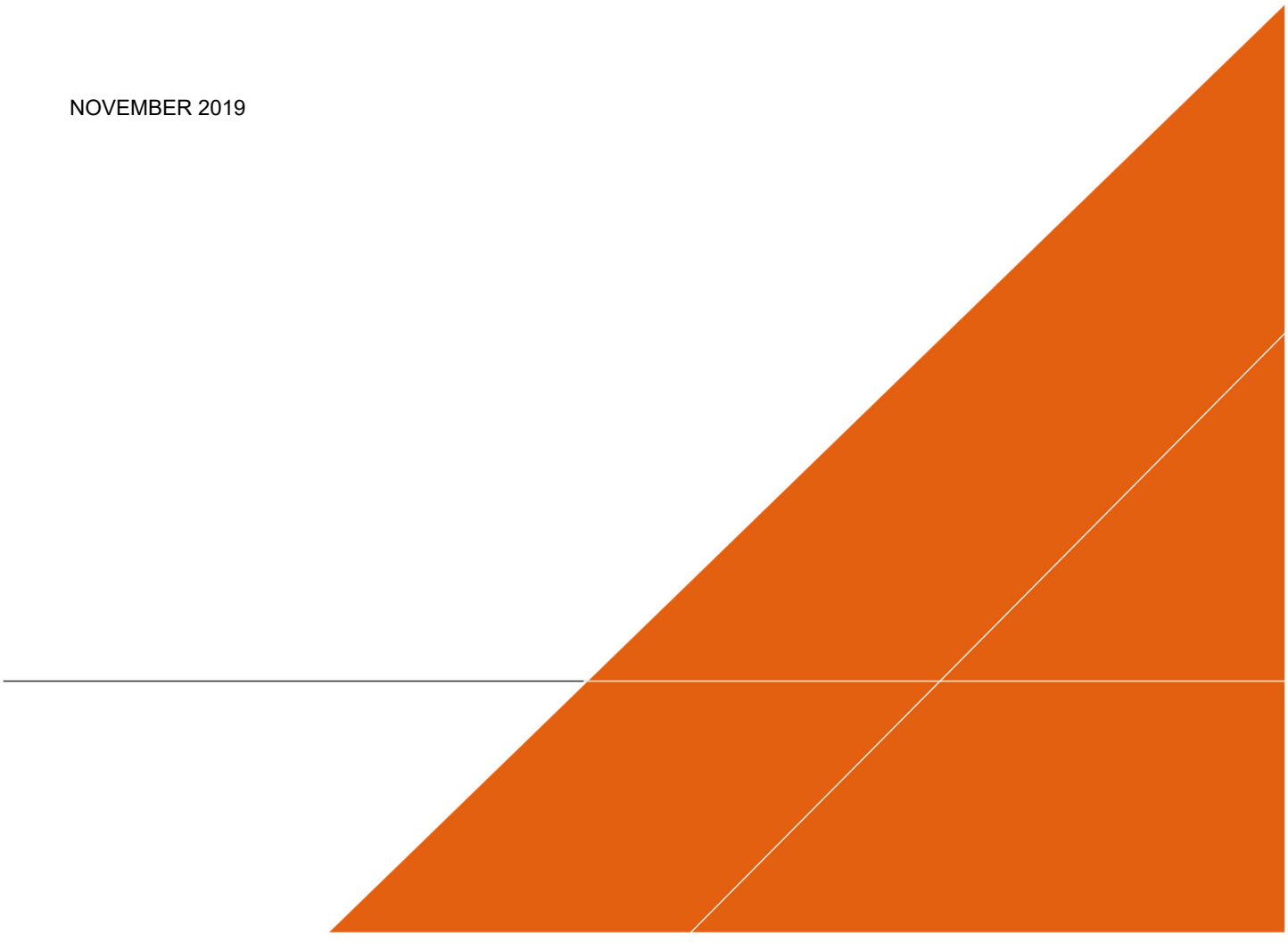
ARCADIS Design & Consultancy for natural and built assets

LONDON BOROUGH OF HOUNSLOW SMALL SITES SMALL BUILDERS PROGRAMME

GARAGES ADJACENT 86, BEECH AVENUE, BRENTFORD, TW8 8NH

Highways Due Diligence Report

NOVEMBER 2019



Garage Block adjacent 60 Magdala Road, Isleworth, TW7 7DD
Highways Due Diligence Report

Author	Hari Roy
Checker	Charlotte Gough
Approver	Phillip Longman
Report No	10030793-ARC-XX-XX-RP-HE-0224-01-Highways DD Report
Date	NOVEMBER 2019

VERSION CONTROL

Version	Date	Author	Checker	Approver	Changes
01	November 2019	HR		PL	First Issue

This report dated 22 November 2019 has been prepared for London Borough of Hounslow (the "Client") in accordance with the terms and conditions of appointment dated 25 October 2019 (the "Appointment") between the Client and **Arcadis (UK) Limited** ("Arcadis") for the purposes specified in the Appointment. For avoidance of doubt, no other person(s) may use or rely upon this report or its contents, and Arcadis accepts no responsibility for any such use or reliance thereon by any other third party.

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1 Introduction

1.1 Terms of Reference

Arcadis Consulting (UK) Limited (Arcadis) has been commissioned by the London Borough of Hounslow (LBH) 'the Client' to undertake a number of technical surveys for a garages adjacent 86 Beech Avenue, Brentford**,** London ('the Site').

LBH is aiming to dispose of a number of small sites to enable positive regeneration. The objective of this review is to identify potential transport and highways constraints and identify access to the Site for future development.

The objectives of this review are to:

- Review existing transport, highway, access and movement related information regarding the Site and its surrounding area;
- Provide outline information on potential transport and highway constraints which may impact on the land value or redevelopment potential for the site; and
- Identify potential development opportunities based upon local characteristics and risks.



