Eastleigh Local Plan

18/05/2018

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PART 2 TRANSPORT ASSESSMENT – FINAL

SYSTRA

EASTLEIGH LOCAL PLAN

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1. EXECUTIVE SUMMARY

1.1 Introduction

1.1.1 Throughout the evolution of the emerging Eastleigh Borough Local Plan 2016-2036 (EBLP), an extensive Transport Assessment (TA) process has been undertaken, focussing on the appraisal of Local Plan growth options and associated transport improvements and interventions. This TA report updates an earlier study undertaken in 2013 and reported in the "Transport Assessment of the Revised Pre-Submission Local Plan" published in January 2014. That earlier report considered a different Local Plan development scenario to the one now proposed in the current Local Plan.

1.1.2 A comparative analysis of seven Do Something test scenarios against an updated Baseline scenario has been undertaken and is reported in a separate Technical Report "Eastleigh Local Plan - Do Something Comparison of Development Options". That document sits alongside this TA and provides a comparison of the performance of the transport networks and the impacts of the seven options.

1.1.3 This report focusses on the Local Plan's preferred land use scenario (with Strategic Growth Option sites at Bishopstoke and Fair Oak) and considers two different transport intervention strategies; one with an 'intermediate' level of transport mitigation and the other with a 'high' level of intervention. These are referred to as the "Do Something" and "Do More" scenarios.

1.2 Transport Context

1.2.1 Eastleigh Borough is located in south Hampshire between Southampton and Winchester. The three principal urban centres within the borough are Eastleigh, Chandlers Ford and Hedge End. Other notable settlements include Bishopstoke, Botley, Bursledon, Fair Oak, Hamble, Netley Abbey and West End.

1.2.2 The M3 and M27 pass through the borough providing access between the south coast (including the international ports at Southampton and Portsmouth) and destinations towards London and the Midlands. The borough also contains a major regional airport to the south east of Eastleigh. Southampton International Airport caters for 2.0 million passengers per year and around 173,000 tonnes of freight and has good interchange connections with both road and rail networks.

1.2.3 There are six rail stations rail in the borough with services operated by South Western Railway and Cross Country Trains. Eastleigh and Southampton Airport Parkway lie on the mainline route from the south coast (Weymouth and Poole) to London (Waterloo). Eastleigh Station also serves trains from Portsmouth Harbour to London (Waterloo).

1.2.4 The core bus services within the borough are provided by Xelabus and Bluestar, offering a wide range of routes to and from local destinations within the borough and surrounding towns.

1.2.5 The borough has areas of comparatively good footpath and cycleway networks, particularly in terms of connections to town centres, public transport services, leisure facilities, employment areas and schools. There are however some missing links within and between settlements in the borough.

1.3 Local Plan Proposals

1.3.1 In common with other parts of Hampshire and the South East, the borough is subject to considerable demand for new housing and employment growth. The council has identified a need to find land for a minimum of 14,580 new dwellings and 144,050 sq m of new employment floorspace in the period 2016 to 2036.

1.3.2 Having assessed a range of land use options a preferred strategy has emerged which involves two Strategic Growth Option (SGO) sites as follows:

- 1,000 dwellings north of Bishopstoke; and
- 4,200 dwellings north and east of Fair Oak.

1.3.3 These adjoining sites will be linked together with strategic new highway infrastructure in the form of the Northern Link Road (comprising the North Bishopstoke Link Road plus the Allbrook Hill Relief Road) and will deliver 5,200 dwellings and 30,000 sqm of employment.

1.3.4 Additional growth will be provided at a number of strategic sites, including:

- South of Chestnut Avenue, Stoneham Park (1,100 dwellings)
- West of Horton Heath (950 dwellings);
- West of Woodhouse Lane (650 dwellings);
- Boorley Green and Botley (1,700 dwellings);
- Fir Tree Farm (450 dwellings); and
- North of Hedge End Station (680 dwellings)

1.3.5 A further 5,786 new dwellings are proposed at a range of smaller sites in urban and greenfield areas across the borough The Borough's new employment development will be accommodated through a range of mix use regeneration and greenfield development including Eastleigh Riverside, Chalcroft Business Park and small scale employment within existing settlements.

1.4 Approach to Transport Analysis

1.4.1 Eastleigh falls within the area covered by the Solent Transport sub-regional transport model (SRTM), a sophisticated tool that provides evidence based Land-Use and Transport Interaction analysis. The SRTM has been developed over a number of years in conjunction with the key transport stakeholders such as Hampshire County Council and Highways England. The SRTM has recently been updated with 2015 base year data to ensure that the model remained current and compliant with WebTAG requirements. The SRTM has been utilised to inform the development/ appraisal of a number of other Local Plan TAs within Hampshire.

1.4.2 Bespoke model runs have been commissioned for this assessment to reflect EBLP proposals and the outputs from the SRTM have been used to inform this impact assessment within this TA. Three test scenarios have been assessed as follows:

- **2036 Baseline** - A future baseline scenario, excluding any of the Easleigh Local Plan growth proposals, but allowing for committed developments within the Borough and background traffic growth outside of it in addition to committed transport mitigation measures;

- **2036 Do-Something** - A future scenario including all of the Baseline assumptions plus the Local Plan growth and an 'intermediate' level of transport interventions and mitigation measures; and
- **2036 Do-More** - As per the Do Something scenario but with a 'high' level of transport interventions and mitigation measures.

1.4.3 The traffic modelling and analysis of Local Plan impacts is underpinned by an appraisal of wide ranging committed and planned multi-modal transport interventions. Those that are committed to come forwards regardless of future Local Plan allocations form part of the future 'Baseline' scenario. Those that are linked with Local Plan growth are assessed in this TA as part of either the future 'Do-Something' or 'Do-More' scenarios.

1.4.4 Committed transport schemes, forming part of the future **Baseline** scenario include:

- B3037 Fair Oak Road – Sandy Lane to Allington Lane widening and junction improvements;
- Denhams Corner Roundabout (B3354/B3342) – widening of Winchester Road and Bubb lane approaches;
- Maypole Roundabout (A334/B3033) – Increasing the diameter of roundabout and widening of the approach arms;
- M27 and M3 Smart Motorways scheme – modifications to convert hard shoulders to 24/7 extra traffic lanes;
- M27 Junction 8 /Windhover – Full signalisation of both junctions with widening of circulatory carriageway and approach arms, improvements to pedestrian and cycle lanes and crossing facilities;
- M27 Junction 9 – Widening of the circulatory carriageway, slip roads and the Whiteley Way approach arm; and
- Whiteley Link Roads – including widening of Whiteley Way and extending the existing link roads northwards to provide two access points onto the A3051.

1.4.5 Transport measures linked to Local Plan proposals and forming part of the future **Do-Something** or **Do-More** scenarios include:

- Northern Link Road (comprising North Bishopstoke Link Road and Allbrook Hill Relief Road) – new link road and on-line improvements from B3037 Mortimers Lane east of Fair Oak to the A335 Allbrook Way north of Allbrook;
- M3 Junction 12 – Capacity improvements at roundabouts;
- Botley Road / Eastleigh Road / Stubbington Lane junction – capacity improvements;
- Winchester Road / Mortimers Lane junction – capacity improvements;
- Denhams Corner Roundabout (B3354/B3342) – further capacity improvements over baseline scheme;
- Maypole Roundabout (A334/B3033) – further capacity improvements over baseline scheme with additional widening and flaring of approaches;
- Botley Bypass – new link road to the north of the village, and capacity improvements to Woodhouse Lane;
- Allington Lane / A27 / Townhill Way roundabout – widen approach arms to improve capacity;
- Allington Lane railway bridge – traffic signals for shuttle working;
- Mitchell Way Spur Road

1.4.6 To provide a consistent measure of the impacts arising from the Local Plan proposals and the effectiveness of the mitigation measures, the results from the three test scenarios have been assessed against the criteria below (these criteria match those applied to other SRTM commissions relating to Local Plan TAs). Volume to Capacity (V/C) is reported as a percentage to express the forecast take-up of available highway capacity at individual locations - hence identifying links with a high V/C is a proxy for identifying junctions with capacity issues. :

- a junction where the ratio of volume to capacity (V/C) on any approach arm was **85**% or more in the Do-Something or Do-More scenario and has increased by **5%** or more compared with the Baseline scenario, is considered as experiencing a **significant** impact;
- a junction where the ratio of volume to capacity (V/C) on any approach arm was **95**% or more in the Do-Something or Do-More scenario and has increased by **10%** or more compared with the Baseline scenario, is considered as experiencing a **severe** impact;
- a junction where the average delay per vehicle in the Do-Something or Do-More scenario was **two minutes** or more in any period and has increased by **one minute** or more compared with the Baseline scenario, is considered as experiencing a **severe** impact.

1.4.7 If the V/C is near, or in excess of 90%, then the junction will be subject to queuing and delays; a value of 90% is normally taken as the practical capacity value for design purposes. A value of >100% means that the junction is over capacity and significant queues and delay could occur.

1.4.8 The application of these criteria has enabled the locations of greatest change to be identified. From this starting point, a more detailed review of individual junction performance, with and without mitigation measures, was undertaken that included consideration on change to delay and the length of queues forecast and how these may impact on upstream locations ('blocking back').

1.5 Impact Assessment

1.5.1 To gain an understanding of the extent and spread of peak hour stress on the highway network in 2036, the results from the three future year test scenarios have been interrogated to identify and initial longlist of 'Hot Spot' locations on the network where the ratio of Volume to Capacity (V/C) reached or exceeded 80%. This exercise identified 67 locations in the Baseline scenario and 70 locations in the Do-Something and Do-More tests.

1.5.2 Using the defined thresholds set out above to assess the significance of changes between Baseline and Do-Something / Do-More scenarios, the following results emerged:

- **Do-Something Scenario** - 12 locations with Significant impacts and 10 with Severe Impacts;
- **Do-More Scenario** – 17 locations with Significant impacts and 8 with Severe impacts.

1.5.3 The slight overall increase in the number of locations affected in the Do-More scenario is likely to be due to the increased mitigation measures releasing traffic from previously congested locations such that traffic flows to other parts of the network are increased. The incidence of severe impacts is however reduced in the Do-More scenario.

1.5.4 Each of these locations are assessed in detail in Section 6 of the TA. In the majority of cases it was found that, although the numerical values of V/C or delays met or exceeded the pre-defined thresholds in the significance criteria, the actual impact on queues and delays was small or moderate, even in locations where overall junction capacity is predicted to be exceeded in 2036. In many cases the Do-More mitigation measures were found to be sufficient to achieve satisfactory junction performance, demonstrating that Local Plan growth can be accommodated without severe residual impacts on network performance.

1.5.5 The location at greatest stress in terms of network performance is the area around M3 J12 where the motorway dumb-bell roundabouts and the adjacent Winchester Road / Otterbourne Hill roundabout are shown to be over capacity in 2036. The mitigation measures tested for individual arms were successful in addressing capacity problems on those arms but did not fully resolve the overall capacity of the junctions. A separate study of these three junctions is being undertaken by HCC/Atkins to examine options for increasing capacity at this location. The outputs from that study will need to be kept under review and are likely to inform future decisions concerning future mitigation measures needed at this location.

1.6 Cross Boundary Impacts

1.6.1 As part of the TA the impacts of traffic within the South Downs National Park, Test Valley Borough Council, and Winchester City Council administrative areas adjoining Eastleigh Borough have been assessed. The model zones bordering Eastleigh borough have been interrogated using the same assessment criteria and thresholds as used for the assessment of Eastleigh zones and the following results emerged:

- **Do-Something Scenario** - 1 location with Significant impacts and 2 with Severe Impacts;
- **Do-More Scenario** – 2 locations with Significant impacts and 1 with Severe impacts.

1.6.2 The three junctions flagged with significant or severe impacts are identical between the the Do Something and Do More scenarios. At two of the locations, a more detailed review of forecast queues and delays reveals that impacts are only minor. The final location is a junction not yet constructed and should therefore be subject to further scheme refinement prior to construction to meet traffic volume forecasts.

1.6.3 In addition to the above that focussed on individual junctions, five specific corridors/ areas were also considered:

- The B3335 corridor from Allbrook to the M3 Junction 11;
- The B3354 corridor from Fair Oak to Colden Common;
- The B2177 corridor from Fishers Pond to Bishops Waltham;
- The B3037 from Fair Oak to the B2177 at Lower Upham; and
- The rural roads in the areas around Twyford, Morestead, Owslebury and Upham.

1.6.4 The B3335 corridor through Twyford will be approaching capacity in all test scenarios, with other sections of the corridor operating within capacity. Local Plan growth does not trigger any significant impacts.

1.6.5 The section of the B3354 between Colden Common and Fishers Pond will be over capacity in all three test scenarios. Conditions are worse in the Baseline than in the Do-Something and

Do-More tests indicating that the proposed Northern Link Road is having a positive effect in this area.

1.6.6 The route along the B2177 from Fishers Pond to Bishops Waltham is shown to be operating within capacity. Some congestion is identified within Bishops Waltham in all scenarios but the results show the Local Plan does not have a major impact.

1.6.7 The B3037 route between Fair Oak and Lower Upham is also shown to be operating within capacity.

1.6.8 The rural road network, including the National Park area, generally experiences V/C ratios below 50% with very little difference between the three test scenarios indicating that impacts are small and highway capacity is not exceeded.

1.7 Motorway Impacts

1.7.1 The impacts of development have been assessed at the following motorway junctions within, or in close proximity to Eastleigh Borough:

- M3 Junction 13
- M3 Junction 12
- M27 Junction 5
- M27 Junction 7
- M27 Junction 8
- M27 Junction 9

1.7.2 As noted above, the dumb-bell junctions at M3 J12 have been identified as being over capacity in all test scenarios and these junctions are the subject of a separate study. An assessment of flows and capacities on the slip roads at this and the other five motorway junctions in the study area has shown that, in the majority of cases, V/C ratios are below 80% and therefore within capacity.

1.7.3 The Southbound-off slip road at M3 J12 exceed 80% in the AM peak and 100% in the PM peak, in all scenarios and as stated this is being investigated in a separate study. M27 J9 is also forecast to experience high V/C values. V/C's in excess of 80% are predicted on the Westbound-Off slip road in both peaks. Values greater than 100% are predicted for the Eastbound-Off slip road, again in both peak periods. Comparison of the results with and without Local Plan proposals shows that the maximum change in V/C on the most congested slip road (Eastbound-On) is 1% indicating that Local Plan growth does not have a material effect on junction performance.

1.7.4 The slip roads at M3 J13, M27 J5, M27 J7 and M27 J8 are shown to be operating within capacity and not adversely affected by the planned levels of growth.

1.8 Study Conclusions

1.8.1 The study has tested the impacts of Local Plan growth alongside wide ranging mitigation measures including extensive new road construction, individual junction improvement schemes and public transport enhancements to the larger development sites. Analysis of the highway network has identified a longlist of 70 traffic capacity hot spots across the borough

and a total of 29 locations where significant or severe impacts are likely to arise in either the Do-Something or Do-More scenarios. The testing of mitigation schemes has shown that options are available to mitigate the effects of growth in traffic, although further work will be needed in some areas to address particular hot spots. These schemes will need to be developed and refined by scheme promoters as individual proposals come forward and more detailed studies are undertaken.

1.8.2 Whilst peak hour congestion will remain in many locations, the study has demonstrated that it is feasible to mitigate the effects of growth such that severe residual impacts are avoided.

2. INTRODUCTION

2.1 Transport Assessment

2.1.1 The emerging Eastleigh Borough Local Plan 2016-2036 (EBLP) has been the subject of a rigorous Transport Assessment (TA) process throughout its preparation. This has focussed on the assessment of the transport implications of Local Plan growth options and associated transport improvements and interventions.

2.1.2 Following the publication of the "Transport Assessment of the Revised Pre-Submission Local Plan" in January 2014 a number of changes have occurred to the proposals for the Local Plan and transport baseline against which it needs to be assessed. To assess these changes, a new two-part Transport Assessment has been undertaken.

2.1.3 Part 1 of the TA comprises a comparative analysis of 7 Do Something test scenarios and a Baseline scenario and was used to inform a preferred strategy for land use allocations and transport interventions. This is reported in a separate Technical Report "Eastleigh Local Plan - Do Something Comparison of Development Options" and provides a comparison of the performance of the transport networks and the impacts of the various options based on the outputs of Solent Transport's Sub Regional Transport Model (SRTM).

2.1.4 This report comprises Part 2 of Transport Assessment. It builds on the Part 1 work and focusses on the Preferred Options for the Local Plan. Two Preferred Option scenarios are considered as identified by EBC. Both are based on the preferred land use scenario (including the Strategic Growth Option sites at Bishopstoke and Fair Oak) but with two different transport intervention strategies; one with an 'intermediate' level of transport mitigation and the other with a 'high' level of intervention. These are referred to as "Do Something" and "Do More".

2.1.5 This TA provides an examination of the transport issues that are likely to arise in the future, the extent to which planned development in the Borough will contribute to these issues and the range and scale of transport improvements likely to be required to mitigate problems and encourage more sustainable travel. The study is intended to inform the preparation of the Local Plan and does not replace the need for individual Transport Assessments for specific development sites as they come forward through the planning process.

2.1.6 The TA has been prepared in keeping with the National Planning Policy Framework (NPPF) and in accordance with the Ministry of Housing, Communities and Local Government (MHCLG) guidance relating to "Transport evidence bases in plan making and decision taking" published March 2015.

2.2 Eastleigh Local Plan Proposals

2.2.1 Eastleigh Borough has a population of approximately 130,000[1] people and covers an area of 80km². The borough is predominately suburban in character. There are three main

[1] Eastleigh Borough Council Key Facts

settlements at Eastleigh, Chandler's Ford and Hedge End, plus eight smaller settlements at Bishopstoke, Fair Oak, Horton Heath, West End, Bursledon, Botley, Hamble and Netley.

2.2.2 Within the borough a housing need for 14,580 new dwellings has been identified within the plan period from 2016 to 2036. A requirement for around 144,050 sq.m net additional floorspace has also been identified to accommodate future economic growth[2].

2.2.3 The Borough Council will focus as much development as possible within existing urban areas with the remainder on greenfield sites including one Strategic Growth Option (SGO) site and six Strategic Sites. The remainder of the local plan target will be met on smaller urban and greenfield sites, including those which already have planning permission, plus unidentified windfall sites.

2.2.4 The preferred SGO site will accommodate 5,200 dwellings on land to the north of Bishopstoke and to the north and east of Fair Oak. The SGO site is made up of two new communities as follows:

- 1,000 dwellings north of Bishopstoke (formerly referenced Option B); and
- 4,200 dwellings north and east of Fair Oak (formerly referenced Option C).

2.2.5 Additional growth (5,530 dwellings) will be provided at a number of strategic sites, including:

- South of Chestnut Avenue, Stoneham Park (1,100 dwellings)
- West of Horton Heath (950 dwellings);
- West of Woodhouse Lane (650 dwellings);
- Boorley Green and Botley (1,700 dwellings);
- Fir Tree Farm (450 dwellings); and
- North of Hedge End Station (680 dwellings)

2.2.6 A further 5,786 new dwellings are proposed at a range of smaller sites in urban and greenfield areas across the borough.

2.2.7 The Borough's new employment development will be accommodated through a range of mixed use regeneration and greenfield development as follows:

- Mixed use development at Eastleigh River Side;
- Mixed use development at the Fair Oak and Bishopstoke SGO sites
- Development at Chalcroft Business Park;
- Small-scale employment at Botley, Bursledon, Chandlers Ford, Eastleigh, Fair Oak (Horton Heath), Hedge End and West End;
- New development of urban edge sites and re-use / redevelopment of buildings in the countryside;
- Retaining and intensifying existing employment sites; and
- Regeneration of Eastleigh town centre.

[2] Eastleigh Borough Local Plan 2016-2036

2.3 Sub Regional Transport Model (SRTM)

2.3.1 Eastleigh falls within the area covered by the Solent Transport sub-regional transport model (SRTM), a sophisticated tool that provides evidence based Land-Use and Transport Interaction analysis. The SRTM has been developed over a number of years in conjunction with the key transport stakeholders including Hampshire County Council and Highways England. The SRTM has recently been updated with 2015 base year data to ensure that the model remained current and compliant with WebTAG requirements.

2.3.2 Bespoke model runs have been commissioned for this assessment to reflect EBLP proposals and the outputs from the SRTM have been used to inform this TA. One of the major benefits of utilising the strategic model for transport assessment purposes is that it can provide greater insight into the effects of growth beyond the Borough boundary. It can also help isolate the specific impacts of development in the Borough and provide a comparative assessment of alternative mitigation strategies.

2.4 Consultation

2.4.1 An Officer working group comprising representatives from relevant highway authorities including Highways England (HE), Hampshire County Council (HCC), Eastleigh Borough Council (EBC) , Winchester City Council (WCC) and the South Downs National Park Authority (SDNPA) was established for this study and has reviewed the scope, approach and the emerging findings of the modelling work.

2.4.2 An initial meeting involving HCC, EBC and SYSTRA took place on 16 August 2017 to discuss the current status of the Local Plan and to plan the scope of additional scenario testing. A further meeting involving HE, HCC, EBC, WCC, developer representatives and SYSTRA took place on 17 January 2018 to review current work in relation to SRTM modelling, the planned interventions and details of the scenario testing needed for the TA (Transport Assessment).

2.4.3 A further working group meeting with HE, HCC, EBC, WCC, developer representatives and SYSTRA was held on 30 April 2018 to review the modelling results, the draft TA and to agree future actions.

2.4.4 EBC has also held separate additional meetings and discussions with HCC, WCC and SDNPA to clarify details of the model inputs which have been fed back to SYSTRA.

3. LOCAL CONTEXT

3.1 Transport Context

3.1.1 The borough of Eastleigh is in Hampshire, and located to the north and east of Southampton and borders Winchester to the north, Test Valley to the west and Fareham to the east.

3.1.2 The principal urban centres within the borough are:

Eastleigh

- Situated to the east of the M3, is the largest of the urban centres in the Borough. As such it represents a one of the principle employment centres.
- Southampton Airport to the south of the town centre and Barton Park and the railway works to the east are three of the Boroughs principal employment centres.
- The town centre also serves as focus for the Boroughs Colleges, retail and leisure facilities.

Chandler's Ford

- Chandler's Ford is located to the west of the M3, and is predominantly suburban in nature.
- It is also home to several large employment centres in the form of business parks and industrial clusters, such as Hampshire Corporate Park, Tollgate Business Park and B&Q.
- Chandler's Ford industrial estate is one of the Boroughs principal employment centres.

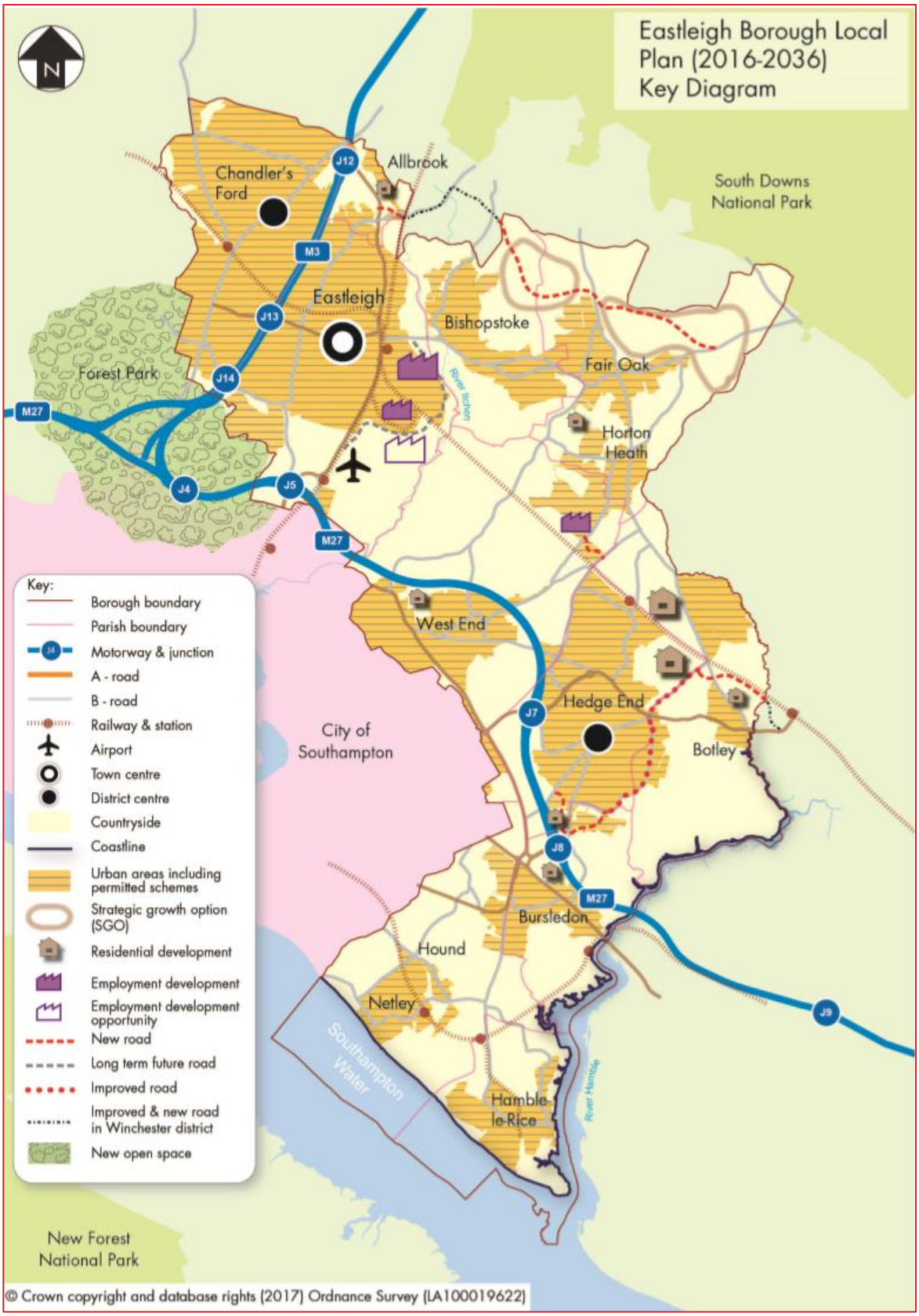
Hedge End

- Hedge End is located to the east of Southampton between Botley and West End.
- Hedge End is characterised by its varied land uses, with extensive residential suburbs, small local centre and large out of town retail parks and business parks.

3.1.3 Other notable settlements include Bishopstoke, Botley, Bursledon, Fair Oak, Hamble, Netley Abbey and West End.

3.1.4 Figure 1 (next page) highlights the principal transport networks in Eastleigh borough relative to existing settlements and planned development opportunity areas.

Figure 1. Principal Transport Networks in Eastleigh Borough



Source – Eastleigh Borough Local Plan 2016-2036 Key Diagram

3.2 Current Strategic Issues and Constraints

3.2.1 Whilst the borough is well served by frequent rail services to key urban centres, and is home to a growing regional airport, the highway network is characterised by peak period congestion on key routes and at motorway junctions, and a limited number of east-west connections between Eastleigh and its easterly hinterland.

3.2.2 Rail services to the borough from the east, and in particular to Southampton Airport Parkway, are hampered by an indirect connection via Eastleigh rail station.

3.2.3 The boroughs' position immediately to the north of Southampton, a key regional city, means it encounters considerable through movements on both the motorway and local highway networks. With routes such as the B3354 between M3 Junction 9 and Hedge End, the A334 through Hedge End and the A27 through West End providing an alternative route for through traffic when the delays occur on the motorway network.

3.2.4 Eastleigh town features a number of pinch points which encounter frequent peak period congestion, where solutions are constrained by the proximity of adjacent railway lines, rail sidings, the Airport and local ecology.

3.3 Baseline Travel Trends

3.3.1 The majority of journeys to work that originate within Eastleigh borough are by car (75%), with around half staying within the Borough, 21% travelling onto Southampton and 7% to Winchester.

3.3.2 Average car ownership per household in the borough is 1.47, which is higher than the national average of 1.173.

3.3.3 63% of employed residents travel less than 6 miles to work4. The modal share of journeys to work5 are:

- Car/Van – 67.8%
- Walk – 6.9%
- Car Passenger – 4.9%
- Bus/Coach – 2.9%
- Rail – 3.8%
- Cycle – 2.5%
- Work from home – 9.4%
- Other – 1.8%

3.4 Characteristics of the Principal Highway Network

- Eastleigh Borough is bounded to the west and south by motorways. The M3 (Junctions 11-14) provides links to Winchester, Basingstoke, Surrey and London, the M27 (Junctions 5-8) runs east-west linking Portsmouth to the New Forest. Both

[3] Census 2011, ONS

[4] Census 2001, ONS

[5] Census 2011, ONS

motorways experience peak period congestion, particularly within the vicinity of Eastleigh where the two motorways merge;
- There are limited east to west connections through the Borough, aside from the M27, the A334 and Bishopstoke Road. The railway, airport and a country park all form barriers to further connections;
- The A335 passes North-South through Eastleigh town centre, and forms an important multimodal corridor to Southampton;
- The A27 passes through Bursledon and West End, in a parallel orbital route to the M27;
- The A334 provides a connection between Southampton and Botley via Hedge End;
- The A3024 links Southampton and Bursledon;
- The A3025 Portsmouth Road to Hamble Lane passes through Old Netley linking the Windhover Roundabout and Woolston; and
- The A27, A3024 and A3025 meet at the Windhover Roundabout to the north west of Bursledon.

3.5 Rail

3.5.1 Rail services in Eastleigh borough are provided by South Western Railway and Cross Country Trains. The Boroughs railway stations are:

- **Eastleigh Station** is located on the South Western Main Line, at the junctions of the Eastleigh – Fareham Line and Eastleigh – Romsey Line. Principal destinations from this station are London, Southampton Central and Winchester. Eastleigh station also provides connections to Fareham and Portsmouth. The services and station are operated by South Western Railway.
- **Southampton Airport Parkway Station**, located next to Southampton International Airport. The station is on the London Waterloo to Weymouth mainline, with services operated by South Western Railway. As well as the Manchester to Bournemouth line operated by Cross Country Trains.
- **Chandler's Ford Station**, on the Eastleigh - Romsey Line, with services operated by South Western Railway. Interchange at Romsey provides onward connections to Salisbury, and from Eastleigh onto London Waterloo, Portsmouth and Weymouth.
- **Hedge End & Botley Stations**. Both are located on the Eastleigh – Fareham Line. Regular services between London Waterloo and Portsmouth and operated by South Western Railway call at these stations.
- **Bursledon Station**, located on the quay side of river Hamble. Services between Southampton Central and Portsmouth call at the station.
- **Hamble and Netley Stations** provide onward connections to Southampton, Fareham and Portsmouth. Services from these stations are operated by South Western Railway.

3.5.2 Botley Station lies just outside the Borough Boundary, but is within close proximity of Botley, and is situated on the Eastleigh – Fareham Line, with regular services onto Eastleigh and Portsmouth.

Table 1. Rail Services

STATION	DESTINATION	JOURNEY TIME	HOURLY FREQUENCY
Eastleigh	London	1 hr 20 min to 1 hr 40 min	4 peak, 3 off peak
	Southampton	11 to 15 min	3 peak, 2 off-peak
	Portsmouth	46 to 52 min	2 peak, 1 off-peak
	Winchester	8 to 12 min	4 peak, 3 off-peak
Southampton Airport Parkway	London	1 hr 12 min to 1 hr 40 min	4 - 5
	Southampton Central	8 to 11 min	5
	Portsmouth*	58 min to 1 hr 29 min	3 - 4
Chandler's Ford	London*	1 hr 53 min to 1 hr 55 min	1
	Southampton Central	21 to 22 min	1
	Salisbury	34 min to 1 hr 1 min	2
Hedge End	London	1 hr 27 min to 1 hr 32 min	3 peak, 1 off-peak
	Southampton Central*	23 to 38 min	3 peak, 1 off-peak
	Portsmouth	40 -46 min	1

*At least one change required
Source: Operator Timetables at March 2018

3.6 Bus

3.6.1 The core bus services within the borough are provided by Xelabus and Bluestar, offering a wide range of routes to and from local destinations and surrounding towns. Table 2 provides a summary of some of the main bus services within the borough.

Table 2. Bus Services

OPERATOR	SERVICES	ROUTE/AREAS SERVED	FREQUENCY
Xelabus	X4	Eastleigh – West End - Hedge End – West End - Eastleigh	1 per hour
	X6 / X7	Eastleigh – Chandlers Ford - Hiltingbury	2 per hour
	X8	Eastleigh – Boyatt Wood - Eastleigh	1 per hour
	X9	Bishops Waltham – Hedge End - Fair Oak - Eastleigh	1 per hour
	191 / 194	Bishops Waltham and Bishopstoke to Itchen College	1 per day (college days only)
	401 / 402 / 411	Boorley Park, Hiltingbury and Warsash to Barton Peveril College	1 per day (college days only)
Bluestar	Bluestar 1	Winchester – Otterbourne - Chandler's Ford - Southampton	4 per hour
	Bluestar 2	Fair Oak – Bishopstoke - Eastleigh - Southampton	3 per hour
	Bluestar 3	Boorley Green - Hedge End - Bitterne - Southampton	1 per hour
	Bluestar 5	Romsey – North Baddesley - Eastleigh	1 - per hour
	U1A / U1E (evenings)	Southampton – University – Airport - Eastleigh	1 to 3 per hour
	UN1 (night bus)	Leisure World (Southampton) - Southampton University - Eastleigh	1 per hour (Friday night only)

Source: Operator Timetables at March 2018

3.6.2 In addition to the above bus services, a number of taxi-share and community transport services are also available for people in more remote locations or with special mobility needs. Services include Eastleigh Shopmobility, Dial-a-Ride, Hedge End Park Minibus and Parishlink.

3.7 Walking and Cycling

3.7.1 The borough has areas of comparatively good footpath and cycleway networks, particularly in terms of connections to town centres, public transport services, leisure facilities, employment areas and schools. There are however some notable missing links in these networks, within existing settlements including Eastleigh, Fair Oak, Horton Heath, Botley and Hedge End. There is also a lack of quality cycle connections between settlements.

3.7.2 Following the adoption of its Cycling Strategy and Action Plan 2006-2011, and Walking Strategy (titled 'Promoting Walking and Cycling in Eastleigh Borough' 2008), the council has embarked on a number of improvements to its footpath and cycle network to improve safety, provide better links to major settlement areas and enhance interchanges with other modes.

