

PROPOSED RESIDENTIAL REDEVELOPMENT
MOSTON LANE, HARPURHEY, MANCHESTER

Transport Statement

Prepared on behalf of:

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1.0 INTRODUCTION

1.1 Purpose of This Report

- 1.1.1 AXIS has been appointed by A1 Property Investments Manchester Ltd, to provide highways and transport advice in relation to the proposed partial redevelopment of The Old Loom Public House, Moston Lane, Manchester.
- 1.1.2 The redevelopment comprises the conversion of the ground floor into 2 local convenience stores, and the construction of 3 studios and 3 apartments, dispersed over the existing first and second floors. The existing land use has been detailed later on in this report in chapter 2.
- 1.1.3 This Transport Statement (TS) has been produced to demonstrate to the Local Planning and Highway Authority that the proposed redevelopment will operate satisfactorily from a highways and traffic perspective. The local planning and highway authority in this context is Manchester City Council (MCC).

1.2 Scope and Structure of This Report

- 1.2.1 This TS has been prepared in accordance with the relevant sections of the Government's Planning Practice Guidelines (PPG – *“Travel Plans, Transport Assessments and Statements”* and *“Transport Evidence Bases in Plan Making and Decision Taking”*).
- 1.2.2 Although the DfT's *“Guidance on Transport Assessment”* (GoTA, 2007) document has now been withdrawn, nonetheless it is still considered that various sections of GoTA continue to be relevant, specifically where the older guidance covers some areas not referred to in the newer PPG guidance. Therefore, those sections of GoTA have also been considered in the preparation of this TS.

1.3 Report Structure

1.3.1 The structure of this TS is as follows:

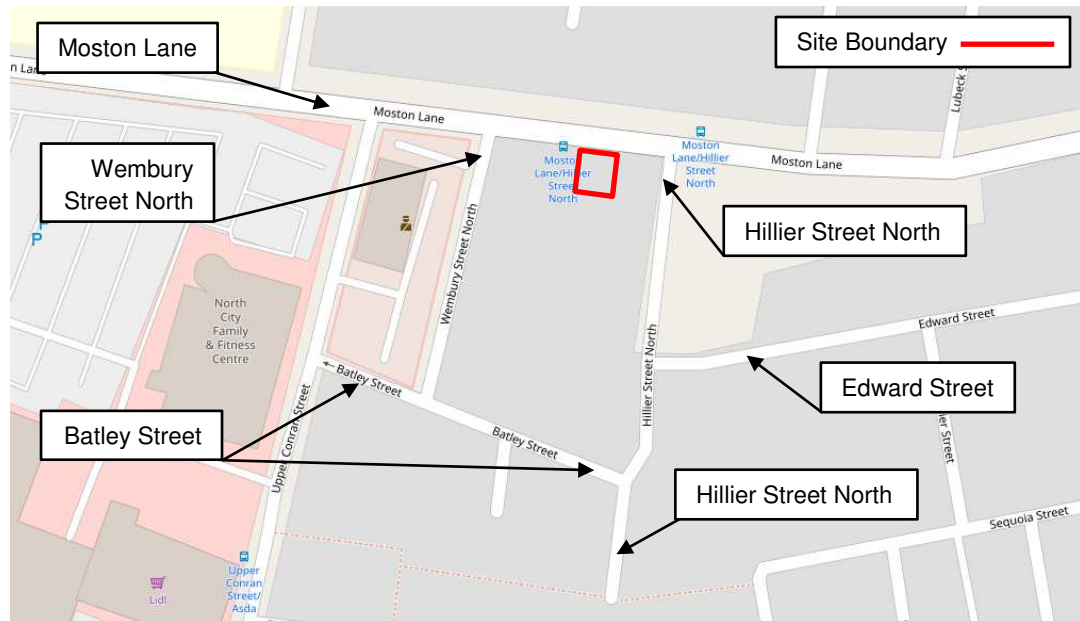
- **Chapter 2** describes the existing conditions on and around the site, including reference to the local highway network, the Traffic Regulation Order (TRO) regime around the site, and a review of the accident record;
- **Chapter 3** provides a review of the site's accessibility by walking, cycling and public transport modes;
- **Chapter 4** sets out the redevelopment proposals, including a description of the site access arrangement, servicing arrangements, and car parking provision;
- **Chapter 5** sets out the anticipated trip generating potential of the scheme on the local highway network; and,
- **Chapter 6** provides the summary and conclusions.

2.0 EXISTING CONDITIONS

2.1 Site Location

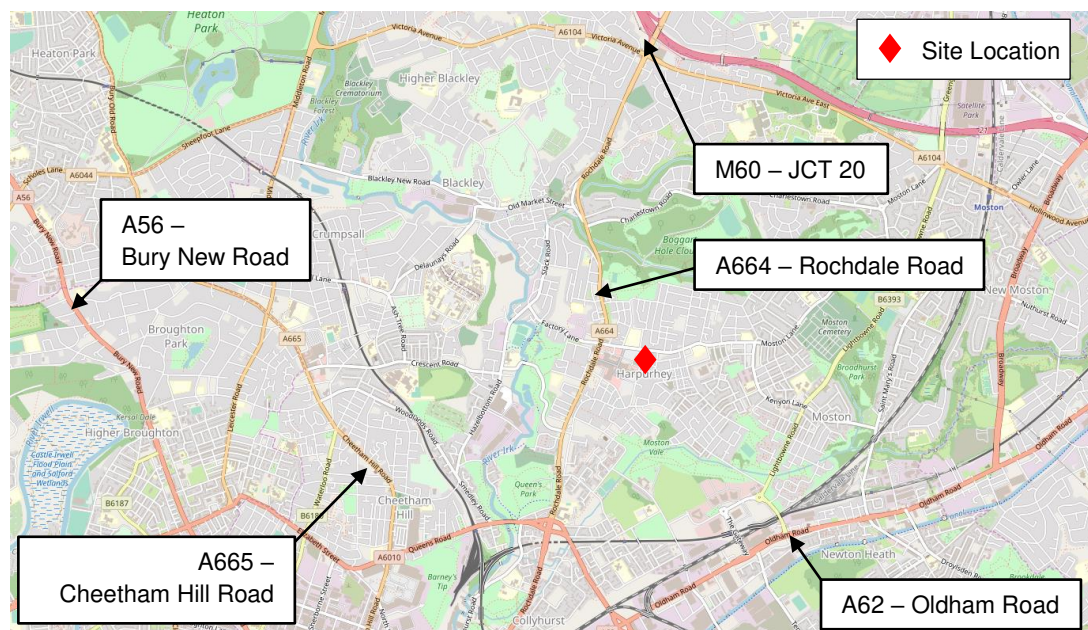
- 2.1.1 The location of the site in relation to the local highway network is shown on **Figure 2.1:-**

Figure 2.1 – Site Location – Local Highway Network



- 2.1.2 The location of the site in relation to the wider highway network is shown on **Figure 2.2 below:-**

Figure 2.2 – Site Location – Wider Highway Network



- 2.1.3 As seen in **Figure 2.1** and **Figure 2.2**, the application site is located to the south of Moston Lane, and is bound by existing buildings to the east, and an existing gated access road to the west, providing access to the rear of the application site.

2.2 Existing Use

- 2.2.1 At present, the existing ground floor accommodates a public house (The Old Loom) with the existing first and second floors being vacant. The details of the proposal are set out later on in chapter 4 of this report.

2.3 Existing Access Arrangements

- 2.3.1 As previously stated, the application site currently features a gated access road to the west, which will be utilised as part of the refuse collection strategy. Details of the refuse collection strategy have been highlighted later on in chapter 4 of this report.

2.4 Local Highway Network

Moston Lane

- 2.4.1 Moston Lane generally runs in an east-west direction along the site's northern frontage. Within the vicinity of the application site, Moston Lane is a two-way carriageway comprising a lane in each direction.
- 2.4.2 Moston Lane is subject to a 30mph speed limit, is lit with street lighting and has wide footways on either side along its entire length.
- 2.4.3 There is an existing bus stop located outside the site's north-western corner, along along Moston Lane.

Hillier Street North

- 2.4.4 Hillier Street North generally runs in an north-south direction circa 12m to the east of the site's eastern frontage. Hillier Street North is a two-way carriageway comprising a lane in each direction.
- 2.4.5 Hillier Street North is subject to a 30mph speed limit, is lit with street lighting and has wide footways on either side along its entire length.

Wembury Street North

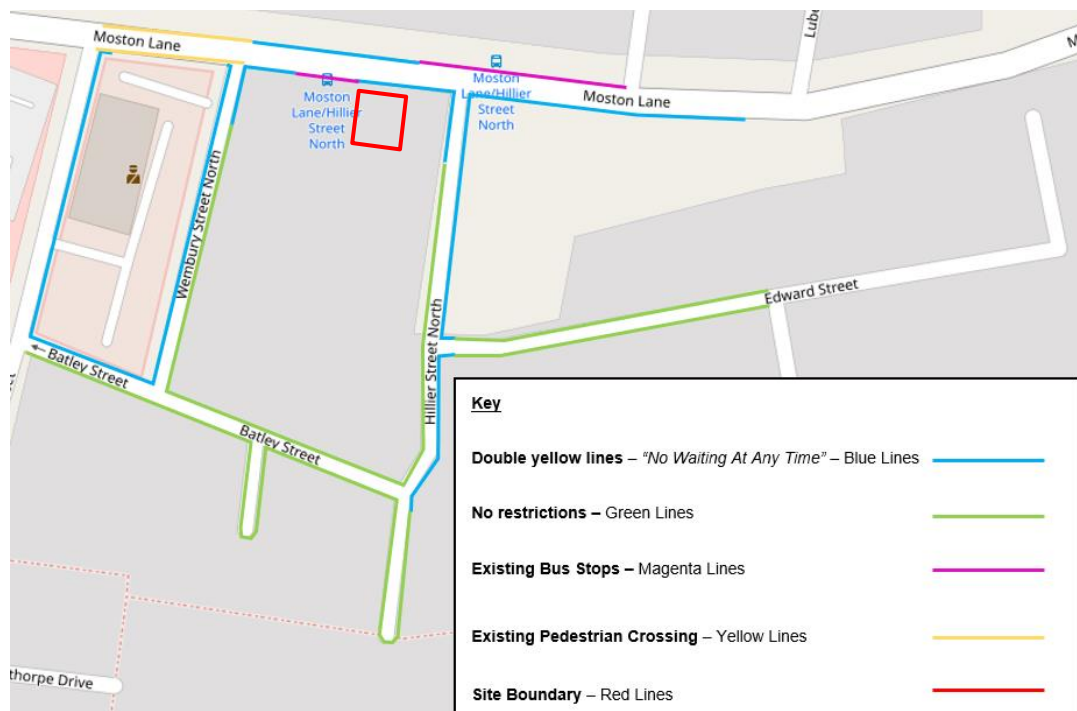
- 2.4.6 Wembury Street North generally runs in a north-south direction circa 35m to the west of the site's western frontage. Wembury Street North is a two-way carriageway comprising a lane in each direction.
- 2.4.7 Wembury Street North is subject to a 30mph speed limit, is lit with street lighting and has wide footways on either side along its entire length.

