Stag Brewery, Mortlake

Transport Assessment

For Reselton Properties

February 2018

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Contents

Figures

Tables

Appendices

Appendix O	Technical Note 22 – C2 vs C3 Comparison
Appendix P	Technical Note 23 Trip Generation Sensitivity Test
Appendix Q	LinSig Technical Note
Appendix R	ARCADY and PICADY Results
Appendix S	VISSIM Note
Appendix T	Lower Richmond Road, Mortlake High Street Drawing
Appendix U	Technical Note 19 Mortlake Station Capacity
Appendix V	Technical Note 18 Bus Enhancement Options
Appendix W	School Travel Plan Data
Appendix X	Level Crossing Capacity Note
Appendix Y	Car Park Management Plan
Appendix Z	Travel Plans

Separately Bound Drawings

Stag Brewery, Mortlake – Clifford Avenue/Lower Richmond Road Proposed Highway Layout 38262/5501/51E

Stag Brewery, Mortlake – Lower Richmond Road and Mortlake High Street Possible Highway Layout 38262/5501/58E

0 Executive Summary

0.1 Introd uction

0.1.1 This Transport Assessment (TA) has been prepared by Peter Brett Associates LLP (PBA) on behalf of Reselton Properties Limited ('the Applicant') in support of three linked planning applications for the comprehensive redevelopment of the former Stag Brewery Site in Mortlake ('the Site') within the London Borough of Richmond Upon Thames ('LBRuT').

0.1.2 The TA has been undertaken in accordance with best practice and to a scope and methodology that has been agreed with both LBRuT and TfL.

0.1.3 The Site is bounded by the A3003 Lower Richmond Road and Mortlake High Street to the south, the River Thames and existing residential properties to the north, Williams Lane to the east and Bulls Alley (off Mortlake High Street) to the west. The Site, which is bisected by Ship Lane, a public highway, currently comprises a mixture of large scale industrial brewing structures, large areas of hardstanding and playing fields.

0.1.4 The surrounding area is primarily residential but there are also a wide range of local facilities, including primary and nursery schools, local shops and restaurants and the Barnes Hospital, all within easy walking distance of the Site.

0.1.5 The Site benefits from a number of existing public transport links. These include rail services from the nearby Mortlake Rail Station which provide access into central London and the London Underground network as well as local bus services on route 419, which operates past the Site frontage and provide a link to Richmond to the south west and Hammersmith to the north east.

0.1.6 The combination of the range of public transport services that are available together with the wide range of local facilities, provide a good basis for the creation of a development that is sustainable in transport terms and which is less reliant upon the use of a car.

0.2 Previous and Cu rrent Site Use

0.2.1 The former brewery was in brewing operation until December 2015, after which the site/buildings have been used for decommissioning purposes, and up to that time was generating significant Heavy Goods Vehicle (HGV) traffic movements as well as traffic associated with staff and visitors. Data provided by the Applicant suggest that on a typical working day, when it was fully operational, the brewery generated approximately 500 vehicle movements.

0.2.2 The brewery occupied both sections of the Site with two pedestrian walkways over Ship Lane linking them together. The Site has a number of access points including on Lower Richmond Road, Williams Lane and Ship Lane. The main HGV access/egress is located on Lower Richmond Road at the bend close to the Sheen Lane mini roundabout.

0.2.3 The brewery had approximately 130 parking spaces on Site for both staff and visitors within its main car park which is accessed off Ship Lane. In addition, approximately 12 to 15 spaces are provided within the sports club car park, accessed of Lower Richmond Road. A further 48 HGV parking spaces are provided within the eastern part of the site to accommodate the brewery's operational traffic. However, there is in addition substantial opportunity for informal parking of cars and HGV on the Site.

0.2.4 The existing brewery buildings are still retained on Site. Thus, the Site could still be re-used as a brewery or for other uses under the same Use Class order without recourse to a planning application.

0.3 Baseline Transport Conditions

0.3.1 Highway access to the Site is affected by a number of physical constraints. In particular, the presence of the river to the north and the railway line to the south, cause severance and limit the number of highway access points to the area. Thus, there are effectively only four highway access points to the Mortlake area. These are:

- Chalkers Corner – subject to periodic congestion;
- Sheen Lane – capacity constrained by the presence of the railway level crossing at Mortlake Station;
- White Hart Lane – capacity constrained by the presence of the railway level crossing; and
- The Terrace – This is a local access route where capacity is also slightly constrained by the narrowness of the road under the railway bridge.

0.3.2 In order to provide a detailed picture of current transport conditions in the surrounding area of the Site, a number of baseline surveys have been undertaken. These included traffic surveys, extensive parking surveys and an extensive audit of pedestrian and cycle access routes.

0.3.3 Both Mortlake and Barnes Bridge (stations are accessible within easy walking distance of the Site as are the retail facilities along the Upper Richmond Road). Numerous destinations are reachable within a maximum of a 20-minute cycle. Richmond, Chiswick, Hammersmith and Putney as well as Richmond Park are all shown to be reachable within 20 minutes' cycle time.

0.3.4 The local area is generally well served by a network of well-maintained footways. The PERS audit undertaken for the development has identified a lack of existing pedestrian crossing facilities over Lower Richmond Road and Mortlake High Street and a number of local roads have a footway on one side only. These include Ship Lane, which bisects the Site, and the corner of Mortlake Green. The cycle network also has a number of shortcomings, in particular poor connectivity between Ship Lane and the onward route through Mortlake Green, the lack of provision at the Chalkers Corner junction and also absence of cycle provision along the Lower Richmond Road and Mortlake High Street corridor.

0.3.5 Based on discussions with Stakeholders and the extensive consultation that has taken place with the local community, together with the baseline surveys and site visits a number of key access issues were identified as follows:

- Delays and congestion along the Lower Richmond Road / Mortlake High Street corridor related to the capacity constraints at Chalkers Corner together with the long barrier down time (around 46 minutes per hour) at the two level crossings;
- The importance of providing improved access for pedestrians and cyclists to the Site, with the need to provide a high quality link between the station and the riverside a priority;
- The unsatisfactory nature of the access across the Sheen Lane level crossing, in particular for pedestrians;
- The need to improve access to the area by bus.

0.4 Proposed Site Use

0.4.1 The redevelopment proposals for the Site are divided into three linked planning applications:

- Application A - A hybrid application to include the demolition of existing buildings to allow for the comprehensive phased redevelopment of the Site.

- Application B - A detailed planning application for the school (on land to the west of Ship Lane).

- Application C - detailed planning application for highways and landscape works at Chalkers Corner.

0.4.2 The redevelopment proposals for the Site have been guided by LBRuT's Planning Brief for the Site which was adopted as Supplementary Planning Guidance in July 2011. The proposals for the Site will provide homes (including affordable homes), accommodation for an older population, complementary commercial uses, community facilities, a new secondary school alongside new open and green spaces throughout.

0.4.3 In accordance with the Brief, the development will provide a new village centre for Mortlake providing a range of local shops, restaurants and bars, a local cinema as well as local jobs. It will also provide much enhanced access to the river, in particular from Mortlake Station and Mortlake Green, through the creation of a new green link. As such, the proposals will reduce the need for the community to travel further afield to meet many of their day to day needs.

0.4.4 In developing the detailed proposals for the development, including the access strategy, a comprehensive public consultation exercise has been undertaken. This has included two major exhibitions in March and July 2017 as well as a series of workshops with the local residents group.

0.4.5 The community engagement together with the discussions held with officers from LBRuT and TfL have helped to shape the transport and access strategy for the Site.

0.5 Operational Assessment of the Transport Networks

Scope of Assessment Work

0.5.1 There have been substantial pre application discussions with the planning and highway authorities and with the local community. This TA has been based upon a comprehensive assessment, to a scope of work and methodology that has been agreed with both LBRuT and Transport for London (Tfl). In addition to formal pre application meetings a series of technical meetings have been held with officers of both organisations to agree the detailed methodology and key assumptions.

Trip Generation

0.5.2 For the operational development a detailed spreadsheet model has been developed which provides trip estimates for each of the separate land-uses by mode of travel and for each hour of the day. The various trip rates used in the spreadsheet have been agreed with both TfL and LBRuT through a series of technical notes.

0.5.3 Based on the agreed trip rates, it is anticipated that the proposed development could generate around 427 way vehicular trips during the AM weekday peak (08:00 to 09:00) and 250 way trips during the evening weekday network peak (17:00 to 18:00), inclusive of servicing vehicles. The higher AM peak trip generation reflects the combined impact of the school and the other development with the school generating around 45% of all vehicular trips during the AM peak.

Highway Network

0.5.4 In order to assess the likely effects of the proposed development on the operation of the local highway network, including on the strategic network serving the area, it was agreed to use TfL's strategic SATURN model for south London, SoLHAM, in addition to more detailed local models. The strategic model provides a means for taking account of the potential reassignment of traffic due to infrastructure schemes or as a result of large development. It also takes account of anticipated changes in background traffic in London, although the latest Mayor's Transport Strategy is looking to limit traffic growth within London.

0.5.5 As agreed with TfL, their 2031 SoLHAM forecast model has been used as a means of assessing the operation of the highway in the future, with and without the proposed Stag development. In using the model, it has been noted that this suggests a high level of background traffic growth of around 9% compared with the existing situation. This does not necessarily accord with the Mayor's policy, as set out in the draft Transport Strategy, to reduce the proportion of journeys made by car from 36% at present to 20% by 2041 or the emerging observed travel behaviour towards the adoption of more sustainable patterns of travel.

0.5.6 Given that the existing highway network, in common with that serving most of London, is already congested, the SoLHAM model predicts a substantial increase in delay on traffic routes in the area by 2031, due to the high background traffic growth incorporated within the model. The modelling work confirms that the further addition of traffic associated with the Stag development with no improvements to the highway network will have a relatively modest further increase in delay through the network and that the impacts of the proposed development are very localised.

0.5.7 The local modelling also confirms that the proposals for the Chalkers Corner junction will largely mitigate the impacts of the development on the highway network and provide a substantial improvement to the operation of this junction.

Public Transport Network

0.5.8 A detailed assessment has been undertaken to identify the likely impacts of the proposed development on the public transport network.

0.5.9 The assessment work has concluded that the existing layout of Mortlake Station, including the footbridge, have sufficient capacity to accommodate the additional trips that will be generated by the proposed development.

0.5.10 In terms of line capacity, it is considered that the upgrade from 8 to 10 car trains that is currently underway and which will be complete by the end of 2019 will provide more than sufficient additional capacity to accommodate the proposed development. In addition, new higher capacity rolling stock is also to be introduced to the line and will further increase the capacity of the peak hour services at Mortlake.

0.5.11 With the exception of the school, the proposed development will lead to only a modest increase in demand on existing bus services in the area. The school is likely to have a greater impact, although this will depend on this catchment area, which has yet to be determined. This could require the provision of special bus services.

Sheen Lane Level Crossing

0.5.12 A detailed assessment has been undertaken of the use of the level crossing, both now and in the future. Pedestrian surveys undertaken in June 2017 formed the basis of this work. The study involved a comprehensive assessment of likely demand generated by the development taking account of the various pedestrian crossings over the railway line in relation to pedestrian desire lines.

0.5.13 The assessment demonstrates that the crossing together with the footbridge provide sufficient capacity to cater for existing and future pedestrian demand. The proposed development is expected to have only a modest impact and that the footbridge appears to have sufficient capacity to accommodate both station demand and through movements along Sheen Lane. Additionally, the width of the marked pedestrian areas on the crossing appears sufficient to meet NR guidelines both now and in the future. Nor is there any evidence that driver frustration has led to a poor accident record in the area based on a review of injury accident records. Therefore, it has been concluded that no improvements are required at the level crossing as a result of the development.

0.6 Transport Access Strategy

0.6.1 This strategy prioritises the movement of pedestrians, cycles and access by public transport. The streets within the development will operate largely traffic free, since development parking is virtually wholly contained within basements and servicing will be subject to close control. Proposed parking for the development is also below current LBRuT minimum parking standards which will help to reduce the vehicular trip generation associated with the development.

0.6.2 These factors, have allowed the creation of a highly attractive network of streets that will allow easy and safe access for pedestrians and cycles. The development proposals therefore accord with the principles of “Healthy Streets” which is a key plank of the mayors emerging London Plan and Transport strategy. The cycle strategy includes new routes through the site connecting to the existing cycle network.

0.6.3 The key components of the multi-modal transport strategy for the Site are listed below:

- Development Layout Principles – including public realm/environmental measures to increase the attractiveness of walking and cycling in the site;
- A walking and Cycling Strategy – including new cycle routes and cycle parking facilities as well as new walking routes coupled with new crossing points and access points;
- Public Transport enhancements – such as improvements to the bus network and ease of access to the rail station;
- Parking Strategy – keeping parking space numbers low in order to discourage car ownership and use;
- Highway Strategy – enhancements to the network including Chalkers Corner and on Lower Richmond Road and Mortlake High Street, as well as new site access arrangements; and
- Travel Planning – to encourage more sustainable and healthy modes of transport.

Walking and Cycling

0.6.4 The development layout proposals have prioritised the safe and convenient movement of pedestrians and cycles around the Site. The experience will be enhanced through the provision of a high quality public realm.

0.6.5 The development includes new cycle routes through the site which link with the wider cycle network

0.6.6 The local highway proposals, described below, also prioritise pedestrian and cycle movement, whist the proposals for Chalkers Corner provide enhanced cycle facilities.

0.6.7 The option of providing cycle lanes along Lower Richmond Road between Chalkers Corner and the Site was investigated. Whist such a facility could potentially have been provided this would have required the loss of significant on-street parking and following discussions with LBRuT this option was not pursued.

Public Transport Enhancements

0.6.8 Options for enhancing the existing access to public transport have been discussed with TfL, LBRuT and Network Rail. With regard to buses, whilst the original development brief has earmarked the 209 bus service for extension, the developers preferred option is to enhance the frequency of the 419 bus service since this provides good access to all parts of the Site and provides a good link to both Hammersmith (to the west) and to Richmond (in the east). Both of these options are important destinations in themselves but also provide connectivity to the wider public transport network. However, at this stage, TfL wish to retain flexibility regarding future bus service upgrades since they are planning a wider review of bus services in the area to take effect once planned works to Hammersmith Bridge have been completed.

0.6.9 In order to maximise TfL's potential future operational flexibility in this location, the Applicant has agreed to TfL's request to safeguard an area of land within the Site at the corner of Lower Richmond Road / Williams Lane, for a possible new bus turn facility. This could accommodate three bus stands as well as driver facilities. Should TfL wish to pursue this option then this would be subject to a further planning application.

Local Highway Improvements

0.6.10 The on-site development proposals are complimented by proposed enhancement works to the Lower Richmond Road / Mortlake High Street corridor, including the northern section of Sheen Lane.

0.6.11 The aim of these works is to provide a safer environment, in particular for pedestrians and cycles by managing traffic speeds and by providing improved pedestrian crossing facilities. The proposed works include provision of a 20 mph zone along the Site frontage and extending down Sheen Lane.

0.6.12 It is also proposed to relocate the existing pelican crossing at Ship lane so that it better aligns with the new Green Link between the station and the river. Two new crossings are proposed, one to provide safe access to the school and the other a convenient crossing over Mortlake High Street.

0.6.13 It is anticipated that these improvements would potentially dovetail with wider scheme, which is currently being investigated by LBRuT. The proposals would also contribute to an improved environment for pedestrians and cyclists using the level crossing.

Chalkers Corner

0.6.14 The development proposals include a scheme to upgrade the Chalkers Corner junction which serves as the main highway access to the Mortlake area. The proposals seek to improve the operational efficiency of the junction, making it easier for traffic to exit Lower Richmond Road and therefore helping to reduce existing queuing and delays on the approach to the junction.

0.6.15 The proposals will improve the resilience of the junction making it less prone to becoming blocked by queuing traffic.

0.6.16 The scheme also incorporates measures to improve cycle movement through the junction, as agreed with TfL, which will contribute towards the development of their Quietway proposals for the A316 corridor.

0.6.17 The scheme includes a substantial landscaping scheme and other measures aimed at reducing the impacts of the scheme on the local community.

Demand Management

0.6.18 Traffic generation from the development will be subject to demand management through a series of Travel plans that have been drafted in accordance with best practice guidance. These include an overarching Plan for the site as a whole, as well as separate plans for the Residential school.

0.6.19 The TA also includes framework plans for the management of the developments car parks, and to manage delivery and serving. It has also been agreed with LBRuT that provision should be made for the development to fund a suitable extension of controlled parking zones in the area should that prove necessary to control parking associated with the development from over spilling onto surrounding residential roads.

Level Crossing

0.6.20 Notwithstanding that the assessment work has concluded that the development proposals do not require any enhancements to be made to either the level crossing or the footbridge at Mortlake, the developer has indicated a willingness to take an active part in a future working party of stakeholders to assess possible options for improving access across the railway.

0.7 Conclusions

0.7.1 The proposed development at the Stag is demonstrated to accord well with both local and national policy and guidance. It is concluded that the proposed development, taking into account the proposed mitigation set out above, will have no severe residual impacts on the operation of the transport networks serving the site abut will provide major benefits in the form of enhanced pedestrian and cycle linkages and much enhanced access for the wider community to the riverside.

1 Introduction

1.1 Backgroun d

1.1.1 This Transport Assessment (TA) has been prepared by Peter Brett Associates LLP (PBA) on behalf of Reselton Properties Limited ('the Applicant') in support of three linked planning applications for the comprehensive redevelopment of the former Stag Brewery Site in Mortlake ('the Site') within the London Borough of Richmond Upon Thames ('LBRuT').

1.1.2 The former Stag Brewery Site is bounded by Lower Richmond Road and Mortlake High Street to the south, the River Thames and existing residential development to the north, Williams Lane to the east and Bulls Alley (off Mortlake High Street) to the west. The Site is bisected by Ship Lane. The Site currently comprises a mixture of large scale industrial brewing structures, large areas of hardstanding and playing fields.

1.1.3 The redevelopment will provide homes (including affordable homes), accommodation for an older population, complementary commercial uses, community facilities, a new secondary school alongside new open and green spaces throughout. Associated highway improvements are also proposed, which include works at Chalkers Corner junction.

1.1.4 The former brewery was in operation until December 2015 and up to that time was generating significant HGV traffic movements as well as traffic associated with staff and visitors. The buildings are still retained and so could still be re-used as a brewery or for other uses under the same Use Class order without recourse to a planning application.

1.1.5 The development proposals have been guided by the Council's Planning Brief for the site which was adopted as Supplementary Planning Guidance in July 2011, following an extensive public consultation exercise. The Brief states that the Council's vision is to '*provide a new village heart for Mortlake'* and should "*provide a new recreational and living quarter with a mix of uses, creating vibrant links between the River and the town*". The Brief included an illustrative plan identifying the Council's "Vision" which is reproduced at Appendix A; this shows a new green link through the site linking the riverside with Mortlake Green and Mortlake Station via a new pedestrian crossing over Lower Richmond Road; and with traffic calming along both the Lower Richmond Road and High Street frontages to the development as well as along Sheen High Street. This vision has been translated into the emerging Site Allocation for the Site within the emerging Local Plan (2017, draft Policy SA 24). The proposals have also been guided by this emerging allocation.

1.1.6 In accordance with the Brief, the redevelopment proposals for the site will provide a residential led, mixed-use development. In addition to residential, the proposed scheme will provide a range of uses which are intended to enliven the site and provide local facilities both for the new residents and the existing community, include both food and non-food retail outlets, local restaurants and bars, leisure facilities, a new local cinema, a new hotel/pub with rooms and community uses.

1.1.7 In addition, the developer is required by LBRuT to make part of the site available for a new secondary school, although this differs from the adopted Planning Brief, which had instead promoted a new primary school.

1.1.8 This TA will support three separate planning applications:

- Application A - A hybrid application to include the demolition of existing buildings to allow for the comprehensive phased redevelopment of the site.
    - Land to the east of Ship Lane applied for in detail (referred to as 'Development Area 1' throughout); and

- Land to the west of Ship Lane (excluding the school) applied for in outline (referred to as 'Development Area 2' throughout).

- Application B - A detailed planning application for the school (on land to the west of Ship Lane).

- Application C - detailed planning application for highways and landscape works at Chalkers Corner which includes reconfiguration of Chalkers Corner traffic junction, to include existing public highway and existing landscaped and informal parking area associated to Chertsey Court, to facilitate alterations to lane configuration, a new cycle lane, works to existing pedestrian and cycle crossing, soft landscaping and replacement boundary treatment to Chertsey Court.

1.1.9 The principles of the proposed outline development for Development Area 2 are guided by parameters, including an Access and Movement Parameter Plan. In addition, an illustrative masterplan has been prepared by Squire & Partners Architects which includes both the school and the other development and shows how the development as a whole (i.e. Applications A and B), including the outline elements could be integrated. The Circulation Parameter Plans and the illustrative Masterplan are reproduced at Appendix B.

1.2 Site Location and Local Area

1.2.1 The Stag Brewery main site is located in Mortlake in south west London within the LBRuT. Figure 1.1 identifies the site boundaries within Mortlake. The main site has a frontage onto the River Thames and is approximately 250m to the north of Mortlake Rail Station and immediately north of Mortlake Green. The main site is in two parts, separated by Ship Lane which is a public highway. The surrounding area is primarily residential but there are also a wide range of local facilities, including primary and nursery schools, local shops and restaurants and the Barnes Hospital, all within easy walking distance of the site.

Figure 1.1 Indicative Site Boundary

1.2.2 The site benefits from a number of existing public transport links. These include rail services from the nearby Mortlake Station, which provides frequent services into central London (Waterloo via Clapham Junction) and connections with the London Underground networks at

both Richmond (District Line services), Vauxhall (Victoria Line services) and Waterloo (Northern, Bakerloo, Jubilee and Waterloo and City Line services). Additional rail services are available from Barnes Station which is also within easy walking distance of the site.

1.2.3 There is also a local bus service, the 419, which operates past the site frontage providing a link to Richmond to the south west and to Hammersmith to the north east. A number of other bus services are available within a reasonable walking distance of the site.

1.2.4 The combination of the range of public transport services that are available together with the wide range of local facilities provide a good basis for the creation of a development that is sustainable in transport terms and which does not need to be reliant upon the use of a car.

1.2.5 The area is subject to some existing traffic congestion, as identified in the Planning Brief. This reflects the fact that there are limited vehicular access points to Mortlake with the capacity of two of them being constrained by level crossings that are heavily used by rail services. In addition, the Chalkers Corner Junction which provides the main highway access to Mortlake with access onto London's Strategic Highway Network, is a very busy and constrained junction and recognised as a traffic hotspot.

1.2.6 In accordance with the Brief this existing traffic congestion has been taken into account in developing the regeneration plans for the site and the impacts of the development upon local traffic conditions are looked at closely in this TA. This is reflected in the provision of the separate application (Application C) to deliver an improvement scheme for Chalkers Corner.

1.3 Consultation and Community Engagement

1.3.1 There have been substantial pre application discussions with the planning and highway authorities and with the local community.

1.3.2 Substantial pre application discussions have been held with both the LBRuT and with Transport for London (TfL) and the methodology and scope for this TA has been agreed with both of these authorities. Two formal pre application meetings have been held with TfL together with a number of technical meetings relating to traffic modelling and future bus provision. There has also been a series of pre application meetings and ad hoc technical meetings with officers of LBRuT and, in addition, a number of briefing sessions held with Council Members. A draft scoping report was issued to TfL and LBRuT and comments were received and taken into account within this TA. The draft Scoping Report is included in Appendix C.

1.3.3 Extensive public consultation has been carried out to date, including two formal consultation events, the first in March 2017 to set out the initial proposals and the second in July 2017 to feedback to the public the changes to the proposals based on responses from the initial consultation and from a series of meetings held with representatives of the local community through a Community Liaison Group (CLG). The CLG meetings were held as a way of providing scheme updates throughout the application process and to allow the design team to better understand the concerns of the local community. One on one sessions were then also held with specific members of the CLG, who has specific technical knowledge on transport, to further discuss the details of the application. This is discussed further within Chapter 4 and in the Statement of Community Involvement.

1.3.4 Meetings have also been held with Network Rail (NR) regarding the potential impacts of the development both on the station and rail services and on the operation of the Mortlake level crossing.

1.4 Structure of the Report

1.4.1 This TA forms part of a suit of transport related documents that aim to support the planning application. Appended to this TA are the following:

- Pedestrian Environment Review System (PERS) audit;
- Framework Delivery and Servicing Management Plan (FDSMP);
- Framework Travel Plan for the whole site, excluding the school;
- Full Residential Travel Plan;
- Draft School Travel Plan;
- Car Park Management Plan; and
- Waste Strategy

1.4.2 There is also a separate Framework Construction Management Statement prepared by AECOM and submitted in support of the Applications.

1.4.3 This chapter forms the introduction to the TA. The remaining chapters are structured as follows:

- Chapter 2 sets out the baseline conditions, including details of access to the site by the different traffic modes. It also includes a review of accident records on the surrounding highway network over the last 5 years;
- Chapter 3 reviews the current relevant transport planning policy, including national, London and Borough policies;
- Chapter 4 details the proposed development, including proposed car parking and access proposals and sets out the access strategy for the development and considers how the proposed development accords with relevant transport policies;
- Chapter 5 sets out the overall assessment methodology that has been adopted and which has been agreed with both TfL and LBRuT through the various scoping discussions. It includes a detailed review of the agreed trip generation rates;
- Chapter 6 provides a summary of the highway impacts of the scheme and sets out a proposed highway mitigation strategy. The assessment of this mitigation strategy is also detailed;
- Chapter 7 sets out the impacts of the development on the public transport and walking and cycling networks and the proposed mitigation strategy;
- Chapter 8 sets out the overall transport and access strategy for the Site including the various measures that are designed to mitigate the impacts arising from the proposed development. This includes a summary of the provides a summary of the various travel plans, of the Framework Delivery and Servicing Management Plan (FDSMP) for the development and of the outline Car Park Management Plan; and
- Chapter 9 provides a summary and conclusions for the TA.

2 Existing Context

2.1 Overview

2.1.1 This chapter describes the current transport conditions in and around the main Site. The purpose of this chapter is to set out the existing issues and the range of transport options available to those using or living within the area.

2.1.2 In order to provide a detailed picture of current conditions a number of baseline surveys have been undertaken. These have included traffic surveys, extensive parking surveys and an extensive audit of pedestrian and cycle access routes. The outcome of these surveys is summarised within this section. There is also a review of existing collision data for the area.

2.2 Site Location

2.2.1 The Site is located in Mortlake and lies between the River Thames and A3003 Lower Richmond Road and Mortlake High Street in the LBRuT. It comprises two distinct parts separated by Ship Lane, a public highway. The eastern section of the Site fronts onto Mortlake High Street and backs onto the River Thames, whilst Lower Richmond Road borders the western section and this part of the site does not have direct access to the River. Williams Lane borders the site to the west, whilst Boat Race House is located to the east of the site. The site location is shown below in Figure 2.1.

