Residential Development
232-236 Palatine Road
Didsbury
Transport Assessment

260512/SK22492/TA01(-02)

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Project	Document	Rev	Description	Authorised by	Signed	Date
SK22492	TA	00	First Draft – Text Only Issue	LGS	LGS	09/12/2024
SK22492	TA	00	Final	LGS	LGS	17/12/2024
SK22492	TA	01	Updated Layout	LGS	LGS	12/05/2026

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1 Introduction

1.1 SK has been appointed by Marco Living 3 Limited to prepare a Transport Assessment (TA) that assesses the implications of residential development at 232-236 Palatine Road in the Didsbury area of Manchester.

1.2 The planning application seeks consent for the development of 88 apartments, including five duplex/town house apartments, (Use Class C3) together with associated landscaping and access following the demolition of the existing buildings on the site. The development layouts are attached as Appendix A.

1.3 The Local Highway Authority is Manchester City Council (MCC).

2 Baseline Situation

Site Location

2.1 The location of the site is shown on Figure 2.1.

2.2 The site is located in the Didsbury area of the city. It sits to the west of the B5167 Palatine Road, circa 800m north of the centre of Northenden and 1.3km to the west of the centre of Didsbury.

Baseline Site Use

2.3 The site is currently occupied by three large residential dwellings that are in use as 22 flats (Use Class C3).

2.4 Vehicle access to the three dwellings is provided from three crossover arrangements on Palatine Road.

2.5 Car parking is provided in the areas of hardstanding serving each dwelling.

2.6 Deliveries and refuse collection occur from kerbside on Palatine Road.

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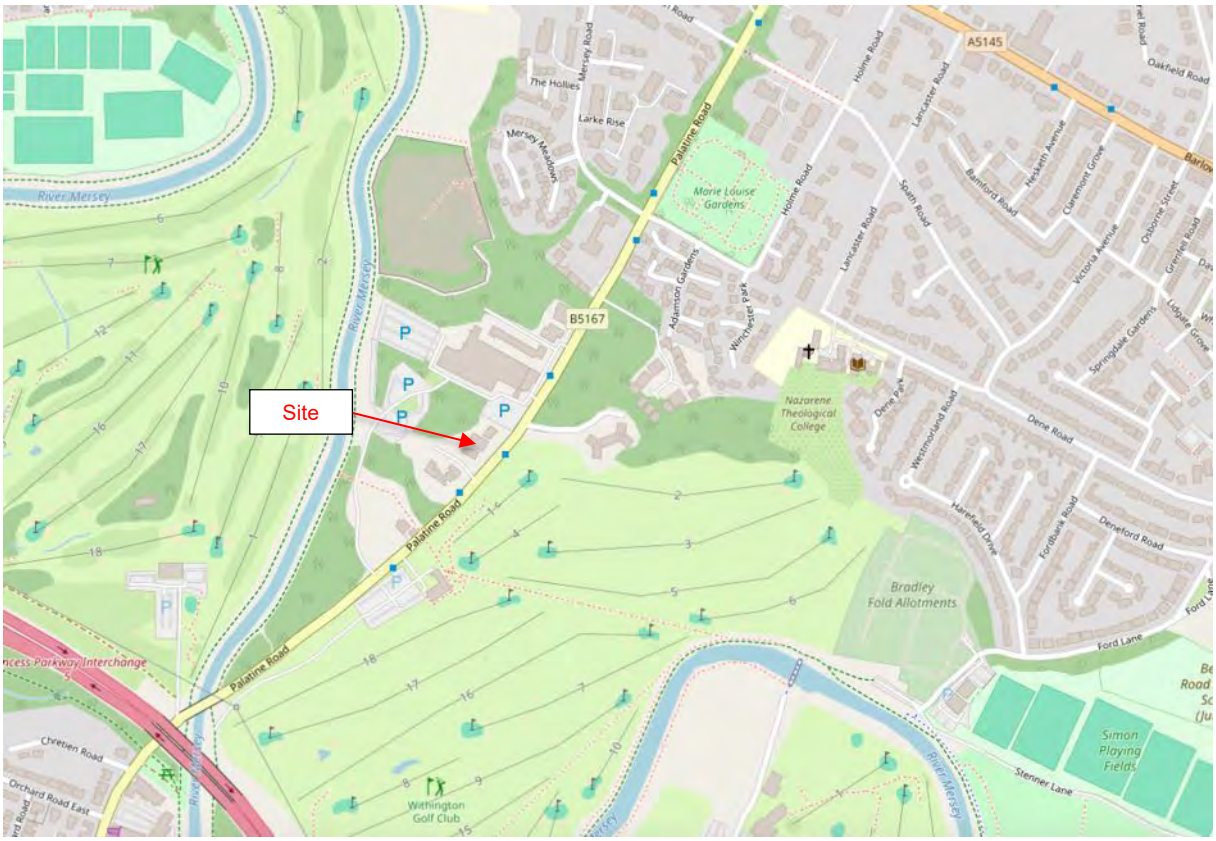


Figure 2.1: Site Location
[source: OpenStreetMap Foundation licensed under the Open Database License]

Local Highway Network

2.7 Palatine Road is an 8.4m wide road that routes north-south on the eastern boundary of the site. In the vicinity of the site, it has a footway of 2.3m wide on the western (site) side of the road and a footway of 1.9m on the eastern side of the road by the bus stop. The road is street lit and subject to a 30mph speed limit.

2.8 Travelling north on Palatine Road access is gained to Mersey Road and Dene Road W. The footways continue northwards at a similar width to found in the vicinity of the site. A signalised crossing is in place just prior to the junction with Mersey Road/Dene Road W.

2.9 South of the site Palatine Road travels underneath the M60 as the road drops into Northenden. The footways on the western side of the road provides a continuous provision to Northenden. There is no footway on the eastern side from the bus stop opposite the site to a point just north of the M60, adjacent to the access point to the Mersey Path, where an uncontrolled crossing is provided. Just south of the M60 a signalised crossing is provided.

Traffic Regulation Orders

2.10 In the vicinity of the site, Traffic Regulation Orders (TRO) are in place in the form single yellow line controls on both sides of the road. The TRO are in force between 8am to 9.30am, 5pm to 6.30pm and 9pm to 3am (Monday-Friday) and 9pm to 3am (Saturday-Sunday).

Surveyed Traffic Flows & Vehicle Speeds

2.11 An Automatic Traffic Count (ATC) survey was undertaken outside the site between Thursday 3rd October 2024 and Wednesday 9th October 2024. The survey data is attached as Appendix B.

2.12 Table 2.1 provides a summary of the surveyed traffic flows in vehicles and passenger car units (pcu).

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Traffic Flows (in vehs)	0800-0900	1700-1800
Southbound	490	636
Northbound	836	759
Total	1326	1395
Traffic Flows (in pcu)	0800-0900	1700-1800
Southbound	514	673
Northbound	884	796
Total	1398	1468

Table 2.1: Surveyed Traffic Flows – Palatine Road

2.13 The ATC also recorded vehicle speeds which are summarised in Table 2.2.

Vehicle Speeds	Average (mph)	85%ile (mph)
Southbound – Average Day	28.0	32.0
Northbound –Average Day	27.4	31.0

Table 2.2: Surveyed Vehicle Speeds – Palatine Road

Road Safety Patterns

2.14 The TfGM database has been used to establish collision patterns over the most recent five-year period available.[1] The TfGM database states that the current data available to 31st December 2025.

2.15 The database shows that there have been no collisions at the site access junctions. There has been a single collision to the north of the site on Palatine Road. The collision occurred in 2024 and was classified as slight.

[1] https://www.gmtu.gov.uk/gmaccidents/

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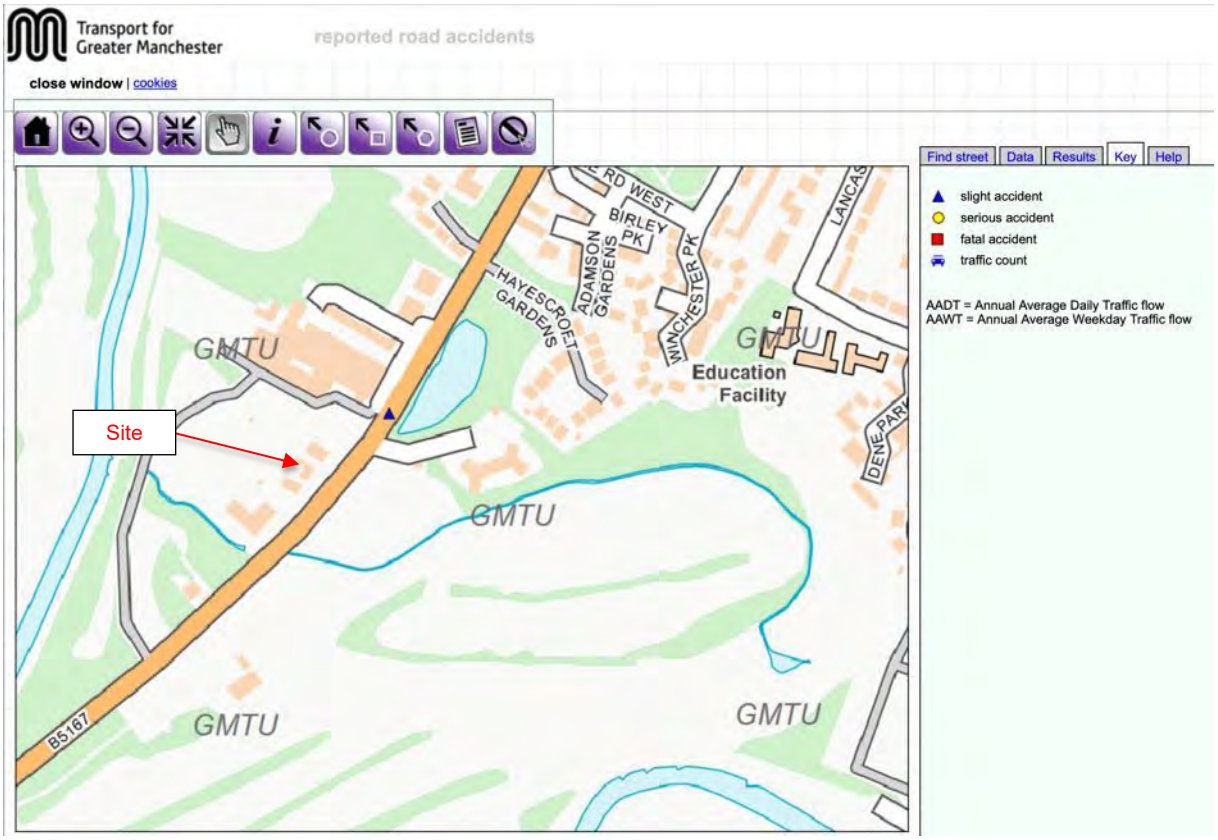


Figure 2.2: Road Safety Patterns
[source: Transport for Greater Manchester]

3 Development Proposal

Overview

3.1 The development layouts are attached as Appendix A.

3.2 The planning application seeks consent for the development of 88 apartments, including five duplex/town house apartments, (Use Class C3) together with associated landscaping and access following the demolition of the existing buildings on the site.

3.3 Table 3.1 shows the number of bedrooms by dwelling type.

	2 Bed	4 Bed	Total
Number of Dwellings	83	5	88

Table 3.1: Bedroom Numbers

Site Access

3.4 The proposed site access arrangements are shown in Appendix C. The existing driveway openings will be replaced with two formal bellmouth arrangements, with footway reinstated where necessary to suit the new access layout.

3.5 The new bellmouths have been designed to accommodate entry manoeuvres including for a refuse vehicle in the case of the southern access point and entry and exit manoeuvres at the northern access point, and to accommodate tree retention.

3.6 Dropped kerb crossing points with tactile paving will be provided at each of the access points, alongside reinstatement of the footway on the site frontage. A new dropped kerb crossing point is also proposed on Palatine Road on the site frontage, to enhance the accessibility of the southbound bus stop.

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Parking Provision

3.7 A total of 69 parking spaces are provided to serve the development, including four disabled spaces (6%).

3.8 30 EV charging spaces are provided. The Fire Engineer has advised that it is not possible to provide EV charging infrastructure in the undercroft parking area and so all EV is located in uncovered areas. This has impacted on the level of provision that can be made.

3.9 MCC's parking standards are set out in the Core Strategy.[2] MCC does not maintain any parking standards for residential land uses. Further MCC guidance on parking is provided within the document "Manchester Residential Quality Guidance".[3] The document states that:

"…there is no 'one size fits all' approach to car parking and it should be considered on a site-by-site basis."

3.10 The document goes on to state that 100% parking provision should be a starting point, but that reduced on-site provision may be justified on that basis of factors such as cycle parking in excess of 50% provision, and evidence demonstrating that lower levels of parking demand would be appropriate.

3.11 The development proposes 78% provision which is based on local car ownership evidence and the high level of cycle parking for the development.

3.12 88 cycle parking spaces are provided to serve the development.

Parking Space Dimensions

3.13 Parking spaces are 2.4m x 4.8m with 6m manoeuvring space other than in the undercroft, the manoeuvring space for these is 5.5m and the spaces have therefore been widened to 2.7m to compensate, in line with the advice in MfS. The garages have a full width opening to allow access.

3.14 Accessible parking bays have a 1200mm clearance zones to three sides of each space.

Travel Plan

3.15 The site will be supported by a Travel Plan that includes measures to promotes and supports active and sustainable resident travel. An Interim Travel Plan has been prepared for the planning application and this is attached as Appendix D. The Interim Travel Plan sets out the measures that will be adopted at the site, including management and monitoring mechanisms.

Delivery & Servicing Management Plan

3.16 The waste generation and bin storage requirements have been calculated based on MCC advice set out in GD04.[4]

3.17 The access arrangement has been designed to allow refuse vehicle access to the pull-in area of the site frontage. Bins will be moved to this area on collection day by the site management team.

3.18 The frontage area will also accommodate day to day service activity such as post and parcel drop-off, supermarket deliveries, and for less frequent deliveries such as bulky goods.

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[2] Manchester City Council (2012), Manchester's Local Development Framework: Core Strategy Development Plan Document

[3] Manchester City Council (2017), Manchester Residential Design Guidance

[4] https://www.manchester.gov.uk/__data/assets/file/0020/123572/gd04_waste_storage_and_collection_guidance_for_new_developments_v7_sept_2023.pdf

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3.19 The refuse collection vehicle is expected to be the largest vehicle type that will require regular access. Swept path analysis for a refuse collection vehicle is shown in Appendix E.

