

TRANSPORT STATEMENT

Knowsley (Image Business Park (Ltd)

Site 3, Image Business Park, Knowsley

September 2021

Transport Statement

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1 Introduction

- 1.1 Vectos have been appointed by Knowsley (Image Business Park) Ltd to provide transport advice for the proposed commercial development at Site 3 of Image Business Park, Knowsley.
- 1.2 The application site is located approximately 14.5km northeast of Liverpool and 11km northwest of St. Helens. Locally, the site is located to the east of Acornfield Road and extend too circa. 5.55 acres.
- 1.3 The site is bound to the north by North Street, to the east by Central Avenue, to the south by South Street and to the west by Acornfield Road. The area surrounding the site comprises of a mix of industrial uses. The site is shown in its strategic context in **Figure 1** and its local context in **Figure 2**.
- 1.4 Until recently, the existing site was 10,360 sqm (GEA) of mixed industrial space including B1c, B2 & B8 uses, which have since been demolished.
- 1.5 The planning application seeks to provide approximately 11,461 sqm (GEA) of flexible E(g)(iii) (previously B1c) /B2/B8 land with ancillary office, car parking, service yard and associated works. A plan of the proposed development can be viewed at **Appendix A**.
- 1.6 This Transport Statement (TS) has been prepared to accompany the planning application for the proposed development. The statement describes the existing transport conditions of the site, describes the proposed development, and considers the effect of it on the local transport network. It concludes that the proposed development is acceptable in transport terms.

Report Structure

- 1.7 The remainder of this report is structured as follows:
 - **Section 2: Existing Conditions** – describes the site, its public transport accessibility and surrounding road network;
 - **Section 3: Policy Context** – discusses relevant transport policy;
 - **Section 4: Development Proposals** – summaries the proposed development;
 - **Section 5: Trip Generation and Traffic Impact** – consider the effects of the proposed development in transport terms; and
 - **Section 6: Summary and Conclusions** – provides the summary and conclusion.

2 Existing Conditions

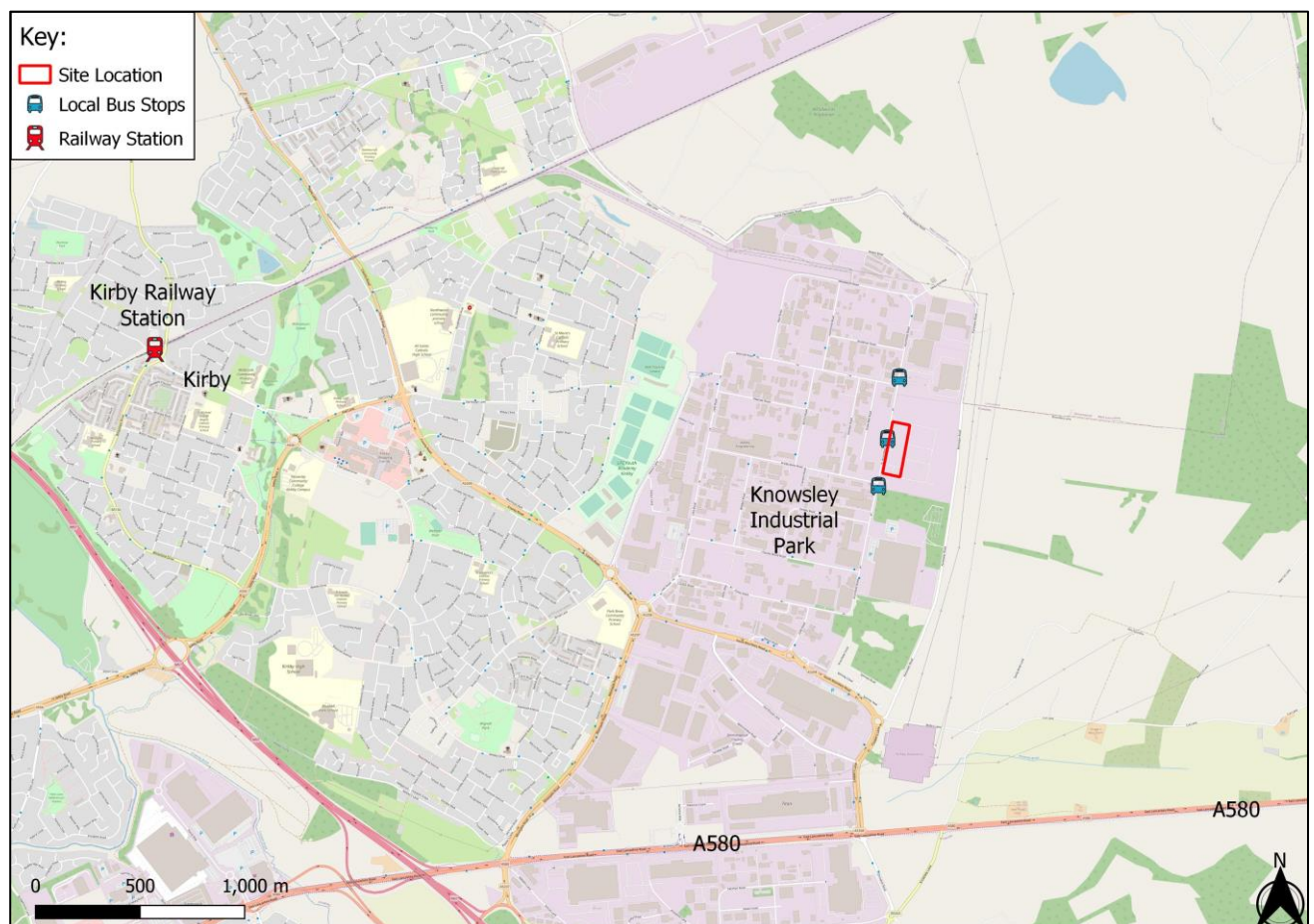
Introduction

- 2.1 This section provides a review of the existing conditions at the site and its local surroundings including accessibility to sustainable modes of transport.

Site Location

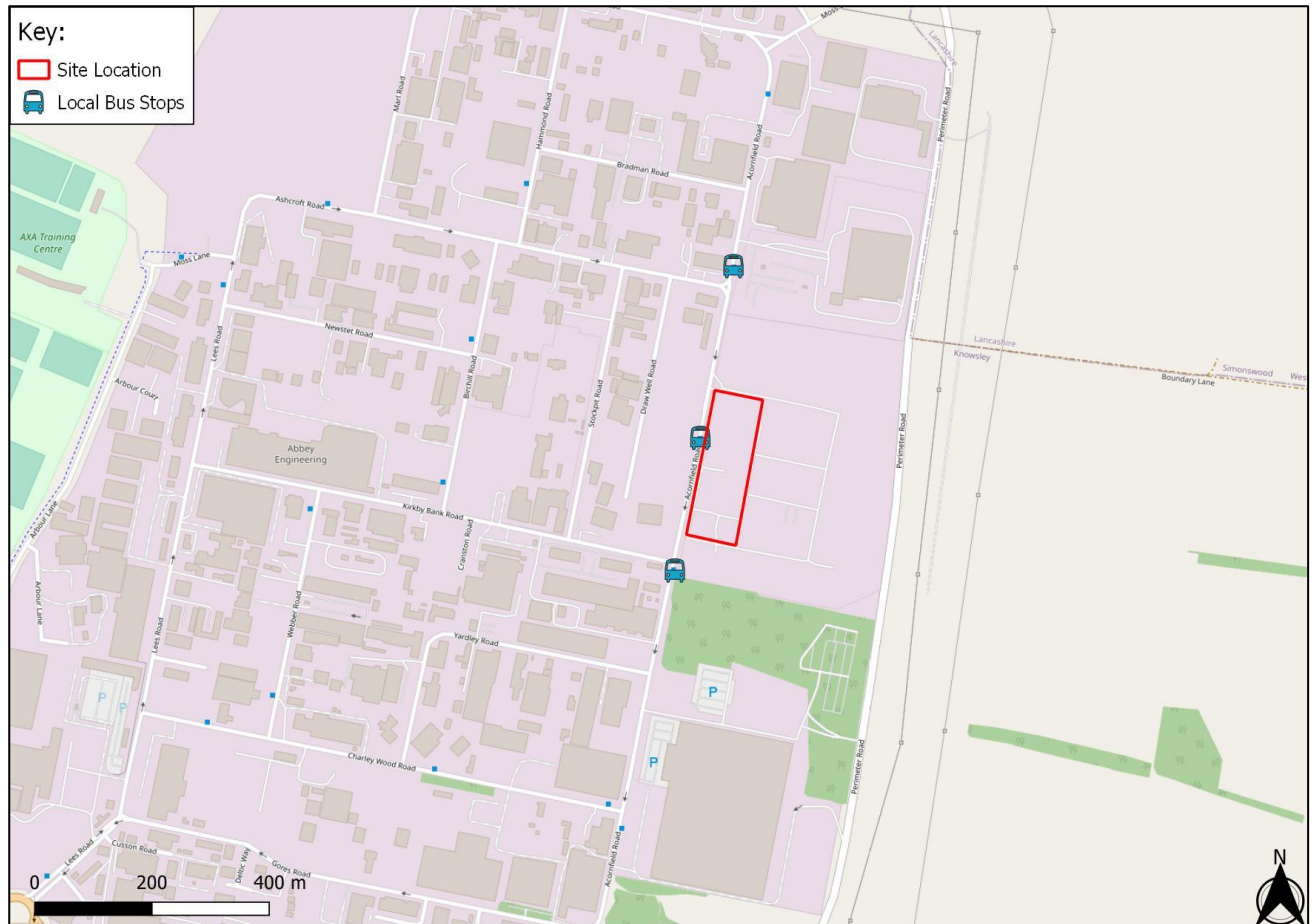
- 2.2 The site is located approximately 14.5km northeast of Liverpool and 11km northwest of St. Helens. The strategic location of the site can be seen in **Figure 1**.

Figure 1: Strategic Site Location



- 2.3 Locally, the site is located within the Image Business Park which itself is located within the Knowsley Industrial Park. The site in its local context can be seen in **Figure 2**.

Figure 2: Local Site Location



- 2.4 Until recently, the existing site was 10,360 sqm (GEA) of mixed industrial space including B1c, B2 & B8 uses, which have since been demolished.
- 2.5 Access to Knowsley Industrial Park is provided by three roundabouts on South Boundary Road. The first to the east of the Business Park is in the form of a longabout which provides direct access to Acornfield Road which provides access to Image Business Park. To the west of the Business Park two roundabouts in close proximity to each other (approximately 250m apart) provide direct access to Lees Road and Arbour Road, whereby Acornfield Road can be accessed by traversing the internal road network.
- 2.6 From South Boundary Road, the A580 can be accessed to the south which links with the M57 Junction 6 to the west of the Business Park. To the east of the Business Park, the A2508 connects with the A580. From here vehicles can travel towards St. Helens to the east and Liverpool to the west.
- 2.7 Direct access to Image Business Park is provided from Acornfield Road. The access to the Business Park is currently controlled by a Gate House which is manned during operating hours.

Walking and Cycling Accessibility

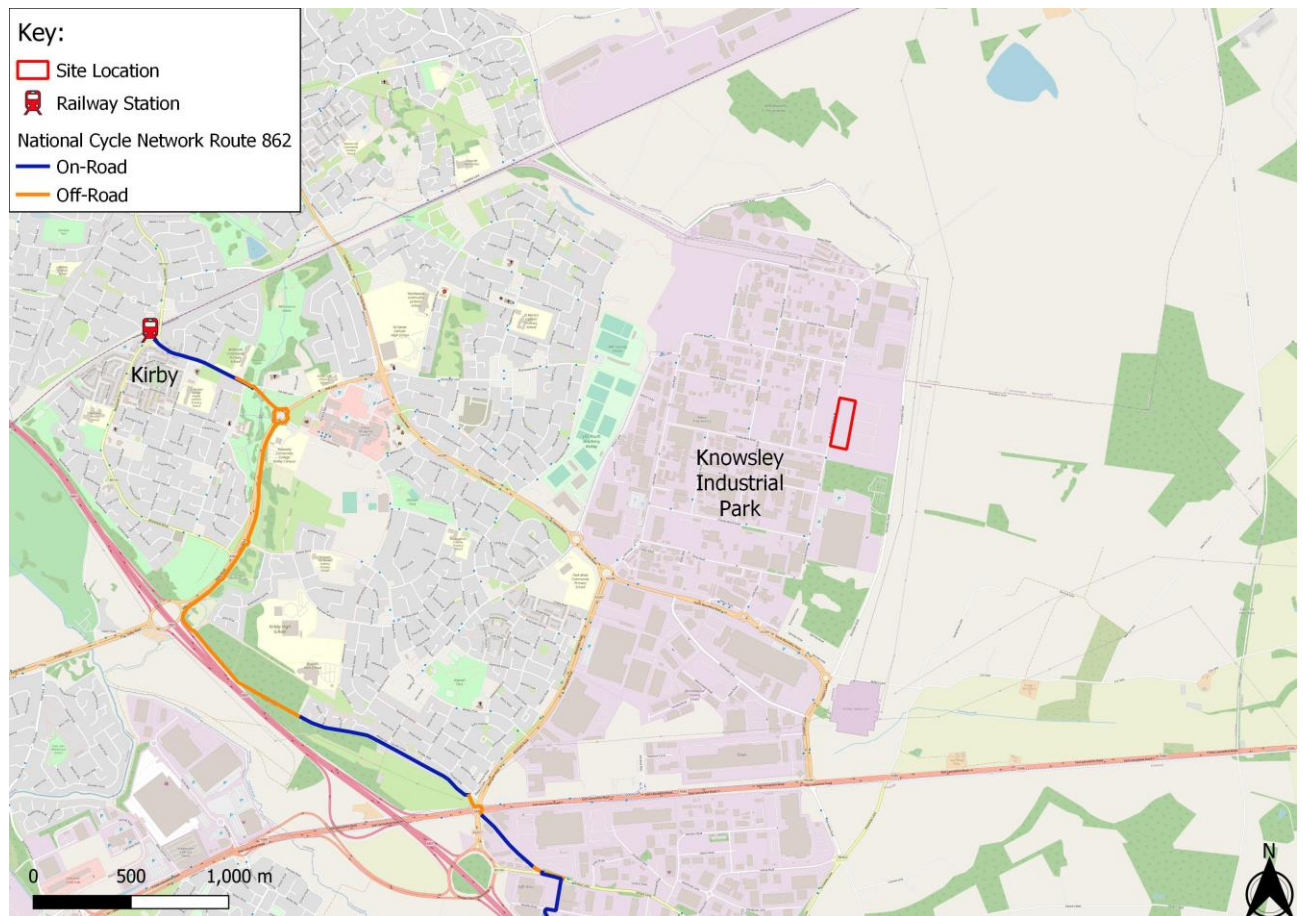
Walking

- 2.8 Acornfield Road provides footways along either side of the carriageway with a good effective width. The footways along Acornfield Road provide access to the nearby bus stops and the rest of the surrounding Knowsley Industrial Park. Good quality footways are also present in the surrounding Industrial Park linking the proposed development with the surrounding residential areas. Street lighting is provided throughout the Industrial Park, but no dedicated crossing facilities are provided in the immediate vicinity of the development.
- 2.9 Good footway provision continues outside of the Industrial Park on main access roads such as South Boundary Road. From here, bus stops can be accessed as well as Perimeter Road where a footway runs along the northern side of the road.

Cycling

- 2.10 Within the immediate vicinity of the site, cyclists are expected to travel on road throughout the Industrial Park. From the road signs at the entrance to Knowsley Industrial Park the speed limit is noted as 30mph which is conducive to cycling. The nearest dedicated cycle route to the site is National Cycle Network (NCN) Route 862 which runs from Kirkby Train Station to Deysbrook Lane in West Derby, Liverpool. This route allows future employees to travel to and from the site and the surrounding residential areas. NCN 862 will allow future employees to travel to the site via a multi modal trip via walking/cycling and the train. The route can be seen in **Figure 3**.

Figure 3: Cycle Route Summary



- 2.11 There are clear footway and cycleway connections between the site, the surrounding areas and key transport hubs and it is, therefore, considered to be accessible by walking and cycling.

Public Transport Accessibility

Bus Services

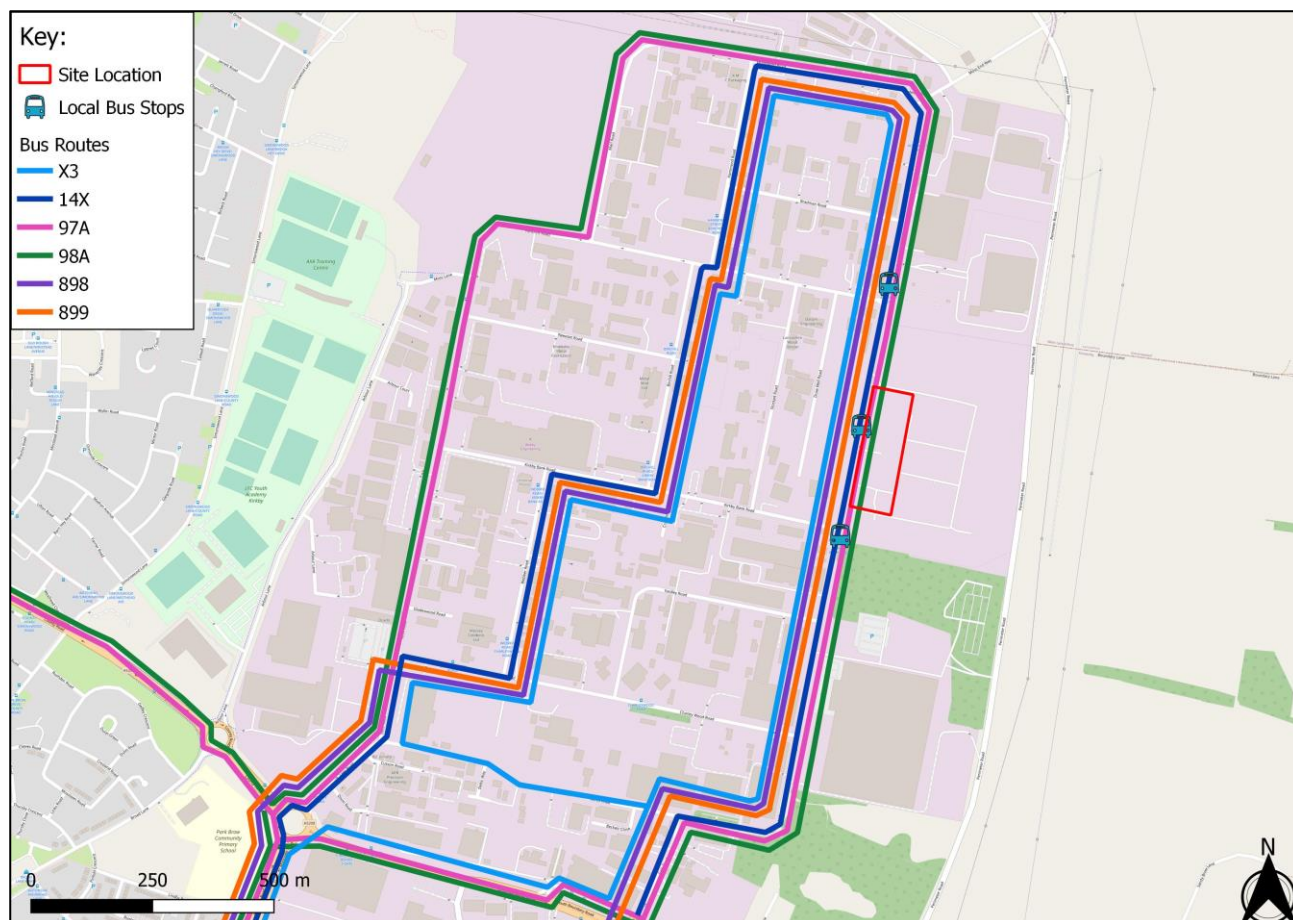
- 2.12 The nearest bus stop to the site is approximately 150m south of the site access on Acornfield Road. The stop, 'Ashcroft Road', is served by seven bus routes with frequencies of approximately one to two per hour to locations including Liverpool and Page Moss. A summary of the services is provided in **Table 2.2**.

Table 2.2: Summary of Bus Services and Frequencies

Service	Route	Weekday	Saturday	Sunday
14X	Liverpool - Kirby Admin	4 per hour (morning only)	4 per hour (morning only)	N/A
97A	Kirkby Circular	2 per hour (mornings/evenings only)	N/A	N/A
98A	Kirkby Circular	2 per hour (mornings/evenings only)	N/A	N/A
827	Old Swan – Kirby	1 service during the morning	N/A	N/A
898	Page Moss - Kirkby Admin Circular	1 per hour	1 per hour	1 per hour
899	Page Moss - Kirkby Admin Circular	1 per hour	N/A	N/A
X3	Liverpool – Kirkby/Knowsley Industrial Park	1 per hour	N/A	N/A

2.13 The routes are also visually summarised in **Figure 4**.

Figure 4: Bus Route Summary



Rail Services

- 2.14 The nearest train station is Kirkby (shown in **Figure 1**) which is located approximately 4km to the west of the site, which is within cycling distance of the site. The station, managed by Merseyrail, has trains running to both Liverpool Central and Manchester Victoria. The station can be reached by approximately a 15-minute cycle on NCN Route 862 or by both the 97A and 98A buses.
- 2.15 Kirkby Train Station has step free access to all platforms and ramps available with staff assistance to allow physically and visually impaired users to access the services.
- 2.16 **Table 2.3** summarises the services available from Kirkby Train Station.

Table 2.3: Summary of Rail Services

Destination	Weekday	Saturday	Sunday
Liverpool Central	4 per hour	4 per hour	2 per hour
Manchester Victoria	1 per hour	1 per hour	N/A

Local Highway Network

Acornfield Road

- 2.17 Acornfield Road runs on a north-south alignment between Woodward Road in the north and Gores Road in the south. South of Ashcroft Road, it is a two-lane one-way road flowing southbound. Approximately 100m south of Ashcroft Road, the key access point to Image Business Park is provided. Acornfield Road provides direct access to all three main access points from the proposed development.
- 2.18 The road is fronted onto by other commercial properties which are part of the surrounding Knowsley Industrial Park. Along its length, the road has a 30mph speed limit. Footways are provided along either side of the carriageway with street lighting. Along the eastern edge of the road, double yellow lines are provided which restrict parking.

