

Appendix A: TfGM's Northern Gateway Transport Framework Document

NG Transport Framework Document

FIRST DRAFT JANUARY 2025



Contents

01 Purpose, Strategic Context & Transport Vision

Sets the purpose and strategic context for the document, including what the growth location sets out to achieve, network constraints & opportunities and a comprehensive policy review.

02 Understanding the Development, Travel Demand and Scenarios

An understanding of the size, scale and type of the development and considering the potential/patronage for sustainable transport for different scenarios.

03 Indicative Transport Programme and Phasing

A review of opportunities/gaps will be undertaken for each programme area and an indicative transport programme set out considering phasing

04 Conclusions and Next Steps

Conclusions and next steps of the recommended transport schemes, phasing and forward work programme aligning with planning application timescales.

05 Concept Map

An updated concept map showing all modes demonstrating an integrated transport network



01 Purpose, Strategic Context & Transport Vision

01 Purpose

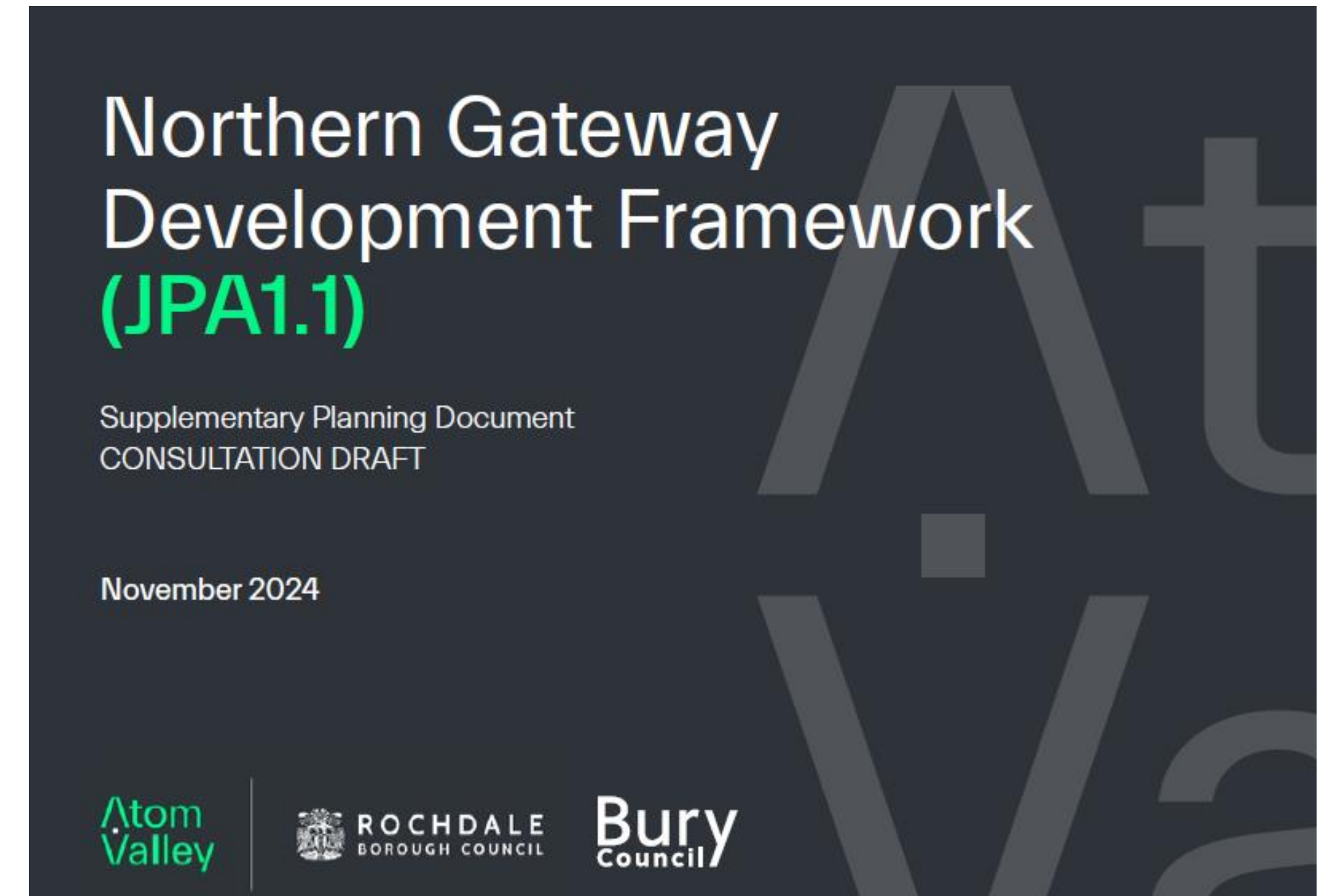
Purpose of the document

The purpose of the Transport Framework Document (TFD) is to succinctly summarise the work done so far by stakeholders, and outline the transport vision, transport issues and opportunities for the site as well as identify a transport infrastructure delivery plan for the site.

This document is expected to help identify what transport interventions will be needed to truly unlock the full potential of the Northern Gateway development, and lead to a phased transport programme of interventions.

The Transport Framework document will also be used to support:

- **Supplementary Planning Document (SPD)** - The SPD will establish the key principles for the development of the site and establish a framework against which future planning applications on the site will be considered. It will also help Bury and Rochdale Councils to ensure that the ambitions for the site are realised and the benefits to the communities of Bury and Rochdale are maximised.
- **Funding bids** – the TFD will help guide funding bids for Northern Gateway, ensuring the correct transport interventions come forward at the right time in consideration of the build-out of the site.
- **Planning applications** – the TFD will be used by developers to help guide the transport aspects of the planning application. This framework will feed into the Northern Gateway Infrastructure Phasing and Delivery Strategy and planning applications will need to align with this strategy. The SPD will set the guidelines for evaluating future planning applications and identify the essential infrastructure needed to support the site's long-term development.



01 Strategic Context

Policy Review

The Northern Gateway development represents an opportunity for the whole city-region to bring forward development at a scale which can drive the transformational change we want to see across the conurbation.

Connectivity for efficient and sustainable modes of transport to and from the site – walking, cycling and public transport - will be key to its success. The scale of development proposed will increase pressure on the local transport network, meaning that the most efficient modes should be prioritised. Ambitions to unlock sustainable economic growth and support place-making for surrounding communities need to be at the heart of the masterplan

Greater Manchester Growth Locations

The northeast growth corridor is one of six Growth Locations across Greater Manchester. They represent opportunities for the whole city-region to bring forward development at a scale which can drive transformational change.

Atom Valley represents one of the region's largest economic opportunities and has the potential to provide 20,000 new jobs, 7,000 new homes and 17 million sq ft of flexible employment space, through public-private partnership. As a designated Mayoral Development Zone – one of the first of its kind in the country – we're uniting local stakeholders to unlock funding, drive forward progress taking a levelling up approach across Greater Manchester that is responsive to the inequalities which persist across the region.

Places for Everyone (PfE)

The Places for Everyone plan is a long-term strategic framework for development across nine local authorities in Greater Manchester. The

plan spans until 2037 and aims to promote sustainable growth, creating homes, jobs and infrastructure while safeguarding the environment.

The Northern Gateway includes two cross boundary allocations within PfE, JPA1.1 (Heywood / Pilsworth) and JPA1.2 (Simister and Bowlee).

Greater Manchester Strategy

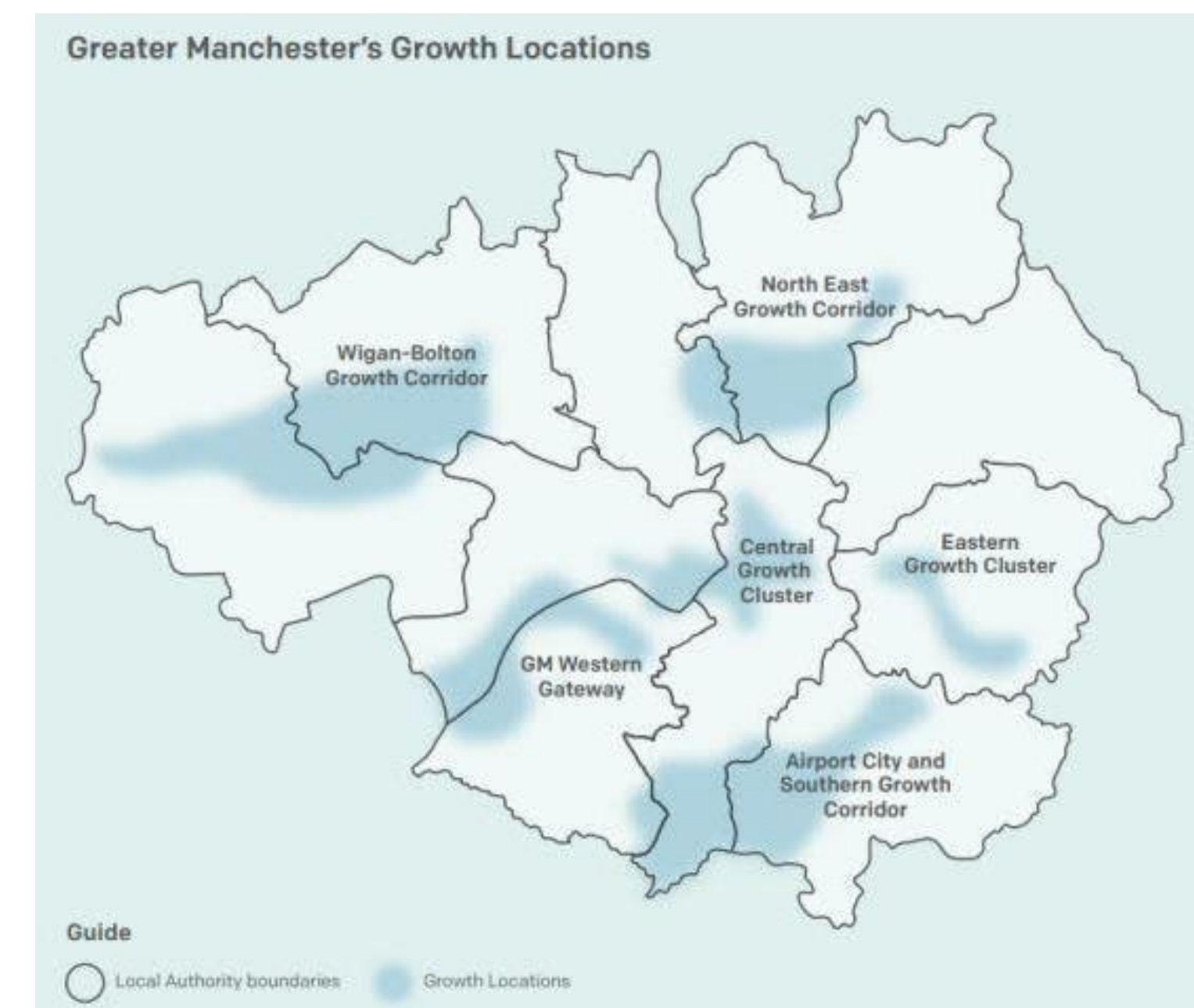
Our strategy for Greater Manchester sets out a route, over the next decade, to deliver this vision for the benefit of our people, our places and our planet. Working collectively across our city region, with our communities, we will focus on improved wellbeing for the 2.8m people here, with better homes, jobs and transport.

We will continue the work to make Greater Manchester a great place to visit, invest and study, with thriving businesses which are UK and world leading, in sectors including low carbon and digital. We will look through the triple lens of a greener, fairer and more prosperous Greater Manchester, making sure activity supports all three themes.

Greater Manchester Transport Strategy 2040 (GMTS 2040)

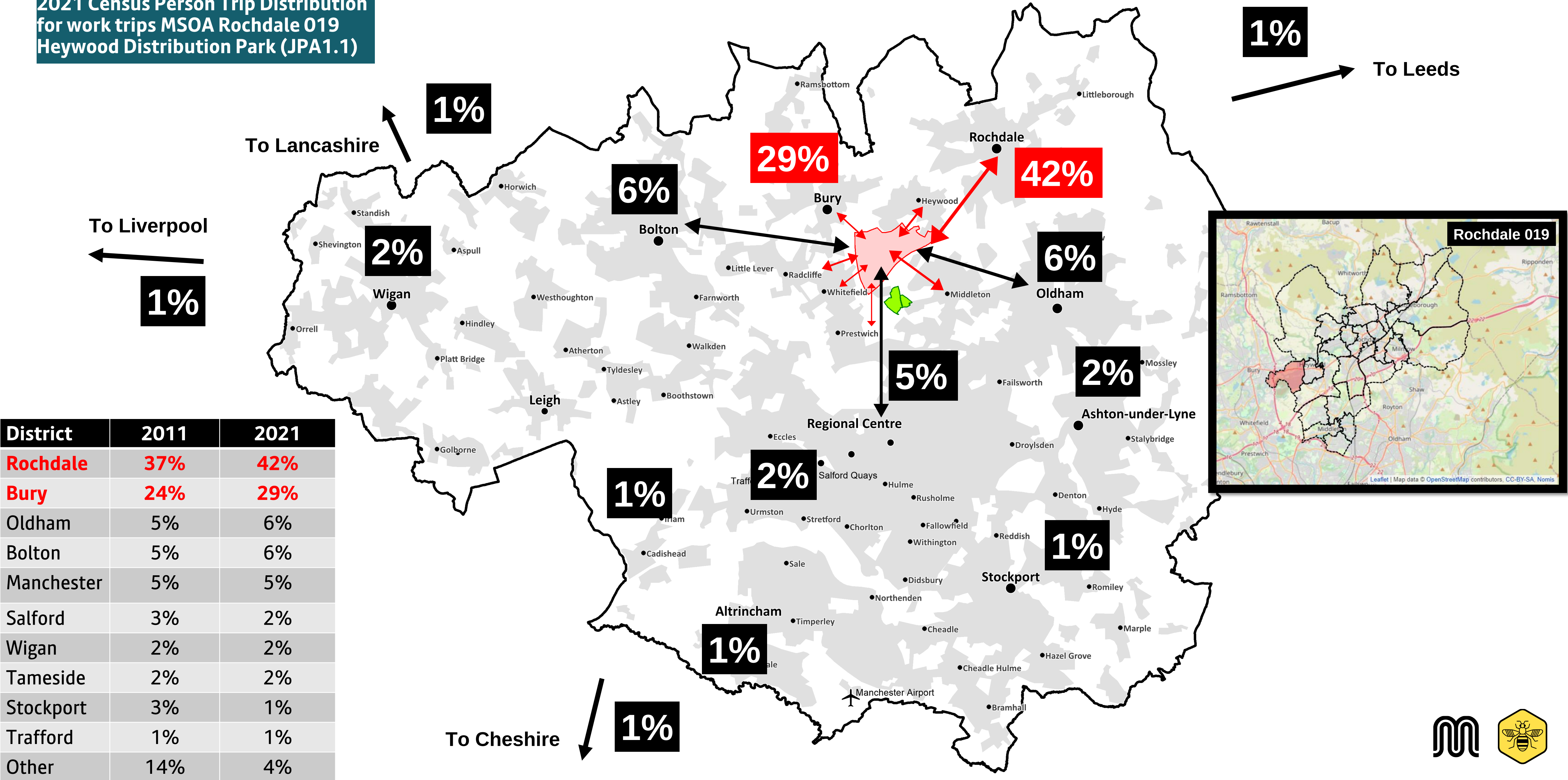
The GMTS 2040 has a vision for Greater Manchester to have '*world class connections that support long-term, sustainable economic growth and access to opportunity for all*'. Our Right Mix vision is for 50% of trips to be made by sustainable modes, with no net increase in motor vehicle traffic, by 2040

This 2040 Transport Strategy builds on that Vision, highlighting the priority interventions needed to achieve it. The Strategy is, in turn, supported by a series of Five-Year Transport Delivery Plans which describe the progress made in delivering this Strategy and set out our short-term delivery priorities.



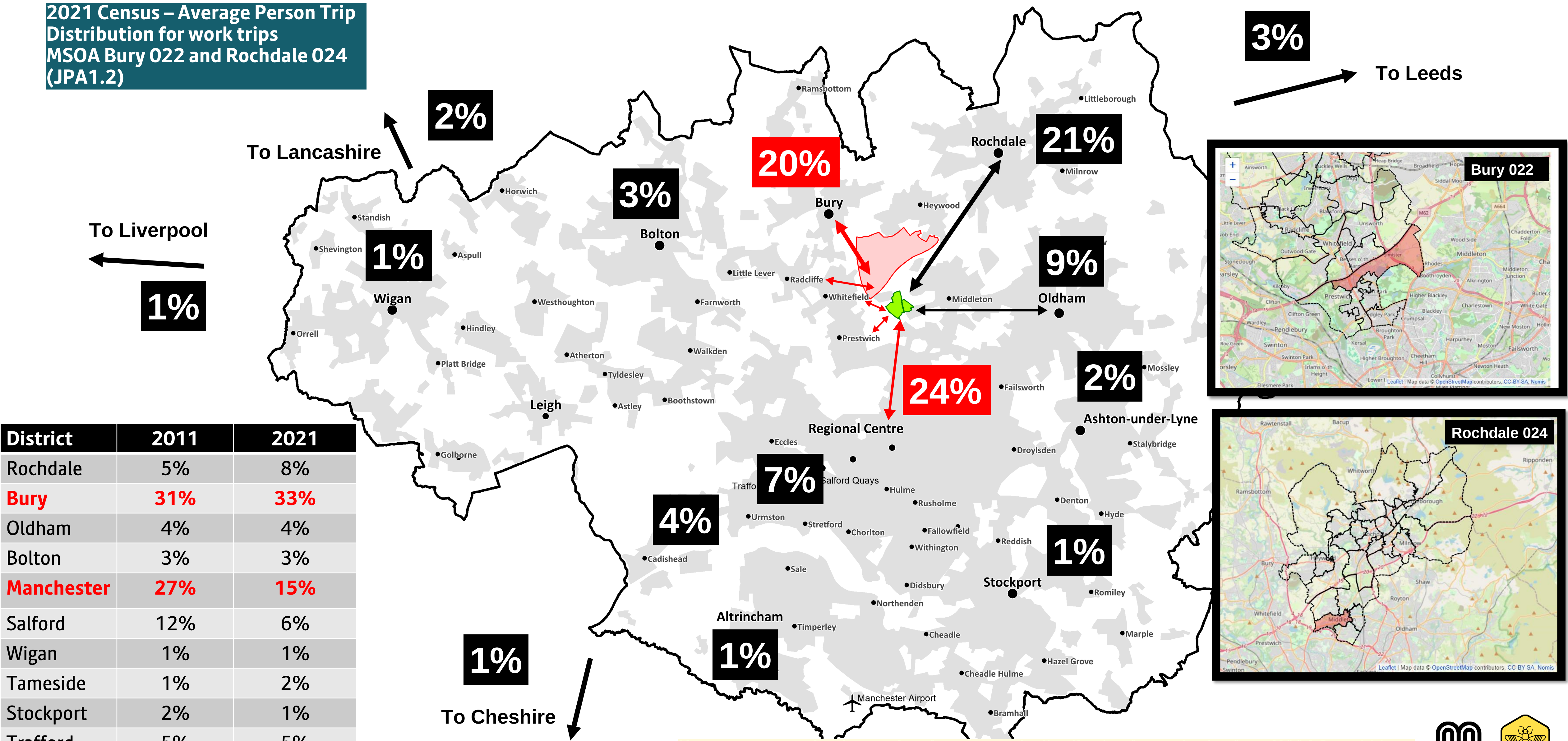
01 Strategic Context

2021 Census Person Trip Distribution for work trips MSOA Rochdale 019 Heywood Distribution Park (JPA1.1)

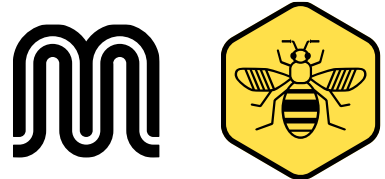


01 Strategic Context

2021 Census – Average Person Trip Distribution for work trips
MSOA Bury 022 and Rochdale 024 (JPA1.2)



Note – an average has been taken for person trip distribution for work trips from MSOA Bury 022 and Rochdale 024, as JPA1.2 straddles both areas.