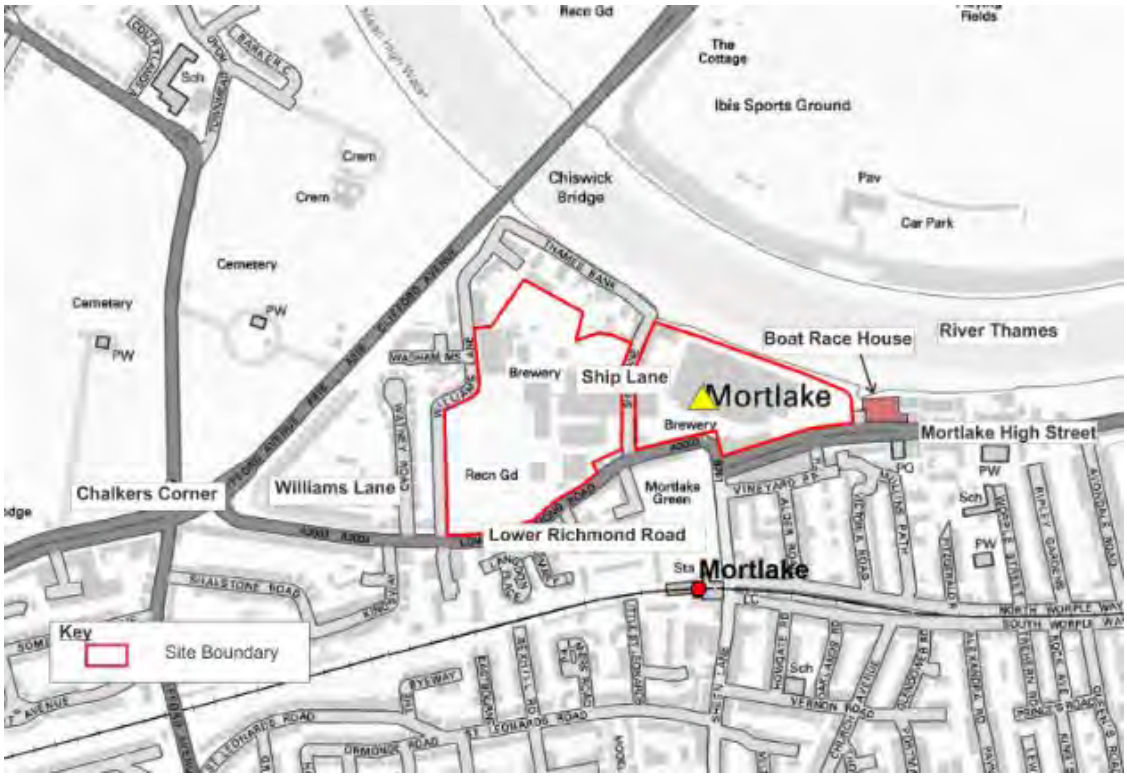

Figure 2.1 Site Location Plan

2.3 On-Site and Adjacent Land Uses

2.3.1 The proposed development is located on the site of the former Stag Brewery which occupied both sections of the site with two pedestrian walkways over Ship Lane linking them together. The brewery ceased operating in December 2015, but up until that time retained a significant

workforce and generated a significant number of HGV movements in the form of articulated tanker vehicles. Whilst the brewery is no longer operational the brewery buildings still remain and the site could in theory be returned to its previous use. In terms of traffic generation across a 12-hour day the majority of trips generated by the brewery were car trips by staff. The brewing section of the site produced the second highest number of trips with the majority being cars or HGVs.

2.3.2 On the western section of the site, there is also a sports club and playing fields. The sports pitch has always been privately owned by the brewery and remains so by Reselton Properties. However, through agreement, Reselton Properties may allow the sports field to be used at weekends by a local sports team and on some weekdays by a local school.

2.3.3 Buildings adjacent to the site on Mortlake High Street include residential, retail and office land use; there is a post office sorting office immediately opposite the Site. The surrounding land use to the west of the Site comprises mainly residential use with some local facilities including small shops, and a nursery school.

2.4 Site Access Arrangements

2.4.1 The brewery site has a number of existing access points as follows:

- Lower Richmond Road (east of Ship Lane) – main operational access used by HGV's (Figure 2.2);
- Lower Richmond Road (west of Ship Lane) - access to the sports ground and car park and to buildings west of Ship Lane;
- Williams Lane – secondary operational access used by HGV's and other vehicles; and
- Ship Lane – access to the staff car park providing about 130 parking spaces. (Figure 2.3)

2.4.2 These are shown in Figure 2.4 below. The main operational access for HGV's is located just to the west of the Sheen Lane mini roundabout and would likely have adversely affected the operation of the roundabout.

Figure 2.2: Main HGV access and egress on Lower Richmond Road on bend close to Sheen Lane mini roundabout

Figure 2.3: Main access to Buildings to west of Ship Lane from Lower Richmond Road; Access to Sports Ground on left

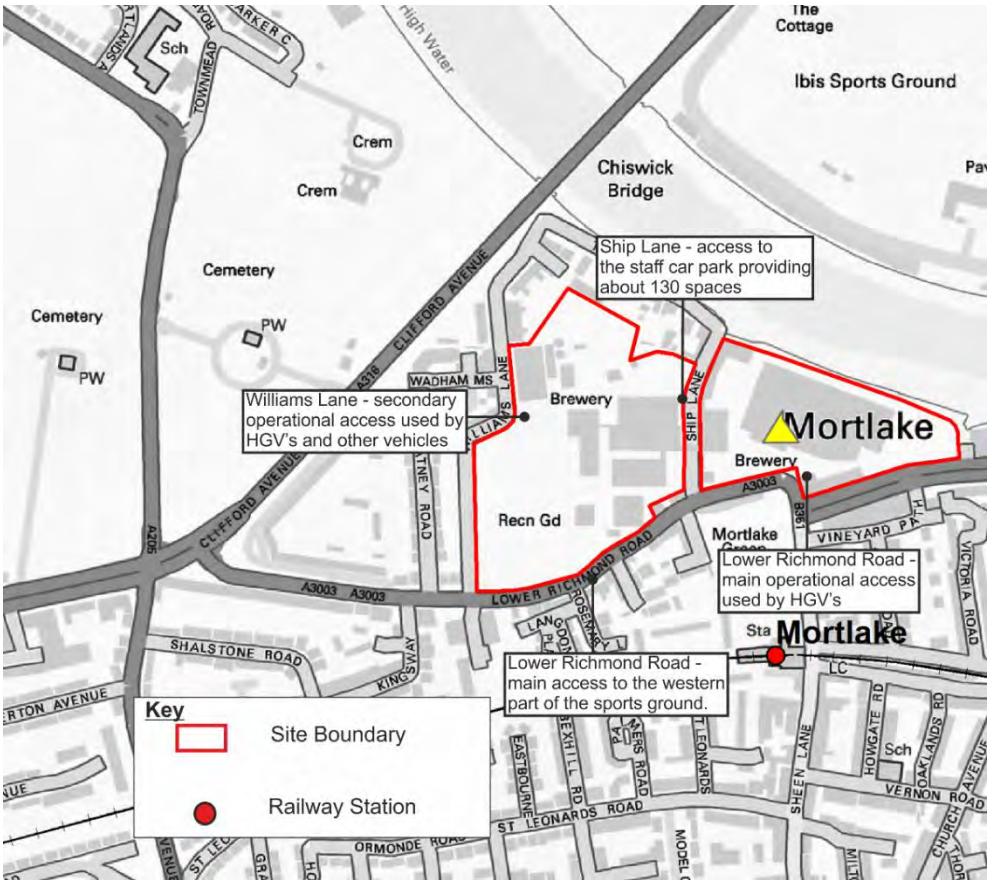

Figure 2.4 Existing Site Access Points

2.4.3 There is no additional pedestrian access with pedestrians sharing the various vehicular access points. A detailed review of the pedestrian network is provided later in this chapter.

2.5 Parking Provision

2.5.1 The Stag Brewery site currently has approximately 130 parking spaces on site for both staff and visitors within its main car park off Ship Lane, plus around 12 to 15 spaces within its sports club car park. A further 48 lorry parking spaces are provided to accommodate the brewery's operational traffic within the eastern part of the site. In addition, the layout of the site provides ample additional opportunities for informal parking, including for HGV's.

2.5.2 The development site is adjacent to, but does not fall within, an existing controlled parking zone (CPZ). The nearest CPZ to the site is CPZ M (Mortlake and Barnes Common Ward), which lies adjacent to the east of the site. The CPZ Parking restrictions in this area are in place Monday to Friday between 09:00 and 11:00.

2.5.3 Another CPZ – CPZ ES – exists to the south east of Mortlake Station. Restrictions within this zone are in place 10:00 till Noon, Monday to Friday. The locations of these CPZs' are shown in Figure 2.5 below.

2.5.4 Consequently, there is uncontrolled on-street parking available close to the site. This includes Ship Lane which separates the two parts of the site and residential roads to the south west of the proposed development, including along Lower Richmond Road. Uncontrolled parking is also available along Williams Lane, and the River frontage although parts of the latter are subject to flooding. From site visits and confirmed by parking surveys, it is known that the existing on-street parking in the area is well utilised during the day. This in part reflects the fact that there are a significant number of residential properties in this area that do not have off-street parking.

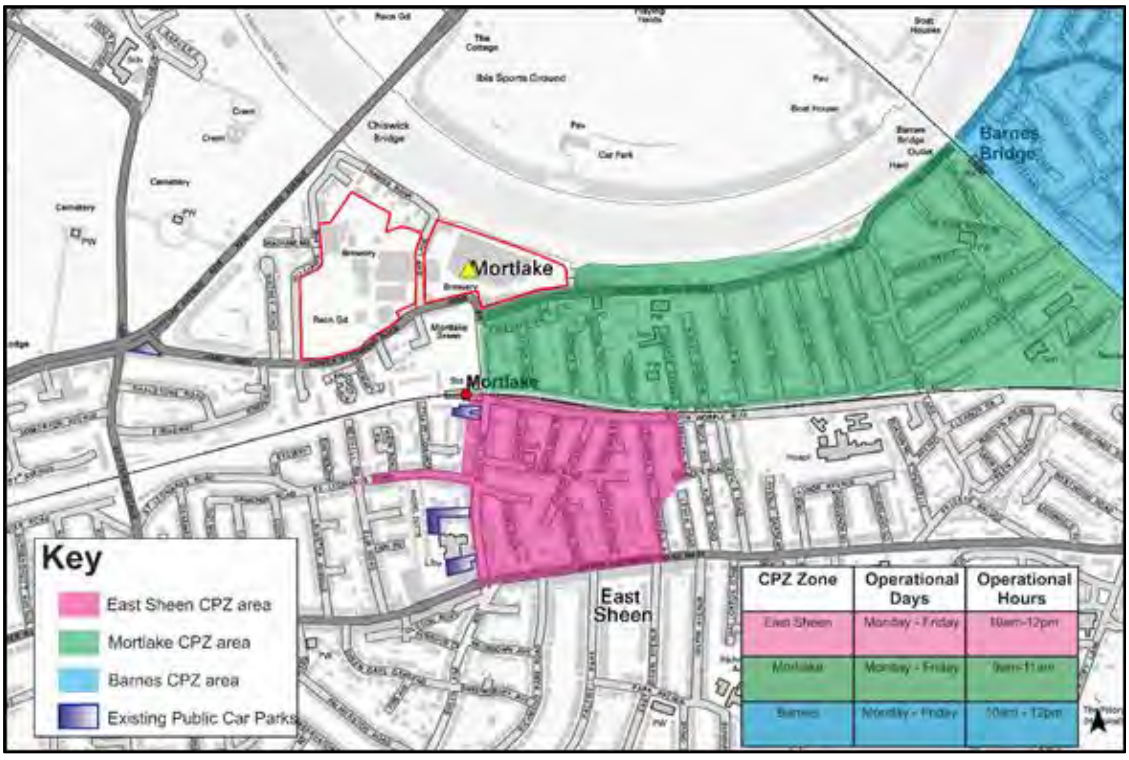

Figure 2.5 Location of Controlled Parking Zones (CPZ) in proximity to the proposed Development.

Public Car Parking

2.5.5 Public car parking within an appropriate walking distance to the site is very limited with only a small number of appropriately located off street spaces available. Spaces are available at the locations detailed below and shown in Figure 2.5.

- LBRuT Car Park - Sheen Lane Centre 40 spaces (2 disabled) - Restrictions in place Monday - Friday 09:30 – 18:00 Maximum Stay 3 hours;
- Mortlake Station Car Park – 13 spaces (1 disabled) Monday - Friday 24 hrs £6 per day:
- Pig and Whistle Car Park – 35 spaces (approx.) – this is private parking free for customers, otherwise £8 per day.

2.5.6 Further away, approximately 800 metres from the Site, the Waitrose food store, accessed off the South Circular Road, provides parking, but again with restricted hours.

2.5.7 Due to the restrictions in terms of number of spaces available and time restrictions, these car parks do not provide viable parking locations for current visitors to the site.

2.6 Parking Surveys

2.6.1 A number of parking surveys have been carried out in order to determine the existing levels of parking in certain areas and also to ascertain the type of parking, whether it be residential, commuter or day time visitors. The extent and methodology for these surveys was agreed with LBRuT beforehand.

2.6.2 Two surveys were carried out, the first a parking beat survey across a large area surrounding the site. This has been used to determine the levels of capacity in terms of on street parking remaining on roads in the surrounding area. A plan showing the extent of the parking survey is shown in Figure 2.6 below.

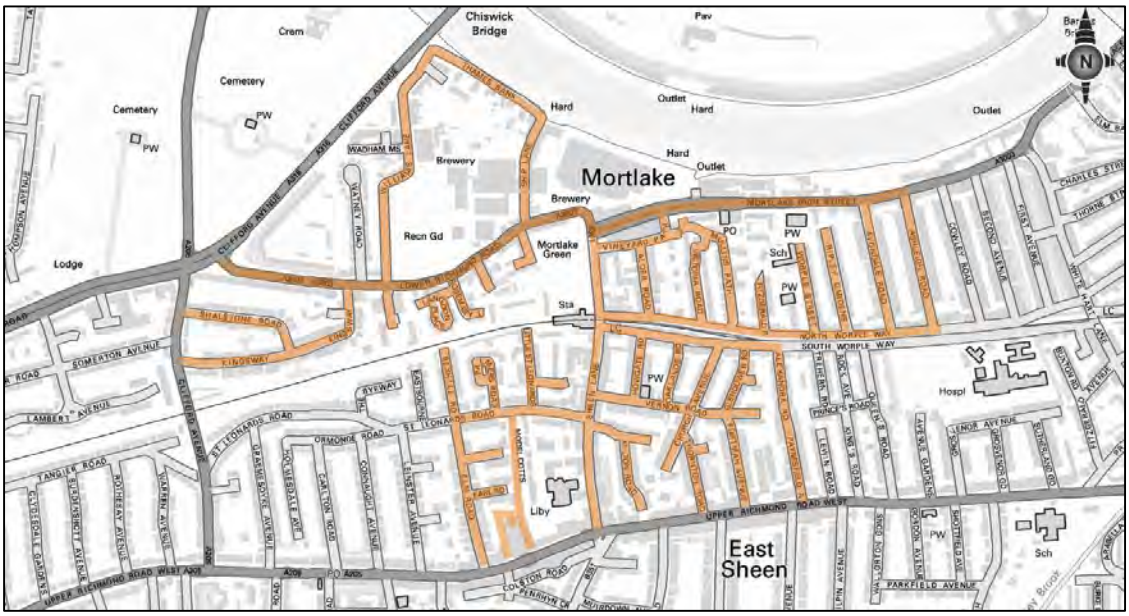

Figure 2.6 Parking Beat Survey Extent

2.6.3 The second survey carried out was a vehicle registration plate survey. This included observations at four times during the morning to determine whether cars were remaining parked throughout the morning, or were likely being used to commute to and from work.

2.6.4 A plan demonstrating the location of the number plate surveys is shown in Figure 2.7 below.

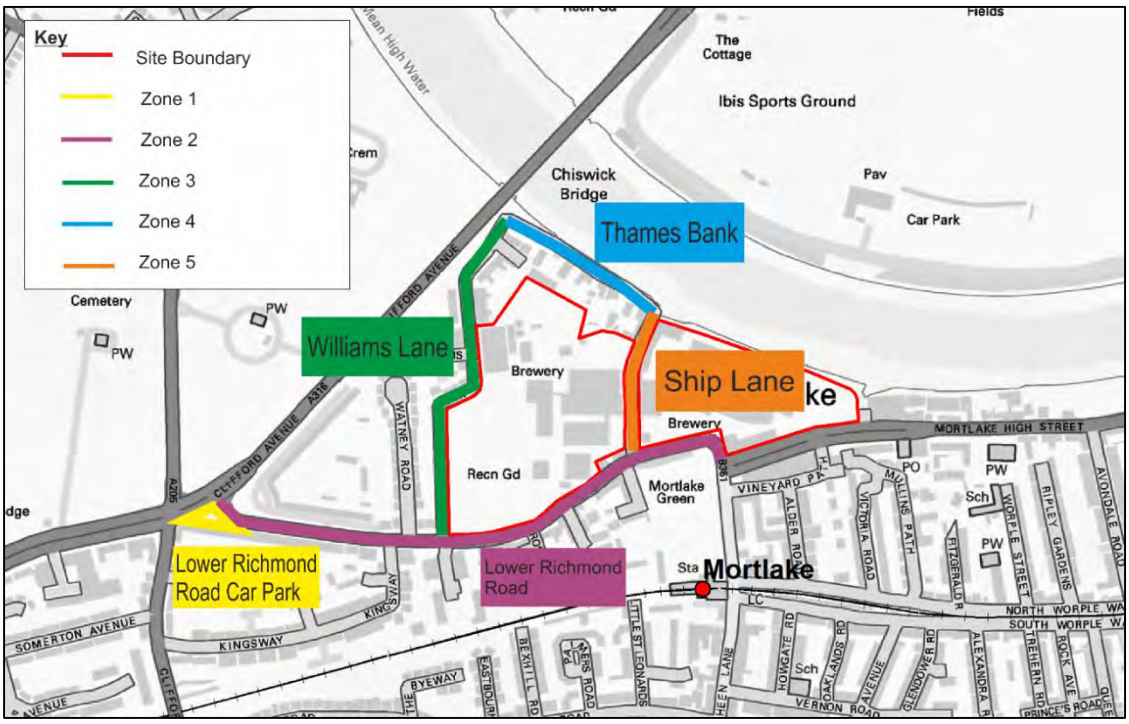

Figure 2.7 Number Plate Survey Locations

2.6.5 The outcome of the surveys indicated that existing on-street parking is well utilised, particularly overnight.

2.6.6 Full details of the parking survey results are provided in Technical Note 9 – Parking Survey Data Review which is included in Appendix D. Table 2.1 below provides a summary of available capacity for the roads closest to the site. This shows that, whilst on-street parking is well utilised both during the day and at weekends there is still a reasonable availability of parking spaces available at all times. The surveys also indicated that there is little evidence of any substantial commuter parking in the area, either in connection with Mortlake Station or local businesses.

Table 2.1 Table showing average parking capacity remaining on local roads

Road Name	Number of Spaces	Average remaining capacity (no. of spaces)			
		Weekday	Weekend day	Overnight Weekday	Overnight Weekend
Lower Richmond Road (West) (1)	23	13% (3)	31% (7)	11% (3)	0% (0)
Williams Lane	73	28% (20)	27% (20)	19% (14)	16% (12)
Ship Lane	27	18% (5)	22% (6)	15% (4)	44% (12)
Lower Richmond Road (East)	19	60% (11)	32% (6)	79% (15)	76% (14)

Road Name	Number of Spaces	Average remaining capacity (no. of spaces)			
		Weekday	Weekend day	Overnight Weekday	Overnight Weekend
Shalstone Road	72	8% (6)	13% (9)	8% (6)	0% (0)
Kingsway	149	32% (48)	29% (43)	32% (48)	18% (27)
Rutland Close	5	10% (1)	3% (0)	20% (1)	-20% (-1)
Rosemary Lane	14	10% (1)	11% (2)	-14% (-2)	7% (1)
Langdon Place (2)	9	-161% (-14)	-213% (-19)	-183% (-16)	-189% (-17)
Waldeck Road	9	43% (4)	33% (3)	63% (6)	50% (5)
Cromwell Place	8	7% (1)	12% (1)	27% (2)	27% (2)
Total	408	21% (85)	19% (78)	19% (79)	13% (54)

Notes (1) Overnight on Lower Richmond Road there are more than 23 spaces theoretically available due to the fact that it becomes possible to park on the single yellow line on the eastbound side of the road.

Having made onsite observations and surveyed the area, shows that cars avoid parking on this side of the road since this would reduce traffic flow to one direction at a time. Therefore, the capacity calculations are based on worst case.

(2) In Langdon Place it is noted that the practical capacity is much more than double the recorded capacity since cars are able to park on the large hard surfaced island within the crescent

2.7 Existing Highway Network

2.7.1 Highway access to the Site is affected by a number of physical constraints. In particular, the presence of the river to the north and the railway line to the south cause severance and limit the number of highway access points to the area.

2.7.2 Figure 2.8 shows the wider area around Mortlake and highlights the various strategic roads which provide access to the area. Both the South Circular and the A316 Clifford Avenue/ A316 Lower Richmond Road form part of the Transport for London Road Network (TLRN). The South Circular passes the site approximately 600m to the south of the Stag Brewery Site and then crosses the A316 at the Chalkers Corner junction approximately 300m west of the western part of the site. The A3003 Lower Richmond Road forms a fifth arm to this junction which provides the main highway access to the Site from the strategic network.

2.7.3 The A316 provides a link to the south west towards Richmond and Twickenham, whilst to the north it provides a link towards Chiswick and the A4, also a part of the TLRN. The South Circular/Upper Richmond Road/Mortlake Road provides a link to the north through Kew and towards Brentford as well as to the east towards Barnes and Putney.

2.7.4 This part of the TRLN network is subject to congestion at peak times and this affects access to and from the Site. Queuing, mainly during the weekday morning and evening peak periods, is observed on the A3003 approach to Chalkers Corner, although it has been observed that the

extent of queuing and delay is very variable depending upon conditions on both the strategic network and on the operation of the local railway level crossings.

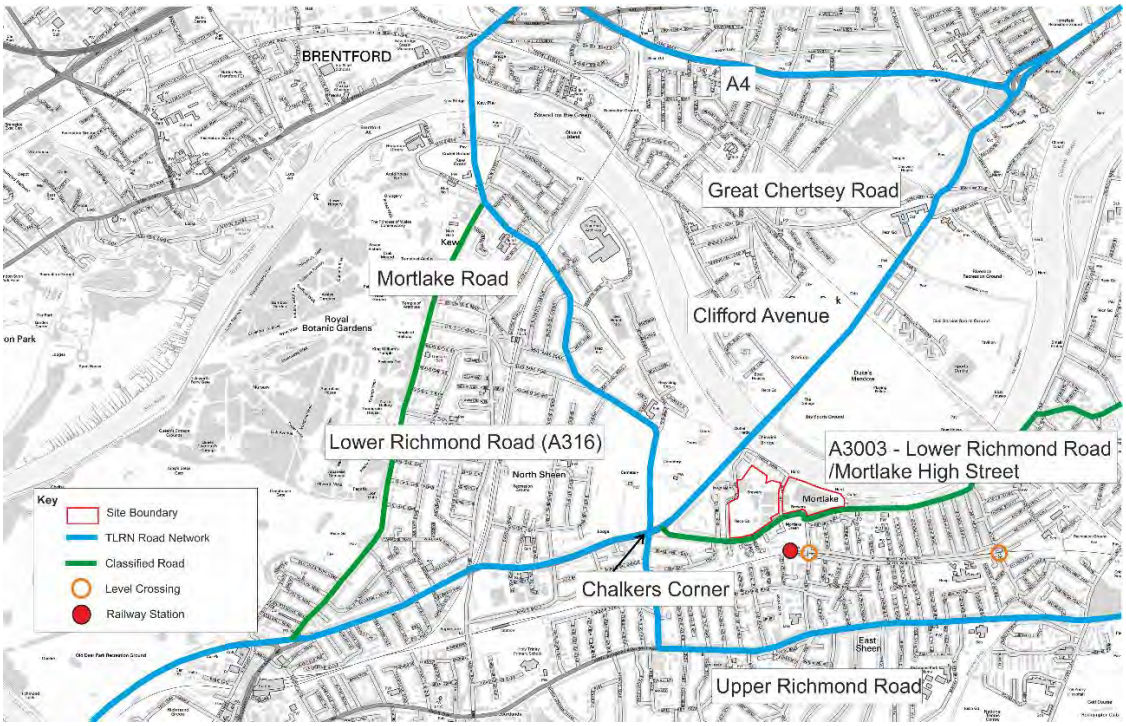

Figure 2.8 Plan of key Strategic Roads

2.7.5 Figure 2.9 shows the location of the more local roads.

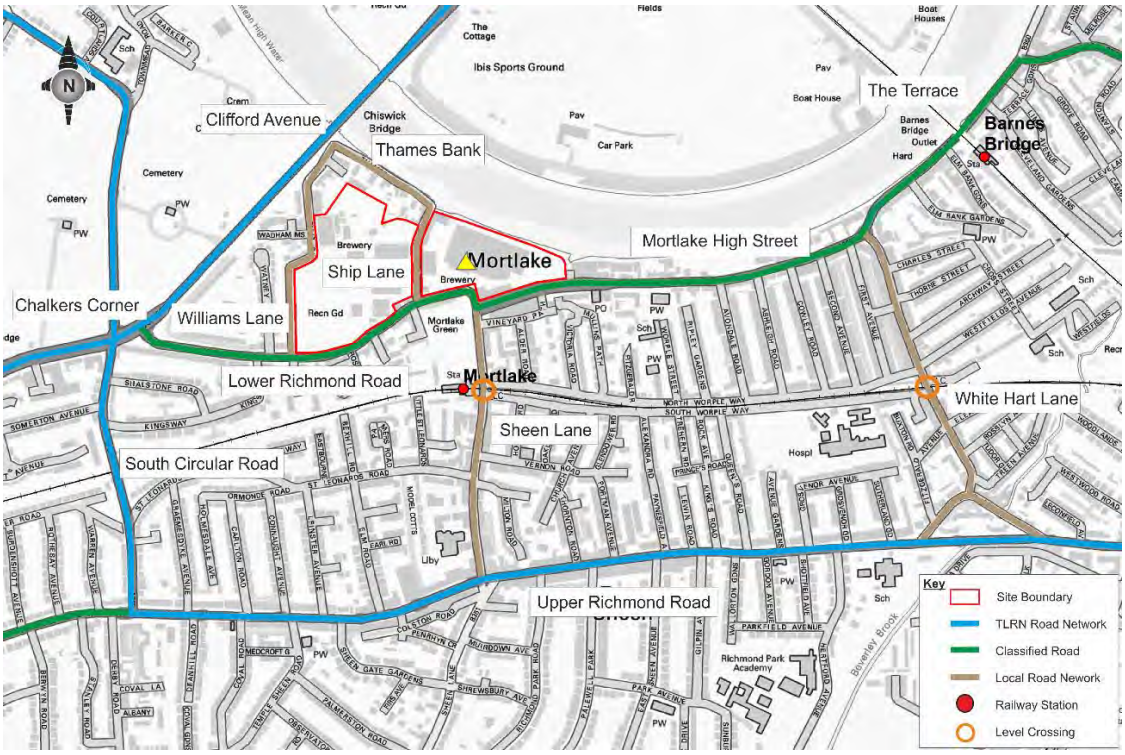

Figure 2.9 Plan of Local Road Network

2.7.6 All local roads within Mortlake are currently subject to a 30 mph speed limit. There are effectively only four highway access points to Mortlake as follows:

- Chalkers Corner – subject to periodic congestion;
- Sheen Lane – capacity constrained by the presence of the railway level crossing at Mortlake Station;
- White Hart Lane – capacity constrained by the presence of the railway level crossing; and
- The Terrace – the combination of bus stops to the west of the bridge and a slight narrowing of the road under the bridge plus a slight curve in the road alignment, serve to slow traffic on this section. Capacity is also slightly constrained by the narrowness of the road under the railway bridge.

