75-81 George Street, Richmond

Transport Assessment and Outline Delivery and Servicing Plan

WYG Limited

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Canadian & Arcadia Ltd

75-81 George Street, Richmond

Transport Assessment including Outline Delivery and Servicing Plan

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1 Introduction

General

1.1 WYG is commissioned by Canadian & Arcadia Ltd (the 'Applicant') to prepare a Transport Assessment (TA) report in support of the proposed mixed-use development at 75-81 George Street, Richmond, TW9 1HA within the London Borough of Richmond upon Thames (LBRuT) (the 'site').

1.2 The LBRuT are the Local Planning Authority (LPA) responsible for determining planning applications within the area and are also the Local Highways Authority (LHA).

1.3 A Framework Travel Plan (FTP) will accompany this TA as part of the planning application submission and will set out a range of measures that will be implemented at the site in order to reduce the reliance on private car by residents and employees, and to promote the use of sustainable modes of travel, in particular public transport, cycling and walking.

1.4 The contents of this TA document and the reports produced for the site have been informed by discussions with LBRuT as part of the pre-application process.

Background and Site Location

1.5 The site is located on the northern side of George Street (A307), in Richmond town centre. The site is located in an area of predominately retail and commercial land uses comprising Richmond town centre. The site is bound by Golden Court to the east, George Street to the southeast, King Street to the southwest and commercial/residential properties to the north off Paved Court. The existing site is currently occupied by a House of Fraser department store and measures a total Gross Floor Area (GFA) of 7,312m^2 over five floors (including basement).

1.6 The site frontage is on George Street which provides all pedestrian and cycle access. Vehicular access can be gained via a servicing entrance on King Street. A loading bay is located on King Street, adjacent to the servicing entrance.

1.7 A strategic location plan, showing the situation of the site in the context of the wider surrounding area, is provided in **Figure 1.1**.

Figure 1.1 Strategic Location Plan

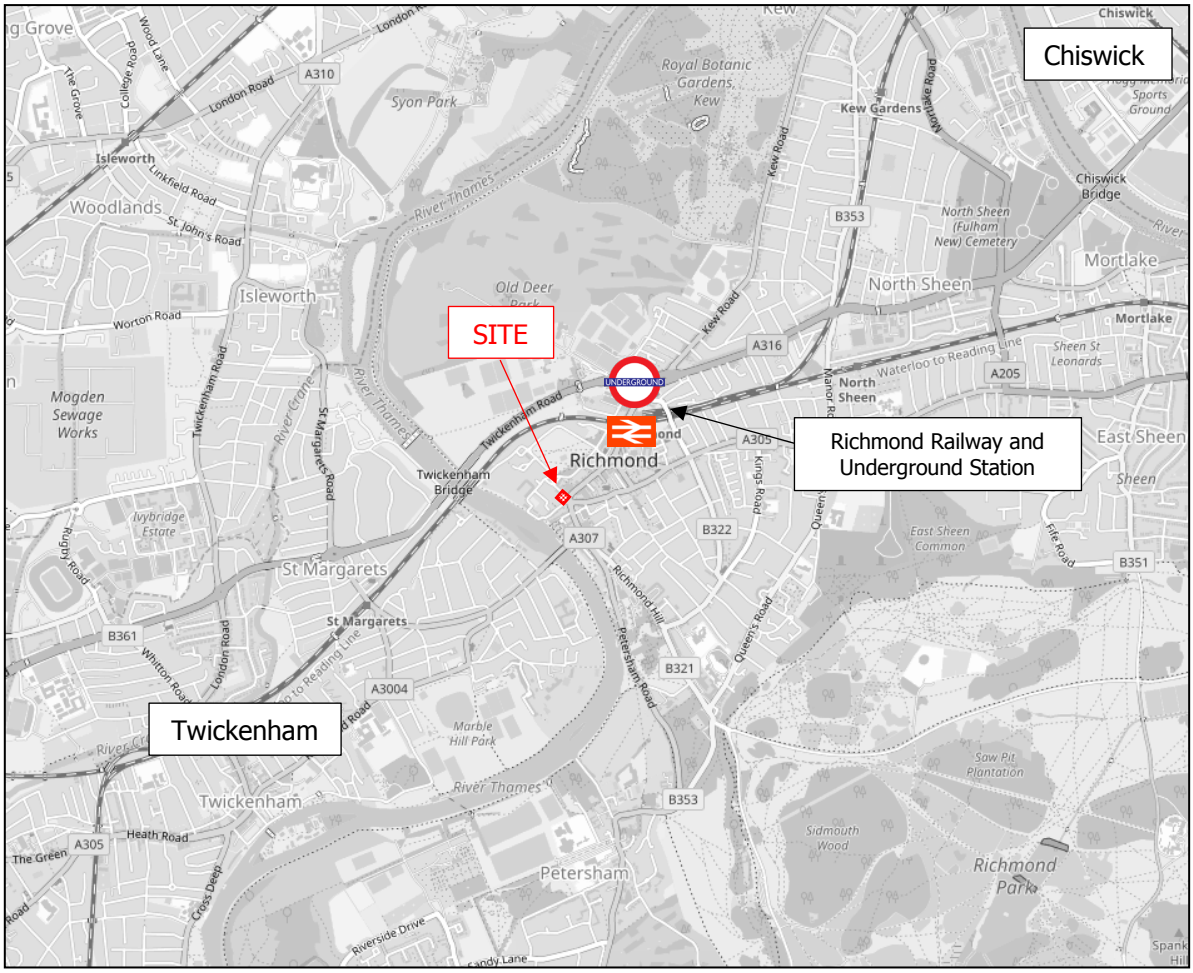


Image Source: OpenStreetMap with WYG Annotations, March 2019

Proposed Development

1.8 A description of the proposed development is as follows:

Erection of additional storey at fourth floor (with associated roof terrace) and plant room above; 2nd floor rear extension; replacement of roof to the adjacent existing single storey extension at rear to include roof light; enclosed staircase to rear; terraces to rear; and associated plant. Other elevational alterations include; removal of canopy to 80 George Street; new shopfronts to 4 Paved Court, Golden Court entrance, and King Street and George Street frontages; new fenestration throughout; and new canopies.

Change of use of 80 George Street from A1 (retail) to mixed use comprising: Class B1 to the existing floors 2,3 and the new fourth floor; Flexible Class A1 and Class B1 (existing floor 1); Class A1 (existing ground); Flexible Class A1 and Class D2 (existing basement); and Change of use of 16 Paved Court/20 King Street to Class B1 (existing floors 1,2).

1.9 New and refurbished pedestrian accesses will be provided off Golden Court, King Street and George Street. The development will be car-free; therefore, no car parking is currently proposed. The development will provide cycle parking and changing facilities in the basement. The loading bay on King Street will be retained to serve the development.

Report Structure

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

- **Chapter 2: Policy Review –** Provides a concise review of the relevant current and emerging national, regional and local policy issues that affect the site;
- **Chapter 3: Baseline Conditions** – Provides an outline and review of the baseline conditions prevailing in close proximity to the site and in the immediate surrounding area;
- **Chapter 4: Development Proposals** – Sets out the development proposals including existing land use, proposed land use, pedestrian and vehicular accesses and proposed pick-up and drop-off areas;
- **Chapter 5: Multi-Modal Trip Generation Assessment** – This chapter includes a review of the industry standard TRICS database to assess the net impact of the proposed development in terms of the number of trips generated;
- **Chapter 6: Outline Delivery and Servicing Plan** – This chapter provides details of the delivery and servicing arrangement for the proposed development as well as an outline strategy for managing deliveries to/from the site; and,
- **Chapter 7: Summary and Conclusions** – Provides a summary and draws conclusions by highlighting the key points raised within the TA.

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

2 Policy Review

General

2.1 This chapter of the TA sets out current and emerging national, regional and local transport policy and guidance relevant to the development.

2.2 The following policy and guidance documents have been selected for review:

National

- National Planning Practice Guidance (NPPG) (March 2014); and,
- National Planning Policy Framework (NPPF) (February 2019).

Regional

- Draft London Plan (December 2017);
- The London Plan (March 2016); and,
- The Mayor's Transport Strategy (2018);

Local

- LBRuT Local Plan (July 2018).

National Policy

National Planning Practice Guidance (NPPG) (March 2014)

2.3 The Government's NPPG was launched on 6th March 2014 by the Department for Communities and Local Government (DCLG) as a web-based resource.

2.4 Within the NPPG, the 'Travel Plans, Transport Assessments and Statements in Decisions-Taking' guidance provides advice on when transport assessments and transport statements are required, what they are and what they should contain.

2.5 Paragraph 6 sets the importance of the Travel Plans (TPs), Transport Assessments (TAs) and Transport Statements (TSs) saying that they can positively contribute to:

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

National Planning Policy Framework (NPPF) (February 2019)

2.6 This document sets out the Government's planning policies for England and how these should be applied, providing a framework within which locally-prepared plans for housing and other development can be produced. This is an update of the version of the July 2018 NPPF and involves minor amendments following on from technical consultations.

2.7 Paragraph 102 identifies the transport issues that should be considered from the earliest stages of plan making and development proposals, so that:

"a) the potential impacts of development on transport networks can be addressed;
b) opportunities from existing or proposed transport infrastructure, and changing transport technology and usage, are realised – for example in relation to the scale, location or density of development that can be accommodated;
c) opportunities to promote walking, cycling and public transport use are identified and pursued;
d) the environmental impacts of traffic and transport infrastructure can be identified, assessed and taken into account – including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains; and;
e) patterns of movement, streets, parking and other transport considerations are integral to the design of schemes and contribute to making high quality places."

2.8 Paragraph 103 states that:

"The planning system should actively manage patterns of growth in support of these objectives. Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes. This can help to reduce congestion and emissions and improve air quality and public health. However, opportunities to maximise sustainable transport solutions will vary between urban and rural areas, and this should be taken into account in both plan-making and decision-making."

2.9 Paragraph 106 states that:

"Maximum parking standards for residential and non-residential development should only be set where there is a clear and compelling justification that they are necessary for managing the local road network, or for optimising the density of development in city and town centres and other locations that are well served by public transport (in accordance with chapter 11 of this Framework). In town centres, local authorities should seek to improve the quality of parking so that it is convenient, safe and secure, alongside measures to promote accessibility for pedestrians and cyclists."

2.10 Paragraph 108 states it should be ensured that:

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

2.11 Paragraph 109 states that:

"Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe."

2.12 Paragraph 110 states that applications for developments should:

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

2.13 Moreover, Paragraph 111 states that *"all developments that will generate significant amounts of movement should be required to provide a travel plan, and the application should be supported by a transport statement or transport assessment so that the likely impacts of the proposal can be assessed."*

Summary

2.14 In summary, the proposed development is in accordance to National Policy as it places a priority on pedestrian and cycle movements, and public transport rather than the private vehicle, through the provision of long-stay and short-stay cycle parking, and a number of pedestrian entrances. The development is to remain car-free which is consistent with the existing development.

Regional Policy

London Plan (December 2017) – Draft for Public Consultation

2.15 A draft London Plan was published in December 2017. Although the document is still in draft form and will not be finalised or fully come into effect until later this year, its publication demonstrates the direction in which regional policy is moving in relation to – amongst other issues – sustainable travel modes and parking provision. The draft London Plan is a Replacement Plan, meaning that it is not an alteration or update to previous plans. It is focuses on the concept of 'Good Growth', growth that is socially and economically inclusive and environmentally sustainable.

2.16 Chapter Ten of the London Plan is entitled 'Transport' and sets out nine polices with regards to transportation that are intended to support London's Good Growth. These are:

- Policy T1 – Strategic approach to transport.
- Policy T2 – Healthy Streets.
- Policy T3 – Transport capacity, connectivity and safeguarding.
- Policy T4 – Assessing and mitigating transport impacts.
- Policy T5 – Cycling.
- Policy T6 – Car parking.
- Policy T7 – Freight and servicing.
- Policy T8 – Aviation.
- Policy T9 – Funding transport infrastructure through planning.

The London Plan (March 2016)

2.17 The London Plan is the overall strategic plan for London and sets out fully integrated economic, environmental, transport and social frameworks for the development of the capital until 2031. It also sets out maximum car parking standards and minimum cycle parking standards for developments across London.

2.18 On March 2016, the Mayor published (i.e. adopted) the Minor Alterations to the London Plan (MALP). From this date, MALP was operative as formal alterations to the London Plan and replace Revised Early Minor Alterations to the London Plan (REMA) published by the Mayor in October 2013 and the Further Alterations to the London Plan (FALP) published in 2015.

2.19 The alterations to the 2011 London Plan; REMA, FALP and MALPS, were made to ensure it is as up-to-date as possible, taking into account references to Government guidance and national legislation enacted since July 2011 as well Mayoral priorities as set out in his 2020 Vision: The Greatest City on Earth – Ambitions for London.

2.20 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, makes better use of the Thames, and supports delivery of all the objectives of this Plan."*

2.21 Policy 6.3 of the London Plan concerns the effect of development on transport capacity and states the following:

> *A. "Development proposals should ensure that impacts on transport capacity and the transport network, at both a corridor and local level, are fully assessed. Development should not adversely affect safety on the transport network.*
> *B. Where existing transport capacity is insufficient to allow for the travel generated by proposed developments, and no firm plans exist for an increase in capacity to cater for this, boroughs should ensure that development proposals are phased until it is known these requirements can be met, otherwise they may be refused. The cumulative impacts of development on transport requirements must be taken into account.*
> *C. Transport assessments will be required in accordance with TfL's Transport Assessment Best Practice Guidance for major planning applications. Workplace and/or residential travel plans should be provided for planning applications exceeding the thresholds in, and produced in accordance with, the relevant TfL guidance. Construction logistics plans and delivery and servicing plans should be secured in line with the London Freight Plan and should be co-ordinated with travel plans.*
> *D. Boroughs should take the lead in exploiting opportunities for development in areas where appropriate transport accessibility and capacity exist or is being introduced. Boroughs should facilitate opportunities to integrate major transport proposals with The FALP contains revised car and cycle parking standards for all developments across Greater London, including those of a residential nature."*

2.22 With regards to car parking for retail land uses, the London Plan states the following:

> *'The starting point for meeting parking demand for new retail development should be use of existing public off-street provision. Parking needs should be assessed taking account of the reduction in demand associated with linked trips. If on-site parking is justified there should be a presumption that*

it will be publicly available. Boroughs should take a coordinated approach with neighbouring authorities, including those outside London if appropriate, to prevent competition between centres based on parking availability and charges.'

2.23 With regards to car parking for commercial land uses, the London Plan states the following:

"Parking for commercial vehicles should be provided at a maximum standard of one space per 500 sq. m of gross B2 or B8 floorspace. See also SPGs on Town Centres and Land for Industry and Transport. An appropriate proportion of car parking spaces in commercial developments should be marked out for motor-cycle use. Standards for B2 and B8 employment uses should have regard to the B1 standards although a degree of flexibility maybe required to reflect different trip-generating characteristics."

2.24 The maximum parking standards for retail are provided in **Table 2.1** below.

Table 2.1 London Plan Maximum Retail Car Parking Standards (2016)

Use	Maximum Standards for Retail Uses: Space per sqm of gross floorspace (GIA)		
	PTAL 6 and 5	PTAL 4 to 2	PTAL 1
Food: up to 500 m2	75	50-35	30
Food: up to 2500 m2	45-30	30-20	18
Food: over 2500 m2	38-25	25-18	15
Non food	60-40	50-30	30
Garden centre	65-45	45-30	25
Town Centre / Shopping Mall / Department Store	75-50	50-35	30
Notes: Unless for disabled people, no non-operational parking should be provided for locations in PTAL 6 central. Unless for disabled people, no additional parking should be provided for use classes A2-A5 in town centre locations. 10 per cent of all spaces must be for electric vehicles with an additional 10 per cent passive provision for electric vehicles in the future.			

2.25 Designated Blue Badge parking bays stated in the London Plan are provided in **Table 2.2** below.

Table 2.2 London Plan Retail Disabled Parking Standards (2016)

Building Type	Provision from the outset		Future provision
	Number of spaces for each employee who is a disabled motorist	Number of Marked Spaces*	Number of Enlarged but Unmarked Spaces**
Shopping, recreation and leisure facilities	One space	6% of the total capacity	A further 4% of the total capacity

2.26 The minimum cycle parking standards stated in the London Plan are provided in **Table 2.3**.

Table 2.3 London Plan Minimum Cycle Parking Standards (2016)

Land Use	Draft London Plan Minimum Cycle Parking Standards	
	Long Stay	Short Stay
A1 Non-Food Retail	From a threshold of 100 sqm: first 1,000 sqm: 1 space per 250 sqm thereafter: 1 space per 1,000 sqm	From a threshold of 100 sqm: First 1000 sqm: 1 space per 125 sqm; thereafter: 1 space per 1000 sqm
B1 Office	Outer London (applies to Richmond): 1 space per 150 sqm	first 5,000 sqm: 1 space per 500 sqm thereafter: 1 space per 5,000 sqm
D2 Other (e.g. cinema, bingo, etc.)	1 space per 8 staff	1 per 30 seats
D2 Sports (e.g. sports hall, swimming, gymnasium, etc.)	1 space per 8 staff	1 space per 100 sqm

The Mayor's Transport Strategy (2018)

2.27 The document outlines what the Mayor sees as London's main challenges over the next 25 years; these include car dependency, population growth, demand for new homes, historically car-centric design of parts of the city and limited space for road building.

2.28 The Mayor's vision for London involves reducing the need to use cars and making more Londoners walk and cycle. Sustainable growth is also set out as part of the vision, growing London's economy but also improving the lives of people who live in London.

2.29 The Mayor's aim for 2041 is for 80 per cent of Londoners' trips to be on foot, by cycle or by using public transport. Currently, approximately 64 per cent of journeys are made by these modes of transport.

2.30 The document outlines the Mayor's strategy on transport in London from now to 2041, which includes the following themes:

- Healthy Streets and Healthy People;
- A Good Public Transport Experience; and
- New Homes and Jobs.