Figure 1: Site Location Plan

1.2 Sources of Information

As part of this desk study report various sources of information have been used and are detailed below:

- Crash Map (www.crashmap.co.uk)
- Transport for London WebCAT (www.tfl.gov.uk/info-for/urban-planning-and-construction/planning-with-webcat/webcat)
- LBH Highways Register Interactive Map (https://maps.hounslow.gov.uk/map/Aurora.svc/run?script=%5cAurora%5cFind_your_nearest_Highways_Register.AuroraScript%24&nocache=1720418021&resize=always)
- Geofabrik (https://download.geofabrik.de/europe/great-britain/england.html)

1.3 Limitations and Expectations

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This report has been compiled from a number of sources, which Arcadis believes to be trustworthy. However, Arcadis is unable to guarantee the accuracy of information provided by others. The report is based on information available at the time. Consequently, there is a potential for further information to become available, which may change this report's conclusion and for which Arcadis cannot be responsible.

2 Site Setting and History

2.1 Site Location and Land Use

Table 1: Details relating to Site Location

Site Location / Address	Garages adjacent 86, Beech Avenue, Brentford, TW8 8NH
National Grid Reference	516774, 177358
Approximate Site Area	The Site is roughly rectangular in shape and covers an area of approximately 0.013 Ha (hectares).
Description of Site	The Site is currently occupied by 3 No. garages and portions of hardstanding adjacent to Almond Grove which borders the south-eastern boundary. The remainder of the site is bounded by the driveways and gardens of adjacent residential property. The hardstanding area providing access to the garages are surfaced in concrete and appear to be in fair condition and with no evidence of staining or damage. The garage composite construction materials are not known.
Topography	The site topography is flat and sits at an elevation of approximately 6m Above Ordnance Datum (AOD). The immediate surrounding area is level, fluctuating between 5-7m AOD. The regional topography slopes down gently south-west toward the River Thames, approximately 395m.
Surrounding Area	The site lies within an area dominated with residential developments. Railway lines routing south-west to north-east are located 90m north-west of the Site. The River Brent lies approximately 450m to the east and is oriented on a north-west south-east tangent and flows into the River Thames.

2.2 Site and Planning History

It is not the intention of this report to provide a full history, but to identify those past uses, or planning applications, on or near the Site that are related to changes to the highway and access.

The Site has been undeveloped land since 1935, while the surrounding area in all directions changed to a predominantly residential area over time from 1935 to the present day. By 1991, the empty parcel of land where the Site is located was developed into the garage structures that are present now.

Planning applications submitted in the surrounding area that are comparable to the Site and its proposals are summarised in Table 2.

Table 2: Planning History of Site and Surrounding Area

Planning Application Reference	Description
Approved June 2015 P/2015/1753 Land Adjacent to 80A Cherry Crescent Brentford London TW8 8NN	Development of the site to provide a two-story 4-bedroom house. This development is located approximately 210m east of the Site.

The above planning application on the neighbouring site suggests a trend towards residential development in the surrounding area.

2.3 Highways Register - Highway Boundary

LBH's Highways Register online map provides information regarding the highway boundary within Hounslow. According to LBH's Highways Register, the Beech Avenue Site, as shown in Figure 2, is categorised as 'Unadopted Private'. Maple Grove, Beech Avenue and Magdala Road, borders the Site to the north, east and south respectively and are categorised as 'Adopted Carriageway', with the footways on either side of the carriageway also being adopted.

