

Our Ref: 081453-CUR-XX-XX-T-TP-00004-P02

08/03/2024

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By Email Only

RE: 127226/FO/2023 - Crown Street Phase 3 & 127227/FO/2023 – Plot D

Dear Laura,

Thank you for the consultation response in relation to the Transport Assessment (TA) (Curtins Report Reference: 081453-CUR-XX-XX-T-TP-00001-P02) and Framework Travel Plan (FTP) (Curtins Report Reference: 081453-CUR-XX-XX-T-TP-00002-P02) for the above applications – Crown Street Phase 3 (CSP3) and Plot D, dated 8th August 2023.

In addition, Curtins received separate Travel Plan comments from MCC Planning on 24th July 2023. Some additional information has been included within the Travel Plans and have been reissued – whilst some comments have been reviewed within this letter. It is understood that the comments were provided for both applications.

On this basis, Curtins has reviewed the comments and this letter responds to each comment that has been raised.

For convenience, we have reproduced the comments in ***bold italics***, followed by our response underneath. For conciseness, we have only included the consultee comments where an action or response is required by Curtins.

“Traffic Surveys

It should be highlighted that surveys have been conducted during roadwork periods on Melbourne Street. In respect of Paragraph 2.2.1 of the TA, it is noted that various site visits have been made, however, the access road from the Mancunian Way is closed for construction. As such the traffic conditions are not typical - see later plans showing the access road re-opened.

The TA acknowledges that the access road Melbourne Street is closed, however, there is no recognition that this is likely to invalidate the traffic conditions/flows observed. As such the surveys undertaken are unlikely to be completely representative of normal conditions and aren't considered to be accurate in terms of the final operation of the site”

As noted with the TA, Melbourne Street has been closed to vehicular traffic in recent years – associated with the ongoing adjacent Crown Street Phase 2 (CSP2) development.

On this basis, Paragraph 5.2.6 of the TA notes that the 2028 baseline flows from the TA associated with the consented CSP2 development have been extracted for the A57(M)/Melbourne Street junction. The CSP2 TA utilised baseline survey flows from the Owen Street car park TA, which surveyed the A57(M)/Melbourne Street junction when it was fully operational. This approach was set out during scoping discussions.

This is therefore considered to be an appropriate and suitable baseline position for the assessments, and this recognises the potential traffic conditions once Melbourne Street has re-opened.

“Trip Assessment

TfGM HFAS do not have access to all the committed development TAs listed within Paragraph 5.2.12 of the TA and therefore are unable to validate the text and committed development flows shown in Paragraph 5.2.13 of the TA.

Curtins undertook an extensive review of all committed developments listed in Paragraph 5.2.12 of the TA to establish whether each development would generate vehicular traffic and subsequently impact on the baseline position of flows on junctions within the study area. All planning application references are provided in Paragraph 5.2.12 of the TA for review.

Curtins subsequently established that the majority of the 18 committed developments listed are either car-free or demonstrated a net trip reduction. As such, only the following five schemes and subsequent vehicular trip generation were extracted for inclusion within the Baseline scenarios – listed in Paragraph 5.2.14 of the TA and below for completeness:

- **Crown Street Phase 2** (application reference: 126668/FO/2020);
- **Trinity Islands** (application reference: 132429/FO/2021);
- **Plot F, Great Jackson Street** (application reference: 132199/FO/2021);
- **Plot G, Great Jackson Street** (application reference: 129273/FO/2021); and
- **Arundel Street** (application reference: 123261/FO/2019).

The total committed development flows associated with the listed schemes were included within Traffic Figures 3 and 4 – appended to the TA.

TfGM HFAS are unable to validate the trip distribution as there is no spreadsheet extract showing how the MSOA areas have been paired with the traffic routes. A sample of the route pairing between the Origin MSOA and destination is required”

Curtins has prepared two spreadsheets demonstrating the trip assignment inclusive of both residential and employment distribution. These demonstrate the routing of traffic through the study area based on MSOA origin/destination data.

These spreadsheets are included in **Appendix A**, and include all raw 2011 Census data.

Modelling:

With references to Paragraph 6.5.7 of the TA, the impact of the development traffic at the junction of Mancunian Way / Chester Road increases the degrees of saturation above 90 percent. Increases above 90 percent result in increases in traffic flows causing large

increases in delay. As such the impact on the operation of the junction is likely to cause increased congestion at the junction.

It is noted in Paragraph 6.5.3 and Table 6.7 of the TA that whilst in the Baseline scenario the majority of approaches operate within practical capacity (90% Degree of Saturation – DoS), some approaches are approaching 90% and one approach is above the 90% threshold.

During the AM peak hour of the Baseline scenario, Link 2/1 (Chorlton Road) is noted to be above practical capacity with a DoS of 92.8%, resulting in a Mean Maximum Queue (MMQ) length of 9.6 PCUs. In addition, internal links 11/2 and 11/3 are noted to be at 89.7% DoS.

With respect to the Baseline + Development scenario during the AM peak hour, the DoS of Link 2/1 (Chorlton Road) increases to 93.1% (an increase of 0.3% from the Baseline) and the queuing increases by 0.2 PCUs to 9.8 PCUs. It is noted that this queue can be accommodated on the Chorlton Road approach without blocking back towards any adjacent junctions.

It is noted that the internal links 11/2 and 11/3 increase above practical capacity – with DoS of 98.4% (increase of 8.7%) and a queue length of 9.4 PCUs (an increase of 2.2 PCUs from the Baseline scenario). It should be noted that the total queuing space of these links is 11 PCUs, therefore the MMQ would fit within the queueing space available.

In addition, consideration has been given to the total junction delay across all lanes as calculated within the LinSig outputs. **Table 1** below demonstrates total junction delay in the AM and PM peak hours for the Baseline and Baseline + Development scenarios:

Junction Delay Total Delay over All Lanes (PCU/hr)	Baseline	Baseline + Development	Increase
AM Peak	61.91	70.90	+8.99
PM Peak	43.41	49.24	+5.83

Table 1 – Deansgate Interchange – Total Junction Delay

Based on **Table 1**, it is not considered that the increases in delay at the junction with the development flows would be significant. Furthermore, it should be noted that this is a worst-case assessment with respect to traffic generation and the results demonstrate that the junction would still operate within its theoretical capacity.

It is noted that certain approaches of the junction are already slightly above or approaching practical capacity during the Baseline scenario. The magnitude of impact of the proposed development, and the increases in DoS/queuing, are not considered to result in significant increases in delay or increased congestion at the junction.

Furthermore, because the junction has short link lengths it is likely that the queueing will be beyond the length of the available queueing space. The modelling results should clearly indicate the length of the queueing space available in the results and should show the predicted queue against the available space and whether the queuing exceeds the available space. It should be noted that the average queue is going to double 50 per cent of the time. As the junction is already congested, additional traffic is going to worsen the congestion and as such the reference to a not 'severe' impact as per the NPPF is does not apply.

With respect to the queueing results, the LinSig assessment calculates the maximum queue on each link during each cycle.

As per the LinSig User Guide, the mean maximum queue (MMQ) is the sum of the Maximum Back of Queue in the modelled typical cycle and the calculated Random & Oversaturated Queue. The 'Mean' refers to the fact that it is the mean over a number of cycles of the maximum queue occurring each cycle. The assessment focuses on MMQ and not the average queue; the results demonstrate minor increases from the Baseline to Baseline + Development scenarios with respect to MMQ.

With regards to the comment "***It should be noted that the average queue is going to double 50 per cent of the time***", this is incorrect. As the MMQ is an average, this means that the queue could be larger 50% of the time or could be smaller 50% of the time. It does not mean that the queue will be double 50% of the time.

Furthermore, the LinSig User Guide states the following on the reliance of queues:

"It is recommended that a greater emphasis is placed on ensuring capacities are modelled correctly whilst still checking that modelled queues are acceptable."

As such, most attention should be given to capacity rather than queues – however, due consideration should be given to ensuring queues are appropriate and fit within the stacking space.

On this basis, and for completeness, **Table 2** below replicates the Baseline scenario with the TA – inclusive of an additional column showing the available queueing space on internal links – and **Table 3** shows the results of the Baseline + Development scenario:

Link	Lane Descriptor	Internal Queueing Space (PCUs)	Baseline			
			AM Peak		PM Peak	
			DoS	MMQ (PCUs)	DoS	MMQ (PCUs)
1/1	A56 Eastbound Left	N/A	69.9%	8.3	58.6%	6.3
1/2+1/3	A56 Eastbound Ahead Ahead2	N/A	75.6 : 89.5%	11.0	66.3 : 74.7%	7.8
2/1	Chorlton Road Left Left2	N/A	92.8%	9.6	74.5%	5.2
2/2	Chorlton Road Left	N/A	84.7%	7.4	70.0%	5.1
3/1	Egerton Street Ahead Left	N/A	29.2%	1.4	43.3%	2.3
3/2	Egerton Street Ahead	N/A	53.7%	3.0	57.1%	3.5
4/1	A56 Westbound Left Ahead	N/A	52.2%	4.3	65.7%	4.8
4/3+4/2	A56 Westbound Ahead Left Ahead2	N/A	70.3 : 70.3%	6.7	71.9 : 71.9%	5.6
4/4	A56 Westbound Ahead	N/A	54.8%	5.0	59.7%	4.7
5/1	Mancunian Way WB Slip Road Ahead Left	N/A	79.9%	5.8	55.3%	1.9
5/2	Mancunian Way WB Slip Road Ahead Ahead2	N/A	79.8%	5.8	55.4%	1.9
6/1	Ahead	13	21.4%	0.0	14.1%	0.1
6/2	Ahead	13	59.8%	8.7	46.5%	4.0

Link	Lane Descriptor	Internal Queuing Space (PCUs)	Baseline			
			AM Peak		PM Peak	
			DoS	MMQ (PCUs)	DoS	MMQ (PCUs)
7/1	Ahead	14	27.7%	1.0	36.9%	1.2
7/2	Ahead	14	44.3%	5.4	38.5%	4.7
8/2+8/1	Ahead	12	54.5 : 54.5%	4.7	35.1 : 35.1%	2.3
9/1	Ahead	10	33.6%	2.9	23.8%	1.3
9/2	Ahead	10	61.7%	5.7	47.1%	3.3
10/1	Left	8	60.0%	5.4	39.5%	3.3
10/2	Left	8	59.9%	5.4	39.4%	3.2
11/1	Ahead	8	75.8%	8.3	56.2%	5.1
11/2+11/3	Right Ahead Right2	11	89.7 : 89.7%	7.2	73.6 : 73.6%	5.1
12/2+12/1	Left Ahead Right	20	86.2 : 86.2%	6.4	73.6 : 73.6%	5.1
12/3+12/4	Right Ahead Right2	16	86.9 : 86.9%	8.8	75.6 : 75.6%	5.5
14/1	Ahead	7	33.6%	4.7	35.3%	5.1

Table 2 – Deansgate Interchange – Baseline Scenario

Link	Lane Descriptor	Internal Queuing Space (PCUs)	Baseline			
			AM Peak		PM Peak	
			DoS	MMQ (PCUs)	DoS	MMQ (PCUs)
1/1	A56 Eastbound Left	N/A	70.6%	8.4	54.9%	6.1
1/2+1/3	A56 Eastbound Ahead Ahead2	N/A	75.7 : 89.7%	11.0	62.4 : 62.2%	7.3
2/1	Chorlton Road Left Left2	N/A	93.1%	9.8	62.0%	4.4
2/2	Chorlton Road Left	N/A	84.7%	7.4	60.6%	4.6
3/1	Egerton Street Ahead Left	N/A	35.0%	1.8	52.2%	3.1
3/2	Egerton Street Ahead	N/A	51.1%	2.7	60.7%	3.8
4/1	A56 Westbound Left Ahead	N/A	58.6%	5.0	58.7%	4.8
4/3+4/2	A56 Westbound Ahead Left Ahead2	N/A	0.0 : 85.0%	9.8	68.3 : 68.3%	6.0
4/4	A56 Westbound Ahead	N/A	70.1%	7.2	53.5%	4.7
5/1	Mancunian Way WB Slip Road Ahead Left	N/A	84.2%	7.4	57.5%	2.2
5/2	Mancunian Way WB Slip Road Ahead Ahead2	N/A	84.3%	7.5	57.7%	2.2
6/1	Ahead	13	19.0%	0.0	12.7%	0.0
6/2	Ahead	13	62.3%	8.8	42.2%	2.9
7/1	Ahead	14	22.6%	0.1	30.8%	1.1
7/2	Ahead	14	54.2%	6.9	40.9%	5.0

Link	Lane Descriptor	Internal Queuing Space (PCUs)	Baseline			
			AM Peak		PM Peak	
			DoS	MMQ (PCUs)	DoS	MMQ (PCUs)
8/2+8/1	Ahead	12	54.5 : 54.5%	5.1	36.9 : 36.9%	2.6
9/1	Ahead	10	41.5%	3.6	34.2%	2.1
9/2	Ahead	10	69.6%	6.5	53.1%	3.6
10/1	Left	8	60.0%	5.6	43.7%	3.4
10/2	Left	8	59.9%	5.6	43.5%	3.4
11/1	Ahead	8	84.2%	9.4	69.9%	6.2
11/2+11/3	Right Ahead Right2	11	98.4 : 98.4%	9.4	82.3 : 82.3%	5.2
12/2+12/1	Left Ahead Right	20	87.9 : 87.9%	8.0	89.1 : 89.1%	9.0
12/3+12/4	Right Ahead Right2	16	88.9 : 88.9%	8.9	90.6 : 90.6%	9.1
14/1	Ahead	7	33.8%	4.8	37.4%	5.2

Table 3 – Deansgate Interchange – Baseline + Development Scenario

From a review of the MMQs in **Table 2**, it is noted that all of the queues are predicted to fit within the available queuing space on each link – apart from internal Link 11/1 during the AM peak hour, which has a maximum permitted queue space of 8 PCUs, and the analysis shows that a MMQ of 8.3 PCUs (excess queue of 0.3 PCUs) would occur.

Similarly in **Table 3**, all queues are predicted to fit within the available queuing space on each link – apart from internal link 11/1 during the AM peak hour. In the Baseline + Development scenario, the capacity analysis demonstrates that a MMQ of 9.4 PCUs (excess queue of 1.4 PCUs) would occur.

Whilst it is acknowledged that these queues exceed the available stacking space of Link 11/1 in both the Baseline and Baseline + Development scenarios in the AM peak, it should be noted that Link 9/1 is immediately downstream of Link 11/1. In reality, any vehicles that queue back from Link 11/1 would wait at Link 9/1 until the downstream queue clears and they move ahead and exit the junction.

It is noted that the internal queuing space associated with Link 9/1 is c.10 PCUs, and there is a MMQ of 2.9 PCUs in the Baseline scenario and 3.6 PCUs in the Baseline + Development scenario. As such, there is sufficient space at Link 9/1 in both scenarios, should the queues exceed the available stacking space downstream.

With regards to the comment: ***“As the junction is already congested, additional traffic is going to worsen the congestion and as such the reference to a not 'severe' impact as per the NPPF is does not apply.”*** Curtins does not agree. The policy test within the NPPF regarding severe impacts does not define when an impact is severe or not, and it does not set conditions when the test should apply or not. The test is therefore applied to every traffic impact assessment, with the results considered on a -case-by-case basis. In this case, the junction is shown to above practical capacity, but within theoretical capacity in the Baseline and Baseline + Development scenarios. The relative impact of the proposed development shows a minor reduction in capacity, and a minor increase in queues and delay, but it is Curtins' view that these impacts cannot be considered significant or severe. The results and conclusions of the traffic impact assessment therefore remain as set out in the TA, and these conclusions still stand.

As an alternative to increasing the capacity at the junction, improved walking and cycling provision to the site could be provided. This could then offset the predicted vehicle trip numbers as assumed in the TA.”

It is recognised that the Deansgate Interchange junction has benefitted from infrastructure improvements in recent years that has increased vehicular capacity and significantly enhanced pedestrian and cycle connectivity through the junction. It is not considered that any further works are required to enhance the junction or its capacity, especially with the further analysis as shown above.

In addition, the proposed development has been designed with walking and cycling at the centre of the movement hierarchy, and is proposing significant infrastructure upgrades. This would ensure an accessible and safe physical environment for pedestrian and cyclists to promote active travel for commuting and leisure.

Details are provided within the TA and associated plans/drawings, but includes a new signalised Toucan crossing on Melbourne Street connecting the footway/cycleway provision within the Site to the footway/cycleway proposed as part of CSP2 and the existing bridge over the Mancunian Way. This core route for active travel will be complemented by a shared space for pedestrians and cyclists along the southern side of Melbourne Street. An additional three pedestrian crossings will be provided across Great Jackson Street, including a signalised crossing in the vicinity of the stairs providing access to the bridge over the Mancunian Way.

In addition, 100% cycle parking will be provided for all residents, encouraging and promoting cycling as a realistic cycle choice for commuting/leisure trips.

On this basis, it is considered that the vehicular trip generation already represents a worst-case assessment and once operational, this is likely to be much lower than predicted. Furthermore, the Framework Travel Plan comprises various measures and initiatives and example modal split targets to encourage further reduction in private car movements.

As such, it is not considered that there is any requirement to model the potential modal shift, as the modelling shown within the TA and this letter demonstrates that the junction operation for the worst-case assessment works satisfactorily and within its capacity.

Highway Safety:

The TfGM database has been reviewed for the most recent five-year period. The survey area includes the immediate vicinity of the site, Great Jackson Street, Chester Road, Mancunian Way, Owen Street and the junctions of Great Jackson Street / A56 Chester Road, A56 Deansgate Interchange and A56 Chester Road / Deansgate. The database indicates that a total of 27 incidents have occurred, 22 of which were slight and 5 were serious.

The results show that there is a clusters of 12 incidents at A56 Deansgate Interchange and 7 incidents at A57 Mancunian Way. No incidents were recorded along Great Jackson Steet, Melbourne Street, Silverstone Street or Owen Street.

It is not clear what road safety accident period has been chosen.

With reference to Paragraph 2.4 of the TA, the Collision data should clearly identify any

pedestrian and cycling collisions to determine any particular problems with walking and cycling safety.”

The period chosen was the latest 5 years available at the time of writing (01/01/2018 – 31/12/2022) in line with Planning Practice Guidance.

In order to satisfy the request for more detailed collision data in terms of pedestrians and cyclists, TfGM has been consulted for the provision of collision data, covering the latest available 60-month period (01/08/2018 to 31/07/2023).

Following a review of the detailed collision data report, it is noted there have been a total of 35 incidents in the latest 5-year period, comprising 29 slight and 6 serious incidents.

These data have been reviewed in further detail with consideration to pedestrian and cyclist collisions to determine whether there are any problems with walking/cycling safety, as requested.

The collision descriptions and causalities involving pedestrians and cyclists (where provided by TfGM) within the study area are summarised in **Table 4** below. Descriptions have been left unaltered from the records received.

Reference	Location	Date	Lighting	Road Surface	Severity	Casualty
A1030873	Chester Rd Roundabout at Jcn with Mancunian Way W-bd On-Slip	Friday 12/03/2021	Dark	Wet	Slight	1 Cycle Casualty
Both Vehs Trav Sw Chester Rd Enter Rdabt, As V2 (Pedal Cycle) Exits Rdabt Onto W-bd Mancunian Way On-slip, V1 In Middle Lane Also Exits The Same & Collides Front Of V2						
Contributory Factors: None Listed						
A1204724	Chester Road at Jcn with Great Jackson Street	Thursday 14/07/2022	Light	Dry	Slight	1 Cycle Casualty
V2 (Pedal Cycle) Trav Sw Chester Rd. V1 Trav Nw Great Jackson St, Fails To Give Way At Jct, Front Of V1 Collides With N/s Of V2						
Contributory Factors: None Listed						
A1047849	Chester Road at Jcn with Great Jackson Street	Friday 24/08/2018	Light	Dry	Serious	1 Cycle Casualty
V1 Trav Nw Great Jackson St Turns Left & Collides With V2 (Pedal Cycle) Trav Ne Chester Rd In Cycleway						
Contributory Factors: None Listed						
A1150286	Chester Road at Jcn with Great Jackson Street	Friday 04/03/2022	Light	Dry	Slight	1 Cycle Casualty
V1 (Taxi) Trav Nw Great Jackson St Twds Chester Rd. V2 (Pedal Cycle) Trav E Chester Rd In Cycle Lane. Drivers Of Both Vehs Fail To See & Front Of V1 Hits N/s Of V2						
Contributory Factors: Failed to look properly (Both Vehicles) – Very Likely						
A1150841	Chester Road at Jcn with Deansgate	Thursday 17/02/2022	Light	Dry	Slight	1 Cycle Casualty

Reference	Location	Date	Lighting	Road Surface	Severity	Casualty
V2 (Pedal Cycle) Trav Sw Chester Rd. V1 Trav W Deansgate. V1 Pulls Out At Jct & Front Collides With N/s Of V2. V1 Fts						
Contributory Factors: None Listed						
A1214358	Owen St 1m S of Deansgate	Friday 12/08/2022	Light	Dry	Slight	1 Cycle Casualty
V1 Trav N Owen St & To Turn Left Onto Deansgate, V2 (Pedal Cycle) Trav W-bd Across Owen St, Front Of V1 Collides With Front Of V2						
Contributory Factors: None Listed						
A1051503	City Road East at Junction with Shortcroft St	Friday 14/12/2018	Dark	Dry	Slight	1 Cycle Casualty
V1 Trav Ne City Rd E Turns Right Onto Shortcroft St, V1 Moves Off Into Opposite C/way & Collides V1 (Pedal Cycle) Trav Sw City Rd E						
Contributory Factors: None Listed						
A1072735	Albion Street at junction with City Road East	Wednesday 08/07/2020	Light	Dry	Slight	1 Cycle Casualty
V2 (Pedal Cycle) Trav S Albion St On Cycle Lane, V1 Trav N-bd Albion St Turns Left Onto City Rd E & Across Path Of V2. O/s Of V1 Collides With Front Of V2. V1 Fts						
Contributory Factors: None Listed						
A1055200	Medlock St 5m east of City Road East	Saturday 09/02/2019	Dark	Wet	Serious	1 Pedestrian Casualty
V1 (Taxi) Trav S Medlock St Turns Right Onto City Rd E & Collides With C1 (Pedestrian) Crossing From rivers N/s Heading Nw-bd						
Contributory Factors: V1: Failed to look properly (Very Likely), Failed to judge other person's speed or path, Careless/reckless/in a hurry (All Possible). C1: Failed to judge vehicle's speed or path and pedestrian wearing dark clothes at night (All Possible)						
A1271209	Albion Street 15m N of City Road East	Thursday 26/01/2023	Light	Dry	Slight	1 Pedestrian Casualty
V1 (Taxi) Trav S Albion St, C1 (Pedestrian) Crossing From Drivers O/s Heading E-bd. C1 Is Hit By Front Of V1						
Contributory Factors: None Listed						
A1048896	Mancunian Way 20 metres W Of Mancunian Way Roundabout Near To Medlock Street	Friday 05/10/2018	Dark	Wet	Slight	1 Pedestrian Casualty
V1 Trav E Mancunian Way When C1 (Pedestrian) Runs From Central Reservation Onto Crossing From Drivers Offside Trav N Into Path Of V1.						
Contributory Factors: C1: Failed to look properly and careless/reckless/in a hurry (Both Very Likely)						

Table 4 – Cyclist/Pedestrian PIC Analysis

A review of these data indicates that out of the 35 incidents, 11 involved pedestrians and/or cyclists. Nine of the incidents resulted in slight casualties, with two collisions resulting in serious casualties: one involving a pedestrian and one involving a cyclist.

The serious collision involving a pedestrian occurred on 26th January 2019, when a vehicle travelling southbound from Medlock Street to River Street collided with a pedestrian crossing River Street in a

northbound direction. It is noted that the contributory factors state that it was very likely that the vehicle failed to look properly and was possibly in a hurry/failed to judge the other persons path/speed. Furthermore, it was noted the pedestrian possibly also failed to judge the vehicle's path or speed.

The serious collision involving a cyclist occurred on 24th August 2018, when a vehicle travelling north on Great Jackson Street collided with a cyclist travelling east on the cycleway abutting Chester Road. No contributory factors were listed. At this location, it is noted that two further slight collisions have occurred with cyclists in the latest five year period.

Based on this analysis at the Great Jackson Street/Chester Road priority junction, it is noted there have been three collisions in the study period which involved cyclists. It appears that these collisions occurred as cyclists were travelling on the two-way segregated cycle lane which is situated on the southern side of Chester Road (westbound lane) – see **Figure 1** below:



Figure 1 – Great Jackson Street/Chester Road Priority Junction

This cycle lane was previously implemented as part of the wider cycle improvements in Manchester. It is noted at this location that the give-way line is set back before the segregated cycle lane and drivers are expected to wait and assess if any cyclists are passing the junction, before turning left on Chester Road.

