

Travel Plan

## Lockcorp House, Norcutt Road, Twickenham, TW2 6SR

**Prepared for Leek Real Estate (No 1) Limited**

**By YES Engineering Group Limited**

July 2019



## Revision History

Revision N°	Prepared By	Description	Date

## Document Acceptance

Action	Name	Signed	Date
Prepared by	K Backhouse		July 2019
Reviewed by	P Willis		July 2019
Approved by	K Backhouse		July 2019
on behalf of	YES Engineering Group Ltd		

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## 1 Introduction

YES Engineering Group Ltd was appointed by Leek Real Estate (No 1) Limited to prepare a Travel Plan in support of a planning application for the redevelopment of the Lockcorp House, Norcutt Road, Twickenham, TW2 6SR (the "Site") to replace the light industrial building with a residential development comprising of 15 dwellings.

This Travel Plan Statement has been produced in accordance with Transport for London (TfL) best practice guidance (November 2013) which sets out that the planning applications for developments. The occupier and land use of the proposed development are known at the pre-application stage. This Travel Plan covers the future C3 Residential land use which form part of the proposals for the Site.

The development Site' full address is:  
Lockcorp House, Norcutt Road, Twickenham, TW2 6SR

This Travel Plan has been prepared by:  
Kathryn Backhouse, YES Engineering, 75 East Road, London, N1 6AH

The applicant will manage the Travel Plan and will be responsible for its implementation and further development.

This Draft TP has been produced in accordance with the latest TfL guidance, Travel Planning Guidance (November 2013) (<https://tfl.gov.uk/info-for/urban-planning-and-construction/travel-plans>) and includes objectives aimed at promoting sustainable travel to, from and within the development.

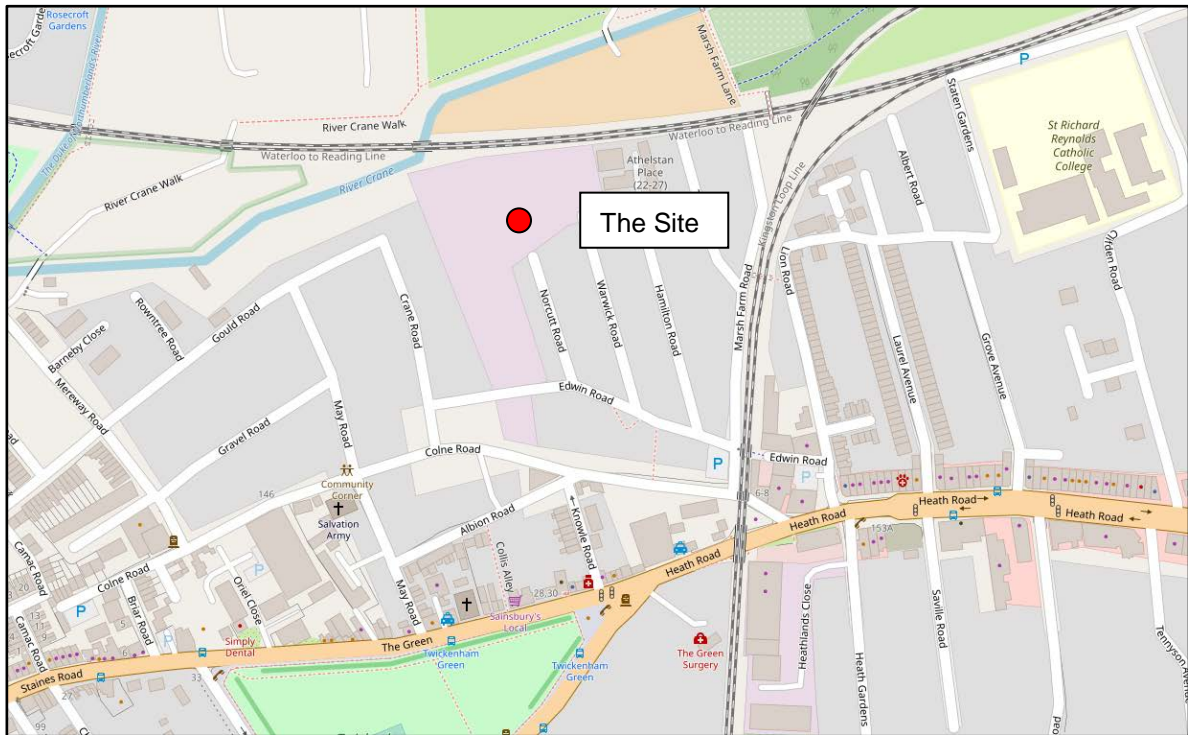
A full Travel Plan will be developed post planning and will be agreed with and signed off by the London Borough of Richmond upon Thames (LBRT) and the Greater London Authority (GLA).

### 1.1 Location

As shown in **Figure 1.1** overleaf it can be seen that the Site is located on the northern end of Norcutt Road.

The Site lies within the administrative area of the London Borough of Richmond upon Thames (LBRT) and the Greater London Authority (GLA).

Figure 1.1 – Location Plan



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## 1.2 Development Proposals

The development proposals are for the replacement of the light industrial building with 241.78m<sup>2</sup> floor space with a residential development of 15 residential units. The 15 residential units will be comprising 6 no. one bedroom units, 6 no. two bedroom units and 3 no. three bedroom units. The proposed ground floor layout is shown on the architects' plans attached at **Appendix A**.

### Access

The existing vehicular and pedestrian access on Norcutt Road will be retained for the proposed development to provide access to the car parking spaces as shown in **Appendix A**.

Cycle parking is to be provided in a secure location to the rear of the site on the ground floor level. Access will be provided via Norcutt Road.

The refuse store is located on the ground floor at the front of the building for the convenience of collection.

### Parking

It is proposed that 12 car parking spaces will be provided. As shown on the architect's plans, 1 Blue Badge parking spaces will be provided on-site and this will be closest to the main entrance. The parking provisions is in line with local census data (set out in Section 4.1) and London Plan parking standards.

In line with the parking standards set out in the London Plan 2016, 20% of all spaces should be provided for electric vehicles with an additional 20% passive provision for electric vehicles in the future. It is therefore proposed 2 of the 12 proposed parking spaces will have electric charging points provided and a further 2 spaces will have a passive provision.

Parking surveys were undertaken to fully understand the current on-street car parking occupancy in the area surrounding the development site. The results are discussed in Section 3.

It is proposed that 28 cycle parking spaces will be provided in the building on the ground floor level and 2 visitor spaces will also be provided.

The proposed cycle parking provisions are in accordance with the new draft London Plan (2018) cycle parking standards in order to encourage sustainable modes of travel, making sure of the many local cycle paths.

The car and cycle parking provision are shown on the ground floor plans attached as **Appendix A**.

This is in accordance with both London Plan guidance and Richmond upon Thames Policy. The pre-application consultation undertaken on the 14<sup>th</sup> March 2019 with LBRT discussed the opportunity for redeveloping the Site for residential land use with the provision of around 15 residential units. LBH subsequently provided a formal response letter (LBRT reference: TP/DC/19/P0031/PREAPP, dated the 8<sup>th</sup> April 2019).

A summary of the relevant Transport, Highways and Parking sections reads:

*Policy LP45 states that the Council will require new development to make provision for the accommodation of vehicles in order to provide for the needs of the development while minimising the impact of car-based travel including on the operation of the road network and local environment and ensuring making the best use of land.*

*In general, it is expected that in low PTAL areas (1-4) the relevant parking standards should be met, car-free housing developments may be appropriate in locations with high public transport accessibility, such as areas with a PTAL of 5 or 6, subject to:*

- a. the provision of disabled parking;*
- b. appropriate servicing arrangements; and*
- c. demonstrating that proper controls can be put in place to ensure that the proposal will not contribute to on-street parking stress in the locality.*

*All proposals for car free housing will need to be supported by the submission of a Travel Plan.*

*The site has a low PTAL rating of 2 which indicates poor public transport accessibility and it is also within Controlled Parking Zone (CPZ): Zone WT - West Twickenham, operational Monday to Saturday 8:30am to 6:30pm (Bank and Public holidays free). The proposal is for 7 x 1 bed units, 6 x 2 bed units (1 parking space each) and 3 x 3 bed units (2 parking spaces each) and this generates a parking requirement of 19 car parking spaces and visitors parking would also be required.*

*The proposed parking spaces would provide 8Nos. off-street parking spaces which is a considerable shortfall and the surrounding streets are considered to be heavily parked, as such parking permit rights would be restricted through a Section 106 legal agreement. The*

*shortfall would need to be addressed in a formal application and it would be useful to clarify to what extent the existing parking spaces on the site are used and whether they can accommodate any overspill from the proposed development through a survey. Nonetheless, the shortfall would have a different and possibly more pronounced impact than that identified in the student housing scheme as student are less likely to have cars. It is therefore difficult to envisage how the shortfall in parking spaces can be addressed in this low PTAL area.*

*In general, to comply with transport requirements the following might be applicable:*

- *A draft Construction Method Statement*
- *Refuse/recycling and cycle storage to be shown in detail on plans to be formally submitted*
- *Provision of access for refuse collectors with swept path analysis for collection trucks on site*
- *A maximum of 20m walk for refuse collectors and 30m walk for residents on collection days*
- *Full details for cycle storage which must be –*
  - a. Conveniently located;*
  - b. Secure;*
  - c. Easy to use;*
  - d. Adequately lit;*
  - e. Well signed and; preferably, sheltered.*

*All of the above must be considered within a formal submission; additional requirements may be requested at initial assessment stage and where appropriate, conditions would be imposed to achieve the desired outcome. Hard landscaping (including those for parking) should be minimised and soft landscaping, including permeable surfaces should be maximised on site.*

## **Car Club**

The closest car club is located at 2 Lion Road 320m (a 4-minute walk) south east of the development site. Five years membership will be provided to discourage future residents from owning a car.

## **Servicing**

It is the proposed that all deliveries and refuse collection for the residential development can take place from the Norcutt Road carriageway within the existing turning head provided adjacent to the site access. The applicant has full and unrestricted rights of access over this adjoining land. **Figure 1.2** demonstrates that a refuse vehicle can enter and exist in a forward gear (as per the existing situation).

A refuse storage area is be located at ground floor level within the building as shown on the architects ground floor plan as contained in **Appendix A**. This refuse storage area will provide a total of 4 no. bins which will offer refuse storage for all required waste streams.

A Construction Logistics Plan (CLP) has been submitted with the application at the request of LBRT.



### **1.3 Number of Residents (Employment Age)**

A review of the 2011 Census Data for the South Twickenham Ward has determined that the Site has an average of 1.90 people of employment age (16 to 74 years) per household, which means approximately 29 people of employment age will be living in the 15 residential units.

### **1.4 Travel Plan Structure**

The remaining sections of this report are set out as below:

- Section 2 provides the relevant national, regional and local planning policy
- Section 3 summarises the existing transport networks
- Section 4 sets out the baseline travel data for the Site
- Section 5 provides the objectives and targets of the Travel Plan
- Section 6 provides the measures of the Travel Plan
- Section 7 summarises the Travel Plan management
- Section 8 concludes the Travel Plan

## 2 Policy

### 2.1 Travel Plans

A Travel Plan is a long-term management strategy that seeks to deliver sustainable transport objectives through action and is set out in a document that is regularly reviewed. A Travel Plan involves identifying an appropriate package of measures aimed at promoting sustainable travel, with an emphasis on reducing reliance on single occupancy car journeys. Travel plan benefits include:

- Improving Site access and travel choice
- Reducing parking pressures and local traffic congestion
- Providing opportunities for active, healthy travel
- Enhancing environmental credentials and reputation for corporate responsibility
- Making financial savings (e.g. by cutting back on car mileage)
- Ensuring adequate provision for people with disabilities

A Travel Plan provides an overview of existing transport arrangements at a Site. It also includes a list of objectives and targets and sets out measures that will be introduced in order to achieve these.

This Travel Plan covers all users of the proposed development. Travel plans represent a continuous process for improvement. These are monitored and reviewed on a regular basis to ensure they remain relevant to those using the site.

A completed iTRACE proforma document will be completed upon appointment of the Travel Plan Coordinator.

### 2.2 Relevant Policy and Best Practice

The development of this travel plan has taken account of relevant policy and best practice, including:

- National Planning Policy Framework (2019)
- The London Plan (2016)
- Draft New London Plan (2018)
- London Borough of Richmond upon Thames Local Plan (adopted July 2018)
- Transport for London (TfL) Travel Planning Guidance (2013)
- Best practice from sites such as NTBN, EPOMM and ELTIS

## 2.3 National Policy

### National Planning Policy Framework (2019)

The National Planning Policy Framework (NPPF) sets out the Government's economic, environmental and social planning policies for England. Taken together, these policies articulate the Government's vision of sustainable development, which should be interpreted and applied locally to meet local aspirations.