Emergency Access

3.20 The access layout also provides space for a fire service vehicle to access the pull-in area at the front of the site. Swept path analysis for a fire service vehicle accessing this area is provided in Appendix E.

4 Sustainable Connectivity

Active Travel Routes

4.1 The existing footway outside the site is 2.3m wide. A controlled crossing is located to the north of the site at the junction with Dene Road W (340m north of the site), an uncontrolled crossing is provided where access can be gained to the Mersey Path traffic free route along the Mersey (480m south of the site), and a further controlled crossing is provided to the south of the M60 (600m south of the site).

4.2 Tactile paving and dropped kerb crossings will be provided at the site access junctions, and a new uncontrolled dropped kerb crossing point will be provided across the road outside the site, to improve the accessibility of the southbound bus stop.

4.3 Figure 4.1 shows the cycle network serving the site from the TfGM website.[5] This shows that access can be gained to traffic calmed/20mph routes to the north of the site at the junction with Dene Road W/Mersey Road which provides a connection to formal routes on Barlow Moor Road. To the south of the site access can be gained to traffic free routes along the Mersey (Mersey Path) and to the south of this Route 62 of the National Cycle Network (Trans Pennine Trail).

4.4 The development accommodates cycle parking at a rate of one space per dwelling.

4.5 A Travel Plan will be adopted at the site to promote and support active travel choices.

[5] https://tfgm.pindarcreative.co.uk

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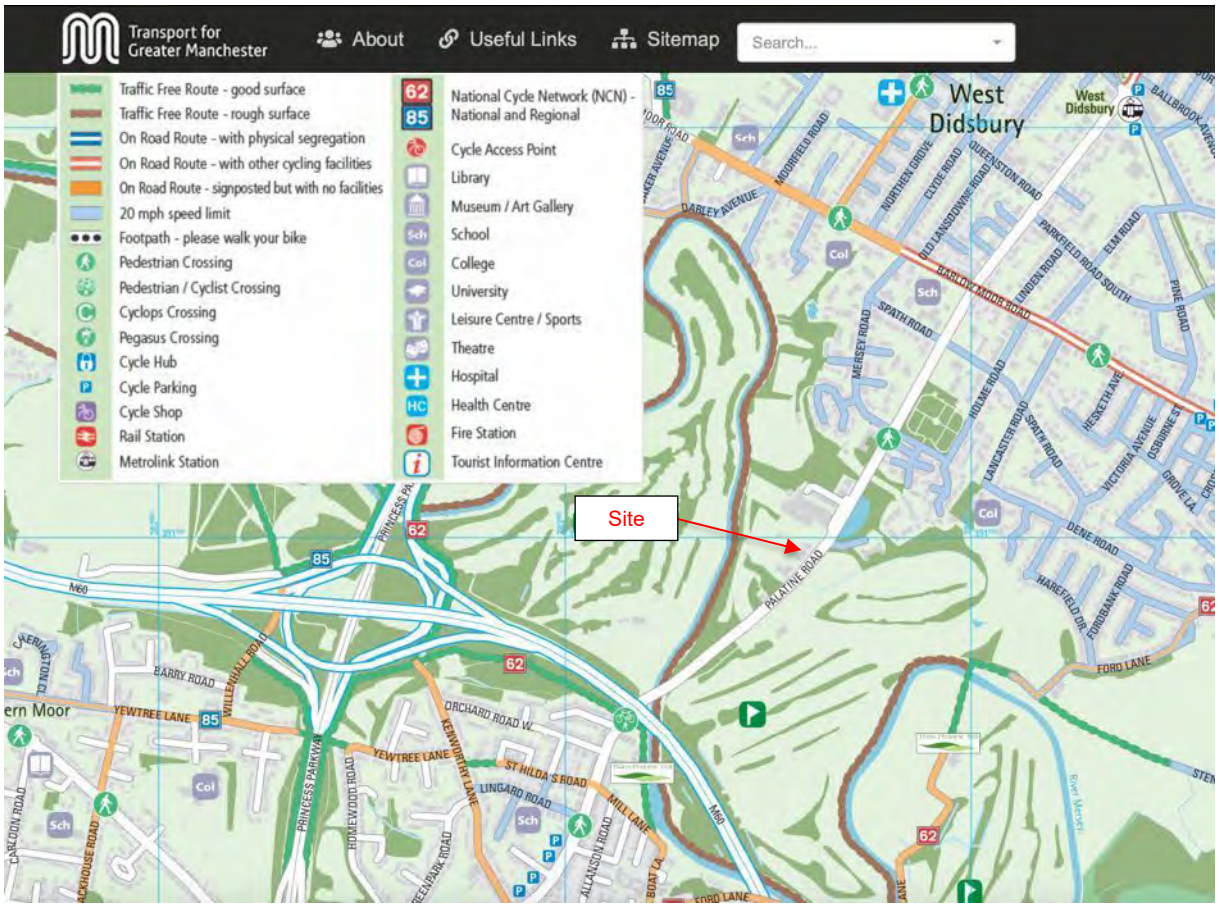


Figure 4.1: Cycle Network
[source: Transport for Greater Manchester]

Public Transport Routes

4.6 Figure 4.2 shows TfGM's public transport network map for the local area.[6]

4.7 The nearest bus stop to the site is located opposite the site on Palatine Road (southbound services). The bus stop has a flag pole, timetable information and street lighting. The new uncontrolled crossing delivered by the development will support access to the southbound bus stop.

4.8 The nearest northbound bus stop is located 104m to the north of the site. The bus stop has a shelter, seating, flag pole, timetable information and street lighting.

[6] https//tfgm.com/maps

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Figure 4.2: Public Transport Network
[source: Transport for Greater Manchester]

4.9 Table 4.1 provides a summary of the bus services using these stops taken from TfGM timetables at the time of preparing the report.[7] This shows that the site is served by nine buses per hour during a weekday, with three buses per hour in the evening and regular services provided at the weekend.

No.	Route	Weekday (Buses per hour/each way)			Weekend (Buses per hour/each way)	
		Peak	Day	Evening	Saturday	Sunday
41	Middleton – Bowker – City Centre – Sale	3	3	1	3	2
43	Manchester Airport – Moss Side – City Centre	6	6	2	6	4

Table 4.1: Bus Services
[source: Transport for Greater Manchester]

Accessibility Assessment

4.10 One of the principal factors to be considered when assessing the suitability of a site for development is the proximity and connectivity of a site to local amenities and services. It is generally held that walking has the potential to replace short car trips for distances up to 2km (equating to a 25-minute walk time).

[7] https://tfgm.com/public-transport/bus

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4.11 The Chartered Institution of Highways and Transportation (CIHT) provides further guidance on suitable walk distances, setting maximum preferred distances as replicated in Table 4.2.[8]

Destination Type	Walk Distance (m)	Walk Time (mins)*
Commuting/Education	2000	25
Town Centre	800	10
All Other Destinations	1200	15

Table 4.2: CIHT Walk Distances
[source: Chartered Institution of Highways & Transportation]

4.12 Figure 4.3 shows walking isochrones from the site based on the CIHT guidance in Table 4.2.

4.13 Figure 4.3 shows that local centre uses on Palatine Road, to the south of the site, are within a 10-minute walk. These uses include a Co-op food store, take-aways and a hairdresser. Public open space is also within a 10-minute walk, such as the Marie Louise Gardens.

4.14 Within a 15-minute walk access can be gained to the Hugh Rae Library, Bradley Fold Allotments, Didsbury Sports Ground, Simon Playing Fields, Northenden Community School, Moor Allerton Prep School, and the centre of Northenden. The amenities in the centre of Northenden include a pharmacy, convenience retail, Tesco Express, a Nat West Bank and Food & Beverage outlets.

4.15 Within a 25-minute walk access can be gained to the Northenden Medical Centre, Wythenshawe Cricket Club, St Wilfrid's CofE Primary School, the centre of Didsbury, Withington Hospital, Lancastrian School, and Didsbury High School.

4.16 The assessment confirms that the site is well located for access to a range of local amenities and services.

[8] Chartered Institution of Highways & Transportation (2000), Guidelines for Providing for Journeys on Foot

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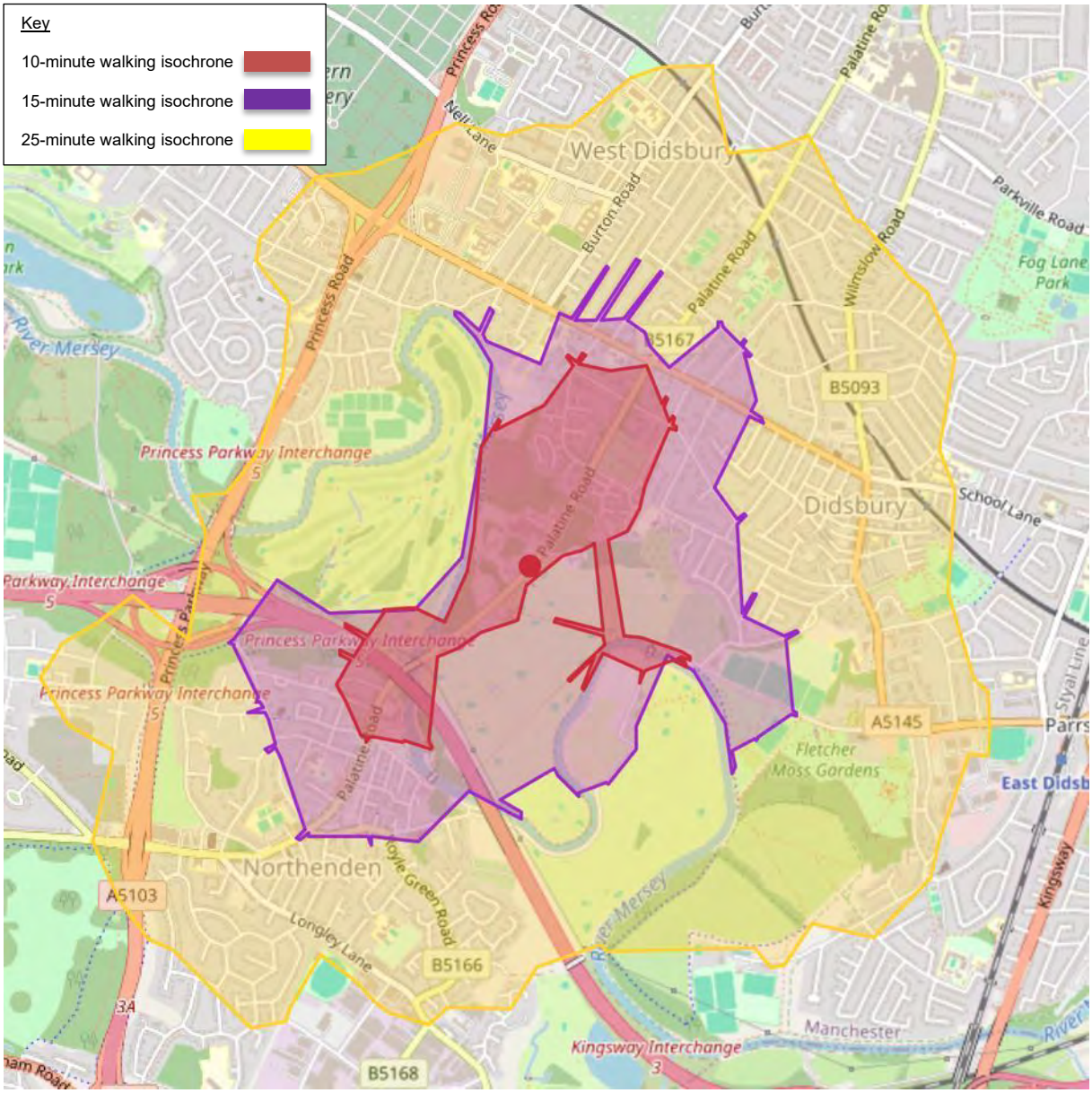


Figure 4.3: Walk Isochrones
[source: ISO4app and OpenStreetMap Foundation licensed under the Open Database License]

4.17 A Greater Manchester Accessibility Level (GMAL) calculation has been undertaken for the site. A GMAL is calculated using the interactive tool managed and maintained by TfGM.[9] This tool measures accessibility by public transport of a point of interest and provides a rate between 1 and 8, where 1 is a poor level of accessibility and 8 is an exceptional level of accessibility.

4.18 The database shows that the site has a GMAL of 5 (score: 8.72), which is a good level of accessibility in a suburban area.

4.19 The assessment confirms that the site is well located in relation to access to public transport services.

[9] https://www.gmtu.gov.uk/gmbusroute/GMAL%20Calculation%20Guide.pdf

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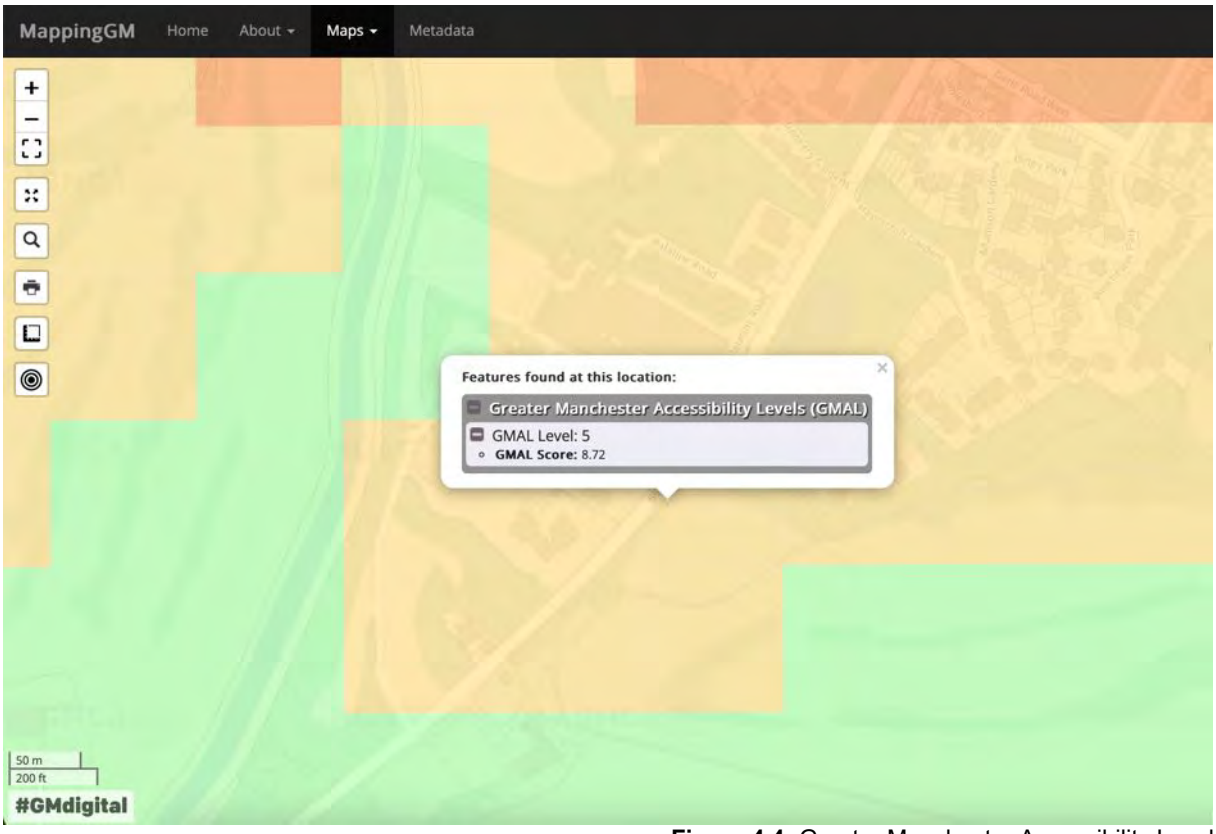


Figure 4.4: Greater Manchester Accessibility Level
[source: Mapping GM]

5 Impact Assessment

Development Trip Generation

5.1 The trip generation forecast has been undertaken using TRICS privately owned flats. The TRICS output is attached as Appendix F with a summary provided below.