From both a desktop and site review, improved signage and/or refreshed lining/surfacing could improve the environment in this location for cyclists and vehicles. It is recommended that this junction is included within the scope of the Road Safety Audit (see below) in due course.

Based on this review, it is not considered that there are any other noticeable clusters or causation factors associated with cyclists/pedestrians within the study area.

The full personal injury collision dataset obtained from TfGM is included in **Appendix B**.

Off-site Highways Works:

More details are requested on how the development and proposed works will link to the existing bridge over Mancunian Way.

The existing ramp and stairs providing access to the existing bridge will be retained and supplemented, as outlined below.

Access to the existing stairs is located outside the ownership of the Applicant. However, a new signalised pedestrian crossing will be provided across Great Jackson Street, providing a safe and convenient link between the bridge and Manchester City Centre.

The existing ramped access will also benefit from a signalised Toucan crossing, linking the existing bridge with Chester Road and Deansgate via the proposed cycle lane across Great Jackson Street Phase 2 (CSP2). An uncontrolled crossing will also be provided across the service road to the rear of Plot D for pedestrians.

The following figure provides an overview of the proposals in the vicinity of the bridge:

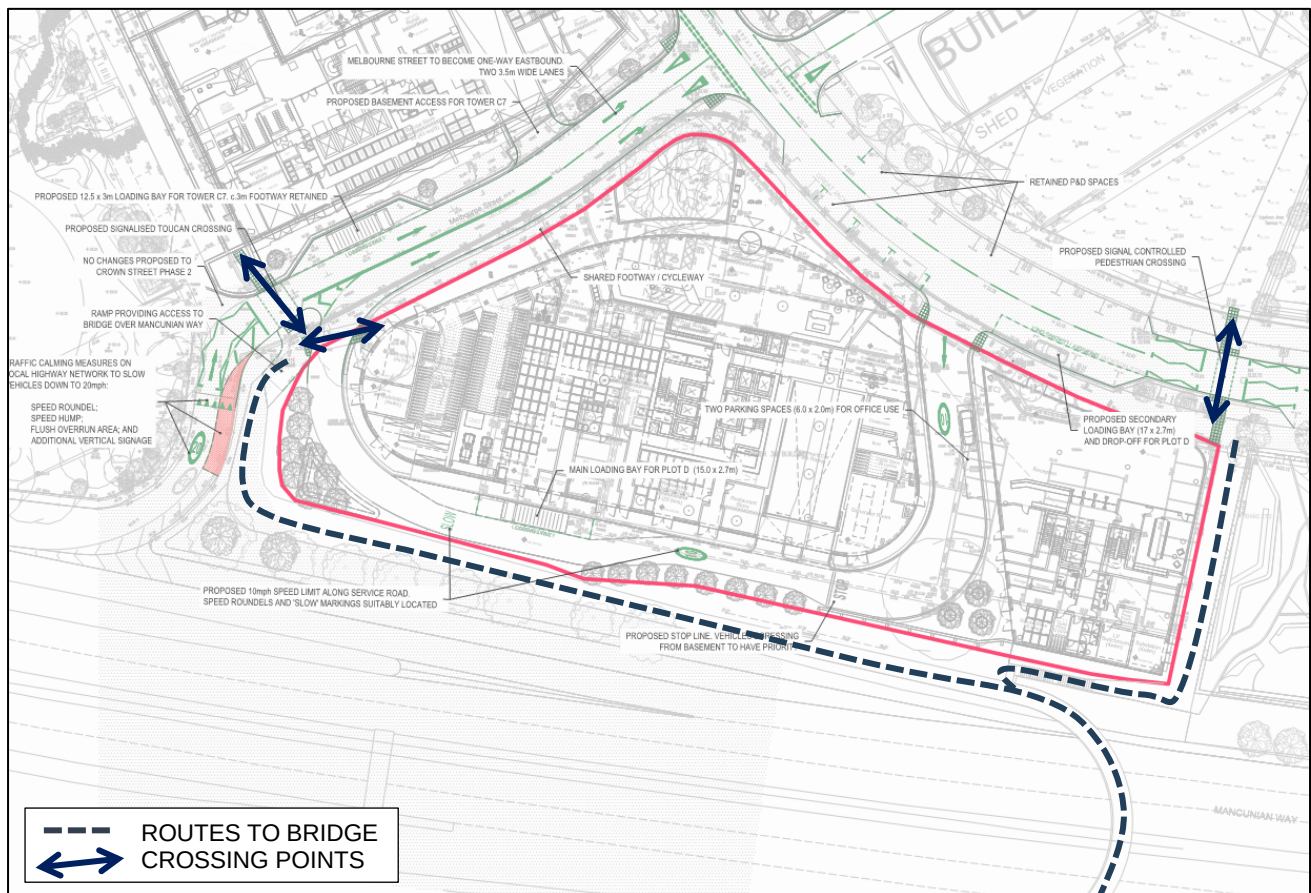


Figure 2 – Highway Proposals in the Vicinity of the Existing Bridge Over the Mancunian Way

It is requested that further information on the proposed over run area on the adopted Melbourne Street is provided.

The buildout will consist of a level (at-grade) buildout provided using a different material than the main carriageway, with the aim of narrowing the effective width of the road and thus encouraging lower speeds around the bend. The over run area would only be used by the largest vehicles.

Drawing 081453-CUR-XX-00-D-TP-05012-P01, appended to the rear of this letter, has been prepared to illustrate the vehicle movements of HGVs, including a 11.2m refuse vehicle and a 16.5m articulated HGV, although the latter is considered a very rare occurrence. This analysis demonstrates that both vehicles can negotiate the bend with no issues.

Details on materials to be used will be determined at the detailed design stage.

Should the planning application be approved, the applicant will be required to enter into a Section 278 agreement for the alterations to the existing highways, and for construction of the proposed vehicular access points, laybys, unsignalised and signalised crossing and dropped kerbs on Great Jackson Street, the adopted Melbourne Street and Silvercroft Street.

This will be dealt with at detailed design stage.

TfGM would strongly recommend that a review of the Traffic Regulation Orders in the vicinity of the development is undertaken, with a view to introducing additional parking restrictions as appropriate, as well as ensuring adequate parking restrictions remain in place, and are refreshed accordingly. This will help to discourage pavement parking associated with the development and therefore assist in improving the quality of the surrounding public realm.

This will be dealt with at detailed design stage.

It is requested that a Stage 1 Road Safety audit be undertaken for the proposed works along Great Jackson Street, Melbourne Street and Silvercroft Street. It is requested that this be conditioned as part of the planning application.

This point is noted and agreed.

It is expected that all modifications/improvements to the public highway are achieved with a maximum carbon footprint of 40%. Materials used during this process must also be a minimum of 40% recycled and fully recyclable. Developers will be expected to demonstrate that these standards can be met prior to planning conditions being discharged. The developer is to agree the above with MCC's Statutory Approvals and Network Resilience Teams post planning approval and prior to construction taking place.

This will be dealt with at detailed design stage.

The Council seeks use of a standard palette of materials for footway and carriageway construction. For alternatives of a higher standard, a commuted sum (for non-standard highway material and its maintenance) will need to be agreed between MCC and the applicant.

This will be dealt with at detailed design stage.

It is recommended that all public realm materials are agreed with MCC's Capital Programmes and Property team prior to site works beginning. The applicant should also liaise with MCC's Flood Risk Management to discuss drainage associated with the site public realm.

This will be dealt with at detailed design stage.

The developer should ensure that all pedestrian routes within the curtilage of the site are constructed to a minimum width of 2m to cater for wheelchair and any pushchair users.

Plans demonstrate that a minimum of 2m footways are in place at all the loading bays. The exception is the loading bay on Silvercroft Street which varies between 1.66 - 1.95m. MCC Highways, Statutory Approvals and Curtins discussed this during pre-application stage and agreed in principle that this arrangement was acceptable and is an improvement of the existing

conditions. Highways and Curtins also agreed that areas of footway that are sitting in private land will be subject to studs on the ground to delineate the edge of adoption. The Management Strategy confirms that the residential waste will be collected by Council operatives and commercial will be collected via a 3rd party collection service. It is requested that a Waste Management Strategy is conditioned as part of this application.

Curtins can confirm that all footways surrounding the proposed buildings are a minimum of 2m wide, with the exception of the loading bay along Silvercroft Street, as mentioned above. Subject to the location of future buildings at this location, there may be another pinch point (1.80m wide) along Great Jackson Street where wind mitigation features are proposed, to the north of Tower E1.

The Waste Management Strategy point is noted and agreed.

Whilst the walking and cycling provision at the site appears of an acceptable standard, the connections from the site to the City Centre fall below an acceptable standard. For example, with reference to the crossing of the Deansgate spur off Deansgate or Great Jackson Street, Deansgate doesn't provide any walking or cycling provision and the crossing of City Road North at the junction with Albion Street doesn't provide any improvements to make it safer and easier to cross the side roads. Additionally, providing a quality cycle lane along Deansgate and along Medlock Street would give appreciable benefits to cyclists to and from the proposed development. See also 4.3.11, given the generally sub-standard pedestrian links between the site and various city centre locations it cannot be genuinely claimed that the site is 'highly' accessible.

A review of the collision data provided earlier in this letter confirms that there are no safety concerns with the existing layout from a pedestrian and cyclist perspective.

As summarised in the TA and based on multiple site visits by Curtins, the surrounding roads have footways available for pedestrian use, and the carriageways are well lit by street lighting. At the major junctions near the site, there are signalised crossing points, pedestrian refuge islands, dropped kerbs and tactile paving. There are also multiple local on and off-road cycle routes that surround the site.

Furthermore, as part of the current proposals and previous plots, the surrounding area will benefit from upgraded pedestrian and cycle links, enhancing links with the city centre.

On this basis, it is considered that any further off-site improvements sit outside the responsibility of the Applicant.

The visibility of the toucan crossing should be provided from the Mancunian Way approach.

Drawing 081453-CUR-XX-00-D-TP-75003-P01 has been prepared that demonstrates forward visibility at 20mph to both sides of the Toucan crossing on the approach from the Mancunian Way is achievable.

Within the site, instead of uncontrolled pedestrian crossings, zebra crossings should be proposed.

It is envisaged that the local area will be primarily used by pedestrians and cyclists, with traffic limited to local access. On this basis, it is not considered that Zebra crossings would bring any additional benefits.

With reference to Paragraph 3.4.8 of the TA, shared cycle and pedestrian footways are not to the standards of LTN1/20.

There is a suitably sized route in accordance with LTN1/20 standards from Chester Road through CSP2 connecting to CSP3 and Plot D.

There is only a short section along Melbourne Street where, primarily due to ecological constraints, the proposed shared cycle and pedestrian cycle footway does not fully meet the 3m requirement for shared cycle and pedestrian footways (when cycle flows are below 300 per hour).

Parking and Access:

The car parks will be well lit, maintained and monitored (including CCTV coverage relayed back to the Management Suites).

This point is noted and agreed.

Regarding the dimension of these spaces, these should all accord with MCC's standard minimum requirement. It is recommended that standard parking bay dimensions be a minimum of 2.4m x 4.8m and disabled parking bay dimensions a minimum of 3.6m x 6.0m. This should also include a 6 metre aisle width to allow vehicles to safely manoeuvre within the car park with formal demarcation of all spaces.

Curtins can confirm that the proposed parking bays measure in excess of MCC's minimum required dimensions of 2.4x4.8m for general bays, at 2.5x5.0m, with accessible bays measuring 3.6x6.0m.

The aisles are proposed at 6m wide, with some exceptions where they narrow slightly to 5.8m wide due to the location of columns and other obstacles, albeit only for a short stretch. The swept path analysis drawings provided within this letter and the TA demonstrate that there are no issues with the proposed car park layout and that vehicles can navigate satisfactorily. It is acknowledged that a small number of spaces would require multi-point manoeuvres, although as this will be a privately operated car park, with regular users that are familiar with the layout.

Deliveries:

Post will be delivered directly to the monitored post boxes located within each buildings main lobby. The Royal Mail will be provided with a fob access to allow entry. Parcels that are unable to be delivered directly to the post boxes will be stored in the secure parcel routes in each buildings Management Suite. It is understood that vehicles will park in each of the proposed lay-bys.

It should be ensured that deliveries vehicles do not congest the carriageway and cyclise do not leave cycle in the footway and impinge on pedestrian movements. Highways require additional information in order to fully assess the potential impact of take-away food deliveries on the local highway network.

In order to fully understand the potential impacts of this type of pick up / drop off activity, applicants will be expected to follow the below suggested guidance:

o All developments will ideally provide an off-highway location to accommodate all drop off / pick up activity at the site, including vehicular and cycle activity;

- o The applicant must justify the numbers of trips associated with Taxi & Food / Parcel Deliveries as part of the planning submission. The methodology of the assessment should be agreed with MCC and utilise industry standard tools i.e. TRICS;***
- o Whilst it is accepted that current data is limited in terms of this type of activity, any additional justification and evidence from recently occupied sites would also be of benefit;***
- o Once a robust and agreed trip generation has been established, the applicant will be required to demonstrate how this activity can be accommodated either within the site itself or within the adopted highway. This should account for peak hour activity where the most likely period of conflict will occur.***
- o In terms of an internal drop off / pick up facility - the applicant will be expected to illustrate that all vehicle / cycle activity can be accommodated within the site. This should not impact on the adopted highway, including footway.***
- o Should drop off / pick up not be accommodated internally, the applicant will be required to assess the exiting highway layout and Traffic Regulation Orders (TROs) and demonstrate that the parking restrictions can accommodate the peak number of movements associated with Taxi & Food / Parcel Deliveries. This should include surveys of existing on-street parking and loading / unloading activity within the vicinity of the site.***
- o Where amendments are required to the adopted highway, in order to provide a safe and functional drop off / pick up location, this will be captured as part of a S278 agreement to be fully funded by the applicant.***

The development is provided with the following loading facilities:

Each of the proposed Towers as part of CSP3 will be provided with its own loading bay. The loading bays for Towers C7 and E1 are proposed as 12.5 x 3m. Tower E2 which will have a 25 x 2.7m loading bay, shared with the Plot F1 development. Tower C8 will benefit from a 15 x 2.7m loading bay, provided with flush kerbs and materials similar to the footway.

Plot D will be provided with two loading bays. The primary loading bay measures 15 x 2.7m and is located to the rear of the building, accessed via the proposed one-way loop road. A secondary loading bay is proposed along Great Jackson Street, measuring 17 x 2.7m.

These will be complemented with visitor cycle stands provided within the public realm. CSP3 will be provided with 12 cycle parking spaces and Plot D with a total of 8 spaces.

Finally, drop-off areas will be provided for all buildings, corresponding to 4 spaces in total for CSP3, and 2 spaces for Plot D. These spaces are of standard car parking dimensions and are located along Great Jackson Street. It is Curtins' view that the majority of takeaway deliveries and small parcels/groceries will be delivered by bicycle or last mile options, such as Amazon's electric cargo bike. It is also considered that the number of proposed drop-off and loading points is sufficient for the size of the proposed development, which is consistent with other developments within the Great Jackson Street Development Framework area.

Notwithstanding, and to satisfy the LHA comments, Curtins has prepared a study based on TRICS data. Similar sites in size, nature and locations were chosen to provide data for this study, with the full output included in **Appendix C**. The sites included Servicing Vehicles counts.

The Servicing Vehicles count records all vehicles that arrive at and depart from a site that perform a servicing function. Examples of such functions include delivery vehicles picking up or dropping off items, plumbers, electricians, fast food deliveries, waste disposal and recycling vehicles, etc. It is important to note that the criteria for inclusion of a vehicle within the Servicing Vehicles count is the function of the vehicle during each trip and not just the type of vehicle, so if a vehicle is undertaking a servicing function at a site during a survey it will be included in the Servicing Vehicles count. This also

means that if a vehicle that can be used for servicing is visiting a site but is not undertaking a servicing function during that trip, it would be excluded from the Servicing Vehicles count.

In order to provide a robust assessment, cycles and taxis were counted separately. It is important to acknowledge that some cycles are counted as non-delivery related trips (i.e. trips by residents).

The following **Tables 5 to 7** summarise the number of servicing vehicles, bicycles and taxis per hour, based on the number of apartments per tower:

SERVICING VEHICLES (number of per hour)						
Time Range	Arrivals Rate	Tower C7	Tower C8	Tower E1	Tower E2	Plot D
07:00-08:00	0.008	3	3	4	4	5
08:00-09:00	0.018	8	8	8	8	12
09:00-10:00	0.021	9	9	9	9	13
10:00-11:00	0.031	13	13	14	14	20
11:00-12:00	0.01	4	4	5	5	6
12:00-13:00	0.021	9	9	9	9	13
13:00-14:00	0.013	5	5	6	6	8
14:00-15:00	0.005	2	2	2	2	3
15:00-16:00	0.01	4	4	5	5	6
16:00-17:00	0.031	13	13	14	14	20
17:00-18:00	0.008	3	3	4	4	5
18:00-19:00	0.01	4	4	5	5	6
19:00-20:00	0.021	9	9	9	9	13
20:00-21:00	0.01	4	4	5	5	6

Table 5 – Number of anticipated Servicing Vehicles per hour per Tower

CYCLISTS (number of per hour)						
Time Range	Arrivals Rate	Tower C7	Tower C8	Tower E1	Tower E2	Plot D
07:00-08:00	0	0	0	0	0	0
08:00-09:00	0.003	1	1	1	1	2
09:00-10:00	0	0	0	0	0	0
10:00-11:00	0.01	4	4	5	5	6
11:00-12:00	0	0	0	0	0	0
12:00-13:00	0.01	4	4	5	5	6
13:00-14:00	0.01	4	4	5	5	6
14:00-15:00	0.008	3	3	4	4	5
15:00-16:00	0.008	3	3	4	4	5
16:00-17:00	0.01	4	4	5	5	6
17:00-18:00	0.008	3	3	4	4	5
18:00-19:00	0.016	7	7	7	7	10
19:00-20:00	0.018	8	8	8	8	12
20:00-21:00	0.013	5	5	6	6	8

Table 6 – Number of anticipated Cyclists per hour per Tower

TAXIS (number of per hour)						
Time Range	Arrivals Rate	Tower C7	Tower C8	Tower E1	Tower E2	Plot D
07:00-08:00	0.003	1	1	1	1	2
08:00-09:00	0.013	5	5	6	6	8
09:00-10:00	0.008	3	3	4	4	5
10:00-11:00	0.016	7	7	7	7	10
11:00-12:00	0.013	5	5	6	6	8
12:00-13:00	0.005	2	2	2	2	3
13:00-14:00	0.008	3	3	4	4	5
14:00-15:00	0.005	2	2	2	2	3
15:00-16:00	0.005	2	2	2	2	3
16:00-17:00	0.008	3	3	4	4	5
17:00-18:00	0.005	2	2	2	2	3
18:00-19:00	0.003	1	1	1	1	2
19:00-20:00	0.013	5	5	6	6	8
20:00-21:00	0.01	4	4	5	5	6

Table 7 – Number of anticipated Taxis per hour per Tower

The above tables demonstrate the exceptionally robust nature of the study, with a large number of servicing trips associated with the proposed development.

In reality, given the relation between the different buildings, their location and similar resident demographics, it is likely that the actual number of trips related to servicing and food deliveries would be lower and one vehicle would be servicing various apartments/buildings. Furthermore, some of the trips included in the above tables include plumbers, electricians and other similar trades that would likely park in the nearby MSCP proposed as part of CSP2.

Nonetheless, Curtins has utilised the number of trips from these tables to estimate whether the proposed loading, drop-off areas and cycle stands within the public realm are sufficient to cater for the forecast demand.

The following **Table 8** indicates the number of loading spaces required per tower, based on an average dwell time of 5 minutes and the following available loading spaces, based on the proposed loading bay lengths and a 7.5t Rigid Vehicle as per FTA 2016 recommendations (7.17m long): Tower C7: 1 space; Tower C8: 1 Space; Tower E1: 1 space; Tower E2: 2 spaces; and Plot D: 4 spaces. This is a worst-case approach as for instance, two small vans can be parked at the same at any of the proposed loading bays. All numbers have been rounded up.

SERVICING VEHICLES (loading space requirements)					
Time Range	Tower C7	Tower C8	Tower E1	Tower E2	Plot D
07:00-08:00	1	1	1	1	1
08:00-09:00	1	1	1	1	1
09:00-10:00	1	1	1	1	2
10:00-11:00	2	2	2	2	2
11:00-12:00	1	1	1	1	1
12:00-13:00	1	1	1	1	2
13:00-14:00	1	1	1	1	1
14:00-15:00	1	1	1	1	1
15:00-16:00	1	1	1	1	1
16:00-17:00	2	2	2	2	2
17:00-18:00	1	1	1	1	1
18:00-19:00	1	1	1	1	1
19:00-20:00	1	1	1	1	2
20:00-21:00	1	1	1	1	1

Table 8 – Number of required Loading Spaces per hour per Tower

The above table demonstrates that Plot D and Towers E1 and E2 are proposed with sufficient loading space, to cater even for the busiest periods of the day.

There could be instances on Towers C7 and C8 during the peak AM and PM hours, where theoretical demand slightly exceeds the supply of loading spaces. However, it is noted that a number of servicing trips would be linked, particularly when looking at the layout of Towers C7 and C8 (and E1 and E2), with the main access points sharing an entrance.

Curtins calculations indicate that only less than 10% of servicing trips would need to be linked in order to be accommodated within the proposed loading bays. It is highly likely that servicing trips would be linked, therefore it is reasonable to consider this as part of the assessment.

Considering this, it is concluded that the proposed loading bays are sufficient to cater for demand, including during the busiest periods of the day.

The following **Table 9** indicates the required number of parking spaces for cycle deliveries, based on an average dwell time of 5 minutes and 3 available cycle parking spaces per tower for CSP3 and 8 spaces for Plot D:

CYCLISTS (parking requirements)					
Time Range	Tower C7	Tower C8	Tower E1	Tower E2	Plot D
07:00-08:00	0	0	0	0	0
08:00-09:00	1	1	1	1	1
09:00-10:00	0	0	0	0	0
10:00-11:00	1	1	1	1	1
11:00-12:00	0	0	0	0	0
12:00-13:00	1	1	1	1	1
13:00-14:00	1	1	1	1	1
14:00-15:00	1	1	1	1	1
15:00-16:00	1	1	1	1	1
16:00-17:00	1	1	1	1	1
17:00-18:00	1	1	1	1	1
18:00-19:00	1	1	1	1	1
19:00-20:00	1	1	1	1	1
20:00-21:00	1	1	1	1	1

Table 9 – Number of required Cycle Parking Spaces per hour per Tower

The above table demonstrates that the proposed development can accommodate the anticipated number of deliveries by bicycle.

Finally, the following **Table 10** indicates the anticipated number of drop-off spaces required for taxis, based on an average dwell time of 5 minutes and 4 available spaces for CSP3 and 2 spaces for Plot D:

TAXIS (drop-off requirements)					
Time Range	Tower C7	Tower C8	Tower E1	Tower E2	Plot D
07:00-08:00	1	1	1	1	1
08:00-09:00	1	1	1	1	1
09:00-10:00	1	1	1	1	1
10:00-11:00	1	1	1	1	1
11:00-12:00	1	1	1	1	1
12:00-13:00	1	1	1	1	1
13:00-14:00	1	1	1	1	1
14:00-15:00	1	1	1	1	1
15:00-16:00	1	1	1	1	1
16:00-17:00	1	1	1	1	1
17:00-18:00	1	1	1	1	1
18:00-19:00	1	1	1	1	1
19:00-20:00	1	1	1	1	1
20:00-21:00	1	1	1	1	1

Table 10 – Number of required Drop-Off spaces per hour per Tower

The above table demonstrates that the proposed number of drop-off spaces is sufficient to accommodate the anticipated number of taxis.

It is therefore concluded that, based on the data available via TRICS, the estimated dwell times, and the loading considerations, and the worst-case approach of the calculations, the proposed development provides sufficient loading and drop-off opportunities for deliveries by motor vehicles, bicycles, and taxis.

All developments will be expected to provide a Management Strategy for Food / Parcel Deliveries. This strategy will need to provide clear direction as to how the below considerations are to be brought forward and managed for the duration of the site's occupation:

- 1. Designate a Delivery Drop-off Point: Work with the management or housing staff of the development to establish a designated drop-off point for deliveries. This could be a specific lobby area or a central location easily accessible to delivery drivers.***
- 2. Display Signage: If permitted, put up clear signage in the development's common areas to guide delivery drivers to the drop-off point. This will help prevent confusion and ensure timely deliveries.***
- 3. Inform Residents: If possible, notify all residents of the new delivery process. Inform them about the designated drop-off point and any specific rules or guidelines they need to follow when receiving deliveries.***
- 4. Set Delivery Hours: Establish specific delivery hours for residents of the development where possible. This could help manage the flow of deliveries, especially during peak times.***
- 5. Regularly Review the Process: Periodically review how the drop-off process is working. Gather feedback from residents, delivery drivers, and staff to identify any areas for improvement and make necessary adjustments.***
- 6. Consider a Delivery Holding Area: If feasible, set up a secure delivery holding area within the development. This can be especially helpful for residents who may not be immediately available to receive their orders.***
- 7. Monitor Security Concerns: Ensure that the delivery process does not compromise the security and safety of the residents of the development. Address any security concerns promptly and collaborate with building management to implement appropriate measures.***
- 8. Encourage Feedback: Encourage residents to provide feedback on their delivery experiences. This will help you assess the efficiency of the process and identify any potential issues that need to be addressed.***

This point is noted and it is assumed that the Management Strategy would form a condition to any planning consent.

