

6 Modal Share

6.1 Appraising Existing Data

- 6.1.1 Having calculated the drip distribution by journey purpose, mode splits can be obtained in order to examine the trip distribution by method of travel.
- 6.1.2 Databases from TEMPro and the 2001 Census have been consulted to investigate modal splits for the trips made in and out of the sites.

TEMPro

6.1.3 The same data that was extracted from TEMPro for calculating journey purposes in section 4.2 can be used to calculate mode splits for each of these journey purposes. For each mode, divide the number of trips by the total trips made across all modes.

Mode	Work		Education		Retail		Other	
	AM	PM	AM	РМ	AM	РМ	АМ	РМ
Car Driver	56%	53%	12%	20%	30%	24%	34%	35%
Car Passenger	14%	14%	23%	21%	20%	34%	23%	26%
Bus/Coach	12%	12%	17%	20%	11%	8%	8%	6%
Rail	3%	5%	1%	3%	1%	1%	1%	1%
Cycle	3%	2%	2%	1%	1%	2%	1%	2%
Walk	12%	13%	45%	35%	37%	32%	34%	30%
Total	100%	100%	100%	100%	100%	100%	100%	100%

Table 6-1: TEMPro: Mode splits by Journey Purposes (Home-Based)

- 6.1.4 Whilst TEMPro gives a breakdown of mode share by journey purpose, the data is generalised for the whole of Birmingham, and therefore there can be no distinction of mode splits among the interior and intermediate road zones.
- 6.1.5 It is possible to obtain more specific data for the mode splits for the journeys to work using the journey to work data that was gathered for the existing sites of Walmley and Midpoint Park.

Census of Population (2001)

6.1.6 The 2001 Census has been used in section 5.2.3 when observing the journeys to work of existing employment and residential areas of Midpoint Park and Walmley estate.

6.1.7 This data obtained can be further evaluated to investigate the modal shares of the existing journeys to work. The journey to work data contains a modal share as well as an origin and destination, all at output area level.

 Table 6-2: Midpoint Park: Journey to Work Mode Split

Mode	Split
Rail/Underground	1%
Bus/Coach	10%
Car Driver	65%
Car Passenger	15%
Cycle	4%
Walk	3%

Table 6-3: Walmley: Journey to Work Mode Split

Mode	Split
Rail/Underground	1%
Bus/Coach	11%
Car Driver	74%
Car Passenger	6%
Cycle	1%
Walk	5%

- 6.1.8 In order to produce a more representative modal share for the proposed sites, the mode splits obtained from the journeys to work of these existing sites can be disaggregated into separate mode splits for each road zone.
- 6.1.9 This is achieved by converting each "old" output area code into its 2011 counterpart, and then distributing the journey to work data across the road zones configured in section 5.2.3.
- 6.1.10 Once the modal shares of each zone have been analysed for the existing sites, they can be used to define a modal share for the journeys to work at the new employment and residential sites. If there are anomalies in the outputs from the data, a logical cause for the anomalies will be explored.

Table 6-4: Midpoint Park Journey to Work Modal Share by Road Zone									
Zone	Car (Driver)	Car (Passenger)	Bus/Coach	Rail	Cycle	Walk	Other		
Interior 1	54%	24%	7%	0%	0%	7%	7%		
Interior 2	53%	21%	10%	0%	10%	5%	0%		
Interior 3	71%	29%	0%	0%	0%	0%	0%		
Interior 4	63%	12%	18%	0%	0%	0%	6%		
Interior 5	0%	50%	50%	0%	0%	0%	0%		
Interior 6	37%	19%	11%	0%	11%	14%	8%		
Interior 7	50%	25%	0%	0%	0%	25%	0%		
Intermediate I	70%	15%	5%	0%	8%	2%	0%		
Intermediate II	75%	0%	25%	0%	0%	0%	0%		
Intermediate III	63%	13%	13%	0%	13%	0%	0%		
Intermediate IV	43%	11%	0%	0%	46%	0%	0%		
Intermediate V	57%	7%	29%	0%	0%	0%	7%		
Intermediate VI	69%	8%	23%	0%	0%	0%	0%		
Intermediate VII	52%	25%	13%	0%	3%	6%	2%		
Intermediate VIII	69%	14%	13%	0%	3%	0%	1%		
Exterior B	100%	0%	0%	0%	0%	0%	0%		
Exterior C	76%	14%	5%	0%	3%	0%	3%		
Exterior D	100%	0%	0%	0%	0%	0%	0%		
Exterior E	80%	5%	5%	2%	6%	0%	2%		
Exterior F	78%	4%	19%	0%	0%	0%	0%		
Exterior G	68%	5%	5%	11%	5%	0%	5%		
Exterior H	94%	6%	0%	0%	0%	0%	0%		

Table 6-4: Midpoint Park Journey to Work Modal Share by Road Zone

- 6.1.11 Observing this, the modal share across the zones displays natural and logical patterns. The interior zones have a higher proportion of cyclists and walkers, whereas the exterior zones have a high proportion of car drivers. This is to be expected, as sustainable transport options become limited and less desirable as the distance of travel increases.
- 6.1.12 There is an extremely high share of cyclists in intermediate zone IV which, upon further scrutiny, all originate from one output area in Tamworth. This could be down to a misprint of information in the census, or a troupe of cyclists who live in the same area and all commute to Midpoint Park.



Zone	Car (Driver)	Car (Passenger)	Bus/Coach	Rail	Cycle	Walk	Other
Interior 1	100%	0%	0%	0%	0%	0%	0%
Interior 2	59%	1%	5%	1%	1%	33%	1%
Interior 3	85%	8%	8%	0%	0%	0%	0%
Interior 4	64%	13%	8%	0%	0%	9%	5%
Interior 5	0%	0%	100%	0%	0%	0%	0%
Interior 6	70%	0%	14%	0%	0%	16%	0%
Interior 7	0%	0%	0%	0%	0%	0%	0%
Intermediate I	77%	7%	13%	1%	0%	1%	0%
Intermediate II	94%	6%	0%	0%	0%	0%	0%
Intermediate III	88%	13%	0%	0%	0%	0%	0%
Intermediate IV	68%	5%	5%	0%	0%	11%	11%
Intermediate V	83%	0%	8%	0%	0%	0%	8%
Intermediate VI	60%	12%	18%	2%	4%	0%	4%
Intermediate VII	74%	6%	16%	1%	0%	0%	3%
Intermediate VIII	72%	8%	15%	3%	1%	1%	0%
Exterior B	100%	0%	0%	0%	0%	0%	0%
Exterior C	95%	2%	2%	2%	0%	0%	0%
Exterior D	92%	0%	8%	0%	0%	0%	0%
Exterior E	100%	0%	0%	0%	0%	0%	0%
Exterior F	89%	0%	0%	0%	0%	0%	11%
Exterior G	82%	8%	5%	0%	3%	3%	0%
Exterior H	88%	2%	10%	0%	0%	0%	0%

Table 6-5: Walmley Journey to Work Modal Share by Road Zone

- 6.1.13 Observing this, it can be seen that there are no values across the mode split for Interior zone 7. This implies that nobody who lives in Walmley works in this zone.
- 6.1.14 Furthermore, there are improbabilities in the modal share at a more strategic level. The data implies that a share of journeys to work to exterior zone E is carried out on foot. This is improbable as distance between the closest output area in exterior zone E to Walmley, and Walmley, is over 11km. A plausible explanation for this anomaly is that the census form has been filled in incorrectly, and that the journey to work involves walking to the train or bus station. Seeing that there is no existing share of journeys taken by train, it is likely that the actual mode of this "walk" from exterior zone E is the bus.



6.2 Modal Assignment

- 6.2.1 In order to develop an understanding of the distribution of trips by individual mode that the Green Belt development will produce, and so form a more accurate forecast of the impact of the developments on the local highway network, a modal assignment must be generated for each journey purpose.
- 6.2.2 The modal assignment should be provided at a zonal level wherever possible so as to give as accurate a representation as possible of the modal share of journeys that the proposed developments will provide.
- 6.2.3 Modal assignment by journey purpose is detailed below.

Peddimore

Journeys to Work

- 6.2.4 The modal assignment for the journeys to work from the employment site will draw from the data provided by the journeys to work at the existing Midpoint Park. The assignment will be much the same as that of Midpoint Park, as this serves as a good proxy to provide representative modal choices.
- 6.2.5 An adjustment will be made in order to provide a robust modal assignment for the Peddimore site. Due to the high proportion of cyclists travelling from intermediate zone IV to Midpoint Park, as discussed in section 6.1.12, the modal assignment for intermediate zone IV will be the same as that of the neighbouring intermediate zone III.
- 6.2.6 All other zones will be assigned the same modal share as seen in the journeys to work for Midpoint Park.



Zone	Car (Driver)	Car (Passenger)	Bus/Coach	Rail	Cycle	Walk	Other
Interior 1	54%	24%	7%	0%	0%	7%	7%
Interior 2	53%	21%	10%	0%	10%	5%	0%
Interior 3	71%	29%	0%	0%	0%	0%	0%
Interior 4	63%	12%	18%	0%	0%	0%	6%
Interior 5	0%	50%	50%	0%	0%	0%	0%
Interior 6	37%	19%	11%	0%	11%	14%	8%
Interior 7	50%	25%	0%	0%	0%	25%	0%
Intermediate I	70%	15%	5%	0%	8%	2%	0%
Intermediate II	75%	0%	25%	0%	0%	0%	0%
Intermediate III	63%	13%	13%	0%	13%	0%	0%
Intermediate IV	63%	13%	13%	0%	13%	0%	0%
Intermediate V	57%	7%	29%	0%	0%	0%	7%
Intermediate VI	69%	8%	23%	0%	0%	0%	0%
Intermediate VII	52%	25%	13%	0%	3%	6%	2%
Intermediate VIII	69%	14%	13%	0%	3%	0%	1%
Exterior B	100%	0%	0%	0%	0%	0%	0%
Exterior C	76%	14%	5%	0%	3%	0%	3%
Exterior D	100%	0%	0%	0%	0%	0%	0%
Exterior E	80%	5%	5%	2%	6%	0%	2%
Exterior F	78%	4%	19%	0%	0%	0%	0%
Exterior G	68%	5%	5%	11%	5%	0%	5%
Exterior H	94%	6%	0%	0%	0%	0%	0%

Table 6-6: Peddimore: Journeys to Work – Modal Assignment by Zone

Langley SUE

Journeys to Work

- 6.2.7 The modal assignment for the journeys to work from the employment site will draw from the data provided by the journeys to work at the existing Walmley. The assignment will be much the same as that of Walmley, as this serves as a good proxy to provide representative modal choices.
- 6.2.8 An adjustment will be made in order to provide a robust modal assignment for the Peddimore site.The journeys undertaken on foot to exterior zone E, as implied in section 6.1.14, will be re-assigned to be undertaken by bus.
- 6.2.9 In order to provide a modal share to the journeys to interior zone 7, the modal assignment from the neighbouring interior zone 2 has been used.