3.8 Southampton Airport

3.8.1 Located largely within Eastleigh borough, Southampton International Airport is a major regional airport with approximately 2.0 million passengers passing through its gates and 173,000 tonnes of freight being handled in 20166. It serves as one of three key international gateways identified in Hampshire's LTP7 (the others being Southampton and Portsmouth Docks), providing direct connections to the continent (including Barcelona, Amsterdam and Frankfurt) and regional centres (such as Manchester, Glasgow, Edinburgh, Newcastle and Belfast). It also provides an important connection to the Channel Islands. It is operated by BAA and is a major employer in the local area.

3.8.2 The airport has good interchange provision: it can be accessed by the London-Weymouth main line railway via Southampton Airport Parkway Station, the A335 and the M3/M27. It also provides a convenient interchange for cruise passengers heading to/from the Port of Southampton.

3.9 Policy Context

3.9.1 Relevant published documents that outline national, regional and local spatial planning and transport strategies have been reviewed for this study. A common theme amongst them is promoting economic growth through sustainable development.

National Planning Policy Framework (NPPF) March 2012

3.9.2 This document outlines Government's planning policies for England and how they are expected to be applied. It is a framework within which local people and their councils can produce their own distinctive local and neighbourhood plans, and sets out Government's definition of sustainable development and what this means in practice for the planning system. 'At the heart of the NPPF is a Presumption in Favour of Sustainable Development, which should be seen as a golden thread running through both plan-making and decision taking'8.

3.9.3 The NPPF outlines the core planning principles for plan making and decision taking. Of relevance to the EBLP, the key ones state that planning should:

- Actively manage patterns of growth to make the fullest possible use of public transport, walking and cycling, and focus significant development in locations which are or can be made sustainable;
- Promote the vitality of our main urban areas;
- Reuse land that has been previously developed;

[6] GOV UK Air Traffic at UK airports (AVI01)2016 – DfT

[7] The Hampshire LTP 2011-2031

[8] Extract from National Planning Policy Framework 2012

- Promote mixed use developments; and
- Support the transition to a low carbon future.

Delivering Sustainable Development

3.9.4 The key emphasis of the NPPF is on delivery of sustainable development. The Framework states that transport systems need to be balanced in favour of sustainable transport modes, giving people a real choice about how they travel. Encouragement should be given to solutions which support reductions in greenhouse gas emissions and reduce congestion, supporting a pattern of development which facilitates the use of sustainable modes of transport. Local authorities are encouraged to work with neighbouring authorities and transport providers to develop strategies for the provision of viable infrastructure necessary to support sustainable development.

3.9.5 According to the Framework, developments that generate significant amounts of movement should be supported by a Transport Statement or Transport Assessment. Plans should take account of whether opportunities have been taken up to reduce the need for major transport infrastructure, and safe and suitable access to sites can be achieved for all people. Developments that generate significant movement should be located where the need to travel will be minimised and the use of sustainable transport modes can be maximised. Developments should be located and designed to: accommodate the efficient delivery of goods and supplies; give priority to pedestrian and cycle movements; create safe and secure layouts which minimise conflicts between traffic and cyclists or pedestrians; incorporate facilities for charging plug-in and other ultra-low emission vehicles; and consider the needs of people with disabilities. Developments should also contain clear and legible pedestrian routes, and high quality public space, which encourage the active and continual use of public areas.

Revised Draft NPPF March 2018

3.9.6 A revised consultation draft of the NPPF was published in March 2018. However, based on the draft transitional arrangements, the EBLP will be examined under the existing NPPF. The new draft reinforces the principles of the current draft rather than changing direction. It takes account of changes to primary legislation and government policy since 2012 and places greater emphasis on enabling and speeding up the delivery of new homes. The role of Local Plans has been strengthened, further underlining the plan-led approach to the delivery of development.

Hampshire Local Transport Plan 2011-2031 (Reviewed 2013)

3.9.7 The Plan sets out the local authority's transport vision for Hampshire and sub areas within the county. It identifies the county's transport challenges and sets out policies to tackle these challenges over the 20 year period of the Plan. The need to focus on obtaining optimum use of existing infrastructure within the region is clearly underlined throughout the Plan. Based on this underlying objective, a number of key themes have been developed and are highlighted throughout the Plan. These include traffic management, safe roads and road maintenance, transport and growth areas and quality of life and place.

3.9.8 Strategies within the Plan cover various sub-areas in Hampshire, and were developed by Hampshire County Council, Southampton City Council and Portsmouth City Council (three of the four component bodies that make up Solent Transport). Solent Transport has set itself a vision for South Hampshire to create:

- ''A resilient, cost effective, fully integrated sub-regional transport network, enabling economic growth whilst protecting and enhancing health, quality of life and environment''.

3.9.9 Several key challenges faced by local authorities in South Hampshire are outlined in this policy document. In the context of the EBLP, the following are relevant:

- Widening travel choice to offer alternatives to the private car, reducing the need to travel and moving towards a low-carbon economy;
- Managing the transport network to ensure journey time reliability is maintained and improved;
- Mitigating the adverse impacts of transport activity on people, communities and habitats; and
- Delivery of transport infrastructure to support housing and employment growth and regeneration opportunities.

3.9.10 To respond to these challenges and deliver the vision for South Hampshire, seven key outcomes have been identified which define the policy framework for delivery. In summary, they comprise:

- Reducing dependence on the private car, through increased choice of public transport and active modes;
- Improved awareness of different travel options, enabling informed travel choices;
- Improved journey time reliability;
- Improved road safety within the sub-region;
- Improved accessibility within and beyond the sub-region
- Improved air quality and environment; and
- Promoting higher quality of life.

3.9.11 A total of 14 strategic policies have been set out for South Hampshire; those of relevance to the EBLP are summarised below:

- Develop transport improvements that support sustainable economic growth and development;
- Optimise the capacity of the highway network and improve journey time reliability for all modes;
- Develop strategic sub-regional approaches to parking management to support sustainable travel and promote economic development;
- Improve road safety across the sub-region;
- Promote active travel modes and develop supporting infrastructure;
- Encourage private investment in public transport solutions and, where practical, better infrastructure and services;
- Work with rail operators to deliver improvements to station facilities and, where practical, better infrastructure and services;
- Work with Local Planning Authorities to integrate planning and transport;

- Develop and deliver high quality public realm improvements; and
- Safeguard and enable the future delivery of transport improvements within the area.

Transport for South Hampshire – Transport Delivery Plan 2012-2026 (Feb 2013)

3.9.12 The Transport Delivery Plan (TDP) was published in 2013 by Transport for South Hampshire, now known as Solent Transport, and was developed from the Sub Regional Transport Model Evidence Base. It identifies the prioritised transport schemes and interventions needed to support economic growth over the period to 2026.

3.9.13 Since its publication significant investment has been secured for the Solent area, enabling the delivery of £31m[9] into a range of sustainable transport interventions through the "Better Connected South Hampshire Local Sustainable Transport Fund (LSTF)".

3.9.14 The Plan aims to secure ongoing funding for the delivery of transport investment. Future schemes identified in Eastleigh Borough include:

- Strategic Cycle Links - key strategic cycle route corridors for future delivery including Botley - Hedge End - Eastleigh parallel to railway line.
- Windhover Roundabout Improvements - the current arrangement of the Windhover Roundabout includes both the A3025 Hamble Lane and A3024 Bursledon Road operating under traffic signal control. The proposed scheme would provide for the signalisation of the remaining three approaches to the roundabout.
- M27 J8 Improvements - this scheme involves the signalisation of M27 junction 8 off slips & Bert Betts Way (at Windhover Roundabout) part time in the am and pm peak. This scheme has been developed and tested by the Highways Agency. The roundabout is an existing congestion hotspot. Junction 8 of the M27 is linked to the Windhover roundabout by the A3024 (Bert Betts Way). The A3024 (Bert Betts Way) frequently queues back from the Windhover roundabout to the Junction 8 roundabout in the PM peak hour due, in the main, to vehicles having difficulty entering the Windhover roundabout. This can also result in the queue backing up along Dodwell Lane.

Eastleigh Borough Transport Statement (September 2012)

3.9.15 The Eastleigh Borough Transport Statement, developed by Hampshire County Council and adopted in September 2012, consists of a Transport Strategy and accompanying package of sustainable transport measures to improve accessibility and modal choice. The document was developed to assist the delivery of the Partnership for Urban South Hampshire (PUSH) economic objectives and those of the Solent Local Enterprise Partnership (LEP), with four overarching objectives being identified:

- Promote economic growth by maintaining a safe and efficient highway network, reducing casualties and tackling congestion on the transport network;
- Improve accessibility to jobs, facilities and services across all modes of transport;
- Facilitate and enable new development; and
- Tackle the impact of transport on the local environment.

[9] info@solent-transport.com

3.9.16 The Statement also presents a comprehensive transport policy framework for the borough which is based on the Solent Transport Joint Strategy (consisting of fourteen theme-based policies) and the above four overarching objectives.

3.9.17 The strategy outlined in the Statement is focussed around a series of multi-modal corridors which cut across administrative boundaries in places, with the onus on addressing transport issues holistically. These corridors include:

- Corridor 1: Chandler's Ford to Southampton City Centre and Winchester
- Corridor 2: Allbrook to Eastleigh
- Corridor 3: Chandler's Ford to Eastleigh Town Centre
- Corridor 4: Eastleigh to Southampton City Centre
- Corridor 5: Chandler's Ford Business District to Eastleigh Town and M27 Junction 5
- Corridor 6: Eastleigh to Bishopstoke
- Corridor 7: A27/ B3035 West End to Hedge End
- Corridor 8: A334/ B3033 Botley to Hedge End Corridor
- Corridor 9: Hedge End to Southampton and Hamble Peninsula
- Corridor 10: Hamble Peninsula

Public Transport Delivery Plan 2014 – 2036 (Solent Transport) (March 2014)

3.9.18 This Plan sets out the priorities for investment in public transport schemes in South Hampshire and the Isle of Wight for the period to 2036. It provides the following vision for public transport in the area:

- "An attractive, reliable and easy to use public transport system that is the mode of choice over the private car to support the overriding aims of unlocking the potential for economic growth and reducing carbon"

3.9.19 The Plan considers the key issues affecting public transport and identifies proposed interventions, categorised by a range of strategic objectives as follows:

- Strategic connections
- Sub-regional connectivity
- Enabling development
- Seamless travel
- Journey time reliability
- Widening travel choice
- Travel behaviour change

3.9.20 Strategic public transport interventions of relevance to Eastleigh Borough include:

- Intelligent Ticketing – Integrated smart ticketing for multi-modal journeys;
- Personal Journey Planning – Use of technology to increase awareness of travel options and encourage sustainable choices;
- Legible Bus Networks – Improved quality of information at the roadside and through technology;
- Inter Urban Coach Services – Exploit opportunities for improved services across the sub-region;

- Eastleigh Station Platform 4 – A 4th platform to remove the need for train reversing manoeuvres for east-west train services; and
- Eastleigh Chord – A new chord north of Southampton Airport Parkway would have operational benefits and facilitate the option of tram trains on the Netley line.

Eastleigh Strategic Transport Study Interim Report (December 2015)

3.9.21 The "Eastleigh Strategic Transport Study – Interim Report – Issues and Options" was prepared by HCC in 2015 in order to define the need for potential multi-modal strategic transport infrastructure over the EBLP period to 2036. The main purpose of the Interim Report was to support the EBC 'Issues and Options' consultation on the emerging Local Plan in December 2015.

3.9.22 The Study focussed on the strategic development options current at that time and assessed a range of potential strategic transport schemes. The work has helped to shape the emerging Local Plan and inform the current stages of work being undertaken as part of this Transport Assessment.

PUSH Spatial Position Statement to 2034 (December 2016)

3.9.23 The Partnership for Urban South Hampshire (PUSH), comprising the 12 Councils in south Hampshire, prepared this statement to define the overall need for development and distribute targets for housing and employment growth to each district, taking into account transport, infrastructure and environmental issues. These are the basis for the development targets in the Eastleigh Borough Local Plan and are also the targets used in the SRTM for development growth in the wider South Hampshire area (unless superseded by emerging Local Plans).

Eastleigh Borough Local Plan 2016 -2036 (December 2017)

3.9.24 The Eastleigh Borough Local Plan (EBLP) sets outs the Borough Council's policies and plans to guide future development to 2036. It identifies the quantum and location of development and the infrastructure and services needed to support growth in the borough.

Vision and Objectives

3.9.25 Outlined in the plan is the vision "To ensure development in Eastleigh Borough and its communities delivers a strong and sustainable economy with an adequate supply of housing and infrastructure that supports improved standards of living for residents while protecting the distinct identity of towns and villages and preventing urban sprawl; promoting thriving and healthy communities; and maintaining an attractive and sustainable environment that residents value".

3.9.26 To support this vision 18 specific objectives are set out; those of most relevance to this TA are listed below:

- Tackling local traffic congestion and associated pollution by reducing car usage and improving transport infrastructure;
- Ensure future development contributes to the Boroughs' sustainability and resilience through effective low carbon planning and design;

- Ensure a sufficient supply of well-designed homes to deliver the target of at least 14,580 homes between 2016 and 2036;
- Secure an ongoing provision of employment land and infrastructure that can support current and future business needs;

Strategy for new development

3.9.27 The Council aims to ensure that as much development as possible is accommodated within existing urban areas, on brownfield sites, to make best use of urban land and utilise existing facilities. Recognising the compact nature of the settlement structure, the strategy acknowledges the need for significant additional greenfield development. A substantial proportion of this will be delivered on Strategic Growth Option (SGO) sites where the scale of development should be sufficient to achieve a degree of self-containment and critical mass sufficient to deliver new infrastructure provision. Smaller greenfield extension sites will also be needed to ensure a continuity of housing supply through the plan period.

3.10 Local Enterprise Partnerships (LEPs) and the Housing Infrastructure Fund

3.10.1 The funding mechanisms for transport schemes have undergone significant change in recent years, with the introduction of Local Enterprise Partnerships and the drive towards greater local control and accountability for spending decisions.

3.10.2 Eastleigh Borough Council is situated within the Solent LEP, which includes the Southampton and Portsmouth City Councils, Fareham, Gosport and Havant District Councils, and parts of New Forest, Test Valley, Winchester and East Hampshire District Councils, as well as the Isle of Wight.

3.10.3 The Solent LEP has a strong focus on infrastructure priorities, and particularly those which assist with unlocking jobs and homes. It will be increasingly important going forwards that Eastleigh continues to make an effective case for strategic transport interventions and access to funding via the Local Growth Fund.

3.10.4 The Housing Infrastructure Fund, which allocates funding direct from MHCGL / DfT, has also been an important source of funding in recent times and will remain a potential source for future investment.

4. LOCAL PLAN PROPOSALS

4.1 Development Needs

4.1.1 The EBLP sets out the proposals for new housing and employment development over the course of the plan period.

4.1.2 As is the case with many other areas of south Hampshire, the borough is subject to considerable demand for new housing. In preparing the Local Plan, the council has identified a need to find land for a minimum of 14,580 new dwellings in the period 2016 to 2036.

4.1.3 In accordance with national planning policy requirements, the Council has also undertaken a review of the supply of, and demand for, employment land. The study has identified an estimated requirement for 144,050 sq m of new employment floorspace in the Plan period.

4.2 Local Plan Preferred Option Sites

4.2.1 The Council assessed a range of locations against the objectives set out in the plan vision. From its appraisal of the sites, the following locations were determined to best meet the defined objectives, and so have been taken forward in the EBLP.

4.2.2 The key strategic sites identified in the Local Plan are summarised in Table 3. The balance of the housing and employment growth will be met on smaller sites dispersed around the district.

Table 3. Principal Development Sites

DEVELOPMENT SITE	LOCATION	DESCRIPTION
Strategic Growth Option (SGO) sites **(North & East of Fair Oak and North of Bishopstoke)**	North and East of Fair Oak (East of B3354 Winchester Road)	4,200 dwellings District centre Local centre 2 primary schools 1 secondary school 30,000 sqm employment (small proportion North of Bishopstoke)
	North of Bishopstoke (West of B3354 Winchester Road)	1,000 dwellings Primary school Local centre Land for employment (see above)
South of Chestnut Avenue	South of Chestnut Avenue at Stoneham Park	1,100 dwellings Primary school Local centre 2,700 sqm employment

West of Horton Heath	Horton Heath	950 dwellings Primary school Local centre 24,000 sqm employment
Woodhouse Lane	East of Hedge End	650 dwellings 1 primary school 1 secondary school Local centre
Boorley Green	Northeast of Hedge End	1,400 dwellings Primary school Local centre 4,355 sqm employment
Fir Tree Farm	Fair Oak	450 dwellings
North of Hedge End Station	Hedge End	680 dwellings Primary school

4.2.3 The SGO site includes 1,850 dwellings which are planned to be delivered post 2036, however, the SRTM model includes the full 5,200 allocation in order to capture the full effects of the SGO. In total, the model allows for 16,974 new dwellings in Eastleigh Borough in the Plan period. This includes the 5,200 at the SGO and 5,530 at other strategic sites, plus 458 completions in 2015/16 and 5,786 dwellings at a range of sites in urban and greenfield areas across the borough.

4.2.4 Employment provision will be achieved by retaining and regenerating existing employment sites and through the provision of new employment floorspace as follows:

- Mixed use regeneration and greenfield development at Eastleigh Riverside;
- Mixed use development at the Fair Oak and Bishopstoke SGO sites;
- Employment development at Chalcroft Business Park;
- Small-scale employment development at Botley, Bursledon, Chandler's Ford, Eastleigh, Fair Oak (Horton Heath), Hedge End and West End; and
- New employment development in urban areas and re-use and redevelopment of buildings in the countryside.

4.3 Strategic Growth Option Sites

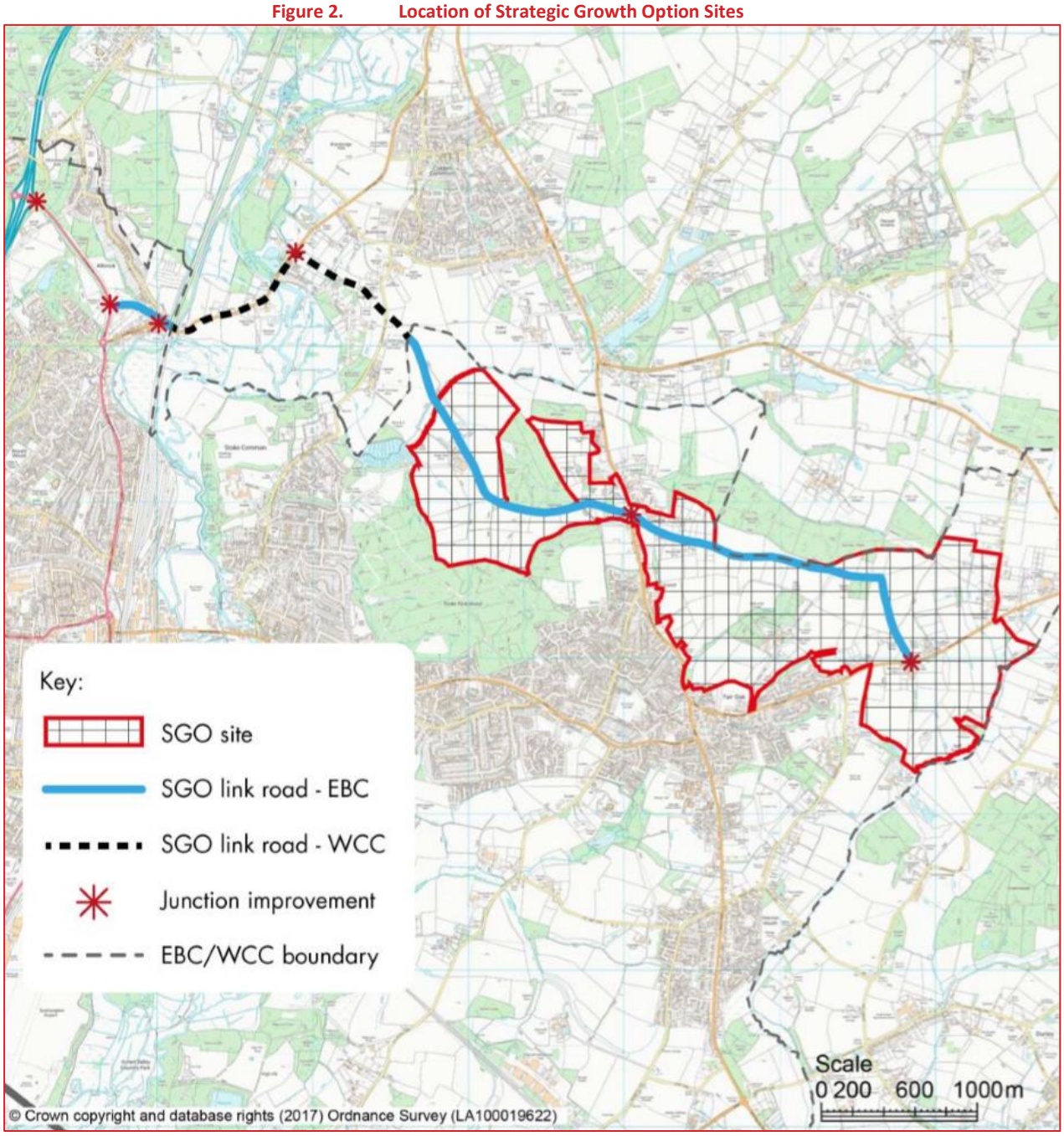
4.3.1 A key focus for growth over the Plan period is at the two combined Strategic Growth Option (SGO) sites to the north-east of Fair Oak and north of Bishopstoke. These adjacent sites in effect form one strategic growth area comprising two linked communities. They will be joined together with strategic new highway infrastructure in the form of the Northern Link Road (comprising the North Bishopstoke Link Road plus the Allbrook Hill Relief Road) and will deliver 5,200 dwellings and 30,000 sqm of employment.

4.3.2 The SGOs will create two new communities containing a mix of homes, jobs, services and open spaces. By concentrating mixed-use development in large scale communities, the

opportunities for the internalisation of traffic movements and person trips is maximised. It also facilitates the planning of supporting infrastructure and services and helps to secure the necessary developer funding.

4.3.3 The site locations of and alignment of the Northern Link Road are illustrated in Figure 2 .

Figure 2. Location of Strategic Growth Option Sites



Source: EBLP 2106-2036

4.4 Other Strategic Sites

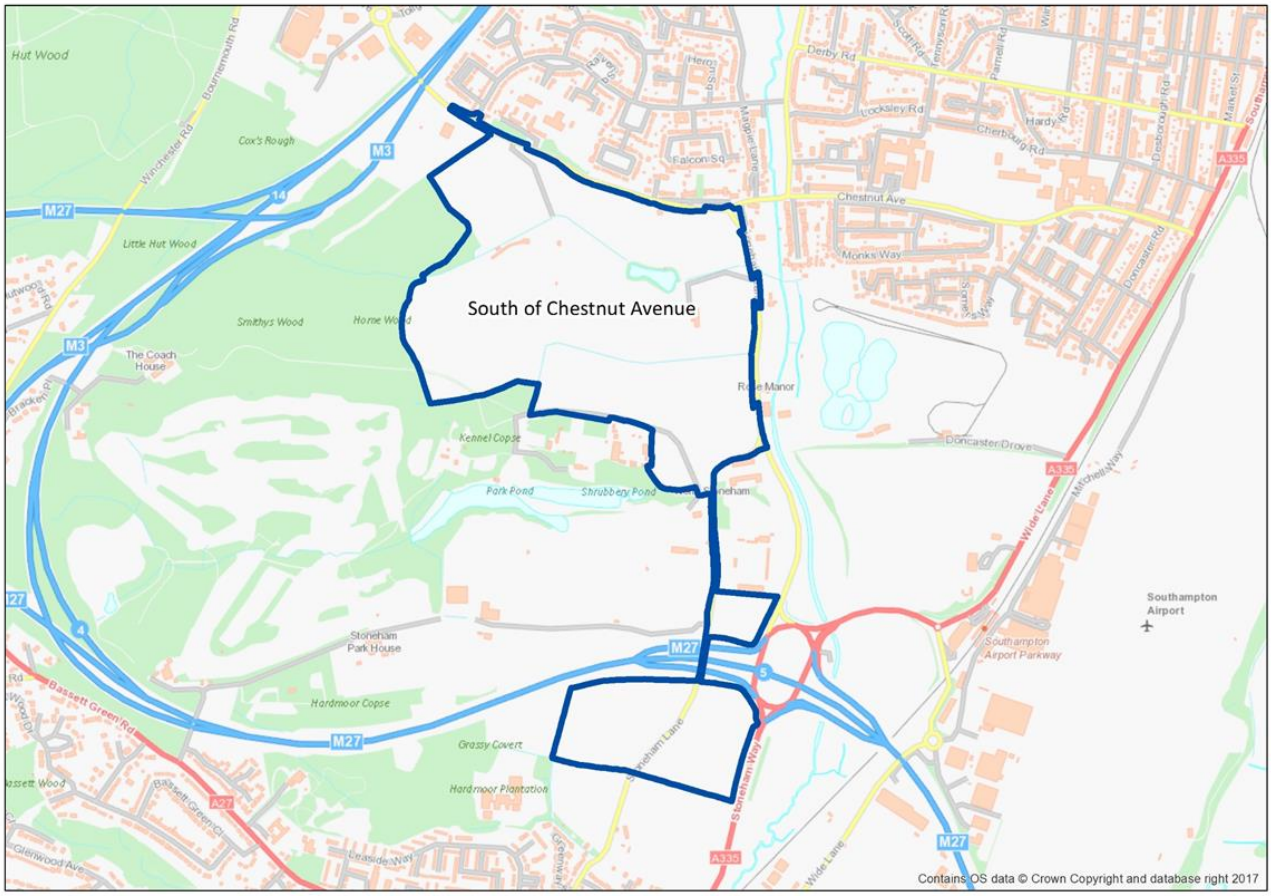
Chestnut Avenue

4.4.1 The site is located in the Stoneham Park area to the south of Eastleigh and will facilitate development on a scale sufficient to provide basic services and facilities needed by the new residents and contribute towards off-site infrastructure improvements.

4.4.2 To the West of the site beyond the M3 are key employment sites in Chandler's Ford including the Chandler's Ford Industrial Estate, Hampshire Corporate Business Park and Tollgate Business Park. There is also a major supermarket and out of town retail park located at the western end of Chestnut Avenue.

4.4.3 The site will deliver 1,100 dwellings, a new 2-form entry primary school and 2,700 sqm of employment space.

Figure 3. Chestnut Avenue Site

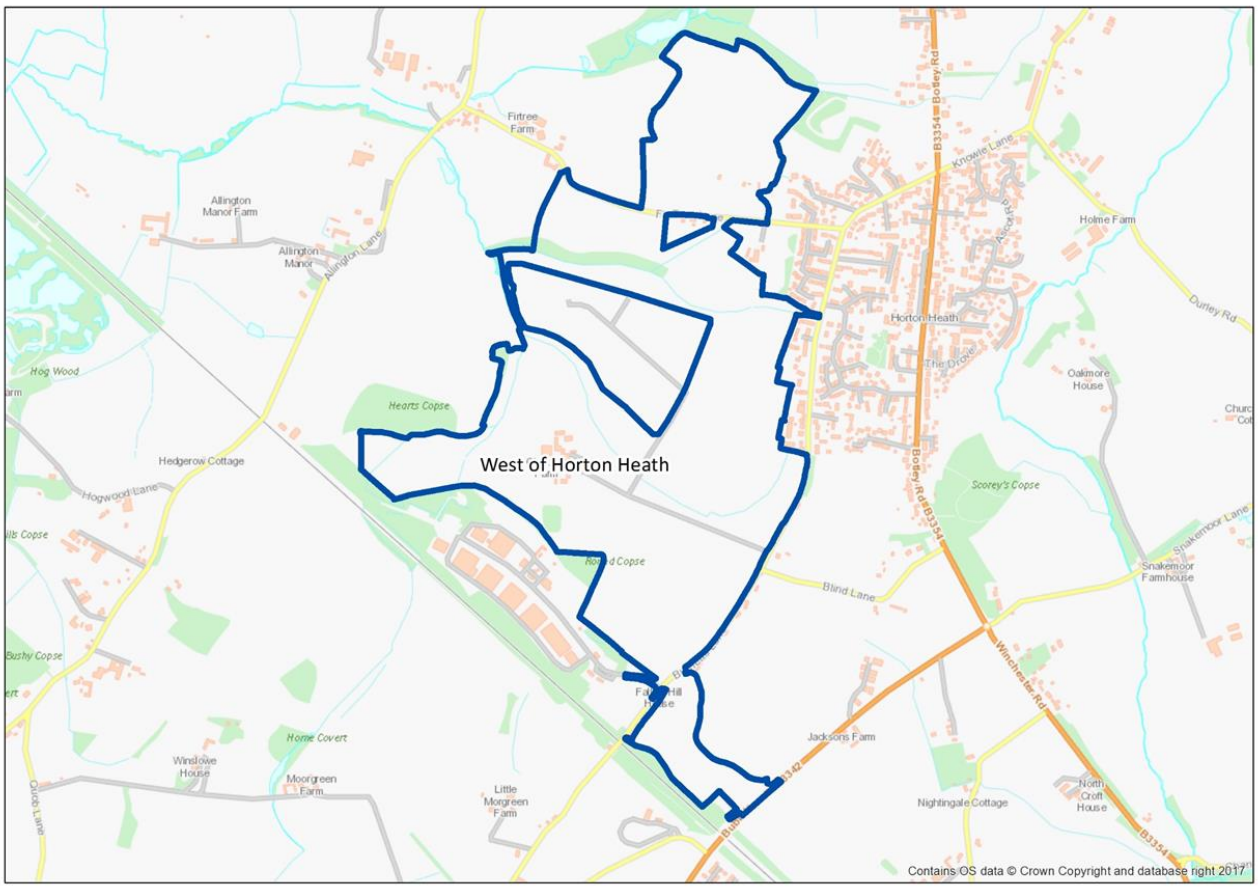


4.4.4 This is a Policy DM24 site with planning permission. It lies to the west of Horton Heath on land to the north and the south of Fir Tree lane and will deliver 950 dwellings, a local centre and a 3-form entry primary school. It shares its north-western boundary with the adjoining Fir Tree Farm site (which will accommodate a further 450 dwellings).

4.4.5 The site lies in close proximity to the existing settlement of Horton Heath and the employment facilities at Chalcroft Business Park.

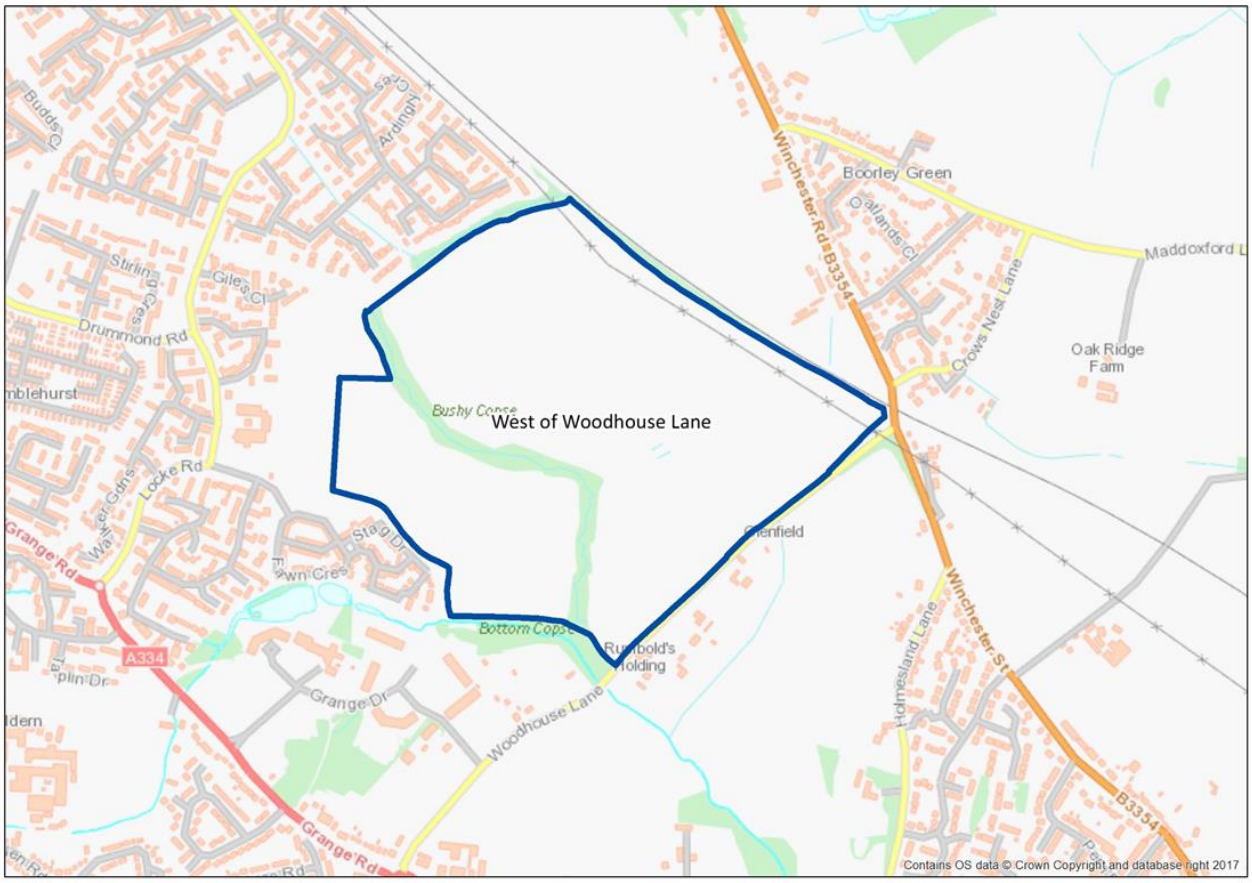
4.4.6 The development of this site will facilitate the construction of a new road linking Bubb Lane to Burnetts Lane, in the south-eastern corner of the site.

Figure 4. Horton Heath Site



4.4.7 This is a proposed housing allocation covered by Policy HE1 of the Local Plan and will deliver 650 dwellings, a 2-form entry primary school, a 9-form entry secondary school and a local centre. The site is located immediately east of Hedge End and adjacent to the North of Hedge End Station and Boorley Green sites which, between them, will deliver a further 2,080 dwellings and associated community facilities.

