Working in partnership

CONSTRUCTION SKILLS CENTRE & SITE ACCOMMODATION AT FORMER MARIA FIDELIS SCHOOL SITE TRANSPORT ASSESSMENT

August 2021

1CP01-MDS_ARP-TM-REP-SS08_SL23-990010 – C01

Revision Key:
P =Preliminary Documents/Drawings – P01, P02, P02
C = Contractual Documents/Drawings – C01, C02, C03
X = As Built Mark-Up Drawings – X01, X02, X03
Z = As Built Record Drawings – Z01, Z02, Z03

Revision	Author	Checked By	Approved By	Date Approved **/**/****	Reason for Revision
C01	Katherine Wong	Robert O'Leary	Matthew Rhodes	---	
	---	---	---	---	
	---	---	---	---	
	---	---	---	---	
	---	---	---	---	

DISCLAIMER: This report takes into account the particular instructions and requirements of our client. It is not intended for and shall not be relied upon by any third party. SDSC shall have no responsibility or liability to any third party.

1 Executive Summary

1.1.1 The site is located in the northern part of the former Maria Fidelis Catholic School and is adjacent to the HS2 Station worksite to the north.

1.1.2 The Proposed Development is to provide a Construction Skills Centre (CSC) and Site Accommodation for site operatives and management staff to facilitate the construction of HS2 Euston Station. There is an existing consent for a CSC on site.

1.1.3 The site is located close to walking and cycling routes, and within walking distance to a range of bus services as well as London Underground and National Rail services from a number of nearby stations. The site has the highest achievable Public Transport Accessibility Level (PTAL) of 6b.

1.1.4 The CSC will accommodate 120 students and 30 staff. The Site Accommodation will facilitate approximately 2,500 site operatives and management staff during the peak construction period. Due to shift work, it is expected that the peak number of staff during the day will be around 1,800.

1.1.5 Access to the CSC will be provided from Starcross Street for both walking and cycling. Servicing will take place on-street on Starcross Street, with the occasional servicing vehicles using North Gower Street. This remains unchanged from the previously consented scheme.

1.1.6 For the Site Accommodation, walking and cycling access is proposed from A400 Hampstead Road. A security check point will be manned 24 hours a day. Deliveries and servicing will take place to the north of the building within the HS2 worksite (outside of the red line boundary).

1.1.7 Construction access is proposed to be via the HS2 worksite to the north of the site from Cardington Street. The TLRN will be used to gain access to the A400 Hampstead Road and subsequently Cardington Street. More information is included in the separate Outline Construction Management Plan (CMP). If for any reason this route cannot be used, such as under safety related circumstances, vehicles may be required to enter the former Maria Fidelis school site from Cobourg Street.

1.1.8 Multi-modal trip generation has been undertaken for the Proposed Development. It shows that the peak periods are likely to be 06:30 to 07:30 and 17:00 to 18:00 when Site Accommodation staff arrive and leave the site. Once site operatives enter the site perimeter to access the Site Accommodation, they will stay within the hoarding to move to their work areas.

1.1.9 The proposed trips are expected to dissipate quickly across the transport network and make use of the wide range of highly frequent public transport services available. No significant impacts are expected on the capacity of the local transport

network. Measures to encourage sustainable and active travel patterns will be implemented as part of the Travel Plan.

2 Introduction

2.1 Background context

2.1.1 This report has been produced by the Mace Dragados Joint Venture (MDjv) on behalf of High Speed 2 Ltd (HS2 Ltd), to support a full planning application for the Maria Fidelis Construction Skills Centre and Site Accommodation (the 'Proposed Development').

2.1.2 The Proposed Development would provide:

- a Construction Skills Centre ('CSC') on behalf of London Borough of Camden ('LBC'), for which a similar scheme was previously granted planning permission under LBC application reference 2019/3091/P; and
- a Site Accommodation facility to accommodate approximately 2,500 site operatives and management staff, including office space, ancillary rooms, WCs, showers and changing rooms, and on-site catering. This is required as part of the High Speed Two ('HS2') railway project and will facilitate the construction of HS2 Euston Station.

2.1.3 The Proposed Development is required for a temporary period of 10 years from occupation and will be removed following the construction of HS2 Euston Station.

2.1.4 A summary of the application and how this report fits into the suite of documents can be found in the Planning Statement.

2.2 Description of development

2.2.1 Erection of a six-storey combined Construction Skills Centre (Class F1(a) - Education) and Site Accommodation (Class E(g)(i) – Offices) to facilitate the construction of HS2 Euston station, as meanwhile uses for a period of up to 10 years from occupation.

2.2.2 The Proposed Development would provide 1,378sqm of CSC floorspace and 5,747sqm of Site Accommodation floorspace. The overall site area is 0.24ha. The maximum height of the building would be 22.4m and the building would be 77m wide and 18m deep.

2.2.3 The building would utilise modular construction, using modern methods of construction and assembly on-site to the form described above.

2.2.4 Vehicular access to the Site Accommodation would be delivered via a combination of the existing HS2 worksite to the north and Cobourg Street. Vehicular access arrangements for the Site Accommodation would change throughout the construction and operational period to accommodate wider HS2 works to the north of the site. Vehicular access for the Construction Skills Centre would remain as previously approved with infrequent servicing use of North Gower Street (consented under extant permission 2019/3091/P).

2.2.5 Pedestrian access to the Construction Skills Centre would be via the open space to the south of the building. Pedestrian access to the Site Accommodation would only be from Hampstead Road and through the existing HS2 worksite to the north.

2.3 Site description

2.3.1 The site is located in the northern part of the former Maria Fidelis Catholic School in the London Borough of Camden. The site is currently vacant but had most recently been used as outdoor play space associated with the school and a two-storey ancillary school building, constructed in the 1990s, remains on-site.

2.3.2 The land immediately to the south of the site is occupied by the five-storey former school building, which was constructed in the interwar period. Planning consent was granted (subject to completion of s.106 agreement) in October 2020 for the mixed-use redevelopment of the former school building.

2.3.3 The surrounding area is a mix of residential and commercial uses, with Euston Station located to the north east. To the north of the site is the HS2 Euston Station construction site, which was formerly St. James's Gardens.

2.3.4 The site is accessed via North Gower Street to the west and via Cobourg Street to the east. Starcross Street is located to the south of the wider Maria Fidelis site and connects North Gower Street and Cobourg Street. A400 Hampstead Road is located beyond North Gower Street to the west of the site. There are no Listed buildings on-site and the application site is not within a Conservation Area. The buildings on the eastern (no's 190-204) and western (no's 211-229) North Gower Street, located approximately 100 metres to the south of the site, are Grade II Listed. 108 A400 Hampstead Road, located 20 metres to the north east of the application site, is Locally Listed.

2.4 Report purpose

2.4.1 This Transport Assessment (TA) has been prepared in accordance LBC's TA guidance[1] and London Borough of Camden (LBC) Local Area Requirements (LARs) for Planning Applications (2018).

2.4.2 This report provides a description and analysis of existing transport conditions, considers the proposed journeys to and from the site by all modes of transport, assesses how the proposal will affect the existing transport conditions, and define the impacts on the transport network.

2.4.3 The LBC TA guidance also references consideration of Transport for London (TfL) TA guidance. A high-level desktop assessment on Active Travel Zones (ATZ) has

[1] https://www.camden.gov.uk/transport-assessments

therefore been included in this report in accordance with TfL TA guidance and in accordance with Healthy Streets principles.

2.5 Relevant planning policies

2.5.1 The following policy documents have informed the preparation of the TA:

- National Planning Policy Framework (NPPF) (DCLG, 2021)
- London Plan (Greater London Authority, 2021)
- The Mayor's Transport Strategy (Greater London Authority, 2018)
- Camden Local Plan (LBC, 2017)
- Camden Planning Guidance on Transport (LBC, 2021)
- Euston Area Plan (LBC, Transport for London, GLA, 2015)

2.6 Report structure

2.6.1 This TA is structured as follows:

- **Chapter 3**: **Existing Situation** - provides a description of the existing site and local transport facilities.
- **Chapter 4: Development Proposals** - provides a description of the Proposed Development, including access, car and cycle parking, and servicing arrangements. An overview of the construction access and phasing is also provided.
- **Chapter 5**: **Active Travel Zone** – provides a high-level ATZ assessment.
- **Chapter 6: Trip Generation** – provides the forecast trip generation for the Proposed Development.
- **Chapter 7: Impact Assessment** – sets out the likely impacts of the proposed trips on the transport network.
- **Chapter 8: Summary and Conclusions** – provides a summary to this report and presents the conclusions.

2.6.2 The appendices to this report are as follows and they are contained in document 1CP01-MDS_ARP-TM-REP-SS08_SL23-990014:

