

TRANSPORT ASSESSMENT

iQ Student Accommodation

Proposed Student Accommodation Development,
Echo Street, Manchester

April 2023

Transport Assessment
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Primary Author: Tom Reader Initialled: TR

Contributor: Charlie Jones Initialled: CJ

Review by: Richard Whiting Initialled: RW

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1 Introduction

Overview

- 1.1 This Transport Assessment (TA) has been prepared by Vectos on behalf of iQ Student Accommodation in support of a proposed student accommodation development on the site of the former Chandos Hall building at the corner of Granby Row and Echo Street in Manchester City Centre.
- 1.2 The planning application proposes the development of purpose-built student accommodation (sui generis) comprising 3 interlinked tower blocks with intermediary linking block buildings, associated amenity space and external landscaping. The development will provide a total of 1,224 purpose-built student accommodation (PBSA) bed spaces.
- 1.3 The location of the site is shown by the red star in **Figure 1.1** below.

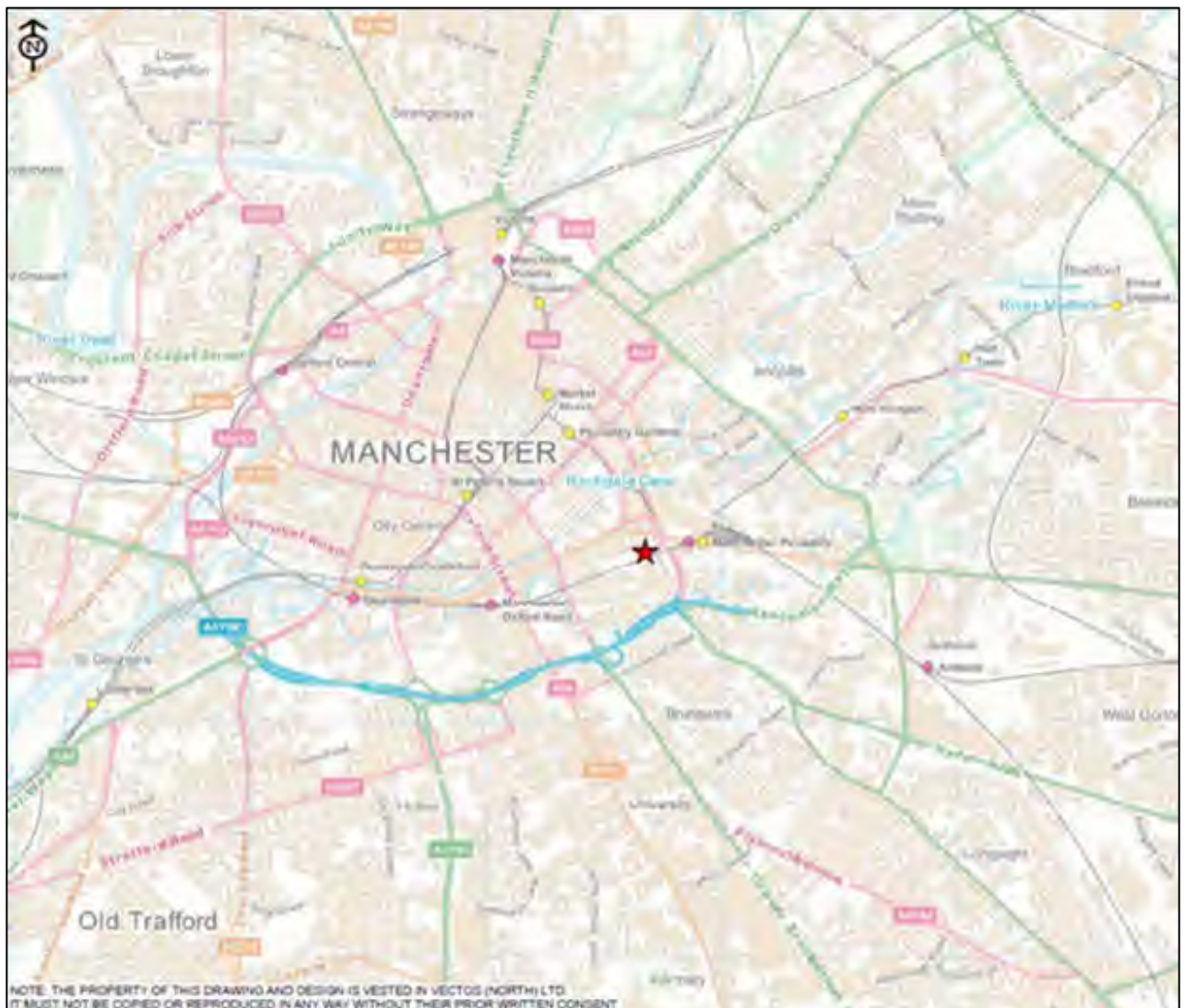


Figure 1.1: Site Location Plan

- 1.4 This report considers the transport and highway implications of the development specifically in relation to the following:

- Access and provision for pedestrians and cyclists;
- Public transport accessibility;
- Trip generation by all transport modes;
- Parking; and
- Servicing.

1.5 A Framework Travel Plan (FTP) also accompanies the planning application, setting out the measures that will be employed at the development to help facilitate travel by sustainable modes.

Background

- 1.6 The site was subject to a planning application in November 2017 (Ref: 118267/FO/2017) which sought:
- “Full planning permission for the demolition of existing buildings on site and their replacement with a mixed use (sui generis) development comprising 3 towers ranging in height (from 14, 20 and to 25 storeys (including lower ground floor level) and intermediary link buildings”*
- 1.7 That planning application was approved in June 2018. Since then, the former Chandos Hall building has been demolished and the site has been cleared.

Scoping

- 1.8 In developing this TA, pre-application scoping discussions have been held with highways and planning officers from Manchester City Council (MCC). A meeting was held on the 8th February 2023 with representatives from MCC Highways, Planning, Vectos and Turley. A meeting note is provided at **Appendix A** to this report. The meeting note has been agreed with the MCC officers that were in attendance.

Scope of Report

- 1.9 Following this introduction, this TA provides the following information:
- **Section 2: Policy Context** – outlines the national and local planning policy relevant to the proposed development;
 - **Section 3: Baseline Conditions** – discusses the development site, local highway network and existing public car parking available in the vicinity of the site;
 - **Section 4: Accessibility by Sustainable Modes of Transport** – describes the accessibility of the site by foot, cycle, bus, Metrolink and rail;
 - **Section 5: Development Proposals** – sets out the development proposals, access strategy and servicing strategy for the proposed development;
 - **Section 6: Development Trip Forecasts** – estimates the travel demands associated with the development; and
 - **Section 7: Summary and Conclusions** – summarises the findings of the TA and provides the report conclusions.

2 Policy Context

National Planning Policy Framework (2021)

- 2.1 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.
- 2.2 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.
- 2.3 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 Planning Policy

- 2.4 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.

Manchester Core Strategy 2012

- 2.5 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.'
- 2.6 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'*.

- 2.7 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.
- 2.8 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.’*
- 2.9 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.
- 2.10 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.’*
- 2.11 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

- 2.12 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.’*
- 2.13 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.'

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

Greater Manchester Transport Strategy 2040

- 2.15 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.
- 2.16 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
- 2.17 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.
- 2.18 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 to 2040

- 2.19 The City Centre Transport Strategy, developed by Transport for Greater Manchester, Manchester City Council and Salford City Council will guide how city centre transport is improved across the next two decades. It has been informed by a series of public consultation and engagement exercises, held over the last three to four years.
- 2.20 The strategy is a sub-strategy to the Greater Manchester Transport Strategy 2040. The vision, set out in the City Centre Transport Strategy, is for "a well-connected, zero-carbon city centre at the heart of the North, offering our residents, employees and visitors a great place to work, live and visit". The central aim is for 90 per cent of all trips to the city centre in the morning peak to be made on foot (including people using wheelchairs, mobility scooters or guide dogs), by cycle, or on public transport before 2040.
- 2.21 The strategy sets out proposals to further improve the city centre's public transport and active travel networks and reduce car-based trips over the longer term, leading to the cleaner, greener, healthier, inclusive and integrated transport network that supports the growth of the city centre.

- 2.22 Walking will be prioritised as the main way for people to get around a cleaner, less congested city centre, which will also see more people encouraged to cycle to key destinations and improved public transport connections. The city centre will be age friendly and accessible, with all proposed changes taking accessibility, inclusion and the needs of different groups of city centre users into account.

Summary

- 2.23 The local and national transport planning policy context for the development proposal has been reviewed. The proposed development is considered to align well with the core aims of policy, being in a sustainable location with excellent access by sustainable travel modes. Accessibility and inclusion are also important elements of the scheme design.

3 Baseline Conditions

Development Site and Location

- 3.1 The site is located close to Manchester Piccadilly Railway Station in Manchester City Centre. Broadly rectangular in shape, the site is bound by Granby Row to the north, Echo Street to the east, the railway viaduct to the south and a public park known as Vimto Gardens to the west. Furthermore, the application site includes part of the public highway within the vicinity of the development site.
- 3.2 The location of the site is shown by the red line boundary in a local context in **Figure 3.1** below, and in greater detail in **Dwg VN232539-G101**.



Figure 3.1: Site Location (Local Context)

- 3.3 The site lies to the south-east of the City Centre between Manchester Piccadilly and Manchester Oxford Road Railway Stations. As such, it is very well located for access to amenities within the City Centre.
- 3.4 The site is immediately adjacent to Manchester University North Campus and close to Manchester Metropolitan University's All Saints Campus. To the immediate north of the site on the other side of Granby Row are Lambert & Fairfield House student accommodation blocks, which are also owned and operated by iQ Student Accommodation.
- 3.5 The site previously accommodated Chandos Hall, a 14-storey building which provided purpose built student accommodation and this was demolished in 2019 following planning approval for redevelopment of the site (see section 1 for details). The site also accommodated a children's nursery (Echoes Day Nursery), which was relocated to Charles Street following demolition of the site.

- 3.6 The site is currently cleared following the demolition of the buildings and has been made secure with fencing and hoarding. It therefore currently generates no notable activity in terms of vehicle or pedestrian movements.

Surrounding Highway Network

Echo Street

- 3.7 Echo Street forms the eastern boundary of the site and links Altrincham Street to the south with Granby Row to the north. It is subject to a 20mph speed limit and permits two-way traffic movements. There are double yellow parking restrictions along the eastern side of Echo Street, with a single yellow line waiting restriction along the western side, enforcing the City Centre Controlled Parking Zone (CPZ) parking restriction (no parking between 08:00-20:00). The railway viaduct passes over the southern end of Echo Street.
- 3.8 There are footways and street lighting along both sides of Echo Street. The carriageway and footway of Echo Street was resurfaced in 2020. Echo Street is a low traffic flow and low traffic speed environment.

Granby Row

- 3.9 Granby Row forms the northern boundary of the site and is a one-way road in the westbound direction between the junction with London Road and South Pump Street, and between the junction with Back Acton Street and Cobourg Street.
- 3.10 Granby Row is accessed from London Road via a priority junction arrangement and can also be accessed via priority junctions with side roads of Echo Street which links to Altrincham Street to the south, and Back Acton Street and South Pump Street which link to Fairfield Street to the north.
- 3.11 Granby Row is pedestrianised for a section to the west of the site, allowing only pedestrian and cycle movements along this section. Granby Row is relatively wide at circa. 6m and there are on-street public parking bays provided along the southern edge of the carriageway in the vicinity of the site. These have been observed to be under-utilised throughout the day. A parking beat survey was undertaken of the 13 on-street parking spaces that front the site on Granby Row on Tuesday 14th March 2023. The results of the survey are shown in the graph in **Figure 3.2**, with the full survey results provided at **Appendix B**.
- 3.12 It can be seen from **Figure 3.2** that the survey recorded a maximum of 6 spaces being occupied at any one time throughout the 12-hour survey period (08:00-20:00) and for the majority of the day, the demand for parking was lower than this.
- 3.13 There are double yellow parking restrictions along the northern side of Granby Row. There are footways 2.0m-2.5m in width with street lighting provided and the road is subject to a 20mph speed limit. Granby Row is relatively lightly trafficked and is a low-speed traffic environment.

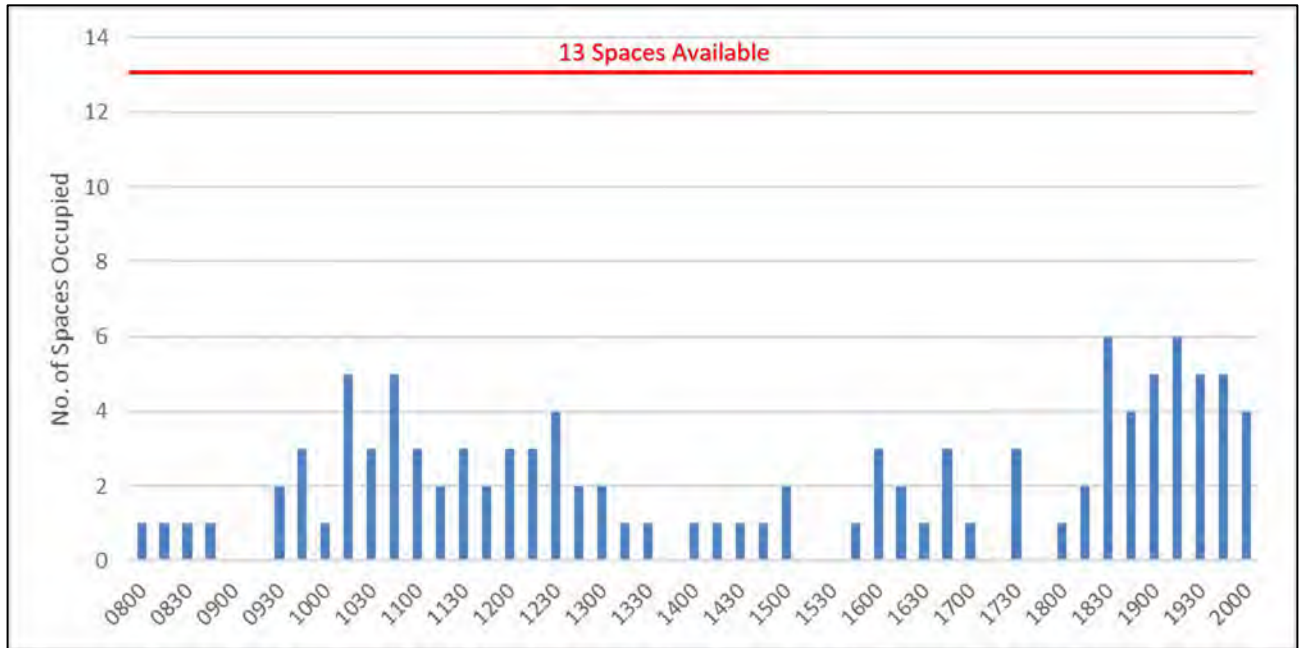


Figure 3.2: Results of Granby Row On-Street Parking Survey

A6 London Road

- 3.14 The A6 London Road is a primary arterial route connecting the city centre with areas to the south such as Stockport. It passes the site approximately 50m to the east and forms a large signalised junction with Fairfield Street just to the south-west of Piccadilly Station.
- 3.15 To the south of the junction with Fairfield Street, London Road accommodates two-way traffic and passes under the Mancunian Way and into Ardwick and Longsight. To the north of the site London Road continues into the centre of Manchester, towards Piccadilly Gardens. London Road is a principal bus route and there are seven regular bus services that operate this route.

Altrincham Street

- 3.16 Altrincham Street links the southern end of Echo Street with the A6 London Road to the east. It is a relatively narrow two-way street running parallel and to the south of the railway viaduct. There are cycle lanes provided along both sides of the carriageway. A footway with street lighting is provided along the southern side of the road. There is a double yellow waiting restriction along the northern side of the road and a single yellow restriction along the southern side. Altrincham Street forms a priority junction with the A6 London Road. As with Echo Street, it is relatively lightly trafficked.

B6469 Fairfield Street

- 3.17 The B6469 Fairfield Street runs to the north of the site. It is two-way and a principal route into the City Centre from the eastern suburbs of Manchester. There are wide footways and street lighting provided along both sides of the road, and an off-road cycle lane which runs along the southern side of the road.