	Person Trip Rates (per dwelling)		
	In	Out	Total
AM Peak Hour	0.086	0.537	0.623
PM Peak Hour	0.368	0.188	0.556
	Total Trips (Person)		
	In	Out	Total
AM Peak Hour	8	47	55
PM Peak Hour	32	17	49

Table 5.1: Person Trip Rates & Total Trips – Development

5.2 Census mode share data for the local area (Manchester 042) has been used to establish typical resident travel patterns. The Census data, attached as Appendix F, shows a 56% car driver mode share. This has been used in the assessment as it is higher than that found in the TRICS data forecast.

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	Total Vehicle Trips		
	In	Out	Total
AM Peak Hour	4	26	30
PM Peak Hour	18	9	27

Table 5.2: Vehicle Trips – Development

Base Site Traffic Flows

5.3 The site is currently occupied by 22 apartments. Using the apartment trip rates and mode share set out previously the site has the potential to generate the level of traffic shown in Table 5.3.

	Total Vehicle Trips		
	In	Out	Total
AM Peak Hour	1	7	8
PM Peak Hour	5	2	7

Table 5.3: Vehicle Trips – Base

Traffic Impact

5.4 Table 5.4 shows that the net change in traffic flows will not be significant and therefore the development will not have an impact on highway operation. Notwithstanding this, an assessment has been undertaken of the site access junction, as set out below.

	Base Site Traffic			Development Site Traffic			Total Vehicle Trips		
	In	Out	Total	In	Out	Total	In	Out	Total
AM Peak Hour	1	7	8	4	26	30	3	19	22
PM Peak Hour	5	2	7	18	9	27	13	7	20

Table 5.4: Net Traffic Impact

2031 Base Network Traffic Flows

5.5 In line with standard appraisal methods, a future year of five-years post-planning submission has been assessed (2031). The surveyed traffic flows have been growthed to 2031 using TEMPRO core growth for the location in which the site sits (Manchester 042). The latest version of TEMPRO has been used in the assessment (version 8.1).[10]

- AM Peak Hour: 1.0891
- PM Peak Hour: 1.1039

5.6 The growth factors have been applied to the surveyed traffic flows as shown in Appendix H to form the base situation against which the development will be assessed.

Development Distribution

5.7 The development traffic has been distributed in line with surveyed patterns of movement, as shown in Appendix G. The development traffic has then been combined with 2031 base traffic to form the with development scenario.

[10] https://www.gov.uk/government/publications/tempro-downloads

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5.8 To allow a robust assessment no adjustment has been made to acknowledge the baseline uses on the site.

Site Access Operation

5.9 PICADY has been used to model the operation of the site access junction. To allow a robust assessment the base flows do not contain the baseline site traffic flows, and all movements have been modelled at a single point of access. The PICADY output is attached as Appendix H with a summary in Table 5.5.

Movement	2031 AM Peak with Development		2031 PM Peak with Development	
	RFC	Queue	RFC	Queue
From Site	0.08	0	0.03	0
Right turn to Site	0.00	0	0.02	0

Table 5.5: Site Access Operation

5.10 The assessment indicates that the proposed site access junction will operate well within capacity.

Parking Assessment

5.11 Local Census data has been used to establish the car ownership rate for apartments and duplex apartments in the area (called as flats and maisonettes in the Census) and to inform the level of parking required to meet resident requirements. The Census data is attached as Appendix F.

Accommodation Type	Car Ownership Level
Flats/Maisonettes	78%

Table 5.6: Car Ownership Level

5.12 Table 5.6 confirms that the apartment parking level (69 spaces/78%) is sufficient to meet apartment resident requirements.

Policy Compliance

5.13 Paragraph 115 of the National Planning Policy Framework (NPPF) supports developments that allow appropriate opportunities for sustainable transport modes to be taken up.[11] This is echoed in Policy JP-C1 (An Integrated Network) of Places for Everyone (PfE) aims to help deliver an accessible, low carbon Greater Manchester by supporting developments that minimises the need to travel and is located where trips can be made by walking, cycling and public transport.[12] Policy SO5 (Transport) and Policy T1 (Sustainable Transport) of the Local Plan supports development that is located where the need to travel by private car can be reduced and the use of public transport can be achieved.[13] Policy JP-C8 also requires developments to be located where opportunities for access by pedestrians, disabled people, cyclists, public transport and EV.

5.14 Paragraph 116 of NPPF states that developments should only be prevented on highway grounds if there would be an unacceptable impact on highway safety or where residual cumulative impacts would be severe. This is reflected in Policy DM1 (Development Management) of the Local Plan and Policy JP-C8 (Transport Requirements for New Development) of the PfE, which both require Transport Assessments/Statements to be undertaken to examine the impact of development on the highway network. This TA has been prepared and it shows that the proposal will not have any

[11] Department for Levelling Up, Housing & Communities (2025), National Planning Policy Framework
[12] Greater Manchester Combined Authority (2024), Places for Everyone Joint Development Plan 2022-2039
[13] Manchester City Council (2012), Manchester's Local Development Framework – Core Strategy

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negative effects on highway operation or road safety. A Travel Plan has also been prepared and this will result in a benefit to future site users without recourse to wider network mitigation.

5.15 The assessment confirms that the development accords with local, regional and national policy requirements.

6 Conclusions

6.1 SK has prepared a TA that examines the impact of constructing 88 apartments, including five duplex/town house apartments, (Use Class C3) at 232-236 Palatine Road in the Didsbury area of Manchester. The assessment has been undertaken in line with standard appraisal methods.

6.2 The assessment confirms that the site is a location that is accessible by a range of modes and that the site has a GMAL of 5. Measures are included in the proposal such as localised pedestrian improvements, cycle parking, and EV charging to support sustainable trip making. The development will be underpinned by a Travel Plan.

6.3 The assessment shows that there are no collision hotspots in the vicinity of the site. Vehicle and pedestrian access to the site will be provided by a new access arrangement which has been designed to confirm with required standards.

6.4 Servicing will be undertaken within the site and the assessment shows that suitable space is provided to accommodate large vehicles requiring regular access.

6.5 A traffic assessment has been undertaken and this shows that the proposal will not be associated with a significant level of traffic and that the site access will operate within suitable capacity levels.

6.6 The TA confirms that the site accords with local, regional and national policy requirements.

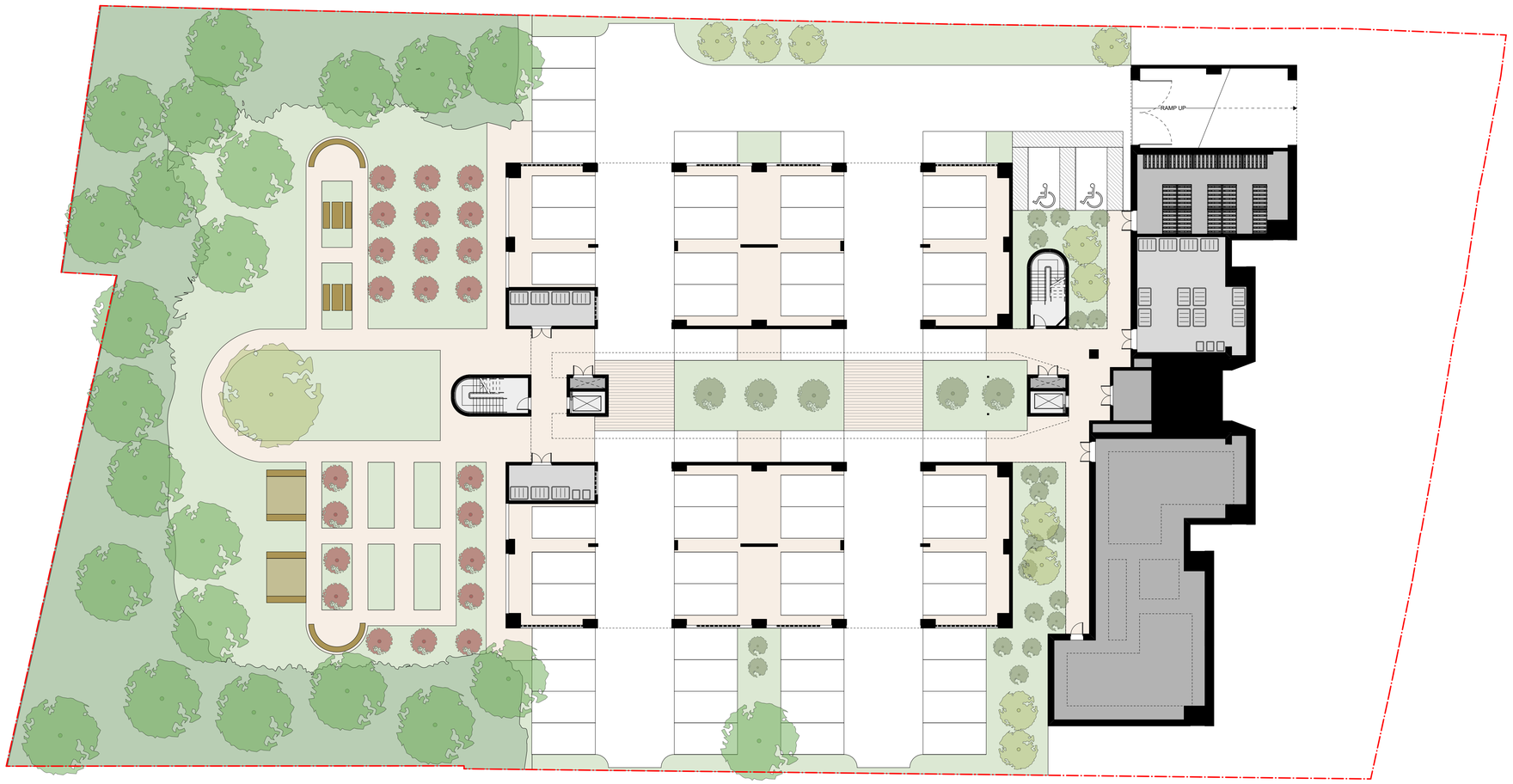
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Appendix A

REVISION	DATE	DESCRIPTION
P01	27/02/26	Preliminary Issue
P02	26/03/26	Revised as elevation development
P03	30/04/26	Revised as further elevation development
P04	08/05/26	Draft planning issue for consultant coordination
P05	12/05/26	Parking layout revised
P06	22/05/26	Planning Issue

KEY

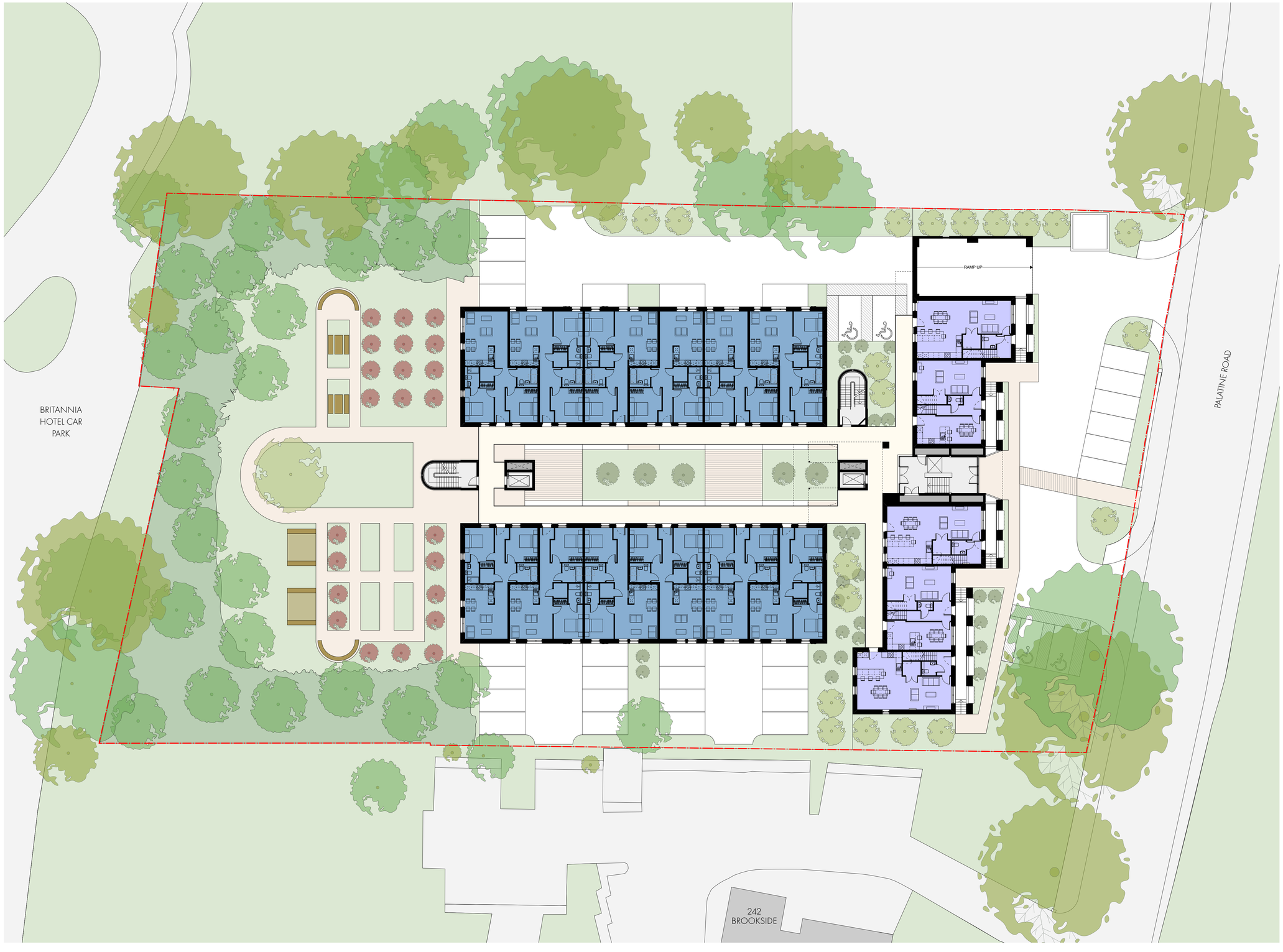
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- 2B 4P Apartment
- 4B 7P Townhouse
- Bike Store
- Bin Store
- Plant (TBC by MEP Engineer)
- Circulation



