MID SUSSEX TRANSPORT STUDY

TRANSPORT IMPACT OF SCENARIOS 7 AND 8

FULL MODELLING REPORT

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APPENDICES

1. INTRODUCTION

1.1 Work Undertaken

1.1.1 Mid Sussex District Council (MSDC) commissioned SYSTRA to:

- Build a strategic highway model to underpin the Mid Sussex Transport Study (MSTS); and
- Update the Mid Sussex Transport Study to test the impact of proposed development on the strategic and local transport network and upon significant routes in Ashdown Forest (adjacent to but outside of Mid Sussex District).

1.1.2 The work is further divided into the following stages:

- 2017 Base Year Highway Model Production and Validation
- 2031 Reference Case Scenario;
- 2031 Development Scenarios including MSDC local plan developments;
- 2031 Preferred Development Scenarios including potential mitigation schemes

1.2 Background to the Study

1.2.1 The District Plan was submitted to the Secretary of State in August 2016 and adopted on 28th March 2018.

1.2.2 The Inspector is satisfied that it is appropriate for the Plan to contain a stepped housing trajectory, taking place after year 2023/24,at 876 dpa for the period up to 2023/24, and subsequently 1,090 dpa to 2031. Effectively this means MSDC have an agreed Plan at 876 dpa for the period to 2023/24 - with any subsequent increase primarily subject to the findings of Habitats Regulation Assessment at the higher level of development to assess the transport impact of the Plan on the Ashdown Forest.

1.2.3 The additional housing requirement was agreed up to 2031 plan period based on 1,090dpa, subject to further transport modelling work that is required to test the impact of the residual housing requirement on the highway network.

1.3 Highway Model

1.3.1 The Mid Sussex Strategic Highway Model (MSSHM) was produced in accordance with standard good practice as set out in the DfT's WebTAG guidelines, in particular TAG unit M3-1 Highway Assignment Modelling, (January 2014). As such, the approaches to data processing, matrices and network production, along with model calibration are consistent with those of similar strategic highways models.

1.3.2 The model production made significant and appropriate use of existing data and existing models in the area. A very small programme of surveys was undertaken to fill in some gaps in data.

1.3.3 **Appendix J** provides a summary of the MSSHM production. **Appendix K** is the full Local Model Validation Report (LMVR).

1.4 Transport Study

1.4.1 The impact on the highway network of the agreed Development Scenarios are assessed based on the National Planning Policy Framework (NPPF). The assessment of impacts is based on criteria agreed by MSDC and WSCC. These are derived using WSCC's position statement in relation to the NPPF which sets out their interpretation of terms defining traffic impacts.

1.4.2 Where junctions are assessed to be adversely impacted by the developments, a set of appropriate mitigation schemes are devised and tested. These mitigations aim to remove all 'severe' impacts.

1.4.3 Further parallel work is also being undertaken to:

- Undertake environmental impact and road safety impact analysis to comply with National Planning Practice Guidance on transport evidence bases in plan making. This work is expected to be undertaken for the 'preferred' development option as part of the Mid Sussex Transport Study to inform the proposed submission (Regulation 19) Site Allocations Development Plan Documents (DPD).
- Undertake air quality modelling and ecological interpretation for Habitats Regulations Assessment to test the impact of traffic, as a result of proposed development, on the Ashdown Forest Special Area of Conservation. This will be based on the outputs of the Mid Sussex Transport Study.

1.5 Scenario's Tested

1.5.1 The 2031 Development Scenarios including MSDC local plan developments have been refined over a number of iterations. The 2031 Reference Case Scenario has also been updated during this time.

1.5.2 Scenario 7 and Scenario 8 represent refined scenarios as part of the Council's plan making process, including SA, to help inform preparation of the Draft Site Allocations DPD and select a preferred option. This summary focusses on the outcomes of these two Scenarios, as well as the next steps. The main report and Appendices provide more detail on the preparatory model development and forecasting assumptions. The previous scenarios are described in other Technical Notes.

1.5.3 The Reference Case represents the performance of the road network in 2031, and includes any committed highway infrastructure, development in the district and background growth to this date. This acts as a baseline when assessing the impacts of the Development Scenarios.

1.5.4 Scenarios 7 and 8 build on the 2031 Reference Case and assess proposed Local Plan development and supporting infrastructure in 2031. Development Scenario 7 includes 27 housing development sites beyond the Reference Case, and Development Scenario 8 assesses 30. There are 26 housing development sites included in both Scenarios.

1.5.5 Both Scenarios also include a large employment site, the Science and Technology Park (subsequently referred to as S&T park) located north of the A2300 near Burgess Hill.

1.5.6 Where junctions are assessed to be adversely impacted by the developments, a set of appropriate sustainable measures and highway mitigation schemes are proposed and tested. These mitigations aim to remove the 'severe' impacts.

1.5.7 The report chapters are:

- Chapter 1 Introduction
- Chapter 2 Scenario Preparation
- Chapter 3 Scenario 7 and 8 *without* Mitigation
- Chapter 4 Proposed Mitigation
- Chapter 5 Scenario 7 and 8 *with* Mitigation
- Chapter 6 Key Locations
- Chapter 7 Conclusions and Next Steps
- Chapter 8 Junction Summaries

2. SCENARIO PREPARATION

2.1 Development of Reference Case

2.1.1 This chapter summarises the reference case and scenario preparation. The reference case assumptions are described in more detail in the Forecasting Note **(Appendix L)**.

Key Assumptions

2.1.2 This Chapter describes the production of the future year Reference Case matrices and network, using the Base model as the starting point. The assumptions for this task are:

- Reference Case Housing in Mid Sussex District **(see Appendix A for detail)**:
- Significant Reference Case Housing in Neighbouring Authorities **(Appendix A)**:
- Reference Case Employment **(Appendix A)**
- Reference Case Infrastructure **(Appendix L)**
- Trip Rates and Trip Generation **(Appendix L)**

2.1.3 The Reference Case represents a benchmark against which the development Scenarios are tested and compared. This enables separation of impacts resulting from the Scenario from impacts due to background growth, committed development and infrastructure.

2.1.4 Travel demand matrices contain the forecast trips between origin and destination zones across the model study area. Forecasts are based on information obtained from the National Trip End Model (NTEM), obtained using the TEMPro database. This is compliant with guidance set out in WebTAG (Web-based Transport Assessment Guidance, published by the Department for Transport). The forecasts include:

- population
- employment
- households by car ownership
- trip ends

2.1.5 TEMPro is designed to allow analysis of pre-processed data from the NTEM. The pre-processed data is itself the output from a series of models developed and run by DfT's Transport Appraisal and Strategic Modelling (TASM) division. TEMPro can also be used to provide summaries of traffic growth using data from the National Transport Model (NTM).

2.1.6 Growth in **freight** traffic is taken from national road traffic forecasts taken from the National Transport Model (NTM) in accordance with DfT WebTAG guidance.

2.1.7 **Windfall sites** are assumed to be 45 units per year from 2023 to 2031, so 405 in total distributed pro-rata across the reference case developments.

2.2 Trip Rates

2.2.1 Trip rates are required to calculate trip generations for Mid Sussex developments that are applied directly to an existing model zone or dedicated new model zone.

2.2.2 The TRICS database is used to calculate origin and destination trip rates for the AM peak, and PM peak hours. They are used to derive the forecast matrices for the Reference Cases and are shown in **Table 1**; the higher tidal rates are in **bold**. For robustness the 85th percentile is used rather than the mean trip rate for the survey selection.

Table 1. General Vehicle Trip Rates

USE	CLASS	PARAMETER	AM ORIG	AM DEST	PM ORIG	PM DEST
Private Houses and Flats		dwellings	**0. 397**	0. 191	0. 143	**0. 486**
Office	B1a	employees	0. 043	**0. 511**	**0. 394**	0. 021
Research and Development	B1b	employees	0. 183	**0. 367**	**0. 465**	0. 045
Light Industry	B1c	employees	0. 300	**0. 700**	**0. 844**	0. 067

2.3 Development Scenario 7 and 8 Site Locations, Use Class and Units/GFA

Key Assumptions

2.3.1 The key assumptions are listed below:

- Development Locations, Use Class and number of units/employees (**Appendix A**)
- Trip Rates and Trip Generation **(Appendix L)**
- Trip Distribution
- Development Scenario Infrastructure
- Development Site Access and Link Roads

2.3.2 2031 Development Scenario trip matrices are prepared for the AM peak, inter-peak and PM peak hours. The trip rates that are derived from TRICS for the committed Reference Case developments are used again to calculate trip generations for the development sites.

2.3.3 Development Scenario 7 assesses the impact of 27 additional housing development sites in the Mid-Sussex district compared to the Reference Case. 30 housing sites are tested in Development Scenario 8. 26 development sites are present in both Development Scenarios. Table **2** summarises the total housing units considered. Both Scenarios include an employment site, the Science and Technology Park (subsequently referred to as S&T park) located north of the A2300 near Burgess Hill.

Table 2. Total Housing units Considered in Mid-Sussex in Development Scenario 7, and Development Scenario 8

SCENARIO	TOTAL UNITS CONSIDERED	TOTAL UNITS COMPARED TO REFERENCE CASE 5
2031 REFERENCE CASE 5	11,334	-
2031 SCENARIO 7	13,631	*2,297*
2031 SCENARIO 8	13,357	*2,023*

2.3.4 **Appendix A** provides details of the strategic sites in more detail, including location, units/employees, trip rate, trips generated and allocated model zone.

Trip Distribution

2.3.5 The trip distributions are taken from the main model zones that the development is located in or near to and are therefore based on a combination of Census Journey Work 2011 for commuting trips and existing local model matrices.

Development Scenario Infrastructure

2.3.6 The dualling of the A2300 is included in the reference case scenario. The scheme includes the closure of the Bishopstone Lane / A2300 junction for vehicular use.

2.3.7 2031 Scenario 7 and Scenario 8 include the Science and Technology Park to the north of the A2300, the access to which is via a new roundabout on Cuckfield Road, north of the A2300 / Cuckfield Road roundabout. Improvements at the A2300 / Cuckfield Road roundabout have been included as part of the this development in order to accommodate the large volumes of traffic using this junction in the AM and PM peaks. In 2031 Scenario 7 and Scenario 8, a hamburger configuration is included at this junction, with a cut-through for traffic staying on the A2300, and signals installed on all approach arms. This has been based on the developers documents provided.

Development Site Access and Link Roads

2.3.8 Access points are added to connect the development model zone to the network. A complete list of where, and how each development site reaches the network is contains in the Forecasting Note.

3. SCENARIO 7 AND 8 *WITHOUT* MITIGATION

3.1 Introduction to Results

3.1.1 This section includes commentary and narrative on the outcomes of the scenarios, along with numerical analysis using criteria based on interpretation of the National Planning Policy Framework (NPPF). The following sections are:

- Scenario 7 and 8 *without* Mitigation
  - Traffic Flow Impacts
  - Impacts on M23 and A23 strategic road network
- Identification of Junctions with Capacity Impacts
  - Criteria
  - Junctions Identified
- Proposed Mitigation
  - Sustainable Measures
  - Highway Mitigation
- Scenario 7 and 8 *with* Mitigation
- Key Locations Commentary – focussing on the A2300 and A264/A22
- Conclusions and Next Steps
- Junction Summaries – one page summaries for junctions with 'severe' impacts

3.2 Traffic Flow Impacts

3.2.1 Both scenarios generate significant additional traffic centred around the A2300 and nearby roads, in the AM and PM Peak. The additional demand on the A2300 in particular results in significant rerouting on Cuckfield Road (north and south of the A2300) and the A272 through Ansty. There are also particular impacts on the A273 through Hassocks, B2036, B2116 and B2117.

3.2.2 The A23/A2300 dumbbell junction appears to be significantly affected and in the PM peak traffic is avoiding this junction in favour of these alternative routes.

3.2.3 In both Scenarios, in the PM peak, the S&T park traffic appears to be forcing existing traffic to reroute away from the A2300. This is due to heavy flows turning into and out of the park, for example flow turning right out of the park could delay eastbound traffic on the A2300. This effect is not as evident in the AM peak. In considering mitigations it is proposed that this impact should be removed, so that existing A2300 remains on the A2300 and not be forced elsewhere. Keeping traffic on the A2300 may in turn mitigate impacts elsewhere that are currently suffering from the re-routeing.

3.2.4 There are also significant flow impacts on the A264, along with rerouting to alternative routes using the B2110 through Turners Hill. This appears to be due to congestion on the A264 particularly at the junction with the A22 at Felbridge.

3.3 Impacts on M23 and A23 strategic road network

3.3.1 An approach is devised to identify directional carriageway sections forecast to experience impacts in the future because of the strategic developments. An adaptable criteria representing a '**notable flow increase**' is defined as any carriageway section experiencing the following:

- Increase in traffic flow of **100 vehicles** or more

3.3.2 The impact between the M23 Junction 9 and the A23/A273 at Pyecombe is assessed and the number carriageway sections with a notable flow increase is shown in **Table 3.**

Table 3. Number of M23/A23 carriageway sections identified as having a 'notable flow increase'

SCENARIO	AM NORTHBOUND	AM SOUTHBOUND	PM NORTHBOUND	PM SOUTHBOUND
Scenario 7	1	7	9	0
Scenario 8	1	7	9	1

3.3.3 It can be seen that the results for Scenario 7 and 8 are very similar with one additional section in Scenario 8 having a notable flow increase, in the PM peak southbound.

3.3.4 The results also show the impact is tidal, the southbound being impacted in the AM and the northbound in the PM. It is considered that this is largely due to the commuting trips to the S&T park. In the AM peak the notable flow increases are confined to the A23, while in the PM peak they extend to the M23. **Appendices B and F** include these results in more detail.

3.3.5 The detailed results show the flow increases are higher in the PM peak, when the most significantly impacted section, in term of traffic flow increase, is between the B2110 and the A272 where the increase is just above 10%. Again, this is similar in both Scenarios.

3.4 Identification of Junctions with Capacity Impacts

Assessment Criteria

3.4.1 The impact of the Development Scenarios are assessed based on the National Planning Policy Framework (NPPF). The assessment of impacts is based on criteria agreed by MSDC and West Sussex County Council (WSCC). These are derived using WSCC's position statement in relation to the NPPF which sets out their interpretation of terms defining traffic impacts, namely "significant amount of movement" and "severe impacts". In addition, a "showstopper" is defined as a location where the impacts do not have a reasonable prospect of being able to comply with NPPF paragraph 32.

3.4.2 An approach is devised to identify locations forecast to experience 'severe' impacts in the future because of the strategic developments.

3.4.3 This uses appropriately selected criteria to reflect the interpretation of the NPPF. A 'severe' impact is defined as a junction with any approach arm experiencing either of the following:

- a junction with an increase in ratio of flow to capacity (RFC) of **10%** or more to an RFC of **95%** or more in any period in any Scenario; or
- an increase in average delay of **one minute** or more to an average delay of **two minutes** or more in any period in any Scenario

3.4.4 A '**significant**' impact is a junction with any approach arm experiencing the following:

- a junction with an increase in ratio of flow to capacity (RFC) of **5%** or more to an RFC of **85%** or more in any period in any Scenario

3.4.5 **Table 4** shows how many junctions are forecast to be impacted significantly or severely in the two development scenarios when compared to the 2031 Reference Case.

Table 4. Summary of severe and significant impacts generated by each Scenario with respect to Reference Case 5

SCENARIO	'SEVERE' IMPACTS	'SIGNIFICANT' IMPACTS
2031 Scenario 7 vs. 2031 Reference Case	9	9
2031 Scenario 8 vs. 2031 Reference Case	8	9

3.4.6 It can be seen that the results for each Scenario 7 and 8 are similar with **nine** junctions having 'severe' impacts in Scenario 7 and **eight** junctions in Scenario 8, in either the AM or PM peak. The number of junction having 'significant' impacts is **nine** in both scenarios.

'Severe' Junctions

3.4.7 The following **eight** junctions within the district are severely impacted as a result of the additional development in 2031 Scenario 7 and 2031 Scenario 8:

- C7 A272 / B2036, Ansty
- S1 A23 / A2300 Southbound On-Slip, Burgess Hill
- S2 A23 / A2300 Eastern Roundabout, Burgess Hill
- S5 A2300 / Northern Arc Spine Road, Burgess Hill
- S6 Junction Road / B2113, Burgess Hill
- S8 A273 / B2116 (Stonepound), Hassocks
- S9 A23 / A281 Eastbound On-Slip, Pyecombe
- S22 Valebridge Road / Junction Road / Leylands Road, Burgess Hill

3.4.8 The junction that is forecast to only be impacted severely in Scenario 7 is:

- N7 B2028 Turners Hill Road / Wallage Lane, Crawley Down

3.4.9 A map showing the locations of the significant and severely impacted junctions for 2031 Scenario 7 and 2031 Scenario 8 are in **Figure 1** and **Figure 2.**

3.4.10 **Appendices B and F** show summary results for Scenario 7 and 8. They include some junctions with no 'significant' or 'severe' impacts, but are included for continuity purposes, due to being a junction with known congestion issues or due to featuring in earlier analysis. They also contain the results for the 2031 Reference Case, compared against the 2017 Base using the same criteria.

3.4.11 **Appendices C and G** show detailed results for the same junctions, by approach arm. The 2031 Reference Case results are also provided in these Appendices.

3.4.12 **Appendices D and H** are a key maps for Scenario 7 and 8 showing the location of the junctions.

3.4.13 **Appendices E and I** are a key maps for Scenario 7 and 8 showing the location of the junctions and the Scenario developments.

Figure 1. Location of significant and severely impacted junctions in 2031 Scenario 7 vs. 2031 Reference Case

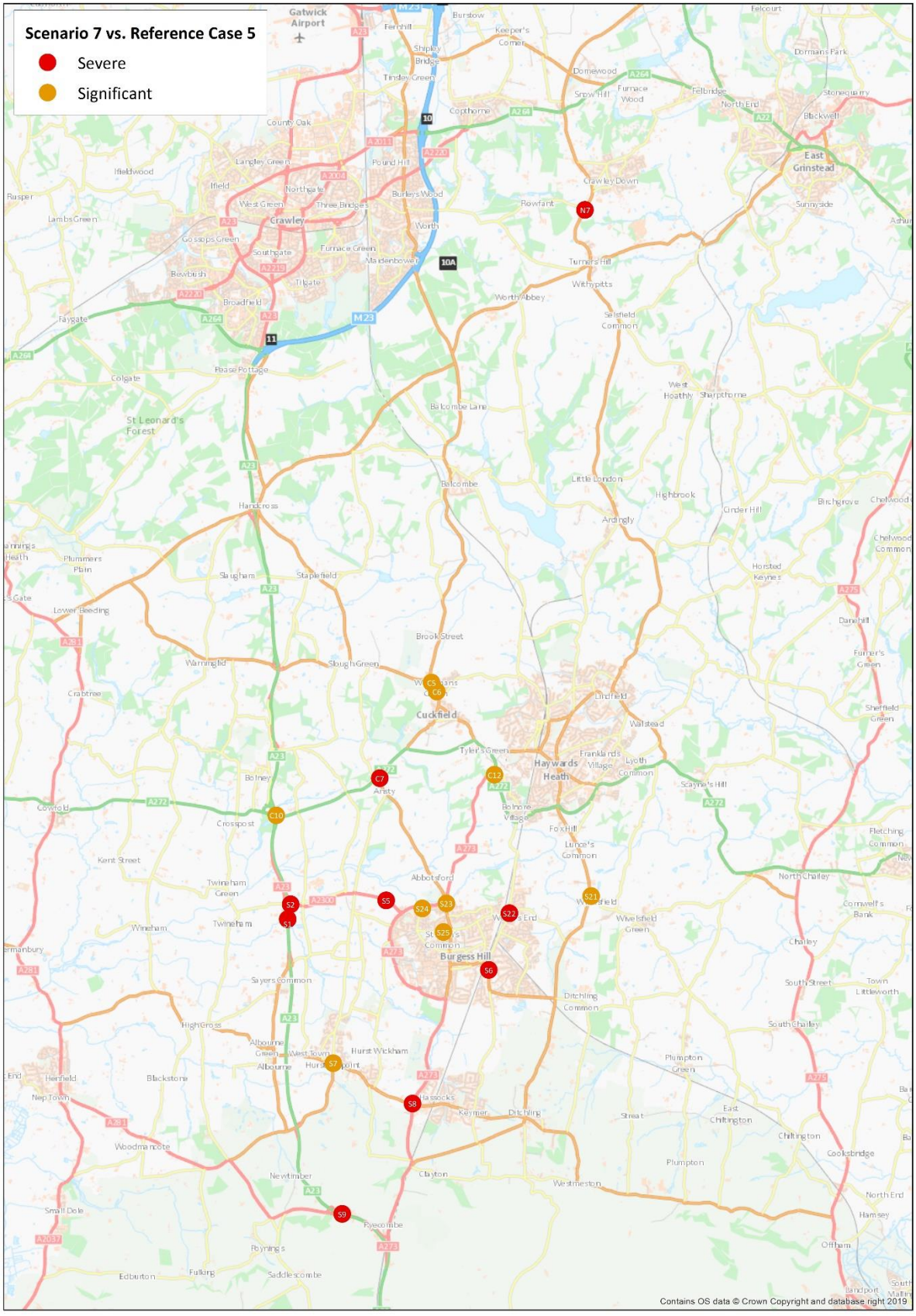
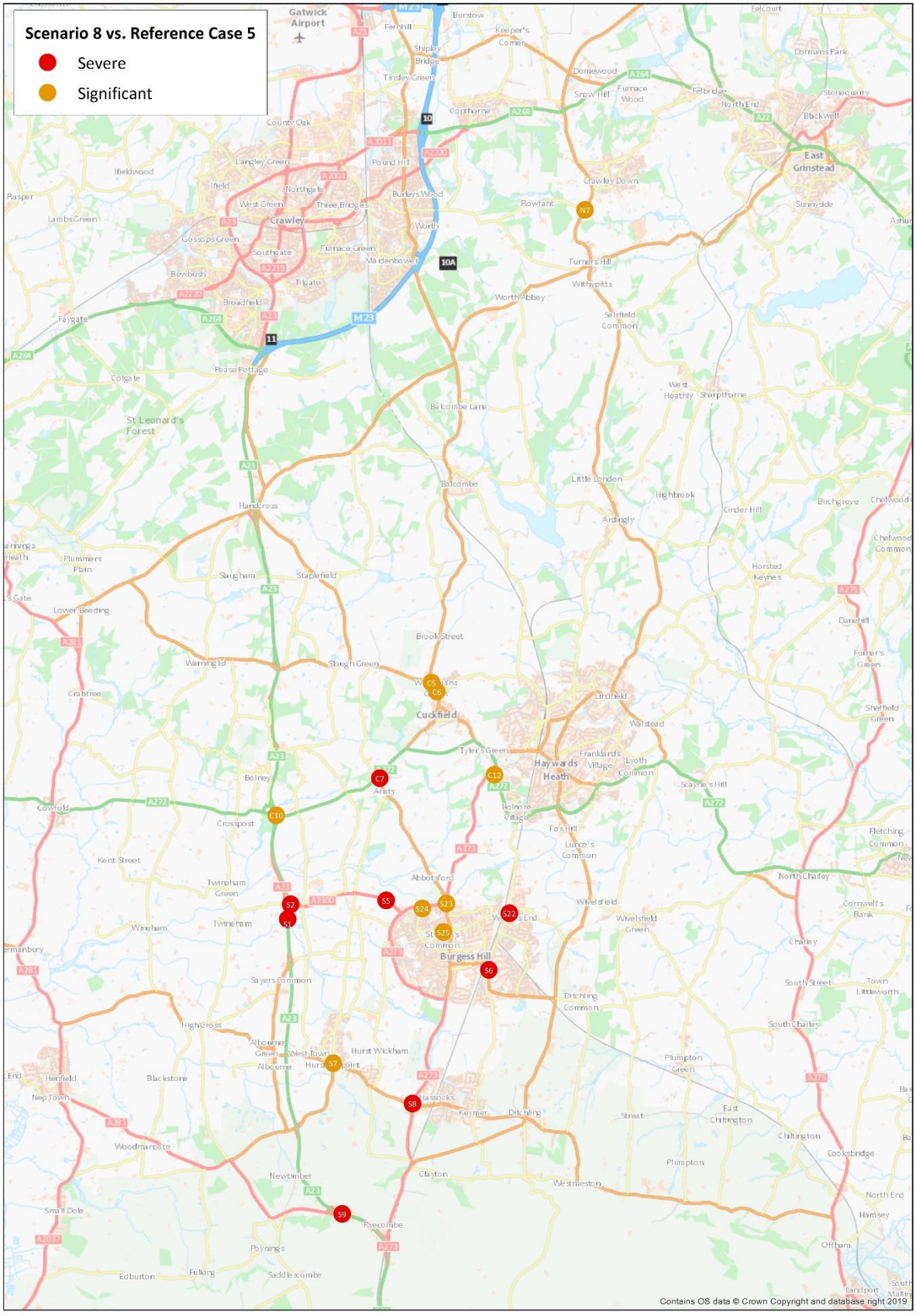


Figure 2. Location of significant and severely impacted junctions in 2031 Scenario 8 vs. 2031 Reference Case



4. PROPOSED MITIGATION

4.1 Sustainable Measures

4.1.1 Sustainable travel measures are the most effective form of mitigating highway impacts. Sustainable transport, and 'smarter choices' have been considered at each development site, and have been modelled through a reduction of car trips.

4.1.2 A set of mitigations is proposed to alleviate the 'severe' impacts identified for Scenario 7 and 8. The potential **sustainable mitigations** are proposed in discussion with WSCC and are the measures that can be expected for each site based on location and opportunity for enhancement to bus services and active modes.

4.1.3 For the purposes of modelling the sustainable measures are translated to assumed percentage reductions to be applied to the scenario developments only, on a site by site basis as shown in **Table 5**.

Table 5. Sustainable Measures by Development Site

SHLAA ID	Site address	Units	Proposed Sustainable Mitigation Improvements	Car Trip Reduction
4	Wintons Farm Folders Lane Burgess Hill	13	Improved PT interchange Burgess Hill	1.5%
127	Land at St. Martin Close, Handcross	65	RTI Summary Display on site	1.5%
138	Land south of Hammerwood Road, Ashurst Wood	12		1%
184	Land south of St. Stephens Church, Hamsland, Horsted Keynes	30	RTI Summary Display on site	1%
196	Land south of Crawley Down Road, Felbridge	200	Bus Priority on A22 corridor Direct bus services to Gatwick	2%
207	Land at Dirty Lane Hammerwood Road Ashurst Wood	9		1%
221	Land to the north of Shepherds Walk Hassocks	130	Cycle Route	1.5%
264	Land south of Ryecroft Road Bolney	5		1%
345	St Wilfrids Catholic Primary School School Close Burgess Hill	200	Improved PT interchange Burgess Hill Enhanced bus infrastructure Burgess Hill Enhanced of cycle parking at Burgess Hill	1.5%
474	Land adjacent to 18 East Street Turners Hill	6		1%
479	Land at Hanlye Lane to the east of Ardingly Road Cuckfield	55	RTI Summary Display on site	1.5%
491	Land south of Furzeland Way Sayers Common	12		1%
503	Haywards Heath Golf Course High Beech Lane Haywards Heath	630	Improved PT interchange Haywards Heath Bus Shelters within development with RTI Bus Service to Haywards Heath and station	2%
519	Land north of Burleigh Lane Crawley Down	50	RTI Summary Display on site	1.5%
557	Land south of Folders Lane and east of Keymer Road Burgess Hill excluding site 738	200	Improved PT interchange Burgess Hill Enhanced bus infrastructure Burgess Hill Enhanced of cycle parking at Burgess Hill	2%
594	Land South of Southway Burgess Hill	30	*Improved PT interchange Burgess Hill*	1.5%
595	Land at Brookhurst Furze Lane East Grinstead	7	*Bus Priority EG*	1.5%
613	Land at Whitehorse Lodge Furzeland Way Sayers Common	9		1%
644	Ansty Cross Garage Cuckfield Road Ansty	12		1%
738	Land east of Greenacres Keymer Road and south of Folders Lane formerly part of site 557	100	Improved PT interchange Burgess Hill Enhanced bus infrastructure Burgess Hill Enhanced of cycle parking at Burgess Hill	2%
770	Land south and west of Imberhorne Upper School, Imberhorne Lane, East Grinstead	550	Bus Priority on A22 corridor Bus Shelters within development with RTI Direct bus services to Gatwick	3%
783	Rogers Farm Fox Hill Haywards Heath	25	RTI Summary Display on site	1%
807	Land South of The Old Police House Birchgrove Road Horsted Keynes	25	RTI Summary Display on site	1%
827	Land South of 96 Folders Lane Burgess Hill	43	Improved PT interchange Burgess Hill	1.5%
829	Land to the north Lyndon, Reeds Lane, Sayers Common	35	RTI Summary Display on site	1%
832	Land west of Selsfield Road, Ardingly	100	RTI Summary Display on site	1.5%
840	Woodfield House Isaacs Lane Burgess Hill	30	RTI Summary Display on site	1%
847	East Grinstead Police Station College Lane East Grinstead	22	Bus Priority on A22 corridor	1.5%
854	Withypitts Farm Selsfield Road Turners Hill	16		1%
897	Land to the rear Firlands Church Road Scaynes Hill	20	RTI Summary Display on site	1%
904	Land to the south of Selby Close Hammonds Ridge Burgess Hill	12	Improved PT interchange Burgess Hill	1.5%
801	Science and Technology Park - North	2500 emp	Improved PT interchange Burgess Hill Bus Shelters within development with RTI Bus Services to Burgess Hill and station	3%

Note: *Improved PT interchange refers to improvements to interchange facilities, the extent of which is not yet decided and would be developed through contributions from multiple sites, whether through CIL or S106.*

4.2 Highway Mitigation

4.2.1 Highway mitigation are proposed to directly address the 'severe' impacts that cannot be fully removed by sustainable measures alone. **Table 6** describes the outline measures that are proposed and tested in the Scenario 7 and 8 *with* mitigation model runs.

4.2.2 At this stage of the mitigation process the outline descriptions are sufficient for the purposes of the strategic highway model.

4.2.3 To explain the approach in proposing mitigations, it is apparent that some junctions are suffering severe delays due to rerouting away from the A2300 to the A272, A273 through Hassocks, B2036, B2116 and B2117. For these we state 'Full or partial mitigation expected from mitigation at other location' in the notes column, the focus being to mitigate the A2300.

Table 6. Outline Highway Mitigation

ID	AREA	JUNCTION	OUTLINE MITIGATION PROPOSAL	NOTES
C6	Haywards Heath	B2036 / Ardingly Road, Whitemans Green	None	Full or partial mitigation expected from mitigation at other locations
C7	Haywards Heath	A272 / B2036	**Minor widening on A272 eastern arm**	Full or partial mitigation expected from mitigation at other locations
C10	Bolney	A23 / A272 Bolney Road	None	Full or partial mitigation expected from mitigation at other locations
S1	Burgess Hill	A23 / A2300 Southbound On-Slip	***Improvements to slip road and merge***	*Not included due to limited options*
S2	Burgess Hill	A23 / A2300 Eastern Roundabout	**Free flow for A23 Southbound off-slip to A2300 Eastbound and partial signalisation**	
S3	Burgess Hill	A2300 / Cuckfield Road	***North Science and Technology Park Option C***	*This is included in the without mitigation run*
S5	Burgess Hill	A2300 / Northern Arc Spine Road	**Lengthening of A2300 western arm flare**	Assumed roundabout layout in reference case (see attached plan) operates at within 95% V/C - we expect Scenario 7/8 to exceed 95% on western arm
S7	Hurstpierpoint	B2117 / B2116 Hurstpierpoint	None	Full or partial mitigation expected from mitigation at other locations
S8	Hassocks	A273 / B2116 Hassocks (Stonepound)	None	Full or partial mitigation expected from mitigation at other locations

5. SCENARIO 7 AND 8 *WITH* MITIGATION

5.1 Traffic Flow Impacts

5.1.1 The highway mitigations were largely successful in drawing traffic back to the A2300 and removing 'Severe' impacts on most non-strategic routes. However, the mitigation scenarios do have some severe impacts remaining, mainly in the PM peak, and most notably on the A2300 to A23 southbound on-slip. The merge itself was not mitigated due to limited options (without major works on the A23), instead the focus being on mitigating the eastern roundabout. The proposed mitigation at the eastern roundabout releases a 'bottleneck' which contributes to the 'severe' impact remaining on the slip road merge with the A23. This severe impact will need to be addressed through alternative means, to be agreed with Highways England.

5.1.2 This PM peak impact on the slip road is largely due to S&T park trips leaving and heading south on the A23. It was assumed that 3% of the S&T park trips would switch to sustainable travel due to sustainable mitigations. It should be considered that a higher percentage reduction would reduce pressure on the slip-road, and it is appropriate to consider revisiting the sustainable options in this instance.

5.2 Performance on M23 and A23 strategic road network

5.2.1 As for the *without* mitigation scenarios the traffic flow impact between the M23 Junction 9 and the A23/A273 at Pyecombe is assessed and the number carriageway sections with a notable flow increase is shown in **Table 7.**

Table 7. Number of M23/A23 carriageway sections identified as having a 'notable flow increase'

SCENARIO	AM NORTHBOUND	AM SOUTHBOUND	PM NORTHBOUND	PM SOUTHBOUND
Scenario 7	1	7	9	0
Scenario 7 with Mitigation	1	7	9	1
Scenario 8	1	7	9	1
Scenario 8 with Mitigation	1	7	9	1

5.2.2 Although the number of carriageway sections with a notable flow increase is largely unchanged, **Appendices B and F** show that the mitigations draw more traffic to the A23. This is particularly noticeable from the A272 to the A2300 southbound in the AM peak, in which for Scenarios 7 and 8 the increase from the reference case becomes approximately 12%. This is the largest percentage increase across the scenarios and periods in the *with* mitigation runs.

5.3 Junctions with Capacity Impacts

Number of Junctions with 'Severe' and 'Significant' Impacts

5.3.1 **Table 8** shows how many junctions are forecast to be impacted significantly or severely in the two development scenarios when compared to the 2031 Reference Case.

Table 8. Summary of severe and significant impacts generated by each Scenario with respect to Reference Case 5

SCENARIO	'SEVERE'	'SIGNIFICANT'
2031 Scenario 7 vs. 2031 Reference Case	9	9
2031 Scenario 7 with mitigation vs. 2031 Reference Case	2	7
2031 Scenario 8 vs. 2031 Reference Case	8	9
2031 Scenario 8 with mitigation vs. 2031 Reference Case	2	8

'Severe' Junctions

5.3.2 The inclusion of mitigation measures, reduces the number of junctions severely impacted by the developments to **two** in both 2031 Scenario 7 and 2031 Scenario 8 *with* mitigation:

- C7 A272 / B2036, Ansty
- S1 A23 / A2300 Southbound On-Slip, Burgess Hill

5.3.3 **Figure 3** and **Figure 4** show the locations of the junctions, as well as those impacted significantly in 2031 Scenario 7 *with* mitigation and 2031 Scenario 8 *with* mitigation.

Figure 3. Location of significant and severely impacted junctions in 2031 Scenario 7 with mitigation

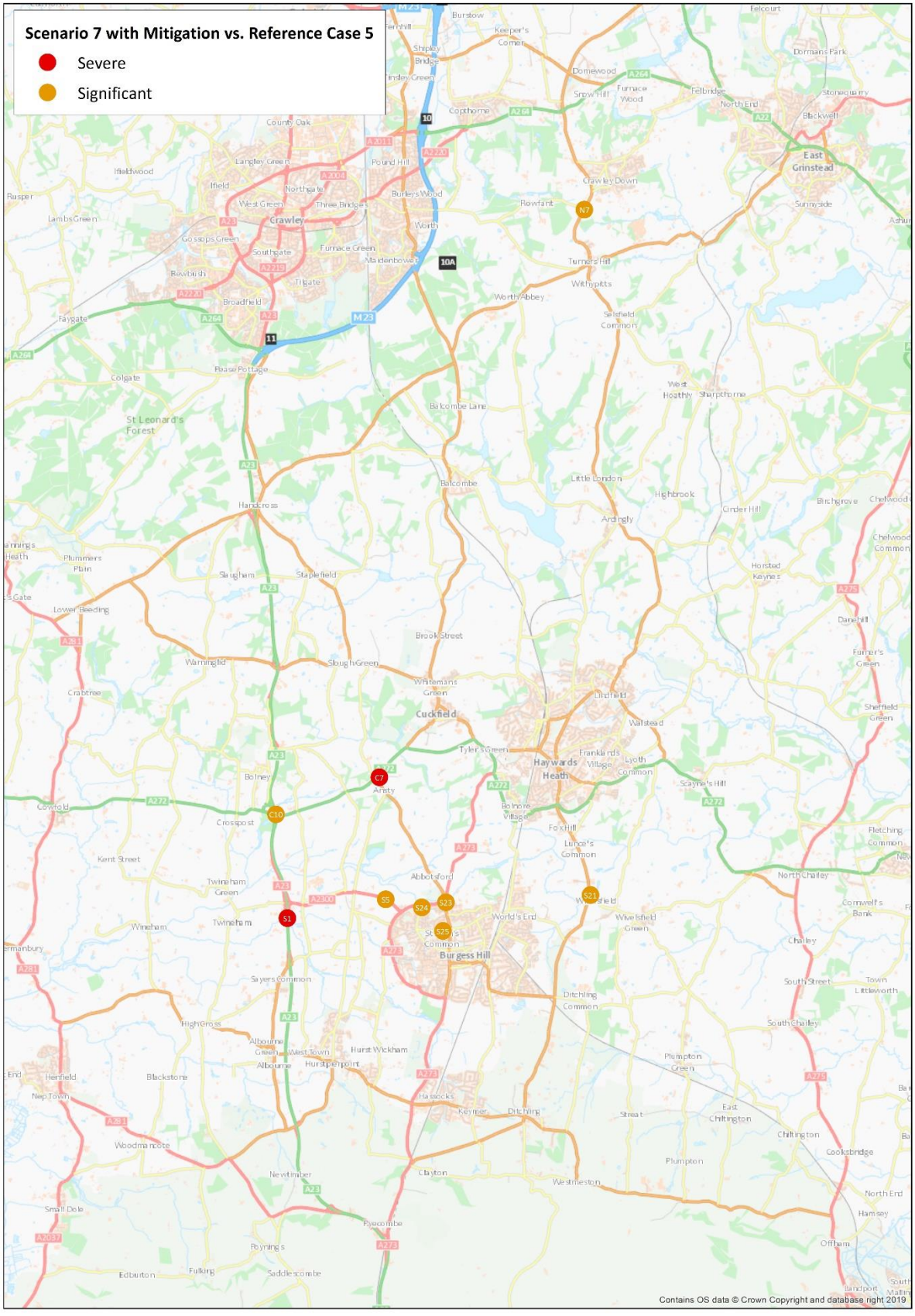
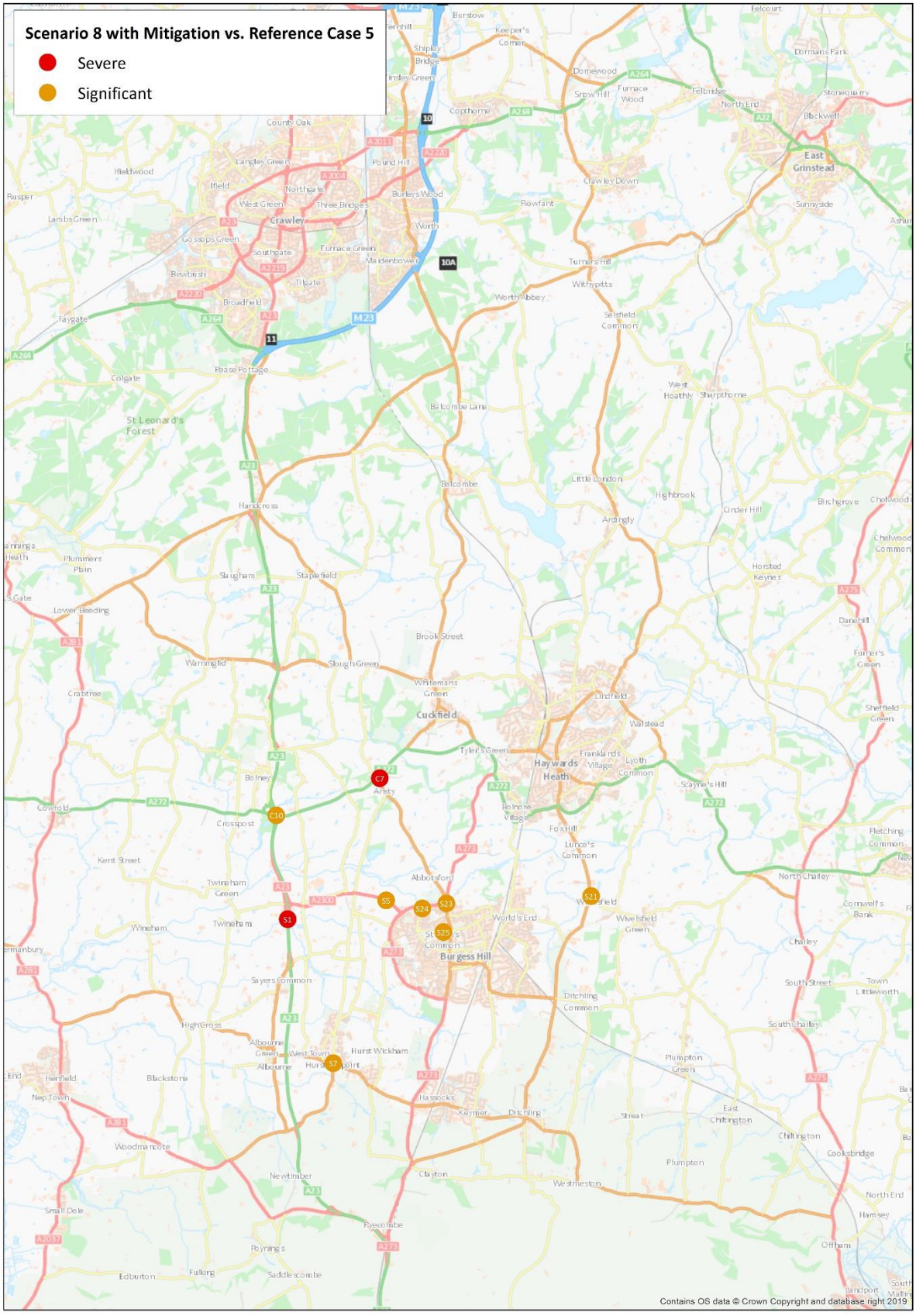


Figure 4. Location of significant and severely impacted junctions in 2031 Scenario 8 with mitigation



6. KEY LOCATIONS COMMENTARY

This section provides additional commentary on key locations, including some insight into the response of the highway model and the potential outcomes of further runs or sensitivity tests. It should be noted that forecasts outcomes can only be confirmed by full runs of the model, due to the number of different journeys and routings being simulated.

A23/A2300

6.1.1 The A2300 and its dumbbell junction with the A23 is a focus of the impacts of Scenarios 7 and 8. It is apparent that the pressure on this junction, on the eastern roundabout and the southbound A23 on-slip in particular, is largely due to the S&T park, predominantly in the PM for journeys leaving the park and heading south, hence the 'severe' impact at the slip-road in the *with* mitigation scenarios..

6.1.2 As previously noted a focus of the proposed highway mitigation was to reduce pressure on the A2300, because in the without mitigation scenarios, some junctions are suffering severe delays due to rerouting away from the A2300 to the A272 through Ansty, A273 through Hassocks, B2036, B2116 and B2117.

Proportion of slip-road users from S&T park

6.1.3 In the PM peak, there are approximately 650 vehicles using the slip road. Just over 25% (around 175 vehicles) of this demand is from the S&T park.

Sustainability percentage reduction required to remove the 'severe' impact

6.1.4 The figures from the model suggest that if the demand on the slip road was reduced by around 10% that could remove the 'severe' impact. This seems a reasonably small percentage reduction but if this reduction is to all to come from the S&T park this would be a 35% reduction (i.e reduction of 65 out of 175 in total). It could however be expected that other travellers would benefit from sustainable measures and so in reality the reduction wouldn't have to all come from the S&T park traffic.

6.1.5 The sustainable measures will need to be effective against trips between Burgess Hill including the S&T park and destinations in the coastal towns, due to its location on the southbound slip road. It may be more difficult to achieve the same level of mode change from car for these journeys than it is for destinations including Gatwick Airport and Greater London, which use the north facing slips.

Potential Impact of reduced S&T park

6.1.6 Given that most of the 'severe' impacts appear to be associated with junctions around the A2300, it likely that these are largely attributable to the S&T park. It is therefore probable a certain size of park (by 2031) would result in no 'severe' impacts in the *with* mitigation scenario. This is effectively the same as the discussion above on the sustainability reduction i.e. there is a suggestion a 35% reduction would result in no 'severe' impact.

6.1.7 The benefit of having the model is that it simulates a comprehensive and consistent range of impacts including some that may not be intuitively obvious without a model, and therefore outcomes such as these can only be confirmed using runs of the model. These include impacts such as rerouting which are difficult to predict without a model run.

6.1.8 It is also possible that fully removing 'severe' impacts on the A2300 and its junction could also remove the 'severe' impact at the A272 through Ansty which may still be suffering the effects of rerouting away from preferred routes. Again, this would require a model run to confirm.

Trip Distribution and Trip Rates

6.1.9 The distribution assumptions of traffic to and from the park is crucial to these considerations, as are the assumed trip rates. Therefore this should be considered further in any further work.

A264/A22

6.1.10 This signalised junction is currently regarded as a 'hotspot' where delays are experienced. Therefore, it would be reasonable to expect 'severe' conditions in future year scenarios.

6.1.11 The A264/A22 junction is not identified as having a severe impacts in the Scenarios. However, it should be noted that this junction is flagged as severe in the Reference Case, and operates over capacity; the Scenarios generate slightly more traffic passing through the junction, which increases these impacts further, but not enough to result in severe impacts for the scenarios. Although the nearby developments increase pressure, the model is reporting that the 'severe' conditions are attributable to the Reference Case situation rather than the Scenario developments.

Rerouting

6.1.12 The highway model allows travellers to change their route due to congestion to achieve the most cost-effective journey possible. It can be seen in the reference case that significant rerouting is occurring away from the A264/A22 in both the AM and PM peak, and this continues in the Scenarios. The alternative route favoured by the model is via the B2028 and B2110 through Turners Hill. It is mostly trips going to East Grinstead area south of the A22, including Imberhorne Lane that do this.

6.1.13 Online route planners suggest that even in current conditions alternative routes on local 'B' roads including those used in the model are viable, and therefore it is reasonable to expect this would happen in reality in 2031.

Proportion of re-routers

6.1.14 Once the model reaches capacity at a location, delay will increase significantly and extensive rerouting will occur if alternative faster routes are available. In Scenario 7 traffic heading to the Imberhorne Lane development from the west will, according to the model, route via the B2110 through Turners Hill, rather than experience the delays on the A264 particularly at the junction with the A22 at Felbridge. Online journey planners suggest this is perhaps already the quicker route in the PM peak for Imberhorne and other destinations south of the A22 in the East Grinstead area.

6.1.15 It is apparent that in the PM peak, for journeys from the west to the Imberhorne Lane development, most of the scenario traffic is rerouting from the A264. It is difficult to put an exact figure on this because it varies depending on origin and journey length. In Scenario 7, the PM peak model shows increases of up to around 180 vehicles on the B2028 through Crawley Down towards Turner's Hill and about 120 additional vehicles travelling east on the B2110 at Turner's Hill towards Imberhorne Lane. This is a mix of traffic relating

to the Imberhorne site, the smaller sites in the north of the District and re-routed traffic from the reference case seeking to avoid the A264. This outcome is similar in Scenario 8 (the impact on the B2028 is slightly lower) and the mitigation scenarios.

7. CONCLUSIONS AND NEXT STEPS

7.1 Conclusions

7.1.1 This section provides, in brief, the key outcomes of Scenarios 7 and 8, and the mitigation, followed by recommendations on next steps.

Scenarios 7 and 8 *without* Mitigation

7.1.2 Both scenarios generate significant additional traffic centred around the **A2300** and nearby roads, in the AM and PM Peak. This results in significant rerouting on Cuckfield Road and the A272 through Ansty. There are also impacts on the A273 through Hassocks, B2036, B2116 and B2117.

7.1.3 The **A23/A2300 dumbbell junction** appears to be significantly affected and in the PM peak traffic is avoiding this junction in favour of these alternative routes.

7.1.4 There are also significant flow impacts on the **A264**, but these are already prevalent in the reference case, resulting in rerouting to alternative routes using the B2110 through Turners Hill. This appears to be mainly due to congestion on the A264 particularly at the junction with the A22 at Felbridge.

7.1.5 On the **A23** there are tidal traffic flow impacts of up **10%** on the section between the A272 and B2110. It is considered that these are largely attributable to S&T park commuting.

7.1.6 'Severe' impacts (as defined by the described criteria) occur at **nine** junctions in Scenario 7 and **eight** junctions in Scenarios 8.

Scenarios 7 and 8 *with* Mitigation

7.1.7 The highway mitigations were largely successful in drawing traffic back to the A2300 and removing 'Severe' impacts on most non-strategic routes. However, the mitigation scenarios do have some severe impacts remaining, mainly in the PM peak, and most notably on the A2300 to A23 southbound on-slip. The merge itself was not mitigated due to limited options (without major works on the A23), instead the focus being on mitigating the eastern roundabout. The proposed mitigation at the eastern roundabout releases a 'bottleneck' which contributes to the 'severe' impact remaining on the slip road merge with the A23. This severe impact will need to be addressed through alternative means, to be agreed with Highways England.

7.1.8 On the **A23** although the number of carriageway section with a notable flow increase is largely unchanged the mitigations do draw more traffic to the A23, particularly noticeable from the A272 to the A2300 southbound in the AM peak, in which for Scenarios 7 and 8 the increase from the reference case becomes approximately **12%.**

7.1.9 Following mitigation, **two** locations remain at 'severe' in both scenarios, these are:

- C7 A272 / B2036, Ansty
- S1 A23 / A2300 Southbound on-slip

7.2 Next Steps

7.2.1 Further model iterations are recommended to confirm a mitigated scenario where no 'severe' impacts remain. Until now only one set of proposed mitigations has been undertaken for Scenario 7 and 8. Further iterations would normally be required to refine mitigation.

A2300

7.2.2 The next steps relating to the A2300, its junction with the A23 and the impact of the S&T park should consider:

- Model run excluding S&T park to confirm much reduced and potential no 'severe' impacts in the *with* mitigation or potentially *without* mitigation scenarios
- Model run with an S&T park size expected to have no 'severe impact' in *with* mitigation scenario (as discussed above this could be around 35%)
- Further review of:
  - Trip rates and distribution assumptions for S&T park
  - Further sustainable measures that could in part provide the reduction required

A264/A22 Felbridge

7.2.3 It is considered that to significantly reduce the congestion at this junction and therefore the rerouting in favour of less suitable routes in the Reference Case and Scenarios, a significant mitigation of the A264/A22 would be required. To be fully effective this could involve land outside of the WSCC highway boundary, subject to the outcome of more detailed study work.

8. JUNCTION SUMMARIES

8.1.1 The following pages provide the junction performance statistics and commentary for each of the severely impacted junctions in 2031 Scenarios 7 and 8, when compared to the 2031 Reference Case.

8.1.2 Strategic junctions on the A264, and in East Grinstead (N1, N2, N9, and N6) have also been included for reference. A summary of how the junctions are forecast to perform is shown in **Appendix C**, alongside the impact on the M23 and A23.

N7 B2028 Turners Hill Road / Wallage Lane

Table 9 reports the performance by approach arm for AM and PM peaks, in each modelled Scenario.

2031 Reference Case

As mentioned in **Error! Reference source not found.**, the congestion on the A264 / A22 causes rerouting in both the A M and PM peak to alternative routes such as the B2028 and B2110 through Turner's Hill. This causes a number of junctions on these roads to operate at capacity in the 2031 Reference Case. The Wallage Lane arm of junction N7 is forecast to operate at capacity in the AM peak, with an RFC of 100%, and is forecast to operate close to capacity, 88% in the PM peak. The B2110 Church Road arm of the B2110 Church Road / B2028 Selsfield Road / B2110 East Street junction (N8) is forecast to operate over capacity.

2031 Scenario

2031 Scenario 7 and 2031 Scenario 8 both include development sites near Turner's Hill as well as in East Grinstead. This increases the amount of traffic rerouting away from the congested A264 / A22 to the B2028 and B2110 compared to the 2031 Reference Case. With the B2110 Church Road / B2028 Selsfield Road / B2110 East Street junction (N8) still operating over capacity, this additional traffic is forced to use Wallage Lane, B2027 Turner's Hill Road, and B2110 East Street to access East Grinstead. This increases the traffic on the Wallage Lane arm of the B2028 Turners Hill Road / Wallage Lane junction (N7), causing it to have a forecast capacity increase over 10% in the PM peak, to 98% in 2031 Scenario 7.

2031 Scenario with Mitigation

When the proposed mitigation is introduced in 2031 Scenario 7 and Scenario 8, there are small amounts of rerouting at this junction compared to the 2031 without mitigation scenarios. This causes the RFC of the Wallage Lane arm to still operate at capacity in the AM and PM peak, but the RFC increase in the PM peak to be less than 10%, hence the junction is no longer forecast to have a severe impact when compared to the 2031 Reference Case.

Table 9. B2028 Turners Hill Road / Wallage Lane

APPROACH ARM	2031 REFERENCE CASE		2031 S7		2031 S7 WITH MITIGATION		2031 S8		2031 S8 WITH MITIGATION	
	RFC (%)	DEL (s)	RFC (%)	DEL (s)	RFC (%)	DEL (s)	RFC (%)	DEL (s)	RFC (%)	DEL (s)
AM PEAK										
TURNERS HILL ROAD (N)	17	1	20	1	19	1	19	1	19	1
TURNERS HILL ROAD (S)	23	1	24	1	24	1	24	1	24	1
WALLAGE LANE	100	73	100	81	100	79	100	79	100	77
PM PEAK										
TURNERS HILL ROAD (N)	49	2	57	2	56	2	55	2	54	2
TURNERS HILL ROAD (S)	11	1	12	1	12	1	12	1	12	1
WALLAGE LANE	88	43	**98**	77	**98**	75	**98**	74	**98**	73

Notes: an increase in RFC of **5%** or more to an RFC of **85%** or more is highlighted in **orange**
an increase in RFC of **10%** or more to an RFC of **95%** or more is highlighted **red**
an increase in delay of **one minute** or more to a delay of **two minutes** or more is highlighted **red**

C7 A272 / B2036, Ansty

The junction performance in the AM and PM peaks for the A272 / B2036 (C7) junction are summarised in Table 10.

2031 Reference Case

The junction is forecast to perform at or over capacity on every arm in the AM peak, and over capacity on A272 eastern and western arms in the PM peak.

2031 Scenario

In the 2031 development scenarios, more traffic is generated by the additional development. This causes more traffic to use the junction, hence increasing RFC and delay on most arms of the junction in AM and PM peaks triggering a severe impact when compared to the 2031 Reference Case. Due to the junctions location, there is some tidal flow with the A272 eastern arm being forecast to cause a severe impact in the AM period, and the A272 western arm causing a severe impact in the PM peak.

2031 Scenario with Mitigation

At this junction, additional capacity in the form of a flared approach on the A272 (W) has been considered. This scheme successfully mitigates the junction impacts in the AM period. Due to tidal movements to and from development sites, the junction is still impacted severely in the PM period. In the PM period, the A272 western arm has a severe delay increase. The B2036 arm however, still has an increase in RFC, but not enough to trigger the severe criteria, as it did when the 2031 without development scenario was compared to the 2031 Reference Case.

Table 10. A272 / B2036 Junction

APPROACH ARM	2031 REFERENCE CASE		2031 S7		2031 S7 WITH MITIGATION		2031 S8		2031 S8 WITH MITIGATION	
	RFC (%)	DEL (s)	RFC (%)	DEL (s)	RFC (%)	DEL (s)	RFC (%)	DEL (s)	RFC (%)	DEL (s)
AM PEAK										
A272 (E)	103	76	109	187	99	7	109	173	98	5
B2036 (S)	106	138	104	97	106	137	104	96	106	138
A272 (W)	93	7	99	15	80	5	99	16	81	6
PM PEAK										
A272 (E)	105	112	105	115	100	23	105	108	100	21
B2036 (S)	38	4	100	27	87	12	100	31	83	11
A272 (W)	104	96	110	201	109	195	108	175	108	171

Notes: an increase in RFC of **5%** or more to an RFC of **85%** or more is highlighted in orange
an increase in RFC of **10%** or more to an RFC of **95%** or more is highlighted **red**
an increase in delay of **one minute** or more to a delay of **two minutes** or more is highlighted **red**

S1 A23 / A2300 Southbound On-Slip, Burgess Hill

The forecast performance of the A23 / A2300 southbound on-slip (S1) in Burgess Hill are shown in Table 11.

2031 Reference Case

The A23 southbound operates within capacity on three lane section north of the A2300; the model forecasts that the junction operates close to capacity (RFC of 99%) when the A23 reduces to two lanes, after the A23 southbound off-slip to the A2300. Both the A23 southbound and A23 southbound on-slip operate within capacity in the AM peak.

2031 Scenario

The additional development introduced as part of the 2031 development scenario generates more traffic on the A23 southbound in the PM peak, increasing the RFC to 100%. With the A23 southbound operating at capacity, traffic on the southbound on-slip has difficulty merging onto the A23 southbound. This is reflected in an RFC increase of over 50% in 2031 Scenario 7 and 2031 Scenario 8 compared to the 2031 Reference Case, meaning the junction is severely impacted.

2031 Scenario with Mitigation

The mitigation measures considered elsewhere on the road network are not forecast to improve the performance of this junction. The merge itself was not mitigated due to limited options (without major works on the A23), instead the focus being on mitigating the eastern roundabout (S2). The mitigation at the eastern roundabout releases a 'bottleneck' which then transfers a new 'severe' impact to the slip road merge with the A23. An approach and solution to overcome this 'severe' impact will need to be developed through further work, such that is can be agreed with Highways England.

Table 11. A23 / A2300 Southbound On-Slip

APPROACH ARM	2031 REFERENCE CASE		2031 S7		2031 S7 WITH MITIGATION		2031 S8		2031 S8 WITH MITIGATION	
	RFC (%)	DEL (s)	RFC (%)	DEL (s)	RFC (%)	DEL (s)	RFC (%)	DEL (s)	RFC (%)	DEL (s)
AM PEAK										
A23 SB ON-SLIP	33	4	49	4	50	4	49	4	50	4
A23 SOUTHBOUND	69	4	75	5	75	5	75	5	74	5
PM PEAK										
A23 SB ON-SLIP	53	5	**107**	**173**	**104**	**128**	**108**	**182**	**106**	**151**
A23 SOUTHBOUND	99	31	100	36	100	36	100	36	100	36

Notes: an increase in RFC of **5%** or more to an RFC of **85%** or more is highlighted in **orange**
an increase in RFC of **10%** or more to an RFC of **95%** or more is highlighted **red**
an increase in delay of **one minute** or more to a delay of **two minutes** or more is highlighted **red**

S2 A23 / A2300 Eastern Roundabout, Burgess Hill

Table 12 summarises the junction performance of the A23 / A2300 eastern roundabout (S2), in the modelled scenarios.

2031 Reference Case

The model forecasts that the A23 / A2300 eastern roundabout operates within capacity, with RFC's below 85% on all arms, in the AM and PM peaks in the 2031 Reference Case.

2031 Scenario

When the additional development is included in the 2031 development Scenario 7 and 8, more traffic is forecast on the A23 southbound off-slip and A2300 eastern arm of the roundabout in the AM peak. This is primarily driven by traffic travelling to the Science and Technology Park, on the A2300, in the AM peak. The additional traffic causes the junction to be severely impacted, with increases in RFC and delay on these arms.

2031 Scenario with Mitigation

A single free-flow lane from the A23 southbound off-slip to the A2300 (E) arm has been considered, alongside reducing the number of approach lanes from two to one on the southbound off-slip. This give-way is also signalised in the same phase as circulating traffic, and traffic from the A2300 (W) approach. The mitigation also includes new traffic signals where the A2300 (E) approach gives way to circulating traffic. The proposed scheme successfully mitigates against the high RFCs and delays at the junction, in both AM and PM peaks, however the consequential impact of releasing the bottleneck on the slip road merge (S1) should be noted.

Table 12. A23 / A2300 Eastern Roundabout

APPROACH ARM	2031 REFERENCE CASE		2031 S7		2031 S7 WITH MITIGATION		2031 S8		2031 S8 WITH MITIGATION	
	RFC (%)	DEL (s)	RFC (%)	DEL (s)	RFC (%)	DEL (s)	RFC (%)	DEL (s)	RFC (%)	DEL (s)
AM PEAK										
A23 SB OFF-SLIP	77	5	**108**	**165**	0	14	**108**	**170**	0	14
A2300 (E)	73	3	**98**	6	75	10	**98**	5	75	10
A2300 (W)	40	3	80	4	27	0	81	4	27	0
PM PEAK										
A23 SB OFF-SLIP	65	4	59	3	0	32	60	3	0	32
A2300 (E)	84	3	**94**	3	70	7	**94**	3	71	7
A2300 (W)	32	3	18	3	9	0	19	3	7	0

Notes: an increase in RFC of **5%** or more to an RFC of **85%** or more is highlighted in **orange**
an increase in RFC of **10%** or more to an RFC of **95%** or more is highlighted **red**
an increase in delay of **one minute** or more to a delay of **two minutes** or more is highlighted **red**

S5 A2300 / Northern Arc Spine Road, Burgess Hill

Table 13 shows how the performance of the A2300 / Northern Arc Spine Road junction compares in the different modelled scenarios.

2031 Reference Case

The A2300 / Northern Arc Spine Road junction is introduced with the addition of the Northern Arc development in the 2031 Reference Case scenario. The proposed access takes the form of a four-arm roundabout on the A2300. The model forecasts that the southern Northern Arc arm of the junction is approaching capacity in the PM peak, but all other arms operate within capacity.

2031 Scenario

The 2031 development scenarios, include the Science and Technology Park, located to the west of this junction. The additional traffic generated by this development increases the volume of traffic on the A2300 as it's the primary access road to and from the Park. This causes a severe impact at the junction compared to the 2031 Reference Case, with the A2300 western arm having an increase in RFC exceeding 15% in both peaks.

2031 Scenario with Mitigation

Additional capacity has been considered on the A300 western arm through increasing the length of the proposed flare. This mitigation measure successfully reduces the RFC and delay to a point where the junction is no longer severely impacted.

Table 13. A2300 / Northern Arc Spine Road Roundabout

APPROACH ARM	2031 REFERENCE CASE		2031 S7		2031 S7 WITH MITIGATION		2031 S8		2031 S8 WITH MITIGATION	
	RFC (%)	DEL (s)	RFC (%)	DEL (s)	RFC (%)	DEL (s)	RFC (%)	DEL (s)	RFC (%)	DEL (s)
AM PEAK										
NORTHERN ARC (N)	41	5	90	14	95	22	90	14	95	22
A2300 (E)	56	5	82	9	78	8	83	9	78	8
NORTHERN ARC (S)	68	5	69	7	69	7	69	7	69	7
A2300 (W)	79	4	96	8	93	5	95	7	93	5
PM PEAK										
NORTHERN ARC (N)	20	5	20	5	20	5	21	5	21	5
A2300 (E)	53	5	55	5	53	5	54	5	53	5
NORTHERN ARC (S)	92	10	95	13	95	12	94	11	95	12
A2300 (W)	84	5	102	54	92	7	103	78	92	7

Notes: an increase in RFC of **5%** or more to an RFC of **85%** or more is highlighted in orange
an increase in RFC of **10%** or more to an RFC of **95%** or more is highlighted **red**
an increase in delay of **one minute** or more to a delay of **two minutes** or more is highlighted **red**

S6 Junction Road / B2113, Burgess Hill

The junction performance of the Junction Road / B2113 junction (S6) are summarised in Table 14.

2031 Reference Case

The 2031 Reference Case scenario includes all committed development and infrastructure. This includes the reconfiguration of this junction from a roundabout, to signals. The model forecasts that this junction operates at capacity, and with high delays on three of the four arms in the AM and PM peaks in the 2031 Reference Case.

2031 Scenario

The additional developments in 2031 Scenario 7 and 2031 Scenario 8 increases the traffic on the network, and hence traffic passing through this junction, primarily on the B2113 Station Road arm. These increases worsen the performance of the junction compared to the 2031 Reference Case. In the PM peak, the B2113 Station Road approach is forecast to have delay increases exceeding a minute compared to the 2031 Reference Case in 2031 Scenario 7 and 8.

2031 Scenario with Mitigation

Nearby mitigation, in the 2031 Scenario 7 and 8 with mitigation scenarios, has caused rerouting from this junction, reducing the volume of traffic on the B2113 Station Road arm, to a point where it is no longer severely impacted but still operates at capacity.

Table 14. Junction Road / B2113 Junction

APPROACH ARM	2031 REFERENCE CASE		2031 S7		2031 S7 WITH MITIGATION		2031 S8		2031 S8 WITH MITIGATION	
	RFC (%)	DEL (s)	RFC (%)	DEL (s)	RFC (%)	DEL (s)	RFC (%)	DEL (s)	RFC (%)	DEL (s)
AM PEAK										
JUNCTION ROAD (N)	99	126	101	155	102	181	103	178	102	166
SILVERDALE ROAD	0	122	0	122	0	122	0	122	0	122
B2113 KEYMER RD (S)	106	226	108	271	108	277	109	286	108	266
B2113 STATION RD (W)	104	191	104	187	104	182	105	207	106	244
PM PEAK										
JUNCTION ROAD (N)	10	38	9	38	10	40	9	38	10	43
SILVERDALE ROAD	0	122	0	122	0	122	0	122	0	122
B2113 KEYMER RD (S)	99	115	98	111	100	124	99	118	100	135
B2113 STATION RD (W)	108	271	113	**348**	111	309	**115**	**393**	111	307

Notes: an increase in RFC of **5%** or more to an RFC of **85%** or more is highlighted in **orange**
an increase in RFC of **10%** or more to an RFC of **95%** or more is highlighted **red**
an increase in delay of **one minute** or more to a delay of **two minutes** or more is highlighted **red**

S8 A273 / B2116 Stonepound. Hassocks

Table 15 outlines the junction performance for A273 / B2116 Stonepoound crossroads in the modelled scenarios.

2031 Reference Case

Despite additional capacity being provided as part of the committed highway infrastructure scheme, all arms of the junction operate at, or close to capacity in the 2031 Reference Case scenario.

2031 Scenario

The additional traffic generated by the developments in the 2031 development Scenarios, cause the London Road and Hurst Road arms to be severely impacted in the PM peak in both 2031 Scenario 7 and 8. In 2031 Scenario 8, the Keymer Road arm is also forecast to have a delay increase of over a minute in the AM peak.

2031 Scenario with Mitigation

Rerouting, caused by mitigation elsewhere in the network successfully reduces delay on the London Road and Hurst Road arms in in the PM peak, as well as the Keymer Road arm in the AM peak when compared to the 2031 development Scenarios without mitigation.

Table 15. A273 / B2116 Stonepound Junction

APPROACH ARM	2031 REFERENCE CASE		2031 S7		2031 S7 WITH MITIGATION		2031 S8		2031 S8 WITH MITIGATION	
	RFC (%)	DEL (s)	RFC (%)	DEL (s)	RFC (%)	DEL (s)	RFC (%)	DEL (s)	RFC (%)	DEL (s)
AM PEAK										
LONDON ROAD (N)	109	279	107	233	109	273	107	240	109	285
KEYMER ROAD (E)	107	262	109	295	109	301	111	**326**	108	282
BRIGHTON ROAD (S)	104	198	104	206	104	208	105	217	105	221
HURST ROAD (W)	90	84	91	85	91	87	91	86	92	87
PM PEAK										
LONDON ROAD (N)	102	146	**108**	**243**	104	176	**108**	**247**	105	201
KEYMER ROAD (E)	101	137	100	131	103	180	101	138	102	168
BRIGHTON ROAD (S)	95	92	60	49	98	136	96	93	97	122
HURST ROAD (W)	102	179	106	**242**	105	222	106	**247**	102	158

Notes: an increase in RFC of **5%** or more to an RFC of **85%** or more is highlighted in **orange**
an increase in RFC of **10%** or more to an RFC of **95%** or more is highlighted **red**
an increase in delay of **one minute** or more to a delay of **two minutes** or more is highlighted **red**

S9 A23 / A23 Southbound On-Slip, Pyecombe

Table 16 shows the RFC and delay for each approach arm in each of the modelled scenarios.

2031 Reference Case

As the A23 / A2300 southbound on-slip (S1) shows, the A23 southbound operates at capacity when it reduces to two lanes after the A23 / A2300 southbound off-slip. The capacity constraints continue to Pyecombe, where the model forecasts an RFC of 100% on both the A23, and A23 eastbound on-slip in the PM peak.

2031 Scenario

The 2031 development scenarios, Scenario 7 and Scenario 8, forecast the impact of the additional development traffic on the road network. This additional traffic increases the number of road users on the already congested A23 southbound on-slip. The model forecasts that the additional traffic on the A23 southbound on-slip would increase delays on the slip road by 71 seconds in 2031 Scenario 7, and 19 seconds in the 2031 Scenario 8 when compared to 2031 Reference Case, causing the junction to be severely impacted.

2031 Scenario with Mitigation

The mitigation measures considered elsewhere in Mid-Sussex provide a small amount of traffic relief on the A23 southbound, allowing more traffic to merge from the A23 southbound on-slip to the A23 southbound. This reduces the delay experienced by users on the A23 southbound on-slip, such that the junction is no longer identified as being severely impacted compared to the 2031 Reference Case.

Table 16. A23 / A281 Eastbound On-Slip

APPROACH ARM	2031 REFERENCE CASE		2031 S7		2031 S7 WITH MITIGATION		2031 S8		2031 S8 WITH MITIGATION	
	RFC (%)	DEL (s)	RFC (%)	DEL (s)	RFC (%)	DEL (s)	RFC (%)	DEL (s)	RFC (%)	DEL (s)
AM PEAK										
A23 SB ON-SLIP	34	5	34	5	35	5	34	5	34	5
A23 SB	82	17	83	18	84	18	83	18	84	18
PM PEAK										
A23 SB ON-SLIP	100	250	104	**321**	103	294	104	**313**	102	284
A23 SB	100	63	100	64	100	64	100	64	100	63

Notes: an increase in RFC of **5%** or more to an RFC of **85%** or more is highlighted in **orange**
an increase in RFC of **10%** or more to an RFC of **95%** or more is highlighted **red**
an increase in delay of **one minute** or more to a delay of **two minutes** or more is highlighted **red**

S22 Valebridge Road / Junction Road / Leylands Road, Burgess Hill

The junction performance of Valebridge Road / Junction Road / Leylands Road in the modelled scenarios is summarised in Table 17.

2031 Reference Case

The 2031 Reference Case includes the committed schemes of converting the Valebridge Road / Junction Road / Leylands Road junction from a mini-roundabout to traffic signals. The junction Leylands Road arm of the junction is forecast to operate at capacity in the PM peak, RFC of 107%, and approaching capacity in the AM peak, 99%.

2031 Scenario

2031 Scenario 7 and 2031 Scenario 8 forecasts that the Leylands Road approach arm is severely impacted compared to the 2031 Reference Case in the PM peak. The additional traffic generated by the developments included in 2031 Scenario 7 and 8, increase the traffic flows on the Leylands Road approach arm, causing the junction to operate over capacity and with high delays compared to the 2031 Reference Case.

2031 Scenario with Mitigation

Traffic reduction from sustainable measures, and highway mitigation measures elsewhere in the network have successfully mitigated the delay on the Leylands Road approach arm such that the junction is no longer identified as having a severe impact compared to the 2031 Reference Case.