Cobourg Street

- 3.18 Cobourg Street links Granby Row to Fairfield Street and is one - way in the northbound direction. There are on-street parking bays along the western side of the carriageway with double yellow parking restrictions on the eastern side. Footways around 2.0m in width are provided along both sides of the carriageway, with street lighting. Similar to Granby Row, it is a low speed, low flow environment.

Public Car Parking Provision

- 3.19 There is a considerable provision of public car parking in the area in the vicinity of the site. In addition to the on-street bays along Granby Row and Cobourg Street, the Piccadilly Place car park is located approximately 200m from the site and this provides a total of 583 spaces. Further car parks are available at Piccadilly Station (Boad Street) which provides 857 spaces, Charles Street (808 spaces) and Store Street (406 spaces). In total, these car parks provide over 2,500 spaces.
- 3.20 **Figure 3.3** shows the location of these car parks in relation to the site. All of these spaces are within a 500m walk of the site, and it is therefore considered that the site is well located in relation to public car parking.

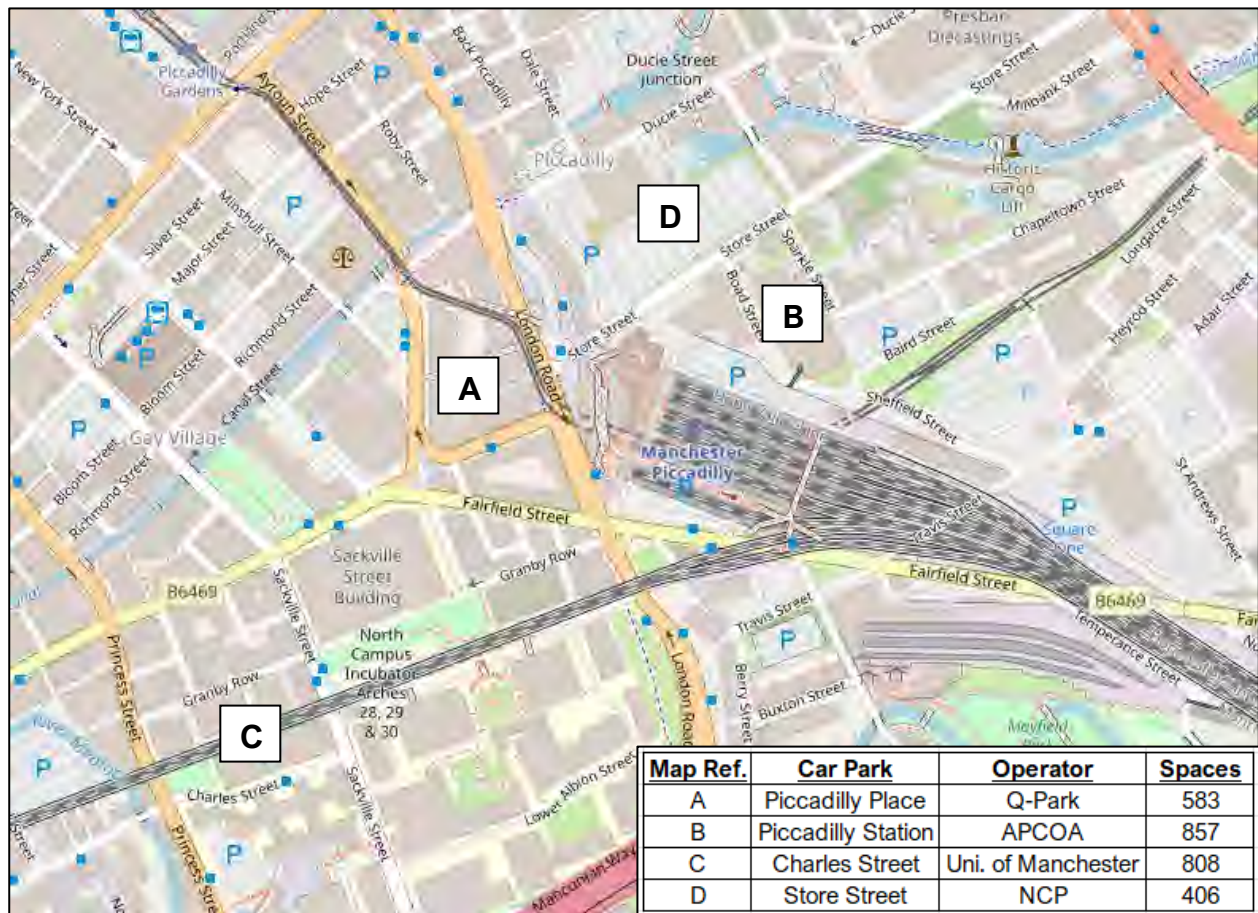


Figure 3.3: Public Car Parks in Vicinity of Site

Highway Safety Record

- 3.21 A review of the highway safety record for the roads in the vicinity of the site has been undertaken via reference to the crashmap online accident database. A plot showing the accident record in the vicinity of the site is provided in **Figure 3.4**.

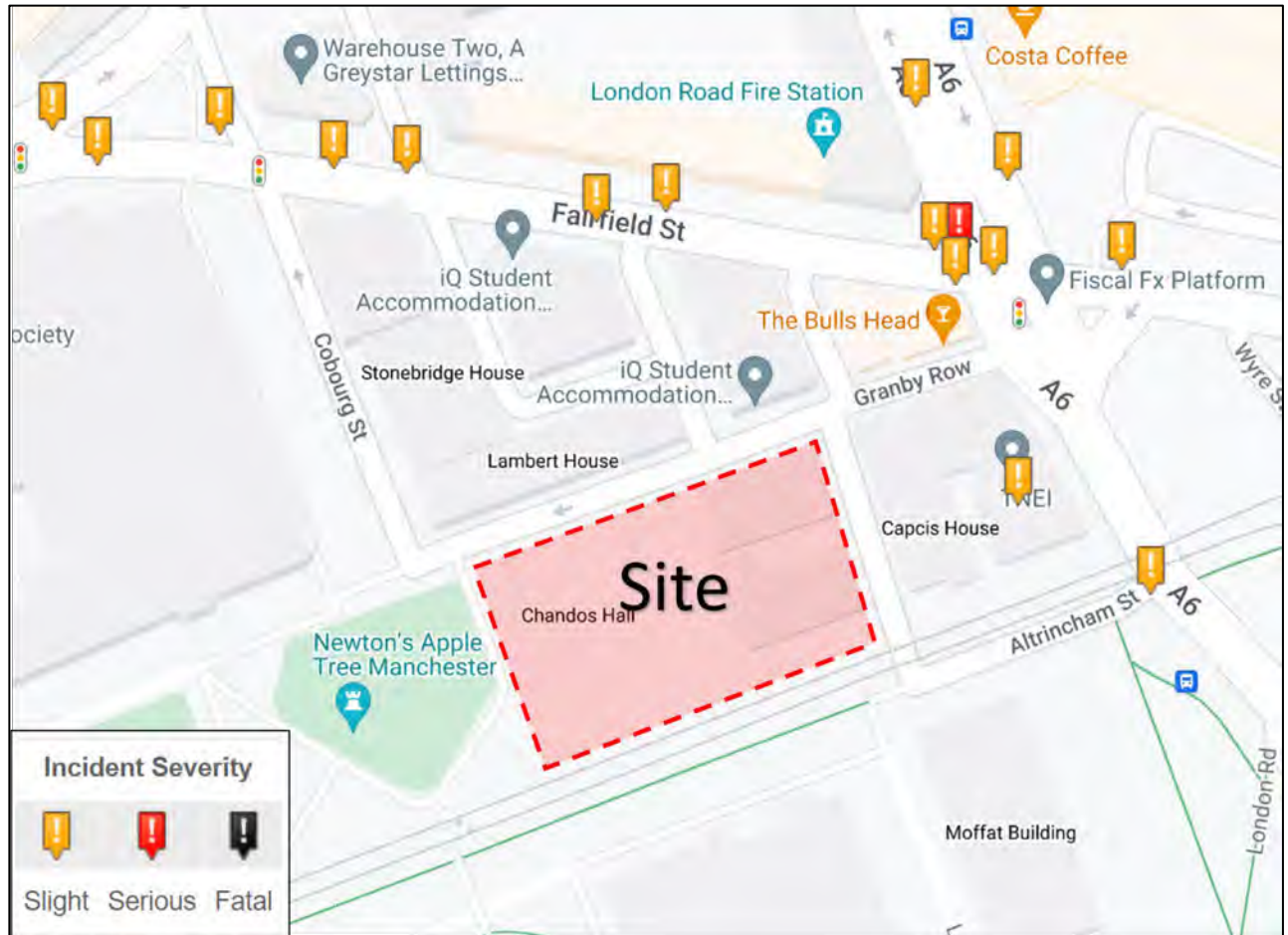


Figure 3.4: Accident Plot

- 3.22 **Figure 3.3** shows that there have been no accidents along the roads close to the site, with none recorded along Granby Road, Echo Street, Cobourg Street, Back Acton Street, South Pump Street, Minshull Street South or Ebdon Street. The accident record would not therefore give rise to any highway safety concerns in the immediate vicinity of the site.

Summary

- 3.23 The site lies to the south-east of the City Centre between Manchester Piccadilly and Manchester Oxford Road Railway Stations. As such, it is very well located for access to amenities within the City Centre. The site is currently cleared following the demolition of the buildings and has been made secure with fencing and hoarding.
- 3.24 The surrounding highway network has been reviewed and the roads in the immediate vicinity of the site are characterised by low traffic flow and low traffic speed environments. Footways along Granby

Row and Echo Street have recently been resurfaced creating an improved environment for pedestrians.

- 3.25 There are on-street parking bays along Granby Row offering a maximum stay of two hours and a survey of these has revealed that they are not well utilised.
- 3.26 Off-street parking opportunities in the area have been detailed and there are over 2,500 spaces within car parks that are within a 500m walk distance of the site.
- 3.27 The highway safety record for the roads around the site has been reviewed and the record shows that there are no highway safety concerns in the immediate vicinity of the site.

4 Accessibility by Sustainable Modes of Travel

Overview

- 4.1 This section of the report provides a review of the accessibility of the site by sustainable travel modes including an audit of pedestrian and cycle infrastructure in the area.
- 4.2 The site is aiming to achieve a high BREEAM score, and therefore, this section of the report considers various criteria contained within BREEAM Tra 01 (Public Transport Accessibility). In order to achieve these BREEAM credits, consideration has been given to the requirements for all users to be able to access the site accounting for varying levels and types of disability.

Walking Accessibility

- 4.3 The Institution of Highways and Transportation (IHT) document ‘*Guidelines for Providing for Journeys on Foot*’ (2000) suggest that a desirable walking distance for commuting purposes is 800 metres with the preferred maximum distance being 2 kilometres. Walking can also be promoted as part of a multi-modal journey, particularly with public transport.
- 4.4 In line with this guidance, **Dwg VN232539-G102** represents an 800m and 2km walking catchment from the site. This plan shows that an 800m catchment includes Manchester Piccadilly Railway and Metrolink stations, as well as a number of amenities within the Railway Station and on Station Approach. Furthermore, the 800m catchment includes key parts of Manchester City Centre such as Piccadilly Gardens. A 2km catchment is shown to cover the entirety of the City Centre providing access to extensive retail, employment and leisure opportunities. This catchment extends outside of the City Centre into parts of nearby residential areas including Ardwick and Brunswick. Notably, the 2km catchment includes the main campuses for both The University of Manchester and Manchester Metropolitan University.
- 4.5 The development will include some amenities within the site such as a cinema and games room that will help to reduce the need for students to travel off site. There is however a wide range of accessible amenities within a short walk of the site, a sample of which are identified in **Table 4.1**.

Accessible Amenity	Approx. distance from site
Costa Coffee	210m
Sainsbury’s Local	200m
Boots Pharmacy	250m
Co-Op	300m
ATM	180m
Vimto Park green space	80m
Gym	190m
Charles St Nursery	380m
GP Surgery ‘The Docs’	480m

Table 4.1: Sample of Accessible Amenities within 500m of the Site

- 4.6 Given the City Centre location of the proposals, accessibility for pedestrians to the surrounding area is very good and existing pedestrian links are present around the site which lead to the primary routes towards the centre of Manchester. All footways in the surrounding area are lit and there are crossing facilities across all the main highways, including across all arms of the A6 / B6469 crossroads junction to the east of the site. To support disabled users, footways are generally wide and most junctions are supported by dropped kerbs and tactile paving.
- 4.7 An audit of the pedestrian routes in the vicinity of the site has been undertaken and is provided at **Appendix C** to this report.
- 4.8 It is therefore clear that the existing pedestrian infrastructure within the vicinity of the site means that retail and leisure facilities, along with key transport hubs, can be safely reached on foot by future residents of the proposed development.

Cycling Accessibility

- 4.9 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 of 10mph (16kph). To demonstrate that cycling can be promoted for a range of users of varying ability, a 5km catchment is presented in **Dwg VN232539-G103**.
- 4.10 It can be seen in **Dwg VN232539-G103** that a 5km catchment encompasses the whole of Manchester City Centre and much of the surrounding conurbation including Whalley Range, Longsight, New Islington, Ancoats, Cheetham Hill and the main campus for the University of Salford.
- 4.11 **Figure 4.1** overleaf shows an extract from the Manchester Cycle Map which provides details on the cycle infrastructure in the vicinity of the site, with the site location shown by the red star.

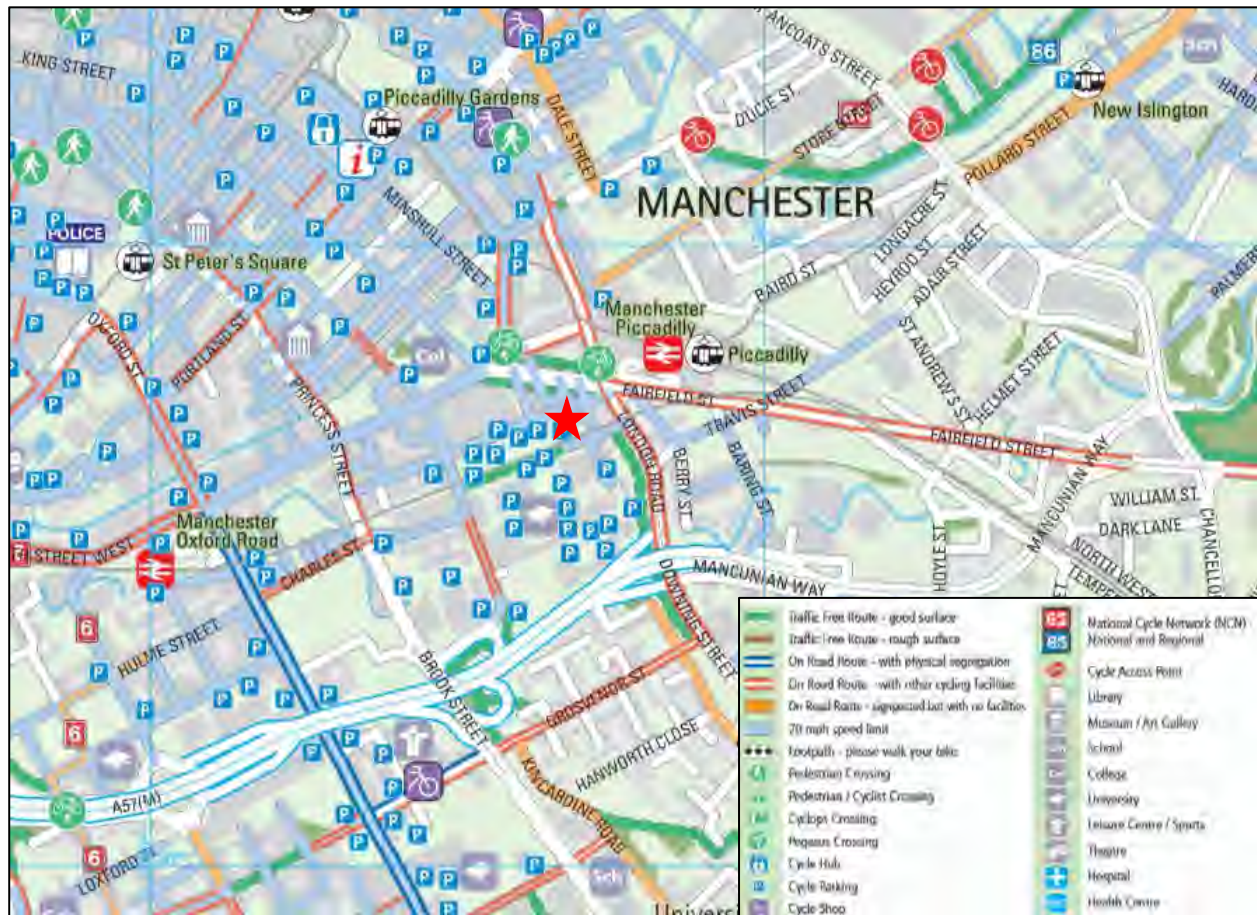


Figure 4.1: Manchester Cycle Map Extract

- 4.12 It can be seen from **Figure 4.1** that there are on-road routes along the B6469 Fairfields Street, presenting a coherent cycle route to the east of the site, and the A6 London Road. There are a number of traffic free routes in the immediate vicinity of the site, such as along the western section of Altrincham Street. The Oxford Road cycle lane corridor, which is an on-road route with physical segregation, runs to the south-west of the site and it can be accessed via Grosvenor Street, Downing Street and then the A6 London Road which are all on-road routes. It is therefore considered that the site is well located to encourage trips by cycle.

