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Contents

1. Introduction	2
2. Trip Distribution and Transport Impact	3
3. Car Parking Strategy	5
3.1 Apartment Parking Provision	5
Applicant Response	6
3.2 Allocation and Management of Apartment and Visitor Parking	7
Apartment Parking	7
Visitor Parking	7
4. Walking Audit: Site to Tram Stops	8
4.1 Introduction	8
4.2 Route 1 – Connection for Pedestrians to/from Monsall Metrolink Station	9
4.3 Route 2 – Connection for Pedestrians to/from Monsall Metrolink Station (Alternative Route)	11
4.4 Route 3 – Connection for Pedestrians to/from Queens Road Metrolink Station	13
4.5 Route 4 – Connection for Pedestrians to/from Queens Road Metrolink (Alternative Route)	16
4.6 Summary	19
5. Highway and Design Clarifications	20
5.1 Refuse Strategy	20
5.2 Driveway Lengths and Road Widths	20
5.3 Proposed Continuous Dropped Kerbs	21
5.4 Pedestrian Crossings and Traffic Calming	21
5.5 Operation of Rochdale Road/Marston Street Junction	21

Appendix A: Distribution Model

Appendix B: Distribution Diagrams

Appendix C: Parking Census Data

Appendix D: Refuse Strategy

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1. Introduction

This Transport Assessment Supplementary Information note has been produced to respond to the comments received from Manchester City Council highway officers on 6 April 2021 relating to the planning application for 100 houses and 76 apartments in Collyhurst Village, north east of Manchester city centre (planning application reference 129393/VO/2021).

The comments from highways officers have been addressed relating to the following:

- Trip distribution and discussion on the need for detailed junction assessment
- Parking provision for apartments
- Refuse strategy
- Walking audit to tram stops
- Refuse strategy and visibility splays
- Driveway lengths and road widths
- Proposal for continuous dropped kerb
- Pedestrian crossings and traffic calming
- Operation of Rochdale Road/Marston Street junction

2. Trip Distribution and Transport Impact

41 two-way vehicle trips are generated in the AM peak hour and 38 in the PM peak hour, the methodology for calculating this is set out in the Transport Assessment.

The comments from MCC Highway Officers requested more information on the distribution of these trips, in order to better understand the impact of the development on the road network.

The total number of vehicles generated by the development in the peak hours was distributed across the highway network assuming that all vehicle trips in the peak hours were people travelling to/from work.

Distribution of vehicles from the site uses 2011 census origin/destination data for people residing in MSOA Manchester 009 and Manchester 056, and working anywhere¹. These trips were then distributed on the network using Google Maps to estimate route choice to each destination. The distribution model used is included at Appendix A

Trips were distributed via the three main site accesses for vehicles: the junctions at Rochdale Road/Paget Street, Thornton Street North/Churnet Street and Shellard Road. As the Rochdale Road/Marston Street junction will have restricted movements (left-in, left-out)², it is likely to serve only the 18 driveways on Marston Street, and therefore this access has not been used for the distribution. As a result the impact at the other site accesses will be overstated.

The distribution of vehicle trips is set out in Table 1 and shown on the plan at Appendix B. Some of the distribution destinations, such as Rochdale Road north, had more than one way of arriving there, e.g. via the Rochdale Road/Paget Street junction, or via the Thornton Street North/Churnet Street access. Trips were split equally between two route choices.

Table 1: Trip distribution

Route	Distribution
A6010 Queens Road east via Carslake Road	32.1%
A6010 Queens Road west	14.9%
Rochdale Road north	17.0%
Rochdale Road south	22.2%
Monsall Lane via Carslake Road	2.5%
Thornton Street North	11.4%

¹ 2011 census 'WU03EW - Location of usual residence and place of work by method of travel to work (MSOA level)' dataset for Manchester 009 and Manchester 056

² The Rochdale Road/Marston Street junction will be left-in/left-out only, with the existing break in the central reserve filled in to restrict movements to and from the northbound carriageway. This was agreed with MCC highway officers as the existing break in the central reserve does not provide adequate protection for vehicles trying to make the manoeuvre in two movements.

It is estimated that there will be 41 vehicles added to the network during the AM peak and 38 during the PM peak hour. These trips have been distributed on the local network using the methodology described above. The distribution is shown in the Transport Assessment and set out in Table 2 for the four junctions of interest in the MCC Highways Officer response.

Table 2: Development vehicle trip generation, peak hours at selected junctions

Junction	Two-way Trip Generation	
	AM peak	PM peak
Rochdale Road/Shellard Road	9	8
Rochdale Road/Paget Street	11	10
Rochdale Road/Marston Street	0	0
Thornton Street N/Shellard Road	5	4

As the number of vehicle trips through these junctions is below 30 2-way movements in the peak hours, junction modelling is not required. This is the threshold set by TfGM and MCC.

3. Car Parking Strategy

The comments received from MCC Highway Officers covered the following queries about the proposed parking, which are addressed in this section:

- Apartment parking should be provided at 50%, proposed provision is lower, at 26% for Block A and 42% for Block B.
- More information needed on how visitor and apartment parking will be allocated and managed

3.1 Apartment Parking Provision

Parking provision for the apartments was based on the existing car ownership situation in the area, and the aspiration of the client and MCC to address the climate crisis. The Manchester Residential Design Guide states: "A key goal for Manchester is to reduce its CO₂ emissions and develop a sustainable future³." Low car ownership will help this goal be reached.

All 76 of the apartments at the development will be social rented. To estimate parking demand at the development, census car ownership data (LC4416EW) for the LSOA of the site was interrogated (Manchester 009G) for homes that are social rented. This has been applied to the number of apartments proposed at the development, see Table 3.

Table 3: Parking demand by tenure

Tenure	No cars in household	1 car in household	2 or more cars
Car availability for social rented homes	77%	21%	2%
Parking demand for 76 homes	56 homes = 0 cars	16 homes = 16 cars	2 homes = 4 cars
Total parking demand	20 (26%)		
Total apartment parking	24 (32%)		

This assessment indicates that the proposed parking is adequate to meet demand in the area, with proposed provision at 120% of likely demand. Section 3.2 sets out how this will be managed to ensure there are no issues on surrounding streets.

³ Manchester Residential Quality Guidance 2017, (p.87) available at https://www.manchester.gov.uk/downloads/download/6682/residential_quality_guide (accessed 19 April 2021)

While it is possible that a household may have more than 2 cars, this exercise assumes that there are no more than 2 cars per household because census data (QS416EW) indicates there is only one household in this output area that has more than 2 cars when all tenures are accounted for.

Unfortunately, car/van availability data from the census cannot be viewed by tenure *and* accommodation type at the same time, however, to provide a further assessment, car availability by accommodation type was considered for the same LSOA, shown in Table 4.

Table 4: Parking demand by House type

House type	No cars in household	1 car in household	2 or more cars
Car availability for apartments or flats	81%	18%	1%
Parking demand for 76 homes	62 homes = 0 cars	14 homes = 14 cars	1 homes = 2 cars
Total parking demand	16 (21%)		
Proposed apartment parking	24 (32%)		

This analysis indicates an even lower demand for parking in the area than when looking at the tenure of the property. In this case, the number of spaces provided for the houses is 150% of the likely demand for the flats.

Applicant Response

The comments from MCC Highway Officers request a provision of parking for 50% of apartments. A provision of 32% is currently proposed, and it is likely that 21-26% of the apartments would actually require a parking space and therefore the 32% provision also includes allowance for contingency spaces should car ownership levels increase.

