

TRANSPORT & INFRASTRUCTURE PLANNING

Wilson Bowden Developments Ltd &
Rochdale Borough Council
Plot R2 Atom Valley Innovation Centre (AVIC)
Rochdale

Transport Statement

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Transport Statement

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May 2024

DOCUMENT ISSUE RECORD

Document Number:	PRK-BWB-GEN-XX-RP-TR-0001_S2-P5 TS
BWB Reference:	232081_TS

Revision	Date of Issue	Status	Author:	Checked:	Approved:
P3	25/08/23	S2	Shannon Franklin	Sara Terrey	Paul Wilson
P4	03/05/24	S2	Sara Terrey	Sara Terrey	Paul Wilson
P5	09/05/24	S2	Sara Terrey	Sara Terrey	Paul Wilson

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1. INTRODUCTION

Instruction

- 1.1 BWB Consulting Ltd (BWB) have provided highways and transportation advice to Wilson Bowden Developments Ltd and Rochdale Borough Council (RBC) in support of a full planning application for the erection of a research & development building (Use Class E) including office, laboratory & production space, function space & café, new access, car parking, servicing, boundary treatments, hard and soft landscaping and other associated works at Plot R2 Atom Valley Innovation Centre (AVIC), Kingsway Business Park, Rochdale, Greater Manchester.
- 1.2 **Appendix 1** includes a copy of the proposed Masterplan.
- 1.3 It should be noted that outline planning permission exists for development on Plot R2 (application reference 14/00542/OUT) and the approved parameters allow for development across the site in accordance with the Masterplan Parameters Plan shown at drawing number 2013-233/102 Revision A, a copy of which is included at **Appendix 2**.

Objective

- 1.4 The objective of this Transport Statement is to determine whether the proposed development could generate a significant increase in vehicle trips, above what was assessed as part of the 2014 outline application. It also details the proposed access arrangements for vehicles, pedestrians and cyclists and seeks to demonstrate whether a suitable internal layout could be achieved that provides a satisfactory level of parking and allows for servicing vehicles to enter and depart without conflict.
- 1.5 A Framework Travel Plan has also been produced in support of the planning application for Plot R2 which is based on the Site Wide Sustainable Travel Plan, which should be read in conjunction with this Transport Statement.

Report Structure

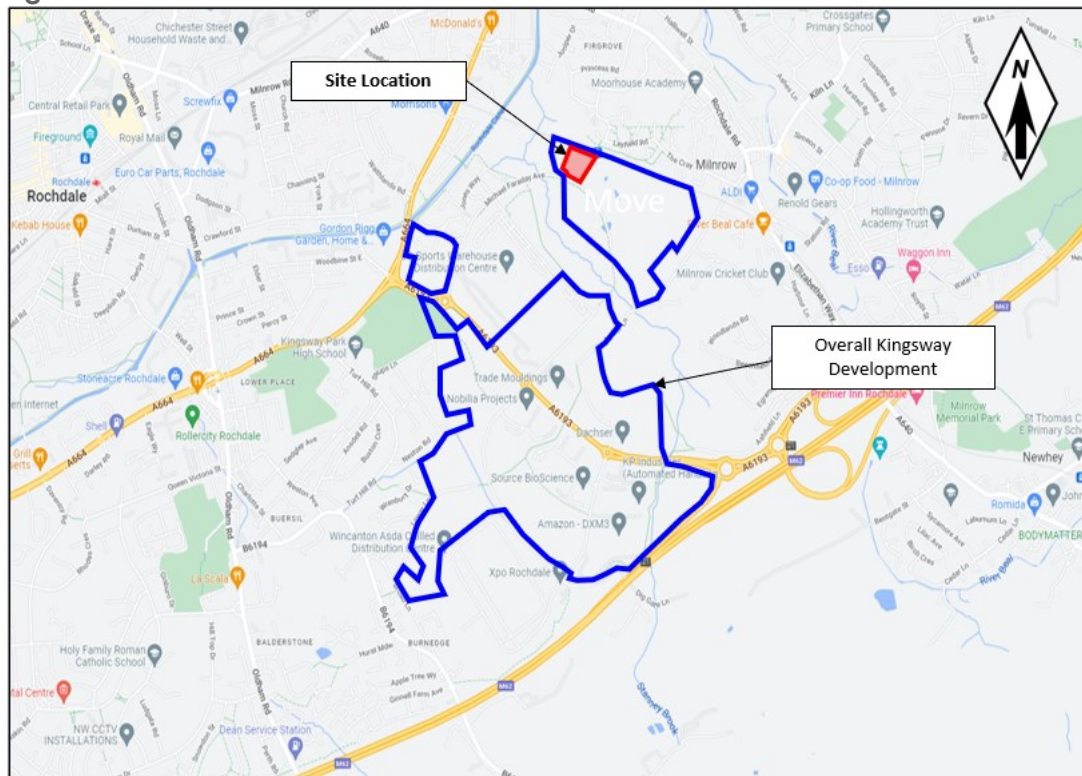
- 1.6 This Transport Statement is therefore structured as follows:
 - **Section 2: Existing Conditions** - sets out brief details of the existing conditions including the site details and highway layout as well as providing a brief overview of current opportunities to travel using sustainable modes;
 - **Section 3: Proposed Development** – Outlines the development proposals, including the scale of development across Plot R2, the access strategy, parking requirements and servicing strategy;
 - **Section 4: Trip Generation and Highway Impact**– sets out the proposed development trip generation and how this compares against the total permitted trips under the 2014 outline; and
 - **Section 5: Summary and Conclusions** – Summarises the findings of the report and offers conclusions in relation to the proposed development impact.

2. EXISTING CONDITIONS

Site Location

- 2.1 **Figure 1** shows the location of Plot R2 within the wider Kingsway Business Park. Plot R2 is bound to the north by the existing Kingsway Business Park tram stop and a residential estate, to the east by the proposed Plot P, to south by the Proposed Plot Q and to the west by a future expansion land and existing SUDS (which can be seen on the parameters plan within **Appendix 2**).
- 2.2 Junction 21 of the M62 (M62 J21) is located approximately 1.4 kilometres to the south-east of the site and can be accessed via the A6193. **Figure 1** displays the indicative location of the proposed development.

Figure 1. Site Location



Amenities

- 2.3 Details of the number and type of existing accessible amenities typically expected within 500 metres are shown in **Table 1**.

Table 1. Amenities in Proximity to the Site

Amenities
Appropriate food outlet
Access to cash
Access to an outdoor open space (public or private, suitably sized and accessible to building users)
Access to a recreation or leisure facility for fitness or sports
Public available postal facility
Community facility
Over the counter services associated with a pharmacy
Public sector GP surgery or general medical centre
Childcare facility or school

2.4 Of the amenity types listed in **Table 1**, there are none located within a 500 metres walking distance of the site. However, a number of the facilities listed would be accessible within 1000 metres of the development. These have been listed below;

- Stanney Brook Park (700m)
- Sacred Heart RC Primary School (720m)
- Moorhouse Academy (800m)
- Firgrove Playing Field (800m)
- Aldi (830m)
- Morrisons (890m)
- Kingsway Pharmacy (890m)
- Cash Machine (890m)

Local Highway Network

2.5 Access to the proposed development will be taken from Michael Faraday Avenue, the final section of which will be adopted prior to AVIC occupying the site. Michael Faraday Avenue measures approximately 7.2 metres wide and provides street lighting along both sides of the carriageway. There is a 2 metres wide footway on the western edge of the carriageway and a 3 metres wide segregated footway/cycleway on the