Public Transport Accessibility

- 4.13 Travel by public transport represents a key mode choice for journeys to and from the site given the site's excellent location in relation to public transport nodes.

Bus

- 4.14 The location of the site within Manchester City Centre means that it benefits from the many bus services that originate and terminate in the city. Whilst 400m is regarded ideally as the maximum walk distance to bus stops, where there are high frequency services it is not appropriate to be prescriptive in respect of this distance.
- 4.15 Piccadilly Gardens Bus Station lies approximately 600m north of the site, opening up the use of this bus station for regular bus travel to and from the site. Piccadilly Gardens Bus Station provides access

to key local destinations to the south of the Greater Manchester conurbation such as East and West Didsbury, Sale, Altrincham, Stockport, Manchester Airport and Woodford.

- 4.16 A plan showing the site location in relation to the surrounding city centre bus network is shown in **Figure 4.2**.



Figure 4.2: Site Location and Surrounding City Centre Bus Network

- 4.17 It can be seen that the site is close to the city centre Free Bus service routes 1 to 3 that provide frequent links around the city, with stops on Whitworth Street and Aytoun Street.
- 4.18 Public bus services are also available from Sackville Street, London Road, Princess Street and Oxford Road, with Oxford Road in particular providing a high frequency of bus services that link to the south of the city including university campuses such as the 42, 43, 142 and 143.
- 4.19 Bus services from the A6 provide a frequent connection to a number of destinations including Stockport, Denton, Levenshulme, Ashton-under-Lyne and Stalybridge, as well as Manchester City Centre. All of these services are reachable within 400m of the site and as such, it is considered that the site is highly accessible by this mode of travel.
- 4.20 All buses in Greater Manchester are designed to carry over 22 passengers on local and scheduled routes comply with the government's Public Service Vehicles Accessibility Regulations (PSVAR). These standards include:
- Bus drivers being able to provide disabled passengers with certain types of assistance such as deploying boarding ramps and lifts when required to assist wheelchair users to board or alight the vehicle; and
 - Free off-peak local bus travel for eligible disabled users at any time on a Saturday, Sunday or bank holiday and from 9:30am to 11pm on any other day.
- 4.21 In addition to the above, the majority of buses in Greater Manchester have low floors to further assist wheelchair users and audio-visual 'next stop' announcements to assist visually or hearing-impaired passengers.

Metrolink

- 4.22 The Manchester Metrolink tram network currently covers much of the Manchester conurbation, and the Manchester Piccadilly Metrolink station is located around 200m from the site. This station is easily accessible on foot via the existing footway network in the vicinity of the site and crossing facilities at the A6 / B6469 crossroads junction. There is also step free access to the metrolink platform. With the extensive network that the Metrolink covers, it is considered that it will offer an excellent option for travel to the site. The Metrolink network is shown in full in **Figure 4.3**.

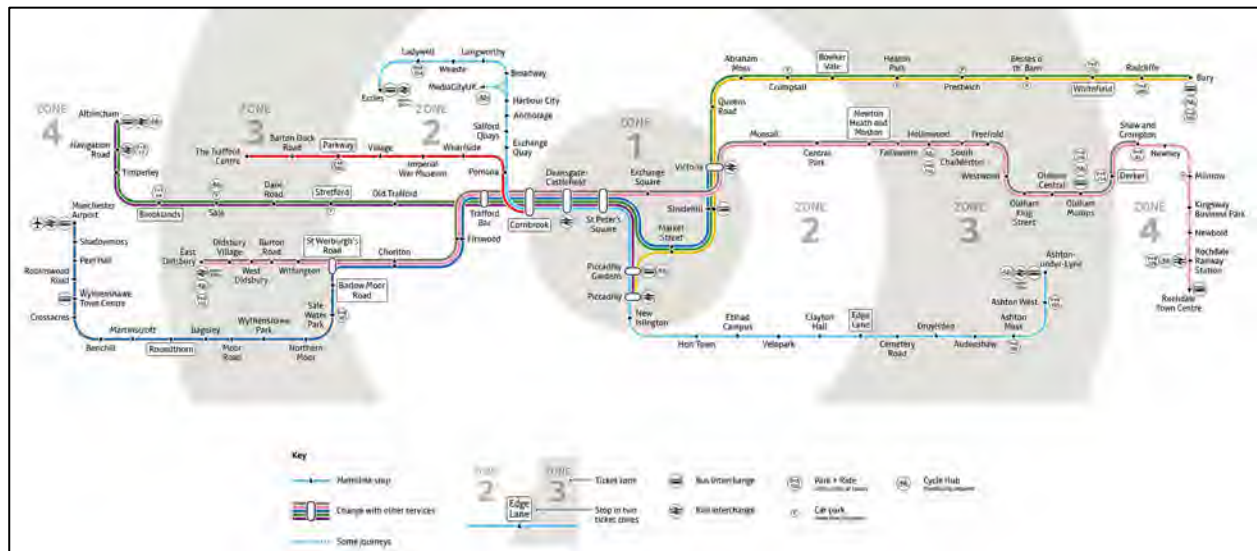


Figure 4.3: Manchester Metrolink Network

- 4.23 All Metrolink trams and stops comprise step free access to assist wheelchair users, and benefit from the appropriate signage and emergency call points.

Rail

- 4.24 The site is located around 200m to the west of Manchester Piccadilly Railway Station, which is a major national rail hub providing links to regional and national destinations including London, Leeds, Birmingham and Liverpool. Furthermore, the site is located 700m to the east of Manchester Oxford Road Railway Station which provides further links to national and regional destinations. The site is therefore in an excellent location to maximise the potential for trips by this sustainable mode of transport.

Greater Manchester Accessibility Level (GMAL)

- 4.25 Greater Manchester Accessibility Level (GMAL) is a detailed and accurate measure of the accessibility of a site to both the conventional public transport network (bus, Metrolink and rail) and Greater Manchester's Local Link (flexible transport service). The GMAL takes into account walk access time and service availability.
- 4.26 The method is a way of measuring the density of public transport provision at any location within the Greater Manchester region. The levels range from 1 which represents the least accessible sites to 8 which represents the most accessible sites.

- 4.27 **Figure 4.4** provides an extract of the GMAL Map for the area in the vicinity of the site, with the site location shown by the red star.

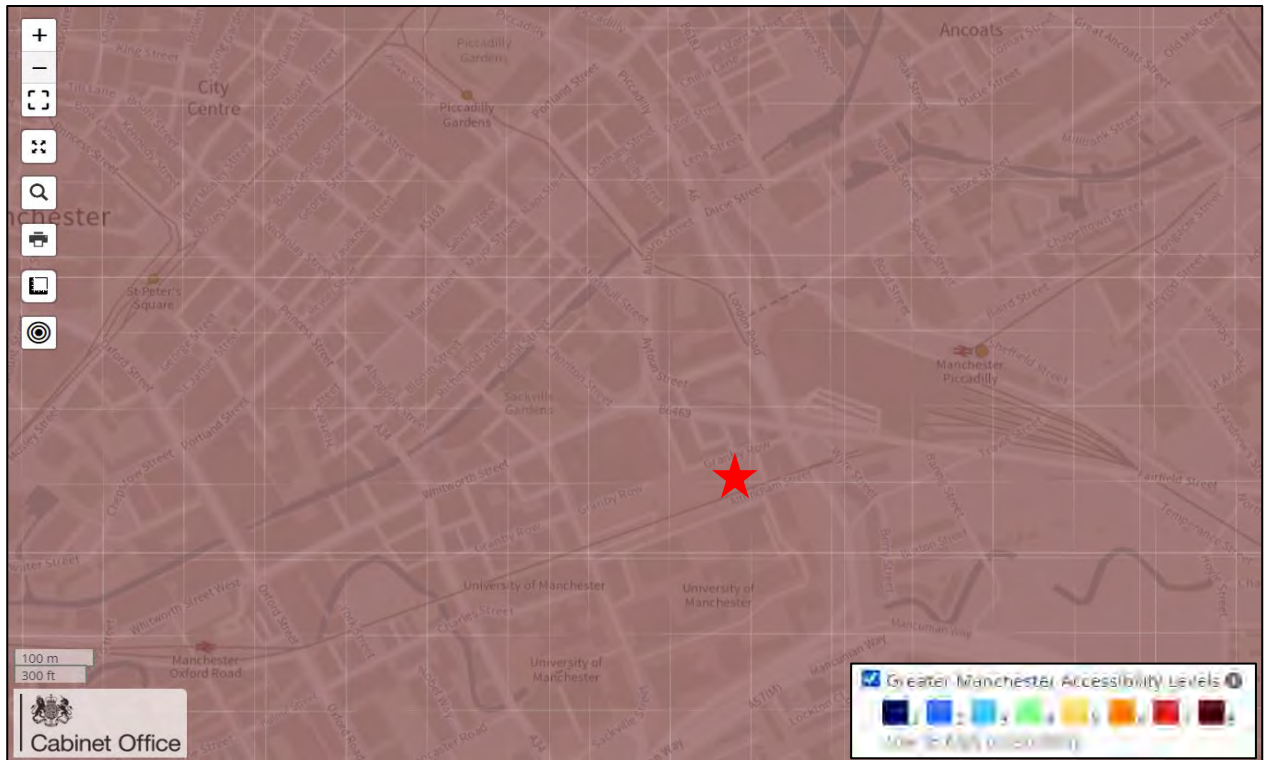


Figure 4.4: GMAL Map Extract

- 4.28 **Figure 4.4** shows that the site has a GMAL of 8 indicating that it is in a highly accessible area, and amongst the most accessible locations in Greater Manchester with excellent connections to local and regional public transport services. As a result, it would be easy to access the site without needing a car and this therefore confirms that the site represents great potential for being a car-free development.

BREEAM Public Transport Accessibility Index Assessment

- 4.29 A BREEAM pre-assessment for the site has also been conducted and the findings submitted to support the planning application. TRA01 outlines that the aim of this assessment is to recognise and encourage development in proximity of good public transport networks, thereby helping to reduce transport-related pollution and congestion.
- 4.30 The BREEAM Public Transport Accessibility Index Calculator has been used to generate the Accessibility Index for the development. An extract of this score is provided in **Figure 4.5**.

BREEAM 2018 Tra01/02 Accessibility Index Calculator

Public transport type: Multi-modal
Distance to public transport: 150m
Average frequency per hour: 2

NODE 1

Public transport type	Distance to public transport (m)	Service 1	Service 2	Service 3	Service 4	Service 5	Service 6	Service 7	Service 8	Service 9	Service 10
Bus	150	2	6	2	8	2					

NODE 2

Public transport type	Distance to public transport (m)	Service 1	Service 2	Service 3	Service 4	Service 5	Service 6	Service 7	Service 8	Service 9	Service 10
Bus	150	2	6								

NODE 3

Public transport type	Distance to public transport (m)	Service 1	Service 2	Service 3	Service 4	Service 5	Service 6	Service 7	Service 8	Service 9	Service 10
Rail	200	3	2	12	24	8	2				

AWC XC EMR Northern TPE TFW

Accessibility Index 25.90

Figure 4.5: BREEAM Public Transport Accessibility Index Calculator

- 4.31 It can be seen in **Figure 4.5** that the proposed development has an Accessibility Index of 25.90, which is considered to be an exceptional score. This score will therefore help the site to achieve its desired “excellent or better” BREEAM accreditation.

Car Club Opportunities

- 4.32 There are several car club sites in the area including on Samuel Ogden Street around 320m from the site. Car clubs provide the option of using a car without the need to own a car and can therefore help to sustain car free developments.

Summary

- 4.33 The accessibility of the site by sustainable travel modes has been reviewed. The site is well located to reduce the need to travel as it is close to a wide range of amenities in the city centre. The development will also provide facilities on site such as a gym that will help to reduce the need for travel off site.
- 4.34 The site is connected to an established network of footways that provide connectivity to the surrounding areas. An audit of the footway provision in the vicinity of the site has been undertaken and the key routes around the site are considered to be of a good standard. The site is also well located in relation to the city centre cycle network. There are bus, rail and Metrolink services available within a short distance of the site, providing excellent opportunity for trips to and from the site by public transport.

5 Development Proposals

Overview

- 5.1 The development proposals are for purpose-built student accommodation (sui generis) comprising 3 interlinked tower blocks with intermediary linking block buildings, associated amenity space and external landscaping. The development will provide a total of 1,224 purpose-built student accommodation (PBSA) bed spaces.
- 5.2 A copy of the proposed site layout plan is provided at **Appendix D** to this report.
- 5.3 Bed spaces will be provided within each of the 3 tower blocks, as well as in the linking block buildings. The breakdown of each proposed block is as follows:
- Block A (adjacent to Vimto Gardens)
 - o 16-storeys, providing 120 studios and 75 cluster bedrooms (225 bed spaces total)
 - Block B (middle block)
 - o 22-storeys, providing 115 studios and 255 cluster bedrooms (370 bed spaces total)
 - Block C (adjacent to Echo Street)
 - o 28-storeys, providing 162 studios and 275 cluster bedrooms (437 bed spaces total)
 - Link block AB (connecting blocks A and B)
 - o 12-storeys, providing 80 studios
 - Link block BC (connecting blocks B and C)
 - o 16-storeys, providing 112 studios

Amenity Spaces

- 5.4 A number of high quality, shared amenity spaces for the use of residents will be provided throughout the development. These will include a reception, lounge areas, study-space, a gym and post lockers. The majority of these amenity spaces would be provided at ground floor level in order to overlook and activate the public realm.

Public Realm Improvements

- 5.5 A number of public realm improvements are proposed along Granby Row and Echo Street and these can be seen in the ground site plan provided at **Appendix D** and the proposed general arrangement highways drawing **VN232539-D100 Rev B**.
- 5.6 It can be seen from this plan that under the proposals, the footway along the southern side of Granby Row would be widened along the site frontage. Additionally, a raised table arrangement will be provided to act as a traffic calming measure and to aid pedestrian movement across the street, and improved surface treatments will be provided. The pedestrian environment will therefore be significantly improved by these changes which will help to promote pedestrian movement to and from the site.

- 5.7 Eight of the existing thirteen on-street car parking bays along Granby Row adjacent to the site will be retained and two of these will be designated as disabled bays. It has been observed that these bays are under-utilised with a maximum demand for six spaces recorded by a parking beat survey in March 2023, and the proposed loss of five bays along Granby Row is not anticipated to result in any impact on overall parking provision in the City Centre. The availability of short-term parking along Granby Row will provide a convenient parking resource for those visiting the site by car.