The Manchester Residential Design Guidance⁴ sets out recommended parking standards at developments of 1 parking space for each apartment as a starting point to then be refined to suit the development for example where there will be secure cycle parking for more than 50% of the apartments (Collyhurst Village will have 1 secure cycle parking space for each apartment, a provision of 100%) and where robust research and market evidence is provided that demonstrates that lower levels of parking are appropriate for the development, as provided above.

⁴ Manchester Residential Quality Guidance 2017, (p.87) available at https://www.manchester.gov.uk/downloads/download/6682/residential_quality_guide (accessed 19 April 2021)

The parking proposed for the apartments (32%) is therefore considered an appropriate level to meet the demand.

3.2 Allocation and Management of Apartment and Visitor Parking

Apartment Parking

Parking spaces will be allocated on a first come first served basis and will each be secured with a bollard which can only be moved by the person who is allocated to park in that space.

There are 50 apartments proposed at Block A, with 13 parking spaces provided (26%). These apartments are aimed at people who are 55 and older. At Block B there are 26 apartments, with 11 spaces proposed (42%).

As there is a higher ratio of parking provided at Block B, if the spaces at Block A are fully occupied, available spaces at Block B can be allocated to residents of Block A needing a parking space, in order to avoid people parking on street and to provide secure parking.

The management company will be able to manage this with tenants through the moving in process and will closely monitor the demand and supply of the car parking provision.

Visitor Parking

In addition to the above car parking provision there will be visitor spaces available at the development. The proposals include 8 visitor parking spaces, located on-street within Plot C of the development.

An additional 28 visitor spaces are also included on Thornton Street North.. These spaces are not included in the totals above as they are for use by the wider community and visitors to the development, and are not intended to be used by residents of the proposed development.

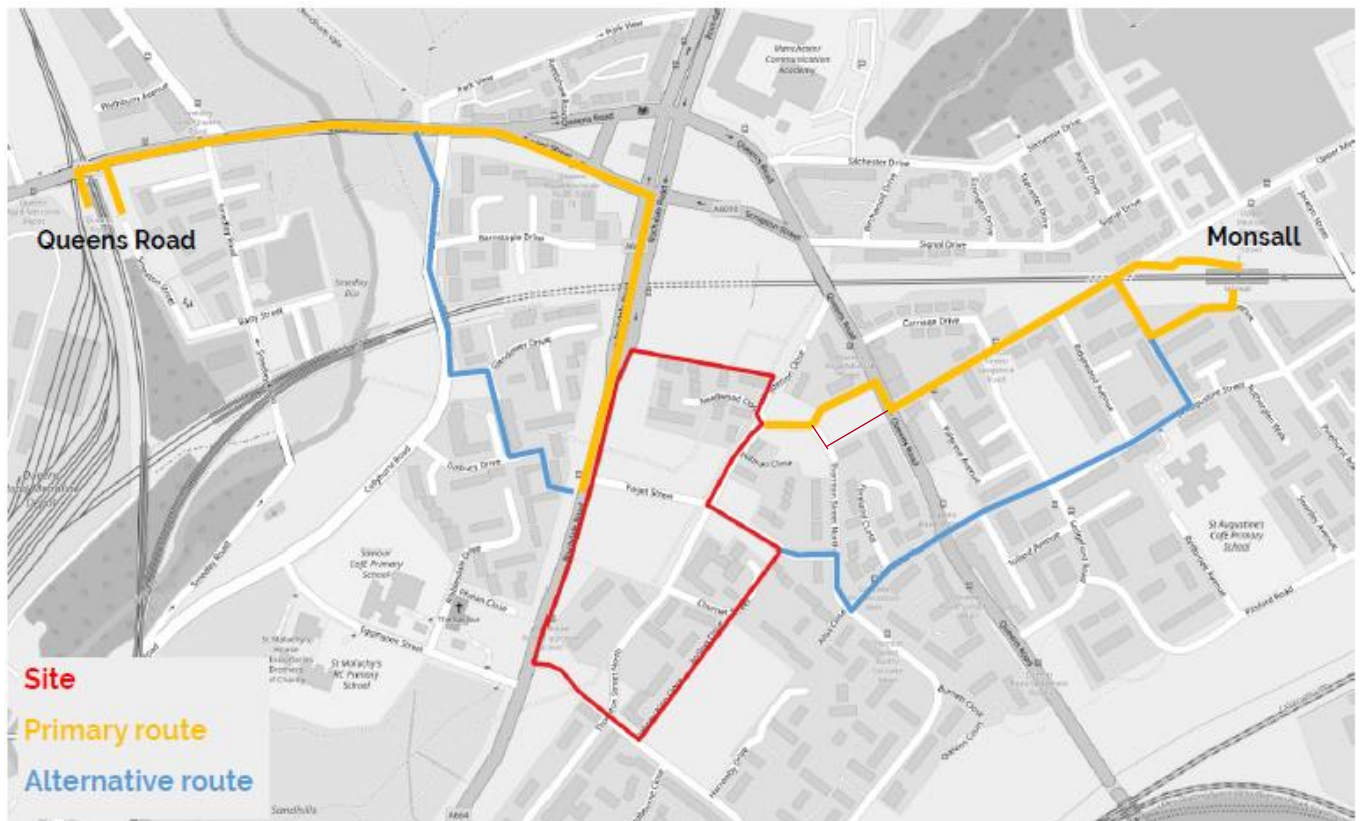
4. Walking Audit: Site to Tram Stops

4.1 Introduction

The audit assessed the likely routes future residents of the site would take to access Metrolink services to/from the site.

The routes assessed are shown in Figure 1.

Figure 1 Route Plan



The routes have been assessed using Transport for London's Healthy Streets Assessment⁵⁶ with the worst part of each route assessed against the ten healthy streets indicators, as per the requirements of this audit method. The methodology looks to identify the 'worst part' of each route and outline against the 10 Healthy Streets indicators factors which could improve it. These 'worst parts' are not necessarily indicative of the whole route section.

Note that this section is providing the walking audit requested by MCC highway officers, and follows a recognised methodology. 'Areas for improvement' are indicating interventions which could help improve access, and are not being offered by the developer.

⁵ Transport for London (2017) Healthy Streets for London. Available [online] at: <https://content.tfl.gov.uk/healthy-streets-for-london.pdf> [Accessed 22nd April 2021]

⁶ Transport for London (2017) Guide to Healthy Streets Indicators. Available [online] at: <https://content.tfl.gov.uk/guide-to-the-healthy-streets-indicators.pdf> [Accessed 22nd April 2021]

4.2 Route 1 – Connection for Pedestrians to/from Monsall Metrolink Station

This walking route was found to be clean and generally accommodating for pedestrians. Footways were found to be suitable for the likely pedestrian volumes however there was an abundance of informal footway parking reducing the width of the footways which may restrict movement for some footway users.

Figure 2 Route 1 Location for Healthy Streets Indicator Assessment



Figure 2 has been selected to reflect the 'worst part' of the route. This has been selected as the narrow footway by the crossing restricts pedestrian movement. It is not anticipated that the issues identified would deter users from using this route to access Monsall Station. The image is reviewed against the Healthy Streets Indicators in Table 5.