2.31 The strategy sets out specific aims for each of these themes:

Healthy Streets and Healthy People

- All Londoners to do at least the 20 minutes of active travel they need to stay healthy each day;
- No one to be killed in or by a London bus by 2030, and for deaths and serious injuries from all road collisions to be eliminated from the streets by 2041;
- All taxis and private hire vehicles to be zero emission capable by 2033, for all buses to be zero emission by 2037, for all new road vehicles driven in London to be zero emission by 2040, and for London's entire transport system to be zero emission by 2050; and
- Reduce freight traffic in the central London morning peak by 10 per cent on current levels by 2026, and to reduce total London traffic by 10-15 per cent by 2041.

A Good Public Transport Experience

- Open Crossrail 2 by 2033;

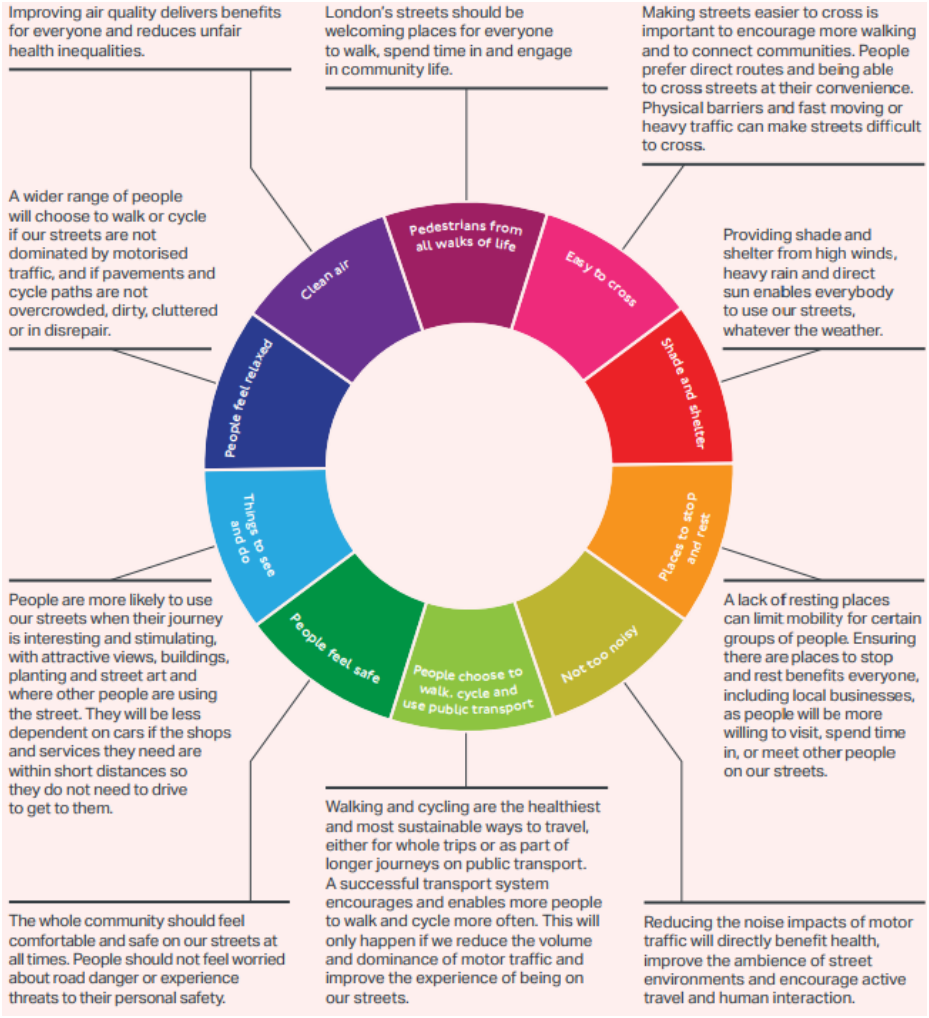
- Create a London suburban metro by the late 2020s with local train services devolved to the Mayor; and,
- Improve the overall accessibility of the transport system including halving the average additional time taken to make a public transport journey on the step-free network compared to the full network.

New Homes and Jobs

- Incorporate the transport principles of 'good growth' in regeneration and new developments.

2.32 The Mayor's Transport Strategy focusses on the Healthy Streets approach. This approach, created by Transport for London, sets out all elements that make up a healthy street. **Figure 2.1** shows the diagram used to show the 'Ten Healthy Streets Indicators'.

Figure 2.1 Healthy Streets Indicators



Source: GLA, DRAFT Mayor's Transport Strategy, June 2017

2.33 The document further addresses the health benefits that could be gained by changing the way Londoners travel. It highlights the effect of active travel on the risk of diabetes and other diseases, noting that if all Londoners walked or cycled for 20 minutes a day, this would deliver at least an additional 60,000 years of healthy life in prevented illness and early death each year.

2.34 Policy 9 of the strategy sets out part of how the Healthy Streets approach will be used:

"The Mayor, through TfL and the boroughs, will use the Healthy Streets Approach to direct complementary public transport and street improvements to provide an attractive whole journey experience that will facilitate mode shift away from the car."

2.35 As part of the shift away from the car, the Mayor states investment will be made into active travel; 'Policy 1 – Active Travel' states:

"The Mayor, through TfL and the boroughs, and working with other transport providers, will seek to make London a city where people choose to walk and cycle more often by improving street environments, making it easier for everyone to get around on foot and by bike, and promoting the benefits of active travel. The Mayor's aim is that, by 2041, all Londoners do at least the 20 minutes of active travel they need to stay healthy each day".

2.36 Road safety policy is set out in the Mayor's Transport Strategy as well; 'Policy 2 – Vision Zero' states the following:

"The Mayor, through TfL, the boroughs, police and enforcement authorities, will adopt Vision Zero for road danger in London. The Mayor's aim is for no one to be killed in or by a London bus by 2030, and for all deaths and serious injuries from road collisions to be eliminated from London's streets by 2041."

2.37 Air quality is mentioned on multiple occasions and is one of the Mayor's main focusses; 'Policy 6 – A zero carbon city' states the following:

"The Mayor, through TfL and the boroughs, and working with other transport providers, will seek to make London's transport network zero carbon by 2050, which will also deliver further improvements in air quality, by transforming London's streets and transport infrastructure so as to enable zero emission operation, and by supporting and accelerating the uptake of ultra-low and zero emission technologies".

Summary

2.38 In summary, the proposed development is in accordance to Regional Policy as it is to remain car-free which is line with current London Plan policy for new retail development, whereby it should make use of existing public off-street provision and no parking is to be proposed in town centre locations. The development is located in a town centre with a sufficient number of public parking spaces located nearby. No parking provision is proposed as the site benefits from a high PTAL rating of 6a, therefore on-site parking is not required.

Local Policy

LBRuT Local Plan (Adopted July 2018)

2.39 The Council's Local Plan sets out policies and guidance for the development of the borough over the next 15 years. It looks ahead to 2033 and identifies where the main developments will take place, and how places within the borough will change, or be protected from change, over that period.

2.40 **Policy LP 25** refers to **Development in Centres**, and states the following:

"A. Development in the borough's centres, as defined in the centre hierarchy, will be acceptable if it:

- *1. is in keeping with the centre's role and function within the hierarchy and is of a scale appropriate to the size of the centre (also see the Spatial Strategy of this Plan);*
- *2. is in an appropriate location, as follows:*
- *a. A1 uses should be located within, adjacent to or well-related (or capable of being made so) to designated shopping frontages.*

- *b. For other appropriate uses (see B & C below), major development and/or developments which generate high levels of trips should be located within a Main Centre Boundary. Elsewhere development should be located within the defined Area of Mixed Use (AMU boundary). For centres, or parts of centres where no boundary exists, proposals should be well-related to designated shopping frontages.*
- *Proposals not in the above locations, including extensions to existing retail and leisure developments of more than 200sqm gross, should satisfy the Sequential Test as set out in national policy and guidance. Out of centre retail development is not considered appropriate in line with the London Plan.*
- *3. does not adversely impact on the vitality and viability of the centre in which the development is proposed, or another centre. When assessing proposals for development outside of existing centres, applicants will have to comply with the requirements of national policy and guidance in relation to impact assessments. For retail developments, including extensions, of over 500sqm gross, the Council will require a Retail Impact Assessment. The scope of such assessments will need to be agreed with the Council before submitting a planning application; and*
- *4. optimises the potential of sites by contributing towards a suitable mix of uses that enhance the vitality and viability of the centre. Commercial or community uses should be provided on the ground floor fronting the street, subject to other Local Plan policies, including the retail frontages policy LP 26.*

B. In addition to A above, the following applies to development proposals in the borough's five main centres:

- *1. The Council will support appropriate development (2) in the five main centres.*
- *2. The Council will encourage proposals for leisure, cultural and tourism facilities which contribute to the diversity of the offer.*
- *3. Proposals for A1 uses should include, where appropriate, units of a size suitable for modern retail needs (particularly in Richmond centre, where there is a shortage of retail units with larger floor-plates) whilst retaining sufficient traditional smaller units that add to the local character and which are important to local businesses.*

C. In addition to A above, in the local and neighbourhood centres as well as parades of local importance, the following applies:

- *1. Appropriate uses could include new retail (including markets), business or employment developments, which maintain suitable provision for small businesses, and other uses, which primarily serve the needs of the local community or attract visitors and develop cultural opportunities.*
- *2. Development should, wherever possible, include overall improvements and enhancements of the small centres where appropriate, and/or modernise outdated premises."*

2.41 **Policy LP 41** refers to **Offices** and states that:

"New offices

D. The Council will support appropriate new office development by the following means:

1. Major new office development should generally be within the five main borough centres.

2. Smaller scale office development will be encouraged in suitable locations, particularly within the designated Key Office Areas.

3. New office accommodation should be suitable to meet future needs, especially to provide for the requirements of local businesses and small firms.

4. Design of office floorspace for flexible occupation and modern methods of working such as coworking space is encouraged.

5. The Council will require the provision of affordable office space within all major developments with over 1000sqm of office space; this will be secured through Planning Obligations."

2.42 **Policy LP 44** refers to **Sustainable Travel Choices** and states the following:

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

A. Location of development

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

B. Walking and cycling

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

C. Public transport

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

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

D. The road network

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

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

2.43 **Policy LP 45 - Parking Standards and Servicing**:

"Parking standards

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

1. Requiring new development to provide for car, cycle, 2 wheel and, where applicable, lorry parking and electric vehicle charging points, in accordance with the standards set out in Appendix 3. Opportunities to minimise car parking through its shared use will be encouraged…

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

Freight and Servicing

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

2.44 **Table 2.4** shows the vehicle and cycle parking standards within the LBRuT Local Plan

Table 2.4 LBRuT Vehicle and Cycle Parking Standards

Land Use Class	Type	Vehicle Parking Standards	Cycle Parking Standards
A1 - Shops	General Retail	As per London Plan. Servicing to be provided off-street unless in town or district centre	As per London Plan
B1	Business	As per London Plan. Servicing to be provided off-street unless in town or district centre	As per London Plan
D2 – Assembly and Leisure	Places of entertainment, Theatres, Cinemas, Bingo Clubs, Dance Halls	1 space per 5 persons	As per London Plan
	Conference Centres, exhibition halls	1 space per 5 persons ,1 coach space per 150 seats	As per London Plan
	Sports and Leisure Complexes	1 space per 25 sqm, parking facilities for coaches, off street servicing and drop off area	As per London Plan
	Other	Case by case basis	As per London Plan where available

Source: London Borough of Richmond upon Thames Local Plan, Appendix 3, July 2018

Summary

2.45 In summary, the proposed development is in accordance with Local Policy as the proposed commercial office land use is located within one of the five main borough centres, Richmond town centre. This is in line with Policy LP 41 (New Offices). The proposed development maintains good accessibility by foot and enhances accessibility by cycle through the provision of long-stay and short-stay cycle parking, in line with Policy DMTP 3 (Enhancing Transport Links).

3 Baseline Conditions

General

3.1 This chapter of the report establishes the existing, or 'baseline', transport conditions currently prevailing at the site and within the immediate surrounding area.

3.2 It is important that baseline conditions are accurately established so that the context of any potential future development at the site, and its potential impact on the surrounding transport and highway networks, can be fully understood.

3.3 Baseline conditions have been informed by a desktop study in February 2019.

Site Location and Description

3.4 The site is located on the northern side of George Street (A307), in Richmond town centre. The site is located in an area of predominately retail and commercial land uses comprising Richmond town centre. The site is bound by Golden Court to the east, George Street to the southeast, King Street to the southwest and commercial/residential properties to the north off Paved Court. The nearest London Underground and Railway station to the site is Richmond, located approximately 450 metres to the north of the site.

3.5 The existing site is currently occupied by a House of Fraser department store and measures a total Gross Floor Area (GFA) of 7,312m^2 over five floors.

3.6 A detailed site location plan is provided in Chapter 1, **Figure 1.1** of this TA to show how the site is connected to the local highway network.

Site Access and Pedestrians

3.7 The site has a servicing access for vehicles on King Street which provides access for delivery, servicing and emergency vehicles. A loading bay is located adjacent to the servicing entrance. Pedestrian access can be gained via two entrances on George Street. Cycle access can be gained via access off King Street.

3.8 Footways are provided on both sides of George Street. A pelican pedestrian crossing is located adjacent to the site's northeast pedestrian entrance, with tactile paving and dropped kerbs provided. A raised tabled zebra crossing is also located adjacent to the southern pedestrian entrance, which crosses King Street. This crossing includes tactile paving.

Cycle Network

3.9 There are a number of cycle routes within proximity of the site, which are part of the London Cycle Network (LCN), these include the following:

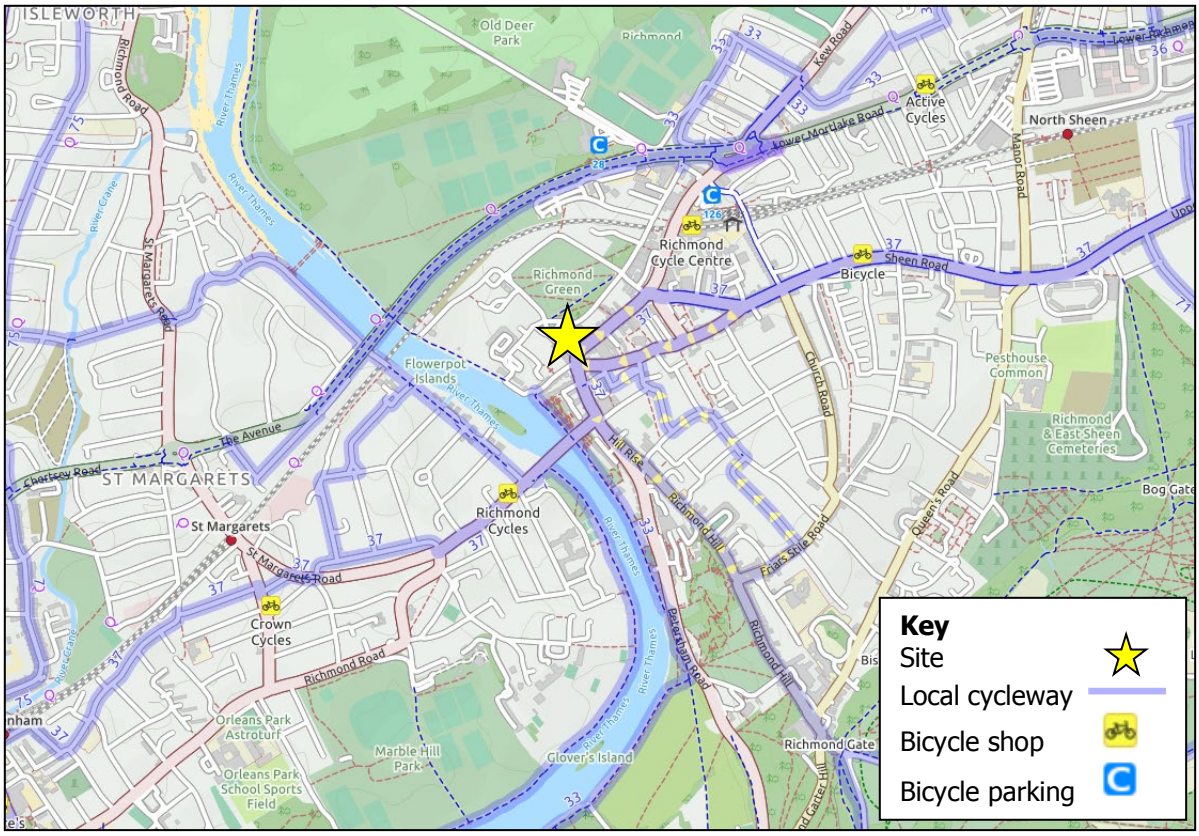
- Cycle Route 33 – Leatherhead – (Chessington) – Kingston – Richmond; approximately 170 metres to the southwest of the site along the River Thames;
- Cycle Route 36 – A316 – (Sunbury) – Twickenham – Hammersmith; approximately 480 metres to the north of the site along the A316; and,
- Cycle Route 37 – A316 parallel, (Feltham) – Twickenham – Richmond – (Wandsworth) – Central London, immediately adjacent to the site along George Street.

3.10 Cycle Route 33 comprises an off-road cycle route along the eastern side of the River Thames. The route heads south towards Kingston, through Ham House and Garden before becoming an on-road route along the A307 until reaching Kingston upon Thames town centre. Cycle Route 36 comprises an

off-road shared pedestrian and cycle path following the A316 towards Hammersmith. Cycle Route 37 comprises an on-road cycle route immediately adjacent to the site along George Street.

3.11 **Figure 3.1** shows the location of these cycle routes (highlighted in purple) in relation to the site, which is indicated by the yellow star.

Figure 3.1 Local Cycle Network



Source: OpenStreetMap Cycle Map with WYG Annotations, February 2019

Public Transport

Public Transport Accessibility Level (PTAL)

3.12 Public Transport Accessibility Levels (PTALs) are a theoretical measure of the accessibility of a given point to the public transport network, taking into account walk access time and service availability. The method is essentially a way of measuring the density of the public transport network at a particular point.