Car Parking

- 5.8 No car parking will be provided within the site. It is expected that the majority of trips to and from the site will be made by modes other than the private car. The site is located in a highly accessible location for walking, cycling, bus, Metrolink and rail and therefore providing a car-free development at this location is considered acceptable.
- 5.9 Eight on-street pay and display car parking bays will be retained on Granby Row along the site frontage offering 2-hour parking. Two of these will be designated as disabled bays, providing additional width, to facilitate convenient car access to the development for the mobility impaired. Disabled users can also make use of the standard on-street bays along Granby Row and it should be noted that blue badge holders can park within on-street parking bays in the city centre for free without a time limit. Students at the development who may require a disabled parking facility will therefore be suitably accommodated with this proposed arrangement.
- 5.10 A number of public car parks have been shown to be available within a short walk of the site along with car club opportunities, and additionally there is excellent taxi provision located from outside Manchester Piccadilly Railway Station around 200m east of the site.
- 5.11 It is considered that students choosing to live in the city centre will not expect to have a car parking space and will choose to live in this location with the expectation of using sustainable modes of travel rather than a private car. Providing a car-free development for these tenure types is therefore considered appropriate for this location.
- 5.12 This car-free strategy is considered entirely appropriate for the site's City Centre location and accords with Policy T2 of the Manchester City Council Core Strategy, which states that new development within the City Centre should provide *'a level of car parking which reflects the highly accessible nature of the location, as well as the realistic requirements of the users of the development.'*

Cycle Parking

- 5.13 To enhance the convenience of cycle use and help promote this sustainable form of transport, 313 long stay cycle spaces will be provided within the site and 8 short-stay cycle spaces will be provided externally.
- 5.14 The long stay cycle parking will be provided within two secure cycle stores within the basement level of Blocks A and B, as shown in the proposed basement layout plan at **Appendix D**. The cycle parking will be a mix of single and double height stands.

- 5.15 The basement will be accessed via secure access gates leading onto Echo Street. The gates will be fob controlled for ease of access. Access to the basement will also be available from within the building via lift or stairs.
- 5.16 The proposed cycle parking provision is slightly above 0.25 spaces per bedroom which is the ratio that MCC identified as an appropriate minimum provision for this development. This level of provision is therefore considered appropriate for this development.
- 5.17 A total of 8 cycle parking spaces will be provided within the improved public realm on Granby Row in the form of 4 Sheffield stands.
- 5.18 The site benefits from being located 50m from a University of Manchester cycle parking facility which is located underneath the nearby railway arches. This facility provides over 120 covered spaces, and access to this is by key card for University of Manchester students only. There are a number of additional uncovered cycle spaces provided in this area for all users, and therefore this facility could present a further convenient cycle storage location for visitors to the site.

Access Strategy

- 5.19 Vehicular access to the site will be provided from its south-eastern corner on Echo Street. This access will be ramped, and it will provide access to the rear of the building for maintenance vehicles only. This will also be the access point for cyclists accessing and exiting the cycle store with their bike.
- 5.20 Pedestrian access will be provided from the northern façade of the development on Granby Row via a security lobby.

Servicing Strategy

- 5.21 A new loading bay will be provided on Echo Street. This will provide a convenient location for servicing and loading activity associated with the proposed development, and all servicing and loading activity will therefore be directed to Echo Street.
- 5.22 A swept path assessment showing a refuse vehicle and panel van accessing the loading bay is provided in drawing **VN232539-TR100 Rev B**. The loading bay is able to accommodate two small vans at one time, or a larger vehicle such as a refuse vehicle. Loading activity can also occur along Echo Street and Granby Row in accordance with the waiting restrictions on these roads however it is expected that the level of servicing and delivery activity generated by the development can be accommodated within the new loading bay.
- 5.23 Refuse collection will take place from Echo Street close to the bin store.

Summary

- 5.24 The development proposals are for purpose-built student accommodation (sui generis) comprising 3 interlinked tower blocks with intermediary linking block buildings, associated amenity space and external landscaping. The development will provide a total of 1,224 purpose-built student accommodation (PBSA) bed spaces.

- 5.25 Public realm improvements are proposed along Granby Row and Echo Street that will significantly improve the pedestrian environment, helping to promote pedestrian movement to and from the site.
- 5.26 Eight of the existing thirteen on-street car parking bays along Granby Row adjacent to the site will be retained and two of these will be designated as disabled bays. It has been observed that these bays are under-utilised, and the proposed loss of five bays along Granby Row is not anticipated to result in any impact on overall parking provision in the City Centre. The availability of short term parking along Granby Row will provide a convenient parking resource for those visiting the site by car.
- 5.27 No car parking will be provided within the site. It is expected that the majority of trips to and from the site will be made by modes other than the private car. The site is located in a highly accessible location for walking, cycling, bus, Metrolink and rail and therefore providing a car-free development at this location is considered acceptable.
- 5.28 Vehicular access to the site will be provided from its south-eastern corner on Echo Street. This access will be ramped, and it will provide access to the rear of the building for maintenance vehicles only.
- 5.29 Pedestrian access will be provided from the northern façade of the development on Granby Row via a security lobby.
- 5.30 A new loading bay will be provided on Echo Street. This will provide a convenient location for servicing and loading activity associated with the proposed development, and all servicing and loading activity will therefore be directed to Echo Street.

6 Development Trip Forecasts

Overview

6.1 To forecast the trip movements expected to arise from the proposed development, the TRICS trip rate database has been interrogated. A multi-modal analysis has been carried out to forecast the number of pedestrian and cycle trips as well as the number of vehicle trips generated by the proposed development.

Multi-Modal Trip Rates

6.2 Trip rates for the proposed student accommodation development have been derived from the TRICS trip rate database (version 7.9.4). A search of the database has been undertaken using the following criteria:

- Land use: Residential – Student Accommodation
- Areas: UK
- Location: Town Centre
- Date Range: 01/01/14 to 25/06/21
- Size: 15-1,100 units

6.3 The search returned two sites, as detailed in **Table 6.1**.

Site Reference	Location	No. of Bedrooms	No. of parking spaces	Operator	Comments
DY-03-G-02	Derby City Centre	350	3	University of Derby	The site consists of en suite student rooms with shared kitchens and communal living spaces. Site includes cycle parking facilities and is close to public transport services.
LB-03-G-02	Lambeth	1,100	0	urbanest	There are a range of rooms available which are arranged in apartments with shared kitchen, lounge and bathroom facilities. The site offers private bicycle storage and free to hire bicycles for occupants. On street cycle lanes are present on the roads adjacent to the site. The site is easily accessible using public

					transport, with Waterloo Station and Lambeth North Station approximately 500 metres away and local bus stops within 200 metres.
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Table 6.1: TRICS Student Accommodation Sites

- 6.4 Both of these sites are considered to be suitably representative of the proposed development for the purposes of trip rate forecasting given that they are in highly accessible city centre locations and provide limited or no on-site car parking.
- 6.5 The full TRICS output is provided at **Appendix E** to this report whilst a summary of the peak hour multi-modal trip rates is provided in **Table 6.2**. The trip rates are expressed as a rate per resident.

Mode	AM Peak			PM Peak			Daily		
	Arr	Dep	2 way	Arr	Dep	2 way	Arr	Dep	2 way
Total People	0.014	0.131	0.145	0.112	0.061	0.173	0.935	0.967	1.902
Total Vehicles	0.001	0.001	0.002	0.003	0.003	0.006	0.047	0.051	0.098
Cyclists	0.001	0.001	0.002	0.001	0.001	0.002	0.011	0.015	0.026
Pedestrians	0.005	0.062	0.067	0.054	0.032	0.086	0.447	0.47	0.917
Bus / Metrolink	0.005	0.052	0.057	0.041	0.018	0.059	0.304	0.326	0.63
Rail	0.001	0.014	0.015	0.013	0.01	0.023	0.127	0.125	0.252
Servicing / Delivery Vehicles	0.001	0.001	0.002	0.001	0.001	0.002	0.023	0.023	0.046

Table 6.2: Forecast Multi-Modal Trip Rates

Multi-Modal Trip Forecasts

- 6.6 Applying the trip rates set out in **Table 6.2** to the proposed number of residents (forecast at 1,462) gives the forecast trips as set out in **Table 6.3**.

Mode	AM Peak			PM Peak			Daily		
	Arr	Dep	2 way	Arr	Dep	2 way	Arr	Dep	2 way
Total People	20	192	212	164	89	253	1367	1414	2781
Total Vehicles	1	1	2	4	4	8	69	75	144
Cyclists	1	1	2	1	1	2	16	22	38
Pedestrians	7	91	98	79	47	126	654	687	1341
Bus / Metrolink	7	76	83	60	26	86	444	477	921
Rail	1	20	21	19	15	34	186	183	369
Servicing / Delivery Vehicles	1	1	2	1	1	2	34	34	68

Table 6.3: Forecast Multi-Modal Trips

- 6.7 **Table 6.3** shows that in the weekday morning peak hour (08:00-09:00), the proposed development could be expected to generate 212 trips by all modes. 97% of these would be by sustainable transport modes, either pedestrian, cycle, bus, metrolink or rail trips.
- 6.8 In the weekday evening peak hour (17:00-18:00) the number of total person trips could be expected to be 253, with 98% of these by sustainable travel modes.
- 6.9 Across the day, 96% of trips are expected to be by sustainable travel modes and around half of all trips could be expected to be by pedestrian trips and around a third by bus or metrolink. Cycle trips are expected to comprise around 1% of all trips throughout the day.
- 6.10 The forecast of vehicle trips shows that on a daily basis there could be around 60-70 arrivals and departures with around half of these being servicing / delivery vehicles.

Transport Network Effects

- 6.11 It has been shown that the greatest number of new trips to be generated by the proposed development will be pedestrian trips, with over 200 pedestrian movements leaving or arriving at the development in the PM peak hour once the journeys to access public transport stops are accounted for. The quality of the pedestrian infrastructure in the vicinity of the site will therefore be of paramount importance in ensuring that the demands for movement amongst those living and working at the site can be suitably met. The pedestrian infrastructure audit undertaken as part of this Transport Assessment has shown that the existing pedestrian infrastructure in the vicinity of the site is of a good quality and the proposed development will deliver improvements to the footways and crossing facilities in the area to help mitigate the additional demand that is forecast.
- 6.12 Trips by cycle are expected to be relatively low with 38 two-way trips across the day. This may increase over time particularly in response to the Travel Plan measures that will aim to promote cycle use. The cycle infrastructure review in Section 4 of this report identified that there are good cycle links in the vicinity of the site that will help to facilitate the expected cycle trips.
- 6.13 The proposed level of cycle parking for the development at over 300 spaces is expected to be more than adequate to cater for the anticipated demand amongst residents for cycle parking based on these cycle trip forecast numbers.
- 6.14 Trips by bus or Metrolink may number around 80 in each peak hour and these would be spread across multiple bus and Metrolink services that are available within a short distance of the site. The Oxford Road bus corridor may be particularly appealing to students at the development, as it provides access to the parts of the university campuses. That corridor is extremely well served by buses with services operating every few minutes and small increases in passenger demand that may arise from the proposed development can be accommodated without any notable effect upon available capacity.
- 6.15 Trips by rail are forecast at up to 34 in the PM peak. These are likely to be spread across multiple rail services available from Manchester Piccadilly and Oxford Road stations and therefore this increase in demand would be negligible in the context of available rail capacity.

Servicing and Delivery Trips

- 6.16 The forecast delivery and servicing trip activity throughout the day, based upon the TRICS information, is shown in **Table 6.4**.

Time	Delivery and Servicing Vehicle Arrivals
07:00-08:00	1
08:00-09:00	1
09:00-10:00	1
10:00-11:00	3
11:00-12:00	3
12:00-13:00	1
13:00-14:00	4
14:00-15:00	4
15:00-16:00	4
16:00-17:00	4
17:00-18:00	1
18:00-19:00	0
19:00-20:00	1
20:00-21:00	1
Total	29*

Table 6.4: Forecast Daily Servicing and Delivery Vehicle Arrivals *Figure differs from Table 6.3 due to rounding

- 6.17 It can be seen from **Table 6.4** that there could be a maximum of four delivery and servicing trips arriving to the development in any one hour, averaging at one every 15 minutes. This peak of activity occurs for the four-hour period between 13:00 – 17:00. Outside of this, the delivery and servicing activity is lower and for half of the day there is expected to be just one delivery or servicing trip per hour. It should be noted that, due to the proximity of the adjacent iQ student accommodation blocks at Fairfield House, Lambert House, Fletcher and Hollingworth House, some of the servicing and delivery trips for the proposed development would already be visiting this area and would not be new trips to the local highway network.
- 6.18 The majority of delivery and servicing trips are expected to be by van / light goods vehicle. The TRICS data shows that the development is expected to generate one larger goods vehicle per day.
- 6.19 The expected peak of four delivery and servicing trips per hour is expected to be accommodated within the new loading bay on Echo Street which can accommodate two vans at one time. Dwell times for deliveries are typically less than 10 minutes on average ensuring a high turnover of vehicles using the loading bay.

- 6.20 On occasion, the loading bay may be occupied when a delivery or servicing vehicle arrives. Should this occur, there is scope to accommodate loading activity along Echo Street outside of the loading bay and along Granby Row in accordance with the waiting restrictions on these roads.

Student Check in and Check out

- 6.21 The site previously accommodated a student accommodation block and therefore student arrival and departure activity is part of the established pattern of travel behaviour on the local road network. Measures that will be employed to ensure minimum disruption to the operation of the highway network during these arrival and departure periods are detailed as follows:
- Students are asked to complete an online pre-arrival questionnaire prior to moving into the property. This questionnaire will prompt them to select an arrival date and time (AM/PM/Out of Hours).
 - Limiting the number of arrival slots to a specified number of students, enabling iQ manage the number of people arriving at one time.
 - Residents will be asked to move cars to nearby car parks once vehicles are unloaded.
 - Providing students with a list of local short and long stay car parks to prevent congestion. This will include, Charles Street (808 spaces) and Q Park Piccadilly Place (600 spaces), all within a 400m walk of the site.
 - Employing additional staff for the busy move-in periods to ensure everyone arriving is given a personal welcome and any questions are answered immediately
 - Assigning certain staff to the specific role on luggage handling to ensure customer belongings are taken to their room as quickly as possible.
 - Assigning staff to parking and traffic management duties to ensure local routes are not disrupted.
 - iQ will be operating a paperless check in system to make the process even easier.
 - As their stay in Echo Street nears an end, students will be able to choose the date and time for their preferred check out through reception. A member of the operations team will meet the student at their room at their confirmed check out time and they will jointly undertake an end of tenancy inspection before returning to reception to complete the check out procedures.
 - Students who are temporarily checking out with the intention of returning to a future booking will be able to store items within the property (subject to space availability). This will reduce the loading associated with checking out.
 - Additionally, at the end of the year, although tenancy periods will end formally on the same day, students will often leave once their examination results are known and these will be announced to varying timetables. As a result, traffic or parking disruption during check out is minimal.

- 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.

Construction Vehicle Trips

- 6.22 As construction arrangements are not currently confirmed and phasing and programming are yet to be confirmed, the number and type of vehicles expected to attend the site during construction cannot be detailed at this stage. This information will be provided during the detailed design through a detailed Construction Environmental Management Plan / Construction Management Plan (CEMP / CMP), however preliminary estimates are provided here for information.
- 6.23 The daily movement of construction vehicles can typically occur over a 10-12 hour period but the timeframe may extend depending on the type of activity occurring on site. In general, the strategy is to avoid vehicle activity during weekday peak traffic periods (0800-0900 and 1700-1800).
- 6.24 Based on knowledge of other city centre tower developments, the construction vehicle movements could total around 70 two-way trips per day (35 vehicles) during the most intensive construction periods. These would comprise of various vehicle types such as LGVs, rigid trucks and articulated HGVs. Articulated HGVs could be expected to vary between 2 and 6 per day, for certain phases of construction, for limited periods.
- 6.25 Appropriate measures will be put in place to manage the construction traffic and these will be detailed in the CEMP / CMP.

