored
	Reduced Deliveries	A delivery scheduling system is planned to allow for the control and management of the timings of deliveries. Booking availability will be determined by unloading space available activities on site and managed carefully to minimise impacts on the local transport network

9 SUMMARY AND CONCLUSIONS

9.1.1 This Transport Assessment has been prepared to support an application for full planning permission at Euston Tower, 286 Euston Road, London, NW1 3DP ('the Site'), situated within the London Borough of Camden.

9.1.2 The Site covers an area of 8,079 sqm, comprised of a single ground plus an existing 36-storey tower. The tower has been largely vacant for several years, predominantly comprising office uses on the upper floors; however, there are still retail uses currently in operation at the ground floor level.

9.1.3 The development proposal will redevelop the site to deliver a new office-led mixed-use development. The Proposed Development is designed by 3XN Architects.

9.1.4 Full Planning Permission is sought for the following:

> *Redevelopment of Euston Tower, including the partial retention (retention of existing core, foundations and basement), disassembly, reuse and extension of the existing building, to provide a 32-storey building for use as offices and research and development floorspace (Class E(g)) and office, retail, café and restaurant space (Class E) and learning and community space (Class F) at ground, first and second floors, and associated external terraces. Provision of public realm enhancements, including new landscaping, and provision of new publicly accessible steps and ramp. Provision of short and long-stay cycle storage, servicing, refuse storage, plant and other ancillary and associated works.*

9.1.5 The transport strategy for the development has been developed in mind of the Healthy Streets approach by prioritising walking and cycling and minimising and managing trips by motorised vehicles.

9.1.6 Active frontage, pedestrian-prioritised landscaped footways and public realm will be provided as part of the proposal. The walking experience around the site will be significantly improved with the new public realm and landscaping.

9.1.7 The development has been designed to provide an excellent experience for cyclists with a dedicated access ramp, significant cycle parking (861 long-stay and 90 short-stay spaces) and supporting facilities including showers, lockers, changing space, a towel service, maintenance, and repair facilities. A Travel Plan will be implemented to maximise active travel and the use of these facilities.

9.1.8 The existing vehicle access points from Drummond Street and Longford Street are retained as they serve the Regent's Place Campus. The Longford Street access is primarily used by service vehicles to access the basement via a ramp. Eight servicing bays and waste storage facilities are provided within the basement loading area, which is shared with the Brock Street buildings. The servicing strategy for the development will explore the use of site consolidation to minimise and manage the number of servicing vehicle journeys. A cargo bike facility at both ground and basement levels will be provided to encourage sustainable freight.

9.1.9 The site has a PTAL of 6b, demonstrating its excellent access to public transport services, including step-free stations and stops and suitability for high trip-generating development. A range of local facilities and public transport nodes which will encourage active travel can be easily accessed from the site.

9.1.10 A thorough trip generation and distribution exercise has been undertaken to establish the impacts of the Proposed Development. Travel will primarily be undertaken by public transport and active modes. Assessments of the local public transport network demonstrate that development trips can be accommodated on the network without perceptible impact. Furthermore, the assessment has demonstrated that the Elizabeth Line has changed travel patterns, with other London Underground stations near to the Elizabeth Line (such as Warren Street station) experiencing a significant reduction in total entry and exit flows.

9.1.11 The Proposed Development is expected to generate an increase in trips in the AM and PM peak hours as a result of the Proposed Development. The forecast increases are considered to be accommodated within the existing transport network capacities, and the impact on the local public transport, active travel and highway networks has been shown not to be significant in the context of the public transport network capacity.

9.1.12 High-level construction logistics strategies have the thoroughly explored at the request and through discussions with TfL. The construction logistics strategy options have been reviewed against the impacts on pedestrians, cyclists, bus users, general road traffic, highway safety and the construction programme and financial viability of construction. The review concluded that relocated the northbound Hampstead Road bus stop 18m north is the preferred strategy as this would have the least impact on all road users and provides the most efficient construction programme.

9.1.13 In accordance with TfL's Healthy Streets TA Guidance, **Table 9-1** summarises the key transport impacts and issues, and proposed solutions and mechanisms for the Proposed Development.

Table 9-1: Healthy Streets Transport Assessment Conclusions

	KEY TRANSPORT IMPACTS / ISSUES	SOLUTIONS / MECHANISMS
Site & Surroundings	The site is highly accessible by public transport.	Improvements form part of the scheme design, including significant enhancements to pedestrian permeability and connectivity as a result of the proposed public realm improvements.
	Limited existing public realm or attractive space on Euston Road and Hampstead Road	Active frontage and pedestrian-prioritised, landscaped public realm will be provided as part of the proposal. A dedicated cycle entrance and an entrance into the public use space will be provided on Euston Road.
	Providing for the policy-compliant long-stay cycle parking and associated end of trip facilities for cyclists required for a high-density scheme.	861 long-stay and 90 short-stay cycle parking spaces will be provided. High quality cycle parking facilities will be provided. The quantity of long and short stay cycle parking spaces meets the London Plan (2021) standards.
Active Travel and Vision Zero	Five KSIs collisions took place in the vicinity of the Site.	The recently introduced 20mph speed limit on the Euston Road will help to decrease potential KSI incidents
	There are a number of key destinations within a 20-minute cycle ride of the site, including bus stops, London Underground / Overground and National Rail stations and retail. The identified routes show how well connected the site is to the public transport network.	The public realm proposals will enhance the local pedestrian and cycling network. New pedestrian and cycling access points will be created, which will meet the desire lines.
London Wide Network	The development will generate new trips on the transport network, particularly the public transport network, considering it will be car-free.	A detailed review of how and where people will travel has been undertaken, and the impacts of the development on the London-wide network are expected to be negligible. The proposed development is located in an area with excellent access to public transport routes and high-frequency services, which can accommodate the forecast development trips without perceptible impact. An Outline Travel Plan has been provided as part of the planning application, which sets out a range of measures and initiatives aimed at encouraging further use of active travel for users of the Proposed Development.
LB Camden Analysis	The development will add to the existing high footfall around the site, which may affect the pedestrian comfort levels.	A pedestrian comfort level analysis has been undertaken and shows the surrounding footways will provide comfortable pedestrian conditions.
Construction	Full details of the construction timing and methodology will not be known until a contractor is appointed.	An Outline CLP has been included in this TA and a Detailed Construction Logistics Plan will be prepared by a contractor once appointed.

9.1.14 The proposed scheme is consistent with relevant transport policy guidance and is not expected to give rise to any material transport related impacts. It therefore meets the test of the NPPF at paragraph 111 which states that:

> *"…development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe."*

9.1.15 This Transport Assessment has demonstrated that the Proposed Development will prioritise active and sustainable travel, have a negligible impact on the London-wide public transport and highways networks, and will contribute localised improvements to the site and its surroundings. It is concluded that the planning application proposal is acceptable in traffic and transport terms.