Table 5: Route 1 Review Against the Healthy Streets Indicators

Healthy Streets Indicator	Observation	Areas for Improvement
People choose to walk, cycle and use public transport	This arm of the crossing had insufficient space for a wheelchair to wait to cross and be passed on the footway on by another wheelchair	Subject to land availability and no-cost preclusive issues, the footway surrounding the crossing could be widened to provide sufficient space people waiting to cross and wanting to pass

Healthy Streets Indicator	Observation	Areas for Improvement
Pedestrians from all walks of life	This arm of the crossing had insufficient space for a wheelchair to wait to cross and be passed on the footway on by another wheelchair. The tactile paving would benefit from maintenance to aid navigability for some users.	As above
Easy to cross	The crossing point is located on the pedestrian desire line. The crossing is signalised which helps to make the crossing both accessible and safe for wider range of users. Guard railing is provided by the crossing to protect both those waiting to cross and those passing	As above
People feel safe	Overall area felt safe with active frontage providing natural surveillance. The guard railings provide safety for pedestrians from vehicles on the carriageway. However, the presence of guard railing does obscure visibility for both small children and wheelchair users.	Improvements could be made to reduce reliance on private car usage to reduce traffic levels
Things to see and do	There is little to see and do at this location as it is a pedestrian crossing.	Planting could be added to the green spaces to the rear of the crossing to make the area appear more attractive.
Places to stop and rest	There is insufficient space for both a pedestrian to stop to wait to cross whilst allowing others to pass. There are no benches providing in the vicinity of this crossing for people to rest.	Seating could be provided close by for people to rest and the footway surrounding the crossing could be widened.
People feel relaxed	The area was clean and maintained to a good standard. The presence of guard railing may make some pedestrians feel safer but does obscure visibility for both small children and wheelchair users.	A further audit could be undertaken to judge as to whether the guard railing is necessary.

Healthy Streets Indicator	Observation	Areas for Improvement
Not too noisy	The areas was not too noisy and people do not have to raise their voice to hold a conversation.	Little room for improvement.
Clean air	Traffic levels on the carriageway were moderate with both cars, lorries and buses witnessed on the carriageway.	Improvements could be made to reduce reliance on private car usage to reduce traffic levels
Shade and shelter	There is no shade or shelter provided at this location.	The area is not suitable for shade or shelter to be provided.

4.3 Route 2 – Connection for Pedestrians to/from Monsall Metrolink Station (Alternative Route)

This walking route was found to be clean and generally accommodating for pedestrians. Footways were found to be suitable for the likely pedestrian volumes however there was an abundance of informal footway parking reducing the width of the footways which may restrict movement for some footway users.

Figure 3 has been selected to reflect the 'worst part' of the route. This has been selected as the chicane may hinder access for all users along the footway. It is not anticipated that the issues identified will deter all users from using the link to access Monsall Metrolink Station.

The image is reviewed against the Healthy Streets Indicators in Table 6.

Figure 3 Route 2 Location for Healthy Streets Indicator Assessment



Table 6: Route 2 Review Against The Healthy Streets Indicators

Healthy Streets Indicator	Observation	Areas for Improvement
People choose to walk, cycle and use public transport	The presence of the chicane may inconvenience legitimate users of the path, making it more difficult to access and navigate adding delay, It may also discriminate against people with mobility scooters who may be unable to user the path.	Assess as to whether chicane is necessary by considering the barriers the chicane may present for legitimate users of the path. Look into the feasibility of replacing the chicane with planters. It is understood that chicane was likely implemented for a reason.
Pedestrians from all walks of life	The presence of the chicane may inconvenience legitimate users of the path, making it more difficult to access and navigate adding delay, It may also discriminate against people with mobility scooters who may be unable to user the path.	As above
Easy to cross	The footway does not require a pedestrian crossing due to its pedestrian nature.	There are no areas for improvement.

Healthy Streets Indicator	Observation	Areas for Improvement
People feel safe	There was some lighting provided along the path. However the area is not overlooked and there is very little in the way of natural surveillance or CCTV which may raise safety concerns for some users.	CCTV could be added to aid safety concerns.
Things to see and do	There is little to see and do at this location with high fencing either sides of the footpath.	Wall art could be added to the walls to make the area appear more attractive.
Places to stop and rest	The footway is wide enough to provide space for a pedestrian to stop and rest. However there is no seating provided on this link of the route.	It is not proposed seating is provided as this would restrict movement along the footway for all users.
People feel relaxed	The area was clean and maintained to a good standard. However the high fencing and lack of natural surveillance may make some users feel anxious.	CCTV could be added to aid safety concerns.
Not too noisy	The areas was not too noisy and people do not have to raise their voice to hold a conversation.	Little room for improvement.
Clean air	Traffic levels in the vicinity of this footway were low.	Improvements could be made to reduce reliance on private car usage to reduce traffic levels.
Shade and shelter	There is no shade or shelter provided at this location.	The area is not suitable for shade or shelter to be provided.

4.4 Route 3 – Connection for Pedestrians to/from Queens Road Metrolink Station

This walking route was found to be clean and generally accommodating for pedestrians. Footways were found to be suitable for the likely pedestrian volumes.

Figure 4 has been selected to reflect the 'worst part' of the route. This has been selected as the environment was considered to be the least attractive to users in comparison to the rest of the route. It is not anticipated that the issues identified will deter people from using the route to access Queens Road Metrolink Station.

Figure 4 Route 3 - Location for Healthy Streets Indicator Assessment



The image is reviewed against the Healthy Streets Indicators in Table 7.

Table 7: Route 3 Review Against The Healthy Streets Indicators

Healthy Streets Indicator	Observation	Areas for Improvement
People choose to walk, cycle and use public transport	The environment is not attractive for walking, The footway is not lit and although it is between the footway and the housing estate there is limited natural surveillance and a metal railing separating the path from the footway by the carriageway. No wayfinding is provided to highlight to pedestrians that this a route they can take.	The environment could be made more attractive for pedestrians such as providing lighting and wayfinding.
Pedestrians from all walks of life	The pavement is smooth and free from obstructions. It is a suitable width to accommodate the likely pedestrian footfall using the path.	As above.
Easy to cross	The footway does not require a pedestrian crossing due to its pedestrian nature.	N.A.
People feel safe	There was no lighting provided along the path. However the area is not overlooked and there is very little in the way of natural surveillance or CCTV which may raise safety concerns for some users.	CCTV and lighting could be added to aid safety concerns. The fencing between the footway by the carriageway and the edge of the residential area could be removed to open the area up.
Things to see and do	There is little to see and do at this location.	Planting could be added to the green spaces surrounding the path to make the area appear more attractive.
Places to stop and rest	The footway is wide enough to provide space for a pedestrian to stop and rest. However there is no seating provided on this link of the route.	Seating could be provided adjacent to the path to provided opportunities to sit and rest.

Healthy Streets Indicator	Observation	Areas for Improvement
People feel relaxed	The area was clean and maintained to a good standard. However the lack of lighting and natural surveillance may make some users feel anxious.	CCTV and lighting could be added to aid safety concerns.
Not too noisy	The areas was not too noisy and people do not have to raise their voice to hold a conversation.	Little room for improvement.
Clean air	Traffic levels in the vicinity of this footway were of a moderate level.	Improvements could be made to reduce reliance on private car usage to reduce traffic levels.
Shade and shelter	There is natural shade provided by the residential dwellings and the foliage near the path.	This could be further improved by providing seating.

4.5 Route 4 – Connection for Pedestrians to/from Queens Road Metrolink (Alternative Route)

This walking route was found to be clean and generally accommodating for pedestrians. Footways were found to be suitable for the likely pedestrian volumes.

Figure 5 has been selected to reflect the 'worst part' of the route. This has been selected as the environment was considered to be the least attractive in comparison to the rest of the route to users due to the lack of pedestrian crossing facilities provided on the Smedley Road (south) arm of the Smedley Road/Queens Road signalised crossroads. It is not anticipated that the issues identified will deter people from walking to/from Queens Road Metrolink stop.