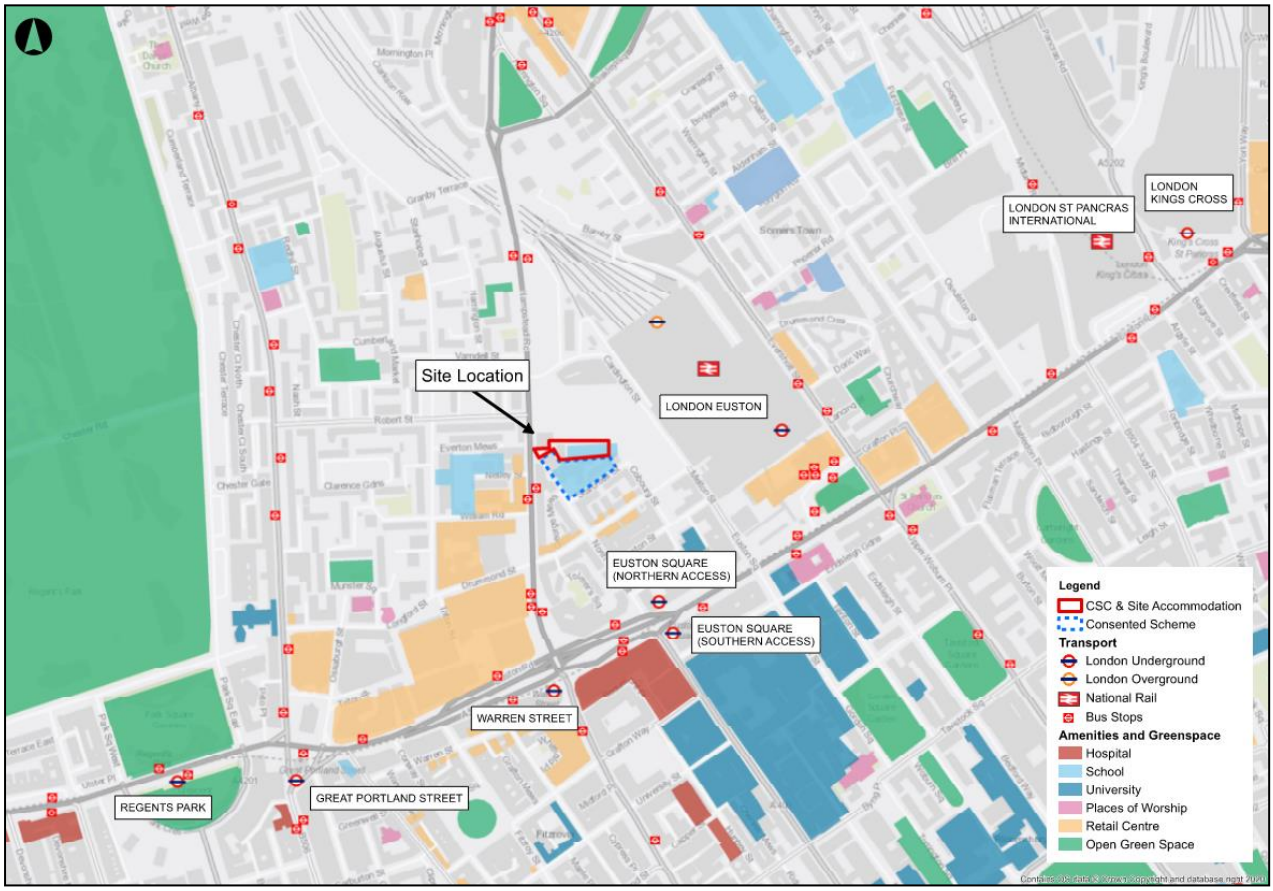
- Appendix A: Swept Path Analysis
- Appendix B: Construction Swept Path Analysis
- Appendix C: ATZ Route Review and Recommendations
- Appendix D: Personal Injury Data

3 Existing situation

3.1 Site location and consented use

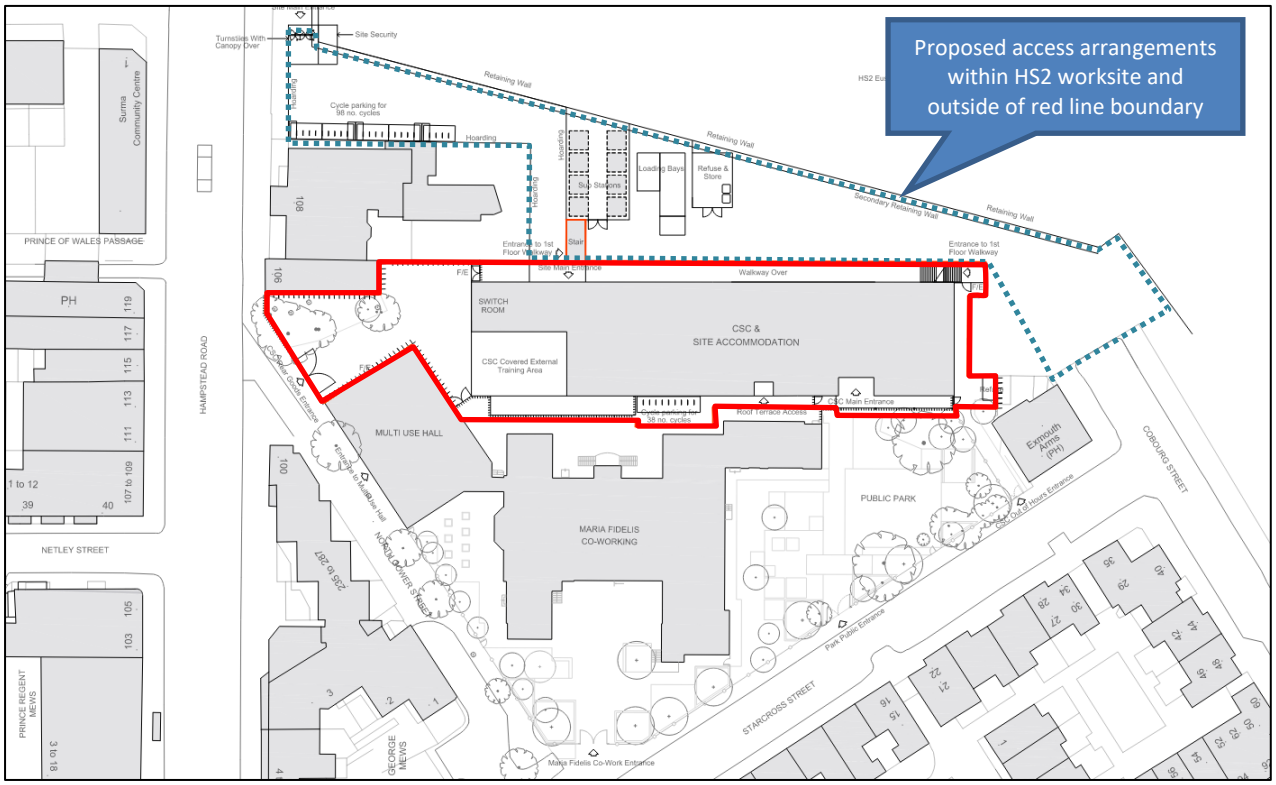
3.1.1 The proposed Site Accommodation will be accessed from the A400 Hampstead Road and the CSC will be accessed from Starcross Street. The existing Maria Fidelis School building is located to the south of the site. The site is approximately 300m west of Euston Station. The postcode of the site is NW1 2LY. The site location in the context of the wider area is shown in Figure 1.

Figure 1: Site location plan



3.1.2 The red line boundary for the Proposed Development is shown in Figure 2. To the north of the site is the HS2 Station worksite, where there will be works undertaken under HS2 Act powers to provide access to the Proposed Development (as indicated in Figure 2. It has been agreed with LBC that this area will not be part of the red line boundary of this application.

Figure 2: Red line boundary



3.1.3 A planning consent was granted in October 2020 for the redevelopment of the former Maria Fidelis school building (planning reference: 2019/3091/P). The consent was granted subject to completion of a Section 106 agreement. The extent of the planning application in shown in Figure 3.

Figure 3: Consented site layout

3.1.4 The red line boundary for the proposed planning application is within the existing planning permission to provide the CSC. The Proposed Development retains the consented CSC and incorporates the provision of a new Site Accommodation to facilitate the construction of HS2 Euston.

3.2 Walking

3.2.1 Footways are provided along all local roads, including the A400 Hampstead Road to the west, Starcross Street to the south and Cobourg Street to the southeast. These provide convenient connections to public transport services and various amenities and facilities in the immediate area.

3.2.2 The northern end of North Gower Street is pedestrianised and as part of the consented Maria Fidelis development, will be used by occasional servicing vehicles for the CSC.

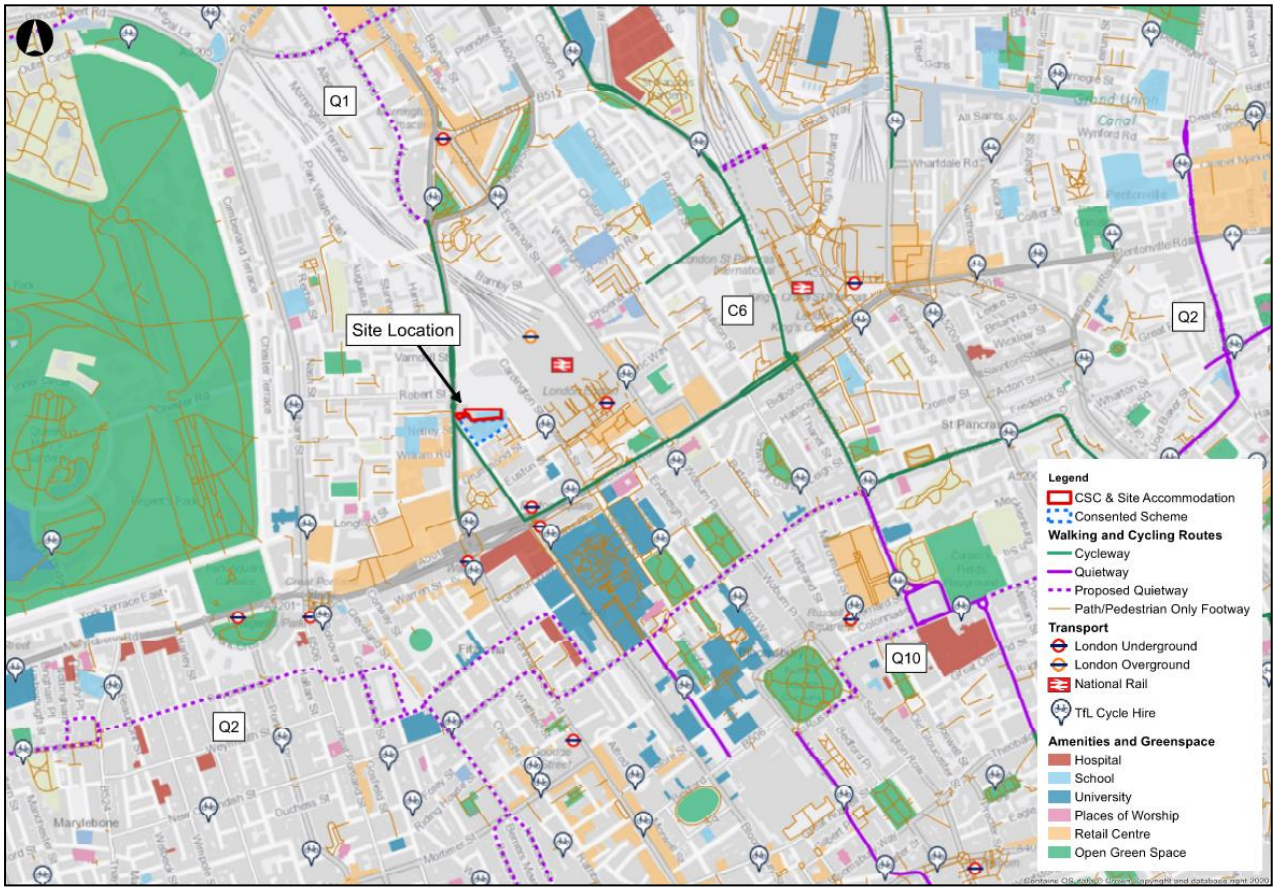
3.2.3 A signal-controlled pedestrian crossing is provided adjacent to the site on the A400 Hampstead Road, to the north of North Gower Street. Further crossing facilities are provided at the A400 Hampstead Road / Cardington Road junction to the north, and the A400 Hampstead Road junctions with Drummond Street and A501 Euston Road junction to the south. Along quieter streets dropped kerbs and tactile paving are provided at crossing points.

