

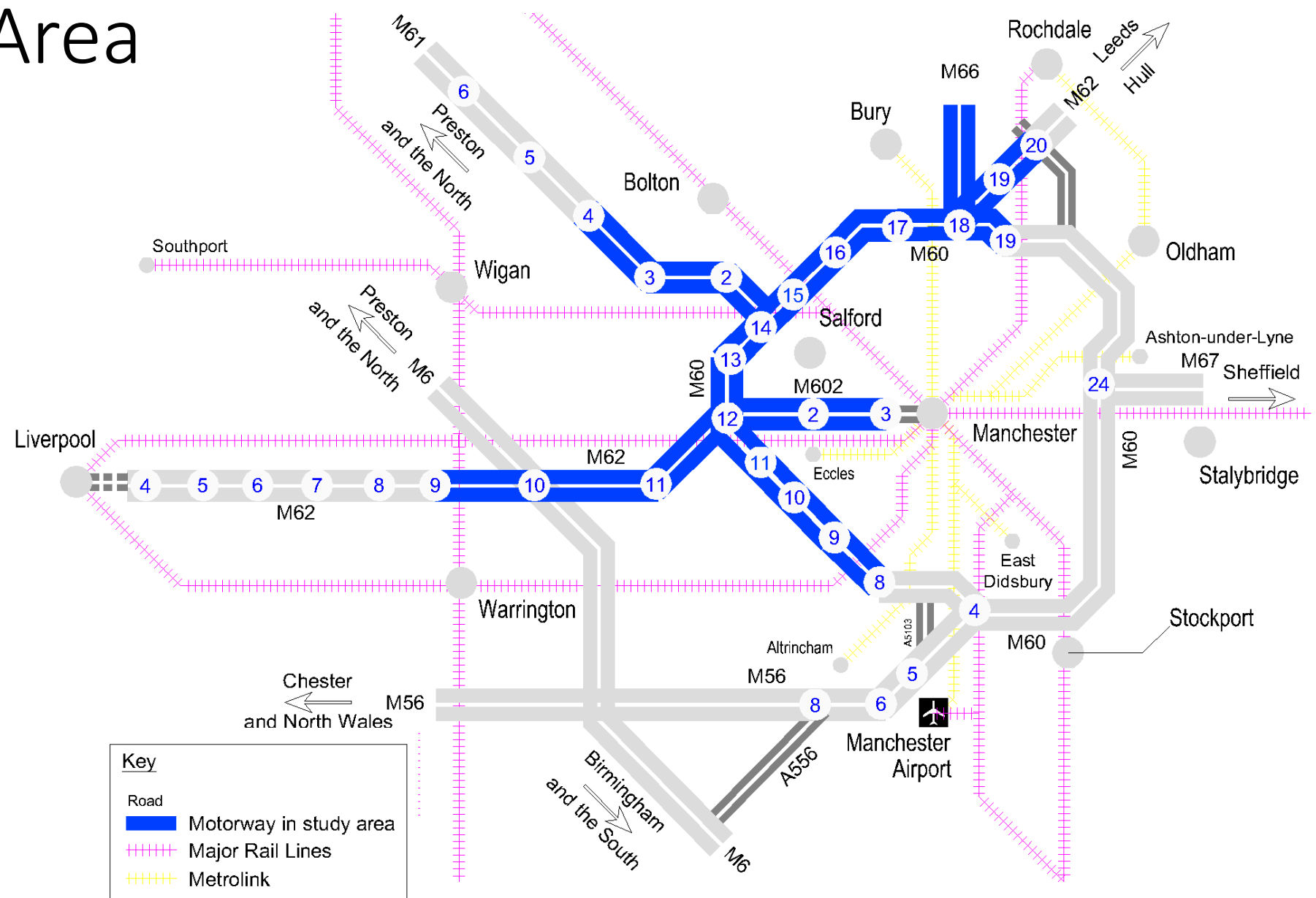
Manchester North-west Quadrant

Stakeholder Reference Group

27th January 2016

Introduction and background

The Study Area



The Study Area

- M60 is no further than 6 miles from Manchester City Centre
- Strategic Road Network (SRN) performs multiple functions
- Major centres of activity with the study area
 - Omega – Warrington
 - Trafford Park
 - Trafford Centre
 - Significant retail, employment and manufacturing centres
- Manchester Airport outside the study area but of significance
- Interface between local road network and SRN crucial
- Study area served by public transport (bus, Metrolink & rail)

History & Previous Studies

- M60 constructed as series of bypasses and links
- 1998 route re-numbered as M60
- Recent studies looking at providing additional capacity
 - JETTS (2001 – 2007)
 - M60 J18 – 15 Capacity Enhancement Study (2014-2015)
- Significant environmental problems identified
- Schemes not deliverable within scope

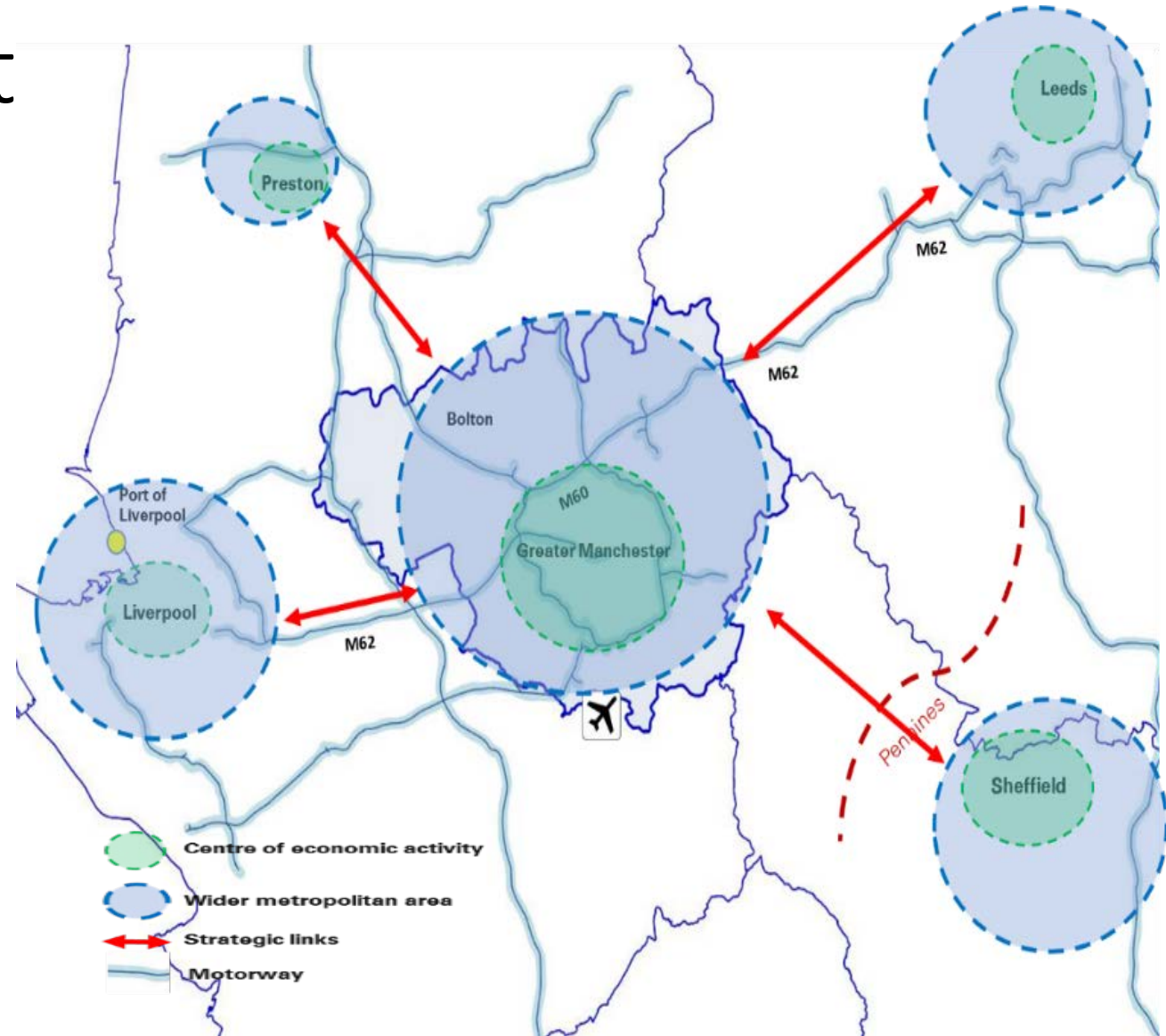
Strategic Economic & Planning Context

Strategic Context

- The North of England :
 - Is home to 15m people
 - Generate £290bn in economic output
 - Accounts for 20% of our national GDP
- One North Report (July 2014) – strategic proposition for transport in the North
- Chancellors Vision for Northern Powerhouse (August 2014)
- DfT and TfN report Northern Powerhouse: One Agenda, One Economy, One North

Economic Context

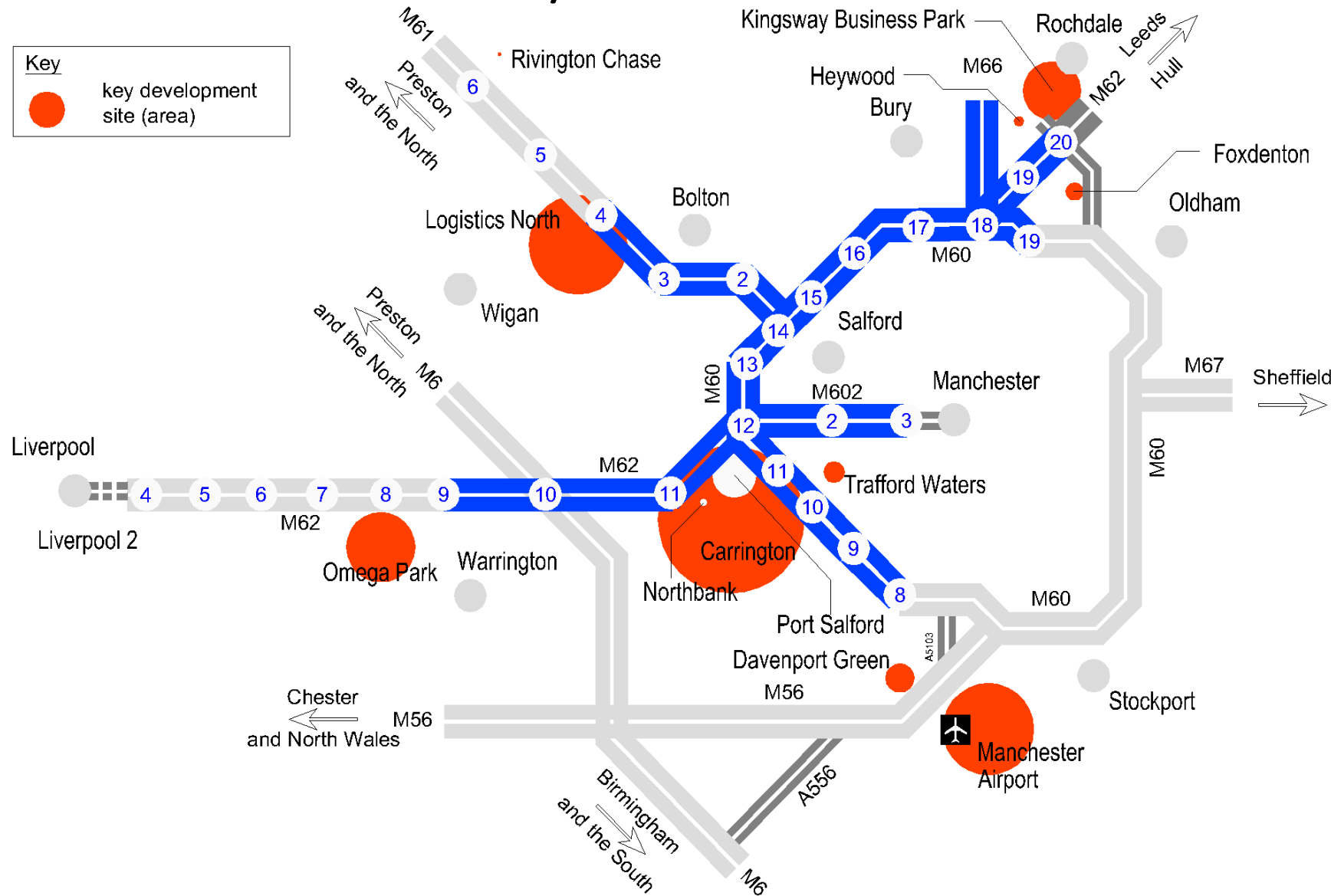
- With strengthened transport connections the combined economic mass, the North could rival that of London and the South East
- Greater Manchester will be a major driver of economic activity to achieve the Northern Powerhouse



Planning Context

Development	Business / Industrial	Residential	Jobs
Carrington	536,000m ²	5,000 units	10,000
Manchester Airport	335,000m ²		17,500
Port Salford	154,500m ²		10,000
Trafford Waters	81,290m ²	3,000 units	5,000
Kingsway Business Park	218,000m ²		7,000
Rivington Chase	7,000m ²	1,700 units	130
Omega Park	260,000m ²	1,100 units	24,000
Liverpool 2			
Davenport Green	108,960m ²		9,000
Foxdenton Strategic Site	67,000m ²		3,300
Heywood Distribution Park	45,150m ²		645
Logistics North	367,000m ²		6,500
Northbank Irlam	22,000m ²		800

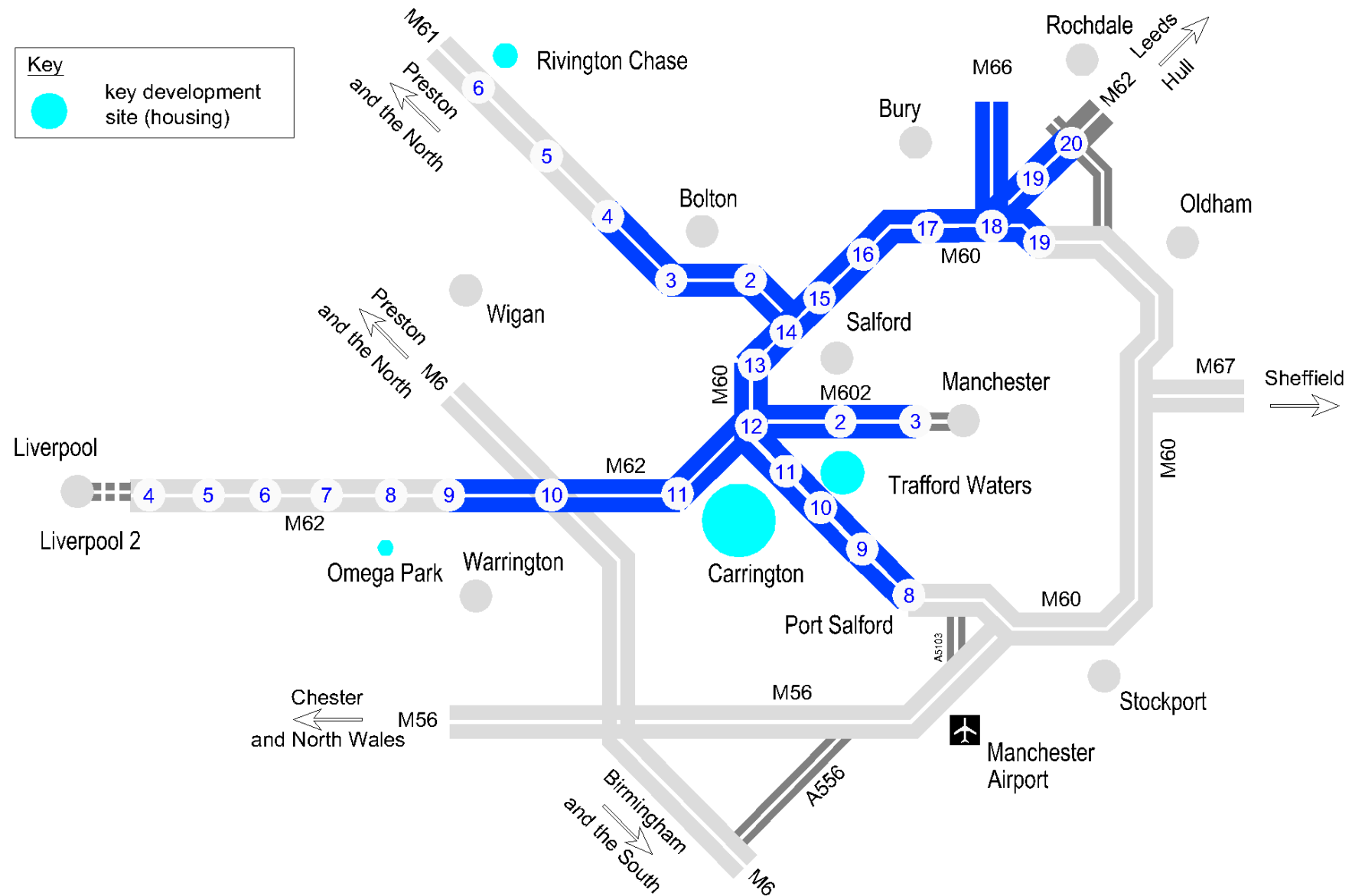
Planning Context – Business / Industrial