Figure 5 Route 4 - Location for Healthy Streets Indicator Assessment



The image is reviewed against the Healthy Streets Indicators in Table 8.

Table 8: Route 4 Reviewed Against The Healthy Streets Indicators

Healthy Streets Indicator	Observation	Areas for Improvement
People choose to walk, cycle and use public transport	The environment is not attractive for walking. Although the kerbs drop along the pedestrian desire lines there is no tactile paving provided. At the time of audit the junction was busy with limited opportunities to cross.	Could carry out a further assessment to determine if the crossing facilities at the junction should be upgraded.
Pedestrians from all walks of life	There is no tactile paving provided and the crossing is not signalised. This may restrict access to the junction for some users who require a signalised crossing to be able to safely cross.	As above
Easy to cross	The crossing was difficult to cross due to the level of traffic. There is no tactile paving provided and the crossing is not signalised.	As above
People feel safe	The crossing was difficult to cross due to the level of traffic. There is no tactile paving provided and the crossing is not signalised.	As above
Things to see and do	There is little to see and do at this location.	Planting could be added to the green spaces surrounding the path to make the area appear more attractive.
Places to stop and rest	There is no seating provided for people to stop and rest.	Seating could be provided adjacent to the path to provided opportunities to sit and rest.
People feel relaxed	The area was clean and maintained to a good standard.	Little room for improvement.
Not too noisy	The areas was not too noisy and people do not have to raise their voice to hold a conversation.	Little room for improvement.

Healthy Streets Indicator	Observation	Areas for Improvement
Clean air	Traffic levels in the vicinity of this footway were of a moderate level.	Improvements could be made to reduce reliance on private car usage to reduce traffic levels.
Shade and shelter	There is natural shade provided by the residential foliage near the crossing	The area is not suitable for shade or shelter to be provided.

4.6 Summary

The Healthy Streets Assessment indicates that:

- On link 1 there is, an opportunity to explore the possibility of widening the footway surrounding the crossing to provide sufficient space for both those waiting to cross and those wanting to pass.
- On link 2 there is an opportunity to assess as to whether chicane is necessary by considering the barriers the chicane may present for legitimate users of the path.
- On link 3 there is an opportunity to make the environment more attractive to improve the experience of all users
- On link 4 there is an opportunity to carry out further assessment to determine if the junction facilities should be upgraded

The issues identified above were the 'worst case' for each route audited. The issues identified are localised and it is not considered that they will deter people from using the links to access the two Metrolink stations in the vicinity of the site.

5. Highway and Design Clarifications

5.1 Refuse Strategy

The refuse strategy proforma was provided as an appendix to the planning statement and is included here at Appendix D.

The refuse strategy makes allowance for the largest Biffa refuse vehicle to service the site with some proposed collection points to plot B and D. The MCC design refuse vehicle was tracked as well to assess serviceability, this was found to require an additional collection point to plot C.

Vehicle tracking and proposed collections points can be seen on the following drawings attached with this submission.

- 1226-01-CIV-XX-VIL-DR-HI-0300 - P07-VEHICLE TRACKING-PLOT A – REFUSE
- 1226-01-CIV-XX-VIL-DR-HI-0302 - P07-VEHICLE TRACKING-PLOT B – REFUSE
- 1226-01-CIV-XX-VIL-DR-HI-0304 - P07-VEHICLE TRACKING-PLOT C – REFUSE
- 1226-01-CIV-XX-VIL-DR-HI-0306 - P07-VEHICLE TRACKING-PLOT D - REFUSE

Visibility splay analysis has been undertaken to indicate the stopping sign distances achievable onsite. Refer to additional information provided:

- 1226-01-CIV-XX-VIL-DR-HI-0321 - P01-VISIBILITY SPLAY-PLOT A
- 1226-01-CIV-XX-VIL-DR-HI-0322 - P01-VISIBILITY SPLAY-PLOT B
- 1226-01-CIV-XX-VIL-DR-HI-0323 - P01-VISIBILITY SPLAY-PLOT C
- 1226-01-CIV-XX-VIL-DR-HI-0324 - P01-VISIBILITY SPLAY-PLOT D

5.2 Driveway Lengths and Road Widths

All of the individual driveways for the houses have been updated to meet the minimum standard of 3.0m x 5.5m and this change has been reflected on the proposed architectural and landscape plans which are enclosed'.

Marston Street has a road width of 6 metres and Thornton Street North is 5.5m metres. The remaining internal road widths have been developed based on manual for streets standards to 4.8 metres allowing a large vehicle and a car to pass. 2 metre footways have been provided in addition. All of the roads are proposed for adoption by the highways authority and an updated Adoption Plan has been prepared (plan ref. 1226-01-CIV-xx-VIL-DR-HI-0320 Rev P05) The narrower road widths also encourage lower speeds and enable high quality public realm spaces with living streets, street trees and SUDs features to be incorporated into the development whilst still delivering an appropriate density of development.

The minimum road width of Paget Street is 4.80m, where there is raingarden build out, which still allows for a car and large vehicle to pass safely. Traffic calming features are also included.

5.3 Proposed Continuous Dropped Kerbs

It is anticipated that dropped kerbs and similar design detail could be picked up during the detailed design stage alongside technical approval of the S38/S278 works. Where possible full height kerbs will be provided, and all highway proposals will take into account the road safety audits.

5.4 Pedestrian Crossings and Traffic Calming

Pedestrian crossings and speed calming measures have been included. Refer to general arrangement drawings:

- 1226-01-CIV-XX-VIL-DR-HI-0310 - P01-PROPOSED HIGHWAY GENERAL ARRANGEMENT-PLOT A
- 1226-01-CIV-XX-VIL-DR-HI-0311 - P01-PROPOSED HIGHWAY GENERAL ARRANGEMENT-PLOT B
- 1226-01-CIV-XX-VIL-DR-HI-0312 - P01-PROPOSED HIGHWAY GENERAL ARRANGEMENT-PLOT C
- 1226-01-CIV-XX-VIL-DR-HI-0313 - P01-PROPOSED HIGHWAY GENERAL ARRANGEMENT-PLOT D

5.5 Operation of Rochdale Road/Marston Street Junction

Comments in relation to the junction have been included on drawing 1226-01-CIV-XX-GA-DR-C-0304-P02 - Marston GA.