2.7.7 The area can also be accessed from the South Circular via Shalston Road and Kingsway. However, this access is subject to existing traffic management measures that effectively limit the use of this route to very local traffic only.

2.7.8 The A3003 Lower Richmond Road – Mortlake High Street – The Terrace, runs east west through Mortlake linking Chalkers Corner in the west with Barnes Bridge and provides a frontage to the Site. The road is mainly a single carriageway road of varying width providing a clear running lane in either direction. To the west of Sheen Lane there is a short length of dual two lane carriageway. Where practical, on street parking is allowed, where this does not prevent provision of a free running lane in either direction. A section of Lower Richmond Road adjacent to the Mortlake Green, has no footway on the south side. Also a section of the Terrace, between White Hart Lane and Barnes Bridge has no footway on the north side, although the river towpath provides an alternative pedestrian facility.

2.7.9 Sheen Lane is a single carriageway road which links the A3003 with the South Circular. It has an active frontage including many local shops and restaurants as well as access to the railway station. To the north of the level crossing it is particularly narrow (approximately 4.5 metres) and is subject to no waiting controls at all times. Thomson House infants school is located just to the north of the level crossing. To the south of the railway line the road is wider in parts and this allows some on-street parking and loading facilities.

2.7.10 Sheen Lane connects with the A3003 at a three arm mini roundabout which provides limited pedestrian crossing facilities. At its southern end it connects to the South Circular via a four arm traffic light controlled junction.

2.7.11 White Hart Lane provides a connection between the A3003 towards the South Circular. It is a single carriageway road with a mainly residential frontage but some local shops and with some on-street parking. At its norther end it connects with the A3003 at a 3 arm mini roundabout. At its southern end it connects with Priests Bridge via a priority junction. Priests Bridge is a one-way crescent that links with the South Circular via two separate priority junctions.

Highway Network Surveys

2.7.12 As part of the review of the existing highway network, a number of traffic counts were carried out in order to assess the existing conditions on the network. Nationwide Data Collection (NDC) were commissioned to carry out the traffic surveys on behalf of PBA in June 2016 and further surveys were commissioned to be carried out by Advanced Transport Research (ATR) in June 2017.

2.7.13 Figures 2.10 and 2.11 below show the location and different types of surveys carried out across the Mortlake area.

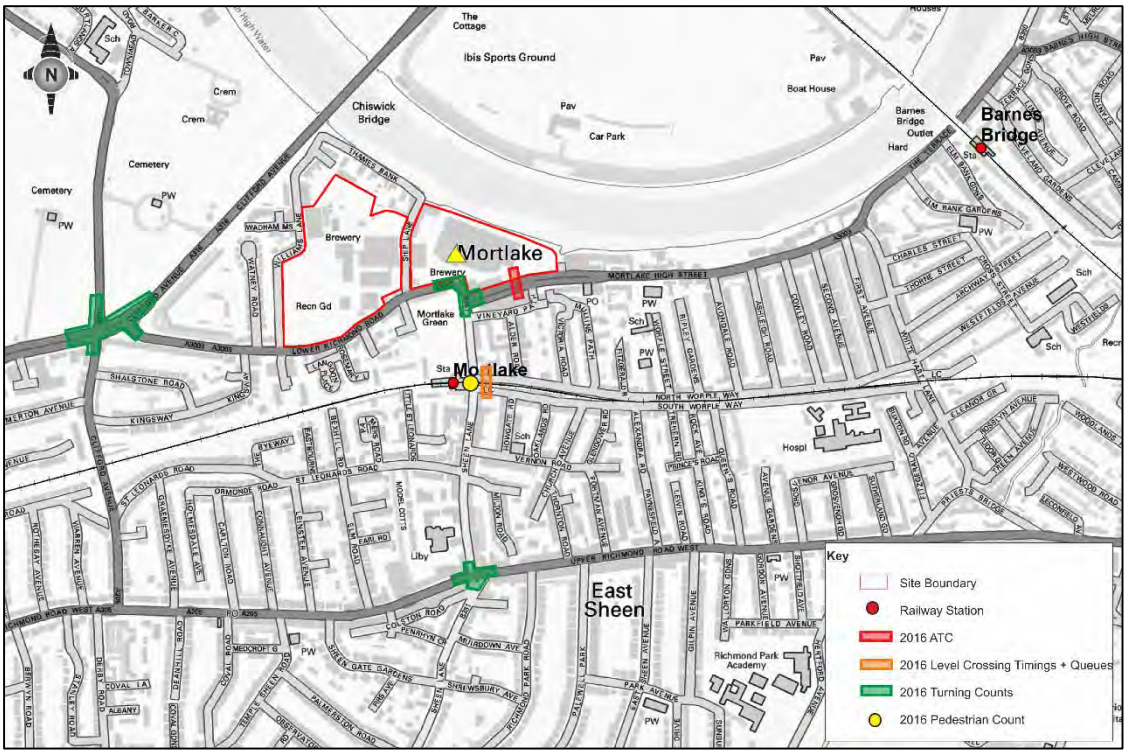

Figure 2.10 Location of Traffic Surveys undertaken in June 2016

2.7.14 The June 2016 surveys included the following:

- Fully Classified Turning Counts and Queue Length Surveys, from 07:00 – 10:00 and 15:00 to 19:00 on Wednesday 15th June 2016;
- Mortlake Station Pedestrian Counts, from 07:00 to 10:00 and 16:00 to 19:00 on Wednesday 15th June 2016;
- Level Crossing Timings and Queues, from 07:00 to 10:00 and 14:30 to 19:00 on Wednesday 15th June 2016; and
- 7 Day Automatic Traffic Counts (ATC) between Sunday 12th and Saturday 18th June. 2016.

2.7.15 The extent and methodology for these surveys was agreed beforehand with LBRuT as providing a suitable basis for the assessment of the highway impacts arising from the development.

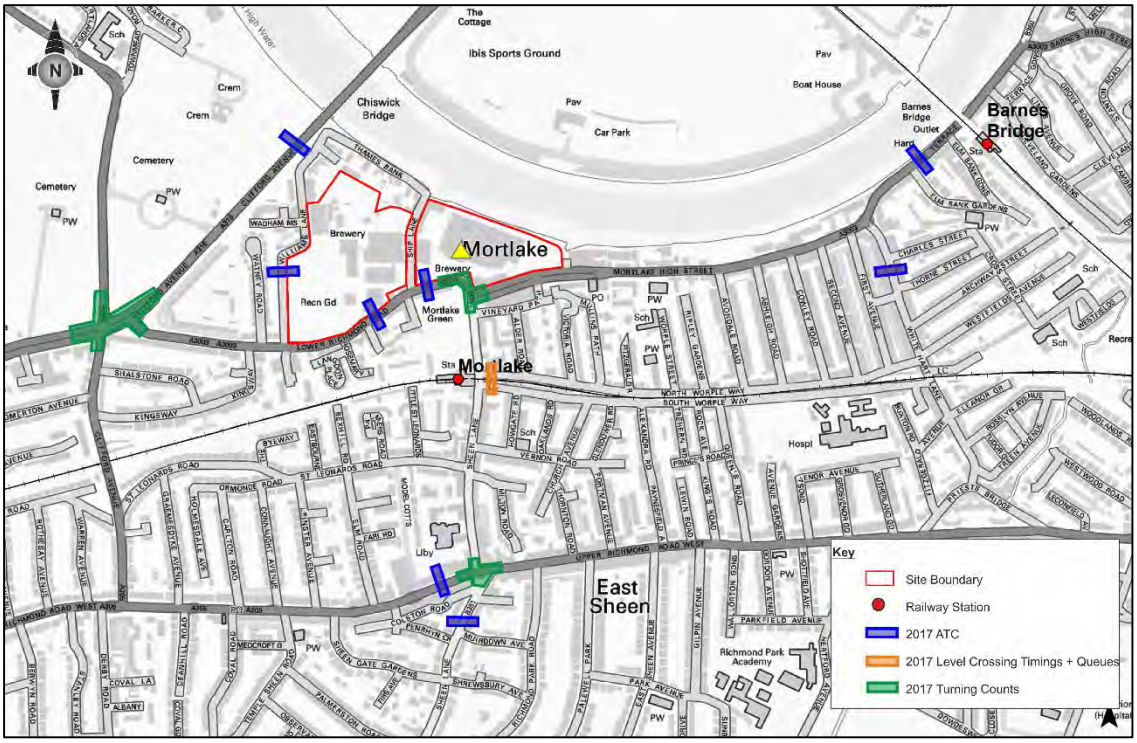

Figure 2.11 ATR traffic survey location plan.

2.7.16 A summary of the surveys carried out in June 2017 is as follows:

- Fully Classified Turning Counts (Tuesday 27th June 2017 - 07:00 – 10:00 and 15:00 – 19:00);
- Fully Classified Turning Counts, including Queue Length Surveys (Tuesday 27th June - 07:00 – 10:00 and 15:00 – 19:00);
- 7 Day Automatic Traffic Counts (26th June – 3rd July); and
- Level Crossing Downtime Counts - 7am – 7pm.

2.7.17 The 2017 surveys were undertaken following discussion with TfL and were intended primarily to provide detailed data with which to validate the local LinSig junction models.

2.7.18 The survey data used in this assessment are provided within Appendix E.

Network Surveys

2.7.19 It was agreed with TfL that their South London Highway Assessment Model (SOLHAM) would also be used as the basis for assessing the potential impacts of the proposed development on the strategic highway network. Accordingly, TfL has supplied the base year of 2017 and 2031 forecast models for this work. In addition, traffic signal data and journey time data has been provided by TfL. This is dealt with in further detail within Chapter 6.

2.8 Existing Local Amenities

2.8.1 Figure 2.12 identifies the wide range of local amenities that are available in the Mortlake area and which are easily accessible by foot from the Site. These include public houses, corner shops and employment opportunities along Lower Richmond Road. Sheen Lane provides access to

more food/drink establishments as well as both supermarket and non-food retail stores. The nearest local centre, denoted by the purple on the figure, is to the south of the site centred on the junction of Upper Richmond Road (South Circular) and Sheen Lane.

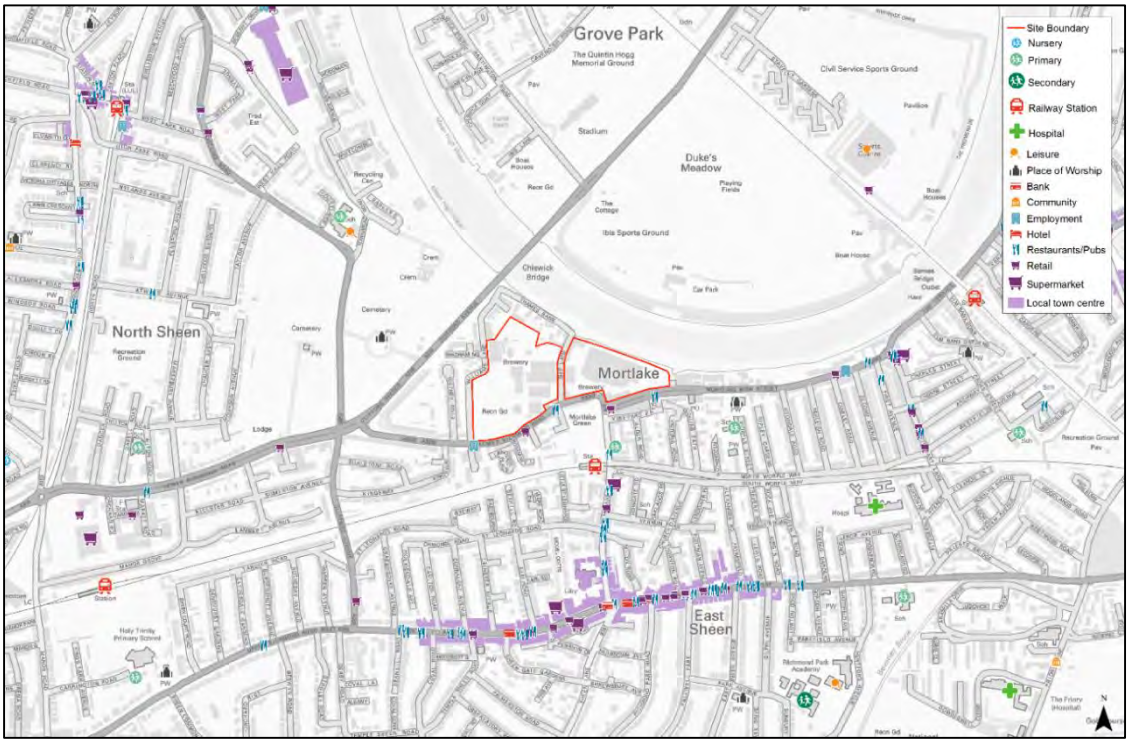

Figure 2.12 Plan of Local Amenities in Mortlake

2.8.2 In the wider Mortlake area there are several primary schools, and a secondary school. The closest primary school to the site is Thomson House School located adjacent to the Sheen Lane Level Crossing an approximate 220m walk from the southern end of Ship Lane. The other primary school which has a catchment area extending to within close proximity of the site is Kew Riverside Primary school, a one form entry primary school.

2.8.3 Other primary schools in the area but further from the site include Barnes Primary, Sheen Mount Primary School and East Sheen Primary. Richmond Park Academy secondary school, is located to the south of Upper Richmond Road.

2.8.4 Other facilities in the area include Barnes Hospital (approximately 880m walking distance), leisure facilities at Sheen Fitness Centre (1.2km) and Chiswick Racquets Club (1.3km) and places of worship (St Mary's Church - 350m, Elim Pentecostal Church, East Sheen). Alternative retail facilities are also available at Kew Bridge Retail Park, including stores such as Next, M&S and Boots among others (2.1km) and along the Lower Richmond Road towards Richmond, including numerous high street shops (580m). The majority of all these facilities are within an appropriate walking or cycling distance from the site.

2.9 Pedestrian and Cycle Network

Pedestrian Facilities

2.9.1 Footways are provided on both sides of the carriageway for most roads in the surrounding area with the main exceptions being Ship Lane, Thames Bank, Williams Street and the corner of Mortlake Green. The majority of footways within the area are over 2 metres in width and are well lit and maintained. The exceptions to this are Ship Lane, Sheen Lane in the lead up to the

level crossing and over the crossing, Williams Lane and at the pinch point near the mini roundabout at the northern end of Sheen Lane, where there are variable footways along the length of these links with some footways being less than 2 metres.

2.9.2 Additionally, there are several footpaths through Mortlake Green which are approximately 2 metres in width. These footways are well maintained and act as a recreational asset as well as providing links between Lower Richmond Road and Mortlake Station. Lighting within Mortlake Green is provided although it is not to the standard provided on footways adjacent to the carriageway.

2.9.3 Several formal pedestrian crossings are located in the area. There are two zebra crossings on Sheen Lane, approximately 70 metres to the north of the crossing and about 120 metres to the south. There are currently no formal crossings on Mortlake High Street in the immediate vicinity of the Site, the closest is a zebra crossing approximately 140 metres to the west of the Site. There is an existing signalised pedestrian/cycle crossing on Lower Richmond Road just to the east of the Ship Lane junction which provides access between Ship Lane and the northern entrance to Mortlake Green. There is also an existing zebra crossing just to the west of the junction with Williams Lane. Additional signal controlled crossings are then located at the Chalkers Corner junction as well as at the Sheen Lane/South Circular junction.

2.9.4 The Thames Path is located to the north of the site between the site boundary and the River Thames. This provides an unlit path along the south bank of the river leading towards Kew to the west and Barnes to the east. The footway is a mixture of unpaved and cobbled surfaces.

2.9.5 Figure 2.13 provides a plan showing typical walking distances from the centre of the Site in the form of walk isochrones. This shows that both Mortlake (0-5 mins) and Barnes Bridge (10-15 mins) stations are within an easy walking distance of the site as well as the retail/restaurant facilities along the Upper Richmond Road (5-10 mins).

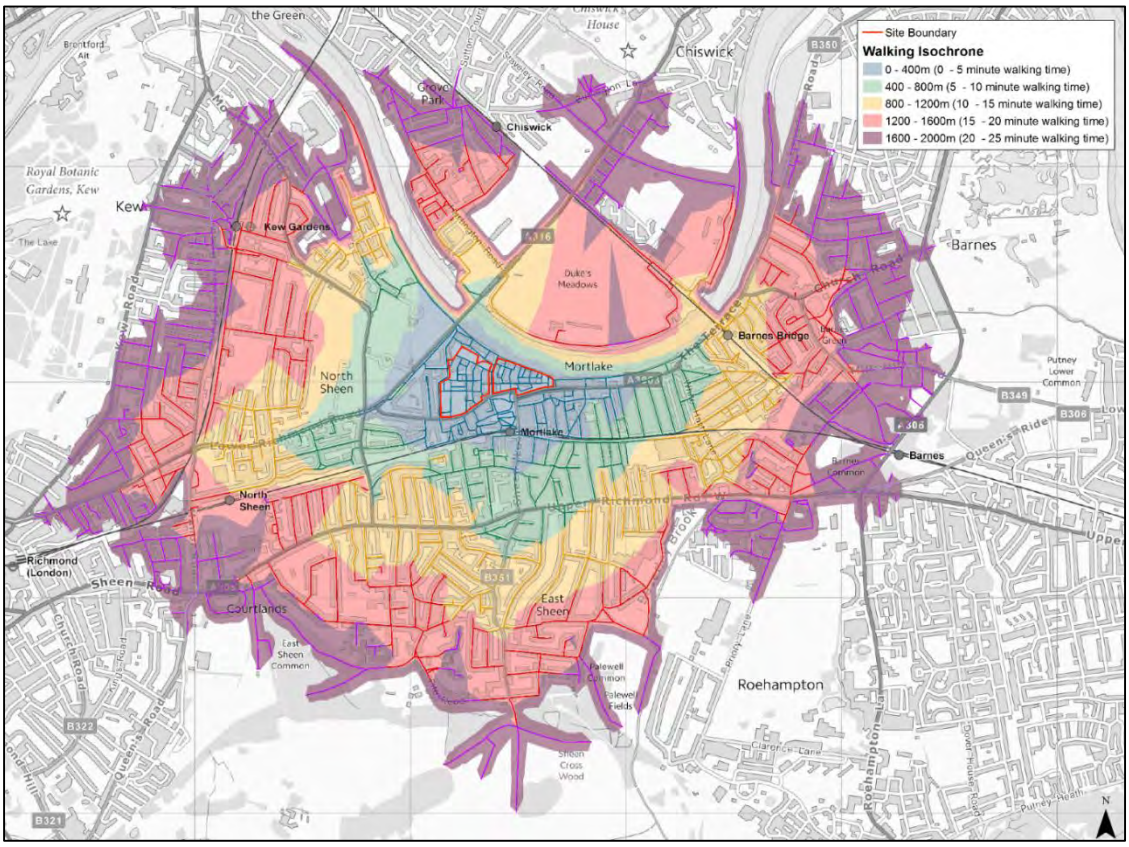

Figure 2.13 Walking Isochrones

Pedestrian Surveys

2.9.6 Pedestrian surveys were carried out alongside those for vehicles as detailed above. The pedestrian surveys included counts at the entrance and exit points to Mortlake Station to determine the patterns of commuter flows and how they approach the station and those crossing the level crossing.

2.9.7 Pedestrian counts were carried out on a weekday between 07:00 and 10:00 to cover the AM peak period and 16:00 and 19:00 to cover the PM peak period. The entrances/exists counted included the northern entrance adjacent to the timber yard, the southern entrance adjacent to the car park and both entrances via the steps adjacent to the level crossing. These steps are also used by pedestrians walking along Sheen Lane when the crossing barriers are down i.e. trips not directly associated with the station.

2.9.8 In summary, the survey analysis indicates of the four access points to Mortlake Station, Site 4 (the car park entrance) is the most frequently used and Site 2 (the northern level crossing entrance) the least frequently used.

Figure 2.14 below shows the locations of these station entrances with the results also in Appendix E.

Figure 2.14 Station Entrances from Pedestrian surveys

2.9.9 An almost even number of people enter and exit the station in the PM peak but the number of people entering the station in the AM peak is more than 3,000 greater than the number exiting.

Pedestrian Environment Review System Audit

2.9.10 A Pedestrian Environment Review System Audit (PERS) was undertaken for the proposed redevelopment of the Stag Brewery site in Mortlake with the objective of assessing the pedestrian environment around the Stag Brewery, noting points that do not promote a safe pedestrian environment and identifying where improvements could be made.

2.9.11 The audit has been undertaken in accordance with the guidance set out by Transport for London (TfL) in the PERS handbook. As such, pedestrian links between the Site and the main attractors in the area, including the rail station, bus stops, schools and other local facilities have been assessed, as well as the pedestrian crossing points, public transport waiting areas and the nearby public spaces. A copy of the full PERS report is attached at Appendix F and the key findings summarised below. The extent of the area audited is shown in Figure 2.15 below.

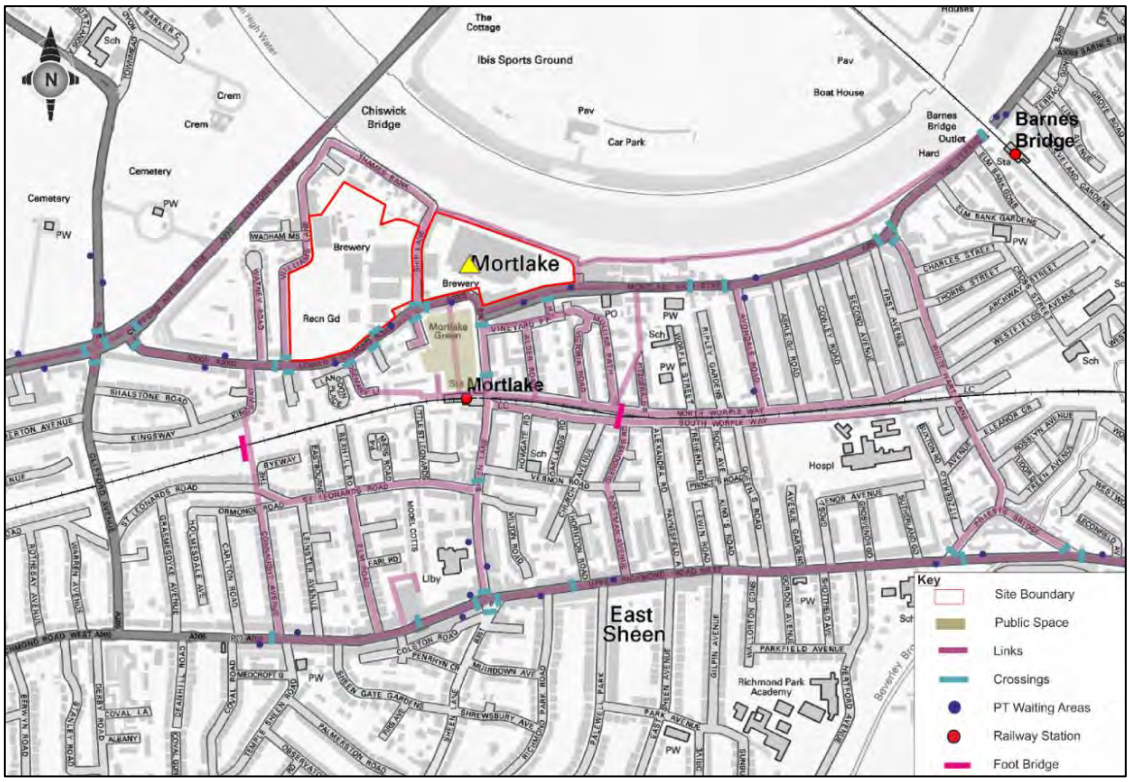

Figure 2.15 PERS Audit Extent

2.9.12 Overall, this PERS audit did not find any significant areas of concern that would need to be addressed in order to allow the proposed redevelopment of the Stag Brewery Site to take place. The footway along Ship Lane was identified as being of quite a poor standard, narrow and on one side of the road only, but this is being addressed as part of the development proposals. In addition, Williams Lane has a footway on one side of the road only, but this is again addressed as part of the development proposals.

2.9.13 In terms of pedestrian crossings, the study identified that, whilst the existing crossing points were to a good standard there were a number of locations where desire lines or potential desire lines once the development is in place, were not adequately catered for. These were on Lower Richmond Road in the vicinity of the Stag Sports Club and along the Mortlake High Street Site frontage. This issue has been addressed as part of the pedestrian access strategy for the development as discussed in Chapter 7.

2.9.14 The poor quality of the pedestrian access to Mortlake Station from the north was also noted. This is through a timber merchant's yard where there are on-going traffic movements including HGV's and fork lift truck movements. However, it is also noted that this is third party land through which there is a public right of access only, discussions regarding the land are still ongoing with Network Rail.

Cycle Network

2.9.15 Figure 2.16 shows that cycle facilities in the area can be found on the A316 corridor including both Lower Richmond Road (west of Chalkers Corner) and Clifford Avenue (east of Chalkers Corner). A two-way cycle path runs intermittently on both sides of the carriageway over Chiswick Bridge towards Chalkers Corner and then further south west along the Lower Richmond Road towards Richmond.

