haymarket®

Proposed Residential Redevelopment
Broom Road, Teddington TW11 9BE
Teddington Riverside
Framework Travel Plan

February 2014

SBA part of the WYG group

Document Control

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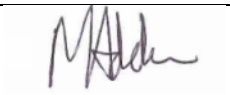
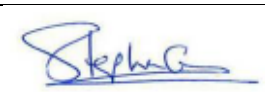
Prepared by:	Matthew Addison	Signed:	
Checked by:	Stephen Evans	Signed:	
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Issue	Date	Status
1	18/11/2013	Draft for Client / Project Team review and comments.
2	06/12/2013	2nd Draft for Client / Project Team review and comments.
3	28/01/2014	Final for Submission

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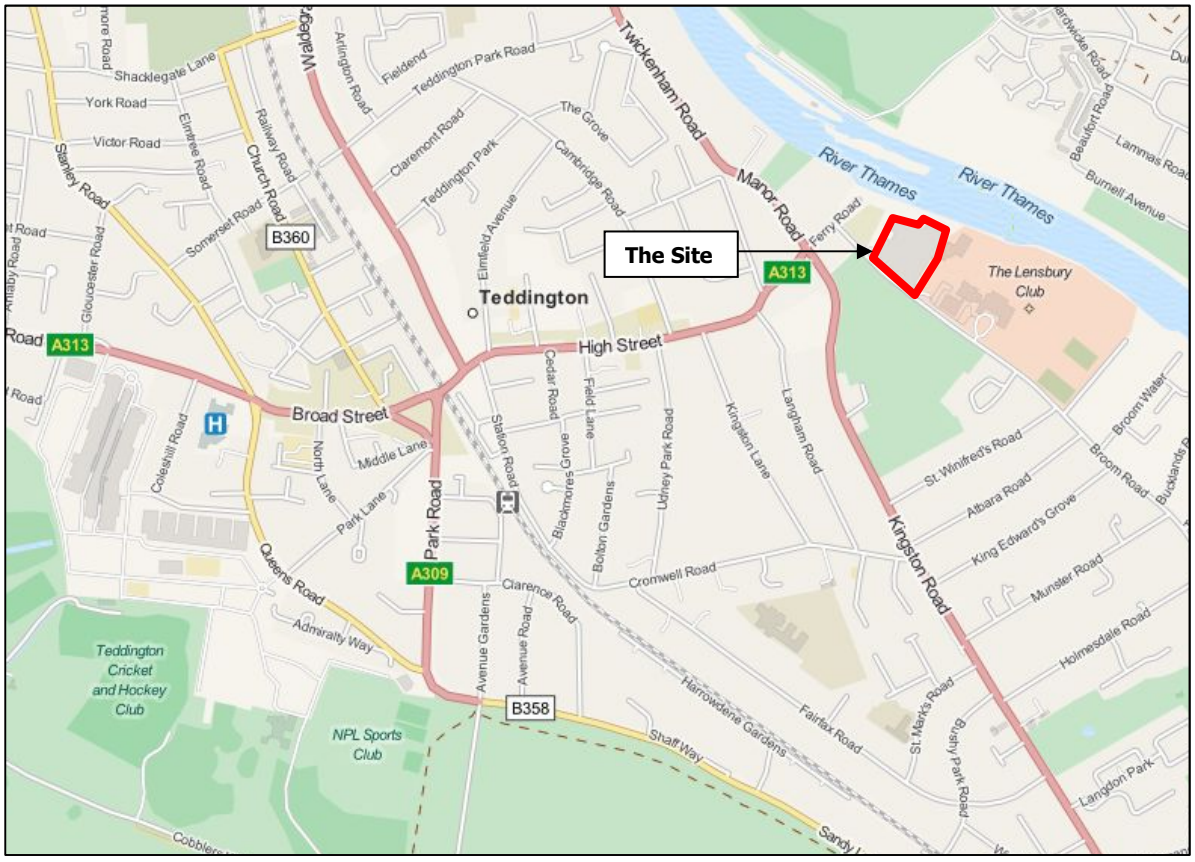
1 Introduction

Background and Site Location

1.1 SBA has been appointed by the Haymarket Media Group (the 'Applicant') to prepare a Framework Travel Plan (hereafter know as the 'Plan') 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 a 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 Plan sets out a long term travel management strategy for the site in order to reduce 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, 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 basement and ground floor layout plans are provided in **Appendix A**.

1.4 The Local Planning and Highway Authority is London Borough of Richmond upon Thames (LBRuT).

Travel Plan Structure

Following this introduction, the remainder of this Plan is formed broadly in accordance with Transport for London's (TfL) guidance; Travel Planning for New Development in London and is structured as follows:

- **Chapter 2: Policy & Guidance Review** – provides a review of national, London-wide and local (Borough) development and travel planning policy and guidance relevant to the location, scale and type of the proposal;
- **Chapter 3: Site Assessment (Baseline Conditions)** – provides an outline review of the existing transport conditions prevailing at the development Site and in the immediate surrounding area;
- **Chapter 4: Objectives, Targets and Indicators -** sets out objective relating to planning policy and targets relating to objectives based on projected mode split;
- **Chapter 5: Travel Plan Strategy** – defines the stages by which the Plan will be developed and implemented and includes the Travel Plan Co-ordinator responsible for managing the Plan;
- **Chapter 6: Package of Measures –** provides an overview of 'soft' and 'physical' travel planning measures that will be implemented to reduce the need to access the site by car and increase opportunities to access the site by sustainable travel modes; and,
- **Chapter 7: Monitoring and Review –** presents a clear monitoring programme for the Plan and includes a timetabled action plan.

1.5 Appendix A and B are included at the end of this Plan for information.

2 Policy & Guidance

Introduction

2.1 This section of the Plan examines the context of the site and how this relates to relevant planning policies and guidelines, particularly those referencing the requirement for travel plans. It provides an overall planning context for the development and demonstrates an awareness of best practice travel planning guidance.

The National Planning Policy Framework (2010)

2.2 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.

2.3 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).

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

2.5 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.'*

2.6 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.'*

2.7 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.'

2.8 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.'*
>
> *A key tool to facilitate this will be a Travel Plan. All developments which generate significant amounts of movement should be required to provide a Travel Plan'.*

The London Plan (2011)

2.9 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.

2.10 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.'*

2.11 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.'*

2.12 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)

2.13 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'.*

2.14 Para 150 states that:

> *'For all planning applications that meet the criteria for referral to the Mayor, comprehensive transport assessments, travel plans, delivery and servicing plans (DSPs) and construction logistics plans (CLPs) will need to be submitted in accordance with TfL best practice guidance. These documents should demonstrate how the application complies with transport policies in the London Plan and include measures to address likely impacts on the transport network.'*

Travel Planning for New Development in London (TfL)

2.15 'Travel planning for new development in London' is a Transport for London Guidance document, which supersedes and combines previous guidance documents from 2008, namely the 'Guidance for workplace travel planning for development' and 'Guidance for residential travel planning'.