South Boundary Road (A5208)

- 2.19 The South Boundary Road section of the A5208 runs from east to west. The road runs between the Perimeter Road / Molly's Lane / Coopers Lane roundabout in the east and the Moorgate Road North / Lees Road / County Road roundabout in the west. The road is a two-lane dual carriageway with a 40mph speed limit and footways running along both sides of the road. The road is fronted by commercial properties, although these are set back by sizeable verge areas.
- 2.20 Beyond the South Boundary Road section of the A5208, the A5208 is a key distributor road providing a link from the proposed development to the surrounding residential areas. Furthermore, it provides a link between the proposed development and the strategic road network of the M58.

A580

- 2.21 The A580 runs between Salford and Liverpool on an east-west alignment. The road, which lies to the south of the site, is a two-lane dual carriageway with a 50mph speed limit. In proximity to the site, there is a footway running along the westbound carriageway and a two-way cycle lane running eastbound, both with street lighting.
- 2.22 The A580 can be accessed from two of the main access points and provides a key connection between the proposed development and the strategic road network.

M57

- 2.23 The M57, also known as the Liverpool Outer Ring Road, links various towns to the east of Liverpool including Knowsley and Huyton. The two-lane motorway is national speed limit and runs to the west of the site.
- 2.24 Travelling west along South Boundary Road and then south on Moorgate Road North, Junction 4 can be reached which acts as the closest point to the site at which the M57 can be accessed.
- 2.25 The local highway network is shown in **Figure 5**.

Figure 5: Local Highway Network



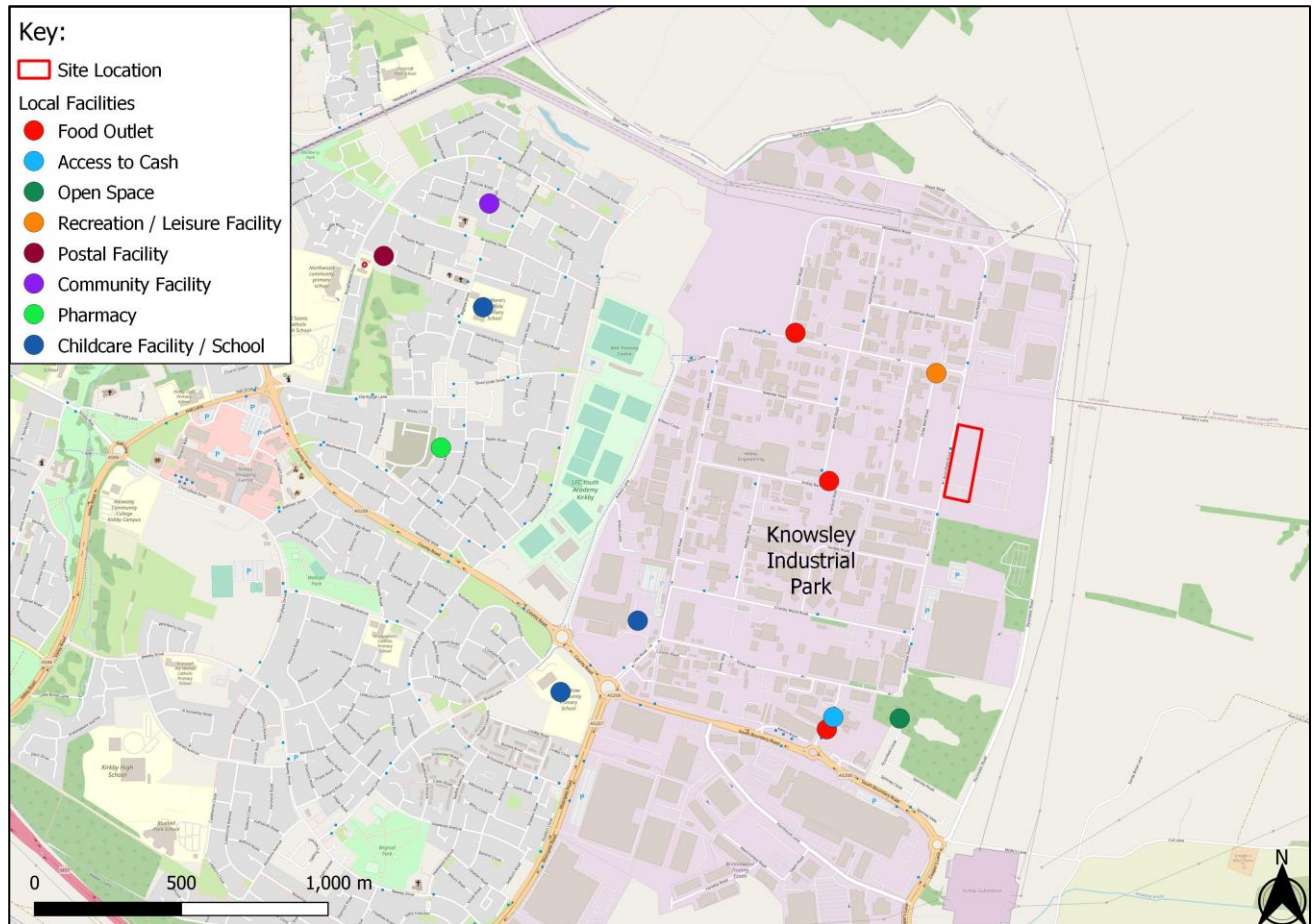
Collision Data

- 2.26 Accident data for the most recent five-year period up to 2021 has been accessed via CrashMap.co.uk. A review shows within the proximity of the site access on Acornfield Road there have been no accidents in the last five-year period.

Local Facilities

- 2.27 **Figure 6** shows a summary of the local facilities surrounding the site. It should be noted that the surrounding area is primarily industrial in nature however, the frequent bus service can be used to access areas which contain a greater level of facilities/amenities.

Figure 6: Local Facilities Plan



Summary

- 2.28 In summary, the site is accessible on foot as the nearby roads all have footways that are of reasonable width and lit. In addition, the site is accessible on bicycle from residential areas nearby and Kirkby Train Station. Numerous bus services are accessible from bus stops nearby the proposed development.
- 2.29 The site is, therefore, considered accessible by sustainable modes of transport as well as benefitting from good access to the strategic road network

3 Policy Context

- 3.1 This section of the Transport Statement addresses the relevant national and local policy, in the context of the site and the development proposals.

National Policy

National Planning Policy Framework (July 2021)

- 3.2 The National Planning Policy Framework (NPPF) is a central government planning document produced by the Department for Communities and Local Government. The revised 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, July 2018 and February 2019.
- 3.3 Section 9 of the NPPF deals with 'Promoting sustainable transport.' Paragraph 105 states that:
- "Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes."*
- 3.4 Paragraph 110 sets out the transport issues which should be addressed within Development Plans and decisions. These are:
- *"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 46; 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."*
- 3.5 Finally, the NPPF states that: *"Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe."*

Regional Policy

The Third Local Transport Plan for Merseyside (LTP3)

- 3.6 The Third Local Transport Plan (LTP) for Merseyside has the vision of creating *"a low carbon future which has a transport network and mobility culture that positively contributes to a thriving economy and the health and wellbeing of its citizens and where sustainable travel is the option of choice."*

- 3.7 The plan recognises the importance of finding *“better ways of matching our transport network with new developments, new and smarter ways of travelling around and delivering transport services that ensure the efficient movement of people and goods.”*
- 3.8 The concept of creating a new Mobility Culture is presented as a key way to meet the area’s current challenges and maximise future opportunities. As set out in Section 2: Our Vision and Goals, it is stated that *“a new mobility culture means developing a transport system which supports the objectives and aspirations of all communities and organisations across Merseyside. It is about developing a transport system that provides real sustainable mobility options and which supports the continuing regeneration and economic development of the city region.”*
- 3.9 Paragraph 4.32 discusses the future prospects of Knowsley Industrial Park with the Council undertaking a review to *“identify to what extent the Park can be remodelled to meet some of the identified need for employment land.”* Table 13 in the report notes requirements for *“improvements to freight facilities and selected highways investment to improve freight access.”*
- 3.10 Part two of the LTP focusses on how the goals will be delivered. Paragraph 2.23 highlights Knowsley Industrial Park as an area where a significant number of short trips (less than 5 miles) could be made by bike and discusses ways this could be achieved.

Local Policy

Knowsley Local Plan Core Strategy (2016)

- 3.11 The Knowsley Local Plan Core Strategy sets out how growth and development in both the regional and local area will take place to 2028 and beyond. It sets out how and where new development and regeneration should take place and, therefore, a guide for future development of the borough.
- 3.12 Policy CS2 Principle 3 focusses on reducing the need to travel and increasing accessibility by:
- *“Selecting locations that reduce the need to travel, especially by car, and enable people as far as possible to meet their needs locally;*
 - *Assisting the Council in achieving a shift towards more sustainable modes of transport for people, goods, and freight;*
 - *Encouraging safe and sustainable access for all, particularly by promoting the use of public transport, walking, and cycling between homes and employment; and*
 - *Supporting the provision and retention of shared space, community facilities and other local services (such as local shops, health facilities, education provision, meeting places, sports venues, cultural buildings, public houses and places of worship).”*
- 3.13 Paragraph 5.69 notes that:
- “A key aspect of the Knowsley Local Plan will be to support a sustainable transport system and geographical pattern of development which minimises the need to travel and will help grow the borough’s economy, ensuring that jobs, shops and services are accessible to all, leading*

to a lesser reliance on the car for travel. This will help to improve the environment and the health and wellbeing of residents.”

3.14 The section of Policy CS7 that focusses on the location, design and management of new developments states *“New development will be required to be:*

- Located and designed to prioritise accessibility and sustainable modes of travel through a choice of walking, cycling, public transport, and incorporate access for private vehicles. Where deficiencies are identified, developer contributions will be required to improve the accessibility of the location;*
- Located and designed to ensure that larger scale proposals (attracting a lot of visitors, customers and/or employees) are located in the most accessible locations;*
- Where subject to a planning application, accompanied (except in the case of smaller scale proposals) by Transport Assessments and/or Travel Plans;*
- In compliance with adopted cycle, car, disabled and service vehicle parking standards for different types and scales of new development;*
- Inclusive of measures that will mitigate carbon emissions and improve air quality where appropriate; and*
- Consistent with safeguarding arrangements that secure the operational integrity and safety of Liverpool John Lennon Airport.”*

3.15 Supplementary to the Knowsley Local Plan is the ‘Ensuring a Choice of Travel’ SPD which outlines guidance on transport issues as well as local parking standards for each type and size of development. **Table 3.1** sets out the parking standards relevant to the proposed development.

Table 3.1: ‘Ensuring a Choice of Travel’ SPD Parking Standards

Land Use	Car Parking (Maximum)	Disabled Parking (Minimum) (up to 200 bays)	Cycle Parking (minimum)	Motorcycle Parking (minimum)
B1c/B2 (other area)	1 space per 45sqm	Individual bays for each disabled employee plus 2 bays or 5% of total capacity whichever is greater	1 space per 450sqm (minimum of 2 spaces)	1 space per 1,000sqm (minimum of 2 spaces)
B8 (other area)	1 space per 100sqm	Individual bays for each disabled employee plus 2 bays or 5% of total capacity whichever is greater	1 space per 850sqm (minimum of 2 spaces)	1 space per 2,000sqm (minimum of 2 spaces)

Summary

- 3.16 A key aim of local and national transport policy is to integrate land use planning and transport for new development and to promote accessibility by non-car modes of transport wherever possible.
- 3.17 As noted above, the proposed site is well served by sustainable transport modes including an extensive pedestrian network, local cycle routes and several bus routes linking the site to Kirkby Train Station. The development proposals will also be supported by a Workplace Travel Plan which will aim to increase the use of sustainable modes and reduce single occupancy vehicle movements from the proposed development.
- 3.18 As a result, the proposed development is considered to comply with local and national policy objectives.

4 Development Proposals

- 4.1 This section of the report sets out the development proposals for the site including access, parking and servicing.

Overview

- 4.2 The planning application seeks to provide approximately 11,461 sqm (GEA) of flexible E(g)(iii) (previously B1c) /B2/B8 land with ancillary office, car parking, service yard and associated works. A plan of the proposed development can be viewed at **Appendix A**.
- 4.3 The site, until recently, had an operating B8 warehouse as part of a larger area of mixed industrial uses including B2 and B1c, which have recently been demolished.

Vehicle Access

- 4.4 The proposed primary vehicle access to the site is via the existing access from Acornfield Road. To facilitate the proposals two additional accesses will be provided from the existing internal access roads, one primarily for standard vehicles (via Central Avenue) and one primarily for HGVs (via North Street). A plan of the proposed access layout can be viewed at **Appendix B**.
- 4.5 Swept path analysis, shown at **Appendix C** of the proposed access arrangement has been undertaken, which demonstrates that a 16.5m articulated vehicle can safely access and egress the site without issue.

Pedestrian and Cycle Access

- 4.6 Pedestrian and cycle access to the proposed development will be via the access with the internal site access road.

Parking

- 4.7 The proposed development will provide 180 car parking spaces including 9 disabled parking spaces, 8 motorcycle parking and 28 cycle parking.
- 4.8 Using **Table 3.1** in **Section 3** the level of car parking, disabled parking, cycle parking, and motorcycle parking has to be provided at the development is in line with local policy. The proposals for the site at this stage are for flexible use and as such the parking levels provided fall between the standards for each separate land use proposed (see **Table 4.1**). As the final occupier is unknown further detail can be provided on exact car parking levels when known.
- 4.9 A summary of the parking levels in terms of policy is provided in **Table 4.1** below.

Table 4.1: Summary of Development Applicable Parking Standards (11,149 sqm GIA)

Land Use	Car Parking	Disabled Parking	Cycle Parking	Motorcycle Parking
E(g)(iii) (previously B1c) /B2	248	13	25	12
B8	112	6	14	6

- 4.10 The parking standards adopted are expressed as maximum standards, which allows for flexibility when considering the different transport characteristics of development sites. As set out above, the site is accessible by sustainable modes of transport. A Workplace Travel Plan, cycle parking and the infrastructure for the future occupier to install showers and changing facilities will all be delivered as part of the proposed development with the aim of encouraging sustainable transport. One shower cubicle will be included in the design to accompany an accessible toilet on the ground floor.
- 4.11 Overall, the site is accessible via sustainable modes and the site will be accompanied with a Workplace Travel Plan to encourage sustainable modes of travel to the site and reduce the number of single occupancy vehicle movements to the site.
- 4.12 A total of 18 of the car parking bays will have electric vehicle charging capacity.

Servicing

- 4.13 The development will provide loading docks for HGVs. Swept path analysis is included at **Appendix C** which demonstrates that the unit can be serviced safely.

Workplace Travel Plan

- 4.14 As part of the proposed development, a Workplace Travel Plan will be submitted in support of the planning application and is contained at **Appendix D**. A Workplace Travel Plan is primarily aimed at reducing the proportion of employees travelling to work as single occupancy car drivers. A series of measures will be developed in order to encourage a reduction in vehicle trips generated by employees.

5 Trip Generation

- 5.1 This section estimates the likely traffic generation of the site as a result of the proposed development.
- 5.2 The current proposals include for 11,461 sqm (GEA) of flexible E(g)(iii) (previously B1c) /B2/B8 land. Trip rates for E(g)(iii) (previously B1c) /B2/B8 land use have been derived from the TRICS database. Due to the flexible land use proposals, two assessment scenarios have been reviewed. The first assessment considers the development as 100% E(g)(iii) (previously B1c)/B2 land use and the second assessment consider the development as 100% B8 land use, this is to highlight the flexible nature of the proposals and assessing the worst-case scenario and presenting a robust trip generation assessment.

E(g)(iii) (previously B1c) /B2 Land Use 11,461 sqm (GEA)

- 5.3 It should be noted that the TRICS database does not distinguish between B1c (Light Industrial) and B2 (General Industrial) as it is deemed their likely trip generation are similar. Therefore, one trip rate for B1c/B2 has been used in our assessment.
- 5.4 The following parameters were selected:
- Land Use: Employment;
 - Sub Land Use: Industrial Estate;
 - Regions: England, excluding Greater London;
 - Floor Area Range:
 - Range Selected by User: 708 to 974,528 sqm;
 - Actual Range: 1,776 to 974,528 sqm;
 - Date Range: 01/01/13 to 21/10/20;
 - Location: Suburban Area, Edge of Town;
 - Sub Location: Industrial Zone;
- 5.5 A sample of 23 sites were selected that were deemed comparable to the proposed development. A copy of the TRICS output is provided in **Appendix E**.
- 5.6 The resulting E(g)(iii) (previously B1c) /B2 total vehicle and OGV trip rates are provided in **Table 5.1** and **Table 5.2** for the AM (08:00-09:00) and PM (17:00-18:00) peak hours, respectively.

Table 5.1: E(g)(iii) (previously B1c) /B2 Total Vehicle Trip Rates

Period	Arrival	Departure	Two-Way
AM (08:00-09:00)	0.103	0.045	0.148
PM (17:00-18:00)	0.029	0.085	0.114
Daily	1.020	0.924	1.944

Table 5.2: E(g)(iii) (previously B1c) /B2 OGV Trip Rates

Period	Arrival	Departure	Two-Way
AM (08:00-09:00)	0.008	0.008	0.016
PM (17:00-18:00)	0.005	0.004	0.009
Daily	0.088	0.086	0.174

- 5.7 From these trip rates, the resulting total vehicle and OGV movements are shown in **Table 5.3** and **Table 5.4**, respectively.

Table 5.3: E(g)(iii) (previously B1c) /B2 Total Vehicle Trips 11,461 sqm (GEA)

Period	Arrival	Departure	Two-Way
AM (08:00-09:00)	12	5	17
PM (17:00-18:00)	3	10	13
Daily	117	106	223

Table 5.4: E(g)(iii) (previously B1c) /B2 Total OGV Trips 11,461 sqm (GEA)

Period	Arrival	Departure	Two-Way
AM (08:00-09:00)	1	1	2
PM (17:00-18:00)	1	0	1
Daily	10	10	20

- 5.8 **Table 5.3** and **Table 5.4** demonstrate that if the proposed development was 100% Eg(iii)/B2 it would result in a small increase in the number of vehicles on the road network. Considering the site has up until recently been operating as a B8 Warehouse it is unlikely the small increase in trips will have a significant impact on the surrounding road network.
- 5.9 During the AM peak there will be an increase in total vehicle trips of 17 two-way trips and during the PM peak there will be an increase of 13 two-way trips. During the daily period there would be an increase of 223 two-way vehicles. It should be noted that, if the proposed Eg(iii)/B2 would result in an additional 2 two-way OGV trips during the AM peak and 1 two-way during the PM peak. During the daily period there would be an increase of 20 two-way OGV trips.
- 5.10 When considered in terms of the wider industrial estate this would equate to an additional vehicle at the site accesses every 3-5 minutes during the peak hours. This is not considered a material impact.

B8 Land Use 11,461 sqm (GEA)

- 5.11 Trip rates for B8 land use have been derived from the TRICS database. The following parameters were selected:
- Land Use: Employment;
 - Sub Land Use: Warehousing Commercial;
 - Regions: England, excluding Greater London;
 - Floor Area Range:
 - Range Selected by User: 190 to 80,066 sqm;
 - Actual Range: 11,200 to 31,000 sqm;
 - Date Range: 01/01/13 to 15/10/20;
 - Location: Edge of Town, Suburban Area;
 - Sub Location: Industrial Zone;
- 5.12 A sample of 3 sites were selected that were deemed comparable to the proposed development. Additional surveys were removed from the selection due to a number of reasons including the survey being carried out due to Covid and incomparable site locations. A copy of the TRICS output is provided in **Appendix E**.
- 5.13 The resulting total vehicle and OGV trip rates are provided in **Table 5.5** and **Table 5.6** for the AM (08:00-09:00) and PM (17:00-18:00) peak hours.

Table 5.5: B8 Vehicle Trip Rates

Period	Arrival	Departure	Two-Way
AM (08:00-09:00)	0.068	0.057	0.125
PM (17:00-18:00)	0.028	0.062	0.090
Daily	0.856	0.887	1.743

Table 5.6: B8 OGV Trip Rates

Period	Arrival	Departure	Two-Way
AM (08:00-09:00)	0.028	0.023	0.051
PM (17:00-18:00)	0.020	0.023	0.043
Daily	0.407	0.437	0.844

- 5.14 From these trip rates, the resulting total vehicle and OGV movements are shown in **Table 5.7** and **Table 5.8**.

Table 5.7: B8 Total Vehicle Trips 11,461 sqm (GEA)

Period	Arrival	Departure	Two-Way
AM (08:00-09:00)	8	7	14
PM (17:00-18:00)	3	7	10
Daily	98	102	200

Table 5.8: B8 Total OGV Trips 11,461 sqm (GEA)

Period	Arrival	Departure	Two-Way
AM (08:00-09:00)	3	3	6
PM (17:00-18:00)	2	3	5
Daily	47	50	97

- 5.15 **Table 5.7** and **Table 5.8** demonstrate that if the proposed development was 100% B8 it would result in a small increase in the number of vehicles on the road network. Considering the site has up until recently been operating as a B8 Warehouse it is unlikely the small increase in trips will have a significant impact on the surrounding road network.
- 5.16 During the AM peak there will be an increase in total vehicle trips of 14 two-way trips and during the PM peak there will be an increase in 10 two-way trips. During the daily period there will be an increase of 200 two-way total vehicles. It should be noted that, if the proposed site was 100% B8 it would result in an additional 6 two-way OGV trips during the AM peak and 5 two-way during the PM peak. During the daily period there would be an additional 97 two-way trips.
- 5.17 When considered in terms of the wider industrial estate this would equate to an additional vehicle at the site accesses every 4-6 minutes during the peak hours. This is not considered a material impact.

