



Haymarket Media Group

Teddington Riverside Development Teddington Studios, LB Richmond

Transport Assessment Report

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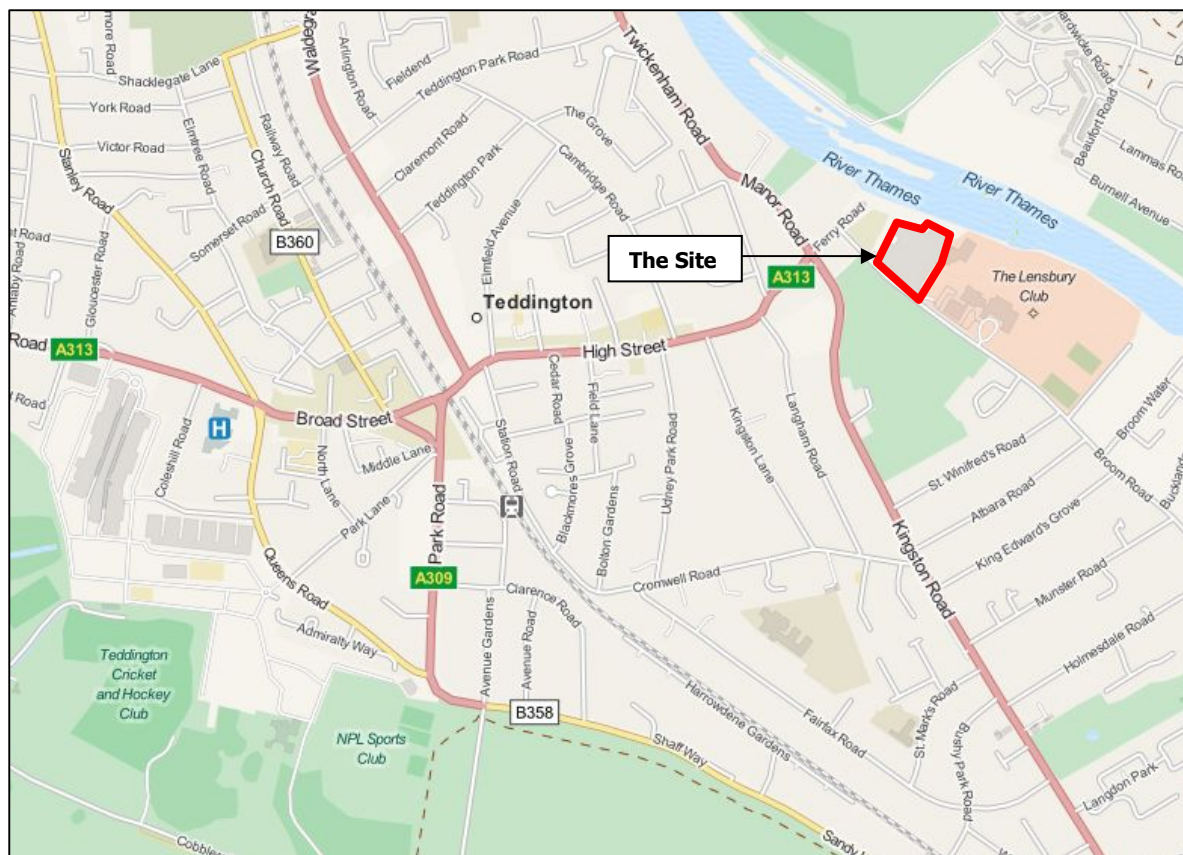
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1 Introduction

Background and Site Location

- 1.1 SBA has been appointed by the Haymarket Media Group (the 'Applicant') to prepare a Transport Assessment (TA) to support a full detailed planning application for the proposed redevelopment of Teddington Studios, Broom Road, Teddington TW11 9NT (the 'Site').
- 1.2 The Site is situated approximately 300m east of Teddington High Street and 120m east of the A310 Kingston Road / A313 Ferry Road signalised crossroads junction. It is bounded to the west by The Anglers public house, to the south by the Broom Road, by the River Thames to the north and a hotel spa known as the Lensbury Club to the east. The site location is shown in **Figure 1.1**.

Figure 1.1 Site Location Plan



- 1.3 This TA considers the traffic and transportation implications of the proposal which comprises demolition of existing buildings with the exception of Weir Cottage and the erection of part four/part five/part six/part seven storey buildings to provide 219 dwellings, use of Weir Cottage for residential purposes, provision of 258 car parking spaces at basement and ground level, a car club



bay, closure of existing access and provision of two new accesses from Broom Road, provision of publically accessible riverside walk together with cycle parking and landscaping.

- 1.4 The Local Planning and Highway Authority is London Borough of Richmond upon Thames (LBRuT). The scale of the scheme (>150 dwellings) means it has been earmarked as having strategic importance, to this effect, the Greater London Authority have been involved in the consultation process.
- 1.5 The TA has been prepared in accordance with the current *Guidance on Transport Assessment* (DfT, 2007). A scoping exercise was carried out with LBRuT Highways in order to agree the scope of work required for this assessment and this has informed the structure and contents of this report.

Report Structure

Following this introductory chapter, the remainder of this TA is structured as follows:

- **Chapter 2: Policy Review** – provides a review of national, London-wide local development and transport planning policy relevant to the location, scale and type of the proposal.
- **Chapter 3: Baseline / Existing Conditions** – provides an outline review of the existing transport conditions prevailing at the development Site and in the immediate surrounding area, including a review of the most recently available Personal Injury Accident (PIA) data statistics;
- **Chapter 4: Development Proposals** - sets out the development proposals including proposed land uses, access arrangements and parking provision;
- **Chapter 5: Traffic Generation Assessment** - presents the results of the trip generation assessment relative to the proposal;
- **Chapter 6: Summary and Conclusions** - Provides a summary and conclusion by highlighting the key points raised within this TA Report.

- 1.6 All technical Appendices are included at the end of this TA for information.



2 Policy Review

Introduction

- 2.1 This chapter of the TA examines the context of the site and how this relates to relevant planning policies and guidelines. It provides an overall spatial and planning context for the development proposal.
- 2.2 The current agenda regarding transport and development is moving away from one of providing significant new highway capacity, through 'predict and provide' schemes. Instead, policies have been adopted in national guidelines such as the most recent Transport White Paper (2011) that seeks to encourage more sustainable modes than the car and a planning system which places more emphasis on the link between transport and land use planning policies.
- 2.3 The following national, London-wide and local planning documents have been reviewed:
- The Transport White Paper (2011);
 - The National Planning Policy Framework (2010);
 - The London Plan; and
 - LB Richmond upon Thames Local Plan / Local Development Framework.

The Transport White Paper (2011)

- 2.4 The government's vision for the local transport system is set out in the January 2011 Transport White paper "*Creating Growth, Cutting Carbon – Making Sustainable Local Transport Happen*".
- 2.5 The White Paper acknowledges that transport provision is essential for economic growth if the Government is to improve the economic deficit that it is currently facing. However, The Paper also recognises that the current levels of carbon emissions from transport cannot be sustained if the nation is to meet its national commitment on climate change as well as creating a safer and cleaner environment in which to live. With this in mind, the Government highlights sustainable transport solutions as a means by which the economy can grow which will also see a positive impact on the local environs.
- 2.6 Whilst the Paper outlines the funding options which will be available for sustainable transport schemes, it also recognises that investment alone will not be enough and that help needs to be given to people to ensure that the transport choices they make are good for society as a whole. The Paper recognises that it is at the local level where most can be done to encourage sustainable



transport modes and implement sustainable transport schemes. Solutions should be developed for the places they serve, tailored for the specific needs and behaviour patterns of individual communities.