Table 17. Valebridge Road / Junction Road / Leylands Road Junction

APPROACH ARM	2031 REFERENCE CASE		2031 S7		2031 S7 WITH MITIGATION		2031 S8		2031 S8 WITH MITIGATION	
	RFC (%)	DEL (s)	RFC (%)	DEL (s)	RFC (%)	DEL (s)	RFC (%)	DEL (s)	RFC (%)	DEL (s)
AM PEAK										
VALEBRIDGE ROAD (N)	55	71	55	73	55	80	56	80	56	89
JUNCTION ROAD (S)	96	83	97	92	98	96	100	110	101	130
LEYLANDS ROAD (W)	99	70	98	59	98	57	99	64	99	61
PM PEAK										
VALEBRIDGE ROAD (N)	55	66	54	64	56	79	54	66	56	80
JUNCTION ROAD (S)	50	33	49	32	52	33	50	33	58	38
LEYLANDS ROAD (W)	107	197	110	**264**	109	234	111	**271**	108	216

Notes: an increase in RFC of **5%** or more to an RFC of **85%** or more is highlighted in **orange**
an increase in RFC of **10%** or more to an RFC of **95%** or more is highlighted **red**
an increase in delay of **one minute** or more to a delay of **two minutes** or more is highlighted **red**

N1 A264 / A2220. Copthorne

Table 18. A264 / A2220 Junction

APPROACH ARM	2031 REFERENCE CASE		2031 S7		2031 S7 WITH MITIGATION		2031 S8		2031 S8 WITH MITIGATION	
	RFC (%)	DEL (s)	RFC (%)	DEL (s)	RFC (%)	DEL (s)	RFC (%)	DEL (s)	RFC (%)	DEL (s)
AM PEAK										
BROOKHILL RD (N)	41	14	41	14	41	14	41	14	41	14
A264 (E)	43	12	49	12	49	12	49	12	49	12
COPTHORNE HOTEL	1	10	1	10	1	10	1	10	1	10
A2220 (S)	75	12	78	12	78	12	77	12	77	12
A264 (W)	109	190	109	193	109	192	109	192	109	191
PM PEAK										
BROOKHILL RD (N)	73	16	75	17	75	17	75	16	74	16
A264 (E)	87	16	86	15	86	15	86	15	86	15
COPTHORNE HOTEL	1	10	1	10	1	10	1	10	1	10
A2220 (S)	62	12	71	13	71	13	68	13	68	13
A264 (W)	79	11	85	12	84	12	83	11	83	11

Notes: an increase in RFC of **5%** or more to an RFC of **85%** or more is highlighted in **orange**
an increase in RFC of **10%** or more to an RFC of **95%** or more is highlighted **red**
an increase in delay of **one minute** or more to a delay of **two minutes** or more is highlighted **red**

N6 A22 / Imberhorne Lane, East Grinstead

Table 19. A22 / Imberhorne Lane Junction

APPROACH ARM	2031 REFERENCE CASE		2031 S7		2031 S7 WITH MITIGATION		2031 S8		2031 S8 WITH MITIGATION	
	RFC (%)	DEL (s)	RFC (%)	DEL (s)	RFC (%)	DEL (s)	RFC (%)	DEL (s)	RFC (%)	DEL (s)
AM PEAK										
A22 (W)	45	8	47	5	47	5	47	5	47	5
A22 (E)	100	81	102	77	102	78	101	75	102	79
IMBERHORNE LANE (S)	49	18	65	20	65	20	65	20	65	20
PM PEAK										
A22 (W)	62	11	64	11	63	11	64	11	63	11
A22 (E)	86	26	84	25	84	24	83	24	83	24
IMBERHORNE LANE (S)	55	24	60	25	60	25	61	25	60	25

Notes: an increase in RFC of **5%** or more to an RFC of **85%** or more is highlighted in **orange**
an increase in RFC of **10%** or more to an RFC of **95%** or more is highlighted **red**
an increase in delay of **one minute** or more to a delay of **two minutes** or more is highlighted **red**

N2 A264 / B2028, Copthorne

Table 20. A264 / B2028 Junction

APPROACH ARM	2031 REFERENCE CASE		2031 S7		2031 S7 WITH MITIGATION		2031 S8		2031 S8 WITH MITIGATION	
	RFC (%)	DEL (s)	RFC (%)	DEL (s)	RFC (%)	DEL (s)	RFC (%)	DEL (s)	RFC (%)	DEL (s)
AM PEAK										
B2027 (N)	13	3	14	4	14	4	14	4	14	4
A264 SNOW HILL (E)	12	3	13	3	13	3	13	3	13	3
B2027 (S)	29	3	31	3	30	3	30	3	30	3
A264 (W)	46	4	46	4	46	4	46	4	46	4
PM PEAK										
B2027 (N)	35	4	36	4	36	4	36	4	35	4
A264 SNOW HILL (E)	20	4	20	4	20	4	20	4	19	4
B2027 (S)	17	4	18	4	18	4	18	4	18	4
A264 (W)	54	3	62	3	62	3	60	3	60	3

Notes: an increase in RFC of **5%** or more to an RFC of **85%** or more is highlighted in **orange**
an increase in RFC of **10%** or more to an RFC of **95%** or more is highlighted **red**
an increase in delay of **one minute** or more to a delay of **two minutes** or more is highlighted **red**

N9 A264 / A22 Felbridge, East Grinstead

Table 21. A265 / A22 Felbridge Junction

APPROACH ARM	2031 REFERENCE CASE		2031 S7		2031 S7 WITH MITIGATION		2031 S8		2031 S8 WITH MITIGATION	
	RFC (%)	DEL (s)	RFC (%)	DEL (s)	RFC (%)	DEL (s)	RFC (%)	DEL (s)	RFC (%)	DEL (s)
AM PEAK										
A264 (W)	105	194	107	227	107	217	107	227	107	217
A22 (N)	56	13	56	13	55	13	56	13	56	13
A22 LONDON RD (S)	108	241	108	241	108	241	108	241	108	241
PM PEAK										
A264 (W)	102	131	103	147	103	151	103	145	103	150
A22 (N)	64	14	66	14	66	14	67	14	66	14
A22 LONDON RD (S)	100	100	101	117	101	114	101	113	101	111

Notes: an increase in RFC of **5%** or more to an RFC of **85%** or more is highlighted in **orange**
an increase in RFC of **10%** or more to an RFC of **95%** or more is highlighted **red**
an increase in delay of **one minute** or more to a delay of **two minutes** or more is highlighted **red**

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MID SUSSEX TRANSPORT STUDY - DEVELOPMENT SITE ASSUMPTIONS AND TRIP RATES

STATUS	District	ID		Site address	Details PlanningStatus		Use Class	Total (by 2031)	Quantity for TRiCs rate	Units inc. Windfall	Gross Site Area (ha)	GFA (sqm) (TRiCs rate is based on employees)	GFA per employee (sqm)	Trip Rate AM O	Trip Rate AM D	Trip Rate PM O	Trip Rate PM D	Trips AM O	Trips AM D	Trips PM O	Trips PM D	Base Zone	Final Zone (new zone if bold)	No. of Zones	Ref 5	Scn 7	Scn 8
FULL	MidSussex	6	1	Land at Gravelye Lane and Scamps Hill, Lindfield	Commitment - Full/Outline Planning Permission		Housing	130	units	136				0.397	0.191	0.143	0.486	54	26	19	66	1044	**5010**	2	X	X	X
FULL	MidSussex	22	1	Land to rear of Dunnings Mill Sports Club Dunnings Rd, East Grinstead	Commitment - Full/Outline Planning Permission		Housing	12	units	13				0.397	0.191	0.143	0.486	5	2	2	6	3366	3366	2	X	X	X
FULL	MidSussex	32	1	Land south of Sunte House, Birchen Lane, Haywards Heath	Commitment - Full/Outline Planning Permission		Housing	8	units	8				0.397	0.191	0.143	0.486	3	2	1	4	1041	1041	1	X	X	X
FULL	MidSussex	33	1	Land North of Wickham Way and East of Birchen Lane, Haywards Heath	Commitment - Full/Outline Planning Permission		Housing	40	units	42				0.397	0.191	0.143	0.486	17	8	6	20	3177	3177	2	X	X	X
FULL	MidSussex	38	1	Land north of the A264 at Junction 10 of M23	Commitment - Full/Outline Planning Permission		Housing	500	units	522				0.397	0.191	0.143	0.486	207	100	75	254	2167	**5006**	3	X	X	X
FULL	MidSussex	45	1	Former Sewage Works, Fairbridge Way, Burgess Hill	Commitment - Full/Outline Planning Permission		Housing	325	units	339				0.397	0.191	0.143	0.486	135	65	48	165	1104	1104	4	X	X	X
FULL	MidSussex	46	1	Land off Kings Way, East of Gerald Close, Burgess Hill	Commitment - Full/Outline Planning Permission		Housing	63	units	66				0.397	0.191	0.143	0.486	26	13	9	32	1087	1087	2	X	X	X
FULL	MidSussex	57	2	Land at Foxhill (Gamblemead Lane), Foxhill, Haywards Heath	Commitment - Full/Outline Planning Permission		Housing	146	units	152				0.397	0.191	0.143	0.486	60	29	22	74	1075	4200	2	X	X	X
FULL	MidSussex	91	1	Keymer Tile Works, Nye Road, Burgess Hill	Commitment - Full/Outline Planning Permission		Housing	363	units	379				0.397	0.191	0.143	0.486	150	72	54	184	1088	1088	4	X	X	X
FULL	MidSussex	110	2	Land to the south west of Haywards Heath - Bolnore Village Phases 4 & 5 (land south of Wealden W	Commitment - Full/Outline Planning Permission		Housing	18	units	19				0.397	0.191	0.143	0.486	7	4	3	9	1068	1068	3	X	X	X
FULL	MidSussex	116	1	Clockfield, North Street, Turners Hill	Commitment - Full/Outline Planning Permission		Housing	47	units	49				0.397	0.191	0.143	0.486	19	9	7	24	3189	3189	1	X	X	X
FULL	MidSussex	151	1	Land east of Portsmouth Wood Close, Lindfield	Commitment - Full/Outline Planning Permission		Housing	43	units	45				0.397	0.191	0.143	0.486	18	9	6	22	3177	3177	1	X	X	X
FULL	MidSussex	197	1	Land rear of 15 and 39 Crawley Down Road, Felbridge	Commitment - Full/Outline Planning Permission		Housing	59	units	62				0.397	0.191	0.143	0.486	24	12	9	30	3186	3186	2	X	X	X
FULL	MidSussex	199	1	Land to rear of 151 Western Road, Haywards Heath	Commitment - Full/Outline Planning Permission		Housing	14	units	15				0.397	0.191	0.143	0.486	6	3	2	7	1080	1080	1	X	X	X
FULL	MidSussex	218	1	Pease Pottage Golf House, Horsham Road, Pease Pottage	Commitment - Full/Outline Planning Permission		Housing	25	units	26				0.397	0.191	0.143	0.486	10	5	4	13	3196	3196	1	X	X	X
FULL	MidSussex	220	1	Land north of Kingsland Laines, Sayers Common	Commitment - Full/Outline Planning Permission		Housing	120	units	125				0.397	0.191	0.143	0.486	50	24	18	61	3364	3364	1	X	X	X
FULL	MidSussex	233	2	Land east of Kings Way, Burgess Hill	District Plan - With Permission		Housing	343	units	358				0.397	0.191	0.143	0.486	142	68	51	174	1061	1061	4	X	X	X
FULL	MidSussex	238	2	Land at Little Park Farm, north of Hurstpierpoint	Commitment - Full/Outline Planning Permission		Housing	124	units	129				0.397	0.191	0.143	0.486	51	25	19	63	1053	1030	2	X	X	X
FULL	MidSussex	247	1	Penland Farm, Haywards Heath	Commitment - Full/Outline Planning Permission		Housing	210	units	219				0.397	0.191	0.143	0.486	87	42	31	106	1039	**5009**	2	X	X	X
FULL	MidSussex	268	1	Land at Holly Farm, Copthorne Way, Copthorne	Commitment - Full/Outline Planning Permission		Housing	44	units	46				0.397	0.191	0.143	0.486	18	9	7	22	2172	2172	2	X	X	X
FULL	MidSussex	271	1	Land to the west of The Pheasantry, Turners Hill Road, Crawley Down (part of site previously assesse	Commitment - Full/Outline Planning Permission		Housing	44	units	46				0.397	0.191	0.143	0.486	18	9	7	22	3188	3188	1	X	X	X
FULL	MidSussex	281	1	Land south of Hazel Close, Crawley Down	Commitment - Full/Outline Planning Permission		Housing	60	units	63				0.397	0.191	0.143	0.486	25	12	9	30	3370	3370	1	X	X	X
FULL	MidSussex	286	2	Land at the Ham, Hassocks	Commitment - Full/Outline Planning Permission		Housing	97	units	101				0.397	0.191	0.143	0.486	40	19	14	49	1028	1028	2	X	X	X
FULL	MidSussex	313	1	Farringdon House, Wood Street, East Grinstead	Commitment - Full/Outline Planning Permission		Housing	41	units	43				0.397	0.191	0.143	0.486	17	8	6	21	3183	3183	1	X	X	X
FULL	MidSussex	321	1	Seaspace House, Brighton Road, Handcross	Commitment - Full/Outline Planning Permission		Housing	7	units	7				0.397	0.191	0.143	0.486	3	1	1	4	3195	3195	1	X	X	X
FULL	MidSussex	324	1	Meadway Garage, Lowdells Lane, East Grinstead	Commitment - Full/Outline Planning Permission		Housing	7	units	7				0.397	0.191	0.143	0.486	3	1	1	4	3183	3183	2	X	X	X
FULL	MidSussex	369	1	53-59 Lingfield Road, East Grinstead	Commitment - Full/Outline Planning Permission		Housing	11	units	11				0.397	0.191	0.143	0.486	5	2	2	6	3183	3183	1	X	X	X
FULL	MidSussex	409	1	Sussex House, London Road, East Grinstead	Commitment - Full/Outline Planning Permission		Housing	8	units	8				0.397	0.191	0.143	0.486	3	2	1	4		3183	0	X	X	X
FULL	MidSussex	430	1	Victoria House, College Road, Ardingly	Commitment - Full/Outline Planning Permission		Housing	5	units	5				0.397	0.191	0.143	0.486	2	1	1	3	3178	3178	1	X	X	X
FULL	MidSussex	433	1	Beckford Lewes Road, East Grinstead	Commitment - Full/Outline Planning Permission		Housing	6	units	6				0.397	0.191	0.143	0.486	2	1	1	3		3184	0	X	X	X
FULL	MidSussex	447	1	The Emperor Restaurant, Cyprus Road, Burgess Hill	Commitment - Full/Outline Planning Permission		Housing	10	units	10				0.397	0.191	0.143	0.486	4	2	1	5		1130	0	X	X	X
FULL	MidSussex	472	1	Stafford House, 91 Keymer Road, Hassocks	Commitment - Full/Outline Planning Permission		Housing	16	units	17				0.397	0.191	0.143	0.486	7	3	2	8	1026	1026	1	X	X	X
FULL	MidSussex	483	1	Land South of Scamps Hill, Lindfield	Commitment - Full/Outline Planning Permission		Housing	200	units	209				0.397	0.191	0.143	0.486	83	40	30	101	1043	3176	2	X	X	X
FULL	MidSussex	485	2	Land south of Rocky Lane Phase 2, Haywards Heath	Commitment - Full/Outline Planning Permission		Housing	132	units	138				0.397	0.191	0.143	0.486	55	26	20	67	1067	**5008**	1	X	X	X
FULL	MidSussex	488	1	Palmers Autocare Centre, Turners Hill Road, Crawley Down	Commitment - Full/Outline Planning Permission		Housing	8	units	8				0.397	0.191	0.143	0.486	3	2	1	4	3370	3370	1	X	X	X
FULL	MidSussex	493	4	Northern Arc, Burgess Hill (West Residential)	District Plan - Pending Allocation		Housing	1500	units	1565				0.397	0.191	0.143	0.486	621	299	224	761	1037	**5004**	9	X	X	X
FULL	MidSussex	493	4	Northern Arc, Burgess Hill (Central/East Residential)	District Plan - Pending Allocation		Housing	1500	units	1565				0.397	0.191	0.143	0.486	621	299	224	761	1037	**5005**	9	X	X	X
FULL	MidSussex	493	4	Northern Arc, Burgess Hill (Freeks Farm)	District Plan - Pending Allocation		Housing	500	units	522				0.397	0.191	0.143	0.486	207	100	75	254	1037	**5003**	9	X	X	X
FULL	MidSussex	494	1	Land to the east of Gravelye Lane and south of Scamps Hill and bounded to the east by Northlands E	Commitment - Full/Outline Planning Permission		Housing	52	units	54				0.397	0.191	0.143	0.486	22	10	8	26	1044	1044	2	X	X	X
FULL	MidSussex	496	1	Land south of Rocky Lane & to the west of Weald Rise and Fox Hill Village, Haywards Heath	Commitment - Full/Outline Planning Permission		Housing	320	units	334				0.397	0.191	0.143	0.486	133	64	48	162	1067	**5008**	2	X	X	X
FULL	MidSussex	513	1	Land corner of Holtye Road/ Blackwell Farm Road, East Grinstead	Commitment - Full/Outline Planning Permission		Housing	10	units	10				0.397	0.191	0.143	0.486	4	2	1	5	3368	3368	1	X	X	X
FULL	MidSussex	517	2	Land at Hyde Estate (to the north of Handcross)	Commitment - Full/Outline Planning Permission		Housing	92	units	96				0.397	0.191	0.143	0.486	38	18	14	47	3196	3196	2	X	X	X
FULL	MidSussex	528	1	Land at Burgess Hill Town Centre (multiple sites)	Commitment - Full/Outline Planning Permission		Housing	142	units	148				0.397	0.191	0.143	0.486	59	28	21	72	1121	1130	2	X	X	X
FULL	MidSussex	531	1	Land north of 99 Reed Pond Walk, Franklands Village, Haywards Heath	Commitment - Full/Outline Planning Permission		Housing	18	units	19				0.397	0.191	0.143	0.486	7	4	3	9	1074	1074	1	X	X	X
FULL	MidSussex	534	2	Land rear of 88 Folders Lane, Burgess Hill	Commitment - Full/Outline Planning Permission		Housing	74	units	77				0.397	0.191	0.143	0.486	31	15	11	38	1062	1062	2	X	X	X
FULL	MidSussex	548	1	Land at rear of and including 17 Copthorne Road, Felbridge	Commitment - Full/Outline Planning Permission		Housing	25	units	26				0.397	0.191	0.143	0.486	10	5	4	13	3186	3186	2	X	X	X
FULL	MidSussex	562	1	Land at Hill Place Farm to the south west of East Grinstead, west and east of the Bluebell Railway Lir	Commitment - Full/Outline Planning Permission		Housing	200	units	209				0.397	0.191	0.143	0.486	83	40	30	101	3366	3366	1	X	X	X
FULL	MidSussex	570	2	Land at Bridge Hall, Cuckfield Road, Burgess Hill	Commitment - Full/Outline Planning Permission		Housing	35	units	37				0.397	0.191	0.143	0.486	14	7	5	18	1037	1037	2	X	X	X
FULL	MidSussex	629	1	Land at Bolney Road, Ansty	Commitment - Full/Outline Planning Permission		Housing	20	units	21				0.397	0.191	0.143	0.486	8	4	3	10	3166	3166	1	X	X	X
FULL	MidSussex	645	1	Bluebell Woodland, Sharpthorne	Commitment - Full/Outline Planning Permission		Housing	14	units	15				0.397	0.191	0.143	0.486	6	3	2	7	3179	3179	1	X	X	X
FULL	MidSussex	666	2	Hardriding Farm, Brighton Road, Pease Pottage	District Plan - With Permission		Housing	598	units	624				0.397	0.191	0.143	0.486	248	119	89	303	3196	**5001**	3	X	X	X
FULL	MidSussex	668	1	Hook Place, Cuckfield Road, Burgess Hill	Commitment - Full/Outline Planning Permission		Housing	8	units	8				0.397	0.191	0.143	0.486	3	2	1	4	1038	1038	1	X	X	X
FULL	MidSussex	690	1	Hassocks Golf Club, London Road, Hassocks	Commitment - Full/Outline Planning Permission		Housing	130	units	136				0.397	0.191	0.143	0.486	54	26	19	66	1028	1052	2	X	X	X
FULL	MidSussex	707	1	Land west of London Road (southern part), Bolney	Commitment - Full/Outline Planning Permission		Housing	12	units	13				0.397	0.191	0.143	0.486	5	2	2	6	3152	3152	1	X	X	X
FULL	MidSussex	713	1	Land north of Redcourt South, Cuttinglye Lane, Crawley Down	Commitment - Full/Outline Planning Permission		Housing	5	units	5				0.397	0.191	0.143	0.486	2	1	1	3	3188	3188	1	X	X	X
FULL	MidSussex	725	2	Land adjacent to Barn Cottage, Lewes Road, Scaynes Hill	Commitment - Full/Outline Planning Permission		Housing	50	units	52				0.397	0.191	0.143	0.486	21	10	7	25	3238	3238	1	X	X	X
FULL	MidSussex	728	1	Ravenswood Hotel, Horsted Lane, Sharpthorne	Commitment - Full/Outline Planning Permission		Housing	12	units	13				0.397	0.191	0.143	0.486	5	2	2	6	3237	3237	1	X	X	X
FULL	MidSussex	729	1	Land adjacent to Greenstede House, Wood Street, East Grinstead	Commitment - Full/Outline Planning Permission		Housing	11	units	11				0.397	0.191	0.143	0.486	5	2	2	6	3183	3183	1	X	X	X
FULL	MidSussex	730	1	69 Victoria Road, Burgess Hill	Commitment - Full/Outline Planning Permission		Housing	14	units	15				0.397	0.191	0.143	0.486	6	3	2	7	1115	1115	1	X	X	X
FULL	MidSussex	732	1	The Priory, Syresham Gardens, Haywards Heath	Commitment - Full/Outline Planning Permission		Housing	53	units	55				0.397	0.191	0.143	0.486	22	11	8	27	1081	1081	2	X	X	X
FULL	MidSussex	745	1	Land to the north of Rocky Lane, Haywards Heath	Commitment - Full/Outline Planning Permission		Housing	30	units	31				0.397	0.191	0.143	0.486	12	6	4	15	1077	1077	2	X	X	X
FULL	MidSussex	746	1	Land south of Phoenix House, Cantelupe Road, East Grinstead	Commitment - Full/Outline Planning Permission		Housing	12	units	13				0.397	0.191	0.143	0.486	5	2	2	6	3367	3367	1	X	X	X
FULL	MidSussex	759	2	Tower Car Sales, Tower Close, East Grinstead	Commitment - Full/Outline Planning Permission		Housing	5	units	5				0.397	0.191	0.143	0.486	2	1	1	3	3183	3183	1	X	X	X
FULL	MidSussex	765	1	Slaugham Manor, Slaugham Place, Slaugham.	Commitment - Full/Outline Planning Permission		Housing	25	units	26				0.397	0.191	0.143	0.486	10	5	4	13	3194	3194	1	X	X	X
FULL	MidSussex	767	1	11 Boltro Road, Haywards Heath	Commitment - Full/Outline Planning Permission		Housing	7	units	7				0.397	0.191	0.143	0.486	3	1	1	4		1055	0	X	X	X
FULL	MidSussex	768	2	Martells Store, 1-4 Normans Gardens and 38A Queens Road, East Grinstead	Commitment - Full/Outline Planning Permission		Housing	129	units	135				0.397	0.191	0.143	0.486	53	26	19	65	3367	3367	1	X	X	X
FULL	MidSussex	771	1	Land adjacent to 55 Lewes Road, Haywards Heath	Commitment - Full/Outline Planning Permission		Housing	7	units	7				0.397	0.191	0.143	0.486	3	1	1	4	1058	1058	2	X	X	X
FULL	MidSussex	773	1	Superdrug, 78 London Road, East Grinstead	Commitment - Full/Outline Planning Permission		Housing	9	units	9				0.397	0.191	0.143	0.486	4	2	1	5	3367	3367	1	X	X	X
FULL	MidSussex	776	2	Land at Greenacres, Keymer Road, Burgess Hill	Commitment - Full/Outline Planning Permission		Housing	2	units	2				0.397	0.191	0.143	0.486	1	0	0	1	1064	1064	1	X	X	X
FULL	MidSussex	778	1	Wallis Centre, De La Warr Road, East Grinstead	Commitment - Full/Outline Planning Permission		Housing	7	units	7				0.397	0.191	0.143	0.486	3	1	1	4	3368	3368	2	X	X	X
FULL	MidSussex	779	1	Land at Hammonds Ridge, Burgess Hill	Commitment - Full/Outline Planning Permission		Housing	51	units	53				0.397	0.191	0.143	0.486	21	10	8	26	1114	1114	2	X	X	X
FULL	MidSussex	785	1	Kings House, Cantelupe Road, East Grinstead	Commitment - Full/Outline Planning Permission		Housing	39	units	41				0.397	0.191	0.143	0.486	16	8	6	20	3367	3367	1	X	X	X
FULL	MidSussex	843	1	37-39 Perrymount Road, Haywards Heath	Commitment - Full/Outline Planning Permission		Housing	145	units	151				0.397	0.191	0.143	0.486	60	29	22	74	1079	1142	1	X	X	X
FULL	MidSussex	900	1	37 - 43 London Road, East Grinstead	Commitment - Full/Outline Planning Permission		Housing	3	units	3				0.397	0.191	0.143	0.486	1	1	0	2	3367	3367	1	X	X	X
FULL	MidSussex	923	1	49 Queens Road East grinstead	Commitment - Full/Outline Planning Permission		Housing	14	units	15				0.397	0.191	0.143	0.486	6	3	2	7	3367	3367	1	X	X	X
FULL	MidSussex	924	1	Twineham Grange Farm, Bob Lane, Twineham	Commitment - Full/Outline Planning Permission		Housing	6	units	6				0.397	0.191	0.143	0.486	2	1	1	3	3153	3153	1	X	X	X
FULL	MidSussex	925	1	Land parcel north of Charles Bennett Court Franklands Village Haywards Heath	Commitment - Full/Outline Planning Permission		Housing	12	units	13				0.397	0.191	0.143	0.486	5	2	2	6	1074	1074	1	X	X	X
FULL	MidSussex	926	1	18 Station Road East Grinstead	Commitment - Full/Outline Planning Permission		Housing	6	units	6				0.397	0.191	0.143	0.486	2	1	1	3	3183	3183	1	X	X	X
FULL	MidSussex	953	1	Land opposite Former Queens Head (west of London Road), Bolney	Commitment - Full/Outline Planning Permission		Housing	30	units	31				0.397	0.191	0.143	0.486	12	6	4	15		3166	0	X	X	X
FULL	MidSussex	956	1	122 Queens Road East Grinstead	Commitment - Full/Outline Planning Permission		Housing	5	units	5				0.397	0.191	0.143	0.486	2	1	1	3		3367	0	X	X	X
FULL	MidSussex	957	1	L/A Mead House, Cantelupe Road, East Grinstead	Commitment - Full/Outline Planning Permission		Housing	5	units	5				0.397	0.191	0.143	0.486	2	1	1	3		3367	0	X	X	X
FULL	MidSussex	958	1	Duke of York London Road Sayers Common	Commitment - Full/Outline Planning Permission		Housing	5	units	5				0.397	0.191	0.143	0.486	2	1	1	3		3179	0	X	X	X
FULL	MidSussex	959	1	Sopers Ride Selsfield Road Turners Hill	Commitment - Full/Outline Planning Permission		Housing	5	units	5				0.397	0.191	0.143	0.486	2	1	1	3		3189	0	X	X	X
FULL	MidSussex	960	1	Site to rear of Tiltwood House Gage Close Crawley Down	Commitment - Full/Outline Planning Permission		Housing	5	units	5				0.397	0.191	0.143	0.486	2	1	1	3		3370	0	X	X	X
FULL	MidSussex	963	1	Manor Court Valebridge Road Burgess Hill	Commitment - Full/Outline Planning Permission		Housing	-1	units	-1				0.397	0.191	0.143	0.486	0	0	0	-1		3183	0	X	X	X
FULL	MidSussex	964	1	Packer Close, Quarry Rise, East Grinstead	Commitment - Full/Outline Planning Permission		Housing	-8	units	-8				0.397	0.191	0.143	0.486	-3	-2	-1	-4		3182	0	X	X	X
FULL	MidSussex	965	1	Dart Court Quarry Rise East Grinstead	Commitment - Full/Outline Planning Permission		Housing	-13	units	-14				0.397	0.191	0.143	0.486	-5	-3	-2	-7		3368	0	X	X	X
FULL	MidSussex	966	1	Zenith House Market Place Haywards Heath	Commitment - Full/Outline Planning Permission		Housing	17	units	18				0.397	0.191	0.143	0.486	7	3	3	9		1070	0	X	X	X
PENDING	MidSussex	36	1	Land adjacent to Station Goods Yard, Keymer Road, Hassocks	Commitment - Allocated Site Without Permission		Housing	16	units	16				0.397	0.191	0.143	0.486	6	3	2	8	3157	3157	1	X	X	X
PENDING	MidSussex	81	1	Imberhorne Lower School, Windmill Lane, East Grinstead	Commitment - Allocated Site Without Permission		Housing	200	units	200				0.397	0.191	0.143	0.486	79	38	29	97	3183	4211	1	X	X	X
PENDING	MidSussex	82	1	Motorcycle Workshop (former G&W Motors), London Road, Bolney	Commitment - Allocated Site Without Permission		Housing	10	units	10				0.397	0.191	0.143	0.486	4	2	1	5	3152	3152	1	X	X	X
PENDING	MidSussex	83	1	Burgess Hill Station yard/car park, Burgess Hill	Commitment - Allocated Site Without Permission		Housing	150	units	150				0.397	0.191	0.143	0.486	60	29	21	73	1112	1138	2	X	X	X
PENDING	MidSussex	84	1	The Oaks Centre, Junction Road, Burgess Hill	Commitment - Allocated Site Without Permission		Housing	12	units	12				0.397	0.191	0.143	0.486	5	2	2	6	1109	1109	1	X	X	X
PENDING	MidSussex	88	1	Land north of Faulkners Way, Burgess Hill	Commitment - Allocated Site Without Permission		Housing	20	units	20				0.397	0.191	0.143	0.486	8	4	3	10	1105	1105	2	X	X	X
PENDING	MidSussex	92	1	Open air market, Cyprus Road, Burgess Hill	Commitment - Allocated Site Without Permission		Housing	25	units	25				0.397	0.191	0.143	0.486	10	5	4	12	1130	1130	2	X	X	X
PENDING	MidSussex	96	1	Stonequarry Woods, East Grinstead	Commitment - Allocated Site Without Permission		Housing	40	units	40				0.397	0.191	0.143	0.486	16	8	6	19	3368	3368	1	X	X	X
PENDING	MidSussex	101	1	Tennis and Squash Club, Ship Street, East Grinstead	Commitment - Allocated Site Without Permission		Housing	40	units	40				0.397	0.191	0.143	0.486	16	8	6	19	3367	3367	1	X	X	X
PENDING	MidSussex	102	1	Land at the junction of Windmill Lane and London Road	Commitment - Allocated Site Without Permission		Housing	35	units	35				0.397	0.191	0.143	0.486	14	7	5	17	3183	3183	1	X	X	X
PENDING	MidSussex	106	1	Station Goods Yard, Hassocks	Commitment - Allocated Site Without Permission		Housing	54	units	54				0.397	0.191	0.143	0.486	21	10	8	26	3157	3157	1	X	X	X
PENDING	MidSussex	139	1	Land between 98-104 Maypole Road. Ashurst Wood	Commitment - Allocated Site Without Permission		Housing	5	units	5				0.397	0.191	0.143	0.486	2	1	1	2	3182	3182	1	X	X	X
PENDING	MidSussex	148	1	Land north of Top Road, Sharpthorne	Commitment - Allocated Site Without Permission		Housing	24	units	24				0.397	0.191	0.143	0.486	10	5	3	12	3179	3179	1	X	X	X
PENDING	MidSussex	150	1	Land to the west of the Rectory, Haywards Heath Road, Balcombe	Commitment - Allocated Site Without Permission		Housing	14	units	14				0.397	0.191	0.143	0.486	6	3	2	7	3191	3191	1	X	X	X
PENDING	MidSussex	177	1	The Manor House, 14 Manor Drive, Cuckfield	Commitment - Allocated Site Without Permission		Housing	10	units	10				0.397	0.191	0.143	0.486	4	2	1	5	3168	3168	1	X	X	X
PENDING	MidSussex	188	1	Land opposite Newlands, (Spring Field Shaw), London Road, Balcombe	Commitment - Allocated Site Without Permission		Housing	14	units	14				0.397	0.191	0.143	0.486	6	3	2	7	3191	3191	1	X	X	X
PENDING	MidSussex	191	1	Land to the north and rear of Barnfield Cottages, Haywards Heath Road, Balcombe.	Commitment - Allocated Site Without Permission		Housing	14	units	14				0.397	0.191	0.143	0.486	6	3	2	7	3191	3191	1	X	X	X
PENDING	MidSussex	246	1	Hurst Farm, Hurstwood Lane, Haywards Heath	Commitment - Allocated Site Without Permission		Housing	350	units	350				0.397	0.191	0.143	0.486	139	67	50	170	1075	**5007**	2	X	X	X
PENDING	MidSussex	441	1	67-69 Railway Approach, East Grinstead	Commitment - Allocated Site Without Permission		Housing	7	units	7				0.397	0.191	0.143	0.486	3	1	1	3	3367	3367	1	X	X	X
PENDING	MidSussex	470	1	Wealden House, Lewes Road, Ashurst Wood	Commitment - Allocated Site Without Permission		Housing	50	units	50				0.397	0.191	0.143	0.486	20	10	7	24	3182	3182	1	X	X	X
PENDING	MidSussex	477	1	Land adjacent to Cookhams, south of Top Road, Sharpthorne	Commitment - Allocated Site Without Permission		Housing	16	units	16				0.397	0.191	0.143	0.486	6	3	2	8	3179	3179	1	X	X	X
PENDING	MidSussex	480	1	Courtmeadow School, Hanlye Lane, Cuckfield	Commitment - Allocated Site Without Permission		Housing	10	units	10				0.397	0.191	0.143	0.486	4	2	1	5	3168	3168	1	X	X	X
PENDING	MidSussex	492	1	Old Vicarage Field, Church Road, Turners Hill	Commitment - Allocated Site Without Permission		Housing	44	units	44				0.397	0.191	0.143	0.486	17	8	6	21	3190	3190	1	X	X	X
PENDING	MidSussex	507	1	Caru Hall, Bolnore Road, Haywards Heath	Commitment - Allocated Site Without Permission		Housing	12	units	12				0.397	0.191	0.143	0.486	5	2	2	6	1068	1068	1	X	X	X
PENDING	MidSussex	510	1	Imberhorne Lane car park, Imberhorne Lane, East Grinstead	Commitment - Allocated Site Without Permission		Housing	18	units	18				0.397	0.191	0.143	0.486	7	3	3	9	3186	3186	1	X	X	X
PENDING	MidSussex	544	1	Western side of Victoria Road, Burgess Hill	Commitment - Allocated Site Without Permission		Housing	80	units	80				0.397	0.191	0.143	0.486	32	15	11	39	1126	1126	2	X	X	X
PENDING	MidSussex	553	1	The Old Estate Yard, Church Road, Turners Hill	Commitment - Allocated Site Without Permission		Housing	0	units	0				0.397	0.191	0.143	0.486	0	0	0	0	3190	3190	1	X	X	X
PENDING	MidSussex	559	1	East Grinstead Delivery Office, 76 London Road, East Grinstead	Commitment - Allocated Site Without Permission		Housing	12	units	12				0.397	0.191	0.143	0.486	5	2	2	6	3367	3367	1	X	X	X
PENDING	MidSussex	597	1	Land rear of Devon Villas, Western Road, Haywards Heath	Commitment - Allocated Site Without Permission		Housing	10	units	10				0.397	0.191	0.143	0.486	4	2	1	5	1081	1081	2	X	X	X
PENDING	MidSussex	619	1	Beech Hurst Depot, Bolnore Road, Haywards Heath	Commitment - Allocated Site Without Permission		Housing	15	units	15				0.397	0.191	0.143	0.486	6	3	2	7	1069	1069	1	X	X	X
PENDING	MidSussex	649	1	Horsgate House, Hanlye Lane, Cuckfield	Commitment - Allocated Site Without Permission		Housing	5	units	5				0.397	0.191	0.143	0.486	2	1	1	2	3168	3168	1	X	X	X
PENDING	MidSussex	711	1	Bolney House, Cowfold Road, Bolney	Commitment - Allocated Site Without Permission		Housing	5	units	5				0.397	0.191	0.143	0.486	2	1	1	2	3152	3152	1	X	X	X
PENDING	MidSussex	723	1	Ashplats House, Holtye Road, East Grinstead	Commitment - Allocated Site Without Permission		Housing	45	units	45				0.397	0.191	0.143	0.486	18	9	6	22	3368	3368	1	X	X	X
PENDING	MidSussex	744	1	NCP Car Park, Harlands Road, Haywards Heath	Commitment - Allocated Site Without Permission		Housing	40	units	40				0.397	0.191	0.143	0.486	16	8	6	19	1070	1070	2	X	X	X
PENDING	MidSussex	750	1	Downlands Park, Isaacs Lane, Haywards Heath	Commitment - Allocated Site Without Permission		Housing	20	units	20				0.397	0.191	0.143	0.486	8	4	3	10	1069	1069	1	X	X	X
PENDING	MidSussex	753	1	Land to the north of Clayton Mills, Mackie Avenue, Hassocks	District Plan - Pending Allocation		Housing	500	units	500				0.397	0.191	0.143	0.486	199	96	72	243	1050	1050	2	X	X	X
PENDING	MidSussex	756	1	Land at the Brow, Burgess Hill	Commitment - Allocated Site Without Permission		Housing	100	units	100				0.397	0.191	0.143	0.486	40	19	14	49	1136	1136	1	X	X	X
PENDING	MidSussex	757	1	LIC, Wealden House, Lewes Road, Ashurst Wood	Commitment - Allocated Site Without Permission		Housing	25	units	25				0.397	0.191	0.143	0.486	10	5	4	12	3182	3182	1	X	X	X
SC	MidSussex	4	2	Wintons Farm Folders Lane Burgess Hill			Housing	13	units	13				0.397	0.191	0.143	0.486	5	2	2	6		1062	0			X
SC	MidSussex	21	2	Land rear of 11A Crawley Down Road, Felbridge			Housing	31	units	31				0.397	0.191	0.143	0.486	12	6	4	15	3186	3186	0	X	X	X
SC	MidSussex	127	1	Land at St. Martin Close, Handcross			Housing	65	units	65				0.397	0.191	0.143	0.486	26	12	9	32	3194	**6007**	0		X	X
SC	MidSussex	138	1	Land south of Hammerwood Road, Ashurst Wood			Housing	12	units	12				0.397	0.191	0.143	0.486	5	2	2	6	3182	3182	0		X	X
SC	MidSussex	147	2	West Hoathly Station Goods Yard, Station Road, Sharpthorne			Housing	5	units	5				0.397	0.191	0.143	0.486	2	1	1	2	3179	3179	0	X	X	X
SC	MidSussex	184	2	Land south of St. Stephens Church, Hamsland, Horsted Keynes			Housing	30	units	30				0.397	0.191	0.143	0.486	12	6	4	15	3237	3237	0		X	X
SC	MidSussex	196	1	Land south of Crawley Down Road, Felbridge			Housing	200	units	200				0.397	0.191	0.143	0.486	79	38	29	97	3186	**6003**	0		X	X
SC	MidSussex	207	2	Land at Dirty Lane Hammerwood Road Ashurst Wood			Housing	9	units	9				0.397	0.191	0.143	0.486	4	2	1	4	3182	3182	0		X	X
SC	MidSussex	221	2	Land to the north of Shepherds Walk Hassocks			Housing	130	units	130				0.397	0.191	0.143	0.486	52	25	19	63		1049	0		X	X
SC	MidSussex	264	2	Land south of Ryecroft Road Bolney			Housing	5	units	5				0.397	0.191	0.143	0.486	2	1	1	2		3152	0		X	X
SC	MidSussex	345	2	St Wilfrids Catholic Primary School School Close Burgess Hill			Housing	200	units	200				0.397	0.191	0.143	0.486	79	38	29	97		1136	0		X	X
SC	MidSussex	474	2	Land adjacent to 18 East Street Turners Hill			Housing	6	units	6				0.397	0.191	0.143	0.486	2	1	1	3		**6005**	0		X	X
SC	MidSussex	479	2	Land at Hanlye Lane to the east of Ardingly Road Cuckfield			Housing	55	units	55				0.397	0.191	0.143	0.486	22	11	8	27	3168	**6004**	0		X	X
SC	MidSussex	491	2	Land south of Furzeland Way Sayers Common			Housing	12	units	12				0.397	0.191	0.143	0.486	5	2	2	6		**6010**	0		X	X
SC	MidSussex	503	2	Haywards Heath Golf Course High Beech Lane Haywards Heath			Housing	630	units	630				0.397	0.191	0.143	0.486	250	120	90	306	3177	**6001**	0		X	
SC	MidSussex	519	2	Land north of Burleigh Lane Crawley Down			Housing	50	units	50				0.397	0.191	0.143	0.486	20	10	7	24	3370	**6008**	0		X	X
SC	MidSussex	557	2	Land south of Folders Lane and east of Keymer Road Burgess Hill excluding site 738			Housing	200	units	200				0.397	0.191	0.143	0.486	79	38	29	97		1064	0			X
SC	MidSussex	594	2	Land South of Southway Burgess Hill			Housing	30	units	30				0.397	0.191	0.143	0.486	12	6	4	15		1095	0		X	X
SC	MidSussex	595	2	Land at Brookhurst Furze Lane East Grinstead			Housing	7	units	7				0.397	0.191	0.143	0.486	3	1	1	3	3186	3186	0		X	X
SC	MidSussex	613	2	Land at Whitehorse Lodge Furzeland Way Sayers Common			Housing	9	units	9				0.397	0.191	0.143	0.486	4	2	1	4		**6010**	0		X	X
SC	MidSussex	644	1	Ansty Cross Garage Cuckfield Road Ansty			Housing	12	units	12				0.397	0.191	0.143	0.486	5	2	2	6		1038	0		X	X
SC	MidSussex	696	2	1 -25 Bell Hammer, East Grinstead			Housing	11	units	11				0.397	0.191	0.143	0.486	4	2	2	5	3367	3367	0	X	X	X
SC	MidSussex	738	2	Land east of Greenacres Keymer Road and south of Folders Lane formerly part of site 557			Housing	100	units	100				0.397	0.191	0.143	0.486	40	19	14	49		1064	0			X
SC	MidSussex	770	1	Land south and west of Imberhorne Upper School, Imberhorne Lane, East Grinstead			Housing	550	units	550				0.397	0.191	0.143	0.486	218	105	79	267	3186	**6002**	0		X	X
SC	MidSussex	783	2	Rogers Farm Fox Hill Haywards Heath			Housing	25	units	25				0.397	0.191	0.143	0.486	10	5	4	12		4200	0		X	X
SC	MidSussex	807	2	Land South of The Old Police House Birchgrove Road Horsted Keynes			Housing	25	units	25				0.397	0.191	0.143	0.486	10	5	4	12		3237	0		X	X
SC	MidSussex	827	2	Land South of 96 Folders Lane Burgess Hill			Housing	43	units	43				0.397	0.191	0.143	0.486	17	8	6	21		1062	0			X
SC	MidSussex	829	1	Land to the north Lyndon, Reeds Lane, Sayers Common			Housing	35	units	35				0.397	0.191	0.143	0.486	14	7	5	17	3363	**6010**	0		X	X
SC	MidSussex	832	1	Land west of Selsfield Road, Ardingly			Housing	100	units	100				0.397	0.191	0.143	0.486	40	19	14	49	3178	**6006**	0		X	X
SC	MidSussex	840	1	Woodfield House Isaacs Lane Burgess Hill			Housing	30	units	30				0.397	0.191	0.143	0.486	12	6	4	15		1067	0		X	X
SC	MidSussex	847	2	East Grinstead Police Station College Lane East Grinstead			Housing	22	units	22				0.397	0.191	0.143	0.486	9	4	3	11	3368	3368	0		X	X
SC	MidSussex	854	2	Withypitts Farm Selsfield Road Turners Hill			Housing	16	units	16				0.397	0.191	0.143	0.486	6	3	2	8		**6005**	0		X	X
SC	MidSussex	897	2	Land to the rear Firlands Church Road Scaynes Hill			Housing	20	units	20				0.397	0.191	0.143	0.486	8	4	3	10		3238	0		X	X
SC	MidSussex	904	2	Land to the south of Selby Close Hammonds Ridge Burgess Hill			Housing	12	units	12				0.397	0.191	0.143	0.486	5	2	2	6		1114	0		X	X
FULL	Horsham		0	Kilnwood Vale			Housing	2500	units	2500				0.397	0.191	0.143	0.486	993	478	358	1215	3213	3213	0	X	X	X
FULL	Horsham		0	Land North of Horsham			Housing	2500	units	2500				0.397	0.191	0.143	0.486	993	478	358	1215	3380	3380	0	X	X	X
FULL	Crawley		0	North East Crawley			Housing	2000	units	2000				0.397	0.191	0.143	0.486	794	382	286	972	2121	2121	0	X	X	X
FULL	Tandridge		0	South Godstone Garden Community			Housing	1330	units	1330				0.397	0.191	0.143	0.486	528	254	190	646		4210	0	X	X	X
FULL	Horsham		0	Kilnwood Vale			B1c	721	emp	721				0.300	0.700	0.844	0.067	216	505	609	48	3213	3213	0	X	X	X
FULL	Horsham		0	Land North of Horsham			B1c	714	emp	714		17,136	24	0.300	0.700	0.844	0.067	214	500	603	48	3380	3380	0	X	X	X
FULL	Reigate&Banstead		0	Horley Strategic Business Park	200000 sqm 11985 total emp (44% non R&B)		B1a	88000	100sqm	88000				0.269	3.077	2.587	0.425	237	2708	2277	374	4233	4233	0	X	X	X
FULL	MidSussex	493	4	Northern Arc, Burgess Hill	District Plan - Pending Allocation		B1b	1500	emp	1500	14			0.183	0.367	0.465	0.045	275	551	698	68	1037	**5002**	9	X	X	X
FULL	MidSussex		0	The Hub			B1b	2500	emp	2500	14	50,000	20	0.183	0.367	0.465	0.045	458	918	1163	113	1036	**5012**	0	X	X	X
FULL	MidSussex	24	3	Land at Stairbridge Lane (South of Bolney Grange), Bolney		33.30%	B1	6541	100sqm	6541	1.8	6,541		0.450	1.606	1.933	0.212	29	105	126	14		1034	0	X	X	X
FULL	MidSussex	24	3	Land at Stairbridge Lane (South of Bolney Grange), Bolney		33.30%	B2	6541	100sqm	6541	1.8	6,541		0.468	1.000	0.737	0.263	31	65	48	17		1034	0	X	X	X
FULL	MidSussex	24	3	Land at Stairbridge Lane (South of Bolney Grange), Bolney		33.30%	B8	6541	100sqm	6541	1.8	6,541		0.136	0.634	0.607	0.102	9	41	40	7		1034	0	X	X	X
FULL	MidSussex	192	3	Pease Pottage Nurseries, Brighton Road, Pease Pottage		33.30%	B1	1189	100sqm	1189	0.3	1,189		0.450	1.606	1.933	0.212	5	19	23	3		3196	0	X	X	X
FULL	MidSussex	192	3	Pease Pottage Nurseries, Brighton Road, Pease Pottage		33.30%	B2	1189	100sqm	1189	0.3	1,189		0.468	1.000	0.737	0.263	6	12	9	3		3196	0	X	X	X
FULL	MidSussex	192	3	Pease Pottage Nurseries, Brighton Road, Pease Pottage		33.30%	B8	1189	100sqm	1189	0.3	1,189		0.136	0.634	0.607	0.102	2	8	7	1		3196	0	X	X	X
FULL	MidSussex	826	2	Burnside Centre, Victoria Road, Burgess Hill			B1	1029	100sqm	1029	0.3	1,029		0.450	1.606	1.933	0.212	5	17	20	2	1115	1115	0	X	X	X
FULL	MidSussex	826	2	Burnside Centre, Victoria Road, Burgess Hill			B2	2400	100sqm	2400	0.7	2,400		0.468	1.000	0.737	0.263	11	24	18	6	1115	1115	0	X	X	X
FULL	MidSussex	864	5	Marylands Nursery, Cowfold Road, Bolney		15%	B1	1286	100sqm	1286	0.4	1,286		0.450	1.606	1.933	0.212	6	21	25	3	3152	3152	0	X	X	X
FULL	MidSussex	864	5	Marylands Nursery, Cowfold Road, Bolney		15%	B2	1286	100sqm	1286	0.4	1,286		0.468	1.000	0.737	0.263	6	13	9	3	3152	3152	0	X	X	X
FULL	MidSussex	864	5	Marylands Nursery, Cowfold Road, Bolney		70%	B8	6000	100sqm	6000	1.7	6,000		0.136	0.634	0.607	0.102	8	38	36	6	3152	3152	0	X	X	X
FULL	MidSussex	865	5	Bolney Nursery, Cowfold Road, Bolney		15%	B1	429	100sqm	429	0.1	429		0.450	1.606	1.933	0.212	2	7	8	1	3152	3152	0	X	X	X
FULL	MidSussex	865	5	Bolney Nursery, Cowfold Road, Bolney		15%	B2	429	100sqm	429	0.1	429		0.468	1.000	0.737	0.263	2	4	3	1	3152	3152	0	X	X	X
FULL	MidSussex	865	5	Bolney Nursery, Cowfold Road, Bolney		70%	B8	2000	100sqm	2000	0.6	2,000		0.136	0.634	0.607	0.102	3	13	12	2	3152	3152	0	X	X	X
FULL	MidSussex	906	2	Undeveloped land (south) at Bolney Grange Business Park Stairbridge Lane Bolney		30%	B1	643	100sqm	643	0.2	643		0.450	1.606	1.933	0.212	3	10	12	1		1034	0	X	X	X
FULL	MidSussex	906	2	Undeveloped land (south) at Bolney Grange Business Park Stairbridge Lane Bolney		70%	B2	1500	100sqm	1500	0.4	1,500		0.468	1.000	0.737	0.263	7	15	11	4		1034	0	X	X	X
FULL	MidSussex	907	2	Undeveloped land (east) at Bolney Grange Business Park Stairbridge Lane Bolney		30%	B1	214	100sqm	214	0.1	214		0.450	1.606	1.933	0.212	1	3	4	0		1034	0	X	X	X
FULL	MidSussex	907	2	Undeveloped land (east) at Bolney Grange Business Park Stairbridge Lane Bolney		70%	B2	500	100sqm	500	0.1	500		0.468	1.000	0.737	0.263	2	5	4	1		1034	0	X	X	X
FULL	MidSussex	912	2	Site of Former KDG Victoria Road Burgess Hill			B1	1179	100sqm	1179	0.3	1,179		0.450	1.606	1.933	0.212	5	19	23	2	1115	1115	0	X	X	X
FULL	MidSussex	912	2	Site of Former KDG Victoria Road Burgess Hill			B2	2750	100sqm	2750	0.8	2,750		0.468	1.000	0.737	0.263	13	28	20	7	1115	1115	0	X	X	X
FULL	MidSussex	931	2	Extension (east) to Bolney Grange Business Park Stairbridge Lane Bolney		30%	B1	750	100sqm	750	0.2	750		0.450	1.606	1.933	0.212	3	12	14	2		1034	0	X	X	X
FULL	MidSussex	931	2	Extension (east) to Bolney Grange Business Park Stairbridge Lane Bolney		70%	B2	1750	100sqm	1750	0.5	1,750		0.468	1.000	0.737	0.263	8	18	13	5		1034	0	X	X	X
FULL	MidSussex	940	4	Land north of the A264 at Junction 10 of M23 (Employment Area)		40%	B1	3857	100sqm	3857	1.1	3,857		0.450	1.606	1.933	0.212	17	62	75	8	2167	2167	0	X	X	X
FULL	MidSussex	940	4	Land north of the A264 at Junction 10 of M23 (Employment Area)		60%	B8	5786	100sqm	5786	1.6	5,786		0.136	0.634	0.607	0.102	8	37	35	6	2167	2167	0	X	X	X
SC	MidSussex	801	16	Science and Technology Park - North			B1a	625	emp	55760				0.043	0.511	0.394	0.021	27	319	246	13	1036	**5011**	0		X	X
SC	MidSussex	801	16	Science and Technology Park - North			B1b	1250	emp	18380				0.183	0.367	0.465	0.045	229	459	581	56	1036	**5011**	0		X	X
SC	MidSussex	801	16	Science and Technology Park - North			B1c	625	emp	48660				0.300	0.700	0.844	0.067	188	438	528	42	1036	**5011**	0		X	X
SC	MidSussex	801	16	Science and Technology Park (Hotel) - North			C1	154	rooms	154	8.01			0.284	0.104	0.151	0.252	44	16	23	39	1036	**5011**	0		X	X

Mid Sussex Transport Study: Scenario 7 Results Summary

Note: Results in Grey Italics are comparisons of Reference Cases to 2017 (for context)

Junction Analysis

Note: List includes junctions identified in previous MSTS

Junctions with SIGNIFICANT or SEVERE impact in either AM or PM Peak Hour

ID	ID	Area	Junction	Ref v 2017	2031 Scenario 7						2031 Scenario 7 with Mitigation					
					Scenario v Ref	Severe change in Ref v 2017 also?	No. of Arms		Excesss V/C (above severe criteria)	Excesss delay (above severe criteria)	Scenario v Ref	Severe change in Ref v 2017 also?	No. of Arms		Excesss V/C (above severe criteria)	Excesss delay (above severe criteria)
							AM	PM					AM	PM		
1	N1	Copthorne	A264 / A2220 Copthorne	SEVERE			0	0	0	0			0	0	0	0
2	N2	Copthorne	A264 / B2028 Copthorne				0	0	0	0			0	0	0	0
3	N4	Copthorne	B2028 / B2037 Copthorne	SIG.			0	0	0	0			0	0	0	0
4	N6	East Grinstead	A22 / Imberhorne Lane	SEVERE			0	0	0	0			0	0	0	0
5	N7	Crawley Down	B2028 Turners Hill Road / Wallage Lane	SEVERE	SEVERE	YES	0	1	10	0	SIG.		0	0	0	0
6	N8	Turners Hill	B2110 / B2028 Turners Hill	SEVERE			0	0	0	0			0	0	0	0
25	N9	Felbridge	A264 / A22 Felbridge	SEVERE			0	0	0	0			0	0	0	0
26	N10	West Hoathly	Selsfield Road / Vowels Lane				0	0	0	0			0	0	0	0
7	C1	Handcross	B2114 Junction, Handcross				0	0	0	0			0	0	0	0
8	C2	Lower Beeding	B2110 / B2115 Leechpond Hill				0	0	0	0			0	0	0	0
9	C3	Slough Green	B2115 Junction, Slough Green				0	0	0	0			0	0	0	0
10	C4	Haywards Heath	Borde Hill Lane / Copyhold Lane				0	0	0	0			0	0	0	0
11	C5	Haywards Heath	B2114 / B2036 Whitemans Green		SIG.		0	0	0	0			0	0	0	0
12	C6	Haywards Heath	B2036 / Ardingly Road, Whitemans Green	SEVERE	SIG.		0	0	0	0			0	0	0	0
13	C7	Haywards Heath	A272 / B2036	SEVERE	SEVERE	YES	1	2	62	217	SEVERE	YES	0	1	0	99
14	C8	Cowfold	A281 North Junction, Cowfold	SEVERE			0	0	0	0			0	0	0	0
15	C9	Cowfold	A281 South Junction, Cowfold	SIG.			0	0	0	0			0	0	0	0
27	C10	Bolney	A23 / A272 Bolney Road	SEVERE	SIG.		0	0	0	0	SIG.		0	0	0	0
28	C11	North Chailey	A272 / A275 North Chailey	SEVERE			0	0	0	0			0	0	0	0
29	C12	Haywards Heath	A273 / Isaac's Lane / Traustein Way	SEVERE	SIG.		0	0	0	0			0	0	0	0
16	S1	Burgess Hill	A23 / A2300 Southbound On-Slip	SEVERE	SEVERE	YES	0	2	55	168	SEVERE	YES	0	2	52	123
17	S2	Burgess Hill	A23 / A2300 Eastern Roundabout		SEVERE		3	0	56	160			0	0	0	0
18	S3	Burgess Hill	A2300 / Cuckfield Road	SEVERE			0	0	0	0			0	0	0	0
19	S4	Burgess Hill	Cuckfield Road / THE HUB	SEVERE			0	0	0	0			0	0	0	0
20	S5	Burgess Hill	A2300 / Northern Arc Spine Road	SIG.	SEVERE		1	1	35	0	SIG.		0	0	0	0
21	S6	Burgess Hill	Junction Road / B2113, Burgess Hill	SEVERE	SEVERE	YES	0	1	0	78			0	0	0	0
22	S7	Hurstpierpoint	B2117 / B2116 Hurstpierpoint	SEVERE	SIG.		0	0	0	0			0	0	0	0
23	S8	Hassocks	A273 / B2116 Hassocks (Stonepound)	SEVERE	SEVERE	YES	0	2	0	160			0	0	0	0
24	S9	Pyecombe	A23 / A281 Eastbound On-Slip	SEVERE	SEVERE	YES	0	1	0	72			0	0	0	0
30	S10	Ditchling	B2112 / B2116 Ditchling	SEVERE			0	0	0	0			0	0	0	0
31	S11	Burgess Hill	A2300 / Bishopstone Lane				0	0	0	0			0	0	0	0
32	S12	Burgess Hill	Bishopstone Ln / Science & Tech Park Access (N)	-			0	0	0	0			0	0	0	0
33	S13	Burgess Hill	Cuckfield Rd / Science & Tech Park Access (N)	-			0	0	0	0			0	0	0	0
34	S14	Burgess Hill	A2300 / Science & Tech Park Access (S)				0	0	0	0			0	0	0	0
35	S15	Burgess Hill	A272 Bolney Road / Bishopstone Lane				0	0	0	0			0	0	0	0
36	S16	Burgess Hill	A2300 / Stairbridge Lane / Pookbourne Lane				0	0	0	0			0	0	0	0
37	S17	Burgess Hill	Bishopstone Lane / Job's Lane				0	0	0	0			0	0	0	0
38	S18	Hassocks	A273 / B2112				0	0	0	0			0	0	0	0
39	S19	Hassocks	B2112 / Lodge Lane				0	0	0	0			0	0	0	0
40	S20	Burgess Hill	Janes Lane / Manor Road				0	0	0	0			0	0	0	0
41	S21	Burgess Hill	B2112 / Green Road	SEVERE	SIG.		0	0	0	0	SIG.		0	0	0	0
42	S22	Burgess Hill	Valebridge Road / Junction Road / Leylands Road	SEVERE	SEVERE	YES	0	1	0	66			0	0	0	0
43	S23	Burgess Hill	A273 / B2036 / Marchants Way	SEVERE	SIG.		0	0	0	0	SIG.		0	0	0	0
44	S24	Burgess Hill	A273 / Sussex Way	SIG.	SIG.		0	0	0	0	SIG.		0	0	0	0
45	S25	Burgess Hill	West Street / Fairfield Road	SIG.	SIG.		0	0	0	0	SIG.		0	0	0	0
46	S26	Burgess Hill	A273 / York Road	SEVERE			0	0	0	0			0	0	0	0
Number of Junction with SEVERE Impacts				23	9	7	5	11	217	921	2	2	0	3	52	222
Number of Junction with SIGNIFICANT impacts				5	9						7					

SEVERE= Increase in RFC of 10% or more to 95% or more
or increase in delay of 1 min or more to 2 mins or more

SIGNIFICANT= Increase in RFC of 5% or more to 85% or more

Mid Sussex Transport Study: Scenario 7 Results Summary

Note: Results in Grey Italics are comparisons of Reference Cases to 2017 (for context)

M23 and A23 (Junction 8 to A27 Main Sections)

Average Increase in Peak Hour Flow - Impact of Scenario

	Sc 7 v Ref		Sc 7 mit. v Ref	
	AM	PM	AM	PM
M23 - Impact of Scenario v Reference Case 5	0.13%	1.72%	0.10%	1.80%
A23 - Impact of Scenario v Reference Case 5	2.81%	1.75%	2.87%	1.67%
Overall	2.07%	1.74%	2.11%	1.71%

	Sc 7 v Ref		Sc 7 mit. v Ref	
	AM	PM	AM	PM
M23 - Impact of Reference Case 5 v 2017	*20.94%*	*10.84%*	*20.94%*	*10.84%*
A23 - Impact of Reference Case 5 v Base	*25.82%*	*19.64%*	*25.82%*	*19.64%*
Overall	*24.48%*	*17.21%*	*24.48%*	*17.21%*

Road Sections with a NOTABLE FLOW INCREASE in AM or PM

		Sc 7 v Ref		Sc 7 mit. v Ref	
		AM	PM	AM	PM
Northbound					
1	A23 - A27 to A273 OFF				
2	A23 - A273 ON to A281 OFF				
3	A23 - A281 ON to B2117 OFF				
4	A23 - B2117 OFF to B2118 ON				
5	A23 - B2118 ON to A2300 OFF	165 (4.6%)		124 (3.4%)	
6	A23 - A2300 ON to A272 OFF		190 (5.7%)		339 (10.2%)
7	A23 - A272 ON to Jeremys Lane OFF		355 (10.8%)		377 (11.5%)
8	A23 - Jeremys Lane ON to B2115 OFF		355 (10.8%)		377 (11.5%)
9	A23 - B2115 ON to B2110 OFF		343 (10.3%)		357 (10.7%)
10	A23 - B2110 ON to J11 OFF		323 (9.2%)		317 (9%)
11	M23 - J11 ON - J10a ON		176 (5.3%)		174 (5.3%)
12	M23 - J10a ON to J10 OFF		167 (4.6%)		169 (4.6%)
13	M23 - J10 ON to J9 OFF		140 (3.8%)		141 (3.8%)
14	M23 - J9 ON to J8 OFF		102 (2.5%)		105 (2.6%)
Southbound					
15	M23 - J8 ON to J9 OFF				
16	M23 - J9 ON to J10 OFF				
17	M23 - J10 ON to J10a OFF				
18	M23 - J10a OFF - J11 OFF				
19	A23 - J11 ON to B2114 OFF	200 (5.6%)		201 (5.6%)	
20	A23 - B2114 OFF to B2110 ON	200 (6.4%)		199 (6.3%)	
21	A23 - B2110 ON to B2115 OFF	223 (6.6%)		215 (6.3%)	
22	A23 - B2115 ON to Broxmead Lane OFF	267 (7.9%)		192 (5.7%)	
23	A23 - Broxmead Lane OFF to A272 OFF	267 (7.9%)		192 (5.7%)	
24	A23 - A272 ON to A2300 OFF	187 (5.3%)		439 (12.4%)	126 (2.7%)
25	A23 - A2300 ON to B2118 OFF	242 (8.4%)		219 (7.6%)	
26	A23 - B2118 OFF to B2117 ON				
27	A23 - B2117 ON to A281 ON				
28	A23 - A281 ON to A273 OFF				
29	A23 - A273 ON to A27				
Number of Sections with a NOTABLE FLOW INCREASE (29 in total)		**8**	**9**	**8**	**10**

NOTABLE FLOW INCREASE = Increase in traffic flow of 100 vehicles or more

Ashdown Forest

Change in Vehicle Kilometres - Impact of Scenario

	Sc 7 v Ref		Sc 7 mit. v Ref	
	AM	PM	AM	PM
Ashdown Forest - Impact of Scenario v Reference	-0.20%	0.20%	-0.11%	0.14%

Mid Sussex Transport Study: Junction approach arm statistics for identified locations

New ID	Area	Junction	Approach Arm	Junction Type Notes	2017								2031 Reference Case								2031 Scenario 7								2031 Scenario 7 with Mitigation							
					AM Dem (Veh)	AM RFC (%)	AM Delay (s)	AM Avg Q (pcu)	PM Dem (Veh)	PM RFC (%)	PM Delay (s)	PM Avg Q (pcu)	AM Dem (Veh)	AM RFC (%)	AM Delay (s)	AM Avg Q (pcu)	PM Dem (Veh)	PM RFC (%)	PM Delay (s)	PM Avg Q (pcu)	AM Dem (Veh)	AM RFC (%)	AM Delay (s)	AM Avg Q (pcu)	PM Dem (Veh)	PM RFC (%)	PM Delay (s)	PM Avg Q (pcu)	AM Dem (Veh)	AM RFC (%)	AM Delay (s)	AM Avg Q (pcu)	PM Dem (Veh)	PM RFC (%)	PM Delay (s)	PM Avg Q (pcu)
	NORTH																																			
N1	*Copthorne*	A264 / A2220 Copthorne	Brookhill Road (N)	Roundabout	344	36	15	0	525	44	14	0	421	41	14	0	856	73	16	1	424	41	14	0	848	75	17	1	425	41	14	0	850	75	17	1
N1			A264 (E)	**2031 Scheme**	781	61	13	0	1138	85	14	1	574	43	12	0	1105	87	16	2	661	49	12	0	1105	86	15	1	650	49	12	0	1105	86	15	1
N1			Copthorne Hotel Access	capacity increase	43	1	10	0	60	1	10	0	62	1	10	0	69	1	10	0	62	1	10	0	69	1	10	0	62	1	10	0	69	1	10	0
N1			A2220 (S)		872	65	12	0	508	39	12	0	1129	75	12	0	781	62	12	0	1145	78	12	1	924	71	13	1	1142	78	12	1	915	71	13	1
N1			A264 Copthorne Way (W)		1376	97	18	3	1173	75	10	0	1408	**109**	**190**	70	1230	79	11	1	1389	109	193	70	1272	85	12	1	1393	109	192	70	1270	84	12	1
N2	*Copthorne*	A264 / B2028 Copthorne	B2028 Turners Hill Road (N)	Roundabout	171	25	5	0	447	64	7	0	255	13	3	0	715	35	4	0	284	14	4	0	750	36	4	0	274	14	4	0	747	36	4	0
N2			A264 Snow Hill (E)	**2031 Scheme**	504	58	4	0	461	77	12	1	251	12	3	0	395	20	4	0	288	13	3	0	388	20	4	0	284	13	3	0	387	20	4	0
N2			B2028 Turners Hill Road (S)	capacity increase	384	51	5	0	369	58	7	0	617	29	3	0	345	17	4	0	655	31	3	0	362	18	4	0	646	30	3	0	361	18	4	0
N2			A264 Copthorne Common Road (W)		917	102	64	15	845	87	4	0	965	46	4	0	1149	54	3	0	974	46	4	0	1326	62	3	0	960	46	4	0	1318	62	3	0
N4	*Copthorne*	B2028 / B2037 Copthorne	B2028 West Park Road (N)	Roundabout	249	23	3	0	374	39	4	0	375	34	3	0	456	52	5	0	387	35	3	0	445	52	5	0	387	35	3	0	445	52	5	0
N4			B2037 Snow Hill (E)	**In Surrey**	449	43	4	0	101	11	4	0	494	49	4	0	95	13	5	0	489	49	5	0	73	10	5	0	493	49	5	0	72	10	5	0
N4			B2028 West Park Road (S)		515	56	5	0	237	21	3	0	770	**89**	12	2	332	29	3	0	754	86	10	1	337	29	3	0	753	87	11	1	342	29	3	0
N4			B2037 Effingham Road (W)		176	19	4	0	655	61	4	0	245	25	4	0	913	81	5	0	263	27	4	0	962	85	5	1	256	26	4	0	956	85	5	1
N6	*East Grinstead*	A22 / Imberhorne Lane	A22 (W)	Signalled T-Junction	723	46	9	1	856	58	11	2	719	45	8	1	933	62	11	2	736	47	5	1	972	64	11	2	731	47	5	1	964	63	11	2
N6			A22 (E)	**near 770 Imberhorne Lane**	714	80	27	3	792	75	20	3	716	**100**	81	4	840	**86**	26	3	668	102	77	9	836	84	25	3	668	102	78	9	835	84	24	3
N6			Imberhorne Lane (S)		366	48	18	1	183	32	19	1	369	49	18	1	326	55	24	2	460	65	20	2	358	60	25	2	458	65	20	2	357	60	25	2
N7	*Crawley Down*	B2028 Turners Hill Road / Wallage Lane	B2028 Turners Hill Road (N)	Priority Junction	318	16	1	0	561	29	1	0	345	17	1	0	996	49	2	0	393	20	1	0	1174	57	2	0	375	19	1	0	1156	56	2	0
N7			B2028 Turners Hill Road (S)	**near 852 Old Vicarage Field**	268	13	1	0	195	10	1	0	493	23	1	0	224	11	1	0	527	24	1	0	245	12	1	0	518	24	1	0	242	12	1	0
N7			Wallage Lane		352	57	24	0	178	32	12	0	544	**100**	73	5	387	**88**	43	2	529	100	81	6	373	**98**	77	5	536	100	79	6	379	**98**	75	5
N8	*Turners Hill*	B2110 / B2028 Turners Hill	B2028 North Street (N) (priority)	Crossroads	556	32	2	0	704	37	2	0	873	48	2	0	1348	68	3	0	910	50	2	0	1511	75	4	0	898	50	2	0	1498	74	4	0
N8			B2110 East Street (E)	**near 852 Old Vicarage Field**	387	92	29	3	387	101	76	8	420	**115**	**325**	33	312	**107**	**195**	16	425	116	358	36	291	107	202	15	424	116	355	36	298	107	197	15
N8			B2028 Selsfield Road (S) (priority)	**also Ref 116, 492, 553**	803	41	2	0	688	36	2	0	1063	50	2	0	765	38	2	0	1077	50	2	0	804	40	2	0	1082	51	2	0	796	40	2	0
N8			B2110 Paddockhurst Road (W)		563	108	186	27	535	107	171	23	492	110	233	29	453	108	203	23	494	112	277	34	417	109	237	24	492	111	256	32	425	109	235	25
N9	*Felbridge*	A264 / A22 Felbridge	A264 Copthorne Road (W)		676	61	15	2	609	65	21	3	578	**105**	**194**	17	585	**102**	**131**	8	605	107	227	23	597	103	147	11	601	107	217	22	598	103	151	11
N9			A22 Eastbourne Road (N)		384	68	28	2	504	65	20	2	492	56	13	1	599	64	14	2	496	56	13	1	627	66	14	2	495	55	13	1	619	66	14	2
N9			A22 London Road (S)		1326	73	70	14	1112	68	47	4	1376	**108**	**241**	60	1267	**100**	100	11	1415	108	241	60	1281	101	117	16	1414	108	241	60	1279	101	114	16
N10	*West Hoathly*	Selsfield Road / Vowels Lane	Selsfield Road (N)		597	30	1	0	801	39	2	0	650	32	1	0	1074	52	2	0	655	32	1	0	1110	53	2	0	652	32	1	0	1095	53	2	0
N10			Vowels Lane (E)		183	37	7	0	177	40	9	0	308	54	6	0	286	80	23	2	336	60	7	0	309	85	26	2	344	62	7	0	309	84	26	2
N10			Selsfield Road (S)		664	36	2	0	593	34	2	0	779	43	2	0	692	46	3	0	765	43	2	0	702	47	3	0	763	43	2	0	704	47	3	0
	CENTRAL																																			
C1	*Handcross*	B2114 Junction, Handcross	B2110 High Street (N) (priority)	Priority Junction (B2114)	558	35	3	0	761	44	3	0	714	45	3	0	889	51	3	0	737	46	3	0	862	49	3	0	728	46	3	0	863	49	3	0
C1			B2114 (S) (priority)		332	17	1	0	130	7	1	0	398	20	1	0	139	7	1	0	395	20	1	0	138	7	1	0	395	20	1	0	138	7	1	0
C1			B2110 (W)		453	63	4	0	320	45	4	0	603	83	5	0	486	67	4	0	628	87	5	0	503	70	4	0	607	85	5	0	525	73	4	0
C2	*Lower Beeding*	B2110 / B2115 Leechpond Hill	B2110 (E)	Priority Junction	491	32	3	0	530	29	2	0	569	35	3	0	718	40	2	0	579	36	3	0	721	40	2	0	578	36	3	0	721	40	2	0
C2			B2110 Leechpond Hill (S)	**In Horsham**	253	13	1	0	162	8	1	0	186	9	1	0	251	12	1	0	180	9	1	0	258	13	1	0	186	9	1	0	259	13	1	0
C2			B2115 (W)		269	39	4	0	270	38	4	0	516	72	4	0	337	49	4	0	530	74	4	0	338	50	4	0	535	75	4	0	337	50	4	0
C3	*Slough Green*	B2115 Junction, Slough Green	B2114 Cuckfield Road (N) (priority)	T-Junction	153	8	1	0	71	4	1	0	95	5	1	0	80	4	1	0	94	5	1	0	80	4	1	0	94	5	1	0	80	4	1	0
C3			B2114 (E) (priority)		639	30	1	0	477	24	1	0	788	34	1	0	569	27	1	0	792	34	1	0	589	28	1	0	694	30	1	0	505	24	1	0
C3			B2115 Sloughgreen Lane (W)		388	58	4	0	492	67	4	0	582	83	6	0	620	84	5	0	567	81	5	0	632	86	5	0	567	81	5	0	629	86	5	0
C4	*Haywards Heath*	Borde Hill Lane / Copyhold Lane	Borde Hill Lane (N)	Priority Junction	465	24	1	0	651	33	1	0	532	27	1	0	799	38	1	0	520	26	1	0	844	40	2	0	517	26	1	0	845	40	2	0
C4			Copyhold Lane (E)	**near 503 HH Golf Course**	148	27	5	0	204	36	6	0	180	33	6	0	141	28	6	0	326	57	6	0	100	20	6	0	368	63	7	0	112	23	6	0
C4			Borde Hill Lane (S)		707	40	2	0	368	23	2	0	901	47	2	0	433	25	2	0	865	44	2	0	448	27	3	0	798	41	2	0	441	26	2	0
C5	*Haywards Heath*	B2114 / B2036 Whitemans Green	B2036 (N)	Roundabout	266	38	4	0	291	42	5	0	262	39	5	0	261	39	5	0	268	40	5	0	230	34	5	0	271	40	5	0	233	35	5	0
C5			B2036 (S)	**near 479 Hanlye Lane**	922	105	101	25	648	74	3	0	1023	108	159	40	758	84	3	0	1024	108	160	40	820	**90**	4	0	994	104	77	19	721	79	3	0
C5			B2114 Staplefield Road (W)	**near 503 HH Golf Course**	540	70	5	0	562	68	4	0	677	84	5	0	699	84	5	0	661	82	5	0	711	87	6	1	661	84	6	0	708	86	5	0
C6	*Haywards Heath*	B2036 / Ardingly Road, Whitemans Green	B2036 Whitemans Green (N)	Mini-roundabout	711	89	5	0	795	95	6	1	828	**105**	102	23	895	**106**	**131**	31	819	105	101	23	873	109	184	42	826	104	97	22	876	109	177	41
C6			Ardingly Road (E)	**near 479 Hanlye Lane**	431	56	4	0	451	64	6	0	699	33	1	0	676	33	1	0	794	38	1	0	705	34	1	0	854	40	2	0	739	35	1	0
C6			B2036 London Road (S)	**near 503 HH Golf Course**	795	103	67	15	467	59	4	0	835	**108**	**171**	37	523	64	5	0	832	110	201	43	718	**89**	8	1	853	106	133	29	676	81	5	0
C7	*Haywards Heath*	A272 / B2036	A272 (E)	Mini-roundabout	708	92	8	1	811	102	51	11	900	**103**	76	18	881	105	112	25	918	**109**	**187**	43	900	105	115	26	1229	99	7	1	1155	100	23	6
C7			B2036 (S)		620	89	10	1	384	55	5	0	765	**106**	**138**	28	338	38	4	0	763	104	97	20	725	**100**	27	5	689	106	137	25	595	**87**	12	1
C7			A272 (W)		651	93	12	2	658	83	5	0	747	93	7	1	862	**104**	96	22	766	**99**	15	3	801	**110**	**201**	42	609	80	5	0	800	**109**	**195**	41
C8	*Cowfold*	A281 North Junction, Cowfold	A281 (N)	(Double) Mini-roundabout	183	27	5	0	471	69	6	0	132	20	5	0	554	80	8	1	146	22	5	0	566	82	8	1	147	23	5	0	567	82	8	1
C8			A281 (S)	**In Horsham**	771	92	4	0	795	101	38	8	856	**98**	5	1	773	101	41	8	827	96	5	0	768	101	43	9	843	98	6	1	766	101	45	9
C8			A272 Station Road (W)		770	102	52	11	730	87	4	0	771	102	56	12	837	**99**	10	2	774	102	57	12	841	100	12	2	775	102	57	12	841	100	12	2
C9	*Cowfold*	A281 South Junction, Cowfold	A281 (N)	(Double) Mini-roundabout	792	94	4	0	845	101	36	8	850	**100**	20	4	822	102	44	10	845	101	31	7	831	102	44	10	857	101	24	5	830	102	44	10
C9			A272 Bolney Road (E)	**In Horsham**	818	97	6	1	859	100	11	2	894	101	37	9	860	95	4	0	875	101	36	8	858	96	5	0	877	101	36	8	853	96	5	0
C9			A281 (S)		288	45	5	0	236	36	5	0	349	55	6	0	326	49	5	0	369	58	6	0	295	44	5	0	355	56	6	0	299	45	5	0
C10	*Bolney*	A23 / A272 Bolney Road	A23 Southbound Off-Slip		386	56	6	0	324	48	6	0	356	30	5	0	570	44	5	0	441	36	5	0	553	43	5	0	268	23	4	0	468	36	5	0
C10			A272 (E)		782	97	21	3	756	94	13	2	1133	**104**	104	28	648	59	6	0	1059	97	21	4	990	**91**	12	2	1094	102	56	15	980	**92**	12	2
C10			A272 (W)		661	68	3	0	786	78	3	0	1015	**102**	35	9	1028	**101**	25	6	989	99	3	0	988	98	3	0	1030	103	56	15	1005	99	3	0
C11	*North Chailey*	A272 / A275 North Chailey	A272 (W)		426	64	6	0	570	75	5	0	630	79	5	0	809	**92**	4	0	625	78	5	0	806	92	4	0	629	78	5	0	810	92	4	0
C11			A275 (N)		143	24	5	0	219	48	9	0	110	22	6	0	201	46	10	0	112	22	6	0	197	46	10	0	111	22	6	0	184	43	10	0
C11			A272 (E)		852	99	11	2	687	82	5	0	889	99	9	1	850	**98**	9	1	893	100	12	2	839	97	7	1	890	100	11	2	871	99	11	2
C11			A275 (S)		478	73	7	1	300	41	4	0	423	**101**	71	8	101	34	14	0	400	102	89	10	112	34	13	0	415	101	79	9	104	46	22	1
C12	*Haywards Heath*	A273 / Isaac's Lane / Traustein Way	A273 (W)	Roundabout	578	69	6	1	529	54	4	0	892	**106**	**131**	31	904	82	6	1	929	106	142	35	945	**89**	7	1	885	105	118	28	838	82	7	1
C12			Isaac's Lane		769	69	4	0	941	83	4	0	836	76	4	0	1085	**103**	85	23	921	81	5	0	1106	103	80	22	806	73	4	0	1123	101	39	10
C12			Parkfield Way (zone access)		307	5	3	0	83	1	3	0	368	6	3	0	92	2	3	0	368	6	3	0	92	2	3	0	368	6	3	0	92	2	3	0
C12			Traunstein Way		761	81	6	1	501	50	4	0	949	**102**	64	16	733	70	5	0	935	105	117	29	763	73	5	0	965	104	95	24	776	73	5	0
	SOUTH																																			
S1	*Burgess Hill*	A23 / A2300 Southbound On-Slip	A23 Southbound On-Slip	Merge	214	16	4	0	388	34	5	0	564	33	4	0	770	53	5	0	806	49	4	0	633	**107**	**173**	26	838	50	4	0	608	**104**	**128**	19
S1			A23 Southbound		1996	56	4	0	3000	81	8	0	2308	69	4	0	3465	**99**	31	0	2307	75	5	0	3586	100	36	0	2253	75	5	0	3601	100	36	0
S2	*Burgess Hill*	A23 / A2300 Eastern Roundabout	A23 Southbound Off-Slip	Roundabout	637	40	4	0	817	46	3	0	1226	77	5	1	1147	65	4	0	1413	**108**	**165**	59	1124	59	3	0	0	0	14	0	0	0	32	0
S2			A2300 (E)		946	94	4	0	881	89	4	0	1654	73	3	0	1925	84	3	0	2003	**98**	6	0	1966	**94**	3	0	2008	75	10	4	2133	70	7	3
S2			A2300 (W)		367	37	3	0	282	28	3	0	404	40	3	0	350	32	3	0	760	80	4	0	185	18	3	0	531	27	0	0	177	9	0	0
S3	*Burgess Hill*	A2300 / Cuckfield Road	Cuckfield Road (N)	Roundabout	132	16	4	0	199	24	5	0	507	**101**	78	10	206	38	9	0	519	46	19	2	1091	55	11	3	589	51	20	3	1240	63	12	3
S3			A2300 (E)		1161	108	161	52	1076	104	82	24	1551	**118**	**341**	132	1665	103	60	26	2693	64	1	0	1566	38	1	0	2678	65	1	0	1603	39	1	0
S3			Cuckfield Road (S)		174	24	5	0	172	21	5	0	736	**103**	91	18	1176	**104**	113	21	742	38	9	2	990	105	162	26	828	42	10	2	1034	105	140	26
S3			A2330 (W)		988	92	5	0	1099	98	8	1	1593	**107**	**137**	58	1749	**111**	**214**	95	2180	52	1	0	1523	104	116	27	2219	55	1	0	1529	105	147	39
S4	*Burgess Hill*	Cuckfield Road / THE HUB	Cuckfield Road (N)	Priority Junction									991	16	0	0	561	22	1	0	1070	21	0	0	658	29	1	0	1096	23	1	0	652	28	1	0
S4			THE HUB										448	6	3	0	1179	**188**	**1602**	278	448	7	3	0	1175	113	242	69	448	7	3	0	1175	128	528	133
S4			Cuckfield Road (S)										433	19	1	0	146	**88**	66	0	389	18	1	0	50	17	7	0	476	22	1	0	59	23	9	0
S5	*Burgess Hill*	A2300 / Northern Arc Spine Road	N Arc (N)	Roundabout									489	41	5	0	246	20	5	0	1027	**90**	14	3	220	20	5	0	971	**95**	22	5	219	20	5	0
S5			A2300 (E)	**2031 New**									843	56	5	0	825	53	5	0	1316	82	9	2	846	55	5	0	1238	78	8	2	815	53	5	0
S5			N Arc (S)										1001	68	5	1	1398	**92**	10	3	1066	69	7	1	1454	95	13	4	1068	69	7	1	1454	95	12	4
S5			A2300 (W)										1698	79	4	1	2213	84	5	1	2004	**96**	8	2	2255	**102**	54	29	2162	**93**	5	1	2383	**92**	7	2
S6	*Burgess Hill*	Junction Road / B2113, Burgess Hill	Junction Road (N)	Roundabout	323	47	5	0	31	5	5	0	426	**99**	**126**	7	135	10	38	1	430	101	155	10	131	9	38	1	391	102	181	11	131	10	40	1
S6			Silverdale Road	**2031 Scheme**	112	20	6	0	41	7	5	0	0	0	**122**	0	0	0	**122**	0	0	0	122	0	0	0	122	0	0	0	122	0	0	0	122	0
S6			B2113 Keymer Road (S)		779	103	69	15	661	77	3	0	503	106	**226**	19	480	**99**	115	6	515	108	271	25	482	98	111	6	516	108	277	26	482	100	124	6
S6			B2113 Station Road (W)		765	94	6	1	852	102	41	9	522	**104**	**191**	15	551	**108**	**271**	26	523	104	187	15	570	113	**348**	37	567	104	182	16	609	111	309	35
S7	*Hurstpierpoint*	B2117 / B2116 Hurstpierpoint	Cuckfield Road (N)	Mini-roundabout	316	41	4	0	526	67	4	0	599	76	5	0	815	**99**	18	3	459	59	4	0	825	**105**	110	24	522	67	4	0	786	102	68	14
S7			B2116 Hassocks Road (E)		313	29	3	0	360	39	4	0	405	41	4	0	252	32	5	0	394	37	4	0	260	34	5	0	402	38	4	0	296	36	5	0
S7			B2117 Brighton Road (S)		286	37	4	0	105	13	3	0	344	51	5	0	288	37	4	0	261	37	4	0	349	45	4	0	377	54	5	0	428	55	4	0
S7			B2116 Albourne Road (W)		153	15	3	0	251	23	3	0	153	16	4	0	250	25	4	0	136	14	4	0	260	26	4	0	135	15	4	0	265	28	4	0
S8	*Hassocks*	A273 / B2116 Hassocks (Stonepound)	A273 London Road (N)	Signalled Crossroads	471	101	135	7	387	101	142	5	579	**109**	**279**	30	645	102	146	13	599	107	233	25	730	**108**	**243**	32	547	109	273	27	820	104	176	24
S8			B2116 Keymer Road (E)	**2031 Scheme**	369	102	179	9	373	99	132	5	442	107	**262**	20	462	101	137	7	449	109	295	24	463	100	131	6	451	109	301	25	443	103	180	11
S8			A27 Brighton Road (S)	small capacity increase	389	102	160	9	402	51	43	4	422	104	198	14	424	**95**	92	4	422	104	206	15	425	60	49	5	422	104	208	16	317	98	136	4
S8			B2116 Hurst Road (W)		492	68	49	6	300	56	54	4	435	**90**	84	6	376	**102**	**179**	9	437	91	85	6	406	106	**242**	16	441	91	87	6	432	105	222	15
S9	*Pyecombe*	A23 / A281 Eastbound On-Slip	A23 Southbound	Merge	2366	67	11	0	3994	100	55	0	2961	82	17	0	4299	100	63	8	2965	83	18	0	4270	100	64	9	2985	84	18	0	4255	100	64	9
S9			A281 Southbound on-Slip		310	26	4	0	118	101	134	4	351	34	5	0	30	100	**250**	2	332	34	5	0	31	104	**321**	3	335	35	5	0	31	103	294	2
S10	*Ditchling*	B2112 / B2116 Ditchling	B2116 (W)		323	53	7	0	287	41	5	0	454	74	9	1	156	24	5	0	425	69	8	1	181	29	5	0	447	72	8	1	190	30	5	0
S10			B2112 (N)		825	105	106	24	852	106	125	29	869	**112**	**236**	53	957	110	**201**	50	880	112	236	54	957	111	208	51	871	112	237	53	950	110	196	48
S10			B2116 (E)		229	39	6	0	355	61	8	0	374	66	9	1	270	44	6	0	363	64	8	1	273	45	6	0	372	66	9	1	262	43	6	0
S10			B2112 (S)		785	96	6	1	542	65	3	0	792	97	7	1	772	**92**	5	0	773	95	6	1	805	95	6	1	774	95	6	1	809	96	6	1
S11	*Burgess Hill*	A2300 / Bishopstone Lane	A2300 (W)	Priority Junction	964	50	2	0	1070	53	2	0	1593	38	0	0	1749	41	0	0	2180	51	0	0	1523	36	0	0	2219	54	0	0	1529	36	0	0
S11			Bishopstone Lane (N)		68	19	9	0	60	17	9	0																								
S11			A2300 (E)		1037	51	2	0	948	48	2	0	1654	36	0	0	1925	40	0	0	2003	48	0	0	1966	46	0	0	2008	48	0	0	2133	48	0	0
S12	*Burgess Hill*	Bishopstone Ln / Science & Tech Park Access (N	Bishopstone Lane (N)	Priority Junction									4	0	0	0	2	0	0	0	3	0	0	0	2	0	0	0	4	0	0	0	6	0	0	0
S12			Science & Tech Park Access (E)																																	
S12			Bishopstone Lane (S)										39	2	0	0	36	2	0	0	24	1	0	0	44	2	0	0	35	2	0	0	44	2	0	0
S13	*Burgess Hill*	Cuckfield Rd / Science & Tech Park Access (N)	Cuckfield Rd (N)	Roundabout									43	2	1	0	96	3	1	0	1057	62	3	0	289	14	3	0	1048	63	3	0	239	11	3	0
S13			Science & Tech Park Access (W)																																	
S13			Cuckfield Rd (S)										507	6	0	0	206	2	0	0	327	30	4	0	134	15	5	0	404	37	4	0	140	17	5	0
S14	*Burgess Hill*	A2300 / Science & Tech Park Access (S)	A2300 (W)	Roundabout	964	50	0	0	1070	53	0	0	1593	38	0	0	1749	41	0	0	2180	51	0	0	1523	36	0	0	2219	54	0	0	1529	36	0	0
S14			A2300 (E)		1040	50	0	0	944	46	0	0	1654	36	0	0	1925	40	0	0	2003	48	0	0	1966	46	0	0	2008	48	0	0	2133	48	0	0
S14			Science & Tech Park Access (S)																																	
S15	*Burgess Hill*	A272 Bolney Road / Bishopstone Lane	A272 Bolney Road (W)	Priority Junction	590	31	1	0	606	30	1	0	684	35	1	0	821	40	2	0	722	37	1	0	761	38	1	0	548	28	1	0	756	38	1	0
S15			A272 Bolney Road (E)		676	34	1	0	639	31	1	0	1114	52	2	0	555	25	1	0	1037	48	2	0	830	38	1	0	1077	50	2	0	824	39	1	0
S15			Bishopstone Lane		49	12	8	0	35	8	7	0	39	13	11	0	36	8	6	0	24	6	8	0	44	10	7	0	35	10	9	0	44	10	7	0
S16	*Burgess Hill*	A2300 / Stairbridge Lane / Pookbourne Lane	A2300 (W)	Priority Junction	963	35	1	0	1053	38	1	0	1749	34	1	0	1478	26	0	0	2310	45	1	0	1323	24	0	0	2361	49	1	0	1326	24	0	0
S16			Stairbridge Lane		18	2	5	0	87	11	7	0	140	10	3	0	343	21	3	0	164	14	4	0	272	16	3	0	153	14	4	0	273	16	3	0
S16			A2300 (E)		1040	25	1	0	944	23	1	0	1654	27	0	0	1925	31	0	0	2003	38	1	0	1966	36	1	0	2008	39	1	0	2133	39	1	0
S16			Pookbourne Lane		23	3	4	0	20	3	5	0	0	0	3	0	0	0	4	0	0	0	4	0	0	0	4	0	0	0	4	0	0	0	4	0
S17	*Burgess Hill*	Bishopstone Lane / Job's Lane	Bishopstone Lane (N)	Priority	68	4	1	0	67	3	1	0	44	2	0	0	47	2	0	0	59	3	0	0	39	2	0	0	48	2	0	0	39	2	0	0
S17			Bishopstone Lane (S)		41	2	1	0	35	2	1	0																								
S17			Job's Lane		1	0	3	0	0	0	3	0	15	1	0	0	21	1	0	0	15	1	0	0	21	1	0	0	15	1	0	0	18	1	0	0
S18	*Hassocks*	A273 / B2112	A273 (N)	Priority	514	26	1	0	226	11	1	0	554	26	1	0	469	23	1	0	579	28	1	0	565	26	1	0	527	25	1	0	592	28	1	0
S18			B2112 (E)		630	103	81	13	392	57	4	0	659	106	131	22	436	62	5	0	647	106	132	22	446	67	5	0	668	106	131	22	433	65	5	0
S18			A273 (S)		956	40	3	0	678	23	2	0	941	38	3	0	927	35	3	0	921	38	3	0	1012	41	3	0	922	38	3	0	912	37	3	0
S19	*Hassocks*	B2112 / Lodge Lane	Lodge Lane (N)	Priority	321	60	8	0	112	19	5	0	479	84	11	1	160	31	6	0	480	83	10	1	147	31	7	0	482	84	11	1	150	32	8	0
S19			B2112 (E)		352	18	1	0	316	16	1	0	231	12	1	0	304	14	1	0	211	11	1	0	359	19	2	0	229	11	1	0	349	19	2	0
S19			B2112 (W)		598	31	1	0	428	22	1	0	566	29	1	0	849	42	2	0	553	28	1	0	948	46	2	0	553	28	1	0	972	48	2	0
S20	*Burgess Hill*	Janes Lane / Manor Road	Janes Lane (E)	Priority	196	10	1	0	184	9	1	0	190	10	1	0	325	16	1	0	237	12	1	0	334	16	1	0	236	12	1	0	363	18	1	0
S20			Manor Road		144	21	4	0	83	12	4	0	311	45	4	0	181	28	4	0	302	44	4	0	189	29	4	0	302	44	4	0	185	29	4	0
S20			Janes Lane (W)		305	17	2	0	360	20	2	0	583	33	2	0	705	42	3	0	557	32	2	0	708	41	3	0	556	32	2	0	674	40	3	0
S21	*Burgess Hill*	B2112 / Green Road	B2112 (N)	Priority	695	84	4	0	822	100	18	4	691	84	5	0	848	100	21	4	731	**89**	6	1	851	100	20	4	717	88	5	0	839	99	12	2
S21			Green Road (E)		346	52	5	0	277	45	6	0	396	60	6	0	414	63	7	0	432	68	7	1	398	60	7	0	427	67	7	0	446	67	7	0
S21			B2112 (S)		800	104	92	21	610	75	4	0	831	108	**170**	38	684	85	6	0	821	109	178	39	740	**91**	7	1	827	109	179	40	727	**91**	8	1
S22	*Burgess Hill*	Valebridge Road / Junction Road / Leylands Ro	Valebridge Road (N)	Priority	691	83	4	0	599	76	4	0	643	55	71	5	653	55	66	5	638	55	73	5	644	54	64	5	638	55	80	5	662	56	79	5
S22			Junction Road (S)		430	65	7	0	207	31	5	0	503	**96**	83	4	263	50	33	2	509	97	92	4	259	49	32	2	511	98	96	4	271	52	33	2
S22			Leylands Road (W)		532	70	5	0	846	100	20	4	1046	**99**	70	6	1042	**107**	**197**	37	1044	98	59	6	1062	110	**264**	54	1039	98	57	5	1062	109	234	46
S23	*Burgess Hill*	A273 / B2036 / Marchants Way	A273 (N)	Roundabout	790	97	8	1	813	96	7	1	832	100	25	5	729	84	6	1	851	99	10	2	708	83	6	1	722	88	6	1	692	82	5	0
S23			Marchants Way (E)		15	3	5	0	22	4	5	0	16	0	3	0	23	0	3	0	16	0	3	0	23	0	3	0	16	0	3	0	23	0	3	0
S23			B2036 (S)		444	57	4	0	466	60	4	0	783	**95**	8	1	764	**92**	6	1	847	**100**	19	4	792	96	8	1	849	100	15	3	769	93	6	1
S23			A273 (W)		674	88	7	1	573	74	5	0	526	73	6	0	650	**86**	8	1	394	57	5	0	636	89	10	1	525	74	6	0	677	**92**	11	1
S24	*Burgess Hill*	A273 / Sussex Way	A273 (E)	Roundabout	393	51	4	0	500	60	4	0	523	69	8	1	457	50	5	0	472	64	8	1	442	57	7	0	482	69	9	1	460	60	7	1
S24			Sussex Way (S)		576	75	5	0	487	65	5	0	656	66	4	0	726	71	4	0	859	82	5	0	760	73	4	0	819	80	5	0	734	71	4	0
S24			A273 (W)		761	70	4	0	526	47	3	0	1190	**86**	4	0	1153	76	4	0	1054	77	4	0	1303	**91**	5	1	1224	**92**	5	1	1360	**95**	6	1
S25	*Burgess Hill*	West Street / Fairfield Road	Fairfield Road (N)	Priority	46	2	1	0	21	1	1	0	23	1	1	0	12	1	1	0	40	2	1	0	11	1	1	0	23	1	1	0	11	1	1	0
S25			West Street (E)		110	16	3	0	49	7	3	0	137	19	4	0	48	6	3	0	232	33	4	0	48	7	3	0	192	27	4	0	56	8	3	0
S25			Fairfield Road (S)		142	7	1	0	116	6	2	0	203	10	1	0	157	8	1	0	244	12	1	0	144	7	1	0	241	12	1	0	149	7	1	0
S25			West Street (W)		257	35	3	0	214	30	3	0	691	**91**	4	0	599	75	3	0	714	94	5	0	725	**93**	4	0	729	**97**	9	1	737	**94**	5	0
S26	*Burgess Hill*	A273 / York Road	A273 (N)	Roundabout	945	103	67	17	775	79	3	0	922	105	105	26	983	**104**	82	20	919	103	73	18	956	106	118	30	920	104	84	21	970	106	122	31
S26			York Road (E)		206	27	4	0	600	82	6	1	365	49	4	0	616	**91**	12	2	289	39	4	0	483	72	7	1	305	41	4	0	485	72	7	0
S26			A273 (S)		564	71	4	0	462	68	6	0	651	**87**	7	1	551	80	8	1	687	89	6	1	547	75	6	0	676	88	7	1	495	67	5	0