3.3 Cycling

Cycling routes

3.3.1 There are a number of cycle routes in the vicinity of the site. The A400 Hampstead Road has an on-road local cycle lane, which provides access to central London to the south. The local cycle routes, including cycleways, Quietways and Cycle Superhighways, are shown in Figure 4.

Figure 4: Cycle Routes in Relation to the Site



Cycle parking

3.3.2 On-street Sheffield stands are provided within the vicinity of the site, including at the following locations:

- The A400 Hampstead Road (30 spaces)
- North Gower Street/Drummond Street (14 spaces)
- Cobourg Street/Drummond Street (6 spaces)
- Melton Street (78 spaces)

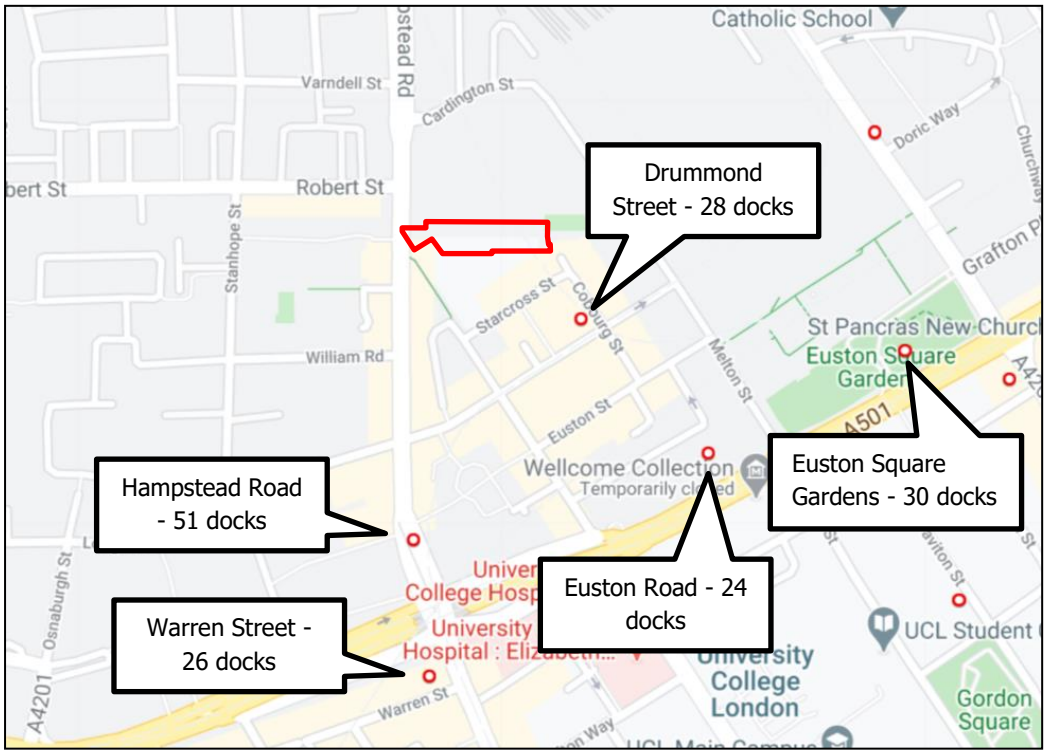
3.3.3 In total, 128 spaces are available within around 150m (one to two minute walk) of the site.

Cycle hire

3.3.4 The site is located in close proximity to existing TfL cycle hire docking stations. The nearest docking stations to the site are as follows and the locations are shown in Figure 5:

- Drummond Street – 28 docks (approximately 140m south).
- The A501 Euston Road – 24 docks (approximately 310m south).
- The A400 Hampstead Road – 51 docks (approximately 320m south).
- Euston Square Gardens – 30 docks (approximately 390m south east).
- Warren Street Station – 26 docks (approximately 460m south west).

Figure 5: Cycle hire locations



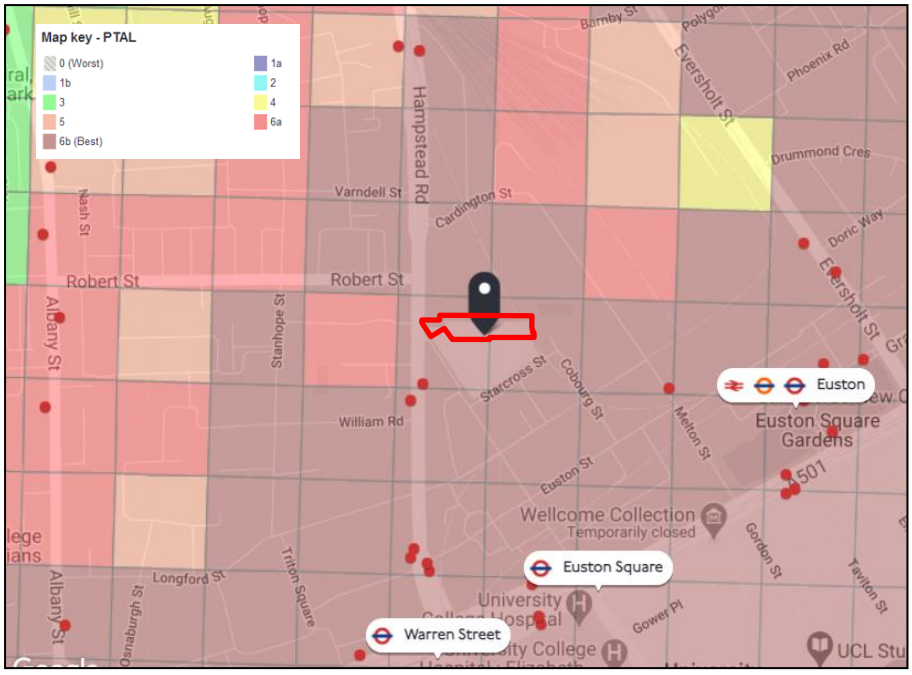
Source: https://tfl.gov.uk/modes/cycling/santander-cycles

3.4 Public transport

3.4.1 The site is close to a wide range of public transport services. Euston, Euston Square, Warren Street, and Great Portland Street Underground stations, and Euston Mainline Station, are within walking distance and frequent bus services are available from the A400 Hampstead Road, A501 Euston Road and Albany Street. More details regarding each of the available transport services are given below.

3.4.2 Public Transport Accessibility Level (PTAL) is a measure of the public transport accessibility of a chosen location on a scale of 1a to 6b, with 6b being the highest. Based on TfL's WebCAT online database, the site has the highest PTAL rating of 6b which indicates an 'excellent' connectivity to the surrounding network. This is shown on Figure 6.

Figure 6: Public Transport Accessibility Level (WebCAT)



3.5 Buses

3.5.1 The nearest bus stops to the site are:

- The A400 Hampstead Road to the south of North Gower Street – approximately 100m from the Site Accommodation access and 230m from the CSC.
- The A501 Euston Road by Warren Street Station – approximately 450m from the Site Accommodation access and 520m from the CSC.

- Albany Street by Robert Street – approximately 450 from the Site Accommodation and 670m from the CSC.

3.5.2 A summary of the bus stops are provided in Table 1 below.

Table 1: Local Buses Services

Route no.	Route	Peak Weekday Frequency (buses per hour)
A400 Hampstead Road, Bus Stop K and J		
24	Grosvenor Road – Royal Free Hospital	10
27	Chiswick Business Park – Chalk Farm	8
29	Lordship Lane – Trafalgar Square	15
134	North Finchley Bus Station – Warren Street	12
Warren Street, Bus Stops X, V, and KA		
18	Euston - Sudbury	12
30	Hackney Wick- Marble Arch	6
73	Stoke Newington – Oxford Circus	12
205	Cleveland Terrace – Bow Church	7
390	Archway – Victoria	10
Albany Street, Bus Stops Q and N		
88	Parliament Hill Fields – Clapham Common	7
Total buses per hour per direction		**99**

3.6 London Underground

3.6.1 There are five London Underground Stations located within 960m of the site:

- Euston (approximately 300m from CSC and 550m from the Site Accommodation) and Warren Street (approximately 480m) are served by the Northern and Victoria lines. Mornington Crescent (approximately 700m from Site Accommodation and 900m from CSC) is also served by the Northern line.
- Euston Square (approximately 350m to 400m) and Great Portland Street (approximately 800m) are served by the Hammersmith and City, Circle and Metropolitan lines

3.6.2 The approximate number trains per hour (tph) in each direction during peak times are shown in Table 2.

Table 2: Approximate London Underground peak frequencies

London Underground Line	Approximate peak frequency (tph) in each direction
Northern Line (Bank branch)	24
Northern Line (Charing Cross branch)	24
Victoria Line	36
Hammersmith & City and Circle	13
Metropolitan	15
Total	**112**

Source: 2019 TfL NUMBAT database

3.6.3 In terms of improvement works, TfL are currently working on planned upgrades to the Circle, District, Hammersmith & City and Metropolitan Lines to increase train frequency and reliability as part of the Four Lines Modernisation scheme.