Zone	Car (Driver)	Car (Passenger)	Bus/Coach	Rail	Cycle	Walk	Other
Interior 1	100%	0%	0%	0%	0%	0%	0%
Interior 2	59%	1%	5%	1%	1%	33%	1%
Interior 3	85%	8%	8%	0%	0%	0%	0%
Interior 4	64%	13%	8%	0%	0%	9%	5%
Interior 5	0%	0%	100%	0%	0%	0%	0%
Interior 6	70%	0%	14%	0%	0%	16%	0%
Interior 7	59%	1%	5%	1%	1%	33%	1%
Intermediate I	77%	7%	13%	1%	0%	1%	0%
Intermediate II	94%	6%	0%	0%	0%	0%	0%
Intermediate III	88%	13%	0%	0%	0%	0%	0%
Intermediate IV	68%	5%	5%	0%	0%	11%	11%
Intermediate V	83%	0%	8%	0%	0%	0%	8%
Intermediate VI	60%	12%	18%	2%	4%	0%	4%
Intermediate VII	74%	6%	16%	1%	0%	0%	3%
Intermediate VIII	72%	8%	15%	3%	1%	1%	0%
Exterior B	100%	0%	0%	0%	0%	0%	0%
Exterior C	95%	2%	2%	2%	0%	0%	0%
Exterior D	92%	0%	8%	0%	0%	0%	0%
Exterior E	100%	0%	0%	0%	0%	0%	0%
Exterior F	89%	0%	0%	0%	0%	0%	11%
Exterior G	82%	8%	8%	0%	3%	0%	0%
Exterior H	88%	2%	10%	0%	0%	0%	0%

Table 6-7: Residential Site: Journeys to Work - Modal Assignment by Zone

Journeys to Education

- 6.2.10 Due to the fact that there is no trip-end data for journeys to education, modal assignment at a zonal level cannot be identified. However, taking into account the two mile radius of external educational facilities in consideration, the modal share is not likely to be different at each school.
- 6.2.11 The modal assignment for this journey purpose is therefore taken directly from the data obtained from TEMPro.

Peak	Car Driver	Car Passenger	Bus/Coach	Rail	Cycle	Walk
AM	12%	23%	17%	1%	2%	45%
PM	20%	21%	20%	3%	1%	35%



Journeys to Retail

- 6.2.12 Due to the fact that there is no trip-end data for journeys to retail, modal assignment at a zonal level cannot be identified. However, taking into account the two mile radius of external retail facilities in consideration, the modal share is not likely to be different at each store.
- 6.2.13 The modal assignment for this journey purpose is therefore taken directly from the data obtained from TEMPro.

Table 6-9: Residential Site: Journeys to Retail – Modal Assignment by Peak Hour

Peak	Car Driver	Car Passenger	Bus/Coach	Rail	Cycle	Walk
AM	30%	20%	11%	1%	1%	37%
PM	24%	34%	8%	1%	2%	32%

Between the Two Sites

Journeys to Work

- 6.2.14 A modal share needs to be decided upon for the journeys to work undertaken between the two sites.
- 6.2.15 The modal assignment that best represents journeys to work between the employment and residential sites is that of the mode splits from the journeys to work between Midpoint Park and interior zone 6. This is due to the fact that the proximity of Water Orton to Midpoint Park is the most representative of the proposed sites. As there is no major employment site in such proximity to Walmley residential estate, this mode split will be used.

Table 6-10: Journeys to Work between the Two Sites – Modal Assignment

Car Driver	Car Passenger	Bus/Coach	Rail	Cycle	Walk	Other
37%	19%	11%	0%	11%	14%	8%

6.3 Trip Generation and Distribution by Mode

- 6.3.1 Having calculated a modal assignment for each journey purpose, the external trip generation can now be disaggregated into a trip generation by mode.
- 6.3.2 In order to do this, the total distributions by journey purpose in each peak hour can be multiplied by the relevant modal assignment calculated in section 6.2. This will give a distribution by mode, and by journey purpose. The distributions by journey purpose can then be combined to give a total trip distribution in each peak by mode.



Table 6-11: Peddimore: Trip Generation by Mode

Mode	Number of Trips	5	Proportion of T	Proportion of Trips		
	AM Peak	PM Peak	AM Peak	PM Peak		
Car (Driver)	1,462	1,201	67%	67%		
Car (Passenger)	311	255	14%	14%		
Bus/Coach	207	170	10%	10%		
Rail	17	14	1%	1%		
Cycle	79	65	4%	4%		
Walk	58	47	3%	3%		
Other	39	32	2%	2%		
Total	2,172	1,785	100%	100%		

Table 6-12: Langley SUE: Trip Generation by Mode

Mode	Number of Trips		Proportion of Trips	
	AM Peak	PM Peak	AM Peak	PM Peak
Car (Driver)	1,866	1,983	68%	65%
Car (Passenger)	241	328	9%	11%
Bus/Coach	285	299	10%	10%
Rail	27	33	1%	1%
Cycle	40	47	1%	2%
Walk	225	312	8%	10%
Other	51	50	2%	2%
Total	2,735	3,052	100%	100%

Table 6-13: Total Green Belt Development: Trip Generation by Mode

Mode	Number of Trips	Number of Trips		Proportion of Trips	
	AM Peak	PM Peak	AM Peak	PM Peak	
Car (Driver)	3,328	3,184	68%	66%	
Car (Passenger)	552	583	11%	12%	
Bus/Coach	491	469	10%	10%	
Rail	44	47	1%	1%	
Cycle	120	112	2%	2%	
Walk	282	359	6%	7%	
Other	89	82	2%	2%	
Total	4,907	4,836	100%	100%	

Birmingham City Council



- 6.3.3 FiguresFigure 6-1 to Figure 6-28 present the modal distribution of the total Green Belt development.