Key:
Increase in RFC of 5% or more to 85% or more are highlighted in orange
Increase in RFC of 10% or more to 95% or more are highlighted in red
Increase in Delay of 1 minute or more to 2 minutes or more are in red

Scenario 7 vs. Reference Case 5

- Severe
- Significant
- OK

Scenario 7 vs. Reference Case 5

- Severe
- Significant
- OK
- Scenario 7 Developments

Mid Sussex Transport Study: Scenario 8 Results Summary

Note: Results in Grey Italics are comparisons of Reference Cases to 2017 (for context)

Junction Analysis

Note: List includes junctions identified in previous MSTS

Junctions with SIGNIFICANT or SEVERE impact in either AM or PM Peak Hour

ID	ID	Area	Junction	Ref v 2017	2031 Scenario 8						2031 Scenario 8 with Mitigation					
					Scenario v Ref	Severe change in Ref v 2017 also?	No. of Arms		Excesss V/C (above severe criteria)	Excesss delay (above severe criteria)	Scenario v Ref	Severe change in Ref v 2017 also?	No. of Arms		Excesss V/C (above severe criteria)	Excesss delay (above severe criteria)
							AM	PM					AM	PM		
1	N1	Copthorne	A264 / A2220 Copthorne	SEVERE			0	0	0	0			0	0	0	0
2	N2	Copthorne	A264 / B2028 Copthorne				0	0	0	0			0	0	0	0
3	N4	Copthorne	B2028 / B2037 Copthorne	SIG.			0	0	0	0			0	0	0	0
4	N6	East Grinstead	A22 / Imberhorne Lane	SEVERE			0	0	0	0			0	0	0	0
5	N7	Crawley Down	B2028 Turners Hill Road / Wallage Lane	SEVERE	SIG.		0	0	0	0	SIG.		0	0	0	0
6	N8	Turners Hill	B2110 / B2028 Turners Hill	SEVERE			0	0	0	0			0	0	0	0
25	N9	Felbridge	A264 / A22 Felbridge	SEVERE			0	0	0	0			0	0	0	0
26	N10	West Hoathly	Selsfield Road / Vowels Lane				0	0	0	0			0	0	0	0
7	C1	Handcross	B2114 Junction, Handcross				0	0	0	0			0	0	0	0
8	C2	Lower Beeding	B2110 / B2115 Leechpond Hill				0	0	0	0			0	0	0	0
9	C3	Slough Green	B2115 Junction, Slough Green				0	0	0	0			0	0	0	0
10	C4	Haywards Heath	Borde Hill Lane / Copyhold Lane				0	0	0	0			0	0	0	0
11	C5	Haywards Heath	B2114 / B2036 Whitemans Green		SIG.		0	0	0	0			0	0	0	0
12	C6	Haywards Heath	B2036 / Ardingly Road, Whitemans Green	SEVERE	SIG.		0	0	0	0			0	0	0	0
13	C7	Haywards Heath	A272 / B2036	SEVERE	SEVERE	YES	1	2	62	176	SEVERE	YES	0	1	0	75
14	C8	Cowfold	A281 North Junction, Cowfold	SEVERE			0	0	0	0			0	0	0	0
15	C9	Cowfold	A281 South Junction, Cowfold	SIG.			0	0	0	0			0	0	0	0
27	C10	Bolney	A23 / A272 Bolney Road	SEVERE	SIG.		0	0	0	0	SIG.		0	0	0	0
28	C11	North Chailey	A272 / A275 North Chailey	SEVERE			0	0	0	0			0	0	0	0
29	C12	Haywards Heath	A273 / Isaac's Lane / Traustein Way	SEVERE	SIG.		0	0	0	0			0	0	0	0
16	S1	Burgess Hill	A23 / A2300 Southbound On-Slip	SEVERE	SEVERE	YES	0	2	55	177	SEVERE	YES	0	2	53	146
17	S2	Burgess Hill	A23 / A2300 Eastern Roundabout		SEVERE		3	0	56	165			0	0	0	0
18	S3	Burgess Hill	A2300 / Cuckfield Road	SEVERE			0	0	0	0			0	0	0	0
19	S4	Burgess Hill	Cuckfield Road / THE HUB	SEVERE			0	0	0	0			0	0	0	0
20	S5	Burgess Hill	A2300 / Northern Arc Spine Road	SIG.	SEVERE		1	1	36	0	SIG.		0	0	0	0
21	S6	Burgess Hill	Junction Road / B2113, Burgess Hill	SEVERE	SEVERE	YES	0	1	0	123			0	0	0	0
22	S7	Hurstpierpoint	B2117 / B2116 Hurstpierpoint	SEVERE	SIG.		0	0	0	0	SIG.		0	0	0	0
23	S8	Hassocks	A273 / B2116 Hassocks (Stonepound)	SEVERE	SEVERE	YES	1	2	0	233			0	0	0	0
24	S9	Pyecombe	A23 / A281 Eastbound On-Slip	SEVERE	SEVERE	YES	0	1	0	63			0	0	0	0
30	S10	Ditchling	B2112 / B2116 Ditchling	SEVERE			0	0	0	0			0	0	0	0
31	S11	Burgess Hill	A2300 / Bishopstone Lane				0	0	0	0			0	0	0	0
32	S12	Burgess Hill	Bishopstone Ln / Science & Tech Park Access (N)	-			0	0	0	0			0	0	0	0
33	S13	Burgess Hill	Cuckfield Rd / Science & Tech Park Access (N)	-			0	0	0	0			0	0	0	0
34	S14	Burgess Hill	A2300 / Science & Tech Park Access (S)				0	0	0	0			0	0	0	0
35	S15	Burgess Hill	A272 Bolney Road / Bishopstone Lane				0	0	0	0			0	0	0	0
36	S16	Burgess Hill	A2300 / Stairbridge Lane / Pookbourne Lane				0	0	0	0			0	0	0	0
37	S17	Burgess Hill	Bishopstone Lane / Job's Lane				0	0	0	0			0	0	0	0
38	S18	Hassocks	A273 / B2112				0	0	0	0			0	0	0	0
39	S19	Hassocks	B2112 / Lodge Lane				0	0	0	0			0	0	0	0
40	S20	Burgess Hill	Janes Lane / Manor Road				0	0	0	0			0	0	0	0
41	S21	Burgess Hill	B2112 / Green Road	SEVERE			0	0	0	0	SIG.		0	0	0	0
42	S22	Burgess Hill	Valebridge Road / Junction Road / Leylands Road	SEVERE	SEVERE	YES	0	1	0	73			0	0	0	0
43	S23	Burgess Hill	A273 / B2036 / Marchants Way	SEVERE	SIG.		0	0	0	0	SIG.		0	0	0	0
44	S24	Burgess Hill	A273 / Sussex Way	SIG.	SIG.		0	0	0	0	SIG.		0	0	0	0
45	S25	Burgess Hill	West Street / Fairfield Road	SIG.	SIG.		0	0	0	0	SIG.		0	0	0	0
46	S26	Burgess Hill	A273 / York Road	SEVERE			0	0	0	0			0	0	0	0
Number of Junction with SEVERE Impacts				23	8	6	6	10	209	1011	2	2	0	3	53	220
Number of Junction with SIGNIFICANT impacts				5	9						8					

SEVERE= Increase in RFC of 10% or more to 95% or more
or increase in delay of 1 min or more to 2 mins or more

SIGNIFICANT= Increase in RFC of 5% or more to 85% or more

Mid Sussex Transport Study: Scenario 8 Results Summary

Note: Results in Grey Italics are comparisons of Reference Cases to 2017 (for context)

M23 and A23 (Junction 8 to A27 Main Sections)

Average Increase in Peak Hour Flow - Impact of Scenario

	Sc 8 v Ref		Sc 8 mit. v Ref	
	AM	PM	AM	PM
M23 - Impact of Scenario v Reference Case 5	0.13%	1.74%	0.07%	1.61%
A23 - Impact of Scenario v Reference Case 5	2.65%	1.46%	2.85%	1.65%
Overall	1.95%	1.54%	2.08%	1.64%

	Sc 8 v Ref		Sc 8 mit. v Ref	
	AM	PM	AM	PM
M23 - Impact of Reference Case 5 v 2017	*20.94%*	*10.84%*	*20.94%*	*10.84%*
A23 - Impact of Reference Case 5 v Base	*25.82%*	*19.64%*	*25.82%*	*19.64%*
Overall	*24.48%*	*17.21%*	*24.48%*	*17.21%*

Road Sections with a NOTABLE FLOW INCREASE in AM or PM

		Sc 8 v Ref		Sc 8 mit. v Ref	
		AM	PM	AM	PM
Northbound					
1	A23 - A27 to A273 OFF				
2	A23 - A273 ON to A281 OFF				
3	A23 - A281 ON to B2117 OFF				
4	A23 - B2117 OFF to B2118 ON				
5	A23 - B2118 ON to A2300 OFF	164 (4.5%)		125 (3.5%)	
6	A23 - A2300 ON to A272 OFF		307 (9.3%)		190 (5.7%)
7	A23 - A272 ON to Jeremys Lane OFF		349 (10.6%)		333 (10.1%)
8	A23 - Jeremys Lane ON to B2115 OFF		349 (10.6%)		333 (10.1%)
9	A23 - B2115 ON to B2110 OFF		342 (10.2%)		326 (9.8%)
10	A23 - B2110 ON to J11 OFF		307 (8.7%)		315 (9%)
11	M23 - J11 ON - J10a ON		167 (5%)		171 (5.1%)
12	M23 - J10a ON to J10 OFF		164 (4.5%)		164 (4.5%)
13	M23 - J10 ON to J9 OFF		144 (3.9%)		137 (3.7%)
14	M23 - J9 ON to J8 OFF		100 (2.5%)		105 (2.6%)
Southbound					
15	M23 - J8 ON to J9 OFF				
16	M23 - J9 ON to J10 OFF				
17	M23 - J10 ON to J10a OFF				
18	M23 - J10a OFF - J11 OFF				
19	A23 - J11 ON to B2114 OFF	207 (5.8%)		207 (5.8%)	
20	A23 - B2114 OFF to B2110 ON	200 (6.4%)		200 (6.4%)	
21	A23 - B2110 ON to B2115 OFF	224 (6.6%)		213 (6.3%)	
22	A23 - B2115 ON to Broxmead Lane OFF	241 (7.2%)		191 (5.7%)	
23	A23 - Broxmead Lane OFF to A272 OFF	241 (7.2%)		191 (5.7%)	
24	A23 - A272 ON to A2300 OFF	179 (5.1%)	138 (3%)	422 (11.9%)	105 (2.3%)
25	A23 - A2300 ON to B2118 OFF	228 (7.9%)		201 (7%)	
26	A23 - B2118 OFF to B2117 ON				
27	A23 - B2117 ON to A281 ON				
28	A23 - A281 ON to A273 OFF				
29	A23 - A273 ON to A27				
Number of Sections with a NOTABLE FLOW INCREASE (29 in total)		**8**	**10**	**8**	**10**

NOTABLE FLOW INCREASE = Increase in traffic flow of 100 vehicles or more

Ashdown Forest

Change in Vehicle Kilometres - Impact of Scenario

	Sc 8 v Ref		Sc 8 mit. v Ref	
	AM	PM	AM	PM
Ashdown Forest - Impact of Scenario v Reference	-0.47%	0.26%	-0.23%	0.46%

Mid Sussex Transport Study: Junction approach arm statistics for identified locations

New ID	Area	Junction	Approach Arm	Junction Type Notes	2017								2031 Reference Case								2031 Scenario 8								2031 Scenario 8 with Mitigation							
					AM Dem (Veh)	AM RFC (%)	AM Delay (s)	AM Avg Q (pcu)	PM Dem (Veh)	PM RFC (%)	PM Delay (s)	PM Avg Q (pcu)	AM Dem (Veh)	AM RFC (%)	AM Delay (s)	AM Avg Q (pcu)	PM Dem (Veh)	PM RFC (%)	PM Delay (s)	PM Avg Q (pcu)	AM Dem (Veh)	AM RFC (%)	AM Delay (s)	AM Avg Q (pcu)	PM Dem (Veh)	PM RFC (%)	PM Delay (s)	PM Avg Q (pcu)	AM Dem (Veh)	AM RFC (%)	AM Delay (s)	AM Avg Q (pcu)	PM Dem (Veh)	PM RFC (%)	PM Delay (s)	PM Avg Q (pcu)
	NORTH																																			
N1	*Copthorne*	A264 / A2220 Copthorne	Brookhill Road (N)	Roundabout	344	36	15	0	525	44	14	0	421	41	14	0	856	73	16	1	425	41	14	0	849	75	16	1	425	41	14	0	851	74	16	1
N1			A264 (E)	**2031 Scheme**	781	61	13	0	1138	85	14	1	574	43	12	0	1105	87	16	2	655	49	12	0	1102	86	15	1	648	49	12	0	1100	86	15	1
N1			Copthorne Hotel Access	capacity increase	43	1	10	0	60	1	10	0	62	1	10	0	69	1	10	0	62	1	10	0	69	1	10	0	62	1	10	0	69	1	10	0
N1			A2220 (S)		872	65	12	0	508	39	12	0	1129	75	12	0	781	62	12	0	1141	77	12	1	883	68	13	1	1138	77	12	1	877	68	13	1
N1			A264 Copthorne Way (W)		1376	97	18	3	1173	75	10	0	1408	**109**	**190**	70	1230	79	11	1	1393	109	192	70	1262	83	11	1	1395	109	191	70	1259	83	11	1
N2	*Copthorne*	A264 / B2028 Copthorne	B2028 Turners Hill Road (N)	Roundabout	171	25	5	0	447	64	7	0	255	13	3	0	715	35	4	0	277	14	4	0	736	36	4	0	274	14	4	0	731	35	4	0
N2			A264 Snow Hill (E)	**2031 Scheme**	504	58	4	0	461	77	12	1	251	12	3	0	395	20	4	0	285	13	3	0	384	20	4	0	284	13	3	0	384	19	4	0
N2			B2028 Turners Hill Road (S)	capacity increase	384	51	5	0	369	58	7	0	617	29	3	0	345	17	4	0	649	30	3	0	363	18	4	0	646	30	3	0	360	18	4	0
N2			A264 Copthorne Common Road (W)		917	102	64	15	845	87	4	0	965	46	4	0	1149	54	3	0	968	46	4	0	1282	60	3	0	960	46	4	0	1272	60	3	0
N4	*Copthorne*	B2028 / B2037 Copthorne	B2028 West Park Road (N)	Roundabout	249	23	3	0	374	39	4	0	375	34	3	0	456	52	5	0	385	35	3	0	444	52	5	0	384	34	3	0	445	52	5	0
N4			B2037 Snow Hill (E)	**In Surrey**	449	43	4	0	101	11	4	0	494	49	4	0	95	13	5	0	494	49	5	0	73	10	5	0	492	49	5	0	72	10	5	0
N4			B2028 West Park Road (S)		515	56	5	0	237	21	3	0	770	**89**	12	2	332	29	3	0	753	86	11	1	334	28	3	0	754	86	11	1	336	28	3	0
N4			B2037 Effingham Road (W)		176	19	4	0	655	61	4	0	245	25	4	0	913	81	5	0	258	26	4	0	949	84	5	0	256	26	4	0	942	83	5	0
N6	*East Grinstead*	A22 / Imberhorne Lane	A22 (W)	Signalled T-Junction	723	46	9	1	856	58	11	2	719	45	8	1	933	62	11	2	736	47	5	1	974	64	11	2	731	47	5	1	964	63	11	2
N6			A22 (E)	**near 770 Imberhorne Lane**	714	80	27	3	792	75	20	3	716	**100**	81	4	840	**86**	26	3	669	101	75	8	833	83	24	3	668	102	79	9	833	83	24	3
N6			Imberhorne Lane (S)		366	48	18	1	183	32	19	1	369	49	18	1	326	55	24	2	457	65	20	2	359	61	25	2	458	65	20	2	357	60	25	2
N7	*Crawley Down*	B2028 Turners Hill Road / Wallage Lane	B2028 Turners Hill Road (N)	Priority Junction	318	16	1	0	561	29	1	0	345	17	1	0	996	49	2	0	381	19	1	0	1121	55	2	0	376	19	1	0	1103	54	2	0
N7			B2028 Turners Hill Road (S)	**near 852 Old Vicarage Field**	268	13	1	0	195	10	1	0	493	23	1	0	224	11	1	0	521	24	1	0	247	12	1	0	518	24	1	0	245	12	1	0
N7			Wallage Lane		352	57	24	0	178	32	12	0	544	**100**	73	5	387	**88**	43	2	533	100	79	6	387	**98**	74	5	535	100	77	6	393	**98**	73	4
N8	*Turners Hill*	B2110 / B2028 Turners Hill	B2028 North Street (N) (priority)	Crossroads	556	32	2	0	704	37	2	0	873	48	2	0	1348	68	3	0	902	50	2	0	1472	73	4	0	899	49	2	0	1459	73	3	0
N8			B2110 East Street (E)	**near 852 Old Vicarage Field**	387	92	29	3	387	101	76	8	420	**115**	**325**	33	312	**107**	**195**	16	426	116	354	36	300	107	199	15	423	116	352	36	306	107	195	15
N8			B2028 Selsfield Road (S) (priority)	**also Ref 116, 492, 553**	803	41	2	0	688	36	2	0	1063	50	2	0	765	38	2	0	1074	50	2	0	805	40	2	0	1084	51	2	0	795	39	2	0
N8			B2110 Paddockhurst Road (W)		563	108	186	27	535	107	171	23	492	110	233	29	453	108	203	23	498	112	274	34	427	109	232	25	491	111	252	31	436	109	231	25
N9	*Felbridge*	A264 / A22 Felbridge	A264 Copthorne Road (W)		676	61	15	2	609	65	21	3	578	**105**	**194**	17	585	**102**	**131**	8	605	107	227	23	595	103	145	11	601	107	217	22	597	103	150	11
N9			A22 Eastbourne Road (N)		384	68	28	2	504	65	20	2	492	56	13	1	599	64	14	2	496	56	13	1	632	67	14	2	496	56	13	1	620	66	14	2
N9			A22 London Road (S)		1326	73	70	14	1112	68	47	4	1376	**108**	**241**	60	1267	**100**	100	11	1414	108	241	60	1278	101	113	15	1414	108	241	60	1277	101	111	15
N10	*West Hoathly*	Selsfield Road / Vowels Lane	Selsfield Road (N)		597	30	1	0	801	39	2	0	650	32	1	0	1074	52	2	0	653	31	1	0	1101	53	2	0	654	32	1	0	1079	52	2	0
N10			Vowels Lane (E)		183	37	7	0	177	40	9	0	308	54	6	0	286	80	23	2	341	61	7	0	302	83	24	2	340	61	7	0	301	82	23	2
N10			Selsfield Road (S)		664	36	2	0	593	34	2	0	779	43	2	0	692	46	3	0	765	43	2	0	705	47	3	0	760	42	2	0	709	47	3	0
	CENTRAL																																			
C1	*Handcross*	B2114 Junction, Handcross	B2110 High Street (N) (priority)	Priority Junction (B2114)	558	35	3	0	761	44	3	0	714	45	3	0	889	51	3	0	735	46	3	0	867	50	3	0	723	46	3	0	869	50	3	0
C1			B2114 (S) (priority)		332	17	1	0	130	7	1	0	398	20	1	0	139	7	1	0	394	20	1	0	139	7	1	0	395	20	1	0	139	7	1	0
C1			B2110 (W)		453	63	4	0	320	45	4	0	603	83	5	0	486	67	4	0	625	87	5	0	495	69	4	0	606	85	5	0	519	72	4	0
C2	*Lower Beeding*	B2110 / B2115 Leechpond Hill	B2110 (E)	Priority Junction	491	32	3	0	530	29	2	0	569	35	3	0	718	40	2	0	582	36	3	0	722	40	2	0	580	36	3	0	725	40	2	0
C2			B2110 Leechpond Hill (S)	**In Horsham**	253	13	1	0	162	8	1	0	186	9	1	0	251	12	1	0	181	9	1	0	258	13	1	0	188	9	1	0	258	13	1	0
C2			B2115 (W)		269	39	4	0	270	38	4	0	516	72	4	0	337	49	4	0	530	74	4	0	334	49	4	0	536	76	5	0	331	49	4	0
C3	*Slough Green*	B2115 Junction, Slough Green	B2114 Cuckfield Road (N) (priority)	T-Junction	153	8	1	0	71	4	1	0	95	5	1	0	80	4	1	0	94	5	1	0	78	4	1	0	94	5	1	0	79	4	1	0
C3			B2114 (E) (priority)		639	30	1	0	477	24	1	0	788	34	1	0	569	27	1	0	787	34	1	0	604	29	1	0	686	30	1	0	519	25	1	0
C3			B2115 Sloughgreen Lane (W)		388	58	4	0	492	67	4	0	582	83	6	0	620	84	5	0	568	81	5	0	611	83	5	0	566	81	6	0	613	84	5	0
C4	*Haywards Heath*	Borde Hill Lane / Copyhold Lane	Borde Hill Lane (N)	Priority Junction	465	24	1	0	651	33	1	0	532	27	1	0	799	38	1	0	523	26	1	0	818	39	1	0	517	26	1	0	812	38	1	0
C4			Copyhold Lane (E)	**near 503 HH Golf Course**	148	27	5	0	204	36	6	0	180	33	6	0	141	28	6	0	235	41	6	0	104	21	6	0	280	47	6	0	118	24	6	0
C4			Borde Hill Lane (S)		707	40	2	0	368	23	2	0	901	47	2	0	433	25	2	0	869	44	2	0	463	28	3	0	798	41	2	0	452	27	2	0
C5	*Haywards Heath*	B2114 / B2036 Whitemans Green	B2036 (N)	Roundabout	266	38	4	0	291	42	5	0	262	39	5	0	261	39	5	0	267	40	5	0	252	37	5	0	267	40	5	0	256	38	5	0
C5			B2036 (S)	**near 479 Hanlye Lane**	922	105	101	25	648	74	3	0	1023	108	159	40	758	84	3	0	1024	108	158	40	835	**92**	4	0	986	104	89	22	735	81	3	0
C5			B2114 Staplefield Road (W)	**near 503 HH Golf Course**	540	70	5	0	562	68	4	0	677	84	5	0	699	84	5	0	662	82	5	0	688	85	5	0	660	84	6	0	691	84	5	0
C6	*Haywards Heath*	B2036 / Ardingly Road, Whitemans Green	B2036 Whitemans Green (N)	Mini-roundabout	711	89	5	0	795	95	6	1	828	**105**	102	23	895	**106**	**131**	31	820	104	99	22	873	108	157	36	820	105	100	23	882	108	156	36
C6			Ardingly Road (E)	**near 479 Hanlye Lane**	431	56	4	0	451	64	6	0	699	33	1	0	676	33	1	0	761	36	1	0	697	33	1	0	840	39	1	0	724	35	1	0
C6			B2036 London Road (S)	**near 503 HH Golf Course**	795	103	67	15	467	59	4	0	835	**108**	**171**	37	523	64	5	0	832	109	191	41	682	**85**	7	1	832	106	128	28	627	76	5	0
C7	*Haywards Heath*	A272 / B2036	A272 (E)	Mini-roundabout	708	92	8	1	811	102	51	11	900	**103**	76	18	881	105	112	25	914	**109**	**173**	40	889	105	108	25	1208	98	5	1	1147	100	21	6
C7			B2036 (S)		620	89	10	1	384	55	5	0	765	**106**	**138**	28	338	38	4	0	756	104	96	19	731	**100**	31	5	687	106	138	25	563	83	11	1
C7			A272 (W)		651	93	12	2	658	83	5	0	747	93	7	1	862	**104**	96	22	767	**99**	16	3	781	108	**175**	36	615	81	6	0	804	108	**171**	36
C8	*Cowfold*	A281 North Junction, Cowfold	A281 (N)	(Double) Mini-roundabout	183	27	5	0	471	69	6	0	132	20	5	0	554	80	8	1	146	22	5	0	568	82	8	1	147	23	5	0	570	82	8	1
C8			A281 (S)	**In Horsham**	771	92	4	0	795	101	38	8	856	**98**	5	1	773	101	41	8	826	96	5	0	768	101	44	9	844	98	6	1	764	101	43	8
C8			A272 Station Road (W)		770	102	52	11	730	87	4	0	771	102	56	12	837	**99**	10	2	776	102	57	12	840	100	11	2	776	102	57	12	839	100	11	2
C9	*Cowfold*	A281 South Junction, Cowfold	A281 (N)	(Double) Mini-roundabout	792	94	4	0	845	101	36	8	850	**100**	20	4	822	102	44	10	845	101	31	7	833	101	41	9	856	101	24	5	828	101	42	9
C9			A272 Bolney Road (E)	**In Horsham**	818	97	6	1	859	100	11	2	894	101	37	9	860	95	4	0	876	101	36	8	858	96	5	0	877	101	36	8	850	96	4	0
C9			A281 (S)		288	45	5	0	236	36	5	0	349	55	6	0	326	49	5	0	372	58	6	0	285	43	5	0	359	56	6	0	298	45	5	0
C10	*Bolney*	A23 / A272 Bolney Road	A23 Southbound Off-Slip		386	56	6	0	324	48	6	0	356	30	5	0	570	44	5	0	426	35	5	0	567	43	5	0	268	23	4	0	479	37	5	0
C10			A272 (E)		782	97	21	3	756	94	13	2	1133	**104**	104	28	648	59	6	0	1065	97	23	4	957	**89**	11	2	1093	102	62	17	979	**92**	12	2
C10			A272 (W)		661	68	3	0	786	78	3	0	1015	**102**	35	9	1028	**101**	25	6	992	100	3	0	964	95	3	0	1031	103	58	15	1010	100	3	0
C11	*North Chailey*	A272 / A275 North Chailey	A272 (W)		426	64	6	0	570	75	5	0	630	79	5	0	809	**92**	4	0	624	78	5	0	819	93	4	0	623	78	5	0	811	93	4	0
C11			A275 (N)		143	24	5	0	219	48	9	0	110	22	6	0	201	46	10	0	108	21	6	0	200	47	10	0	108	21	6	0	185	44	10	0
C11			A272 (E)		852	99	11	2	687	82	5	0	889	99	9	1	850	**98**	9	1	892	100	11	2	837	97	7	1	890	100	10	2	869	99	10	2
C11			A275 (S)		478	73	7	1	300	41	4	0	423	**101**	71	8	101	34	14	0	400	102	85	9	103	31	12	0	402	101	78	9	109	46	21	1
C12	*Haywards Heath*	A273 / Isaac's Lane / Traustein Way	A273 (W)	Roundabout	578	69	6	1	529	54	4	0	892	**106**	**131**	31	904	82	6	1	927	106	139	34	956	**90**	7	1	885	105	124	29	802	79	6	1
C12			Isaac's Lane		769	69	4	0	941	83	4	0	836	76	4	0	1085	**103**	85	23	910	80	5	0	1090	104	89	24	794	73	4	0	1125	101	38	10
C12			Parkfield Way (zone access)		307	5	3	0	83	1	3	0	368	6	3	0	92	2	3	0	368	6	3	0	92	2	3	0	368	6	3	0	92	2	3	0
C12			Traunstein Way		761	81	6	1	501	50	4	0	949	**102**	64	16	733	70	5	0	944	105	122	30	749	71	5	0	969	103	78	20	772	73	5	0
	SOUTH																																			
S1	*Burgess Hill*	A23 / A2300 Southbound On-Slip	A23 Southbound On-Slip	Merge	214	16	4	0	388	34	5	0	564	33	4	0	770	53	5	0	802	49	4	0	625	**108**	**182**	27	831	50	4	0	601	**106**	**151**	22
S1			A23 Southbound		1996	56	4	0	3000	81	8	0	2308	69	4	0	3465	**99**	31	0	2298	75	5	0	3592	100	36	0	2242	74	5	0	3608	100	36	0
S2	*Burgess Hill*	A23 / A2300 Eastern Roundabout	A23 Southbound Off-Slip	Roundabout	637	40	4	0	817	46	3	0	1226	77	5	1	1147	65	4	0	1415	**108**	**170**	61	1125	60	3	0	0	0	14	0	0	0	32	0
S2			A2300 (E)		946	94	4	0	881	89	4	0	1654	73	3	0	1925	84	3	0	2001	**98**	5	0	1954	**94**	3	0	2003	75	10	4	2118	71	7	3
S2			A2300 (W)		367	37	3	0	282	28	3	0	404	40	3	0	350	32	3	0	762	81	4	0	198	19	3	0	534	27	0	0	150	7	0	0
S3	*Burgess Hill*	A2300 / Cuckfield Road	Cuckfield Road (N)	Roundabout	132	16	4	0	199	24	5	0	507	**101**	78	10	206	38	9	0	510	45	19	2	1153	59	11	3	577	50	20	3	1255	64	12	3
S3			A2300 (E)		1161	108	161	52	1076	104	82	24	1551	**118**	**341**	132	1665	103	60	26	2698	64	1	0	1551	38	1	0	2687	65	1	0	1614	39	1	0
S3			Cuckfield Road (S)		174	24	5	0	172	21	5	0	736	**103**	91	18	1176	**104**	113	21	753	39	9	2	1027	104	164	26	834	43	10	2	992	105	140	26
S3			A2330 (W)		988	92	5	0	1099	98	8	1	1593	**107**	**137**	58	1749	**111**	**214**	95	2185	52	1	0	1539	101	70	10	2217	55	1	0	1510	104	125	30
S4	*Burgess Hill*	Cuckfield Road / THE HUB	Cuckfield Road (N)	Priority Junction									991	16	0	0	561	22	1	0	1062	21	0	0	674	29	1	0	1094	23	1	0	683	30	1	0
S4			THE HUB										448	6	3	0	1179	**188**	**1602**	278	448	7	3	0	1174	111	217	63	448	7	3	0	1174	122	418	111
S4			Cuckfield Road (S)										433	19	1	0	146	**88**	66	0	400	18	1	0	79	27	8	0	481	22	1	0	56	21	8	0
S5	*Burgess Hill*	A2300 / Northern Arc Spine Road	N Arc (N)	Roundabout									489	41	5	0	246	20	5	0	1020	**90**	14	3	233	21	5	0	972	**95**	22	5	223	21	5	0
S5			A2300 (E)	**2031 New**									843	56	5	0	825	53	5	0	1326	83	9	2	833	54	5	0	1250	78	8	2	809	53	5	0
S5			N Arc (S)										1001	68	5	1	1398	**92**	10	3	1066	69	7	1	1435	94	11	3	1068	69	7	1	1446	95	12	3
S5			A2300 (W)										1698	79	4	1	2213	84	5	1	2004	**95**	7	2	2230	**103**	78	42	2153	**93**	5	1	2357	**92**	7	2
S6	*Burgess Hill*	Junction Road / B2113, Burgess Hill	Junction Road (N)	Roundabout	323	47	5	0	31	5	5	0	426	**99**	**126**	7	135	10	38	1	436	103	178	13	131	9	38	1	418	102	166	11	132	10	43	2
S6			Silverdale Road	**2031 Scheme**	112	20	6	0	41	7	5	0	0	0	**122**	0	0	0	**122**	0	0	0	122	0	0	0	122	0	0	0	122	0	0	0	122	0
S6			B2113 Keymer Road (S)		779	103	69	15	661	77	3	0	503	106	**226**	19	480	**99**	115	6	518	109	286	27	484	99	118	6	577	108	266	28	485	100	135	7
S6			B2113 Station Road (W)		765	94	6	1	852	102	41	9	522	**104**	**191**	15	551	**108**	**271**	26	531	105	207	18	584	**115**	**393**	44	491	106	244	20	659	111	307	38
S7	*Hurstpierpoint*	B2117 / B2116 Hurstpierpoint	Cuckfield Road (N)	Mini-roundabout	316	41	4	0	526	67	4	0	599	76	5	0	815	**99**	18	3	453	58	4	0	827	**105**	110	24	523	67	4	0	772	**105**	114	23
S7			B2116 Hassocks Road (E)		313	29	3	0	360	39	4	0	405	41	4	0	252	32	5	0	392	36	4	0	261	34	5	0	422	41	4	0	291	35	5	0
S7			B2117 Brighton Road (S)		286	37	4	0	105	13	3	0	344	51	5	0	288	37	4	0	272	38	4	0	348	45	4	0	379	54	5	0	408	52	4	0
S7			B2116 Albourne Road (W)		153	15	3	0	251	23	3	0	153	16	4	0	250	25	4	0	140	14	4	0	252	26	4	0	141	15	4	0	332	35	4	0
S8	*Hassocks*	A273 / B2116 Hassocks (Stonepound)	A273 London Road (N)	Signalled Crossroads	471	101	135	7	387	101	142	5	579	**109**	**279**	30	645	102	146	13	608	107	240	26	749	**108**	**247**	34	585	109	285	31	732	105	201	25
S8			B2116 Keymer Road (E)	**2031 Scheme**	369	102	179	9	373	99	132	5	442	107	**262**	20	462	101	137	7	456	111	**326**	28	465	101	138	7	463	108	282	23	455	102	168	10
S8			A27 Brighton Road (S)	small capacity increase	389	102	160	9	402	51	43	4	422	104	198	14	424	**95**	92	4	424	105	217	17	429	96	93	5	409	105	221	16	329	97	122	4
S8			B2116 Hurst Road (W)		492	68	49	6	300	56	54	4	435	**90**	84	6	376	**102**	**179**	9	439	91	86	6	395	106	**247**	16	439	92	87	6	576	102	158	13
S9	*Pyecombe*	A23 / A281 Eastbound On-Slip	A23 Southbound	Merge	2366	67	11	0	3994	100	55	0	2961	82	17	0	4299	100	63	8	2957	83	18	0	4267	100	64	9	2981	84	18	0	4253	100	63	8
S9			A281 Southbound on-Slip		310	26	4	0	118	101	134	4	351	34	5	0	30	100	**250**	2	323	34	5	0	31	104	**313**	3	326	34	5	0	31	102	284	2
S10	*Ditchling*	B2112 / B2116 Ditchling	B2116 (W)		323	53	7	0	287	41	5	0	454	74	9	1	156	24	5	0	420	67	8	1	171	27	5	0	421	68	8	1	180	29	5	0
S10			B2112 (N)		825	105	106	24	852	106	125	29	869	**112**	**236**	53	957	110	**201**	50	881	112	236	54	960	111	206	51	878	112	236	54	948	110	199	49
S10			B2116 (E)		229	39	6	0	355	61	8	0	374	66	9	1	270	44	6	0	364	64	8	1	273	45	6	0	365	64	8	1	268	44	6	0
S10			B2112 (S)		785	96	6	1	542	65	3	0	792	97	7	1	772	**92**	5	0	759	93	5	1	792	93	5	1	772	95	6	1	789	94	5	1
S11	*Burgess Hill*	A2300 / Bishopstone Lane	A2300 (W)	Priority Junction	964	50	2	0	1070	53	2	0	1593	38	0	0	1749	41	0	0	2185	51	0	0	1539	37	0	0	2217	54	0	0	1510	36	0	0
S11			Bishopstone Lane (N)		68	19	9	0	60	17	9	0																								
S11			A2300 (E)		1037	51	2	0	948	48	2	0	1654	36	0	0	1925	40	0	0	2001	48	0	0	1954	46	0	0	2003	48	0	0	2118	49	0	0
S12	*Burgess Hill*	Bishopstone Ln / Science & Tech Park Access (N	Bishopstone Lane (N)	Priority Junction									4	0	0	0	2	0	0	0	4	0	0	0	3	0	0	0	4	0	0	0	6	0	0	0
S12			Science & Tech Park Access (E)																																	
S12			Bishopstone Lane (S)										39	2	0	0	36	2	0	0	23	1	0	0	44	2	0	0	35	2	0	0	43	2	0	0
S13	*Burgess Hill*	Cuckfield Rd / Science & Tech Park Access (N)	Cuckfield Rd (N)	Roundabout									43	2	1	0	96	3	1	0	1080	63	3	0	411	21	3	0	1063	64	3	0	215	10	3	0
S13			Science & Tech Park Access (W)																																	
S13			Cuckfield Rd (S)										507	6	0	0	206	2	0	0	303	28	4	0	126	14	5	0	379	35	4	0	142	17	5	0
S14	*Burgess Hill*	A2300 / Science & Tech Park Access (S)	A2300 (W)	Roundabout	964	50	0	0	1070	53	0	0	1593	38	0	0	1749	41	0	0	2185	51	0	0	1539	37	0	0	2217	54	0	0	1510	36	0	0
S14			A2300 (E)		1040	50	0	0	944	46	0	0	1654	36	0	0	1925	40	0	0	2001	48	0	0	1954	46	0	0	2003	48	0	0	2118	49	0	0
S14			Science & Tech Park Access (S)																																	
S15	*Burgess Hill*	A272 Bolney Road / Bishopstone Lane	A272 Bolney Road (W)	Priority Junction	590	31	1	0	606	30	1	0	684	35	1	0	821	40	2	0	724	37	1	0	741	37	1	0	554	28	1	0	760	38	1	0
S15			A272 Bolney Road (E)		676	34	1	0	639	31	1	0	1114	52	2	0	555	25	1	0	1043	48	2	0	800	37	1	0	1077	51	2	0	825	39	1	0
S15			Bishopstone Lane		49	12	8	0	35	8	7	0	39	13	11	0	36	8	6	0	23	6	9	0	44	10	7	0	35	10	9	0	43	10	7	0
S16	*Burgess Hill*	A2300 / Stairbridge Lane / Pookbourne Lane	A2300 (W)	Priority Junction	963	35	1	0	1053	38	1	0	1749	34	1	0	1478	26	0	0	2315	45	1	0	1337	24	0	0	2359	49	1	0	1304	23	0	0
S16			Stairbridge Lane		18	2	5	0	87	11	7	0	140	10	3	0	343	21	3	0	164	14	4	0	273	16	3	0	153	14	4	0	275	16	3	0
S16			A2300 (E)		1040	25	1	0	944	23	1	0	1654	27	0	0	1925	31	0	0	2001	38	1	0	1954	36	1	0	2003	38	1	0	2118	39	1	0
S16			Pookbourne Lane		23	3	4	0	20	3	5	0	0	0	3	0	0	0	4	0	0	0	4	0	0	0	4	0	0	0	4	0	0	0	4	0
S17	*Burgess Hill*	Bishopstone Lane / Job's Lane	Bishopstone Lane (N)	Priority	68	4	1	0	67	3	1	0	44	2	0	0	47	2	0	0	59	3	0	0	39	2	0	0	48	2	0	0	40	2	0	0
S17			Bishopstone Lane (S)		41	2	1	0	35	2	1	0																								
S17			Job's Lane		1	0	3	0	0	0	3	0	15	1	0	0	21	1	0	0	15	1	0	0	21	1	0	0	15	1	0	0	18	1	0	0
S18	*Hassocks*	A273 / B2112	A273 (N)	Priority	514	26	1	0	226	11	1	0	554	26	1	0	469	23	1	0	582	28	1	0	573	26	1	0	552	26	1	0	552	26	1	0
S18			B2112 (E)		630	103	81	13	392	57	4	0	659	106	131	22	436	62	5	0	649	106	134	22	450	68	6	0	662	106	129	22	435	63	5	0
S18			A273 (S)		956	40	3	0	678	23	2	0	941	38	3	0	927	35	3	0	918	37	3	0	1008	40	3	0	908	37	3	0	879	35	3	0
S19	*Hassocks*	B2112 / Lodge Lane	Lodge Lane (N)	Priority	321	60	8	0	112	19	5	0	479	84	11	1	160	31	6	0	482	83	11	1	154	32	7	0	485	84	11	1	150	32	7	0
S19			B2112 (E)		352	18	1	0	316	16	1	0	231	12	1	0	304	14	1	0	208	10	1	0	353	18	2	0	209	11	1	0	339	18	2	0
S19			B2112 (W)		598	31	1	0	428	22	1	0	566	29	1	0	849	42	2	0	555	28	1	0	938	46	2	0	555	28	1	0	938	46	2	0
S20	*Burgess Hill*	Janes Lane / Manor Road	Janes Lane (E)	Priority	196	10	1	0	184	9	1	0	190	10	1	0	325	16	1	0	223	11	1	0	340	17	1	0	195	10	1	0	357	18	1	0
S20			Manor Road		144	21	4	0	83	12	4	0	311	45	4	0	181	28	4	0	314	46	4	0	198	30	4	0	332	48	4	0	194	30	4	0
S20			Janes Lane (W)		305	17	2	0	360	20	2	0	583	33	2	0	705	42	3	0	564	33	2	0	770	45	3	0	586	34	2	0	715	42	3	0
S21	*Burgess Hill*	B2112 / Green Road	B2112 (N)	Priority	695	84	4	0	822	100	18	4	691	84	5	0	848	100	21	4	691	85	5	0	850	100	24	5	684	83	5	0	837	100	15	3
S21			Green Road (E)		346	52	5	0	277	45	6	0	396	60	6	0	414	63	7	0	453	68	7	0	405	62	7	0	422	64	6	0	445	68	7	1
S21			B2112 (S)		800	104	92	21	610	75	4	0	831	108	**170**	38	684	85	6	0	822	109	181	40	720	88	6	1	831	109	185	41	716	**90**	7	1
S22	*Burgess Hill*	Valebridge Road / Junction Road / Leylands Ro	Valebridge Road (N)	Priority	691	83	4	0	599	76	4	0	643	55	71	5	653	55	66	5	657	56	80	5	638	54	66	5	657	56	89	5	662	56	80	5
S22			Junction Road (S)		430	65	7	0	207	31	5	0	503	**96**	83	4	263	50	33	2	523	100	110	5	266	50	33	2	468	101	130	5	271	58	38	2
S22			Leylands Road (W)		532	70	5	0	846	100	20	4	1046	**99**	70	6	1042	**107**	**197**	37	1049	99	64	6	1046	111	**271**	55	1098	99	61	5	1121	108	216	45
S23	*Burgess Hill*	A273 / B2036 / Marchants Way	A273 (N)	Roundabout	790	97	8	1	813	96	7	1	832	100	25	5	729	84	6	1	849	98	9	1	724	85	6	1	703	86	6	1	694	83	6	1
S23			Marchants Way (E)		15	3	5	0	22	4	5	0	16	0	3	0	23	0	3	0	16	0	3	0	23	0	3	0	16	0	3	0	23	0	3	0
S23			B2036 (S)		444	57	4	0	466	60	4	0	783	**95**	8	1	764	**92**	6	1	854	**100**	18	3	795	97	9	1	848	**100**	17	3	753	92	6	1
S23			A273 (W)		674	88	7	1	573	74	5	0	526	73	6	0	650	**86**	8	1	383	55	5	0	618	87	9	1	530	75	6	0	698	**95**	14	2
S24	*Burgess Hill*	A273 / Sussex Way	A273 (E)	Roundabout	393	51	4	0	500	60	4	0	523	69	8	1	457	50	5	0	458	63	8	1	457	59	7	0	468	66	9	1	475	61	7	1
S24			Sussex Way (S)		576	75	5	0	487	65	5	0	656	66	4	0	726	71	4	0	866	82	5	0	730	70	4	0	834	81	5	0	737	71	4	0
S24			A273 (W)		761	70	4	0	526	47	3	0	1190	**86**	4	0	1153	76	4	0	1059	78	4	0	1318	**92**	5	1	1213	91	5	1	1354	**95**	6	1
S25	*Burgess Hill*	West Street / Fairfield Road	Fairfield Road (N)	Priority	46	2	1	0	21	1	1	0	23	1	1	0	12	1	1	0	41	2	1	0	11	1	1	0	22	1	1	0	11	1	1	0
S25			West Street (E)		110	16	3	0	49	7	3	0	137	19	4	0	48	6	3	0	249	35	4	0	47	6	3	0	201	29	4	0	55	8	3	0
S25			Fairfield Road (S)		142	7	1	0	116	6	2	0	203	10	1	0	157	8	1	0	232	11	1	0	146	7	1	0	258	13	1	0	149	7	1	0
S25			West Street (W)		257	35	3	0	214	30	3	0	691	**91**	4	0	599	75	3	0	730	**96**	9	1	726	**93**	5	0	726	**97**	8	1	726	**93**	5	0
S26	*Burgess Hill*	A273 / York Road	A273 (N)	Roundabout	945	103	67	17	775	79	3	0	922	105	105	26	983	**104**	82	20	921	104	76	19	958	106	127	32	921	104	89	22	962	106	119	30
S26			York Road (E)		206	27	4	0	600	82	6	1	365	49	4	0	616	**91**	12	2	305	40	4	0	517	77	7	1	305	41	4	0	510	75	7	1
S26			A273 (S)		564	71	4	0	462	68	6	0	651	**87**	7	1	551	80	8	1	690	90	7	1	551	76	6	1	688	90	7	1	505	70	6	0

Key:
Increase in RFC of 5% or more to 85% or more are highlighted in orange
Increase in RFC of 10% or more to 95% or more are highlighted in red
Increase in Delay of 1 minute or more to 2 minutes or more are in red

Scenario 8 vs. Reference Case 5

- Severe
- Significant
- OK

Scenario 8 vs. Reference Case 5

- Severe
- Significant
- OK
- Scenario 8 Developments

SUMMARY

MID SUSSEX STRATEGIC HIGHWAY MODEL (MSSHM)

DOCUMENT CONTROL

Project	Mid Sussex Strategic Highway Model (MSSHM)
Type of Document	Summary Report
Authors	**Ian Wilkinson** **Chloe Crossman**
Date	30/07/2018
Reference number	107380
Number of pages	21

CONTENTS

1. INTRODUCTION

1.1 Commission

1.1.1 Mid Sussex District Council commissioned SYSTRA to:

- i. Build a strategic highway model to underpin the Mid Sussex Transport Study; and
- ii. Update the Mid Sussex Transport Study to test the impact of proposed development on the strategic and local transport network and upon significant routes in Ashdown Forest (adjacent to but outside of Mid Sussex District).

1.2 Background

1.2.1 The District Plan was submitted to the Secretary of State in August 2016 and adopted on 28th March 2018.

1.2.2 The Inspector is satisfied that it is appropriate for the Plan to contain a stepped housing trajectory, taking place after year 2023/24,at 876dpa for the period up to 2023/24, and subsequently 1,090 dpa to 2031. Effectively this means MSDC have an agreed Plan at 876dpa for the period to 2023/24 - with any subsequent increase primarily subject to the findings of Habitats Regulation Assessment at the higher level of development to assess the transport impact of the Plan on the Ashdown Forest.

1.2.3 The Mid Sussex Transport Study has been published in stages to support the District Plan through to adoption, the last being the Stage 3 Report (December 2016) with subsequent updates (see examination documents MSDC18 and MSDC244). Stage 3 reported on the impact of 800dpa on the transport network. Agreement has been reached with HE and WSCC that the proposed District Plan housing requirement at 876dpa is adequately considered by the Stage 3 Study as it is possible that virtually all the required significant interventions set out in the MSTS to mitigate the impact of development of 800dpa per annum to 2031 (to support a total of 13,600 dwellings), will be delivered in the period up to 2023/24 (supporting a total of 6,132 dwellings at 876dpa); and that the MSTS provides sufficient evidence to demonstrate that the additional units would also not cause harm to the highway network, subject to the implementation of required remedial intervention. This is on the understanding that further transport modelling work will be completed to test the impact of 1,090dpa on the highway network.

1.3 Transport Study

1.3.1 The study includes the following stages:

- 2017 Base Year Model Production and Validation;
- 2031 Reference Case Scenario;
- 2031 Development Scenarios including MSDC local plan developments;
- 2031 Development Scenarios including potential mitigation schemes with particular emphasis on demonstrating the impacts on the county and strategic road network including the impact on key junctions.
- Provision of detailed junction models for key junctions:

1.3.2 The impact on the highway network of the agreed Development Scenarios are assessed based on the National Planning Policy Framework (NPPF). The assessment of impacts is based on criteria agreed by MSDC and West Sussex County Council (WSCC). These are derived using WSCC's position statement in relation to the NPPF which sets out their interpretation of terms defining traffic impacts, namely "significant amount of movement" and "severe impacts". In addition a "showstopper" is defined as a location

where the impacts do not have a reasonable prospect of being able to comply with NPPF paragraph 32, which states:

> *Improvements can be undertaken within the transport network that cost effectively limit the significant impacts of the development. Development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe.*

1.3.3 Where junctions are assessed to be adversely impacted by the developments, a set of appropriate mitigation schemes are devised and tested. These mitigations aim to remove all 'severe' impacts. The proportion of the additional junction use attributable to each development site is also calculated.

1.3.4 Further work is also undertaken to:

- Undertake environmental impact and road safety impact analysis to comply with National Planning Practice Guidance on transport evidence bases in plan making[1]. This work is expected to be undertaken for the 'preferred' development option as part of the Mid Sussex Transport Study to inform the proposed submission (Regulation 19) Site Allocations DPD.
- Undertake air quality modelling and ecological interpretation for Habitats Regulations Assessment to test the impact of traffic, as a result of proposed development, on the Ashdown Forest Special Area of Conservation. This will be based on the outputs of the Mid Sussex Transport Study.

This Note

1.3.5 This note summarises the 2017 Base model production and validation. The chapters of this note are:

- Chapter 2: 2017 Base Model Production
- Chapter 4: 2017 Base Model Validation

2. 2017 BASE HIGHWAY MODEL PRODUCTION

2.1 Key features

Software

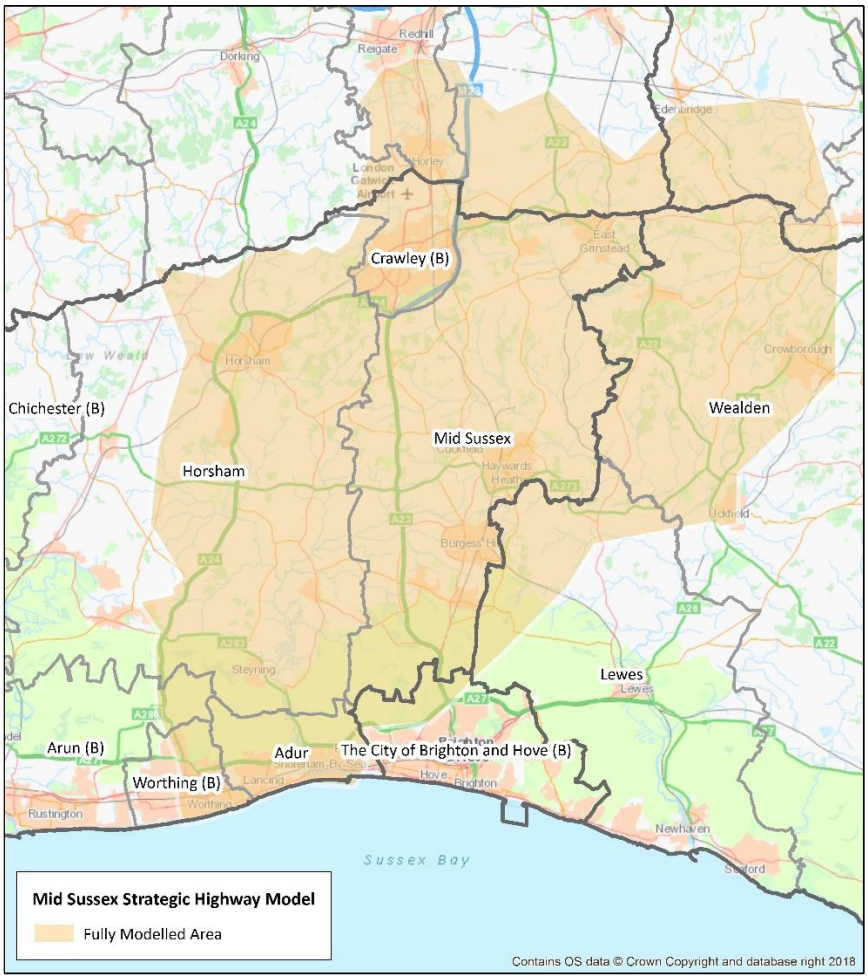
2.1.1 The model uses SATURN software developed by Atkins and University of Leeds.

Geographic Coverage

2.1.2 In accordance with WebTAG Unit M3.1 Highway Assignment Modelling, the coverage of model is organised into model areas of varying detail:

- Fully Modelled Area (FMA) as shown in Error! Reference source not found.
  - SATURN simulation (includes junction modelling)
  - This will include Mid Sussex District and the Ashdown Forest plus a suitable area beyond
- External Area
  - SATURN buffer (does not include junction modelling)
  - Suitable area to accommodate all reasonable route choices for trips travelling within FMA in any part of its journey
  - Mainly motorways and A roads only

Figure 1. Fully Modelled Area



Time Periods and Years

2.1.3 The model has the following assignment periods controlled using matrix estimation to traffic counts for the period given:

- AM peak hour (0700-1000)
- IP interpeak hour (1000-1600)
- PM peak hour (1600-1900)

2.1.4 The MSSHM has a base year of 2017 (June).

User Classes

2.1.5 The MSSHM has the following assignment user classes:

- Car;
- Light goods vehicles (LGVs); and
- Heavy goods vehicles (HGVs).

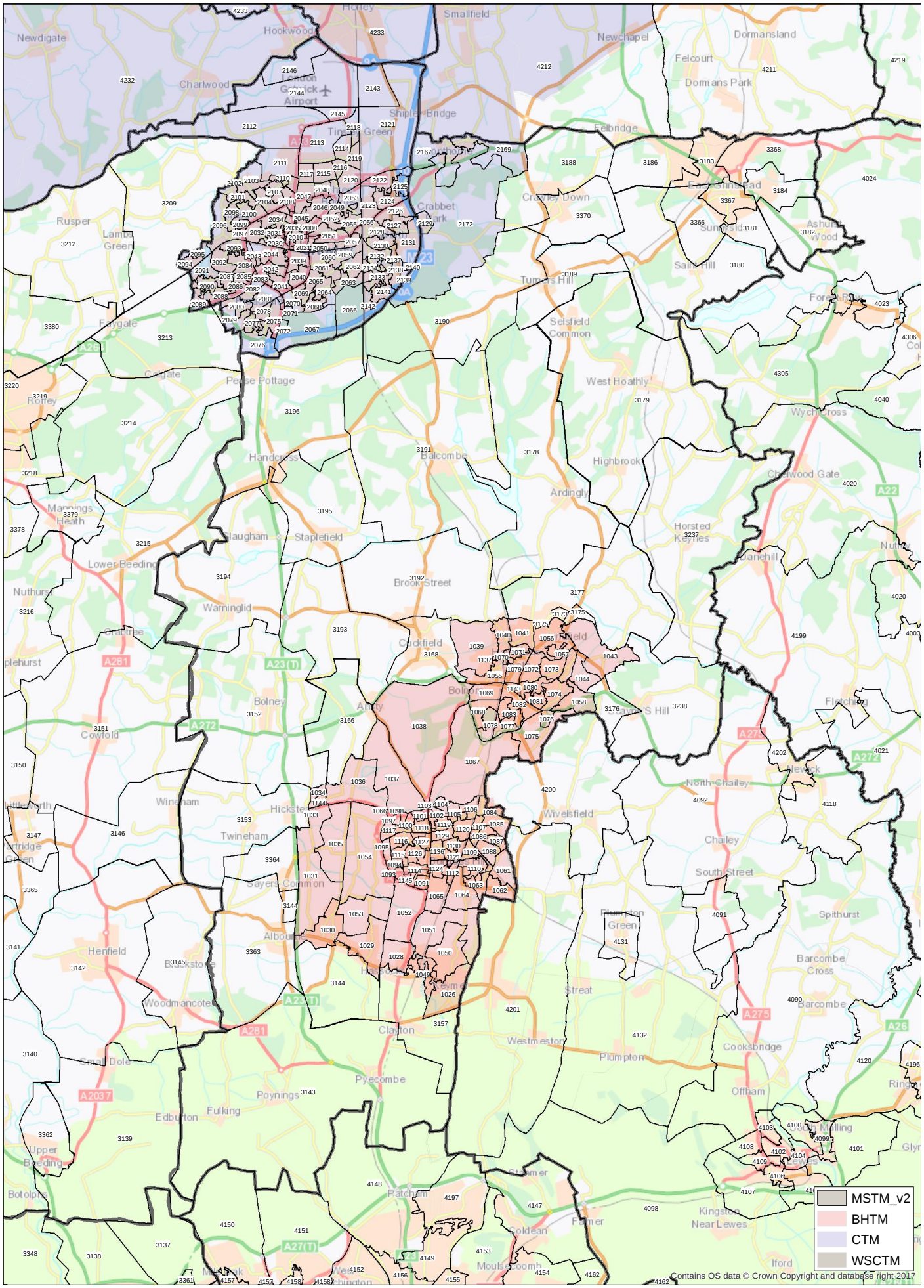
2.1.6 Additionally cars are split into three purposes:

- Car – commute / home based work
- Car – employer's business / in work
- Car – other (includes education and leisure)

Zones

2.1.7 **Figure 2** shows the MSSHM zones system for the District. The model has 825 zones.

Figure 2. Zones



2.1.8 Several existing zone systems are combined for the MSSHM zone system:

- West Sussex County Transport Model (WSCTM) zones **(385 zones)**
- Burgess Hill Transport Model (BHTM) zones **(138 zones)**
- Crawley Transport Model (CTM) zones **(292 zones)**

2.1.9 Additionally, Middle and Lower Super Output Areas (MSOAs/LSOAs) are used for zones in neighbouring authorities. In Mid Sussex district the approach is to use the finest level of detail available from the existing systems. TEMPro areas (Middle Super Output Areas) are compatible the zone system. Development sites are given their own zone which is necessary for clarity of analysis in the transport study.

2.2 Model Data

2.2.1 The traffic count data are collated and an inventory of the traffic count sites for each set is prepared. This is loaded into GIS (Graphical Information System) mapping using the Easting and Northing coordinates provided for each site. The count locations are shown in **Figure 3** and include the following sources:

- West Sussex County Council permanent and ad-hoc counts
- Department for Transport traffic counts
- Counts from the BHTM
- Highways England counts (Webtris)
- Surrey County Council
- East Sussex County Council
- Wealden District Council

Traffic Count Database

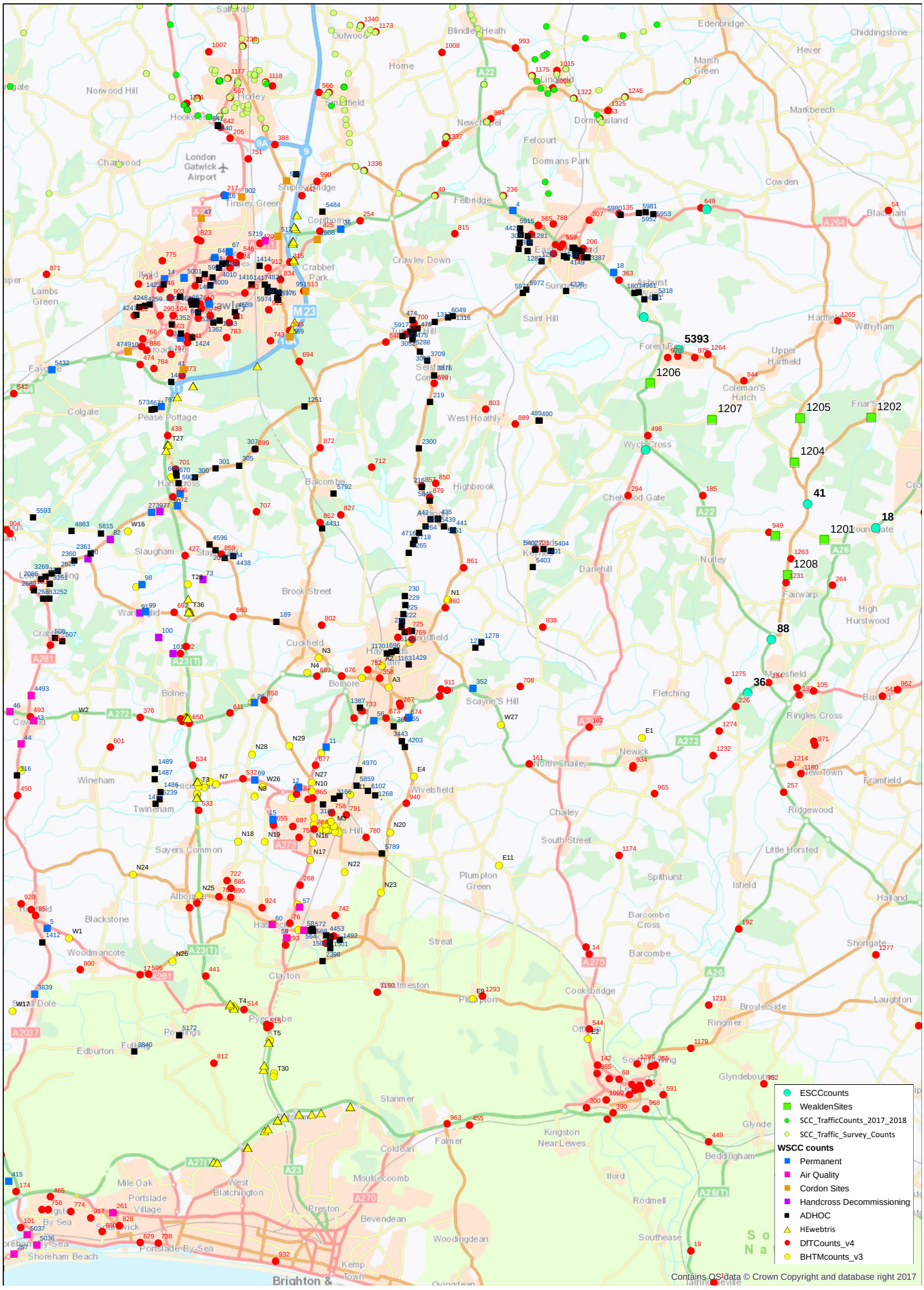
2.2.2 The traffic counts are processed into a common format using MS Excel spreadsheets. This makes the data equally convenient for analysis and use across all the data sets. **It also means it can be conveniently accessed and used for other non-modelling purposes**. The count database includes a main output sheet which presents all count sites by direction, with classified counts (Car, LGV, HGV) for the model periods (AM 0800-0900, average inter-peak 1000-1600 and PM 1700-1800). This output is then used as the main input for use of traffic counts in the model, i.e. for matrix updates, calibration and validation.

2.2.3 **Table 1** shows a summary of the analysis undertaken to provide vehicle class proportions to disaggregate the single user class into Car, LGV and HGV. Table 1 shows proportions only for traffic counts where full vehicle classification is available. These proportions are then used to 'infill' traffic counts where only a total counts is available such as for some automatic traffic counts (ATCs).

Table 1. Traffic Counts (Vehicles) by Road Type and Vehicle Class

ROAD TYPE	AM			INTER-PEAK			PM		
	Car	LGV	HGV	Car	LGV	HGV	Car	LGV	HGV
Motorway	77.5%	14.9%	7.7%	72.6%	17.6%	9.8%	82.8%	12.6%	4.6%
A	83.2%	13.3%	3.5%	79.7%	15.7%	4.6%	87.8%	11.0%	1.3%
B	86.2%	12.0%	1.8%	82.3%	14.9%	2.8%	88.6%	10.8%	0.6%
C	87.6%	11.0%	1.4%	84.1%	13.9%	2.0%	89.0%	10.6%	0.4%
unclassified	88.3%	10.5%	1.2%	84.2%	14.0%	1.9%	89.8%	9.7%	0.5%
Overall	83.2%	13.1%	3.7%	79.2%	15.8%	5.0%	87.3%	11.1%	1.6%

Figure 3. Traffic Count Locations



Screen Lines and Cordons

2.2.4 Screenlines and Cordons are groups of traffic count locations that are used to provide an organised structure for the use of counts in model development and to monitor and report broad movement of traffic. They are used in matrices construction, in model calibration and in validating the quality of the model.

2.2.5 The broad location of screenlines and cordons is defined by suitable coverage and detail in accordance with good practice. However the detail of which sections of road they pass through is additionally dictated by count data availability and making the best use of existing data.

2.2.6 Cordons are best for monitoring movements to, from and through key areas and towns. In the MSSHM cordons include:

- A large cordon broadly following the district boundary
- Cordons for the key towns, Burgess Hill, Haywards Heath and East Grinstead
- A cordon for the Ashdown Forest

2.2.7 Screenlines are for the purpose of monitoring broad movements across the district. Ideally they are long and cross each other to form a grid. They include:

- Long screenlines running north to south to the east and west of the A23
- East-west screenline south of the A272
- Smaller 'town' screenlines crossing Burgess Hill and Haywards Heath.

2.2.8 **Figure 4** shows the MSSHM cordons and screenlines and the locations of traffic counts used in the model production.

2.3 Trip Matrices

2.3.1 2017 base year highway trip matrices are produced for the periods and user classes/purposes described in Chapter 2. Several sets of existing matrices available for use in matrices production, including:

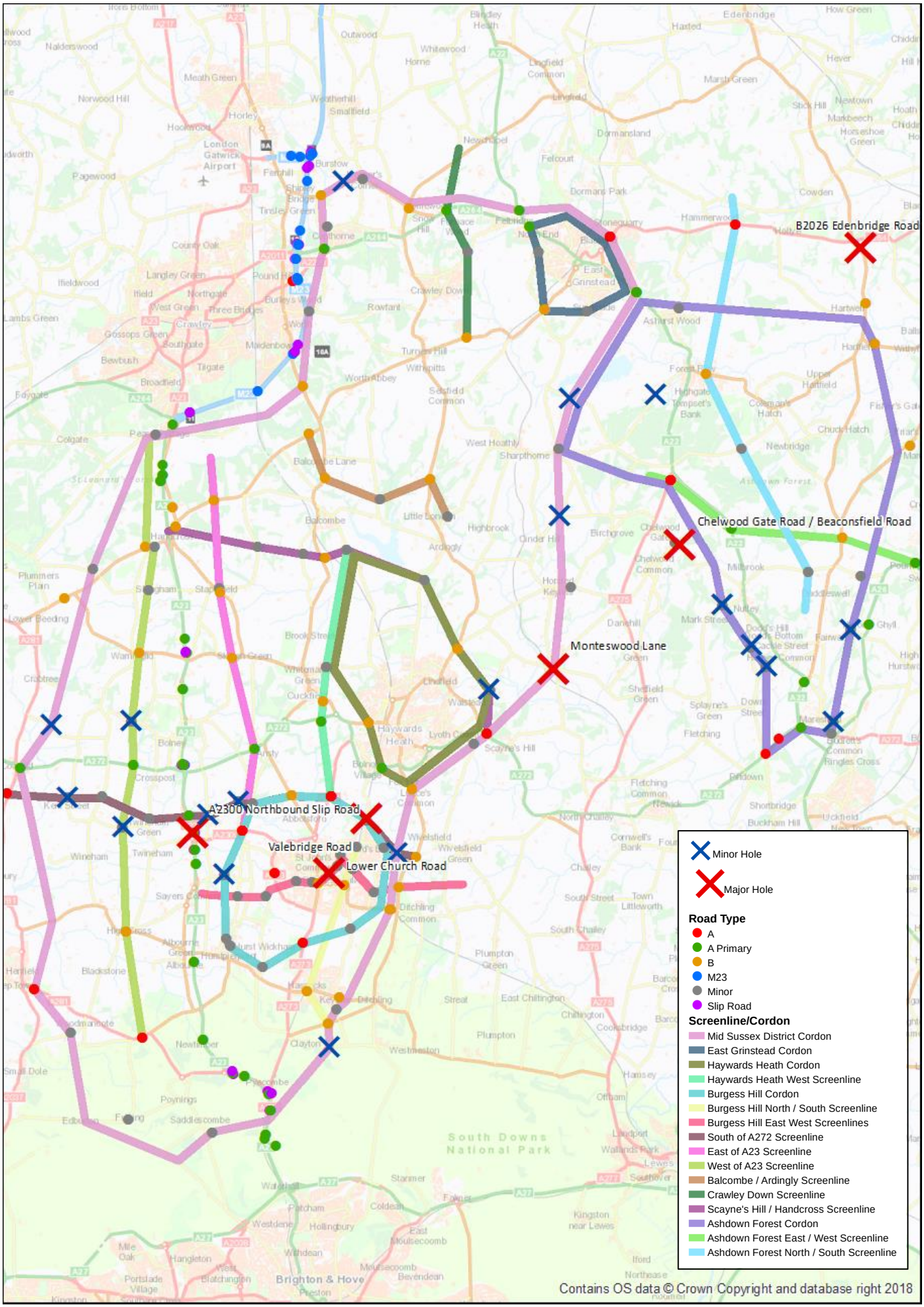
- West Mobile Network Data (MND) matrices
- West Sussex County Transport Model (WSCTM) matrices
- Burgess Hill Transport Model (BHTM) matrices
- Crawley Transport Model (CTM) matrices

2.3.2 The MSSHM matrices make best use of the existing matrices in combination. The MSSHM zone system and matrices are compatible with the systems listed above.

2.3.3 **Census Travel to Work** 2011 data is used for the distribution of commuting destinations. This has a very high sample, and is therefore deemed appropriate.

2.3.4 Following production of the initial 'prior' matrices, calibration is undertaken using matrix estimation. This process results in a better match between the model traffic flows and observed traffic counts. The SATURN program SATME2 is used for this.

Figure 4. Cordons and Screenlines with Traffic Count Locations Used in MSSHM



2.4 Road Network

2.4.1 The highway network is produced making best use of the following existing models:

- The West Sussex County Model (WSCTM)
- Burgess Hill Transport Model (BHTM)
- Crawley Transport model (CTM)
- Highways England M23 Junction 8-10 Model

2.4.2 Alongside the existing networks, SYSTRA were provided with a shapefile covering all roads within the West Sussex County. Contained within the shapefile, is supplementary information, including the following:

- Road class
- Road length
- Speed limit
- Road location (whether it is in an urban or rural area)

Network Review

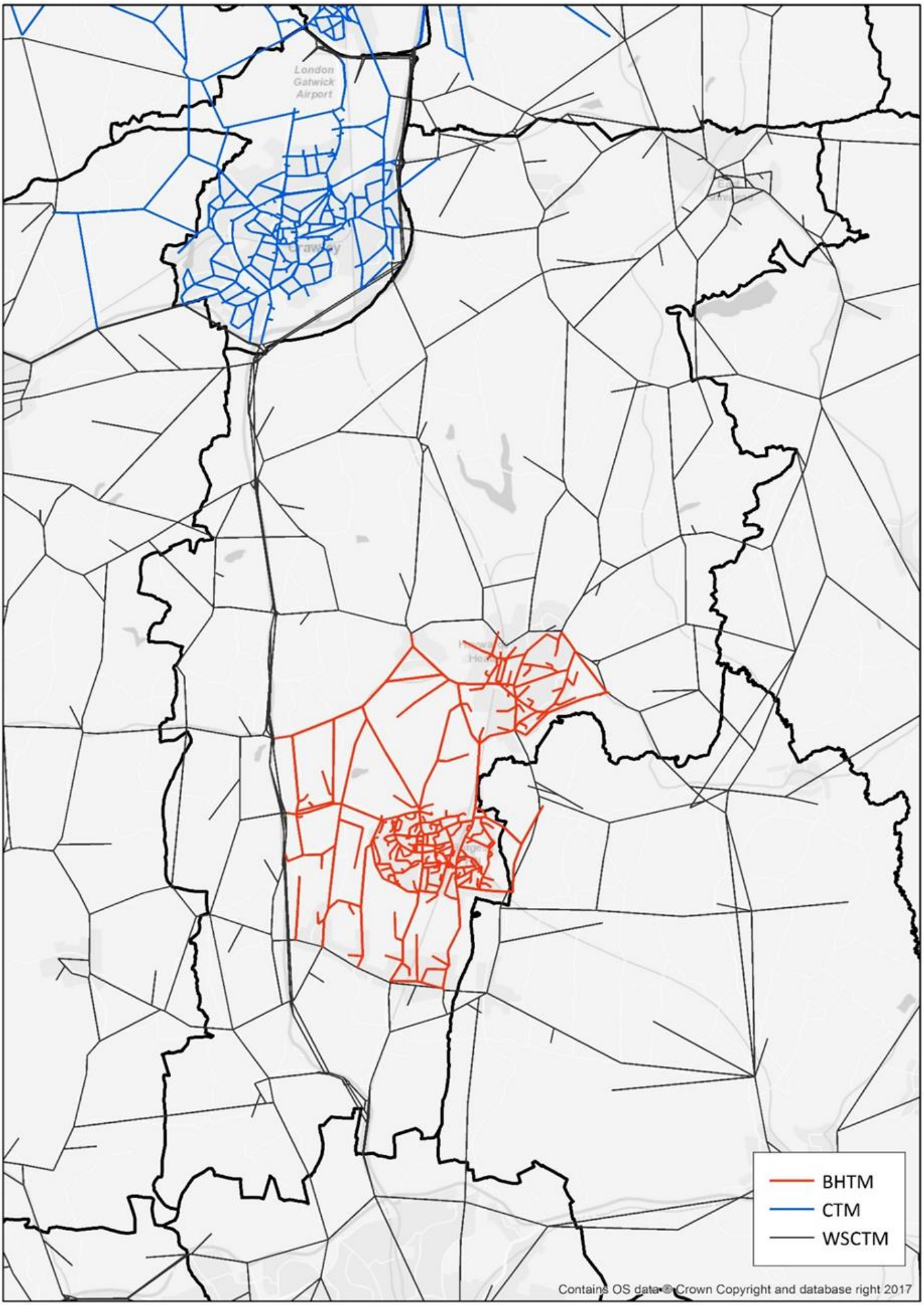
2.4.3 The existing models have different purposes and therefore cover different areas in and around Mid Sussex. The WSCTM for example, provides sufficient detail for the entire West Sussex area, whereas the BHTM and CTM models have greater detail of the road networks in Burgess Hill and Crawley respectively. To best utilise these models, the most detailed road networks from each model are combined to produce the MSSHM. **Figure 5** shows which roads are taken from each model.

2.4.4 A detailed audit of the combined road network is undertaken to ensure all key roads are included within the model and that distances, speeds and capacities are appropriate. The speed and capacity assigned to each road in the model is based on the following attributes:

- Road class (Motorway, A, B, C, unclassified)
- Speed limit
- Road location (whether it is in an urban or rural area)
- Road and lane width
- Gradient and tight bends
- Number of lanes

2.4.5 The modelled speed is not based on speed limit alone because this would assume vehicles travel at that speed for the full length of the road. In reality, it takes time for vehicles to accelerate after entering a road, and decelerate when approaching a junction, and on some minor, rural roads, traffic may never travel at the speed limit due to the road conditions.

Figure 5. Networks Combination (WSCTM, BHTM and CTM)



3. 2017 BASE HIGHWAY MODEL VALIDATION

3.1 Introduction

3.1.1 This Chapter describes the comparison of the model outputs to observed data in the context of criteria devised by the Department for Transport's Web-based Transport Assessment Guidance (WebTAG).

3.1.2 Validation simply involves comparing modelled and observed data. Any adjustments to the model intended to reduce the differences between the modelled and observed data are regarded as calibration.

3.1.3 In addition to percentage and absolute differences, the GEH statistic is used which is a form of the Chi-squared statistic that incorporates both relative and absolute errors, and is defined as follows:

$$GEH = \sqrt{\frac{(M-C)^2}{(0.5\times(M+C))}}$$

where: M is the modelled flow; and
C is the observed flow.

3.2 Trip Matrix Validation

3.2.1 The trip matrices are assessed using totals of the grouped screenlines and cordon traffic flows as described in Chapter 2. The WebTAG screenline flow criteria and acceptability guidelines are in **Table 2**.

Table 2. Screenline Flow Validation Criterion and Acceptability Guideline

CRITERIA	ACCEPTABILITY GUIDELINE
Differences between modelled flows and counts should be less than 5% of the counts	All or nearly all screenlines

3.2.2 The results of the cordon and screenline validation for each period are shown in **Table 3.** In addition to WebTAG performance (top row) the results are shown for two additional criteria.

Table 3. Trip Matrix Vehicle Flow Validation

Measure	Criteria	Acceptability Guideline	AM Peak	Inter Peak	PM Peak
Matrix Validation	**Differences between modelled flows and counts should be less than 5% of the counts**	**All or nearly all screenlines (WebTAG)**	**70%**	**77%**	**83%**
	*Differences between modelled flows and counts should be within **GEH=4** of the counts*	*N/A*	*70%*	*80%*	*83%*
	*Differences between modelled flows and counts should be less than **10%** of the counts*	*N/A*	*87%*	*83%*	*87%*

3.2.3 The results show a good performance across the three periods. It is therefore considered that the model quality is suitable for proceeding with the forecast modelling and transport study.

3.3 Network Link Calibration and Validation

3.3.1 Individual modelled road/link traffics flows are assessed using the WebTAG link flow criteria and acceptability guidelines shown in **Table 4**.

Table 4. Link Flow Validation Criteria and Acceptability Guidelines

CRITERIA	ACCEPTABILITY GUIDELINE
Individual flows within 15% of counts for flows from 700 to 2,700 veh/h	> 85% of cases
Individual flows within 100 veh/h of counts for flows less than 700 veh/h	> 85% of cases
Individual flows within 400 veh/h of counts for flows more than 2,700 veh/h	> 85% of cases
GEH < 5 for individual flows	> 85% of cases

3.3.2 The results of the network validation for each period are shown in **3.3.2.**

Table 5. Link Vehicle Flow Validation

Measure	Criteria	Acceptability Guideline	AM Peak	Inter Peak	PM Peak
Link Flow Validation	**Individual flows within 15% of counts for flows from 700 to 2700 veh/h**	**>85% of cases (WebTAG)**	**71%**	**81%**	**71%**
	Individual flows within 100 veh/h of counts for flows less than 700 veh/h				
	Individual flows within 400 veh/h of counts for flows more than 2700 veh/h				
	GEH < 5 for individual flows	**> 85% of cases (WebTAG)**	**68%**	**66%**	**62%**
	*GEH < **10** for individual flows*	*N/A*	*81%*	*87%*	*83%*

3.3.3 Overall the results show a reasonably good performance across the three periods. Although falling short of the WebTAG criteria it is considered that the model quality is suitable for proceeding with the forecast modelling and transport study.

3.3.4 Locations where the model quality is less strong will be considered for local improvements where necessary as the study proceeds, particularly if in the vicinity of developments being tested and impacted junctions.

3.3.5 **Table 6** to **Table 8** show the matrix and link validation performance by cordon or screenline.