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PROJECT	MARCO LIVING, PALATINE ROAD				
DRAWING	MASTERPLAN - LEVEL BASEMENT				
DATE	FEB' 26	DRAWN BY	HF	SCALE	1:200 @A1
JOB NO.	1459	DWG NO.	1459-OMI-ZZ-00-DR-A-L1000-P06		



REVISION	DATE	DESCRIPTION
P01	27/02/26	Preliminary Issue
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P05	22/05/26	Planning Issue

KEY

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PROJECT	MARCO LIVING, PALATINE ROAD				
DRAWING	MASTERPLAN - LEVEL 00				
DATE	FEB '26	DRAWN BY	HF	SCALE	1:200 @A1
JOB NO.	1459	DWG.NO.	1459-OMI-ZZ-00-DR-A-L1001-P05		

Appendix B

Automatic Classified Counts, Didsbury

LOCATION: 85167 PALATINE ROAD

Direction : SOUTHBOUND

Thursday 03/10/2024 — VEHICLE CLASSIFICATION — TOTAL

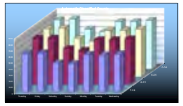
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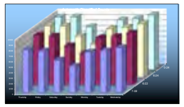
Direction : NORTHBOUND

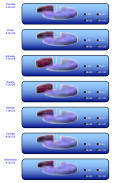
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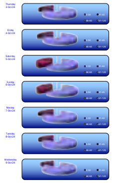
Automatic Classified Counts, Didsbury

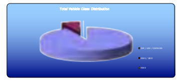
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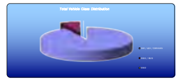












Appendix C



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NOTES

Layout subject to detailed design and confirmation of statutory undertakers' equipment.

Revision Details	By / Check	Date	Suffix

Drawing Number

SK22492-101

Palatine Road, Manchester

Drawing Title

Proposed Site Access Arrangement

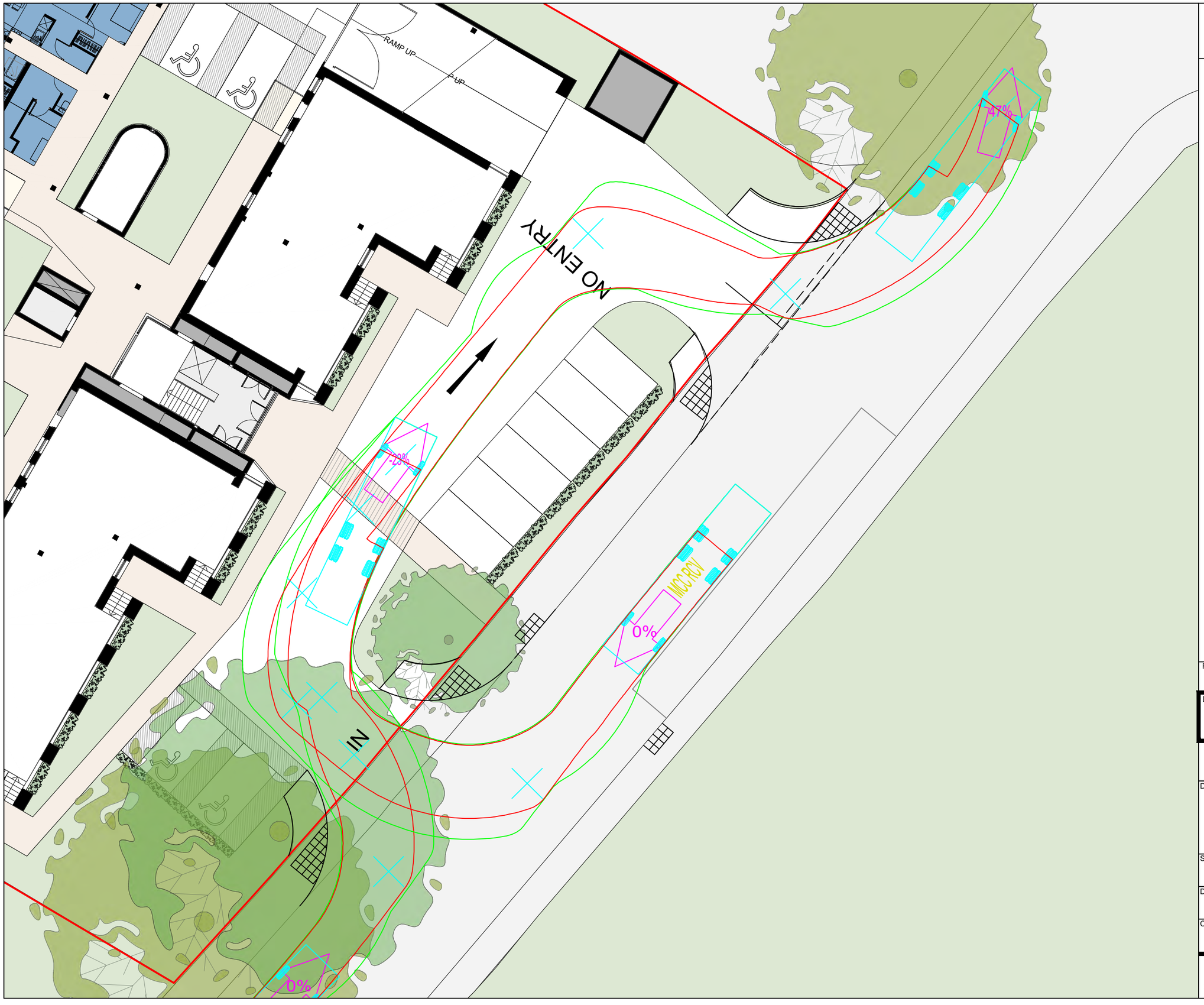
Scale at A3

1:500

Drawn	Approved
JAT	LGS
Check	**Date**
LGS	13.05.26

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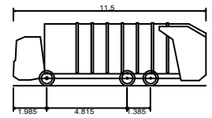
Appendix D



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NOTES

Vehicle Profile



MCC RCV	
Overall Length	11.500m
Overall Width	2.550m
Overall Body Height	3.751m
Min Body Ground Clearance	0.304m
Track Width	2.500m
Lock to Lock Time	2.00 sec
Wall to Wall Turning Radius	9.700m

Revision Details	By / Check	Date	Suffix

Drawing Number

SK22492-102

Palatine Road, Manchester

Drawing Title

Swept Path Analysis
Refuse Collection Vehicle

Scale at A3

1:200

Drawn	Approved
JAT	LGS
Check	**Date**
LGS	13.05.26

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RAMP UP

RAMP UP

NO ENTRY

IN

9%

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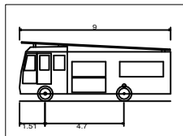
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Scania P250 Fire Appliance 9m

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NOTES

Vehicle Profile



Scania P250 Fire Appliance 9m	
Overall Length	9.000m
Overall Width	2.540m
Overall Body Height	3.531m
Min Body Ground Clearance	0.416m
Track Width	2.490m
Lock to Lock Time	3.00 sec
Kerb to Kerb Turning Radius	8.550m

Revision Details	By / Check	Date	Suffix

Drawing Number

SK22492-103

Palatine Road, Manchester

Drawing Title

Swept Path Analysis
Fire Service Vehicle

Scale at A3

1:200

Drawn	Approved
JAT	LGS
Check	**Date**
LGS	13.05.26

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Appendix E

Residential Development
232-236 Palatine Road
Didsbury
Interim Travel Plan

250512/SK22492/ITP01(-02)

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8	Action Plan	13

Project	Document	Rev	Description	Authorised by	Signed	Date
SK22492	ITP01	00	First Draft	L Speers	LGS	09/12/2024
SK22492	ITP01	01	Final	L Speers	LGS	17/12/2024
SK22492	ITP01	02	Updated Layout	L Speers	LGS	12/05/2026

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1 Introduction

Background

1.1 SK has been appointed by Marco Living 3 Limited to prepare an Interim Travel Plan for a residential development at 232-236 Palatine Road in the Didsbury area of Manchester.

1.2 A Transport Assessment (TA) has been prepared for the planning application and this should be referred to for full details of the development proposals and the transport implications. Details of the development relevant to the Travel Plan are summarised below.

Development Overview

1.3 The development layouts are attached as Appendix A of the TA.

1.4 The planning application seeks consent for the development of 88 apartments, including five duplex/town house apartments, (Use Class C3) together with associated landscaping and access following the demolition of the existing buildings on the site.

1.5 Table 3.1 shows the number of bedrooms by dwelling type.

	2 Bed	4 Bed	Total
Number of Dwellings	83	5	88

Table 3.1: Bedroom Numbers

1.6 The proposed site access arrangements are shown in Appendix C of the TA. The existing driveway openings will be replaced with two formal bellmouth arrangements, with footway reinstated where necessary to suit the new access layout.

1.7 The new bellmouths have been designed to accommodate entry manoeuvres including for a refuse vehicle in the case of the southern access point and entry and exit manoeuvres at the northern access point, and to accommodate tree retention.

1.8 Dropped kerb crossing points with tactile paving will be provided at each of the access points, alongside reinstatement of the footway on the site frontage. A new dropped kerb crossing point is also proposed on Palatine Road on the site frontage, to enhance the accessibility of the southbound bus stop.

1.9 A total of 69 parking spaces are provided to serve the development, including four disabled spaces (6%).

1.10 30 EV charging spaces are provided. The Fire Engineer has advised that it is not possible to provide EV charging infrastructure in the undercroft parking area and so all EV is located in uncovered areas. This has impacted on the level of provision that can be made.

1.11 88 cycle parking spaces are provided for the apartments.

1.12 The access arrangement has been designed to allow refuse vehicle access to the pull-in area of the site frontage. Bins will be moved to this area on collection day by the site management team.

1.13 The frontage area will also accommodate day to day service activity such as post and parcel drop-off, supermarket deliveries, and for less frequent deliveries such as bulky goods.

2 Travel Plan Process

Travel Plan Guidance

2.1 The Travel Plan draws on the following guidance and best practice:

- Department for Transport (2007), Making Residential Travel Plans Work

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- Department for Transport (2009), Good Practice Guidelines: Delivering Travel Plans through the Planning Process
- Greater Manchester Combined Authority (2024), Places for Everyone Joint Development Plan 2022 to 2039
- Manchester City Council (2012), Local Development Framework: Core Strategy Development Plan Document
- Ministry for Housing, Communities & Local Government (2025), National Planning Policy Framework
- Ministry for Housing, Communities & Local Government (2024), Planning Practice Guidance
- Transport for Greater Manchester (2013), Transport for Sustainable Communities
- Transport for Greater Manchester (2017), Greater Manchester Transport Strategy 2040

What is a Travel Plan?

2.2 The National Planning Policy Framework (NPPF) defines a Travel Plan as:

"A long-term management strategy for an organisation or site that details how agreed sustainable transport objectives are delivered, and which is monitored and regularly reviewed."[1]

2.3 This is further expanded in Planning Practice Guidance (PPG) which states that:

"Travel Plans are long-term management strategies for integrating proposals for sustainable travel into the planning process. They are based on evidence of the anticipated transport impacts of development and set measures to promote and encourage sustainable travel (such as promoting walking and cycling)."[2]

2.4 The Department for Transport (DfT) defines a Travel Plan as follows:

"A Travel Plan is a long-term management strategy for an occupier or site that seeks to deliver sustainable transport objectives through positive action and is articulated in a document that is regularly reviewed."

2.5 Transport for Greater Manchester (TfGM) supports the use of Travel Plans to improve the accessibility of a site, reduce traffic on the network, and improve health. TfGM states that Travel Plans can achieve the following benefits:

- "A reduction in car use (particularly for single occupancy trips) and increase travel by sustainable modes, namely active travel and public transport;
- A reduction in the impact of the generated traffic, both in the immediate neighbourhood and on the wider highway network;
- Safe access for pedestrians and cyclists; and
- A coordinated approach to developing and implementing realistic travel options."[3]

2.6 In summary a Travel Plan is a tool that sets out the strategy and management measures that will be used at a development to encourage and support people to consider choosing an alternative means of travel to the private car (particularly a single occupancy car trip). Targets are expected that relate to defined objectives. A Travel Plan is also a document that is regularly reviewed through a robust monitoring and reporting system.

Travel Plan Pyramid

2.7 The Department of Transport (DfT) states that it is helpful to:

[1] Ministry of Housing, Communities & Local Government (2025), National Planning Policy Framework
[2] Ministry of Housing, Communities & Local Government (2014), Planning Practice Guidance
[3] Transport for Greater Manchester (2013), Transport for Sustainable Communities: A Guide for Developers

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"… view the Travel Plan as a pyramid of measures and actions, some of which may form the foundations of the Travel Plan and part of which will be outcomes from the Transport Assessment." [4]

2.8 The DfT pyramid is shown in Figure 2.1.

2.9 At the bottom of the pyramid is the location of the site and characteristics of access to the site by all modes of travel. The location of the development provides the foundation for good accessibility, and this is examined in Section 3 and 4 of the Plan.

2.10 At the next level the physical aspects of the proposed development are set out to allow acknowledgement of that some Travel Plan measures are built-in to the layout to influence travel, such as pedestrian access measures and car and cycle parking provision. These aspects are set out in Section 1 and 6.

2.11 The remaining levels outline the management, promotion and strategy measures that are to be adopted as part of the Travel Plan to reinforce the site location, infrastructure proposals and access opportunities. These are set out in Sections 5 and 6 of the Plan.