Structures:

Should there be any basement excavations proposed adjacent to the highway structural drawings and calculations for the temporary and permanent support works must be submitted for checking (for a fee) to MCC Bridges/Structures Section. The applicant is advised to contact highways.structures@manchester.gov.uk.

This point is noted and it is assumed it would be captured as an informative on any planning consent.

Construction Management:

A Construction Management Plan should be provided by the applicant prior to any construction works beginning. The Construction Management Plan should detail the phasing

and quantification / classification of vehicular activity associated with planned construction. This should include commentary on types and frequency of vehicular demands together with evidence (including appropriate swept-path assessment) of satisfactory routeing both within the site and on the adjacent highway. The document should also consider ongoing construction works and contractor parking in the locality.

It is also requested the applicant provides a dilapidation survey as part of the Construction Management Plan document. The survey should include photographs and commentary on the condition of carriageway / footways on construction vehicle routes surrounding the site.

The applicant is advised that any requirements for licensing, hoarding / scaffolding and any associated temporary traffic management arrangements will need discussion and agreement with the council's Highways Applications and Network Resilience teams via Contact Manchester (Tel. 0161 234 5004).

It is recommended that the above is conditioned and attached to any planning permission that may be granted.

This point is noted and it is assumed that the Construction Management Plan would form a condition to any planning consent.

Travel Plan:

Once the initial baseline Travel Survey has been completed a full Travel Plan should be produced.

The development, submission, implementation and monitoring of the Travel Plan should be included in the conditions of any planning consent.

This point is noted and agreed.

Plot D:

All the comments above apply to both CSP3 and Plot D. The following comments apply only to Plot D:

Office:

The office is proposed to offer 2 parking spaces at ground floor level. The Transport Assessment states that these are anticipated to be used by visitors only. It is requested that these 2 spaces are accessible. No staff parking will be in place, but they will have access to the Multi Storey Car Park currently being constructed as part of Crown Street Phase 2.

Curtins has explored the option to provide two accessible spaces at this location, but due to the location of the buildings this is not possible without narrowing the footways or preventing safe access for servicing vehicles.

Disabled users will be able to park at the proposed MSCP currently under construction as part of CSP2, located in the vicinity of the proposed office building.

TfGM recommend that where possible the number of cycle spaces for the Office use should be significantly increased

It is requested that as part of the Travel Plan the cycle parking use is monitored and when required more cycle parking is installed.

The office building is provided with a cycle store with capacity for 10 bicycles. This level of provision is consistent with the recommendations set out in MCC's Core Strategy of 1 space per 200m² and therefore it is considered sufficient based on local guidance.

Travel Plan Comments (Issued by MCC Planning via email on 24/07/23)

- 1. "The objectives (2.7.2) should be revised to make clear that the primary objective is to minimise the need for car ownership at the site and car journeys to and from the site. This is particularly for cars with just one person in them, but also includes multi-occupier cars."***

Updated in Travel Plan (P03).

- 2. There should be external visitors cycle racks (Sheffield stands)***

Updated in Travel Plan (P03).

- 3. The proposed cycle storage should be maintained as available for use for the lifetime of the developments (not clogged up with abandoned bikes).***

Updated Travel Plan (P03), noting that the cycle stores will be maintained by the building management.

- 4. The travel plans should remain in place for the lifetime of the development.***

Updated Travel Plan (P03), clarifying that the final occupation of the Proposed Development would complete the formal Travel Plan process and monitoring period. At this point, the Travel Plan and the TPC role could be continued on a voluntary basis by a local residents' association or the office occupier respectively. This would be agreed with MCC at final occupation of the Proposed Development.

The request for the Travel Plan to remain in place for the lifetime of the development is not in-keeping with the approach taken with other Travel Plans for developments in the Great Jackson Street Development Framework area. Instead, the voluntary continuation of the Travel Plan would offer the ongoing implementation of the Travel Plan.

It is worth noting that the Travel Plan includes a commitment to monitoring and engaging with MCC during the Travel Plan implementation period (i.e. until final occupation of each phase of the Proposed Development), therefore MCC will be kept informed of the Travel Plan's progress. The voluntary continuation of the Travel Plan would also be agreed with MCC at final occupation of the Proposed Development.

- 5. Following the initial survey and a follow-up a year or two later, surveys should be conducted at five-yearly intervals or more often if required in the view of the LPA.***

Noted. The Travel Plan already includes proposals to undertake annual travel surveys following the baseline travel survey for the duration that the TPC is appointed.

- 6. Surveys should reflect a representative sample of both residents and commercial unit staff (not just an opt-in as this tends to skew results in a positive direction), with targets and actions agreed with the LPA following each survey. They are proposing an opt-in***

survey using survey monkey and supplemented by paper surveys if needed. This is ok but they will need to supplement this with a targeted reach-out if the respondents do not adequately reflect the diversity of the occupiers (which is likely). This is to prevent the results being skewed, as is normally the case. This will need to be as reasonably practicable.

There cannot be a commitment to achieving a representative sample as this is beyond the control of the Applicant and the appointed TPC. The Travel Plan already allows for engagement with MCC in relation to the monitoring surveys and reports, and to agree the modal split targets.

Notwithstanding, if the survey does not reflect a suitable response rate and/or reflect the diversity of the occupiers, consideration will be given to a targeted reach-out to occupiers.

- 7. They should confirm that cycle parking will be provided for staff and visitors at the commercial units, offices, and restaurant.**

Updated in Travel Plan (P03).

- 8. Particular actions should be agreed as part of the full travel plan following occupation and initial survey.**

Agreed – Full Travel Plan to be Conditioned.

- 9. The expected modal split and targets seem unlikely, with only 7% of journeys being walking. They might want to reconsider or provide further justification for these numbers. In any case, these will be researched by the initial survey, then targets agreed with the LPA in due course.**

The modal split and targets are only indicative at this stage – and are based on Greater Manchester Travel Diary Surveys (GMTRADS) which is a TfGM dataset. The modal split/targets will be addressed in Full Travel Plan following the initial travel survey.

- 10. 8.3.2 reads: "If less than 10% of the apartments or office floorspace are occupied in any year then final occupation of that phase shall be deemed to have occurred. At this point, the TPC role and any responsibilities relating to the TP would transfer to a local residents' association or the office occupier respectively." Although residents' associations and occupiers may have a useful practical role, legal responsibility for the travel plan should rest with Renaker/the developer or their legal successors as freeholder(s). They can't pass this legal duty on to a residents' association or similar unless that organisation has its own legal personality and also that the transfer of responsibility is agreed by the LPA (and the residents' association), which would probably be unlikely.**

This point is responded to, and clarified, in Point 4 above. The legal duty would end at final occupation, with the Travel Plan and the TPC role continued on a voluntary basis only.

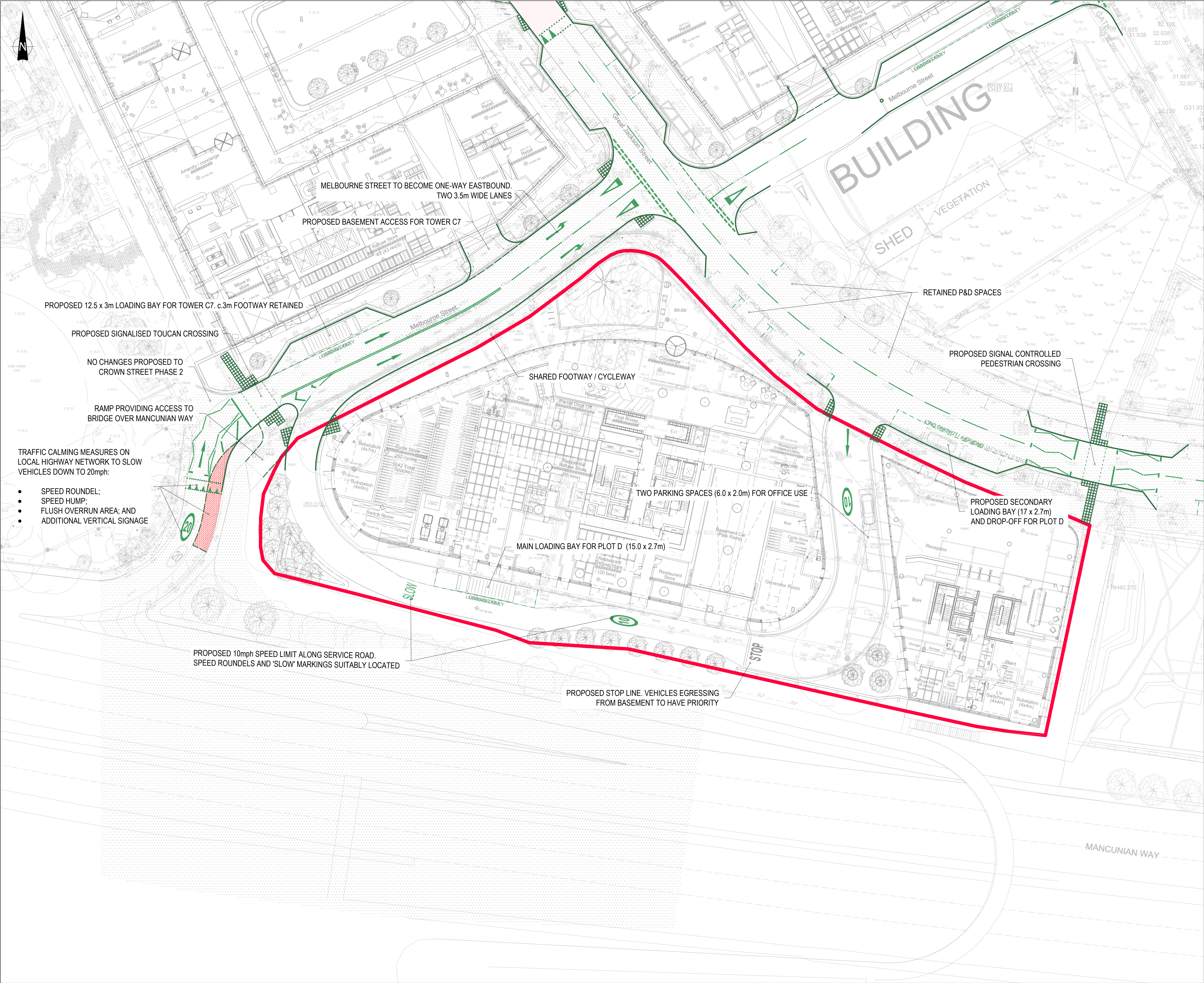
"Both the framework travel plans, and subsequent full travel plans, should be secured by condition as normal."

Noted and agreed.

Summary

This post-submission response has been prepared to address the highways and transport comments raised by Manchester City Council and Transport for Greater Manchester. It provides supplementary information and does not alter the conclusions of the reports submitted as part of the planning application. We trust this is sufficient to gain Council support from a highways and transport perspective.

Drawings



GENERAL NOTES:

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS AND SPECIFICATIONS.
2. DO NOT SCALE THIS DRAWING. ANY AMBIGUITIES, OMISSIONS AND ERRORS ON DRAWINGS SHALL BE BROUGHT TO THE ENGINEERS ATTENTION IMMEDIATELY. ALL DIMENSIONS MUST BE CHECKED / VERIFIED ON SITE.
3. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE.
4. FOR GENERAL NOTES REFER TO DRAWING.
5. THE CONTENT OF THIS DRAWING IS FOR INDICATIVE INFORMATION ONLY AND NOT SUITABLE FOR CONSTRUCTION PURPOSES
6. BASED ON SIMPSON HAUGHS PLOT D LAYOUT: 'Z1-SHP-G100-PL-GRD-B5D801'
7. BASED ON LAND SURVEY PROVIDED BY RENAKER WHERE AVAILABLE. SOME ON-STREET PARKING SPACES ESTIMATED FROM AERIAL IMAGERY AND SHOWN FOR INFORMATION PURPOSES ONLY.

- KEY:
- RED LINE BOUNDARY
 - PROPOSED RAISED KERB
 - PROPOSED FLUSH KERB
 - PROPOSED ROAD MARKINGS
 - PROPOSED RAMP
 - PROPOSED OVERRUN AREA
 - PROPOSED RAISED TABLE
 - PUBLIC HIGHWAY EXTENTS

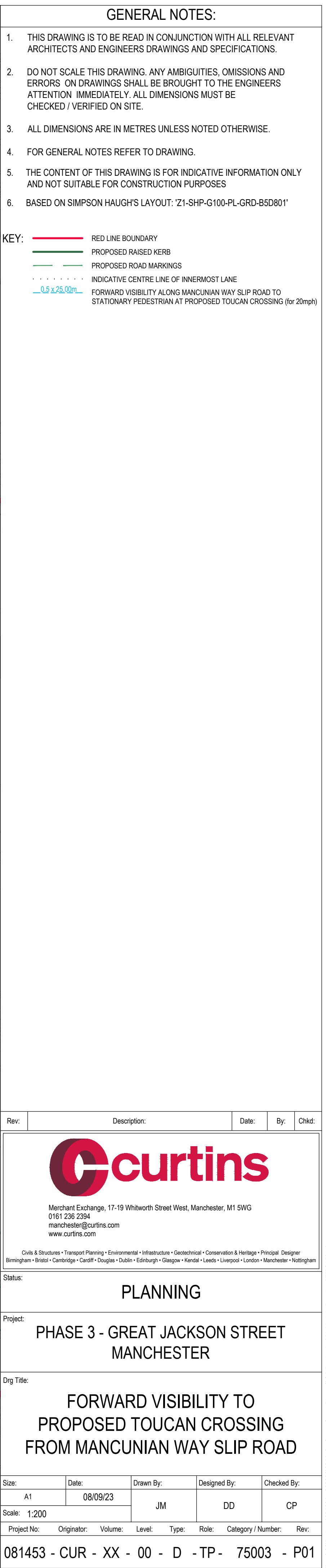
P10	Traffic calming updated	08/09/23	JM	DD
P09	Layout updated	31/05/23	MQ	DD
P08	Plot D secondary loading bay updated	12/04/23	DD	CP
P07	Layout updated	20/03/23	DD	CP
P06	Access arrangement updated	23/01/23	DD	CP
P05	Signalised crossing added	17/01/23	DD	CP
P04	Access arrangement and layout updated	17/01/23	DD	CP
P03	Traffic calming updated	29/11/22	DD	CP
P02	Access arrangement and layout updated	24/11/22	DD	CP
Rev:	Description:	Date:	By:	Chkd:

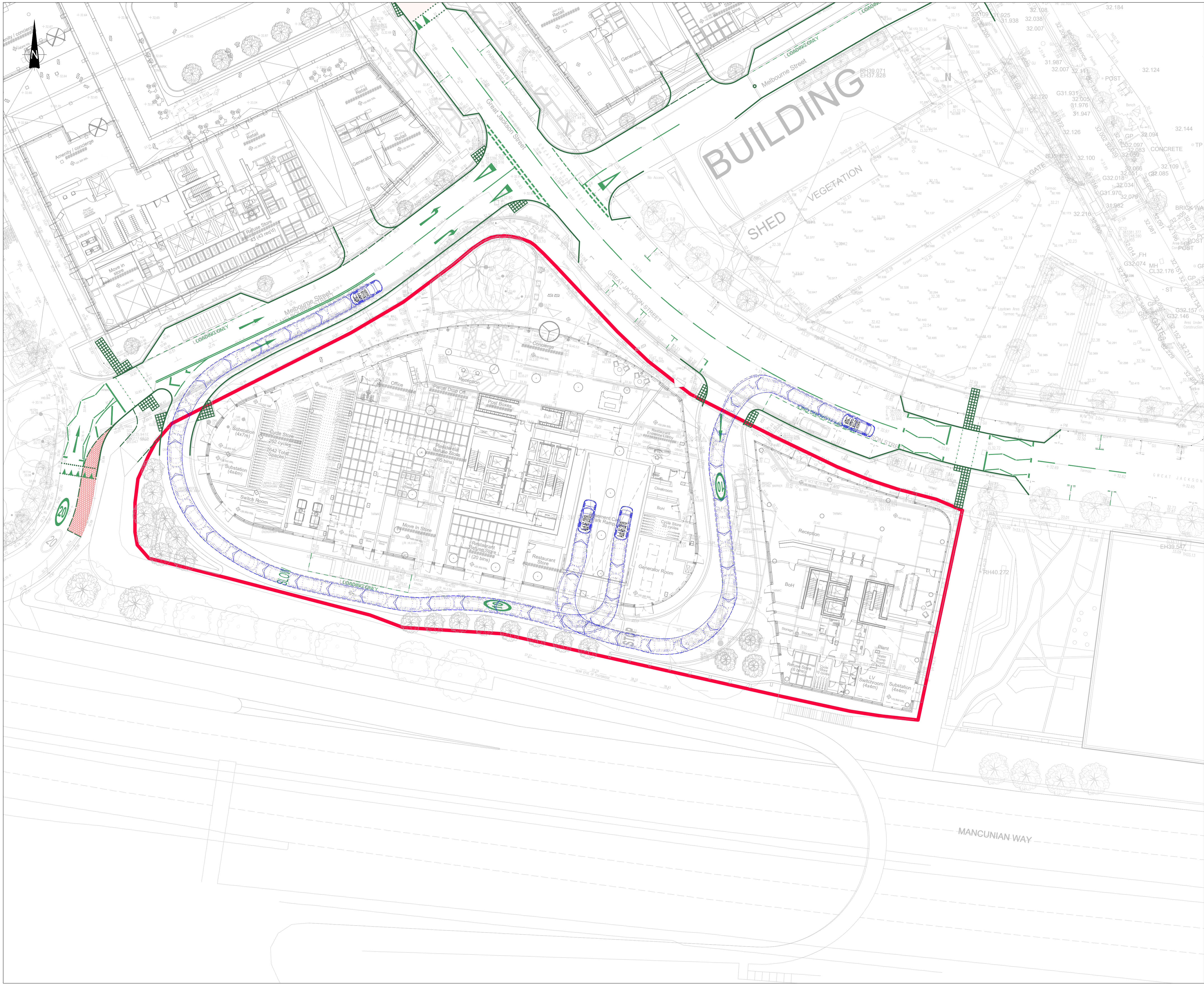


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Status: PLANNING				
Project: PLOT D - GREAT JACKSON STREET MANCHESTER				
Orig Title: PROPOSED ACCESS ARRANGEMENT				
Size: A1	Date: 29/09/22	Drawn By: DD	Designed By: DD	Checked By: CP
Scale: 1:250				
Project No: 081453	Originator: CUR	Volume: XX	Level: 00	Type: D
				TP
				75001
				P10





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- BASED ON SIMPSON HAUGHS LAYOUT: Z1-SHP-G100-PL-GRD-B5D801

KEY: — RED LINE BOUNDARY
— PROPOSED RAISED KERB
— PROPOSED ROAD MARKINGS

VEHICLE PROFILE:



Audi A5 (2018)
Overall Length: 4.599m
Overall Width: 1.914m
Overall Height: 1.424m
Min Body Ground Clearance: 0.143m
Max Tyre Width: 1.875m
Lock to Lock Steer: 4.500m
Kerb to Kerb Turning Radius: 9.500m

P03	Highway proposals updated	08/09/23	JM	DD
P02	Layout updated	31/05/23	MQ	DD
Rev:	Description:	Date:	By:	Chkd:



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Status:

PLANNING

Project: PLOT D - GREAT JACKSON STREET MANCHESTER

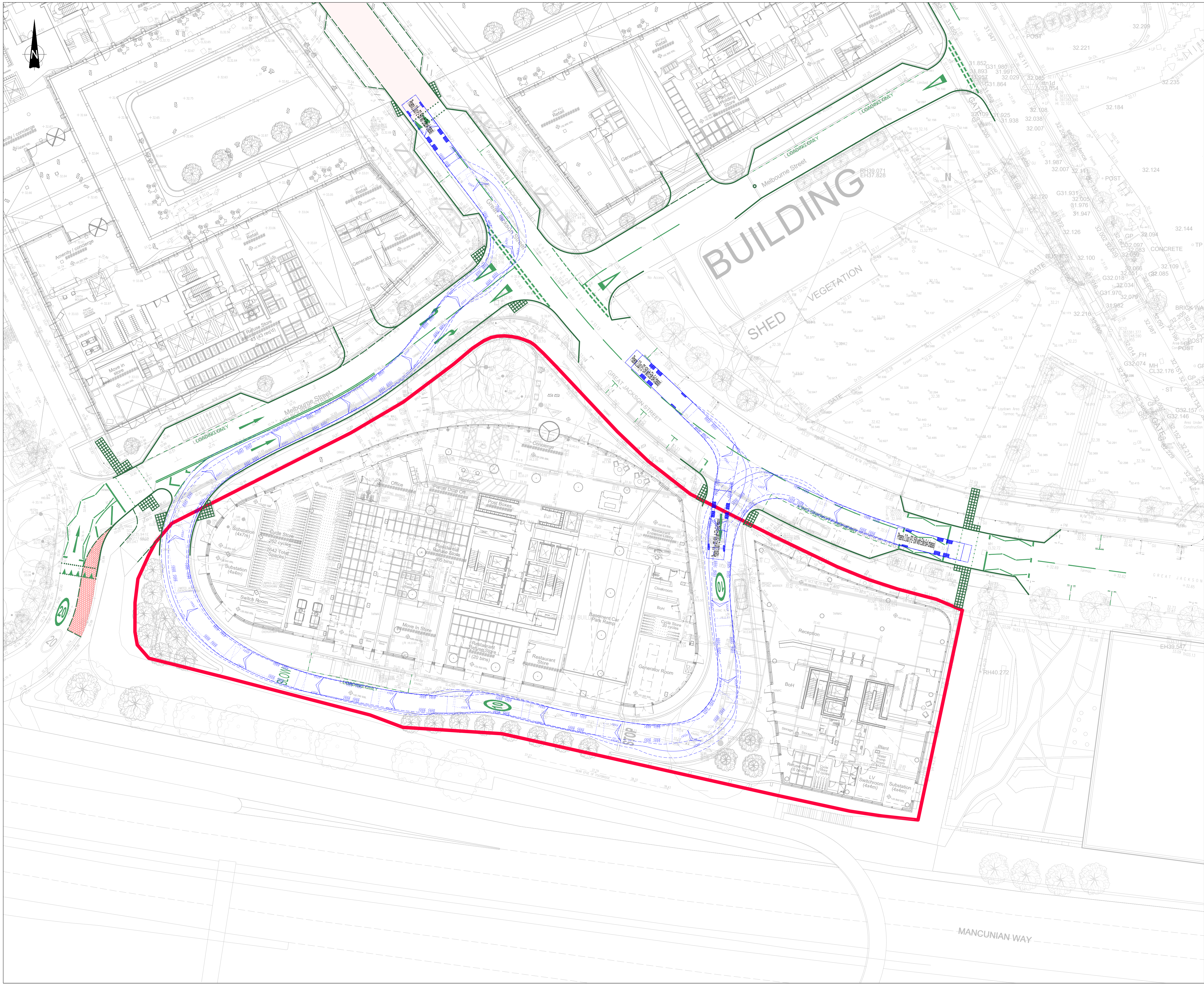
Orig Title: SWEPT PATH ANALYSIS ACCESS ARRANGEMENT LARGE CAR

Size:	Date:	Drawn By:	Designed By:	Checked By:
A1	20/03/23	DD	DD	CP
Scale:	1:250			

Project No: Originator: Volume: Level: Type: Role: Category / Number: Rev:

081453 - CUR - XX - 00 - D - TP - 05009 - P03

\\msd02\Projects\081001 - 082000\081453 - CUR - Street Phase 3\04-Production\44-Models\Drawings\TPCAD\051

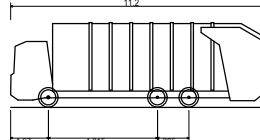


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- 4. FOR GENERAL NOTES REFER TO DRAWING.
- 5. THE CONTENT OF THIS DRAWING IS FOR INDICATIVE INFORMATION ONLY AND NOT SUITABLE FOR CONSTRUCTION PURPOSES
- 6. BASED ON SIMPSON HAUGHS LAYOUT: Z1-SHP-G100-PL-GRD-B5D801

KEY: — RED LINE BOUNDARY
— PROPOSED RAISED KERB
--- PROPOSED ROAD MARKINGS

VEHICLE PROFILE:



Phoenix 2 Duo P2-15W with Elite 6x4 chassis
Overall Length 11.20m
Overall Width 3.25m
Overall Height 3.25m
Wheelbase 3.25m
Track Width 3.25m
Wheel Offset 3.25m
Kerb to Kerb Turning Radius 9.50m

P05	Highway proposals updated	08/09/23	JM	DD
P04	Layout updated	31/05/23	MQ	DD
P03	Layout updated	20/03/23	DD	CP
P02	Layout updated	24/11/22	DD	CP
Rev:	Description:	Date:	By:	Chkd:



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Status:

PLANNING

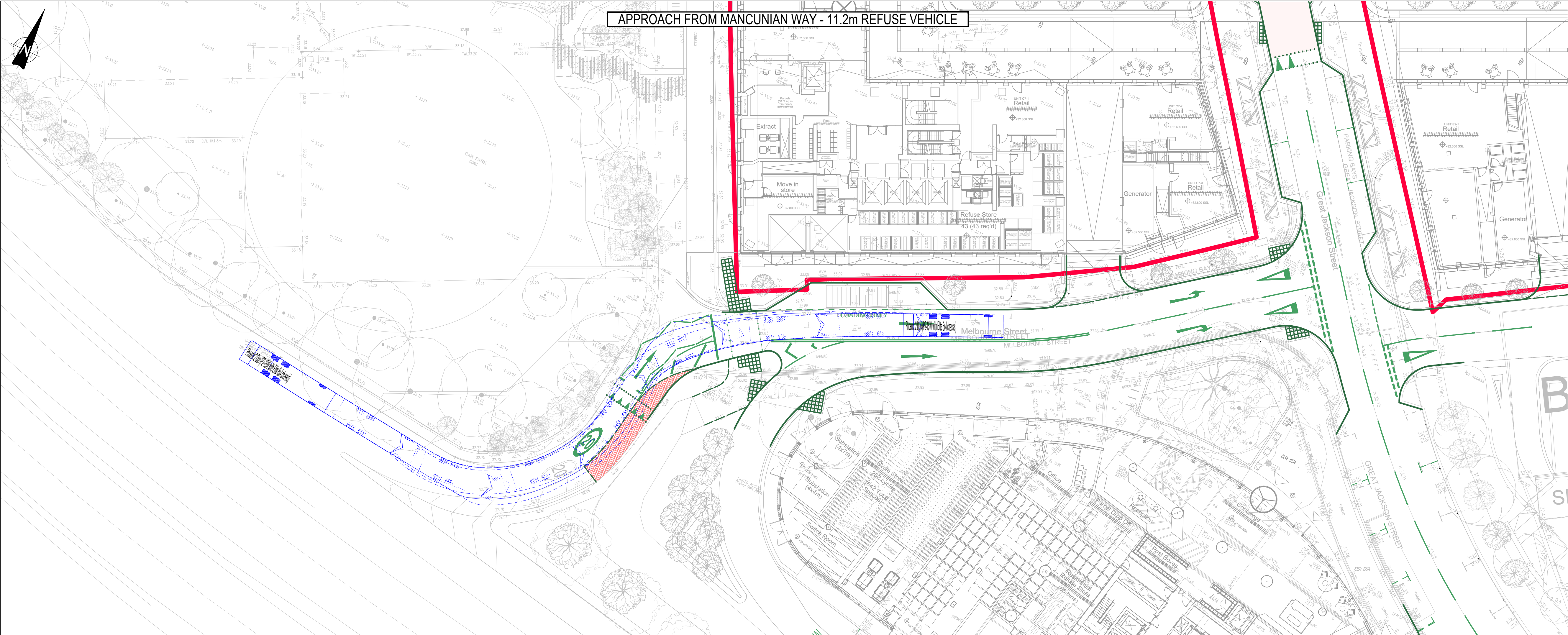
Project:

PLOT D - GREAT JACKSON STREET
MANCHESTER

Orig Title:

SWEPT PATH ANALYSIS
SERVICING

Size:	Date:	Drawn By:	Designed By:	Checked By:			
A1	14/09/22	DD	DD	CP			
Scale: 1:250							
Project No:	Originator:	Volume:	Level:	Type:	Role:	Category / Number:	Rev:
081453	- CUR	- XX	- 00	- D	- TP-	05001	- P05

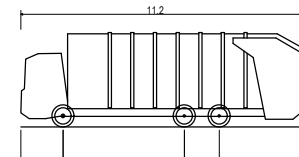


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 - THE CONTENT OF THIS DRAWING IS FOR INDICATIVE INFORMATION ONLY AND NOT SUITABLE FOR CONSTRUCTION PURPOSES
 - BASED ON SIMPSON HAUGHS LAYOUT: 'Z1-SHP-G100-PL-GRD-B5D801'

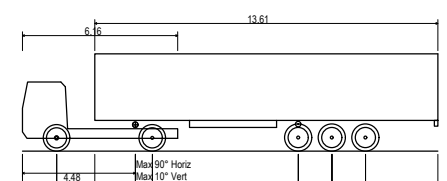
KEY:

- RED LINE BOUNDARY
- PROPOSED RAISED KERB
- PROPOSED ROAD MARKINGS

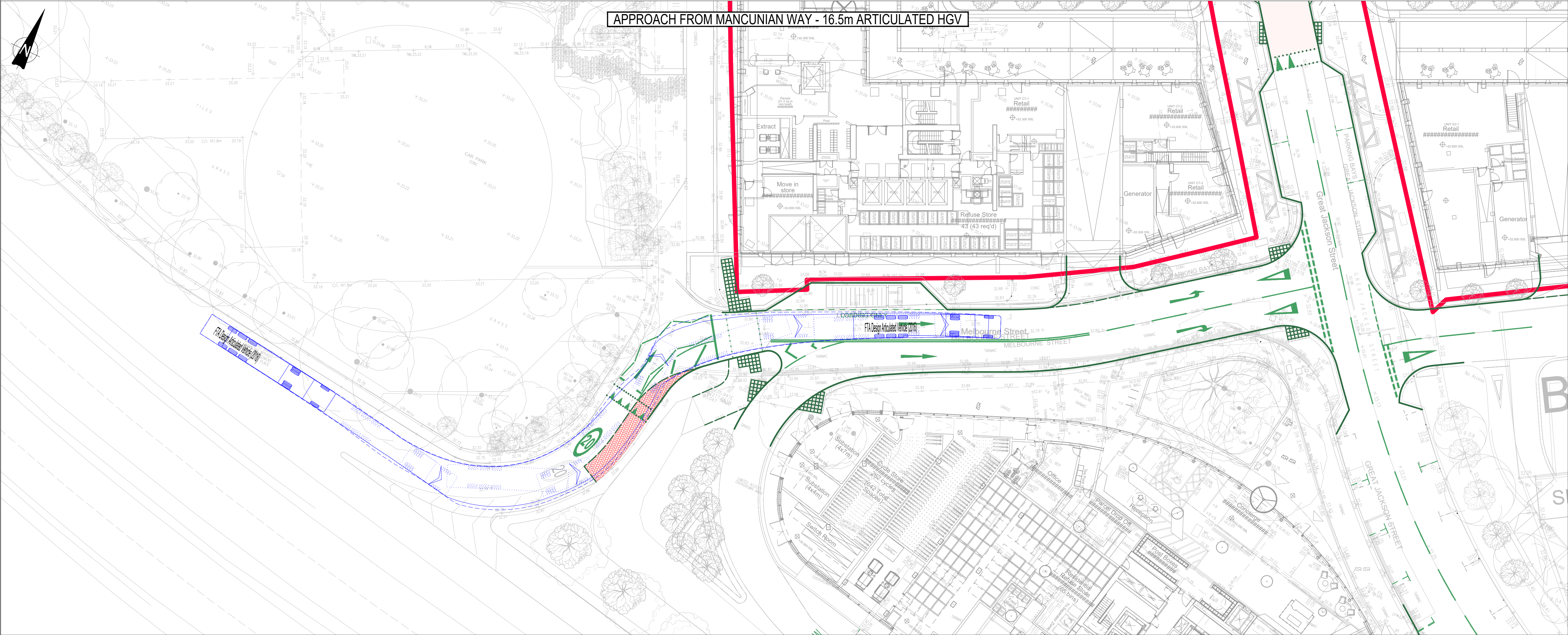
VEHICLE PROFILE:



Phoenix 2 Duo (P2-15W with Elite 6x4 chassis)
Overall Length 11.200m
Overall Width 2.550m
Overall Body Height 3.750m
Min Body Ground Clearance 0.340m
Track Width 2.500m
Lock to lock time 4.00s
Kerb to Kerb Turning Radius 9.500m



FTA Design Articulated Vehicle (2016)
Overall Length 16.600m
Overall Width 2.550m
Overall Body Height 3.870m
Min Body Ground Clearance 0.340m
Max Track Width 2.470m
Lock to lock time 3.00s
Kerb to Kerb Turning Radius 6.600m



Rev: Description: Date: By: Chkd:



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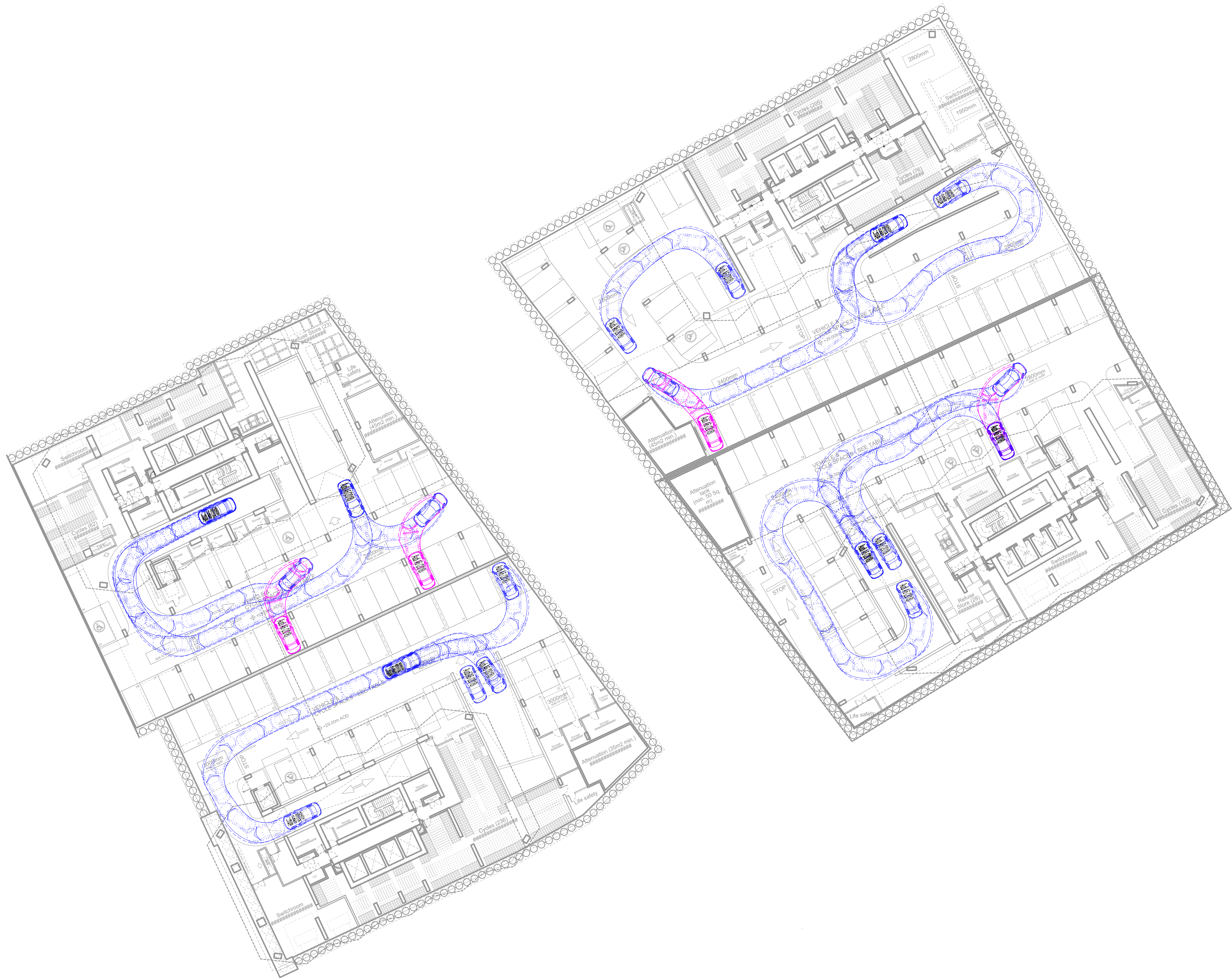
Status:

PLANNING

Project: **PHASE 3 - GREAT JACKSON STREET MANCHESTER**

Orig Title: **SWEPT PATH ANALYSIS MANCUNIAN WAY EXIT REFUSE VEHICLE 16.5m ARTICULATED HGV**

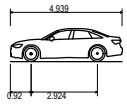
Size:	Date:	Drawn By:	Designed By:	Checked By:			
A1	06/09/23	JM	DD	CP			
Scale: 1:250							
Project No:	Originator:	Volume:	Level:	Type:	Role:	Category / Number:	Rev:
081453 - CUR - XX - 00 - D - TP - 05012 - P01							



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4. FOR GENERAL NOTES REFER TO DRAWING.
5. THE CONTENT OF THIS DRAWING IS FOR INDICATIVE INFORMATION ONLY AND NOT SUITABLE FOR CONSTRUCTION PURPOSES
6. BASED ON SIMPSON HAUGHS LAYOUT: 'Z1-SHP-G100-PL-B1-B5D801'

VEHICLE PROFILE:



Audi A6 (2018)	4.90m
Overall Length	2.11m
Overall Width	1.82m
Overall Body Height	1.42m
Min Body Ground Clearance	0.14m
Max Track Width	1.87m
Lock to Lock Width	2.40m
Kerb to Kerb Turning Radius	9.95m

P06	Swept paths amended	08/09/23	JM	DD
P05	Layout updated	31/05/23	MQ	DD
P04	Layout updated	20/03/23	JM	DD
P03	Layout updated	06/03/23	MQ/JM	DD
P02	E2 Layout updated	07/12/22	DD	CP

Rev:	Description:	Date:	By:	Chkd:
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Status:	PLANNING
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Project:	PLOT C3 - GREAT JACKSON STREET MANCHESTER
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Orig Title:	SWEPT PATH ANALYSIS BASEMENT LEVEL 1 LARGE CAR
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Size:	Date:	Drawn By:	Designed By:	Checked By:			
A1	20/09/22	DD	DD	DD			
Scale: 1:250							
Project No:	Originator:	Volume:	Level:	Type:	Role:	Category / Number:	Rev:

081453 - CUR - XX - 00 - D - TP - 05004 - P06

Appendix A – Trip Assignment/Distribution Study

J2W Census Analysis - Residential Trip Assignment

Local Authority	%	Dep	Arr
Manchester	28.6%		
Bolton	3.8%		
Bury	2.0%		
Oldham	2.5%		
Rochdale	1.6%		
Salford	10.9%		0.5% Red and 0.5 Pink
Stockport	5.0%		
Tameside	2.5%		
Trafford	9.4%		
Wigan	2.1%		
Merseyside	8.6%		
Yorkshire	2.5%		
Midlands	4.8%		
Lancashire	7.0%		
Blackpool	0.6%		
Cheshire East	6.3%		
Cheshire West	0.4%		
North	0.9%		
Wales	0.6%		
Total	100%		

Manchester	%	Dep	Arr
E02001045 : Manchester 001	0.11%		
E02001046 : Manchester 002	0.34%		
E02001049 : Manchester 005	0.11%		
E02001050 : Manchester 006	0.90%		
E02001052 : Manchester 008	0.11%		
E02001055 : Manchester 011	0.90%		
E02001056 : Manchester 012	0.22%		
E02001057 : Manchester 013	0.90%		
E02001059 : Manchester 015	0.11%		
E02001061 : Manchester 017	0.34%		
E02001062 : Manchester 018	1.35%		
E02001063 : Manchester 019	1.12%		
E02001064 : Manchester 020	0.34%		
E02001066 : Manchester 022	2.47%		
E02001067 : Manchester 023	0.22%		
E02001068 : Manchester 024	0.11%		
E02001069 : Manchester 025	0.45%		
E02001070 : Manchester 026	0.22%		
E02001072 : Manchester 028	0.22%		
E02001073 : Manchester 029	0.45%		
E02001074 : Manchester 030	0.22%		
E02001075 : Manchester 031	0.22%		
E02001077 : Manchester 033	0.22%		
E02001079 : Manchester 035	0.11%		
E02001082 : Manchester 038	0.45%		
E02001083 : Manchester 039	0.67%		
E02001085 : Manchester 041	0.11%		
E02001088 : Manchester 044	0.11%		
E02001089 : Manchester 045	0.45%		
E02001090 : Manchester 046	0.34%		
E02001092 : Manchester 048	0.11%		
E02001093 : Manchester 049	0.34%		
E02001095 : Manchester 051	2.02%		
E02001096 : Manchester 052	0.22%		
E02001097 : Manchester 053	0.67%		
E02006902 : Manchester 054	2.47%		
E02006912 : Manchester 055	1.79%		
E02006913 : Manchester 056	1.01%		
E02006914 : Manchester 057	0.67%		
E02006915 : Manchester 058	0.67%		
E02006916 : Manchester 059	0.22%		
E02006917 : Manchester 060	4.48%		
Total	28.59%		

Routing of Trips - Journey To Work (Dep)		
North on Gt Jackson, West on A56, North on Rbt, North on A57(M), North on A6042		1.6%
South on Gt Jackson, South on Garwood St, East on A5103, East on Mancunian Way at Cambridge St Jcn		2.8%
North on Gt Jackson, West on A56, South on Rbt, East on Mancunian Way		17.2%
East on City Road East, South on Rbt, South on Princess Rd		15.6%
North on Gt Jackson, West on A56, South-west on Rbt, South on A5067 Chorlton Road		0.8%
North on Gt Jackson, West on A56, West on Rbt, West on A56 Chester Road		13.5%
East on City Road East, North on Medlock Street		8.3%
North on Gt Jackson, West on A56, North on Rbt, North on A57(M), North on Regent Road		40.4%
Total		100.00%

Routing of Trips - Journey From Work (Arr)		
South on Deansgate, West on A56, South on Owen Street		10.6%
N/A		0.0%
West on Mancunian Way, North on Medlock St, West on City Road E, North on Gt Jackson		20.0%
North on Princess Rd, North on Rbt, West on City Road East		18.9%
North on A5067 Chorlton Road, South-East on Rbt, East on Mancunian Way, North on Melbourne		1.0%
East on A56 Chester Road, East on Rbt, East on A56, South on Gt Jackson		9.9%
South on Medlock Street, West on City Road East,		8.3%
South on Regent Rd, Stay on Mancunian Way, North on Rbt, North on Medlock St, West on City Road East		31.3%
Total		100.00%

J2W Census Analysis - Employment Trip Assignment

Local Authority	%	Dep	Arr
Manchester	19.3%		
Bolton	3.5%		
Bury	7.0%		
Oldham	6.1%		
Rochdale	5.0%		
Salford	8.5%		0.5% Red and 0.5 Pink
Stockport	10.3%		
Tameside	6.0%		
Trafford	12.2%		
Wigan	3.1%		
Merseyside	5.2%		
Yorkshire	0.8%		
Midlands	1.1%		
Lancashire	3.6%		
Blackpool	0.2%		
Cheshire East	6.1%		
Cheshire West	1.6%		
North	0.4%		
Total	100.00%		

Manchester	%	Dep	Arr
E02001045 : Manchester 001	0.33%		
E02001046 : Manchester 002	0.25%		
E02001047 : Manchester 003	0.49%		
E02001048 : Manchester 004	0.38%		
E02001049 : Manchester 005	0.49%		
E02001050 : Manchester 006	0.27%		
E02001051 : Manchester 007	0.24%		
E02001052 : Manchester 008	0.20%		
E02001053 : Manchester 009	0.25%		
E02001055 : Manchester 011	0.35%		
E02001056 : Manchester 012	0.17%		
E02001057 : Manchester 013	0.22%		
E02001059 : Manchester 015	0.31%		
E02001061 : Manchester 017	0.21%		
E02001062 : Manchester 018	0.15%		
E02001063 : Manchester 019	0.24%		
E02001064 : Manchester 020	0.17%		
E02001065 : Manchester 021	0.28%		
E02001066 : Manchester 022	0.20%		
E02001067 : Manchester 023	0.27%		
E02001068 : Manchester 024	0.14%		
E02001069 : Manchester 025	0.13%		
E02001070 : Manchester 026	0.15%		
E02001071 : Manchester 027	0.35%		
E02001072 : Manchester 028	0.47%		
E02001073 : Manchester 029	0.63%		
E02001074 : Manchester 030	0.54%		
E02001075 : Manchester 031	0.22%		
E02001076 : Manchester 032	0.32%		
E02001077 : Manchester 033	0.60%		
E02001078 : Manchester 034	0.36%		
E02001079 : Manchester 035	0.32%		
E02001080 : Manchester 036	0.40%		
E02001081 : Manchester 037	0.71%		
E02001082 : Manchester 038	0.59%		
E02001083 : Manchester 039	0.92%		
E02001084 : Manchester 040	0.42%		
E02001085 : Manchester 041	0.18%		
E02001086 : Manchester 042	0.82%		
E02001087 : Manchester 043	1.19%		
E02001088 : Manchester 044	0.11%		
E02001089 : Manchester 045	0.73%		
E02001090 : Manchester 046	0.31%		
E02001091 : Manchester 047	0.25%		
E02001092 : Manchester 048	0.28%		
E02001093 : Manchester 049	0.31%		
E02001094 : Manchester 050	0.17%		
E02001095 : Manchester 051	0.17%		
E02001096 : Manchester 052	0.11%		
E02001097 : Manchester 053	0.11%		
E02006902 : Manchester 054	0.13%		
E02006912 : Manchester 055	0.29%		
E02006913 : Manchester 056	0.13%		
E02006914 : Manchester 057	0.17%		
E02006915 : Manchester 058	0.25%		
E02006916 : Manchester 059	0.31%		
E02006917 : Manchester 060	0.56%		
Total	19.28%		

Routing of Trips - Journey From Work (Dep)		
North on Gt Jackson, West on A56, North on Rbt, North on A57(M), North on A6042		1.3%
South on Gt Jackson, South on Garwood St, East on A5103, East on Mancunian Way at Cambridge St Jcn		0.4%
North on Gt Jackson, West on A56, South on Rbt, East on Mancunian Way		28.0%
East on City Road East, South on Rbt, South on Princess Rd		15.0%
North on Gt Jackson, West on A56, South-west on Rbt, South on A5067 Chorlton Road		1.5%
North on Gt Jackson, West on A56, West on Rbt, West on A56 Chester Road		13.9%
East on City Road East, North on Medlock Street		1.1%
North on Gt Jackson, West on A56, North on Rbt, North on A57(M), North on Regent Road		38.9%
Total		100.00%

Routing of Trips - Journey To Work (Arr)		
South on Deansgate, West on A56, South on Owen Street		17.5%
N/A		0.0%
West on Mancunian Way, North on Medlock St, West on City Road E, North on Gt Jackson		28.3%
North on Princess Rd, North on Rbt, West on City Road East		15.8%
North on A5067 Chorlton Road, South-East on Rbt, East on Mancunian Way, North on Melbourne		2.0%
East on A56 Chester Road, East on Rbt, East on A56, South on Gt Jackson		12.6%
South on Medlock Street, West on City Road East,		1.1%
South on Regent Rd, Stay on Mancunian Way, North on Rbt, North on Medlock St, West on City Road East		22.6%
Total		100.00%