3.7 National Rail

3.7.1 Euston railway station provides local and regional services to the West of England and Scotland including to Birmingham, Crewe, Liverpool, Manchester, Edinburgh and Glasgow. This station has 18 platforms.

3.8 Highway network

Surrounding roads and streets

3.8.1 The roads surrounding the site can be summarised as follows:

- The A400 Hampstead Road to the west.
- North Gower Street to the west.
- Cobourg Street to the east.
- Starcross Street on the south.

3.8.2 The A400 Hampstead Road is a strategic route and is part of the TfL Road Network (TLRN, also known as Red Route).

3.8.3 The A400 Hampstead Road has a speed limit of 30 mph and other surrounding local streets have a speed limit of 20 mph.

On-street car parking and loading facilities

3.8.4 At the western end of Starcross Street, there are on-street pay by phone parking bays with a maximum stay of 2 hours (Monday to Friday, 8.30am to 6.30pm). The other on-street parking bays on Starcross Street and Cobourg Street are for

residential permit holders only (permit zone CA-G, Monday to Friday 8.30am to 6.30pm).

3.8.5 In terms of on-street loading, there are sections of double yellow lines on Cobourg Street and Starcross Street where loading is permitted.

3.8.6 The A400 Hampstead Road is no stopping between 8am to 7pm, Monday to Saturday. There are on-street loading bays near to North Gower Street. Loading is allowed outside of the Red Route no stopping hours, and the eastern bays also allow loading between 10am and 4pm, and the western bays allow loading between 8am and 4pm.

4 Development proposals

4.1 Proposed development

4.1.1 This chapter sets out the details of the Proposed Development in terms of access, cycle parking, and servicing arrangements. An overview of the construction access and phasing is also provided in this chapter.

4.1.2 The Proposed Development comprises the following:

- **Construction Skills Centre (CSC)** - 1,378sqm floorspace for 120 students and 30 staff.
- **Site Accommodation** - 5,747sqm floorspace for approximately 2,500 site operatives and management staff during the peak construction period. However, due to shift work and building capacity, 2,500 staff will not be on-site at the same time. It is expected the peak number of staff during the day who will require access to welfare and offices will be around 1,800.

4.1.3 The existing Site Accommodation is at the National Temperance Hospital site on A400 Hampstead Road. The proposed Site Accommodation will be accessible 24 hours a day, 7 days a week due to the nature of some of the project works. It is expected that staff will typically be working in the facilities from 7am to 7pm on weekdays, with most staff arriving between 7am and 7.30am and departing between 5pm and 6pm.

4.1.4 The Proposed Development is considered to be meanwhile uses for a period of up to 10 years.

4.2 Proposed pedestrian access

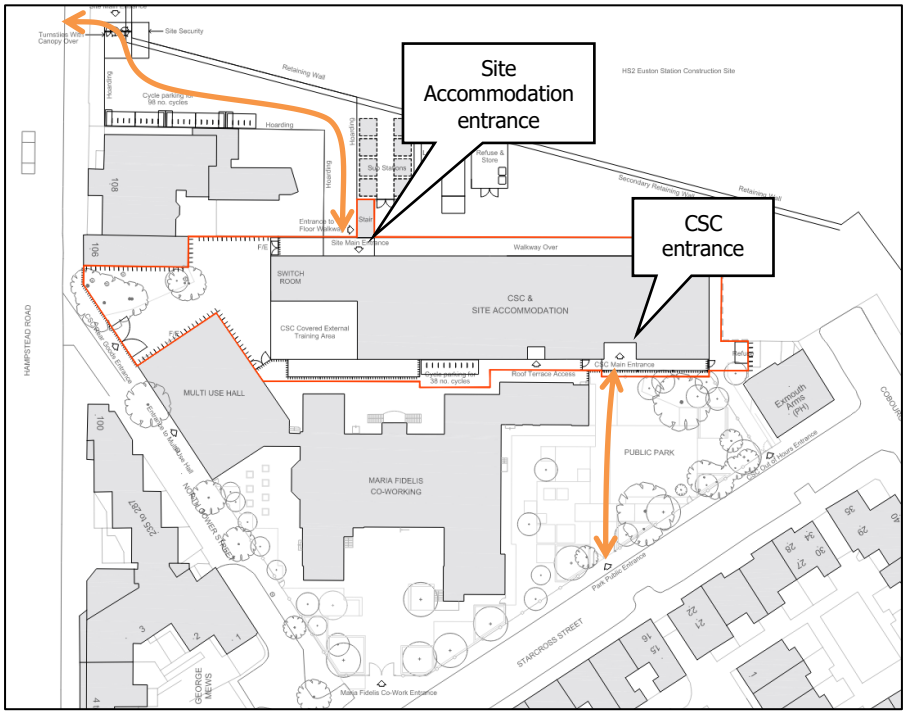
4.2.1 All staff working on HS2 Euston Station are expected to report to the Site Accommodation at the start of their shift to use the welfare facilities. Once site operatives enter the site perimeter to access the Site Accommodation, they will stay within the hoarding to move to their work areas. Some works will be external to the site, e.g. utilities, so there will be some staff movements along local streets to carry out these works. For management staff, they will generally stay within the site confines once they enter at the start of the shift.

4.2.2 All staff and visitors will need to access through a card activated turnstile and a security check point will be manned 24 hours a day.

4.2.3 The proposed pedestrian access strategy of the building is as follows and shown in Figure 7:

- CSC – Access will be via Starcross Street and the open space as per the previous consented application.
- Site Accommodation – Access will only be via the A400 Hampstead Road and through the existing HS2 worksite to the north.

Figure 7: Proposed pedestrian access



4.3 Proposed cycle parking and access

4.3.1 There will be 98 cycle parking spaces provided for the Site Accommodation and 40 cycle parking spaces for the CSC. These exceed the cycle parking requirements set out in the London Plan (2021). The London Plan references former land use classes, and for the Proposed Development, B1 cycle parking standards are used for the Site Accommodation and D1 cycle parking standards are used for the CSC, as shown in Table 3.

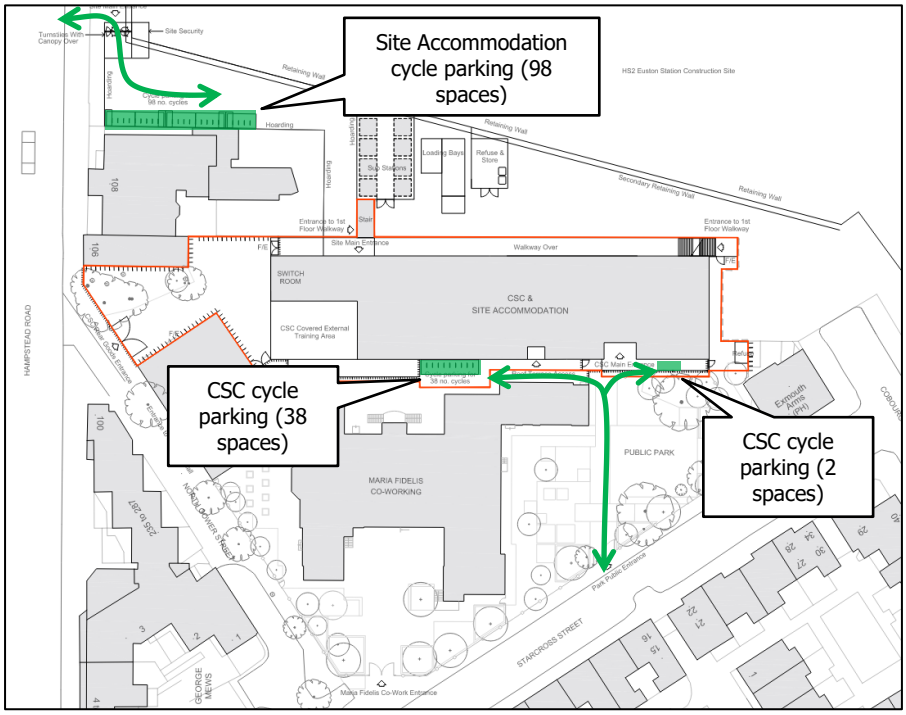
Table 3: Proposed Cycle Parking Provision

Use Class	Land Use	London Plan (2021) Requirements			Proposed Cycle Parking
		Long stay	Short stay	Total	
B1	Business Offices	77	11	88	98
D1	College	14	18	32	40
	Total	**91**	**29**	**120**	**138**

4.3.2 For all phases of operation, access to the cycle parking is as follows and indicated in Figure 8:

- CSC – Access will be via Starcross Street and the cycle parking is provided to the east of the building.
- Site Accommodation – Access will be via the A400 Hampstead Road and the cycle parking will be provided to the north of the site within the HS2 worksite.

Figure 8: Proposed cycle parking location and access



4.3.3 The cycle parking provision will be in the form of Sheffield stands on the lower tier with racks on the upper tier. These cycle parking will be secure and covered and 5% of cycle parking spaces will be suitable for a larger accessible bike. There will also be two Sheffield stands by the entrance to the CSC (one-sided parking only) for any short stay cycle parking drop-offs, e.g. couriers. The provision of cycle parking is in accordance with the London Plan (2021) and British Standards 8300.