2.16 The TfL guidelines are intended to assist stakeholders, including developers (and their consultants), Borough officers and policy teams to determine when a travel plan is required, how it should be prepared and what it should contain within the context of an integrated transport planning process. The guidance also sets out how travel plans should be evaluated, secured, implemented and then monitored and managed in the longer term.

2.17 Within the guidance, TfL define thresholds for when a strategic-level travel plan must be prepared to support a planning application. For C3 residential developments, this is 'equal to or more than 80 units'. The travel plan definitions of a strategic-level travel plan are set out in the guidance as follows:

> *'Strategic-level travel plan – developments above the strategic-level thresholds must by default submit an ATTrBuTE-compliant travel plan. Strategic-level thresholds relate to larger developments which are referred to the Major'*

London Borough of Richmond upon Thames Local Plan (2011)

2.18 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).

2.19 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.

2.20 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).

2.21 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 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.*
- *East 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.

3 Site Assessment

General

3.1 This section of the Plan details the transport conditions and services prevailing at the Site and surrounding area; full details can be found in the Transport Assessment report.

Site Location and Description

3.2 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 public 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.

Public Transport Accessibility

3.3 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 is excluded from the PTAL calculation because it is more than 960m from the site.

Bus Services

3.4 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 to 200 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.

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.

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)

3.5 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

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

3.7 The nearest London Underground Station is Richmond 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

3.8 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 80 metres per minute.

3.9 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 in approximately five minutes by cycling.

3.10 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

3.11 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.

3.12 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.

3.13 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.

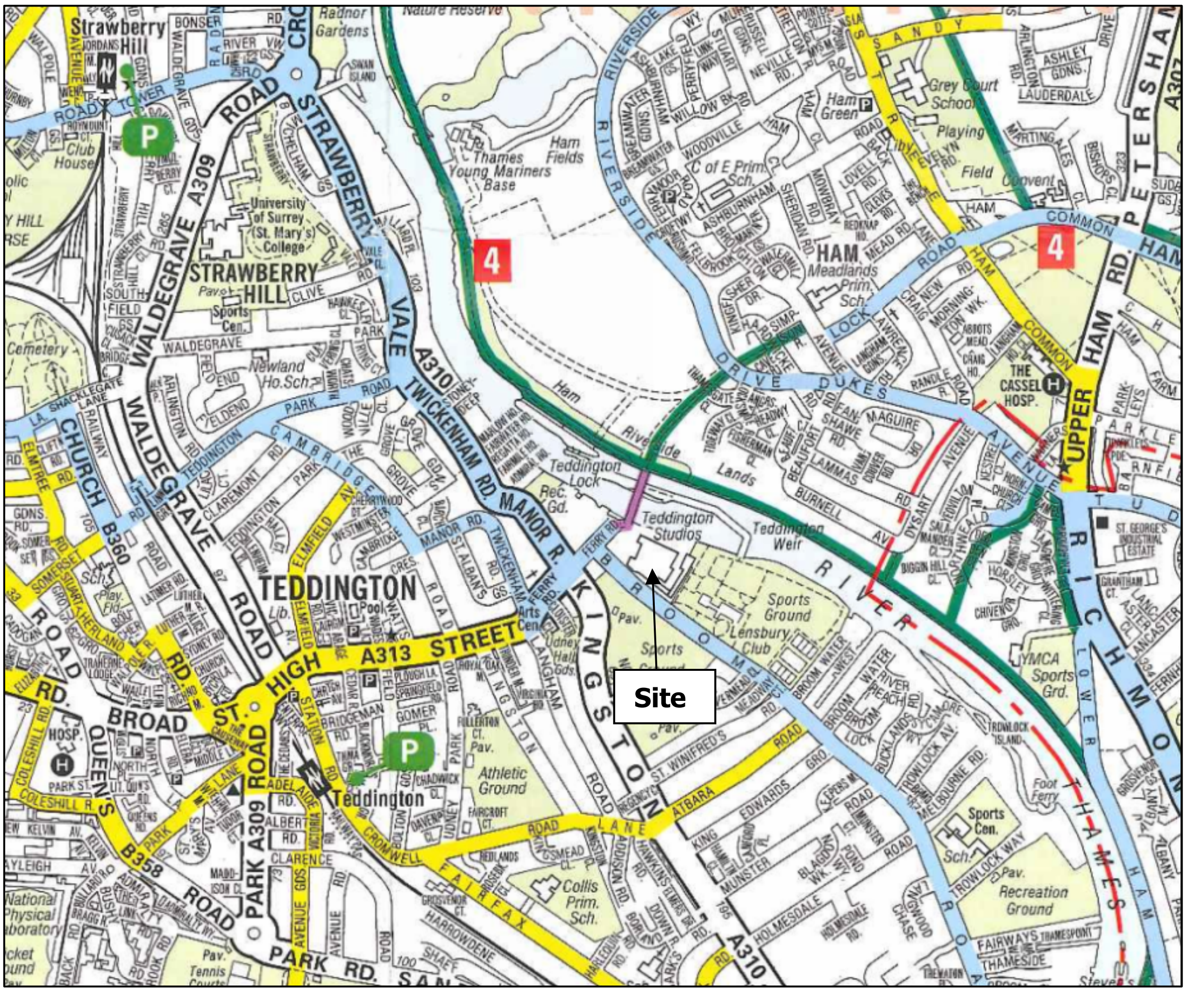
3.14 The site is located a short walk distance (approximately 80m from the site access) from Teddington Lock Footbridge, which comprises two separate footbridges across the River Thames. The pedestrian link provides access to the Thames River Walk for onwards travel to facilities located on the 'Ham-side' of the river.

Cycle Accessibility

3.15 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).

3.16 **Figure 3.1** 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 3.1 Local Cycle Routes



Source: TfL Local Cycle Guide 9

3.17 Figure 3.1 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.

3.18 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.

Accident Records

3.19 Personal injury accident (PIA) data for the most recent five year period was obtained from Transport for London (*TfL*). The study area included the road network in the immediate vicinity of the site. A total of 15 accidents were recorded over the five year assessment, 14 accidents resulted in casualties with 'slight' injuries and one accident resulted in a pedestrian casualty with serious injuries. It was concluded that causation factors attributed to the accidents were a result of driver / rider / pedestrian error and not a result of highway design or layout.

4 Objectives, Targets and Indicators

General

4.1 This section discusses the Plan's approach, summarising the objectives, establishing the targets and indicators. Further information on monitoring and review of the Plan can be found in Section 6.