01 Strategic Context

Existing Bus Network

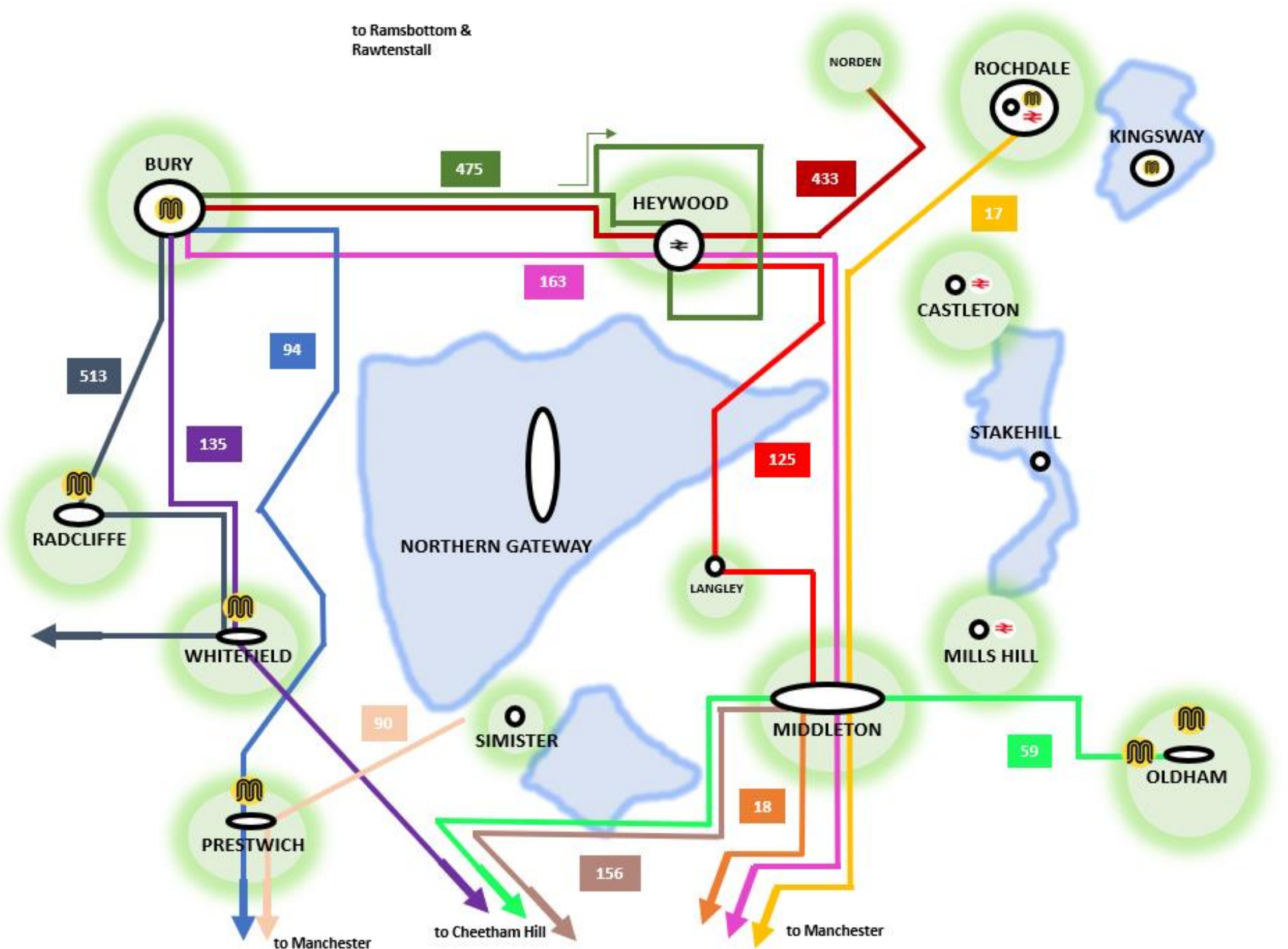
The key centres that neighbour the Northern Gateway (Heywood, Bury, Rochdale, Middleton, Radcliffe, Whitefield, Prestwich) site are relatively well served by frequent bus routes serving the main town centres.

However, the Northern Gateway itself is not currently well-served, which is largely reflected due to the undeveloped nature of the site, and the subsequent limited demand for public transport services in the area at present.

Therefore, many residents in the Northern Gateway area rely strongly on the car. Significant improvements in public transport provision will be needed to improve sustainable transport access to and from Northern Gateway for residents, employees and visitors.

There are significant opportunities to connect into and enhance existing bus networks serving key local centres, as well as the Regional Centre. Additional services will be needed to serve the site, conscious not to impact on patronage levels of existing services.

Existing Bus Network Schematic



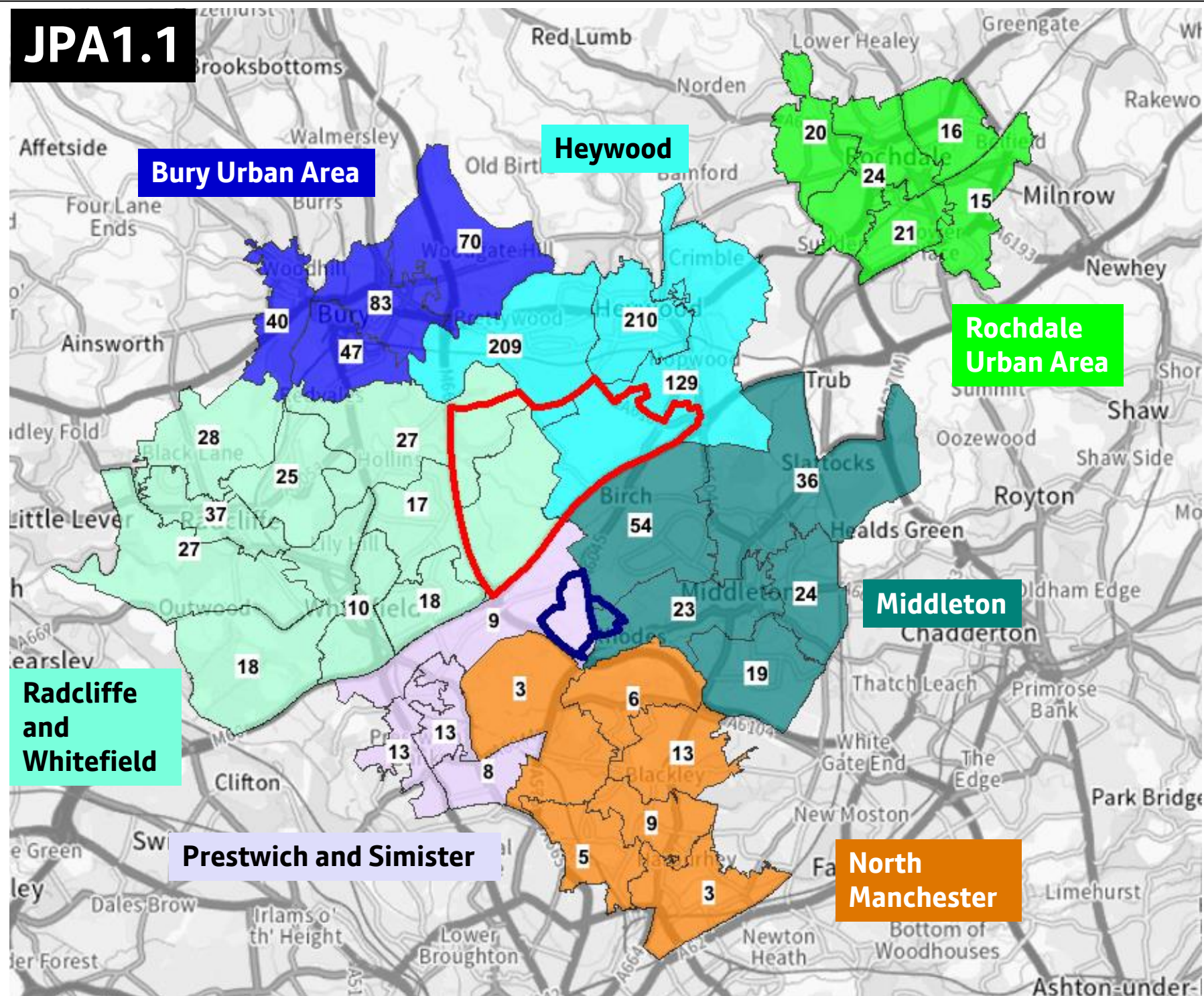
01 Strategic Context

Public Transport Distribution

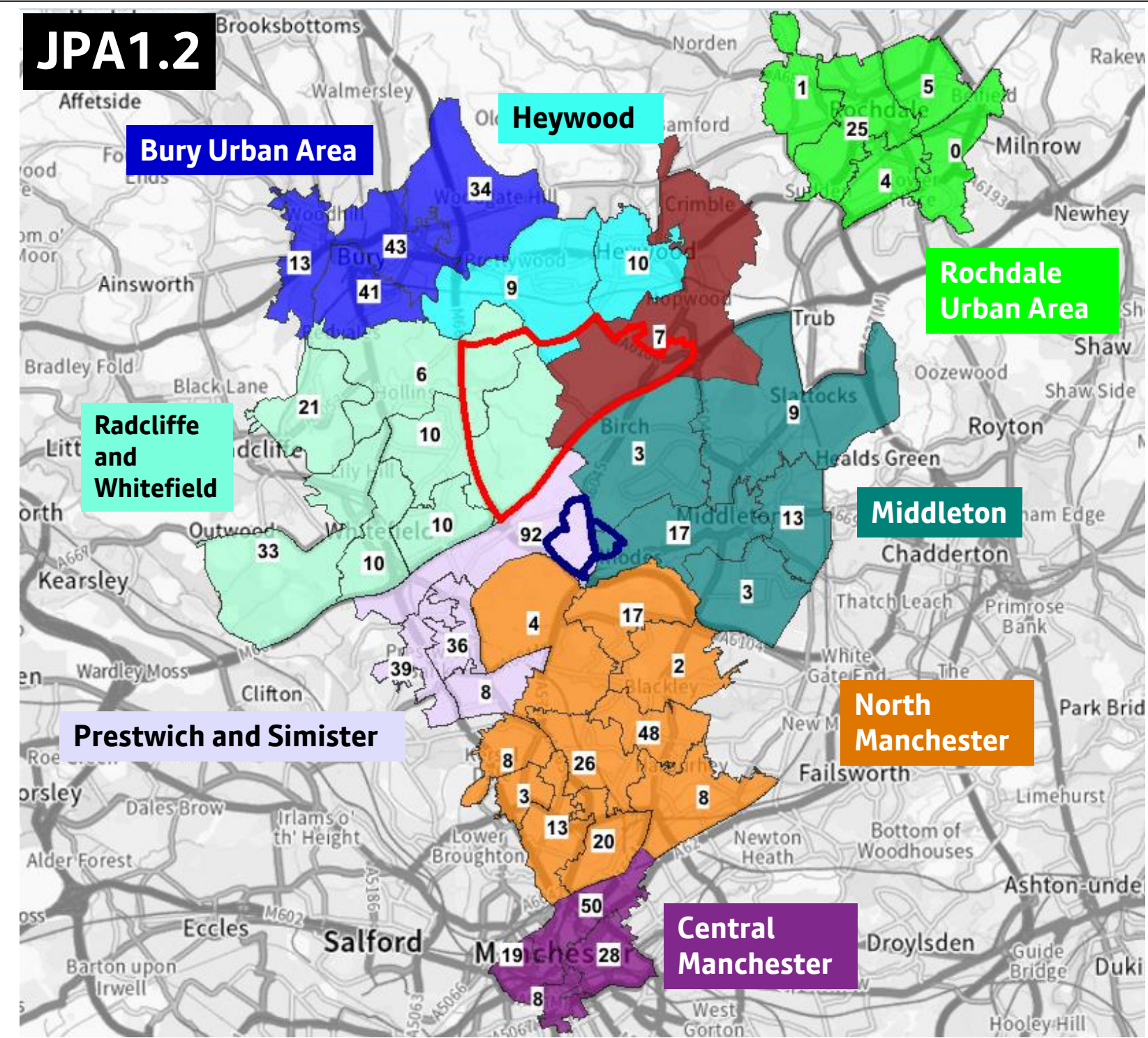
To consider the potential public transport distribution for JPA1.1 and JPA1.2, the following steps have been applied considering Census 2021 Travel to work data for the area:

- Consideration of districts with highest demand to sustain future services (overall person trip distribution as a starting point)
- Consideration of demand from areas that could be served through extensions to existing services that run near to the sites
- Consideration of MSOAs that could reasonably access services (i.e. very rural districts/those significant walking distances from existing services excluded)

The figures below illustrate the Census 2021 MSOAs selected to establish the public transport distribution for each site.



Note –Travel to work numbers for MSOA Rochdale 019

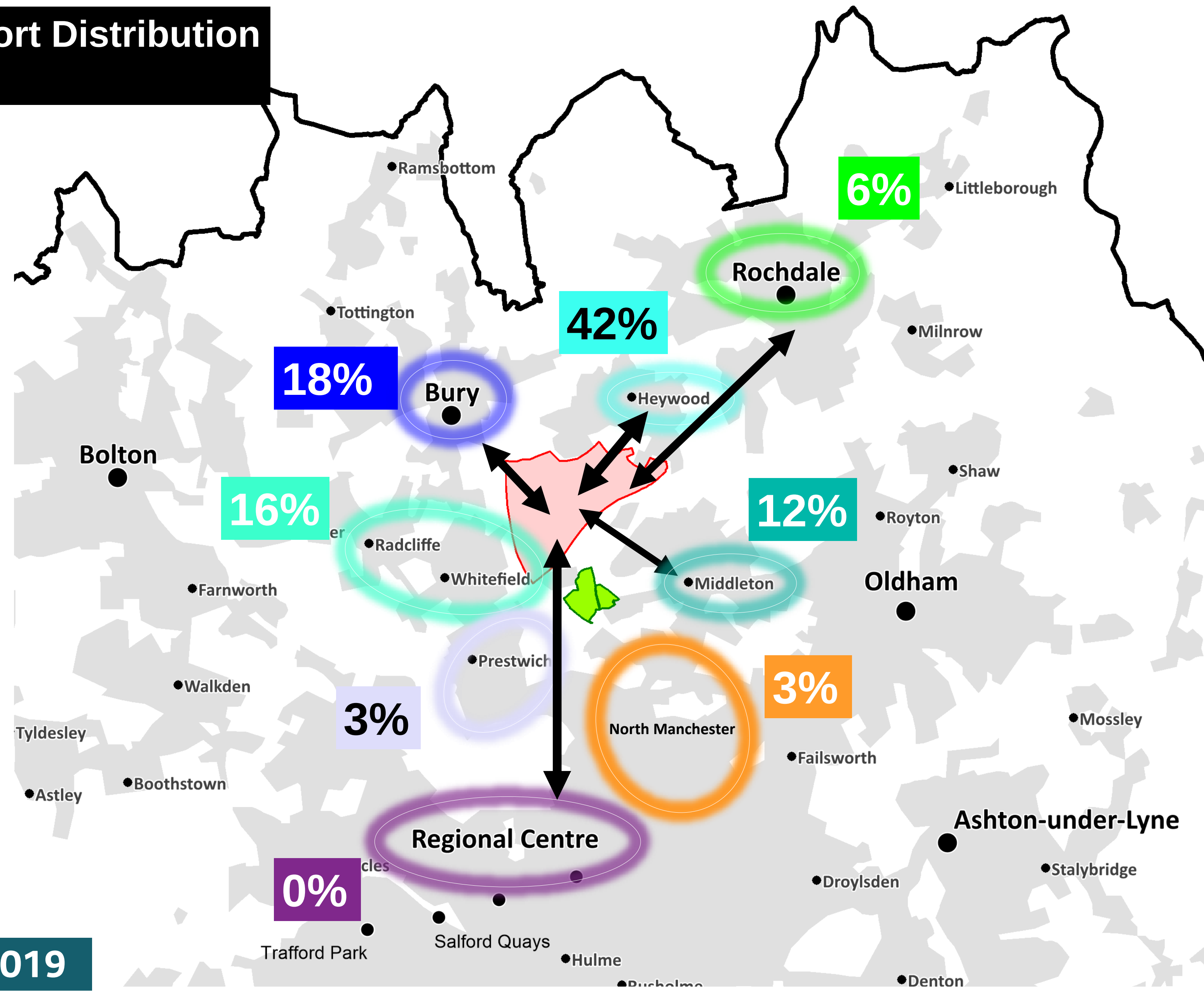


Note – Example Travel to work numbers for MSOA Bury 022



01 Strategic Context

Public Transport Distribution JPA1.1



Legend

- Northern Gateway 1.1
- Northern Gateway 1.2
- GM County

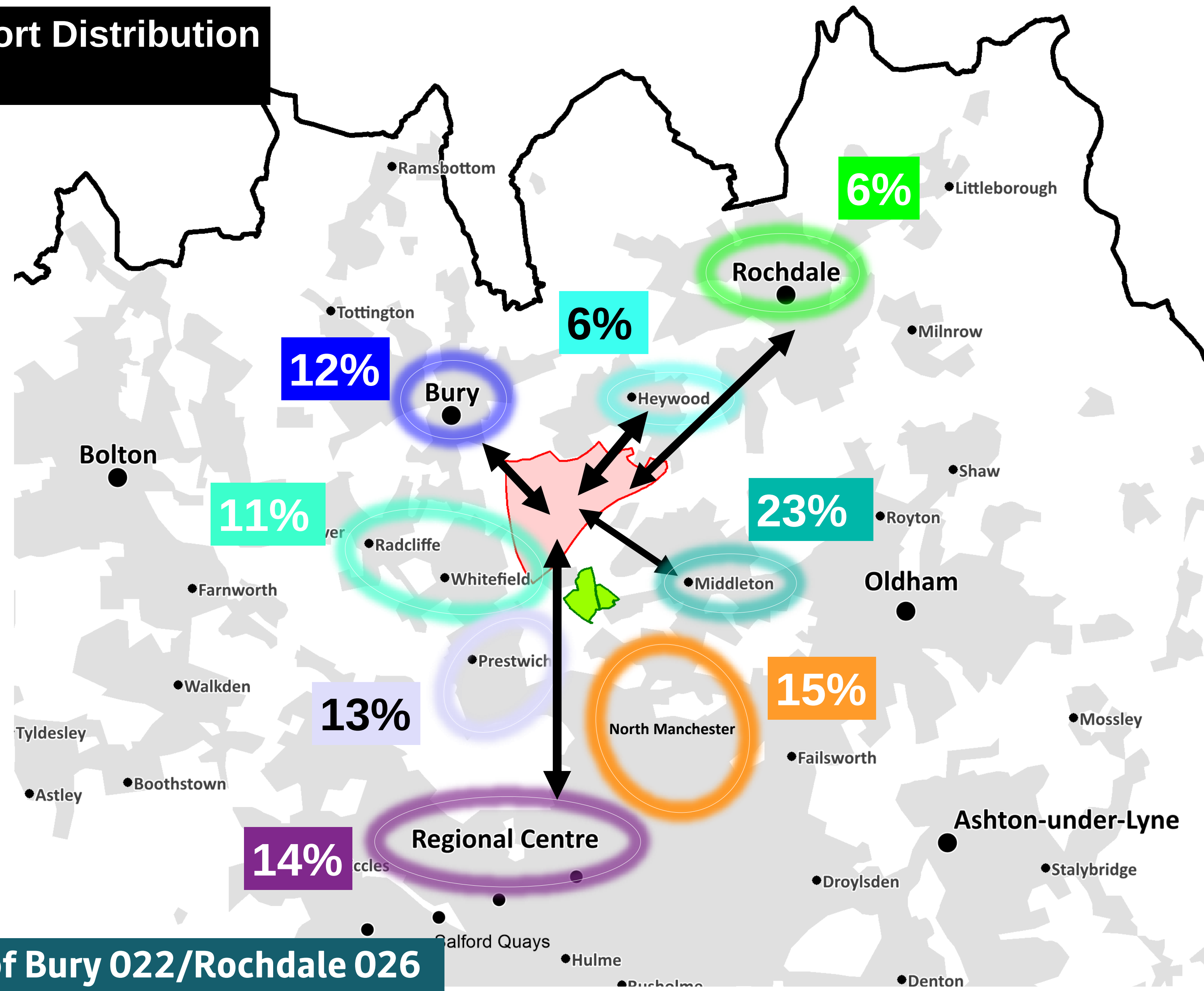
Area
Bury Urban Area
Heywood
Rochdale Urban Area
Middleton
North Manchester
Central Manchester
Prestwich / Simister
Radcliffe / Whitefield