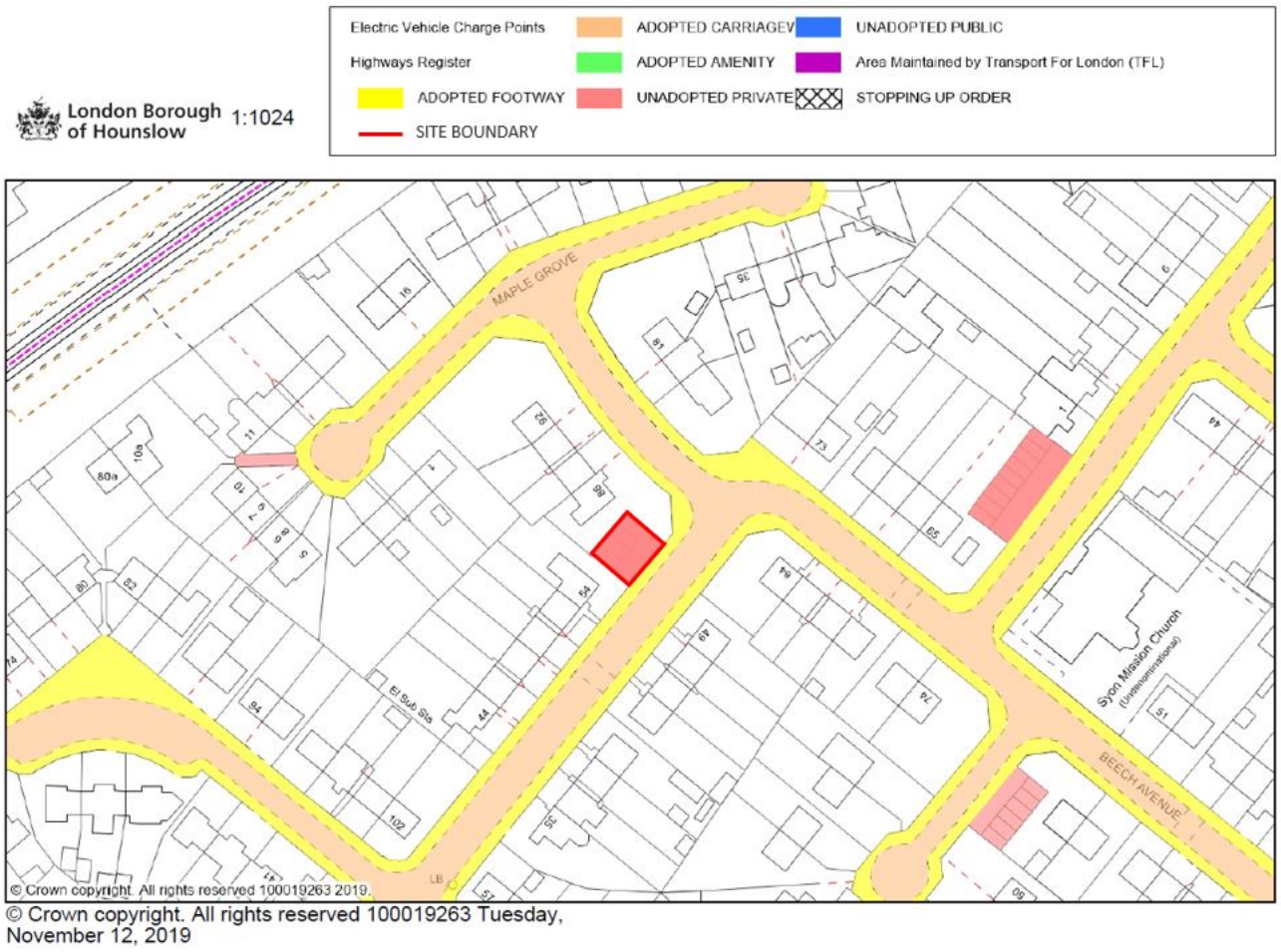


Figure 2: Highway Status

2.4 Planning Policy

Local Plan 2015 – 2030 – Sustainable Transport
Policy TC2 – Ensuring the future vitality of town centres:
This policy has been created to promote the regeneration of town centres with a particular emphasis on Hounslow and Brentford, linked to the broader regeneration in these locations. To achieve this, in regard to sustainable transport, it is stated within Section A, that enhanced links to sustainable transport nodes and hubs will be encouraged, particularly to Hounslow mainline station to the south and Hounslow Central and Hounslow East London Underground stations to the north.

Policy GB4 – The green infrastructure network
The approach for this policy is to protect and enhance the green infrastructure networks throughout the borough. Under Section C, sustainable travel plays a role in achieving this policy; this is through *"Promoting projects to improve access to the green infrastructure network and accessibility between open spaces, and to form a network for sustainable travel, consistent with the council's Greenways and Quietways initiatives."*

Policy EC2 – Developing a sustainable local transport network
It is emphasised that with *"the growing number of people coming to Hounslow to live or work means the delivery of a sustainable transport network is crucial."*

It is stated that with the proposals of new jobs and homes set out in the Local Plan this will lead to more frequent traffic congestion unless development includes travel management considerations.

Furthermore, the Policy explains that new developments will play an essential role in achieving sustainable movement. This therefore will involve a range of considerations for the outcome of successful planning applications. This will *"include preparing transport assessments and travel plans"*, to ensure that the scheme "*promotes walking and cycling, managing car parking and improving the public realm, including through developer contributions*." Through these measures a better environment for sustainable movement will be created.

It is noted that "*even where cars still have a dominant role, the promotion of car sharing, electric vehicles and improvements to the highway network will improve efficiency and environmental outcomes."*

Under the section for Notes, for Policy EC2, the key following points have been identified:

- *"'Car-free' and 'low car' development will be encouraged in locations of high public transport accessibility and locations where there are Controlled Parking Zones (CPZs).;*
- *The London Plan includes cycle and car parking standards, plus standards for motorcycles, coaches, parking for persons with disabilities and electric vehicle charging. and*
- *In addition to meeting minimum cycle parking standards, all cycle parking should be of high quality, covered, secure and integral to building design. It should also be easily accessible, by being located at ground floor level, close to entrances and/or building cores, having internal and external access, and avoiding vertical or semi-vertical stands which are not fully accessible. The size of cycle stores should be as small as is practical and ideally accommodate fewer than 50 cycles.".*

Local Implementation Plan 2019 (LIP) – Sustainable Transport:

The LIP's overarching objective regarding transport is to *"enable all those who live in or visit the area to travel safely and conveniently, whilst supporting environmentally sustainable economic growth and improving health."*

The LIP sets out Hounslow Borough's outcomes and objectives. Outcome 8: Active, efficient and sustainable travel will be the best option in new developments, as it sets out what is required for new developments to mitigate an increase in the existing congestion and air quality issues.

Under the sub-section 'Designing New Developments for Sustainable Travel' the LIP continues to detail that *"developers will need to play an essential role in delivering sustainable and active travel by*

contributing towards infrastructure both within and around their sites, ensuring they are linked to cycle routes, public transport nodes, and essential services. This will include, where appropriate, reducing the severing effect of existing transport infrastructure such as major roads and railway lines."

It is stated that it would not be enough to just promote active and sustainable travel, but developments will need to be designed so that they promote walking and cycling. It is suggested that the healthy streets principles can also be used to plan a new development around walking and cycling.

Objectives under outcome 8 can be seen below:

08a To use the planning system to ensure new developments incorporate the healthy streets principles into their designs, in line with policy T2 of the London Plan.

08b To use the planning system to promote car-free and low-car developments.

08c To use the planning system to ensure new developments provide high quality cycle parking in line with London Plan standards.

08d To secure s106 and CIL42 contributions so that developers mitigate any significant impacts on the transport network and contribute to LIP objectives.

08e To ensure developer Travel Plans are prepared in accordance with latest guidance from Transport for London and the council's '10 Point Guide'.

08f To support businesses and developers with implementing and monitoring their travel plan commitments.

08g To use developer funding to minimise any increase in noise or reduction in air quality as a result of new development.

08h To promote increased surface access provision to Heathrow Airport by working with partners to improve public transport connections and cycle infrastructure.

08i To work with Heathrow Airport to avoid increased levels of noise and air pollution as a result of aircraft movements.