4.2 Objectives are the high-level aims of the Travel Plan; they give it a direction and provide a focus.

4.3 Targets are the measurable goals by which progress will be assessed. SMART (Specific, Measurable, Achievable, Realistic and Time-bound) targets have been set, which the Plan will seek to reach over a five year period commencing from first occupation of proposed development and associated implementation of the Plan.

Travel Plan Benefits

4.4 The benefits of a well managed travel plan extend beyond site users and contribute to improvements to local air quality, noise and vibration reduction, congestion and journey times. An increase in walking and cycling has a role in the wider health agenda to reduce public obesity level and associated illnesses caused by sedentary lifestyles

Objectives

4.5 There are a number of key goals that the travel plan seeks to achieve. The objectives of the Plan relate to desired policy outcomes set out in the Borough's Local Implementation Plan and LDF documents along with London-wide policies from the GLA's London Plan. They also take into account key opportunities and constraints associated with the Site. The objectives of this Plan are to:

- Encourage good urban design principles that open up the permeability of the development for walking and cycling;
- Address residents' needs for access to a full range of facilities and services – for work, education, health, leisure, recreation and shopping;
- To raise awareness and increase the attractiveness of alternative modes of transport available to and from the development for residents and, in particular the benefits associated with walking and cycling for short journeys;

- Reduce traffic generated by the development to lower levels of car trips than would be produced for a site without a travel plan.

Targets and Indicators

4.6 Paragraph 4.17 of TfL's *Travel Planning for New Development in London* emphasises the importance of providing targets for the Plan based on trip rates and modal splits agreed in the Transport Assessment.

Mode Split

4.7 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.

4.8 A total of four residential survey sites were identified as being suitable. Key information of the TRAVL survey sites is 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

4.9 Tables 4.1, 4.2 and 4.3 present mode split projects for the Site using multi-modal trip rates from existing TRAVL sites (as listed above). Full printouts of the TRAVL multi-modal trip rates and trip generation calculations used to derive the TRAVL mode split is provided in **Appendix B**.

Table 4.1 TRAVL Trip Generation Estimates & Mode Split Projections (7am-7pm)

Mode	Count	Mode Share (%)
Car driver	412	36.6%
Walk & public transport	355	31.5%
Walk only	226	20.1%
Car passenger	86	7.6%
Pedal cycle	24	2.1%
Motor cycle	15	1.3%
Taxi	6	0.5%
Other	2	0.2%
TOTAL	**1126**	**100.0%**

Table 4.2 TRAVL Trip Generation Estimates & Mode Split Projections (8am-9am)

Mode	Count	Mode Share (%)
Car driver	36	30.3%
Walk & public transport	35	29.4%
Walk only	31	26.1%
Car passenger	10	8.4%
Pedal cycle	4	3.4%
Motor cycle	3	2.5%
Taxi	0	0.0%
Other	0	0.0%
TOTAL	**119**	**100.0%**

Table 4.3 TRAVL Trip Generation Estimates & Mode Split Projections (5pm-6pm)

Mode	Count	Mode Share (%)
Car driver	47	37.6%
Walk & public transport	46	36.8%
Walk only	19	15.2%
Car passenger	8	6.4%
Pedal cycle	3	2.4%
Motor cycle	2	1.6%
Taxi	0	0.0%
Other	0	0.0%
TOTAL	**125**	**100.0%**

4.10 The Borough's mode share targets are set out in their Transport Strategy (Second Local Implementation Plan 2011 to 2014) and are as follows:

- Short-term walking target: 33.1% by 2013/14
- Long-term walking target: 34.5% by 2025/26
- Short-term cycling target: 5.5% by 2013/14
- Long-term cycling target: 7% by 2025/26

4.11 Through benchmarking Borough's mode share targets against the projected mode share derived from TRAVL survey sites, a number of provisional mode share targets have been set until the results of the baseline travel survey are known. Targets will be revisited and agreed with the Borough within one month of the baseline survey being carried out.

4.12 The proposed target is to achieve the Transport Assessment forecast for car driver trips generated by the development during the weekday morning and afternoon peak hours. Table 4.2 projects that 36 two-way car driver trips will be generated between 08:00 and 09:00 hours and Table 4.3 projects 47 two-way car driver trips between 17:00 and 18:00hrs.

4.13 In addition to the above, the year-on-year increase in cycle usage will be monitored. Based on the location of the site it would be reasonable to target a 5% increase in cycling from the level identified within the baseline survey, across the five year period of the Plan.

4.14 These targets represent the forecast reduction in trips over a five year period (from the trigger date of 75% occupation), relative to those levels recorded by the initial baseline survey.

5 Travel Plan Strategy

Introduction

5.1 A Travel Plan strategy sets out and clearly defines the stages by which the Plan will be developed and implemented and is very important to the longevity and success of it. Elements of a Travel Plan strategy usually relate to:

- Securing the resources (including time) that are necessary to develop and implement the travel plan;
- Consulting and educating residents; and
- Identifying and engaging with partners.

5.2 The Travel Plan Strategy is set out within the remainder of this section. It discusses how the Travel Plan will be managed and marketed, as well as identifying who the key partners will be.

Managing the Plan: Roles and Responsibilities

Management Support

5.3 The Travel Plan will require the support of senior management in order to be a success. The Travel Plan will have the full support and buy-in of the Applicant, who own and manage the Site. The Applicant is fully aware of the importance and significance of this Plan and will allocate adequate resources and funding of measures and monitoring in order to ensure it is fully implemented and therefore achieves maximum impact.

5.4 It is the responsibility of the Applicant to appoint a Travel Plan Co-ordinator (TPC) within one month of first occupation of the site and notify the Borough's Travel Plan Co-ordinator. Contact details of the Applicant are provided below:

Name:	Mr Mike Cronin
Position:	Group Facilities Director
Company:	Haymarket Media Group
Contact Number:	020 8267 5967

Travel Plan Co-ordinator

5.5 As discussed, a TPC will be appointed by the Applicant to take responsibility for the development and management of the plan, and ensuring its delivery. The TPC role for the site will be fulfilled by an appointed consultant or the site management company. It will be the responsibility of the developer to ensure that a TPC is appointed prior to the first occupation of the site. The roles and responsibilities of the TPC are set out below:

- Implementation and management of the plan;
- Awareness-building and engagement with stakeholders;
- Marketing and communalisations;
- Measuring success and monitoring change;
- Providing a 'face' to the Plan, an on-site presence that can explain its purpose and the opportunities on offer. This may include offering services such as personal travel planning advice; and,
- Helping establish and promote individual measures within the Plan.

Partners and Stakeholders

5.6 Travel plans need partnerships for success. Organisations / developers need to work with a number of partners and internal stakeholders during the implementation process. It is expected that all partners will make an active contribution to the process. The Travel Plan Co-ordinator will act as a central figure in establishing partnerships and maintaining links and lines of communication. Key partners are identified below.