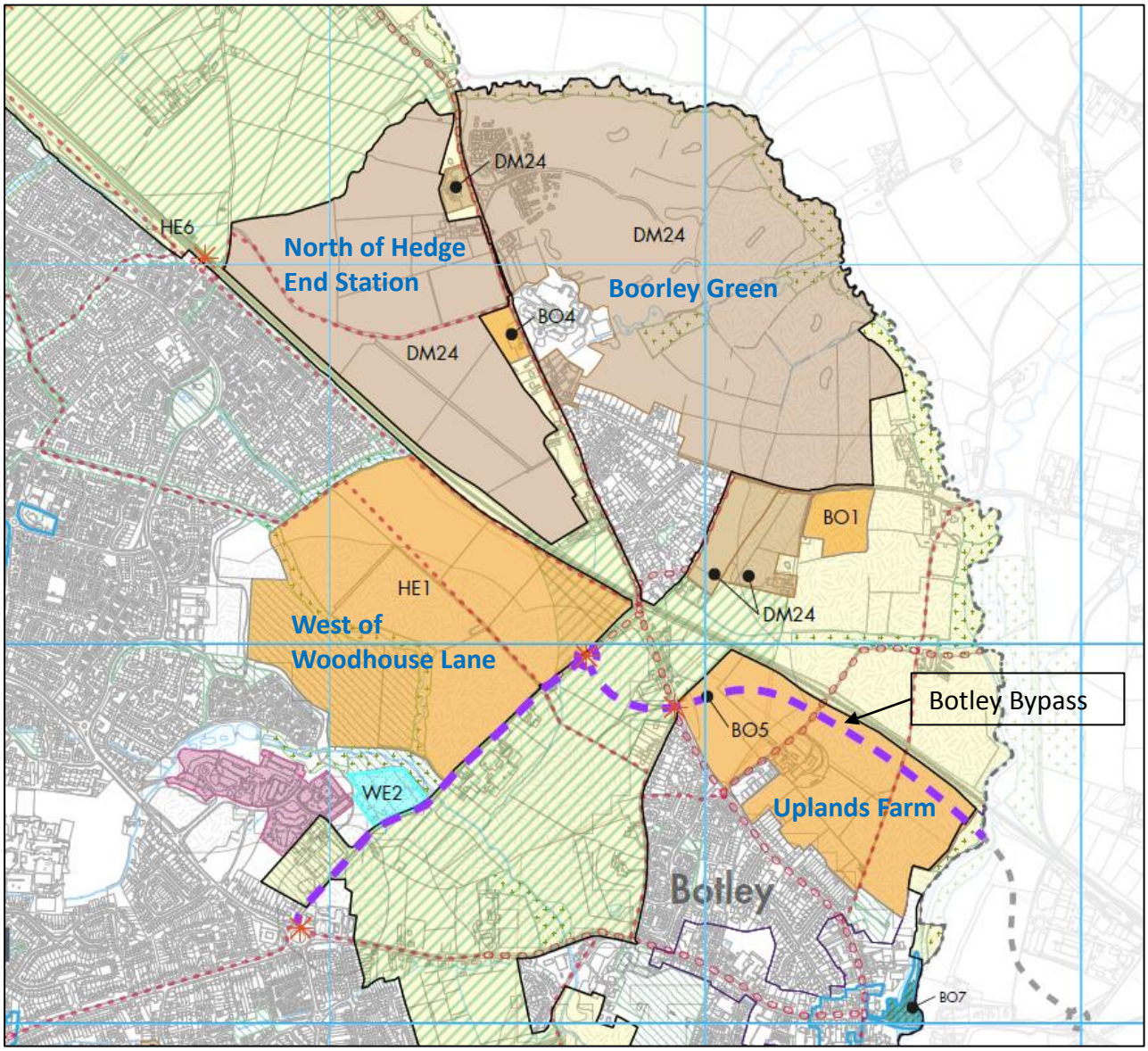
Figure 5. Woodhouse Lane Site



4.4.8 The site is also in close proximity to the proposed allocation at Uplands Farm (300 – 375 dwellings) and the route of the proposed Botley Bypass. The development at Woodhouse Lane will help facilitate the delivery of the bypass and highway improvements to Woodhouse Lane. It will also help with the delivery of improved pedestrian and cycle links in the surrounding area.

4.4.9 The relationship of this site with the other planned and committed development and highway proposals is illustrated in Figure 6 (next page).

Figure 6. Developments at Botley and Hedge End

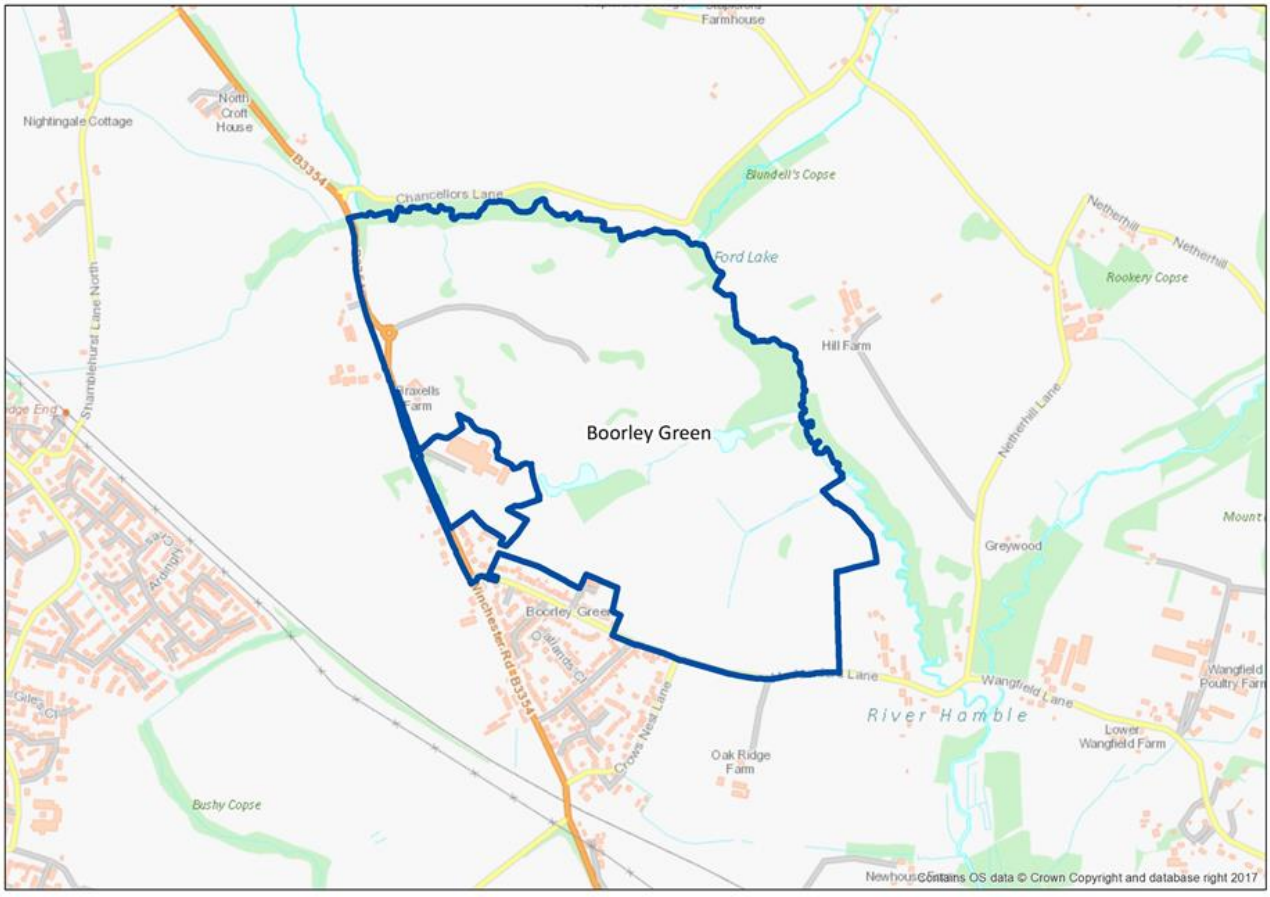


Source - EBLP

Boorley Green

4.4.10 This is a Policy DM24 site with planning permission. The site is located on land to the north of Boorley Green and east of the B3345 Winchester Road as shown in Figure 7. It shares its western boundary with the North of Hedge End Station site, which lies to the west of the B3345 Winchester Road, and lies in close proximity to other planned and committed developments as indicated in Figure 6. The site will deliver 1,400 dwellings, a 2-form entry primary school and 4,355 sqm of employment.

Figure 7. Boorley Green Site

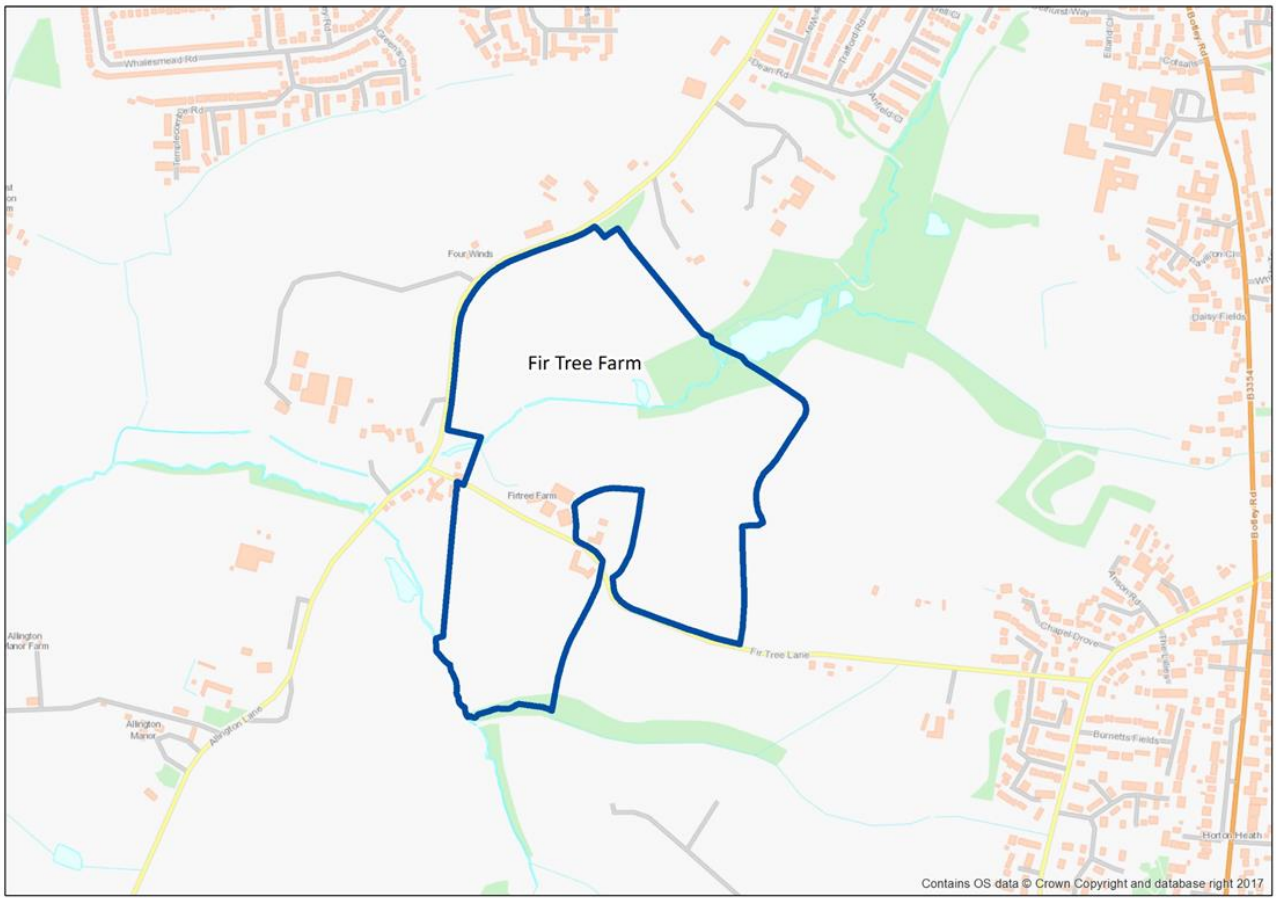


Source - EBC

Fir Tree Farm

4.4.11 This is a Policy DM24 site with planning permission. It lies to the east of Allington Lane and west of Horton Heath on land to the north and the south of Fir Tree lane and will deliver 450 dwellings. It shares its eastern and southern boundaries with the adjoining West of Horton Heath site, which will contain a further 950 dwellings and a 3-form entry primary school.

Figure 8. Fir Tree Farm Site



Source - EBC

North of Hedge End Station

4.4.12 This is a Policy DM24 site with planning permission. The site is located adjacent to Hedge End railway station on land lying to the north of the railway line, east of Shamblehurst Lane and west of the B3354 Winchester Road, as shown in Figure 9. The site is adjacent to the Boorley Green allocation which lies to the east of the B3354 Winchester Road and in close proximity with other planned and committed development sites, as indicated in Figure 6.

4.4.13 The site will deliver 680 dwellings and a 2-form entry primary school.

Figure 9. Hedge End Site

Source - EBC

4.5 Transport Infrastructure Proposals

4.5.1 The traffic modelling and analysis of Local Plan impacts is underpinned by an appraisal of wide ranging committed and planned multi-modal transport interventions. Those that are committed to come forwards regardless of future Local Plan allocations form part of the future 'Baseline' scenario. Those which have, or potentially have more of a relationship with the Local Plan are assessed in this TA as part of either the future 'Do-Something' or 'Do-More' scenarios.

4.5.2 The various committed and planned transport schemes are listed below and discussed in more detail in Section 6.3.

Committed Schemes (forming part of the future Baseline scenario)

- B3037 Fair Oak Road – Sandy Lane to Allington Lane widening and junction improvements;
- Denhams Corner Roundabout (B3354/B3342) – widening of Winchester Road and Bubb lane approaches;
- Maypole Roundabout (A334/B3033) – Increasing the diameter of roundabout and widening of the approach arms;
- M27 and M3 Smart Motorways scheme – modifications to convert hard shoulders to extra traffic lanes;
- M27 Junction 8 /Windhover – Full signalisation of both junctions with widening of circulatory carriageway and approach arms, improvements to pedestrian and cycle lanes and crossing facilities;
- M27 Junction 9 – Widening of the circulatory carriageway, slip roads and the Whiteley Way approach arm; and
- Whiteley Link Roads – including widening of Whiteley Way and extending the existing link roads northwards to provide two access points onto the A3051.

Local Plan Schemes (forming part of the future Do Something and Do More scenarios)

- Northern Link Road (comprising North Bishopstoke Link Road and Allbrook Hill Relief Road) – new link road and on-line improvements from B3037 Mortimers Lane east of Fair Oak to the A335 Allbrook Way north of Allbrook;
- M3 Junction 12 – Capacity improvements at roundabouts;
- Botley Road / Eastleigh Road / Stubbington Lane junction – capacity improvements;
- Winchester Road / Mortimers Lane junction – capacity improvements;
- Denhams Corner Roundabout (B3354/B3342) – further capacity improvements over baseline scheme;
- Maypole Roundabout (A334/B3033) – further capacity improvements over baseline scheme with additional widening and flaring of approaches;
- Botley Bypass – new link road to the north of the village, with improvements to Woodhouse Lane;
- Allington Lane / A27 / Townhill Way roundabout – widen approach arms to improve capacity;
- Allington Lane railway bridge – traffic signals for shuttle working;
- Mitchell Way Spur Road.

5. APPROACH TO TRANSPORT ANALYSIS

5.1 Approach

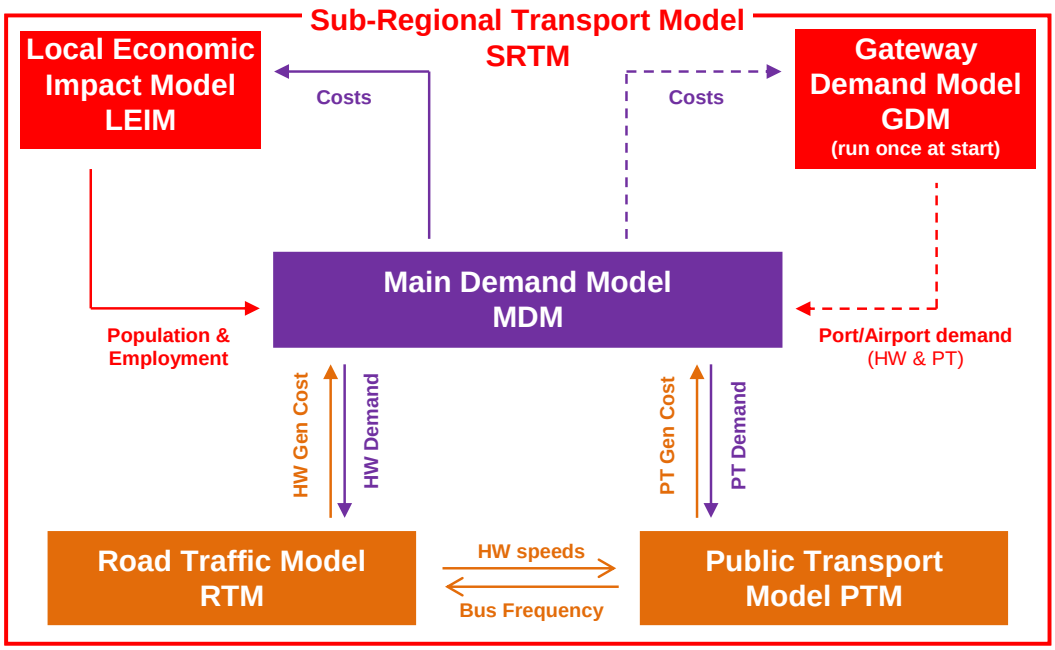
5.1.1 Following on from the testing and comparison of development options in Part 1 of the TA, this second part of the TA focusses on the preferred development option and examines the impacts on transport networks. Highway impacts are assessed having regard to agreed assessment criteria (set out in 6.2) and by comparing network performance metrics in the future baseline scenario against those in the Do-Something and Do-More test scenarios.

5.2 Model Overview

5.2.1 The Solent Transport Sub-Regional Transport Model (SRTM) is an evidence based Land-Use and Transport Interaction model. It contains a suite of transport models and an associated Local Economic Impact Model (LEIM). The suite of transport models comprises the Main Demand Model (MDM), the Gateway Demand Model (GDM), Road Traffic Model (RTM) and Public Transport Model (PTM).

5.2.2 Figure 10 shows the interaction of the various models within the SRTM. The LEIM takes transport costs from a converged run of the MDM and feeds back population and employment data, which is converted into demand matrices. The public transport and road traffic demand are assigned to the public transport and road traffic networks to estimate travel costs, which are then passed back to the MDM to re-estimate demand. The demand and cost calculations are run iteratively, until convergence.

Figure 10. Sub-Regional Transport Model

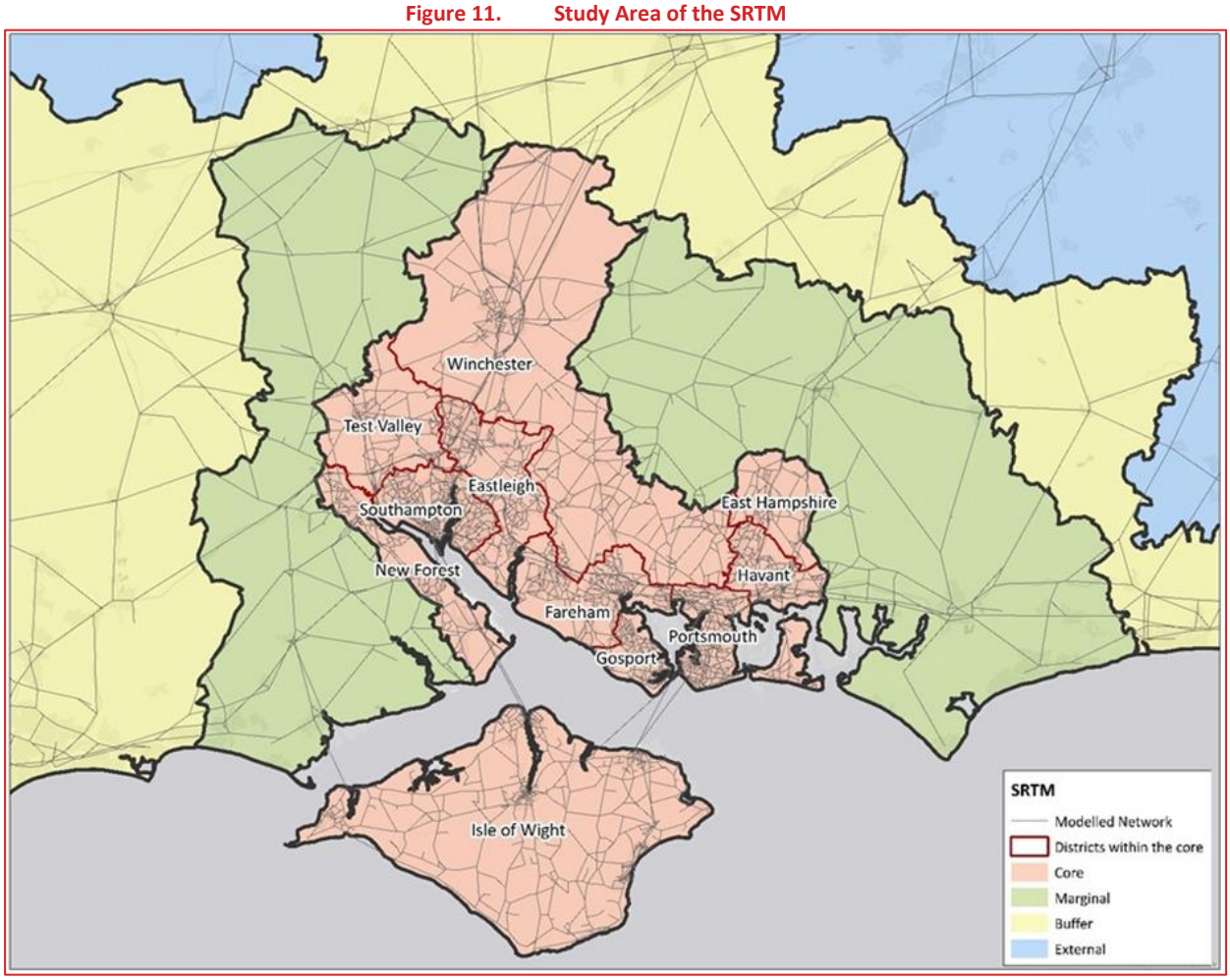


5.2.3 The MDM, which models travel demand responses to changes in costs, including: macro time of day choice, mode choice and destination choice. Each of these choices is modelled as a function of the time and money cost of each alternative, e.g. car, public transport, park-and-

ride or walk/cycle. For Highway (HW) and Public Transport (PT) trips, route choice is modelled using the respective assignment models.

5.2.4 The modelled area of the SRTM is divided into four regions, shown in Figure 11, which differ by zone aggregation and modelling detail. All of the Eastleigh strategic development sites lie within the Core Fully Modelled Area (the most detailed region of the model).

Figure 11. Study Area of the SRTM



5.3 Using the Sub Regional Transport Model for Transport Assessments

5.3.1 The SRTM has been developed to support a wide-ranging set of interventions across the Solent Transport sub-region, and specifically to be capable of forecasting changes in travel demand, road traffic, public transport patronage and active mode use over time as a result of changing economic conditions, land-use policies and development, and transport improvement and interventions.

5.3.2 As a strategic transport model, it is important that the outputs are treated as indicative of broad trends for traffic congestion and delay across the network. The scope of the SRTM is extensive, and as such the analysis of specific localised traffic conditions necessitates a degree of interpretation and a common sense approach. Equally it is important that a careful analysis

of the modelled outputs is married with a knowledge of local baseline conditions and first hand observations at key junctions.

5.3.3 Further information concerning the use of the model and interpretation of outputs is contained in the Part 1 Technical Report "Eastleigh Local Plan - Do Something Comparison of Development Options".

5.4 Trip rates

5.4.1 The trips rates used within SRTM are taken from the National Trip End Model and factored to match the Solent Transport levels of car and public transport trip making in the Base Year. The rates are disaggregated by type of person, trip purpose, levels of car ownership and mode.

5.4.2 The Solent Transport zones have been classified into 5 levels of public transport accessibility (i.e. the cost difference between accessing car and public transport from that zone). Using the same level of disaggregation (person type, purpose car availability and mode) SRTM will calculate accessibility factors and apply these to its trip rates.

5.4.3 By assessing the generation and attraction of trips to particular model zones it is possible to derive implied trip rates for activity at the zone as a whole. This exercise has been undertaken for the SGO sites. The trip rates are reported per dwelling but do also include for other non-residential landuse within the zone(s). Details are included in Appendix A with the results summarised below for the AM and PM peak periods (07:00-10:00 and 16:00-19:00 respectively) in person trips for Highway, PT and Active modes.

Table 4. Implied Peak Period Trip Rates (Person trips per Dwelling)

TRIP RATES (PERSON TRIPS/DWELLING)	HIGHWAY		PUBLIC TRANSPORT		ACTIVE (WALKING & CYCLING)	
	AM (07:00-10:00)	PM (16:00-19:00)	AM (07:00-10:00)	PM (16:00-19:00)	AM (07:00-10:00)	PM (16:00-19:00)
INBOUND	0.54	0.80	0.07	0.05	0.28	0.22
OUTBOUND	0.89	0.53	0.08	0.05	0.31	0.20
2-WAY	1.43	1.33	0.16	0.10	0.59	0.42

5.4.4 It is noted that the Bishopstoke and Fair Oak SGO sites and the large strategic sites at Chestnut Avenue, Horton Heath / Fir Tree Farm and Boorley Green / Hedge End / Woodhouse Lane are of sufficient size to support the principles of self-contained new settlements with local access to a range of facilities and attractive, high quality pedestrian / cycle routes to local services. In view of this, a degree of self-containment of trips can be expected, with more limited impacts on the wider highway network. No attempt has been made to directly model these potentially beneficial effects in the SRTM, although the model does take account of the

locations and accessibility of different land uses when calculating trip attractions and likely mode shares. Therefore, whilst some measure of trip containment is included in the SRTM, it is likely that the level of benefit is underestimated.

6. SRTM IMPACT ASSESSMENT

6.1 Overview

6.1.1 This section of the TA presents the results of the transport impact assessment for the EBLP preferred development scenario utilising outputs from the SRTM. Three test scenarios have been assessed as set out in Table 5 below.

Table 5. SRTM Test Scenarios

SCENARIO	SRTM REF (RUN CODE)	DESCRIPTION
2036 Baseline	Baseline (DOP)	A future baseline scenario, excluding any of the Local Plan growth proposals, but allowing for committed developments, background traffic growth and committed transport mitigation measures
2036 Do Something	DS2 (DPC)	A future scenario including all of the Baseline assumptions plus the Local Plan growth and an 'intermediate' level of transport interventions and mitigation measures
2036 Do More	DS3 (DPP)	As per the Do Something scenario but with a 'high' level of transport interventions and mitigation measures

6.2 Assessment Criteria

6.2.1 To provide a consistent measure of the impacts arising from the Local Plan proposals and the effectiveness of the mitigation measures, the results from the three test scenarios have been assessed against the criteria below (these criteria match those applied to other SRTM commissions relating to Local Plan TAs). Volume to Capacity (V/C) is reported as a percentage to express the forecast take-up of available highway capacity at individual locations - hence identifying links with a high V/C is a proxy for identifying junctions with capacity issues:

- a junction where the ratio of volume to capacity (V/C) on any approach arm was **85%** or more in the Do-Something or Do-More scenario and has increased by **5%** or more compared with the Baseline scenario, is considered as experiencing a **significant** impact;
- a junction where the ratio of volume to capacity (V/C) on any approach arm was **95%** or more in the Do-Something or Do-More scenario and has increased by **10%** or more compared with the Baseline scenario, is considered as experiencing a **severe** impact;
- a junction where the average delay per vehicle in the Do-Something or Do-More scenario was **two minutes** or more in any period and has increased by **one minute** or more compared with the Baseline scenario, is considered as experiencing a **severe** impact.

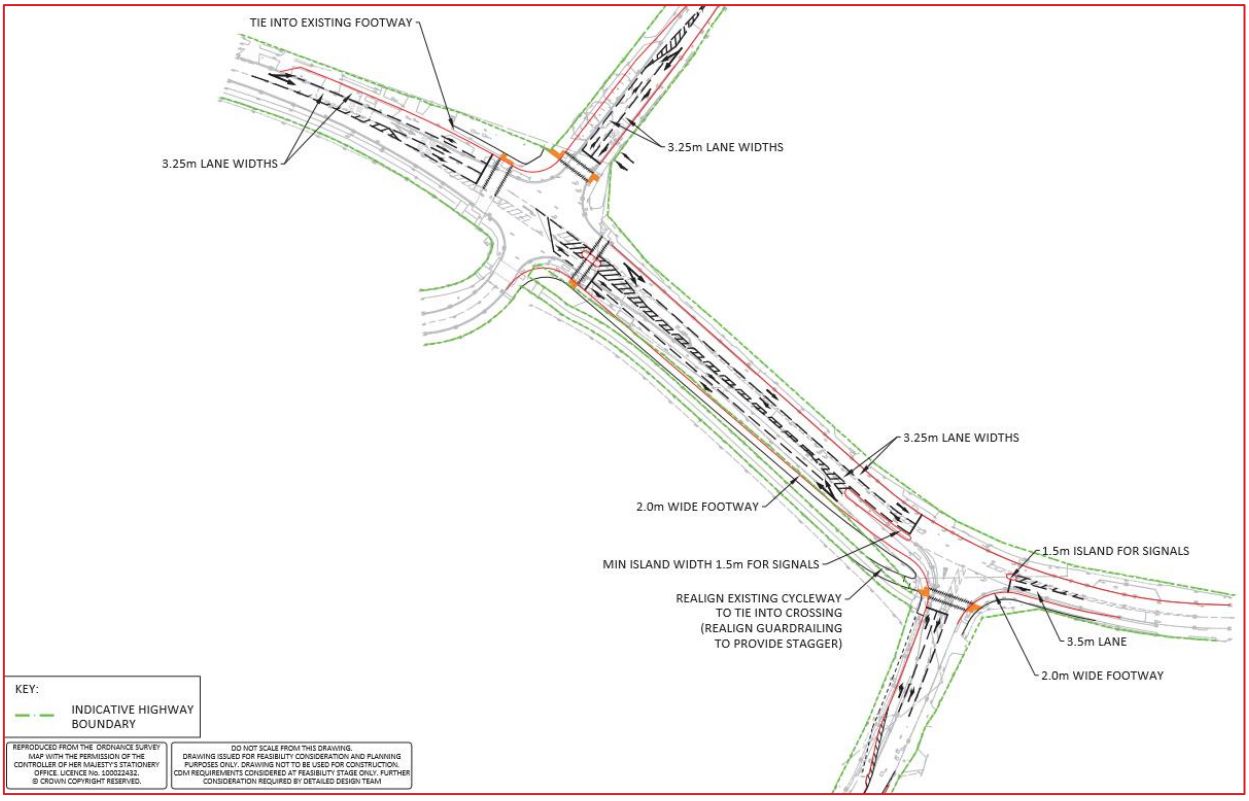
6.3 Baseline Mitigation Measures and Interventions

Highway Improvements

6.3.1 The committed highway improvements incorporated within the 2036 Baseline scenario include a range of site promoter schemes linked to planning permissions and motorway improvements being promoted by Highways England.

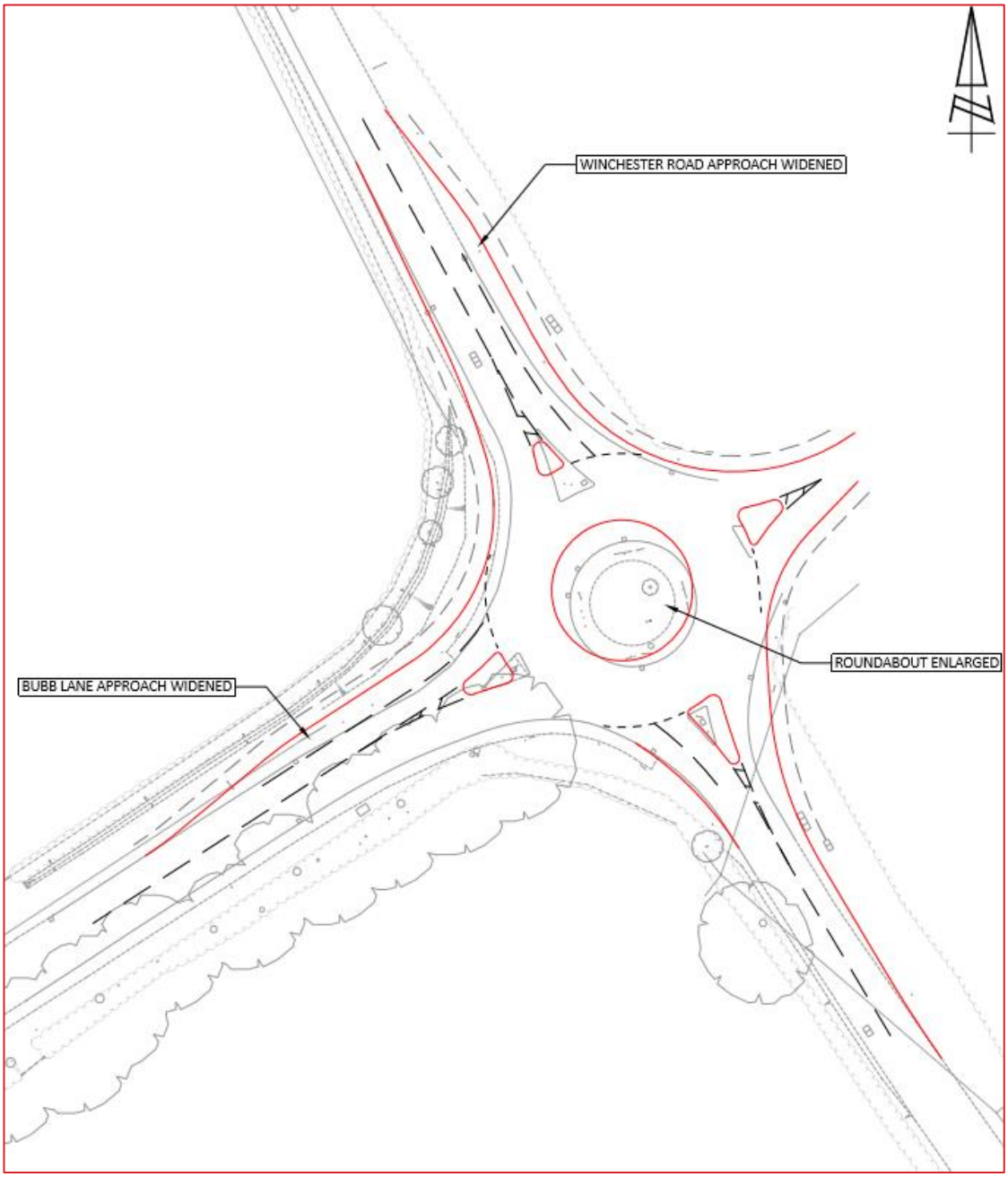
B3037 Fair Oak Road – Sandy Lane to Allington Lane

6.3.2 This is a developer committed scheme comprising the widening of Fair Oak Road between Sandy Lane and Allington Lane to provide two-lane approaches in each direction between the two junctions; two-lane approaches on Allington Lane and Sandy Lane; and a left-turn lane from Fair Oak Road into Sandy Lane.