Table 6. Trip Matrix and Link Flow Vehicle Flow Validation by Cordon/Screenline: AM Peak Hour

Cordon/ Screenline	Dir	Sites	Observed	Model	Diff	% Diff	GEH	GEH<=	WebTAG within			WebTAG within			
								4	5%	10%	15%	Abs or %	GEH= 5	GEH= 10	GEH= 15
1 Mid Sussex District Cordon	Outbound	42	19,905	19,221	-685	-3%	4.9	N	Y	Y	Y	69%	59%	75%	94%
1 Mid Sussex District Cordon	Inbound	42	18,669	18,052	-618	-3%	4.6	N	Y	Y	Y	66%	63%	75%	88%
2 East Grinstead Cordon	Outbound	8	3,826	3,883	57	1%	0.9	Y	Y	Y	Y	57%	57%	71%	86%
2 East Grinstead Cordon	Inbound	8	3,574	3,491	-82	-2%	1.4	Y	Y	Y	Y	43%	29%	71%	71%
3 Haywards Heath Cordon	Outbound	10	4,474	4,510	36	1%	0.5	Y	Y	Y	Y	56%	56%	56%	100%
3 Haywards Heath Cordon	Inbound	10	5,141	5,122	-19	0%	0.3	Y	Y	Y	Y	44%	56%	67%	78%
4 Haywards Heath West Screenline	Eastbound	4	1,959	1,933	-26	-1%	0.6	Y	Y	Y	Y	100%	100%	100%	100%
4 Haywards Heath West Screenline	Westbound	4	2,036	1,962	-75	-4%	1.7	Y	Y	Y	Y	100%	100%	100%	100%
5 Burgess Hill Cordon	Outbound	13	4,769	4,734	-35	-1%	0.5	Y	Y	Y	Y	73%	73%	91%	100%
5 Burgess Hill Cordon	Inbound	13	4,616	4,652	36	1%	0.5	Y	Y	Y	Y	91%	91%	100%	100%
6 Burgess Hill North / South Screenline	Eastbound	4	2,156	2,217	61	3%	1.3	Y	Y	Y	Y	100%	100%	100%	100%
6 Burgess Hill North / South Screenline	Westbound	4	2,464	2,437	-27	-1%	0.5	Y	Y	Y	Y	50%	50%	75%	100%
7 Burgess Hill East / West Screenline	Northbound	15	4,114	4,115	1	0%	0.0	Y	Y	Y	Y	67%	67%	75%	92%
7 Burgess Hill East / West Screenline	Southbound	15	4,688	4,296	-392	-8%	5.8	N	N	Y	Y	67%	58%	92%	92%
8 South of A272 Screenline	Northbound	13	6,401	6,182	-220	-3%	2.8	Y	Y	Y	Y	80%	80%	90%	100%
8 South of A272 Screenline	Southbound	13	4,665	5,010	345	7%	5.0	N	N	Y	Y	67%	67%	100%	100%
9 East of A23 Screenline	Eastbound	6	2,401	2,358	-44	-2%	0.9	Y	Y	Y	Y	100%	100%	100%	100%
9 East of A23 Screenline	Westbound	6	2,449	2,491	42	2%	0.8	Y	Y	Y	Y	100%	100%	100%	100%
10 West of A23 Screenline	Eastbound	10	2,559	2,544	-15	-1%	0.3	Y	Y	Y	Y	86%	86%	86%	100%
10 West of A23 Screenline	Westbound	10	2,284	2,335	51	2%	1.1	Y	Y	Y	Y	71%	71%	71%	100%
11 Balcombe / Ardingly Screenline	Eastbound	5	1,189	1,072	-116	-10%	3.5	Y	N	Y	Y	33%	33%	67%	67%
11 Balcombe / Ardingly Screenline	Westbound	5	987	821	-167	-17%	5.5	N	N	N	N	100%	67%	100%	100%
12 Crawley Down Screenline	Eastbound	3	1,106	953	-152	-14%	4.8	N	N	N	Y	67%	67%	67%	100%
12 Crawley Down Screenline	Westbound	3	1,210	1,057	-154	-13%	4.6	N	N	N	Y	33%	67%	67%	100%
13 Scayne's Hill / Handcross Screenline	Northbound	10	6,455	6,890	435	7%	5.3	N	N	Y	Y	38%	38%	38%	88%
13 Scayne's Hill / Handcross Screenline	Southbound	10	5,095	5,370	275	5%	3.8	Y	Y	Y	Y	38%	38%	50%	75%
14 Ashdown Forest Cordon	Outbound	19	4,099	3,953	-146	-4%	2.3	Y	Y	Y	Y	100%	100%	100%	100%
14 Ashdown Forest Cordon	Inbound	19	3,926	3,901	-26	-1%	0.4	Y	Y	Y	Y	82%	82%	82%	100%
15 Ashdown Forest East / West Screenline	Northbound	4	2,060	1,905	-155	-8%	3.5	Y	N	Y	Y	75%	75%	100%	100%
15 Ashdown Forest East / West Screenline	Southbound	4	1,617	1,447	-170	-11%	4.3	N	N	N	Y	75%	75%	100%	100%
		332	**130,897**	**128,913**	**-1,984**	**-2%**		**70%**	**70%**	**87%**	**97%**	**71%**	**68%**	**81%**	**94%**

Table 7. Trip Matrix and Link Flow Vehicle Flow Validation by Cordon/Screenline: Inter-Peak Hour

Cordon/ Screenline	Dir	Sites	Observed	Model	Diff	% Diff	GEH	GEH<=	WebTAG within			WebTAG within			
								4	5%	10%	15%	Abs or %	GEH= 5	GEH= 10	GEH= 15
1 Mid Sussex District Cordon	Outbound	42	12,937	12,621	-317	-2%	2.8	Y	Y	Y	Y	75%	63%	78%	94%
1 Mid Sussex District Cordon	Inbound	42	12,776	12,330	-446	-3%	4.0	Y	Y	Y	Y	72%	63%	81%	91%
2 East Grinstead Cordon	Outbound	8	2,640	2,725	85	3%	1.6	Y	Y	Y	Y	71%	43%	86%	86%
2 East Grinstead Cordon	Inbound	8	2,618	2,583	-35	-1%	0.7	Y	Y	Y	Y	71%	57%	71%	86%
3 Haywards Heath Cordon	Outbound	10	2,971	2,971	0	0%	0.0	Y	Y	Y	Y	89%	78%	100%	100%
3 Haywards Heath Cordon	Inbound	10	2,940	2,949	8	0%	0.2	Y	Y	Y	Y	100%	67%	100%	100%
4 Haywards Heath West Screenline	Eastbound	4	1,195	1,197	3	0%	0.1	Y	Y	Y	Y	100%	100%	100%	100%
4 Haywards Heath West Screenline	Westbound	4	1,218	1,199	-20	-2%	0.6	Y	Y	Y	Y	100%	100%	100%	100%
5 Burgess Hill Cordon	Outbound	13	3,189	3,134	-55	-2%	1.0	Y	Y	Y	Y	82%	73%	91%	100%
5 Burgess Hill Cordon	Inbound	13	3,089	3,057	-32	-1%	0.6	Y	Y	Y	Y	73%	55%	82%	100%
6 Burgess Hill North / South Screenline	Eastbound	4	1,631	1,666	35	2%	0.9	Y	Y	Y	Y	100%	100%	100%	100%
6 Burgess Hill North / South Screenline	Westbound	4	1,631	1,620	-11	-1%	0.3	Y	Y	Y	Y	50%	50%	50%	100%
7 Burgess Hill East / West Screenline	Northbound	15	3,000	3,006	6	0%	0.1	Y	Y	Y	Y	75%	58%	83%	83%
7 Burgess Hill East / West Screenline	Southbound	15	2,956	2,807	-148	-5%	2.8	Y	Y	Y	Y	75%	58%	75%	92%
8 South of A272 Screenline	Northbound	13	3,717	3,747	31	1%	0.5	Y	Y	Y	Y	80%	60%	90%	100%
8 South of A272 Screenline	Southbound	13	3,787	3,769	-18	0%	0.3	Y	Y	Y	Y	89%	78%	100%	100%
9 East of A23 Screenline	Eastbound	6	1,405	1,439	35	2%	0.9	Y	Y	Y	Y	100%	100%	100%	100%
9 East of A23 Screenline	Westbound	6	1,489	1,463	-25	-2%	0.7	Y	Y	Y	Y	60%	60%	100%	100%
10 West of A23 Screenline	Eastbound	10	1,658	1,625	-33	-2%	0.8	Y	Y	Y	Y	86%	71%	86%	100%
10 West of A23 Screenline	Westbound	10	1,627	1,662	35	2%	0.9	Y	Y	Y	Y	86%	71%	100%	100%
11 Balcombe / Ardingly Screenline	Eastbound	5	564	379	-185	-33%	8.5	N	N	N	N	67%	67%	67%	67%
11 Balcombe / Ardingly Screenline	Westbound	5	565	438	-127	-22%	5.7	N	N	N	N	67%	67%	67%	100%
12 Crawley Down Screenline	Eastbound	3	831	712	-119	-14%	4.3	N	N	N	Y	100%	67%	67%	100%
12 Crawley Down Screenline	Westbound	3	824	780	-44	-5%	1.5	Y	Y	Y	Y	100%	100%	100%	100%
13 Scayne's Hill / Handcross Screenline	Northbound	10	3,756	3,855	98	3%	1.6	Y	Y	Y	Y	75%	63%	100%	100%
13 Scayne's Hill / Handcross Screenline	Southbound	10	3,972	4,072	99	3%	1.6	Y	Y	Y	Y	88%	50%	88%	100%
14 Ashdown Forest Cordon	Outbound	19	2,807	2,533	-274	-10%	5.3	N	N	Y	Y	91%	64%	100%	100%
14 Ashdown Forest Cordon	Inbound	19	2,704	2,552	-151	-6%	2.9	Y	N	Y	Y	100%	73%	100%	100%
15 Ashdown Forest East / West Screenline	Northbound	4	1,237	937	-300	-24%	9.1	N	N	N	N	75%	75%	75%	100%
15 Ashdown Forest East / West Screenline	Southbound	4	1,311	1,095	-216	-16%	6.2	N	N	N	N	75%	50%	100%	100%
		332	**87,044**	**84,922**	**-2,121**	**-2%**		**80%**	**77%**	**83%**	**87%**	**81%**	**66%**	**87%**	**96%**

Table 8. Trip Matrix and Link Flow Vehicle Flow Validation by Cordon/Screenline: PM Peak Hour

Cordon/ Screenline	Dir	Sites	Observed	Model	Diff	% Diff	GEH	GEH<=	WebTAG within			WebTAG within			
								4	5%	10%	15%	Abs or %	GEH= 5	GEH= 10	GEH= 15
1 Mid Sussex District Cordon	Outbound	42	19,466	19,062	-403	-2%	2.9	Y	Y	Y	Y	63%	56%	78%	91%
1 Mid Sussex District Cordon	Inbound	42	19,450	18,996	-455	-2%	3.3	Y	Y	Y	Y	69%	63%	88%	94%
2 East Grinstead Cordon	Outbound	8	3,581	3,594	14	0%	0.2	Y	Y	Y	Y	57%	71%	86%	100%
2 East Grinstead Cordon	Inbound	8	3,628	3,697	69	2%	1.1	Y	Y	Y	Y	43%	43%	57%	86%
3 Haywards Heath Cordon	Outbound	10	4,670	4,616	-54	-1%	0.8	Y	Y	Y	Y	78%	67%	67%	100%
3 Haywards Heath Cordon	Inbound	10	4,059	4,067	7	0%	0.1	Y	Y	Y	Y	78%	67%	100%	100%
4 Haywards Heath West Screenline	Eastbound	4	1,780	1,781	1	0%	0.0	Y	Y	Y	Y	100%	100%	100%	100%
4 Haywards Heath West Screenline	Westbound	4	1,751	1,774	23	1%	0.5	Y	Y	Y	Y	100%	100%	100%	100%
5 Burgess Hill Cordon	Outbound	13	4,492	4,414	-78	-2%	1.2	Y	Y	Y	Y	55%	45%	64%	91%
5 Burgess Hill Cordon	Inbound	13	4,360	4,286	-74	-2%	1.1	Y	Y	Y	Y	82%	64%	91%	100%
6 Burgess Hill North / South Screenline	Eastbound	4	2,481	2,527	45	2%	0.9	Y	Y	Y	Y	50%	50%	100%	100%
6 Burgess Hill North / South Screenline	Westbound	4	2,021	2,015	-6	0%	0.1	Y	Y	Y	Y	100%	100%	100%	100%
7 Burgess Hill East / West Screenline	Northbound	15	4,336	4,416	80	2%	1.2	Y	Y	Y	Y	50%	42%	67%	75%
7 Burgess Hill East / West Screenline	Southbound	15	4,050	3,966	-84	-2%	1.3	Y	Y	Y	Y	42%	33%	50%	92%
8 South of A272 Screenline	Northbound	13	4,961	4,919	-42	-1%	0.6	Y	Y	Y	Y	70%	60%	90%	100%
8 South of A272 Screenline	Southbound	13	6,227	6,079	-148	-2%	1.9	Y	Y	Y	Y	78%	67%	89%	89%
9 East of A23 Screenline	Eastbound	6	2,353	2,388	35	1%	0.7	Y	Y	Y	Y	100%	100%	100%	100%
9 East of A23 Screenline	Westbound	6	2,109	2,062	-47	-2%	1.0	Y	Y	Y	Y	100%	100%	100%	100%
10 West of A23 Screenline	Eastbound	10	2,269	2,248	-20	-1%	0.4	Y	Y	Y	Y	86%	71%	86%	100%
10 West of A23 Screenline	Westbound	10	2,781	2,817	36	1%	0.7	Y	Y	Y	Y	86%	57%	100%	100%
11 Balcombe / Ardingly Screenline	Eastbound	5	945	724	-222	-23%	7.7	N	N	N	N	67%	67%	67%	100%
11 Balcombe / Ardingly Screenline	Westbound	5	1,276	1,226	-50	-4%	1.4	Y	Y	Y	Y	33%	33%	67%	100%
12 Crawley Down Screenline	Eastbound	3	1,044	843	-201	-19%	6.6	N	N	N	N	67%	33%	67%	100%
12 Crawley Down Screenline	Westbound	3	1,138	1,098	-40	-3%	1.2	Y	Y	Y	Y	100%	100%	100%	100%
13 Scayne's Hill / Handcross Screenline	Northbound	10	5,175	5,359	183	4%	2.5	Y	Y	Y	Y	63%	50%	50%	100%
13 Scayne's Hill / Handcross Screenline	Southbound	10	6,203	6,737	534	9%	6.6	N	N	Y	Y	63%	50%	88%	88%
14 Ashdown Forest Cordon	Outbound	19	4,145	3,989	-156	-4%	2.5	Y	Y	Y	Y	91%	82%	100%	100%
14 Ashdown Forest Cordon	Inbound	19	4,020	4,039	20	0%	0.3	Y	Y	Y	Y	91%	64%	100%	100%
15 Ashdown Forest East / West Screenline	Northbound	4	1,696	1,462	-235	-14%	5.9	N	N	N	Y	75%	75%	100%	100%
15 Ashdown Forest East / West Screenline	Southbound	4	2,206	1,849	-357	-16%	7.9	N	N	N	N	50%	50%	75%	100%
		332	**128,676**	**127,050**	**-1,626**	**-1%**		**83%**	**83%**	**87%**	**90%**	**71%**	**62%**	**83%**	**95%**

3.3.6 **Table 9** shows the validation of the flows on the M23 and A23 where Highways England counts are available. The validation shows satisfactory results with the majority of flows within GEH=5 as denoted by the green highlighting.

Table 9. M23 and A23 Flow Validation

	AM Peak			Inter-Peak			PM Peak		
	Observed	Modelled	GEH	Observed	Modelled	GEH	Observed	Modelled	GEH
NORTHBOUND									
A23 - A27 to A273 OFF	3865	3553	5.1	2174	2216	0.9	2783	2935	2.8
A23 - A273 OFF to A273 ON	2831	2830	0.0	1854	1880	0.6	2241	2294	1.1
A23 - A281 OFF to A281 ON	2792	2738	1.0	1779	1777	0.1	2138	2139	0.0
A23 - A2300 OFF to A2300 ON	2592	2547	0.9	1716	1711	0.1	2069	2010	1.3
A23 - A272 OFF to A272 ON	3001	3016	0.3	1855	1868	0.3	2359	2283	1.6
A23 - B2115 OFF to B2115 ON	3094	2918	3.2	2004	1903	2.3	2485	2294	3.9
A23 - B2110 ON to J11 OFF	3645	3699	0.9	2219	2241	0.4	2749	2769	0.4
M23 - J11 OFF - J11 ON	2328	2346	0.4	1679	1679	0.0	1846	1844	0.0
M23 - J10a ON to J10 OFF	4040	4006	0.5	2700	2647	1.0	3024	2946	1.4
M23 - J10 OFF to J10 ON	3022	2925	1.8	2210	2128	1.8	2363	2274	1.8
M23 - J10 ON to J9 OFF	3381	3633	4.2	2614	2871	4.9	3000	3235	4.2
M23 - J9 OFF to J9 ON	2906	2909	0.1	2384	2384	0.0	2820	2860	0.7
M23 - J9 ON to J8 OFF	3987	3991	0.1	3956	3956	0.0	4422	4422	0.0
SOUTHBOUND									
M23 - J8 ON to J9 OFF	4656	3869	12.1	4012	3777	3.8	4658	4596	0.9
M23 - J9 OFF to J9 ON	2906	2909	0.1	2384	2384	0.0	2820	2860	0.7
M23 - J9 ON to J10 OFF	3617	3695	1.3	3287	3287	0.0	4688	4387	4.5
M23 - J10 OFF to J10 ON	3022	2925	1.8	2210	2128	1.8	2363	2274	1.8
M23 - J10 ON to J10a OFF	3069	3054	0.3	2915	2909	0.1	4796	4708	1.3
M23 - J10a OFF - J11 OFF	2739	2462	5.4	2612	2349	5.3	4095	3676	6.7
M23 - J11 OFF - J11 ON	2328	2346	0.4	1679	1679	0.0	1846	1844	0.0
A23 - B2114 OFF to B2110 ON	2345	2344	0.0	2251	2253	0.1	3447	3427	0.3
A23 - B2110 ON to B2115 OFF	2576	2563	0.3	2314	2323	0.2	3629	3592	0.6
A23 - A272 OFF to A272 ON	3001	3016	0.3	1855	1868	0.3	2359	2283	1.6
A23 - A2300 OFF to A2300 ON	2592	2547	0.9	1716	1711	0.1	2069	2010	1.3
A23 - A273 ON to A27	3165	3142	0.4	2588	2585	0.1	4190	4013	2.8

3.4 Journey Time Validation

3.4.1 The WebTAG acceptability guideline for journey times are in **Table 10**.

Table 10. Journey Time Validation Criteria and Acceptability Guideline

CRITERIA	ACCEPTABILITY GUIDELINE
Modelled times along routes should be within 15% of surveyed times (or 1 minute, if higher)	> 85% of routes

3.4.2 **Fifteen** routes are analysed in each direction. **Table 11** below shows the percentage of journey time routes meeting the criteria.

Table 11. Summary of Journey Time Validation

PERCENTAGE OF JOURNEY TIME ROUTES MEETING CRITERIA	NO. OF ROUTES	AM PEAK HOUR	PM PEAK HOUR
All Routes	30	80%	70%

3.4.3 The validation of each route is summarised in **Table 12**. This analysis uses journey times from Google Maps. The table shows whether the modelled time falls within the Google range and whether it is within 15% or 1 minute of the Google range midpoint.

Table 12. Journey Time Route Validation

			AM					PM				
			Model	Google				Model	Google			
ID	Journey Time Route		(mm:ss)	Min (mm:ss)	Max (mm:ss)	Model Within Range?	Within 15% of Mid-point ?	(mm:ss)	Min (mm:ss)	Max (mm:ss)	Model Within Range?	Within 15% of Mid-point ?
1	Cowfold - Burgess Hill	*EB*	18:26	16:00	24:00	✓	✓	19:30	16:00	22:00	✓	✓
	Burgess Hill - Cowfold	*WB*	18:46	16:00	20:00	✓	✓	18:41	16:00	20:00	✓	✓
2	Burgess Hill - Crawley	*NB*	35:29	28:00	50:00	✓	✓	23:50	26:00	45:00	✗	✗
	Crawley - Burgess Hill	*SB*	27:56	24:00	40:00	✓	✓	28:57	26:00	45:00	✓	✗
3	Burgess Hill - East Grinstead	*NB*	32:41	30:00	40:00	✓	✓	31:11	30:00	35:00	✓	✓
	East Grinstead - Burgess Hill	*SB*	33:59	28:00	40:00	✓	✓	32:55	28:00	35:00	✓	✓
4	Burgess Hill - Haywards Heath	*NB*	10:31	09:00	14:00	✓	✓	09:30	08:00	11:00	✓	✓
	Haywards Heath - Burgess Hill	*SB*	09:40	09:00	12:00	✓	✓	09:41	09:00	12:00	✓	✓
5	Hurstpierpoint - Burgess Hill	*NB*	16:05	12:00	18:00	✓	✓	16:59	12:00	16:00	✗	✗
	Burgess Hill - Hurstpierpoint	*SB*	14:38	12:00	18:00	✓	✓	13:01	12:00	14:00	✓	✓
6	Cowfold - Crawley	*NB*	25:29	20:00	35:00	✓	✓	20:18	22:00	45:00	✗	✗
	Crawley - Cowfold	*SB*	21:08	22:00	40:00	✗	✗	25:25	20:00	40:00	✓	✗
7	Cowfold - East Grinstead	*NB*	32:34	30:00	40:00	✓	✓	32:59	30:00	40:00	✓	✓
	East Grinstead - Cowfold	*SB*	34:56	30:00	45:00	✓	✓	34:23	30:00	40:00	✓	✓
8	Cowfold - Haywards Heath	*EB*	22:47	16:00	24:00	✓	✓	16:08	14:00	20:00	✓	✓
	Haywards Heath - Cowfold	*WB*	16:56	16:00	24:00	✓	✗	18:57	16:00	24:00	✓	✓
9	Hurstpierpoint - Cowfold	*NB*	15:24	12:00	16:00	✓	✓	14:34	12:00	16:00	✓	✓
	Cowfold - Hurstpierpoint	*SB*	13:22	14:00	20:00	✗	✗	13:33	15:00	17:00	✗	✗
10	Crawley - East Grinstead	*EB*	24:39	18:00	35:00	✓	✓	23:27	20:00	40:00	✓	✗
	East Grinstead - Crawley	*WB*	20:57	18:00	40:00	✓	✗	22:25	16:00	26:00	✓	✓
11	Haywards Heath - Crawley	*NB*	23:57	20:00	35:00	✓	✓	20:18	18:00	26:00	✓	✓
	Crawley - Haywards Heath	*SB*	21:59	20:00	35:00	✓	✗	24:50	20:00	35:00	✓	✓
12	Hurstpierpoint - Crawley	*NB*	27:43	24:00	40:00	✓	✓	21:15	22:00	40:00	✗	✗
	Crawley - Hurstpierpoint	*SB*	22:23	20:00	35:00	✓	✗	26:27	22:00	40:00	✓	✓
13	Haywards Heath - East Grinstead	*NB*	24:06	22:00	28:00	✓	✓	23:36	20:00	26:00	✓	✓
	East Grinstead - Haywards Heath	*SB*	25:49	22:00	30:00	✓	✓	24:43	22:00	26:00	✓	✓
14	Hurstpierpoint - East Grinstead	*NB*	40:44	30:00	50:00	✓	✓	39:38	35:00	50:00	✓	✓
	East Grinstead - Hurstpierpoint	*SB*	36:01	30:00	50:00	✓	✓	39:39	30:00	45:00	✓	✓
15	Hurstpierpoint - Haywards Heath	*NB*	21:40	16:00	24:00	✓	✓	15:03	16:00	20:00	✗	✗
	Haywards Heath - Hurstpierpoint	*SB*	15:10	14:00	20:00	✓	✓	17:34	16:00	18:00	✓	✓
Total						**93.3%**	**80.0%**				**80.0%**	**70.0%**

Model validated against minimum and maximum journey times from Google Maps (08:00 & 17:00)

3.4.4 The results show a good performance for the AM and PM peak (*inter-peak to follow)*. It is therefore considered that for journey times the model quality is suitable for proceeding with the forecast modelling and transport study.

LOCAL MODEL VALIDATION REPORT (DRAFT)

SYSTRA

MID SUSSEX STRATEGIC HIGHWAY MODEL

LOCAL MODEL VALIDATION REPORT (DRAFT)

IDENTIFICATION TABLE	
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	Checked by	Claire Stephens	Associate	24/09/2018	
	Approved by	Ian Wilkinson	Associate Director	24/09/2018	

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Appendix B: Link Validation

1. INTRODUCTION

1.1 Commission

1.1.1 Mid Sussex District Council (MSDC) commissioned SYSTRA to:

- i. Build a strategic highway model to underpin the Mid Sussex Transport Study (MSTS);
- ii. Update the Mid Sussex Transport Study to test the impact of proposed development on the strategic and local transport network and upon significant routes in Ashdown Forest (adjacent to but outside of Mid Sussex District).

1.1.2 The work is further divided into the following stages:

- 2017 Base Year Highway Model Production and Validation (subject of this report);
- 2031 Reference Case Scenario;
- 2031 Development Scenarios including MSDC local plan developments;
- 2031 Development Scenarios including potential mitigation schemes with particular emphasis on demonstrating the impacts on the county and strategic road network including the impact on key junctions;
- Provision of detailed junction models for key junctions:

1.2 Background to the Study

1.2.1 The District Plan was submitted to the Secretary of State in August 2016 and adopted on 28th March 2018.

1.2.2 The Inspector is satisfied that it is appropriate for the Plan to contain a stepped housing trajectory, taking place after year 2023/24,at 876 dpa for the period up to 2023/24, and subsequently 1,090 dpa to 2031. Effectively this means MSDC have an agreed Plan at 876 dpa for the period to 2023/24 - with any subsequent increase primarily subject to the findings of Habitats Regulation Assessment at the higher level of development to assess the transport impact of the Plan on the Ashdown Forest.

1.2.3 The Mid Sussex Transport Study has been published in stages to support the District Plan through to adoption, the last being the Stage 3 Report (December 2016) with subsequent updates (see examination documents MSDC18 and MSDC244). Stage 3 reported on the impact of 800 dpa on the transport network. Agreement has been reached with Highways England (HE) and West Sussex County Council (WSCC) that the proposed District Plan housing requirement at 876 dpa is adequately considered by the Stage 3 Study as it is possible that virtually all the required significant interventions set out in the MSTS to mitigate the impact of development of 800 dpa per annum to 2031 (to support a total of 13,600 dwellings), will be delivered in the period up to 2023/24 (supporting a total of 6,132 dwellings at 876 dpa); and that the MSTS provides sufficient evidence to demonstrate that the additional units would also not cause harm to the highway network, subject to the implementation of required remedial intervention. This is on the

understanding that further transport modelling work will be completed to test the impact of 1,090dpa on the highway network.

1.3 Highway Model Production

1.3.1 The Mid Sussex Strategic Highway Model (MSSHM) was produced in accordance with standard good practice as set out in the DfT's WebTAG guidelines, in particular TAG unit M3-1 Highway Assignment Modelling, (January 2014). As such, the approaches to data processing, matrices and network production, along with model calibration are consistent with those of similar strategic highways models.

1.3.2 The model production made significant and appropriate use of existing data and existing models in the area. A very small programme of surveys was undertaken to fill in some gaps in data.

1.4 Transport Study

1.4.1 The impact on the highway network of the agreed Development Scenarios are assessed based on the National Planning Policy Framework (NPPF). The assessment of impacts is based on criteria agreed by MSDC and WSCC. These are derived using WSCC's position statement in relation to the NPPF which sets out their interpretation of terms defining traffic impacts.

1.4.2 Where junctions are assessed to be adversely impacted by the developments, a set of appropriate mitigation schemes are devised and tested. These mitigations aim to remove all 'severe' impacts. The proportion of the additional junction use attributable to each development site is also calculated.

1.4.3 Further work is also undertaken to:

- Undertake environmental impact and road safety impact analysis to comply with National Planning Practice Guidance on transport evidence bases in plan making. This work is expected to be undertaken for the 'preferred' development option as part of the Mid Sussex Transport Study to inform the proposed submission (Regulation 19) Site Allocations Development Plan Documents (DPD).
- Undertake air quality modelling and ecological interpretation for Habitats Regulations Assessment to test the impact of traffic, as a result of proposed development, on the Ashdown Forest Special Area of Conservation. This will be based on the outputs of the Mid Sussex Transport Study.

1.5 This Report

1.5.1 This report describes the production of the MSSHM and is structured as follows:

- Chapter 2: Key Features of the Model;
- Chapter 3: Model Standards;
- Chapter 4: Model Data;
- Chapter 5: Road Network;
- Chapter 6: Trip Matrices;
- Chapter 7: Calibration and Validation; and
- Chapter 8: Summary of Model Fitness for purpose.

2. KEY FEATURES OF THE MODEL

2.1 Software

2.1.1 The model uses SATURN software developed by Atkins and University of Leeds. The deterministic user equilibrium assignment method is used, which assumes users have perfect knowledge of journey times on the network from their origin to destination.

Geographic Coverage

2.1.2 In accordance with WebTAG Unit M3.1 Highway Assignment Modelling, the coverage of the model is organised into model areas of varying detail:

- Fully Modelled Area (FMA) as shown in **Figure 1:**
  - SATURN simulation (includes junction modelling)
  - Mid Sussex District and the Ashdown Forest plus a suitable area beyond
- External Area
  - SATURN buffer (does not include junction modelling)
  - Suitable area to accommodate all reasonable route choices for trips travelling within FMA in any part of its journey
  - Mainly motorways and A roads only

Figure 1. Fully Modelled Area

2.2 Base Year and Month

2.2.1 The base year and month is defined by the most predominant data used in matrix calibration. As in most models featuring a major trunk road or motorway this is likely to be the Highways England traffic count data, along with other permanent sites on major roads. The chosen base year and month should be the latest neutral month that can be practicably used in the model. According to DMRB (Design Manual for Roads and Bridges) guidance neutral months include:

- Late March and April -excluding the weeks before and after Easter
- May – excluding the weeks before and after bank holidays
- Most of June
- Late September
- All of October
- All of November

2.2.2 For Highways England and other permanent counts it is convenient to choose months where four full weeks of data can be used. Therefore it is considered that March, April, May and September are not suitable. The poor weather in March 2018 would also make this unsuitable. It was decided that **June 2017** would be used as the base year and month, in preference to October and November when poor weather can have an impact.

2.3 Time Periods

2.3.1 The model has the following assignment periods:

- AM peak hour (0800-0900)
- IP interpeak average hour (1000-1600)
- PM peak hour (1700-1800)

2.4 User Classes

2.4.1 The MSSHM has the following assignment user classes:

- Car;
- Light goods vehicles (LGVs); and
- Heavy goods vehicles (HGVs).

2.4.2 Additionally cars are split into three purposes:

- Car – commute / home based work
- Car – employer's business / in work
- Car – other (includes education and leisure)

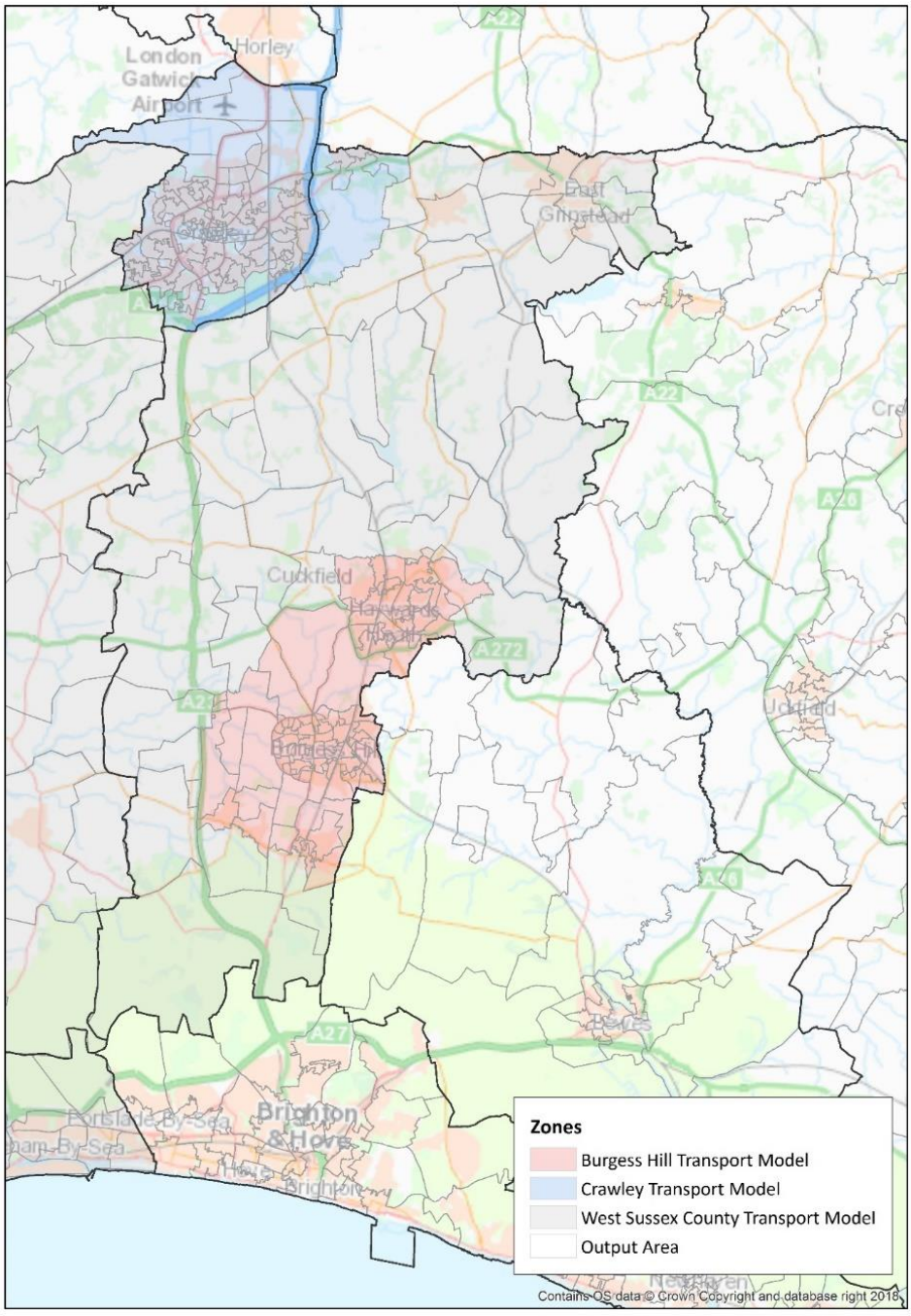
2.5 Zones

2.5.1 **Figure 2** shows the MSSHM zones system. The model has 825 zones. Several existing zone systems are combined for the MSSHM zone system:

- West Sussex County Transport Model (WSCTM) zones **(385 zones)**
- Burgess Hill Transport Model (BHTM) zones **(138 zones)**
- Crawley Transport Model (CTM) zones **(292 zones)**

2.5.2 Additionally, Middle and Lower Super Output Areas (MSOAs/LSOAs) are used for zones in neighbouring authorities. In Mid Sussex district the approach is to use the finest level of detail available from the existing systems. TEMPro areas (Middle Super Output Areas) are compatible with the zone system.

Figure 2. Zones



3. MODEL STANDARDS

3.1 Introduction

3.1.1 This chapter describes the criteria and acceptability guidelines against which the base year model is assessed in Chapter 6 (Calibration and Validation). The model should achieve the validation criteria and acceptability guidelines set out in WebTAG Unit M3-1 https://www.gov.uk/government/publications/webtag-tag-unit-m3-1-highway-assignment-modelling

3.2 Validation Criteria and Acceptability Guidelines

3.2.1 Validation involves comparing modelled and observed data. Any adjustments to the model intended to reduce the differences between the modelled and observed data are regarded as calibration.

3.2.2 The differences between modelled and observed data are quantified and assessed using the criteria described in this Chapter. The acceptability of the proportion of instances where the criteria are met is then assessed.

3.2.3 The validation of a highway assignment model includes comparisons of the following:

- assigned flows and counts totalled for each screenline or cordon, as a check of the quality of the trip matrices;
- assigned flows and counts of individual links as a check of the quality of the assignment; and
- modelled and observed journey times along routes, as a check of the quality of the network and the assignment.

3.2.4 For trip matrix validation, the measure used is the percentage difference between modelled flows and counts.

3.2.5 For link flow validation, the measures used are:

- the absolute differences between modelled flows and counts; and
- the GEH statistic which is a form of the Chi-squared statistic that incorporates both relative and absolute errors, and is defined as follows:

$$GEH = \sqrt{\frac{(M-C)^2}{(0.5\times(M+C))}}$$

where:
M is the modelled flow; and
C is the observed flow.

3.2.6 For journey time validation, the measure used is the percentage difference between modelled and observed journey times.

3.2.7 The validation criteria and acceptability guidelines for each of these measures are described as follows.

Trip Matrix Validation

3.2.8 Comparisons at screenline level provide information on the quality of the trip matrices. The validation criterion and acceptability guideline for screenline flows are defined in **Table 1** from WebTAG Unit M3-1 which is reproduced below.

Table 1. Screenline Flow Validation Criterion and Acceptability Guideline

CRITERIA	DMRB ACCEPTABILITY GUIDELINE
Differences between modelled flows and counts should be less than 5% of the counts	All or nearly all screenlines

3.2.9 With regard to screenline validation, the following should be noted:

- screenlines should normally be made up of more than 5 links;
- the comparisons for screenlines containing high flow routes such as motorways should be presented both including and excluding such routes;
- the comparisons should be presented separately for (a) roadside interview screenlines; (b) the other screenlines used as constraints in matrix estimation (excluding the roadside interview screenlines even though they have been used as constraints in matrix estimation); and (c) screenlines used for independent validation;
- the comparisons should be presented by vehicle type (preferably cars, light goods vehicles and other goods vehicles); and
- the comparisons should be presented separately for each modelled period.

Link Flow Validation

3.2.10 The validation criteria and acceptability guidelines for link flows are defined in **Table 2** from WebTAG Unit M3-1 which is reproduced below.

Table 2. Link Flow Validation Criteria and Acceptability Guidelines

CRITERIA	DMRB GUIDELINES
Individual flows within 15% of counts for flows from 700-2700 veh/h	> 85% of cases
Individual flows within 100 veh/h of counts for flows less than 700veh/h	> 85% of cases
Individual flows within 400 veh/h of counts for flows more than 2700 veh/h	> 85% of cases
GEH < 5 for individual flows	> 85% of cases

3.2.11 With regard to flow validation, the following should be noted:

- the comparisons should be presented for cars and all vehicles but not for light and other goods vehicles unless sufficiently accurate link counts have been obtained; and
- the comparisons should be presented separately for each modelled period.

Journey Time Validation

3.2.12 The validation criterion and acceptability guideline for journey times are defined in **Table 3** from WebTAG Unit M3-1 which is reproduced below.

Table 3. Journey Time Validation Criteria and Acceptability Guideline

CRITERIA	DMRB ACCEPTABILITY GUIDELINE
Modelled times along routes should be within 15% of surveyed times (or 1 minute, if higher)	> 85% of routes

3.2.13 With regard to the journey time validation, the comparisons should be presented separately for each modelled period.

3.3 Convergence Criteria and Standards

3.3.1 WebTAG Unit M3-1 states that before the results of any traffic assignment are used to influence decisions, the stability (or degree of convergence) of the assignment must be confirmed at the appropriate level. The importance of achieving convergence is related to the need to provide stable, consistent and robust model results. When the model outputs are being used to compare development or infrastructure options, it is important to be able to distinguish differences due to the scheme from those associated with different degrees of convergence, i.e. model 'noise'.

3.3.2 As recommended in WebTAG Unit M3-1 SATURN provides the ability to monitor and control stopping criteria using the '%GAP' statistic which is controlled in SATURN by the parameter 'STPGAP'. This is the difference between the costs along the chosen routes and those along the minimum cost routes, summed across the whole network, and expressed as a percentage of the minimum costs. **Section 7.6** provides more detail on the parameters used to control and monitor convergence.

3.3.3 **Table 4** summarises the most appropriate convergence measures and the values generally considered acceptable for use in establishing a base model. Tighter levels of convergence may be required for option testing. To ensure that, during the development of the base year model, reasonable levels of assignment convergence are achieved, WebTAG Unit M3-1 states a target %GAP value of 0.1% is used – that is, sufficient iterations are carried out to achieve a %GAP of 0.1% or less on four consecutive assignment loops.

Table 4. Summary of Convergence Measures and Base Model Acceptable Values

MEASURE OF CONVERGENCE	BASE MODEL ACCEPTABLE VALUES
Delta and %GAP	less than 0.1% or at least stable with convergence fully documented and all other criteria met
Percentage of links with flow change (P)<1%	four consecutive iterations greater than 98%
Percentage of links with cost change (P2)<1%	four consecutive iterations greater than 98%

4. MODEL DATA

4.1 Introduction

4.1.1 In order to undertake calibration and validation of the highway model a set of up to date traffic count data is required. The data collected are from the following sources:

- Highways England counts (Webtris)
- West Sussex County Council permanent and ad-hoc counts
- Department for Transport traffic counts
- Counts from the BHTM
- Surrey County Council
- East Sussex County Council
- Wealden District Council

4.1.2 The traffic count data is prepared for use in the model using the following Stages:

- Collation of Existing Traffic Counts
- Design of Screen Lines and Cordons
- New Traffic Counts
- Processing of Traffic Counts
- Preparation of Traffic Count Database

4.1.3 In addition journey time data is collected from TrafficMaster and Google.

4.2 Collation of Existing Traffic Counts

4.2.1 The traffic count data are collated and an inventory for each set is prepared. This is loaded into GIS (Graphical Information System) mapping using the Easting and Northing coordinates provided for each site. The count locations are shown **Figure 3.**

4.3 Design of Screen Lines and Cordons

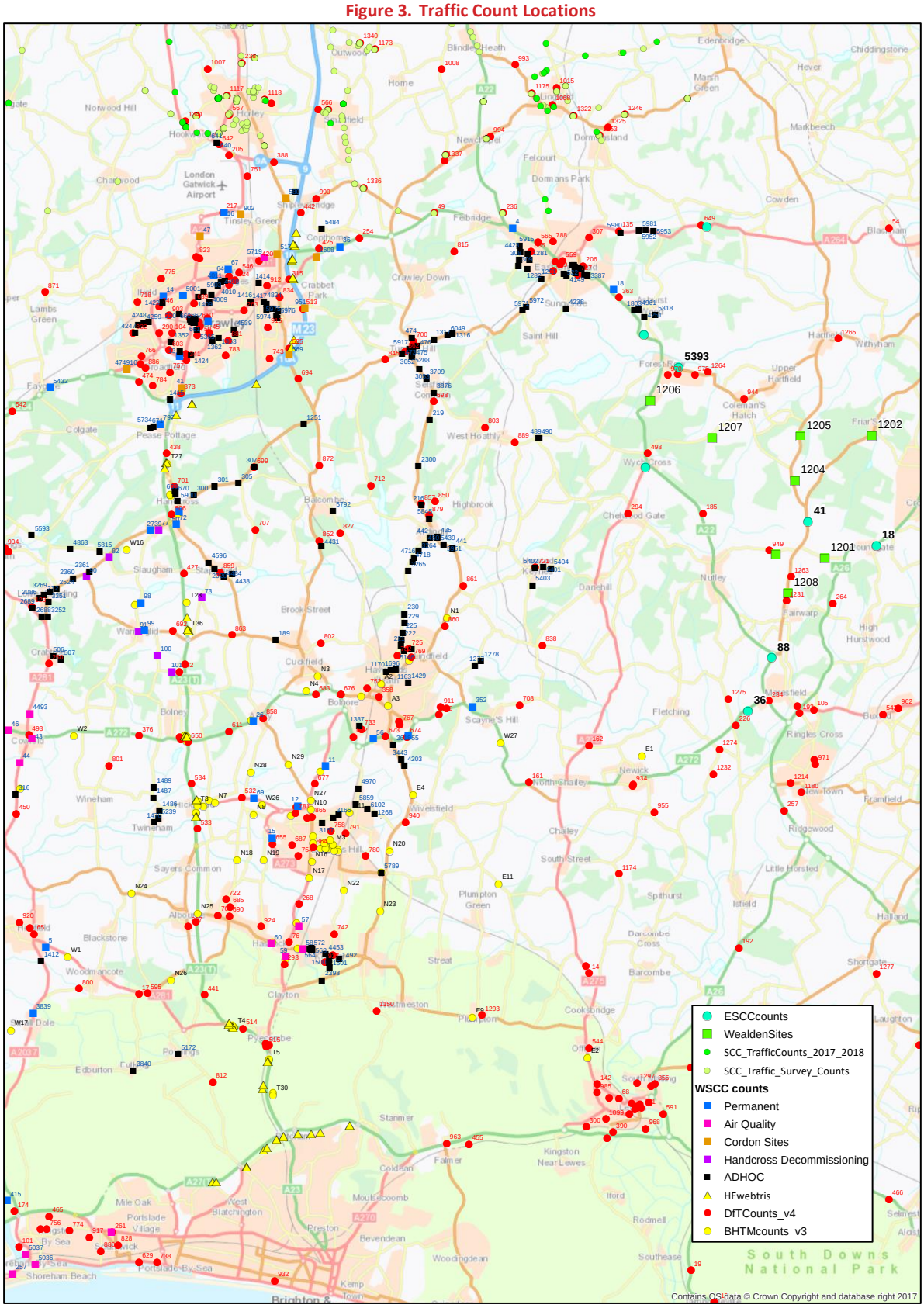
4.3.1 Screenlines and Cordons are groups of traffic count locations that are used to provide an organised structure for the use of counts in model production and to monitor and report broad movement of traffic. They are used in matrices construction, in model calibration and in validating the quality of the model.

4.3.2 The broad location of screenlines and cordons is dictated by suitable coverage and detail in accordance with good practice. However, the roads they pass through is additionally dictated by count data availability and making the best use of existing data.

4.3.3 *Cordons* are best for monitoring movements to, from and through key areas and towns. In the MSSHM cordons include:

- A large cordon broadly following the district boundary
- Cordons for the key towns, Burgess Hill, Haywards Heath and East Grinstead
- A cordon for the Ashdown Forest

Figure 3. Traffic Count Locations



4.3.4 *Screenlines* are for the purpose of monitoring broad movements across the district. Ideally they are long and cross each other to form a grid. They include:

- Long screenlines running north to south to the east and west of the A23
- East-west screenline south of the A272
- Smaller 'town' screenlines crossing Burgess Hill and Haywards Heath.

4.3.5 **Figure 4** shows the MSSHM cordons and screenlines and the locations of traffic counts used in the model production.

4.3.6 Although best use of existing data is made in designing the screenlines and cordons, some gaps or 'holes' are inevitable as shown in by the crosses on the figure. New traffic surveys are considered at these locations to ensure the screenlines and cordons are as watertight as possible, as described in the next section.

4.4 New Traffic Count Surveys

4.4.1 Locations identified as minor holes (blue crosses) are usually single track roads where surveys were not considered appropriate or good value due to the likely low flow. Some major holes on key roads were identified and new traffic surveys were undertaken at these locations as detailed in **Table 5** and shown on **Figure 4.**

Table 5. New Traffic Survey Locations

LOCATION	DESCRIPTION	DISTRICT
Monteswood Lane	Between Freshfield Lane and Treemans Road	Mid Sussex
Valebridge Road	Between Theobolds Road and Rocky Lane	Mid Sussex
Lower Church Road	Between Civic Way and St. John's Road	Mid Sussex
A2300 Northbound Slip	Between A23 and A2300 / Hickstead Lane roundabout	Mid Sussex
B2026 Edenbridge Road	Between Butcherfield Lane and B2110 Castlefields	Wealden
Chelwood Gate Road / Beaconsfield Road	Between A22 Chelwood Gate Road and Stone Quarry Road	Wealden

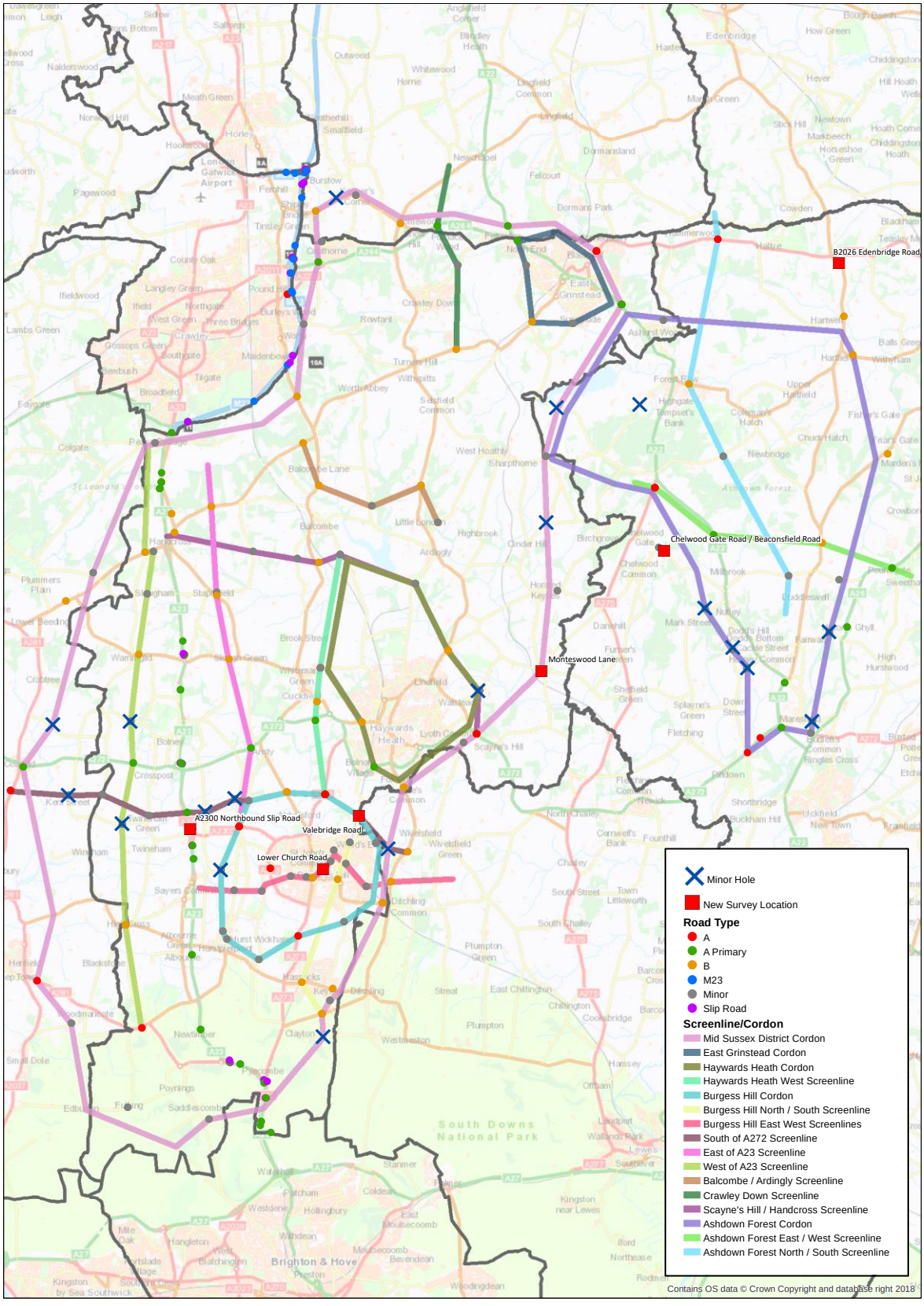
4.5 Processing of Traffic Counts

4.5.1 Traffic counts were collated from the follow datasets:

- **Highways England counts (Webtris)**
  Monday 5 June to Friday 30 June (weekdays only) is used where available

- **West Sussex County Council permanent and ad-hoc counts**
  These are extracted as required from the online system
  For permanent sites Monday 5 June to Friday 30 June (weekdays only) is used where available.
  For 'ad-hoc' sites data is used as available, usually only when less than 5 years old

Figure 4. Cordons and Screenlines with New Survey Locations



- **Department for Transport traffic counts**
  All counts for West Sussex, East Sussex and Surrey were extracted. As they were already processed the provenance is not fully understood. However, the accompanying guidance note states:

  "Raw manual counts dataset is the actual data collected by trained enumerators to feed into road traffic estimates….
  ….A raw count represents the number of vehicles of each type that flowed past a given point on that day broken by direction and hour. Major roads include Motorway and A-class roads."

  Theses counts are considered suitable for use where other data is not available.

- **Counts from the BHTM**
  Traffic count data used in the production of the BHTM was provided. This was predominantly dated 2015.

- **Surrey County Council (SCC)**
  SCC provided locations of all their available traffic count data. A selection of sites were requested in the Tandridge District to the north of Mid Sussex.

- **East Sussex County Council (ESCC)**
  ESCC provided existing and newly collected automatic traffic count data.

- **Wealden District Council (WDC)**
  WDC provided a set of existing counts located in the area of the Ashdown Forest.

Data Cleaning

4.5.2 A cleaning process was undertaken to remove anomalous data, resulting from incidents, equipment faults or other problems. For permanent counters the four weeks of June 2017 (Monday 5 June to Friday 30 June – weekdays only) are processed where available.

4.5.3 The processing is a part automated, part manual process and ensures consistency of approach. The steps are as follows:

Step A Raw data entry: The data is passed from the raw datasets to the analysis spreadsheet. At this point all recorded data is included.

Step B Initial analysis: The average (mean), maximum and minimum values are calculated for each location The analysis is undertaken for every row, i.e., by site, direction and hour for across all of the days on which data was collated (up to 20 weekdays for each direction).

Step C Remove anomalous counts: The maximum and minimum daily count for each direction are analysed to identify anomalies. Outlying days are removed manually until the maximum and minimum count are within approximately 20% of the average.

Step D: Finalise for Count Database: Final checks are undertaken before the average counts are passed to the count database for use in the model.

4.6 Traffic Count Database

4.6.1 Once processed the traffic counts are presented in a common format using MS Excel spreadsheets. This makes the data accessible for analysis and use across all the data sets. It also means it can be conveniently accessed and used for other non-modelling purposes if desired. The database is directly linked to GIS allowing easy navigation of data.

4.6.2 The count database includes an output sheet which presents all count sites by direction, with classified counts (Car, LGV, HGV) for the model periods (AM 0800-0900, average inter-peak 1000-1600 and PM 1700-1800). This output is then used as the main input for use of traffic counts in the model, i.e. for matrix updates, calibration and validation.

4.6.3 **Table 6** shows a summary of the analysis undertaken to provide vehicle class proportions to disaggregate counts into Car, LGV and HGV. The table shows proportions for traffic counts where full vehicle classification is available. These proportions are then used to 'infill' traffic counts where only a total vehicle count is available. Observation of the range proportions for each road type showed that they are broadly consistent for road type and period, with no particular geographical trends for the Mid Sussex area. Therefore it is considered appropriate to apply the factors globally by road type and period.

Table 6. Traffic Counts (Vehicles) by Road Type and Vehicle Class

ROAD TYPE	AM			INTER-PEAK			PM		
	Car	LGV	HGV	Car	LGV	HGV	Car	LGV	HGV
Motorway	77.5%	14.9%	7.7%	72.6%	17.6%	9.8%	82.8%	12.6%	4.6%
A	83.2%	13.3%	3.5%	79.7%	15.7%	4.6%	87.8%	11.0%	1.3%
B	86.2%	12.0%	1.8%	82.3%	14.9%	2.8%	88.6%	10.8%	0.6%
C	87.6%	11.0%	1.4%	84.1%	13.9%	2.0%	89.0%	10.6%	0.4%
unclassified	88.3%	10.5%	1.2%	84.2%	14.0%	1.9%	89.8%	9.7%	0.5%
Overall	83.2%	13.1%	3.7%	79.2%	15.8%	5.0%	87.3%	11.1%	1.6%

4.7 Journey Times

4.7.1 The journey time routes are summarised in **Table 7** and mapped in **Appendix A**.

Table 7. Journey Time Routes

ID	Journey Time Route	Distance (km)	ID	Journey Time Route	Distance (km)
1	Cowfold - Burgess Hill	13.6	9	Hurstpierpoint - Cowfold	12.5
2	Burgess Hill - Crawley	22.9	10	Crawley - East Grinstead	13.5
3	Burgess Hill - East Grinstead	23.2	11	Haywards Heath - Crawley	19.3
4	Burgess Hill - Haywards Heath	6.1	12	Hurstpierpoint - Crawley	23.2
5	Hurstpierpoint - Burgess Hill	8.6	13	Haywards Heath - East Grinstead	18.1
6	Cowfold - Crawley	21.3	14	Hurstpierpoint - East Grinstead	36.1
7	Cowfold - East Grinstead	26.5	15	Hurstpierpoint - Haywards Heath	12.1
8	Cowfold - Haywards Heath	13.0			

5. ROAD NETWORK

5.1 Introduction

5.1.1 The road network is represented by two levels of network detail, the fully modelled area (FMA) and external area. **Table 8** outlines the different regions.

Table 8. Network Structure by Model Area

NETWORK TYPE	MODEL AREA	MODELLING DESCRIPTION
Simulation network	Fully Modelled Area	Junction capacity restraints are explicitly modelled for priority junctions, roundabouts, and signalised junctions considering the interaction of different movements. As shown in Figure 1.
Speed / flow network	External Area	Capacity restraint is based on speed versus flow curves, where increased flows on a particular link result in increased travel times along that link

5.1.2 The core fully modelled area includes all motorways, A roads, B roads and minor roads and other roads considered to carry high volumes of traffic. Professional judgment of the project team was used to assess which minor roads have sufficiently high volumes of traffic to warrant inclusion. Furthermore, the client, and related consultants have been consulted with to ensure all appropriate roads have been included.

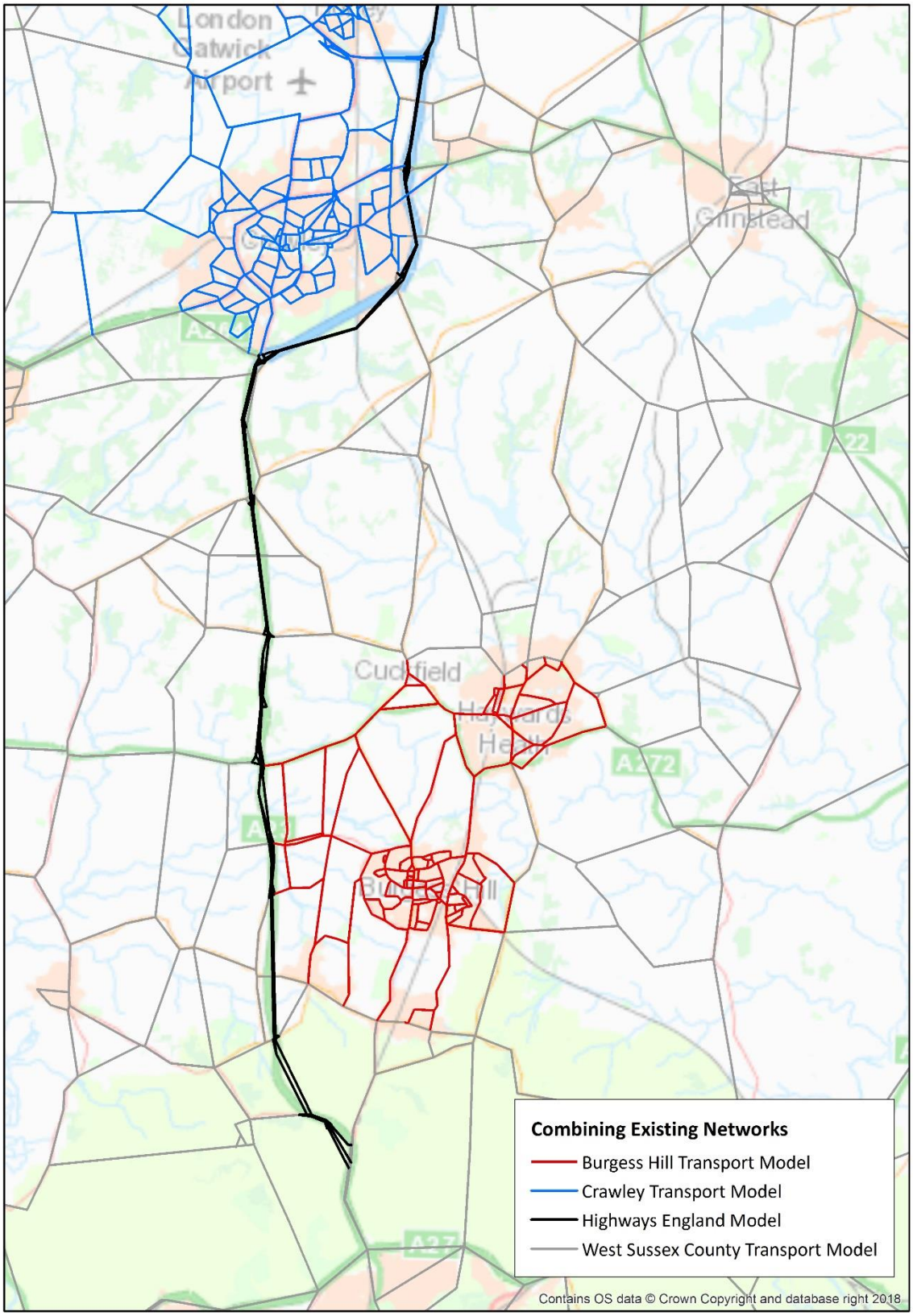
5.1.3 The road network represented in the external area reduces in density with distance from the core fully modelled area. This mirrors the zone system used in the MSSHM. In the districts surrounding Mid Sussex, all motorways, A roads and key strategic routes are included. At a regional level however, a skeletal network is used, covering only main routes into the area.

5.2 Method

5.2.1 The MSSHM uses several existing models to produce a road network with an appropriate level of detail for the model purpose. The existing models have different purposes and therefore cover different areas in and around Mid Sussex. The WSCTM for example, provides sufficient detail for the entire West Sussex area, whereas the BHTM and CTM models have greater detail of the road networks in Burgess Hill and Crawley respectively. To establish a detailed road network of Mid Sussex, the most detailed areas of each model have been combined to form the MSSHM. The models are listed below, with the road used from each model being represented in **Figure 5.**

- The West Sussex County Model (WSCTM)
- Burgess Hill Transport Model (BHTM)
- Crawley Transport model (CTM)
- Highways England M23 Junction 8-10 Model

Figure 5. Existing networks combined for the MSSHM



5.3 Network Review

5.3.1 The models used to establish the road network have different base years, and therefore have be audited against the road network in 2017, the base year of the MSSHM.

5.3.2 By using web-based portals, such as road maps, aerial photography, and ITN networks, an audit has been conducted to ensure all strategic roads are included in the network. A GIS shapefile, including all roads in the West Sussex County was also used. The shapefile contains supplementary information, including the following:

- Road class
- Road length
- Speed limit

5.3.3 The modelled speed of the roads within the network should not be solely based on the speed limit. This would assume that vehicles travel at the speed limit for the full length of the road. In reality, it takes time for vehicles to accelerate after entering a road, and decelerate when approaching a junction, and on some minor, rural roads, traffic may never travel at the speed limit due to the road conditions. To represent this behaviour accurately, and to ensure speeds are modelled consistently throughout the MSSHM, standards have been developed. The standards use a factored speed limit, established by the attributes in **Table 9**, to determine the cruise speed of roads in the model.

Table 9. Attributes used to determine modelled cruise speed

ATTRIBUTE	DESCRIPTION
Speed limit	Sign-posted speed limit As shown in **Figure 6**.
Road classification	Motorway Slip Road A Road B Road C Road Other. As shown in **Figure** 7.
Area type	Whether the geographical area is classified as urban or rural. Urban settlements are defined as having a resident population greater than 10,000, whereas rural settlements have less than 10,000. As determined in the Rural Urban Classification, published as an official statistic as part of the 2011 Census. As shown in **Figure 8**.
Lanes	The number of lanes on the road, by direction.

Figure 6. Speed Limits

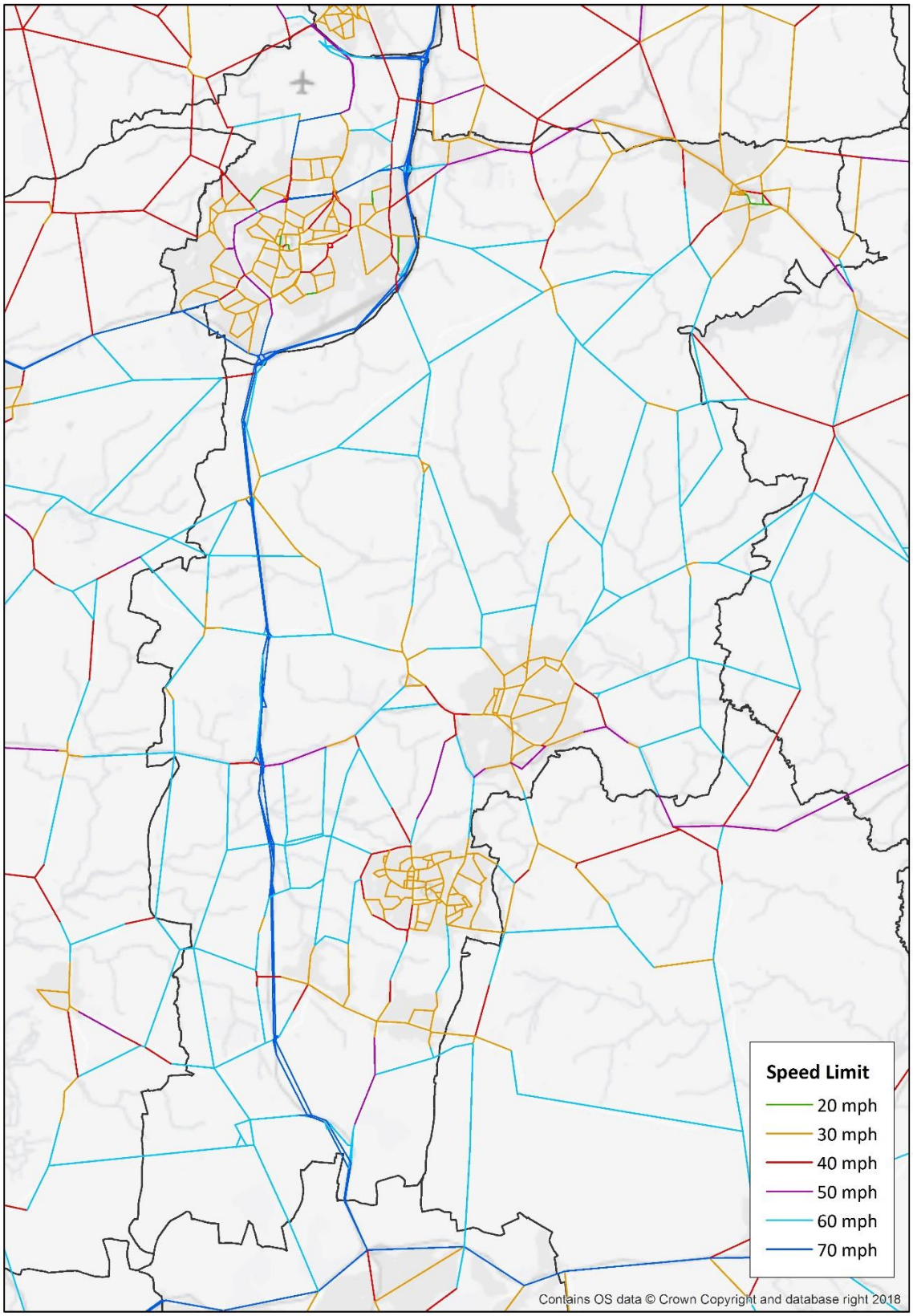


Figure 7. Road classification

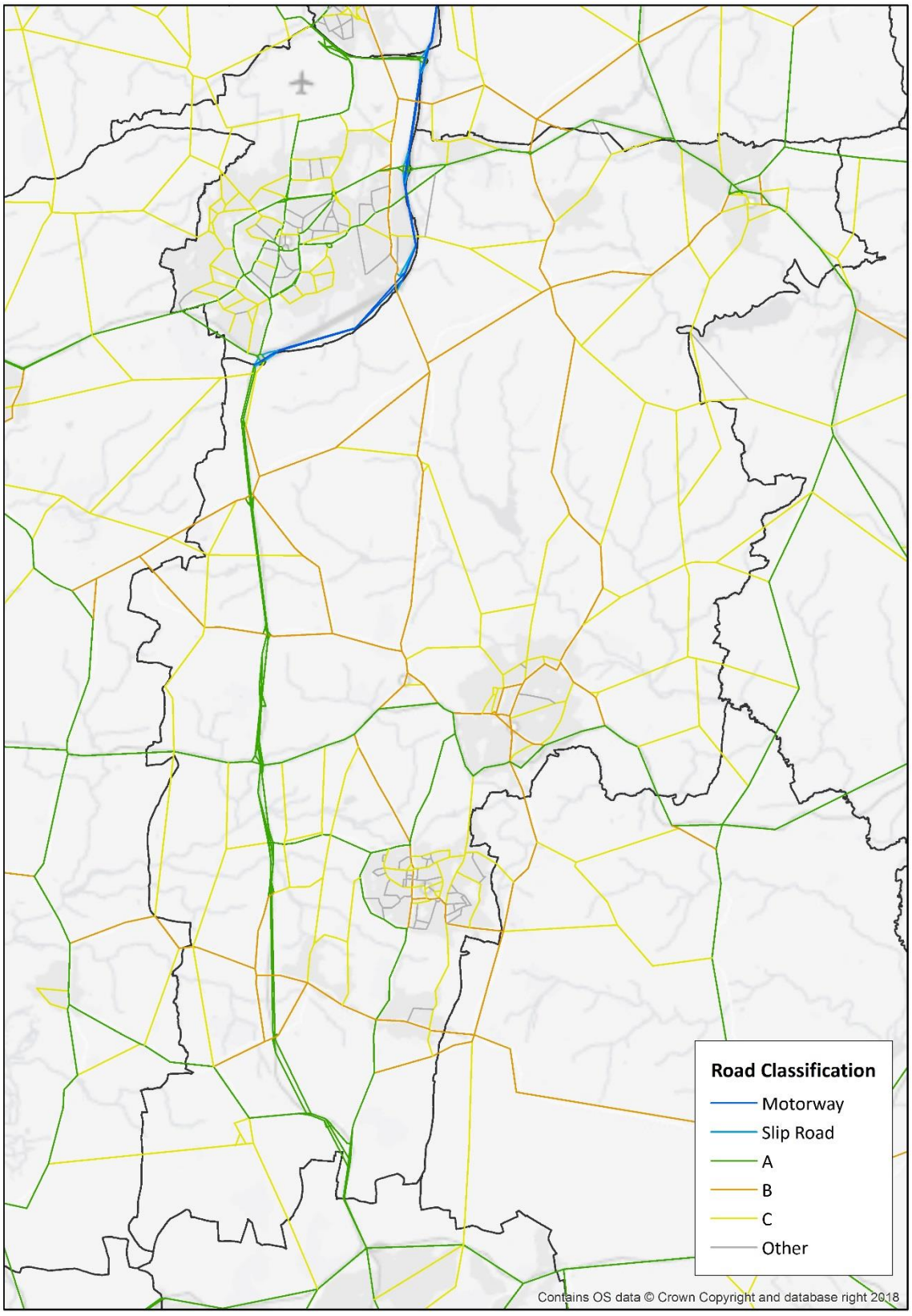
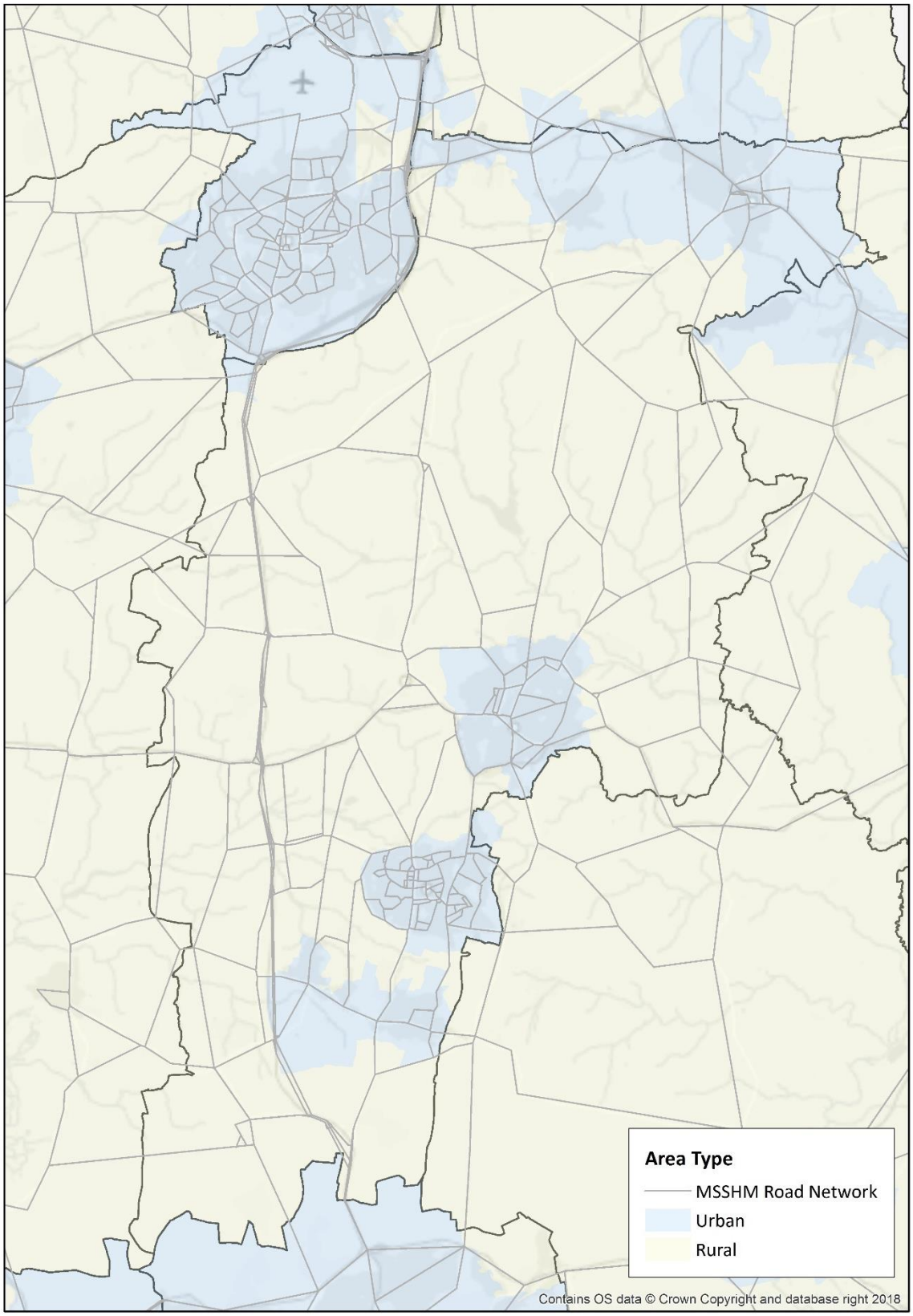


Figure 8. Area type



5.4 Junction Modelling

5.4.1 The design of a junction determines the capacity, in terms of the volume of traffic able to pass through the junction in a defined period of time. Saturation flow represents this measure, describing the number of passenger car units able to pass through the junction on a particular turning movement during one hour of unopposed flow i.e. assuming that no traffic is making another conflicting movement through the junction during this time.

5.4.2 To ensure further consistency across the model, saturation flows have been standardised alongside model speeds. The factors listed in **Table 10** have been used to identify, and implement standards in the MSSHM.

Table 10. Attributes used to determine modelled saturation flows

ATTRIBUTE	DESCRIPTION
Junction type	i.e. Priority junction, roundabout, mini-roundabout, signalised junction, zone access
Approach lanes	The number of lanes at the junction stop line
Volume of traffic	The volume of traffic passing through the junction
Opposing traffic flows	Including give way, merging traffic, and opposed right turns

5.4.3 Each node and link is run through the SATURN network build module, SATNET to ensure no serious errors or warnings exist in the model.

5.4.4 The gap acceptance has been adopted based on practical experience of calibrating and validating SATURN based models, and existing models. The following values have been used in the simulation road network:

- 1.5 seconds for priority junctions or traffic signals;
- 0.75 seconds for merging turns; and
- 1.25 seconds for roundabouts.

5.5 Zone Loading Locations

5.5.1 The location of zone loading points ensures the loading of traffic onto the network is realistic. By using aerial photography and technical experience, patterns of traffic movements and feeding points of local traffic onto strategic roads have been identified.

5.6 Assignment Parameters

5.6.1 Generalised cost parameters are used in the model to determine the minimum cost route by which traffic is assigned onto the network. The parameters required are pence per minute (PPM), and pence per kilometre (PPK). These are calculated by using value of time (VOT), vehicle operating costs (VOC), and vehicle occupancies from the WebTAG Databook - March 2018 Release v1.7. PPM and PPK figures are read into SATURN by user class and time period.

6. TRIP MATRICES

6.1 Introduction

6.1.1 This Chapter summarises the methodology for production of the base year trip matrices. These matrices were later calibrated using matrix estimation; the trip matrix validation results are reported in Chapter 7. The matrices described in this section are referred to as 'prior' matrices.

6.1.2 The 2017 base year highway trip matrices are produced for the periods and user classes/purposes described in Chapter 2. Several sets of existing matrices and data were available for use in matrices production, including:

- West Sussex Mobile Network Data (MND) matrices
- West Sussex County Transport Model (WSCTM) matrices
- Burgess Hill Transport Model (BHTM) matrices
- Crawley Transport Model (CTM) matrices
- Census Travel to Work 2011

6.1.3 The approach used for the MSSHM matrices was to make the best use of these existing matrices and data in combination. The MSSHM zone system and matrices have been developed to be compatible with the systems listed above, along with Middle Super Output Areas (MSOAs) .

6.2 Data Analysis

Suitability of Existing Data

6.2.1 The existing datasets were analysed to assess suitability for use in the MSSHM. The BHTM and CTM matrices have base years of 2015 and were constructed using the MND matrices. The WSCTM is a well-established model and has a base year of 2010. The following key analysis was undertaken:

- Analysis of year to year trends (this was required to ascertain whether adjustment factors need to be applied to data used)
- Census Travel to Work 2011 (to confirm suitability for commuting trip patterns)
- West Sussex Mobile Network Data (MND), to confirm its suitability for use as applied in the BHTM and CTM matrices, here using a direct comparison to Census Travel to Work 2011

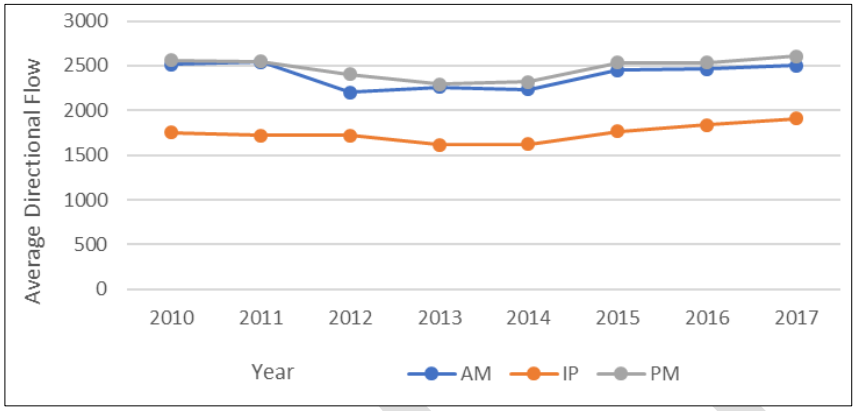
Analysis of Year to Year Trends

6.2.2 The existing data and models used in the MSSHM matrices have varied base years. Therefore it is appropriate to investigate whether adjustments should be made to ensure existing data reflects 2017 volumes of traffic before they are used for the MSSHM.

6.2.3 An analysis of year to year trends in traffic flows was undertaken using Highway England permanent traffic counts. Ten sites were identified on the M23 and A23 for which data

was available for the month of June for every year from 2010 to 2017. **Figure 9** shows the year to year variation of the average traffic flow across these sites, for the three model periods, AM, IP and PM.

Figure 9. Year to Year Traffic Flow Trends: 2010-2017



6.2.4 The key years which require consideration are 2010 (WSCTM), 2011 (Census Travel to Work), 2015 (BHTM and CTM), and 2017 (MSSHM). The analysis shows that for these years, for AM and PM in particular the trend is reasonably consistent, with similar volumes across the four years being considered. All periods show a dip from 2012 to 2014, before returning to 2010/2011 volumes by 2015. This dip was likely to be due to the A23 Handcross to Warninglid works and also possibly Smart Motorway works on the M25.

6.2.5 It was concluded that year to year adjustment factors do not need to be applied to the existing data.

Census Travel to Work 2011

6.2.6 It is considered that although now several years old this data still provides a realistic distribution for home to work trips, due mainly to its very high sample rate and full geographic coverage. However, to confirm this and familiarise with the local commuting patterns an analysis of this data was undertaken for a suitable MSOA based sector system which is shown in **Figure 10.**

6.2.7 **Table 11** shows the matrix of car driver home to work trips for the colour coded sector system.

West Sussex Mobile Network Data (MND)

6.2.8 Similarly to the Census data the MND data was analysed to confirm its suitability for use. The home to work AM peak MND matrices were converted to the same sector system so that a direct comparison could be made to the Census Travel to Work data. This resulting matrix is shown in **Table 12.**

6.2.9 In terms of the overall pattern of trips, it is considered that, where comparable, the correlation between the Census and MND matrices is reasonable, confirming the MND matrices suitability for use in the MSSHM.