- 2.7 Within the Paper, sustainable transport considers more than just public transport, walking and cycling schemes and acknowledges that it is not feasible for some trips to be undertaken by these modes. There is therefore a realisation that the car will continue to be an important mode of transport and focus should be given to making car travel greener through electric and other low emission vehicles.

The National Planning Policy Framework (2010)

- 2.8 The Government's National Planning Policy Framework (NPPF) replaced the majority of previous Planning Policy Statement (PPS) and Planning Policy Guidance Note (PPG) documents on 27 March 2012. It sets out the Government's expectations and requirements from the planning system. It is meant as high level guidance for local councils to use when defining their own personal local and neighbourhood plans. This approach allows the planning system to be customised to reflect the needs and priorities of individual communities.

- 2.9 The NPPF defines the delivery of sustainable development through three roles:

1. Planning for prosperity (an economic role);
2. Planning for people (a social role); and
3. Planning for places (an environmental role).

- 2.10 It notes that to achieve sustainable development, these roles should be sought jointly and simultaneously through the planning system.

- 2.11 At the heart of the NPPF is a presumption in favour of sustainable development which:

'should be seen as a golden thread running through both plan-making and decision-taking.' (para. 14). In paragraph 15, it goes on to say that: *'Policies in Local Plans should follow the approach of the presumption in favour of sustainable development so that it is clear that development which is sustainable can be approved without delay.'*

- 2.12 The NPPF recognises that transport policies have an important role to play in wider sustainability and health objectives as well as their direct influence on development. In paragraph 29 it states that *'the transport system needs to be balanced in favour of sustainable transport modes giving people a real choice about how they travel.'*

- 2.13 Paragraph 32 states that:



'All developments that generate significant amounts of movement should be supported by a Transport Statement or Transport Assessment. Plans and decisions should take account of whether:

- *the opportunities for sustainable transport modes have been taken up depending on 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 limit the significant impacts of the development. Development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe.'*

2.14 Paragraph 34 seeks to ensure that,

'developments that generate significant movement are located where the need to travel will be minimised and the use of sustainable transport modes can be maximised.'

2.15 It notes, however, that this needs to take account of policies set out elsewhere in this Framework. It goes on to mention that:

'Plans should protect and exploit opportunities for the use of sustainable transport modes for the movement of goods or people.' Therefore, developments should be located and designed where practical to:

- *'accommodate the efficient delivery of goods and supplies;*
- *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, avoiding street clutter.*
- *incorporate facilities for charging plug-in and other ultra-low emission vehicles; and*
- *consider the needs of people with disabilities by all modes of transport.'*

The London Plan (2011)

2.16 The July 2011 version of the London Plan replaces the 2008 version of the London Plan (consolidated with alterations since 2004). It is the overall strategic plan for London and sets out a fully integrated economic, environmental, transport and social framework for the development of the capital to 2031.

2.17 Enabling sustainable modes of transport is seen to support this vision. The London Plan notes that London should be (objective 6):



'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 and makes better use of the Thames, and supports delivery of all the objectives of this Plan.'

2.18 Chapter 6 is titled 'London's Transport' and Policy 6.1 'Strategic Approach' states:

'The Mayor will work with all relevant partners to encourage the closer integration of transport and development through:

- encouraging patterns and nodes of development that reduce the need to travel, especially by car;*
- seeking to improve the capacity and accessibility of public transport, walking and cycling, particularly in areas of greatest demand;*
- supporting development that generates high levels of trips at locations with high public transport accessibility and/or capacity, either currently or via committed, funded improvements including, where appropriate, those provided by developers through the use of planning obligations;*
- improving interchange between different forms of transport, particularly around major rail and Underground stations, especially where this will enhance connectivity in outer London;*
- seeking to increase the use of the Blue Ribbon Network, especially the Thames, for passenger and freight use;*
- facilitating the efficient distribution of freight whilst minimising its impacts on the transport network;*
- supporting measures that encourage shifts to more sustainable modes and appropriate demand management;*
- promoting greater use of low carbon technology so that carbon dioxide and other contributors to global warming are reduced;*
- promoting walking by ensuring an improved urban realm; and*
- seeking to ensure that all parts of the public transport network can be used safely, easily and with dignity by all Londoners, including by securing step free access where this is appropriate and practicable.'*

2.19 Policy 6.3 Assessing Effects of Development on Transport Capacity states:

'Development proposals should ensure that impacts on transport capacity and the transport network, at both a corridor and local level, are fully assessed.'

2.20 Policy 6.13 'Strategic Approach' states:

'The Mayor wishes to see an appropriate balance being struck between promoting new development and preventing excessive car parking provision that can undermine cycling, walking and public transport use.'



The Mayor's Transport Strategy (2010)

2.21 The Mayor's Transport Strategy, published in May 2010 contains six main objectives to (Chapter 1, Para. 2):

- *'Support economic development and population growth;*
- *Enhance the quality of life for all Londoners;*
- *Improve the safety and security of all Londoners;*
- *Improve transport opportunities for all Londoners;*
- *Reduce transport's contribution to climate change and improve its resilience; and*
- *Support delivery of the London 2012 Olympic and Paralympic Games and its legacy.'*

2.22 The Mayor's transport vision for London is that over the years to 2031 (Chapter 2, Para. 29):

'London's transport system should excel among those of global cities, providing access to opportunities for all its people and enterprises, achieving the highest environmental standards and leading the world in its approach to tackling urban transport challenges of the 21st century.'

London Borough of Richmond upon Thames Local Plan (2011)

2.23 LBRuT Local Plan (also known as the Local Development Framework or LDF) is a collection of planning policy documents that will guide future development and regeneration in the Borough over the next 15 years and beyond. The Local Plan comprises the following development plan documents (DPDs):

- Core Strategy DPD (adopted April 2009);
- Development Management Plan DPD (adopted November 2011);
- Twickenham Area Action Plan (adopted July 2013);
- Site Allocations DPD (currently under consultation); and
- Joint Waste DPD (currently under consultation).

2.24 In addition to the DPDs, LBRuT have produced a series of Supplementary Planning Guidance (SPG) and Supplementary Planning Documents (SPDs) providing greater detail on policies within the Local Plan to support decisions on planning applications.

2.25 As of November 2011, all policies contained within the LBRuT Unitary Development Plan with the exception of the UDP proposal sites and policy on waste collection and disposal were superseded by the LBRuT Local Development Management Plan (DMP).

2.26 Chapter 5.4 of the adopted DMP sets out Transport and Parking policy for the Borough and was designed to take forward Core Strategy Policy 5 and to complement the Borough's Local



Implementation Plan. Policies relevant to the proposed redevelopment of Teddington Studios are listed below:

Policy DM TP 2: Transport and New Development

'The impact of new development on the transport network will be assessed against other plan policies and transport standards. All planning applications for major developments should be accompanied by a Transport Assessment and for smaller development should be accompanied by a Transport Statement. Matters to be included are set out in DfT/TfL guidance.

Developers should also take account of the Council's SPD on Transport Standards.'

Policy DM TP 3: Enhancing Transport Links

'New development will be expected to create or improve links with the local and wider transport networks, including links to the cycle and pedestrian networks.

