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TRANSPORT ASSESSMENT

Premier Inn Hotels and Dominvs Group

One Medlock Street, Manchester

November 2022

Transport Assessment
VN91290

Report control

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1 Introduction

Background

1.1 Vectos has been instructed by Premier Inn Hotels and Dominvs Group to provide highways and transportation advice in relation to a planning application for a proposed office and purpose-built student accommodation (PBSA) development at One Medlock Street in Manchester.

1.2 This Transport Assessment (TA) provides information on the traffic and transport planning aspects of the development proposals and forms supplementary information to assist in the determination of the planning application.

Development Site

1.3 The site includes the existing Premier Inn Site, at the southern end of Medlock Street. The Site is bound by River Street to the north; Medlock Street to the west and south-west; the Mancunian Way, its exit slip road and the Mancunian Way/Princess Parkway junction, to the south' and the River Street Tower PBSA development to the east.

1.4 The site forms part of the Central section of the First Street Strategic Regeneration Framework (SRF) area which aims to deliver flexible and generously proportioned accommodation for commercial occupiers as well as residential accommodation. To the north lies First Street North which forms the Cultural Hub of First Street including Greater Manchester Arts Centre at HOME, student accommodation, a 4-star hotel a 700 space Q Park and complementary retail space. To the east of Medlock Street still within the SRF area, lies the Plot 9 site, which is under construction for a nine-storey office building with a condition to deliver a pedestrian crossing of Medlock Street. To the south of that site is the First Street Plot 11 site which has permission for co-living accommodation and ground floor commercial units.

Development Proposals

1.5 In summary, the development proposals will comprise the demolition of the existing hotel building and structures and the development of the site for office uses (Use Class E), flexible office/community use (Use Class E/F1/F2) and purpose-built student accommodation (Sui Generis) comprising two separate buildings, along with associated ancillary internal and external amenity space, hard and soft landscaping and associated highway works.

1.6 The development will include:

- 36,494sqm (GIA) of Grade A commercial office floorspace (Block A);
- 30,590 (GIA) of Purpose-Built Student Accommodation (PBSA) floorspace (Block B) providing 1,014 student accommodation beds in a variety of unit types;
- 293 sqm (GIA) of Flexible Ground Floor Community Space (Block B);
- 8 x disabled car parking spaces;
- 718 long-stay cycle parking spaces;
- Landscaping and public realm works.

Report Structure

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

- **Section 2: Policy Context** – describes the local and national planning policy relevant to the proposed development;
- **Section 3: Baseline Conditions** – discusses the accessibility of the site by all sustainable modes of transport and reviews the committed developments in the area, the surrounding highway network and the accident record on the surrounding highway network;
- **Section 4: Proposed Development** – sets out the development proposals including access, parking and servicing;
- **Section 5: Proposed Development** – sets out the development proposals including access, parking and servicing;
- **Section 6: Trip Forecasting and Impact Assessment** – outlines the multi-modal trip generation of the proposed scheme and discusses how this will be accommodated within the existing transport infrastructure around the site; and
- **Section 7: Summary and Conclusion** – summarises the findings of the TA and provides the report conclusions.

1.8 The planning application will also be accompanied by a Framework Travel Plan which will be adopted for the development to encourage people living and working at the development to use sustainable modes of travel.

2 Policy Context

Overview

2.1 This section of the report provides an outline of national and local policy applicable to the development site. It is important that the TA is in accordance with such guidance and that the principles of development are consistent with national and local policies.

National Planning Policy Framework (2021)

2.2 The current National Planning Policy Framework (NPPF) was published in July 2021 and sets out the government's planning policies for England and how these are expected to be applied. This revised Framework replaces the previous NPPF published in March 2012 and revised in July 2018 and February 2019. At the heart of the Framework is a presumption in favour of sustainable development.

2.3 As part of promoting sustainable transport, paragraph 110 of the revised NPPF states that in assessing applications for development, it should be ensured that:

- appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location.
- safe and suitable access to the site can be achieved for all users;
- the design of streets, parking areas, other transport elements and the content of associated standards reflects current national guidance, including the National Design Guide and the National Model Design Code; and
- any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree.

2.4 Paragraph 111 goes on to state that, 'Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe'.

Local Policy

2.5 Relevant transport planning policy and guidance at the local level is contained within the Manchester Core Strategy document, the Guide to Development in Manchester SPD and Planning Guidance and the Greater Manchester Transport Strategy. The First Street Strategic Regeneration Framework document has also been considered.

Manchester Core Strategy

2.6 The Core Strategy forms the key document in Manchester's Local Development Framework and was adopted in 2012. It sets out a number of strategic policies that will guide the development of the city. Policy SP1 sets out the spatial principles that will guide development to 2027. One of these principles is as follows:

- 'New development will maximise the potential of the City's transport infrastructure, in particular promoting walking, cycling and the use of public transport.'

2.7 In addition, the policy goes on to state that developments in all parts of the city should 'improve access to jobs, services and education and open space by being located to reduce the need to travel and provide good access to sustainable transport provision'.

2.8 This is reinforced through policy DM 1 of the Core Strategy, which concerns development management. This states that all developments should have regard to specific issues including the access to new development by sustainable transport modes and vehicular access and car parking.

2.9 Policy T1 of the Core Strategy concerns sustainable transport. It states that the Council will support proposals that:

- *'Improve choice by developing alternatives to the private car.*

- *Take account of the needs of road users according to a broad hierarchy consisting of, in order of priority:*

i) Pedestrians and disabled people,
ii) Cyclists, public transport,
iii) Commercial access,
iv) General off-peak traffic,
v) General peak time traffic.'

2.10 The development proposals are in line with these policy objectives, ensuring that the site will be accessible to all users by a range of different transport modes.

2.11 Policy T2 states that the Council will actively manage the pattern of development to ensure that new development:

- *'Is located to ensure good access to the City's main economic drivers, including the Regional Centre, the Oxford Road Universities and Hospitals and the Airport and to ensure good national and international connections*

- *Is easily accessible by walking, cycling and public transport; connecting residents to jobs, centres, health, leisure, open space and educational opportunities.'*

2.12 With regards to parking standards, the Core Strategy states that the 'maximum standards for car parking do not apply to the City Centre as each development in the City Centre will be considered on a case-by-case basis.'

Guide to Development in Manchester SPD & Planning Guidance

2.13 This document brings together the development principles that will apply to new developments in Manchester. Paragraph 2.22 of the document states that:

'In order to reduce reliance on the car, residents and workers should be within easy walking distance of facilities such as clinics, corner shops, newsagents and public transport.'

2.14 The proposed development is well aligned with this goal, being located close to a range of different facilities. The guidance goes on to describe the need for Travel Plans in new developments, stating:

'A Travel Plan is a package of measures and actions aimed at reducing the need to travel by car by providing alternative choices and encouraging walking, cycling, and public transport use. At the planning stage consideration should be given to the proximity of the development to existing travel facilities and services, site layout, suitable density, cycling, pedestrian facilities and potential for parking restraint.'

2.15 Such an exercise has been completed for this development and informs part of this report along with the accompanying Travel Plan.

Greater Manchester Transport Strategy 2040

2.16 Transport for Greater Manchester (TfGM) has developed a 2040 Transport Strategy that sets out ambitions for a radical new approach to planning Manchester's transport system in support of long-term needs and aspirations.

2.17 The vision is 'for Greater Manchester to have 'World class connections that support long‐term, sustainable economic growth and access to opportunity for all.' The Transport Vision aims are as follows:

- Supporting Sustainable Economic growth
- Protecting Our Environment
- Improving Quality of Life for All
- Developing an Innovative City Region

2.18 The 2040 Vision is supported by policies and proposals for improving the transport network in the medium term up to 2025 structured around spatial themes. A common theme is the need to tackle congestion on Manchester's transport networks and minimise the negative impacts of traffic on communities.

2.19 The Delivery Plan 1: 2016/17 ‐ 2021/22 sets out schemes and measures that are aimed to be brought forward up to 2021. It also sets out the funding availability and will provide annual updates on progress against key performance indicators.

2.20 The development proposals aspire to conform to the vision and goals as set out within the 2040 Vision Document by ensuring that the site is accessible by a variety of sustainable transport modes in order to deliver a quality development that enhances the environment.

City Centre Transport Strategy

2.21 A report was presented to the MCC Executive in October 2019 that set out proposals for a revised City Centre Transport Strategy (CCTS), aligned to the Greater Manchester Transport Strategy 2040.

2.22 The new strategy is considered necessary to take account of the predicted growth of the city centre, changes in the policy context since the previous strategy in 2010, and the outcomes of the City Centre Transport Strategy Conversation that took place in 2018.

2.23 It will set out ambitious targets for the city centre in the wider context of the GMSF, emerging Local Plan, Climate Change Policy and Clean Air proposals, including the ambition to be a zero-carbon city by 2038 at the latest. The focus is upon significant shifts to sustainable transport modes, which will require enhancements to the walking and cycling networks, providing additional Metrolink capacity in the city centre and increasing electric vehicle charging points. Additionally, the ambition is for a shift in car parking spaces over time from the centre to the periphery.

First Street Development Framework update 2020

2.24 The First Street SRF was endorsed in November 2018 following earlier iterations in 2012 and 2015. In The First Street Development Framework has now been updated in 2020 and provides an addendum to the 2018 update and expands on the development principles for the sites located on the western side of Medlock Street as well as updating on the Councils Green and Blue Infrastructure including their Net Zero target.

2.25 In transport terms, for the Premier Inn site the Development Framework states that:

‘Redevelopment should facilitate enhancements to physical and perceptive connections between Hulme to the south of Mancunian Way and the city centre. This should include integrating with changes to the Princess Parkway Roundabout and repairing the urban fabric when entering the city from the south.

2.26 The SRF identified that the fullest range of transport modes are available to the area First Street site, including tram, train, bus, cycle and walking. The SRF recognises the importance of permitting car access to the site. However, the plan seeks to mitigate vehicular impacts by prioritising pedestrian and cycle access wherever possible, introducing traffic calming alignments/features and minimising the dominance of the private car.

2.27 The building proposed for the One Medlock Street site is part of the First Street Central development area as described in **Figure 2.1** below and seeks to retain the principles established as part of the SRF.

Figure 2.1 West of Medlock Street site plan within the Development Framework Area

Summary

2.28 The relevant national and local transport planning context for the proposals have been detailed and it has been highlighted that the proposed development accords with the key principles of national and local policies. The proposals represent a sustainable development in transport terms and the design of the scheme follows the principles of providing safe access and placing active travel at the heart of design.

3 Baseline Conditions

Overview

3.1 This section of the report provides information on the baseline conditions in the vicinity of the site. It provides a detailed overview of the existing site and its accessibility by sustainable modes of transport. The section also describes the local highway network and existing car parking facilities close to the site.

Existing Site

3.2 The Premier Inn site is located at the southern end of Medlock Street, bound by River Street to the north. Medlock Street to the east, Medlock Street Junction and Mancunian Way to the south, and the River Street Tower student accommodation development to the west. The site covers 0.94ha and its main vehicular access is taken from the north via River Street. The site is currently in operation as a 199 bed hotel (use class C1) with a 113-space car park and no cycle parking.

3.3 The location of the site is shown in **Figure 3.1**.

Figure 3.1: Site Location

Local Highway Network

3.4 A walkover audit of the local area to establish the baseline conditions for the street environment has been undertaken with a particular focus on the provision for pedestrians, cyclists and public transport users. The summary of this walkover audit is given in **Appendix A** and some of the key features are considered further below. It is recognised that the First Street Plot 9a will deliver a new pedestrian crossing of Medlock Street and footway paving improvements on the east side of Medlock Street.

A5103 Medlock Street

3.5 The A5103 Medlock Street, forming the eastern boundary of the site, is a key strategic route into Manchester City Centre from the south of Manchester. In the vicinity of the site, Medlock Street is circa. 14m in width and is subject to a 30mph speed limit.

3.6 It connects with the A57 Mancunian Way at the south-east corner of the site and this junction has been the subject of an improvement scheme which effectively completed in 2021 which has transformed the pedestrian and cycle environment for users heading south towards Hulme, the Birley Fields Campus and also east towards the Oxford Road University Corridor with dedicated at-grade crossings and cycle lane facilities.

3.7 North of River Street Medlock Street has wide footways, bus stops and cycle lanes with additional landscaping, seating and cycle parking as part of the First Street development.

Figure 3.2 Medlock Street

Bus Stop/Cycleway, Looking North

3.8 The First Street Plot 9a development is conditioned to deliver a staggered signalised pedestrian crossing north of River Street offering a valuable crossing for pedestrians of Medlock Street, see Appendix **B**. Further north still, Medlock Street benefits from wide footways drop kerbs across, City Road East and Little Peter Street, where there is an additional pedestrian island to assist crossing towards the Sainsburys Local. On reaching the signal junction with Whitworth Street West there are dedicated pedestrian crossing facilities available to cross this large junction. MCC are currently consulting on proposals to make Whitworth Street west bus/taxi/cycle only westbound and to widen the pavements thereby reducing the crossing width in towards the city.

River Street

3.9 River Street forms the northern boundary of the site and links to Medlock Street in the east and Garwood Street in the west. River Street is a one-way road in the westbound direction. River Street is circa 8m in width and is subject to a 20mph speed limit.

3.10 Footways of up to 4m in width are provided on both sides of the carriageway and these are observed to be in good condition. Some footway and public realm improvements have been delivered towards the western end of the road in association with the River Street Tower student accommodation development, including a new pedestrian refuge crossing of River Street at the junction with Garwood Street.

3.11 River Street benefits from 18 Pay & Display parallel parking bays provided along both sides of the carriageway with double yellow line traffic regulation order (TRO) is in place otherwise along the length of the street.

Figure 3.3 River Street Looking West

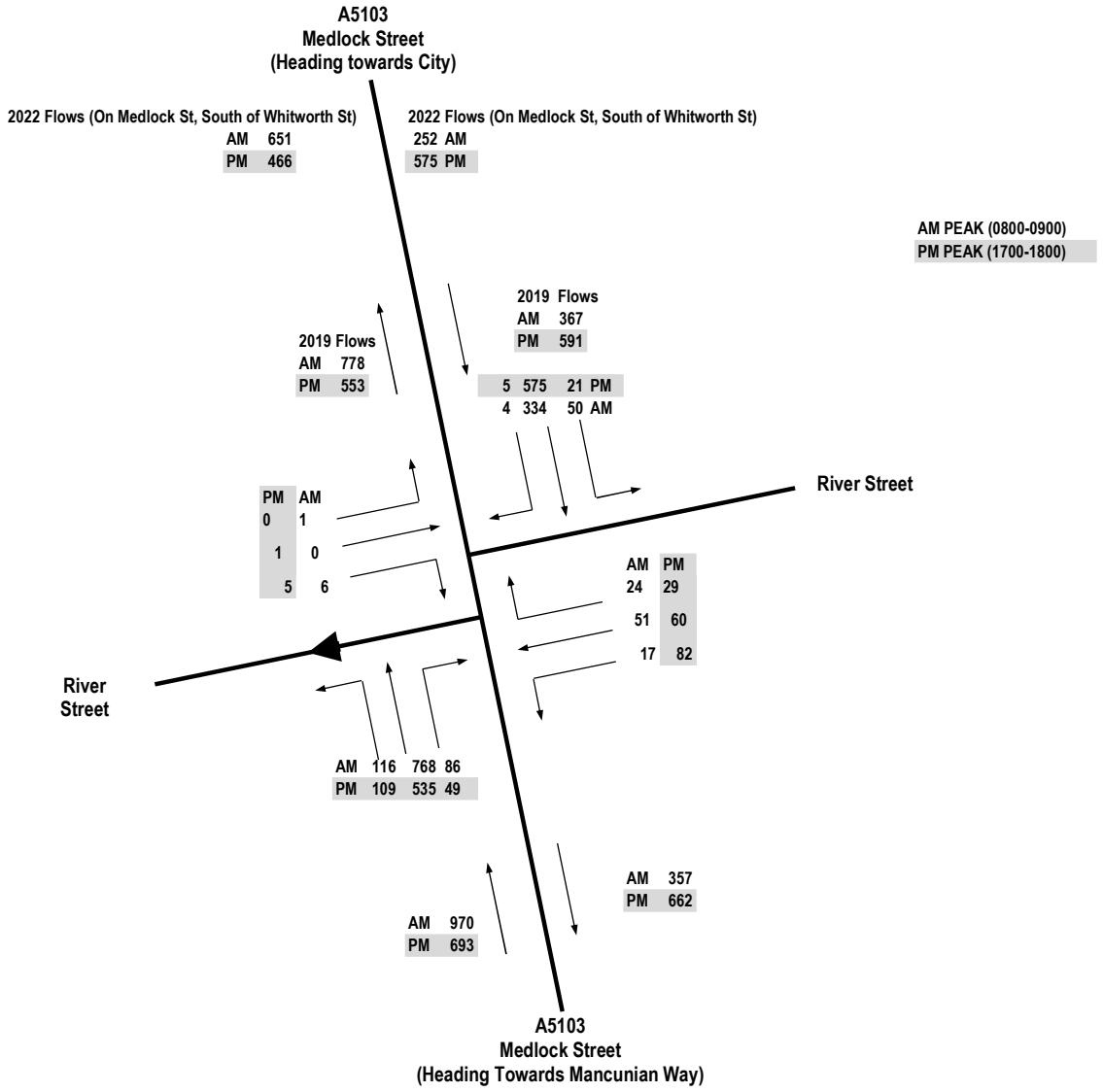
3.12 The traffic flows at the junction of River Street and Medlock Street were surveyed on Wednesday 1st May 2019 with a video to also record the level of queuing. As these flows date from 2019 a check count was conducted on 10th May 2022 to confirm that the 2019 counts were robust which was confirmed with the 2022 data being 21% lower than the 2019 flows in the AM peak and 9% lower in the PM peak.

3.13 The traffic flows are presented in **Figure 3.4** overleaf. Medlock Street carries around 1300 vehicles two way in each of the peak hours passing the Premier Inn Site. It can be seen that despite River Street being one way there is traffic turning out of that junction against the one-way route. The volumes on River Street past the existing Premier Inn Site are relatively low at around 3 vehicles a minute.

3.14 Medlock Street experiences queuing in the AM Peak building up from the Whitworth Street signals back to River Street. In the PM peak there is no queuing in this area as it tends to occur in other locations for the out-commuting traffic. On River Street (east) there is notable queuing in the PM peak for traffic leaving the car park from around 16:30.

N

PCU's



DRAWING TITLE: One Medlock Street			
JOB TITLE: Weekday Peak Hour Traffic Flows (PCU's)			
DRAWN BY: GD	DATE: Nov 2022	SCALE: NTS	REF: FIGURE 3.4

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Garwood Street

3.15 Garwood Street is approximately 85m in length and 8m in width, providing connections to Great Jackson Street in the north and Medlock Street Junction / the A57 in the south. Footways and street lighting are provided along Garwood Street and there are three Pay & Display parking bays located along the western side of the road, with double yellow line restrictions present elsewhere. There have been some improvements to the public realm / footway along Garwood Street in conjunction with the River Street Tower development.

Shortcroft Street

3.16 Shortcroft Street extends for circa 80m between River Street and City Road East. The carriageway is circa 3m in width and footway is present along both sides of the carriageway although this is narrow along the eastern side. There is street lighting and there are dropped kerbs and tactile paving at both terminuses to facilitate crossing. The road is subject to a speed limit of 20mph and has double yellow TROs throughout its entire length.

3.17 There is a committed development scheme (One City Road – planning reference 128002/FO/2020) to the north of River Street that will deliver some amendments to Shortcroft Street, making it one-way in the northbound direction and widening the road to 4m and introducing a loading bay, six on-street parking bays and an improved public realm / footway along the eastern side of the road.

Existing Car Parking Provision

3.18 There are numerous public car parks within a short walk of the site, notably the First Street Q-Park multi-storey car park with 700 spaces, the NCP Hulme Street car park with 114 spaces and the NCP Bridgewater Hall car park with 288 spaces, all within 200m of the site. **Plan VN81029-G104** shows the location of the site in relation to public car parks within an 800m walk of the site illustrating that there are approximately 2,296 public car parking spaces within this short walk of the site.

3.19 Furthermore, there are on-street parking spaces available in proximity to the site. The site is located within Zone 4 of Manchester City Centre's Controlled Parking Zone (CPZ) where the pay-and-display parking charges are up to £7.50 for a maximum stay of ten hours on weekdays, with a £10.00 charge for all weekend. The CPZ charges are applicable on Mondays to Sundays between 08:00 and 20:00. Parking between 20:00 and 08:00 would then be free (subject to parking restrictions). On-street parking within Zone 4 and within a circa 10-min walk from the site includes the following streets, amongst others:

- River Street (directly north of the site): 13 bays
- City Road East (90m from the site) – circa 43 bays;
- Garwood Street (90m to the west of the site) – 3 bays;
- Great Jackson Street (160m to the west of the site) – circa 73 bays;

3.20 On-street parking is therefore a potential option for accommodating parking demand generated by the proposed development.

Car Club Opportunities

3.21 Some people who do not own a car may require the use of a car on certain occasions. The Enterprise Car Club offers a cost-effective, hassle-free, and greener alternative to car ownership and traditional vehicle hire in Manchester. The car club allows users to view the availability of cars at designated parking bays throughout the city via a mobile application, where they can unlock and start driving their selected car on the spot.

3.22 At the time of writing, the nearest Car Club bay is located at Q-Park First Street, M15 4FN, which is around 300m to the east of the site. Cars can be reserved by the hour, day or even longer. The price of the journey depends upon the vehicle type, the duration of the reservation and the miles driven, but starts at around £5.20 an hour. **Figure 3.5** shows the Enterprise Car Club locations across Manchester City Centre closest to the site.