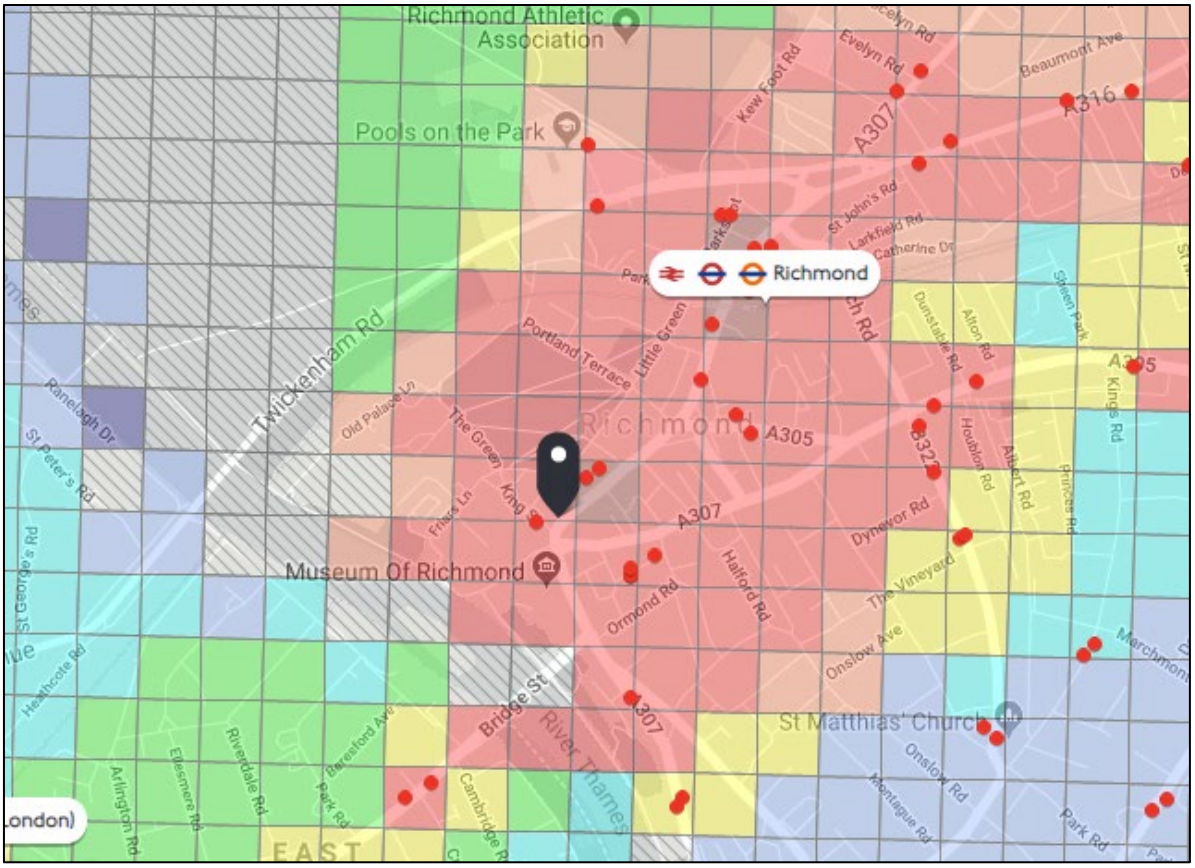
3.13 Walk times are calculated from the specified point of interest to all public transport access points: bus stops, light rail stations and underground stations, within pre-defined catchments. The PTAL then incorporates a measure of service frequency by calculating an average waiting time based on the frequency of services at each public transport access point. A reliability factor is added, and the total access time is calculated. A measure known as an Equivalent Doorstep Frequency (EDF) is then derived for each point. These are summed for all routes within the catchment and the PTALs for the different modes (bus, rail etc) are then added to give a single value. The PTAL is categorised in six levels, 1 to 6 where 6 represents a high level of accessibility and 1 a low level of accessibility. Levels 1 and 6 have been further sub-divided into 2 sub-levels to provide greater clarity.

3.14 The measure, therefore, reflects:

- Walking time from the point of interest to the public transport access points;
- The reliability of the service modes available;
- The number of services available within the catchment; and,
- The level of service at the public transport access points – i.e. average waiting time.

3.15 The PTAL rating of the site is "6a" indicating an excellent level of public transport accessibility. This PTAL value has been taken from the online TfL PTAL calculator. A map showing the PTAL levels across the site in 100m square areas is shown in **Figure 3.2**.

Figure 3.2 Site PTAL Map



Source: WebCAT, Transport for London, March 2019

Bus Services

3.16 The site is conveniently located for a number of bus stops with a variety of destinations within a short walking distance of the site. The closest bus stops are located approximately 60 and 120 metres to the northeast of the site, one of these bus stops comprises a standing pole with timetable information whilst the other comprises a standing pole, timetable information, shelter and seating. These stops are served by 14 bus routes, which are Routes 33, 65/N65, 160, 337, 371, 391, 419, 490, 493, H22, H37, N22, R68 and R70, providing services to Ealing Broadway, Kew, Fulham and West Brompton. **Figure 3.3** shows how the existing bus routes run in close proximity to the site.

Figure 3.3 Existing Bus Routes

Source: OpenStreetMap with WYG Annotations, March 2019

3.17 **Table 3.1** summarises the bus routes that serve the bus stops closest to the site. It can be seen in **Figure 3.3** and **Table 3.1** that the site currently has a high level of accessibility by bus with 14 different services available.

Table 3.1 Bus Services near the Site

Service	Route	Service Frequency			
		Daytime Frequency	Evening Frequency	Saturday	Sunday
33	Fulwell Garage – Teddington – Twickenham – Richmond – East Sheen – Barnes Common – Hammersmith	Every 8 minutes	Every 10-12 minutes	Every 8 minutes	Every 15 minutes
65/N65	Kingston – Petersham – Richmond – Kew – Brentford – South Ealing - Ealing	Every 6 minutes	Every 10 minutes	Every 6 minutes	Every 14-15 minutes
160	Sidcup – Chislehurst – New Eltham – Eltham – Middle Park – Eltham Green – Sandhurst road - Catford	Every 13-15 minutes	Every 18-20 minutes	Every 14 minutes	Every 20 minutes
337	Richmond – East Sheen – Barnes Common – Putney – Wandsworth – Clapham Junction	Every 12 minutes	Every 15 minutes	Every 12 minutes	Every 15 minutes
371	Kingston – Norbiton - Tudor Drive – Ham – Ashburnham Road – Petersham – Queen's Road – Richmond Hill – Richmond Manor Road Sainsbury's	Every 10 minutes	Every 10 minutes	Every 10 minutes	Every 12 minutes
391	Richmond – Sandycombe Road – Kew Bridge – Turnham Green – Hammersmith – West Kensington – Fulham – Sands End	Every 12 minutes	Every 13-15 minutes	Every 12 minutes	Every 13 minutes
419	Richmond – Lower Richmond Road – Mortlake – Barnes – Suffolk Road – Howsman Road - Hammersmith	Every 15 minutes	Every 15 minutes	Every 15 minutes	Every 30 minutes
490	Heathrow Airport Terminal 4-5 – Hatton Cross – Feltham – Staines Road – Twickenham – Richmond	Every 12 minutes	Every 12 minutes	Every 12 minutes	Every 20 minutes
493	Richmond – East Sheen – Roehampton – Putney Heath – Southfields – Wimbledon Park – Church Road – Wimbledon – Gap Road – Plough Lane - Tooting	Every 12 minutes	Every 20 minutes	Every 12 minutes	Every 20 minutes
H22	Hounslow – Hall Road – Whitton – Staines Road – Twickenham – Richmond	Every 12 minutes	Every 20 minutes	Every 12 minutes	Every 20 minutes
H37	Hounslow – Isleworth – St Margaret's - Richmond	Every 6 minutes	Every 8-10 minutes	Every 6 minutes	Every 8-10 minutes
N22	Fulwell – Twickenham – Richmond – Putney Common – Chelsea – Berkeley Square – Oxford Circus	Every 30 minutes	Every 30 minutes	Every 30 minutes	Every 30 minutes
R68	Hampton Court – Teddington – Twickenham – Richmond – Kew Retail Park	Every 15 minutes	Every 20 minutes	Every 15 minutes	Every 15 minutes
R70	Hanworth/Nurserylands – Hampton Hill – Twickenham - Richmond	Every 6-10 minutes	Every 15 minutes	Every 6-10 minutes	Every 15 minutes

Source: Transport for London

London Underground Services

3.18 Richmond LU Station is served by the District Line and is within a 6-minutes walking distance of the site (450m). **Table 3.2** shows the London Underground route that services Richmond station.

Table 3.2 Nearby London Underground Routes and Peak Frequencies

Underground Station	Underground Service	Frequency (minutes)		Last Train
		AM Peak (08:00-09:00)	PM Peak (17:00-18:00)	
Richmond	District Line	9	10	00:51

Source: Transport for London

3.19 **Table 3.2** above shows the existing site is very accessible by London Underground services.

Mainline Rail Services

3.20 The site is within 450m of Richmond railway station, which is served by the Overground service to and from Stratford and the South Western Railway to and from the south and southwest England, including London Waterloo, Windsor & Eton Riverside, Reading. **Table 3.3** summarises South Western Railway and Overground frequencies in destinations accessible directly from Richmond Station. South Western and Overground network maps are included in **Appendix A** for information.

Table 3.3 Richmond Station Railway Services

Operator	Destination	Average Journey Time	Peak Frequency (08:00-09:00)	Interpeak Frequency
South Western Railway	London Waterloo	19 minutes	8 per hour	8 per hour
	Reading	1hr 6minutes	2 per hour	2 per hour
	Windsor & Eton Riverside	34 minutes	2 per hour	2 per hour
Overground	Stratford	1hr 2minutes	4 per hour	4 per hour

Source: South Western Railway and TFL, March 2019.

Local Highway Network

3.21 The site is located on the northern side of George Street (A307), in Richmond town centre. The site is bound by George Street to the east, King Street to the south and commercial/residential properties to the north.

A307 George Street

3.22 George Street (A307) is a single carriageway road and operates as a one-way street, with northbound traffic only. The road is located between Water Lane to the south and the Quadrant to the north. George Street forms one of the main retail shopping streets within Richmond. The road is subject to a 30mph speed limit and measures approximately 5m in width.

3.23 George Street merges into The Quadrant past the junction with The Square/Sheen Road. The Quadrant is a two-way single carriageway road and continues north connecting to the A316 Twickenham Road at the four-arm roundabout junction, part of the Strategic Road Network (SRN).

3.24 George Street has footways on both sides of the carriageway approximately between 2m and 2.5m wide. There are double yellow road markings in place along George Street as it runs past the site, with double yellow marker blips to indicate that no parking or loading is allowed at any time.

King Street

3.25 King Street is a single carriageway road and operates as a one-way street, with northbound traffic only. King Street is located between George to the south and The Green/Friars Lane junction to the north. The road provides access to the servicing entrance of the existing building and is subject to a 30mph speed limit and measures approximately 5m in width.

Car Parking

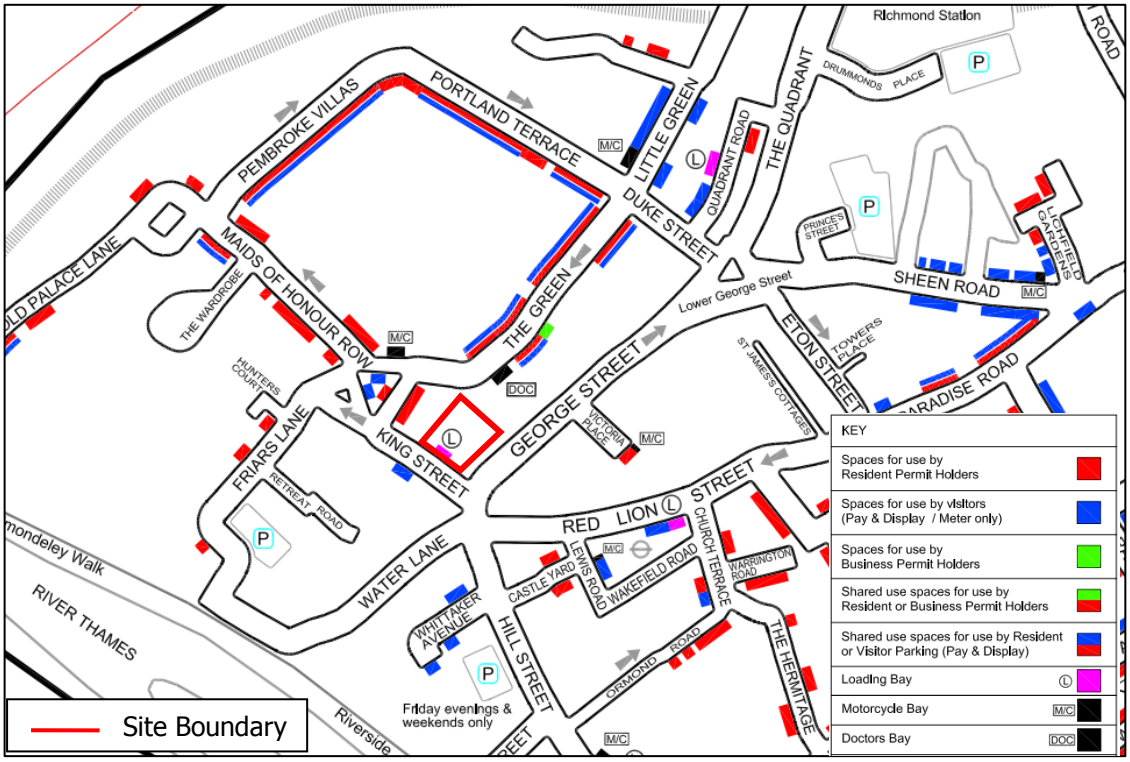
Controlled Parking Zones

3.26 The site is located in the Richmond (A1) Controlled Parking Zone (CPZ).

3.27 LBRuT CPZs operate mainly from Monday to Saturday 8.30am to 6.30pm. However, in part of the A1 zone, parking controls also apply on Sundays and Bank Holidays from 11am to 5pm. The same time periods apply to the loading bay restriction on King Street which has a 20 minutes loading limit and no return within one hour.

3.28 **Figure 3.4** shows a section of the LBRuT CPZ map, indicating the different existing zones surrounding the site.

Figure 3.4 LBRuT CPZ A1 Zone and Site Location



Source: London Borough of Richmond Upon Thames

On-Site Car Parking

3.29 As the building is a retail store in an established town centre location there is currently no on-site parking provided at the site. Three Pay & Display parking bays are located on the southern side of King Street, approximately 40 metres to the west of the pedestrian entrance to the department store which is situated at the junction between King Street and George Street. A loading bay is located on the northern side of King Street, adjacent to the servicing entrance of the building. Apart from these locations, the remainder of King Street and George Street is subject to double yellow parking

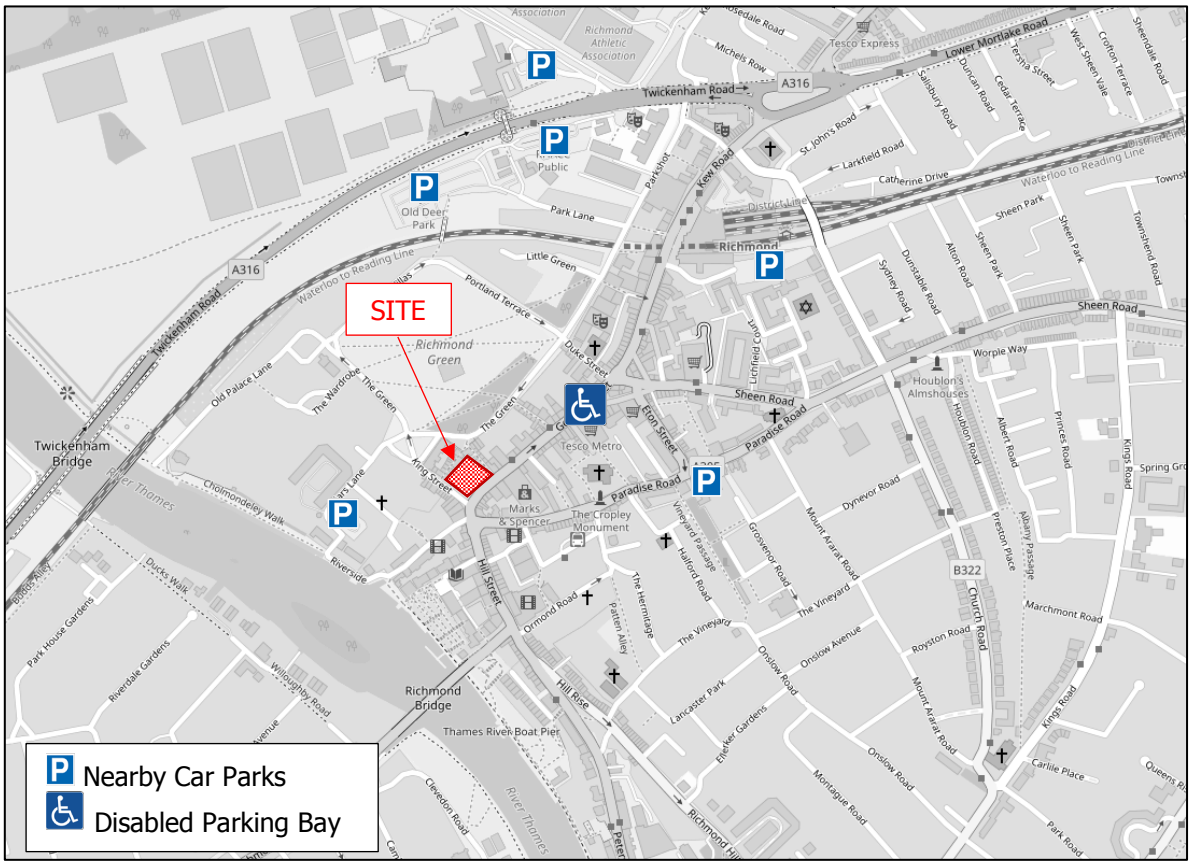
restrictions within the Controlled Parking Zone (CPZ) A1. These parking restrictions apply from Monday to Saturday between 8:30am to 6:30pm.

3.30 The nearest disabled parking bay is located approximately 170 metres to the northeast of the site, on the southern side of George Street, adjacent to the Tesco Metro store.

Nearby Car Parks

3.31 To support the retail / commercial offer present in the town centre, there are a number of car parks located within close proximity (7 minutes' walking distance) including; Friars Lane (63 spaces), Paradise Road (337 spaces), Richmond Station (481 spaces) and Old Deer Park (447 spaces) as well as other car parks. As a result, there are a total of 1,328 parking spaces within a short walking distance of the site. The location of these car parks is shown in **Figure 3.5**.