Figure 6-1: AM Peak: Car Driver – Strategic Zones

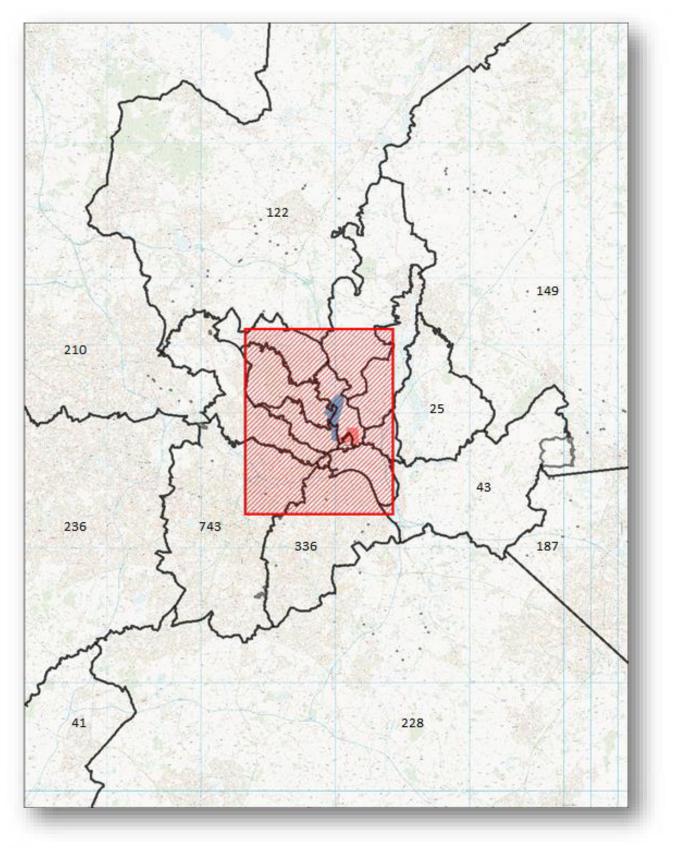




Figure 6-2: AM Peak: Car Driver – Local Zones

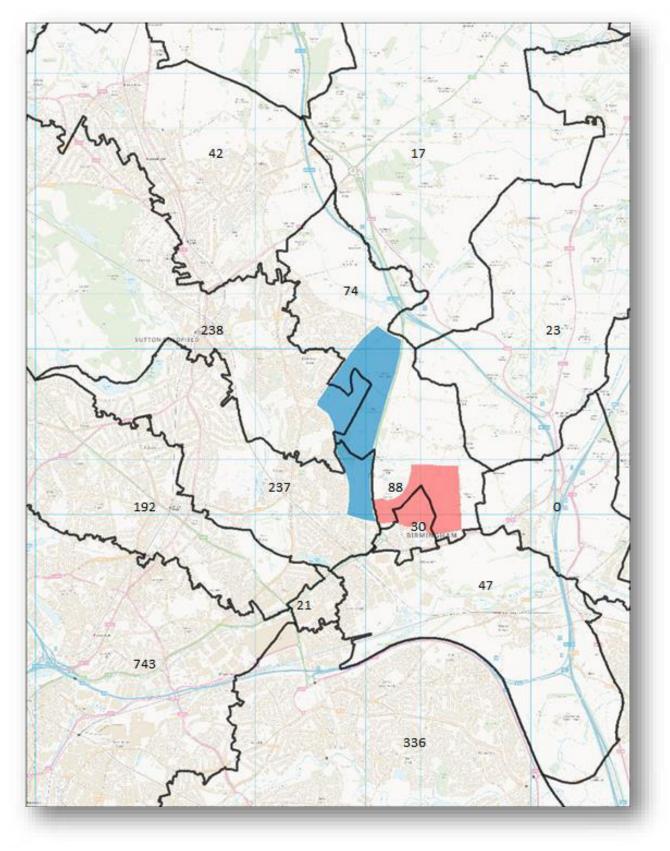




Figure 6-3: PM Peak: Car Driver – Strategic Zones

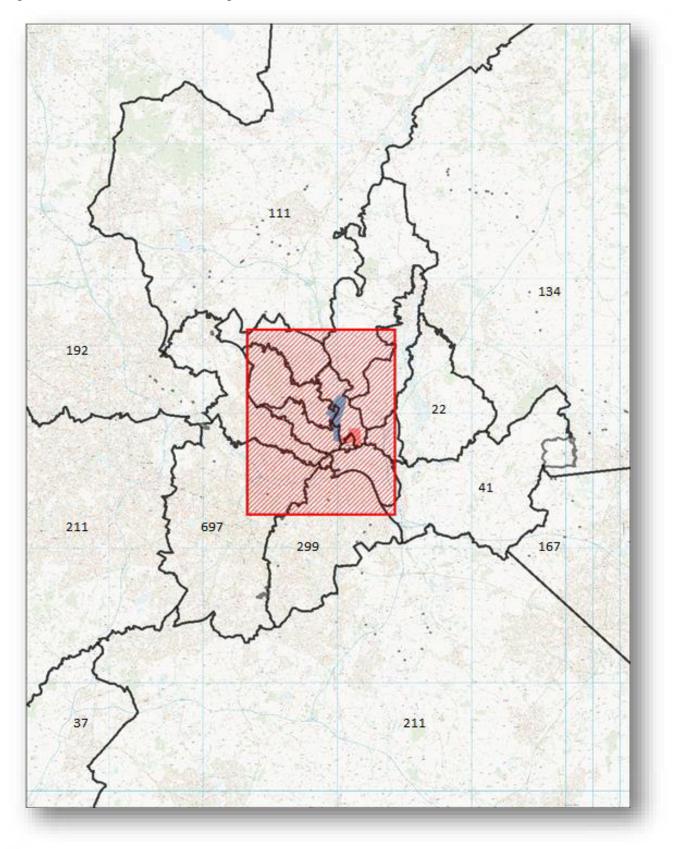
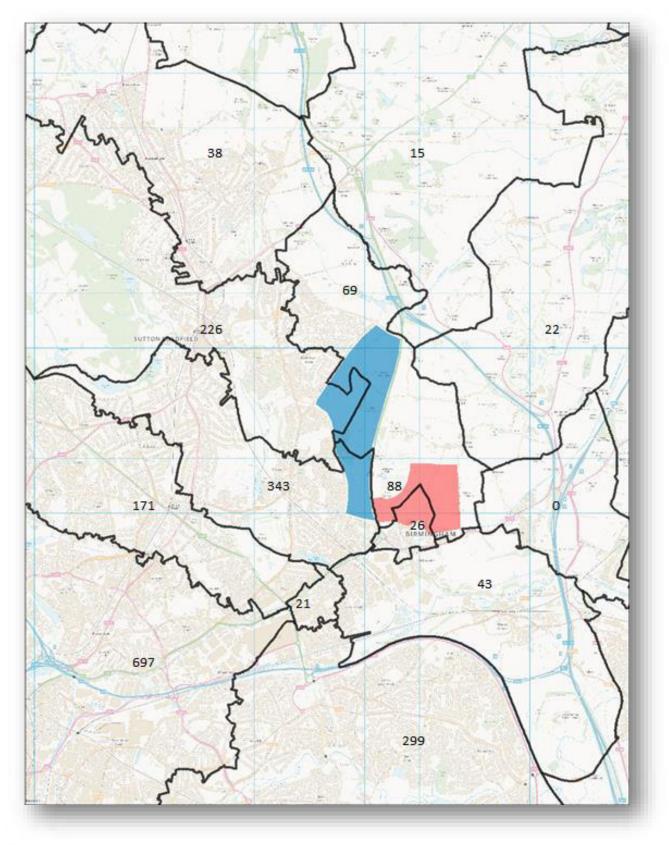




Figure 6-4: PM Peak: Car Driver – Local Zones





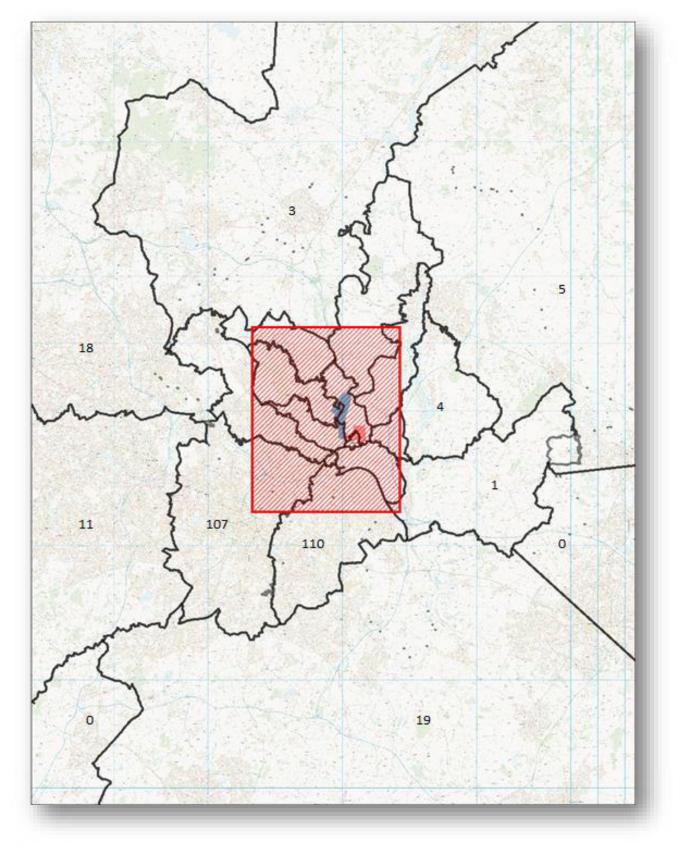


Figure 6-5: AM Peak: Car Passenger – Strategic Zones



Figure 6-6: AM Peak: Car Passenger – Local Zones

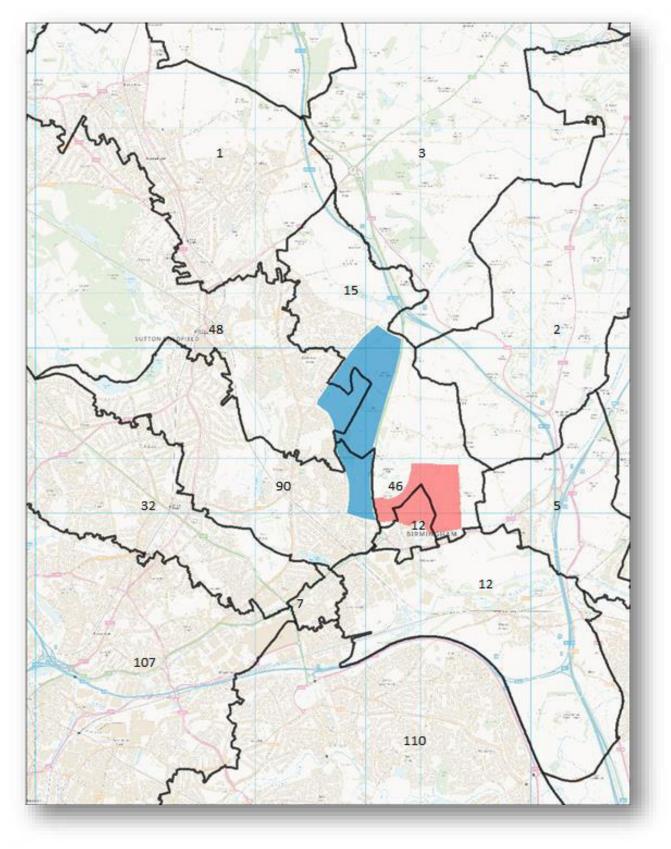
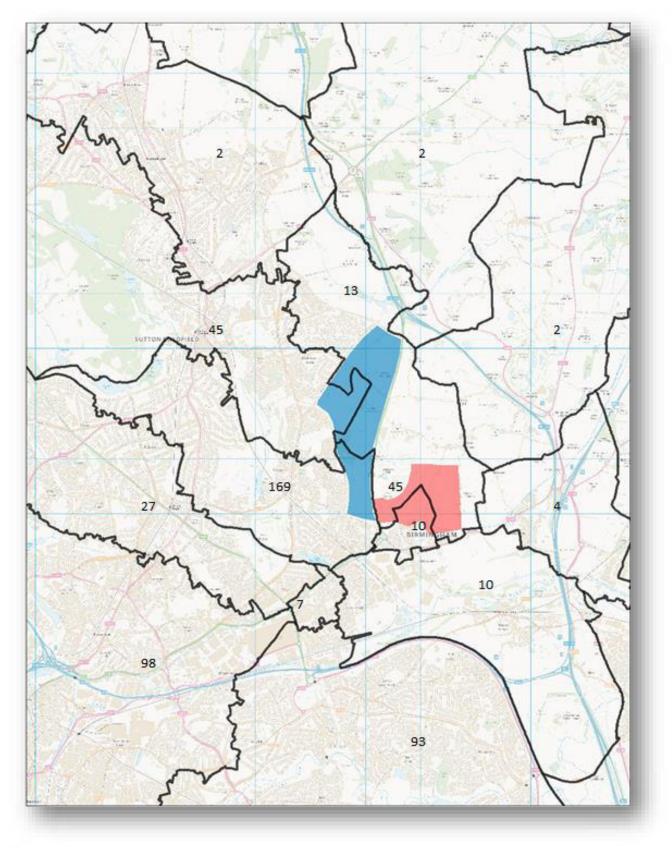