J2W Census Analysis - Residential Trip Assignment

place of work : 2011 super output area - middle layer	E02006917 : Manchester 060	%
E02000986 : Bolton 003	4	0.45%
E02000988 : Bolton 005	6	0.67%
E02000990 : Bolton 007	1	0.11%
E02000994 : Bolton 011	1	0.11%
E02000997 : Bolton 014	3	0.34%
E02000998 : Bolton 015	5	0.56%
E02000999 : Bolton 016	2	0.22%
E02001001 : Bolton 018	1	0.11%
E02001005 : Bolton 022	3	0.34%
E02001012 : Bolton 029	5	0.56%
E02001015 : Bolton 032	2	0.22%
E02001017 : Bolton 034	1	0.11%
E02001019 : Bury 001	3	0.34%
E02001026 : Bury 008	4	0.45%
E02001029 : Bury 011	2	0.22%
E02001031 : Bury 013	4	0.45%
E02001035 : Bury 017	1	0.11%
E02001038 : Bury 020	1	0.11%
E02001040 : Bury 022	3	0.34%
E02001045 : Manchester 001	1	0.11%
E02001046 : Manchester 002	3	0.34%
E02001049 : Manchester 005	1	0.11%
E02001050 : Manchester 006	8	0.90%
E02001052 : Manchester 008	1	0.11%
E02001055 : Manchester 011	8	0.90%
E02001056 : Manchester 012	2	0.22%
E02001057 : Manchester 013	8	0.90%
E02001059 : Manchester 015	1	0.11%
E02001061 : Manchester 017	3	0.34%
E02001062 : Manchester 018	12	1.35%
E02001063 : Manchester 019	10	1.12%
E02001064 : Manchester 020	3	0.34%
E02001066 : Manchester 022	22	2.47%
E02001067 : Manchester 023	2	0.22%
E02001068 : Manchester 024	1	0.11%
E02001069 : Manchester 025	4	0.45%
E02001070 : Manchester 026	2	0.22%
E02001072 : Manchester 028	2	0.22%
E02001073 : Manchester 029	4	0.45%
E02001074 : Manchester 030	2	0.22%
E02001075 : Manchester 031	2	0.22%
E02001077 : Manchester 033	2	0.22%
E02001079 : Manchester 035	1	0.11%
E02001082 : Manchester 038	4	0.45%
E02001083 : Manchester 039	6	0.67%
E02001085 : Manchester 041	1	0.11%

E02001088 : Manchester 044	1	0.11%
E02001089 : Manchester 045	4	0.45%
E02001090 : Manchester 046	3	0.34%
E02001092 : Manchester 048	1	0.11%
E02001093 : Manchester 049	3	0.34%
E02001095 : Manchester 051	18	2.02%
E02001096 : Manchester 052	2	0.22%
E02001097 : Manchester 053	6	0.67%
E02001099 : Oldham 002	1	0.11%
E02001106 : Oldham 009	1	0.11%
E02001107 : Oldham 010	2	0.22%
E02001110 : Oldham 013	1	0.11%
E02001111 : Oldham 014	2	0.22%
E02001112 : Oldham 015	2	0.22%
E02001113 : Oldham 016	2	0.22%
E02001114 : Oldham 017	1	0.11%
E02001121 : Oldham 024	3	0.34%
E02001123 : Oldham 026	1	0.11%
E02001124 : Oldham 027	1	0.11%
E02001125 : Oldham 028	4	0.45%
E02001126 : Oldham 029	1	0.11%
E02001133 : Rochdale 002	1	0.11%
E02001135 : Rochdale 004	1	0.11%
E02001139 : Rochdale 008	2	0.22%
E02001141 : Rochdale 010	2	0.22%
E02001146 : Rochdale 015	2	0.22%
E02001149 : Rochdale 018	1	0.11%
E02001150 : Rochdale 019	1	0.11%
E02001151 : Rochdale 020	2	0.22%
E02001152 : Rochdale 021	1	0.11%
E02001154 : Rochdale 023	1	0.11%
E02001157 : Salford 001	1	0.11%
E02001161 : Salford 005	1	0.11%
E02001162 : Salford 006	1	0.11%
E02001163 : Salford 007	1	0.11%
E02001164 : Salford 008	2	0.22%
E02001166 : Salford 010	1	0.11%
E02001168 : Salford 012	5	0.56%
E02001170 : Salford 014	1	0.11%
E02001173 : Salford 017	5	0.56%
E02001176 : Salford 020	5	0.56%
E02001177 : Salford 021	21	2.35%
E02001178 : Salford 022	10	1.12%
E02001179 : Salford 023	2	0.22%
E02001182 : Salford 026	1	0.11%
E02001183 : Salford 027	2	0.22%
E02001184 : Salford 028	34	3.81%
E02001185 : Salford 029	1	0.11%
E02001186 : Salford 030	3	0.34%
E02001192 : Stockport 006	1	0.11%

E02001193 : Stockport 007	1	0.11%
E02001195 : Stockport 009	1	0.11%
E02001197 : Stockport 011	7	0.78%
E02001198 : Stockport 012	1	0.11%
E02001199 : Stockport 013	1	0.11%
E02001200 : Stockport 014	4	0.45%
E02001202 : Stockport 016	3	0.34%
E02001205 : Stockport 019	2	0.22%
E02001206 : Stockport 020	2	0.22%
E02001208 : Stockport 022	1	0.11%
E02001209 : Stockport 023	2	0.22%
E02001211 : Stockport 025	2	0.22%
E02001213 : Stockport 027	5	0.56%
E02001219 : Stockport 033	2	0.22%
E02001222 : Stockport 036	3	0.34%
E02001223 : Stockport 037	1	0.11%
E02001225 : Stockport 039	4	0.45%
E02001227 : Stockport 041	1	0.11%
E02001228 : Stockport 042	1	0.11%
E02001230 : Tameside 002	2	0.22%
E02001235 : Tameside 007	1	0.11%
E02001236 : Tameside 008	1	0.11%
E02001238 : Tameside 010	1	0.11%
E02001241 : Tameside 013	8	0.90%
E02001245 : Tameside 017	2	0.22%
E02001246 : Tameside 018	1	0.11%
E02001247 : Tameside 019	1	0.11%
E02001248 : Tameside 020	2	0.22%
E02001249 : Tameside 021	1	0.11%
E02001253 : Tameside 025	2	0.22%
E02001256 : Tameside 028	1	0.11%
E02001257 : Tameside 029	1	0.11%
E02001259 : Trafford 001	6	0.67%
E02001260 : Trafford 002	10	1.12%
E02001261 : Trafford 003	12	1.35%
E02001262 : Trafford 004	12	1.35%
E02001264 : Trafford 006	3	0.34%
E02001266 : Trafford 008	1	0.11%
E02001267 : Trafford 009	1	0.11%
E02001269 : Trafford 011	1	0.11%
E02001270 : Trafford 012	6	0.67%
E02001271 : Trafford 013	1	0.11%
E02001272 : Trafford 014	1	0.11%
E02001273 : Trafford 015	3	0.34%
E02001275 : Trafford 017	4	0.45%
E02001276 : Trafford 018	1	0.11%
E02001277 : Trafford 019	5	0.56%
E02001278 : Trafford 020	2	0.22%
E02001281 : Trafford 023	1	0.11%
E02001282 : Trafford 024	6	0.67%

E02001283 : Trafford 025	4	0.45%
E02001284 : Trafford 026	2	0.22%
E02001285 : Trafford 027	2	0.22%
E02001289 : Wigan 003	1	0.11%
E02001291 : Wigan 005	1	0.11%
E02001292 : Wigan 006	3	0.34%
E02001296 : Wigan 010	1	0.11%
E02001298 : Wigan 012	1	0.11%
E02001300 : Wigan 014	1	0.11%
E02001302 : Wigan 016	1	0.11%
E02001304 : Wigan 018	1	0.11%
E02001308 : Wigan 022	2	0.22%
E02001316 : Wigan 030	4	0.45%
E02001320 : Wigan 034	2	0.22%
E02001324 : Wigan 038	1	0.11%
E02001331 : Knowsley 005	1	0.11%
E02001347 : Liverpool 001	2	0.22%
E02001373 : Liverpool 027	1	0.11%
E02001381 : Liverpool 035	1	0.11%
E02001393 : Liverpool 047	1	0.11%
E02001410 : St. Helens 005	2	0.22%
E02001418 : St. Helens 013	1	0.11%
E02001419 : St. Helens 014	1	0.11%
E02001420 : St. Helens 015	2	0.22%
E02001432 : Sefton 004	1	0.11%
E02001457 : Sefton 029	1	0.11%
E02001465 : Sefton 037	1	0.11%
E02001482 : Wirral 016	1	0.11%
E02001504 : Wirral 038	1	0.11%
E02001556 : Doncaster 018	1	0.11%
E02001627 : Sheffield 017	2	0.22%
E02001671 : Sheffield 061	1	0.11%
E02001863 : Birmingham 037	1	0.11%
E02001918 : Birmingham 092	1	0.11%
E02001967 : Coventry 010	2	0.22%
E02001990 : Coventry 033	1	0.11%
E02001995 : Coventry 038	1	0.11%
E02002005 : Dudley 006	1	0.11%
E02002065 : Sandwell 023	1	0.11%
E02002228 : Bradford 046	1	0.11%
E02002232 : Bradford 050	3	0.34%
E02002272 : Kirklees 002	1	0.11%
E02002303 : Kirklees 033	1	0.11%
E02002312 : Kirklees 042	1	0.11%
E02002363 : Leeds 034	1	0.11%
E02002384 : Leeds 055	1	0.11%
E02002392 : Leeds 063	1	0.11%
E02002416 : Leeds 087	2	0.22%
E02002566 : Darlington 008	1	0.11%
E02002580 : Halton 007	1	0.11%

E02002581 : Halton 008	2	0.22%
E02002582 : Halton 009	12	1.35%
E02002592 : Warrington 003	2	0.22%
E02002593 : Warrington 004	13	1.46%
E02002594 : Warrington 005	3	0.34%
E02002598 : Warrington 009	8	0.90%
E02002600 : Warrington 011	1	0.11%
E02002601 : Warrington 012	1	0.11%
E02002602 : Warrington 013	1	0.11%
E02002603 : Warrington 014	2	0.22%
E02002606 : Warrington 017	3	0.34%
E02002607 : Warrington 018	4	0.45%
E02002613 : Warrington 024	1	0.11%
002617 : Blackburn with Darwen	1	0.11%
002620 : Blackburn with Darwen	1	0.11%
002625 : Blackburn with Darwen	1	0.11%
002628 : Blackburn with Darwen	2	0.22%
002632 : Blackburn with Darwen	1	0.11%
E02002634 : Blackpool 002	1	0.11%
E02002638 : Blackpool 006	1	0.11%
E02002641 : Blackpool 009	2	0.22%
E02002644 : Blackpool 012	1	0.11%
02002663 : Kingston upon Hull 01	1	0.11%
02002764 : North Lincolnshire 01	1	0.11%
E02002915 : Herefordshire 011	1	0.11%
02002945 : Telford and Wrekin 01	1	0.11%
E02002965 : Stoke-on-Trent 015	1	0.11%
E02002983 : Stoke-on-Trent 033	1	0.11%
996 : Bath and North East Somerset	1	0.11%
E02003085 : North Somerset 021	1	0.11%
E02003276 : Luton 019	1	0.11%
E02003278 : Luton 021	1	0.11%
E02003366 : Bracknell Forest 015	1	0.11%
03427 : Windsor and Maidenhead	1	0.11%
E02003449 : Wokingham 011	1	0.11%
03803 : Cheshire West and Chester	1	0.11%
03807 : Cheshire West and Chester	1	0.11%
E02003816 : Cheshire East 027	1	0.11%
E02003830 : Cheshire East 039	1	0.11%
E02003832 : Cheshire East 043	1	0.11%
E02003837 : Cheshire East 049	1	0.11%
E02003853 : Cheshire East 001	1	0.11%
E02003855 : Cheshire East 003	3	0.34%
E02003856 : Cheshire East 004	7	0.78%
E02003858 : Cheshire East 006	7	0.78%
E02003859 : Cheshire East 007	10	1.12%
E02003860 : Cheshire East 008	1	0.11%
E02003861 : Cheshire East 009	1	0.11%
E02003862 : Cheshire East 011	1	0.11%
E02003863 : Cheshire East 010	2	0.22%

E02003864 : Cheshire East 012	11	1.23%
E02003865 : Cheshire East 013	1	0.11%
E02003866 : Cheshire East 014	1	0.11%
E02003868 : Cheshire East 016	2	0.22%
E02003869 : Cheshire East 017	1	0.11%
E02003870 : Cheshire East 018	2	0.22%
E02003873 : Cheshire East 021	1	0.11%
E02003875 : Cheshire West and Chest	1	0.11%
E02003878 : Cheshire West and Chest	1	0.11%
E02004014 : Eden 007	2	0.22%
E02004093 : High Peak 001	1	0.11%
E02004095 : High Peak 003	1	0.11%
E02004624 : Cotswold 010	1	0.11%
E02004962 : Three Rivers 007	1	0.11%
E02004966 : Three Rivers 011	1	0.11%
E02005177 : Burnley 002	1	0.11%
E02005179 : Burnley 004	1	0.11%
E02005182 : Burnley 007	2	0.22%
E02005184 : Burnley 009	1	0.11%
E02005190 : Chorley 002	1	0.11%
E02005193 : Chorley 005	2	0.22%
E02005194 : Chorley 006	1	0.11%
E02005195 : Chorley 007	1	0.11%
E02005196 : Chorley 008	5	0.56%
E02005197 : Chorley 009	1	0.11%
E02005198 : Chorley 010	2	0.22%
E02005217 : Hyndburn 006	1	0.11%
E02005220 : Hyndburn 009	1	0.11%
E02005234 : Lancaster 014	2	0.22%
E02005252 : Pendle 013	2	0.22%
E02005253 : Preston 001	1	0.11%
E02005256 : Preston 004	7	0.78%
E02005262 : Preston 010	1	0.11%
E02005267 : Preston 015	1	0.11%
E02005269 : Preston 017	1	0.11%
E02005276 : Ribble Valley 007	1	0.11%
E02005277 : Ribble Valley 008	1	0.11%
E02005281 : Rossendale 004	1	0.11%
E02005284 : Rossendale 007	1	0.11%
E02005288 : South Ribble 002	2	0.22%
E02005294 : South Ribble 008	4	0.45%
E02005298 : South Ribble 012	3	0.34%
E02005299 : South Ribble 013	1	0.11%
E02005302 : South Ribble 016	3	0.34%
E02005308 : West Lancashire 001	1	0.11%
E02005314 : West Lancashire 011	1	0.11%
E02005318 : West Lancashire 011	1	0.11%
E02005319 : Wyre 001	1	0.11%
E05397 : North West Leicestershir	1	0.11%
E02005456 : North Kesteven 004	1	0.11%

E02005495 : West Lindsey 004	2	0.22%
E02005675 : Northampton 026	1	0.11%
E02005860 : Broxtowe 011	1	0.11%
E02006016 : Shropshire 002	2	0.22%
E02006117 : West Somerset 005	1	0.11%
02006136 : East Staffordshire 00	1	0.11%
006161 : Newcastle-under-Lyme	2	0.22%
006164 : Newcastle-under-Lyme	1	0.11%
006213 : Staffordshire Moorlands	1	0.11%
E02006464 : Woking 009	1	0.11%
E02006523 : Warwick 005	1	0.11%
E02006578 : Crawley 004	3	0.34%
E02006591 : Horsham 004	1	0.11%
E02006852 : Leeds 109	1	0.11%
E02006875 : Leeds 111	4	0.45%
E02006896 : Birmingham 135	1	0.11%
E02006898 : Birmingham 137	1	0.11%
E02006902 : Manchester 054	22	2.47%
E02006912 : Manchester 055	16	1.79%
E02006913 : Manchester 056	9	1.01%
E02006914 : Manchester 057	6	0.67%
E02006915 : Manchester 058	6	0.67%
E02006916 : Manchester 059	2	0.22%
E02006917 : Manchester 060	40	4.48%
E02006933 : Liverpool 061	1	0.11%
E02006934 : Liverpool 062	5	0.56%
W02000065 : Flintshire 008	1	0.11%
W02000066 : Flintshire 009	1	0.11%
W02000070 : Flintshire 013	1	0.11%
W02000075 : Flintshire 018	1	0.11%
	892	100.00%

J2W Census Analysis - Employment Trip Assignment

usual residence : 2011 super
output area - middle layer

E02006917 : Manchester 060

%

E02000984 : Bolton 001	20	0.28%
E02000985 : Bolton 002	16	0.22%
E02000986 : Bolton 003	6	0.08%
E02000987 : Bolton 004	9	0.13%
E02000988 : Bolton 005	6	0.08%
E02000989 : Bolton 006	9	0.13%
E02000990 : Bolton 007	6	0.08%
E02000991 : Bolton 008	6	0.08%
E02000992 : Bolton 009	4	0.06%
E02000994 : Bolton 011	6	0.08%
E02000995 : Bolton 012	8	0.11%
E02000997 : Bolton 014	12	0.17%
E02001000 : Bolton 017	7	0.10%
E02001001 : Bolton 018	14	0.20%
E02001002 : Bolton 019	8	0.11%
E02001003 : Bolton 020	21	0.29%
E02001005 : Bolton 022	4	0.06%
E02001006 : Bolton 023	5	0.07%
E02001007 : Bolton 024	13	0.18%
E02001008 : Bolton 025	3	0.04%
E02001011 : Bolton 028	18	0.25%
E02001013 : Bolton 030	9	0.13%
E02001014 : Bolton 031	3	0.04%
E02001015 : Bolton 032	8	0.11%
E02001016 : Bolton 033	4	0.06%
E02001017 : Bolton 034	23	0.32%
E02001018 : Bolton 035	6	0.08%
E02001019 : Bury 001	33	0.46%
E02001020 : Bury 002	13	0.18%
E02001021 : Bury 003	21	0.29%
E02001022 : Bury 004	10	0.14%
E02001023 : Bury 005	9	0.13%
E02001024 : Bury 006	11	0.15%
E02001025 : Bury 007	12	0.17%
E02001026 : Bury 008	12	0.17%
E02001027 : Bury 009	8	0.11%
E02001028 : Bury 010	18	0.25%
E02001029 : Bury 011	8	0.11%
E02001030 : Bury 012	11	0.15%
E02001031 : Bury 013	23	0.32%
E02001032 : Bury 014	19	0.27%
E02001033 : Bury 015	5	0.07%
E02001034 : Bury 016	13	0.18%
E02001035 : Bury 017	28	0.39%
E02001036 : Bury 018	27	0.38%
E02001037 : Bury 019	38	0.53%

E02001038 : Bury 020	20	0.28%
E02001039 : Bury 021	17	0.24%
E02001040 : Bury 022	22	0.31%
E02001041 : Bury 023	30	0.42%
E02001042 : Bury 024	37	0.52%
E02001043 : Bury 025	31	0.43%
E02001044 : Bury 026	27	0.38%
E02001045 : Manchester 001	24	0.33%
E02001046 : Manchester 002	18	0.25%
E02001047 : Manchester 003	35	0.49%
E02001048 : Manchester 004	27	0.38%
E02001049 : Manchester 005	35	0.49%
E02001050 : Manchester 006	19	0.27%
E02001051 : Manchester 007	17	0.24%
E02001052 : Manchester 008	14	0.20%
E02001053 : Manchester 009	18	0.25%
E02001055 : Manchester 011	25	0.35%
E02001056 : Manchester 012	12	0.17%
E02001057 : Manchester 013	16	0.22%
E02001059 : Manchester 015	22	0.31%
E02001061 : Manchester 017	15	0.21%
E02001062 : Manchester 018	11	0.15%
E02001063 : Manchester 019	17	0.24%
E02001064 : Manchester 020	12	0.17%
E02001065 : Manchester 021	20	0.28%
E02001066 : Manchester 022	14	0.20%
E02001067 : Manchester 023	19	0.27%
E02001068 : Manchester 024	10	0.14%
E02001069 : Manchester 025	9	0.13%
E02001070 : Manchester 026	11	0.15%
E02001071 : Manchester 027	25	0.35%
E02001072 : Manchester 028	34	0.47%
E02001073 : Manchester 029	45	0.63%
E02001074 : Manchester 030	39	0.54%
E02001075 : Manchester 031	16	0.22%
E02001076 : Manchester 032	23	0.32%
E02001077 : Manchester 033	43	0.60%
E02001078 : Manchester 034	26	0.36%
E02001079 : Manchester 035	23	0.32%
E02001080 : Manchester 036	29	0.40%
E02001081 : Manchester 037	51	0.71%
E02001082 : Manchester 038	42	0.59%
E02001083 : Manchester 039	66	0.92%
E02001084 : Manchester 040	30	0.42%
E02001085 : Manchester 041	13	0.18%
E02001086 : Manchester 042	59	0.82%
E02001087 : Manchester 043	85	1.19%
E02001088 : Manchester 044	8	0.11%
E02001089 : Manchester 045	52	0.73%
E02001090 : Manchester 046	22	0.31%

E02001091 : Manchester 047	18	0.25%
E02001092 : Manchester 048	20	0.28%
E02001093 : Manchester 049	22	0.31%
E02001094 : Manchester 050	12	0.17%
E02001095 : Manchester 051	12	0.17%
E02001096 : Manchester 052	8	0.11%
E02001097 : Manchester 053	8	0.11%
E02001098 : Oldham 001	7	0.10%
E02001099 : Oldham 002	7	0.10%
E02001100 : Oldham 003	15	0.21%
E02001101 : Oldham 004	19	0.27%
E02001102 : Oldham 005	18	0.25%
E02001103 : Oldham 006	20	0.28%
E02001104 : Oldham 007	8	0.11%
E02001105 : Oldham 008	10	0.14%
E02001106 : Oldham 009	7	0.10%
E02001107 : Oldham 010	18	0.25%
E02001109 : Oldham 012	10	0.14%
E02001110 : Oldham 013	23	0.32%
E02001111 : Oldham 014	7	0.10%
E02001112 : Oldham 015	31	0.43%
E02001113 : Oldham 016	5	0.07%
E02001114 : Oldham 017	19	0.27%
E02001115 : Oldham 018	16	0.22%
E02001116 : Oldham 019	11	0.15%
E02001117 : Oldham 020	15	0.21%
E02001118 : Oldham 021	15	0.21%
E02001119 : Oldham 022	6	0.08%
E02001121 : Oldham 024	4	0.06%
E02001123 : Oldham 026	10	0.14%
E02001124 : Oldham 027	11	0.15%
E02001125 : Oldham 028	18	0.25%
E02001127 : Oldham 030	11	0.15%
E02001128 : Oldham 031	14	0.20%
E02001129 : Oldham 032	15	0.21%
E02001130 : Oldham 033	34	0.47%
E02001131 : Oldham 034	21	0.29%
E02001132 : Rochdale 001	7	0.10%
E02001133 : Rochdale 002	5	0.07%
E02001134 : Rochdale 003	6	0.08%
E02001135 : Rochdale 004	3	0.04%
E02001136 : Rochdale 005	15	0.21%
E02001137 : Rochdale 006	21	0.29%
E02001138 : Rochdale 007	23	0.32%
E02001139 : Rochdale 008	8	0.11%
E02001140 : Rochdale 009	3	0.04%
E02001141 : Rochdale 010	4	0.06%
E02001142 : Rochdale 011	24	0.33%
E02001143 : Rochdale 012	7	0.10%
E02001144 : Rochdale 013	10	0.14%

E02001145 : Rochdale 014	16	0.22%
E02001146 : Rochdale 015	6	0.08%
E02001147 : Rochdale 016	11	0.15%
E02001148 : Rochdale 017	19	0.27%
E02001149 : Rochdale 018	8	0.11%
E02001150 : Rochdale 019	14	0.20%
E02001151 : Rochdale 020	12	0.17%
E02001152 : Rochdale 021	21	0.29%
E02001153 : Rochdale 022	15	0.21%
E02001154 : Rochdale 023	25	0.35%
E02001155 : Rochdale 024	31	0.43%
E02001156 : Rochdale 025	44	0.61%
E02001157 : Salford 001	11	0.15%
E02001158 : Salford 002	9	0.13%
E02001159 : Salford 003	9	0.13%
E02001160 : Salford 004	11	0.15%
E02001161 : Salford 005	17	0.24%
E02001162 : Salford 006	9	0.13%
E02001163 : Salford 007	22	0.31%
E02001164 : Salford 008	18	0.25%
E02001165 : Salford 009	8	0.11%
E02001166 : Salford 010	10	0.14%
E02001167 : Salford 011	23	0.32%
E02001168 : Salford 012	23	0.32%
E02001169 : Salford 013	58	0.81%
E02001170 : Salford 014	62	0.86%
E02001171 : Salford 015	22	0.31%
E02001172 : Salford 016	17	0.24%
E02001173 : Salford 017	10	0.14%
E02001174 : Salford 018	27	0.38%
E02001175 : Salford 019	21	0.29%
E02001176 : Salford 020	37	0.52%
E02001177 : Salford 021	37	0.52%
E02001178 : Salford 022	30	0.42%
E02001179 : Salford 023	13	0.18%
E02001180 : Salford 024	4	0.06%
E02001181 : Salford 025	9	0.13%
E02001182 : Salford 026	11	0.15%
E02001183 : Salford 027	10	0.14%
E02001184 : Salford 028	43	0.60%
E02001185 : Salford 029	16	0.22%
E02001186 : Salford 030	9	0.13%
E02001187 : Stockport 001	20	0.28%
E02001188 : Stockport 002	24	0.33%
E02001189 : Stockport 003	23	0.32%
E02001191 : Stockport 005	9	0.13%
E02001192 : Stockport 006	34	0.47%
E02001193 : Stockport 007	14	0.20%
E02001194 : Stockport 008	30	0.42%
E02001195 : Stockport 009	9	0.13%