Figure 3.5 Nearby Car Parks



Source: OpenStreetMap with WYG Annotations, April 2019

4 Proposed Development

Introduction

4.1 This chapter outlines the development proposals for the site. It includes a description of the proposed land use, proposed access arrangements and servicing strategy.

Description of the Development

4.2 As previously outlined in Chapter 1, the proposed development is as follows:

Erection of additional storey at fourth floor (with associated roof terrace) and plant room above; 2nd floor rear extension; replacement of roof to the adjacent existing single storey extension at rear to include roof light; enclosed staircase to rear; terraces to rear; and associated plant. Other elevational alterations include; removal of canopy to 80 George Street; new shopfronts to 4 Paved Court, Golden Court entrance, and King Street and George Street frontages; new fenestration throughout; and new canopies.

Change of use of 80 George Street from A1 (retail) to mixed use comprising: Class B1 to the existing floors 2,3 and the new fourth floor; Flexible Class A1 and Class B1 (existing floor 1); Class A1 (existing ground); Flexible Class A1 and Class D2 (existing basement); and Change of use of 16 Paved Court/20 King Street to Class B1 (existing floors 1,2).

4.3 New and refurbished pedestrian accesses will be provided off Golden Court, King Street and George Street. The development will be car-free; therefore, no car parking is currently proposed. The development will provide cycle parking and changing facilities in the basement. The loading bay on King Street will be retained to serve the development.

4.4 The proposed (GIA) at the site is 8,151sqm which is an 839sqm increase compared to the existing GIA.

4.5 The Schedule of Areas and proposed development layout plans are shown in **Appendix B**.

Site Access

Access Points

4.6 All vehicular access will be via King Street, as per the existing arrangement. New and refurbished pedestrian accesses will be provided off Golden Court, King Street and George Street for the retail unit, there will be accesses provided off Golden Court and Paved Court for the office use and access to the potential leisure use will be via King Street.

On-Site Parking

4.7 The development is located in a town centre location with a high PTAL rating of 6a.

4.8 There is no car parking proposed as part of the retail development, which is in accordance with the London Plan standards, whereby retail land uses with a PTAL 6 and in town centre locations are encouraged to be car-free. For office land uses, there is a maximum requirement in Outer London areas (in which the site is located) to provide up to 1 space per 500 sqm (GIA). It is also stated that if the office land use is located in a well-connected part of Outer London, including town centres and in Opportunity Areas, office developments are encouraged to be car-free. As the site is located within Richmond town centre and is a 5-6 minute walk from a nearby station, there is no car parking proposed as part of the office land uses, which is in accordance with the London Plan.

4.9 Policy T6.5 of the draft London Plan states that *"All non-residential elements of a development should provide at least one on or off-street disabled persons parking bay".* As the development is car-free and in a prominent town centre location supported by over 1300 parking spaces within a short walk, there is no on-site car park or associated on-street parking for the development, therefore negating the requirement for the provision of disabled parking. It is not considered appropriate to provide a space in the direct vicinity of the site due to the waiting and loading restrictions on George Street and King Street which are in place to improve highway safety and reduce the risk of collisions. Although we have considered converting one of the three pay and display parking bays situated on King Street into a disabled bay, this would involve a financial loss to LBRuT due to the income generated from charging and therefore this has not been suggested. For these reasons it is proposed that the development makes use of the nearby on-street disabled parking bay located approximately 170 metres to the northeast of the site, adjacent to the Tesco Metro store is proposed to be utilised for the development. Also, as shown in **Figure 3.5**, there is a car park located within 250m of the site which is wheelchair accessible and could be used for disabled parking associated with the site. The demand for disabled parking will be closely monitored as part of the Travel Plan for the site.

4.10 In regard to on-street parking, it is expected that car journeys to the retail element of the site are to be associated with linked trips within the town centre and therefore these trips are unlikely to place additional pressure on the local highway and on-street parking conditions. Those travelling by car will utilise the existing parking within nearby car parks. Staff travelling to and from the office element of the site will be encouraged to travel by sustainable modes via the Workplace Travel Plan for the site. Therefore, parking demand from additional vehicle trips generated by the site is anticipated to be very low.

Cycle Parking

4.11 Cycle parking will be provided in accordance with the current London Plan (March 2016) standards for Minimum Cycle Parking as advised by LBRuT during pre-application discussions. As the application includes flexible uses, we have calculated the highest potential long stay parking spaces required and highest potential short stay parking spaces required based on the standards for A1, B1 and D2 uses. It should be noted that the short stay parking standards have been used for D2 Sports as these standards are higher than for D2 Other which is presented in Chapter 2, **Table 2.3**.

4.12 **Table 4.1** presents the highest number of long stay parking spaces required and **Table 4.2** presents the highest number of short stay parking spaces required for the proposed development.

Table 4.1 Long Stay Cycle Parking Requirements (Current London Plan March 2016)

Land Use	Units/ Area m²	London Plan Minimum Cycle Parking Standards	Minimum Provision (no. of spaces)
		Long Stay	Long Stay
A1 Non-Food Retail	2,374 m²	From a threshold of 100 sqm: first 1,000 sqm: 1 space per 250 sqm thereafter: 1 space per 1,000 sqm	6
B1 Office	5,777 m²	Outer London (applies to Richmond): 1 space per 150 sqm	39
Total Long Stay Cycle Parking Provision			**45**

Note: Cycle parking numbers have been rounded up to nearest whole number.

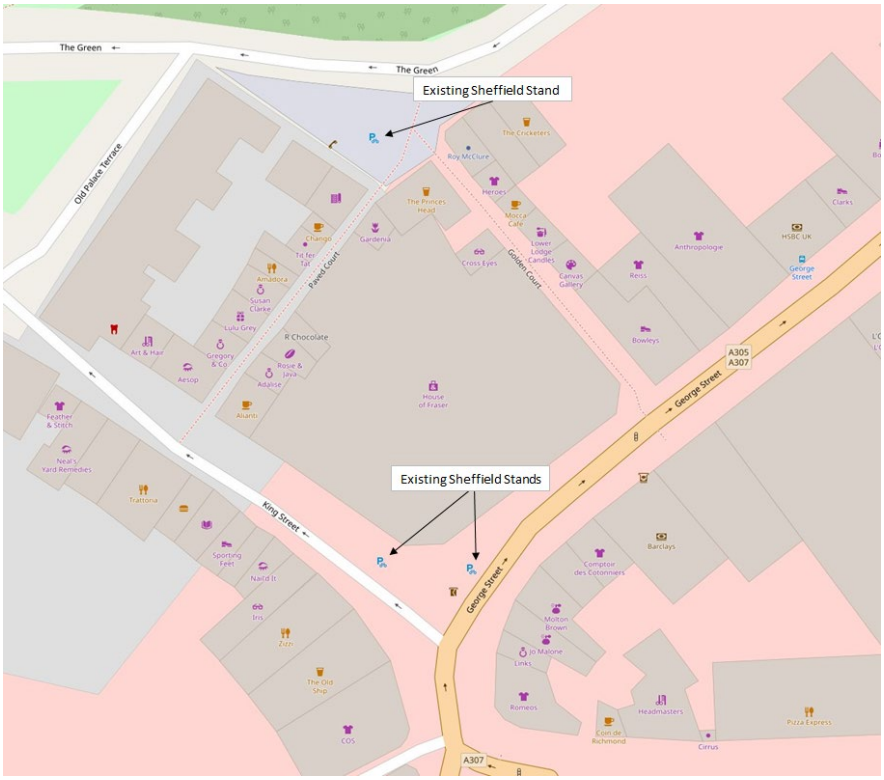
Table 4.2 Short Stay Cycle Parking Requirements (Current London Plan March 2016)

Land Use	Units/ Area m²	London Plan Minimum Cycle Parking Standards	Minimum Provision (no. of spaces)
		Short Stay	Short Stay
A1 Non-Food Retail	2,608 m²	From a threshold of 100 sqm: First 1000 sqm: 1 space per 125 sqm; thereafter: 1 space per 1000 sqm	10
B1 Office	4,346 m²	first 5,000 sqm: 1 space per 500 sqm thereafter: 1 space per 5,000 sqm	9
D2 Sports	1197 m²	1 space per 100 sqm	12
Total Short Stay Cycle Parking Provision			**31**

Note: Cycle parking numbers have been rounded up to nearest whole number.

4.13 Based on the assessment set out in **Table 4.1** and **Table 4.2** above, the minimum total provision for the development would be for 86 cycle spaces, comprising 45 long-stay and 31 short-stay spaces. Long stay spaces will be provided within the basement level and short stay spaces provided at street level making use of the existing Sheffield stands on King Street, George Street and The Green to reduce street clutter on the footways. The location of the existing Sheffield stands is shown on **Figure 4.1**.

Figure 4.1 Location of Existing Sheffield Cycle Stands



Source: OpenStreetMap with WYG Annotations

5 Multi-Modal Trip Generation Assessment

5.1 This chapter presents the trip rates and mode share methodology that will be employed to derive the multi-modal trip generation of the proposed development.

Trip Generation Methodology

5.2 Total person trip rates have been extracted to inform the estimated number of total people trips for the existing and proposed development. Where possible TRICS survey sites with a PTAL rating of 5-6 only were selected within the Greater London region. In the event of a lack of survey sites, comparable sites from other regions within England have been selected.

5.3 As there is a reduction in the proposed retail floorspace in comparison to the existing retail store, there is expected to be fewer retail trips as a result. As part of the proposals, there is to be office (Class B1) land use proposed at the site which will generate new trips compared to the existing development. The development also includes flexible D2 use. An assessment of the TRICS database was undertaken to find the highest daily trip rates for the D2 use to present a worst case scenario for trip generation purposes. The D2 use with the highest daily trip rate was multiplex cinemas, therefore this has been used for our assessment.

5.4 The proposed development trip generation presented in this chapter provides a worst case scenario showing the highest potential trips for each use based on the TRICS database outputs.

5.5 The B1 use makes up the majority of the total GFA and therefore a comparable B1 site has been used to predict the multi-modal trip generation for the site. The B1 and D2 uses are anticipated to generate new trips, whereas the A1 non-food retail trips will be linked given the town centre location.

Existing Trip Generation

5.6 The existing site's vehicular trip generation has been calculated using comparable sites within the TRICS database. Due to a lack of survey sites within Greater London and the South East regions, sites were selected from other regions in England. The categories selected are detailed below:

- Located in England only;
- 01 – Retail only;
- G – Other Individual Non-Food Superstore; and
- Surveys undertaken on weekdays only.

5.7 Three comparable sites were selected in Town Centre or Edge of Town Centres locations, as follows:

- Just for Pets, Cambourne, Cambridgeshire (CA-01-G-01);
- Magnet, Macclesfield, Cheshire (CH-01-G-02); and,
- Pets at Home, Lincoln, Lincolnshire (LN-01-G-01).

5.8 The TRICS outputs and selection is included in **Appendix C**. **Table 5.1** shows the total people trip rates and trips for the existing non-food store.

5.9 It should be noted that the trip rates do not take into account linked trips. As the location of the site is in a town centre it is likely that trips will be linked, and the existing site alone would not generate trips. **Table 5.1** does however give an indication of the number of people arriving and departing from the store.

Table 5.1 Total People Trip Rates and Trips – Existing Non-Food Store (House of Fraser)

Time	Trip Rates (per 100m2)			Total People Trips (7,312m2)		
	Arrivals	Departures	Totals	Arrivals	Departures	Totals
AM Peak (08:00-09:00)	0.245	0.109	0.354	18	8	26
PM Peak (17:00-18:00)	2.208	2.563	4.771	162	188	350
Daily	**22.241**	**22.981**	**45.222**	**1627**	**1681**	**3308**

Proposed Total People (All Mode) Trip Rates and Trip Generation

B1 Office

5.10 The total people (all mode) trip rates used for the proposed office element have been calculated based on trip rates extracted from the TRICS database. Four comparable survey sites were selected within Greater London with a PTAL rating of 5 or above, and in a Town Centre or Edge of Town Centre location only. The four comparable survey sites include:

- Gracechurch Street, Monument, City of London (CI-02-A-02);
- Planning & Engineering, Fitzroy Street, Fitzrovia (CN-02-A-03);
- Regus Offices, Queen Caroline Street, Hammersmith (HM-02-A-01); and
- Offices, Battersea Park Road, Battersea (WH-02-A-02).

5.11 **Table 5.3** shows the proposed total people trip rates and trips for the proposed B1 Office land use. A worst case scenario has been presented if the flexible use on the first floor is to be B1 Office.

Table 5.2 Total People Trip Rates and Trips – Proposed B1 Office

Time	Trip Rates (per 100m2)			Total People Trips (5,777m$^{2)}$		
	Arrivals	Departures	Totals	Arrivals	Departures	Totals
AM Peak (08:00-09:00)	3.008	0.297	3.305	174	18	192
PM Peak (17:00-18:00)	0.217	2.67	2.887	13	155	168
Daily	**10.664**	**10.483**	**21.147**	**616**	**606**	**1222**

5.12 As can be seen above, if the flexible use on the first floor is to be B1 Office it is estimated that the proposed office element of the site would generate a total of 192 two-way trips during the AM peak period (174 arrivals and 18 departures) and 168 two-way trips during the PM peak period (13 arrivals and 155 departures).

A1 Non-Food Retail

5.13 The total people (all mode) trip rates used for the proposed non-food retail element have been calculated based on trip rates extracted from the TRICS database. The same survey sites used for the existing trip generation were used for the proposed non-food retail development. **Table 5.3** shows total people trip rates and trips for the potential non-food element of the site. A worst case scenario has been presented if all the flexible use was to be A1 non-food retail.

Table 5.3 Total People Trip Rates and Trips – Proposed A1 Non-Food Retail

Time	Trip Rates (per 100m2)			Total People Trips (3,805m²)		
	Arrivals	Departures	Totals	Arrivals	Departures	Totals
AM Peak (08:00-09:00)	0.245	0.109	0.354	10	5	15
PM Peak (17:00-18:00)	2.208	2.563	4.771	84	98	182
Daily	**22.241**	**22.981**	**45.222**	**847**	**875**	**1722**

5.14 As can be seen above, if all flexible use is A1 it is estimated that the proposed non-food retail element of the site would generate a total of 15 two-way trips during the AM peak period (10 arrivals and 5 departures) and 182 two-way trips during the PM peak period (84 arrivals and 98 departures).

D2 Leisure - Cinema

5.15 The total people (all mode) trip rates used for the potential leisure element have been calculated based on trip rates extracted from the TRICS database using the highest daily trips for a D2 use to provide a worst case scenario.

5.16 No comparable survey sites were available within Greater London, therefore sites within England were selected in the town centre or edge of town centre. Two comparable survey sites were found as follows:

- Drayhorse Yard, Dorchester, Dorset (DC-07-A-01); and,
- Foregate Street, Worcester, Worcestershire (WO-07-A-01).

5.17 **Table 5.4** shows total people trip rates and trips for the potential leisure element of the site. A worst case scenario has been presented if the flexible use on the basement and ground floor levels is to be D2 cinema use.

Table 5.4 Total People Trip Rates and Trips – Potential D2 Leisure - Cinema

Time	Trip Rates (per 100m2)			Total People Trips (1,197m²)		
	Arrivals	Departures	Totals	Arrivals	Departures	Totals
AM Peak (08:00-09:00)	0	0	0	0	0	0
PM Peak (17:00-18:00)	4.72	2.587	7.307	57	31	88
Daily	**42.348**	**39.316**	**81.664**	**507**	**471**	**978**

5.18 As can be seen above, it is estimated that the potential cinema element of the site would not generate any trips during the AM peak period but would generate 88 two-way trips during the PM peak period (57 arrivals and 31 departures).

Multi-Modal Trip Generation Assessment

5.19 The mode share of the commercial element of the development has been established using a comparable survey site extracted from the TRICS database for office (Class B1). A comparable office site was selected within a Town Centre and PTAL 6b location, as shown below:

- Regus Offices, Queen Caroline Street, Hammersmith, W6 9DX (HM-02-A-01).

5.20 **Table 5.5** sets out the TRICS modal share for the site. As the majority of the development will be made up of Class B1 Office the modal share below will be used to calculate the multi-modal trips for the development.

Table 5.5 Modal Split – Proposed Site

Mode	Local Modal Split
Bus/ Tram/ Underground	25.6%
Train	31.4%
Driving a car or van	1.3%
Passenger in a car or van	1.5%
Bicycle	2.9%
On foot	37.4%
Other	0%
Total	**100%**

5.21 As mentioned previously trips to the retail element of the site would be linked trips given the town centre location and retail land use. Therefore, the additional trips generated by the site will be from the proposed B1 Office use and potential D2 Leisure use. We have presented a worst case scenario in terms of trip generation with the basement floor being D2 cinema use and the first floor being B1 office use. The estimated multi-modal trips generated by the site is presented in **Table 5.6**.

Table 5.6 Multi-Modal Trip Generation – Proposed Site*

Mode	Local Modal Split	Multi-Modal Trip Generation								
		AM Peak Hour (08:00-09:00)			PM Peak Hour (17:00-18:00)			Daily (07:00-21:00)		
		In	Out	All	In	Out	All	In	Out	All
Bus/ Tram/ Underground	25.6%	45	5	49	18	48	65	287	276	563
Train	31.4%	55	6	60	22	58	80	353	338	644
Driving a car or van	1.3%	2	0	2	1	2	3	12	12	29
Passenger in car or van	1.5%	3	0	3	1	3	4	17	16	33
Bicycle	2.9%	5	1	6	2	5	7	33	31	64
On foot	37.4%	65	7	71	26	70	95	420	403	823
Total	**100%**	174	18	191	70	186	255	1122	1076	2155

*Figures may not total exactly due to rounding.

5.22 As shown in **Table 5.6**, the highest number of trips are estimated to be undertaken by public transport, with 109 two-way trips in the AM peak and 145 two-way trips in the PM peak. The second highest mode of transport is by foot, with 71 two-way trips in the AM peak and 95 two-way trips in the PM peak.