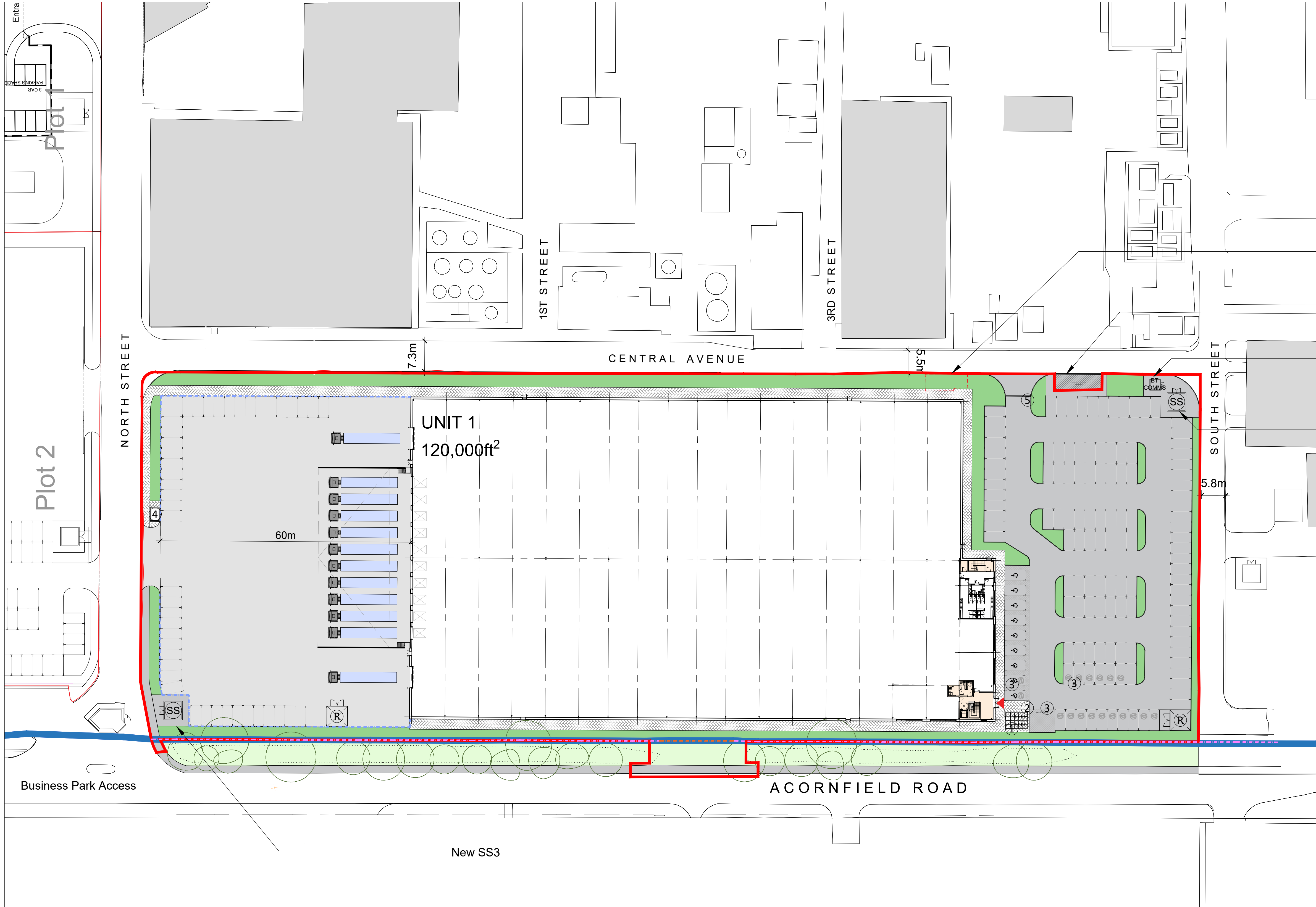
Summary

- 5.18 When considered in the context of the existing traffic flows on the roads within Knowsley Industrial Park the proposed development will not have a significant impact on the traffic levels generated by the site. This is of particular note considering until recently the site has been operating as a B8 Warehouse.

6 Summary and Conclusions

- 6.1 Vectos have been appointed by Knowsley (Image Business Park) Ltd to provide transport advice for the proposed development at Site 3 within Image Business Park, Knowsley.
- 6.2 Until recently, the existing site was 10,360sqm (GEA) of B8 Warehouse with ancillary office space which has since been demolished.
- 6.3 There are good walking and cycling facilities around the site, with a cycle route running to Kirkby Railway Station. It is observed that during the week, there are frequent public transport routes serving the site and the surrounding Industrial Park. There are bus routes running between the site and Kirkby Railway Station in the mornings and evenings. It is therefore considered that the site is located within a sustainable location regarding sustainable modes of travel and accessible to all.
- 6.4 The development proposals seek to apply for outline planning permission for flexible E(g)(iii) (previously B1c) /B2/B8 land floorspace of approximately 11,461 sqm (GEA). It is proposed to create a new access to the site from the private road leading from the Gate House on Acornfield Road. This will take the form of a priority T-junction.
- 6.5 A total of 180 car parking spaces, 9 of which will be for blue badge holders will be provided at the development. Moreover, 18 car parking spaces will have the capacity for electric vehicle charging. It is considered that this level of car parking provides a reasonable balance between minimising the potential for overspill parking and encouraging future employees to travel by non-car modes of transport.
- 6.6 A total of 24 cycle spaces are proposed at the development as well as 8 motorcycle parking spaces.
- 6.7 Following a trip generation assessment of the development proposals it is seen that the number of total vehicle trips forecasted will not have a significant impact on the road network, particular in the context of the existing traffic flows on the wider Industrial Estate.
- 6.8 A review has been undertaken of the relevant local and national policy. It is considered that the site complies with the transport tests set out in NPPF, i.e.
- The opportunities for sustainable transport modes have been taken up;
 - Safe and suitable access can be achieved for all people; and
 - The residual cumulative impacts of the development are not severe.
- 6.9 As a result of the above, there are no highway or transport reasons why the proposed development should not be permitted.

Appendix A



01 Proposed Site Plan

1:500@A1 / 1:1000 @ A3

Disclaimer:
Subject to survey.

Notes:

KEY

- Image Business Park
- Site Boundary Line
(22,457m²/ 5.55acres/ 2.25ha)

AREA SCHEDULE(GIA)

UNIT 1 (GIA)	120,000ft ²
Warehouse (Incl. office Undercroft)	110,700ft ²
Office (FF Only)	4,650ft ²
Office (SF Only)	4,650ft ²

Car parking spaces	180
Level Loading Doors	2
Dock Level Doors	10
Cycle Spaces	28

EXTERNAL MATERIALS:

- In-situ concrete
- Concrete block paving
- Permeable paving
- Soft Landscaping - Low maintenance grass
- Existing black chain link fence
- Proposed black chain link fence to tie into existing
- 2.6m Proposed Black paladin fence

- 1 Bicycle Stands
- 2 Motorcycle Parking
- 3 EV Charging
- 4 Security Hut
- 5 Parking Barrier
- R Refuse Area
- SS Substations

Outline of existing
SS2 - to be removed

Bld 18. Plant room
for FIS site

New BT Comms
Room

New SS2

DRAFT

F	Update site plan	31.08.21	HT	HA
E	Landscaping North & Car Parking	20.08.21	HT	HA
D	SS Moved/ Car P arrangement	09.08.21	HT	HA
C	Increased Yard Size	26.07.21	HT	HA
B	Unit flipped	22.07.21	HT	HA
A	SS/BT comms relocation	19.07.21	HT	HA
-	Draft Issue	08.07.21	HT	HA
Rev:	Notes:	Date:	Dwn:	Iss:

Client:



hale

ARCHITECTURE | DESIGN MANAGEMENT

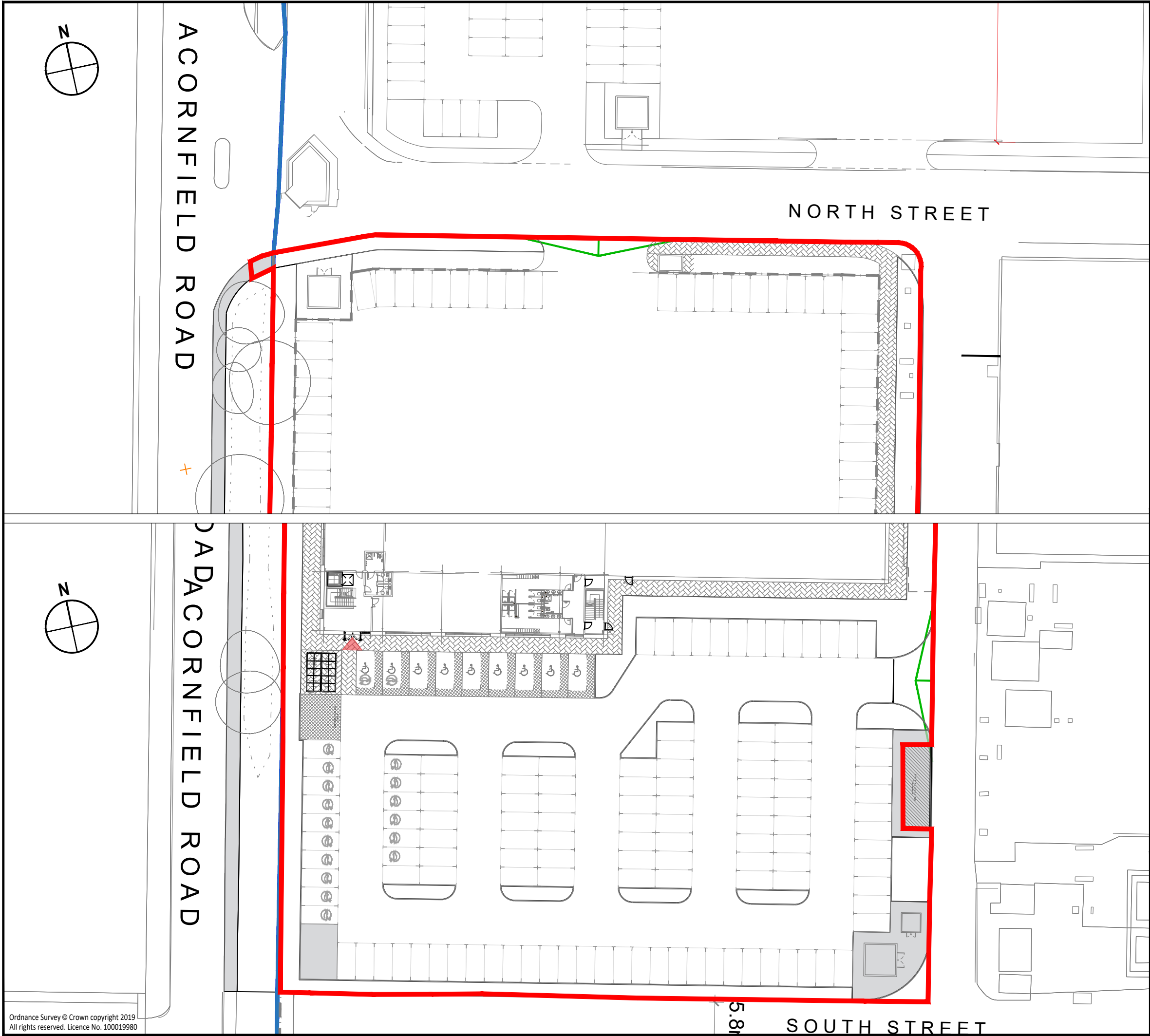
22c Leathermarket Street, London, SE1 3HP

Project:
Imagination 03
Image Business Park, Knowsley

Drawing Title:
Site 3
Proposed Site Plan

Project No: 21066	Scale @ A1/A3: 1:500 / 1:1000	Revision: F
Drawing No: 21066 - PL1102		

Appendix B



Notes:

- 1. This is not a construction drawing and is intended for illustrative purposes only.
- 2. White lining is indicative only.
- 3. Based on the Site plan : PL1102F - Proposed Site Plan

Visibility

— Junction Visibility - 2.4m x 11m (MfS 10mph)

C	New site plan	CP	JM	13.09.2021
B	New site plan	CP	JM	25.08.2021
A	New site plan	CP	JM	13.08.2021

REV.	DETAILS	DRAWN	CHECKED	DATE

CLIENT:

Image Business Park

PROJECT:

IBP Knowsley Site 3

DRAWING TITLE:

Visibility Splay

SCALES:

1:500 at A3

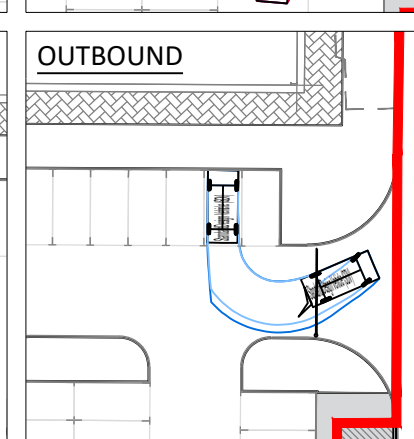
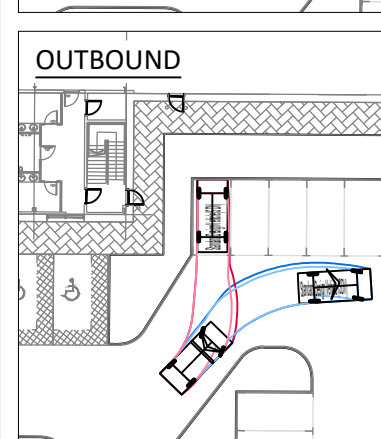
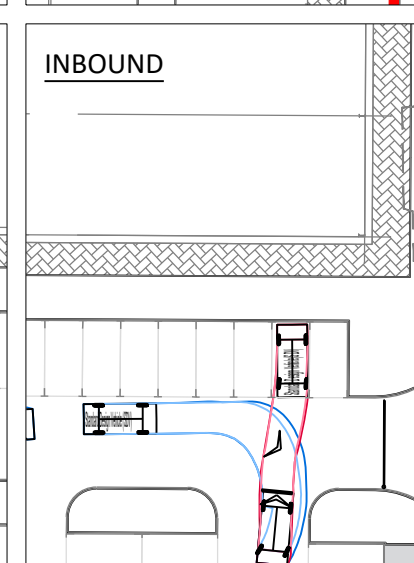
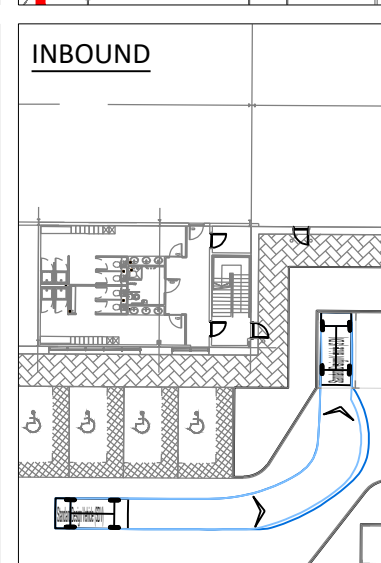
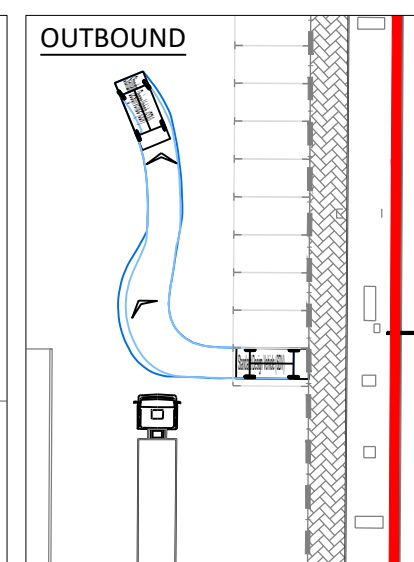
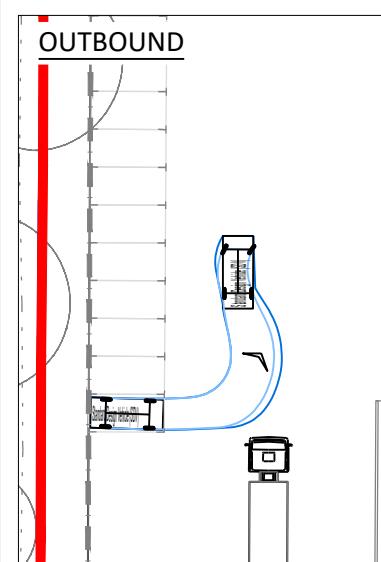
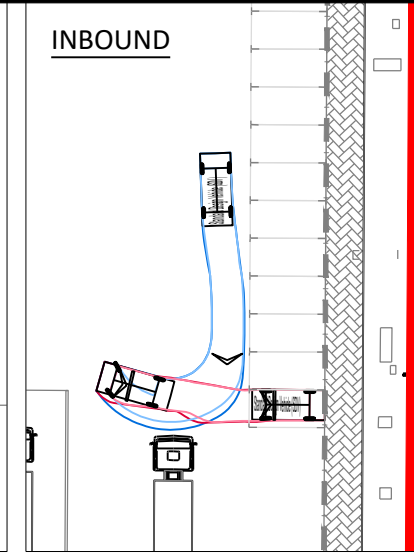
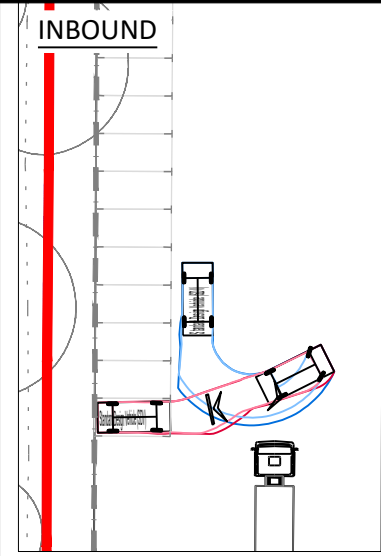
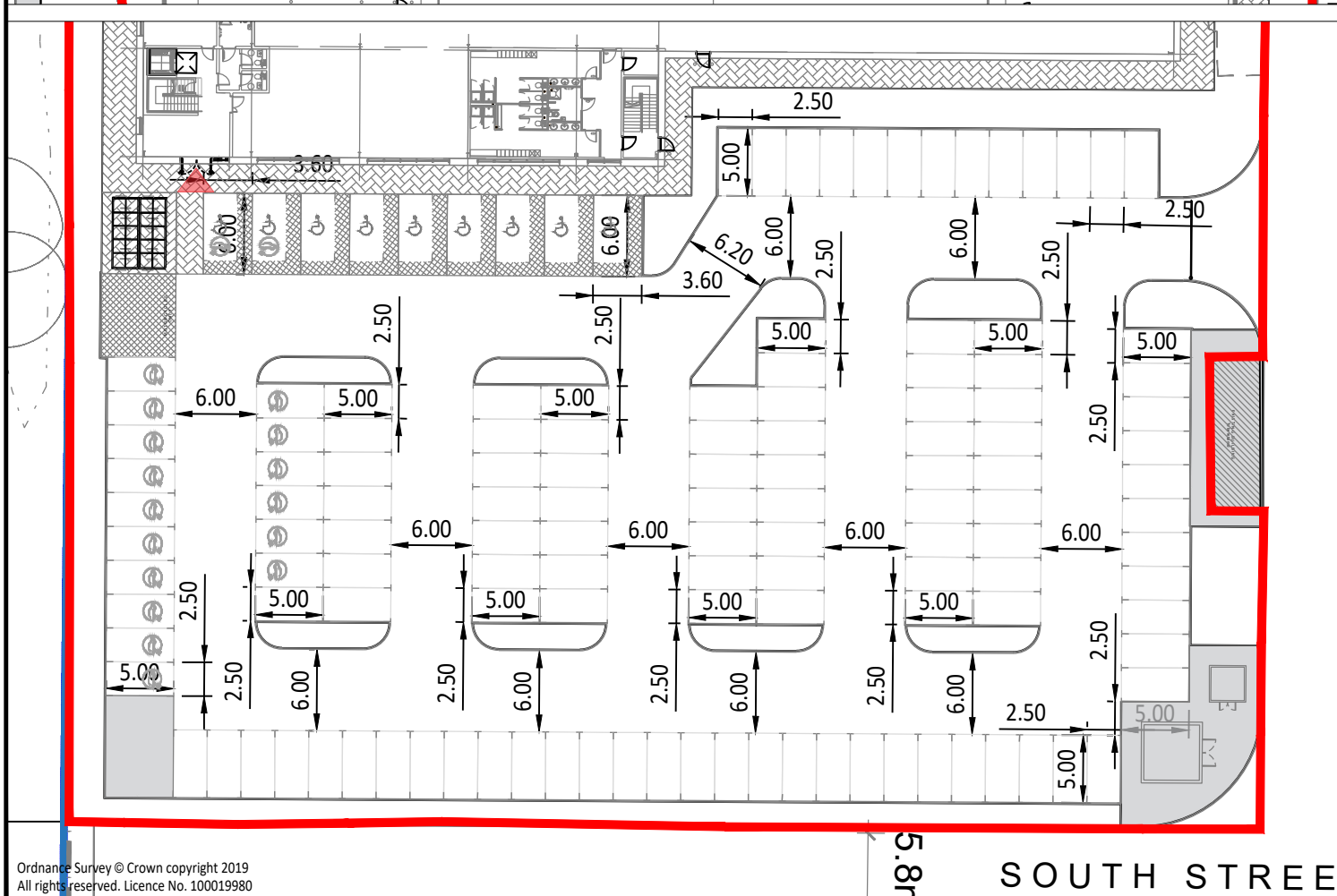
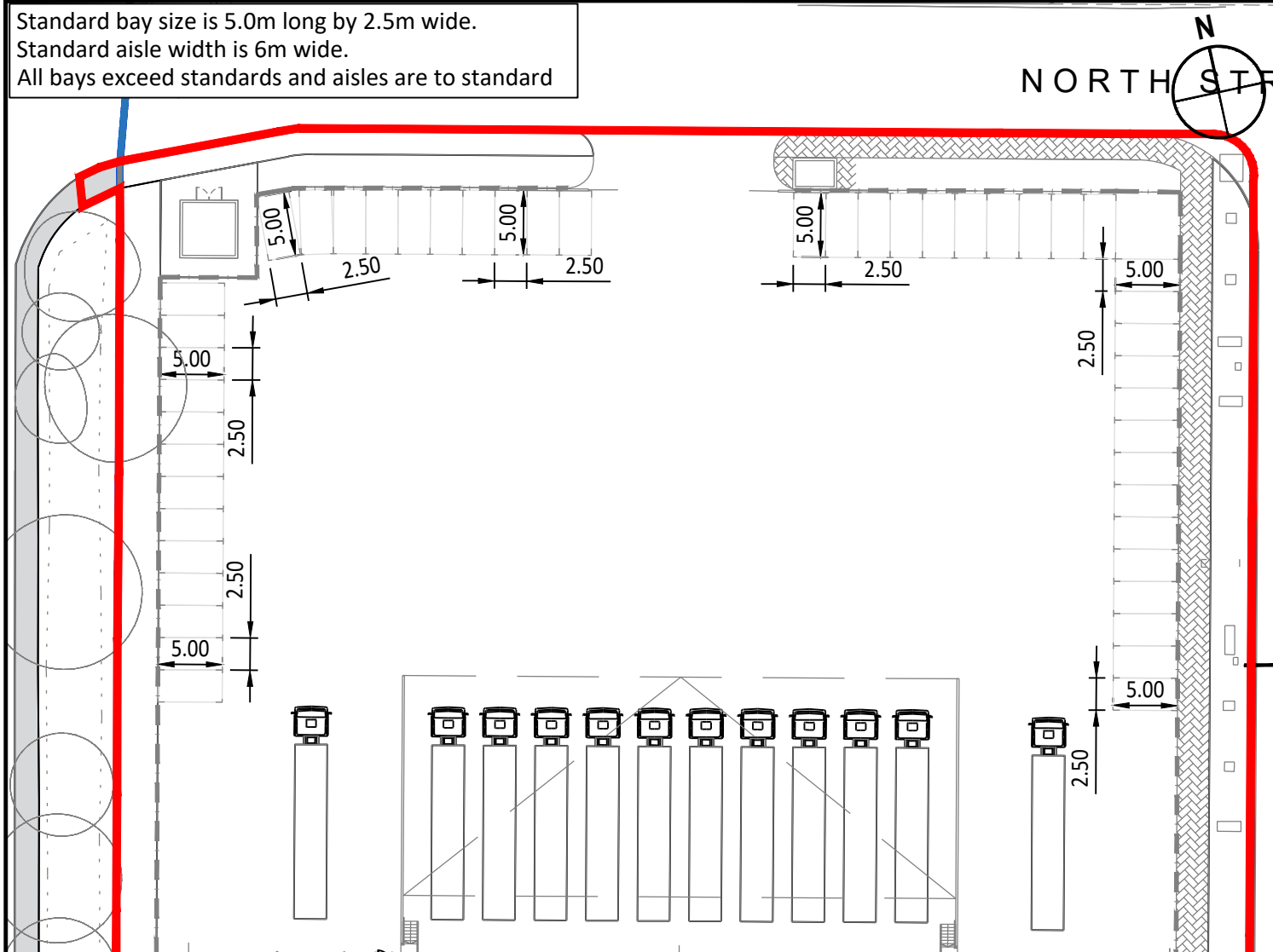
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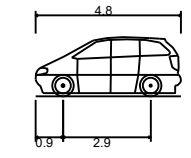
Network Building, 97 Tottenham Court Road, London W1T 4TP
t: 020 7580 7373 e: enquiries@vectos.co.uk

DRAWING NUMBER:	194781C/AT01	REVISION:	C
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Standard bay size is 5.0m long by 2.5m wide.
Standard aisle width is 6m wide.
All bays exceed standards and aisles are to standard



- Notes:**
1. This is not a construction drawing and is intended for illustrative purposes only.
 2. White lining is indicative only.
 3. Based on the Site plan : PL1102F - Proposed Site Plan



Standard Design Vehicle (SDV)	
Overall Length	4.800m
Overall Width	2.000m
Overall Body Height	1.950m
Min Body Ground Clearance	0.100m
Track Width	2.000m
Lock to lock time	4.00s
Wall to Wall Turning Radius	6.000m

C	New site plan	CP	JM	13.0%
B	New site plan	CP	JM	25.0%
A	New site plan	CP	JM	13.0%

REV.	DETAILS	DRAWN	CHECKED	D
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CLIENT:

Image Business Park

PROJECT:

IBP Knowsley Site 3

DRAWING TITLE:

Car Park Review

SCALES:

1:500 at A3

DRAWN:	CP	CHECKED:	JM	DATE:	25.08.20
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vectos.