E02001196 : Stockport 010	11	0.15%
E02001197 : Stockport 011	20	0.28%
E02001198 : Stockport 012	10	0.14%
E02001199 : Stockport 013	33	0.46%
E02001200 : Stockport 014	9	0.13%
E02001201 : Stockport 015	9	0.13%
E02001202 : Stockport 016	8	0.11%
E02001203 : Stockport 017	12	0.17%
E02001204 : Stockport 018	29	0.40%
E02001205 : Stockport 019	7	0.10%
E02001206 : Stockport 020	9	0.13%
E02001207 : Stockport 021	10	0.14%
E02001208 : Stockport 022	25	0.35%
E02001209 : Stockport 023	15	0.21%
E02001210 : Stockport 024	8	0.11%
E02001211 : Stockport 025	21	0.29%
E02001212 : Stockport 026	10	0.14%
E02001213 : Stockport 027	17	0.24%
E02001214 : Stockport 028	34	0.47%
E02001215 : Stockport 029	13	0.18%
E02001216 : Stockport 030	33	0.46%
E02001217 : Stockport 031	10	0.14%
E02001218 : Stockport 032	29	0.40%
E02001219 : Stockport 033	5	0.07%
E02001220 : Stockport 034	23	0.32%
E02001221 : Stockport 035	13	0.18%
E02001222 : Stockport 036	11	0.15%
E02001223 : Stockport 037	28	0.39%
E02001224 : Stockport 038	10	0.14%
E02001225 : Stockport 039	19	0.27%
E02001226 : Stockport 040	25	0.35%
E02001227 : Stockport 041	30	0.42%
E02001228 : Stockport 042	32	0.45%
E02001229 : Tameside 001	23	0.32%
E02001230 : Tameside 002	19	0.27%
E02001231 : Tameside 003	9	0.13%
E02001232 : Tameside 004	14	0.20%
E02001233 : Tameside 005	13	0.18%
E02001234 : Tameside 006	9	0.13%
E02001236 : Tameside 008	6	0.08%
E02001237 : Tameside 009	7	0.10%
E02001238 : Tameside 010	17	0.24%
E02001239 : Tameside 011	16	0.22%
E02001240 : Tameside 012	15	0.21%
E02001241 : Tameside 013	14	0.20%
E02001242 : Tameside 014	26	0.36%
E02001243 : Tameside 015	22	0.31%
E02001244 : Tameside 016	10	0.14%
E02001245 : Tameside 017	9	0.13%
E02001246 : Tameside 018	8	0.11%

E02001247 : Tameside 019	28	0.39%
E02001248 : Tameside 020	15	0.21%
E02001249 : Tameside 021	15	0.21%
E02001250 : Tameside 022	13	0.18%
E02001251 : Tameside 023	15	0.21%
E02001252 : Tameside 024	31	0.43%
E02001253 : Tameside 025	16	0.22%
E02001254 : Tameside 026	7	0.10%
E02001255 : Tameside 027	3	0.04%
E02001256 : Tameside 028	15	0.21%
E02001257 : Tameside 029	12	0.17%
E02001258 : Tameside 030	23	0.32%
E02001259 : Trafford 001	15	0.21%
E02001260 : Trafford 002	22	0.31%
E02001261 : Trafford 003	32	0.45%
E02001262 : Trafford 004	19	0.27%
E02001263 : Trafford 005	37	0.52%
E02001264 : Trafford 006	27	0.38%
E02001265 : Trafford 007	23	0.32%
E02001266 : Trafford 008	14	0.20%
E02001267 : Trafford 009	32	0.45%
E02001268 : Trafford 010	22	0.31%
E02001269 : Trafford 011	29	0.40%
E02001270 : Trafford 012	30	0.42%
E02001271 : Trafford 013	27	0.38%
E02001272 : Trafford 014	30	0.42%
E02001273 : Trafford 015	46	0.64%
E02001274 : Trafford 016	32	0.45%
E02001275 : Trafford 017	15	0.21%
E02001276 : Trafford 018	31	0.43%
E02001277 : Trafford 019	23	0.32%
E02001278 : Trafford 020	30	0.42%
E02001279 : Trafford 021	33	0.46%
E02001280 : Trafford 022	17	0.24%
E02001281 : Trafford 023	24	0.33%
E02001282 : Trafford 024	33	0.46%
E02001283 : Trafford 025	44	0.61%
E02001284 : Trafford 026	77	1.07%
E02001285 : Trafford 027	62	0.86%
E02001286 : Trafford 028	49	0.68%
E02001288 : Wigan 002	6	0.08%
E02001289 : Wigan 003	5	0.07%
E02001290 : Wigan 004	6	0.08%
E02001291 : Wigan 005	3	0.04%
E02001292 : Wigan 006	4	0.06%
E02001293 : Wigan 007	3	0.04%
E02001294 : Wigan 008	3	0.04%
E02001299 : Wigan 013	4	0.06%
E02001301 : Wigan 015	3	0.04%
E02001303 : Wigan 017	4	0.06%

E02001304 : Wigan 018	6	0.08%
E02001305 : Wigan 019	4	0.06%
E02001307 : Wigan 021	9	0.13%
E02001308 : Wigan 022	8	0.11%
E02001309 : Wigan 023	7	0.10%
E02001311 : Wigan 025	23	0.32%
E02001312 : Wigan 026	4	0.06%
E02001313 : Wigan 027	3	0.04%
E02001314 : Wigan 028	26	0.36%
E02001315 : Wigan 029	24	0.33%
E02001317 : Wigan 031	14	0.20%
E02001318 : Wigan 032	3	0.04%
E02001319 : Wigan 033	3	0.04%
E02001320 : Wigan 034	5	0.07%
E02001321 : Wigan 035	8	0.11%
E02001322 : Wigan 036	3	0.04%
E02001323 : Wigan 037	8	0.11%
E02001324 : Wigan 038	7	0.10%
E02001325 : Wigan 039	4	0.06%
E02001326 : Wigan 040	9	0.13%
E02001328 : Knowsley 002	3	0.04%
E02001334 : Knowsley 008	3	0.04%
E02001348 : Liverpool 002	3	0.04%
E02001374 : Liverpool 028	5	0.07%
E02001381 : Liverpool 035	3	0.04%
E02001382 : Liverpool 036	3	0.04%
E02001387 : Liverpool 041	3	0.04%
E02001393 : Liverpool 047	3	0.04%
E02001394 : Liverpool 048	4	0.06%
E02001395 : Liverpool 049	5	0.07%
E02001397 : Liverpool 051	4	0.06%
E02001399 : Liverpool 053	4	0.06%
E02001401 : Liverpool 055	3	0.04%
E02001406 : St. Helens 001	6	0.08%
E02001408 : St. Helens 003	3	0.04%
E02001409 : St. Helens 004	4	0.06%
E02001411 : St. Helens 006	4	0.06%
E02001415 : St. Helens 010	3	0.04%
E02001417 : St. Helens 012	4	0.06%
E02001418 : St. Helens 013	3	0.04%
E02001420 : St. Helens 015	5	0.07%
E02001424 : St. Helens 019	6	0.08%
E02001428 : St. Helens 023	4	0.06%
E02001437 : Sefton 009	3	0.04%
E02001439 : Sefton 011	3	0.04%
E02001441 : Sefton 013	3	0.04%
E02001450 : Sefton 022	5	0.07%
E02001453 : Sefton 025	4	0.06%
E02001456 : Sefton 028	4	0.06%
E02001457 : Sefton 029	3	0.04%

E02001481 : Wirral 015	3	0.04%
E02001485 : Wirral 019	3	0.04%
E02001486 : Wirral 020	3	0.04%
E02001494 : Wirral 028	5	0.07%
E02001532 : Barnsley 024	5	0.07%
E02001634 : Sheffield 024	4	0.06%
E02002270 : Calderdale 027	10	0.14%
E02002306 : Kirklees 036	7	0.10%
E02002322 : Kirklees 052	4	0.06%
E02002323 : Kirklees 053	6	0.08%
E02002325 : Kirklees 055	6	0.08%
E02002329 : Kirklees 059	6	0.08%
E02002345 : Leeds 016	3	0.04%
E02002360 : Leeds 031	4	0.06%
E02002385 : Leeds 056	3	0.04%
E02002575 : Halton 002	3	0.04%
E02002582 : Halton 009	11	0.15%
E02002585 : Halton 012	4	0.06%
E02002590 : Warrington 001	14	0.20%
E02002591 : Warrington 002	5	0.07%
E02002592 : Warrington 003	6	0.08%
E02002593 : Warrington 004	4	0.06%
E02002594 : Warrington 005	6	0.08%
E02002596 : Warrington 007	10	0.14%
E02002598 : Warrington 009	16	0.22%
E02002599 : Warrington 010	19	0.27%
E02002601 : Warrington 012	3	0.04%
E02002604 : Warrington 015	3	0.04%
E02002605 : Warrington 016	5	0.07%
E02002606 : Warrington 017	6	0.08%
E02002607 : Warrington 018	9	0.13%
E02002608 : Warrington 019	3	0.04%
E02002610 : Warrington 021	65	0.91%
E02002611 : Warrington 022	12	0.17%
E02002612 : Warrington 023	16	0.22%
E02002613 : Warrington 024	13	0.18%
E02002614 : Warrington 025	18	0.25%
J2002619 : Blackburn with Darwen 01	3	0.04%
J2002624 : Blackburn with Darwen 02	6	0.08%
J2002627 : Blackburn with Darwen 03	3	0.04%
J2002632 : Blackburn with Darwen 04	7	0.10%
003794 : Cheshire West and Chester	8	0.11%
003795 : Cheshire West and Chester	4	0.06%
003797 : Cheshire West and Chester	4	0.06%
003800 : Cheshire West and Chester	5	0.07%
003804 : Cheshire West and Chester	4	0.06%
003806 : Cheshire West and Chester	5	0.07%
003809 : Cheshire West and Chester	4	0.06%
E02003811 : Cheshire East 022	13	0.18%
E02003813 : Cheshire East 024	4	0.06%

E02003814 : Cheshire East 025	4	0.06%
E02003816 : Cheshire East 027	6	0.08%
E02003817 : Cheshire East 028	3	0.04%
E02003818 : Cheshire East 029	3	0.04%
E02003820 : Cheshire East 031	3	0.04%
E02003821 : Cheshire East 032	3	0.04%
E02003822 : Cheshire East 033	5	0.07%
E02003831 : Cheshire East 041	5	0.07%
E02003836 : Cheshire East 047	3	0.04%
E02003837 : Cheshire East 049	4	0.06%
E02003840 : Cheshire East 051	5	0.07%
003841 : Cheshire West and Chester	4	0.06%
E02003853 : Cheshire East 001	5	0.07%
E02003854 : Cheshire East 002	11	0.15%
E02003855 : Cheshire East 003	9	0.13%
E02003856 : Cheshire East 004	23	0.32%
E02003857 : Cheshire East 005	30	0.42%
E02003858 : Cheshire East 006	47	0.66%
E02003859 : Cheshire East 007	36	0.50%
E02003860 : Cheshire East 008	28	0.39%
E02003861 : Cheshire East 009	17	0.24%
E02003862 : Cheshire East 011	19	0.27%
E02003863 : Cheshire East 010	32	0.45%
E02003864 : Cheshire East 012	35	0.49%
E02003865 : Cheshire East 013	16	0.22%
E02003866 : Cheshire East 014	13	0.18%
E02003867 : Cheshire East 015	7	0.10%
E02003868 : Cheshire East 016	8	0.11%
E02003869 : Cheshire East 017	9	0.13%
E02003870 : Cheshire East 018	11	0.15%
E02003872 : Cheshire East 020	22	0.31%
003874 : Cheshire West and Chester	4	0.06%
003875 : Cheshire West and Chester	12	0.17%
003877 : Cheshire West and Chester	6	0.08%
003878 : Cheshire West and Chester	10	0.14%
003880 : Cheshire West and Chester	4	0.06%
003882 : Cheshire West and Chester	4	0.06%
003883 : Cheshire West and Chester	19	0.27%
003884 : Cheshire West and Chester	8	0.11%
003885 : Cheshire West and Chester	5	0.07%
003891 : Cheshire West and Chester	5	0.07%
E02004093 : High Peak 001	15	0.21%
E02004094 : High Peak 002	5	0.07%
E02004095 : High Peak 003	9	0.13%
E02004096 : High Peak 004	20	0.28%
E02004097 : High Peak 005	4	0.06%
E02004098 : High Peak 006	8	0.11%
E02004100 : High Peak 008	11	0.15%
E02005176 : Burnley 001	3	0.04%
E02005190 : Chorley 002	3	0.04%

E02005191 : Chorley 003	6	0.08%
E02005192 : Chorley 004	11	0.15%
E02005193 : Chorley 005	6	0.08%
E02005194 : Chorley 006	3	0.04%
E02005195 : Chorley 007	4	0.06%
E02005199 : Chorley 011	4	0.06%
E02005200 : Chorley 012	3	0.04%
E02005201 : Chorley 013	3	0.04%
E02005202 : Chorley 014	5	0.07%
E02005203 : Fylde 001	3	0.04%
E02005207 : Fylde 005	3	0.04%
E02005210 : Fylde 008	4	0.06%
E02005211 : Fylde 009	3	0.04%
E02005212 : Hyndburn 001	6	0.08%
E02005215 : Hyndburn 004	4	0.06%
E02005216 : Hyndburn 005	4	0.06%
E02005219 : Hyndburn 008	4	0.06%
E02005238 : Lancaster 018	3	0.04%
E02005241 : Pendle 002	3	0.04%
E02005247 : Pendle 008	8	0.11%
E02005249 : Pendle 010	3	0.04%
E02005255 : Preston 003	3	0.04%
E02005256 : Preston 004	3	0.04%
E02005258 : Preston 006	5	0.07%
E02005262 : Preston 010	4	0.06%
E02005264 : Preston 012	3	0.04%
E02005270 : Ribble Valley 001	7	0.10%
E02005274 : Ribble Valley 005	6	0.08%
E02005276 : Ribble Valley 007	5	0.07%
E02005277 : Ribble Valley 008	5	0.07%
E02005278 : Rossendale 001	16	0.22%
E02005279 : Rossendale 002	7	0.10%
E02005280 : Rossendale 003	8	0.11%
E02005281 : Rossendale 004	5	0.07%
E02005284 : Rossendale 007	12	0.17%
E02005285 : Rossendale 008	8	0.11%
E02005286 : Rossendale 009	7	0.10%
E02005288 : South Ribble 002	3	0.04%
E02005290 : South Ribble 004	3	0.04%
E02005294 : South Ribble 008	4	0.06%
E02005295 : South Ribble 009	3	0.04%
E02005302 : South Ribble 016	3	0.04%
E02005304 : West Lancashire 001	4	0.06%
E02005308 : West Lancashire 005	7	0.10%
E02005310 : West Lancashire 007	3	0.04%
E02005318 : West Lancashire 015	3	0.04%
E02005324 : Wyre 006	3	0.04%
E02005325 : Wyre 007	5	0.07%
E02005326 : Wyre 008	4	0.06%
E02005744 : Craven 003	3	0.04%

E02005748 : Craven 007	4	0.06%
E02006021 : Shropshire 010	3	0.04%
E02006176 : South Staffordshire 003	4	0.06%
E02006860 : Oldham 035	10	0.14%
E02006872 : High Peak 013	3	0.04%
E02006881 : Burnley 014	4	0.06%
E02006884 : Rossendale 010	9	0.13%
E02006902 : Manchester 054	9	0.13%
E02006912 : Manchester 055	21	0.29%
E02006913 : Manchester 056	9	0.13%
E02006914 : Manchester 057	12	0.17%
E02006915 : Manchester 058	18	0.25%
E02006916 : Manchester 059	22	0.31%
E02006917 : Manchester 060	40	0.56%
W02000073 : Flintshire 016	3	0.04%
W02000420 : Wrexham 020	3	0.04%
	7,168	100.00%

Appendix B – TfGM Detailed PIC Data

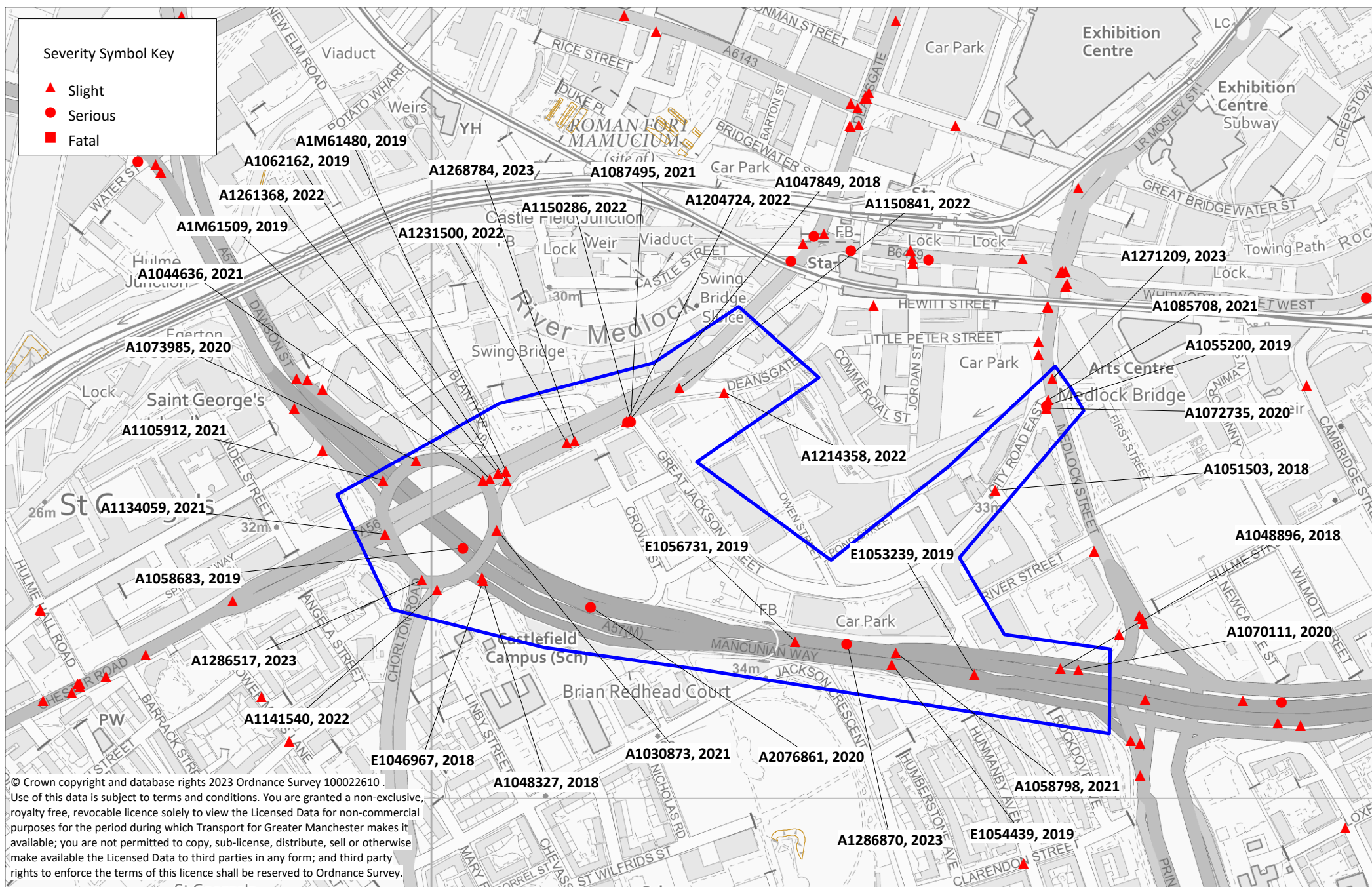
TRANSPORT FOR GREATER MANCHESTER



Traffic Accident Data for

Curtins Consulting

**Reported Road Injury Collisions in Specified Area of
Deansgate Interchange Roundabout, Manchester
01/08/2018 to 31/07/2023**



TRANSPORT FOR GREATER MANCHESTER



Reported Road Injury Accidents in Specified Area of Deansgate Interchange Roundabout, Manchester 01/08/2018 to 31/07/2023

Injury Accidents	Aug - Dec 2018	2019	2020	2021	2022	Jan - Jul 2023	Total
Fatal	0	0	0	0	0	0	0
Serious	1	2	1	1	0	1	6
Slight	4	6	3	6	7	3	29
Total	5	8	4	7	7	4	35

Standard Totals Report : Reported Road Injury Accidents in Specified Area of Deansgate Interchange Roundabout, Manchester, 01/08/2018 to 31/07/2023

Accidents

Serious	6
Slight	29
Total Accidents	35

Casualties By Age and Sex

Severity	0 - 15	16 - 59	60 - 69	70 +	Total
Serious					
Male	0	3	0	0	3
Female	0	2	1	0	3
Total	0	5	1	0	6
Slight					
Male	0	24	0	1	25
Female	1	11	0	0	12
Total	1	35	0	1	37
Total Casualties	1	40	1	1	43

Casualties By Age and Class

Severity	0 - 15	16 - 59	60 - 69	70 +	Total
Serious					
Driver or rider	0	5	0	0	5
Pedestrian	0	0	1	0	1
Total	0	5	1	0	6
Slight					
Driver or rider	0	29	0	1	30
Veh or pillion pas	1	4	0	0	5
Pedestrian	0	2	0	0	2
Total	1	35	0	1	37
Total Casualties	1	40	1	1	43

Cyclist (Rider and Pillion) and Pedestrian Casualties By Age

Severity	0 - 15	16 - 59	60 - 69	70 +	Total
Serious	0	1	1	0	2
Slight	0	9	0	0	9
Total Casualties	0	10	1	0	11

Casualties Broken Down By Type

Car (Driver)	0-15	16+	Total
Serious	0	2	2
Slight	0	21	21
Total	0	23	23
Car (Passenger)	0-15	16+	Total
Slight	1	4	5
Total	1	4	5
Pedestrian	0-15	16+	Total
Serious	0	1	1
Slight	0	2	2
Total	0	3	3
TWPV (Rider)	0-15	16+	Total
Serious	0	1	1
Slight	0	1	1
Total	0	2	2
Cyclist (Rider)	0-15	16+	Total
Serious	0	1	1
Slight	0	7	7
Total	0	8	8
Other (Driver)	0-15	16+	Total
Serious	0	1	1
Slight	0	1	1
Total	0	2	2
Total	1	42	43

Standard Report - Reported Road Injury Accidents in Specified Area of Deansgate Interchange Roundabout, Manchester, 01/08/2018 to 31/07/2023

This printout has been generated from the Transport for Greater Manchester's database of road traffic accident records using the query system, GMAXI.

The road traffic accident database contains STATS19 data supplied by Greater Manchester Police and further validated by the Highways Forecasting and Analytical Services (HFAS) section of Transport for Greater Manchester. It is maintained by HFAS on behalf of the ten District Councils in Greater Manchester.