Planning Context - Residential

Key

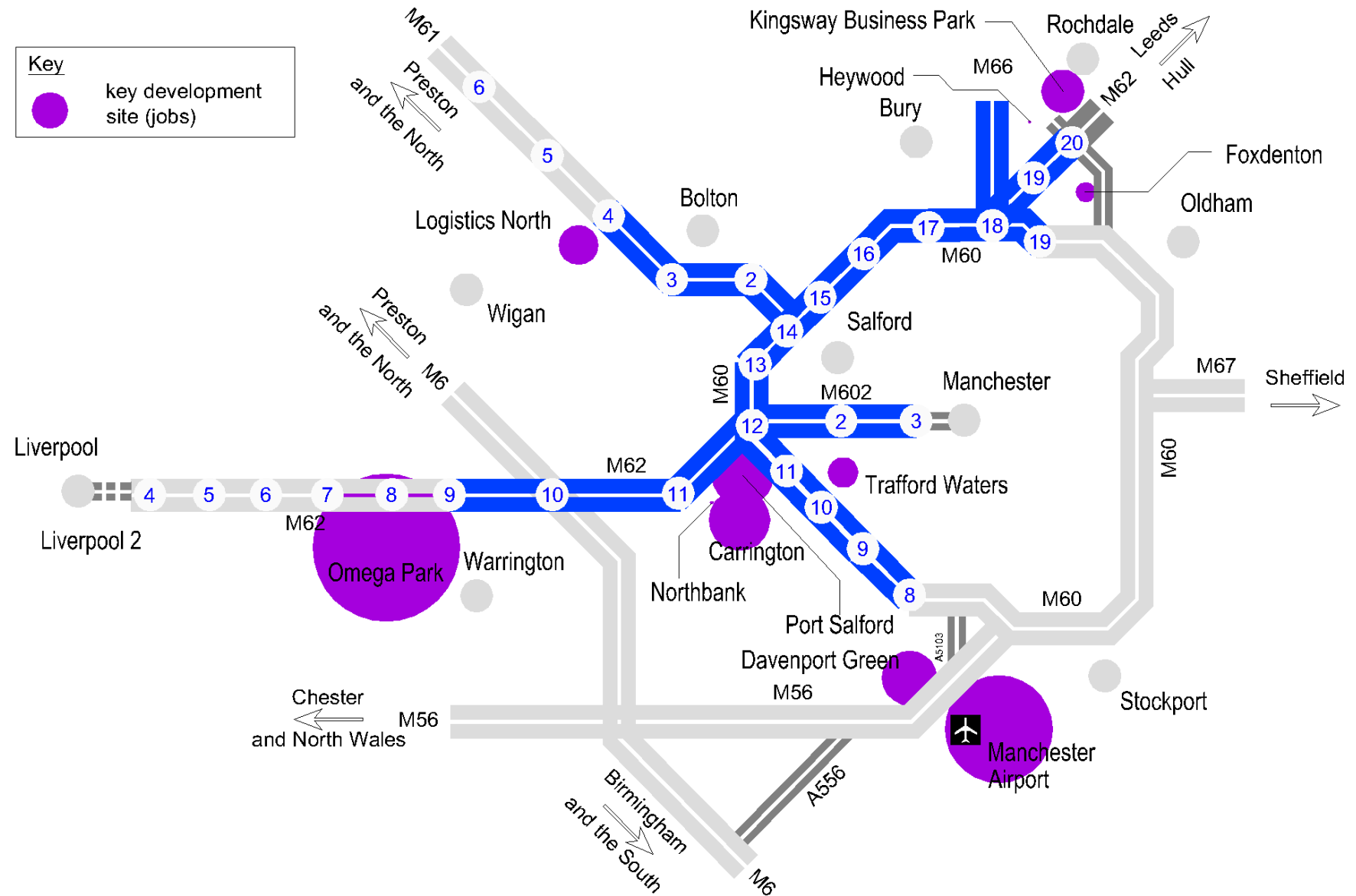
- key development site (housing)



Planning Context - Jobs

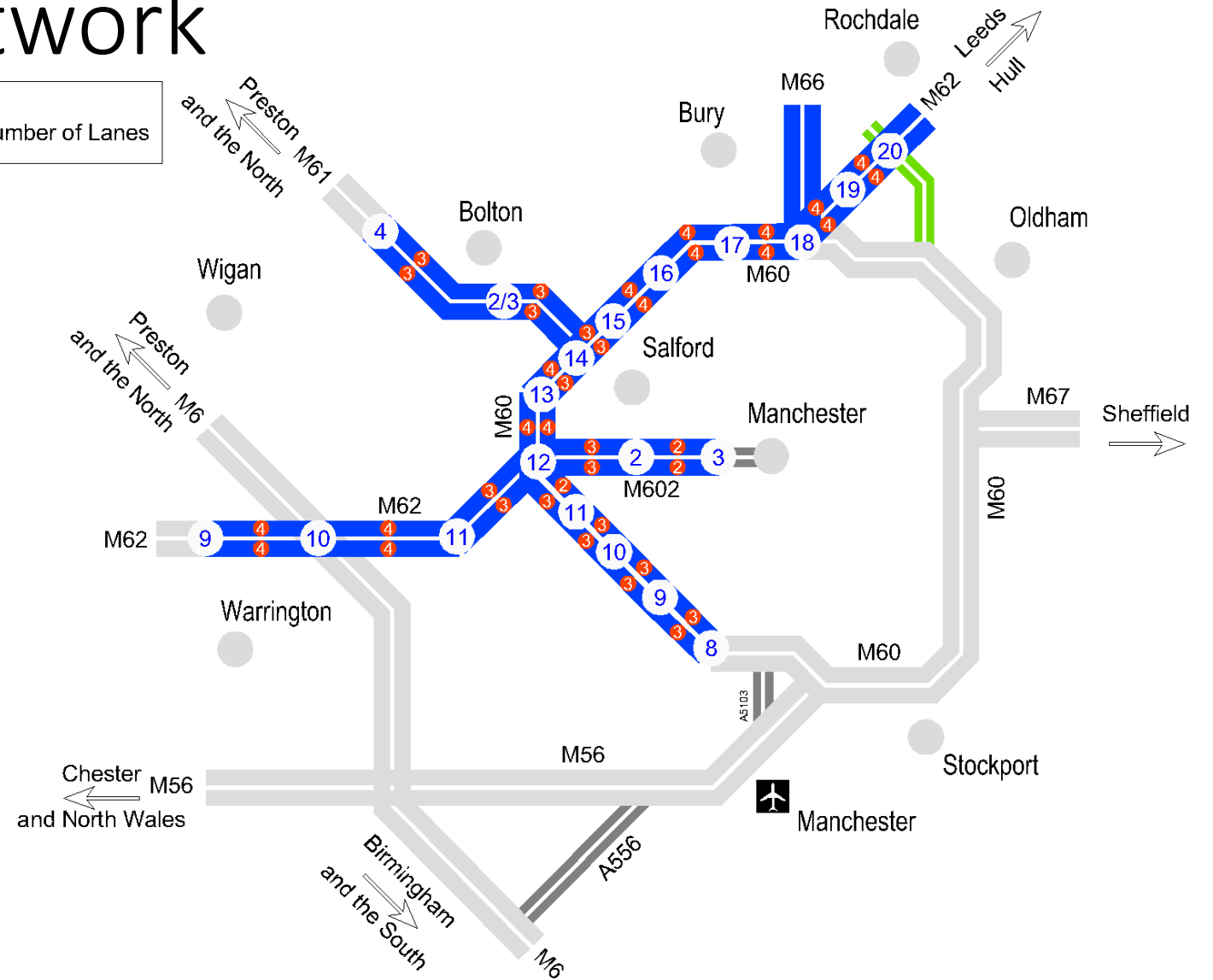
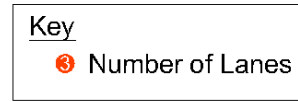
Key

- key development site (jobs)



Strategic Economic & Planning Context

Strategic Road Network

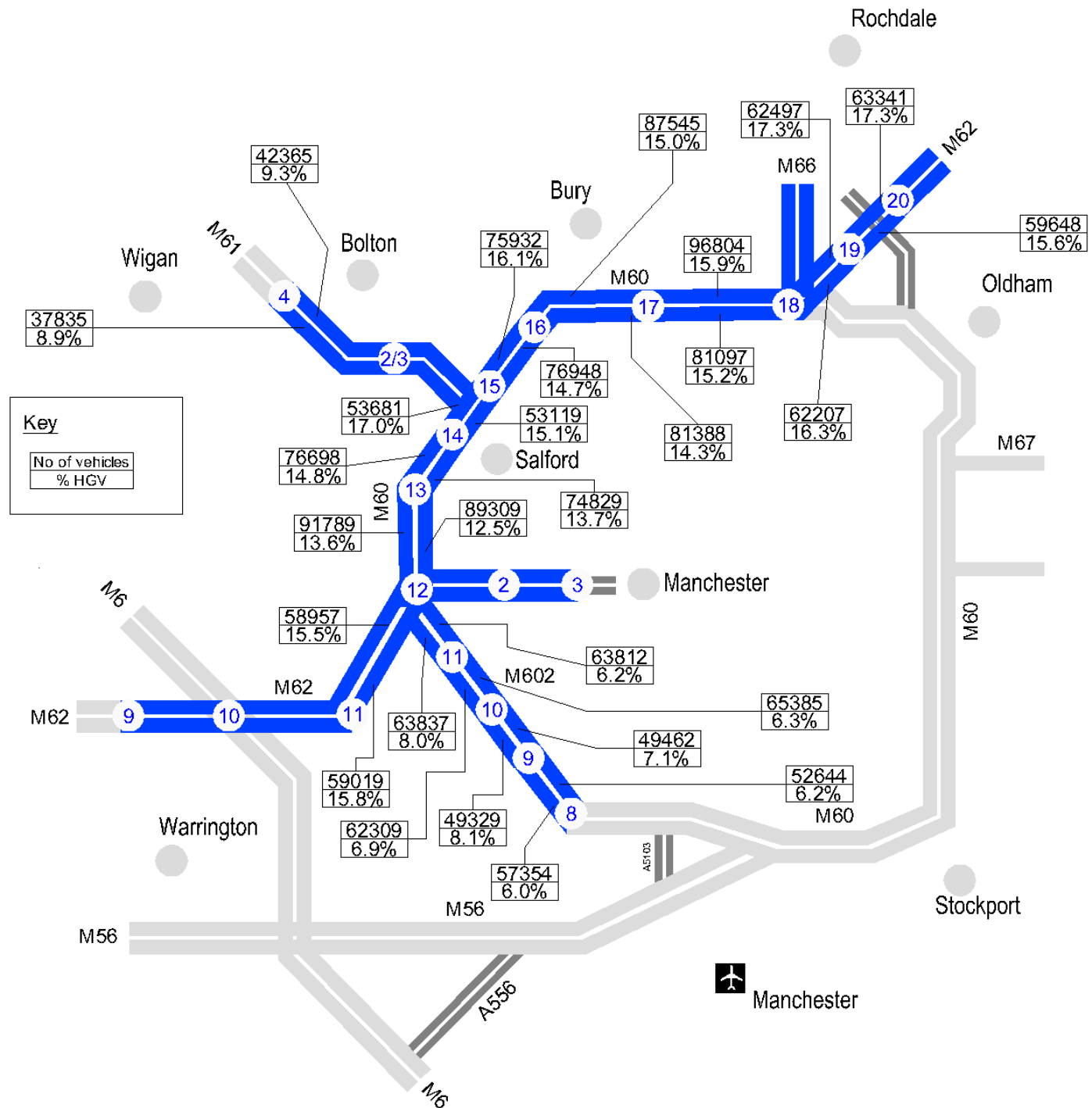


TfGM Key Route Network (KRN)

- KRN is the primary network formed from A Roads linking centres of key activity
- KRN 650Km of network
- 7% of all Local Authority roads within Greater Manchester
- 48% of all A and B road in Greater Manchester
- KRN carries 64% of the traffic
- From 1st April 2015 TfGM responsible for strategic management of KRN
- Performance of KRN critical for public transport, commuter and freight movements

Traffic Flows

- 150,000 – 190,000 two way AADF flows between J12-18
- HGV's generally in excess of 15% through am and inter-peak between J12 – 18



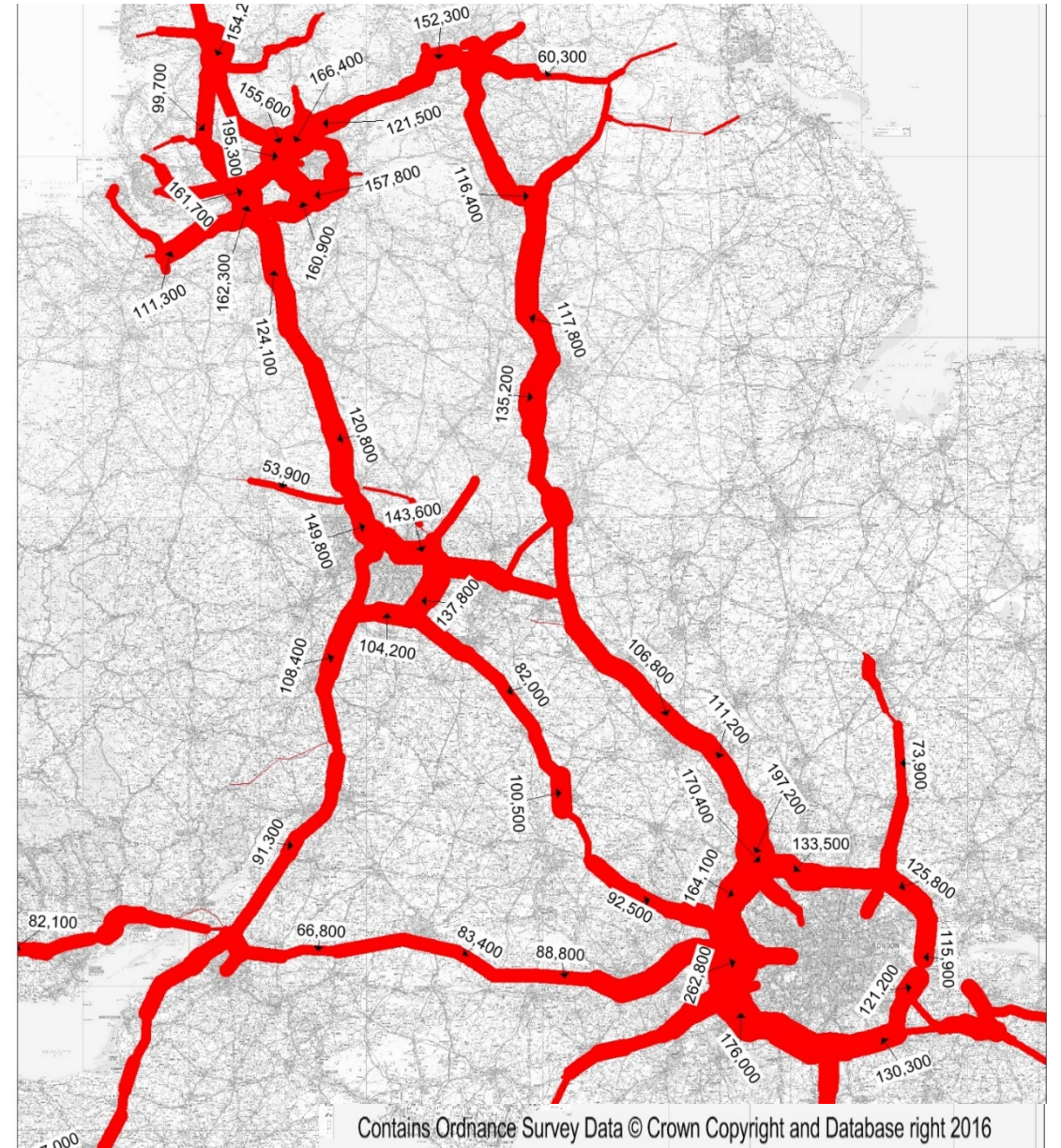
Source: M60SM base year 2013 model

AADF Flows

AADF flows of this magnitude only exceeded on

- Western section of M25
- Southern section of M1

Source: DfT count database for motorway network in the UK for 2014



Top 25 links by flow

- 5 of top 25 motorway links in England are within the study area.
- 3rd highest motorway flow in England is M60 junction 12 to 13