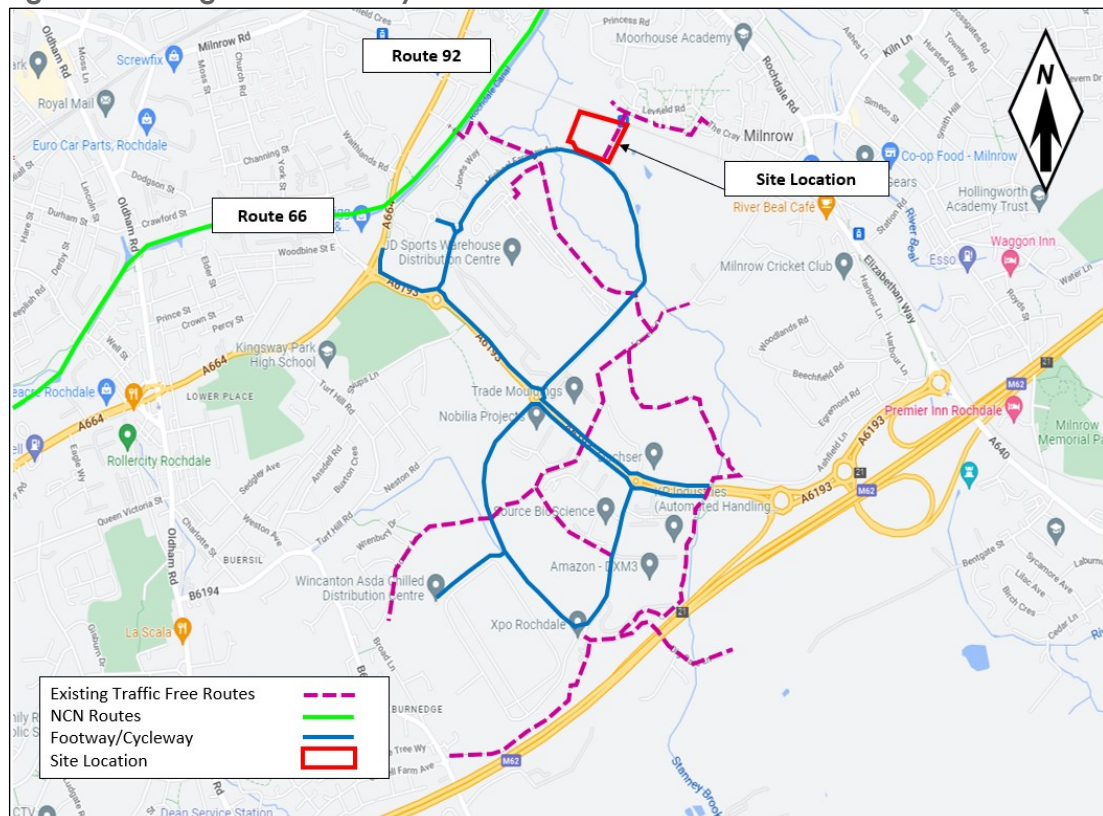
eastern edge. There are multiple opportunities to cross over Michael Faraday Avenue in the form of dropped kerb crossings with tactile paving along its length.

- 2.6 There are currently double yellow lines on both sides of the carriageway throughout, which ensures HGVs and employees of Kingsway Business Park do not park on either side of the Michael Faraday Avenue. It is subject to a 30mph speed limit throughout, as are all industrial roads within the business park. Pedestrians and cyclists are able to utilise the off road bridleway on Turbary Walk. This routes south to north from Michael Faraday Avenue to the Kingsway Business Park Tram Stop and Milnrow residential area within the eastern extents of the development site boundary.

Pedestrian and Cycle Facilities

- 2.7 There are a number of pedestrian/cycle routes in the vicinity of the site that are easily accessible using the existing facilities. This includes National Cycle Network (NCN) Route 92 and Route 66. **Figure 2** shows the existing Public Right of Ways (PROWs) and cycle routes which surround the site which could be used by future employees to access the development from local residential areas. This includes an existing shared footway/cycleway which currently routes through the eastern edge of the site. As part of the development proposals, this provision is being realigned further east to route along the development sites eastern boundary rather than routing within the site boundary. This existing provision routes between Michael Faraday Avenue and the Kingsway Tram Stop and this will be maintained when the provision is realigned. **Figure 2** also shows the shared footway/cycleways which are being provided within the wider Kingsway development.

Figure 2. Existing PROWs and Cycle Facilities



- 2.8 **Figure 2** shows that National Cycle Network (NCN) Route 66 is attainable from the site utilising the traffic free routes near to the development. NCN Route 92 is accessible from Route 66 continuing northbound. Both NCN routes are accessible approximately 400 metres to the west of the site. **Figure 2** also shows that extensive segregated pedestrian and cycle facilities have been provided within the development.
- 2.9 The majority of trips that will be made by sustainable modes are for the purpose of commuting, short shopping trips, access to leisure facilities and other destinations.

Public Transport

Bus

- 2.10 The nearest bus stops to the site are located on Leyfield Road 210 metres to the North of the site, where both directions of travel are achievable from these bus stops. The bus stops can be accessed using the existing off road pedestrian infrastructure along Turbary Walk, continuing on Leyfield Road as detailed above. Currently there are no physical bus stop indicators on Leyfield Road and it is assumed that the stops are hail and ride or it is known within the community where bus stop locations are. The stops are served by two public bus services 450 and 451, which route between Rochdale and Milnrow.
- 2.11 There are further stops located to the west on the A664 Rochdale Bypass approximately 750 metres walk from the site, which is further than the 500m maximum walking distance to a bus stop. These bus stops are provided with physical markers to identify its location, including a flag and pole arrangement on the northbound bus stop and a bus shelter with flag and pole arrangement on the southbound bus stop. Bus service 435 and 436 is an additional service which would be achievable from these stops. **Table 2, Table 3** and **Table 4** set out a summary of the weekday and weekend bus service frequencies at the local bus stops on Leyfield Road and Rochdale Bypass.

Table 2. Summary of Weekday Bus Services

Service number and route	First Service		Last Service		Daytime Frequency
	'Northbound' Route	'Southbound' Route	'Northbound' Route	'Southbound' Route	
451 Rochdale to Milnrow	X	0616	X	2218	1/hr
450 Rochdale to Milnrow	0548	X	2142	X	1/hr
435 Rochdale to Turf Hill	0638	X	1935	X	60 mins
436 Rochdale to Buckstones	X	0650	X	1921	60 mins

Note: Timetable information obtained (May 2024), First/ last service based on time service arrives/leaves the nearest bus stop to the development site.

Table 3. Summary of Saturday Bus Services

Service number and route	First Service		Last Service		Daytime Frequency
	'Northbound' Route	'Southbound' Route	'Northbound' Route	'Southbound' Route	
451 Rochdale to Milnrow	X	0616	X	2218	1/hr
450 Rochdale to Milnrow	0548	X	2142	X	1/hr
435 Rochdale to Turf Hill	0744	X	1935	X	60 mins
436 Rochdale to Buckstones	X	0816	X	1914	60 mins

Note: Timetable information obtained (May 2024), First/ last service based on time service arrives/leaves the nearest bus stop to the development site.

Table 4. Summary of Sunday Bus Services

Service number and route	First Service		Last Service		Daytime Frequency
	'Northbound' Route	'Southbound' Route	'Northbound' Route	'Southbound' Route	
451 Rochdale to Milnrow	X	0618	X	2218	1/hr
450 Rochdale to Milnrow	0548	X	2142	X	1/hr

Note: Timetable information obtained (May 2024), First/ last service based on time service arrives/leaves the nearest bus stop to the development site.