Section 9 – Promoting Sustainable Transport, paragraph 102 of the framework details *'the need for transport issues to be considered at the early stages of plan making and development proposals, so that:*

- a) *the potential impacts of development on transport networks can be addressed*
- b) *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*
- c) *opportunities to promote walking, cycling and public transport use are identified and pursued*
- d) *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*
- e) *patterns of movement, streets, parking and other transport considerations are integral to the design of schemes, and contribute to making high quality places.'*

Considering development proposals, paragraph 108 states *'In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:*

- a) *appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location*
- b) *safe and suitable access to the site can be achieved for all users*
- c) *any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree.'*

NPPF paragraph 109 states that *'development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe.'*

In the context of this guidance, applications for development should:

- a) *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*
- b) *address the needs of people with disabilities and reduced mobility in relation to all modes of transport*

- c) *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*
- d) *allow for the efficient delivery of goods, and access by service and emergency vehicles*
- e) *be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations.'*

NPPF paragraph 111 states all *'developments which generate significant amounts of movement should be required to provide a travel plan, and the application should be supported by a transport statement of transport assessment so that the likely impacts of the proposal can be assessed.'*

## 2.4 Regional Policy

### **The London Plan, Spatial Development Strategy for Greater London – March 2016**

Further Alterations were adopted within the latest version of the London Plan in March 2016. The Mayor of London is responsible for producing a planning strategy for London and relevant policies relating to transport are set out below.

#### **Policy 6.1 – Strategic Approach**

- A The Mayor will work with all relevant partners to encourage the closer integration of transport and development through the schemes and proposals shown in Table 6.1 and by:
  - a encouraging patterns and nodes of development that reduce the need to travel, especially by car – boroughs should use the standards set out in Table 6.2 in the Parking Addendum to this chapter to set maximum car parking standards in DPDs
  - b seeking to improve the capacity and accessibility of public transport, walking and cycling, particularly in areas of greatest demand – boroughs should use the standards set out in Table 6.3 in the Parking Addendum to set minimum cycle parking standards in DPDs
  - c supporting development that generates high levels of trips at locations with high public transport accessibility and/or capacity, either currently or via committed, funded improvements including, where appropriate, those provided by developers through the use of planning obligations (see Policy 8.2).
  - d improving interchange between different forms of transport, particularly around major rail and Underground stations, especially where this will enhance connectivity in outer London (see Policy 2.3)
  - e seeking to increase the use of the Blue Ribbon Network, especially the Thames, for passenger and freight use
  - f facilitating the efficient distribution of freight whilst minimising its impacts on the transport network
  - g supporting measures that encourage shifts to more sustainable modes and appropriate demand management
  - h promoting greater use of low carbon technology so that carbon dioxide and other contributors to global warming are reduced
  - i promoting walking by ensuring an improved urban realm

- j seeking to ensure that all parts of the public transport network can be used safely, easily and with dignity by all Londoners, including by securing step-free access where this is appropriate and practicable.
- B The Mayor will, and boroughs should, take an approach to the management of streetspace that takes into account of the different roles of roads for neighbourhoods and road users in ways that support the Policies in this Plan promoting public transport and other sustainable means of transport (including policies 6.2, 6.7, 6.9 and 6.10) and a high quality public realm. Where appropriate, a corridor-based approach should be taken to ensure the needs of street users and improvements to the public realm are co-ordinated.

It is considered that given the proposed level of car parking within the development and access to public transport that the development application is in line with London Plan Policy 6.1.

**Policy 6.2 – Providing Public Transport Capacity and Safeguarding Land for Transport**

- B Development proposals that do not provide adequate safeguarding for the schemes outlined in Table 6.1 should be refused.

**Policy 6.3 – Assessing Effects of Development on Transport Capacity**

- A Development proposals should ensure that impacts on transport capacity and the transport network, at both a corridor and local level, are fully assessed. Development should not adversely affect safety on the transport network.
- B Where existing transport capacity is insufficient to allow for the travel generated by proposed developments, and no firm plans exist for an increase in capacity to cater for this, boroughs should ensure that development proposals are phased until it is known these requirements can be met, otherwise they may be refused. The cumulative impacts of development on transport requirements must be taken into account.
- C Transport assessments will be required in accordance with TfL’s Transport Assessment Good Practice Guidance for major planning applications. Workplace and/or residential travel plans should be provided for planning applications exceeding the thresholds in, and produced in accordance with, the relevant TfL guidance. Construction logistics plans and delivery and servicing plans should be secured in line with the London Freight Plan and should be co-ordinated with travel plans.

**Policy 6.9 – Cycling**

- B Developments should:
  - a provide secure, integrated and accessible cycle parking facilities in line with the minimum standards set out in Table 6.3 and the guidance set out in the London Cycle Design Standards (or subsequent revisions)
  - b provide on-site changing facilities and showers for cyclists
  - c contribute positively to an integrated cycling network for London by providing infrastructure that is safe, comfortable, attractive, coherent, direct and adaptable and in line with the guidance set out in the London Cycle Design Standards (or subsequent revisions)
  - d provide links to existing and planned cycle infrastructure projects including Cycle Superhighways, Quietways, the Central London Grid and the ‘mini-Hollands’
  - e facilitate the Mayor’s cycle hire scheme through provision of land and/or planning obligations where relevant, to ensure the provision of sufficient capacity.

### **Policy 6.10 – Walking**

- B Development proposals should ensure high quality pedestrian environments and emphasise the quality of the pedestrian and street space by referring to Transport for London's Pedestrian Design Guidance.

### **Policy 6.12 – Road Network Capacity**

- B In assessing proposals for increasing road capacity, including new roads, the following criteria should be taken into account:
  - a the contribution to London's sustainable development and regeneration including improved connectivity
  - b the extent of any additional traffic and any effects it may have on the locality, and the extent to which congestion is reduced
  - c how net benefit to London's environment can be provided
  - d how conditions for pedestrians, cyclists, public transport users, freight and local residents can be improved
  - e how safety for all is improved.
- C Proposals should show, overall, a net benefit across these criteria when taken as a whole. All proposals must show how any dis-benefits will be mitigated.

### **Policy 6.13 – Parking**

The maximum standards set out in Table 6.2 in the Parking Addendum to this chapter should be the basis for considering planning applications (also see policy 2.8).

In addition, developments must:

- a ensure that 1 in 5 spaces (both active and passive) provide an electrical charging point to encourage the uptake of electric vehicles
- b provide parking for disabled people in line with Table 6.2
- c meet minimum cycle parking standards set out in Table 6.3
- d provide for the needs of businesses for delivery and servicing.

The car parking provision in Table 6.2 is dependent on the number of bedrooms to be provided within the residential units. This information is reproduced in Section 5.3 below.

### **New Draft London Plan (2018)**

The New London Plan has been out for public consultation and is currently being considered in an Examination in Public. The most notable change in this document is with respect to parking standards set out in Policy T6. This is taken into consideration in Section 4 of this TS.

Policy T6 – Parking states:

Car parking should be restricted in line with levels of existing and future public transport accessibility and connectivity.

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').

The policy goes on to confirm "an absence of local on-street parking controls should not be a barrier to new development, and boroughs should look to implement these controls

wherever necessary to allow existing residents to maintain safe and efficient use of their streets”.

Policy T6 also sets out revised maximum parking standards which are as follows:

Location	Draft London Plan
Central Activity Zone Inner London Opportunity Area Metropolitan and Major Town Centres All areas of PTAL 5-6 Inner London PTAL 4	Car-free
Inner London PTAL 3	Up to 0.25 spaces per dwelling
Inner London PTAL 2 Outer London PTAL 4 Outer London Opportunity Areas	Up to 0.5 spaces per dwelling
Inner London PTAL 0-1 Outer London PTAL 3	Up to 0.75 spaces per dwelling
Outer London PTAL 2	Up to 1 space per dwelling
Outer London PTAL 0-1	Up to 1.5 spaces per dwelling

It can be seen that up to 1 parking spaces would be applied for this site as the PTAL is a 2 in order to comply with policy once adopted.

### **Transport for London – Travel Planning Guidance (2013)**

This guidance replaces the previous TfL guidance ‘Travel Planning for New Developments in London: Incorporating Deliveries and Servicing’ (January 2012) and sets out best practice in developing, implementing, securing and monitoring Travel Plans.

TfL no longer use the ATTrBuTE (Assessment Tool for Travel Plan Building Testing and Evaluation) of Travel Plans. TfL’s state that new guidance will be published in early 2018. As such this Travel Plan does not contain an ATTrBuTE assessment.

TfL guidance emphasises the importance of an integrated approach to travel planning by ensuring that all movements to the development site, including deliveries and servicing, are taken into account in the planning process.

The guidance sets out development thresholds for new developments which require either a local level or strategic level Travel Plan. The thresholds set out requirements a Travel Plan Statement and Full Travel Plan for C3 land use for as:

- C3 Residential:
  - Travel Plan Statement - Between 50 and 80 units
  - Full Travel Plan – Equal or more than 80 units

It is acknowledged that the C3 land uses which comprise the proposed development do not exceed the TfL thresholds detailed above. This Travel Plan has been prepared following consultation with LBRT.

## **LOCAL POLICY**

### **London Borough of Richmond upon Thames Local Plan (July 2018)**

The Local Plan which was previously known as the Local Development Framework was adopted in July 2018 and replaces the previous policies within the Core Strategy and Development Management Plan. Section 11 covers transport and the relevant policies are below.

#### **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.

##### **C. Public transport**

Ensure that major new developments maximise opportunities to provide safe and convenient access to public transport services. Proposals will be expected to support improvements to existing services and infrastructure where no capacity currently exists or is planned to be provided.

Protect existing public transport interchange facilities unless suitable alternative facilities can be provided which ensure the maintenance of the existing public transport operations. Applications will need to include details setting out how such re-provision will be secured and provided in a timely manner.



#### **D. The road network**

Ensure that new development does not have a severe impact on the operation, safety or accessibility to the local or strategic highway networks. Any impacts on the local or strategic highway networks, arising from the development itself or the cumulative effects of development, including in relation to on-street parking, should be mitigated through the provision of, or contributions towards, necessary and relevant transport improvements.

In assessing planning applications the cumulative impacts of development on the transport network will be taken into account. Planning applications will need to be supported by the provision of a Transport Assessment if it is a major development, and a Transport Statement if it is a minor development.

#### **E. River transport**

Encourage the use of the River Thames for passenger and freight transport through the protection of, improvement to, and provision of new relevant infrastructure including wharves, slipways and piers.

#### **F. Safeguarding of routes and facilities**

Land required for proposed transport schemes as identified in the London Plan and the Council's Local Implementation Plan for Transport will be protected from developments which would prevent their proper implementation.

Local filling stations and supporting services such as car repair facilities will be protected from redevelopment for alternative uses unless exceptional circumstances can be demonstrated that warrant their loss.

#### **G. Taxis and private hire vehicles**

Ensure that taxis and private hire vehicles are adequately catered for in appropriate locations.

#### **Policy LP 45**

##### **Parking Standards and Servicing**

##### **Parking standards**

The Council will require new development to make provision for the accommodation of vehicles in order to provide for the needs of the development while minimising the impact of car based travel including on the operation of the road network and local environment, and ensuring making the best use of land.

It will achieve this by:

1. Requiring new development to provide for car, cycle, 2 wheel and, where applicable, lorry parking and electric vehicle charging points, in accordance with the standards set out in Appendix 3. Opportunities to minimise car parking through its shared use will be encouraged.
2. Resisting the provision of front garden car parking unless it can be demonstrated that:
  - a. there would be no material impact on road or pedestrian safety;
  - b. there would be no harmful impact on the character of the area, including the streetscape or setting of the property, in line with the policies on Local Character and Design; and
  - c. the existing on-street demand is less than available capacity.
3. Car free housing developments may be appropriate in locations with high public transport accessibility, such as areas with a PTAL of 5 or 6, subject to:
  - a. the provision of disabled parking;

- b. appropriate servicing arrangements; and
- c. demonstrating that proper controls can be put in place to ensure that the proposal will not contribute to on-street parking stress in the locality.

All proposals for car free housing will need to be supported by the submission of a Travel Plan.

4. Managing the level of publicly available car parking to support the vitality and viability of town and local centres within the borough whilst limiting its impacts on the road network.

#### **Freight and Servicing**

New major development which involves freight movements and has servicing needs will be required to demonstrate through the submission of a Delivery and Servicing Plan and Construction and Logistics Plan that it creates no severe impacts on the efficient and safe operation of the road network and no material harm to the living conditions of nearby residents.

### 3 Site Assessment

The Site lies within the administrative area of the London Borough of Richmond upon Thames (LBRT) and the Greater London Authority (GLA).

The site currently occupied by a commercial building with a 241.87m<sup>2</sup> floor space which will be demolished

There was a previous planning consent for 9 residential units with 6 parking spaces but this permission has lapsed.

As shown in **Figure 1.1** the Site is located on the northern end of Norcutt Road. Railways lines are situated to the north, an electrical sub-station to the east and Gregg's bakery depot to the west. To the south of the Site, a block of flats which has been constructed as part of the 2006 planning application which included 900sqm of office space.

#### 3.1 Local Highway Network

Norcutt Road is a residential cul-de-sac road and is un-adopted from No. 49 where it becomes a shared surface. On the southern part of Norcutt Road there are footways on both sides of the road and a shared surface at the northern end. On-street parking is permitted (permit holders only), and 3 disabled parking bays are present on the eastern side of the road. Beyond No.49 the parking is private allocated to the adjacent properties. There is a 30mph speed limit imposed with the appropriate street lighting.