All new development must be designed to improve accessibility including:-

- 1. Maximise permeability, with safe, convenient, accessible and appropriate road, cycle and pedestrian routes within and in the immediate vicinity of the scheme, as well as accessible walking and cycling links to the wider transport network including to the public transport nodes and key land uses, taking account for the need to connect people to jobs, to town centres and to schools.*
- 2. Gated developments will not be permitted.*
- 3. Developments adjoin the River Thames must provide a public riverside walk.'*

Policy DM TP 4: Integration of different types of Transport and Interchange facilities

'Developments will be expected to improve the quality and connectivity of transport interchanges of any scale, particularly in terms of:

- Opportunities for interchange between different types of transport through the provision of appropriate facilities and good information.*
- Ease of access to interchange points (e.g. stations/bus stops) by various types of transport.*
- Transport facilities which are well laid out and allow access to a wide range of users (e.g. level or with accessible lifts or ramps).*
- Attractive and welcoming environment – well designed civic spaces, sun and rain shelter, high quality and well maintained hard and soft landscape.*
- Safe and secure environment – e.g. good lighting, CCTV, ticket barriers.'*



Policy DM TP 6: Walking and Pedestrian Movement

To protect, maintain and improve the pedestrian environment, the Council will ensure that:-

- 1. New development and schemes protect, maintain and, where appropriate, improve the existing pedestrian infrastructure, including the Rights of Way network.*
- 2. New development does not adversely impact on the pedestrian environment and provide appropriate pedestrian access.*
- 3. New development and schemes improve the safety and security of the pedestrian environment where appropriate.*

Policy DM TP 7: Cycling

To maintain and improve conditions for cyclists, the Council will ensure that new development or schemes do not adversely impact on the cycling network or cyclists and provide appropriate cycle access and sufficient, secure cycle parking facilities.

Policy DM TP 8: Off Street Parking – Retention and New Provision

Development, redevelopments, conversions and extensions will have to demonstrate that the new scheme provides an appropriate level of off street parking to avoid an unacceptable impact on on-street parking conditions and local traffic conditions.

A set of maximum car parking standards and minimum cycle parking standards are set out in Appendix Four – Parking Standards for all types of development, these take into account bus, rail and tube accessibility as well as local highways and traffic conditions including demand for on-street parking. These standards will be expected to be met, unless it can be shown that in proposing levels of parking applicants can demonstrate that there would be no adverse impact on the area in terms of street scene or on-street parking’.

- 2.27 As set out in *Policy DM TP 8*, the Borough’s maximum car parking standards and minimum cycle parking standards are set out in Appendix 4 of the DMP document. The relevant section of the parking standards table is set out in **Table 2.1** LBRuT Parking Standards (LDF DMP, 2011).



Table 2.1 London Borough of Richmond-upon-Thames Car and Cycle Parking Standards

LAND USE	VEHICLE PARKING SPACE REQUIRED (all floor space referred to is gross)		CYCLE PARKING (all floor space referred to is gross)
	CONTROLLED PARKING ZONES (Maximum unless otherwise stated)	THE REMAINDER OF THE BOROUGH	SPACE REQUIRED (Minimum)
(a) Residential Care Homes or Nursing Homes	1 space per 5 residents plus 0.5 spaces per unit of staff accommodation	as CPZ	0.5 spaces per unit of staff accommodation
(b) Hospitals	0.5-1.0 spaces per bed	as CPZ	1 per 200sqm
(c) Residential Colleges or Educational Centres	0.5 spaces per bedroom	as CPZ	0.5 spaces per bedroom
NOTE: Each case will be considered on its merits having regard to the nature of services being provided.			
USE CLASS C3			
STANDARD RESIDENTIAL	In CPZs occupiers of new residential developments may not be eligible for on street parking permits where existing levels of on street parking are very high. (Blue Badge holders exempt) There are exceptions to this rule which are detailed in Policy DM TP 8. Garages will be treated as parking spaces.		
	1- 2 bedrooms 1 space	1-2 bedrooms 1 space	1 space
	3 bedrooms For 1 unit, 2 spaces; for two or more units 1 allocated space plus sufficient unallocated spaces to provide a total of 1.5 spaces overall per unit	3 bedrooms For 1 unit, 2 spaces; for two or more units 1 allocated space plus sufficient unallocated spaces to provide a total of 1.5 spaces overall per unit	1 space
	4+ bedrooms 2 spaces	4+ bedrooms 2 spaces (negotiable)	2 spaces

Source: LBRuT Development Management Plan Adopted November 2011 (pg. 146)



Summary

2.28 In summary, it can be seen that there are a number of current and emerging integrated land use and transport planning policies and policy guidance documents that support and underpin the proposed development of Teddington Studios; and encourage travel to / from the Site by sustainable travel modes where possible. The key policy objectives to note are:

- Provide sustainable transport choices and promote behaviour change measures to encourage sustainable travel;
- Seek to reduce dependency on the private car;
- Adopt a sustainable level of car parking provision within maximum standards;
- Make provision for pedestrian and cycle access; and
- Provide cycle parking in line with minimum parking standards.



3 Baseline / Existing Conditions

Site Location and Existing Use

- 3.1 The application site is located approximately 300m east of Teddington High Street and 120m east of the A310 Kingston Road / A313 Ferry Road signalised crossroads junction. It is bounded to the west by a pub house known as the Anglers, to the south by the Broom Road, by the River Thames to the north and a hotel spa known as the Lensbury Club to the east. Teddington Lock Conservation Area is located immediately north and west of the site but includes a small sliver of the site along its northern edge.
- 3.2 The site is occupied by multiple buildings associated with Haymarket Media and Pinewood Studios.

Existing Access Arrangements

- 3.3 There are currently four access points to Teddington Studios, namely:
- The main access, located towards the western boundary of the site and consists of a 6m wide vehicular cross over with 3m radii defined by low level brick walls, this gives access to the main site car park (around 81 spaces) and some of the delivery areas;
 - An ingress point consisting of a vehicular crossover, at approximately the centre of the site's frontage adjacent to the pedestrian access to the main building. This also provides access to a further area of parking (16 marked spaces) along the frontage to the site;
 - An egress in connection with the above again a vehicular crossover; and
 - A further vehicular crossover located towards the south-eastern boundary of the site providing access for servicing vehicles, this also links with the two access points discussed directly above.

Existing Parking Provision

- 3.4 There are currently 350 surface level car parking spaces at the site. These spaces are used by employees of Pinewood Studios and Haymarket Media Group.

Public Transport Accessibility

- 3.5 The Transport for London (TfL) Planning Information Database indicates that the site is rated as 'poor' in terms of public transport accessibility. However, a low PTAL score can sometimes be