Batley Street

- 2.4.8 Batley Street generally runs in an east-west direction circa 80m to the south of the application site. Batley Street connects to Hillier Street North to the east, and Upper Conran Street to the west. Batley Street also provides a link to Wembury Street North.
- 2.4.9 Batley Street is a two-way carriageway comprising a lane in each direction between Hillier Street North and Wembury Street North. Batley Street is a single lane carriageway between Wembury Street North and Upper Conran Street.
- 2.4.10 Batley Street is subject to a 30mph speed limit, is lit with street lighting and has wide footways on either side along its entire length.

2.5 Existing Traffic Regulation Order (TRO) Regime

Figure 2.3 – Local TRO Regime

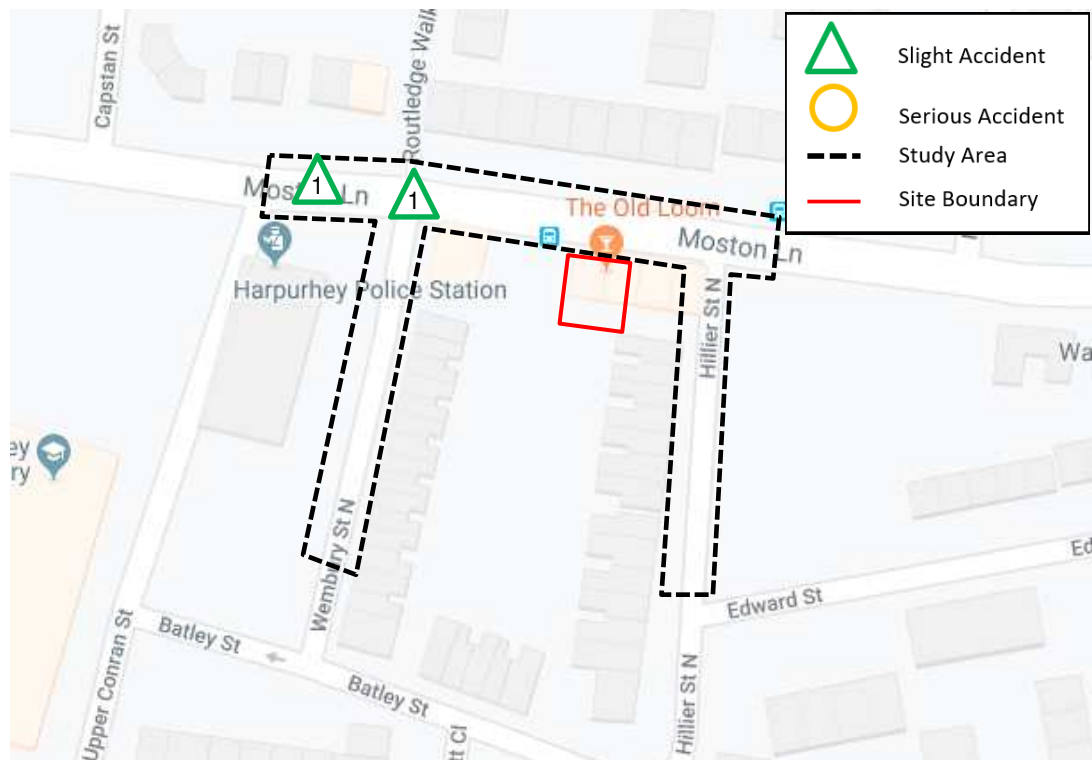


2.5.1 **Figure 2.3** illustrates the TRO regime within the vicinity of the site.

2.6 Highway Safety

2.6.1 Personal Injury Accident (PIA) data for the highway network adjacent to the site has been obtained from the online CrashMap resource (www.crashmap.co.uk). Data was extracted for the most recently available three-year period which is 2016 to 2018 inclusive. The location and severity of the accidents are shown below: -

Figure 2.4 - Road Safety Plan



2.6.2 **Figure 2.4** demonstrates that during the three-year period, 2 accidents that were classified as 'slight' occurred within the study area.

2.6.3 To put this record into perspective, the Department for Transport (DfT) traffic count data indicates that along Moston Lane, circa 200m east of the application site, 10,000+ two-way traffic movements occurred per day in 2018 (source roadtraffic.gov.uk).

2.6.4 With regards to the above, the accident record within the vicinity of the application site is not considered to be significant and does not represent a cause for concern or indicate any issues that could be affected by the modest number of trips that would be generated by the redevelopment proposals.

3.0 ACCESSIBILITY

3.1 General

3.1.1 Paragraph 103 of the NPPF states that:

“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.”

3.1.2 To demonstrate the site’s compliance with the above, this section of the report examines the accessibility of the site by non-car modes of transport through consideration of the following modes of transport:

- Accessibility on foot;
- Accessibility by cycle; and,
- Accessibility on public transport.

3.1 Pedestrian Accessibility

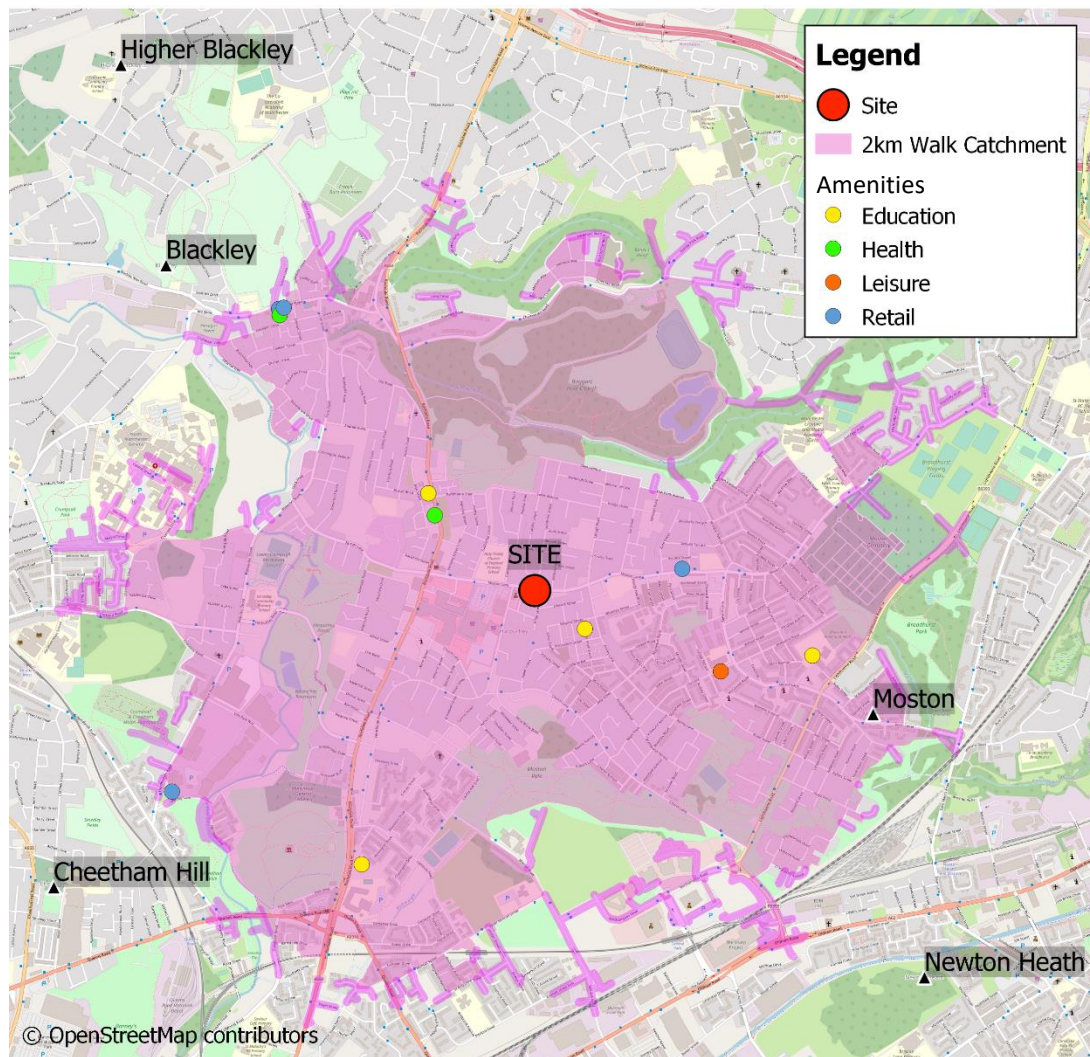
3.1.1 Access between the site and local areas by non-motorised modes has been assessed by comparison with the following widely-used threshold distances from The Chartered Institution for Highways and Transportation’s (CIHT’s) *“Providing for Journeys on Foot”* document:

Table 3.1 – CIHT Suggested Acceptable Walking Distances

	Town Centres (m)	Commuting/School/ Sightseeing (m)	Elsewhere/Local Services (m)
Desirable	200	500	400
Acceptable	400	1,000	800
Preferred Maximum	800	2,000	1,200

3.1.2 **Figure 3.1** shows a 2km walking catchment, providing an indication of the areas which can be reached within a 12 and 24-minute walk, assuming a walk speed of 1.4 m/s.

Figure 3.1 – 2km Walk Distance Isochrone



- 3.1.3 As illustrated on **Figure 3.1**, the 2km walking catchment from the site includes a significant part of the built-up area of Harpurhey, and parts of Moston.
- 3.1.4 **Table 3.2** below demonstrates that there are a wide range of local amenities within reasonable walking distance to and from the site. The site is well connected to these amenities via good quality existing pedestrian infrastructure which includes footways and street lighting.

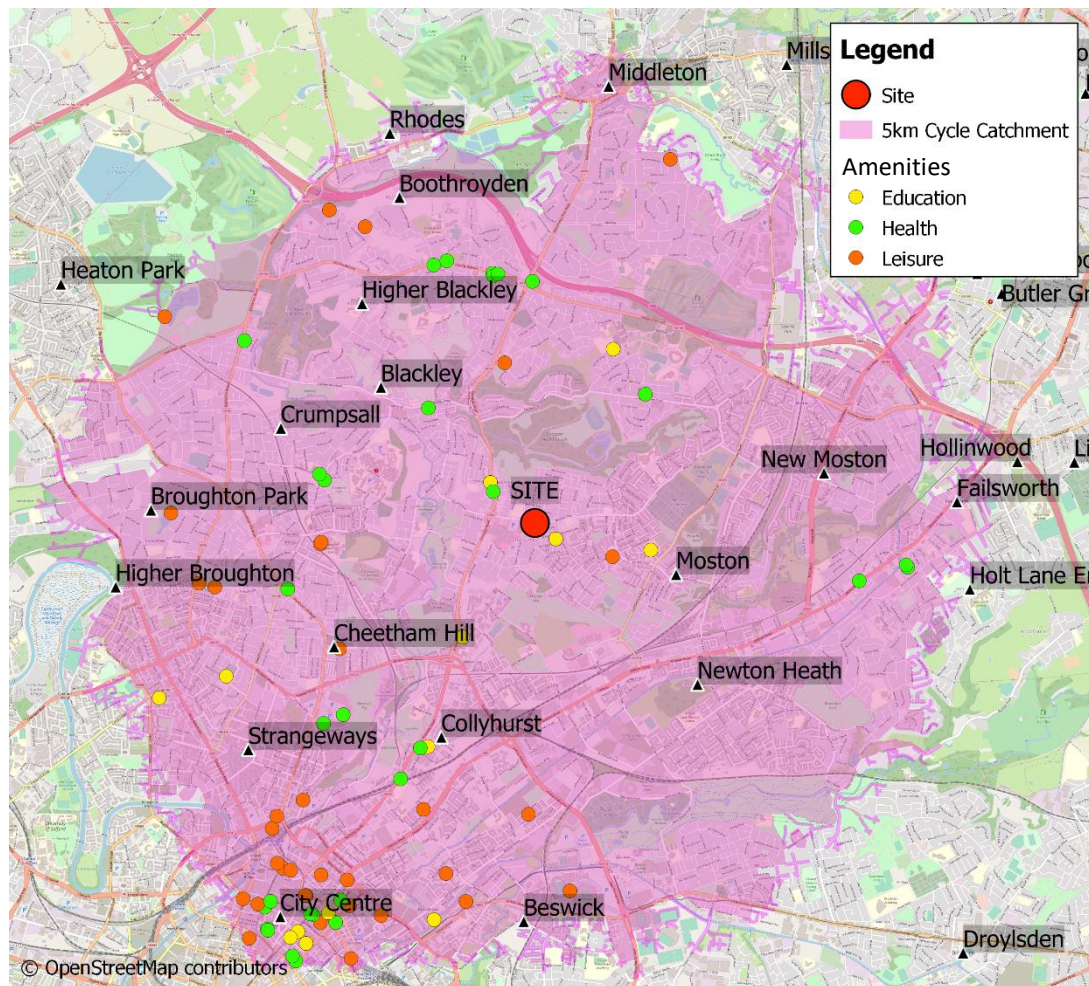
Table 3.2 – Local Amenities and Distances from the Application Site