Edwin Road is residential in nature and joins Norcutt Road at the southern end. Edwin Road forms a priority junction to the east with Lion Road and to west with Crane Road. Waiting restrictions are present in the form of double yellow lines at junctions and in front of industrial and commercial properties, otherwise on-street parking occurs (permit holders only). East on Edwin Road on-street parking occurs part on and part off the street in accordance with the street signs. Footways are present on both sides of the road and the road is subjected to a 30mpt speed limit with appropriate street lighting.

The site is located in a Controlled Parking Zone (CPZ) which operates Monday to Saturday 8:30am to 6:30pm.

The Site is located 800m (a 10-minute walk) from Twickenham Town Centre located east of the Site. Twickenham Town Centre provides access to a wide range of shops including banks, restaurants, takeaways and other facilities suitable for future residents.

#### 3.2 Existing Parking and Servicing Provision

It is understood that the existing LBRT refuse collection is from the carriageway of Norcutt Road for the existing properties.

To the east of the site surrounding Twickenham High Street, a Controlled Parking Zone (CPZ) Zone D is present which is in operation from Monday to Saturday 08:30am to 6:30pm. To the south east of the site, CPZ Zone E is in operation from Monday to Friday 08:30am to 10:30am and 10:30am to 2:30pm.

Parking surveys were undertaken at 1am on Tuesday 15<sup>th</sup> January 2019 and at 2am Wednesday 16<sup>th</sup> January 2019 in accordance with the Richmond Parking Survey Methodology to establish on-street parking stress on Norcutt Road and Edwin Road.

The results indicate that from the 58 on-street parking spaces on Norcutt Road and Edwin Road, just 3 spaces were available during the first survey and only 4 during the second survey, leading to a parking stress of 101.9% and 100% respectively.

The results of the parking surveys are attached at **Appendix B**.

It is clear that there is limited spare capacity for on-street parking in the vicinity for future residents choosing to own a car. However as set out above all roads are within a CPZ and future residents will be restricted from applying for parking permit.

As discussed in more detail within Section 4.1, the 2011 Census data for the lower output area surrounding South Twickenham Ward the Site reveals that 38% of households living in a flat do not own or run a car (**Appendix F**). This is taken into consideration for the development of this Site.

### 3.3 Rail

Twickenham railway station is located approximately 1.3km (a 16-minute walk or a 6-minute cycle) from the Site and provides access to South Western Railway services. Typical mainline services provide up to 16 services per hour to Chiswick, Windsor and Eton Riverside, London Waterloo via Kingston, Wimbledon and Reading.

Strawberry Hill rail station is located approximately 1.3km (a 17-minute walk or a 6-minute cycle) from the Site and provides access to South Western Railway services. Typical mainline services provide up to 4 services per hour to London Waterloo via Kingston and Richmond.

Both stations have cycle stands to facilitate pedestrians who chose to cycle to the stations.

It can be seen that there is access to excellent rail services located within walking and cycling distance from the Site.

### 3.4 Buses

There are seven bus service available within the maximum accessibility distance of 404m (a 5-minute walk time) set out in the PTAL methodology. The nearest bus stops are located on the Twickenham Green providing access to bus service nos. 110, 267, 281, 290, 490, H22, and R70. There is also the 681 (school bus) operating in the area.

The spider map provided in **Appendix C** shows all of the services which are accessible within this area. Details of the bus services with regards to the route and the general frequency of the service provision is outlined in **Table 3.1** below.

**Table 3.1 – General Daytime Frequency of Bus Services (frequency per hour)**

Number	Route	Frequency	Distance to Stop (m)
110	Isleworth – Twickenham – Powder Mill Lane – Hounslow	3	404m
267	Fulwell – Twickenham – Brentford – Turnham Green – Hammersmith	6	452m
281	Tolworth – Surbiton – Kingston – Teddington – Twickenham – Whitton – Hounslow	7.5	452m
290	Staines – Ashford – Sunbury – Hanworth – Fulwell – Twickenham	3	452m
490	Heathrow (Terminal 5) – Heathrow (Terminal 4) – Hatton Cross – Feltham – Twickenham – Richmond	5	404m
H22	Hounslow – Whitton – Twickenham – Richmond	5	404m
R70	Hampton – Nurserylands – Hampton Hill – Fulwell – Twickenham – Richmond	6	452m

It is clear there is a good level of access by bus to education, employment and health facilities in the surrounding area.

### 3.5 Public Transport Accessibility Level (PTAL)

For sites in London PTALs (Public Transport Accessibility Levels) are the most widely recognised form of measuring accessibility to the public transport network. The assessment combines data regarding the frequency of public transport services and walking distance between the Site and the service to establish a measure of the relative density of the public transport network. PTALs range from 1 to 6 where 6 represents a high level of accessibility and 1 a low level of accessibility. Levels 1 and 6 have been further subdivided into two sub-levels to provide greater clarity.

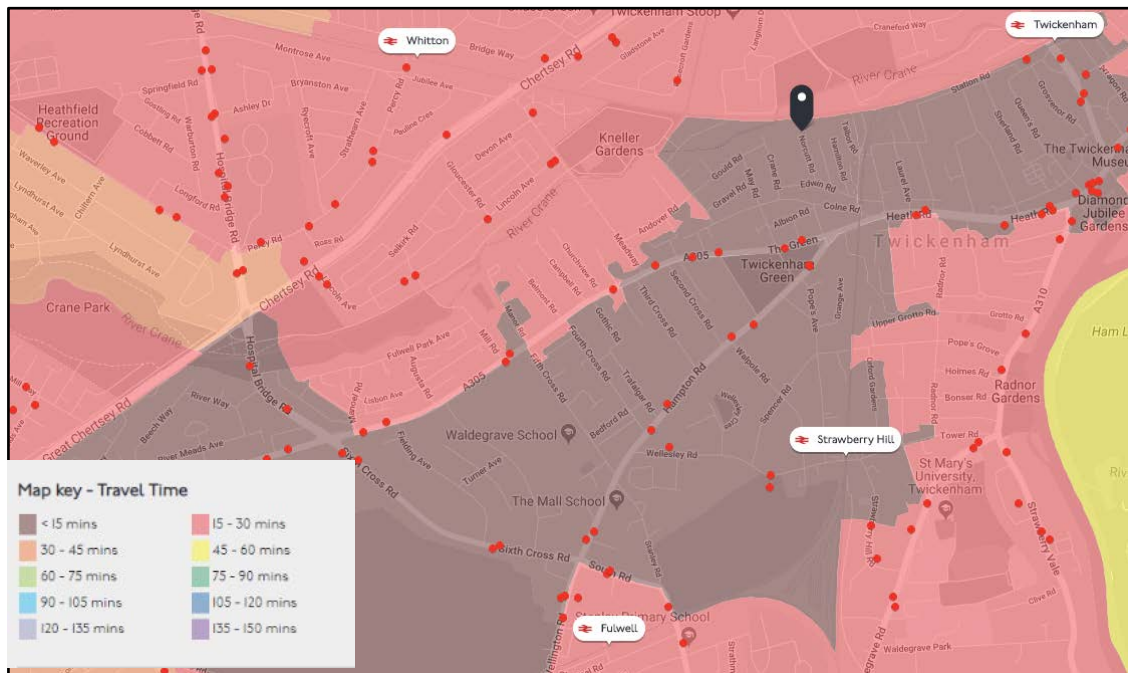
The postcode of the Site (TW2 6SR) was put in TfL's Planning Information Database <https://tfl.gov.uk/info-for/urban-planning-and-construction/planning-with-webcat/webcat?intcmp=25932> / in order to establish the PTAL. An accessibility index of 8.97 is calculated giving a corresponding PTAL of 2 representing a low level of public transport accessibility. The summary report obtained from this website is attached at **Appendix D**. This level of accessibility provides the future residents and visitors with a range of public transport alternatives to the private car.

East of the Site at Twickenham Town Centre approximately a 10-minute walk, the PTAL accessibility index increases to 23.54 giving the PTAL band of 5 (high accessibility).

### 3.6 TIM

The Site is well placed for local facilities, including schools (St Mary's University), Twickenham Railway and Strawberry Hill Railway stations. As shown in **Figure 3.2** below the Site a large area is accessible within 15 minutes allowing convenient access to numerous, retail, leisure, employment and commercial land uses. A copy of the TIM output is attached as **Appendix E**.

**Figure 3.1 – Time Mapping (TIM)**



### 3.7 Walking

The site has a number of schools including St Mary's University approximately 1.3km (a 9-minute cycle) south of the site on Waldegrave Road, shops including a Tesco Express supermarket approximately 350m (a 5-minute walk) south east of the site on Heath Road and a Sainsburys Local approximately 500m (a 7-minute walk) south of the site on Twickenham Green, GP services and restaurants within walking and cycling distance of the site. The area is subjected to a 30mph speed limit and is lit accordingly.

The site is located 800m (a 10-minute walk) from Twickenham Town Centre located east of the site on Heath Road. Twickenham Town Centre provides access to a wide range of shops including banks, restaurants, takeaways and other facilities.

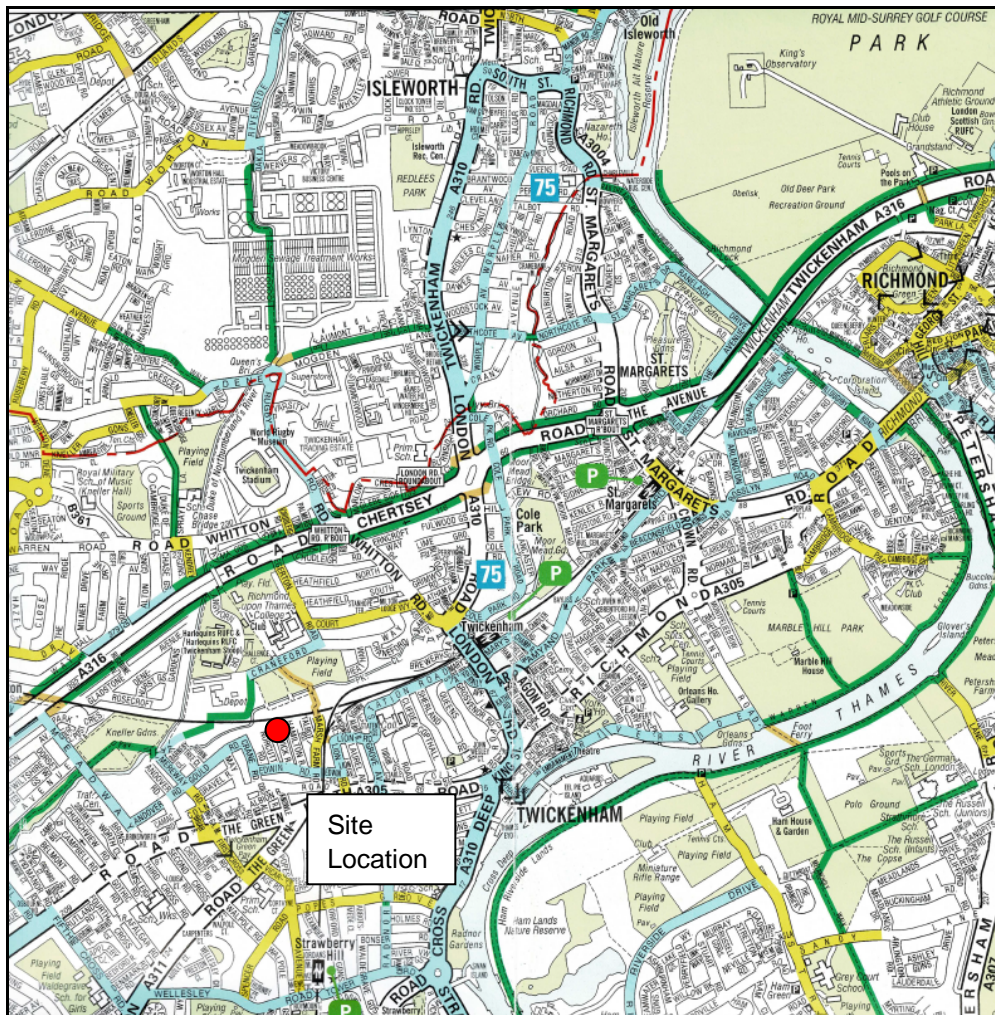
On the southern part of Norcutt Road, there are footways on either side of the road and a shared surface to the north from No.49 linking the site with retail developments and access to public transport facilities.

### 3.8 Cycling

**Figure 3.2** is an extract from TfL Local Cycling Guide 9 which shows the cycling environment surrounding the Site. It can be seen that there are many cycle routes in the immediate vicinity signed for cyclists linking the Site to the surrounding areas. It can also be seen that the railway stations have cycle parking provision.



**Figure 3.2 – TfL Local Cycling Guide Network**



Note: Yellow routes= 'Route on quieter roads recommended by cyclists', Brown routes = 'Route adjacent to a busy road usually shared with pedestrians', Blue routes= 'Route signed for cyclist, may be on busy roads' Green routes= 'Route signed for cyclists, through park or beside canal or river. Usually shared with pedestrians'

The Site Plan as proposed contained within **Appendix A** shows the development proposals including enclosed bicycle (30 spaces) and refuse store located at the rear of the building on the ground floor level.