MSOA = Rochdale 019



01 Strategic Context

Public Transport Distribution JPA1.2



Legend

- Northern Gateway 1.1
- Northern Gateway 1.2
- GM County

Area	
Bury Urban Area	
Heywood	
Rochdale Urban Area	
Middleton	
North Manchester	
Central Manchester	
Prestwich / Simister	
Radcliffe / Whitefield	

MSOA = Average of Bury 022/Rochdale 026



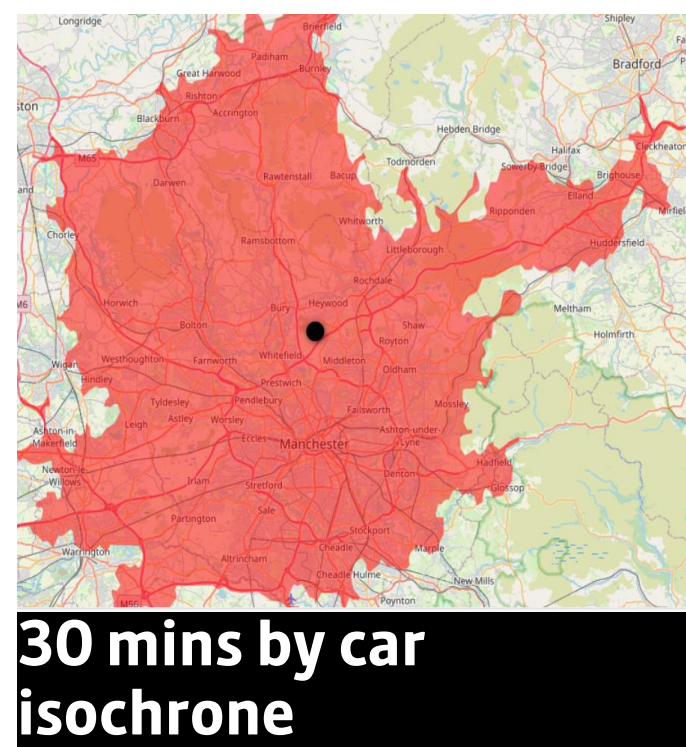
01 Strategic Context

Existing Active Travel

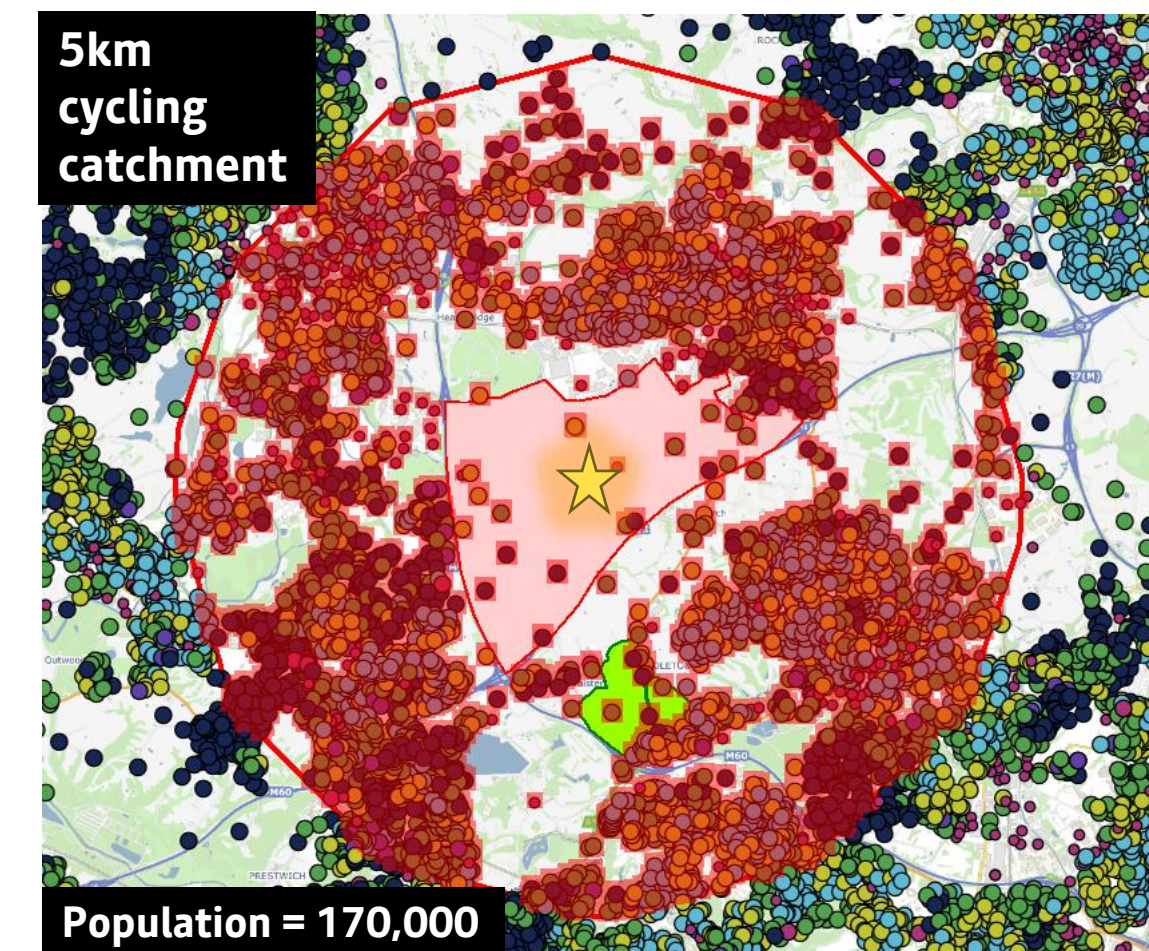
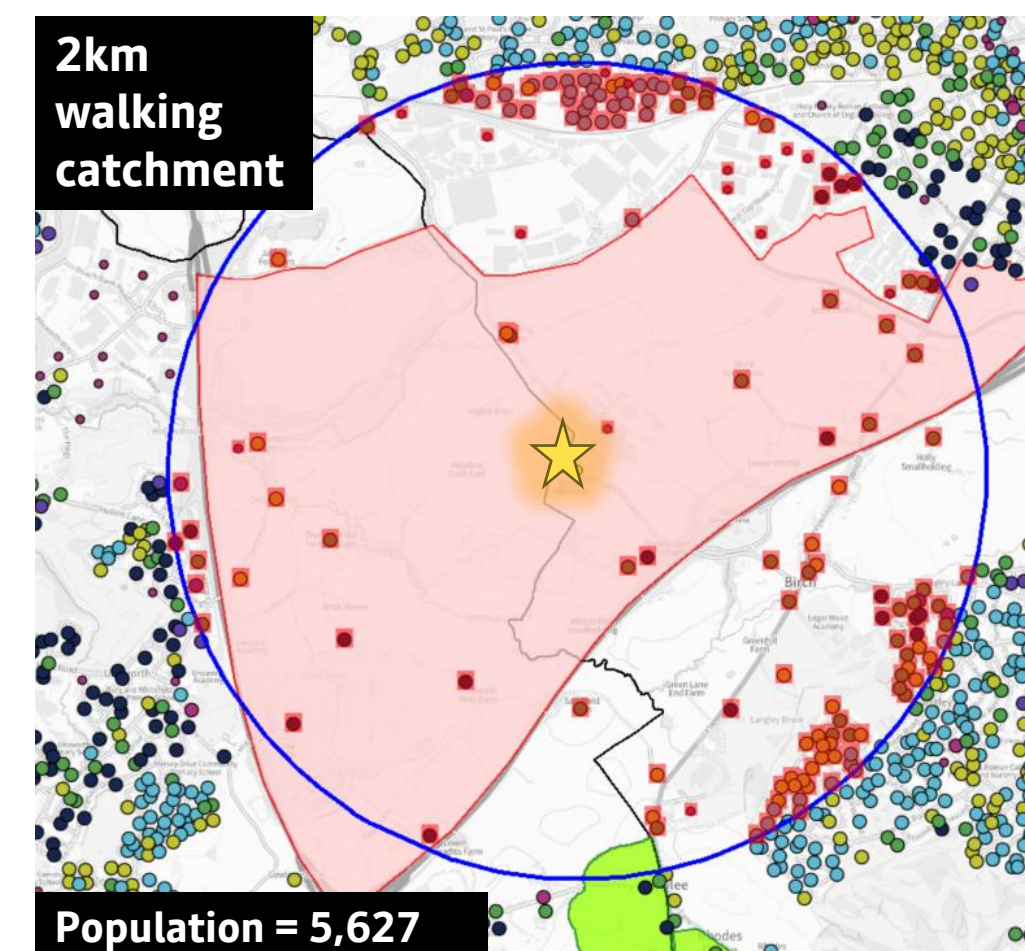
Significant improvements in active travel infrastructure will be needed to walking, wheeling and cycling to and from the Northern Gateway sites. Due to the scale of JPA 1.1, walking trips are expected to be more limited than cycling, a 2km distance from the centre of Whittle Lane (approx 30 min walk) houses roughly c.5,600 residents. There is, however, the potential for walking trips from the South Heywood residential housing site (which is not picked up on the figures to the right).

Due to the location of the site, it is important Northern Gateway utilises existing pedestrian and cycling routes. This will help overcome major severance points around the site such as M66, M62 and rail lines, and connect immediate communities of Prestwich, Radcliffe, Bury, Heywood, Rochdale, Middleton and Langley.

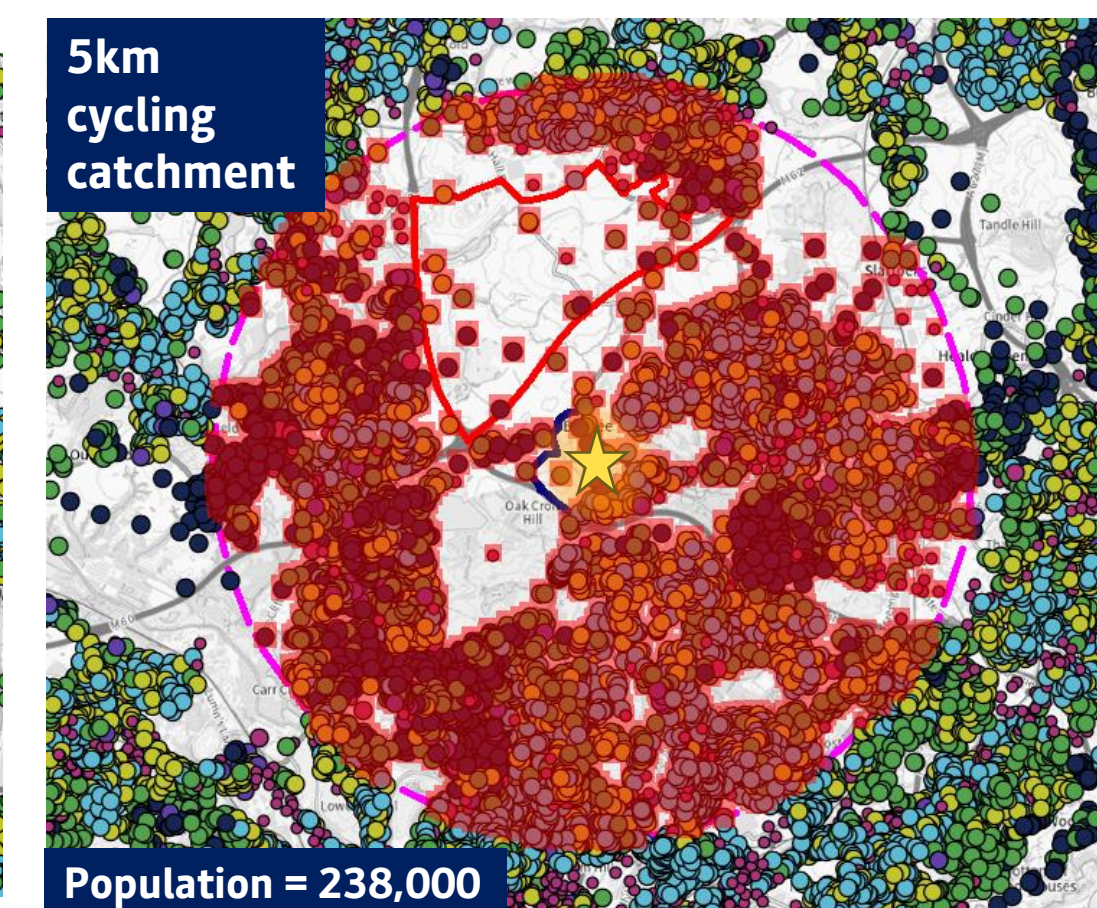
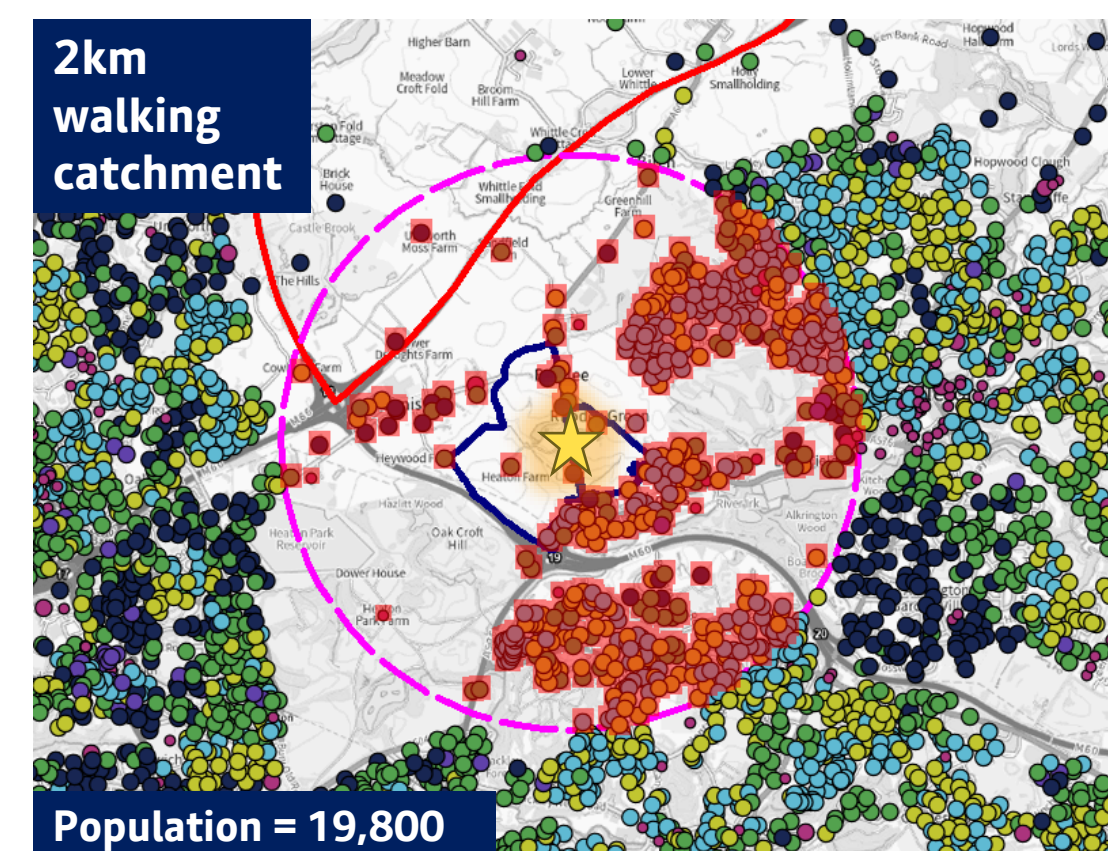
Public Rights of Way (PRoW) networks help enable active travel, though most are historic paths, therefore the provision within and around Northern Gateway is disjointed, but there is opportunity to upgrade these to meet GM's active travel standards.



JPA1.1 Active Travel Catchment Population from Whittle Lane (Source: Acorn 2022)



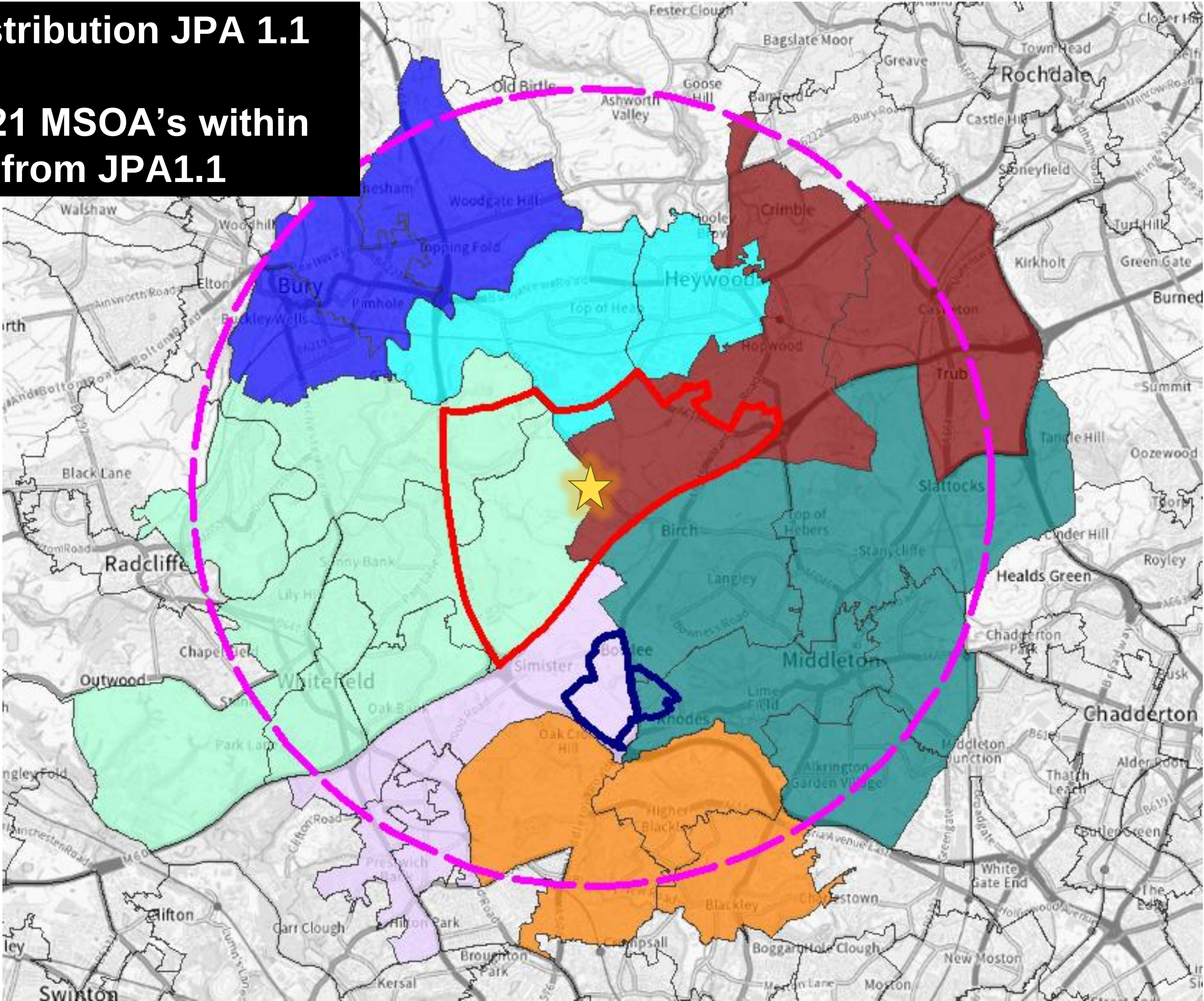
JPA1.2 Active Travel Catchment Population from JPA1.2 (Source: Acorn 2022)