2.12 Section 7 sets out the monitoring plan which details how and when the travel plan will be reviewed. This includes how and when surveys will be undertaken, and the targets that will be set to meet the stated objectives.

2.13 Section 8 provides a summary of the actions identified in the Travel Plan along with timescales for implementation and funding/budget details.



Figure 2.1: Travel Plan Pyramid
[source: DfT]

Travel Plan Benefits

2.14 Travel Plans result in a variety of health, financial, environmental and site operation benefits, which are set out below.

2.15 Reduced levels of single occupancy car use can lead to an improvement in air quality both surrounding the site and across the wider area. In addition, increases in active travel have very real impact on health as moderate physical activity can help prevent obesity, mental health issues, cancer, high blood pressure and cardiovascular disease.

[4] Department for Transport (2007), Making Residential Travel Plans Work

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2.16 The financial benefits of Travel Plans include personal cost savings from using more cost-effective modes of travel and indirect and wider cost savings relating to reduced illness and reduced accident rates.

2.17 The environmental benefits of Travel Plans include reduced carbon emissions and air quality issues.

2.18 Travel Plans also bring societal benefits including a happier and healthier community, and more social interaction.

Objectives

2.19 The objectives of the Travel Plan are to:

Objective 1: To increase site user trips by active/sustainable modes of travel.
Objective 2: To reduce the number of site user single occupancy private car trips.

3 Site Location

Site Location

3.1 The location of the site is shown on Figure 3.1.

3.2 The site is located in the Didsbury area of the city. It sits to the west of the B5167 Palatine Road, circa 800m north of the centre of Northenden and 1.3km to the west of the centre of Didsbury.

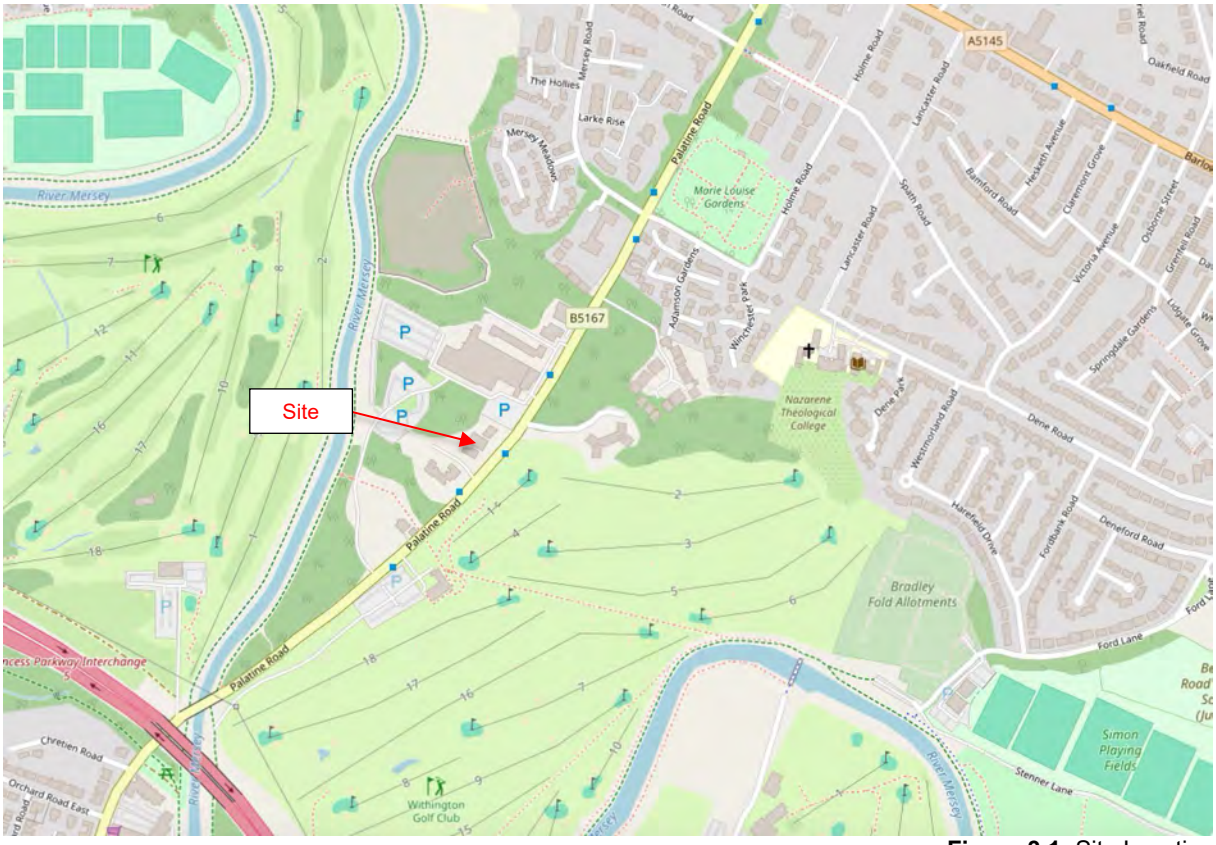


Figure 3.1: Site Location
[source: OpenStreetMap Foundation licensed under the Open Database License]

Local Transport Network

3.3 Palatine Road is an 8.4m wide road that routes north-south on the eastern boundary of the site. In the vicinity of the site it has a footway of 2.3m wide on the western (site) side of the road and a

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footway of 1.9m on the eastern side of the road by the bus stop. The road is street lit and subject to a 30mph speed limit.

3.4 Travelling north on Palatine Road access is gained to Mersey Road and Dene Road W. The footways continue northwards at a similar width to found in the vicinity of the site. A signalised crossing is in place just prior to the junction with Mersey Road/Dene Road W.

3.5 South of the site Palatine Road travels underneath the M60 as the road drops into Northenden. The footways on the western side of the road provides a continuous provision to Northenden. There is no footway on the eastern side from the bus stop opposite the site to a point just north of the M60, adjacent to the access point to the Mersey Path, where an uncontrolled crossing is provided. Just south of the M60 a signalised crossing is provided.

3.6 In the vicinity of the site, Traffic Regulation Orders (TRO) are in place in the form single yellow line controls on both sides of the road. The TRO are in force between 8am to 9.30am, 5pm to 6.30pm and 9pm to 3am (Monday-Friday) and 9pm to 3am (Saturday-Sunday).

Traffic & Speed Data

3.7 Speed and traffic data has been collected on Palatine Road outside the site and is set out in Section 2 of the TA.

Road Safety Data

3.8 Section 2 of the TA contains road safety data and analysis. This shows that there have been no collision hotspots in the vicinity of the site during the five-year period assessed.

4 Accessibility Audit

Active Travel Routes

4.1 The existing footway outside the site is 2.3m wide. A controlled crossing is located to the north of the site at the junction with Dene Road W (340m north of the site), an uncontrolled crossing is provided where access can be gained to the Mersey Path traffic free route along the Mersey (480m south of the site), and a further controlled crossing is provided to the south of the M60 (600m south of the site).

4.2 Figure 4.1 shows the cycle network serving the site from the TfGM website.[5] This shows that access can be gained to traffic calmed/20mph routes to the north of the site at the junction with Dene Road W/Mersey Road which provides a connection to formal routes on Barlow Moor Road. To the south of the site access can be gained to traffic free routes along the Mersey (Mersey Path) and to the south of this Route 62 of the National Cycle Network (Trans Pennine Trail).

[5] https://tfgm.pindarcreative.co.uk

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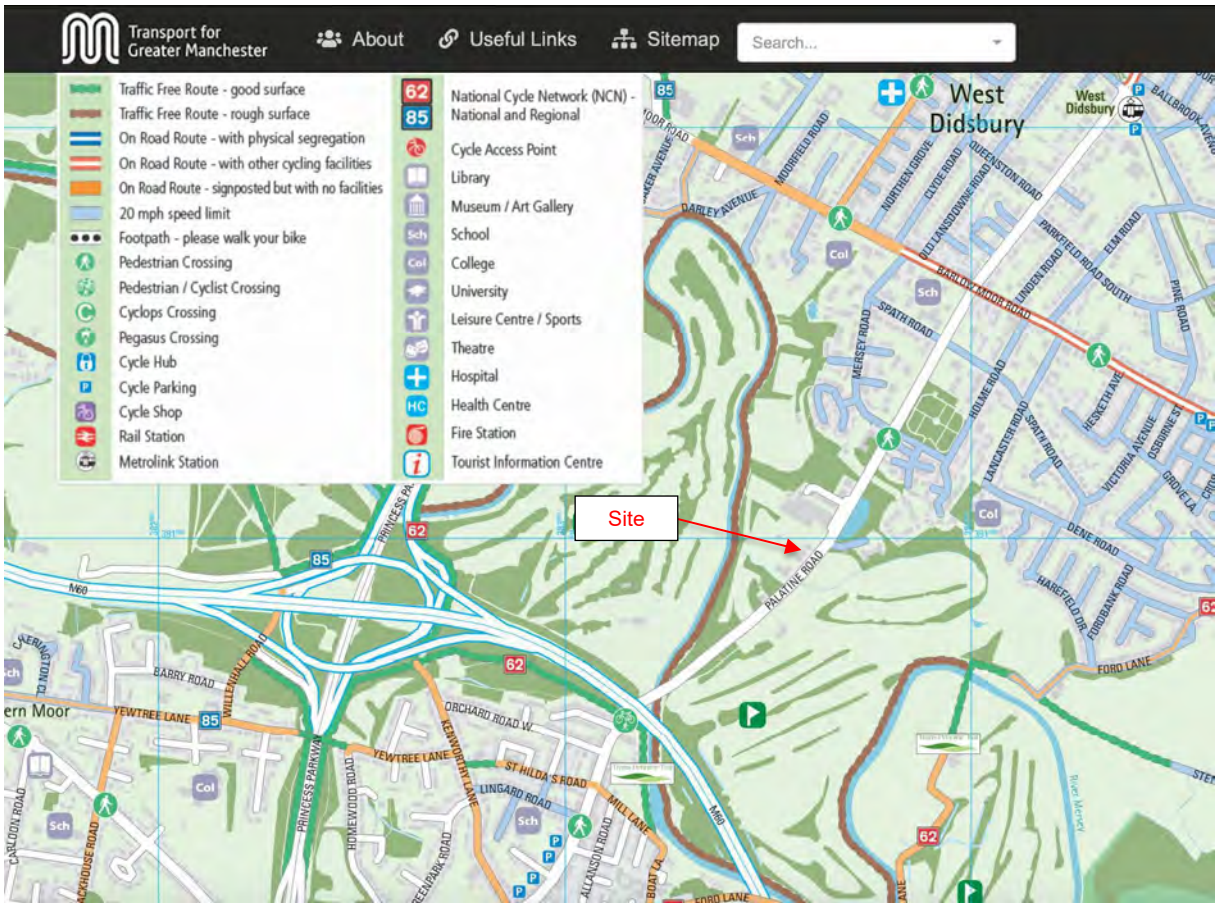


Figure 4.1: Cycle Network
[source: Transport for Greater Manchester]

Public Transport Routes

4.3 Figure 4.2 shows TfGM's public transport network map for the local area.[6]

4.4 The nearest bus stop to the site is located opposite the site on Palatine Road (southbound services). The bus stop has a flag pole, timetable information and street lighting.

[6] https//tfgm.com/maps

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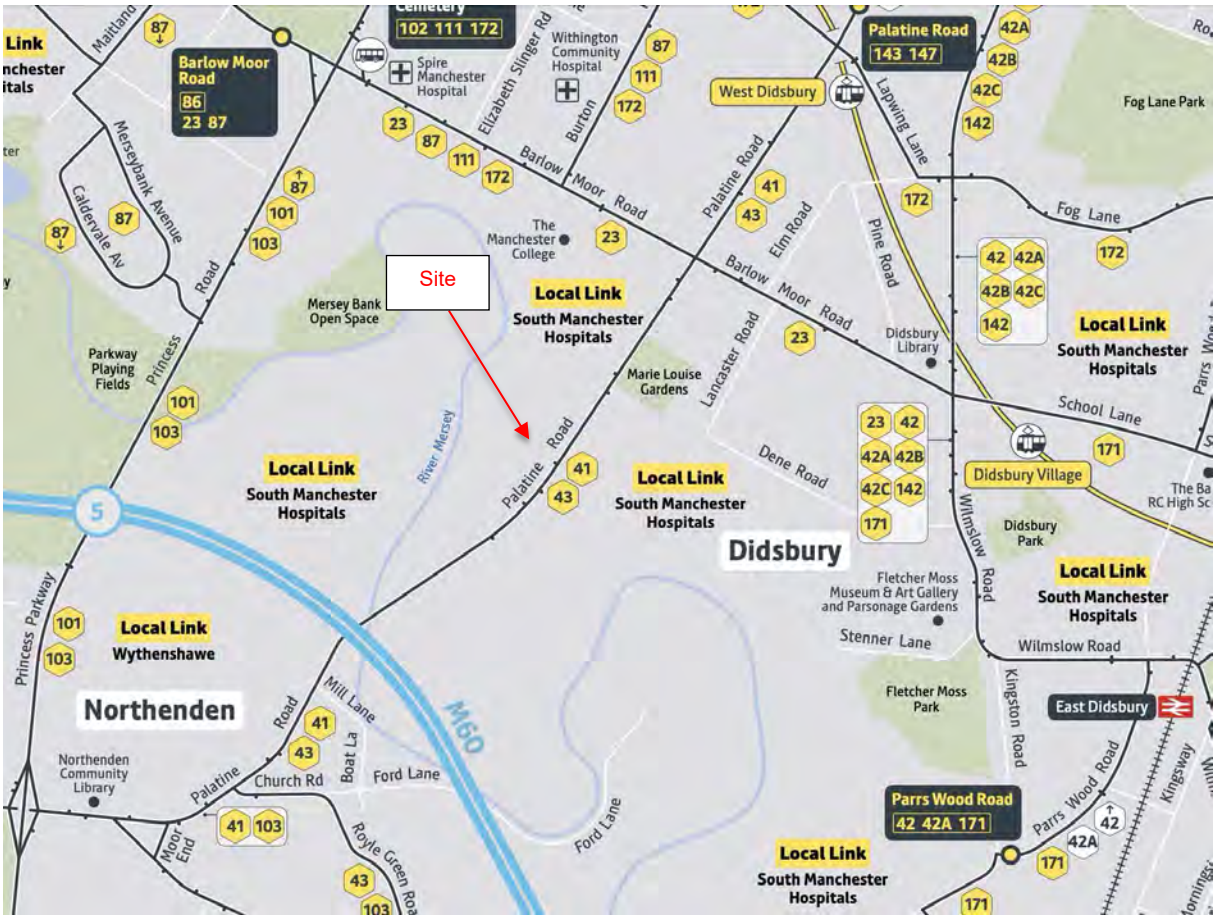


Figure 4.2: Public Transport Network
[source: Transport for Greater Manchester]

4.5 Table 4.1 provides a summary of the buses passing the site based on information from TfGM's bus timetables at the time of writing the report.[7]

No.	Route	Weekday (Buses per hour/each way)			Weekend (Buses per hour/each way)	
		Peak	Day	Evening	Saturday	Sunday
41	Middleton – Bowker – City Centre – Sale	3	3	1	3	2
43	Manchester Airport – Moss Side – City Centre	6	6	2	6	4

Table 4.1: Local Bus Services
[source: Transport for Greater Manchester]

5 Travel Plan Management

Applicant Responsibilities

5.1 An effective Travel Plan needs a clear hierarchy of responsibility. The applicant has been closely involved in the development of the Travel Plan and is committed to its successful implementation.