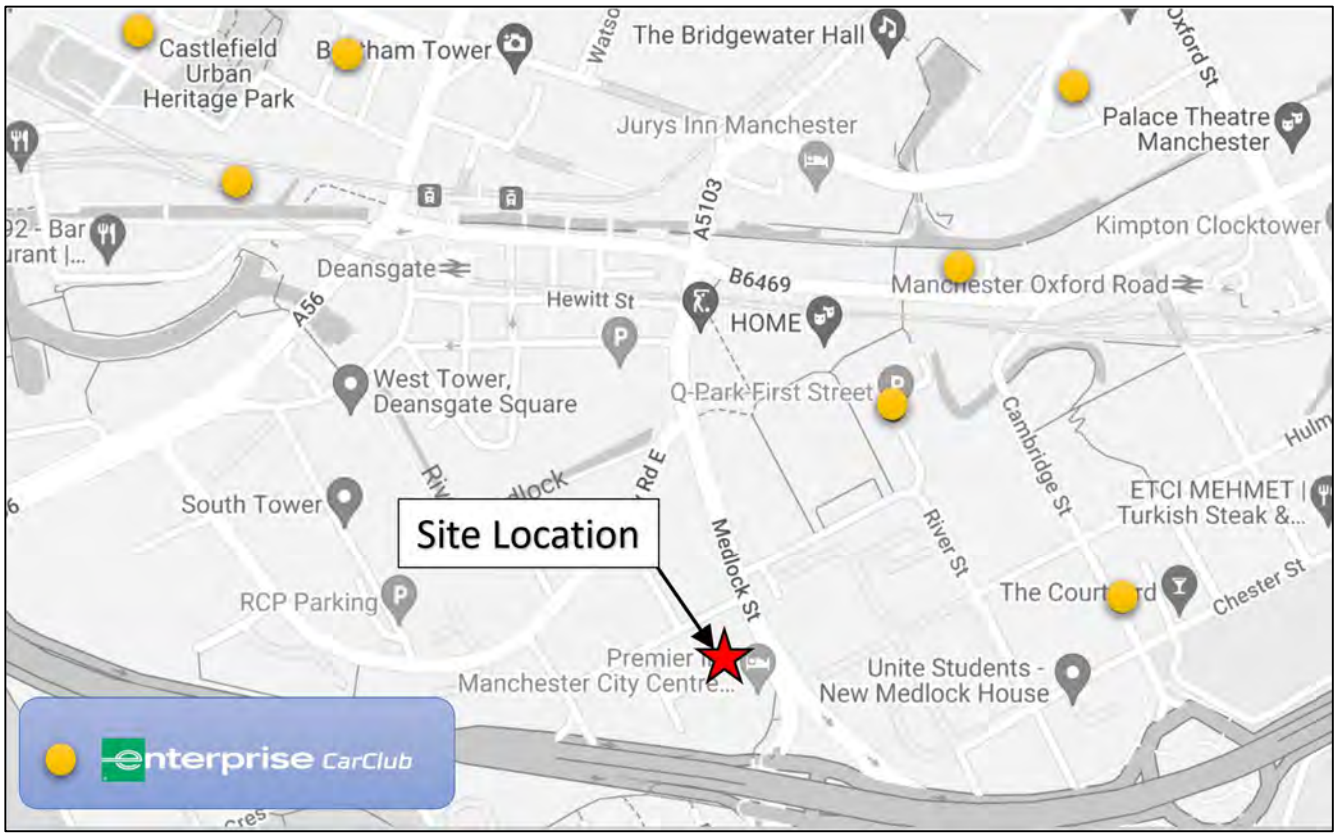


Figure 3.5: Enterprise Car Club Locations

Highway Safety Record

3.23 The online version of the TfGM accident database has been reviewed to understand the level of accidents in the immediate vicinity of the proposed development occurring over the most recent five-year period for which data is available. **Figure 3.6** shows the accident plot for the area surrounding the site, with the site itself indicated by the red star.

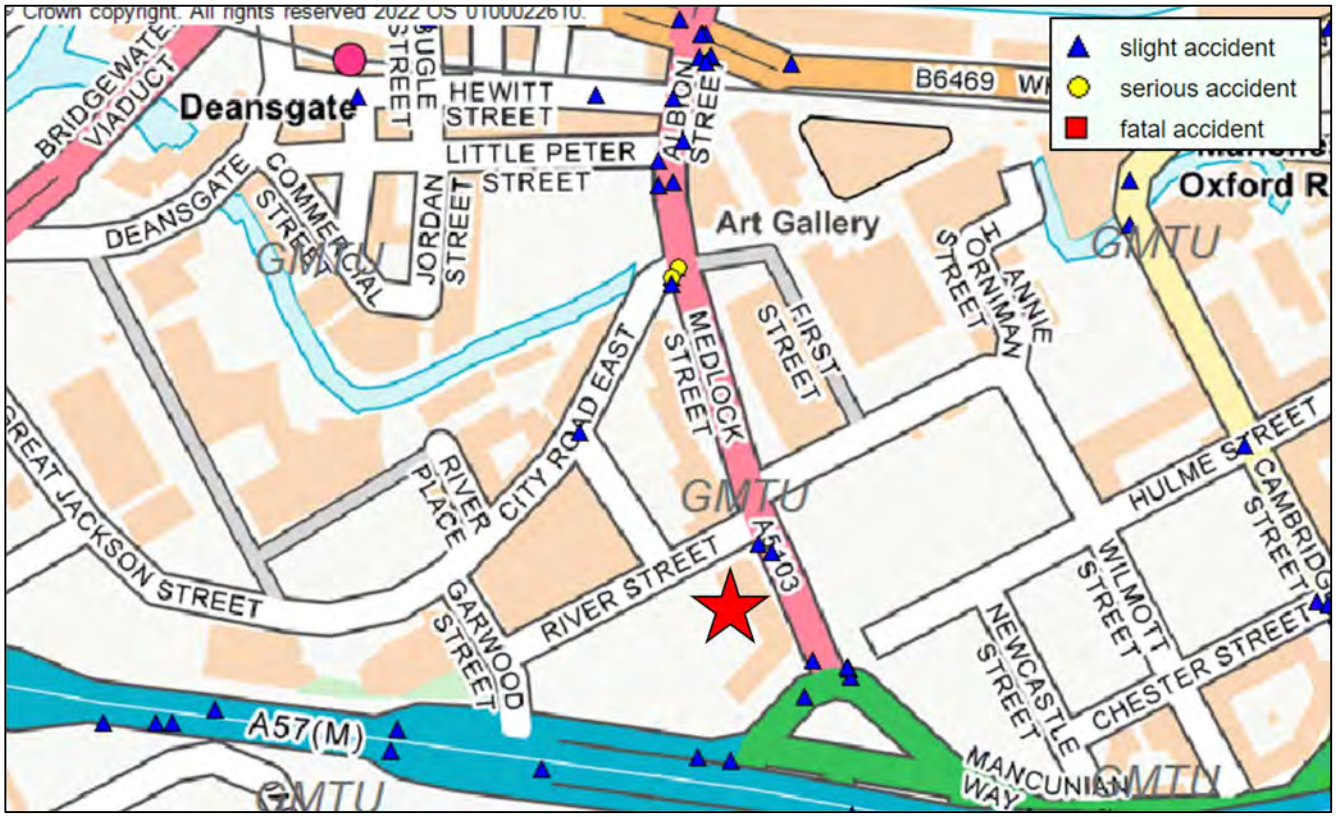


Figure 3.6: 5 Year Recorded Accident Location Plot (extract from TfGM Interactive Map)

3.24 It can be seen from **Figure 3.6** that there have been no accidents on River Street in the vicinity of the site, whilst there have been two slight injury accidents which have occurred on the section of Medlock Street which forms the site's eastern boundary. Additionally, there have been two serious injury accidents and one slight injury accident at the junction between Medlock Street and City Road East to the north of the site.

3.25 Overall, given the moderately high volumes of vehicles and pedestrians in the area, it is considered that the number and severity of accidents is relatively low perhaps reflecting the lower traffic speeds in the area.

3.26 It is considered that there are no material prevailing road safety issues in the vicinity of the site that would call into question the suitability of the proposed development in terms of road safety.

Existing Premier Inn Traffic /Parking Demands

3.27 The existing Premier Inn site was surveyed to determine the baseline arrivals and departures and parking accumulations. The survey was conducted in April /May 2018 during pre-pandemic conditions where it is considered that the levels are robust. As shown in **Table 3.1**, the traffic movements increase over the week with a dip surveyed on the Thursday. Friday is the busiest day with 407 two-way movements over the course of the day with the greatest activity in the afternoon/evening with a two-way flow of 37 vehicles an hour between 1600-1800. There is between 20-30 two-way vehicle movements on a weekday AM peak period 0700-0900 and the Saturdays and Sundays tending to be less busy but more spread across the middle part of the day.

	Monday		Tuesday		Wednesday		Thursday		Friday		Saturday		Sunday	
Time beginning	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep
00:00	2	3	1	2	4	3	4	4	4	3	2	1	2	1
01:00	1	1	0	0	3	3	1	0	2	4	1	2	1	3
02:00	0	1	1	2	1	1	1	1	1	1	2	3	3	2
03:00	4	2	1	1	0	0	0	0	0	0	0	0	1	2
04:00	0	0	0	0	2	2	0	0	0	0	0	0	0	0
05:00	1	0	2	1	2	1	4	1	3	0	1	2	0	2
06:00	9	6	6	12	4	8	4	11	9	8	3	0	3	1
07:00	15	9	14	7	12	15	12	9	8	9	2	2	1	1
08:00	13	12	14	16	17	21	11	18	8	13	1	5	3	6
09:00	8	8	9	5	17	22	18	15	5	7	3	11	5	10
10:00	8	10	4	6	4	6	5	11	8	7	6	30	5	14
11:00	9	7	6	5	6	5	11	8	13	5	7	26	9	17
12:00	9	15	8	7	6	5	6	7	10	6	5	10	10	7
13:00	6	7	6	4	5	1	3	5	9	6	9	10	17	7
14:00	11	6	12	14	7	10	9	6	19	8	13	10	14	7
15:00	11	14	9	14	7	9	8	18	21	8	13	6	13	4
16:00	7	12	8	15	6	9	4	11	26	11	7	6	14	3
17:00	18	10	21	16	10	10	9	3	23	14	16	7	16	6
18:00	12	14	18	15	17	12	16	11	15	14	5	2	13	9
19:00	14	10	8	3	16	9	9	6	16	9	6	3	3	5
20:00	5	6	4	3	5	5	4	4	11	12	2	0	3	2
21:00	8	4	9	5	3	0	5	2	10	4	4	7	5	1
22:00	3	3	8	9	3	3	4	4	11	12	5	5	1	2
23:00	3	3	5	4	7	8	0	4	7	7	3	4	4	4
Daily Total	177	163	174	166	164	168	148	159	239	168	116	152	146	116

Table 3.1 Existing Premier Inn Two Way traffic Flows

3.28 The level of parking activity at the Premier Inn Site was surveyed on a daily basis which was combined with the arrivals and departures can give an hour-by-hour parking accumulation and this is given in **Figure 3.8.**

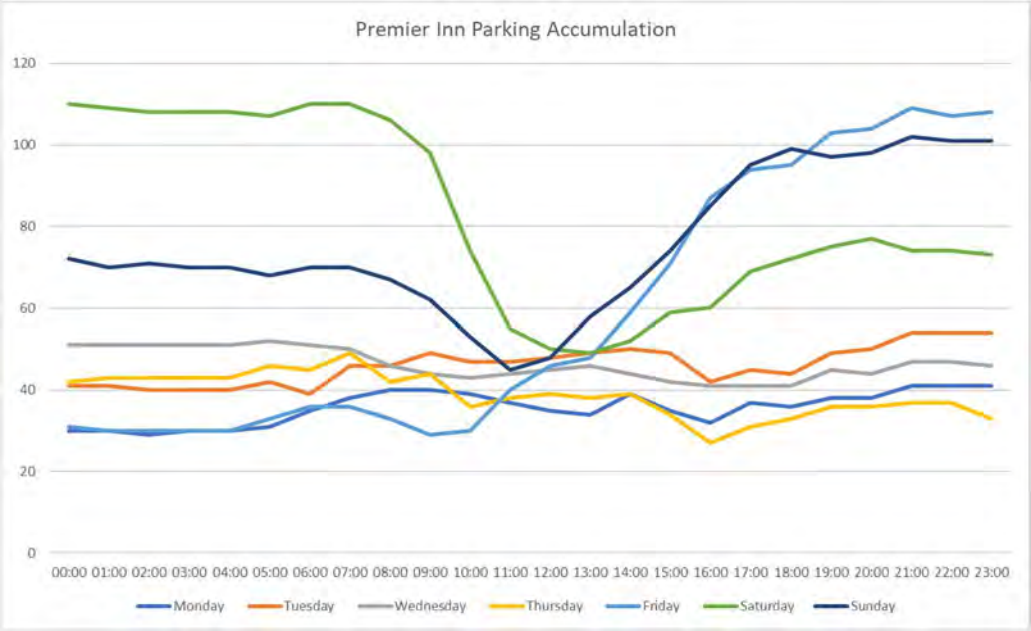


Figure 3.8 Existing Premier Inn Parking Accumulation

3.29 This shows that the parking accumulations are greatest overnight on a Friday, Saturday and Sunday with between 100 and 110 cars parked there. The parking accumulation reflects the departure of guests in the morning leading to a low volume of parking around 50 vehicles midday and a steady increase in the afternoon and evening

Summary

3.30 The existing highway conditions in the vicinity of the site have been reviewed and it has been shown that the site benefits from being integrated within an established network of streets with good connections to the surrounding area. Recent improvements have been implemented including at the Medlock Street / Princess Street / Mancunian Way junction where improved cycle and pedestrian links have been provided, and at the western end of River Street where improved footway, public realm and a crossing facility have been provided.

3.31 The existing Premier Inn Site generates notable traffic volumes across the week as part of its hotel operations and surveys shows Medlock Street is busy corridor acting as one of the main approaches into the City Centre from the south.

3.32 The off and on-street parking opportunities in the area have been detailed, showing that there are a high number of potential parking spaces within a short walk of the site. Furthermore, there are car hire opportunities within a short walk of the site.

3.33 The highway safety record for the roads surrounding the site has been reviewed and it is concluded that there are no material prevailing road safety issues in the vicinity of the site that would call into question the suitability of the proposed development in terms of road safety.

4 Sustainable Accessibility Review

4.1 A key element of national and local policy is to ensure that new developments are located in areas where alternative modes of travel are available. It is important to ensure that developments are not isolated but are located close to complementary land uses. This supports the aims of integrating planning and transport, providing more sustainable transport choices, and reducing overall travel and car use.

4.2 The accessibility of the proposed development is considered in this context for the following modes of travel:

- Pedestrian Accessibility
- Cycle Accessibility
- Public Transport Accessibility

Accessibility on Foot

4.3 The key destinations for students living at One Medlock Street are trips to the Manchester Universities and amenities within the City Centre. The Institute of Highways and Transportation states that a maximum acceptable walking distance for pedestrians without mobility impairment to adult education facilities is 2km. Most buildings of the University of Manchester/UMIST/MMU campuses are between a 1km-1.5km (12-18minute) walk from the One Medlock Street site while the Birley Field Campus is around a 5minute walk.

4.4 The route to the Universities has been dramatically improved with Medlock Roundabout improvements which have removed the underpasses, opened up the spaces and with environmental improvements enhanced the pedestrian environment making these routes convenient, safe and suitable for students of the new building to make the short walk to the campuses.

4.5 The site is also within a short walk of Manchester City Centre, its many amenities, and the main public transport interchanges, which is convenient for office workers arriving by bus, train or tram. The 500m, 1km and 2km walk catchment from the site is illustrated in **Dwg VN91290-G102** demonstrating that practically all of Manchester City Centre, its facilities, amenities and opportunities, as well as the University Campuses are all within a short walk.

4.6 Guidance from the Building Research Establishment Environmental Assessment Method (BREEAM) UK New Construction 2018 consultation states that Transport Assessments and Travel Plans should include reporting on the number and type of amenities within 500m of the site (based on current Tra 02 criteria) to obtain credits. The number and type of existing accessible amenities within 500m of the site can be summarised in **Table 4.1**.

Amenity	BREEAM Criteria / Type	Distance from Site (m)
First Street (comprising restaurants, supermarkets, cinema, bars, a hotel, open space)	Appropriate food outlet Access to an outdoor open space Access to recreation / fitness	190m
Deansgate Locks (comprising restaurants and bars)	Appropriate food outlet	340m

Table 4.1: BREEAM TRA02 Criteria

4.7 The existing pedestrian facilities in the vicinity of the site are of a good standard. Footways are provided in the vicinity of the site with both formal and informal crossing facilities providing connectivity to the adjacent residential areas and Manchester City Centre.

4.8 There are footways provided along both sides of Medlock Street which can be used to access local transport facilities including bus, train and tram. There is a pedestrian refuge provided across Medlock Street approximately 150 metres north of the site and signal-controlled crossing facilities at the improved Medlock Street / Mancunian Way / Princess Road junction at the south-east corner of the site. There is also a signalised pedestrian crossing provided at the Medlock Street / Whitworth Street West junction to enable the safe crossing of pedestrians.

4.9 As part of the development proposals, there are also plans to enhance the public realm surrounding the site such as improving paving, lighting and landscape features which would promote ease of access and improve pedestrian amenity.

4.10 Overall, it is considered that the pedestrian network in the area surrounding the site facilitates connectivity with a number of key services and therefore ensures walking can be actively promoted as a sustainable mode.

Accessibility by Cycle

4.11 Cycling is an effective mode for short trips up to three to five miles (5-8km) and a catchment of 5km represents a journey time of 20 minutes using a leisurely cycle speed pf 10mph (16kph). Within a 5km (20min) cycle ride a cyclists can access the whole of Manchester City Centre, Old Trafford, Chorlton, Salford University, Pendleton, Cheetham Hill, Miles Platting, Ardwick, Rusholme including all the Universities and Manchester Royal Infirmary.

4.12 An extract of a cycle map produced by TfGM is provided in **Figure 4.1** for the area in the vicinity of the site.

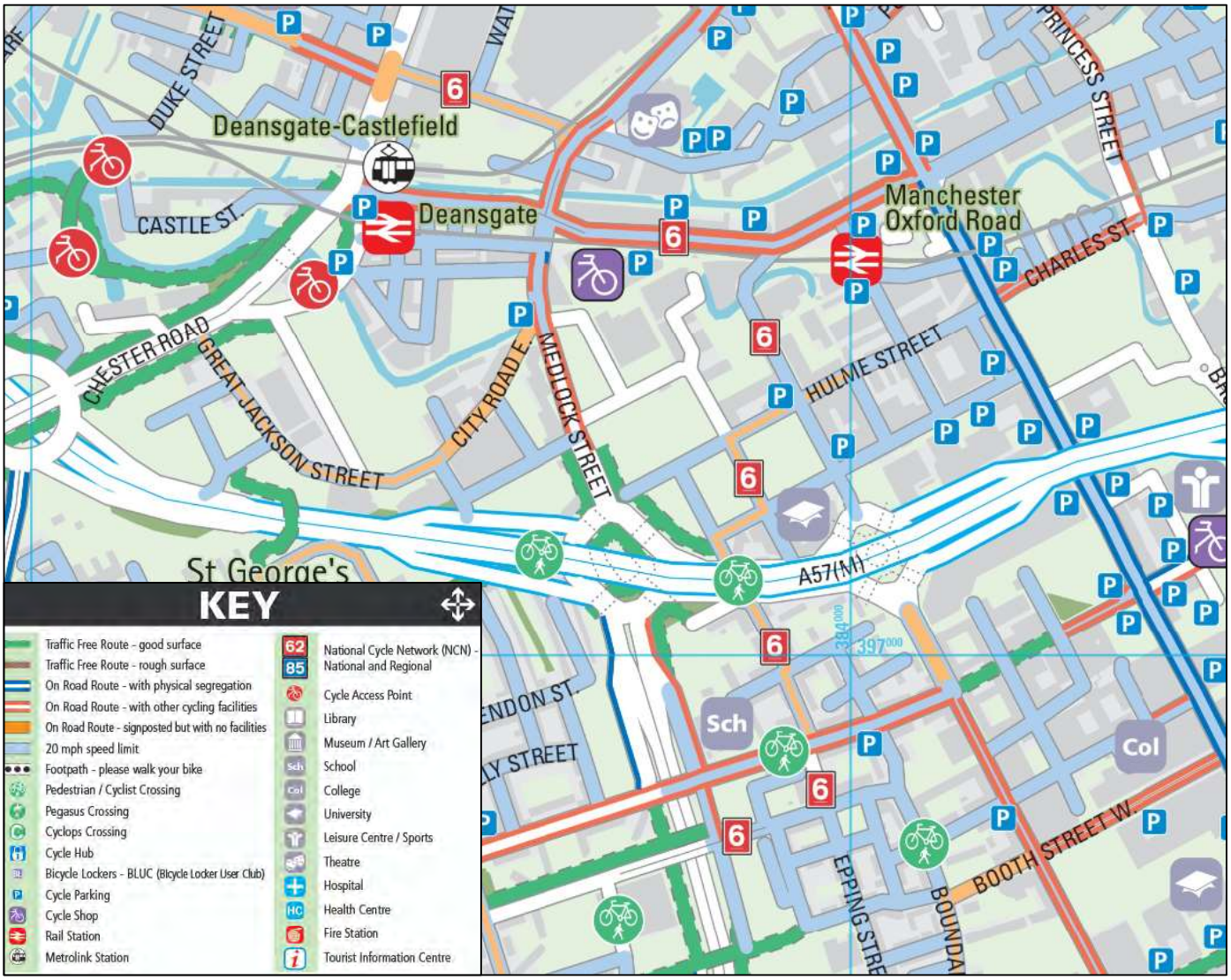


Figure 4.1: TfGM Cycle Map Extract

4.13 It can be seen from **Figure 4.1** that there are traffic-free cycle routes close to the site along with on-road routes and 20mph zones that help create legible routes for cyclists between the site and the surrounding areas including the city centre, rail stations and the Oxford Road corridor.