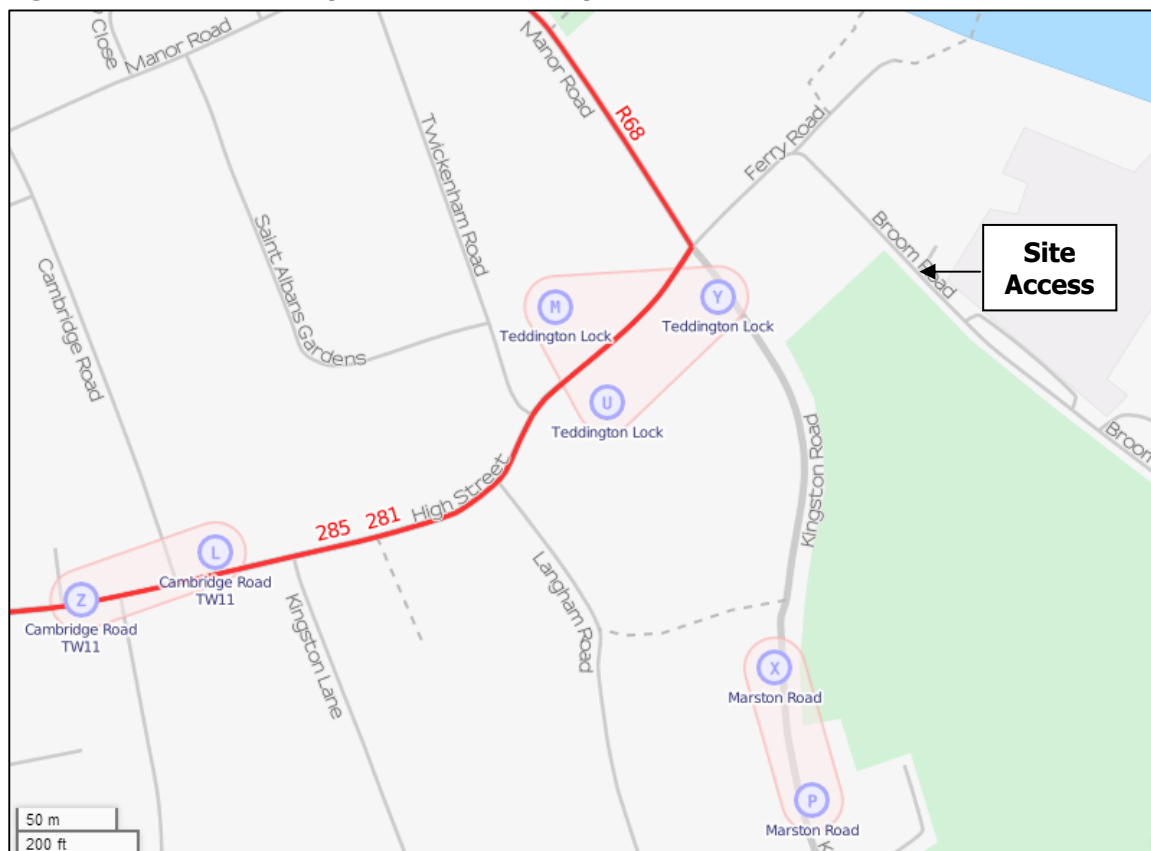
misleading when accessibility to public transport is being considered. For example, in the case of this development the site is 1.2km from the railway station and will undoubtedly be used by the future residents of the site, but, it is not included within the PTAL calculation because it is more than 960m from the site. The PTAL output file is provided in **Appendix A** for information.

3.6 The Site is located within Fare Zone 6 of London's public transport network. A summary public transport services and facilities in the area surrounding the site is set out in the following paragraphs.

Bus Services

3.7 The closest bus stops to the site are located close to the junction of Ferry Road and Kingston Road at a distance of approximately 160-200m metres from the site access. The stops can be accessed using existing footways on Broom Road and Ferry Street along with pedestrian crossing facilities on all arms of the A310 / A313 crossroads junction. The location of the bus stops in relation to the site is shown in **Figure 3.1**.

Figure 3.1 Local Bus Stops and Services Map



Source: Open Street Map



3.8 All bus services accessible within 640m (or 8 minutes' walk) of the site are listed in **Table 3.1**. It is observed that 640m is the maximum acceptable distance set by TfL for accessible bus services. Further public transport information is provided in **Appendix B** and includes bus route timetables for each of the services and a spider diagram map of all bus services and stops in Teddington.

Table 3.1 Local Bus Routes and Frequency

Route	Key Destinations	Approximate Peak Time Daytime Frequencies (mins)		
		Mon–Fri	Sat	Sun
281	Tolworth Tower – Surbiton – Kingston – Teddington – Twickenham – Whitton - Hounslow	8	8	11 - 20
285	Cromwell Rd Bus Station (Kingston) – Teddington – Hampton Hill – Feltham – Heathrow Central Bus Station	9 - 10	9 - 10	12 - 14
R68	Hampton Court Station – Teddington – Twickenham – Richmond – Kew Retail Park	14 - 15	14 - 15	14 - 15

Source: TfL PTAL Output File (webptals.org.uk)

3.9 In addition to the above services, Bus Route 681 serves 'Bus Stop Y' on Kingston Road and runs between Hounslow Bus Station and Teddington School. This bus service only runs on weekdays during school term times and is subject to short notice alterations in accordance with school requirements.

London Underground Services

3.10 TfL set a maximum distance of 960m for accessible rail services. There are no LUL interchanges accessible from the site within this distance.

3.11 The nearest London Underground Station is Richmond Station and provides access to the District Line services for onwards travel to various LUL destinations across London. The station is located approximately 5km north of the Site to the east of Kew Road. The station can be accessed using Bus Route R68 in approximately 40 minutes; alternatively trains from Teddington Rail Station also provide access to Richmond Station. Access to Teddington Station is discussed in the following paragraphs.

National Rail Services

3.12 The nearest railway station is Teddington Station located to the west of Station Road approximately 1.2km southwest of the Site. The route between the site and rail station can be walked in approximately 15 minutes based on the average PTAL walk speed of 80m per minute.



- 3.13 The station has secure cycle parking facilities for up to 124 cycles located on both platforms and outside the station entrance. TfL *Local Cycle Guide 9* shows that roads between the Site and Station are either 'routes signed for use by cyclists' or 'quieter roads that have been recommended by other cyclists'. The station can be accessed by cycling in approximately five minutes.
- 3.14 Teddington Rail Station is operated by South West Trains, as are all trains that serve it. Typical off-peak service from this station is six trains per hour (t.p.h.) to London Waterloo, of which four t.p.h. run via Kingston and Wimbledon and two t.p.h. run via Richmond and Putney. There are two t.p.h. to Shepperton.