5.2 The applicant will identify a Travel Plan Co-ordinator for the development prior to occupation.

[7] https://www.tfgm.com/plan-a-journey/schedules/bus-timetables

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Travel Plan Co-ordinators

5.3 Travel Plan Co-ordinators play an important role in developing, managing, and promoting Travel Plans. The Travel Plan Co-ordinator will be responsible for the day-to-day running of their respective Travel Plans and will also develop, implement, market, and monitor effectiveness.

5.4 In summary, the Travel Plan Co-ordinator's responsibilities are:

- Implementing the Plan measures.
- Providing a point of contact for site users and the Council.
- Publicising and raising awareness of local and national initiatives.
- Preparing and issuing the travel information.
- Providing periodic updates to site users on changes to local services and facilities.
- Monitoring and surveying travel patterns.
- Periodically reporting to the Council.

5.5 Should the Travel Plan Co-ordinators at either use change then the applicant will provide the Council with the contact details of the replacement within three months.

Handover Arrangements

5.6 Should the interest in the site be sold, the responsibility for the Travel Plan implementation will transfer to the successor in title. If this should be the case, then full contact details and the new Travel Plan Co-ordinator will be provided to the Council within three months to allow the Travel Plans to continue uninterrupted at each use.

6 Measures Toolkit

Communication Measures

6.1 The Communications Strategy is a vital component of any Travel Plan as it will be used to ensure that site users are aware of the travel options and initiatives available to them and will be the means of communicating the progress of the Plan. The Travel Plan Co-ordinator will be responsible for marketing and promoting the Travel Plans and providing and disseminating information to site users.

6.2 Table 6.1 shows the measures that will be used in the communications strategy.

Initiative	Description
Travel Packs	Preparation and issue of travel packs for each household.
Other Information Distribution	The communications resources will be kept up to date and residents will be alerted to any significant changes in local services.

Table 6.1: Communications Initiatives

6.3 Travel packs are good means of disseminating information and making sure that site users are aware of the travel choices available to them.

6.4 The travel packs will be issued to households when they move in. The travel packs will contain the following types of information:

1. Travel Plan Co-ordinator contact details.
2. Information on on-line and phone app journey planning software.
3. Information on cycle and walking routes.
4. Information on bus routes and frequencies.
5. Information on bus ticketing arrangements.
6. Information on the building's delivery arrangements.

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6.5 The information resources (travel packs) will be periodically reviewed and will be kept up to date. Residents will be alerted by email of any significant local service changes.

Journey Planning

6.6 Residents will be encouraged to familiarise themselves with the following journey planning resources:

- TfGM journey planning software[8]
- Bee Active School Run software[9]
- Plot A Route walking route software[10]
- Public transport maps[11]
- Active Travel route software[12]
- Walking and cycling route maps[13]
- Links to Google Play[14] and Apple Store[15] Bee Network app

Active Travel Measures

6.7 Table 6.2 summarises the active travel measures that will be used.

Initiative	Description
Active Travel Benefits	The Travel Plan Co-ordinator will promote the benefits of walking and cycling to site users using the relevant communications strategy.
Local Route Awareness	The Travel Plan Co-ordinator will provide information via the communications strategy on active travel routes.
New Infrastructure	The development will provide new pedestrian infrastructure and cycle parking as set out in the TA.
Safety Tips	The Travel Plan Co-ordinator will provide information via the communications strategy on walking and cycling safety tips.
Cycle Training/Hire	The Travel Plan Co-ordinator will provide information on TfGM's cycle training schemes and local cycle hire schemes.

Table 6.2: Active Travel Initiatives

6.8 Active travel provides the following benefits:

- **Builds activity into your daily routine.**
  It'll help to meet the government guidelines which recommend young people get at least 60 minutes of physical activity every day and that adults should get at least 150 minutes of moderate activity per week.
- **Boost your mental health and wellbeing.**
  According to the Mental Health Foundation physical activity increases mental alertness and helps to reduce stress and anxiety.
- **Fewer cars equals cleaner air.**
  You experience five times higher pollution levels in a car than walking or on a bike.
- **Save your family money.**
  Not only will less money be spent on petrol, but money can also be saved on gym or fitness centre fees.
- **You'll arrive feeling ready to start the day.**
  People who walk and cycle arrive at work more relaxed and alert than those who travel by car.

6.9 The Travel Plan Co-ordinator will provide information on the benefits of active travel via the travel packs.

[8] https://tfgm.com/plan-a-journey
[9] https://beeactive.tfgm.com/the-school-run/
[10] https://www.plotaroute.com
[11] https://tfgm.com/maps
[12] https://beeactive.tfgm.com
[13] https://tfgm.pindarcreative.co.uk
[14] https://play.google.com/store/apps/details?id=com.tfgm.beenetwork
[15] https://apps.apple.com/gb/app/bee-network/id1669705230

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6.10 Section 4 confirms that the site relates well to existing active travel routes. The Travel Plan Co-ordinators will provide information on these routes to residents via the travel packs.

6.11 The proposed development will provide localised enhancements to pedestrian access routes, and cycle parking.

6.12 The Travel Plan Co-ordinator will provide walking and cycling safety tips by providing residents with resources provided by TfGM[16], GMWalking[17], Sustrans[18] and Cycling UK[19].

6.13 TfGM provides cycle training sessions[20] for adults and family groups. This scheme will be promoted to residents.

6.14 The Travel Plan Co-ordinator will provide information to residents on how they can try cycling, without committing to the purchase of a bike. Resources that will be used include TfGM's Bike Libraries[21] lending scheme, and a number of charities[22] that provide bike loan services.

Public Transport Measures

6.15 Table 6.3 shows the measures that will be used to encourage site users to travel more actively.

Initiative	Description
Local Route Awareness	The Travel Plan Co-ordinator will provide information via the relevant communications strategy on public transport routes and services.
Ticketing Arrangements	The Travel Plan Co-ordinator will ensure that site users are aware of TfGM ticketing arrangements.
Regular Review	The Travel Plan Co-ordinator will regularly review the TfGM database so that any service changes can be relayed to site users.

Table 6.3: Public Transport Initiatives

6.16 The Travel Plan Co-ordinators will provide information on local bus routes to residents via the travel pack.

6.17 The Travel Plan Co-ordinator will make sure that all residents are aware of ticketing arrangements available using information from TfGM ticketing information[23].

6.18 The following ticketing incentives are currently offered in Greater Manchester:

- Bus Travel[24]
  Adult single fares are capped at £2 and day tickets capped at £5. Weekly adult tickets are available for £21. Individual bus operators may provide their own weekly bus ticket but the 7 Day Any Bus Adult travelcard allows travel all week with any operator in Greater Manchester.
- Tram Travel[25]
  The Clipper ticket provides 10 days' travel for the price of 9 with journeys that can be taken over 56 days. The Contactless Early Bird Bonus saves money on travel before 7am on weekdays. Weekly Contactless is capped at £31 even if you travel in all zones.

6.19 The Travel Plan Co-ordinator will be responsible for periodically reviewing the public transport databases to check for service changes and any new public transport initiatives. The Travel Plan Co-ordinator will then update the travel packs with any changes and will let residents know by email.

[16] https://beeactive.tfgm.com
[17] https://gmwalking.co.uk
[18] www.sustrans.org.uk/
[19] www.cyclinguk.org/
[20] https://beeactive.tfgm.com/cycling/courses-and-bike-maintenance/
[21] https://beeactive.tfgm.com/cycling/bike-libraries/
[22] https://beeactive.tfgm.com/cycling/get-a-bike/
[23] https://tfgm.com/tickets-and-passes/find-a-ticket
[24] https://tfgm.com/get-on-board
[25] https://tfgm.com/tickets-and-passes/ways-to-pay/smart-card

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Sustainable Car Measures

6.20 Table 6.4 shows the measures that will be used to encourage sustainable vehicle use for residents.

Initiative	Description
Car Sharing	Car sharing will be promoted to residents.
Low Emissions Vehicles	Provide EV charging spaces.

Table 6.4: Sustainable Car Use Initiatives

6.21 Site users will be provided with information on the benefits of car sharing and information on Liftshare via the travel pack.[26]

6.22 EV charging is provided at the development.

7 Monitoring Plan

Baseline Surveys

7.1 Surveying and monitoring travel patterns is an important tool in measuring the progress of the Travel Plan and success of the Plan in terms of meeting the declared objectives and targets.

7.2 Baseline resident travel surveys will be undertaken within three months of occupancy of the relevant use. The travel surveys collect the following information:

1. Usual mode of travel to work
2. Household car and cycle ownership
3. Reason for mode choice

7.3 The results from the first survey will be used to set the targets for the Travel Plan and to update the measures, if required. The updated Travel Plan will be submitted to the Council within six months of completion of the baseline/first surveys.

Monitoring Surveys

7.4 Surveys will be undertaken every two years for a period of five years (baseline/year one, year three, and year five). Following each survey period, a short monitoring report will be issued to the Council for discussion. The monitoring report will be issued within three months of each survey period.

[26] https://liftshare.com/uk

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Exercise	Key Information	Frequency	Responsibility
Issue of travel packs	Dissemination of travel information and travel survey to residents	On occupation	Travel Plan Co-ordinators
Baseline resident surveys	Data to be used to establish baseline trip patterns and to allow appropriate targets to be set	Within 3 months of occupation/final Travel Plan to be submitted within 6 months of survey completion (Year 1)	Travel Plan Co-ordinators
Monitoring resident surveys	Data to be used to establish progress of the Plan and review success of measures	Year 3 and Year 5	Travel Plan Co-ordinators
Preparation of Monitoring Report	Set out mode share, targets, and any changes proposed to the Plan	3 months after each monitoring survey period	Travel Plan Co-ordinators

Table 7.1: Monitoring Plan

Targets

7.5 Targets are measurable goals against which the progress of the Travel Plan can be assessed. Targets should be SMART – Specific, Measurable, Achievable, Realistic and Time-Related.

7.6 The targets are split into two different types, Output Targets and Outcome Targets. Output Targets are non-quantifiable and action-based that need to be achieved in a set time period. Outcome Targets are quantifiable and will be based on the results of the travel surveys.

7.7 The following Output Targets have been set for the Travel Plan:

- Appoint Travel Plan Co-ordinator on occupation.
- Provide contact details of Travel Plan Co-ordinator to the Council on occupation of each element.
- Provide the travel packs to all new residents on occupation of each element.
- Undertake the baseline travel surveys within 3 months of occupation.
- Update the Travel Plan and issue to the Council within 6 months of survey.
- Undertake monitoring travel surveys in years 3 and 5.
- Prepare a monitoring report and issue to the Council within 3 months of each monitoring survey.

7.8 The Outcome Target for the Travel Plan is to increase the proportion of site residents travelling by sustainable modes and reduce single occupancy car trips from the baseline mode share. The baseline mode share will be established on completion of the baseline/year one surveys and at this point a quantitative target will be set.

7.9 Preliminary Outcome Targets are set out in Table 7.2.

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Provision of Travel Packs	
Specific	The Travel Plan Co-ordinator will provide residents with a travel pack. These resources will be kept up to date.
Measurable	Verified as part of the monitoring reports.
Achievable	Will be the responsibility of the Travel Plan Co-ordinator.
Realistic	The information resources will be available to site users.
Timebound	Ongoing.
Resident Surveys	
Specific	Residents travel patterns will be periodically monitored.
Measurable	Will be recorded as part of the baseline and monitoring survey programme.
Achievable	Will be the responsibility of the Travel Plan Co-ordinator.
Realistic	Yes.
Timebound	Ongoing.
Reduce the Number of Single Occupancy Car Trips & Increase Sustainable Trip Making	
Specific	Reduce the number of site users travelling alone in a private car and increase sustainable trip making.
Measurable	Verified using the baseline and monitoring surveys. Updated, quantifiable targets to be set following baseline surveys.
Achievable	Will be the responsibility of the Travel Plan Co-ordinator.
Realistic	Yes.
Timebound	Monitoring programme set out.

Table 7.2: Preliminary Travel Plan SMART Targets

8 Interim Action Plan & Funding

8.1 The Action Plan summarises the measures set out in the Travel Plan, who will be responsible for delivering them and target timescales.