Source – Site Promoter Drawing

6.3.3 This is a developer commitment involving the widening of the southbound and eastbound approaches to the roundabout and the southbound exit lane.

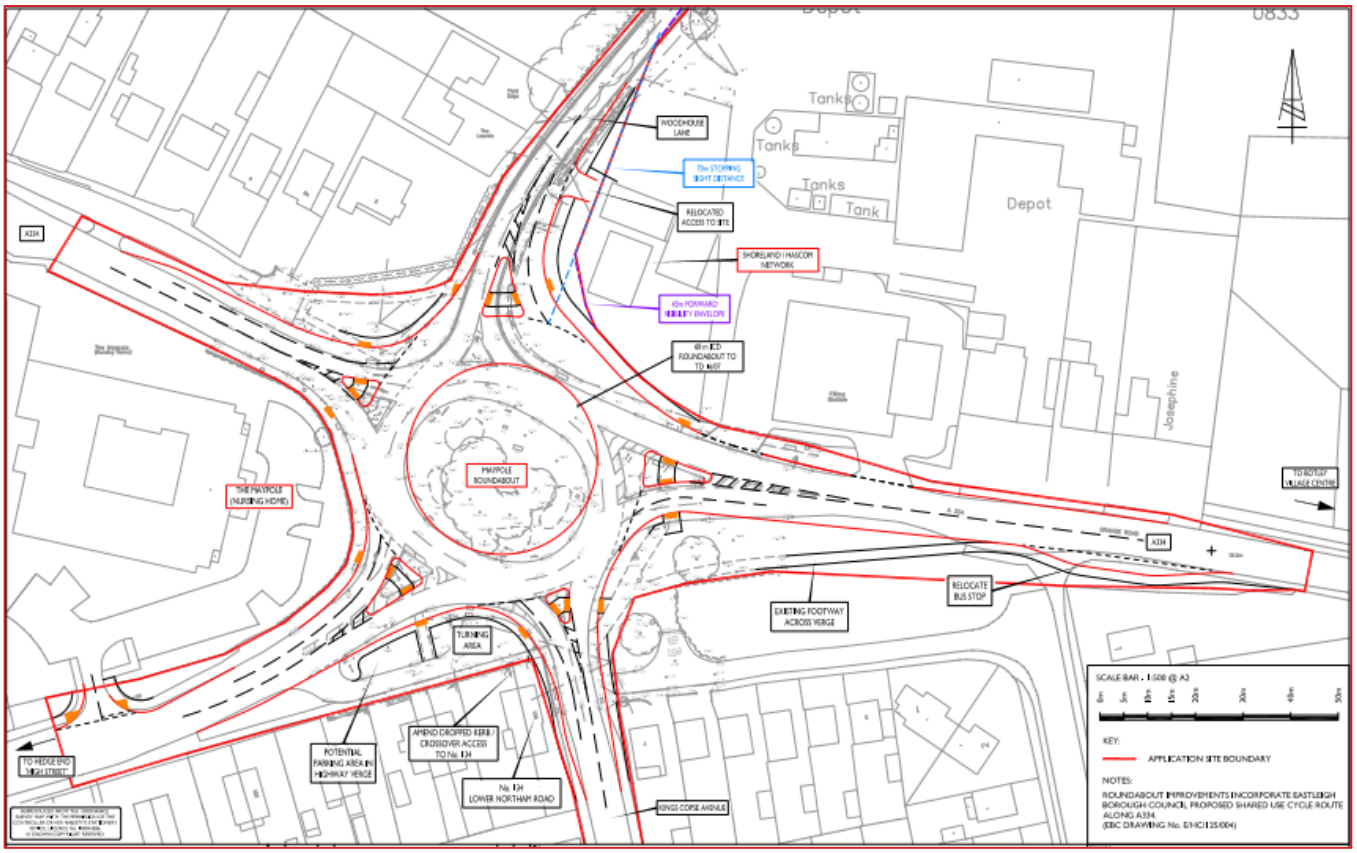


Source – Site Promoter Drawing

Maypole Roundabout

6.3.4 This junction is situated to the south of the Woodhouse Lane and Boorley Green strategic development sites. The proposed capacity improvements include widening the southbound Woodhouse Lane approach to provide two lanes and the widening of the other approach arms to provide increased flare lengths.

Source – Site Promoter Drawing



M27 and M3 Smart Motorways

6.3.5 Highways England is continuing its roll-out of the Smart Motorways programme across the South East, including two schemes of relevance to Eastleigh; these are:

- M27 Junction 4 (with the M3) to Junction 11 (Fareham);
- M3 Junction 14 (with the M27) to Junction 9 (at Winchester)

6.3.6 These two schemes link together to enable 24/7 hard shoulder running and active traffic management on the entire motorway network within and adjoining the Borough.

6.3.7 The M27 scheme is scheduled for completion in 2020-21, with the M3 in 2022.

M27 Junction 8 / Windhover

6.3.8 Highways England is planning major improvements to Junction 8 of the M27 and the adjacent Windhover Roundabout and are due to commence in 2020. Wider proposals on the A3024 corridor between Junction 8 and the Six Dials junction in Southampton are only included in the Do Something model runs.

6.3.9 At Junction 8, the circulatory carriageway will be widened from two to three circulating lanes. The scheme also includes carriageway widening and provision of additional traffic lanes on all approach roads, plus the full signalisation of the roundabout. Facilities for pedestrians and cyclists will also be enhanced with the widening of existing shared-use routes and provision of controlled crossings.

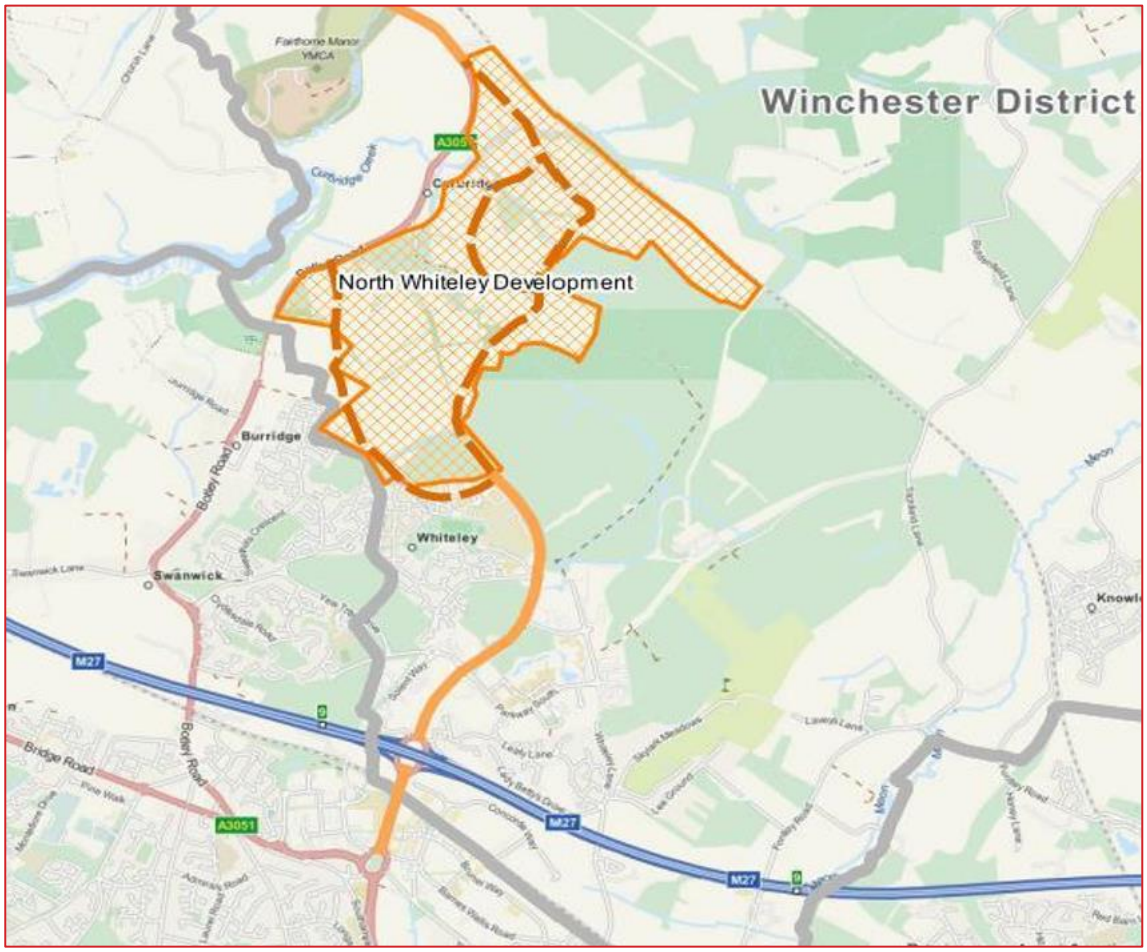
6.3.10 Similar measures are proposed at the Windhover Roundabout including carriageway widening to provide extra lanes on the circulatory carriageway and approach roads; the introduction of full traffic signal control at the junction; and enhanced pedestrian and cyclist facilities.

M27 Junction 9

6.3.11 Proposed improvements at Junction 9 include the widening of the northern and southern sections of the roundabout to provide additional traffic lanes on the circulatory carriageway. The eastbound-off and westbound-off slip roads will also be widened on the approach to the roundabout to add a third traffic lane on each arm. The westbound-on slip road will be widened to enable a two-lane exit from the roundabout; and the Whiteley Way approach will be widened to provide two additional traffic lanes on the approach to the junction.

Whiteley Link Roads

6.3.12 Proposals include improvements to the southern section of Whiteley Way and new carriageway construction to extend the existing link roads northwards to provide two access points onto the A3051. The northern section of the A3051, up to the A334 at Botley, will also be improved.



Public Transport, Walking and Cycling Measures

6.3.13 The SRMT modelling assumptions allow for public transport provision based on existing services. It is assumed there are no changes between existing conditions and the future Baseline. Active travel modes are not directly modelled in the SRTM although mode share is taken into consideration for trips within zones with multiple land uses.

6.4 Local Plan Mitigation Measures and Interventions

Highway Improvements

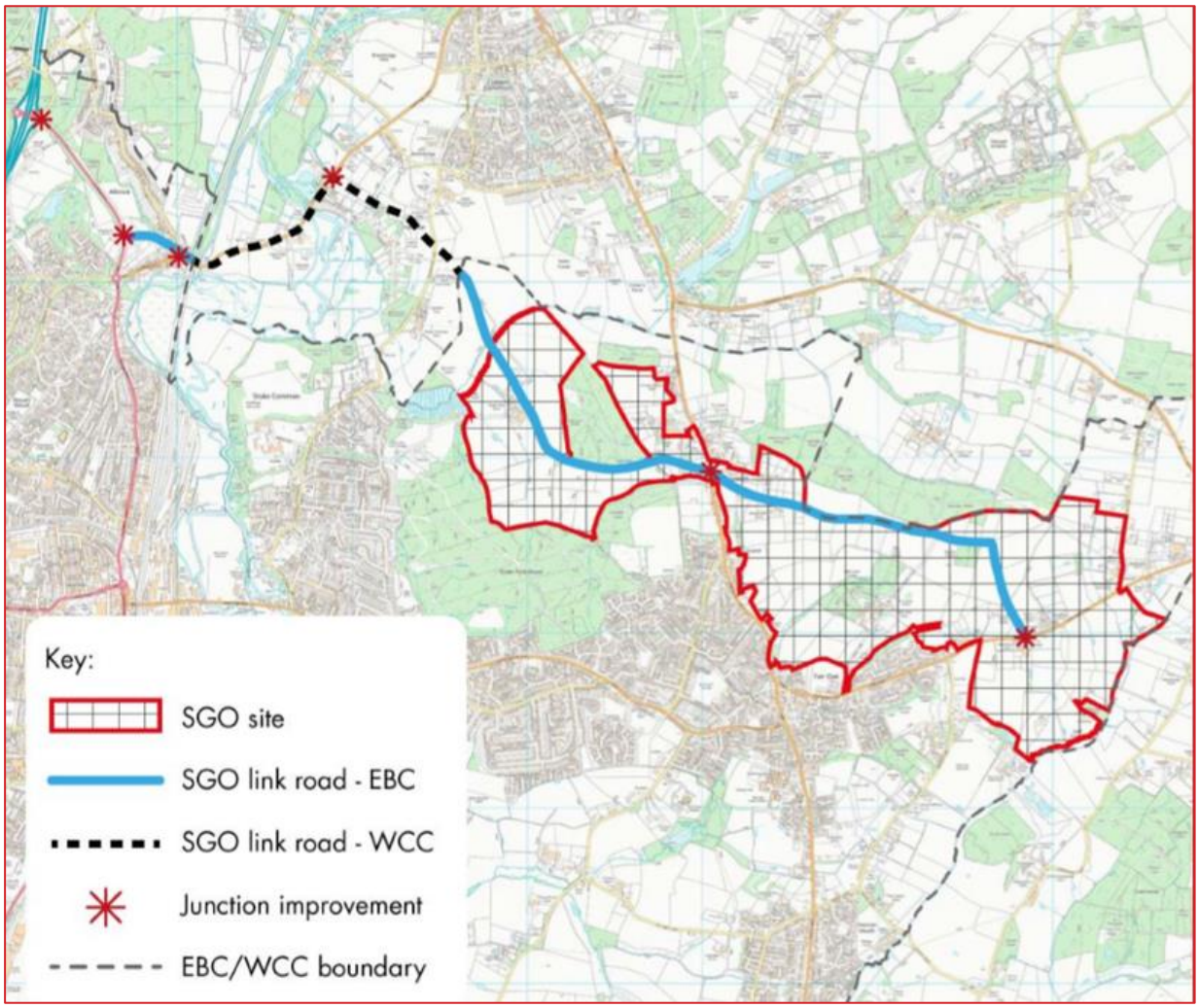
6.4.1 Highway improvements needed to support Local Plan growth have been identified through the SRTM modelling and include a number of enhancements over and above the schemes included in the Baseline.

Northern Link Road (North Bishopstoke Bypass and Allbrook Hill Relief Road)

6.4.2 A strategic new link road is proposed across the northern part of the borough, from the A335 Allbrook Way in the west, to the B3037 Mortimers Lane in the east. The road passes to the north of Allbrook, utilises part of the B3335 Highbridge Road and then continues eastwards, passing to the north and east of Bishopstoke and Fair Oak and passing through the SGO sites.

6.4.3 The route of the link is as indicated in Figure 12 below, which also identifies the locations of junction improvements. Part of the route lies within the neighbouring local authority of Winchester City Council.

Figure 12. Route of Northern Link Road

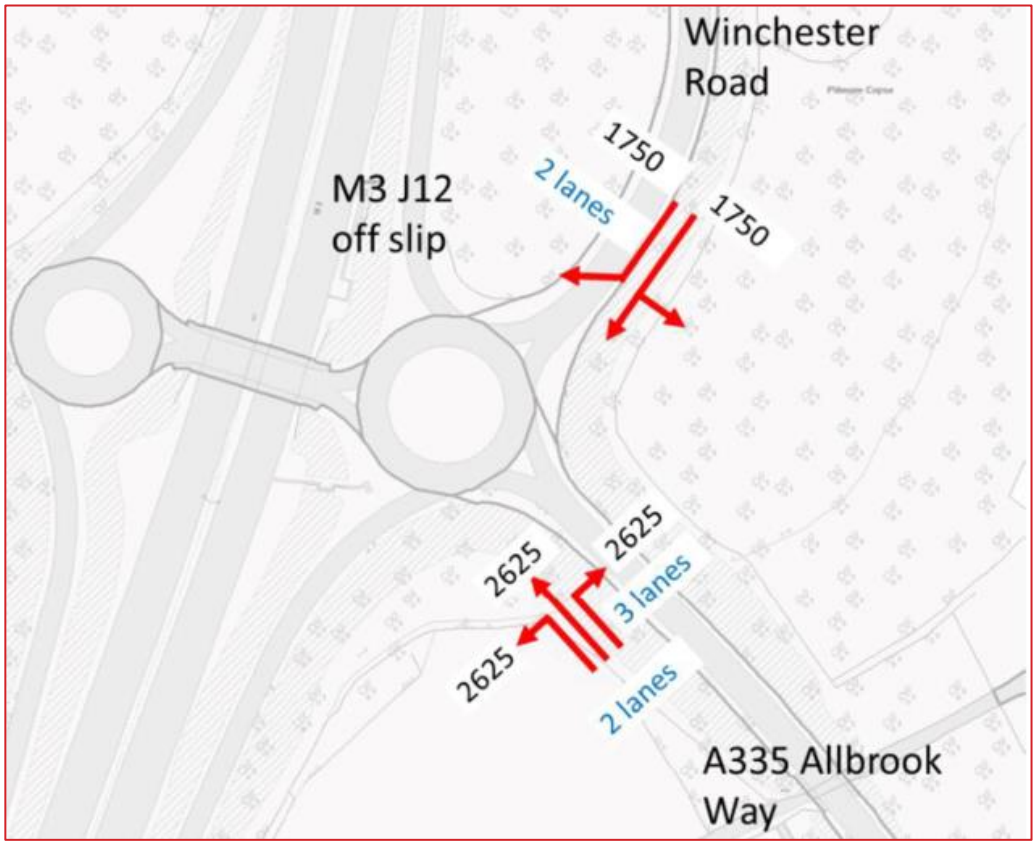


Source - EBLP

M3 Junction 12 - Roundabout Capacity Improvements

6.4.4 Having identified capacity problems at this junction in the baseline testing, the Do-Something and Do-More test scenarios both contain a range of mitigation measures to increase capacity at the junction.

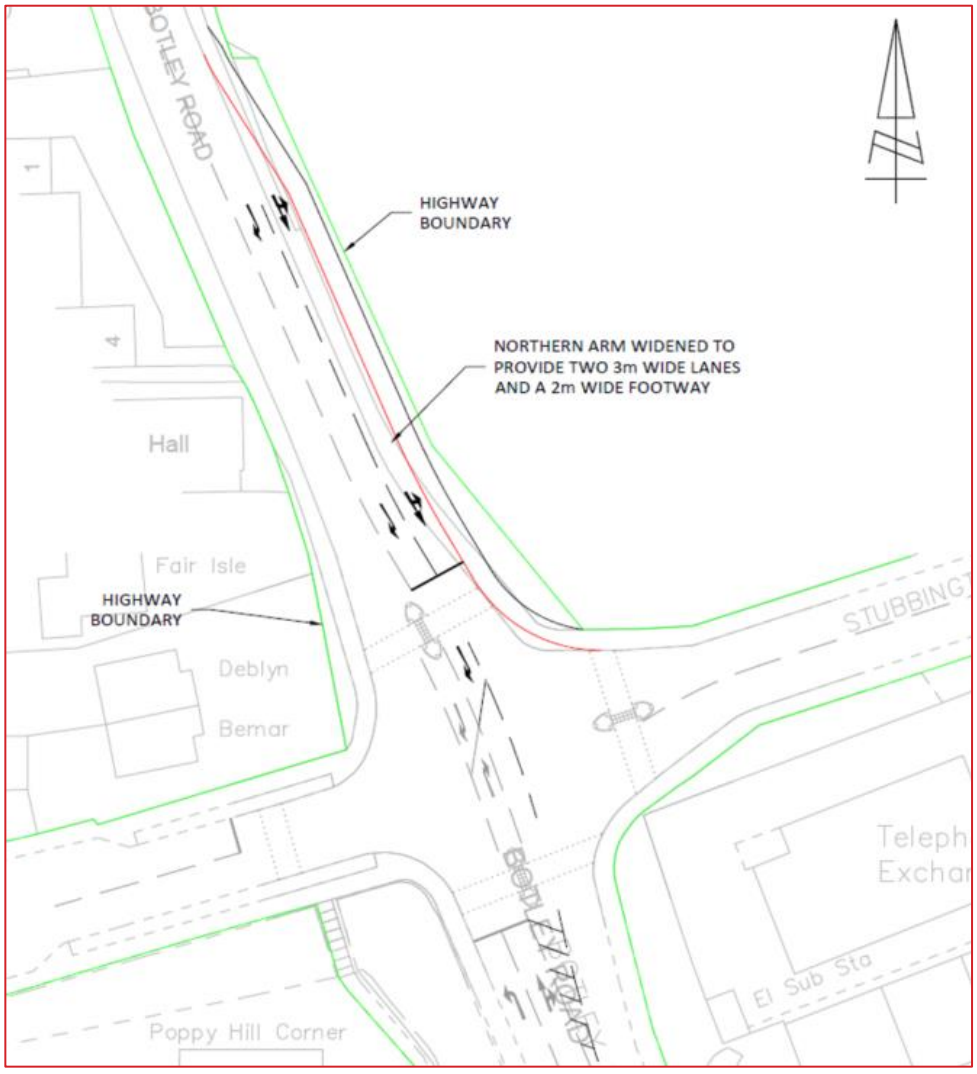
6.4.5 At the eastern roundabout, the improvements indicated below, to the Winchester Road and Allbrook Way arms, were included in the Do-Something scenario. These comprise creating a two-lane approach on Winchester Road and a three-lane approach on Allbrook Way.



6.4.6 For the Do-More tests the above measures were further enhanced as follows:

- Addition of a third traffic lane on the Winchester Road southbound approach to the eastern roundabout;
- Addition of a segregated left-turn lane on Allbrook Way, enabling traffic accessing the M3 southbound-on slip road to by-pass the roundabout;
- The widening of the M3 northbound-off slip road on the approach to the western roundabout, to create a long flare on this arm.

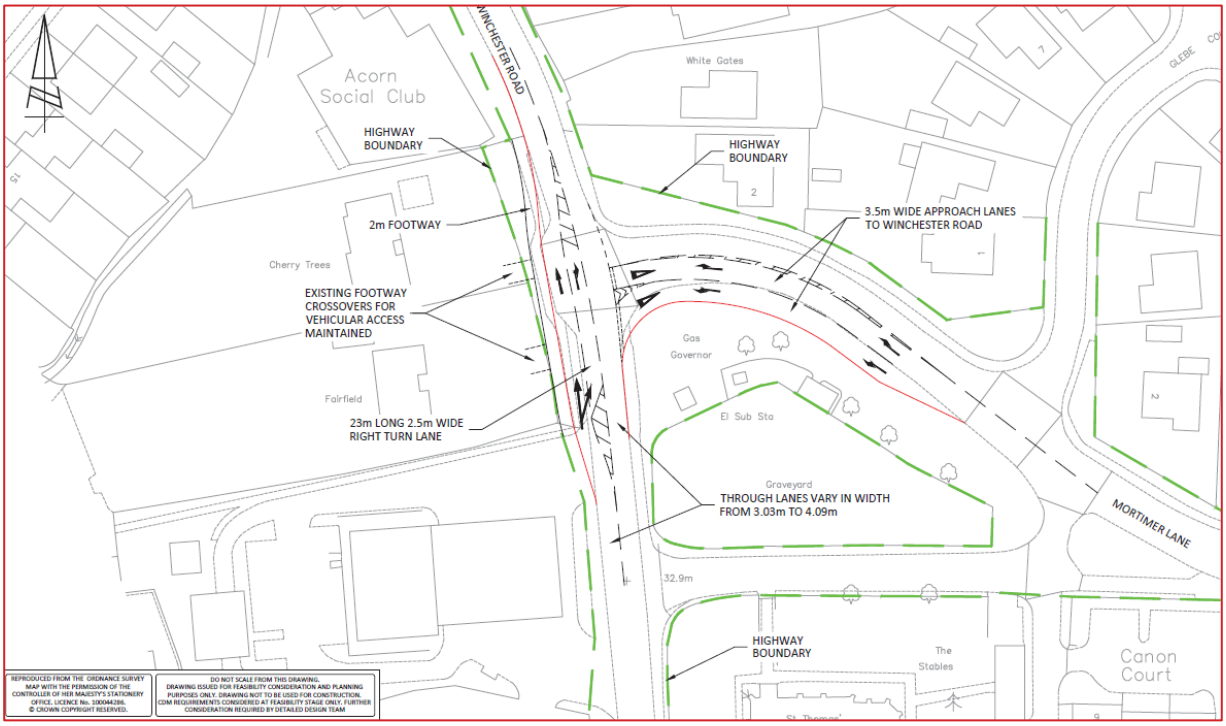
6.4.7 Proposals for this junction comprise the widening of the Botley Road southbound arm to provide two traffic lanes on the approach to the traffic signals.



Source - Site Promoter Drawing

Winchester Road / Mortimers Lane junction – Capacity Improvements

6.4.8 For the Do-Something scenario, the proposed improvements at this junction comprise the widening of the Mortimers Lane arm to provide separate left-turn and right-turn traffic lanes on the approach to Winchester Road. The Winchester Road arm is also widened to create a ghost-island right-turn lane for northbound traffic turning into Mortimers Lane.



Source – Site Promoter Drawing

6.4.9 For the Do-More scenario, the junction layout remains similar but traffic signal control is introduced.

Denhams Corner Roundabout (B3354/B3342) – Further Capacity Improvements

6.4.10 For the Baseline and Do-Something tests the junction improvements are as set out in Section 6.3. However, for the Do-More scenario additional widening is included for north-south movements. The southbound arm includes an additional flare lane at the entry to the roundabout and the northbound approach comprises of two-lanes.

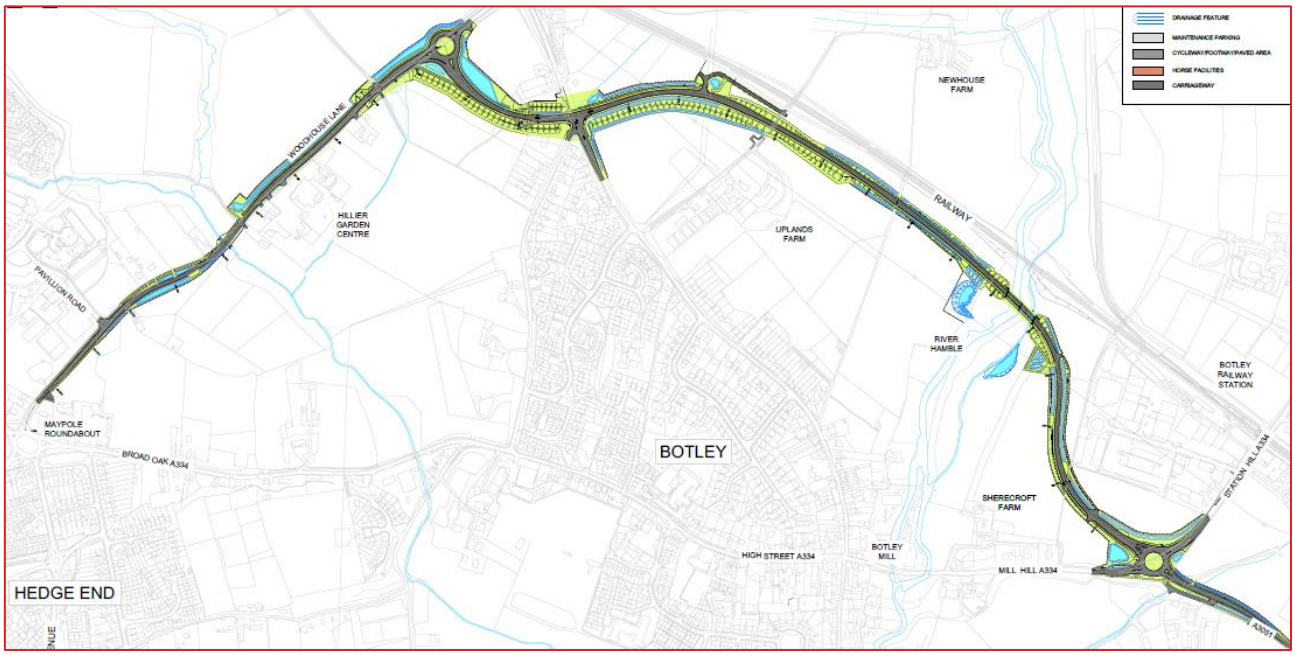
Maypole Roundabout (A334/B3033) – Further Capacity Improvements

6.4.11 For the Baseline and Do-Something tests the junction improvements are as set out in Section 6.3. However, for the Do-More scenario additional widening is proposed on all approach arms.

6.4.12 Increased flare lengths are included on three of the arms; B3044 Lower Northam Road, A334 Grange Road and Kings Copse Avenue. For the remaining two arms, additional entry lanes are added, on the Woodhouse Lane and the A334 Broad Oak approaches.

Botley Bypass

6.4.13 The proposed Botley Bypass extends from a new roundabout at the junction of the A334 Mill Hill with the A3051 (to the east of Botley) westwards to Woodhouse Lane. The scheme also includes the upgrading of Woodhouse Lane southwards to the Maypole Roundabout (A334 Broad Oak and Grange Road).The scheme is included in both the Do-Something and Do-More scenarios.



Source – Hampshire County Council

6.4.14 In the Do-More test, additional carriageway widening is proposed at the A334 Mill Hill / B3051 roundabout, on the A334 Station Hill southbound approach, where additional flaring is included to create an extra lane at the entry to the roundabout.

Allington Lane / A27 / Townhill Way Roundabout – Capacity Improvements

6.4.16 This 4-arm roundabout remains unchanged in the Baseline and Do-Something scenarios. The Do-More test simulates the effect of providing extended flares on all approaches.

Allington Lane Railway Bridge – Traffic Signals for shuttle working

6.4.17 The Do-More scenario includes the addition of traffic signals at the railway bridge to introduce shuttle working.

Mitchell Way Spur Road

6.4.18 This scheme forms part of a long term safeguarded route linked to the development of Eastleigh Riverside under Local Plan Policy E6. The scheme includes a new spur from Mitchell Way to the development area.

Public Transport Improvements

6.4.19 Public transport improvements in the Do-Something and Do-More scenarios include the extension of the current Bluestar 2 route into the SGO site north of Fair Oak and the addition of a new half-hourly service from Horton Heath to Southampton, running through both SGO sites.

Walking and Cycling Measures

6.4.20 A number of strategic footpath, cycleway and bridleway improvements across the borough are proposed, as indicated on the Local Plan Policies Maps. These include key routes within existing urban areas and linkages between settlements. Existing towns where pedestrian and cycling enhancements are proposed along key transport corridors include Chandlers Ford, Eastleigh, Fair Oak, Horton Heath, Hedge End, Botley and West End. Enhanced connections between settlements are proposed between Hedge End and Botley, Fair Oak and Horton Heath, and connections from the SGO sites and other Strategic Sites to neighbouring settlements.

6.5 Results of Impact Assessment

Overview of Network Hot Spots

6.5.1 To gain an understanding of the extent and spread of peak hour stress on the highway network in 2036, the results from the three future year test scenarios have been interrogated to identify a longlist of locations on the network where the ratio of Volume to Capacity (V/C) reaches or exceeds 80%. Values at or above this threshold would indicate that a road or junction is approaching its maximum capacity and likely to be experiencing congestion and delays. A value of 90% is normally taken as the practical capacity value for design purposes. A value of >100% means that the junction is over capacity and significant queues and delay could occur.

6.5.2 This exercise identified 67 locations in the Baseline scenario and 75 locations in the Do-Something and Do-More tests. These Hot Spots are indicated on Figures 12, 13 and 14 for the

Baseline, Do-Something and Do-More scenarios and listed in Table 6. The Table also identifies in which scenario the 80% threshold is reached.