Figure 10. Mid Sussex MSOAs

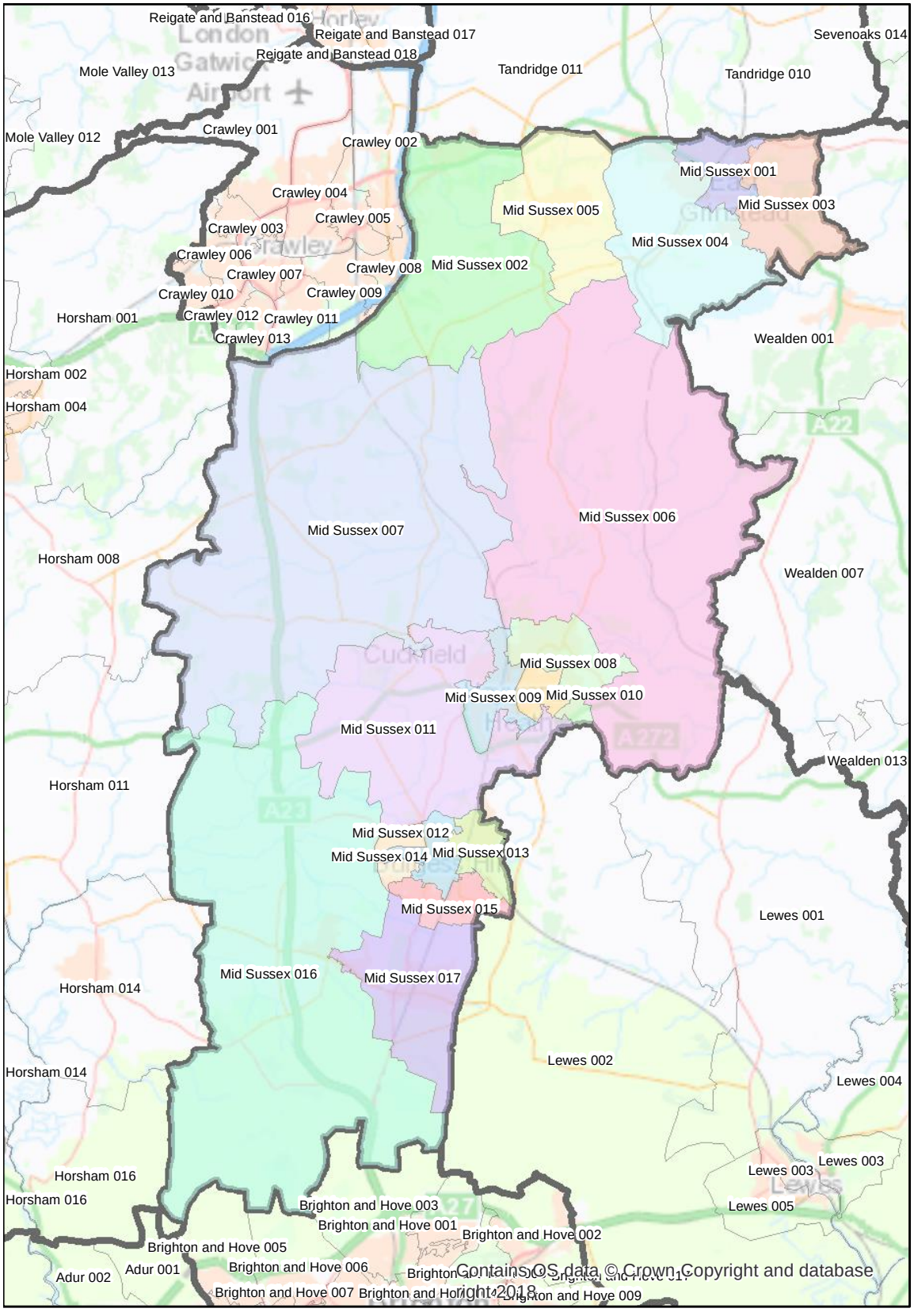


Table 11. Census Travel to Work 2011 (Car Driver)

		East Grinstead Central/North	Copthorne	East Grinstead East, Ashurst Wood	East Grinstead West, Saint Hill	Crawley Down	Horsted Keynes, Scaynes Hill	Staplefield, Balcombe	Haywards Heath - Lindfield	Haywards Heath - West	Haywards Heath Central	Ansty, Cuckfield	Burgess Hill - West	Burgess Hill - East	Burgess Hill - Central	Burgess Hill - South	Hickstead, Albourne	Hassocks	West Sussex (rest)	Brighton and Hove	East Sussex	Surrey	South East (rest)	Rest of UK	
001	East Grinstead Central/North	514	28	74	227	39	48	14	13	34	3	8	7	1	7	5	11	3	624	32	196	742	195	267	3,092
002	Copthorne	86	104	12	33	34	23	20	6	30	1	6	9	3	15	12	9	0	784	22	37	463	57	202	1,968
003	East Grinstead East, Ashurst Wood	492	28	106	178	21	41	10	10	25	3	14	3	0	7	9	11	1	448	25	211	489	151	179	2,462
004	East Grinstead West, Saint Hill	376	22	51	126	14	33	9	10	25	2	10	2	0	6	5	4	1	434	17	132	404	130	184	1,997
005	Crawley Down	157	59	21	41	76	32	13	7	18	0	11	7	1	15	8	5	3	663	30	52	430	71	173	1,893
006	Horsted Keynes, Scaynes Hiil	79	26	15	25	6	169	23	73	156	21	67	15	7	30	26	24	6	342	55	216	161	57	130	1,729
007	Staplefield, Balcombe	25	23	6	11	6	29	153	34	102	12	80	27	3	34	21	46	11	630	74	78	224	64	150	1,843
008	Haywards Heath - Lindfield	40	16	5	16	4	95	46	146	292	56	146	26	3	66	55	46	15	428	128	194	133	69	114	2,139
009	Haywards Heath - West	28	11	4	15	5	90	48	58	297	33	154	57	8	94	59	60	12	624	154	217	158	64	130	2,380
010	Haywards Heath Central	28	8	1	10	9	88	50	108	253	53	108	18	7	69	46	44	8	350	92	148	106	42	76	1,722
011	Ansty, Cuckfield	39	14	9	13	4	89	57	99	308	65	167	25	10	99	51	58	17	495	149	191	150	53	149	2,311
012	Burgess Hill - West	17	6	1	6	6	25	38	32	243	19	112	86	20	251	126	86	39	535	186	160	116	46	105	2,261
013	Burgess Hill - East	19	3	1	2	9	17	36	42	228	19	128	99	38	242	144	101	50	402	202	215	103	42	88	2,230
014	Burgess Hill - Central	14	8	1	11	7	40	46	31	207	13	113	96	33	222	130	113	66	446	197	226	102	50	96	2,268
015	Burgess Hill - South	23	8	1	6	5	12	17	25	158	13	87	60	11	165	116	61	38	339	171	166	82	39	69	1,672
016	Hickstead, Albourne	8	1	3	5	3	21	36	24	96	15	75	35	12	130	60	226	81	509	396	156	93	46	121	2,152
017	Hassocks	17	1	4	8	4	20	15	35	138	16	69	39	12	172	104	133	121	424	384	239	66	37	77	2,135
	West Sussex (rest)	556	448	43	315	172	161	519	140	797	59	342	380	26	526	341	567	79	119,089	8,529	2,112	14,191	9,376	7,879	166,647
	Brighton and Hove	84	35	21	60	25	61	79	55	382	54	284	245	28	486	259	461	150	8,530	21,713	4,305	1,205	869	2,253	41,644
	East Sussex	666	73	108	244	41	348	84	163	781	77	376	197	24	416	280	359	90	4,133	7,212	85,076	1,770	10,296	4,517	117,331
	Surrey	557	139	58	279	88	44	94	30	129	9	40	49	1	40	52	45	3	9,210	290	358	173,193	34,191	66,206	285,105
	South East (rest)	334	37	28	124	19	32	31	17	81	9	17	52	3	31	42	35	2	11,419	381	4,102	49,092	1,285,464	178,128	1,529,480
	Rest of UK	166	75	11	132	16	45	49	18	107	9	22	228	6	47	140	86	2	7,891	707	1,386	52,507	180,732	10,574,760	10,819,142
		4,325	1,173	584	1,887	613	1,563	1,487	1,176	4,887	561	2,436	1,762	257	3,170	2,091	2,591	798	168,749	41,146	100,173	295,980	1,522,141	10,836,053	12,995,603

Table 12. MND Home to Work (AM)

		East Grinstead Central/North	Copthorne	East Grinstead East, Ashurst Wood	East Grinstead West, Saint Hill	Crawley Down	Horsted Keynes, Scaynes Hill	Staplefield, Balcombe	Haywards Heath - Lindfield	Haywards Heath - West	Haywards Heath Central	Ansty, Cuckfield	Burgess Hill - West	Burgess Hill - East	Burgess Hill - Central	Burgess Hill - South	Hickstead, Albourne	Hassocks	West Sussex (rest)	Brighton and Hove	East Sussex	Surrey	South East (rest)	Rest of UK	
001	East Grinstead Central/North	186	47	71	105	74	22	8	1	17	8	8	1	1	10	2	3	0	581	20	247	560	201	118	2,291
002	Copthorne	184	5	8	78	119	3	17	1	10	7	65	7	0	5	0	26	0	875	15	32	278	33	51	1,819
003	East Grinstead East, Ashurst Wood	185	19	11	183	115	20	5	4	19	4	17	3	0	0	2	3	0	286	9	133	448	181	89	1,736
004	East Grinstead West, Saint Hill	219	31	31	55	91	18	17	14	16	8	4	1	2	2	4	1	0	369	5	122	252	125	77	1,464
005	Crawley Down	130	4	55	27	21	13	17	4	8	1	8	1	0	3	0	4	0	420	7	65	205	49	55	1,097
006	Horsted Keynes, Scaynes Hiil	107	16	7	83	9	20	12	8	65	8	85	13	13	60	1	18	5	352	20	181	201	74	32	1,390
007	Staplefield, Balcombe	28	21	6	18	7	2	6	10	52	0	42	14	6	30	13	4	4	712	35	47	134	28	53	1,272
008	Haywards Heath - Lindfield	34	12	11	7	7	23	20	16	84	28	211	96	11	164	46	38	13	373	61	190	60	29	12	1,546
009	Haywards Heath - West	44	4	3	11	3	35	52	55	117	13	672	83	15	149	26	20	13	453	131	187	50	28	19	2,183
010	Haywards Heath Central	26	9	3	6	0	17	8	14	59	4	209	38	22	129	31	10	2	208	49	161	23	21	11	1,060
011	Ansty, Cuckfield	33	0	7	4	7	15	70	24	58	62	91	62	18	135	42	23	27	421	97	168	52	29	27	1,472
012	Burgess Hill - West	28	10	2	2	0	31	38	49	142	33	213	2	0	10	42	45	75	331	179	138	75	17	24	1,486
013	Burgess Hill - East	17	3	0	5	8	30	71	50	95	59	128	34	9	99	29	46	19	268	130	198	38	22	6	1,364
014	Burgess Hill - Central	18	7	2	4	2	39	41	29	204	35	182	1	0	52	56	39	33	441	342	168	73	21	24	1,813
015	Burgess Hill - South	6	1	0	3	0	17	11	15	64	13	39	11	0	113	42	84	1	238	365	166	31	15	7	1,242
016	Hickstead, Albourne	24	4	0	0	3	7	38	16	55	5	140	13	2	22	42	17	99	542	347	88	74	22	21	1,581
017	Hassocks	14	8	1	4	5	24	27	26	124	15	47	12	45	82	24	132	40	339	591	186	49	17	21	1,833
	West Sussex (rest)	588	473	85	238	239	163	313	122	390	51	364	540	54	446	141	438	136	120,341	11,711	1,871	12,248	5,704	3,659	160,315
	Brighton and Hove	65	34	8	37	17	33	64	46	193	18	125	284	55	429	207	358	232	7,862	64,066	9,433	463	577	294	84,900
	East Sussex	804	60	129	227	108	171	193	181	717	119	392	158	17	442	158	239	108	2,983	10,126	21,724	1,246	8,923	853	50,078
	Surrey	672	119	236	300	100	13	37	28	34	0	9	47	3	42	9	35	1	8,966	187	495	101,658	5,540	18,372	136,903
	South East (rest)	316	24	98	108	34	22	25	26	52	5	20	29	5	23	16	38	14	8,298	1,138	8,082	10,700	46,722	11,927	87,722
	Rest of UK	107	19	13	76	15	7	14	10	15	6	2	16	5	10	9	21	4	3,822	216	321	25,000	9,569	4,861	44,138
		3,835	930	787	1,581	984	745	1,104	749	2,590	502	3,073	1,466	283	2,457	942	1,642	826	159,481	89,847	44,403	153,918	77,947	40,613	590,705

6.3 Prior Matrices Production

6.3.1 Following the analysis of the existing matrices and data, a method to combine these to create the MSSHM prior matrices was specified. As previously stated the approach for the MSSHM matrices was to make the best use of these existing matrices and data in combination, within the confines of the geographic coverage and matrix dimensions (e.g. time periods, vehicle/user classes) that are available for each existing data source.

6.3.2 Matrices are required for each of the three periods (Section 2.3) and five vehicle/users classes, resulting in fifteen matrices in total.

6.3.3 Before data could be used it also had to be converted to the MSSHM zone system. This was done using GIS based analysis and use of postcode points to accurately split zonal trip ends.

Matrices combination

6.3.4 For each period and user class, the suitable data source was specified based on the data analysis. This was undertaken separately for the following features of the matrices:

- Zonal trip ends, i.e. the volume of trips going to and from the zones
- Distribution i.e. the pattern of trips or where the trips go to or come from

6.3.5 The availability of this information differs by existing data source for each period and vehicle/user classes, for example the WSCTM is AM peak hour only, with one user class. The existing data also varies in geographical coverage in terms of the fullness of the trip data it provides; while the Census and WSCTM provide wide coverage, the BHTM and CTM are smaller models and have more limited coverage.

6.3.6 For these reasons the data source selected varies for trip ends and distribution, by vehicle/use class and geographical area. **Table 13** shows the main source data for geographical and user class components of the matrices.

Table 13. Prior Matrix Sources

Class	Burgess Hill / Haywards Heath		Rest of Mid Sussex		Crawley Area		Rest of West Sussex		Rest of UK	
	Trip Ends	Distribution	Trip Ends	Distribution	Trip Ends	Distribution	Trip Ends	Distribution	Trip Ends	Distribution
Car Commute	BHTM / MND	**Census Journey to Work**	WSCTM (Split by Class)	**Census Journey to Work**	CTM / MND	**Census Journey to Work**	WSCTM (Split by Class)	**Census Journey to Work**	WSCTM/ TEMPro	**Census Journey to Work**
All Others	BHTM / MND	WSCTM	WSCTM (Split by Class)	WSCTM	CTM / MND	WSCTM	WSCTM (Split by Class)	WSCTM	WSCTM/ TEMPro	WSCTM

Trip Ends

6.3.7 Trips ends are largely provided by WSCTM, BHTM and CTM models for the MSSHM area. Although WSCTM coverage is good within West Sussex and the immediate surrounds, for locations near to Mid Sussex in Surrey and East Sussex, TEMPro was used to ensure the demand to and from these areas is complete for journeys in the MSSHM area.

6.3.8 Where WSCTM is used this required the single user class to be split using appropriate factors. These were derived from models with more segregation of user classes, as shown in **Table 14**.

Trip Distribution

6.3.9 Census Travel to Work 2011 data is used for the distribution of commuting destinations. This data is regarded as being the best for providing accurate representation of home to work trips due to its very high sample size. This is of critical importance for the development sites being tested in the transport study. The WSCTM is considered suitable for providing a realistic trip distribution for non-commuting trips.

6.3.10 Due to the timing of the Census the 2011 data is six years older than the model base year. This data is used for trip distribution purposes only and is not used for any volumetric totals in the matrices. It is therefore considered that this data is suitable for use as long as there have not been any large changes to the proportional distribution of employment compared to housing in the district and surrounding area. Following discussion with Mid Sussex District Council it was concluded that there have not been any significant such changes that would require any adjustment to the Census data.

Matrix Sizes and Proportions

6.3.11 **Table 14** shows the MSSHM matrices sizes and proportions by user classes with comparison to the BHTM and CTM. The proportions are consistent across the models.

Table 14. Matrix Sizes

		BHTM		CTM		MSSHM	
AM							
Car	Commute	13,258	39%	18,055	31%	59,807	38%
Car	Business	5,547	16%	6,318	11%	24,070	15%
Car	Other	9,436	28%	23,068	40%	46,401	30%
LGV	LGV	3,252	10%	5,013	9%	14,652	9%
HGV		1,229	7%	2,732	9%	5,454	7%
Car Total		**28,241**	**83%**	**47,441**	**82%**	**130,278**	**84%**
Grand Total		**33,952**	**100%**	**57,918**	**100%**	**155,838**	**100%**
IP							
Car	Commute	2,364	10%	2,815	7%	9,356	10%
Car	Business	3,116	13%	4,233	10%	12,489	13%
Car	Other	12,742	54%	23,282	58%	52,592	54%
LGV	LGV	2,889	12%	4,940	12%	13,276	14%
HGV		1,204	10%	2,554	13%	5,255	11%
Car Total		**18,223**	**77%**	**30,330**	**75%**	**74,437**	**76%**
Grand Total		**23,519**	**100%**	**40,379**	**100%**	**98,223**	**100%**
PM							
Car	Commute	11,684	36%	16,991	30%	50,768	35%
Car	Business	3,120	10%	4,012	7%	14,309	10%
Car	Other	13,818	43%	26,981	48%	62,989	43%
LGV	LGV	2,356	7%	4,302	8%	11,669	8%
HGV		585	4%	1,747	6%	2,824	4%
Car Total		**28,621**	**89%**	**47,984**	**86%**	**128,066**	**88%**
Grand Total		**32,147**	**100%**	**55,780**	**100%**	**145,383**	**100%**

Calibration and Validation of Prior Matrices

6.3.12 Following production of the initial 'prior' matrices, calibration is undertaken using matrix estimation. This process results in a better match between the model traffic flows and observed traffic counts. The SATURN program SATME2 is used for this. This process is described in the next Chapter.

7. CALIBRATION AND VALIDATION

7.1 Introduction

7.1.1 This Chapter describes the calibration and validation of the model, using the traffic counts grouped into cordons and screenlines as shown in **Figure 4**. The process uses the SATURN software to undertake adjustments to the trip matrices to achieve a better match between observed and assigned traffic flows.

7.2 Trip Matrix Estimation Process

7.2.1 The matrix estimation process uses the SATURN program SATME2 in conjunction with the supplementary program SATPIJA. It is based on the theoretical procedure generally referred to as ME2 - Matrix Estimation from Maximum Entropy. SATME2 tries to improve the fit between modelled and observed flows by selectively factoring individual cells of the input trip matrix. SATPIJA creates a file used by SATME2 which represents the proportion of trips between origin-destination pairs which uses the counted link (from SATURN Manual Section 13).

7.2.2 The process is undertaken using six loops between the assignment and matrix estimation. The Matrix Estimation process is constrained using the XAMAX = 5 to restrict individual cell value changes to a factor of 5 to prevent excessive distortion of the matrix.

7.2.3 The inputs to the process are:

- highway networks, AM, IP and PM;
- highway prior matrices AM, IP and PM by user class and vehicle class; and
- SATME2 inputs – calibration counts divided into mini-screenlines.

7.2.4 As described in Chapter 4, the traffic count database provides an output sheet of traffic count information to be used in the matrix calibration and validation. Matrix estimation is applied separately to each user and vehicle classes.

7.3 Changes Resulting from Matrix Estimation

7.3.1 In accordance with best practice the changes resulting from the matrix estimation are monitored and assessed to ensure that the prior matrix is not being excessively distorted. This section describes the trip matrices before and after matrix estimation using the following analyses:

- matrix size by user/vehicle class;
- statistical analysis of change in trip ends; and
- statistical analysis of change in trip length distributions.

Matrix size

7.3.2 **Table 15** show matrix sizes by user class before and after matrix estimation.

Table 15. Prior and Estimated Matrix Sizes

	Vehicle Class	User Class	AM			IP			PM		
			Pre	Post	Change	Pre	Post	Change	Pre	Post	Change
1	Car	Commute	59,807	60,950	1.9%	9,356	9,725	3.9%	50,768	53,749	5.9%
2	Car	Business	24,070	24,091	0.1%	12,489	12,965	3.8%	14,309	14,922	4.3%
3	Car	Other	46,401	46,445	0.1%	52,592	54,647	3.9%	62,989	65,942	4.7%
	Car Total		**130,278**	**131,485**	**0.9%**	**74,437**	**77,337**	**3.9%**	**128,066**	**134,613**	**5.1%**
4	Light Goods		14,652	15,487	5.7%	13,276	13,881	4.6%	11,669	12,480	7.0%
5	Heavy Goods		10,908	11,535	5.7%	10,510	11,205	6.6%	5,648	5,808	2.8%
	Grand Total		**155,838**	**158,508**	**1.7%**	**98,223**	**102,424**	**4.3%**	**145,382**	**152,901**	**5.2%**

HGV PCU factor = 2

7.3.3 The overall changes in matrix size are considered satisfactory for the MSSHM. The bigger changes in the PM for car commute and light goods in particular could be attributable to the prior matrices approach. In a traditional matrix building using roadside interview (RSI) data the matrices are expanded using traffic count data and for this reason traffic count volumes are already an integral part of the prior matrix and therefore less volumetric adjustment is required in the matrix estimation. The MSSHM prior matrices were constructed from existing matrices data and did not include any new RSIs or traffic counts (other than in the analysis of year to year trends as shown in Figure 9. For this reason the changes resulting from matrix estimation are considered acceptable.

Sectoral Trip End Changes

7.3.4 **Table 16** shows changes resulting from matrix estimation at a trip end level for a suitable sector system. WebTAG guidance recommends the percentage changes are within 5%.

Table 16. Sector Trip End Changes Resulting from Matrix Estimation

SECTOR / AREA	AM		IP		PM	
	Origins	Dests.	Origins	Dests.	Origins	Dests.
East Grinstead	-3.6%	19.9%	5.0%	-7.2%	4.4%	0.1%
Haywards Heath	7.1%	7.8%	4.9%	-3.0%	2.6%	6.4%
Burgess Hill	-4.5%	10.0%	6.3%	15.2%	11.2%	5.3%
West Sussex	-1.0%	-3.4%	2.1%	-1.2%	0.1%	2.4%
Rest of UK	9.9%	5.8%	8.1%	29.6%	14.8%	12.3%
Overall	**1.7%**	**1.7%**	**4.3%**	**4.3%**	**5.2%**	**5.2%**

7.3.5 Although many of results are not within 5% the majority are within 10% which is considered a reasonable result, given the reasons already explained in paragraph 7.3.3 .

7.3.6 The high changes in AM destinations for East Grinstead indicate that the prior matrix was underestimating trips into this area when compared to the traffic counts used in matrix estimation. The adjustment that the matrix estimation has made is appropriate to ensure a realistic volume of trips. The same conclusion is made for the Burgess Hill inter-peak destinations and PM origins. The highest change is the 'Rest of UK' sector for inter-peak

destinations and is not considered critical for the transport study which is using the AM and PM peaks only.

Zonal Trip End Changes

7.3.7 **Figure 11** to **Figure 13** show scatter plots of the pre and post ME matrix origin and destination totals by period. **Table 17** shows a summary of the overall changes for zonal trip ends with WebTAG guidelines for comparison.

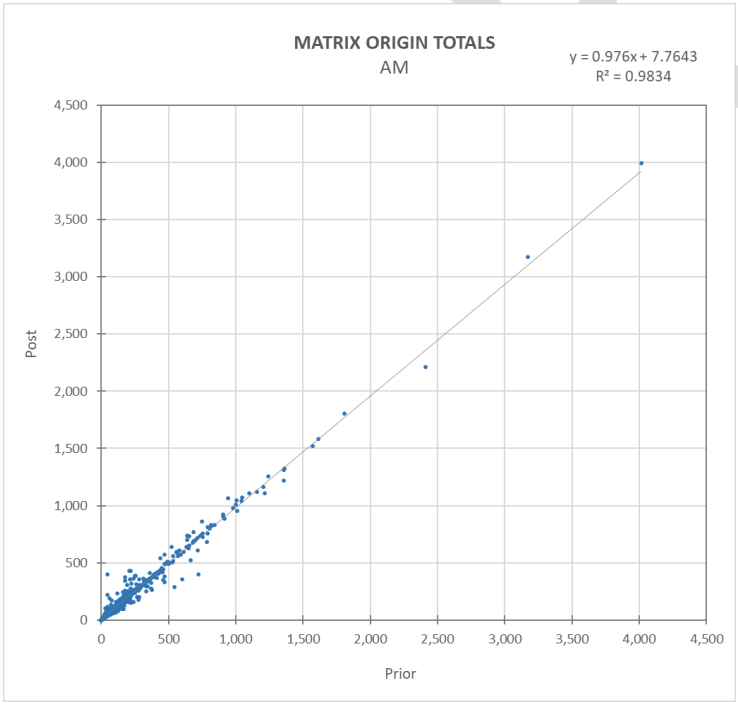
Table 17. Significance of Matrix Estimation Changes

		Origins			Destinations		
Measure	WebTAG Criteria	AM	IP	PM	AM	IP	PM
Slope	within 0.99 and 1.01	0.98	1.00	1.02	0.96	0.99	0.99
R-squared	in excess of 0.98	0.98	0.98	0.98	0.97	0.94	0.96

7.3.8 The table shows that for origins the guidelines are largely met and the two slope criteria that are not met can be considered a 'near miss'. The scatter charts for origins also show good correlation across the three periods, with no significant outliers.

7.3.9 The correlations for destinations are generally not as good as for origins. However, observation of the scatter chart for the AM peak destinations shows a reasonable correlation with no significant outliers, which also results in an R-squared value that is very close to meeting the criterion. The scatter charts and R-squared values for inter-peak and PM show some outliers. The locations that these relate to are predominantly outside the core model areas and are not considered to be of concern with respect to model quality and fitness for purpose.

Figure 11. Scatter Plot of Prior and Post ME AM Peak Matrix Origins and Destinations



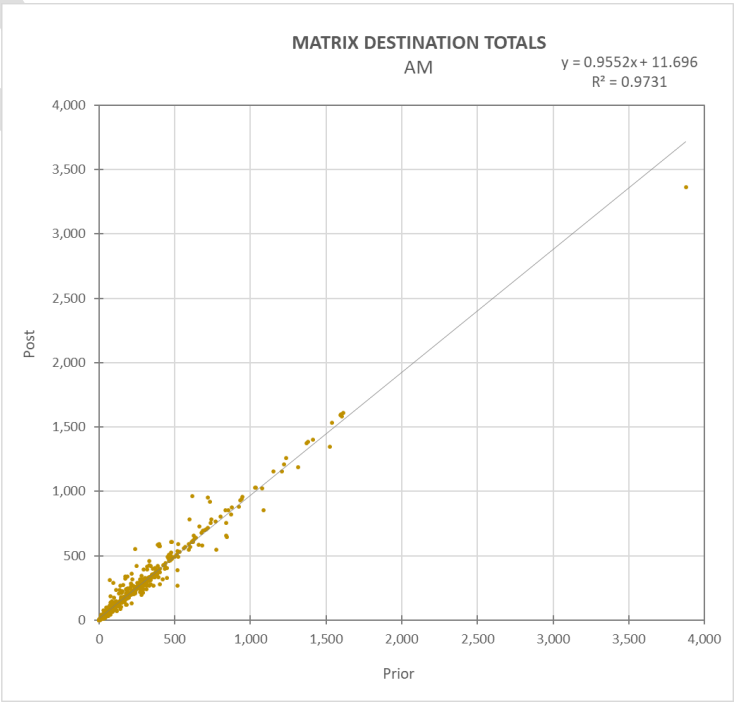
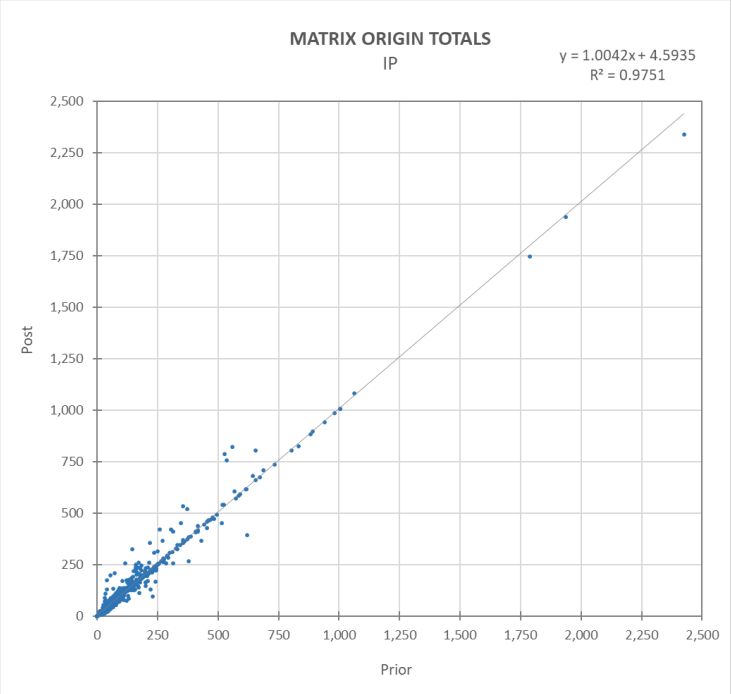


Figure 12. Scatter Plot of Pre and Post ME Inter-Peak Matrix Origins and Destinations



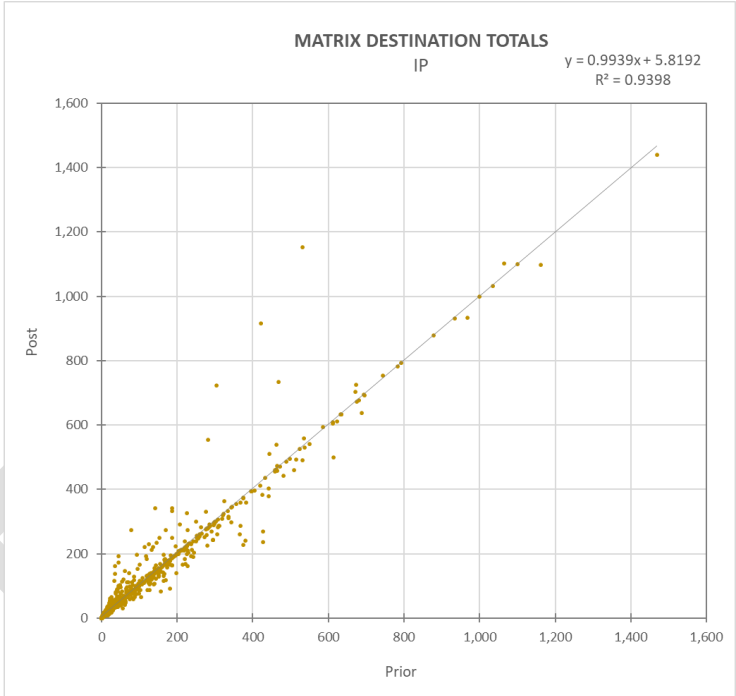
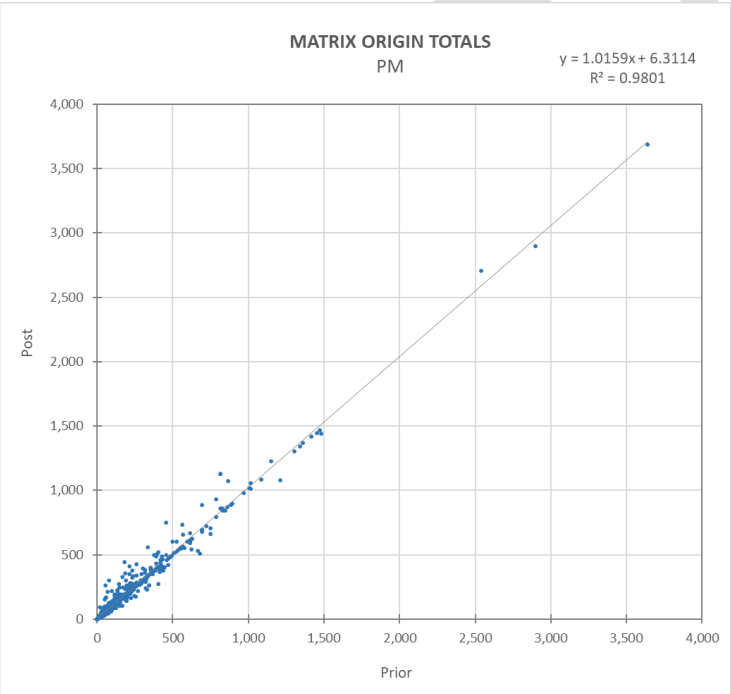
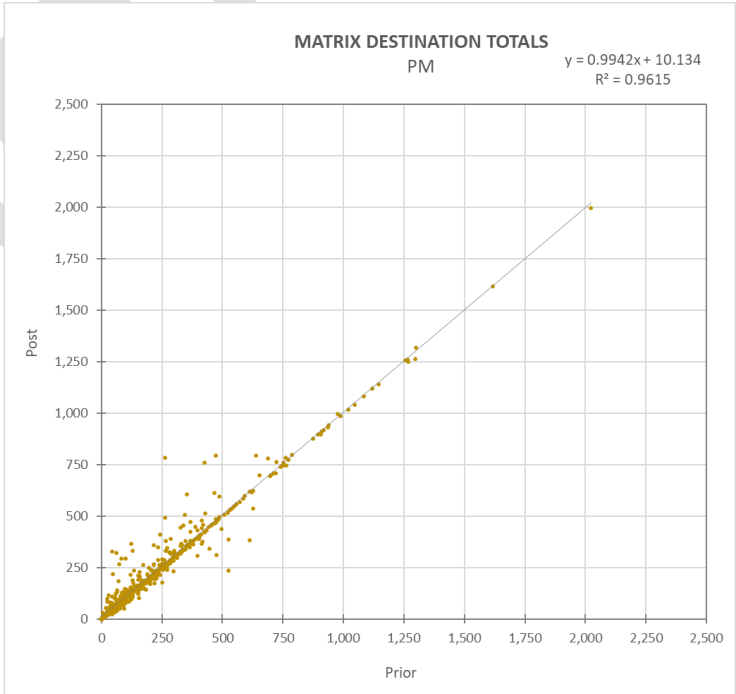


Figure 13. Scatter Plot of Pre and Post ME PM Peak Matrix Origins and Destinations





Trip Length Distributions

7.3.10 **Figure 14** to **Figure 16** show trip length frequency distributions, showing the number of trips lying within each distance band pre and post matrix estimation, by period. **Table 18**

shows the mean trip length for the prior and post estimation matrices. The WebTAG guidance recommends that the means and standard deviations should be within 5%.

Table 18. Mean and Standard Deviation Trip Length (km)

MODEL PERIOD	MEAN			STANDARD DEVIATION		
	PRIOR	POST	%	PRIOR	POST	%
AM Peak Hour	24.2	24.7	2.2%	26.2	27.0	2.9%
Inter-Peak Hour	25.8	27.9	8.1%	28.2	30.5	8.1%
PM Peak Hour	25.1	26.6	6.0%	33.4	34.4	3.1%

7.3.11 The mean and standard deviation for the AM peak are both within WebTAG guidelines.

7.3.12 For inter-peak, both mean and standard deviation are outside the guidelines. **Figure 15** shows, however, that the distribution has not been significantly distorted. This is also less of a concern at this stage because the inter-peak is not being using in the transport study.

7.3.13 The PM peak hour mean falls just outside, but the standard deviation is within. **Figure 16** shows that the distribution has not been distorted.

7.3.14 The shape of the curves in **Figure 14** to **Figure 16** is in line with expectations for a model representing both urban and interurban trips, with short trips dominating the distribution, but a significant number of longer distance trips forming the tail of the distribution.

Figure 14. Trip Frequency Distribution Pre/Post ME AM Peak Hour

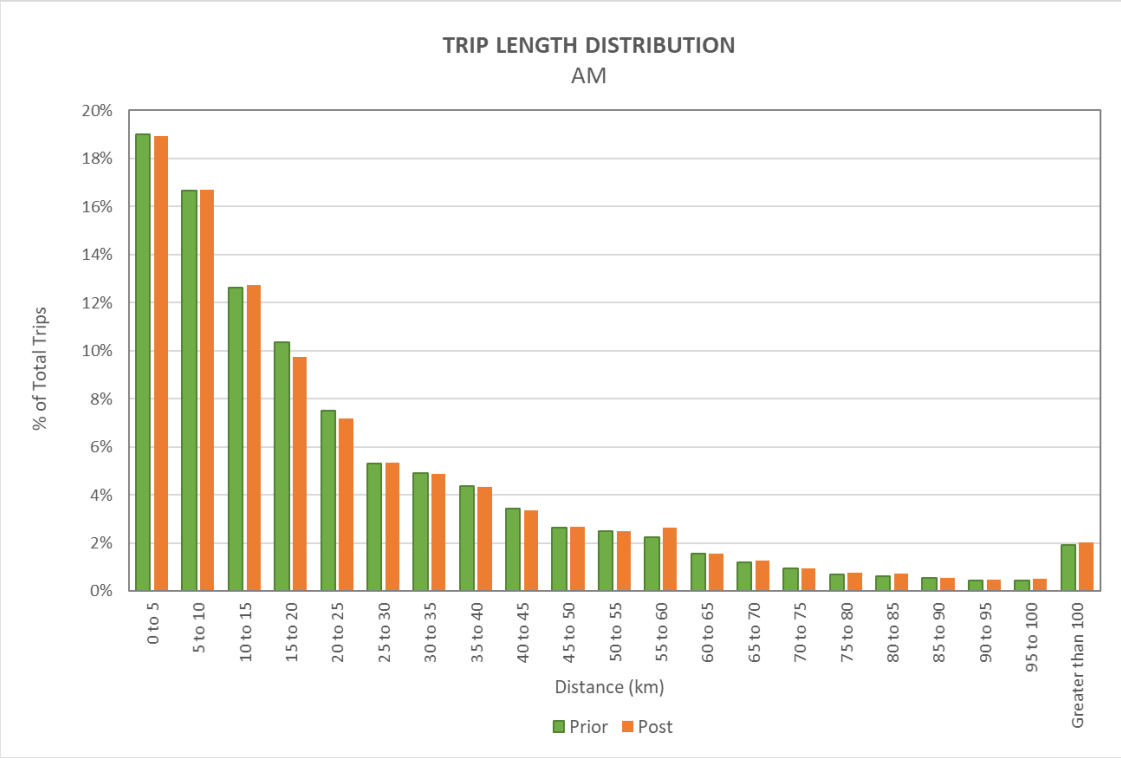


Figure 15. Trip Frequency Distribution Pre/Post ME Inter-Peak Hour

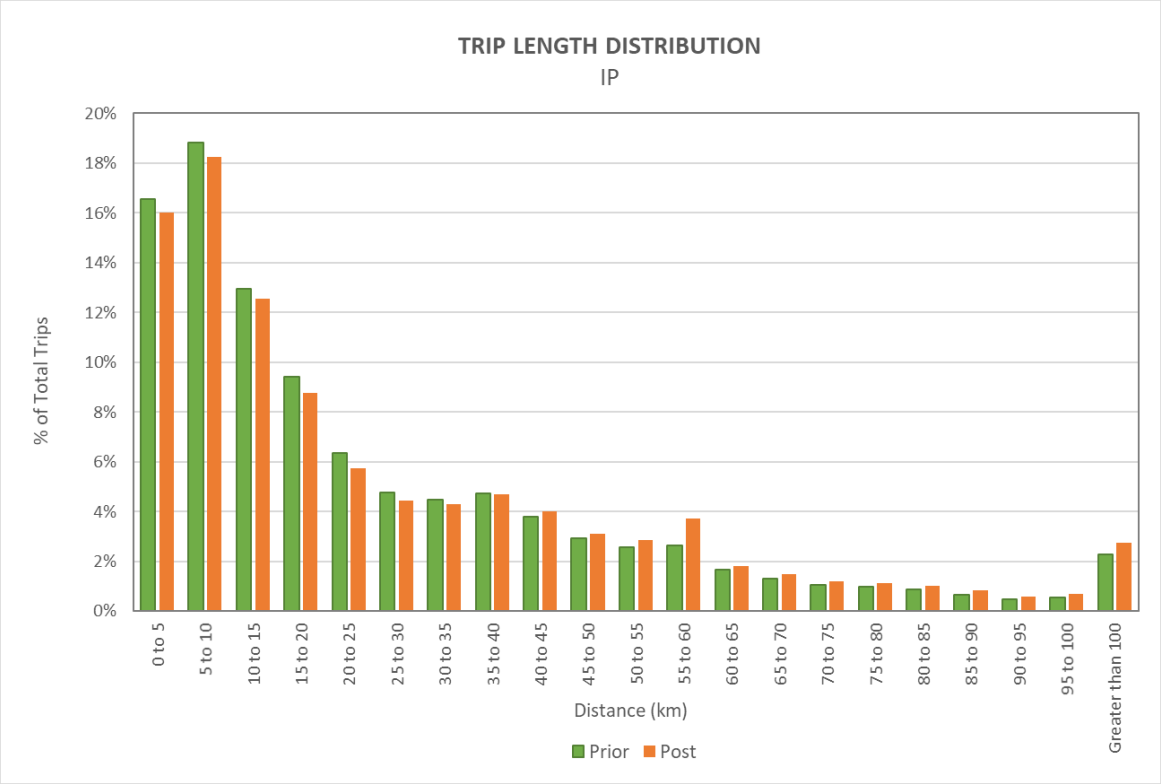
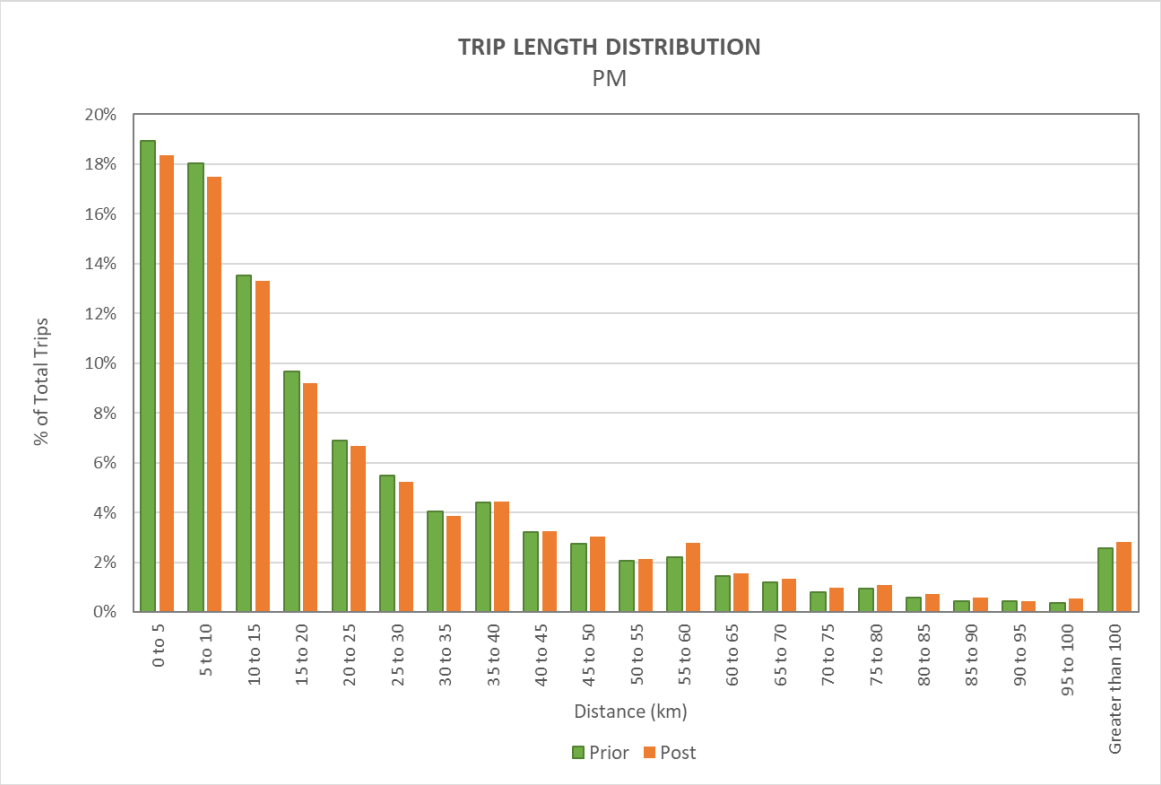


Figure 16. Trip Frequency Distribution Pre/Post ME PM Peak Hour



7.4 Trip Matrix Validation

7.4.1 The trip matrices are assessed using totals of the grouped screenlines and cordon traffic flows as described in Chapter 2. The WebTAG screenline flow criteria and acceptability guidelines are in **Table 19**.

Table 19. Screenline Flow Validation Criterion and Acceptability Guideline

CRITERIA	ACCEPTABILITY GUIDELINE
Differences between modelled flows and counts should be less than 5% of the counts	All or nearly all screenlines

7.4.2 The results of the cordon and screenline validation for each period are shown in **Table 20.** In addition to WebTAG performance the results are shown for two additional criteria. There are 16 screenlines and cordons in total, therefore 32 by direction.

Table 20. Trip Matrix Vehicle Flow Validation

Measure	Criteria	Acceptability Guideline	AM Peak	Inter Peak	PM Peak
Matrix Validation	**Differences between modelled flows and counts should be less than 5% of the counts**	**All or nearly all screenlines (WebTAG)**	**81%**	**91%**	**88%**
	*Differences between modelled flows and counts should be within **GEH=4** of the counts*	*N/A*	*91%*	*100%*	*97%*
	*Differences between modelled flows and counts should be less than **10%** of the counts*	*N/A*	*91%*	*97%*	*100%*

7.4.3 The results show a satisfactory performance across the three periods. There are some screenlines which do not meet the 5% WebTAG criteria, however some of these are for low flow screenlines where it could be regarded that GEH is a more appropriate measure. Over 90% of screenlines are within GEH=4 for all three periods which is a good result.

7.4.4 It is therefore considered that the model quality is suitable for proceeding with the transport study. Locations where the model quality is less strong will be considered for local improvements where necessary as the study proceeds, particularly if in the vicinity of developments being tested and impacted junctions.

7.5 Network Link Calibration and Validation

7.5.1 Individual modelled road/link traffics flows are assessed using the WebTAG link flow criteria and acceptability guidelines shown in **Table 21**.

Table 21. Link Flow Validation Criteria and Acceptability Guidelines

CRITERIA	ACCEPTABILITY GUIDELINE
Individual flows within 15% of counts for flows from 700 to 2,700 veh/h	> 85% of cases
Individual flows within 100 veh/h of counts for flows less than 700 veh/h	> 85% of cases
Individual flows within 400 veh/h of counts for flows more than 2,700 veh/h	> 85% of cases
GEH < 5 for individual flows	> 85% of cases

7.5.2 The results of the network validation for each period are shown in **Table 22.** In addition to WebTAG performance the results are shown for an additional criterion

Table 22. Link Vehicle Flow Validation

Measure	Criteria	Acceptability Guideline	AM Peak	Inter Peak	PM Peak
Link Flow Validation	**Individual flows within 15% of counts for flows from 700 to 2700 veh/h**	**>85% of cases (WebTAG)**	**82%**	**86%**	**87%**
	Individual flows within 100 veh/h of counts for flows less than 700 veh/h				
	Individual flows within 400 veh/h of counts for flows more than 2700 veh/h				
	GEH < 5 for individual flows	**> 85% of cases (WebTAG)**	**84%**	**81%**	**83%**
	*GEH < **10** for individual flows*	*N/A*	*96%*	*95%*	*97%*

7.5.3 Overall the results show good performance across the three periods. The WebTAG criteria results are all 80% or above which is considered good for a relatively large strategic model.

7.5.4 It is therefore considered that the model network quality is suitable for proceeding with the forecast modelling and transport study. As was recommended for the matrices, the locations where the model quality is less strong will be considered for local improvements where necessary as the study proceeds, particularly if in the vicinity of developments being tested and impacted junctions.

7.5.5 **Table 23** to **Table 25** show the matrix and link validation performance by cordon or screenline.

7.5.6 In the AM and PM peak models (which are the priority because these periods are being used in the transport study) the majority of screenlines have all or nearly all links meeting the WebTAG criteria, with no screenlines where the pass rate is below 50% for both WebTAG criteria.. Screenlines that have a pass rate of below 75% in either the AM or PM peak (denoted by yellow highlighting in **Table 23** to **Table 25**) will be monitored as the transport study proceeds. These are:

- Haywards Heath Cordon
- Burgess Hill North / South Screenline
- Burgess Hill East / West Screenline
- South of A272 Screenline
- Balcombe / Ardingly Screenline
- Crawley Down Screenline

7.5.7 **Appendix B** shows the results for all roads that make up the screenlines and cordons.

Table 23. Matrix and Link Vehicle Flow Validation by Cordon/Screenline: AM Peak Hour

Cordon / Screenline (SL)	Dir	Sites	Observed	Model	Diff	% Diff	GEH	GEH<=	WebTAG within			WebTAG within			
								4	5%	10%	15%	Abs / %	GEH=5	GEH=10	GEH=15
1 Mid Sussex District Cordon	Out	42	19,905	19,377	-529	-3%	4	Y	Y	Y	Y	84%	81%	100%	100%
1 Mid Sussex District Cordon	In	42	18,669	18,639	-30	0%	0	Y	Y	Y	Y	75%	78%	91%	97%
2 East Grinstead Cordon	Out	8	3,743	3,704	-39	-1%	1	Y	Y	Y	Y	71%	71%	100%	100%
2 East Grinstead Cordon	In	8	3,657	3,884	227	6%	4	Y	N	Y	Y	71%	71%	100%	100%
3 Haywards Heath Cordon	Out	10	4,502	4,650	148	3%	2	Y	Y	Y	Y	78%	78%	89%	100%
3 Haywards Heath Cordon	In	10	5,170	5,186	15	0%	0	Y	Y	Y	Y	56%	56%	89%	100%
4 Haywards Heath West SL	EB	4	1,968	1,927	-41	-2%	1	Y	Y	Y	Y	100%	100%	100%	100%
4 Haywards Heath West SL	WB	4	2,072	2,006	-67	-3%	1	Y	Y	Y	Y	100%	100%	100%	100%
5 Burgess Hill Cordon	Out	13	4,826	4,819	-7	0%	0	Y	Y	Y	Y	82%	73%	100%	100%
5 Burgess Hill Cordon	In	13	4,664	4,675	11	0%	0	Y	Y	Y	Y	82%	100%	100%	100%
6 Burgess Hill North / South SL	EB	4	2,171	2,258	86	4%	2	Y	Y	Y	Y	75%	100%	100%	100%
6 Burgess Hill North / South SL	WB	4	2,479	2,444	-35	-1%	1	Y	Y	Y	Y	50%	50%	75%	100%
7 Burgess Hill East / West SL	NB	15	4,029	3,977	-52	-1%	1	Y	Y	Y	Y	58%	67%	83%	92%
7 Burgess Hill East / West SL	SB	15	4,685	4,132	-553	-12%	8	N	N	N	Y	83%	67%	92%	92%
8 South of A272 SL	NB	13	6,419	6,072	-347	-5%	4	Y	Y	Y	Y	80%	80%	100%	100%
8 South of A272 SL	SB	13	4,694	5,081	387	8%	6	N	N	Y	Y	78%	67%	89%	100%
9 East of A23 SL	EB	6	2,444	2,433	-12	0%	0	Y	Y	Y	Y	100%	100%	100%	100%
9 East of A23 SL	WB	6	2,489	2,530	40	2%	1	Y	Y	Y	Y	100%	80%	100%	100%
10 West of A23 SL	EB	10	2,582	2,367	-215	-8%	4	Y	N	Y	Y	71%	71%	86%	100%
10 West of A23 SL	WB	10	2,268	2,185	-83	-4%	2	Y	Y	Y	Y	71%	86%	86%	100%
11 Balcombe / Ardingly SL	EB	5	1,339	1,132	-207	-15%	6	N	N	N	Y	67%	67%	100%	100%
11 Balcombe / Ardingly SL	WB	5	907	919	12	1%	0	Y	Y	Y	Y	67%	100%	100%	100%
12 Crawley Down SL	EB	3	1,110	1,160	50	4%	1	Y	Y	Y	Y	67%	100%	100%	100%
12 Crawley Down SL	WB	3	1,211	1,371	161	13%	4	Y	N	N	Y	67%	67%	100%	100%
13 Handcross SL	NB	4	4,159	4,273	113	3%	2	Y	Y	Y	Y	100%	100%	100%	100%
13 Handcross SL	SB	4	2,968	3,009	40	1%	1	Y	Y	Y	Y	100%	100%	100%	100%
14 Ashdown Forest Cordon	Out	19	4,099	4,100	1	0%	0	Y	Y	Y	Y	100%	100%	100%	100%
14 Ashdown Forest Cordon	In	19	3,926	4,087	161	4%	3	Y	Y	Y	Y	73%	73%	91%	100%
15 Ashdown Forest East / West SL	NB	4	2,060	2,047	-13	-1%	0	Y	Y	Y	Y	100%	100%	100%	100%
15 Ashdown Forest East / West SL	SB	4	1,617	1,626	10	1%	0	Y	Y	Y	Y	100%	100%	100%	100%
16 Ashdown Forest North / South SL	EB	3	481	460	-20	-4%	1	Y	Y	Y	Y	100%	100%	100%	100%
16 Ashdown Forest North / South SL	WB	3	643	662	19	3%	1	Y	Y	Y	Y	100%	100%	100%	100%
17 M23 / A23	NB	13										100%	92%	100%	100%
17 M23 / A23	SB	12										92%	83%	100%	100%
		351	**127,956**	**127,190**	**-766**	**-1%**		**91%**	**81%**	**91%**	**100%**	**82%**	**84%**	**96%**	**99%**

Table 24. Matrix and Link Vehicle Flow Validation by Cordon/Screenline: Inter-Peak Hour

Cordon / Screenline (SL)	Dir	Sites	Observed	Model	Diff	% Diff	GEH	GEH<=	WebTAG within			WebTAG within			
								4	5%	10%	15%	Abs / %	GEH=5	GEH=10	GEH=15
1 Mid Sussex District Cordon	Out	42	12,937	12,660	-278	-2%	2	Y	Y	Y	Y	84%	75%	97%	97%
1 Mid Sussex District Cordon	In	42	12,776	12,778	2	0%	0	Y	Y	Y	Y	91%	81%	94%	100%
2 East Grinstead Cordon	Out	8	2,643	2,608	-35	-1%	1	Y	Y	Y	Y	86%	86%	100%	100%
2 East Grinstead Cordon	In	8	2,615	2,767	152	6%	3	Y	N	Y	Y	100%	86%	100%	100%
3 Haywards Heath Cordon	Out	10	2,971	3,052	81	3%	1	Y	Y	Y	Y	100%	100%	100%	100%
3 Haywards Heath Cordon	In	10	2,941	3,072	131	4%	2	Y	Y	Y	Y	89%	89%	100%	100%
4 Haywards Heath West SL	EB	4	1,184	1,229	45	4%	1	Y	Y	Y	Y	100%	100%	100%	100%
4 Haywards Heath West SL	WB	4	1,217	1,232	15	1%	0	Y	Y	Y	Y	100%	100%	100%	100%
5 Burgess Hill Cordon	Out	13	3,159	3,189	30	1%	1	Y	Y	Y	Y	73%	73%	91%	100%
5 Burgess Hill Cordon	In	13	3,083	3,124	41	1%	1	Y	Y	Y	Y	64%	64%	82%	100%
6 Burgess Hill North / South SL	EB	4	1,634	1,641	7	0%	0	Y	Y	Y	Y	100%	100%	100%	100%
6 Burgess Hill North / South SL	WB	4	1,632	1,570	-62	-4%	2	Y	Y	Y	Y	25%	50%	75%	100%
7 Burgess Hill East / West SL	NB	15	2,988	2,972	-17	-1%	0	Y	Y	Y	Y	58%	50%	75%	92%
7 Burgess Hill East / West SL	SB	15	2,959	2,837	-123	-4%	2	Y	Y	Y	Y	67%	75%	83%	92%
8 South of A272 SL	NB	13	3,758	3,716	-41	-1%	1	Y	Y	Y	Y	80%	70%	80%	100%
8 South of A272 SL	SB	13	3,784	3,940	156	4%	3	Y	Y	Y	Y	78%	78%	100%	100%
9 East of A23 SL	EB	6	1,402	1,479	76	5%	2	Y	Y	Y	Y	80%	60%	80%	100%
9 East of A23 SL	WB	6	1,488	1,530	42	3%	1	Y	Y	Y	Y	80%	80%	100%	100%
10 West of A23 SL	EB	10	1,576	1,592	16	1%	0	Y	Y	Y	Y	100%	86%	100%	100%
10 West of A23 SL	WB	10	1,581	1,619	38	2%	1	Y	Y	Y	Y	100%	71%	100%	100%
11 Balcombe / Ardingly SL	EB	5	580	564	-16	-3%	1	Y	Y	Y	Y	33%	33%	67%	100%
11 Balcombe / Ardingly SL	WB	5	564	543	-21	-4%	1	Y	Y	Y	Y	100%	67%	100%	100%
12 Crawley Down SL	EB	3	829	786	-43	-5%	2	Y	Y	Y	Y	100%	100%	100%	100%
12 Crawley Down SL	WB	3	825	798	-27	-3%	1	Y	Y	Y	Y	100%	100%	100%	100%
13 Handcross SL	NB	4	2,512	2,539	27	1%	1	Y	Y	Y	Y	100%	100%	100%	100%
13 Handcross SL	SB	4	2,700	2,684	-16	-1%	0	Y	Y	Y	Y	100%	100%	100%	100%
14 Ashdown Forest Cordon	Out	19	2,807	2,749	-58	-2%	1	Y	Y	Y	Y	82%	64%	100%	100%
14 Ashdown Forest Cordon	In	19	2,704	2,728	25	1%	0	Y	Y	Y	Y	91%	82%	91%	100%
15 Ashdown Forest East / West SL	NB	4	1,237	1,231	-6	0%	0	Y	Y	Y	Y	100%	100%	100%	100%
15 Ashdown Forest East / West SL	SB	4	1,311	1,272	-38	-3%	1	Y	Y	Y	Y	50%	50%	100%	100%
16 Ashdown Forest North / South SL	EB	3	423	376	-46	-11%	2	Y	N	N	Y	100%	100%	100%	100%
16 Ashdown Forest North / South SL	WB	3	423	450	27	6%	1	Y	N	Y	Y	100%	100%	100%	100%
17 M23 / A23	NB	13										100%	100%	100%	100%
17 M23 / A23	SB	12										100%	92%	100%	100%
		351	**85,242**	**85,328**	**86**	**0%**		**100%**	**91%**	**97%**	**100%**	**86%**	**81%**	**95%**	**99%**

Table 25. Matrix and Link Vehicle Flow Validation by Cordon/Screenline: PM Peak Hour

Cordon / Screenline (SL)	Dir	Sites	Observed	Model	Diff	% Diff	GEH	GEH<=	WebTAG within			WebTAG within			
								4	5%	10%	15%	Abs / %	GEH=5	GEH=10	GEH=15
1 Mid Sussex District Cordon	Out	42	19,466	19,214	-251	-1%	2	Y	Y	Y	Y	75%	75%	88%	100%
1 Mid Sussex District Cordon	In	42	19,450	18,842	-609	-3%	4	Y	Y	Y	Y	91%	88%	97%	100%
2 East Grinstead Cordon	Out	8	3,657	3,722	65	2%	1	Y	Y	Y	Y	71%	71%	100%	100%
2 East Grinstead Cordon	In	8	3,551	3,234	-317	-9%	5	N	N	Y	Y	100%	86%	100%	100%
3 Haywards Heath Cordon	Out	10	4,688	4,731	44	1%	1	Y	Y	Y	Y	67%	67%	100%	100%
3 Haywards Heath Cordon	In	10	4,081	4,252	171	4%	3	Y	Y	Y	Y	89%	89%	89%	100%
4 Haywards Heath West SL	EB	4	1,780	1,844	64	4%	2	Y	Y	Y	Y	100%	100%	100%	100%
4 Haywards Heath West SL	WB	4	1,771	1,877	106	6%	2	Y	N	Y	Y	75%	75%	100%	100%
5 Burgess Hill Cordon	Out	13	4,432	4,515	83	2%	1	Y	Y	Y	Y	73%	64%	73%	91%
5 Burgess Hill Cordon	In	13	4,409	4,461	52	1%	1	Y	Y	Y	Y	82%	64%	100%	100%
6 Burgess Hill North / South SL	EB	4	2,489	2,521	32	1%	1	Y	Y	Y	Y	100%	100%	100%	100%
6 Burgess Hill North / South SL	WB	4	2,030	2,034	4	0%	0	Y	Y	Y	Y	100%	100%	100%	100%
7 Burgess Hill East / West SL	NB	15	4,314	4,112	-202	-5%	3	Y	Y	Y	Y	67%	50%	83%	83%
7 Burgess Hill East / West SL	SB	15	4,050	3,917	-132	-3%	2	Y	Y	Y	Y	50%	42%	67%	100%
8 South of A272 SL	NB	13	4,980	4,959	-20	0%	0	Y	Y	Y	Y	70%	70%	100%	100%
8 South of A272 SL	SB	13	6,253	6,040	-213	-3%	3	Y	Y	Y	Y	67%	67%	100%	100%
9 East of A23 SL	EB	6	2,372	2,483	111	5%	2	Y	Y	Y	Y	80%	60%	100%	100%
9 East of A23 SL	WB	6	2,138	2,231	94	4%	2	Y	Y	Y	Y	80%	80%	100%	100%
10 West of A23 SL	EB	10	2,216	2,203	-13	-1%	0	Y	Y	Y	Y	100%	86%	100%	100%
10 West of A23 SL	WB	10	2,819	2,740	-79	-3%	1	Y	Y	Y	Y	86%	86%	100%	100%
11 Balcombe / Ardingly SL	EB	5	850	859	9	1%	0	Y	Y	Y	Y	100%	100%	100%	100%
11 Balcombe / Ardingly SL	WB	5	1,307	1,210	-97	-7%	3	Y	N	Y	Y	67%	67%	100%	100%
12 Crawley Down SL	EB	3	1,043	957	-86	-8%	3	Y	N	Y	Y	100%	100%	100%	100%
12 Crawley Down SL	WB	3	1,140	1,154	14	1%	0	Y	Y	Y	Y	100%	100%	100%	100%
13 Handcross SL	NB	4	3,093	3,084	-9	0%	0	Y	Y	Y	Y	100%	100%	100%	100%
13 Handcross SL	SB	4	4,260	4,314	54	1%	1	Y	Y	Y	Y	100%	100%	100%	100%
14 Ashdown Forest Cordon	Out	19	4,145	4,003	-142	-3%	2	Y	Y	Y	Y	73%	73%	91%	100%
14 Ashdown Forest Cordon	In	19	4,020	3,929	-91	-2%	1	Y	Y	Y	Y	91%	82%	100%	100%
15 Ashdown Forest East / West SL	NB	4	1,696	1,713	16	1%	0	Y	Y	Y	Y	100%	100%	100%	100%
15 Ashdown Forest East / West SL	SB	4	2,206	2,157	-50	-2%	1	Y	Y	Y	Y	100%	100%	100%	100%
16 Ashdown Forest North / South SL	EB	3	607	612	4	1%	0	Y	Y	Y	Y	100%	100%	100%	100%
16 Ashdown Forest North / South SL	WB	3	497	472	-25	-5%	1	Y	Y	Y	Y	100%	100%	100%	100%
17 M23 / A23	NB	13										100%	100%	100%	100%
17 M23 / A23	SB	12										92%	92%	100%	100%
		351	**125,813**	**124,399**	**-1,414**	**-1%**		**97%**	**88%**	**100%**	**100%**	**87%**	**83%**	**97%**	**99%**

7.5.8 **Table 26** shows the validation of the flows on the M23 and A23, where Highways England counts are available. The validation shows satisfactory results with the majority of flows within GEH=5 as denoted by the green highlighting.

Table 26. M23 and A23 Flow Validation

	AM Peak					Inter-Peak					PM Peak				
	Observed	Modelled	Diff	% Diff	GEH	Observed	Modelled	Diff	% Diff	GEH	Observed	Modelled	Diff	% Diff	GEH
NORTHBOUND															
A23 - A27 to A273 OFF	3865	3617	-248	-6%	4.1	2174	2230	56	3%	1.2	2783	2923	140	5%	2.6
A23 - A273 OFF to A273 ON	2831	2920	89	3%	1.7	1854	1900	46	3%	1.1	2241	2299	58	3%	1.2
A23 - A281 OFF to A281 ON	2792	2795	3	0%	0.1	1779	1764	-15	-1%	0.4	2138	2090	-49	-2%	1.1
A23 - A2300 OFF to A2300 ON	2592	2724	132	5%	2.6	1716	1699	-17	-1%	0.4	2069	1984	-85	-4%	1.9
A23 - A272 OFF to A272 ON	3001	3043	43	1%	0.8	1855	1860	5	0%	0.1	2359	2214	-145	-6%	3.0
A23 - B2115 OFF to B2115 ON	3094	2944	-150	-5%	2.7	2004	1850	-154	-8%	3.5	2485	2282	-203	-8%	4.2
A23 - B2110 ON to J11 OFF	3645	3837	191	5%	3.1	2219	2271	52	2%	1.1	2749	2813	65	2%	1.2
M23 - J11 OFF - J11 ON	2328	2550	222	10%	4.5	1679	1647	-32	-2%	0.8	1846	1776	-70	-4%	1.6
M23 - J10a ON to J10 OFF	4040	4161	121	3%	1.9	2700	2596	-104	-4%	2.0	3024	2929	-95	-3%	1.7
M23 - J10 OFF to J10 ON	3022	2993	-29	-1%	0.5	2210	2064	-146	-7%	3.2	2363	2268	-96	-4%	2.0
M23 - J10 ON to J9 OFF	3381	3736	355	10%	5.9	2614	2787	173	7%	3.3	3000	3268	268	9%	4.8
M23 - J9 OFF to J9 ON	2906	2975	69	2%	1.3	2384	2314	-70	-3%	1.4	2820	2859	39	1%	0.7
M23 - J9 ON to J8 OFF	3987	4054	67	2%	1.0	3956	3886	-70	-2%	1.1	4422	4426	3	0%	0.0
SOUTHBOUND															
M23 - J8 ON to J9 OFF	4656	3970	-687	-15%	10.5	4012	3798	-214	-5%	3.4	4658	4589	-69	-1%	1.0
M23 - J9 OFF to J9 ON	2906	2975	69	2%	1.3	2384	2314	-70	-3%	1.4	2820	2859	39	1%	0.7
M23 - J9 ON to J10 OFF	3617	3588	-30	-1%	0.5	3287	3245	-42	-1%	0.7	4688	4349	-339	-7%	5.0
M23 - J10 OFF to J10 ON	3022	2993	-29	-1%	0.5	2210	2064	-146	-7%	3.2	2363	2268	-96	-4%	2.0
M23 - J10 ON to J10a OFF	3069	2954	-115	-4%	2.1	2915	2965	50	2%	0.9	4796	4660	-136	-3%	2.0
M23 - J10a OFF - J11 OFF	2739	2410	-329	-12%	6.5	2612	2282	-330	-13%	6.7	4095	3672	-422	-10%	6.8
M23 - J11 OFF - J11 ON	2328	2550	222	10%	4.5	1679	1647	-32	-2%	0.8	1846	1776	-70	-4%	1.6
A23 - B2114 OFF to B2110 ON	2345	2455	110	5%	2.3	2251	2299	49	2%	1.0	3447	3565	118	3%	2.0
A23 - B2110 ON to B2115 OFF	2576	2662	86	3%	1.7	2314	2366	52	2%	1.1	3629	3726	97	3%	1.6
A23 - A272 OFF to A272 ON	3001	3043	43	1%	0.8	1855	1860	5	0%	0.1	2359	2214	-145	-6%	3.0
A23 - A2300 OFF to A2300 ON	2592	2724	132	5%	2.6	1716	1699	-17	-1%	0.4	2069	1984	-85	-4%	1.9
A23 - A273 ON to A27	3165	3190	26	1%	0.5	2588	2620	32	1%	0.6	4190	4015	-175	-4%	2.7

7.6 Journey Time Validation

7.6.1 The WebTAG acceptability guideline for journey times are in **Table 27**.

Table 27. Journey Time Validation Criteria and Acceptability Guideline

CRITERIA	ACCEPTABILITY GUIDELINE
Modelled times along routes should be within 15% of surveyed times (or 1 minute, if higher)	> 85% of routes

7.6.2 The validation by route is shown in **Table 28**. This analysis uses journey times from Google. The table shows if the modelled time falls within the WebTAG criteria of 15%/1 minute and an additional 25% criterion, when compared to the Google range midpoint.

7.6.3 The table shows that 87% of AM journey times and 80% of PM journey times are within 15% of the observation and therefore meet the criteria. This satisfies the WebTAG guideline for AM but falls slightly short for PM.

7.6.4 Considering the good results for the 25% criterion it is considered that the models are satisfactory for the purpose of undertaking the transport study, however the locations of the poorer performing routes should be accounted for in this work and other applications.

7.6.5 Distance-time profiles of the journey times that do not meet the criteria were studied to identify where the differences occur. Most of these journey times begin or end in the Crawley urban area, where in some locations the model is underestimating journey times. It is considered that these locations are not critical to the transport study.

Table 28. Journey Time Route Validation

			AM				PM			
ID	Journey Time Route	Distance (km)	Observed (mm:ss)	Model (mm:ss)	Within 15%	Within 25%	Observed (mm:ss)	Model (mm:ss)	Within 15%	Within 25%
1EB	Cowfold - Burgess Hill	13.92	20:00	19:19	✓	✓	19:00	20:42	✓	✓
1WB	Burgess Hill - Cowfold	13.92	18:00	19:33	✓	✓	18:00	19:01	✓	✓
2NB	Burgess Hill - Crawley	24.00	39:00	33:45	✓	✓	35:30	24:51	✗	✗
2SB	Crawley - Burgess Hill	23.68	32:00	28:28	✓	✓	35:30	30:44	✓	✓
3NB	Burgess Hill - East Grinstead	22.72	35:00	32:23	✓	✓	32:30	32:01	✓	✓
3SB	East Grinstead - Burgess Hill	23.04	34:00	33:41	✓	✓	31:30	32:52	✓	✓
4NB	Burgess Hill - Haywards Heath	6.08	11:30	10:23	✓	✓	09:30	09:59	✓	✓
4SB	Haywards Heath - Burgess Hill	6.24	10:30	10:09	✓	✓	10:30	10:11	✓	✓
5NB	Hurstpierpoint - Burgess Hill	8.64	15:00	17:06	✓	✓	15:00	18:35	✗	✓
5SB	Burgess Hill - Hurstpierpoint	8.64	15:00	15:53	✓	✓	14:00	15:08	✓	✓
6NB	Cowfold - Crawley	22.08	27:30	25:33	✓	✓	30:00	21:10	✗	✗
6SB	Crawley - Cowfold	22.88	30:00	21:48	✗	✗	30:00	26:27	✓	✓
7NB	Cowfold - East Grinstead	27.20	35:00	33:50	✓	✓	35:00	34:06	✓	✓
7SB	East Grinstead - Cowfold	27.52	37:30	34:06	✓	✓	35:00	34:46	✓	✓
8EB	Cowfold - Haywards Heath	13.28	20:00	22:33	✓	✓	17:00	17:22	✓	✓
8WB	Haywards Heath - Cowfold	13.28	20:00	17:45	✓	✓	20:00	20:28	✓	✓
9NB	Hurstpierpoint - Cowfold	13.12	14:00	15:51	✓	✓	14:00	15:15	✓	✓
9SB	Cowfold - Hurstpierpoint	12.96	15:00	13:55	✓	✓	16:00	14:09	✓	✓
10EB	Crawley - East Grinstead	12.96	26:30	23:04	✓	✓	26:30	20:30	✗	✓
10WB	East Grinstead - Crawley	12.80	29:00	18:20	✗	✗	20:00	17:50	✓	✓
11NB	Haywards Heath - Crawley	19.36	27:30	25:42	✓	✓	22:00	22:37	✓	✓
11SB	Crawley - Haywards Heath	19.36	27:30	23:38	✓	✓	27:30	27:17	✓	✓
12NB	Hurstpierpoint - Crawley	24.32	32:00	27:54	✓	✓	31:00	21:59	✗	✗
12SB	Crawley - Hurstpierpoint	24.48	27:30	23:06	✗	✓	31:00	27:54	✓	✓
13NB	Haywards Heath - East Grinstead	17.60	25:00	24:03	✓	✓	23:00	24:04	✓	✓
13SB	East Grinstead - Haywards Heath	17.92	26:00	25:48	✓	✓	24:00	25:01	✓	✓
14NB	Hurstpierpoint - East Grinstead	35.68	40:00	40:27	✓	✓	42:30	37:04	✓	✓
14SB	East Grinstead - Hurstpierpoint	35.52	40:00	32:11	✗	✓	37:30	35:05	✓	✓
15NB	Hurstpierpoint - Haywards Heath	12.00	20:00	21:58	✓	✓	18:00	16:47	✓	✓
15SB	Haywards Heath - Hurstpierpoint	12.00	17:00	16:53	✓	✓	17:00	19:45	✗	✓
Total					**87%**	**93%**			**80%**	**90%**

7.7 Convergence and Stability

7.7.1 The acceptability guideline for model convergence are reproduced in Table 29.

Table 29. Summary of Convergence Measures and Base Model Acceptable Values

MEASURE OF CONVERGENCE	BASE MODEL ACCEPTABLE VALUES
Delta and %GAP	less than 0.1% or at least stable with convergence fully documented and all other criteria met
Percentage of links with flow change (P)<1%	four consecutive iterations greater than 98%
Percentage of links with cost change (P2)<1%	four consecutive iterations greater than 98%

7.7.2 There are several important parameters in SATURN that are used to ensure convergence is acceptable. These are:

KONSTOP "KONtrol of StoPping Criteria"
This defines the type of the conditions required for the assignment to end. The stopping criteria for assignment – simulation loops are based on either: ISTOP (KONSTP = 0); %GAP value (1); CPU time (2); RSTOP and/or CPU (3); %GAP and/or CPU (4); %GAP and RSTOP (5); %GAP or (6) %ISTOP. The assignment will also end when the number of assignment loops reaches MASL (see below).
WebTAG: N/A *SATURN Default: 5* *MSSHM Base: 5*
Therefore unless MASL is reached the assignment will only stop if %GAP and RSTOP criteria are reached.

MASL
This the maximum number of assignment/simulation loops.
WebTAG: N/A *SATURN Default: 15* *MSSHM Base: 150*

NISTOP
The number of successive loops which must satisfy the RSTOP criteria in the test for convergence of the assignment/simulation loops.
WebTAG: 4 *SATURN Default: 4* *MSSHM Base: 4*

STPGAP
WebTAG: 0.1% *SATURN Default: 1.0%* *MSSHM Base: 0.02%*

PCNEAR
Percentage change in flows judged to be "near" in successive assignments.
WebTAG: 1.0% *SATURN Default: 1.0%* *MSSHM Base: 1.0%*

RSTOP
Used in the test for convergence of the assignment/simulation loops. The loops stop automatically if RSTOP % of the link flows change by less than "PCNEAR" percent (default 5%) from one assignment to the next.
WebTAG: 98% *SATURN Default: 97.5%* *MSSHM Base: 99%*

7.7.3 **Table 30** below shows the performance of the model for the key criteria. The stopping criteria set for the model are also shown and these exceed the guidelines. The results demonstrate well-converged models that comfortably meet the WebTAG guidelines.

Table 30. Convergence and Stability Model Results

MEASURE OF CONVERGENCE	SATURN PARA-METER	BASE MODEL ACCEPTABLE VALUES (WEBTAG)	MODEL STOPPING CRITERIA	AM PEAK	INTER-PEAK	PM PEAK
%GAP	**NISTOP STPGAP**	less than **0.1%** or at least stable with convergence fully documented and all other criteria met	**<0.02%** (for base model)	0.009 0.017 0.017 0.014	0.003 0.003 0.002 0.006	0.018 0.014 0.011 0.009
Percentage of links with flow change (P)<1% **(for final four iterations)**	**NISTOP PCNEAR RSTOP**	four consecutive iterations greater than **98%**	four consecutive iterations **>99%**	99.3 99.3 99.3 99.3	99.1 99.3 99.4 99.2	99.1 99.1 99.4 99.1
Percentage of links with cost change (P2)<1% **(for final four iterations)**	NONE	four consecutive iterations greater than **98%**	four consecutive iterations **>99%**	99.6 99.7 99.6 99.7	99.9 99.9 99.9 99.9	99.7 99.6 99.8 99.7

8. SUMMARY OF MODEL FITNESS FOR PURPOSE

Model Production

The Mid Sussex Strategic Highway Model (MSSHM) was produced in accordance with standard good practice as set out in the DfT's WebTAG guidelines, in particular TAG unit M3-1 Highway Assignment Modelling, (January 2014). As such, the approaches to data processing, matrices and network production, along with model calibration are consistent with those of similar strategic highways models.

The model production made significant and appropriate use of existing local data and models. A very small programme of surveys was undertaken to fill in some gaps in data.

Validation of Trip Matrices

The results show a satisfactory performance across the three periods. While some screenlines do not meet the 5% WebTAG criteria, other analyses including use of GEH-based criteria have provided confidence that the results are satisfactory for the purposes of the transport study. The areas of weaker performance will be accounted for and local improvements made as part of the transport study work if deemed necessary.

Validation of Network and Links

The results show good performance across the three periods. In all periods over 80% of links meet WebTAG guidelines which is good for a relatively large strategic model. As in the case of the matrices, areas of weaker performance will be accounted for and local improvements will be made as part of the transport study work if deemed necessary.

Validation of Journey Times

The results show a satisfactory performance across the three periods. The results satisfy the WebTAG 15% guidelines for AM while fall slightly short for PM. Considering the good results for the 25% criterion it is considered that the models are fit for the purpose of undertaking the transport study.

Model Convergence

The convergence results demonstrate well-converged models that comfortably meet the WebTAG guidelines.

Conclusion

The MSSHM was produced in accordance with good practice, making significant and appropriate use of existing data and models.

Overall, the model is considered satisfactory for the purpose of undertaking the transport study work. Locations where the model quality is less strong will be considered for local improvements where necessary as the study proceeds, particularly if in the vicinity of developments being tested and impacted junctions. This will include the roads that make up the screenlines and cordon listed in paragraph 7.5.6.

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SYSTRA

MID SUSSEX STRATEGIC HIGHWAY MODEL

FORECASTING NOTE

IDENTIFICATION TABLE	
Client/Project owner	Mid Sussex District Council
Project	Mid Sussex Strategic Highway Model
Study	Forecasting Note
Type of document	Draft Report
Date	27/09/2018
File name	Forecasting_Note_v1.docx
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APPENDICES

1. INTRODUCTION

1.1 Commission

1.1.1 Mid Sussex District Council (MSDC) commissioned SYSTRA to:

- i. Build a strategic highway model to underpin the Mid Sussex Transport Study (MSTS);
- ii. Update the Mid Sussex Transport Study to test the impact of proposed development on the strategic and local transport network and upon significant routes in Ashdown Forest (adjacent to but outside of Mid Sussex District).

1.1.2 The work is further divided into the following stages:

- 2017 Base Year Highway Model Production and Validation (subject of this report);
- 2031 Reference Case Scenario;
- 2031 Development Scenarios including MSDC local plan developments;
- 2031 Development Scenarios including potential mitigation schemes with particular emphasis on demonstrating the impacts on the county and strategic road network including the impact on key junctions;
- Provision of detailed junction models for key junctions:

1.2 Background to the Study

1.2.1 The District Plan was submitted to the Secretary of State in August 2016 and adopted on 28th March 2018.

1.2.2 The Inspector is satisfied that it is appropriate for the Plan to contain a stepped housing trajectory, taking place after year 2023/24,at 876 dpa for the period up to 2023/24, and subsequently 1,090 dpa to 2031. Effectively this means MSDC have an agreed Plan at 876 dpa for the period to 2023/24 - with any subsequent increase primarily subject to the findings of Habitats Regulation Assessment at the higher level of development to assess the transport impact of the Plan on the Ashdown Forest.

1.2.3 The Mid Sussex Transport Study has been published in stages to support the District Plan through to adoption, the last being the Stage 3 Report (December 2016) with subsequent updates (see examination documents MSDC18 and MSDC244). Stage 3 reported on the impact of 800 dpa on the transport network. Agreement has been reached with Highways England (HE) and West Sussex County Council (WSCC) that the proposed District Plan housing requirement at 876 dpa is adequately considered by the Stage 3 Study as it is possible that virtually all the required significant interventions set out in the MSTS to mitigate the impact of development of 800 dpa per annum to 2031 (to support a total of 13,600 dwellings), will be delivered in the period up to 2023/24 (supporting a total of 6,132 dwellings at 876 dpa); and that the MSTS provides sufficient evidence to demonstrate that the additional units would also not cause harm to the highway network, subject to the implementation of required remedial intervention. This is on the understanding that further transport modelling work will be completed to test the impact of 1,090dpa on the highway network.

1.3 Highway Model Production

1.3.1 The Mid Sussex Strategic Highway Model (MSSHM) was produced in accordance with standard good practice as set out in the DfT's WebTAG guidelines, in particular TAG unit M3-1 Highway Assignment Modelling, (January 2014). As such, the approaches to data processing, matrices and network production, along with model calibration are consistent with those of similar strategic highways models.

1.3.2 The model production made significant and appropriate use of existing data and existing models in the area. A very small programme of surveys was undertaken to fill in some gaps in data.

1.4 Transport Study

1.4.1 The impact on the highway network of the agreed Development Scenarios are assessed based on the National Planning Policy Framework (NPPF). The assessment of impacts is based on criteria agreed by MSDC and WSCC. These are derived using WSCC's position statement in relation to the NPPF which sets out their interpretation of terms defining traffic impacts.

1.4.2 Where junctions are assessed to be adversely impacted by the developments, a set of appropriate mitigation schemes are devised and tested. These mitigations aim to remove all 'severe' impacts. The proportion of the additional junction use attributable to each development site is also calculated.

1.4.3 Further work is also undertaken to:

- Undertake environmental impact and road safety impact analysis to comply with National Planning Practice Guidance on transport evidence bases in plan making. This work is expected to be undertaken for the 'preferred' development option as part of the Mid Sussex Transport Study to inform the proposed submission (Regulation 19) Site Allocations Development Plan Documents (DPD).
- Undertake air quality modelling and ecological interpretation for Habitats Regulations Assessment to test the impact of traffic, as a result of proposed development, on the Ashdown Forest Special Area of Conservation. This will be based on the outputs of the Mid Sussex Transport Study.

1.5 This Note

1.5.1 This report describes the production of the MSSHM 2031 Reference Case forecasts for use in the transport study, and is structured as follows:

- Chapter 2: Reference Case Approach
- Chapter 3: 2031 Reference Case Matrices
- Chapter 4: 2031 Reference Case Infrastructure

2. REFERENCE CASE APPROACH

2.1 Introduction

2.1.1 The Reference Case represents a benchmark against which the development Scenarios are tested and compared. This enables separation of impacts resulting from the Scenario from impacts due to background growth, committed development and infrastructure. The Reference Case year used in this study is 2031.

2.1.2 The 2031 Reference Case requires both matrices and network updates to represent the most likely conditions. The matrices require information on the changes in demand on the transport network, this is provided in two forms:

- Use of TEMPro (Trip End Model Presentation Program) which provides geographical growth forecasts from the Department for Transport's National Trip End Model
- Site specific development information provided by the District Council and applied directly to an existing or dedicated model zone

2.1.3 Although TEMPro forecasts can be used for the District, the purpose is for it to provide forecasts for other areas in a convenient and consistent format, to ensure trips from and to these areas, and through trips are represented.

2.1.4 For site specific development trip rates are required to convert housing, employment and other land uses into trip generations that can be applied in the transport model.

2.1.5 The information required leads to a set of input assumptions, in summary, these are:

- TEMPro assumptions and approach
- Reference Case Housing in Mid Sussex District
- Significant Reference Case Housing in Neighbouring Authorities:
- Reference Case Employment
- Trip Rates and Trip Generation
- Reference Case Infrastructure

2.2 Use of TEMPro

2.2.1 Travel demand matrices contain the forecast trips between origin and destination zones across the model study area. Forecasts are based on information obtained from the National Trip End Model (NTEM), obtained using the TEMPro database. This is compliant with guidance set out in WebTAG (Web-based Transport Assessment Guidance, published by the Department for Transport). The forecasts include, population, employment, households by car ownership and trip ends. TEMPro is designed to allow analysis of pre-processed data from the NTEM. The pre-processed data is itself the output from a series of models developed and run by DfT's Transport Appraisal and Strategic Modelling (TASM) division.

2.2.2 For the transport study the trip ends information is used in the form of origin and destination growth factors. These are extracted for 2017-2031 for the AM (0700-1000) and PM (1600-1900) periods, for the locations required.

TEMPro and Site Specific Growth

2.2.3 In using TEMPro it is important to be aware of the level of growth that it is applying, and to compare that with the reference case development data that has been provided by the District Council. The data from the district should not simply be added to the TEMPro data as this would lead to double-counting.

2.2.4 If committed development data appears to fall short of TEMPro forecasts it is usually considered appropriate to uplift the growth to match TEMPro. Matching to TEMPro provides a consistent benchmark upon which to base Scenario impacts.

2.2.5 Comparison between Mid Sussex TEMPro housing forecasts for 2017-2031 and site specific housing reference case data showed a slightly higher figure for the latter:

- Mid Sussex TEMPro housing 2017-2031 = 10789 households
- Mid Sussex Site Specific Reference Case = 11411 households

2.2.6 It was therefore agreed that all reference case growth in the District is applied on a site specific basis directly to model zones, in preference to using TEMPro, which is used for growth outside the District only.

2.3 Trip Rates

2.3.1 Trip rates are required to calculate trip generations for Mid Sussex developments that are applied directly to an existing model zone or dedicated new model zone.

2.3.2 The TRICS database is used to calculate origin and destination trip rates for the AM peak, and PM peak hours. They are used to derive the forecast matrices for the Reference Cases and are shown in **Table 1**; the higher tidal rates are in **bold**. For robustness the 85th percentile is used rather than the mean trip rate for the survey selection.