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Accident Reference Number: A1105912				Day: Monday		Contributory Factors			Date: 04/10/2021					Time: 08:00				
Place Reported: Else				District: Manchester														
Location: Mancunian Way 142 metres SE Of Dawson Street																		
Description: Both Vehs Trav N Mancunian Way. V1 Skidded & O/s Collides With N/s Of V2. V1 Fts																		
Locational Details				Conditions		Accident Details												
Road: A57(M)		Junction Details:		Road Surface: Dry		Severity:		Slight										
OSGR: 382952 397319		Junction Control: n/a		Light Conditions: Light		No. of Vehicles: 2												
Speed Limit: 50		Ped Crossing:		Weather Conditions: Fine		No. of Casualties: 1												
Accident Reference Number: A1134059				Day: Friday		Contributory Factors			Date: 24/09/2021					Time: 10:19				
Place Reported: Scene				District: Manchester														
Location: Chester Road Roundabout at junction with Chester Road																		
Description: V1 Trav Nw On Chester Rd Rdabt From A57(M) At Speed. V1 Trav Ne Chester Rd. Driver Of V1 Continues Thru Red Ats Across Jct Fails To Look & Front Hits Front Of V2																		
Locational Details				Conditions		Accident Details												
Road: A56/A56		Junction Details: Rdbt		Road Surface: Wet		Severity:		Slight										
OSGR: 382954 397265		Junction Control: TS		Light Conditions: Light		No. of Vehicles: 2												
Speed Limit: 30		Ped Crossing: TSX		Weather Conditions: Fine		No. of Casualties: 1												

Accident Reference Number: A1073985				Day: Saturday		Contributory Factors			Date: 01/08/2020				Time: 18:37													
Place Reported: Else				District: Manchester		Factor			Conf			Ref			Vehicle Details				Casualty Details							
Location: Chester Road at junction with Egerton Street															Type				Move From To Skid				Type Sex Age Sev Pupil			
Description: V1 Trav Se Egerton St, V2 Waiting For Lights Ahead To Change At Chester Rd Rdabt & It Is Hit From Behind By V1. Driver Of V1 Refuses To Exchange Details. V1 Fts															Car				Ahead NW SE							
															Car				Waitg NW SE				1 Drv M 51 Slight			
Locational Details				Conditions		Accident Details																				
Road: A57/A56				Junction Details: Rdbt		Road Surface: Dry			Severity: Slight										2 Pas F 44 Slight							
OSGR: 382985 397339				Junction Control: GW		Light Conditions: Light			No. of Vehicles: 2										3 Pas F 19 Slight							
Speed Limit: 30				Ped Crossing:		Weather Conditions: Fine			No. of Casualties: 4										4 Pas F 14 Slight							

Accident Reference Number: A1286517				Day: Sunday		Contributory Factors			Date: 12/03/2023				Time: 17:25													
Place Reported: Self				District: Manchester		Factor			Conf			Ref			Vehicle Details				Casualty Details							
Location: Deansgate Interchange Roundabout at junction with Chorlton Road															Type				Move From To Skid				Type Sex Age Sev Pupil			
Description: Both Vehs Trav W Deansgate Interchange Roundabout, V2 Staty At Ats, V1 Fails To Stop & Front Collides With Rear Of V2. V1 Fts															Taxi				Ahead E W							
															Car				Waitg E W				1 Drv M 24 Slight Un			
Locational Details				Conditions		Accident Details																				
Road: A56/A5067				Junction Details: Rdbt		Road Surface: Wet			Severity: Slight																	
OSGR: 382991 397219				Junction Control: TS		Light Conditions: Light			No. of Vehicles: 2																	
Speed Limit: 30				Ped Crossing:		Weather Conditions: Fine			No. of Casualties: 1																	

Accident Reference Number: A1141540				Day: Monday		Contributory Factors			Date: 03/01/2022				Time: 00:30													
Place Reported: Self				District: Manchester		Factor			Conf			Ref			Vehicle Details				Casualty Details							
Location: Chorlton Road at junction with Deansgate Interchange															Type				Move From To Skid				Type Sex Age Sev Pupil			
Description: Both Vehs Trav W Deansgate Interchange. As V1 Exits Onto Chorlton Rd, V2 Reverses E-bd Towards V1 & Rear Collides With Front Of V1. V2 Fts															Car				Ahead E S				1 Drv M 20 Slight Un			
															Car				Revlg W E							
Locational Details				Conditions		Accident Details																				
Road: A5067/A56				Junction Details: Rdbt		Road Surface: Dry			Severity: Slight																	
OSGR: 383006 397209				Junction Control: GW		Light Conditions: Dark			No. of Vehicles: 2																	
Speed Limit: 30				Ped Crossing:		Weather Conditions: Fine			No. of Casualties: 1																	

Accident Reference Number: A1058683				Day: Monday		Contributory Factors			Date: 03/06/2019				Time: 11:30													
Place Reported: Scene				District: Manchester		Factor			Conf			Ref			Vehicle Details				Casualty Details							
Location: Mancunian Way 250 metres SE Of Dawson Street															Type				Move From To Skid				Type Sex Age Sev Pupil			
Description: V1 (Motorcycle) Trav Nw Mancunian Way & Collides With Central Reservation, Causeing Rider To Be Thrown Off Motorbike															m/s				Ahead SE NW				1 Rid M 26 Serious			
Locational Details				Conditions		Accident Details																				
Road: A57(M)				Junction Details:		Road Surface: Dry			Severity: Serious																	
OSGR: 383032 397251				Junction Control: n/a		Light Conditions: Light			No. of Vehicles: 1																	
Speed Limit: 50				Ped Crossing:		Weather Conditions: Fine			No. of Casualties: 1																	

Accident Reference Number: A1048327				Day: Sunday		Contributory Factors			Date: 16/09/2018				Time: 15:30			
Place Reported: Scene				District: Manchester												
Location: Mancunian Way at junction with Chester Raod						Factor Conf Ref										
Description: All Vehs Trav Nw Mancunian Way V2 & V3 Stationary. V1 Collides Rear V2 Pushing Same Into Rear V3.						DDisIn Poss V1										
						DTgate Poss V1										
									Type Move From To Skid							

Accident Reference Number: A1030873				Day: Friday		Contributory Factors			Date: 12/03/2021				Time: 21:30				
Place Reported: Else				District: Manchester		Factor Conf Ref			Vehicle Details				Casualty Details				
Location: Chester Road Roundabout at junction with Mancunian Way W-bd On-slip Road										Type Move From To Skid				Type Sex Age Sev Pupil			
Description: Both Vehs Trav Sw Chester Rd Enter Rdabt, As V2 (Pedal Cycle) Exits Rdabt Onto W-bd Mancunian Way On-slip, V1 In Middle Lane Also Exits The Same & Collides Front Of V2										Car p/c Ahead NE SE				1 Rid M 30 Slight Un			
Locational Details				Conditions		Accident Details											
Road:		A56/A57(M)		Junction Details: Rdbt		Road Surface: Wet		Severity: Slight									
OSGR:		383066 397269		Junction Control: GW		Light Conditions: Dark		No. of Vehicles: 2									
Speed Limit:		30		Ped Crossing:		Weather Conditions: R&W		No. of Casualties: 1									
Accident Reference Number: A1261368				Day: Saturday		Contributory Factors			Date: 31/12/2022				Time: 19:10				
Place Reported: Self				District: Manchester		Factor Conf Ref			Vehicle Details				Casualty Details				
Location: Chester Road 10 metres NE Of Deansgate Interchange Roundabout										Type Move From To Skid				Type Sex Age Sev Pupil			
Description: Both Vehs Trav Sw Chester Rd Appr Ats, N/s Of V1 Collides With Front Of V2										Car Car Ahead NE SW				1 Drv M 48 Slight Un			
Locational Details				Conditions		Accident Details											
Road:		A56/A56		Junction Details: Rdbt		Road Surface: Dry		Severity: Slight									
OSGR:		383067 397326		Junction Control: TS		Light Conditions: Dark		No. of Vehicles: 2									
Speed Limit:		30		Ped Crossing: TSX		Weather Conditions: Fine		No. of Casualties: 1									
Accident Reference Number: A1M61480				Day: Wednesday		Contributory Factors			Date: 04/09/2019				Time: 09:20				
Place Reported: Else				District: Manchester		Factor Conf Ref			Vehicle Details				Casualty Details				
Location: Chester Road 20 metres NE Of Mancunian Way Roundabout										Type Move From To Skid				Type Sex Age Sev Pupil			
Description: Both Vehs Trav Sw Chester Rd, V1 (Motorcycle) Stationary At Lights But V2 (LGV) Infront Reverses Into V1. V2 Fts										m/s LGV Waitg NE SW				1 Rid M 36 Slight			
Locational Details				Conditions		Accident Details											
Road:		A56/A56		Junction Details: Slip		Road Surface: Dry		Severity: Slight									
OSGR:		383075 397328		Junction Control: TS		Light Conditions: Light		No. of Vehicles: 2									
Speed Limit:		30		Ped Crossing: TSX		Weather Conditions: Fine		No. of Casualties: 1									
Accident Reference Number: A1062162				Day: Saturday		Contributory Factors			Date: 14/09/2019				Time: 18:20				
Place Reported: Else				District: Manchester		Factor Conf Ref			Vehicle Details				Casualty Details				
Location: Chester Road (From Bridgewater Viaduct) at junction with Chester Road Roundabout										Type Move From To Skid				Type Sex Age Sev Pupil			
Description: Both Vehs Trav Sw Chester Road On Filter Lane Section, V2 Stationary In Standing Traffic, V1 Hits Rear Of V2. V1 Fts										Car Car chlnR NE SW				1 Drv F 46 Slight			
Locational Details				Conditions		Accident Details											
Road:		A56/A56		Junction Details: Rdbt		Road Surface: Dry		Severity: Slight									
OSGR:		383076 397318		Junction Control: TS		Light Conditions: Light		No. of Vehicles: 2									
Speed Limit:		30		Ped Crossing: TSX		Weather Conditions: Fine		No. of Casualties: 1									

Accident Reference Number: A1231500						Day: Sunday			Contributory Factors			Date: 02/10/2022					Time: 08:35							
Place Reported: Self						District: Manchester						Factor Conf Ref			Vehicle Details					Casualty Details				
Location: Chester Road 90 metres NE Of Deansgate Interchange Roundabout															Type	Move	From	To	Skid	Type	Sex	Age	Sev	Pupil
Description: Both Vehs Trav Sw Chester Rd. Front Of V1 Collides With O/s Of V2. V1 Fts															Car	Ahead	NE	SW						
Road: A56						Junction Details:						Road Surface: Dry						Severity: Slight						
OSGR: 383136 397356						Junction Control: n/a						Light Conditions: Light						No. of Vehicles: 2						
Speed Limit: 30						Ped Crossing:						Weather Conditions: Fine						No. of Casualties: 1						
Accident Reference Number: A1268784						Day: Thursday						Contributory Factors			Date: 12/01/2023					Time: 17:30				
Place Reported: Self						District: Manchester						Factor Conf Ref			Vehicle Details					Casualty Details				
Location: Chester Road 60 metres SW Of Great Jackson Street															Type	Move	From	To	Skid	Type	Sex	Age	Sev	Pupil
Description: Both Vehs Trav Sw Chester Rd Slow For Traffic, Front Of V1 Collides With Front Of V2															Car	Stopg	NE	SW						
Road: A56						Junction Details:						Road Surface: Dry						Severity: Slight						
OSGR: 383144 397358						Junction Control: n/a						Light Conditions: Dark						No. of Vehicles: 2						
Speed Limit: 30						Ped Crossing:						Weather Conditions: Fine						No. of Casualties: 1						
Accident Reference Number: A2076861						Day: Tuesday						Contributory Factors			Date: 03/11/2020					Time: 17:40				
Place Reported: Scene						District: Manchester						Factor Conf Ref			Vehicle Details					Casualty Details				
Location: Mancunian Way 95 metres W Of A57 (M) On-slip Road															Type	Move	From	To	Skid	Type	Sex	Age	Sev	Pupil
Description: All Vehs Trav E-bd Mancunian Way, V1 In Lane 1, V3 Ahead Of V1. V2 In Lane2. V1 Changes Lane To Right, V2 Collides With Rear Of V1. V1 Then Collides With O/s Of V3												DFLook VLike V1			Car	chInR	W	E		1 Drv	F	34	Serious	
												DSign Poss V1			Car	Ahead	W	E						
												DSpee Poss V2			Car	Waitg	W	E						
Road: A57(M)						Junction Details:						Road Surface: Wet						Severity: Serious						
OSGR: 383160 397192						Junction Control: n/a						Light Conditions: Dark						No. of Vehicles: 3						
Speed Limit: 50						Ped Crossing:						Weather Conditions: Fine						No. of Casualties: 1						
Accident Reference Number: A1204724						Day: Thursday						Contributory Factors			Date: 14/07/2022					Time: 08:40				
Place Reported: Self						District: Manchester						Factor Conf Ref			Vehicle Details					Casualty Details				
Location: Chester Road at junction with Great Jackson Street															Type	Move	From	To	Skid	Type	Sex	Age	Sev	Pupil
Description: V2 (Pedal Cycle) Trav Sw Chester Rd. V1 Trav Nw Great Jackson St, Fails To Give Way At Jct, Front Of V1 Collides With N/s Of V2															Car	Ahead	SE	NW						
															p/c	Ahead	NE	SW		1 Rid	F	30	Slight	Un
Road: A56/U						Junction Details: Tjun						Road Surface: Dry						Severity: Slight						
OSGR: 383196 397378						Junction Control: GW						Light Conditions: Light						No. of Vehicles: 2						
Speed Limit: 30						Ped Crossing:						Weather Conditions: Fine						No. of Casualties: 1						

Accident Reference Number: A1047849				Day: Friday		Contributory Factors			Date: 24/08/2018				Time: 17:29						
Place Reported: Else				District: Manchester		Factor Conf Ref			Vehicle Details				Casualty Details						
Location: Chester Road at junction with Great Jackson Street										Type	Move	From	To	Skid	Type	Sex	Age	Sev	Pupil
Description: V1 Trav Nw Great Jackson St Turns Left & Collides With V2 (Pedal Cycle) Trav Ne Chester Rd In Cycleway.										Car p/c	wtgTL Ahead	SE SW	SW NE		1 Rid	F	50	Serious	
Locational Details				Conditions		Accident Details													
Road:	A56/U		Junction Details:		Tjun	Road Surface:	Dry	Severity:	Serious										
OSGR:	383197	397377	Junction Control:		GW	Light Conditions:	Light	No. of Vehicles:	2										
Speed Limit:	30		Ped Crossing:			Weather Conditions:	Fine	No. of Casualties:	1										

Accident Reference Number: A1087495				Day: Tuesday		Contributory Factors			Date: 14/09/2021				Time: 09:40						
Place Reported: Else				District: Manchester		Factor Conf Ref			Vehicle Details				Casualty Details						
Location: Great Jackson Street 5 metres SE Of Chester Road										Type	Move	From	To	Skid	Type	Sex	Age	Sev	Pupil
Description: V1 (Electric Scooter) Trav Ne Chester Rd In Cycle Lane Across Great Jackson St. V2 (Taxi) Trav Nw Great Jackson St & Front Collides With Front Of V1										DCPav	VLike	V1			1 Drv	M	18	Serious	Un
Locational Details				Conditions		Accident Details													
Road:	U/A56		Junction Details:		Tjun	Road Surface:	Dry	Severity:	Serious										
OSGR:	383200	397378	Junction Control:		GW	Light Conditions:	Light	No. of Vehicles:	2										
Speed Limit:	30		Ped Crossing:			Weather Conditions:	Fine	No. of Casualties:	1										

Accident Reference Number: A1150286				Day: Friday		Contributory Factors			Date: 04/03/2022				Time: 10:45						
Place Reported: Scene				District: Manchester		Factor Conf Ref			Vehicle Details				Casualty Details						
Location: Great Jackson Street at junction with Chester Road										Type	Move	From	To	Skid	Type	Sex	Age	Sev	Pupil
Description: V1 (Taxi) Trav Nw Great Jackson St Twds Chester Rd. V2 (Pedal Cycle) Trav E Chester Rd In Cycle Lane. Drivers Of Both Vehs Fail To See & Front Of V1 Hits N/s Of V2										DFLook	VLike	V1			1 Rid	M	29	Slight	Un
Locational Details				Conditions		Accident Details													
Road:	U/A56		Junction Details:		Slip	Road Surface:	Dry	Severity:	Slight										
OSGR:	383200	397379	Junction Control:		GW	Light Conditions:	Light	No. of Vehicles:	2										
Speed Limit:	30		Ped Crossing:			Weather Conditions:	Fine	No. of Casualties:	1										

Accident Reference Number: A1150841				Day: Thursday		Contributory Factors			Date: 17/02/2022				Time: 16:00						
Place Reported: Self				District: Manchester		Factor Conf Ref			Vehicle Details				Casualty Details						
Location: Chester Road at junction with Deansgate										Type	Move	From	To	Skid	Type	Sex	Age	Sev	Pupil
Description: V2 (Pedal Cycle) Trav Sw Chester Rd. V1 Trav W Deansgate. V1 Pulls Out At Jct & Front Collides With N/s Of V2. V1 Fts										Car p/c	Waitg Ahead	E NE	W SW		1 Rid	F	56	Slight	Un
Locational Details				Conditions		Accident Details													
Road:	A56/U		Junction Details:		Tjun	Road Surface:	Dry	Severity:	Slight										
OSGR:	383249	397411	Junction Control:		GW	Light Conditions:	Light	No. of Vehicles:	2										
Speed Limit:	30		Ped Crossing:			Weather Conditions:	Fine	No. of Casualties:	1										

Accident Reference Number: A1214358				Day: Friday		Contributory Factors			Date: 12/08/2022				Time: 12:25																						
Place Reported: Scene				District: Manchester		Factor			Conf			Ref			Vehicle Details			Casualty Details																	
Location: Owen Street 1 metre S Of Deansgate												Type			Move			From To			Skid			Type			Sex Age			Sev			Pupil		
Description: V1 Trav N Owen St & To Turn Left Onto Deansgate, V2 (Pedal Cycle) Trav W-bd Across Owen St, Front Of V1 Collides With Front Of V2												Car p/c			TurnL Ahead			S E			W W			1 Rid			F			58 Slight			Un		
Locational Details				Conditions		Accident Details																													
Road: U/U				Junction Details: Tjun		Road Surface: Dry			Severity: Slight																										
OSGR: 383294 397407				Junction Control: GW		Light Conditions: Light			No. of Vehicles: 2																										
Speed Limit: 30				Ped Crossing:		Weather Conditions: Fine			No. of Casualties: 1																										
Accident Reference Number: E1056731				Day: Sunday		Contributory Factors			Date: 05/05/2019				Time: 00:40																						
Place Reported: Else				District: Manchester		Factor			Conf			Ref			Vehicle Details			Casualty Details																	
Location: Mancunian Way 150 metres E Of Crown Street												Type			Move			From To			Skid			Type			Sex Age			Sev			Pupil		
Description: Both Vehs Trav W-bd Mancunian Way, V1 Changes Lanes & Collides With Rear Of V2 (Taxi). V1 FTS												Car Taxi			Ahead Ahead			E E			W W			1 Drv			M			26 Slight					
Locational Details				Conditions		Accident Details																													
Road: A57(M)				Junction Details:		Road Surface: Dry			Severity: Slight																										
OSGR: 383365 397157				Junction Control: n/a		Light Conditions: Dark			No. of Vehicles: 2																										
Speed Limit: 50				Ped Crossing:		Weather Conditions: Fine			No. of Casualties: 1																										
Accident Reference Number: A1286870				Day: Sunday		Contributory Factors			Date: 12/03/2023				Time: 13:20																						
Place Reported: Self				District: Manchester		Factor			Conf			Ref			Vehicle Details			Casualty Details																	
Location: Mancunian Way Eastbound 65 metres W Of Mancunian Way Off-slip Road												Type			Move			From To			Skid			Type			Sex Age			Sev			Pupil		
Description: Both Vehs Trav E Mancunian Way, V2 Waiting To Go Ahead But Held Up, V1 Trav Behind, Fails To React & Front Collides With Rear Of V2. V1 Fts												Car Car			Ahead Waitg			W W			E E			1 Drv			M			24 Serious			Un		
Locational Details				Conditions		Accident Details																													
Road: A57(M)				Junction Details:		Road Surface: Dry			Severity: Serious																										
OSGR: 383417 397155				Junction Control: n/a		Light Conditions: Light			No. of Vehicles: 2																										
Speed Limit: 30				Ped Crossing:		Weather Conditions: Fine			No. of Casualties: 1																										
Accident Reference Number: E1054439				Day: Monday		Contributory Factors			Date: 11/03/2019				Time: 19:45																						
Place Reported: Scene				District: Manchester		Factor			Conf			Ref			Vehicle Details			Casualty Details																	
Location: Mancunian Way 400 metres E Of Chester Road (Deansgate Interchange)												Type			Move			From To			Skid			Type			Sex Age			Sev			Pupil		
Description: All Vehs Trav W-bd Mancunian Way, V1 Changes Lane To Right Manouvres Late To Exit From Slip Rd & Collides With V2 Which Collides With V3												DTurn			VLike			V1																	
Locational Details				Conditions		Accident Details																													
Road: A57(M)/A57(M)				Junction Details: Slip		Road Surface: Wet			Severity: Slight																										
OSGR: 383462 397134				Junction Control: GW		Light Conditions: Dark			No. of Vehicles: 3																										
Speed Limit: 50				Ped Crossing:		Weather Conditions: Rain			No. of Casualties: 3																										

Accident Reference Number: A1058798				Day: Thursday		Contributory Factors			Date: 27/05/2021				Time: 20:10						
Place Reported: Else				District: Manchester		Factor Conf Ref			Vehicle Details				Casualty Details						
Location: Mancunian Way at junction with Mancunian Way Off-slip Road										Type	Move	From	To	Skid	Type	Sex	Age	Sev	Pupil
Description: Both Vehs Trav E Mancunian Way Towards Ardwick. V2 Suddenly Changes Lane To Left To Access Princess Rd & N/s Collides With Front Of V1. V2 Fts										Car	Ahead	W	E		1 Drv	M	46	Slight	Un
										Car	chlnL	W	E						
Locational Details				Conditions		Accident Details													
Road:	A57(M)/A57(M)		Junction Details:	Slip	Road Surface:	Dry	Severity:	Slight											
OSGR:	383466	397146	Junction Control:	GW	Light Conditions:	Light	No. of Vehicles:	2											
Speed Limit:	50		Ped Crossing:		Weather Conditions:	Fine	No. of Casualties:	1											

Accident Reference Number: E1053239				Day: Tuesday		Contributory Factors			Date: 15/01/2019				Time: 14:00						
Place Reported: Scene				District: Manchester		Factor Conf Ref			Vehicle Details				Casualty Details						
Location: Mancunian Way 65 metres E Of Off-slip To Medlock Street Roundabout							DFLook Poss V1			Type	Move	From	To	Skid	Type	Sex	Age	Sev	Pupil
Description: All Vehs Trav W Mancunian Way. V1 (Minibus) In Lane 1 & Moves Into Lane 2, V2 Collides Rear Of V1 Then Hits O/s Of V3 (HGV)										Mbus	chlnR	E	W						
										Car	Ahead	E	W		1 Drv	M	23	Slight	
										HGV	Ahead	E	W						
Locational Details				Conditions		Accident Details													
Road:	A57(M)		Junction Details:		Road Surface:	Dry	Severity:	Slight											
OSGR:	383545	397124	Junction Control:	n/a	Light Conditions:	Light	No. of Vehicles:	3											
Speed Limit:	50		Ped Crossing:		Weather Conditions:	Fine	No. of Casualties:	1											

Accident Reference Number: A1051503				Day: Friday		Contributory Factors			Date: 14/12/2018				Time: 19:45						
Place Reported: Else				District: Manchester		Factor Conf Ref			Vehicle Details				Casualty Details						
Location: City Road East at junction with Shortcroft Street										Type	Move	From	To	Skid	Type	Sex	Age	Sev	Pupil
Description: V1 Trav Ne City Rd E Turns Right Onto Shortcroft St, V1 Moves Off Into Opposite C/way & Collides V1 (Pedal Cycle) Trav Sw City Rd E										Car	Start	SW	SE						
										p/c	Ahead	NE	SW		1 Rid	M	19	Slight	
Locational Details				Conditions		Accident Details													
Road:	U/U		Junction Details:	Tjun	Road Surface:	Dry	Severity:	Slight											
OSGR:	383566	397309	Junction Control:	GW	Light Conditions:	Dark	No. of Vehicles:	2											
Speed Limit:	30		Ped Crossing:		Weather Conditions:	Othr	No. of Casualties:	1											

Accident Reference Number: A1072735				Day: Wednesday		Contributory Factors			Date: 08/07/2020				Time: 13:54						
Place Reported: Else				District: Manchester		Factor Conf Ref			Vehicle Details				Casualty Details						
Location: Albion Street at junction with City Road East										Type	Move	From	To	Skid	Type	Sex	Age	Sev	Pupil
Description: V2 (Pedal Cycle) Trav S Albion St On Cycle Lane, V1 Trav N-bd Albion St Turns Left Onto City Rd E & Across Path Of V2. O/s Of V1 Collides With Front Of V2. V1 Fts										Car	TurnL	S	W						
										p/c	Ahead	N	S		1 Rid	M	41	Slight	
Locational Details				Conditions		Accident Details													
Road:	A5103/U		Junction Details:	Tjun	Road Surface:	Dry	Severity:	Slight											
OSGR:	383617	397391	Junction Control:	GW	Light Conditions:	Light	No. of Vehicles:	2											
Speed Limit:	30		Ped Crossing:		Weather Conditions:	Fine	No. of Casualties:	1											

Accident Reference Number: A1055200				Day: Saturday		Contributory Factors			Date: 09/02/2019				Time: 20:30					
Place Reported: Scene				District: Manchester														
Location: Medlock Street 5 metres E Of City Road East						Factor Conf Ref			Vehicle Details				Casualty Details					
						DFLook VLike V1			Type	Move	From	To	Skid	Type	Sex	Age	Sev	Pupil
Description: V1 (Taxi) Trav S Medlock St Turns Right Onto City Rd E & Collides With C1 (Pedestrian) Crossing From Drivers N/s Heading Nw-bd						DJudge Poss V1			Taxi	TurnR	N	SW		1 Ped	F	66	Serious	
						DCare Poss V1												
						PJudge Poss C1												
						PCloth Poss C1												
Locational Details				Conditions		Accident Details												
Road:	A5103/U		Junction Details:	Tjun	Road Surface:	Wet	Severity:	Serious										
OSGR:	383617	397394	Junction Control:	GW	Light Conditions:	Dark	No. of Vehicles:	1										
Speed Limit:	30		Ped Crossing:	Ref	Weather Conditions:	Rain	No. of Casualties:	1										