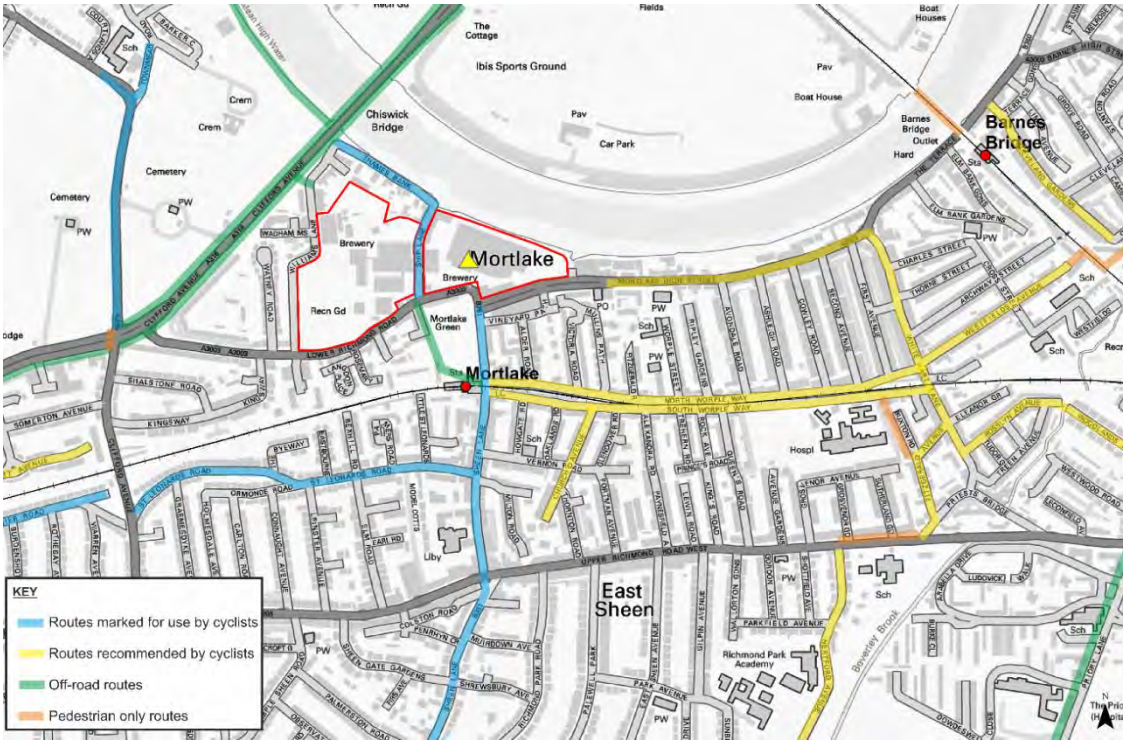

Figure 2.16 local cycle routes (Source: TfL Local Cycling Guides)

2.9.16 Other routes towards Richmond are also signed and described by TfL's local cycling guide as along a mixture of quiet or busier roads. This includes a route via St Leonards Road, Lambert Avenue, Manor Grove, Townsend Terrance and Kings Road or using Tangier Road and the busier Sheen Road between Denehurst Gardens and Church Street.

2.9.17 A series of more local cycle routes are available to both the north and south of the proposed development. To the north there is an off road cycle path that forms part of the Thames Path that runs along both the northern and southern banks of the River Thames. On the southern bank of the River Thames this provides a link between Barnes Bridge to the east and towards Kew Bridge to the west.

2.9.18 Ship Lane, which bisects the Site, forms part of a key north south route which connects the Thames Path (west of Chiswick Bridge) to the LCN Route 4. The route which is marked as either an off road path or along quiet or busier roads runs along the River Thames (to the north west of the site) then through the development along Ship Lane and Mortlake Green. The route then divides with an east-west connection via South Worpole Way towards the White Hart Lane Level Crossing or continues in a north-south direction along the busier Sheen Lane into Richmond Park.

2.9.19 Figure 2.17 shows 6 photos demonstrating the cycle facilities around the Brewery site. Picture A) shows North Worpole Way and the lack of traffic making this a suitable route for all cyclists. B) demonstrates the lack of continuous cycle route from Ship Lane towards Mortlake Green, C) the off road cycle way over Chiswick Bridge and D) the connection to this route from Williams Lane. E) highlights how the Thames Path can be used as a leisure route and F) shows that Chalkers Corner is used by cyclists but that there are no prominent facilities at the junction for cyclists.

A) B)

C) D)

E) F)

Figure 2.17 Photos showing cycling facilities

2.9.20 Connections beyond Barnes Station towards Hammersmith use the busier Lonsdale Road although there is an option at the Gerard Road junction to connect to the Thames Path and a traffic free route towards Hammersmith Bridge and beyond.

2.9.21 Although there is a reasonable amount of cycle infrastructure around Mortlake and the surrounding area, there are some notable barriers potentially reducing the number of people prepared to cycle. Key issues are considered to be:

- The lack of cycle infrastructure at the Chalkers Corner junction;
- The lack of cycle infrastructure along Lower Richmond Road and Mortlake High Street;

- Existing poor connections to the south of the Stag site; and
- The barrier created by the railway line.

2.9.22 Whilst there are existing cycle facilities on a number of the approaches to the Chalkers Corner junction including cycle lanes on Mortlake Road, an existing shared use cycle facility on either footway on the existing A316 Clifford Avenue approach, and a segregated cycle path on the south side of Lower Richmond Road, it has very poor provision at the junction itself.

2.9.23 There is currently no provision for cyclists. along Lower Richmond Road one of the main access routes to the site and which has been observed as a well-used cycle route.

2.9.24 Whilst there is an existing signalled cycle crossing on Lower Richmond Road which is intended to provide linkage between Ship Lane and the cycle paths through Mortlake Green this does not currently link well with either and has been observed to be largely ignored by cycles.

2.9.25 Whilst the railway does have a number of crossing points, including the level crossing at Ship Lane and a number of pedestrian bridges none of the bridges are specifically designed to accommodate cycles.

2.9.26 Figure 2.18 shows cycle journey times through cycle isochrones from the development site. This shows that numerous destinations are reachable within a maximum of a 20 minute cycle. Richmond, Chiswick, Hammersmith and Putney are all shown to be reachable within this time period as well as Richmond Park also being within this range.

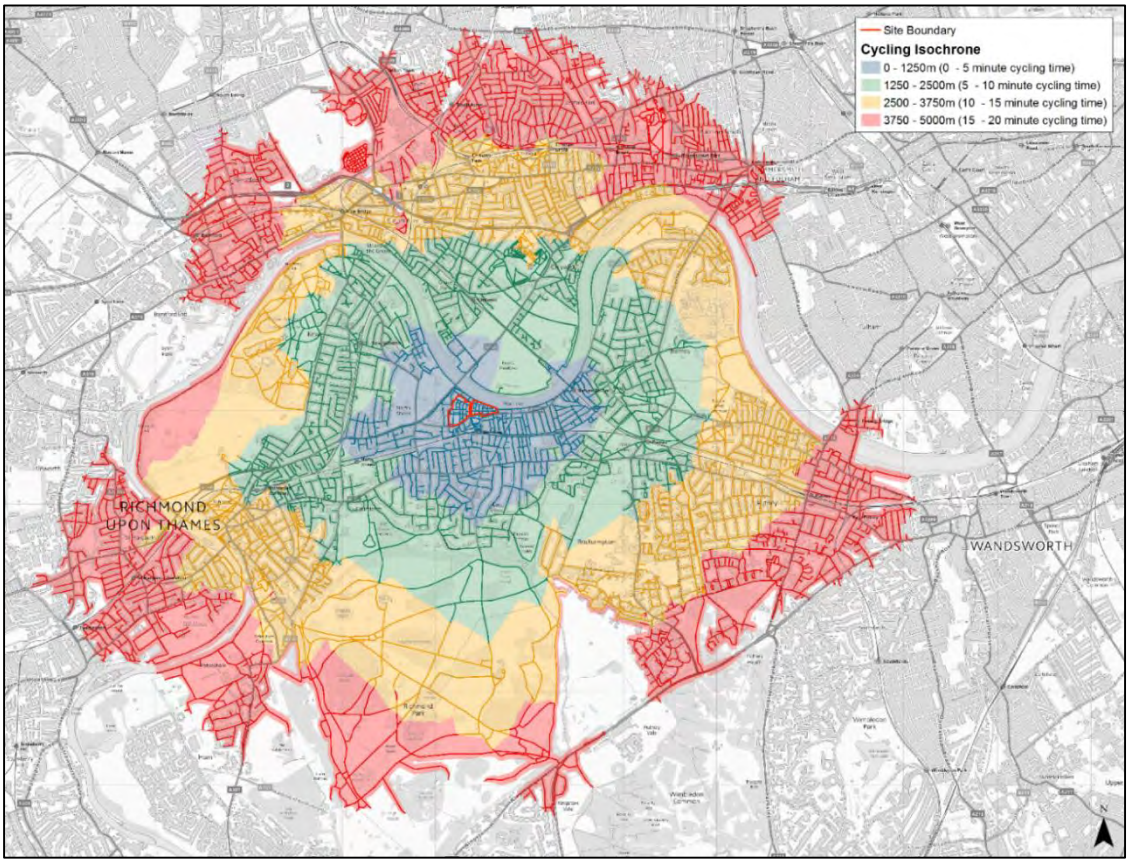

Figure 2.18 Cycle Isochrones

2.10 Public Transport Network

Buses

2.10.1 The Site currently has relatively poor access to bus services and the need to improve this has been highlighted in the Development Brief. The Brief suggests that this could be achieved by extending the 209 bus service from its current termination point at Avondale Road to a new bus facility within the Site.

2.10.2 Since the Stag Brewery site is large walking distances to access different services can vary considerably dependent upon the location within the Site; TfL's PTAL calculations consider that people will walk up to 640 metres to access a bus stop. Figure 2.19 below, identifies the various services that can be accessed from the Site as well as the locations of relevant bus stops.

2.10.3 The services closest to the Site are as follows:

- There is one regular service, the 419 which provides a service between Hammersmith and Richmond Station, which operates along the Mortlake High Street and Lower Richmond Road corridor and which serves the site from stops located along the Site frontage. This provides a daily service with a frequency of about 4 buses per hour on weekdays and Saturdays and two buses an hour on Sundays;

- The eastern part of the site, and in particular the north east corner, is also located close to the 190 bus service that operates along Clifford Avenue and which links Richmond with West Brompton, via Hammersmith. This also runs to a frequency of about 4 buses per hour on weekdays and Saturdays and 3 buses an hour on Sundays. over Chiswick Bridge;

- The 209 service is also easily accessible from the western part of the Site. This service currently terminates at a small bus facility at the southern end of Avondale Road with the closest stops to the Site being at the junction of Mortlake High Street and Avondale Road, approximately a 300 metres walk from the western corner of the site but about a 600 metres walk from the southern end of Ship Lane. The 209 provides a very high frequency service to Hammersmith, via Barnes; and

- There is also a night bus service, the N22, which operates past the site from Oxford Circus to Twickenham.

2.10.4 In addition to these services, a number of other services can be accessed from the Site but are beyond the recommended walking distance. These include the following:

- The R68 provides a service between Kew Bridge and Richmond via the Kew Riverside Retail Park. The nearest stops are at Chalkers Corner only about a 400 metre walk from the south west corner of the Site at the southern end of Williams Lane but about 670 metres walk from the southern end of Ship Lane;

- A number of bus services (33, 337 and 493) can be accessed from stops on the South Circular, but these stops are at least a 600 metre walk from the Site. The R33 provides a similar service to the closer 419 but the 337 and 493 provide access to alternative destinations to the south east of the site. The 337 provides access to Putney and Clapham Common, whilst the 493 provides access to Southfields, Wimbledon and St Georges Hospital.

2.10.5 Table 2.2. provides further details for these services.

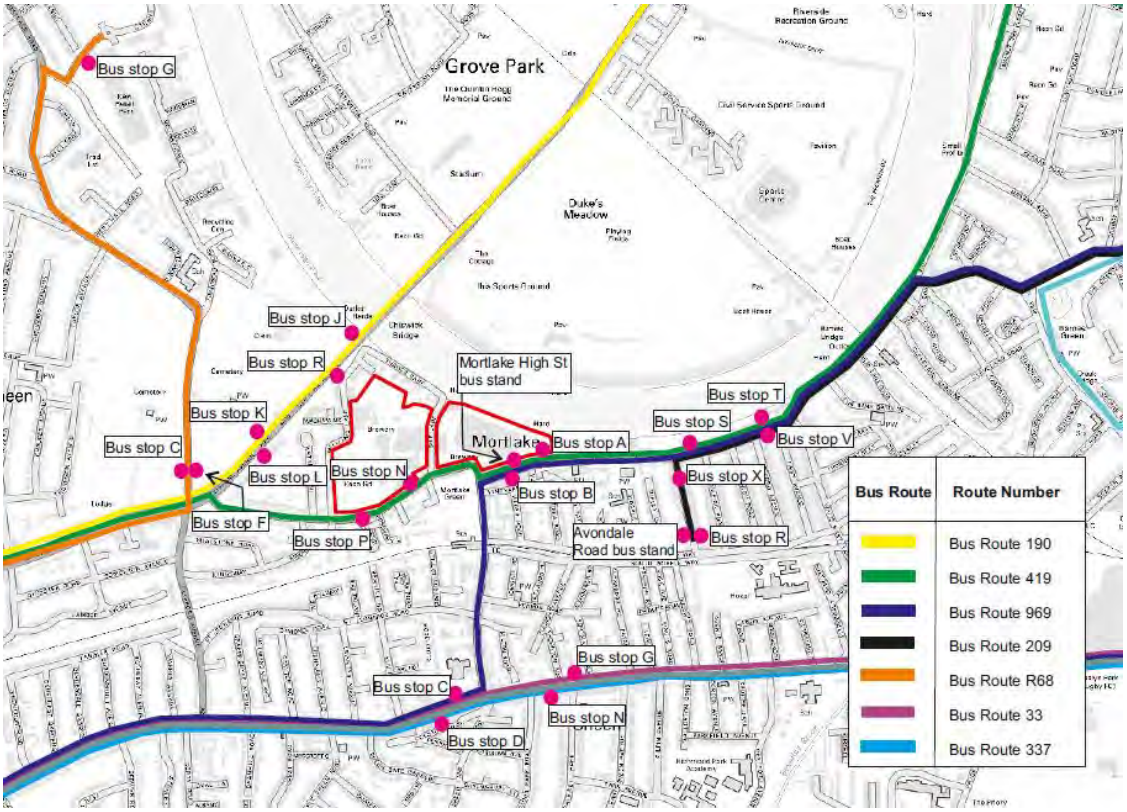

Figure 2.19 Local Bus Routes and Stops

Table 2.2 Bus routes operating within close proximity of the site

Bus No	Route	Closest Bus Stop to the Development	Weekday Bus Wait Times (mins) (07:00-19:00)	Saturday Bus Wait Times (mins) (07:00-19:00)	Sunday Bus Wait Times (mins) (07:00-19:00)
419	Hammersmith Bus Station -Richmond Bus Station	Sheen Lane/ Mortlake Station (A/B)	15-20	15-30	25-30
209	Hammersmith Bus Station – Mortlake Bus Station	Avondale Road (X) Mortlake Bus Station (P)	4-8	10-12	7-10
969	Whitton – Roehampton Vale	Sheen Lane/ Mortlake Station (A/B)	Tuesday and Friday only 1 service per day in each direction		
190	George Street – Empress State Bldg/ W Brompton Stn	Thames Bank (R/J)	15-20	15	20
R68	Kew Retail Park – Hampton Court Railway Station	Chalker's Corner (F)	15	12-15	12-15
33	Fulwell Station – Hammersmith Bus Station	East Sheen (C/D)	6-9	7-10	15

Bus No	Route	Closest Bus Stop to the Development	Weekday Bus Wait Times (mins) (07:00-19:00)	Saturday Bus Wait Times (mins) (07:00-19:00)	Sunday Bus Wait Times (mins) (07:00-19:00)
337	Northcote Road - Richmond	East Sheen (C/D)	9-12	11-13	15-20
493	St George's/University of London – Richmond/Manor Road	East Sheen (C/D)	10-13	10-13	20

National Rail

2.10.6 The nearest National Rail stations to the site are Mortlake station and Barnes Bridge station located approximately 0.34 km and 1.2 km respectively from the southern end of Ship Lane. Given the relative locations Mortlake Station therefore provides the most convenient station for people wishing to travel towards central London.

2.10.7 Both stations lie on the "Windsor Lines" as shown in Figure 2.20 below, however, Mortlake station lies on the loop via Richmond whereas Barnes Bridge lies on the loop via Hounslow. The "Windsor Lines" currently operate at full line capacity given current infrastructure constraints. The trains operate the same service pattern and frequency at both peak and off-peak times.

Figure 2.20 The full extent of the Windsor Lines

2.10.8 In the morning peak hour between 08:00 and 09:00 8 trains call at Mortlake which are:

- 4 fast services to London Waterloo;
- 2 slow services to London Waterloo via Kingston; and,
- 2 slow services to London Waterloo via Hounslow.

2.10.9 In the morning peak hour between 08:00 to 09:00 the Barnes Bridge station offers:

- 4 fast services to London Waterloo;
- 2 slow services to London Waterloo via Richmond;
- 2 services to Weybridge.

2.10.10 Table 2.3 summarises the services available from Mortlake during the peak hours which is the same as that during typical off-peak times.

Table 2.3 Services from Mortlake Station Throughout the Day

Service	Calling Points	Fastest Journey Time (mins)	Frequency (trains per hour)
London Waterloo (fast)	Barnes – Putney – Wandsworth Town – Clapham Junction – Queenstown Road - Vauxhall	25	4
London Waterloo via Hounslow (slow)	North Sheen – Richmond – St Margarets – Twickenham – Whitton – Hounslow – Isleworth – Syon Lane – Brentford – Kew Bridge – Chiswick – Barnes Bridge – Barnes – Putney – Wandsworth Town – Clapham Junction – Queenstown Road - Vauxhall	66	2
London Waterloo via Kingston (slow)	North Sheen – Richmond – St Margarets – Twickenham – Twickenham – Strawberry Hill – Teddington – Hampton Wick – Kingston – Norbiton – New Malden – Raynes Park – Wimbledon – Earlsfield – Clapham Junction - Vauxhall	57	2

2.10.11 Table 2.4 below demonstrates the journey times by National Rail from Mortlake Station to key locations and the interchange opportunities.

Table 2.4 National Rail Destinations, Interchanges and Journey Times

Destination	Interchange	Journey Time
Richmond	District Line	4 mins
Putney	District Line (east Putney, 500m)	6 mins
Clapham Junction	Southern, South Western Rail and London Overground	12 mins
Vauxhall	Victoria Line	18 mins
London Waterloo	Northern Line, Bakerloo Line, Jubilee Line and Waterloo and City Lines	25 mins

2.10.12 Mortlake station, shown in Figure 2.21 below, contains two platforms with a canopy partially covering each. There is a footbridge to connect both platforms and a small station building on the southern platform that includes a ticket office. There are no waiting rooms or toilet facilities. There is a level crossing immediately to the east of the stations' platforms. There is a station car park with 13 parking bays abutting the southern platform. The station lies within Zone 3 and is a heavily used commuter station with approximately 2 million annual entries and exits in 2015-16. Mortlake Station is classed by the Department for Transport (DfT) as a Category C2, "Important Feeder"[1] station. There are no station upgrades planned before at least 2040.

Figure 2.21 Mortlake Station Platforms and Its Southern Entrance

2.10.13 There are separate pedestrian access points to the station from the north and the south with the double-aspect footbridge, located at the far eastern end of the platforms by the level crossing, providing access between the platforms. The footbridge can also be accessed from its stairways leading to Sheen Lane which are also used by pedestrians travelling along Sheen Lane when the level crossing barriers are down. A plan showing the station's entrances, footbridge and the level crossing is shown in Figure 2.22. The PERS report has identified the poor quality of the pedestrian access from the north which is through a timber merchant's yard.

[1] Department for Transport (2009). *Better Rail Stations*, London: Department for Transport

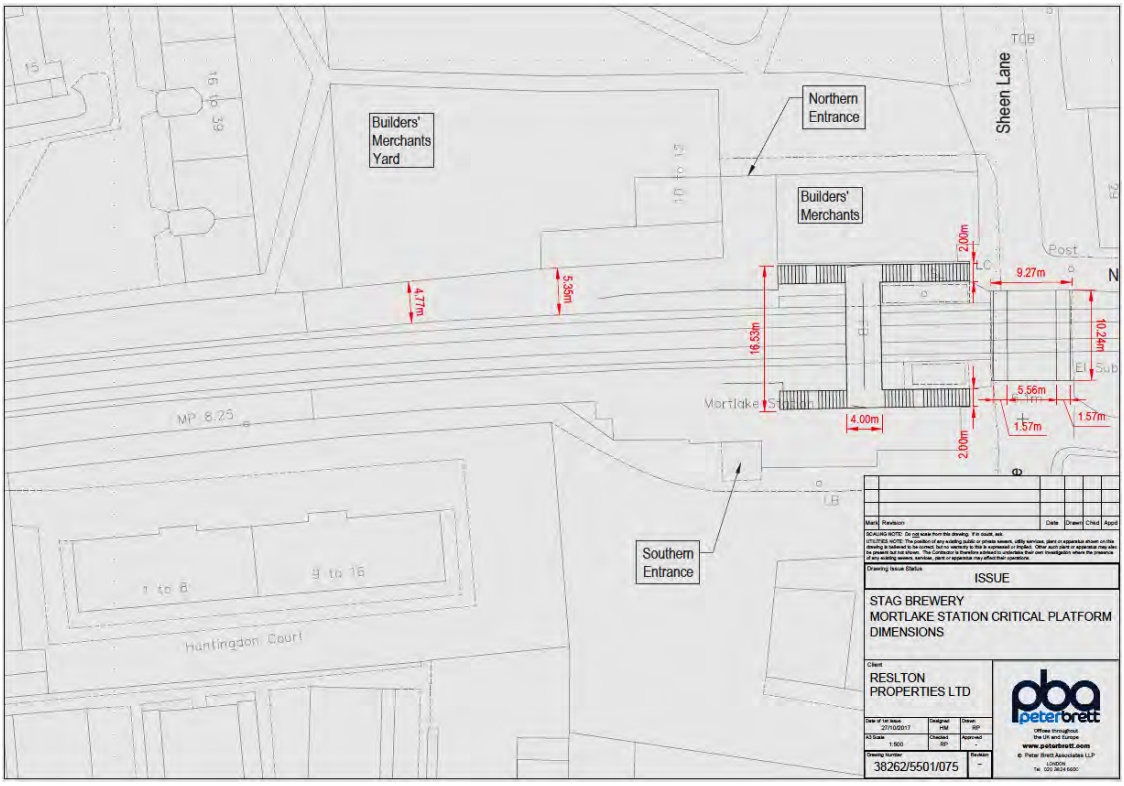

Figure 2.22 Plan of Mortlake Station Showing the Northern and Southern entrances and Footbridge

2.10.14 Both Mortlake station and Barnes Bridge station are served by the new South Western Railway franchise. According to South Western Railway, by 2020, there will be line upgrades to allow 4 extra trains per hour on the “Windsor Lines”, however, none of these will be via Richmond as this section of track is physically constrained by several level crossings. Whilst the number of trains calling at Mortlake will not change the passenger capacity on the line will be increased through the provision of longer trains increasing from 8 to 10 cars. Further capacity increases will occur from 2020 through the provision of a new homogeneous fleet of rolling stock that will serve all stations on the Windsor Lines. The new rolling stock have increased loading capacity and will increase the current peak hour capacity of around 8,624 (3,304 seats) to around 11,800 (4,547 seats). The actual increase will depend on the final seat configuration which is yet to be announced.

2.10.15 It is not foreseen that there will be any investment to increase line capacity via Richmond (as opposed to train or station capacities) until at least the 2030s. At this point there is potential that either Crossrail 2 or the Heathrow Southern Railway will be constructed -both of which will have different direct and indirect impacts on the Windsor Lines capacity.

Lond on Un dergroun d

2.10.16 The closest London Underground service from the Site is the District Line at Kew Gardens station and the District Line also serves Richmond station. It is likely that most people would access this service at Richmond, either by using the rail service to Richmond from Mortlake or by taking the 419 bus service. The walking distance to Kew from the western end of the site is approximately 1.56 kilometres but the R68 service (nearest stops being within a 400 metres walk of the site) also provides access to this station.

2.11 Public Transport Accessibility

2.11.1 The Public Transport Accessibility Level (PTAL) is a measure of the accessibility of a specified point within a development site to the public transport network, taking into account walk access times and service frequency. The method is essentially a way of measuring the density of the public transport network at a particular point. PTAL scores can range from 1a to 6b, where a score of 1 indicates a "very poor" level of accessibility and 6 indicates "excellent" accessibility.

2.11.2 Figure 2.23 provides a copy of the TfL (Webcat) plan showing the existing PTAL for the local area. This shows that whilst the majority of the Site has a PTAL rating of 2 a significant part of the area in the north west corner has a lower rating of 1. In practice it has been acknowledged by TfL that the rating in the north west corner is incorrect as it ignores the bus services that operate along Clifford Avenue. If these services are taken into account, then the existing PTAL for the Site improves slightly with virtually the whole Site falling within the PTAL 2 category. This is shown in Figure 2.24.

2.11.3 A PTAL rating of 2 still represents a 'poor' level of accessibility to public transport services. In reality though, as demonstrated earlier in the chapter, the public transport accessibility can be considered to be much better. PTAL does not take into account the wide variety of locations that can be easily accessed from the Site and the interchange facilities available which provide easy access to the wider strategic network serving London and the wider South East Region. The rail services from Mortlake provide for easy access to a very extensive area through interchange at Clapham Junction, Richmond, Victoria or Waterloo whilst the various bus services that serve the area provide links to a very extensive area of London and again provide access to a number of important strategic interchanges, including Hammersmith.