5.7 Likely stakeholders and partners include:

- LBRuT Travel Plan Officers;
- TfL Cycling Officers;
- Public Transport Officers; and
- Residents.

Marketing

5.8 Marketing and awareness raising strategies form an important part of all travel plans. The marketing strategy will aim to raise awareness of the key services and facilities implemented as part of the travel plan and to disseminate travel information via the development website, by promotional documentation and via notice boards within the lobby of the residential blocks. Full details of the marketing strategy for the development are contained within Part 6 of this plan.

Securing and Funding the Plan

5.9 The provision of an approved Plan in accordance with current TfL guidance together with the implementation of site wide 'action' type targets will be secured through its incorporation into a signed S106 agreement for the development.

5.10 The specification of residential targets will be reserved for agreement with the local planning authority within one month of the initial baseline travel survey has been undertaken, i.e. upon 75% occupation.

5.11 All measures implemented prior to the development being occupied will be funded by the developer, including the appointment of the TPC and the production of marketing material. The developer will also fund the initial baseline travel survey undertaken upon 75% occupation.

5.12 In accordance with TfL's 'Guidance for Workplace travel planning for development' independent monitoring of the residential units will occur in years one, three and five and will be undertaken by a TRAVL-approved Independent survey companies using the standard TRAVL survey methodology.

5.13 The TPC will commission the surveys from the survey company directly when due. The IFC will then inform the borough that the survey has been commissioned. When the survey has been completed, the results will be uploaded in the agreed format to iTRACE / TRAVL.

5.14 Funding for the monitoring and management of the travel plan is to be secured by the developer. The costs will relate to the implementation of measures outlined within the Plan and for surveys plus monitoring to occur through the lifecycle of the Plan.

6 Package of Measures

Introduction

6.1 This section of the Plan outlines the measures that will be implemented on-site in order to achieve the objectives identified in Section 4. These measures can be split into two types:

- 'Hard' or 'Physical' Measures - engineering / architectural measures incorporated into the design of the development e.g. parking provision; and,
- 'Soft' Measures - marketing and management measures implemented as part of the development proposals on an on-going basis in order to maximise the uptake of sustainable travel measures and in order to reduce dependency on private cars, particularly single occupancy trips.

'Physical' Measures

Car Parking Provision

6.2 The level of parking provision for the residential development has taken into account local car ownership levels and residential parking policy as set out in the Borough's Development Management Plan.

6.3 Based on the LBRuT standards, it is proposed to provide a total of 258 on-site parking spaces, 213 in the basement parking area and a further 45 spaces at surface level.

6.4 A provision of one car club bay is planned for the development following a recommendation by Zipcar, the main car club operator in the Borough. On average each Zipcar takes an average of 20 privately owned cars off the roads because members often sell (or don't replace) a car when they join.

Disabled Parking

6.5 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'.*

6.6 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

6.7 Electric car 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 Provision

6.8 Cycle parking for the development has been planned in excess of the minimum cycle parking standards set out in the London Plan, and the Revised Early Minor Alterations document adopted in October 2013.

6.9 The standards prescribe a minimum provision of one space per one or two bed unit and two spaces for three plus bedroom units, with a provision of short-stay visitor parking equal to one space per 40 units. Based on the schedule of accommodation a minimum of 290 cycle spaces will be provided for in the basement car park and a minimum of six short-term spaces for visitors will be implemented at surface level.

6.10 Cycle parking utilisation will be continually monitored throughout the lifecycle of the Plan.

'Soft' Measures

Community Notice Boards

6.11 These will provide information on the Plan, what it is, why it has been developed, and some headline results from the baseline travel survey (when undertaken). This can provide the greater detail to enable residents to understand the implications and impacts of their travel choices, with real, personal, tangible benefits such as costs savings, health & fitness and environmental.

Resident Travel Information Packs

6.12 All new households will be provided with a travel information pack (TIP) as part of their welcome pack. Travel information packs will be distributed to all residents. The packs will be used to raise awareness of sustainable initiatives being implemented throughout the lifecycle of the travel plan including; the promotion of key services and facilities, promotion of online shopping, promotion of car share clubs and promotion of membership to the London Cycling Campaign.

6.13 The TIP will include contact details for the TPC and on-site services. The TIP will invite residents to raise their travel-related queries with the TPC for consideration and discussion.

6.14 A copy of the TIP will also be provided in the entrance lobby to each block and at the marketing suite.

Key Services and Facilities

Personalised Journey Planning

6.15 The TPC will provide personalise travel planning advice to residents of the development. This could include information on fastest route for accessing public transport services and stations.

Facilities for Mobility Impaired People

6.16 The above service will also accommodate specific journey planning requirements of mobility impaired persons living at the site.

Provision of Broadband Access

6.17 All residential units will be broadband enabled prior to occupation, providing residents with the opportunity to sign up to an internet service provider. The TPC will make reasonable endeavours to negotiate discounted broadband contracts with internet service providers to ensure that residents have an added incentive to consider working from home and web based shopping.

Provision for Deliveries

6.18 The site management office will provide a secure facility whereby deliveries of small items can be made to homes during the day, even when residents are not at home.

6.19 It is considered that the provision of such a service will reduce the number of repeat deliveries to the site and the need for residents to make additional journeys to collect undelivered packages by car. The service will be operational prior to occupation of the site.

7 Monitoring and Review

Introduction

7.1 An important part of the Plan is the monitoring and review of its effectiveness. Regular monitoring will help to gauge progress towards targets and objectives, and, if necessary, enables the WTP to be refined and adapted in order to improve its effectiveness.

7.2 This section sets out the specific monitoring proposals associated with the Proposed Development and the means by which progress towards targets will be assessed.

Monitoring Plan

7.3 The TfL guidance *Travel Planning for new development in London* sets out a standardised approach to monitoring, which for strategic-level travel plans (strategic-level threshold relates to larger developments which are referred to TfL), must be TRAVL compliant.

7.4 The monitoring of the Plan will be funded by the Applicant.

7.5 The TPC will arrange the initial full multi-modal travel survey to be undertaken for the development once a trigger point of 75% occupation is reached.

7.6 The full multi-modal travel surveys will then be undertaken for each phase of the development at the first, third and fifth year after the after the trigger point has been reached (75% occupation).

7.7 The specification of the multi-modal surveys will be agreed within LBRuT prior to being undertaken, however it is envisaged that they will follow the survey methodology approved by MVA for the TRAVL Database so that they can ultimately be incorporated into the iTRACE database (or as agreed with the Local Authority). The surveys are likely to comprise of the following components:

- A management questionnaire – to identify site-specific details and to be completed by the on-site management company;
- Classified vehicle turning counts – on a typical weekday (during school term time) at the proposed vehicle accesses onto Broom Road.
- Pedestrian / cycle counts – at pedestrian / cycle accesses to the site;
- Questionnaire surveys of residents – to identify the mode share of the development; focusing on reasons for car use and barriers / constraints to using sustainable travel modes;

- Visitor questionnaire surveys; and a,
- Cycle parking utilisation survey.