2.3.3 To ensure an adequate number of surveys a minimal number of surveys were removed from the analyses. Surveys in the following groups were removed:

- Town centre, neighbourhood centre and 'free-standing' developments
- Saturday surveys
- All non B1 or B2 (for employment)
- C1 and C2 (for residential)

Table 1. General Vehicle Trip Rates

USE	CLASS	PARAMETER	AM ORIG	AM DEST	PM ORIG	PM DEST
Private Houses and Flats		dwellings	**0. 397**	0. 191	0. 143	**0. 486**
Office	B1a	employees	0. 043	**0. 511**	**0. 394**	0. 021
Business Park	B1b	employees	0. 183	**0. 367**	**0. 465**	0. 045
Industrial Estate	B1c	employees	0. 300	**0. 700**	**0. 844**	0. 067

2.3.4 The TRICS reports are in **Appendix A**.

3. 2031 REFERENCE CASE MATRICES

3.1 Introduction

3.1.1 Two reference cases have been prepared, Reference Case One and Reference Case Two. Reference Case One includes the higher level of development for Mid Sussex District. Reference Case Two includes only commitments with full or outline planning permission and District Plan allocation with permission. In particular, it provides a robust approach for assessing traffic flow impacts in the Ashdown Forest. When development scenarios are later tested this means that the development excluded from Reference Case Two are instead included in the Scenario. This results in a higher amount of development in the Scenario and therefore represents a 'worst case' approach.

3.2 2031 Reference Case One

3.2.1 For housing, Reference Case One includes the developments with a planning status described as:

- Commitment - Full/Outline Planning Permission
- District Plan - With Permission
- Commitment - Allocated Site Without Permission
- District Plan - Pending Allocation

3.2.2 In summary the key site specific developments are as follows:

Reference Case Housing in Mid Sussex District:

This long list of site specific development is included in **Appendix B**.

Reference Case Employment in Mid Sussex District::

- Northern Arc; Business Park (B1b), 1500 employees
- The Hub, Business Park (B1b); 2500 employees

Reference Case Housing in Neighbouring Authorities (explicitly included):

- Kilnwood Vale; 2,500 units
- Land North of Horsham; 2,500 units
- North East Crawley; 2000 units

Reference Case Housing in Neighbouring Authorities (explicitly included):

- Kilnwood Vale, Industrial Estate (B1c); 721 employees
- Land North of Horsham, Industrial Estate (B1c); 714 employees

3.2.3 In addition, **windfall sites** are assumed to be 45 units per year from 2023 to 2031, therefore 405 in total. This is distributed pro-rata across the reference case sites.

3.2.4 The process to prepare the 2031 Reference Case One matrices is described below, using the approaches described above.

Non Mid Sussex Growth (TEMPro)

1) Origin and destination trip ends growth factors are extracted from TEMPro for 2017-2031 for the AM (0700-1000) and PM (1600-1900) periods. This is done at the most appropriate level of detail for the model zones, including at the lowest level of disaggregation available (Middle Super Output Area - MSOA) for neighbouring areas. Mid Sussex is not included because growth is applied from site specific data.

2) TEMPro trip ends by mode are based on the average rates over an area. A mapping exercise is therefore undertaken to calculate appropriate factor for each of the MSSHM zones. This process results in creation of 2017-2031 zonal trip end growth factors for the non- Mid Sussex zones.

Mid Sussex Growth Site Specific Development

3) The site specific Mid Sussex data is collated and a mapping exercise is undertaken to apply each development to the appropriate model zone. Larger developments usually have a dedicated new zone added. This process is shown in **Appendix B**.

4) Trip generations are applied using the trip rates described above. This creates trip growth for the Mid Sussex zones which is then applied in combination with non-Mid Sussex TEMPro growth to produce the 2031 Reference Case One matrices.

3.3 2031 Reference Case Two

3.3.1 This second reference case represents a lower level of development by excluding some of the less certain sites (which are subsequently included in the scenario). This is to provide a more robust or 'worst case' for the scenario impacts, which is considered important for assessing traffic flow impacts in the Ashdown Forest in particular. Compared to Reference Case One this *excludes* developments with a planning status described as:

- Commitment - Allocated Site Without Permission
- District Plan - Pending Allocation

3.3.2 Although the Northern Arc development is described as 'District Plan - Pending Allocation' it *is* included in Reference Case Two.

4. 2031 REFERENCE CASE INFRASTRUCTURE

4.1 Introduction

4.1.1 West Sussex County Council (WSCC) provided SYSTRA with a list of committed highway infrastructure, to be constructed in Mid-Sussex and neighbouring Districts by 2031.

4.1.2 The information provided includes highway schemes in the areas of Burgess Hill, Copthorne, Hassocks, Haywards Heath, and Crawley, and ranges from new traffic signals, to speed limit changes.

4.1.3 Infrastructure at key strategic locations outside of the District is also included, such as M23 smart motorways, and the A264 junction improvements associated with the Kilnwood Vale development.

4.1.4 A complete list of highway schemes included in the reference case is in **Appendix C**.

4.2 Development Access

4.2.1 With the introduction of new developments in the 2031 forecast year, it is important that the access to these sites is modelled appropriately. For large sites, such as the Northern Arc using the correct location is important to ensure realistic routing of traffic.

4.2.2 WSCC have provided the location and type of access junction for some key developments. Where this information has been provided, it has been included in the MSSHM's 2031 forecast scenarios.

4.2.3 For sites where no access information has been provided, suitable assumptions are made, using the Mid-Sussex District Council web-site and in some instances developer websites.

4.2.4 **Appendix C** lists the known development accesses, and assumptions that have been made for sites where access information has not been provided.

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TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : K - MIXED PRIV HOUS (FLATS AND HOUSES)
VEHICLES

Selected regions and areas:

01	GREATER LONDON		
	BN	BARNET	1 days
02	SOUTH EAST		
	ES	EAST SUSSEX	1 days
	HC	HAMPSHIRE	1 days
	WS	WEST SUSSEX	1 days
03	SOUTH WEST		
	GS	GLOUCESTERSHIRE	1 days
04	EAST ANGLIA		
	CA	CAMBRIDGESHIRE	2 days
05	EAST MIDLANDS		
	NT	NOTTINGHAMSHIRE	1 days
06	WEST MIDLANDS		
	ST	STAFFORDSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	NE	NORTH EAST LINCOLNSHIRE	1 days
	NY	NORTH YORKSHIRE	1 days
08	NORTH WEST		
	GM	GREATER MANCHESTER	1 days
09	NORTH		
	CB	CUMBRIA	2 days
13	MUNSTER		
	CR	CORK	1 days
14	LEINSTER		
	KK	KILKENNY	2 days
15	GREATER DUBLIN		
	DL	DUBLIN	3 days
17	ULSTER (NORTHERN IRELAND)		
	DE	DERRY	1 days

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

Secondary Filtering selection:

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

Parameter: Number of dwellings
Actual Range: 15 to 479 (units:)
Range Selected by User: 15 to 788 (units:)

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/10 to 24/11/17

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

Selected survey days:

Monday	4 days
Tuesday	6 days
Wednesday	3 days
Thursday	6 days
Friday	2 days

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

Selected survey types:

Manual count	21 days
Directional ATC Count	0 days

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

Selected Locations:

Edge of Town Centre	2
Suburban Area (PPS6 Out of Centre)	11
Edge of Town	8

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

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

Secondary Filtering selection:

Use Class:

C3	21 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 1 mile:

1,001 to 5,000	2 days
5,001 to 10,000	4 days
10,001 to 15,000	2 days
15,001 to 20,000	1 days
20,001 to 25,000	2 days
25,001 to 50,000	9 days
50,001 to 100,000	1 days

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

Population within 5 miles:

5,001 to 25,000	1 days
25,001 to 50,000	6 days
75,001 to 100,000	2 days
125,001 to 250,000	5 days
250,001 to 500,000	2 days
500,001 or More	5 days

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

Car ownership within 5 miles:

0.6 to 1.0	9 days
1.1 to 1.5	11 days
1.6 to 2.0	1 days

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

Travel Plan:

Yes	2 days
No	19 days

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

PTAL Rating:

No PTAL Present	20 days
2 Poor	1 days

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

LIST OF SITES relevant to selection parameters

1 BN-03-K-02 HOUSES & FLATS BARNET
FRITH LANE
MILL HILL
MILL HILL EAST
Edge of Town
Residential Zone
Total Number of dwellings: 479
Survey date: THURSDAY *07/07/16* *Survey Type: MANUAL*

2 CA-03-K-01 MIXED HOUSES & FLATS CAMBRIDGESHIRE
WEASANHAM LANE
WISBECH
FENLAND
Edge of Town
Residential Zone
Total Number of dwellings: 100
Survey date: MONDAY *07/09/15* *Survey Type: MANUAL*

3 CA-03-K-03 FLATS & TERRACED CAMBRIDGESHIRE
YORK STREET
CAMBRIDGE

Edge of Town Centre
No Sub Category
Total Number of dwellings: 178
Survey date: WEDNESDAY *20/09/17* *Survey Type: MANUAL*

4 CB-03-K-01 FLATS & TERRACED CUMBRIA
BRIDGE LANE
CARLISLE

Edge of Town
Industrial Zone
Total Number of dwellings: 66
Survey date: THURSDAY *12/06/14* *Survey Type: MANUAL*

5 CB-03-K-02 SEMI-DETACHED & FLATS CUMBRIA
NATLAND ROAD
KENDAL

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 15
Survey date: TUESDAY *21/06/16* *Survey Type: MANUAL*

6 CR-03-K-02 SEMI-DET. & FLATS CORK
SKEHARD ROAD
CORK
BALLINURE
Edge of Town
Residential Zone
Total Number of dwellings: 116
Survey date: FRIDAY *20/06/14* *Survey Type: MANUAL*

7 DE-03-K-01 HOUSES & FLATS DERRY
NORTHLAND ROAD
LONDONDERRY
CLOUGHGLASS
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 92
Survey date: WEDNESDAY *20/06/12* *Survey Type: MANUAL*

8 DL-03-K-02 HOUSES & FLATS DUBLIN
MILLTOWN ROAD
DUBLIN
MILLTOWN
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 68
Survey date: TUESDAY *10/09/13* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

9 DL-03-K-03 HOUSES & FLATS DUBLIN
CHARLESTOWN
DUBLIN

Edge of Town
Industrial Zone
Total Number of dwellings: 322
Survey date: WEDNESDAY *11/09/13* *Survey Type: MANUAL*

10 DL-03-K-04 FLATS AND DUPLEXES DUBLIN
ALL HALLOWS SQUARE
DUBLIN
DRUMCONDRA
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 76
Survey date: TUESDAY *22/11/16* *Survey Type: MANUAL*

11 ES-03-K-01 MIXED HOUSES & FLATS EAST SUSSEX
LEWES ROAD
UCKFIELD
RIDGEWOOD
Edge of Town
Residential Zone
Total Number of dwellings: 64
Survey date: THURSDAY *14/07/16* *Survey Type: MANUAL*

12 GM-03-K-02 SEMI DET. & FLATS GREATER MANCHESTER
ABRAM CLOSE
MANCHESTER
FALLOWFIELD
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 33
Survey date: TUESDAY *11/10/11* *Survey Type: MANUAL*

13 GS-03-K-01 MIXED HOUSING GLOUCESTERSHIRE
CONEY HILL ROAD
GLOUCESTER
CONEY HILL
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 33
Survey date: THURSDAY *29/04/10* *Survey Type: MANUAL*

14 HC-03-K-06 HOUSES & FLATS HAMPSHIRE
ROMSEY ROAD
SOUTHAMPTON
MAYBUSH
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 91
Survey date: THURSDAY *02/10/14* *Survey Type: MANUAL*

15 KK-03-K-01 HOUSES & FLATS KILKENNY
BENNETTS BRIDGE ROAD
KILKENNY

Edge of Town
Residential Zone
Total Number of dwellings: 35
Survey date: TUESDAY *30/09/14* *Survey Type: MANUAL*

16 KK-03-K-02 DETACHED & FLATS KILKENNY
BOTHAR AN CHOLAISTE
KILKENNY

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 27
Survey date: MONDAY *29/09/14* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

17 NE-03-K-01 BLOCK OF FLATS NORTH EAST LINCOLNSHIRE
LADYSMITH ROAD
CLEETHORPES

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 67
Survey date: TUESDAY *06/05/14* *Survey Type: MANUAL*

18 NT-03-K-02 MIXED HOUSES NOTTINGHAMSHIRE
CASTLE BRIDGE ROAD
NOTTINGHAM

Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Number of dwellings: 132
Survey date: MONDAY *07/11/16* *Survey Type: MANUAL*

19 NY-03-K-02 MIXED HOUSING NORTH YORKSHIRE
HORSEFAIR
BOROUGHBRIDGE

Edge of Town Centre
Residential Zone
Total Number of dwellings: 19
Survey date: MONDAY *10/10/11* *Survey Type: MANUAL*

20 ST-03-K-03 MIXED HOUSING & FLATS STAFFORDSHIRE
CLAREMONT ROAD
WOLVERHAMPTON

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 28
Survey date: FRIDAY *09/05/14* *Survey Type: MANUAL*

21 WS-03-K-03 MIXED HOUSES & FLATS WEST SUSSEX
LITTLEHAMPTON ROAD
WORTHING
WEST DURRINGTON
Edge of Town
Residential Zone
Total Number of dwellings: 115
Survey date: THURSDAY *12/05/16* *Survey Type: MANUAL*

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

SYSTRA Ltd Milburn House Newcastle Licence No: 700703

RANK ORDER for Land Use 03 - RESIDENTIAL/K - MIXED PRIV HOUS (FLATS AND HOUSES)
VEHICLES

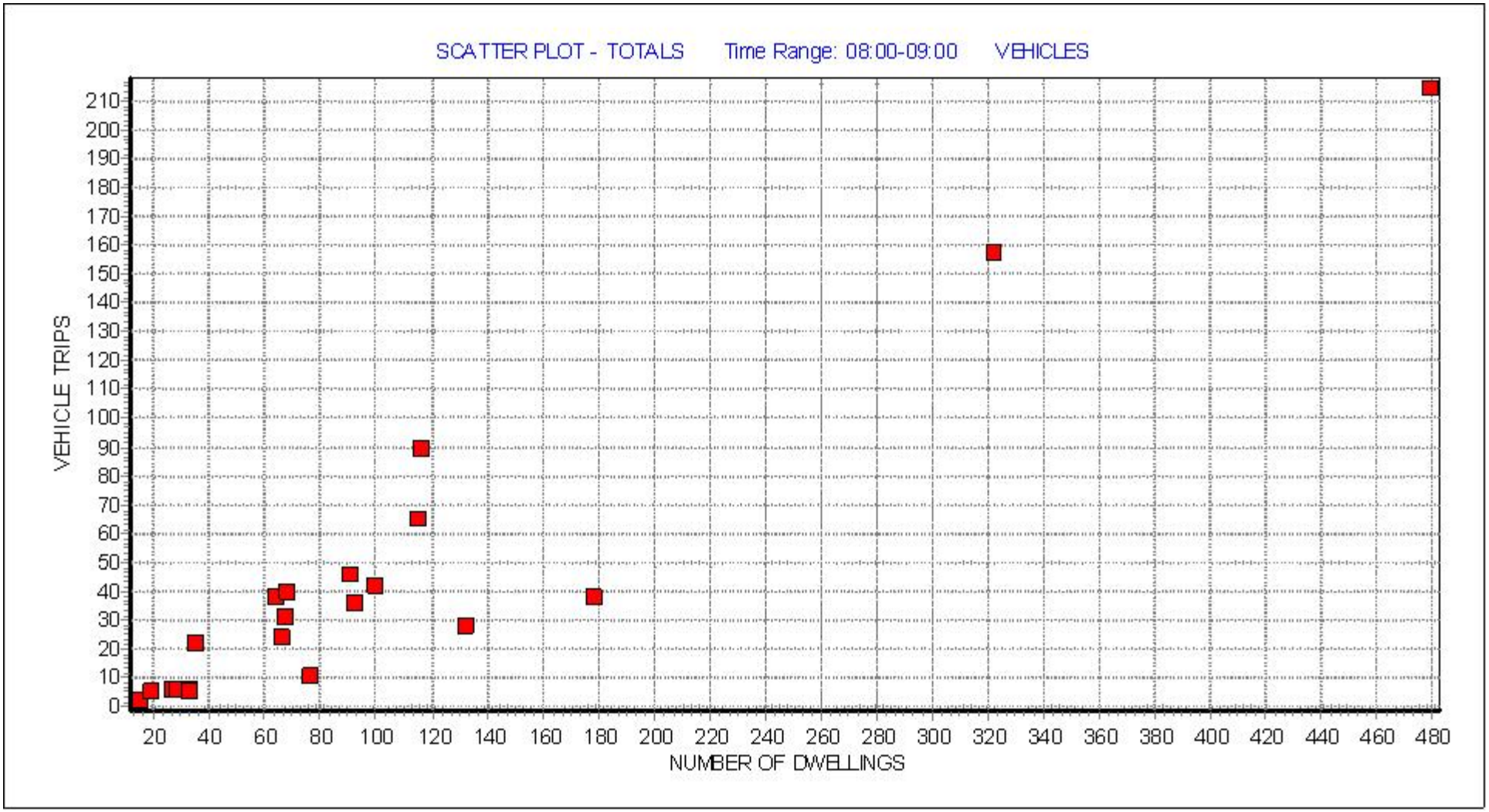
Ranking Type: TOTALS Time Range: 08:00-09:00
15th Percentile = No. 18 GS-03-K-01 Tot: 0.182
85th Percentile = No. 4 DL-03-K-02 Tot: 0.588

Median Values		Mean Values	
Arrivals:	0.098	Arrivals:	0.098
Departures:	0.293	Departures:	0.281
Totals:	0.391	Totals:	0.379

Rank	Site-Ref	Description	Town/City	Area	DWELLS	Day	Date	Trip Rate (Sorted by Totals)			Park Spaces Per Dwelling
								Arrivals	Departures	Totals	
1	CR-03-K-02	SEMI-DET. & FL	CORK	CORK	116	Fri	20/06/14	0.155	0.621	0.776	2.12
2	KK-03-K-01	HOUSES & FLATS	KILKENNY	KILKENNY	35	Tue	30/09/14	0.057	0.571	0.628	1.54
3	ES-03-K-01	MIXED HOUSES &	UCKFIELD	EAST SUSSEX	64	Thu	14/07/16	0.172	0.422	0.594	1.67
4	DL-03-K-02	HOUSES & FLATS	DUBLIN	DUBLIN	68	Tue	10/09/13	0.191	0.397	0.588	1.66
5	WS-03-K-03	MIXED HOUSES &	WORTHING	WEST SUSSEX	115	Thu	12/05/16	0.148	0.417	0.565	2.20
6	HC-03-K-06	HOUSES & FLATS	SOUTHAMPTON	HAMPSHIRE	91	Thu	02/10/14	0.132	0.374	0.506	1.54
7	DL-03-K-03	HOUSES & FLATS	DUBLIN	DUBLIN	322	Wed	11/09/13	0.140	0.348	0.488	1.73
8	NE-03-K-01	BLOCK OF FLATS	CLEETHORPES	NORTH EAST LINCOLNS	67	Tue	06/05/14	0.164	0.299	0.463	1.16
9	BN-03-K-02	HOUSES & FLATS	MILL HILL	BARNET	479	Thu	07/07/16	0.177	0.271	0.448	1.93
10	CA-03-K-01	MIXED HOUSES &	WISBECH	CAMBRIDGESHIRE	100	Mon	07/09/15	0.140	0.280	0.420	1.19
11	DE-03-K-01	HOUSES & FLATS	LONDONDERRY	DERRY	92	Wed	20/06/12	0.098	0.293	0.391	1.41
12	CB-03-K-01	FLATS & TERRAC	CARLISLE	CUMBRIA	66	Thu	12/06/14	0.106	0.258	0.364	1.55
13	NY-03-K-02	MIXED HOUSING	BOROUGHBRIDGE	NORTH YORKSHIRE	19	Mon	10/10/11	0.053	0.211	0.264	1.79
14	KK-03-K-02	DETACHED & FLA	KILKENNY	KILKENNY	27	Mon	29/09/14	0.000	0.222	0.222	1.81
15	ST-03-K-03	MIXED HOUSING	WOLVERHAMPTON	STAFFORDSHIRE	28	Fri	09/05/14	0.071	0.143	0.214	1.86
16	CA-03-K-03	FLATS & TERRAC	CAMBRIDGE	CAMBRIDGESHIRE	178	Wed	20/09/17	0.067	0.146	0.213	1.16
17	NT-03-K-02	MIXED HOUSES	NOTTINGHAM	NOTTINGHAMSHIRE	132	Mon	07/11/16	0.015	0.197	0.212	0.55
18	GS-03-K-01	MIXED HOUSING	GLOUCESTER	GLOUCESTERSHIRE	33	Thu	29/04/10	0.000	0.182	0.182	1.27
19	GM-03-K-02	SEMI DET. & FL	MANCHESTER	GREATER MANCHESTER	33	Tue	11/10/11	0.061	0.091	0.152	1.36
20	DL-03-K-04	FLATS AND DUPL	DUBLIN	DUBLIN	76	Tue	22/11/16	0.118	0.026	0.144	1.00
21	CB-03-K-02	SEMI-DETACHED	KENDAL	CUMBRIA	15	Tue	21/06/16	0.000	0.133	0.133	2.07

This section displays actual (not average) trip rates for each of the survey days in the selected set, and ranks them in order of relative trip rate intensity, for a given time period (or peak period irrespective of time) selected by the user. The count type and direction are both displayed just above the table, along with the rows within the table representing the 85th and 15th percentile trip rate figures (highlighted in bold within the table itself).

The table itself displays details of each individual survey, alongside arrivals, departures and totals trip rates, sorted by whichever of the three directional options has been chosen by the user. As with the preceeding trip rate calculation results table, the trip rates shown are per the calculation factor (e.g. per 100m2 GFA, per employee, per hectare, etc). Note that if the peak period option has been selected (as opposed to a specific chosen time period), the peak period for each individual survey day in the table is also displayed.



This graph is a visual representation of the correlation between the selected trip rate calculation parameter and the rank order trip rates generated by each individual survey day in the selected set. The range of the trip rate parameter is shown along the x axis, with the level of trips shown on the y axis. The selected time range used to create the rank order list from which the graph is derived is displayed at the top of the graph (unless the peak period irrespective of time range has been selected). A line of best fit is sometimes displayed in the graph, should it be selected for inclusion by the user.

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : K - MIXED PRIV HOUS (FLATS AND HOUSES)
VEHICLES

Selected regions and areas:

01	GREATER LONDON		
	BN	BARNET	1 days
02	SOUTH EAST		
	ES	EAST SUSSEX	1 days
	HC	HAMPSHIRE	1 days
	WS	WEST SUSSEX	1 days
03	SOUTH WEST		
	GS	GLOUCESTERSHIRE	1 days
04	EAST ANGLIA		
	CA	CAMBRIDGESHIRE	2 days
05	EAST MIDLANDS		
	NT	NOTTINGHAMSHIRE	1 days
06	WEST MIDLANDS		
	ST	STAFFORDSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	NE	NORTH EAST LINCOLNSHIRE	1 days
	NY	NORTH YORKSHIRE	1 days
08	NORTH WEST		
	GM	GREATER MANCHESTER	1 days
09	NORTH		
	CB	CUMBRIA	2 days
13	MUNSTER		
	CR	CORK	1 days
14	LEINSTER		
	KK	KILKENNY	2 days
15	GREATER DUBLIN		
	DL	DUBLIN	3 days
17	ULSTER (NORTHERN IRELAND)		
	DE	DERRY	1 days

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

Secondary Filtering selection:

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

Parameter: Number of dwellings
Actual Range: 15 to 479 (units:)
Range Selected by User: 15 to 788 (units:)

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/10 to 24/11/17

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

Selected survey days:

Monday	4 days
Tuesday	6 days
Wednesday	3 days
Thursday	6 days
Friday	2 days

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

Selected survey types:

Manual count	21 days
Directional ATC Count	0 days

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

Selected Locations:

Edge of Town Centre	2
Suburban Area (PPS6 Out of Centre)	11
Edge of Town	8

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

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

Secondary Filtering selection:

Use Class:

C3	21 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 1 mile:

1,001 to 5,000	2 days
5,001 to 10,000	4 days
10,001 to 15,000	2 days
15,001 to 20,000	1 days
20,001 to 25,000	2 days
25,001 to 50,000	9 days
50,001 to 100,000	1 days

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

Population within 5 miles:

5,001 to 25,000	1 days
25,001 to 50,000	6 days
75,001 to 100,000	2 days
125,001 to 250,000	5 days
250,001 to 500,000	2 days
500,001 or More	5 days

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

Car ownership within 5 miles:

0.6 to 1.0	9 days
1.1 to 1.5	11 days
1.6 to 2.0	1 days

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

Travel Plan:

Yes	2 days
No	19 days

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

PTAL Rating:

No PTAL Present	20 days
2 Poor	1 days

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

LIST OF SITES relevant to selection parameters

1 BN-03-K-02 HOUSES & FLATS BARNET
FRITH LANE
MILL HILL
MILL HILL EAST
Edge of Town
Residential Zone
Total Number of dwellings: 479
Survey date: THURSDAY *07/07/16* *Survey Type: MANUAL*

2 CA-03-K-01 MIXED HOUSES & FLATS CAMBRIDGESHIRE
WEASANHAM LANE
WISBECH
FENLAND
Edge of Town
Residential Zone
Total Number of dwellings: 100
Survey date: MONDAY *07/09/15* *Survey Type: MANUAL*

3 CA-03-K-03 FLATS & TERRACED CAMBRIDGESHIRE
YORK STREET
CAMBRIDGE

Edge of Town Centre
No Sub Category
Total Number of dwellings: 178
Survey date: WEDNESDAY *20/09/17* *Survey Type: MANUAL*

4 CB-03-K-01 FLATS & TERRACED CUMBRIA
BRIDGE LANE
CARLISLE

Edge of Town
Industrial Zone
Total Number of dwellings: 66
Survey date: THURSDAY *12/06/14* *Survey Type: MANUAL*

5 CB-03-K-02 SEMI-DETACHED & FLATS CUMBRIA
NATLAND ROAD
KENDAL

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 15
Survey date: TUESDAY *21/06/16* *Survey Type: MANUAL*

6 CR-03-K-02 SEMI-DET. & FLATS CORK
SKEHARD ROAD
CORK
BALLINURE
Edge of Town
Residential Zone
Total Number of dwellings: 116
Survey date: FRIDAY *20/06/14* *Survey Type: MANUAL*

7 DE-03-K-01 HOUSES & FLATS DERRY
NORTHLAND ROAD
LONDONDERRY
CLOUGHGLASS
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 92
Survey date: WEDNESDAY *20/06/12* *Survey Type: MANUAL*

8 DL-03-K-02 HOUSES & FLATS DUBLIN
MILLTOWN ROAD
DUBLIN
MILLTOWN
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 68
Survey date: TUESDAY *10/09/13* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

9 DL-03-K-03 HOUSES & FLATS DUBLIN
CHARLESTOWN
DUBLIN

Edge of Town
Industrial Zone
Total Number of dwellings: 322
Survey date: WEDNESDAY *11/09/13* *Survey Type: MANUAL*

10 DL-03-K-04 FLATS AND DUPLEXES DUBLIN
ALL HALLOWS SQUARE
DUBLIN
DRUMCONDRA
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 76
Survey date: TUESDAY *22/11/16* *Survey Type: MANUAL*

11 ES-03-K-01 MIXED HOUSES & FLATS EAST SUSSEX
LEWES ROAD
UCKFIELD
RIDGEWOOD
Edge of Town
Residential Zone
Total Number of dwellings: 64
Survey date: THURSDAY *14/07/16* *Survey Type: MANUAL*

12 GM-03-K-02 SEMI DET. & FLATS GREATER MANCHESTER
ABRAM CLOSE
MANCHESTER
FALLOWFIELD
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 33
Survey date: TUESDAY *11/10/11* *Survey Type: MANUAL*

13 GS-03-K-01 MIXED HOUSING GLOUCESTERSHIRE
CONEY HILL ROAD
GLOUCESTER
CONEY HILL
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 33
Survey date: THURSDAY *29/04/10* *Survey Type: MANUAL*

14 HC-03-K-06 HOUSES & FLATS HAMPSHIRE
ROMSEY ROAD
SOUTHAMPTON
MAYBUSH
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 91
Survey date: THURSDAY *02/10/14* *Survey Type: MANUAL*

15 KK-03-K-01 HOUSES & FLATS KILKENNY
BENNETTS BRIDGE ROAD
KILKENNY

Edge of Town
Residential Zone
Total Number of dwellings: 35
Survey date: TUESDAY *30/09/14* *Survey Type: MANUAL*

16 KK-03-K-02 DETACHED & FLATS KILKENNY
BOTHAR AN CHOLAISTE
KILKENNY

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 27
Survey date: MONDAY *29/09/14* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

17 NE-03-K-01 BLOCK OF FLATS NORTH EAST LINCOLNSHIRE
LADYSMITH ROAD
CLEETHORPES

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 67
Survey date: TUESDAY *06/05/14* *Survey Type: MANUAL*

18 NT-03-K-02 MIXED HOUSES NOTTINGHAMSHIRE
CASTLE BRIDGE ROAD
NOTTINGHAM

Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Number of dwellings: 132
Survey date: MONDAY *07/11/16* *Survey Type: MANUAL*

19 NY-03-K-02 MIXED HOUSING NORTH YORKSHIRE
HORSEFAIR
BOROUGHBRIDGE

Edge of Town Centre
Residential Zone
Total Number of dwellings: 19
Survey date: MONDAY *10/10/11* *Survey Type: MANUAL*

20 ST-03-K-03 MIXED HOUSING & FLATS STAFFORDSHIRE
CLAREMONT ROAD
WOLVERHAMPTON

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 28
Survey date: FRIDAY *09/05/14* *Survey Type: MANUAL*

21 WS-03-K-03 MIXED HOUSES & FLATS WEST SUSSEX
LITTLEHAMPTON ROAD
WORTHING
WEST DURRINGTON
Edge of Town
Residential Zone
Total Number of dwellings: 115
Survey date: THURSDAY *12/05/16* *Survey Type: MANUAL*

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

SYSTRA Ltd Milburn House Newcastle Licence No: 700703

RANK ORDER for Land Use 03 - RESIDENTIAL/K - MIXED PRIV HOUS (FLATS AND HOUSES)
VEHICLES

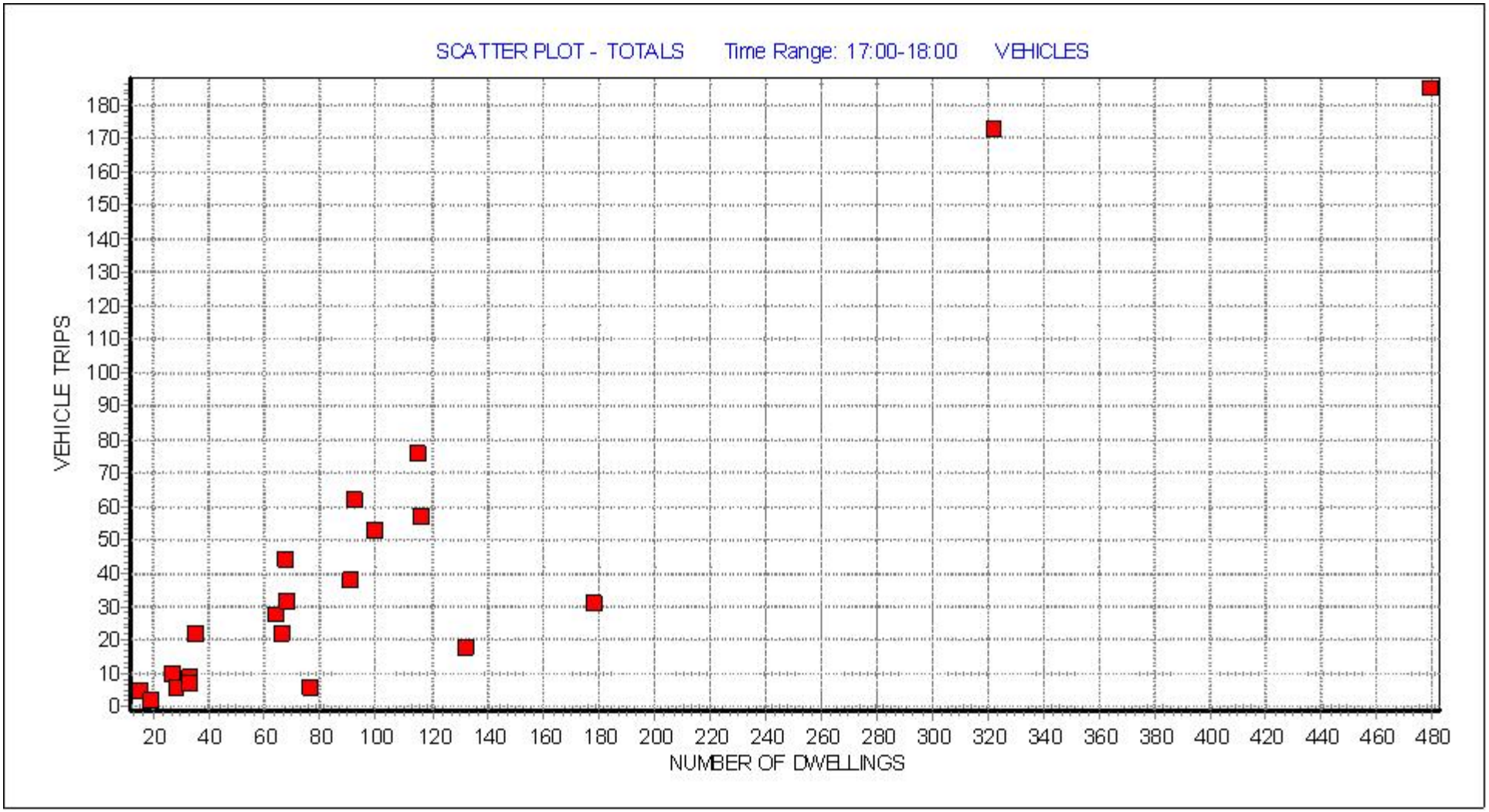
Ranking Type: TOTALS Time Range: 17:00-18:00
15th Percentile = No. 18 CA-03-K-03 Tot: 0.174
85th Percentile = No. 4 KK-03-K-01 Tot: 0.629

Median Values		Mean Values	
Arrivals:	0.225	Arrivals:	0.250
Departures:	0.161	Departures:	0.137
Totals:	0.386	Totals:	0.387

Rank	Site-Ref	Description	Town/City	Area	DWELLS	Day	Date	Trip Rate (Sorted by Totals)			Park Spaces Per Dwelling
								Arrivals	Departures	Totals	
1	DE-03-K-01	HOUSES & FLATS	LONDONDERRY	DERRY	92	Wed	20/06/12	0.370	0.304	0.674	1.41
2	WS-03-K-03	MIXED HOUSES &	WORTHING	WEST SUSSEX	115	Thu	12/05/16	0.443	0.217	0.660	2.20
3	NE-03-K-01	BLOCK OF FLATS	CLEETHORPES	NORTH EAST LINCOLNS	67	Tue	06/05/14	0.358	0.299	0.657	1.16
4	KK-03-K-01	HOUSES & FLATS	KILKENNY	KILKENNY	35	Tue	30/09/14	0.486	0.143	0.629	1.54
5	DL-03-K-03	HOUSES & FLATS	DUBLIN	DUBLIN	322	Wed	11/09/13	0.329	0.208	0.537	1.73
6	CA-03-K-01	MIXED HOUSES &	WISBECH	CAMBRIDGESHIRE	100	Mon	07/09/15	0.290	0.240	0.530	1.19
7	CR-03-K-02	SEMI-DET. & FL	CORK	CORK	116	Fri	20/06/14	0.353	0.138	0.491	2.12
8	DL-03-K-02	HOUSES & FLATS	DUBLIN	DUBLIN	68	Tue	10/09/13	0.279	0.191	0.470	1.66
9	ES-03-K-01	MIXED HOUSES &	UCKFIELD	EAST SUSSEX	64	Thu	14/07/16	0.281	0.156	0.437	1.67
10	HC-03-K-06	HOUSES & FLATS	SOUTHAMPTON	HAMPSHIRE	91	Thu	02/10/14	0.330	0.088	0.418	1.54
11	BN-03-K-02	HOUSES & FLATS	MILL HILL	BARNET	479	Thu	07/07/16	0.225	0.161	0.386	1.93
12	KK-03-K-02	DETACHED & FLA	KILKENNY	KILKENNY	27	Mon	29/09/14	0.259	0.111	0.370	1.81
13	CB-03-K-02	SEMI-DETACHED	KENDAL	CUMBRIA	15	Tue	21/06/16	0.267	0.067	0.334	2.07
14	CB-03-K-01	FLATS & TERRAC	CARLISLE	CUMBRIA	66	Thu	12/06/14	0.258	0.076	0.334	1.55
15	GM-03-K-02	SEMI DET. & FL	MANCHESTER	GREATER MANCHESTER	33	Tue	11/10/11	0.121	0.152	0.273	1.36
16	ST-03-K-03	MIXED HOUSING	WOLVERHAMPTON	STAFFORDSHIRE	28	Fri	09/05/14	0.143	0.071	0.214	1.86
17	GS-03-K-01	MIXED HOUSING	GLOUCESTER	GLOUCESTERSHIRE	33	Thu	29/04/10	0.091	0.121	0.212	1.27
18	CA-03-K-03	FLATS & TERRAC	CAMBRIDGE	CAMBRIDGESHIRE	178	Wed	20/09/17	0.112	0.062	0.174	1.16
19	NT-03-K-02	MIXED HOUSES	NOTTINGHAM	NOTTINGHAMSHIRE	132	Mon	07/11/16	0.091	0.045	0.136	0.55
20	NY-03-K-02	MIXED HOUSING	BOROUGHBRIDGE	NORTH YORKSHIRE	19	Mon	10/10/11	0.105	0.000	0.105	1.79
21	DL-03-K-04	FLATS AND DUPL	DUBLIN	DUBLIN	76	Tue	22/11/16	0.053	0.026	0.079	1.00

This section displays actual (not average) trip rates for each of the survey days in the selected set, and ranks them in order of relative trip rate intensity, for a given time period (or peak period irrespective of time) selected by the user. The count type and direction are both displayed just above the table, along with the rows within the table representing the 85th and 15th percentile trip rate figures (highlighted in bold within the table itself).

The table itself displays details of each individual survey, alongside arrivals, departures and totals trip rates, sorted by whichever of the three directional options has been chosen by the user. As with the preceeding trip rate calculation results table, the trip rates shown are per the calculation factor (e.g. per 100m2 GFA, per employee, per hectare, etc). Note that if the peak period option has been selected (as opposed to a specific chosen time period), the peak period for each individual survey day in the table is also displayed.



This graph is a visual representation of the correlation between the selected trip rate calculation parameter and the rank order trip rates generated by each individual survey day in the selected set. The range of the trip rate parameter is shown along the x axis, with the level of trips shown on the y axis. The selected time range used to create the rank order list from which the graph is derived is displayed at the top of the graph (unless the peak period irrespective of time range has been selected). A line of best fit is sometimes displayed in the graph, should it be selected for inclusion by the user.

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : A - OFFICE

VEHICLES

Selected regions and areas:

01	**GREATER LONDON**		
	BT	BRENT	3 days
	HD	HILLINGDON	1 days
	HO	HOUNSLOW	1 days
	WH	WANDSWORTH	1 days
02	**SOUTH EAST**		
	BD	BEDFORDSHIRE	1 days
	ES	EAST SUSSEX	2 days
	HC	HAMPSHIRE	2 days
	HF	HERTFORDSHIRE	2 days
	KC	KENT	5 days
	SC	SURREY	3 days
03	**SOUTH WEST**		
	DC	DORSET	1 days
04	**EAST ANGLIA**		
	CA	CAMBRIDGESHIRE	2 days
	NF	NORFOLK	3 days
	SF	SUFFOLK	2 days
06	**WEST MIDLANDS**		
	WM	WEST MIDLANDS	1 days
	WO	WORCESTERSHIRE	1 days
07	**YORKSHIRE & NORTH LINCOLNSHIRE**		
	WY	WEST YORKSHIRE	2 days
08	**NORTH WEST**		
	GM	GREATER MANCHESTER	1 days
	LC	LANCASHIRE	1 days
09	**NORTH**		
	CB	CUMBRIA	1 days
	DH	DURHAM	2 days
10	**WALES**		
	PS	POWYS	1 days
	SW	SWANSEA	2 days
11	**SCOTLAND**		
	DU	DUNDEE CITY	1 days
12	**CONNAUGHT**		
	RO	ROSCOMMON	1 days
13	**MUNSTER**		
	CR	CORK	1 days
16	**ULSTER (REPUBLIC OF IRELAND)**		
	DN	DONEGAL	1 days
	MG	MONAGHAN	1 days
17	**ULSTER (NORTHERN IRELAND)**		
	AN	ANTRIM	1 days

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

Secondary Filtering selection:

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

Parameter:	Number of Employees
Actual Range:	8 to 6500 (units:)
Range Selected by User:	0 to 9500 (units:)

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/10 to 12/09/17

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

Selected survey days:

Monday	14 days
Tuesday	13 days
Wednesday	7 days
Thursday	9 days
Friday	4 days

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

Selected survey types:

Manual count	47 days
Directional ATC Count	0 days

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

Selected Locations:

Edge of Town Centre	22
Suburban Area (PPS6 Out of Centre)	15
Edge of Town	10

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Industrial Zone	4
Commercial Zone	9
Development Zone	5
Residential Zone	9
Built-Up Zone	12
Out of Town	1
No Sub Category	7

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

Secondary Filtering selection:

Use Class:

B1	47 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 1 mile:

1,000 or Less	1 days
1,001 to 5,000	5 days
5,001 to 10,000	9 days
10,001 to 15,000	3 days
15,001 to 20,000	6 days
20,001 to 25,000	2 days
25,001 to 50,000	18 days
50,001 to 100,000	3 days

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

Secondary Filtering selection (Cont.):

Population within 5 miles:

5,001 to 25,000	4 days
25,001 to 50,000	5 days
75,001 to 100,000	6 days
100,001 to 125,000	1 days
125,001 to 250,000	19 days
250,001 to 500,000	3 days
500,001 or More	9 days

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

Car ownership within 5 miles:

0.5 or Less	1 days
0.6 to 1.0	19 days
1.1 to 1.5	25 days
1.6 to 2.0	2 days

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

Travel Plan:

Yes	18 days
No	29 days

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

PTAL Rating:

No PTAL Present	41 days
1b Very poor	1 days
4 Good	2 days
5 Very Good	2 days
6a Excellent	1 days

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

LIST OF SITES relevant to selection parameters

1 **AN-02-A-04** **OFFICE** **ANTRIM**
CHURCH ROAD
NEWTOWNABBEY
DUNANNEY
Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Number of Employees: 450
Survey date: THURSDAY *17/06/10* *Survey Type: MANUAL*

2 **BD-02-A-03** **OFFICES** **BEDFORDSHIRE**
BROMHAM ROAD
BEDFORD

Edge of Town Centre
No Sub Category
Total Number of Employees: 240
Survey date: MONDAY *14/10/13* *Survey Type: MANUAL*

3 **BT-02-A-02** **OFFICE** **BRENT**
WEMBLEY HILL ROAD
WEMBLEY

Suburban Area (PPS6 Out of Centre)
Built-Up Zone
Total Number of Employees: 450
Survey date: TUESDAY *22/06/10* *Survey Type: MANUAL*

4 **BT-02-A-03** **OFFICES** **BRENT**
EMPIRE WAY
WEMBLEY

Suburban Area (PPS6 Out of Centre)
Development Zone
Total Number of Employees: 39
Survey date: WEDNESDAY *03/06/15* *Survey Type: MANUAL*

5 **BT-02-A-04** **OFFICES** **BRENT**
EMPIRE WAY
WEMBLEY

Suburban Area (PPS6 Out of Centre)
Development Zone
Total Number of Employees: 583
Survey date: THURSDAY *14/05/15* *Survey Type: MANUAL*

6 **CA-02-A-04** **OFFICE** **CAMBRIDGESHIRE**
BRETTON WAY
PETERBOROUGH

Edge of Town
Commercial Zone
Total Number of Employees: 350
Survey date: THURSDAY *20/10/11* *Survey Type: MANUAL*

7 **CA-02-A-06** **OFFICES** **CAMBRIDGESHIRE**
LYNCH WOOD
PETERBOROUGH

Edge of Town
Commercial Zone
Total Number of Employees: 400
Survey date: WEDNESDAY *19/10/16* *Survey Type: MANUAL*

8 **CB-02-A-02** **OFFICE** **CUMBRIA**
PORT ROAD
CARLISLE

Edge of Town Centre
Industrial Zone
Total Number of Employees: 53
Survey date: FRIDAY *24/06/16* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

9 **CR-02-A-01** **STATISTICS OFFICES** **CORK**
MAHON CRESCENT
CORK

Edge of Town
No Sub Category
Total Number of Employees: 451
Survey date: MONDAY *23/06/14* *Survey Type: MANUAL*

10 **DC-02-A-09** **COUNCIL OFFICES** **DORSET**
THE GROVE
DORCHESTER

Edge of Town Centre
Built-Up Zone
Total Number of Employees: 2088
Survey date: MONDAY *28/11/11* *Survey Type: MANUAL*

11 **DH-02-A-01** **RPMI OFFICES** **DURHAM**
BRINKBURN ROAD
DARLINGTON

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of Employees: 250
Survey date: FRIDAY *05/11/10* *Survey Type: MANUAL*

12 **DH-02-A-02** **CONSTRUCTION COMPANY** **DURHAM**
DURHAM ROAD
NEAR DURHAM
BOWBURN
Edge of Town
Industrial Zone
Total Number of Employees: 115
Survey date: TUESDAY *27/11/12* *Survey Type: MANUAL*

13 **DN-02-A-02** **COUNCIL OFFICES** **DONEGAL**
ST ORANS ROAD
BUNCRANA

Edge of Town Centre
Residential Zone
Total Number of Employees: 11
Survey date: MONDAY *28/06/10* *Survey Type: MANUAL*

14 **DU-02-A-01** **OFFICES** **DUNDEE CITY**
GREENMARKET
DUNDEE

Edge of Town Centre
Development Zone
Total Number of Employees: 146
Survey date: THURSDAY *27/04/17* *Survey Type: MANUAL*

15 **ES-02-A-11** **HOUSING COMPANY** **EAST SUSSEX**
THE SIDINGS
HASTINGS
ORE VALLEY
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of Employees: 16
Survey date: TUESDAY *17/11/15* *Survey Type: MANUAL*

16 **ES-02-A-12** **COUNCIL OFFICES** **EAST SUSSEX**
VICARAGE LANE
HAILSHAM

Edge of Town Centre
Built-Up Zone
Total Number of Employees: 341
Survey date: THURSDAY *26/11/15* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

17 **GM-02-A-09** **LEASED OFFICES** **GREATER MANCHESTER**
NEW MOUNT STREET
MANCHESTER

Edge of Town Centre
Built-Up Zone
Total Number of Employees: 670
Survey date: MONDAY *26/09/16* *Survey Type: MANUAL*

18 **HC-02-A-11** **DIY CO. HQ** **HAMPSHIRE**
CHESTNUT AVENUE
CHANDLER'S FORD

Edge of Town
Commercial Zone
Total Number of Employees: 1700
Survey date: MONDAY *17/10/11* *Survey Type: MANUAL*

19 **HC-02-A-12** **HMRC** **HAMPSHIRE**
NORTHERN ROAD
PORTSMOUTH
COSHAM
Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Number of Employees: 829
Survey date: MONDAY *23/11/15* *Survey Type: MANUAL*

20 **HD-02-A-08** **DATA CENTRE** **HILLINGDON**
MILLINGTON ROAD
HAYES
HYDE PARK
Edge of Town Centre
Commercial Zone
Total Number of Employees: 1076
Survey date: TUESDAY *14/06/16* *Survey Type: MANUAL*

21 **HF-02-A-03** **OFFICE** **HERTFORDSHIRE**
60 VICTORIA STREET
ST ALBANS

Edge of Town Centre
Built-Up Zone
Total Number of Employees: 8
Survey date: WEDNESDAY *16/10/13* *Survey Type: MANUAL*

22 **HF-02-A-04** **OFFICES** **HERTFORDSHIRE**
STATION WAY
ST ALBANS

Edge of Town Centre
Residential Zone
Total Number of Employees: 365
Survey date: THURSDAY *02/10/14* *Survey Type: MANUAL*

23 **HO-02-A-01** **SKY HEADQUARTERS** **HOUNSLOW**
SYON LANE
ISLEWORTH

Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Number of Employees: 6500
Survey date: WEDNESDAY *05/07/17* *Survey Type: MANUAL*

24 **KC-02-A-07** **KCC HIGHWAYS REG.** **KENT**
KAVELIN WAY
ASHFORD
HENWOOD IND. ESTATE
Edge of Town
Commercial Zone
Total Number of Employees: 233
Survey date: MONDAY *05/12/11* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

25 **KC-02-A-08** **KCC HIGHWAYS REG. OFFICE** **KENT**
ST MICHAEL'S CLOSE
AYLESFORD
CLAY WOOD
Edge of Town
Industrial Zone
Total Number of Employees: 190
Survey date: MONDAY *28/11/11* *Survey Type: MANUAL*

26 **KC-02-A-09** **COUNCIL OFFICES** **KENT**
SANDLING ROAD
MAIDSTONE

Edge of Town Centre
Built-Up Zone
Total Number of Employees: 200
Survey date: WEDNESDAY *19/10/11* *Survey Type: MANUAL*

27 **KC-02-A-10** **COUNCIL OFFICES** **KENT**
SANDLING ROAD
MAIDSTONE

Edge of Town Centre
Built-Up Zone
Total Number of Employees: 430
Survey date: WEDNESDAY *19/10/11* *Survey Type: MANUAL*

28 **KC-02-A-11** **COUNTY HALL** **KENT**
SANDLING ROAD
MAIDSTONE

Edge of Town Centre
Built-Up Zone
Total Number of Employees: 2139
Survey date: MONDAY *17/10/11* *Survey Type: MANUAL*

29 **LC-02-A-09** **OFFICES** **LANCASHIRE**
FURTHERGATE
BLACKBURN

Suburban Area (PPS6 Out of Centre)
Built-Up Zone
Total Number of Employees: 150
Survey date: TUESDAY *04/06/13* *Survey Type: MANUAL*

30 **MG-02-A-02** **OFFICES** **MONAGHAN**
ARMAGH ROAD
MONAGHAN

Edge of Town
Out of Town
Total Number of Employees: 94
Survey date: WEDNESDAY *16/11/16* *Survey Type: MANUAL*

31 **NF-02-A-01** **COUNCIL OFFICE** **NORFOLK**
CHAPEL STREET
KING'S LYNN

Edge of Town Centre
Built-Up Zone
Total Number of Employees: 408
Survey date: THURSDAY *30/09/10* *Survey Type: MANUAL*

32 **NF-02-A-02** **FINANCIAL PLANNERS** **NORFOLK**
NORTH QUAY
GREAT YARMOUTH

Edge of Town Centre
Commercial Zone
Total Number of Employees: 50
Survey date: MONDAY *11/09/17* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

33 **NF-02-A-03** **OFFICES** **NORFOLK**
NORTH QUAY
GREAT YARMOUTH

Edge of Town Centre
Commercial Zone
Total Number of Employees: 380
Survey date: TUESDAY *12/09/17* *Survey Type: MANUAL*

34 **PS-02-A-01** **COUNCIL OFFICES** **POWYS**
SEVERN ROAD
WELSHPOOL

Edge of Town Centre
No Sub Category
Total Number of Employees: 140
Survey date: TUESDAY *12/05/15* *Survey Type: MANUAL*

35 **RO-02-A-02** **GOVERNMENT OFFICES** **ROSCOMMON**
GOLF LINKS ROAD
ROSCOMMON
ARDSALLAGH BEG
Edge of Town Centre
Residential Zone
Total Number of Employees: 200
Survey date: TUESDAY *23/09/14* *Survey Type: MANUAL*

36 **SC-02-A-15** **ACCOUNTANTS** **SURREY**
BOXGROVE ROAD
GUILDFORD

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of Employees: 140
Survey date: TUESDAY *05/10/10* *Survey Type: MANUAL*

37 **SC-02-A-16** **BANK OF AMERICA** **SURREY**
STANHOPE ROAD
CAMBERLEY

Edge of Town
Commercial Zone
Total Number of Employees: 250
Survey date: TUESDAY *10/05/11* *Survey Type: MANUAL*

38 **SC-02-A-17** **PHARMACEUTICALS** **SURREY**
ST GEORGE'S AVENUE
WEYBRIDGE
THE HEATH
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of Employees: 345
Survey date: TUESDAY *18/10/11* *Survey Type: MANUAL*

39 **SF-02-A-01** **COUNCIL OFFICES** **SUFFOLK**
BEETONS WAY
BURY ST. EDMUNDS

Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Number of Employees: 700
Survey date: MONDAY *27/09/10* *Survey Type: MANUAL*

40 **SF-02-A-02** **OFFICES** **SUFFOLK**
BATH STREET
IPSWICH

Edge of Town Centre
Commercial Zone
Total Number of Employees: 218
Survey date: FRIDAY *19/07/13* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

41 **SW-02-A-01** **OFFICES** **SWANSEA**
LANGDON ROAD
SWANSEA

Edge of Town Centre
Development Zone
Total Number of Employees: 1221
Survey date: FRIDAY *25/10/13* *Survey Type: MANUAL*

42 **SW-02-A-02** **OFFICE** **SWANSEA**
KINGS ROAD
SWANSEA

Edge of Town Centre
Development Zone
Total Number of Employees: 155
Survey date: THURSDAY *24/10/13* *Survey Type: MANUAL*

43 **WH-02-A-03** **OFFICE** **WANDSWORTH**
BROUGHTON STREET
NINE ELMS

Suburban Area (PPS6 Out of Centre)
Built-Up Zone
Total Number of Employees: 110
Survey date: MONDAY *16/11/15* *Survey Type: MANUAL*

44 **WM-02-A-04** **OFFICE** **WEST MIDLANDS**
BOURNVILLE LANE
BIRMINGHAM

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of Employees: 50
Survey date: TUESDAY *10/11/15* *Survey Type: MANUAL*

45 **WO-02-A-02** **OFFICE** **WORCESTERSHIRE**
MOOR STREET
WORCESTER CITY COUNCIL

Edge of Town Centre
Built-Up Zone
Total Number of Employees: 125
Survey date: MONDAY *14/11/16* *Survey Type: MANUAL*

46 **WY-02-A-03** **OFFICE** **WEST YORKSHIRE**
VICTORIA ROAD
LEEDS
HEADINGLEY
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of Employees: 243
Survey date: THURSDAY *17/06/10* *Survey Type: MANUAL*

47 **WY-02-A-05** **OFFICES** **WEST YORKSHIRE**
PIONEER WAY
CASTLEFORD
WHITWOOD
Edge of Town
No Sub Category
Total Number of Employees: 115
Survey date: TUESDAY *23/05/17* *Survey Type: MANUAL*

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

RANK ORDER for Land Use 02 - EMPLOYMENT/A - OFFICE

VEHICLES

Ranking Type: **TOTALS** Time Range: 08:00-09:00
15th Percentile = No. **40** DC-02-A-09 Tot: 0.123
85th Percentile = No. **8** MG-02-A-02 Tot: 0.554

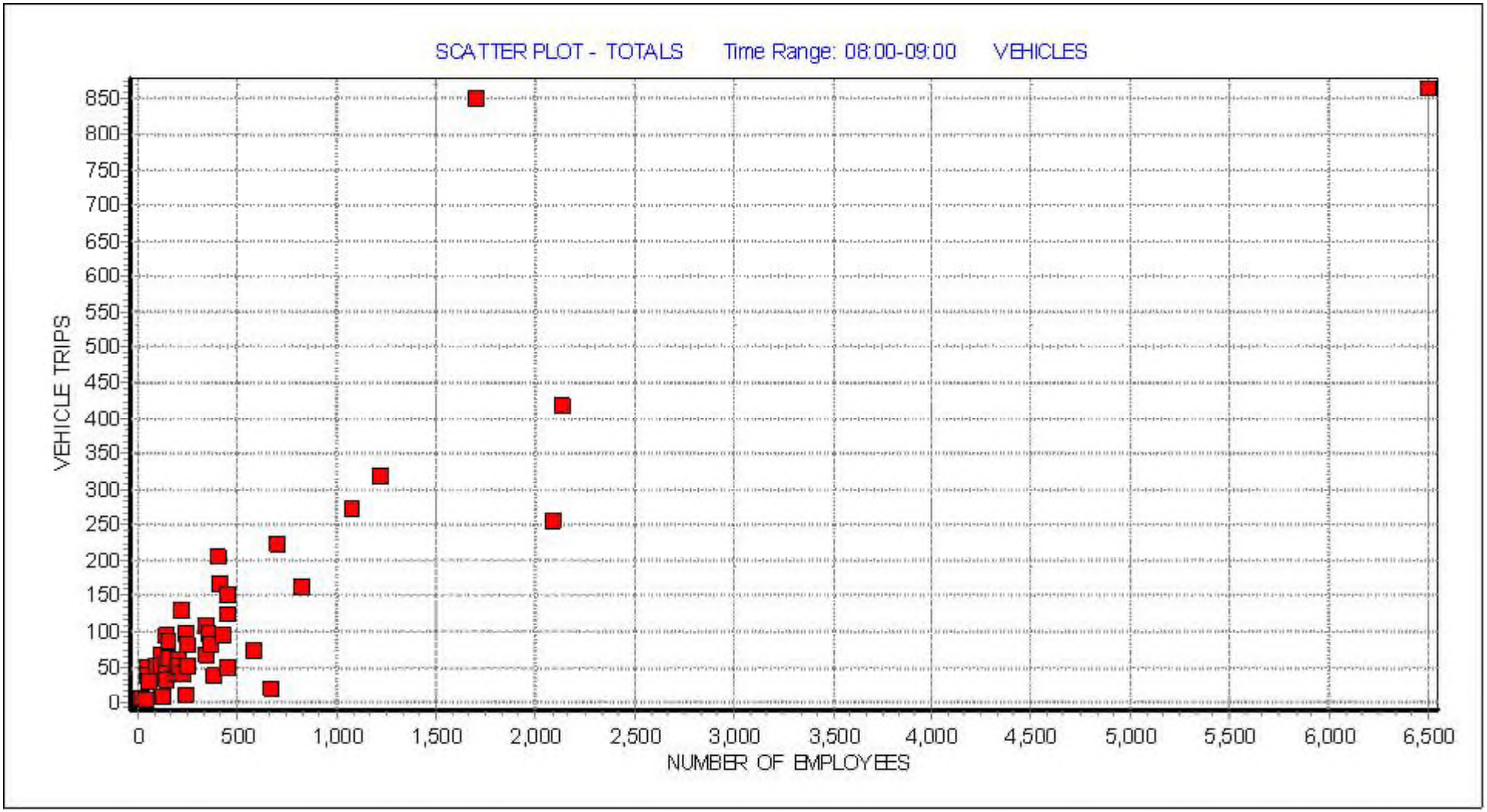
Median Values		Mean Values	
Arrivals:	0.246	Arrivals:	0.299
Departures:	0.031	Departures:	0.032
Totals:	0.277	Totals:	0.330

Rank	Site-Ref	Description	Town/City	Area	EMPLOY	Day	Date	Trip Rate (Sorted by Totals)		
								Arrivals	Departures	Totals
1	WM-02-A-04	OFFICE	BIRMINGHAM	WEST MIDLANDS	50	Tue	10/11/15	0.940	0.040	0.980
2	HF-02-A-03	OFFICE	ST ALBANS	HERTFORDSHIRE	8	Wed	16/10/13	0.875	0.000	0.875
3	NF-02-A-02	FINANCIAL PLAN	GREAT YARMOUTH	NORFOLK	50	Mon	11/09/17	0.680	0.100	0.780
4	PS-02-A-01	COUNCIL OFFICE	WELSHPOOL	POWYS	140	Tue	12/05/15	0.571	0.100	0.671
5	SF-02-A-02	OFFICES	IPSWICH	SUFFOLK	218	Fri	19/07/13	0.459	0.133	0.592
6	DH-02-A-02	CONSTRUCTION C	NEAR DURHAM	DURHAM	115	Tue	27/11/12	0.565	0.026	0.591
7	LC-02-A-09	OFFICES	BLACKBURN	LANCASHIRE	150	Tue	04/06/13	0.533	0.047	0.580
8	**MG-02-A-02**	**OFFICES**	**MONAGHAN**	**MONAGHAN**	**94**	**Wed**	**16/11/16**	**0.511**	**0.043**	**0.554**
9	CB-02-A-02	OFFICE	CARLISLE	CUMBRIA	53	Fri	24/06/16	0.453	0.094	0.547
10	CA-02-A-06	OFFICES	PETERBOROUGH	CAMBRIDGESHIRE	400	Wed	19/10/16	0.475	0.035	0.510
11	HC-02-A-11	DIY CO. HQ	CHANDLER'S FORD	HAMPSHIRE	1700	Mon	17/10/11	0.465	0.036	0.501
12	WY-02-A-05	OFFICES	CASTLEFORD	WEST YORKSHIRE	115	Tue	23/05/17	0.409	0.043	0.452
13	NF-02-A-01	COUNCIL OFFICE	KING'S LYNN	NORFOLK	408	Thu	30/09/10	0.350	0.061	0.411
14	WY-02-A-03	OFFICE	LEEDS	WEST YORKSHIRE	243	Thu	17/06/10	0.313	0.086	0.399
15	SW-02-A-02	OFFICE	SWANSEA	SWANSEA	155	Thu	24/10/13	0.342	0.052	0.394
16	ES-02-A-11	HOUSING COMPAN	HASTINGS	EAST SUSSEX	16	Tue	17/11/15	0.375	0.000	0.375
17	DU-02-A-01	OFFICES	DUNDEE	DUNDEE CITY	146	Thu	27/04/17	0.281	0.082	0.363
18	AN-02-A-04	OFFICE	NEWTOWNABBEY	ANTRIM	450	Thu	17/06/10	0.327	0.011	0.338
19	DH-02-A-01	RPMI OFFICES	DARLINGTON	DURHAM	250	Fri	05/11/10	0.284	0.040	0.324
20	ES-02-A-12	COUNCIL OFFICE	HAILSHAM	EAST SUSSEX	341	Thu	26/11/15	0.293	0.026	0.319
21	SF-02-A-01	COUNCIL OFFICE	BURY ST. EDMUNDS	SUFFOLK	700	Mon	27/09/10	0.277	0.041	0.318
22	KC-02-A-09	COUNCIL OFFICE	MAIDSTONE	KENT	200	Wed	19/10/11	0.265	0.035	0.300
23	CA-02-A-04	OFFICE	PETERBOROUGH	CAMBRIDGESHIRE	350	Thu	20/10/11	0.254	0.023	0.277
24	CR-02-A-01	STATISTICS OFF	CORK	CORK	451	Mon	23/06/14	0.246	0.031	0.277
25	DN-02-A-02	COUNCIL OFFICE	BUNCRANA	DONEGAL	11	Mon	28/06/10	0.273	0.000	0.273
26	SW-02-A-01	OFFICES	SWANSEA	SWANSEA	1221	Fri	25/10/13	0.223	0.038	0.261
27	RO-02-A-02	GOVERNMENT OFF	ROSCOMMON	ROSCOMMON	200	Tue	23/09/14	0.225	0.030	0.255
28	HD-02-A-08	DATA CENTRE	HAYES	HILLINGDON	1076	Tue	14/06/16	0.243	0.010	0.253
29	SC-02-A-15	ACCOUNTANTS	GUILDFORD	SURREY	140	Tue	05/10/10	0.214	0.021	0.235
30	HF-02-A-04	OFFICES	ST ALBANS	HERTFORDSHIRE	365	Thu	02/10/14	0.225	0.000	0.225
31	KC-02-A-10	COUNCIL OFFICE	MAIDSTONE	KENT	430	Wed	19/10/11	0.205	0.014	0.219
32	KC-02-A-08	KCC HIGHWAYS R	AYLESFORD	KENT	190	Mon	28/11/11	0.184	0.026	0.210
33	SC-02-A-16	BANK OF AMERIC	CAMBERLEY	SURREY	250	Tue	10/05/11	0.200	0.004	0.204
34	KC-02-A-11	COUNTY HALL	MAIDSTONE	KENT	2139	Mon	17/10/11	0.186	0.009	0.195
35	SC-02-A-17	PHARMACEUTICAL	WEYBRIDGE	SURREY	345	Tue	18/10/11	0.180	0.014	0.194
36	HC-02-A-12	HMRC	PORTSMOUTH	HAMPSHIRE	829	Mon	23/11/15	0.180	0.014	0.194
37	KC-02-A-07	KCC HIGHWAYS R	ASHFORD	KENT	233	Mon	05/12/11	0.167	0.009	0.176
38	HO-02-A-01	SKY HEADQUARTE	ISLEWORTH	HOUNSLOW	6500	Wed	05/07/17	0.116	0.017	0.133
39	BT-02-A-04	OFFICES	WEMBLEY	BRENT	583	Thu	14/05/15	0.117	0.009	0.126

Rank	Site-Ref	Description	Town/City	Area	EMPLOY	Day	Date	Trip Rate (Sorted by Totals)		
								Arrivals	Departures	Totals
40	**DC-02-A-09**	**COUNCIL OFFICE**	**DORCHESTER**	**DORSET**	**2088**	**Mon**	**28/11/11**	**0.101**	**0.022**	**0.123**
41	BT-02-A-02	OFFICE	WEMBLEY	BRENT	450	Tue	22/06/10	0.096	0.013	0.109
42	NF-02-A-03	OFFICES	GREAT YARMOUTH	NORFOLK	380	Tue	12/09/17	0.079	0.024	0.103
43	WH-02-A-03	OFFICE	NINE ELMS	WANDSWORTH	110	Mon	16/11/15	0.073	0.009	0.082
44	BT-02-A-03	OFFICES	WEMBLEY	BRENT	39	Wed	03/06/15	0.077	0.000	0.077
45	WO-02-A-02	OFFICE	WORCESTER CITY COUN	WORCESTERSHIRE	125	Mon	14/11/16	0.064	0.008	0.072
46	BD-02-A-03	OFFICES	BEDFORD	BEDFORDSHIRE	240	Mon	14/10/13	0.037	0.004	0.041
47	GM-02-A-09	LEASED OFFICES	MANCHESTER	GREATER MANCHESTER	670	Mon	26/09/16	0.024	0.006	0.030

This section displays actual (not average) trip rates for each of the survey days in the selected set, and ranks them in order of relative trip rate intensity, for a given time period (or peak period irrespective of time) selected by the user. The count type and direction are both displayed just above the table, along with the rows within the table representing the 85th and 15th percentile trip rate figures (highlighted in bold within the table itself).

The table itself displays details of each individual survey, alongside arrivals, departures and totals trip rates, sorted by whichever of the three directional options has been chosen by the user. As with the preceeding trip rate calculation results table, the trip rates shown are per the calculation factor (e.g. per 100m2 GFA, per employee, per hectare, etc). Note that if the peak period option has been selected (as opposed to a specific chosen time period), the peak period for each individual survey day in the table is also displayed.



This graph is a visual representation of the correlation between the selected trip rate calculation parameter and the rank order trip rates generated by each individual survey day in the selected set. The range of the trip rate parameter is shown along the x axis, with the level of trips shown on the y axis. The selected time range used to create the rank order list from which the graph is derived is displayed at the top of the graph (unless the peak period irrespective of time range has been selected). A line of best fit is sometimes displayed in the graph, should it be selected for inclusion by the user.

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : A - OFFICE

VEHICLES

Selected regions and areas:

01	**GREATER LONDON**		
	BT	BRENT	3 days
	HD	HILLINGDON	1 days
	HO	HOUNSLOW	1 days
	WH	WANDSWORTH	1 days
02	**SOUTH EAST**		
	BD	BEDFORDSHIRE	1 days
	ES	EAST SUSSEX	2 days
	HC	HAMPSHIRE	2 days
	HF	HERTFORDSHIRE	2 days
	KC	KENT	5 days
	SC	SURREY	3 days
03	**SOUTH WEST**		
	DC	DORSET	1 days
04	**EAST ANGLIA**		
	CA	CAMBRIDGESHIRE	2 days
	NF	NORFOLK	3 days
	SF	SUFFOLK	2 days
06	**WEST MIDLANDS**		
	WM	WEST MIDLANDS	1 days
	WO	WORCESTERSHIRE	1 days
07	**YORKSHIRE & NORTH LINCOLNSHIRE**		
	WY	WEST YORKSHIRE	2 days
08	**NORTH WEST**		
	GM	GREATER MANCHESTER	1 days
	LC	LANCASHIRE	1 days
09	**NORTH**		
	CB	CUMBRIA	1 days
	DH	DURHAM	2 days
10	**WALES**		
	PS	POWYS	1 days
	SW	SWANSEA	2 days
11	**SCOTLAND**		
	DU	DUNDEE CITY	1 days
12	**CONNAUGHT**		
	RO	ROSCOMMON	1 days
13	**MUNSTER**		
	CR	CORK	1 days
16	**ULSTER (REPUBLIC OF IRELAND)**		
	DN	DONEGAL	1 days
	MG	MONAGHAN	1 days
17	**ULSTER (NORTHERN IRELAND)**		
	AN	ANTRIM	1 days

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

Secondary Filtering selection:

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

Parameter:	Number of Employees
Actual Range:	8 to 6500 (units:)
Range Selected by User:	0 to 9500 (units:)

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/10 to 12/09/17

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

Selected survey days:

Monday	14 days
Tuesday	13 days
Wednesday	7 days
Thursday	9 days
Friday	4 days

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

Selected survey types:

Manual count	47 days
Directional ATC Count	0 days

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

Selected Locations:

Edge of Town Centre	22
Suburban Area (PPS6 Out of Centre)	15
Edge of Town	10

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Industrial Zone	4
Commercial Zone	9
Development Zone	5
Residential Zone	9
Built-Up Zone	12
Out of Town	1
No Sub Category	7

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

Secondary Filtering selection:

Use Class:

B1	47 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 1 mile:

1,000 or Less	1 days
1,001 to 5,000	5 days
5,001 to 10,000	9 days
10,001 to 15,000	3 days
15,001 to 20,000	6 days
20,001 to 25,000	2 days
25,001 to 50,000	18 days
50,001 to 100,000	3 days

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

Secondary Filtering selection (Cont.):

Population within 5 miles:

5,001 to 25,000	4 days
25,001 to 50,000	5 days
75,001 to 100,000	6 days
100,001 to 125,000	1 days
125,001 to 250,000	19 days
250,001 to 500,000	3 days
500,001 or More	9 days

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

Car ownership within 5 miles:

0.5 or Less	1 days
0.6 to 1.0	19 days
1.1 to 1.5	25 days
1.6 to 2.0	2 days

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

Travel Plan:

Yes	18 days
No	29 days

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

PTAL Rating:

No PTAL Present	41 days
1b Very poor	1 days
4 Good	2 days
5 Very Good	2 days
6a Excellent	1 days

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

LIST OF SITES relevant to selection parameters

1 **AN-02-A-04** **OFFICE** **ANTRIM**
CHURCH ROAD
NEWTOWNABBEY
DUNANNEY
Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Number of Employees: 450
Survey date: THURSDAY *17/06/10* *Survey Type: MANUAL*

2 **BD-02-A-03** **OFFICES** **BEDFORDSHIRE**
BROMHAM ROAD
BEDFORD

Edge of Town Centre
No Sub Category
Total Number of Employees: 240
Survey date: MONDAY *14/10/13* *Survey Type: MANUAL*

3 **BT-02-A-02** **OFFICE** **BRENT**
WEMBLEY HILL ROAD
WEMBLEY

Suburban Area (PPS6 Out of Centre)
Built-Up Zone
Total Number of Employees: 450
Survey date: TUESDAY *22/06/10* *Survey Type: MANUAL*

4 **BT-02-A-03** **OFFICES** **BRENT**
EMPIRE WAY
WEMBLEY

Suburban Area (PPS6 Out of Centre)
Development Zone
Total Number of Employees: 39
Survey date: WEDNESDAY *03/06/15* *Survey Type: MANUAL*

5 **BT-02-A-04** **OFFICES** **BRENT**
EMPIRE WAY
WEMBLEY

Suburban Area (PPS6 Out of Centre)
Development Zone
Total Number of Employees: 583
Survey date: THURSDAY *14/05/15* *Survey Type: MANUAL*

6 **CA-02-A-04** **OFFICE** **CAMBRIDGESHIRE**
BRETTON WAY
PETERBOROUGH

Edge of Town
Commercial Zone
Total Number of Employees: 350
Survey date: THURSDAY *20/10/11* *Survey Type: MANUAL*

7 **CA-02-A-06** **OFFICES** **CAMBRIDGESHIRE**
LYNCH WOOD
PETERBOROUGH

Edge of Town
Commercial Zone
Total Number of Employees: 400
Survey date: WEDNESDAY *19/10/16* *Survey Type: MANUAL*

8 **CB-02-A-02** **OFFICE** **CUMBRIA**
PORT ROAD
CARLISLE

Edge of Town Centre
Industrial Zone
Total Number of Employees: 53
Survey date: FRIDAY *24/06/16* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

9 **CR-02-A-01** **STATISTICS OFFICES** **CORK**
MAHON CRESCENT
CORK

Edge of Town
No Sub Category
Total Number of Employees: 451
Survey date: MONDAY *23/06/14* *Survey Type: MANUAL*

10 **DC-02-A-09** **COUNCIL OFFICES** **DORSET**
THE GROVE
DORCHESTER

Edge of Town Centre
Built-Up Zone
Total Number of Employees: 2088
Survey date: MONDAY *28/11/11* *Survey Type: MANUAL*

11 **DH-02-A-01** **RPMI OFFICES** **DURHAM**
BRINKBURN ROAD
DARLINGTON

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of Employees: 250
Survey date: FRIDAY *05/11/10* *Survey Type: MANUAL*

12 **DH-02-A-02** **CONSTRUCTION COMPANY** **DURHAM**
DURHAM ROAD
NEAR DURHAM
BOWBURN
Edge of Town
Industrial Zone
Total Number of Employees: 115
Survey date: TUESDAY *27/11/12* *Survey Type: MANUAL*

13 **DN-02-A-02** **COUNCIL OFFICES** **DONEGAL**
ST ORANS ROAD
BUNCRANA

Edge of Town Centre
Residential Zone
Total Number of Employees: 11
Survey date: MONDAY *28/06/10* *Survey Type: MANUAL*

14 **DU-02-A-01** **OFFICES** **DUNDEE CITY**
GREENMARKET
DUNDEE

Edge of Town Centre
Development Zone
Total Number of Employees: 146
Survey date: THURSDAY *27/04/17* *Survey Type: MANUAL*

15 **ES-02-A-11** **HOUSING COMPANY** **EAST SUSSEX**
THE SIDINGS
HASTINGS
ORE VALLEY
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of Employees: 16
Survey date: TUESDAY *17/11/15* *Survey Type: MANUAL*

16 **ES-02-A-12** **COUNCIL OFFICES** **EAST SUSSEX**
VICARAGE LANE
HAILSHAM

Edge of Town Centre
Built-Up Zone
Total Number of Employees: 341
Survey date: THURSDAY *26/11/15* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

17 **GM-02-A-09** **LEASED OFFICES** **GREATER MANCHESTER**
NEW MOUNT STREET
MANCHESTER

Edge of Town Centre
Built-Up Zone
Total Number of Employees: 670
Survey date: MONDAY *26/09/16* *Survey Type: MANUAL*

18 **HC-02-A-11** **DIY CO. HQ** **HAMPSHIRE**
CHESTNUT AVENUE
CHANDLER'S FORD

Edge of Town
Commercial Zone
Total Number of Employees: 1700
Survey date: MONDAY *17/10/11* *Survey Type: MANUAL*

19 **HC-02-A-12** **HMRC** **HAMPSHIRE**
NORTHERN ROAD
PORTSMOUTH
COSHAM
Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Number of Employees: 829
Survey date: MONDAY *23/11/15* *Survey Type: MANUAL*

20 **HD-02-A-08** **DATA CENTRE** **HILLINGDON**
MILLINGTON ROAD
HAYES
HYDE PARK
Edge of Town Centre
Commercial Zone
Total Number of Employees: 1076
Survey date: TUESDAY *14/06/16* *Survey Type: MANUAL*

21 **HF-02-A-03** **OFFICE** **HERTFORDSHIRE**
60 VICTORIA STREET
ST ALBANS

Edge of Town Centre
Built-Up Zone
Total Number of Employees: 8
Survey date: WEDNESDAY *16/10/13* *Survey Type: MANUAL*

22 **HF-02-A-04** **OFFICES** **HERTFORDSHIRE**
STATION WAY
ST ALBANS

Edge of Town Centre
Residential Zone
Total Number of Employees: 365
Survey date: THURSDAY *02/10/14* *Survey Type: MANUAL*

23 **HO-02-A-01** **SKY HEADQUARTERS** **HOUNSLOW**
SYON LANE
ISLEWORTH

Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Number of Employees: 6500
Survey date: WEDNESDAY *05/07/17* *Survey Type: MANUAL*

24 **KC-02-A-07** **KCC HIGHWAYS REG.** **KENT**
KAVELIN WAY
ASHFORD
HENWOOD IND. ESTATE
Edge of Town
Commercial Zone
Total Number of Employees: 233
Survey date: MONDAY *05/12/11* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

25 **KC-02-A-08** **KCC HIGHWAYS REG. OFFICE** **KENT**
ST MICHAEL'S CLOSE
AYLESFORD
CLAY WOOD
Edge of Town
Industrial Zone
Total Number of Employees: 190
Survey date: MONDAY *28/11/11* *Survey Type: MANUAL*

26 **KC-02-A-09** **COUNCIL OFFICES** **KENT**
SANDLING ROAD
MAIDSTONE

Edge of Town Centre
Built-Up Zone
Total Number of Employees: 200
Survey date: WEDNESDAY *19/10/11* *Survey Type: MANUAL*

27 **KC-02-A-10** **COUNCIL OFFICES** **KENT**
SANDLING ROAD
MAIDSTONE

Edge of Town Centre
Built-Up Zone
Total Number of Employees: 430
Survey date: WEDNESDAY *19/10/11* *Survey Type: MANUAL*

28 **KC-02-A-11** **COUNTY HALL** **KENT**
SANDLING ROAD
MAIDSTONE

Edge of Town Centre
Built-Up Zone
Total Number of Employees: 2139
Survey date: MONDAY *17/10/11* *Survey Type: MANUAL*

29 **LC-02-A-09** **OFFICES** **LANCASHIRE**
FURTHERGATE
BLACKBURN

Suburban Area (PPS6 Out of Centre)
Built-Up Zone
Total Number of Employees: 150
Survey date: TUESDAY *04/06/13* *Survey Type: MANUAL*

30 **MG-02-A-02** **OFFICES** **MONAGHAN**
ARMAGH ROAD
MONAGHAN

Edge of Town
Out of Town
Total Number of Employees: 94
Survey date: WEDNESDAY *16/11/16* *Survey Type: MANUAL*

31 **NF-02-A-01** **COUNCIL OFFICE** **NORFOLK**
CHAPEL STREET
KING'S LYNN

Edge of Town Centre
Built-Up Zone
Total Number of Employees: 408
Survey date: THURSDAY *30/09/10* *Survey Type: MANUAL*

32 **NF-02-A-02** **FINANCIAL PLANNERS** **NORFOLK**
NORTH QUAY
GREAT YARMOUTH

Edge of Town Centre
Commercial Zone
Total Number of Employees: 50
Survey date: MONDAY *11/09/17* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

33 **NF-02-A-03** **OFFICES** **NORFOLK**
NORTH QUAY
GREAT YARMOUTH

Edge of Town Centre
Commercial Zone
Total Number of Employees: 380
Survey date: TUESDAY *12/09/17* *Survey Type: MANUAL*

34 **PS-02-A-01** **COUNCIL OFFICES** **POWYS**
SEVERN ROAD
WELSHPOOL

Edge of Town Centre
No Sub Category
Total Number of Employees: 140
Survey date: TUESDAY *12/05/15* *Survey Type: MANUAL*

35 **RO-02-A-02** **GOVERNMENT OFFICES** **ROSCOMMON**
GOLF LINKS ROAD
ROSCOMMON
ARDSALLAGH BEG
Edge of Town Centre
Residential Zone
Total Number of Employees: 200
Survey date: TUESDAY *23/09/14* *Survey Type: MANUAL*

36 **SC-02-A-15** **ACCOUNTANTS** **SURREY**
BOXGROVE ROAD
GUILDFORD

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of Employees: 140
Survey date: TUESDAY *05/10/10* *Survey Type: MANUAL*

37 **SC-02-A-16** **BANK OF AMERICA** **SURREY**
STANHOPE ROAD
CAMBERLEY

Edge of Town
Commercial Zone
Total Number of Employees: 250
Survey date: TUESDAY *10/05/11* *Survey Type: MANUAL*

38 **SC-02-A-17** **PHARMACEUTICALS** **SURREY**
ST GEORGE'S AVENUE
WEYBRIDGE
THE HEATH
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of Employees: 345
Survey date: TUESDAY *18/10/11* *Survey Type: MANUAL*

39 **SF-02-A-01** **COUNCIL OFFICES** **SUFFOLK**
BEETONS WAY
BURY ST. EDMUNDS

Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Number of Employees: 700
Survey date: MONDAY *27/09/10* *Survey Type: MANUAL*

40 **SF-02-A-02** **OFFICES** **SUFFOLK**
BATH STREET
IPSWICH

Edge of Town Centre
Commercial Zone
Total Number of Employees: 218
Survey date: FRIDAY *19/07/13* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

41 **SW-02-A-01** **OFFICES** **SWANSEA**
LANGDON ROAD
SWANSEA

Edge of Town Centre
Development Zone
Total Number of Employees: 1221
Survey date: FRIDAY *25/10/13* *Survey Type: MANUAL*

42 **SW-02-A-02** **OFFICE** **SWANSEA**
KINGS ROAD
SWANSEA

Edge of Town Centre
Development Zone
Total Number of Employees: 155
Survey date: THURSDAY *24/10/13* *Survey Type: MANUAL*

43 **WH-02-A-03** **OFFICE** **WANDSWORTH**
BROUGHTON STREET
NINE ELMS

Suburban Area (PPS6 Out of Centre)
Built-Up Zone
Total Number of Employees: 110
Survey date: MONDAY *16/11/15* *Survey Type: MANUAL*

44 **WM-02-A-04** **OFFICE** **WEST MIDLANDS**
BOURNVILLE LANE
BIRMINGHAM

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of Employees: 50
Survey date: TUESDAY *10/11/15* *Survey Type: MANUAL*

45 **WO-02-A-02** **OFFICE** **WORCESTERSHIRE**
MOOR STREET
WORCESTER CITY COUNCIL

Edge of Town Centre
Built-Up Zone
Total Number of Employees: 125
Survey date: MONDAY *14/11/16* *Survey Type: MANUAL*

46 **WY-02-A-03** **OFFICE** **WEST YORKSHIRE**
VICTORIA ROAD
LEEDS
HEADINGLEY
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of Employees: 243
Survey date: THURSDAY *17/06/10* *Survey Type: MANUAL*

47 **WY-02-A-05** **OFFICES** **WEST YORKSHIRE**
PIONEER WAY
CASTLEFORD
WHITWOOD
Edge of Town
No Sub Category
Total Number of Employees: 115
Survey date: TUESDAY *23/05/17* *Survey Type: MANUAL*

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

RANK ORDER for Land Use 02 - EMPLOYMENT/A - OFFICE

VEHICLES

Ranking Type: **TOTALS** Time Range: 17:00-18:00

15th Percentile = No. **40** WY-02-A-05 Tot: 0.122

85th Percentile = No. **8** MG-02-A-02 Tot: 0.415

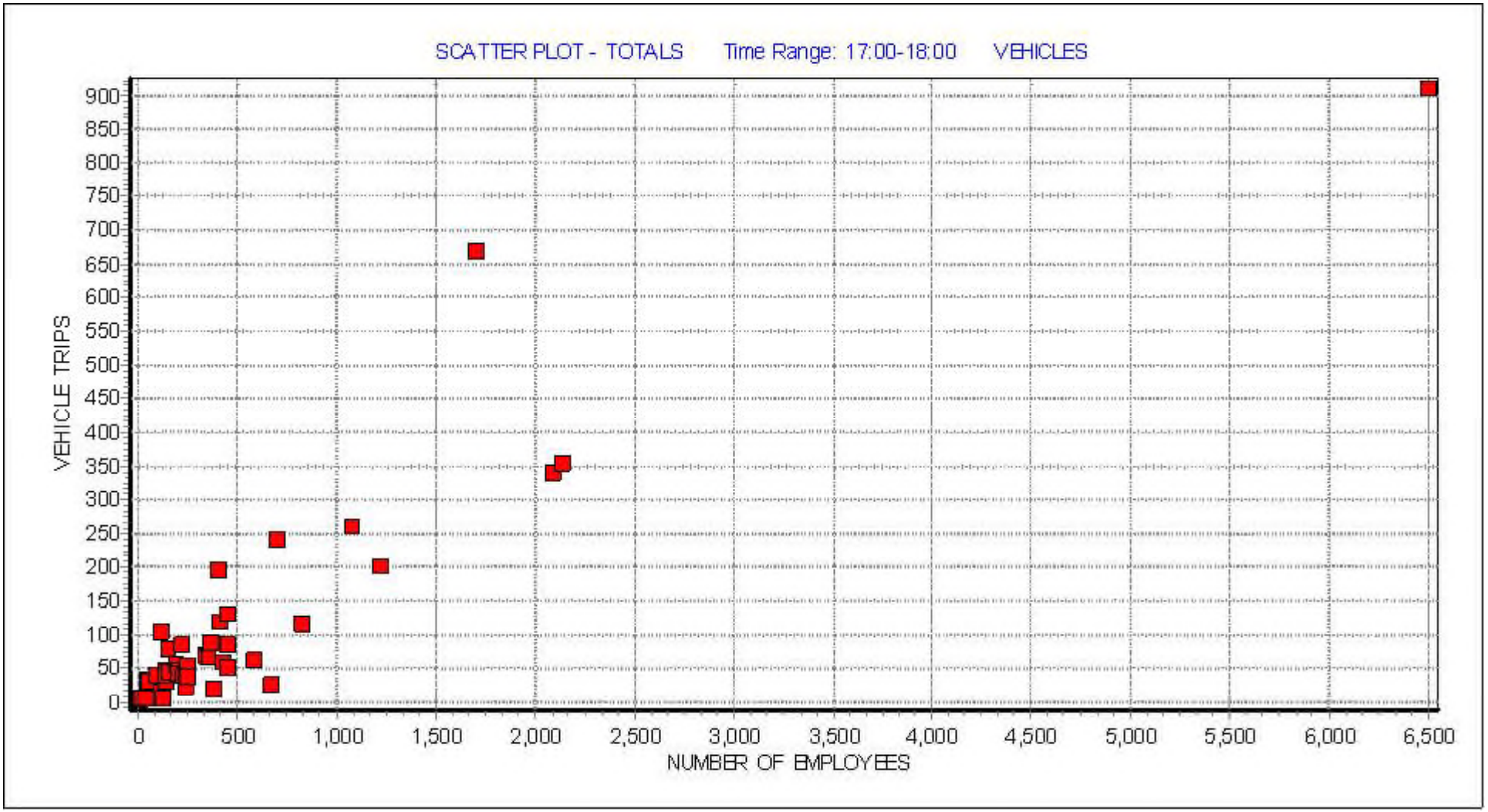
Median Values		Mean Values	
Arrivals:	0.014	Arrivals:	0.025
Departures:	0.200	Departures:	0.244
Totals:	0.214	Totals:	0.269

Rank	Site-Ref	Description	Town/City	Area	EMPLOY	Day	Date	Trip Rate (Sorted by Totals)		
								Arrivals	Departures	Totals
1	DH-02-A-02	CONSTRUCTION C	NEAR DURHAM	DURHAM	115	Tue	27/11/12	0.087	0.835	0.922
2	NF-02-A-02	FINANCIAL PLAN	GREAT YARMOUTH	NORFOLK	50	Mon	11/09/17	0.180	0.500	0.680
3	CB-02-A-02	OFFICE	CARLISLE	CUMBRIA	53	Fri	24/06/16	0.075	0.509	0.584
4	WM-02-A-04	OFFICE	BIRMINGHAM	WEST MIDLANDS	50	Tue	10/11/15	0.040	0.540	0.580
5	LC-02-A-09	OFFICES	BLACKBURN	LANCASHIRE	150	Tue	04/06/13	0.067	0.460	0.527
6	HF-02-A-03	OFFICE	ST ALBANS	HERTFORDSHIRE	8	Wed	16/10/13	0.000	0.500	0.500
7	CA-02-A-06	OFFICES	PETERBOROUGH	CAMBRIDGESHIRE	400	Wed	19/10/16	0.015	0.477	0.492
8	**MG-02-A-02**	**OFFICES**	**MONAGHAN**	**MONAGHAN**	**94**	**Wed**	**16/11/16**	**0.021**	**0.394**	**0.415**
9	HC-02-A-11	DIY CO. HQ	CHANDLER'S FORD	HAMPSHIRE	1700	Mon	17/10/11	0.010	0.384	0.394
10	SF-02-A-02	OFFICES	IPSWICH	SUFFOLK	218	Fri	19/07/13	0.078	0.312	0.390
11	ES-02-A-11	HOUSING COMPAN	HASTINGS	EAST SUSSEX	16	Tue	17/11/15	0.000	0.375	0.375
12	SC-02-A-15	ACCOUNTANTS	GUILDFORD	SURREY	140	Tue	05/10/10	0.043	0.307	0.350
13	SF-02-A-01	COUNCIL OFFICE	BURY ST. EDMUNDS	SUFFOLK	700	Mon	27/09/10	0.049	0.296	0.345
14	KC-02-A-08	KCC HIGHWAYS R	AYLESFORD	KENT	190	Mon	28/11/11	0.005	0.295	0.300
15	NF-02-A-01	COUNCIL OFFICE	KING'S LYNN	NORFOLK	408	Thu	30/09/10	0.032	0.262	0.294
16	AN-02-A-04	OFFICE	NEWTOWNABBEY	ANTRIM	450	Thu	17/06/10	0.011	0.282	0.293
17	SW-02-A-02	OFFICE	SWANSEA	SWANSEA	155	Thu	24/10/13	0.052	0.239	0.291
18	DU-02-A-01	OFFICES	DUNDEE	DUNDEE CITY	146	Thu	27/04/17	0.041	0.240	0.281
19	DN-02-A-02	COUNCIL OFFICE	BUNCRANA	DONEGAL	11	Mon	28/06/10	0.000	0.273	0.273
20	HF-02-A-04	OFFICES	ST ALBANS	HERTFORDSHIRE	365	Thu	02/10/14	0.003	0.241	0.244
21	HD-02-A-08	DATA CENTRE	HAYES	HILLINGDON	1076	Tue	14/06/16	0.012	0.231	0.243
22	RO-02-A-02	GOVERNMENT OFF	ROSCOMMON	ROSCOMMON	200	Tue	23/09/14	0.035	0.205	0.240
23	KC-02-A-09	COUNCIL OFFICE	MAIDSTONE	KENT	200	Wed	19/10/11	0.020	0.195	0.215
24	PS-02-A-01	COUNCIL OFFICE	WELSHPOOL	POWYS	140	Tue	12/05/15	0.014	0.200	0.214
25	SC-02-A-16	BANK OF AMERIC	CAMBERLEY	SURREY	250	Tue	10/05/11	0.008	0.204	0.212
26	ES-02-A-12	COUNCIL OFFICE	HAILSHAM	EAST SUSSEX	341	Thu	26/11/15	0.006	0.199	0.205
27	CA-02-A-04	OFFICE	PETERBOROUGH	CAMBRIDGESHIRE	350	Thu	20/10/11	0.014	0.183	0.197
28	SC-02-A-17	PHARMACEUTICAL	WEYBRIDGE	SURREY	345	Tue	18/10/11	0.009	0.188	0.197
29	CR-02-A-01	STATISTICS OFF	CORK	CORK	451	Mon	23/06/14	0.011	0.177	0.188
30	WY-02-A-03	OFFICE	LEEDS	WEST YORKSHIRE	243	Thu	17/06/10	0.004	0.177	0.181
31	KC-02-A-07	KCC HIGHWAYS R	ASHFORD	KENT	233	Mon	05/12/11	0.004	0.167	0.171
32	KC-02-A-11	COUNTY HALL	MAIDSTONE	KENT	2139	Mon	17/10/11	0.007	0.159	0.166
33	SW-02-A-01	OFFICES	SWANSEA	SWANSEA	1221	Fri	25/10/13	0.005	0.161	0.166
34	DC-02-A-09	COUNCIL OFFICE	DORCHESTER	DORSET	2088	Mon	28/11/11	0.023	0.140	0.163
35	DH-02-A-01	RPMI OFFICES	DARLINGTON	DURHAM	250	Fri	05/11/10	0.024	0.124	0.148
36	HC-02-A-12	HMRC	PORTSMOUTH	HAMPSHIRE	829	Mon	23/11/15	0.033	0.107	0.140
37	HO-02-A-01	SKY HEADQUARTE	ISLEWORTH	HOUNSLOW	6500	Wed	05/07/17	0.014	0.126	0.140
38	KC-02-A-10	COUNCIL OFFICE	MAIDSTONE	KENT	430	Wed	19/10/11	0.005	0.133	0.138
39	BT-02-A-03	OFFICES	WEMBLEY	BRENT	39	Wed	03/06/15	0.026	0.103	0.129

Rank	Site-Ref	Description	Town/City	Area	EMPLOY	Day	Date	Trip Rate (Sorted by Totals)		
								Arrivals	Departures	Totals
40	**WY-02-A-05**	**OFFICES**	**CASTLEFORD**	**WEST YORKSHIRE**	**115**	**Tue**	**23/05/17**	**0.000**	**0.122**	**0.122**
41	BT-02-A-02	OFFICE	WEMBLEY	BRENT	450	Tue	22/06/10	0.024	0.087	0.111
42	BT-02-A-04	OFFICES	WEMBLEY	BRENT	583	Thu	14/05/15	0.012	0.093	0.105
43	BD-02-A-03	OFFICES	BEDFORD	BEDFORDSHIRE	240	Mon	14/10/13	0.046	0.054	0.100
44	WH-02-A-03	OFFICE	NINE ELMS	WANDSWORTH	110	Mon	16/11/15	0.009	0.082	0.091
45	WO-02-A-02	OFFICE	WORCESTER CITY COUN	WORCESTERSHIRE	125	Mon	14/11/16	0.000	0.056	0.056
46	NF-02-A-03	OFFICES	GREAT YARMOUTH	NORFOLK	380	Tue	12/09/17	0.011	0.039	0.050
47	GM-02-A-09	LEASED OFFICES	MANCHESTER	GREATER MANCHESTER	670	Mon	26/09/16	0.006	0.031	0.037

This section displays actual (not average) trip rates for each of the survey days in the selected set, and ranks them in order of relative trip rate intensity, for a given time period (or peak period irrespective of time) selected by the user. The count type and direction are both displayed just above the table, along with the rows within the table representing the 85th and 15th percentile trip rate figures (highlighted in bold within the table itself).