From the above, it is apparent that the application Site is accessible by modes of transport other than the private car. There are bus stops located close to the Site, providing frequent and reliable services to the surrounding areas including local Rail Stations. The public transport provision, along with the secure and covered cycle parking within the Site, will encourage residents and visitors to use an alternative mode to the private car.

## 4 Travel Surveys

### 4.1 Baseline Travel Data - Residential

2011 Census Data has been obtained for the South Twickenham Ward (where the Site is located) and has been reviewed and is attached at **Appendix F**. As detailed in **Section 1.4**, this data shows that there are on average 1.90 people of employment age (16 to 74 years) living in each household. This indicates that there would be a forecast total of 29 residents travelling to works from the 15 proposed residential units. **Table 4.1** below present the extracted data.

**Table 4.1 – 2011 Census Data – Method of Travel to Work**

Main Mode	2011 Census Data: South Twickenham Ward Method of Travel to Work	Number of People
Work mainly at or from home	6%	468
Underground, Metro, Light	4%	325
Train	20%	1,574
Bus, Minibus or Coach	5%	353
Taxi	0%	8
Motorcycle, Scooter or Moped	1%	67
Driving a car or van	24%	1,857
Passenger in a car or van	1%	72
Bicycle	4%	330
On foot	7%	519
Other Method of Travel	0%	37
Not in employment	27%	2,080
<b>Total</b>	<b>100%</b>	<b>7,690</b>

Based on the application the Census data, the forecast mode share indicates that 24% of residents (1,857 people) will drive to work, 29% of residents (325 people by underground, Metro or Light, 1,574 people by train, 353 people by bus, minibus or coach) will travel to work by public transport, 4% of residents (330 people) will cycle and 7% of residents (519 people) will walk to work.

Actual Baseline travel data for the residents will be established through the initial travel survey which forms part of the monitoring and review process of the Travel Plan.



## 5 Objectives and Targets

This chapter sets out the objectives and targets of the TP. The objectives are supported by a set of SMART (Specific, Measurable, Achievable, Realistic and Timed) targets so that progress towards achieving them can be measured.

### 5.1 Objectives

The principal objective of the TP is to 'facilitate sustainable travel' to and from the proposed development.

The objectives in developing this travel plan are:

- Ensure the Site is accessible to all and respects the needs of vulnerable groups e.g. those with mobility problems
- Use of sustainable transport modes (walking and cycling)
- Creating awareness of the Travel Plan of the residents
- Influence the travel behaviour of visitors
- Improve the health of residents and minimise the development impacts on the environment

These objectives support the principles of the wider Travel Plan policy.

### 5.2 Targets

Targets are measurable goals by which the progress of the Travel Plan will be assessed. They are essential for monitoring the progress and success of the Travel Plan over its lifetime, usually 5 years. The targets support the objectives detailed above through the promotion of sustainable transport modes and reduced use of the private car.

Upon six months of occupation a comprehensive iTRACE/TRICS compliant site user travel and survey will be undertaken. These surveys will allow a better understanding of the specific travel characteristics of residents. Any travel surveys undertaken will be iTRACE/TRICS compliant.

The targets set out below are initial targets. Specific targets will be developed once the Site is occupied and would be agreed and signed off by the LBRT.

The initial targets of this Travel Plan for the C3 Residential Use are set out in **Table 5.1** and the forecast trips are set out in **Table 5.2**.

**Table 5.1 – C3 Residential Modal Share, Years 1, 3, and 5**

Mode	Percentage Trips (Year 1)	Percentage Trips (Year 3)	Percentage Trips (Year 5)
Work mainly at or from home	6%	6%	6%
Underground	4%	4%	4%
Train	20%	23%	26%
Bus	5%	5%	5%
Taxi	0%	0%	0%
Motorcycle	1%	1%	1%
Driving a car or van	24%	21%	18%
Passenger in a car or van	1%	1%	1%
Bicycle	4%	4%	4%
On foot	7%	7%	7%
Other	0%	0%	0%
Not in employment	27%	27%	27%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Note: Errors may occur due to rounding

**Table 5.2 – C3 Residential Trips Years 1, 3, and 5**

Mode	Number of Peak Trips (Year 1)	Number of Peak Trips (Year 3)	Number of Peak Trips (Year 5)
Work mainly at or from home	2	2	2
Underground	1	1	1
Train	6	7	8
Bus	1	1	1
Taxi	0	0	0
Motorcycle	0	0	0
Driving a car or van	7	6	5
Passenger in a car or van	0	0	0
Bicycle	1	1	1
On foot	2	2	2
Other	0	0	0
Not in employment	8	8	8
<b>Total</b>	<b>29</b>	<b>29</b>	<b>29</b>

Note: Errors may occur due to rounding

Targets will be developed once the baseline data has been established. The baseline data will provide a better understanding about what is achievable and what mode share targets should be set.

The development of the Full Travel Plan will be undertaken in consultation with LBRT and all targets will need to be agreed by LBRT.

The above targets are specific, measurable, achievable, relevant and timed (SMART). Targets will be reviewed annually by the Travel Plan Coordinator. Monitoring of the Travel Plan will be compliant with LBRT and TfL's guidance to ensure targets are met.

Targets will be reviewed annually by the Travel Plan Coordinator. If required, any amendments to targets as a result of the initial baseline survey can be approved and agreed with LBRT within 6 months of the initial survey being undertaken.

The development of the Full Travel Plan will be undertaken in consultation, agreed and signed off with LBRT.

The measures set out in **Section 6** of this report, provides support for the proposed development.

## 6 Measures

A series of proposed measures will be incorporated into the Travel Plan by the management Travel Plan Coordinator. The measures are provided in order to promote sustainable transport modes and reduce vehicle use. The measures will need to be developed and prioritised after the baseline travel survey has been conducted. The measures can be introduced and be updated and reissued throughout the life of the Travel Plan.

### **Travel Pack**

A Travel Pack containing details of local bus and rail services, cycle routes and local facilities such as shops, local attractions and restaurants will be provided to residents on occupation. Travel Pack information will also be displayed at the main foyer in the development to encourage residents to use sustainable travel and provide information – for example, including information points with displays about local transport routes, walking maps, etc.

The Travel Pack will also contain details of the web link to Transport for London's travel information and other website links provided to sites giving live travel information, journey planning etc. The Travel Plan Coordinator will investigate the possibility of communicating with residents, by email, which can be used to pass on relevant transport updates and improvements to services for maximum effect.

### **Pedestrians**

Walking as the main mode of travel should be encouraged for journeys of less than one mile. Walking can be combined with, for example, passenger transport to cover longer distance journeys. The Travel Plan Coordinator will encourage residents to walk by:

- Promoting discussion of the health benefits of walking (i.e. reduced stress and improved fitness)
- Provision of walking maps which show the distance and time taken to walk to surrounding areas and transport links †
- Providing information and advice concerning safe pedestrian routes to public transport and other facilities;
- Liaising with the Planning and Highway Authorities to ensure that pedestrian routes are properly maintained

† This map will be available to residents as part of the Travel Pack as well as permanently displayed at a prominent information point.

### **Cycling**

The benefits of cycling are similar to those for walking, with improved health and cost savings being the main considerations for users.

It is proposed that 28 long stay cycle spaces and 2 short stay cycle spaces are provided for the residential use. These provisions are in line with the minimum cycle parking set out in the draft new London Plan Cycle Standards to encourage sustainable travel.

In addition, a plan will be displayed at prominent locations within the development to highlight local facilities and cycle routes. Copies of the plan will be provided to residents.

Details of various websites (IMMOBILISE, BICYCLE, CRIME) will be supplied.

The Travel Plan Coordinator will encourage residents to cycle by:

- Promoting discussion of the health benefits of cycling (i.e. reduced stress and improved fitness)
- Providing information and advice to residents on cycle routes to the development
- Encouraging residents to set up a bicycle user group

The Travel Plan Coordinator will monitor cycle use through the life-time of the Travel Plan, obtain feedback and comment from residents.

### **Public Transport**

Public Transport should be regarded as a practical and positive alternative mode to the private car.

Current bus and train timetables will be displayed within the development and the Travel Plan Coordinator will maintain a supply of timetables to be made available to residents when appropriate.

The Travel Plan Coordinator will also raise awareness of Safer Travel at Night campaigns such as CABWISE (text service to obtain licensed minicab numbers) for when public transport can be limited. Details of CABWISE will be provided on the information board and travel pack.

### **Car Club**

The closest car club is located at 2 Lion Road 320m (a 4-minute walk) south east of the development site. The use of this car club will be promoted as 5-years membership will be given to future residents.

### **Awareness Campaigns**

The Travel Plan Coordinator will be responsible for raising awareness of the TP amongst residents promoting alternatives to the car. Marketing and awareness raising strategies are an important part of all Travel Plans. They cover the involvement and engagement of residents and raising awareness of travel options and the benefits of more sustainable travel. The primary means by which the plan will be marketed are:

- Travel Packs

- Notice boards
- Emails
- Newsletters

Travel Plan actions are listed in the following action plan, including the measures, monitoring and review actions that will be implemented in order to achieve the targets and a timescale for how these actions will be prioritised.

**Table 6.1** sets out the action plan, benefits of the various measures offered and the timescale for their implementation.

**Table 6.1 - Action Plan**

	Measure	Actions	Timescale	Responsibility
1	Appoint TP Coordinator (TPC)	Asprea 2 Limited will appoint an appropriate member of staff to act as the TPC. Occupants will be made aware of the TPC.	First occupation	Asprea 2 Limited
2	Travel Pack	Providing information on Public Transport to and from the site to occupants and keeping it up to date.	On occupation	TPC
3	Providing information on safe pedestrian routes to Public Transport	A plan of pedestrian routes around the development will be displayed within the reception/lobby area.	On occupation	TPC
4	Organising 'Walk to Work Week'	The TPC will promote the 'Walk to Work Week' on the information board within the residential block.	Within 1st year of occupation	TPC
5	Identifying safe cycle routes around the development and keeping it up to date	A plan of cycle routes will be displayed within the development.	On occupation	TPC
6	Organising 'Cycle to Work Week'	The TPC will promote the 'Cycle to Work Week' on the information board within the residential block.	Within 1st year of occupation.	LD/TPC
7	Car Club	The TPC include 5 years membership of a Car Club	On occupation	TPC
8	Steering Group	Establish a Residents Steering Group	On occupation	TPC

## 7 Travel Plan Management

The effective management of the Travel Plan with clearly defined roles, responsibilities and targets is central to achieve the objectives.

### 7.1 Delivery and Management of the Travel Plan

The implementation and day to day management of the Travel Plan will be the responsibility of the Travel Plan Coordinator, the ultimate responsibility of the success of the Travel Plan lies with the developer.

The budget for the Travel Plan Coordinator post will be provided by the developer and will include the following responsibilities:

- Overseeing the development and implementation of the travel plan
- Mode shift targets agreed by LBRT must be met by years 3 and 5 of the travel plan. It is the Travel Plan Coordinator's responsibility to inform the occupier whether the targets are met and to prepare the survey results to be approved by LBRT for years 3 and 5.
- Designing and implementing effective marketing and awareness-raising campaigns to promote the travel plan
- Setting up, coordinating and attending steering groups, working groups etc
- Coordinating the necessary data collection exercise required to develop the travel plan
- Liaising with local residents and external organisations, e.g. local authorities, transport operators etc
- Coordinating the monitoring programme

### 7.2 Monitoring and Reviews

The Travel Plan is part of a continuous process for improvement, requiring monitoring, review and revision to ensure it remains relevant to our organisation and those using the Site.

Full travel surveys will take place within 6 months of occupation. If required, any amendments to the targets as a result of the initial baseline survey can be approved and agreed with LBRT within 3 months of the initial survey taking place.

Further surveys will be carried out at years 3 and 5 in order to monitor performance and the initiatives in place within the action plan. The Travel Plan Coordinator will ensure the surveys are iTRACE or TRICS compliant and ensure a minimum 35% response rate. Should the targets not be met by years 3 and 5, financial sanctions will be imposed by LBRT using the bond secured through the Section 106 Agreement.

The Travel Plan Coordinator will be responsible for monitoring the Travel Plan and to ensure the occupiers are made aware is the Travel Plan obligations. **Table 7.1** details the monitoring and review actions and timescales of the Travel Plan.

**Table 7.1 – Monitoring and Review Timescales**

Action	Detail	Timescale
Organising Travel Survey on occupation	The TPC will agree the format and content with the Council	Within 6 months of occupation
Reporting the results of the Travel Survey to the Council – Agreeing any new measures as a result	The TPC will prepare a short report summarising the results of the survey	1 month after survey is complete
Cycle parking	Provision will be monitored	Annually
Organising Travel Surveys	The TPC will agree the format and content with the Council. Survey will be undertaken at 3 <sup>rd</sup> and 5 <sup>th</sup> years	Annually
Reporting the results of the annual Travel Survey to the Council – Agreeing any new measures as a result	The TPC will prepare a short report summarising the results of the survey	Annually

### 7.3 Securing and enforcement

The Travel Plan will be secured using a Section 106 Agreement or planning condition and therefore legally binding.