Local Plan 2015 - 2030 – Car Parking for New Development

Within the Local Plan, it is expected that development proposals will consist of an "*appropriate maximum number of car parking spaces consistent with the standards in the London Plan*."

The Draft New London Plan, published in December 2017, outlines the Mayor's environmental, economic, social and transport strategic policy framework which is aimed to improve London as a region over the next 20-25 years. Chapter 10 of this document sets out the Transport policy including the maximum car parking standards.

The Draft New London Plan, version with Minor Suggested Changes was published on 13 August 2018. Although this document is still in draft, it provides an indication to the direction of future policies and hence is advisable to adhere to this strategy for upcoming developments. The Draft New London Plan maximum car parking standards are shown in the following table.

Table 3: Maximum residential parking standards in accordance to the Draft London Plan 2017

Location	Maximum parking provision*
Central Activities Zone Inner London Opportunity Areas Metropolitan and Major Town Centres All areas of PTAL 5 – 6 Inner London PTAL 4	Car free ~
Inner London PTAL 3	Up to 0.25 spaces per dwelling
Inner London PTAL 2 Outer London PTAL 4 Outer London Opportunity Areas	Up to 0.5 spaces per dwelling
Inner London PTAL 0 – 1 Outer London PTAL 3	Up to 0.75 spaces per dwelling
Outer London PTAL 2	Up to 1 space per dwelling
Outer London PTAL 0 - 1	Up to 1.5 spaces per dwelling ^
* Where Development Plans specify lower local maximum standards for general or operational parking, these should be followed. ~ With the exception of disabled persons parking, see Policy T6.1 G ^ Where small units (generally studios and one-bedroom flats) make up a proportion of a development, parking provision should reflect the resultant reduction in demand so that provision across the Site is less than 1.5 spaces per unit.	

The Site has a PTAL rating of 2 and is located in outer London, therefore the maximum provision of 1 space per dwelling would be applicable for any future residential development on the Site.

3 Access and Movement Overview

3.1 Existing Access Arrangements

The Site currently can be accessed by Almond Grove, bordering south-east of the Site. A dropped kerb is provided along the full length of the site boundary on Almond Grove facilitating access to the site from any location along the site boundary. At present the Site is bounded by adopted footway along the south-eastern boundary, and therefore pedestrians have direct access to the Site.

3.2 Adjacent Lane Uses and Amenities

The surrounding neighbourhoods to the north, south, east and west of the Site are residential in nature, with a railway line situated 90m north-west of the Site. There are a number of amenities within 800m of the Site:

- The Green School for Girls (secondary school) lies at a distance of 600m south west of the Site, with a walking distance of approximately 900m. The Green School for Boys is further to the south at a walking distance of circa 950m.
- The Buttercups Day Nursery is located a walking distance of circa 600m south of the Site, and the Bright Horizons Brentford Day Nursery and Preschool is circa a 850m walk south east of the Site.
- Public parks exist within an 800m catchment of the Site –namely the Brent Lea Recreation ground and the Hawthorn Road Park lie to the south. Syon Park and House lie south of the site.
- The West Middlesex University Hospital lies at a distance of 1km south-west of the Site.
- The A315 London Road is located within 400m walking distance, south of the Site. Various convenience stores and mini markets are located on the A315 London Road.
- Three churches, namely, the Quaker Religious Society of Friends, the St. Francis of Assisi Church, and the St. John's Evangelist RC Church, are located within the 800m catchment of the Site.
- The rail station closest to the Site is Syon Lane Rail Station to the west, a walking distance of approximately 550m.

Figure 3 illustrates the mixture of land use and amenities surrounding the Site. The source of the data is derived from Geofabrik which consists of OpenStreetMap (OSM) data. The data downloaded is from 21st November 2019. It should be noted that OSM data is not 100% accurate and therefore certain amenities may not appear in the coverage area in question.

3.3 Pedestrian Accessibility

Almond Grove, from which the Site is currently accessed, has footways on both sides of the road. The footways are generally wider at junction locations, such as at the junction of Beech Avenue / Almond Grove; and at the junction of Beech Avenue/ Maple Grove, in the immediate vicinity of the Site. Beech Avenue borders the Site to the east. It joins the A315 London Road to the south at a priority junction. Maple Grove, bordering the Site to the north, ends in a cul-de-sac and has footways of approximately 2.5m to 3m width on both sides.

The A315 London Road has good pedestrian infrastructure, with footways in good condition on both sides of the road. The footway to the northern side of the carriageway is wider, while those on the southern side of the carriageway are narrower (1.5m to 2m wide). At some locations, the footway becomes wider, such as outside Brentford café and the junction of London Road/Brent Lea. A number of uncontrolled pedestrian crossings exist on the A315 London Road where junctions are formed with local roads joining, at these locations raised tables with tactile paving are present.

A signalised pedestrian crossing exists on the A315 London Road/Half Moon Close junction, providing dropped kerbs, tactile paving and a refuge island.

Towards the Syon Lane Rail Station approximately 470m walk distance west of the site, there are uncontrolled crossings along the B464 Syon Lane in the form of dropped kerbs, tactile paving and refuge islands. Syon Lane station joins onto the B454 Syon Lane via a staircase leading upwards to Syon Lane. A signalised pedestrian crossing is provided just north of the rail station on B454.

3.4 Cycle Infrastructure

The closest National Cycle Route lies at a distance of more than 5km to the south of the Site. This National Cycle Route 4 connects London to Bristol. The Transport for London proposed Cycle Superhighway 9 (Kensington Olympia to Brentford Town centre – CS9), will run on the A315 London Road.

The A315 London Road has an advisory cycle lane on the south side of the road. A section of the road, from the junction of London Road / Half Moon Close to London Road / Brent Lea, cycles are permitted on the footway. There is cycle provision in various forms on the north side of London Road in the form of an off-road cycle lane around pedestrian crossings, an advisory cycle lane and also bus lane, which cyclists can use.