Facility	Name	Distance from the Development site
School	Holy Trinity C Of E Primary School	0.17km
	Moston Lane Community Primary School	0.2km
	The Village Manor Nursery	0.7km
	Camberwell School	1.4km
Food Retail	Lidl	0.3km
	Asda	0.55km
	Harpurhey Shopping Centre	0.5km
Restaurants / Takeaway	Rehoboth Caribbean Food	0.2km
	Village Cafe	0.3km
	Golden Apple	0.6km
	Ifeoma African Restaurant	0.6km
Post Office	Moston Lane Post Office	0.3km
Bank	Lloyds Bank	0.4km
	Asda Superstore (ATM)	0.55km
Leisure Facility	North City Family and Fitness Centre	0.15km
	Collyhurst and Moston Lads Club	1.5km
Open Spaces	Lower Crumpsall Recreation Ground	1.0km
	Boating Lake	1.6km

3.2 Cycle Accessibility

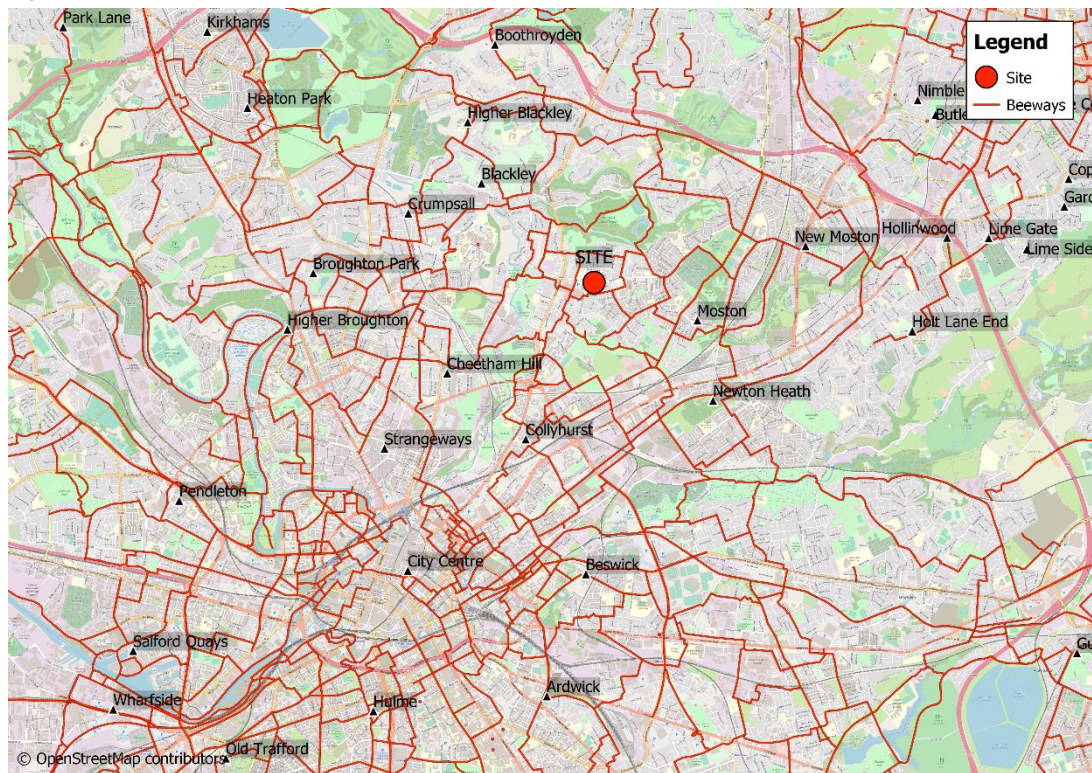
- 3.2.1 Previous transport guidance identifies that cycling represents a realistic and healthy alternative to the private car when making journeys up to 5km as a whole journey or as part of a longer journey by public transport.
- 3.2.2 The accessibility of the redevelopment has been assessed to determine reachable areas for a 5km cycle journey from the site, as shown in **Figure 3.2** below.

Figure 3.2 – 5km Cycle Distance Isochrone



- 3.2.3 **Figure 3.2** illustrates that the nearby areas of Boothroyden, Higher Blackley, Blackley, Crumpsall, Broughton Park, Higher Broughton, Cheetham Hill, Strangeways, Collyhurst, Manchester City Centre, Beswick, Moston, Newton Heath and New Moston, all lie within a reasonable cycle distance of the site.
- 3.2.4 In addition, numerous amenities lie within a reasonable cycle distance from the development, including 12 educational facilities, 31 health facilities including dental practices and pharmacies and 34 leisure facilities including playgrounds and sports centres.
- 3.2.5 Transport for Greater Manchester (TFGM) provides an interconnected network of cycle infrastructure across Manchester known as the 'Bee Network'. **Figure 3.3** illustrates the extent of dedicated 'Bee Network' cycleway connections to the site.

Figure 3.3 – Bee Network



3.2.6 **Figure 3.3** shows that the site is well served by local cycle facilities with uninterrupted routes from the site to Manchester City Centre and localities such as Moston and Blackley.

3.3 Access to Public Transport

3.3.1 Guidance from the IHT document “*Guidelines for Planning for Public Transport in Development*” indicates that ideally, a bus stop should be located within 400m from a new development.

3.3.2 The proposal site is located within a short walk of a number of bus stops served by a number of regular bus services. Key local bus stops are located as follows:

- Stops on Moston Lane (immediately along the site’s northern frontage)
- Stops on Upper Conran Street (circa 250m walk distance from centre of site).

3.3.3 Details of the services and frequencies from these bus stops are set out in **Table 3.3.**

Table 3.3 – Summary of Available Bus Services

Service No.	Route	Frequency – (Buses Per Hour)				
		Mon-Fri		Sat		Sun
		Day	Eve	Day	Eve	All Day
Services from Moston Lane Bus Stops						
52	Failsworth to intu Trafford Centre via Moston Lane	2	2	2	2	1
81	Piccadilly Gardens to Derker – via Moston Lane	2	2	2	2	2
81A	Holts to Piccadilly Gardens – via Moston Lane	2	2	2	2	-
112	Boarshaw to Piccadilly Gardens – via Moston Lane	4	3	4	3	2
113	Middleton to Piccadilly Gardens – via Moston Lane	2	-	-	-	-
115	Middleton to North Manchester General Hospital – via Moston Lane	1	-	1	-	-
117	Greengate to Piccadilly Gardens – via Moston Lane	2	2	2	-	1
118	Higher Crumpsall to Piccadilly Gardens – via Moston Lane	4	4	4	3	2
119	Higher Blackley to Piccadilly Gardens – via Moston Lane	2	1	2	1	1
151	Hollinwood to Hightown via Moston Lane	1	-	1	-	-
704	Harpurhey – Abbey Hey via Moston Lane	1	-	-	-	-
Additional services from the Upper Conran Street Bus Stops (All of the above Moston Lane services also operate from Upper Conran Street)						
116	Middleton to North Manchester General Hospital – via Upper Conran Street	1	-	1	-	-
Total		24	16	21	13	9

3.3.4 **Table 3.3** demonstrates that existing bus services from nearby bus stops provide regular connections from the application site to key destinations such as Manchester Piccadilly, Intu Trafford Centre, Middleton, etc.

3.3.5 The nearest railway stations to the application site are set out in **Table 3.4** below: -

Table 3.4 – Nearby Railway Stations

Station Name	Walk distance from the site (km)	Route (s)	Frequency
Moston Railway Station	3.3km	Rochdale to Clitheroe via Moston	30 / 40 mins
		Blackburn to Rochdale via Moston	60 mins

3.4 Accessibility Summary

3.4.1 Given its location, the application site is considered to be highly accessible by non-car travel modes. Large parts of Manchester City Centre and beyond are accessible within a 5km cycle journey and the high-quality pedestrian and cycle infrastructure close to the site, including footways, street lighting, provide a safe and realistic opportunity for future residents to walk or cycle to and from the site. Additionally, the proposed convenience stores have the potential of benefitting the residents of the existing neighbouring residential areas, thereby reducing the need for those residents to take shopping trips by car.

3.4.2 There are two bus stops located within acceptable walking distance of the site which provide approximately 16 to 24 services every hour on a weekday.

3.4.3 Overall, the site is considered to be highly accessible to sustainable travel modes.

4.0 PROPOSED DEVELOPMENT

4.1 General

- 4.1.1 The development proposals comprise of 2 local convenience stores on the ground floor which will replace the pub element of the existing site. In addition, there will be 4 proposed dwellings on the first floor of the site, with 2 additional dwellings on the second floor.
- 4.1.2 The proposal does not include any on-site parking associated with the local convenience stores / residential dwellings. Therefore, the following subsections of this report provide a justification for the lack of car parking associated with the scheme.
- 4.1.3 The proposed site layout plan can be seen in **Appendix 1**.

4.2 Servicing Arrangements

- 4.2.1 The refuse collection point will be to the south of the application site. The existing gated access to the west of the site provides a clear route for bins to be wheeled from the rear of the site, to Moston Lane where servicing of the site will take place. The refuse collection strategy has been illustrated in **Appendix 2**.
- 4.2.2 There will be no requirement for refuse collection vehicles to enter the site, rather, refuse vehicles will service the site via Moston Lane. Due to the infrequency of a refuse vehicle servicing the site (circa once per week), it is anticipated that this will not pose a detrimental impact on the operation of the local highway network.
- 4.2.3 The applicant will wheel the bins from the storage point at the rear of the site, to the collection point along Moston Lane, on collection days. The bin drop off distance from the rear of the site to Moston Lane is 20m walking distance (furthest away bin to Moston Lane).