4.14 Route 6 on the National Cycle Network (NCN) can be accessed from the north and the south via the B6469 Whitworth Street West and directly from the A5103 Medlock Street onto Princess Road.

4.15 Overall, it is considered that the location of the site, in combination with existing infrastructure, will enable cycling to be positively promoted as a sustainable mode with facilities suitable for a range of cycle abilities.

4.16 To encourage people to travel to and from the site by cycle, there will be cycle parking spaces provided within the development.

Accessibility by Public Transport

4.17 Developed by Transport for Greater Manchester (TfGM), Greater Manchester Accessibility Levels (GMAL) are a measure of the accessibility of a point to both the conventional public transport network (i.e. bus, Metrolink and rail) and Greater Manchester's Local Link (flexible transport service), considering walk access time, service availability, and average waiting time. The method is essentially a way of measuring the density of the public transport provision at any location within the Greater Manchester region.

4.18 The accessibility index score is categorised into eight levels (1 to 8), where level 8 represents a high level of accessibility (described as 'excellent') and level 1 a low level of accessibility (described as 'very poor'). The site is located in an area with a GMAL rating of 8 (see **Figure 4.2**). This is a particular strength of the site, which offers strong multi-modal links to the city centre.

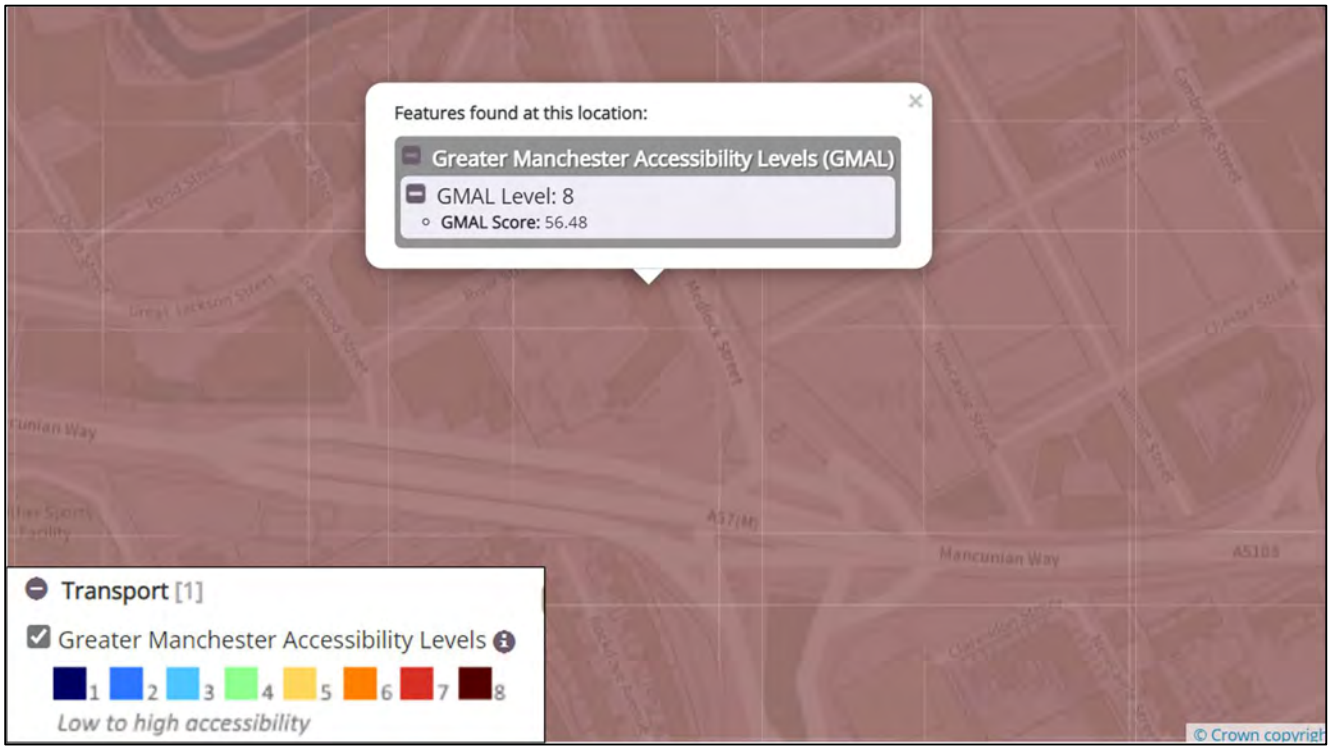


Figure 4.2: GMAL Map Showing Site Accessibility Level

4.19 An extract from the TfGM public transport map for the city centre is shown in **Figure 4.3** with the site location highlighted. This shows that the site is close to public transport services including bus rail and tram.

Figure 4.3: TfGM Public Transport Map Extract

Accessibility by Bus

4.20 The IHT document 'Guidelines for Planning for Public Transport in Developments' (1999) suggests that the maximum walking distance to the nearest bus stop should not exceed 400m, and preferably be no more than 300m.

4.21 The closest bus stops are located on Medlock Street within 100 metres of the site. The southbound stop provides a flag post bus stop sign while the northbound stop provides a bus shelter with seating and timetable information. The existing footways along River Street and Medlock Street can be used to access both bus stops.

4.22 A summary of the bus services that serve these stops is presented in **Table 4.2**.

Service No.	Route	Approximate Frequency (services per hour)					
		Mon-Fri				Sat	Sun
		AM Peak	Midday	PM Peak	Evening		
256	Piccadilly Gardens - Flixton via Hulme, Trafford Bar, Stretford, Davyhulme	6	6	6	2	6	2

Table 4.2: Bus Frequency at Stops within 400m of the Site

4.23 **Table 4.2** highlights that there is one high frequency bus route which serves the stops on Medlock Street. This bus service can be used to access residential areas southwest of the site and can be used to access Piccadilly Gardens.

4.24 There are other bus services that operate from stops within a realistic walking catchment from the site on Whitworth Street and Oxford Road, including:

- City Centre Free Bus 3, the free city centre shuttle bus, every 20 minutes in the evening Mon-Fri and every 15 minutes Saturday evening;
- X50 to The Trafford Centre, every 30 minutes; and
- Various services along the Oxford Road corridor linking to South Manchester e.g. the 41, 42, 43, 44, 85, 86.

4.25 Overall, it is considered that there are excellent opportunities for travel to and from the site by bus. The services available within a short walk of the site serve a wide range of destinations and are suitable for a variety of trip purposes.

Accessibility by Metrolink

4.26 The nearest Metrolink stop is Deansgate-Castlefield which is just over 400 metres walk from the site. This station is a major interchange station with direct services operating to Manchester Piccadilly, Manchester Victoria, Manchester Airport, East Didsbury, Eccles, Altrincham, Bury, Rochdale Town Centre and Ashton-under-Lyne.

4.27 All services operate on a 12-minute frequency Monday to Sunday with combined frequency of 6 minutes Monday to Saturday during the day. All lines operate between around 06:00 and 00:00, the Airport line operates from 03:00 from Deansgate Castlefield.

4.28 Deansgate-Castlefield can be accessed using the existing pedestrian network surrounding the site. All Metrolink stops provide shelters, seating and real-time journey information. All Metrolink trams and stations also provide disabled access in the form of step-free access, tactile paving and dropped kerbs.

4.29 Overall, it is considered that the tram facilities offered from Deansgate-Castlefield provide a regular service which is available within an acceptable distance and at key travel times which will be suitable for a variety of trip purposes

Accessibility by Rail

4.30 Deansgate railway station is the closest rail station located adjacent to the tram stop and is just under 500 metres (approx. 6-minute walk) northwest of the site. This station provides an interchange between train and tram services with a pedestrian only bridge connecting the tram and train platforms.

4.31 Services from Deansgate are operated by Northern trains with services operating to Manchester Piccadilly, Manchester Oxford Road, Alderley Edge, Blackpool North, Warrington Central, Barrow-in-Furness, Blackpool North and Preston. Services operate Monday to Sunday. This station can be accessed using the existing pedestrian network surrounding the site.

4.32 Oxford Road railway station is located just under 800 metres (approx. 10-minute walk) northeast of the site and provides frequent train services to major destinations such as Liverpool Lime Street and Manchester Airport.

4.33 Overall, it is considered that the rail facilities offered from Deansgate, and Oxford Road stations provide a regular service which is available within an acceptable distance and at key travel times which will be suitable for a variety of trip purposes.

BREEAM Public Transport Accessibility Index

4.34 Guidance from the BREEAM UK New Construction 2018 consultation states that Transport Assessments and Travel Plans should include reporting on the public transport accessibility (i.e. Tra 01 – proximity to train, bus etc. stops and frequency of services) to obtain credits. This includes calculation of the Accessibility Index (AI) of the site.

4.35 Based on Tra 01 standards, a compliant transport node is defined as any bus service with a stop within 650m and any railway station within 1,000m of the assessed building's main entrance, measured via a safe pedestrian route (not 'as the crow flies').

4.36 The AI score for the proposed office development is 19.71 which is considered to be a high score.

Disabled Access Assessment

4.37 The proposed development will offer disabled parking spaces within the site, which will provide for convenient access to the development for blue badge holders accessing the site by car. Additionally, there are on-street car parking spaces on River Street that blue badge holders can use for free and for an unlimited time. There are spaces on the southern side of River Street, from which visitors would not need to cross the road to access the buildings. For disabled people arriving by taxi, there is space for drop off activity on River Street close to each of the building entrances and space on Edge Street within the site to drop off.

4.38 Disabled access via non-car modes will be enhanced through the proposed public realm improvements that will be delivered around the proposed buildings. These will include increased public realm space and landscaping, reducing the dominance of motor vehicles on River Street. Furthermore, a new controlled pedestrian crossing facility of Medlock Street north of River Street is proposed, which is a committed scheme being delivered in conjunction with a different development in the area. A drawing showing the proposed pedestrian crossing is provided at **Appendix B** to this report. This new pedestrian crossing will improve the crossing experience for disabled people.

4.39 The 256 bus that operates along Medlock Street uses easy access buses with low floors to assist disabled people in accessing the bus. All Metrolink trams and tram stops are accessible for wheelchair users.

Summary

4.40 The site is in a sustainable location and is ideally placed to be able to positively promote and encourage trips by walking, cycling or public transport, rather than being reliant on the private car.

5 Development Proposals

Overview

5.1 The planning application description of development is as follows:
The demolition of the existing hotel building and structures and the development of the site for office uses (Use Class E), flexible office/community use (Use Class E/F1/F2) and purpose-built student accommodation (Sui Generis) comprising two separate buildings, along with associated ancillary internal and external amenity space, hard and soft landscaping, and associated highway works.

5.2 The accommodation schedule for the proposed development is as follows:

- 36,494 sqm of Commercial, Business and Service (Class E) (Block A);
- 30,590 sqm of Purpose Built Student Accommodation (PBSA) (Block B); and
- 293 sqm of Community Space (Flexible Class E/F1/F2) (Block B)

5.3 The PBSA accommodation provides a variety of unit types including:

- 272 Studio beds/units
- 68 beds / 34 Twodio units
- 102 beds / 34 Threedio units
- 264 beds / 44 units 6 bed clusters
- 308 beds / 44 units 7 bed clusters

5.4 A copy of the proposed site layout plan is provided at **Appendix C** to this report. It can be seen from the plan that there are significant public realm improvements proposed for the area surrounding the site including wider footways with new street tree planting along Medlock Street and improved and widened footways / public realm area to the site frontage on River Street.

5.5 There will be a low level of car parking provided on site with two disabled spaces provided for the student accommodation building and six disabled spaces for the office building.

Vehicle Access

5.6 There will be two vehicle access points into the site from River Street, connected within the site to create a loop road around the proposed student accommodation building. The westernmost of these access points onto River Street will be approximately in the location of the existing Premier Inn car park access at the western edge of the site. This is known as Edge Street and will provide access to the front of the proposed student accommodation building including the two proposed disabled car parking spaces there and will act as the service route for servicing vehicles to access the service yard to the rear of the building.

5.7 An additional access will be created running between the two proposed buildings and providing access to the service area and the disabled parking spaces for the office building. The proposed access will emerge onto River Street. Junction visibility at this proposed junction is good owing to the straight alignment of River Street and the low vehicle speeds along River Street will help to ensure this is a safe junction arrangement.

Pedestrian and Cycle Access

5.8 The main pedestrian access to the office building will be at the north-east corner of the building facing onto the junction of River Street and Medlock Street. An area of public realm will be provided in front of the main entrance and will accommodate some cycle parking stands for short-stay cycle parking activity.

5.9 The student accommodation building will have the main pedestrian access points on the River Street frontage and on the Edge Street frontage, both facing onto areas of new public realm. Edge Street will become a route open to the public.

5.10 Long-stay cycle parking will be provided within each building. The office building will provide 284 long stay cycle parking within the basement level. The student accommodation building will provide 434 long stay cycle parking at ground and mezzanine floors. External cycle parking is provided on River Street for visitors and the general public to use.

5.11 A plan of the Access Strategy is given in **Figure 5.1**.

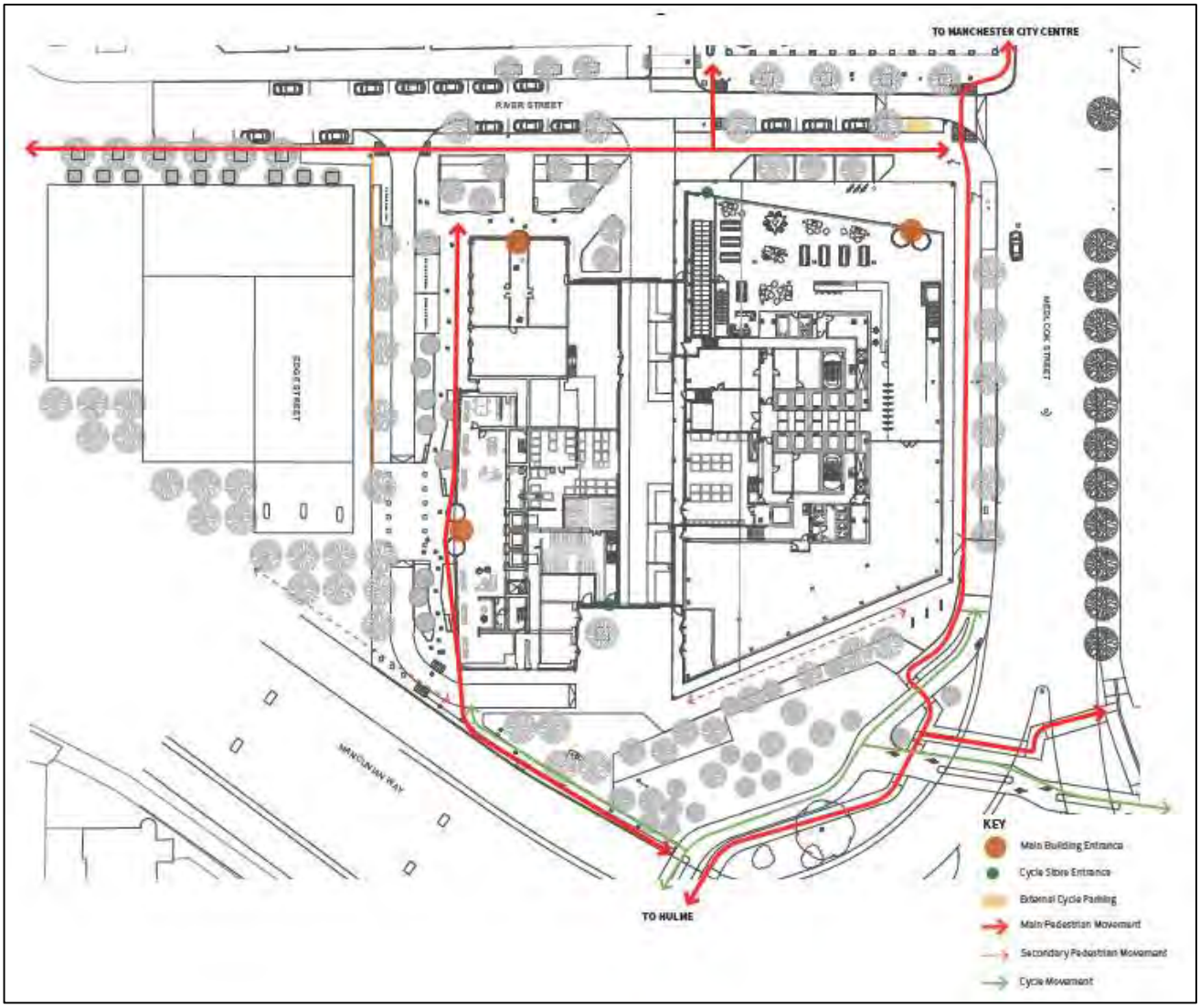


Figure 5.1 Access & Movement Strategy

Public Realm Improvements

5.12 Public realm improvements form a key part of the proposals, and these will deliver an enhanced environment along part of Medlock Street and River Street adjacent to the site. The improvements will tie in with the vision for the wider area which includes a new pedestrian crossing facility of Medlock Street north of River Street as described previously.

5.13 Alterations will be made to River Street to reduce the width of the carriageway, further helping to reduce the dominance of motor vehicles in this area. There will also be some associated reconfiguration of on-street car parking spaces on River Street but with no loss of spaces compared to the current provision as shown in **Figure 5.2** below.

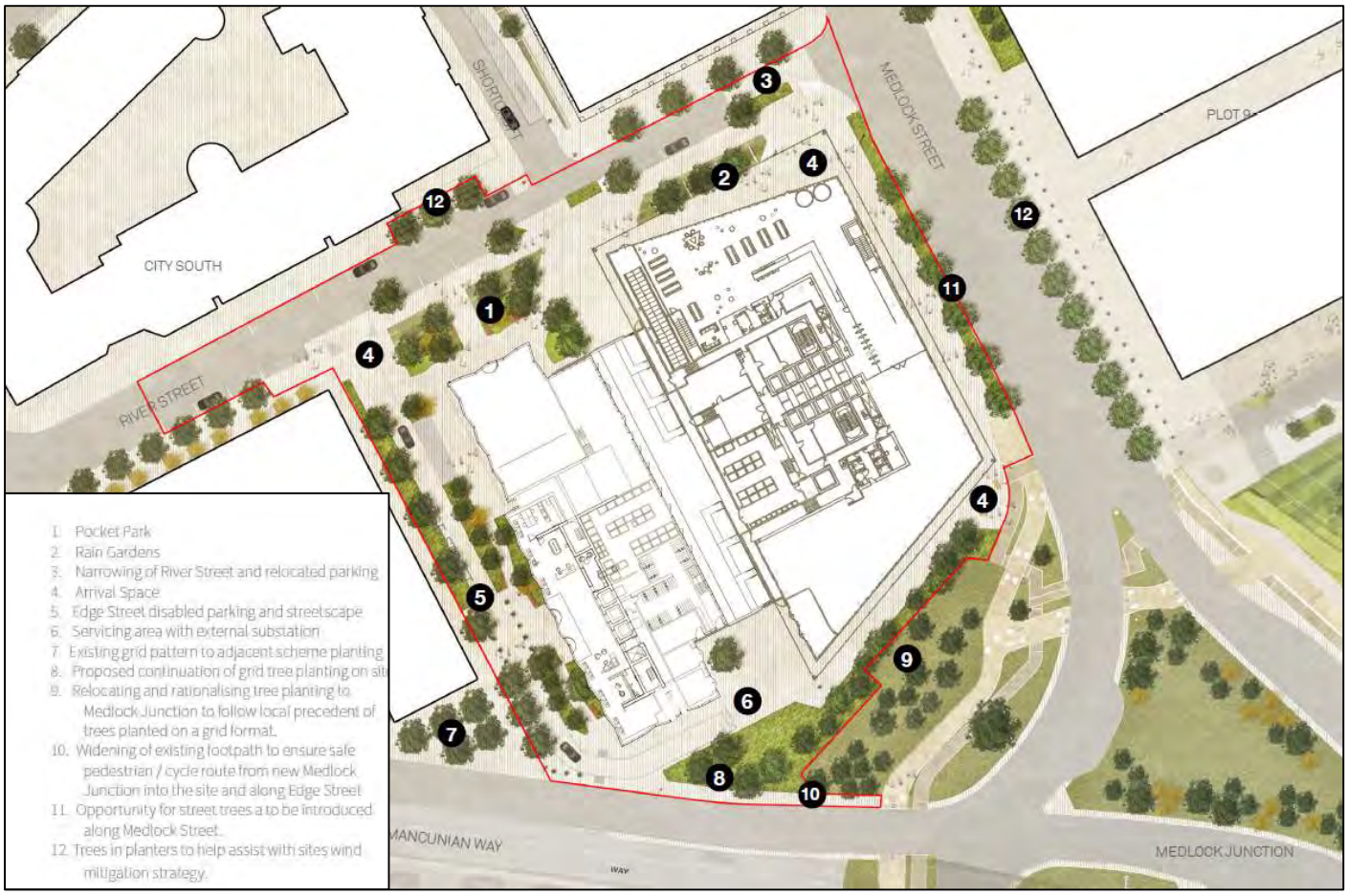


Figure 5.2 Public Realm Improvements

5.14 The proposed public realm improvements will include quality new surfacing, landscaping features including new street trees and much larger footways and public realm spaces to help prioritise pedestrian movements. The reduced carriageway width will provide a much safer environment for pedestrians and cyclists particularly by reducing the width of crossing at the junction of River Street and Medlock Street while also reinforcing the 20mph speed limit on River Street.