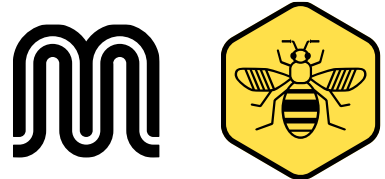
01 Strategic Context

Cycling Distribution JPA 1.1

Census 2021 MSOA's within 5km buffer from JPA1.1



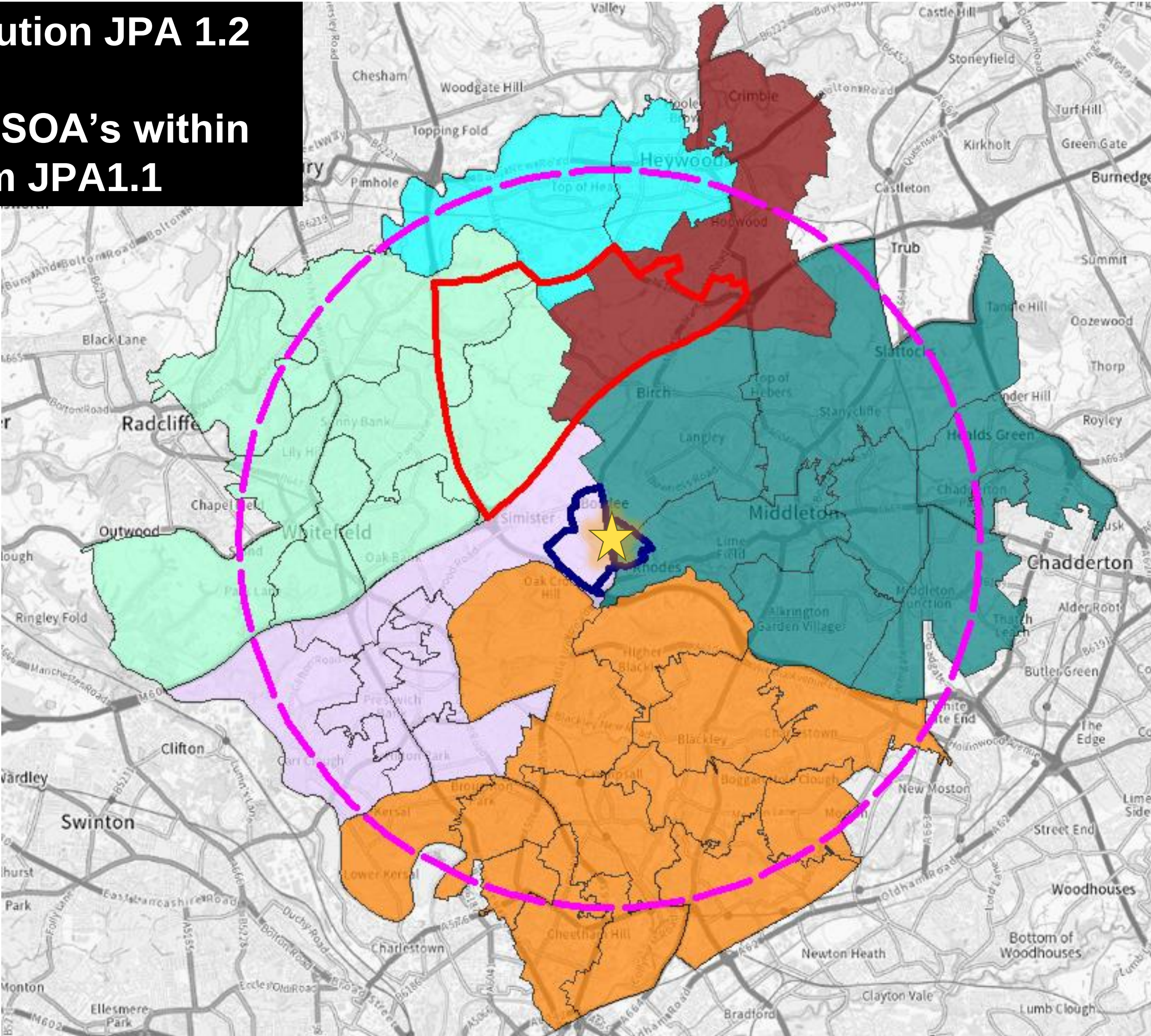
Area	Cycling Distribution %
Bury Urban Area	18%
Heywood North	38%
Heywood South / Castleton	15%
Middleton	14%
North Manchester / Salford	2%
Prestwich / Simister	3%
Radcliffe / Whitefield	10%



01 Strategic Context

Cycling Distribution JPA 1.2

Census 2021 MSOA's within
5km buffer from JPA1.1



Area	Cycling Distribution %
Heywood North	6%
Heywood South / Castleton	3%
Middleton	33%
North Manchester / Salford	25%
Prestwich / Simister	21%
Radcliffe / Whitefield	13%



01 Strategic Context

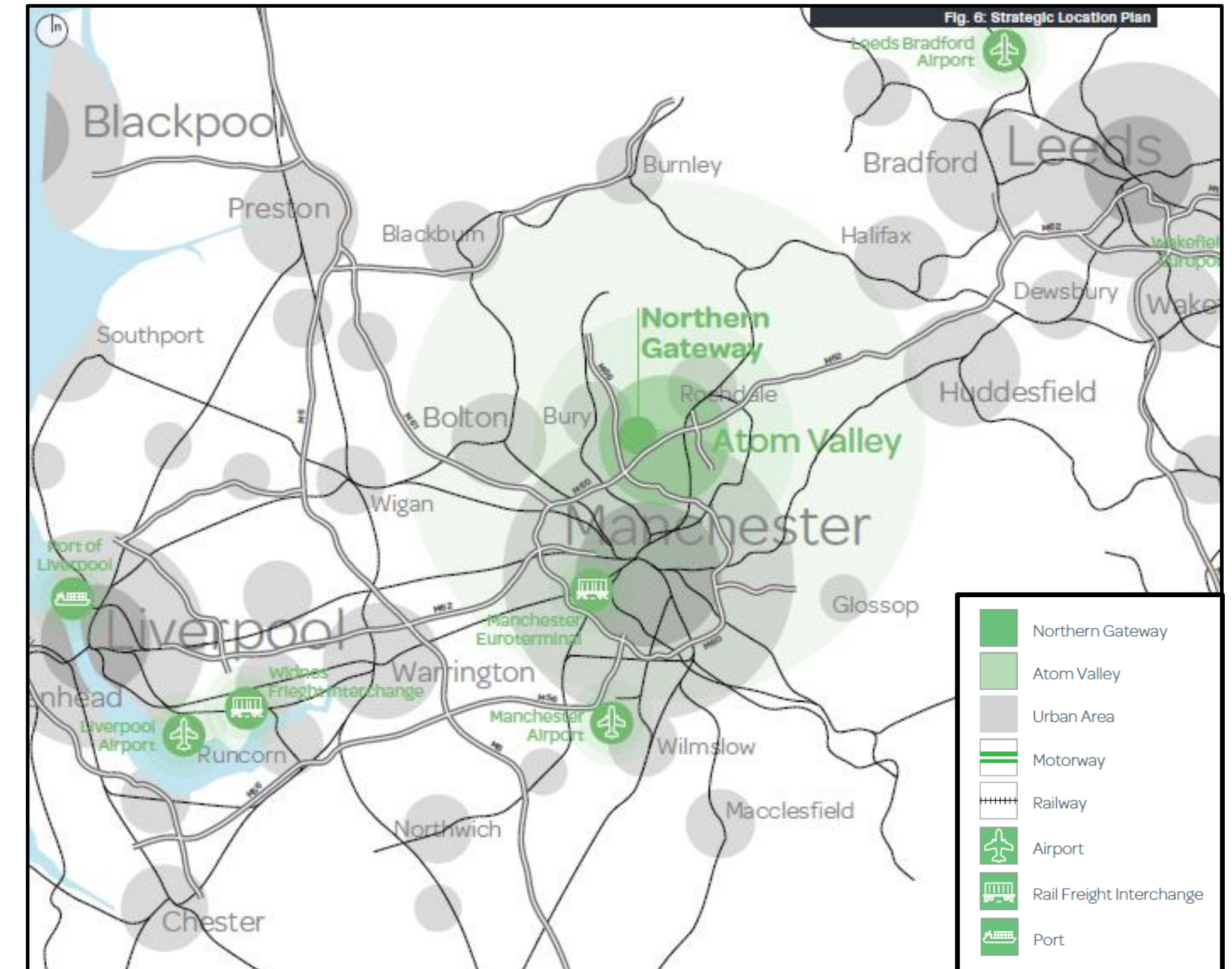
Identifying key network constraints and opportunities at Northern Gateway will help to define what needs to, and can be addressed by transport in the short, medium and long-term. The challenges and opportunities will subsequently help to define what needs to, and can be addressed by the Infrastructure Phasing and Delivery Strategy (IPDS)

The key transport related **challenges** for Northern Gateway are:

- Proximity to the strategic road network, for people and goods
- No public transport currently serving the development
- No active travel routes to/from the development connecting immediate communities
- Scale of the site and subsequent phasing requirements
- Number and complexity of stakeholders
- Wider 'Drivers for Change' that will inform future travel patterns at a more strategic regional and national level. These include changes in population, working patterns, technological advances and policy-related drivers.
- Physical severance of the site due to infrastructure constraints, leading to issues of isolation, perceived safety and security issues. This can also encourage greater use of private car for relatively short journeys.

However, Northern Gateway also has a number of **opportunities** for transport, including:

- The chance to embed and nurture sustainable travel behavioural patterns from the outset to help achieve The Right Mix transport ambition.
- The scale of intervention provides the opportunity for a critical mass that could support significantly improved public transport for the site and surrounding employment uses
- The formation of the Atom Valley Mayoral Development Zone
- Aligning the transport investments with the phased build out of the significant development proposals.



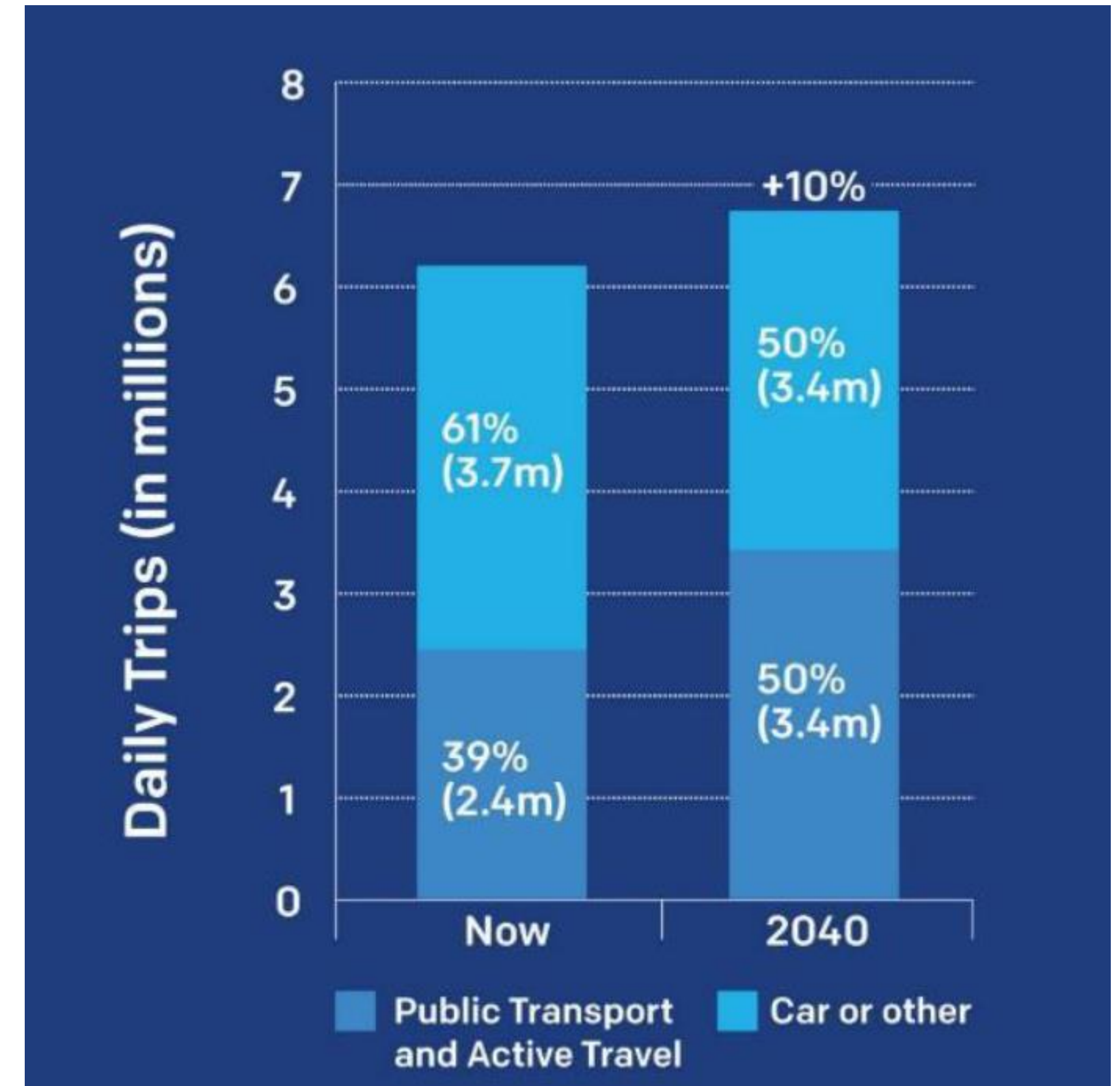
01 Transport Vision

Transport Vision

An ambitious and sustainable transport vision has been agreed for the Northern Gateway development as part of this overarching transport framework document. The vision was developed in partnership between TfGM, Rochdale Council, Bury Council and the Joint Venture.

All transport interventions will need to fully support our transport vision, set out below:

- Overall mode share target – *60-70% Car / 40-30% PT & AT*
- All communities and interchanges within a 5km catchment of JPA 1.1, and key workplaces and facilities (such as secondary schools and shops) within a 5km catchment of JPA 1.2 to have a high-quality cycling route to/from the two sites.
- Direct and frequent local bus services connecting to/from Bury, Heywood, Middleton, Oldham, Prestwich, Radcliffe, Rochdale, Whitefield and Northeast Manchester including North Manchester Hospital (in relation to JPA 1.2).
- Public transport connection to/from Manchester city centre and universities.
- Mitigation of safety and significant congestion impacts on the highway network (SRN/ MRN and Local Highways).
- Overall support for sustainable travel across the Atom Valley area and GM's ambition for zero net increase in car traffic by 2040.
- Streets for all principles embedded in the on-site layout and Western Access design, including appropriate management of car parking to ensure prioritisation of sustainable and active modes.



02 Understanding the Development, Travel Demand and Scenarios

02 Understanding the Development

Understanding the site and wider place-based context will be critical in understanding the challenges and opportunities for transport in serving Northern Gateway. This section of the document focusses on understanding the development and travel demand for the site.

- JPA 1.1 (Heywood and Pilsworth) – Up to 1,200,000sqm of industrial, advanced manufacturing and warehousing space together with some 1,200 dwellings.
- JPA 1.2 (Simister and Bowlee) – A mix of around 1,550 dwellings, together with a primary school.

Development Mix

At this stage, the development quanta are still being refined. Therefore, to provide an indicative traffic generation, an indicative development schedule has been identified, as set out in **Table TTN4-13** (Tetra Tech Transport Assessment Scoping Note Addendum).

Table TTN4-13: Indicative Development Schedule

Land use	Ad. Man. (Sqm)	B1(c) (Sqm)	B2 (Sqm)	B8 (Sqm)	Residential (per dwelling)
Quantum	117500	27500	65000	842500	200
T.Gen factor (/100sqm)	1175	275	650	8425	

Using trip rates set out in the Tetra Tech Scoping Note Addendum results in 2-way person trips in the AM peak of 2,805 for JPA 1.1 and 1,399 for JPA 1.2.

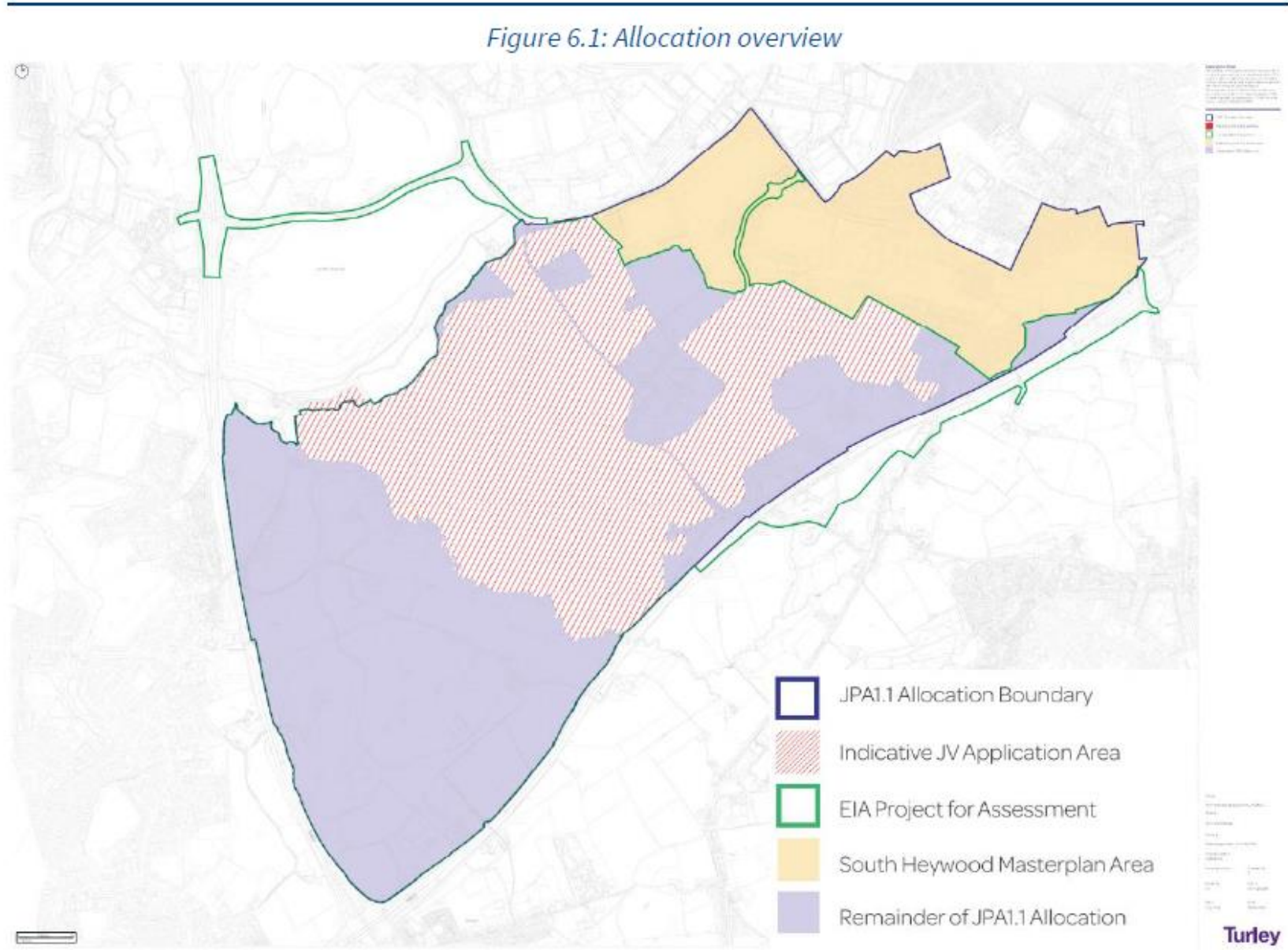


Table 6.1: Allocation and Sub Area

JPA 1.1 Area / Land Use	Dev Quantum	Context
Full Allocation		
Industrial	1,200,000 sqm	Full Allocation
Residential	1,200 dwellings	Full Allocation
Sub Area 1: South Heywood		
Industrial	175,460 sqm	Already approved
Residential	1,000 dwellings	Already approved
Sub Area 2: JV Current Application		
Industrial	c. 600,000 - 700,000 sqm	Included in current application
Sub Area 3: Remainder of Allocation		
Industrial	c. 324,540 - 424,540 sqm	Excluded from current application
Residential – Castle Road	200 dwelling	Excluded from current application

