Appendix A

SCOPING NOTE & PRE-APPLICATION ENGAGEMENT

London Borough of Richmond upon Thames

TWICKENHAM RIVERSIDE

Transport Assessment Scoping Report

MARCH 2021

PUBLIC

London Borough of Richmond upon Thames

TWICKENHAM RIVERSIDE

Transport Assessment Scoping Report

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TRIP GENERATION

1 SITE CONTEXT

1.1 INTRODUCTION

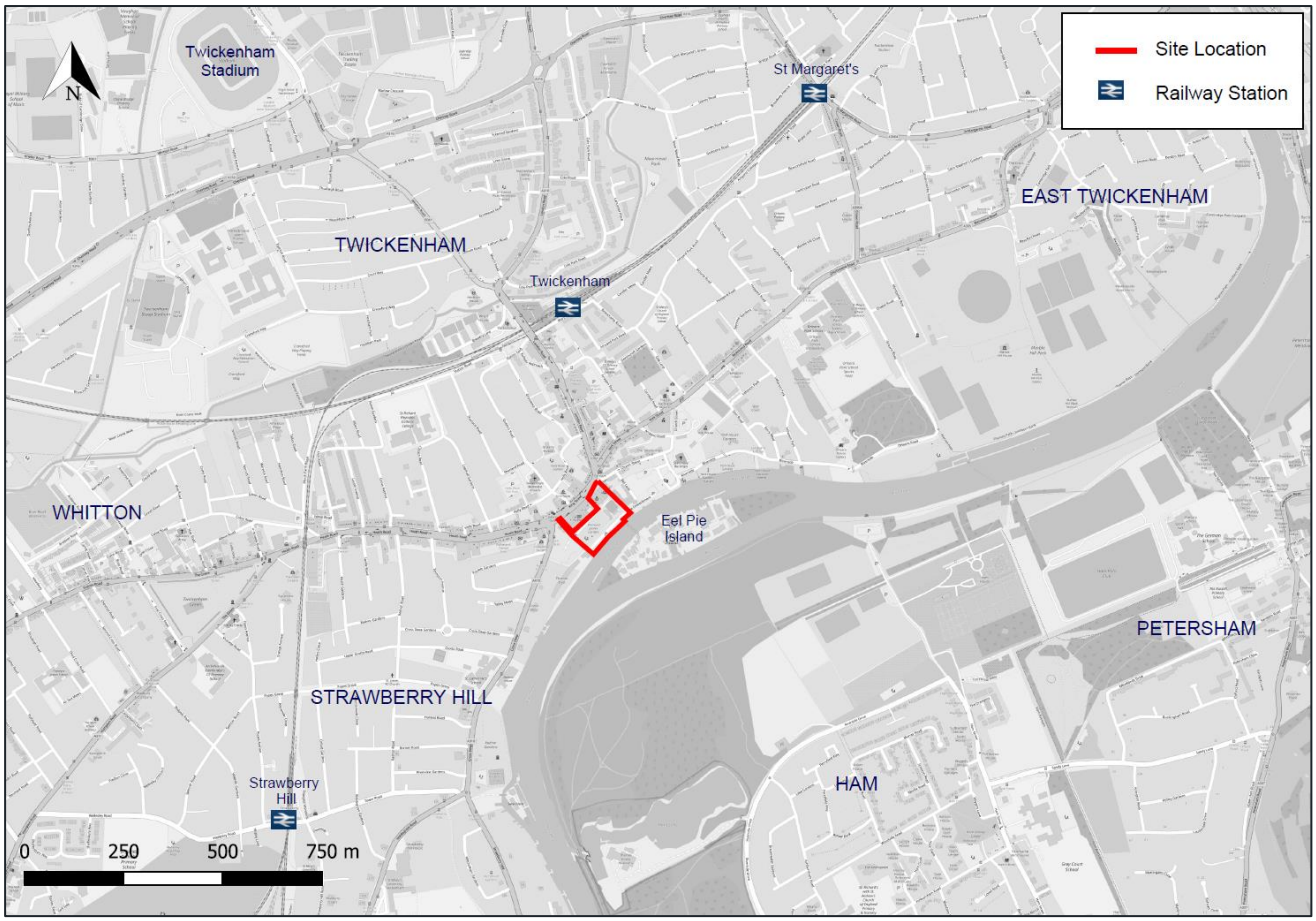
1.1.1. This Transport Assessment Scoping Report (TASR) has been prepared by WSP UK Ltd on behalf of the London Borough of Richmond upon Thames (LBRuT), hereafter referred to as 'the Applicant', to provide transport planning evidence supporting the proposed redevelopment of Twickenham Riverside (the Site), located in the London Borough of Richmond upon Thames, hereafter referred to as the Local Planning Authority (LPA).

1.2 BACKGROUND

1.2.1. Hopkins Architects are the preferred bidder of a design competition managed by the Royal Institute of British Architects (RIBA) on behalf of the London Borough of Richmond upon Thames. LBRuT recognises that Twickenham Riverside is critical to the success of Twickenham Town Centre as a destination and have identified the site which lies between Water Lane and Wharf Lane, including the Embankment and the Diamond Jubilee Gardens, as an opportunity area for redevelopment.

1.2.2. The site location is shown below in Figure 1-1.

Figure 1-1 - Site Location



1.3 EXISTING SITE

1.3.1. The development site is currently occupied by a mixture of retail, leisure and residential land uses.

1.3.2. The site is bound by:

- King Street and 3-31 King Street properties to the north;
- Water Lane to the east;
- The Embankment and the river Thames to the south; and
- Wharf Lane to the west.

1.3.3. The Site is accessed from Water Lane and Wharf Lane via King Street and via the Embankment from the riverside. Water Lane is a one-way southbound street which runs between King Street and the Embankment. Vehicles then egress back onto King Street via Wharf Lane, a one-way northbound street.

1.4 PLANNING HISTORY

1.4.1. The Site had previously been subject to one planning application in 2017, the planning application (Ref 17/4213/FUL) was seeking permission for:

"Full planning application for the demolition and removal of all existing buildings and structures and redevelopment with a mixed use development of the site at 1, 1A, 1B and 1C King Street and 2/4 Water Lane; the site of the remaining former swimming pool buildings at the corner of Water Lane and The Embankment; and the river facing parcel of land on The Embankment in front of Diamond Jubilee Gardens. The development proposals comprise: Two 3-4 storey buildings with a partial lower ground floor and a raised walkway to link the two buildings; three seasonal units (201m2) at Lower Ground Floor level; 505m2 A3 floor space, 250m2 B1 floor space, 244m2 A1 floor space and 62m2 flexible commercial at ground floor level (either A1/A3/D1); 39 residential apartments at first, second and third floors (18 no. 1 bedroom, 19 no. 2 bedroom and 2 no. 3 bedroom, including six no. affordable homes) and raised roof terrace; new public square / areas of public realm throughout the site; a Lower Ground Floor car park with new vehicular access from The Embankment consisting of 23 car parking spaces and cycle storage; reconfiguration of street parking in the roads immediately adjacent to the Site and associated highway / footway works; amended pedestrian access and landscaping to the South of Diamond Jubilee Gardens; and amendment of service vehicle access to the service road at the rear of Diamond Jubilee Gardens."

1.4.2. This application was then withdrawn by the applicant in 2018 citing consultation with the Environmental Agency (EA) as the reason, the EA advised against the proposed development due to unsatisfactory flood risk management measures.

1.5 DEVELOPMENT PROPOSALS

1.5.1. It is anticipated that the development proposals will provide a mix of uses, including residential, retail and commercial uses, in line with the Local Plan and Twickenham Area Action Plan.

1.5.2. Whilst the development proposals are subject to a process of design development and refinement, the strategic nature of the proposed land uses and the development quantum presented in this document are a true representation of the current scheme. This will inevitably be subject to changes following the consultation process. The methodology outlined in this document will be amended accordingly and, should a major deviation in the development strategy occur, we will seek to consult again on the Transport Assessment scope.

1.5.3. The proposed development is seeking permission for:

Demolition of existing buildings and structures and redevelopment of the site comprising residential (Use Class C3), ground floor commercial/retail/cafe (Use Class E), and public house (Sui Generis) with associated landscaping, restoration of Diamond Jubilee Gardens and other relevant works.

1.5.4. The proposed development quantum is outlined in Table 1-1 below:

Table 1-1 - Proposed Development Quantum

Land Use	Development Quantum
Residential	46 (Units)
Workspace	429 (GIA)
Café	248 (GIA)
Pub	389 (GIA)
Retail	359 (GIA)
Total	**1,425 (GIA)**

1.5.5. The proposed development will take the form of two buildings, one along Water Lane and one along Wharf Lane, together with a new garden and public space with pedestrian priority between the buildings and the riverfront.

1.5.6. The residential element of the proposed development will consist of apartments of varying typologies which will be provided on the upper floors, the ground floors will be dedicated to commercial space, community and retail spaces and a pub.

1.5.7. A pedestrian priority space type public realm and high-quality landscape will link the buildings and the public highways providing access to the site.

1.5.8. A service road, currently a 'cul-de-sac' accessed via Wharf Lane, will be retained and will continue to serve King's Streets units from the rear and will also serve the new development.

1.5.9. The residential schedule is not yet fully developed; however, the Applicant anticipates the residential dwellings to comprehend 1, 2 and 3 bedroom units.

1.5.10. Cycle parking will be provided in line with the London Plan (2021) standards and London Cycle Design Standards (LCDS) best practice. The proposed development will be car-free with the exception of blue badge parking provision.

1.6 REPORT PURPOSE

1.6.1. This Transport Assessment Scoping Report has been prepared in order to set out the principles and methodology of the transport assessment with the LPA.

1.6.2. The remainder of the report is structured as follows:

- Chapter 2 – Policy Review
- Chapter 3 – Baseline Conditions
- Chapter 4 – Development Proposals
- Chapter 5 – Trip Generation
- Chapter 6 – Proposed Scope of the Assessment
- Chapter 7 – Summary and Conclusions.

2 POLICY REVIEW

2.1 OVERVIEW

2.1.1. This policy review is provided to demonstrate the proposed development compliance with the national, regional and local transport policies relevant to this development. The policy review section following on seeks to summarise the key themes in the relevant national and local policies and, where relevant, highlight policies which relate directly to the proposed development and how these have been addressed by the scheme.

2.1.2. It is noted that emerging policy and best practice documents are summarised in this section alongside the adopted policy in recognition of the potential future context of the development.

2.2 NATIONAL POLICY

NATIONAL PLANNING POLICY FRAMEWORK (2019)

2.2.1. The purpose of the planning system is to contribute to the achievement of sustainable development. At a very high level, the objective of sustainable development can be summarised as meeting the needs of the present without compromising the ability of future generations to meet their own needs.

2.2.2. Achieving sustainable development means that the planning system has three overarching objectives, which are interdependent and need to be pursued in mutually supportive ways (so that opportunities can be taken to secure net gains across each of the different objectives):

- An economic objective – to help build a strong, responsive and competitive economy, by ensuring that sufficient land of the right types is available in the right places and at the right time to support growth, innovation and improved productivity; and by identifying and coordinating the provision of infrastructure;
- A social objective – to support strong, vibrant and healthy communities, by ensuring that a sufficient number and range of homes can be provided to meet the needs of present and future generations; and by fostering a well-designed and safe built environment, with accessible services and open spaces that reflect current and future needs and support communities' health, social and cultural well-being; and
- An environmental objective – to contribute to protecting and enhancing our natural, built and historic environment; including making effective use of land, helping to improve biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy.

2.2.3. Transport issues should be considered from the earliest stages of plan-making and development proposals, so that:

- The potential impacts of development on transport networks can be addressed;
- Opportunities from existing or proposed transport infrastructure, and changing transport technology and usage, are realised – for example in relation to the scale, location or density of development that can be accommodated;
- Opportunities to promote walking, cycling and public transport use are identified and pursued;
- The environmental impacts of traffic and transport infrastructure can be identified, assessed and taken into account – including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains; and
- Patterns of movement, streets, parking and other transport considerations are integral to the design of schemes and contribute to making high quality places. The planning system should actively manage patterns of growth in support of these objectives. Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of

transport modes. This can help to reduce congestion and emissions and improve air quality and public health.

2.2.4. Applications for development should:

- Give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use;
- Address the needs of people with disabilities and reduced mobility in relation to all modes of transport;
- Create places that are safe, secure and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;
- Allow for the efficient delivery of goods, and access by service and emergency vehicles; and
- Be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations.

NATIONAL PLANNING PRACTICE GUIDANCE (2019)

2.2.5. The National Planning Practice Guidance was published in 2012 and revised in 2018, offering updated and revised guidance on planning practice where necessary.

2.2.6. The NPPG provides additional guidance to supplement the planning policies contained in the NPPF.

2.2.7. The NPPG provides clarity on the role, function and structure of the Transport Assessments and Travel Plans: *Transport Assessments and Statements are ways of assessing the potential transport impacts of developments and they may propose mitigation measures to promote sustainable development. Where that mitigation relates to matters that can be addressed by management measures, the mitigation may inform the preparation of Travel Plans.*

2.2.8. The NPPG states that Travel Plans, Transport Assessments and Statements can positively contribute to:

- encouraging sustainable travel;
- lessening traffic generation and its detrimental impacts;
- reducing carbon emissions and climate impacts;
- creating accessible, connected, inclusive communities;
- improving health outcomes and quality of life;
- improving road safety; and
- reducing the need for new development to increase existing road capacity or provide new roads.

2.2.9. They support national planning policy which sets out that planning should actively manage patterns of growth in order to make the fullest possible use of public transport, walking and cycling, and focus significant development in locations which are or can be made sustainable.

2.3 REGIONAL POLICY

LONDON PLAN (MARCH 2021)

Overview

2.3.1. The London Plan is part of the statutory development plan and aims to make London's transport easy, safe and convenient for everyone, and actively encourages walking, cycling and making better use of the Thames.

2.3.2. The London Plan recognises that transport plays a fundamental role in addressing the whole range of spatial planning, environmental, economic and social policy priorities. It is critical to the efficient functioning and quality of life of London and its inhabitants, having major effects on places, especially around interchanges and in town centres and on the environment, both within the city itself and more widely.

2.3.3. This new London Plan marks a break with previous London Plans, representing a step change in the approach and serves as a blueprint for the future development and sustainable, inclusive growth of London. The 2021 London Plan replaces all previous versions.

Relevance to Twickenham Riverside

2.3.4. Transport for London has advised that transport matters concerning new developments should be compliant with the London Plan and related best practice. This includes Healthy Streets policies and ambitions regarding the sustainable mode of travel which are relevant to the proposed development site.

Transport Considerations

2.3.5. The document reports the Greater London Authority (GLA) strategic vision into objectives such as to ensure that London's transport is easy, safe and convenient for everyone, and encourages the use of cycling, walking and public transport.

2.3.6. The Mayor's key target, as set out in Policy T1 is that:

- 80% of all trips in London are to be made by foot, cycle or public transport by 2041.

2.3.7. Policy T1(B) also states that:

> *"All development should make the most effective use of land, reflecting its connectivity and accessibility by existing and future public transport, walking and cycling routes, and ensure that any impacts on London's transport networks and supporting infrastructure are mitigated."*

2.3.8. The London Plan recognises that London's challenges of guaranteeing its status as an efficient, well-functioning globally-competitive city are intertwined with the obstacles and opportunities that transport brings. It states that the integration of land use and transport is essential in realising and maximising growth and ensuring that different parts of the city are connected in a sustainable and efficient way.

2.3.9. In order to achieve this, the London Plan acknowledges that a strategic shift is needed to reduce Londoners' dependency on the car, creating a healthy, pleasant and sustainable street environment in which people can walk, cycle and use public transport.

2.3.10. 'Policy T2 Healthy Streets' outlines that development proposals should:

- Demonstrate how they will deliver improvements that support the ten Healthy Streets Indicators in line with Transport for London Guidance
- Reduce the dominance of vehicles on London's streets whether stationary or moving
- Be permeable by foot and cycle and connect to local walking and cycling networks as well as public transport

2.3.11. The Healthy Streets indicators are detailed in Figure 2-1.

Figure 2-1 - Healthy Streets indicators (source: TfL.gov.uk)

Source: Lucy Saunders

2.3.12. 'Policy T4 Assessing and mitigating transport impacts' states that development proposals should reflect and be integrated with current and planned transport access, capacity and connectivity. It is acknowledged that transport assessments should be submitted with development proposals where appropriate and 'focus on embedding the Healthy Streets Approach within, and in the vicinity of, new development.'

2.3.13. Where parking is provided, electric vehicle charging infrastructure should be implemented. In total, 20% of all car parking spaces should have acting charging facilities, with passive provision for all remaining spaces

2.3.14. The London Plan will become the overall strategic plan for London, setting out an integrated economic, environmental, transport and social framework for the development of London over the next 20-25 years.

2.3.15. Policy T4 identifies that development proposals should reflect and be integrated with current and planned transport access, capacity and connectivity. Transport Assessments are required to support development proposals assessing any impacts on the capacity of the transport network and should focus on embedding the Healthy Streets approach within, and the in the vicinity of, new development.

2.3.16. Policy T5 sets out that development should encourage cycling and provides new cycle parking standards. Cycle parking and cycle parking areas should allow easy access and provide facilities for disabled cyclists. In

places of employment, supporting facilities are recommended, including changing rooms, maintenance facilities, lockers and shower facilities (at least one shower per ten long-stay spaces is recommended).

2.3.17. Policy T6 states that:

[…] Car-free development should be the starting point for all development proposals in places that are (or are planned to be) well-connected by public transport, with developments elsewhere designed to provide the minimum necessary parking ('car-lite'). Car-free development has no general parking but should still provide disabled persons parking in line with Part E of this policy […]

2.3.18. The London Plan Policy T6.1 states that new residential development should not exceed the maximum parking standards set out in **Error! Reference source not found.**, it should be noted that the proposed development site is located in an area of Public Transport Accessibility Level (PTAL) of 5, meaning it is very well served by public transport.

Table 2-1 - London Plan Maximum Car Parking Standards – Residential

Location	Maximum Parking Provision
Central Activities Zone Inner London Opportunity Areas Metropolitan and Major Town Centres All areas of PTAL 5 – 6 Inner London PTAL 4	Car free

Note: Disabled persons parking should be provided to ensure that as a minimum, 3% of dwellings have a designated Blue Badge parking bay. Evidence should be provided to demonstrate how an additional 7% of dwellings could be provided.

Note: 20% of all spaces must be for electric vehicles, with the remaining bays having passive capability for electric vehicles in the future.

2.3.19. Policy T7 states that:

"Development proposals should facilitate sustainable freight and servicing, including through the provision of adequate space for servicing and deliveries off-street. Construction Logistics Plans and Delivery and Servicing Plans will be required and should be developed in accordance with Transport for London guidance and in a way which reflects the scale and complexities of developments.

Developments should be designed and managed so that deliveries can be received outside of peak hours and in the evening or night time…"

2.3.20. For retail uses including Opportunity Areas and Outer London units of up to 500 sqm the policy suggests up to 1 space per 75 sqm (GIA); however, it is encouraged that where the context is relevant on-site provision is limited to operational needs, parking for disabled people and that required for taxis, coaches and deliveries/servicing.

2.3.21. Policy T6.5 (Non-residential disabled persons parking) Disabled persons parking will be provided in accordance with Table 10.6 outlined below in Table 2-2.

Table 2-2 - London Plan Non-residential disabled persons parking standards

Land Use	Designated bays (Per cent of total parking provision)	Enlarged bays (Per cent of total parking provision)
Workplace	5%	5%
Education	5%	5%
Retail, recreation, hotels and leisure	6%	4%
Transport car parks	5%	5%
Medical and health facilities	6%	4%

2.3.22. The London Plan cycle parking standards for the relevant land uses are summarised in Table 2-3.

Table 2-3 – London Plan Cycle Parking Standards

Land Use	Long Stay	Short Stay
C3 – C4 Residential Dwellings	1 space per studio or 1 person 1 bedroom dwelling 1.5 spaces per 2 person 1 bedroom dwelling 2 spaces per all other dwellings	5 to 40 dwellings: 2 spaces Thereafter: 1 space per 40 dwellings
A1 Food Retail	1 space per 175sqm	Areas with higher cycle parking standards First 750sqm: 1 space per 20sqm Thereafter: 1 space per 150sqm
A1 Non-Food Retail	First 1,000sqm: 1 space per 250sqm Thereafter: 1 space per 1,000sqm	Areas with higher cycle parking standards First 1,000sqm: 1 space per 60sqm Thereafter: 1 space per 500sqm
A2-A5 F&B	1 space per 175sqm	Areas with higher cycle parking standards 1 space per 20sqm
B1 Office	Areas with higher cycle parking standards: 1 space per 75sqm	First 5000sqm: 1 space per 500sqm Thereafter: 1 space per 5000sqm

Note: Where the size threshold has been met, a minimum of 2 short-stay and 2 long-stay spaces must be provided for all land uses in all locations

Note: Cycle parking areas should allow easy access and cater for cyclists who use adapted cycles.

MAYOR'S TRANSPORT STRATEGY (2018)

2.3.23. The Mayor's Transport Strategy is the document that sets out the policies and proposals of the Mayor of London to reshape transport in London over the next 25 years. It builds on the vision for a better London that the Mayor outlined in 'A City for All Londoners' and takes forward the approach set out in 'Healthy Streets for London'.

2.3.24. The strategy puts people's health and quality of life at the very heart of planning the city's transport. Along with the Draft London Plan and the Mayor's other strategies, it provides the blueprint for making London a city that is not only home to more people, but is a better place for all of those people to live in.

2.3.25. Three key themes are at the heart of the strategy:

- **1. Healthy Streets and healthy people**

  Creating streets and street networks that encourage walking, cycling and public transport use will reduce car dependency and the health problems it creates.

- **2. A good public transport experience**

  Public transport is the most efficient way for people to travel over distances that are too long to walk or cycle, and a shift from private car to public transport could dramatically reduce the number of vehicles on London's streets.

- **3. New homes and jobs**

  More people than ever want to live and work in London. Planning the city around walking, cycling and public transport use will unlock growth in new areas and ensure that London grows in a way that benefits everyone.

2.4 LOCAL POLICY

2.4.1. LBRuT adopted their current Local Plan in July 2018 and March 2020, which replaced the previous policies within the Core Strategy and Development Management Plan. The Plan sets out policies and guidance for the development of the borough until July 2033 or until superseded.

2.4.2. Two legal challenges were made regarding the adoption of the Local Plan, and on 3rd March 2020 the Council adopted the two matters relate to the legal challenges within the Local Plan. As such, the Council is now in the process of preparing a new Local Plan for Richmond, which will also take into account policy changes at a regional level since the current Local Plan was adopted.

2.4.3. At the time of writing, the Richmond Local Plan (2018 and 2020) remains the prevailing policy guidance for the borough and has been considered through the guidance provided within this document.

LOCAL PLAN

2.4.4. Chapter 11 of the adopted Local Plan pertains to "Transport". **Policy LP44** relates to "Sustainable Travel Choices", with Section B outlining the following outlined with regards to walking and cycling:

Policy LP 44

Sustainable Travel Choices

The Council will work in partnership to promote safe, sustainable and accessible transport solutions, which minimise the impacts of development including in relation to congestion, air pollution and carbon dioxide emissions, and maximise opportunities including for health benefits and providing access to services, facilities and employment. The Council will:

A. Location of development Encourage high trip generating development to be located in areas with good public transport with sufficient capacity, or which are capable of supporting improvements to provide good public transport accessibility and capacity, taking account of local character and context.

B. Walking and cycling Ensure that new development is designed to maximise permeability within and to the immediate vicinity of the development site through the provision of safe and convenient walking and cycling routes, and to provide opportunities for walking and cycling, including through the provision of links and enhancements to existing networks.

2.4.5. The following guidance for "Walking, Cycling & Public Transport" provides further guidance for development:

> *Walking, Cycling & Public Transport*
>
> *Developments should encourage the use of modes other than the car by making it as easy as possible through provision of good pedestrian facilities, clear layout and signage, provision of cycling facilities and improving access to public transport interchanges. Civic spaces and public realm should be accessible and inclusive. A good walking environment has been shown to be not only beneficial to an individual's health and social life, but also to bring economic benefits to the borough's centres.*
>
> *Cycling and walking contributes significantly towards creating an attractive and pleasant environment. New development should include all the facilities needed to encourage a safe walking and cycling environment from first occupation. The minimum cycle parking standards are set out in policy LP 45 in 'Parking Standards and Servicing'*
>
> *Developments should be integrated into the surrounding community and existing local routes and provide for improvements to accessibility for all. There are many footpaths, Public Rights of Way and cycle routes in the borough that new development should not compromise, and opportunities to improve them should be taken wherever possible. For this reason, in line with policy LP 1 in 4.1 'Local Character and Design Quality', gated developments will not be permitted.*
>
> *The Council promotes the creation of a safe network for pedestrians and cyclists. Management of other users including speed restrictions, sufficient widths, segregation where appropriate and well designed and positioned crossing facilities can reduce conflict between users. Well-designed paths, natural surveillance, appropriate levels of lighting and other security measures and good levels of maintenance can improve actual and perceived security. The Council's Public Space Design Guide includes advice with respect to the amenity of the pedestrian environment. The London Cycle Design Standards sets out requirements and advice for cycle network planning and for the design of dedicated cycle infrastructure, cycle-friendly streets and cycle parking.*
>
> *The Council will ensure that there is signage and way marking of the three strategic walking routes identified in the London Plan, which run through the borough – the Thames Path National Trail, the Capital G.*
>
> *Taxis and private hire vehicles Ensure that taxis and private hire vehicles are adequately catered for in appropriate locations. 134 Ring and the London Loop, and other promoted route, such as the River Crane Walk and Beverley Brook Walk, which together form a network of leisure routes which most residents can reach.*
>
> *Proposals that improve transport links within or between the borough and other areas will be encouraged. This could refer to physical proposals and improvements such as a new bridge or path; improving existing links such as creating a new gate into a park; or increasing the use of an existing link such as the promotion of a route as a travel option.*

2.4.6. **Policy LP44** relates to "Sustainable Travel Choices", with Section B outlining the following outlined with regards to walking and cycling:

2.4.7. *Ensure that new development is designed to maximise permeability within and to the immediate vicinity of the development site through the provision of safe and convenient walking and cycling routes, and to provide opportunities for walking and cycling, including through the provision of links and enhancements to existing networks.*

CYCLING STRATEGY 2016-2026 (2017)

2.4.8. The LBRuT Cycling Strategy outlines that the borough has the highest proportion of people cycling in London (7% of journeys). This is *"because many of the borough's residents and visitors have quickly recognised that cycling can be a healthy, low cost, quick, enjoyable and environmentally friendly way to travel".* This coupled with the borough's natural assets such as its parkland and rivers mean it is an attractive place to cycle.

2.4.9. The Council is keen to support this growth given the benefits that more people cycling can deliver to the wider community, through reduced congestion on the roads and public transport, better local air quality, less noise and improved health and wellbeing. This is supported by the policies set out in the Council's Core Strategy and Development Management Plan, as well as national and regional policies and strategies.

2.4.10. The LBRuT sets the three core objectives within its cycling strategy to achieve Richmond's Cycling Vision, which is:

"To get more people cycling more often by making cycling easier, safer and more integrated"

2.4.11. The three core objectives are:

- (A) Making cycling journeys safer and easier
- (B) Developing cycling locally as an everyday option
- (C) Promote cycling as a safe, fun and healthy way to get around

2.4.12. To achieve core Objective A the strategy seeks:

- Cycle network improvements
- Better Junctions and links
- Better Bridges
- Integrating cycling into new schemes
- Well maintained roads and routes
- More cycle training
- Safer HGVs
- Enforcement against poor road user behaviour
- Speed limits and traffic calming

2.4.13. In order to achieve Objective B, the strategy states that people need secure and convenient places to store their bikes at both ends of the journey. This needs to be done in such a way that cycling can be more attractive than other modes.

2.4.14. Objective B also highlights the challenges associated with cycling, outlining the need for improving provision of cycling for all users. Considering all users means that those who are unable to store or own a bike must be considered and access to associated facilities and cycle maintenance is available for all users. To achieve core Objective B the strategy seeks:

- Improved cycle parking (for residents, workplaces, schools, stations, new development, visitors)
- Better cycle security
- Encouraging improved cycle maintenance
- Facilitating bike ownership
- Improving cycle hire options
- Removing abandoned bikes

2.4.15. Objective C states that the council has a significant supporting role to play in encouraging people to cycle:

"Delivering Objectives A and B will go a long way to encouraging more people to cycle. However there is even more the Council can do to raise awareness of the support available to help get more people cycling."

2.4.16. To achieve core objective C the strategy seeks:

- Providing an information resource for all
- Better local community engagement
- Ongoing schools' engagement
- More effective business engagement
- Working with Public Health Partners

2.4.17. The Council has set out a monitoring plan to keep a track of the delivery of actions in this strategy and their contribution towards achieving its overall vision and objectives, with annual reports to be compiled.

2.4.18. The Council has already achieved the previous Mayor's Target of a 5% modal share for cycling by 2026, for trips originating in the Borough. It is recognised that the Mayor's target is a pan London target and in Richmond there a greater potential to exceed this. The Council has therefore set a series of realistic but ambitious targets to achieve by 2020 and 2026.

TWICKENHAM AREA ACTION PLAN (2013)

2.4.19. The Twickenham Area Action Plan (AAP) was adopted in 2013 and sets out the framework for developing the centre, including site specific proposals. The AAP is based on five key themes:

- Revitalising the high street, including improvements to the retail, food and beverage offer of the centre, making the most of the presence of the rugby spectator;
- Enhancing the leisure, entertainment and cultural offer, including improving the range and quality of attractions, to attract people into the centre;
- Making the centre a more inviting place at all times of the day and evening for people of all ages;
- Improving the public realm, reducing the impact of traffic and creating an attractive and safe place to visit and enjoy; and
- Protecting, enhancing and making the most of the character of the centre's built and open environment, including the riverside and working waterfront.