No	Road Name	Section	Two way AADF
1	M25	M25 J14 - J15	262,800
2	M1	M1 J7 - J8	197,200
3	M60	M60 J13 - J12	195,300
4	M25	M25 J13 - J14	186,900
5	M25	M25 J12 - J11	185,300
6	M25	M25 J18 - J19	177,400
7	M25	M25 J11 - J10	176,000
8	M25	M25 J16 - J15	174,900
9	M25	M25 J12 - J13	174,200
10	M1	M1 J6A - J7	170,400
11	M60	M60 J16 - J17	166,400
12	M60	M60 J17 - J18	165,900
13	M25	M25 J8 - J7	165,600
14	M25	M25 J17 - J18	164,100
15	M6	M6 J20 - J21	162,300
16	M8	M8 J16 - J15	161,800
17	M6	M6 J21 - J21A	161,700
18	M56	M56 J4 - J3	160,900
19	M4	M4 J4B/M25 - J4	159,500
20	M60	M60 A34 - M60 spur	157,800
21	M61	M61 J2 - J3	155,600
22	M60	M60 J14 - J15	155,400
23	M1	M1 J8 - J9	155,000
24	M1	M1 J9 - J10	154,600
25	M6	M6 J30 - J31	154,200

Source: DfT count database for motorway network in the UK for 2014

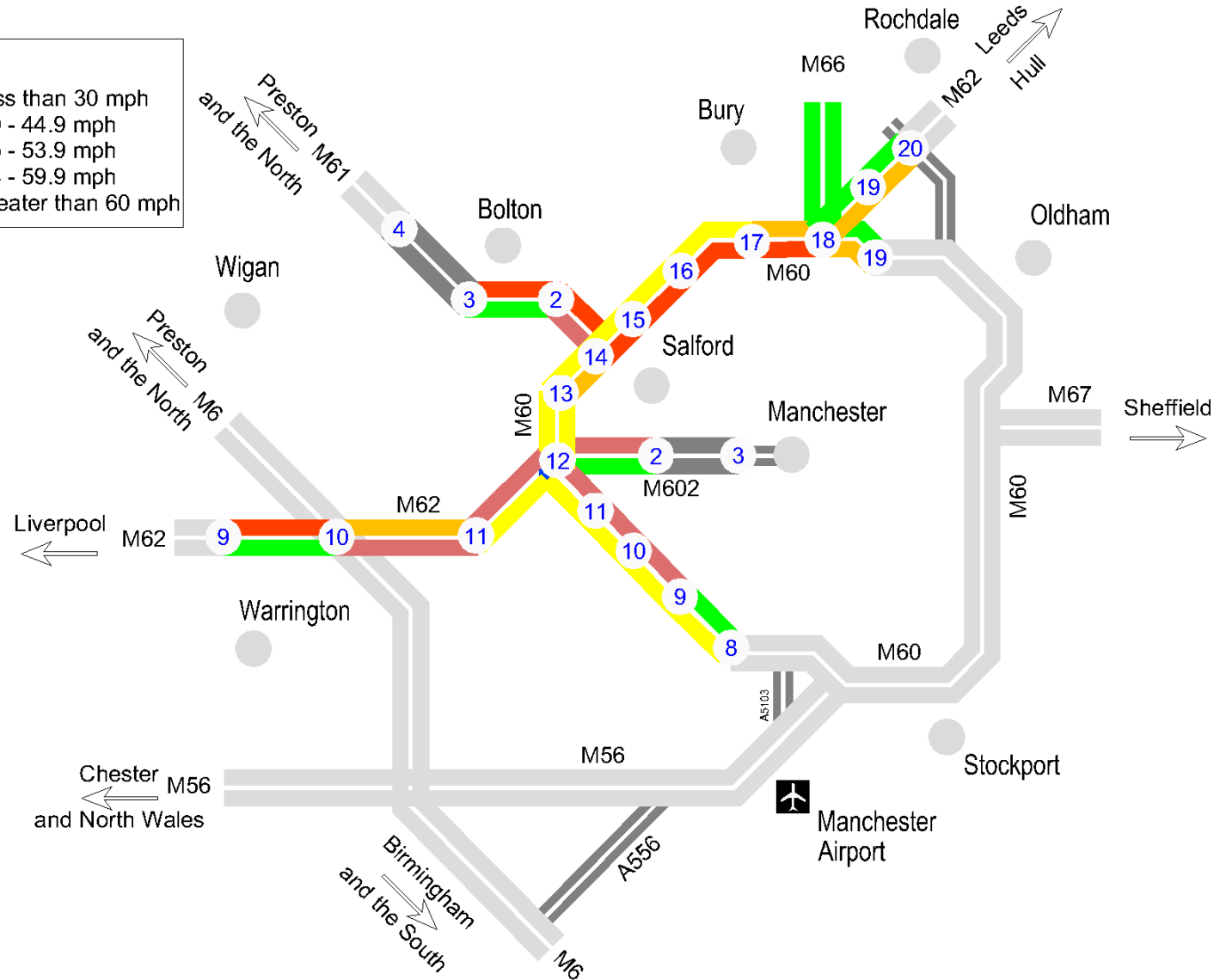
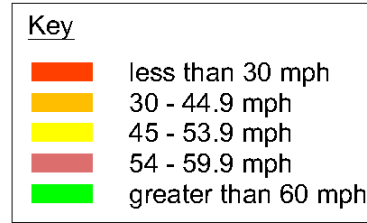
Peaks & Inter-peak

Comparing 2005 - 2014 inter-peak volumes increased to:

- 91.6% of AM peak (from 90.3%)
- 87% of PM Peak from (85.2%)

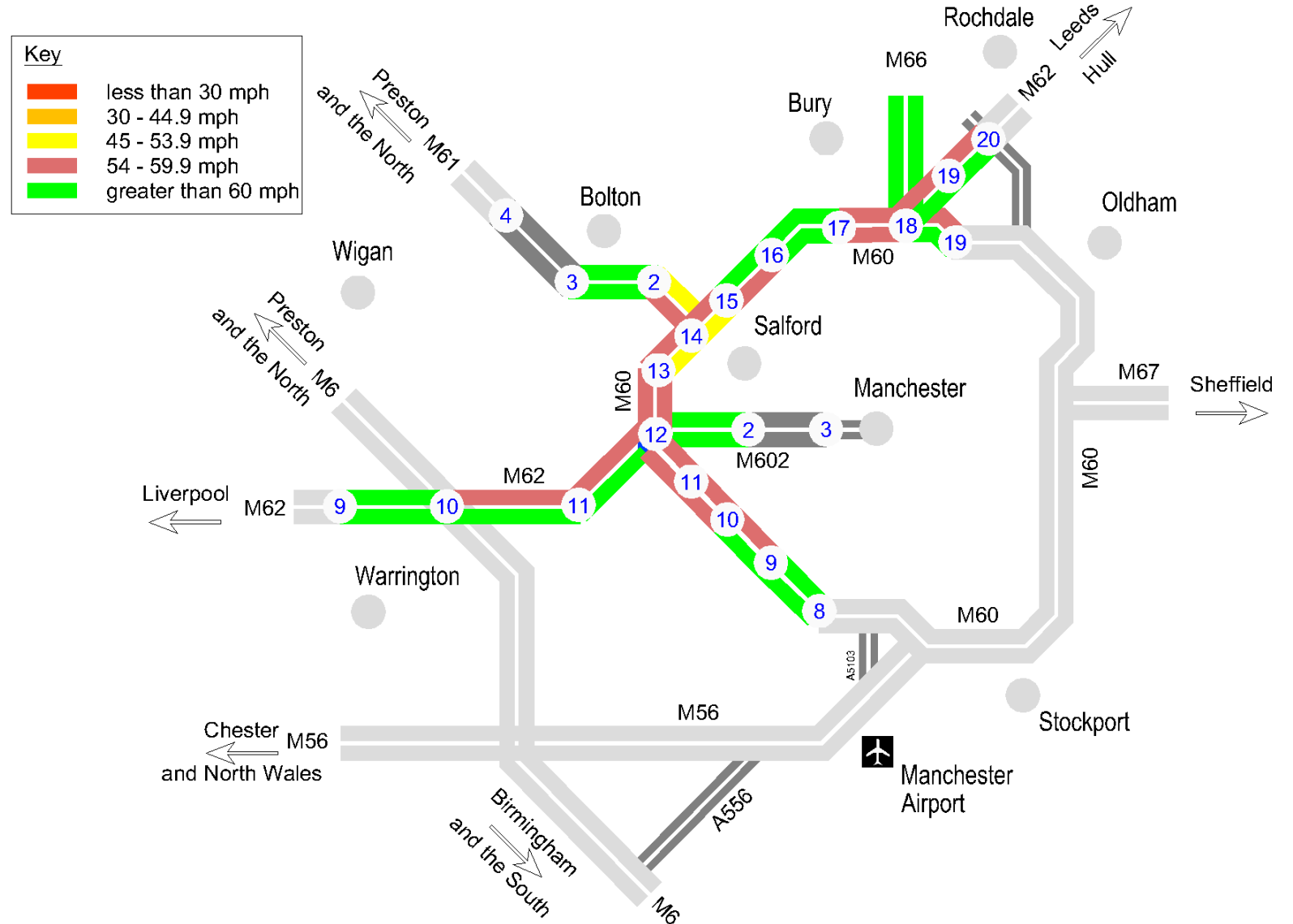
	Both Directions	
	2005	2014
AM Peak	12,614	13,419
Inter-peak	11,389	12,289
PM Peak	13,371	14,132
Inter-peak / AM Peak %	90.3%	91.6%
Inter-peak / PM Peak %	85.2%	87.0%