Figure 13. Hot Spot Locations – Baseline

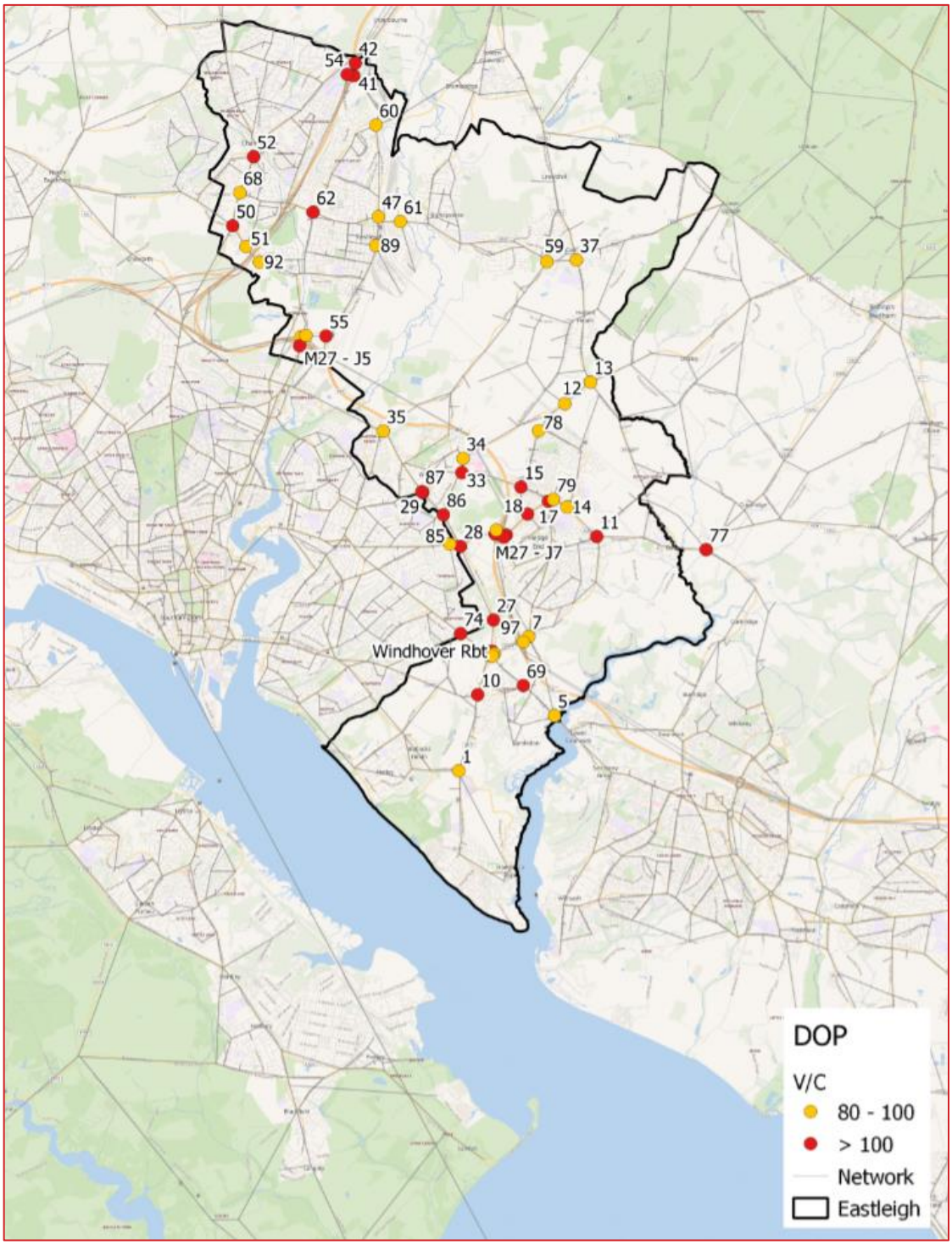


Figure 14. Hot Spot Locations – Do Something

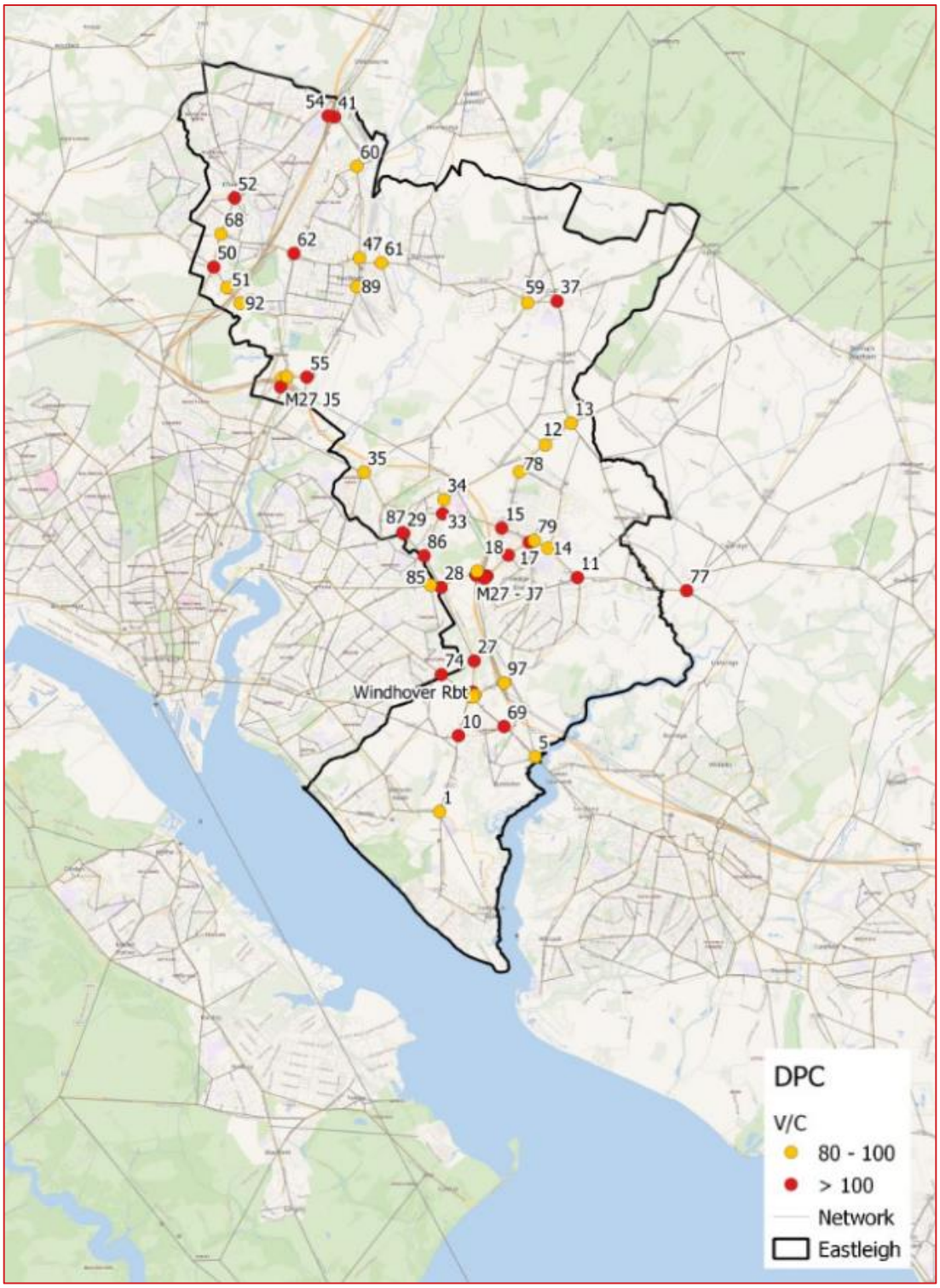


Figure 15. Hotspot Locations – Do More

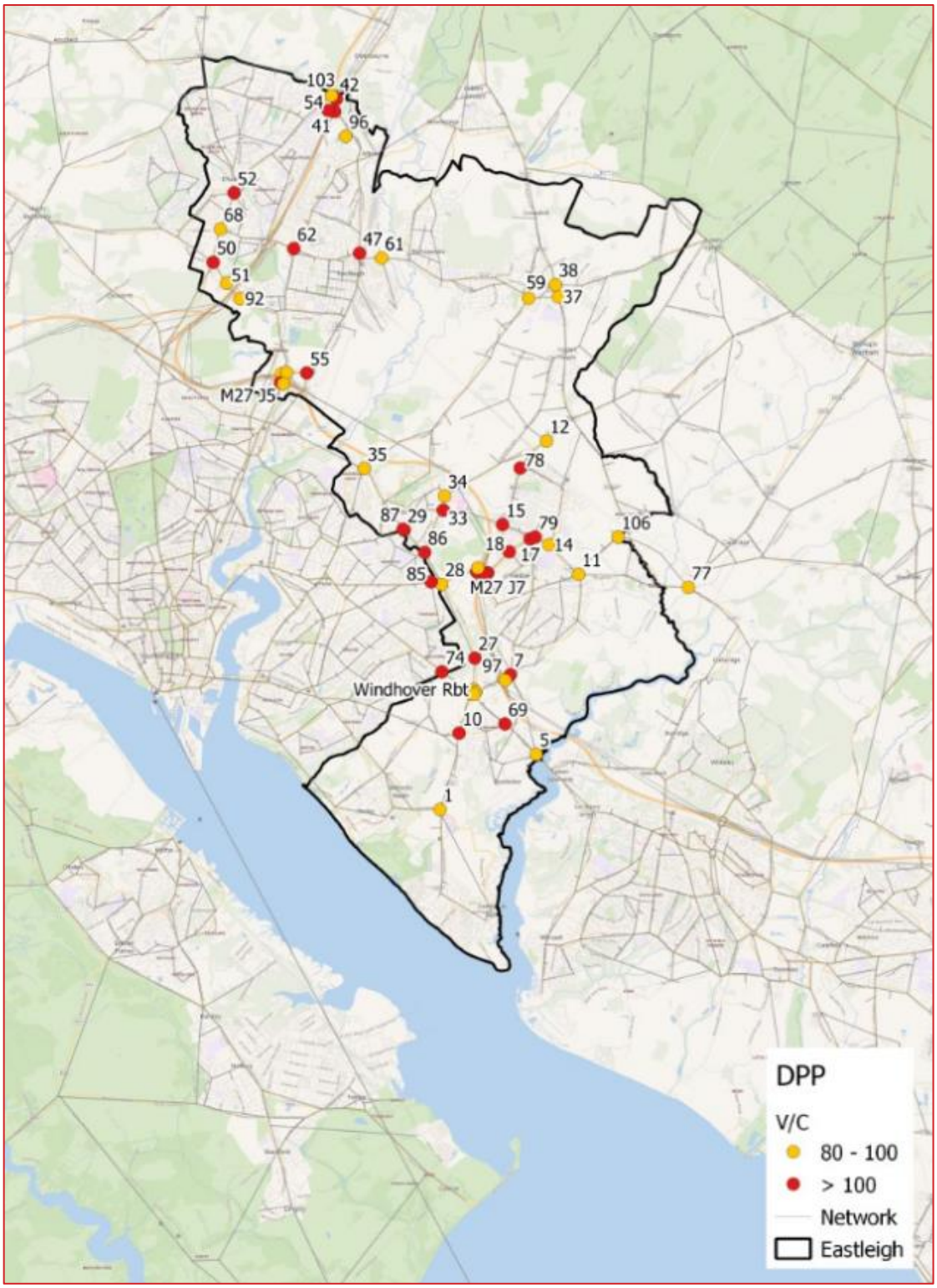


Table 6. 2036 Peak Hour Hot Spot Locations (V/C >80%)

LINK/JUNCTION	ID	BASELINE		DO SOMETHING		DO MORE	
		AM	PM	AM	PM	AM	PM
Hamble Lane / Hound lane Roundabout	1	✓	✓	✓	✓	✓	✓
Windhover Roundabout	4/9/71/75/76/98	✓	✓	✓	✓	✓	✓
Bridge Road / Church Road T Jct	5	✓	✓	✓	✓	✓	✓
Dodwell Lane / Dodwell Lane T Jct	7	✓		✓		✓	✓
Hamble Lane / Portsmouth Road T Jct	10	✓	✓	✓	✓	✓	✓
Maypole Roundabout	11	✓	✓	✓	✓	✓	✓
Bubb Lane / Burnetts Lane Link Rbt	12	✓		✓		✓	
Denhams Corner Roundabout	13	✓	✓	✓	✓	✓	✓
Grange Road / Locke Road Roundabout	14	✓	✓	✓	✓	✓	✓
Botley Road / Tollbar Way Roundabout	15	✓	✓	✓	✓	✓	✓
M27 Eastbound – J5 to J7	16	✓	✓	✓	✓	✓	✓
Peter Cooper Roundabout	17	✓	✓	✓	✓	✓	✓
Charles Watts/Tollbar/Turnpike Way Rbt	18	✓	✓	✓	✓	✓	✓
M27 J7 Eastbound on-slip merge	19/22	✓	✓	✓	✓	✓	✓
M27 J8 Eastbound off-slip diverge	20/21	✓	✓	✓	✓	✓	✓
M27 Eastbound – J7 to J8	23	✓	✓	✓	✓	✓	✓
M27 J7	24-26		✓		✓		✓
West End Road / Saint John's Road T Jct	27	✓	✓	✓	✓	✓	✓
Kanes Hill Roundabout	28	✓	✓	✓	✓	✓	✓
Church Hill / West End Road T Jnct	29	✓		✓	✓	✓	✓
M27 J7 Eastbound off-slip diverge	30	✓	✓	✓	✓	✓	✓
Swathling Rd / High St / Chalk Hill Sigs	31	✓		✓		✓	
High Street / West End Road Rbtt	32	✓		✓	✓	✓	✓
High Street / Moorgreen Road Rbt	33	✓	✓	✓	✓	✓	✓
Moorgreen Road / Chapel Road T Jct	34		✓		✓		✓
Allington Lane Roundabout	35	✓		✓	✓	✓	
Botley Road / Eastleigh Road Signals	37	✓	✓	✓	✓	✓	✓
Winchester Road / Mortimers Lane	38			✓		✓	✓

LINK/JUNCTION	ID	BASELINE		DO SOMETHING		DO MORE	
		AM	PM	AM	PM	AM	PM
Fair Oak Road / Sandy Lane Signals	39			✓			
M3 J12 / Allbrook Way Roundabout	41	✓	✓	✓	✓	✓	✓
Winchester Road / Otterbourne Hill Rbt	42		✓	✓	✓	✓	✓
M3 J12 Southbound off-slip diverge	44/45		✓		✓		
Allbrook Hill / Pitmore Road T Jct	46					✓	
Twyford Road / Romsey Road Rbt	47	✓	✓	✓	✓	✓	✓
Romsey Road / Leigh Road Signals	48	✓		✓		✓	
Passfield Avenue / Derby Road Rbt	49	✓	✓	✓	✓	✓	✓
Bournemouth Road / Templars Road Rbt	50	✓	✓	✓	✓	✓	✓
Chestnut Avenue / Falkland Road Rbt	51		✓		✓		✓
Bournemouth Rd / Chalvington Rd Sigs	52	✓	✓	✓	✓	✓	✓
Bournemouth Rd / Winchester Rd Rbt	53	✓	✓	✓	✓	✓	✓
M3 J12 Northbound Roundabout	54	✓	✓	✓	✓	✓	✓
Wide Lane Roundabout	55	✓	✓	✓	✓	✓	✓
M27 J5 Eastbound on-slip merge	56	✓	✓	✓	✓	✓	✓
M27 Eastbound J5 to J7	57/58	✓	✓	✓	✓	✓	✓
Fair Oak Road / Allington Lane Signals	59	✓		✓	✓	✓	✓
Allbrook Roundabout	60	✓					
Bishopstoke Rd / Chickenhall Lane Rbt	61	✓		✓	✓	✓	
Leigh Road / Passfield Avenue Rbt	62	✓	✓	✓	✓	✓	✓
Bournemouth Road / Leigh Road Signals	68	✓	✓	✓	✓	✓	✓
Providence Hill / Portsmouth Rd T Jct	69	✓		✓		✓	
Bridge Road / Dodwell Lane Signals	73	✓	✓	✓	✓	✓	✓
Bursledon Road / Botley Road Signals	74	✓	✓	✓	✓	✓	✓
A334 / B3051 / Botley Bypass Rbt	77		✓	✓	✓		✓
Tollbar Way / Maunsel Way Roundabout	78		✓		✓		✓
Grange Street / Shamblehurst Ln Signals	79	✓	✓	✓	✓	✓	✓
M27 J7 Roundabout	80-83	✓	✓	✓	✓	✓	✓
Thornhill Park Rd / Hinkler Rd Signals	85	✓	✓	✓	✓	✓	✓
Moorhill Road / Telegraph Road T Jct	86	✓	✓	✓	✓	✓	✓
Moorhill Road / Church Hill T Jct	87	✓	✓	✓	✓	✓	✓

LINK/JUNCTION	ID	BASELINE		DO SOMETHING		DO MORE	
		AM	PM	AM	PM	AM	PM
A335 / Blenheim Road Roundabout	89	✓	✓	✓	✓	✓	✓
M27 J5 Roundabout	90/91/ 105/113	✓	✓	✓	✓	✓	✓
Chestnut Ave / Nightingale Ave Sigs	92	✓	✓	✓	✓	✓	✓
M27 J8	97	✓		✓		✓	
Winchester Rd / Shamblehurst Ln T Jct	99	✓	✓	✓	✓	✓	✓
Maunsel Way / Stroudley Way Rbt	100		✓		✓		✓
Tollbar Way / Bubb Lane T Jct	101		✓		✓		✓
Botley Road / Telegraph Road Rbt	102	✓	✓	✓	✓	✓	
Winchester Rd / Hocombe Rd rbt	103		✓		✓	✓	✓
Station Hill / Bishopstoke Rd Rbt	104	✓		✓		✓	
Woodhouse Lane / Botley Bypass Rbt	106				✓	✓	✓
Southampton Rd / Campbell Rd Signals	107			✓		✓	
Moorhill Road / Cheriton Avenue T Jct	109	✓	✓	✓	✓	✓	✓
TOTALS	72	**57**	**55**	**61**	**60**	**62**	**57**
		67		**70**		**70**	

6.5.3 Having identified Hot Spot locations across the borough, Table 7 shows where significant or severe impacts are expected to occur, having regard to the assessment criteria in 6.2. This shows there are 12 locations with significant impacts and 10 with severe impacts in the Do-Something tests and 17 with significant impacts and 8 with severe impacts in the Do-More tests.

Table 7. 2036 Locations of Significant or Severe Impact

LINK/JUNCTION	ID	DO SOMETHING		DO MORE	
		AM	PM	AM	PM
Dodwell Lane Roundabout	7			Sev	Sev
Maypole Roundabout	11	Sev	Sig		
Bubb Lane / Burnetts Lane Link Rbt	12	Sig		Sig	
Denhams Corner Roundabout	13	Sig	Sev	Sig	
Grange Road / Locke Road Roundabout	14				Sig
Peter Cooper Roundabout	17				Sig
Charles Watts / Turnpike / Tollbar Way Rbt	18			Sig	

LINK/JUNCTION	ID	DO SOMETHING		DO MORE	
		AM	PM	AM	PM
Church Hill / Moorhill Rd / West End Rd T Jct	29				Sig
Swathling Rd / High St / Chalk Hill Sigs	31		Sig		
High Street / West End Road Rbt	32		Sig		Sig
Allington Lane Roundabout	35	Sig	Sig		
Botley Road / Eastleigh Road Signals	37	Sig	Sev	Sig	Sig
Winchester Road / Mortimers Lane	38	Sev		Sig	Sev
Fair Oak Road / Sandy Lane Signals	39	Sig			
M3 J12 / Allbrook Way Roundabout	41			Sig	Sev
Winchester Road / Otterbourne Hill Rbt	42	Sev	Sev	Sev	Sev
Twyford Road / Romsey Road Rbt	47		Sig		Sig
Passfield Avenue / Derby Road Rbt	49		Sig		Sig
Bournemouth Rd / Chalvington Rd Sigs	52	Sev	Sig		
Bournemouth Rd / Winchester Rd Rbt	53	Sig			
M3 J12 Northbound Roundabout	54	Sev	Sig	Sev	Sig
Wide Lane Roundabout	55		Sig		
Fair Oak Road / Allington Lane Signals	59	Sig	Sig		
Bridge Road / Dodwell Lane Signals	73			Sig	
A334 / B3051 / Botley Bypass Rbt	77	Sev	Sev	Sev	
Tollbar Way / Maunsel Way Roundabout	78	Sig			
Grange Street / Shamblehurst Ln Signals	79			Sig	
M27 J7 Roundabout	80-83				Sig
Thornhill Park Rd / Hinkler Rd Signals	85			Sig	
Winchester Rd / Shamblehurst Ln T Jct	99			Sev	Sig
Tollbar Way / Bubb Lane T Jct	101		Sig		Sig
Winchester Rd / Hocombe Rd rbt	103			Sig	Sig
Station Hill / Bishopstoke Rd Rbt	104	Sev		Sig	
Woodhouse Lane / Botley Bypass Rbt	106		Sev	Sev	Sev
TOTALS	**Sig**	**8**	**11**	**11**	**12**
		12		**17**	
	Sev	**7**	**5**	**6**	**5**
		10		**8**	

6.5.4 Each of the above locations are examined individually in the following paragraphs with particular reference to the significance of the impacts of Local Plan growth. This part of the TA deals with impacts on the local road network within Eastleigh Borough only; impacts within neighbouring local authorities are separately assessed in Section 7. Motorway junctions meeting the significance criteria are discussed below, with further details of impacts on the motorway network contained in Section 0. Full details of the junction performance statistics for each hot spot location are included in Appendix B.

Dodwell Lane / Dodwell Lane Priority Junction

6.5.5 The tables below summarise the AM and PM peak hour junction performance statistics, by arm, for the Baseline (BL), Do Something (DS) and Do More (DM) test scenarios. Where the assessment criteria for 'significant' or 'severe' impacts are met, these are highlighted in yellow and red respectively.

Table 8. Dodwell Lane / Dodwell Lane AM Peak Junction Performance

AM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
Dodwell Lane Eastbound	73	81	81	0	0	0	3	5	4
Dodwell Lane Westbound	42	43	43	2	2	2	12	11	11
Dodwell Lane Northbound	86	72	102	5	3	12	21	26	101

Table 9. Dodwell Lane / Dodwell Lane PM Peak Junction Performance

PM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
Dodwell Lane Eastbound	61	64	67	0	0	0	2	2	3
Dodwell Lane Westbound	62	59	65	2	1	2	9	8	11
Dodwell Lane Northbound	74	73	98	5	4	8	58	55	61

6.5.6 The junction is identified as experiencing a severe impact in the Do-More scenario due to the V/C ratio exceeding 95% and increasing by more than 10% relative to the Baseline. The impact occurs on the minor arm of the T junction where the V/C increases from 86% to 102% in the AM and from 74% to 98% in the PM; indicating that traffic entering the junction from the minor arm is being delayed whilst seeking gaps in the main road flow. Although the V/C values are high the effect on queue length is modest with the average queues increasing from 5pcu to 12pcu in the AM and from 5pcu to 8pcu in the PM. This additional queuing would not

materially adversely affect the operation of the junction but users approaching on the minor arm would experience a noticeable increase in delay in the AM peak hour.

Maypole Roundabout

6.5.7 The tables below summarise the AM and PM peak hour junction performance statistics, by arm, for the Baseline (BL), Do Something (DS) and Do More (DM) test scenarios. Where the assessment criteria for 'significant' or 'severe' impacts are met, these are highlighted in yellow and red respectively.

Table 10. Maypole Roundabout AM Peak Junction Performance

AM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
Woodhouse Lane	85	102	82	2	14	1	27	73	10
B3033 Lower Northam Rd	102	104	76	2	3	1	300	336	16
Kings Copse Avenue	108	107	71	22	23	1	194	178	12
A334 Grange Rd S'bound	92	90	89	1	1	2	10	9	15
A334 Grange Rd W'bound	101	76	38	8	1	0	37	18	14

Table 11. Maypole Roundabout PM Peak Junction Performance

PM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
Woodhouse Lane	93	102	90	4	14	2	53	73	13
B3033 Lower Northam Rd	91	86	64	3	2	1	35	25	11
Kings Copse Avenue	93	92	51	3	2	0	27	23	10
A334 Grange Rd S'bound	101	101	91	9	10	2	50	56	16
A334 Grange Rd W'bound	101	72	42	8	1	1	36	15	17

6.5.8 The junction is identified as experiencing a severe impact in the AM and significant impact in the PM in the Do-Something scenario, due to changes to the V/C ratios. These impacts occur on Woodhouse Lane (the arm serving the West of Woodhouse Lane allocation) where the V/C increases from 85% to 102% in the AM and from 93% to 102% in the PM. V/C ratios above 100% are present on the other arms of the roundabout in both Baseline and Do-Something scenarios indicating that the junction will be over capacity notwithstanding the committed mitigation measures.

6.5.9 The Do-More test includes additional capacity enhancements with extended flares on all approaches. The modelling shows that these improvements are sufficient to mitigate the impacts of development and bring the junction back within capacity.

Bubb Lane / Burnetts Lane Link Roundabout

6.5.10 The tables below summarise the AM and PM peak hour junction performance statistics, by arm, for the Baseline (BL), Do Something (DS) and Do More (DM) test scenarios. Where the assessment criteria for 'significant' or 'severe' impacts are met, these are highlighted in yellow and red respectively.

Table 12. Bubb Lane / Link Road from Burnetts Lane AM Peak Junction Performance

AM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
New Link Road	22	29	22	0	0	0	5	6	5
Bubb Lane Northbound	80	85	70	0	0	0	3	3	3
Bubb Lane Southbound	64	54	86	0	0	0	4	0	3

Table 13. Bubb Lane / Link Road from Burnetts Lane PM Peak Junction Performance

PM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
New Link Road	16	16	16	0	0	0	5	5	5
Bubb Lane Northbound	71	75	75	0	0	0	3	3	3
Bubb Lane Southbound	50	55	60	0	0	0	3	3	3

6.5.11 The junction is identified as experiencing significant impacts in the AM peak for both the Do-Something and Do-More scenarios due to the V/C ratio exceeding 85% and increasing by more than 5% relative to the Baseline. The impacts occur on the Bubb Lane arms of the junction where the V/C increases from 80% to 85% on the northbound approach and from 64% to 86% on the southbound approach. Whilst the V/C values are sufficient to trigger the threshold criteria for 'significant' impacts, the results show that queues and delays are minimal and the junction is seen to be operating satisfactorily.

6.5.12 The tables below summarise the AM and PM peak hour junction performance statistics, by arm, for the Baseline (BL), Do Something (DS) and Do More (DM) test scenarios. Where the assessment criteria for 'significant' or 'severe' impacts are met, these are highlighted in yellow and red respectively.

Table 14. Denhams Corner Roundabout AM Peak Junction Performance

AM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
B3354 Winchester Road	100	102	99	3	15	4	16	54	13
Snakemoor Lane	62	86	63	1	2	1	16	40	15
B3342 Bubb Lane	68	85	74	0	1	1	7	11	9
B3354 Botley Road	81	89	79	1	2	1	8	11	7

Table 15. Denhams Corner Roundabout PM Peak Junction Performance

PM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
B3354 Winchester Road	80	101	76	1	9	1	7	38	6
Snakemoor Lane	92	98	81	3	5	2	47	61	20
B3342 Bubb Lane	63	75	78	0	1	1	7	9	10
B3354 Botley Road	80	78	65	1	1	0	8	7	6

6.5.13 The junction is identified as experiencing significant or severe peak hour impacts in the Do-Something scenario due to increases in V/C ratios. In the AM peak, the Winchester Road arm is over capacity in both the Baseline and Do-Something scenarios albeit that the Local Plan growth has only a small impact on this arm. Significant increases in V/C are forecast for the remaining three arms although the values remain below 90% and the impact on queues and delays is modest. The PM peak indicates a severe impact on the Winchester Road arm with the V/C increasing from 80% to 101% although predicted queue lengths remain below 10pcu.

6.5.14 The Do-More test includes additional capacity enhancements to the Winchester Road to provide an extended two lane approach. It also includes additional flaring of the Botley Road approach. The modelling shows that these improvements are sufficient to mitigate the impacts of development and bring the junction back within capacity.

6.5.15 The tables below summarise the AM and PM peak hour junction performance statistics, by arm, for the Baseline (BL), Do Something (DS) and Do More (DM) test scenarios. Where the assessment criteria for 'significant' or 'severe' impacts are met, these are highlighted in yellow and red respectively.

Table 16. A334 Grange Road / Locke Road Roundabout AM Peak Junction Performance

AM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
Locke Road	98	101	92	4	9	2	26	53	14
Grange Road Northbound	81	79	84	0	0	1	6	6	6
Grange Road Southbound	91	85	84	0	0	0	5	4	5

Table 17. A334 Grange Road / Locke Road Roundabout PM Peak Junction Performance

PM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
Locke Road	76	80	88	1	1	1	8	8	12
Grange Road Northbound	64	61	70	0	0	0	5	5	5
Grange Road Southbound	88	81	97	0	0	0	4	4	6

6.5.16 The junction is identified as experiencing significant impacts on two arms in the PM peak for the Do- Do-More scenario, due to the V/C ratio exceeding 85% and increasing by more than 5% relative to the Baseline. The impacts occur on the westbound and southbound approaches to the junction where the V/C increases from 76% to 88% on Locke Road and from 88% to 97% on Grange Road southbound. Whilst the V/C values are sufficient to trigger the threshold criteria for 'significant' impacts, the results show that queues and delays on these arms are minimal and the junction is seen to be operating satisfactorily in the PM peak. The Locke Road arm is over capacity in the AM peak with a V/C value of 101% in the Do-Something test. However, the change relative to the Baseline is small and does not result in a significant impact.

6.5.17 The tables below summarise the AM and PM peak hour junction performance statistics, by arm, for the Baseline (BL), Do Something (DS) and Do More (DM) test scenarios. Where the assessment criteria for 'significant' or 'severe' impacts are met, these are highlighted in yellow and red respectively.

Table 18. Peter Cooper Roundabout AM Peak Junction Performance

AM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
Wildern Lane	106	107	98	14	15	5	199	212	70
A334 Grange Road	102	102	102	18	18	18	58	58	58
A334 Charles Watts Way	97	97	95	4	4	3	22	22	19
B3035 Botley Road	70	68	68	1	0	0	8	7	7

Table 19. Peter Cooper Roundabout PM Peak Junction Performance

PM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
Wildern Lane	66	57	67	1	1	1	27	22	34
A334 Grange Road	99	97	100	6	4	7	24	20	28
A334 Charles Watts Way	86	83	91	1	1	2	14	13	16
B3035 Botley Road	101	101	103	12	10	22	47	40	87

6.5.18 The junction is identified as experiencing a significant impact on one arm during the PM peak in the Do-More scenario due to the V/C on Charles Watts Way increasing from 86% to 91%. The results show this does not materially affect the queues and delays on this arm. The Wildern Lane and Grange Road arms are seen to be over capacity in the AM peak as is the Botley Road arm in the PM peak, with V/C's over 100%. However, the change relative to the Baseline is small and does not result in any significant impacts.

6.5.19 The tables below summarise the AM and PM peak hour junction performance statistics, by arm, for the Baseline (BL), Do Something (DS) and Do More (DM) test scenarios. Where the assessment criteria for 'significant' or 'severe' impacts are met, these are highlighted in yellow and red respectively.

Table 20. Charles Watts / Turnpike / Tollbar Way Roundabout AM Peak Junction Performance

AM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
Charles Watts Way S'bound	95	97	101	3	4	13	17	19	43
Tollbar Way	96	98	100	5	7	9	31	37	49
Turnpike Way	103	104	87	3	3	2	319	337	228
Charles Watts Way N'bound	105	106	104	49	56	42	105	118	91

Table 21. Charles Watts / Turnpike / Tollbar Way Roundabout PM Peak Junction Performance

PM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
Charles Watts Way S'bound	103	104	101	24	29	15	80	96	49
Tollbar Way	102	102	102	14	15	16	73	80	85
Turnpike Way	41	43	41	1	1	1	156	158	156
Charles Watts Way N'bound	113	113	113	118	121	124	240	246	251

6.5.20 The junction is identified as experiencing a significant impact on one arm during the AM peak in the Do-More scenario due to the V/C on the southbound arm of Charles Watts Way increasing from 95% to 101%. The results show this does not have a major effect the queues and delays on this arm. In the PM peak hour the performance of this arm in the Do-More test is improved relative to the Baseline test. The remaining three arms of the junction are all shown to be over capacity, with V/C's over 100%, in either the AM or PM peaks. This indicates that the junction will reach capacity before 2036 regardless of Local Plan growth. However, the impacts of growth, relative to the Baseline, are small indicating that the Local Plan does not significantly affect the performance of the junction.

6.5.21 The junction lies within approximately 500m of M27 J7 and connects via the Charles Watts Way Northbound arm of the roundabout. The maximum average queue on this arm is forecast

to be 118 pcu during the PM peak in the Baseline test, increasing by 6 pcu to 124 pcu in the Do-More test. This represents an approximate queue length of 708m (based on 6m per pcu), in the Baseline test, increasing to 744m in the Do-More test. Shared over the two lanes of the dual carriageway this calculates to an average queue length of 354m to 372m per lane (assuming equal lane usage). This demonstrates that blocking back to the motorway junction is unlikely to occur. It also shows that Local Plan growth has only a small impact on queuing at the junction.

Church Hill / Moorhill Rd / West End Rd Priority Junction

6.5.22 The tables below summarise the AM and PM peak hour junction performance statistics, by arm, for the Baseline (BL), Do Something (DS) and Do More (DM) test scenarios. Where the assessment criteria for 'significant' or 'severe' impacts are met, these are highlighted in yellow and red respectively.

Table 22. Church Hill / Moorhill Road / West End Road Junction AM Peak Junction Performance

AM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
Moorhill Road	39	48	38	0	0	0	2	3	2
Church Hill	48	49	48	0	0	0	2	2	2
West End Road	100	100	100	7	7	8	51	56	57

Table 23. Church Hill / Moorhill Road / West End Road Junction PM Peak Junction Performance

PM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
Moorhill Road	40	41	41	0	0	0	2	2	2
Church Hill	52	52	51	0	0	0	2	2	2
West End Road	76	84	90	2	3	4	15	18	24

6.5.23 The junction is identified as experiencing a significant impact on one arm during the PM peak in the Do-More scenario due to the V/C on West End Road increasing from 76% to 90%. The results show this does not materially affect the queues and delays on this arm. The West End Road arm of the junction is shown to be at capacity, with a V/C's of 100%, in the AM peak. However, this value is the same for all scenarios indicating that Local Plan growth does not materially affect the performance of the junction.

6.5.24 The tables below summarise the AM and PM peak hour junction performance statistics, by arm, for the Baseline (BL), Do Something (DS) and Do More (DM) test scenarios. Where the assessment criteria for 'significant' or 'severe' impacts are met, these are highlighted in yellow and red respectively.

Table 24. Swaythling Road / High Street / Chalk Hill Signals AM Peak Junction Performance

AM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
A27 Swaythling Road	87	88	85	4	4	4	51	54	49
B3035 High Street	48	54	55	4	4	5	48	41	53
Chalk Hill	53	57	49	3	3	2	27	28	26
A27 Church Hill	32	27	31	1	1	1	28	27	28

Table 25. Swaythling Road / High Street / Chalk Hill Signals PM Peak Junction Performance

PM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
A27 Swaythling Road	75	94	78	3	4	4	40	72	43
B3035 High Street	23	24	26	2	2	2	26	27	27
Chalk Hill	23	27	27	1	1	1	22	23	23
A27 Church Hill	15	16	17	1	1	1	26	26	26

6.5.25 The junction is identified as experiencing a significant impact on one arm during the PM peak in the Do-Something scenario due to the V/C on Swaythling Road increasing from 75% to 94%. The results show this does not materially affect the queues and delays on this arm, indicating that Local Plan growth does not materially adversely affect the performance of the junction. The remaining arms of the junction are shown to be operating within capacity.

6.5.26 The tables below summarise the AM and PM peak hour junction performance statistics, by arm, for the Baseline (BL), Do Something (DS) and Do More (DM) test scenarios. Where the assessment criteria for 'significant' or 'severe' impacts are met, these are highlighted in yellow and red respectively.