If the Travel Plan is shown to be regularly underachieving targets through the monitoring process, remedial actions may need to be implemented. Remedial actions would typically consist of measures which could help to get the Travel Plan on target. Costs associated with the extension of the life of the Travel Plan would be covered by the occupier.

### 7.4 Funding

Funding will be provided by the developer for the Travel Plan and will be sufficient to cover the actions outlined in this report specifically:

- Travel Plan Coordinator post
- Travel Plan measures, including 5-years membership of car club
- Monitoring programme
- Should the targets not be met by years 3 and 5, financial sanctions will be imposed by LBRT through the bond secured in the Section 106 Agreements
- Surveys should have a response rate of at least 35%, otherwise the survey may need to be conducted again at the developer's expense



## 8 Final Comments

- a** YES Engineering Group Ltd has been instructed by Leek Real Estate (No 1) Limited to prepare a Travel Plan in support of a planning application for the redevelopment of Lockcorp House, Norcutt Road, Twickenham, TW2 6SR (the "Site").
- b** The development proposals are for the replacement of the light industrial building (241.87m<sup>2</sup>) with a residential development providing 15 units comprising of 6 no. one bedroom units, 6 no. two bedroom units, and 3 no. three bedroom units.
- c** The development is to provide 12 car parking spaces and one of which is a Blue Badge space. These provisions are in line with the London Plan standards and local census data.
- d** It should be noted that cycle parking provision (30 spaces) is in accordance with the minimum standards set out in the London Plan for residential and leisure development.
- e** The application site is in an area of low accessibility (PTAL 2) by modes of transport other than the private car. Twickenham Railway station, Strawberry Hill Railway station and 7 bus services operate within the walking thresholds of the Site, providing frequent and reliable services to the surrounding area. The public transport provision, along with the secure cycle parking within the Site will encourage occupants to use an alternative mode to the private car.
- f** The Travel Plan Coordinator will organise travel questionnaire (multi modal) surveys at first (within 6 months), third and fifth years.
- g** All the proposed measures are outlined in the Action Plan and monitoring and review timescales have been detailed.

### **Recommendations**

It is recommended that a Travel Plan Coordinator is appointed to liaise and agree measures with the LBRT to encourage residents to use sustainable forms of transport.

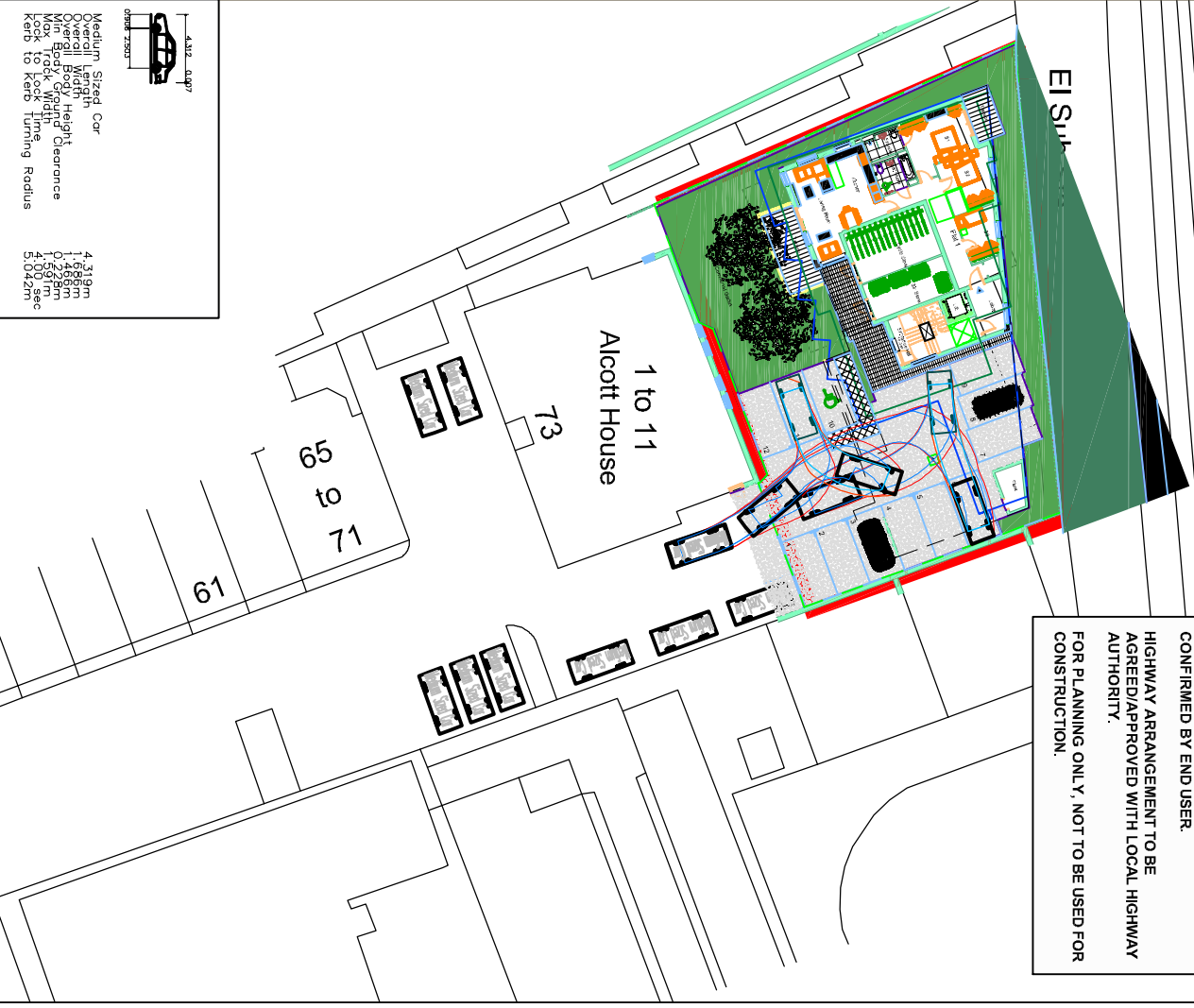
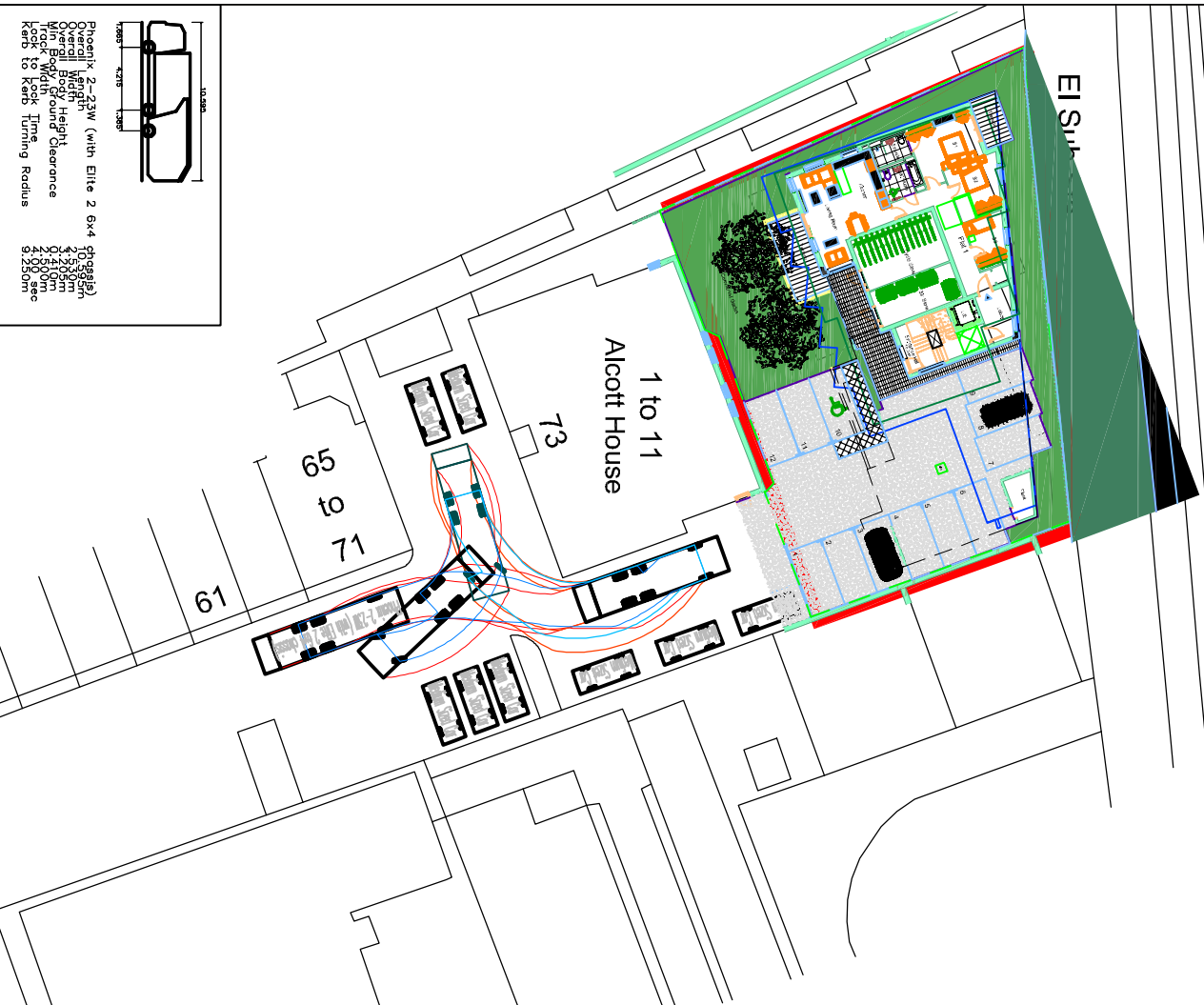
The Travel Plan Coordinator can be the key to success of a Travel Plan and whilst the precise nature of the position will vary, the coordinator should become the main driving force behind the plan. The responsibilities of a Travel Plan Coordinator will include:

- Overseeing the development and implementation of the Travel Plan
- Designing and implementing effective marketing and awareness-raising campaigns to promote the Travel Plan
- Setting up, coordinating and attending steering groups, working groups etc
- Coordinating the necessary data collection exercise required to develop the travel plan
- Liaising with local residents and external organisations, e.g. local authorities, transport operators etc
- Coordinating the monitoring programme

Targets will be agreed with the LBRT then reviewed and checked annually after the plan has been implemented.

# Figures & Appendices

**Figure 1.2 – Swept path Assessment**



**NOTES:**  
 SWEPT PATHS FOR INDICATIVE PURPOSES ONLY. ALL ROAD HIGHWAY DIMENSIONS/ARRANGEMENTS TO BE CONFIRMED ON SITE AND VEHICLE MEASUREMENTS AND CHARACTERISTICS CONFIRMED BY END USER.  
 HIGHWAY ARRANGEMENT TO BE AGREED/APPROVED WITH LOCAL HIGHWAY AUTHORITY.  
 FOR PLANNING ONLY, NOT TO BE USED FOR CONSTRUCTION.