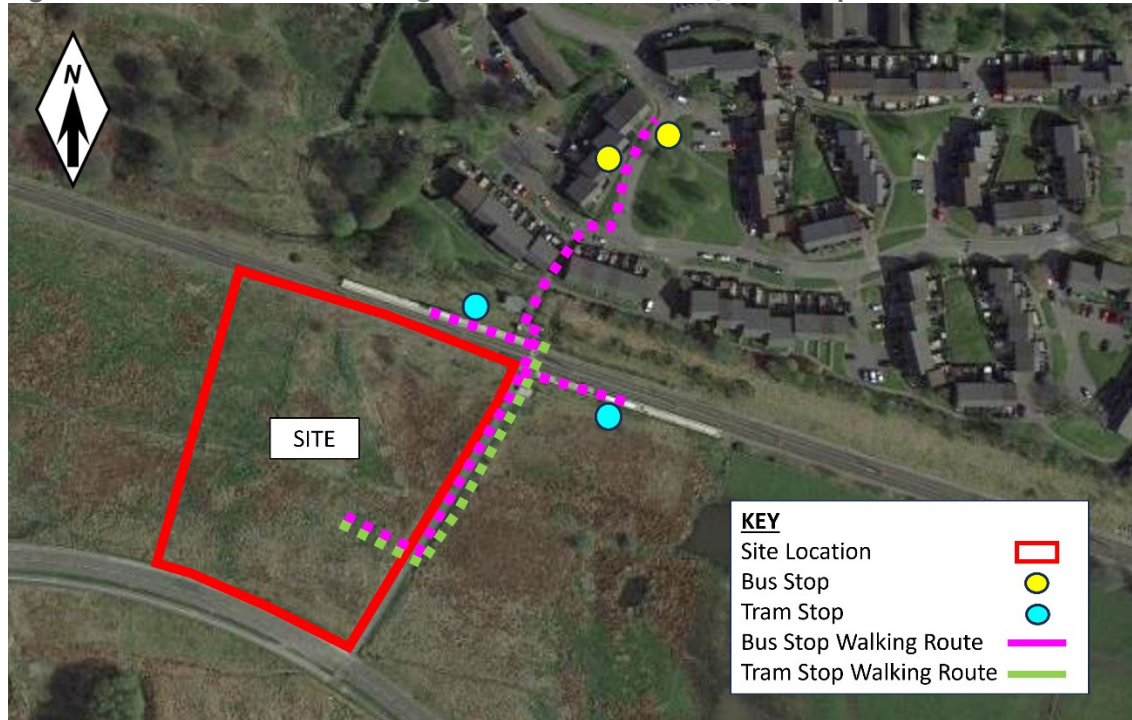
- 2.12 **Table 2, 3 and 4** demonstrate that route numbers 435, 436, 450 and 451 operate at a combined frequency of four services per hour 6 days a week, with two services per hour on a Sunday.

Tram Services

- 2.13 The Pink Line tram service operated by Transport for Greater Manchester can be accessed via the Kingsway Business Park stop located approximately 100 metres north of the site. The Pink Line operates at a frequency of one service every 12 minutes in both directions between 0600-0100 Monday-Saturday and 0700-0000 on Sunday. There is secure cycle parking provided at the tram stop to encourage employees to undertake a multimodal journey utilising both the tram and cycle/on foot. Due to the tram stop being only 100 metres from the site, this will encourage employees to utilise the tram to access the site.

- 2.14 The proposed unit at Plot R2 is located near to two public transport nodes one on Leyfield Road and another at the Turbary Walk Tram stop. The distances from the unit to these public transport nodes is approximately 210 metres and 100 metres respectively. The walking distance from the unit to the bus and tram stops have been calculated using a safe pedestrian walking route as shown in **Figure 3**.

Figure 3. Safe Pedestrian Walking Routes to Nearest Bus/Tram Stop



3. PROPOSED DEVELOPMENT

Introduction

- 3.1 The proposals consist of the erection of research & development building (Use Class E) including office, laboratory & production space, function space & café, new access, car parking, servicing, boundary treatments, hard and soft landscaping and other associated works.
- 3.2 The development would have a GIFA of 3,913sqm and includes a new point of access from Michael Faraday Avenue as well as car parking and servicing. A copy of the site Masterplan is included within **Appendix 1**.

Vehicular Access

- 3.3 The proposed development would be served via a new point of access to the north of Michael Faraday Avenue, the access would be in the form of a simple priority controlled T-junction.
- 3.4 Drawing number **PRK-BWB-GEN-XX-DR-TR-101 S2-P2** shows the proposed access arrangement which includes 15 metres kerb radii on the eastern side of the access junction and 10 metres kerb radii on the western side. There is a 1:10 taper proposed into the site on the western side of the access road, which is provided over 25 metres. At this point the carriageway measures 7.5 metres wide, immediately upon entering the site the access road measures approximately 8.8 metres.
- 3.5 Drawing Number **PRK-BWB-GEN-XX-DR-TR-101 S2-P2** also shows that the required 2.4 x 43 metres visibility is achievable in both directions at the site access. On the western side of the access a 2 metres wide footway extends approximately 12 metres into the site, at this point pedestrians are guided across the access road where a short section of footway is provided on the eastern side which routes through a proposed verge area and meets the re-aligned Turbary Walk.
- 3.6 Access barriers are provided to ensure controlled access to the site, the barriers are unmanned but would be controlled within the unit. The barriers are provided approximately 21 metres into the site which allows enough space for a HGV to wait on the access road without disrupting the flow of traffic on Michael Faraday Avenue.

Pedestrian and Cyclist Access

- 3.7 Pedestrian and cycle access is provided at the site from both the existing pedestrian facilities on Michael Faraday Avenue and from the proposed car parking areas. The main pedestrian route links to the shared footway/cycleway on Turbary Walk, which will be re-aligned to form the eastern boundary of the site as part of the development proposals. Turbary Walk enables a quick connection to the residential estate and the tram stop to the north of the site. The proposed pedestrian/cycle provision within the site boundary routes between the shared facility to the east and the main pedestrian entrance of the unit to the west. It routes across a zebra crossing and continues along the northern edge of the disabled/motorcycle car park, the route is straight and direct.

At the western edge of the car parking areas a footway is provided which routes around the perimeter of the building providing access to all areas.

- 3.8 The existing footway to the north of Michael Faraday Avenue extends into the site at the access junction and a dropped kerb crossing is provided across the junction. Pedestrians can access the proposed re-aligned shared footway/cycleway at Turbary Walk to the east of the junction. Due to the re-alignment of Turbary Walk, the existing drop kerb crossing has also been re-located to the east of the access junction to cross pedestrians and cyclists to the southern side of Michael Faraday Avenue, where a 3 metres wide shared footway/cycleway facility is provided. This allows a quick connection from the site to the existing network of cycle provisions at Kingsway Business Park.
- 3.9 To meet the requirements of the Disability Discrimination Act, and provide convenient and safe access for disabled and visually impaired users, all crossings within the development would be provided with dropped kerbs and tactile paving. Off-road infrastructure would extend into the site directly to the building entrances and all entrances would be provided with accessibility ramps for wheelchair users.

Parking Provision

- 3.10 The local parking standards are outlined within Appendix 5 of the Rochdale Core Strategy document, which was adopted in October 2016. **Table 5** outlines the parking standards for a Research and Development Land Use.