AM Peak Speeds



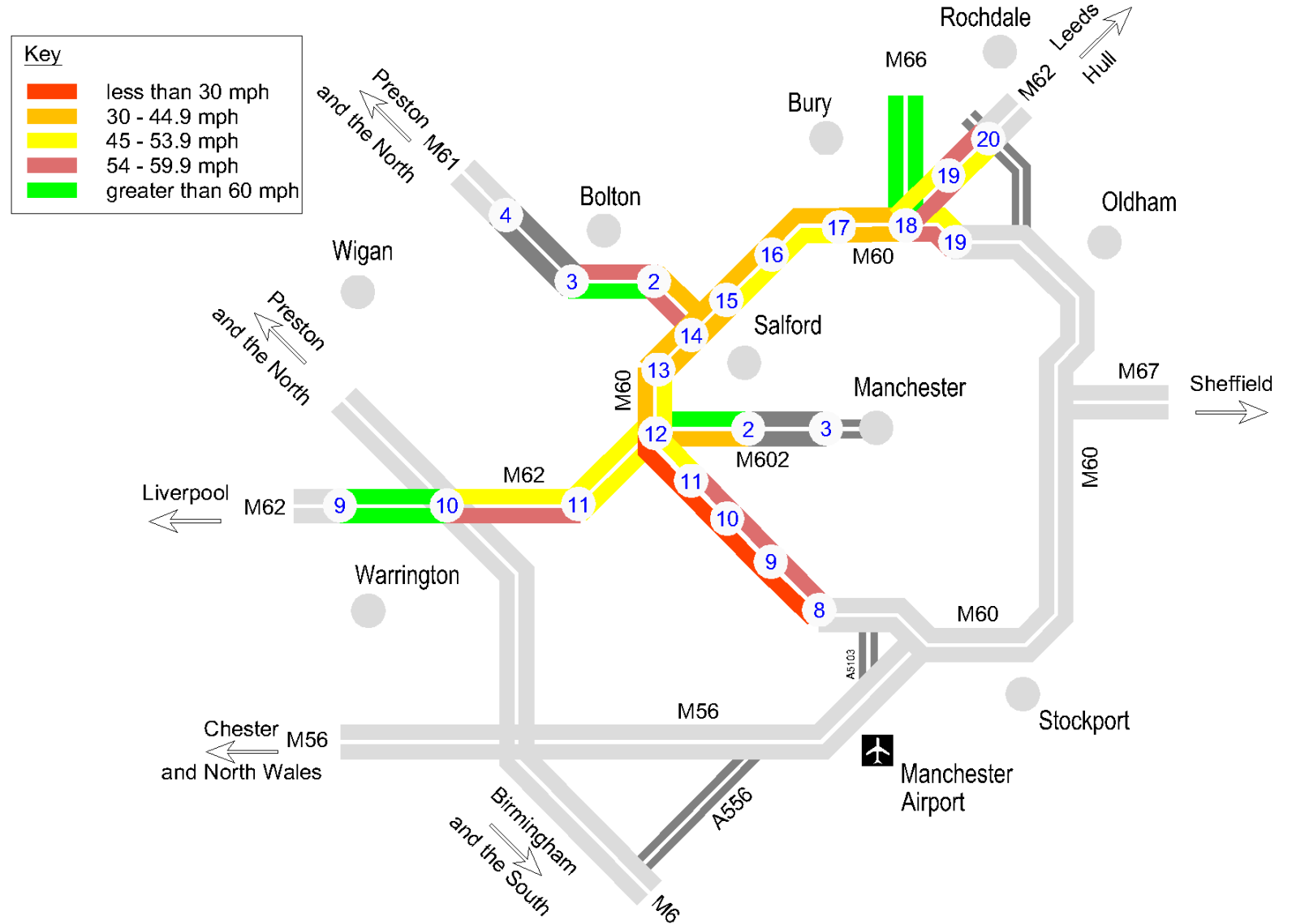
Source: Highways England JTDB

Inter-peak



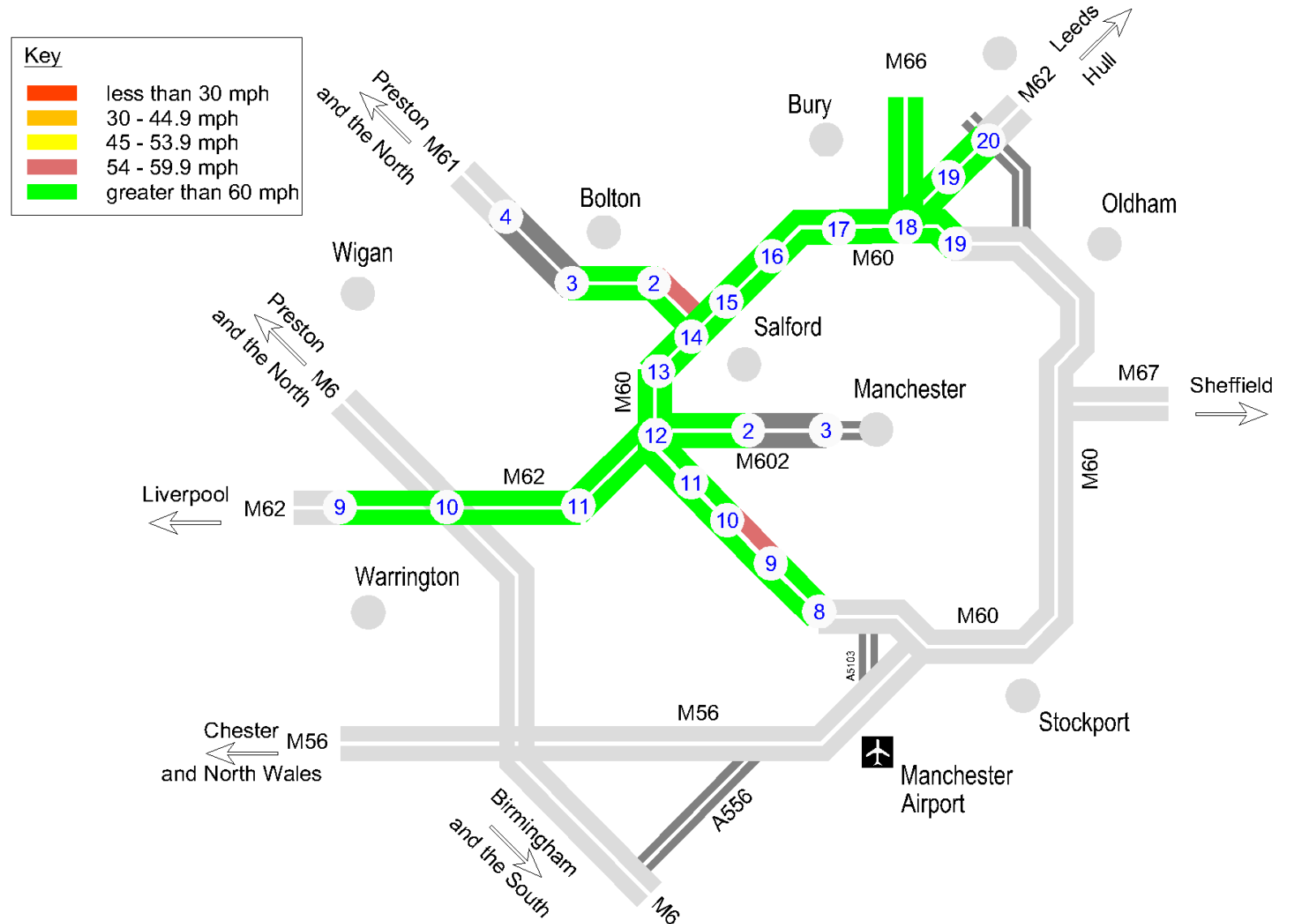
Source: Highways England JTDB

PM Peak



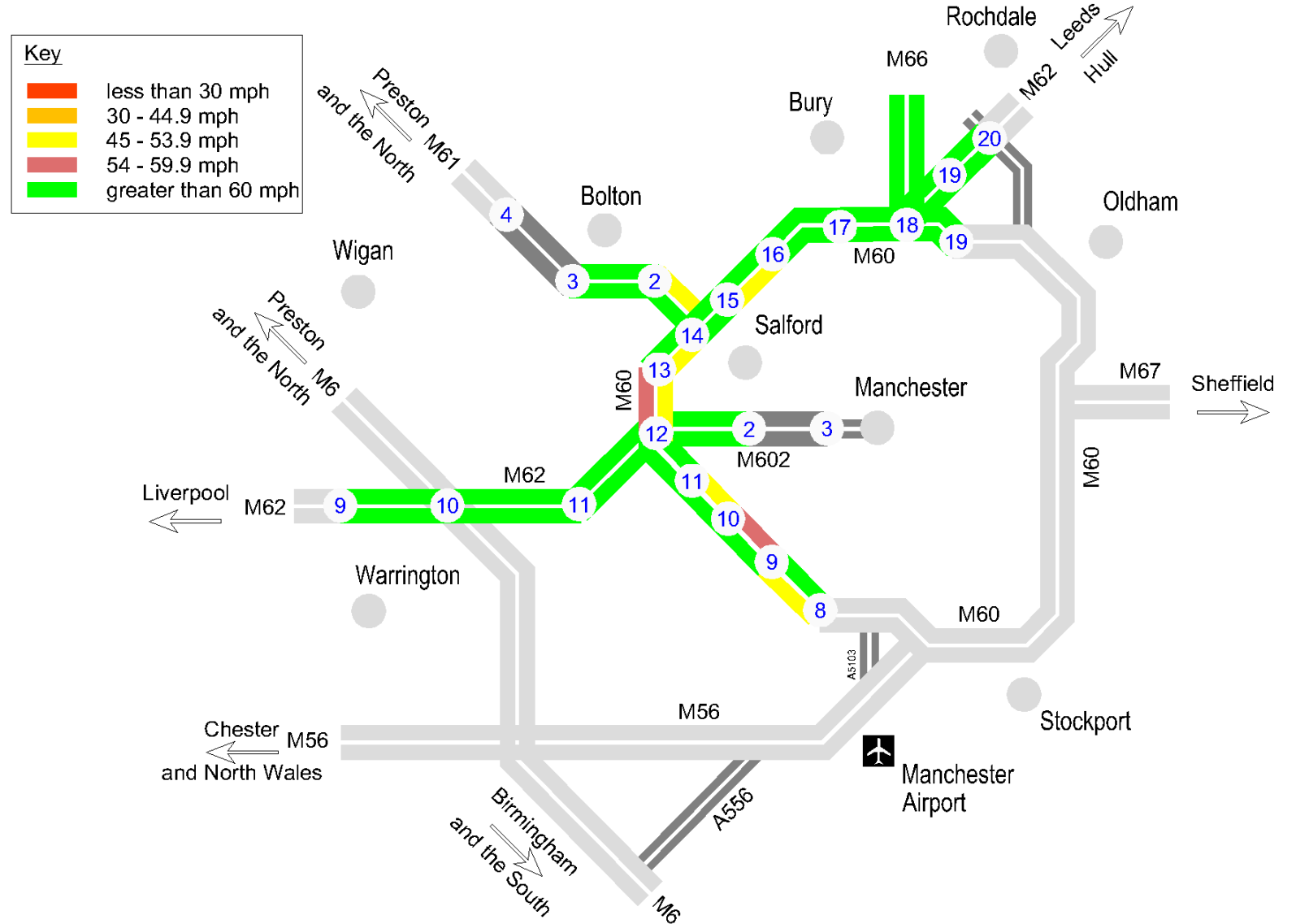
Source: Highways England JTDB

Off Peak



Source: Highways England JTDB

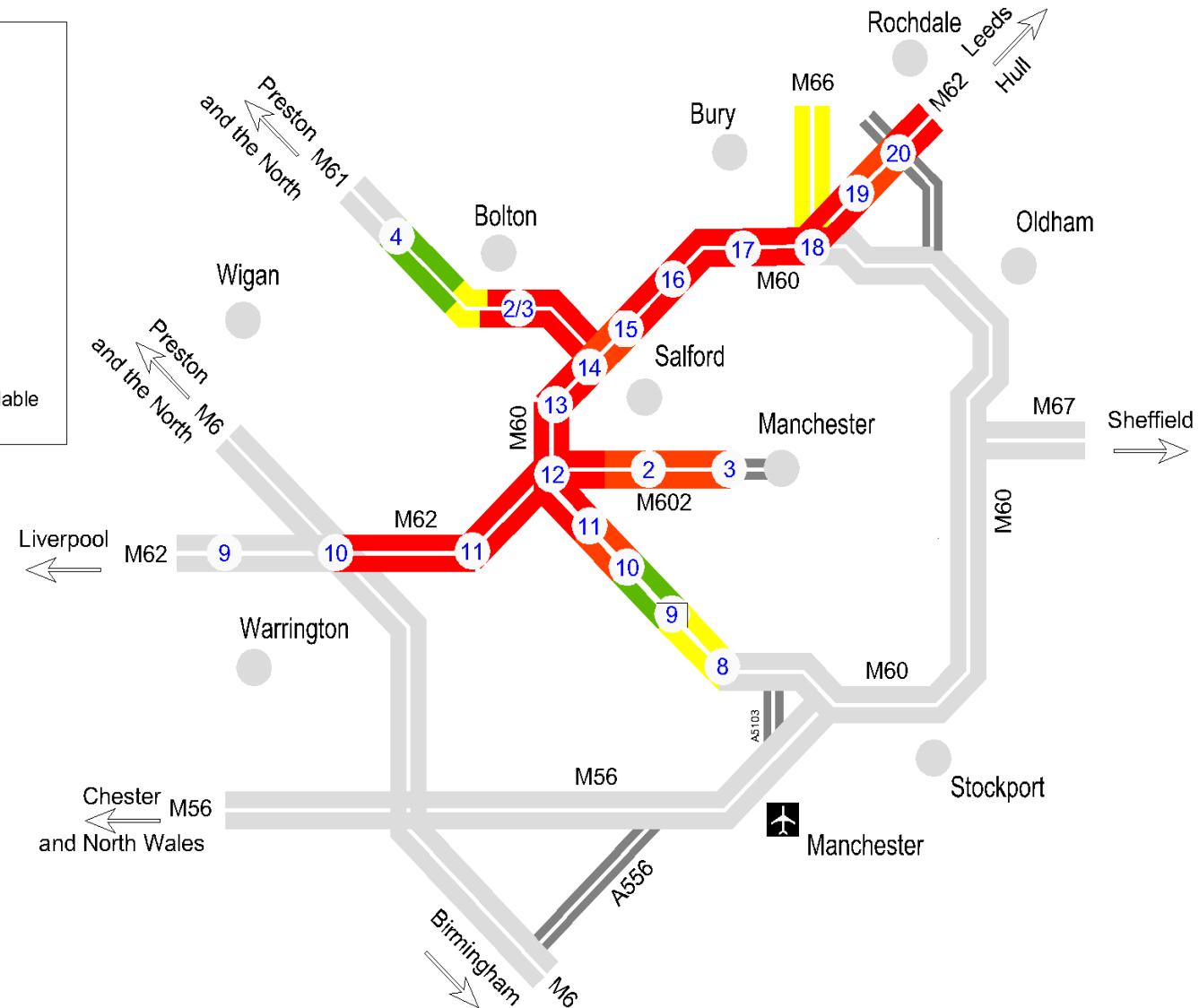
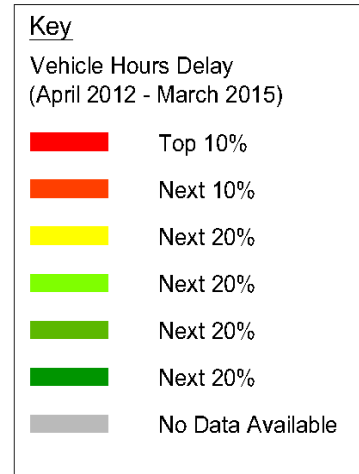
Weekend



Source: Highways England JTDB

Delay

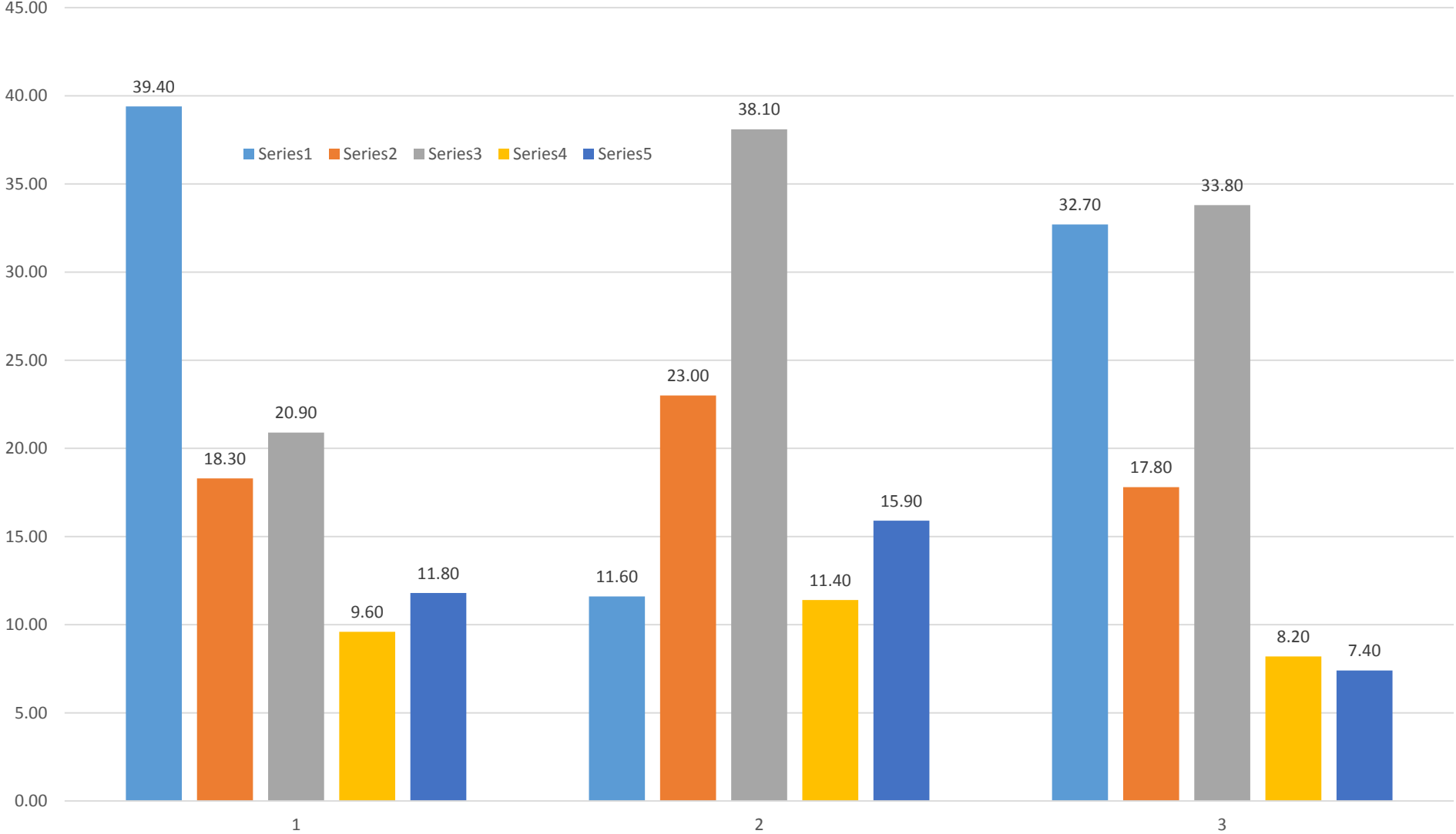
- Majority of links fall within the worst 10% nationally in terms of vehicle hours delay



Source: South Pennines Route
Strategy Report, HA, 2014

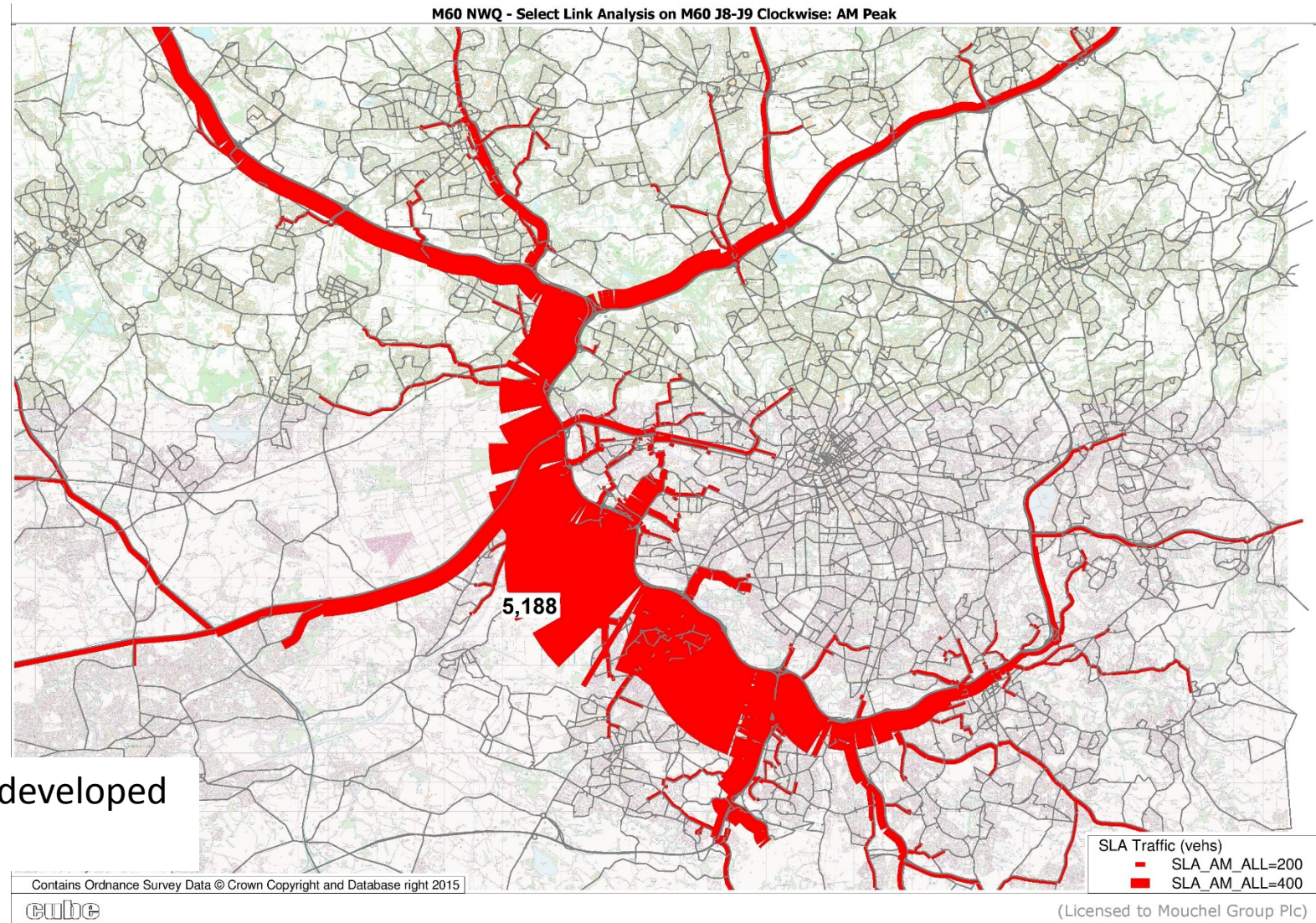
Journey Purpose

Source: Model Forecasting Report for M60
Managed Motorways study (2013)



Travel Patterns – M60 J8-9 Clockwise

- Access to Trafford Park and Manchester City Centre
- Significant number of trips to M62 west; M61 (and A666 to Bolton); M66 north and M62 east.