4.3 Cycle Parking

- 4.3.1 As part of the proposals, 3 Sheffield stands will be provided within the extents of the site, suitable to accommodate 6 bicycles, providing on-site cycle parking facilities for potential residents and staff.

4.4 Car Parking – General

- 4.4.1 The existing use of the site could generate trips if fully operational and this must be taken into consideration as the baseline / fall-back position. The trip generating potential of the existing use compared with the trip generating potential of the proposed development has been demonstrated later in this report.
- 4.4.2 The parking demand of the existing pub compared with the parking demand of the proposed development has been demonstrated below.

4.5 Car Parking – Proposed Retail / Residential Element

- 4.5.1 As previously stated, the proposal does not include any on-site parking associated with the local convenience stores / residential dwellings.
- 4.5.2 It is understood that MCC Highways take the view that residential sites are generally governed on a case by case basis however, 100% parking provision should be a general aim for new development.
- 4.5.3 Appendix B of the Manchester City Council (MCC) Core Strategy (2012-2027) outlines the appropriate maximum parking standards for new developments, however the document does not provide parking standards for A4 use class (Drinking establishments) or C3 use class (dwelling houses). Nevertheless, the document states:

“Standards for car parking are maximums and may be subject to further reduction when consideration is given to the accessibility of the particular site”.

- 4.5.4 The MCC parking standards for A1 / A4 / C3 use class are highlighted in **Table 4.1** below: -

Table 4.1 – Shop – MCC Parking Standards

Use Class	MCC Parking Standards (Maximum)
A1 – Shops – Food Retail	1 space per 14m ² (7 spaces – 102m ² GIA)
A4 – Drinking Establishments	Not Provided
C3 – Dwellings	Not Provided (Preferably 100%)

- 4.5.5 With regards to the above, the following subsections of this report therefore provide a justification for the lack of car parking provided as part of the scheme.

4.6 Parking Accumulation

- 4.6.1 In the absence of parking standards for A4 use class, and to determine the parking demand associated with the existing use of the site (Public House), a car park accumulation exercise has been carried out, based on the TRICS trip rates presented in **Appendix 8**. A copy of the car park accumulation calculations are presented in **Appendix 3**.
- 4.6.2 The parking accumulation exercise demonstrates that the peak demand for car parking spaces will be around 3 spaces for the existing use of the site (Public House).
- 4.6.3 To determine the parking demand associated with the retail element of the proposed scheme, A1 use class, a car park accumulation exercise has been carried out, based on the TRICS trip rates presented in **Appendix 9**. A copy of the car park accumulation calculations are presented in **Appendix 4**.
- 4.6.4 The parking accumulation exercise demonstrates that the peak demand for car parking spaces will be around 1 space for the retail element of the proposed scheme. Therefore, there will not be an increase of parking demand when comparing the parking demand of the proposed retail units against the parking demand of the existing public house use.

4.7 Parking Beat Surveys

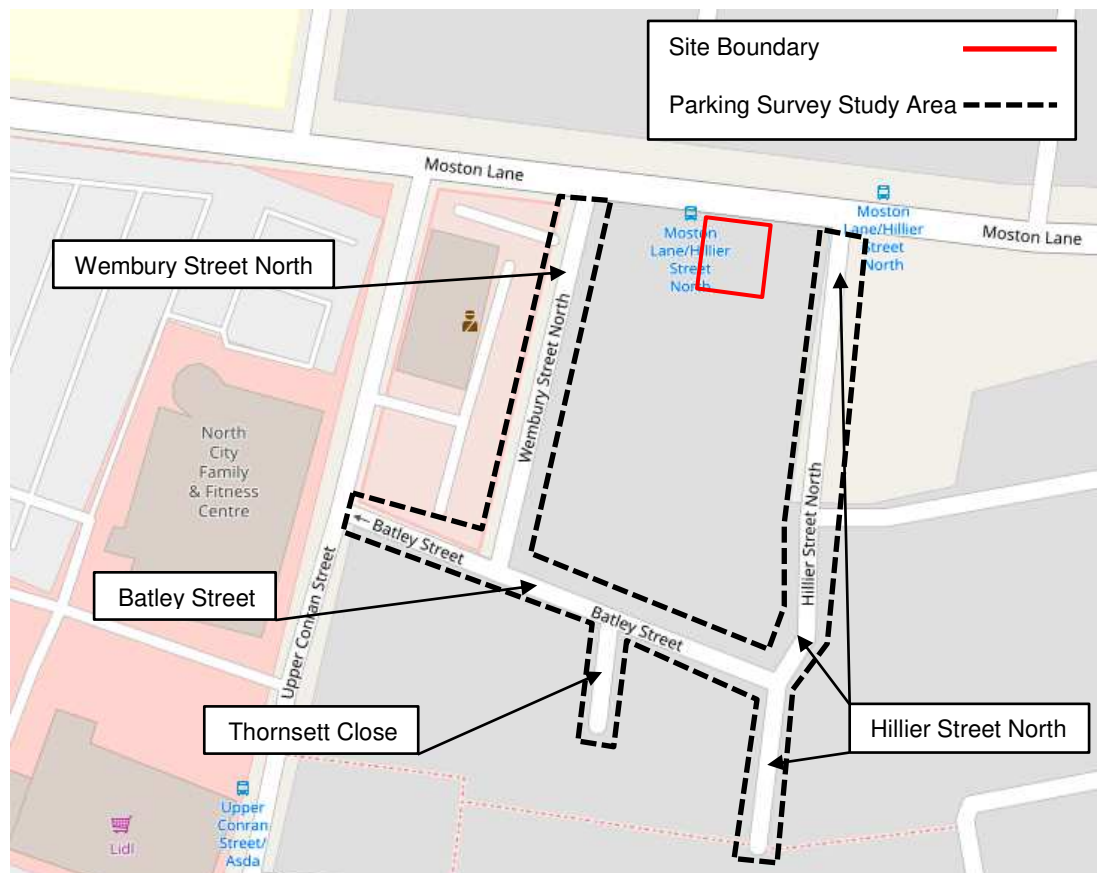
- 4.7.1 Parking beat surveys were undertaken over a duration of 2 days on Wednesday 28th August 2019 at 02:15, and Thursday 29th August 2019 at 04:45, broadly following the so-called 'Lambeth' parking beat survey methodology. This determines parking capacity / availability at night during the worst-case period for parking demand in residential areas, on successive nights.
- 4.7.2 The results are presented in **Appendix 5** and summarised in **Table 4.2**. The results demonstrate that the observed peak parking demand was on Thursday 29th August 2019, where 36% of the local parking capacity on the local highway network (as studied) was utilised.
- 4.7.3 Photographic evidence of the parking survey is presented in **Appendix 6**. The study area for the survey is shown on **Figure 4.1**.

Table 4.2 – On-Street Parking Survey - Results

Date of Survey: Wednesday 28 th August 2019 - Time: 02:15			
Area	Parking Capacity	Amount Utilised	% Utilised
Wembury Street North	11	7	64%
Hillier Street North	32	11	34%
Thornsett Close	8	4	50%
Batley Street	31	5	16%
Total	82	27	33%

Date of Survey: Thursday 29 th August 2019 - Time: 04:45			
Area	Parking Capacity	Amount Utilised	% Utilised
Wembury Street North	11	8	73%
Hillier Street North	32	12	38%
Thornsett Close	8	4	50%
Batley Street	31	5	16%
Total	82	29	36%

Figure 4.1 – On-Street Parking Survey – Study Area



4.7.4 **Table 4.1** demonstrates that on 28th August there was spare capacity for 55 cars to park on the local road network. On 29th August, there was spare capacity for 53 cars to park on the local road network. It is therefore considered that there is significant spare on-street parking capacity on the local highway network for potential residents and shop visitors to park on .

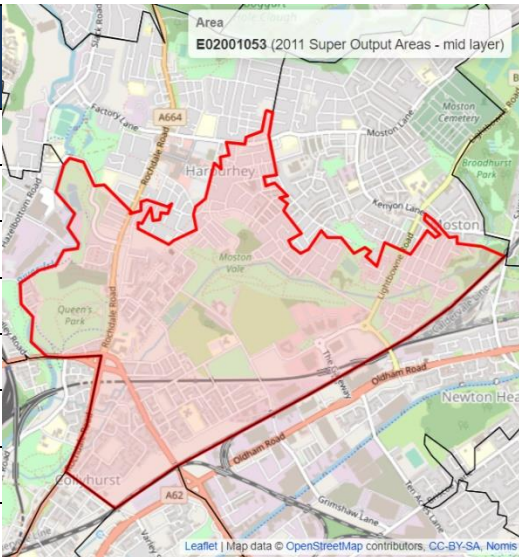
4.8 Local Car Ownership Levels – Census Data

4.8.1 The 2011 census data has been interrogated to determine the existing local car ownership levels around the site. Data for the smallest census ‘output area’ (within which the site lies) has been obtained. This will therefore give an indication of how many cars might be owned by occupants of the residential element of the proposed development.

4.8.2 It should be noted that the majority of the dwellings within the output area are houses and are therefore likely to have a higher ownership level than the proposed apartments, therefore this comparison / analysis is likely to be robust.

4.8.3 The census data has been summarised in **Table 4.3** below and presented in **Appendix 7**. **Table 4.3** shows the area covered by this output area and the census data on car availability.

Table 4.3 – 2011 Census Data – Local Car Ownership Levels

Car/Van Availability	E02006913 Output Area	
All Households	4,494	
No Cars or Vans in Household	2,876	
1 Cars or Vans in Household	1,366	
2 Cars or Vans in Household	215	
3 Cars or Vans in Household	24	
4 or More Cars or Vans in Household	13	
All Cars or Vans in Area	1,945	
Percentage Car Ownership	43%	

4.8.4 The data demonstrates that car ownership is at only 43% within the local Census output area.

Table 4.4 – Net Parking Demand

Use class	Parking Demand
Existing public House (136m ² GIA)	3
Proposed Retail Stores (102m ² GIA)	2
Proposed Dwellings (6 dwellings)	3
NET difference	2

- 4.8.5 Given that the residential aspect of the proposed redevelopment comprises of 3 studios / 3 apartments, located in the urban conurbation of Manchester, it is therefore assumed that the total proposed redevelopment (retail and residential) will give rise to a net parking demand increase of 2 parking spaces compared to the existing pub use of the site. This is considered robust given the very good availability of alternative modes of transport to the private car, as demonstrated earlier in this report in chapter 3, and considering that the majority of occupants of apartments in Manchester do not own a car.
- 4.8.6 When these factors are taken into account, the evidence strongly indicates that the spare on-street capacity on the local highway network is highly likely to be appropriate for the scale and nature of the proposals.
- 4.8.7 It is therefore concluded that the 53 spaces that are available on the local highway network will easily cater for the typical maximum parking demand generated at the site. This level will also cater for some occasional spikes in vehicle activity that might occur from time to time, however unlikely.

5.0 TRAFFIC GENERATION

5.1 Introduction

5.1.1 This chapter of the TS forecasts the likely trip generation of the proposed residential / local convenience store scheme and the site's existing use which is a public house.

5.2 Trip Generation of Existing Use

5.2.1 Given the nature and location of the existing development, the 'Public House (Without Restaurant)' category is considered to be the most appropriate.