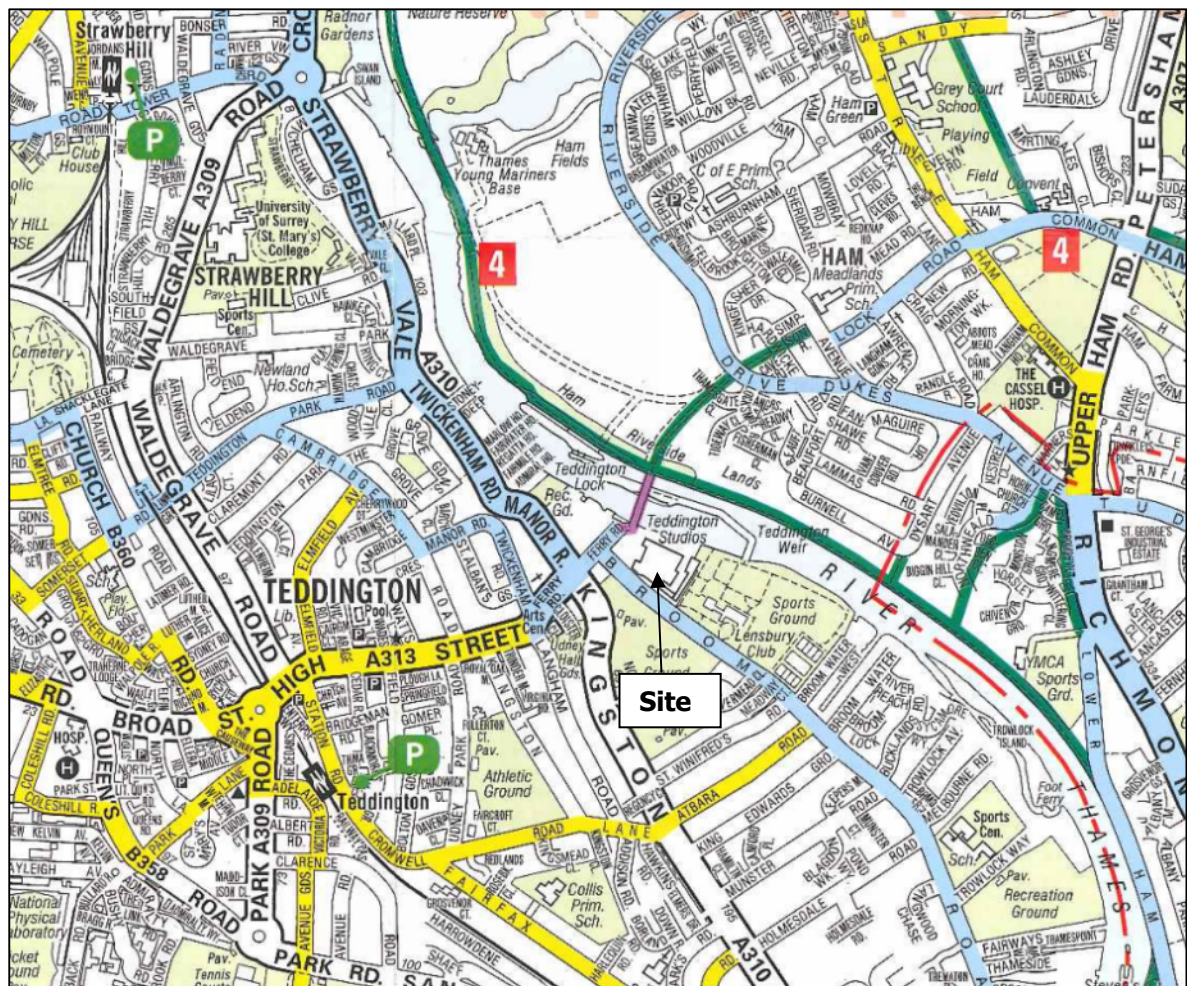
Pedestrian Accessibility

- 3.15 The site is currently accessed on foot from Broom Road via a stepped footway with handrails adjoining the southern side of the vehicle access road. Zebra crossing markings are present across the access junction to assist pedestrians crossing.
- 3.16 Broom Road has footways on both sides of the carriageway and street lighting in the form of standard lighting columns located at the back of the footway. There is no formal pedestrian crossing facility on this link.
- 3.17 The nearest controlled crossings to the site are located at the A310 / A313 junction in the form of a pelican crossing facilities on all four arms. These crossings benefit from dropped kerbs, but there is no tactile paving.
- 3.18 The site is located a short walk distance (approximately 80m from the site access) from Teddington Lock Footbridge, which comprises two separate bridges across the River Thames. The footbridge provides access to the Thames River Walk for onwards travel to facilities located on the 'Ham-side' of the river.

Cycle Accessibility

- 3.19 Transport for London (TfL) has produced a set of 14 London Cycle Guides showing the best cycle routes throughout Greater London. The Site is covered by Local Cycle Guide 9 (Hounslow, Heathrow, Feltham, Twickenham, Wandsworth, Richmond, Kingston, Surbiton and Wimbledon).
- 3.20 **Figure 3.2** provides an extract from Local Cycle Guide 9 and shows the proximity of cycle routes in relation to the site along with linkages to key destinations. The cycle map key provides the following information; Yellow Routes are 'quieter roads recommended for cycling', Blue Routes are 'routes signed for use by cyclists on a mixture of quiet and busier roads', Brown Routes indicate 'provision for cyclists adjacent to busy roads' and Purple Routes are 'pedestrian only routes that connect cycling sections, cyclists must dismount'.

Figure 3.2 Local Cycle Routes



Source: TfL Local Cycle Guide 9

- 3.21 Figure 3.2 shows that there are a number of recommended and signed cycle routes accessible in the vicinity of the site. Broom Road is a signed route and provides an alternative route to Kingston Town Centre, which is less busy than the A310 Kingston Road located to the south of the site.
- 3.22 The closest route with national designation is National Cycle Route (NCR) 4 which runs between London and Fishguard via Reading, Bristol and Swansea. NCR 4 can be accessed from Ferry Road via the aforementioned footbridges over the Thames, located 80m north of the Site. In close proximity to the site, NCR 4 is a traffic-free Greenway route providing access to Kingston-upon-Thames to the south and Richmond to the north.



Local Highway Network

3.23 This section of the report describes conditions on the local highway network. The information has been supplemented by ATC surveys carried out between Monday 1st July 2013 and Sunday 7th July 2013.

Broom Road

3.24 Broom Road extends approximately 1.5km in length from its junction with Ferry Road, 80m north of the site, to its junction with Normansfield Avenue and Lower Teddington Road to the south. Broom Road is an unclassified multifunctional link providing access to a number of residential no-through roads, playing fields, sports facilities, Lensbury Hotel Spa and Teddington School.

3.25 Average Annual Daily Traffic (AADT) two-way flow on this link is 3,895 vehicles, including 213 vehicles greater than 3.5t. The traffic survey recorded an AADT northbound flow of 2,028 vehicles and southbound flow of 1,868 vehicles.

3.26 The speed limit on Broom Road is 30mph and reflects the residential land uses adjoining the link. Traffic calming on Broom Road is in the form of road humps located approximately 120m apart. The ATC survey recorded an average vehicle speed of 19.6mph on this link.

On-street Parking

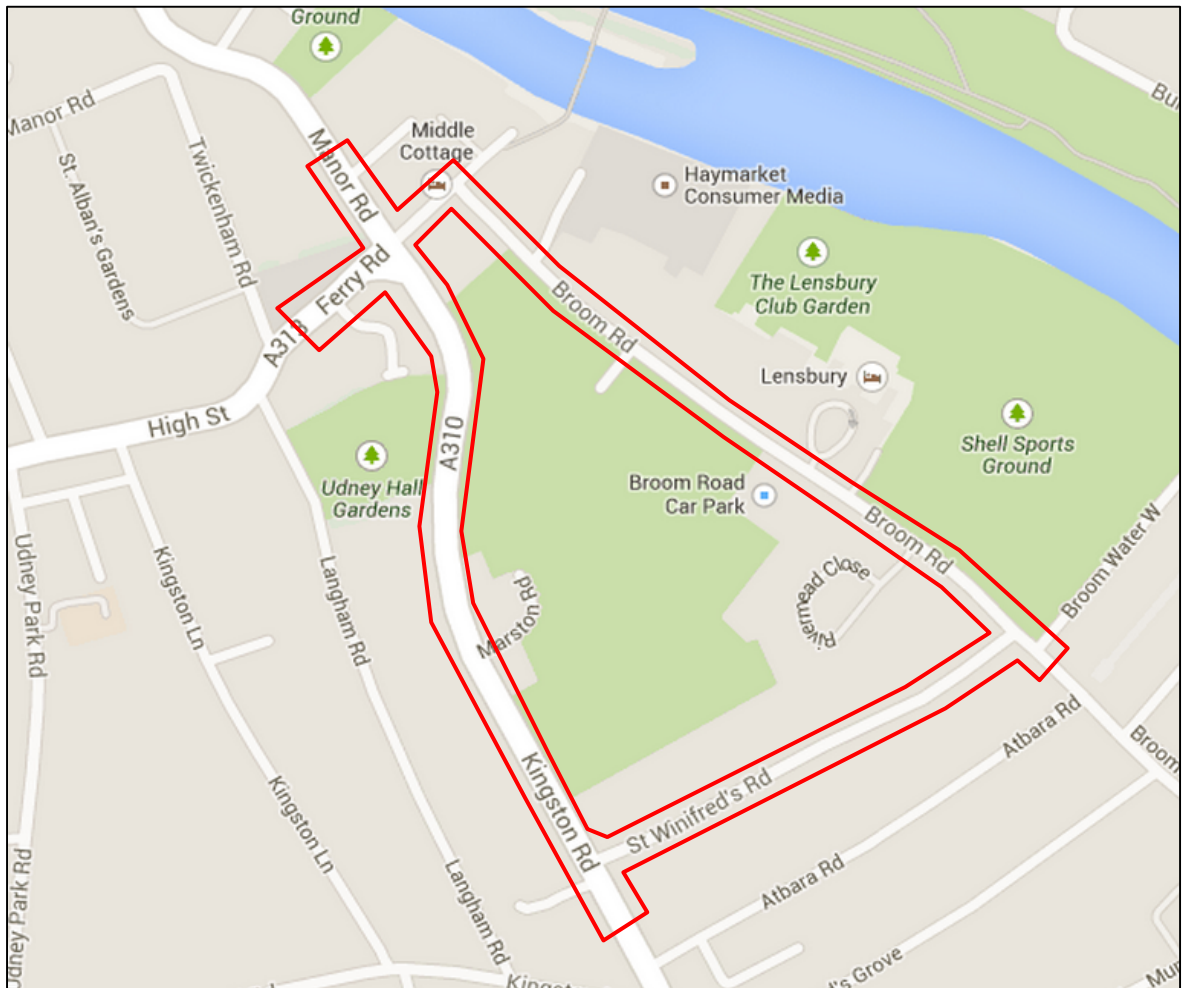
3.27 The Site is not located in an LBRuT Controlled Parking Zone (CPZ). However parking on Broom Road is prohibited by double yellow line markings and a small CPZ operates on Ferry Road, between its junction with the A310 and the River Thames.