5.15 These public realm proposals result is changes in the on-street parking provision as shown in **Figure 5.3.**

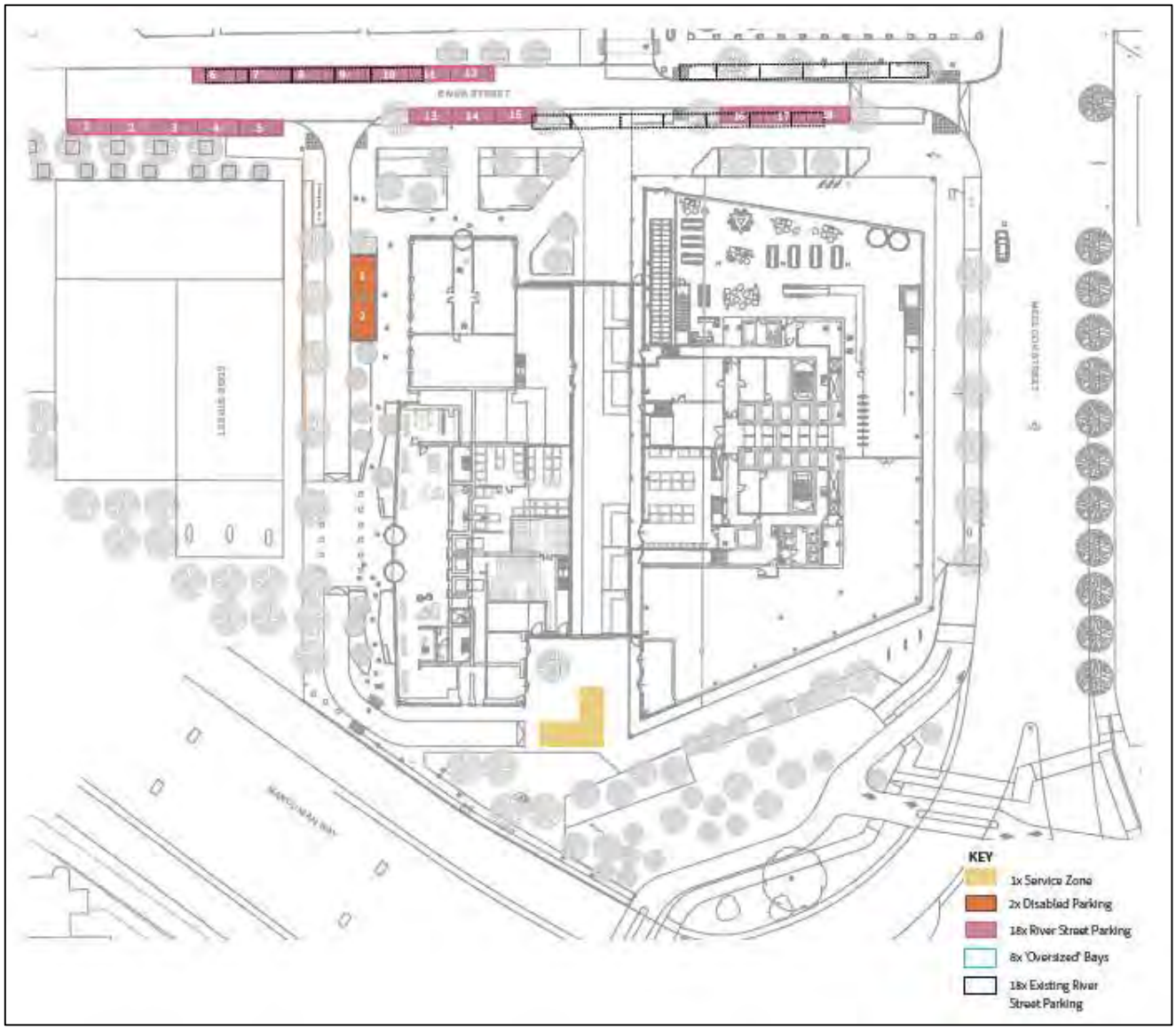


Figure 5.3 Changes in Parking Provision

Car Parking Provision

5.16 The proposed student accommodation building will be provided with two disabled parking spaces on Edge Street within the site but will be otherwise car-free and this is appropriate as car ownership amongst students is generally low, and the site's highly accessible location offers every opportunity to generate trips by walking, cycling and public transport. The provision of car parking within the site is therefore not essential and the site will be promoted as primarily car free.

5.17 The parking restrictions on the surrounding streets effectively regulate the no vehicle parking policy. Parking is permitted on some local streets in the vicinity of the site providing limited stay pay and display. There are also public car parks within a short walk of the site providing potential parking opportunities for those visiting the site, as identified in section 3 of this report.

5.18 It is expected that there would be some stipulation within tenancy agreements to ensure students did not bring vehicles into the area during their occupancy period and the management team would oversee this.

5.19 The proposed office building will be provided with six disabled car parking spaces but will be otherwise car-free. This level of car parking provision within the site is supported in policy terms, with the City of Manchester Core Strategy defining parking for office developments in terms of maximum standards and promoting development in locations with the highest levels of sustainable accessibility. The low parking provision is also appropriate given the existing car parking opportunities within a short walk of the site, as detailed in section 3 of this report, with over 2,000 off-street spaces having been identified within a walkable catchment including the First Street Q-Park multi-storey car park with 700 spaces. A good supply of on-street spaces is also provided within the area.

5.20 The low-parking provision for the office development will also be complemented by the implementation of a Travel Plan for the development, which will provide a framework for maximising sustainable travel to and from the site, and measures such as cycle parking provision within the building to facilitate travel by cycle.

Cycle Parking Provision

5.21 Long-stay cycle parking will be provided within each building. The office building will provide 284 long stay secure cycle parking spaces within the basement level. This is in excess of the minimum amount recommended within the Manchester Core Strategy cycle parking standards of 1 space per 200 sqm.

5.22 The student accommodation building will provide long stay cycle parking at ground and mezzanine floors again in a secure environment. A total of 434 spaces are proposed, equating to provision at 42% of units. Manchester City Council does not have cycle parking standards for PBSA, and sites will be judged on a case-by-case basis however from a review of other approved PBSA planning applications on Manchester City Council's planning portal, it is shown that provisions between 8-29% cycle parking spaces per bedroom have been accepted. An example of these planning applications can be seen in **Appendix D.** The proposed cycle parking provision at 42% of units is therefore considered to be relatively high for this type of development and should help to promote travel by cycle.

5.23 Short-stay cycle parking will also be catered for with cycle stands located within the new public realm areas.

Service, Delivery and Refuse Collections

5.24 The proposed development includes a dedicated servicing area within the site as shown in the proposed site layout plan at **Appendix C** and this will be accessed from River Street. The servicing route will loop around the proposed student accommodation building in an anti-clockwise direction with vehicles heading south along Edge Street and back to River Street via the new service road running between the two buildings.

5.25 The service route has been designed to accommodate the movement of a 11.5m refuse vehicle and it is not expected that any vehicle significantly larger than this would require access. A swept path assessment showing this vehicle type navigating the service route is shown in **Drawing VN222356-TR116**.

5.26 There will be access gates to the service yard area on the eastern side of the proposed student accommodation building to help manage movement in and out of the service yard.

Summary

5.27 The key transport and access elements of the proposed development have been detailed. The scheme comprises two new buildings with one block of office accommodation comprising 36,494sqm of new floorspace, and a purpose-built student accommodation block providing 1,014 units. The scheme will be car-free but for a small amount of disabled parking within the site and this low parking strategy is appropriate for this city centre location with the highest level of sustainable accessibility.

5.28 Proposed public realm improvements around the site will enhance the environment for pedestrians and cyclists in this area of the city and there will be a new pedestrian crossing of Medlock Street which is being delivered separately in conjunction with a different development in the area.

5.29 Long-stay cycle parking will be provided within each building with the provision for the office development exceeding the minimum standards as set out by MCC. The PBSA building will be provided with cycle parking at 42% of units which is a relatively high rate compared to other PBSA schemes that have been approved in Manchester in the recent past and is considered appropriate given that students have all their amenities and destinations within walking distance. Additional cycle parking will be made available for larger adapted /cargo bikes.

5.30 Servicing activity will be accommodated within the site with a new service route and servicing area within the site providing for appropriate servicing access off the highway. The proposed new access points onto River Street are safe and suitable arrangements.

6 Trip Generation Forecasts and Highway Operation

Trip Generation

6.1 This section of the report sets out the forecast multi-modal trip generation for the proposed development and considers the likely effect of development traffic on the surrounding transport networks and compared against the existing Hotel trips described in Section 3. In this consideration will also be given to nay potential impact on public transport provision.

Proposed Office Trip Forecasts

6.2 For the office element of the proposed development, total person trip forecasts have been derived via reference to the TRICS (7.8.3) trip rate database using sites that are located in Town/City Centre or edge of centre sites. The full TRICS output files are provided at **Appendix E** to this report whilst the weekday peak hour trip rates and trip forecasts based on the proposed 36,494 sqm office floor area are presented in **Table 6.2**.

Person Trips	Trip Rate (per 100 sqm)		Trip Generation (36,494 sq.m)	
	Arrivals	Departures	Arrivals	Departures
AM Peak (08:00-09:00)	2.067	0.192	754	70
PM Peak (17:00-18:00)	0.174	1.950	63	711
Daily	9.752	9.561	3559	3489

Table 6.2: Proposed Total Person Trip Forecasts

6.3 It can be seen from **Table 6.2** that during the morning peak hour a total of 754-person trip arrivals are expected to be generated by the office development with a similar number leaving in the PM peak. Over the day around 3500 people will access the building.

6.4 In order to derive estimates for the transport modes by which these trips are undertaken, reference has been made to TfGM's Transport Statistics 2019 report for access to and from the 'Key Centre' (Manchester City Centre).

6.5 This provides the non-car modal share for trips to and from the centre in the peak hours specific to Manchester. The modal splits provided in the TfGM report are as below in **Table 6.3**, noting that car trips could also include those arriving by taxi or those being dropped off as a car passenger:

	Walk	Cycle	Bus	Rail	Metrolink	Car
	13%	2%	21%	26%	17%	21%

Table 6.3: City Centre Modal Share

	Walk		Cycle		Bus		Rail		Metrolink		Car	
	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep
AM Peak	98	9	15	1	158	15	196	18	128	12	158	15
PM Peak	8	92	1	14	13	149	16	185	11	121	13	149

Table 6.4: Multi-Modal Office Trip Forecasts

6.6 The car trips described in **Table 6.4** need some explanation as there are just 6 disabled parking bays available for the office users. This low provision is likely to lead either to a shift to other travel modes or would lead to people parking in other city centre car parks.

6.7 To forecast the cars coming on site we use a Trip Rate per parking space from the TRICS database and then apply this to the 6 parking space available. With this low parking provision, we forecast 4 cars arriving between 0800-0900 and 3 departing 1700-1800 and over the course of the day we expect there would be 11 car trips to these office parking spaces.

6.8 The TRICS data in **Appendix E** forecasts the following:

- Around 34 taxi movements per day
- Around 7 rigid delivery lorry trips per day
- Around 69 light goods deliveries per day

6.9 For the deliveries we expect that all the HGVs will enter the site. The light goods vehicles equate to up to 8 vehicles in the busiest hour and it is expected that some of those smaller goods deliveries would be made by drop-offs from River Street rather than coming into the site. The servicing trips are not all new to the area. Many deliveries (such as post, waste and regular courier deliveries) are likely to be made as part of a combined service route serving multiple buildings in the area, as well as both buildings on site. This significantly reduces the significantly the number of new trips to the area and based on surveys of servicing trips in London, a reduction of 30% is considered reasonable and robust.

Proposed Student Accommodation Trip Forecasts

6.10 The trip forecasts for Student Accommodation have similarly been made using the TRICS database as provided in **Appendix F**. The person trip movements are given in **Table 6.5**.

Person Trips	Trip Rate (per 100 sqm)		Trip Generation (36,494 sq.m)	
	Arrivals	Departures	Arrivals	Departures
AM Peak (08:00-09:00)	0.015	0.115	15	116
PM Peak (17:00-18:00)	0.105	0.062	106	63
Daily	0.952	0.953	966	965

Table 6.5: Proposed Total Person Trip Forecasts

6.11 The model share of these person trips is very much influenced by the limited level of parking provision of 2 disabled parking spaces. It is not expected that students would park elsewhere and only 3 vehicle arrivals and 3 departures are expected per day. As part of these forecasts, consideration has been given to potential trip making activity of the Community Space which cover 293 sqm GIA. This community space is not expected to result in a significant increase in the traffic activity and is implicitly included within the PBSA trip forecasts.

6.12 The TRICS data in **Appendix F** forecasts shows the following the following:

- Around 20 taxi movements per day
- Around 2 rigid delivery lorry trips per day
- Around 18 light goods deliveries per day

6.13 The Manchester Universities are within a 10-minute walk of the site as Manchester City Centre and consequently it is expected that the overwhelming trips will be made on foot and even the number by public transport is expected to be limited. The trips at the start and end of term as students are being dropped off at their accommodation is considered next.

Implications for Highway Operation with Development

6.14 If we total all the vehicle arrivals and departures at the site, including the drop-offs/pickups by taxis on River Street, servicing trips, as well as the few car trips, we forecast a total 167 vehicle trips to site. This is about 40% of the existing trips made to the existing peak Premier Inn site flows of 407 daily vehicle movements and therefore represents a significant reduction in traffic on the local highway. This is a significant reduction in traffic on River Street in the peak periods and will improve highway operation.

6.15 Using the GMTU forecasts of the modal share it does identify 21% of traffic arriving by car and these physically cannot park on site. That is likely to encourage more people to arrive by sustainable modes more than the current proportions arriving into the city. If there are some that do wish to drive in and they don't have a parking space, then they could park in the other car parks in the area at a cost. The effect of that traffic on the network has not been assessed as it is spread over the wider network and those car parks already have planning permission and are designed to cater for such traffic.

6.16 Overall, the development will result in a reduction in traffic in the local area vicinity, and the low parking provision will encourage increased access by modes other than the car. Consequently, there are no adverse implications of development on local highway operation.

Student Arrival and Departure Management Plan

6.17 There is a time period which needs particular consideration for the highway operation and that is period when students are being dropped off at their accommodation at the start of term or are being picked up at the end of term. Given the large number of students on site, any arrivals in cars by parents or others needs to be managed.

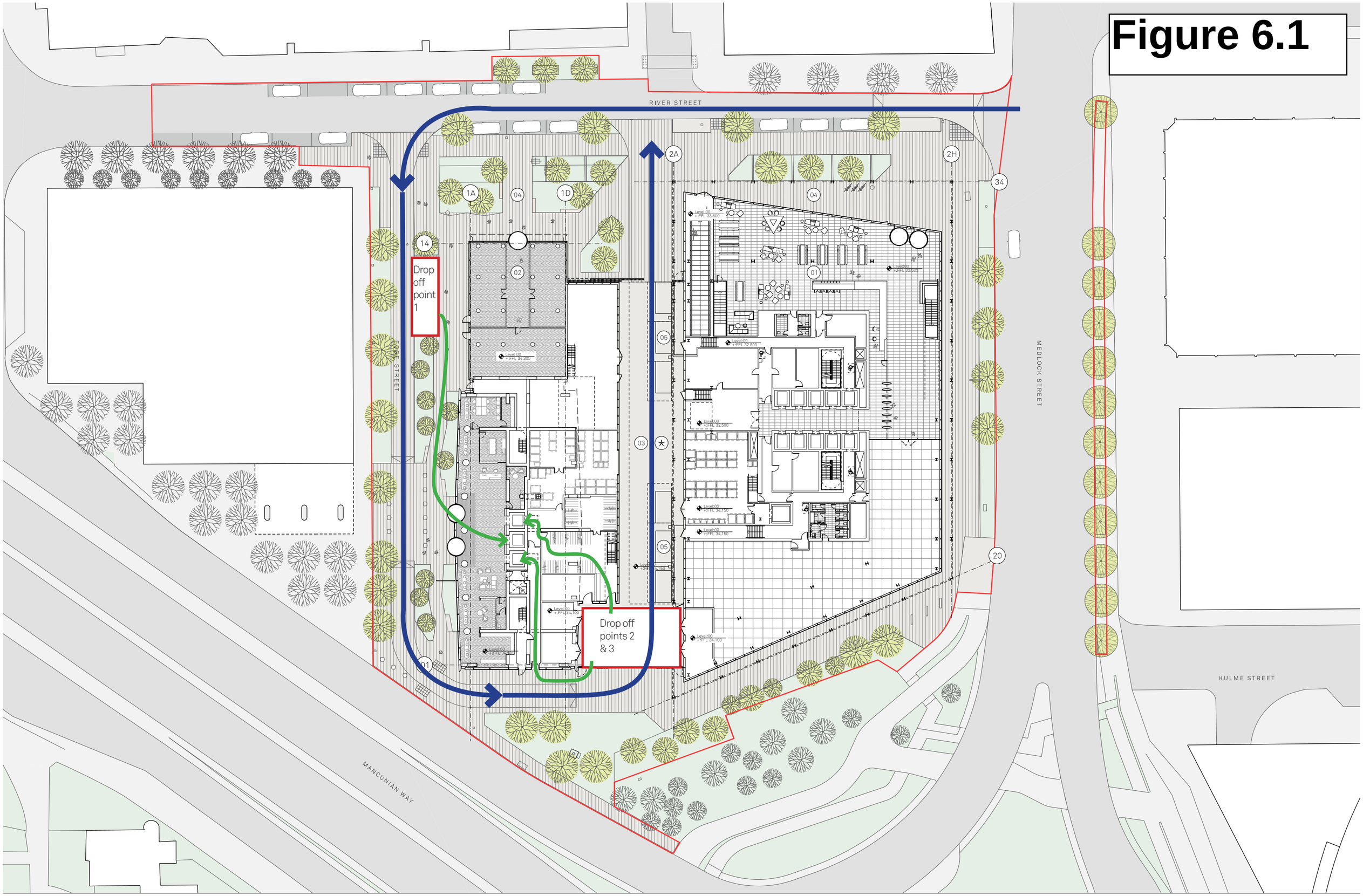
6.18 A Student Management Plan will be developed to include details of how vehicular movements will be managed for the arrival and departure of students at the start and end of each academic year and that they can be controlled to avoid any problems of traffic congestion in the area associated with this activity.

6.19 All students taking up accommodation will be informed of the car parking limitations and restrictions in place in the vicinity of the site. This information will be provided as part of the travel information pack sent to each student before the start of the academic year together with details of the sustainable travel opportunities for arrivals and departures.

6.20 Upon gaining a tenancy, the students will be required to contact the management team to agree an appointment move in date and time. At this point students will be notified of the limited parking availability on site and the accessibility by modes other than the car. Each student will be allocated a specific time slot in which they must arrive to take occupancy of their room. It will be stressed to each student that the time slot must be adhered to, in order to ensure a smooth check in and to minimise any localised disruption in terms of traffic congestion and vehicular movements.

6.21 The plan of the drop off areas is shown in **Figure 6.1** overleaf.

Figure 6.1



Notes:

Site Application Boundary

PLAN KEY:

(01) Block A
(02) Block B
(03) Service area
(04) Proposed landscaping
(05) Internal parking bays & electrical charging points
(06) External parking bays & electrical charging points
(*) Service area - surface finish to match external context.

For further information please refer to the landscape strategy drawings

Project Name: One Medlock Street		Title: Ground Floor Proposed Site Plan		Scale: 1:250 @ A1		
Drawn: HM	Checked: MH	Status: Planning	Project: 100	Drawing No: _MP_02_2200		Rev: H
Details: H	07/10/22	Issued for Planning				

Jon Matthews Architects

Union, 2-10 Albert Square, Manchester, M2 6LW 0161 974 3690

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6.22 The main periods for moving in/out will be at weekends or off-peak periods. The management team will employ additional staff to assist in traffic management these days.

6.23 During this period vehicles will be able to enter the site and offload the student's baggage into a secure dedicated at the ground level of the accommodation or in the service yard area. Generally, the students will not be allowed to offload their belongings immediately into their allocated bedroom. This requirement will limit the amount of time taken to off load any vehicles, and upon completion of offloading, the vehicle must be immediately moved away from site and park in the nearby QPark First Street car park.

6.24 Information will be provided to students on all public car parks within the locality that can be used for longer periods of parking post drop off.

6.25 Generally, students will vacate at different times as they usually depart upon completion of their exams which spreads the demands over many weeks. Experience shows that disruption during the checking out process is generally minimal, however students will be required to book a time slot where they can arrange for a vehicle to enter the site and collect their belongings.

6.26 MCC Highways Department will be advised of the arrival and departure dates for the students, and they will be provided with contact details for a member of the management team should an issue arise.

Implications for Public Transport

6.27 The forecast of person trips using public transport has been forecast. The regular student trips are expected to be overwhelmingly made on foot as the universities and the amenities of the city centre are all within a short walk and would be a much more attractive mode.

6.28 Based on general city centre rates, the office trips are forecast to generate over 200 rail trips in the morning peak, 140 by Metrolink and 173 by bus. Post Pandemic the numbers using public transport has fallen to below those levels and also that the increased flexible working patterns means more people are avoiding the traditional rush hours. Observations on the Metrolink, Rail and Bus network show that there is additional capacity available in these modes compared to pre-pandemic levels and therefore the implications for this additional demand from the development trips can be accommodated without any notable adverse effects.

Construction Traffic Implications

6.29 The implications of construction traffic will depend on the nature of the construction and the timescales. It is expected that a condition will be applied to the planning permission which would require the preparation of a Construction Management Plan (CMP) which would incorporate Logistics Plan prior to works starting on site. This would cover issues of safe and efficient access which limits the environmental implications of construction traffic.