Summary

- 6.26 A multi-modal trip forecast for the proposed development once operational has been provided, based on the TRICS trip rate database. This forecast has shown the expected number of trips by each key travel mode in the weekday morning and evening peak hours and across a typical day.
- 6.27 Across the day, 96% of trips are expected to be by sustainable travel modes and around half of all trips could be expected to be by pedestrian trips and around a third by bus or metrolink. Cycle trips are expected to comprise around 1% of all trips throughout the day.
- 6.28 The forecast of vehicle trips shows that on a daily basis there could be around 60-70 arrivals and departures with around half of these being servicing / delivery vehicles.
- 6.29 The effect of the trips by each mode has been considered in relation to the surrounding transport networks and infrastructure. The proposed development will deliver improvements to the footways and crossing facilities in the area to help mitigate the additional pedestrian demand that is forecast.
- 6.30 The forecast of delivery and servicing trips has shown that there could be a maximum of four delivery and servicing trips arriving to the development in any one hour, averaging at one every 15 minutes. This level of activity is expected to be accommodated within the new loading bay on Echo Street which can accommodate two vans at one time.

- 6.31 There will be times of increased demand for parking in the area at the beginning and end of term times when students check in and check out. Measures that will be employed by iQ to ensure minimum disruption to the operation of the highway network during these arrival and departure periods have been detailed.
- 6.32 A preliminary forecast of construction vehicle traffic has been provided and there could be expected to be up to around 35 construction vehicles visiting the site per day during the busiest construction periods. Appropriate measures will be put in place to manage the construction traffic and these will be detailed in the CEMP / CMP.

7 Summary and Conclusions

Summary

- 7.1 This Transport Assessment (TA) has been prepared by Vectos on behalf of iQ Student Accommodation in support of a proposed student accommodation development on the site of the former Chandos Hall building at the corner of Granby Row and Echo Street in Manchester City Centre.
- 7.2 The planning application proposes the development of purpose-built student accommodation (sui generis) comprising 3 interlinked tower blocks with intermediary linking block buildings, associated amenity space and external landscaping. The development will provide a total of 1,224 purpose-built student accommodation (PBSA) bed spaces.
- 7.3 The site lies to the south-east of the City Centre between Manchester Piccadilly and Manchester Oxford Road Railway Stations. As such, it is very well located for access to amenities within the City Centre. The site is currently cleared following the demolition of the buildings and has been made secure with fencing and hoarding.
- 7.4 The surrounding highway network has been reviewed and the roads in the immediate vicinity of the site are characterised by low traffic flow and low traffic speed environments. Footways along Granby Row and Echo Street have recently been resurfaced creating an improved environment for pedestrians.
- 7.5 There are on-street parking bays along Granby Row offering a maximum stay of two hours and a survey of these has revealed that they are not well utilised.
- 7.6 Off-street parking opportunities in the area have been detailed and there are over 2,500 spaces within car parks that are within a 500m walk distance of the site.
- 7.7 The highway safety record for the roads around the site has been reviewed and the record shows that there are no highway safety concerns in the immediate vicinity of the site.
- 7.8 The accessibility of the site by sustainable travel modes has been reviewed. The site is well located to reduce the need to travel as it is close to a wide range of amenities in the city centre. The development will also provide facilities on site such as a gym that will help to reduce the need for travel off site.
- 7.9 The site is connected to an established network of footways that provide connectivity to the surrounding areas. An audit of the footway provision in the vicinity of the site has been undertaken and the key routes around the site are considered to be of a good standard. The site is also well located in relation to the city centre cycle network. There are bus, rail and Metrolink services available within a short distance of the site, providing excellent opportunity for trips to and from the site by public transport.
- 7.10 The development proposals are for purpose-built student accommodation (sui generis) comprising 3 interlinked tower blocks with intermediary linking block buildings, associated amenity space and external landscaping. The development will provide a total of 1,224 purpose-built student accommodation (PBSA) bed spaces.

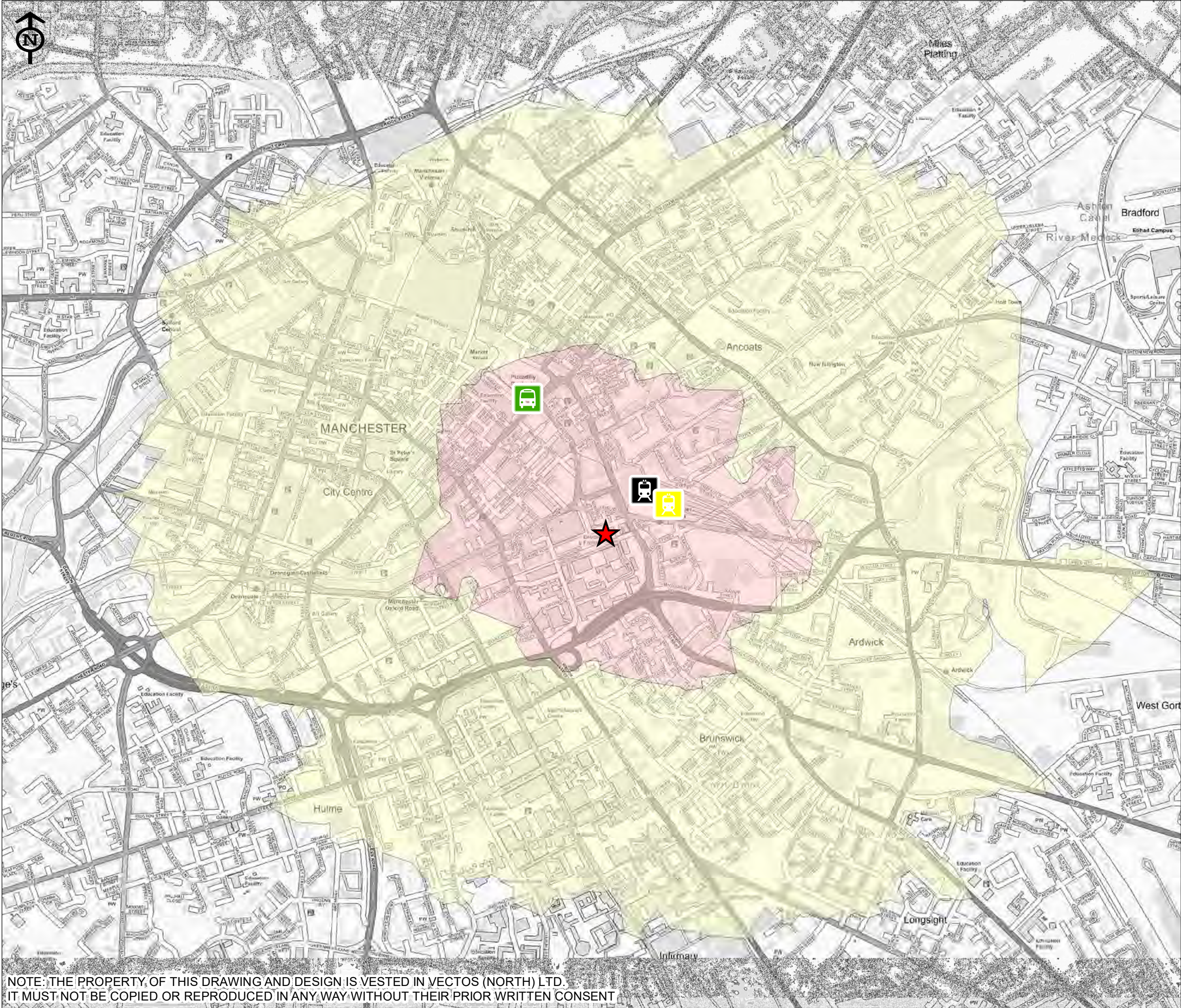
- 7.11 Public realm improvements are proposed along Granby Row and Echo Street that will significantly improve the pedestrian environment, helping to promote pedestrian movement to and from the site.
- 7.12 Eight of the existing thirteen on-street car parking bays along Granby Row adjacent to the site will be retained and two of these will be designated as disabled bays. It has been observed that these bays are under-utilised, and the proposed loss of five bays along Granby Row is not anticipated to result in any impact on overall parking provision in the City Centre. The availability of short term parking along Granby Row will provide a convenient parking resource for those visiting the site by car.
- 7.13 No car parking will be provided within the site. It is expected that the majority of trips to and from the site will be made by modes other than the private car. The site is located in a highly accessible location for walking, cycling, bus, Metrolink and rail and therefore providing a car-free development at this location is considered acceptable.
- 7.14 Vehicular access to the site will be provided from its south-eastern corner on Echo Street. This access will be ramped, and it will provide access to the rear of the building for maintenance vehicles only.
- 7.15 Pedestrian access will be provided from the northern façade of the development on Granby Row via a security lobby.
- 7.16 A new loading bay will be provided on Echo Street. This will provide a convenient location for servicing and loading activity associated with the proposed development, and all servicing and loading activity will therefore be directed to Echo Street.
- 7.17 A multi-modal trip forecast for the proposed development once operational has been provided, based on the TRICS trip rate database. This forecast has shown the expected number of trips by each key travel mode in the weekday morning and evening peak hours and across a typical day.
- 7.18 Across the day, 96% of trips are expected to be by sustainable travel modes and around half of all trips could be expected to be by pedestrian trips and around a third by bus or metrolink. Cycle trips are expected to comprise around 1% of all trips throughout the day.
- 7.19 The forecast of vehicle trips shows that on a daily basis there could be around 60-70 arrivals and departures with around half of these being servicing / delivery vehicles.
- 7.20 The effect of the trips by each mode has been considered in relation to the surrounding transport networks and infrastructure. The proposed development will deliver improvements to the footways and crossing facilities in the area to help mitigate the additional pedestrian demand that is forecast.
- 7.21 The forecast of delivery and servicing trips has shown that there could be a maximum of four delivery and servicing trips arriving to the development in any one hour, averaging at one every 15 minutes. This level of activity is expected to be accommodated within the new loading bay on Echo Street which can accommodate two vans at one time.
- 7.22 There will be times of increased demand for parking in the area at the beginning and end of term times when students check in and check out. Measures that will be employed by iQ to ensure minimum disruption to the operation of the highway network during these arrival and departure periods have been detailed.

- 7.23 A preliminary forecast of construction vehicle traffic has been provided and there could be expected to be up to around 35 construction vehicles visiting the site per day during the busiest construction periods. Appropriate measures will be put in place to manage the construction traffic and these will be detailed in the CEMP / CMP.
- 7.24 The local and national transport planning policy context for the development proposal has been reviewed. The proposed development is considered to align well with the core aims of policy, being in a sustainable location with excellent access by sustainable travel modes. Accessibility and inclusion are also important elements of the scheme design.

Conclusion

- 7.25 It is considered that the proposed development is in a sustainable location and the transport measures implemented with the development will enhance the sustainable transport outcomes for its occupiers and visitors.
- 7.26 This proposal does not adversely affect the operation of the highway or transport network and meets the criteria set out in national and local policy for sustainable development, and therefore it is considered that the scheme is acceptable in highways and transportation terms.

Drawings



Legend

- ★ Site Location
- Manchester Piccadilly Metrolink Stop
- Manchester Piccadilly Railway Station
- Piccadilly Gardens Bus Station

Walking Catchment

- 0 - 800m
- 800m - 2km

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CLIENT:

iQ Student Accomodation

PROJECT TITLE:

Echo Street, Manchester

DRAWING TITLE:

Walking Catchment

SCALE: 0 0.3 0.6 km

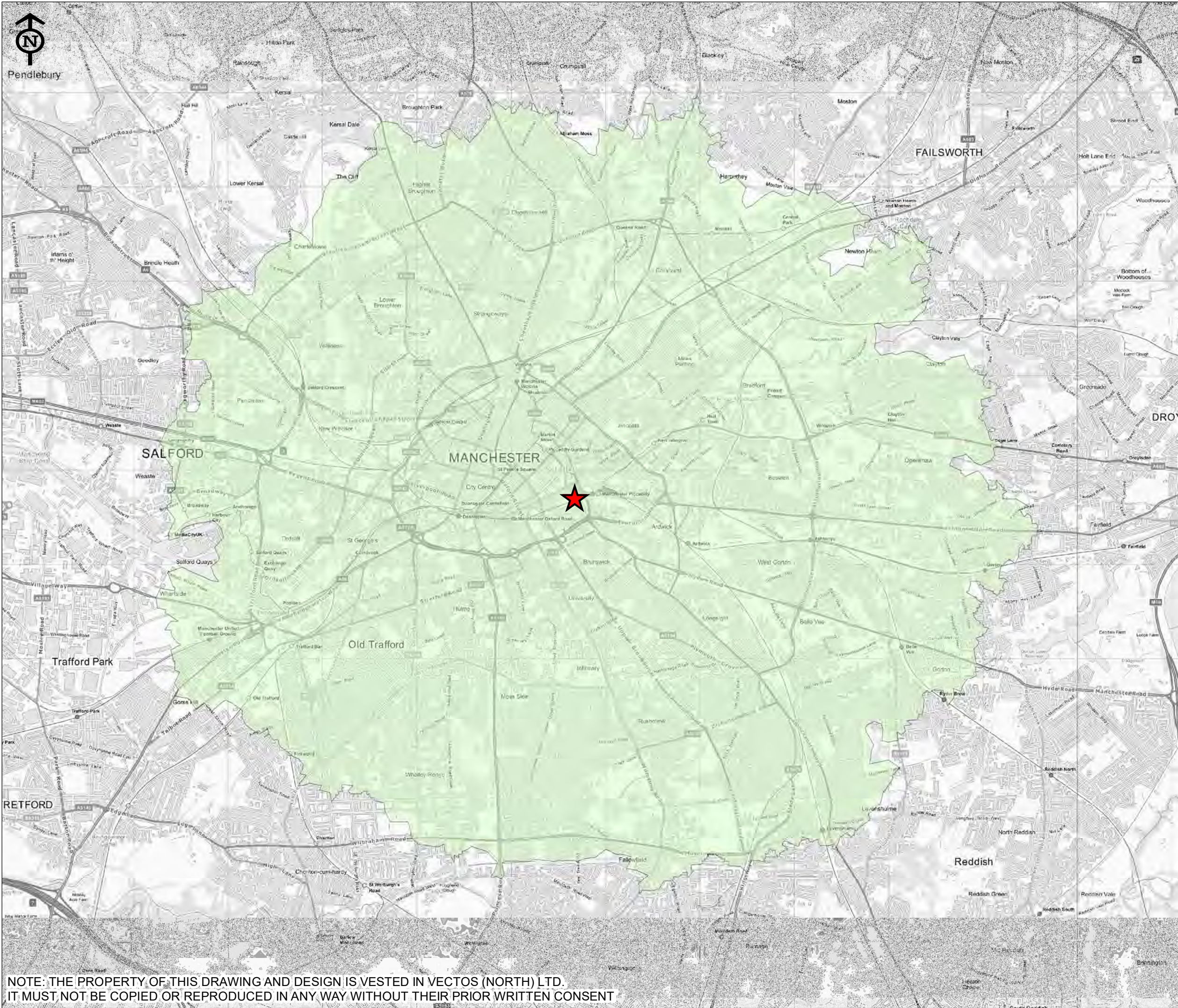
DRAWN:	CJ	CHECKED:	TR	DATE:	31/01/2023
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Oxford Place, 61 Oxford Street, Manchester M1 6EQ
t:0161 228 1008 e:manchester@vectos.co.uk

DRAWING NO:	VN232539-G102	REVISION:	
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Legend

 Site Location

Cycling Catchment

 0 - 5km

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CLIENT:
iQ Student Accomodation

PROJECT TITLE:
Echo Street, Manchester

DRAWING TITLE:
Cycling Catchment

SCALE: 0 1 2 km

DRAWN: CJ	CHECKED: TR	DATE: 01/02/2023
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Oxford Place, 61 Oxford Street, Manchester M1 6EQ
t:0161 228 1008 e:manchester@vectos.co.uk

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Refuse Vehicle

Panel Van



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REV.	DETAILS	DRAWN	CHECKED	DATE
A	Site layout updated	WD	TR	04.04.23
B	Site layout updated	WD	TR	27.04.23

Notes:
1. This is not a construction drawing and is intended for illustrative purposes only.
2. White lining is indicative only.