Figure 6-7: PM Peak: Car Passenger – Strategic Zones



Figure 6-8: PM Peak: Car Passenger – Local Zones





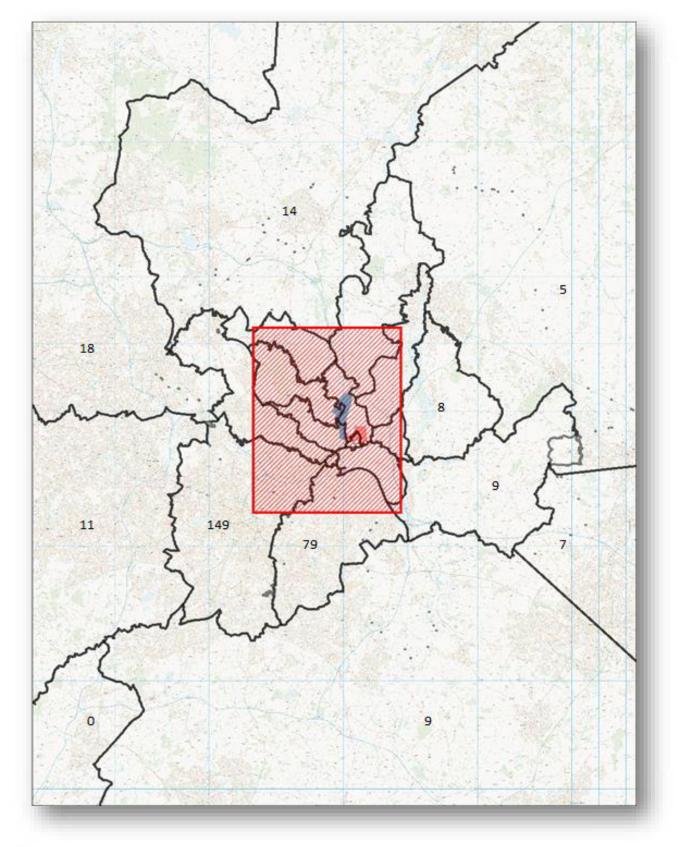


Figure 6-9: AM Peak: Bus/Coach Passenger – Strategic Zones



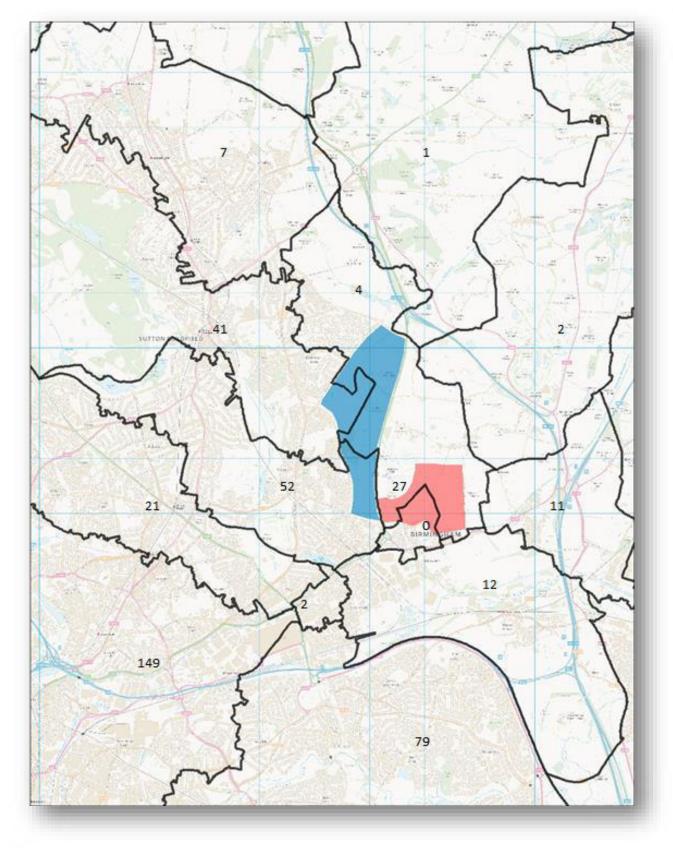


Figure 6-10: AM Peak: Bus/Coach Passenger – Local Zones



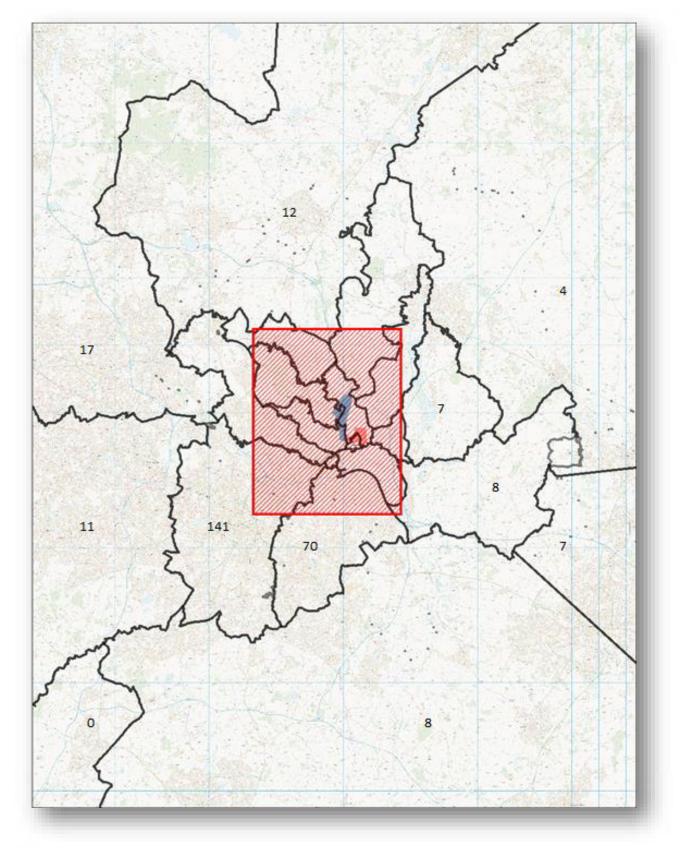


Figure 6-11: PM Peak: Bus/Coach Passenger – Strategic Zones



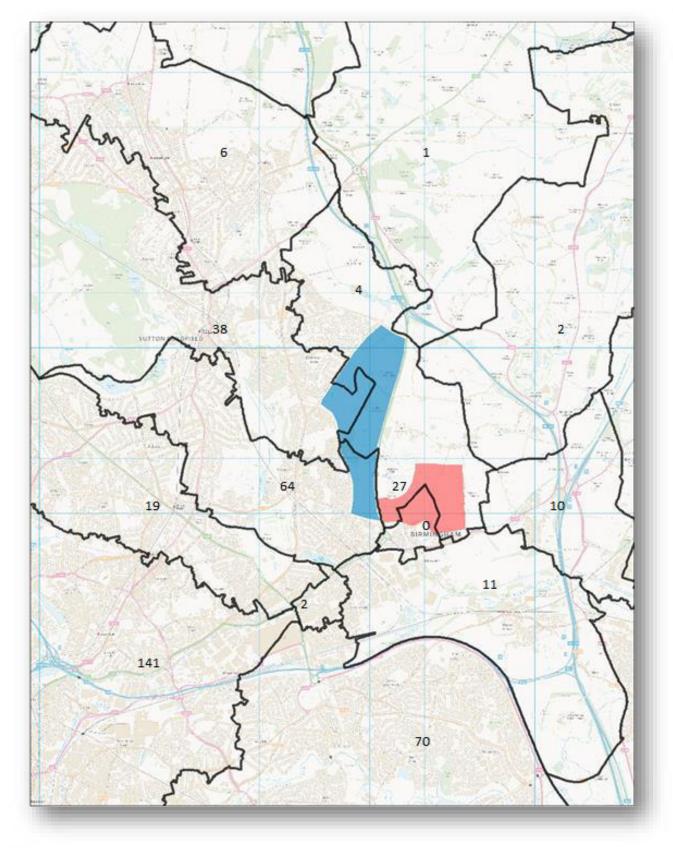


Figure 6-12: PM Peak: Bus/Coach Passenger – Local Zones



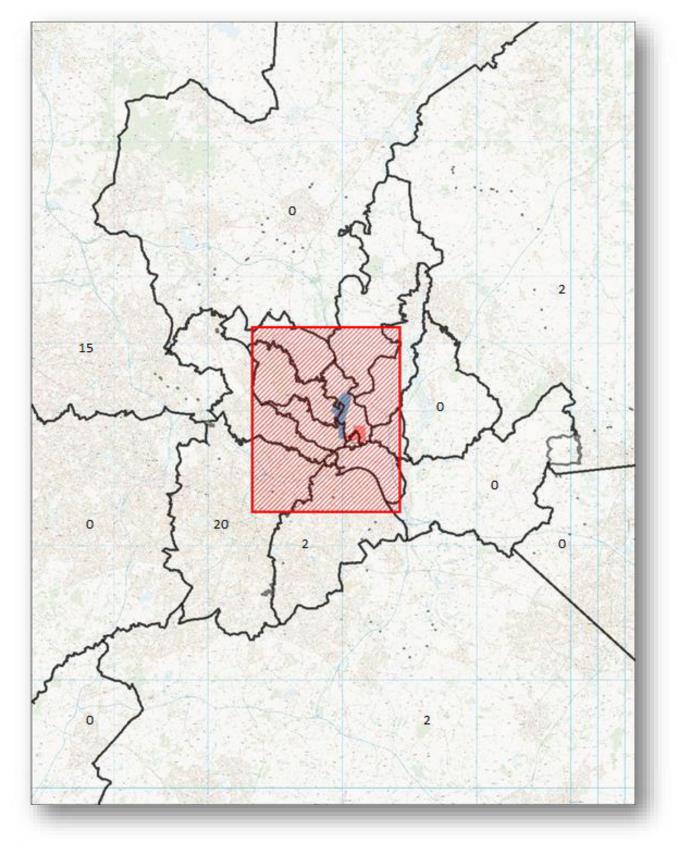
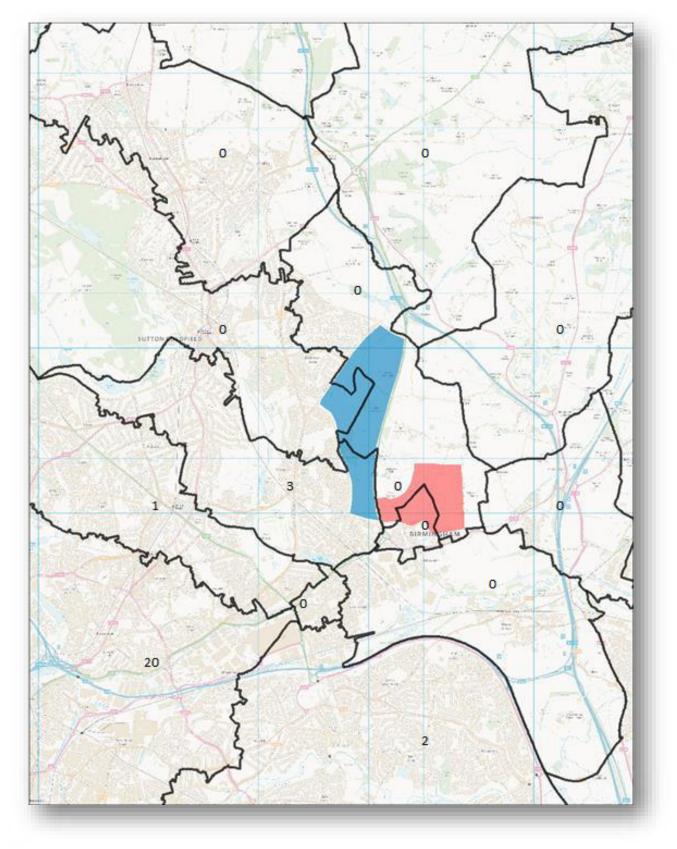