6.30 In this location the area is close to the strategic highway and there are few sensitive receptors that could be adversely affected by the movement of construction traffic. The forecast for Construction Traffic presented below in **Table 6.6** is a typical daily rate of vehicle arrivals on site. This is very much an indicative forecast derived from contractors advising on similar city centre tower developments and does depend on the timescales and the nature of construction and is subject to a CMP prepared by a contractor.

Activity	Typical Daily (weekday) Vehicle Movements (to and from site)		
	HGV up to 16.5m Articulated HGVs and cranes	MGV Rigid HGVs (inc 8 wheeled Tippers & Concrete mixers)	LGV Contractor Vans
Demolition	2	30	4
Piling	2	24	4
Excavation	1	24	4
Concrete Frame	4	100 every 4 days	6
Cladding	6	50	6
Fitout	4	16	6

Table 6.6 Indicative Construction Traffic Forecasts (weekday flows)

6.31 It is assumed that contractor staff park off site in city centre car parks or arrive by non-car modes. Construction traffic tends to arrive at regular intervals over the course of the day as the unloading of goods takes time and needs to be controlled. It is expected that can be seen form the above that during construction pours, the level of activity is the busiest with up to 100 vehicles arriving on a particular day. However, this activity occurs once every 4 days so the average volume for a typical week during this period is much reduced. The other busy period is during the cladding of the building. During this period there are around 56 HGVs vehicles arriving on site and a small number of light goods vehicles.

6.32 It is expected that most of these vehicles would approach off the strategic road network arriving via Mancunian Way or from the south along the A5103 Princess Parkway and would be similar the volumes of construction traffic that occurred on the development site to the west.

7 Summary and Conclusions

Summary

7.1 Vectos has been instructed by Premier Inn Hotels and Dominvs Group to provide highways and transportation advice in relation to a planning application for a proposed office and purpose-built student accommodation (PBSA) development at One Medlock Street in Manchester.

7.2 This site is the location of the 199 bed Premier Inn Hotel which benefits from a 119-space car park and was surveyed to attract around 407 vehicle movements on its busiest day, Friday.

7.3 This Transport Assessment provides information on the traffic and transport planning aspects of the development proposals and forms supplementary information to assist in the determination of the planning application.

7.4 The relevant national and local transport planning context for the proposals have been detailed and it has been highlighted that the proposed development accords with the key principles of national and local policies. The proposals represent a sustainable development in transport terms and the design of the scheme follows the principles of providing safe access and placing active travel at the heart of design.

7.5 The existing highway conditions in the vicinity of the site have been reviewed and it has been shown that the site benefits from being integrated within an established network of streets with good connections to the surrounding area. Recent improvements have been implemented including at the Medlock Street / Princess Street / Mancunian Way junction where improved cycle and pedestrian links have been provided, and at the western end of River Street where improved footway, public realm and a crossing facility have been provided.

7.6 The off and on-street parking opportunities in the area have been detailed, showing that there are a high number of potential parking spaces within a short walk of the site along with car hire opportunities within a short walk of the site.

7.7 The highway safety record for the roads surrounding the site has been reviewed and it is concluded that there are no material prevailing road safety issues in the vicinity of the site that would call into question the suitability of the proposed development in terms of road safety.

7.8 The review of the site has identified that it is in a sustainable location and therefore, it is ideally placed to be able to positively promote and encourage trips by walking, cycling or public transport, rather than being reliant on the private car. The site's highly sustainable location is enhanced by virtue of its proximity to Manchester City Centre, and the wide range of amenities located therein.

7.9 The key transport and access elements of the proposed development have been detailed. The scheme comprises two new buildings with one block of office accommodation comprising 36,494sqm of new floorspace, and a purpose-built student accommodation block providing 1,014 units. The scheme will be largely car-free but for a small amount of disabled parking within the site and this low parking strategy is appropriate for this city centre location with the highest level of sustainable accessibility.

7.10 Proposed public realm improvements around the site will enhance the environment for pedestrians and cyclists in this area of the city and there will be a new pedestrian crossing of Medlock Street which is being delivered separately in conjunction with a different development in the area.

7.11 Long-stay cycle parking will be provided within each building with the provision of 284 spaces for the office development exceeding the minimum standards as set out by MCC. The PBSA building will be provided with 434 cycle parking spaces (42%) which is a relatively high rate compared to other PBSA schemes that have been approved in Manchester in the recent past and is considered appropriate.

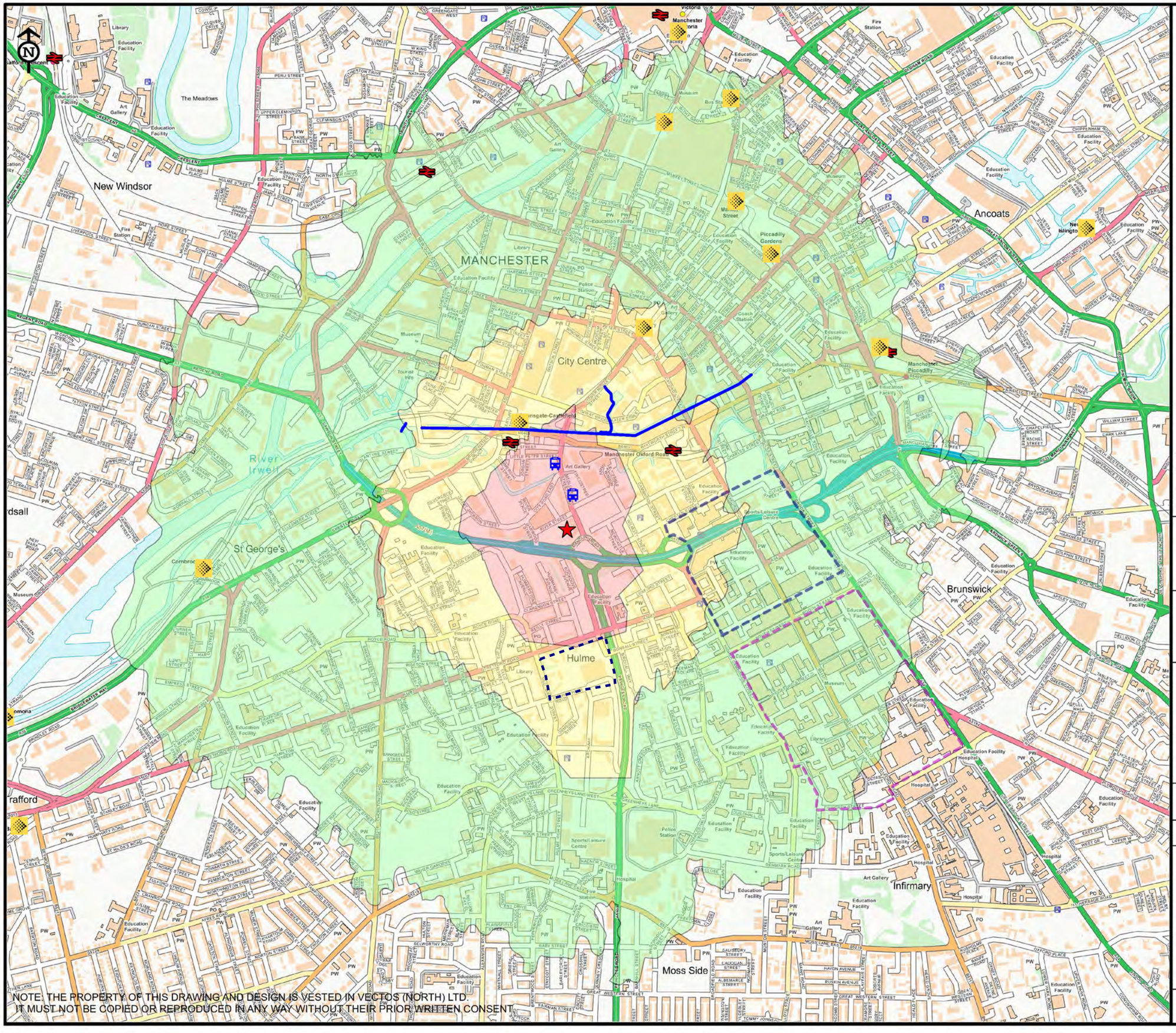
7.12 Servicing activity will be accommodated within the site with a new service route and servicing area within the site providing for appropriate servicing access off the highway. The proposed new access points onto River Street are safe and suitable arrangements.

7.13 Considering all vehicle arrivals and departures at the site, including the drop-offs/pickups by taxis on River Street, servicing trips, as well as the few car trips, it is forecast, that the proposed development of PBSA and office use will attract fewer vehicle trips than the current Premier Inn site operation resulting in betterment or no change in highway operation.

Conclusion

7.14 Overall, it is considered that the proposed development, which is in a highly sustainable location in terms of walking, cycling and public transport access, would not result in any adverse impact on the operation of the local highway network. The proposals are therefore in accordance with policy and there are no reasons for refusal of the planning application on highways and transportation grounds.

Drawings



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CLIENT:
Premier Inn Hotels and Dominvs Group

PROJECT TITLE:
One Medlock Street

DRAWING TITLE:
Pedestrian Walking Catchment

SCALE:
N.T.S

DRAWN:	CHECKED:	DATE:
CJ	GD	Oct 2022

vectos. | PART OF SLR

Oxford Place, 61 Oxford Street, Manchester M1 6EQ
t:0161 228 1008 e:manchester@vectos.co.uk

DRAWING NO: VN91290-G102

REVISION:

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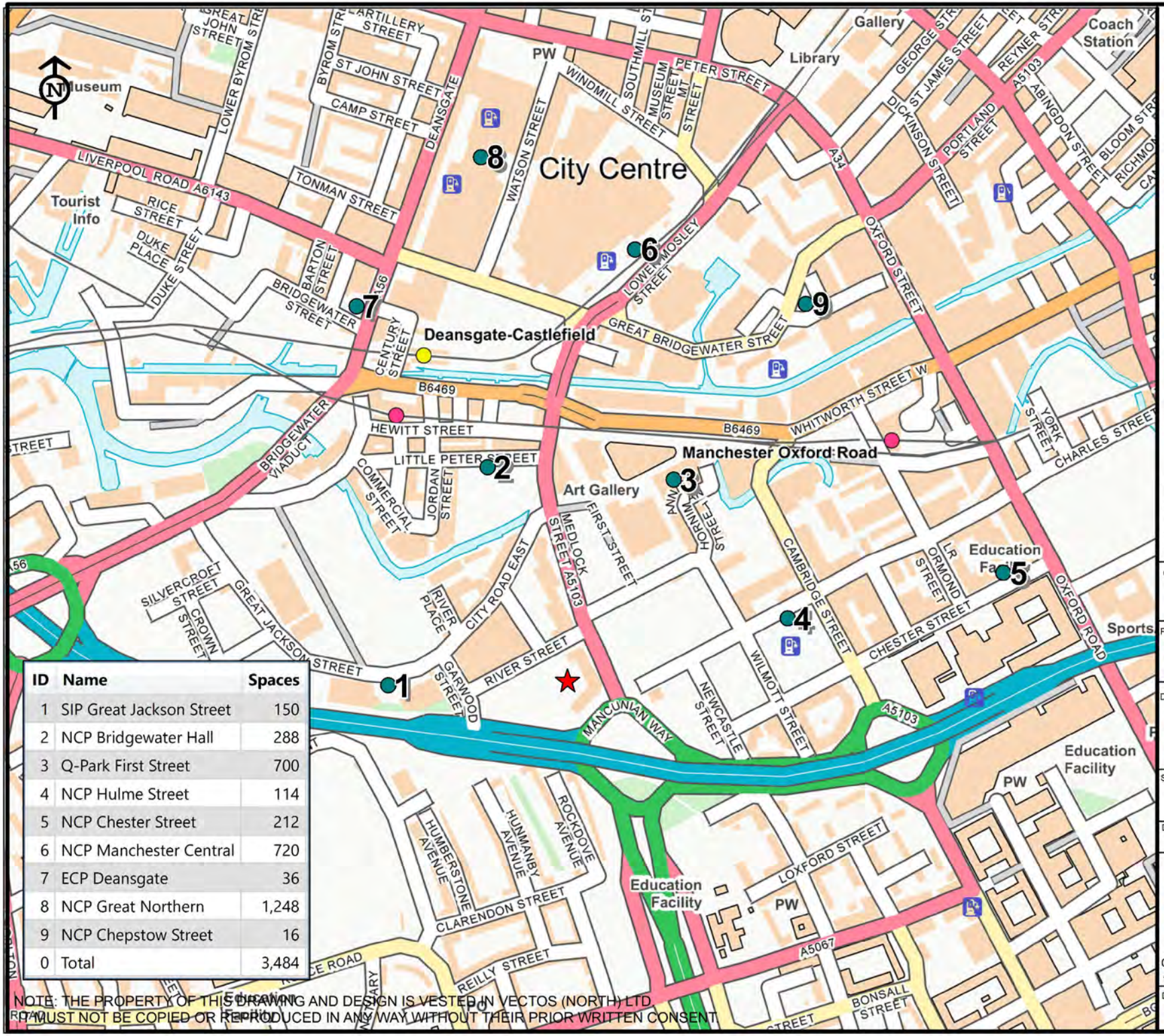

ID	Name	Spaces
1	SIP Great Jackson Street	150
2	NCP Bridgewater Hall	288
3	Q-Park First Street	700
4	NCP Hulme Street	114
5	NCP Chester Street	212
6	NCP Manchester Central	720
7	ECP Deansgate	36
8	NCP Great Northern	1,248
9	NCP Chepstow Street	16
0	Total	3,484

Legend

- Site Location
- Car Park

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CLIENT:
Premier Inn Hotels and Dominvs Group

PROJECT TITLE:
One Medlock Street

DRAWING TITLE:
Public Car Parks within 800m Catchment

SCALE:
N.T.S

DRAWN:	CHECKED:	DATE:
CJ	GD	Oct 2022

vectos. | PART OF SLR

Oxford Place, 61 Oxford Street, Manchester M1 6EQ
t:0161 228 1008 e:manchester@vectos.co.uk

DRAWING NO:
VN91290-G104

REVISION:

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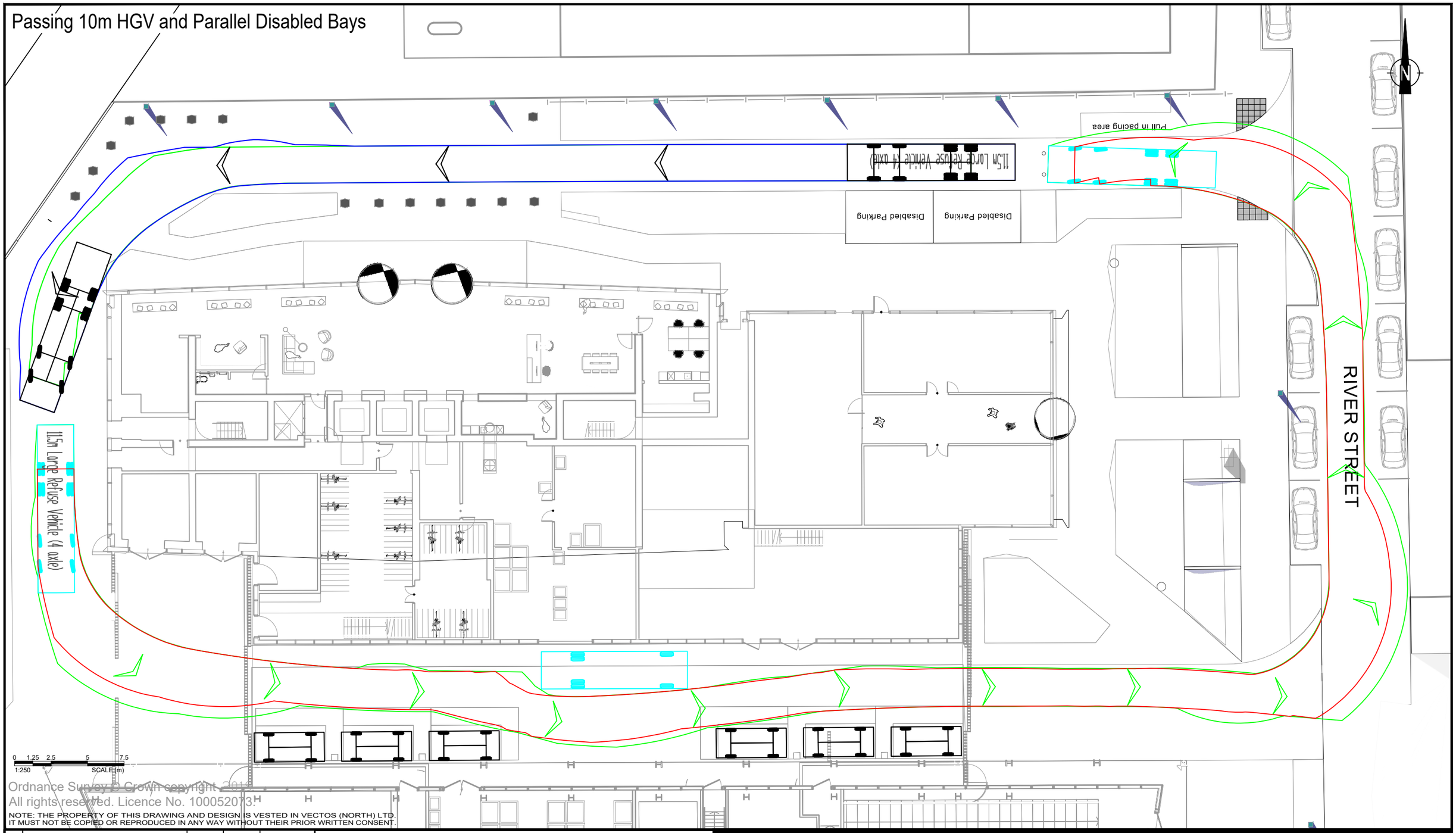
Passing 10m HGV and Parallel Disabled Bays



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REV.	DETAILS	DRAWN	CHECKED	DATE
.	.	.	.	.

Notes:

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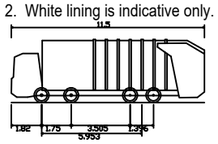
2. White lining is indicative only.



11.5m Large Refuse Vehicle (4 axle)

Overall Length	11.500m
Overall Width	2.500m
Overall Body Height	3.751m
Min Body Ground Clearance	0.304m
Track Width	2.500m
Lock to lock time	6.00s
Wall to Wall Turning Radius	11.330m

Premier Inn, River Street

Swept Path Analysis - Refuse Vehicle

Premier Inn & Dominvs

vectos.
4th Floor Oxford Place, 61 Oxford Street, Manchester, M1 6EQ
0161 228 1008 e: manchester@vectos.co.uk

DRAWN:	CHECKED:	DATE:	SCALES:	DRAWING NUMBER:	REVISION:
CG	GD	11.10.22	1:250 at A3	VN91290 TR116	·

Appendix A

Summary of Audit of Local Highway Infrastructure

Audit of Highway Infrastructure

Bus Shelter & Cycle Lane

Pedestrian Crossing committed as part of Plot 9a

On Street Cycle Lane Starts/Ends

20

One Way Street with wide footways on Street Parking and quality paving around new build

2x Seats & landscaping

First Street, Quality landscaped Pedestrian Corridor

28 Cycle Spaces

Cycle Lane & Bus Stop Flag

Cyclists Join Shared Footway

Inconsistent Tactiles & Broken Paving. To be upgraded with Plot 9a

Shared Footway/Cycleway

National Cycle Route 6

Premier Inn Site

Wide Junction, No Tactiles

Quality Footway/Cycleways in landscaped environment

Wide Shared Footway/Cycleway

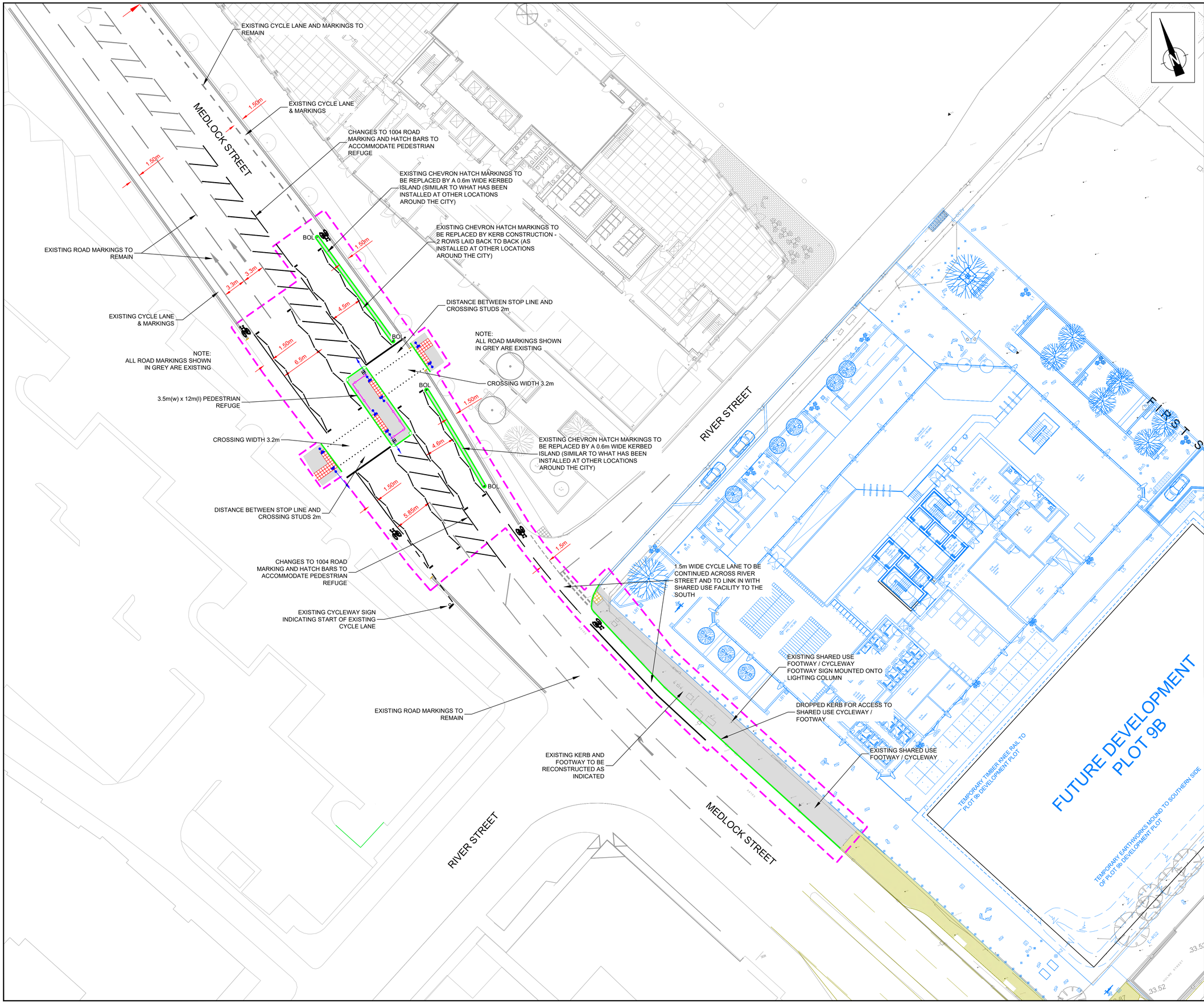
Quality Footway/Cycleway link to Hulme & Birley Fields Campus