4.4 Proposed vehicle access and servicing arrangements

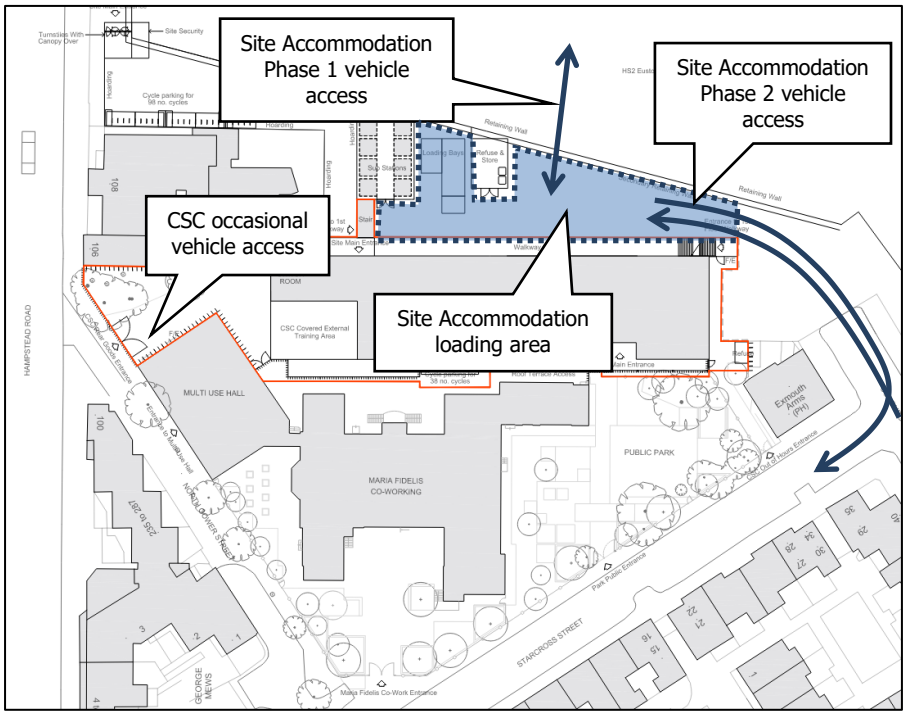
4.4.1 Disabled parking will be on-street, which is the same approach as previous consented application. On the surrounding streets, Blue Badge holders may park in resident permit parking, shared use permit bays and paid for parking bays. Blue Badge holders can also park for up to three hours on single or double yellow lines where there is no loading ban.

4.4.2 Vehicular access to the site will be for servicing and delivery vehicles only and the arrangements are as follows and as indicated in Figure 9:

- CSC – For all operational phases, servicing and deliveries will take place be on Starcross Street. There will also be infrequent use of the loading area off North Gower Street for exceptional deliveries (such as materials at the start of term and skip lorries, no more than once a month) and emergency vehicles, as per the previously consent.
- Site Accommodation:
    - Phase 1 – Off-street loading areas will be provided within the HS2 worksite to the north of the development, to suit the HS2 construction sequencing and station delivery programme. During this phase, vehicles will use temporary roads to access designated loading areas. It is anticipated that loading bays will be relocated (within the site) over time to support interfacing construction activities and the safety of delivery drivers.
    - Phase 2 - For the periods during building operation where access from the northern site area is unavailable and as construction activities around Cobourg Street allow, access for servicing vehicles will be via the designated temporary roads between otherwise approved site entrance gates and the northern elevation of the development; this will include but not be limited to the Cobourg Street gate, as indicated by Figure 9.

      The developer notes that safety concerns surrounding the use of construction vehicle routes by development servicing vehicles have driven the project to implement this phase where at all possible.

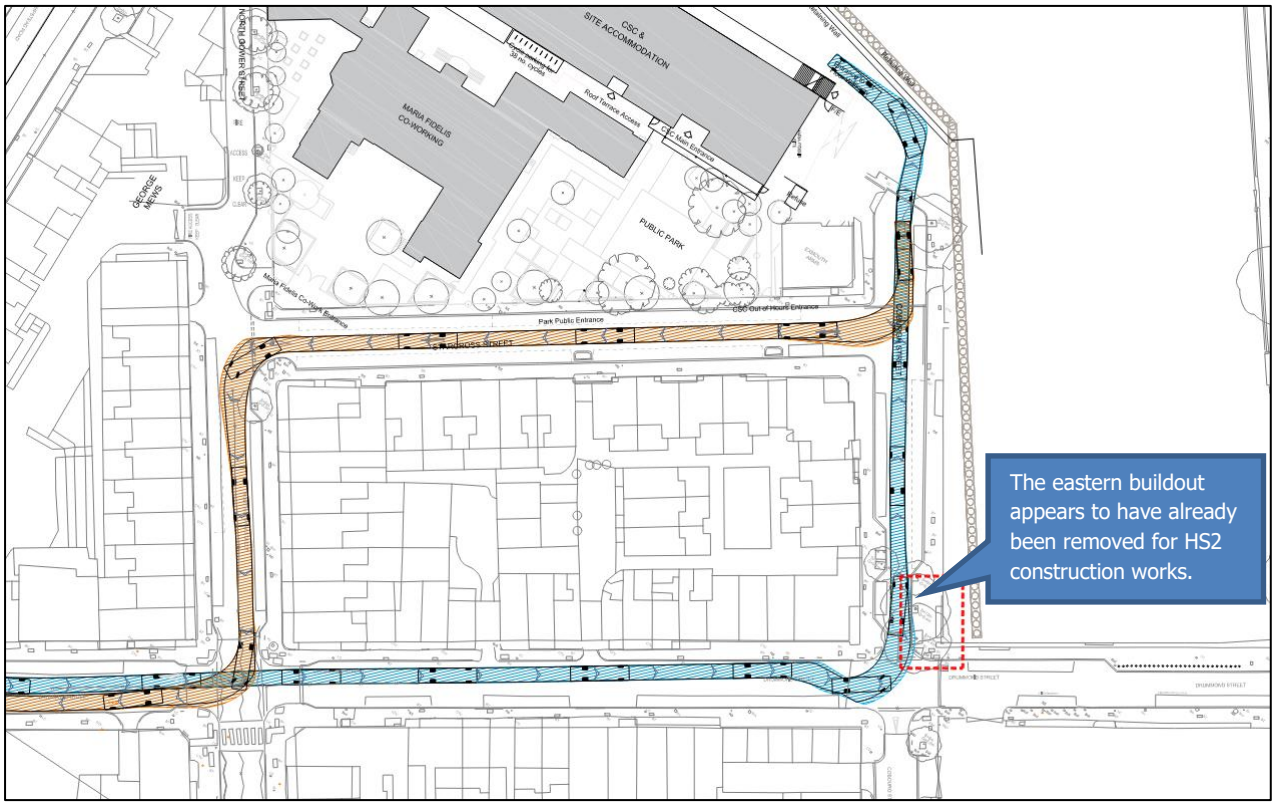
Figure 9: Proposed vehicle access



4.4.3 Swept path analysis has been undertaken and drawings are contained in Appendix A. The vehicle access routes are also available for fire services and emergency vehicles when required.

4.4.4 The swept paths show that to facilitate access for delivery vehicles, changes may be required at the Cobourg Street / Drummond Street junction, as illustrated in Figure 10. However, it appears that the eastern buildout on Cobourg Street has already been removed for HS2 construction works. This junction is within both the HS2 Limits of Deviation (LOD) and Limits of Land to be Acquired or Used (LLAU), and therefore should any further changes be required, these can be undertaken using HS2 Act powers.

Figure 10: 10m rigid vehicle swept path and Cobourg Street / Drummond Street junction



4.4.5 The northern end of North Gower Street is currently pedestrianised with access for emergency vehicles only. As per the previous consent for the CSC, changes to the traffic order will be required to allow for occasional vehicle access. This access is only required for the CSC.

4.4.6 A separate Delivery and Servicing Plan has been prepared and submitted separately in this planning application, which sets out how these activities will be managed.

4.5 Construction

4.5.1 A separate Outline Construction Management Plan (CMP) has been prepared separately to accompany this planning application. A summary of the key points are provided below.

Construction access

4.5.2 During construction, the main access will be via the HS2 worksite to the north of the site from Cardington Street. The TLRN will be used to gain access to the A400 Hampstead Road and subsequently Cardington Street. Most vehicles are expected to be tippers, vans and skip lorries. Larger vehicles such as a hiab could be expected twice a day. Plant and crane deliveries are expected at the start of the project, and

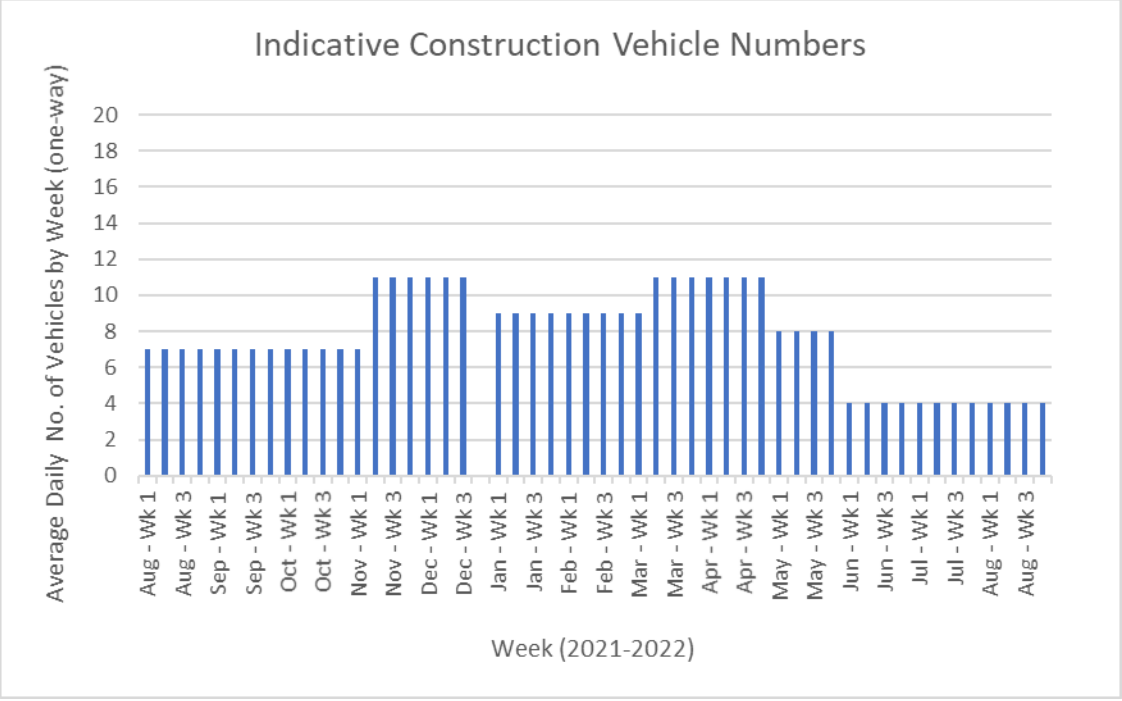
one delivery a day by an articulated vehicle could be expected during the main construction phase of the project. Further information is included in the CMP.