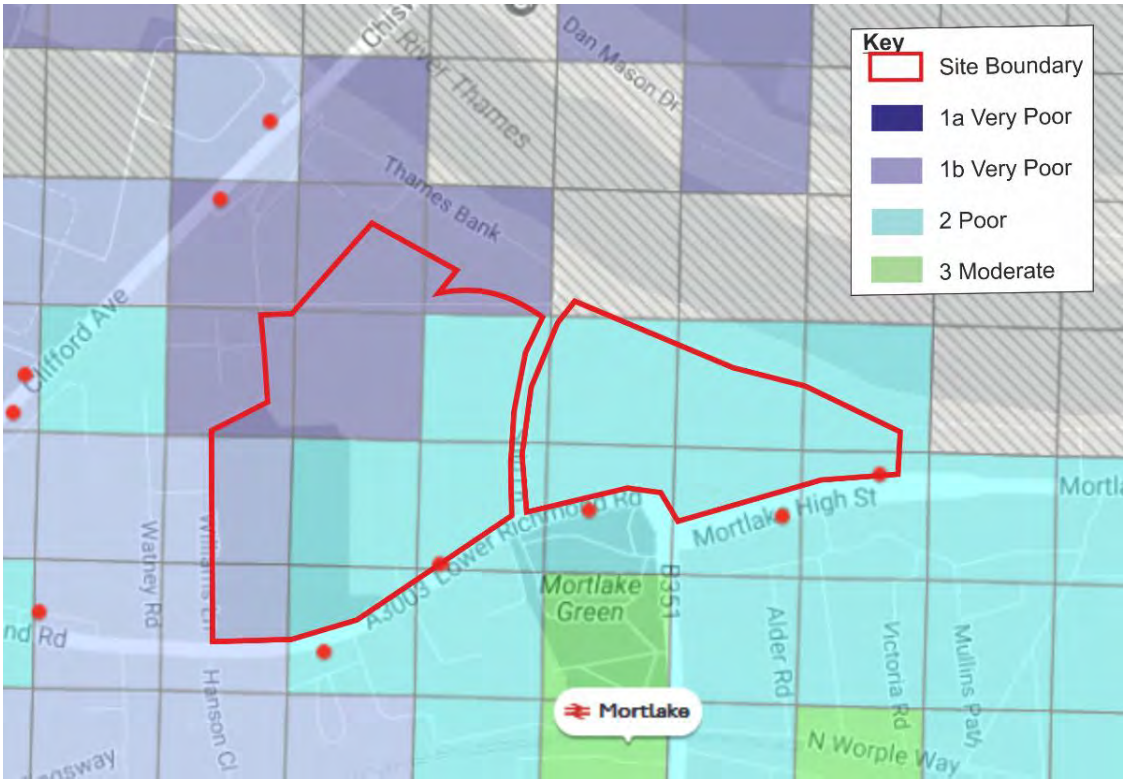

Figure 2.23 Figure showing the PTAL of the existing site

(Source: WebCAT)

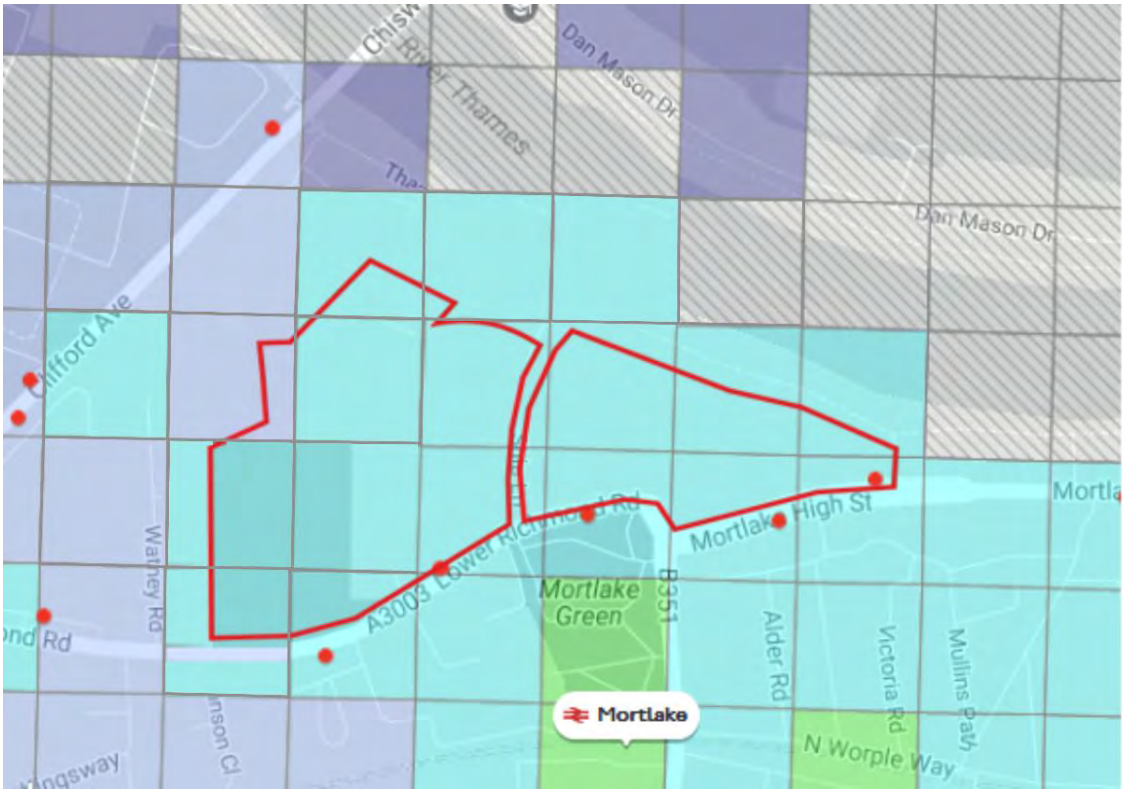

Figure 2.24 Figure showing alternative PTAL

2.12 Access to th e River

2.12.1 To the east of Ship Lane, the Site has frontage access to the River Thames across the towpath over a distance of approximately 270 metres. An old wharf, which has not been in use for many years, is located at the north east corner of the Site and to the east of this there is a limited slipway access to Bulls Alley. From site inspection the river wall of this wharf appears to be in poor condition.

2.12.2 The overall width of the river in the proximity of the Site is approximately 120m. At low water the foreshore is exposed, meaning craft can only move to and from the wharf for a limited time either side of high water. Port of London (PLA) charts indicate that at low water the main channel has a minimum depth of typically 1.4m. The dry height of the foreshore at the wharf wall is 2.5m above chart datum (i.e. above the level below which the lowest tide never falls).

2.12.3 At this point on the river there are few regular commercial services. Existing 'River Bus' (RB) services (deemed as fast and frequent) currently terminate at Putney Pier, approximately 6.2 kilometres up river of the Stag. RB route 6 starts at Putney Pier and ends at Blackfriars, although a small number of services carry on east to London Bridge and Canary Wharf including a limited stop express service. There are existing tourist boat services between Westminster and Hampton Court that operate past the Site.

2.12.4 The limited commercial use of this part of the River reflects a number of constraints including:

- Combined effect of speed restrictions (8 knot) and general alignment of the river between Putney (to the east) and Kingston (to the west) with the consequent increase to travel times;
- Difficulty of accessing the shoreline due to the tidal factors; and

- Potential conflict with rowing and sailing users, which are the prime users of this part of the river.

2.13 Car Clubs

2.13.1 Car Clubs provide a car sharing option for people wishing to use a car occasionally but without having to own and maintain a vehicle. The current location of the car club vehicles is shown on Figure 2.25 below.

2.13.2 There are 5 car club spaces within approximately 500m of the site offering one space each with the exception of the Western Mortlake High Street space where there is provision for two vehicles. Four of the five are ZipCar club spaces, and the final is from the company Ridelink. The location of each of the car clubs are listed below:

- Mortlake High Street (East) - ZipCar – 1 Vehicle
- Vernon Road – ZipCar – 1 Vehicle
- Mortlake High Street (West) – ZipCar – 2 Vehicles
- Thornton Road (Sheen) – ZipCar – 1 Vehicle
- Vineyard Path – Ridelink – 1 Vehicle

Figure 2.25 Map showing the locations of Local Car Clubs

2.14 Road Safety

2.14.1 Personal injury collision data for a study area surrounding the site was obtained from LBRuT for the most recent five-year period up to 31st January 2016. The extent of the collision data study area is shown in Figure 2.26 below.

2.14.2 The figure shows the majority of collisions occurring on the South Circular and at the Chalkers Corner junction. This is not unexpected due to the high traffic volumes using the TLRN. Elsewhere there are no apparent collision clusters particularly in close proximity to the Site or associated with either of the railway level crossings.

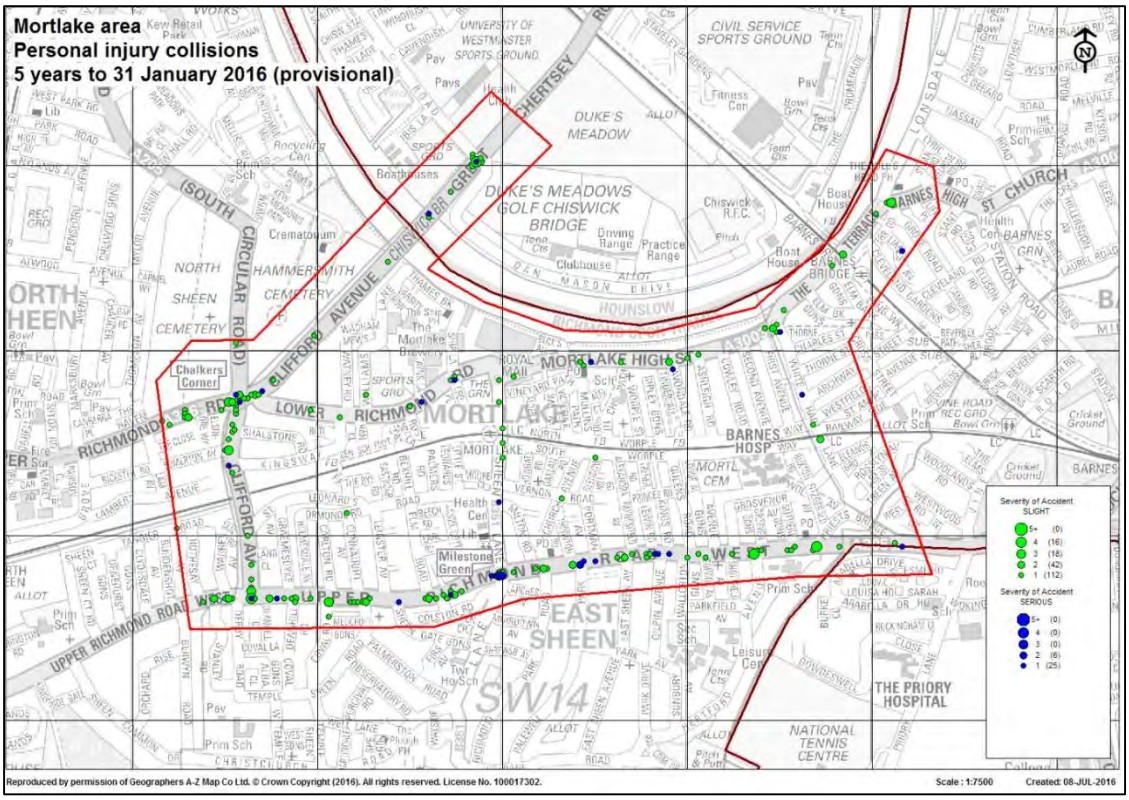

Figure 2.26 Personal Injury Collisions Map provided by LBRuT

2.14.3 Key locations that have been identified and therefore analysed in more detail include Chalkers Corner signalised junction, Lower Richmond Road, Lower Richmond Road junction with Ship Lane, the Upper Richmond Road/Sheen Lane signalised junction and the Sheen Lane Level Crossing. These areas were selected due to their location within the network and in relation to the Site.

Chalkers Corner

2.14.4 At Chalkers Corner (Lower Richmond Road/Clifford Avenue/South Circular) junction there were 19 collisions recorded. Of these 13 were observed at the A316 Lower Richmond Road/South Circular section of the junction with only six observed at the A3003 Lower Richmond Road/Clifford Avenue section.

2.14.5 Of the 19 collisions, five were as a result of road users not seeing or ignoring traffic signals, three occurred due to vehicles not merging correctly, with a total of five involving pedestrians or cyclists. Of the five collisions involving pedestrians or cyclists, three of these also involved vehicles or pedestrian and cyclists ignoring or not seeing traffic signals, whilst the other two involved a car stopping abruptly causing a rider to fall and a car turning into a rider. Whilst there are collisions involving more vulnerable users there is no apparent common causal factor other than poor driver/rider behaviour.

Upper Richmond Road/Sheen Lane

2.14.6 At the Upper Richmond Road/Sheen Lane Junction there were a total of 12 collisions over the five-year period. Of these, five collisions involved pedestrians whilst three involved cyclists (one collision involved both a pedestrian and a cyclist). The collisions involving cyclists all varied with one group being hit by a vehicle turning wildly, one cyclist colliding with a pedestrian and the final collision involving a cyclist overtaking a fellow cyclist and a vehicle hitting the overtaking cyclist from behind.

2.14.7 The collisions involving pedestrians involved one stepping in front of a cyclist, three vehicles ignored signals and turned into crossing pedestrians, whilst the final collision involved a pedestrian running in front of a vehicle whilst there was a red man shown. Again, there appears to be no common causal factor with the exception of poor road user behaviour with signals being ignored.

Sheen Lane Level Crossing

2.14.8 Two collisions were observed close to the Sheen Lane Level Crossing. The first involving a passenger trapping their foot in a car door when exiting the vehicle and the second a vehicle reversing into another, causing a collision. Neither of these collisions appear to relate to the level crossing.

Summary

2.14.9 Most recorded injury accidents occur on the TLRN network which reflects the high traffic flows on this network. The incidence of accidents on the local roads serving the Site, the A3003 and Sheen Lane is low and there are no particular clusters apparent, including at the railway level crossings.

2.14.10 The analysis of accidents has revealed no causal factors relating to the design of the infrastructure with the majority appearing to be caused by poor driver/user behaviour. The incidence of pedestrian and cycle accidents does not appear to be high on the local roads.

2.15 Summary of Existing Conditions

2.15.1 The proposed development is located on the site of the former Stag Brewery site within in Mortlake, south west London. It is adjacent to the River Thames and comprises two distinct parts separated by Ship Lane.

2.15.2 The brewery occupied both sections of the site with two pedestrian walkways over Ship Lane linking them together. The brewery ceased operating in December 2015, but up until that time retained a significant workforce and generated a significant number of HGV movements.

2.15.3 The brewery site has a number of access points including on Lower Richmond Road, Williams Lane and Ship Lane. The main HGV access/egress is located on the bend close to the Sheen Lane mini roundabout and would almost certainly have had a detrimental effect on the operation of that junction. The Stag Brewery site currently has approximately 130 parking spaces on site for both staff and visitors within its main car park off Ship Lane plus around 12-15 spaces within its sports club car park. A further 48 lorry parking spaces are provided to accommodate the brewery's operational traffic within the eastern part of the site and there is in addition substantial opportunity for informal parking of cars and goods vehicles within the Site.

2.15.4 The highway network which serves the area has a number of constraints. There are limited access points due to the barrier effects of the River Thames and the South West railway line. The latter also means that two of the four access points to Mortlake are subject to delays related to the operation of the railway level crossings on Sheen Lane and White Hart Lane. In addition, Chalkers Corner, which provides the main highway access to the area is a recognised traffic hot spot and subject to congestion during the morning and evening peak periods.

2.15.5 A wide range of existing facilities are available within Mortlake. These amenities include public houses, corner shops and employment opportunities along Lower Richmond Road. Sheen Lane provides access to more food/drink establishments as well as both supermarket and non-food retail stores.

2.15.6 Both Mortlake (2-5 mins) and Barnes Bridge (10-15 mins) stations are both accessible within easy walking distance of the Site as are the retail facilities along the Upper Richmond Road (5-

10 mins). Numerous destinations are reachable within a maximum of a 20-minute cycle. Richmond, Chiswick, Hammersmith and Putney as well as Richmond Park are all shown to be reachable within 20 minutes' cycle time.

2.15.7 The local area is generally well served by a network of well-maintained footways. The PERS audit has identified a lack of existing pedestrian crossing facilities over Lower Richmond Road and Mortlake High Street and a number of local roads have a footway on one side only. These include Ship Lane, which bisects the Site and the corner of Mortlake Green. The cycle network also has a number of shortcomings, in particular poor connectivity between Ship Lane and the onward route through Mortlake Green, the lack of provision at the Chalkers Corner junction and also absence of cycle provision along the Lower Richmond Road and Mortlake High Street corridor.

2.15.8 For both pedestrians and cycles the railway line presents a barrier to movement. However, there are a number of pedestrian footbridges which help to alleviate this.

2.15.9 The Site is well connected with a variety of public transport options available with a wide variety of destinations or interchanges accessible from Mortlake and it is considered that the PTAL rating of the Site (primarily a 2) substantially underestimates the actual accessibility of the area by public transport. The nearest National Rail stations to the site are Mortlake Rail Station and Barnes Bridge Rail Station located approximately 0.34 km and 1.2 km respectively from the proposed site entrance at Ship Lane. Bus stops on Clifford Avenue, Lower Richmond Road and the South Circular all provide services to Hammersmith and Richmond via various different routes, with the South Circular stops also being served by routes towards Fulham and Tooting.

2.15.10 Most recorded injury accidents occur on the TLRN network which reflects the high traffic flows on this network. The incidence of accidents on the local roads serving the Site, the A3003 and Sheen Lane is low and there are no particular clusters apparent, including at the railway level crossings.

3 Policy Review

3.1 Overview

3.1.1 This chapter provides a review of the current national, regional and local planning transport policy relevant to the Stag Brewery Development. The following policy documents are the documents that make up the review of the national, regional and local policies:

- National Planning Policy Framework (NPPF), 2012;
- The London Plan consolidated with Alterations since 2011(March 2016);
- The Mayor's Transport Strategy, 2010;
- The Draft Mayor's Transport Strategy, 2017
- The Mayor's Housing Supplementary Planning Guidance, 2012;
- Strategic Cycling Analysis - Identifying future cycling demand in London, 2017
- London Borough of Richmond upon Thames (LBRuT) Local Development Framework 2009 – 2018;
- London Borough of Richmond upon Thames (LBRuT) – Publication version of Local Plan, 2017
- Stag Brewery, Mortlake Planning Brief, 2011;
- West London Waste Plan; and
- Research to Support the London Borough of Richmond-upon-Thames' Review of their Local Parking Standards, 2016.

3.2 National Policy

National Planning Policy Framework (NPPF, 2012)

3.2.1 The NPPF was published on 27th March 2012 replacing all previous Planning Policy Statements and Planning Policy Guidelines, including PPG13. The new framework seeks to facilitate sustainable development. In respect of transport, the NPPF advocates that planning policies and decisions should consider whether:

- The opportunities for sustainable transport modes have been taken up depending upon the nature and location of the site to reduce the need for major transport infrastructure;
- Safe and suitable access to the site can be achieved for all people; and
- Improvements can be undertaken within the transport network that cost effectively limits the significant impacts of the development. Development should only be prevented or refused on transport grounds where the residual impacts of development are severe.

3.2.2 At a more detailed level, the NPPF states that developments should be located and designed in order to:

- Give priority to pedestrian and cycle movements and have access to high quality public transport facilities; and

- Create safe and secure layouts which minimise conflicts between traffic and cyclists or pedestrians.

3.2.3 Priority is given to providing low emission vehicles in the NPPF, in particular charging facilities.

3.2.4 The NPPF stresses the importance of providing a Travel Plan for all developments that generate significant amounts of movements.

3.3 Regional Policy

London Plan consolidated with alterations since 2011

3.3.1 The London Plan, published in July 2011, sets out the overarching policies and principles for developments in London over the next 20-25 years. The London Plan has been further revised in March 2015, Further Alterations to the London Plan (FALP) and March 2016, Minor Alterations to the London Plan (MALP).

3.3.2 A key objective of the Plan states London should be "a city where it is easy, safe and convenient for everyone to access jobs, opportunities and facilities with an efficient and effective transport system which actively encourages more walking and cycling".

3.3.3 Chapter 6 of the FALP identifies policies to support integration of transport and development, connecting London and ensuring better streets. It also sets out car and cycle parking standards.

3.3.4 The most relevant policies included within this Chapter are outlined below:

Policy 6.1 Strategic Approach

3.3.5 The Mayor will work with key parties to encourage integrated transport systems. This will be achieved by;

- Encouraging patterns and nodes of development that reduce the need to travel, especially by car;
- Supporting development with a high trip generation at locations where there is good public transport accessibility and capacity;
- Supporting measures that encourage shifts to more sustainable modes and appropriate demand management;
- Promoting greater use of low-carbon technology to reduce carbon dioxide emissions and global warming contributions; and
- Promoting walking by ensuring an improved public realm.

Policy 6.3 Assessing Transport Capacity

3.3.6 Development proposals should ensure that the impacts of the transport capacity and the transport network are considered and that Transport Assessments will be required in accordance with TfL's Transport Assessment Best Practice guidelines.

Policy 6.9 and Policy 6.10 Cycling and Walking

3.3.7 The Mayor will work to increase cycling and walking in London. Developments should:

- Provide secure, integrated and accessible cycle parking facilities in line with London Plan standards;
- Provide onsite showering and changing facilities;

- Integrate the Cycle Superhighways and facilitate the central London Cycle Hire scheme;
- Ensure high quality pedestrian environments in and around new developments that give emphasis to pedestrian and street space; and
- Promote simplified streetscapes that are de-cluttered and provide access for all.

Policy 6.13 Parking

3.3.8 New developments should ensure a balance is met between promoting new development and avoiding excessive car parking that can reduce the use of sustainable modes of transport. When the car parking provision for new developments is being considered, maximum car parking standards (in line with London Plan policy) should be applied.

3.3.9 With regard to accessible parking, the policy states that developments should always include parking provision for disabled people. In terms of the residential parking, *"adequate parking spaces for disabled people must be provided preferably on-site".*

3.3.10 The London Plan parking standards are available as an appendix to Chapter 6 of the London Plan.

Policy 6.13 Cycle Parking

3.3.11 The most current London Plan shows the minimum cycle parking standards for each land use, which are also presented below for the relevant proposed uses across the proposed development.

Table 3.1 London Plan Cycle Parking Standards

Use		Long-Stay	Short-Stay
A1	Food Retail	from a threshold of 100 sqm: 1 space per 175 sqm	from a threshold of 100 sqm: first 750 sqm: 1 space per 40 sqm thereafter: 1 space per 300 sqm
	Non-Food Retail	from a threshold of 100 sqm: first 1000 sqm: 1 space per 250 sqm thereafter: 1 space per 1000 sqm	from a threshold of 100 sqm: first 1000 sqm: 1 space per 125 sqm thereafter: 1 space per 1000 sqm
A2-A5	Cafés and Restaurants	from a threshold of 100 sqm: 1 space per 175 sqm	from a threshold of 100 sqm: 1 space per 40 sqm
B1	Offices	1 space per 150 sqm	first 5,000 sqm: 1 space per 500 sqm thereafter: 1 space per 5,000 sqm
C3-C4	Dwellings (all)	1 space per studio and 1-bedroom unit	1 space per 40 units
		2 spaces per all other dwellings	
D1	Nurseries / Schools (primary and secondary)	1 space per 8 staff + 1 space per 8 students	1 space per 100 students
	Health Centre, including Dentists	1 space per 5 staff	1 space per 3 staff

Use		Long-Stay	Short-Stay
	Other (e.g. Library, Church, etc.)	1 space per 8 staff	1 space per 100 sqm

Draft London Plan 2017

3.3.12 The Draft London Plan, published in December 2017, outlines the Mayor's environmental, economic, social and transport strategic policy framework which is aimed to improve London as a region over the next 20-25 years. Chapter 10 of the Draft London plan subsumes the following transport policy areas. The most relevant policies included within this chapter are outlined below:

3.3.13 Policy T1 'Strategic approach to transport' requires all Borough Development Plans to support the "strategic target of 80% of all trips in London to be made by foot, cycle or public transport by 2041". This should be sought through:

- Encouraging greater integration of land use and transport as well as further improvements to the public transport which creates greater connectivity
- Reducing congestion by encouraging a modal shift from car use to public transport
- Promoting consolidation of deliveries in order to minimise the delivery trips
- Investing in high quality interchanges and rebalancing the public transport network to make active methods of travel more attractive

3.3.14 Policy T2 'Healthy streets' is a key aspect of the Draft London Plan. It seeks to encourage Development Plans to facilitate more trips by walking and cycling through improving street environments through by car dominance, emissions and noise.

3.3.15 Policy T3 'Transport capacity, connectivity and safeguarding' aims to inform Development Plans and proposals to support the sustainable development of London's public transport network. This includes safeguarding existing buildings and land used for transport. This will enable expansion in the near future and includes a number of possible transport schemes across the short-, medium- and long-term.

3.3.16 Policy T4 'Assessing and mitigating transport impacts' highlights the importance of an integrated approach to current and planned transport access, capacity and connectivity. Transport assessments should be submitted where development proposals may negatively and irreversibly impact the local transport network, with mitigation provided where necessary; particularly walking, cycling and public transport mitigation.

3.3.17 Policy T5 'Cycling' sets out the approach to removing barriers to cycling and creating environments in which people choose to cycle. It sets out the various

3.3.18 Policy T6 encompasses residential, office, retail, hotel, leisure and disabled person parking standards; with differing standards applied to the Central Activities Zone, Inner London, Outer London and other parts.

3.3.19 Policy T7 'Freight and servicing' aims to reduce the number of freight trips and emissions from freight across London through, for example; provision of electric vehicle charging points for freight vehicles, hydrogen refuelling stations and encouraging out-of-peak deliveries by operating 24-hour consolidation and distribution sites.

Mayor's Housing Supplementary Planning Guidance, March 2016

3.3.1 The Mayor's Housing SPG was updated in March 2016 to reflect the ongoing changes in the London Plan and replaces the 2012 Housing SPG and the Mayor's Housing Standards Policy Transition Statement.

3.3.2 The document sets out how new development should relate to public transport and how TfL's WebCAT toolkit should be taken into account when taking planning decisions on major sites. In cases where the PTAL varies across a site, it is recommended that a common sense approach be taken by both developers and boroughs.

3.3.3 The 2016 SPG provides recommendations on parking provision in relation to a site's PTAL, referred to as Standard 17, which reflects the content within Chapter 6 of the London Plan.

3.3.4 Standard 18 states that each designated wheelchair-accessible dwelling should have a car parking space that complies with Building Regulation Part M4 (3).

3.3.5 Standards 22 and 23 require that waste stores satisfy local requirements and meet at least British Standards BS5906:2005 'Waste management in buildings – Code of practice'.

The Mayor's Transport Strategy, 2010

3.3.6 The Mayor's Transport Strategy was published in May 2010 and aims to provide a framework to inform the strategic development of London, alongside the London Plan, for the next 20 years. The strategies key aims include:

- Supporting economic development and population growth;
- Enhancing the quality of life for all Londoners;
- Improving the safety and security of Londoners;
- Improving the transport opportunities for all Londoners;
- Reducing transport's contribution to climate change, and improving its resilience.