7.8 In the event that targets are not met within the initial five-year monitoring period, monitoring will continue on a rolling five-year basis until targets are met to the satisfaction of LBRuT Travel Plan Officers.

Reporting

7.9 The TPC will report the survey results to LB Richmond upon Thames within one month of each survey. Borough officers together with TfL and the TPC will then review the results and, if appropriate review progress towards the agreed targets.

7.10 As appropriate, key survey and/or monitoring findings and associated sustainability messages will also be disseminated amongst residents.

Action Plan

7.11 The programme for the implementation of the travel plan measures for the proposals will be produced, as and when they are brought forward for development.

7.12 The action plan for the development will set out tasks, intended implementation dates and funding sources. It is intended to be a live document which will be updated by the TPC to reflect the outcome of consultation with the local planning authority, once the first full multi modal travel survey has been completed. The action plan for the proposals is set out in Table 7.1.

Table 7.1 Action Plan Timetable

Action	Target Values	Target Date	Funding	Indicator	Responsibility
Appointment of Travel Plan Coordinator (TPC)	N/A	TPC appointed 1 month prior to first occupation of the development	Initial appointment funder by developer and service charge payments thereafter	Appointment of TPC on or before target date	Developer
Provision of 'physical' measures	258 car parking spaces / >290 long-stay cycle parking spaces and six short stay spaces	Prior to occupation	Developer	Completion of surface and basement level parking spaces, plus provision of cycle parking stands to agreed scale	Developer
Provision of broadband in homes	All homes to be broadband enabled	Prior to occupation	Developer	Resident travel survey / questionnaire	Developer
Production of Travel Information Packs (TIPs)	Provide TIP within home welcome packs on occupation of each new dwelling	Upon occupation	Developer	Resident travel survey / questionnaire	Developer & TPC
Undertake baseline multi-modal travel surveys	N/A	Within 1 month of 75% unit occupancy	Developer	Receipt of travel survey results	TPC
Agree target values for car driver mode split with LBRuT Travel Plan Officers	Targets subject to negotiation with the Borough following baseline travel survey results	Within 1 month of baseline travel survey results being received	Developer	Receipt of written agreement of targets from LBRuT	TPC
Achieve modal split targets	Achieve agreed target values	5 years after baseline travel survey was conducted	Developer	Multi-modal travel surveys undertaken in years 1, 3 and 5 of the Plan	TPC

Appendices

Appendix A

Proposed Layout Plans

NOTES:

DO NOT SCALE. FIGURED DIMENSIONS ONLY TO BE TAKEN FROM THIS DRAWING. CHECK DIMENSIONS ON SITE AND REPORT DISCREPANCIES TO THE ARCHITECT.

ALL AREAS HAVE BEEN MEASURED FROM CURRENT DRAWINGS. THEY MAY VARY BECAUSE OF (EG) SURVEY, DESIGN DEVELOPMENT, CONSTRUCTION TOLERANCES, STATUTORY REQUIREMENTS OR RE-DEFINITION OF THE AREAS TO BE MEASURED.

River Thames

A

post meters

+7.3

Lobby +6.0

Lobby

+7.3

post/meters

B

Lobby +6.0

Refuse store

+7.3

meters / post

Lobby +6.0

+7.3

post/meters

Lobby +6.0

+7.3

post meters

Sub station 24.5 SQM

Plant room HVS 41.7 sqm

C

post / meters

Refuse Store

Refuse Store

Health Club

Managment Suite

4R - 5B single family dwelling

F

E1

E2

E3

E4

E5

E6

Refuse store

+7.3

Lobby +6.6

post

meters

D

Lobby +6.8

+7.3

E7

+7.3

+6.4

Broom Road

N

0 2.5m 10m

1:250@A1 5m 20m

No.	Date	Comment	Drawn	Chk'd
P1	13.12.13	ISSUED AS PLANNING APPLICATION	SG	JW

Revisions

Issue Status

PLANNING

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London Moscow Abu Dhabi New York

Project

Teddington Riverside
Proposed Residential Redevelopment
Broom Road, Teddington

Drawing Title

Proposed Ground Floor Plan

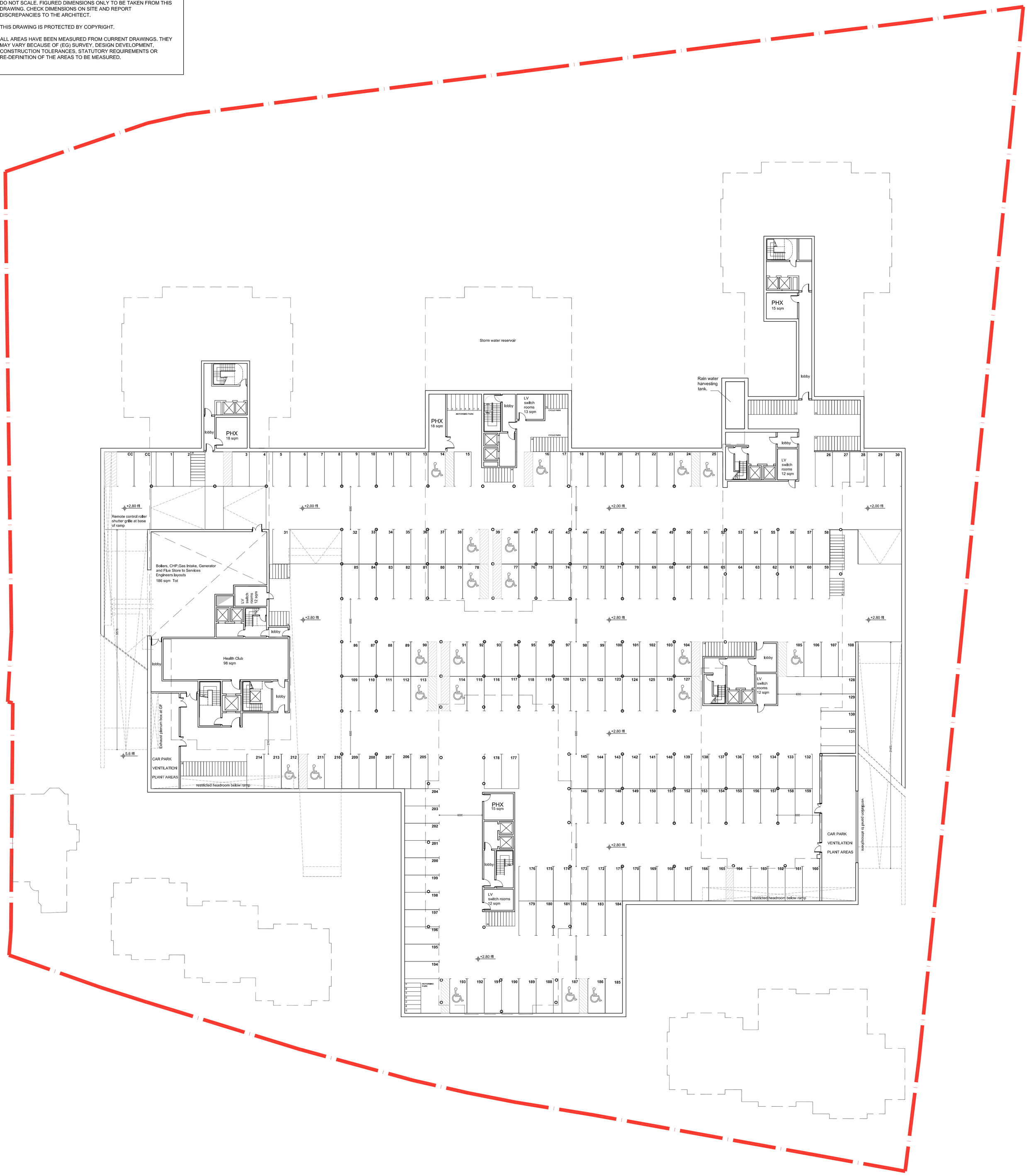
Drawn	Date	Scale @ A1	Alt. Ref.
SG	19.11.2013	1:250	--