Table 5. Local Parking Standards

Land Use	Cars/HGV's	Blue Badge Spaces	Motorcycle	Bicycle
Research and Development	1 space per 32sqm	3 spaces or 6% of overall provision	1 space per 1400sqm	1 space per 400sqm

- 3.11 Based on the parking standards shown in **Table 5** the proposed development of 3,913sqm should provide a maximum of 125 car parking spaces of which a minimum of 6 should be disabled bays. 3 motorcycle spaces and 10 bicycle spaces should also be provided as a minimum.
- 3.12 The development masterplan shows a total of 86 car parking spaces of which 7 are disabled bays. This adheres to standards as the number of parking spaces provided is below the maximum number allowed and the number of disabled bays is higher than the minimum number required. 18 EV parking spaces are also included for within said number.
- 3.13 The masterplan shows an area dedicated for motorcycle parking which measures 6 metres x 3 metres, which is enough to provide 4 motorcycle parking bays based on 1m x 2 metres parking space dimensions, which is suitable for a motorcycle. 10 bicycle parking bays have been provided at the site in the form of Sheffield stands, which are secure, sheltered and located in close proximity to the main pedestrian entrance to the building.

Servicing

- 3.14 To understand whether the internal road layout at Plot R2 including the servicing yards and car parks are suitable in accommodating the largest vehicle types, swept path assessments have been undertaken and are presented in BWB drawing number **232081-BWB-INF-XX-D-C-0110 S2-P02**.
- 3.15 The swept paths of both a 16.5 metres long articulated HGV and a 4 axle refuse vehicle have been examined. The aforementioned vehicles have been assessed negotiating the site access junction on Michael Faraday Avenue, travelling along the internal access road, entering the service area, manoeuvring into the loading area and exiting the service area. The service vehicle tracking drawing shows that the proposed access arrangement is able to accommodate the most onerous vehicle likely to access the site (16.5m Max Articulated Vehicle). The internal access road is wide enough for two HGV's to pass along most of its length except at two locations within the site including, the 90 degree bend at the northern extent of the site and at the gated entrance to the service area. HGV drivers would be made aware that exiting HGVs would give priority to entering vehicles at the site accesses, this should be internally managed by AVIC. Although, the probability of this happening at the site would be highly unlikely.
- 3.16 The service vehicle drawings show that the internal layout allows the development to be serviced by both 16.5 metres max articulated vehicles and 4 axle refuse vehicles. The car park has also been measured to ensure that it meets the minimum dimensions required for cars to successfully manoeuvre into and out of car parking spaces.

4. TRIP GENERATION AND HIGHWAY IMPACT

Introduction

- 4.1 The following section of this Transport Statement calculates the forecast peak hour traffic generation from the proposed development at Plot R2. However, it should be noted that the total traffic generation from the wider Kingsway development has been assessed, mitigated and accepted by RBC as part of the outline planning application (14/00542/OUT). **Table 6** shows the total permitted peak hour traffic generation from the entire Kingsway Business Park development.

Table 6. Total Permitted Peak Hour Traffic Generation from 2014 Outline Application

Peak Period	Arrive	Depart	Total
Morning Peak Hour	3,286	1,298	4,584
Evening Peak Hour	1,695	2,898	4,593

Existing Traffic Generation

- 4.2 Since development started at Kingsway Business Park, five traffic counters have been installed at various locations along the access roads. The locations of the five counters (labelled as A-E) are shown in **Figure 4**.

Figure 4. Location of Traffic Counters in Kingsway Business Park



- 4.3 The traffic counters in **Figure 4** record two-way traffic flows to/from the business park providing empirical data of peak hour arrivals and departures. The counters were inspected in June 2023 and it was found that the counters at John Milne Ave (Counter

D) & Michael Faraday Ave (Counter B) were no longer recording data and that the counter at James Kearns Ave (Counter C) had been incorrectly labelled on the system as John Milne Avenue. Counters B and D were reinstalled on 30 June 2023 and the labelling of Counter C has now been corrected and the sites are labelled as below and as shown in **Figure 4**:

- Counter A – Michael Faraday Avenue
- Counter B – Michael Faraday Avenue
- Counter C – James Kearns Avenue
- Counter D – John Milne Avenue
- Counter E – George Stephenson Avenue

4.4 The available data has been analysed and worst case daily readings has been extracted for the Weekday morning (0800-0900) and evening peak hour (1700-1800) at each counter location. The worst-case traffic flow data from within these selected weeks can be found within **Table 7**.

Table 7. Weekday Morning and Evening Peak Hour Traffic Flows (two-way) at Kingsway Business Park (taken from the existing traffic counters)

	COUNTER										TOTAL	
	A		B		C		D		E			
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
14.11.22-18.11.22	270	539									270	539
07.08.23-11.08.23			63	149							63	149
31.07.23-04.08.23					111	133					111	133
24.07.23-28.07.23							265	315			265	315
12.06.23-16.06.23									73	68	73	68
TOTAL											782	1204

4.5 It is worth noting that the peak traffic generated by the Kingsway Business Park falls outside of the typical weekday morning and evening network peaks with the highest levels of trips generated by the development occurring between 0600-0700 in the morning and 1800-1900 in the evening.

4.6 The data in **Table 7** confirms that the existing plots at Kingsway Business Park generated 782 two-way movements in the morning peak and 1204 two-way movements in the evening peak hour, using the data for the busiest periods available for each counter. **Table 8** shows how this compares to the total traffic generation permitted under the 2014 outline permission (from **Table 6**) and what the remaining headroom traffic is.

Table 8. Total Permitted Traffic Generation vs Existing Traffic Generation

Time Period	Total Permitted Traffic Generation	Existing Kingsway Business Park Traffic Generation	Remaining Headroom Traffic no. (%)
Morning Peak	4,584	782	3,802 (83%)
Evening Peak	4,593	1204	3,389 (74%)

- 4.7 Noting that Kingsway Business Park is more than 50% complete, the details confirm that the level of traffic being generated by the existing plots at Kingsway Business Park is significantly below the total traffic permitted under the 2014 outline permission. In the morning peak hour, there is 83% of the total permitted traffic available, whilst in the evening peak hour there is 74% of the total permitted traffic available.

Proposed Development Traffic Generation

- 4.8 To understand the level of traffic that could be generated by the proposed development at Plot R2, the TRICs database has been used to provide trip rates which are considered representative of the proposed development, assessing offices to provide a worst-case assessment. A summary of the TRICS filtering parameters used is shown in **Table 9**, whilst the TRICs output is contained within **Appendix 3**.

Table 9. TRICs Filtering Criteria

Parameter	Search Criteria
Land Use	Employment – Office
Gross Floor Area	1,000sqm – 10,000sqm
Data Selection	01/01/15 to 11/11/22
Days	Weekday Only
Locations	Edge of Town

- 4.9 The above filtering criteria resulted in 10 sites, **Table 10** shows the average trip rates per 100sqm GFA for the selected sites together with the associated forecast traffic generation of Plot R2.

Table 10. Proposed Development Traffic Generation Calculations

4000sqm	Morning Peak Hour (0800-0900)			Evening Peak Hour (1700-1800)		
	Arrive	Depart	Two-Way	Arrive	Depart	Two-Way
TOTAL VEHICLES						
Trip Rates (per 100sqm)	1.365	0.093	1.458	0.058	1.217	1.275
Traffic Generation	55	4	59	2	49	51
HGV's						
Trip Rates (per 100sqm)	0.005	0	0.005	0	0	0
Traffic Generation	0	0	0	0	0	0

- 4.10 The calculations in **Table 10** show that the proposed unit at Plot R2 has the potential to generate 59 two-way vehicle trips in the morning peak hour of which none would be HGV trips. In the evening peak, the proposed development has the potential to generate 51 two-way vehicle trips, none of which would be HGV trips.
- 4.11 **Table 11** shows the total traffic generation across Kingsway Business Park with the proposed development in place and also Plot M which is complete and pending occupation, Plot J2 which is under construction and Plot L which is currently awaiting planning permission. It also shows how this compares against the total permitted traffic generation from the 2014 outline application shown in **Table 6**.