Table 26. High Street / West End Road Roundabout AM Peak Junction Performance

AM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
B3035 High Street W'bound	80	80	81	0	0	0	4	4	4
West End Road	49	56	50	0	0	0	4	4	4
B3035 High Street E'bound	28	26	29	0	0	0	4	4	4

Table 27. High Street / West End Road Roundabout PM Peak Junction Performance

PM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
B3035 High Street W'bound	77	87	90	0	0	0	4	5	5
West End Road	74	74	67	0	0	0	5	5	4
B3035 High Street E'bound	53	54	51	0	0	0	7	7	6

6.5.27 The junction is identified as experiencing a significant impact on one arm during the PM peak in both the Do-Something and Do-More scenarios. This is due to the V/C on the westbound arm of High Street increasing from 77% in the Baseline, to 87% in the Do-Something test and 90% in the Do-More test. The results show this does not have any effect on queues and delays on this arm, indicating that Local Plan growth does not materially affect the performance of the junction. The remaining arms of the junction are shown to be operating within capacity.

6.5.28 The tables below summarise the AM and PM peak hour junction performance statistics, by arm, for the Baseline (BL), Do Something (DS) and Do More (DM) test scenarios. Where the assessment criteria for 'significant' or 'severe' impacts are met, these are highlighted in yellow and red respectively.

Table 28. Allington Lane Roundabout AM Peak Junction Performance

AM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
Allington Lane	61	88	53	0	1	0	8	13	6
A27 Swaythling Rd S'bound	54	57	44	0	0	0	5	6	5
Townhill Way	70	80	57	1	1	0	9	11	7
A27 Swaythling Rd N'bound	97	99	80	3	4	1	18	30	8

Table 29. Allington Lane Roundabout PM Peak Junction Performance

PM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
Allington Lane	31	44	30	0	0	0	6	7	5
A27 Swaythling Rd S'bound	68	91	55	0	1	0	5	8	5
Townhill Way	32	41	31	0	0	0	5	5	5
A27 Swaythling Rd N'bound	44	48	39	0	0	0	5	5	5

6.5.29 The junction is identified as experiencing significant impacts in the AM and PM peaks in the Do-Something scenario. This is due to the V/C on Allington Lane increasing from 61% to 88% in the AM peak and the V/C on Swaythling Road southbound increasing from 68% to 91% in the PM peak. The results show this does not materially affect the queues and delays on these arms, indicating that Local Plan growth does not have a major adverse impact on the performance of the junction. The Do-More test simulates the effect of providing increased flaring on all the approaches to the junction and demonstrates that such mitigation would bring the junction back within capacity.

6.5.30 The tables below summarise the AM and PM peak hour junction performance statistics, by arm, for the Baseline (BL), Do Something (DS) and Do More (DM) test scenarios. Where the assessment criteria for 'significant' or 'severe' impacts are met, these are highlighted in yellow and red respectively.

Table 30. B3354 Botley Road / B3037 Eastleigh Road Signals AM Peak Junction Performance

AM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
Botley Road Northbound	52	82	85	4	7	7	25	35	38
Eastleigh Road	71	82	84	1	2	1	81	97	129
Botley Road Southbound	93	101	98	5	10	6	51	117	81

Table 31. B3354 Botley Road / B3037 Eastleigh Road Signals PM Peak Junction Performance

PM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
Botley Road Northbound	47	93	67	3	7	5	26	56	34
Eastleigh Road	77	89	85	2	2	3	75	94	78
Botley Road Southbound	91	101	79	5	8	6	46	131	38

6.5.31 The junction is identified as experiencing significant or severe impacts on all arms. The most significant impacts occur on the Botley Road southbound arm in the Do-Something scenario where the V/C increases from 93% to 101% in the AM peak and from 91% to 101% in the PM peak. Mitigation measures, comprising the widening of the Botley Road southbound arm to provide two-lanes, are included in the DS and DM tests; however the results show this does not fully mitigate the Local Plan impacts. Scope for further capacity enhancements is limited due to highway land constraints. The need to retain pedestrian crossing stages on all arms also affects the capacity of the junction.

6.5.32 The results show that although the V/C's are high on the Botley Road southbound arm, this does not have a major impact on queue lengths with the maximum queue length increasing from 5 to 10 pcu in the AM peak and from 5 to 8 pcu in the PM peak. This additional queuing would not materially adversely affect the operation of the junction. Impacts on the other arms of the junction are less significant.

6.5.33 The tables below summarise the AM and PM peak hour junction performance statistics, by arm, for the Baseline (BL), Do Something (DS) and Do More (DM) test scenarios. Where the assessment criteria for 'significant' or 'severe' impacts are met, these are highlighted in yellow and red respectively.

Table 32. Winchester Road / Mortimers Lane AM Peak Junction Performance

AM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
Mortimers Lane	56	97	79	0	6	5	4	32	28
Winchester Road S'bound	22	32	89	0	0	4	1	1	50
Winchester Road N'bound	21	24	72	0	0	4	2	2	30

Table 33. Winchester Road / Mortimers Lane PM Peak Junction Performance

PM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
Mortimers Lane	43	42	76	0	0	4	5	7	41
Winchester Road S'bound	34	50	96	0	0	5	1	2	54
Winchester Road N'bound	24	32	90	0	0	4	3	4	54

6.5.34 The junction is identified as experiencing significant or severe impacts on the Mortimer Lane or Winchester Road arms depending on the scenario tested. In the Do-Something scenario the most significant impact occurs on Mortimers Lane in the AM peak where the V/C increases from 56% to 97%. In the Do-More scenario the Mortimers Lane arm operates within capacity but there are significant increases in the V/C results for Winchester Road.

6.5.35 The Do-Something scenarios includes mitigation measures, comprising the widening of the Winchester Road to provide a right-turn lane into Mortimers Lane and the widening of Mortimers Lane to provide separate left and right turn lanes. Whilst the results show this does not fully mitigate the Local Plan impacts, the residual queues and delays are not excessive.

6.5.36 The Do-More test simulates the effect of signalising the junction to afford improved priority to the minor arm (Mortimers Lane). This successfully reduces the V/C on Mortimers Lane below 80% but results in increased V/C values on Winchester Road (greater than 80%). On balance this mitigation option offers few benefits compared with the committed junction improvement scheme, other than the ability to manage queuing at the junction through the use of alternative signal timing plans. The non-signalised option is therefore preferred and

considered adequate to serve Local Plan growth. The potential for future signalisation remains an option for the longer term, should network condition change.

Fair Oak Road / Sandy Lane Signals

6.5.37 The tables below summarise the AM and PM peak hour junction performance statistics, by arm, for the Baseline (BL), Do Something (DS) and Do More (DM) test scenarios. Where the assessment criteria for 'significant' or 'severe' impacts are met, these are highlighted in yellow and red respectively.

Table 34. Fair Oak Road / Sandy Lane Signals AM Peak Junction Performance

AM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
Sandy Lane	46	91	58	2	5	4	32	60	29
Fair Oak Road Eastbound	37	41	41	1	2	2	11	12	15
Fair Oak Road Westbound	59	53	60	3	2	4	14	12	17

Table 35. Fair Oak Road / Sandy Lane Signals PM Peak Junction Performance

PM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
Sandy Lane	42	72	49	2	3	2	33	42	35
Fair Oak Road Eastbound	48	54	51	2	2	2	12	13	13
Fair Oak Road Westbound	32	29	37	1	1	1	8	9	9

6.5.38 The junction is identified as experiencing a significant impact on one arm during the AM peak in the Do-Something scenario. This is due to the V/C on Sandy Lane increasing from 46% in the Baseline, to 91% in the Do-Something test. The results show this does not have a major effect on queues or delays on this arm, indicating that Local Plan growth does not materially affect the performance of the junction. The remaining arms of the junction are shown to be operating within capacity. It is considered that an adjustment of the existing signal timings at this junction could reduce the V/C on Sandy Lane to below 80% if required without significant impact on the performance of the other arms.

6.5.39 The tables below summarise the AM and PM peak hour junction performance statistics, by arm, for the Baseline (BL), Do Something (DS) and Do More (DM) test scenarios. Where the assessment criteria for 'significant' or 'severe' impacts are met, these are highlighted in yellow and red respectively.

Table 36. M3 J12 / Allbrook Way Roundabout AM Peak Junction Performance

AM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
A335 Allbrook Way	106	106	101	33	59	11	146	137	46
M3 Southbound Off-Slip	93	87	100	3	1	6	22	10	45
Winchester Road	112	104	83	50	35	1	242	86	6
A335 Motorway Bridge	73	4	94	0	0	2	6	6	14

Table 37. M3 J12 / Allbrook Way Roundabout PM Peak Junction Performance

PM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
A335 Allbrook Way	104	85	93	24	2	3	111	9	17
M3 Southbound Off-Slip	106	105	106	22	22	22	139	136	154
Winchester Road	107	103	81	34	32	1	152	77	6
A335 Motorway Bridge	77	65	102	0	0	12	6	7	62

6.5.40 The junction is identified as experiencing significant or severe peak hour impacts in the Do-More scenario resulting from increases in V/C ratios. On the motorway bridge connecting the two dumb-bell roundabouts, the impact is assessed as significant in the AM peak with the V/C increasing from 93% to 100%; and severe in the PM peak with the V/C increasing from 77% to 102%. A significant impact is also identified on the southbound-off slip road in the AM peak with the V/C increasing from 93% in the baseline to 100% in the Do-More test.

6.5.41 The highest V/C's occur on Allbrook Way and Winchester Road with values ranging from 106% to 112% in the baseline tests. These are improved in the Do-Something scenario but remain over 100% on all arms except Allbrook Way in the PM peak. There is further betterment for these arms in the Do-More test with all values below 100% except for Allbrook Way in the AM PM where the V/C remains 101% (relative to a baseline value of 106%).

6.5.42 A significant reduction in V/C is forecast on the Motorway Bridge arm in the Do-Something scenario in the AM peak, with a subsequent increase in the Do-More test. This results from increased delays at the adjacent Northbound Roundabout in the Do-Something test causing traffic to divert away from the junction onto alternative routes. The additional mitigation in the Do-More test reduces the delays and accordingly the diverted traffic returns.

6.5.43 The results indicate that the proposed mitigation measures on Allbrook Way and Winchester Road have a positive impact on these arms of the junction but do not fully address the overall capacity of the junction. It is noted that this junction is the subject of a separate study being undertaken by HCC/Atkins to examine options for increasing capacity at the M3 J12 roundabouts and the adjacent junction of Winchester Road and Otterbourne Hill. The outputs from that study will need to be kept under review and are likely to inform future decisions concerning future mitigation measures needed at this junction.

Winchester Road / Otterbourne Hill Roundabout

6.5.44 The tables below summarise the AM and PM peak hour junction performance statistics, by arm, for the Baseline (BL), Do Something (DS) and Do More (DM) test scenarios. Where the assessment criteria for 'significant' or 'severe' impacts are met, these are highlighted in yellow and red respectively.

Table 38. Winchester Road / Otterbourne Hill Roundabout AM Peak Junction Performance

AM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
Winchester Road S'bound	57	76	98	0	0	3	5	5	12
Otterbourne Hill	64	101	104	0	12	17	5	61	133
Winchester Road N'bound	78	67	101	0	0	8	5	4	27

Table 39. Winchester Road / Otterbourne Hill Roundabout PM Peak Junction Performance

PM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
Winchester Road S'bound	48	65	89	0	0	1	4	5	6
Otterbourne Hill	75	100	103	0	7	14	6	38	106
Winchester Road N'bound	101	104	105	12	25	30	43	82	93

6.5.45 The junction is identified as experiencing significant or severe peak hour impacts in both the Do-Something and Do-More scenarios due to increases in V/C ratios. On the Winchester Road

southbound arm the impact is assessed as severe in the AM peak and significant in the PM although the extent of queuing and delays is not excessive. The worst affected arm, with the greatest change from the baseline, is Otterbourne Hill where V/C's of 100% to 104% are predicted with a maximum average queue length of 17 pcu. The Winchester Road northbound arm is shown to be over capacity in all three scenarios with V/C's ranging from 101% to 105% and queues from 12 to 30 pcu.

6.5.46 This junction forms part of a separate study being undertaken by HCC/Atkins to examine options for increasing capacity at the M3 J12 roundabouts and surrounding area including this junction. The outputs from that study will need to be kept under review and are likely to inform future decisions concerning future mitigation measures needed at this location.

Twyford Road / Romsey Road /Station Hill Roundabout

6.5.47 The tables below summarise the AM and PM peak hour junction performance statistics, by arm, for the Baseline (BL), Do Something (DS) and Do More (DM) test scenarios. Where the assessment criteria for 'significant' or 'severe' impacts are met, these are highlighted in yellow and red respectively.

Table 40. Twyford Rd / Romsey Rd / Station Hill Roundabout AM Peak Junction Performance

AM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
A335 Romsey Road	47	45	39	0	0	0	6	5	5
A335 Twyford road	103	105	103	21	28	18	81	109	72
Bishopstoke Road	97	88	87	4	2	2	22	13	12
A335 Station Hill	76	65	56	1	1	0	10	8	7

Table 41. Twyford Rd / Romsey Rd / Station Hill Roundabout PM Peak Junction Performance

PM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
A335 Romsey Road	73	88	85	1	2	2	9	15	13
A335 Twyford road	100	100	101	7	6	9	37	36	48
Bishopstoke Road	70	71	71	0	0	0	7	6	6
A335 Station Hill	99	101	100	5	9	7	27	43	36

6.5.48 The junction is identified as experiencing significant impacts in the PM peak in both the Do-Something and Do-More scenarios. This is due to the V/C on Romsey Road increasing from 73% to 88% in the DS test and 85% in the DM scenario. The results show this has a minimal effect on the queues and delays on these arms, indicating that the performance of the junction is not materially adversely affected.

Passfield Avenue / Derby Road Roundabout

6.5.49 The tables below summarise the AM and PM peak hour junction performance statistics, by arm, for the Baseline (BL), Do Something (DS) and Do More (DM) test scenarios. Where the assessment criteria for 'significant' or 'severe' impacts are met, these are highlighted in yellow and red respectively.

Table 42. Passfield Avenue / Derby Road Roundabout AM Peak Junction Performance

AM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
Passfield Avenue N'bound	98	100	95	1	2	0	8	12	6
Passfield Avenue S'bound	74	75	75	0	0	0	5	5	5
Derby Road	42	42	39	0	0	0	6	6	6

Table 43. Passfield Avenue / Derby Road Roundabout PM Peak Junction Performance

PM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
Passfield Avenue N'bound	92	100	98	0	2	1	4	13	7
Passfield Avenue S'bound	65	64	64	0	0	0	5	5	5
Derby Road	27	28	28	0	0	0	5	5	5

6.5.50 The junction is identified as experiencing significant impacts in the PM peak in both the Do-Something and Do-More scenarios. This is due to the V/C on the Passfield Road northbound approach increasing from 92% to 100% in the DS test and 98% in the DM scenario. The results show this has a minimal effect on the queues and delays on this arm, indicating that the performance of the junction is not materially adversely affected.

6.5.52 The tables below summarise the AM and PM peak hour junction performance statistics, by arm, for the Baseline (BL), Do Something (DS) and Do More (DM) test scenarios. Where the assessment criteria for 'significant' or 'severe' impacts are met, these are highlighted in yellow and red respectively.

Table 44. Bournemouth Rd / Chalvington Rd /School La Signals AM Peak Junction Performance

AM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
Bournemouth Road N'bound	65	69	63	3	4	3	40	41	39
Chalvington Road	83	95	81	3	3	3	75	118	72
School Lane	88	88	88	3	3	3	79	81	82
Bournemouth Road S'bound	102	102	101	13	11	8	134	127	112

Table 45. Bournemouth Rd / Chalvington Rd /School La Signals PM Peak Junction Performance

PM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
Bournemouth Road N'bound	91	93	90	5	5	5	65	70	62
Chalvington Road	88	94	90	3	3	3	88	109	94
School Lane	95	95	94	3	3	3	116	121	112
Bournemouth Road S'bound	96	89	84	5	4	4	73	44	42

6.5.53 The junction is identified as experiencing severe impacts in the AM peak and significant impacts in the PM peak in the Do-Something scenario. This is due to the V/C on Chalvington Road increasing from 83% to 95% in the AM and 88% to 94% in the PM. The results show this has a minimal effect on the queues and delays on this arm, indicating that the performance of the junction is not materially adversely affected.

6.5.55 The tables below summarise the AM and PM peak hour junction performance statistics, by arm, for the Baseline (BL), Do Something (DS) and Do More (DM) test scenarios. Where the assessment criteria for 'significant' or 'severe' impacts are met, these are highlighted in yellow and red respectively.

Table 46. Bournemouth Road / Winchester Road Roundabout AM Peak Junction Performance

AM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
Bournemouth Road	80	91	84	0	0	0	4	5	4
Winchester Road	46	49	49	0	0	0	5	5	5
Hursley Road	65	56	53	0	0	0	4	4	4

Table 47. Bournemouth Road / Winchester Road Roundabout PM Peak Junction Performance

PM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
Bournemouth Road	101	103	102	8	14	13	37	60	56
Winchester Road	47	46	45	0	0	0	5	5	5
Hursley Road	51	47	41	0	0	0	4	4	4

6.5.56 The junction is identified as experiencing a significant impact in the AM peak in the Do-Something scenario. This is due to the V/C on Bournemouth Road increasing from 80% to 91%. The results show this does not materially affect the queues or delays on this arm. In the PM peak, the V/C on Bournemouth Road exceeds 100% in all three scenarios but the change between Baseline and DS/DM scenarios does not lead to any significant impacts.

M3 J12 Northbound Roundabout

6.5.57 The tables below summarise the AM and PM peak hour junction performance statistics, by arm, for the Baseline (BL), Do Something (DS) and Do More (DM) test scenarios. Where the assessment criteria for 'significant' or 'severe' impacts are met, these are highlighted in yellow and red respectively.

Table 48. M3 J12 Northbound AM Peak Junction Performance

AM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
M3 Northbound-Off Slip Rd	100	101	74	6	2	1	42	280	10
A335 Westbound	71	104	106	0	20	29	5	74	110

Table 49. M3 J12 Northbound Roundabout PM Peak Junction Performance

PM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
M3 Northbound-Off Slip Rd	102	106	78	12	21	1	70	157	10
A335 Westbound	65	87	93	0	0	0	5	5	5

6.5.58 The junction is identified as experiencing a severe impact in the AM peak and significant impact in the PM peak for both the Do-Something and Do-More scenarios. This is due to the V/C on the westbound approach in the AM peak increasing from 71% to 104% in the Do-Something test and to 106% in the Do-More. In the PM peak, the V/C increases from 65% to 87% in the Do-Something test and to 93% in the Do-More scenario.

6.5.59 The V/C on the northbound-off slip road is observed to be over 100% in both peak periods in both the Baseline and Do-Something scenarios. The Do-More test simulates the effect of adding a long flare to increase the saturation flow on this arm. The results show this successfully reduces the V/C to below 80%.

6.5.60 This junction is the subject of a separate study being undertaken by HCC/Atkins to examine options for increasing capacity at the M3 J12 roundabouts and the adjacent junction of Winchester Road and Otterbourne Hill. The outputs from that study will need to be kept under review and are likely to inform future decisions concerning future mitigation measures needed at this junction.

6.5.62 The tables below summarise the AM and PM peak hour junction performance statistics, by arm, for the Baseline (BL), Do Something (DS) and Do More (DM) test scenarios. Where the assessment criteria for 'significant' or 'severe' impacts are met, these are highlighted in yellow and red respectively.

Table 50. Wide Lane Roundabout AM Peak Junction Performance

AM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
A335 Wide Lane W'bound	66	70	67	1	1	1	6	7	7
A335 Wide Lane E'bound	103	104	103	22	24	22	86	91	79
Wide Lane N'bound	110	110	109	59	57	52	211	209	192

Table 51. Wide Lane Roundabout PM Peak Junction Performance

PM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
A335 Wide Lane W'bound	56	65	64	0	0	0	5	6	6
A335 Wide Lane E'bound	85	85	87	0	0	0	5	5	6
Wide Lane N'bound	109	115	111	51	71	56	197	297	231

6.5.63 The junction is identified as experiencing a significant impact in the PM peak in the Do-Something scenario due to the V/C on Wide Lane increasing from 109% to 115%. The Wide Lane eastbound arm is also shown to be over capacity in the AM peak, with V/C's over 100%, in all three scenarios.

6.5.64 The results show that the junction will be over capacity with or without Local Plan growth. The Local Plan will result in additional queues and delays at the junction but the changes do not trigger severe impacts when assessed against the significance criteria. The junction is identified for long-term improvement as part of a wider scheme for improving access to the employment land at Eastleigh Riverside. The results from this assessment indicate that improvements will be needed before the end of the Plan period.

6.5.65 The junction lies within approximately 350m of M27 J5 and connects via the Wide Lane Eastbound arm of the roundabout. The maximum average queue on this arm is forecast as 24 pcu during the AM peak in the Do-Something test. This represents an approximate queue length of 144m (based on 6m per pcu), demonstrating that the queue does not block back to the motorway junction.

6.5.66 The tables below summarise the AM and PM peak hour junction performance statistics, by arm, for the Baseline (BL), Do Something (DS) and Do More (DM) test scenarios. Where the assessment criteria for 'significant' or 'severe' impacts are met, these are highlighted in yellow and red respectively.

Table 52. Fair Oak Road / Allington Lane AM Peak Junction Performance

AM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
Fair Oak Road E'bound	42	44	42	4	4	4	68	77	102
Allington Lane	93	99	96	5	5	5	55	87	67
Fair Oak Road W'bound	86	83	81	4	4	4	38	35	34

Table 53. Fair Oak Road / Allington Lane PM Peak Junction Performance

PM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
Fair Oak Road E'bound	41	44	45	5	5	5	60	75	63
Allington Lane	66	93	83	4	5	5	46	83	59
Fair Oak Road W'bound	45	36	54	2	2	3	21	20	23

6.5.67 The junction is identified as experiencing significant impacts in the AM and PM peaks in the Do-Something scenario. This is due to the V/C on Allington Lane increasing from 93% to 99% in the AM and from 66% to 83% in the PM. The results show has a minimal effect on the queues and delays on this arm, indicating that the performance of the junction is not materially adversely affected.

Dodwell Lane / Bridge Road Signals

6.5.69 The tables below summarise the AM and PM peak hour junction performance statistics, by arm, for the Baseline (BL), Do Something (DS) and Do More (DM) test scenarios. Where the assessment criteria for 'significant' or 'severe' impacts are met, these are highlighted in yellow and red respectively.

Table 54. Dodwell Lane / Bridge Road Signals AM Peak Junction Performance

AM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
Dodwell Lane	81	85	86	3	3	4	17	21	23
A27 Bridge Road Eastbound	46	46	45	0	0	0	2	2	2
A27 Bridge Road Westbound	52	49	53	0	0	0	3	2	3

Table 55. Dodwell Lane / Bridge Road Signals PM Peak Junction Performance

PM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
Dodwell Lane	84	84	85	3	3	4	23	23	24
A27 Bridge Road Eastbound	40	42	41	0	0	0	1	1	1
A27 Bridge Road Westbound	47	46	46	0	0	0	2	2	2

6.5.70 The junction is identified as experiencing a significant impact in the AM peak in the Do-More scenario due to the V/C on Dodwell Lane increasing from 81% to 86%. The results show this has only a minor impact on the queues and delays on this arm, indicating that the performance of the junction is not materially adversely affected.

6.5.72 The tables below summarise the AM and PM peak hour junction performance statistics, by arm, for the Baseline (BL), Do Something (DS) and Do More (DM) test scenarios. Where the assessment criteria for 'significant' or 'severe' impacts are met, these are highlighted in yellow and red respectively.

Table 56. A334 / B3051 / Botley Bypass Roundabout AM Peak Junction Performance

AM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
A334 Eastbound	44	44	69	2	1	1	8	15	31
Botley Bypass	-	101	102	-	14	17	-	48	57
A334 Westbound	60	100	98	0	8	5	2	30	20
A3051	106	85	85	19	1	1	174	9	10

Table 57. A334 / B3051 / Botley Bypass Roundabout PM Peak Junction Performance

PM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
A334 Eastbound	39	62	45	1	1	1	4	53	22
Botley Bypass	-	89	88	-	1	1	-	6	7
A334 Westbound	66	99	80	0	4	1	3	17	6
A3051	109	100	90	26	9	2	221	39	12

6.5.73 The junction is identified as experiencing severe impacts in the AM and PM peaks on the A334 westbound approach to the junction. In the Do-Something scenario the V/C increases from 60% to 100% in the AM and from 66% to 99% in the PM. This is to some extent counter-acted by a reduction in V/C values on the B3051 arm where, in the AM peak, there is a reduction from a Baseline value of 106% to 85% in both the Do-Something and Do-More scenarios. In the PM peak the Baseline V/C of 109% reduces to 100% in the Do-Something test and to 90% in the Do-More test.

6.5.74 Although V/C values remain high, the extent of queuing and delays is not excessive in the Do-Something and Do-More scenarios and indicates that the performance of the junction is not materially adversely affected.

6.5.76 The tables below summarise the AM and PM peak hour junction performance statistics, by arm, for the Baseline (BL), Do Something (DS) and Do More (DM) test scenarios. Where the assessment criteria for 'significant' or 'severe' impacts are met, these are highlighted in yellow and red respectively.

Table 58. Tollbar Way / Maunsell Way Roundabout AM Peak Junction Performance

AM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
Maunsell Way	61	91	64	0	1	0	5	11	6
B3342 Tollbar Way N'bound	48	59	43	0	0	0	4	6	4
B3342 Tollbar Way S'bound	43	52	53	0	0	0	4	4	4

Table 59. Tollbar Way / Maunsell Way Roundabout PM Peak Junction Performance

PM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
Maunsell Way	47	51	44	0	0	0	8	8	7
B3342 Tollbar Way N'bound	58	58	54	0	0	0	4	4	4
B3342 Tollbar Way S'bound	99	99	100	2	2	4	12	11	20

6.5.77 The junction is identified as experiencing a significant impact in the AM peak in the Do-Something scenario due to the V/C on Maunsell Way increasing from 61% to 91%. The Tollbar Way southbound arm will be at capacity in the PM peak in the Do-More scenario, with a V/C of 100% compared with a baseline value of 99%. The results show these changes have only a minor impact on the queues and delays, indicating that the performance of the junction is not materially adversely affected.

Shamblehurst Lane / Grange Road Signals

6.5.79 The tables below summarise the AM and PM peak hour junction performance statistics, by arm, for the Baseline (BL), Do Something (DS) and Do More (DM) test scenarios. Where the assessment criteria for 'significant' or 'severe' impacts are met, these are highlighted in yellow and red respectively.

Table 60. Shamblehurst Lane / Grange Road Signals AM Peak Junction Performance

AM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
Shamblehurst Lane	107	108	108	4	4	4	201	216	217
A334 Grange Road E'bound	39	36	36	3	3	3	17	15	15
A334 Grange Road W'bound	95	91	100	6	6	7	44	33	76

Table 61. Shamblehurst Lane / Grange Road Signals PM Peak Junction Performance

PM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
Shamblehurst Lane	88	90	88	2	2	2	145	154	145
A334 Grange Road E'bound	43	40	45	3	2	3	12	11	13
A334 Grange Road W'bound	36	35	37	2	2	2	8	8	8

6.5.80 The junction is identified as experiencing a significant impact in the AM peak in the Do-More scenario due to the V/C on Grange Road westbound increasing from 95% to 100%. The Shamblehurst Lane arm will be over capacity in the AM peak in all three scenarios, with V/C's in excess of 100%. However, the results show that changes to queues and delays, relative to baseline conditions, are minor.

6.5.82 The tables below summarise the AM and PM peak hour junction performance statistics, by arm, for the Baseline (BL), Do Something (DS) and Do More (DM) test scenarios. Where the assessment criteria for 'significant' or 'severe' impacts are met, these are highlighted in yellow and red respectively.

Table 62. M27 Junction 7 Roundabout AM Peak Junction Performance

AM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
B3036 Upper Northam Rd	105	106	102	20	22	10	239	250	173
Circulatory C'way South	104	103	104	21	19	23	150	139	158
Charles Watts Way E'bound	95	93	89	10	10	10	66	59	50
Charles Watts Way W'bound	49	50	51	2	2	2	6	6	6
M27 Southbound-Off Slip	35	36	36	0	0	0	3	3	3
M27 Northbound-Off Slip	60	61	61	23	25	22	127	133	124

Table 63. M27 Junction 7 Roundabout PM Peak Junction Performance

PM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
B3036 Upper Northam Rd	41	48	55	1	1	1	59	62	66
Circulatory C'way South	90	91	95	4	4	5	46	48	61
Charles Watts Way E'bound	66	68	89	7	7	10	34	35	50
Charles Watts Way W'bound	49	49	50	3	3	3	7	7	7
M27 Southbound-Off Slip	45	46	46	0	0	0	6	7	7
M27 Northbound-Off Slip	56	56	54	7	7	7	46	50	50

6.5.83 The junction is identified as experiencing a significant impact in the PM peak in the Do-More scenario. This results from the V/C on the southern section of the circulatory carriageway increasing from 90% to 95%. The Upper Northam Road approach and circulatory carriageway will be over capacity in the AM peak in all three scenarios, with V/C's in excess of 100%.

However, the results show that changes to queues and delays, relative to baseline conditions, are minor and that the performance of the junction is not materially adversely affected.

Thornhill Park Road / Hinkler Road Signals

6.5.84 The tables below summarise the AM and PM peak hour junction performance statistics, by arm, for the Baseline (BL), Do Something (DS) and Do More (DM) test scenarios. Where the assessment criteria for 'significant' or 'severe' impacts are met, these are highlighted in yellow and red respectively.

Table 64. Thornhill Park Road / Hinkler Road Signals AM Peak Junction Performance

AM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
Hinkler Road	99	99	101	2	2	4	99	98	124
Thornhill Park Rd W'bound	87	86	96	2	2	3	25	24	42
Thornhill Park Rd E'bound	96	95	100	3	3	3	49	45	72

Table 65. Thornhill Park Road / Hinkler Road Signals PM Peak Junction Performance

PM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
Hinkler Road	87	88	88	1	1	1	61	64	63
Thornhill Park Rd W'bound	83	83	85	2	2	2	18	18	20
Thornhill Park Rd E'bound	95	95	95	3	3	3	38	39	40

6.5.85 The junction is identified as experiencing a significant impact in the AM peak in the Do-More scenario due to the V/C on Thornhill Park Road westbound increasing from 87% to 96%. The Hinkler Road and Thornhill Park Road eastbound arms will be at capacity in the AM peak in the Do-More scenario, with V/C's of 101% and 100% respectively. However, the results show that changes to queues and delays, relative to baseline conditions, are minor.

Winchester Road / Shamblehurst Lane T Junction

6.5.87 The tables below summarise the AM and PM peak hour junction performance statistics, by arm, for the Baseline (BL), Do Something (DS) and Do More (DM) test scenarios. Where the assessment criteria for 'significant' or 'severe' impacts are met, these are highlighted in yellow and red respectively.

Table 66. Winchester Road /Shamblehurst lane T Junction AM Peak Junction Performance

AM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
Winchester Road S'bound	87	91	98	1	1	1	11	16	41
Winchester Road N'bound	47	63	68	0	0	0	2	2	3
Shamblehurst Lane	52	56	76	0	1	2	10	12	27

Table 67. Winchester Road /Shamblehurst lane T Junction PM Peak Junction Performance

PM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
Winchester Road S'bound	94	97	100	1	2	3	19	33	50
Winchester Road N'bound	40	53	54	0	0	0	1	2	2
Shamblehurst Lane	40	51	59	0	0	1	8	11	13

6.5.88 The junction is identified as experiencing severe and significant impacts on the Winchester Road southbound arm in the Do-More scenario. The V/C increases from 87% to 98% in the AM peak in the Do-More scenario due to the V/C on Thornhill Park Road westbound increasing and from 94% to 100% in the PM peak. However, the results show there are no major impacts in terms of changes to queues and delays, relative to baseline conditions.

Tollbar Way / Bubb Lane T Junction

6.5.90 The tables below summarise the AM and PM peak hour junction performance statistics, by arm, for the Baseline (BL), Do Something (DS) and Do More (DM) test scenarios. Where the assessment criteria for 'significant' or 'severe' impacts are met, these are highlighted in yellow and red respectively.

Table 68. Tollbar Way / Bubb Lane T Junction AM Peak Junction Performance

AM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
Bubb Lane	47	52	42	0	0	0	5	6	5
B3342 Tollbar Way N'bound	26	41	25	0	0	0	1	2	1
B3342 Tollbar Way S'bound	40	34	62	0	0	1	3	3	5

Table 69. Tollbar Way / Bubb Lane T Junction PM Peak Junction Performance

PM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
Bubb Lane	80	87	91	2	3	3	11	15	17
B3342 Tollbar Way N'bound	19	19	16	0	0	0	1	1	1
B3342 Tollbar Way S'bound	25	29	31	0	0	0	2	2	2

6.5.91 The junction is identified as experiencing a significant impact in the PM peak in both the Do-Something and Do-More scenarios. This is due to the V/C on Bubb Lane increasing from 80% in the baseline to 87% in the Do-Something scenario and 91% in the Do-More scenario. However, the results show that changes to queues and delays, relative to baseline conditions, are minor.

Winchester Road / Hocombe Road Roundabout

6.5.92 The tables below summarise the AM and PM peak hour junction performance statistics, by arm, for the Baseline (BL), Do Something (DS) and Do More (DM) test scenarios. Where the assessment criteria for 'significant' or 'severe' impacts are met, these are highlighted in yellow and red respectively.

Table 70. Winchester Road / Hocombe Road Roundabout AM Peak Junction Performance

AM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
Winchester Road W'bound	61	59	68	0	0	0	4	4	4
Winchester Road E'bound	47	70	82	0	0	0	5	5	6
Hocombe Road	39	64	90	0	1	2	5	8	17

Table 71. Winchester Road / Hocombe Road Roundabout PM Peak Junction Performance

PM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
Winchester Road W'bound	99	88	85	0	0	0	4	4	4
Winchester Road E'bound	51	68	82	0	0	1	6	7	8
Hocombe Road	34	50	88	0	0	2	5	6	13

6.5.93 The junction is identified as experiencing a significant impact in the both the AM and PM peaks in both the Do-More scenario. This is due to the V/C on Hocombe Road increasing from 39% in the baseline to 90% in the AM peak and from 34 % to 88% in the PM peak. However, the results show that changes to queues and delays, relative to baseline conditions, are minor.