**Appendix A – Proposed Ground Floor Layout Plan**



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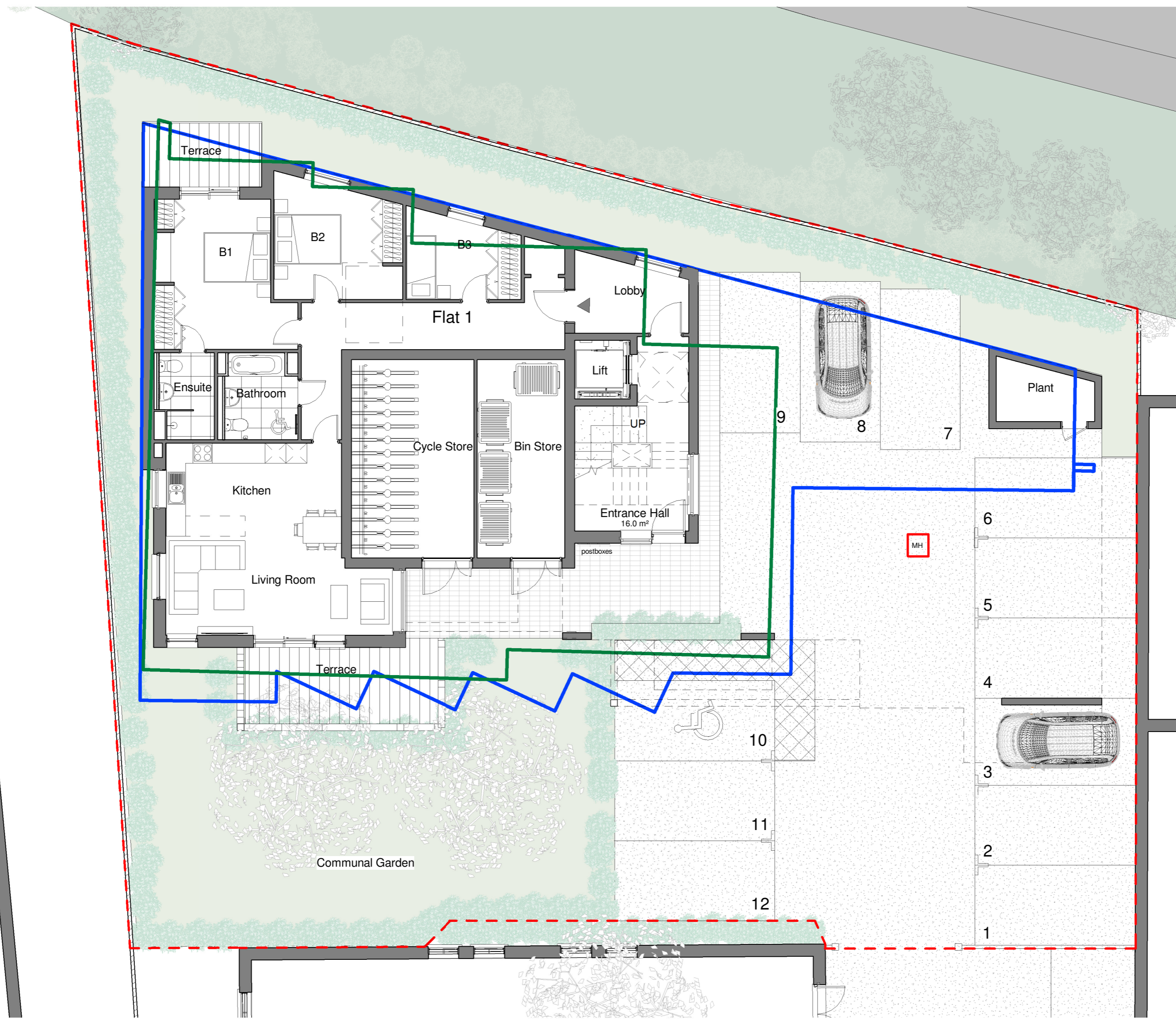
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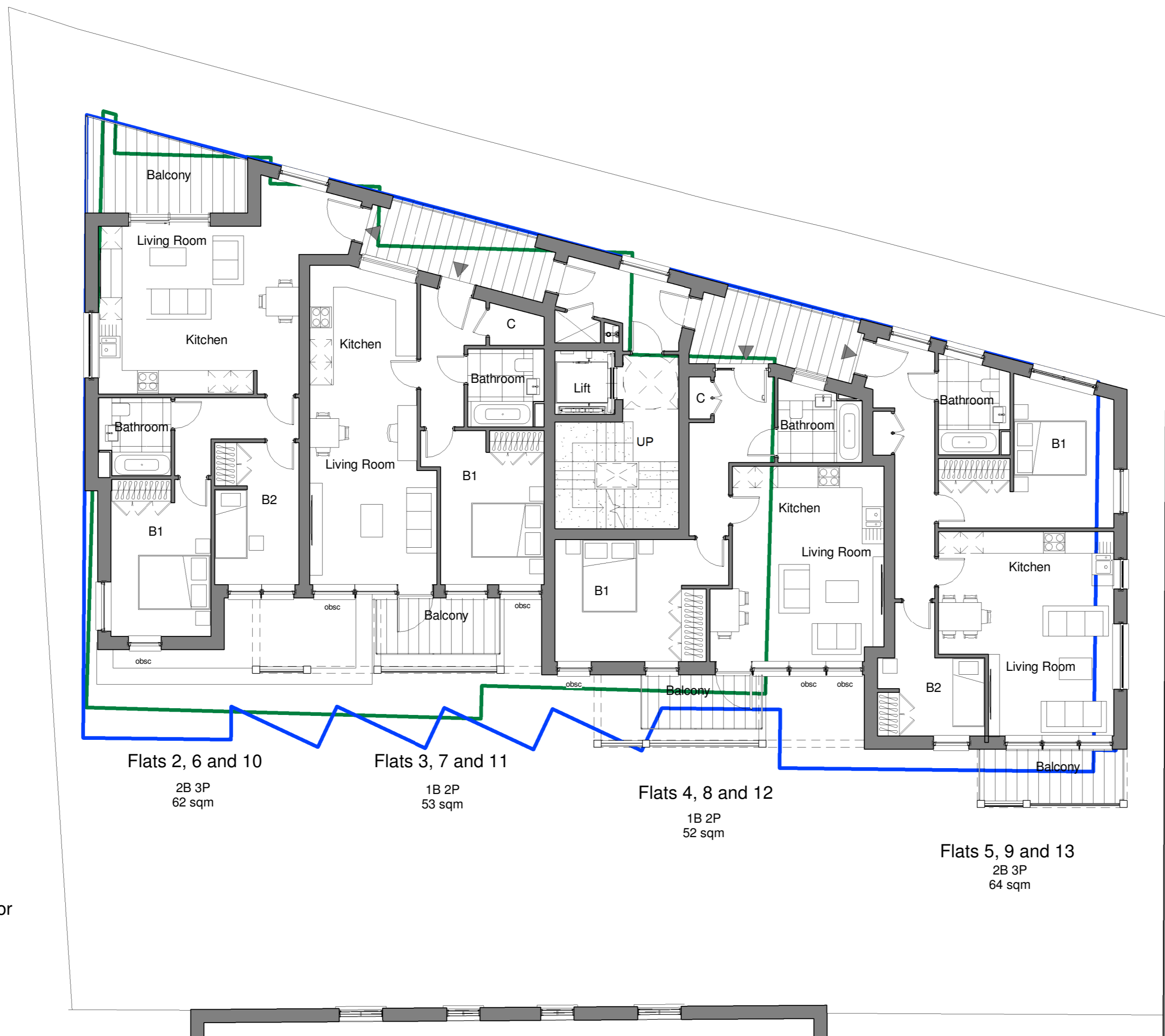
**Safety, Health & Environmental Information**  
Refer to the relevant Construction (Design and Management) documentation where applicable.

It is assumed that all works on this drawing will be carried out by a competent contractor, working where appropriate to an approved method statement.

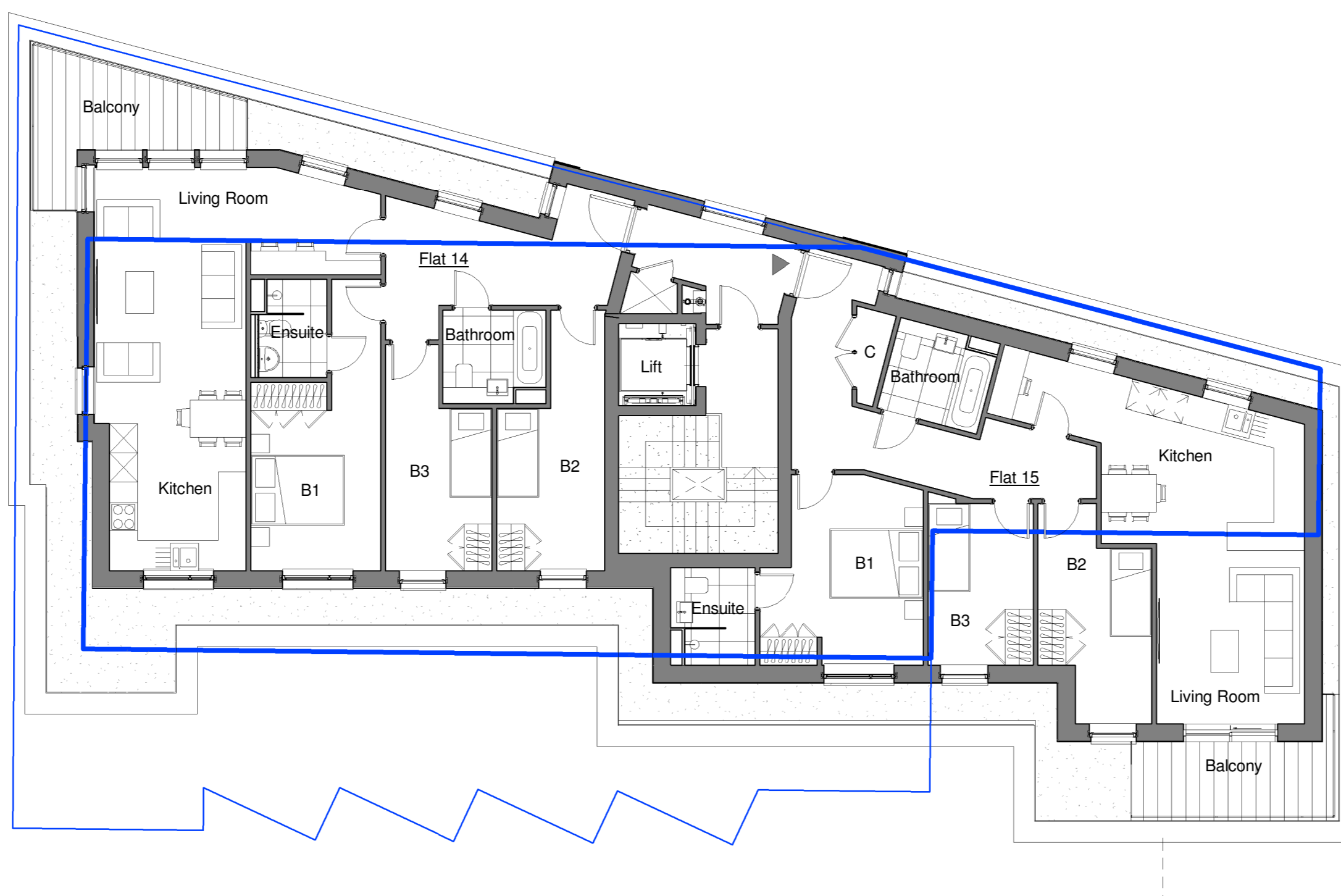
Ground Floor



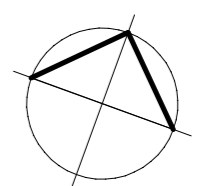
First, Second and Third Floor



Fourth Floor



— Student Scheme Overlay  
— Flat Scheme Overlay



0 1 2 3 4 5 10 m

# PLANNING

Rev	Description	Issued	Dwn	Chk
D	Updated Roof - PV Panels, AOV, Hatch	25/08/19	CK	CH
C	Updated Kitchen Window to Units 3,7,11	07/05/19	CK	CH
B	Updated Unit 5,9,13	07/05/19	CK	CH
A	Preliminary Planning Issue	03/05/19	CK	CH

Client  
Leek Real Estate (No. 1) Ltd  
Project  
Lockcorp House,  
75 Norcutt Road  
Twickenham, TW2 6SR

Drawing  
**PROPOSED**  
General Arrangement Floor Plans

Scale	Date	Drawn	Checked
1:100@A1	12/18/18	CK	CH

**Brookes Architects**

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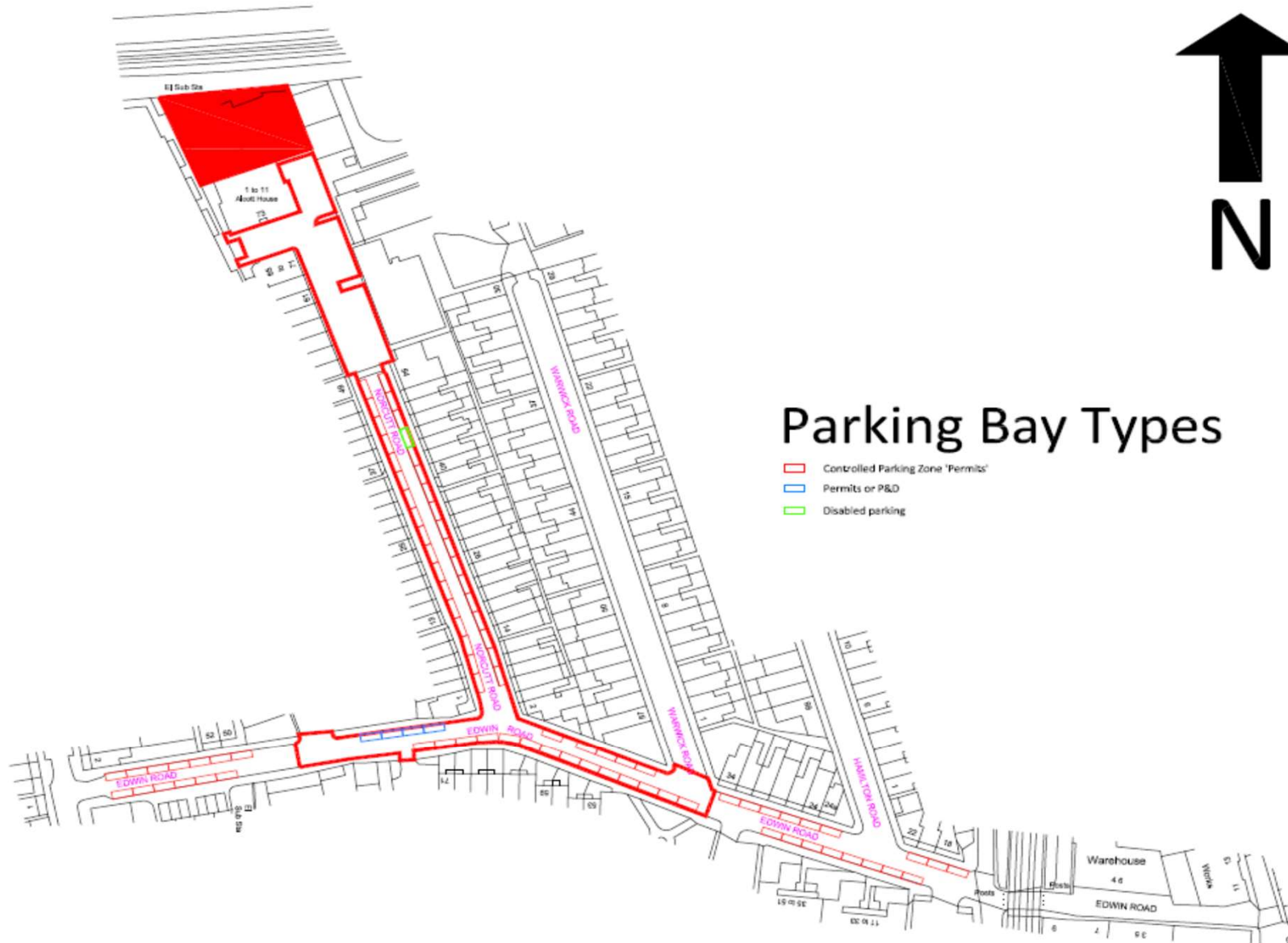
5076 | 3 | 02 | D