Table 11. Total Permitted Traffic Generation vs Total Kingsway Business Park Traffic Generation

	Traffic Generation							Remaining Headroom no. (%)
	Total Permitted	Existing Plots	Proposed Plot M	Proposed Plot J2	Proposed Plot L	Proposed Plot R2	Total Traffic Generation	
AM Peak	4,584	782	168	119	82	59	1210	3374 (73.6%)
PM Peak	4,593	1204	149	106	72	51	1582	3,011 (65.6%)

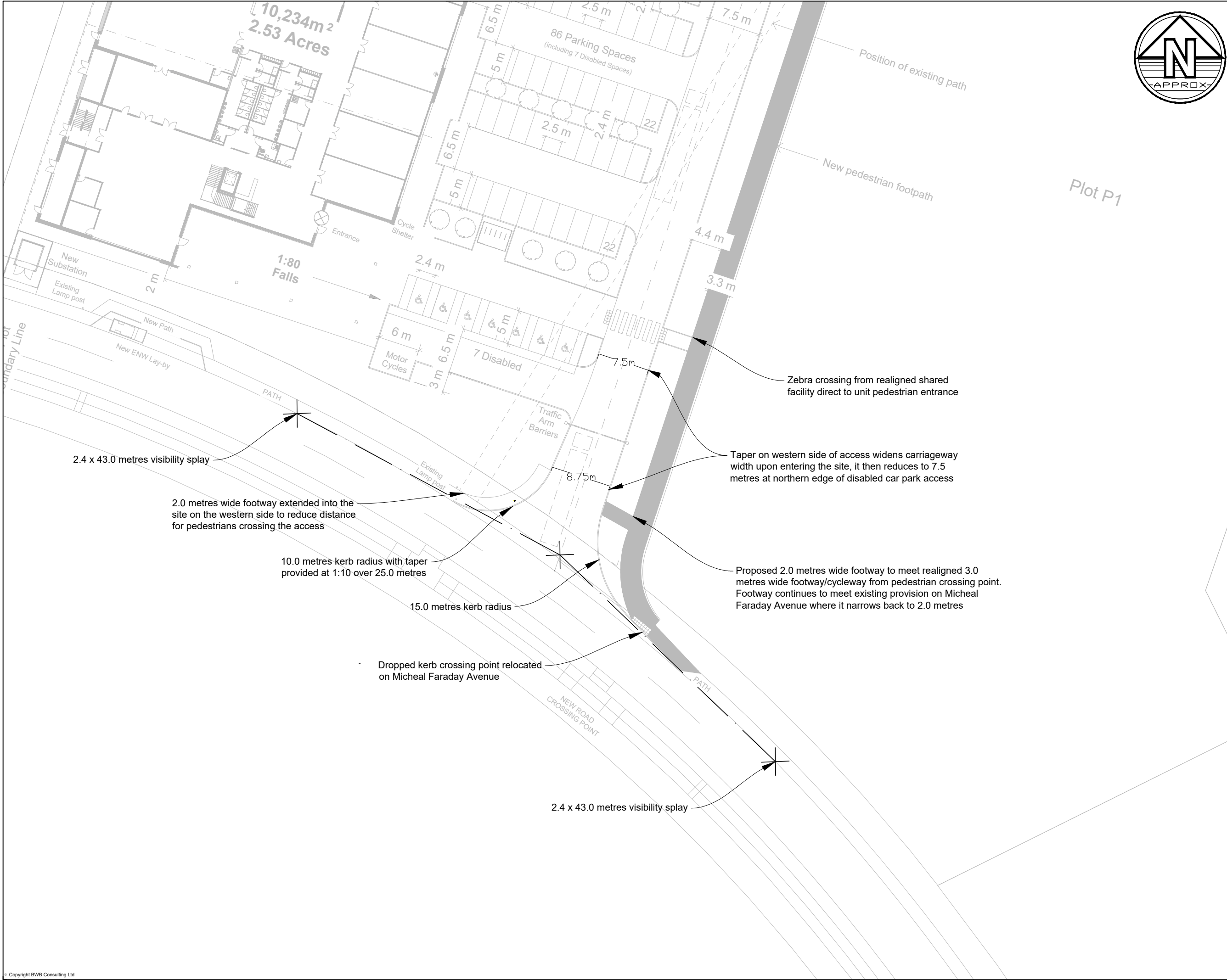
- 4.12 The results in **Table 11** show that with the proposed development at Plot R2, Plot L, Plot J2 and Plot M being occupied, total traffic levels across Kingsway Business Park would be well below what was approved as part of the 2014 outline application. There would be ample headroom traffic for the proposed development, with 73.6% in the morning peak and 65.6% in the evening peak when accounting for Plots L, J2 and M.
- 4.13 Hence no further assessment should be necessary. This table will therefore be continually updated as further development plots come forward.

5. SUMMARY AND CONCLUSIONS

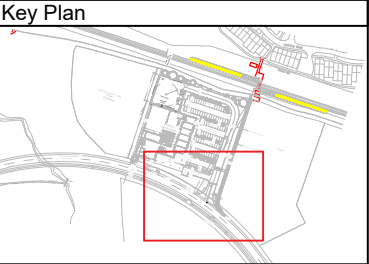
- 5.1 BWB Consulting Ltd (BWB) have provided highways and transportation advice to Wilson Bowden Developments Ltd and Rochdale Borough Council (RBC) in support of a full planning application for the erection of a research & development building (Use Class E) including office, laboratory & production space, function space & café, new access, car parking, servicing, boundary treatments, hard and soft landscaping and other associated works at Plot R2 Atom Valley Innovation Centre (AVIC), Kingsway Business Park, Rochdale, Greater Manchester.
- 5.2 The proposed development, with a GIFA of 3,913sqm, is forecast to generate 59 and 51 two-way vehicle trips in the morning and evening peak hours respectively. When adding this additional traffic on top of existing traffic flows generated by the wider Kingsway Business Park, there would be ample headroom traffic available compared to what was approved under the 2014 outline application. Hence, the proposed development would not lead to any significant impacts.
- 5.3 The proposed development includes a new single point of access in the form of a priority controlled T-junction from Michael Faraday Avenue. Michael Faraday Avenue is an existing industrial road which complies with general standards for this road type. The proposed access point has been designed to ensure that the most onerous vehicle that serves the site can do so safely and without jeopardising other vehicle movements along Michael Faraday Avenue. There is sufficient visibility at the site access, both to the east and the west for the existing 30mph speed limit. The existing Turbary Walk which routes along the eastern extent of the development site is proposed to be re-aligned to the outside edge of the sites eastern boundary rather than routing within the site.
- 5.4 The level of car parking proposed at the proposed unit complies with Rochdale Borough Councils parking standards for a 'Research and Development' land use. The total number of car parking spaces is less than the maximum number allowed based on local standards, whilst proposed disabled parking, motorcycle and cycle parking also adhere to or are in excess of the minimum requirement provided within the standards. No HGV parking is proposed at the site, but this is based on the known operations of the future end user at the unit and hence it meets the demand of AVIC.
- 5.5 Various swept paths have been undertaken to test the internal site layout using typical vehicle types that would visit the development on a regular basis. This includes a 16.5 metres long articulated vehicle and a 4 axle refuse vehicle. The swept paths would all be achievable and hence the proposed access arrangement, internal highway layout and servicing yards are suitable to allow the most onerous vehicle to enter and exit the site. Two HGV's can pass along the straight section of the access road within the site, however at the 90 degree bend to the north of the site two HGV's would not be able to pass, this is the same at the gated entrance into the service yard. Based on the expected level of HGV's associated with the development the likelihood of two HGV's meeting at these locations would be very low.
- 5.6 In summary, this Transport Statement has demonstrated how the proposed development would not lead to any significant traffic impacts, how suitable access could be achieved and how the internal layout would be suitable, in terms of both parking provision and accommodating servicing vehicles. Hence, it is considered that

Rochdale Borough Council should be able to provide its support towards the planning application from a highways perspective.