3 BASELINE CONDITIONS

3.1 OVERVIEW

3.1.1. This chapter of the TASR will set out the current and future baseline transport networks in the local area which is summarised below. In particular, it will address walking and cycling as per the Healthy Streets criteria, considering access to key amenities and services in the local area.

3.2 WALKING AND CYCLING

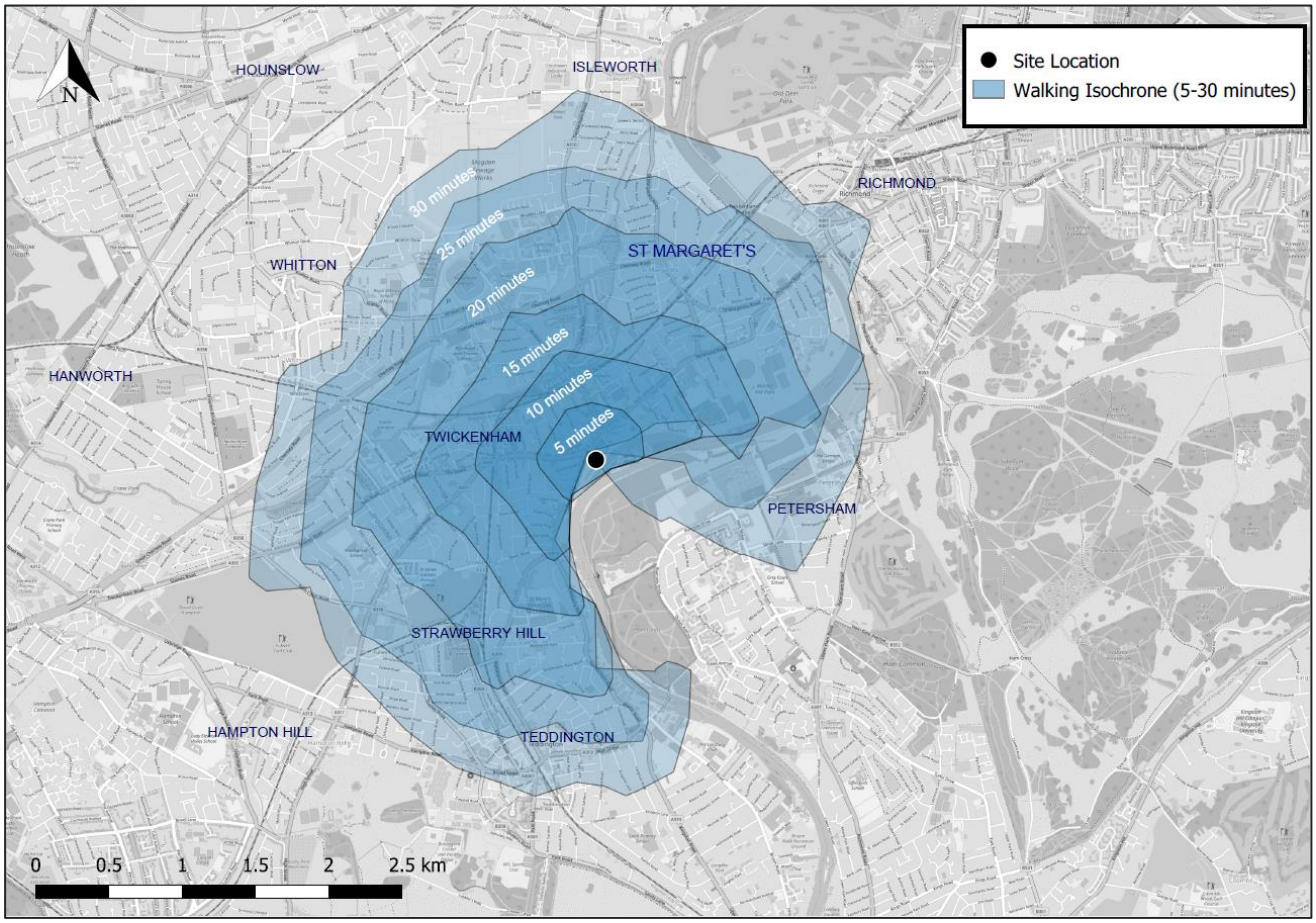
WALKING

3.2.1. There is an extensive network of footways within immediate proximity of the site offering connection to the wider network and town centre facilities.

3.2.2. Pedestrian access to the site can be made via Wharf Lane and Water Lane from King Street and the riverside.

3.2.3. A 30-minute walking isochrone is shown in Figure 3-1, demonstrating the potential reach on foot to/from the site

Figure 3-1 - Walk Isochrone

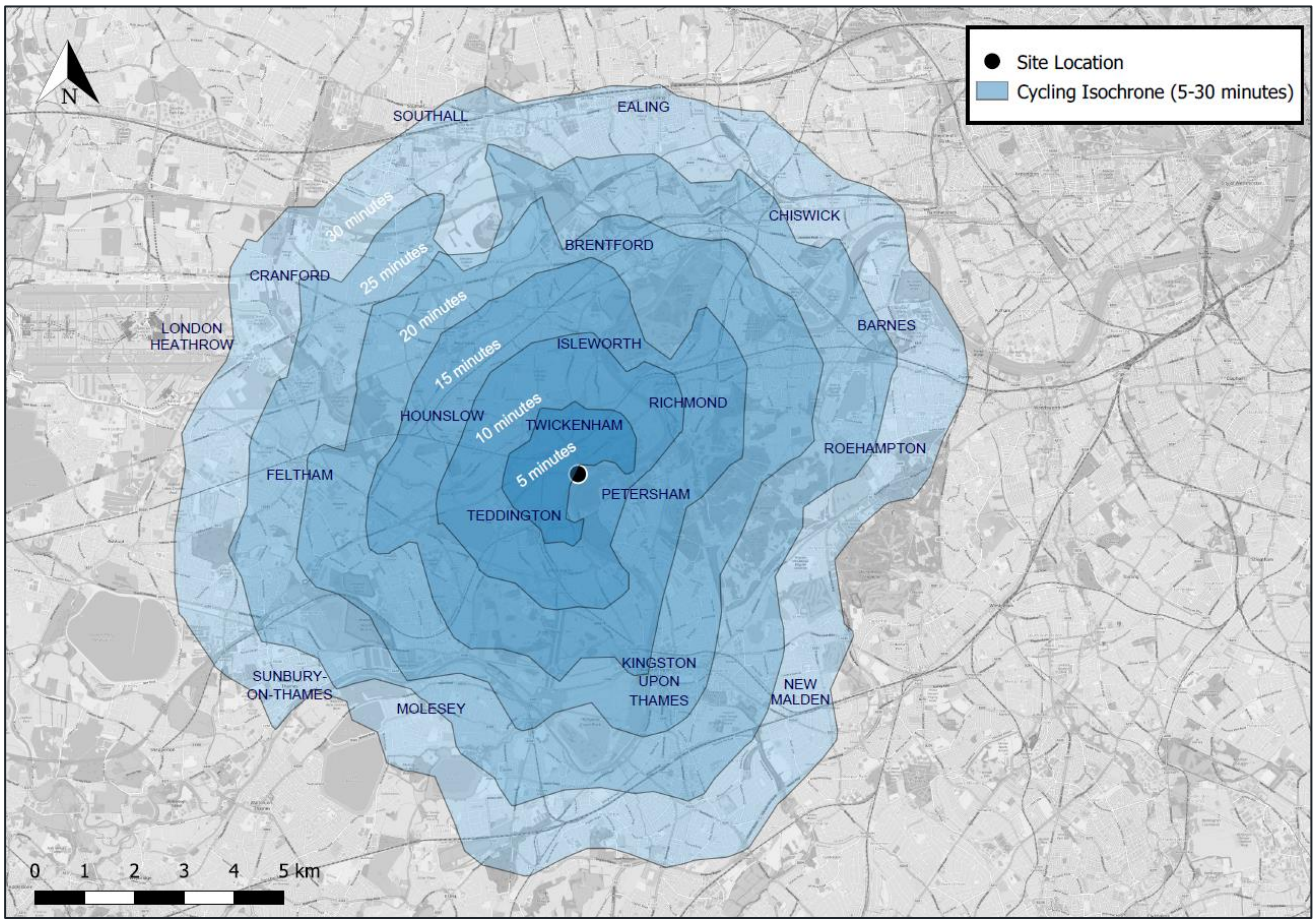


CYCLING

3.2.4. Cyclists are able to access the Site and surrounding locations, facilities and amenities via the local cycle network. An advisory signed cycle route runs through the site alongside the riverside, Wharf Lane and King Street.

3.2.5. A cycling isochrones map is shown in Figure 3-2 and illustrates the locations that people can travel to/from within a 30-minute cycle ride.

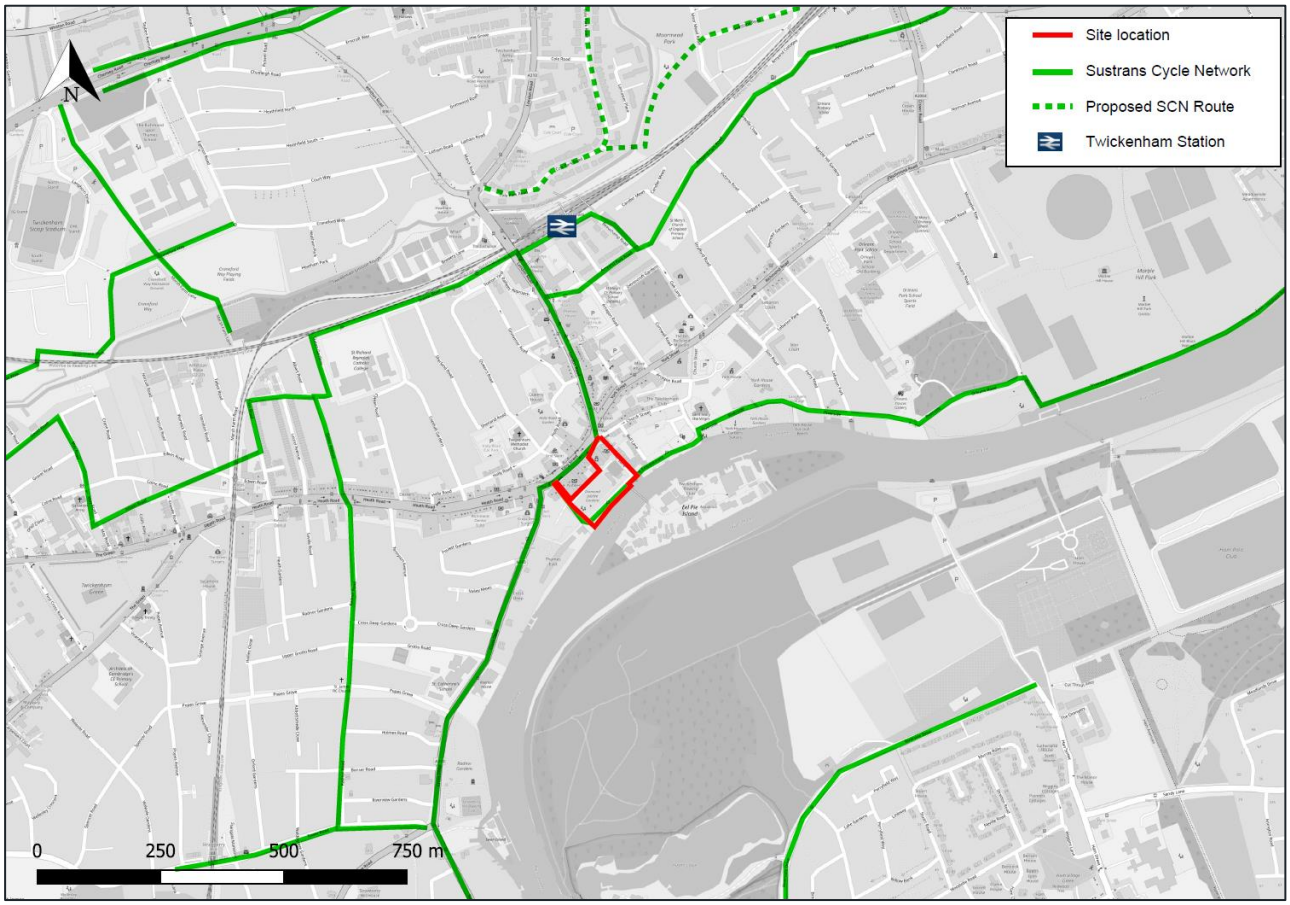
Figure 3-2 - Cycling Isochrones



3.2.6. The Mayor's Transport Strategy and Healthy Streets for Londoners documents suggest that cycling has the potential to substitute short-medium car trips, particularly those less than five kilometres in length, and cycling has the potential to form part of a longer journey by public transport.

3.2.7. The LBRuT cycle network is made up of main road cycle routes, off-road and quiet cycle routes, cycle paths and National Cycle Network Routes. A more detailed local context map of the Twickenham Area is shown in Figure 3-3.

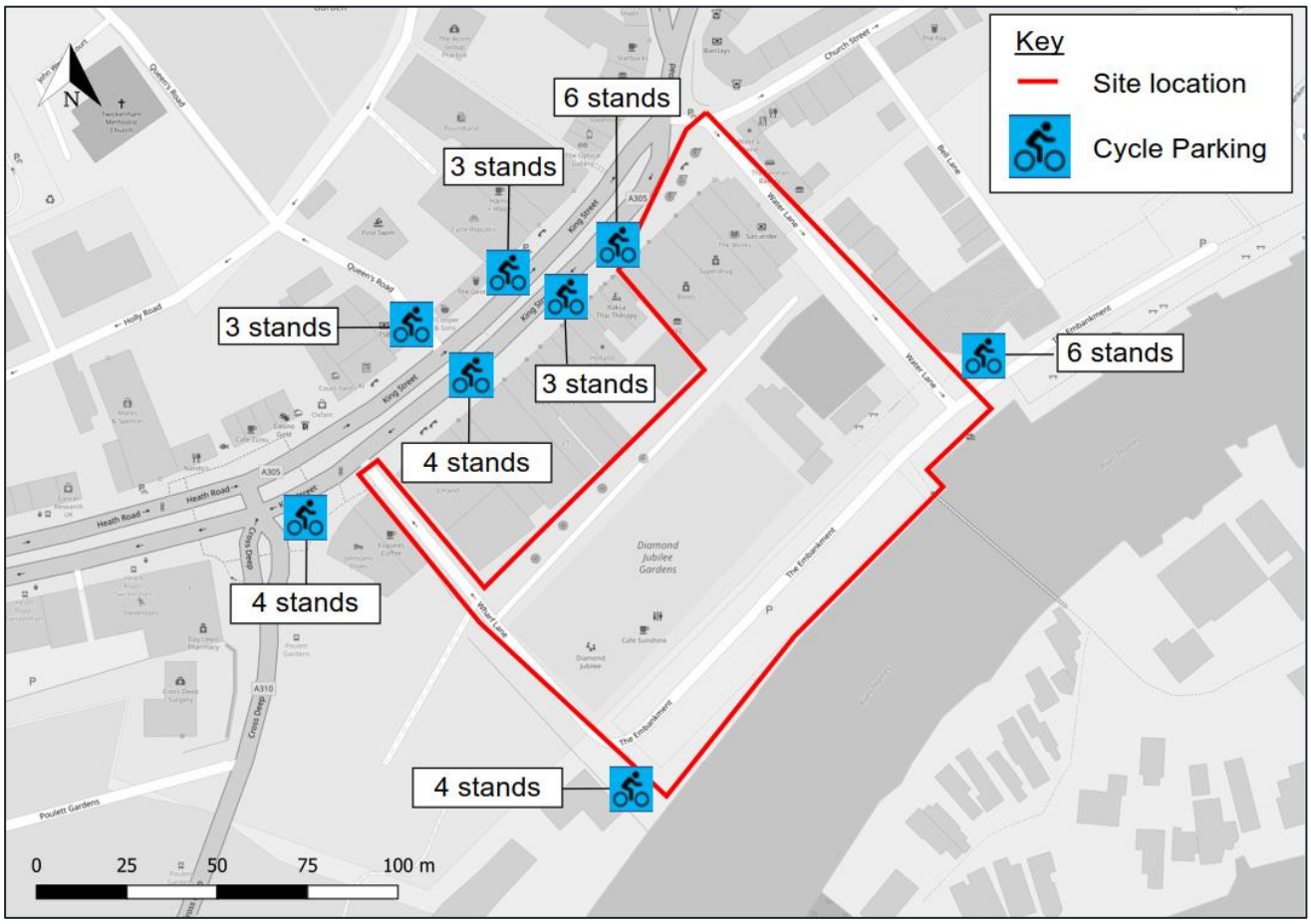
Figure 3-3 - Local Cycling Network



3.2.8. Currently cycle parking is provided on both sides of King Street in the form of 21 no. unsheltered Sheffield Stands. The Embankment also offers 6 no. Sheffield stands by the south-eastern corner and 4no. spaces on the south western corner of the Site.

3.2.9. The location of these Sheffield Stands is shown in Figure 3-4 below. There is a total of 31no. Sheffield Stands within close proximity to the Site.

Figure 3-4 - Location of Local Cycle Parking Facilities



3.3 HEALTHY STREETS ASSESSMENT

CONNECTIONS TO LOCAL FACILITIES

3.3.1. The site is located in proximity to a number of public transport services, as well as a variety of a local facilities such as a King Street retail stores, tennis courts, local parks, and other shops, schools, medical practices and amenities within Twickenham's high street centres.

3.3.2. A Healthy Streets Assessment will be conducted as part of the Transport Assessment, comparing the existing and proposed pedestrian and cycle conditions to/ from the site.

3.4 PUBLIC TRANSPORT

3.4.1. The site currently has a PTAL of 5, suggesting it has excellent levels of public transport accessibility. Existing and future committed, and foreseeable public transport conditions will be considered.

PUBLIC TRANSPORT ACCESS LEVEL (PTAL)

3.4.2. The PTAL methodology has been adopted by TfL as a means by which to quantify and compare accessibility to public transport services for given sites in London. It takes into account the time taken to access the public transport network, including:

- The walk time to various public transport services
- The average waiting time for each service

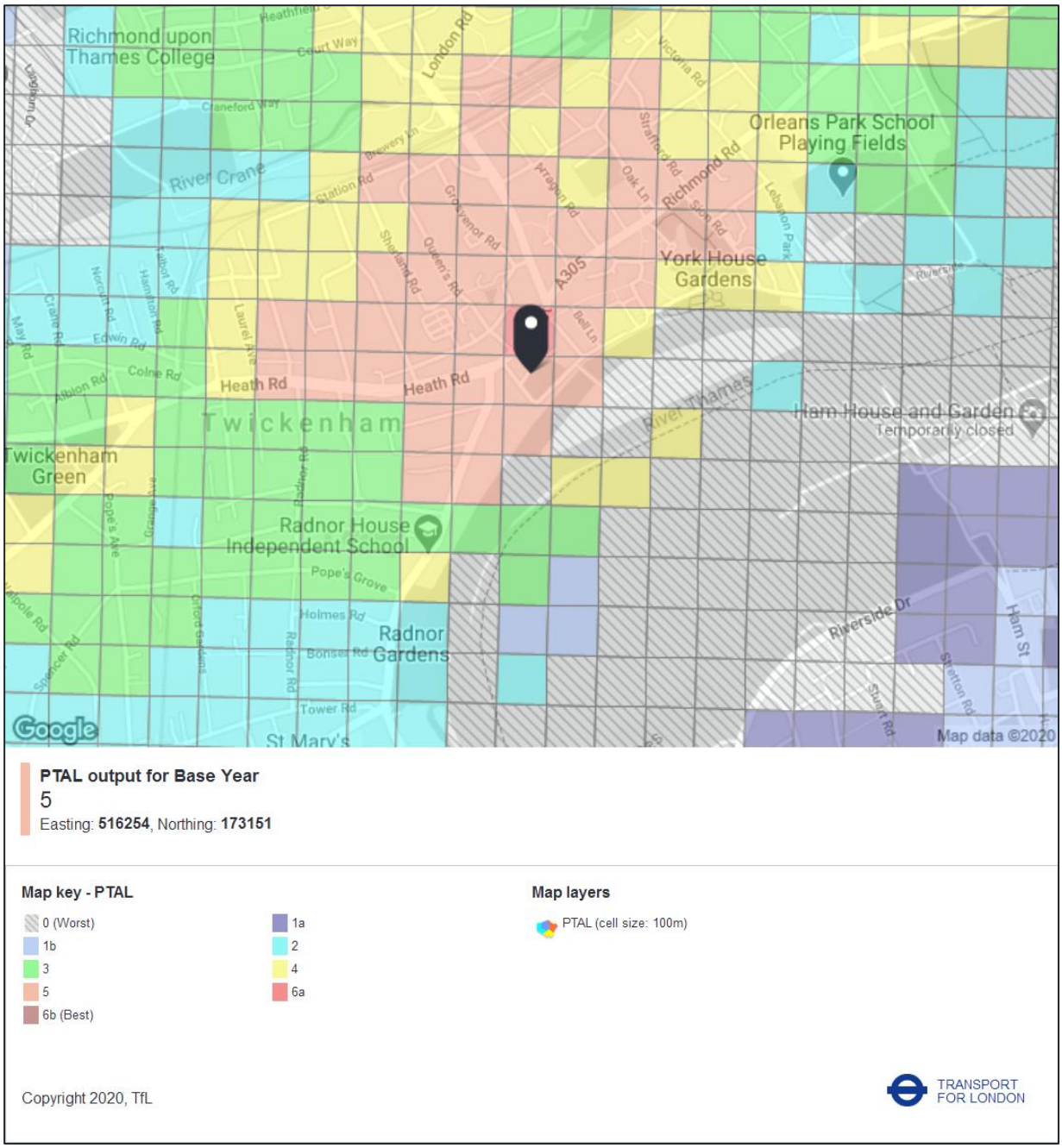
- The reliability of each service

3.4.3. The methodology is based on a walk speed of 4.8kph and considers railway stations within a 12-minute walk (960m) of a site and bus stops within an 8-minute walk (640m). The PTAL assessment is undertaken using the AM peak hour operating patterns of existing services.

3.4.4. TfL's web-based calculator has been utilised to determine the site's existing PTAL. The PTAL methodology has been adopted by the GLA and TfL and gives the site a rating of 5. This demonstrates that the site has an excellent level of public transport accessibility due to its location within the immediate vicinity of Twickenham railway station, together with numerous bus services.

3.4.5. Figure 3-5 shows the sites PTAL.

Figure 3-5 - Site PTAL Map



TRAVEL TIME MAPPING (TIM)

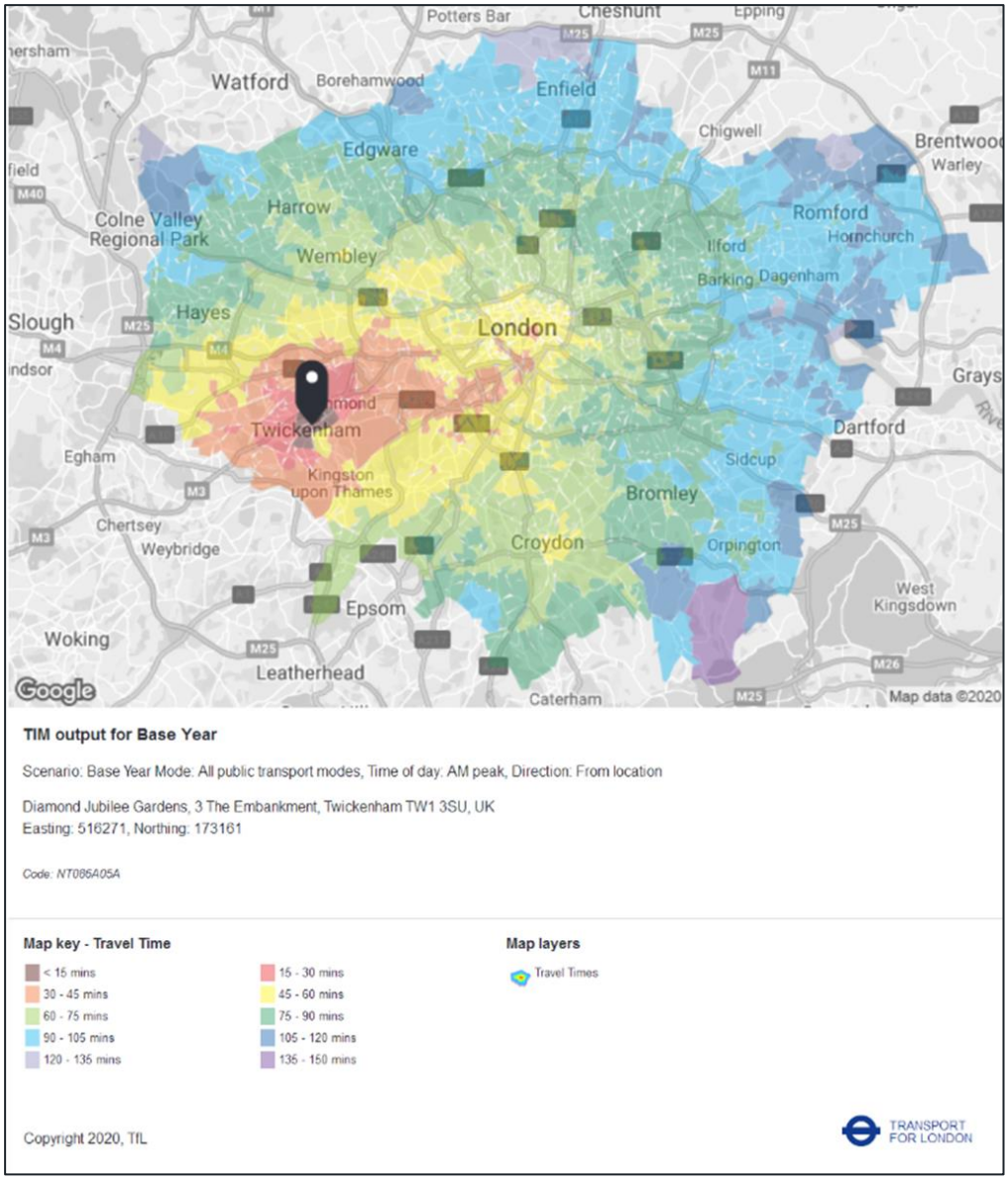
3.4.6. TIM is a complementary measure of connectivity to PTALs in WebCAT. Travel times in TIM use travel time data derived from TfL's transport models.

3.4.7. WebCAT is a Web-based Connectivity Assessment Toolkit. The toolkit contains two ways of measuring transport connectivity:

- PTAL assesses connectivity (level of access) to the transport network, combining walk time to the public transport network with service wait times.
- Time Mapping analysis (TIM) assesses connectivity through the transport network or, in other words, how far a traveller can go expressed as a series of travel time catchments TIM is a useful indicators of the reach of the sustainable travel modes and can also be used to access socio-economic information such as the population, jobs and servicing within the proposed development site's reach.

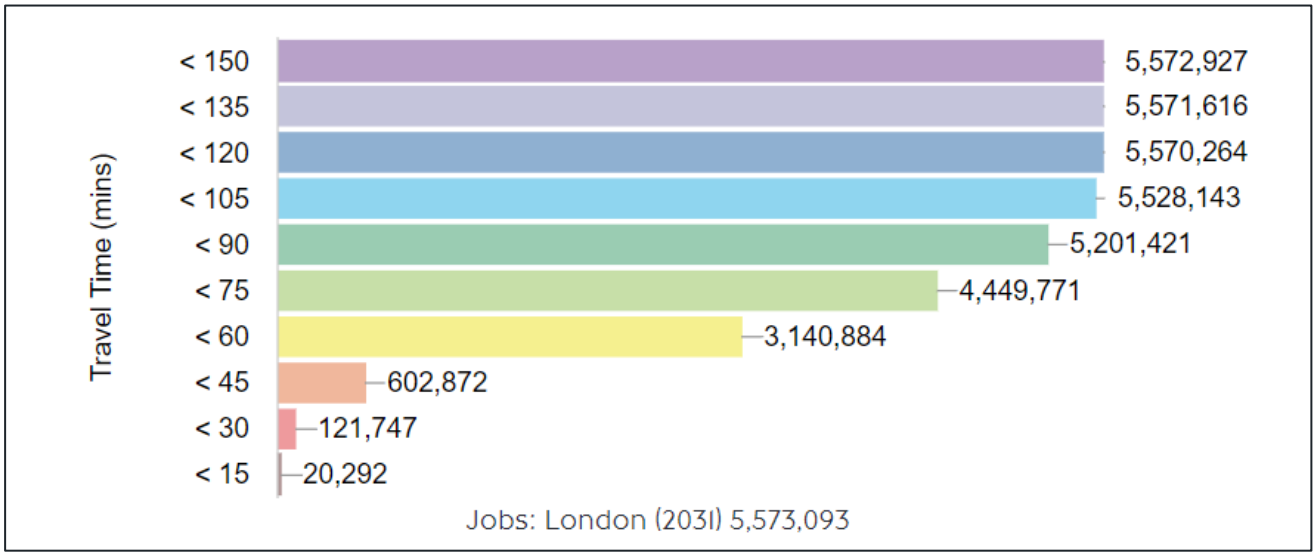
3.4.8. A TIM is provided below for the Twickenham Site in Figure 3-6.

Figure 3-6 - TIM Map



3.4.9. TIM has been used in greater detail to provide a catchment analysis for both employment and educational establishment scenarios for the Site's location. The above map illustrates the time it would take to reach different areas of London from the Site using public transportation.