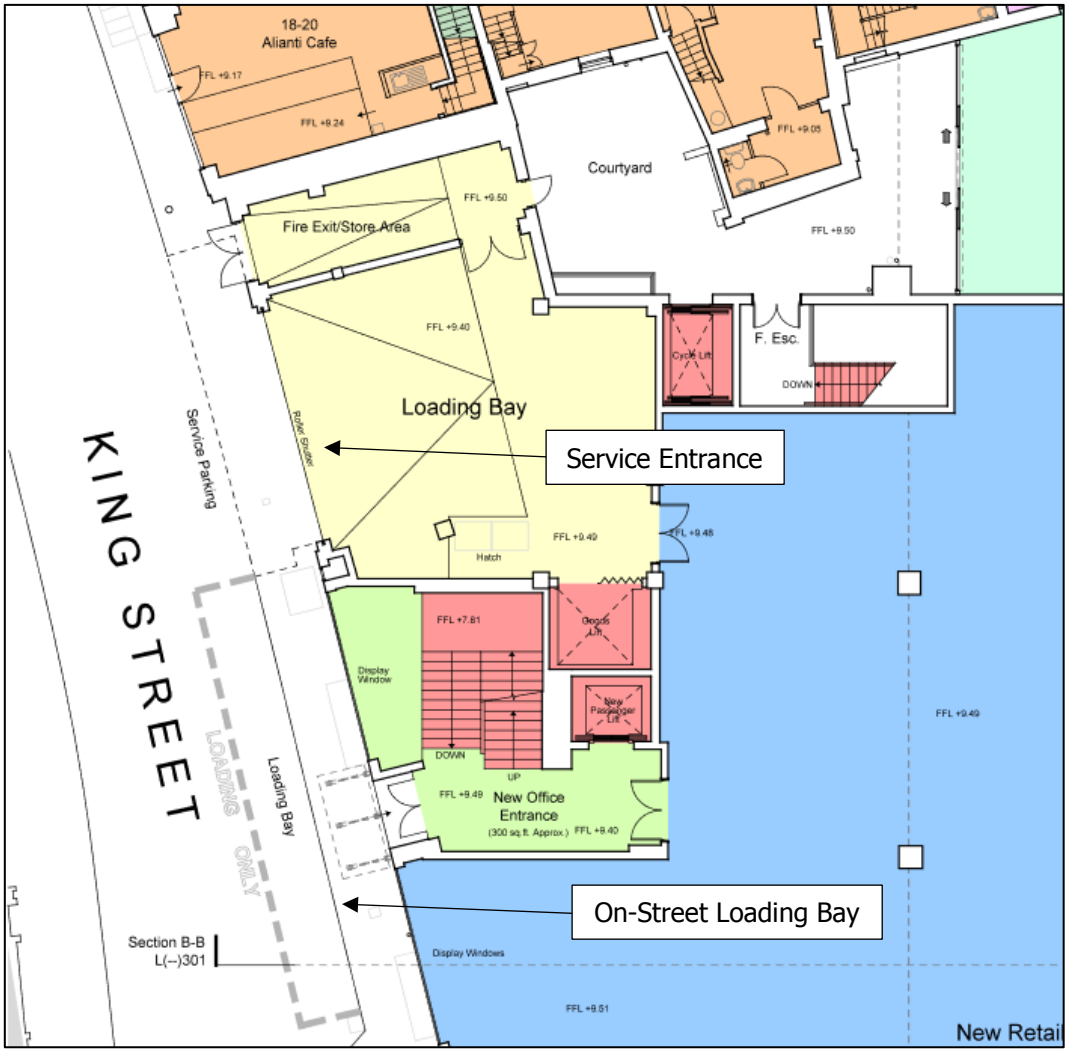
5.23 In terms of vehicle trips, there are estimated to be two arrival trips in the AM peak and three departure trips in the PM peak.

6 Outline Delivery and Servicing Plan

Location for Deliveries and Servicing

6.1 Deliveries and servicing are to be undertaken from King Street utilising the on-street loading bay, which is adjacent to the servicing entrance. Thus, the proposed delivery and servicing arrangement is to be consistent with the existing arrangement. This arrangement is shown in **Figure 6.1**.

Figure 6.1 Delivery and Servicing Arrangement



Source: Colman Architects, Drawing No.: 1720/L(--)110

Refuse Storage

6.2 Refuse storage areas will be provided adjacent to the servicing entrance on the ground floor. Refuse vehicles are expected to access the site via King Street as per the existing situation. Refuse bins will be left in an accessible location prior to the time of collection ensuring minimal obstruction to the footway.

Delivery and Servicing Trips

Existing Situation

6.3 At present, the House of Fraser store is serviced via King Street, at the southwestern corner of the site. This comprises a servicing entrance and an on-street loading bay located adjacent. In order to determine the number of servicing trips at the site, comparable sites were extracted from the TRICS database using the categories, as detailed below:

- Located in England, Town Centre or Edge of Town Centre only;
- 01 – Retail only;
- G – Other Individual Non-Food Superstore; and
- Surveys undertaken on weekdays only.

6.4 TRICS is an industry-standard database used as a tool for predicting trip generation for developments based on historical trip profile data extracted from comparable sites. The comparable sites to the existing House of Fraser extracted from TRICS are identified as:

- Just for Pets, Cambourne, Cambridgeshire (CA-01-G-01);
- Magnet, Macclesfield, Cheshire (CH-01-G-02); and,
- Pets at Home, Lincoln, Lincolnshire (LN-01-G-01).

6.5 **Table 6.1** sets out the existing number of delivery and servicing trips currently generated by the site, which is based upon OGV (Other Goods Vehicles) for the comparable sites extracted using TRICS. Note LGV (Light Goods Vehicles) trip rates have not been included as the existing House of Fraser store consolidates its deliveries into a 4 axle articulated heavy goods vehicle, which is classified as an OGV. The TRICS outputs and selection is included in **Appendix C**.

Table 6.1 Estimated Two-Way Retail Delivery/Servicing Trip Generation (7,312m2)

Time Period	Arrivals	Departures	Total
Delivery/Servicing (OGVs)	8	8	**16**

6.6 As shown in **Table 6.1**, the existing site is currently likely to generate 16 two-way delivery/servicing trips per day.

Proposed Development

Retail

6.7 Deliveries and servicing are proposed to be undertaken via King Street, as per the existing arrangement. As part of the proposals, there is to be a reduction in retail floorspace and as such this is likely to result in a reduction in delivery/servicing trips comparing to the existing retail store. The predicted delivery/servicing trips are based upon the same survey sites used for the existing situation. As the OGV trip rates are higher for A1 use than B1 and D2 uses we have assumed a worst case scenario with all flexible use being A1 non-food retail. **Table 6.2** sets out the proposed number of delivery and servicing trips.

Table 6.2 Proposed Two-Way Retail Delivery/Servicing Trip Generation (3,805m2)

Time Period	Arrivals	Departures	Total
Delivery/Servicing (OGVs)	4	4	**8**

6.8 As shown in **Table 6.2**, the proposed retail land use is estimated to generate six two-way delivery/servicing trips per day.

B1 Office

6.9 **Table 6.3** sets out the estimated number of delivery and servicing trips the site is expected to generate, considering the proposed office land use. The OGV (Other Goods Vehicles) trip rates were extracted for the same survey sites for B1 Office land use detailed in paragraph 5.10. LGV (Light Good Vehicles) trip rates were not available for the selected survey sites, therefore OGV trips rates have been assumed to include delivery and servicing trips for the purpose of this analysis. Also, a delivery and servicing strategy will be in place to consolidate delivery trips to and from the proposed development which will ensure delivery and servicing trips are minimised.

Table 6.3 Proposed Two-Way Office Delivery/Servicing Trip Generation (4,346m2)

Type	Arrivals	Departures	Total
Office Delivery/Servicing Trips	1	1	2

6.10 As shown in **Table 6.3**, the proposed office land use is estimated to generate two two-way delivery/servicing trips per day.

Total Proposed Delivery and Servicing Trips – Retail & B1 Office

6.11 The total delivery and servicing trips for the proposed development is shown in **Table 6.4**.

Table 6.4 Total Proposed Two-Way Delivery/Servicing Trip Generation

Type	Arrivals	Departures	Total
Retail	4	4	8
Office	1	1	2
Total	**5**	**5**	**10**
Net Change	**Arrivals**	**Departures**	**Total**
Retail	-3	-3	-6
Office	+1	+1	+2
Total	**-2**	**-2**	**-4**

6.12 As shown in **Table 6.4**, the proposed development is estimated to generate ten two-way delivery/servicing trips per day, equating to five arrivals and five departures. In comparison to the existing store, there is a reduction of four two-way delivery/servicing trips per day. This equates to a 25% reduction in delivery/servicing trips associated with the site which will help to alleviate congestion associated with delivery and servicing activity in the area and reduce impact on local residents associated with this activity.

6.13 Therefore, the proposed development does not result in any additional impact on the highway network, in terms of delivery and servicing trips.

Management and Servicing Strategy

6.14 Delivery and Servicing to and from the site will be co-ordinated by the site facilities team. An individual will be appointed as the Goods In Manager to oversee deliveries to and from the site. The following procedure will be used to service the site:

- The Distribution Centre from where the delivery to the site originates will contact the Goods In Manager on-site to notify them of a delivery, book a slot and agree the driver's Estimated Time of Arrival (ETA).
- The Goods In Manager will then schedule them into the first available 30-minute timeslot where possible in line with the driver's ETA and outside the network peak times where possible.
- Upon arrival at the site, the Goods In Manager will meet the delivery outside and supervise unloading to ensure no goods are left/stored on the public highway but are instead brought directly inside through the servicing entrance.
- As soon as unloading is concluded, drivers will drive off to their next delivery or back to the distribution centre.

6.15 Where possible deliveries will be scheduled to avoid the network peak times assumed to be 07:00-10:00 and 16:00-19:00 on a weekday and 09:00-13:00 on a Saturday.

6.16 The majority of deliveries are expected to be undertaken by light goods vehicles (3.5T) or (4.6T) (Ford Transit/Mercedes Sprinter or similar). Emergency vehicular access to the site can be gained via George Street or King Street, as per the existing arrangement.

6.17 Staff at the proposed development will be discouraged to organise personal deliveries to/from the site to reduce the number of delivery vehicles generated by the development and subsequent impact on the local highway. There are a number of collection points within a short walk from the site where staff will be encouraged to send and pick up personal parcels, for instance there is a CollectPlus point at the nearby Tesco Metro store, an Amazon locker at the Whole Foods store and a Doddle collection point at the Richmond Sports store.

7 Summary and Conclusions

Summary

7.1 WYG has been commissioned by Canadian & Arcadia Ltd (the 'Applicant') to prepare a Transport Assessment (TA) report in support of the proposed mixed-use development at 75-81 George Street, Richmond, TW9 1HA within the London Borough of Richmond upon Thames (LBRuT) (the 'site').

7.2 The site is located within the London Borough of Richmond upon Thames (LBRuT), which is the Local Planning Authority (LPA) and Local Highways Authority (LHA) responsible for determining planning applications.

7.3 The site is located on the northern side of George Street (A307), in Richmond town centre. The site is located in an area of predominately retail and commercial land uses comprising Richmond town centre. The site is bound by George Street to the east, King Street to the south and commercial/residential properties to the north. The existing site is currently occupied by a House of Fraser department store and measures a total Gross Internal Area (GIA) of 7,312m^2 over five floors.

7.4 The site is highly accessible from a pedestrian perspective. The site frontage is on George Street which provides all pedestrian and cycle access. Vehicular access can be gained via a servicing entrance on King Street. A loading bay is located on King Street, adjacent to the servicing entrance.

7.5 The site has a PTAL of 6a demonstrating an 'excellent' level of accessibility. The site benefits from access to Richmond London Underground Station, approximately 6 minutes' walking distance from the site.

7.6 There are 14 bus routes passing the site, with the closest bus stops located approximately 60 and 120 metres to the northeast of the site. One of the bus stops comprises a standing pole with timetable information whilst the other comprises a standing pole, timetable information, shelter and seating. These stops are served by Routes 33, 65/N65, 160, 337, 371, 391, 419, 490, 493, H22, H37, N22, R68 and R70, providing services to Ealing Broadway, Kew, Fulham and West Brompton.

7.7 The development will involve reconfiguring the internal space, flexible D2/A1 use at basement level, retaining the ground floor as retail, flexible A1/B1 use at first floor, change of use of the existing upper floors with office space and constructing a roof level plantroom. New and refurbished pedestrian accesses will be provided off Golden Court, King Street and George Street. The total proposed (GIA) for the proposed development is 8,151sqm which is an 839sqm increase compared to the existing GIA. No car parking is proposed as part of the development, which is in line with the London Plan.

7.8 Cycle parking will be provided in accordance with the current London Plan (March 2016) standards as advised during pre-application discussions. The development is to provide a total of 45 long-stay cycle places. Long-stay spaces are to be provided within the basement level and short-stay spaces provided at street level using the existing Sheffield stands on King Street and George Street.

7.9 All vehicular access will be via King Street, as per the existing arrangement. New and refurbished pedestrian accesses will be provided off Golden Court, King Street and George Street for the retail unit, there will be accesses provided off Golden Court and Paved Court for the office use and access to the potential leisure use will be via King Street.

7.10 A trip generation assessment has been undertaken to identify the likely impact of the proposed development on the local highway and transport network. This has been undertaken on the basis that the proposed office and potential leisure use will generate all primary trips to the site, with all retail trips considered to be linked trips. The analysis identified that the proposed office and potential leisure use is estimated to generate 109 two-way trips in the AM peak and 145 two-way trips in the PM peak.

In terms of vehicle trips, there are estimated to be two arrival trips in the AM peak and three departure trips in the PM peak.

7.11 Deliveries and servicing are to be undertaken from King Street utilising the on-street loading bay, which is adjacent to the servicing entrance. This is consistent with the existing arrangement for the House of Fraser store. It is estimated that the proposed development is estimated to generate ten two-way delivery and servicing trips per day, equating to five arrivals and five departures. In comparison to the existing store, there is a reduction of eight two-way delivery/servicing trips per day. This equates to a 25% reduction in delivery/servicing trips associated with the site which will help to alleviate congestion associated with delivery and servicing activity in the area and reduce impact on local residents associated with this activity.

7.12 Refuse storage areas are to be provided adjacent to the servicing on the ground floor level. Refuse vehicles are expected to access the site via King Street as is the existing arrangement.

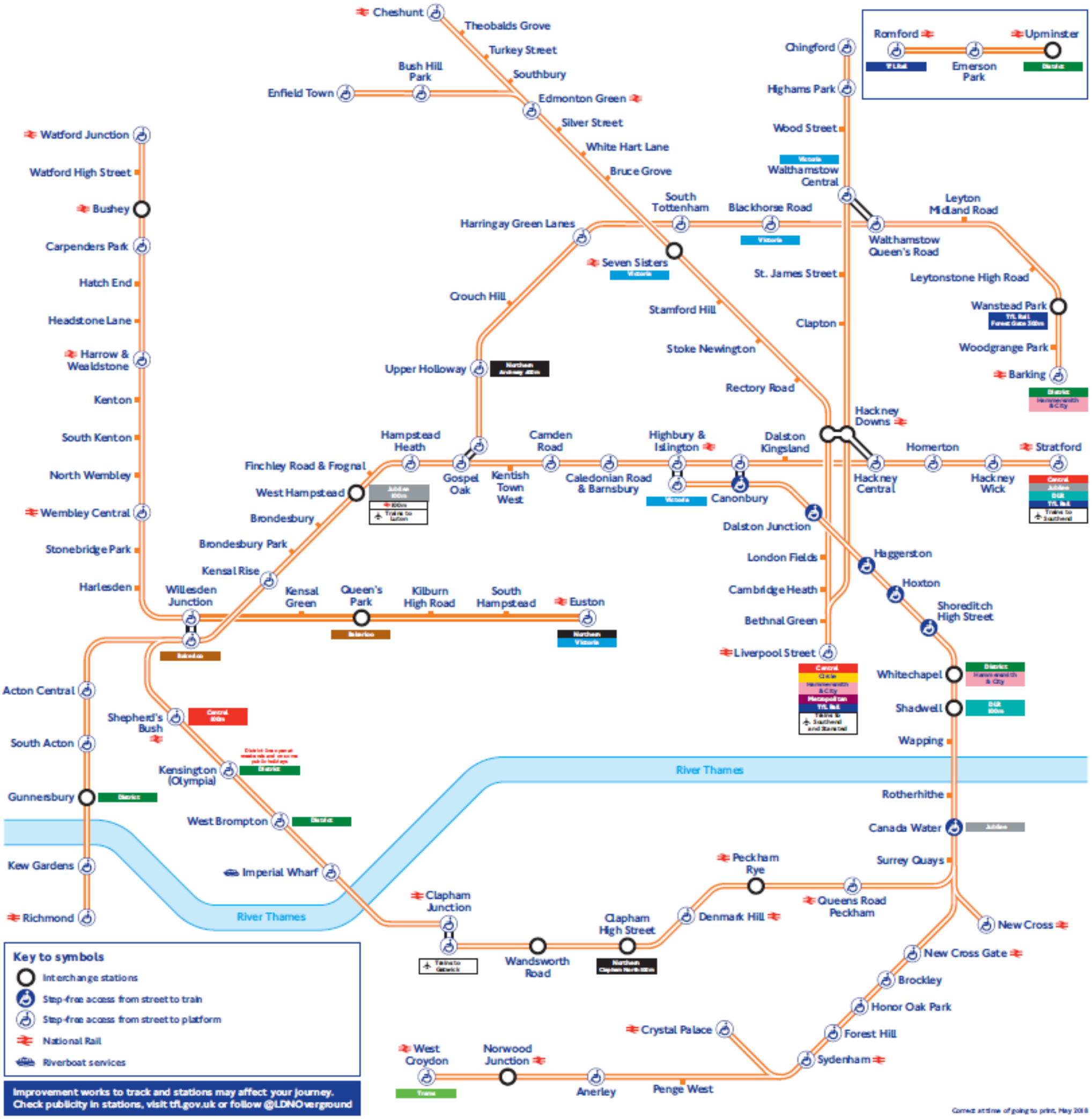
Conclusions

7.13 It has been demonstrated within this Transport Assessment that the proposed development is likely to result in a reduction in two-way delivery and servicing trips in comparison to the existing House of Fraser store. The site is located in a highly accessible area with a 6a PTAL rating and has very good accessibility by foot and cycle. The size of the proposed retail unit is smaller than the existing House of Fraser store and it is therefore expected that the proposed retail will generate fewer trips, of which these are considered to be linked trips. The proposed office and potential leisure use are to generate all primary trips to the site, of which the overwhelming majority are to be undertaken by public transport or by foot. As a result, the proposed development is not expected to have a material impact on the local highway network.