4.5.3 If for any reason the primary route cannot be used, vehicles may be required to enter the former Maria Fidelis school site from Cobourg Street. The route to the site would be from the A501 Euston Road and North Gower Street, and exit via Starcross Street and North Gower Street. Swept path analysis has been undertaken for the largest vehicles along these routes. This shows that should access be needed from the south, some on-street bays may require temporary suspension to facilitate these vehicles to the site. Restrictions would only be required for one day at a time to facilitate any special deliveries. The swept path drawings are included in Appendix B. Vehicles will only be required to use Cobourg Street in particular safety related circumstances, such as access being blocked by crane lifting operations, short-term open excavations or whilst temporary construction roads within the site boundary are being modified or created.

Construction trips

4.5.4 The indicative number of construction vehicles is shown in Figure 11. It shows that up to 11 vehicles could be expected a day, which equates to around one vehicle an hour (based on 5.5 working days, 10 working hours on a weekday). As set out above, these vehicles are expected to use the main site access via the HS2 worksite and Cardington Street.

Figure 11: Indicative average daily number of construction vehicles by week (one-way)



4.6 Travel Plan

4.6.1 A Travel Plan has been prepared in accordance with Camden Planning Guidance (CPG) on Transport (2021) to promote sustainable travel behaviour and is being submitted separately with this planning application (document reference: 1CP01-MDS_ARP-TM-REP-SS08_SL23-990011). The Travel Plan covers staff and pupil travel to the CSC, and staff travel to the Site Accommodation. This is in accordance to LBC guidance which states that higher education institutions should be treated as workplace for the purposes of Travel Plans.

5 Active Travel Zone

5.1 ATZ Assessment Extent

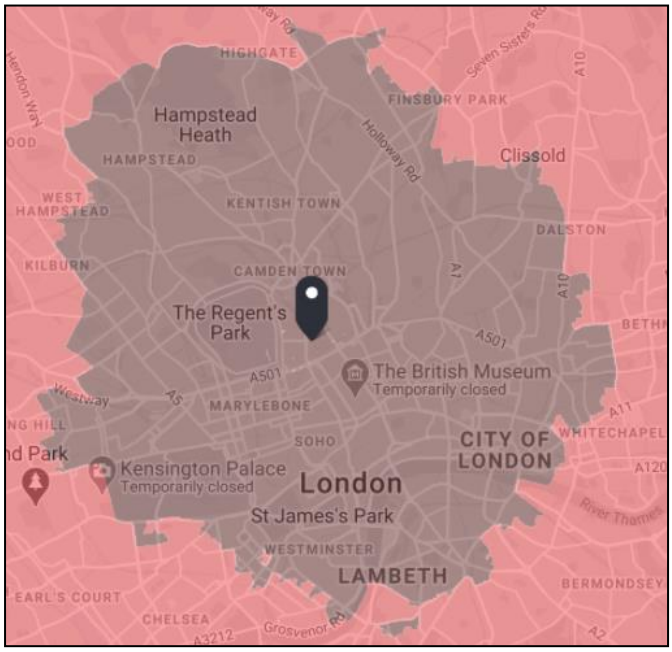
5.1.1 In accordance with TfL guidance, the purpose of an Active Travel Zone (ATZ) assessment in a TA is to appraise the walking and cycling routes between the site and key destinations and identify where gaps or shortcomings exist. The ATZ provides a series of observations and, where relevant, recommendations as to how conditions for active travel can be improved.

5.1.2 It should be noted that any recommendations identified are opportunities for the local authorities and future developments to deliver. They are not specifically linked to the development but could assist in improving the local conditions for active travel.

5.1.3 Given the temporary nature of the Proposed Development (up to 10 years), the changes that are likely to be in the local area due to the HS2 construction works, and the current travel restrictions because of Covid-19, the ATZ assessment is a high-level desktop study.

5.1.4 The ATZ is defined as a 20-minute cycle distance from a site, representing a comfortable and realistic time people might be willing to travel without the use of a motor vehicle. Figure 12 presents the 20-minute cycling extent from the site.

Figure 12: 20-Minute Cycle Isochrone



Source: https://tfl.gov.uk/info-for/urban-planning-and-construction/planning-with-webcat/webcat

5.1.5 In accordance with TfL ATZ guidance, the most relevant destinations for the proposed CSC and Site Accommodation are expected to be public transport services,

local amenities, parks and medical facilities. The nearest destinations of these uses are identified in Table 3.

Table 4: Key Destinations from the Site

Categories	Key Destinations
Bus stops	Bus stops: J/K Robert Street, Q/P Euston Square Station
London Underground and National Rail stations	Euston Station, Kings Cross Station, Euston Square Station, Warren Street Station
Town centres	Euston Road, Tottenham Court Road
Parks	Regents Park
Hospitals / doctors	University College Hospital, Fitzrovia Medical Centre, Somers Town Medical Centre

5.1.6 Based on the identified key destinations, five key routes have been identified that are most likely to attract active travel trips for the ATZ assessment. The routes are shown in Figure 5 and summarised in Table 5.

Figure 13: Key Active Travel Routes and Attractors

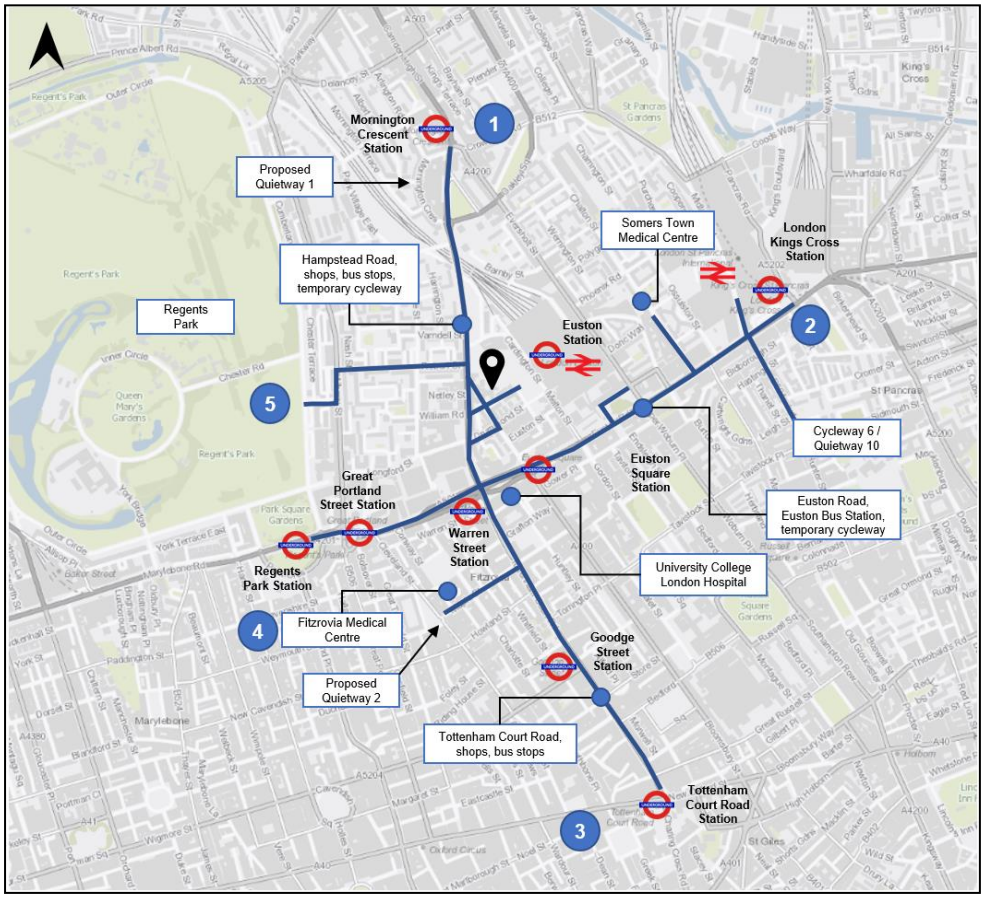


Table 5: Key Active Travel Routes and Key Destinations

Routes	Key Destinations	Key Destinations
1	Towards Mornington Crescent Station	Mornington Crescent Station, temporary cycleway and proposed Quietway 1
2	Towards Kings Cross Station	Kings Cross Station, Euston Bus Station, University College London Hospital, temporary cycleway, Cycleway 6 and Quietway 10
3	Towards Tottenham Court Road Station	Tottenham Court Road Station, University College London Hospital, proposed Quietway 2, Fitzrovia Medical Centre
4	Towards Regents Park Station	Regents Park Station
5	Towards Regents Park	Regents Park