Station Hill / Bishopstoke Road Roundabout

6.5.94 The tables below summarise the AM and PM peak hour junction performance statistics, by arm, for the Baseline (BL), Do Something (DS) and Do More (DM) test scenarios. Where the assessment criteria for 'significant' or 'severe' impacts are met, these are highlighted in yellow and red respectively.

Table 72. Station Hill / Bishopstoke Road Roundabout AM Peak Junction Performance

AM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
Bishopstoke Road	85	95	94	1	3	3	11	19	17
Station Hill	32	32	31	0	0	0	1	1	1
Southampton Road	26	23	20	0	0	0	0	0	0

Table 73. Station Hill / Bishopstoke Road Roundabout PM Peak Junction Performance

PM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
Bishopstoke Road	44	51	50	0	0	0	4	4	4
Station Hill	18	15	16	0	0	0	1	1	1
Southampton Road	36	37	36	0	0	0	0	0	0

6.5.95 The junction is identified as experiencing severe and significant impacts respectively in the Do-Something and Do-More scenarios, on the Bishopstoke Road arm in the AM peak. The V/C increases from 85% in the baseline to 95% in the Do-Something test and 94% in the Do-More scenario. However, the results show there are no major impacts in terms of changes to queues and delays, relative to baseline conditions.

6.5.96 The tables below summarise the AM and PM peak hour junction performance statistics, by arm, for the Baseline (BL), Do Something (DS) and Do More (DM) test scenarios. Where the assessment criteria for 'significant' or 'severe' impacts are met, these are highlighted in yellow and red respectively.

Table 74. Woodhouse Lane / Botley Bypass Roundabout AM Peak Junction Performance

AM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
Botley Bypass	N/A	76	97	N/A	0	2	N/A	5	10
Woodhouse Lane S'bound	11	77	80	0	1	1	0	6	7
Woodhouse Lane N'bound	13	66	97	0	0	3	0	7	15

Table 75. Woodhouse Lane / Botley Bypass Roundabout PM Peak Junction Performance

PM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
Botley Bypass	N/A	95	101	N/A	1	14	N/A	43	7
Woodhouse Lane S'bound	9	62	73	0	0	1	0	7	6
Woodhouse Lane N'bound	22	98	99	0	4	5	0	20	19

6.5.97 The junction is identified as experiencing severe impacts on the Woodhouse Lane northbound arm in both the Do-Something and Do-More scenarios, with V/C values ranging from 97% to 99%. The Botley Bypass arm is also shown to be at capacity in the PM peak in the Do-More scenario. However, the results show there are no major impacts in terms of queues or delays at the junction. Also, as this is a new junction, it will be possible to refine the design to address high V/C's as part of the future pre-construction design-development and testing processes.

6.6 Funding and Delivery of Mitigation

Funding Sources

6.6.1 The planned and committed transport mitigation measures are being delivered through a combination of public and private sector funding sources. Schemes linked to committed developments are either being provided directly by site promoters or with funding secured through planning obligation, including Section 106 agreements. This process will continue as individual planning applications come forward over the life of the Local Plan

6.6.2 The Borough Council has been successfully in securing funding through previous Growth Fund applications and the Housing Infrastructure Fund and will continue to seek additional funds through future applications via the LEP and other appropriate funding sources.

7. CROSS BOUNDARY IMPACTS

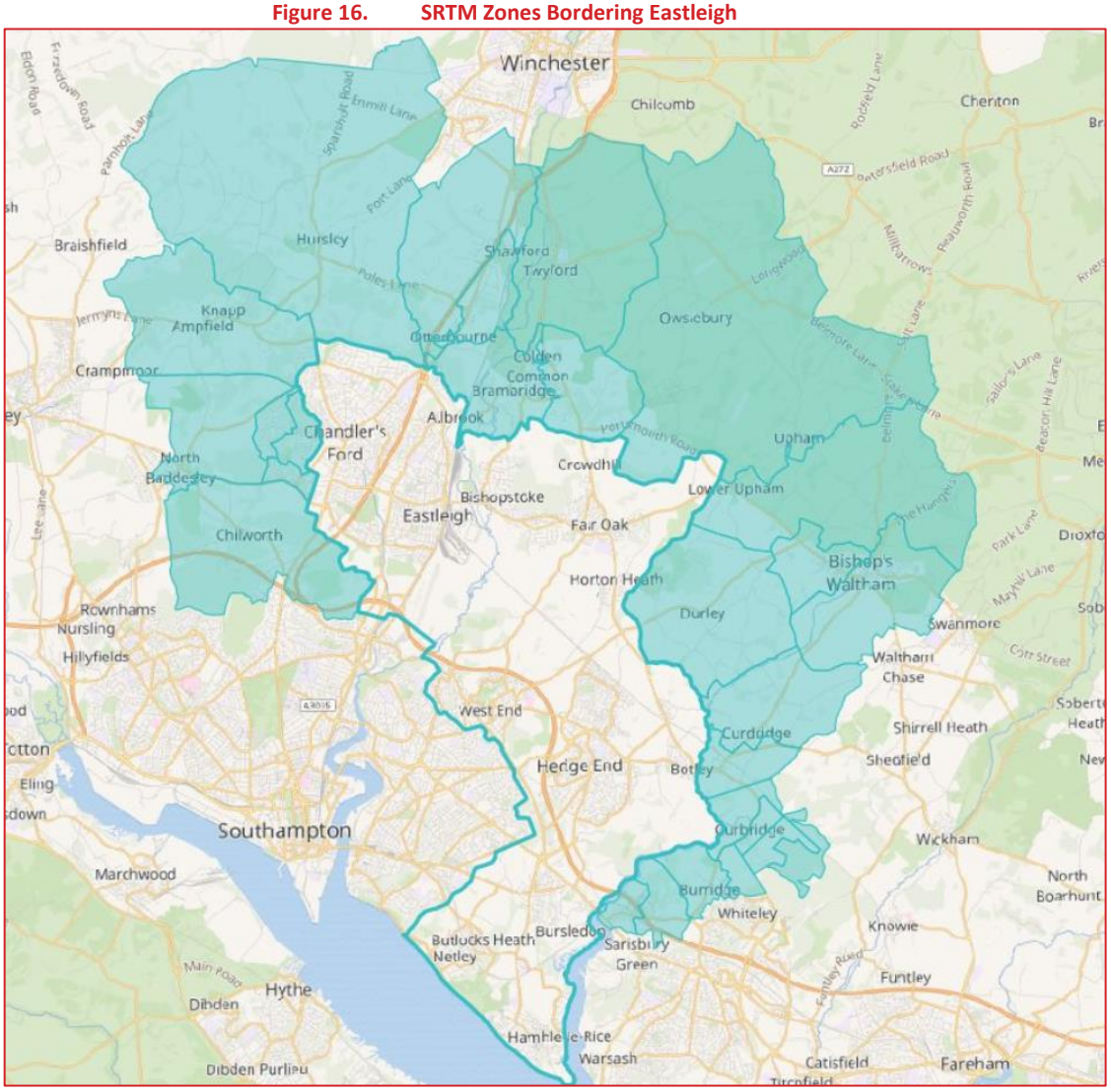
7.1 Overview

7.1.1 During the preparation of the Plan and associated transport evidence base a dialogue has been maintained between Eastleigh Borough and neighbouring authorities to ensure that cross boundary impacts are accounted for. This section of the report provides the results of impact analysis on networks within the adjoining local authorities of Winchester City Council, Test Valley Borough Council, and the South Downs National Park.

7.2 Assessment

7.2.1 To assess the wider impacts of the Local Plan proposals, the model zones bordering Eastleigh borough have been interrogated using the same assessment criteria and thresholds as used for the assessment of Eastleigh zones. The search area focusses on the rural areas bordering the borough to the north, west and east as illustrated in Figure 16

Figure 16. SRTM Zones Bordering Eastleigh



7.2.2 The longlist of hot spot locations within these zones are indicated in the following Figures.

Figure 17. Hot Spots Outside Eastleigh – Baseline

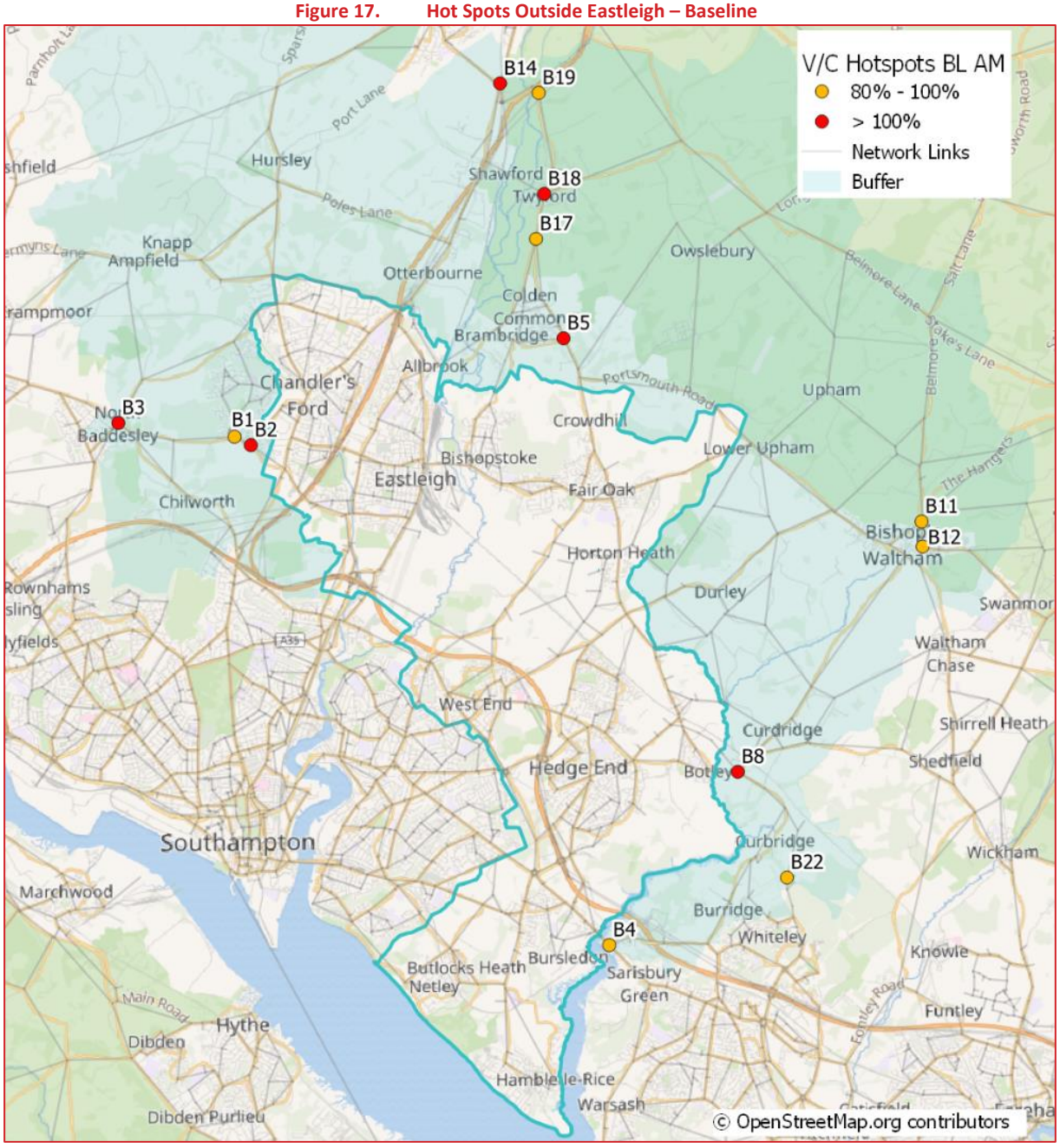


Figure 18. Hot Spots Outside Eastleigh – Do-Something

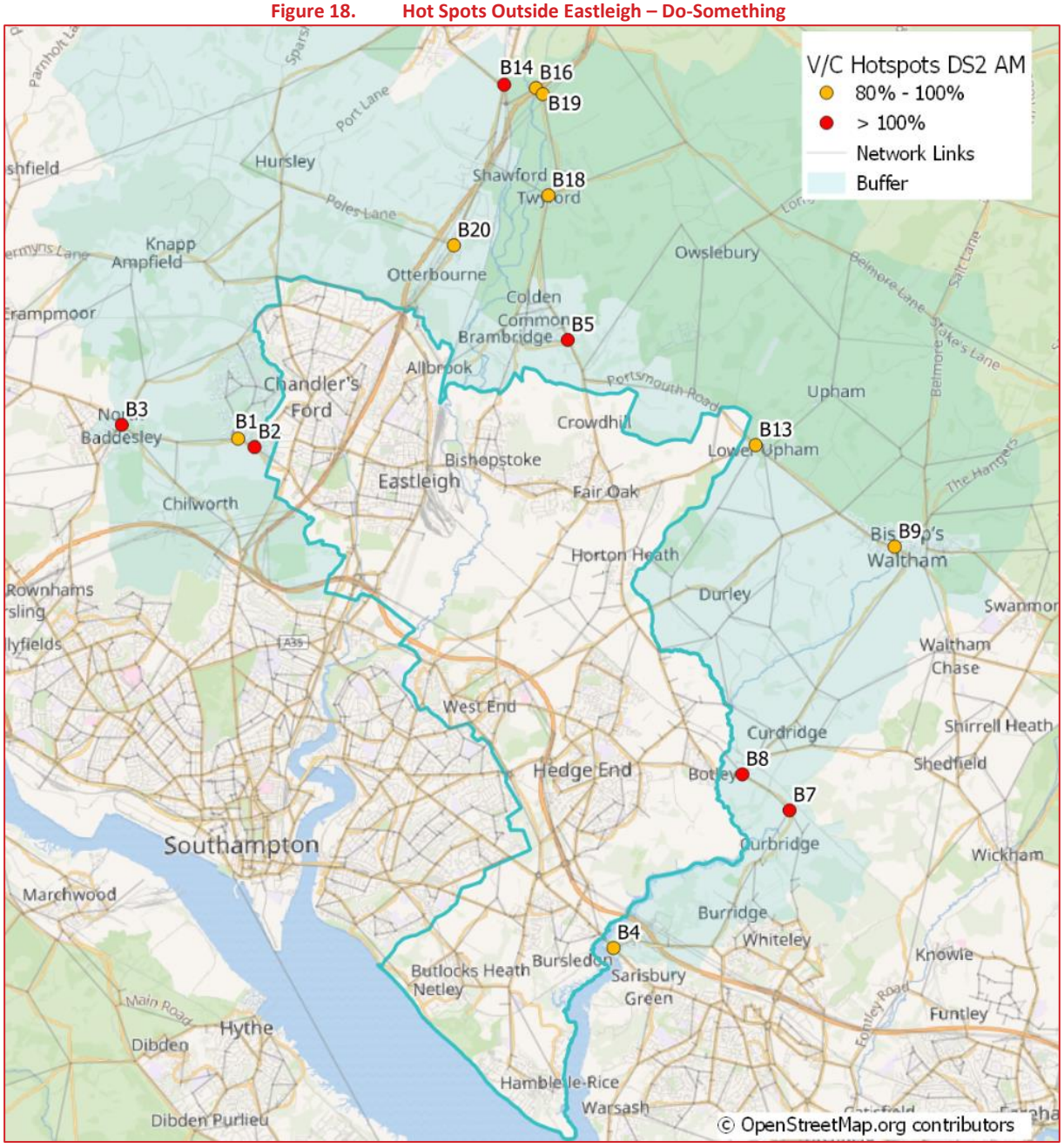
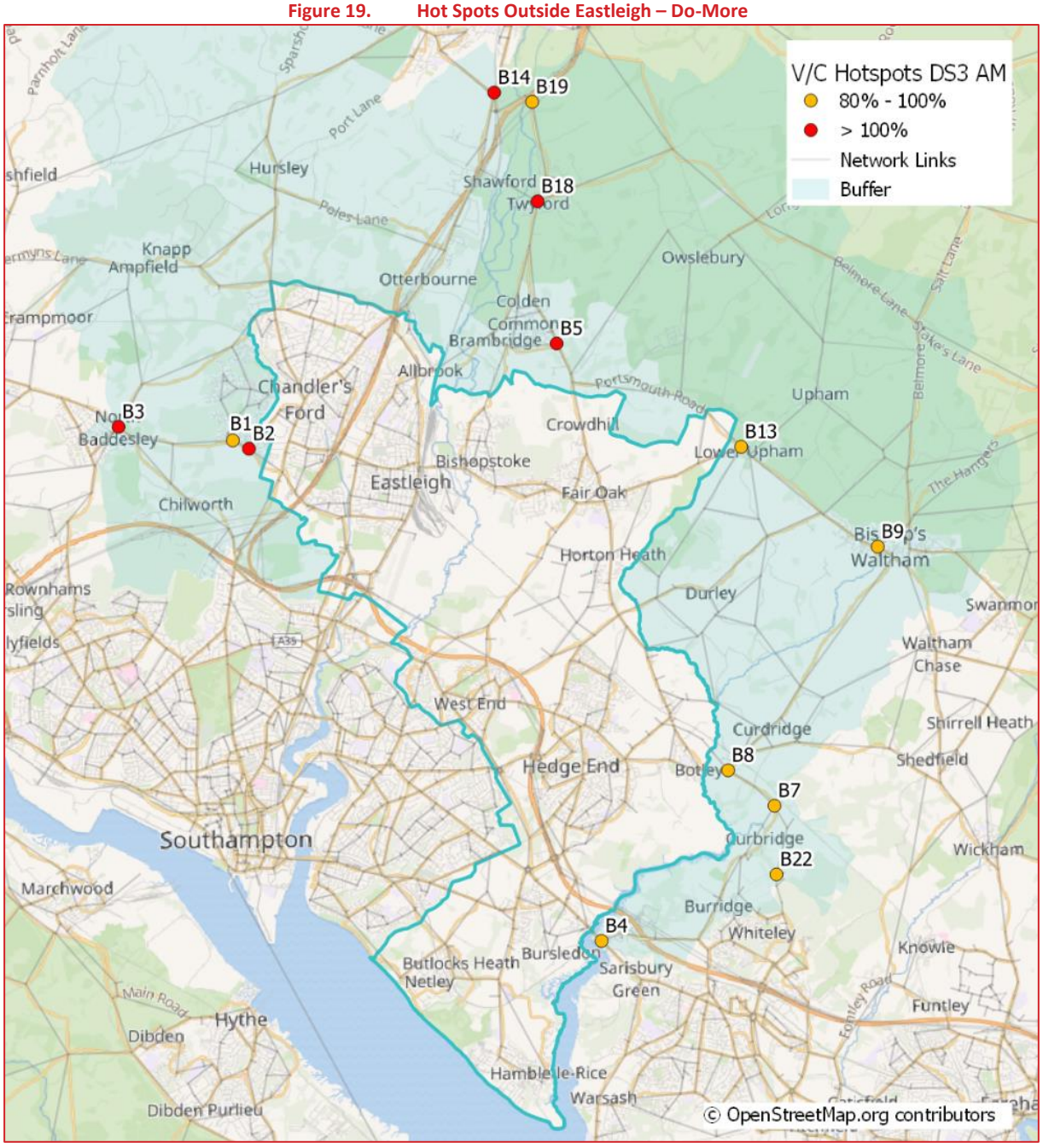


Figure 19. Hot Spots Outside Eastleigh – Do-More



7.2.3 The results presented are for the AM peak as this has the greatest number of hot spots; there are 13 locations with a V/C ratio greater than 80% in the Baseline scenario, 14 in the Do-Something test and 13 in Do-More. The equivalent results for the PM peak show 10 locations in the Baseline, 11 in Do-Something and 12 in Do-More. The minor differences between the scenarios indicates that the impacts of Local Plan and background traffic growth, beyond Eastleigh Borough, are limited.

7.2.4 Further assessment of the data has been undertaken to establish locations where the thresholds for 'Significant' or 'Severe' impacts are met. This identified four locations including the A334 / B3051 Botley Bypass Roundabout, which has already been reported in Section 6. Thus there are three additional locations as summarised in Table 76.

Table 76. 2036 Locations of Significant or Severe Impact Outside Eastleigh

LINK/JUNCTION	ID	DO SOMETHING		DO MORE	
		AM	PM	AM	PM
A3051 Botley Rd / New Link to Whiteley	B7	Sev	Sev	Sig	Sig
B2177 Winchester Rd / B3035 Corhampton Rd	B9	Sev		Sev	
B2177 Winchester Rd / B3037 Mortimers Lane	B13	Sig		Sig	
TOTALS	**Sig**	**1**	**0**	**2**	**1**
		1		**3**	
	Sev	**2**	**1**	**1**	**0**
		3		**1**	

7.2.5 The locations where significant and severe impacts are identified, are shown in Figure 20 and Figure 21.

Figure 20. Do-Something Significant and Severe Impact Locations AM and PM

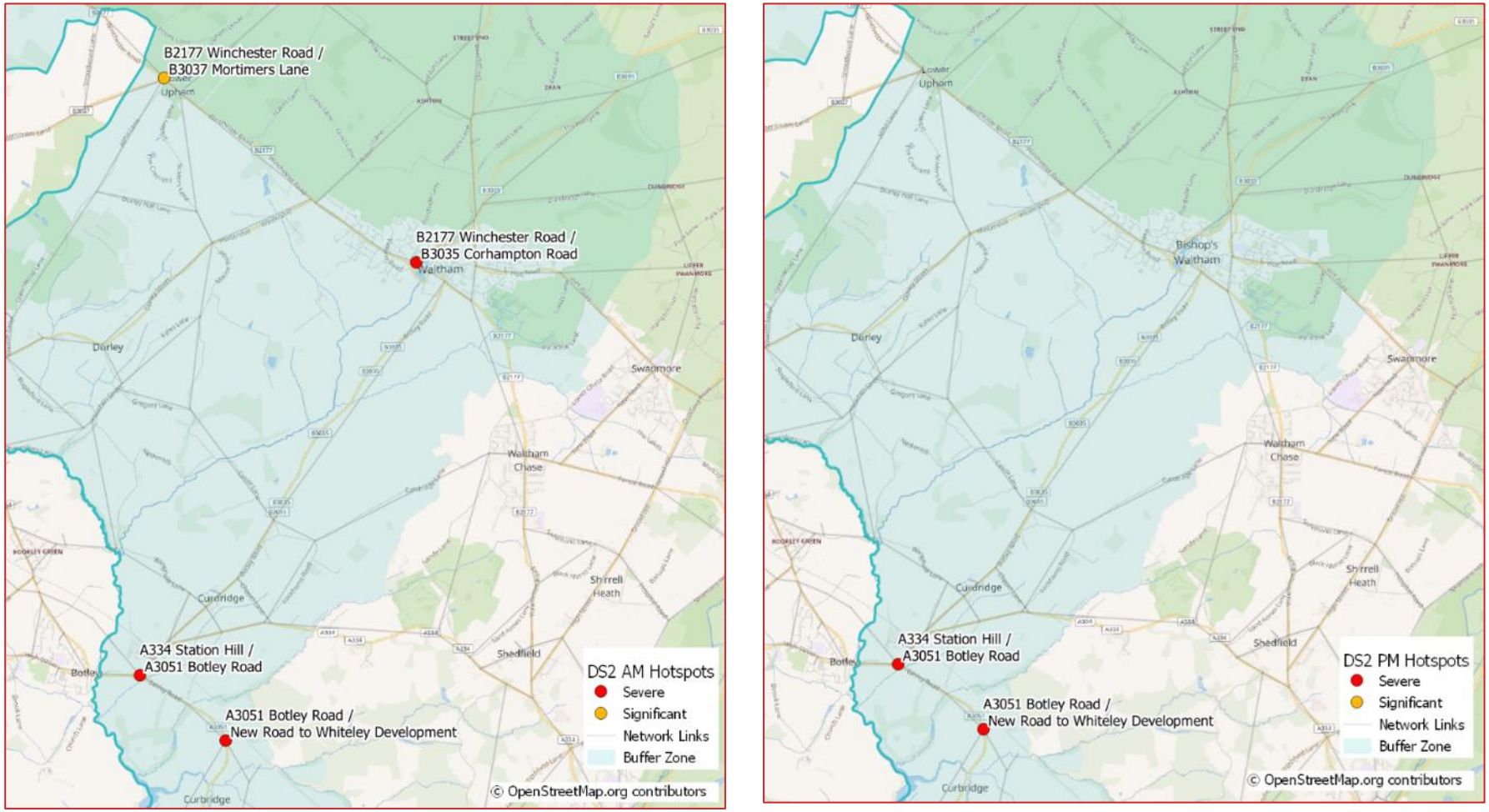
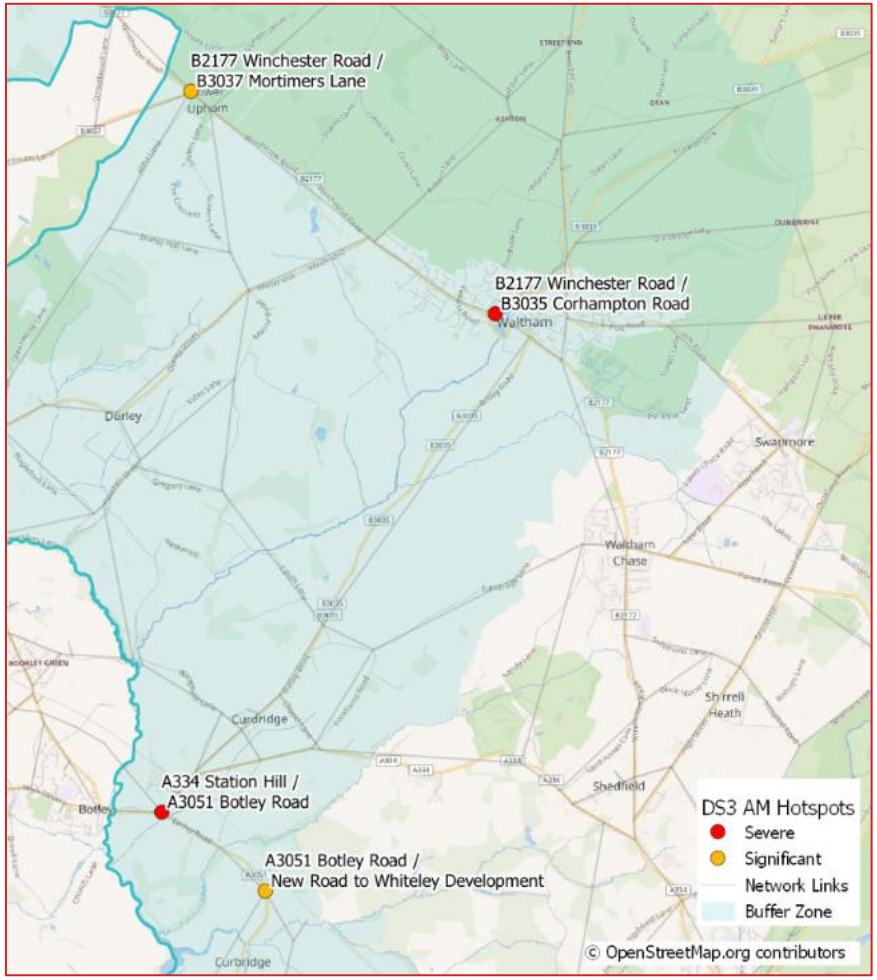
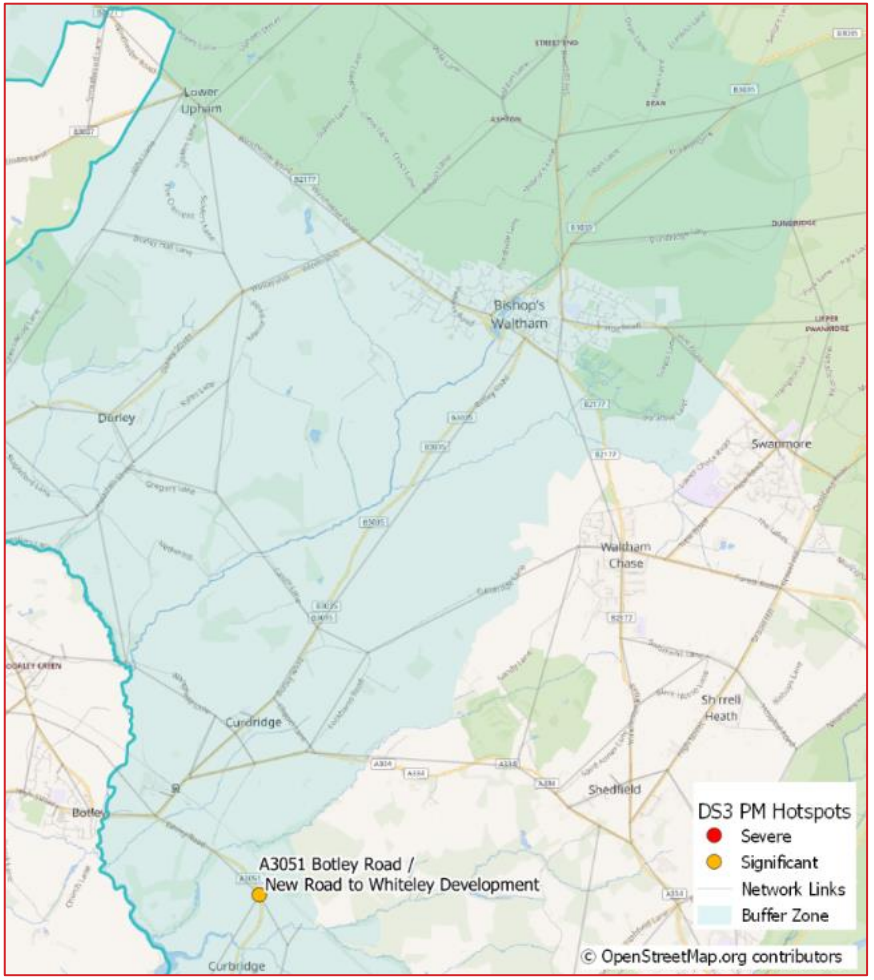


Figure 21. Do-More Significant and Severe Impact Locations AM and PM





7.2.6 Each of the three junctions experiencing significant or severe impacts are assessed below. Full details of the junction performance statistics for each of the hot spot locations outside Eastleigh Borough are included in Appendix B.

A3051 Botley Road / New Link Road to Whiteley

7.2.7 The tables below summarise the AM and PM peak hour junction performance statistics, by arm, for the Baseline (BL), Do Something (DS) and Do More (DM) test scenarios. Where the assessment criteria for 'significant' or 'severe' impacts are met, these are highlighted in yellow and red respectively.

Table 77. A3051 Botley Road / New Link Road to Whiteley AM Peak Junction Performance

AM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
Botley Road Southbound	69	136	92	4	153	6	17	736	35
New Link Road	32	69	68	1	3	3	16	24	24
Botley Road Northbound	19	42	38	1	3	2	36	58	50

Table 78. A3051 Botley Road / New Link Road to Whiteley PM Peak Junction Performance

PM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
Botley Road Southbound	59	96	92	3	5	5	14	60	45
New Link Road	46	89	89	2	4	5	18	39	61
Botley Road Northbound	14	38	38	1	2	2	43	61	63

7.2.8 The junction is identified as experiencing severe impacts on the Botley Road southbound arm in the AM and PM peaks for the Do-Something scenario. The impacts on this arm reduce to 'significant' in the Do-More scenario. The New Link road arm is also shown to experience significant impacts in the PM peak in the Do-Something and Do-More scenarios.

7.2.9 This is a new junction, which has not yet been built. It is apparent that the design, as currently coded (signalised junction) in the SRTM, does not have sufficient capacity for the forecast traffic flows in 2036. Signal timing optimisation based on forecast flows will help balance the V/Cs to maximise performance and in practice this junction will undergo further stages of design and analysis before construction. The design will need to be kept under review to ensure that the final layout is designed to accommodate the forecast traffic demand at this location.

B2177 Winchester Road / B3035 Corhampton Road Roundabout

7.2.10 The tables below summarise the AM and PM peak hour junction performance statistics, by arm, for the Baseline (BL), Do Something (DS) and Do More (DM) test scenarios. Where the assessment criteria for 'significant' or 'severe' impacts are met, these are highlighted in yellow and red respectively.

Table 79. B2177 Winchester Road / B3035 Corhampton Road AM Peak Junction Performance

AM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
B2177 Winch Rd S'bound	70	98	99	0	1	2	6	11	14
B3035 Corhampton Road	37	46	45	0	0	0	7	9	9
B2177 Winch Rd N'bound	60	89	88	0	1	0	5	7	7

Table 80. B2177 Winchester Road / B3035 Corhampton Road PM Peak Junction Performance

PM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
B2177 Winch Rd S'bound	61	67	65	0	0	0	5	6	6
B3035 Corhampton Road	34	38	38	0	0	0	6	7	7
B2177 Winch Rd N'bound	45	77	74	0	0	0	5	6	6

7.2.11 The junction is identified as experiencing severe impacts on the Winchester Road southbound arm and significant impacts on the northbound arm in the AM peak for both the Do-Something and the Do-More scenarios. The results indicate that the junction will be at capacity in the AM peak in 2036 due to a combination of background traffic growth and Local Plan growth. In both the Do-Something and Do-More cases, the net impact on queues and delays at the junction is modest.

7.2.12 The tables below summarise the AM and PM peak hour junction performance statistics, by arm, for the Baseline (BL), Do Something (DS) and Do More (DM) test scenarios. Where the assessment criteria for 'significant' or 'severe' impacts are met, these are highlighted in yellow and red respectively.