3.28 Ferry Road CPZ is known as 'Z2' and is in operation seven days a week between 8.30am and 6.30pm. Parking in the street within these operational hours is restricted to those with business and resident parking permits.

Accident Records

3.29 Personal injury accident (PIA) data for the most recent five year period has been obtained from TfL. The road safety analysis focuses on the road network in the immediate vicinity of the site at links and junctions most sensitive to the traffic flows generated by the site. The accident data study area is shown in **Figure 3.3**.

Figure 3.3 Accident Data Study



3.30 The PIA data has been summarised according to severity and chronologically by year, this is presented in **Table 3.2**. Full printouts of the PIA data, which was obtained from TfL, is included in **Appendix D** for reference.



Table 3.2 Accident Data Summary (60 months to June 2013)

Year	Severity			
	Slight	Serious	Fatal	Total
2008	2	-	-	2
2009	2	-	-	2
2010	5	1	-	6
2011	1	-	-	1
2012	2	-	-	2
2013	2	-	-	2
Total	14	1	0	15

Source: Transport for London

- 3.31 Over the most recent five-year period a total of 15 accidents have been recorded in the study area, including 14 accidents classed as 'slight' and one accident classed as 'serious'. No 'fatal' accidents have been recorded within the study area.
- 3.32 An accident data plot has been obtained from TfL and shows the locations and severity of accidents within the study area, this is presented in **Appendix C**. Of the 15 accidents, nine were recorded at and within 50m of the A310 / A313 signalised crossroads junction and three incidents were recorded on Kingston Road. The remaining three accidents were spread across the local highway network. Only one accident was recorded on Broom Road.
- 3.33 The accident data has been summarised according to the number and types of vehicles involved in each collision, and the number and types of casualties involved in each collision. Table 3.3 summarises the number of vehicles involved in each collision occurring over the five year period.



Table 3.3 Type of Vehicles Involved in Each Collision

Type of Vehicles Involved	Fatal	Serious	Slight	Total
Motor Vehicles Only (excl. 2-wheels)	-	-	6	6
2-Wheeled Motor Vehicles	-	1	-	1
Pedal Cycles	-	-	8	8
Horses & Other	-	-	-	-
Total Accidents	0	1	14	15

3.34 Table 3.3 above shows that a total of six collisions involved motor vehicles only; one collision involved a two-wheeled motor vehicle and eight collisions involved a pedal cycle.

3.35 A summary of the type of casualties involved in each collision recorded over the five year period is provided in **Table 3.4** below.

Table 3.4 Type of Casualty involved in Each Collision

Type of Casualty Involved	Fatal	Serious	Slight	Total
Vehicle Driver	-	-	11	11
Vehicle Passenger	-	-	1	1
Motorcycle Rider	-	-	1	1
Cyclist	-	-	3	3
Pedestrian	-	1	2	3
Total Accidents	0	1	18	19

Accident / Collision Summary

3.36 A total of 15 accidents have been recorded over the five-year accident analysis assessment period, of these 14 were classed as 'slight' and one was classed as 'serious'. There were no accidents recorded resulting in fatal injuries.



- 3.37 Analysis of the time and day of the accident data has revealed no identifiable trends relating to the occurrence of accidents to a specific time of day or day of the week other than what is considered normal variation in traffic volume.
- 3.38 Causation factors attributed to the 14 'slight' accidents indicate that most of these were a result of driver / rider / pedestrian error factors such as 'failing to look properly', 'failing to judge another person's path or speed' and 'passing too close to cyclists'. A number of the incidents can be attributed to miscellaneous factors e.g. 'vision affected – dazzling sun'.
- 3.39 The single 'serious' accident was recorded at 7pm on Friday 15th October 2010 and was recorded as being located 20m southwest of the A310 / A313 crossroads junction. The incident involved a child (12.y.o.) pedestrian running across the road from behind a stationary bus and was subsequently hit by a motorcycle (>500CC). The causation factors indicate that the incident was a result of the pedestrian 'failing to look properly', 'wrong use of the pedestrian crossing facility' and 'crossed road masked by stationary parked vehicle'. It is concluded that this incident could have been prevented if the pedestrian used the pedestrian crossing facility present at the nearby crossroad junction.
- 3.40 In summary, the accidents recorded in the study area over the past five year period are considered to be as a result of driver / rider / pedestrian error and are not attributable to the design, construction or layout of the highway and therefore would not be exacerbated by development traffic. Only one accident has been recorded on Broom Road, which resulted in a slight injury to a cyclist. The low accident rate on this link is reflected by the low vehicle speeds recorded during the ATC survey.
- 3.41 Furthermore, it is important to note that vehicle flows on the local highway network are expected to decrease as a result of the redevelopment (see Chapter 5), which would be expected to provide benefits in terms of highway safety.



4 Development Proposals

Description of the Development

- 4.1 The scheme comprises the demolition of existing buildings with the exception of Weir Cottage and the erection of part four/part five/part six/part seven storey buildings to provide 219 dwellings, use of Weir Cottage for residential purposes, provision of 258 car parking spaces at basement and ground level, one car club bay, closure of existing access and provision of two new accesses from Broom Road, provision of publically accessible riverside walk together with cycle parking and landscaping. The proposed ground floor and basement floor plans are provided in **Appendix D** for reference.
- 4.2 The schedule of accommodation for the development is set out in **Table 4.1**.

Table 4.1 Schedule of Accommodation

Unit Size	Number of Units	Percentage
1-bed unit	45	20.5%
2-bed unit	103	47.0%
3-bed unit	65	29.7%
4-bed unit	6	2.7%
Totals	219	100%

Source: TP Bennett Architects

Vehicle Access

- 4.3 The development proposal involves closure of the existing vehicle access junction and three crossover accesses located on Broom Road. These will be reinstated as footways and will be replaced by two new accesses on Broom Road in the form of all movement priority junctions. Dropped kerbs and tactile paving will be provided at the proposed priority junctions to assist pedestrian movements.



Delivery and Servicing Arrangements

4.4 Delivery and servicing vehicles will access the site from Broom Road via the proposed access junctions. These junctions along with the proposed internal road layout have been tracked using the appropriate delivery and servicing vehicles. Swept path analysis drawing A082635_001 is provided in **Appendix E** for reference.

Car and Cycle Parking

4.5 It was agreed with LBRuT Highways during scoping discussions that parking provision for the site should be provided in accordance with the standards set out in Appendix 4 of the their Development Management Policies document (presented on page 14 of this report).

4.6 Based on the LBRuT standards, it is proposed to provide a total of 258 car parking spaces on-site, 213 spaces located in the basement parking area and 45 spaces at ground level. Parking provision calculations are set out in **Table 4.2**.