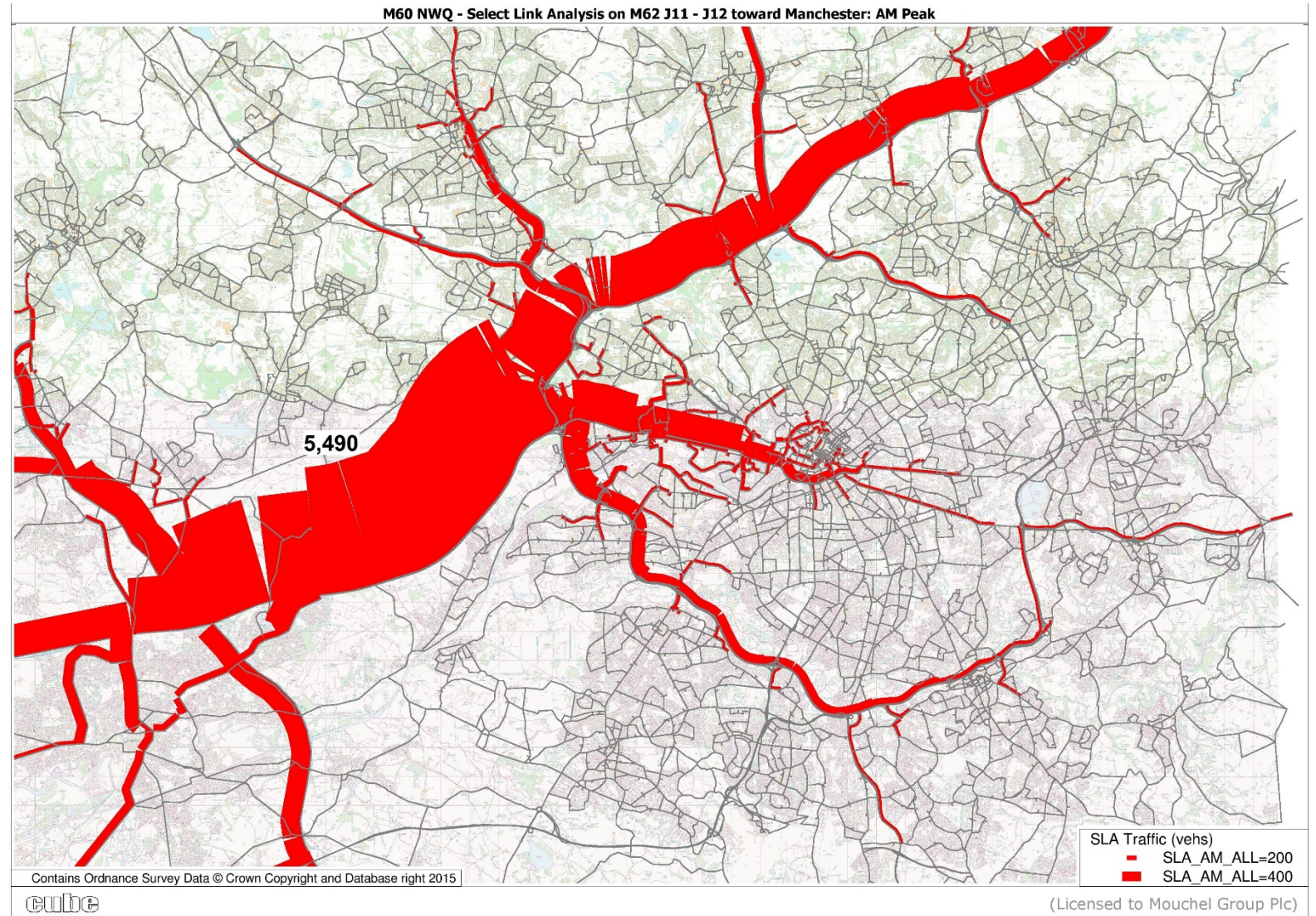


Source: M60SM highway models that was developed for the M60 J8-M62 J20 Smart Motorways

Travel Patterns – M62 J11-12

- Strong strategic movement continuing eastward across the Pennines via M62
- Significant movements to M60 south; Manchester City Centre via M602; M61/A666 to Bolton; and M66 north.

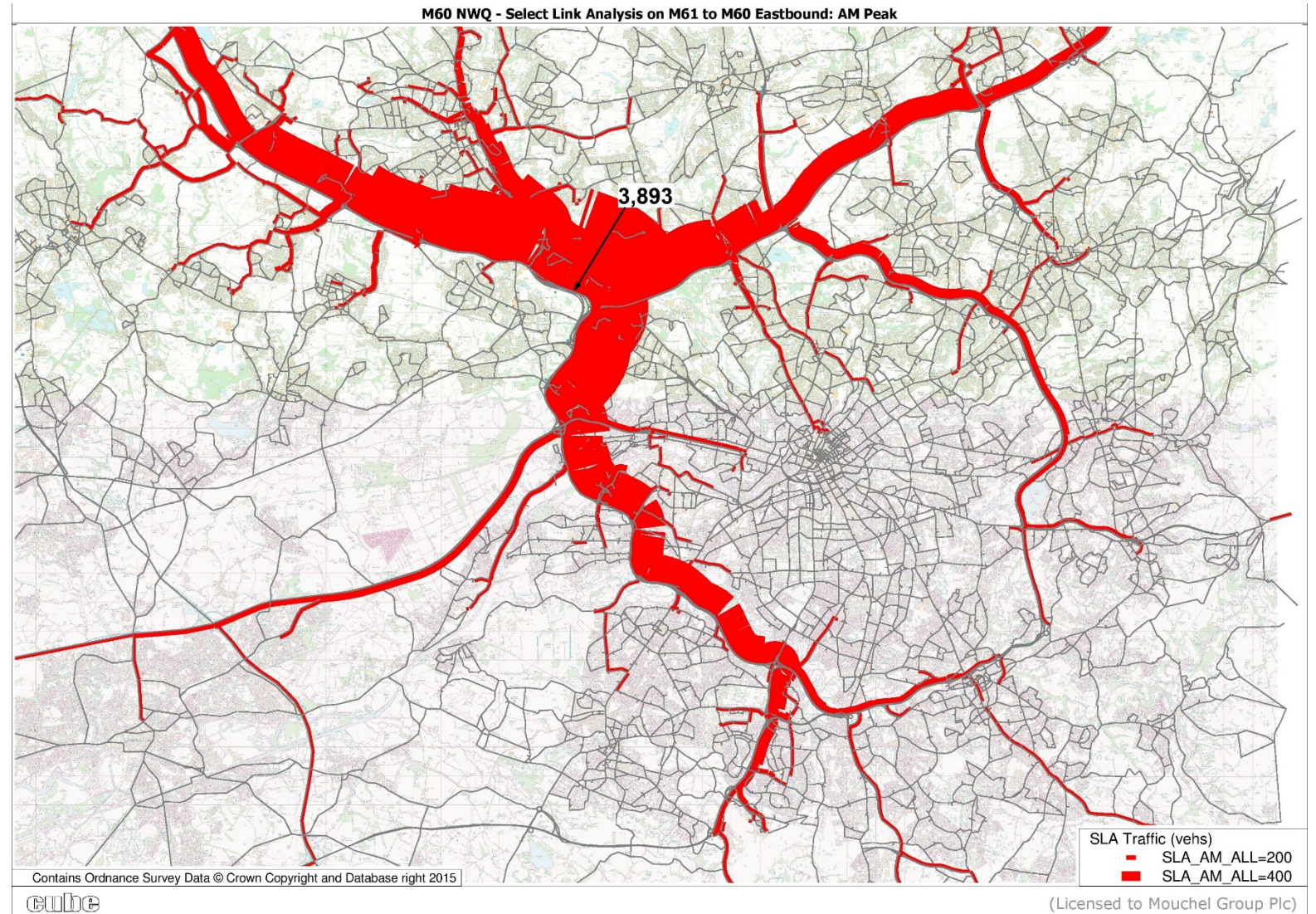
Source: M60SM highway models that was developed for the M60 J8-M62 J20 Smart Motorways



Travel Patterns – M61 to M60 Southbound

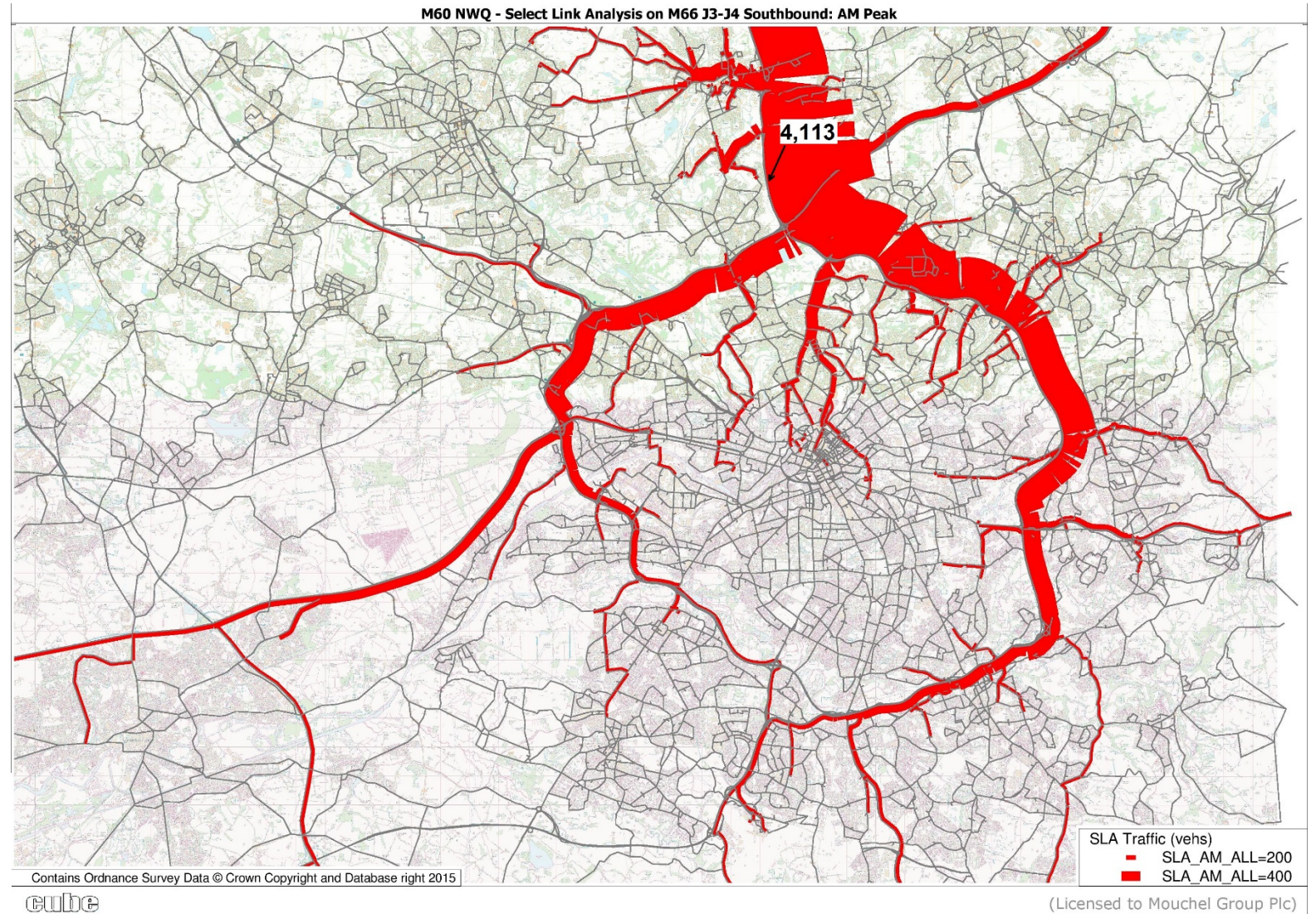
- strong evidence of trips from M61 using the M60 to access all parts of the Greater Manchester conurbation
- More strategic movements to M62 east and M56/Manchester Airport

Source: M60SM highway models that was developed for the M60 J8-M62 J20 Smart Motorways



Travel Patterns – M66 J3-4 Southbound

- Most of the traffic using M66 southbound uses M60 to access destinations within the Greater Manchester conurbation.