DRAWINGS



- Notes**
1. Do not scale this drawing. All dimensions must be checked/ verified on site. If in doubt ask.
 2. This drawing is to be read in conjunction with all relevant architects, engineers and specialists drawings and specifications.
 3. All dimensions in millimetres unless noted otherwise. All levels in metres unless noted otherwise.
 4. Any discrepancies noted on site are to be reported to the engineer immediately.



Legend

P2	01.05.24	PRELIMINARY ISSUE	AS	ST
P1	08.08.23	PRELIMINARY ISSUE	SF	AJ
Rev	Date	Details of issue / revision	Dwn	Rev

Issues & Revisions

BWB
ACAF GROUP COMPANY

Client

WILSON BOWDEN DEVELOPMENTS & ROCHDALE BOROUGH COUNCIL

Project Title

PLOT R2, ATOM VALLEY INNOVATION CENTRE (AVIC)

Drawing Title

PROPOSED ACCESS ARRANGEMENT

Drawn: S. Franklin Reviewed: AJ Oakes

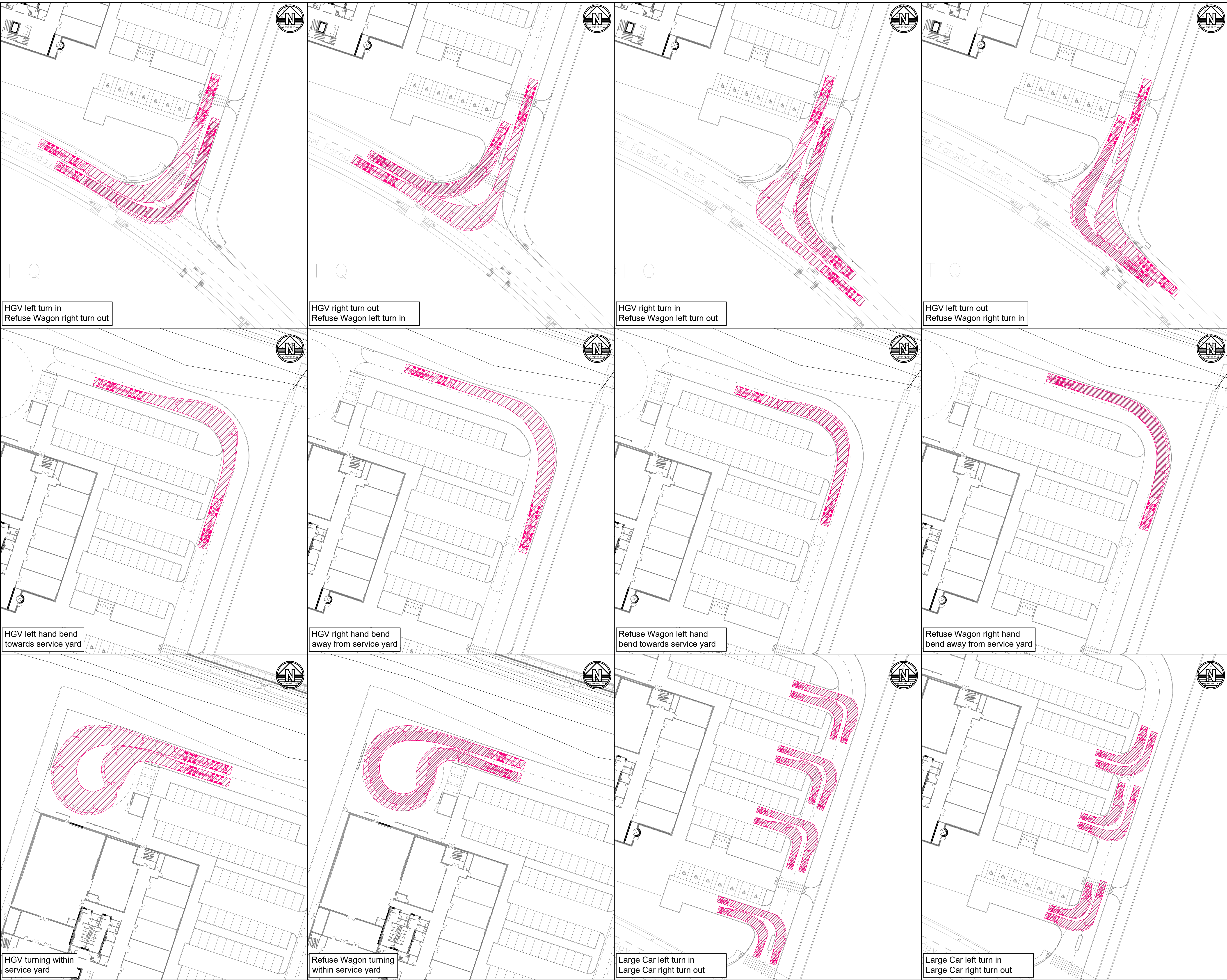
BWB Ref: 232081 Date: 08.08.23 Scale@A3: 1:500

Drawing Status

PRELIMINARY

Project - Originator - Zone - Level - Type - Role - Number Status Rev

PRK-BWB-GEN-XX-DR-TR-101 S2 P2



Notes

- Do not scale this drawing. All dimensions must be checked/ verified on site. If in doubt ask.
- This drawing is to be read in conjunction with all relevant architects, engineers and specialists drawings and specifications.
- All dimensions in millimetres unless noted otherwise. All levels in metres unless noted otherwise.
- Any discrepancies noted on site are to be reported to the engineer immediately.

Key Plan

Legend

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

Large Car (2006)

Overall Length	5.079m
Overall Width	1.872m
Overall Body Height	1.525m
Min Body Ground Clearance	0.310m
Max Track Width	1.831m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	5.900m

Phoenix 2-25W (with Volvo FM12 chassis)

Overall Length	11.125m
Overall Width	2.530m
Overall Body Height	3.205m
Min Body Ground Clearance	0.410m
Track Width	2.500m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	9.250m

P02	29.04.24	Drawing number updated, revised to suit masterplan	RP	RAD
P01	08.08.23	PRELIMINARY ISSUE	SF	AJ
Rev	Date	Details of issue / revision	Drw	Rev

Issues & Revisions

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Client

WILSON BOWDEN DEVELOPMENTS & ROCHDALE BOROUGH COUNCIL

Project Title

PLOT R2, ATOM VALLEY INNOVATION CENTRE (AVIC)

Drawing Title

VEHICLE TRACKING ASSESSMENT

Drawn:	S. Franklin	Reviewed:	AJ Oakes
BWB Ref:	232081	Date:	08.08.23
Scale@A1:		1:500	

Drawing Status

PRELIMINARY

Project - Originator - Zone - Level - Type - Role - Number	Status	Rev
232081-BWB-INF-XX-D-C-0110	S2	P02

J:\2023\232081-Plot R, Kingsway\Project\Delivery\01-WP\Drawings\232081-BWB-INF-XX-D-C-0110_Vehicle Tracking Assessment.dwg