tp bennett Project No.	Drawing Number	Rev
A9991	D 0100	P1

NOTES:

DO NOT SCALE. FIGURED DIMENSIONS ONLY TO BE TAKEN FROM THIS DRAWING. CHECK DIMENSIONS ON SITE AND REPORT DISCREPANCIES TO THE ARCHITECT.

ALL AREAS HAVE BEEN MEASURED FROM CURRENT DRAWINGS. THEY MAY VARY BECAUSE OF (EG) SURVEY, DESIGN DEVELOPMENT, CONSTRUCTION TOLERANCES, STATUTORY REQUIREMENTS OR RE-DEFINITION OF THE AREAS TO BE MEASURED.



No.	Date	Comment	Drawn	Chk'd
P1	13.12.13	ISSUED AS PLANNING APPLICATION	SM/MA	JW

Revisions

Issue Status
PLANNING

tp bennett
architecture
interiors
planning

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London Moscow Abu Dhabi New York

Project
Teddington Riverside
Proposed Residential Redevelopment
Broom Road, Teddington

Drawing Title
Proposed Basement Plan

Drawn	Date	Scale @ A1	Alt. Ref.
SM	11.11.2013	1:250	--

tp bennett Project No.	Drawing Number	Rev
A9991	D 0099	P1

Appendix B

Multi-modal Trip Generation Calculations

Mode: **Car Driver** **Proposed No. Units:** **219**

	Trip Rates (per dwelling)			Proposed Trip Generation (half-hourly)		
Time Band	**Trip Rate In**	**Trip Rate Out**	**Total Trip Rate**	**Predicted Trips In**	**Predicted Trips Out**	**Predicted Trips Total**
07:00-07:30	0.01319	0.03034	0.04354	3	7	10
07:30-08:00	0.01913	0.07124	0.09037	4	16	20
08:00-08:30	0.02507	0.08113	0.10620	5	18	23
08:30-09:00	0.02243	0.06596	0.08839	5	14	19
09:00-09:30	0.04156	0.03298	0.07454	9	7	16
09:30-10:00	0.02836	0.03430	0.06266	6	8	14
10:00-10:30	0.03298	0.04815	0.08113	7	11	18
10:30-11:00	0.03100	0.02770	0.05871	7	6	13
11:00-11:30	0.03034	0.03364	0.06398	7	7	14
11:30-12:00	0.03034	0.03166	0.06201	7	7	14
12:00-12:30	0.03232	0.05013	0.08245	7	11	18
12:30-13:00	0.03034	0.04222	0.07256	7	9	16
13:00-13:30	0.02507	0.01847	0.04354	5	4	10
13:30-14:00	0.03430	0.02902	0.06332	8	6	14
14:00-14:30	0.03760	0.01451	0.05211	8	3	11
14:30-15:00	0.02243	0.01715	0.03958	5	4	9
15:00-15:30	0.04683	0.03430	0.08113	10	8	18
15:30-16:00	0.03826	0.03298	0.07124	8	7	16
16:00-16:30	0.04551	0.03826	0.08377	10	8	18
16:30-17:00	0.05673	0.04551	0.10224	12	10	22
17:00-17:30	0.06135	0.04090	0.10224	13	9	22
17:30-18:00	0.05541	0.05871	0.11412	12	13	25
18:00-18:30	0.06794	0.05409	0.12203	15	12	27
18:30-19:00	0.06926	0.05145	0.12071	15	11	26
07:00-19:00	**0.89775**	**0.98480**	**1.88257**	**197**	**216**	**412**

Note: May not sum due arithmetic rounding.

Mode: **Car Passenger** **Proposed No. Units:** **219**

	Trip Rates (per dwelling)			Proposed Trip Generation (half-hourly)		
Time Band	**Trip Rate In**	**Trip Rate Out**	**Total Trip Rate**	**Predicted Trips In**	**Predicted Trips Out**	**Predicted Trips Total**
07:00-07:30	0.00132	0.00198	0.00330	0	0	1
07:30-08:00	0.00462	0.02309	0.02770	1	5	6
08:00-08:30	0.00396	0.02639	0.03034	1	6	7
08:30-09:00	0.00264	0.01451	0.01715	1	3	4
09:00-09:30	0.00198	0.01715	0.01913	0	4	4
09:30-10:00	0.00132	0.01121	0.01253	0	2	3
10:00-10:30	0.00132	0.01517	0.01649	0	3	4
10:30-11:00	0.00264	0.00594	0.00858	1	1	2
11:00-11:30	0.00066	0.00660	0.00726	0	1	2
11:30-12:00	0.00132	0.00462	0.00594	0	1	1
12:00-12:30	0.00396	0.02111	0.02507	1	5	5
12:30-13:00	0.00396	0.01055	0.01451	1	2	3
13:00-13:30	0.00858	0.00066	0.00923	2	0	2
13:30-14:00	0.00528	0.00594	0.01121	1	1	2
14:00-14:30	0.00264	0.00462	0.00726	1	1	2
14:30-15:00	0.00198	0.00264	0.00462	0	1	1
15:00-15:30	0.00726	0.00726	0.01451	2	2	3
15:30-16:00	0.01385	0.01055	0.02441	3	2	5
16:00-16:30	0.01121	0.00528	0.01649	2	1	4
16:30-17:00	0.02441	0.00989	0.03430	5	2	8
17:00-17:30	0.01253	0.00594	0.01847	3	1	4
17:30-18:00	0.01253	0.00462	0.01715	3	1	4
18:00-18:30	0.01451	0.00396	0.01847	3	1	4
18:30-19:00	0.02111	0.00660	0.02770	5	1	6
07:00-19:00	**0.16559**	**0.22628**	**0.39182**	**36**	**50**	**86**

Note: May not sum due arithmetic rounding.