Table 4.2 Parking Provision Calculations

Unit Size	Number of Units	Standard	Maximum Provision
1-bed unit	45	1 allocated space per unit	148 allocated spaces
2-bed unit	103		
3-bed unit	65	1 allocated space per unit, plus sufficient unallocated spaces to provide a total of 1.5 spaces overall per unit	65 allocated spaces, plus 33 unallocated spaces
4-bed unit	6	2 allocated spaces per unit (negotiable)	12 spaces
Totals	219	-	258 spaces

Source: LBRuT Development Management Policies document (adopted November 2011)

Disabled Parking

4.7 The Council does not prescribe disabled parking standards in their Adopted Development Management Plan (ADMP) and the London Plan states 'adequate parking spaces for disabled people must be provided, preferably on-site'. In the absence of disabled parking standards, the provision of parking spaces for disabled people has been planned in accordance with GLA Best Practice Guidance on Wheelchair Accessible Housing, which states:

'Ten per cent of new housing should be designed to be wheelchair accessible or easily adaptable for residents who are wheelchair users'.



4.8 A total of 43 disabled parking bays are planned, 36 are located in the basement parking area and a further seven at ground level in close proximity to building entrances. This level of disabled parking equates to 16.6% of the total provision and exceeds the minimum standards of 10 per cent provision suggested in the above document.

Electric Car Charging

4.9 Electric charging points will be integrated into the design of the basement car park to provide for the use of electric vehicles for residents of the development.

Cycle Parking

4.10 Owing to the referable nature of the scheme, cycle parking has been planned in accordance with the minimum standards set out in Chapter 6 of the GLA's London Plan and the recently adopted Revised Early Minor Alterations document.

4.11 The Minor Alterations document adopted in October 2013 prescribes a minimum cycle parking provision of one space per one or two-bed unit, plus one per 40 units for visitors and two spaces for larger three and four-bed units, again with one space per 40 units for visitors. Based on the accommodation schedule in Table 4.1, the scheme would require a minimum cycle parking provision of 290 cycle parking spaces for residents, plus six short stay spaces for visitors.

4.12 Cycle parking provision for the development has been planned in accordance with the London Plan minimum standards.

Motorcycle Parking

4.13 A total of 15 motorcycle spaces are proposed in the basement parking area in between car parking spaces '199' and '200'.



5 Traffic Generation Assessment

5.1 This section reports on the projected residual traffic generation of the redevelopment by comparing the results of a survey at the existing site with trip rates for the proposed residential scheme.

Existing Traffic Generation

5.2 A traffic survey was carried out between Friday 17th May and Wednesday 22nd May 2013 at the main access to determine the existing volume and type of vehicle traffic generated by the television studios. It is important to note that the survey was undertaken at a time when the site was not operating at full capacity and under its current lawful use could generate higher volumes of vehicle activity.

5.3 Results from the survey were reported on an hourly basis between the hours of 7am and 7pm; results from the most representative survey day (Tuesday 21st May 2013) are set out in **Table 5.1**.

Table 5.1 Traffic Generated by Existing Use (7am-7pm)

Time Period	Existing Traffic Generation		
	Arrivals	Departures	Total
07:00-08:00	20	6	26
08:00-09:00	55	6	61
09:00-10:00	105	6	111
10:00-11:00	28	12	40
11:00-12:00	6	11	17
12:00-13:00	13	23	36
13:00-14:00	32	33	65
14:00-15:00	13	19	32
15:00-16:00	5	18	23
16:00-17:00	11	23	34
17:00-18:00	8	88	96
18:00-19:00	2	69	71
12 Hour Total	298	314	612

Note: May not sum due to arithmetic rounding.

5.4 Table 5.1 shows that the existing television studios use of the site generates a considerable number of vehicle trips during the AM and PM peak hours of the local road network.

5.5 Of the 612 two-way trips generated between 7am and 7pm on the Tuesday survey day, 18 (3%) were recorded to be HGV trips. However, it is important to note that occasionally much higher volumes of HGV trips are generated by the site. For example, on Monday 20th May a total of 43 two-way HGV trips were recorded. The survey results show that the volume of 'non-car' traffic



generated by the existing use of the site fluctuates on a daily basis. Non-car traffic typically peaks towards the start of the 'working week' when filming on new projects starts.

5.6 The Group Facilities Director of Haymarket Media Group has provided detailed information on existing non-car traffic movements generated by the site based on current operations. They have confirmed the following:

- Low-loaders and 9m fixed-axle trucks deliver cars to the main car park on four out of five weekdays.
- The number and type of vehicles generated by each studio is dependent on the type of 'set' they have. The majority of 'sets' require one or two 16.5m articulated HGVs.
- When multiple studios are in use, typically three or more HGVs arrive at the site. Security personnel manage the arrivals and departures of large vehicles, often requiring one or more of these vehicles to wait in Broom Road until the loading bay is available.
- Waste / Skip trucks service the site once a week.
- Several courier vans arrive at the site on a daily basis.
- Caravans and motor homes located on the site are generally static and only tend to move from the site at peak holiday seasons.

Proposed Traffic Generation

5.7 The methodology used to predict the trip generation for the proposed development was presented in a scoping note and agreed with LBRuT.

5.8 SBA has undertaken a review of the industry-standard TRAVL trip rate database (Version 2.18), the latest available version as of June 2013). Multi-modal trip generation forecasts have been produced using trip rate data from TRAVL survey sites with similar characteristics to those of the site in terms of land use, location, PTAL score and the level of on-site parking.

5.9 A total of four residential survey sites were identified as being suitable. Full details of the TRAVL survey sites is provided in **Appendix F** and key information summarised below:

- Grand Union Village, Broadmead Road, Woodford, UB5 6
- Great West Quarter, Great West Road, Brentford, TW8 0GD
- Kew Riverside, Melliss Avenue, Richmond, TW9 4BA
- Orchard Court, Orchard Village, Chantry Way, Rainham, Essex, RM13 8PX



5.10 Vehicle trip rates have been applied to the proposed development of 219 dwellings to calculate to number of arrival, departure and total hourly vehicular trips, these are shown in **Table 5.2**. Full printouts of multi-modal trip-rates and calculations are provided in **Appendix H**.

Table 5.2 Traffic Generated by Proposed Use (7am-7pm)

Time Period	Proposed Traffic Generation (219 units)		
	Arrivals	Departures	Total
07:00-08:00	7	22	29
08:00-09:00	10	32	42
09:00-10:00	15	15	30
10:00-11:00	14	17	31
11:00-12:00	13	14	27
12:00-13:00	14	20	34
13:00-14:00	13	10	23
14:00-15:00	13	7	20
15:00-16:00	19	15	34
16:00-17:00	22	18	40
17:00-18:00	26	22	48
18:00-19:00	30	23	53
12 Hour Total	196	215	411

Note: May not sum due to arithmetic rounding.

5.11 The proposed development is anticipated to generate 411 two-way vehicle trips between 7am and 7pm. The AM peak hour for the proposed development is anticipated to be 8-9am when it is estimated that the site will generate 10 vehicle arrivals and 32 vehicle departures. The PM peak hour is likely to be 6-7pm when the site is projected to generate 30 vehicle arrivals and 23 vehicle departures.

Residual Traffic Impact

5.12 The residual traffic impact of the development has been calculated by comparing the survey results for the existing use (Table 5.1) with the projected traffic generation derived from TRAVL (Table 5.2). The residual traffic impact of the redevelopment proposal is set out in **Table 5.3**.