3.3.7 Throughout the strategy, emphasis is placed on amongst other things:

- Improving cycling and walking in London;
- Promoting sustainable technologies such as electric vehicles;
- Providing better travel information to travellers;
- Encouraging the use of River Thames and other waterways to transport goods and people;
- improving strategies to tackle road congestion.

3.3.8 As part of Proposal 54, the cycle revolution will be supported by the increased provision of secure bicycle parking facilities, particularly at stations, workplaces, schools, retail and leisure sites.

3.3.9 Throughout the document, the use of Travel Plans is encouraged.

The Mayor's Transport Strategy 2017 consultation

3.3.10 A more recent version of the Mayor's Transport Strategy (MTS) is out to public consultation. This places an even greater emphasis on healthy streets and promoting sustainable travel. The (MTS) is due to be published in 2018.

3.3.11 The three main themes include

- 'Healthy Streets and Healthy People';
- 'A good public transport experience' and;
- 'New Homes and Jobs'.

3.3.12 'Healthy streets and healthy people' is about creating streets and routes that encourage walking, cycling and public transport. Local streets and neighbourhoods will be designed to make them pleasant places for people to walk, cycle, and use public transport. Reducing road danger will make people feel safer and more comfortable walking and cycling. A shift away from car use will help London's streets work more efficiently and reduce congestion.

3.3.13 'A good public transport experience' ensures that public transport is the most efficient way for people to travel distances that are too long to walk or cycle.

3.3.14 'New homes and jobs' is ensuring that people live and work in well-connected places and transport plays a key role in delivering this. 'Good growth' will provide more opportunities, deliver affordable homes and improve the quality of life. People should be able to live in areas where many of the places they want to go to are within walking and cycling distance, and good public transport connections are available for longer trips.

3.3.15 The new MTS consultation demonstrates a clear focus on providing and promoting sustainable modes of travel.

Strategic Cycling Analysis - Identifying future cycling demand in London, 2017

3.3.16 This document presents what the latest datasets, forecasts and models show about potential corridors and locations where current and future cycling demand could justify future investment. In doing so is seeks to identify:

- Where are the cycling connections with the greatest potential to contribute to cycling growth in London;
- How could these connections be prioritised;
- How could these connections contribute towards achieving Healthy Streets goals; and
- What opportunities are there to deliver area-wide cycling improvements.

3.3.17 Within LBRuT, the South Circular, A316 and Lower Richmond Road through Mortlake are all identified as current well used cycle corridors. Figure 2.4 identifies the South Circular corridor, in addition to the A316 corridor which has already been identified as a future Quite Way, as being potential future priority corridors for cycle movement.

3.4 Local Policy

London Borough Richmond upon Thames Local Development Framework 2009-2018

3.4.1 The Local Development Framework, adopted in April 2009, and which comprises of the Core Strategy and the Development Management Plan, is the document which governs local development and sets out the Council's proposals in terms of future developments over the next 15 years. This document will be replaced with the official Local Plan for the LBRuT which is currently undergoing public examination following which it is due to be adopted in Spring of 2018.

3.4.2 The objectives of the spatial strategy for the LBRuT, related to transport, include the following:

- Sustainability across the borough will be at the forefront of the core strategy, especially in relation to buildings and travel.

3.4.3 Policy CP5 from the Core Strategy discusses the benefits of implementing a sustainable travel network in the borough of Richmond upon Thames. The local Council, and associated partners, pledges to promote sustainable travel modes such as walking, cycling and public transport by doing the following:

- Safeguarding land for existing and proposed transport functions
- Providing and promoting a well-designed bicycle and walking network across the borough (the Strategic Walks network, Richmond Borough Cycle Network and London Cycle Network Plus), and to improve conditions for cyclists and pedestrians elsewhere.
- Prioritising the needs of pedestrians and cyclists in the design of new developments including links to existing networks and requiring the provision of adequate cycle parking.
- Improving provision for buses through the implementation of development proposals.
- Achieving integration and convenient interchange facilities at all the borough's stations

3.4.4 LBRuT's current car parking standards are included as an appendix to the Development Management Plan as part of the Local Development Framework and differentiate according to whether the area is within or outside a controlled parking zone (CPZ). Whilst the standards are identified as maximum the policy suggests that there will be a normal requirement to meet the standard except in exceptional circumstances.

3.4.5 For residential development, the maximum parking standard within and outside a CPZ is for 1 space for 1/2 bed units, an average of 1.5 spaces for 3 bed units and for units of 4 or more beds, 2 spaces. These requirements are therefore much higher than implied by the London Plan for an area such as Mortlake.

3.4.6 Table 3.2 identifies the current borough parking standards for the various non-residential which are proposed as part of the Stag regeneration proposals.

Table 3.2 showing Car Parking Standards for Different Land Uses

Land Use	Parking standards in CPZ	Parking standards out of CPZ
Retail	1 space per 50m^2	1 space per 50m^2

Land Use	Parking standards in CPZ	Parking standards out of CPZ
Restaurant	1 space per 16m^2	1 space per 8m^2
Hotel	1 space per 5 rooms	1 space per 1 room
Office	1 space per 300m^2	1 space per 200m^2
Cinema	1 space per 10 seats	1 space per 5 seats
Gym	1 space per 50m^2	1 space per 25m^2
Extra Care	1 space per 5 units	1 space per 5 units
School	1 space per 2 staff	1 space per 2 staff
Community Hall	1 space per 10 people	1 space per 5 people
Residential Care Homes	1 space per 5 residents + 0.5 spaces per unit of staff accommodation	1 space per 5 residents + 0.5 spaces per unit of staff accommodation

Stag Brewery, Mortlake Supplementary Planning Document, 2011

3.4.7 The supplementary planning brief for the Stag Brewery Site is set out to provide guidance for the development and what it should contain and represent. The brief also demonstrates the opportunities and constraints surrounding the proposed development.

3.4.8 The Brief indicates the desire for a village feel to the Mortlake area to be enhanced by the new development on the Stag Brewery site focused on a mix of land uses particularly to the east of Ship Lane.

3.4.9 Transport, including access and linkages, are identified as being key constraints to the development of the site. The Transport and Parking section calls for a Transport Assessment to consider the impact of vehicular traffic from the development in addition to accounting for the existing levels of congestion in the area.

3.4.10 The Brief also highlights the need to consider how the existing bus network can be enhanced and identifies the possible provision of a new bus stopping area within the site for the 209 bus service to replace the existing Avondale Road Bus terminus.

3.4.11 The relationship between the site and public transport is noted as a key consideration and the links from the site to key bus stops and the rail station are to be explored and potentially enhanced as part of the development. As a part of this but also with wider benefits the brief also states the need to create new pedestrian routes and improve cycle infrastructure in the area to aligns with the Brief's wish to minimise impacts but also to provide transport choice.

3.4.12 A particular focus of the walking and cycling infrastructure is to increase the amount of links between Mortlake (specifically Mortlake Green, Sheen Lane and the station) and the river. At present the brewery and its outer walls provide a barrier between the river and Mortlake and the Brief states that it is an opportunity to imaginatively improve the relationship between the site and the surrounding area.

3.4.13 Proposals are also to include car and cycle parking provision including for car clubs and visitors in accordance with the standards set out by LBRuT with an emphasis on their being no impact on the local area. For residential it suggests a requirement for at least one car parking space per unit.

3.4.14 The appendix to the Brief provides an image showing the Council's vision for site. This identifies a bold new green link through the site to link Mortlake Green with the river and as part of this a repositioned pedestrian crossing over Lower Richmond Road.

Emerging Loc al Plan 2018

3.4.15 In May 2017, the LBRuT submitted the Local Plan (Publication version), to the Secretary of State for Communities and Local Government for independent Examination.

3.4.16 The Local Plan Strategic Vision recognises that cars will still be a significant part of the borough's future. However, the "borough's improved transport network and interchanges will encourage residents as well as those who work and visit the borough to make journeys using high quality public transport and walking and cycling routes. The built environment, spaces and public realm will be attractive and pleasant, and residents will have increasingly adopted active and healthy lifestyles and enjoy the borough's cycling and walking networks"

3.4.17 Stag Brewery is mentioned as a Site Allocation in the Local Plan (Policy SA 24). The Council supports the comprehensive redevelopment of this site and favours a mixed-use development that will deliver a new village heart and centre for Mortlake.

3.4.18 Policy LP 44 - Sustainable Travel Choices states that the Council will work in partnership to promote safe, sustainable and accessible transport solutions. In terms of walking and Cycling the Council "will ensure that new development is designed to maximise permeability within and to the immediate vicinity of the development site through the of 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"

3.4.19 Furthermore, this policy states that new developments should "maximise opportunities to provide safe and convenient access to public transport services.

3.4.20 Paragraph 11.14 states that 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".

3.4.21 The document also provides updated parking standards. These no longer identify CPZ's as a differentiator but instead relate parking requirements to the PTAL. For areas such as Mortlake, with a PTAL of less than 3, the proposed maximum residential parking is for 1 space for 1 2 bed units and for 2 spaces for units with 3 or more beds. For non-residential uses the parking standards generally defer to the London Plan. One exception is cinema, where the proposed standard is for 1 space per 5 seats.

3.4.22 As with the current policy, the document states that developers may only provide fewer parking spaces, including car free schemes, if they can show that there would be no adverse impact on amenity, street scene, road safety or emergency access in the surrounding area, as result of the generation of unacceptable overspill of on-street parking in the vicinity.

3.4.23 Proposed cycle parking relates directly to London Plan requirements.

3.5 Summary

3.5.1 The above sets out the relevant national, regional and local policy relevant to the Stag Brewery site. The NPPF provides nationwide policies, the London Plan and Mayor's Transport Strategies the regional policy whilst the local policy is set out within the Local Development Framework, although this is likely to be superseded during 2018 though the adoption of a new Local Plan following its examination in public.

3.5.2 For the Stag Development, a key policy document is the Planning Brief which was adopted in 2011 as supplementary planning guidance. The Brief was subject to extensive public consultation undertaken by the Council and has since been developed into the emerging site allocation, from which the proposals for the site have been developed.

3.5.3 The following chapter sets out the development proposals and outlines how these accord with these policies and identifies any areas of conflict.

4 Development Proposals

4.1 Overview

4.1.1 This chapter sets out in detail the proposals for the site of the former Stag Brewery site including proposed parking arrangements and includes a description of access proposals for all modes.

4.1.2 As part of the design process there has been a very detailed engagement with the Borough, with TfL and with the local community. Details of this are also provided together with a review of how the access strategy has evolved to respond to the feedback received through this consultation process.

4.1.3 The chapter also outlines how the development proposals accord with transport policy and in particular with the guidance provided by the Stag Planning Brief, which was adopted as Supplementary Planning Guidance in July 2011 and the emerging Site Allocation contained within the emerging Local Plan (2017) (Policy SA 24).

4.1.4 The proposed access arrangements for the Site are set out in detail. In keeping with the thrust of current transport policies priority is given to minimising the impact that development traffic will have both on the development itself but also on the wider community. This is reflected in reduced parking provision, and an access strategy that priorities the movement of pedestrians and cycles through the Site and which ensures that this will not be a car dominated development.

4.2 LBRuT Planning Brief (2011) and Emerging Site Allocation

4.2.1 The previous chapter sets out the planning context for the development including a summary of the key transport principles identified within the Planning Brief and the emerging Site Allocation. These are summarised as follows:

- The need to provide a new high quality linkage between Mortlake Green and the Riverside from both the Planning Brief and Site Allocation. Within the Vision Plan this was in part achieved by providing a new pedestrian crossing over Lower Richmond Road linking Mortlake Green with the development. It also highlighted traffic calming along the Lower Richmond Road, Mortlake High Street and Sheen Lane corridor;

- Creating new high quality links for pedestrians and cycles through the development and ensuring that these integrate with existing routes serving the wider area;

- Supported the potential extension of the 209 bus service to the Site. The 209 currently terminates at a bus facility at the southern end of Avondale Road, to the south east of the Site, and so the Council also supported the provision of a replacement bus facility at the Site;

- Providing parking in accordance with Council's standards including "at least" one for one parking for residential development; and

- Providing suitable highway mitigation in view of the prevailing local concerns regarding traffic congestion in the area.

4.3 Public and Stakeholder Consultation

4.3.1 The Planning Brief was itself subject to considerable public consultation undertaken by the Council.

4.3.2 In addition to this, the development team has undertaken extensive consultation as follows:

- Full public exhibitions on the 8th, 9th, 11th, 17th and 18th of March 2017 as well as the 13th, 14th and 15th of July 2017 on a revised development proposal in response to the earlier consultation.
- A series of workshop sessions / presentations to representatives of the local community trust (Community Liaison Group (CLG) meetings). These meetings have been minuted and have included sessions where a major focus has been on transport and access;
- A series of formal Planning Performance Agreement (PPA) meetings with officers of LBRuT. Again, these have included a number of meetings where transport and access has been a key focus;
- Two formal pre application meetings with TfL on Thursday 18th August 2016 and 2nd May 2017 (TfL letters attached at Appendix G);
- Briefing sessions with Council Members;
- Numerous team technical meetings;
- Meetings with Network Rail; and
- One to one sessions with key members of the CLG.

4.3.3 In addition to the above there have been further technical meetings with officers of LBRuT and TfL on defined transport subjects and also other stakeholder meetings.

4.3.4 A number of key issues emerged during this public consultation that have influenced the design of the scheme, including the access strategy. These are summarised below:

- Discussions with TfL have indicated that the extension of the 209 bus service may not be their preferred strategy but they have indicated their strong support for safeguarding for a bus turn facility within the development to provide wider operational benefits;
- Concerns were raised by the public regarding existing levels of traffic congestion in the local area due to the combined impacts of long barrier down time at the local level crossing and the busy nature of the Chalkers Corner Junction.
- Related to the above, concerns were raised regarding congestion at the Sheen Lane mini roundabout (junction of Lower Richmond Road/Mortlake High Street/Sheen Lane) and the need to ensure that this is not exacerbated by the development proposals;
- The need to provide a high quality pedestrian route through the site between Mortlake Green and the riverside with a suitable pedestrian crossing over Lower Richmond Road, was strongly endorsed;
- Similarly, the need to provide good quality pedestrian and cycle linkages though the development and suitable connections to the external network was generally endorsed, including by TfL; and
- There has been considerable debate regarding the most appropriate level of parking to provide within the development. TfL has confirmed that for the residential use a provision of around 0.75 spaces per unit is acceptable as an upper limit. This is at odds with the Planning Brief and also potentially at odds with the existing and emerging LBRuT parking policies. However, the CLG has indicated that it is supportive of lower levels of parking provision and both officers and Members at LBRuT have indicated that

parking below the standards may be acceptable taking into account existing levels of traffic congestion in the area and the close proximity of the station.

4.3.5 In addition to the above, discussions with Network Rail (NR) have taken place regarding the existing operation of the Mortlake level crossing and the potential further impacts that could arise due to additional demand to use the crossing (both by pedestrians, cycles and pedestrians).

4.4 Development Proposals

4.4.1 The regeneration proposals for the Site are for a mixed use, residential led development closely reflecting the aspirations of the Council's Planning Brief and the emerging Site Allocation. The main departure from the Planning Brief is the inclusion of a large secondary school as opposed to a primary school indicated within the Brief. This is because since the Brief was issued the Council has determined that there is a greater need in the area for a new secondary facility and has therefore made this a priority. This in turn has had significant implications for the transport and access strategy for the development, since the travel impacts of a large secondary school are substantially greater than for a local primary school.

4.4.2 As set out in the introduction, there are three separate applications:

- Application A - A hybrid application to include the demolition of existing buildings to allow for the comprehensive phased redevelopment of the site.
  - Land to the east of Ship Lane applied for in detail (referred to as 'Development Area 1' throughout); and
  - Land to the west of Ship Lane (excluding the school) applied for in outline (referred to as 'Development Area 2' throughout).
- Application B - A detailed planning application for the school (on land to the west of Ship Lane).
- Application C - detailed planning application for highways and landscape works at Chalkers Corner which includes reconfiguration of Chalkers Corner traffic junction, to include existing public highway and existing landscaped and informal parking area associated to Chertsey Court, to facilitate alterations to lane configuration, a new cycle lane, works to existing pedestrian and cycle crossing, soft landscaping and replacement boundary treatment to Chertsey Court.

4.4.3 Figure 4.1 below identifies these different elements of the site and Figure 4.2 shows the illustrative masterplan for the new development (excluding Chalkers Corner) and indicates the type and location of the land uses proposed.

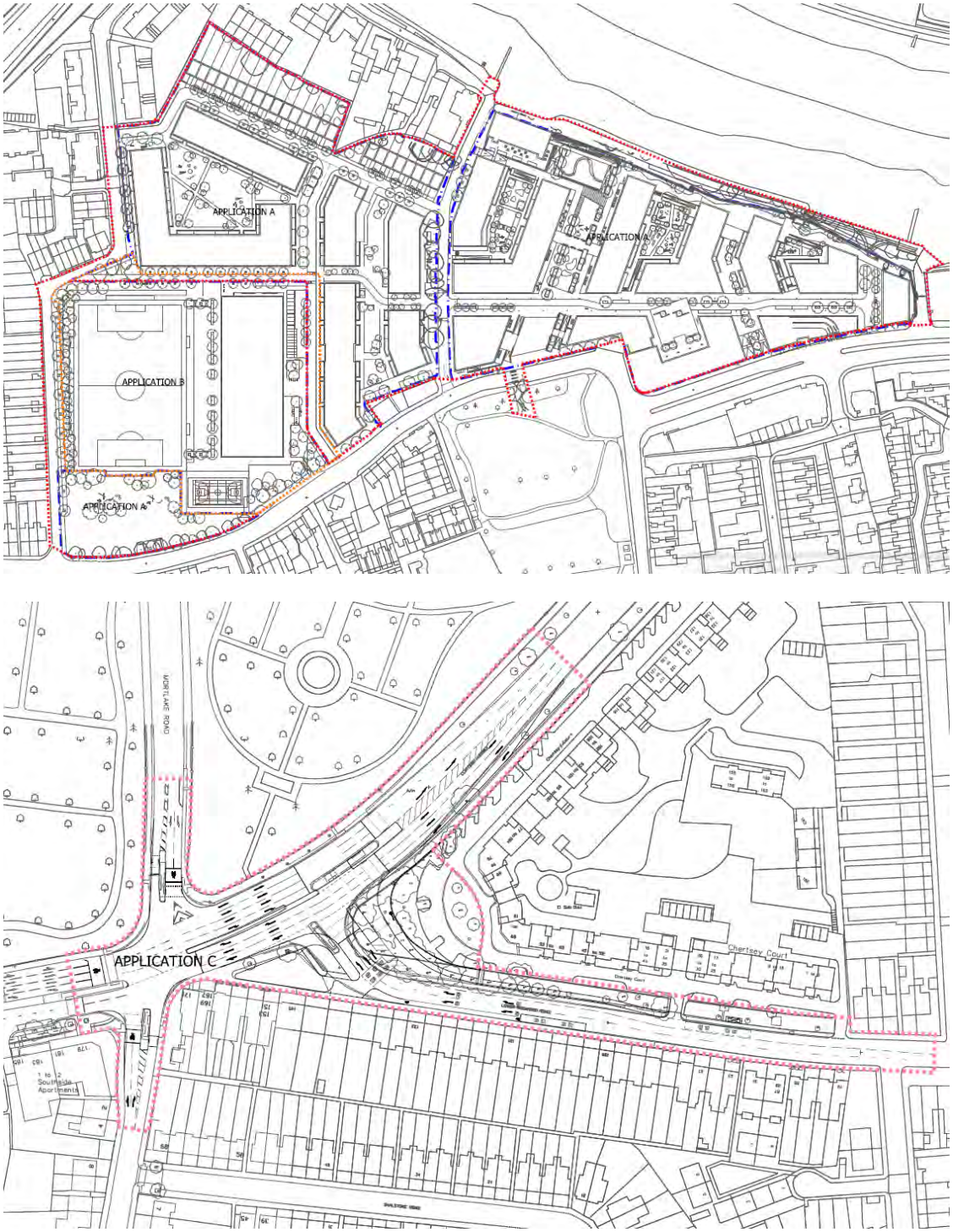

Figure 4.1 Site Red Line Application Plans

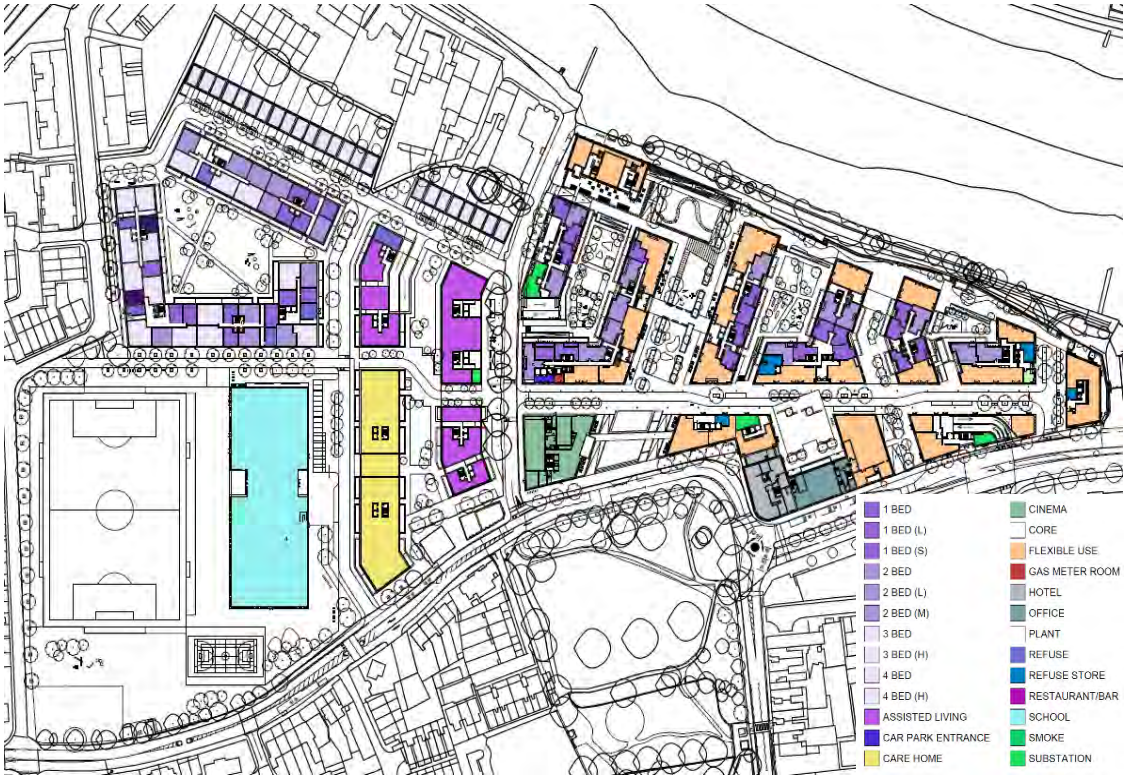

Figure 4.2 Illustrative Masterplan

4.4.4 Table 4.1 provides a summary of the development proposals for the hybrid application and the separate application for the school.

Table 4.1 Stag Brewery development quanta (GIA)

Land Use	Development Quanta
Detailed Application – Application A (Development Area 1)	
Residential	443 units
Unspecified Flexible Floor Areas inc, Retail/Restaurant/Office/Community/Boathouse	4,664 m^2
Hotel	1,668 m^2 (16 rooms)
Office	2,424 m^2
Cinema	2,120 m^2 (3 screens, 370 seats)
Gym	740 m^2
Management Office	33 m^2
Outline Application	
Residential	Up to 225 units
Residential/Assisted Living	Up to 150 residential or assisted living units

Care Home	70 Units
Detailed School Application	
School	9,319 m^2 (1,200 pupils)

Detailed Application (Application A, Development Area 1)

4.4.5 The detailed application, which relates to the area to the east of Ship Lane (Development Area 1), would provide 443 residential units as well as the majority of the non-residential uses within the site, including local shops, restaurants and bars, and leisure and community uses. This is in keeping with the Planning Brief and emerging Site Allocation which sought the creation of a new vibrant centre for Mortlake in this area.

4.4.6 Accordingly, the main retail uses will be centred around a new "high street" running parallel to Mortlake High Street through the centre of the Site and the development will also create a more active frontage to the river including new bars and restaurants. The development includes a new 370 seat cinema with three screens, a small hotel / pub with 16 bedrooms and office floor space all of which are located along the Mortlake High Street/Lower Richmond Road frontage. It is also anticipated that this frontage will include a new local convenience store.

4.4.7 Table 4.2 provides a breakdown of the residential development within the detailed application. All residential accommodation in this part of the development will be in the form of apartments.

Table 4.2 Detailed Application residential summary

	1 Bed	2 Bed	3 Bed	4 Bed	Total
Total Residential units	65	232	138	8	**443**

4.4.8 The detailed application (Application A, Development Area 1) reflects the need to maintain a degree of flexibility regarding the end use of some of the non-residential space to allow for the land use to take account of market forces. Accordingly, an area amounting to 4,638 m^2 at lower floor levels has been identified for flexible uses for provision of local retail, restaurants and bars, community floor space and office and other services. In order to ensure sufficient variety and the vitality of the area maxima floor areas have been identified within this overall flexible space as set out in Table 4.3. Figure 4.3 identifies the areas set aside for flexible uses. For retail only a minimum floor area of 1,255m^2 has also been identified for the new 'High Street Zone' in order to ensure that the new high street provides an appropriate amount of A1 retail use as part of any mix.

4.4.9 The community use is expected to occupy two buildings, the ground floor and part of the first floor of the restored Maltings building (489m^2 – Block 4) and the Boathouse (349 m^2 – Block 9). At this stage the exact use of the space has not been identified although it is anticipated that the Boathouse is likely to be occupied by a rowing club and with the Maltings used for more general community purposes. Whilst these spaces are applied for within the wider flexible use format, the expectation is that they will be occupied for the aforementioned community uses.

4.4.10 Chapter 5 which provides the trip generation estimates for the development proposals, sets out the assumed use of flexible floor space in order to ensure a robust assessment based upon a realistic mix.