Appendix A

Distribution Model

WU03EW - Location of usual residence and place of work by method of travel to work (MSOA level)

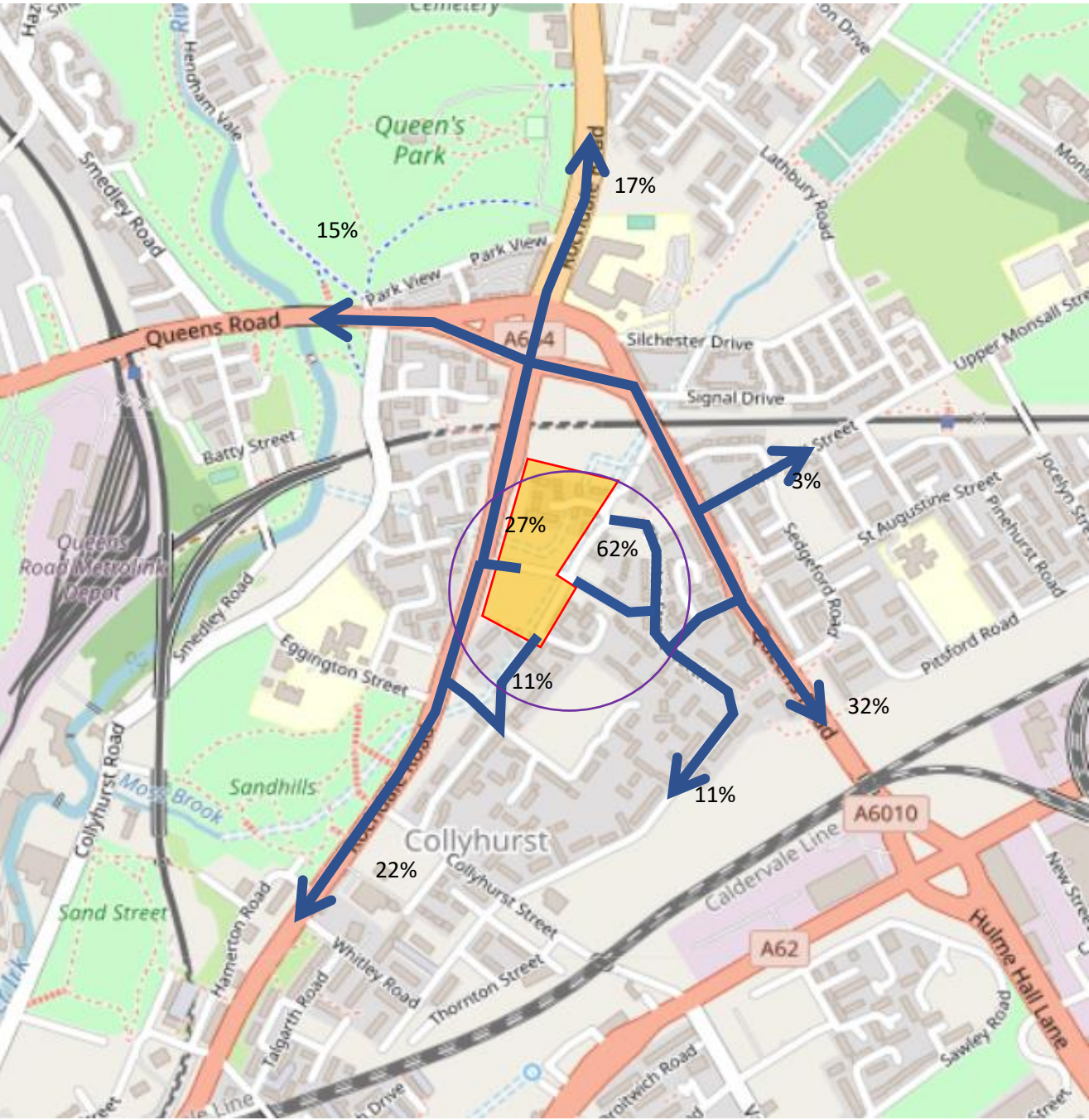
ONS Crown Copyright Reserved [from Nomis on 29 May 2019]