Cycle lanes exist on both sides of the A4 Great West Road, located to the north of the Site. No other cycle infrastructure is available in the immediate vicinity of the Site.

3.5 Public Transport Accessibility

A Public Transport Accessibility Level (PTAL) report has been produced using TfL's WebCat Planning tool which provides a ranking of a location regarding its distance from frequent public transport services. The full report can be found in Appendix A.

The PTAL report findings show that the Site falls under a PTAL rating of 2, with 0 being the worst and 6b representing the best in terms of accessibility. A PTAL rating of 2 indicates that the Site has a low level of accessibility. The full PTAL report is available within Appendix A of this report.

Table 4 illustrates the bus services and bus stops in proximity to the Site, providing route details and the frequency of the service per hour per direction. The closest bus stop is called Marlborough Road and is located on Syon Lane, approximately a walking distance of 475m to the west of the Site. The next nearest bus stop is called Beech Lane on the A315 London Road, which is approximately a 500m walking distance south of the Site, with existing pedestrian infrastructure providing access to this stop.

Table 4: Bus Services

Bus Stop	Distance to site (m)	Bus Service No.	Route	No. per hour per direction
Marlborough Road, Stop Z/Y	450m/500m	H28	Bulls Bridge - Heston - Hounslow - Spring Grove - Osterley, Tesco	2-4
Beech Avenue/ Brent Lea	450m/550m	235	Sunbury - Hounslow - Brentford	4-10
		237	Hounslow Heath - Hounslow - Isleworth - Brentford - Chiswick - Stamford Brook - White City	5-8
		267	Hammersmith - Brentford - Fulwell	5-8
		E8	Hounslow - Boston Manor - Ealing Broadway	6-9
Commerce Road/ Brentford Lock	750m	E2	Brentford - Ealing Broadway - Greenford	6-10
Total				28-49

The night bus service N9 routing between Aldwych / Somerset House and Heathrow Terminal 5 also serves Beech Avenue and Brent Lea bus stop located along A315 London Road, with 3 buses an hour per direction when it is in operation.

In addition to the bus services available, rail services can be accessed from Syon Lane Rail Station which is located approximately a walking distance of 550m from the Site by foot. Syon Lane Rail Station provides services by South Western Rail to a number of destinations including London Waterloo, Richmond and Weybridge.

Table 5: Rail Services from Syon Lane Rail Station

Route	Services per hour per direction
Hounslow Loop to London Waterloo	4
Weybridge via Stains to Waterloo	4
Total	8

3.6 Road Infrastructure

Beech Avenue is a local residential street (the carriageway being approximately 7.5m in width), bordering the northeast of the Site. There are 5 speed tables along Beech Avenue to act as a traffic calming measure.

Almond Grove, which borders the Site to the south, is a local residential street with four speed tables present as a traffic calming measure. The carriageway is approximately 7m in width.

Beech Avenue meets the A315 London Road, to the south at a priority junction. No loading is permitted at any time at the entry of Beech Avenue. The A315 London Road is a single carriageway road, with provision of a bus lane on the north side of the road, and cycle lanes. Double yellow lines indicate parking is not permitted along this road. Where parking is permitted, parking bays are marked on the road. Waiting restrictions are in place for heavy goods vehicles of more than 5 tonnes, and buses between 18.30 to 08.00. The speed limit for the A315 London Road has been set to 30mph.

The A315 London Road, which runs to the south of the Site, provides access to Brentford Town Centre to the east and Isleworth to the west.

The A4 Great West Road, which lies to the north of the Site, is a dual carriageway, providing 3 lanes in each direction. The road also includes bus stops and cycle lanes on both sides of the road. It is a red route, where no stopping is permitted at any time, except for buses. The speed limit on the road is 40mph. The A4 can be accessed from Syon Lane, southwest of the Site.

3.7 Parking

Beech Avenue located south of the site and Almond Grove which forms the Site's south-eastern boundary both have parking restrictions in place to prevent heavy goods vehicles and buses parking between 18.30 and 08.00. There are also waiting restrictions in place for heavy goods vehicles of more than 5 tonnes, and buses, between 18.30 to 08.00, in the immediate vicinity of the Site. Three bays for disabled badge holders have been identified along Almond Grove, approximately 30m from the site..

3.8 Analysis of Collision Data

An indicative analysis of the most up to date five-year period of collision data has been undertaken using the DfT registration of collisions accessible via Crashmap.co.uk. Please note, no details of collisions have been requested, only statistics.

A total of four accidents have been identified as having taken place in the area surrounding residential roads within the vicinity of the Site in this five-year period. One slight accident was recorded on Hornbeam Crescent north of the Site. A further two accidents were recorded on Hawthorn Road, located due south east of the Site and one further accident occurring on Beech Avenue on the approach to the priority junction with the A315 London Road. All accidents recorded in this area were slight and no accidents involved

pedestrian or cycle casualty. An extract from Crashmap showing the exact locations of the incidents can be viewed within Appendix B.