Table 5.3 Residual Traffic Impact of Redevelopment Proposal (7am-7pm)

Time Period	No. Vehicle Trips Generated by Existing Use	No. Vehicle Trips Generated by Proposed Use	Residual Impact on Two-way Traffic
07:00-08:00	26	29	3
08:00-09:00	61	42	-19
09:00-10:00	111	30	-81
10:00-11:00	40	31	-9
11:00-12:00	17	27	10
12:00-13:00	36	34	-2
13:00-14:00	65	23	-42
14:00-15:00	32	20	-12
15:00-16:00	23	34	11
16:00-17:00	34	40	6
17:00-18:00	96	48	-48
18:00-19:00	71	53	-18
12 Hour Total	612	411	-201

Note: May not sum due to arithmetic rounding.

- 5.13 The results in Table 5.3 indicate that the redevelopment of the Teddington Studios to provide 219 residential units will reduce the level of traffic generated by the site, by 201 two-way vehicles trips between the hours of 7am and 7pm. This includes 19 less two-way trips in the AM peak hour (8am - 9am) and 48 less trips in the PM peak hour (5pm – 6pm).
- 5.14 Furthermore, large vehicles such as low-loaders and articulated HGVs will no longer access the site, which is considered a significant benefit in highway terms.
- 5.15 Table 5.3 shows that the development would have a minor impact between 11am and noon with the addition of 10 two-way vehicle trips on the local highway network and between 3pm and 4pm with the addition of 11 two-way trips.
- 5.16 LB Richmond Highways requested that the traffic impact of the development on Broom Road was quantified at the peak hours for local school drop-offs and pick-ups in the morning and afternoon periods respectively.
- 5.17 The nearest academic institutions are Teddington School and Hampton Wick School located 900m and 1.4km south of the Site on Broom Road respectively. Table 5.3 demonstrates that the development will reduce traffic in the morning peak hour (08:00 to 09:00) and therefore it is unlikely that the development would have an impact on existing traffic during this period.
- 5.18 In the school PM peak hour for 'pick-ups' between 15:00 and 16:00 hours, the proposal will generate 11 additional two-way trips on Broom Road, six arrivals and five departures. The existing



two-way flow on Broom Road between 15:00 and 16:00 hours is 307 vehicles, an additional 11 two-way trips would have a 3.5% impact, which is considered insignificant.

- 5.19 Assuming a robust worst-case 50/50 split of development traffic at the proposed Site accesses, only five additional vehicles would pass the locations of the school sites on Broom Road, three heading northbound (site arrivals) and two southbound (site departures). Five additional trips spread across the hour equates to one additional vehicle passing the schools every 12 minutes, this is unlikely to be detrimental to existing conditions.
- 5.20 The results of the traffic generation assessment show that the development will reduce traffic during the peak hours of the road network and generate less than 30 two-way vehicle trips in the hours when an impact is predicted, therefore it has not been considered necessary to assess the impact of development traffic at junctions on the adjoining highways network.

Demolition and Construction Impacts

- 5.21 It is acknowledged that the demolition and construction stages of the development will have a moderate adverse temporary impact on the local highway network.
- 5.22 The type and number of vehicles generated during the construction period will be dependent on the type and intensity of work being undertaken at any one stage.
- 5.23 Based on previous experience we would expect in the region of 50 HGVs to travel to the site on a daily basis during the demolition period. The ATC survey on Broom Road recorded that there are currently 3,825 two-way vehicle trips on Broom Road, including 213 HGVs.
- 5.24 The traffic survey of the existing use recorded up to 43 two-way HGV trips at the site access when new filming sets are transported to the site. 50 HGVs accessing the site during demolition will create 100 two-way HGV trips, which equates to a residual impact of 57 additional two-way trips compared to the existing situation.
- 5.25 There will also be traffic movements associated with co-worker and construction workers. However it is expected that the majority of these will arrive by public transport given the excellent public transport accessibility of the Site.



5.26 Potential transportation and access related impacts that will arise during the demolition and construction phases comprise:

- Temporary disruption to road users at specific times of the day from vehicles accessing and egressing the application site (minor adverse impact of temporary duration); and
- Temporary disruption to pedestrians at specific times of the day from vehicles accessing and egressing the application site (minor adverse impact of temporary duration).

5.27 It is suggested that a Construction Management Plan (CMP) is secured as a condition of the planning permission. The CMP will detail the proposed programme of works, construction timescales, access arrangements, access routes to the site, vehicle sizes, swept path analysis, parking and loading arrangements and any other issues that could be detrimental to the public highway.



6 Summary and Conclusions

6.1 This Transport Assessment concludes with a summary of the key points below:

1. SBA has been commissioned by Haymarket Media Group (the 'Applicant') to prepare a Transport Assessment (TA) in support of their full detailed planning application for the redevelopment of the Teddington Studios site off Broom Road in Teddington.
2. This TA considers the traffic and transportation implications of the proposal which comprises the demolition of existing buildings with the exception of Weir Cottage and the erection of part four/part five/part six/part seven storey buildings to provide 219 dwellings, use of Weir Cottage for residential purposes, provision of 258 car parking spaces and a car club bay across basement and ground levels, closure of existing access and provision of two new accesses from Broom Road, provision of publically accessible riverside walk together with cycle parking and landscaping.
3. The site has four points of vehicle access; the main access located on Broom Road towards the western boundary of the site providing access to the main car park and some delivery areas and three crossovers located on Broom Road providing access into a marked parking areas outside the frontage of the main building.
4. Most of the roads in the area surrounding the site are either signed cycle routes or roads recommended for cycling. National Cycle Route 4 can be accessed via a footbridge over the Thames, located 100m north of the Site. It is a traffic-free Greenway route providing access to Kingston-upon-Thames to the south and Richmond to the north.
5. The site has a 'poor' PTAL rating of 2. However, this does not account for regular commuter train services accessible from Teddington Station, which is located approximately 1.2km from the site and can be access in approximately 15 minutes by walking.
6. The nearest bus stops to the site are located close to the junction of Ferry Road and Kingston Road at a distance of approximately 160-200m metres from the site access. Bus routes serving these stops include the 281, 258 and R68, all of which operate seven days a week and provide access to key destinations including Twickenham, Richmond and Heathrow Airport.
7. An accident analysis was undertaken for an area in the vicinity of the site including key junctions based on the latest five years worth of data, obtained from Transport for London. The data showed that a total of 15 accidents have been recorded, of which one was classed as serious and



- 14 as slight. Causation factors for the accidents can be attributed to driver / rider / pedestrian error and are not considered to be a result of highway design.
8. The proposed development includes 219 residential units (Use Class C3), comprising 45 one-bed units, 103 two-bed units, 65 three-bed units and six four-bedroom villas.
 9. Existing points of vehicle access to the site will be closed off and replaced by two new accesses from Broom Road.
 10. The proposal includes provision of 258 car parking spaces; 213 spaces including 36 Blue Badge spaces located in the basement parking area with a further 45 spaces at surface level, including 7 Blue Badge spaces. The level of car parking is robust and has been planned in accordance with LBRuT DMP parking standards.
 11. Cycle parking has been planned in accordance with the London Plan and the Minor Alternations document. Long-stay cycle parking for residents is proposed in the basement parking area with a further six short-term visitor spaces at surface level.
 12. Vehicular trips rates were extracted from similar residential TRAVL survey sites and were used to project the level of traffic generation associated with the proposed 219 dwelling development. It is predicted that the development will generate 201 fewer two-way vehicle trips across the 12-hour period between 7am and 7pm. The proposed development will significantly reduce traffic generated by the site during the peak periods of the local road network and also reduce the number of the large trucks, low-loaders and articulated vehicles requiring access to the site.
 13. It is concluded that the proposed redevelopment of Teddington Studios to provide 219 'Use Class C3' dwellings will deliver long-term benefits in highways terms by reducing the number of vehicle trips generated by the site, particularly large vehicle trips.