7.14 The proposals are in accordance with current guidance and policy requirements and therefore the proposals and assessments presented in this TA show that there is no reason why the proposed development should not gain planning on transport and highways grounds. In terms of NPPF policy, the development's cumulative residual impact is considered not severe and therefore the proposals are deemed acceptable.

Appendix A
SOUTH WESTERN AND OVERGROUND RAIL NETWORK MAPS

London Overground



Key to symbols

- Interchange stations
- Step-free access from street to train
- Step-free access from street to platform
- National Rail
- Riverboat services

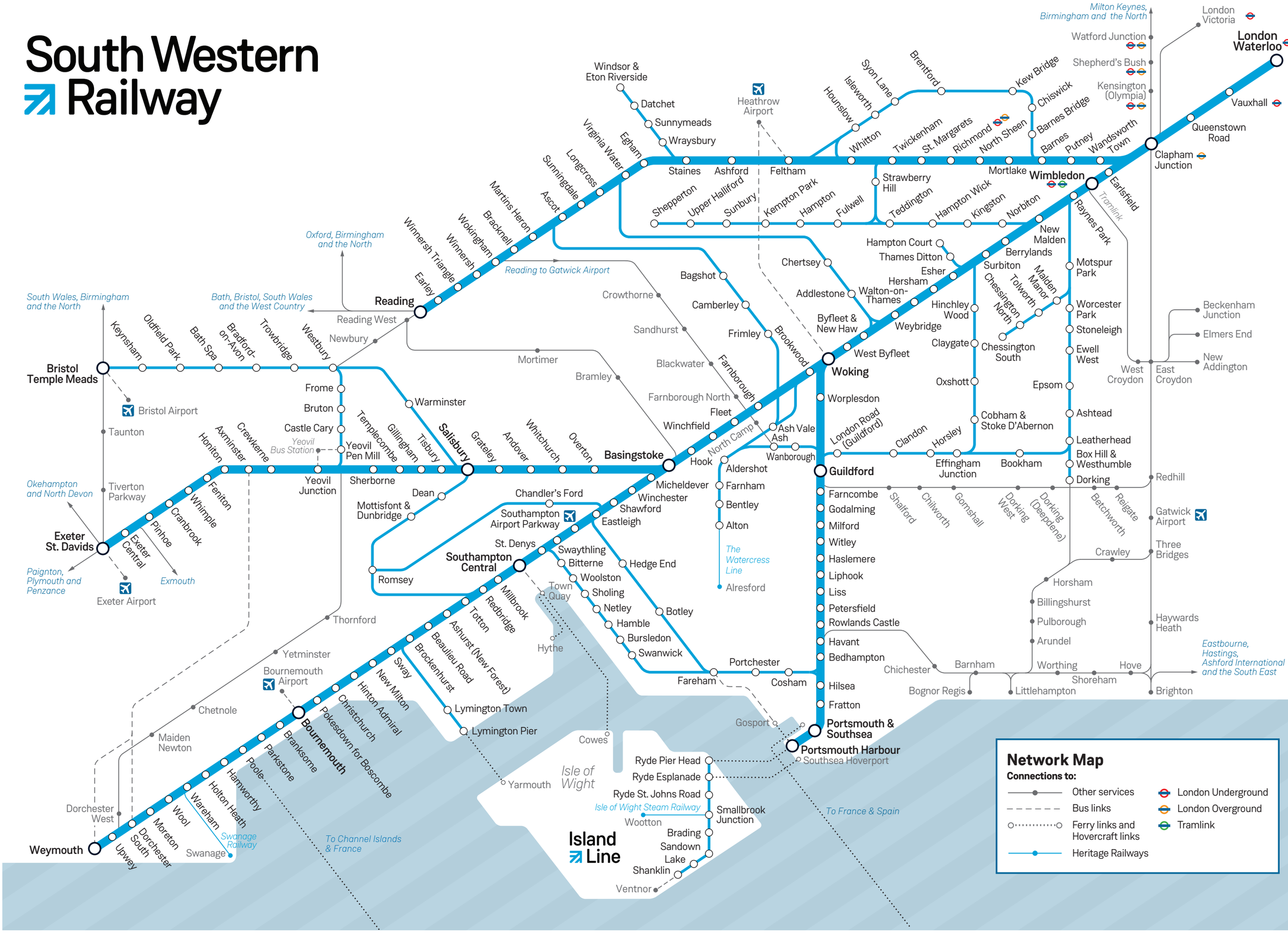
Improvement works to track and stations may affect your journey. Check publicity in stations, visit tfl.gov.uk or follow @LDNOverground

Correct at time of going to print, May 2018

MAYOR OF LONDON

OVERGROUND TRANSPORT FOR LONDON
EVERY JOURNEY MATTERS

South Western Railway



Appendix B
SCHEDULE OF AREAS & PROPOSED DEVELOPMENT LAYOUT PLANS

Project: 1720 House of Fraser, 75-80 George Street, Richmond, London

SCHEDULE OF AREAS BY USE CLASS

Existing Areas

	75-81 George Street (GIA)		16 Paved Court (GIA)		6-8 Paved Court (GIA)		4 Paved Court (GIA)			
	A1		A1		A1		A1			
Floors / Area	sqm	sqft	sqm	sqft	sqm	sqft	sqm	sqft		
Basement	**1,514**	***16,290***	0	*0*	0	*0*	0	*0*		
Ground floor	**1,677**	***18,050***	**4**	***30***	**49**	***520***	**25**	***260***		
1st Floor	**1,450**	***15,600***	**41**	***440***	**47**	***500***	**27**	***290***		
2nd Floor	**1,149**	***12,360***	**41**	***440***	0	*0*	0	*0*		
3rd Floor	**1,135**	***12,210***	0	*0*	0	*0*	0	*0*		
4th Floor/Plant Rooms	**153**	***1,640***	0	*0*	0	*0*	0	*0*		
									Total sqm	**Total sqft**
Total	**7,078**	***76,150***	**86**	***910***	**96**	***1,020***	**52**	***550***	**7,312**	**78,630**

Proposed Areas

	75-81 George Street (GIA)				16 Paved Court (GIA)		6-8 Paved Court (GIA)		4 Paved Court (GIA)			
	A1		B1		B1		A1		A1		B1	
Floors / Area	sqm	sqft	sqm	sqft	sqm	sqft	sqm	sqft	sqm	sqft	sqm	sqft
Basement	**1,090**	***11,730***	**400**	***4,300***	0	*0*	0	*0*	0	*0*	0	*0*
Ground floor	**1,161**	***12,490***	**475**	***5,110***	**4**	***30***	**49**	***520***	0	*0*	**25**	***260***
1st Floor	0	*0*	**1,431**	***15,400***	**41**	***440***	**47**	***500***	**27**	***290***	0	*0*
2nd Floor	0	*0*	**1,213**	***13,050***	**41**	***440***	0	*0*	0	*0*	0	*0*
3rd Floor	0	*0*	**1,121**	***12,060***	0	*0*	0	*0*	0	*0*	0	*0*
4th Floor	0	*0*	**900**	***9,680***	0	*0*	0	*0*	0	*0*	0	*0*
5th Floor/Roof	0	*0*	**126**	***1,350***	0	*0*	0	*0*	0	*0*	0	*0*
Total	**2,251**	***24,220***	**5,666**	***60,950***	**86**	***910***	**96**	***1,020***	**27**	***290***	**25**	***260***

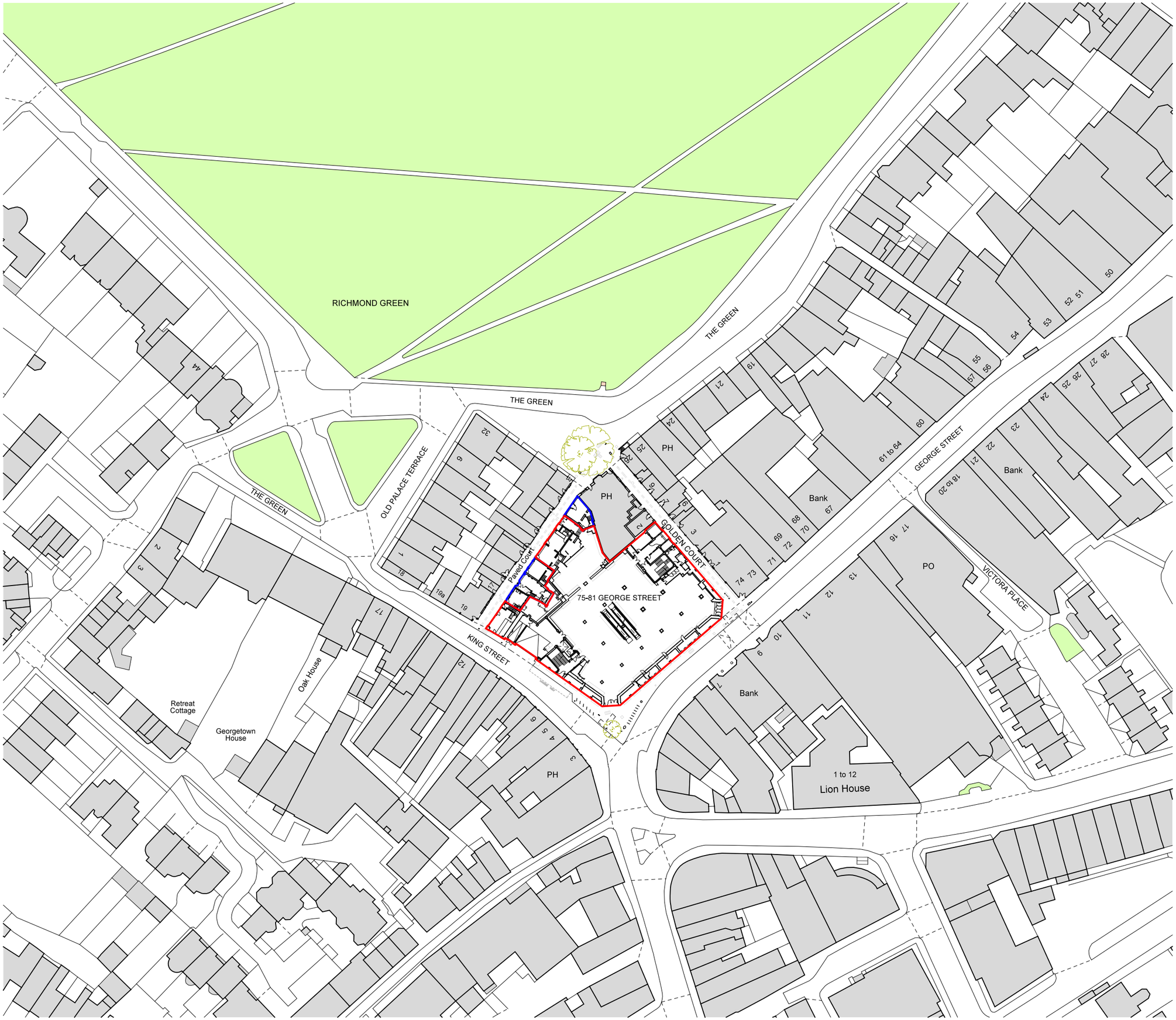
Leisure Use

75-81 George Street (GIA)		75-81 George Street (GIA)	
D2 (alternative)		B1	
sqm	sqft	sqm	sqft
1,144	***12,310***	0	*0*
53	***570***	0	*0*
0	*0*	0	*0*
0	*0*	**80**	***860***
0	*0*	**39**	***410***
0	*0*	**173**	***1,860***
0	*0*	0	*0*
1,197	***12,880***	**292**	***3,130***

Terraces/Balconies

Proposed Area Totals

													Total sqm	**Total sqft**
A1 Retail	**2,251**	-	-	-	-	-	**96**	-	**27**	-	-	-	**2,374**	**25,550**
B1 Offices	-	-	**5,666**	-	**86**	-	-	-	-	-	**25**	-	**5,777**	**62,170**
												Total	**8,151**	**87,720**



Rev	Notes	By	Date
P1	Planning Issue	TD	05/07/19

Key

Site Ownership

Application Boundary

N

0 5 10 25 50m

PLANNING ISSUE

colman architects

Project
75-81 George Street
Richmond, TW9 1HA

Title
Existing Location Plan

Scale		Date
1:1000 @ A3		29/06/2017
Drawn by: TD	Checked by Proj. Arch.	Checked By Manager
Drawing No.		Revision
1720/P(--)01		P1

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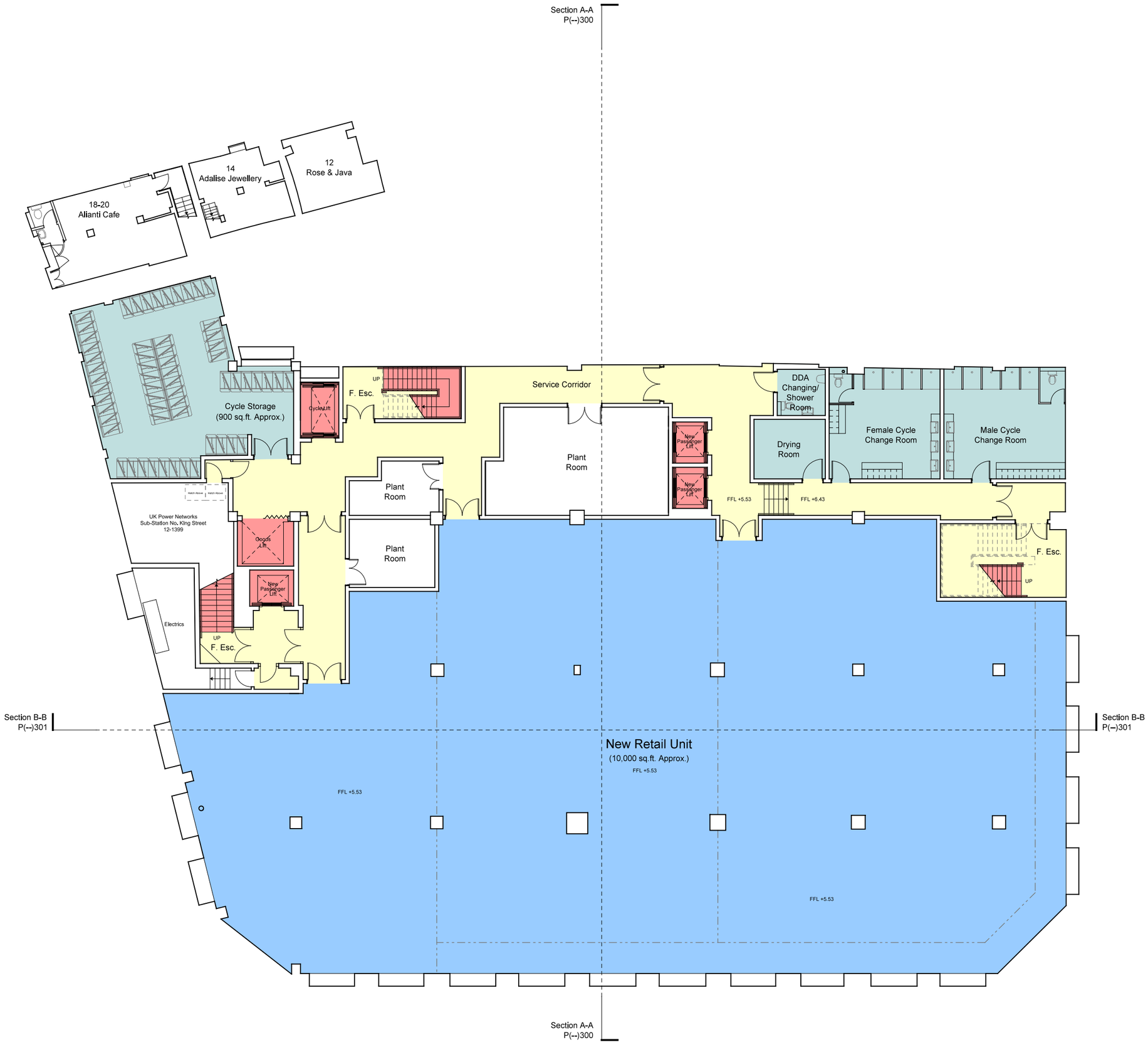
CAD Filename: $FILE$
$DATE$

Rev	Notes	By	Date
P1	Planning Issue	DLa	05/07/19



Key

Line of Potential Unit Division

0 1 2 5 10m

PLANNING ISSUE

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Project
75-81 George Street
Richmond, TW9 1HA

Title
Proposed Basement Floor Plan

Scale		Date
1:200 @ A3 1:100 @ A1		29/06/2017
Drawn by: TD	Checked by Proj. Arch.	Checked By Manager
Drawing No.: 1720/P(--)109		Revision: P1

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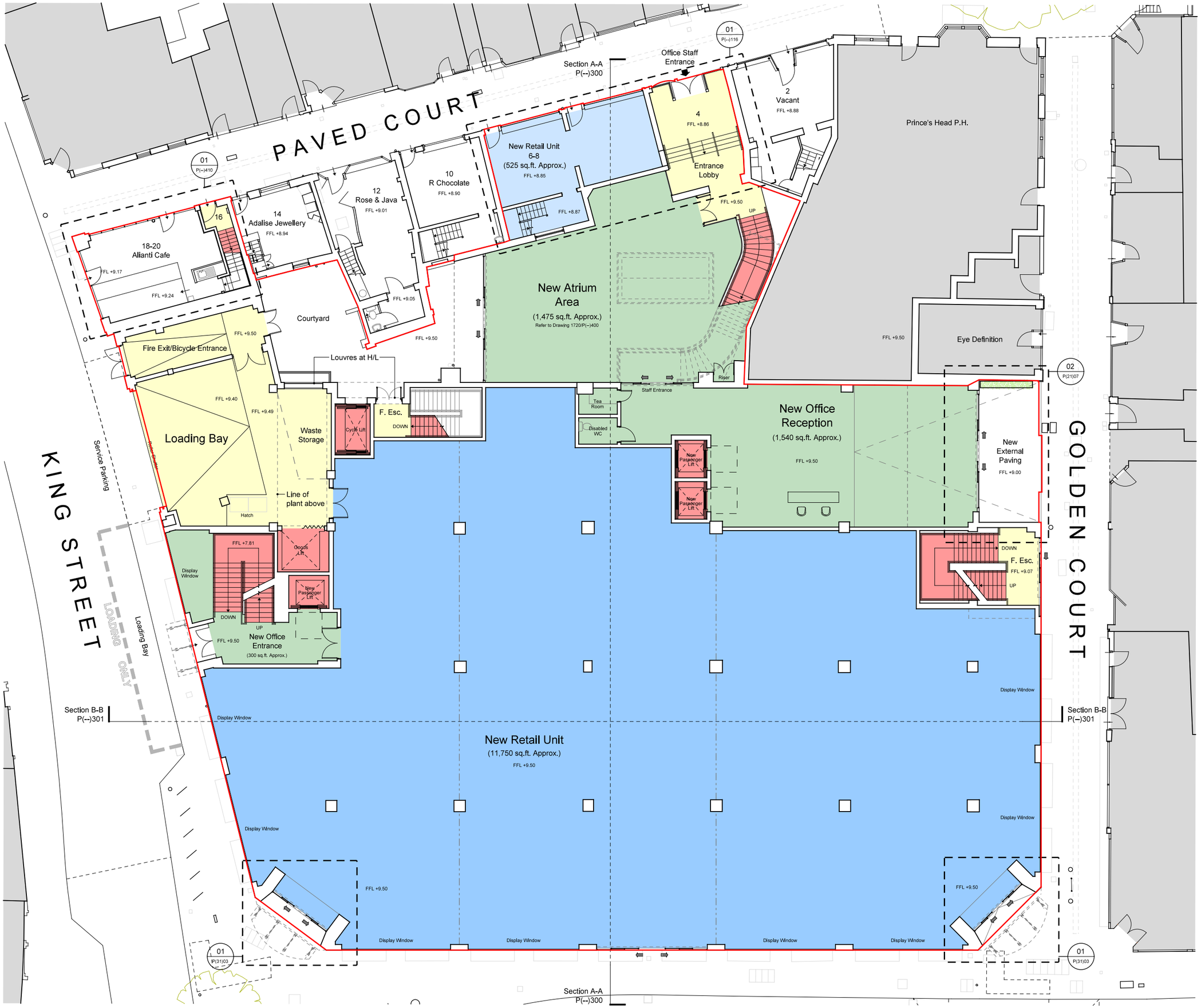

Dimensions are not to be scaled from this drawing.