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Initiative		Responsibility	Target Delivery
Management	Appoint Travel Plan Co-ordinator	Applicant	Prior to occupation
	Provide Contact Details	Applicant	Within 3 months of occupation
Monitoring	Prepare Survey Questionnaire	Travel Plan Co-ordinator	On occupation
	Baseline/Year 1 Surveys	Travel Plan Co-ordinator	Within 3 months of occupation
	Travel Plan Update	Travel Plan Co-ordinator	Within 6 months of occupation
	Monitoring Surveys	Travel Plan Co-ordinator	In line with monitoring programme
	Monitoring Reports	Travel Plan Co-ordinator	Within 3 months of survey
Communications	Prepare Resident Travel Packs	Travel Plan Co-ordinator	Prior to occupation
	Distribute Travel Packs	Travel Plan Co-ordinator	Prior to occupation
	Other Information Distribution	Travel Plan Co-ordinator	On-going
Active Travel	Promote Active Travel Benefits	Travel Plan Co-ordinator	Travel pack – on occupation On-going – periodic email updates
	Raise Local Route Awareness	Travel Plan Co-ordinator	Travel pack – on occupation On-going – periodic email updates
	Provide Development Infrastructure	Applicant	Prior to occupation
	Provide Safety Information	Travel Plan Co-ordinator	Travel pack – on occupation On-going – periodic email updates
	Promote Cycle Training	Travel Plan Co-ordinator	Travel pack – on occupation On-going – periodic email updates
	Promote Cycle Hire	Travel Plan Co-ordinator	Travel pack – on occupation On-going – periodic email updates
	Maintain Momentum	Travel Plan Co-ordinator	On-going – periodic email updates
Public Transport	Raise Local Route/Ticketing Awareness	Travel Plan Co-ordinator	Travel pack – on occupation On-going – periodic email updates
	Regular Review	Travel Plan Co-ordinator	On-going – periodic email updates
Sustainable Car	EV Chargers	Applicant	Prior to occupation
	Car Sharing	Travel Plan Co-ordinator	Travel pack – on occupation On-going – periodic email updates

Table 8.1: Action Plan

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Appendix F

QS703EW - Method of Travel to Work (2001 specification)

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population	All usual residents aged 16 to 74
units	Persons
area type	2011 super output areas - middle layer
area name	E02001086 : Manchester 042

Method of Travel to Work	2011	%
All categories: Method of travel to work	3,311	
Work mainly at or from home	263	8%
Underground, metro, light rail, tram	17	1%
Train	40	1%
Bus, minibus or coach	621	19%
Taxi	19	1%
Motorcycle, scooter or moped	20	1%
Driving a car or van	1,855	56%
Passenger in a car or van	113	3%
Bicycle	180	5%
On foot	172	5%
Other method of travel to work	11	0%

RM001 - Accommodation type by car or van availability by number of usual residents aged 17 years or over in household

population	All households
units	Households
date	2021
area type	2021 super output areas - middle layer
area name	E02001086 : Manchester 042

Number of cars or vans	Total	House	Flat/ Maisonette	Total	House	Flat/ Maisonette
Total	2,951	1,816	1,135	100%	100%	100%
No cars or vans in household	785	389	396	27%	21%	35%
1 car or van in household	1,438	845	593	49%	47%	52%
2 or more cars or vans in household	728	582	146	25%	32%	13%
				98%	111%	78%

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use: 03 - RESIDENTIAL

Category: C - FLATS PRIVATELY OWNED

Selected Vehicle Type: Total People

Selected regions and areas:

01	**GREATER LONDON**		
	BT	BRENT	1 day
	RD	RICHMOND	1 day
04	**EAST ANGLIA**		
	NF	NORFOLK	2 days
05	**EAST MIDLANDS**		
	DY	DERBY	1 day
06	**WEST MIDLANDS**		
	SH	SHROPSHIRE	1 day
09	**NORTH**		
	TW	TYNE & WEAR	1 day

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

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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:	DWELLS
Actual Range:	30 to 170 (units:DWELLS)
Range Selected by User:	30 to 180 (units:DWELLS)
Parking Spaces Range:	4 - 550

Public Transport Provision:

Selection by:	All Surveys Included
Date Range:	01/01/17 to 26/11/25

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:

Friday	1 days
Monday	2 days
Thursday	1 days
Wednesday	3 days

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

Selected survey types:

Manual count	7
Direction ATC Count	0

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 undertaking using machines

Selected Locations:

Edge of Town	1 days
Suburban Area	6 days

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

Selected Location Sub Categories:

Built-Up Zone	1 days
Residential Zone	6 days

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 Vehicle Counts:

Servicing vehicles Included	7 days

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Secondary Filtering Selection:

Use Class:

C3	7 surveys

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®.

Population within 500m Range:

1500 - 7600

Population within 1 mile:

20,001 to 25,000	4 surveys
25,001 to 50,000	3 surveys

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

Population within 5 miles:

125,001 to 250,000	3 surveys
250,001 to 500,000	1 surveys
500,001 or More	2 surveys
75,001 to 100,000	1 surveys

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	5 surveys
1.1 to 1.5	2 surveys

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.

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Petrol filling station:

This data displays the number of surveys within the selected set that include petrol filling station activity, and the number of surveys that do not.

Travel Plan:

No	5 surveys
Yes	2 surveys

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:

1b - Very poor	1 surveys
2 - Poor	1 surveys
No PTAL Present	5 surveys

This data displays the number of surveys within the selected set that include petrol filling station activity, and the number of surveys that do not.

COVID-19 Restrictions:

No

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LIST OF SITES relevant to selection parameters:

Site 1:	BT-03-C-03	**Number of dwellings:**	130.00 DWELLS
Development Name:	BLOCKS OF FLATS	**Survey Date:**	16/11/2023
Location:	WEMBLEY	**Survey Day:**	Thursday
Postcode:	HA0 1UE		
Main Location Type:	Suburban Area		
Sub Location Type:	Residential Zone		
PTAL:	2		
Site 2:	DY-03-C-03	**Number of dwellings:**	30.00 DWELLS
Development Name:	BLOCKS OF FLATS	**Survey Date:**	25/09/2019
Location:	DERBY	**Survey Day:**	Wednesday
Postcode:	DE1 3RG		
Main Location Type:	Suburban Area		
Sub Location Type:	Residential Zone		
PTAL:	n/a		
Site 3:	NF-03-C-02	**Number of dwellings:**	82.00 DWELLS
Development Name:	MIXED FLATS & HOUSES	**Survey Date:**	
Location:	NORWICH	**Survey Day:**	
Postcode:	NR1 2PY		
Main Location Type:	Suburban Area		
Sub Location Type:	Residential Zone		
PTAL:	n/a		
Site 4:	NF-03-C-03	**Number of dwellings:**	66.00 DWELLS
Development Name:	BLOCK OF FLATS	**Survey Date:**	23/04/2025
Location:	NORWICH	**Survey Day:**	Wednesday
Postcode:	NR1 1XG		
Main Location Type:	Suburban Area		
Sub Location Type:	Built-Up Zone		
PTAL:	n/a		
Site 5:	RD-03-C-07	**Number of dwellings:**	170.00 DWELLS
Development Name:	BLOCKS OF FLATS	**Survey Date:**	14/06/2023
Location:	KEW	**Survey Day:**	Wednesday
Postcode:	TW9 4FD		
Main Location Type:	Suburban Area		
Sub Location Type:	Residential Zone		
PTAL:	1B		
Site 6:	SH-03-C-01	**Number of dwellings:**	47.00 DWELLS
Development Name:	BLOCK OF FLATS	**Survey Date:**	
Location:	SHREWSBURY	**Survey Day:**	
Postcode:	SY2 6BW		
Main Location Type:	Suburban Area		
Sub Location Type:	Residential Zone		
PTAL:	n/a		
Site 7:	TW-03-C-01	**Number of dwellings:**	45.00 DWELLS
Development Name:	BLOCKS OF FLATS	**Survey Date:**	15/10/2021
Location:	WHITLEY BAY	**Survey Day:**	Friday
Postcode:	NE25 9BA		
Main Location Type:	Edge of Town		
Sub Location Type:	Residential Zone		
PTAL:	n/a		

DESELECTED SURVEYS

Site Ref	Survey Date	Reason for Deselection
DL-03-C-18|19-05-2021	19-05-2021	Covid
WF-03-C-06|25-05-2021	25-05-2021	Covid

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

Total Vehicles

Calculation factor: 1 DWELLS

**BOLD print indicates peak (busiest) period*

Time Range	No. Days	Ave. DWELLS	Arrivals	Departures	Totals
00:00-01:00					
01:00-02:00					
02:00-03:00					
03:00-04:00					
04:00-05:00					
05:00-06:00					
06:00-07:00					
07:00-08:00	**7**	**81**	**0.033**	**0.112**	**0.145**
08:00-09:00	**7**	**81**	**0.042**	**0.128**	**0.170**
09:00-10:00	**7**	**81**	**0.058**	**0.075**	**0.133**
10:00-11:00	**7**	**81**	**0.040**	**0.053**	**0.093**
11:00-12:00	**7**	**81**	**0.067**	**0.075**	**0.142**
12:00-13:00	**7**	**81**	**0.061**	**0.061**	**0.122**
13:00-14:00	**7**	**81**	**0.061**	**0.067**	**0.128**
14:00-15:00	**7**	**81**	**0.049**	**0.058**	**0.107**
15:00-16:00	**7**	**81**	**0.091**	**0.072**	**0.163**
16:00-17:00	**7**	**81**	**0.091**	**0.053**	**0.144**
17:00-18:00	**7**	**81**	**0.116**	**0.074**	**0.190**
18:00-19:00	**7**	**81**	**0.111**	**0.063**	**0.174**
19:00-20:00	**2**	**150**	**0.123**	**0.037**	**0.160**
20:00-21:00	**2**	**150**	**0.053**	**0.020**	**0.073**
21:00-22:00					
22:00-23:00					
23:00-00:00					
Total Rates:			**0.996**	**0.948**	**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:	30 - 180 (units: DWELLS)
Survey date date range:	25/09/2019 - 23/04/2025
Number of weekdays (Monday-Friday):	7
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	6
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 show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

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

Total People

Calculation factor: 1 DWELLS

**BOLD print indicates peak (busiest) period*

Time Range	No. Days	Ave. DWELLS	Arrivals	Departures	Totals
00:00-01:00					
01:00-02:00					
02:00-03:00					
03:00-04:00					
04:00-05:00					
05:00-06:00					
06:00-07:00					
07:00-08:00	**7**	**81**	**0.060**	**0.379**	**0.439**
08:00-09:00	**7**	**81**	**0.086**	**0.537**	**0.623**
09:00-10:00	**7**	**81**	**0.133**	**0.228**	**0.361**
10:00-11:00	**7**	**81**	**0.109**	**0.137**	**0.246**
11:00-12:00	**7**	**81**	**0.118**	**0.174**	**0.292**
12:00-13:00	**7**	**81**	**0.161**	**0.174**	**0.335**
13:00-14:00	**7**	**81**	**0.154**	**0.174**	**0.328**
14:00-15:00	**7**	**81**	**0.167**	**0.151**	**0.318**
15:00-16:00	**7**	**81**	**0.312**	**0.167**	**0.479**
16:00-17:00	**7**	**81**	**0.314**	**0.142**	**0.456**
17:00-18:00	**7**	**81**	**0.368**	**0.188**	**0.556**
18:00-19:00	**7**	**81**	**0.349**	**0.142**	**0.491**
19:00-20:00	**2**	**150**	**0.367**	**0.090**	**0.457**
20:00-21:00	**2**	**150**	**0.197**	**0.077**	**0.274**
21:00-22:00					
22:00-23:00					
23:00-00:00					
Total Rates:			**2.895**	**2.760**	**5.655**

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.

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Parameter Summary:

Trip rate parameter range selected:	30 - 180 (units: DWELLS)
Survey date date range:	25/09/2019 - 23/04/2025
Number of weekdays (Monday-Friday):	7
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	6
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 show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

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

Cyclists

Calculation factor: 1 DWELLS

**BOLD print indicates peak (busiest) period*

Time Range	No. Days	Ave. DWELLS	Arrivals	Departures	Totals
00:00-01:00					
01:00-02:00					
02:00-03:00					
03:00-04:00					
04:00-05:00					
05:00-06:00					
06:00-07:00					
07:00-08:00	**7**	**81**	**0.002**	**0.011**	**0.013**
08:00-09:00	**7**	**81**	**0.007**	**0.011**	**0.018**
09:00-10:00	**7**	**81**	**0.004**	**0.014**	**0.018**
10:00-11:00	**7**	**81**	**0.004**	**0.002**	**0.006**
11:00-12:00	**7**	**81**	**0.000**	**0.004**	**0.004**
12:00-13:00	**7**	**81**	**0.002**	**0.009**	**0.011**
13:00-14:00	**7**	**81**	**0.005**	**0.007**	**0.012**
14:00-15:00	**7**	**81**	**0.014**	**0.009**	**0.023**
15:00-16:00	**7**	**81**	**0.007**	**0.004**	**0.011**
16:00-17:00	**7**	**81**	**0.016**	**0.005**	**0.021**
17:00-18:00	**7**	**81**	**0.014**	**0.007**	**0.021**
18:00-19:00	**7**	**81**	**0.009**	**0.005**	**0.014**
19:00-20:00	**2**	**150**	**0.013**	**0.007**	**0.020**
20:00-21:00	**2**	**150**	**0.003**	**0.000**	**0.003**
21:00-22:00					
22:00-23:00					
23:00-00:00					
Total Rates:			**0.100**	**0.095**	**0.195**

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.

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Parameter Summary:

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Survey date date range:	25/09/2019 - 23/04/2025
Number of weekdays (Monday-Friday):	7
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	6
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 show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

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

OGVs

Calculation factor: 1 DWELLS

**BOLD print indicates peak (busiest) period*

Time Range	No. Days	Ave. DWELLS	Arrivals	Departures	Totals
00:00-01:00					
01:00-02:00					
02:00-03:00					
03:00-04:00					
04:00-05:00					
05:00-06:00					
06:00-07:00					
07:00-08:00	**7**	**81**	**0.000**	**0.000**	**0.000**
08:00-09:00	**7**	**81**	**0.002**	**0.000**	**0.002**
09:00-10:00	**7**	**81**	**0.000**	**0.002**	**0.002**
10:00-11:00	**7**	**81**	**0.002**	**0.000**	**0.002**
11:00-12:00	**7**	**81**	**0.002**	**0.004**	**0.006**
12:00-13:00	**7**	**81**	**0.002**	**0.002**	**0.004**
13:00-14:00	**7**	**81**	**0.000**	**0.000**	**0.000**
14:00-15:00	**7**	**81**	**0.002**	**0.002**	**0.004**
15:00-16:00	**7**	**81**	**0.000**	**0.000**	**0.000**
16:00-17:00	**7**	**81**	**0.002**	**0.000**	**0.002**
17:00-18:00	**7**	**81**	**0.000**	**0.002**	**0.002**
18:00-19:00	**7**	**81**	**0.000**	**0.000**	**0.000**
19:00-20:00	**2**	**150**	**0.000**	**0.000**	**0.000**
20:00-21:00	**2**	**150**	**0.000**	**0.000**	**0.000**
21:00-22:00					
22:00-23:00					
23:00-00:00					
Total Rates:			**0.012**	**0.012**	**0.024**

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.