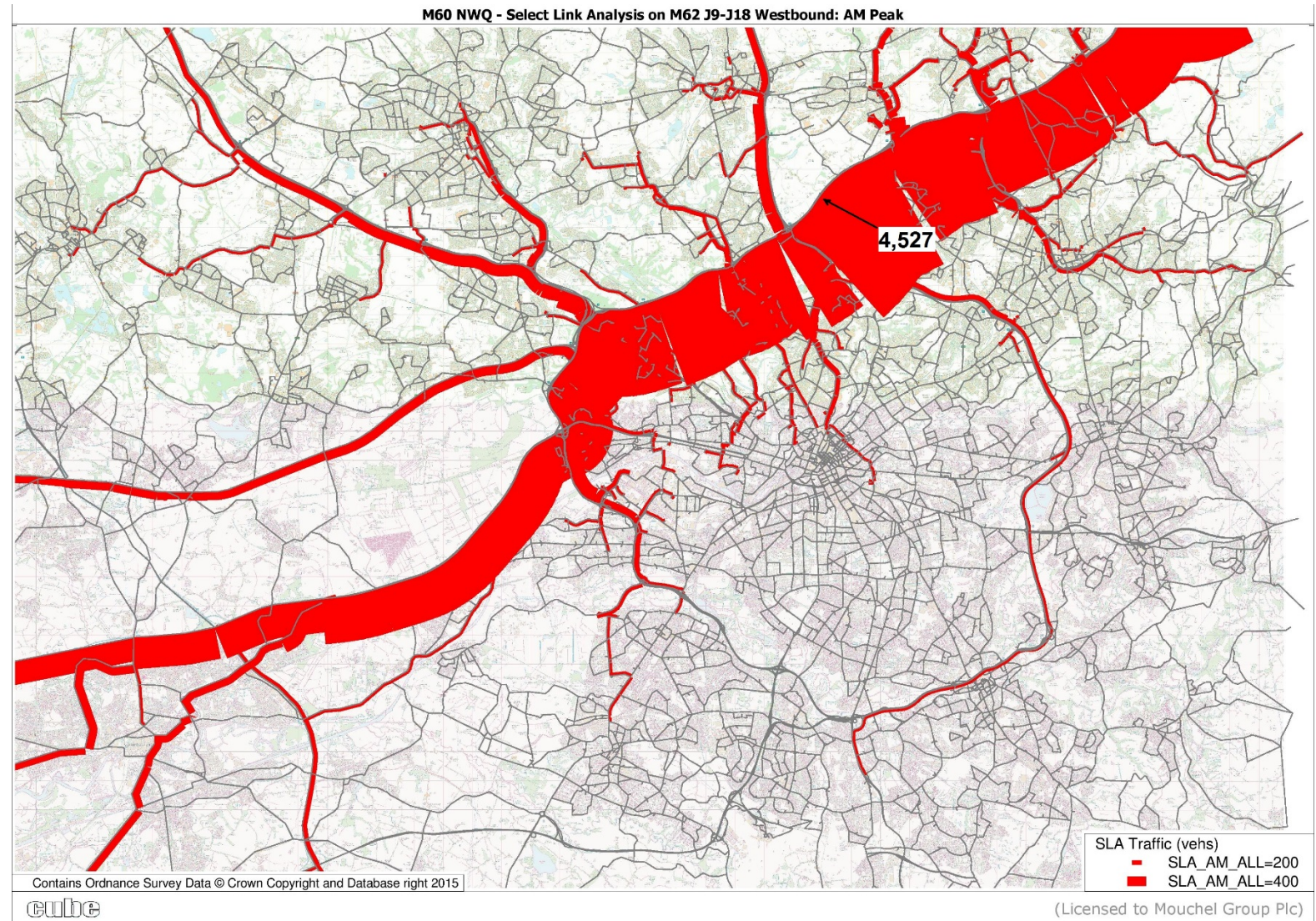


Source: M60SM highway models that was developed for the M60 J8-M62 J20 Smart Motorways

Travel Patterns – M62 19-18 Westbound

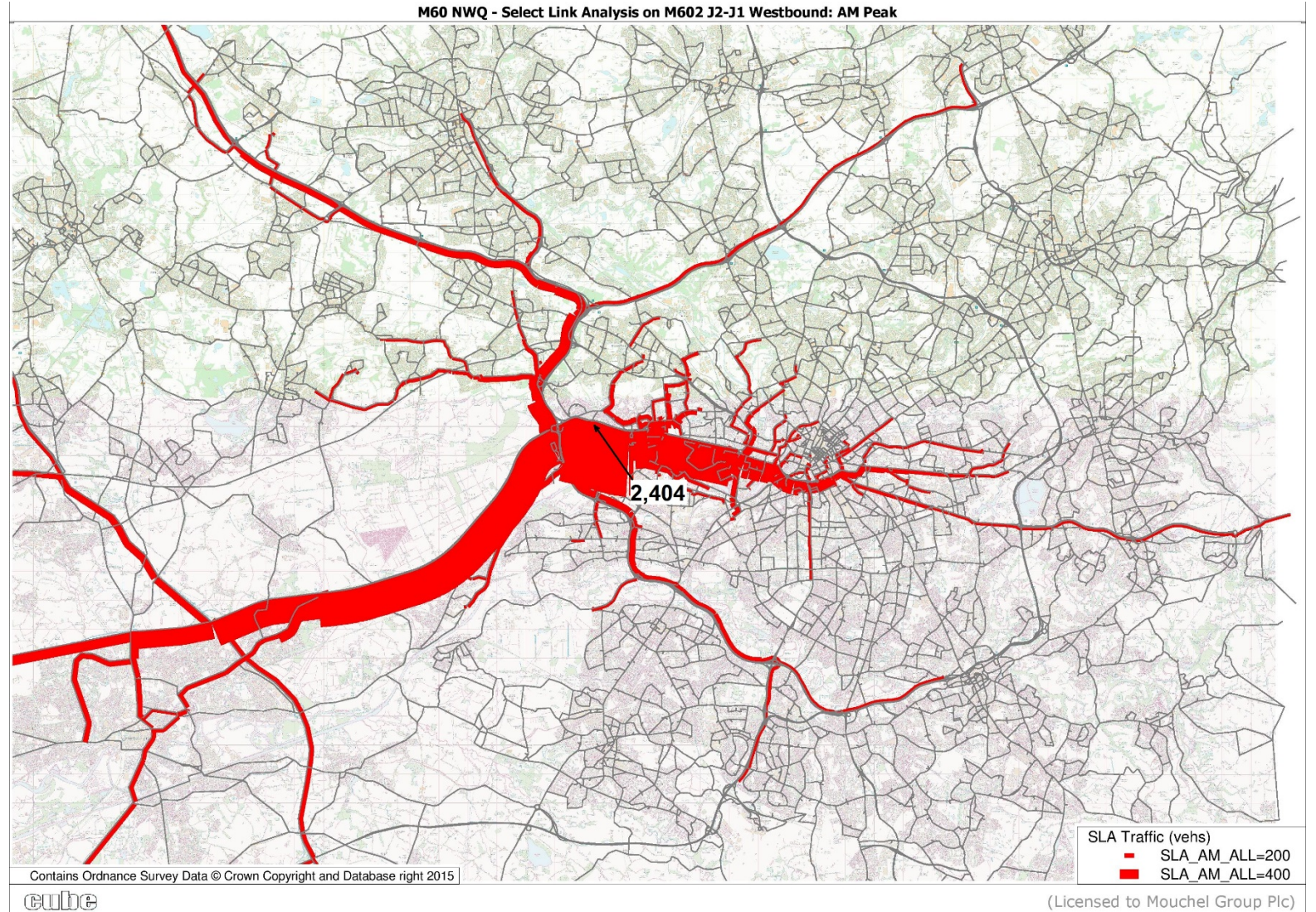
- Traffic is more strategic in nature with a high volumes continuing to M62 west
- Significant movements to M66 north; M61; and A580.

Source: M60SM highway models that was developed for the M60 J8-M62 J20 Smart Motorways



Travel Patterns – M602 J2-1 Westbound

- Largely outbound trips from Trafford Park and the City Centre the majority of which continue onto M62 west or use M60 to access M61

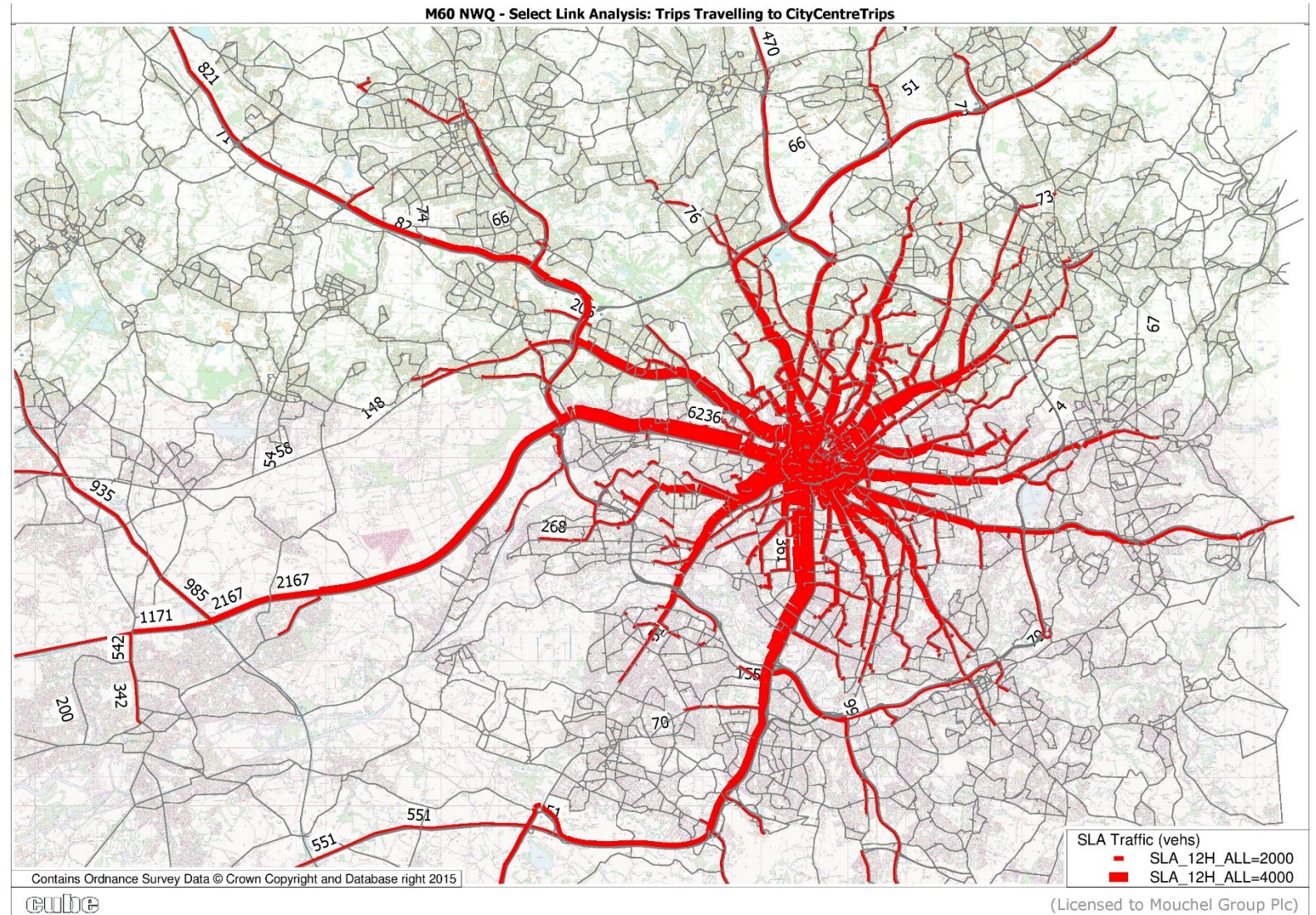


Source: M60SM highway models that was developed for the M60 J8-M62 J20 Smart Motorways

Travel Patterns – Trips to City Centre

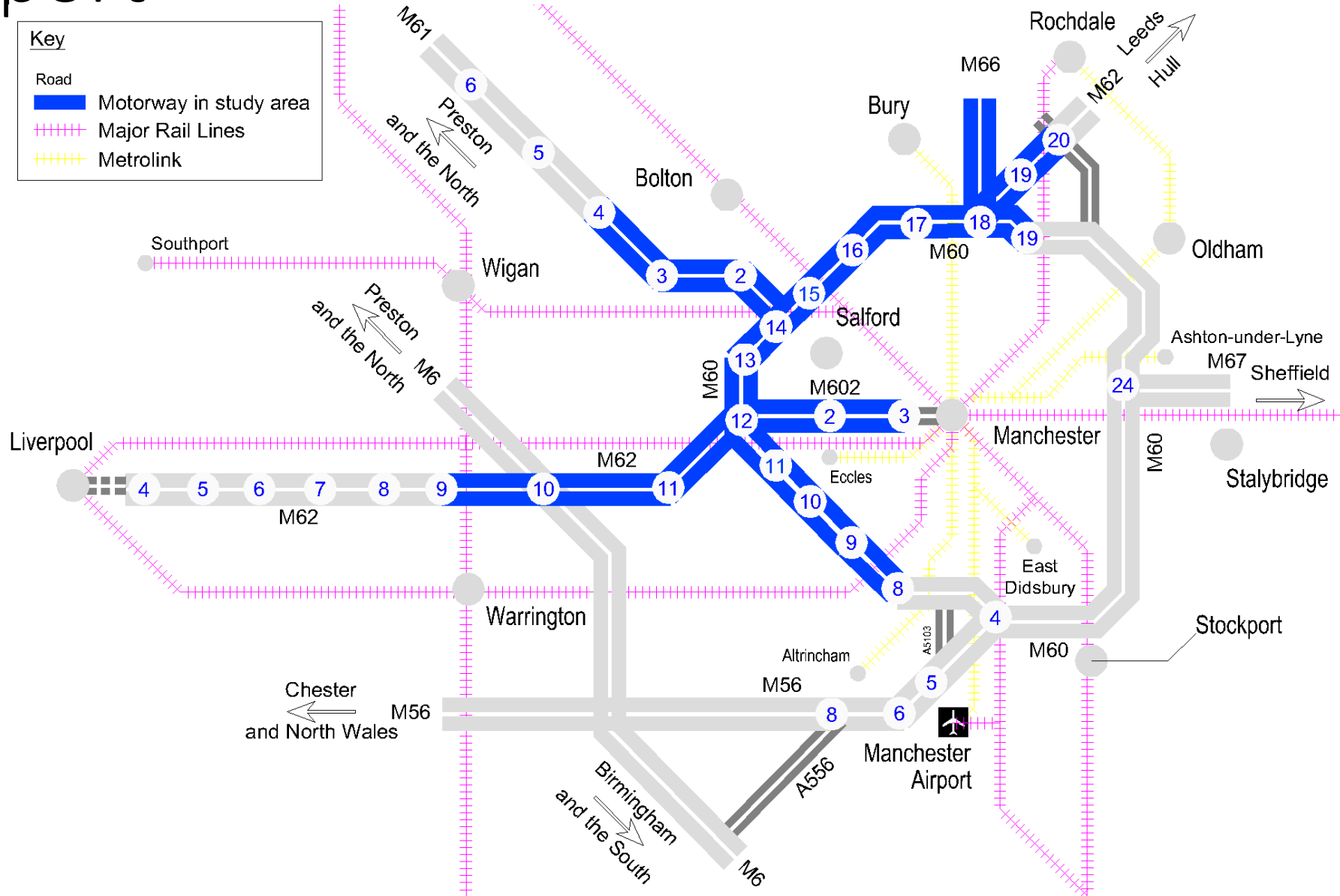
- Clear evidence of M60 junction hopping as part of longer radial trips particularly between M61 and M602; and M66 and M60 junctions 17 and 19

Source: M60SM highway models that was developed for the M60 J8-M62 J20 Smart Motorways



Public Transport

- Rail
- Metrolink
- Bus



Public Transport Patronage

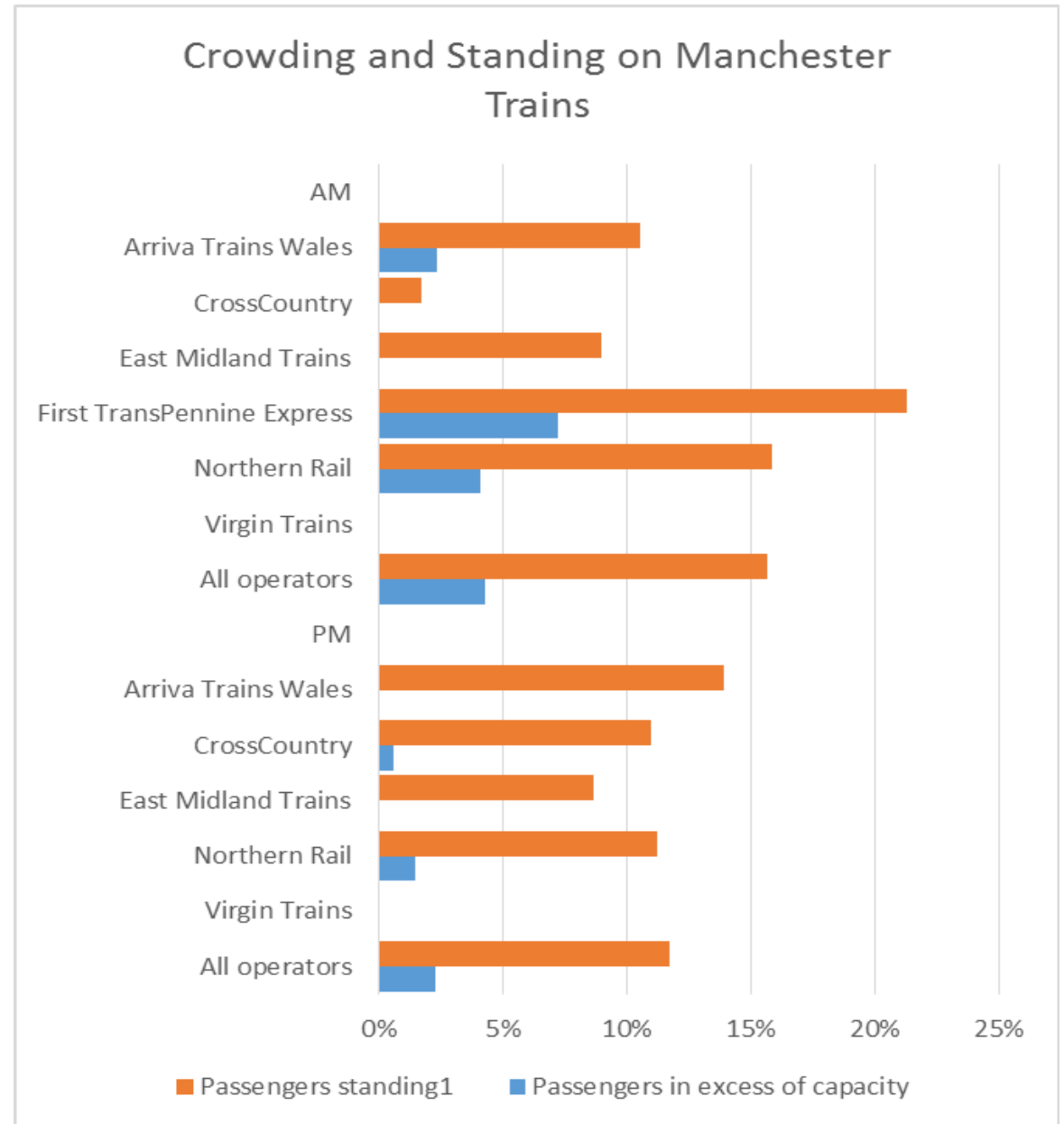
Public Transport Patronage in Greater Manchester