5.2.2 To estimate the trip generating potential for the proposed redevelopment, average trip rates from the industry-standard TRICS Database (V7.6.2) have been obtained. The selection criteria for the TRICS based trip rates is as follows: -

5.2.3 The following search criteria has been applied within TRICS:

- Public House (Without Restaurant);
- Site's in Greater London and Ireland excluded;
- Weekday surveys only;
- Only site's in 'Town Centre' and 'Edge of Town Centre' locations have been selected; and,
- Selection by GFA (120sqm to 750sqm).

5.2.4 The full TRICS outputs are contained in **Appendix 8**.

5.2.5 **Table 5.1** shows the weekday peak hour vehicle trip rates and the resultant traffic forecasts when these trip rates are applied to the existing development (136m² GIA).

5.2.6 **Table 5.1** shows that the existing Public House element of the existing site is forecast to generate 7 and 8 two-way trips in the AM peak and PM peak operating hours respectively.

Table 5.1 - Existing Trip Generation (Pub)

	Trip Generation at Application Site (Public House)			
	Weekday AM Peak Hour (08:00 to 09:00)	Weekday PM Peak Hour (17:00 to 18:00)	Peak Operating Hour 21:00-22:00	Weekday Daily
Average Trip Rates (per 100m² GFA)	0	4.959	5.869	47.782
Development Trip Demand (136m² GIA)	0	7	8	65

5.3 Trip Generation – Proposed Retail Store

5.3.1 To estimate the trip generating potential for the retail element of the proposed redevelopment, average trip rates from the industry-standard TRICS Database (V7.6.2) have been obtained.

5.3.2 The following search criteria has been applied within TRICS to obtain trip rates for the proposed retail use:

- 'Retail – Convenience Store';
- Site's in Greater London and Ireland excluded;
- Weekday surveys only;
- Only site's in 'Town Centre' and 'Edge of Town Centre' locations have been selected; and,
- Selection by Gross Floor Area (GFA) (70m² to 300m² GFA).

5.3.3 The full TRICS outputs are contained in **Appendix 9**.

5.3.4 **Table 5.2** shows the weekday peak hour vehicle trip rates and the resultant traffic forecasts when these trip rates are applied to the retail element of the proposed development (102m² GIA): -

Table 5.2 - Proposed Trip Generation (Retail)

	Trip Generation at Application Site (Retail)		
	Weekday AM Peak Hour (08:00 to 09:00)	Weekday PM Peak Hour (17:00 to 18:00)	Weekday Daily
Average Trip Rates (100m²)	17.527	27.312	251.042
Development Trip Demand (102m² GIA)	18	28	256

5.3.5 As can be seen from **Table 5.2**, the retail element of the proposed development is forecast to result in a minor traffic generation 18 two-way vehicle movements in the AM peak hour, and 28 two-way vehicle movements in the PM peak hour.

5.3.6 Convenience shops do not generate 'new' trips in themselves, only opportunistic and ad hoc trips. The traffic to the proposed site will therefore be 'pass-by' or 'diverted' and will already be present on the network. Pass-by trips are trips that are already present on the road network that will turn into the site without any change to their route. Diverted trips are also present on the local road network however these trips do not run adjacent to the site and some amount of deviation from the route is required.

5.4 Trip Generation – Proposed Residential Dwellings

5.4.1 The following search criteria has been applied within TRICS to obtain trip rates for the residential element of the proposed development:

- 'Residential – Flats Privately Owned';
- Site's in Greater London and Ireland excluded;
- Weekday surveys only;
- Only site's in 'Town Centre' and 'Edge of Town Centre' locations have been selected; and,
- Selection by dwelling numbers (6 to 20 dwellings).

5.4.2 The full TRICS outputs are contained in **Appendix 10**.

5.4.3 **Table 5.3** shows the weekday peak hour vehicle trip rates and the resultant traffic forecasts when these trip rates are applied to the residential element of the proposed development (6 dwellings): -

Table 5.3 - Proposed Trip Generation (Residential)

Trip Generation at Application Site (Residential)			
	Weekday AM Peak Hour (08:00 to 09:00)	Weekday PM Peak Hour (17:00 to 18:00)	Weekday Daily
Average Trip Rates (per dwelling)	0.264	0.184	1.395
Development Trip Demand (6 dwellings)	2	1	8

- 5.4.4 As can be seen from **Table 5.3**, the residential element of the proposed development is forecast to result in a minor traffic generation of 2 two-way vehicle movements in the AM peak hour, and 1 two-way vehicle movements in the PM peak hour.

5.5 Net Traffic Impact Assessment

- 5.5.1 The 'net' traffic impact of the redevelopment is the difference between the number of trips that could be generated by the existing use (Public House), if fully operational, and that generated by the proposed 6 dwellings and 102m² of retail floor area (GIA), as summarised in **Table 5.4** below: -

Table 5.4 - Net Traffic Generation

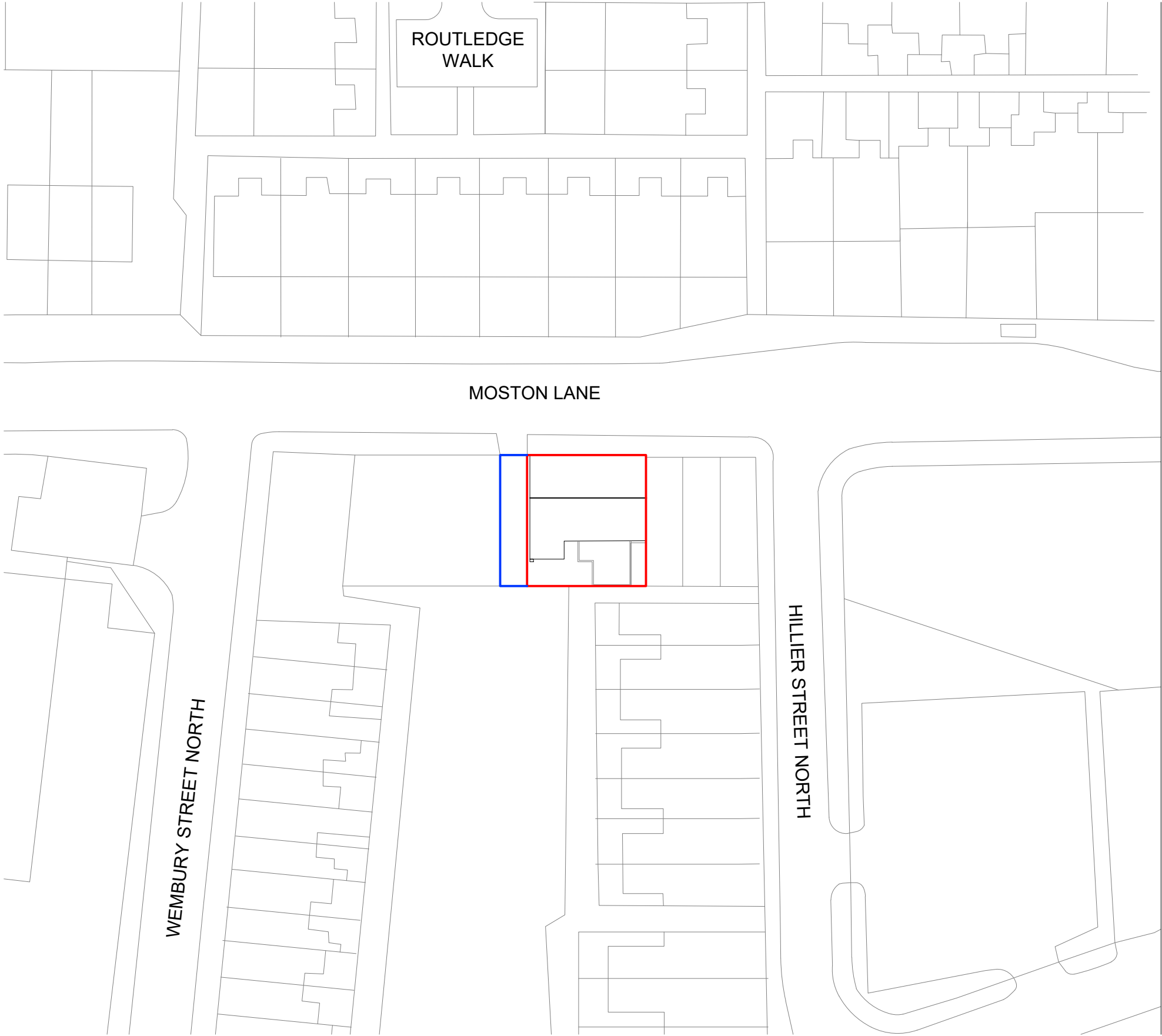
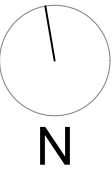
	Net Traffic Generation at Application Site		
	Weekday AM Peak Hour (08:00 to 09:00)	Weekday PM Peak Hour (17:00 to 18:00)	Weekday Daily
Trip Generation (Two-way)	20	22	199

- 5.5.2 As can be seen from the above, the proposed redevelopment will result in a minor increase in the AM peak hour of only 20 two-way vehicle movements, and an increase of 22 two-way vehicle movements in the PM peak hour. Additionally, there will be an increase of 199 two-way vehicles over the course of the day, when compared to that which could be generated by the existing use of the site.
- 5.5.3 Volumetrically, this equates to an additional vehicle movement approximately every 3 minutes or so in the AM and PM peaks. The effect of this would be imperceptible on capacity or highway safety.
- 5.5.4 As stated in paragraph 5.3.7, most of the trips associated with the local convenience stores will be pass by or diverted trips.

6.0 SUMMARY AND CONCLUSIONS

- 6.1.1 AXIS has been appointed by A1 Property Investments Manchester Ltd, to provide highways and transport advice in relation to the proposed partial redevelopment of The Old Loom Public House, Moston Lane, Manchester.
- 6.1.2 The redevelopment comprises the conversion of the ground floor into 2 local convenience stores, and the construction of 3 studios and 3 apartments, dispersed over the existing first and second floors.
- 6.1.3 Analysis of accident data reveals that 2 accidents occurred along Moston Lane within the 3-year period. This equates to approximately just 1 accident per year and therefore the existing accident record does not present a material concern in the context of the proposed redevelopment.
- 6.1.4 The sustainability of the site has been assessed in terms of its accessibility by walking, cycling and public transport modes of transport. Accessibility by these modes was found to be very high, with very good pedestrian and cycle friendly infrastructure and public transport provision in the area.
- 6.1.5 The proposed redevelopment is expected to generate a maximum parking demand of 2 parking spaces. This is based on the census-based measurements of levels of car ownership for the local area for the residential element of the proposed redevelopment, as well as a car parking accumulation exercise carried out for the associated retail element of the proposed redevelopment.
- 6.1.6 A parking beat survey has been commissioned focusing on the on-street parking available on the local highway network. The survey revealed that there is significant on-street capacity for minimum 53 additional cars in the area immediately around the site during the night time period when residential car parking demand is normally at its highest. As the redevelopment is expected to generate a new demand for only 2 spaces, it is therefore considered that there is sufficient on-street capacity to deal with the potential parking demand that could be generated as part of the proposed redevelopment.
- 6.1.7 Having regard to the above, it is therefore concluded that there can be no highway or transport reasons to withhold planning permission for the scheme and it is commended to Manchester City Council for approval.