Network Building, 97 Tottenham Court Road, London W1T 4TP
t: 020 7580 7373 e: enquiries@vectors.co.uk

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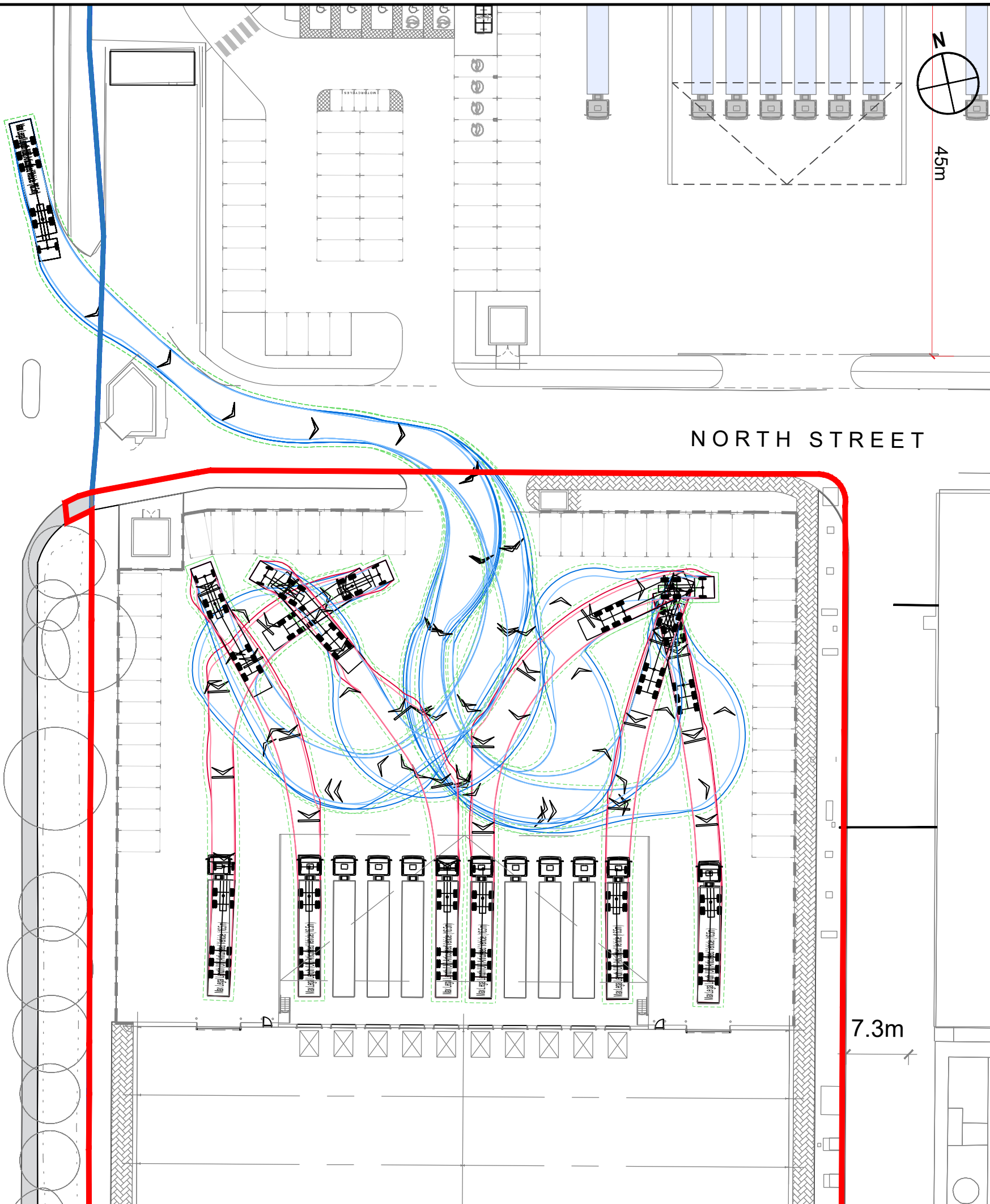
194781C/AT04

REVISION:

C

Appendix C

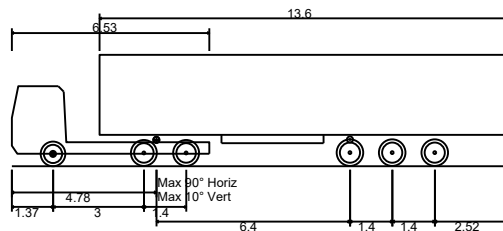
INBOUND



Notes:

1. This is not a construction drawing and is intended for illustrative purposes only.
2. White lining is indicative only.
3. Based on the Site plan : PL1102F - Proposed Site Plan

0.5m Articulated Vehicle offset



Max Legal Length (UK) Articulated Vehicle (16.5m)
Overall Length 16.500m
Overall Width 2.550m
Overall Body Height 3.681m
Min Body Ground Clearance 0.411m
Max Track Width 2.500m
Lock to lock time 6.00s
Kerb to Kerb Turning Radius 6.530m

A 500mm buffer has been shown around the vehicles manoeuvring into loading bays to provide a margin of safety

C	New site plan	CP	JM	13.09.2021
B	New site plan	CP	JM	25.08.2021
A	New site plan	CP	JM	13.08.2021

REV.	DETAILS	DRAWN	CHECKED	DATE
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CLIENT:

Image Business Park

PROJECT:

IBP Knowsley Site 3

DRAWING TITLE:

Swept Path Analysis
16.5m Articulated Vehicle
Inbound

SCALES:

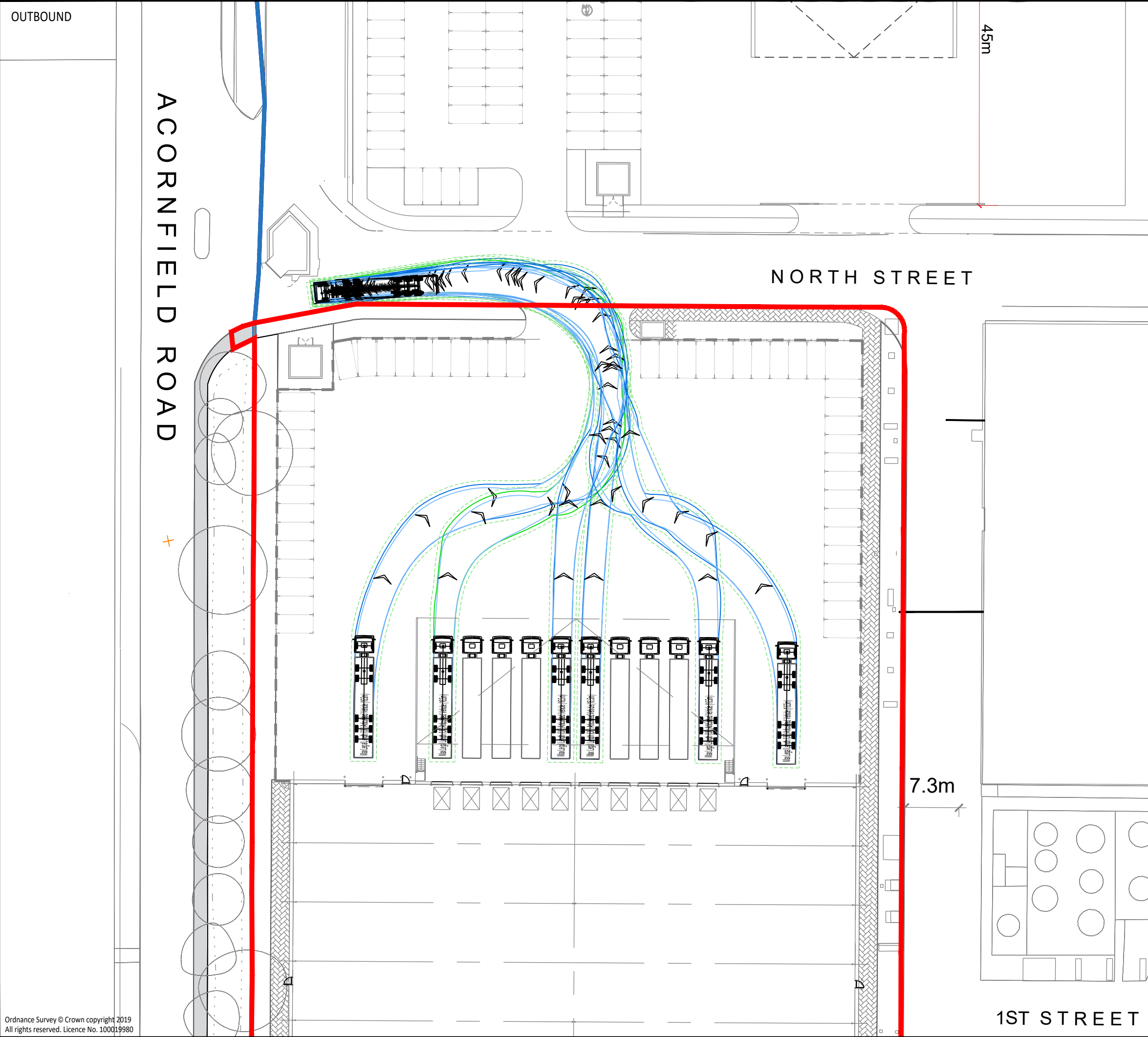
1:500 at A3

DRAWN:	CP	CHECKED:	JM	DATE:	25.08.2021
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t: 020 7580 7373 e: enquiries@vectos.co.uk

DRAWING NUMBER:	194781C/AT02	REVISION:	C
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Notes:

- This is not a construction drawing and is intended for illustrative purposes only.
- White lining is indicative only.
- Based on the Site plan : PL1102F - Proposed Site Plan

0.5m Articulated Vehicle offset

Max Legal Length (UK) Articulated Vehicle (16.5m)
Overall Length 16.500m
Overall Width 2.550m
Overall Body Height 3.681m
Min Body Ground Clearance 0.411m
Max Track Width 2.500m
Lock to lock time 6.00s
Kerb to Kerb Turning Radius 6.530m

A 500mm buffer has been shown around the vehicles manoeuvring into loading bays to provide a margin of safety

C	New site plan	CP	JM	13.09.2021
B	New site plan	CP	JM	25.08.2021
A	New site plan	CP	JM	13.08.2021

REV.	DETAILS	DRAWN	CHECKED	DATE
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CLIENT:

Image Business Park

PROJECT:

IBP Knowsley Site 3

DRAWING TITLE:

Swept Path Analysis
16.5m Articulated Vehicle
Outbound

SCALES:

1:500 at A3

DRAWN:	CP	CHECKED:	JM	DATE:	25.08.2021
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t: 020 7580 7373 e: enquiries@vectos.co.uk

DRAWING NUMBER:	194781C/AT03	REVISION:	C
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Appendix D

WORKPLACE TRAVEL PLAN

Knowsley (Image Business Park) Ltd

Site 3, Image Business Park, Knowsley

September 2021

Workplace Travel Plan

Contents

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5 Objective and Targets 19

6 Travel Plan Strategy..... 22

7 Measures and Initiatives..... 25

8 Monitoring and Review 28

9 BREEAM Credits..... 29

10 Action Plan 33

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- Figure 1 – Strategic Site Location
- Figure 2 – Local Site Location
- Figure 3 – Cycling Routes
- Figure 4 – Bus Routes
- Figure 5 – Local Highway Network
- Figure 6 – 500m Walking Isochrone

Appendices

- Appendix A – Accessibility Index Calculator

1 Introduction

- 1.1 Vectos have been appointed by Knowsley (Image Business Park) Ltd to provide transport advice for the proposed commercial development at Site 3 of Image Business Park, Knowsley.
- 1.2 The application site is located approximately 14.5km northeast of Liverpool and 11km northwest of St. Helens. Locally, the site is located to the east of Acornfield Road and extend too circa. 5.49 acres.
- 1.3 The site is bound to the north by North Street, to the east by Central Avenue, to the south by South Street and to the west by Acornfield Road. The area surrounding the site comprises of a mix of industrial uses. The site is shown in its strategic context in **Figure 1** and its local context in **Figure 2**.
- 1.4 Until recently, the existing site was 10,360 sqm (GEA) of mixed industrial space including B1c, B2 & B8 uses, which have since been demolished.
- 1.5 The planning application seeks to provide approximately 11,461 sqm (GEA) of flexible E(g)(iii) (previously B1c) /B2/B8 land with ancillary office, car parking, service yard and associated works. A plan of the proposed development can be viewed at **Appendix A**.
- 1.6 The purpose of this Travel Plan (TP) is for planning purposes and also to gain a BREEAM certification for the site. Specifically, this report will provide information relating to BREEAM 2018 focusing on sections TRA01 and TRA02.
- 1.7 The final occupants of the site are not yet known.

Mission Statement

- 1.8 The predominate aim of this TP is to put in place the management tools deemed necessary to enable users of the development to make more informed decisions about their travel, which minimises the adverse effects of their travel on the environment. This is achieved by setting out a strategy for eliminating the barriers keeping users from using sustainable modes which, in effect, self manages single-occupancy vehicle use.

Scope

- 1.9 This TP has been written as a standalone document and contains all the relevant information needed to effectively implement and monitor the Travel Plan itself.
- 1.10 The remainder of this document is structured as follows:
 - **Section 2** – Outlines the site location and accessibility by non-car modes
 - **Section 3** – Outlines the relevant national, regional, and local policy context;
 - **Section 4** – Outlines the baseline travel patterns for employees at the site;
 - **Section 5** – Sets out the objectives and targets of the Travel Plan;
 - **Section 6** – Outlines the Travel Plan strategy;

- **Section 7** – Sets out the measures that will be implemented to help achieve the objectives and targets of the Travel Plan;
- **Section 8** – Outlines the monitoring and review programme which will ensure the Travel Plan continues to develop;
- **Section 9** – Outline how the Travel Plan accords with the BREEAM guidance; and
- **Section 10** – Sets out the Action Plan for the site.

2 Existing Conditions

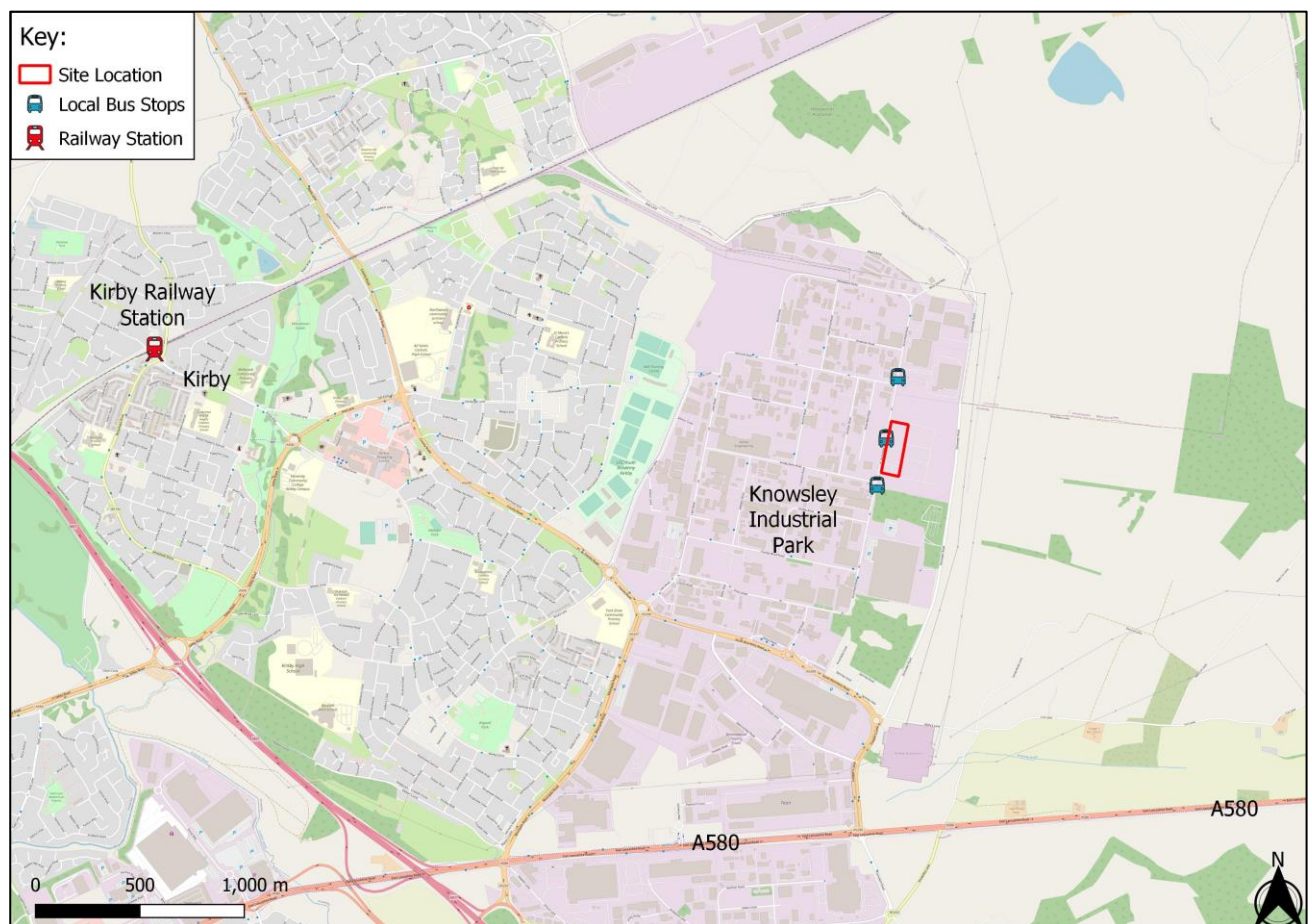
Introduction

- 2.1 This section provides a review of the existing conditions at the site and its local surroundings including accessibility to sustainable modes of transport.