02 Understanding the Development

Phasing

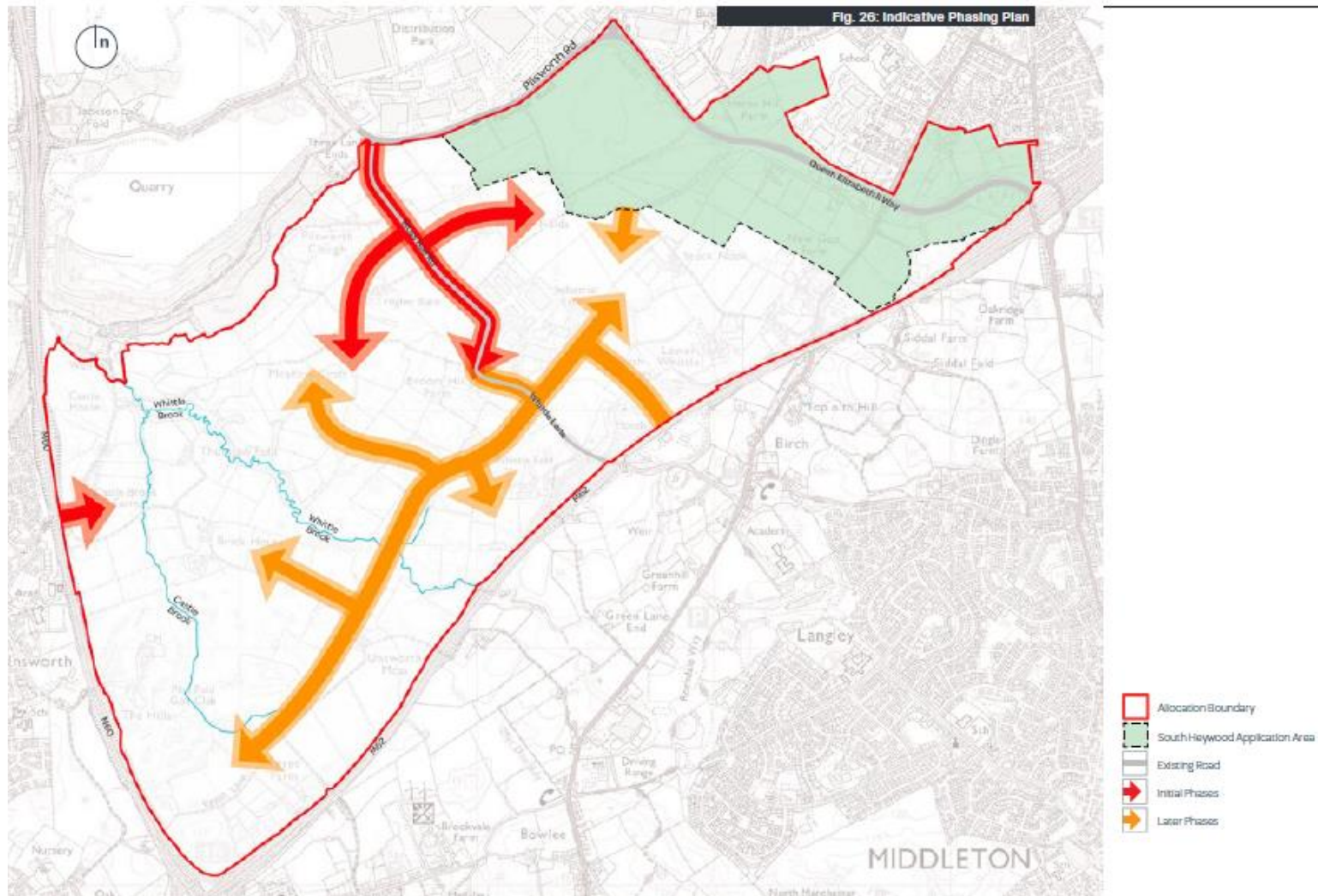
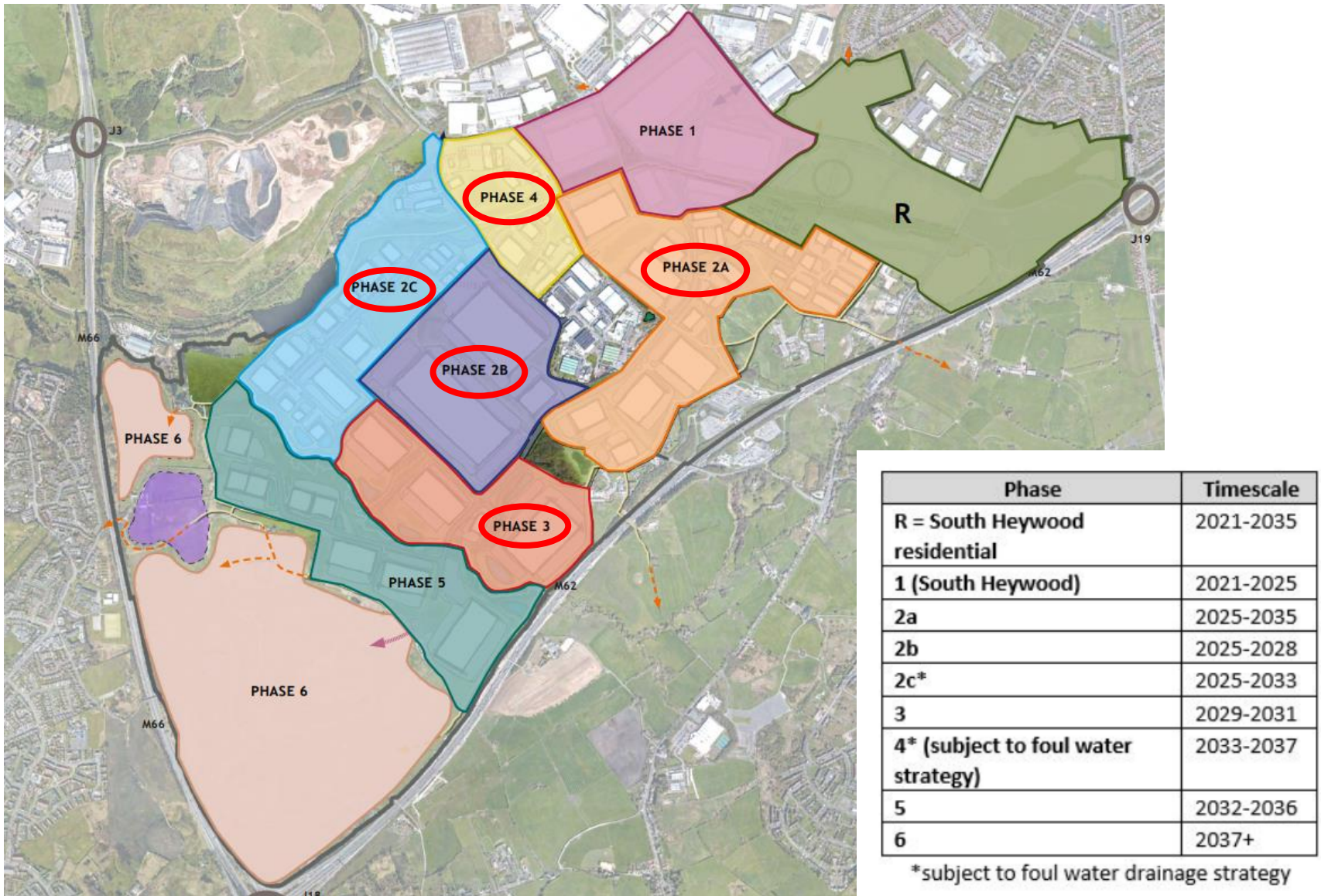
Given the scale of the site, full delivery is expected to take place over a 20-year period. Development is expected to come forward in a series of phases alongside necessary transport infrastructure provision. A flexible approach is needed in order to be responsive to opportunities as, over time, the phasing may change depending on the needs of future occupiers.

The residential and Phase 1 employment developments in South Heywood have planning permission and are the first to be developed from 2021 onwards. Phase 2 onwards are now expected to start first occupation from 2030. The developer expects to be able to deliver up to 600,000 sq ft (c. 56,000 sqm) per year once development begins.

The scale of the site will make phasing meaningful transport interventions a challenge. Determining the scale of the mitigation required, and bringing the most effective transport interventions forward at the right time will be crucial for the sustainability of the site from the outset.

Understanding the demand from different future uses will be critical in identifying where future demand is coming from, and what sustainable transport connections need to be in place to enable this.

An initial Infrastructure Phasing and Delivery Strategy (IPDS) for the site has been prepared in accordance with the PfE Policy JPA1.1 and JP-D1 and the outcome of the TFD will update the IPDS as more detailed analysis work is undertaken.



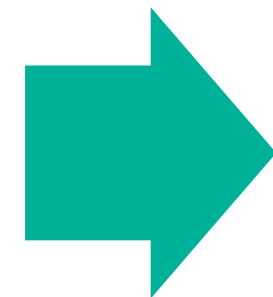
02 Travel Demand and Scenarios

Scenarios are developed to help understand the uncertainties that may impact on the ability to deliver a long-term transport vision and help guide more detailed work at the Transport Assessment stage. To help us consider what transport interventions are needed for Northern Gateway, three scenarios will be considered, adopting a vision-led planning approach. The Tetra Tech trip assumptions will be used as the baseline for the scenarios process, considering trip generation from both JPA1.1 and JPA1.2. Adjustments to person mode share form the basis of the scenario testing process, which then links with the demand and opportunities for sustainable modes within the development area.

Scenario 1

1. Business as usual (using Tetra Tech Baseline)

Transport patterns are still mostly car-dominated, to satisfy conventional land use and travel demands.



Scenario 2

2. Achievable transport vision (developed by TFD, optimal scenario for planning)

This should represent the most likely, balanced, and affordable sustainable transport package. This will be developed using an iterative assessment of transport interventions, their viability, cost, and their likely impacts.



Scenario 3

3. Ambitious vision-led scenario with impacts from wider 2040 strategy

Ambitious Transport intervention package containing interventions and strong car parking management to achieve long term sustainable travel and more ambitious GM Right Mix targets (incl. tram-train, wider network upgrades)

02 Travel Demand and Scenarios - JPA 1.1

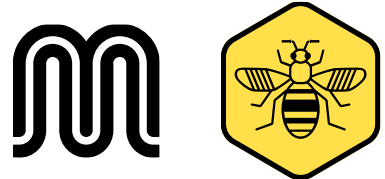
Table TTN4-25: JPA1.1 Site Total - Indicative "policy off" Multimodal Trip Generation

AM Peak Period																		
Hour Period	People			Vehicles Driver			Vehicle Passenger			Walk			Public Transport			Cycle		
	Arr	Dep	Tot	Arr	Dep	Tot	Arr	Dep	Tot	Arr	Dep	Tot	Arr	Dep	Tot	Arr	Dep	Tot
08:00 - 09:00	2032	774	2805	1621	585	2206	244	111	355	90	48	139	62	24	85	15	7	22
PM Peak Period																		
Hour Period	People			Vehicles Driver			Vehicle Passenger			Walk			Public Transport			Cycle		
	Arr	Dep	Tot	Arr	Dep	Tot	Arr	Dep	Tot	Arr	Dep	Tot	Arr	Dep	Tot	Arr	Dep	Tot
17:00 - 18:00	545	1751	2296	413	1316	1729	78	208	286	31	139	170	15	51	66	8	37	45

	Driver	Passenger	Walk	Public Transport	Cycle	Total (Car)	Total (Sustainable Modes)
JPA1.1 AM peak (08:00-09:00)	79%	13%	5%	3%	1%	91%	9%
JPA1.1 PM peak (17:00-18:00)	75%	13%	7%	3%	2%	88%	12%
Census 2011 (TTW for JPA 1.1 MSOA)	74%	8%	8%	8%	2%	82%	18%

Key observations from existing data:

- TRICS mode share traditionally displays high levels of car use (driver and passenger levels), though there are similar car driver levels between 2011 Census and the PM peak
- TRICS is not particularly location specific
- Walking levels would appear high given the remote location of the site and distance from surrounding housing development
- TRICS public transport levels are low when compared against Census 2011 (when there were buses directly serving Heywood Distribution Park)



02 Travel Demand and Scenarios - JPA 1.2

Table TTN4-27: Residential - "policy off" Indicative Multimodal Trip Generation

AM Peak Period																		
Hour Period	People			Vehicles Driver			Vehicle Passenger			Walk			Public Transport			Cycle		
	Arr	Dep	Tot	Arr	Dep	Tot	Arr	Dep	Tot	Arr	Dep	Tot	Arr	Dep	Tot	Arr	Dep	Tot
08:00 - 09:00	277	1122	1399	196	584	780	33	333	365	42	156	198	0	25	25	5	25	30
PM Peak Period																		
Hour Period	People			Vehicles Driver			Vehicle Passenger			Walk			Public Transport			Cycle		
	Arr	Dep	Tot	Arr	Dep	Tot	Arr	Dep	Tot	Arr	Dep	Tot	Arr	Dep	Tot	Arr	Dep	Tot
17:00 - 18:00	767	339	1106	517	205	723	181	78	259	39	44	83	16	4	20	14	8	22

	Driver	Passenger	Walk	Public Transport	Cycle	Total (Car)	Total (Sustainable Modes)
JPA1.2 AM peak (08:00-09:00)	56%	26%	14%	2%	2%	82%	18%
JPA1.2 PM peak (17:00-18:00)	65%	23%	8%	2%	2%	81%	19%
Census 2021* (TTW for JPA 1.2 Bury 022A)	78%	4%	4%	12%	1%	82%	18%
Census 2021* (TTW for JPA 1.2 Rochdale 024D)	71%	6%	6%	15%	2%	77%	23%
Census 2021* (TTW for JPA 1.2 average of Bury and Rochdale sites)	75%	5%	5%	14%	1%	80%	20%

Key observations from existing data:

- As with JPA 1.1 TRICS mode share displays high levels of car passenger usage and is not particularly location specific
- TRICS public transport levels are low when compared against Census 2011 (when there were buses directly serving Heywood Distribution Park)
- Car driver mode share is much higher for travel to work (which aligns with other data sources), but is not fully reflective of range of trips for housing sites
- **Crucially, travel patterns related to housing sites are complex and are not just made up of travel to work trips. This needs to be accounted for in a vision-led approach to avoid over-estimating car trips in peak hours and disregarding the important needs around non-work travel (e.g. education and shopping trips)**

* Mode share data is available for housing sites for the 2011 Census data. The data excludes work from home trips (which made up approximately 30% of trips)



02 Travel Demand and Scenarios - JPA 1.2

National Travel Survey (NTS) data and Greater Manchester Travel Diary Surveys (TRADS) illustrate similar conclusions in relation to the make up of peak hour trips by purpose and is illustrated to the right. NTS data is taken from NTS0502a data for 2023. GM TRADS data was taken from manipulation of data contained in Fig 24 of the 2023 Summary Report Tables. The results are starkly similar given they are from completely independent sources, with over 50% of 8-9 trips being for education and escort education trips both in GM and nationally. Trips for non work and education purposes also feature highly, particularly in the PM peak.

Under vision-led planning, people-first (rather than car trip and work focussed) assumptions are needed. Hence the peak hour mode shares for JPA 1.2 are derived from a weighted mode share combining GM TRADS trip purposes with the local Census 2021 mode share for travel to work trips and the NTS mode share for ‘education and escort education’ and ‘other’ trips. The NTS mode share is calculated from NTS0409a data for 2023 (excluding buses in London and London underground as mode options).

This data will be utilised in the vision-led scenario testing to ensure that opportunities for public transport in Manchester are considered from a sensible baseline position (rather than the very low levels of PT use derived from TRICS).

Use	NTS		GM TRADS	
	08:00-09:00	17:00-18:00	08:00-09:00	17:00-18:00
Commuting and business	19%	29%	22%	32%
Education and escort education	53%	5%	56%	4%
Other	28%	66%	22%	64%

	Driver	Passenger	Walk	Public Transport	Cycle	Total (Car)	Total (Sustainable Modes)
Census 2021* (TTW for JPA 1.2 average of Bury and Rochdale sites)	75%	5%	5%	14%	1%	80%	20%
NTS education and escort education	27%	23%	41%	9%	2%	50%	50%
NTS average of shopping, personal and other trips	51%	23%	21%	4%	1%	74%	26%
JPA1.1 AM peak weighted mode share (08:00-09:00)	43%	19%	29%	9%	1%	61%	39%
JPA1.1 PM peak weighted mode share (17:00-18:00)	58%	17%	17%	7%	1%	75%	25%



02 Travel Demand and Scenarios

Scenario 1 JPA1.1 and JPA1.2

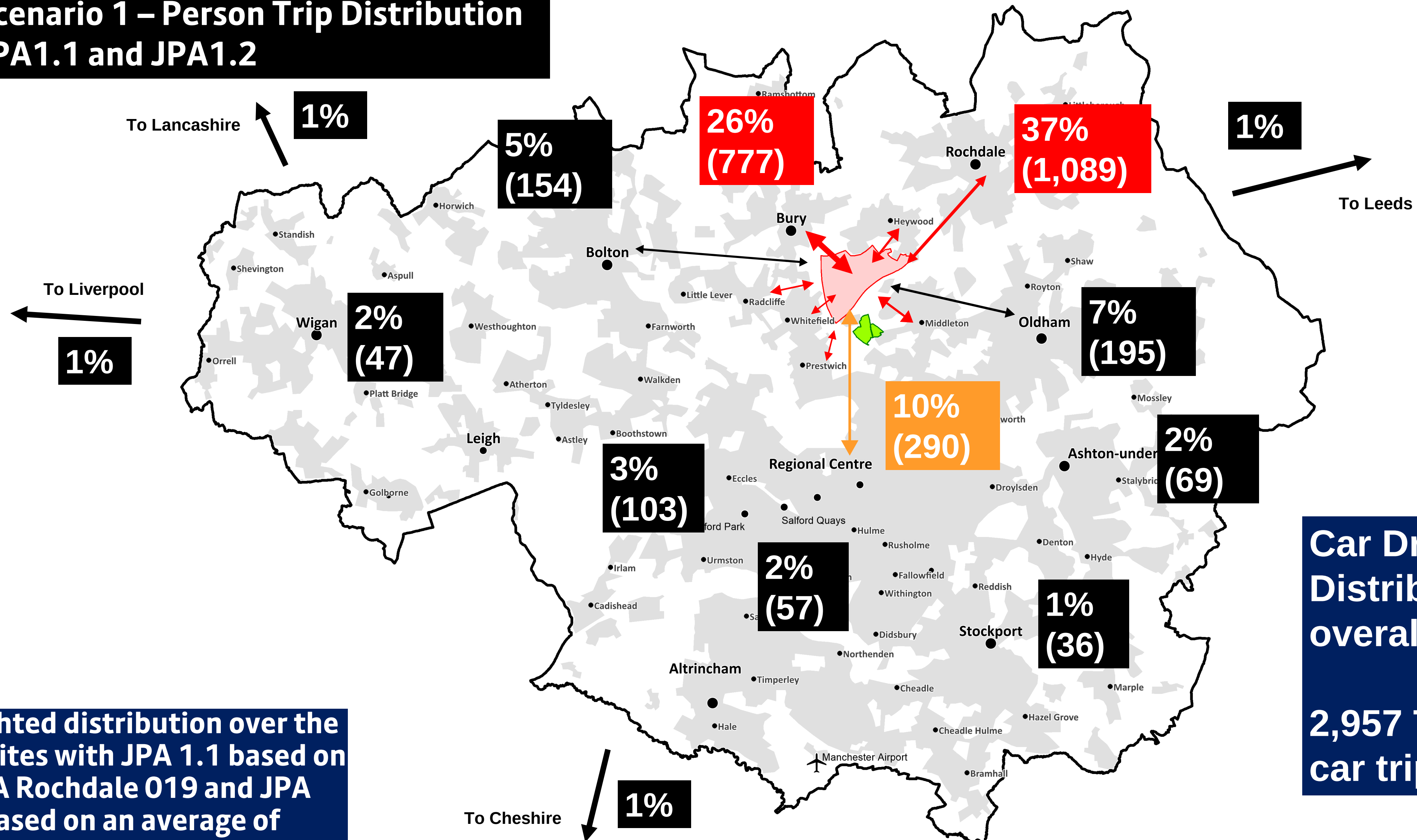
Scenario 1 will use the trip volume forecasts from the Tetra Tech scoping exercise for the Transport Assessment for the site. The trip volume forecasts are based on traditional TRICS outputs, which rely on surveys at proxy sites around the country. i.e. they are historic and so will not reflect the policy aspiration for a much greater use of public transport and active / sustainable travel for this development and are not GM specific in terms of existing sustainable transport use.