**Appendix B – Parking Survey**

DATE : Tuesday 15th January and Wednesday 16th January 2019

LOCATION : Lockcorp House





DATE : Tuesday 15th January and Wednesday 16th January 2019

LOCATION : Lockcorp House

Tues: 1:00am																Wed: 12:30am																	
		CPZ WT, Monday - Saturday 8:30am to 6:30pm			CPZ WT or P&D, Mon - Sat 8:30am to 6:30pm, max stay 4hrs no return 2hrs			Disabled			DOUBLE YELLOW LINES AT ANY TIME			SINGLE YELLOW LINES					CPZ WT, Monday - Saturday 8:30am to 6:30pm			CPZ WT or P&D, Mon - Sat 8:30am to 6:30pm, max stay 4hrs no return 2hrs			Disabled			DOUBLE YELLOW LINES AT ANY TIME			SINGLE YELLOW LINES		
LOCATION	SIDE OF RD	TOTAL	PARKED	SPACE	TOTAL	PARKED	SPACE	TOTAL	PARKED	SPACE	TOTAL	PARKED	SPACE	TOTAL	PARKED	SPACE	LOCATION	SIDE OF RD	TOTAL	PARKED	SPACE	TOTAL	PARKED	SPACE	TOTAL	PARKED	SPACE	TOTAL	PARKED	SPACE	TOTAL	PARKED	SPACE
NORCUTT ROAD	E	16	19	0	0	0	0	1	1	0	0	0	0	0	0	0	NORCUTT ROAD	E	16	19	0	0	0	0	1	1	0	0	0	0	0	0	
	W	17	18	0	0	0	0	0	0	0	0	0	0	0	0	0		W	17	18	0	0	0	0	0	0	0	0	0	0	0	0	
EDWIN ROAD	N	5	4	1	4	4	0	0	0	0	0	0	0	0	0	0	EDWIN ROAD	N	5	4	1	4	4	0	0	0	0	0	0	0	0		
	S	14	12	2	0	0	0	1	1	0	0	0	0	0	0	0		S	14	11	3	0	0	0	1	1	0	0	0	0	0	0	
<b>TOTALS</b>		<b>52</b>	<b>53</b>	<b>3</b>	<b>4</b>	<b>4</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>			<b>52</b>	<b>52</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	

TOTAL SPACES	58
AVAILABLE SPACES	3
TOTAL PARKING STRESS (%)	101.9%

TOTAL SPACES	58
AVAILABLE SPACES	4
TOTAL PARKING STRESS (%)	100.0%

\*Notes LBR Parkign bay length 5.5m

	TOTAL	PARKED	SPACE	Parking Stres
Alcott House (06/2018/FUL)				
22 Units	21	17	4	81%

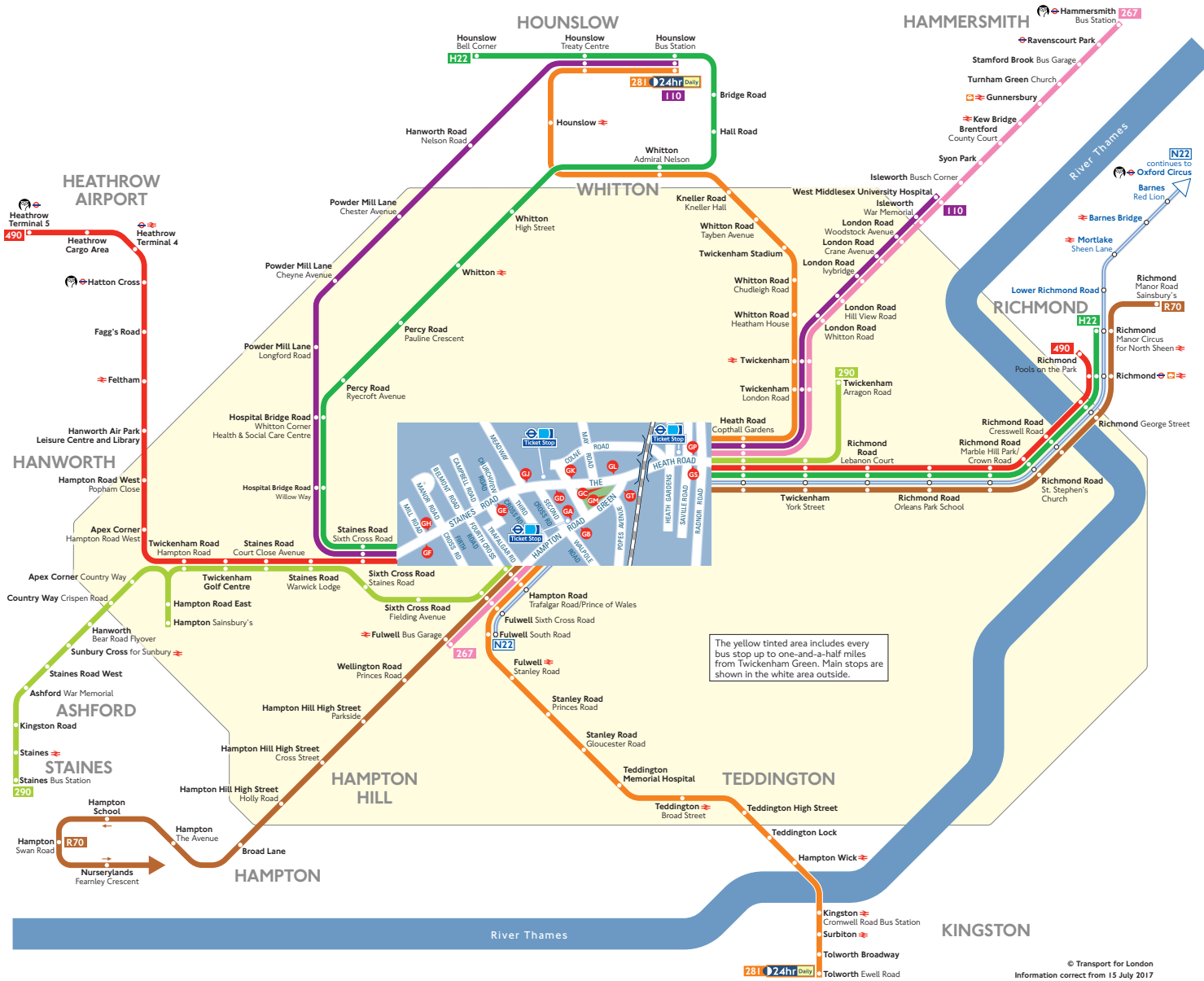
	TOTAL	PARKED	SPACE	Parking Stres
Alcott House (06/2018/FUL)				
22 Units	21	16	5	76%

	TOTAL	PARKED	SPACE	Parking Stres
Outside 200m				
Edwin Road	N	16	15	94%
Edwin Road	S	14	12	86%

	TOTAL	PARKED	SPACE	Parking Stres
Outside 200m				
Edwin Road	N	16	15	94%
Edwin Road	S	14	11	79%

**Appendix C - Bus Route Map**

# Buses from Twickenham Green



The yellow tinted area includes every bus stop up to one-and-a-half miles from Twickenham Green. Main stops are shown in the white area outside.

## Route finder

Bus route	Towards	Bus stops
<b>110</b>	Hounslow	GL, GD, GE, GF, GS
	West Middlesex University Hospital	GH, GI, GJ, GK, GL, GP
<b>267</b>	Fulwell	GL, GS, GT
	Hammersmith	GA, GB, GC
<b>281</b> <b>24hr Daily</b>	Hounslow	GA, GB, GC, GD, GE, GF, GS
	Tolworth	GL, GS, GT
<b>290</b>	Staines	GL, GS, GT
	Twickenham	GA, GB, GC
<b>490</b>	Heathrow Terminal 5	GC, GD, GE, GF, GS
	Richmond	GL, GI, GJ, GK, GL, GP
<b>H22</b>	Hounslow	GL, GS, GT
	Richmond	GH, GI, GJ, GK, GL, GP
<b>R70</b>	Nurserylands	GL, GS, GT
	Richmond	GA, GB, GC

## Night buses

Bus route	Towards	Bus stops
<b>N22</b>	Fulwell	GL, GS, GT
	Oxford Circus	GA, GB, GC

## Other Buses

Bus route	Towards	Bus stops
<b>681</b>	Hounslow	GL, GB, GC
School journey	Teddington School	GL, GS, GT

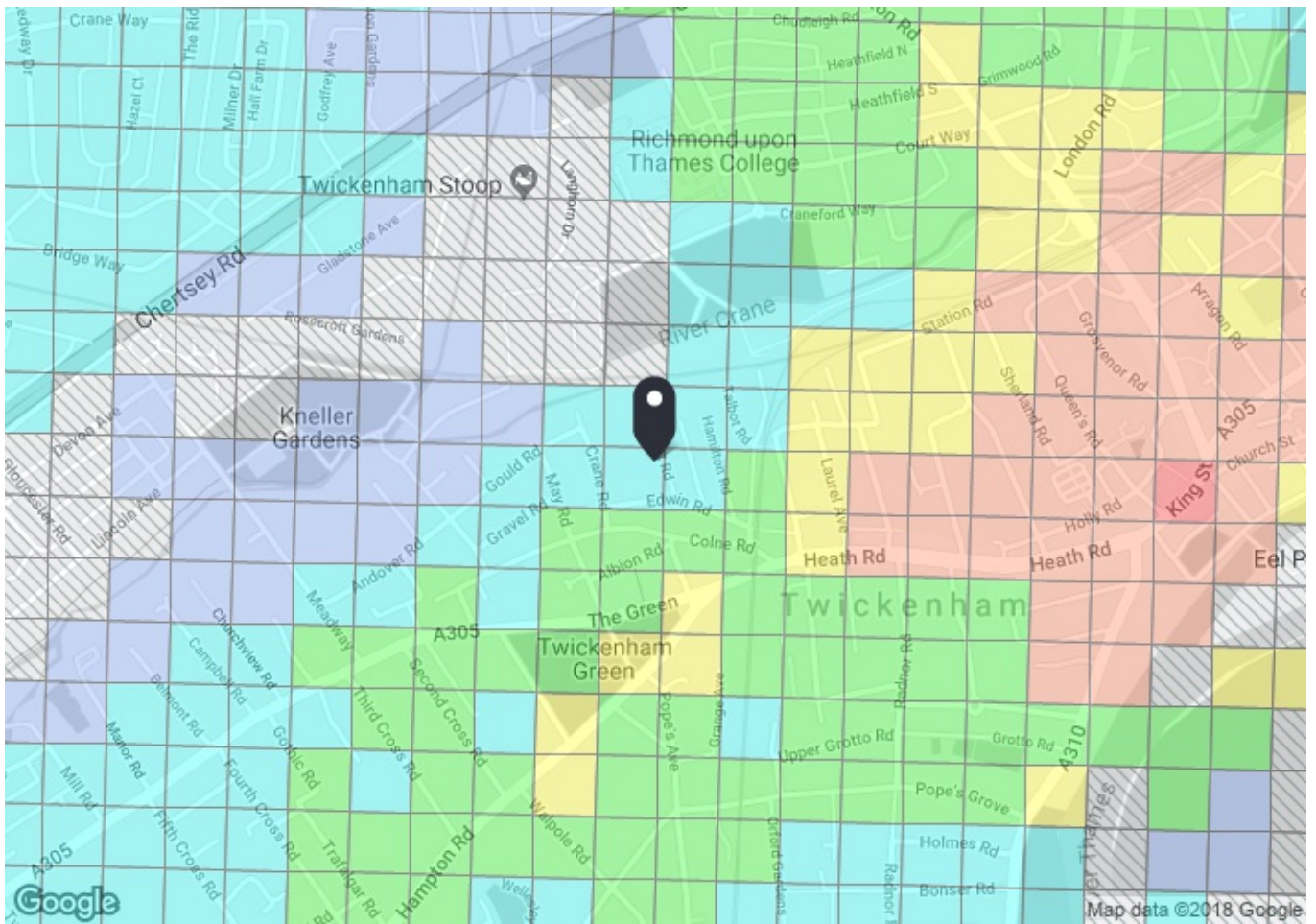
## Key

- 267** Day buses in black
- N22** Night buses in blue
- Connections with London Underground
- Connections with National Rail
- Connections with river boats
- Tube station with 24-hour service Friday and Saturday nights

## Ways to pay

Top up your Oyster pay as you go credit or buy Travelcards and bus & tram passes at around 4,000 shops across London.