population
units
date
method of travel to work

Place of work	Numbers of residents driving a car or van	% of total residents	Route Choice				Count	Percentage				5
			1	2	3	4		1	2	3	4	
East	5	0.3%	1	2	3		3	0.1%	0.1%	0.1%	0.0%	
East Midlands	12	0.7%	1	2	3		3	0.2%	0.2%	0.2%	0.0%	
London	13	0.7%	1	2	3		3	0.2%	0.2%	0.2%	0.0%	
North East	1	0.1%	2	3			2	0.0%	0.0%	0.0%	0.0%	
Northern Ireland	0	0.0%					0	0.0%	0.0%	0.0%	0.0%	
Scotland	6	0.3%	2	3			2	0.2%	0.2%	0.0%	0.0%	
South East	10	0.6%	1				1	0.6%	0.0%	0.0%	0.0%	
South West	2	0.1%	1				1	0.1%	0.0%	0.0%	0.0%	
Wales	4	0.2%	1	8	9		3	0.1%	0.1%	0.1%	0.0%	
West Midlands	10	0.6%	1				1	0.6%	0.0%	0.0%	0.0%	
Yorkshire and The Humber	24	1.3%	1	2	3		3	0.4%	0.4%	0.4%	0.0%	
E02001045 : Manchester 001	4	0.2%	3	4	5	6	4	0.1%	0.1%	0.1%	0.1%	
E02001046 : Manchester 002	9	0.5%	2	3	4		3	0.2%	0.2%	0.2%	0.0%	
E02001047 : Manchester 003	11	0.6%	2				1	0.6%	0.0%	0.0%	0.0%	
E02001048 : Manchester 004	5	0.3%	2	3	4	5	4	0.1%	0.1%	0.1%	0.1%	
E02001049 : Manchester 005	11	0.6%	2	3	6	1	4	0.2%	0.2%	0.2%	0.2%	
E02001050 : Manchester 006	57	3.2%	2	3			2	1.6%	1.6%	0.0%	0.0%	
E02001051 : Manchester 007	18	1.0%	2	3	6	1	4	0.3%	0.3%	0.3%	0.3%	
E02001052 : Manchester 008	32	1.8%	2	3	4	5	4	0.4%	0.4%	0.4%	0.4%	
E02001053 : Manchester 009	34	1.9%	6	1			2	0.9%	0.9%	0.0%	0.0%	
E02001055 : Manchester 011	38	2.1%	1	6			2	1.1%	1.1%	0.0%	0.0%	
E02001056 : Manchester 012	0	0.0%					0	0.0%	0.0%	0.0%	0.0%	
E02001057 : Manchester 013	13	0.7%	1	7	8	9	4	0.2%	0.2%	0.2%	0.2%	
E02001059 : Manchester 015	50	2.8%	1	8	9		3	0.9%	0.9%	0.9%	0.0%	
E02001061 : Manchester 017	14	0.8%	1	7	8	9	4	0.2%	0.2%	0.2%	0.2%	
E02001062 : Manchester 018	38	2.1%	1	7	8	9	4	0.5%	0.5%	0.5%	0.5%	
E02001063 : Manchester 019	14	0.8%	1	8	9		3	0.3%	0.3%	0.3%	0.0%	
E02001064 : Manchester 020	20	1.1%	1	7	8	9	4	0.3%	0.3%	0.3%	0.3%	
E02001065 : Manchester 021	1	0.1%	1	7	8	9	4	0.0%	0.0%	0.0%	0.0%	
E02001066 : Manchester 022	18	1.0%	1	7	8	9	4	0.3%	0.3%	0.3%	0.3%	
E02001067 : Manchester 023	2	0.1%	1	7	8	9	4	0.0%	0.0%	0.0%	0.0%	
E02001068 : Manchester 024	3	0.2%	1	8	9		3	0.1%	0.1%	0.1%	0.0%	
E02001069 : Manchester 025	6	0.3%	1	8	9		3	0.1%	0.1%	0.1%	0.0%	
E02001070 : Manchester 026	16	0.9%	1	7	8	9	4	0.2%	0.2%	0.2%	0.2%	
E02001071 : Manchester 027	8	0.4%	1	7	8	9	4	0.1%	0.1%	0.1%	0.1%	
E02001072 : Manchester 028	3	0.2%	1	7	8	9	4	0.0%	0.0%	0.0%	0.0%	
E02001073 : Manchester 029	2	0.1%	1	7	4	8	4	0.0%	0.0%	0.0%	0.0%	
E02001074 : Manchester 030	6	0.3%	1	8	9		3	0.1%	0.1%	0.1%	0.0%	
E02001075 : Manchester 031	3	0.2%	1	7	8	9	4	0.0%	0.0%	0.0%	0.0%	
E02001076 : Manchester 032	4	0.2%	1	8	9		3	0.1%	0.1%	0.1%	0.0%	
E02001077 : Manchester 033	3	0.2%	1	7	8	9	4	0.0%	0.0%	0.0%	0.0%	
E02001078 : Manchester 034	4	0.2%	1				1	0.2%	0.0%	0.0%	0.0%	
E02001079 : Manchester 035	0	0.0%					0	0.0%	0.0%	0.0%	0.0%	
E02001080 : Manchester 036	4	0.2%	1	8	9		3	0.1%	0.1%	0.1%	0.0%	
E02001081 : Manchester 037	1	0.1%	1	7	8	9	4	0.0%	0.0%	0.0%	0.0%	
E02001082 : Manchester 038	3	0.2%	1	8	9		3	0.1%	0.1%	0.1%	0.0%	
E02001083 : Manchester 039	9	0.5%	1	8	9		3	0.2%	0.2%	0.2%	0.0%	
E02001084 : Manchester 040	1	0.1%	1	8	9		3	0.0%	0.0%	0.0%	0.0%	
E02001085 : Manchester 041	1	0.1%	1				1	0.1%	0.0%	0.0%	0.0%	
E02001086 : Manchester 042	7	0.4%	1	4	5	8	4	0.1%	0.1%	0.1%	0.1%	
E02001087 : Manchester 043	2	0.1%	1	8	9		3	0.0%	0.0%	0.0%	0.0%	
E02001088 : Manchester 044	1	0.1%	1	8	9		3	0.0%	0.0%	0.0%	0.0%	
E02001089 : Manchester 045	10	0.6%	1				1	0.6%	0.0%	0.0%	0.0%	
E02001090 : Manchester 046	4	0.2%	1	8	9		3	0.1%	0.1%	0.1%	0.0%	
E02001091 : Manchester 047	1	0.1%	1	8	9		3	0.0%	0.0%	0.0%	0.0%	
E02001092 : Manchester 048	0	0.0%					0	0.0%	0.0%	0.0%	0.0%	
E02001093 : Manchester 049	3	0.2%	1				1	0.2%	0.0%	0.0%	0.0%	
E02001094 : Manchester 050	4	0.2%	1				1	0.2%	0.0%	0.0%	0.0%	
E02001095 : Manchester 051	11	0.6%	1				1	0.6%	0.0%	0.0%	0.0%	
E02001096 : Manchester 052	9	0.5%	1				1	0.5%	0.0%	0.0%	0.0%	
E02001097 : Manchester 053	20	1.1%	1				1	1.1%	0.0%	0.0%	0.0%	
E02006902 : Manchester 054	93	5.2%	1	7	4	8	4	1.3%	1.3%	1.3%	1.3%	
E02006912 : Manchester 055	68	3.8%	1	7	8	9	4	0.9%	0.9%	0.9%	0.9%	
E02006913 : Manchester 056	68	3.8%	4	5	8	9	4	0.9%	0.9%	0.9%	0.9%	
E02006914 : Manchester 057	13	0.7%	1	7	8	9	4	0.2%	0.2%	0.2%	0.2%	
E02006915 : Manchester 058	47	2.6%	4	5	8	9	4	0.7%	0.7%	0.7%	0.7%	
E02006916 : Manchester 059	5	0.3%	1	7	8	9	4	0.1%	0.1%	0.1%	0.1%	
E02006917 : Manchester 060	27	1.5%	4	5	7	8	4	0.4%	0.4%	0.4%	0.4%	
Allerdale	0	0.0%					0	0.0%	0.0%	0.0%	0.0%	
Barrow-in-Furness	0	0.0%					0	0.0%	0.0%	0.0%	0.0%	
Blackburn with Darwen	11	0.6%	2	3			2	0.3%	0.3%	0.0%	0.0%	
Blackpool	4	0.2%	2	3			2	0.1%	0.1%	0.0%	0.0%	
Bolton	38	2.1%	2	3	4	8	4	0.5%	0.5%	0.5%	0.5%	
Burnley	8	0.4%	2	3			2	0.2%	0.2%	0.0%	0.0%	
Bury	51	2.8%	2	3	5	7	4	0.7%	0.7%	0.7%	0.7%	
Carlisle	0	0.0%					0	0.0%	0.0%	0.0%	0.0%	
Cheshire East	31	1.7%	1	8	9		3	0.6%	0.6%	0.6%	0.0%	
Cheshire West and Chester	6	0.3%	1	8	9		3	0.1%	0.1%	0.1%	0.0%	
Chorley	1	0.1%	2	3	1	5	4	0.0%	0.0%	0.0%	0.0%	
Copeland	2	0.1%	2	3	1		3	0.0%	0.0%	0.0%	0.0%	
Eden	0	0.0%					0	0.0%	0.0%	0.0%	0.0%	
Fylde	4	0.2%	2	3			2	0.1%	0.1%	0.0%	0.0%	
Halton	6	0.3%	1	2	3	8	4	0.1%	0.1%	0.1%	0.1%	
Hyndburn	6	0.3%	2	3			2	0.2%	0.2%	0.0%	0.0%	
Knowsley	3	0.2%	1	2	3		3	0.1%	0.1%	0.1%	0.0%	
Lancaster	2	0.1%	2	3			2	0.1%	0.1%	0.0%	0.0%	
Liverpool	4	0.2%	1				1	0.2%	0.0%	0.0%	0.0%	
Oldham	116	6.5%	1	7			2	3.2%	3.2%	0.0%	0.0%	
Pendle	0	0.0%					0	0.0%	0.0%	0.0%	0.0%	
Preston	4	0.2%	2	3	4	5	4	0.1%	0.1%	0.1%	0.1%	
Ribble Valley	1	0.1%	2	3			2	0.0%	0.0%	0.0%	0.0%	
Rochdale	53	3.0%	1	2	3		3	1.0%	1.0%	1.0%	0.0%	
Rossendale	2	0.1%	2	3	1		3	0.0%	0.0%	0.0%	0.0%	
Salford	152	8.5%	4	1	7	8	4	2.1%	2.1%	2.1%	2.1%	
Sefton	6	0.3%	1	8	9		3	0.1%	0.1%	0.1%	0.0%	
South Lakeland	0	0.0%					0	0.0%	0.0%	0.0%	0.0%	
South Ribble	4	0.2%	2	3	4	5	4	0.1%	0.1%	0.1%	0.1%	
St. Helens	6	0.3%	2	3	4	5	4	0.1%	0.1%	0.1%	0.1%	
Stockport	78	4.3%	1				1	4.3%	0.0%	0.0%	0.0%	
Tameside	55	3.1%	1				1	3.1%	0.0%	0.0%	0.0%	
Trafford	150	8.4%	1	4	5	8	4	2.1%	2.1%	2.1%	2.1%	
Warrington	25	1.4%	2	3	7		3	0.5%	0.5%	0.5%	0.0%	
West Lancashire	3	0.2%	2	3	1		3	0.1%	0.1%	0.1%	0.0%	
Wigan	15	0.8%	1	2	5	8	4	0.2%	0.2%	0.2%	0.2%	
Wirral	2	0.1%	1	8	9		3	0.0%	0.0%	0.0%	0.0%	
Wyre	0	0.0%					0	0.0%	0.0%	0.0%	0.0%	