APPENDICES

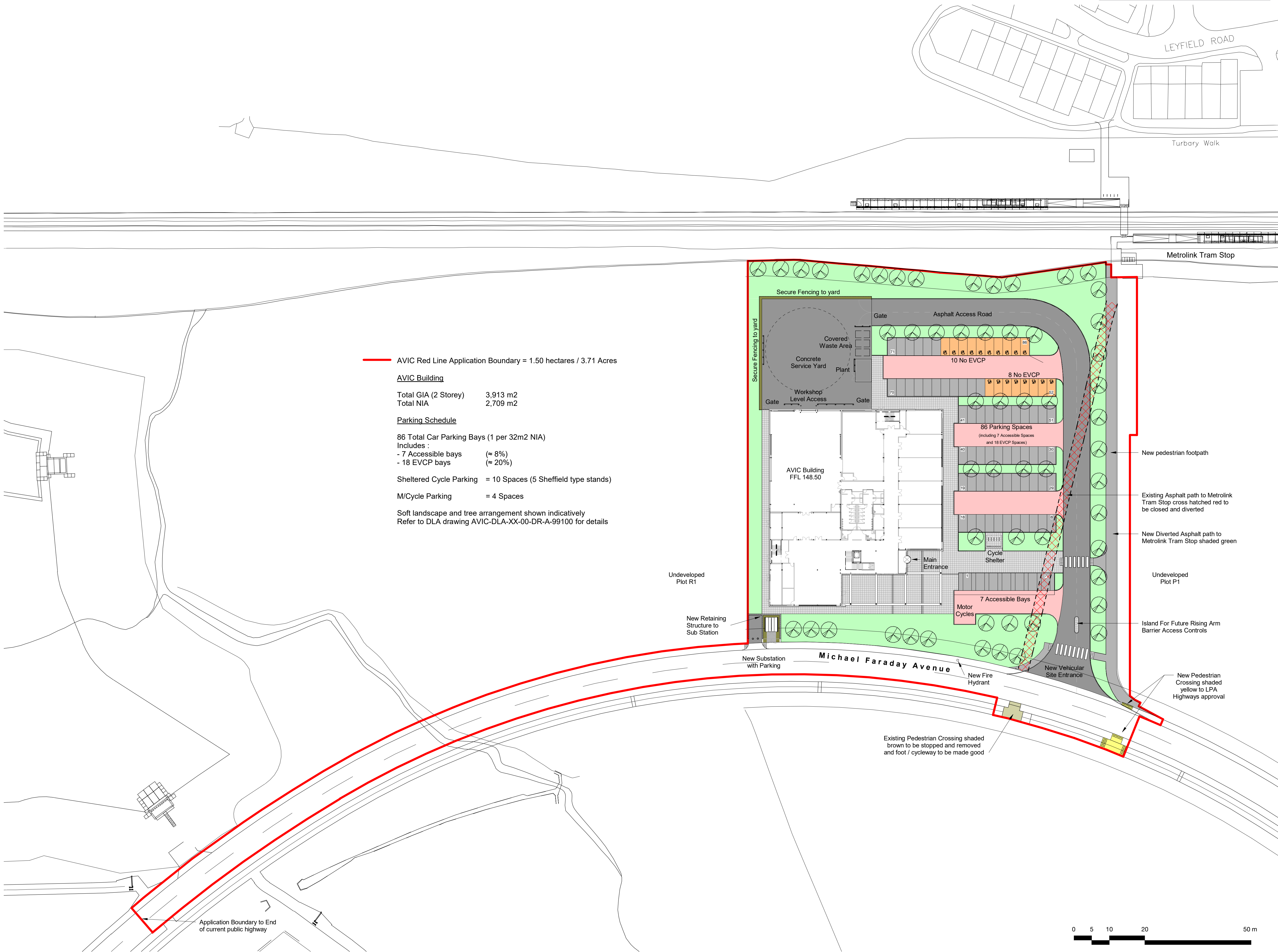
APPENDIX 1: Masterplan

Note: This is a colour drawing, in order to ensure any subsequent reproduction is viewed correctly it is to be re-printed in full colour

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DO NOT SCALE, REFER TO FIGURED DIMENSIONS ONLY

REVISIONS		
P01	FIRST ISSUE	15/04/24 PSL
P02	Application boundary revised to accommodate off site earthworks. Updated in line with Client comments	03/05/24 PSL



NORTH



6 East Parade | Leeds | LS1 2AD
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PROJECT
KINGSWAY BUSINESS PARK
PLOT R2

TITLE
GA Site Plan

SCALE
1 : 500 @ A1

DATE
12/04/24

DLA REF
2022-040

DRAWN
PSL

REVIEWED
BLG

DOCUMENT NUMBER
AVIC-DLA-XX-00-DR-A- 99003

DOCUMENT PURPOSE
PLANNING

REVISION
P02

APPENDIX 2: Masterplan Parameters Plan

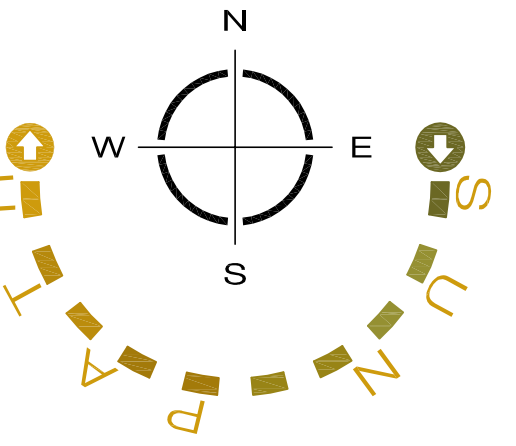
KEY TO LAND USES

BUSINESS USES

- B1(a) Office
- B1/ B2/ B8
- Car Showrooms

ANCILLARY USES

- Residential
- Leisure
- Hotel
- Mixed Development including Retail in Use Classes A1-A5, Leisure, Hotel, Residential & B1 Uses
- Local Services
- Small Scale Uses Appropriate to the Setting of the Listed Building
- New Buffer Landscaping



For Planning



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www.dla-architecture.co.uk

PROJECT
KINGSWAY BUSINESS PARK
ROCHDALE

TITLE
MASTERPLAN
PARAMETERS PLAN

SCALE
1:2500 @ A0 DATE
13/03/14

DRAWN
SF REVIEWED

DRAWING NO
2013-233/102 REVISION
A

FILE PATH
F:\2013\2013-233\CAD\25-Autocad\Drawn\102

PARAMETERS PLAN

APPENDIX 3: TRICS Data Output

Calculation Reference: AUDIT-714101-230825-0835

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : A - OFFICE
TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	WS WEST SUSSEX	1 days
03	SOUTH WEST	
	WL WILTSHIRE	1 days
04	EAST ANGLIA	
	NF NORFOLK	1 days
	PB PETERBOROUGH	1 days
	SF SUFFOLK	1 days
05	EAST MIDLANDS	
	NM WEST NORTHAMPTONSHIRE	1 days
06	WEST MIDLANDS	
	WO WORCESTERSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	AK WAKEFIELD	1 days
08	NORTH WEST	
	EC CHESHIRE EAST	1 days
09	NORTH	
	DA DARLINGTON	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: 1230 to 9225 (units: sqm)
Range Selected by User: 1000 to 10000 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/15 to 11/11/22

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

Selected survey days:

Monday	1 days
Tuesday	4 days
Wednesday	2 days
Thursday	3 days

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

Selected survey types:

Manual count	10 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:

Edge of Town	10
--------------	----

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	2
Commercial Zone	3
Development Zone	1
Residential Zone	1

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

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included	X days - Selected
Servicing vehicles Excluded	10 days - Selected

Secondary Filtering selection:

Use Class:

Not Known	10 days
-----------	---------

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 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	3 days
5,001 to 10,000	1 days
10,001 to 15,000	4 days
15,001 to 20,000	1 days
20,001 to 25,000	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
100,001 to 125,000	2 days
125,001 to 250,000	6 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	6 days
1.1 to 1.5	3 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	10 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	10 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
-----------------------	-----	--