Site Location

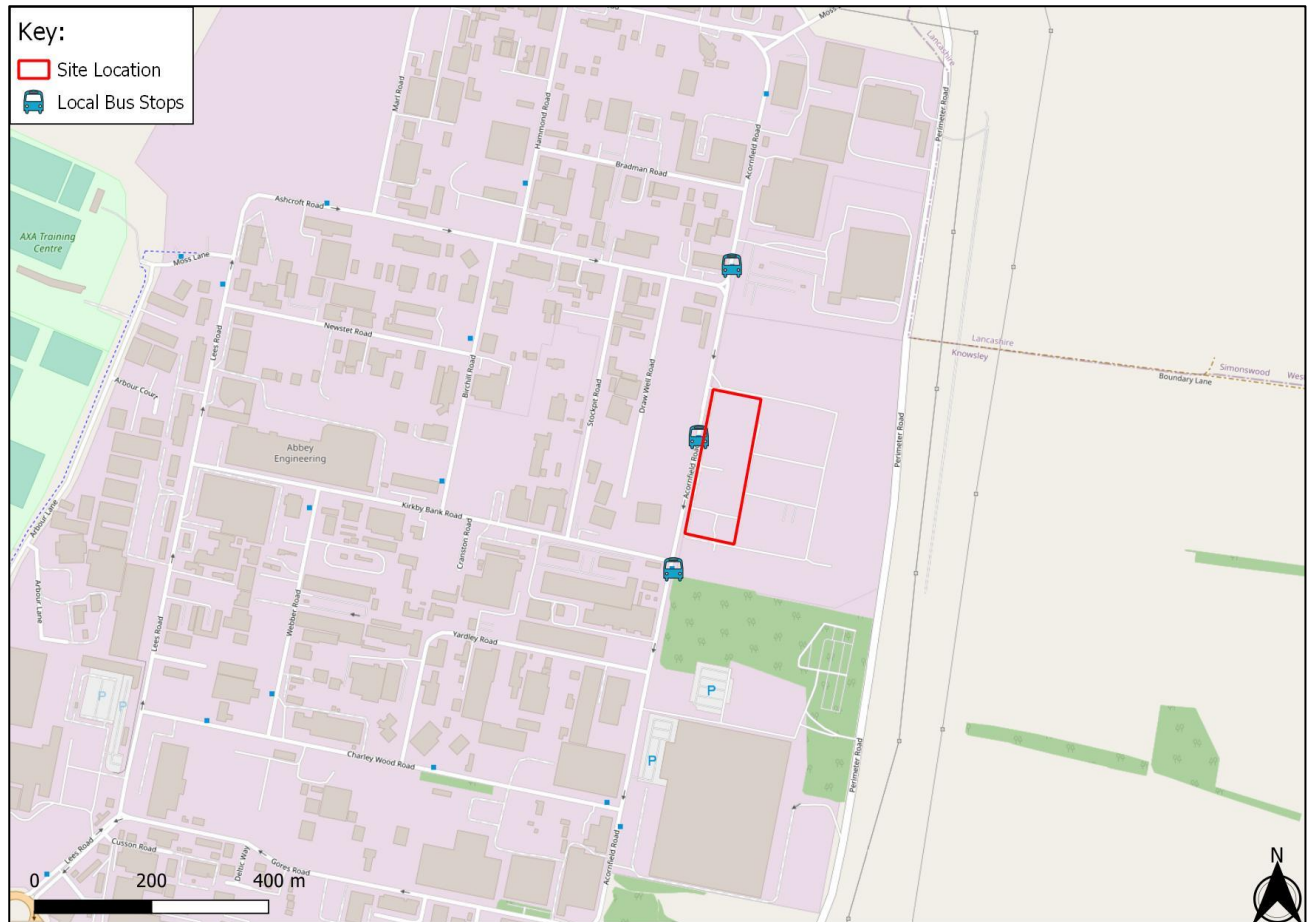
- 2.2 The site is located approximately 14.5km northeast of Liverpool and 11km northwest of St. Helens. The strategic location of the site can be seen in **Figure 1**.

Figure 1: Strategic Site Location



- 2.3 Locally, the site is located within the Image Business Park which itself is located within the Knowsley Industrial Park. The site in its local context can be seen in **Figure 2**.

Figure 2: Local Site Location



- 2.4 Access to Knowsley Industrial Park is provided by three roundabouts on South Boundary Road. The first to the east of the Business Park is in the form of a longabout which provides direct access to Acornfield Road which provides access to Image Business Park. To the west of the Business Park two roundabouts in close proximity to each other (approximately 250m apart) provide direct access to Lees Road and Arbour Road, whereby Acornfield Road can be accessed by traversing the internal road network.
- 2.5 From South Boundary Road, the A580 can be accessed to the south which links with the M57 Junction 6 to the west of the Business Park. To the east of the Business Park, the A2508 connects with the A580. From here vehicles can travel towards St. Helens to the east and Liverpool to the west.
- 2.6 Direct access to Image Business Park is provided from Acornfield Road. The access to the Business Park is currently controlled by a Gate House which is manned during operating hours.

Walking, Cycling and Disabled User Accessibility

Walking

- 2.7 Acornfield Road provides footways along either side of the carriageway with a good effective width. The footways along Acornfield Road provide access to the nearby bus stops and the rest of the

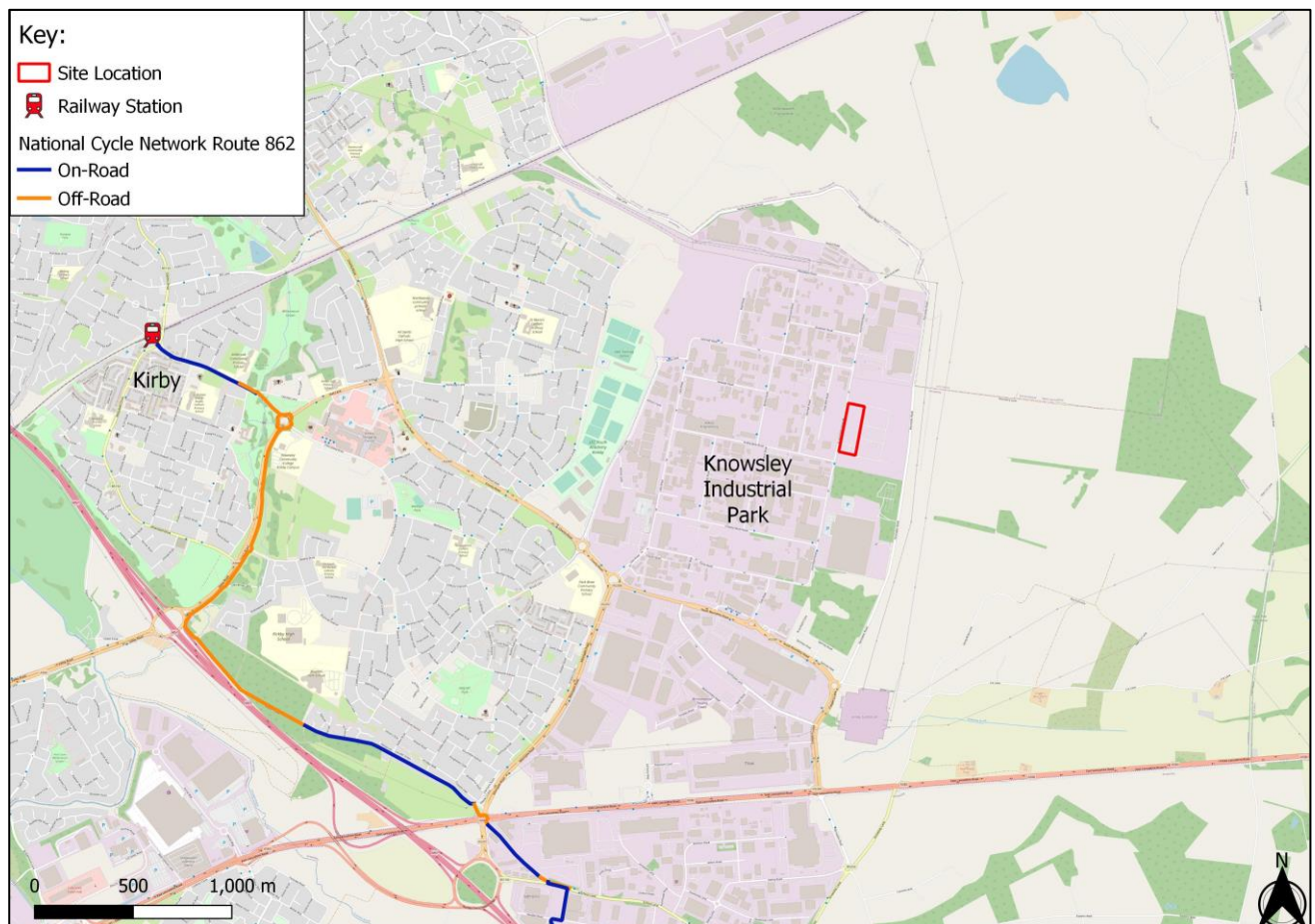
surrounding Knowsley Industrial Park. Good quality footways are also present in the surrounding Industrial Park linking the proposed development with the surrounding residential areas. Street lighting is provided throughout the Industrial Park, but no dedicated crossing facilities are provided in the immediate vicinity of the development.

- 2.8 Good footway provision continues outside of the Industrial Park on main access roads such as South Boundary Road. From here, bus stops can be accessed as well as Perimeter Road where a footway runs along the northern side of the road.

Cycling

- 2.9 Within the immediate vicinity of the site, cyclists are expected to travel on road throughout the Industrial Park. From the road signs at the entrance to Knowsley Industrial Park the speed limit is noted as 30mph which is conducive to cycling. The nearest dedicated cycle route to the site is National Cycle Network (NCN) Route 862 which runs from Kirkby Train Station to Deysbrook Lane in West Derby, Liverpool. This route allows future employees to travel to and from the site and the surrounding residential areas. NCN 862 will allow future employees to travel to the site via a multi model trip via walking/cycling and the train. The route can be seen in **Figure 3**.

Figure 3: Local Cycling Routes



- 2.10 There are clear footway and cycleway connections between the site, the surrounding areas and key transport hubs and it is, therefore, considered to be accessible by walking and cycling.
- 2.11 There are no cycle facilities currently provided on site.

Disabled Users

- 2.12 Due to the nature of the local industrial environment access for disabled users within the wider Knowsley Business Park is limited. No tactile paving or dropped kerbs exist at the Image Business Park Entrance. As referred to in paragraph 2.7, lighting is provided however no formal crossings are provided.
- 2.13 Access to the site within Image Business Park will be accessible for disabled users with tactile paving and dropped kerbs at each access and pedestrian crossover.

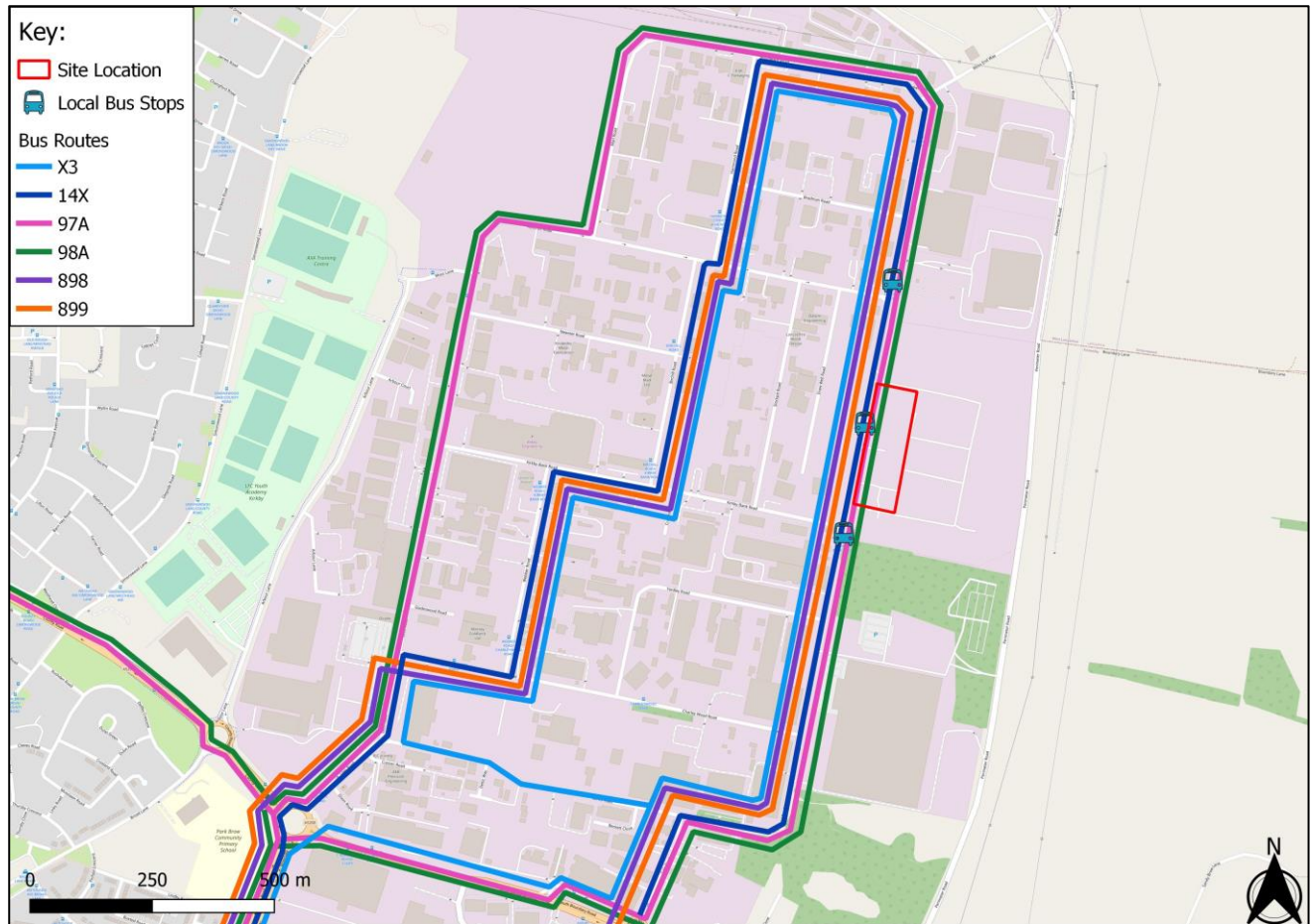
Public Transport Accessibility

Bus Services

- 2.14 The nearest bus stop to the site is approximately 150m south of the site access on Acornfield Road. The stop, 'Ashcroft Road', is served by seven bus routes with frequencies of approximately one to two per hour to locations including Liverpool and Page Moss. A summary of the services is provided in **Table 2.2** and also shown in **Figure 4**.

Table 2.2: Summary of Bus Services and Frequencies

Service	Route	Weekday	Saturday	Sunday
14X	Liverpool - Kirby Admin	4 per hour (morning only)	4 per hour (morning only)	N/A
97A	Kirkby Circular	2 per hour (mornings/evenings only)	N/A	N/A
98A	Kirkby Circular	2 per hour (mornings/evenings only)	N/A	N/A
827	Old Swan – Kirby	1 service during the morning	N/A	N/A
898	Page Moss - Kirkby Admin Circular	1 per hour	1 per hour	1 per hour
899	Page Moss - Kirkby Admin Circular	1 per hour	N/A	N/A
X3	Liverpool – Kirkby/Knowsley Industrial Park	1 per hour	N/A	N/A

Figure 4: Bus Route Summary

Rail Services

- 2.15 The nearest train station is Kirkby (shown in **Figure 1**) which is located approximately 4km to the west of the site, which is within cycling distance of the site. The station, managed by Merseyrail, has trains running to both Liverpool Central and Manchester Victoria. The station can be reached by approximately a 15-minute cycle on NCN Route 862 or by both the 97A and 98A buses.
- 2.16 Kirkby Train Station has step free access to all platforms and ramps available with staff assistance to allow physically and visually impaired users to access the services.
- 2.17 **Table 2.3** summarises the services available from Kirkby Train Station.

Table 2.3: Summary of Rail Services

Destination	Weekday	Saturday	Sunday
Liverpool Central	4 per hour	4 per hour	2 per hour
Manchester Victoria	1 per hour	1 per hour	N/A

Local Highway Network

Acornfield Road

- 2.18 Acornfield Road runs on a north-south alignment between Woodward Road in the north and Gores Road in the south. South of Ashcroft Road, it is a two-lane one-way road flowing southbound. Approximately 100m south of Ashcroft Road, the key access point to Image Business Park is provided. Acornfield Road provides direct access to all three main access points from the proposed development.
- 2.19 The road is fronted onto by other commercial properties which are part of the surrounding Knowsley Industrial Park. Along its length, the road has a 30mph speed limit. Footways are provided along either side of the carriageway with street lighting. Along the eastern edge of the road, double yellow lines are provided which restrict parking.

South Boundary Road (A5208)

- 2.20 The South Boundary Road section of the A5208 runs from east to west. The road runs between the Perimeter Road / Molly's Lane / Coopers Lane roundabout in the east and the Moorgate Road North / Lees Road / County Road roundabout in the west. The road is a two-lane dual carriageway with a 40mph speed limit and footways running along both sides of the road. The road is fronted by commercial properties, although these are set back by sizeable verge areas.
- 2.21 Beyond the South Boundary Road section of the A5208, the A5208 is a key distributor road providing a link from the proposed development to the surrounding residential areas. Furthermore, it provides a link between the proposed development and the strategic road network of the M58.

A580

- 2.22 The A580 runs between Salford and Liverpool on an east-west alignment. The road, which lies to the south of the site, is a two-lane dual carriageway with a 50mph speed limit. In proximity to the site, there is a footway running along the westbound carriageway and a two-way cycle lane running eastbound, both with street lighting.
- 2.23 The A580 can be accessed from two of the main access points and provides a key connection between the proposed development and the strategic road network.

M57

- 2.24 The M57, also known as the Liverpool Outer Ring Road, links various towns to the east of Liverpool including Knowsley and Huyton. The two-lane motorway is national speed limit and runs to the west of the site.
- 2.25 Travelling west along South Boundary Road and then south on Moorgate Road North, Junction 4 can be reached which acts as the closest point to the site at which the M57 can be accessed.
- 2.26 A summary of the local highway is shown in **Figure 5**.

Figure 5: Local Highway Network Summary



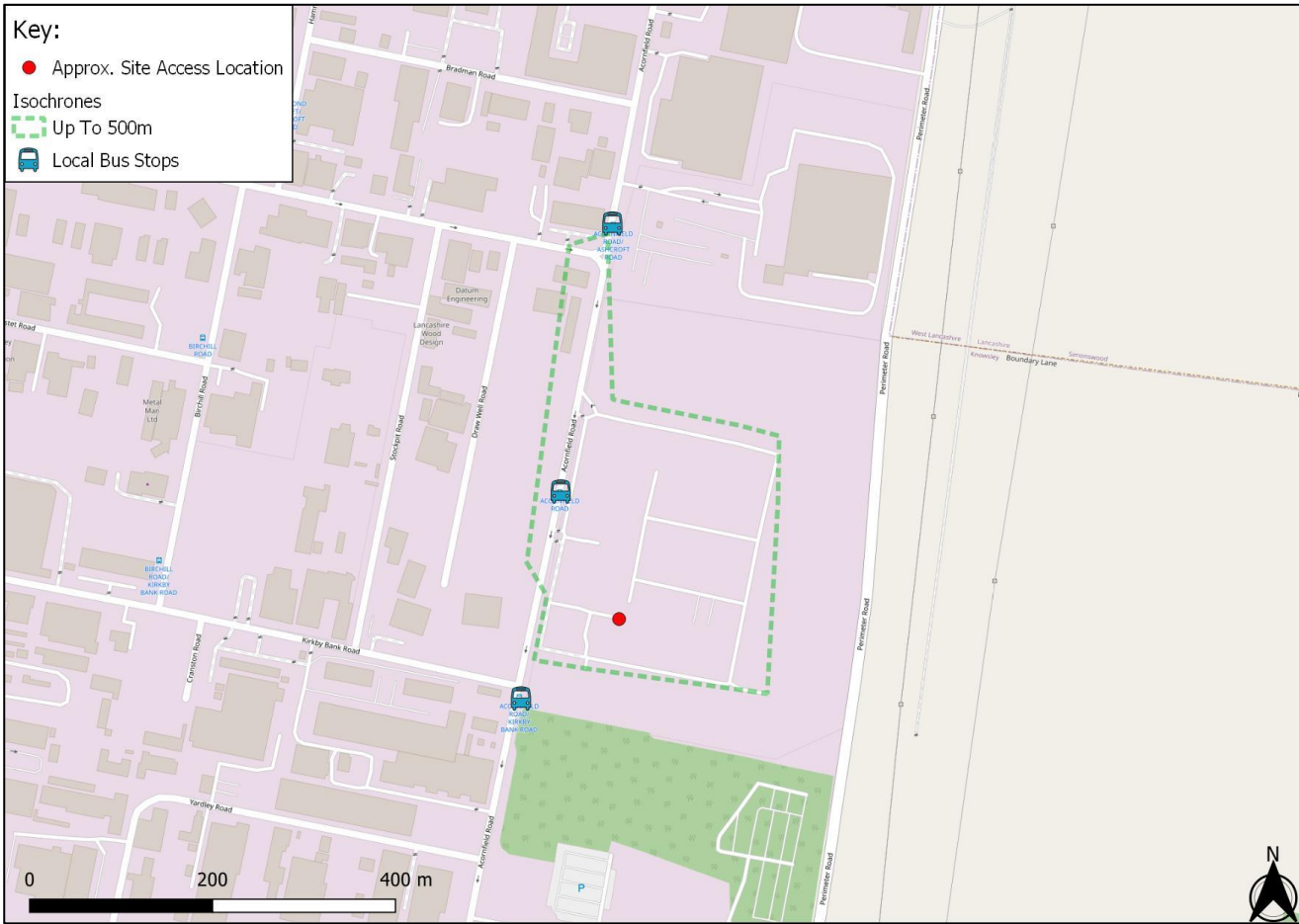
Collision Data

- 2.27 Accident data for the most recent five-year period up to 2021 has been accessed via CrashMap.co.uk. A review shows within the proximity of the site access on Acornfield Road there have been no accidents in the last five-year period.

Local Facilities

2.28 As part of the BREEAM document, it is a requirement to show facilities within 500m of the site. **Figure 6** shows a 500m walking isochrone from the site taking into account the proposed layout shown in **Appendix A**.

Figure 6: 500m Walking Isochrone



2.29 **Figure 6** above demonstrates that although there are no walkable local facilities. However, local facilities can be accessed via cycle or using the bus services provided at the bus stops which are within a short walk of the site.

Public Transport Accessibility Index (AI)

2.30 As part of this Travel Plan the public transport Accessibility Index (AI) has been used to assess the accessibility of the site from a public transport perspective. This has been undertaken for BREEAM purposes and represents a simplistic calculation of the accessibility of the site. It should be noted that the AI value alone does not indicate the full propensity for staff and visitors to use public transport to access the site.

2.31 Using the local services, the site achieves an AI of **3.71**. The full AI Calculator is included at **Appendix A**.

Summary

- 2.32 In summary, the site is accessible on foot as the nearby roads all have footways that are of reasonable width and lit. In addition, the site is accessible on bicycle from residential areas nearby and Kirkby Train Station. Numerous bus services are accessible from bus stops nearby the proposed development.
- 2.33 The site is, therefore, considered accessible by sustainable modes of transport as well as benefitting from good access to the strategic road network

3 Policy Context

- 3.1 This section of the Transport Statement addresses the relevant national and local policy, in the context of the site and the development proposals.