11.5m Large Refuse Vehicle (4 axle)

7.5t Panel Van

Echo Street, Manchester

Swept Path Analysis - Refuse Vehicle & Panel Van

DRAWN: WD

CHECKED: TR

DATE: 14.03.23

SCALES: 1:500 at A3

iQ Student Accommodation

vectos. | PART OF SLR

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

DRAWING NUMBER: VN232539-TR100

REVISION: B

Appendix A

MCC Scoping Meeting Note

Highways & Transport Meeting Note

Echo Street, Manchester - Proposed Student Accommodation Scheme

Location: Teams Meeting
Date: 08/02/23
Time: 13:00
Attendees:

Name	Initials	Company
Laura Wareing	LW	MCC (Highways)
Richard Thomas	RT	MCC (Highways)
Jennifer Atkinson	JA	MCC (Planning)
Olivia Carr	OC	Turley
Tom Reader	TR	Vectos
Richard Whiting	RW	Vectos

Reference	Description	Action Required	
		Initials	Date
1.0	The key transport and access elements of the previously approved (2018) development scheme at the site were described, noting that the approved scheme included: - Co-living and PBSA development totalling 884 beds - Public realm improvements on Echo St and Granby Row e.g. footway widening, raised table crossing points. - On-street car parking on Granby Row was proposed to be reduced from 13 to 8 spaces. - Car-free scheme. - Access into the site from Echo St for service vehicles / Network Rail access to the bridge. - New loading bay on Echo St for servicing and delivery activity. - Cycle parking for 174 private cycles plus a proposed cycle hire scheme for residents in the development providing 148 cycles. It was noted that the proposed public realm improvement works on Echo Street and Granby Row had progressed to an advanced stage following the previous planning approval as part of a S278 process. The designs didn't receive final sign off from MCC at the time as work on the project was halted. Vectos to share with MCC Highways the key information / drawings from that S278 process for information. The previous scheme servicing strategy had to take into account the potential Northern Hub Rail works that would close Altrincham St to traffic. In this scenario, the servicing / delivery activity would be moved to Granby Row.	TR	

Reference	Description	Action Required	
		Initials	Date
	Vectos asked MCC for confirmation on the status of Northern Hub Rail project and whether this was still something that needed to be accounted for in the scheme design? MCC to try to find out about Northern Hub Rail proposals in this area.	LW / RT	
2.0	The proposed development now being promoted for the site was described, noting that: • Designs are still emerging but proposals are for a 100% PBSA scheme • Current designs show 1,220 beds (increase of 336 beds on previous scheme) • Same principles as previous scheme in terms of car-free development, public realm improvements to Echo Street & Granby Row, same servicing strategy. • Cycle parking would be proposed at 1 space per 4 beds. No cycle hire facility proposed. LW agreed that the proposed cycle parking provision at 25% ratio spaces per beds was the minimum level that MCC would be seeking for this scheme so should be acceptable. LW noted that the loss of on-street parking spaces on Granby Row would incur a commuted sum cost of £50,000 per space. JA commented that it will be important to present the proposed servicing and delivery strategy, including waste management, as part of the application including consideration of the number of servicing and delivery trips and how these will be managed. LW commented that on another PBSA scheme, a condition had been applied to restrict certain delivery activities e.g. supermarket deliveries due to issues that these can cause for high density student schemes. This was mentioned as an example, but the application submission should seek to address these types of matters. TR confirmed that the Transport Assessment would include information on the delivery and servicing strategy and forecasts of expected delivery and servicing trips. JA noted that it will be important to address how the scheme can support student residents with a disability given the car-free nature of the scheme.		
3.0	Vectos confirmed that they will be preparing a Transport Assessment and Travel Plan to support the application. The scope of these were discussed, noting that: • The trip forecasting should be a multi-modal assessment to show the expected trips generated by the scheme on all key modes of transport, and likely movement patterns of students. • The TA should include an audit of the surrounding infrastructure relevant to all key modes of transport e.g. walking, cycling, bus. • Arrangements for pick-up / drop off activity at beginning and end of term times would be covered in the application submission.		

Reference	Description	Action Required	
		Initials	Date
4.0	RT noted that a Road Safety Audit and designer's response would likely be required to be submitted as part of the application, relating to the proposed changes to Echo Street and Granby Row. It may be that one was completed as part of the S278 process for the previous scheme, which may help to inform this, and this will be reviewed by Vectos. LW queried whether any specific cycle improvements to Echo St and Granby Row would be included as part of the highway works as there were some proposed as part of the previous scheme. TR confirmed that previously there were some new on-carriageway markings proposed however was unsure whether this had been included in the S278 works previously progressed, and that potential cycle improvements would be looked at again as part of the new scheme.		
5.0	With regards to an environmental impact assessment, RT noted that a transport chapter wouldn't be expected for the operational phase of the development, noting the car-free nature of the scheme, however for the construction phase, MCC would be interested in scoping that in due to the potential effects of construction traffic. JA agreed with this. OC noted that the EIA scoping report was due to be submitted on 17th February. LW recommended that any highways related email correspondence should include RT due to upcoming annual leave.		
6.0	TR confirmed that meeting notes of this meeting will be circulated for comment and approval.	TR	

Appendix B

Granby Row On-Street Car Parking Beat Survey Data

Time Beginning	Granby Row - Tuesday 14th March 2023	
	Number of Occupied Spaces	
	Zone	Total
	A	
0800	1	1
0815	1	1
0830	1	1
0845	1	1
0900	0	0
0915	0	0
0930	2	2
0945	3	3
1000	1	1
1015	5	5
1030	3	3
1045	5	5
1100	3	3
1115	2	2
1130	3	3
1145	2	2
1200	3	3
1215	3	3
1230	4	4
1245	2	2
1300	2	2
1315	1	1
1330	1	1
1345	0	0
1400	1	1
1415	1	1
1430	1	1
1445	1	1
1500	2	2
1515	0	0
1530	0	0
1545	1	1
1600	3	3
1615	2	2
1630	1	1
1645	3	3
1700	1	1
1715	0	0
1730	3	3
1745	0	0
1800	1	1
1815	2	2
1830	6	6
1845	4	4
1900	5	5
1915	6	6
1930	5	5
1945	5	5
2000	4	4

Appendix C

Pedestrian Routes Audit

	Footways	Street lighting	Pedestrian Crossing	Surface Quality
Granby Row / Vimto Gardens (See Photo Plate 1)	- Footways are provided on both sides of Granby Row. - Footway width on northern side = approx 2m. - Footway width on southern side = approx 3m. - Wide footways through Vimto Gardens.	Provided on both sides of Granby Row.	- A formal crossing with dropped kerbs and tactile paving located at the end of Granby Row adjacent to the A6. - Dropped kerbs at Echo St crossing, no tactiles.	- Footways on both sides of Granby Row are largely level, some uneven surfacing on northern side. - Concrete paving on the northern side. - Tiled paving on the southern side adjacent to nursery and grassy area opposite the university building. New surface provided in 2020. - Vimto Gardens footways well surfaced.
Cobourg St (See Photo Plate 2)	- Footways are provided on both sides. - Footway on the eastern side = approx 2m. - Footway on the western side = approx 2.5m.	Provided on both sides.	No formal crossings provided but dropped kerbs provided where the road adjoins Granby Row and Fairfield St.	- Footways on both sides are level. - Concrete paving on both footways. - Both footways are well surfaced.
Back Acton St (See Photo Plate 4)	- Footways provided on both sides. - Footway on eastern side = approx 2m. - Footway on western side = approx 2m.	Provided on both sides.	- No formal crossings. - Dropped kerbs provided where the road adjoins Fairfield St and Granby Row and Echo St.	- Concrete footways on both sides - Level footways on both sides - Slightly patchy surface on the eastern footway where some tiles have been used to replace concrete.
South Pump St (See Photo Plate 3)	- Footways provided on both sides. - Footway on eastern side = approx 2.5m but localised pinchpoint – street furniture. - Footway on western side = approx 3m. - The western footway doesn't have a kerb.	Provided on eastern side.	- No formal crossings. - Dropped kerbs provided where the road adjoins Fairfield St and Granby Road.	- Patchy surface on the western footway. - Both footways are concrete.
Echo St (See Photo Plate 5)	- Footways provided on both sides. - Footway on the western side = approx 2m. - Footway on the eastern side = approx 2m.	Provided on both sides.	- No formal crossings. - Dropped kerbs along the road (used to be old accesses).	- Patchy areas on eastern footway. - The majority of the eastern footway does not have a kerb and is made of concrete slabs. - The western footway has been recently resurfaced and of good standard. - The footway turns into a cycleway when the road adjoins Altrincham St.
Altrincham St (See Photo Plate 6)	- Footways provided on south side. - Footway on the southern side = approx 4.5m - No footway on the northern side as there is only a cycle lane provided.	- Provided on the southern side. - None provided where railway arches are.	Dropped kerbs located at the end of Altrincham St adjacent to the A6 for pedestrians to cross.	The footway is well surfaced and level.

Photo Plates

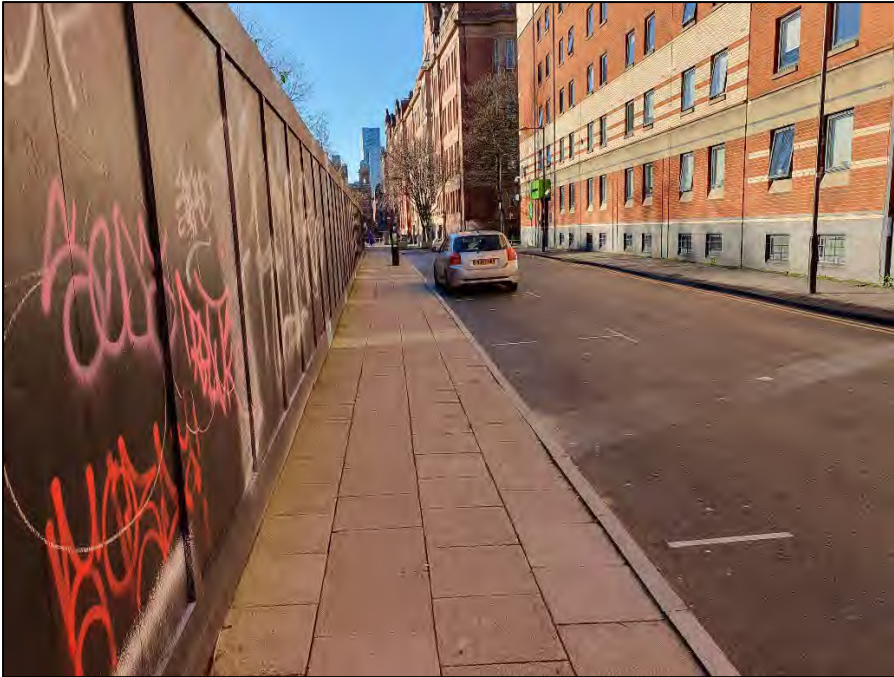


Photo Plate 1. Granby Row southern footway adjacent to site. Wide footway with good surfacing.



Photo plate 2. Cobourg Street western footway. Generally wide footway with adequate surfacing.



Photo plate 3. South Pump Street eastern footway. Adequate surfacing and width but pinchpoint created by street furniture.



Photo plate 4. Back Acton Street eastern footway. Adequate width and surfacing. Pinchpoints created by street furniture.



Photo plate 5. Echo Street. New footway surfacing on western side. Some uneven levels on eastern side.



Photo plate 6. Altrincham Street. Southern footway wide with adequate surfacing.

Appendix D

Proposed Site and Basement Layout Plans



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PLEASE NOTE:

- The measured areas shown for all en-suite clusters, studios and kitchens do not yet account for any protruding columns and will therefore reduce accordingly to account for these once locations and sizes are fully known.
- Wall lining has been allowed for to solid core walls, shears walls and other structural items however depth of wall lining subject to change dependent on acoustic requirements. This may result in room sizes reducing.
- Areas of ensuite bedrooms and studios include the area of the bathroom and the separating wall between bedroom and pod, but exclude the riser.
- Cluster kitchens will require a riser to provide drainage etc and will reduce the area stated accordingly. The location of this is as yet unknown until full fit outs have been progressed.
- Studio layouts shown are design intent only and follow Client's brief. Escape routes' distance from hobs to be tested and validated by Fire Strategy with fire suppression measures as necessary. Studio layouts in abeyance until signed-off by Building Safety Regulator (HSE), Building Control Officer, and Building Insurer.
- Ground Floor amenity space layout completed by Manalo + White Architects design intent only and follow Client's brief. Subject to further review and co-ordination with SRA and specialist consultants (incl. MEP, structure and fire engineer)

Department Legend

- Amenity Space
- Studios
- 5 Bedroom Cluster (incl Kitchen / Living)
- 6 Bedroom Cluster (incl Kitchen / Living)
- BOH Areas (incl Plant, Services, Stores etc)
- Circulation
- Preferred Structural Column Locations (WIP / Indicative only and subject to change)

REV.	DATE	AMENDMENT
P01	18/01/23	First Issue - Issued for Information
P02	23/01/23	Cores updated following comments from fire engineer (as clouded)
P03	03/02/23	Layouts amended following client + design team comments
P04	27/02/23	Layouts updated following client + design team comments. Preliminary internal floor layouts included
P05	10/03/23	Minor amendments to layouts to suit DT comments. Bedroom + Studio room tags updated.
P06	24/03/23	Draft Issue for Planning (Incl. minor updates)
P07	11/04/23	Proposed M+W amenity space layout updated
P08	14/04/23	Planning Issue

KEYPLAN

Plan Key

- Site Boundaries
- Planning Application Boundary
- Applicant Ownership
- Network Rail Ownership

CLIENT

IQ Student Accommodation

ic Student Accommodation

STATUS **PURPOSE FOR ISSUE**

S2 **Planning**

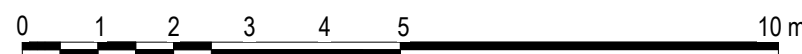
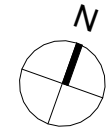
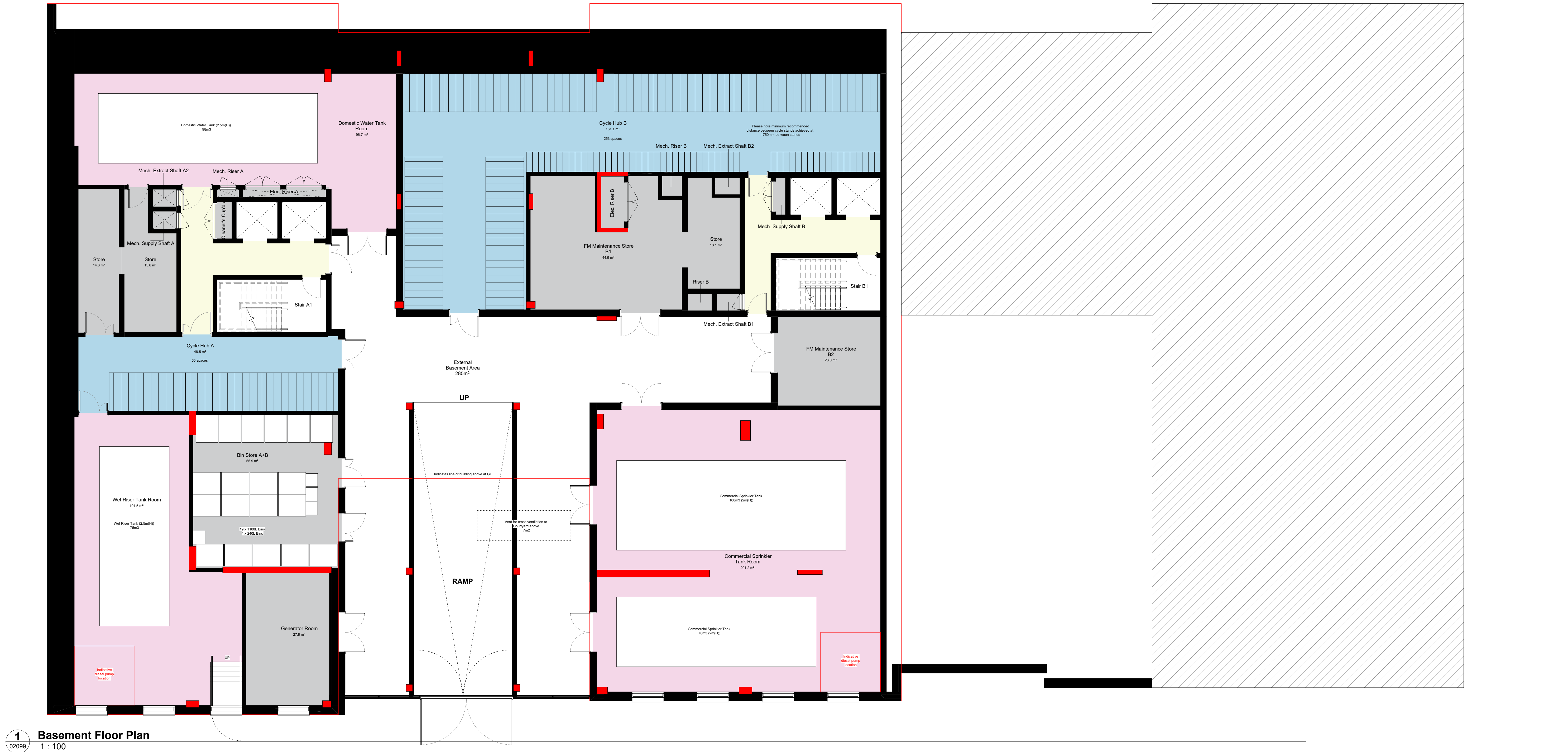
SHEPPARD ROBSON

27th Floor City Tower Piccadilly Plaza Manchester M1 4BT
T: +44 (0)161 233 8900 E: enquiries@sheppardrobson.com

SCALE@A1 DATE ORIGINATOR CHECKED AUTHORISED
1 : 100 14/04/23 LK VC RG

PROJECT
Echo Street
General Arrangement
Ground Floor Plan

Stage 2 **7054**
DRAWING NO. **REV.**
ECHO-SRA-ZZ-00-DR-A-02100 **P08**



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PLEASE NOTE:

1. The measured areas shown for all en-suite clusters, studios and kitchens do not yet account for any protruding columns and will therefore reduce accordingly to account for these once locations and sizes are fully known.