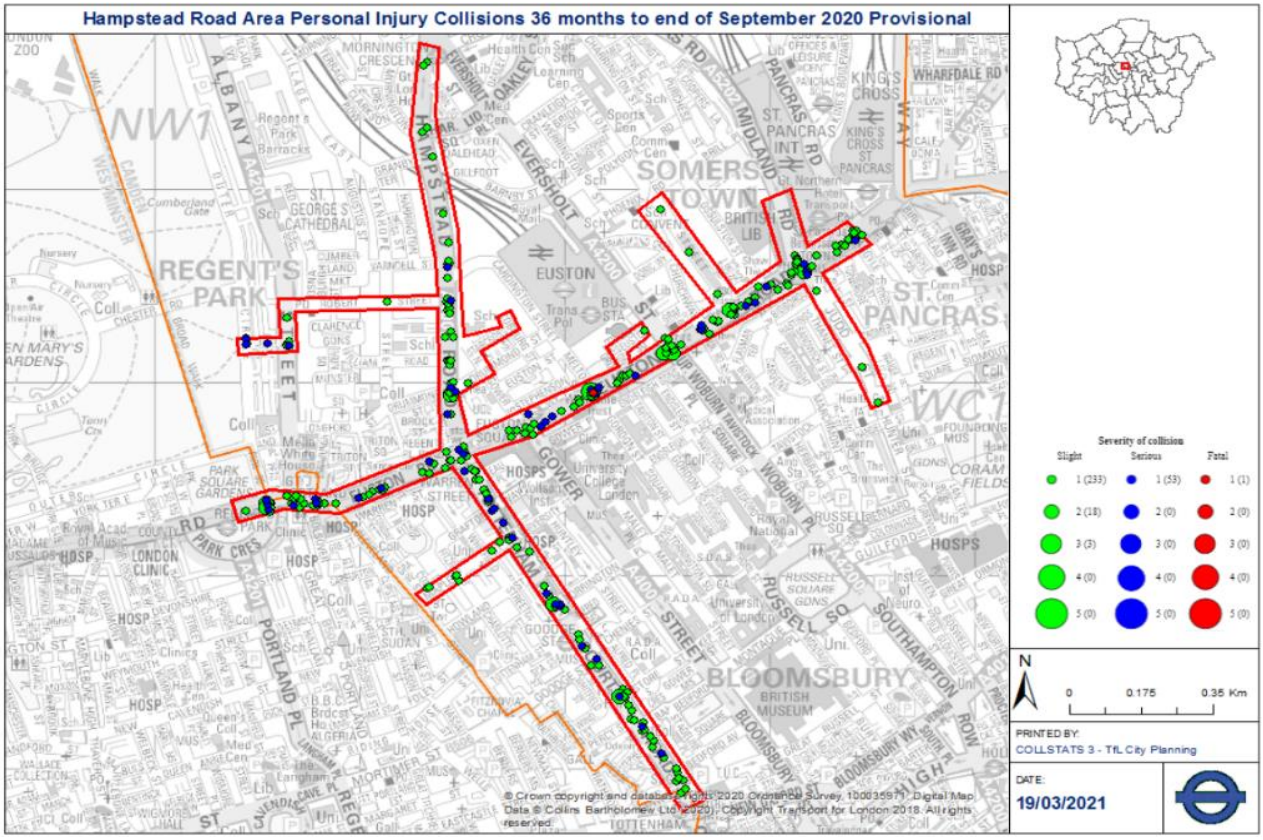
5.1.7 A desktop review of the ATZ routes along with suggested recommendations is provided in Appendix C.

5.2 Vision Zero and Collision Data Analysis

5.2.1 The Mayor's Transport Strategy focuses on achieving vision zero objectives which seeks to eliminate all deaths and serious injuries from London's transport network by 2041.

5.2.2 Personal Injury Accident (PIA) data has been made obtained from TfL for the last three years up to September 2020 along the identified ATZ assessment routes. This is shown in Figure 14 and the accident data is included in Appendix D.

Figure 14: Location of accidents



5.2.3 A total of 308 accidents were recorded within the study area, which resulted in a total of 335 injuries. A summary is provided in Table 6.

Table 6: Summary of accident data

	Slight	Serious	Fatal	Total
Pedestrians	80	28	0	108
Cyclist	57	11	1	69
Motorcyclist	62	12	0	74
Bus passenger	12	3	0	15
Vehicle passenger	14	1	0	15
Vehicle driver	54	0	0	54
Total	**279**	**55**	**1**	**335**

5.2.4 The table shows that there were one fatality, 55 serious injuries and 279 slight injuries from accidents within the study area. Of the total injuries, pedestrian injuries accounted for 32%, cyclist injuries 21% and motorcyclist injuries 22%.

5.2.5 The accident which resulted in a fatality occurred on A501 Euston Road, near the junction with Melton Street. The data states that it is not known how the collision occurred, but it involved a cyclist (fatality), a motorcyclist who suffered serious

injuries, and a parked bus. The causation factors were identified to be carelessness, failure to judge the other person's path or speed, and failure to look properly.

5.2.6 Within the vicinity of the site, the following serious accidents were recorded:

- **A400 Hampstead Road near Robert Street** – No details or causation factors are available but the accident involved a cyclist (serious injury) and a car.
- **A400 Hampstead Road near Varndell Street** – This accident involved a bus colliding with a pedestrian. The causation was identified as the pedestrian being impaired by alcohol.
- **A400 Hampstead Road / Drummond Street junction** – Two serious accidents were recorded. One accident involved a cyclist colliding with the door of a private hire vehicle. The second accident involved a car driving too close to a pedestrian and causing the pedestrian to fall forwards behind the vehicle.
- **A400 Hampstead Road north of A501 Euston Road** – This accident involved a bus passenger falling as the bus pulled forward.

5.2.7 A review of the contributory factors has been undertaken for all the PIAs. It is noted that the contributory factors are the reporting officer's opinion at the time of reporting and may not be the result of extensive investigation. Online self-reporting of accidents was introduced in 2016 and it is stated that they may have limited information and tend to be lower in quality than police reports.

5.2.8 All PIAs were attributed to human error, and where another contributory factor was available these have been reviewed as follows:

- **A501 Euston Road / Melton Road junction** – No description is available on the accident but it involved a car and a motorcycle. It resulted in the motorcyclist with slight injuries. Noted that the car driver failed to look properly, and overshoot the junction.
- **A501 Euston Road / Churchway junction** – This accident involved a van turning right into Churchway and a cyclist at quick speed collided with the van at the rear. This resulted in the cyclist with serious injuries.
- **Tottenham Court Road near Torrington Place** – A pedestrian walked out and collided with a bus, resulting in serious injuries. It was noted that the pedestrian and the bus driver both failed to look properly.

6 Trip Generation

6.1.1 This chapter sets out the consented and proposed trip generation for the development and provides a summary of the estimated delivery and servicing trips.

6.2 Consented CSC Trip Generation

6.2.1 The site has planning permission to provide 1,600 sqm of D1 college/educational space for the CSC, to accommodate 100 pupils, with 20 admin staff and 10-15 tutors. The consented trip generation for the CSC is set out in the Transport Statement which accompanied the planning application. The consented trip generation extract from the consent is shown in Table 7.

Table 7: Consented CSC Trip Generation

Mode	Mode share	AM Peak (08:00-09:00)			PM Peak (17:00-18:00)		
		In	Out	Total	In	Out	Total
Walking	37%	47	1	48	0	10	10
Public transport	59%	76	2	77	0	15	15
Vehicles	4%	5	0	5	0	1	1
Total person	**100%**	**128**	**3**	**131**	**0**	**26**	**26**

6.3 Proposed Trip Generation

CSC

6.3.1 The proposed CSC will have a floorspace of 1,378 sqm for 120 pupils and 30 staff.

6.3.2 The consented trip generation was based on trip rates per 100 sqm using TRICS information. Given that the proposal will have a small reduction in CSC floor area but an increase in the number of pupils, the proposed methodology is to increase the consented CSC walking and public transport trip generation on a pro-rata basis from 135 to 150 pupils and staff. Given that the proposals will be car-free and exclude any car parking, the number of vehicle trips is not expected to be higher than the consented scheme. The resulting proposed trip generation is shown in Table 8.

Table 8: Proposed CSC Trip Generation

Mode	AM Peak (08:00-09:00)			PM Peak (17:00-18:00)		
	In	Out	Total	In	Out	Total
Walking	53	1	54	0	11	11
Public transport	84	2	86	0	17	17
Vehicles	5	0	5	0	1	1
Total person	**142**	**3**	**145**	**0**	**29**	**29**

Site Accommodation

6.3.3 The Site Accommodation will be for approximately 2,500 site operatives and management staff during the peak construction period, with up to around 1,800 during the day (excluding night shifts). All staff are expected to report to the Site Accommodation before moving within the hoarding to the work areas.

6.3.4 The TRICS database has been examined for suitable comparable sites to Site Accommodation but no suitable sites were found. Typical office use was also considered, however, the person trip rates for office were considered lower than would be considered appropriate for Site Accommodation for construction staff. The TRICS results were therefore not considered to be comparable.

6.3.5 It was therefore considered more robust to undertake an assessment using first principles. For the purposes of trip generation, it is assumed that 1,800 staff will travel between 6.30am and 7.30am to start their shift, and depart between 5pm and 6pm. This is expected to be a robust case as it assumes all staff travel within the same time periods and does not take into account different shift patterns.

6.3.6 2011 Census data on the method of travel to work to the local area by the workday population has been examined. It is proposed that the car driver mode share is amended to reflect the car-free nature of the Proposed Development and the other mode shares have been adjusted on a pro-rata basis. The adjusted mode shares are shown in Table 9.

Table 9: Adjusted Census travel to work mode shares

Mode	Census mode share	Adjusted mode share
Underground	33%	37%
Train	38%	42%
Bus	10%	11%
Taxi	0%	0%
Motorcycle	1%	1%
Car driver	9%	0%
Car passenger	0%	0%
Cycling	4%	4%
Walking	5%	5%
Total	**100%**	**100%**

6.3.7 The resulting proposed trip generation for the Site Accommodation is shown in Table 10.

Table 10: Proposed Site Accommodation trip generation

Mode	Mode Share	AM Arrivals (06:30-07:30)			PM Departures (17:00-18:00)		
		In	Out	Total	In	Out	Total
Underground	37%	660	0	660	0	660	660
Train	42%	765	0	765	0	765	765
Bus	11%	196	0	196	0	196	196
Taxi	0%	4	0	4	0	4	4
Motorcycle	1%	14	0	14	0	14	14
Car driver	0%	0	0	0	0	0	0
Car passenger	0%	0	0	0	0	0	0
Cycling	4%	71	0	71	0	71	71
Walking	5%	90	0	90	0	90	90
Total	**100%**	**1800**	**0**	**1800**	**0**	**1800**	**1800**

Total trip generation

6.3.8 The total trip generation for the proposed CSC and Site Accommodation is shown in Table 11. The CSC trip generation does not specify the mode for public transport trips, and for the purposes of this assessment, the CSC public transport trips have been divided in proportion to Census data for Underground, train and bus.