Multi-modal Trip Generation Calculations (07:00 - 19:00)

Mode: **Motor Cycle** **Proposed No. Units:** **219**

	Trip Rates (per dwelling)			Proposed Trip Generation (half-hourly)		
Time Band	**Trip Rate In**	**Trip Rate Out**	**Total Trip Rate**	**Predicted Trips In**	**Predicted Trips Out**	**Predicted Trips Total**
07:00-07:30	0.00000	0.00198	0.00198	0	0	0
07:30-08:00	0.00000	0.00528	0.00528	0	1	1
08:00-08:30	0.00000	0.00726	0.00726	0	2	2
08:30-09:00	0.00000	0.00594	0.00594	0	1	1
09:00-09:30	0.00066	0.00594	0.00660	0	1	1
09:30-10:00	0.00000	0.00066	0.00066	0	0	0
10:00-10:30	0.00000	0.00066	0.00066	0	0	0
10:30-11:00	0.00000	0.00132	0.00132	0	0	0
11:00-11:30	0.00000	0.00000	0.00000	0	0	0
11:30-12:00	0.00066	0.00000	0.00066	0	0	0
12:00-12:30	0.00000	0.00330	0.00330	0	1	1
12:30-13:00	0.00066	0.00066	0.00132	0	0	0
13:00-13:30	0.00000	0.00000	0.00000	0	0	0
13:30-14:00	0.00066	0.00000	0.00066	0	0	0
14:00-14:30	0.00000	0.00000	0.00000	0	0	0
14:30-15:00	0.00000	0.00066	0.00066	0	0	0
15:00-15:30	0.00066	0.00000	0.00066	0	0	0
15:30-16:00	0.00198	0.00000	0.00198	0	0	0
16:00-16:30	0.00330	0.00066	0.00396	1	0	1
16:30-17:00	0.00132	0.00000	0.00132	0	0	0
17:00-17:30	0.00132	0.00198	0.00330	0	0	1
17:30-18:00	0.00726	0.00000	0.00726	2	0	2
18:00-18:30	0.00660	0.00132	0.00792	1	0	2
18:30-19:00	0.00462	0.00000	0.00462	1	0	1
07:00-19:00	**0.02970**	**0.03762**	**0.06732**	**7**	**8**	**15**

Note: May not sum due arithmetic rounding.

Mode: **Other** **Proposed No. Units:** **219**

	Trip Rates (per dwelling)			Proposed Trip Generation (half-hourly)		
Time Band	**Trip Rate In**	**Trip Rate Out**	**Total Trip Rate**	**Predicted Trips In**	**Predicted Trips Out**	**Predicted Trips Total**
07:00-07:30	0.00000	0.00000	0.00000	0	0	0
07:30-08:00	0.00000	0.00000	0.00000	0	0	0
08:00-08:30	0.00000	0.00000	0.00000	0	0	0
08:30-09:00	0.00000	0.00000	0.00000	0	0	0
09:00-09:30	0.00000	0.00000	0.00000	0	0	0
09:30-10:00	0.00000	0.00000	0.00000	0	0	0
10:00-10:30	0.00000	0.00000	0.00000	0	0	0
10:30-11:00	0.00000	0.00000	0.00000	0	0	0
11:00-11:30	0.00132	0.00000	0.00132	0	0	0
11:30-12:00	0.00066	0.00198	0.00264	0	0	1
12:00-12:30	0.00066	0.00000	0.00066	0	0	0
12:30-13:00	0.00000	0.00066	0.00066	0	0	0
13:00-13:30	0.00000	0.00000	0.00000	0	0	0
13:30-14:00	0.00000	0.00000	0.00000	0	0	0
14:00-14:30	0.00066	0.00066	0.00132	0	0	0
14:30-15:00	0.00000	0.00000	0.00000	0	0	0
15:00-15:30	0.00066	0.00000	0.00066	0	0	0
15:30-16:00	0.00066	0.00066	0.00132	0	0	0
16:00-16:30	0.00000	0.00066	0.00066	0	0	0
16:30-17:00	0.00066	0.00066	0.00132	0	0	0
17:00-17:30	0.00000	0.00000	0.00000	0	0	0
17:30-18:00	0.00000	0.00000	0.00000	0	0	0
18:00-18:30	0.00000	0.00000	0.00000	0	0	0
18:30-19:00	0.00000	0.00000	0.00000	0	0	0
07:00-19:00	**0.00528**	**0.00528**	**0.01056**	**1**	**1**	**2**

Note: May not sum due arithmetic rounding.

Mode: Pedal Cycle **Proposed No. Units:** 219

	Trip Rates (per dwelling)			Proposed Trip Generation (half-hourly)		
Time Band	Trip Rate In	Trip Rate Out	Total Trip Rate	Predicted Trips In	Predicted Trips Out	Predicted Trips Total
07:00-07:30	0.00000	0.00528	0.00528	0	1	1
07:30-08:00	0.00000	0.00528	0.00528	0	1	1
08:00-08:30	0.00066	0.01055	0.01121	0	2	2
08:30-09:00	0.00066	0.00528	0.00594	0	1	1
09:00-09:30	0.00066	0.00528	0.00594	0	1	1
09:30-10:00	0.00000	0.00264	0.00264	0	1	1
10:00-10:30	0.00066	0.00132	0.00198	0	0	0
10:30-11:00	0.00066	0.00132	0.00198	0	0	0
11:00-11:30	0.00000	0.00000	0.00000	0	0	0
11:30-12:00	0.00000	0.00000	0.00000	0	0	0
12:00-12:30	0.00132	0.00132	0.00264	0	0	1
12:30-13:00	0.00066	0.00066	0.00132	0	0	0
13:00-13:30	0.00066	0.00396	0.00462	0	1	1
13:30-14:00	0.00198	0.00132	0.00330	0	0	1
14:00-14:30	0.00132	0.00066	0.00198	0	0	0
14:30-15:00	0.00066	0.00066	0.00132	0	0	0
15:00-15:30	0.00198	0.00198	0.00396	0	0	1
15:30-16:00	0.00792	0.00132	0.00923	2	0	2
16:00-16:30	0.00528	0.00132	0.00660	1	0	1
16:30-17:00	0.00264	0.00066	0.00330	1	0	1
17:00-17:30	0.00330	0.00132	0.00462	1	0	1
17:30-18:00	0.00660	0.00066	0.00726	1	0	2
18:00-18:30	0.00660	0.00330	0.00989	1	1	2
18:30-19:00	0.00792	0.00066	0.00858	2	0	2
07:00-19:00	**0.05214**	**0.05675**	**0.10887**	**11**	**12**	**24**

Note: May not sum due arithmetic rounding.