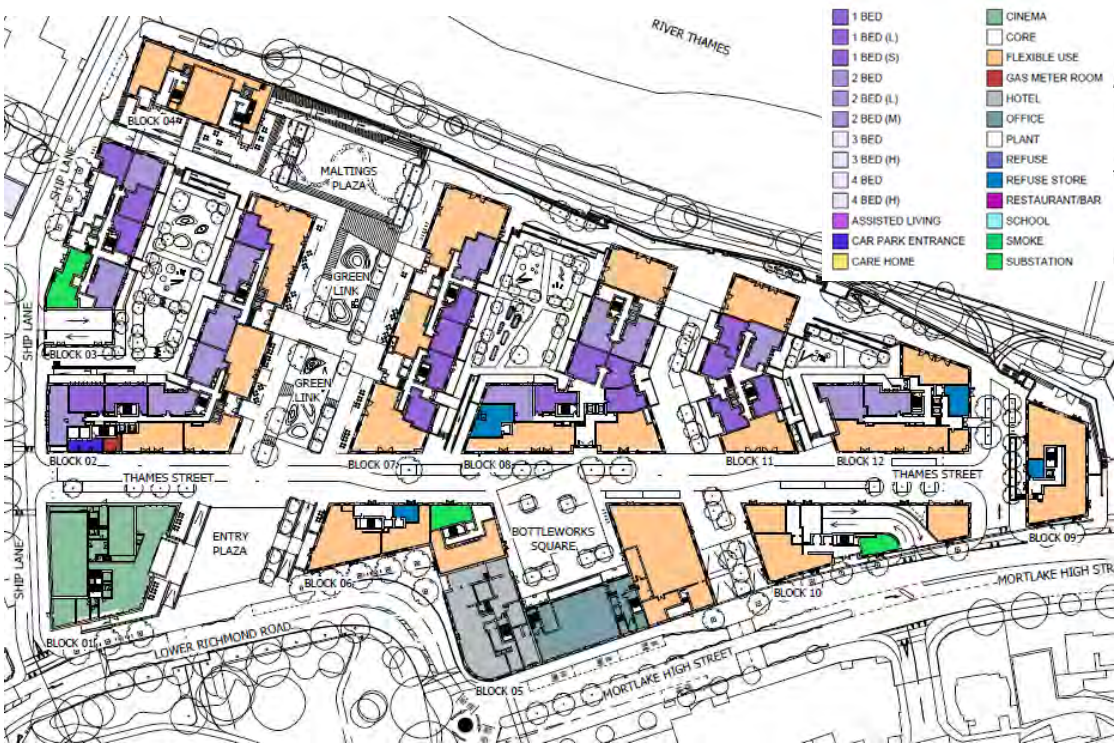

Figure 4.3 Flexible Use Area

Table 4.3 Maximum floor areas for flexible land uses

Land Use	Floor Space
Retail (1)	2,500 m^2
Financial and Professional Services	200 m^2
Cafés and Restaurants	2,200 m^2
Drinking Establishments	1,600 m^2
Offices	2,000 m^2
Community (Including Boathouse)	1,499 m^2

Notes: (1) In addition, for retail only, a minimum area of 1,223m^2 is set.

Outline Application (Application A, Development Area 2)

4.4.11 The western section of the site will comprise three elements; the new secondary school (Application B), residential development and accommodation for an older population including nursing home and sheltered housing. As with the eastern development, it is anticipated that most of the residential accommodation will be in the form of apartments but a small terrace of town houses has been identified at the northern end of the Site (Blocks 20 and 21) to provide additional variety and to act as a transition between the existing uses to the north of the Site

and the new development. In total the Outline application allows for a provision of up to 225 residential units with the potential for another 150 as the assisted living units are being applied for as flexible. Table 4.4 provides a possible breakdown of the mix of residential units which is consistent with the indicative Masterplan.

Table 4.4 Outline Application residential summary

	1 Bed	2 Bed	3 Bed	4 Bed	Total
Total Residential units	34	80	91	20	225

4.4.12 The accommodation for an elderly population potentially comprises two elements; assisted living providing up to 150 high dependency bed spaces and retirement flats/sheltered housing to meet the needs of the elderly and offering a range of care packages. The 'up to 150 assisted living units' are being applied for as a flexible use and therefore may also be 150 residential units.

School Application (Application B)

4.4.13 Application B is for a six form entry secondary school and sixth form comprising of approximately 1,200 pupils. This is anticipated to be a school with a local catchment and is located in the western part of the development on the site of the existing playing fields. As part of the school, sports playing facilities will be re-provided in the form of an astro turf and court facilities. This application is being applied for in detail.

Chalkers Corner (Application C)

4.4.14 Concerns were raised by the public regarding the levels of traffic congestion in the Mortlake area during the original public consultation undertaken by LBRuT in conjunction with the Planning Brief for the redevelopment of the Stag. The Planning Brief therefore highlighted the need to consider and mitigate the impacts of the development on the network. Concerns regarding congestion were subsequently reiterated by the public at the public consultation events.

4.4.15 The Chalkers Corner Proposals, which are shown in Figure 4.4 and in Drawing 38262/5501/51E within Appendix H will improve the capacity of the main highway access into Mortlake in order to help partially address this major concern. The proposals also improve pedestrian and cycle access at this key location. The proposals therefore provide enough benefit to the local highway network and pedestrian and cycling networks to accommodate the impacts of Applications A and B.

Figure 4.4 Chalkers Corner Proposals

4.4.16 An initial improvement scheme was shown at the first public consultation event in March 2017. This scheme was subsequently modified to take account of comments received from the public, in particular via the CLG meetings and from TfL. The revised scheme, which was presented at the second public consultation event, provides a more modest improvement to the highway capacity which helped reduce the number of trees lost and lessens the impacts on Chertsey Court, and also allowed further enhancements to be made to cycle access through the junction. Additionally, it was based on not attracting further traffic into the area and all these changes were made based on initial modelling results.

4.4.17 The proposals to Chalkers Corner (Application C) comprise the following:

- The alignment of the Lower Richmond Road arm is moved approximately 16 metres to the north east. This allows:
    - The provision of a short additional left turn lane (flare) from Lower Richmond Road into the junction (26 metres long or about 5 car lengths);
    - Provision of an extended queuing reservoir between the main junction of Lower Richmond Road (this will accommodate about 9 extra cars south westbound) and also provides extra storage for north east bound vehicles including those waiting to turn right into Lower Richmond Road);
    - Provision of a wider pedestrian island within the Lower Richmond Road arm – this is 4 metres wide which is now sufficient to cater for cyclists crossing as well as pedestrians.
- The scheme also includes an extended, dedicated lane for traffic turning left from Clifford Avenue into Lower Richmond Road
- The scheme has a number of benefits for cyclists and helps TfL to achieve their “Quietway” proposals for the A316 corridor. These include:

- Advance cycle stop lines at the main junction;
- Wider islands throughout the scheme to make them suitable for cycle use;
- Improved cycle links into Lower Richmond Road integrating with the existing and proposed to be extended, shared use facility along the Clifford Avenue footway.

4.4.18 These elements are indicated within the sketch provided within Figure 4.5 below.

Figure 4.5 Chalkers Corner Scheme

4.4.19 Whilst the scheme will require the removal of a limited number of trees along Lower Richmond Road and one in Clifford Avenue, as well as a number within the Chertsey Gardens site, it is proposed to add new planting to compensate for this loss. The landscape scheme proposes to replace the existing wall and fence on the revised alignment with a 2m high brick wall to help mitigate any noise impacts arising from moving the road slightly closer to Chertsey Court. In addition, a number of semi-mature trees are proposed within the Chertsey Court site to augment existing trees and visually screen the building with greenery. These proposed trees will include a mix of deciduous and evergreen species which assist in pollution absorption. The trees will be supplied at 6m height (4+ yrs old) to maximise immediate impact of the proposed landscape. A pocket park with additional trees is also proposed on the opposite side of Lower Richmond Road intersection.

4.4.20 Chertsey Court will be a minimum of 14.0 metres set back from the carriageway of Lower Richmond Road (compared with 16.2 metres now). The nearest property to Clifford Avenue carriageway will be 16.2 metres (compared to 18.3 currently).

4.4.21 More comprehensive details of the landscaping proposals for Chalkers Corner are provided within the separate Landscape Design and Access Statement prepared by Gillespies.

4.4.22 The scheme will have very limited impacts on car parking within the area. The existing informal car park on the corner of Lower Richmond Road will be retained and no spaces are lost within Chertsey Court. As part of the scheme TfL have requested the provision of a bus stop clearway on the westbound Lower Richmond Road approach to the junction to replace the existing simple

flag stop. This will allow buses to pull into the kerb which currently they are not able to do, and will provide a safer bus stop environment. This would result in the loss of 3 parking spaces together with 1 overnight space.

4.4.23 Figure 4.6 provides images of the existing and future view of the junction with a view towards Chertsey Court.

Figure 4.6 CGI of Chalkers Corner

4.4.24 The design of the proposals for Chalkers corner have been subject to very considerable discussion and assessment and in particular with TfL since their approval is required to any changes at this location. TfL has agreed the objectives and principles of the proposed scheme and has confirmed that it considers that some form of capacity enhancement at this location is required in order to accommodate the proposed Stag development.

4.4.25 The proposals have also been subject to an independent Stage One Safety Audit undertaken by Alpha Consultants in December 2017. The visit to the site of the proposed scheme was made on 15 December 2017. A copy of the Audit, together with the Brief and Designer

Response are attached at Appendix H. The Brief for the Audit together with the appointment of Alpha was agreed beforehand with TfL.

4.4.26 Whilst the Audit identified a number of issues none of these required consideration of any fundamental changes to the proposals and the Designers Response indicates how these will be dealt with and where appropriate minor changes will be made to the scheme design.

4.4.27 Discussions are continuing with TfL regarding the detailed aspects of the scheme and potential further enhancements to improve traffic flow along the A316 link and to further enhance the benefits to cycles. The changes suggested would not change the fundamentals of the scheme or its environmental impacts.

4.5 Anticipated Development Phasing

4.5.1 Given the scale of the development, construction will be carried out in phases on a plot by plot basis. Some elements of the scheme will be coming forward in outline detail and therefore it is envisaged that these will be delivered later in the construction phase. The below shown Plot Plan (Figure 4.5) sets out that Plots 1A, 1B, 1C and the School will be brought forward in detail, and Plots 2A, 2B and 2C will be brought forward in outline. The Chalkers Corner works will be delivered prior to the completion of any phase of Application A or the school.

4.5.2 The site is currently split into three plots of works as follows and shown on Figure 4.7

- Plot 1 - Construction Phase 1 (Detailed Application, Application A, Development Area 1)
    - Implementation of the development to the east of Ship Lane and junction improvement works to Chalkers Corner. Improvements to Chalkers Corner will be built out at the start of the development in order to ensure that the highway improvements are available before operational traffic is generated by the regeneration scheme.
- Plot 2 - Construction Phase 2 (Outline Application, Application A, Development Area 2)
    - Implementation of the development proposals to the west of Ship Lane.
- Plot 3 – Proposed Secondary School Plot 3 will be handed over to LBRuT at a reasonable time. The delivery of the new school will be brought forward by LBRuT, probably in conjunction with the Education & Skills Funding Agency (‘ESFA’), an executive agency who supports the Department of Education. As the school will be brought forward separately from the main masterplan, it has an independent timeline. It is expected that delivery of the school will be an early phase alongside works on the east of the site. As there is an independent timeline for the school, it is felt that the school will be able to be delivered in any event, regardless of the main scheme works.

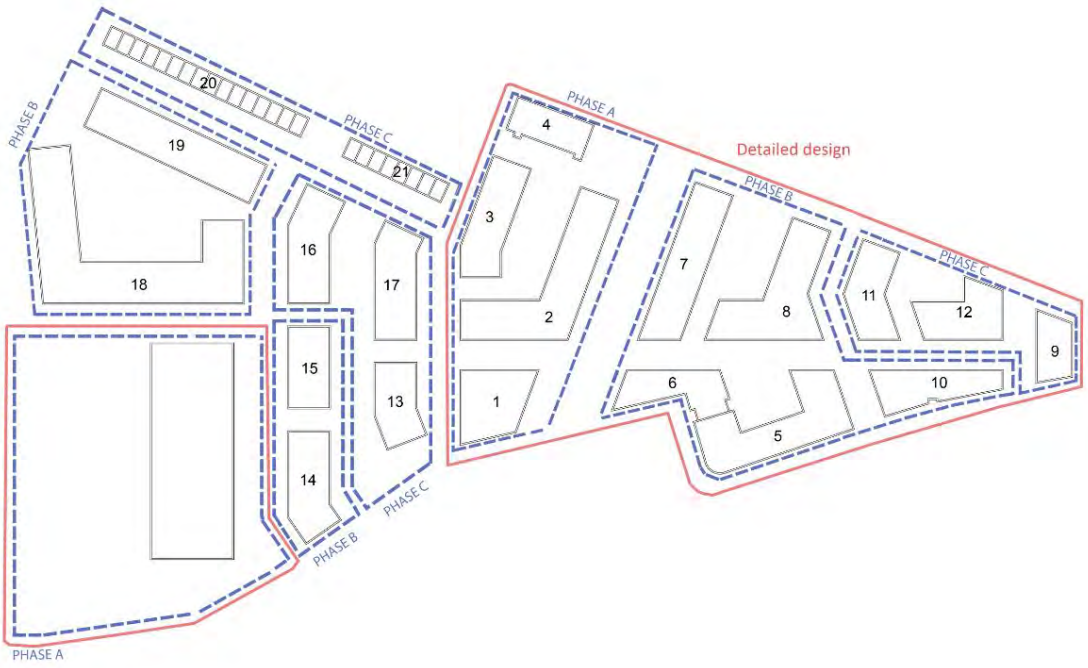

Figure 4.7 Construction Plots

Construction Routes

4.5.3 All deliveries to and removals from site will, where possible, be via A Roads to a specified entrance point. Where possible, an established single entry point with a separate exit point will be adopted in order to prevent HGVs reversing whilst on site, regulate traffic on and off the connecting roads and minimise the impact on local traffic.

4.5.4 A separate set of detailed plans showing on site construction routes is to be provided by AECOM. These plans will detail access routes and how the management of access will be carried out so as to minimise impacts on the highway network.

4.6 Access Strategy

In accordance with policy at a national, regional and local level, including the adopted Planning Brief and the emerging Site Allocation, priority has been given to integrating high quality pedestrian and cycle access routes into the development. The on-site access strategy is complemented by proposals to introduce a 20 mph zone along the Lower Richmond Road – Mortlake High Street frontage as well as onto the northern end of Sheen Lane. The access arrangements for both cars and servicing vehicles has been designed as far as possible to promote a traffic free development and one which will not be dominated by parked vehicles.

The highway layout of the site has been tested for turning and parking circles. The turning circles for the car parks are included within Appendix I. Tracking of Delivery and Servicing Vehicles is dealt with in more detail within paragraph 4.6.7 below.

Car Park Access

4.6.1 A key facet of this has been to ensure minimal conflict with vehicular traffic within the site. Therefore, for the Detailed application (Application A, Development Area 1) all car parking is provided within the basement with none at ground level. This means that only servicing traffic and refuse and emergency vehicles will need to travel into Development Area 1. Parking for the

Outline application (Development Area 2) is also mainly provided within a basement car park. Parking for the school and for the terrace of town houses will be at surface level.

4.6.2 Initially, a single access point was proposed to the eastern car park from Ship Lane to serve Development Area 1. However, following feedback from the first public exhibition an additional access was added from Mortlake High Street. It was considered that this would provide more flexible access arrangements and reduce the impacts of the development upon the operation of the Sheen Lane mini roundabout. The main access to the parking at the western end of the Site, including the underground car park and the School, will be from a new access road connecting with Lower Richmond Road; this will be broadly at the location of the current access to the Stag sports club. Ship Lane and Williams Lane will act as secondary access points to this area.

4.6.3 Figure 4.8 identifies the location of car parking and the associated access routes.

Figure 4.8 Car Park access points

Delivery and Servicing

4.6.4 Delivery and servicing to the Site will also be closely managed in order to minimise any adverse impacts including conflicts with pedestrians and cycles. Detailed arrangements are set out in a separate FDSMP attached at Appendix J and described in more detail within Chapter 8.

4.6.5 Figure 4.9 provides a plan showing the proposed servicing routes through the site and identifies the location of service bays and refuse collection points. For the detailed application the majority of service vehicles will enter the Site from Mortlake High Street onto the new “high street” via a controlled access.

4.6.6 For the western part of the Site provision has been made for parking coaches associated with the school. Two service bays are shown on the new school access road; these can be used both by service vehicles, coaches and potentially by TfL special school buses serving the school, should these be required.

4.6.7 Emergency services vehicles will also use these routes. All delivery and servicing routes have been tracked for both delivery and servicing vehicles and emergency services vehicles, with the tracks shown in Appendix K.

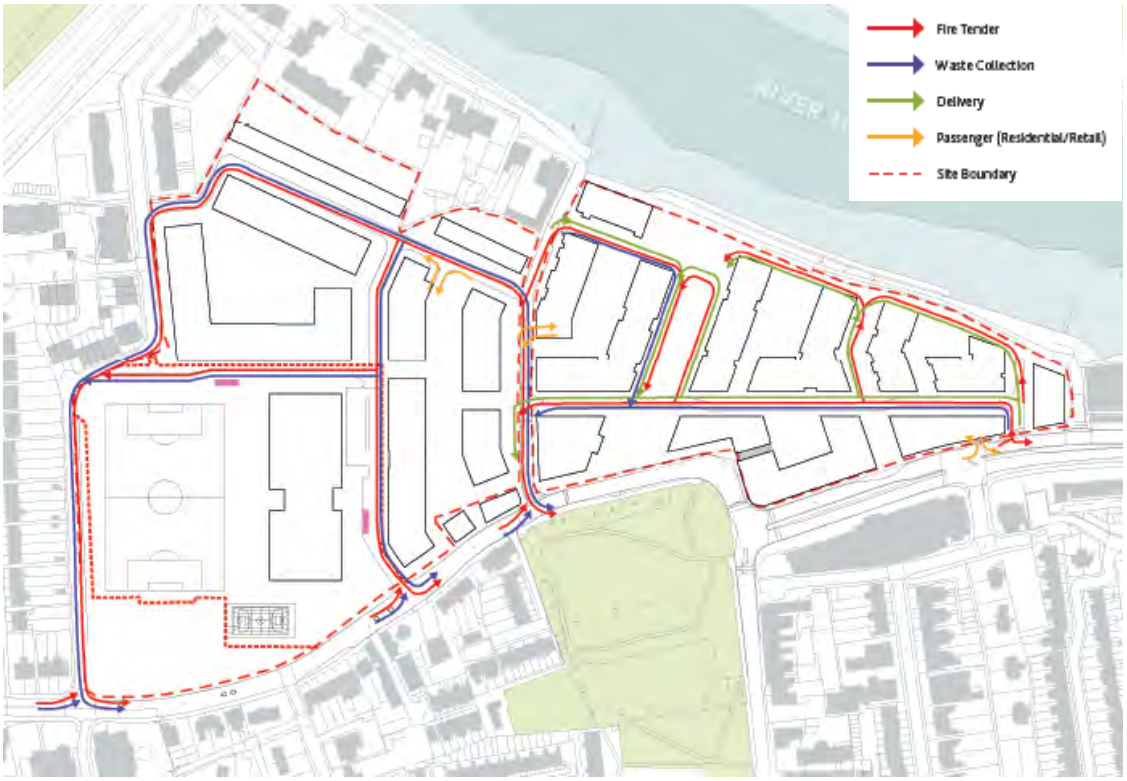

Figure 4.9 delivery and servicing routes

Pedestrian and Cycle Access

4.6.8 The access strategy gives priority to pedestrian and cycle movement. As discussed above, the proposals include the provision of a new 20 mph zone along the A3003 frontage and on Sheen Lane, to the north of the railway crossing together with new pedestrian crossing facilities. These measures are again in accordance with the Planning Brief and the emerging Site Allocation. Within the Site itself, priority for pedestrian / cycle movement is achieved by limiting vehicular access and movement at ground level and by carefully managing the movement of service vehicles.

4.6.9 The development is also characterised by a large amount of very high quality of public realm which is described in detail within the Design and Access Statement. Key features are the creation of a wide 'Green Link' access route between Lower Richmond Road and the riverside. A further link is then provided to and into Mortlake Green from the southern end of the 'Green Link'. The development would also provide a new "high street" to the east of Ship lane running parallel to Mortlake High Street which also act as part of a new east to west cycle route that will link Clifford Avenue in the west with Mortlake High Street at the eastern end of the Site and will provide direct access to the new secondary school.

4.6.10 Figure 4.10 and 4.11 identify the proposed network of pedestrian and cycle routes through the site. The overall pedestrian and cycle access strategy is described in further detail within Chapter 8 which also shows how the on-site proposals link into the wider networks serving the area.

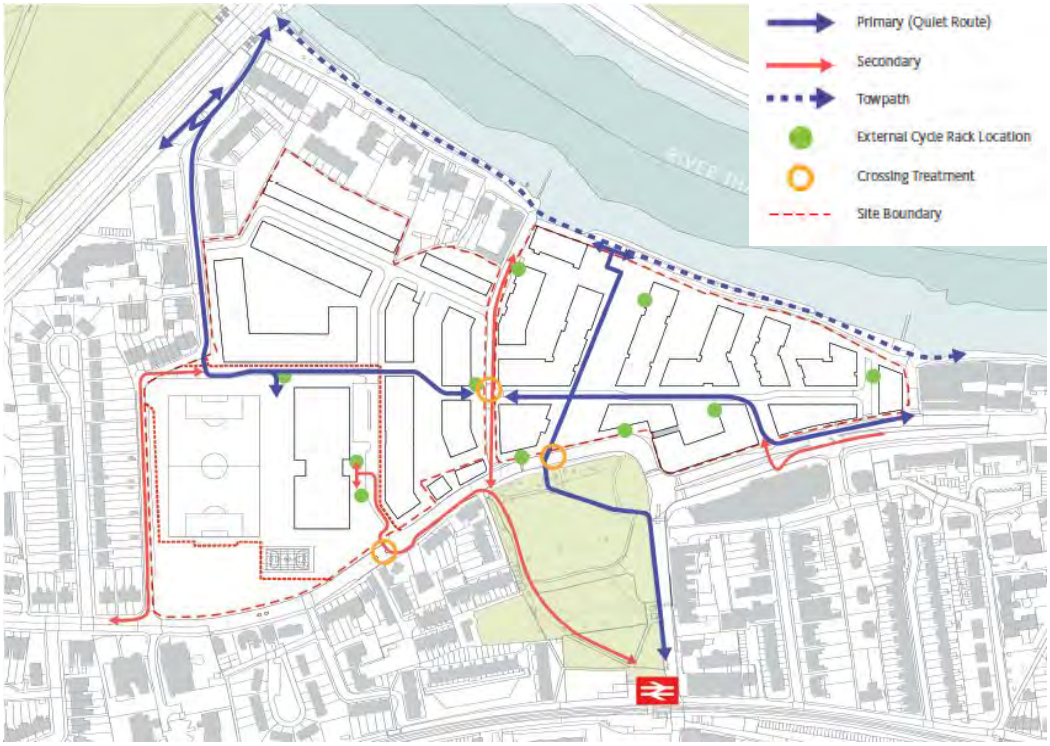

Figure 4.10 Pedestrian Routes through the site

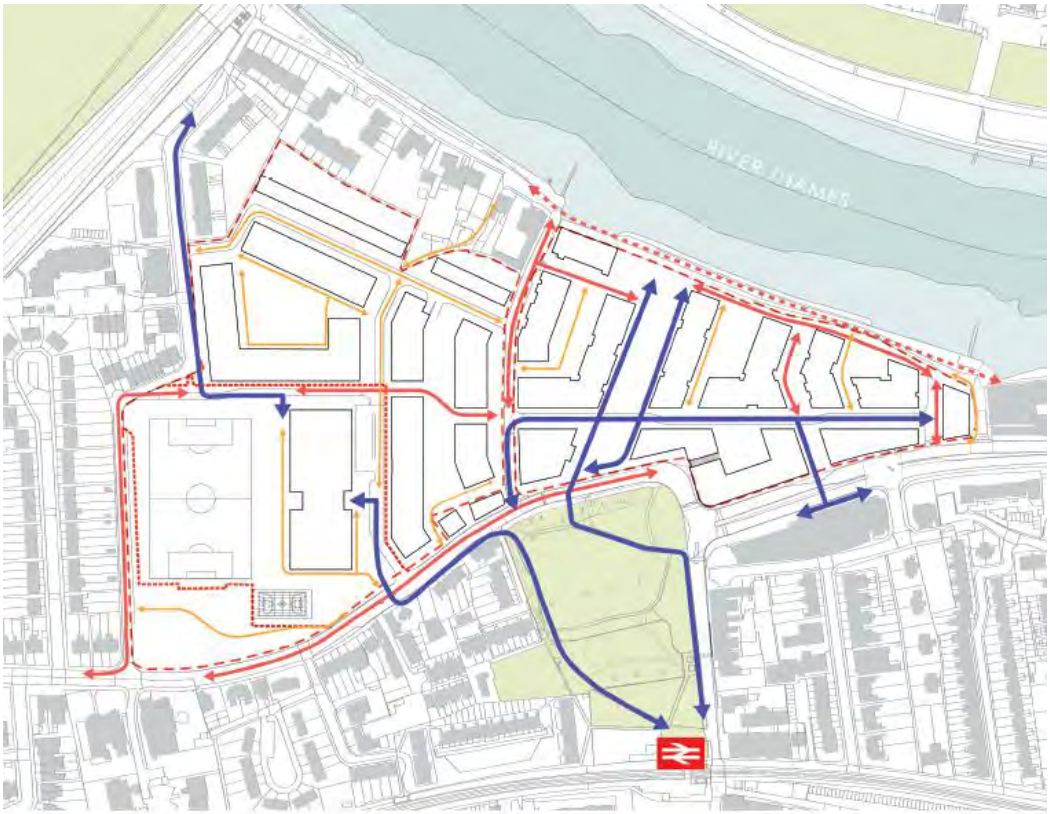

Figure 4.11 Cycle Routes through the site

4.7 Cycle Parking

4.7.1 The provision of high quality cycle parking has been accorded a high priority as this will assist in encouraging more sustainable modes of travel to and from the site. The volume of cycle parking will at least meet the minimum standards required by the GLA and as identified within Table 4.5.