Table 11: Total proposed trip generation

Mode	Early AM Peak (06:30-07:30)			AM Peak (08:00-09:00)			PM Peak (17:00-18:00)		
	In	Out	Total	In	Out	Total	In	Out	Total
Underground	660	0	660	34	1	35	0	667	667
Train	765	0	765	40	1	41	0	773	773
Bus	196	0	196	10	0	10	0	198	198
Taxi	4	0	4	0	0	0	0	4	4
Motorcycle	14	0	14	0	0	0	0	14	14
Car driver	0	0	0	5	0	5	0	1	1
Car passenger	0	0	0	0	0	0	0	0	0
Cycling	71	0	71	0	0	0	0	71	71
Walking	90	0	90	53	1	54	0	100	100
Total	**1800**	**0**	**1800**	**142**	**3**	**145**	**0**	**1829**	**1829**

6.4 Net Trip Generation

6.4.1 The net change in trip generation between the Proposed Development and the consented CSC use of the site is shown in Table 12.

Table 12: Net trip generation

Mode	Early AM Peak (06:30-07:30)			AM Peak (08:00-09:00)			PM Peak (17:00-18:00)		
	In	Out	Total	In	Out	Total	In	Out	Total
Underground	660	0	660	3	0	3	0	661	661
Train	765	0	765	4	0	4	0	766	766
Bus	196	0	196	1	0	1	0	197	197
Taxi	4	0	4	0	0	0	0	4	4
Motorcycle	14	0	14	0	0	0	0	14	14
Car driver	0	0	0	0	0	0	0	0	0
Car passenger	0	0	0	0	0	0	0	0	0
Cycling	71	0	71	0	0	0	0	71	71
Walking	90	0	90	5	0	5	0	91	91
Total	**1800**	**0**	**1800**	**14**	**0**	**14**	**0**	**1803**	**1803**

6.4.2 The above table shows that the Proposed Development is forecast to generate an additional 1,800 person trips in the early AM peak, 14 person trips in AM peak and 1,803 trips in the PM peak. The impact of these trips on the local transport network is shown in Chapter 7.

6.5 Delivery and Servicing Trip Generation

6.5.1 A separate Delivery and Servicing Plan (DSP) has been prepared for this planning application. The proposed daily number of delivery and servicing vehicles are shown in Table 13.

Table 13: Delivery and servicing trip generation

Location	No. Vehicles per day
Site Accommodation	9
Cafeteria	8
CSC	2
Total	**19**

6.5.2 It is expected that eight vehicles will be vans up to 4.6-ton, eight will be 8m rigid vehicles and the remaining three vehicles will be 10m rigid vehicles. The number of delivery vehicles expected can be accommodated with two off-street loading bays located to the north of the site, outside of the red line boundary. It should be noted that CSC deliveries would be accounted for in the previously consented scheme.

7 Impact assessment

7.1.1 This chapter sets out the likely impact of the proposed trips on the local transport network based on the net trip generation. The AM peak (08:00-09:00) has a very small net increase in trips, and therefore the impact assessment focuses on the early AM peak (06:30-07:30) and PM peak (17:00-18:00).

7.2 Walking and cycling network

7.2.1 The Proposed Development is expected to result in a net increase of 90 and 91 walking trips in the early AM and PM peak hours, respectively. In addition to the dedicated walking trips, there will also be over 1,600 walking trips in each peak hour to access public transport services, including to nearby stations and bus stops. In total, 1,711 and 1,714 net walking and public transport trips are expected in the early AM and PM peak hours.

7.2.2 During the peak hours, the walking trips equates to an average of 29 pedestrians per minute. These trips will be distributed across the wider footway network to access the various bus stops and stations nearby. Footways (3m to 4.3m) and crossing points are provided along A400 Hampstead Road and to minimise the impact on local residents, staff will be encouraged to use A400 Hampstead Road rather than local streets where possible.

7.2.3 Around 71 cycle trips can be expected in each of the early AM and PM peak hours, which is less than one cyclist a minute. Cycle parking will be provided on site and the site is well located to the cycle network. On this basis, it is not expected that there will be an impact on the cycle network and cycling will be promoted as part of the Travel Plan.

7.3 Public transport network

7.3.1 The Proposed Development is expected to generate a net increase of around 200 bus trips, 660 underground trips and 770 train trips in each of the early AM and PM peak hours.

Bus

7.3.2 In terms of bus impact, the site is well served by buses and there is a total of 198 buses in total per hour in both directions. The net increase of 200 bus trips equates to around one additional bus passenger per bus and this is not expected to be a significant impact.

London Underground Lines (LUL)

7.3.3 The 2019 TfL NUMBAT database has been examined to understand the baseline line loads. Although there are a number of stations within walking distance, for the

purposes of this assessment, it is assumed that all staff will use the three nearest stations, Warren Street, Euston and Euston Square to access the LUL. The 2019 line loading for the early AM and PM peak hours are summarised in Table 14 and Table 15, respectively. The Proposed Development will only add arrival trips in the early AM peak hour and departure trips in the PM peak hour and therefore only these directions have been reported.

Table 14: Early AM peak (06:30-07:30) line loading - arrivals

LUL	From	To	Planning Capacity per Train	Frequency Per Hour	LUL Planning Capacity (pphd)	2019 Line Loads	% of Network Capacity
Victoria	North	Warren Street	857	32	27424	6338	23%
	South		857	27	23139	7545	33%
Northern	North		689	18	12402	1653	13%
	South		689	19	13091	1460	11%
	South (Bank branch)	Euston	689	17	11713	4680	40%
H&C and Circle	East	Euston Square	892	13	11596	3367	29%
	West		892	12	10704	2594	24%
Metropolitan	East		1004	10	10040	1681	17%
	West		1004	12	12048	4310	36%

Table 15: PM peak (17:00-18:00) line loading - departures

LUL	To	From	Planning Capacity per Train	Frequency Per Hour	LUL Planning Capacity (pphd)	2019 Line Loads	% of Network Capacity
Victoria	North	Warren Street	857	36	30852	25070	81%
	South		857	36	30852	18533	60%
Northern	North		689	24	16536	7248	44%
	South		689	24	16536	10385	63%
	South (Bank branch)	Euston	689	24	16536	6937	42%
H&C and Circle	East	Euston Square	892	12	10704	6006	56%
	West		892	11	9812	5923	60%
Metropolitan	East		1004	15	15060	5281	35%
	West		1004	15	15060	8209	55%

7.3.4 The above shows that in the early AM peak, there is spare capacity on the LUL and the highest usage is 40% on the Northern line, Bank branch. In the PM peak, the usage of LUL is higher and the highest is 81%, northbound on the Victoria line from Warren Street.

7.3.5 For the purposes of this assessment, it is assumed that there will be an even distribution of London Underground trips across the nine LUL by direction. This equates to an average of 73 trips per line based on the total of 660 trips in each of the peak hours. The impact of these trips are shown in Table 16.

Table 16: Line loading assessment

LUL	From / To	To / From	Proposed Development	AM Inbound (0630-0730)			PM Outbound (1700-1800)		
				Existing + Proposed Development	% of Network Capacity	Net change	Existing + Proposed Development	% of Network Capacity	Net change
Victoria	North	Warren Street	73	6412	23%	0.3%	25143	81%	0.2%
	South		73	7618	33%	0.3%	18607	60%	0.2%
Northern	North		73	1727	14%	0.6%	7321	44%	0.4%
	South		73	1533	12%	0.6%	10458	63%	0.4%
	South (Bank branch)	Euston Square	73	4753	41%	0.6%	7011	42%	0.4%
H&C and Circle	East	Warren Street	73	3441	30%	0.6%	6079	57%	0.7%
	West		73	2667	25%	0.7%	5997	61%	0.7%
Metropolitan	East		73	1755	17%	0.7%	5354	36%	0.5%
	West		73	4383	36%	0.6%	8282	55%	0.5%

7.3.6 The above table shows that the Proposed Development will have a very small impact on line loading, with the highest increase of +0.7%, which is not considered significant.

National Rail

7.3.7 Around 770 rail trips are expected in the early AM and PM peak hours. The site is within walking distance to Euston Station where a range of National Rail train services are available. Furthermore, although beyond typical walking distance, King Cross and St Pancras National Rail Stations are approximately a 20-minute walk. Given the wide range of frequent rail services available, it is not expected that the number of rail trips generated will have a significant impact.

Summary

7.3.8 Given the wide range of highly frequent public transport services within walking distance of the site, this assessment shows that the Proposed Development is not expected to have a significant effect on the public transport network.

7.4 Highway network

7.4.1 No net increase in car driver trips are expected. In terms of deliveries and servicing, a total 19 daily vehicles are estimated and up to three deliveries are expected in an hour. This is equivalent to six two-way trips, but given the one-way nature of the access streets, individual streets will experience only three trips an hour which equates to, on average, one vehicle every 20 minutes. This is not expected to result in perceptible change to the local highway network. The Delivery and Servicing Plan sets out further how deliveries will be managed to minimise any impact on the highway network.

8 Summary and Conclusions

8.1.1 The site is located in the northern part of the former Maria Fidelis Catholic School. The Proposed Development is to provide a Construction Skills Centre (CSC) and Site Accommodation for site operatives and management staff to facilitate the construction of HS2 Euston Station. There is an existing consent for a CSC on site.

8.1.2 The site is well located to walking and cycling routes and has a wide range of highly frequent public transport services within walking distance. The site has a PTAL of 6b.

8.1.3 The access strategy to CSC is proposed to remain unchanged from the previously consented scheme. This involved walking and cycling access and on-street servicing from Starcross Street, and occasional servicing vehicles using North Gower Street.

8.1.4 For the Site Accommodation, walking and cycling access is proposed only from A400 Hampstead Road and through the existing HS2 worksite to the north. Deliveries and servicing will take place to the north of the building. The operational vehicle access arrangements are within the HS2 worksite and for the periods when this access is unavailable, and as construction activities around Cobourg Street allow, access will be via the designated temporary roads, including but not be limited to the Cobourg Street gate.

8.1.5 The trip generation assessment shows that the peak periods are likely to be 06:30 to 07:30 and 17:00 to 18:00 when Site Accommodation staff arrive and leave the site. Once site operatives enter the site perimeter to access the Site Accommodation, they will stay within the hoarding to move to their work areas.

8.1.6 The proposed trips are expected to dissipate quickly across the transport network and make use of the wide range of highly frequent public transport services available. On this basis, no significant impact is expected on the capacity of the local transport network. A Travel Plan has been prepared to further promote sustainable and active travel modes.