Figure 3-7 - Employment Catchment Analysis



3.4.10. Figure 3-7 above shows the 2031 forecast for employment opportunities. The graph provides the public transport travel times it would take to reach these employment opportunities from the Site.

3.4.11. Figure 3-8 and Figure 3-9 below provide the same travel time information for primary school catchment and secondary school catchment from the Site.

Figure 3-8 - Primary School Catchments Analysis

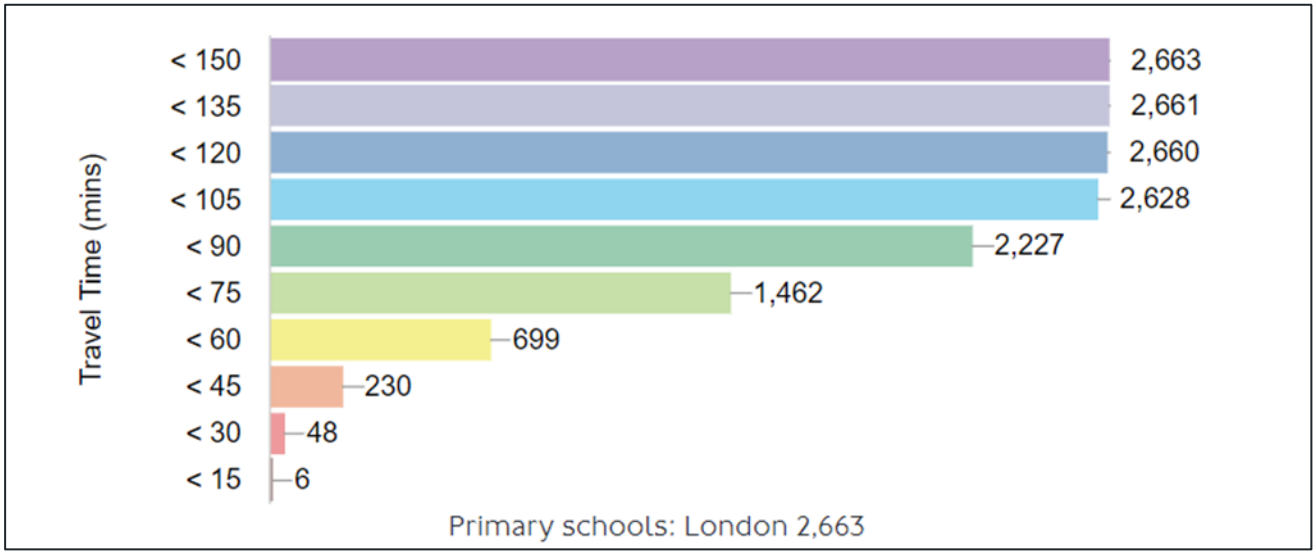
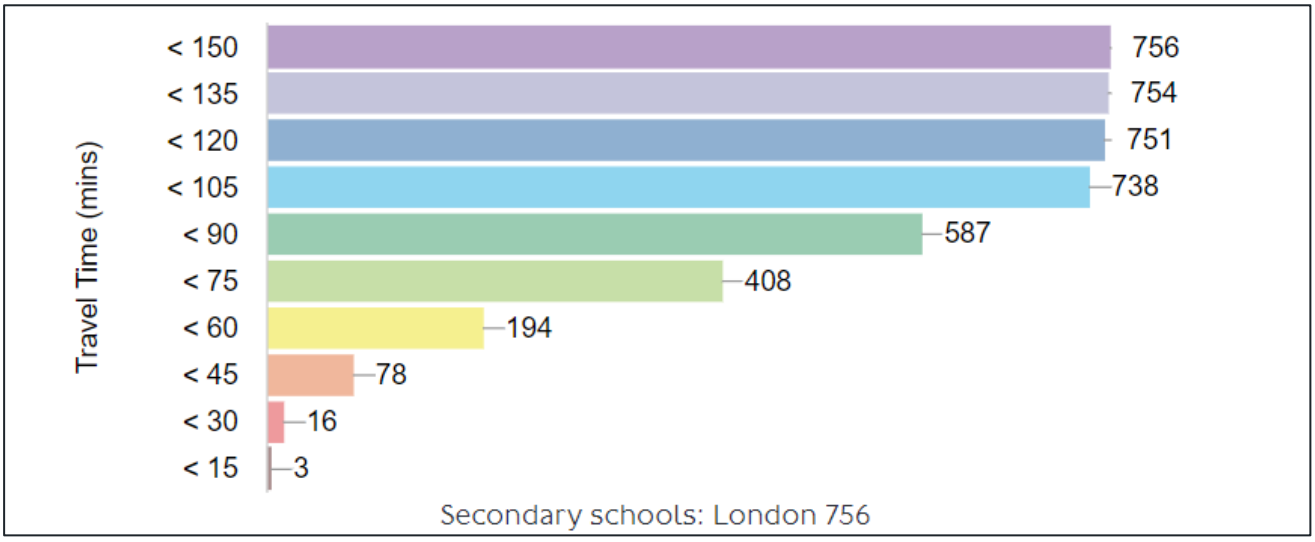


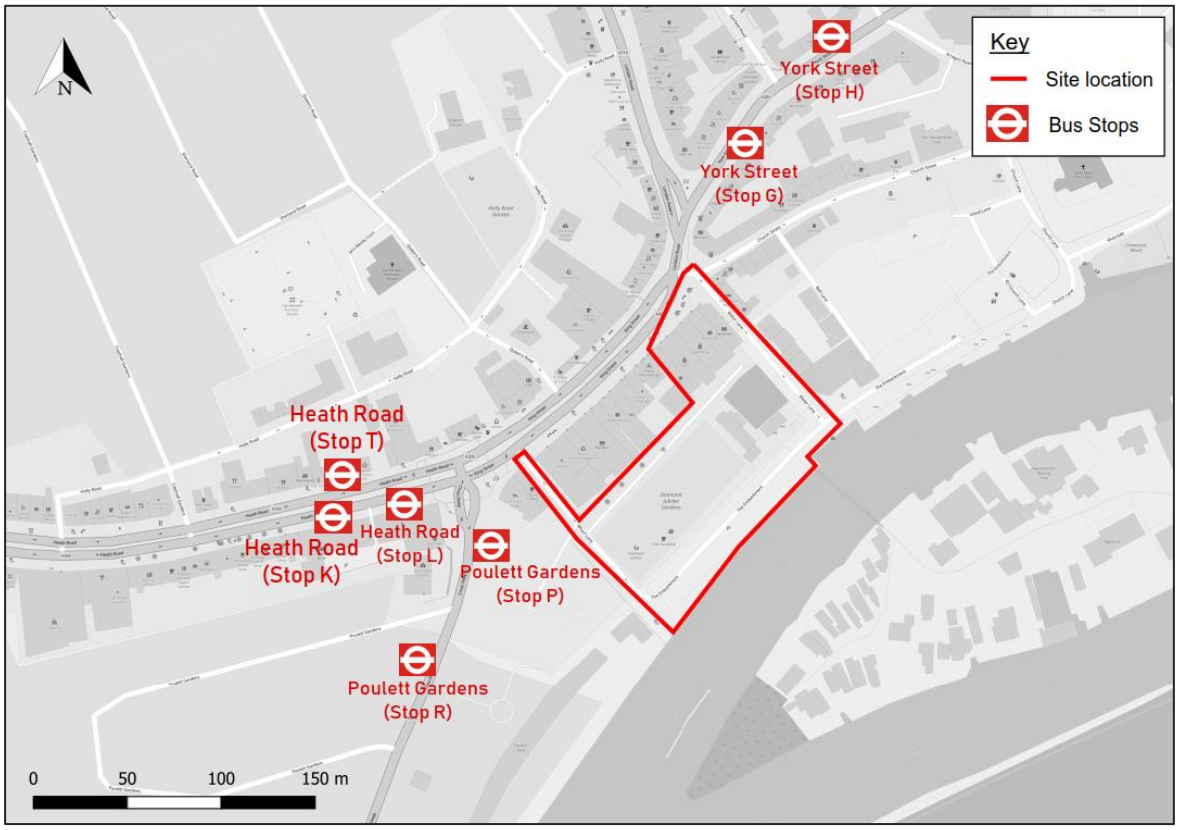
Figure 3-9 - Secondary Schools Catchment Analysis



BUS SERVICES

3.4.12. The nearest bus stops to the site are located on York Street (A305) >100m (1-minute walk) to the north of the site. There are also bus stops located along Cross Deep (A310) and Heath Road (A311). These stops provide access to a great range of services with many also providing night services. The location of these local bus stops is shown in Figure 3-10.

Figure 3-10 - Local Bus Stop Locations



3.4.13. Information on each local bus service including its route and frequency is provided in Table 3-1.

Table 3-1 – Summary of Local Bus Services

Route	Stop name	Route Summary	Peak Frequency (per hour)
33 (N33 - 24 hour service)	York Road Twickenham Stop G / Stop H Poulett Gardens Stop P / Stop R	Fullwell Station – Lonsdale Road	4
290	York Road Twickenham Stop G / Stop H Heath Road Twickenham Stop T / Stop L / Stop K	Staines Bus Station – Arragon Road	3
490	York Road Twickenham Stop G / Stop H Heath Road Twickenham Stop T / Stop L / Stop K	Pools on The Park – Heathrow Terminal 5	6
H22 (N22 – 24 hour service)	York Road Twickenham Stop G / Stop H Heath Road Twickenham Stop T / Stop L / Stop K	The Bell – Manor Road	5
R68	York Road Twickenham Stop G / Stop H Poulett Gardens Stop P / Stop R	Kew Retail Park – Hampton Court Station	4
R70	York Road Twickenham Stop G / Stop H Heath Road Twickenham Stop T / Stop L / Stop K	Nurserylands Shopping Centre – Richmond / Manor Road	6
110	Heath Road Twickenham Stop T / Stop L / Stop K	School Road – West Middlesex Hospital	2
267	Heath Road Twickenham Stop T / Stop L / Stop K	Hammersmith Bus Station – South Road / Fullwell	5
281	Heath Road Twickenham Stop T / Stop L / Stop K	Hounslow Bus Station – Tolworth Tower	5

RAIL SERVICES

3.4.14. Twickenham station is located within 500m / 10-minute walking distance of the site and provides Southwestern Railway services to London Waterloo and destinations including Reading, Kingston, and Wimbledon. Twickenham station provides links to the London Underground and London Overground network with Richmond the closest station, serving the District line. These are shown in Table 3-2 below.

Table 3-2 – Summary of Rail Services

From Station	Stop name	AM Peak Frequency 0800-0900	PM Peak Frequency 1700-1800
Twickenham	Reading	2	2
	Chiswick	4	3
	London Waterloo	15	13
	Wimbledon	2	2
	Kingston	2	2
	Windsor and Eton Riverside	2	2

PERSONAL INJURY ACCIDENT DATA

3.4.15. Personal Injury Accident (PIA) data will be obtained for the most recent 5-year period and will be examined with focus on determining whether there are clusters of accidents along the walking and cycling routes to and from the site. This will be included in the Vision Zero review as part of the Active Travel Zone assessment.

PARKING CONDITIONS

3.4.16. Whilst parking is not permitted along the A305 King Street to the north of the site, car parking is currently provided as on-street parking on Water Lane, The Embankment and Water Lane.

3.4.17. On-street parking is available along the majority of Water Lane and The Embankment for resident permit holders or as pay and display, with the hours of operation Monday to Saturday 0800-1830, with a max stay of four hours.

3.4.18. Parking on Wharf Lane is also pay and display with spaces provided for permit holders and business permit holders where it is leased to businesses.

3.4.19. A total of 26no. private parking spaces were previously provided within the site within a car park accessible via the service road. The car park has since been closed awaiting further development.

3.4.20. Overall, a total of 85no. on-street car parking spaces will be removed as part of the Council CPZ review scheme with the exception of:

- Six bays (total to be confirmed) along the Embankment which will remain dedicated to EPI servicing;
- Three bays which are re-provided along Wharf Lane for the use of EPI residents and visitors;
- One bay for disabled badge holders along Wharf Lane, with a view to allocate the bay to a disabled resident of the new development;
- Two disabled badge holders along Water Lane, with a view to allocate the bays to disabled residents of the new development;
- Two on-street parking spaces which can be allocated by LBRuT in any way they see fit, we anticipate the bays may be retained as P&D for general visitors of the Embankment.

3.4.21. The removal of parking from the Embankment forms part of the Council's initiative following extensive survey work. The vision for the Embankment is to create a place for people, facilitating an area of activity and event space which draws people to the riverside. The reduction of car parking provision along the Embankment will in turn reduce associated vehicle trips to the Embankment and along Wharf Land and Water Lane. It is also the intention of the Council to limit use of the Embankment for larger vehicles to access and egress the site,

instead turning at the south of Water Lane before travelling back northwards along Water Lane and back onto King Street.

3.4.22. In order to assess the existing parking stress around the site, the Council has commissioned Systra to carry out a study on parking survey. Data was collected and analysed for the area covered by CPZ zone D encompassing Water Lane, The Embankment and Wharf Lane using the Richmond Parking Methodology. The study summary will be included in the final Transport Assessment and a copy of this can be appended if deemed necessary.

3.4.23. The highway network surrounding the site was considered, with Manually Classified Turning Counts surveys undertaken at key junctions to inform the baseline understanding of the highway network operation and level of business. The surveys were commissioned by the Council via Systra and were carried out pre-Covid in a neutral traffic condition.

4 DEVELOPMENT PROPOSALS

4.1 INTRODUCTION

4.1.1. This section provides an overview of the preliminary scheme design for the Proposed Development relating to access, servicing and parking. The design has been developed considering the site constraints, as described in the draft Local Plan and observed on site. It should be noted that the proposals at this stage are continuing to be developed and will take on-board comments from key stakeholders, where possible.

4.1.2. Within the Transport Assessment itself, this chapter will detail the proposed scheme, specifically focusing on the associated proposed transport infrastructure. This includes pedestrian, cycle and vehicular access, internal site layout, delivery and servicing areas, parking facilities and connectivity to local walking / cycling networks.

4.2 QUANTUM AND TYPE OF LAND USE

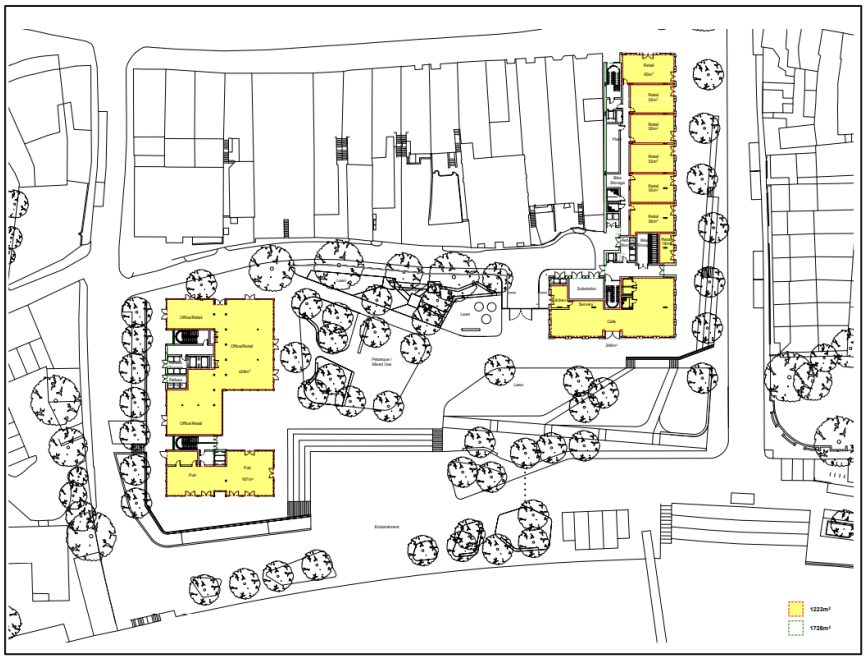
4.2.1. The proposed development will be mixed-use, providing elements of retail, community space, and residential. Table 4-1 details the proposed mix of uses and associated areas at the development.

Table 4-1 - Proposed Development Schedule

Land Use	Development Quantum
Residential	46 (Units)
Workspace	429 (GIA)
Café	248 (GIA)
Pub	389 (GIA)
Retail	359 (GIA)
Total	**1,425 (GIA)**

4.2.2. The current ground floor layout is shown in Figure 4-1.

Figure 4-1 – Site Ground Floor Layout



4.3 PROPOSED ACCESS ARRANGEMENT

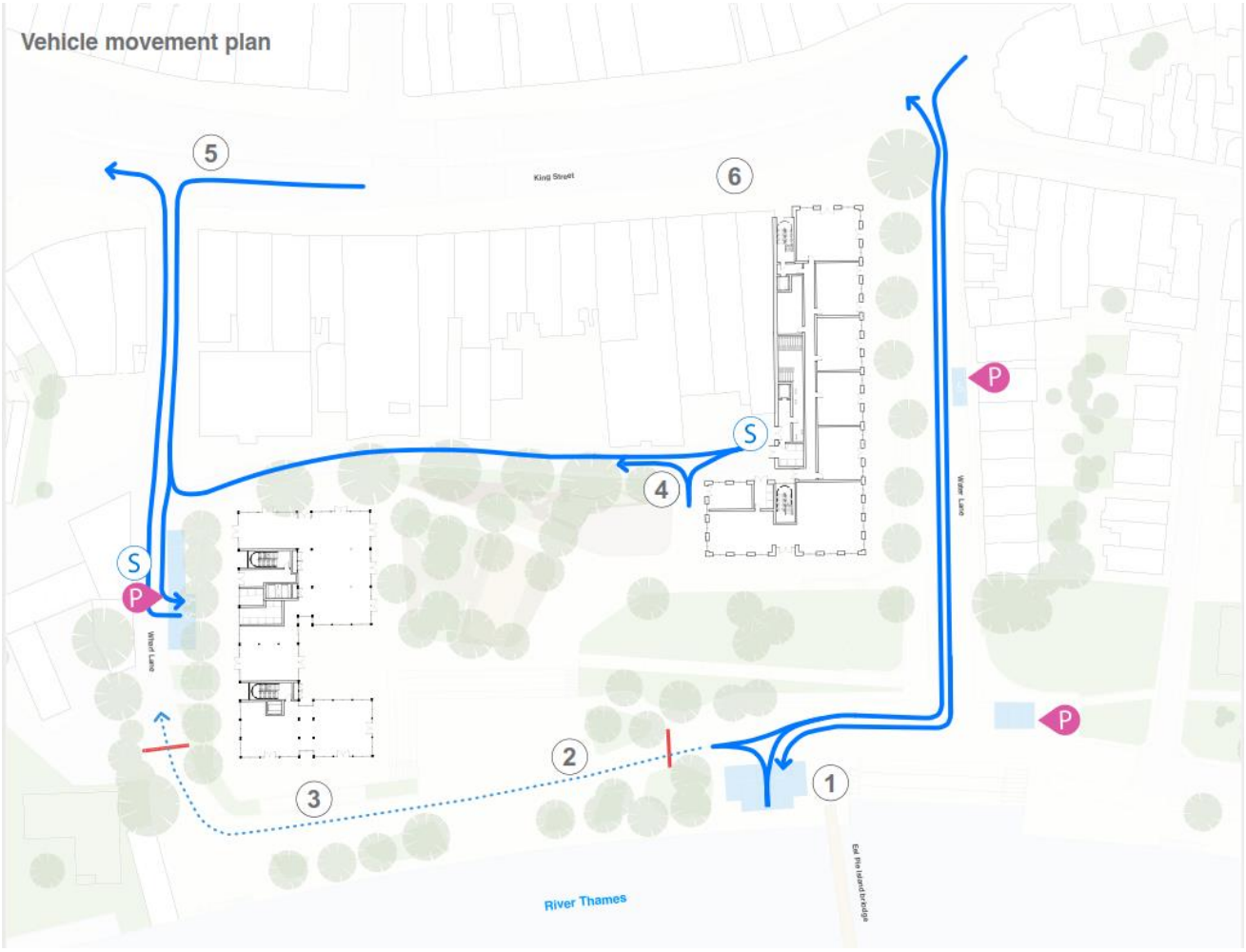
4.3.1. Movement and access through the site is described in the RIBA competition report as an ecosystem that will enable *"better pedestrian and cycle amenity at the Waterfront, whilst maintaining excellent access to [Eel Pie] Island".*

4.3.2. To this end part of the Embankment between Wharf Lane and some 15-20m west of the Eel Pie Island bridge landing will be limited to vehicles access for most part of the day, effectively creating a pedestrian and cycle priority area.

4.3.3. To maintain vehicular access for the nearby residents and businesses, Wharf Lane and Water Lane will operate as two-way vehicle routes.

4.3.4. A concept of the proposed movement and access routing through the Site is shown in Figure 4-2.

Figure 4-2 – Vehicle movement and access concept through the site (credits: Hopkins)



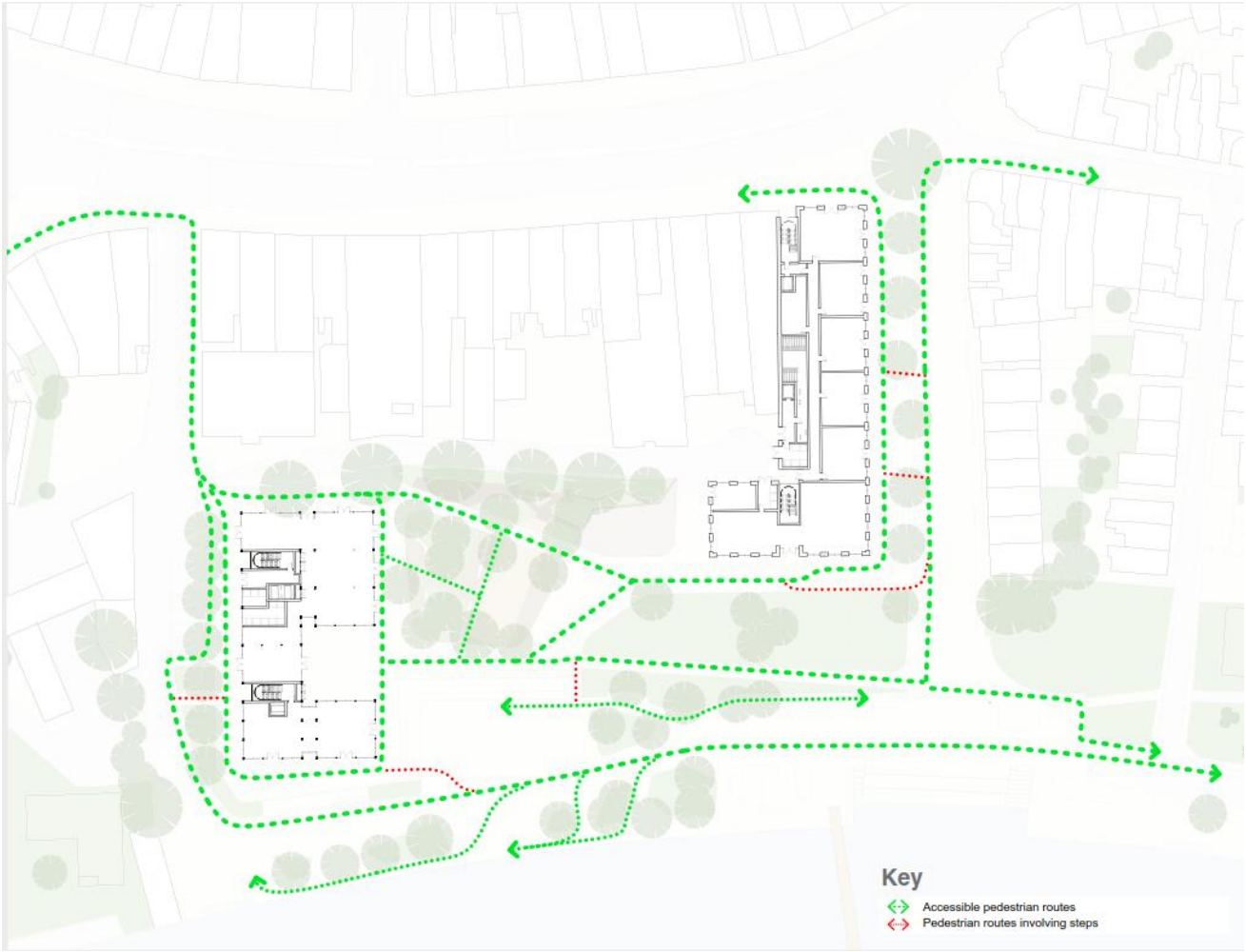
4.3.5. Details of the vehicular circulation management along the Embankment will be defined and consulted upon with nearby residents and businesses. Discussions with the Eel Pie Island Association and businesses along King Street (Island shop), who currently make use of the Embankment and Wharf Lane for operational purposes, suggests that retaining early morning Monday-Friday vehicle access along the Embankment for loading only could be feasible.

4.3.6. The remainder of the time the space will be closed via bollard or barrier which will be un-locked through universal padlock for which the London Fire Brigade would hold a key, therefore allowing access onto the Embankment for emergency vehicles as needed.

PEDESTRIAN ACCESS

4.3.7. Proposed pedestrian access to the site will continue to be from Water Lane and Wharf Lane via King Street and the Embankment. The pedestrian route along the Embankment will be enhanced to provide pedestrian only access, while the site will provide pedestrian routes throughout to enable a more natural pedestrian flow following key desire lines across the site.

Figure 4-3 - Pedestrian movement and access concept through the site (credits: Hopkins)



CYCLE ACCESS

4.3.8. The Embankment and Wharf Lane form part of a signed advisory cycle route. The intention is to retain the cycle route through the site along the same alignment.

4.3.9. In consideration of the LBRuT proposed removal of the large public car park in the area, cycling should become significantly safer as well.

4.3.10. A preliminary Road Safety Audit was carried out on the proposed design to convert the Water Lane and Wharf Lane links to tow-way traffic (including cycling). The projected low traffic flows are key to ensure cycle safety

along the new Water Lane and Wharf Lane arrangement. This will be further reviewed in Active Travel Zone Assessment and via use of the TfL Cycle Route Quality Audit toolkit.

4.4 PARKING

CAR PARKING

4.4.1. Car parking will be provided in accordance with the London Plan (2021), which states:

Car-free development should be the starting point for all development proposals in places that are (or are planned to be) well-connected by public transport, with developments elsewhere designed to provide the minimum necessary parking ('car-lite'). Car-free development has no general parking but should still provide appropriate disabled persons parking for Blue Badge holders as set out in Policy T6 .1 Residential parking to Policy T6 .5 Non-residential disabled persons parking.

4.4.2. The development will be car-free with the exception of spaces provided for Blue Badge holders, and spaces re-provided for the use of tradespeople and visitors associated with Eel Pie Island.

4.4.3. In addition to the residential parking, the proposals seek to provide 2no. spaces along Water Lane to be assigned by LBRuT as they see fit. We anticipate that these spaces would provide for blue badge holder visitors to the Embankment and commercial land uses proposed on site.

4.4.4. In summary, the proposed car parking spaces associated with the proposed development would comprise:

- Three loading bays (total to be confirmed) along the Embankment, which will remain dedicated to Eel Pie Island servicing activity;
- Three parking bays (total to be confirmed) along the Embankment, which will be for us by tradespeople and visitors associated with Eel Pie Island;
- Three parking bays provided on Wharf Lane, also for the use of Eel Pie Island tradespeople and visitors;
- One bay for disabled badge holders along Wharf Lane, with a view to allocate the bay to a disabled resident of the new development;
- Two disabled badge holders along Water Lane (exact locations to be confirmed), with a view to allocate the bays to disabled residents of the new development;
- Two on-street parking spaces which can be allocated by LBRuT in any way they see fit, we anticipate the bays may be retained as P&D for general visitors of the Embankment.

4.4.5. Table 5-3 provides a summary of the parking facilities in the area encompassing Water Lane, Wharf Lane and the Embankment along with the net change associated with the proposals.

Table 4-2 – Net Change Parking Provision

	On-site	Shared Use*	P&D*	Residential Only*	ST171 Permit*	Business Permit*	Loading / EPI	Motorcycle*	Total
Existing	26	51	11	14	1	7	3	8	121
Proposed	-	-	2	3	-	-	9	TBC	14
Net	-26	-51	-9	-11	-1	-7	+6	TBC	-107

*Changes to these parking allocations are carried out under the Council CPZ revision

ELECTRIC VEHICLE CHARGING

4.4.6. To encourage sustainable travel, electric vehicle charging points will be provided in line with the London Plan. The London Plan demands that 20% of residential parking spaces across the development have 'active' electric vehicle charging points, with the remaining bays featuring passive provision for future conversion into

electric charging bays. It is proposed as part of this development that 20% of bays have electric vehicle charging points, and the remaining 80% have capability for future conversion.

4.4.7. These proposals ensure that:

- All electric vehicle parking spaces are clearly signed and located in prominent, convenient and accessible locations in the car parks e.g. close to the entrance of facilities.
- They meet the appropriate technical standards for the type of development.
- A full cabling network will be installed in the car parking area to support all active and passive charging points (32 Amp rated to ensure flexibility).
- The default socket type to install at 'active' charge points will be Type 2 IEC62196-2 connector.

CYCLE PARKING

4.4.8. The cycle stores will provide the appropriate amount of cycle parking for the residents in accordance with London Plan and LCDS standards. For the E land uses the visitor cycle parking will be provided where it is under surveillance.