Table 4.5 Detailed Application (Application A, Development Area 1) Cycle Parking Numbers

Land Use	Long Stay Standard	Short Stay Standard	Long Stay Spaces Required	Short Stay Spaces Required	Notes/Assumptions
Residential	1 space per 1 bed unit 2 spaces per all other dwellings	1 space per 40 units	438	6	
Retail	1 space per 175sqm	first 750sqm 1 space per 40sqm 1 space per 300sqm after	14	16	Food retail selected as more onerous standard
Restaurant	1 space per 175sqm	1 space per 40sqm	8	37	
Hotel	1 space per 20 bedrooms	1 space per 50 bedrooms	2	2	
Community	1 space per 5 staff	1 space per 100sqm	2	9	Uses “Other D1” standard with 10 staff assumed as a worst case
Office	1 space per 150sqm	1 space per 500sqm	16	5	
Cinema	1 space per 8 staff	1 per 30 seats	2	12	Long Stay based on two staff per screen with 6 front of house staff and two cleaners/mainte

Land Use	Long Stay Standard	Short Stay Standard	Long Stay Spaces Required	Short Stay Spaces Required	Notes/Assumptions
					nance on site at one point
Gym	1 space per 8 staff	1 space per 100sqm	2	8	Long Stay based on 4 office/front of house staff, 6 instructors plus maintenance/cleaner – total
Totals			881	100	Total Parking Spaces – 981

4.7.2 The design will be in accordance with the principles set out in the in the London Cycling Design Standards.

4.7.3 For the Detailed application (Application A, Development Area 1), cycle parking for residents, and long term parking for the non-residential uses (employees and visitors to the cinema and gym and other non-residential uses) will be provided within secure locations within the basement. This will include a cycle hub providing showers and changing facilities. Cycle access to the basement will be either via one of the two access ramps or via a bespoke cycle lift. Figures 4.12 and 4.13 identify the location of cycle parking areas within the basement and the points of access and Figure 4.14 cycle parking at ground floor level. This will include the 5% cycle parking required to accommodate non-standard bikes.

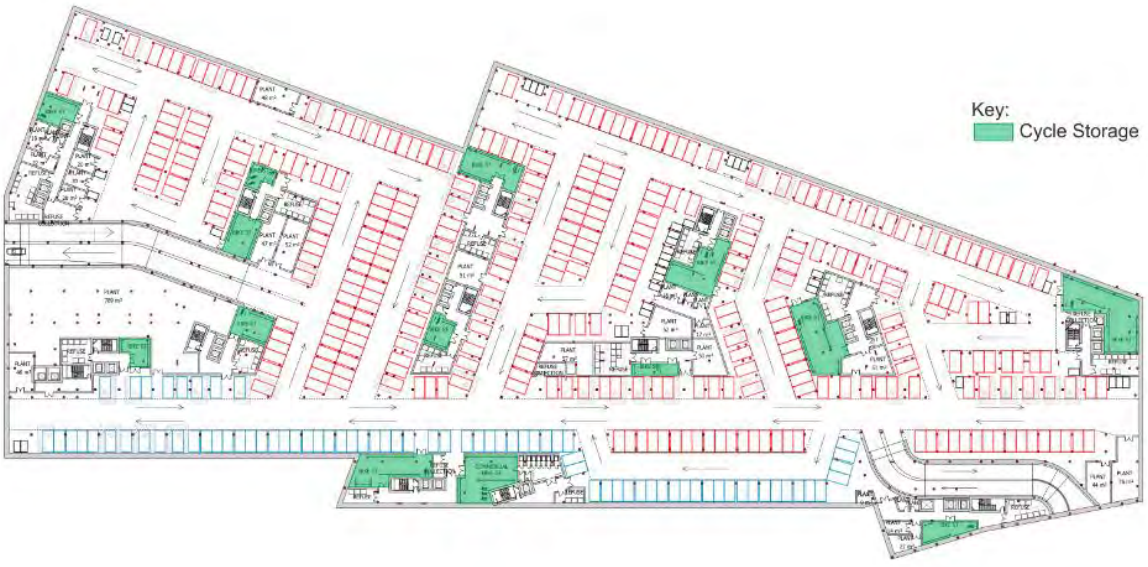

Figure 4.12 Basement Cycle Parking Stores (eastern basement, Development Area 1)

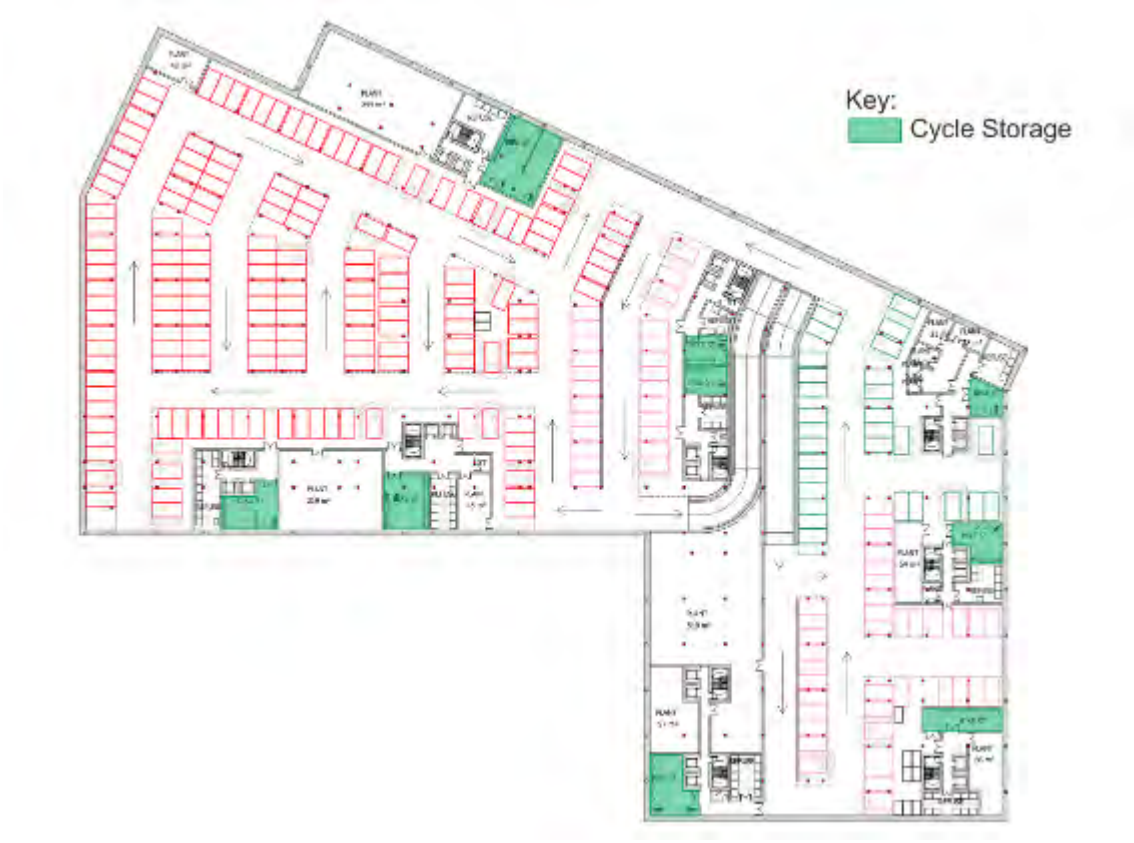

Figure 4.13 Basement Cycle Parking Stores (western basement, Development Area 2)

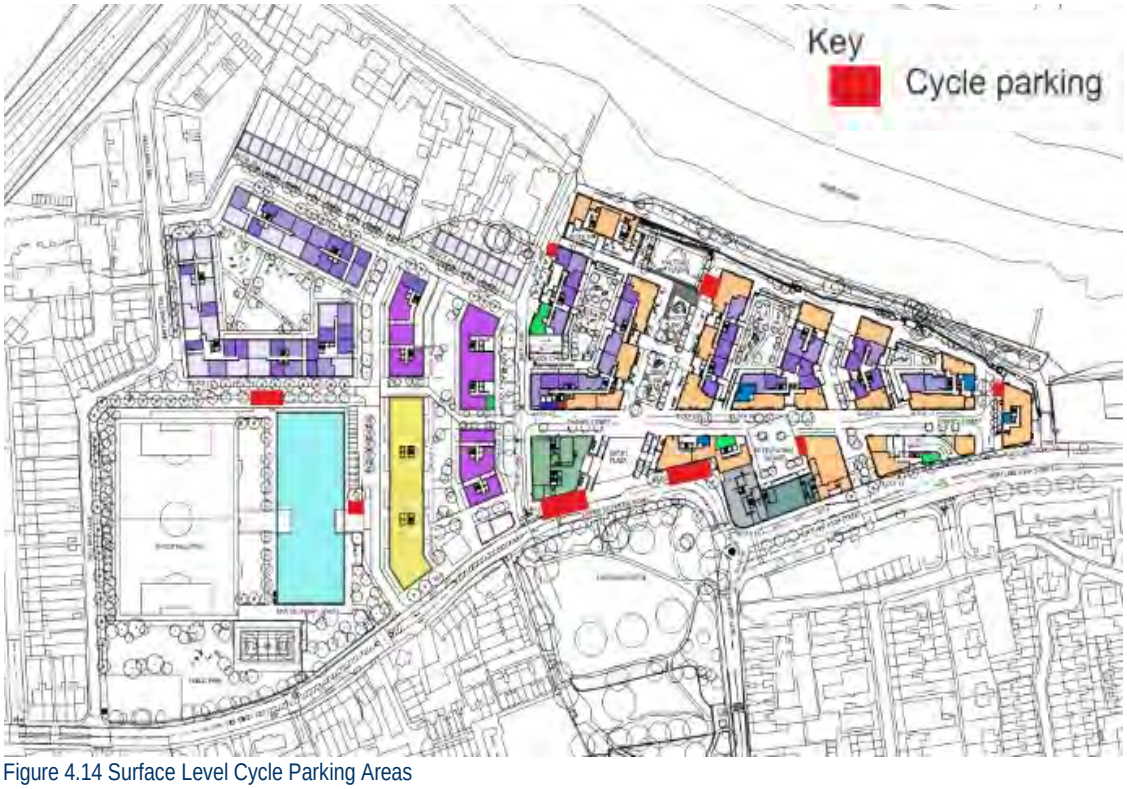

Figure 4.14 Surface Level Cycle Parking Areas

4.7.4 For the Outline application (Application A, Development Area 2) the majority of parking will again be provided within the basement car parks but with short stay provision and provision for non-standard bikes at the ground level. Table 4.6 sets out the anticipated cycle parking requirements.

Table 4.6 Anticipated Cycle Parking Requirements

Land Use	Long Stay Standard	Short Stay Standard	Long Stay Spaces Required	Short Stay Spaces Required	Notes/Assumptions
Residential	1 space per 1 bed unit 2 spaces per all other dwellings	1 space per 40 units	Up to 835	Up to11	
Care Home	1 space per 5 staff	1 space per 20 bedrooms	Up to 3	Up to 8	Long Stay based on 0.33 staff per unit

4.7.5 Cycle parking for the school will be provided in accordance with the requirements for around 1,200 pupils and 60 staff. This will be met by 71 long stay and 13 short stay spaces and is located outside the school.

4.7.6 Further space has also been reserved should there be future demand for a cycle hire scheme within the site.

4.8 Car Parking

4.8.1 During the design and consultation process there has been considerable thought given to the level of car parking that that should be provided at this location. Given the existing traffic congestion in the area it is considered that the amount of car parking should be limited in order to help reduce traffic generation associated with the development.

4.8.2 The development proposals will provide an excellent mix of local facilities that will supplement those already available in the area. In addition, whilst the Site has a relatively low PTAL, the rail services from the nearby Mortlake Station provide good access to the strategic network serving London and to the wider south east Region. It is therefore considered that this is an area where car free living can be attractive and therefore reduced car parking provision can be supported as part of an overall access strategy that will help to manage traffic demand. This is considered to be particularly important given the existing constraints of the highway network. This approach has been supported by TfL and in discussions with LBRuT officers and at Members briefings. The CLG has also supported this approach. Accordingly, it is proposed to provide parking at below the maximum LBRuT standards and with less residential parking than proposed within the Planning Brief.

4.8.3 Table 4.7 shows the proposed parking across the development. Overall, 679 spaces are proposed, 408 within the Development Area 1 (Application A) to the east of Ship Lane, 256 within Development Area 2 (Application A) and 15 for the school (Application B), which will be provided to the east of the school. For residential, the overall parking ratio is approximately 0.74 spaces per unit assuming the maximum residential within the Outline application area were to be built out i.e. that the up to 150 units proposed in blocks 13, 16 and 17 were to come forward

as residential units rather than as assisted living units. This has been agreed by TfL as being appropriate for this location. A total of 77 spaces will also be provided within the eastern car park (Development Area 1) to support the non-residential uses and to provide visitor parking.

4.8.4 Priority will be given to the mobility impaired in the allocation of parking spaces. Accordingly, 75 spaces, (11% of the overall total) have been identified as disabled spaces. As a minimum, the requirements of the London Plan will be met in terms of the provision of electric charging points. Potential locations for additional car club spaces have been identified on Ship lane and on Williams Lane.

Table 4.7 Proposed number of parking spaces

Parking Area	Residential Spaces (disabled)	Non-Residential Spaces (disabled)
Eastern Basement (Application A, Development Area 1)	331 (11%)	77 (8)
Western Basement (Application A, Development Area 2)	148 (11%)	108 (15)
School (Application B)	N/A	15 (2)
Total	479	200 (25)

4.8.5 There will be no parking provision at street level for any land use, with the exception of 24 spaces for the terrace of town houses (Blocks 20 and 21) and 15 for the school.

4.8.6 The justification for the level of parking identified together with the proposals to manage the parking are provided within Chapter 8.

4.9 Bus Turning Facility

4.9.1 The Planning Brief and emerging Site Allocation identified the potential need to provide a bus turn with driver facilities within the scheme; this was with a view to replace the existing facility at Avondale Road and to facilitate the possible extension of the 209 bus service to the Site. Whilst subsequent discussions with TfL have indicated that the extension of the 209 service may not be their preferred means for improving bus access to the Site, TfL has indicated that they would still favour safeguarding for such a facility, to accommodate three stands and driver facilities, within the applications since they consider that the provision of such a facility would greatly improve their options for enhancing bus services in this area. As it stands though the application provides three spaces within the site for buses/coaches. Two to the west of the school and one to the north meaning the scheme is compliant with or without the bus turnaround facility.

4.9.2 Accordingly, an area has been identified within the south west corner of the Site to accommodate such a facility (Figure 4.15). Details of how this area could accommodate up to three bus stands are provided within Appendix L, including the tracking of buses into and out of the facility. TfL has confirmed that the location shown is their preferred location within the Site since it provides maximum flexibility to use for a variety of alternative bus services and will minimise excess mileage and therefore costs. This however, is not part of the application and has been shown as an indicative plan of how the bus turnaround could operate, should it be required.

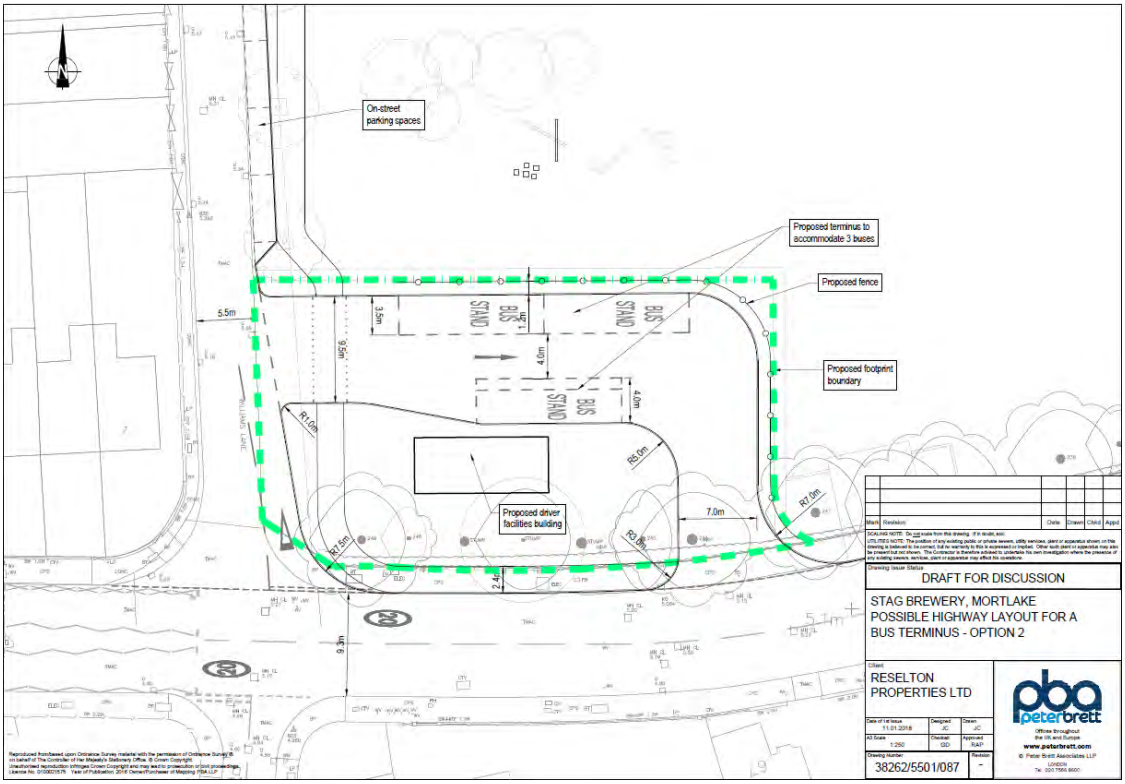

Figure 4.15 Indicative Bus Turnaround Facility

4.10 Compliance with Policy

4.10.1 It is considered that the development proposals are consistent with the main thrust of transport policy at a national, regional and local level, including the Planning Brief which has been adopted as supplementary planning guidance, and the emerging Site Allocation.

4.10.2 The design of the scheme priorities the movement of non-car modes by creating a largely traffic free environment at ground level and through the provision of a very high quality of public realm. The design creates a number of new pedestrian links to the riverside including the creation of a bold new link which then connects across Lower Richmond Road towards Mortlake Station through Mortlake Green. Cycle movement is facilitated though the creation of new east west route through the Site and also a new north-south route that connects with the proposed new crossing and access route towards the station.

4.10.3 The main area of conflict is with respect to car parking, where the scheme proposes less parking than recommended by LBRuT standards, although provision is in accordance with GLA/TfL requirements.

4.10.4 It is considered that this departure can be fully justified. The later assessment work will show that the level of parking proposed should be sufficient to cater for normal day to day demand generated by the proposed development. Should problems arise with respect to parking over spilling onto surrounding residential areas this can be remedied though the provision of new controlled parking arrangements, however, whilst a new CPZ would be desirable, it is not essential for the development. In addition, given the constraints of the local and strategic highway network serving this area, it is considered important to limit the amount of parking as part of an overall traffic demand management strategy. The importance of addressing highway impacts was flagged up by the Planning Brief and this requirement has been reinforced through the public consultation.

4.11 Summary

4.11.1 The regeneration proposals for the Stag Brewery site are for a mixed use, residential led development which, in accordance with LBRuT's Planning Brief and the emerging Site Allocation will provide a vibrant new centre for Mortlake including a mix of leisure and retail facilities together with bars and restaurants and community uses. The proposals provide up to 667 residential units, predominantly as new apartments. Within the outline element of Application A (Development Area 2), up to 150 new units are proposed which are applied for flexibly as either assisted living units or residential units. A new care home is also proposed in Development Area 2 which will provide up to 80 ensuite bedrooms.

4.11.2 The proposals consist of three planning applications. A detailed application for a new secondary school (Application B), a hybrid application for the remainder of the former Brewery site (Application A), including detailed elements for the area to the east of Ship Lane (Development Area 1) and outline elements for the area to the west of Ship Lane (Development Area 2) and finally, a detailed application for a junction improvement scheme for Chalkers Corner (Application C).

4.11.3 The development proposals, including the access strategy, have been shaped through an extensive consultation process with LBRuT, TfL and with the local community. The provision of the new secondary school is a departure from the Planning Brief but has been included rather than a primary school, at the request of LBRuT.

4.11.4 The access strategy gives priority to pedestrian and cycle movement. The proposals include the provision of a new 20 mph zone along the A3003 frontage and on Sheen Lane, to the north of the railway crossing together with new pedestrian crossing facilities. These measures are again in accordance with the Planning Brief and the emerging Site Allocation. Within the Site itself, priority for pedestrian / cycle movement is achieved by limiting vehicular access. Almost all parking is contained within basement car parks. To the east of Ship Lane (Development Area 1) there is no surface car parking and to the west (Development Area 2) surface parking is limited to that for the school and for a small terrace of town houses. Servicing traffic will also be highly controlled. All of these measures will help to minimise conflicts between pedestrians and cycles.

4.11.5 The development is also characterised by a very high quality of public realm which is described in detail within the submitted Design and Access Statement, prepared by Squire & Partners. Key features are the creation of a wide access route between Lower Richmond Road and the riverside which is then linked to Mortlake station through a relocated pedestrian crossing and new pedestrian route through Mortlake Green. The development would also provide a new "high street" to the east of Ship Lane running parallel to Mortlake High Street which also acts as part of a new east to west cycle route that will link existing cycle routes on Clifford Avenue and along the River in the west with Mortlake High Street at the eastern end of the Site and will provide direct access to the new secondary school.

4.11.6 The development proposals also safeguard for the possible future provision of a bus stand area and driver facilities within the south west corner of the site (corner of Lower Richmond Road and Williams Lane). This follows discussions with both TfL and LBRuT and would allow the extension of the 209 to the Site or facilitate an extension of a different bus service should that be required by TfL in the future.

4.11.7 Proposed parking provision for the development seeks to strike a balance between the need to provide sufficient parking to meet the commercial requirements of the development and to ensure that excessive overspill parking does not occur onto surrounding streets and the desire to limit traffic generation in an area identified as suffering from existing congestion. Consequently, the proposed parking is less than the maximum standards set out in LBRuT's policy although lower levels of car parking are encouraged in the London Plan. For the residential use, parking is provided at a rate of 0.74 spaces per unit, a level of parking has been agreed as appropriate for this location by TfL. Whilst this is lower than sought by the Planning

Brief it does reflect discussions that have been held with both officers and Members and feedback from the CLG.

4.11.8 Whilst the access strategy gives priority to the movement of pedestrians and cycles and to the enhancement of bus services, the developer has been mindful of the need to ensure that the proposals do not further increase traffic congestion in the area. The proposed improvement scheme for Chalkers Corner has been designed to provide a modest improvement to the capacity of the main highway access to Mortlake, in line with the impacts of the proposed development (including the new school), as well as to provide enhanced pedestrian and cycle crossing facilities.

4.11.9 Cycle parking is provided in accordance with the London Plan standards with secure long term parking provided within the basement car parks for residents and short stay parking provided on-street for the non-residential uses.

5 Methodology for the Assessment of Transport Impacts

5.1 Overview

5.1.1 This chapter sets out the overall methodology that has been adopted in order to assess the likely impacts arising from the proposed development. The methodology encompasses trip generation, mode share and the distribution and assignment of trips onto the various transport networks. The methodology, including that adopted for the operational assessment of the highway network has been agreed with both TfL and LBRuT, through the TA scoping process and through subsequent technical meetings with officers.

5.1.2 The trip generation estimates form the basis for the more detailed assessments of the operation of the highway network, covered in Chapter 6 and of the walking, cycling and public transport networks, described in Chapter 7.

5.1.3 The trip generation estimates have been based upon the anticipated floor areas set out in Scenario 4a land use schedule issued by Squires Architects on 28th September 2017, Since then there has been further design development which has led to small changes to floor areas and to the potential use of apartments originally identified for elderly, assisted living units. The effects of these changes are also highlighted within this chapter.

5.1.4 A separate assessment has been undertaken regarding the potential impact of the development on the Mortlake level crossing and footbridge. This is also described in Chapter 7.

5.2 Stag Historical Traffic Generation

5.2.1 The former brewery was in brewing operation until December 2015, after which the site/buildings have been used for decommissioning purposes, and until that time was generating significant HGV traffic movements as well as traffic associated with staff and visitors. Whilst the brewery is no longer operational the brewery buildings still remain and the site could in theory be returned to its previous use.

5.2.2 Details of the previous vehicle trips associated with the Stag have been provided by the previous owner of the brewery and are summarised below. Based on a typical production day over a twelve-hour period, the following number of trips were said to have been generated by the Brewery on a typical day, when the brewery was at full production.

Table 5.1 Historic Brewery Trips (one way) provided by previous operators

Trip Generator	HGV	Vans	Cars	Total
Brewing	33	3	55	91
Packaging	8	32	0	40
Staff and Other	4	9	111	124
Total	45	44	166	255

5.2.3 This table demonstrates that across a 12-hour day the Brewery generated a substantial number of trips, including a substantial number of HGV trips. The majority of staff trips would have occurred during the AM and PM peak periods.

5.2.4 No account has been taken of these historic traffic movements in the assessment, even though the buildings are still in use and could be used as a brewery or for an alternative use covered by the historic planning permissions. Therefore, the assessment of net transport impacts within this TA can be considered to be extremely robust.

5.3 Trip Generation for Proposed Operational Development

5.3.1 A multi-modal trip generation assessment has been carried out in order to assess the impact of the proposed development on the various transport networks that serve the site. It has been undertaken in close consultation with both LBRuT and TfL. This has been an ongoing process involving the preparation of a series of technical notes with the trip rate assumptions being revised to take account of feedback received.

5.3.2 The following technical notes have been issued to both LBRuT and TfL:

- Technical Note 8 – Trip Generation Report (issued 23rd December 2016) – this set out PBA's initial trip generation including the methodology for each land use and showing the sites selected to create the trip rates.
- Technical Note 8a – Trip Generation Report Update (issued 8th February 2017) – this note set out changes to the methodology based on the comments provided by TfL, this included changes to the sites used within assessments and any tweaks to floor areas required based on the updated schedule.
- Technical Note 8b – Trip Generation Report Addendum (issued 14th June 2017) showing final trip rates; and
- Technical Note 8c showing the final trip numbers to be assessed within the strategic highway modelling.
- Technical Note 22 which sets out the effects arising from minor changes to the scheme which were made after the strategic modelling was undertaken and also the potential impacts arising should the apartments identified within blocks 13, 16 and 17 be occupied as residential units with no age restriction, rather than as assisted living units.

5.3.3 These five trip generation reports together with relevant emails from LBRuT and TfL are provided in Appendix M.

5.3.4 Generally, person trip generation for each of the proposed land uses has been based upon data selected from the Trip Rate Information Computer System (TRICS) database, with appropriate sites selected for each individual use in accordance with the TRICS guidance. The one exception to this has been for the cinema use where a first principles approach has been agreed which relates to the number of seats and the likely arrival and departure patterns based on a three screen operation. This approach adopted for the cinema is described within Technical Note 8. Technical Note 8b sets out the agreed trip rates for each use.

Detailed Application and Flexible Uses

Application A – Development Area 1 (Detailed)

5.3.5 Within the eastern part of the site (Application A – Development Area 1) as shown in Figure 5.1, the ground floor of a number of buildings, particularly along the new "High Street" have been identified as the part of the development with potential flexible land uses (Class