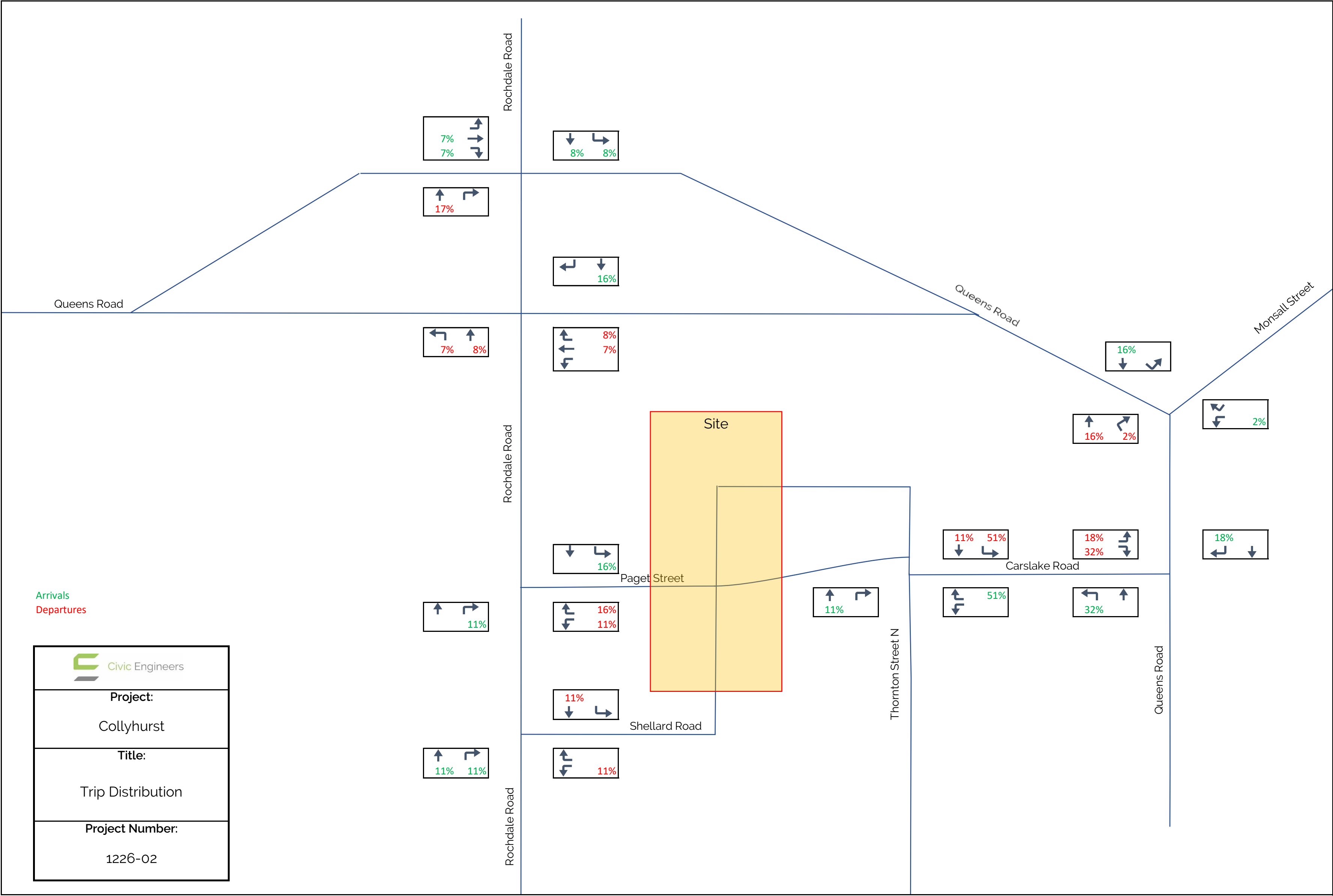
1,795 100.0%

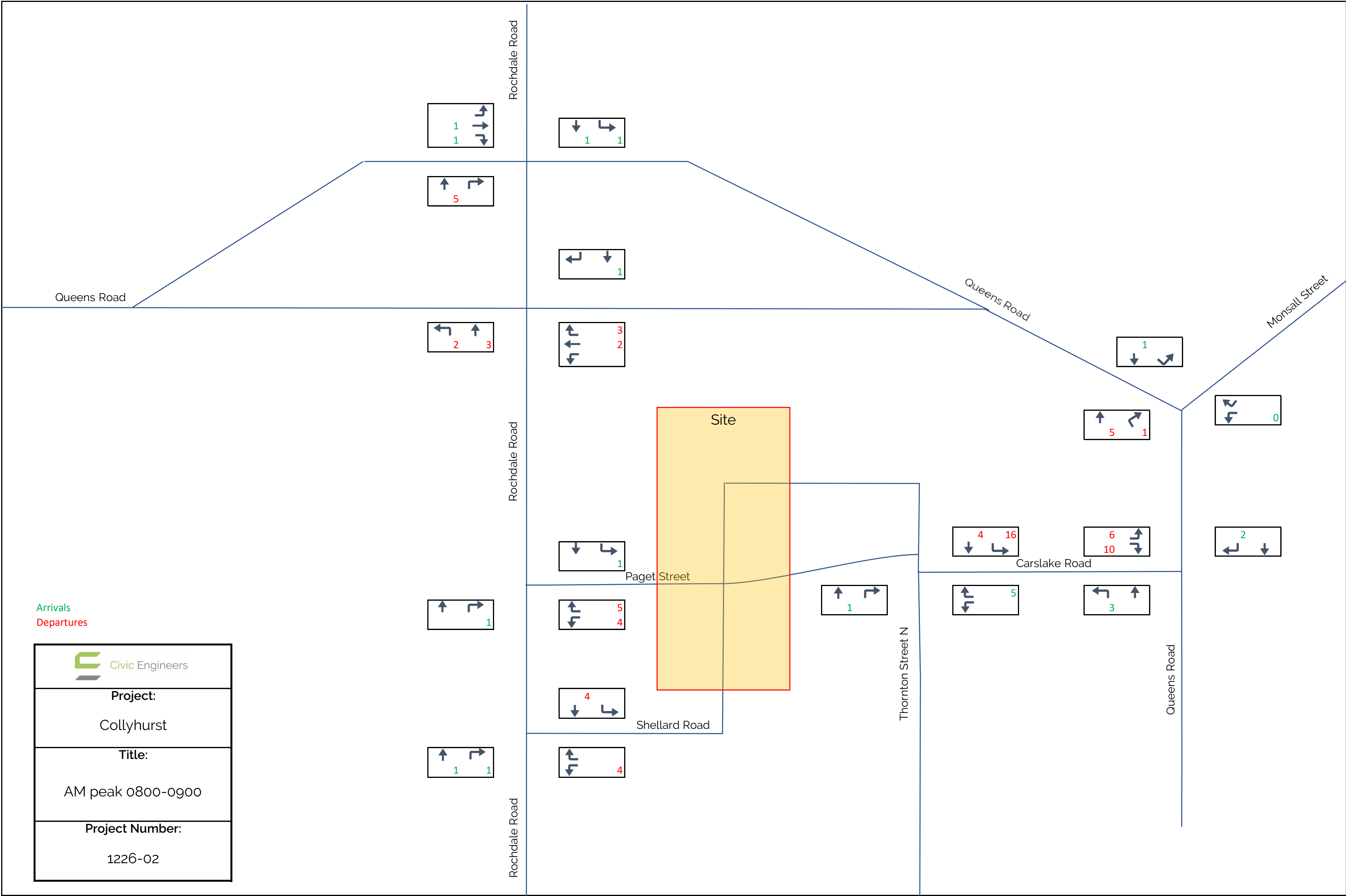
Destination	Description	1	2	3	4	Total
1	A6010 EB/SB via Carslake Rd	28.5%	3.1%	0.1%	0.4%	32.1%
2	Rochdale Rd NB via Paget St	6.5%	2.3%	0.0%	0.0%	8.9%
3	Rochdale Rd NB via Carslake Rd	0.1%	5.9%	2.1%	0.0%	8.1%
4	A6010 WB via Carslake Rd	4.1%	2.2%	2.7%	0.0%	9.1%
5	A6010 WB via Paget St	0.0%	2.0%	3.2%	0.7%	5.9%
6	Monsall Lane via Carslake Rd	0.9%	1.1%	0.4%	0.1%	2.5%
7	Thornton Street N	0.0%	7.7%	3.0%	0.7%	11.4%
8	Rochdale Rd SB via Paget St	0.0%	2.9%	4.7%	6.8%	14.5%
9	Rochdale Rd SB via Shellard Rd	0.0%	0.0%	2.9%	4.7%	7.7%
10		0.0%	0.0%	0.0%	0.0%	0.0%
Total						100.0%