Quality Footway/Cycleway link to Oxford Road University Campus's

Google Earth

Appendix B

Committed Pedestrian Crossing Scheme - Medlock Street



NOTES

1. DO NOT SCALE FROM DRAWINGS.
2. THE HIGHWAY AUTHORITY IS MANCHESTER CITY COUNCIL.
3. ALL HIGHWAY WORKS TO BE TO ADOPTABLE STANDARDS AND SHALL COMPLY FULLY WITH THE LOCAL AUTHORITY SPECIFICATION AND WHERE NECESSARY THE RELEVANT SECTIONS OF THE DMRB, SPECIFICATION FOR HIGHWAY WORKS (SHW) AND BRITISH STANDARDS.
4. NO DEVIATION FROM THE DETAILS SHOWN IS PERMITTED WITHOUT PRIOR APPROVAL OF THE ENGINEER.
5. ALL DIMENSIONS AND LEVELS ON PLANS ARE IN METRES
6. UNLESS NOTED OTHERWISE.
7. THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH
8. ALL OTHER CONTRACT DRAWINGS, SPECIFICATIONS AND DOCUMENTATION RELATING TO THE SECTION 278 WORKS.
9. ALL STATUTORY CONSENTS, OPENING NOTICES ETC. AS REQUIRED UNDER HIGHWAYS AND WATER INDUSTRY ACTS, ARE TO BE OBTAINED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF THE WORKS (UNLESS OTHERWISE STATED). ALL WORKS ARE TO BE INSPECTED BY THE LOCAL AUTHORITY, NHBC OR STATUTORY AUTHORITY AS APPLICABLE
10. THE PRESENCE OF STATUTORY UNDERTAKERS EQUIPMENT IN THE HIGHWAY SHOULD BE VERIFIED BY THE CONTRACTOR ON SITE PRIOR TO STARTING ANY WORKS. THE LOCATION OF STATUTORY PLANT SHOWN ON ANY PLANS IS INDICATIVE ONLY AND SHOULD NOT BE RELIED UPON FOR THE LOCATION OF ANY PIPEWORK OR CABLING. THE CONTRACTOR SHOULD CONFIRM THE LOCATION OF ALL UTILITY ASSETS BY HAND DUG TRIAL TRENCHES PRIOR TO COMMENCING ANY WORKS. ALLOWANCE FOR THE PRESENCE OF ALL APPROPRIATE UTILITY PROTECTION/DIVERSION MEASURES IS TO BE PUT IN PLACE BY THE CONTRACTOR (UNLESS STATED OTHERWISE)
11. THIS DRAWING IS SUBJECT TO DETAILED DESIGN AND HA TECHNICAL APPROVALS

KEY

- PROPOSED FOOTWAY CONSTRUCTION AT PEDESTRIAN CROSSING AND ALSO DEVELOPMENT SITE FRONTAGE
- PROPOSED NEW TACTILE PAVING AT UNCONTROLLED PEDESTRIAN CROSSING (COLOUR: BUFF).
- PROPOSED NEW TACTILE PAVING AT SIGNAL CONTROLLED PEDESTRIAN CROSSING (COLOUR: RED).
- PROPOSED NEW KERB CONSTRUCTION
- PROPOSED PEDESTRIAN GUARDRAIL ON REFUGE ISLAND
- PROPOSED LOCATION OF TRAFFIC SIGNAL
- PROPOSED LOCATION OF TRAFFIC PEDESTRIAN PUSH BUTTON

NOTE: SIGNALS INFORMATION IS SHOWN FOR INDICATIVE PURPOSES ONLY AND IS TO BE DESIGNED IN DETAIL BY TFGM

- REFLECTORISED TRAFFIC BOLLARD
- EXTENT OF HIGHWAY WORKS

0 2.5 5 10 15
1:250 SCALE (m)

AWAITING TECHNICAL APPROVAL

This drawing has NOT been technically approved by Local Authority and/or Water Authority.
All works subject to change through technical review process with relevant approving authorities.

Rev	Details	Drawn	Checked	Auth	Date
C	CHANGES IN RESPONSE TO MCC COMMENTS	IW	SR	SR	21.07.22
B	DESIGN RE-DRAWN ON TOPO SURVEY	IW	SR	SR	29.06.22
A	EXISTING ROAD MARKINGS UPDATED	IW	SR	SR	29.04.22

Drawing Status: PRELIMINARY ISSUE
Suitability: S4

vectos. | PART OF SLR
4th Floor Oxford Place
61 Oxford Street
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t: 0161 228 1008
e: manchester@vectos.co.uk
CfA Centre for Assessment ISO 9001 17/3345

Client: FIRST STREET (DEVELOPMENTS) LTD

Project Title: FIRST STREET, PLOT 9

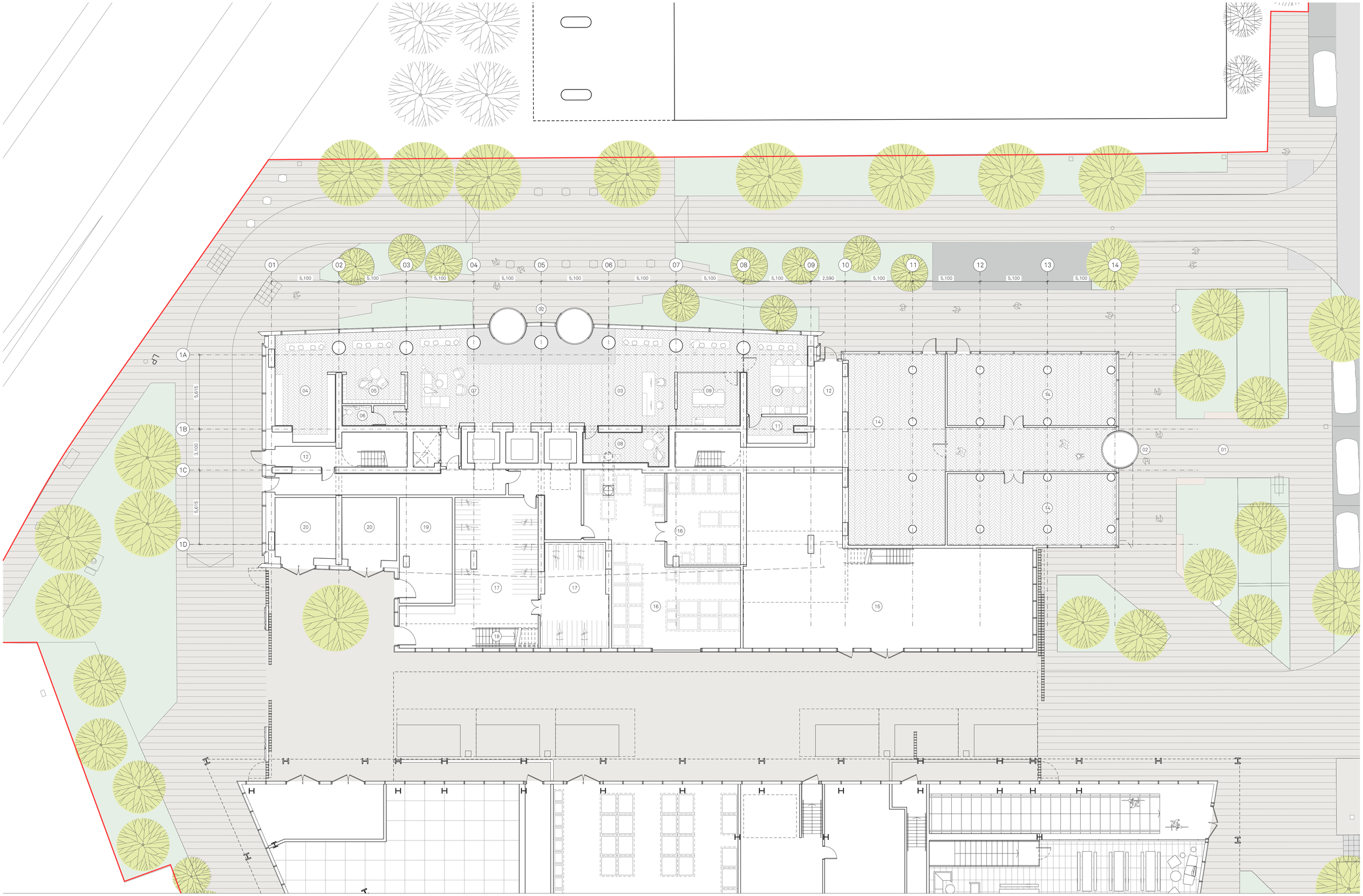
Drawing Title: GENERAL ARRANGEMENT
PROPOSED PEDESTRIAN CROSSING
MEDLOCK STREET

Scale	Designed	Drawn	Checked	Authorised
1:250	JF	IW	SR	SR
Original Size: A1	Date: 20/04/22	Date: 20/04/22	Date: 20/04/22	Date: 20/04/22

Drawing Number: PIN/Proj. Ref. No. | Originator | Volume | Location | Type | Role | Number
VD20344 - VEC-HGN- XX -DR-CH- 100
Project Ref. No.: VD20344
Revision: C

Appendix C

Proposed Site Layout Plans



Notes:

PLAN KEY:

01 Public realm
02 Main entrance
03 Reception
04 Post room
05 Post boxes
06 WC
07 Waiting area
08 Staff room
09 Meeting room
10 Main office
11 Security room
12 Escape route
13 Potential space required for commercial sprinkler tank
14 Community space
15 Plant
16 Refuse area
17 Cycle store
18 Stairs to mezzanine cycle store
19 LV Switch room
20 Substation

DRAFT

NOTES:

All structural / service coordination ongoing and to be developed post issue, All structural sizes TBC by SE

Area requiring further structural and/or MEP coordination

Project Name: One Medlock Street
Title: Ground Floor General Arrangement Plan
Scale: 1:125 @ A1
Drawn: HM
Checked: JM
Status: Information
Project: 100
Drawing No: _B1_02_2200
Rev: B
Details:
B 22/09/22 Issued for Information

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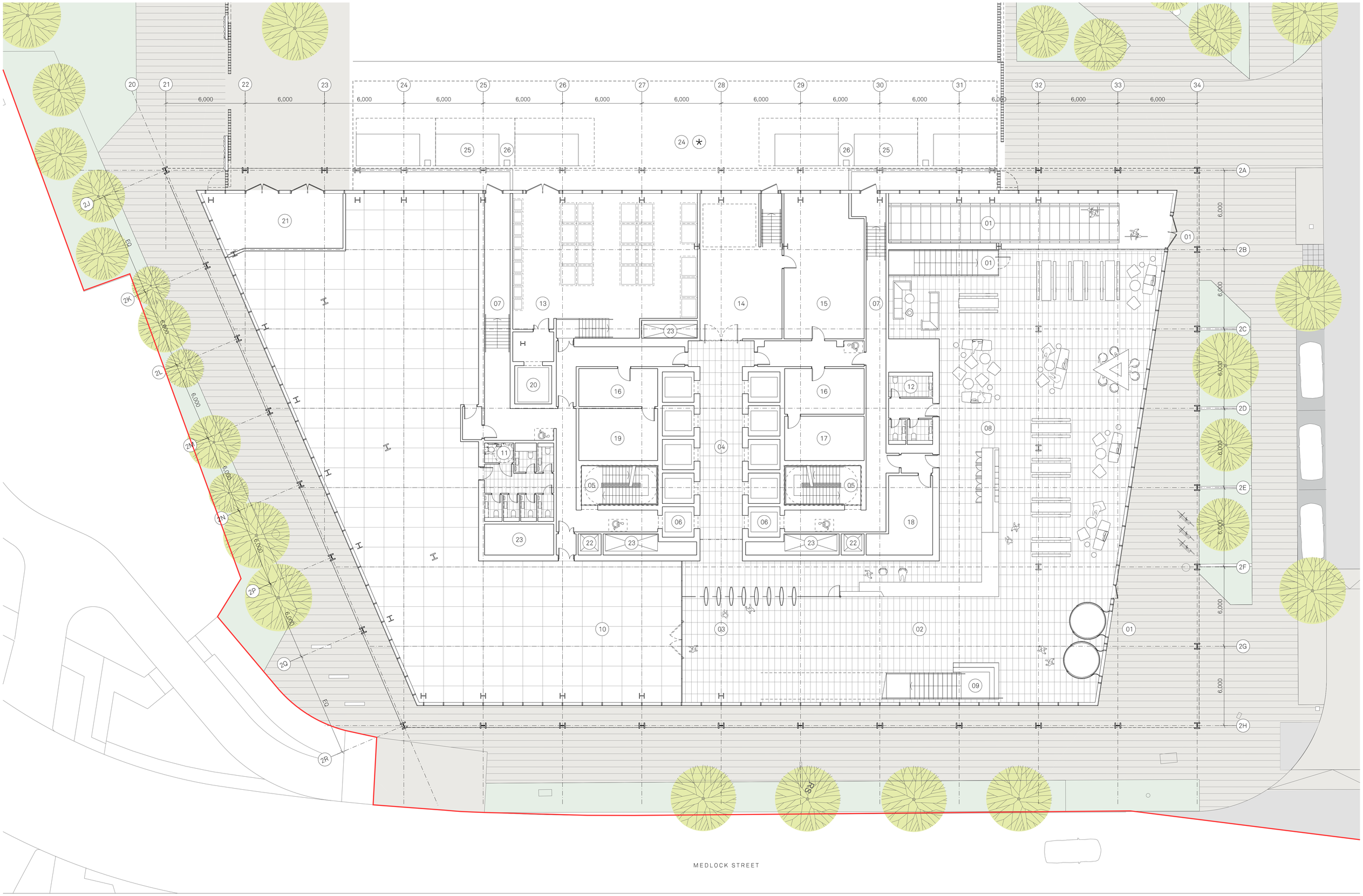

Notes:

PLAN KEY:

01 Entrance	04 Lift lobby	07 Escape route	10 Commercial unit	13 Refuse store	16 Back of house	19 LV switch room	22 Smoke vent	25 Parking bay
02 Reception	05 Escape stairs	08 Shared workspace	11 Accessible WC	14 Post room	17 Comms room	20 Goods lift	23 Service riser	26 Electrical charging point
03 Speed gates	06 Fire fighting lift	09 Feature stairs to first floor	12 Gender neutral WC	15 Staff welfare	18 Security room	21 Substation	24 Service area	✶ Service area - surface finish to match external context

Project Name: One Medlock Street

Title: Ground Floor General Arrangement Plan

Scale: 1: 125 @ A1

Drawn: MH | Checked: JM | Status: Information | Project: 100 | Drawing No: _B2_02_2200 | Rev: B

Details: B 22/09/22 Issued for Information

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Appendix D

PBSA Planning Application Examples

Planning Application Number	Scheme Information	No of Beds	Cycle Parking Provision
118683/FO/2017	The development proposes a purpose-built student accommodation (sui generis) scheme comprising 475 apartments providing a total of 807 student bed spaces.	807 beds	232 internal cycle parking for 807 students and the provision of an additional 5 Sheffield short stay cycle stands accommodating 10 cycles for visitors.
120896/FO/2018	"The construction of three buildings comprising 6, 11 and 16 storeys to form 491 student bedspaces (Use Class Sui Generis), along with ground floor amenity space; cycling provision, external courtyard area and improved public realm and associated highways access and serving works."	491 beds	40 secure cycle parking spaces
125654/FO/2019	"Erection of a twelve-storey purpose-built student accommodation building with three storey element to rear comprising 82 units with roof top terrace	62 Units	Secure cycle parking, catering for 12 bicycles will be provided on the ground floor of the building, which will be staffed 24 hours. A Brompton Dock offering eight bicycles for hire will be provided off-site. Total of 20 spaces.

Appendix E

TRICS Output Files – Offices

LIST OF SITES relevant to selection parameters

1 BN-02-A-01 OFFICES BARNET
MOON LANE
HIGH BARNET

Edge of Town Centre
No Sub Category
Total Gross floor area: 1366 sqm
Survey date: THURSDAY 11/11/21 Survey Type: MANUAL

2 CA-02-A-05 OFFICES CAMBRIDGESHIRE
NEW ROAD
PETERBOROUGH

Town Centre
Built-Up Zone
Total Gross floor area: 8793 sqm
Survey date: TUESDAY 16/12/14 Survey Type: MANUAL

3 CB-02-A-02 OFFICE CUMBRIA
PORT ROAD
CARLISLE

Edge of Town Centre
Industrial Zone
Total Gross floor area: 925 sqm
Survey date: FRIDAY 24/06/16 Survey Type: MANUAL

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

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

5 DS-02-A-02 REAL ESTATE DEVELOPERS DERBYSHIRE
PRIME PARKWAY
DERBY

Edge of Town Centre
No Sub Category
Total Gross floor area: 594 sqm
Survey date: THURSDAY 21/10/21 Survey Type: MANUAL

6 DU-02-A-01 OFFICES DUNDEE CITY
GREENMARKET
DUNDEE

Edge of Town Centre
Development Zone
Total Gross floor area: 3200 sqm
Survey date: THURSDAY 27/04/17 Survey Type: MANUAL

7 EB-02-A-06 REGUS OFFICES CITY OF EDINBURGH
ST ANDREW SQUARE
EDINBURGH

Town Centre
Built-Up Zone
Total Gross floor area: 4500 sqm
Survey date: WEDNESDAY 16/03/16 Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

8 ES-02-A-12 COUNCIL OFFICES EAST SUSSEX
VICARAGE LANE
HAILSHAM

Edge of Town Centre
Built-Up Zone
Total Gross floor area: 3640 sqm
Survey date: THURSDAY *26/11/15* *Survey Type: MANUAL*

9 ES-02-A-13 OFFICES EAST SUSSEX
ROMAN ROAD
HOVE

Edge of Town Centre
Residential Zone
Total Gross floor area: 280 sqm
Survey date: WEDNESDAY *04/07/18* *Survey Type: MANUAL*

10 GM-02-A-08 REGUS GREATER MANCHESTER
FOUNTAIN STREET
MANCHESTER

Town Centre
Built-Up Zone
Total Gross floor area: 3960 sqm
Survey date: MONDAY *26/09/16* *Survey Type: MANUAL*

11 GM-02-A-09 LEASED OFFICES GREATER MANCHESTER
NEW MOUNT STREET
MANCHESTER

Edge of Town Centre
Built-Up Zone
Total Gross floor area: 2500 sqm
Survey date: MONDAY *26/09/16* *Survey Type: MANUAL*

12 HD-02-A-10 DATA CENTRE HILLINGDON
MILLINGTON ROAD
HAYES

Edge of Town Centre
Commercial Zone
Total Gross floor area: 16350 sqm
Survey date: WEDNESDAY *02/03/22* *Survey Type: MANUAL*

13 HF-02-A-04 OFFICES HERTFORDSHIRE
STATION WAY
ST ALBANS

Edge of Town Centre
Residential Zone
Total Gross floor area: 5000 sqm
Survey date: THURSDAY *02/10/14* *Survey Type: MANUAL*

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

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

LIST OF SITES relevant to selection parameters (Cont.)