Figure 6-13: AM Peak: Rail Passenger – Strategic Zones



Figure 6-14: AM Peak: Rail Passenger – Local Zones





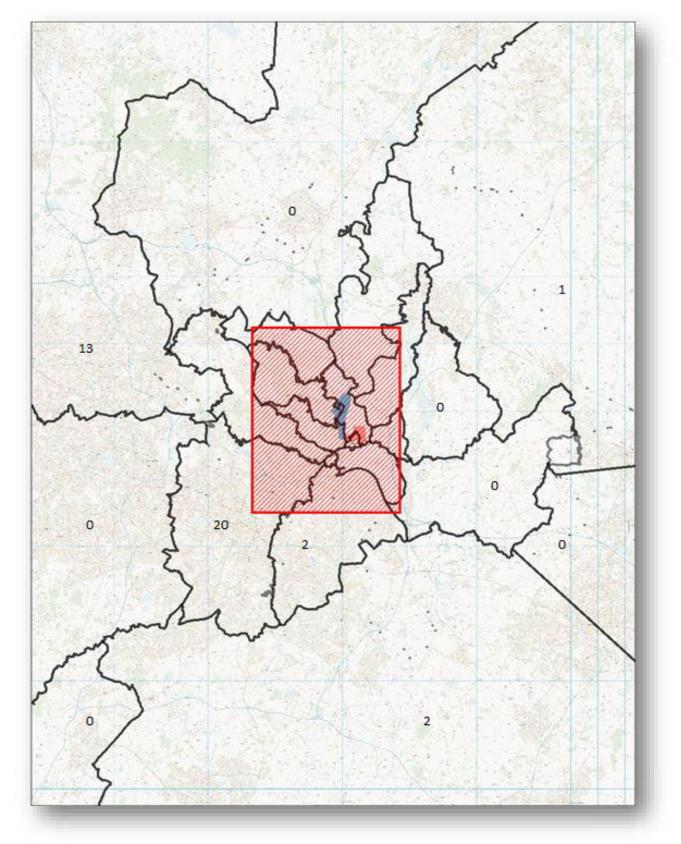


Figure 6-15: PM Peak: Rail Passenger – Strategic Zones



Figure 6-16: PM Peak: Rail Passenger – Local Zones

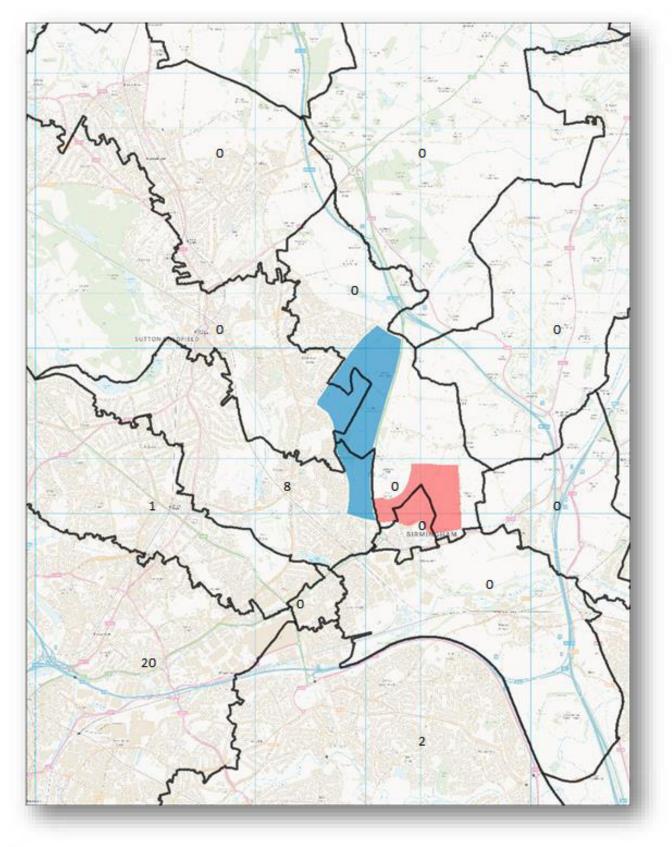




Figure 6-17: AM Peak: Cyclist – Strategic Zones

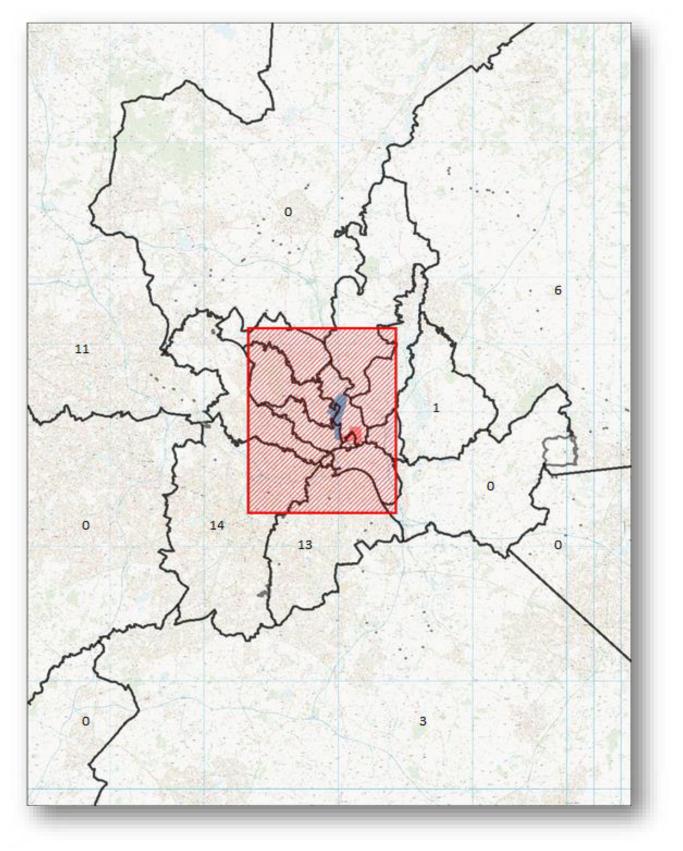




Figure 6-18: AM Peak: Cyclist – Local Zones

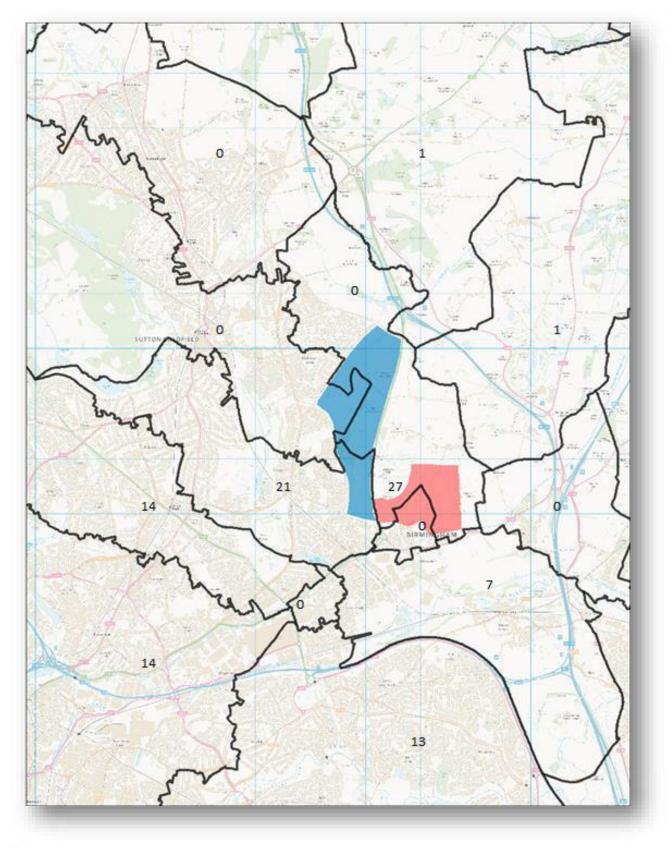




Figure 6-19: PM Peak: Cyclist – Strategic Zones

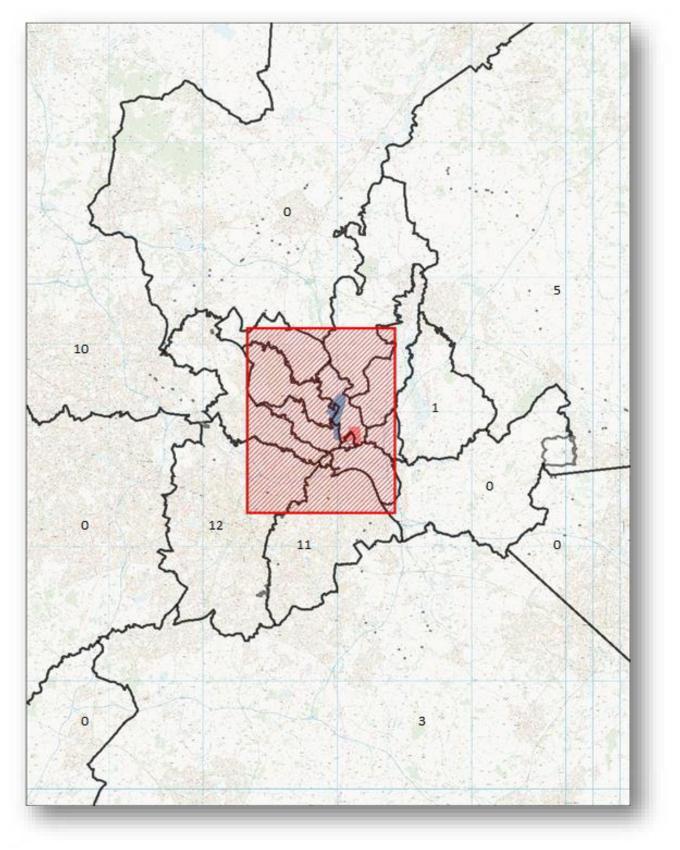




Figure 6-20: PM Peak: Cyclist – Local Zones

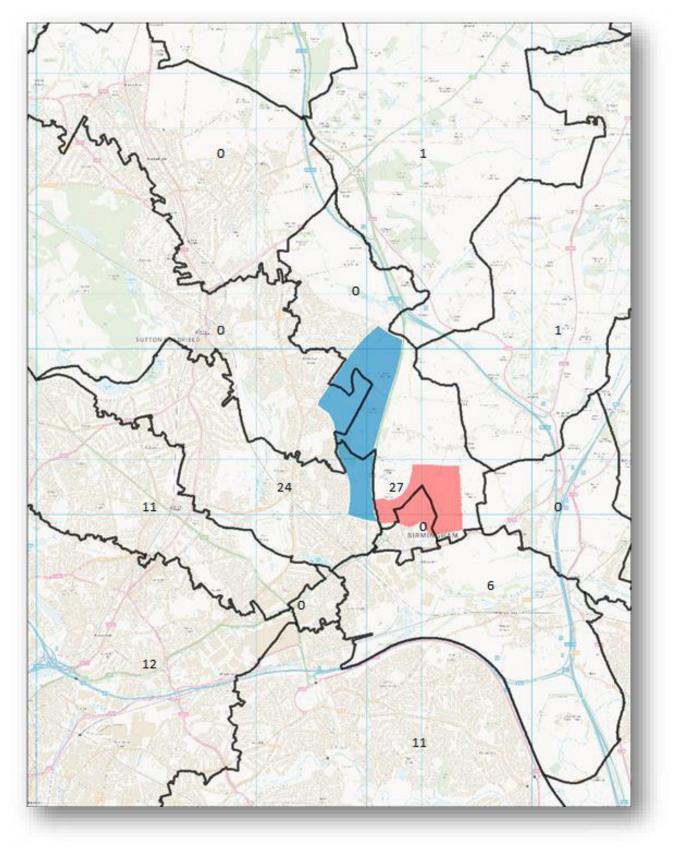




Figure 6-21: AM Peak: Pedestrian – Strategic Zones

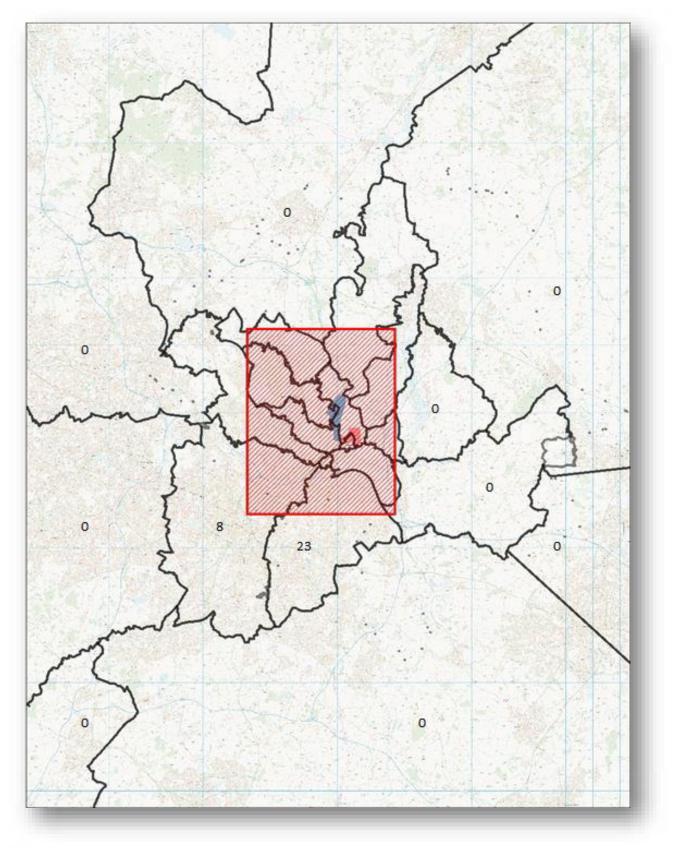




Figure 6-22: AM Peak: Pedestrian – Local Zones

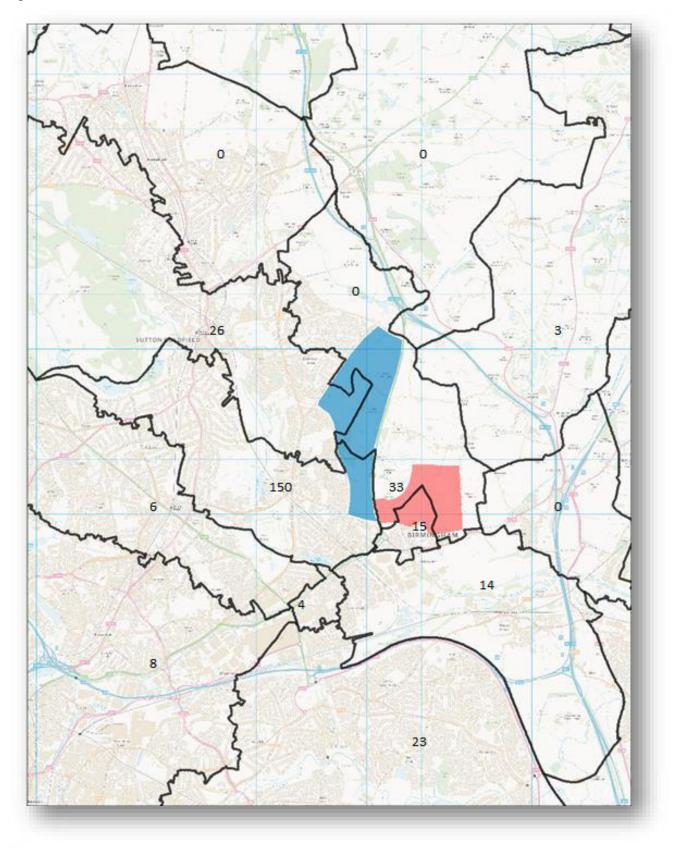




Figure 6-23: PM Peak: Pedestrian – Strategic Zones

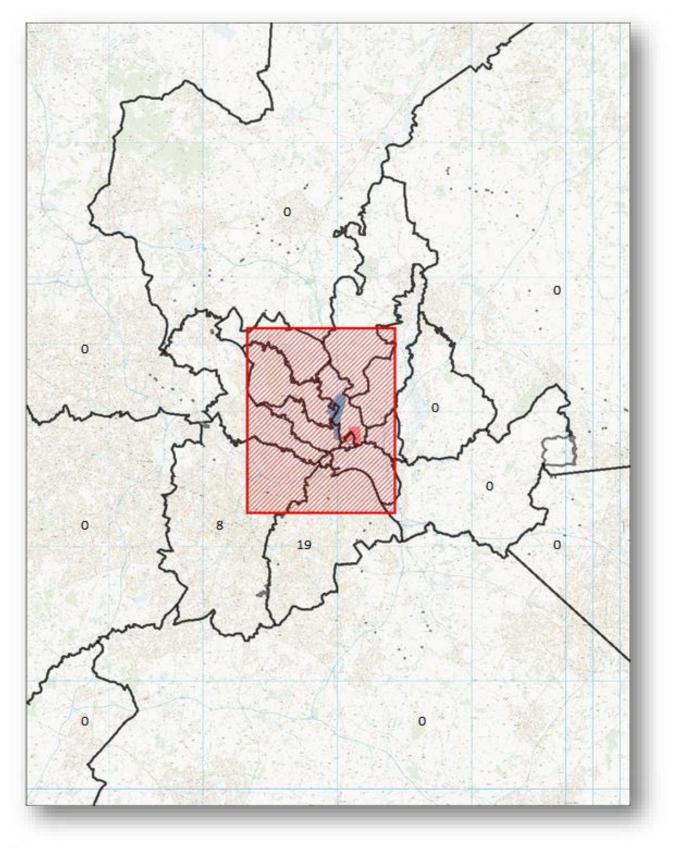




Figure 6-24: PM Peak: Pedestrian – Local Zones

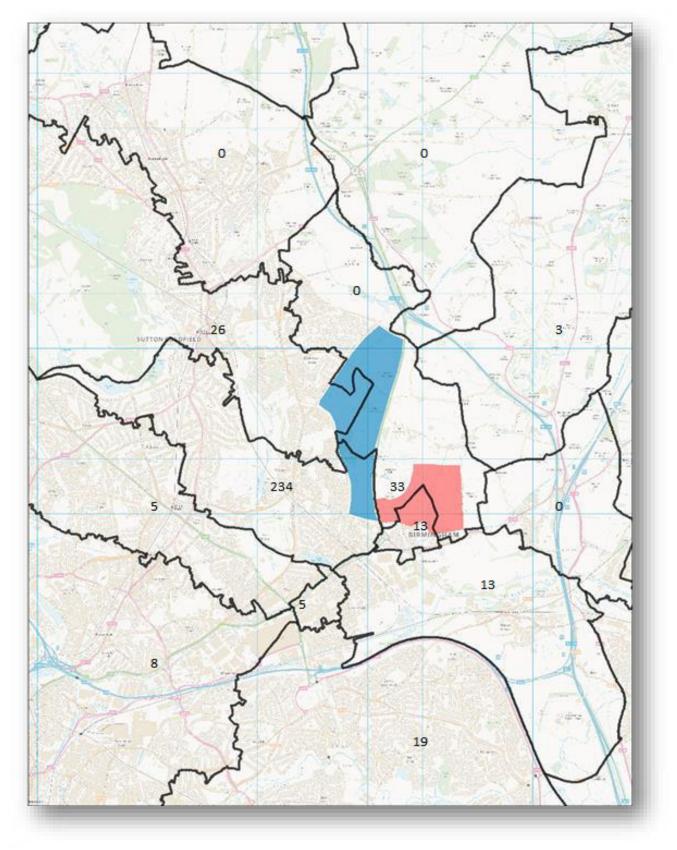




Figure 6-25: AM Peak: Other – Strategic Zones

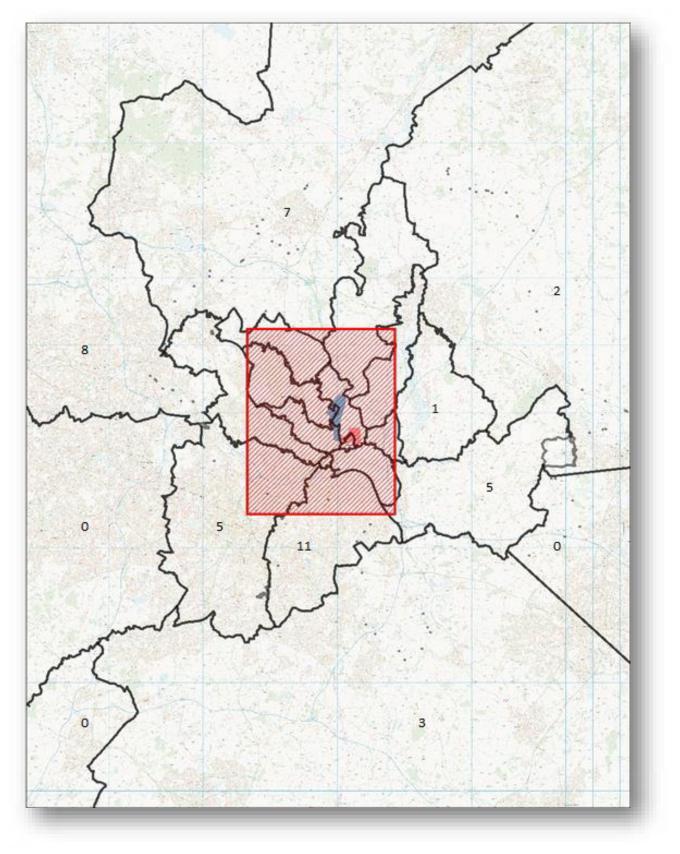