4.4.9. The residential cycle parking provision based on the above London Plan guidance is set out in Table 4-3 below.

Table 4-3 – Proposed Residential Cycle Parking Provision

Block	Unit	Unit Mix	Long Stay	Short Stay
Water Lane Building	Studio	0	0	3
	1 bed	11	17	
	2 bed	9	18	
	3 bed	1	2	
	Total	21	37	
Wharf Lane Building	Studio	5	5	
	1 bed	13	20	
	2 bed	7	14	
	3 bed	0	0	
	Total	25	39	
Total		**46**	**75**	**3**

4.4.10. The commercial cycle parking provision based on London Plan guidance is set out in Table 4-4 below.

Table 4-4 – Proposed Commercial Cycle Parking Provision

Land Use	Development Quantum	Long Stay	Short Stay
B1 Workspace	429 sqm	6	1
A2-A5 Cafe'/Restaurants	637 sqm	4	32
A1 Food Retail	359 sqm	3	18
Total	**1,425 sqm**	**13**	**51**

4.4.11. Cycle parking at the development will be provided in secure, covered areas.

4.4.12. The scheme is still under development, but it is anticipated that there will be c.88 long stay cycle parking spaces provided across the site for all uses, and c.51 short stay spaces for all uses. Long-stay cycle parking for residents will be provided as per the London Cycle Design Standards (LCDS), with 20% of spaces taking the form of accessible Sheffield Stands and 80% in the form of two-tier stands.

4.4.13. Short-stay cycle parking spaces will be provided within the public realm in the form of Sheffield stands, each providing parking for two bicycles.

4.4.14. Accessible cycle parking spaces for non-standard bikes will also be provided in the public realm as Sheffield stands.

4.4.15. Cycle parking location is indicated in the development playouts appended to the rear of this document.

4.5 SERVICING AND DELIVERIES

4.5.1. The servicing and deliveries will be carried out from on-street facilities, distances will follow LBRuT guidelines and Manual for Streets best practice guidelines as closely as practicable.

4.5.2. The Wharf Lane building will be serviced from a delivery bay along the northern front of the proposed building whilst the Water Lane building will be served from the rear access alongside the service road.

4.5.3. The service road will feature landscaping and a secure perimeter to manage footfall within the proposed gardens. A gate to the west of the café will provide access to the gardens for servicing and maintenance and will be opened to allow vehicles larger than 7.5t box van to reverse.

4.5.4. A small-medium delivery van (up to 7.5t box van) can service the proposed development and reverse whilst the gates are closed.

4.6 REFUSE

4.6.1. Refuse collection is proposed to take place from the two loading bays both located along the Service Road.

4.7 EMERGENCY ACCESS

4.7.1. Emergency access is proposed along the Embankment.

4.8 EEL PIE ISLAND

4.8.1. Eel Pie Island is a unique entity in terms of its operational needs and requirements. and it currently hosts a small active community of residents and businesses. The client and design team are liaising closely with representatives from the island with the aim to agree a suitable solution for servicing and deliveries.

4.8.2. It is acknowledged that the current servicing operations for Eel Pie Island take place at the southern end of Water Lane, with three parking spaces are dedicated for the use of the Island residents and businesses. In

addition, larger vehicles have been observed to park and carry out loading and unloading operations along the stretch of the Embankment between the pedestrian bridge and Water Lane at the top of the slip way.

4.8.3. As part of the proposals, the vehicular access along the Embankment will be controlled and therefore vehicles will be required to reverse and head northbound along Water Lane when departing from the area. A preliminary Road Safety Audit Stage 1 was carried out to ensure the proposed two-way movements could be accommodated safely (subject to further detailed design work).

4.8.4. A formal footway will be reinstated to the northern end of the Embankment leading into the pedestrian priority area to ensure that deliveries facilities for the Eel Pie Island do not affect the vulnerable road user's safety.

5 TRIP GENERATION

5.1 INTRODUCTION

5.1.1. This chapter presents the methodologies used to examine the number of multi-modal trips generated by the site. This section will detail the net change in trips between the consented and proposed uses at the site during peak times for travel on the local transport network, namely the weekday AM peak hour (08:00-09:00) and weekday PM peak hour (17:00 – 18:00).

5.1.2. It should be noted that land use classes A and B have been revoked in September 2020. The new land use class E has replaced these land uses however the technical standards, databases and London Plan still make reference to land uses class A and B. These will therefore be represented as such in this document for the purpose of facilitating the technical assessment.

5.1.3. A summary of the net change in floor areas is outlined in Table 5-1.

Table 5-1 - Land Use Net Change

Land Use	Existing	Proposed	Net Change
A1 Retail	741 sqm	359 sqm	-382 sqm
A2-5 Restaurant / Café	479 sqm	607 sqm	+ 128 sqm
B1 Office	226 sqm	429 sqm	+203 sqm
C3 Residential	0	46 Units	46 Units

5.2 BACKGROUND

5.2.1. It is understood a previous planning application 17/4213/FUL was submitted for the site and subsequently withdrawn by the applicant on 19/06/2018. The application comprised:

5.2.2. "Two 3-4 storey buildings with a partial lower ground floor and a raised walkway to link the two buildings; three seasonal units (201m2) at Lower Ground Floor level; 505m2 A3 floor space, 250m2 B1 floor space, 244m2 A1 floor space and 62m2 flexible commercial at ground floor level (either A1/A3/D1); 39 residential apartments at first, second and third floors (18 no. 1 bedroom, 19 no. 2 bedroom and 2 no. 3 bedroom, including six no. affordable homes) and raised roof terrace; new public square / areas of public realm throughout the site; a Lower Ground Floor car park with new vehicular access from The Embankment consisting of 23 car parking spaces and cycle storage"

5.3 EXISTING TRIP GENERATION

5.3.1. The existing site comprises a mix of A1 retail, A2 retail and B1 office space. Given the nature of the land-uses it is anticipated that the vast majority of trips will be undertaken by public transport or active modes, with a small offering of car parking spaces provided for the retail and office spaces.

5.3.2. A detailed breakdown of the existing site and what it is currently occupied by (and has planning consent for) is detailed below:

- Public garden (Jubilee Gardens);
- Retail (King's Street)
- A1 Retail - 741sqm
- A2 Retail – 479sqm
- B1 Office - 226sqm
- Leisure centre

- Associated car private parking – 26 spaces
- Public car parking (Embankment).

5.3.3. It should be noted that there are occasional market/festival uses associated with the site as well.

5.3.4. For the purposes of assessment, the net impact of the proposals will be assessed against the sites existing uses (assuming the site is fully occupied and operational). This approach is considered appropriate as the site could operate within the parameters of its existing uses.

5.3.5. Table 5-2 outlines the travel demand generation associated with the existing site. The majority of the travel associated to retail uses can be attributed to trips already on the network as part of the King's Street and Twickenham Town centre retail activity, therefore the forecast below shows only the trip generation related to the existing B1 office and associated private parking facilities.

5.3.6. For consistency of assessment, the methodology outlined below in section 5.4 for the proposed B1 workspace was used to forecast the baseline office trips in Table 5-2.

Table 5-2 – Existing Office Trips

Mode	AM Peak Hour (0800-0900)			PM Peak Hour (1700-1800)		
	IN	OUT	TOTAL	IN	OUT	TOTAL
Rail	3	2	5	2	0	2
Bus	2	1	4	1	0	2
Taxi	0	0	0	0	0	0
Motorcycle	0	0	0	0	0	0
Car Driver	6	3	9	3	0	4
Car Passenger	0	0	0	0	0	0
Bicycle	1	1	2	1	0	1
On Foot	2	1	2	1	0	1
Total	**14**	**8**	**22**	**8**	**1**	**9**

5.3.7. In addition to the above, local parking data has been extracted from the surveys undertaken as part of the withdrawn application. Figure 5-1 below illustrates the local parking inventory surrounding the site. The parking intended to be removed as part of the proposals are highlighted red. Table 5-3 provides a summary of the parking facilities along with the net change associated with the proposals.

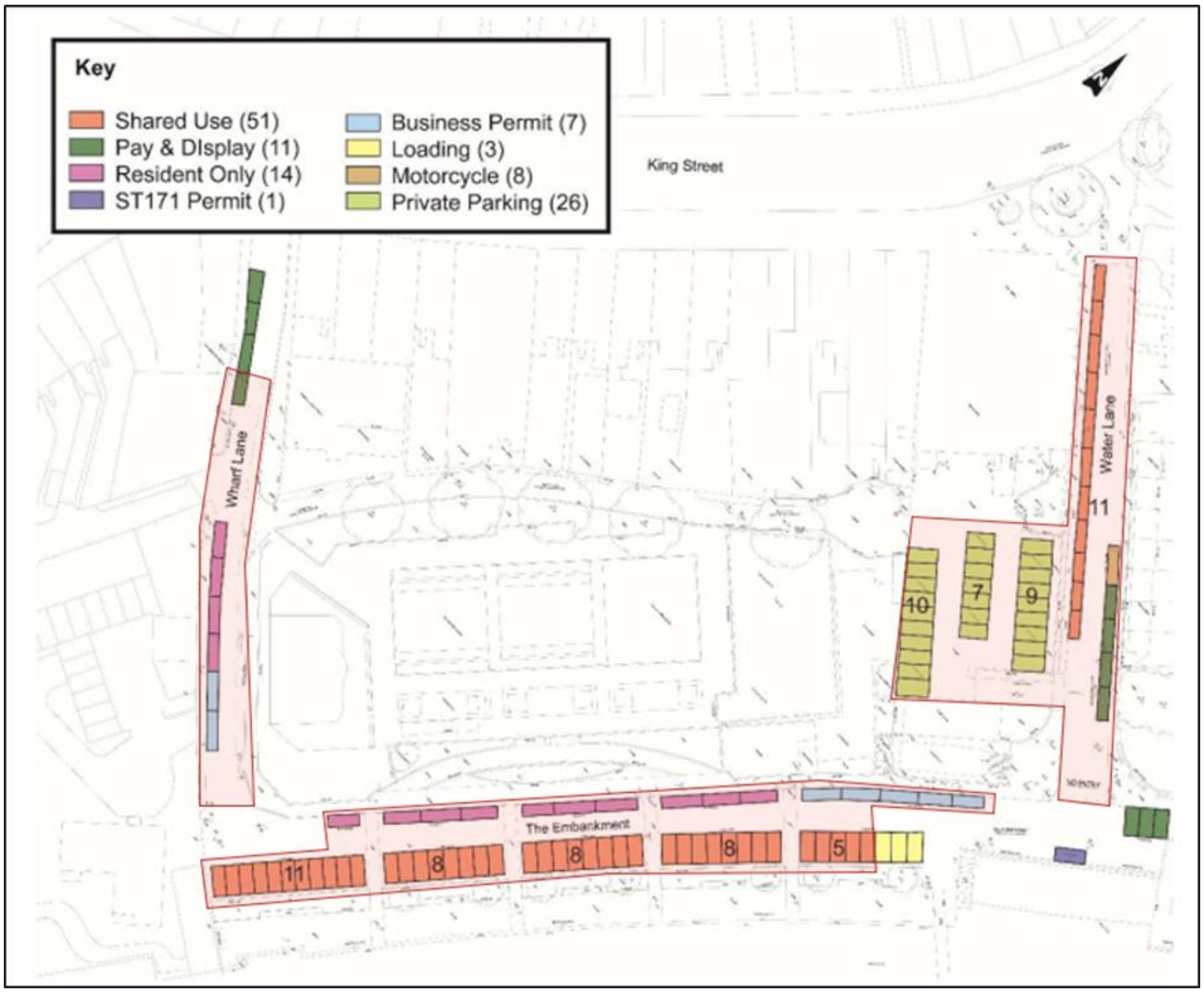
Table 5-3 – Net Change Parking Provision

	On-site	Shared Use*	P&D*	Residential Only*	ST171 Permit*	Business Permit*	Loading	Motorcycle*	Total
Existing	26	51	11	14	1	7	3	8	121
Proposed	-	-	2	3	-	-	9	TBC	14
Net	-26	-51	-9	-11	-1	-7	+6	TBC	-107

*Changes to these parking allocations are carried out under the Council CPZ revision

5.3.8. As outlined above the proposals seek to remove up to 85no. on-street car parking spaces with the exception of 11no. bays including 6no. loading bays associated with Eel Pie Island. A further 26no. spaces currently provided on site will be removed.

Figure 5-1 - Local Parking Inventory (source:LBRuT)



5.4 PROPOSED TRIP GENERATION

5.4.1. The trip generation methodology at the proposed development assumes that there will be a total of 46 residential units, as well as office, Café, Pub and Retail.

5.4.2. The methodology used to assess each land use is provided in turn below.

Residential

5.4.3. The trip generation associated with the proposed residential units has been forecast using surveys from the TRICS database, the survey site selection was based on the following criteria:

- Land use – Residential – Private Flats;
- Weekday surveys – All;
- Location – London;
- Units – 25 +;
- PTAL 5+; and
- Location – Town Centre

5.4.4. The selected sites are summarised in Table 5-4 below. It should be noted that the TRICS sites selected have been used to determine total person trips only with local data (ONS Census) used to determine trips by travel mode.

Table 5-4 – Residential TRICS site selection

Reference	Description	Town/City	Area	Location	DWELLS
BM-03-C-01	BLOCKS OF FLATS	BROMLEY	BROMLEY	Town Centre	160
HM-03-C-01	BLOCK OF FLATS	FULHAM	HAMMERSMITH AND FULHAM	Town Centre	42
HM-03-C-02	BLOCKS OF FLATS	HAMMERSMITH	HAMMERSMITH AND FULHAM	Town Centre	194

5.4.5. The total proposed residential person trip generation is then shown in **Table 5-5** below. The table summarises the AM peak 0800-0900 and PM peak 1700-1800 total person trip rates and total person trip generation based on 46 residential units (proposals emerging and subject to minor change).

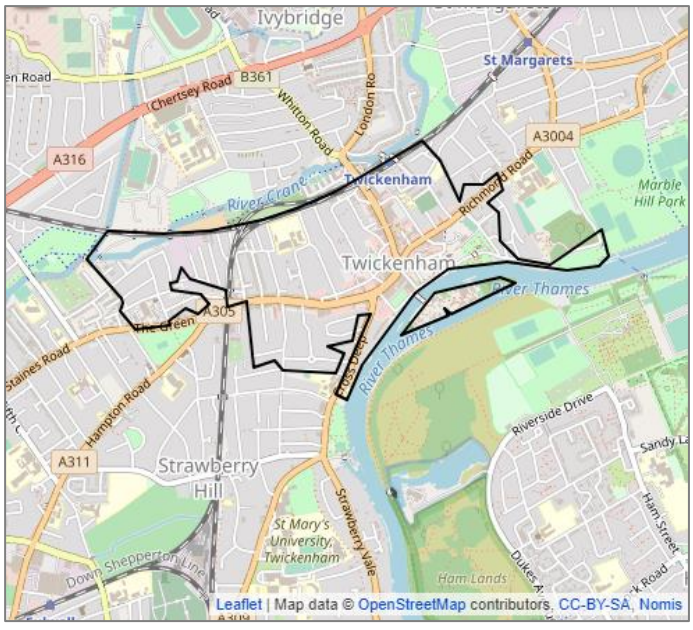
Table 5-5 – Total Proposed Residential Trip Generation

TRICS	AM Peak Hour (0800-0900)			PM Peak Hour (1700-1800)		
	IN	OUT	TOTAL	IN	OUT	TOTAL
Total Person Trip Rate (per unit)	0.085	0.49	0.575	0.266	0.131	0.397
Proposed Total Person Trips (46 units)	4	23	26	12	6	18

5.4.6. As outlined above, the proposed residential units would typically generate 26 two-way total person trips in the AM peak hour and 18 during the PM peak hour.

5.4.7. 2011 residential population Census data has been extracted for the middle super output area (MSOA) Richmond upon Thames 014 shown in Figure 5-2 below to inform the current local mode share.

Figure 5-2 – Richmond upon Thames 014 MSOA



5.4.8. The census mode share has been adjusted to represent the car free nature of the proposals. Car driver trips have been proportionally split across sustainable travel modes, following the principles of the Mayor Transport Strategy (GLA, 2018) therefore reallocating vehicular trips to public transport, walking and cycle transport modes.

5.4.9. The resulting modal split and multi-modal trip generation for the proposed residential element of the development is shown in Table 5-6 and Table 5-7 respectively below.

Table 5-6 - Mode share (Resident population)

Mode	Rail	Bus	Taxi	Motorcycle	Car	Car Pass.	Bicycle	On Foot	Total
2011 Census	43%	9%	0%	1%	29%	1%	6%	10%	100%
Adjusted	54%	13%	0%	1%	3%	1%	9%	20%	100%

Table 5-7 - Forecast Residential Multi-Modal Trip Generation (46 units)

Mode	Adjusted Mode Share	AM Peak Hour (0800-0900)			PM Peak Hour (1700-1800)		
		IN	OUT	TOTAL	IN	OUT	TOTAL
Rail	54%	2	12	14	7	3	10
Bus	13%	0	3	3	2	1	2
Taxi	0%	0	0	0	0	0	0
Motorcycle	1%	0	0	0	0	0	0
Car Driver	3%	0	1	1	0	0	1
Car Passenger	1%	0	0	0	0	0	0
Bicycle	9%	0	2	2	1	1	2
On Foot	20%	1	5	5	2	1	4
Total	**100%**	**4**	**23**	**27**	**12**	**6**	**18**

B1 Commercial Use

5.4.10. In order to robustly assess the proposed B1 commercial space, a first principles trip generation approach has been undertaken. This approach focusses on the 'typical' number of staff that will be occupying the workspace based on the proposed floorspace.

5.4.11. The total 'maximum' number of employees is based upon the proposed land use NIA floorspace and the Full Time Employee (FTE) capacity. The number of FTE employees has been calculated as 1 FTE per 12sqm of NIA floorspace, as detailed in the Employment Density Guide 3rd Edition (Homes & Communities Agency, 2015).

5.4.12. The study Reporting on desk sharing in office environment the Occupier Density Study (British Council for Office, 2013) reported that *'mean utilisation rates of 60–70% are commonly observed: utilisation rates of 80% are typically a target rather than a reality in most instances.'* Therefore, it can be assumed that it is very uncommon for a workplace that all the office facilities are occupied at once, which indicates that not all employees will be attending the office at the same time.

5.4.13. For the purposes of this assessment it is assumed that 85% of staff will occupy the building on any given day. Underutilisation of an office may be caused by absence from work (leave and sickness), working from home (or another location), attendance at external meetings as well as longer term absences such as work secondments and part-time working.

5.4.14. Based on the above methodology, a summary of average employment densities is provided in Table 5-8 which also provides an indication of the proposed staff numbers.

Table 5-8 - Average Employment Densities and Proposed Additional Employees

Land Use	Proposed Floor Area (NIA m2)	Area Per FTE (NIA m2)	Forecast Additional Employees (Assumes 85% Occupancy
Office	407.55*	12	29

**assuming a GIA to NIA ratio of 0.95*

5.4.15. The mode split for the total employee trips to and from the proposed office floorspace has been determined through the application of the 2011 Census Travel to Work data for Richmond Upon Thames 014 as above. On the basis that the proposals do not include any car parking for the office use (aside from 2no. Blue Badge spaces), the adjusted mode shares have been applied. The resultant Travel to Work modal split is summarised in Table 5-9.

Table 5-9 - Forecast Office Multi-Modal Trip Generation (429sqm) – First Principles

Mode	2011 Census	AM Peak Hour (0800-0900)			PM Peak Hour (1700-1800)		
		IN	OUT	TOTAL	IN	OUT	TOTAL
Rail	43%	12	0	12	12	0	12
Bus	31%	9	0	9	9	0	9
Taxi	0%	0	0	0	0	0	0
Motorcycle	0%	0	0	0	0	0	0
Car Driver	0%	0	0	0	0	0	0
Car Passenger	2%	1	0	1	1	0	1
Bicycle	13%	4	0	4	4	0	4
On Foot	11%	3	0	3	3	0	3
Total	**100%**	**29**	**0**	**29**	**29**	**0**	**29**

5.4.16. As outlined above the first principles approach generates a total of 29 two-way trips during the AM peak and 29 during the PM peak period.

A3 Restaurant / Café

5.4.17. The TRICs database has been interrogated to derive forecast trips associated with the A3 offering proposed on site. The TRICS surveys have been selected based on the following criteria:

- Land use – Hotel, Food and Drink – Restaurants;
- Weekday surveys – All;
- Location – London;
- Floor Area – All;
- PTAL All; and
- Location – All.

5.4.18. The selected sites are summarised in Table 5-10 below. It should be noted that the TRICS sites selected have been used to determine total person trips only with localised data used to determine trips by mode.

Table 5-10 - A3 Restaurant / Café TRICS Site Selection

Reference	Description	Town/City	Area	Location	DWELLS
BT-06-B-01	COFFEE SHOP & RESTAURANT	WEMBLEY	BRENT	Suburban Area	150
LB-06-B-01	PORTUGUESE RESTAURANT	STOCKWELL	LAMBETH	Edge of Town Centre	194

5.4.19. Table 5-11 summarises the AM peak 0800-0900 and PM peak 1700-1800 total person trip rates and total person trip generation based on a land use area of 607 sqm (proposals emerging and subject to minor change.

Table 5-11 - Proposed Restaurant / Café Total Person Trip Generation

TRICS	AM Peak Hour (0800-0900)			PM Peak Hour (1700-1800)		
	IN	OUT	TOTAL	IN	OUT	TOTAL
Total Person Trip Rate (per 100sqm)	3.093	1.031	4.124	6.977	6.105	13.082
Proposed Total Person Trips (607 sqm)	19	6	25	42	37	79

5.4.20. With regards to the modal split associated with the ground floor unit, it is considered that the majority, if not all of trips will be generated by pass-by trade either associated with the application site itself or drawn from pedestrians already present on the existing network. Therefore, it has been assumed that the majority of trips associated with the A3 offering will be on foot with the exception of a number of cycles. The Richmond Upon Thames 014 census workplace model split for cycle has been assumed with the remaining trips comprising of pedestrians. **Table 5-12** below outlines the multi-modal trip generation.

Table 5-12 - Forecast A3 Restaurant / Cafe Multi-Modal Trip Generation (607sqm)

Mode	2011 Census	AM Peak Hour (0800-0900)			PM Peak Hour (1700-1800)		
		IN	OUT	TOTAL	IN	OUT	TOTAL
Rail	0%	0	0	0	0	0	0
Bus	0%	0	0	0	0	0	0
Taxi	0%	0	0	0	0	0	0
Motorcycle	0%	0	0	0	0	0	0
Car Driver	0%	0	0	0	0	0	0
Car Passenger	0%	0	0	0	0	0	0
Bicycle	13%	2	1	3	6	5	10
On Foot	87%	16	5	22	37	32	69
Total	**100%**	**19**	**6**	**25**	**42**	**37**	**79**

5.4.21. As outlined above the A3 offering is forecast to generate up to 25 two-way trips during the AM peak hour and 79 during the PM peak hour.

5.4.22. For assessment purposes, it is reasonable to assume the restaurant / cafe use will not generate any material increase in new trips to the site and will likely comprise pass-by, diverted trips with no additional impact to the existing highway or public transport network.

A4 Pub Use

5.4.23. Trip generation associated with the pub has been forecast using surveys from the TRICS database on the following:

- Land use – Hotel, Food and Drink – Pub / Restaurant;
- Weekday surveys – All;
- Location – London;
- Floor Area – All;
- PTAL 5+, and
- Location – All,

5.4.24. The selected sites are summarised in Table 5-13 below.

Table 5-13 - Pub TRICS Site Selection

Reference	Description	Area	Location	GFA
CI-06-C-01	PUB/RESTAURANT	CITY OF LONDON	Town Centre	700
HG-06-C-01	WETHERSPOON	WOOD GREEN	Town Centre	1,000
LB-06-C-01	PUB/RESTAURANT	WATERLOO	Town Centre	220
WH-06-C-01	PUB/RESTAURANT	WANDSWORTH	Town Centre	400

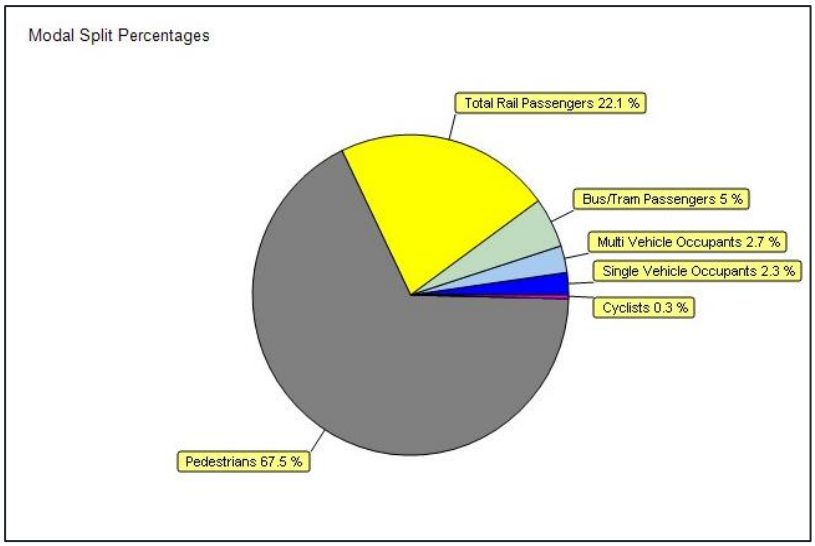
5.4.25. Table 5-14 summarises the AM peak 0800-0900 and PM Peak 1700-1800 total person trip rates and total person trip generation based on a 389sqm A4 Pub (proposals emerging and subject to minor change).

Table 5-14 - Proposed A4 Pub Total Person Trip Generation

TRICS	AM Peak Hour (0800-0900)			PM Peak Hour (1700-1800)		
	IN	OUT	TOTAL	IN	OUT	TOTAL
Total Person Trip Rate (per 100sqm)	0	0	0	17.241	14.224	31.465
Proposed Total Person Trips (389sqm)	0	0	0	67	55	122

5.4.26. In order to derive trips by mode, the modal split derived from TRICS has been used as a basis for the assessment as it is considered that travel characterises associated with town centre pubs would be a comparable proxy to the application site. Figure 5-3 below outlines the modal split percentages derived from TRICS.

Figure 5-3 - Pub modal split percentages



5.4.27. It should be noted that the car driver (single vehicle occupants) modal split percentage has been adjusted so no visitors travel by car. The car driver trips have been shifted to the walking mode as this is a typical alternative. The resulting multi-modal analysis is outlined below in Table 5-15 below.

Table 5-15 - Forecast A4 Pub Multi-Modal Trip Generation (389sqm)

Mode	2011 Census	AM Peak Hour (0800-0900)			PM Peak Hour (1700-1800)		
		IN	OUT	TOTAL	IN	OUT	TOTAL
Train	18%	0	0	0	15	12	27
Bus	5%	0	0	0	3	3	6
Taxi	0%	0	0	0	0	0	0
Motorcycle	0%	0	0	0	0	0	0
Car Driver	0%	0	0	0	0	0	0
Car Passenger	3%	0	0	0	2	1	3
Bicycle	0%	0	0	0	0	0	0
On Foot	70%	0	0	0	47	39	85
Total	**100%**	**0**	**0**	**0**	**67**	**55**	**122**

5.4.28. As expected, the forecast trip generation for the A4 Pub does not generate any AM peak hour trips with a two-way total of 122 trips in the PM peak period with the majority of trips made on foot.

5.5 TRIP GENERATION SUMMARY

5.5.1. Based on the preferred trip generation approaches outlined above, Table 5-16 provides a summary of the forecast trip generation associated with the proposals.

Table 5-16 – Proposed Trip Generation

Mode	AM Peak Hour (0800-0900)			PM Peak Hour (1700-1800)		
	IN	OUT	TOTAL	IN	OUT	TOTAL
Rail	15	12	27	34	16	49
Bus	9	3	12	14	4	17
Taxi	0	0	0	0	0	0
Motorcycle	0	0	0	0	0	0
Car Driver	0	1	1	0	0	1
Car Passenger	1	0	1	3	2	4
Bicycle	7	3	10	11	6	16
On Foot	20	10	30	89	72	161
Total	**52**	**29**	**80**	**150**	**98**	**249**

5.5.2. As outlined above, the proposals are forecast to generate up to 80 two-way total person trips in the AM peak hour and 249 during the PM peak period. This equates to approximately 4no. trips per minute during the busier PM peak period. This level of movements is not considered to have a significant impact on the local highway network with the majority of trips undertaken on sustainable transport modes.

5.7 NET IMPACT ASSESSMENT

5.7.1. As outlined above, as the majority of the existing site is associated with retail uses which can be attributed to trips already on the network, therefore the net impact assessment focusses on trips associated with the existing office. In the interest of a robust assessment the forecast trips associated with the proposed pub and café have not been attributed to trips already on the network and have been included in the net impact assessment below. In reality the majority of these trips would be linked or pass by as a result of the sites town centre location. The net impact assessment is shown in Table 5-17 below.

Table 5-17 - Net Impact Assessment

Mode	AM Peak Hour (0800-0900)			PM Peak Hour (1700-1800)		
	IN	OUT	TOTAL	IN	OUT	TOTAL
Rail	11	8	19	30	15	45
Bus	7	0	7	11	4	14
Taxi	0	0	0	0	0	0
Motorcycle	0	0	0	0	0	0
Car Driver	-6	-6	-12	-7	0	-6
Car Passenger	0	0	0	2	2	4
Bicycle	6	2	7	9	6	15
On Foot	19	8	27	87	72	159
Total	**36**	**11**	**47**	**133**	**98**	**231**

5.7.2. In addition to the table above, the proposals will result in the removal of up to 85 on street parking spaces from a total of 95 currently available on-street. Parking survey data demonstrated an overnight occupancy (0500-0600) of 76%, a daytime occupancy (1500-1700) of 75% and a weekend occupancy (1200-1300) of 89%. On this basis, the proposals will therefore generate a significant net reduction in vehicle trips on the local roads surrounding the site. To note, appropriate loading facilities will be maintained for Eel Pie Island to accommodate the delivery trips recorded servicing the island which comprised of an average of 19 trips across two survey days.