The table itself displays details of each individual survey, alongside arrivals, departures and totals trip rates, sorted by whichever of the three directional options has been chosen by the user. As with the preceeding trip rate calculation results table, the trip rates shown are per the calculation factor (e.g. per 100m2 GFA, per employee, per hectare, etc). Note that if the peak period option has been selected (as opposed to a specific chosen time period), the peak period for each individual survey day in the table is also displayed.



This graph is a visual representation of the correlation between the selected trip rate calculation parameter and the rank order trip rates generated by each individual survey day in the selected set. The range of the trip rate parameter is shown along the x axis, with the level of trips shown on the y axis. The selected time range used to create the rank order list from which the graph is derived is displayed at the top of the graph (unless the peak period irrespective of time range has been selected). A line of best fit is sometimes displayed in the graph, should it be selected for inclusion by the user.

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : B - BUSINESS PARK

VEHICLES

Selected regions and areas:

01	**GREATER LONDON**		
	BK	BARKING	1 days
	HD	HILLINGDON	1 days
	HM	HAMMERSMITH AND FULHAM	1 days
	HO	HOUNSLOW	1 days
	NH	NEWHAM	1 days
	WF	WALTHAM FOREST	1 days
02	**SOUTH EAST**		
	HC	HAMPSHIRE	1 days
	SC	SURREY	1 days
	WG	WOKINGHAM	1 days
03	**SOUTH WEST**		
	DV	DEVON	1 days
04	**EAST ANGLIA**		
	CA	CAMBRIDGESHIRE	2 days
05	**EAST MIDLANDS**		
	LE	LEICESTERSHIRE	1 days
	LN	LINCOLNSHIRE	1 days
06	**WEST MIDLANDS**		
	HE	HEREFORDSHIRE	1 days
	SH	SHROPSHIRE	1 days
	ST	STAFFORDSHIRE	1 days
	WM	WEST MIDLANDS	1 days
07	**YORKSHIRE & NORTH LINCOLNSHIRE**		
	WY	WEST YORKSHIRE	3 days
08	**NORTH WEST**		
	CH	CHESHIRE	1 days
	GM	GREATER MANCHESTER	2 days
	LC	LANCASHIRE	1 days
09	**NORTH**		
	TW	TYNE & WEAR	1 days
10	**WALES**		
	CF	CARDIFF	3 days
	CP	CAERPHILLY	1 days
11	**SCOTLAND**		
	FA	FALKIRK	1 days
	FI	FIFE	1 days
12	**CONNAUGHT**		
	CS	SLIGO	1 days
13	**MUNSTER**		
	CR	CORK	1 days
14	**LEINSTER**		
	LU	LOUTH	1 days
15	**GREATER DUBLIN**		
	DL	DUBLIN	4 days
16	**ULSTER (REPUBLIC OF IRELAND)**		
	DN	DONEGAL	1 days
17	**ULSTER (NORTHERN IRELAND)**		
	AN	ANTRIM	5 days

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

Secondary Filtering selection:

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

Parameter:	Number of Employees
Actual Range:	44 to 5000 (units:)
Range Selected by User:	0 to 6069 (units:)

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/10 to 22/11/17

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

Selected survey days:

Monday	7 days
Tuesday	6 days
Wednesday	9 days
Thursday	12 days
Friday	11 days

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

Selected survey types:

Manual count	45 days
Directional ATC Count	0 days

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

Selected Locations:

Town Centre	2
Edge of Town Centre	3
Suburban Area (PPS6 Out of Centre)	13
Edge of Town	23
Neighbourhood Centre (PPS6 Local Centre)	3
Free Standing (PPS6 Out of Town)	1

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Industrial Zone	10
Commercial Zone	10
Development Zone	5
Residential Zone	4
Built-Up Zone	2
Village	2
Out of Town	1
High Street	1
No Sub Category	10

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

Secondary Filtering selection:

Use Class:

Not Known	2 days
B1	43 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Secondary Filtering selection (Cont.):

Population within 1 mile:

1,000 or Less	1 days
1,001 to 5,000	2 days
5,001 to 10,000	8 days
10,001 to 15,000	13 days
15,001 to 20,000	4 days
20,001 to 25,000	4 days
25,001 to 50,000	9 days
50,001 to 100,000	4 days

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

Population within 5 miles:

5,000 or Less	1 days
5,001 to 25,000	2 days
25,001 to 50,000	4 days
50,001 to 75,000	4 days
100,001 to 125,000	3 days
125,001 to 250,000	8 days
250,001 to 500,000	12 days
500,001 or More	11 days

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

Car ownership within 5 miles:

0.6 to 1.0	21 days
1.1 to 1.5	23 days
2.1 to 2.5	1 days

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

Travel Plan:

Yes	5 days
No	40 days

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

PTAL Rating:

No PTAL Present	39 days
2 Poor	4 days
5 Very Good	1 days
6b (High) Excellent	1 days

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

LIST OF SITES relevant to selection parameters

1 **AN-02-B-01** **BUSINESS PARK** **ANTRIM**
BEECHILL ROAD
BELFAST
NEWTOWNBREDA
Edge of Town
No Sub Category
Total Number of Employees: 210
Survey date: THURSDAY *27/11/14* *Survey Type: MANUAL*

2 **AN-02-B-02** **BUSINESS PARK** **ANTRIM**
MONTGOMERY ROAD
BELFAST
CASTLEREAGH
Edge of Town
Industrial Zone
Total Number of Employees: 198
Survey date: WEDNESDAY *12/10/16* *Survey Type: MANUAL*

3 **AN-02-B-03** **BUSINESS PARK** **ANTRIM**
BELMONT ROAD
BELFAST

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of Employees: 72
Survey date: THURSDAY *19/10/17* *Survey Type: MANUAL*

4 **AN-02-B-04** **BUSINESS PARK** **ANTRIM**
CASTLEREAGH ROAD
BELFAST
CASTLEREAGH
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Number of Employees: 198
Survey date: THURSDAY *19/10/17* *Survey Type: MANUAL*

5 **AN-02-B-05** **BUSINESS PARK** **ANTRIM**
ALBERT STREET
BELFAST

Town Centre
Built-Up Zone
Total Number of Employees: 169
Survey date: THURSDAY *19/10/17* *Survey Type: MANUAL*

6 **BK-02-B-01** **BUSINESS PARK** **BARKING**
FRESHWATER ROAD
DAGENHAM
CHADWELL HEATH
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Number of Employees: 55
Survey date: MONDAY *06/10/14* *Survey Type: MANUAL*

7 **CA-02-B-02** **BUSINESS PARK** **CAMBRIDGESHIRE**
LYNCH WOOD
PETERBOROUGH

Edge of Town
Commercial Zone
Total Number of Employees: 510
Survey date: WEDNESDAY *19/10/16* *Survey Type: MANUAL*

8 **CA-02-B-03** **SCIENCE PARK** **CAMBRIDGESHIRE**
MILTON ROAD
CAMBRIDGE

Edge of Town
No Sub Category
Total Number of Employees: 5000
Survey date: FRIDAY *06/10/17* *Survey Type: MANUAL*

9 **CF-02-B-03** **BUSINESS PARK** **CARDIFF**
FORTRAN ROAD
CARDIFF
ST MELLONS
Edge of Town
Industrial Zone
Total Number of Employees: 506
Survey date: MONDAY *18/10/10* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

10 **CF-02-B-04** **BUSINESS PARK** **CARDIFF**
RHYMNEY RIVER BRIDGE RD
CARDIFF

Edge of Town
Development Zone
Total Number of Employees: 47
Survey date: FRIDAY *05/05/17* *Survey Type: MANUAL*

11 **CF-02-B-05** **BUSINESS PARK** **CARDIFF**
LAMBOURNE CRESCENT
CARDIFF
LLANISHEN
Suburban Area (PPS6 Out of Centre)
Development Zone
Total Number of Employees: 565
Survey date: WEDNESDAY *05/10/16* *Survey Type: MANUAL*

12 **CH-02-B-01** **BUSINESS PARK** **CHESHIRE**
WINTERTON WAY
MACCLESFIELD

Edge of Town
Development Zone
Total Number of Employees: 44
Survey date: MONDAY *19/09/16* *Survey Type: MANUAL*

13 **CP-02-B-01** **BUSINESS PARK** **CAERPHILLY**
VAN ROAD
CAERPHILLY

Edge of Town
Commercial Zone
Total Number of Employees: 500
Survey date: TUESDAY *17/07/12* *Survey Type: MANUAL*

14 **CR-02-B-01** **TECHNOLOGY CENTRE** **CORK**
CURRAHEEN ROAD
CORK

Edge of Town
Residential Zone
Total Number of Employees: 650
Survey date: THURSDAY *19/06/14* *Survey Type: MANUAL*

15 **CS-02-B-01** **BUSINESS PARK** **SLIGO**
AIRPORT ROAD
STRANDHILL
KILLASPUGBRONE
Free Standing (PPS6 Out of Town)
Out of Town
Total Number of Employees: 85
Survey date: THURSDAY *27/10/16* *Survey Type: MANUAL*

16 **DL-02-B-04** **BUSINESS PARK** **DUBLIN**
TANEY DRIVE
DUBLIN
DUNDRUM
Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Number of Employees: 612
Survey date: WEDNESDAY *12/09/12* *Survey Type: MANUAL*

17 **DL-02-B-06** **OFFICE PARK** **DUBLIN**
MAIN STREET
DUBLIN
DUNDRUM
Neighbourhood Centre (PPS6 Local Centre)
High Street
Total Number of Employees: 116
Survey date: WEDNESDAY *01/10/14* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

18 **DL-02-B-07** **BUSINESS PARK** **DUBLIN**
BURTON HALL AVENUE
DUBLIN
LEOPARDSTOWN
Edge of Town
Commercial Zone
Total Number of Employees: 192
Survey date: WEDNESDAY *01/10/14* *Survey Type: MANUAL*

19 **DL-02-B-08** **BUSINESS PARK** **DUBLIN**
OLD NAAS ROAD
DUBLIN
INCHICORE
Suburban Area (PPS6 Out of Centre)
Commercial Zone
Total Number of Employees: 134
Survey date: TUESDAY *05/09/17* *Survey Type: MANUAL*

20 **DN-02-B-02** **BUSINESS PARK** **DONEGAL**
N56
LETTERKENNY
KNOCKNAMONA
Edge of Town
No Sub Category
Total Number of Employees: 910
Survey date: MONDAY *29/09/14* *Survey Type: MANUAL*

21 **DV-02-B-01** **BUSINESS PARK** **DEVON**
MANATON CLOSE
EXETER
MATFORD BUSINESS PARK
Edge of Town
Commercial Zone
Total Number of Employees: 51
Survey date: WEDNESDAY *05/07/17* *Survey Type: MANUAL*

22 **FA-02-B-02** **BUSINESS PARK** **FALKIRK**
CALLENDAR BOULEVARD
FALKIRK
CALLENDAR PARK
Edge of Town
Commercial Zone
Total Number of Employees: 500
Survey date: FRIDAY *31/05/13* *Survey Type: MANUAL*

23 **FI-02-B-01** **BUSINESS PARK** **FIFE**
ENTERPRISE WAY
DUNFERMLINE
PITREAVIE
Edge of Town
Commercial Zone
Total Number of Employees: 364
Survey date: MONDAY *21/03/16* *Survey Type: MANUAL*

24 **GM-02-B-03** **BUSINESS PARK** **GREATER MANCHESTER**
CROSS STREET
SALE

Edge of Town
Industrial Zone
Total Number of Employees: 300
Survey date: TUESDAY *18/10/11* *Survey Type: MANUAL*

25 **GM-02-B-04** **BUSINESS PARK** **GREATER MANCHESTER**
SALMON FIELDS
OLDHAM

Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Number of Employees: 166
Survey date: THURSDAY *22/10/15* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

26 **HC-02-B-02** **BUSINESS PARK** **HAMPSHIRE**
WESTERN ROAD
PORTSMOUTH

Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Number of Employees: 2800
Survey date: FRIDAY *18/10/13* *Survey Type: MANUAL*

27 **HD-02-B-06** **BUSINESS PARK** **HILLINGDON**
WEST END ROAD
SOUTH RUISLIP

Edge of Town
No Sub Category
Total Number of Employees: 450
Survey date: THURSDAY *25/06/15* *Survey Type: MANUAL*

28 **HE-02-B-01** **BUSINESS PARK** **HEREFORDSHIRE**
A4103
NEAR HEREFORD
WHITESTONE
Neighbourhood Centre (PPS6 Local Centre)
Village
Total Number of Employees: 178
Survey date: TUESDAY *13/09/11* *Survey Type: MANUAL*

29 **HM-02-B-01** **BUSINESS PARK** **HAMMERSMITH AND FULHAM**
SULIVAN ROAD
FULHAM
HURLINGHAM
Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Number of Employees: 251
Survey date: THURSDAY *30/06/16* *Survey Type: MANUAL*

30 **HO-02-B-02** **BUSINESS PARK** **HOUNSLOW**
HANWORTH ROAD
LONDON
HOUNSLOW
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of Employees: 49
Survey date: FRIDAY *08/11/13* *Survey Type: MANUAL*

31 **LC-02-B-03** **BUSINESS PARK** **LANCASHIRE**
NAVIGATION WAY
PRESTON

Edge of Town
Commercial Zone
Total Number of Employees: 101
Survey date: TUESDAY *18/10/11* *Survey Type: MANUAL*

32 **LE-02-B-01** **BUSINESS PARK** **LEICESTERSHIRE**
NOTTINGHAM ROAD
MELTON MOWBRAY

Edge of Town Centre
Residential Zone
Total Number of Employees: 600
Survey date: MONDAY *28/11/16* *Survey Type: MANUAL*

33 **LN-02-B-02** **BUSINESS PARK** **LINCOLNSHIRE**
CARDINAL CLOSE
LINCOLN

Edge of Town
Industrial Zone
Total Number of Employees: 105
Survey date: THURSDAY *25/06/15* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

34 **LU-02-B-01** **BUSINESS PARK** **LOUTH**
N52
DUNDALK

Edge of Town
Commercial Zone
Total Number of Employees: 260
Survey date: FRIDAY *13/09/13* *Survey Type: MANUAL*

35 **NH-02-B-01** **BUSINESS PARK** **NEWHAM**
ROMFORD ROAD
STRATFORD

Town Centre
Built-Up Zone
Total Number of Employees: 310
Survey date: FRIDAY *15/11/13* *Survey Type: MANUAL*

36 **SC-02-B-03** **BUSINESS PARK** **SURREY**
A331
FRIMLEY

Edge of Town Centre
No Sub Category
Total Number of Employees: 500
Survey date: TUESDAY *27/11/12* *Survey Type: MANUAL*

37 **SH-02-B-04** **BUSINESS PARK** **SHROPSHIRE**
STAFFORD COURT
TELFORD

Edge of Town Centre
Commercial Zone
Total Number of Employees: 320
Survey date: THURSDAY *24/10/13* *Survey Type: MANUAL*

38 **ST-02-B-04** **BUSINESS PARK** **STAFFORDSHIRE**
STONE ROAD
STAFFORD

Edge of Town
Industrial Zone
Total Number of Employees: 1082
Survey date: WEDNESDAY *22/11/17* *Survey Type: MANUAL*

39 **TW-02-B-05** **BUSINESS PARK** **TYNE & WEAR**
MONARCH ROAD
NEWCASTLE

Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Number of Employees: 400
Survey date: FRIDAY *13/11/15* *Survey Type: MANUAL*

40 **WF-02-B-01** **BUSINESS PARK** **WALTHAM FOREST**
ARGALL WAY
WALTHAMSTOW

Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Number of Employees: 60
Survey date: MONDAY *06/11/17* *Survey Type: MANUAL*

41 **WG-02-B-02** **BUSINESS PARK** **WOKINGHAM**
WHARFEDALE ROAD
READING
WINNERSH
Edge of Town
Development Zone
Total Number of Employees: 210
Survey date: FRIDAY *20/11/15* *Survey Type: MANUAL*

42 **WM-02-B-02** **BUSINESS PARK** **WEST MIDLANDS**
PARADISE WAY
COVENTRY

Edge of Town
Development Zone
Total Number of Employees: 1300
Survey date: FRIDAY *11/11/16* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

43 **WY-02-B-01** **BUSINESS PARK** **WEST YORKSHIRE**
ROSEVILLE ROAD
LEEDS

Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Number of Employees: 120
Survey date: FRIDAY *20/09/13* *Survey Type: MANUAL*

44 **WY-02-B-02** **BUSINESS PARK** **WEST YORKSHIRE**
ARMITAGE BRIDGE
HUDDERSFIELD

Edge of Town
No Sub Category
Total Number of Employees: 116
Survey date: WEDNESDAY *23/04/14* *Survey Type: MANUAL*

45 **WY-02-B-03** **BUSINESS PARK** **WEST YORKSHIRE**
SCRIFTAN LANE
WETHERBY
KIRK DEIGHTON
Neighbourhood Centre (PPS6 Local Centre)
Village
Total Number of Employees: 56
Survey date: THURSDAY *15/09/16* *Survey Type: MANUAL*

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

RANK ORDER for Land Use 02 - EMPLOYMENT/B - BUSINESS PARK

VEHICLES

Ranking Type: **TOTALS** Time Range: 08:00-09:00
15th Percentile = No. **38** WM-02-B-02 Tot: 0.190
85th Percentile = No. **8** WY-02-B-01 Tot: 0.550

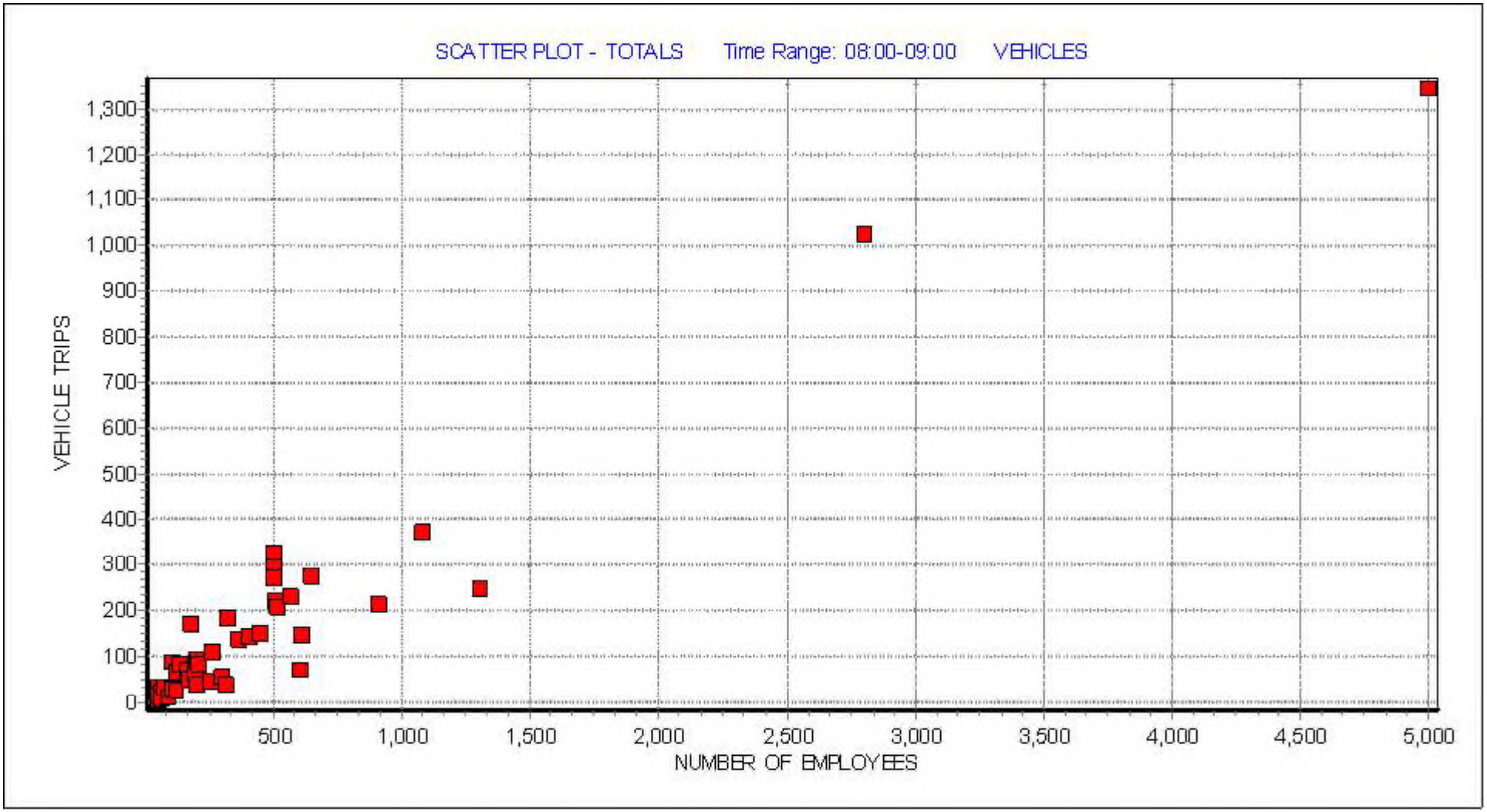
Median Values		Mean Values	
Arrivals:	0.321	Arrivals:	0.324
Departures:	0.054	Departures:	0.057
Totals:	0.375	Totals:	0.380

Rank	Site-Ref	Description	Town/City	Area	EMPLOY	Day	Date	Trip Rate (Sorted by Totals)		
								Arrivals	Departures	Totals
1	HE-02-B-01	BUSINESS PARK	NEAR HEREFORD	HEREFORDSHIRE	178	Tue	13/09/11	0.820	0.135	0.955
2	LN-02-B-02	BUSINESS PARK	LINCOLN	LINCOLNSHIRE	105	Thu	25/06/15	0.590	0.238	0.828
3	FA-02-B-02	BUSINESS PARK	FALKIRK	FALKIRK	500	Fri	31/05/13	0.582	0.070	0.652
4	DV-02-B-01	BUSINESS PARK	EXETER	DEVON	51	Wed	05/07/17	0.549	0.078	0.627
5	DL-02-B-08	BUSINESS PARK	DUBLIN	DUBLIN	134	Tue	05/09/17	0.500	0.127	0.627
6	CP-02-B-01	BUSINESS PARK	CAERPHILLY	CAERPHILLY	500	Tue	17/07/12	0.464	0.130	0.594
7	SH-02-B-04	BUSINESS PARK	TELFORD	SHROPSHIRE	320	Thu	24/10/13	0.516	0.053	0.569
8	**WY-02-B-01**	**BUSINESS PARK**	**LEEDS**	**WEST YORKSHIRE**	**120**	**Fri**	**20/09/13**	**0.367**	**0.183**	**0.550**
9	SC-02-B-03	BUSINESS PARK	FRIMLEY	SURREY	500	Tue	27/11/12	0.500	0.048	0.548
10	CH-02-B-01	BUSINESS PARK	MACCLESFIELD	CHESHIRE	44	Mon	19/09/16	0.500	0.023	0.523
11	AN-02-B-03	BUSINESS PARK	BELFAST	ANTRIM	72	Thu	19/10/17	0.417	0.056	0.473
12	CF-02-B-04	BUSINESS PARK	CARDIFF	CARDIFF	47	Fri	05/05/17	0.319	0.149	0.468
13	AN-02-B-04	BUSINESS PARK	BELFAST	ANTRIM	198	Thu	19/10/17	0.409	0.045	0.454
14	CF-02-B-03	BUSINESS PARK	CARDIFF	CARDIFF	506	Mon	18/10/10	0.401	0.036	0.437
15	GM-02-B-04	BUSINESS PARK	OLDHAM	GREATER MANCHESTER	166	Thu	22/10/15	0.367	0.060	0.427
16	CR-02-B-01	TECHNOLOGY CEN	CORK	CORK	650	Thu	19/06/14	0.323	0.100	0.423
17	LU-02-B-01	BUSINESS PARK	DUNDALK	LOUTH	260	Fri	13/09/13	0.354	0.065	0.419
18	CA-02-B-02	BUSINESS PARK	PETERBOROUGH	CAMBRIDGESHIRE	510	Wed	19/10/16	0.357	0.057	0.414
19	CF-02-B-05	BUSINESS PARK	CARDIFF	CARDIFF	565	Wed	05/10/16	0.388	0.018	0.406
20	WG-02-B-02	BUSINESS PARK	READING	WOKINGHAM	210	Fri	20/11/15	0.324	0.067	0.391
21	AN-02-B-01	BUSINESS PARK	BELFAST	ANTRIM	210	Thu	27/11/14	0.371	0.019	0.390
22	FI-02-B-01	BUSINESS PARK	DUNFERMLINE	FIFE	364	Mon	21/03/16	0.349	0.036	0.385
23	WY-02-B-03	BUSINESS PARK	WETHERBY	WEST YORKSHIRE	56	Thu	15/09/16	0.321	0.054	0.375
24	HC-02-B-02	BUSINESS PARK	PORTSMOUTH	HAMPSHIRE	2800	Fri	18/10/13	0.338	0.028	0.366
25	TW-02-B-05	BUSINESS PARK	NEWCASTLE	TYNE & WEAR	400	Fri	13/11/15	0.335	0.020	0.355
26	ST-02-B-04	BUSINESS PARK	STAFFORD	STAFFORDSHIRE	1082	Wed	22/11/17	0.325	0.021	0.346
27	DL-02-B-07	BUSINESS PARK	DUBLIN	DUBLIN	192	Wed	01/10/14	0.313	0.021	0.333
28	HD-02-B-06	BUSINESS PARK	SOUTH RUISLIP	HILLINGDON	450	Thu	25/06/15	0.309	0.024	0.333
29	BK-02-B-01	BUSINESS PARK	DAGENHAM	BARKING	55	Mon	06/10/14	0.127	0.182	0.309
30	AN-02-B-05	BUSINESS PARK	BELFAST	ANTRIM	169	Thu	19/10/17	0.272	0.018	0.290
31	LC-02-B-03	BUSINESS PARK	PRESTON	LANCASHIRE	101	Tue	18/10/11	0.238	0.050	0.288
32	CA-02-B-03	SCIENCE PARK	CAMBRIDGE	CAMBRIDGESHIRE	5000	Fri	06/10/17	0.239	0.030	0.269
33	DL-02-B-06	OFFICE PARK	DUBLIN	DUBLIN	116	Wed	01/10/14	0.181	0.060	0.241
34	DL-02-B-04	BUSINESS PARK	DUBLIN	DUBLIN	612	Wed	12/09/12	0.224	0.015	0.239
35	DN-02-B-02	BUSINESS PARK	LETTERKENNY	DONEGAL	910	Mon	29/09/14	0.223	0.013	0.236
36	WY-02-B-02	BUSINESS PARK	HUDDERSFIELD	WEST YORKSHIRE	116	Wed	23/04/14	0.147	0.069	0.216
37	AN-02-B-02	BUSINESS PARK	BELFAST	ANTRIM	198	Wed	12/10/16	0.167	0.025	0.192
38	**WM-02-B-02**	**BUSINESS PARK**	**COVENTRY**	**WEST MIDLANDS**	**1300**	**Fri**	**11/11/16**	**0.179**	**0.011**	**0.190**
39	GM-02-B-03	BUSINESS PARK	SALE	GREATER MANCHESTER	300	Tue	18/10/11	0.177	0.007	0.184

Rank	Site-Ref	Description	Town/City	Area	EMPLOY	Day	Date	Trip Rate (Sorted by Totals)		
								Arrivals	Departures	Totals
40	HM-02-B-01	BUSINESS PARK	FULHAM	HAMMERSMITH AND FUL	251	Thu	30/06/16	0.155	0.020	0.175
41	WF-02-B-01	BUSINESS PARK	WALTHAMSTOW	WALTHAM FOREST	60	Mon	06/11/17	0.150	0.017	0.167
42	CS-02-B-01	BUSINESS PARK	STRANDHILL	SLIGO	85	Thu	27/10/16	0.141	0.000	0.141
43	NH-02-B-01	BUSINESS PARK	STRATFORD	NEWHAM	310	Fri	15/11/13	0.094	0.023	0.117
44	LE-02-B-01	BUSINESS PARK	MELTON MOWBRAY	LEICESTERSHIRE	600	Mon	28/11/16	0.088	0.027	0.115
45	HO-02-B-02	BUSINESS PARK	LONDON	HOUNSLOW	49	Fri	08/11/13	0.061	0.020	0.081

This section displays actual (not average) trip rates for each of the survey days in the selected set, and ranks them in order of relative trip rate intensity, for a given time period (or peak period irrespective of time) selected by the user. The count type and direction are both displayed just above the table, along with the rows within the table representing the 85th and 15th percentile trip rate figures (highlighted in bold within the table itself).

The table itself displays details of each individual survey, alongside arrivals, departures and totals trip rates, sorted by whichever of the three directional options has been chosen by the user. As with the preceeding trip rate calculation results table, the trip rates shown are per the calculation factor (e.g. per 100m2 GFA, per employee, per hectare, etc). Note that if the peak period option has been selected (as opposed to a specific chosen time period), the peak period for each individual survey day in the table is also displayed.



This graph is a visual representation of the correlation between the selected trip rate calculation parameter and the rank order trip rates generated by each individual survey day in the selected set. The range of the trip rate parameter is shown along the x axis, with the level of trips shown on the y axis. The selected time range used to create the rank order list from which the graph is derived is displayed at the top of the graph (unless the peak period irrespective of time range has been selected). A line of best fit is sometimes displayed in the graph, should it be selected for inclusion by the user.

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : B - BUSINESS PARK

VEHICLES

Selected regions and areas:

01	**GREATER LONDON**		
	BK	BARKING	1 days
	HD	HILLINGDON	1 days
	HM	HAMMERSMITH AND FULHAM	1 days
	HO	HOUNSLOW	1 days
	NH	NEWHAM	1 days
	WF	WALTHAM FOREST	1 days
02	**SOUTH EAST**		
	HC	HAMPSHIRE	1 days
	SC	SURREY	1 days
	WG	WOKINGHAM	1 days
03	**SOUTH WEST**		
	DV	DEVON	1 days
04	**EAST ANGLIA**		
	CA	CAMBRIDGESHIRE	2 days
05	**EAST MIDLANDS**		
	LE	LEICESTERSHIRE	1 days
	LN	LINCOLNSHIRE	1 days
06	**WEST MIDLANDS**		
	HE	HEREFORDSHIRE	1 days
	SH	SHROPSHIRE	1 days
	ST	STAFFORDSHIRE	1 days
	WM	WEST MIDLANDS	1 days
07	**YORKSHIRE & NORTH LINCOLNSHIRE**		
	WY	WEST YORKSHIRE	3 days
08	**NORTH WEST**		
	CH	CHESHIRE	1 days
	GM	GREATER MANCHESTER	2 days
	LC	LANCASHIRE	1 days
09	**NORTH**		
	TW	TYNE & WEAR	1 days
10	**WALES**		
	CF	CARDIFF	3 days
	CP	CAERPHILLY	1 days
11	**SCOTLAND**		
	FA	FALKIRK	1 days
	FI	FIFE	1 days
12	**CONNAUGHT**		
	CS	SLIGO	1 days
13	**MUNSTER**		
	CR	CORK	1 days
14	**LEINSTER**		
	LU	LOUTH	1 days
15	**GREATER DUBLIN**		
	DL	DUBLIN	4 days
16	**ULSTER (REPUBLIC OF IRELAND)**		
	DN	DONEGAL	1 days
17	**ULSTER (NORTHERN IRELAND)**		
	AN	ANTRIM	5 days

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

Secondary Filtering selection:

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

Parameter:	Number of Employees
Actual Range:	44 to 5000 (units:)
Range Selected by User:	0 to 6069 (units:)

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/10 to 22/11/17

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

Selected survey days:

Monday	7 days
Tuesday	6 days
Wednesday	9 days
Thursday	12 days
Friday	11 days

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

Selected survey types:

Manual count	45 days
Directional ATC Count	0 days

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

Selected Locations:

Town Centre	2
Edge of Town Centre	3
Suburban Area (PPS6 Out of Centre)	13
Edge of Town	23
Neighbourhood Centre (PPS6 Local Centre)	3
Free Standing (PPS6 Out of Town)	1

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Industrial Zone	10
Commercial Zone	10
Development Zone	5
Residential Zone	4
Built-Up Zone	2
Village	2
Out of Town	1
High Street	1
No Sub Category	10

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

Secondary Filtering selection:

Use Class:

Not Known	2 days
B1	43 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Secondary Filtering selection (Cont.):

Population within 1 mile:

1,000 or Less	1 days
1,001 to 5,000	2 days
5,001 to 10,000	8 days
10,001 to 15,000	13 days
15,001 to 20,000	4 days
20,001 to 25,000	4 days
25,001 to 50,000	9 days
50,001 to 100,000	4 days

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

Population within 5 miles:

5,000 or Less	1 days
5,001 to 25,000	2 days
25,001 to 50,000	4 days
50,001 to 75,000	4 days
100,001 to 125,000	3 days
125,001 to 250,000	8 days
250,001 to 500,000	12 days
500,001 or More	11 days

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

Car ownership within 5 miles:

0.6 to 1.0	21 days
1.1 to 1.5	23 days
2.1 to 2.5	1 days

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

Travel Plan:

Yes	5 days
No	40 days

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

PTAL Rating:

No PTAL Present	39 days
2 Poor	4 days
5 Very Good	1 days
6b (High) Excellent	1 days

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

LIST OF SITES relevant to selection parameters

1 **AN-02-B-01** **BUSINESS PARK** **ANTRIM**
BEECHILL ROAD
BELFAST
NEWTOWNBREDA
Edge of Town
No Sub Category
Total Number of Employees: 210
Survey date: THURSDAY *27/11/14* *Survey Type: MANUAL*

2 **AN-02-B-02** **BUSINESS PARK** **ANTRIM**
MONTGOMERY ROAD
BELFAST
CASTLEREAGH
Edge of Town
Industrial Zone
Total Number of Employees: 198
Survey date: WEDNESDAY *12/10/16* *Survey Type: MANUAL*

3 **AN-02-B-03** **BUSINESS PARK** **ANTRIM**
BELMONT ROAD
BELFAST

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of Employees: 72
Survey date: THURSDAY *19/10/17* *Survey Type: MANUAL*

4 **AN-02-B-04** **BUSINESS PARK** **ANTRIM**
CASTLEREAGH ROAD
BELFAST
CASTLEREAGH
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Number of Employees: 198
Survey date: THURSDAY *19/10/17* *Survey Type: MANUAL*

5 **AN-02-B-05** **BUSINESS PARK** **ANTRIM**
ALBERT STREET
BELFAST

Town Centre
Built-Up Zone
Total Number of Employees: 169
Survey date: THURSDAY *19/10/17* *Survey Type: MANUAL*

6 **BK-02-B-01** **BUSINESS PARK** **BARKING**
FRESHWATER ROAD
DAGENHAM
CHADWELL HEATH
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Number of Employees: 55
Survey date: MONDAY *06/10/14* *Survey Type: MANUAL*

7 **CA-02-B-02** **BUSINESS PARK** **CAMBRIDGESHIRE**
LYNCH WOOD
PETERBOROUGH

Edge of Town
Commercial Zone
Total Number of Employees: 510
Survey date: WEDNESDAY *19/10/16* *Survey Type: MANUAL*

8 **CA-02-B-03** **SCIENCE PARK** **CAMBRIDGESHIRE**
MILTON ROAD
CAMBRIDGE

Edge of Town
No Sub Category
Total Number of Employees: 5000
Survey date: FRIDAY *06/10/17* *Survey Type: MANUAL*

9 **CF-02-B-03** **BUSINESS PARK** **CARDIFF**
FORTRAN ROAD
CARDIFF
ST MELLONS
Edge of Town
Industrial Zone
Total Number of Employees: 506
Survey date: MONDAY *18/10/10* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

10 **CF-02-B-04** **BUSINESS PARK** **CARDIFF**
RHYMNEY RIVER BRIDGE RD
CARDIFF

Edge of Town
Development Zone
Total Number of Employees: 47
Survey date: FRIDAY *05/05/17* *Survey Type: MANUAL*

11 **CF-02-B-05** **BUSINESS PARK** **CARDIFF**
LAMBOURNE CRESCENT
CARDIFF
LLANISHEN
Suburban Area (PPS6 Out of Centre)
Development Zone
Total Number of Employees: 565
Survey date: WEDNESDAY *05/10/16* *Survey Type: MANUAL*

12 **CH-02-B-01** **BUSINESS PARK** **CHESHIRE**
WINTERTON WAY
MACCLESFIELD

Edge of Town
Development Zone
Total Number of Employees: 44
Survey date: MONDAY *19/09/16* *Survey Type: MANUAL*

13 **CP-02-B-01** **BUSINESS PARK** **CAERPHILLY**
VAN ROAD
CAERPHILLY

Edge of Town
Commercial Zone
Total Number of Employees: 500
Survey date: TUESDAY *17/07/12* *Survey Type: MANUAL*

14 **CR-02-B-01** **TECHNOLOGY CENTRE** **CORK**
CURRAHEEN ROAD
CORK

Edge of Town
Residential Zone
Total Number of Employees: 650
Survey date: THURSDAY *19/06/14* *Survey Type: MANUAL*

15 **CS-02-B-01** **BUSINESS PARK** **SLIGO**
AIRPORT ROAD
STRANDHILL
KILLASPUGBRONE
Free Standing (PPS6 Out of Town)
Out of Town
Total Number of Employees: 85
Survey date: THURSDAY *27/10/16* *Survey Type: MANUAL*

16 **DL-02-B-04** **BUSINESS PARK** **DUBLIN**
TANEY DRIVE
DUBLIN
DUNDRUM
Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Number of Employees: 612
Survey date: WEDNESDAY *12/09/12* *Survey Type: MANUAL*

17 **DL-02-B-06** **OFFICE PARK** **DUBLIN**
MAIN STREET
DUBLIN
DUNDRUM
Neighbourhood Centre (PPS6 Local Centre)
High Street
Total Number of Employees: 116
Survey date: WEDNESDAY *01/10/14* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

18 **DL-02-B-07** **BUSINESS PARK** **DUBLIN**
BURTON HALL AVENUE
DUBLIN
LEOPARDSTOWN
Edge of Town
Commercial Zone
Total Number of Employees: 192
Survey date: WEDNESDAY *01/10/14* *Survey Type: MANUAL*

19 **DL-02-B-08** **BUSINESS PARK** **DUBLIN**
OLD NAAS ROAD
DUBLIN
INCHICORE
Suburban Area (PPS6 Out of Centre)
Commercial Zone
Total Number of Employees: 134
Survey date: TUESDAY *05/09/17* *Survey Type: MANUAL*

20 **DN-02-B-02** **BUSINESS PARK** **DONEGAL**
N56
LETTERKENNY
KNOCKNAMONA
Edge of Town
No Sub Category
Total Number of Employees: 910
Survey date: MONDAY *29/09/14* *Survey Type: MANUAL*

21 **DV-02-B-01** **BUSINESS PARK** **DEVON**
MANATON CLOSE
EXETER
MATFORD BUSINESS PARK
Edge of Town
Commercial Zone
Total Number of Employees: 51
Survey date: WEDNESDAY *05/07/17* *Survey Type: MANUAL*

22 **FA-02-B-02** **BUSINESS PARK** **FALKIRK**
CALLENDAR BOULEVARD
FALKIRK
CALLENDAR PARK
Edge of Town
Commercial Zone
Total Number of Employees: 500
Survey date: FRIDAY *31/05/13* *Survey Type: MANUAL*

23 **FI-02-B-01** **BUSINESS PARK** **FIFE**
ENTERPRISE WAY
DUNFERMLINE
PITREAVIE
Edge of Town
Commercial Zone
Total Number of Employees: 364
Survey date: MONDAY *21/03/16* *Survey Type: MANUAL*

24 **GM-02-B-03** **BUSINESS PARK** **GREATER MANCHESTER**
CROSS STREET
SALE

Edge of Town
Industrial Zone
Total Number of Employees: 300
Survey date: TUESDAY *18/10/11* *Survey Type: MANUAL*

25 **GM-02-B-04** **BUSINESS PARK** **GREATER MANCHESTER**
SALMON FIELDS
OLDHAM

Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Number of Employees: 166
Survey date: THURSDAY *22/10/15* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

26 **HC-02-B-02** **BUSINESS PARK** **HAMPSHIRE**
WESTERN ROAD
PORTSMOUTH

Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Number of Employees: 2800
Survey date: FRIDAY *18/10/13* *Survey Type: MANUAL*

27 **HD-02-B-06** **BUSINESS PARK** **HILLINGDON**
WEST END ROAD
SOUTH RUISLIP

Edge of Town
No Sub Category
Total Number of Employees: 450
Survey date: THURSDAY *25/06/15* *Survey Type: MANUAL*

28 **HE-02-B-01** **BUSINESS PARK** **HEREFORDSHIRE**
A4103
NEAR HEREFORD
WHITESTONE
Neighbourhood Centre (PPS6 Local Centre)
Village
Total Number of Employees: 178
Survey date: TUESDAY *13/09/11* *Survey Type: MANUAL*

29 **HM-02-B-01** **BUSINESS PARK** **HAMMERSMITH AND FULHAM**
SULIVAN ROAD
FULHAM
HURLINGHAM
Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Number of Employees: 251
Survey date: THURSDAY *30/06/16* *Survey Type: MANUAL*

30 **HO-02-B-02** **BUSINESS PARK** **HOUNSLOW**
HANWORTH ROAD
LONDON
HOUNSLOW
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of Employees: 49
Survey date: FRIDAY *08/11/13* *Survey Type: MANUAL*

31 **LC-02-B-03** **BUSINESS PARK** **LANCASHIRE**
NAVIGATION WAY
PRESTON

Edge of Town
Commercial Zone
Total Number of Employees: 101
Survey date: TUESDAY *18/10/11* *Survey Type: MANUAL*

32 **LE-02-B-01** **BUSINESS PARK** **LEICESTERSHIRE**
NOTTINGHAM ROAD
MELTON MOWBRAY

Edge of Town Centre
Residential Zone
Total Number of Employees: 600
Survey date: MONDAY *28/11/16* *Survey Type: MANUAL*

33 **LN-02-B-02** **BUSINESS PARK** **LINCOLNSHIRE**
CARDINAL CLOSE
LINCOLN

Edge of Town
Industrial Zone
Total Number of Employees: 105
Survey date: THURSDAY *25/06/15* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

34 **LU-02-B-01** **BUSINESS PARK** **LOUTH**
N52
DUNDALK

Edge of Town
Commercial Zone
Total Number of Employees: 260
Survey date: FRIDAY *13/09/13* *Survey Type: MANUAL*

35 **NH-02-B-01** **BUSINESS PARK** **NEWHAM**
ROMFORD ROAD
STRATFORD

Town Centre
Built-Up Zone
Total Number of Employees: 310
Survey date: FRIDAY *15/11/13* *Survey Type: MANUAL*

36 **SC-02-B-03** **BUSINESS PARK** **SURREY**
A331
FRIMLEY

Edge of Town Centre
No Sub Category
Total Number of Employees: 500
Survey date: TUESDAY *27/11/12* *Survey Type: MANUAL*

37 **SH-02-B-04** **BUSINESS PARK** **SHROPSHIRE**
STAFFORD COURT
TELFORD

Edge of Town Centre
Commercial Zone
Total Number of Employees: 320
Survey date: THURSDAY *24/10/13* *Survey Type: MANUAL*

38 **ST-02-B-04** **BUSINESS PARK** **STAFFORDSHIRE**
STONE ROAD
STAFFORD

Edge of Town
Industrial Zone
Total Number of Employees: 1082
Survey date: WEDNESDAY *22/11/17* *Survey Type: MANUAL*

39 **TW-02-B-05** **BUSINESS PARK** **TYNE & WEAR**
MONARCH ROAD
NEWCASTLE

Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Number of Employees: 400
Survey date: FRIDAY *13/11/15* *Survey Type: MANUAL*

40 **WF-02-B-01** **BUSINESS PARK** **WALTHAM FOREST**
ARGALL WAY
WALTHAMSTOW

Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Number of Employees: 60
Survey date: MONDAY *06/11/17* *Survey Type: MANUAL*

41 **WG-02-B-02** **BUSINESS PARK** **WOKINGHAM**
WHARFEDALE ROAD
READING
WINNERSH
Edge of Town
Development Zone
Total Number of Employees: 210
Survey date: FRIDAY *20/11/15* *Survey Type: MANUAL*

42 **WM-02-B-02** **BUSINESS PARK** **WEST MIDLANDS**
PARADISE WAY
COVENTRY

Edge of Town
Development Zone
Total Number of Employees: 1300
Survey date: FRIDAY *11/11/16* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

43 **WY-02-B-01** **BUSINESS PARK** **WEST YORKSHIRE**
ROSEVILLE ROAD
LEEDS

Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Number of Employees: 120
Survey date: FRIDAY *20/09/13* *Survey Type: MANUAL*

44 **WY-02-B-02** **BUSINESS PARK** **WEST YORKSHIRE**
ARMITAGE BRIDGE
HUDDERSFIELD

Edge of Town
No Sub Category
Total Number of Employees: 116
Survey date: WEDNESDAY *23/04/14* *Survey Type: MANUAL*

45 **WY-02-B-03** **BUSINESS PARK** **WEST YORKSHIRE**
SCRIFTAN LANE
WETHERBY
KIRK DEIGHTON
Neighbourhood Centre (PPS6 Local Centre)
Village
Total Number of Employees: 56
Survey date: THURSDAY *15/09/16* *Survey Type: MANUAL*

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

RANK ORDER for Land Use 02 - EMPLOYMENT/B - BUSINESS PARK

VEHICLES

Ranking Type: **TOTALS** Time Range: 17:00-18:00
15th Percentile = No. **38** GM-02-B-03 Tot: 0.193
85th Percentile = No. **8** AN-02-B-04 Tot: 0.510

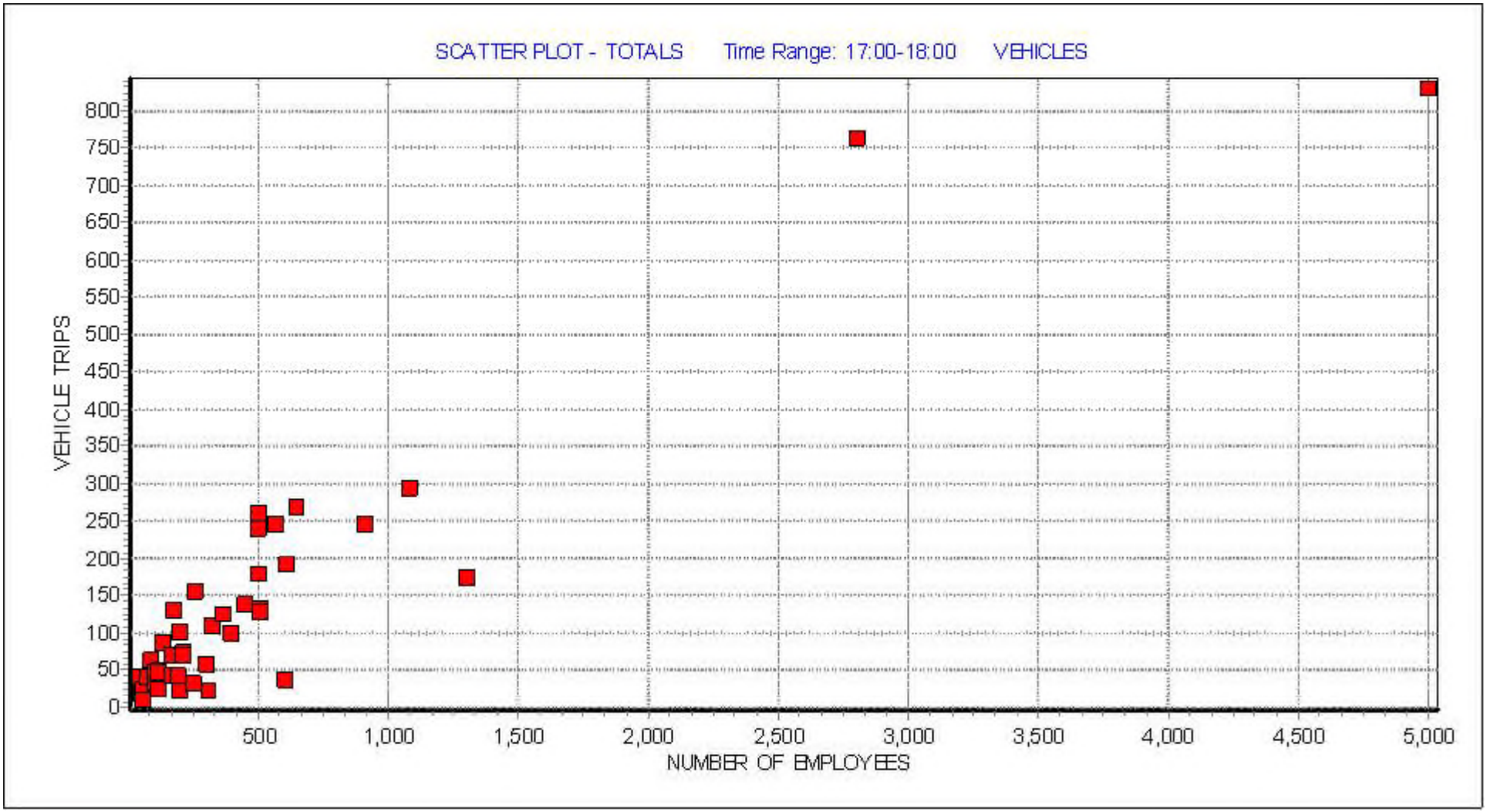
Median Values		Mean Values	
Arrivals:	0.027	Arrivals:	0.054
Departures:	0.319	Departures:	0.311
Totals:	0.346	Totals:	0.364

Rank	Site-Ref	Description	Town/City	Area	EMPLOY	Day	Date	Trip Rate (Sorted by Totals)		
								Arrivals	Departures	Totals
1	CF-02-B-04	BUSINESS PARK	CARDIFF	CARDIFF	47	Fri	05/05/17	0.277	0.596	0.873
2	CS-02-B-01	BUSINESS PARK	STRANDHILL	SLIGO	85	Thu	27/10/16	0.200	0.565	0.765
3	HE-02-B-01	BUSINESS PARK	NEAR HEREFORD	HEREFORDSHIRE	178	Tue	13/09/11	0.084	0.652	0.736
4	DL-02-B-08	BUSINESS PARK	DUBLIN	DUBLIN	134	Tue	05/09/17	0.269	0.388	0.657
5	LU-02-B-01	BUSINESS PARK	DUNDALK	LOUTH	260	Fri	13/09/13	0.092	0.508	0.600
6	AN-02-B-03	BUSINESS PARK	BELFAST	ANTRIM	72	Thu	19/10/17	0.028	0.528	0.556
7	SC-02-B-03	BUSINESS PARK	FRIMLEY	SURREY	500	Tue	27/11/12	0.056	0.468	0.524
8	**AN-02-B-04**	**BUSINESS PARK**	**BELFAST**	**ANTRIM**	**198**	**Thu**	**19/10/17**	**0.045**	**0.465**	**0.510**
9	CH-02-B-01	BUSINESS PARK	MACCLESFIELD	CHESHIRE	44	Mon	19/09/16	0.023	0.477	0.500
10	CP-02-B-01	BUSINESS PARK	CAERPHILLY	CAERPHILLY	500	Tue	17/07/12	0.110	0.370	0.480
11	LN-02-B-02	BUSINESS PARK	LINCOLN	LINCOLNSHIRE	105	Thu	25/06/15	0.095	0.362	0.457
12	WY-02-B-03	BUSINESS PARK	WETHERBY	WEST YORKSHIRE	56	Thu	15/09/16	0.143	0.304	0.447
13	DL-02-B-06	OFFICE PARK	DUBLIN	DUBLIN	116	Wed	01/10/14	0.103	0.336	0.439
14	CF-02-B-05	BUSINESS PARK	CARDIFF	CARDIFF	565	Wed	05/10/16	0.019	0.414	0.433
15	HO-02-B-02	BUSINESS PARK	LONDON	HOUNSLOW	49	Fri	08/11/13	0.082	0.347	0.429
16	GM-02-B-04	BUSINESS PARK	OLDHAM	GREATER MANCHESTER	166	Thu	22/10/15	0.042	0.386	0.428
17	CR-02-B-01	TECHNOLOGY CEN	CORK	CORK	650	Thu	19/06/14	0.082	0.332	0.414
18	WY-02-B-01	BUSINESS PARK	LEEDS	WEST YORKSHIRE	120	Fri	20/09/13	0.033	0.375	0.408
19	DV-02-B-01	BUSINESS PARK	EXETER	DEVON	51	Wed	05/07/17	0.020	0.373	0.393
20	WG-02-B-02	BUSINESS PARK	READING	WOKINGHAM	210	Fri	20/11/15	0.052	0.305	0.357
21	FA-02-B-02	BUSINESS PARK	FALKIRK	FALKIRK	500	Fri	31/05/13	0.034	0.322	0.356
22	SH-02-B-04	BUSINESS PARK	TELFORD	SHROPSHIRE	320	Thu	24/10/13	0.019	0.328	0.347
23	FI-02-B-01	BUSINESS PARK	DUNFERMLINE	FIFE	364	Mon	21/03/16	0.027	0.319	0.346
24	AN-02-B-01	BUSINESS PARK	BELFAST	ANTRIM	210	Thu	27/11/14	0.014	0.329	0.343
25	LC-02-B-03	BUSINESS PARK	PRESTON	LANCASHIRE	101	Tue	18/10/11	0.020	0.317	0.337
26	DL-02-B-04	BUSINESS PARK	DUBLIN	DUBLIN	612	Wed	12/09/12	0.047	0.268	0.315
27	BK-02-B-01	BUSINESS PARK	DAGENHAM	BARKING	55	Mon	06/10/14	0.036	0.273	0.309
28	HD-02-B-06	BUSINESS PARK	SOUTH RUISLIP	HILLINGDON	450	Thu	25/06/15	0.009	0.298	0.307
29	HC-02-B-02	BUSINESS PARK	PORTSMOUTH	HAMPSHIRE	2800	Fri	18/10/13	0.024	0.249	0.273
30	ST-02-B-04	BUSINESS PARK	STAFFORD	STAFFORDSHIRE	1082	Wed	22/11/17	0.018	0.254	0.272
31	DN-02-B-02	BUSINESS PARK	LETTERKENNY	DONEGAL	910	Mon	29/09/14	0.035	0.234	0.269
32	CF-02-B-03	BUSINESS PARK	CARDIFF	CARDIFF	506	Mon	18/10/10	0.008	0.255	0.263
33	AN-02-B-05	BUSINESS PARK	BELFAST	ANTRIM	169	Thu	19/10/17	0.018	0.237	0.255
34	CA-02-B-02	BUSINESS PARK	PETERBOROUGH	CAMBRIDGESHIRE	510	Wed	19/10/16	0.029	0.222	0.251
35	TW-02-B-05	BUSINESS PARK	NEWCASTLE	TYNE & WEAR	400	Fri	13/11/15	0.025	0.222	0.247
36	DL-02-B-07	BUSINESS PARK	DUBLIN	DUBLIN	192	Wed	01/10/14	0.010	0.219	0.229
37	WY-02-B-02	BUSINESS PARK	HUDDERSFIELD	WEST YORKSHIRE	116	Wed	23/04/14	0.060	0.164	0.224
38	**GM-02-B-03**	**BUSINESS PARK**	**SALE**	**GREATER MANCHESTER**	**300**	**Tue**	**18/10/11**	**0.030**	**0.163**	**0.193**
39	WF-02-B-01	BUSINESS PARK	WALTHAMSTOW	WALTHAM FOREST	60	Mon	06/11/17	0.033	0.133	0.166

Rank	Site-Ref	Description	Town/City	Area	EMPLOY	Day	Date	Trip Rate (Sorted by Totals)		
								Arrivals	Departures	Totals
40	CA-02-B-03	SCIENCE PARK	CAMBRIDGE	CAMBRIDGESHIRE	5000	Fri	06/10/17	0.010	0.156	0.166
41	HM-02-B-01	BUSINESS PARK	FULHAM	HAMMERSMITH AND FUL	251	Thu	30/06/16	0.016	0.120	0.136
42	WM-02-B-02	BUSINESS PARK	COVENTRY	WEST MIDLANDS	1300	Fri	11/11/16	0.012	0.121	0.133
43	AN-02-B-02	BUSINESS PARK	BELFAST	ANTRIM	198	Wed	12/10/16	0.000	0.111	0.111
44	NH-02-B-01	BUSINESS PARK	STRATFORD	NEWHAM	310	Fri	15/11/13	0.019	0.058	0.077
45	LE-02-B-01	BUSINESS PARK	MELTON MOWBRAY	LEICESTERSHIRE	600	Mon	28/11/16	0.008	0.055	0.063

This section displays actual (not average) trip rates for each of the survey days in the selected set, and ranks them in order of relative trip rate intensity, for a given time period (or peak period irrespective of time) selected by the user. The count type and direction are both displayed just above the table, along with the rows within the table representing the 85th and 15th percentile trip rate figures (highlighted in bold within the table itself).

The table itself displays details of each individual survey, alongside arrivals, departures and totals trip rates, sorted by whichever of the three directional options has been chosen by the user. As with the preceeding trip rate calculation results table, the trip rates shown are per the calculation factor (e.g. per 100m2 GFA, per employee, per hectare, etc). Note that if the peak period option has been selected (as opposed to a specific chosen time period), the peak period for each individual survey day in the table is also displayed.



This graph is a visual representation of the correlation between the selected trip rate calculation parameter and the rank order trip rates generated by each individual survey day in the selected set. The range of the trip rate parameter is shown along the x axis, with the level of trips shown on the y axis. The selected time range used to create the rank order list from which the graph is derived is displayed at the top of the graph (unless the peak period irrespective of time range has been selected). A line of best fit is sometimes displayed in the graph, should it be selected for inclusion by the user.

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : D - INDUSTRIAL ESTATE

VEHICLES

Selected regions and areas:

01	**GREATER LONDON**		
	EG	EALING	1 days
	HD	HILLINGDON	1 days
	HO	HOUNSLOW	1 days
	HV	HAVERING	1 days
02	**SOUTH EAST**		
	ES	EAST SUSSEX	2 days
	EX	ESSEX	1 days
	KC	KENT	1 days
	WG	WOKINGHAM	1 days
03	**SOUTH WEST**		
	BR	BRISTOL CITY	2 days
	DV	DEVON	2 days
	WL	WILTSHIRE	1 days
04	**EAST ANGLIA**		
	CA	CAMBRIDGESHIRE	1 days
	NF	NORFOLK	1 days
05	**EAST MIDLANDS**		
	NR	NORTHAMPTONSHIRE	1 days
06	**WEST MIDLANDS**		
	HE	HEREFORDSHIRE	1 days
	WM	WEST MIDLANDS	2 days
	WO	WORCESTERSHIRE	2 days
07	**YORKSHIRE & NORTH LINCOLNSHIRE**		
	WY	WEST YORKSHIRE	5 days
08	**NORTH WEST**		
	GM	GREATER MANCHESTER	1 days
	LC	LANCASHIRE	2 days
09	**NORTH**		
	TW	TYNE & WEAR	2 days
10	**WALES**		
	CM	CARMARTHENSHIRE	1 days
	VG	VALE OF GLAMORGAN	1 days
11	**SCOTLAND**		
	AG	ANGUS	1 days
	FA	FALKIRK	2 days
	FI	FIFE	1 days
13	**MUNSTER**		
	TI	TIPPERARY	1 days
15	**GREATER DUBLIN**		
	DL	DUBLIN	1 days
16	**ULSTER (REPUBLIC OF IRELAND)**		
	MG	MONAGHAN	1 days
17	**ULSTER (NORTHERN IRELAND)**		
	AR	ARMAGH	1 days

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

Secondary Filtering selection:

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

Parameter:	Number of Employees
Actual Range:	15 to 875 (units:)
Range Selected by User:	0 to 5068 (units:)

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/10 to 28/11/17

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

Selected survey days:

Monday	8 days
Tuesday	13 days
Wednesday	3 days
Thursday	9 days
Friday	9 days

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

Selected survey types:

Manual count	42 days
Directional ATC Count	0 days

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

Selected Locations:

Edge of Town Centre	5
Suburban Area (PPS6 Out of Centre)	15
Edge of Town	22

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Industrial Zone	17
Commercial Zone	2
Development Zone	2
Residential Zone	13
Retail Zone	1
No Sub Category	7

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

Secondary Filtering selection:

Use Class:

Not Known	2 days
B1	13 days
B2	19 days
B8	4 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 1 mile:

1,000 or Less	1 days
1,001 to 5,000	3 days
5,001 to 10,000	9 days
10,001 to 15,000	4 days
15,001 to 20,000	6 days
20,001 to 25,000	6 days
25,001 to 50,000	11 days
50,001 to 100,000	2 days

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

Secondary Filtering selection (Cont.):

Population within 5 miles:

5,000 or Less	1 days
5,001 to 25,000	2 days
25,001 to 50,000	5 days
50,001 to 75,000	2 days
75,001 to 100,000	2 days
100,001 to 125,000	4 days
125,001 to 250,000	14 days
250,001 to 500,000	9 days
500,001 or More	3 days

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

Car ownership within 5 miles:

0.6 to 1.0	19 days
1.1 to 1.5	20 days
1.6 to 2.0	3 days

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

Travel Plan:

Yes	1 days
No	41 days

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

PTAL Rating:

No PTAL Present	38 days
1b Very poor	1 days
2 Poor	3 days

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

LIST OF SITES relevant to selection parameters

1 **AG-02-D-02** **INDUSTRIAL ESTATE** **ANGUS**
A933 WESTWAY
ARBROATH
HOSPITALFIELD
Edge of Town
No Sub Category
Total Number of Employees: 875
Survey date: TUESDAY *25/04/17* *Survey Type: MANUAL*

2 **AR-02-D-01** **INDUSTRIAL ESTATE** **ARMAGH**
HAMILTONSBAWN ROAD
ARMAGH

Edge of Town
No Sub Category
Total Number of Employees: 139
Survey date: TUESDAY *08/06/10* *Survey Type: MANUAL*

3 **BR-02-D-04** **INDUSTRIAL ESTATE** **BRISTOL CITY**
CROFTS END ROAD
BRISTOL
SPEEDWELL
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Number of Employees: 59
Survey date: FRIDAY *29/11/13* *Survey Type: MANUAL*

4 **BR-02-D-05** **INDUSTRIAL ESTATE** **BRISTOL CITY**
NOVERS HILL
BRISTOL
BEDMINSTER
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Number of Employees: 97
Survey date: FRIDAY *29/11/13* *Survey Type: MANUAL*

5 **CA-02-D-04** **INDUSTRIAL ESTATE** **CAMBRIDGESHIRE**
LINCOLN ROAD
PETERBOROUGH

Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Number of Employees: 40
Survey date: TUESDAY *02/12/14* *Survey Type: MANUAL*

6 **CM-02-D-03** **WORKSHOPS** **CARMARTHENSHIRE**
PARK STREET
AMMANFORD
BETWS
Edge of Town Centre
No Sub Category
Total Number of Employees: 59
Survey date: TUESDAY *14/10/14* *Survey Type: MANUAL*

7 **DL-02-D-04** **INDUSTRIAL ESTATE** **DUBLIN**
CLOVER HILL ROAD
DUBLIN
CLONDALKIN
Edge of Town
Industrial Zone
Total Number of Employees: 180
Survey date: MONDAY *19/10/15* *Survey Type: MANUAL*

8 **DV-02-D-06** **INDUSTRIAL ESTATE** **DEVON**
ST MODWEN ROAD
PLYMOUTH

Edge of Town
Industrial Zone
Total Number of Employees: 50
Survey date: TUESDAY *17/07/12* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

9 **DV-02-D-07** **INDUSTRIAL ESTATE** **DEVON**
BITTERN ROAD
EXETER
SOWTON IND. ESTATE
Edge of Town
Industrial Zone
Total Number of Employees: 77
Survey date: MONDAY *03/07/17* *Survey Type: MANUAL*

10 **EG-02-D-02** **INDUSTRIAL ESTATE** **EALING**
BELVUE ROAD
NORTHOLT

Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Number of Employees: 141
Survey date: WEDNESDAY *05/12/12* *Survey Type: MANUAL*

11 **ES-02-D-06** **INDUSTRIAL ESTATE** **EAST SUSSEX**
COURTLANDS ROAD
EASTBOURNE

Edge of Town
Residential Zone
Total Number of Employees: 330
Survey date: MONDAY *21/10/13* *Survey Type: MANUAL*

12 **ES-02-D-07** **INDUSTRIAL ESTATE** **EAST SUSSEX**
HUGHES ROAD
BRIGHTON

Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Number of Employees: 130
Survey date: THURSDAY *16/10/14* *Survey Type: MANUAL*

13 **EX-02-D-02** **INDUSTRIAL ESTATE** **ESSEX**
CHELMSFORD ROAD
DUNMOW

Edge of Town Centre
Residential Zone
Total Number of Employees: 182
Survey date: FRIDAY *08/07/16* *Survey Type: MANUAL*

14 **FA-02-D-02** **INDUSTRIAL ESTATE** **FALKIRK**
MAIN STREET
FALKIRK
GRAHAMSTON
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of Employees: 115
Survey date: THURSDAY *30/05/13* *Survey Type: MANUAL*

15 **FA-02-D-03** **INDUSTRIAL ESTATE** **FALKIRK**
LADYSMILL
FALKIRK

Edge of Town Centre
Commercial Zone
Total Number of Employees: 15
Survey date: FRIDAY *31/05/13* *Survey Type: MANUAL*

16 **FI-02-D-01** **INDUSTRIAL ESTATE** **FIFE**
DICKSON STREET
DUNFERMLINE

Edge of Town
Residential Zone
Total Number of Employees: 160
Survey date: THURSDAY *21/05/15* *Survey Type: MANUAL*

17 **GM-02-D-07** **BUSINESS PARK** **GREATER MANCHESTER**
VULCAN STREET
OLDHAM

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of Employees: 74
Survey date: THURSDAY *22/10/15* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

18 **HD-02-D-02** **INDUSTRIAL ESTATE** **HILLINGDON**
BRADFIELD ROAD
RUISLIP
SOUTH RUISLIP
Edge of Town
Industrial Zone
Total Number of Employees: 200
Survey date: THURSDAY *25/06/15* *Survey Type: MANUAL*

19 **HE-02-D-02** **BUSINESS PARK** **HEREFORDSHIRE**
BURCOTT ROAD
HEREFORD

Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Number of Employees: 67
Survey date: TUESDAY *22/10/13* *Survey Type: MANUAL*

20 **HO-02-D-01** **INDUSTRIAL ESTATE** **HOUNSLOW**
HAMPTON ROAD WEST
FELTHAM
HANWORTH
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Number of Employees: 59
Survey date: THURSDAY *25/06/15* *Survey Type: MANUAL*

21 **HV-02-D-01** **INDUSTRIAL ESTATE** **HAVERING**
CHURCH ROAD
ROMFORD
HAROLD WOOD
Edge of Town
Residential Zone
Total Number of Employees: 275
Survey date: TUESDAY *07/10/14* *Survey Type: MANUAL*

22 **KC-02-D-02** **INDUSTRIAL ESTATE** **KENT**
SOUTHWELL ROAD
DEAL

Edge of Town
Residential Zone
Total Number of Employees: 150
Survey date: WEDNESDAY *28/11/12* *Survey Type: MANUAL*

23 **LC-02-D-05** **INDUSTRIAL ESTATE** **LANCASHIRE**
APPLEBY STREET
BLACKBURN

Edge of Town Centre
Industrial Zone
Total Number of Employees: 63
Survey date: TUESDAY *04/06/13* *Survey Type: MANUAL*

24 **LC-02-D-06** **INDUSTRIAL ESTATE** **LANCASHIRE**
SMALLSHAW LANE
BURNLEY

Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Number of Employees: 54
Survey date: THURSDAY *29/09/16* *Survey Type: MANUAL*

25 **MG-02-D-01** **INDUSTRIAL ESTATE** **MONAGHAN**
DUNDALK ROAD
CARRICKMACROSS

Edge of Town Centre
No Sub Category
Total Number of Employees: 76
Survey date: FRIDAY *07/12/12* *Survey Type: MANUAL*

26 **NF-02-D-03** **INDUSTRIAL ESTATE** **NORFOLK**
BIDEWELL CLOSE
NORWICH

Edge of Town
Residential Zone
Total Number of Employees: 45
Survey date: MONDAY *08/10/12* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

27 **NR-02-D-01** **INDUSTRIAL ESTATE** **NORTHAMPTONSHIRE**
ROBINSON WAY
KETTERING

Edge of Town
Industrial Zone
Total Number of Employees: 300
Survey date: THURSDAY *23/10/14* *Survey Type: MANUAL*

28 **TI-02-D-01** **INDUSTRIAL ESTATE** **TIPPERARY**
LIMERICK ROAD
NENAGH

Edge of Town
Retail Zone
Total Number of Employees: 161
Survey date: FRIDAY *27/05/16* *Survey Type: MANUAL*

29 **TW-02-D-07** **INDUSTRIAL ESTATE** **TYNE & WEAR**
SWALWELL BANK
GATESHEAD
WHICKHAM
Edge of Town
Residential Zone
Total Number of Employees: 130
Survey date: FRIDAY *04/10/13* *Survey Type: MANUAL*

30 **TW-02-D-08** **INDUSTRIAL ESTATE** **TYNE & WEAR**
NORTH HYLTON ROAD
SUNDERLAND
SOUTHWICK
Suburban Area (PPS6 Out of Centre)
Development Zone
Total Number of Employees: 180
Survey date: TUESDAY *04/04/17* *Survey Type: MANUAL*

31 **VG-02-D-01** **INDUSTRIAL ESTATE** **VALE OF GLAMORGAN**
ARTHUR STREET
BARRY

Edge of Town
No Sub Category
Total Number of Employees: 180
Survey date: MONDAY *08/05/17* *Survey Type: MANUAL*

32 **WG-02-D-01** **INDUSTRIAL ESTATE** **WOKINGHAM**
FISHPONDS ROAD
WOKINGHAM

Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Number of Employees: 77
Survey date: TUESDAY *20/11/12* *Survey Type: MANUAL*

33 **WL-02-D-02** **INDUSTRIAL ESTATE** **WILTSHIRE**
HEADLANDS GROVE
SWINDON

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of Employees: 118
Survey date: TUESDAY *20/09/16* *Survey Type: MANUAL*

34 **WM-02-D-02** **INDUSTRIAL ESTATE** **WEST MIDLANDS**
DUNLOP WAY
BIRMINGHAM

Edge of Town
Residential Zone
Total Number of Employees: 347
Survey date: WEDNESDAY *07/11/12* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

35 **WM-02-D-03** **INDUSTRIAL ESTATE** **WEST MIDLANDS**
JUNCTION ROAD
STOURBRIDGE
AUDNAM
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of Employees: 35
Survey date: TUESDAY *28/11/17* *Survey Type: MANUAL*

36 **WO-02-D-01** **INDUSTRIAL ESTATE** **WORCESTERSHIRE**
SANDY LANE
STOURPORT-ON-SEVERN

Edge of Town
Commercial Zone
Total Number of Employees: 19
Survey date: FRIDAY *23/05/14* *Survey Type: MANUAL*

37 **WO-02-D-02** **INDUSTRIAL ESTATE** **WORCESTERSHIRE**
WEIR LANE
WORCESTER

Edge of Town
Residential Zone
Total Number of Employees: 150
Survey date: MONDAY *14/11/16* *Survey Type: MANUAL*

38 **WY-02-D-03** **INDUSTRIAL ESTATE** **WEST YORKSHIRE**
ARMLEY ROAD
LEEDS

Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Number of Employees: 192
Survey date: FRIDAY *20/09/13* *Survey Type: MANUAL*

39 **WY-02-D-04** **INDUSTRIAL ESTATE** **WEST YORKSHIRE**
LAW STREET
CLECKHEATON

Edge of Town
Industrial Zone
Total Number of Employees: 54
Survey date: THURSDAY *15/09/16* *Survey Type: MANUAL*

40 **WY-02-D-05** **INDUSTRIAL ESTATE** **WEST YORKSHIRE**
CARR WOOD ROAD
CASTLEFORD

Edge of Town
Development Zone
Total Number of Employees: 20
Survey date: MONDAY *22/05/17* *Survey Type: MANUAL*

41 **WY-02-D-06** **INDUSTRIAL ESTATE (PART)** **WEST YORKSHIRE**
PIONEER WAY
CASTLEFORD

Edge of Town
Industrial Zone
Total Number of Employees: 23
Survey date: TUESDAY *23/05/17* *Survey Type: MANUAL*

42 **WY-02-D-07** **INDUSTRIAL ESTATE** **WEST YORKSHIRE**
THUNDERHEAD RIDGE RD
CASTLEFORD
GLASSHOUGHTON
Edge of Town
No Sub Category
Total Number of Employees: 61
Survey date: MONDAY *15/05/17* *Survey Type: MANUAL*

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

RANK ORDER for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE

VEHICLES

Ranking Type: **TOTALS** Time Range: 08:00-09:00
15th Percentile = No. **36** ES-02-D-06 Tot: 0.257
85th Percentile = No. **7** DV-02-D-06 Tot: 1.000

Median Values		Mean Values	
Arrivals:	0.443	Arrivals:	0.432
Departures:	0.137	Departures:	0.229
Totals:	0.580	Totals:	0.661

Rank	Site-Ref	Description	Town/City	Area	EMPLOY	Day	Date	Trip Rate (Sorted by Totals)		
								Arrivals	Departures	Totals
1	HO-02-D-01	INDUSTRIAL EST	FELTHAM	HOUNSLOW	59	Thu	25/06/15	1.085	1.034	2.119
2	WY-02-D-07	INDUSTRIAL EST	CASTLEFORD	WEST YORKSHIRE	61	Mon	15/05/17	1.000	0.738	1.738
3	HD-02-D-02	INDUSTRIAL EST	RUISLIP	HILLINGDON	200	Thu	25/06/15	0.915	0.565	1.480
4	CA-02-D-04	INDUSTRIAL EST	PETERBOROUGH	CAMBRIDGESHIRE	40	Tue	02/12/14	0.825	0.525	1.350
5	WY-02-D-05	INDUSTRIAL EST	CASTLEFORD	WEST YORKSHIRE	20	Mon	22/05/17	0.800	0.500	1.300
6	FA-02-D-02	INDUSTRIAL EST	FALKIRK	FALKIRK	115	Thu	30/05/13	0.678	0.539	1.217
7	**DV-02-D-06**	**INDUSTRIAL EST**	**PLYMOUTH**	**DEVON**	**50**	**Tue**	**17/07/12**	**0.700**	**0.300**	**1.000**
8	MG-02-D-01	INDUSTRIAL EST	CARRICKMACROSS	MONAGHAN	76	Fri	07/12/12	0.553	0.382	0.935
9	WO-02-D-01	INDUSTRIAL EST	STOURPORT-ON-SEVERN	WORCESTERSHIRE	19	Fri	23/05/14	0.368	0.526	0.894
10	WY-02-D-06	INDUSTRIAL EST	CASTLEFORD	WEST YORKSHIRE	23	Tue	23/05/17	0.652	0.217	0.869
11	ES-02-D-07	INDUSTRIAL EST	BRIGHTON	EAST SUSSEX	130	Thu	16/10/14	0.508	0.285	0.793
12	DV-02-D-07	INDUSTRIAL EST	EXETER	DEVON	77	Mon	03/07/17	0.390	0.377	0.767
13	CM-02-D-03	WORKSHOPS	AMMANFORD	CARMARTHENSHIRE	59	Tue	14/10/14	0.475	0.271	0.746
14	VG-02-D-01	INDUSTRIAL EST	BARRY	VALE OF GLAMORGAN	180	Mon	08/05/17	0.511	0.178	0.689
15	BR-02-D-04	INDUSTRIAL EST	BRISTOL	BRISTOL CITY	59	Fri	29/11/13	0.678	0.000	0.678
16	DL-02-D-04	INDUSTRIAL EST	DUBLIN	DUBLIN	180	Mon	19/10/15	0.567	0.111	0.678
17	BR-02-D-05	INDUSTRIAL EST	BRISTOL	BRISTOL CITY	97	Fri	29/11/13	0.402	0.268	0.670
18	NF-02-D-03	INDUSTRIAL EST	NORWICH	NORFOLK	45	Mon	08/10/12	0.200	0.467	0.667
19	HE-02-D-02	BUSINESS PARK	HEREFORD	HEREFORDSHIRE	67	Tue	22/10/13	0.373	0.254	0.627
20	EG-02-D-02	INDUSTRIAL EST	NORTHOLT	EALING	141	Wed	05/12/12	0.624	0.000	0.624
21	WL-02-D-02	INDUSTRIAL EST	SWINDON	WILTSHIRE	118	Tue	20/09/16	0.441	0.169	0.610
22	HV-02-D-01	INDUSTRIAL EST	ROMFORD	HAVERING	275	Tue	07/10/14	0.444	0.105	0.549
23	WY-02-D-03	INDUSTRIAL EST	LEEDS	WEST YORKSHIRE	192	Fri	20/09/13	0.365	0.167	0.532
24	NR-02-D-01	INDUSTRIAL EST	KETTERING	NORTHAMPTONSHIRE	300	Thu	23/10/14	0.263	0.240	0.503
25	LC-02-D-06	INDUSTRIAL EST	BURNLEY	LANCASHIRE	54	Thu	29/09/16	0.463	0.037	0.500
26	WG-02-D-01	INDUSTRIAL EST	WOKINGHAM	WOKINGHAM	77	Tue	20/11/12	0.416	0.078	0.494
27	AR-02-D-01	INDUSTRIAL EST	ARMAGH	ARMAGH	139	Tue	08/06/10	0.360	0.101	0.461
28	FI-02-D-01	INDUSTRIAL EST	DUNFERMLINE	FIFE	160	Thu	21/05/15	0.300	0.138	0.438
29	TI-02-D-01	INDUSTRIAL EST	NENAGH	TIPPERARY	161	Fri	27/05/16	0.286	0.112	0.398
30	TW-02-D-07	INDUSTRIAL EST	GATESHEAD	TYNE & WEAR	130	Fri	04/10/13	0.238	0.138	0.376
31	WM-02-D-03	INDUSTRIAL EST	STOURBRIDGE	WEST MIDLANDS	35	Tue	28/11/17	0.371	0.000	0.371
32	EX-02-D-02	INDUSTRIAL EST	DUNMOW	ESSEX	182	Fri	08/07/16	0.269	0.088	0.357
33	WO-02-D-02	INDUSTRIAL EST	WORCESTER	WORCESTERSHIRE	150	Mon	14/11/16	0.227	0.087	0.314
34	WM-02-D-02	INDUSTRIAL EST	BIRMINGHAM	WEST MIDLANDS	347	Wed	07/11/12	0.210	0.101	0.311
35	AG-02-D-02	INDUSTRIAL EST	ARBROATH	ANGUS	875	Tue	25/04/17	0.150	0.113	0.263
36	**ES-02-D-06**	**INDUSTRIAL EST**	**EASTBOURNE**	**EAST SUSSEX**	**330**	**Mon**	**21/10/13**	**0.215**	**0.042**	**0.257**
37	WY-02-D-04	INDUSTRIAL EST	CLECKHEATON	WEST YORKSHIRE	54	Thu	15/09/16	0.185	0.056	0.241
38	LC-02-D-05	INDUSTRIAL EST	BLACKBURN	LANCASHIRE	63	Tue	04/06/13	0.143	0.079	0.222
39	GM-02-D-07	BUSINESS PARK	OLDHAM	GREATER MANCHESTER	74	Thu	22/10/15	0.162	0.054	0.216

Rank	Site-Ref	Description	Town/City	Area	EMPLOY	Day	Date	Trip Rate (Sorted by Totals)		
								Arrivals	Departures	Totals
40	KC-02-D-02	INDUSTRIAL EST	DEAL	KENT	150	Wed	28/11/12	0.167	0.033	0.200
41	FA-02-D-03	INDUSTRIAL EST	FALKIRK	FALKIRK	15	Fri	31/05/13	0.067	0.133	0.200
42	TW-02-D-08	INDUSTRIAL EST	SUNDERLAND	TYNE & WEAR	180	Tue	04/04/17	0.089	0.028	0.117

This section displays actual (not average) trip rates for each of the survey days in the selected set, and ranks them in order of relative trip rate intensity, for a given time period (or peak period irrespective of time) selected by the user. The count type and direction are both displayed just above the table, along with the rows within the table representing the 85th and 15th percentile trip rate figures (highlighted in bold within the table itself).