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Parameter Summary:

Trip rate parameter range selected:	30 - 180 (units: DWELLS)
Survey date date range:	18/11/2019 - 14/06/2023
Number of weekdays (Monday-Friday):	2
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	6
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 show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

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

Servicing Vehicles

Calculation factor: 1 DWELLS

**BOLD print indicates peak (busiest) period*

Time Range	No. Days	Ave. DWELLS	Arrivals	Departures	Totals
00:00-01:00					
01:00-02:00					
02:00-03:00					
03:00-04:00					
04:00-05:00					
05:00-06:00					
06:00-07:00					
07:00-08:00	**7**	**81**	**0.004**	**0.002**	**0.006**
08:00-09:00	**7**	**81**	**0.009**	**0.007**	**0.016**
09:00-10:00	**7**	**81**	**0.009**	**0.011**	**0.020**
10:00-11:00	**7**	**81**	**0.009**	**0.005**	**0.014**
11:00-12:00	**7**	**81**	**0.009**	**0.012**	**0.021**
12:00-13:00	**7**	**81**	**0.007**	**0.009**	**0.016**
13:00-14:00	**7**	**81**	**0.012**	**0.012**	**0.024**
14:00-15:00	**7**	**81**	**0.009**	**0.007**	**0.016**
15:00-16:00	**7**	**81**	**0.019**	**0.018**	**0.037**
16:00-17:00	**7**	**81**	**0.002**	**0.002**	**0.004**
17:00-18:00	**7**	**81**	**0.016**	**0.014**	**0.030**
18:00-19:00	**7**	**81**	**0.007**	**0.012**	**0.019**
19:00-20:00	**2**	**150**	**0.010**	**0.010**	**0.020**
20:00-21:00	**2**	**150**	**0.003**	**0.003**	**0.006**
21:00-22:00					
22:00-23:00					
23:00-00:00					
Total Rates:			**0.125**	**0.124**	**0.249**

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.

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Parameter Summary:

Trip rate parameter range selected:	30 - 180 (units: DWELLS)
Survey date date range:	25/09/2019 - 23/04/2025
Number of weekdays (Monday-Friday):	7
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	6
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 show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

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

Pedestrians

Calculation factor: 1 DWELLS

**BOLD print indicates peak (busiest) period*

Time Range	No. Days	Ave. DWELLS	Arrivals	Departures	Totals
00:00-01:00					
01:00-02:00					
02:00-03:00					
03:00-04:00					
04:00-05:00					
05:00-06:00					
06:00-07:00					
07:00-08:00	**7**	**81**	**0.018**	**0.070**	**0.088**
08:00-09:00	**7**	**81**	**0.028**	**0.167**	**0.195**
09:00-10:00	**7**	**81**	**0.042**	**0.067**	**0.109**
10:00-11:00	**7**	**81**	**0.032**	**0.046**	**0.078**
11:00-12:00	**7**	**81**	**0.025**	**0.047**	**0.072**
12:00-13:00	**7**	**81**	**0.056**	**0.044**	**0.100**
13:00-14:00	**7**	**81**	**0.054**	**0.046**	**0.100**
14:00-15:00	**7**	**81**	**0.068**	**0.047**	**0.115**
15:00-16:00	**7**	**81**	**0.119**	**0.047**	**0.166**
16:00-17:00	**7**	**81**	**0.084**	**0.037**	**0.121**
17:00-18:00	**7**	**81**	**0.100**	**0.053**	**0.153**
18:00-19:00	**7**	**81**	**0.075**	**0.035**	**0.110**
19:00-20:00	**2**	**150**	**0.013**	**0.027**	**0.040**
20:00-21:00	**2**	**150**	**0.037**	**0.023**	**0.060**
21:00-22:00					
22:00-23:00					
23:00-00:00					
Total Rates:			**0.751**	**0.756**	**1.507**

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.

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Parameter Summary:

Trip rate parameter range selected:	30 - 180 (units: DWELLS)
Survey date date range:	25/09/2019 - 23/04/2025
Number of weekdays (Monday-Friday):	7
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	6
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 show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

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

Public Transport Users

Calculation factor: 1 DWELLS

**BOLD print indicates peak (busiest) period*

Time Range	No. Days	Ave. DWELLS	Arrivals	Departures	Totals
00:00-01:00					
01:00-02:00					
02:00-03:00					
03:00-04:00					
04:00-05:00					
05:00-06:00					
06:00-07:00					
07:00-08:00	**7**	**81**	**0.009**	**0.151**	**0.160**
08:00-09:00	**7**	**81**	**0.009**	**0.156**	**0.165**
09:00-10:00	**7**	**81**	**0.014**	**0.049**	**0.063**
10:00-11:00	**7**	**81**	**0.023**	**0.028**	**0.051**
11:00-12:00	**7**	**81**	**0.018**	**0.028**	**0.046**
12:00-13:00	**7**	**81**	**0.025**	**0.035**	**0.060**
13:00-14:00	**7**	**81**	**0.025**	**0.033**	**0.058**
14:00-15:00	**7**	**81**	**0.028**	**0.025**	**0.053**
15:00-16:00	**7**	**81**	**0.058**	**0.025**	**0.083**
16:00-17:00	**7**	**81**	**0.081**	**0.032**	**0.113**
17:00-18:00	**7**	**81**	**0.105**	**0.028**	**0.133**
18:00-19:00	**7**	**81**	**0.104**	**0.019**	**0.123**
19:00-20:00	**2**	**150**	**0.143**	**0.017**	**0.160**
20:00-21:00	**2**	**150**	**0.087**	**0.030**	**0.117**
21:00-22:00					
22:00-23:00					
23:00-00:00					
Total Rates:			**0.729**	**0.656**	**1.385**

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.

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Parameter Summary:

Trip rate parameter range selected:	30 - 180 (units: DWELLS)
Survey date date range:	25/09/2019 - 23/04/2025
Number of weekdays (Monday-Friday):	7
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	6
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 show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

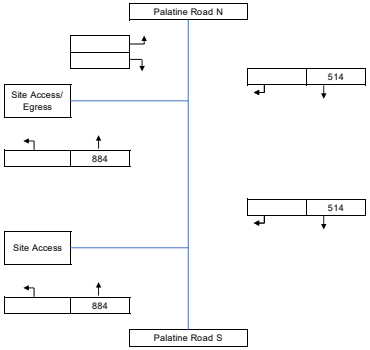
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Appendix G

Palatine Road - Residential Development

AM Peak Hour: Observed Traffic Flows (in pcu)

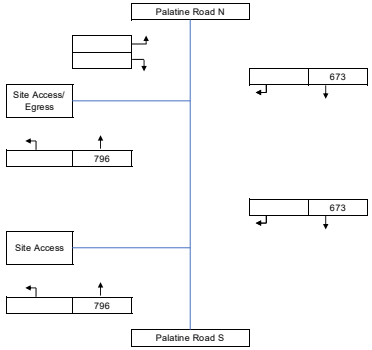
[0800-0900]



Palatine Road - Residential Development

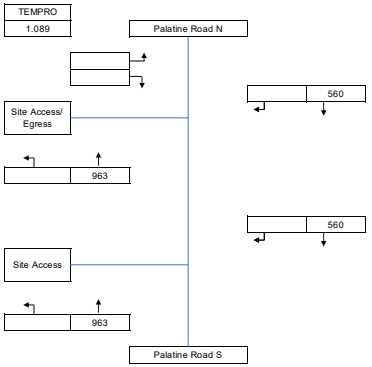
PM Peak Hour: Observed Traffic Flows (in pcu)

[1700-1800]



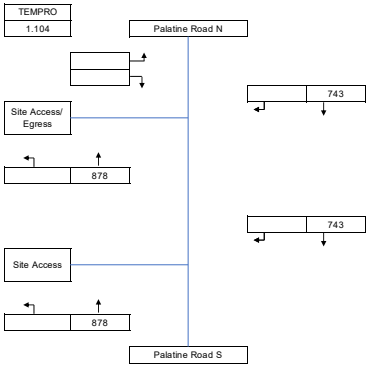
Palatine Road - Residential Development

AM Peak Hour: 2031 Base Traffic Flows



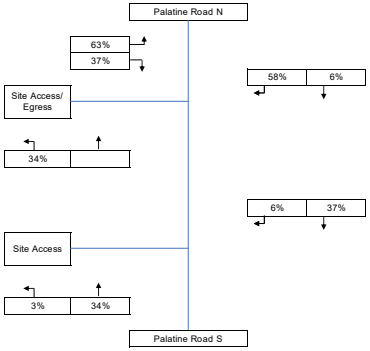
Palatine Road - Residential Development

PM Peak Hour: 2031 Base Traffic Flows



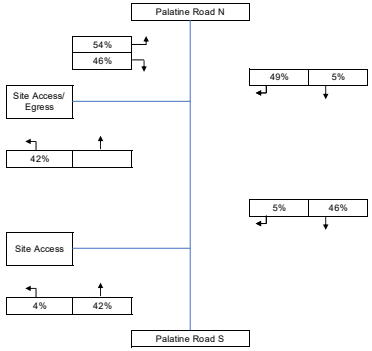
Palatine Road - Residential Development

AM Peak Distribution



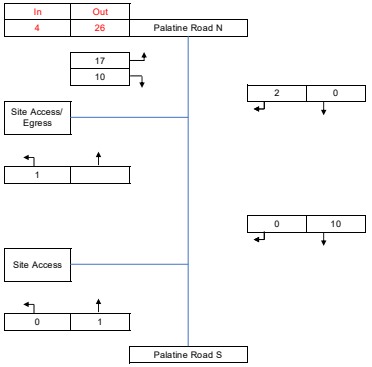
Palatine Road - Residential Development

PM Peak Distribution



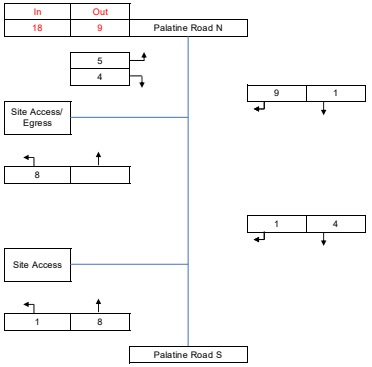
Palatine Road - Residential Development

AM Peak Development Traffic Flows



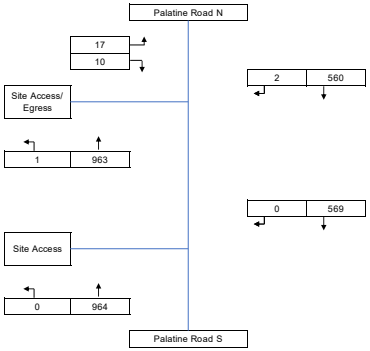
Palatine Road - Residential Development

PM Peak Development Traffic Flows



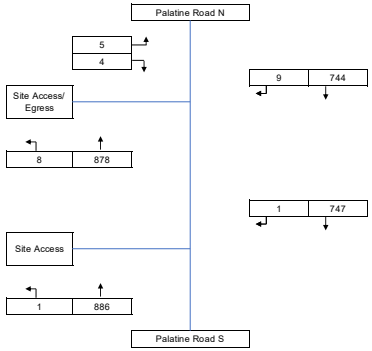
Palatine Road - Residential Development

AM Peak Hour: 2031 + Development Base Traffic Flows



Palatine Road - Residential Development

PM Peak Hour: 2031 + Development Base Traffic Flows



Appendix H

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.1.7462
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Filename: Site Access - Proposed.j9
Path: C:\Users\JohnThompson\CloudStation\SK22492 Palatine Road\Junction Assessments
Report generation date: 12/05/2026 17:56:24

»Proposed Access - 2029 with Development, AM
»Proposed Access - 2029 with Development, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	Proposed Access - 2029 with Development									
Stream B-AC	D1	0.1	12.18	0.08	B	D2	0.0	12.14	0.03	B
Stream C-B		0.0	8.31	0.00	A		0.0	8.11	0.02	A

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	Palatine Road Site Access
Location	Didsbury
Site number	
Date	05/12/2024
Version	
Status	
Identifier	
Client	
Jobnumber	SK22492
Enumerator	
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	2029 with Development	AM	FLAT	08:00	09:00	60	15	✓
D2	2029 with Development	PM	FLAT	00:00	01:00	60	15	✓

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	Proposed Access	✓	100.000	100.000

Proposed Access - 2029 with Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.22	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Palatine Road (S)		Major
B	Site Access		Minor
C	Palatine Road (N)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	8.70			130.0		-

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	3.00	25	15

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	493	0.079	0.200	0.126	0.286
B-C	633	0.086	0.217	-	-
C-B	649	0.222	0.222	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	2029 with Development	AM	FLAT	08:00	09:00	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		FLAT	✓	964	100.000
B		FLAT	✓	27	100.000
C		FLAT	✓	562	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	1	963
	B	10	0	17
	C	560	2	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.08	12.18	0.1	B	27	27
C-A					560	560
C-B	0.00	8.31	0.0	A	2	2
A-B					1	1
A-C					963	963

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	27	7	323	0.084	27	0.0	0.1	12.151	B
C-A	560	140			560				
C-B	2	0.50	435	0.005	2	0.0	0.0	8.309	A
A-B	1	0.25			1				
A-C	963	241			963				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	27	7	323	0.084	27	0.1	0.1	12.180	B
C-A	560	140			560				
C-B	2	0.50	435	0.005	2	0.0	0.0	8.309	A
A-B	1	0.25			1				
A-C	963	241			963				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	27	7	323	0.084	27	0.1	0.1	12.180	B
C-A	560	140			560				
C-B	2	0.50	435	0.005	2	0.0	0.0	8.309	A
A-B	1	0.25			1				
A-C	963	241			963				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	27	7	323	0.084	27	0.1	0.1	12.180	B
C-A	560	140			560				
C-B	2	0.50	435	0.005	2	0.0	0.0	8.309	A
A-B	1	0.25			1				
A-C	963	241			963				

Proposed Access - 2029 with Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.11	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	2029 with Development	PM	FLAT	00:00	01:00	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		FLAT	✓	885	100.000
B		FLAT	✓	9	100.000
C		FLAT	✓	753	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	7	878
	B	4	0	5
	C	744	9	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.03	12.14	0.0	B	9	9
C-A					744	744
C-B	0.02	8.11	0.0	A	9	9
A-B					7	7
A-C					878	878

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	9	2	306	0.029	9	0.0	0.0	12.125	B
C-A	744	186			744				
C-B	9	2	453	0.020	9	0.0	0.0	8.110	A
A-B	7	2			7				
A-C	878	220			878				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	9	2	306	0.029	9	0.0	0.0	12.139	B
C-A	744	186			744				
C-B	9	2	453	0.020	9	0.0	0.0	8.111	A
A-B	7	2			7				
A-C	878	220			878				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	9	2	306	0.029	9	0.0	0.0	12.139	B
C-A	744	186			744				
C-B	9	2	453	0.020	9	0.0	0.0	8.111	A
A-B	7	2			7				
A-C	878	220			878				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	9	2	306	0.029	9	0.0	0.0	12.139	B
C-A	744	186			744				
C-B	9	2	453	0.020	9	0.0	0.0	8.113	A
A-B	7	2			7				
A-C	878	220			878				