Mode: Taxi **Proposed No. Units:** 219

	Trip Rates (per dwelling)			Proposed Trip Generation (half-hourly)		
Time Band	Trip Rate In	Trip Rate Out	Total Trip Rate	Predicted Trips In	Predicted Trips Out	Predicted Trips Total
07:00-07:30	0.00000	0.00132	0.00132	0	0	0
07:30-08:00	0.00000	0.00000	0.00000	0	0	0
08:00-08:30	0.00000	0.00132	0.00132	0	0	0
08:30-09:00	0.00000	0.00000	0.00000	0	0	0
09:00-09:30	0.00000	0.00264	0.00264	0	1	1
09:30-10:00	0.00000	0.00132	0.00132	0	0	0
10:00-10:30	0.00000	0.00132	0.00132	0	0	0
10:30-11:00	0.00000	0.00000	0.00000	0	0	0
11:00-11:30	0.00000	0.00000	0.00000	0	0	0
11:30-12:00	0.00132	0.00066	0.00198	0	0	0
12:00-12:30	0.00000	0.00000	0.00000	0	0	0
12:30-13:00	0.00000	0.00000	0.00000	0	0	0
13:00-13:30	0.00000	0.00000	0.00000	0	0	0
13:30-14:00	0.00000	0.00000	0.00000	0	0	0
14:00-14:30	0.00000	0.00000	0.00000	0	0	0
14:30-15:00	0.00000	0.00000	0.00000	0	0	0
15:00-15:30	0.00066	0.00264	0.00330	0	1	1
15:30-16:00	0.00462	0.00000	0.00462	1	0	1
16:00-16:30	0.00594	0.00000	0.00594	1	0	1
16:30-17:00	0.00264	0.00000	0.00264	1	0	1
17:00-17:30	0.00000	0.00000	0.00000	0	0	0
17:30-18:00	0.00000	0.00000	0.00000	0	0	0
18:00-18:30	0.00000	0.00000	0.00000	0	0	0
18:30-19:00	0.00000	0.00000	0.00000	0	0	0
07:00-19:00	**0.01518**	**0.01122**	**0.02640**	**3**	**2**	**6**

Note: May not sum due arithmetic rounding.

Multi-modal Trip Generation Calculations (07:00 - 19:00)

Mode: **Walk & Public Transport** **Proposed No. Units:** **219**

	Trip Rates (per dwelling)			Proposed Trip Generation (half-hourly)		
Time Band	**Trip Rate In**	**Trip Rate Out**	**Total Trip Rate**	**Predicted Trips In**	**Predicted Trips Out**	**Predicted Trips Total**
07:00-07:30	0.01253	0.03100	0.04354	3	7	10
07:30-08:00	0.01649	0.05805	0.07454	4	13	16
08:00-08:30	0.02309	0.06201	0.08509	5	14	19
08:30-09:00	0.02243	0.05079	0.07322	5	11	16
09:00-09:30	0.02441	0.02045	0.04485	5	4	10
09:30-10:00	0.01847	0.03496	0.05343	4	8	12
10:00-10:30	0.01649	0.03364	0.05013	4	7	11
10:30-11:00	0.01781	0.03562	0.05343	4	8	12
11:00-11:30	0.01517	0.02704	0.04222	3	6	9
11:30-12:00	0.02243	0.02507	0.04749	5	5	10
12:00-12:30	0.02573	0.02770	0.05343	6	6	12
12:30-13:00	0.02770	0.02045	0.04815	6	4	11
13:00-13:30	0.02177	0.04024	0.06201	5	9	14
13:30-14:00	0.02968	0.02441	0.05409	6	5	12
14:00-14:30	0.01583	0.03496	0.05079	3	8	11
14:30-15:00	0.02441	0.03364	0.05805	5	7	13
15:00-15:30	0.03298	0.05409	0.08707	7	12	19
15:30-16:00	0.04551	0.02770	0.07322	10	6	16
16:00-16:30	0.05739	0.03232	0.08971	13	7	20
16:30-17:00	0.05475	0.03892	0.09367	12	9	21
17:00-17:30	0.06069	0.05409	0.11478	13	12	25
17:30-18:00	0.05871	0.03562	0.09433	13	8	21
18:00-18:30	0.05937	0.02441	0.08377	13	5	18
18:30-19:00	0.05409	0.03364	0.08773	12	7	19
07:00-19:00	**0.75793**	**0.86082**	**1.61874**	**166**	**189**	**355**

Note: May not sum due arithmetic rounding.

Mode: **Walk only** **Proposed No. Units:** **219**

	Trip Rates (per dwelling)			Proposed Trip Generation (half-hourly)		
Time Band	**Trip Rate In**	**Trip Rate Out**	**Total Trip Rate**	**Predicted Trips In**	**Predicted Trips Out**	**Predicted Trips Total**
07:00-07:30	0.01715	0.02507	0.04222	4	5	9
07:30-08:00	0.00923	0.04683	0.05607	2	10	12
08:00-08:30	0.01847	0.03694	0.05541	4	8	12
08:30-09:00	0.03166	0.05607	0.08773	7	12	19
09:00-09:30	0.01715	0.02309	0.04024	4	5	9
09:30-10:00	0.01715	0.01385	0.03100	4	3	7
10:00-10:30	0.02111	0.01121	0.03232	5	2	7
10:30-11:00	0.00858	0.01715	0.02573	2	4	6
11:00-11:30	0.00923	0.00989	0.01913	2	2	4
11:30-12:00	0.02243	0.02111	0.04354	5	5	10
12:00-12:30	0.00923	0.02045	0.02968	2	4	6
12:30-13:00	0.01385	0.00528	0.01913	3	1	4
13:00-13:30	0.02177	0.02704	0.04881	5	6	11
13:30-14:00	0.01121	0.00330	0.01451	2	1	3
14:00-14:30	0.02045	0.01385	0.03430	4	3	8
14:30-15:00	0.01979	0.02375	0.04354	4	5	10
15:00-15:30	0.02573	0.03100	0.05673	6	7	12
15:30-16:00	0.04881	0.00594	0.05475	11	1	12
16:00-16:30	0.03496	0.01715	0.05211	8	4	11
16:30-17:00	0.02902	0.01913	0.04815	6	4	11
17:00-17:30	0.02902	0.01847	0.04749	6	4	10
17:30-18:00	0.01979	0.02111	0.04090	4	5	9
18:00-18:30	0.03694	0.02836	0.06530	8	6	14
18:30-19:00	0.01979	0.02507	0.04485	4	5	10
07:00-19:00	**0.51252**	**0.52111**	**1.03364**	**112**	**114**	**226**

Note: May not sum due arithmetic rounding.