Source: Bus Statistics, DfT, 2015

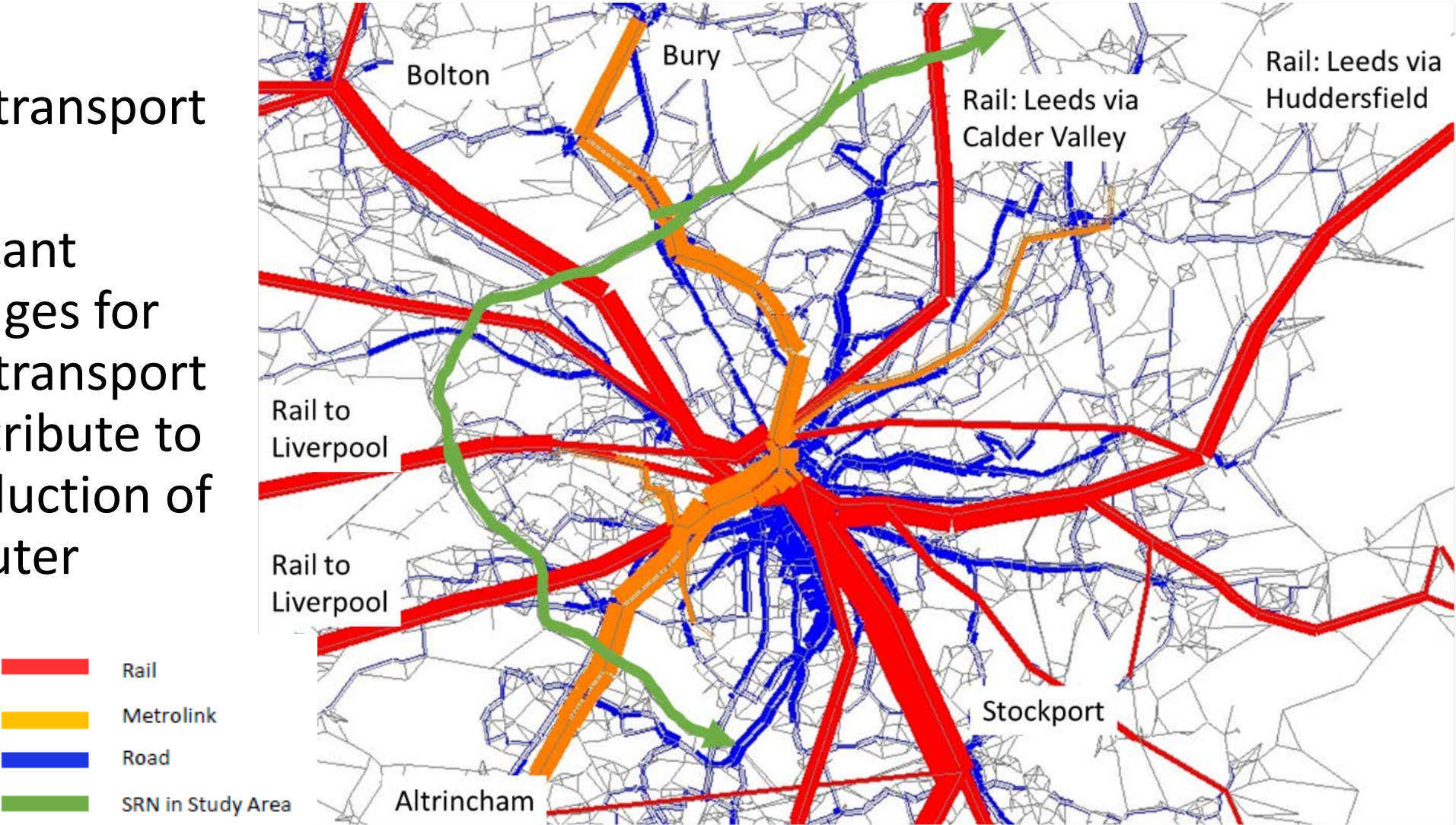
Public transport

- Worst crowding First Trans-Pennine Express



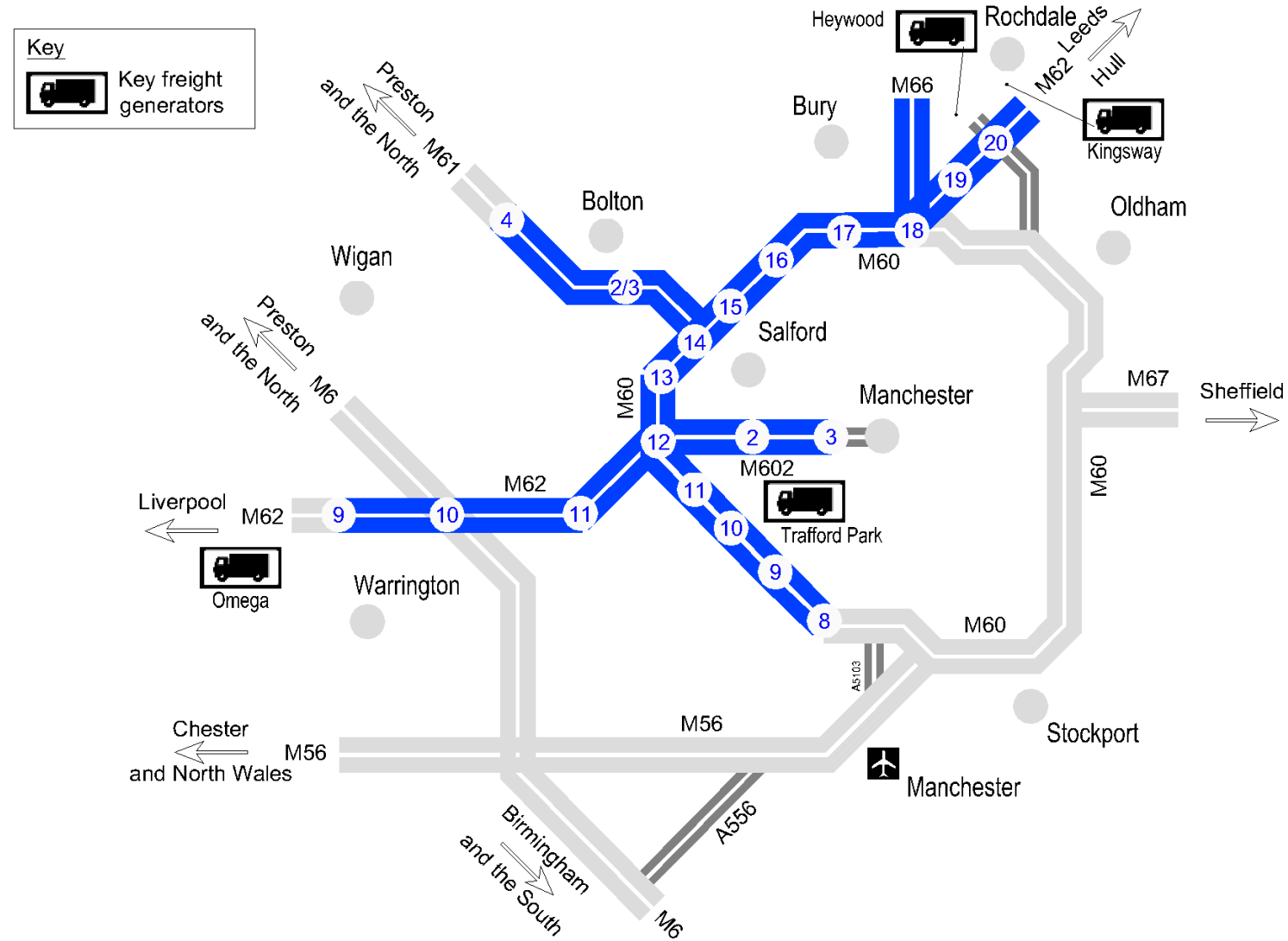
Source: Greater Manchester Public Transport Model (GMPTM2) model for the 2012/2013 base year

- Public transport radial
- Significant challenges for public transport to contribute to the reduction of commuter traffic.



Freight

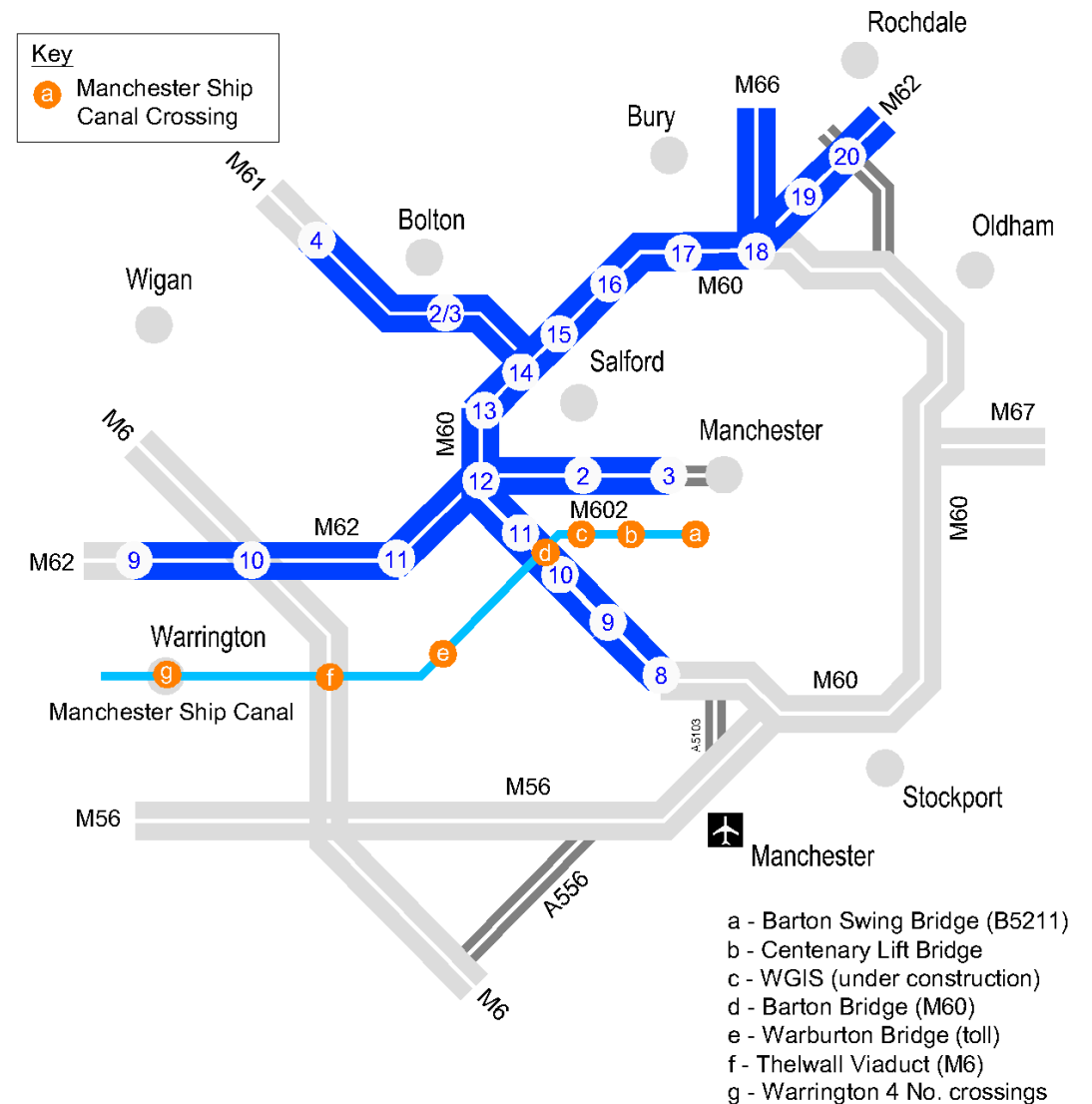
- Freight traffic on the SRN within the study area comprises pan northern, regional and local movements.
- The volume of freight (15%)
- Road layout and topography means that freight can be slow moving impacting on overall network performance.



Network Constraints

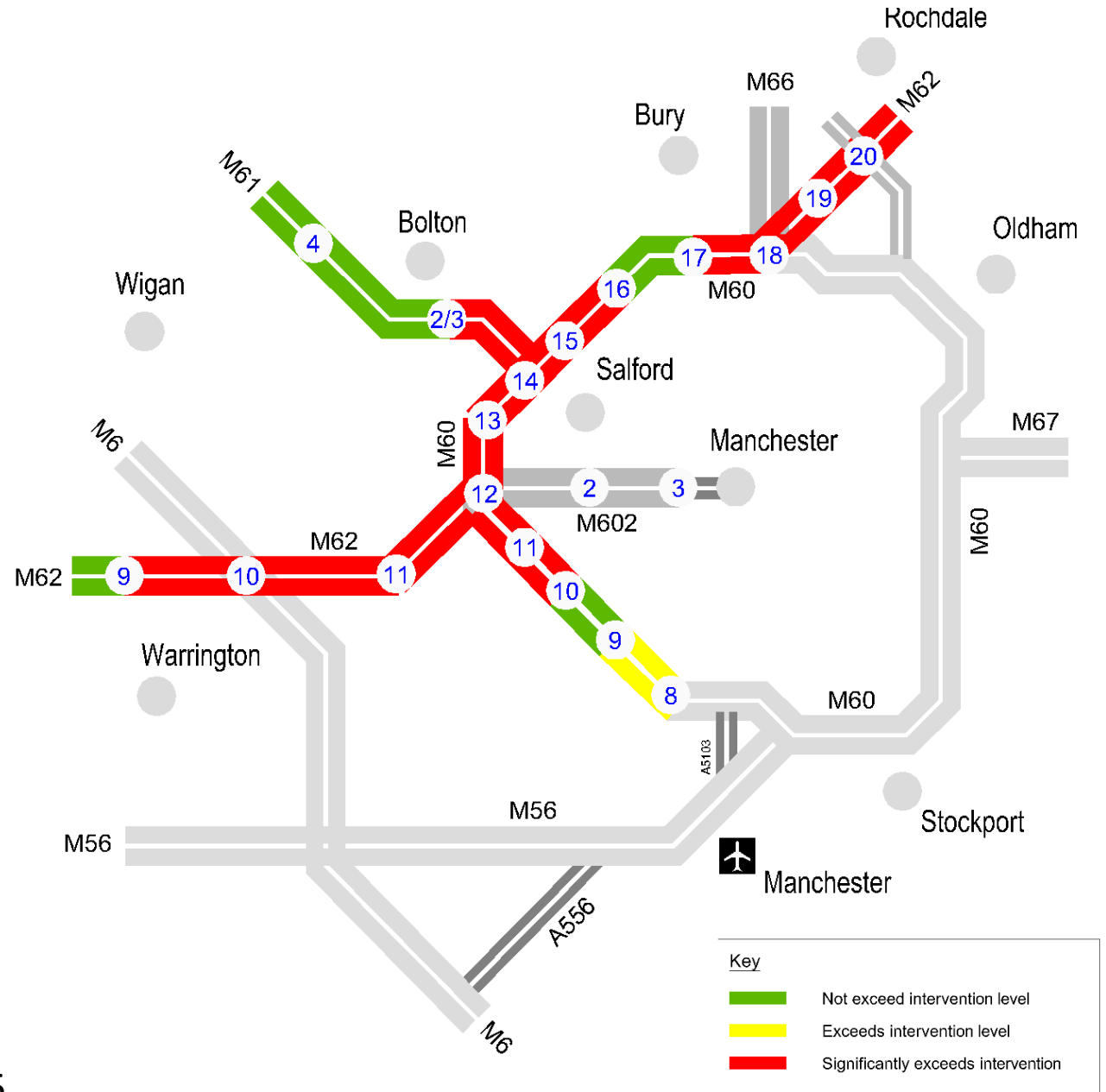
Current network affected by various constraints:

- Lack of all movement junctions on M60 between J13 – 17
- Close proximity of junctions
- Substandard Interchanges
- Substandard lane widths
- Steep gradients
- Limited opportunities to cross Manchester Ship Canal



Safety

- Most links significantly exceed intervention levels
- SRN within the study area mostly within 20% worst performing
- No of sites within top 250 collision locations

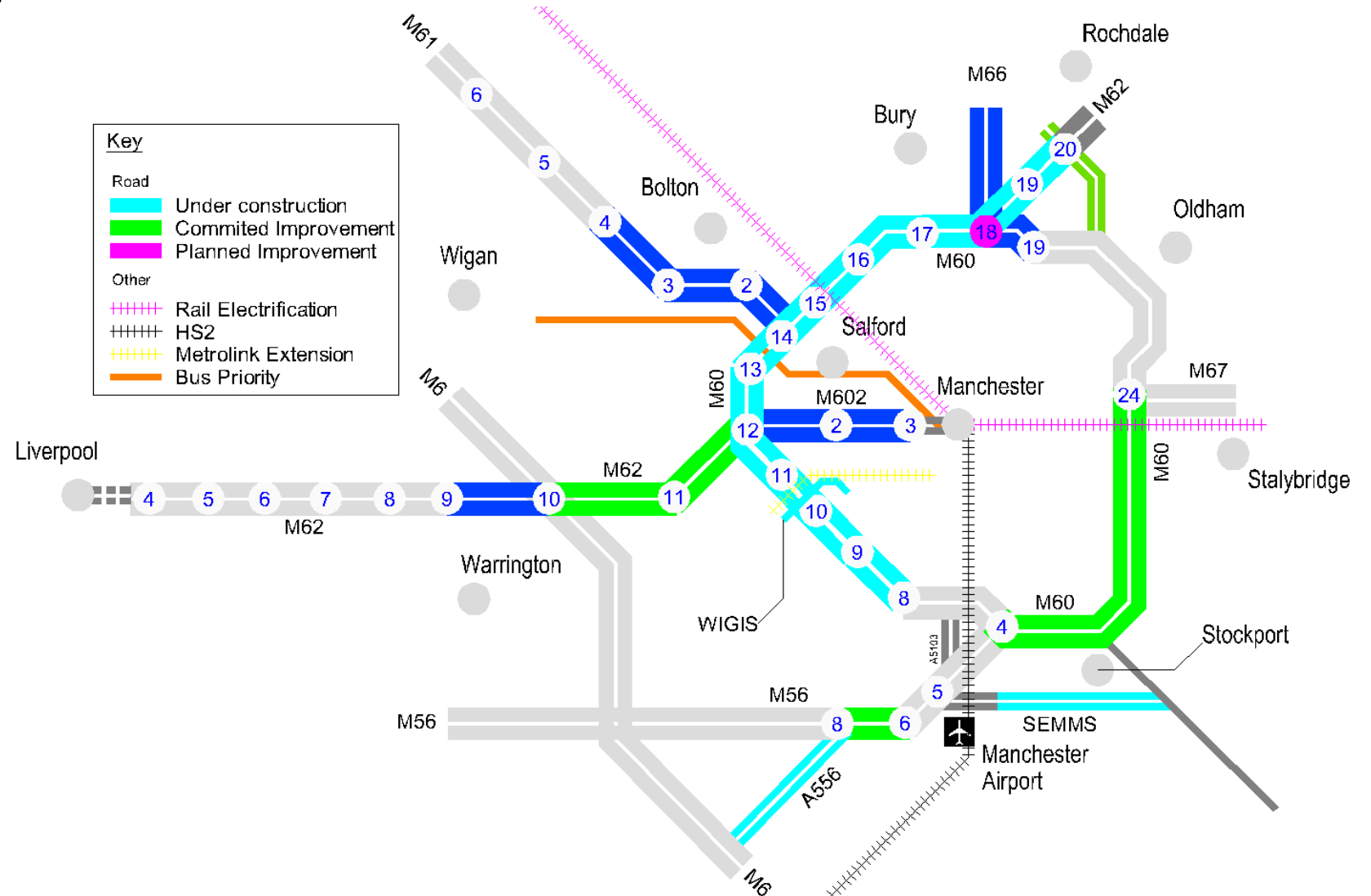


Source: Route Safety Report 2011-2013, HA, Jan 2015

Transport Improvements

Significant planned transport investments

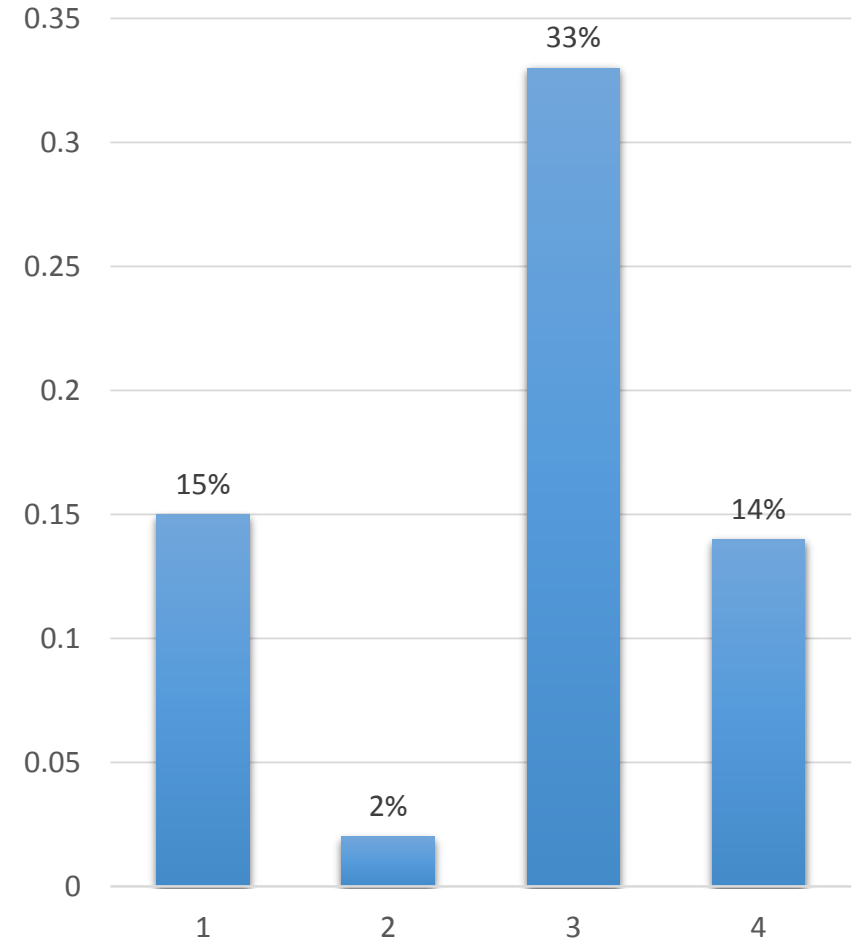
- Road
- Rail
- Metrolink
- Bus
- Cycle



Forecast Growth

- From traffic models 2032 growth forecasts are:
 - overall growth 14%
 - car 15%
 - public transport 2%
 - Freight 33%

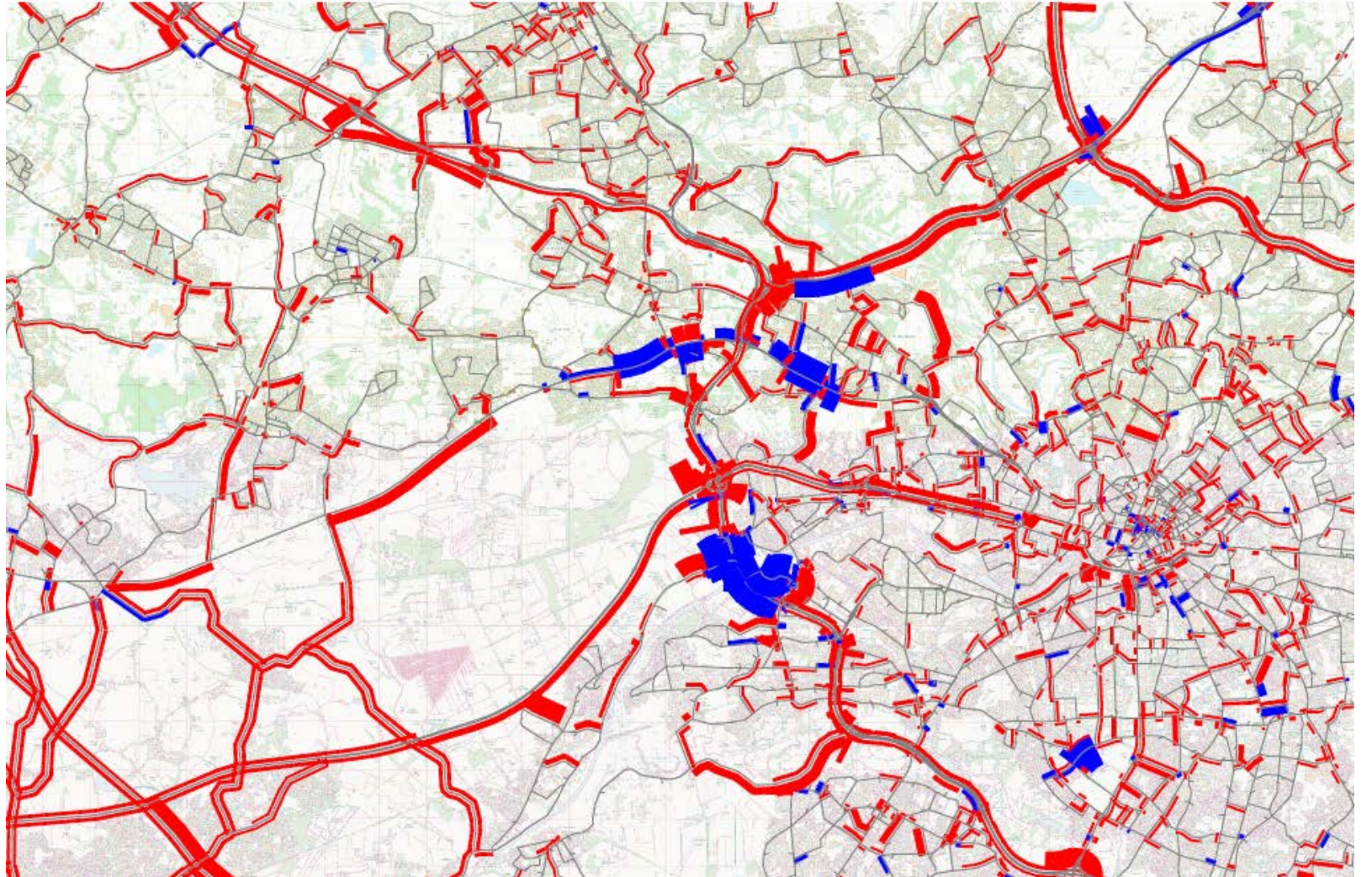
Source: Model Forecasting Report for M60
Managed Motorways study (2013)



How does this growth affect the SRN?

Significant links within Study area will experience speed decreases notably

- M60 J14-18
- M60 J12



Source: M60SM highway model

Current Environmental Challenges

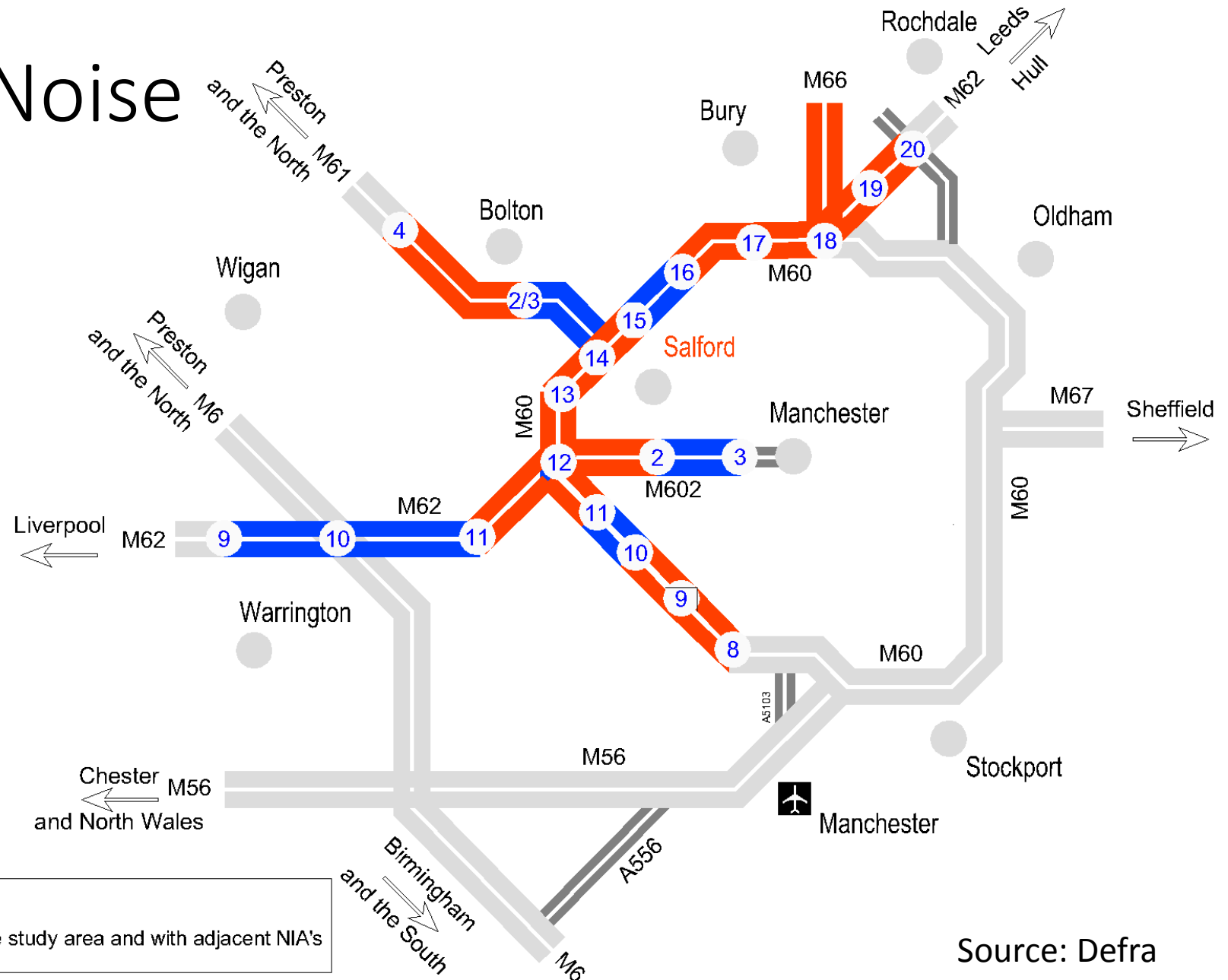
Environment – Air Quality

- Baseline air quality poor
- NO₂ well above Air Quality Strategy Objectives
- Whole of M60 designated as air quality management area (AQMA)



Environment - Noise

- M60 dominates noise environment
- 40 Noise Important Areas (NIA) within the study area



Environment - Other

Biodiversity

- Manchester Mosses Special Area of Conservation (SAC)
- Rochdale Canal Special Area of Conservation (SAC)

Historic Environment

- Within the study area there are a number of Scheduled Ancient Monuments, Listed Buildings & Registered Parks and Gardens

Landscape / Townscape

- Study area largely urban
- Small areas of green space
- Various visual receptors