15 LB-02-A-01 START UP OFFICES & STUDIOS LAMBETH
DURHAM STREET
VAUXHALL

Edge of Town Centre
Built-Up Zone
Total Gross floor area: 10200 sqm
Survey date: MONDAY *19/11/18* *Survey Type: MANUAL*

16 LB-02-A-02 MUSIC COMPANY LAMBETH
STREATHAM HIGH ROAD
STREATHAM

Town Centre
High Street
Total Gross floor area: 3054 sqm
Survey date: TUESDAY *05/11/19* *Survey Type: MANUAL*

17 MS-02-A-02 SCIENCE PARK OFFICES MERSEYSIDE
MOUNT PLEASANT
LIVERPOOL

Edge of Town Centre
Built-Up Zone
Total Gross floor area: 11250 sqm
Survey date: TUESDAY *13/11/18* *Survey Type: MANUAL*

18 NF-02-A-02 FINANCIAL PLANNERS NORFOLK
NORTH QUAY
GREAT YARMOUTH

Edge of Town Centre
Commercial Zone
Total Gross floor area: 894 sqm
Survey date: MONDAY *11/09/17* *Survey Type: MANUAL*

19 NF-02-A-03 OFFICES NORFOLK
NORTH QUAY
GREAT YARMOUTH

Edge of Town Centre
Commercial Zone
Total Gross floor area: 5500 sqm
Survey date: TUESDAY *12/09/17* *Survey Type: MANUAL*

20 NY-02-A-01 SOLICITORS NORTH YORKSHIRE
NORTH PARK ROAD
HARROGATE

Edge of Town Centre
Built-Up Zone
Total Gross floor area: 178 sqm
Survey date: THURSDAY *04/10/18* *Survey Type: MANUAL*

21 NY-02-A-02 DISTRICT COUNCIL OFFICES NORTH YORKSHIRE
STATION ROAD
RICHMOND

Edge of Town Centre
No Sub Category
Total Gross floor area: 1930 sqm
Survey date: THURSDAY *14/03/19* *Survey Type: MANUAL*

22 PS-02-A-01 COUNCIL OFFICES POWYS
SEVERN ROAD
WELSHPOOL

Edge of Town Centre
No Sub Category
Total Gross floor area: 3920 sqm
Survey date: TUESDAY *12/05/15* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

23	RO-02-A-02 GOLF LINKS ROAD ROSCOMMON ARDSALLAGH BEG Edge of Town Centre Residential Zone	GOVERNMENT OFFICES		ROSCOMMON
	Total Gross floor area:		7200 sqm	
	Survey date: TUESDAY		*23/09/14*	*Survey Type: MANUAL*
24	SO-02-A-01 HIGH STREET SLOUGH Town Centre High Street	COUNCIL OFFICES		SLOUGH
	Total Gross floor area:		1800 sqm	
	Survey date: THURSDAY		*27/02/14*	*Survey Type: MANUAL*
25	SO-02-A-02 BATH ROAD SLOUGH Edge of Town Centre Built-Up Zone	COUNCIL OFFICES		SLOUGH
	Total Gross floor area:		5050 sqm	
	Survey date: THURSDAY		*27/02/14*	*Survey Type: MANUAL*
26	TW-02-A-07 MULGRAVE TERRACE GATESHEAD Town Centre Built-Up Zone	OFFICES		TYNE & WEAR
	Total Gross floor area:		2090 sqm	
	Survey date: MONDAY		*13/06/16*	*Survey Type: MANUAL*

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

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
MULTI-MODAL TAXIS
Calculation factor: 100 sqm
Estimated TRIP rate value per 36494 SQM shown in shaded columns
BOLD print indicates peak (busiest) period

	ARRIVALS				DEPARTURES				TOTALS			
Time Range	No. Days	Ave. GFA	Trip Rate	Estimated Trip Rate	No. Days	Ave. GFA	Trip Rate	Estimated Trip Rate	No. Days	Ave. GFA	Trip Rate	Estimated Trip Rate
00:00 - 01:00												
01:00 - 02:00												
02:00 - 03:00												
03:00 - 04:00												
04:00 - 05:00												
05:00 - 06:00												
06:00 - 07:00												
07:00 - 08:00	25	5307	0.001	0.275	25	5307	0.001	0.275	25	5307	0.002	0.550
08:00 - 09:00	26	5110	0.022	7.966	26	5110	0.015	5.494	26	5110	0.037	13.460
09:00 - 10:00	26	5110	0.013	4.670	26	5110	0.011	3.846	26	5110	0.024	8.516
10:00 - 11:00	26	5110	0.012	4.395	26	5110	0.011	4.121	26	5110	0.023	8.516
11:00 - 12:00	26	5110	0.007	2.472	26	5110	0.006	2.198	26	5110	0.013	4.670
12:00 - 13:00	26	5110	0.007	2.472	26	5110	0.008	2.747	26	5110	0.015	5.219
13:00 - 14:00	26	5110	0.006	2.198	26	5110	0.005	1.648	26	5110	0.011	3.846
14:00 - 15:00	26	5110	0.005	1.923	26	5110	0.007	2.472	26	5110	0.012	4.395
15:00 - 16:00	26	5110	0.005	1.923	26	5110	0.008	3.022	26	5110	0.013	4.945
16:00 - 17:00	26	5110	0.004	1.374	26	5110	0.007	2.472	26	5110	0.011	3.846
17:00 - 18:00	26	5110	0.010	3.571	26	5110	0.013	4.670	26	5110	0.023	8.241
18:00 - 19:00	25	5307	0.002	0.825	25	5307	0.002	0.825	25	5307	0.004	1.650
19:00 - 20:00												
20:00 - 21:00												
21:00 - 22:00												
22:00 - 23:00												
23:00 - 24:00												
Total Rates:			0.094	34.064			0.094	33.790			0.188	67.854

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

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

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
MULTI-MODAL OGVS
Calculation factor: 100 sqm
Estimated TRIP rate value per 36494 SQM shown in shaded columns
BOLD print indicates peak (busiest) period

	ARRIVALS				DEPARTURES				TOTALS			
Time Range	No. Days	Ave. GFA	Trip Rate	Estimated Trip Rate	No. Days	Ave. GFA	Trip Rate	Estimated Trip Rate	No. Days	Ave. GFA	Trip Rate	Estimated Trip Rate
00:00 - 01:00												
01:00 - 02:00												
02:00 - 03:00												
03:00 - 04:00												
04:00 - 05:00												
05:00 - 06:00												
06:00 - 07:00												
07:00 - 08:00	25	5307	0.002	0.550	25	5307	0.001	0.275	25	5307	0.003	0.825
08:00 - 09:00	26	5110	0.005	1.923	26	5110	0.005	1.923	26	5110	0.010	3.846
09:00 - 10:00	26	5110	0.004	1.374	26	5110	0.003	1.099	26	5110	0.007	2.473
10:00 - 11:00	26	5110	0.003	1.099	26	5110	0.003	1.099	26	5110	0.006	2.198
11:00 - 12:00	26	5110	0.002	0.549	26	5110	0.003	1.099	26	5110	0.005	1.648
12:00 - 13:00	26	5110	0.002	0.549	26	5110	0.002	0.549	26	5110	0.004	1.098
13:00 - 14:00	26	5110	0.000	0.000	26	5110	0.000	0.000	26	5110	0.000	0.000
14:00 - 15:00	26	5110	0.001	0.275	26	5110	0.001	0.275	26	5110	0.002	0.550
15:00 - 16:00	26	5110	0.002	0.549	26	5110	0.002	0.549	26	5110	0.004	1.098
16:00 - 17:00	26	5110	0.000	0.000	26	5110	0.000	0.000	26	5110	0.000	0.000
17:00 - 18:00	26	5110	0.000	0.000	26	5110	0.000	0.000	26	5110	0.000	0.000
18:00 - 19:00	25	5307	0.000	0.000	25	5307	0.000	0.000	25	5307	0.000	0.000
19:00 - 20:00												
20:00 - 21:00												
21:00 - 22:00												
22:00 - 23:00												
23:00 - 24:00												
Total Rates:			0.021	6.868			0.020	6.868			0.041	13.736

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

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

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
MULTI-MODAL CYCLISTS
Calculation factor: 100 sqm
Estimated TRIP rate value per 36494 SQM shown in shaded columns
BOLD print indicates peak (busiest) period

	ARRIVALS				DEPARTURES				TOTALS			
Time Range	No. Days	Ave. GFA	Trip Rate	Estimated Trip Rate	No. Days	Ave. GFA	Trip Rate	Estimated Trip Rate	No. Days	Ave. GFA	Trip Rate	Estimated Trip Rate
00:00 - 01:00												
01:00 - 02:00												
02:00 - 03:00												
03:00 - 04:00												
04:00 - 05:00												
05:00 - 06:00												
06:00 - 07:00												
07:00 - 08:00	25	5307	0.027	9.903	25	5307	0.002	0.825	25	5307	0.029	10.728
08:00 - 09:00	26	5110	0.118	43.128	26	5110	0.000	0.000	26	5110	0.118	43.128
09:00 - 10:00	26	5110	0.062	22.800	26	5110	0.004	1.374	26	5110	0.066	24.174
10:00 - 11:00	26	5110	0.021	7.692	26	5110	0.013	4.670	26	5110	0.034	12.362
11:00 - 12:00	26	5110	0.014	5.219	26	5110	0.008	3.022	26	5110	0.022	8.241
12:00 - 13:00	26	5110	0.011	3.846	26	5110	0.018	6.593	26	5110	0.029	10.439
13:00 - 14:00	26	5110	0.010	3.571	26	5110	0.014	5.219	26	5110	0.024	8.790
14:00 - 15:00	26	5110	0.005	1.648	26	5110	0.007	2.472	26	5110	0.012	4.120
15:00 - 16:00	26	5110	0.008	3.022	26	5110	0.015	5.494	26	5110	0.023	8.516
16:00 - 17:00	26	5110	0.004	1.374	26	5110	0.020	7.142	26	5110	0.024	8.516
17:00 - 18:00	26	5110	0.001	0.275	26	5110	0.097	35.437	26	5110	0.098	35.712
18:00 - 19:00	25	5307	0.001	0.275	25	5307	0.080	29.158	25	5307	0.081	29.433
19:00 - 20:00												
20:00 - 21:00												
21:00 - 22:00												
22:00 - 23:00												
23:00 - 24:00												
Total Rates:			0.282	102.753			0.278	101.406			0.560	204.159

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

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

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
MULTI-MODAL PEDESTRIANS
Calculation factor: 100 sqm
Estimated TRIP rate value per 36494 SQM shown in shaded columns
BOLD print indicates peak (busiest) period

	ARRIVALS				DEPARTURES				TOTALS			
Time Range	No. Days	Ave. GFA	Trip Rate	Estimated Trip Rate	No. Days	Ave. GFA	Trip Rate	Estimated Trip Rate	No. Days	Ave. GFA	Trip Rate	Estimated Trip Rate
00:00 - 01:00												
01:00 - 02:00												
02:00 - 03:00												
03:00 - 04:00												
04:00 - 05:00												
05:00 - 06:00												
06:00 - 07:00												
07:00 - 08:00	25	5307	0.096	35.209	25	5307	0.031	11.278	25	5307	0.127	46.487
08:00 - 09:00	26	5110	0.280	102.189	26	5110	0.086	31.316	26	5110	0.366	133.505
09:00 - 10:00	26	5110	0.287	104.662	26	5110	0.132	48.348	26	5110	0.419	153.010
10:00 - 11:00	26	5110	0.295	107.684	26	5110	0.269	98.344	26	5110	0.564	206.028
11:00 - 12:00	26	5110	0.260	94.772	26	5110	0.288	104.936	26	5110	0.548	199.708
12:00 - 13:00	26	5110	0.495	180.754	26	5110	0.736	268.659	26	5110	1.231	449.413
13:00 - 14:00	26	5110	0.741	270.308	26	5110	0.656	239.266	26	5110	1.397	509.574
14:00 - 15:00	26	5110	0.431	157.405	26	5110	0.263	96.146	26	5110	0.694	253.551
15:00 - 16:00	26	5110	0.159	57.962	26	5110	0.172	62.907	26	5110	0.331	120.869
16:00 - 17:00	26	5110	0.096	35.162	26	5110	0.221	80.763	26	5110	0.317	115.925
17:00 - 18:00	26	5110	0.051	18.680	26	5110	0.265	96.695	26	5110	0.316	115.375
18:00 - 19:00	25	5307	0.015	5.501	25	5307	0.130	47.312	25	5307	0.145	52.813
19:00 - 20:00												
20:00 - 21:00												
21:00 - 22:00												
22:00 - 23:00												
23:00 - 24:00												
Total Rates:			3.206	1170.288			3.249	1185.970			6.455	2356.258

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

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

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
MULTI-MODAL PUBLIC TRANSPORT USERS
Calculation factor: 100 sqm
Estimated TRIP rate value per 36494 SQM shown in shaded columns
BOLD print indicates peak (busiest) period

	ARRIVALS				DEPARTURES				TOTALS			
Time Range	No. Days	Ave. GFA	Trip Rate	Estimated Trip Rate	No. Days	Ave. GFA	Trip Rate	Estimated Trip Rate	No. Days	Ave. GFA	Trip Rate	Estimated Trip Rate
00:00 - 01:00												
01:00 - 02:00												
02:00 - 03:00												
03:00 - 04:00												
04:00 - 05:00												
05:00 - 06:00												
06:00 - 07:00												
07:00 - 08:00	25	5307	0.203	73.994	25	5307	0.007	2.476	25	5307	0.210	76.470
08:00 - 09:00	26	5110	0.904	329.918	26	5110	0.026	9.340	26	5110	0.930	339.258
09:00 - 10:00	26	5110	0.850	310.140	26	5110	0.053	19.504	26	5110	0.903	329.644
10:00 - 11:00	26	5110	0.250	91.201	26	5110	0.080	29.119	26	5110	0.330	120.320
11:00 - 12:00	26	5110	0.143	52.194	26	5110	0.111	40.656	26	5110	0.254	92.850
12:00 - 13:00	26	5110	0.145	53.018	26	5110	0.235	85.707	26	5110	0.380	138.725
13:00 - 14:00	26	5110	0.172	62.907	26	5110	0.204	74.444	26	5110	0.376	137.351
14:00 - 15:00	26	5110	0.107	39.008	26	5110	0.132	48.348	26	5110	0.239	87.356
15:00 - 16:00	26	5110	0.085	31.041	26	5110	0.214	78.016	26	5110	0.299	109.057
16:00 - 17:00	26	5110	0.072	26.097	26	5110	0.361	131.583	26	5110	0.433	157.680
17:00 - 18:00	26	5110	0.048	17.581	26	5110	0.922	336.511	26	5110	0.970	354.092
18:00 - 19:00	25	5307	0.016	5.776	25	5307	0.517	188.699	25	5307	0.533	194.475
19:00 - 20:00												
20:00 - 21:00												
21:00 - 22:00												
22:00 - 23:00												
23:00 - 24:00												
Total Rates:			2.995	1092.875			2.862	1044.403			5.857	2137.278

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

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

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
MULTI-MODAL TOTAL PEOPLE
Calculation factor: 100 sqm
Estimated TRIP rate value per 36494 SQM shown in shaded columns
BOLD print indicates peak (busiest) period
Total People to Total Vehicles ratio (all time periods and directions): 3.35

	ARRIVALS				DEPARTURES				TOTALS			
Time Range	No. Days	Ave. GFA	Trip Rate	Estimated Trip Rate	No. Days	Ave. GFA	Trip Rate	Estimated Trip Rate	No. Days	Ave. GFA	Trip Rate	Estimated Trip Rate
00:00 - 01:00												
01:00 - 02:00												
02:00 - 03:00												
03:00 - 04:00												
04:00 - 05:00												
05:00 - 06:00												
06:00 - 07:00												
07:00 - 08:00	25	5307	0.563	205.478	25	5307	0.078	28.332	25	5307	0.641	233.810
08:00 - 09:00	26	5110	2.067	754.334	26	5110	0.192	70.049	26	5110	2.259	824.383
09:00 - 10:00	26	5110	1.804	658.463	26	5110	0.361	131.583	26	5110	2.165	790.046
10:00 - 11:00	26	5110	0.850	310.140	26	5110	0.574	209.324	26	5110	1.424	519.464
11:00 - 12:00	26	5110	0.640	233.497	26	5110	0.604	220.586	26	5110	1.244	454.083
12:00 - 13:00	26	5110	0.907	331.017	26	5110	1.309	477.708	26	5110	2.216	808.725
13:00 - 14:00	26	5110	1.228	448.040	26	5110	1.133	413.428	26	5110	2.361	861.468
14:00 - 15:00	26	5110	0.744	271.681	26	5110	0.641	234.047	26	5110	1.385	505.728
15:00 - 16:00	26	5110	0.416	151.636	26	5110	0.677	246.958	26	5110	1.093	398.594
16:00 - 17:00	26	5110	0.303	110.705	26	5110	1.048	382.386	26	5110	1.351	493.091
17:00 - 18:00	26	5110	0.174	63.456	26	5110	1.950	711.480	26	5110	2.124	774.936
18:00 - 19:00	25	5307	0.056	20.355	25	5307	0.994	362.819	25	5307	1.050	383.174
19:00 - 20:00												
20:00 - 21:00												
21:00 - 22:00												
22:00 - 23:00												
23:00 - 24:00												
Total Rates:			9.752	3558.802			9.561	3488.700			19.313	7047.502

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

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

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
MULTI-MODAL LGVS
Calculation factor: 100 sqm
Estimated TRIP rate value per 36494 SQM shown in shaded columns
BOLD print indicates peak (busiest) period

	ARRIVALS				DEPARTURES				TOTALS			
Time Range	No. Days	Ave. GFA	Trip Rate	Estimated Trip Rate	No. Days	Ave. GFA	Trip Rate	Estimated Trip Rate	No. Days	Ave. GFA	Trip Rate	Estimated Trip Rate
00:00 - 01:00												
01:00 - 02:00												
02:00 - 03:00												
03:00 - 04:00												
04:00 - 05:00												
05:00 - 06:00												
06:00 - 07:00												
07:00 - 08:00	25	5307	0.011	3.851	25	5307	0.007	2.476	25	5307	0.018	6.327
08:00 - 09:00	26	5110	0.020	7.417	26	5110	0.013	4.670	26	5110	0.033	12.087
09:00 - 10:00	26	5110	0.020	7.142	26	5110	0.020	7.417	26	5110	0.040	14.559
10:00 - 11:00	26	5110	0.020	7.142	26	5110	0.024	8.790	26	5110	0.044	15.932
11:00 - 12:00	26	5110	0.024	8.790	26	5110	0.022	7.966	26	5110	0.046	16.756
12:00 - 13:00	26	5110	0.020	7.417	26	5110	0.020	7.417	26	5110	0.040	14.834
13:00 - 14:00	26	5110	0.014	4.945	26	5110	0.013	4.670	26	5110	0.027	9.615
14:00 - 15:00	26	5110	0.019	6.868	26	5110	0.021	7.692	26	5110	0.040	14.560
15:00 - 16:00	26	5110	0.018	6.593	26	5110	0.023	8.241	26	5110	0.041	14.834
16:00 - 17:00	26	5110	0.016	5.769	26	5110	0.019	6.868	26	5110	0.035	12.637
17:00 - 18:00	26	5110	0.005	1.923	26	5110	0.005	1.923	26	5110	0.010	3.846
18:00 - 19:00	25	5307	0.002	0.825	25	5307	0.002	0.825	25	5307	0.004	1.650
19:00 - 20:00												
20:00 - 21:00												
21:00 - 22:00												
22:00 - 23:00												
23:00 - 24:00												
Total Rates:			0.189	68.682			0.189	68.955			0.378	137.637

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.*

Appendix F

TRICS output Files – Student Accommodation

TRIP RATE for Land Use 03 - RESIDENTIAL/G - STUDENT ACCOMMODATION
MULTI-MODAL TAXIS
Calculation factor: 1 RESIDE
Estimated TRIP rate value per 1014 RESIDE shown in shaded columns
BOLD print indicates peak (busiest) period

	ARRIVALS				DEPARTURES				TOTALS			
Time Range	No. Days	Ave. RESIDE	Trip Rate	Estimated Trip Rate	No. Days	Ave. RESIDE	Trip Rate	Estimated Trip Rate	No. Days	Ave. RESIDE	Trip Rate	Estimated Trip Rate
00:00 - 01:00												
01:00 - 02:00												
02:00 - 03:00												
03:00 - 04:00												
04:00 - 05:00												
05:00 - 06:00												
06:00 - 07:00												
07:00 - 08:00	8	375	0.000	0.338	8	375	0.000	0.338	8	375	0.000	0.676
08:00 - 09:00	8	375	0.000	0.338	8	375	0.000	0.338	8	375	0.000	0.676
09:00 - 10:00	8	375	0.000	0.000	8	375	0.000	0.000	8	375	0.000	0.000
10:00 - 11:00	8	375	0.002	1.690	8	375	0.002	1.690	8	375	0.004	3.380
11:00 - 12:00	8	375	0.002	2.028	8	375	0.002	2.028	8	375	0.004	4.056
12:00 - 13:00	8	375	0.002	1.690	8	375	0.002	1.690	8	375	0.004	3.380
13:00 - 14:00	8	375	0.001	1.014	8	375	0.001	1.014	8	375	0.002	2.028
14:00 - 15:00	8	375	0.001	0.676	8	375	0.001	0.676	8	375	0.002	1.352
15:00 - 16:00	8	375	0.002	1.690	8	375	0.002	1.690	8	375	0.004	3.380
16:00 - 17:00	8	375	0.001	1.352	8	375	0.001	1.352	8	375	0.002	2.704
17:00 - 18:00	8	375	0.001	1.014	8	375	0.001	1.014	8	375	0.002	2.028
18:00 - 19:00	8	375	0.002	2.028	8	375	0.002	2.028	8	375	0.004	4.056
19:00 - 20:00	8	375	0.002	2.366	8	375	0.002	2.366	8	375	0.004	4.732
20:00 - 21:00	8	375	0.004	4.056	8	375	0.004	4.056	8	375	0.008	8.112
21:00 - 22:00	1	168	0.000	0.000	1	168	0.000	0.000	1	168	0.000	0.000
22:00 - 23:00												
23:00 - 24:00												
Total Rates:			0.020	20.280			0.020	20.280			0.040	40.560

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.*

Vectos (North) Limited 4th Floor, Oxford Place, 61 Oxford St Manchester Licence No: 715001

TRIP RATE for Land Use 03 - RESIDENTIAL/G - STUDENT ACCOMMODATION
MULTI-MODAL OGVS
Calculation factor: 1 RESIDE
Estimated TRIP rate value per 1014 RESIDE shown in shaded columns
BOLD print indicates peak (busiest) period