LIST OF SITES relevant to selection parameters

1	AK-02-A-01 PIONEER WAY CASTLEFORD WHITWOOD Edge of Town No Sub Category Total Gross floor area: 1230 sqm Survey date: TUESDAY 23/05/17	OFFICES	WAKEFIELD	Survey Type: MANUAL
2	DA-02-A-02 ALDERMAN BEST WAY DARLINGTON Edge of Town No Sub Category Total Gross floor area: 3530 sqm Survey date: THURSDAY 18/10/18	ENGINEERING COMPANY	DARLINGTON	Survey Type: MANUAL
3	EC-02-A-04 WINTERTON WAY MACCLESFIELD LYME GREEN BUSINESS PK Edge of Town Commercial Zone Total Gross floor area: 3000 sqm Survey date: TUESDAY 04/05/21	OFFICES	CHESHIRE EAST	Survey Type: MANUAL
4	NF-02-A-05 YARMOUTH ROAD NORWICH Edge of Town Residential Zone Total Gross floor area: 3697 sqm Survey date: MONDAY 12/09/22	COUNCIL OFFICES	NORFOLK	Survey Type: MANUAL
5	NM-02-A-01 THE LAKES NORTHAMPTON Edge of Town Commercial Zone Total Gross floor area: 9225 sqm Survey date: THURSDAY 22/10/20	OFFICES	WEST NORTHAMPTONSHIRE	Survey Type: MANUAL
6	PB-02-A-04 LYNCH WOOD PETERBOROUGH Edge of Town Commercial Zone Total Gross floor area: 4040 sqm Survey date: WEDNESDAY 19/10/16	OFFICES	PETERBOROUGH	Survey Type: MANUAL
7	SF-02-A-03 WHITE HOUSE ROAD IPSWICH Edge of Town Industrial Zone Total Gross floor area: 2800 sqm Survey date: THURSDAY 24/09/20	OFFICES	SUFFOLK	Survey Type: MANUAL
8	WL-02-A-01 THE CRESCENT AMESBURY SUNRISE WAY Edge of Town Development Zone Total Gross floor area: 2500 sqm Survey date: TUESDAY 18/09/18	PET INSURANCE COMPANY	WILTSHIRE	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

9	WO-02-A-03 STOURPORT ROAD KIDDERMINSTER	IT SERVICES	WORCESTERSHIRE
	Edge of Town Industrial Zone		
	Total Gross floor area:	5945 sqm	
	Survey date: TUESDAY	13/10/20	Survey Type: MANUAL
10	WS-02-A-06 YEOMAN ROAD WORTHING	SOUTHERN WATER OFFICES	WEST SUSSEX
	Edge of Town No Sub Category		
	Total Gross floor area:	5700 sqm	
	Survey date: WEDNESDAY	18/05/22	Survey Type: MANUAL

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

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
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 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	9	3969	0.151	9	3969	0.025	9	3969	0.176
07:30 - 08:00	9	3969	0.456	9	3969	0.036	9	3969	0.492
08:00 - 08:30	9	3969	0.691	9	3969	0.045	9	3969	0.736
08:30 - 09:00	10	4167	0.674	10	4167	0.048	10	4167	0.722
09:00 - 09:30	10	4167	0.528	10	4167	0.048	10	4167	0.576
09:30 - 10:00	10	4167	0.221	10	4167	0.043	10	4167	0.264
10:00 - 10:30	10	4167	0.127	10	4167	0.046	10	4167	0.173
10:30 - 11:00	10	4167	0.062	10	4167	0.036	10	4167	0.098
11:00 - 11:30	10	4167	0.070	10	4167	0.043	10	4167	0.113
11:30 - 12:00	10	4167	0.046	10	4167	0.048	10	4167	0.094
12:00 - 12:30	10	4167	0.062	10	4167	0.199	10	4167	0.261
12:30 - 13:00	10	4167	0.120	10	4167	0.182	10	4167	0.302
13:00 - 13:30	10	4167	0.146	10	4167	0.173	10	4167	0.319
13:30 - 14:00	10	4167	0.154	10	4167	0.072	10	4167	0.226
14:00 - 14:30	10	4167	0.082	10	4167	0.103	10	4167	0.185
14:30 - 15:00	10	4167	0.070	10	4167	0.127	10	4167	0.197
15:00 - 15:30	10	4167	0.077	10	4167	0.144	10	4167	0.221
15:30 - 16:00	10	4167	0.019	10	4167	0.149	10	4167	0.168
16:00 - 16:30	10	4167	0.058	10	4167	0.326	10	4167	0.384
16:30 - 17:00	10	4167	0.041	10	4167	0.377	10	4167	0.418
17:00 - 17:30	10	4167	0.017	10	4167	0.797	10	4167	0.814
17:30 - 18:00	10	4167	0.041	10	4167	0.420	10	4167	0.461
18:00 - 18:30	9	4493	0.020	9	4493	0.304	9	4493	0.324
18:30 - 19:00	9	4493	0.022	9	4493	0.069	9	4493	0.091
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			3.955			3.860			7.815

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:	1230 - 9225 (units: sqm)
Survey date range:	01/01/15 - 11/11/22
Number of weekdays (Monday-Friday):	10
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.

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
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 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30									
05:30 - 06:00									
06:00 - 06:30									
06:30 - 07:00									
07:00 - 07:30	9	3969	0.000	9	3969	0.000	9	3969	0.000
07:30 - 08:00	9	3969	0.000	9	3969	0.000	9	3969	0.000
08:00 - 08:30	9	3969	0.000	9	3969	0.000	9	3969	0.000
08:30 - 09:00	10	4167	0.005	10	4167	0.000	10	4167	0.005
09:00 - 09:30	10	4167	0.000	10	4167	0.005	10	4167	0.005
09:30 - 10:00	10	4167	0.005	10	4167	0.005	10	4167	0.010
10:00 - 10:30	10	4167	0.002	10	4167	0.002	10	4167	0.004
10:30 - 11:00	10	4167	0.000	10	4167	0.000	10	4167	0.000
11:00 - 11:30	10	4167	0.000	10	4167	0.000	10	4167	0.000
11:30 - 12:00	10	4167	0.002	10	4167	0.000	10	4167	0.002
12:00 - 12:30	10	4167	0.000	10	4167	0.000	10	4167	0.000
12:30 - 13:00	10	4167	0.000	10	4167	0.002	10	4167	0.002
13:00 - 13:30	10	4167	0.002	10	4167	0.002	10	4167	0.004
13:30 - 14:00	10	4167	0.002	10	4167	0.000	10	4167	0.002
14:00 - 14:30	10	4167	0.002	10	4167	0.002	10	4167	0.004
14:30 - 15:00	10	4167	0.000	10	4167	0.000	10	4167	0.000
15:00 - 15:30	10	4167	0.000	10	4167	0.000	10	4167	0.000
15:30 - 16:00	10	4167	0.000	10	4167	0.000	10	4167	0.000
16:00 - 16:30	10	4167	0.000	10	4167	0.000	10	4167	0.000
16:30 - 17:00	10	4167	0.000	10	4167	0.000	10	4167	0.000
17:00 - 17:30	10	4167	0.000	10	4167	0.000	10	4167	0.000
17:30 - 18:00	10	4167	0.000	10	4167	0.000	10	4167	0.000
18:00 - 18:30	9	4493	0.000	9	4493	0.000	9	4493	0.000
18:30 - 19:00	9	4493	0.000	9	4493	0.000	9	4493	0.000
19:00 - 19:30									
19:30 - 20:00									
20:00 - 20:30									
20:30 - 21:00									
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.020			0.018			0.038

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.