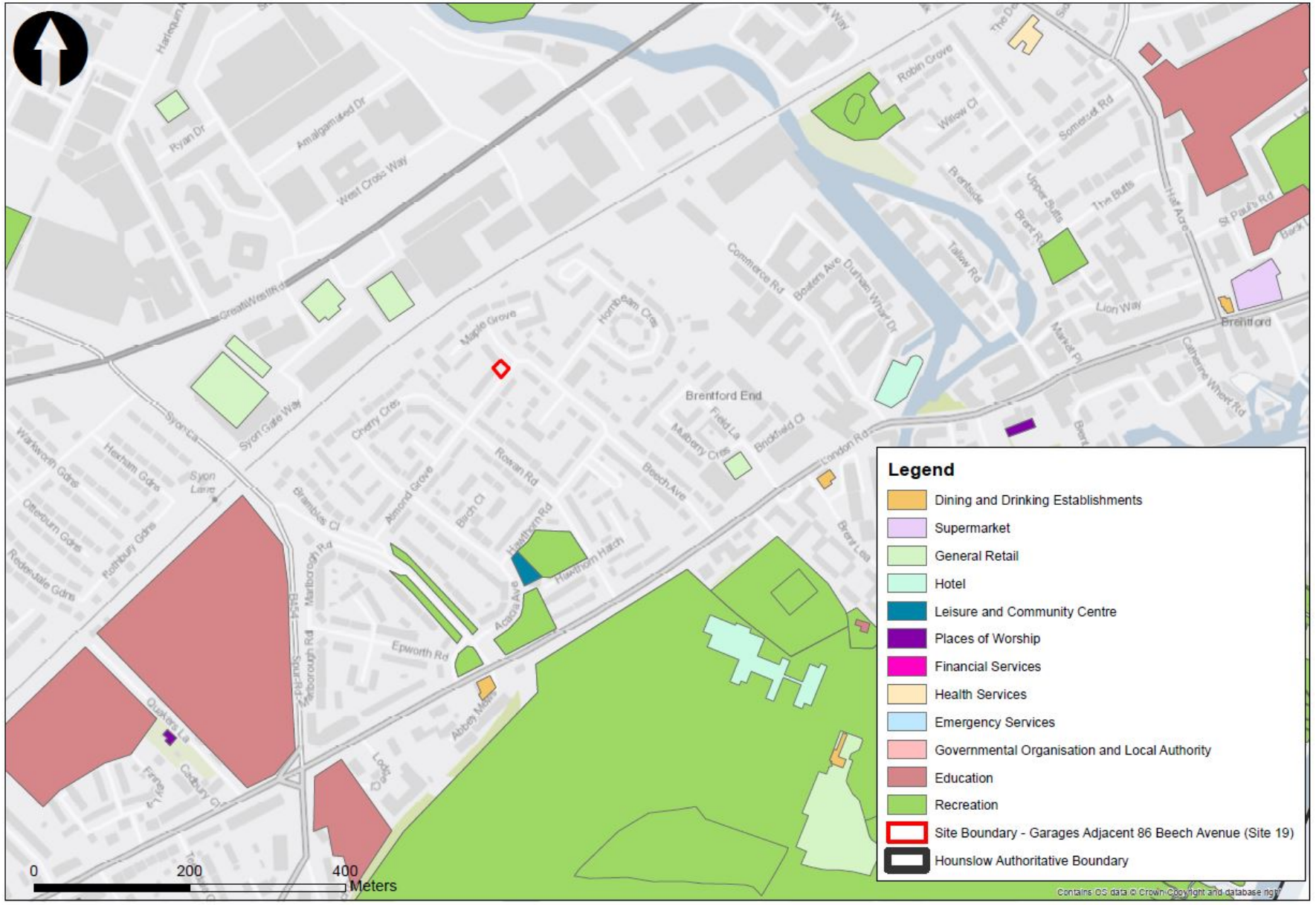


Figure 3: Indicative Amenities Surrounding the Site

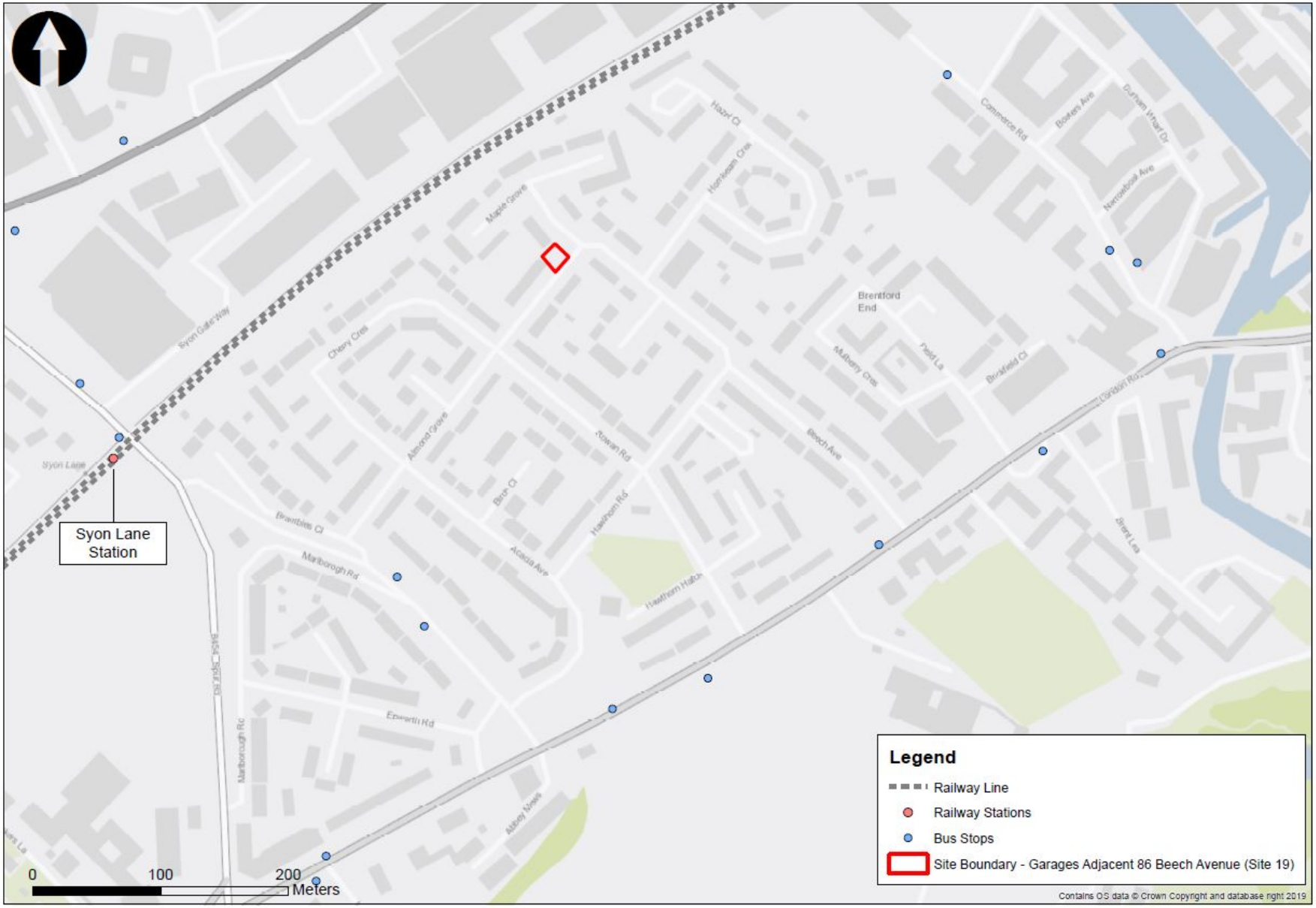


Figure 4: Public Transport Infrastructure Surrounding the Site

4 Future Site Access and Considered Risks

For the purpose of the analysis of this report, it is assumed that the Beech Avenue site would be considered for future residential development. In the context of the surrounding area, this would be deemed appropriate due to the surrounding residential development and nearby planning history.

It is considered that a site of this size and with the neighbouring buildings being of similar uses, a residential development could be supported. A single vehicle access would have the capacity to support this scale of development.

The Site currently has one direct vehicle access, via Almond Grove as a southern access. The aforementioned location is close to existing on-street parking bays limiting the visibility, however as this access is already established, any future use of this location as a vehicle access is unlikely to raise any concerns from a highway perspective.

The viability of the vehicular access would therefore unlikely be disputed and the land surrounding the Site, both the carriageway and the footway, have been identified as adopted, therefore there are no land ownership issues with regards to the access of the Site.

The Site is well connected to existing pedestrian footways and good quality public transport links. These connections provide the opportunity for any future development of the Site to promote trips by sustainable travel modes, which will have environmental benefits

The access option is illustrated in Figure 5.



Figure 5: Access Option (Background Source – Google)

5 Conclusions and Recommendations

5.1 Conclusions

The Beech Avenue site is considered to be suitable for residential use, with comparable similar sized plots nearby being utilised for residential purposes. Existing access arrangements for the Site have the potential to be maintained. However, the feasibility of this would need to be assessed as part of any design.

Table 6: Summary

Current Access	Vehicular access currently achieved directly south of the Site via Almond Grove. Pedestrian access is also provided.