5.7.3. Based on the net impact assessment above, the proposals are forecast to generate up to 47 total person trips during the AM peak hour (0800-0900) and 231 during the PM peak hour (1700-1800). This net impact assessment is considered to be highlight robust as a significant number of these trips will already be on the network due to the site's town centre location. This equates to 4 additional trips per minute during the peak hour across the various sustainable transport modes. This level of trips is not considered to have significant impact on the local highway network and is considered acceptable in highway terms.

5.8 DELIVERY AND SERVICING TRIP GENERATION

Residential Servicing

5.8.1. Delivery and servicing trips have been forecast using surveys undertaken during 2014 at Imperial Wharf in Fulham and 2016 at Bow Quarter in Tower Hamlets. These were commissioned by WSP and have been accepted for application to a number of other similar residential developments.

- Imperial Wharf (1,745 Dwellings) – 2014 survey; and
- Bow Quarter (773 Dwellings) – 2016 survey.

5.8.2. The residential delivery/servicing trip rates are set out in Table 5-18 below.

Table 5-18 – Residential Servicing Trip Rates (Per Dwelling)

Time Period	Weekday AM Peak (0800-0900)			Weekday PM Peak (1700-1800)			Daily (0700-1900)		
	In	Out	Total	In	Out	Total	In	Out	Total
LGV	0.004	0.004	0.008	0.010	0.010	0.020	0.134	0.133	0.268
HGV	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.009	0.017

5.8.3. The forecast servicing demand associated with the development proposals (46 dwellings) is outlined below in Table 5-19.

Table 5-19 – Servicing Demand: 46 Units

Time Period	Weekday AM Peak (0800-0900)			Weekday PM Peak (1700-1800)			Daily (0700-1900)		
	In	Out	Total	In	Out	Total	In	Out	**Total**
LGV	0	0	0	0	0	0	6	6	**12**
HGV	0	0	0	0	0	0	1	1	**2**

5.8.4. Applying the above servicing trips to the proposed 46 units, this generates a total of 7 servicing trips over the course of a day. This level of servicing is expected to generate maximum of one residential servicing trip in any one hour across a typical day.

B1 Office Servicing

5.8.5. Delivery and servicing trips for the B1 Office use has been forecast using surveys from historical surveys that have been accepted for a number of other similar commercial developments. A daily servicing trip generation of 0.23 trips per 100sqm has been applied to the proposed office floorspace of 429sqm.

5.8.6. On this basis, the proposed development is forecast to have a typical servicing demand of up to 1no. servicing vehicles arrivals per day. Based on typical servicing arrival profiles for commercial developments, the peak hour of servicing activity would be forecast to generate up to 1no. service vehicle. A forecast for the B1 office servicing arrivals is shown in Table 5-20 below.

Table 5-20 – B1 Office Forecast Servicing Arrivals

Time Period	AM Peak (0800-0900)	PM Peak (1700-1800)	Daily (0700-1900)
Light Goods Vehicle	0	0	1
Heavy Goods Vehicle	0	0	0
Total	**0**	**0**	**1**

A3 Restaurant / Café Servicing

5.8.7. Delivery and servicing trips associated with the A3 Restaurant / Café proposed on site have been forecast using the TRICS sites selected above in previously in Table 5-10. The resulting servicing rates and trips are outlined in Table 5-21 below.

Table 5-21 – Restaurant / Café Servicing Trip Rates

Time Period	Weekday AM Peak (0800-0900)			Weekday PM Peak (1700-1800)			Daily (0700-1900)		
	In	Out	Total	In	Out	Total	In	Out	Total
Service Vehicles	0.000	0.000	0.000	0.000	0.000	0.000	0.667	0.667	1.334

5.8.8. For the purposes of assessment and due to the size of the restaurant / café offering it has been assumed that all deliveries will be undertaken via LGV's

Table 5-22 – Restaurant / Café Forecast Servicing Arrivals

Time Period	AM Peak (0800-0900)	PM Peak (1700-1800)	Daily (0700-1900)
Light Goods Vehicle	0	0	3
Heavy Goods Vehicle	0	0	1
Total	**0**	**0**	**4**

Note: LGV / HGV split based on a typical 80% 20% split

A4 Pub Servicing

5.8.9. Delivery and servicing trips associated with the A4 Pub proposed on site have been based on the TRICS selection above in Table 5-13. To note, only one of the four sites HG-06-C-01 provided delivery and servicing survey data. The resulting servicing rates and trips are outlined in Table 5-23 below.

Table 5-23 – Restaurant / Café Servicing Trip Rates

Time Period	Weekday AM Peak (0800-0900)			Weekday PM Peak (1700-1800)			Daily (0700-1900)		
	In	Out	Total	In	Out	Total	In	Out	Total
Service Vehicles	0.000	0.000	0.000	0.000	0.000	0.000	0.100	0.100	0.200

5.8.10. For the purposes of assessment and due to the size of the restaurant / café offering it has been assumed that all deliveries will be undertaken via LGV's. The proposed servicing arrivals for the pub is shown in Table 5-24 below.

Table 5-24 – Pub Proposed Servicing Arrivals

Time Period	AM Peak (0800-0900)	PM Peak (1700-1800)	Daily (0700-1900)
Light Goods Vehicle	0	0	1
Heavy Goods Vehicle	0	0	0
Total	**0**	**0**	**1**

Servicing Summary

5.8.11. Table 5-25 outlines the sitewide servicing trips forecast for the proposals. The results outline up to one delivery and servicing trip during each of the AM and PM peak hours with a total of 20 trips across a typical day. Based on a typical 12 hour day the proposals will typically generate one servicing and delivery trip across

each hour with the occasional hour generating two trips. It is considered that this level of delivery and servicing trips will be accommodated within the two delivery bays proposed to serve the site.

Table 5-25 – Proposed Servicing Trips

Time Period	Daily (0700-1900)
Light Goods Vehicle	17
Heavy Goods Vehicle	3
Total	**20**

6 PROPOSED SCOPE OF ASSESSMENT

6.1 ACTIVE TRAVEL ZONE (ATZ) ASSESSMENT

6.1.1. It is anticipated that the majority of people travelling within, to and from the site will walk to use public transport. The nearest railway station is Twickenham station to the north of the site.

6.1.2. A Healthy Streets Audit of the proposals will also be undertaken assessing the improvements to be made as part of the proposed development. The Healthy Streets Assessment is for both walking and cycling, and it measures the performance of routes, streets or places against TfL's 10 indicators of a healthy street.

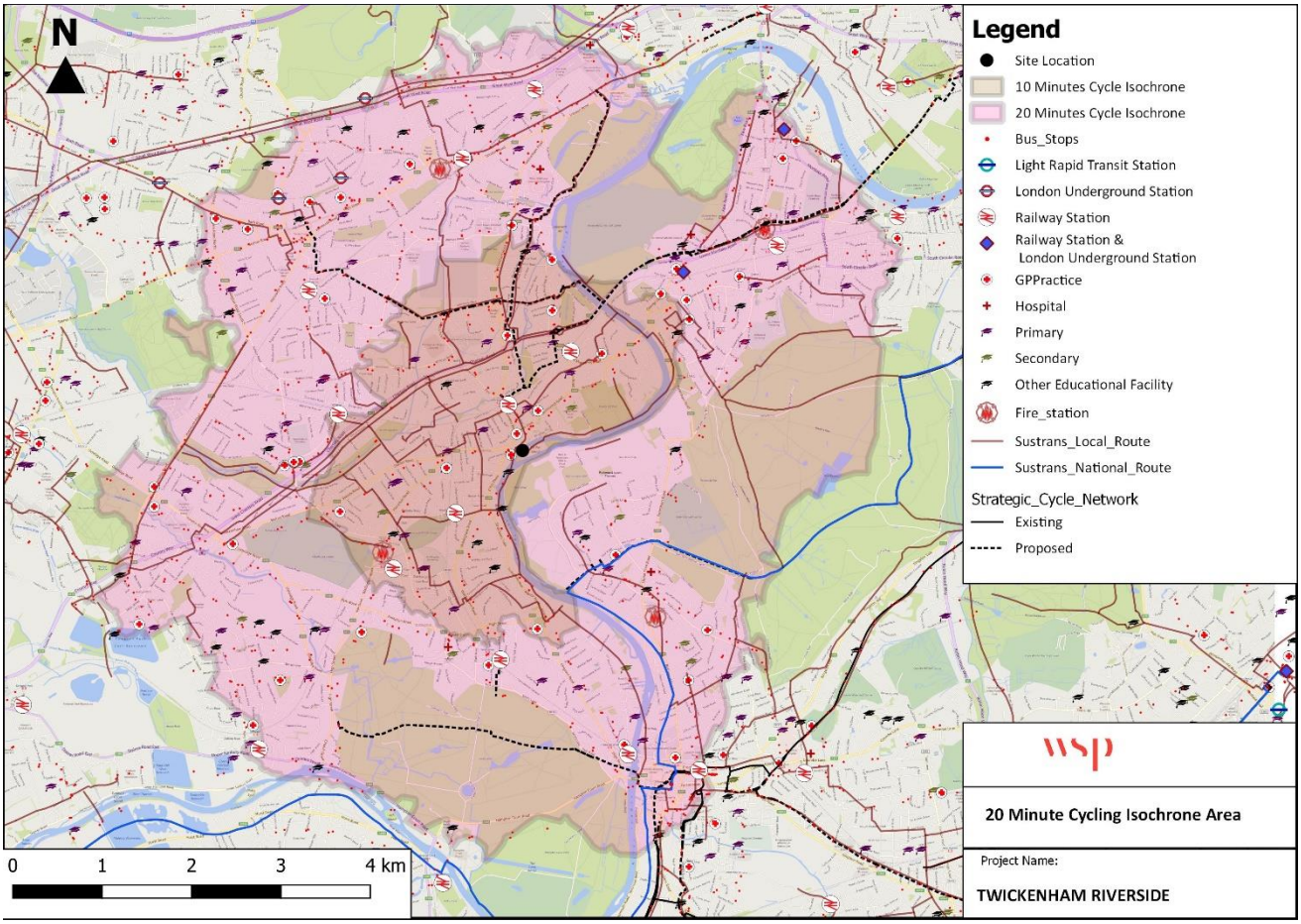
6.1.3. The Active Travel Zone (ATZ) assessment is a qualitative analysis of the cycle and walking network surrounding the proposed development. The methodology has been developed by TfL to support the Healthy Streets approach and Vision Zero. The Active Travel Zone (ATZ) assessment is carried out to assist the understanding of the proposed development potential to contribute in promoting sustainable travel.

6.1.4. The ATZ Assessment comprises a site visit during which Point of View (PoV) records of the key routes are taken at circa 150m intervals. The photographic survey of the routes is than benchmarked against Healthy Streets indicators 3-10 as follows:

- Easy to cross
- People feel safe
- Things to see and do
- Places to stop and rest
- People feel relaxed
- Not too noisy
- Clean air
- Shade and shelter

6.1.5. The ATZ is defined as the area that stretches around the proposed development encompassing a zone within a 20-minute cycle journey. The ATZ for the proposed development is illustrated in Figure 6-1.

Figure 6-1 - Active Travel Zone



MOST IMPORTANT JOURNEYS

6.1.6. The most important destinations within the scope of the neighbourhood and the most likely routes are identified and selected based on the destination's priority and proximity.

Public Transport Services and Stops

6.1.7. Key public transport hubs and bus stops within the ATZ and National Rail stations are as follows:

- Twickenham station – with services that run to inner and outer London
- Bus stops including:
  - York Road Twickenham
  - Heath Road Twickenham
  - Poulett Gardens

Town Centres and Amenities

6.1.8. Key local amenities within the ATZ include parks, schools / education institutions, hospitals / medical practices, town centres and street retail.

Destination Priority

6.1.9. The key trip attractor associated with the proposed development is the residential use and, when determining the relevance of key destinations, those linked to the residential use have been prioritised as follows:

- Public transport services – high priority

- Strategic cycle network – high priority
- Town centres – high priority
- Amenities – high priority

6.1.10. As the proposed development is mixed in its land-use classes in nature, each of the above destination types is of high priority and will be well utilised by different users of the development. Each trip type will be made by users of the Twickenham Riverside development on a day-to-day basis.

Key Destinations within the ATZ

6.1.11. The key destinations have been prioritised, as shown in Table 6-1 below, based on the expected main users of the site and their most common journeys.

6.1.12. The routes forming part of the pedestrian and / or cycle audit will be scoped at the pre-application meeting.

Table 6-1 – Key ATZ Destinations

Destination		Priority	Included in ATZ
Public transport stops	Bus stops including: York Street Twickenham, Heath Road Twickenham, and Poulett Gardens	High	Yes
Public transport stations	Twickenham Station	High	Yes
Current and future strategic cycle network	King Street/Embankment	High	Yes
Town centres	Twickenham Town Centre	High	Yes
Parks	York House Gardens / Champions Wharf Play Beach	High	Yes
Schools/colleges	Orleans Park School, St Catherines School, St Richards Reynolds Catholic School	Medium/Low	No
Hospitals/doctors	Cross Deep Surgery / The Acorn Group Practice	Medium/Low	No
Places of worship	St Mary's Church, Twickenham Methodist Church	Medium/Low	No

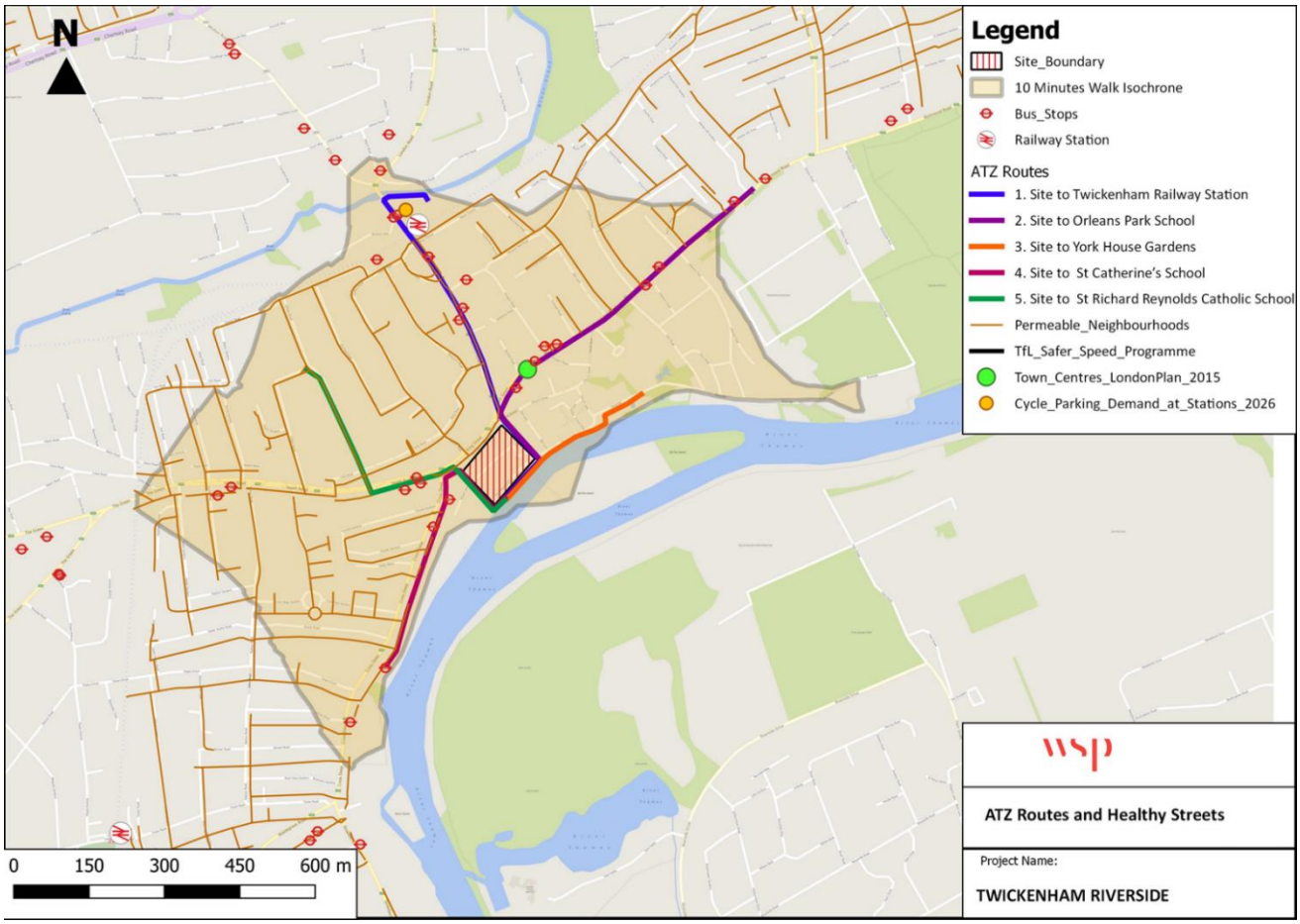
Active Travel Zone Scope

6.1.13. The scope of the ATZ refers to the routes that will be undertaken for assessment. These will incorporate the key ATZ destinations as outlined in Table 6-1. The routes that will be undertaken for assessment are:

- Route 1 – To Twickenham Railway station
- Route 2 – To Orleans Park School
- Route 3 – To York House Gardens
- Route 4 – To St Catherine's School
- Route 5 – To St Richard Reynold's Catholic School

6.1.14. The routes for assessment are illustrated in Figure 6-2 below.

Figure 6-2 - ATZ Routes for Assessment



6.1.15. Considering the prevalent land use for the proposed development is commercial / leisure, in line with TfL ATZ guidelines we recommend that routes to the destinations shown in Table 6-1 are considered for on-site audits. We would appreciate if the LPA, TfL could confirm whether this approach is acceptable. The extent of the routes shown in Figure 6-2 above.

6.2 PUBLIC TRANSPORT NETWORK ASSESSMENT

6.2.1. The site is within walking distance of Twickenham station (less than 10-minute walk) as well as six bus stops as highlighted previously in Chapter 3.

6.2.2. The assessment of the proposed development effects on the public transport network will consist of identifying the net change in trips per mode and bus routes and identify the additional number of passengers per service attributable to the proposed development.

6.3 HIGHWAY NETWORK ASSESSMENT

6.3.1. As the development is car free and a significant number of car parking spaces will be removed as a result of the proposed development, we are not anticipating a requirement to undertake junction traffic modelling at this stage. We LBRuT's comments on this approach.

6.4 MANAGEMENT PLANS

6.4.1. We will describe the management plans strategies recommended to support the proposed developments; at this stage we anticipate these might be:

- Delivery and Servicing Strategy,
- Waste Management Strategy, and
- Cycle Parking Management Strategy.

6.4.2. We envisage that the management plans will be secured via conditions.

FRAMEWORK TRAVEL PLAN

6.4.3. The NPPF highlights that a key tool for facilitating the promotion of sustainable travel choices will be the provision of a Travel Plan:

> *"All developments which generate significant amounts of movement should be required to provide a Travel Plan."*

6.4.4. A Framework Travel Plan (FTP) will be prepared for residents and employees of the application site as a standalone document. The objective of the Travel Plan will be to reduce peak hour single occupancy car trips made to and from the site as far as practicable.

6.4.5. The Travel Plan will set out the site wide management structure and outline the sustainable travel principles and measures to be incorporated within the proposals.

6.4.6. The implementation of pre-occupation measures to be included within the Travel Plan will be the responsibility of the Travel Plan Co-ordinator (TPC). The TPC role will be undertaken by either a nominated employee of the site management company or an appointed consultant. The success of the Travel Plan will be regularly monitored and reviewed to ensure that the travel Plan continually develops during its lifetime.

6.4.7. The FTP will be prepared in accordance with TfL Travel Planning Guidance as well as 'Travel Planning for New Development in London: Incorporating Deliveries and Services' and DfT's 'Good Practice Guidelines: Delivering Travel Plans through the Planning Process'.

7 SUMMARY AND CONCLUSIONS

7.1 SUMMARY

7.1.1. This Transport Assessment Scoping Report sets out the matters to be covered by a Transport Assessment, which is to be prepared in respect of the proposed development at Twickenham Riverside, within the London Borough of Richmond upon Thames.

7.1.2. It is intended that principles of this Scoping Report will be agreed as appropriate and form the basis of the Transport Assessment that will be submitted to accompany a planning application. In particular, agreement is sought in relation to the parking and access strategy, approach to forecasting travel demand and scope of assessment.

7.1.3. This Scoping Report demonstrates the following:

- The site currently has a PTAL score of 5, showing very good connectivity to the public transport network;
- The proposed development will provide significant improvements to the local area with new pedestrian and cycle routes through the site and towards local bus services;
- Cycle parking will be provided on-site in accordance with London Plan policy standards;
- The development is intended to be car free albeit providing a level of blue badge parking;
- Appropriate deliveries and servicing provision will be provided on site.

7.1.4. The site's transport and access strategy will be further developed prior to submission and based on key principles as set out in this Transport Scoping Report.

7.1.5. As part of the application, a review of opportunities to improve pedestrian and cycle infrastructure in the vicinity of the site to and from key town centre locations will be undertaken. This is considered to be appropriate based on the site's town centre location to promote increased active travel in keeping with local and national policy aspirations.

7.1.6. Analysis of the existing and forecast multi-modal travel demand found that there will be a small net increase in in total person trips across the site. This equated to 4no. additional trips per minute during the peak hour across the various sustainable transport modes available within the town centre. The proposals are forecast to generate a net reduction in vehicle trips through the removal of the existing private parking and a number of on-street bays.

7.1.7. When considering delivery and servicing trips, the results outline up to one vehicle during each of the AM and PM peak hours with a total of 16 trips across a typical day. Based on a typical 12 hours day the proposals will typically generate one servicing and delivery trip each hour with the occasional hour generating two trips. It is considered that this level of delivery and servicing trips will be accommodated within the delivery and servicing strategy for the site.

7.1.8. The initial assessment is considered to demonstrate that the proposals would not be expected to have a material impact on the operation on the surrounding of the local highway network and instead seek to provide a sustainable design improving the local area.

Appendix A

DRAWINGS

This drawing is illustrative, not based on accurate survey information and should not be used for legal purposes.

Existing locations of buildings, roads, waterways and parkland based on Ordnance Survey data (Stanfords OS MasterMap 07/06/2019) © Crown copyright and database rights 2019 OS Licence 100035409

Existing site levels based on Stanfords Portal LIDAR Height Data DTM Survey Information (13/06/2019) © Crown copyright and database rights 2019 OS Licence 100035409.

Site boundary based on mark-up provided by LBRuT as part of Twickenham Riverside Invitation to Tender document, June 2019. Requires legal verification.

Proposed buildings and landscaping based on competition scheme (August 2019) and does not take into account any design development following this. This scheme is subject to change.

Landscape design and levels subject to change following further design development.

Date	Rev.	Description	Approved By
28/08/2020	P01	M009 - Issue of Draft GA Plans for Design Team Coordination	MB
11/09/2020	P02	M011 - Issue of Gound Floor Plan to LDA	MB
16/09/2020	P03	M013 - Issue of GA Plans to All Consultants	MB
28/09/2020	P04	M018 - Issue to Structure Engineer	MB
01/10/2020	P05	M019 - Stage 2 Draft Issue	MB
09/10/2020	P06	M024 - Issued to EA	MB
30/10/2020	P07	M031 - Issue to Transport Engineer - Service Road Connection - Updated Landscape	MB
03/11/2020	P08	M032 - Issue to Client and Cost Consultant	MB
20/11/2020	P09	M038 - Issue to LDA	MB

Date	Rev.	Description	Approved By
20/11/2020	P10	M039 - Issue to WSP	MB
25/11/2020	P11	M041 - Issue to Planners	MB
27/11/2020	P12	M042 - Stage 2 Report Addendum Issue	MB
22/01/2021	P13	M050 - Issue to Structural Engineer	MB
08/02/2021	P14	M055 - Issue to Arcadis	MB
17/02/2021	P15	M061 - Issue to Planners	MB
19/02/2021	P16	M062 - Issue to Design Team	MB
26/02/2021	P17	M064 - Issue to Arcadis	MB
10/03/2021	P18	M070 - Issue to WSP	MB

N

Scale at 1:250

0 2 5 10m

Project	Twickenham Riverside	Code	TRS	File Name	Number / Rev.
Subject	Ground Floor Plan			TRS-HAL-00-00-DR-A-	3101 P18
Architects	Hopkins Architects Limited 27 Broadley Terrace, London, NW1 6LG T: 020 7724 1751 E: mail@hopkins.co.uk			Date 30/07/19	Scale 1 : 250 at A1

Proposed on site circulation

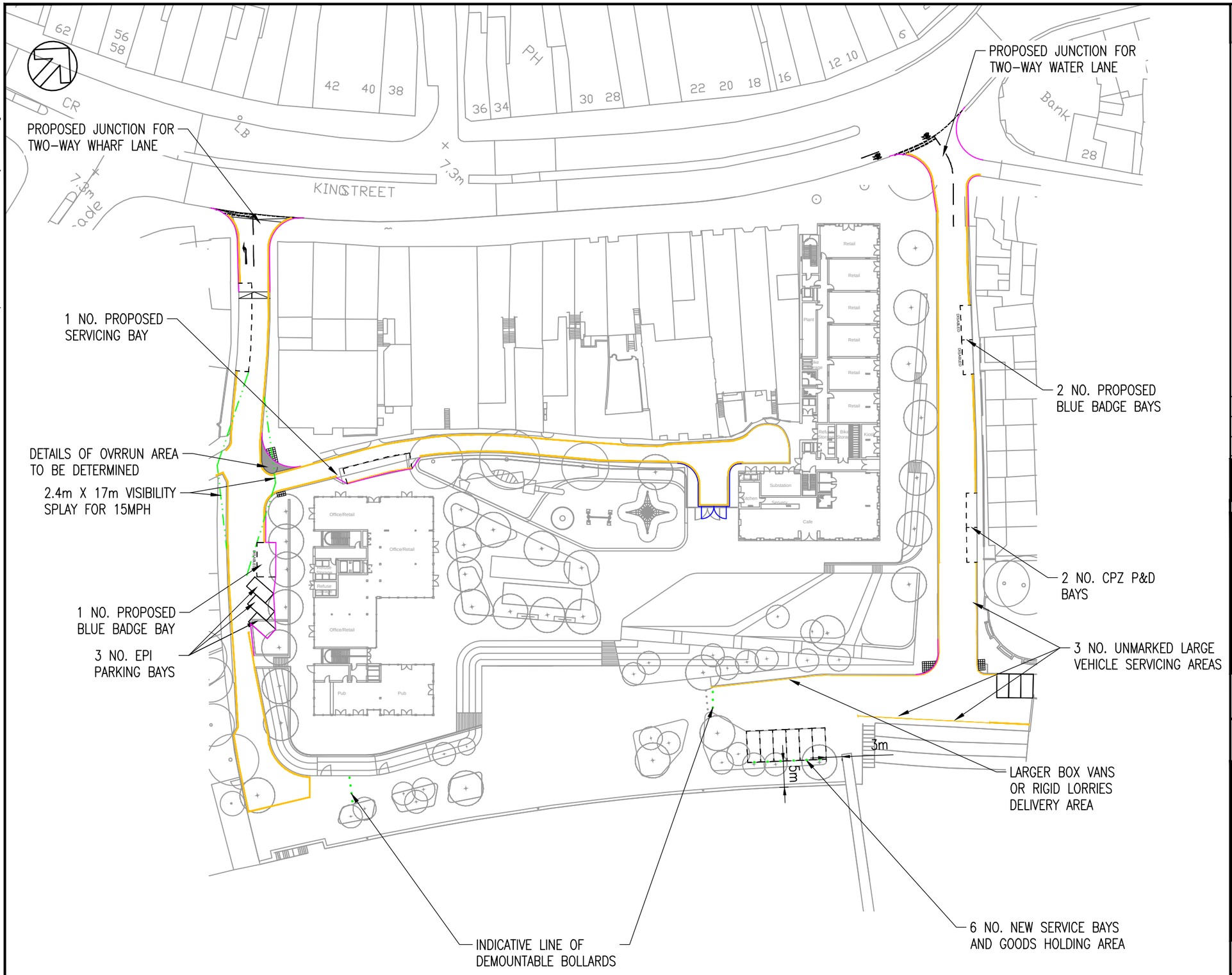
Key

Standard Cycle Spaces

Potential Location of Shelter

The majority of the onsite cycle storage in the public realm is located on Wharf Lane. There are 36 standard sheffield cycle stands provided in total, 9 of which are sheltered and 9 of which are for non standard bikes.

Refer to transport statement for more information on cycle routes.