Scenario 1 will very much be “business as usual”, based on existing travel patterns for similar sites nationally. The walking % mode split has increased due to adding the JPA1.2 residential element where we would expect to see more walking trips, however walking trips to JPA1.1 will be limited due to the scale of the site. The weighed mode share provides the overall mode share weighted by the trip generation for each site. Throughout the scenario building, the AM peak only is presented for ease of illustration.

Scenario 1 - Mode Share							
	Driver	Passenger	Walk	Public Transport	Cycle	Total (Car)	Total (Sustainable Modes)
JPA1.1 (AM Peak)	79%	13%	5%	3%	1%	91%	9%
JPA1.2 (AM Peak)	56%	26%	14%	3%	2%	81%	19%
Weighted mode share (AM)	70%	17%	8%	3%	1%	88%	12%

02 Travel Demand and Scenarios

Scenario 1 – Person Trip Distribution JPA1.1 and JPA1.2



Weighted distribution over the two sites with JPA 1.1 based on MSOA Rochdale 019 and JPA 1.2 based on an average of Bury 022 and Rochdale 024

Car Driver Trip
Distribution (70%
overall mode share)

2,957 Total AM Peak
car trips



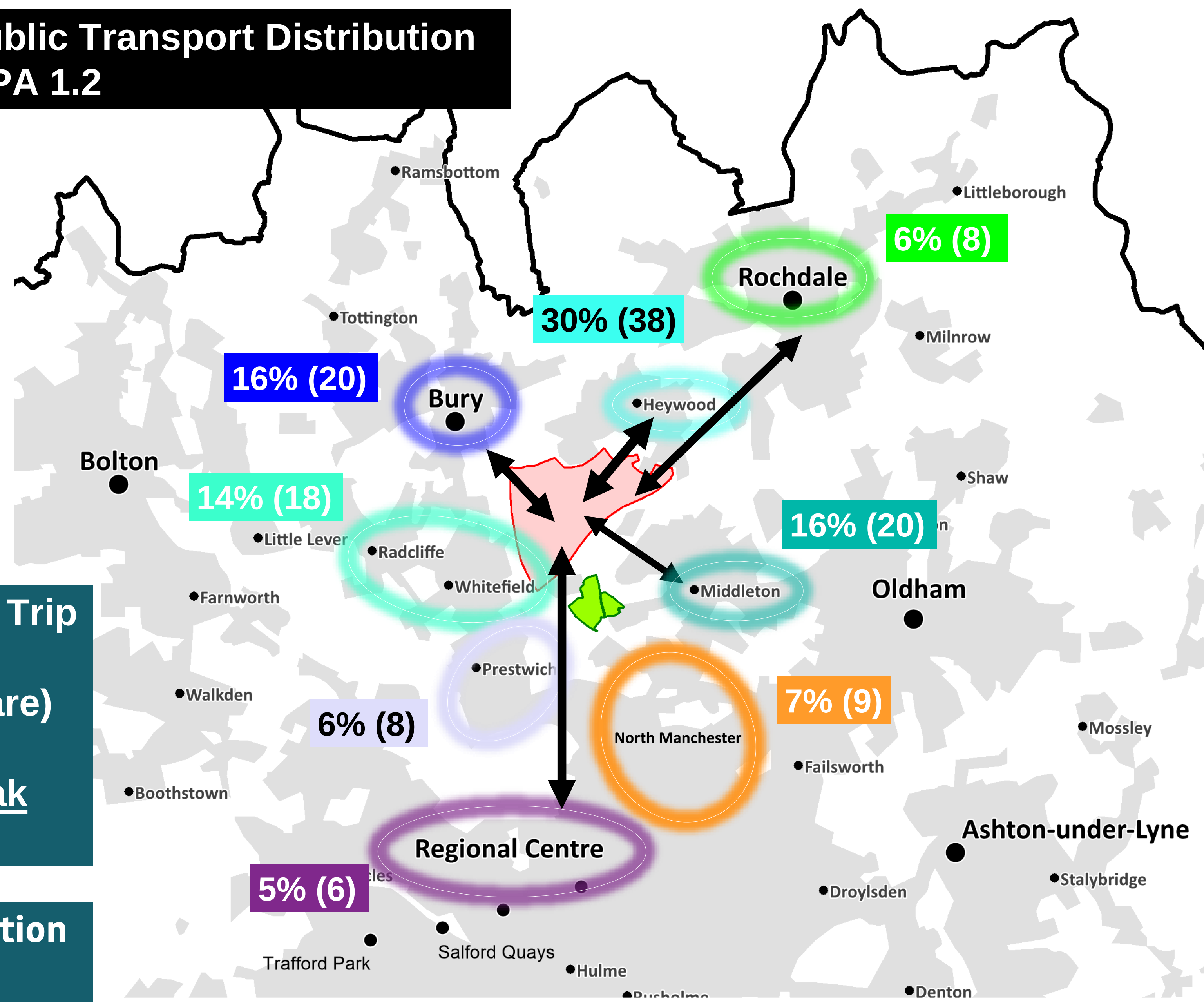
02 Travel Demand and Scenarios

Scenario 1- Public Transport Distribution JPA 1.1 and JPA 1.2

Public Transport Trip
Distribution (3%
overall mode share)

126 Total AM Peak
bus trips

Weighted distribution
over the two sites



02 Travel Demand and Scenarios

Scenario 1 JPA1.1 and JPA1.2

Bus

Accounting for the mode share presented in the Tetra Tech scoping report results in very low levels of bus use, particularly when considering the scale of the site.

Estimates of daily trips, to sustain bus services, assuming that peak hour trips make up 10% of daily trips as a broad assumption, are presented below. The analysis also makes a broad assumption that 7,500 daily trips are generated by the Heywood Distribution Park and Pilsworth employment area.

- JPA1.1 = **765 PT trips** per day (3% of 25,500 trips per day)
- JPA1.2 = **376 PT trips** per day (3% of 12,525 trips per day)
- Additional potential trips from Heywood Distribution Park / Pilsworth = **225 PT trips** per day (3% of estimated 7,500 trips per day)

Considering the assumptions above...

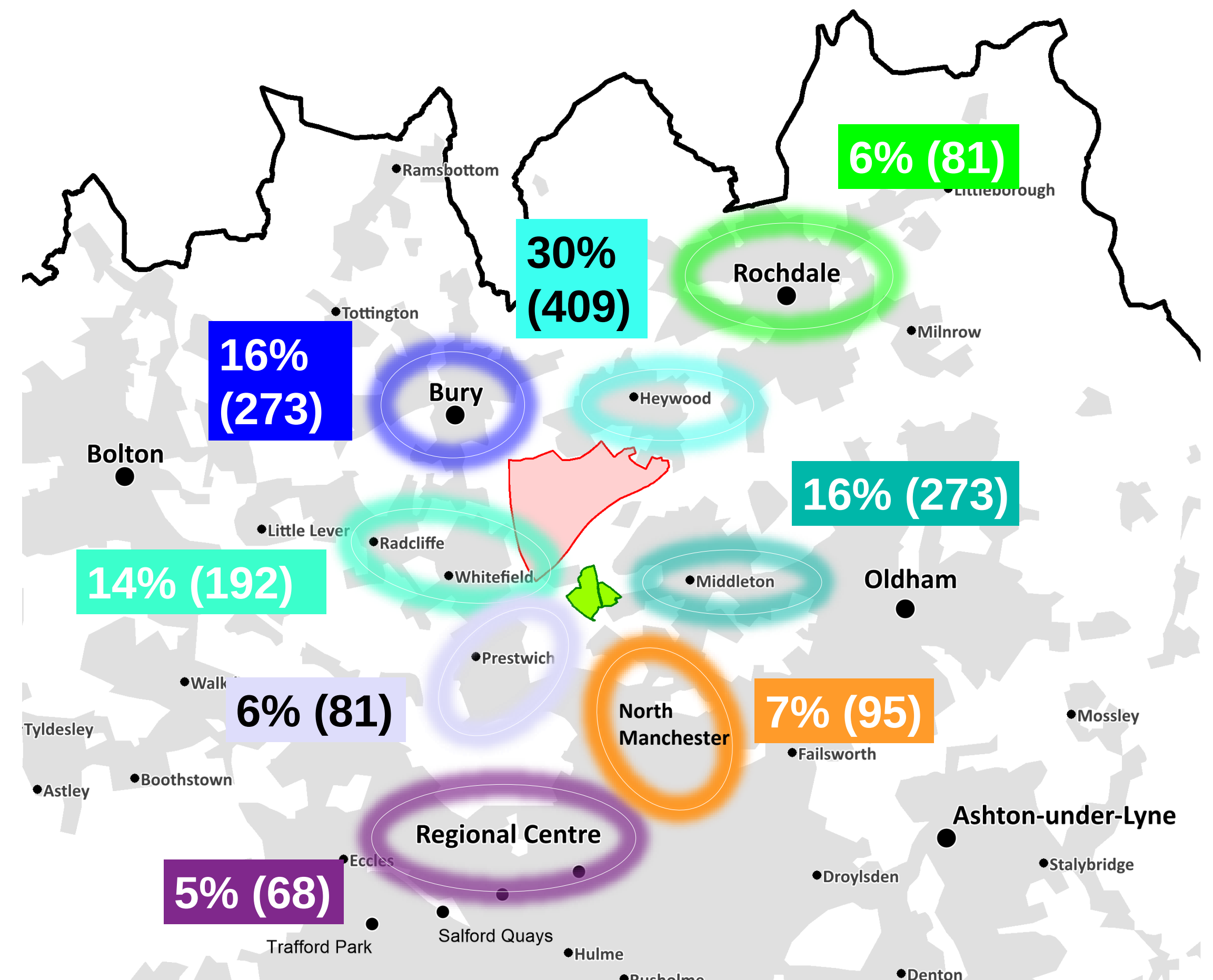
Full day PT @ 3% mode share = **1,366 trips** (683 arrivals / 683 departures)

AM Peak PT @ 3% mode share = **136 trips** (68 arrivals / 68 departures)

At a 3% mode share, the site would support **approx. 3 buses per year.**

PT Distribution (3% mode share)

c.1,366 Total Daily Trips (including JPA1.1, JPA1.2 and estimate for Heywood Distribution Park and Pilsworth)



02 Travel Demand and Scenarios

Scenario 1 JPA1.1 and JPA1.2

Summary

- Transport patterns are car-dominated, **88%** mode share for both JPA1.1 and JPA1.2 combined. This is a conventional land use and travel demand (policy off) scenario.
- **3%** public transport mode share equates to very poor levels of bus patronage, and therefore, would not support an attractive bus network that covers the areas needed to be served.
- **1,366** total daily PT trips at 3% mode share. PT indicative trip demand mainly from **Heywood, Bury, Radcliffe, Middleton and Rochdale**.
- Significant public transport and active travel investment needed to help unlock the site for sustainable modes, especially for local communities in the Northern Gateway area.

02 Travel Demand and Scenarios

Scenario 2 JPA1.1 and JPA1.2

Scenario 2 represents the most likely, balanced, and economically viable vision-led transport package. The proposed mode shares draw upon the local Census 2021 data in relation to take up of public transport for travel to work which is critical in support of the GM 2040 strategy. It also draws upon the weighted mode share for JPA 1.2 set out previously to ensure a vision-led approach to people-first transport planning for the housing site.

The general principles for Scenario 2 are to achieve:

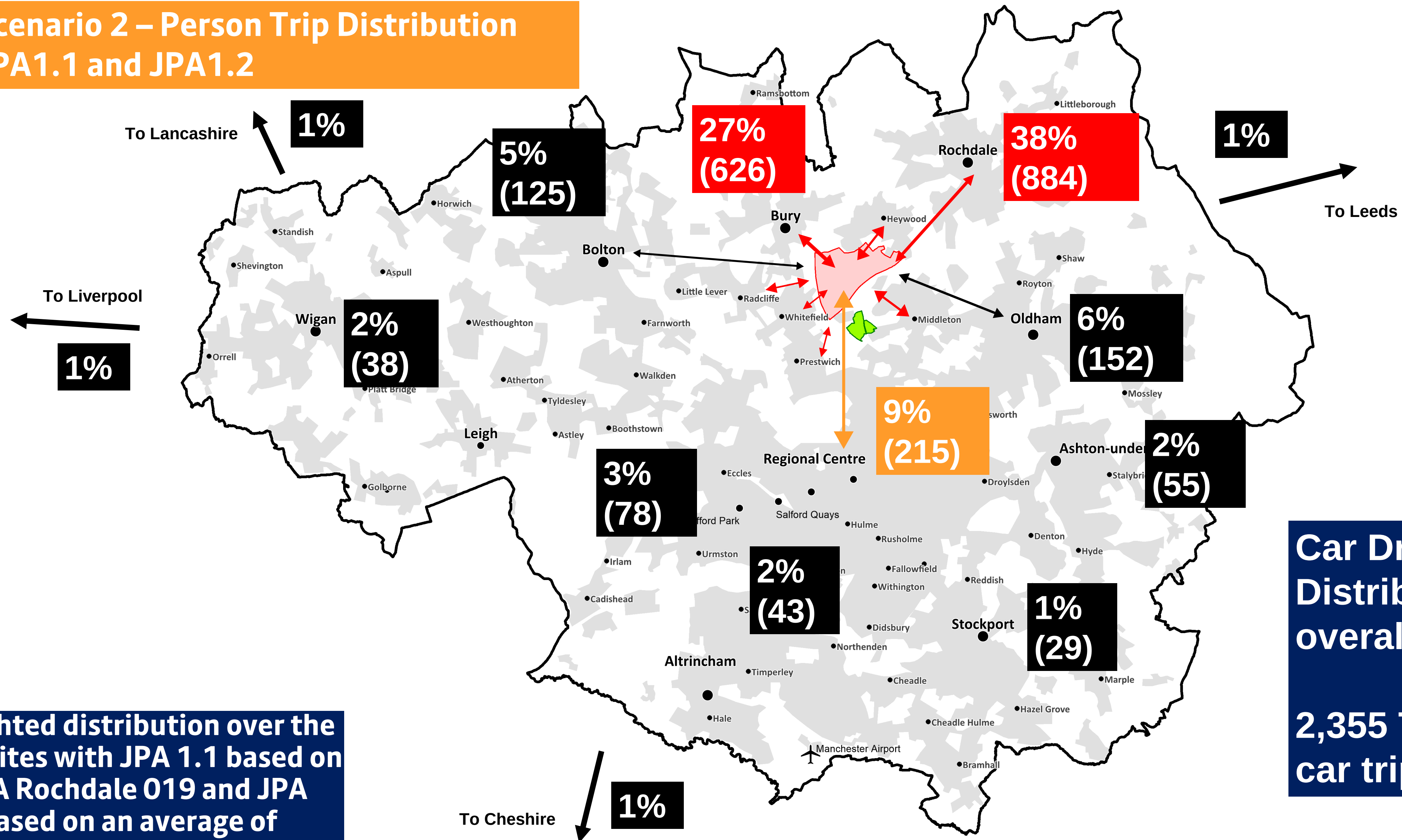
- 20% mode share for public transport trips to work (at JPA 1.1 and 1.2) alongside a 10% mode share for active travel (a substantial increase in cycling, due to the limitations around walking due to the size and location of JPA 1.1)
- Public transport to increase by 2-3% mode share for education and other purposes for JPA 1.2
- Cycling mode share to increase by 1% mode share for education and other purposes for JPA 1.2
- Walking mode share to increase by 1% mode share for education purposes for JPA 1.2

Scenario 2 - Mode Share

	Driver	Passenger	Walk	Public Transport	Cycle	Total (Car)	Total (Sustainable Modes)
JPA1.1 and JPA1.2 TTW	65%	5%	4%	20%	6%	70%	30%
Overall weighted mode share (AM)	56%	9%	12%	17%	5%	65%	35%

02 Travel Demand and Scenarios

Scenario 2 – Person Trip Distribution JPA1.1 and JPA1.2



**Car Driver Trip
Distribution (56%
overall mode share)**

**2,355 Total AM Peak
car trips**



02 Travel Demand and Scenarios

As the site does not benefit from any direct rail or tram connections, taking advantage of the significant opportunities to connect into and enhance existing bus networks serving the key local centres around JPA 1.1 and 1.2 will be crucial.

As the bus network is now under public control, bus routes and frequencies can be flexible to suit demand and ensure service coverage to local communities. To help achieve our sustainable transport vision, we will look to use the Northern Gateway bus principles when considering any improvements.



Northern Gateway Bus Principles

- Direct, frequent and reliable local bus services connecting to/from Bury, Heywood, Middleton, Oldham, Prestwich, Radcliffe, Rochdale, Whitefield and Northeast Manchester.
- Affordable bus services as lower fares sees a positive impact on bus ridership
- Bus routes that serve Northern Gateway should connect to public transport interchanges.
- All bus infrastructure should align with Streets for All and LTN 1/24 design guidance.
- Bus stops should be in convenient locations, and be improved where possible to include adequate seating, lighting, shelter and live information.

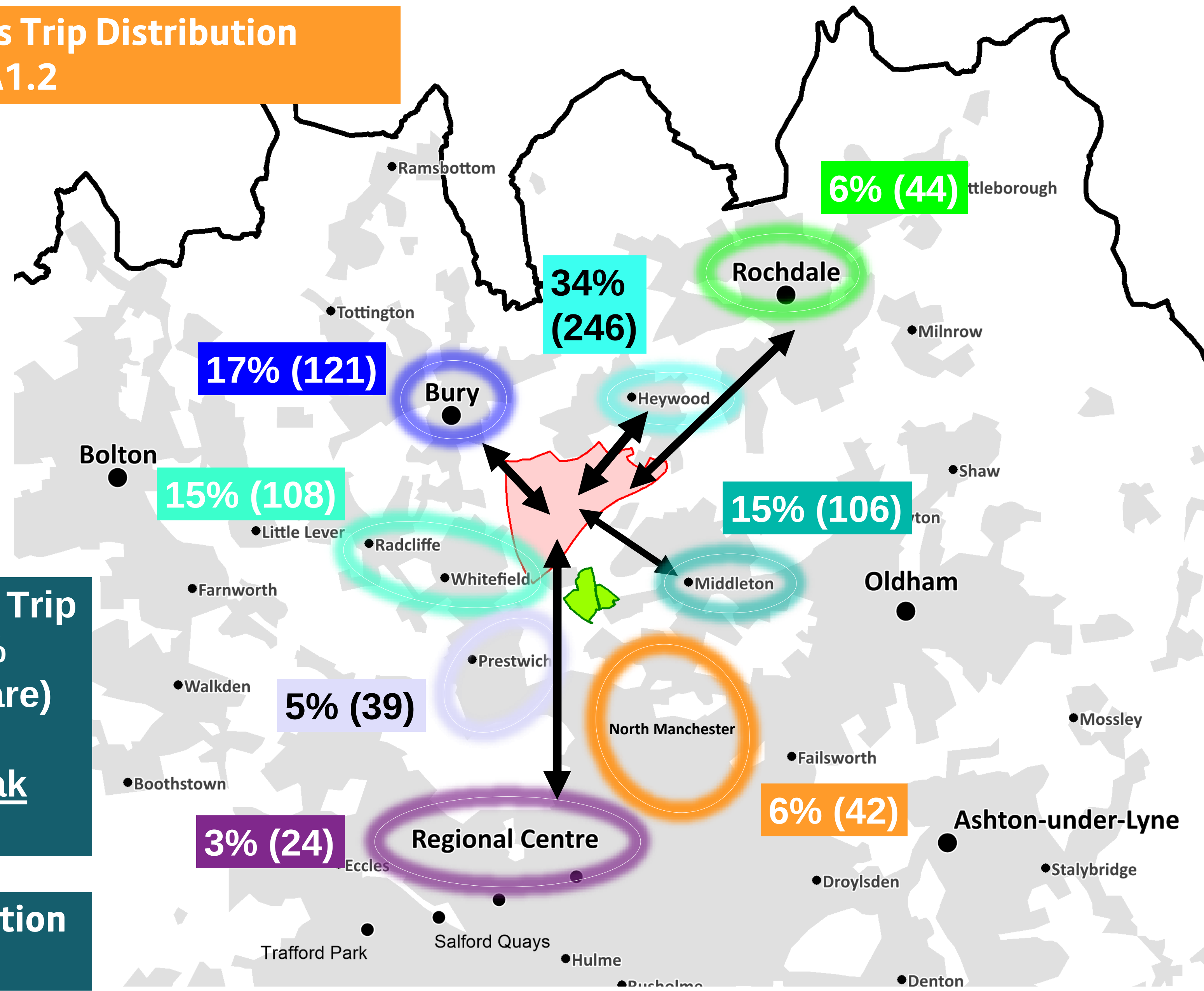
02 Travel Demand and Scenarios

Scenario 2 – Bus Trip Distribution JPA1.1 and JPA1.2

Public Transport Trip
Distribution (17%
overall mode share)

729 Total AM Peak
bus trips

Weighted distribution
over the two sites



Legend

Northern Gateway 1.1

Northern Gateway 1.2

GM County

Area

Bury Urban Area

Heywood

Rochdale Urban Area

Middleton

North Manchester

Central Manchester

Prestwich / Simister

Radcliffe / Whitefield



02 Travel Demand and Scenarios

Scenario 2 JPA1.1 and JPA1.2

Bus

To achieve the transport vision for the site, significant improvements to bus services and infrastructure will be crucial to reach a 20% public transport mode share. There is a significant opportunity to improve bus modal share for this development, if attractive services are provided to local communities.