Accident Reference Number: A1085708				Day: Friday		Contributory Factors			Date: 30/07/2021				Time: 20:19					
Place Reported: Else				District: Manchester														
Location: Medlock Street at junction with City Road East						Factor Conf Ref			Vehicle Details				Casualty Details					
									Type	Move	From	To	Skid	Type	Sex	Age	Sev	Pupil
Description: V1 Trav N Medllock St, V2 Trav E City Rd E Turns Right Onto Medlock St & Across Path Of V1, Front Of V2 Collides With N/s Of V1. V2 Fts									othr	Waitg	S	N		1 Drv	M	35	Slight	Un
									Car	TurnR	W	S						
Locational Details				Conditions		Accident Details												
Road:	A5103/U		Junction Details:	Tjun	Road Surface:	Dry	Severity:	Slight										
OSGR:	383619	397400	Junction Control:	GW	Light Conditions:	Light	No. of Vehicles:	2										
Speed Limit:	30		Ped Crossing:		Weather Conditions:	Fine	No. of Casualties:	1										

Accident Reference Number: A1271209				Day: Thursday		Contributory Factors			Date: 26/01/2023				Time: 16:30					
Place Reported: Self				District: Manchester														
Location: Albion Street 15 metres N Of City Road East						Factor Conf Ref			Vehicle Details				Casualty Details					
									Type	Move	From	To	Skid	Type	Sex	Age	Sev	Pupil
Description: V1 (Taxi) Trav S Albion St, C1 (Pedestrian) Crossing From Drivers O/s Heading E-bd. C1 Is Hit By Front Of V1									Taxi	Ahead	N	S		1 Ped	M	20	Slight	Un
Locational Details				Conditions		Accident Details												
Road:	A5103/U		Junction Details:	Tjun	Road Surface:	Dry	Severity:	Slight										
OSGR:	383623	397421	Junction Control:	GW	Light Conditions:	Light	No. of Vehicles:	1										
Speed Limit:	30		Ped Crossing:	Ref	Weather Conditions:	Fine	No. of Casualties:	1										

Accident Reference Number: A1048896				Day: Friday		Contributory Factors			Date: 05/10/2018				Time: 17:50					
Place Reported: Scene				District: Manchester														
Location: Mancunian Way 20 metres W Of Mancunian Way Roundabout Near To Medlock Street						Factor Conf Ref			Vehicle Details				Casualty Details					
						PFLook VLike C1			Type	Move	From	To	Skid	Type	Sex	Age	Sev	Pupil
Description: V1 Trav E Mancunian Way When C1 (Pedestrian) Runs From Central Reservation Onto Crossing From Drivers Offside Trav N Into Path Of V1.						PCare VLike C1			Car	Ahead	W	E		1 Ped	M	19	Slight	
Locational Details				Conditions		Accident Details												
Road:	A57(M)/A5103		Junction Details:	Rdbt	Road Surface:	Wet	Severity:	Slight										
OSGR:	383631	397130	Junction Control:	Man	Light Conditions:	Dark	No. of Vehicles:	1										
Speed Limit:	30		Ped Crossing:	PeIX	Weather Conditions:	Rain	No. of Casualties:	1										

Accident Reference Number: A1070111				Day: Saturday		Contributory Factors				Date: 14/03/2020				Time: 13:00			
Place Reported: Scene				District: Manchester													
Location: Mancunian Way Off-slip Road at junction with Medlock Street Junction						Factor Conf Ref				Vehicle Details				Casualty Details			
Description: Both Vehs Trav E Mancunian Way Off-slip Road, V2 Approaching & Then Staty At Jct, V1 Exceeds Speed Limit Changes Lane To Left & O/s Collides With N/s Of V2						Type	Move	From	To	Skid	Type	Sex	Age	Sev	Pupil		
						DAggre VLike V1											
						DCare VLike V1				Car	chInL	W	E				
						DFLook VLike V1				Car	Waitg	W	E	1 Drv	M	44	Slight
Road: A57(M)/A5103 Junction Details: Slip Road Surface: Dry Severity: Slight						DSpee VLike V1											
OSGR: 383649 397129 Junction Control: GW Light Conditions: Light No. of Vehicles: 2																	
Speed Limit: 30 Ped Crossing: Weather Conditions: Fine No. of Casualties: 1																	

Abbreviations used in GMAXI Reports for New Contributory Factors - 2005/06

WARNING: Please note that -

Codes 101 to 999 only relate to accidents from 1 April 2005. - New National Factors introduced by DfT

Codes 1001 to 1154 relate to accidents from 1 April 1999 to 31 March 2005 only. - Local Factors introduced

Accidents before 1 April 1999 do not have contributory factors attached.

Code	ContribFactor1Name	ContribFactor1Abb
0	None	
101	Poor or defective road surface	Surf
102	Deposit on road (eg oil, mud, chippings)	Dposit
103	Slippery road (due to weather)	Slip
104	Inadequate/masked signs or road markings	Mark
105	Defective traffic signals	DefATS
106	Traffic calming (eg speed cushions, road humps, chicanes)	TCalm
107	Temporary road layout (eg contraflow)	TmpRd
108	Road layout (eg bend, hill, narrow carriageway)	RdLay
109	Animal or object in carriageway	ObjInC
201	Tyres illegal, defective or under inflated	VTyres
202	Defective lights or indicators	VLight
203	Defective brakes	VBrake
204	Defective steering or suspension	VSteer
205	Defective or missing mirrors	VMirr
206	Overloaded or poorly loaded vehicle or trailer	VLoad
301	Disobeyed automatic traffic signal	DATS
302	Disobeyed Give Way or Stop sign or markings	DGWorS
303	Disobeyed double white line	DWhite
304	Disobeyed pedestrian crossing facility	DPedX
305	Illegal turn or direction of travel	DITurn
306	Exceeding speed limit	DSpeed
307	Travelling too fast for conditions	DFast
308	Following too close	DTgate
309	Vehicle travelling along pavement	DPave
310	Cyclist entering road from pavement	DCPave
401	Junction overshoot	DJnOvr
402	Junction restart	DJnRst
403	Poor turn or manoeuvre	DTurn
404	Failed to signal/misleading signal	DSign
405	Failed to look properly	DFLook
406	Failed to judge other person's path or speed	DJudge
407	Passing too close to cyclist, horse rider or pedestrian	DClose
408	Sudden braking	DBrake
409	Swerved	DSwerv
410	Loss of control	DLossC
501	Impaired by alcohol	DAlcoh
502	Impaired by drugs (illicit or medicinal)	DDrugs
503	Fatigue	DTired
504	Uncorrected, defective eyesight	DEye
505	Illness or disability, mental or physical	DIllns
506	Not displaying lights at night or in poor visibility	DNoLit
507	Cyclist wearing dark clothing at night	DCDark
508	Driver using mobile phone	DMobPh
509	Distraction in vehicle	DDisIn
510	Distraction outside vehicle	DDisOu
601	Aggressive driving	DAggre
602	Careless/reckless/in a hurry	DCare

603	Nervous/uncertain/panic	DPanic
604	Driving too slow or conditions or slow vehicle (eg tractor)	DSlow
605	Learner or inexperienced driver/rider	DLearn
606	Inexperience of driving on the left	DInDrL
607	Inexperience with type of vehicle	DInVeh
701	Stationary or parked vehicle(s)	DStat
702	Vegetation	DVeg
703	Road layout (eg bend, winding road, hill crest)	DRdLay
704	Buildings, road signs, street furniture	DBuild
705	Dazzling headlights	DHLigt
706	Dazzling sun	DSun
707	Rain, sleet, snow, or fog	DRain
708	Spray from other vehicles	DFog
709	Visor or windscreen dirty or scratched	DSpray
710	Vehicle blind spot	DWscrn
801	Crossed road masked by stationary or parked vehicle	PXMask
802	Failed to look properly	PFLook
803	Failed to judge vehicle's path or speed	PJudge
804	Wrong use of pedestrian crossing facility	PPedX
805	Dangerous action in carriageway (eg playing)	PDange
806	Impaired by alcohol	PAlcoh
807	Impaired by drugs (illicit or medicinal)	PDrugs
808	Careless/reckless/in a hurry	PCare
809	Pedestrian wearing dark clothing at night	PCloth
810	Disability or illness, mental or physical	Pllns
901	Stolen vehicle	StoVeh
902	Vehicle in course of crime	VCrime
903	Emergency vehicle on call	EmVeh
904	Vehicle door opened or closed negligently	VDoor
999	Other	Other
1001	Failed to stop (mandatory sign)	Fstop
1002	Failed to give way	Fgive
1003	Failed to avoid pedestrian (pedestrian not to blame)	FAPed
1004	Failed to avoid vehicle or object in carriageway	FAObj
1005	Failure to signal/misleading signal	Fsig
1006	Loss of control of vehicle	Loss
1007	Pedestrian entered carriageway without due care	Ped
1008	Passenger fell in or near PSV	Pfell
1009	Swerved to avoid object in carriageway	Swerv
1010	Sudden braking	Brake
1011	Poor turn/manoeuvre	Turn
1012	Poor overtaking	Over
1013	Drove wrong way (e.g. 1-way street)	1Way
1014	Opening door carelessly	Door
1015	Other	Other
1101	Impairment alcohol	Alcoh
1102	Impairment drugs	Drugs
1103	Impairment fatigue	Tired
1104	Impairment illness	Ill
1105	Distraction stress/emotional state of mind	Stress
1106	Distraction physical in/on vehicle	DPhIn
1107	Distraction physical outside vehicle	DPhOut
1108	Behaviour panic	Panic
1109	Behaviour careless/thoughtless/reckless	Care
1110	Behaviour nervous/uncertain	Nerve
1111	Behaviour in a hurry	Hurry

1112	Failure to judge other person's path or speed	Fjudg
1113	Disability	Disab
1114	Failed to look	F2look
1115	Looked but did not see	Nsee
1116	Inattention	Inatt
1117	Person hit wore dark or inconspicuous clothing	Cloth
1118	Other (Personal details)	Pother
1119	Crossed from behind parked vehicle etc	Cross
1120	Ignored lights at crossing	Xlight
1121	Excessive Speed	Speed
1122	Following too close	Tgate
1123	Inexperience of driving	InDri
1124	Inexperience of vehicle	InVeh
1125	Interaction or competition with other road users	Users
1126	Aggressive driving	Aggr
1127	Lack of judgement of own path	Judge
1128	Tyres wrong pressure	Press
1129	Tyres deflation before impact	Deflat
1130	Tyres worn/insufficient tread	Tread
1131	Defective lights or signals	Signal
1132	Defective brakes	Brakes
1133	Other (Vehicle defects)	Vother
1134	Site details poor road surface	Surf
1135	Site details poor/no street lighting	Lightg
1136	Site details inadequate signing	Sign
1137	Site details steep hill	Hill
1138	Site details narrow road	Narr
1139	Site details bend/winding road	Rbend
1140	Site details roadworks	Works
1141	Slippery road	Slip
1142	High winds	Winds
1143	Earlier accident	Earli
1144	Other (Local conditions)	Lother
1145	View windows obscured	Obs
1146	View glare from sun	Glare
1147	View glare from headlights	Head
1148	Surroundings bend/winding road	Bend
1149	Surroundings stationary parked vehicle	Stat
1150	Surroundings moving vehicle	Move
1151	Surroundings buildings, fences, vegetation etc	Fence
1152	Weather (e.g. mist or sleet)	Weath
1153	Failed to see pedestrian or vehicle in blindspot	Blind
1154	Animal out of control	Animal
9999	GMP Out of Range	OoR

Appendix C – TRICS Data for Deliveries

Calculation Reference: AUDIT-148301-230912-0921

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
 Category : C - FLATS PRIVATELY OWNED
 MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

01	GREATER LONDON	
HM	HAMMERSMITH AND FULHAM	1 days
IS	ISLINGTON	1 days

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

Primary Filtering selection:

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

Parameter:	No of Dwellings
Actual Range:	190 to 194 (units:)
Range Selected by User:	100 to 493 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: Selected: 0.07 to 0.5 Actual: 0.07 to 4.38

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/15 to 20/10/22

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

Selected survey days:

Tuesday	1 days
Thursday	1 days

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

Selected survey types:

Manual count	2 days
Directional ATC Count	0 days

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

Selected Locations:

Town Centre	1
Edge of Town Centre	1

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:

Development Zone	1
Built-Up Zone	1

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

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included	4 days - Selected
Servicing vehicles Excluded	X days - Not Selected

Secondary Filtering selection:

Use Class:

C3 2 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:

All Surveys Included

Population within 1 mile:

50,001 to 100,000 1 days

100,001 or More 1 days

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

Population within 5 miles:

500,001 or More 2 days

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

Car ownership within 5 miles:

0.5 or Less 2 days

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

Travel Plan:

Yes 2 days

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

PTAL Rating:

5 Very Good 1 days

6b (High) Excellent 1 days

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

LIST OF SITES relevant to selection parameters

1	HM-03-C-02	BLOCKS OF FLATS	HAMMERSMITH AND FULHAM
	GLENTHORNE ROAD		
	HAMMERSMITH		
	Town Centre		
	Built-Up Zone		
	Total No of Dwellings:	194	
	Survey date: TUESDAY	30/04/19	Survey Type: MANUAL
2	IS-03-C-08	BLOCK OF FLATS	ISLINGTON
	CITY ROAD		
	ISLINGTON		
	Edge of Town Centre		
	Development Zone		
	Total No of Dwellings:	190	
	Survey date: THURSDAY	20/10/22	Survey Type: MANUAL

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

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED
MULTI-MODAL TOTAL VEHICLES
 Calculation factor: 1 DWELLS
 BOLD print indicates peak (busiest) period
 Total People to Total Vehicles ratio (all time periods and directions): 4.34

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	2	192	0.016	2	192	0.026	2	192	0.042
08:00 - 09:00	2	192	0.034	2	192	0.036	2	192	0.070
09:00 - 10:00	2	192	0.042	2	192	0.031	2	192	0.073
10:00 - 11:00	2	192	0.057	2	192	0.047	2	192	0.104
11:00 - 12:00	2	192	0.029	2	192	0.042	2	192	0.071
12:00 - 13:00	2	192	0.036	2	192	0.034	2	192	0.070
13:00 - 14:00	2	192	0.029	2	192	0.034	2	192	0.063
14:00 - 15:00	2	192	0.018	2	192	0.026	2	192	0.044
15:00 - 16:00	2	192	0.023	2	192	0.021	2	192	0.044
16:00 - 17:00	2	192	0.055	2	192	0.047	2	192	0.102
17:00 - 18:00	2	192	0.039	2	192	0.026	2	192	0.065
18:00 - 19:00	2	192	0.044	2	192	0.026	2	192	0.070
19:00 - 20:00	2	192	0.049	2	192	0.049	2	192	0.098
20:00 - 21:00	2	192	0.034	2	192	0.034	2	192	0.068
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.505			0.479			0.984

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:
 Survey date date range:
 Number of weekdays (Monday-Friday):
 Number of Saturdays:
 Number of Sundays:
 Surveys automatically removed from selection:
 Surveys manually removed from selection:

190 - 194 (units:)
 01/01/15 - 20/10/22
 2
 0
 0
 2
 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.

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

MULTI-MODAL TAXIS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	2	192	0.003	2	192	0.003	2	192	0.006
08:00 - 09:00	2	192	0.013	2	192	0.013	2	192	0.026
09:00 - 10:00	2	192	0.008	2	192	0.008	2	192	0.016
10:00 - 11:00	2	192	0.016	2	192	0.016	2	192	0.032
11:00 - 12:00	2	192	0.013	2	192	0.013	2	192	0.026
12:00 - 13:00	2	192	0.005	2	192	0.005	2	192	0.010
13:00 - 14:00	2	192	0.008	2	192	0.008	2	192	0.016
14:00 - 15:00	2	192	0.005	2	192	0.005	2	192	0.010
15:00 - 16:00	2	192	0.005	2	192	0.005	2	192	0.010
16:00 - 17:00	2	192	0.008	2	192	0.008	2	192	0.016
17:00 - 18:00	2	192	0.005	2	192	0.005	2	192	0.010
18:00 - 19:00	2	192	0.003	2	192	0.003	2	192	0.006
19:00 - 20:00	2	192	0.013	2	192	0.013	2	192	0.026
20:00 - 21:00	2	192	0.010	2	192	0.010	2	192	0.020
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.115			0.115			0.230

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

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

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

MULTI-MODAL OGVS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	2	192	0.000	2	192	0.000	2	192	0.000
08:00 - 09:00	2	192	0.003	2	192	0.003	2	192	0.006
09:00 - 10:00	2	192	0.003	2	192	0.003	2	192	0.006
10:00 - 11:00	2	192	0.000	2	192	0.000	2	192	0.000
11:00 - 12:00	2	192	0.003	2	192	0.003	2	192	0.006
12:00 - 13:00	2	192	0.000	2	192	0.000	2	192	0.000
13:00 - 14:00	2	192	0.000	2	192	0.000	2	192	0.000
14:00 - 15:00	2	192	0.000	2	192	0.000	2	192	0.000
15:00 - 16:00	2	192	0.000	2	192	0.000	2	192	0.000
16:00 - 17:00	2	192	0.000	2	192	0.000	2	192	0.000
17:00 - 18:00	2	192	0.000	2	192	0.000	2	192	0.000
18:00 - 19:00	2	192	0.000	2	192	0.000	2	192	0.000
19:00 - 20:00	2	192	0.000	2	192	0.000	2	192	0.000
20:00 - 21:00	2	192	0.000	2	192	0.000	2	192	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.009			0.009			0.018

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

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

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED
MULTI-MODAL CYCLISTS
 Calculation factor: 1 DWELLS
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	2	192	0.000	2	192	0.000	2	192	0.000
08:00 - 09:00	2	192	0.003	2	192	0.016	2	192	0.019
09:00 - 10:00	2	192	0.000	2	192	0.000	2	192	0.000
10:00 - 11:00	2	192	0.010	2	192	0.016	2	192	0.026
11:00 - 12:00	2	192	0.000	2	192	0.000	2	192	0.000
12:00 - 13:00	2	192	0.010	2	192	0.008	2	192	0.018
13:00 - 14:00	2	192	0.010	2	192	0.013	2	192	0.023
14:00 - 15:00	2	192	0.008	2	192	0.005	2	192	0.013
15:00 - 16:00	2	192	0.008	2	192	0.008	2	192	0.016
16:00 - 17:00	2	192	0.010	2	192	0.005	2	192	0.015
17:00 - 18:00	2	192	0.008	2	192	0.005	2	192	0.013
18:00 - 19:00	2	192	0.016	2	192	0.013	2	192	0.029
19:00 - 20:00	2	192	0.018	2	192	0.010	2	192	0.028
20:00 - 21:00	2	192	0.013	2	192	0.013	2	192	0.026
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.114			0.112			0.226

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

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

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED
MULTI-MODAL TOTAL PEOPLE
 Calculation factor: 1 DWELLS
 BOLD print indicates peak (busiest) period
 Total People to Total Vehicles ratio (all time periods and directions): 4.34

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	2	192	0.044	2	192	0.219	2	192	0.263
08:00 - 09:00	2	192	0.073	2	192	0.411	2	192	0.484
09:00 - 10:00	2	192	0.086	2	192	0.169	2	192	0.255
10:00 - 11:00	2	192	0.133	2	192	0.169	2	192	0.302
11:00 - 12:00	2	192	0.076	2	192	0.130	2	192	0.206
12:00 - 13:00	2	192	0.107	2	192	0.141	2	192	0.248
13:00 - 14:00	2	192	0.133	2	192	0.122	2	192	0.255
14:00 - 15:00	2	192	0.138	2	192	0.094	2	192	0.232
15:00 - 16:00	2	192	0.128	2	192	0.120	2	192	0.248
16:00 - 17:00	2	192	0.182	2	192	0.143	2	192	0.325
17:00 - 18:00	2	192	0.214	2	192	0.099	2	192	0.313
18:00 - 19:00	2	192	0.336	2	192	0.169	2	192	0.505
19:00 - 20:00	2	192	0.245	2	192	0.125	2	192	0.370
20:00 - 21:00	2	192	0.154	2	192	0.117	2	192	0.271
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.049			2.228			4.277

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

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

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED
MULTI-MODAL CARS
 Calculation factor: 1 DWELLS
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	2	192	0.008	2	192	0.018	2	192	0.026
08:00 - 09:00	2	192	0.003	2	192	0.010	2	192	0.013
09:00 - 10:00	2	192	0.013	2	192	0.005	2	192	0.018
10:00 - 11:00	2	192	0.008	2	192	0.008	2	192	0.016
11:00 - 12:00	2	192	0.005	2	192	0.008	2	192	0.013
12:00 - 13:00	2	192	0.010	2	192	0.010	2	192	0.020
13:00 - 14:00	2	192	0.010	2	192	0.013	2	192	0.023
14:00 - 15:00	2	192	0.005	2	192	0.005	2	192	0.010
15:00 - 16:00	2	192	0.005	2	192	0.003	2	192	0.008
16:00 - 17:00	2	192	0.021	2	192	0.010	2	192	0.031
17:00 - 18:00	2	192	0.026	2	192	0.013	2	192	0.039
18:00 - 19:00	2	192	0.031	2	192	0.013	2	192	0.044
19:00 - 20:00	2	192	0.013	2	192	0.013	2	192	0.026
20:00 - 21:00	2	192	0.013	2	192	0.013	2	192	0.026
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.171			0.142			0.313

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

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

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

MULTI-MODAL LGVS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	2	192	0.005	2	192	0.005	2	192	0.010
08:00 - 09:00	2	192	0.013	2	192	0.008	2	192	0.021
09:00 - 10:00	2	192	0.016	2	192	0.013	2	192	0.029
10:00 - 11:00	2	192	0.021	2	192	0.016	2	192	0.037
11:00 - 12:00	2	192	0.005	2	192	0.013	2	192	0.018
12:00 - 13:00	2	192	0.013	2	192	0.008	2	192	0.021
13:00 - 14:00	2	192	0.005	2	192	0.008	2	192	0.013
14:00 - 15:00	2	192	0.003	2	192	0.010	2	192	0.013
15:00 - 16:00	2	192	0.008	2	192	0.008	2	192	0.016
16:00 - 17:00	2	192	0.021	2	192	0.023	2	192	0.044
17:00 - 18:00	2	192	0.005	2	192	0.005	2	192	0.010
18:00 - 19:00	2	192	0.003	2	192	0.003	2	192	0.006
19:00 - 20:00	2	192	0.008	2	192	0.008	2	192	0.016
20:00 - 21:00	2	192	0.003	2	192	0.003	2	192	0.006
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.129			0.131			0.260

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

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

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

MULTI-MODAL MOTOR CYCLES

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	2	192	0.000	2	192	0.000	2	192	0.000
08:00 - 09:00	2	192	0.003	2	192	0.003	2	192	0.006
09:00 - 10:00	2	192	0.003	2	192	0.003	2	192	0.006
10:00 - 11:00	2	192	0.013	2	192	0.008	2	192	0.021
11:00 - 12:00	2	192	0.003	2	192	0.005	2	192	0.008
12:00 - 13:00	2	192	0.008	2	192	0.010	2	192	0.018
13:00 - 14:00	2	192	0.005	2	192	0.005	2	192	0.010
14:00 - 15:00	2	192	0.005	2	192	0.005	2	192	0.010
15:00 - 16:00	2	192	0.005	2	192	0.005	2	192	0.010
16:00 - 17:00	2	192	0.005	2	192	0.005	2	192	0.010
17:00 - 18:00	2	192	0.003	2	192	0.003	2	192	0.006
18:00 - 19:00	2	192	0.008	2	192	0.008	2	192	0.016
19:00 - 20:00	2	192	0.016	2	192	0.016	2	192	0.032
20:00 - 21:00	2	192	0.008	2	192	0.008	2	192	0.016
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.085			0.084			0.169

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

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

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED
 MULTI-MODAL Servicing Vehicles
 Calculation factor: 1 DWELLS
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	2	192	0.008	2	192	0.008	2	192	0.016
08:00 - 09:00	2	192	0.018	2	192	0.016	2	192	0.034
09:00 - 10:00	2	192	0.021	2	192	0.016	2	192	0.037
10:00 - 11:00	2	192	0.031	2	192	0.026	2	192	0.057
11:00 - 12:00	2	192	0.010	2	192	0.018	2	192	0.028
12:00 - 13:00	2	192	0.021	2	192	0.016	2	192	0.037
13:00 - 14:00	2	192	0.013	2	192	0.016	2	192	0.029
14:00 - 15:00	2	192	0.005	2	192	0.010	2	192	0.015
15:00 - 16:00	2	192	0.010	2	192	0.010	2	192	0.020
16:00 - 17:00	2	192	0.031	2	192	0.034	2	192	0.065
17:00 - 18:00	2	192	0.008	2	192	0.008	2	192	0.016
18:00 - 19:00	2	192	0.010	2	192	0.010	2	192	0.020
19:00 - 20:00	2	192	0.021	2	192	0.021	2	192	0.042
20:00 - 21:00	2	192	0.010	2	192	0.010	2	192	0.020
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.217			0.219			0.436

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.