2. Wall lining has been allowed for to solid core walls, shears walls and other structural items however depth of wall lining subject to change dependent on acoustic requirements. This may result in room sizes reducing.

3. Areas of ensuite bedrooms and studios include the area of the bathroom and the separating wall between bedroom and pod, but exclude the riser.

4. Cluster kitchens will require a riser to provide drainage etc and will reduce the area stated accordingly. The location of this is as yet unknown until full fit outs have been progressed.

5. Studio layouts shown are design intent only and follow Clients brief. Escape routes' distance from hobs to be tested and validated by Fire Strategy with fire suppression measures as necessary. Studio layouts in abeyance until signed-off by Building Safety Regulator (HSE), Building Control Officer, and Building Insurer.

Department Legend

- Water Tanks (incl. Domestic, Commercial & Wet Riser)
- Cycle Stores (313 spaces)
- BOH Areas (incl Plant, Services, Stores etc)
- Circulation
- Preferred Structural Column Locations (WIP / Indicative only and subject to change)

REV.	DATE	AMENDMENT
P01	23/01/23	First Issue - Issued for Information
P02	03/02/23	Layouts amended following client + design team comments
P03	27/02/23	Layouts updated following client + design team comments. Preliminary internal fitout layouts included
P04	24/03/23	Draft Issue for Planning (Incl. minor updates)

KEYPLAN

CLIENT

IQ Student Accommodation



STATUS
S2

PURPOSE FOR ISSUE
Planning

SHEPPARD ROBSON

27th Floor City Tower Piccadilly Plaza Manchester M1 4BT
T: +44 (0)161 233 8900 E: enquiries@sheppardrobson.com

SCALE@A1 DATE ORIGINATOR CHECKED AUTHORISED
1 : 100 24/03/23 LK VC RG

PROJECT
Echo Street
General Arrangement
Basement Plan

Stage 2 SR NO. **7054**
DRAWING NO. REV.
ECHO · SRA · ZZ · B1 · DR · A · 02099 **P04**



KEY	
	PLANNING APPLICATION BOUNDARY
	NETWORK RAIL OWNERSHIP BOUNDARY
	LAND OWNERSHIP BOUNDARY

HARDWORKS	
	PERFECTA PAVING Location: To Footpaths Product: Marshalls 'Perfecta' or equal and approved Size: 400 x 400 x 50mm Laying: Stretcherbond - Rigid Buildup
	YORKSTONE PAVING Location: To Main Entrance to Building Product: Marshalls 'Scoutmoor' or equal and approved Size: 600 x 300 x 50mm Laying: Stretcherbond - Rigid Buildup
	YORKSTONE SETTS Location: To Grindley Row Pedestrian Crossing Product: Marshalls 'Scoutmoor' or equal and approved Size: 100 x 80 x 40mm Laying: Stretcherbond - Rigid Buildup
	TEGULA SETTS Location: To Parking Bays on Grindley Row Product: Marshalls 'Tegula Cobble' or equal and approved Colour: Traditional Size: 80 x 80 x 40mm Laying: Stretcherbond - Rigid Buildup
	TEGULA SETTS Location: To demarcate parking bays + to hatched area of disabled bays Product: Marshalls 'Tegula Cobble' or equal and approved Colour: Pennington Grey Size: 80 x 80 x 40mm Laying: Stretcherbond - Rigid Buildup
	HMA CARRIAGEWAY - TO BE RESURFACED Existing surface to be planned off. Task coat & new Blacktop HMA surface to be laid. To Engineer's Specification. Re-lined as required to match existing highway arrangements.
	GRAVEL STRIPE Location: To southern building facade interface Product: C70 Stone 'Budd Thomas Gravel' or equal and approved Colour: Buff Size: 20mm

SOFTWORKS	
	PROPOSED TREE PLANTING - IN HARD Planted in proposed layout underground gully & connected to drainage system as required.

LIGHTING	
Note: - LUX level requirements and design subject to discussion with MEP Engineer	
	LIGHTING COLUMN - Approximate existing positions & numbers - Luminaire & Column to be replaced with MCC Adoptable standard Philips Mini Lume or similar. - Strategy & Specification to be developed
	WALL MOUNTED LIGHTING - To be installed on building facade - (approx) Luminaire Watt 2200 or equal and approved - Mounted at 4m Height. - Subject to discussion & co-ordination with architects.

FURNITURE	
	CYCLE STAND Steel flatbar square profile. Finish: Powdercoated (matte) Colour: TBC Product: 'Ekkiflex' by Runge or similar.
	TREE FRAME Type: Absorbent Borecast Metal Tree Frame laid flush to adjacent paving Material: Stainless Steel Size: 1.8 x 1.8 m Loose pea gravel infill - 6mm Aggregate
	AUTOMATIC PERFORATED METAL GATE 1 - Metal gate with steel mesh screens fixed to steel box frame. - Gates and screens to be porousity for wind mitigation. - To include set of doors for vehicular / cycle access. Location: To gated access point off Echo Street and fire exit to western courtyard. Material: Galvanised Steel, Flatbar. Finish: Powder coated (matte) Colour: TBC. Size: Varies
	AUTOMATIC PERFORATED METAL GATE 2 - Gate to be porousity for wind mitigation Location: To basement servicing room Material: Galvanised Steel, Flatbar. Finish: Powdercoated (matte) Colour: TBC. Size: Approx 4.9m x 2.3m
	DEEP PROFILE FLATBAR STEEL RAILING - To be installed on existing wall Location: To Vinto Park interface wall Material: Galvanised Steel, Flatbar. Finish: Powdercoated (matte) Colour: TBC. Size: Approx 4.5m x 1.5m
	ACCESS CONTROL BOLLARD Location: To West Boundary / Maintenance Zones Product: BK47 0069 FD or equal and approved Supplier: Group or equal and approved Material: Steel Control: Telescopic / Fold-down TBC.
	STATIC BOLLARD Location: To Gated Access Point + Maintenance Ramp off Echo Street Product: 'Cant' or equal and approved Supplier: Marshalls or acceptable equivalent. Material: Galvanised steel, Powdercoated RAL TBC.
	PLATFORM LIFT - To architects drawings for details Location: To back of Eastern courtyard
	METAL PLANTER

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- All dimensions are in millimetres unless otherwise stated.
- All setting out, levels and dimensions to be agreed on site.
- The dimensions of all materials must be checked on site before being laid out.
- This drawing must be read with the relevant specification clauses and detail drawings
- Order of construction and setting out to be agreed on site.

P06	26-04-23	Ramp updated	RM	RM
P05	14-04-23	Amends following building layout updates	YH	RM
P04	29-03-23	Dwg no. updates	YH	RM
P03	22-03-23	Details added to keys	YH	RM
P02	08-03-23	Courtyard layout updated	YH	RM
P01	02-03-23	Adopted from old drawing	YH	RM

Revision	Date	Description	Drawn	Apprvd.
----------	------	-------------	-------	---------

Plant I.E. Limited
Manchester | London | Liverpool | Leeds | Standish
E: info@plant-ie.com W: plant-ie.com

MANCHESTER
2 Back Grafton St.,
Altrincham,
WAT10 1DY
T: 0161 928 9281

Client IQ Student Accommodation

Project Echo Street, Manchester

Drg Title Externals GA

Created on 02-03-23 **Created by** YH **Approved by** RM

Scale 1:200 **Size** A1 **Workstage** Comments

Drg No. PL1832-PLA-XX-ZZ-DR-L-0001 **Suitability** S3

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Appendix E

TRICS Report

Calculation Reference: AUDIT-715001-230315-0350

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
 Category : G - STUDENT ACCOMMODATION
 MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

01	GREATER LONDON	
	LB LAMBETH	1 days
05	EAST MIDLANDS	
	DY DERBY	1 days

Primary Filtering selection:

Parameter: Number of residents
 Actual Range: 350 to 1100 (units:)
 Range Selected by User: 15 to 1100 (units:)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/14 to 25/06/21

Selected survey days:

Tuesday	1 days
Wednesday	1 days

Selected survey types:

Manual count	2 days
Directional ATC Count	0 days

Selected Locations:

Town Centre	2
-------------	---

Selected Location Sub Categories:

Built-Up Zone	2
---------------	---

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included	2 days - Selected
Servicing vehicles Excluded	X days - Selected

Secondary Filtering selection:

Use Class:

C3	2 days
----	--------

Population within 500m Range:

All Surveys Included

Population within 1 mile:

25,001 to 50,000	1 days
50,001 to 100,000	1 days

Population within 5 miles:

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

Car ownership within 5 miles:

0.5 or Less	1 days
1.1 to 1.5	1 days

Travel Plan:

No	2 days
----	--------

PTAL Rating:

No PTAL Present	1 days
6b (High) Excellent	1 days

LIST OF SITES relevant to selection parameters

- | | | | |
|---|----------------------------|-----------------------|---------------------|
| 1 | DY-03-G-02 | STUDENT ACCOMMODATION | DERBY |
| | CATHEDRAL ROAD | | |
| | DERBY | | |
| | Town Centre | | |
| | Built-Up Zone | | |
| | Total Number of residents: | 350 | |
| | Survey date: WEDNESDAY | 25/09/19 | Survey Type: MANUAL |
| 2 | LB-03-G-02 | STUDENT FLATS | LAMBETH |
| | WESTMINSTER BRIDGE RD | | |
| | LAMBETH | | |
| | Town Centre | | |
| | Built-Up Zone | | |
| | Total Number of residents: | 1100 | |
| | Survey date: TUESDAY | 27/11/18 | Survey Type: MANUAL |

TRIP RATE for Land Use 03 - RESIDENTIAL/G - STUDENT ACCOMMODATION
MULTI-MODAL TOTAL VEHICLES
 Calculation factor: 1 RESIDE
 BOLD print indicates peak (busiest) period
 Total People to Total Vehicles ratio (all time periods and directions): 19.05

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	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	2	725	0.001	2	725	0.001	2	725	0.002
08:00 - 09:00	2	725	0.001	2	725	0.001	2	725	0.002
09:00 - 10:00	2	725	0.001	2	725	0.000	2	725	0.001
10:00 - 11:00	2	725	0.003	2	725	0.003	2	725	0.006
11:00 - 12:00	2	725	0.003	2	725	0.004	2	725	0.007
12:00 - 13:00	2	725	0.003	2	725	0.006	2	725	0.009
13:00 - 14:00	2	725	0.006	2	725	0.005	2	725	0.011
14:00 - 15:00	2	725	0.004	2	725	0.005	2	725	0.009
15:00 - 16:00	2	725	0.005	2	725	0.005	2	725	0.010
16:00 - 17:00	2	725	0.004	2	725	0.005	2	725	0.009
17:00 - 18:00	2	725	0.003	2	725	0.003	2	725	0.006
18:00 - 19:00	2	725	0.003	2	725	0.003	2	725	0.006
19:00 - 20:00	2	725	0.004	2	725	0.003	2	725	0.007
20:00 - 21:00	2	725	0.006	2	725	0.007	2	725	0.013
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.047			0.051			0.098

Parameter summary

Trip rate parameter range selected:

350 - 1100 (units:)

Survey date date range:

01/01/14 - 25/06/21

Number of weekdays (Monday-Friday):

2

Number of Saturdays:

0

Number of Sundays:

0

Surveys automatically removed from selection:

0

Surveys manually removed from selection:

0

TRIP RATE for Land Use 03 - RESIDENTIAL/G - STUDENT ACCOMMODATION
MULTI-MODAL TAXIS
Calculation factor: 1 RESIDE
BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	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	2	725	0.000	2	725	0.000	2	725	0.000
08:00 - 09:00	2	725	0.000	2	725	0.000	2	725	0.000
09:00 - 10:00	2	725	0.000	2	725	0.000	2	725	0.000
10:00 - 11:00	2	725	0.001	2	725	0.001	2	725	0.002
11:00 - 12:00	2	725	0.001	2	725	0.001	2	725	0.002
12:00 - 13:00	2	725	0.003	2	725	0.003	2	725	0.006
13:00 - 14:00	2	725	0.001	2	725	0.001	2	725	0.002
14:00 - 15:00	2	725	0.000	2	725	0.000	2	725	0.000
15:00 - 16:00	2	725	0.002	2	725	0.002	2	725	0.004
16:00 - 17:00	2	725	0.001	2	725	0.001	2	725	0.002
17:00 - 18:00	2	725	0.002	2	725	0.002	2	725	0.004
18:00 - 19:00	2	725	0.003	2	725	0.003	2	725	0.006
19:00 - 20:00	2	725	0.003	2	725	0.003	2	725	0.006
20:00 - 21:00	2	725	0.006	2	725	0.006	2	725	0.012
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.023			0.023			0.046

TRIP RATE for Land Use 03 - RESIDENTIAL/G - STUDENT ACCOMMODATION
 MULTI-MODAL OGVS
 Calculation factor: 1 RESIDE
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	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	2	725	0.001	2	725	0.001	2	725	0.002
08:00 - 09:00	2	725	0.000	2	725	0.000	2	725	0.000
09:00 - 10:00	2	725	0.000	2	725	0.000	2	725	0.000
10:00 - 11:00	2	725	0.000	2	725	0.000	2	725	0.000
11:00 - 12:00	2	725	0.000	2	725	0.000	2	725	0.000
12:00 - 13:00	2	725	0.000	2	725	0.000	2	725	0.000
13:00 - 14:00	2	725	0.000	2	725	0.000	2	725	0.000
14:00 - 15:00	2	725	0.000	2	725	0.000	2	725	0.000
15:00 - 16:00	2	725	0.000	2	725	0.000	2	725	0.000
16:00 - 17:00	2	725	0.000	2	725	0.000	2	725	0.000
17:00 - 18:00	2	725	0.000	2	725	0.000	2	725	0.000
18:00 - 19:00	2	725	0.000	2	725	0.000	2	725	0.000
19:00 - 20:00	2	725	0.000	2	725	0.000	2	725	0.000
20:00 - 21:00	2	725	0.000	2	725	0.000	2	725	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.001			0.001			0.002