	ARRIVALS				DEPARTURES				TOTALS			
Time Range	No. Days	Ave. RESIDE	Trip Rate	Estimated Trip Rate	No. Days	Ave. RESIDE	Trip Rate	Estimated Trip Rate	No. Days	Ave. RESIDE	Trip Rate	Estimated Trip Rate
00:00 - 01:00												
01:00 - 02:00												
02:00 - 03:00												
03:00 - 04:00												
04:00 - 05:00												
05:00 - 06:00												
06:00 - 07:00												
07:00 - 08:00	8	375	0.001	0.676	8	375	0.001	0.676	8	375	0.002	1.352
08:00 - 09:00	8	375	0.000	0.000	8	375	0.000	0.000	8	375	0.000	0.000
09:00 - 10:00	8	375	0.000	0.000	8	375	0.000	0.000	8	375	0.000	0.000
10:00 - 11:00	8	375	0.001	1.014	8	375	0.001	1.014	8	375	0.002	2.028
11:00 - 12:00	8	375	0.000	0.000	8	375	0.000	0.000	8	375	0.000	0.000
12:00 - 13:00	8	375	0.000	0.000	8	375	0.000	0.000	8	375	0.000	0.000
13:00 - 14:00	8	375	0.000	0.000	8	375	0.000	0.000	8	375	0.000	0.000
14:00 - 15:00	8	375	0.000	0.000	8	375	0.000	0.000	8	375	0.000	0.000
15:00 - 16:00	8	375	0.000	0.000	8	375	0.000	0.000	8	375	0.000	0.000
16:00 - 17:00	8	375	0.000	0.000	8	375	0.000	0.000	8	375	0.000	0.000
17:00 - 18:00	8	375	0.000	0.000	8	375	0.000	0.000	8	375	0.000	0.000
18:00 - 19:00	8	375	0.000	0.000	8	375	0.000	0.000	8	375	0.000	0.000
19:00 - 20:00	8	375	0.000	0.000	8	375	0.000	0.000	8	375	0.000	0.000
20:00 - 21:00	8	375	0.000	0.000	8	375	0.000	0.000	8	375	0.000	0.000
21:00 - 22:00	1	168	0.000	0.000	1	168	0.000	0.000	1	168	0.000	0.000
22:00 - 23:00												
23:00 - 24:00												
Total Rates:			0.002	1.690			0.002	1.690			0.004	3.380

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

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

TRIP RATE for Land Use 03 - RESIDENTIAL/G - STUDENT ACCOMMODATION
MULTI-MODAL CYCLISTS
Calculation factor: 1 RESIDE
Estimated TRIP rate value per 1014 RESIDE shown in shaded columns
BOLD print indicates peak (busiest) period

	ARRIVALS				DEPARTURES				TOTALS			
Time Range	No. Days	Ave. RESIDE	Trip Rate	Estimated Trip Rate	No. Days	Ave. RESIDE	Trip Rate	Estimated Trip Rate	No. Days	Ave. RESIDE	Trip Rate	Estimated Trip Rate
00:00 - 01:00												
01:00 - 02:00												
02:00 - 03:00												
03:00 - 04:00												
04:00 - 05:00												
05:00 - 06:00												
06:00 - 07:00												
07:00 - 08:00	9	367	0.000	0.000	9	367	0.003	2.765	9	367	0.003	2.765
08:00 - 09:00	9	367	0.001	1.229	9	367	0.004	3.995	9	367	0.005	5.224
09:00 - 10:00	9	367	0.001	0.922	9	367	0.005	5.531	9	367	0.006	6.453
10:00 - 11:00	9	367	0.000	0.000	9	367	0.002	1.536	9	367	0.002	1.536
11:00 - 12:00	9	367	0.001	1.229	9	367	0.003	2.765	9	367	0.004	3.994
12:00 - 13:00	9	367	0.001	1.229	9	367	0.001	1.229	9	367	0.002	2.458
13:00 - 14:00	9	367	0.003	3.073	9	367	0.002	1.844	9	367	0.005	4.917
14:00 - 15:00	9	367	0.002	2.458	9	367	0.002	1.536	9	367	0.004	3.994
15:00 - 16:00	9	367	0.004	3.687	9	367	0.001	0.615	9	367	0.005	4.302
16:00 - 17:00	9	367	0.003	3.073	9	367	0.000	0.000	9	367	0.003	3.073
17:00 - 18:00	9	367	0.004	3.687	9	367	0.001	0.922	9	367	0.005	4.609
18:00 - 19:00	9	367	0.004	3.687	9	367	0.002	2.458	9	367	0.006	6.145
19:00 - 20:00	9	367	0.001	1.229	9	367	0.000	0.307	9	367	0.001	1.536
20:00 - 21:00	9	367	0.001	0.922	9	367	0.001	0.922	9	367	0.002	1.844
21:00 - 22:00	1	168	0.006	6.036	1	168	0.000	0.000	1	168	0.006	6.036
22:00 - 23:00												
23:00 - 24:00												
Total Rates:			0.032	32.461			0.027	26.425			0.059	58.886

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.*

Vectos (North) Limited 4th Floor, Oxford Place, 61 Oxford St Manchester Licence No: 715001

TRIP RATE for Land Use 03 - RESIDENTIAL/G - STUDENT ACCOMMODATION
MULTI-MODAL PEDESTRIANS
Calculation factor: 1 RESIDE
Estimated TRIP rate value per 1014 RESIDE shown in shaded columns
BOLD print indicates peak (busiest) period

	ARRIVALS				DEPARTURES				TOTALS			
Time Range	No. Days	Ave. RESIDE	Trip Rate	Estimated Trip Rate	No. Days	Ave. RESIDE	Trip Rate	Estimated Trip Rate	No. Days	Ave. RESIDE	Trip Rate	Estimated Trip Rate
00:00 - 01:00												
01:00 - 02:00												
02:00 - 03:00												
03:00 - 04:00												
04:00 - 05:00												
05:00 - 06:00												
06:00 - 07:00												
07:00 - 08:00	9	367	0.004	4.302	9	367	0.009	9.525	9	367	0.013	13.827
08:00 - 09:00	9	367	0.006	6.145	9	367	0.044	44.555	9	367	0.050	50.700
09:00 - 10:00	9	367	0.008	8.296	9	367	0.038	39.024	9	367	0.046	47.320
10:00 - 11:00	9	367	0.009	9.525	9	367	0.032	32.571	9	367	0.041	42.096
11:00 - 12:00	9	367	0.019	19.051	9	367	0.029	29.805	9	367	0.048	48.856
12:00 - 13:00	9	367	0.026	26.733	9	367	0.034	34.415	9	367	0.060	61.148
13:00 - 14:00	9	367	0.033	33.493	9	367	0.038	39.024	9	367	0.071	72.517
14:00 - 15:00	9	367	0.030	30.113	9	367	0.032	31.956	9	367	0.062	62.069
15:00 - 16:00	9	367	0.043	43.325	9	367	0.032	32.878	9	367	0.075	76.203
16:00 - 17:00	9	367	0.047	47.935	9	367	0.024	24.582	9	367	0.071	72.517
17:00 - 18:00	9	367	0.042	42.711	9	367	0.035	35.029	9	367	0.077	77.740
18:00 - 19:00	9	367	0.050	51.007	9	367	0.031	31.342	9	367	0.081	82.349
19:00 - 20:00	9	367	0.032	32.571	9	367	0.021	21.202	9	367	0.053	53.773
20:00 - 21:00	9	367	0.035	35.029	9	367	0.020	20.587	9	367	0.055	55.616
21:00 - 22:00	1	168	0.042	42.250	1	168	0.012	12.071	1	168	0.054	54.321
22:00 - 23:00												
23:00 - 24:00												
Total Rates:			0.426	432.486			0.431	438.566			0.857	871.052

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.*

Vectos (North) Limited 4th Floor, Oxford Place, 61 Oxford St Manchester Licence No: 715001

TRIP RATE for Land Use 03 - RESIDENTIAL/G - STUDENT ACCOMMODATION
MULTI-MODAL PUBLIC TRANSPORT USERS
Calculation factor: 1 RESIDE
Estimated TRIP rate value per 1014 RESIDE shown in shaded columns
BOLD print indicates peak (busiest) period

	ARRIVALS				DEPARTURES				TOTALS			
Time Range	No. Days	Ave. RESIDE	Trip Rate	Estimated Trip Rate	No. Days	Ave. RESIDE	Trip Rate	Estimated Trip Rate	No. Days	Ave. RESIDE	Trip Rate	Estimated Trip Rate
00:00 - 01:00												
01:00 - 02:00												
02:00 - 03:00												
03:00 - 04:00												
04:00 - 05:00												
05:00 - 06:00												
06:00 - 07:00												
07:00 - 08:00	9	367	0.004	4.302	9	367	0.019	19.358	9	367	0.023	23.660
08:00 - 09:00	9	367	0.006	6.145	9	367	0.065	66.371	9	367	0.071	72.516
09:00 - 10:00	9	367	0.010	9.833	9	367	0.052	52.544	9	367	0.062	62.377
10:00 - 11:00	9	367	0.012	11.984	9	367	0.043	43.325	9	367	0.055	55.309
11:00 - 12:00	9	367	0.019	19.665	9	367	0.032	31.956	9	367	0.051	51.621
12:00 - 13:00	9	367	0.027	27.040	9	367	0.036	36.873	9	367	0.063	63.913
13:00 - 14:00	9	367	0.029	29.191	9	367	0.036	36.258	9	367	0.065	65.449
14:00 - 15:00	9	367	0.030	30.420	9	367	0.033	33.493	9	367	0.063	63.913
15:00 - 16:00	9	367	0.041	41.482	9	367	0.024	24.582	9	367	0.065	66.064
16:00 - 17:00	9	367	0.052	53.158	9	367	0.017	16.900	9	367	0.069	70.058
17:00 - 18:00	9	367	0.057	57.767	9	367	0.024	24.582	9	367	0.081	82.349
18:00 - 19:00	9	367	0.040	40.867	9	367	0.020	20.587	9	367	0.060	61.454
19:00 - 20:00	9	367	0.030	30.727	9	367	0.012	12.598	9	367	0.042	43.325
20:00 - 21:00	9	367	0.035	35.336	9	367	0.011	10.755	9	367	0.046	46.091
21:00 - 22:00	1	168	0.018	18.107	1	168	0.000	0.000	1	168	0.018	18.107
22:00 - 23:00												
23:00 - 24:00												
Total Rates:			0.410	416.024			0.424	430.182			0.834	846.206

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

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

TRIP RATE for Land Use 03 - RESIDENTIAL/G - STUDENT ACCOMMODATION
MULTI-MODAL TOTAL PEOPLE
Calculation factor: 1 RESIDE
Estimated TRIP rate value per 1014 RESIDE shown in shaded columns
BOLD print indicates peak (busiest) period
Total People to Total Vehicles ratio (all time periods and directions): 15.29

	ARRIVALS				DEPARTURES				TOTALS			
Time Range	No. Days	Ave. RESIDE	Trip Rate	Estimated Trip Rate	No. Days	Ave. RESIDE	Trip Rate	Estimated Trip Rate	No. Days	Ave. RESIDE	Trip Rate	Estimated Trip Rate
00:00 - 01:00												
01:00 - 02:00												
02:00 - 03:00												
03:00 - 04:00												
04:00 - 05:00												
05:00 - 06:00												
06:00 - 07:00												
07:00 - 08:00	9	367	0.010	10.447	9	367	0.034	34.415	9	367	0.044	44.862
08:00 - 09:00	9	367	0.015	14.749	9	367	0.115	116.456	9	367	0.130	131.205
09:00 - 10:00	9	367	0.022	22.738	9	367	0.098	99.249	9	367	0.120	121.987
10:00 - 11:00	9	367	0.026	26.733	9	367	0.082	83.271	9	367	0.108	110.004
11:00 - 12:00	9	367	0.048	48.856	9	367	0.074	75.282	9	367	0.122	124.138
12:00 - 13:00	9	367	0.057	57.767	9	367	0.074	75.282	9	367	0.131	133.049
13:00 - 14:00	9	367	0.071	72.209	9	367	0.081	82.042	9	367	0.152	154.251
14:00 - 15:00	9	367	0.066	67.293	9	367	0.072	72.824	9	367	0.138	140.117
15:00 - 16:00	9	367	0.094	94.947	9	367	0.064	65.142	9	367	0.158	160.089
16:00 - 17:00	9	367	0.107	108.160	9	367	0.044	44.555	9	367	0.151	152.715
17:00 - 18:00	9	367	0.105	106.009	9	367	0.062	62.684	9	367	0.167	168.693
18:00 - 19:00	9	367	0.097	98.327	9	367	0.057	57.460	9	367	0.154	155.787
19:00 - 20:00	9	367	0.068	69.136	9	367	0.036	36.258	9	367	0.104	105.394
20:00 - 21:00	9	367	0.077	78.047	9	367	0.036	36.258	9	367	0.113	114.305
21:00 - 22:00	1	168	0.089	90.536	1	168	0.024	24.143	1	168	0.113	114.679
22:00 - 23:00												
23:00 - 24:00												
Total Rates:			0.952	965.954			0.953	965.321			1.905	1931.275

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

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

TRIP RATE for Land Use 03 - RESIDENTIAL/G - STUDENT ACCOMMODATION
MULTI-MODAL LGVS
Calculation factor: 1 RESIDE
Estimated TRIP rate value per 1014 RESIDE shown in shaded columns
BOLD print indicates peak (busiest) period

	ARRIVALS				DEPARTURES				TOTALS			
Time Range	No. Days	Ave. RESIDE	Trip Rate	Estimated Trip Rate	No. Days	Ave. RESIDE	Trip Rate	Estimated Trip Rate	No. Days	Ave. RESIDE	Trip Rate	Estimated Trip Rate
00:00 - 01:00												
01:00 - 02:00												
02:00 - 03:00												
03:00 - 04:00												
04:00 - 05:00												
05:00 - 06:00												
06:00 - 07:00												
07:00 - 08:00	8	375	0.001	0.676	8	375	0.000	0.338	8	375	0.001	1.014
08:00 - 09:00	8	375	0.000	0.338	8	375	0.000	0.338	8	375	0.000	0.676
09:00 - 10:00	8	375	0.002	1.690	8	375	0.001	1.014	8	375	0.003	2.704
10:00 - 11:00	8	375	0.003	2.704	8	375	0.002	1.690	8	375	0.005	4.394
11:00 - 12:00	8	375	0.002	2.366	8	375	0.003	3.380	8	375	0.005	5.746
12:00 - 13:00	8	375	0.001	0.676	8	375	0.001	1.352	8	375	0.002	2.028
13:00 - 14:00	8	375	0.002	2.366	8	375	0.002	2.028	8	375	0.004	4.394
14:00 - 15:00	8	375	0.002	2.366	8	375	0.003	2.704	8	375	0.005	5.070
15:00 - 16:00	8	375	0.002	1.690	8	375	0.002	2.028	8	375	0.004	3.718
16:00 - 17:00	8	375	0.001	1.014	8	375	0.001	1.014	8	375	0.002	2.028
17:00 - 18:00	8	375	0.000	0.338	8	375	0.000	0.338	8	375	0.000	0.676
18:00 - 19:00	8	375	0.000	0.000	8	375	0.000	0.000	8	375	0.000	0.000
19:00 - 20:00	8	375	0.001	0.676	8	375	0.000	0.338	8	375	0.001	1.014
20:00 - 21:00	8	375	0.001	0.676	8	375	0.001	1.014	8	375	0.002	1.690
21:00 - 22:00	1	168	0.000	0.000	1	168	0.000	0.000	1	168	0.000	0.000
22:00 - 23:00												
23:00 - 24:00												
Total Rates:			0.018	17.576			0.016	17.576			0.034	35.152

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

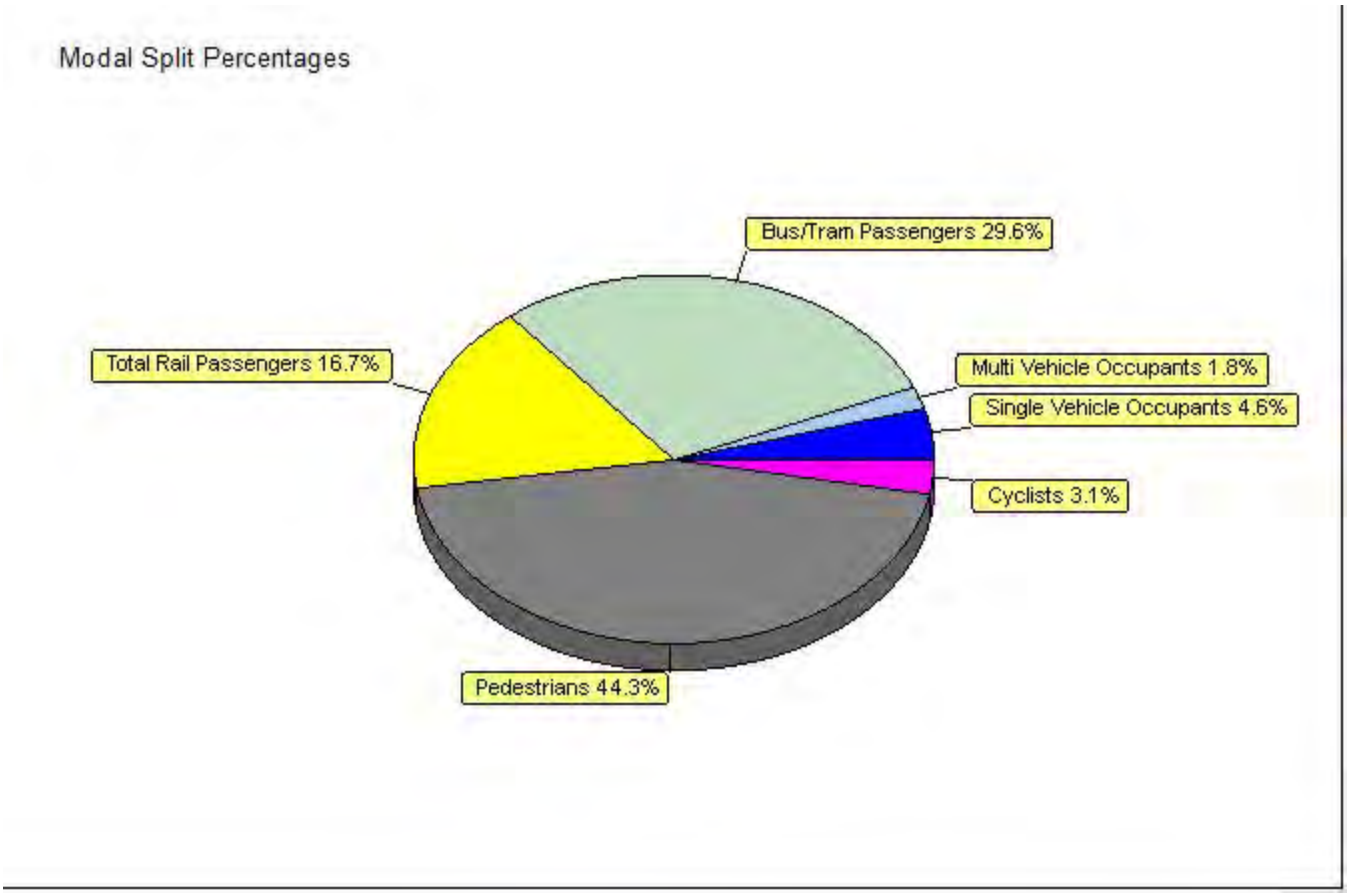
*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected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

TRIP RATE for Land Use 03 - RESIDENTIAL/G - STUDENT ACCOMMODATION
MULTI-MODAL MOTOR CYCLES
Calculation factor: 1 RESIDE
Estimated TRIP rate value per 1014 RESIDE shown in shaded columns
BOLD print indicates peak (busiest) period

	ARRIVALS				DEPARTURES				TOTALS			
Time Range	No. Days	Ave. RESIDE	Trip Rate	Estimated Trip Rate	No. Days	Ave. RESIDE	Trip Rate	Estimated Trip Rate	No. Days	Ave. RESIDE	Trip Rate	Estimated Trip Rate
00:00 - 01:00												
01:00 - 02:00												
02:00 - 03:00												
03:00 - 04:00												
04:00 - 05:00												
05:00 - 06:00												
06:00 - 07:00												
07:00 - 08:00	8	375	0.000	0.338	8	375	0.000	0.338	8	375	0.000	0.676
08:00 - 09:00	8	375	0.000	0.000	8	375	0.000	0.000	8	375	0.000	0.000
09:00 - 10:00	8	375	0.001	0.676	8	375	0.001	0.676	8	375	0.002	1.352
10:00 - 11:00	8	375	0.000	0.338	8	375	0.000	0.338	8	375	0.000	0.676
11:00 - 12:00	8	375	0.002	1.690	8	375	0.002	1.690	8	375	0.004	3.380
12:00 - 13:00	8	375	0.000	0.000	8	375	0.000	0.000	8	375	0.000	0.000
13:00 - 14:00	8	375	0.002	1.690	8	375	0.002	1.690	8	375	0.004	3.380
14:00 - 15:00	8	375	0.001	1.352	8	375	0.001	1.352	8	375	0.002	2.704
15:00 - 16:00	8	375	0.000	0.338	8	375	0.000	0.338	8	375	0.000	0.676
16:00 - 17:00	8	375	0.001	0.676	8	375	0.001	0.676	8	375	0.002	1.352
17:00 - 18:00	8	375	0.000	0.338	8	375	0.000	0.338	8	375	0.000	0.676
18:00 - 19:00	8	375	0.000	0.338	8	375	0.000	0.338	8	375	0.000	0.676
19:00 - 20:00	8	375	0.001	0.676	8	375	0.001	0.676	8	375	0.002	1.352
20:00 - 21:00	8	375	0.000	0.000	8	375	0.000	0.000	8	375	0.000	0.000
21:00 - 22:00	1	168	0.000	0.000	1	168	0.000	0.000	1	168	0.000	0.000
22:00 - 23:00												
23:00 - 24:00												
Total Rates:			0.008	8.450			0.008	8.450			0.016	16.900

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.*



Time Range/Peak Period Selection
Direction: Totals / Use All Times

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