Surrounding Area	The surrounding neighbourhoods of the Site are residential in nature, primarily consisting of terrace housing. A varied range of amenities such as restaurants, bars, pharmacies and general goods and services are present within 800m catchment of the Site. The Site is located circa 450m walking distance away from the nearest bus stop, and approximately 470m walking distance to Syon Lane Rail Station. The Site is also approximately 1km walking distance to West Middlesex University Hospital and is also approximately 900 – 950m walking distance from two secondary schools.
Current Visibility	Visibility from the existing site access appears to be limited to the west due to parked cars along Almond Grove. However, as this access is already established, the risk of not being able to use these in the future for vehicle access is low.
Current Restrictions	The visibility of any future access will have to meet the visibility splay standards such that it would not prejudice highway safety for all highway users.
Access Solutions	Access could be maintained at the existing points of access, as it is established and currently considered viable for its purpose.
Risks	Footway and highway surrounding the Site have been identified as adopted, therefore there would be no risk associated with land ownership and access. The visibility of the access will be no worse than the existing situation, analysis to be undertaken during the design process in the future stages of the Site development.

5.2 Recommended Works to De-Risk Site

Further investigation into access options for all modes is required and an access strategy for all modes should be established prior to commencement of any detailed work. Visibility from the existing access will need to be considered in development designs to mitigate highway safety concerns such that they are not compromised.

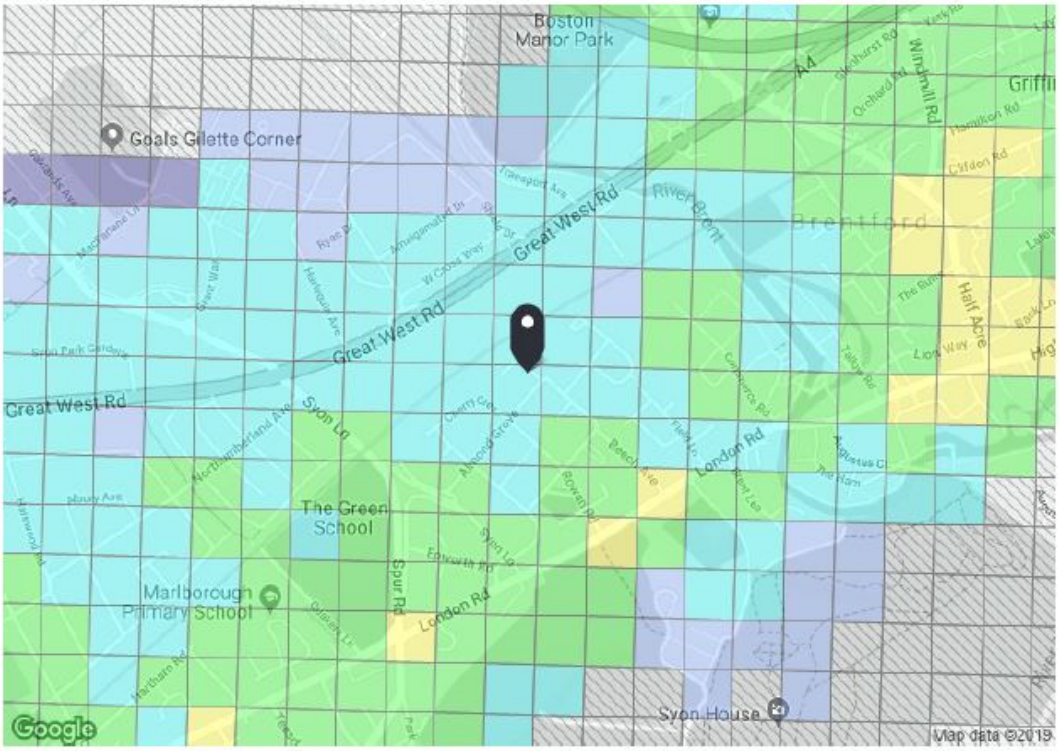
Depending on the scale of proposed development, it would be useful to undertake a high-level trip generation as a comparison to the existing use of the Site to provide an indication of the impact on the surrounding highways due to the change of use of this site.