APPENDIX 1 – PROPOSED SITE LAYOUT PLAN



- Legend:
- Application Boundary
 - Access right

General Notes:

All site dimensions shall be verified by the Contractor on site prior to commencing any works.

Do not scale from this drawing.

Design intent drawing only. Construction to comply with latest building regulation requirements.

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Rev	Description	Date	Dr by	App by

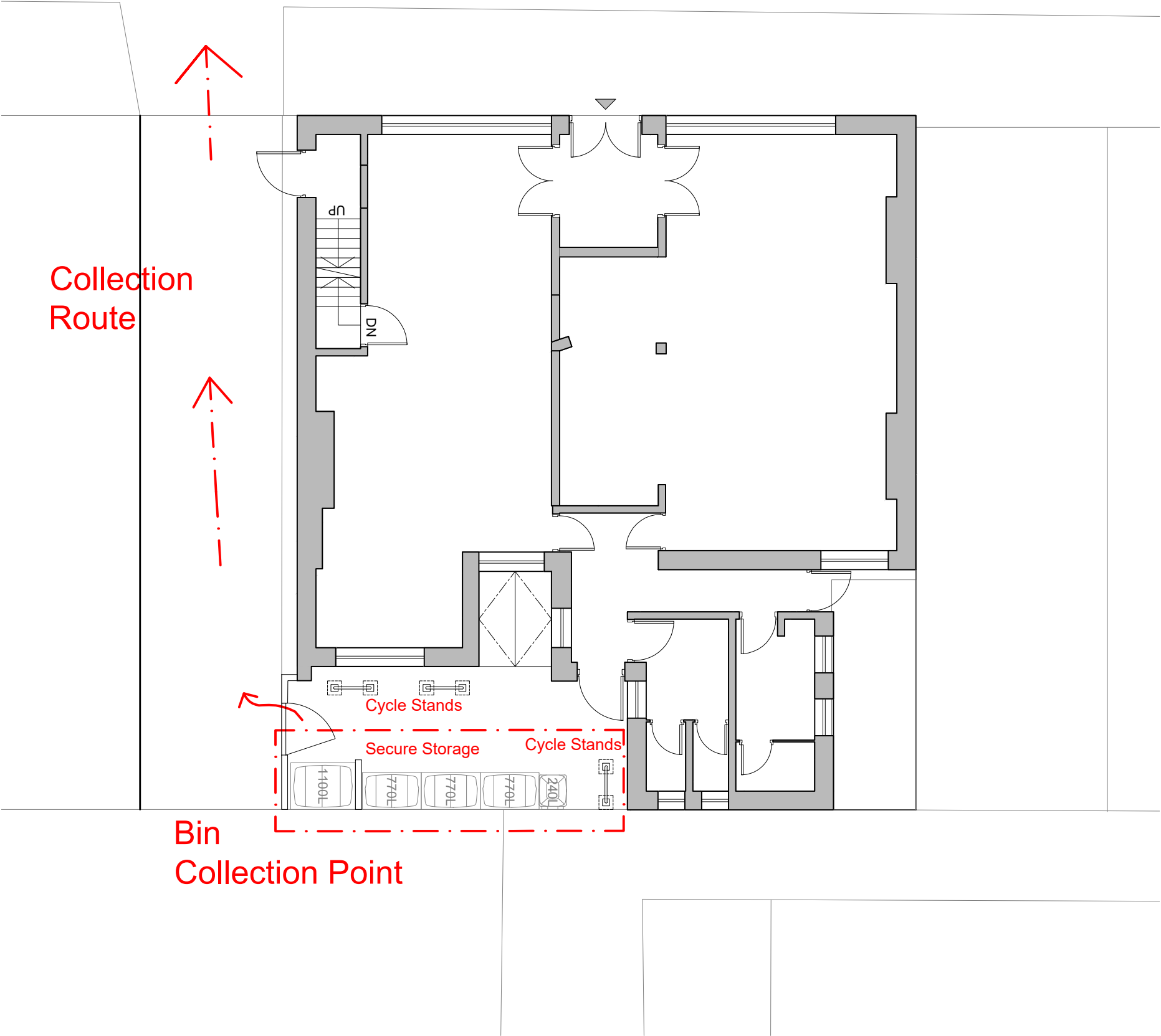
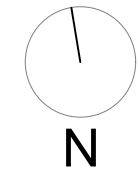
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client name		
A1 Property Investments Manchester Ltd		
project		
Old Loom		
drawing		
Location Plan		
project number		scale
1906101		1/500 @ A3
drawing number	rev	issue status
1906101_PL_001	-	PLANNING
This drawing is to be read in conjunction with all related drawings. All dimensions must be checked and verified on site before commencing any work or producing shop drawings. The originator should be notified immediately of any discrepancy. This drawing is copyright and remains the property of Studio Tashkeel Architecture Ltd.		

Location Plan

APPENDIX 2 – REFUSE COLLECTION POINT – MOSTON LANE



General Notes:

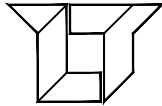
All site dimensions shall be verified by the Contractor on site prior to commencing any works.

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Rev	Description	Date	Dr by	App by



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client name		
AI Property Investments Manchester Ltd		
project		
Old Loom		
drawing		
Proposed Waste Collection Point		
project number		scale
1906101		1/100 @ A3
drawing number	rev	issue status
1906101_PL_012	-	PLANNING
This drawing is to be read in conjunction with all related drawings. All dimensions must be checked and verified on site before commencing any work or producing shop drawings. The originator should be notified immediately of any discrepancy. This drawing is copyright and remains the property of Studio Tashkeel Architecture Ltd.		

APPENDIX 3 – PARKING ACCUMULATION – PUBLIC HOUSE

CAR PARK ACCUMULATION ASSESSMENT

Existing Land Use: Public House

Existing GIA 136m²

No. of required overnight spaces/
Manually adjusted initial occupation no. 0

Hour	Trip Rate In	Trip Rate Out	Vehicle Arrivals	Vehicle Departures	Parking Demand
Time Range					
00:00-01:00	0.000	0.000	0	0	0
01:00-02:00	0.000	0.000	0	0	0
02:00-03:00	0.000	0.000	0	0	0
03:00-04:00	0.000	0.000	0	0	0
04:00-05:00	0.000	0.000	0	0	0
05:00-06:00	0.000	0.000	0	0	0
06:00-07:00	0.000	0.000	0	0	0
07:00-08:00	0.000	0.000	0	0	0
08:00-09:00	0.000	0.000	0	0	0
09:00-10:00	0.000	0.000	0	0	0
10:00-11:00	0.551	0.643	1	1	0
11:00-12:00	1.314	1.064	2	1	0
12:00-13:00	1.410	0.864	2	1	1
13:00-14:00	1.683	1.638	2	2	1
14:00-15:00	1.501	1.001	2	1	2
15:00-16:00	1.547	1.319	2	2	2
16:00-17:00	1.683	1.547	2	2	2
17:00-18:00	2.593	2.366	4	3	3
18:00-19:00	1.365	1.820	2	2	2
19:00-20:00	1.638	1.911	2	3	2
20:00-21:00	2.912	2.866	4	4	2
21:00-22:00	2.775	3.094	4	4	1
22:00-23:00	2.411	2.639	3	4	1
23:00-24:00	0.688	0.939	1	1	0

Maximum Parking Demand: 3

Peak Demand Period: 17:00-18:00

axis

Car Park Accumulation / Demand Assessment - Existing
Pub Use

23.09.2019

Job Number - 2695-01

Proposed Development, The Old Loom, Harpurhey

APPENDIX 4 – PARKING ACCUMULATION – RETAIL

CAR PARK ACCUMULATION ASSESSMENT

Proposed Land Use: Local Convenience Store

Proposed GIA 102m²

No. of required overnight spaces/

Manually adjusted initial occupation no. 0

Hour	Trip Rate In	Trip Rate Out	Vehicle Arrivals	Vehicle Departures	Parking Demand
Time Range					
00:00-01:00	0.000	0.000	0	0	0
01:00-02:00	0.000	0.000	0	0	0
02:00-03:00	0.000	0.000	0	0	0
03:00-04:00	0.000	0.000	0	0	0
04:00-05:00	0.000	0.000	0	0	0
05:00-06:00	0.000	0.000	0	0	0
06:00-07:00	0.000	0.000	0	0	0
07:00-08:00	8.065	7.957	8	8	0
08:00-09:00	9.462	8.065	10	8	2
09:00-10:00	8.065	8.925	8	9	1
10:00-11:00	3.978	3.871	4	4	1
11:00-12:00	7.527	6.667	8	7	2
12:00-13:00	6.989	6.774	7	7	2
13:00-14:00	6.774	6.989	7	7	2
14:00-15:00	8.280	8.172	8	8	2
15:00-16:00	8.710	9.247	9	9	1
16:00-17:00	10.753	10.753	11	11	1
17:00-18:00	13.871	13.441	14	14	2
18:00-19:00	12.473	13.118	13	13	1
19:00-20:00	12.043	11.505	12	12	2
20:00-21:00	6.667	7.419	7	8	1
21:00-22:00	1.821	2.661	2	3	0
22:00-23:00	0.000	0.000	0	0	0
23:00-24:00	0.000	0.000	0	0	0

Maximum Parking Demand: 2

Peak Demand Period: 12:00-13:00

axis

Car Park Accumulation / Demand Assessment - Proposed Shops

Proposed Development, The Old Loom, Harpurhey

Job Number - 2695-01

APPENDIX 5 – PARKING BEAT SURVEY - RESULTS

HARPURHEY, MANCHESTER - PARKING SURVEY

WEDNESDAY 28 AUGUST 2019

THURSDAY 29 AUGUST 2019

Area	Wembury Street North					
Side	West	% Cap.	East	% Cap.	Total	% Cap.
02:15	0	0	7	64	7	64

Area	Wembury Street North					
Side	West	% Cap.	East	% Cap.	Total	% Cap.
04:45	0	0	8	73	8	73

Cap.	DYL	-	11	-	11	-
------	-----	---	----	---	----	---

Cap.	DYL	-	11	-	11	-
------	-----	---	----	---	----	---

Area	Hillier Street North					
Side	West	% Cap.	East	% Cap.	Total	% Cap.
02:15	9	60	0	0	9	60

Area	Hillier Street North					
Side	West	% Cap.	East	% Cap.	Total	% Cap.
04:45	9	60	0	0	9	60

Cap.	15	-	DYL	-	15	-
------	----	---	-----	---	----	---

Cap.	15	-	DYL	-	15	-
------	----	---	-----	---	----	---

Area	Hillier Street North					
Side	Bottom	% Cap.				
02:15	2	12				

Area	Hillier Street North					
Side	Bottom	% Cap.				
04:45	3	18				

Cap.	17	-				
------	----	---	--	--	--	--

Cap.	17	-				
------	----	---	--	--	--	--

Area	Thornsett Close					
Side	East	% Cap.	East	% Cap.	Total	% Cap.
02:15	3	75	1	25	4	50

Area	Thornsett Close					
Side	East	% Cap.	East	% Cap.	Total	% Cap.
04:45	3	75	1	25	4	50