DO NOT SCALE

REV	DATE	BY	DESCRIPTION	CHK	APP
P02	11/03/2021	CRJB	LOADING ON SERVICE ROAD & EMBANKMENT BAYS	RT	TG
P01	02/03/2021	CRJB	FIRST ISSUE	RT	TG

DRAWING STATUS: S0 - WORK IN PROGRESS

WSP House, 70 Chancery Lane, London, WC2A 1AF, UK
T+ 44 (0) 207 314 5000, F+ 44 (0) 207 314 5111
wsp.com

CLIENT: HOPKINS

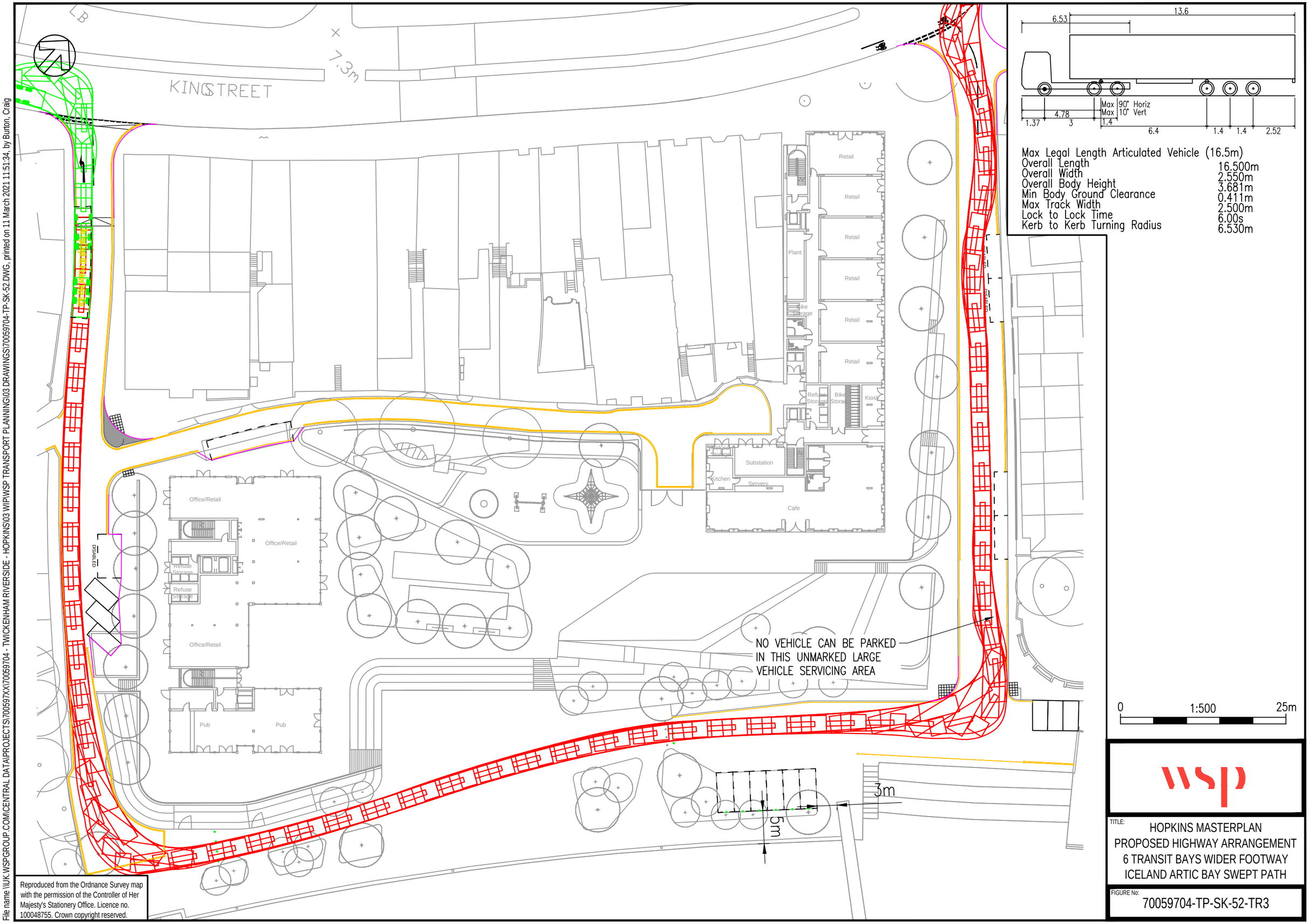
ARCHITECT: HOPKINS

PROJECT: TWICKENHAM RIVERSIDE

TITLE: HOPKINS MASTERPLAN
PROPOSED HIGHWAY ARRANGEMENT
6 TRANSIT SIZED LOADING BAYS WIDER FOOTWAY

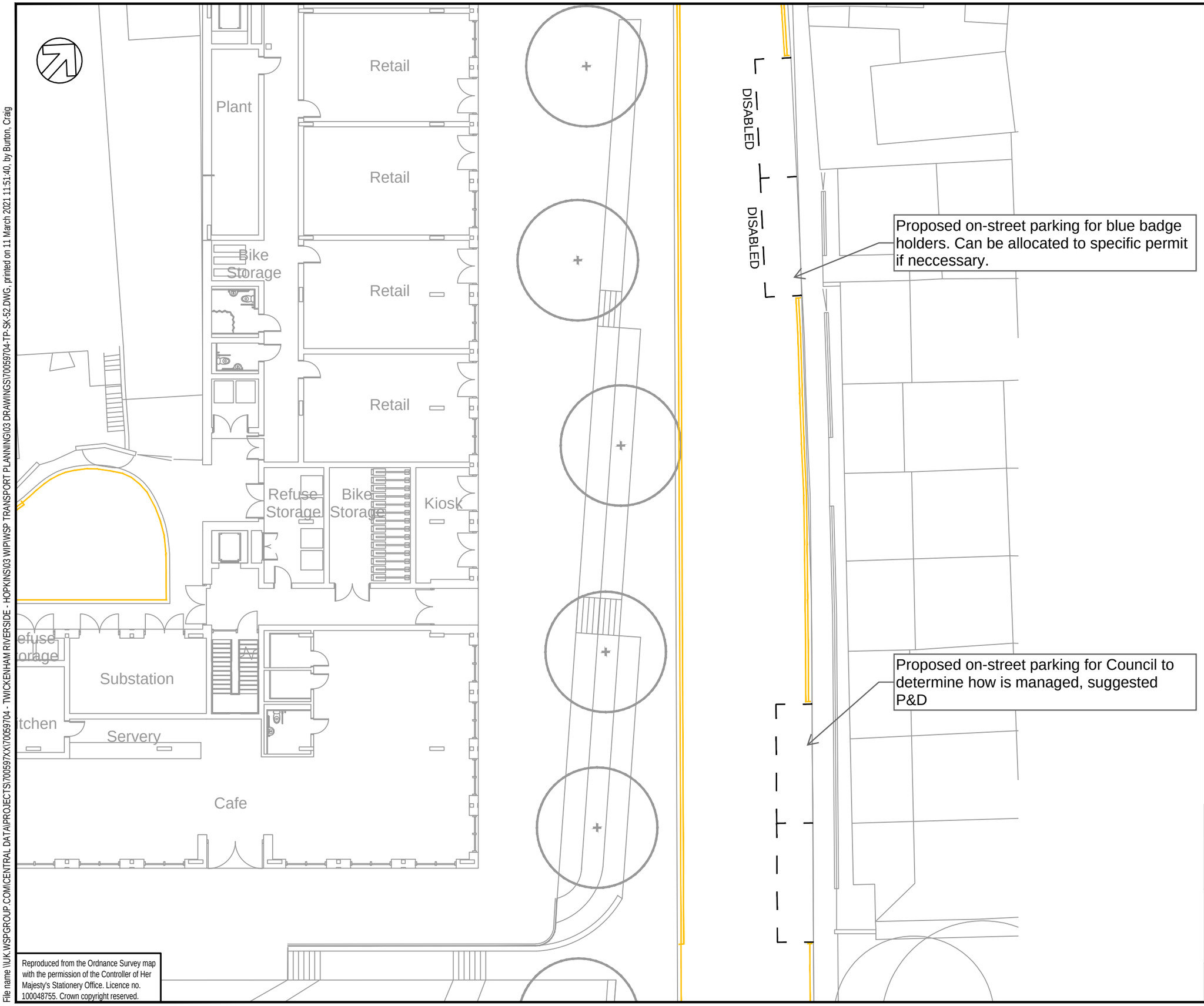
SCALE @ A3:	CHECKED:		APPROVED:
1:750	RT		TG
PROJECT No:	DESIGNED:	DRAWN:	DATE:
70059704		CRJB	March 21

DRAWING No: 70059704-TP-SK-52 REV: P02



TITLE:
HOPKINS MASTERPLAN
PROPOSED HIGHWAY ARRANGEMENT
6 TRANSIT BAYS WIDER FOOTWAY
ICELAND ARTIC BAY SWEPT PATH

FIGURE No:
70059704-TP-SK-52-TR3



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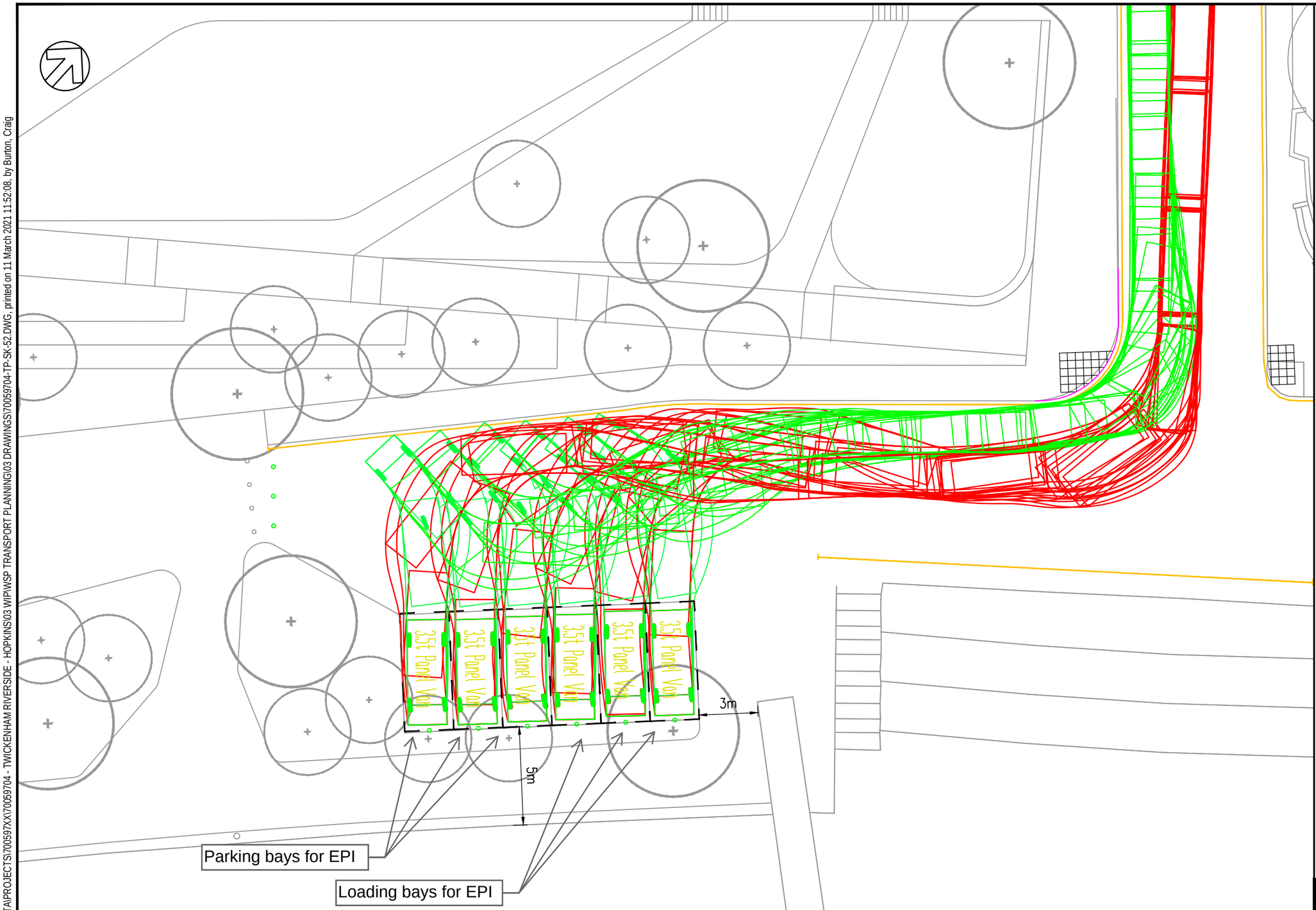
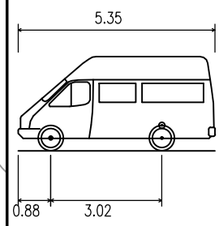
TITLE:
HOPKINS MASTERPLAN
PROPOSED HIGHWAY ARRANGEMENT
6 TRANSIT BAYS WIDER FOOTWAY
2 BB & 2 P&D BAYS ON WATER LANE

FIGURE No:
70059704-TP-SK-52-TR4





3.5t Panel Van	
Overall Length	5.350m
Overall Width	1.970m
Overall Body Height	2.562m
Min Body Ground Clearance	0.335m
Track Width	1.970m
Lock to Lock Time	4.00s
Kerb to Kerb Turning Radius	5.850m

0 1:200 10m

TITLE:
HOPKINS MASTERPLAN
PROPOSED HIGHWAY ARRANGEMENT
6 TRANSIT BAYS WIDER FOOTWAY
EEL PIE ISLAND BAYS SWEPT PATHS

FIGURE No:
70059704-TP-SK-52-TR8

Proposed on-street parking for blue badge holders. Can be allocated to specific permit if neccessary.

Parking bays for EPI

DISABLED

Large Car (2016)

Refuse Storage

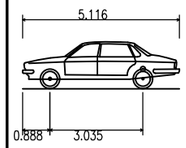
Refuse Storage

Office/Retail

Office/Retail

Pub

Pub

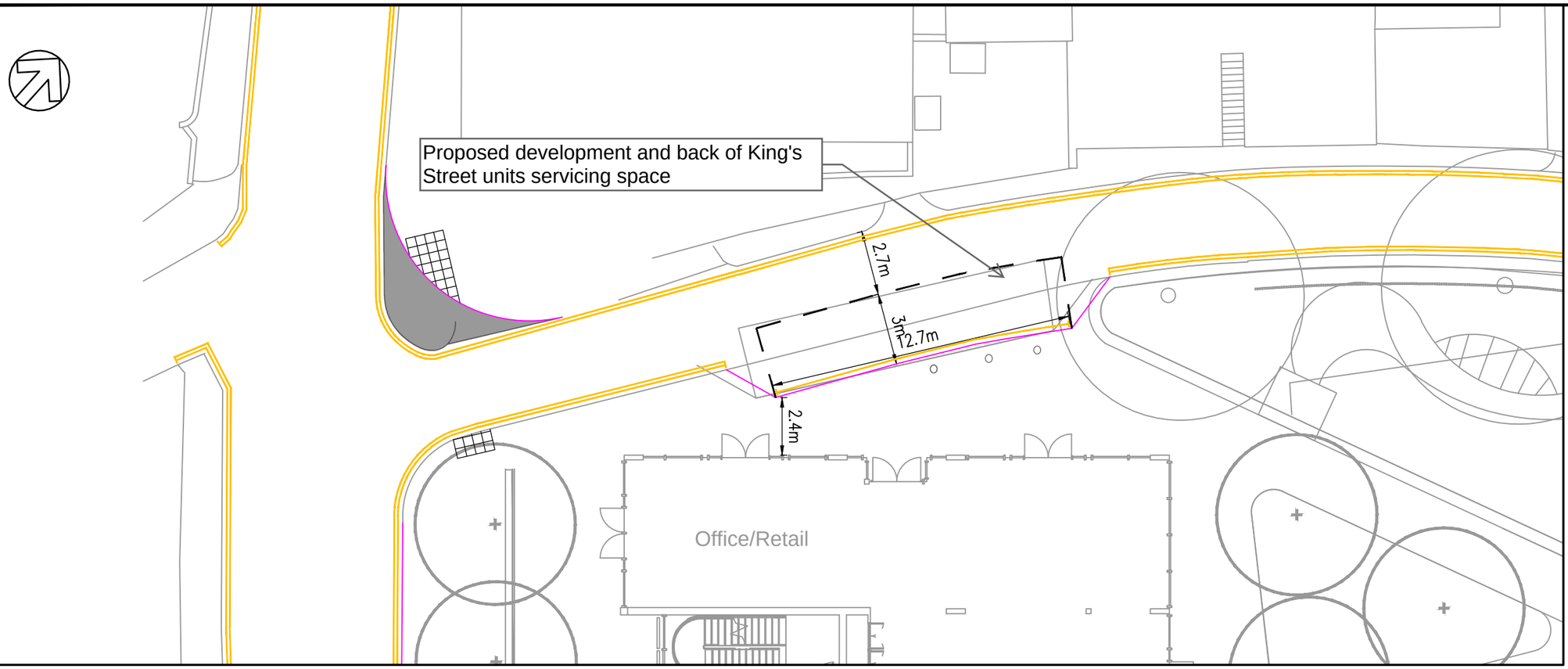


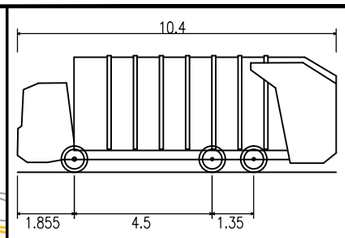
Large Car (2016)	
Overall Length	5.116m
Overall Width	1.899m
Overall Body Height	1.526m
Min Body Ground Clearance	0.311m
Track Width	1.834m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	6.150m

0 1:200 10m

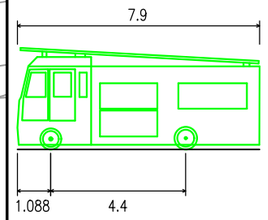
TITLE:
HOPKINS MASTERPLAN
PROPOSED HIGHWAY ARRANGEMENT
6 TRANSIT BAYS WIDER FOOTWAY
WHARF LN PROP PARKING & SWEPT PATH

FIGURE No:
70059704-TP-SK-52-TR7





Richmond Refuse Vehicle	
Overall Length	10.400m
Overall Width	2.500m
Overall Body Height	3.800m
Min Body Ground Clearance	0.295m
Track Width	2.450m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	9.350m



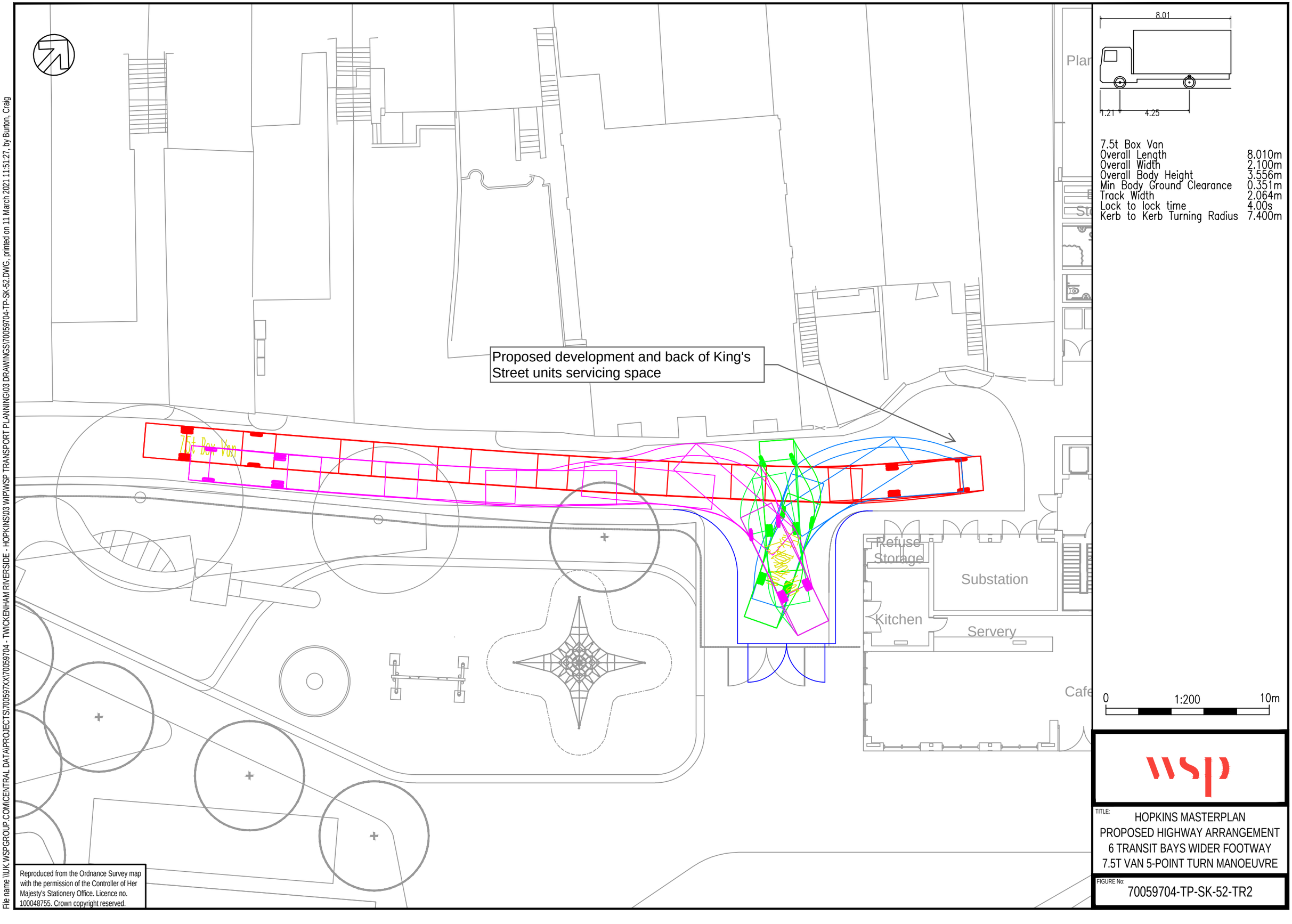
LFB Fire Appliance	
Overall Length	7.900m
Overall Width	2.500m
Overall Body Height	3.314m
Min Body Ground Clearance	0.154m
Max Track Width	2.121m
Lock to Lock Time	6.00s
Kerb to Kerb Turning Radius	8.400m

0 1:200 10m

wsp

TITLE:
HOPKINS MASTERPLAN
PROPOSED HIGHWAY ARRANGEMENT
6 TRANSIT BAYS WIDER FOOTWAY
PROP SERVICE RD BAY & FIRE PASSING

FIGURE No:
70059704-TP-SK-52-TR9



TITLE:
HOPKINS MASTERPLAN
PROPOSED HIGHWAY ARRANGEMENT
6 TRANSIT BAYS WIDER FOOTWAY
7.5T VAN 5-POINT TURN MANOEUVRE

FIGURE No:
70059704-TP-SK-52-TR2

WSP House
70 Chancery Lane
London
WC2A 1AF

wsp.com

Twickenham Riverside

Transport Assessment Scoping Report Summary

London Borough Richmond upon Thames

70059704

Quality Control

Issue/revision	Draft Report	Issued Report
Date	March 2021	March 2021
Prepared by	Ryan Cogan/Tom Edwards	Rea Turohan
Checked by	Rea Turohan	Rea Turohan
Authorised by	Tim Gabbitas	Tim Gabbitas

WSP House
70 Chancery Lane
London
WC2A 1AF
wsp.com

Contents

Section 1:

Site Context

Twickenham Riverside

Context

Site context

The development site is currently occupied by a mixture of retail, leisure and residential land uses.

The site is bound by:

- King Street and 3-31 King Street properties to the north;
- Water Lane to the east;
- The Embankment and the river Thames to the south; and
- Wharf Lane to the west.

The Site is accessed from Water Lane and Wharf Lane via King Street and via the Embankment from the riverside. Water Lane is a one-way southbound street which runs between King Street and the Embankment. Vehicles then egress back onto King Street via Wharf Lane, a one-way northbound street.

Planning History

The Site had previously been subject to one planning application in 2017 (Ref 17/4213/FUL) was then withdrawn by the applicant in 2018 citing consultation with the Environmental Agency (EA) as the reason, the EA advised against the proposed development due to unsatisfactory flood risk management measures.

Stakeholder Engagement

Whilst the development proposals have been developed in close partnership with LBRuT as the final Client, there has been no formal consultation on transport with LBRuT as Local Planning Authority.

It should be noted that the development proposals do not require engagement with TfL since the proposed scheme is not referable and no TfL assets are impacted by the scheme.

Section 2:

Policy Review

Twickenham Riverside

Policy Review

Policy Framework

- National Planning Policy Framework 2019
- National Planning Practice Guidance 2019
- London Plan 2021
- LBRuT Local Plan 2018-2020
- Twickenham Area Action Plan 2013

Transport Strategies

- Mayor's Transport strategy 2018
- LBruT Cycling Strategy 2016-2026

Source: Lucy Saunders

Policy LP 44

Sustainable Travel Choices

The Council will work in partnership to promote safe, sustainable and accessible transport solutions, which minimise the impacts of development including in relation to congestion, air pollution and carbon dioxide emissions, and maximise opportunities including for health benefits and providing access to services, facilities and employment. The Council will:

A. Location of development Encourage high trip generating development to be located in areas with good public transport with sufficient capacity, or which are capable of supporting improvements to provide good public transport accessibility and capacity, taking account of local character and context.
B. Walking and cycling Ensure that new development is designed to maximise permeability within and to the immediate vicinity of the development site through the provision of safe and convenient walking and cycling routes, and to provide opportunities for walking and cycling, including through the provision of links and enhancements to existing networks.

Walking, Cycling & Public Transport

Developments should encourage the use of modes other than the car by making it as easy as possible through provision of good pedestrian facilities, clear layout and signage, provision of cycling facilities and improving access to public transport interchanges. Civic spaces and public realm should be accessible and inclusive. A good walking environment has been shown to be not only beneficial to an individual's health and social life, but also to bring economic benefits to the borough's centres.

Cycling and walking contributes significantly towards creating an attractive and pleasant environment. New development should include all the facilities needed to encourage a safe walking and cycling environment from first occupation. The minimum cycle parking standards are set out in policy LP 45 in 'Parking Standards and Servicing'

Developments should be integrated into the surrounding community and existing local routes and provide for improvements to accessibility for all. There are many footpaths, Public Rights of Way and cycle routes in the borough that new development should not compromise, and opportunities to improve them should be taken wherever possible. For this reason, in line with policy LP 1 in 4.1 'Local Character and Design Quality', gated developments will not be permitted. [..]

Section 3:

Baseline Conditions

Twickenham Riverside

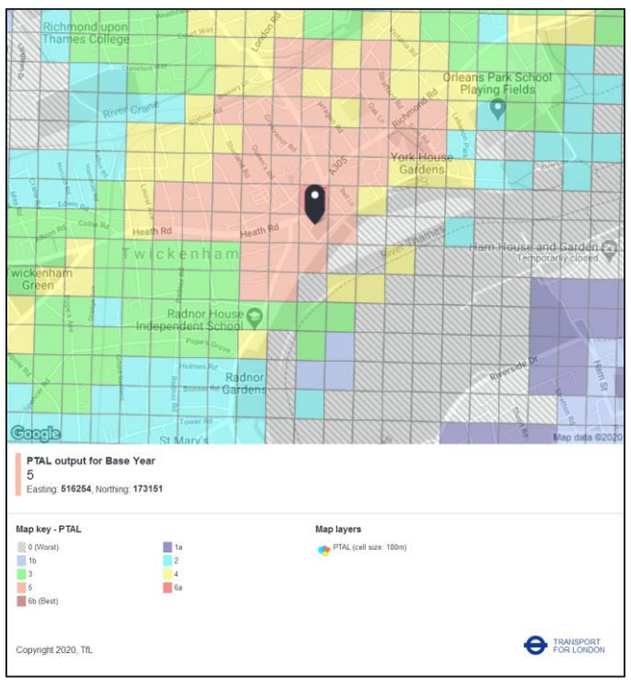
Baseline Conditions

Overview

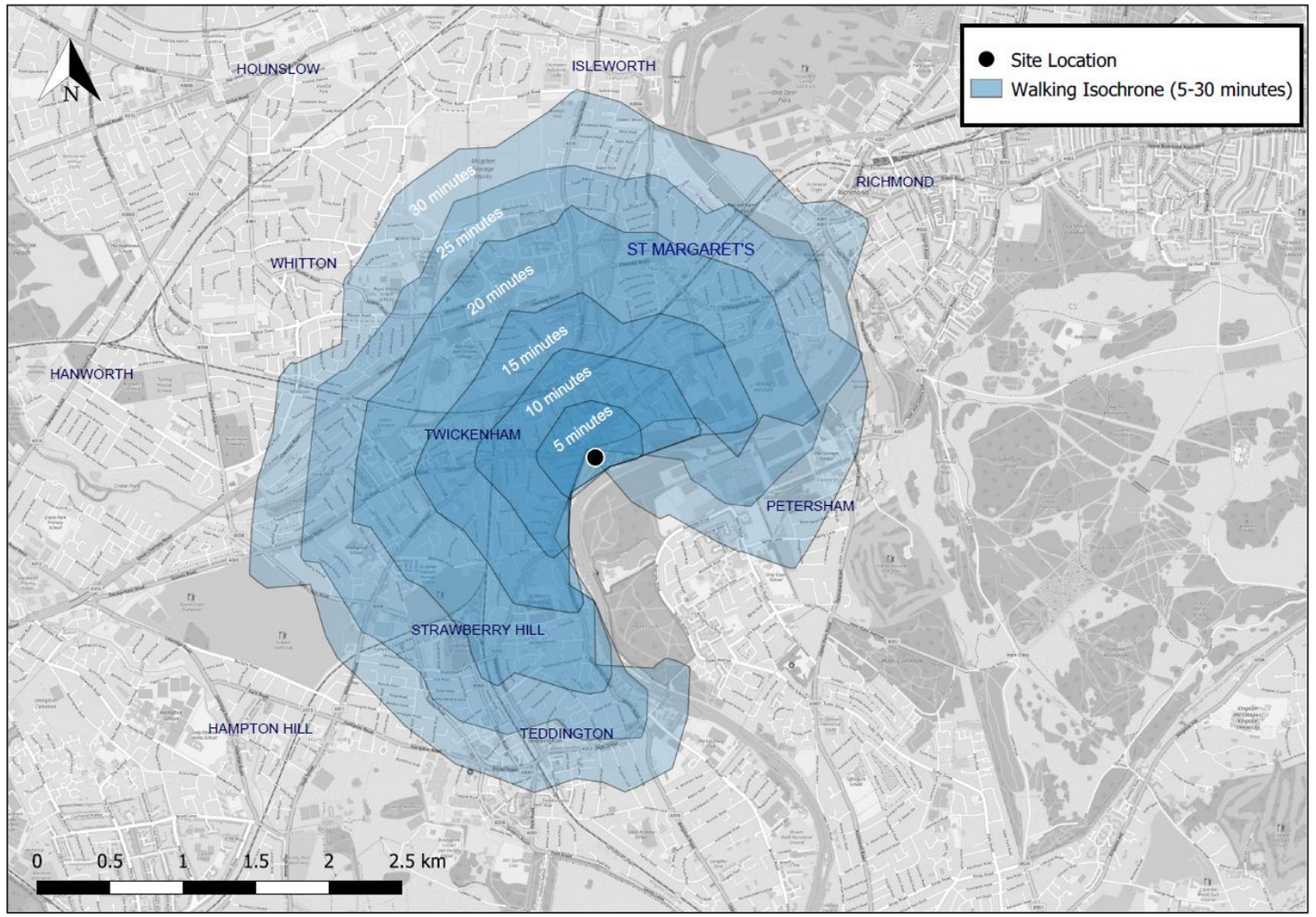
The site is located in a local town centre (Twickenham) being moments away from a high street and forming active part of the leisure destinations in the local area.