Figure 6-26: AM Peak: Other – Local Zones

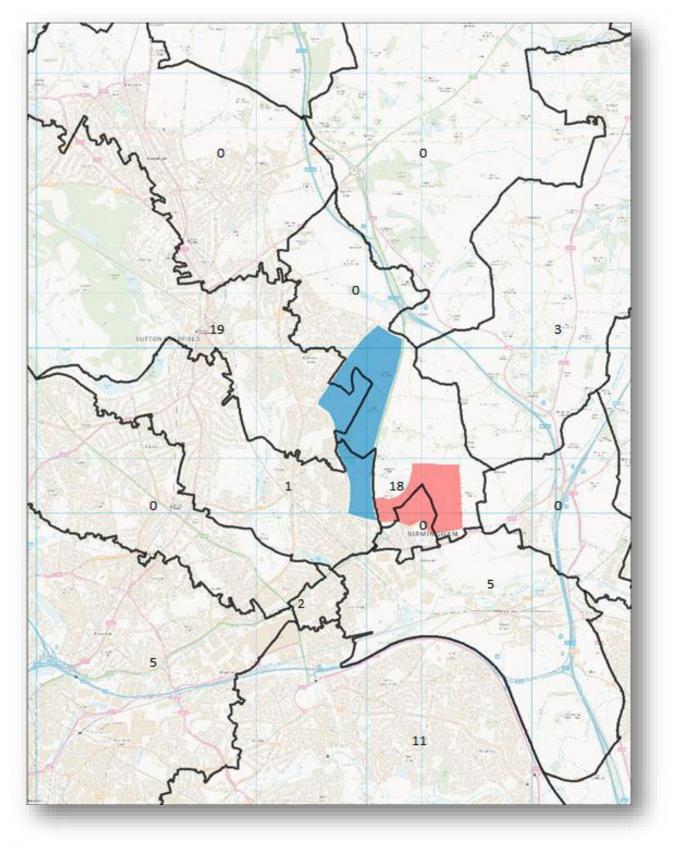




Figure 6-27: PM Peak: Other – Strategic Zones

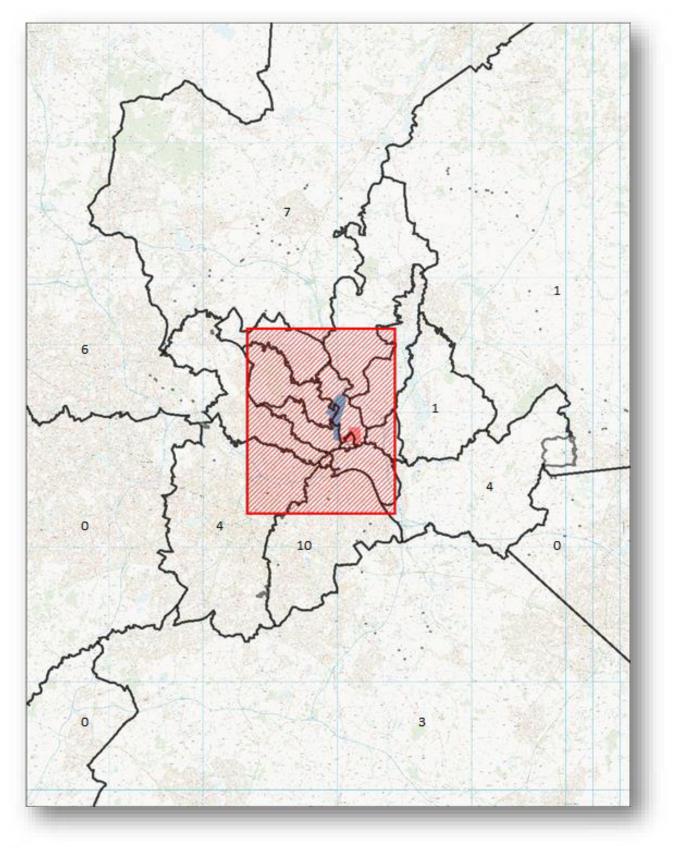
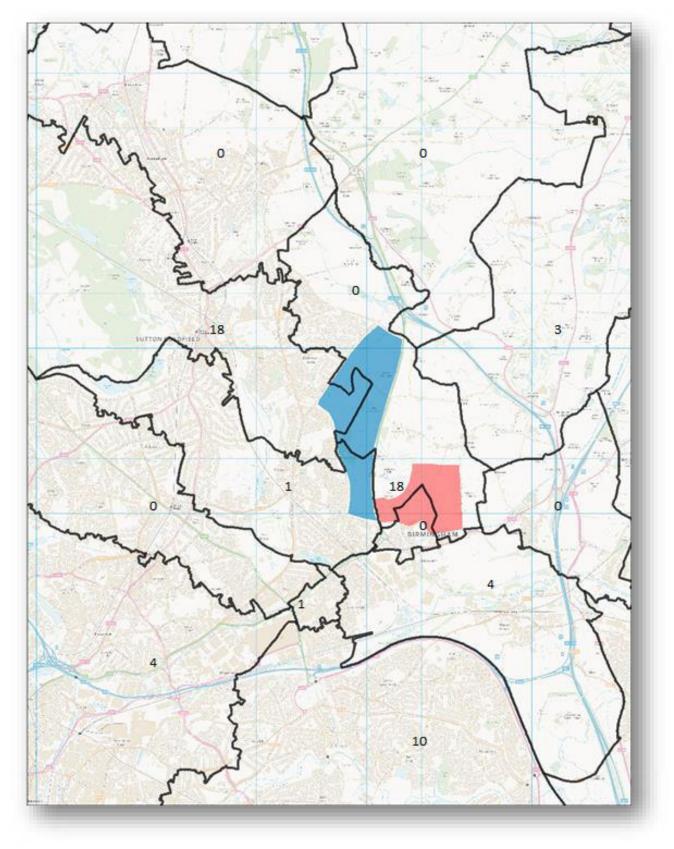




Figure 6-28: PM Peak: Other – Local Zones





6.4 Modal Shift

- 6.4.1 The number of public transport users, particularly at Langley, is lower than desired. A modal shift can be aspired to in order to increase the number of sustainable travel options and decrease the number of car users.
- 6.4.2 Through various measures, including improvements to public transport, pedestrian and cycle networks, and highway infrastructure, a modal shift can be encouraged so that sustainable travel both at the Green Belt development, and in the wider area, is more desirable.
- 6.4.3 In a separate study undertaken by PJA "Green Belt Development Movement Infrastructure Plan²¹"
 an investigation was carried out into the realistic aspirations for encouraging a modal shift in the local area. It is anticipated that the following modal splits are achievable:

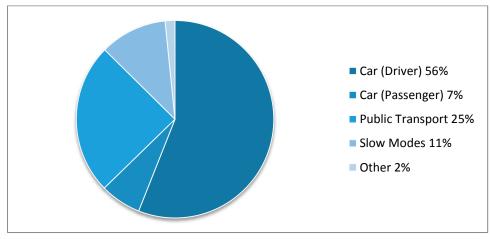