TRIP RATE for Land Use 03 - RESIDENTIAL/G - STUDENT ACCOMMODATION
 MULTI-MODAL CYCLISTS
 Calculation factor: 1 RESIDE
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	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	2	725	0.000	2	725	0.000	2	725	0.000
08:00 - 09:00	2	725	0.001	2	725	0.001	2	725	0.002
09:00 - 10:00	2	725	0.000	2	725	0.001	2	725	0.001
10:00 - 11:00	2	725	0.000	2	725	0.001	2	725	0.001
11:00 - 12:00	2	725	0.001	2	725	0.003	2	725	0.004
12:00 - 13:00	2	725	0.000	2	725	0.001	2	725	0.001
13:00 - 14:00	2	725	0.001	2	725	0.001	2	725	0.002
14:00 - 15:00	2	725	0.001	2	725	0.001	2	725	0.002
15:00 - 16:00	2	725	0.001	2	725	0.001	2	725	0.002
16:00 - 17:00	2	725	0.001	2	725	0.000	2	725	0.001
17:00 - 18:00	2	725	0.001	2	725	0.001	2	725	0.002
18:00 - 19:00	2	725	0.003	2	725	0.002	2	725	0.005
19:00 - 20:00	2	725	0.000	2	725	0.001	2	725	0.001
20:00 - 21:00	2	725	0.001	2	725	0.001	2	725	0.002
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.011			0.015			0.026

TRIP RATE for Land Use 03 - RESIDENTIAL/G - STUDENT ACCOMMODATION
 MULTI-MODAL VEHICLE OCCUPANTS
 Calculation factor: 1 RESIDE
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	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	2	725	0.001	2	725	0.001	2	725	0.002
08:00 - 09:00	2	725	0.001	2	725	0.001	2	725	0.002
09:00 - 10:00	2	725	0.001	2	725	0.000	2	725	0.001
10:00 - 11:00	2	725	0.003	2	725	0.002	2	725	0.005
11:00 - 12:00	2	725	0.004	2	725	0.004	2	725	0.008
12:00 - 13:00	2	725	0.003	2	725	0.003	2	725	0.006
13:00 - 14:00	2	725	0.004	2	725	0.005	2	725	0.009
14:00 - 15:00	2	725	0.004	2	725	0.005	2	725	0.009
15:00 - 16:00	2	725	0.006	2	725	0.005	2	725	0.011
16:00 - 17:00	2	725	0.003	2	725	0.004	2	725	0.007
17:00 - 18:00	2	725	0.003	2	725	0.001	2	725	0.004
18:00 - 19:00	2	725	0.003	2	725	0.001	2	725	0.004
19:00 - 20:00	2	725	0.004	2	725	0.001	2	725	0.005
20:00 - 21:00	2	725	0.007	2	725	0.002	2	725	0.009
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.047			0.035			0.082

TRIP RATE for Land Use 03 - RESIDENTIAL/G - STUDENT ACCOMMODATION
 MULTI-MODAL PEDESTRIANS
 Calculation factor: 1 RESIDE
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	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	2	725	0.006	2	725	0.008	2	725	0.014
08:00 - 09:00	2	725	0.005	2	725	0.062	2	725	0.067
09:00 - 10:00	2	725	0.003	2	725	0.046	2	725	0.049
10:00 - 11:00	2	725	0.007	2	725	0.044	2	725	0.051
11:00 - 12:00	2	725	0.016	2	725	0.037	2	725	0.053
12:00 - 13:00	2	725	0.031	2	725	0.037	2	725	0.068
13:00 - 14:00	2	725	0.037	2	725	0.042	2	725	0.079
14:00 - 15:00	2	725	0.030	2	725	0.037	2	725	0.067
15:00 - 16:00	2	725	0.058	2	725	0.029	2	725	0.087
16:00 - 17:00	2	725	0.052	2	725	0.021	2	725	0.073
17:00 - 18:00	2	725	0.054	2	725	0.032	2	725	0.086
18:00 - 19:00	2	725	0.056	2	725	0.028	2	725	0.084
19:00 - 20:00	2	725	0.038	2	725	0.022	2	725	0.060
20:00 - 21:00	2	725	0.054	2	725	0.025	2	725	0.079
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.447			0.470			0.917

TRIP RATE for Land Use 03 - RESIDENTIAL/G - STUDENT ACCOMMODATION
 MULTI-MODAL BUS/TRAM PASSENGERS
 Calculation factor: 1 RESIDE
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	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	2	725	0.002	2	725	0.002	2	725	0.004
08:00 - 09:00	2	725	0.005	2	725	0.052	2	725	0.057
09:00 - 10:00	2	725	0.003	2	725	0.037	2	725	0.040
10:00 - 11:00	2	725	0.006	2	725	0.031	2	725	0.037
11:00 - 12:00	2	725	0.017	2	725	0.021	2	725	0.038
12:00 - 13:00	2	725	0.019	2	725	0.035	2	725	0.054
13:00 - 14:00	2	725	0.023	2	725	0.028	2	725	0.051
14:00 - 15:00	2	725	0.026	2	725	0.023	2	725	0.049
15:00 - 16:00	2	725	0.038	2	725	0.018	2	725	0.056
16:00 - 17:00	2	725	0.028	2	725	0.014	2	725	0.042
17:00 - 18:00	2	725	0.041	2	725	0.018	2	725	0.059
18:00 - 19:00	2	725	0.028	2	725	0.022	2	725	0.050
19:00 - 20:00	2	725	0.034	2	725	0.013	2	725	0.047
20:00 - 21:00	2	725	0.034	2	725	0.012	2	725	0.046
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.304			0.326			0.630

TRIP RATE for Land Use 03 - RESIDENTIAL/G - STUDENT ACCOMMODATION
MULTI-MODAL TOTAL RAIL PASSENGERS
Calculation factor: 1 RESIDE
BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	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	2	725	0.006	2	725	0.007	2	725	0.013
08:00 - 09:00	2	725	0.001	2	725	0.014	2	725	0.015
09:00 - 10:00	2	725	0.006	2	725	0.011	2	725	0.017
10:00 - 11:00	2	725	0.009	2	725	0.013	2	725	0.022
11:00 - 12:00	2	725	0.004	2	725	0.008	2	725	0.012
12:00 - 13:00	2	725	0.008	2	725	0.006	2	725	0.014
13:00 - 14:00	2	725	0.011	2	725	0.010	2	725	0.021
14:00 - 15:00	2	725	0.009	2	725	0.012	2	725	0.021
15:00 - 16:00	2	725	0.007	2	725	0.009	2	725	0.016
16:00 - 17:00	2	725	0.012	2	725	0.008	2	725	0.020
17:00 - 18:00	2	725	0.013	2	725	0.010	2	725	0.023
18:00 - 19:00	2	725	0.011	2	725	0.006	2	725	0.017
19:00 - 20:00	2	725	0.009	2	725	0.005	2	725	0.014
20:00 - 21:00	2	725	0.021	2	725	0.006	2	725	0.027
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.127			0.125			0.252

TRIP RATE for Land Use 03 - RESIDENTIAL/G - STUDENT ACCOMMODATION
MULTI-MODAL PUBLIC TRANSPORT USERS
Calculation factor: 1 RESIDE
BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	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	2	725	0.008	2	725	0.009	2	725	0.017
08:00 - 09:00	2	725	0.006	2	725	0.067	2	725	0.073
09:00 - 10:00	2	725	0.008	2	725	0.048	2	725	0.056
10:00 - 11:00	2	725	0.014	2	725	0.044	2	725	0.058
11:00 - 12:00	2	725	0.021	2	725	0.028	2	725	0.049
12:00 - 13:00	2	725	0.027	2	725	0.041	2	725	0.068
13:00 - 14:00	2	725	0.034	2	725	0.038	2	725	0.072
14:00 - 15:00	2	725	0.034	2	725	0.034	2	725	0.068
15:00 - 16:00	2	725	0.045	2	725	0.027	2	725	0.072
16:00 - 17:00	2	725	0.039	2	725	0.021	2	725	0.060
17:00 - 18:00	2	725	0.054	2	725	0.028	2	725	0.082
18:00 - 19:00	2	725	0.039	2	725	0.028	2	725	0.067
19:00 - 20:00	2	725	0.043	2	725	0.018	2	725	0.061
20:00 - 21:00	2	725	0.056	2	725	0.019	2	725	0.075
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.428			0.450			0.878

TRIP RATE for Land Use 03 - RESIDENTIAL/G - STUDENT ACCOMMODATION
MULTI-MODAL TOTAL PEOPLE
Calculation factor: 1 RESIDE
BOLD print indicates peak (busiest) period
Total People to Total Vehicles ratio (all time periods and directions): 19.05

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	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	2	725	0.014	2	725	0.018	2	725	0.032
08:00 - 09:00	2	725	0.014	2	725	0.131	2	725	0.145
09:00 - 10:00	2	725	0.013	2	725	0.094	2	725	0.107
10:00 - 11:00	2	725	0.024	2	725	0.091	2	725	0.115
11:00 - 12:00	2	725	0.041	2	725	0.072	2	725	0.113
12:00 - 13:00	2	725	0.061	2	725	0.082	2	725	0.143
13:00 - 14:00	2	725	0.076	2	725	0.086	2	725	0.162
14:00 - 15:00	2	725	0.069	2	725	0.077	2	725	0.146
15:00 - 16:00	2	725	0.110	2	725	0.061	2	725	0.171
16:00 - 17:00	2	725	0.097	2	725	0.046	2	725	0.143
17:00 - 18:00	2	725	0.112	2	725	0.061	2	725	0.173
18:00 - 19:00	2	725	0.102	2	725	0.060	2	725	0.162
19:00 - 20:00	2	725	0.085	2	725	0.041	2	725	0.126
20:00 - 21:00	2	725	0.117	2	725	0.047	2	725	0.164
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.935			0.967			1.902

TRIP RATE for Land Use 03 - RESIDENTIAL/G - STUDENT ACCOMMODATION
MULTI-MODAL CARS
Calculation factor: 1 RESIDE
BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	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	2	725	0.000	2	725	0.000	2	725	0.000
08:00 - 09:00	2	725	0.001	2	725	0.000	2	725	0.001
09:00 - 10:00	2	725	0.001	2	725	0.000	2	725	0.001
10:00 - 11:00	2	725	0.000	2	725	0.000	2	725	0.000
11:00 - 12:00	2	725	0.000	2	725	0.000	2	725	0.000
12:00 - 13:00	2	725	0.000	2	725	0.001	2	725	0.001
13:00 - 14:00	2	725	0.000	2	725	0.000	2	725	0.000
14:00 - 15:00	2	725	0.000	2	725	0.000	2	725	0.000
15:00 - 16:00	2	725	0.000	2	725	0.000	2	725	0.000
16:00 - 17:00	2	725	0.001	2	725	0.002	2	725	0.003
17:00 - 18:00	2	725	0.000	2	725	0.000	2	725	0.000
18:00 - 19:00	2	725	0.000	2	725	0.000	2	725	0.000
19:00 - 20:00	2	725	0.000	2	725	0.000	2	725	0.000
20:00 - 21:00	2	725	0.000	2	725	0.000	2	725	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.003			0.003			0.006

TRIP RATE for Land Use 03 - RESIDENTIAL/G - STUDENT ACCOMMODATION
 MULTI-MODAL LGVS
 Calculation factor: 1 RESIDE
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	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	2	725	0.001	2	725	0.001	2	725	0.002
08:00 - 09:00	2	725	0.001	2	725	0.001	2	725	0.002
09:00 - 10:00	2	725	0.001	2	725	0.000	2	725	0.001
10:00 - 11:00	2	725	0.002	2	725	0.001	2	725	0.003
11:00 - 12:00	2	725	0.002	2	725	0.003	2	725	0.005
12:00 - 13:00	2	725	0.001	2	725	0.001	2	725	0.002
13:00 - 14:00	2	725	0.003	2	725	0.002	2	725	0.005
14:00 - 15:00	2	725	0.003	2	725	0.003	2	725	0.006
15:00 - 16:00	2	725	0.003	2	725	0.003	2	725	0.006
16:00 - 17:00	2	725	0.001	2	725	0.001	2	725	0.002
17:00 - 18:00	2	725	0.001	2	725	0.001	2	725	0.002
18:00 - 19:00	2	725	0.000	2	725	0.000	2	725	0.000
19:00 - 20:00	2	725	0.001	2	725	0.001	2	725	0.002
20:00 - 21:00	2	725	0.001	2	725	0.001	2	725	0.002
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.021			0.019			0.040

TRIP RATE for Land Use 03 - RESIDENTIAL/G - STUDENT ACCOMMODATION
 MULTI-MODAL MOTOR CYCLES
 Calculation factor: 1 RESIDE
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	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	2	725	0.000	2	725	0.000	2	725	0.000
08:00 - 09:00	2	725	0.000	2	725	0.000	2	725	0.000
09:00 - 10:00	2	725	0.000	2	725	0.000	2	725	0.000
10:00 - 11:00	2	725	0.000	2	725	0.000	2	725	0.000
11:00 - 12:00	2	725	0.000	2	725	0.000	2	725	0.000
12:00 - 13:00	2	725	0.000	2	725	0.000	2	725	0.000
13:00 - 14:00	2	725	0.001	2	725	0.001	2	725	0.002
14:00 - 15:00	2	725	0.001	2	725	0.001	2	725	0.002
15:00 - 16:00	2	725	0.000	2	725	0.000	2	725	0.000
16:00 - 17:00	2	725	0.000	2	725	0.000	2	725	0.000
17:00 - 18:00	2	725	0.000	2	725	0.000	2	725	0.000
18:00 - 19:00	2	725	0.000	2	725	0.000	2	725	0.000
19:00 - 20:00	2	725	0.000	2	725	0.000	2	725	0.000
20:00 - 21:00	2	725	0.000	2	725	0.000	2	725	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.002			0.002			0.004

TRIP RATE for Land Use 03 - RESIDENTIAL/G - STUDENT ACCOMMODATION
 MULTI-MODAL Servicing Vehicles
 Calculation factor: 1 RESIDE
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	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	2	725	0.001	2	725	0.001	2	725	0.002
08:00 - 09:00	2	725	0.001	2	725	0.001	2	725	0.002
09:00 - 10:00	2	725	0.001	2	725	0.000	2	725	0.001
10:00 - 11:00	2	725	0.002	2	725	0.001	2	725	0.003
11:00 - 12:00	2	725	0.002	2	725	0.003	2	725	0.005
12:00 - 13:00	2	725	0.001	2	725	0.003	2	725	0.004
13:00 - 14:00	2	725	0.003	2	725	0.002	2	725	0.005
14:00 - 15:00	2	725	0.003	2	725	0.003	2	725	0.006
15:00 - 16:00	2	725	0.003	2	725	0.003	2	725	0.006
16:00 - 17:00	2	725	0.003	2	725	0.003	2	725	0.006
17:00 - 18:00	2	725	0.001	2	725	0.001	2	725	0.002
18:00 - 19:00	2	725	0.000	2	725	0.000	2	725	0.000
19:00 - 20:00	2	725	0.001	2	725	0.001	2	725	0.002
20:00 - 21:00	2	725	0.001	2	725	0.001	2	725	0.002
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.023			0.023			0.046

Contact

London

Network Building,
97 Tottenham Court Road,
London W1T 4TP.
Tel: 020 7580 7373

Bristol

5th Floor, 4 Colston Avenue,
Bristol BS1 4ST
Tel: 0117 203 5240

Cardiff

Helmont House, Churchill Way,
Cardiff CF10 2HE
Tel: 029 2072 0860

Exeter

6 Victory House,
Dean Clarke Gardens,
Exeter EX2 4AA
Tel: 01392 422 315

Birmingham

Great Charles Street,
Birmingham B3 3JY
Tel: 0121 2895 624

Manchester

Oxford Place, 61 Oxford Street,
Manchester M1 6EQ.
Tel: 0161 228 1008

Leeds

7 Park Row, Leeds LS1 5HD
Tel: 0113 512 0293

Bonn

Stockenstrasse 5, 53113,
Bonn, Germany
Tel: +49 176 8609 1360
www.vectos.eu

Registered Office

Vectos (North) Limited
Oxford Place
61 Oxford Street
Manchester M1 6EQ.
Company no. 07794057