Appendix B

Distribution Diagrams





Arrivals
Departures



Project:

Collyhurst

Title:

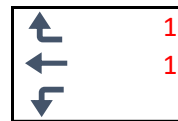
PM peak 1700-1800

Project Number:

1226-02

Site

Rochdale Road



Rochdale Road



Rochdale Road

Page Street



Shellard Road



Queens Road



Carslake Road



Thornton Street N



Queens Road



Monsall Street

Appendix C

Parking Census Data

LC4416EW - Tenure by car or van availability by number of usual residents aged 17 or over in household

ONS Crown Copyright Reserved [from Nomis on 19 October 2020]

population All households
units Households
date 2011
area type 2011 super output areas - lower layer
area name E01033679 : Manchester 009G
tenure Social rented

No of Usual Residents in Households	All categories: Car or van availability	No cars or vans in household		1 car or van in household		2 or more cars or vans in household	
All categories: Number of usual residents aged 17 or over in household	484	372	77%	101	21%	11	2%
No usual residents aged 17 or over in household	0	0		0		0	
One usual resident aged 17 or over in household	325	278	75%	43	43%	4	36%
Two or more usual residents aged 17 or over in household	159	94	25%	58	57%	7	64%

LC4415EW - Accommodation type by car or van availability by number of usual residents aged 17 or over in household

ONS Crown Copyright Reserved [from Nomis on 15 April 2021]

population	All households
units	Persons
date	2011
area type	2011 super output areas - lower layer
area name	E01033679 : Manchester 009G
accommodation type	Flat, maisonette, apartment, caravan or other mobile or temporary structure

No of Usual Residents in Households	All categories: Car or van availability	No cars or vans in household		1 car or van in household		2 or more cars or vans in household	
All categories: Number of usual residents aged 17 or over in household	286	231	81%	51	18%	4	1%
No usual residents aged 17 or over in household	0	0		0		0	
One usual resident aged 17 or over in household	235	196		38		1	
Two or more usual residents aged 17 or over in household	51	35		13		3	

In order to protect against disclosure of personal information, records have been swapped between different geographic areas. Some counts will be affected, particularly small counts at the lowest geographies.

Appendix D

Refuse Strategy

Appendix E Proforma for Planning Applications



MANCHESTER
CITY COUNCIL

Planning Application – Waste Management Strategy

Planning Application Number:

Date Submitted:

Estimated volumes/ m² required by the development

Low Rise Domestic

Waste Types	Capacity Required (litres)	Number of bins required per household	Confirm what is to be provided
General refuse	140 / 240	1 x wheeled bin	168 x 240L
Pulpable Recycling	140 / 240	1 x wheeled bin	168 x 240L
Mixed Recycling	140 / 240	1 x wheeled bin	168 x 240L
Garden Waste	140 / 240	1 x wheeled bin	112 x 240L
Food Waste	23	1 x 23 litre caddy	56 x 24L

High Rise Apartment Developments

	Yes/No - how much space has been provided?
0.43m ² has been provided per apartment for the container space. Space to manoeuvre and access containers individually has also been provided so that each container can be accessed and removed for collection individually.	Yes, 0.43sqm has been provided per apartment providing a total of 12 1100L Eurobins for Apartment Block 1, and 6 1100L Eurobins Apartment Block 2. Circulation space to manoeuvre and access containers has been provided to allow for a managed rotation of bins and removal for collection.

Commercial Developments

Please state number of bins you propose, showing calculations where appropriate.

General Waste -
Pulpable Recycling -
Mixed Recycling -
Food Waste -
Industrial Waste -

Has / will a contract be obtained with a licenced waste carrier?	☒
--	-------------------------------------

Mixed Use Developments

Are the stores for residential and commercial separate from each other?	☒
---	-------------------------------------

Internal Stores (Residential and Commercial)

Please provide details of internal stores / segregation of waste and recycling.

Residents have access on the ground floor to the internal residential refuse store via the circulation core, and an external door is provided for removal on bin collection days. The residential store will be managed by facilities staff. Separate eurobins will be provided for waste and recycling.

Currently the commercial space is designed as a shell to allow flexibility to accommodate different future uses. Space allowance has been made in the storage spaces of the commercial/business area. This will be subject to detail design and appropriate sizing to suit the eventual use of the space

Storage Areas for Waste Containers (Residential and Commercial)

Please provide details of container stores, attaching plans if appropriate.

Residential storage areas for the low rise development have waste containers providing space for 4 x 240L bins for properties with rear gardens. For properties with no rear gardens an area for 3 x 240L bins is provided. These storage areas are located on front drives in high quality design timber and brick

Ensure all bins in the store are accessible	☒
Ensure recycling facilities are as easy to access as general refuse	☒

Please confirm details of waste store ventilation and hygiene / cleaning proposals

Ventilation -	Residential waste stores for the low rise development are in self-contained stores which are covered and screened for weather protection and are fully ventilated. Internal residential refuse stores for the high rise will be fully ventilated with louvred/perforated doors provided.
Hygiene -	Residential stores for the low rise development will be constructed and finished in materials which are impervious and easy to clean. Internal residential refuse stores will have floor finishes that can be easily cleaned and sprayed down. These stores will be regularly cleaned by the facility staff.

Please provide details of who will be responsible for placing the bins at the collection point and returning them to the store / property promptly e.g. resident / management company

All stores for the low rise development are located close to the adopted highway and will be put onto the road side by residents on bin collection days. The refuse stores for the high rise development will be moved to bin collection points for the apartments by the facility staff. Following collection the facility staff will ensure all containers have been returned to the refuse stores.
--

Please ensure that you have attached:

Detailed plans of waste stores	☒
Location plans showing stores	☒
Location plans showing the proposed collection point and the route the collection vehicle will take	☒

Please ensure that you have completed this form in accordance with our GD04 Waste Storage and Collection Guidance for New Developments

Manchester

Carver's Warehouse
77 Dale Street
Manchester M1 2HG
+44 (0)161 228 6757

London

Lloyds Wharf
2 Mill Street
London SE1 2BD
+44 (0)20 7253 2977

Leeds

Unit 02/01 Tower Works
Globe Road
Leeds LS11 5QG
+44 (0)113 2025 130

Glasgow

Gresham Chambers
45 West Nile Street
Glasgow G1 2PT
+44 (0)141 370 1829