National Policy

National Planning Policy Framework (July 2021)

- 3.2 The National Planning Policy Framework (NPPF) is a central government planning document produced by the Department for Communities and Local Government. The revised 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, July 2018 and February 2019.
- 3.3 Section 9 of the NPPF deals with 'Promoting sustainable transport.' Paragraph 105 states that:
- "Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes."*
- 3.4 Paragraph 110 sets out the transport issues which should be addressed within Development Plans and decisions. These are:
- *"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 46; 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."*
- 3.5 Finally, the NPPF states that: *"Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe."*

Regional Policy

The Third Local Transport Plan for Merseyside (LTP3)

- 3.6 The Third Local Transport Plan (LTP) for Merseyside has the vision of creating *"a low carbon future which has a transport network and mobility culture that positively contributes to a thriving economy and the health and wellbeing of its citizens and where sustainable travel is the option of choice."*

- 3.7 The plan recognises the importance of finding *“better ways of matching our transport network with new developments, new and smarter ways of travelling around and delivering transport services that ensure the efficient movement of people and goods.”*
- 3.8 The concept of creating a new Mobility Culture is presented as a key way to meet the area’s current challenges and maximise future opportunities. As set out in Section 2: Our Vision and Goals, it is stated that *“a new mobility culture means developing a transport system which supports the objectives and aspirations of all communities and organisations across Merseyside. It is about developing a transport system that provides real sustainable mobility options and which supports the continuing regeneration and economic development of the city region.”*
- 3.9 Paragraph 4.32 discusses the future prospects of Knowsley Industrial Park with the Council undertaking a review to *“identify to what extent the Park can be remodelled to meet some of the identified need for employment land.”* Table 13 in the report notes requirements for *“improvements to freight facilities and selected highways investment to improve freight access.”*
- 3.10 Part two of the LTP focusses on how the goals will be delivered. Paragraph 2.23 highlights Knowsley Industrial Park as an area where a significant number of short trips (less than 5 miles) could be made by bike and discusses ways this could be achieved.

Local Policy

Knowsley Local Plan Core Strategy (2016)

- 3.11 The Knowsley Local Plan Core Strategy sets out how growth and development in both the regional and local area will take place to 2028 and beyond. It sets out how and where new development and regeneration should take place and, therefore, a guide for future development of the borough.
- 3.12 Policy CS2 Principle 3 focusses on reducing the need to travel and increasing accessibility by:
- *“Selecting locations that reduce the need to travel, especially by car, and enable people as far as possible to meet their needs locally;*
 - *Assisting the Council in achieving a shift towards more sustainable modes of transport for people, goods, and freight;*
 - *Encouraging safe and sustainable access for all, particularly by promoting the use of public transport, walking, and cycling between homes and employment; and*
 - *Supporting the provision and retention of shared space, community facilities and other local services (such as local shops, health facilities, education provision, meeting places, sports venues, cultural buildings, public houses and places of worship).”*
- 3.13 Paragraph 5.69 notes that:
- “A key aspect of the Knowsley Local Plan will be to support a sustainable transport system and geographical pattern of development which minimises the need to travel and will help grow the borough’s economy, ensuring that jobs, shops and services are accessible to all, leading*

to a lesser reliance on the car for travel. This will help to improve the environment and the health and wellbeing of residents.”

3.14 The section of Policy CS7 that focusses on the location, design and management of new developments states *“New development will be required to be:*

- Located and designed to prioritise accessibility and sustainable modes of travel through a choice of walking, cycling, public transport, and incorporate access for private vehicles. Where deficiencies are identified, developer contributions will be required to improve the accessibility of the location;*
- Located and designed to ensure that larger scale proposals (attracting a lot of visitors, customers and/or employees) are located in the most accessible locations;*
- Where subject to a planning application, accompanied (except in the case of smaller scale proposals) by Transport Assessments and/or Travel Plans;*
- In compliance with adopted cycle, car, disabled and service vehicle parking standards for different types and scales of new development;*
- Inclusive of measures that will mitigate carbon emissions and improve air quality where appropriate; and*
- Consistent with safeguarding arrangements that secure the operational integrity and safety of Liverpool John Lennon Airport.”*

3.15 Supplementary to the Knowsley Local Plan is the ‘Ensuring a Choice of Travel’ SPD which outlines guidance on transport issues as well as local parking standards for each type and size of development. **Table 3.1** sets out the parking standards relevant to the proposed development.

Table 3.1: ‘Ensuring a Choice of Travel’ SPD Parking Standards

Land use	Car parking (maximum)	Disabled parking (minimum) (up to 200 bays)	Cycle parking (minimum)	Motorcycle parking
B1c/B2 (other area)	1 space per 45sqm	Individual bays for each disabled employee plus 2 bays or 5% of total capacity whichever is greater	1 space per 450sqm (minimum of 2 spaces)	1 space per 1,000sqm (minimum of 2 spaces)
B8 (other area)	1 space per 100sqm	Individual bays for each disabled employee plus 2 bays or 5% of total capacity whichever is greater	1 space per 850sqm (minimum of 2 spaces)	1 space per 2,000sqm (minimum of 2 spaces)

Summary

- 3.16 A key aim of local and national transport policy is to integrate land use planning and transport for new development and to promote accessibility by non-car modes of transport wherever possible.
- 3.17 As noted above, the proposed site is well served by sustainable transport modes including an extensive pedestrian network, local cycle routes and several bus routes linking the site to Kirkby Train Station. The development proposals will also be supported by this WTP which will aim to increase the use of sustainable modes and reduce single occupancy vehicle movements from the proposed development.
- 3.18 As a result, the proposed development is considered to comply with local and national policy objectives.

4 Baseline Travel Patterns

Introduction

- 4.1 This section will set out the baseline mode split information for users of the development. This will be used as a basis for setting future targets in this WTP.

Mode Share

- 4.2 Within the first six months of occupation of the development, employee travel surveys will be completed which will accurately identify the travel patterns of employees to the site. These will be carried out in the form of travel survey questionnaires and will identify an employee's main mode of travel to work.
- 4.3 In the interim, as no existing travel data is available, the baseline modal split will be derived using Census 2011 origin-destination travel to work data. The WTP will set out a range of targets based on this data and outlines the commitment of the travel plan to undertake a range of surveys over a five-year period to monitor achievement of the targets set.
- 4.4 This WTP recognises that it is not possible to set out accurate targets based on generic census data. Given this, it should be acknowledged that the mode share will change over time as a result of the baseline travel surveys and future monitoring year surveys. This will be discussed with the Knowsley Metropolitan Borough Council (KMBC) Business Travel Plan Advisor.
- 4.5 **Table 4.1** below shows the interim baseline modal split for journeys made to and from the site for employees. The expected modal split has been taken from the 2011 Census, from method of travel to work (workplace population) for Knowsley Middle Super Output Areas Knowsley 001 and Knowsley 005.

Table 4.1: Existing Journey to Work Mode Share

Mode	Average Mode Split (%)
Underground, metro, light rail or tram	0%
Train	1%
Bus, minibus or coach	8%
Taxi	2%
Motorcycle, scooter or moped	1%
Driving a car or van	71%
Passenger in a car or van	9%
Bicycle	2%
On foot	5%
Total	100%

Details: Mode categories 'working from home' and 'other' have been removed.

- 4.6 **Table 4.1** indicates that 16% of future employees are anticipated to travel by public transport modes and by active modes, while a further 71% are anticipated to travel by private vehicle.
- 4.7 Based on the mode share presented in **Table 4.1**, the TP will set out a range of targets and outline the commitment of the TP to undertake surveys over a five-year period to monitor achievement of these targets.

Baseline Travel Survey

- 4.8 As mentioned above, within the first six months of occupation of the development, the occupier will undertake employee travel surveys which will accurately identify travel patterns to the site. These will be undertaken in the form of questionnaires which will identify an employee's main mode of travel to work. The content of the travel survey will be discussed with the KMBC Business Travel Plan Advisor prior to the surveys being undertaken. The undertaking of the baseline surveys represents the start of the WTP for monitoring purposes.
- 4.9 The results of the baseline travel surveys will provide information on the established travel choices of employees, and hence will provide a basis for ratifying and adjusting the targets as set out in this WTP.

5 Objective and Targets

Introduction

- 5.1 This section of the report sets out the overarching objectives for the WTP, as well as targets for the short and medium term. It includes indicators through which progress towards meeting the targets will be measured. Further information on monitoring and review of the WTP can be found in **Section 8**.

Objectives

- 5.2 Objectives are the high-level aims of the WTP. They help to give the WTP direction and provide a clear focus.
- 5.3 The objectives of this WTP are two-fold. Firstly, to increase awareness of sustainable travel modes available to staff and secondly to reduce the dependence of staff on travelling by vehicle.
- 5.4 The WTP's overriding objective is to *reduce* the number of single occupancy vehicle movements at the site, by facilitating the use of more sustainable alternative forms of transport.
- 5.5 The sub-objectives are:
- To increase the awareness of choice of travel modes and promote social inclusion;
 - To promote the health and environmental benefits of walking, cycling and public transport use; and
 - To provide clear information to all employees and visitors on the sustainable modes of transport available at the site.
- 5.6 These objectives will be achieved by introducing a package of physical and management measures that will facilitate employee travel by sustainable modes.

Targets

- 5.7 Travel Plan targets are measurable goals by which progress can be assessed. These targets should be reviewed through a programme of monitoring (outlined in **Section 8**) to ensure they remain SMART (Specific, Measurable, Achievable, Realistic and Timed).
- 5.8 Targets come in two forms – Action Targets and Aim Targets:
- **Action Targets** are non-quantifiable actions that need to be achieved by a certain time.
 - **Aim Targets** are quantifiable and in the case of this WTP relate to the degree of modal shift the plan is seeking to achieve.

Action Targets

- 5.9 The Action Targets for this Travel Plan in the short term are:

- To appoint a Travel Plan Co-Ordinator prior to occupation.
- To coordinate baseline travel surveys (see **Monitoring and Review, Section 8**)

5.10 A further action plan has been completed within **Section 10** of this WTP, this provides the key actions required before and within the first six months of occupation.

Aim Targets

- 5.11 The aim targets of this WTP are focused on employee travel to the site.
- 5.12 The 2011 Census Data (as shown in **Table 4.1**) shows the established travel patterns for those traveling within the Knowsley MSOAs for employment. This forms the interim baseline travel patterns of the site until travel surveys can be carried out by future occupiers. These will be carried out within six months of first occupation.
- 5.13 The data demonstrates that approximately 71% of employees travel to work as the driver of a vehicle. These results suggest that there is scope to shift modal choice towards more sustainable modes of transport.
- 5.14 Based on this census data, targets for the overall modal shift of the site have been established. This WTP recognises that it is not possible to set out accurate targets far in the future, even when based on actual modal share data (i.e., after the baseline surveys have been undertaken). Given this, it should be acknowledged that the target will change over time as results from on-going monitoring become available. This will be discussed with the KMBC Business Travel Plan Advisor.
- 5.15 For this WTP, targets are set over a five-year period from the time of the initial baseline travel survey. The final target for this WTP should be achieved by the fifth anniversary of the first travel survey. There will be an interim review of the progress towards targets on the third anniversary of the initial baseline travel surveys. If the targets are not met by year five, the lifecycle of this WTP will be extended to a date agreeable with both KMBC and the occupiers.
- 5.16 **Table 5.1** below summarises target for employees at the site.

Table 5.1: Travel Plan Aim Target

Target	Indicator	Mode Split		
		Year 1	Year 3	Year 5
Achieve a 5-percentage point decrease in single occupancy vehicle movements	Travel Surveys	71%	68.5%	66%
Achieve a 5-percentage point increase in sustainable transport mode share (including active modes)	Travel Surveys	16%	18.5%	21%

- 5.17 The targets listed in **Table 5.1** are based on preliminary data and therefore may need to be adjusted once an accurate baseline mode share has been established from the baseline travel surveys. Any adjustments to the targets will be discussed and agreed with KMBC.
- 5.18 Indicators are the elements which will be measured in order to assess progress towards meeting the final target. For the most part this will be the main mode listed by employees of the site in the monitoring surveys conducted annually up to and including year five.
- 5.19 This target will be achieved by introducing a package of physical and management measures that will facilitate employee travel by sustainable modes. A description of these measures is set out in **Section 6**.
- 5.20 Details on the review and monitoring of these targets are set out in **Section 8**.

6 Travel Plan Strategy

Management

- 6.1 The role of the TPC will be part-time and will vary throughout the year in response to campaigns / sustainable transport events / monitoring surveys taking place. The TPC will be allocated enough time to effectively manage and implement the WTP as agreed.

Funding

- 6.2 The WTP, its accompanying measures and initiatives, and the TPC role will be funded by the owner throughout the five-year period. The owner will ensure that the TPC has sufficient funding to effectively implement the Plan.

TPC Responsibilities

- 6.3 The TPC will be responsible for the administration of the WTP, the implementation of measures, and for the on-going monitoring and review of the Travel Plan. They will have overall responsibility for ensuring that the measures are successfully delivered on time and to budget.
- 6.4 The TPC will report to the management company or owner and other involved stakeholders such as staff associations (if applicable) and KMBC regarding the implementation and progression of the WTP.
- 6.5 The TPC will also liaise with, as set out under the WTP Measures (**Section 7**), local bus and rail operators to discuss the potential for discounted ticketing and walking / cycling retail outlets to discuss initiatives to encourage the use of these sustainable modes.
- 6.6 The duties of the TPC will therefore include:
- To provide guidance to, and be the main point of contact for staff and issue travel information to staff;
 - To liaise with staff to inform them of upcoming promotions and to gather feedback on the day-to-day operations of the travel plan;
 - To communicate information to staff regarding relevant national and local initiatives related to the promotion of sustainable travel;
 - Undertake the travel surveys over the five-year period and supply evidence of this to KMBC;
 - Take responsibility for data collection and review of the WTP;
 - Design and implement effective marketing and awareness-raising campaigns to promote the WTP;
 - Liaise with external organisations, e.g., local authorities and retailers;

- Co-ordinate the monitoring programme for the WTP, including target setting (in agreement with KMBC) and make necessary changes if the targets are not being met; and
- Establish and maintain a filing system for recording all correspondence relating to the WTP.

Reporting

- 6.7 The TPC will prepare a monitoring report on an annual basis on the progress of the WTP. The reports will include the following:
- Progress on the implementation of measures and initiatives to promote sustainable transport use;
 - Latest survey results; and
 - Any revisions to targets and measures.
- 6.8 The report will be provided to KMBC Business Travel Plan Advisor within three months of completion of the survey. Any revisions to targets or measures will be agreed with KMBC.

Marketing Strategy

- 6.9 An essential element of the strategy identified in this WTP, and one which largely determines its success, is the promotion of the WTP. In order to promote and increase awareness of the WTP, the following measures will be adopted:
- Display of key WTP information on public notice boards, company websites, including posters and / or leaflets;
 - Arrange Q&A sessions and offer a personalised travel planning service if demand is identified;
 - Promote national travel initiatives and organise site-wide events such as organised cycle rides;
 - The TPC will arrange for the display and distribution of sustainable travel information at the development's marketing suite and on the marketing website; and
 - The provision of Information Packs containing the following information:
 - Local taxi numbers;
 - Walking and cycling routes;
 - Public transport timetabled information and journey planning websites;
 - Car sharing opportunities;
 - TPC contact information;

- Community guides about facilities and services near to the development; and
- A brief overview of the WTP.

6.10 The Information Packs will be distributed to all staff at the commencement of their employment. The content of the Information Packs will be agreed with KMBC prior to distribution.

7 Measures and Initiatives

Introduction

- 7.1 This section of the WTP outlines the specific physical and management measures to be implemented as part of the WTP. The implementation of these measures includes both 'hard' and 'soft' measures and is considered to be the core of the WTP.
- 7.2 The measures outlined below will be agreed with KMBC as being suitable for the situation at the site. However, this list is not exhaustive and the TPC will be free to investigate other potential initiatives.
- 7.3 An Action Plan is also included in this report, at **Section 10**, which shows the measures / initiatives and a possible timescale for implementation.

Hard Measures

- 7.4 The site accesses will be built with the appropriate tactile paving surfaces and the site will be well-lit. Step-free access to the development will also be integrated into the design.

Car Parking/EV Charging

- 7.5 The development will provide 180 standard spaces of which 9 will be blue-badge spaces. Moreover, 18 electric charging parking bays will be provided.

Cycle Parking

- 7.6 It is proposed that 28 cycle spaces are provided on site. These will be located in secured and covered areas. Moreover, the infrastructure for the future occupier to install showers and changing facilities will all be delivered as part of the proposed development with the aim of encouraging sustainable transport. One shower cubicle will be included in the design to accompany an accessible toilet on the ground floor. The developer will provide services to enable a future provision of these amenities at a later date should a tenant require them for their operations.

Soft Measures

Management and Promotion

- 7.7 A Travel Plan Coordinator (TPC) will be appointed to manage the WTP for the site. The developer will assist the TPC where possible and provide guidance where necessary.
- 7.8 The TPC will be responsible for overseeing the implementation of the WTP. The TPC will oversee the promotion and management of the travel plans and offer advice to staff. They will also provide the Information Pack at the commencement of their employment.
- 7.9 The TPC will investigate the possibility of providing incentives within the Information Pack such as discount vouchers for local bicycle retailers or a cycle to work scheme. The TPC will be required to liaise with local retailers and KMBC regarding these incentives.

- 7.10 In addition to providing travel information in the Information Packs, the same information will be provided on noticeboards located in prominent locations throughout the units and on the company websites. The TPC will be responsible for ensuring these noticeboards and the website remain up-to-date and will replace information which is no longer accurate.
- 7.11 The TPC will continuously promote the WTP and its initiatives and will be responsible for investigating new ways for staff to become involved. The TPC will also publicise the on-going progress and successes of the WTP in order to encourage staff to start to travel or continue to travel sustainably.

Walking

- 7.12 The TPC will be responsible for promoting the benefits of walking to staff of the site. As well as providing information regarding local walking routes on the notice boards, company websites and in the Information Packs. The TPC will promote public health campaigns such as Change 4 Life (NHS programme) and walking challenges such as the 10,000 steps a day campaign. These highlight the health benefits associated with active travel.
- 7.13 In addition, the WALKIT.com website will be promoted to employees which provides urban walking route planning.
- 7.14 The TPC will regularly check local walking routes to ensure they are properly maintained and will liaise with KMBC should the need for maintenance be required. They will also assess the provision of way-finding to ensure this is appropriate.

Cycling

- 7.15 Secure and covered cycle parking will be provided on site to accord with KMBC's parking standards. Moreover, shower and changing facilities will also be provided. One shower cubicle will be included in the design to accompany an accessible toilet on the ground floor. The developer will provide services to enable a future provision of these amenities at a later date should a tenant require them for their operations.
- 7.16 As described previously, information regarding local cycle routes will be provided on public notice boards, on the company websites and within the Information Packs provided to staff upon employment.
- 7.17 The TPC will regularly check local routes to ensure that they are properly maintained and will liaise with KMBC should any issues be identified.
- 7.18 The TPC will also liaise with KMBC to discuss ideas for awareness raising events and initiatives. Participation in national and local events for specific campaigns will also form a central role in raising awareness of travel options such as National Bike Week.
- 7.19 The TPC will investigate cycle training for staff, including local training schemes through the local council. The aim is to make cyclists more confident and comfortable cycling on the road, therefore encouraging them to cycle to/ from the site on a regular basis. The training sessions will either be organised on an individual or group basis, depending on the number and ability of participants and the availability of trainers.

- 7.20 The provision of bicycle maintenance and repair events on-site will also be investigated. These could be provided on a quarterly basis to ensure that employees are able to access these services, therefore encouraging them to cycle on a regular basis.
- 7.21 As described previously, the TPC will liaise with local bicycle retailers regarding the potential for providing staff with discounts for cycle equipment.

Public Transport

- 7.22 Up-to-date timetables of bus and rail services, including route information and service frequencies, will be permanently on display for the information of staff and included on company websites. In addition, links to National Rail and Travel information websites and enquiry phone numbers will be advertised through all relevant means.

Car Sharing

- 7.23 Car sharing represents a relatively convenient alternative form of travel and significant potential exists to reduce the use of private cars by employees by implementing and publicising a formal 'scheme'. The TPC will review whether there is enough demand that a scheme operating for employees only as part of the development would be viable, if not the TPC will make employees aware of local car sharing schemes such as GoCarShare.
- 7.24 Within the car park of the development, dedicated car share spaces will be provided for 5% of the total car parking i.e., 9 spaces. These spaces will be located nearest the development entrance to encourage further uptake. The TPC will monitor the uptake of these spaces to see whether additional spaces should be provided.
- 7.25 The car sharing schemes will be published on the staff notice board and within the staff information packs.

Other Measures

- 7.26 Travel Awareness measures should play a key part of the WTP, for example:
- Car-free days accompanied by small incentives to leave the car at home and personalised travel information provided beforehand for those that request it;
 - Team participation in National Bike Week events; and
 - Commuter Challenges – finding the quickest mode for the journey to work with a number of staff using various modes leaving from one or more common destinations.

8 Monitoring and Review

Introduction

- 8.1 The WTP is part of a continuous process for improvement, requiring monitoring review and revision to ensure it remains relevant to the commercial units. This section sets out the proposals for monitoring and review of the Travel Plan.

Monitoring

- 8.2 All monitoring will follow the most up to date DfT best practice guidance and will be the responsibility of the TPC to ensure compliance with these guidance documents.
- 8.3 The monitoring programme will begin with the initial baseline travel survey, to be undertaken within six months of the first occupation.
- 8.4 The WTP will be monitored on a five-year cycle. Monitoring surveys will be undertaken annually on the anniversary of the initial baseline travel survey. The baseline survey represents the start of the travel plan for monitoring purposes.
- 8.5 The interim (Year 3) targets set out in this WTP may be revised on the results of the initial baseline travel survey if the modal split is found to be considerably different from the expected modal split. The targets will be discussed with KMBC before being finalised.
- 8.6 Additional monitoring of the following is also useful to judge whether the implementation or proportion of certain measures needs to be modified. The following factors should be monitored on a constant basis:
- Demand for additional cycle parking facilities; and
 - Comments received from employees relating to the operation and implications of the Travel Plan.
- 8.7 Information gathered through the monitoring process will be recorded for input to the annual review (outlined below). The information will be made available to the KMBC Business Travel Plan Advisor.