Cap.	4	-	4	-	8	-
------	---	---	---	---	---	---

Cap.	4	-	4	-	8	-
------	---	---	---	---	---	---

HARPURHEY, MANCHESTER - PARKING SURVEY

WEDNESDAY 28 AUGUST 2019

THURSDAY 29 AUGUST 2019

Area	Batley Street (On Street)					
Side	North	% Cap.	South	% Cap.	Total	% Cap.
02:15	1	9	1	9	2	9

Area	Batley Street (On Street)					
Side	North	% Cap.	South	% Cap.	Total	% Cap.
04:45	1	9	1	9	2	9

Cap.	11	-	11	-	22	-
------	----	---	----	---	----	---

Cap.	11	-	11	-	22	-
------	----	---	----	---	----	---

Area	Batley Street (Off Street)					
Side	North	% Cap.	South	% Cap.	Total	% Cap.
02:15	0	0	3	33	3	33

Area	Batley Street (Off Street)					
Side	North	% Cap.	South	% Cap.	Total	% Cap.
04:45	0	0	3	33	3	33

Cap.	0	-	9	-	9	-
------	---	---	---	---	---	---

Cap.	0	-	9	-	9	-
------	---	---	---	---	---	---

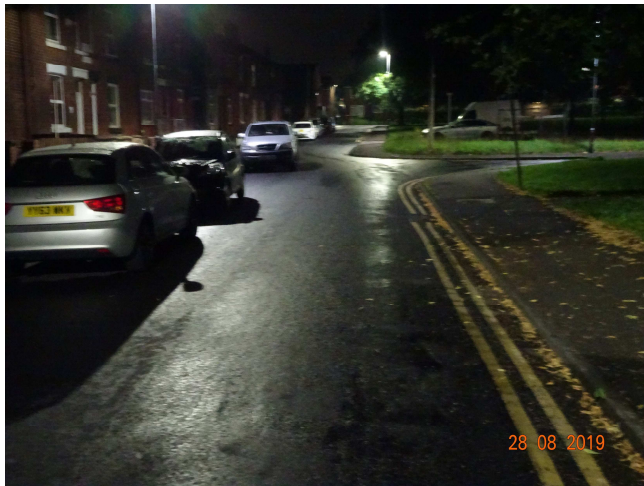
Area	Batley Street - Total					
Side	North	% Cap.	South	% Cap.	Total	% Cap.
02:15	1	9	4	20	5	16

Area	Batley Street - Total					
Side	North	% Cap.	South	% Cap.	Total	% Cap.
04:45	1	9	4	20	5	16

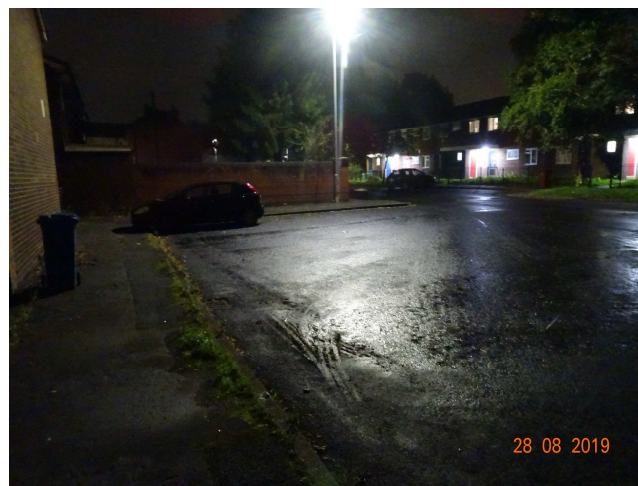
Cap.	11	-	20	-	31	-
------	----	---	----	---	----	---

Cap.	11	-	20	-	31	-
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APPENDIX 6 – PARKING BEAT SURVEY - PHOTOGRAPHS



Hillier Street North looking north from Batley Street



Hillier Street North Bottom looking north



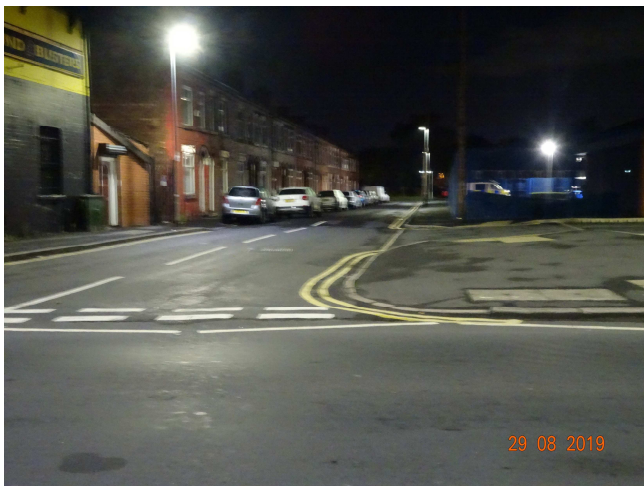
Thornsett Close looking south from Batley Street



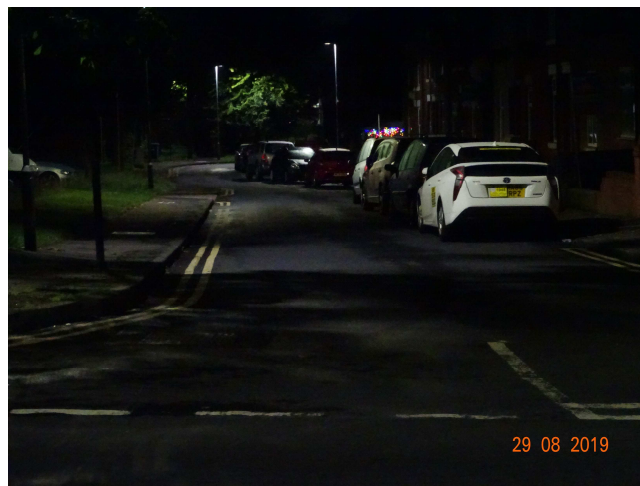
Batley Street looking east from Upper Conran Street



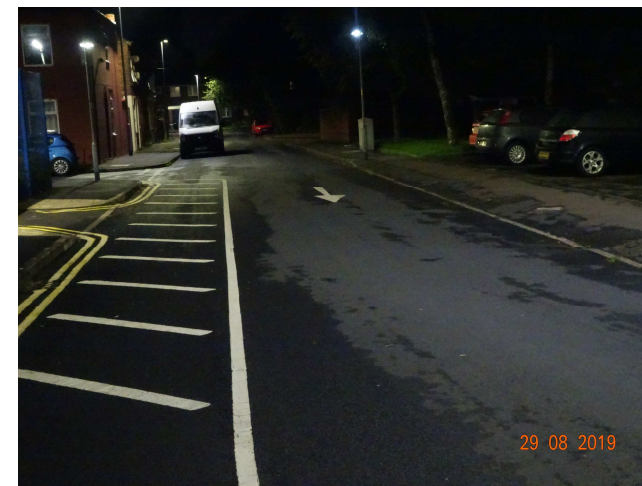
Wembury Street North looking north from Batley Street



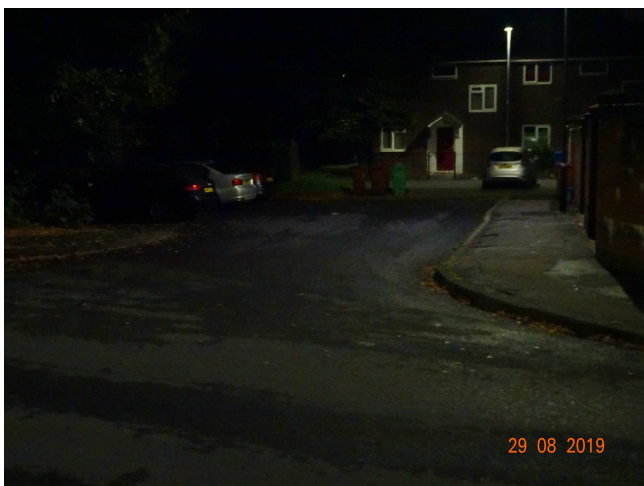
Wembury Street North looking south from Moston Lane



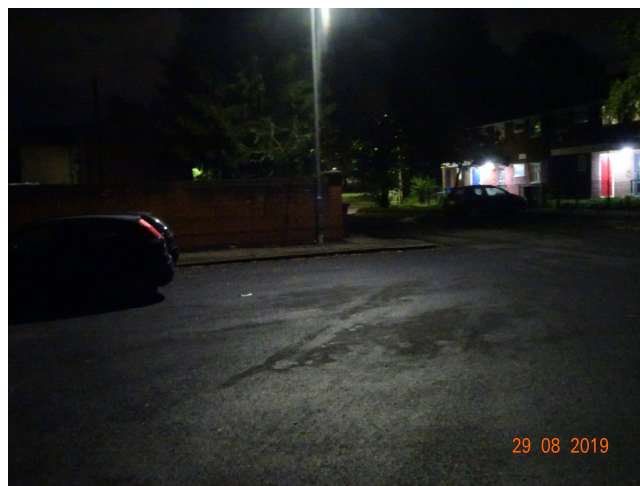
Hillier Street North looking south from Moston Lane



Batley Street looking east from Upper Conran Street



Thornsett Close looking south from Batley Street



Hillier Street North Bottom looking north

APPENDIX 7 – 2011 LOCAL CENSUS DATA

KS404EW - Car or van availability

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population	All households; All cars or vans
units	Households
date	2011
rural urban	Total

Cars	ualad09:Manchester		msoa2011:E02001053 : Manchester 009	
	number	%	number	%
All categories: Car or van available	204,969	100.0	4,494	100.0
No cars or vans in household	91,248	44.5	2,876	64.0
1 car or van in household	83,276	40.6	1,366	30.4
2 cars or vans in household	25,598	12.5	215	4.8
3 cars or vans in household	3,779	1.8	24	0.5
4 or more cars or vans in household	1,068	0.5	13	0.3
sum of all cars or vans in the area	150,722	-	1,945	-

- These figures are missing.

In order to protect against disclosure of personal information, records have been swapped between different

APPENDIX 8 - TRICS OUTPUT – PUBLIC HOUSE

Calculation Reference: AUDIT-339901-190911-0903

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 06 - HOTEL, FOOD & DRINK
 Category : I - PUBLIC HOUSE (WITHOUT RESTAURANT)

VEHICLESSelected regions and areas:

05	EAST MIDLANDS	
LN	LINCOLNSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
WY	WEST YORKSHIRE	1 days
10	WALES	
CF	CARDIFF	1 days
MT	MERTHYR TYDFIL	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: 338 to 750 (units: sqm)
 Range Selected by User: 120 to 750 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/1990 to 10/07/16

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:

Tuesday 1 days
 Friday 3 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 undertaken using machines.

Selected Locations:

Town Centre 2
 Edge of Town Centre 2

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:

Built-Up Zone 2
 No Sub Category 2

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:

A4 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®.