The table itself displays details of each individual survey, alongside arrivals, departures and totals trip rates, sorted by whichever of the three directional options has been chosen by the user. As with the preceeding trip rate calculation results table, the trip rates shown are per the calculation factor (e.g. per 100m2 GFA, per employee, per hectare, etc). Note that if the peak period option has been selected (as opposed to a specific chosen time period), the peak period for each individual survey day in the table is also displayed.

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : D - INDUSTRIAL ESTATE

VEHICLES

Selected regions and areas:

01	**GREATER LONDON**		
	EG	EALING	1 days
	HD	HILLINGDON	1 days
	HO	HOUNSLOW	1 days
	HV	HAVERING	1 days
02	**SOUTH EAST**		
	ES	EAST SUSSEX	2 days
	EX	ESSEX	1 days
	KC	KENT	1 days
	WG	WOKINGHAM	1 days
03	**SOUTH WEST**		
	BR	BRISTOL CITY	2 days
	DV	DEVON	2 days
	WL	WILTSHIRE	1 days
04	**EAST ANGLIA**		
	CA	CAMBRIDGESHIRE	1 days
	NF	NORFOLK	1 days
05	**EAST MIDLANDS**		
	NR	NORTHAMPTONSHIRE	1 days
06	**WEST MIDLANDS**		
	HE	HEREFORDSHIRE	1 days
	WM	WEST MIDLANDS	2 days
	WO	WORCESTERSHIRE	2 days
07	**YORKSHIRE & NORTH LINCOLNSHIRE**		
	WY	WEST YORKSHIRE	5 days
08	**NORTH WEST**		
	GM	GREATER MANCHESTER	1 days
	LC	LANCASHIRE	2 days
09	**NORTH**		
	TW	TYNE & WEAR	2 days
10	**WALES**		
	CM	CARMARTHENSHIRE	1 days
	VG	VALE OF GLAMORGAN	1 days
11	**SCOTLAND**		
	AG	ANGUS	1 days
	FA	FALKIRK	2 days
	FI	FIFE	1 days
13	**MUNSTER**		
	TI	TIPPERARY	1 days
15	**GREATER DUBLIN**		
	DL	DUBLIN	1 days
16	**ULSTER (REPUBLIC OF IRELAND)**		
	MG	MONAGHAN	1 days
17	**ULSTER (NORTHERN IRELAND)**		
	AR	ARMAGH	1 days

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

Secondary Filtering selection:

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

Parameter:	Number of Employees
Actual Range:	15 to 875 (units:)
Range Selected by User:	0 to 5068 (units:)

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/10 to 28/11/17

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

Selected survey days:

Monday	8 days
Tuesday	13 days
Wednesday	3 days
Thursday	9 days
Friday	9 days

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

Selected survey types:

Manual count	42 days
Directional ATC Count	0 days

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

Selected Locations:

Edge of Town Centre	5
Suburban Area (PPS6 Out of Centre)	15
Edge of Town	22

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Industrial Zone	17
Commercial Zone	2
Development Zone	2
Residential Zone	13
Retail Zone	1
No Sub Category	7

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

Secondary Filtering selection:

Use Class:

Not Known	2 days
B1	13 days
B2	19 days
B8	4 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 1 mile:

1,000 or Less	1 days
1,001 to 5,000	3 days
5,001 to 10,000	9 days
10,001 to 15,000	4 days
15,001 to 20,000	6 days
20,001 to 25,000	6 days
25,001 to 50,000	11 days
50,001 to 100,000	2 days

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

Secondary Filtering selection (Cont.):

Population within 5 miles:

5,000 or Less	1 days
5,001 to 25,000	2 days
25,001 to 50,000	5 days
50,001 to 75,000	2 days
75,001 to 100,000	2 days
100,001 to 125,000	4 days
125,001 to 250,000	14 days
250,001 to 500,000	9 days
500,001 or More	3 days

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

Car ownership within 5 miles:

0.6 to 1.0	19 days
1.1 to 1.5	20 days
1.6 to 2.0	3 days

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

Travel Plan:

Yes	1 days
No	41 days

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

PTAL Rating:

No PTAL Present	38 days
1b Very poor	1 days
2 Poor	3 days

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

LIST OF SITES relevant to selection parameters

1 **AG-02-D-02** **INDUSTRIAL ESTATE** **ANGUS**
A933 WESTWAY
ARBROATH
HOSPITALFIELD
Edge of Town
No Sub Category
Total Number of Employees: 875
Survey date: TUESDAY *25/04/17* *Survey Type: MANUAL*

2 **AR-02-D-01** **INDUSTRIAL ESTATE** **ARMAGH**
HAMILTONSBAWN ROAD
ARMAGH

Edge of Town
No Sub Category
Total Number of Employees: 139
Survey date: TUESDAY *08/06/10* *Survey Type: MANUAL*

3 **BR-02-D-04** **INDUSTRIAL ESTATE** **BRISTOL CITY**
CROFTS END ROAD
BRISTOL
SPEEDWELL
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Number of Employees: 59
Survey date: FRIDAY *29/11/13* *Survey Type: MANUAL*

4 **BR-02-D-05** **INDUSTRIAL ESTATE** **BRISTOL CITY**
NOVERS HILL
BRISTOL
BEDMINSTER
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Number of Employees: 97
Survey date: FRIDAY *29/11/13* *Survey Type: MANUAL*

5 **CA-02-D-04** **INDUSTRIAL ESTATE** **CAMBRIDGESHIRE**
LINCOLN ROAD
PETERBOROUGH

Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Number of Employees: 40
Survey date: TUESDAY *02/12/14* *Survey Type: MANUAL*

6 **CM-02-D-03** **WORKSHOPS** **CARMARTHENSHIRE**
PARK STREET
AMMANFORD
BETWS
Edge of Town Centre
No Sub Category
Total Number of Employees: 59
Survey date: TUESDAY *14/10/14* *Survey Type: MANUAL*

7 **DL-02-D-04** **INDUSTRIAL ESTATE** **DUBLIN**
CLOVER HILL ROAD
DUBLIN
CLONDALKIN
Edge of Town
Industrial Zone
Total Number of Employees: 180
Survey date: MONDAY *19/10/15* *Survey Type: MANUAL*

8 **DV-02-D-06** **INDUSTRIAL ESTATE** **DEVON**
ST MODWEN ROAD
PLYMOUTH

Edge of Town
Industrial Zone
Total Number of Employees: 50
Survey date: TUESDAY *17/07/12* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

9 **DV-02-D-07** **INDUSTRIAL ESTATE** **DEVON**
BITTERN ROAD
EXETER
SOWTON IND. ESTATE
Edge of Town
Industrial Zone
Total Number of Employees: 77
Survey date: MONDAY *03/07/17* *Survey Type: MANUAL*

10 **EG-02-D-02** **INDUSTRIAL ESTATE** **EALING**
BELVUE ROAD
NORTHOLT

Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Number of Employees: 141
Survey date: WEDNESDAY *05/12/12* *Survey Type: MANUAL*

11 **ES-02-D-06** **INDUSTRIAL ESTATE** **EAST SUSSEX**
COURTLANDS ROAD
EASTBOURNE

Edge of Town
Residential Zone
Total Number of Employees: 330
Survey date: MONDAY *21/10/13* *Survey Type: MANUAL*

12 **ES-02-D-07** **INDUSTRIAL ESTATE** **EAST SUSSEX**
HUGHES ROAD
BRIGHTON

Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Number of Employees: 130
Survey date: THURSDAY *16/10/14* *Survey Type: MANUAL*

13 **EX-02-D-02** **INDUSTRIAL ESTATE** **ESSEX**
CHELMSFORD ROAD
DUNMOW

Edge of Town Centre
Residential Zone
Total Number of Employees: 182
Survey date: FRIDAY *08/07/16* *Survey Type: MANUAL*

14 **FA-02-D-02** **INDUSTRIAL ESTATE** **FALKIRK**
MAIN STREET
FALKIRK
GRAHAMSTON
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of Employees: 115
Survey date: THURSDAY *30/05/13* *Survey Type: MANUAL*

15 **FA-02-D-03** **INDUSTRIAL ESTATE** **FALKIRK**
LADYSMILL
FALKIRK

Edge of Town Centre
Commercial Zone
Total Number of Employees: 15
Survey date: FRIDAY *31/05/13* *Survey Type: MANUAL*

16 **FI-02-D-01** **INDUSTRIAL ESTATE** **FIFE**
DICKSON STREET
DUNFERMLINE

Edge of Town
Residential Zone
Total Number of Employees: 160
Survey date: THURSDAY *21/05/15* *Survey Type: MANUAL*

17 **GM-02-D-07** **BUSINESS PARK** **GREATER MANCHESTER**
VULCAN STREET
OLDHAM

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of Employees: 74
Survey date: THURSDAY *22/10/15* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

18 **HD-02-D-02** **INDUSTRIAL ESTATE** **HILLINGDON**
BRADFIELD ROAD
RUISLIP
SOUTH RUISLIP
Edge of Town
Industrial Zone
Total Number of Employees: 200
Survey date: THURSDAY *25/06/15* *Survey Type: MANUAL*

19 **HE-02-D-02** **BUSINESS PARK** **HEREFORDSHIRE**
BURCOTT ROAD
HEREFORD

Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Number of Employees: 67
Survey date: TUESDAY *22/10/13* *Survey Type: MANUAL*

20 **HO-02-D-01** **INDUSTRIAL ESTATE** **HOUNSLOW**
HAMPTON ROAD WEST
FELTHAM
HANWORTH
Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Number of Employees: 59
Survey date: THURSDAY *25/06/15* *Survey Type: MANUAL*

21 **HV-02-D-01** **INDUSTRIAL ESTATE** **HAVERING**
CHURCH ROAD
ROMFORD
HAROLD WOOD
Edge of Town
Residential Zone
Total Number of Employees: 275
Survey date: TUESDAY *07/10/14* *Survey Type: MANUAL*

22 **KC-02-D-02** **INDUSTRIAL ESTATE** **KENT**
SOUTHWELL ROAD
DEAL

Edge of Town
Residential Zone
Total Number of Employees: 150
Survey date: WEDNESDAY *28/11/12* *Survey Type: MANUAL*

23 **LC-02-D-05** **INDUSTRIAL ESTATE** **LANCASHIRE**
APPLEBY STREET
BLACKBURN

Edge of Town Centre
Industrial Zone
Total Number of Employees: 63
Survey date: TUESDAY *04/06/13* *Survey Type: MANUAL*

24 **LC-02-D-06** **INDUSTRIAL ESTATE** **LANCASHIRE**
SMALLSHAW LANE
BURNLEY

Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Number of Employees: 54
Survey date: THURSDAY *29/09/16* *Survey Type: MANUAL*

25 **MG-02-D-01** **INDUSTRIAL ESTATE** **MONAGHAN**
DUNDALK ROAD
CARRICKMACROSS

Edge of Town Centre
No Sub Category
Total Number of Employees: 76
Survey date: FRIDAY *07/12/12* *Survey Type: MANUAL*

26 **NF-02-D-03** **INDUSTRIAL ESTATE** **NORFOLK**
BIDEWELL CLOSE
NORWICH

Edge of Town
Residential Zone
Total Number of Employees: 45
Survey date: MONDAY *08/10/12* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

27 **NR-02-D-01** **INDUSTRIAL ESTATE** **NORTHAMPTONSHIRE**
ROBINSON WAY
KETTERING

Edge of Town
Industrial Zone
Total Number of Employees: 300
Survey date: THURSDAY *23/10/14* *Survey Type: MANUAL*

28 **TI-02-D-01** **INDUSTRIAL ESTATE** **TIPPERARY**
LIMERICK ROAD
NENAGH

Edge of Town
Retail Zone
Total Number of Employees: 161
Survey date: FRIDAY *27/05/16* *Survey Type: MANUAL*

29 **TW-02-D-07** **INDUSTRIAL ESTATE** **TYNE & WEAR**
SWALWELL BANK
GATESHEAD
WHICKHAM
Edge of Town
Residential Zone
Total Number of Employees: 130
Survey date: FRIDAY *04/10/13* *Survey Type: MANUAL*

30 **TW-02-D-08** **INDUSTRIAL ESTATE** **TYNE & WEAR**
NORTH HYLTON ROAD
SUNDERLAND
SOUTHWICK
Suburban Area (PPS6 Out of Centre)
Development Zone
Total Number of Employees: 180
Survey date: TUESDAY *04/04/17* *Survey Type: MANUAL*

31 **VG-02-D-01** **INDUSTRIAL ESTATE** **VALE OF GLAMORGAN**
ARTHUR STREET
BARRY

Edge of Town
No Sub Category
Total Number of Employees: 180
Survey date: MONDAY *08/05/17* *Survey Type: MANUAL*

32 **WG-02-D-01** **INDUSTRIAL ESTATE** **WOKINGHAM**
FISHPONDS ROAD
WOKINGHAM

Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Number of Employees: 77
Survey date: TUESDAY *20/11/12* *Survey Type: MANUAL*

33 **WL-02-D-02** **INDUSTRIAL ESTATE** **WILTSHIRE**
HEADLANDS GROVE
SWINDON

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of Employees: 118
Survey date: TUESDAY *20/09/16* *Survey Type: MANUAL*

34 **WM-02-D-02** **INDUSTRIAL ESTATE** **WEST MIDLANDS**
DUNLOP WAY
BIRMINGHAM

Edge of Town
Residential Zone
Total Number of Employees: 347
Survey date: WEDNESDAY *07/11/12* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

35 **WM-02-D-03** **INDUSTRIAL ESTATE** **WEST MIDLANDS**
JUNCTION ROAD
STOURBRIDGE
AUDNAM
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of Employees: 35
Survey date: TUESDAY *28/11/17* *Survey Type: MANUAL*

36 **WO-02-D-01** **INDUSTRIAL ESTATE** **WORCESTERSHIRE**
SANDY LANE
STOURPORT-ON-SEVERN

Edge of Town
Commercial Zone
Total Number of Employees: 19
Survey date: FRIDAY *23/05/14* *Survey Type: MANUAL*

37 **WO-02-D-02** **INDUSTRIAL ESTATE** **WORCESTERSHIRE**
WEIR LANE
WORCESTER

Edge of Town
Residential Zone
Total Number of Employees: 150
Survey date: MONDAY *14/11/16* *Survey Type: MANUAL*

38 **WY-02-D-03** **INDUSTRIAL ESTATE** **WEST YORKSHIRE**
ARMLEY ROAD
LEEDS

Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Number of Employees: 192
Survey date: FRIDAY *20/09/13* *Survey Type: MANUAL*

39 **WY-02-D-04** **INDUSTRIAL ESTATE** **WEST YORKSHIRE**
LAW STREET
CLECKHEATON

Edge of Town
Industrial Zone
Total Number of Employees: 54
Survey date: THURSDAY *15/09/16* *Survey Type: MANUAL*

40 **WY-02-D-05** **INDUSTRIAL ESTATE** **WEST YORKSHIRE**
CARR WOOD ROAD
CASTLEFORD

Edge of Town
Development Zone
Total Number of Employees: 20
Survey date: MONDAY *22/05/17* *Survey Type: MANUAL*

41 **WY-02-D-06** **INDUSTRIAL ESTATE (PART)** **WEST YORKSHIRE**
PIONEER WAY
CASTLEFORD

Edge of Town
Industrial Zone
Total Number of Employees: 23
Survey date: TUESDAY *23/05/17* *Survey Type: MANUAL*

42 **WY-02-D-07** **INDUSTRIAL ESTATE** **WEST YORKSHIRE**
THUNDERHEAD RIDGE RD
CASTLEFORD
GLASSHOUGHTON
Edge of Town
No Sub Category
Total Number of Employees: 61
Survey date: MONDAY *15/05/17* *Survey Type: MANUAL*

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

RANK ORDER for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE

VEHICLES

Ranking Type: **TOTALS** Time Range: 17:00-18:00
15th Percentile = No. **36** AG-02-D-02 Tot: 0.191
85th Percentile = No. **7** NF-02-D-03 Tot: 0.911

Median Values		Mean Values	
Arrivals:	0.083	Arrivals:	0.144
Departures:	0.392	Departures:	0.375
Totals:	0.475	Totals:	0.518

Rank	Site-Ref	Description	Town/City	Area	EMPLOY	Day	Date	Trip Rate (Sorted by Totals)		
								Arrivals	Departures	Totals
1	BR-02-D-04	INDUSTRIAL EST	BRISTOL	BRISTOL CITY	59	Fri	29/11/13	0.271	1.034	1.305
2	WY-02-D-05	INDUSTRIAL EST	CASTLEFORD	WEST YORKSHIRE	20	Mon	22/05/17	0.400	0.650	1.050
3	CA-02-D-04	INDUSTRIAL EST	PETERBOROUGH	CAMBRIDGESHIRE	40	Tue	02/12/14	0.400	0.625	1.025
4	FA-02-D-02	INDUSTRIAL EST	FALKIRK	FALKIRK	115	Thu	30/05/13	0.348	0.652	1.000
5	MG-02-D-01	INDUSTRIAL EST	CARRICKMACROSS	MONAGHAN	76	Fri	07/12/12	0.421	0.566	0.987
6	HD-02-D-02	INDUSTRIAL EST	RUISLIP	HILLINGDON	200	Thu	25/06/15	0.345	0.595	0.940
7	**NF-02-D-03**	**INDUSTRIAL EST**	**NORWICH**	**NORFOLK**	**45**	**Mon**	**08/10/12**	**0.067**	**0.844**	**0.911**
8	DV-02-D-06	INDUSTRIAL EST	PLYMOUTH	DEVON	50	Tue	17/07/12	0.280	0.620	0.900
9	HO-02-D-01	INDUSTRIAL EST	FELTHAM	HOUNSLOW	59	Thu	25/06/15	0.356	0.492	0.848
10	LC-02-D-06	INDUSTRIAL EST	BURNLEY	LANCASHIRE	54	Thu	29/09/16	0.056	0.722	0.778
11	WY-02-D-07	INDUSTRIAL EST	CASTLEFORD	WEST YORKSHIRE	61	Mon	15/05/17	0.262	0.492	0.754
12	VG-02-D-01	INDUSTRIAL EST	BARRY	VALE OF GLAMORGAN	180	Mon	08/05/17	0.300	0.389	0.689
13	DL-02-D-04	INDUSTRIAL EST	DUBLIN	DUBLIN	180	Mon	19/10/15	0.111	0.556	0.667
14	DV-02-D-07	INDUSTRIAL EST	EXETER	DEVON	77	Mon	03/07/17	0.156	0.429	0.585
15	TI-02-D-01	INDUSTRIAL EST	NENAGH	TIPPERARY	161	Fri	27/05/16	0.161	0.410	0.571
16	CM-02-D-03	WORKSHOPS	AMMANFORD	CARMARTHENSHIRE	59	Tue	14/10/14	0.186	0.373	0.559
17	HE-02-D-02	BUSINESS PARK	HEREFORD	HEREFORDSHIRE	67	Tue	22/10/13	0.149	0.373	0.522
18	EG-02-D-02	INDUSTRIAL EST	NORTHOLT	EALING	141	Wed	05/12/12	0.000	0.518	0.518
19	WY-02-D-03	INDUSTRIAL EST	LEEDS	WEST YORKSHIRE	192	Fri	20/09/13	0.125	0.380	0.505
20	WG-02-D-01	INDUSTRIAL EST	WOKINGHAM	WOKINGHAM	77	Tue	20/11/12	0.130	0.364	0.494
21	AR-02-D-01	INDUSTRIAL EST	ARMAGH	ARMAGH	139	Tue	08/06/10	0.108	0.374	0.482
22	HV-02-D-01	INDUSTRIAL EST	ROMFORD	HAVERING	275	Tue	07/10/14	0.058	0.411	0.469
23	FA-02-D-03	INDUSTRIAL EST	FALKIRK	FALKIRK	15	Fri	31/05/13	0.267	0.200	0.467
24	EX-02-D-02	INDUSTRIAL EST	DUNMOW	ESSEX	182	Fri	08/07/16	0.093	0.346	0.439
25	WY-02-D-06	INDUSTRIAL EST	CASTLEFORD	WEST YORKSHIRE	23	Tue	23/05/17	0.000	0.435	0.435
26	LC-02-D-05	INDUSTRIAL EST	BLACKBURN	LANCASHIRE	63	Tue	04/06/13	0.222	0.206	0.428
27	WL-02-D-02	INDUSTRIAL EST	SWINDON	WILTSHIRE	118	Tue	20/09/16	0.127	0.280	0.407
28	FI-02-D-01	INDUSTRIAL EST	DUNFERMLINE	FIFE	160	Thu	21/05/15	0.113	0.237	0.350
29	TW-02-D-07	INDUSTRIAL EST	GATESHEAD	TYNE & WEAR	130	Fri	04/10/13	0.092	0.231	0.323
30	WO-02-D-02	INDUSTRIAL EST	WORCESTER	WORCESTERSHIRE	150	Mon	14/11/16	0.073	0.247	0.320
31	WM-02-D-02	INDUSTRIAL EST	BIRMINGHAM	WEST MIDLANDS	347	Wed	07/11/12	0.043	0.239	0.282
32	WY-02-D-04	INDUSTRIAL EST	CLECKHEATON	WEST YORKSHIRE	54	Thu	15/09/16	0.056	0.204	0.260
33	KC-02-D-02	INDUSTRIAL EST	DEAL	KENT	150	Wed	28/11/12	0.013	0.233	0.246
34	ES-02-D-06	INDUSTRIAL EST	EASTBOURNE	EAST SUSSEX	330	Mon	21/10/13	0.042	0.185	0.227
35	ES-02-D-07	INDUSTRIAL EST	BRIGHTON	EAST SUSSEX	130	Thu	16/10/14	0.054	0.146	0.200
36	**AG-02-D-02**	**INDUSTRIAL EST**	**ARBROATH**	**ANGUS**	**875**	**Tue**	**25/04/17**	**0.045**	**0.146**	**0.191**
37	WM-02-D-03	INDUSTRIAL EST	STOURBRIDGE	WEST MIDLANDS	35	Tue	28/11/17	0.000	0.171	0.171
38	BR-02-D-05	INDUSTRIAL EST	BRISTOL	BRISTOL CITY	97	Fri	29/11/13	0.010	0.144	0.154
39	NR-02-D-01	INDUSTRIAL EST	KETTERING	NORTHAMPTONSHIRE	300	Thu	23/10/14	0.007	0.100	0.107

Rank	Site-Ref	Description	Town/City	Area	EMPLOY	Day	Date	Trip Rate (Sorted by Totals)		
								Arrivals	Departures	Totals
40	WO-02-D-01	INDUSTRIAL EST	STOURPORT-ON-SEVERN	WORCESTERSHIRE	19	Fri	23/05/14	0.053	0.053	0.106
41	TW-02-D-08	INDUSTRIAL EST	SUNDERLAND	TYNE & WEAR	180	Tue	04/04/17	0.028	0.061	0.089
42	GM-02-D-07	BUSINESS PARK	OLDHAM	GREATER MANCHESTER	74	Thu	22/10/15	0.000	0.014	0.014

This section displays actual (not average) trip rates for each of the survey days in the selected set, and ranks them in order of relative trip rate intensity, for a given time period (or peak period irrespective of time) selected by the user. The count type and direction are both displayed just above the table, along with the rows within the table representing the 85th and 15th percentile trip rate figures (highlighted in bold within the table itself).

The table itself displays details of each individual survey, alongside arrivals, departures and totals trip rates, sorted by whichever of the three directional options has been chosen by the user. As with the preceeding trip rate calculation results table, the trip rates shown are per the calculation factor (e.g. per 100m2 GFA, per employee, per hectare, etc). Note that if the peak period option has been selected (as opposed to a specific chosen time period), the peak period for each individual survey day in the table is also displayed.

MID SUSSEX TRANSPORT STUDY - DEVELOPMENT SITE ASSUMPTIONS AND TRIP RATES

STATUS	District	ID	Site address	Details PlanningStatus	Use Class	Total (by 2031)	Quantity for TRICs rate	Units inc. Windfall	Gross Site Area (ha)	GFA (sqm) (TRICs rate is based on employees)	GFA per employee (sqm)	Trip Rate AM O	Trip Rate AM D	Trip Rate PM O	Trip Rate PM D	Trips AM O	Trips AM D	Trips PM O	Trips PM D	Base Zone	Final Zone (new zone if **bold**)
			REFERENCE CASE EMPLOYMENT - MID SUSSEX																		
FULL	MidSussex	493	Northern Arc, Burgess Hill	District Plan - Pending Allocation	B1b	1500 *(BHESS)*	employees		14			0.183	0.367	0.465	0.045	275	551	698	68	1037	**5002**
FULL	MidSussex		The Hub		B1b	2500 *(Email 26/7)*	employees	*(MSDC App2)*	14	50,000 *(BHESS)*	20	0.183	0.367	0.465	0.045	458	918	1163	113	1036	**5012**

Sources: BHESS (March 2015) p2.36: https://www.midsussex.gov.uk/media/3214/ep36_bhempsitesstudymarch2015.pdf
Email 26/07: Emails from Andrew and Nathan 24/07, 26/07
MSDC Appendix 2: https://www.midsussex.gov.uk/media/3402/appendix-2-employment-sites.pdf

			REFERENCE CASE EMPLOYMENT - NEIGHBOURING																		
FULL	Horsham		Kilnwood Vale		B1c	721	employees					0.300	0.700	0.844	0.067	216	505	609	48	3213	3213
FULL	Horsham		Land North of Horsham		B1c	714	employees			17,136	24	0.300	0.700	0.844	0.067	214	500	603	48	3380	3380

Sources: MSTS Development Scenarios-V10 inc Mackie Av.xlsx (27/04)

			REFERENCE CASE RESIDENTIAL - NEIGHBOURING																		
FULL	Horsham		Kilnwood Vale		Housing	2500	units	2500				0.397	0.191	0.143	0.486	993	478	358	1215	3213	3213
FULL	Horsham		Land North of Horsham		Housing	2500	units	2500				0.397	0.191	0.143	0.486	993	478	358	1215	3380	3380
FULL	Crawley		North East Crawley		Housing	2000	units	2000				0.397	0.191	0.143	0.486	794	382	286	972	2121	2121

Sources: Meeting discussion 02/08

			REFERENCE CASE - RESIDENTIAL FULL PERMISSION - MID SUSSEX																		
FULL	MidSussex	493	Northern Arc, Burgess Hill (West Residential)	District Plan - Pending Allocation	Housing	1500	units	1565				0.397	0.191	0.143	0.486	621	299	224	761	1037	**5004**
FULL	MidSussex	493	Northern Arc, Burgess Hill (Central/East Residential)	District Plan - Pending Allocation	Housing	1500	units	1565				0.397	0.191	0.143	0.486	621	299	224	761	1037	**5005**
FULL	MidSussex	666	Hardriding Farm, Brighton Road, Pease Pottage	District Plan - With Permission	Housing	619	units	646				0.397	0.191	0.143	0.486	256	123	92	314	3196	**5001**
FULL	MidSussex	493	Northern Arc, Burgess Hill (Freeks Farm)	District Plan - Pending Allocation	Housing	500	units	522				0.397	0.191	0.143	0.486	207	100	75	254	1037	**5003**
FULL	MidSussex	38	Land north of the A264 at Junction 10 of M23	Commitment - Full/Outline Planning Permission	Housing	500	units	522				0.397	0.191	0.143	0.486	207	100	75	254	2167	**5006**
FULL	MidSussex	233	Land east of Kings Way, Burgess Hill	District Plan - With Permission	Housing	389	units	406				0.397	0.191	0.143	0.486	161	78	58	197	1061	1061
FULL	MidSussex	91	Keymer Tile Works, Nye Road, Burgess Hill	Commitment - Full/Outline Planning Permission	Housing	363	units	379				0.397	0.191	0.143	0.486	150	72	54	184	1088	1088
FULL	MidSussex	45	Former Sewage Works, Fairbridge Way, Burgess Hill	Commitment - Full/Outline Planning Permission	Housing	325	units	339				0.397	0.191	0.143	0.486	135	65	48	165	1104	1104
FULL	MidSussex	496	Land south of Rocky Lane & to the west of Weald Rise and Fox Hill Village, Haywards Heath	Commitment - Full/Outline Planning Permission	Housing	320	units	334				0.397	0.191	0.143	0.486	133	64	48	162	1067	**5008**
FULL	MidSussex	247	Penland Farm, Haywards Heath	Commitment - Full/Outline Planning Permission	Housing	210	units	219				0.397	0.191	0.143	0.486	87	42	31	106	1039	**5009**
FULL	MidSussex	483	Land South of Scamps Hill, Lindfield	Commitment - Full/Outline Planning Permission	Housing	200	units	209				0.397	0.191	0.143	0.486	83	40	30	101	1043	3176
FULL	MidSussex	562	Land at Hill Place Farm to the south west of East Grinstead, west and east of the Bluebell Railway Line	Commitment - Full/Outline Planning Permission	Housing	200	units	209				0.397	0.191	0.143	0.486	83	40	30	101	3366	3366
FULL	MidSussex	57	Land at Foxhill (Gamblemead Lane), Foxhill, Haywards Heath	Commitment - Full/Outline Planning Permission	Housing	151	units	158				0.397	0.191	0.143	0.486	63	30	23	77	1075	4200
FULL	MidSussex	843	37-39 Perrymount Road, Haywards Heath	Commitment - Full/Outline Planning Permission	Housing	145	units	151				0.397	0.191	0.143	0.486	60	29	22	74	1079	1142
FULL	MidSussex	528	Land at Burgess Hill Town Centre (multiple sites)	Commitment - Full/Outline Planning Permission	Housing	142	units	148				0.397	0.191	0.143	0.486	59	28	21	72	1121	1130
FULL	MidSussex	238	Land at Little Park Farm, north of Hurstpierpoint	Commitment - Full/Outline Planning Permission	Housing	140	units	146				0.397	0.191	0.143	0.486	58	28	21	71	1053	1030
FULL	MidSussex	485	Land south of Rocky Lane Phase 2, Haywards Heath	Commitment - Full/Outline Planning Permission	Housing	134	units	140				0.397	0.191	0.143	0.486	56	27	20	68	1067	**5008**
FULL	MidSussex	6	Land at Gravelye Lane and Scamps Hill, Lindfield	Commitment - Full/Outline Planning Permission	Housing	130	units	136				0.397	0.191	0.143	0.486	54	26	19	66	1044	**5010**
FULL	MidSussex	690	Hassocks Golf Club, London Road, Hassocks	Commitment - Full/Outline Planning Permission	Housing	130	units	136				0.397	0.191	0.143	0.486	54	26	19	66	1028	1052
FULL	MidSussex	286	Land at the Ham, Hassocks	Commitment - Full/Outline Planning Permission	Housing	129	units	135				0.397	0.191	0.143	0.486	53	26	19	65	1028	1028
FULL	MidSussex	768	Martells Store, 1-4 Normans Gardens and 38A Queens Road, East Grinstead	Commitment - Full/Outline Planning Permission	Housing	121	units	126				0.397	0.191	0.143	0.486	50	24	18	61	3367	3367
FULL	MidSussex	220	Land north of Kingsland Laines, Sayers Common	Commitment - Full/Outline Planning Permission	Housing	120	units	125				0.397	0.191	0.143	0.486	50	24	18	61	3364	3364
FULL	MidSussex	517	Land at Hyde Estate (to the north of Handcross)	Commitment - Full/Outline Planning Permission	Housing	96	units	100				0.397	0.191	0.143	0.486	40	19	14	49	3196	3196
FULL	MidSussex	534	Land rear of 88 Folders Lane, Burgess Hill	Commitment - Full/Outline Planning Permission	Housing	73	units	76				0.397	0.191	0.143	0.486	30	15	11	37	1062	1062
FULL	MidSussex	46	Land off Kings Way, East of Gerald Close, Burgess Hill	Commitment - Full/Outline Planning Permission	Housing	63	units	66				0.397	0.191	0.143	0.486	26	13	9	32	1087	1087
FULL	MidSussex	281	Land south of Hazel Close, Crawley Down	Commitment - Full/Outline Planning Permission	Housing	60	units	63				0.397	0.191	0.143	0.486	25	12	9	30	3370	3370
FULL	MidSussex	197	Land rear of 15 and 39 Crawley Down Road, Felbridge	Commitment - Full/Outline Planning Permission	Housing	59	units	62				0.397	0.191	0.143	0.486	24	12	9	30	3186	3186
FULL	MidSussex	732	The Priory, Syresham Gardens, Haywards Heath	Commitment - Full/Outline Planning Permission	Housing	53	units	55				0.397	0.191	0.143	0.486	22	11	8	27	1081	1081
FULL	MidSussex	494	Land to the east of Gravelye Lane and south of Scamps Hill and bounded to the east by Northlands Brook (Site K), Lindfield	Commitment - Full/Outline Planning Permission	Housing	52	units	54				0.397	0.191	0.143	0.486	22	10	8	26	1044	1044
FULL	MidSussex	725	Land adjacent to Barn Cottage, Lewes Road, Scaynes Hill	Commitment - Full/Outline Planning Permission	Housing	51	units	53				0.397	0.191	0.143	0.486	21	10	8	26	3238	3238
FULL	MidSussex	779	Land at Hammonds Ridge, Burgess Hill	Commitment - Full/Outline Planning Permission	Housing	51	units	53				0.397	0.191	0.143	0.486	21	10	8	26	1114	1114
FULL	MidSussex	697	Garland Court, Garland Road, East Grinstead	Commitment - Full/Outline Planning Permission	Housing	49	units	51				0.397	0.191	0.143	0.486	20	10	7	25	3183	3183
FULL	MidSussex	116	Clockfield, North Street, Turners Hill	Commitment - Full/Outline Planning Permission	Housing	47	units	49				0.397	0.191	0.143	0.486	19	9	7	24	3189	3189
FULL	MidSussex	271	Land to the west of The Pheasantry, Turners Hill Road, Crawley Down (part of site previously assessed as of site 688)	Commitment - Full/Outline Planning Permission	Housing	44	units	46				0.397	0.191	0.143	0.486	18	9	7	22	3188	3188
FULL	MidSussex	268	Land at Holly Farm, Copthorne Way, Copthorne	Commitment - Full/Outline Planning Permission	Housing	44	units	46				0.397	0.191	0.143	0.486	18	9	7	22	2172	2172
FULL	MidSussex	151	Land east of Portsmouth Wood Close, Lindfield	Commitment - Full/Outline Planning Permission	Housing	43	units	45				0.397	0.191	0.143	0.486	18	9	6	22	3177	3177
FULL	MidSussex	313	Farringdon House, Wood Street, East Grinstead	Commitment - Full/Outline Planning Permission	Housing	41	units	43				0.397	0.191	0.143	0.486	17	8	6	21	3183	3183
FULL	MidSussex	33	Land North of Wickham Way and East of Birchen Lane, Haywards Heath	Commitment - Full/Outline Planning Permission	Housing	40	units	42				0.397	0.191	0.143	0.486	17	8	6	20	3177	3177
FULL	MidSussex	785	Kings House, Cantelupe Road, East Grinstead	Commitment - Full/Outline Planning Permission	Housing	39	units	41				0.397	0.191	0.143	0.486	16	8	6	20	3367	3367
FULL	MidSussex	570	Land at Bridge Hall, Cuckfield Road, Burgess Hill	Commitment - Full/Outline Planning Permission	Housing	36	units	38				0.397	0.191	0.143	0.486	15	7	5	18	1037	1037
FULL	MidSussex	745	Land to the north of Rocky Lane, Haywards Heath	Commitment - Full/Outline Planning Permission	Housing	30	units	31				0.397	0.191	0.143	0.486	12	6	4	15	1077	1077
FULL	MidSussex	218	Pease Pottage Golf House, Horsham Road, Pease Pottage	Commitment - Full/Outline Planning Permission	Housing	25	units	26				0.397	0.191	0.143	0.486	10	5	4	13	3196	3196
FULL	MidSussex	548	Land at rear of and including 17 Copthorne Road, Felbridge	Commitment - Full/Outline Planning Permission	Housing	25	units	26				0.397	0.191	0.143	0.486	10	5	4	13	3186	3186
FULL	MidSussex	765	Slaugham Manor, Slaugham Place, Slaugham.	Commitment - Full/Outline Planning Permission	Housing	25	units	26				0.397	0.191	0.143	0.486	10	5	4	13	3194	3194
FULL	MidSussex	629	Land at Bolney Road, Ansty	Commitment - Full/Outline Planning Permission	Housing	20	units	21				0.397	0.191	0.143	0.486	8	4	3	10	3166	3166
FULL	MidSussex	531	Land north of 99 Reed Pond Walk, Franklands Village, Haywards Heath	Commitment - Full/Outline Planning Permission	Housing	18	units	19				0.397	0.191	0.143	0.486	7	4	3	9	1074	1074
FULL	MidSussex	472	Stafford House, 91 Keymer Road, Hassocks	Commitment - Full/Outline Planning Permission	Housing	16	units	17				0.397	0.191	0.143	0.486	7	3	2	8	1026	1026
FULL	MidSussex	693	71 Victoria Road, Burgess Hill	Commitment - Full/Outline Planning Permission	Housing	14	units	15				0.397	0.191	0.143	0.486	6	3	2	7	1115	1115
FULL	MidSussex	645	Bluebell Woodland, Sharpthorne	Commitment - Full/Outline Planning Permission	Housing	14	units	15				0.397	0.191	0.143	0.486	6	3	2	7	3179	3179
FULL	MidSussex	730	69 Victoria Road, Burgess Hill	Commitment - Full/Outline Planning Permission	Housing	14	units	15				0.397	0.191	0.143	0.486	6	3	2	7	1115	1115
FULL	MidSussex	199	Land to rear of 151 Western Road, Haywards Heath	Commitment - Full/Outline Planning Permission	Housing	14	units	15				0.397	0.191	0.143	0.486	6	3	2	7	1080	1080
FULL	MidSussex	923	49 Queens Road East grinstead	Commitment - Full/Outline Planning Permission	Housing	14	units	15				0.397	0.191	0.143	0.486	6	3	2	7	3367	3367
FULL	MidSussex	22	Land to rear of Dunnings Mill Sports Club Dunnings Rd, East Grinstead	Commitment - Full/Outline Planning Permission	Housing	12	units	13				0.397	0.191	0.143	0.486	5	2	2	6	3366	3366
FULL	MidSussex	746	Land south of Phoenix House, Cantelupe Road, East Grinstead	Commitment - Full/Outline Planning Permission	Housing	12	units	13				0.397	0.191	0.143	0.486	5	2	2	6	3367	3367
FULL	MidSussex	728	Ravenswood Hotel, Horsted Lane, Sharpthorne	Commitment - Full/Outline Planning Permission	Housing	12	units	13				0.397	0.191	0.143	0.486	5	2	2	6	3237	3237
FULL	MidSussex	707	Land west of London Road (southern part), Bolney	Commitment - Full/Outline Planning Permission	Housing	12	units	13				0.397	0.191	0.143	0.486	5	2	2	6	3152	3152
FULL	MidSussex	925	Land parcel north of Charles Bennett Court Franklands Village Haywards Heath	Commitment - Full/Outline Planning Permission	Housing	12	units	13				0.397	0.191	0.143	0.486	5	2	2	6	1074	1074
FULL	MidSussex	729	Land adjacent to Greenstede House, Wood Street, East Grinstead	Commitment - Full/Outline Planning Permission	Housing	11	units	11				0.397	0.191	0.143	0.486	5	2	2	6	3183	3183
FULL	MidSussex	369	53-59 Lingfield Road, East Grinstead	Commitment - Full/Outline Planning Permission	Housing	11	units	11				0.397	0.191	0.143	0.486	5	2	2	6	3183	3183
FULL	MidSussex	513	Land corner of Holtye Road/ Blackwell Farm Road, East Grinstead	Commitment - Full/Outline Planning Permission	Housing	10	units	10				0.397	0.191	0.143	0.486	4	2	1	5	3368	3368
FULL	MidSussex	773	Superdrug, 78 London Road, East Grinstead	Commitment - Full/Outline Planning Permission	Housing	9	units	9				0.397	0.191	0.143	0.486	4	2	1	5	3367	3367
FULL	MidSussex	32	Land south of Sunte House, Birchen Lane, Haywards Heath	Commitment - Full/Outline Planning Permission	Housing	8	units	8				0.397	0.191	0.143	0.486	3	2	1	4	1041	1041
FULL	MidSussex	488	Palmers Autocare Centre, Turners Hill Road, Crawley Down	Commitment - Full/Outline Planning Permission	Housing	8	units	8				0.397	0.191	0.143	0.486	3	2	1	4	3370	3370
FULL	MidSussex	668	Hook Place, Cuckfield Road, Burgess Hill	Commitment - Full/Outline Planning Permission	Housing	8	units	8				0.397	0.191	0.143	0.486	3	2	1	4	1038	1038
FULL	MidSussex	759	Tower Car Sales, Tower Close, East Grinstead	Commitment - Full/Outline Planning Permission	Housing	7	units	7				0.397	0.191	0.143	0.486	3	1	1	4	3183	3183
FULL	MidSussex	324	Meadway Garage, Lowdells Lane, East Grinstead	Commitment - Full/Outline Planning Permission	Housing	7	units	7				0.397	0.191	0.143	0.486	3	1	1	4	3183	3183
FULL	MidSussex	778	Wallis Centre, De La Warr Road, East Grinstead	Commitment - Full/Outline Planning Permission	Housing	7	units	7				0.397	0.191	0.143	0.486	3	1	1	4	3368	3368
FULL	MidSussex	321	Seaspace House, Brighton Road, Handcross	Commitment - Full/Outline Planning Permission	Housing	7	units	7				0.397	0.191	0.143	0.486	3	1	1	4	3195	3195
FULL	MidSussex	771	Land adjacent to 55 Lewes Road, Haywards Heath	Commitment - Full/Outline Planning Permission	Housing	7	units	7				0.397	0.191	0.143	0.486	3	1	1	4	1058	1058
FULL	MidSussex	776	Land at Greenacres, Keymer Road, Burgess Hill	Commitment - Full/Outline Planning Permission	Housing	6	units	6				0.397	0.191	0.143	0.486	2	1	1	3	1064	1064
FULL	MidSussex	924	Twineham Grange Farm, Bob Lane, Twineham	Commitment - Full/Outline Planning Permission	Housing	6	units	6				0.397	0.191	0.143	0.486	2	1	1	3	3153	3153
FULL	MidSussex	926	18 Station Road East Grinstead	Commitment - Full/Outline Planning Permission	Housing	6	units	6				0.397	0.191	0.143	0.486	2	1	1	3	3183	3183
FULL	MidSussex	110	Land to the south west of Haywards Heath - Bolnore Village Phases 4 & 5 (land south of Wealden Way)	Commitment - Full/Outline Planning Permission	Housing	5	units	5				0.397	0.191	0.143	0.486	2	1	1	3	1068	1068
FULL	MidSussex	430	Victoria House, College Road, Ardingly	Commitment - Full/Outline Planning Permission	Housing	5	units	5				0.397	0.191	0.143	0.486	2	1	1	3	3178	3178
FULL	MidSussex	713	Land north of Redcourt South, Cuttinglye Lane, Crawley Down	Commitment - Full/Outline Planning Permission	Housing	5	units	5				0.397	0.191	0.143	0.486	2	1	1	3	3188	3188
FULL	MidSussex	900	37 - 43 London Road, East Grinstead	Commitment - Full/Outline Planning Permission	Housing	3	units	3				0.397	0.191	0.143	0.486	1	1	0	2	3367	3367

STATUS	District	ID	Site address	Details PlanningStatus	Use Class	Total (by 2031)	Quantity for TRICs rate	Units inc. Windfall	Gross Site Area (ha)	GFA (sqm) (TRICs rate is based on employees)	GFA per employee (sqm)	Trip Rate AM O	Trip Rate AM D	Trip Rate PM O	Trip Rate PM D	Trips AM O	Trips AM D	Trips PM O	Trips PM D	Base Zone	Final Zone (new zone if **bold**)
			REFERENCE CASE - RESIDENTIAL PENDING - MID SUSSEX (EXCLUDED FROM REFERENCE CASE 2 AND MOVED TO SCENARIO 1)																		
PENDING	MidSussex	753	Land to the north of Clayton Mills, Mackie Avenue, Hassocks	District Plan - Pending Allocation	Housing	500	units	500				0.397	0.191	0.143	0.486	199	96	72	243	1050	1050
PENDING	MidSussex	246	Hurst Farm, Hurstwood Lane, Haywards Heath	Commitment - Allocated Site Without Permission	Housing	350	units	350				0.397	0.191	0.143	0.486	139	67	50	170	1075	**5007**
PENDING	MidSussex	81	Imberhorne Lower School, Windmill Lane, East Grinstead	Commitment - Allocated Site Without Permission	Housing	200	units	200				0.397	0.191	0.143	0.486	79	38	29	97	3183	4211
PENDING	MidSussex	83	Burgess Hill Station yard/car park, Burgess Hill	Commitment - Allocated Site Without Permission	Housing	150	units	150				0.397	0.191	0.143	0.486	60	29	21	73	1112	1138
PENDING	MidSussex	756	Land at the Brow, Burgess Hill	Commitment - Allocated Site Without Permission	Housing	100	units	100				0.397	0.191	0.143	0.486	40	19	14	49	1136	1136
PENDING	MidSussex	544	Western side of Victoria Road, Burgess Hill	Commitment - Allocated Site Without Permission	Housing	80	units	80				0.397	0.191	0.143	0.486	32	15	11	39	1126	1126
PENDING	MidSussex	106	Station Goods Yard, Hassocks	Commitment - Allocated Site Without Permission	Housing	54	units	54				0.397	0.191	0.143	0.486	21	10	8	26	3157	3157
PENDING	MidSussex	470	Wealden House, Lewes Road, Ashurst Wood	Commitment - Allocated Site Without Permission	Housing	50	units	50				0.397	0.191	0.143	0.486	20	10	7	24	3182	3182
PENDING	MidSussex	723	Ashplats House, Holtye Road, East Grinstead	Commitment - Allocated Site Without Permission	Housing	45	units	45				0.397	0.191	0.143	0.486	18	9	6	22	3368	3368
PENDING	MidSussex	492	Old Vicarage Field, Church Road, Turners Hill	Commitment - Allocated Site Without Permission	Housing	44	units	44				0.397	0.191	0.143	0.486	17	8	6	21	3190	3190
PENDING	MidSussex	96	Stonequarry Woods, East Grinstead	Commitment - Allocated Site Without Permission	Housing	40	units	40				0.397	0.191	0.143	0.486	16	8	6	19	3368	3368
PENDING	MidSussex	744	NCP Car Park, Harlands Road, Haywards Heath	Commitment - Allocated Site Without Permission	Housing	40	units	40				0.397	0.191	0.143	0.486	16	8	6	19	1070	1070
PENDING	MidSussex	101	Tennis and Squash Club, Ship Street, East Grinstead	Commitment - Allocated Site Without Permission	Housing	40	units	40				0.397	0.191	0.143	0.486	16	8	6	19	3367	3367
PENDING	MidSussex	102	Land at the junction of Windmill Lane and London Road	Commitment - Allocated Site Without Permission	Housing	35	units	35				0.397	0.191	0.143	0.486	14	7	5	17	3183	3183
PENDING	MidSussex	543	Land opposite Former Queens Head (west of London Road), Bolney	Commitment - Allocated Site Without Permission	Housing	30	units	30				0.397	0.191	0.143	0.486	12	6	4	15	3152	3152
PENDING	MidSussex	757	LIC, Wealden House, Lewes Road, Ashurst Wood	Commitment - Allocated Site Without Permission	Housing	25	units	25				0.397	0.191	0.143	0.486	10	5	4	12	3182	3182
PENDING	MidSussex	92	Open air market, Cyprus Road, Burgess Hill	Commitment - Allocated Site Without Permission	Housing	25	units	25				0.397	0.191	0.143	0.486	10	5	4	12	1130	1130
PENDING	MidSussex	148	Land north of Top Road, Sharpthorne	Commitment - Allocated Site Without Permission	Housing	24	units	24				0.397	0.191	0.143	0.486	10	5	3	12	3179	3179
PENDING	MidSussex	750	Downlands Park, Isaacs Lane, Haywards Heath	Commitment - Allocated Site Without Permission	Housing	20	units	20				0.397	0.191	0.143	0.486	8	4	3	10	1069	1069
PENDING	MidSussex	88	Land north of Faulkners Way, Burgess Hill	Commitment - Allocated Site Without Permission	Housing	20	units	20				0.397	0.191	0.143	0.486	8	4	3	10	1105	1105
PENDING	MidSussex	510	Imberhorne Lane car park, Imberhorne Lane, East Grinstead	Commitment - Allocated Site Without Permission	Housing	18	units	18				0.397	0.191	0.143	0.486	7	3	3	9	3186	3186
PENDING	MidSussex	36	Land adjacent to Station Goods Yard, Keymer Road, Hassocks	Commitment - Allocated Site Without Permission	Housing	16	units	16				0.397	0.191	0.143	0.486	6	3	2	8	3157	3157
PENDING	MidSussex	477	Land adjacent to Cookhams, south of Top Road, Sharpthorne	Commitment - Allocated Site Without Permission	Housing	16	units	16				0.397	0.191	0.143	0.486	6	3	2	8	3179	3179
PENDING	MidSussex	619	Beech Hurst Depot, Bolnore Road, Haywards Heath	Commitment - Allocated Site Without Permission	Housing	15	units	15				0.397	0.191	0.143	0.486	6	3	2	7	1069	1069
PENDING	MidSussex	191	Land to the north and rear of Barnfield Cottages, Haywards Heath Road, Balcombe.	Commitment - Allocated Site Without Permission	Housing	14	units	14				0.397	0.191	0.143	0.486	6	3	2	7	3191	3191
PENDING	MidSussex	188	Land opposite Newlands, (Spring Field Shaw), London Road, Balcombe	Commitment - Allocated Site Without Permission	Housing	14	units	14				0.397	0.191	0.143	0.486	6	3	2	7	3191	3191
PENDING	MidSussex	150	Land to the west of the Rectory, Haywards Heath Road, Balcombe	Commitment - Allocated Site Without Permission	Housing	14	units	14				0.397	0.191	0.143	0.486	6	3	2	7	3191	3191
PENDING	MidSussex	84	The Oaks Centre, Junction Road, Burgess Hill	Commitment - Allocated Site Without Permission	Housing	12	units	12				0.397	0.191	0.143	0.486	5	2	2	6	1109	1109
PENDING	MidSussex	507	Caru Hall, Bolnore Road, Haywards Heath	Commitment - Allocated Site Without Permission	Housing	12	units	12				0.397	0.191	0.143	0.486	5	2	2	6	1068	1068
PENDING	MidSussex	559	East Grinstead Delivery Office, 76 London Road, East Grinstead	Commitment - Allocated Site Without Permission	Housing	12	units	12				0.397	0.191	0.143	0.486	5	2	2	6	3367	3367
PENDING	MidSussex	480	Courtmeadow School, Hanlye Lane, Cuckfield	Commitment - Allocated Site Without Permission	Housing	10	units	10				0.397	0.191	0.143	0.486	4	2	1	5	3168	3168
PENDING	MidSussex	177	The Manor House, 14 Manor Drive, Cuckfield	Commitment - Allocated Site Without Permission	Housing	10	units	10				0.397	0.191	0.143	0.486	4	2	1	5	3168	3168
PENDING	MidSussex	82	Motorcycle Workshop (former G&W Motors), London Road, Bolney	Commitment - Allocated Site Without Permission	Housing	10	units	10				0.397	0.191	0.143	0.486	4	2	1	5	3152	3152
PENDING	MidSussex	597	Land rear of Devon Villas, Western Road, Haywards Heath	Commitment - Allocated Site Without Permission	Housing	10	units	10				0.397	0.191	0.143	0.486	4	2	1	5	1081	1081
PENDING	MidSussex	441	67-69 Railway Approach, East Grinstead	Commitment - Allocated Site Without Permission	Housing	7	units	7				0.397	0.191	0.143	0.486	3	1	1	3	3367	3367
PENDING	MidSussex	139	Land between 98-104 Maypole Road. Ashurst Wood	Commitment - Allocated Site Without Permission	Housing	5	units	5				0.397	0.191	0.143	0.486	2	1	1	2	3182	3182
PENDING	MidSussex	649	Horsgate House, Hanlye Lane, Cuckfield	Commitment - Allocated Site Without Permission	Housing	5	units	5				0.397	0.191	0.143	0.486	2	1	1	2	3168	3168
PENDING	MidSussex	711	Bolney House, Cowfold Road, Bolney	Commitment - Allocated Site Without Permission	Housing	5	units	5				0.397	0.191	0.143	0.486	2	1	1	2	3152	3152
PENDING	MidSussex	553	The Old Estate Yard, Church Road, Turners Hill	Commitment - Allocated Site Without Permission	Housing	0	units	0				0.397	0.191	0.143	0.486	0	0	0	0	3190	3190

SCENARIO 1

			SCENARIO 1 - EMPLOYMENT																		
SC1	MidSussex		**Science and Technology Park**		B1a	312.5	employees		48.6			0.043	0.511	0.394	0.021	13	160	123	7	1036	**5011**
SC1	MidSussex		**Science and Technology Park**		B1b	625	employees		*(total site)*			0.183	0.367	0.465	0.045	114	229	291	28	1036	**5011**
SC1	MidSussex		**Science and Technology Park**		B1c	312.5	employees		*(MSDC App2)*			0.300	0.700	0.844	0.067	94	219	264	21	1036	**5011**
SC1	MidSussex		**Science and Technology Park (Hotel)**		C1	150	rooms					0.284	0.104	0.151	0.252	43	16	23	38	1036	**5011**

Sources: BHESS (March 2015) p2.36: *https://www.midsussex.gov.uk/media/3214/ep36_bhempsitesstudymarch2015.pdf*
Email 26/07: *Emails from Andrew and Nathan 24/07, 26/07*
MSDC Appendix 2: *https://www.midsussex.gov.uk/media/3402/appendix-2-employment-sites.pdf*

			SCENARIO 1 - HOUSING																		
SC1	MidSussex	503	Haywards Heath Golf Course, High Beech Lane, Haywards Heath		Housing	900	units	900				0.397	0.191	0.143	0.486	357	172	129	437	3177	**6001**
SC1	MidSussex	770	Land south and west of Imberhorne Upper School, Imberhorne Lane, East Grinstead		Housing	550	units	550				0.397	0.191	0.143	0.486	218	105	79	267	3186	**6002**
SC1	MidSussex	196	Land south of Crawley Down Road, Felbridge		Housing	200	units	200				0.397	0.191	0.143	0.486	79	38	29	97	3186	**6003**
SC1	MidSussex	479	Land at Hanlye Lane to the east of Ardingly Road, Cuckfield		Housing	168	units	168				0.397	0.191	0.143	0.486	67	32	24	82	3168	**6004**
SC1	MidSussex	852	Land north of Old Vicarage Field, Lion Lane, Turners Hill		Housing	130	units	130				0.397	0.191	0.143	0.486	52	25	19	63	3190	**6005**
SC1	MidSussex	832	Land west of Selsfield Road, Ardingly		Housing	100	units	100				0.397	0.191	0.143	0.486	40	19	14	49	3178	**6006**
SC1	MidSussex	127	Land at St. Martin Close, Handcross		Housing	65	units	65				0.397	0.191	0.143	0.486	26	12	9	32	3194	**6007**
SC1	MidSussex	519	Land north of Burleigh Lane, Crawley Down		Housing	60	units	60				0.397	0.191	0.143	0.486	24	11	9	29	3370	**6008**
SC1	MidSussex	617	Land at Foxhole Farm, Bolney		Housing	50	units	50				0.397	0.191	0.143	0.486	20	10	7	24	3152	**6009**
SC1	MidSussex	829	Land to the north Lyndon, Reeds Lane, Sayers Common		Housing	35	units	35				0.397	0.191	0.143	0.486	14	7	5	17	3363	**6010**
SC1	MidSussex	21	Land rear of 11A Crawley Down Road, Felbridge		Housing	30	units	30				0.397	0.191	0.143	0.486	12	6	4	15	3186	3186
SC1	MidSussex	184	Land south of St. Stephens Church, Hamsland, Horsted Keynes		Housing	30	units	30				0.397	0.191	0.143	0.486	12	6	4	15	3237	3237
SC1	MidSussex	595	Land at Brookhurst, Furze Lane, East Grinstead		Housing	30	units	30				0.397	0.191	0.143	0.486	12	6	4	15	3186	3186
SC1	MidSussex	676	Land south of 61 Crawley Down Road, Felbridge		Housing	30	units	30				0.397	0.191	0.143	0.486	12	6	4	15	3186	3186
SC1	MidSussex	696	1 -25 Bell Hammer, East Grinstead		Housing	28	units	28				0.397	0.191	0.143	0.486	11	5	4	14	3367	3367
SC1	MidSussex	763	Carpet Right, 220 - 228 London Road, East Grinstead		Housing	24	units	24				0.397	0.191	0.143	0.486	10	5	3	12	3183	3183
SC1	MidSussex	224	Land at Brooklands Park, west of Orchard Way, East Grinstead		Housing	15	units	15				0.397	0.191	0.143	0.486	6	3	2	7	3367	3367
SC1	MidSussex	848	Highfields, West Hill, East Grinstead		Housing	15	units	15				0.397	0.191	0.143	0.486	6	3	2	7	3367	3367
SC1	MidSussex	929	Land to the west of the Rectory, Haywards Heath Road, Balcombe		Housing	15	units	15				0.397	0.191	0.143	0.486	6	3	2	7	3191	3191
SC1	MidSussex	444	Warrenside, College Lane, East Grinstead		Housing	14	units	14				0.397	0.191	0.143	0.486	6	3	2	7	3184	3184
SC1	MidSussex	138	Land south of Hammerwood Road, Ashurst Wood		Housing	12	units	12				0.397	0.191	0.143	0.486	5	2	2	6	3182	3182
SC1	MidSussex	847	East Grinstead Police Station, College Lane, East Grinstead		Housing	12	units	12				0.397	0.191	0.143	0.486	5	2	2	6	3368	3368
SC1	MidSussex	216	Land at Police House Field, Birch Grove Road/Danehill Lane, Horsted Keynes		Housing	10	units	10				0.397	0.191	0.143	0.486	4	2	1	5	3237	3237
SC1	MidSussex	147	West Hoathly Station Goods Yard, Station Road, Sharpthorne		Housing	7	units	7				0.397	0.191	0.143	0.486	3	1	1	3	3179	3179
SC1	MidSussex	68	Farm buildings, Jeffreys Farm, Horsted Keynes		Housing	6	units	6				0.397	0.191	0.143	0.486	2	1	1	3	3237	3237
SC1	MidSussex	391	88 Holtye Road, East Grinstead		Housing	6	units	6				0.397	0.191	0.143	0.486	2	1	1	3	3368	3368
SC1	MidSussex	207	Land at Dirty Lane/Hammerwood Road, Ashurst Wood		Housing	5	units	5				0.397	0.191	0.143	0.486	2	1	1	2	3182	3182
SC1	MidSussex	849	West House, West Lane, East Grinstead		Housing	5	units	5				0.397	0.191	0.143	0.486	2	1	1	2	3367	3367
FULL	MidSussex					9334		9739								4598	3328	3253	4913		
PENDING	MidSussex					2077		2077								825	397	297	1009		
F/P (REF1)	**MidSussex**					**11411**		**11816**								**5423**	**3725**	**3550**	**5923**		
SC1	**MidSussex**					**3952**		**2552**								**1277**	**1111**	**1065**	**1334**		
					Total Windfall:			**405**				Params:	85%ile	emp							

A. REFERENCE CASE HIGHWAY INFRASTRUCTURE

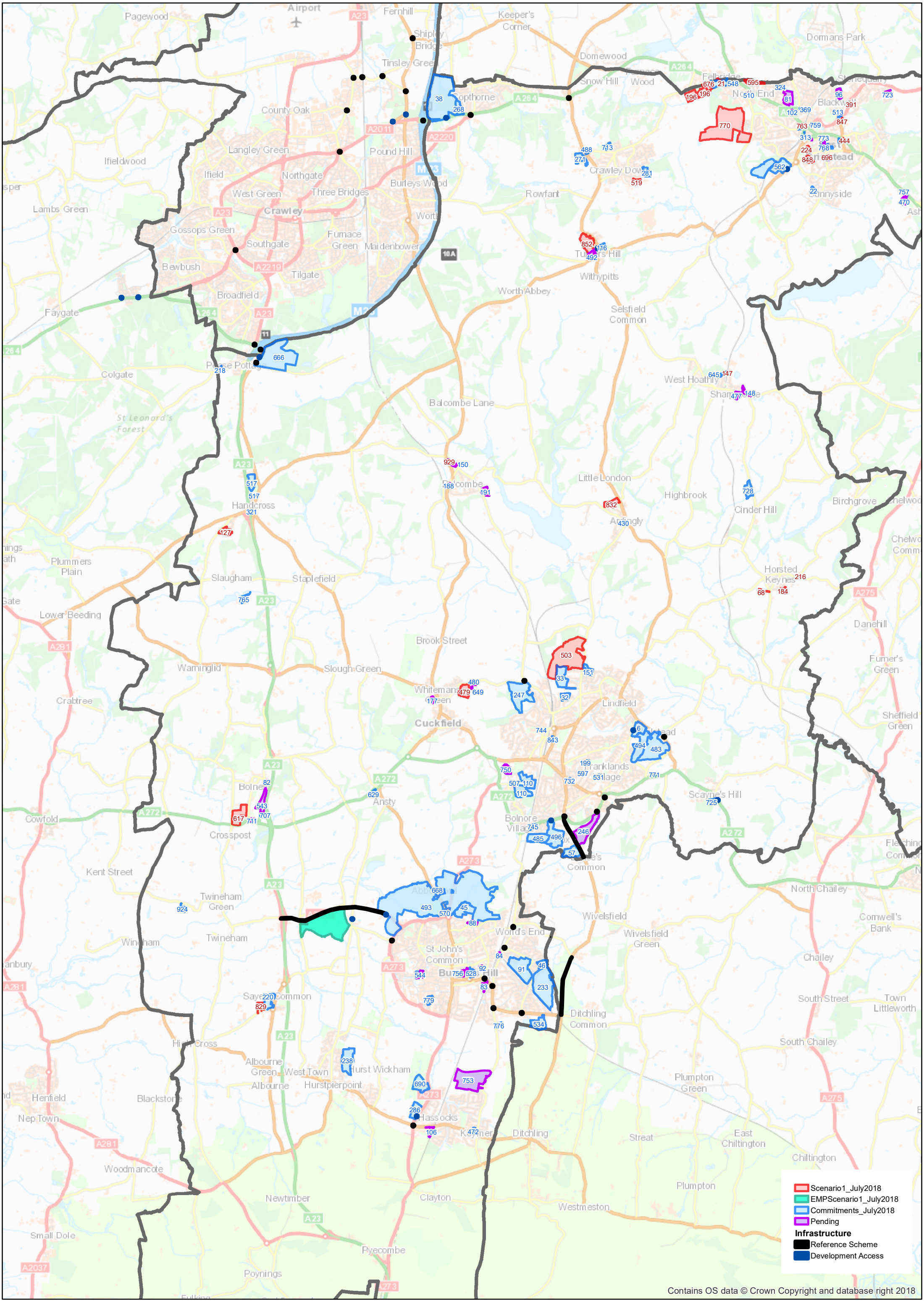
LOCATION			DESCRIPTION
Burgess Hill	A2300		Dualling, and junction improvements
	The Hub	Cuckfield Rd	Roundabout improvements
		Gatehouse Lane	Signal controlled crossing
	East of Kings Way	Junction Road / Silverdale road	Traffic signals
		Valebridge Rd / Janes Lane / Junction Rd	Traffic signals
		Kings Way	Traffic signals
		Church Rd / Mill Rd	Traffic signals
		Keymer Rd	Traffic signals
		Cants Lane	Traffic signals
		Ditchling Common	Speed restrictions
Copthorne	A264	A264 / Brookhill Rd / A220	Roundabout improvements
		Dukes Head Roundabout	Roundabout improvements
Hassocks	Hassocks Stonepound	Stonepound Crossroads	Traffic signals improvements
Haywards Heath	Penland Farm	Hanlye Lane, Borderhill Lane	Roundabout
	Fox Hill	South of Hurstwood Lane	Extension of 30mph speed limit
	Relief Road (east)	Hurstwood Lane	Traffic Signals
	Fox Hill	B2112, Colwell Rd	Roundabout improvements
Crawley	Copthorne	M23 J10	Junction improvements
	Tinsley	Gatwick road	Roundabout improvements
	Pound Hill	A2011	Link road, and junction improvements
	Tinsley	Radford Rd	Traffic signals
	Tinsley Green	Steers Lane / Radford Rd	Traffic signals
		Steers Lane / B2036	Traffic signals
	Hazelwick	A2011	Signalised roundabout
	Fernhill	B2036	Roundabout improvements
	Manor Royal	Gatwick Road	Roundabout improvements
	Cheals Junction	A23	Roundabout slip lane
	Pease Pottage	M23 J11	Signalised gyratory
	Smart Motorways	M23	Motorway improvements

B. KNOWN DEVELOPMENT SITE ACCESSES

SHLAA ID	SITE NAME	ACCESS
6	Land at Gravelye Lane and Scamps Hill, Lindfield	Priority
38	Land north of the A264 at Junction 10 of M23	Roundabout
74	The Hub	Priority
233	Land east of Kings Way, Burgess Hill	Priority
246	Hurst Farm, Hurstwood Lane, Haywards Heath	Priority
286	Land at the Ham, Hassocks	Priority
483	Land South of Scamps Hill, Lindfield	Priority
485	Land south of Rocky Lane Phase 2, Haywards Heath	Priority (same access as SHLAA 496)
496	Land south of Rocky Lane & to the west of Weald Rise and Fox Hill Village, Haywards Heath	Priority
562	Land at Hill Place Farm to the south west of East Grinstead, west and east of the Bluebell Railway Line	Priority
666	Hardriding Farm, Brighton Road, Pease Pottage	Roundabout
	North East Crawley	Signals
	Kilnwood Vale - western access Kilnwood Vale - eastern access	Roundabout Priority

C. UNKNOWN DEVELOPMENT SITE ACCESSES, AND THEIR ASSUMPTIONS

SHLAA ID	SITE NAME	ACCESS	SOURCE
45	Former Sewage Works, Fairbridge Way, Burgess Hill	Roundabout	08/01644/OUT - **https://www.midsussex.gov.uk/**
57	Land at Foxhill (Gamblemead Lane), Foxhill, Haywards Heath	Priority	No documentation available
81	Imberhorne Lower School, Windmill Lane, East Grinstead	No change to base zone access	Brownfield site, so access assumed to be unchanged
83	Burgess Hill Station yard/car park, Burgess Hill	No change to base zone access	Brownfield site, so access assumed to be unchanged
91	Keymer Tile Works, Nye Road, Burgess Hill	Priority	14/02830/REM - https://www.midsussex.gov.uk/
127	Land at St. Martin Close, Handcross	Priority	No documentation available. Assumed to use existing roads.
196	Land south of Crawley Down Road, Felbridge	Priority	No documentation available. Assumed to be priority access.
220	Land north of Kingsland Laines, Sayers Common	No change to base zone access	No documentation available
238	Land at Little Park Farm, north of Hurstpierpoint	No change to base zone access	No documentation available. Assumed to be priority access.
247	Penland Farm, Haywards Heath	Roundabout	https://www.catesbyestates.co.uk/
479	Land at Hanlye Lane to the east of Ardingly Road, Cuckfield	Priority	https://www.redrow.co.uk/
493 493 493 493	Northern Arc, Burgess Hill - employment Northern Arc, Burgess Hill - western development (between Jane Murray Way and A2300) Northern Arc, Burgess Hill - mid development (between A2300 and B2036) Northern Arc, Burgess Hill - eastern development (east of Isaac's Lane)	Roundabout Roundabout Roundabout Roundabout	https://www.nexusplanning.co.uk/experience/burgess-hill-northern-arc
503	Haywards Heath Golf Course, High Beech Lane, Haywards Heath	Priority	No documentation available. Assumed to be priority access.
517	Land at Hyde Estate (to the north of Handcross)	No change to base zone access	No documentation available
519	Land north of Burleigh Lane, Crawley Down	Priority	No documentation available. Assumed to use existing roads.
528	Land at Burgess Hill Town Centre (multiple sites)	No change to base zone access	Brownfield site, so access assumed to be unchanged
617	Land at Foxhole Farm, Bolney	Roundabout	No documentation available. Assumed access at Cowfold Rd / Bolney Chapel Rd / Foxhole Lane
690	Hassocks Golf Club, London Road, Hassocks	No change to base zone access	http://www.keeparchitecture.co.uk/
753	Land to the north of Clayton Mills, Mackie Avenue, Hassocks	Priority	https://www.midsussex.gov.uk/
756	Land at the Brow, Burgess Hill	No change to base zone access	No documentation available
768	Martells Store, 1-4 Normans Gardens and 38A Queens Road, East Grinstead	No change to base zone access	Brownfield site, so access assumed to be unchanged
770	Land south and west of Imberhorne Upper School, Imberhorne Lane, East Grinstead	Roundabout	No documentation available. Assumed to be roundabout access.
829	Land to the north Lyndon, Reeds Lane, Sayers Common	Roundabout	No documentation available. Assumed to use existing roads.
832	Land west of Selsfield Road, Ardingly	Priority	No documentation available. Assumed to use existing roads.
843	37-39 Perrymount Road, Haywards Heath	No change to base zone access	Brownfield site, so access assumed to be unchanged
852	Land north of Old Vicarage Field, Lion Lane, Turners Hill	Priority	No documentation available. Assumed to be priority access.
	Land North of Horsham	No change to base zone access	Outside of study area, so details of zone access not modelled
	Science and Technology Park	Roundabout	No documentation available, assumed to be roundabout due to size and location


Pagewood
Airport
Fernhill
Shipley Bridge
Keeper's Corner
Domans Park
Tinsley Green
Domewood
Snow Hill
Furnace Wood
Felbridge
North End
Blackwell
Sunnyside
Crawley Down
Rowfant
Worth
Burleys Wood
Pound Hill
Langley Green
County Oak
Ifield
Ifieldwood
Northgate
West Green
Three Bridges
Crawley
Lambs Green
Gossops Green
Southgate
Furnace Green
Maidenbower
Bewbush
Tilgate
Broadfield
Faygate
Colgate
Pease Pottage
Withypitts
Worth Abbey
Selsfield Common
West Hoathly
Balcombe Lane
St Leonard's Forest
Little London
Highbrook
Cinder Hill
Birchgrove
Handcross
Slaugham
Staplefield
Plummers Plain
Lower Beeding
Brook Street
Warninglid
Slough Green
Whitemans Green
Cuckfield
Lindfield
Crabtree
Bolney
Ansty
Cowfold
Crosspost
Kent Street
Twineham Green
Twineham
Wineham
Bolnore Village
Scaynes Hill
Horsted Keynes
Danehill
Fumer's Green
Sheffield Green
Wivelsfield
Wivelsfield Green
Chailey
North Chailey
Cornwell's Bank
St John's Common
Burgess Hill
Ditchling Common
South Chailey
South Street
Town Littleworth
Albourne
Albourne Green
West Town
Hurst Wickham
Hurstpierpoint
Hassocks
Ditchling
Keymer
Plumpton Green
East Chiltington
Chiltington
Plumpton
Westmeston
Clayton
Newtimber
Pyecombe
Poynings
Woodmancote
Henfield
Nep Town
Small Dole
Blackstone
Streat
Scenario1_July2018
EMPScenario1_July2018
Commitments_July2018
Pending
Infrastructure
Reference Scheme
Development Access
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MID SUSSEX TRANSPORT STUDY

TRANSPORT IMPACT OF SCENARIOS 7 AND 8
FULL MODELLING REPORT

WEST SUSSEX COUNTY COUNCIL COMMENTS ON THE MID SUSSEX STRATEGIC TRANSPORT STUDY TRANSPORT IMPACT OF SCENARIOS 7 AND 8 – FULL MODELLING REPORT

3.3.5

The notable flow increases on A23/M23 corridor are slightly different in the two scenarios, as the average increase on the notable sections only, is more in PM than AM in S7 (note, the other way round from the average given for all sections) whilst in S8 is more equal between the two peaks. However, this still doesn't lead to a particular preference for one strategy over the other in transport terms.

4.2.3

The County Council supports the strategy of catering for travel demand arising at Burgess Hill on the A2300 corridor, in preference to routings using less suitable secondary roads on the B2036 via Ansty or the B2116 at Hassocks and Hurstpierpoint. Highway capacity mitigation is likely to be more possible on the A2300 corridor, but should nonetheless be considered only after the effectiveness of increased use of sustainable modes including public transport, cycling walking and mobility as a service has been maximised, given any constraints in the local context. Residual improvements to highway capacity are to be demonstrated as necessary under the NPPF policy test once these other approaches and solutions have been fully explored.

Highway improvements by first preference would be within existing highway boundaries to reduce deliverability issues. In some locations it may be necessary to consider an improvement scheme which relies limited third party land acquisition, provided that it is considered that there is a reasonable prospect of achieving this, including that the scheme achieves a net benefit once any impacts are taken into account and that the scheme represent the only approach to resolving the severe impacts which would be effective.

5.1.2

There is little difference between Scenarios 7 and 8 with mitigation. The County Council would not have a strong preference between these spatial strategies although we note that Scenario 7 does have a lesser impact at the B2114/B2116 junction at Whitemans Green.

5.3.3

Both scenarios result in two junctions which remain severe impacts in the with-mitigation results. As both of these junctions are on strategic or principal routes, further work will be required to mitigate these severe impacts for a spatial strategy to be evidenced at Examination In Public. Impacts to the A23 and their solutions will need to be discussed and agreed with Highways England.