Reporting

- 8.8 A Travel Plan review will be undertaken every year by the TPC to assess the progress of the WTP. This will outline the results of the survey, measures that have been implemented and any changes to targets and measures as a result of the survey data. The report will also incorporate the results of monitoring throughout the preceding period. The report will be issued to KMBC

9 BREEAM Credits

- 9.1 BREEAM UK New Construction consists of individual assessment issues across nine environmental categories, plus a tenth 'innovation' category. Each assessment issue addresses a specific building related environmental impact or issue (in this case Transport) and is assigned a number of credits.
- 9.2 In the case of Transport this relates to assessment issues:
- TRA01 – Transport Assessment and Travel Plan; and
 - TRA02 – Sustainable Transport Measures
- 9.3 In order to receive these credits a scope of work must be carried out for each issue.
- 9.4 For TRA01, a Transport Assessment and Travel Plan must be produced that contains specific information. For TRA02, the criteria set out in within TRA01 must be achieved, as well as presenting a number of sustainable transport measures which receive points, these points can then be awarded credits in line with the AI of the site.
- 9.5 **Table 9.1** summarises the scope of work which has been undertaken in order to comply with issues TRA01 and TRA02 and the associated number of credits achieved.

Table 9.1: BREEAM Scope of Work

Scope of Work	Reference
TRA01 – Transport Assessment and Travel Plan – 2 credits (maximum)	
No later than Concept Design stage, undertake a site-specific transport assessment (or develop a travel statement) and draft travel plan, which can demonstrably be used to influence the site layout and built form	This Travel Plan has been developed based on a site-specific Transport Statement which should be read alongside this document.
If relevant, travel patterns and attitudes of existing building or site users towards cycling, walking and public transport, to identify relevant constraints and opportunities	As the final occupier of the site is not known, baseline travel patterns for workers in employment in the area have been included in Section 4 .
Predicted travel patterns and transport impact of future building or site users.	As the final occupier of the site is not known, baseline travel patterns for workers in employment in the area have been included in Section 4 .
Current local environment for pedestrians and cyclists, accounting for any age-related requirements of occupants and visitors.	A review of the existing local environment is included at Section 2 .
Reporting of the number and type of existing accessible amenities, within 500m of the site.	A review of accessible amenities is included in Section 2 .
Disabled access accounting for varying levels and types of disability, including visual impairment.	A review of local disabled access has been included in Section 2 .
Calculation of the existing public transport Accessibility Index (AI),	A summary has been provided in Section 2 and the AI is available at Appendix A .
Current facilities for cyclists	A review of local cycle facilities is included in Section 2 .
Following a transport assessment (in accordance with the requirements set out in criteria 2), develop a site-specific travel plan that provides a long-term management strategy which encourages more sustainable travel. The travel plan includes measures to increase or improve more sustainable modes of transport	This Travel Plan has been developed in accordance with this guidance.

Scope of Work	Reference
and movement of people and goods during the building's operation see Methodology.	
If the occupier is known, involve them in the development of the travel plan	The final occupiers of the development are not known.
Demonstrate that the travel plan will be implemented and supported by the building's management in operation	When the final occupiers of each unit at the development are known they will be informed of the Travel Plan and be tasked with the management of it.
On the basis of the information set above, 2 credits should be awarded for TRA01.	
TRA02 – Sustainable Transport Measures – 10 credits (maximum)	
Achieve criteria 3 – 5 in TRA01 Transport Assessment and Travel Plan.	These have been achieved as outlined above.
Identify the sustainable Transport Measures (see Table 7.4 BREEAM 2018)	These measures are set out below in paragraphs 6.6-6.9.
Award credits according to the existing Accessible Index (AI) of the project, and the total number of points achieved for the options implemented. (see Table 7.3 BREEAM 2018)	The site achieves a rating of 3.33. Using the measures set out in paragraphs 9.6-9.9 of this document the site achieves 3 points. As such, using Table 7.3 BREEAM 2018, 3 credits can be awarded on the basis of an AI of less than 25 and with three points.
On the basis of the information set above, 3 credits should be awarded for TRA02.	

- 9.6 As mentioned in **Section 7**, the proposed development will provide dedicated car sharing spaces for a total of 5% of the provided spaces, i.e., 9 spaces. This achieves 1 point.
- 9.7 It is proposed to provide electric recharging station of a minimum of 3kW for at least 10% of the total car parking capacity. This achieves 1 point.
- 9.8 As the occupant of the site is not known, the level of staff working at the site is also not known. Within the BREAAAM guidance it states that if staff numbers are not known, *“the number of building occupants in an existing development of similar type and size can be used (the assessor must justify or validate the number used in their certification report)”*. Vectos have advised previously on the site located to the east of the proposed site which is a 5,244 sqm unit. At this location, 12 cycle stands were provided for a total of 65 staff members, as such the occupant density is $65 / 5244 = 0.01239512$.

- 9.9 Applying this to the proposed development, $0.01239512 * 11,461 = 142$ staff members. BREEAM guidance 1 cycle per 10 staff members which would require 14 cycle spaces. However, to provide a robust number of spaces it is proposed to provide 28 spaces. This achieves 1 point.
- 9.10 Therefore, in total, 3 points are achieved.
- 9.11 Combining the credits achieved as part of TRA01 and TRA02, the site achieves 5 credits for BREEAM purposes.

10 Action Plan

- 10.1 The Action Plan outlined below in **Table 10.1** sets out the measures included within the WTP that are directed at influencing employee travel.

Table 10.1: Actional Plan for Workplace Travel Plan Measures

Measures	Notes	Status / Target Date	Monitoring Method	Responsibility
GENERAL				
Appointment of Travel Plan Coordinator	To be employed by future occupiers	Prior to occupation	Commencement of employment	Developer
Information Packs for all employees	All employees will receive an Information Pack outlining the sustainable options for travelling to the site, any company policy related to transport, the existence and purpose of the Travel Plan and location of cycle parking and lockers	Commencement of employment	TPC to monitor uptake through travel surveys	TPC
CYCLING				
Provision of cycle racks / stands	To accord with cycle parking levels set out in Section 7.	As part of site construction	Spot checks as part of maintenance rounds	TPC

Measures	Notes	Status / Target Date	Monitoring Method	Responsibility
Shower, changing and locker facilities to be provided for employees – employees made aware of their availability	Developer will provide services to enable a future provision of these amenities at a later date should a tenant require them for their operations	Upon occupation	Maintenance to monitor quality	Future Tenant's responsibility
Provide cycle route maps and other information relating to cycle facilities	As part of Information Packs, displayed on notice boards and the company website.	At commencement of employment	TPC to monitor uptake through travel surveys	TPC
WALKING				
Promote the health benefits of walking to be promoted (10,000 Steps a Day)	Promoted in conjunction with the organisation of social walks and walk to work days	Spring and Summer (annually)	TPC to monitor uptake through travel surveys	TPC
Employees provided with information related to safe walking routes	As part of Information Packs and notice boards	Prior to commencement of employment	TPC to monitor uptake through travel surveys	TPC
PUBLIC TRANSPORT				
Noticeboard with timetable information	Located in employee communal areas	First occupation	TPC to monitor uptake through travel surveys	TPC
OTHER				

Measures	Notes	Status / Target Date	Monitoring Method	Responsibility
Car-free days	Incentivised challenge to leave the car at home	Annually – summer	TPC to monitor uptake through travel surveys	TPC
Car Sharing	Investigate the creation of a car share scheme	Ongoing	TPC to monitor uptake through travel surveys	TPC
Car Sharing	9 spaces will be provided dedicated to car sharing vehicles	Prior to occupation	TPC to monitor uptake through travel surveys	TPC
The TPC will also liaise with local bus and rail operators to discuss the potential for discounted ticketing and walking / cycling retail outlets to discuss initiatives to encourage the use of these sustainable modes.		Prior to occupation/ongoing	To provide update within the Information Pack/monitoring report	TPC
MONITORING AND REVIEW				
Initial Baseline Travel Survey		Carried out within 6 months of occupation	TPC to undertake Travel Surveys	TPC

Measures	Notes	Status / Target Date	Monitoring Method	Responsibility
Additional Travel Surveys	The baseline survey represents the start of the travel plan for monitoring purposes.	Undertaken annually on the anniversary of the initial baseline travel survey (up to the end of the 5-year monitoring period)	TPC to undertake Travel Surveys	TPC
Monitoring Report		Within three months of completion of each survey	The report will be sent to the relevant KMBC Business Travel Plan Advisor. Any revisions to targets or measures will be agreed with KMBC	TPC

Appendix A

BREEAM 2018 Tra01/02 Accessibility Index calculator



Using the drop down boxes make the relevant selections and press the 'Select' button

Building type

No. nodes required

Select

NODE 1

Public transport type	Bus									
Distance to node (m)	150									
	Service 1	Service 2	Service 3	Service 4	Service 5	Service 6	Service 7	Service 8	Service 9	Service 10
Average frequency per hour	1	1	1	2	2					

Accessibility Index	3.71
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Appendix E

VECTOS 97 TOTTENHAM COURT ROAD LONDON

Licence No: 152301

Calculation Reference: AUDIT-152301-210827-0856

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
 Category : D - INDUSTRIAL ESTATE
TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	ES EAST SUSSEX	1 days
	EX ESSEX	3 days
03	SOUTH WEST	
	BR BRISTOL CITY	2 days
	DV DEVON	1 days
05	EAST MIDLANDS	
	LN LINCOLNSHIRE	1 days
	NR NORTHAMPTONSHIRE	2 days
06	WEST MIDLANDS	
	HE HEREFORDSHIRE	1 days
	WK WARWICKSHIRE	3 days
	WO WORCESTERSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	WY WEST YORKSHIRE	4 days
08	NORTH WEST	
	LC LANCASHIRE	3 days
09	NORTH	
	TW TYNE & WEAR	1 days

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

Primary Filtering selection:

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

Parameter: Gross floor area
 Actual Range: 1776 to 974258 (units: sqm)
 Range Selected by User: 708 to 974258 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/13 to 21/10/20

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

Selected survey days:

Monday	2 days
Tuesday	4 days
Wednesday	3 days
Thursday	6 days
Friday	8 days

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

Selected survey types:

Manual count	23 days
Directional ATC Count	0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre)	7
Edge of Town	16

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

Selected Location Sub Categories:

Industrial Zone	20
-----------------	----

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

Secondary Filtering selection:

Use Class:

Not Known 23 days

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

Filter by Site Operations Breakdown:

All Surveys Included

Population within 500m Range:

All Surveys Included

Population within 1 mile:

1,001 to 5,000	1 days
5,001 to 10,000	6 days
10,001 to 15,000	5 days
15,001 to 20,000	3 days
20,001 to 25,000	3 days
25,001 to 50,000	4 days
50,001 to 100,000	1 days

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

Population within 5 miles:

25,001 to 50,000	1 days
50,001 to 75,000	1 days
75,001 to 100,000	4 days
100,001 to 125,000	1 days
125,001 to 250,000	11 days
250,001 to 500,000	3 days
500,001 or More	2 days

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

Car ownership within 5 miles:

0.6 to 1.0	10 days
1.1 to 1.5	12 days
1.6 to 2.0	1 days

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

Travel Plan:

No 23 days

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

PTAL Rating:

No PTAL Present 23 days

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

Covid-19 Restrictions	Yes	At least one survey within the selected data set was undertaken at a time of Covid-19 restrictions
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VECTOS 97 TOTTENHAM COURT ROAD LONDON

Licence No: 152301

LIST OF SITES relevant to selection parameters

1	BR-02-D-04	INDUSTRIAL ESTATE	BRISTOL CITY
	CROFTS END ROAD		
	BRISTOL		
	SPEEDWELL		
	Suburban Area (PPS6 Out of Centre)		
	Industrial Zone		
	Total Gross floor area:	18018 sqm	
	Survey date: FRIDAY	29/11/13	Survey Type: MANUAL
2	BR-02-D-05	INDUSTRIAL ESTATE	BRISTOL CITY
	NOVERS HILL		
	BRISTOL		
	BEDMINSTER		
	Suburban Area (PPS6 Out of Centre)		
	Industrial Zone		
	Total Gross floor area:	18128 sqm	
	Survey date: FRIDAY	29/11/13	Survey Type: MANUAL
3	DV-02-D-07	INDUSTRIAL ESTATE	DEVON
	BITTERN ROAD		
	EXETER		
	SOWTON IND. ESTATE		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	3600 sqm	
	Survey date: MONDAY	03/07/17	Survey Type: MANUAL
4	ES-02-D-07	INDUSTRIAL ESTATE	EAST SUSSEX
	HUGHES ROAD		
	BRIGHTON		
	Suburban Area (PPS6 Out of Centre)		
	Industrial Zone		
	Total Gross floor area:	6625 sqm	
	Survey date: THURSDAY	16/10/14	Survey Type: MANUAL
5	EX-02-D-03	INDUSTRIAL ESTATE	ESSEX
	WYNCOLLS ROAD		
	COLCHESTER		
	SEVERALLS INDUSTRIAL PK		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	4876 sqm	
	Survey date: FRIDAY	18/05/18	Survey Type: MANUAL
6	EX-02-D-04	INDUSTRIAL ESTATE	ESSEX
	PASTURE ROAD		
	WITHAM		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	37130 sqm	
	Survey date: THURSDAY	10/05/18	Survey Type: MANUAL
7	EX-02-D-05	INDUSTRIAL ESTATE	ESSEX
	HECKWORTH CLOSE		
	COLCHESTER		
	SEVERALLS INDUSTRIAL PK		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	7280 sqm	
	Survey date: FRIDAY	18/05/18	Survey Type: MANUAL
8	HE-02-D-02	BUSINESS PARK	HEREFORDSHIRE
	BURCOTT ROAD		
	HEREFORD		
	Suburban Area (PPS6 Out of Centre)		
	Industrial Zone		
	Total Gross floor area:	5214 sqm	
	Survey date: TUESDAY	22/10/13	Survey Type: MANUAL

VECTOS 97 TOTTENHAM COURT ROAD LONDON

Licence No: 152301

LIST OF SITES relevant to selection parameters (Cont.)

9	LC-02-D-06 SMALLSHAW LANE BURNLEY	INDUSTRIAL ESTATE	LANCASHIRE
	Suburban Area (PPS6 Out of Centre) Industrial Zone Total Gross floor area:	7383 sqm	
	Survey date: THURSDAY	29/09/16	Survey Type: MANUAL
10	LC-02-D-07 CHAIN CAUL WAY PRESTON ASHTON-ON-RIBBLE	INDUSTRIAL ESTATE	LANCASHIRE
	Edge of Town Industrial Zone Total Gross floor area:	4700 sqm	
	Survey date: FRIDAY	17/11/17	Survey Type: MANUAL
11	LC-02-D-08 NOOK LANE BAMBER BRIDGE	INDUSTRIAL ESTATE	LANCASHIRE
	Edge of Town Industrial Zone Total Gross floor area:	4000 sqm	
	Survey date: TUESDAY	06/11/18	Survey Type: MANUAL
12	LN-02-D-03 DEACON ROAD LINCOLN	INDUSTRIAL ESTATE	LINCOLNSHIRE
	Edge of Town Industrial Zone Total Gross floor area:	11265 sqm	
	Survey date: FRIDAY	28/06/19	Survey Type: MANUAL
13	NR-02-D-01 ROBINSON WAY KETTERING	INDUSTRIAL ESTATE	NORTHAMPTONSHIRE
	Edge of Town Industrial Zone Total Gross floor area:	12900 sqm	
	Survey date: THURSDAY	23/10/14	Survey Type: MANUAL
14	NR-02-D-02 CORNHILL CLOSE NORTHAMPTON LODGE FARM IND. ESTATE	INDUSTRIAL ESTATE	NORTHAMPTONSHIRE
	Edge of Town Industrial Zone Total Gross floor area:	12670 sqm	
	Survey date: WEDNESDAY	21/10/20	Survey Type: MANUAL
15	TW-02-D-08 NORTH HYLTON ROAD SUNDERLAND SOUTHWICK	INDUSTRIAL ESTATE	TYNE & WEAR
	Suburban Area (PPS6 Out of Centre) Development Zone Total Gross floor area:	8310 sqm	
	Survey date: TUESDAY	04/04/17	Survey Type: MANUAL

VECTOS 97 TOTTENHAM COURT ROAD LONDON

Licence No: 152301

LIST OF SITES relevant to selection parameters (Cont.)

16	WK-02-D-01	INDUSTRIAL ESTATE	WARWICKSHIRE
	CASTLE MOUND WAY		
	RUGBY		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	150564 sqm	
	Survey date: WEDNESDAY	27/06/18	Survey Type: MANUAL
17	WK-02-D-02	INDUSTRIAL ESTATE	WARWICKSHIRE
	OVERVIEW WAY		
	RUGBY		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	974258 sqm	
	Survey date: WEDNESDAY	27/06/18	Survey Type: MANUAL
18	WK-02-D-03	INDUSTRIAL ESTATE	WARWICKSHIRE
	EASTBORO WAY		
	NUNEATON		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	20860 sqm	
	Survey date: THURSDAY	26/09/19	Survey Type: MANUAL
19	WO-02-D-01	INDUSTRIAL ESTATE	WORCESTERSHIRE
	SANDY LANE		
	STOURPORT-ON-SEVERN		
	Edge of Town		
	Commercial Zone		
	Total Gross floor area:	2758 sqm	
	Survey date: FRIDAY	23/05/14	Survey Type: MANUAL
20	WY-02-D-03	INDUSTRIAL ESTATE	WEST YORKSHIRE
	ARMLEY ROAD		
	LEEDS		
	Suburban Area (PPS6 Out of Centre)		
	Industrial Zone		
	Total Gross floor area:	24980 sqm	
	Survey date: FRIDAY	20/09/13	Survey Type: MANUAL
21	WY-02-D-04	INDUSTRIAL ESTATE	WEST YORKSHIRE
	LAW STREET		
	CLECKHEATON		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	23226 sqm	
	Survey date: THURSDAY	15/09/16	Survey Type: MANUAL
22	WY-02-D-05	INDUSTRIAL ESTATE	WEST YORKSHIRE
	CARR WOOD ROAD		
	CASTLEFORD		
	Edge of Town		
	Development Zone		
	Total Gross floor area:	1776 sqm	
	Survey date: MONDAY	22/05/17	Survey Type: MANUAL
23	WY-02-D-06	INDUSTRIAL ESTATE (PART)	WEST YORKSHIRE
	PIONEER WAY		
	CASTLEFORD		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	4328 sqm	
	Survey date: TUESDAY	23/05/17	Survey Type: MANUAL

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

VECTOS 97 TOTTENHAM COURT ROAD LONDON

Licence No: 152301

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE

TOTAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	2	14515	0.086	2	14515	0.014	2	14515	0.100
06:00 - 07:00	3	13432	0.099	3	13432	0.030	3	13432	0.129
07:00 - 08:00	23	57696	0.087	23	57696	0.025	23	57696	0.112
08:00 - 09:00	23	57696	0.103	23	57696	0.045	23	57696	0.148
09:00 - 10:00	23	57696	0.074	23	57696	0.046	23	57696	0.120
10:00 - 11:00	23	57696	0.058	23	57696	0.051	23	57696	0.109
11:00 - 12:00	23	57696	0.054	23	57696	0.056	23	57696	0.110
12:00 - 13:00	23	57696	0.060	23	57696	0.068	23	57696	0.128
13:00 - 14:00	23	57696	0.074	23	57696	0.064	23	57696	0.138
14:00 - 15:00	23	57696	0.051	23	57696	0.073	23	57696	0.124
15:00 - 16:00	23	57696	0.044	23	57696	0.065	23	57696	0.109
16:00 - 17:00	23	57696	0.039	23	57696	0.086	23	57696	0.125
17:00 - 18:00	23	57696	0.029	23	57696	0.085	23	57696	0.114
18:00 - 19:00	23	57696	0.021	23	57696	0.038	23	57696	0.059
19:00 - 20:00	3	13432	0.124	3	13432	0.109	3	13432	0.233
20:00 - 21:00	3	13432	0.017	3	13432	0.069	3	13432	0.086
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.020			0.924			1.944

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

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

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Parameter summary

Trip rate parameter range selected:	1776 - 974258 (units: sqm)
Survey date range:	01/01/13 - 21/10/20
Number of weekdays (Monday-Friday):	23
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

VECTOS 97 TOTTENHAM COURT ROAD LONDON

Licence No: 152301

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE

TAXIS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	2	14515	0.000	2	14515	0.000	2	14515	0.000
06:00 - 07:00	3	13432	0.000	3	13432	0.000	3	13432	0.000
07:00 - 08:00	23	57696	0.000	23	57696	0.000	23	57696	0.000
08:00 - 09:00	23	57696	0.000	23	57696	0.000	23	57696	0.000
09:00 - 10:00	23	57696	0.000	23	57696	0.000	23	57696	0.000
10:00 - 11:00	23	57696	0.000	23	57696	0.000	23	57696	0.000
11:00 - 12:00	23	57696	0.000	23	57696	0.000	23	57696	0.000
12:00 - 13:00	23	57696	0.000	23	57696	0.000	23	57696	0.000
13:00 - 14:00	23	57696	0.000	23	57696	0.000	23	57696	0.000
14:00 - 15:00	23	57696	0.000	23	57696	0.000	23	57696	0.000
15:00 - 16:00	23	57696	0.000	23	57696	0.000	23	57696	0.000
16:00 - 17:00	23	57696	0.000	23	57696	0.000	23	57696	0.000
17:00 - 18:00	23	57696	0.000	23	57696	0.000	23	57696	0.000
18:00 - 19:00	23	57696	0.000	23	57696	0.000	23	57696	0.000
19:00 - 20:00	3	13432	0.002	3	13432	0.002	3	13432	0.004
20:00 - 21:00	3	13432	0.000	3	13432	0.000	3	13432	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.002			0.002			0.004

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

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

VECTOS 97 TOTTENHAM COURT ROAD LONDON

Licence No: 152301

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE

OGVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	2	14515	0.000	2	14515	0.003	2	14515	0.003
06:00 - 07:00	3	13432	0.002	3	13432	0.000	3	13432	0.002
07:00 - 08:00	23	57696	0.006	23	57696	0.004	23	57696	0.010
08:00 - 09:00	23	57696	0.008	23	57696	0.008	23	57696	0.016
09:00 - 10:00	23	57696	0.011	23	57696	0.008	23	57696	0.019
10:00 - 11:00	23	57696	0.008	23	57696	0.009	23	57696	0.017
11:00 - 12:00	23	57696	0.008	23	57696	0.009	23	57696	0.017
12:00 - 13:00	23	57696	0.009	23	57696	0.009	23	57696	0.018
13:00 - 14:00	23	57696	0.008	23	57696	0.007	23	57696	0.015
14:00 - 15:00	23	57696	0.008	23	57696	0.008	23	57696	0.016
15:00 - 16:00	23	57696	0.008	23	57696	0.008	23	57696	0.016
16:00 - 17:00	23	57696	0.004	23	57696	0.006	23	57696	0.010
17:00 - 18:00	23	57696	0.005	23	57696	0.004	23	57696	0.009
18:00 - 19:00	23	57696	0.003	23	57696	0.003	23	57696	0.006
19:00 - 20:00	3	13432	0.000	3	13432	0.000	3	13432	0.000
20:00 - 21:00	3	13432	0.000	3	13432	0.000	3	13432	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.088			0.086			0.174