- JPA1.1 = **5,100 PT trips per day** (20% of 25,500 trips per day)
- JPA1.2 = **1,503 PT trips per day** (12% of 12,525 trips per day - PT mode share for JPA 1.2)
- Additional potential trips from Heywood Distribution Park/Pilsworth = **2000 PT trips per day** (20% of 7,500)

Considering the assumptions above...

Full day PT @ 12%-20% mode share = **8,600 trips** (4,300 arrivals / 4,300 departures)

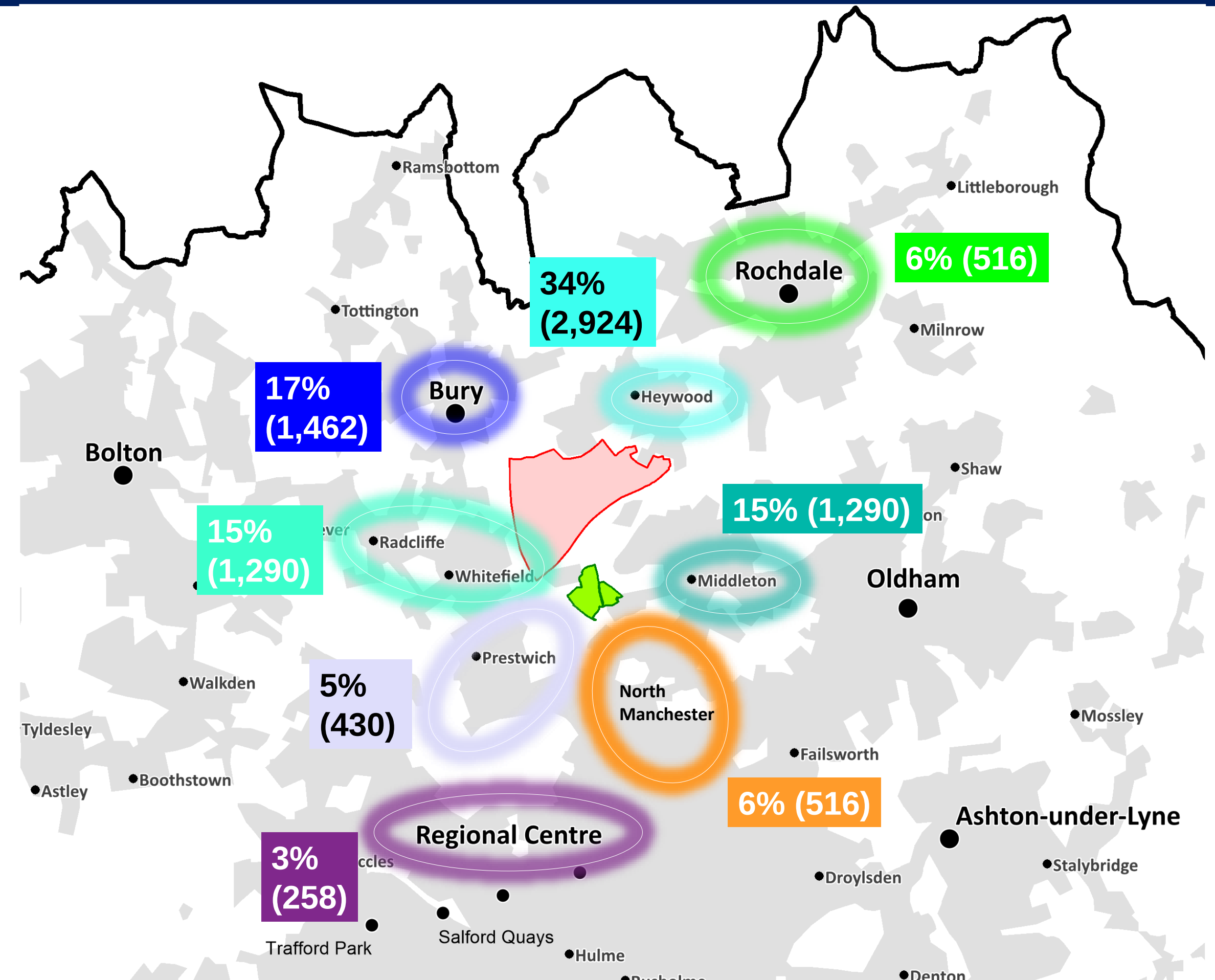
AM Peak PT @ 12%-20% mode share = **860 trips** (430 arrivals / 403 departures)

There is also an opportunity to help strengthen PT demand to this area considering the South Heywood housing site (extra 1,000 homes). There is no existing bus service serving that site at the moment, with the closest bus stop approx a 30-minute walk (Service 163, 125).

There is also potential to pick up future trips from the Stakehill development and onward connections to Oldham, once wider Atom Valley sites are developed.

PT Distribution (12%-20% mode share)

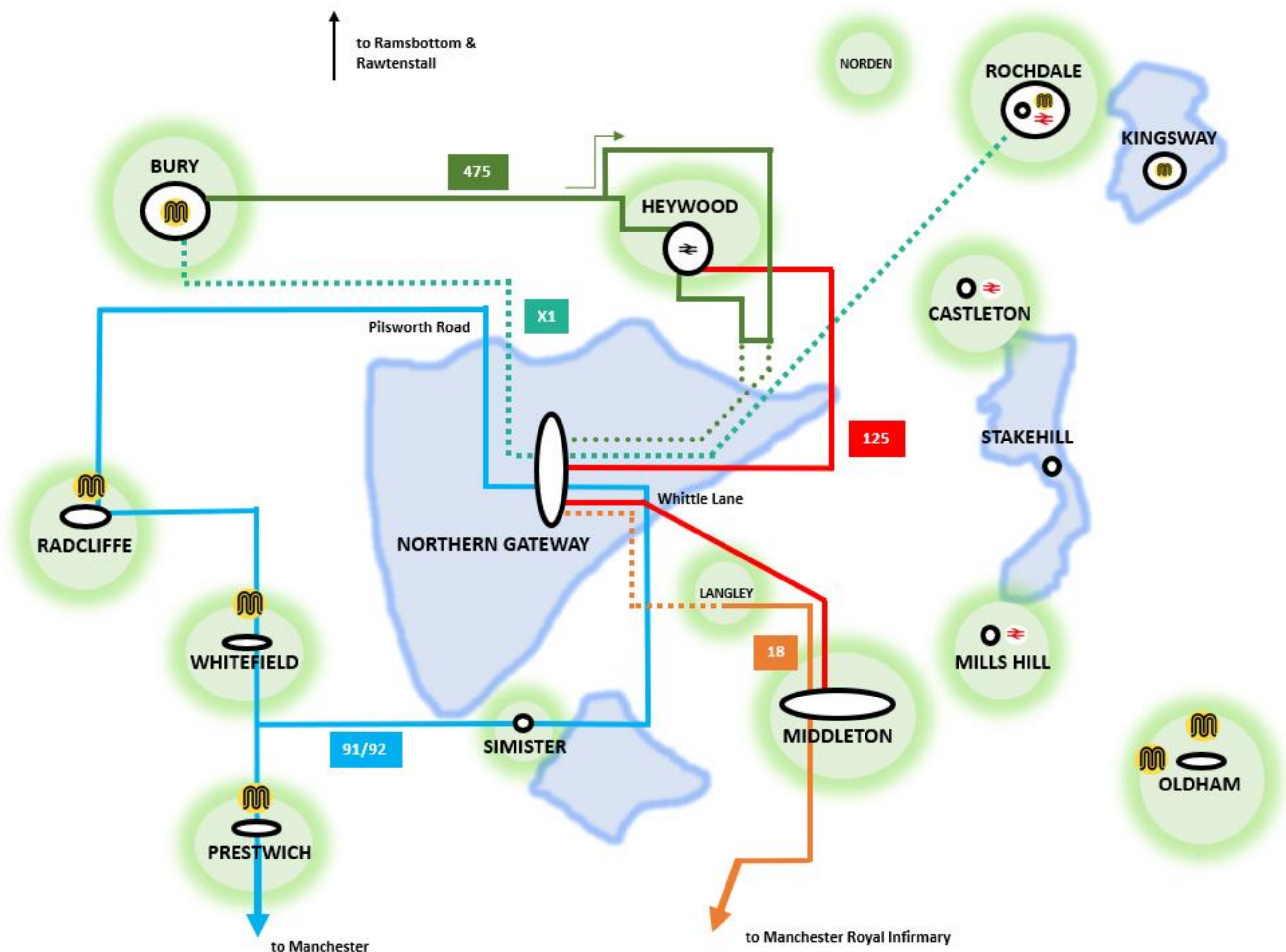
c.8,600 Total Daily Trips (including JPA1.1, JPA1.2 and Heywood Distribution Park/Pilsworth)



02 Travel Demand and Scenarios

Scenario 2 JPA1.1 and JPA1.2

Bus Network Option (based on Tetra Tech numbers 20% PT, total 8,600 daily PT Trips)-

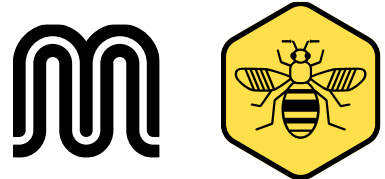


At 12-20% PT mode share (8,600 daily PT trips), the site would be able to cover the operating costs of approx **17 buses per year...**

Assuming this, it would be possible to have:

- Service 125** (extension 1km) – **1 additional bus** required @ 60 min frequency.
- X1** (new) – **5 buses required** @ 30 min frequency.
- 91/92** (new) – **7 buses required** @ 30 min frequency.
- 475** (extension, 1km) – **1 additional buses** required @ 60 min frequency.
- 18** (extension 3.5km) - **3 additional buses** required @ existing 10 min frequency (*note this would only serve NG with every other bus, so a 20 min frequency to NG*)

Key Centre	Buses Per Hour
Rochdale	2
Bury	3
Middleton	4
Heywood	2
Radcliffe	2
Whitefield	2
Prestwich	2
Manchester	4



02 Travel Demand and Scenarios

Scenario 2 JPA1.1 and JPA1.2

Active Travel

Active travel is key to achieving several of the transport objectives for the site including responding to the climate emergency; providing accessible, inclusive and flexible mobility options; managing existing and future travel demand; and encouraging a 'Right Mix' of healthy, attractive and sustainable transport modes.

According to the 2011 Census, a low proportion of residents within the surrounding Bury and Rochdale boroughs currently travel to work by active modes. This might be explained by the rural nature of the area around the Northern Gateway site, easy access to the strategic road network for drivers and a lack of safe provision for walking, wheeling and cycling, as well as a challenging topography in parts and severance caused by major roads, rivers and railways.

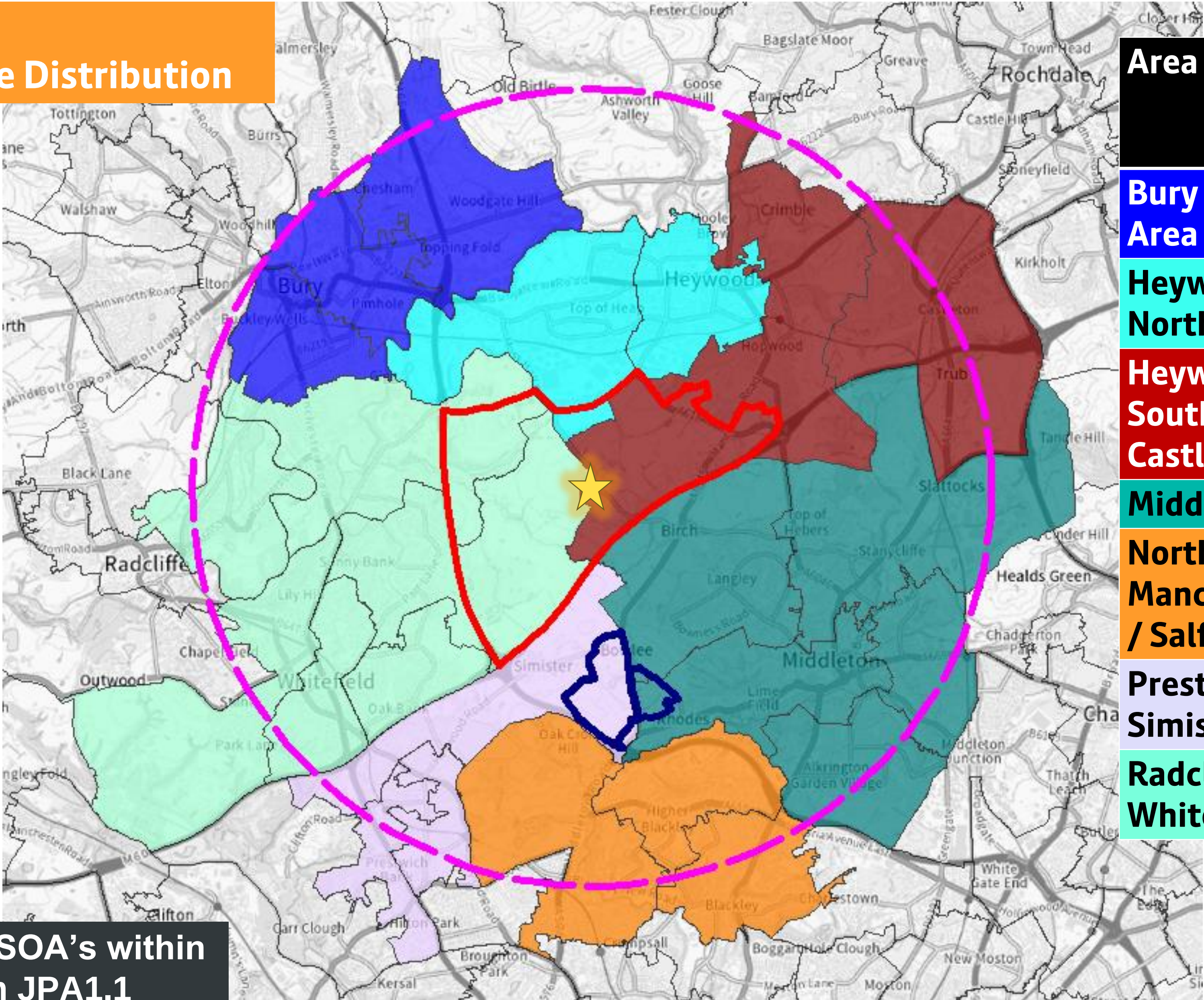
To achieve our transport vision, we are aiming for a fundamental change in existing travel patterns, therefore significant investment in active travel infrastructure is needed to help unlock active travel as a real transport option for over **170,000** residents living within **5km** of JPA 1.1 and 230,000 living within 5km of JPA 1.2.

Due to the scale of the site, walking trips are expected to be lower than cycling. Possible walking trips would only come from the South Heywood residential site (additional 1,000 homes), or homes directly next to the red line boundary of the site. This would roughly be a 15–30-minute walk. Walking would be an option for trips in the local area around JPA 1.2, connecting the site with schools, local shops and Heaton Park (via the footbridge over the M60).

The maps on the following two slides indicate the potential cycle distribution (person trips with 5km of the two sites).

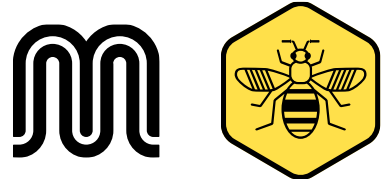
02 Travel Demand and Scenarios

Scenario 2 JPA1.1 Cycle Distribution



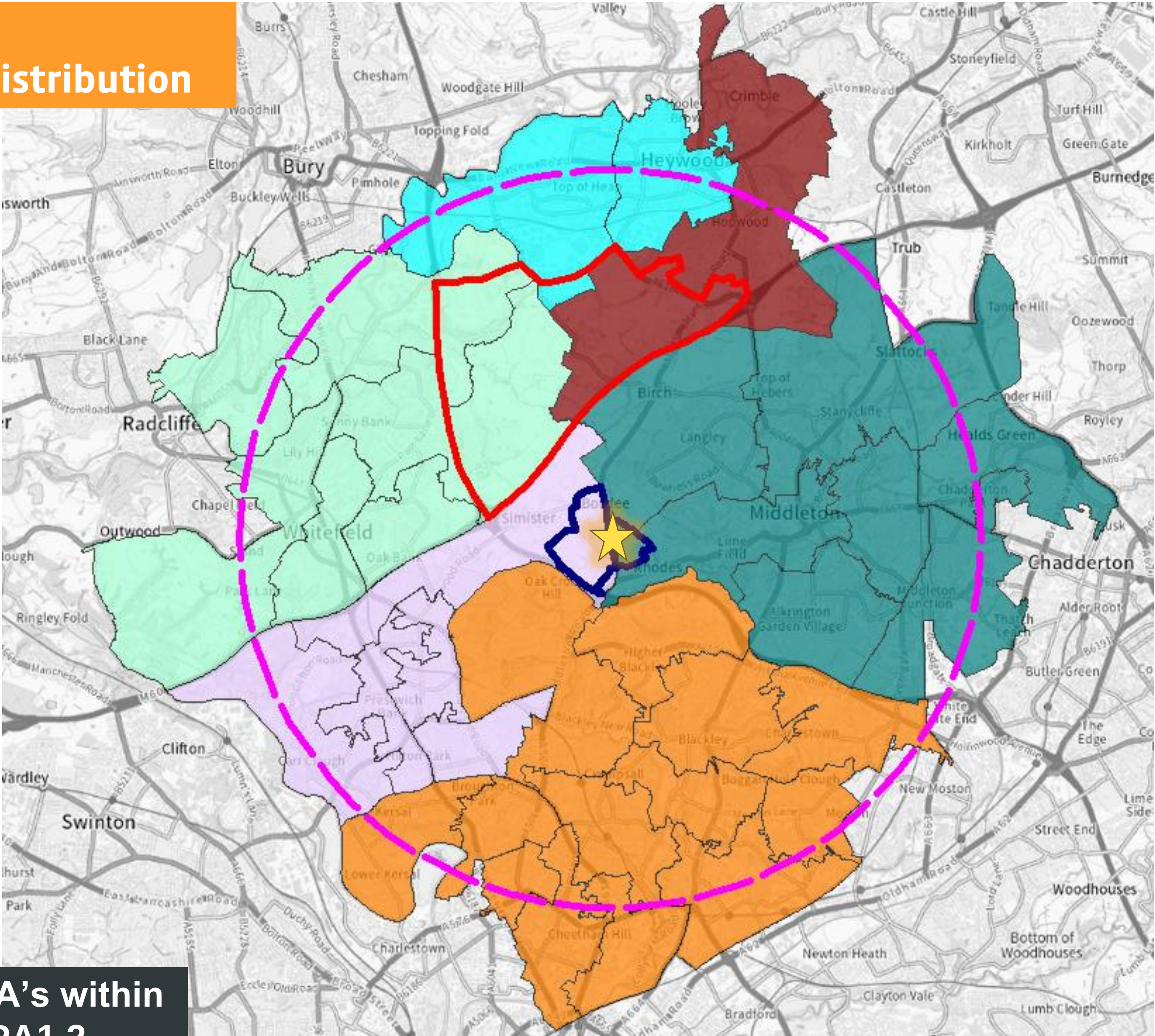
Area	Cycling Distribution %	Cycling trips (daily)
Bury Urban Area	18%	230
Heywood North	38%	485
Heywood South / Castleton	15%	191
Middleton	14%	179
North Manchester / Salford	2%	26
Prestwich / Simister	3%	38
Radcliffe / Whitefield	10%	128