Figure 6-29: Revised Modal Share Target for Peddimore

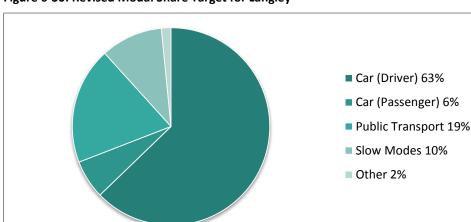


Figure 6-30: Revised Modal Share Target for Langley

²¹ Birmingham Development Plan – Green Belt Development Movement Infrastructure Plan (January 2014)



7 Summary

7.1 Introduction

- 7.1.1 Phil Jones Associates has produced a travel demand model which assesses the transport impact of the proposed Green Belt development, which is part of the Birmingham Development Plan for 2031.
- 7.1.2 This TDM has made the following principle forecasts for the Langley SUE and Peddimore employment site:
 - Number of external person trips generated by the development sites;
 - Direction of these external trips; and
 - Modal share of the external trips.
- 7.1.3 This TDM has been created to look at the operation of the local highway network in detail. Since the conception of the model, it has been combined with the West Midlands PRISM model to create a 'Hybrid Prism Model', which is the tool now used to inform impact on the strategic transport network.
- 7.1.4 The remainder of this chapter summarises the above findings of the Travel Demand Model.