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

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

VECTOS 97 TOTTENHAM COURT ROAD LONDON

Licence No: 152301

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE

PSVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	2	14515	0.000	2	14515	0.000	2	14515	0.000
06:00 - 07:00	3	13432	0.000	3	13432	0.000	3	13432	0.000
07:00 - 08:00	23	57696	0.000	23	57696	0.000	23	57696	0.000
08:00 - 09:00	23	57696	0.000	23	57696	0.000	23	57696	0.000
09:00 - 10:00	23	57696	0.000	23	57696	0.000	23	57696	0.000
10:00 - 11:00	23	57696	0.001	23	57696	0.000	23	57696	0.001
11:00 - 12:00	23	57696	0.000	23	57696	0.000	23	57696	0.000
12:00 - 13:00	23	57696	0.000	23	57696	0.000	23	57696	0.000
13:00 - 14:00	23	57696	0.000	23	57696	0.000	23	57696	0.000
14:00 - 15:00	23	57696	0.000	23	57696	0.000	23	57696	0.000
15:00 - 16:00	23	57696	0.000	23	57696	0.000	23	57696	0.000
16:00 - 17:00	23	57696	0.000	23	57696	0.000	23	57696	0.000
17:00 - 18:00	23	57696	0.000	23	57696	0.000	23	57696	0.000
18:00 - 19:00	23	57696	0.000	23	57696	0.000	23	57696	0.000
19:00 - 20:00	3	13432	0.000	3	13432	0.000	3	13432	0.000
20:00 - 21:00	3	13432	0.000	3	13432	0.000	3	13432	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.001			0.000			0.001

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

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

VECTOS 97 TOTTENHAM COURT ROAD LONDON

Licence No: 152301

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE

CYCLISTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	2	14515	0.000	2	14515	0.000	2	14515	0.000
06:00 - 07:00	3	13432	0.005	3	13432	0.000	3	13432	0.005
07:00 - 08:00	23	57696	0.002	23	57696	0.001	23	57696	0.003
08:00 - 09:00	23	57696	0.002	23	57696	0.000	23	57696	0.002
09:00 - 10:00	23	57696	0.001	23	57696	0.000	23	57696	0.001
10:00 - 11:00	23	57696	0.000	23	57696	0.000	23	57696	0.000
11:00 - 12:00	23	57696	0.000	23	57696	0.000	23	57696	0.000
12:00 - 13:00	23	57696	0.000	23	57696	0.000	23	57696	0.000
13:00 - 14:00	23	57696	0.002	23	57696	0.001	23	57696	0.003
14:00 - 15:00	23	57696	0.001	23	57696	0.001	23	57696	0.002
15:00 - 16:00	23	57696	0.000	23	57696	0.001	23	57696	0.001
16:00 - 17:00	23	57696	0.000	23	57696	0.001	23	57696	0.001
17:00 - 18:00	23	57696	0.001	23	57696	0.002	23	57696	0.003
18:00 - 19:00	23	57696	0.000	23	57696	0.000	23	57696	0.000
19:00 - 20:00	3	13432	0.000	3	13432	0.000	3	13432	0.000
20:00 - 21:00	3	13432	0.000	3	13432	0.000	3	13432	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.014			0.007			0.021

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

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

VECTOS 97 TOTTENHAM COURT ROAD LONDON

Licence No: 152301

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE

CARS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	2	14515	0.072	2	14515	0.007	2	14515	0.079
06:00 - 07:00	3	13432	0.079	3	13432	0.020	3	13432	0.099
07:00 - 08:00	23	57696	0.057	23	57696	0.010	23	57696	0.067
08:00 - 09:00	23	57696	0.063	23	57696	0.013	23	57696	0.076
09:00 - 10:00	23	57696	0.039	23	57696	0.017	23	57696	0.056
10:00 - 11:00	23	57696	0.025	23	57696	0.020	23	57696	0.045
11:00 - 12:00	23	57696	0.023	23	57696	0.025	23	57696	0.048
12:00 - 13:00	23	57696	0.028	23	57696	0.036	23	57696	0.064
13:00 - 14:00	23	57696	0.043	23	57696	0.034	23	57696	0.077
14:00 - 15:00	23	57696	0.020	23	57696	0.042	23	57696	0.062
15:00 - 16:00	23	57696	0.017	23	57696	0.034	23	57696	0.051
16:00 - 17:00	23	57696	0.019	23	57696	0.055	23	57696	0.074
17:00 - 18:00	23	57696	0.017	23	57696	0.061	23	57696	0.078
18:00 - 19:00	23	57696	0.013	23	57696	0.027	23	57696	0.040
19:00 - 20:00	3	13432	0.117	3	13432	0.104	3	13432	0.221
20:00 - 21:00	3	13432	0.015	3	13432	0.062	3	13432	0.077
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.647			0.567			1.214

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

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

VECTOS 97 TOTTENHAM COURT ROAD LONDON

Licence No: 152301

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE

LGVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	2	14515	0.007	2	14515	0.003	2	14515	0.010
06:00 - 07:00	3	13432	0.017	3	13432	0.010	3	13432	0.027
07:00 - 08:00	23	57696	0.018	23	57696	0.009	23	57696	0.027
08:00 - 09:00	23	57696	0.021	23	57696	0.021	23	57696	0.042
09:00 - 10:00	23	57696	0.018	23	57696	0.019	23	57696	0.037
10:00 - 11:00	23	57696	0.020	23	57696	0.019	23	57696	0.039
11:00 - 12:00	23	57696	0.018	23	57696	0.019	23	57696	0.037
12:00 - 13:00	23	57696	0.017	23	57696	0.018	23	57696	0.035
13:00 - 14:00	23	57696	0.017	23	57696	0.017	23	57696	0.034
14:00 - 15:00	23	57696	0.017	23	57696	0.017	23	57696	0.034
15:00 - 16:00	23	57696	0.015	23	57696	0.015	23	57696	0.030
16:00 - 17:00	23	57696	0.012	23	57696	0.015	23	57696	0.027
17:00 - 18:00	23	57696	0.005	23	57696	0.010	23	57696	0.015
18:00 - 19:00	23	57696	0.002	23	57696	0.004	23	57696	0.006
19:00 - 20:00	3	13432	0.005	3	13432	0.000	3	13432	0.005
20:00 - 21:00	3	13432	0.002	3	13432	0.007	3	13432	0.009
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.211			0.203			0.414

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

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

VECTOS 97 TOTTENHAM COURT ROAD LONDON

Licence No: 152301

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE

MOTOR CYCLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	2	14515	0.007	2	14515	0.000	2	14515	0.007
06:00 - 07:00	3	13432	0.000	3	13432	0.000	3	13432	0.000
07:00 - 08:00	23	57696	0.000	23	57696	0.000	23	57696	0.000
08:00 - 09:00	23	57696	0.001	23	57696	0.000	23	57696	0.001
09:00 - 10:00	23	57696	0.001	23	57696	0.000	23	57696	0.001
10:00 - 11:00	23	57696	0.000	23	57696	0.000	23	57696	0.000
11:00 - 12:00	23	57696	0.000	23	57696	0.000	23	57696	0.000
12:00 - 13:00	23	57696	0.000	23	57696	0.000	23	57696	0.000
13:00 - 14:00	23	57696	0.000	23	57696	0.000	23	57696	0.000
14:00 - 15:00	23	57696	0.000	23	57696	0.000	23	57696	0.000
15:00 - 16:00	23	57696	0.000	23	57696	0.000	23	57696	0.000
16:00 - 17:00	23	57696	0.000	23	57696	0.000	23	57696	0.000
17:00 - 18:00	23	57696	0.000	23	57696	0.001	23	57696	0.001
18:00 - 19:00	23	57696	0.000	23	57696	0.000	23	57696	0.000
19:00 - 20:00	3	13432	0.000	3	13432	0.002	3	13432	0.002
20:00 - 21:00	3	13432	0.000	3	13432	0.000	3	13432	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.009			0.003			0.012

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

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

VECTOS 97 TOTTENHAM COURT ROAD LONDON

Licence No: 152301

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
 Category : F - WAREHOUSING (COMMERCIAL)
TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	KC KENT	1 days
04	EAST ANGLIA	
	SF SUFFOLK	1 days
09	NORTH	
	TW TYNE & WEAR	1 days

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

Primary Filtering selection:

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

Parameter: Gross floor area
 Actual Range: 11200 to 31000 (units: sqm)
 Range Selected by User: 190 to 80066 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/13 to 15/10/20

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

Selected survey days:

Thursday	1 days
Friday	2 days

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

Selected survey types:

Manual count	3 days
Directional ATC Count	0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre)	1
Edge of Town	2

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

Selected Location Sub Categories:

Industrial Zone	3
-----------------	---

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

VECTOS 97 TOTTENHAM COURT ROAD LONDON

Licence No: 152301

Secondary Filtering selection:

Use Class:

B8

3 days

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

Filter by Site Operations Breakdown:

All Surveys Included

Population within 500m Range:

All Surveys Included

Population within 1 mile:

1,001 to 5,000

2 days

15,001 to 20,000

1 days

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

Population within 5 miles:

5,001 to 25,000

1 days

125,001 to 250,000

1 days

250,001 to 500,000

1 days

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

Car ownership within 5 miles:

0.6 to 1.0

2 days

1.1 to 1.5

1 days

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

Travel Plan:

No

3 days

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

PTAL Rating:

No PTAL Present

3 days

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

VECTOS 97 TOTTENHAM COURT ROAD LONDON

Licence No: 152301

LIST OF SITES relevant to selection parameters

1	KC-02-F-02 MILLS ROAD AYLESFORD QUARRY WOOD Edge of Town Industrial Zone Total Gross floor area: 11200 sqm Survey date: FRIDAY 22/09/17	COMMERCIAL WAREHOUSING	KENT	Survey Type: MANUAL
2	SF-02-F-02 WALTON ROAD FELIXSTOWE Suburban Area (PPS6 Out of Centre) Industrial Zone Total Gross floor area: 22270 sqm Survey date: THURSDAY 11/07/13	WAREHOUSING	SUFFOLK	Survey Type: MANUAL
3	TW-02-F-01 MANDARIN WAY WASHINGTON PATTISON IND. ESTATE Edge of Town Industrial Zone Total Gross floor area: 31000 sqm Survey date: FRIDAY 13/11/15	ASDA DISTRIBUTION CENTRE	TYNE & WEAR	Survey Type: MANUAL

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

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
BD-02-F-02	Survey undertaken during Covid-19
DV-02-F-01	Site Location inapplicable
EX-02-F-01	Use Class N/A
SF-02-F-03	Size of development inapplicable
WY-02-F-02	Site Location inapplicable

VECTOS 97 TOTTENHAM COURT ROAD LONDON

Licence No: 152301

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

TOTAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	22270	0.018	1	22270	0.040	1	22270	0.058
06:00 - 07:00	1	22270	0.058	1	22270	0.063	1	22270	0.121
07:00 - 08:00	3	21490	0.113	3	21490	0.040	3	21490	0.153
08:00 - 09:00	3	21490	0.068	3	21490	0.057	3	21490	0.125
09:00 - 10:00	3	21490	0.079	3	21490	0.065	3	21490	0.144
10:00 - 11:00	3	21490	0.065	3	21490	0.062	3	21490	0.127
11:00 - 12:00	3	21490	0.053	3	21490	0.054	3	21490	0.107
12:00 - 13:00	3	21490	0.051	3	21490	0.047	3	21490	0.098
13:00 - 14:00	3	21490	0.073	3	21490	0.065	3	21490	0.138
14:00 - 15:00	3	21490	0.053	3	21490	0.068	3	21490	0.121
15:00 - 16:00	3	21490	0.059	3	21490	0.064	3	21490	0.123
16:00 - 17:00	3	21490	0.039	3	21490	0.092	3	21490	0.131
17:00 - 18:00	3	21490	0.028	3	21490	0.062	3	21490	0.090
18:00 - 19:00	3	21490	0.019	3	21490	0.028	3	21490	0.047
19:00 - 20:00	1	22270	0.036	1	22270	0.031	1	22270	0.067
20:00 - 21:00	1	22270	0.013	1	22270	0.031	1	22270	0.044
21:00 - 22:00	1	22270	0.031	1	22270	0.018	1	22270	0.049
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.856			0.887			1.743

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Parameter summary

Trip rate parameter range selected:	11200 - 31000 (units: sqm)
Survey date range:	01/01/13 - 15/10/20
Number of weekdays (Monday-Friday):	3
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	5

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

VECTOS 97 TOTTENHAM COURT ROAD LONDON

Licence No: 152301

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

TAXIS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	22270	0.000	1	22270	0.000	1	22270	0.000
06:00 - 07:00	1	22270	0.000	1	22270	0.000	1	22270	0.000
07:00 - 08:00	3	21490	0.000	3	21490	0.000	3	21490	0.000
08:00 - 09:00	3	21490	0.000	3	21490	0.000	3	21490	0.000
09:00 - 10:00	3	21490	0.000	3	21490	0.000	3	21490	0.000
10:00 - 11:00	3	21490	0.000	3	21490	0.000	3	21490	0.000
11:00 - 12:00	3	21490	0.000	3	21490	0.000	3	21490	0.000
12:00 - 13:00	3	21490	0.000	3	21490	0.000	3	21490	0.000
13:00 - 14:00	3	21490	0.000	3	21490	0.000	3	21490	0.000
14:00 - 15:00	3	21490	0.000	3	21490	0.000	3	21490	0.000
15:00 - 16:00	3	21490	0.000	3	21490	0.000	3	21490	0.000
16:00 - 17:00	3	21490	0.002	3	21490	0.002	3	21490	0.004
17:00 - 18:00	3	21490	0.000	3	21490	0.000	3	21490	0.000
18:00 - 19:00	3	21490	0.000	3	21490	0.000	3	21490	0.000
19:00 - 20:00	1	22270	0.000	1	22270	0.000	1	22270	0.000
20:00 - 21:00	1	22270	0.000	1	22270	0.000	1	22270	0.000
21:00 - 22:00	1	22270	0.000	1	22270	0.000	1	22270	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.002			0.002			0.004

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

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

VECTOS 97 TOTTENHAM COURT ROAD LONDON

Licence No: 152301

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

OGVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	22270	0.013	1	22270	0.040	1	22270	0.053
06:00 - 07:00	1	22270	0.027	1	22270	0.063	1	22270	0.090
07:00 - 08:00	3	21490	0.028	3	21490	0.020	3	21490	0.048
08:00 - 09:00	3	21490	0.028	3	21490	0.023	3	21490	0.051
09:00 - 10:00	3	21490	0.037	3	21490	0.033	3	21490	0.070
10:00 - 11:00	3	21490	0.036	3	21490	0.033	3	21490	0.069
11:00 - 12:00	3	21490	0.019	3	21490	0.014	3	21490	0.033
12:00 - 13:00	3	21490	0.026	3	21490	0.025	3	21490	0.051
13:00 - 14:00	3	21490	0.033	3	21490	0.033	3	21490	0.066
14:00 - 15:00	3	21490	0.022	3	21490	0.022	3	21490	0.044
15:00 - 16:00	3	21490	0.029	3	21490	0.020	3	21490	0.049
16:00 - 17:00	3	21490	0.019	3	21490	0.023	3	21490	0.042
17:00 - 18:00	3	21490	0.020	3	21490	0.023	3	21490	0.043
18:00 - 19:00	3	21490	0.012	3	21490	0.012	3	21490	0.024
19:00 - 20:00	1	22270	0.018	1	22270	0.022	1	22270	0.040
20:00 - 21:00	1	22270	0.013	1	22270	0.027	1	22270	0.040
21:00 - 22:00	1	22270	0.027	1	22270	0.004	1	22270	0.031
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.407			0.437			0.844

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

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

VECTOS 97 TOTTENHAM COURT ROAD LONDON

Licence No: 152301

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

CYCLISTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	22270	0.000	1	22270	0.000	1	22270	0.000
06:00 - 07:00	1	22270	0.000	1	22270	0.000	1	22270	0.000
07:00 - 08:00	3	21490	0.002	3	21490	0.000	3	21490	0.002
08:00 - 09:00	3	21490	0.009	3	21490	0.000	3	21490	0.009
09:00 - 10:00	3	21490	0.002	3	21490	0.000	3	21490	0.002
10:00 - 11:00	3	21490	0.000	3	21490	0.000	3	21490	0.000
11:00 - 12:00	3	21490	0.000	3	21490	0.000	3	21490	0.000
12:00 - 13:00	3	21490	0.000	3	21490	0.000	3	21490	0.000
13:00 - 14:00	3	21490	0.005	3	21490	0.000	3	21490	0.005
14:00 - 15:00	3	21490	0.002	3	21490	0.003	3	21490	0.005
15:00 - 16:00	3	21490	0.009	3	21490	0.003	3	21490	0.012
16:00 - 17:00	3	21490	0.005	3	21490	0.003	3	21490	0.008
17:00 - 18:00	3	21490	0.002	3	21490	0.009	3	21490	0.011
18:00 - 19:00	3	21490	0.000	3	21490	0.005	3	21490	0.005
19:00 - 20:00	1	22270	0.000	1	22270	0.000	1	22270	0.000
20:00 - 21:00	1	22270	0.000	1	22270	0.000	1	22270	0.000
21:00 - 22:00	1	22270	0.000	1	22270	0.000	1	22270	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.036			0.023			0.059

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

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

VECTOS 97 TOTTENHAM COURT ROAD LONDON

Licence No: 152301

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

CARS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	22270	0.000	1	22270	0.000	1	22270	0.000
06:00 - 07:00	1	22270	0.000	1	22270	0.000	1	22270	0.000
07:00 - 08:00	3	21490	0.056	3	21490	0.003	3	21490	0.059
08:00 - 09:00	3	21490	0.019	3	21490	0.008	3	21490	0.027
09:00 - 10:00	3	21490	0.019	3	21490	0.008	3	21490	0.027
10:00 - 11:00	3	21490	0.016	3	21490	0.012	3	21490	0.028
11:00 - 12:00	3	21490	0.012	3	21490	0.017	3	21490	0.029
12:00 - 13:00	3	21490	0.011	3	21490	0.012	3	21490	0.023
13:00 - 14:00	3	21490	0.022	3	21490	0.014	3	21490	0.036
14:00 - 15:00	3	21490	0.017	3	21490	0.037	3	21490	0.054
15:00 - 16:00	3	21490	0.014	3	21490	0.033	3	21490	0.047
16:00 - 17:00	3	21490	0.011	3	21490	0.051	3	21490	0.062
17:00 - 18:00	3	21490	0.002	3	21490	0.019	3	21490	0.021
18:00 - 19:00	3	21490	0.002	3	21490	0.011	3	21490	0.013
19:00 - 20:00	1	22270	0.000	1	22270	0.000	1	22270	0.000
20:00 - 21:00	1	22270	0.000	1	22270	0.000	1	22270	0.000
21:00 - 22:00	1	22270	0.000	1	22270	0.000	1	22270	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.201			0.225			0.426

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

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

VECTOS 97 TOTTENHAM COURT ROAD LONDON

Licence No: 152301

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

LGVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	22270	0.000	1	22270	0.000	1	22270	0.000
06:00 - 07:00	1	22270	0.000	1	22270	0.000	1	22270	0.000
07:00 - 08:00	3	21490	0.020	3	21490	0.016	3	21490	0.036
08:00 - 09:00	3	21490	0.017	3	21490	0.017	3	21490	0.034
09:00 - 10:00	3	21490	0.023	3	21490	0.023	3	21490	0.046
10:00 - 11:00	3	21490	0.011	3	21490	0.014	3	21490	0.025
11:00 - 12:00	3	21490	0.019	3	21490	0.022	3	21490	0.041
12:00 - 13:00	3	21490	0.008	3	21490	0.008	3	21490	0.016
13:00 - 14:00	3	21490	0.014	3	21490	0.017	3	21490	0.031
14:00 - 15:00	3	21490	0.009	3	21490	0.008	3	21490	0.017
15:00 - 16:00	3	21490	0.014	3	21490	0.011	3	21490	0.025
16:00 - 17:00	3	21490	0.008	3	21490	0.009	3	21490	0.017
17:00 - 18:00	3	21490	0.002	3	21490	0.005	3	21490	0.007
18:00 - 19:00	3	21490	0.002	3	21490	0.002	3	21490	0.004
19:00 - 20:00	1	22270	0.000	1	22270	0.000	1	22270	0.000
20:00 - 21:00	1	22270	0.000	1	22270	0.000	1	22270	0.000
21:00 - 22:00	1	22270	0.000	1	22270	0.000	1	22270	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.147			0.152			0.299

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

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

VECTOS 97 TOTTENHAM COURT ROAD LONDON

Licence No: 152301

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

MOTOR CYCLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	22270	0.000	1	22270	0.000	1	22270	0.000
06:00 - 07:00	1	22270	0.000	1	22270	0.000	1	22270	0.000
07:00 - 08:00	3	21490	0.002	3	21490	0.000	3	21490	0.002
08:00 - 09:00	3	21490	0.000	3	21490	0.000	3	21490	0.000
09:00 - 10:00	3	21490	0.000	3	21490	0.000	3	21490	0.000
10:00 - 11:00	3	21490	0.000	3	21490	0.000	3	21490	0.000
11:00 - 12:00	3	21490	0.000	3	21490	0.000	3	21490	0.000
12:00 - 13:00	3	21490	0.000	3	21490	0.000	3	21490	0.000
13:00 - 14:00	3	21490	0.002	3	21490	0.000	3	21490	0.002
14:00 - 15:00	3	21490	0.002	3	21490	0.000	3	21490	0.002
15:00 - 16:00	3	21490	0.000	3	21490	0.000	3	21490	0.000
16:00 - 17:00	3	21490	0.000	3	21490	0.000	3	21490	0.000
17:00 - 18:00	3	21490	0.000	3	21490	0.003	3	21490	0.003
18:00 - 19:00	3	21490	0.000	3	21490	0.000	3	21490	0.000
19:00 - 20:00	1	22270	0.000	1	22270	0.000	1	22270	0.000
20:00 - 21:00	1	22270	0.000	1	22270	0.000	1	22270	0.000
21:00 - 22:00	1	22270	0.000	1	22270	0.000	1	22270	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.006			0.003			0.009

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

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

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