This drawing is based on current available information and should not be relied on as accurate measurements of usable space.

Rev	Notes	By	Date
P1	Planning Issue	DLa	05/07/19

Key

- Application boundary
- Line of Potential Unit Division

N

0 1 2 5 10m

PLANNING ISSUE

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Project
75-81 George Street
Richmond, TW9 1HA

Title
Proposed Ground Floor Plan

Scale		Date
1:200 @ A3	1:100 @ A1	29/06/2017
Drawn by: TD	Checked by Proj. Arch.	Checked By Manager
Drawing No. 1720/P(--)110		Revision P1

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CAD Filename: R:\TCP Jobs\1720 - HOF, 75 - 81 George Street, Richmond, London\2 SHTS\P(--)\P(--)110.dgn 11/07/19

Rev	Notes	By	Date
P1	Planning Issue	DLa	05/07/19

Key

Line of Potential Unit Division

0 1 2 5 10m

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Project
75-81 George Street
Richmond, TW9 1HA

Title
Proposed First Floor Plan

Scale		Date
1:200 @ A3 1:100 @ A1		29/06/2017
Drawn by: TD	Checked by Proj. Arch.	Checked By Manager
Drawing No.: 1720/P(--)111		Revision: P1

CAD Filename: $FILE$
$DATE$

Rev	Notes	By	Date
P1	Planning Issue	DLa	05/07/19

Section A-A
P(--)300

01
P(--)412

New Office
16
(355 sq.ft. Approx.)
FFL +15.21

FFL +15.17

DOWN

FFL +15.17

FFL +18.33

FFL +18.21

14
FFL +14.70

FFL +14.68

12
FFL +15.00

New Stair Enclosure

New Roof Light

FFL +18.21

Flat Roof

FFL +18.15

FFL +18.22

Terrace
(345 sq.ft. Approx.)
FFL +18.15

Terrace
(290 sq.ft. Approx.)
FFL +18.15

Terrace
(200 sq.ft. Approx.)
FFL +18.15

FFL +18.14

Flat Roof
FFL +18.14

FFL +18.14

Service Riser

FFL +16.49

FFL +15.72

Goods Lift

New Passenger Lift

DOWN

UP

F. Esc.

FFL +18.15

Male Toilets

New Passenger Lift

New Passenger Lift

UP

DOWN

F. Esc.

Cleaners Cupboard

Office Core
(925 sq.ft. Approx.)

Female Toilets

Disabled WC

UP

F. Esc.

DOWN

Service Riser

FFL +18.15

Section B-B
P(--)301

Section B-B
P(--)301

New Office
(10,375 sq.ft. Approx.)
FFL +18.15

Section A-A
P(--)300

Key

— — — Existing Building Line

- - - — - - - Line of Potential Unit Division

N

0 1 2 5 10m

PLANNING ISSUE

colman architects

Project
75-81 George Street
Richmond, TW9 1HA

Title
Proposed Second Floor Plan

Scale		Date
1:200 @ A3 1:100 @ A1		29/06/2017
Drawn by: TD	Checked by Proj. Arch.	Checked By Manager
Drawing No.: 1720/P(--)112		Revision: P1

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CAD Filename: $FILE$
$DATE$

Rev	Notes	By	Date
P1	Planning Issue	DLa	05/07/19

Section A-A
P(--)300

01
P(--)119

01
P(--)413

FFL +16.87
FFL +17.92
FFL +17.74
FFL +16.55
FFL +18.34
FFL +18.94
FFL +17.94
FFL +17.02
FFL +14.92
FFL +16.85
FFL +16.77
FFL +17.00
FFL +18.39
FFL +18.78
FFL +16.66
FFL +17.03
FFL +16.67
FFL +16.99
FFL +17.07
FFL +16.60
FFL +16.96
FFL +19.13
FFL +19.00
FFL +18.82
FFL +18.70
FFL +15.47
FFL +17.95
FFL +16.91
FFL +18.60
FFL +16.47
FFL +15.73
FFL +17.96
FFL +17.13
FFL +16.47
FFL +16.94
FFL +16.95
FFL +13.90
FFL +14.12
FFL +16.48

Balcony
(195 sq.ft. Approx.)
FFL +22.14

Male Toilets

New Passenger Lift

New Passenger Lift

Flat Roof

Balcony
(150 sq.ft. Approx.)
FFL +22.14

Cleaners Cupboard

Service Riser

Office Core
(915 sq.ft. Approx.)
FFL +22.14

UP DOWN
F. Esc.

Female Toilets

Disabled WC

Riser to above

Extract duct above

FFL +20.45
FFL +19.69

Goods Lift

New Passenger Lift

DOWN UP
F. Esc.

FFL +22.14

UP
F. Esc.
DOWN

Service Riser

FFL +22.14

Section B-B
P(--)301

Section B-B
P(--)301

New Office
(9,485 sq.ft. Approx.)
FFL +22.14

Section A-A
P(--)300

Key

Line of Potential Unit Division

0 1 2 5 10m

PLANNING ISSUE

colman architects

Project
75-81 George Street
Richmond, TW9 1HA

Title
Proposed Third Floor Plan

Scale		Date
1:200 @ A3 1:100 @ A1		29/06/2017
Drawn by: TD	Checked by Proj. Arch.	Checked By Manager
Drawing No.: 1720/P(--)113		Revision: P1

The Colman Partnership Limited
27 Harcourt Street
London
W1H 4HP

Telephone : 020 7535 2040
Facsimile : 020 7535 2041
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www.colmanarchitects.co.uk

CAD Filename: $FILE$
$DATE$

Rev	Notes	By	Date
P1	Planning Issue	DLa	05/07/19

Section A-A
P(--)300

Section B-B
P(--)301

Section B-B
P(--)301

Section A-A
P(--)300

New Passenger Lift
New Passenger Lift
Male Toilets
DOWN
F. Esc.
Cleaners Cupboard
Office Core
(910 sq.ft. Approx.)
FFL +25.87
Service Riser
Female Toilets
Disabled WC
F. Esc.
Area of Low Headroom
Terrace
Gravel
Area of Raised Floor
Riser to above
Extract duct above
Service Riser
New Passenger Lift
DOWN
F. Esc.
Roof Hatch Above
FFL +25.87
Gravel
Service Riser
F. Esc.
DOWN
Service Riser
FFL +25.87
Terrace
New Office
(7,250 sq.ft. Approx.)
FFL +25.87
Terrace
Terrace
FFL +25.92
FFL +25.92
Terrace

Key

Line of Potential Unit Division

N

0 1 2 5 10m

PLANNING ISSUE

colman architects

Project
75-81 George Street
Richmond, TW9 1HA

Title
Proposed Fourth Floor Plan

Scale		Date
1:200 @ A3 1:100 @ A1		29/06/2017
Drawn by: TD	Checked by Proj. Arch.	Checked By Manager
Drawing No.: 1720/P(--)114		Revision: P1

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CAD Filename: $FILE$ $DATE$

Rev	Notes	By	Date
P1	Planning Issue	DLa	05/07/19

Section A-A
P(--)300

Flat Roof

Services Riser

Escape Hatch

Green Roof

FFL +29.60

Services Riser

Flat Roof

Services Riser

F. Esc.

Section B-B
P(--)301

Plant Enclosure

FFL +29.60

Section B-B
P(--)301

Terrace Below

Section A-A
P(--)300

Key

Area of Green Roof inc. Gravel Perimeter 610m² (65%)

Total new Roof Area inc. Parapets equates to 930m²

N

0 1 2 5 10m

PLANNING ISSUE

colman architects

Project
75-81 George Street
Richmond, TW9 1HA

Title
Proposed Roof Plan

Scale		Date
1:200 @ A3 1:100 @ A1		29/06/2017
Drawn by: TD	Checked by Proj. Arch.	Checked By Manager
Drawing No. 1720/P(--)115		Revision P1

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CAD Filename: $FILE$ $DATE$

Appendix C
TRICS OUTPUTS

WYG 100 St John Street London EC1M 4EH Licence No: 705116

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 01 - RETAIL
Category : G - OTHER INDIVIDUAL NON-FOOD SUPERSTORE
MULTI-MODAL OGVS

Selected regions and areas:

04	EAST ANGLIA		
	CA	CAMBRIDGESHIRE	1 days
05	EAST MIDLANDS		
	LN	LINCOLNSHIRE	1 days
08	NORTH WEST		
	CH	CHESHIRE	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Secondary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter:	Gross floor area
Actual Range:	1000 to 1600 (units: sqm)
Range Selected by User:	290 to 5000 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/11 to 07/06/18

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	1 days
Tuesday	1 days
Thursday	1 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	3 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Town Centre	2
Edge of Town Centre	1

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Retail Zone	2
Built-Up Zone	1

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

A1	3 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Secondary Filtering selection (Cont.):

Population within 1 mile:

5,001 to 10,000	1 days
20,001 to 25,000	1 days
25,001 to 50,000	1 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

25,001 to 50,000	1 days
50,001 to 75,000	1 days
125,001 to 250,000	1 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.5 or Less	1 days
0.6 to 1.0	1 days
1.6 to 2.0	1 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Petrol filling station:

Included in the survey count	0 days
Excluded from count or no filling station	3 days

This data displays the number of surveys within the selected set that include petrol filling station activity, and the number of surveys that do not.

Travel Plan:

No	3 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	3 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1	CA-01-G-01	JUST FOR PETS		CAMBRIDGESHIRE
	BACK LANE			
	CAMBOURNE			
	GREAT CAMBOURNE			
	Town Centre			
	Retail Zone			
	Total Gross floor area:		1068 sqm	
	Survey date: THURSDAY		*07/06/18*	*Survey Type: MANUAL*
2	CH-01-G-02	MAGNET		CHESHIRE
	KING EDWARD STREET			
	MACCLESFIELD			
	Town Centre			
	Built-Up Zone			
	Total Gross floor area:		1000 sqm	
	Survey date: MONDAY		*06/11/17*	*Survey Type: MANUAL*
3	LN-01-G-01	PETS AT HOME		LINCOLNSHIRE
	TRITTON ROAD			
	LINCOLN			
	TRITTON RETAIL PARK			
	Edge of Town Centre			
	Retail Zone			
	Total Gross floor area:		1600 sqm	
	Survey date: TUESDAY		*31/10/17*	*Survey Type: MANUAL*

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 01 - RETAIL/G - OTHER INDIVIDUAL NON-FOOD SUPERSTORE
MULTI-MODAL TOTAL PEOPLE
Calculation factor: 100 sqm
Estimated TRIP rate value per 100 SQM shown in shaded columns
BOLD print indicates peak (busiest) period

	ARRIVALS				DEPARTURES				TOTALS			
Time Range	No. Days	Ave. GFA	Trip Rate	Estimated Trip Rate	No. Days	Ave. GFA	Trip Rate	Estimated Trip Rate	No. Days	Ave. GFA	Trip Rate	Estimated Trip Rate
00:00 - 01:00												
01:00 - 02:00												
02:00 - 03:00												
03:00 - 04:00												
04:00 - 05:00												
05:00 - 06:00												
06:00 - 07:00												
07:00 - 08:00	1	1000	0.600	0.000	1	1000	0.300	0.000	1	1000	0.900	0.000
08:00 - 09:00	3	1223	0.245	0.000	3	1223	0.109	0.000	3	1223	0.354	0.000
09:00 - 10:00	3	1223	2.617	0.000	3	1223	1.336	0.000	3	1223	3.953	0.000
10:00 - 11:00	3	1223	2.099	0.000	3	1223	1.418	0.000	3	1223	3.517	0.000
11:00 - 12:00	3	1223	2.045	0.000	3	1223	1.908	0.000	3	1223	3.953	0.000
12:00 - 13:00	3	1223	1.581	0.000	3	1223	1.799	0.000	3	1223	3.380	0.000
13:00 - 14:00	3	1223	1.690	0.000	3	1223	2.236	0.000	3	1223	3.926	0.000
14:00 - 15:00	3	1223	1.827	0.000	3	1223	1.336	0.000	3	1223	3.163	0.000
15:00 - 16:00	3	1223	1.227	0.000	3	1223	1.636	0.000	3	1223	2.863	0.000
16:00 - 17:00	3	1223	2.617	0.000	3	1223	1.718	0.000	3	1223	4.335	0.000
17:00 - 18:00	3	1223	2.208	0.000	3	1223	2.563	0.000	3	1223	4.771	0.000
18:00 - 19:00	2	1334	2.061	0.000	2	1334	3.373	0.000	2	1334	5.434	0.000
19:00 - 20:00	2	1334	1.424	0.000	2	1334	2.624	0.000	2	1334	4.048	0.000
20:00 - 21:00	1	1600	0.000	0.000	1	1600	0.625	0.000	1	1600	0.625	0.000
21:00 - 22:00												
22:00 - 23:00												
23:00 - 24:00												
Total Rates:			22.241	0.000			22.981	0.000			45.222	0.000

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 01 - RETAIL/G - OTHER INDIVIDUAL NON-FOOD SUPERSTORE
MULTI-MODAL OGVS
Calculation factor: 100 sqm
Estimated TRIP rate value per 100 SQM shown in shaded columns
BOLD print indicates peak (busiest) period

	ARRIVALS				DEPARTURES				TOTALS			
Time Range	No. Days	Ave. GFA	Trip Rate	Estimated Trip Rate	No. Days	Ave. GFA	Trip Rate	Estimated Trip Rate	No. Days	Ave. GFA	Trip Rate	Estimated Trip Rate
00:00 - 01:00												
01:00 - 02:00												
02:00 - 03:00												
03:00 - 04:00												
04:00 - 05:00												
05:00 - 06:00												
06:00 - 07:00												
07:00 - 08:00	1	1000	0.000	0.000	1	1000	0.000	0.000	1	1000	0.000	0.000
08:00 - 09:00	3	1223	0.000	0.000	3	1223	0.000	0.000	3	1223	0.000	0.000
09:00 - 10:00	3	1223	0.000	0.000	3	1223	0.000	0.000	3	1223	0.000	0.000
10:00 - 11:00	3	1223	0.027	0.000	3	1223	0.027	0.000	3	1223	0.054	0.000
11:00 - 12:00	3	1223	0.000	0.000	3	1223	0.000	0.000	3	1223	0.000	0.000
12:00 - 13:00	3	1223	0.000	0.000	3	1223	0.000	0.000	3	1223	0.000	0.000
13:00 - 14:00	3	1223	0.055	0.000	3	1223	0.055	0.000	3	1223	0.110	0.000
14:00 - 15:00	3	1223	0.027	0.000	3	1223	0.027	0.000	3	1223	0.054	0.000
15:00 - 16:00	3	1223	0.000	0.000	3	1223	0.000	0.000	3	1223	0.000	0.000
16:00 - 17:00	3	1223	0.000	0.000	3	1223	0.000	0.000	3	1223	0.000	0.000
17:00 - 18:00	3	1223	0.000	0.000	3	1223	0.000	0.000	3	1223	0.000	0.000
18:00 - 19:00	2	1334	0.000	0.000	2	1334	0.000	0.000	2	1334	0.000	0.000
19:00 - 20:00	2	1334	0.000	0.000	2	1334	0.000	0.000	2	1334	0.000	0.000
20:00 - 21:00	1	1600	0.000	0.000	1	1600	0.000	0.000	1	1600	0.000	0.000
21:00 - 22:00												
22:00 - 23:00												
23:00 - 24:00												
Total Rates:			0.109	0.000			0.109	0.000			0.218	0.000

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Calculation Reference: AUDIT-705116-190716-0753

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : A - OFFICE
MULTI-MODAL VEHICLES

Selected regions and areas:

01	GREATER LONDON		
	CI	CITY OF LONDON	1 days
	CN	CAMDEN	1 days
	HM	HAMMERSMITH AND FULHAM	1 days
	WH	WANDSWORTH	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Secondary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Gross floor area
Actual Range: 1215 to 26639 (units: sqm)
Range Selected by User: 408 to 120000 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/11 to 26/06/18

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	1 days
Wednesday	1 days
Thursday	1 days
Friday	1 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	4 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Town Centre	4

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Commercial Zone	1
Built-Up Zone	3

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

B1	4 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Secondary Filtering selection (Cont.):

Population within 1 mile:

10,001 to 15,000	1 days
50,001 to 100,000	2 days
100,001 or More	1 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

250,001 to 500,000	1 days
500,001 or More	3 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.5 or Less	1 days
0.6 to 1.0	3 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

Yes	1 days
No	3 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

5 Very Good	1 days
6b (High) Excellent	3 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1 CI-02-A-02 OFFICES CITY OF LONDON
GRACECHURCH STREET
CITY OF LONDON
MONUMENT
Town Centre
Commercial Zone
Total Gross floor area: 9803 sqm
Survey date: FRIDAY *29/11/13* *Survey Type: MANUAL*

2 CN-02-A-03 PLANNING & ENGINEERING CAMDEN
FITZROY STREET
FITZROVIA

Town Centre
Built-Up Zone
Total Gross floor area: 26639 sqm
Survey date: WEDNESDAY *06/12/17* *Survey Type: MANUAL*

3 HM-02-A-01 REGUS OFFICES HAMMERSMITH AND FULHAM
QUEEN CAROLINE STREET
HAMMERSMITH

Town Centre
Built-Up Zone
Total Gross floor area: 2036 sqm
Survey date: MONDAY *13/11/17* *Survey Type: MANUAL*

4 WH-02-A-02 OFFICES WANDSWORTH
BATTERSEA PARK ROAD
BATTERSEA

Town Centre
Built-Up Zone
Total Gross floor area: 1215 sqm
Survey date: THURSDAY *10/05/12* *Survey Type: MANUAL*

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
CI-02-A-03	Not required
HD-02-A-09	Not required

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
MULTI-MODAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	4	9923	0.038	4	9923	0.020	4	9923	0.058
08:00 - 09:00	4	9923	0.134	4	9923	0.028	4	9923	0.162
09:00 - 10:00	4	9923	0.060	4	9923	0.013	4	9923	0.073
10:00 - 11:00	4	9923	0.033	4	9923	0.033	4	9923	0.066
11:00 - 12:00	4	9923	0.053	4	9923	0.040	4	9923	0.093
12:00 - 13:00	4	9923	0.038	4	9923	0.035	4	9923	0.073
13:00 - 14:00	4	9923	0.020	4	9923	0.013	4	9923	0.033
14:00 - 15:00	4	9923	0.008	4	9923	0.023	4	9923	0.031
15:00 - 16:00	4	9923	0.020	4	9923	0.045	4	9923	0.065
16:00 - 17:00	4	9923	0.010	4	9923	0.040	4	9923	0.050
17:00 - 18:00	4	9923	0.020	4	9923	0.103	4	9923	0.123
18:00 - 19:00	4	9923	0.013	4	9923	0.048	4	9923	0.061
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.447			0.441			0.888

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Parameter summary

Trip rate parameter range selected:	1215 - 26639 (units: sqm)
Survey date date range:	01/01/11 - 26/06/18
Number of weekdays (Monday-Friday):	4
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	2
Surveys manually removed from selection:	2

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
MULTI-MODAL TAXIS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	4	9923	0.008	4	9923	0.005	4	9923	0.013
08:00 - 09:00	4	9923	0.025	4	9923	0.010	4	9923	0.035
09:00 - 10:00	4	9923	0.015	4	9923	0.003	4	9923	0.018
10:00 - 11:00	4	9923	0.005	4	9923	0.003	4	9923	0.008
11:00 - 12:00	4	9923	0.013	4	9923	0.010	4	9923	0.023
12:00 - 13:00	4	9923	0.003	4	9923	0.005	4	9923	0.008
13:00 - 14:00	4	9923	0.005	4	9923	0.003	4	9923	0.008
14:00 - 15:00	4	9923	0.003	4	9923	0.005	4	9923	0.008
15:00 - 16:00	4	9923	0.005	4	9923	0.015	4	9923	0.020
16:00 - 17:00	4	9923	0.003	4	9923	0.013	4	9923	0.016
17:00 - 18:00	4	9923	0.013	4	9923	0.023	4	9923	0.036
18:00 - 19:00	4	9923	0.008	4	9923	0.010	4	9923	0.018
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.106			0.105			0.211

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
MULTI-MODAL OGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	4	9923	0.000	4	9923	0.000	4	9923	0.000
08:00 - 09:00	4	9923	0.005	4	9923	0.005	4	9923	0.010
09:00 - 10:00	4	9923	0.010	4	9923	0.005	4	9923	0.015
10:00 - 11:00	4	9923	0.003	4	9923	0.003	4	9923	0.006
11:00 - 12:00	4	9923	0.000	4	9923	0.005	4	9923	0.005
12:00 - 13:00	4	9923	0.003	4	9923	0.003	4	9923	0.006
13:00 - 14:00	4	9923	0.000	4	9923	0.000	4	9923	0.000
14:00 - 15:00	4	9923	0.000	4	9923	0.000	4	9923	0.000
15:00 - 16:00	4	9923	0.000	4	9923	0.000	4	9923	0.000
16:00 - 17:00	4	9923	0.000	4	9923	0.000	4	9923	0.000
17:00 - 18:00	4	9923	0.000	4	9923	0.000	4	9923	0.000
18:00 - 19:00	4	9923	0.000	4	9923	0.000	4	9923	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.021			0.021			0.042

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
MULTI-MODAL CYCLISTS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	4	9923	0.066	4	9923	0.005	4	9923	0.071
08:00 - 09:00	4	9923	0.227	4	9923	0.000	4	9923	0.227
09:00 - 10:00	4	9923	0.159	4	9923	0.015	4	9923	0.174
10:00 - 11:00	4	9923	0.038	4	9923	0.015	4	9923	0.053
11:00 - 12:00	4	9923	0.025	4	9923	0.010	4	9923	0.035
12:00 - 13:00	4	9923	0.018	4	9923	0.035	4	9923	0.053
13:00 - 14:00	4	9923	0.015	4	9923	0.023	4	9923	0.038
14:00 - 15:00	4	9923	0.005	4	9923	0.008	4	9923	0.013
15:00 - 16:00	4	9923	0.008	4	9923	0.025	4	9923	0.033
16:00 - 17:00	4	9923	0.005	4	9923	0.033	4	9923	0.038
17:00 - 18:00	4	9923	0.003	4	9923	0.197	4	9923	0.200
18:00 - 19:00	4	9923	0.000	4	9923	0.191	4	9923	0.191
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.569			0.557			1.126

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
MULTI-MODAL VEHICLE OCCUPANTS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	4	9923	0.045	4	9923	0.020	4	9923	0.065
08:00 - 09:00	4	9923	0.156	4	9923	0.030	4	9923	0.186
09:00 - 10:00	4	9923	0.068	4	9923	0.015	4	9923	0.083
10:00 - 11:00	4	9923	0.043	4	9923	0.038	4	9923	0.081
11:00 - 12:00	4	9923	0.060	4	9923	0.043	4	9923	0.103
12:00 - 13:00	4	9923	0.045	4	9923	0.043	4	9923	0.088
13:00 - 14:00	4	9923	0.033	4	9923	0.020	4	9923	0.053
14:00 - 15:00	4	9923	0.013	4	9923	0.028	4	9923	0.041
15:00 - 16:00	4	9923	0.028	4	9923	0.055	4	9923	0.083
16:00 - 17:00	4	9923	0.015	4	9923	0.050	4	9923	0.065
17:00 - 18:00	4	9923	0.023	4	9923	0.121	4	9923	0.144
18:00 - 19:00	4	9923	0.018	4	9923	0.060	4	9923	0.078
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.547			0.523			1.070

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
MULTI-MODAL PEDESTRIANS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	4	9923	0.134	4	9923	0.091	4	9923	0.225
08:00 - 09:00	4	9923	0.403	4	9923	0.222	4	9923	0.625
09:00 - 10:00	4	9923	0.393	4	9923	0.254	4	9923	0.647
10:00 - 11:00	4	9923	0.431	4	9923	0.481	4	9923	0.912
11:00 - 12:00	4	9923	0.290	4	9923	0.317	4	9923	0.607
12:00 - 13:00	4	9923	0.403	4	9923	0.595	4	9923	0.998
13:00 - 14:00	4	9923	0.650	4	9923	0.511	4	9923	1.161
14:00 - 15:00	4	9923	0.290	4	9923	0.141	4	9923	0.431
15:00 - 16:00	4	9923	0.081	4	9923	0.149	4	9923	0.230
16:00 - 17:00	4	9923	0.093	4	9923	0.156	4	9923	0.249
17:00 - 18:00	4	9923	0.076	4	9923	0.270	4	9923	0.346
18:00 - 19:00	4	9923	0.033	4	9923	0.144	4	9923	0.177
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.277			3.331			6.608

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
MULTI-MODAL BUS/TRAM PASSENGERS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	4	9923	0.108	4	9923	0.008	4	9923	0.116
08:00 - 09:00	4	9923	0.383	4	9923	0.013	4	9923	0.396
09:00 - 10:00	4	9923	0.280	4	9923	0.030	4	9923	0.310
10:00 - 11:00	4	9923	0.088	4	9923	0.048	4	9923	0.136
11:00 - 12:00	4	9923	0.045	4	9923	0.078	4	9923	0.123
12:00 - 13:00	4	9923	0.078	4	9923	0.091	4	9923	0.169
13:00 - 14:00	4	9923	0.106	4	9923	0.060	4	9923	0.166
14:00 - 15:00	4	9923	0.045	4	9923	0.053	4	9923	0.098
15:00 - 16:00	4	9923	0.033	4	9923	0.088	4	9923	0.121
16:00 - 17:00	4	9923	0.035	4	9923	0.116	4	9923	0.151
17:00 - 18:00	4	9923	0.028	4	9923	0.380	4	9923	0.408
18:00 - 19:00	4	9923	0.000	4	9923	0.207	4	9923	0.207
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.229			1.172			2.401

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
MULTI-MODAL TOTAL RAIL PASSENGERS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	4	9923	0.411	4	9923	0.008	4	9923	0.419
08:00 - 09:00	4	9923	1.839	4	9923	0.033	4	9923	1.872
09:00 - 10:00	4	9923	1.368	4	9923	0.083	4	9923	1.451
10:00 - 11:00	4	9923	0.383	4	9923	0.108	4	9923	0.491
11:00 - 12:00	4	9923	0.204	4	9923	0.207	4	9923	0.411
12:00 - 13:00	4	9923	0.159	4	9923	0.378	4	9923	0.537
13:00 - 14:00	4	9923	0.191	4	9923	0.317	4	9923	0.508
14:00 - 15:00	4	9923	0.121	4	9923	0.204	4	9923	0.325
15:00 - 16:00	4	9923	0.091	4	9923	0.373	4	9923	0.464
16:00 - 17:00	4	9923	0.154	4	9923	0.630	4	9923	0.784
17:00 - 18:00	4	9923	0.088	4	9923	1.703	4	9923	1.791
18:00 - 19:00	4	9923	0.038	4	9923	0.859	4	9923	0.897
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			5.047			4.903			9.950

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
MULTI-MODAL PUBLIC TRANSPORT USERS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	4	9923	0.519	4	9923	0.015	4	9923	0.534
08:00 - 09:00	4	9923	2.222	4	9923	0.045	4	9923	2.267
09:00 - 10:00	4	9923	1.648	4	9923	0.113	4	9923	1.761
10:00 - 11:00	4	9923	0.471	4	9923	0.156	4	9923	0.627
11:00 - 12:00	4	9923	0.249	4	9923	0.285	4	9923	0.534
12:00 - 13:00	4	9923	0.237	4	9923	0.469	4	9923	0.706
13:00 - 14:00	4	9923	0.297	4	9923	0.378	4	9923	0.675
14:00 - 15:00	4	9923	0.166	4	9923	0.257	4	9923	0.423
15:00 - 16:00	4	9923	0.123	4	9923	0.461	4	9923	0.584
16:00 - 17:00	4	9923	0.189	4	9923	0.746	4	9923	0.935
17:00 - 18:00	4	9923	0.116	4	9923	2.083	4	9923	2.199
18:00 - 19:00	4	9923	0.038	4	9923	1.066	4	9923	1.104
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			6.275			6.074			12.349

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
MULTI-MODAL TOTAL PEOPLE
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	4	9923	0.763	4	9923	0.131	4	9923	0.894
08:00 - 09:00	4	9923	3.008	4	9923	0.297	4	9923	3.305
09:00 - 10:00	4	9923	2.267	4	9923	0.398	4	9923	2.665
10:00 - 11:00	4	9923	0.983	4	9923	0.690	4	9923	1.673
11:00 - 12:00	4	9923	0.625	4	9923	0.655	4	9923	1.280
12:00 - 13:00	4	9923	0.703	4	9923	1.141	4	9923	1.844
13:00 - 14:00	4	9923	0.995	4	9923	0.932	4	9923	1.927
14:00 - 15:00	4	9923	0.474	4	9923	0.433	4	9923	0.907
15:00 - 16:00	4	9923	0.239	4	9923	0.690	4	9923	0.929
16:00 - 17:00	4	9923	0.302	4	9923	0.985	4	9923	1.287
17:00 - 18:00	4	9923	0.217	4	9923	2.670	4	9923	2.887
18:00 - 19:00	4	9923	0.088	4	9923	1.461	4	9923	1.549
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			10.664			10.483			21.147

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

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Calculation Reference: AUDIT-705116-190716-0718

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 07 - LEISURE
Category : A - MULTIPLEX CINEMAS
MULTI-MODAL TOTAL PEOPLE

Selected regions and areas:

03	SOUTH WEST		
	DC	DORSET	1 days
06	WEST MIDLANDS		
	WO	WORCESTERSHIRE	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Secondary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Gross floor area
Actual Range: 1550 to 2200 (units: sqm)
Range Selected by User: 464 to 4500 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/11 to 18/11/16

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Friday	1 days
Saturday	1 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	2 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Town Centre	1
Edge of Town Centre	1

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Development Zone	1
High Street	1

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

D2	2 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Secondary Filtering selection (Cont.):

Population within 1 mile:

15,001 to 20,000	1 days
25,001 to 50,000	1 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

25,001 to 50,000	1 days
125,001 to 250,000	1 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	1 days
1.1 to 1.5	1 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

No	2 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	2 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1	DC-07-A-01 DRAYHORSE YARD DORCHESTER	ODEON		DORSET
	Edge of Town Centre Development Zone Total Gross floor area:		1550 sqm	
	Survey date: SATURDAY		*17/09/16*	*Survey Type: MANUAL*
2	WO-07-A-01 FOREGATE STREET WORCESTER	ODEON		WORCESTERSHIRE
	Town Centre High Street Total Gross floor area:		2200 sqm	
	Survey date: FRIDAY		*18/11/16*	*Survey Type: MANUAL*

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 07 - LEISURE/A - MULTIPLEX CINEMAS
MULTI-MODAL TOTAL PEOPLE
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00	1	1550	0.000	1	1550	0.323	1	1550	0.323
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00									
09:00 - 10:00	1	1550	4.774	1	1550	0.194	1	1550	4.968
10:00 - 11:00	2	1875	0.587	2	1875	0.133	2	1875	0.720
11:00 - 12:00	2	1875	0.907	2	1875	2.107	2	1875	3.014
12:00 - 13:00	2	1875	3.067	2	1875	1.733	2	1875	4.800
13:00 - 14:00	2	1875	1.520	2	1875	0.773	2	1875	2.293
14:00 - 15:00	2	1875	2.427	2	1875	1.840	2	1875	4.267
15:00 - 16:00	2	1875	2.773	2	1875	2.427	2	1875	5.200
16:00 - 17:00	2	1875	1.413	2	1875	1.307	2	1875	2.720
17:00 - 18:00	2	1875	4.720	2	1875	2.587	2	1875	7.307
18:00 - 19:00	2	1875	6.800	2	1875	3.093	2	1875	9.893
19:00 - 20:00	2	1875	3.067	2	1875	1.653	2	1875	4.720
20:00 - 21:00	2	1875	7.760	2	1875	4.453	2	1875	12.213
21:00 - 22:00	2	1875	2.027	2	1875	6.267	2	1875	8.294
22:00 - 23:00	2	1875	0.213	2	1875	6.693	2	1875	6.906
23:00 - 24:00	2	1875	0.293	2	1875	3.733	2	1875	4.026
Total Rates:			42.348			39.316			81.664

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

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TRIP RATE for Land Use 07 - LEISURE/A - MULTIPLEX CINEMAS
MULTI-MODAL OGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00	1	1550	0.000	1	1550	0.000	1	1550	0.000
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00									
09:00 - 10:00	1	1550	0.000	1	1550	0.000	1	1550	0.000
10:00 - 11:00	2	1875	0.000	2	1875	0.000	2	1875	0.000
11:00 - 12:00	2	1875	0.000	2	1875	0.000	2	1875	0.000
12:00 - 13:00	2	1875	0.027	2	1875	0.027	2	1875	0.054
13:00 - 14:00	2	1875	0.000	2	1875	0.000	2	1875	0.000
14:00 - 15:00	2	1875	0.000	2	1875	0.000	2	1875	0.000
15:00 - 16:00	2	1875	0.000	2	1875	0.000	2	1875	0.000
16:00 - 17:00	2	1875	0.000	2	1875	0.000	2	1875	0.000
17:00 - 18:00	2	1875	0.000	2	1875	0.000	2	1875	0.000
18:00 - 19:00	2	1875	0.000	2	1875	0.000	2	1875	0.000
19:00 - 20:00	2	1875	0.000	2	1875	0.000	2	1875	0.000
20:00 - 21:00	2	1875	0.000	2	1875	0.000	2	1875	0.000
21:00 - 22:00	2	1875	0.000	2	1875	0.000	2	1875	0.000
22:00 - 23:00	2	1875	0.000	2	1875	0.000	2	1875	0.000
23:00 - 24:00	2	1875	0.000	2	1875	0.000	2	1875	0.000
Total Rates:			0.027			0.027			0.054

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