7.2 Trip Generation

Table 7-1: External Trip Generation of the Green Belt Development

Site	AM Peak (08:00-09:00)	PM
Peddimore	2,172	1,785
Langley	2,735	3,052
Total	4,907	4,836

7.3 Trip Distribution

7.3.1 The road zones are aggregated into general directions of movement for the following tables:

Table 7-2: Distribution of Trips Generated at Peddimore

Direction	АМ	PM
Walmley & Wylde Green	158	130
Reddicap Heath & Sutton	165	136
Water Orton, Minworth & Curdworth	124	102
Castle Vale, Castle Bromwich & Solihull	425	349
Kingstanding & Aldridge	168	138
Bromford Corridor, City Centre & Rest of Birmingham	356	292
Black Country & Beyond	289	238
Lichfield & Beyond	76	63
M42 Junction 9 & Beyond	409	336
Total	2,172	1,785

Table 7-3: Distribution of Trips Generated at Langley

Direction	AM	PM
Walmley & Wylde Green	395	713
Reddicap Heath & Sutton	350	293
Water Orton, Minworth & Curdworth	48	104
Castle Vale, Castle Bromwich & Solihull	185	192
Kingstanding & Aldridge	96	96
Bromford Corridor, City Centre & Rest of Birmingham	690	687
Black Country & Beyond	249	248
Lichfield & Beyond	70	69
M42 Junction 9 & Beyond	412	411
Between Langley and Peddimore	240	239
Total	2,735	3,052



Direction	AM	PM
Walmley & Wylde Green	553	843
Reddicap Heath & Sutton	515	429
Water Orton, Minworth & Curdworth	172	206
Castle Vale, Castle Bromwich & Solihull	610	541
Kingstanding & Aldridge	264	235
Bromford Corridor, City Centre & Rest of Birmingham	1,046	979
Black Country & Beyond	538	486
Lichfield & Beyond	146	132
M42 Junction 9 & Beyond	822	747
Between Langley and Peddimore	240	239
Total	4,907	4,836

Table 7-4: Distribution of Trips Generated at the Green Belt Development

7.4 Trip Generation by Mode

7.4.1 Based on existing modal share data, primarily for journeys to work, the external trip generation of the Green Belt development is anticipated for each principle mode of transport.

 Table 7-5: Peddimore Trip Generation by Mode

Mode	Number of Trips	Number of Trips		Proportion of Trips	
	AM Peak	PM Peak	AM Peak	PM Peak	
Car (Driver)	1,462	1,201	67%	67%	
Car (Passenger)	311	255	14%	14%	
Bus/Coach	207	170	10%	10%	
Rail	17	14	1%	1%	
Cycle	79	65	4%	4%	
Walk	58	47	3%	3%	
Other	39	32	2%	2%	
Total	2,172	1,785	100%	100%	



Table 7-6: Langley Trip Generation by Mode

Mode	Number of Trips	Number of Trips		Proportion of Trips	
	AM Peak	PM Peak	AM Peak	PM Peak	
Car (Driver)	1,866	1,983	68%	65%	
Car (Passenger)	241	328	9%	11%	
Bus/Coach	285	299	10%	10%	
Rail	27	33	1%	1%	
Cycle	40	47	1%	2%	
Walk	225	312	8%	10%	
Other	51	50	2%	2%	
Total	2,735	3,052	100%	100%	

Table 7-7: Total Green Belt Development Trip Generation by Mode

Mode	Number of Trips	Number of Trips		Proportion of Trips	
	AM Peak	PM Peak	AM Peak	PM Peak	
Car (Driver)	3,328	3,184	68%	66%	
Car (Passenger)	552	583	11%	12%	
Bus/Coach	491	469	10%	10%	
Rail	44	47	1%	1%	
Cycle	120	112	2%	2%	
Walk	282	359	6%	7%	
Other	89	82	2%	2%	
Total	4,907	4,836	100%	100%	

7.5 Trip Distribution by Mode

- 7.5.1 The distribution of trips by mode of transport is anticipated for the development.
- 7.5.2 The following figures present the distribution of car drivers and bus passengers from both development sites in each peak. They, along with the distributions of the other principal modes, are presented in a larger format at the end of chapter 5.



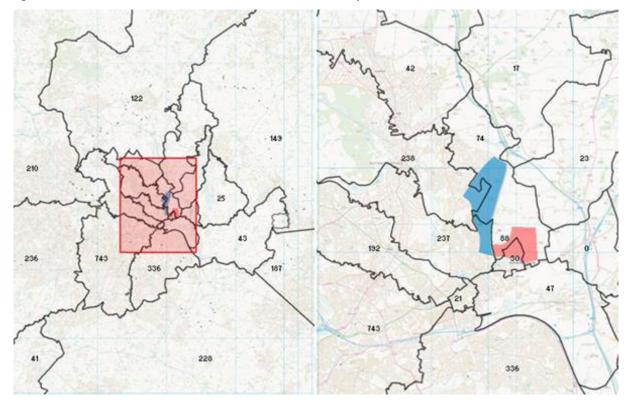
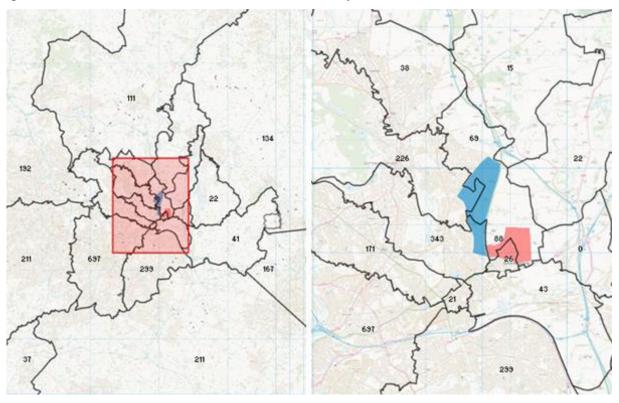


Figure 7-1: Distribution of Car Drivers at the Green Belt Development in the AM Peak

Figure 7-2: Distribution of Car Drivers at the Green Belt Development in the PM Peak





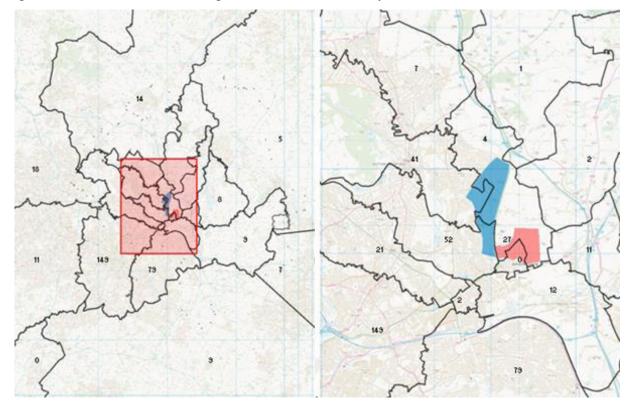
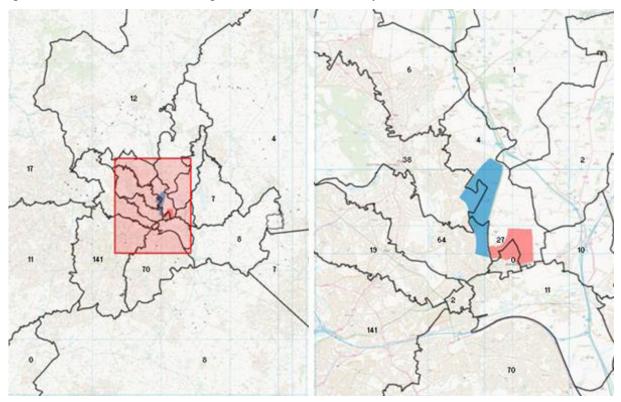


Figure 7-3: Distribution of Bus Passengers at the Green Belt Development in the AM Peak

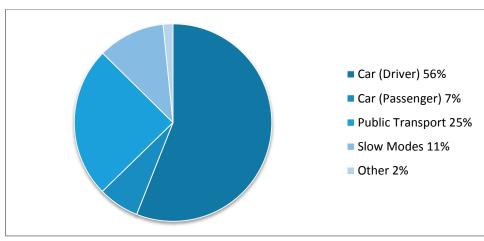
Figure 7-4: Distribution of Bus Passengers at the Green Belt Development in the PM Peak

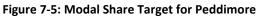




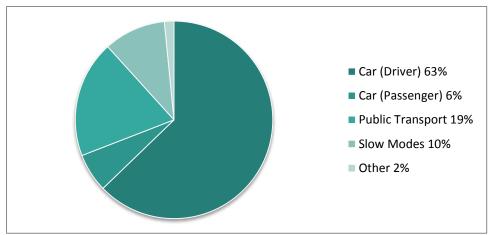
7.6 Modal Split

7.6.1 A modal shift in the transport of the local area will be encouraged through various measures. The emerging strategies are contained within the "Green Belt Development Movement Infrastructure Plan". It is anticipated that a realistic aim for the development, and for the general area, is for a modal share similar to that of the average across Birmingham.











- Bus Rapid Transit (BRT) Sprint service from Sutton Coldfield to the City Centre;
- New cycle links across the local area and through the development;
- Various highway infrastructure improvements to accommodate sustainable travel; and
- Schemes to increase incentives for green travel.