The train station is located some 10 minutes walking distance to the north of the site offering fast and reliable service to Central London and the other nearest local centres such as Richmond and Kingston are connected via buses.

The site is currently occupied by Diamond Jubilee Gardens, a private car park and a public car park, management and capacity of the latter is currently under review by the Council.



Walking Isochrone



Twickenham Riverside

Baseline Conditions

Public Transport Accessibility

The railway station offers access to services to/from:

- London Waterloo (15 tph AM peak)
- Reading (2 tph AM peak)
- Chiswick (4 tph AM peak)
- Wimbledon (2 tph AM peak)
- Kingston (2 tph AM peak)
- Windsor (2 tph AM peak)

Bus services are available in the vicinity of the site from King's Street, a summary of the services and destinations here presented demonstrates that the site is well connect to local destinations.

Summary of bus services

Route	Stop name	Route Summary	Peak Frequency (per hour)
33 (N33 - 24 hour service)	York Road Twickenham Stop G / Stop H Poulett Gardens Stop P / Stop R	Fullwell Station – Lonsdale Road	4
290	York Road Twickenham Stop G / Stop H Heath Road Twickenham Stop T / Stop L / Stop K	Staines Bus Station – Arragon Road	3
490	York Road Twickenham Stop G / Stop H Heath Road Twickenham Stop T / Stop L / Stop K	Pools on The Park – Heathrow Terminal 5	6
H22 (N22 – 24 hour service)	York Road Twickenham Stop G / Stop H Heath Road Twickenham Stop T / Stop L / Stop K	The Bell – Manor Road	5
R68	York Road Twickenham Stop G / Stop H Poulett Gardens Stop P / Stop R	Kew Retail Park – Hampton Court Station	4
R70	York Road Twickenham Stop G / Stop H Heath Road Twickenham Stop T / Stop L / Stop K	Nurserylands Shopping Centre – Richmond / Manor Road	6
110	Heath Road Twickenham Stop T / Stop L / Stop K	School Road – West Middlesex Hospital	2
267	Heath Road Twickenham Stop T / Stop L / Stop K	Hammersmith Bus Station – South Road / Fullwell	5
281	Heath Road Twickenham Stop T / Stop L / Stop K	Hounslow Bus Station – Tolworth Tower	5

Twickenham Riverside

Baseline Conditions

Walking and cycling connections

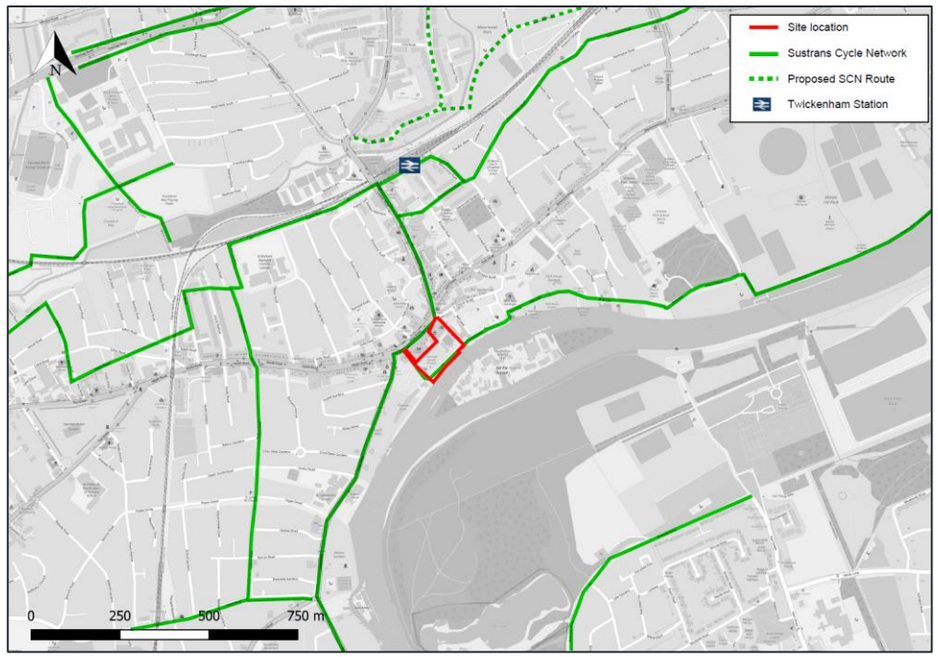
The site is located in proximity to a number of public transport services, as well as a variety of a local facilities such as a King Street retail stores, tennis courts, local parks, and other shops, schools, medical practices and amenities within Twickenham's high street centres.

A Healthy Streets Assessment will be conducted as part of the Transport Assessment, comparing the existing and proposed pedestrian and cycle conditions to/ from the site.

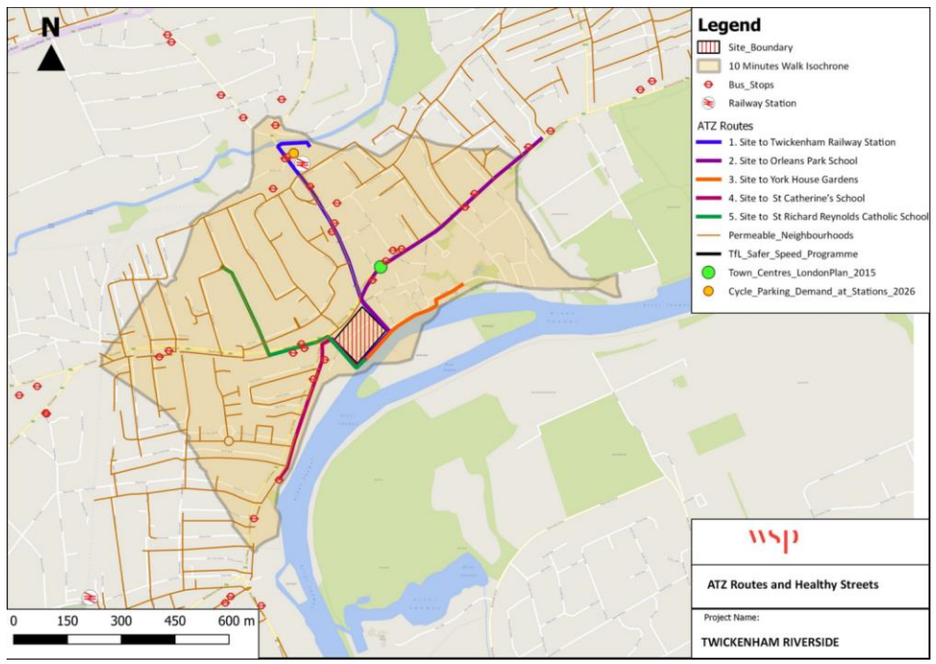
The scope of the ATZ refers to the routes that will be undertaken for assessment. The proposed routes are listed below and feedback is sought on these destinations:

- Route 1 – To Twickenham Railway station
- Route 2 – To Orleans Park School
- Route 3 – To York House Gardens
- Route 4 – To St Catherine's School
- Route 5 – To St Richard Reynold's Catholic School

Local cycle network



Active Travel Zone Assessment Routes



Section 4:

Development Proposals

Twickenham Riverside

Proposed Development

Introduction

Figure 4-2 and **4-3** (overleaf) presents an overview of the proposals which is discussed further in the subsequent pages, with a more detailed breakdown of the accommodation schedule provided in **Table 4-1**.

Table 4-1: Indicative Accommodation Schedule

Land Use	Unit Size / Numbers
Residential	46 units
Class E Uses	1,425 sqm (GIA)
Gardens	Re-provided – refer to Landscape report for all details

It should be noted that alongside this development proposal the Council is undertaking a review of the Car Parking Zone, including removal and relocation of parking spaces within the proposed development site and in the immediate vicinity.

Figure 4-1 : Overview of the proposals

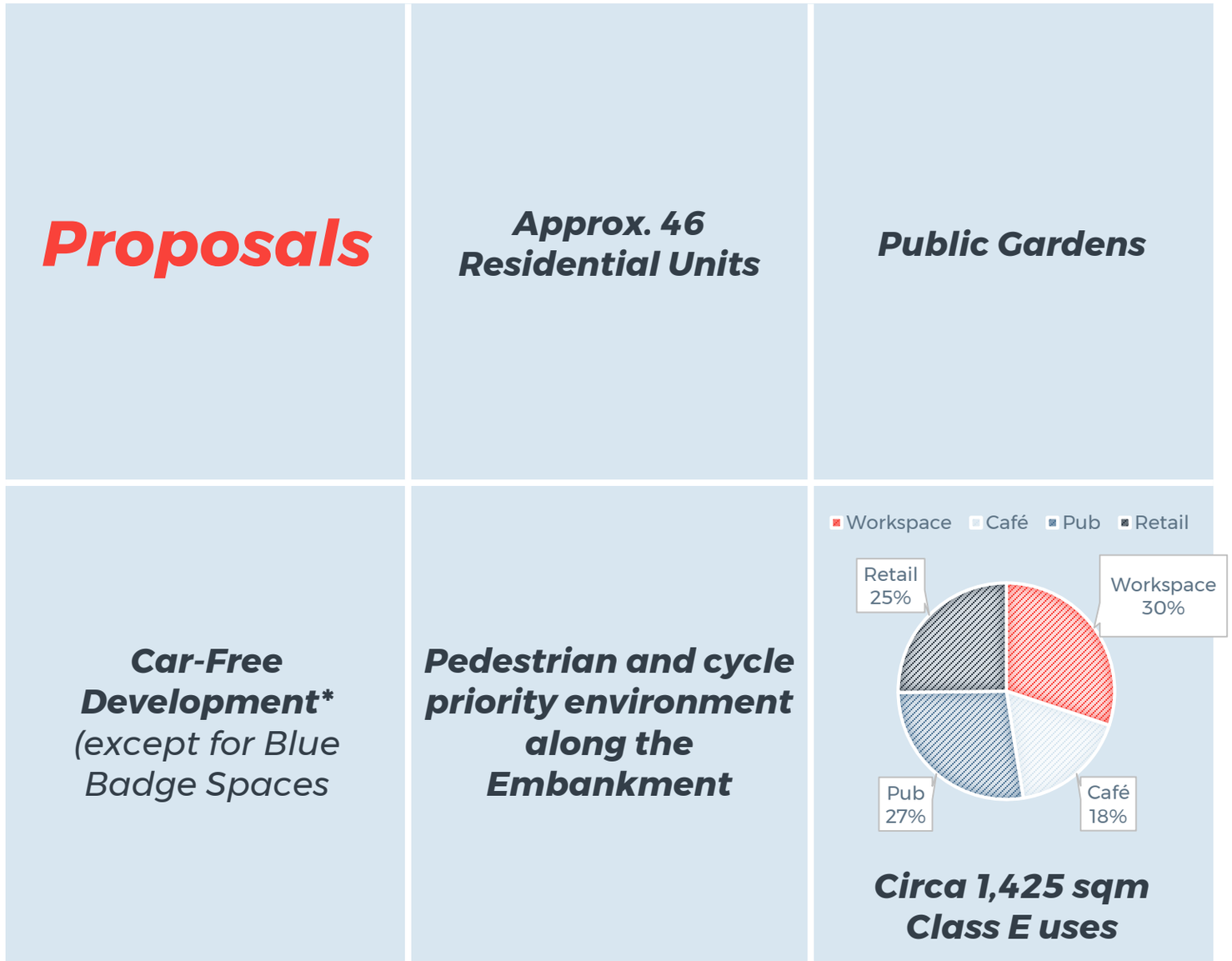


Figure 4-2 : Overview of Proposed Development (Credits: Hopkins Architects)

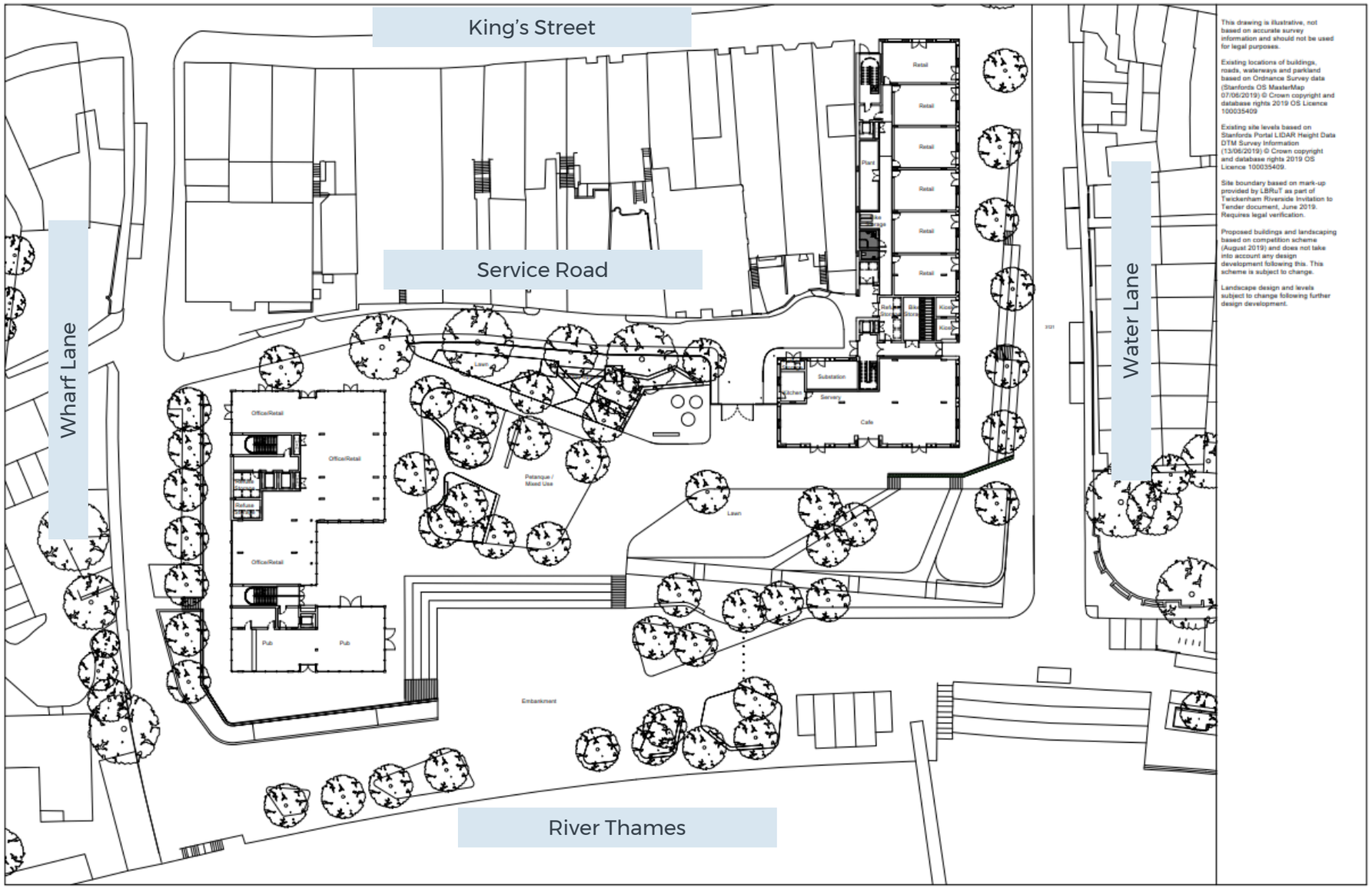


Figure 4-2 : Overview of Proposed Development (Credits: Hopkins Architects)

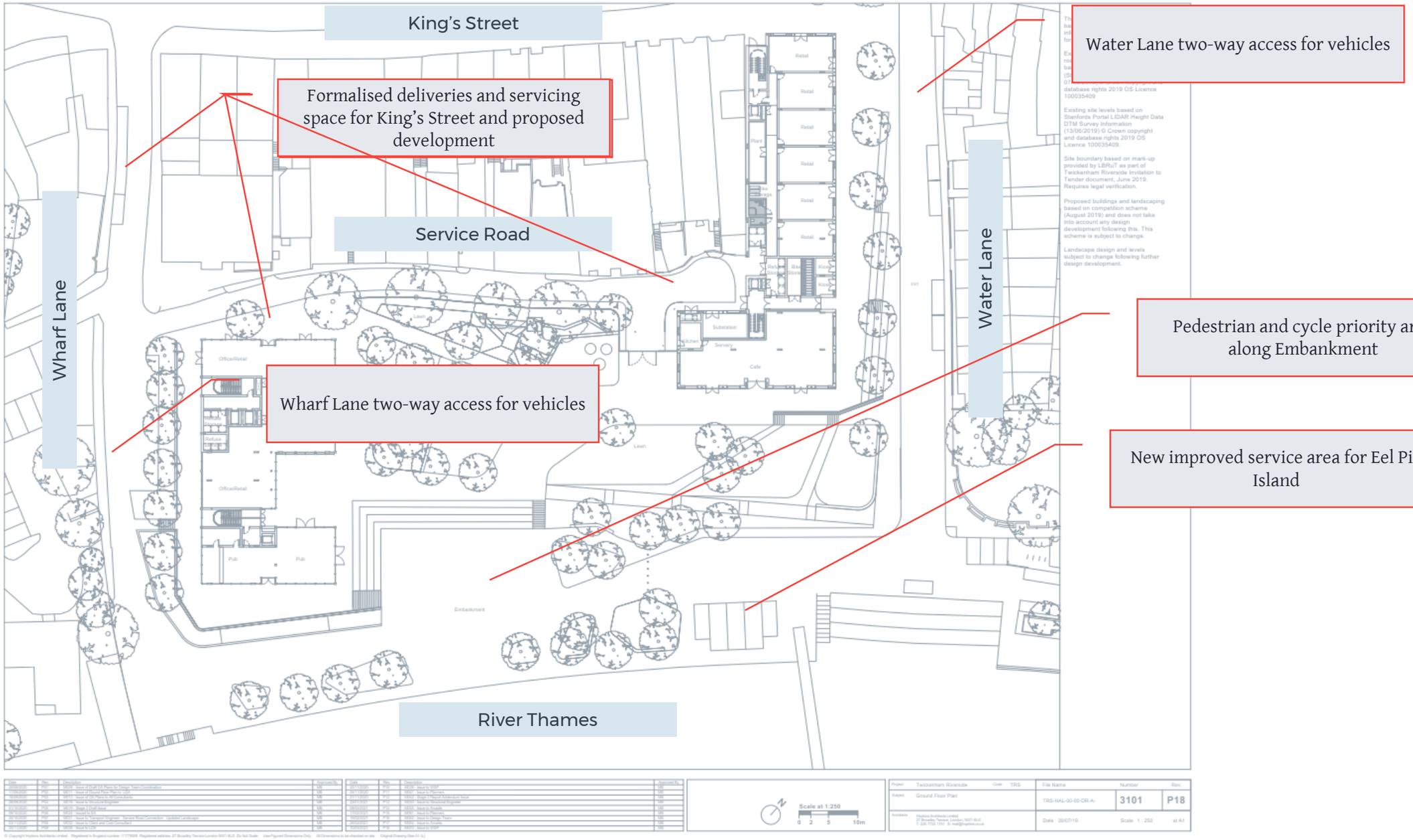
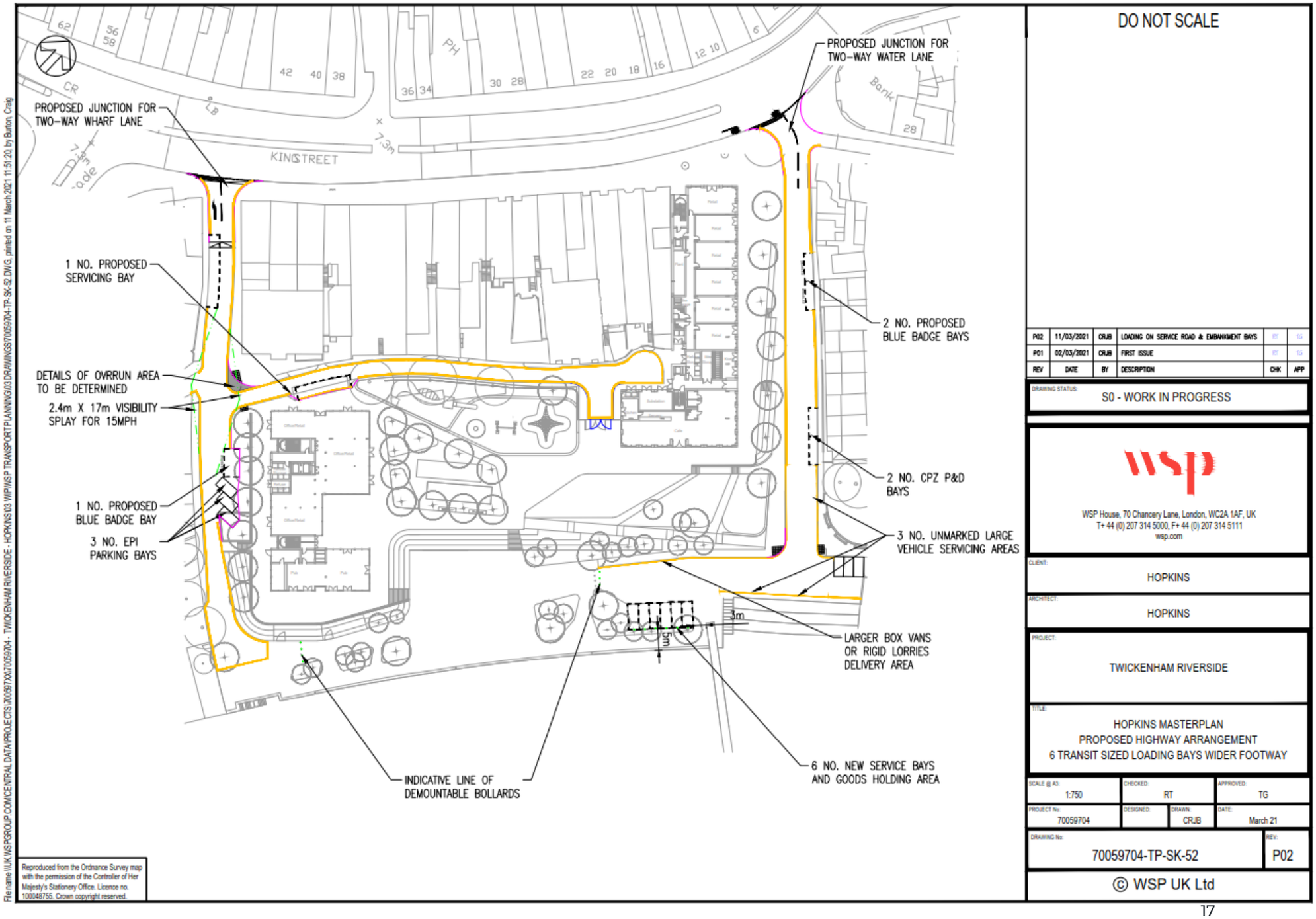


Figure 4-3 : Overview of Proposed Development (Credits: Hopkins Architects)

Twickenham Riverside

Proposed Development

Design Matters



Twickenham Riverside

Proposed Development

Design Matters

- Wharf Lane and Water Lane conversion to two-way vehicle access has been subject to preliminary Road Safety Audit
- A Designer's Response was provided and amendments to design have been included as necessary
- A further independent Road Safety Audit update should be carried out on the finalised proposal prior to submission
- Stakeholder engagement has taken place both via public consultation and via focused stakeholder groups consultation on the proposals
- The Eel Pie Island association has been engaged on several occasions and the proposals as shown meet the expectations and requirements of the residents and businesses
- The Embankment will be accessible for vehicles Monday to Friday early morning for loading only with a view to manage access via physical restrictions (barrier or bollard) and emergency vehicles will be able to access at any time
- The Council will be the custodian of the barrier/bollard management and will be able to arrange for vehicles access for special circumstances such as
  - Special deliveries (extra long vehicles)
  - Unscheduled waste collections or maintenance
  - Market or events set up
- The development will meet London Plan 2021 car parking policy providing
  - Car free development

  'Car-free development should be the starting point for all development proposals in places that are (or are planned to be) well-connected by public transport [..]'
  - Car parking for disabled residents for at least 3% of the units from the outset and demonstrating how to achieve 10% in future

  Disabled persons parking should be provided for new residential developments. Residential development proposals delivering ten or more units must, as a minimum:

  1) *ensure that for **three per cent** of dwellings, at least one designated disabled persons parking bay per dwelling is available from the outset*
  2) *demonstrate as part of the Parking Design and Management Plan, how an additional **seven per cent** of dwellings could be provided with one designated disabled persons parking space per dwelling in future upon request as soon as existing provision is insufficient. This should be secured at the planning stage.*

  All disabled persons parking bays associated with residential development must:

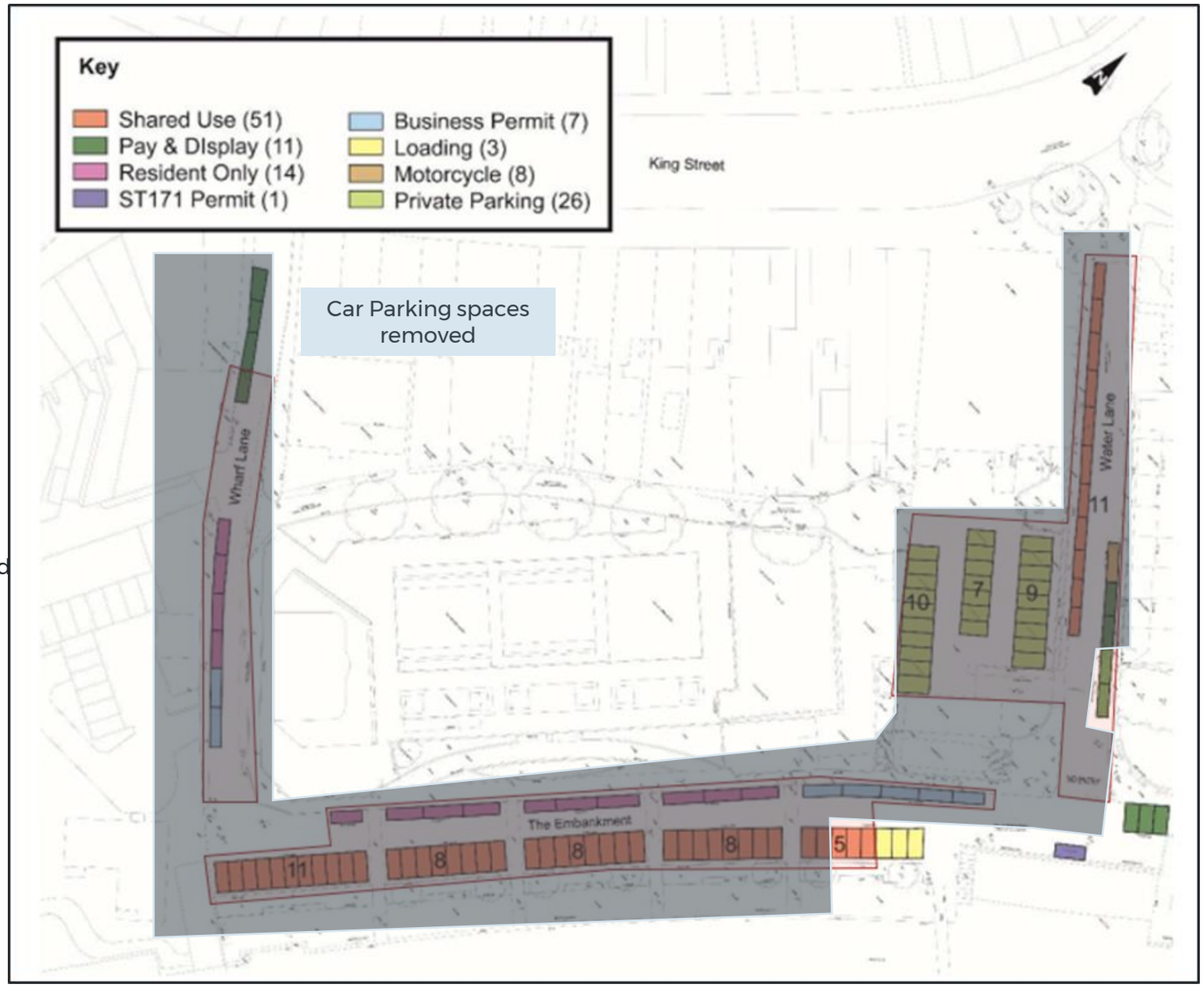
  1) *be for residents' use only (whether M4(2) or M4(3) dwellings)*
  2) *not be allocated to specific dwellings, unless provided within the curtilage of the dwelling*
  3) *be funded by the payment of a commuted sum by the applicant, if provided on-street (this includes a requirement to fund provision of electric vehicle charging infrastructure)*
  4) *count towards the maximum parking provision for the development*
  5) *be designed in accordance with the design guidance in BS8300vol.1*
  6) *be located to minimise the distance between disabled persons parking bays and the dwelling or the relevant block entrance or lift core, and the route should be preferably level or where this is not possible, should be gently sloping (1:60-1:20) on a suitable firm ground surface.*
- The development will meet London Plan 2021 cycle parking policy providing
  - *Short stay cycle parking for visitors*
  - *Long stay cycle parking for staff and visitors*