Census 2021 MSOA's within 5km buffer from JPA1.1



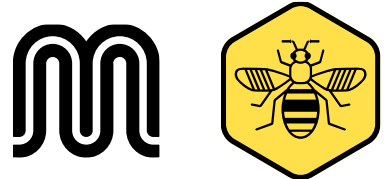
02 Travel Demand and Scenarios

Scenario 2 JPA1.2 Cycle Distribution



Area	Cycling Distribution %	Cycle trips (daily)
Heywood North	6%	38
Heywood South / Castleton	3%	19
Middleton	33%	207
North Manchester / Salford	25%	157
Prestwich / Simister	21%	132
Radcliffe / Whitefield	13%	81

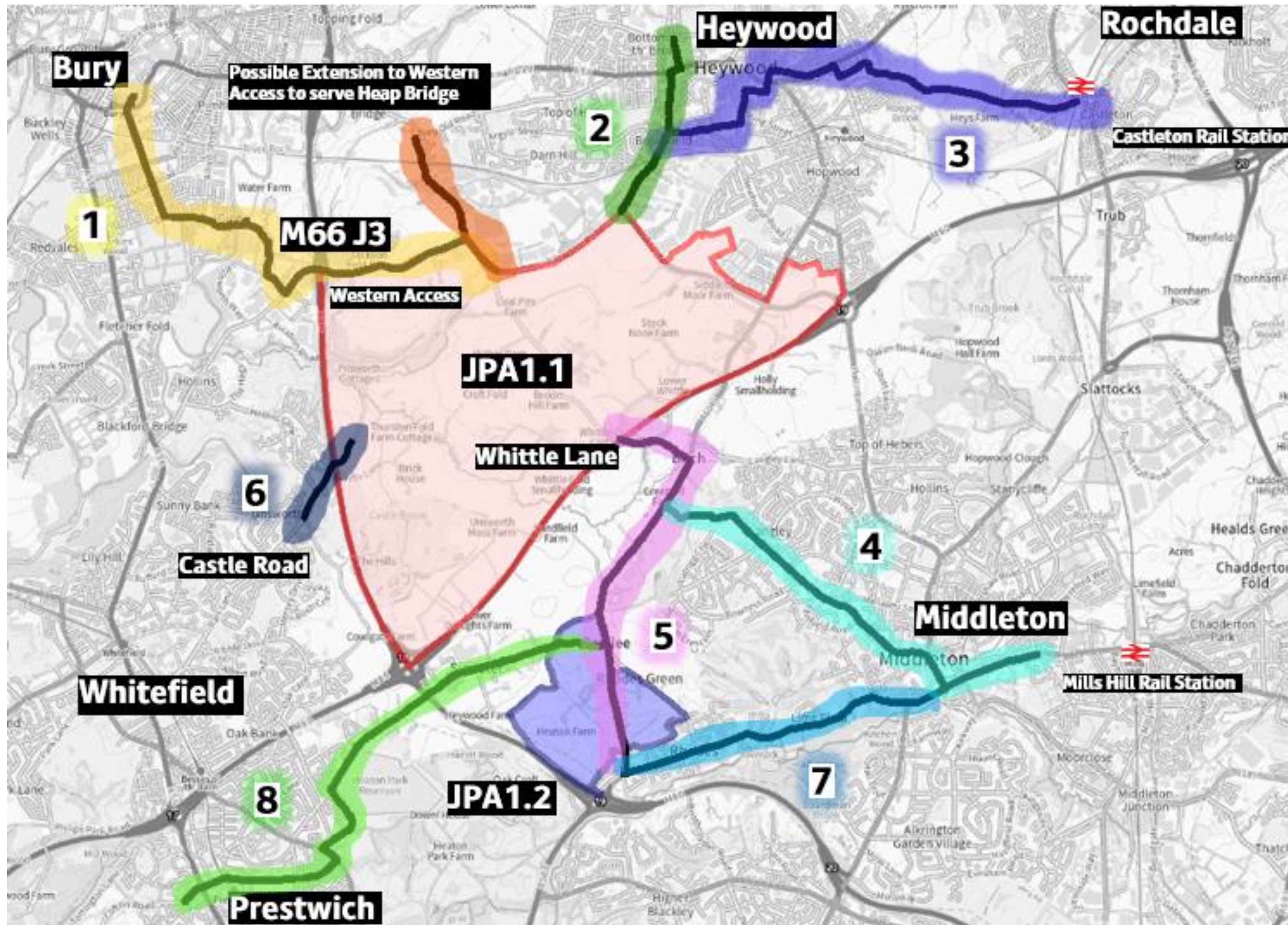
Census 2021 MSOA's within 5km buffer from JPA1.2



02 Travel Demand and Scenarios

Scenario 2 JPA1.1 and JPA1.2

Northern Gateway Active Travel Priorities



“All communities within a 5km catchment of the site to have a high-quality cycling route to/from Northern Gateway”

Delivering the high-quality active travel route infrastructure to the immediate communities around Northern Gateway is a priority. Providing a sustainable transport option will encourage residents to travel actively to the development if possible.

Connecting active travel routes to public transport nodes is also essential to encourage multi-modal journeys (Metrolink and Rail), route option 3 connects to Castleton Rail Station, and route option 4 connects to Mills Hill Rail Station. There is potential for route 6 and 8 to connect to Whitefield and Prestwich metrolink stops respectively.

These active travel priorities have been agreed to progress to concept design with Bury and Rochdale councils.



02 Travel Demand and Scenarios

Scenario 2 JPA1.1 and JPA1.2

Summary

- Transport patterns are more sustainable, aspirational **70% (2,355 trips across the two sites)** car mode share and **30%** public transport/active travel for travel to work purposes.
- Heywood Distribution Park MSOA shows indicative car trip distribution numbers significantly lower from Bury district (**777** trips reduced to **626**) and Rochdale district (**1,089** trips reduced to **884**) across the two sites.
- **8,603** total daily PT trips at **20%** mode share, translating to 17 buses. This can provide a network which meets the vision for public transport accessibility to the site.
- Significant daily PT demand likely from Heywood (**2,900**), Bury (**1,430**), Radcliffe (**1,277**), Middleton (**1,250**) and Rochdale (**516**).
- Heywood is a particularly important location in terms of potential uptake of cycling to JPA 1.1, with cycle connections to Middleton important across the two sites and connections to Prestwich being important for JPA 1.2 (to both education and district centre purposes), with the added benefit of connecting with JPA 1.1 in the opposite direction.



02 Travel Demand and Scenarios

Scenario 3 JPA1.1 and JPA1.2

Transport intervention package contains ambitious local, sustainable interventions that fully support the GMTS 2040, and helps achieve long term sustainable travel and GM Right Mix targets for wider Rochdale and Bury areas. This will require significant transport investment and considers 2040 Delivery Plan schemes such as longer-term rapid transit connections to the area. In addition, will also require mixed use facilities to support the employment end users and a parking management strategy.

Due to uncertainty of delivery of numerous measures within the ‘ambitious’ scenario, residual highway modelling is not currently being considered for this scenario and the table below represents an indicative future mode share, which may be considered and/or adapted as part of future work and/or testing as schemes become more certain.

Scenario 3 - Mode Share							
	Driver	Passenger	Walk	Public Transport	Cycle	Total (Car)	Total (Sustainable Modes)
JPA1.1 and JPA1.2 TTW	53%	5%	4%	30%	8%	58%	42%
Overall mode share (AM)	46%	8%	12%	27%	7%	54%	46%

02 Travel Demand and Scenarios

Scenario 3 JPA1.1 and JPA1.2

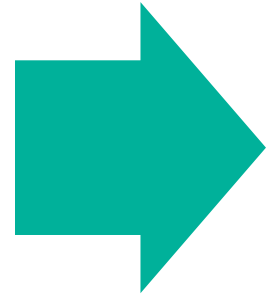
Summary

- Transport patterns are much more sustainable, aspirational **60% (1,920 trips across the 2 sites)** car mode share and **40%** public transport/ active travel for travel to work purposes.
- Heywood Distribution Park MSOA shows indicative car trip distribution numbers significantly lower from Bury district (**777** trips reduced to **510**) and Rochdale district (**1,089** trips reduced to **721**).
- **13,155** total daily PT trips at **30%** mode share, translating to 26 buses.
- Significant daily PT demand likely from Heywood (**4,343**), Bury (**2,171**), Radcliffe (**1,941**), Middleton (**1,940**) and Rochdale (**789**).

02 Travel Demand and Scenarios

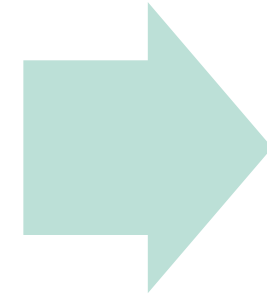
Scenario 1

1. Business as usual (using Tetra Tech Baseline)



Scenario 2

2. Achievable transport vision (developed by TFD, optimal scenario for planning)



Scenario 3

3. Ambitious vision-led scenario with impacts from wider 2040 strategy

Car driver mode share (TTW)	79%
PT mode share (TTW)	3%
Car driver trips AM peak	2,957
PT trips AM peak	126
Total daily PT trips (inc. adjacent development)	1,441
Number of buses*	2.7
A basic local bus network only serving Heywood or Middleton.	
General - not policy compliant in accordance with NH policy / PfE. Based on trip from similar sites nationally, rather than being vision-led and locally specific.	
Highway modelling approach: Junction modelling undertaken by Tetra Tech on behalf of JV	

Car driver mode share (TTW)	65%
PT mode share (TTW)	20%
Car driver trips AM peak	2,355
PT trips AM peak	729
Total daily PT trips (inc. adjacent development)	8,603
Number of buses*	17.2
With some allowance for uptake from surrounding poorly served development, a network serving all locations outlined in the vision could be possible (Rochdale, Bury, Middleton, Heywood, Radcliffe, Whitefield, Prestwich, Manchester and Oldham)	
General – this scenario is considered a ‘reasonable’ scenario for testing in accordance with NPPF paragraph 116.	
Highways modelling approach: TfGM to develop a highway modelling approach using agreed scenario 2 assumptions	

Car driver mode share (TTW)	55%
PT mode share (TTW)	30%
Car driver trips AM peak	2,046
PT trips AM peak	1,121
Total daily PT trips (inc. adjacent development)	13,155
Number of buses*	26.3
A network serving all locations outlined in the vision at greater frequencies, some transfer to tram-train may also be expected (Rochdale, Bury, Middleton, Heywood, Radcliffe, Whitefield, Prestwich, Manchester and Oldham)	
General - assumptions not likely to be agreed by all consultee’s due uncertainty of delivery of some interventions. No model currently available to consider modal shift due to 2040 strategy measures.	
Highway modelling approach: No highway modelling of this scenario at this stage due to uncertainty of interventions and lack of model	

Note* Assuming a single fare of £2, 250 operating days per year and an annual operating cost per bus of £250k



03 Indicative Transport Programme and Phasing

03 Indicative Transport Programme

Transport Interventions	Scenario 1	Scenario 2	Scenario 3
Car Parking Management	NO No car parking management beyond basic measures such as limited car share spaces. Current Bury and Rochdale Car Parking Standards result in nearly 12,000 car parking spaces being required.	YES Managed/ limited car parking (example: maximum number of parking places, shared parking between units, people will need to walk to premises (except for limited number on each site).	YES Strict car parking management, significant reduction in car park provision on site. Fewer spaces, provided in less convenient locations (centralised parking hubs, walk to units etc.)
Active Travel	YES Basic Active Travel Improvements - Permeable network for pedestrian and cyclist priority within the development deliverable by the developer, cycle provision along Western Access scheme	YES More permeable, direct, and attractive network for pedestrian and cyclist priority to/from/ within the development deliverable by the developer plus some additional publicly funded schemes to augment. A network likely to serve Bury and Rochdale town centres, Heywood, Middleton, Prestwich and Whitefield (including access to key rapid transit stops)	YES An aspirational Active Travel Package (all schemes delivered) – Highly permeable network for pedestrian and cyclist priority to/from a further distance and within the development. Major public sector investment required. A network serving all locations outlined in the vision (Bury, Rochdale, Heywood, Middleton, Prestwich, Whitefield, Radcliffe, Manchester and Oldham) A network of electric bicycles across Atom Valley including Northern Gateway, Stakehill, Kingsway and key interchanges
Bus	YES Introduction of a basic local bus services to/from/within the allocation to basic destinations delivered through developer contributions. This will most likely be a low frequency extension to existing services, serving Middleton, Heywood and Bury (extension to Services 125 or 475).	YES Adequate provision of local bus services to/from/within the allocation to destinations delivered through developer contributions and some support through the public sector, destinations likely to include Bury, Rochdale, Heywood, Middleton, Prestwich, Whitefield, Radcliffe and Manchester.	YES An ambitious, high frequency network serving all locations outlined in the vision (Bury, Rochdale, Heywood, Middleton, Prestwich, Whitefield, Radcliffe, Prestwich, Manchester and Oldham). All key bus infrastructure delivered. Bus shuttle service around site (DRT) Park and Ride at Northern Gateway
Rapid Transit (Metrolink / Tram-Train and Bus Rapid Transit)	NO	NO	YES Tram-Train Pathfinder (Oldham-Bury via Rochdale and Heywood) Bus Rapid Transit corridor to Manchester City Tram extension to Middleton
Local Highways	Western Access improvement and all junctions identified in PfE Appendix D	Western Access improvement with cycle friendly design principles, increased junction capacity elsewhere only where needed to mitigate highway safety concerns and/or to support improved sustainable transport permeability using Scenario 2 assumptions.	Western Access improvement with cycle friendly design principles, increased junction capacity elsewhere only where needed to mitigate highway safety concerns and/or to support improved sustainable transport permeability using appropriate assumptions..
SRN	Potential for improvements at M66 junction 2 and 3, M62 junction 19 and M60 junction 19	M66 junction 3 as part of Western Access improvement, other SRN upgrades to be identified via Scenario 2 highway testing.	M66 junction 3 as part of Western Access improvement, other SRN upgrades to be identified via appropriate highway testing.



03 Phasing

Transport Interventions	Scenario 2		Next steps
	JPA 1.1	JPA 1.2	
Car Parking Management	Current Bury and Rochdale Car Parking Standards result in nearly 12,000 car parking spaces being required (which would take up a similar area to the space planned for advanced manufacturing / B1(C) use).	An approach to car parking which provides sufficient car parking for the site whilst being innovative in the design to support a multi-modal transport approach would be beneficial.	- A recommended approach to car parking is required that complements the vision-led strategy for JPA 1.1 in particular. - Potential to commission consultancy support via quarterly ask
Active Travel	Scale of demand/site phasing provide the following priorities for the site: - Heywood North - Bury/Heywood South and Castleton Rail/Middleton - Radcliffe/Whitefield - Prestwich and Simister	Scale of demand/key local facilities provide the following priorities for the site: - Middleton - North Manchester (including hospital)/Prestwich/Simister (inc. Parrenthorn High School) - Radcliffe/Whitefield - Heywood North	A quarterly ask has been made for PT/active travel concept design study. This will provide greater understanding of scheme costs and will feed into more detailed phasing strategy and deliverability.
Bus	Scale of demand/site phasing provide the following priorities for the site: - Bury/Rochdale (inc. Heywood)/Middleton (e.g. new X1 service 30 min freq. and 125 extension 60 min freq. - 6 buses required) - Radcliffe and Whitefield (e.g. new 91/92 60 min freq. – 7 buses required) - Manchester (e.g. 18 extension 20 min freq. – 3 buses)	Scale of demand/key local facilities provide the following priorities for the site: - Middleton/North Manchester/Regional Centre possible via 59/156 subject to available capacity - Prestwich/Simister/Parrenthorn High School (e.g. new 91/92 60 min freq. – 7 buses required) - Bury/Radcliffe/Whitefield (trip involving interchange via Prestwich tram stop likely to be most viable option)	Further work with bus and appraisal team required to confirm viable level of service and feed this into more detailed phasing strategy.
Local Highways	Key access concepts (subject to testing) as follows: - Western Access and M66 junction 3 improvement anticipated to act as primary mitigation for first phases - Whittle Lane to be considered sustainable access only (subject to testing) - Castle Road to act as PT only (longer term, alongside site phasing)	Key access concepts (subject to testing): - M60 and M62 junction 19 improvements (and trigger point) to be identified via Scenario 2 highway testing of M60 (A576 study) and M62 (ongoing modelling in support of Northern Gateway) - Optimal multi-modal solution for A6045/A576 between site and Northern Gateway/Middleton to be initially considered as part of active travel concept design study. Further, more detailed study may be required. - Increased junction capacity elsewhere (and derived via Tetrattech TA) only where needed to mitigate highway safety concerns and/or to support improved sustainable transport permeability.	- Set out modelling approach for input into planning applications, Western Access OBC and A576 study - Further work on Western Access OBC development - Feed A6045/A576 requirements into active travel concept design study
SRN	- Any M66 junction 2 and M62 junction 19 improvements and trigger points (including any requirement for new junction at Birch services) to be identified via Scenario 2 highway testing - Increased junction capacity elsewhere (and derived via Tetrattech TA) only where needed to mitigate highway safety concerns and/or to support improved sustainable transport permeability.		

04 Conclusions and Next Steps

Conclusions from TFD first draft

- Existing travel by PT and AT in the surrounding area is low (below Bury / Rochdale average).
- PT and AT investment needed early to ensure vision is delivered (and build momentum from a low base)
- Scale of development requires strategic road (KRN) and local road investment
- A comprehensive package of transport investment is needed including AT, PT services and highway measures including M66 J3, M62 J19 and Western Access, balancing investment between modes and aiming to create a sustainable site from the outset.
- It is recommended scenario 2 is adopted to understand the transport impacts and mitigations needed to achieve the vision at site level (and help discussions for adequate S106 contributions)
- Scenario 2 will need to be agreed with Bury / Rochdale, the Joint Venture and National Highways
- Scenario 2 to be used to plan future PT services and the highway improvements including Western Access, M66 J3 and M62 J19.
- TFD adopted as a live document that will need to be reviewed and updated as work progresses, and planning applications are progressed.

04 Next Steps

Next Steps

- Very important to get the balance right between sustainable and highway interventions
- Agreement of Scenario 2 for testing with stakeholders. Tech note appendix for NH – **Jan 25**
- TfGM to set out modelling approach for vision-led TA, A576 study and Western Access OBC modelling, ensuring alignment – **Jan 25**
- Agree modelling approach with stakeholders for residual highway assessment of Scenario 2 – **Jan/Feb 25**
- Residual highway assessment of Scenario 2 – **Feb/Mar 25**
- Identify levels of development which can be delivered before strategic infrastructure is required (phasing) e.g. western access local road improvements, SRN improvements – **Feb 25 onwards**
- Continue with studies previously outlined to provide greater detail to phasing strategy – **throughout 2025**
- Transport Framework Document is a live document, and will be updated as further work is undertaken.