**Appendix D – Public Transport Accessibility Level (PTAL)**



**PTAL output for Base Year 2**

TW2 6SR  
 Norcutt Rd, Twickenham TW2 6SR, UK  
 Easting: 515383, Northing: 173265

Grid Cell: 45397

Report generated: 17/10/2018

**Map key - PTAL**

	0 (Worst)		1a
	1b		2
	3		4
	5		6a
	6b (Best)		

**Map layers**

PTAL (cell size: 100m)

Calculation Parameters

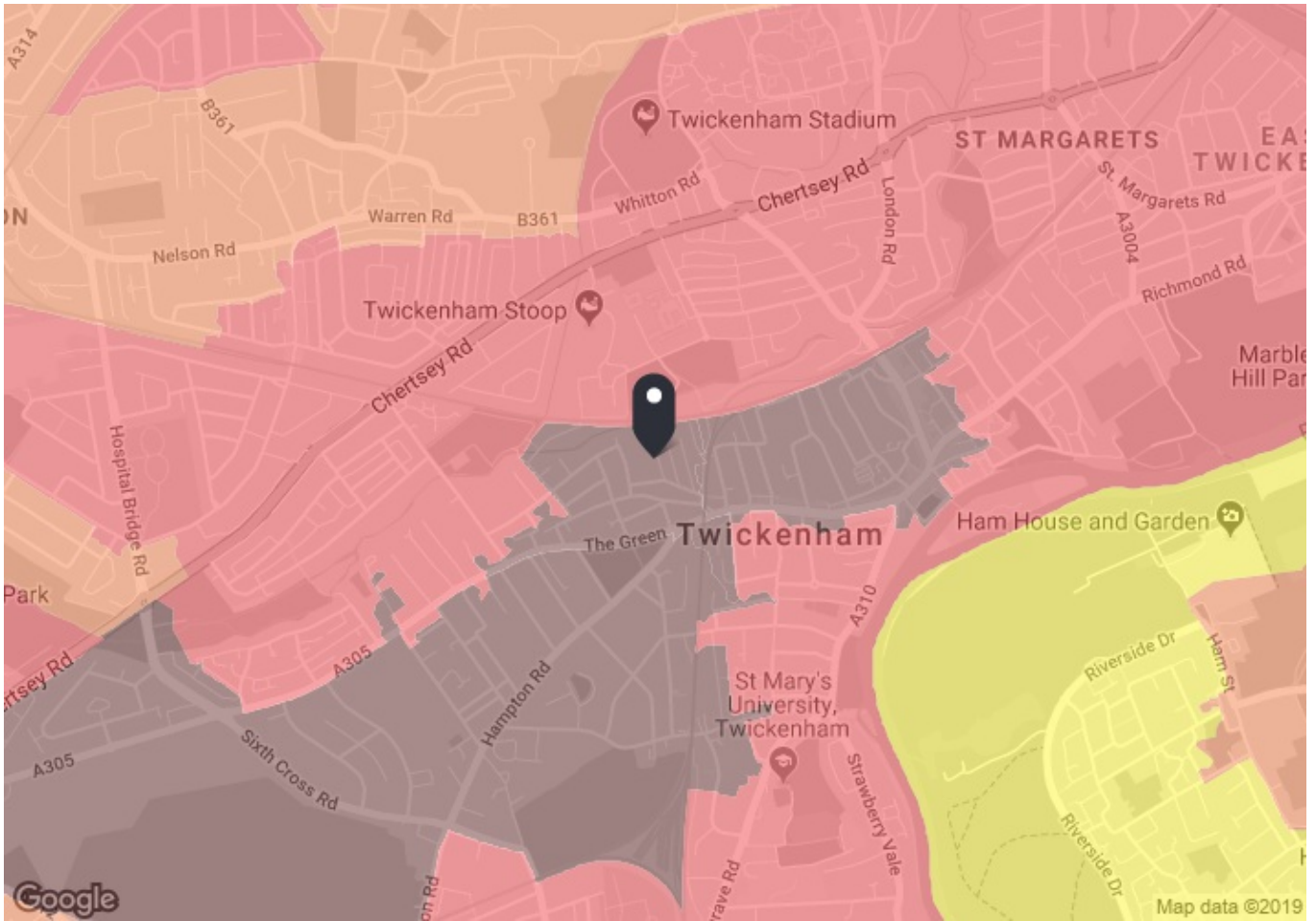
Day of Week	M-F
Time Period	AM Peak
Walk Speed	4.8 kph
Bus Node Max. Walk Access Time (mins)	8
Bus Reliability Factor	2.0
LU Station Max. Walk Access Time (mins)	12
LU Reliability Factor	0.75
National Rail Station Max. Walk Access Time (mins)	12
National Rail Reliability Factor	0.75



Calculation data

Mode	Stop	Route	Distance (metres)	Frequency (vph)	Walk Time (mins)	SWT (mins)	TAT (mins)	EDF	Weight	AI
Bus	TWICKENHAM GREEN	290	452.01	3	5.65	12	17.65	1.7	0.5	0.85
Bus	TWICKENHAM GREEN	281	452.01	7.5	5.65	6	11.65	2.58	1	2.58
Bus	TWICKENHAM GREEN	R70	452.01	6	5.65	7	12.65	2.37	0.5	1.19
Bus	TWICKENHAM GREEN	267	452.01	6	5.65	7	12.65	2.37	0.5	1.19
Bus	TWICKENHAM GREEN	110	404.43	3	5.06	12	17.06	1.76	0.5	0.88
Bus	TWICKENHAM GREEN	490	404.43	5	5.06	8	13.06	2.3	0.5	1.15
Bus	TWICKENHAM GREEN	H22	404.43	5	5.06	8	13.06	2.3	0.5	1.15
<b>Total Grid Cell AI:</b>										<b>8.97</b>

**Appendix E – Time Mapping (TIM)**



**TIM output for Base Year**

Scenario: Base Year Mode: All public transport modes, Time of day: AM peak, Direction: From location

TW2 6SR

Norcutt Rd, Twickenham TW2 6SR, UK










Easting: 515380, Northing: 173273

Report generated: 25/06/2019

Population and employment: GLA forecasts 2016  
Town Centres: GLA 2016  
Education: EduBase 2016  
Health: NHS Direct, CQC 2016

Code: NT086A05A

**Map key- Travel Time**

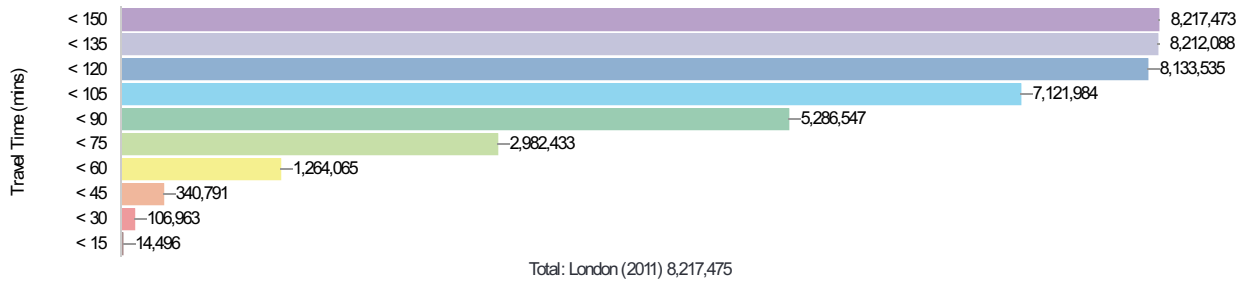
 < 15 mins	 15 - 30 mins
 30 - 45 mins	 45 - 60 mins
 60 - 75 mins	 75 - 90 mins
 90 - 105 mins	 105 - 120 mins
 120 - 135 mins	 135 - 150 mins

**Map layers**

 Travel Times

## Catchment data for your current selection

### Population - Total: London 2011



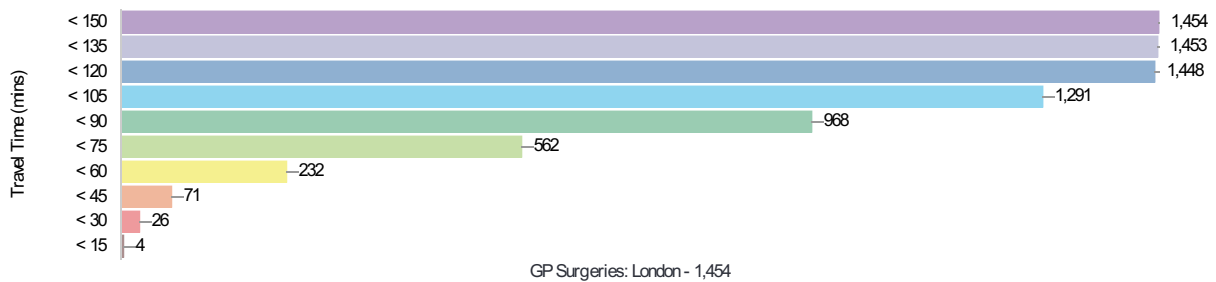
### Employment - Jobs: London 2011



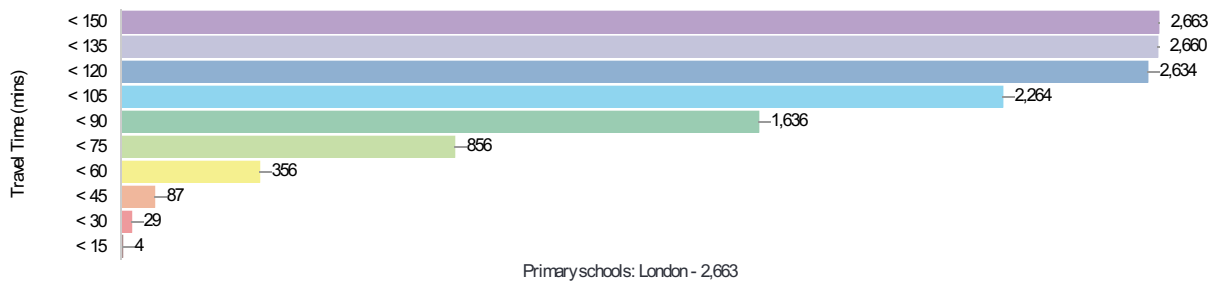
### Town centres - Metropolitan, major and district: London



### Health services - GP Surgeries: London



### Education establishments - Primary schools: London



**Appendix F – 2011 Census Data – South Twickenham Ward**

## LC4415EW - Accommodation type by car or van availability by number of usual residents aged 17 or over in household

ONS Crown Copyright Reserved [from Nomis on 25 April 2019]

population All households  
 units Persons  
 date 2011  
 area type 2011 wards  
 area name E05000529 : South Twickenham  
 no of usual residents in househ All categories: Number of usual residents aged 17 or over in household

Cars or Vans	All categories: Accommodation type		Whole house or bungalow		Flat, maisonette, apartment, caravan or other mobile or temporary structure		No.Units	15
		No.Cars		No.Cars		No.Cars		
All categories: Car or van avail:	4,047		2,700		1,347			
No cars or vans in household	854	21%	344	13%	510	38%	0	
1 car or van in household	2,075	51%	1,400	52%	675	50%	8	
2 or more cars or vans in house	1,118	28%	956	35%	162	12%	4	
		<b>100%</b>		<b>100%</b>		<b>100%</b>	<b>11</b>	

In order to protect against disclosure of personal information, records have been swapped between different geographic areas. Some counts will be affected, particularly small counts at the lowest geographies.

## QS701EW - Method of travel to work

ONS Crown Copyright Reserved [from Nomis on 22 May 2019]

population	All usual residents aged 16 to 74
units	Persons
area type	2011 wards
area name	E05000529 : South Twickenham
rural urban	Total

<b>Method of Travel to Work</b>	<b>2011</b>
All categories: Method of travel to work	7,690
Work mainly at or from home	468
Underground, metro, light rail, tram	325
Train	1,574
Bus, minibus or coach	353
Taxi	8
Motorcycle, scooter or moped	67
Driving a car or van	1,857
Passenger in a car or van	72
Bicycle	330
On foot	519
Other method of travel to work	37
Not in employment	2,080

In order to protect against disclosure of personal information, records have been swapped between different geographic areas. Some counts will be affected, particularly small counts at the lowest geographies.