Twickenham Riverside

Proposed Development

Design Matters

- A wider coordination exercise is taking place to ensure consistency as the Council CPZ revision is taking place at the same time as the proposed development design is developing.
- The proposed development and King's Street properties fronting the service road will be provided with two formalised spaces for deliveries and servicing
- One larger delivery spaces has been identified for the Iceland articulated vehicles effectively formalising the existing deliveries methodology for the shop
- A total of 3 parking spaces have been identified for the proposed development (from the outset – 6.5%) one along Wharf Lane and two along Water Lane
- Additional two spaces have been identified for the use of visitors of the area (Water Lane)
- A signage and wayfinding strategy will be developed in discussion with the Landscape architect for the site
- Visitor cycle space opportunities have been identified in the vicinity of Wharf Lane (please refer to the Landscape design package for reference)

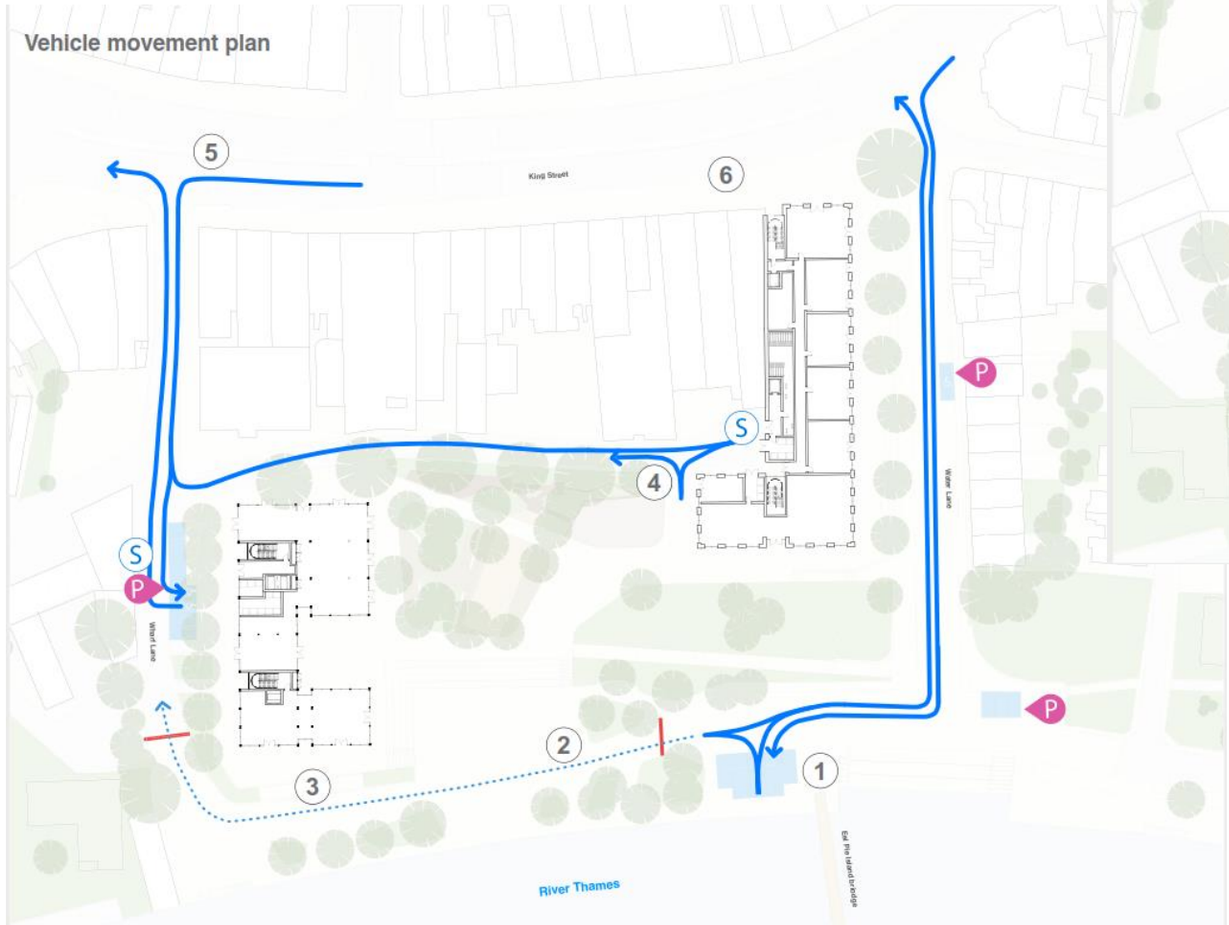


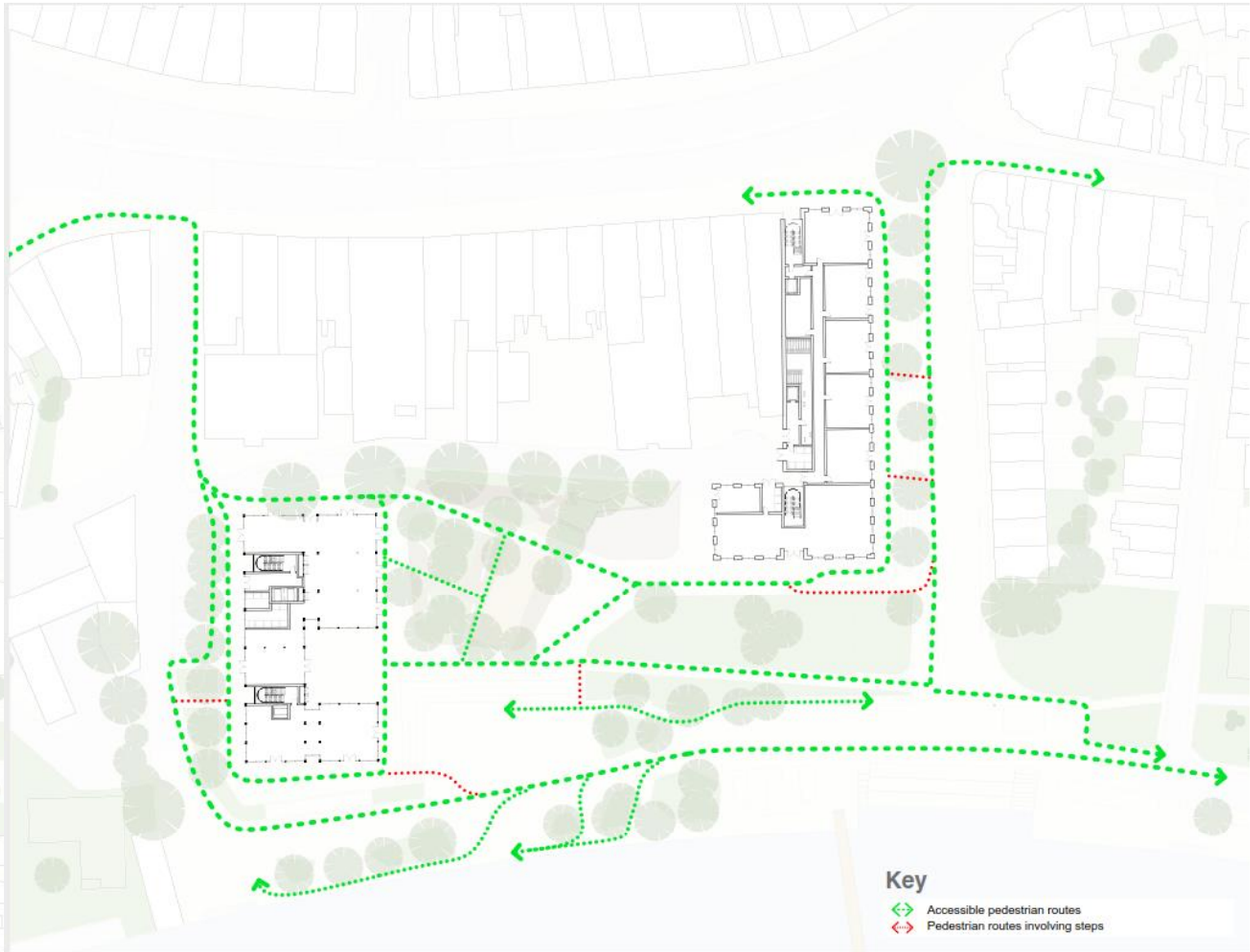
Twickenham Riverside

Proposed Development

Design Matters

- Vehicle circulation
- Walking circulation





Section 5:

Trip Generation

Net Trip Generation

An exercise was carried out to ascertain the potential impact s of the proposed development on the transport network.

This included the preliminary trip generation of the proposed development benchmarking the potential trip generation against known databased or via first principles approach.

The extant permitted uses potential trip generation on site have been discounted to derive the net trip generation contribution from the proposed development.

Thanks in part to the removal of parking spaces within the site or in the vicinity of the site a net reduction in trips by car is expected as a result of the proposed development.

An additional 20 trip a day are expected for the purposes of deliveries and servicing associated with the proposed development.

Table 5-2 : Proposed Development Servicing and Deliveries Trip Generation

Time Period	Daily (0700-1900)
Light Goods Vehicle	17
Heavy Goods Vehicle	3
Total	20

Table 5-1 : Proposed Development NET Trip Generation

Transport Mode	AM Peak Hour (0800-0900)			PM Peak Hour (1700-1800)		
	IN	OUT	TOTAL	IN	OUT	TOTAL
Rail	11	8	19	30	15	45
Bus	7	0	7	11	4	14
Taxi	0	0	0	0	0	0
Motorcycle	0	0	0	0	0	0
Car Driver	-6	-6	-12	-7	0	-6
Car Passenger	0	0	0	2	2	4
Bicycle	6	2	7	9	6	15
On Foot	19	8	27	87	72	159
Total	36	11	47	133	98	231

Section 6

Proposed Scope of Assessment

Twickenham Riverside

Proposed Scope of Assessment & Next Steps

Active Transport Modes

It is proposed that an Active Travel Zone Assessment is carried out for the most important walking and cycle routes to/from the proposed development. The ATZ will include:

- Benchmark of each route against Healthy Streets indicators and suggested improvements where necessary
- Review of potential safety issues and mitigations in line with London's Vision Zero aspirations
- Cycle Route Quality Audit for the cycle proposals within the site

Road safety

It is proposed that a new/refresh Road Safety Audit Stage 1 is carried out independently and responses are prepared prior to the scheme planning submission.

Public Transport

Impacts will be quantified as additional trips on the rail and buses networks however no further work is proposed in addition to the trip generation.

Highway Network

Impacts will be quantified as additional trips on the highway network however no further work is proposed in addition to the trip generation.

Car Parking

The car parking coordination with the Council's CPZ review will be further progressed, it is proposed to reference the work carried out by Systra as part of this.

No additional surveys will be collected and no additional assessment will be carried out in relation to the proposed development.

Next Steps

Feedback is sought on the Transport Scoping Document in particular on the approach to the assessment and the proposed content of the Transport Assessment.

Comments on the proposed design arrangements is also encouraged at this stage.

WSP House
70 Chancery Lane
London
WC2A 1AF
wsp.com

MEMO

TO	Iyabo Johnson	**FROM**	Rea Turohan
DATE	**24 March 2021**	**CONFIDENTIALITY**	**Internal**
SUBJECT	**Planning Pre-application (16/03/2021) Follow Up**		

Twickenham Riverside – Planning Pre-Application Meeting Follow up

A meeting was held with London Borough Richmond upon Thames (LBRuT) on Tuesday 16/03/2021 to discuss the Twickenham Riverside landscape and transport proposals.

A Transport Scoping Note was prepared for the meeting (issued 11/03/2021) and a presentation was also prepared to assist with the discussion (issued 15/03/2021).

Following discussion with the planning agent, Savills (Iyabo Johnson) WSP understanding of key matters is reported below, in anticipation of receipt of formal comments from LBRuT on the documents submitted.

Surveys

LBRuT Traffic and Transport Officer (David Tidley) asked that the Residential Servicing and Deliveries trip generation surveys (paragraph 5.8.1 of the Transport Scoping Note) be updated to include more recent surveys.

The originally proposed surveys for benchmark were:

- Imperial Wharf (1,745 Dwellings) – 2014 survey.
- Bow Quarter (773 Dwellings) – 2016 survey.

WSP will update the Servicing and Deliveries trip generation to include the following TRICS sites, unless LBRuT wishes to provide local up-to-date surveys:

- Kew, Block of flats, 170 dwellings, survey 2019
- Barking, Block of flats, 40 dwellings, 2020 survey (COVID)
- Barnet, mixed private/affordable housing, 271 dwellings, 2019
- Richmond, mixed private/affordable housing, 76 dwellings, 2016

Copy of the surveys is provided to the rear of this note for information.

Cycle routes

LBRuT Traffic and Transport Officer (David Tidley) pointed out that further consideration is needed on the naming of the proposed cycle movement framework. Since the publication of the LTN 1/20 a ‘cycle route’ has specific characteristics which may bot be deliverables therefore the naming convention should read ‘routes that cyclists should take’.

Red line

Various planning officers notes that the red-line shown in the Transport Scoping Report differs from the LBRuT (applicant) land holdings, WSP will obtain a red line to use from the design team if not possible due to formatting the reports will label the red line as 'indicative only'.

LBRuT Traffic and Transport Officer (David Tidley) sought clarification on the extent of the red line and the 'off-site work' and sough to clarify if highway works will be delivered via agreement with the Council S278 or will be delivered as part of the main works.
It is noted that delivering the highway works as 'off-site' might be preferable to the Council as it gives more flexibility to amend the proposals in future, prior to their delivery, if necessary.
Arcadis/Savills will discuss further.

Car Parking

WSP presented the car parking proposals which include:

- **Three** loading bays (total to be confirmed) along the Embankment, which will remain dedicated to Eel Pie Island servicing activity;
- **Three** parking bays (total to be confirmed) along the Embankment, which will be for us by tradespeople and visitors associated with Eel Pie Island;
- **Three** parking bays provided on Wharf Lane, also for the use of Eel Pie Island tradespeople and visitors;
- **One** bay for disabled badge holders along Wharf Lane;
- **Two** disabled badge holders along Water Lane (exact locations to be confirmed);
- **Two** on-street parking spaces which can be allocated by LBRuT in any way they see fit, we anticipate the bays may be retained as P&D for general visitors of the Embankment.

The planning policy referenced for the car parking proposal is the London Plan (March 2021) which states:

Car-free development should be the starting point for all development proposals in places that are (or are planned to be) well-connected by public transport, with developments elsewhere designed to provide the minimum necessary parking ('car-lite'). Car-free development has no general parking but should still provide appropriate disabled persons parking for Blue Badge holders as set out in Policy T6 .1 Residential parking to Policy T6 .5 Non-residential disabled persons parking.

The proposed Twickenham Riverside Development has a Very Good public transport accessibility level (rating 5 on a scale of 1 to 6 where 6 is excellent).

The Policy T6.1 and T6.5 also states that car parking for disabled residents should be provided for at least 3% of the units from the outset and demonstrating how to achieve 10% in future:

- 46 dwelling proposed
- 3% is 1.4, or 2 parking spaces
- 10% is 4.6, or 5 parking spaces

The policy also states:

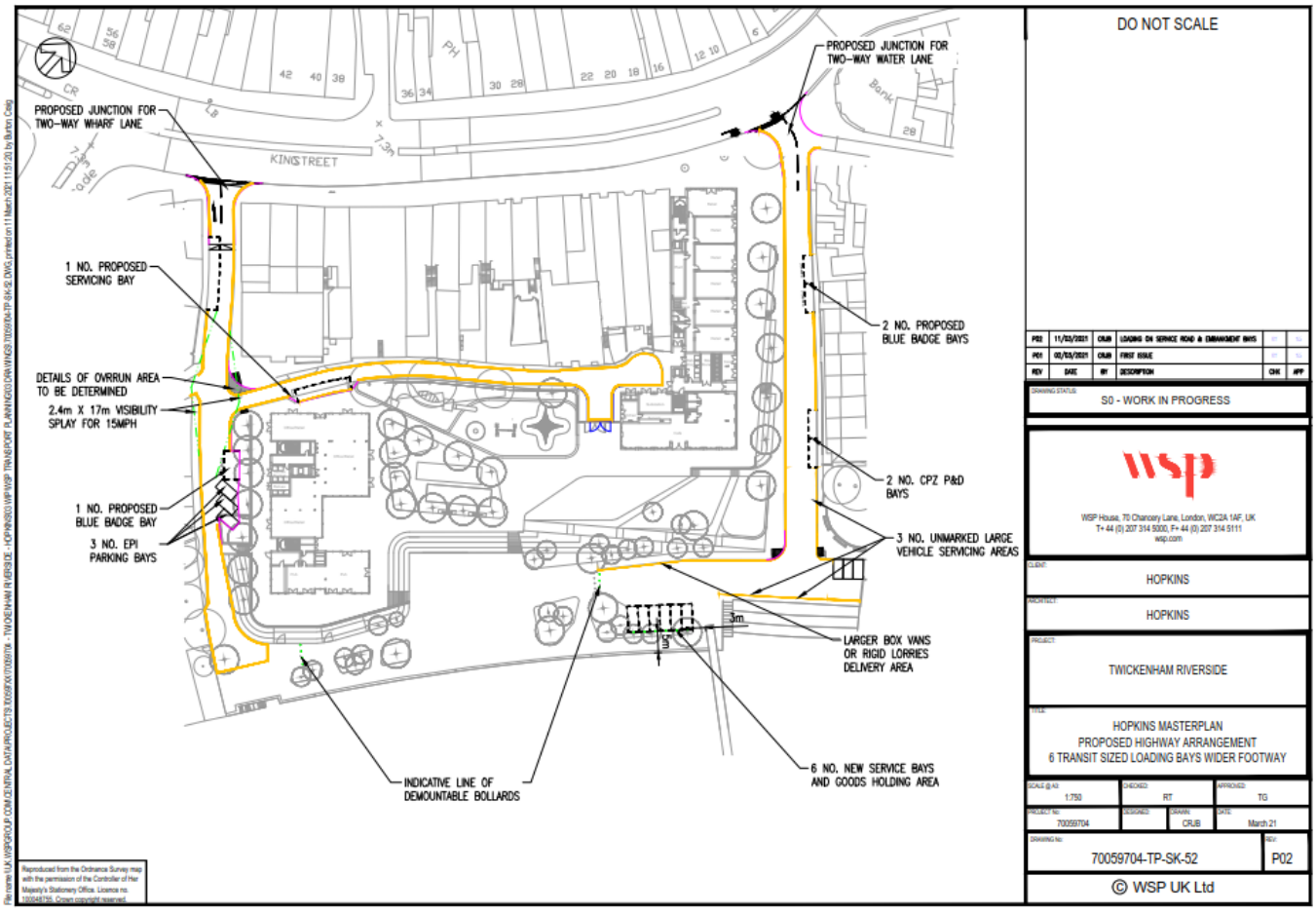
Disabled persons parking should be provided for new residential developments. Residential development proposals delivering ten or more units must, as a minimum:

1) *ensure that for **three per cent** of dwellings, at least one designated disabled persons parking bay per dwelling is available from the outset*

2) *demonstrate as part of the Parking Design and Management Plan, how an additional **seven per cent** of dwellings could be provided with one designated disabled persons parking space per dwelling in future upon request as soon as existing provision is insufficient. This should be secured at the planning stage.*

All disabled persons parking bays associated with residential development must:

1) *be for residents' use only (whether M4(2) or M4(3) dwellings)*
2) *not be allocated to specific dwellings, unless provided within the curtilage of the dwelling*
3) *be funded by the payment of a commuted sum by the applicant, if provided on-street (this includes a requirement to fund provision of electric vehicle charging infrastructure)*
4) *count towards the maximum parking provision for the development*
5) *be designed in accordance with the design guidance in BS8300vol.1*
6) *be located to minimise the distance between disabled persons parking bays and the dwelling or the relevant block entrance or lift core, and the route should be preferably level or where this is not possible, should be gently sloping (1:60-1:20) on a suitable firm ground surface.*



LBRuT Traffic and Transport Officer (David Tidley) pointed out that the Town Centre location would benefit from blue badge parking on-street not being allocated to a specific permit so that any blue badge spaces can be used by either people living in the proposed development or visitors (of the development or the area in general).

This approach is in line with policy and the planning documents and drawings will be updated as necessary to adopt this approach. The number and position of the spaces are constrained by the physical site

conditions as well as by the introduction of two-way circulation, the position of the proposed car parking may vary however it is unlikely that the final position will be significantly different.

Electrical Charging Points

LBRuT Traffic and Transport Officer (David Tidley) pointed out the Council is carrying forward an area wide EV charging strategy and any EV charging points will be considered at later stage by Council.

In order to carry out this work it was recommended that the lighting strategy and parking strategy may be coordinated.

The planning documents and drawings will be updated to reflect this position.

Arcadis/Applicant should consider if a lighting designer appointment is required for the scheme.

Paving Materials

LBRuT Traffic and Transport Officer (David Tidley) sought clarification on the proposed paving materials. This is outside WSP remit, however it is understood that LDA landscape will indicate a material palette in their studies.

Feedback

Feedback is sought on the Transport Scoping Document in particular on the approach to the assessment and the proposed content of the Transport Assessment.

Comments on the proposed design arrangements is also encouraged at this stage.

- **Active Travel Modes**

  It is proposed that an Active Travel Zone Assessment is carried out for the most important walking and cycle routes to/from the proposed development. The ATZ will include:

  - Benchmark of each route against Healthy Streets indicators and suggested improvements where necessary
  - Review of potential safety issues and mitigations in line with London's Vision Zero aspirations
  - Cycle Route Quality Audit for the cycle proposals within the site

- **Road Safety**

  It is proposed that a new/refresh Road Safety Audit Stage 1 is carried out independently and responses are prepared prior to the scheme planning submission.

- **Public Transport**

  Impacts will be quantified as additional trips on the rail and buses networks however no further work is proposed in addition to the trip generation.

- **Highway Network**

  Impacts will be quantified as additional trips on the highway network however no further work is proposed in addition to the trip generation

- **Car Parking**

  The car parking coordination with the Council's CPZ review will be further progressed, it is proposed to reference the work carried out by Systra as part of this.

  No additional surveys will be collected and no additional assessment will be carried out in relation to the proposed development.

Rea Turohan
Associate | Transport Planning

Site reference: RD-03-C-04 Survey date: 15/05/19 Day of week: Wednesday
Multi-Modal survey site
Vehicles surveyed: Servicing Vehicles

	INBOUND						OUTBOUND					
Time	Car 0	LGV 13	MOTC 0	OGV1 4	OGV2 0	Total 17	Car 0	LGV 13	MOTC 0	OGV1 4	OGV2 0	Total 17
00:00-01:00												
01:00-02:00												
02:00-03:00												
03:00-04:00												
04:00-05:00												
05:00-06:00												
06:00-07:00												
07:00-08:00	0	0	0	0	0	0	0	0	0	0	0	0
08:00-09:00	0	0	0	0	0	0	0	0	0	0	0	0
09:00-10:00	0	0	0	0	0	0	0	0	0	0	0	0
10:00-11:00	0	3	0	0	0	3	0	3	0	0	0	3
11:00-12:00	0	1	0	1	0	2	0	0	0	0	0	0
12:00-13:00	0	0	0	0	0	0	0	1	0	1	0	2
13:00-14:00	0	2	0	1	0	3	0	2	0	1	0	3
14:00-15:00	0	4	0	0	0	4	0	3	0	0	0	3
15:00-16:00	0	1	0	0	0	1	0	2	0	0	0	2
16:00-17:00	0	1	0	1	0	2	0	0	0	0	0	0
17:00-18:00	0	0	0	0	0	0	0	1	0	0	0	1
18:00-19:00	0	1	0	1	0	2	0	1	0	1	0	2
19:00-20:00	0	0	0	0	0	0	0	0	0	1	0	1
20:00-21:00	0	0	0	0	0	0	0	0	0	0	0	0
21:00-22:00												
22:00-23:00												
23:00-24:00												

Site reference: BK-03-C-01 Survey date: 10/09/20 Day of week: Thursday

Vehicles surveyed: OGV

Data proportions in % OGV (1) 100 OGV (2) 0

1 occupant per OGV is assumed, and included in the vehicle occupants count

Time	Arr 1	Dep 1	Totals 2	Accumulation
00:00-01:00				
01:00-02:00				
02:00-03:00				
03:00-04:00				
04:00-05:00				
05:00-06:00				
06:00-07:00				
07:00-08:00	0	0	0	(0)
08:00-09:00	0	0	0	(0)
09:00-10:00	0	0	0	(0)
10:00-11:00	0	0	0	(0)
11:00-12:00	1	0	1	(1)
12:00-13:00	0	1	1	(0)
13:00-14:00	0	0	0	(0)
14:00-15:00	0	0	0	(0)
15:00-16:00	0	0	0	(0)
16:00-17:00	0	0	0	(0)
17:00-18:00	0	0	0	(0)
18:00-19:00	0	0	0	(0)
19:00-20:00	0	0	0	(0)
20:00-21:00	0	0	0	(0)
21:00-22:00				
22:00-23:00				
23:00-24:00				

Site reference: BK-03-C-01 Survey date: 10/09/20 Day of week: Thursday

Vehicles surveyed: LGV

Time	Arr 5	Dep 5	Totals 10	Accumulation
00:00-01:00				
01:00-02:00				
02:00-03:00				
03:00-04:00				
04:00-05:00				
05:00-06:00				
06:00-07:00				
07:00-08:00	0	1	1	(-1)
08:00-09:00	0	0	0	(-1)
09:00-10:00	0	0	0	(-1)
10:00-11:00	1	1	2	(-1)
11:00-12:00	0	0	0	(-1)
12:00-13:00	0	0	0	(-1)
13:00-14:00	1	1	2	(-1)
14:00-15:00	1	2	3	(-2)
15:00-16:00	1	0	1	(-1)
16:00-17:00	0	0	0	(-1)
17:00-18:00	0	0	0	(-1)
18:00-19:00	0	0	0	(-1)
19:00-20:00	1	0	1	(0)
20:00-21:00	0	0	0	(0)
21:00-22:00				
22:00-23:00				
23:00-24:00				

Site reference: RD-03-M-01 Survey date: 10/03/16 Day of week: Thursday
Multi-Modal survey site
Vehicles surveyed: Servicing Vehicles

	INBOUND					OUTBOUND				
Time	Car 1	LGV 13	OGV1 0	OGV2 0	Total 14	Car 1	LGV 13	OGV1 0	OGV2 0	Total 14
00:00-01:00										
01:00-02:00										
02:00-03:00										
03:00-04:00										
04:00-05:00										
05:00-06:00										
06:00-07:00										
07:00-08:00	0	0	0	0	0	0	0	0	0	0
08:00-09:00	1	0	0	0	1	1	0	0	0	1
09:00-10:00	0	1	0	0	1	0	1	0	0	1
10:00-11:00	0	1	0	0	1	0	1	0	0	1
11:00-12:00	0	1	0	0	1	0	1	0	0	1
12:00-13:00	0	4	0	0	4	0	4	0	0	4
13:00-14:00	0	2	0	0	2	0	2	0	0	2
14:00-15:00	0	2	0	0	2	0	2	0	0	2
15:00-16:00	0	0	0	0	0	0	0	0	0	0
16:00-17:00	0	1	0	0	1	0	1	0	0	1
17:00-18:00	0	0	0	0	0	0	0	0	0	0
18:00-19:00	0	1	0	0	1	0	1	0	0	1
19:00-20:00	0	0	0	0	0	0	0	0	0	0
20:00-21:00	0	0	0	0	0	0	0	0	0	0
21:00-22:00										
22:00-23:00										
23:00-24:00										

Site reference: BN-03-M-02 Survey date: 24/04/19 Day of week: Wednesday
Multi-Modal survey site
Vehicles surveyed: Servicing Vehicles

	INBOUND						OUTBOUND					
Time	Car 0	LGV 41	MOTC 5	OGV1 2	OGV2 0	Total 48	Car 0	LGV 41	MOTC 5	OGV1 2	OGV2 0	Total 48
00:00-01:00												
01:00-02:00												
02:00-03:00												
03:00-04:00												
04:00-05:00												
05:00-06:00												
06:00-07:00												
07:00-08:00	0	4	0	1	0	5	0	0	0	0	0	0
08:00-09:00	0	6	0	0	0	6	0	3	0	1	0	4
09:00-10:00	0	3	0	0	0	3	0	5	0	0	0	5
10:00-11:00	0	5	0	0	0	5	0	6	0	0	0	6
11:00-12:00	0	4	0	0	0	4	0	4	0	0	0	4
12:00-13:00	0	2	0	0	0	2	0	3	0	0	0	3
13:00-14:00	0	4	0	1	0	5	0	2	0	0	0	2
14:00-15:00	0	2	1	0	0	3	0	7	1	1	0	9
15:00-16:00	0	3	0	0	0	3	0	2	0	0	0	2
16:00-17:00	0	1	0	0	0	1	0	2	0	0	0	2
17:00-18:00	0	2	0	0	0	2	0	0	0	0	0	0
18:00-19:00	0	3	2	0	0	5	0	3	1	0	0	4
19:00-20:00	0	2	2	0	0	4	0	2	3	0	0	5
20:00-21:00	0	0	0	0	0	0	0	2	0	0	0	2
21:00-22:00												
22:00-23:00												
23:00-24:00												