To establish the full requirements for planning application submission, discussions with colleagues at Hounslow council will need to be undertaken.

APPENDIX A

PTAL Report

TRANSPORT FOR LONDON



PTAL output for Base Year
2

86 Beech Ave
86 Beech Ave, Brentford TW8 8NH, UK
Easting: 516772, Northing: 177375

Grid Cell: 64965

Report generated: 12/11/2019

Map key - PTAL

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

Map layers

PTAL (cell size: 100m)

Calculation Parameters

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

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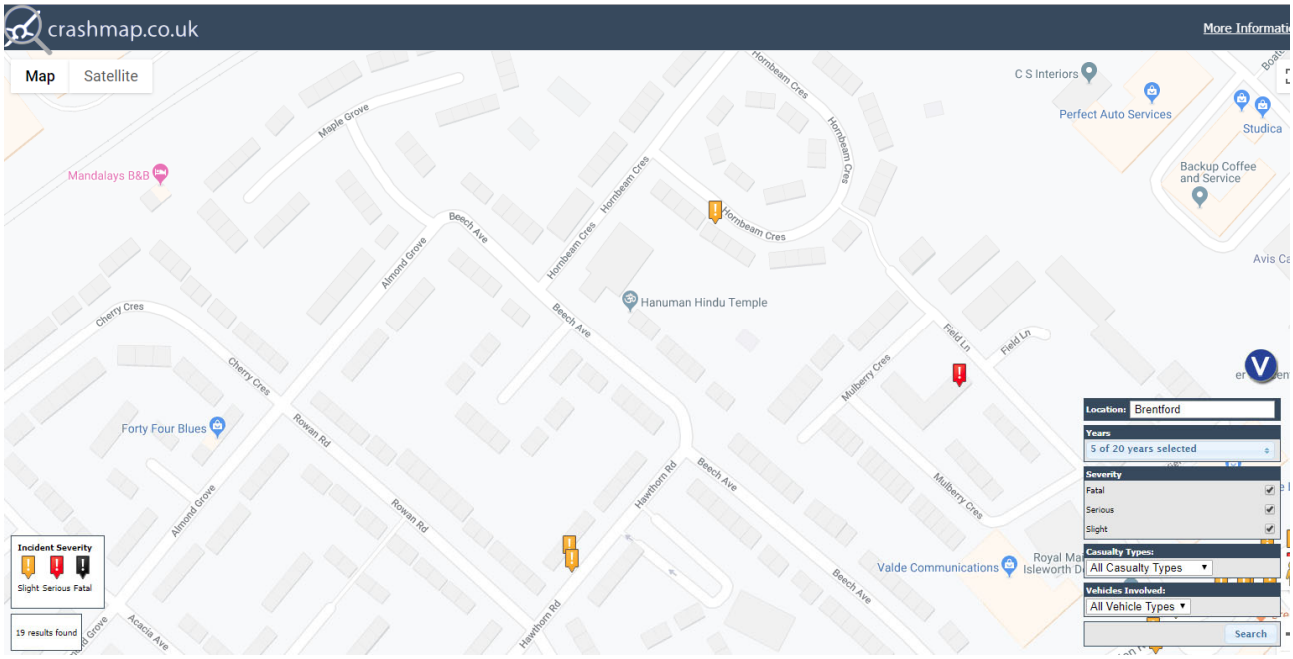
Calculation data

Mode	Stop	Route	Distance (metres)	Frequency (vph)	Walk Time (mins)	SWT (mins)	TAT (mins)	EDF	Weight	AI
Bus	LONDON ROAD BEECH AVENUE	237	441.06	7.5	5.51	6	11.51	2.61	0.5	1.3
Bus	LONDON ROAD BEECH AVENUE	267	441.06	6	5.51	7	12.51	2.4	0.5	1.2
Bus	LONDON ROAD BEECH AVENUE	235	441.06	7.5	5.51	6	11.51	2.61	1	2.61
Bus	SYON LANE MARLBOROUGH RD	H28	312.87	3	3.91	12	15.91	1.89	0.5	0.94
Rail	Syon Lane	'TWICKNHM-WATRLMN 2R03'	602.01	0.33	7.53	91.66	99.18	0.3	0.5	0.15
Rail	Syon Lane	'WATRLMN-WATRLMN 2R09'	602.01	2	7.53	15.75	23.28	1.29	1	1.29
Rail	Syon Lane	'STAINES-WATRLMN 2S10'	602.01	0.33	7.53	91.66	99.18	0.3	0.5	0.15
Rail	Syon Lane	'WEYBDGB-WATRLMN 2S12'	602.01	1.67	7.53	18.71	26.24	1.14	0.5	0.57
Rail	Syon Lane	'WATRLMN-WEYBDGB 2S13'	602.01	2	7.53	15.75	23.28	1.29	0.5	0.64
Rail	Syon Lane	'WATRLMN-HOUNSLW 2S91'	602.01	0.33	7.53	91.66	99.18	0.3	0.5	0.15
									Total Grid Cell AI:	9

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APPENDIX B

Crashmap Figure



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