Axis 76 Water Lane Wilmslow

Licence No: 339901

Secondary Filtering selection (Cont.):Population within 1 mile:

1,001 to 5,000	1 days
15,001 to 20,000	1 days
25,001 to 50,000	2 days

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

Population within 5 miles:

5,001 to 25,000	1 days
50,001 to 75,000	1 days
75,001 to 100,000	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	3 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	4 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	4 days
-----------------	--------

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

Axis 76 Water Lane Wilmslow

Licence No: 339901

LIST OF SITES relevant to selection parameters

1	CF-06-I-01	PUBLIC HOUSE		CARDIFF
	NEWPORT ROAD			
	CARDIFF			
	ST MELLONS			
	Edge of Town Centre			
	No Sub Category			
	Total Gross floor area:	338 sqm		
	Survey date: TUESDAY	07/11/06		Survey Type: MANUAL
2	LN-06-I-01	PUBLIC HOUSE		LINCOLNSHIRE
	NORTH STREET			
	GRANTHAM			
	Town Centre			
	Built-Up Zone			
	Total Gross floor area:	510 sqm		
	Survey date: FRIDAY	14/06/13		Survey Type: MANUAL
3	MT-06-I-01	PUBLIC HOUSE		MERTHYR TYDFIL
	HIGH STREET			
	MERTHYR TYDFIL			
	Town Centre			
	Built-Up Zone			
	Total Gross floor area:	750 sqm		
	Survey date: FRIDAY	05/10/07		Survey Type: MANUAL
4	WY-06-I-01	PUBLIC HOUSE		WEST YORKSHIRE
	HALIFAX ROAD			
	LIVERSEDGE			
	Edge of Town Centre			
	No Sub Category			
	Total Gross floor area:	600 sqm		
	Survey date: FRIDAY	25/04/14		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.

Axis 76 Water Lane Wilmslow

Licence No: 339901

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/I - PUBLIC HOUSE (WITHOUT RESTAURANT)

VEHICLES**Calculation factor: 100 sqm****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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									
08:00 - 09:00									
09:00 - 10:00									
10:00 - 11:00	2	544	0.551	2	544	0.643	2	544	1.194
11:00 - 12:00	3	533	1.314	3	533	1.064	3	533	2.378
12:00 - 13:00	4	550	1.410	4	550	0.864	4	550	2.274
13:00 - 14:00	4	550	1.683	4	550	1.638	4	550	3.321
14:00 - 15:00	4	550	1.501	4	550	1.001	4	550	2.502
15:00 - 16:00	4	550	1.547	4	550	1.319	4	550	2.866
16:00 - 17:00	4	550	1.683	4	550	1.547	4	550	3.230
17:00 - 18:00	4	550	2.593	4	550	2.366	4	550	4.959
18:00 - 19:00	4	550	1.365	4	550	1.820	4	550	3.185
19:00 - 20:00	4	550	1.638	4	550	1.911	4	550	3.549
20:00 - 21:00	4	550	2.912	4	550	2.866	4	550	5.778
21:00 - 22:00	4	550	2.775	4	550	3.094	4	550	5.869
22:00 - 23:00	4	550	2.411	4	550	2.639	4	550	5.050
23:00 - 24:00	3	533	0.688	3	533	0.939	3	533	1.627
Total Rates:	24.071			23.711			47.782		

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.

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Parameter summary

Trip rate parameter range selected:	338 - 750 (units: sqm)
Survey date range:	01/01/90 - 10/07/16
Number of weekdays (Monday-Friday):	4
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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 shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

APPENDIX 9 – TRICS OUTPUT – LOCAL CONVENIENCE

Axis 76 Water Lane Wilmslow

Licence No: 339901

Calculation Reference: AUDIT-339901-190911-0904

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 01 - RETAIL
 Category : O - CONVENIENCE STORE

VEHICLESSelected regions and areas:

05	EAST MIDLANDS	
	NR NORTHAMPTONSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	NY NORTH YORKSHIRE	2 days
	SY SOUTH YORKSHIRE	1 days
11	SCOTLAND	
	EB CITY OF EDINBURGH	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: 96 to 275 (units: sqm)
 Range Selected by User: 70 to 300 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/1990 to 23/09/16

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:

Monday	1 days
Wednesday	2 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	5 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 undertaken using machines.

Selected Locations:

Town Centre	3
Edge of Town Centre	2

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:

Residential Zone	2
Built-Up Zone	2
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:

A1	5 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®.

Population within 1 mile:

1,001 to 5,000	1 days
10,001 to 15,000	1 days
15,001 to 20,000	1 days
50,001 to 100,000	2 days

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

Population within 5 miles:

5,001 to 25,000	1 days
50,001 to 75,000	1 days
75,001 to 100,000	1 days
250,001 to 500,000	1 days
500,001 or More	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	4 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.

Petrol filling station:

Included in the survey count	0 days
Excluded from count or no filling station	5 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	5 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	5 days
-----------------	--------

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

LIST OF SITES relevant to selection parameters

1	EB-01-O-01	SAINSBURY'S LOCAL	CITY OF EDINBURGH
	EARL GREY STREET		
	EDINBURGH		
	Town Centre		
	Built-Up Zone		
	Total Gross floor area:	350 sqm	
	Survey date: THURSDAY	28/05/15	Survey Type: MANUAL
2	NR-01-O-01	LONDIS	NORTHAMPTONSHIRE
	ROCKINGHAM ROAD		
	CORBY		
	Edge of Town Centre		
	Residential Zone		
	Total Gross floor area:	120 sqm	
	Survey date: FRIDAY	21/11/08	Survey Type: MANUAL
3	NY-01-O-01	SPAR	NORTH YORKSHIRE
	HIGH STREET		
	BOROUGHBRIDGE		
	Town Centre		
	High Street		
	Total Gross floor area:	96 sqm	
	Survey date: WEDNESDAY	17/09/08	Survey Type: MANUAL
4	NY-01-O-02	SAINSBURY'S LOCAL	NORTH YORKSHIRE
	COLD BATH ROAD		
	HARROGATE		
	Edge of Town Centre		
	Residential Zone		
	Total Gross floor area:	220 sqm	
	Survey date: MONDAY	10/12/12	Survey Type: MANUAL
5	SY-01-O-01	SAINSBURY'S LOCAL	SOUTH YORKSHIRE
	DIVISION STREET		
	SHEFFIELD		
	Town Centre		
	Built-Up Zone		
	Total Gross floor area:	219 sqm	
	Survey date: WEDNESDAY	12/12/12	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.

Axis 76 Water Lane Wilmslow

Licence No: 339901

TRIP RATE for Land Use 01 - RETAIL/O - CONVENIENCE STORE

VEHICLES**Calculation factor: 100 sqm****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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	5	186	8.065	5	186	7.957	5	186	16.022
08:00 - 09:00	5	186	9.462	5	186	8.065	5	186	17.527
09:00 - 10:00	5	186	8.065	5	186	8.925	5	186	16.990
10:00 - 11:00	5	186	3.978	5	186	3.871	5	186	7.849
11:00 - 12:00	5	186	7.527	5	186	6.667	5	186	14.194
12:00 - 13:00	5	186	6.989	5	186	6.774	5	186	13.763
13:00 - 14:00	5	186	6.774	5	186	6.989	5	186	13.763
14:00 - 15:00	5	186	8.280	5	186	8.172	5	186	16.452
15:00 - 16:00	5	186	8.710	5	186	9.247	5	186	17.957
16:00 - 17:00	5	186	10.753	5	186	10.753	5	186	21.506
17:00 - 18:00	5	186	13.871	5	186	13.441	5	186	27.312
18:00 - 19:00	5	186	12.473	5	186	13.118	5	186	25.591
19:00 - 20:00	5	186	12.043	5	186	11.505	5	186	23.548
20:00 - 21:00	5	186	6.667	5	186	7.419	5	186	14.086
21:00 - 22:00	3	238	1.821	3	238	2.661	3	238	4.482
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			125.478			125.564			251.042

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.

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Parameter summary

Trip rate parameter range selected:	96 - 275 (units: sqm)
Survey date range:	01/01/90 - 23/09/16
Number of weekdays (Monday-Friday):	5
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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 shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

APPENDIX 10 – TRICS OUTPUT – RESIDENTIAL

Calculation Reference: AUDIT-339901-190911-0923

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
 Category : C - FLATS PRIVATELY OWNED

VEHICLESSelected regions and areas:

02 SOUTH EAST	
EX ESSEX	1 days
07 YORKSHIRE & NORTH LINCOLNSHIRE	
WY WEST YORKSHIRE	1 days
08 NORTH WEST	
GM GREATER MANCHESTER	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: Number of dwellings
 Actual Range: 6 to 20 (units:)
 Range Selected by User: 6 to 20 (units:)

Parking Spaces Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/1990 to 13/11/18

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:

Tuesday	1 days
Wednesday	1 days
Friday	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 undertaken using machines.

Selected Locations:

Town Centre	1
Edge of Town Centre	2

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:

Residential Zone	1
Built-Up Zone	2

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:

C3	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®.

Axis 76 Water Lane Wilmslow

Licence No: 339901

Secondary Filtering selection (Cont.):

Population within 1 mile:

20,001 to 25,000	1 days
25,001 to 50,000	2 days

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

Population within 5 miles:

125,001 to 250,000	2 days
500,001 or More	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	2 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	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.

Axis 76 Water Lane Wilmslow

Licence No: 339901

LIST OF SITES relevant to selection parameters

1	EX-03-C-01	FLATS	ESSEX
	WESTCLIFF PARADE		
	SOUTHEND-ON-SEA		
	WESTCLIFF		
	Edge of Town Centre		
	Residential Zone		
	Total Number of dwellings:	6	
	Survey date: TUESDAY	22/10/13	Survey Type: MANUAL
2	GM-03-C-03	BLOCK OF FLATS	GREATER MANCHESTER
	FAIRFIELD STREET		
	MANCHESTER		
	Town Centre		
	Built-Up Zone		
	Total Number of dwellings:	20	
	Survey date: FRIDAY	14/10/11	Survey Type: MANUAL
3	WY-03-C-02	BLOCK OF FLATS	WEST YORKSHIRE
	KINGS MILL LANE		
	HUDDERSFIELD		
	ASPLEY		
	Edge of Town Centre		
	Built-Up Zone		
	Total Number of dwellings:	12	
	Survey date: WEDNESDAY	13/09/06	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.

Axis 76 Water Lane Wilmslow

Licence No: 339901

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

VEHICLES**Calculation factor: 1 DWELLS****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	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	3	13	0.026	3	13	0.053	3	13	0.079
08:00 - 09:00	3	13	0.053	3	13	0.211	3	13	0.264
09:00 - 10:00	3	13	0.000	3	13	0.105	3	13	0.105
10:00 - 11:00	3	13	0.053	3	13	0.026	3	13	0.079
11:00 - 12:00	3	13	0.079	3	13	0.000	3	13	0.079
12:00 - 13:00	3	13	0.000	3	13	0.079	3	13	0.079
13:00 - 14:00	3	13	0.053	3	13	0.053	3	13	0.106
14:00 - 15:00	3	13	0.026	3	13	0.026	3	13	0.052
15:00 - 16:00	3	13	0.079	3	13	0.026	3	13	0.105
16:00 - 17:00	3	13	0.105	3	13	0.026	3	13	0.131
17:00 - 18:00	3	13	0.105	3	13	0.079	3	13	0.184
18:00 - 19:00	3	13	0.053	3	13	0.079	3	13	0.132
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.632			0.763			1.395

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.

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Parameter summary

Trip rate parameter range selected:	6 - 20 (units:)
Survey date date range:	01/01/90 - 13/11/18
Number of weekdays (Monday-Friday):	3
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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 shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.