Table 81. B2177 Winchester Road / B3037 Mortimers Lane Priority Junction AM Peak Junction Performance

AM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
B2177 Winch Rd S'bound	15	15	18	0	0	0	2	3	3
B2177 Winch Rd N'bound	28	36	36	0	0	0	1	2	2
B3037 Mortimers Lane	36	88	88	0	2	2	4	12	12

Table 82. B2177 Winchester Road / B3037 Mortimers Lane Priority Junction AM PM Peak Junction Performance

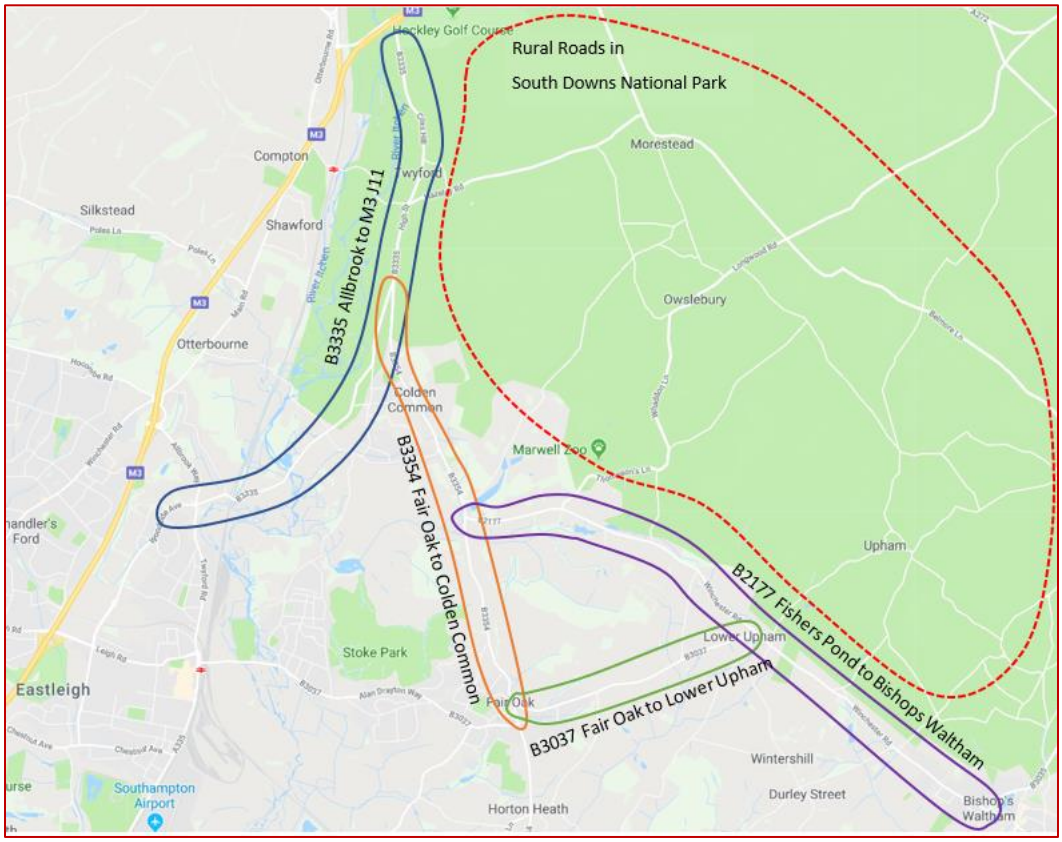
PM PEAK (ARM)	V/C (%)			AVE QUEUE (PCU)			DELAY (S/PCU)		
	BL	DS	DM	BL	DS	DM	BL	DS	DM
B2177 Winch Rd S'bound	19	23	26	0	0	0	2	3	3
B2177 Winch Rd N'bound	21	38	37	0	0	0	1	2	2
B3037 Mortimers Lane	14	27	23	0	0	0	4	5	5

7.2.13 The junction is identified as experiencing significant impacts on the Mortimer Lane arm in the AM peak for both the Do-Something and the Do-More scenarios. Although the change in V/C from 36% to 88% has triggered the assessment criteria threshold for significant impacts, the junction is predicted to remain within capacity and the impact on queues and delays at the junction are minor.

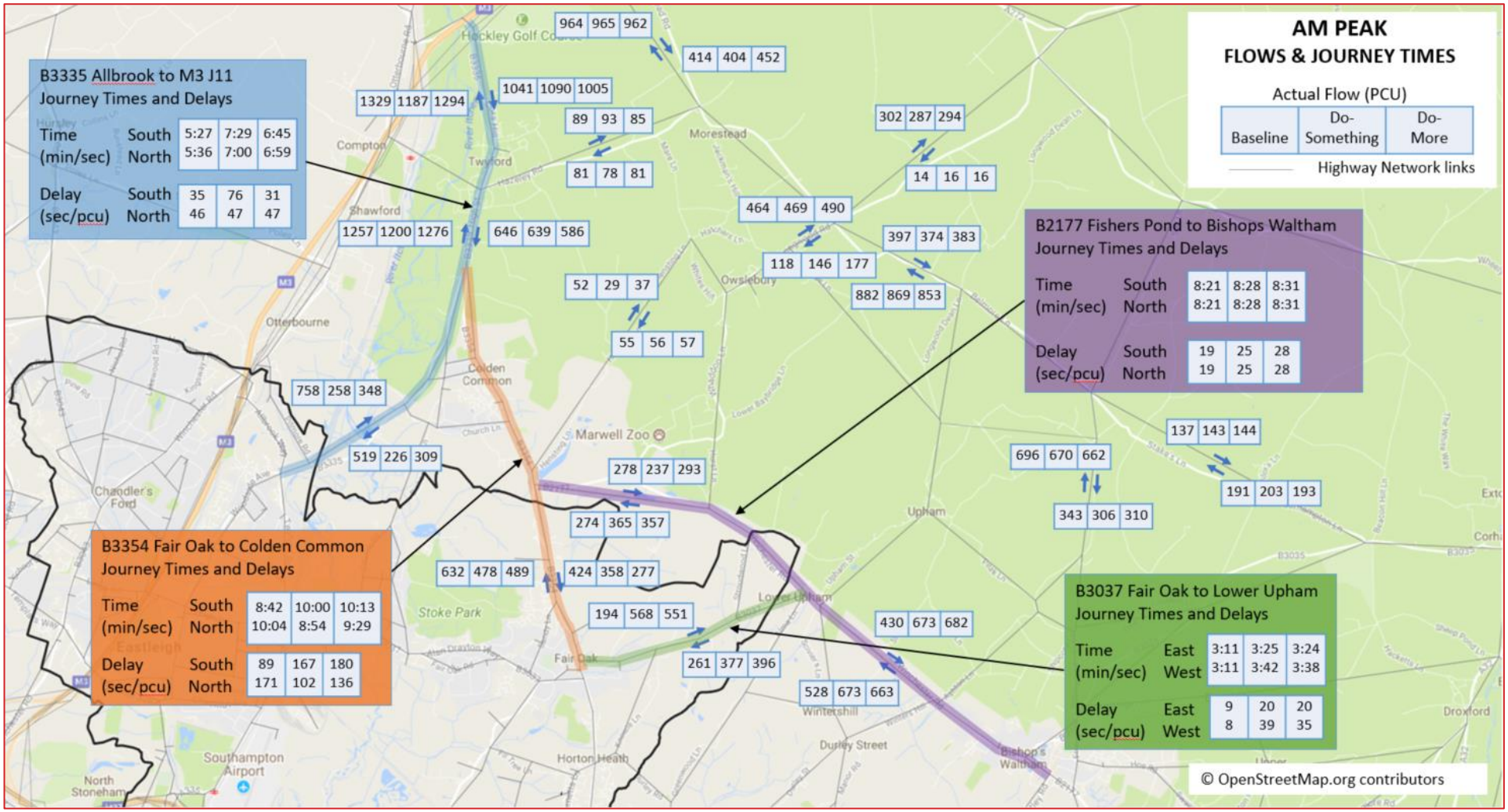
7.2.14 In addition to assessing the above hot spot locations, the following road corridors and routes across the South Downs National Park, have also been assessed in terms of changes in traffic flows and journey times.

- The B3335 from Allbrook to M3 Junction 11;
- The B3354 from Fair Oak to north of Colden Common;
- The B2177 from Fishers Pond to Bishops Waltham;
- The B3037 from Fair Oak to the B2177 at Lower Upham; and
- The rural roads in the areas around Twyford, Morestead, Owslebury and Upham.

7.2.15 These areas are illustrated in the diagram below.



7.2.16 The Figures on the following two pages show the network flows, journey times and delays for all three test scenarios, for the AM and PM peak hours respectively.


AM PEAK
FLOWS & JOURNEY TIMES
Actual Flow (PCU)
Baseline
Do-Something
Do-More
Highway Network links
B3335 Allbrook to M3 J11
Journey Times and Delays
Time (min/sec) South 5:27 7:29 6:45
Time (min/sec) North 5:36 7:00 6:59
Delay (sec/pcu) South 35 76 31
Delay (sec/pcu) North 46 47 47
B2177 Fishers Pond to Bishops Waltham
Journey Times and Delays
Time (min/sec) South 8:21 8:28 8:31
Time (min/sec) North 8:21 8:28 8:31
Delay (sec/pcu) South 19 25 28
Delay (sec/pcu) North 19 25 28
B3354 Fair Oak to Colden Common
Journey Times and Delays
Time (min/sec) South 8:42 10:00 10:13
Time (min/sec) North 10:04 8:54 9:29
Delay (sec/pcu) South 89 167 180
Delay (sec/pcu) North 171 102 136
B3037 Fair Oak to Lower Upham
Journey Times and Delays
Time (min/sec) East 3:11 3:25 3:24
Time (min/sec) West 3:11 3:42 3:38
Delay (sec/pcu) East 9 20 20
Delay (sec/pcu) West 8 39 35
964 965 962
414 404 452
1329 1187 1294
1041 1090 1005
89 93 85
81 78 81
302 287 294
14 16 16
464 469 490
397 374 383
118 146 177
882 869 853
1257 1200 1276
646 639 586
52 29 37
55 56 57
758 258 348
519 226 309
278 237 293
274 365 357
632 478 489
424 358 277
194 568 551
261 377 396
430 673 682
528 673 663
137 143 144
696 670 662
191 203 193
343 306 310
Hockley Golf Course
Compton
Twyford
Morestead
Shawford
Otterbourne
Owslebury
Colden Common
Marwell Zoo
Chandler's Ford
Stoke Park
Fair Oak
Lower Upham
Upham
Eastleigh
Wintershill
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Horton Heath
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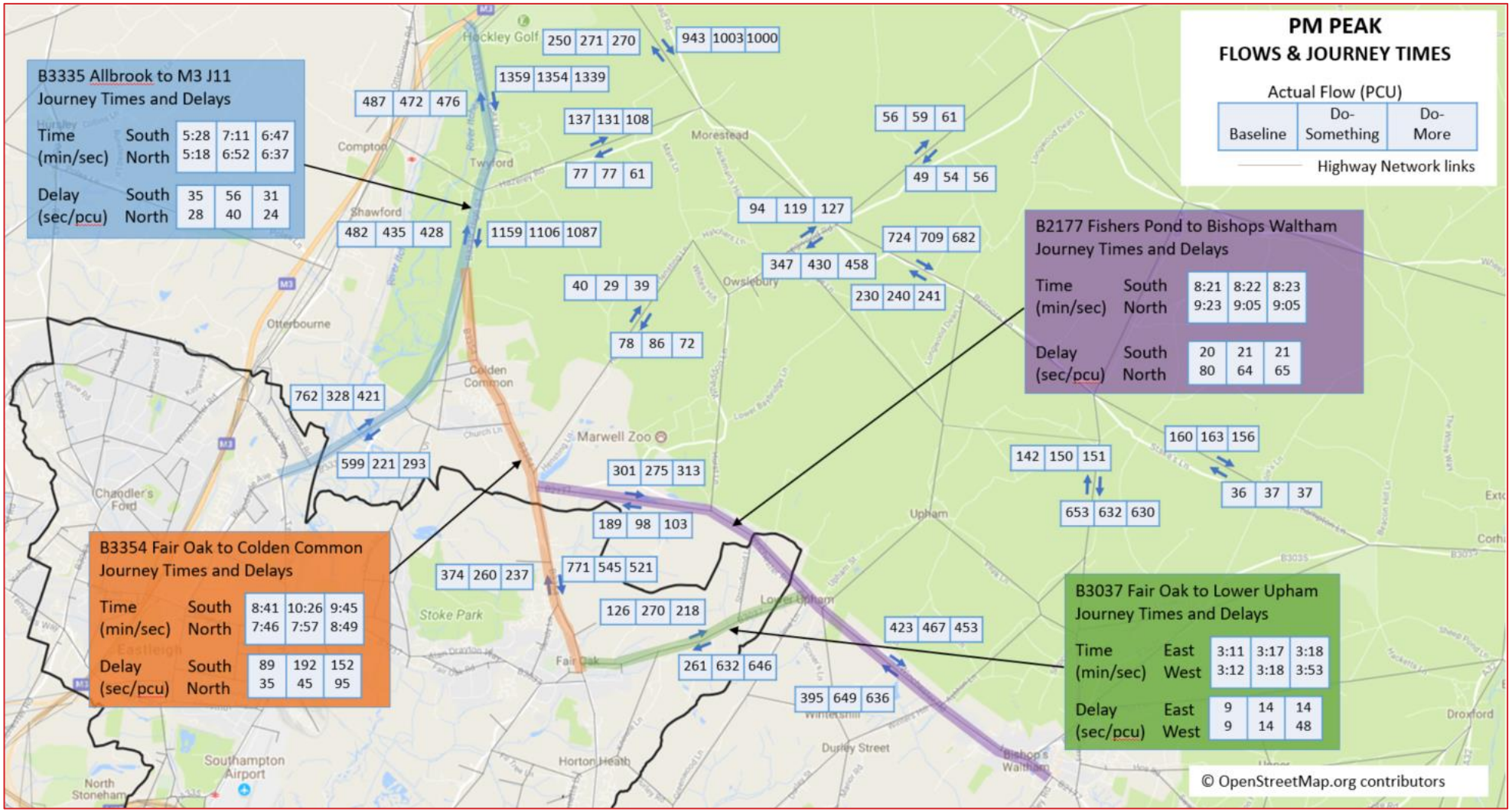
PM PEAK
FLOWS & JOURNEY TIMES
Actual Flow (PCU)
Baseline
Do-Something
Do-More
Highway Network links
B3335 Allbrook to M3 J11
Journey Times and Delays
Time (min/sec) South 5:28 7:11 6:47
North 5:18 6:52 6:37
Delay (sec/pcu) South 35 56 31
North 28 40 24
B2177 Fishers Pond to Bishops Waltham
Journey Times and Delays
Time (min/sec) South 8:21 8:22 8:23
North 9:23 9:05 9:05
Delay (sec/pcu) South 20 21 21
North 80 64 65
B3354 Fair Oak to Colden Common
Journey Times and Delays
Time (min/sec) South 8:41 10:26 9:45
North 7:46 7:57 8:49
Delay (sec/pcu) South 89 192 152
North 35 45 95
B3037 Fair Oak to Lower Upham
Journey Times and Delays
Time (min/sec) East 3:11 3:17 3:18
West 3:12 3:18 3:53
Delay (sec/pcu) East 9 14 14
West 9 14 48
250 271 270
943 1003 1000
1359 1354 1339
487 472 476
137 131 108
77 77 61
56 59 61
49 54 56
94 119 127
724 709 682
347 430 458
230 240 241
482 435 428
1159 1106 1087
40 29 39
78 86 72
762 328 421
599 221 293
301 275 313
189 98 103
374 260 237
771 545 521
126 270 218
261 632 646
423 467 453
395 649 636
160 163 156
142 150 151
653 632 630
36 37 37
Hockley Golf
Compton
Twyford
Morestead
Shawford
Otterbourne
Owslebury
Colden Common
Marwell Zoo
Chandler's Ford
Stoke Park
Fair Oak
Upham
Lower Upham
Durley Street
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Droxford
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7.2.17 The results show that changes in traffic flow are generally modest with some roads experiencing increases and others with decreases. The B3335 corridor from Allbrook to the M3, north of Colden Common, shows small reductions in traffic flows in both AM and PM peaks. The reductions are more pronounced to the south of Colden Common. Journey times for the corridor are slightly increased in the Do-Something and Do-More scenarios indicating increased congestion along this section of the route. Peak hour journey times increases for the corridor range from 1 minute 18 seconds to 1 minute 43 seconds. None of the junctions along this corridor were assessed as meeting the thresholds for significant or severe impacts.

7.2.18 A similar trend is observed for the B3354 Fair Oak to Colden Common corridor with modest reductions in traffic flows and increased journey times and delays. Increases in peak hour journey times range from 11 seconds to 1 minute 31 seconds. Again, none of the junctions along this corridor were assessed as meeting the thresholds for significant or severe impacts.

7.2.19 The route from Fair Oak to Bishops Waltham along the B2177 shows moderate increases in traffic flows in both peak periods. Small increases in journey times and delays are forecast in the AM peak. In the PM peak, journey times and delays in the southbound direction are marginally increased but there are decreases in the northbound direction. Peak hour journey times changes for the corridor range from -18 seconds to +10 seconds.

7.2.20 The largest increases in traffic flow are predicted on the B3037 corridor from Fair Oak to Lower Upham (Mortimers Lane). This result is expected as this link forms a key access point for the SGO site. Overall journey times in peak hours are not significantly affected, the changes for the corridor range from +6 seconds to +41 seconds. The junctions at each end of the corridor have both been identified as hot spots experiencing significant or severe impacts and have been assessed in previous sections of this TA.

7.2.21 Within the South Downs National Park area the changes in traffic flow are minor with the Local Plan proposal resulting in small increases in most areas and some minor reductions in others.

7.2.22 On Morestead Road (north of Morestead) the southbound flow increases from 414 pcu/hr in the Baseline to 452 in the Do-More test in the AM peak. An increase of 38 pcu's. In the PM peak the equivalent increase is 57 pcu's, from 943 in the Baseline to 1,000 in Do-More.

7.2.23 At Stake's Lane (between Morestead and Corhampton) the southbound flow increases from 137 pcu/hr in the Baseline to 144 in the Do-More test in the AM peak. An increase of 7 pcu's. In the PM peak there is a reduction of 4 pcu's, from 160 in the Baseline to 156 in Do-More (and an increase of 3 pcu/hr from 160 to 163 in the Do-Something test).

7.2.24 At Longwood Road, east of Owslebury, in the AM peak there is an increase from 464 to 490 eastbound and from 118 to 177 westbound when comparing baseline with Do-More, giving a total two-way traffic increase of 86 pcu/hr. In the PM peak the equivalent change is 144 pcu/hr. To the west of Owslebury on Hensting Lane, AM flows are predicted to reduce from 52 to 37 pcu's northbound and increase from 55 to 57 pcu's southbound, giving a total net reduction in two-way flow of 13 pcu/hr when comparing Baseline with Do-More. In the PM peak the equivalent reduction in two-way flows is 7pcu/hr.

7.2.25 The overall effect on traffic flows in the National Park area is considered to be modest, with generally very small changes to peak hour traffic volumes. The significance criteria for identifying significant or severe traffic impacts has not identified any locations within the South Downs National Park area.

8. MOTORWAY IMPACTS

8.1.1 This section summarises the transport impacts of the Local Plan development on the motorway network, including the motorway junctions and their adjacent approaches.

8.1.2 There are five motorway junctions in the borough, as listed below:

- M3 Junction 13
- M3 Junction 12
- M27 Junction 5
- M27 Junction 7
- M27 Junction 8

8.1.3 M27 Junction 9 lies close to the borough boundary and has also been assessed as part of this TA.

8.1.4 Two of the junctions, M3 J12 and M27 J7, were identified as experiencing significant or severe impacts in Section 6 of this report and the results for these junction are discussed in section 6.5. The following assessment of impacts at all six motorway junctions focusses on the V/C and traffic flow changes on the slip roads and for completeness the results for M3 J12 and M27 J7 slip roads are repeated in the tables.

8.2 M3 Junction 13

8.2.1 The following tables summarise the AM and PM peak hour performance statistics for each slip road for the Baseline (BL), Do-Something (DS), and Do-More (DM) scenarios.

Table 83. M3 J13 V/C and Flows AM Peak

SLIP ROAD (AM PEAK)	V/C (%)			FLOW (PCU/HR)		
	BL	DS	DM	BL	DS	DM
Northbound-Off	26	32	27	1154	1393	1168
Northbound-On	37	32	36	812	711	781
Southbound-Off	27	29	30	599	634	649
Southbound-On	38	33	32	830	725	699

Table 84. M3 J13 V/C and Flows PM Peak

SLIP ROAD (PM PEAK)	V/C (%)			FLOW (PCU/HR)		
	BL	DS	DM	BL	DS	DM
Northbound-Off	22	23	22	949	1024	963
Northbound-On	24	22	22	537	476	489
Southbound-Off	31	36	39	692	783	850
Southbound-On	38	33	33	834	734	730

8.2.2 The results show the slip roads remain within capacity with no significant changes to either V/C values or traffic flows.

8.2.3 Junction 13 connects to the local highway network via Leigh Road, Eastleigh. The impact assessment in Section 6.5 did not identify any significant impacts at any of the Leigh Road junctions adjacent to M3 J13, indicating that Local Plan growth is not expected to adversely affect the motorway network in this area.

8.3 M3 Junction 12

8.3.1 The following tables summarise the AM and PM peak hour performance statistics for each slip road for the Baseline (BL), Do-Something (DS), and Do-More (DM) scenarios.

Table 85. M3 J12 V/C and Flows AM Peak

SLIP ROAD (AM PEAK)	V/C (%)			FLOW (PCU/HR)		
	BL	DS	DM	BL	DS	DM
Northbound-Off	100	101	74	600	30	682
Northbound-On	28	40	40	623	875	875
Southbound-Off	93	87	100	519	609	508
Southbound-On	32	57	62	707	1260	1373

Table 86. M3 J12 V/C and Flows PM Peak

SLIP ROAD (PM PEAK)	V/C (%)			FLOW (PCU/HR)		
	BL	DS	DM	BL	DS	DM
Northbound-Off	102	106	78	650	503	755
Northbound-On	26	34	37	567	758	811
Southbound-Off	106	105	106	593	609	538
Southbound-On	37	54	57	813	1187	1260

8.3.2 The results show that high V/C ratios are predicted on both of the off-slip roads and these are discussed in the separate assessments of the Allbrook Way Roundabout and M3 J12 Northern Roundabout in section 6.5.

8.3.3 There are some significant changes in traffic flows attributed to reassignment effects related to the Northern Relief Road, notably for the Southbound-On slip road where there is a significant increase. A similar but less pronounced increase is predicted for the Northbound slip road. However, these slip roads remain within capacity with V/C's not exceeding 62%.

8.3.4 A sharp drop in flow is indicated on the Northbound-Off slip road in the AM peak in the Do-Something scenario and an increase in the Do-More scenario. This results from increased delays at the junction in the Do-Something test causing traffic to divert to alternative routes. The additional mitigation in the Do-More test reduces the delays and accordingly the diverted traffic returns.

8.4 M27 Junction 5

8.4.1 The following tables summarise the AM and PM peak hour performance statistics for each slip road for the Baseline (BL), Do-Something (DS), and Do-More (DM) scenarios.

Table 87. M27 J5 V/C and Flows AM Peak

SLIP ROAD (AM PEAK)	V/C (%)			FLOW (PCU/HR)		
	BL	DS	DM	BL	DS	DM
Eastbound-Off	73	76	75	695	727	713
Eastbound-On	41	40	41	1805	1771	1790
Westbound-Off	50	50	50	2200	2200	2200
Westbound-On	22	24	24	976	1071	1075

Table 88. M27 J5 V/C and Flows PM Peak

SLIP ROAD (PM PEAK)	V/C (%)			FLOW (PCU/HR)		
	BL	DS	DM	BL	DS	DM
Eastbound-Off	57	58	58	672	685	680
Eastbound-On	53	55	55	2341	2417	2406
Westbound-Off	49	50	50	2163	2200	2197
Westbound-On	24	23	23	1052	1032	1025

8.4.2 The results show the slip roads remain within capacity with no significant changes to either V/C values or traffic flows.

8.4.3 Junction 5 lies within close proximity to the A335 / Wide Lane roundabout near Southampton Airport, which is known to experience congestion during peak periods. The Wide Lane junction is assessed in Section 6.5 of this TA and the results demonstrate that predicted queues do not block back to the motorway junction.

8.5 M27 Junction 7

8.5.1 The following tables summarise the AM and PM peak hour performance statistics for each slip road for the Baseline (BL), Do-Something (DS), and Do-More (DM) scenarios.

Table 89. M27 J7 V/C and Flows AM Peak

SLIP ROAD (AM PEAK)	V/C (%)			FLOW (PCU/HR)		
	BL	DS	DM	BL	DS	DM
Northbound-Off	60	61	61	1073	1090	1091
Northbound-On	54	54	54	2396	2354	2394
Southbound-Off	35	36	36	1271	1310	1309
Southbound-On	38	41	41	827	891	899

Table 90. M27 J7 V/C and Flows PM Peak

SLIP ROAD (PM PEAK)	V/C (%)			FLOW (PCU/HR)		
	BL	DS	DM	BL	DS	DM
Northbound-Off	56	56	54	1225	1205	1178
Northbound-On	39	39	40	1694	1710	1743
Southbound-Off	45	46	46	1643	1676	1673
Southbound-On	31	31	32	675	688	703

8.5.2 The results show the slip roads remain within capacity with no significant changes to either V/C values or traffic flows.

8.5.3 Junction 7 lies within close proximity to the A334 Charles Watts Way / Tollbar Way Roundabout, which is known to experience congestion during peak periods. The junction is assessed in Section 6.5 of this TA and the results demonstrate that blocking back to the motorway junction is unlikely to occur. It also shows that Local Plan growth has only a small impact on queuing at the junction.

8.6 M27 Junction 8

8.6.1 The following tables summarise the AM and PM peak hour performance statistics for each slip road for the Baseline (BL), Do-Something (DS), and Do-More (DM) scenarios. All scenarios include for the proposed scheme to signalise all movements at the J8 roundabout.

Table 91. M27 J8 V/C and Flows AM Peak

SLIP ROAD (AM PEAK)	V/C (%)			FLOW (PCU/HR)		
	BL	DS	DM	BL	DS	DM
Northbound-Off	72	73	72	858	861	857
Northbound-On	13	13	13	1336	1312	1292
Southbound-Off	45	47	46	1380	1429	1416
Southbound-On	20	21	20	2043	2071	2008

Table 92. M27 J8 V/C and Flows PM Peak

SLIP ROAD (PM PEAK)	V/C (%)			FLOW (PCU/HR)		
	BL	DS	DM	BL	DS	DM
Northbound-Off	68	68	68	1078	1078	1073
Northbound-On	8	8	8	843	843	840
Southbound-Off	76	76	76	1478	1491	1480
Southbound-On	15	15	15	1512	1490	1519

8.6.2 The results show the slip roads remain within capacity with no significant changes to either V/C values or traffic flows.

8.6.3 Junction 8 lies within close proximity to the A27 / A3024 Windhover Roundabout. The impact assessment in Section 6 of this TA did not identify any significant impacts at the roundabout, indicating that Local Plan growth does not adversely affect J8.

8.7 M27 Junction 9

8.7.1 The following tables summarise the AM and PM peak hour performance statistics for each slip road for the Baseline (BL), Do-Something (DS), and Do-More (DM) scenarios. All scenarios include for the proposed scheme to increase the capacity of the two off-slips on the approaches to the J9 roundabout.

Table 93. M27 J9 V/C and Flows AM Peak

SLIP ROAD (AM PEAK)	V/C (%)			FLOW (PCU/HR)		
	BL	DS	DM	BL	DS	DM
Eastbound-Off	102	102	102	2496	2500	2504
Eastbound-On	34	32	32	1370	1263	1284
Westbound-Off	81	82	82	1830	1860	1857
Westbound-On	32	28	29	2083	1874	1926

Table 94. M27 J9 V/C and Flows PM Peak

SLIP ROAD (PM PEAK)	V/C (%)			FLOW (PCU/HR)		
	BL	DS	DM	BL	DS	DM
Eastbound-Off	99	100	100	2684	2717	2504
Eastbound-On	42	42	42	1671	1671	1671
Westbound-Off	86	88	88	1464	1506	1509
Westbound-On	40	39	39	2654	2572	2573

8.7.2 The results show that high V/C's are forecast on the Eastbound-Off slip road in the AM peak with a value of 102% in all three test scenarios. In the PM peak, values range from 99% to 100%. The maximum change in V/C on this slip road is 1% indicating that the Local Plan proposals do not have a material effect.

8.7.3 The other three slip roads remain within capacity with no significant changes to either V/C values or traffic flows.

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Appendix A – Implied Trip Generation Rates

Appendix A

Derivation of Implied Trip Generation Rates for SGO B + C

Number of Person Trips

SRTM Zone	Mode	Highway		Public Transport		Active		All Trips	
	Time Period	AM (07:00-10:00)	PM (16:00-19:00)	AM (07:00-10:00)	PM (16:00-19:00)	AM (07:00-10:00)	PM (16:00-19:00)	AM (07:00-10:00)	PM (16:00-19:00)
	Unit	Trips/Period		Trips/Period		Trips/Period		Trips/Period	
921 (Land at Stoke Park Farm)	IN	356	743	79	88	322	302	757	1,133
	OUT	797	442	125	50	458	233	1,380	725
922 (North of Fair Oak)	IN	1,118	994	144	58	416	265	1,678	1,317
	OUT	1,224	888	101	92	358	277	1,683	1,257
225 (South of Fair Oak)	IN	1,242	3,709	62	135	698	678	2,002	4,522
	OUT	3,785	1,732	187	46	861	580	4,833	2,358

Zone	2036 Households
921	1,062
922	1,117
225	4,551

Trip Generation Rates

SRTM Zone	**Mode**	**All Trips**		**Public Transport**		**Active**		**All Trips**	
	Time Period	AM (07:00-10:00)	PM (16:00-19:00)	AM (07:00-10:00)	PM (16:00-19:00)	AM (07:00-10:00)	PM (16:00-19:00)	AM (07:00-10:00)	PM (16:00-19:00)
	Unit	Trip Rate	Trip Rate	Trip Rate	Trip Rate	Trip Rate	Trip Rate	Trip Rate	Trip Rate
921 (Land at Stoke Park Farm)	**IN**	0.34	0.70	0.07	0.08	0.30	0.28	0.71	1.07
	OUT	0.75	0.42	0.12	0.05	0.43	0.22	1.30	0.68
922 (North of Fair Oak)	**IN**	1.00	0.89	0.13	0.05	0.37	0.24	1.50	1.18
	OUT	1.10	0.79	0.09	0.08	0.32	0.25	1.51	1.13
225 (South of Fair Oak)	**IN**	0.27	0.81	0.01	0.03	0.15	0.15	0.44	0.99
	OUT	0.83	0.38	0.04	0.01	0.19	0.13	1.06	0.52
Average Trip Rates	**IN**	0.54	0.80	0.07	0.05	0.28	0.22	0.88	1.08
	OUT	0.89	0.53	0.08	0.05	0.31	0.20	1.29	0.78
	2-WAY	1.43	1.33	0.16	0.10	0.59	0.42	2.17	1.86

Appendix B – Junction Flows and Performance Statistics

Appendix B - Sheet 1 - Junctions in Eastleigh Borough

Junction approach arm statistics for identified hot spot locations in Eastleigh Borough (Summary Sheet)

			2036 BASELINE (DOP)								2036 DS2 (DPC)										2036 DS3 (DPP)									
ID	Junction	Approach Arm	AM RFC (%)	AM Actual Flow (pcus)	AM Delay per pcu (s)	AM Average Queue Length (pcu)	AM RFC (%)	AM Actual Flow (pcus)	PM Delay per pcu (s)	PM Average Queue Length (pcu)	AM RFC (%)	AM Actual Flow (pcus)	AM RFC Difference (pcus) DPC-DOP	AM RFC Difference Severity	AM Delay per pcu (s)	AM Average Queue Length (pcu)	PM RFC (%)	PM Actual Flow (pcus)	PM RFC Difference (pcus) DPC-DOP	PM RFC Difference Severity	PM Delay per pcu (s)	PM Average Queue Length (pcu)	AM RFC (%)	AM Actual Flow (pcus)	AM RFC Difference (pcus) DPP-DOP	AM RFC Difference Severity	AM Delay per pcu (s)	AM Average Queue Length (pcu)	PM RFC (%)	PM Actual Flow (pcus)	PM RFC Difference (pcus) DPP-DOP	PM RFC Difference Severity	PM Delay per pcu (s)	PM Average Queue Length (pcu)
			DOP_AM	DOP_AM	DOP_AM	DOP_AM	DOP_PM	DOP_PM	DOP_PM	DOP_PM	DPC_AM	DPC_AM	DPC_AM	DPC_AM	DPC_AM	DPC_AM	DPC_PM	DPC_PM	DPC_PM	DPC_PM	DPC_PM	DPC_PM	DPP_AM	DPP_AM	DPP_AM	DPP_AM	DPP_AM	DPP_AM	DPP_PM	DPP_PM	DPP_PM	DPP_PM	DPP_PM	DPP_PM
1	Hamble Lane / Hound Lane	Hound Road	86	790	8	1	53	471	6	0	87	801	1		9	1	55	488	2		6	0	88	809	2		9	1	56	492	3		6	0
1		Hamble Lane SB	96	947	12	2	95	1028	8	1	96	949	0		12	2	96	1032	1		8	1	96	948	0		12	2	96	1033	1		8	1
1		Hamble Lane NB	52	723	4	0	68	898	5	0	52	727	0		4	0	68	896	0		5	0	52	728	0		4	0	68	897	0		5	0
2	Hamble Lane / Satchell Lane	Hamble Lane SB	61	1274	2	0	47	976	2	0	61	1273	0		2	0	47	975	0		2	0	61	1269	0		2	0	47	977	0		2	0
2		Satchell Lane	36	122	12	0	37	141	11	0	36	124	0		12	0	37	141	0		11	0	36	124	0		12	0	37	141	0		11	0
2		Hamble Lane NB	28	601	1	0	35	757	1	0	28	603	0		1	0	35	756	0		1	0	28	604	0		1	0	35	756	0		1	0
3	Hamble Lane / Zone 911 Access	Hamble Lane SB	16	1066	0	0	10	800	0	0	16	1065	0		0	0	10	799	0		0	0	16	1062	0		0	0	10	800	0		0	0
3		Hamble Lane NB	28	601	1	0	35	757	1	0	28	603	0		1	0	35	756	0		1	0	28	604	0		1	0	35	756	0		1	0
3		Zone 911 Egress	0	0	3	0	0	0	3	0	0	0	0		3	0	0	0	0		3	0	0	0	0		3	0	0	0	0		3	0
4	Bursledon Road Approach to Windhover	Circulating arm (left hand lane)	68	586	18	2	68	588	18	2	68	589	0		18	2	73	628	5		19	2	63	545	-5		17	2	73	631	5		19	2
4		Bursledon Road EB	68	1065	42	6	56	878	27	4	68	1065	0		40	6	57	890	1		28	5	68	1065	0		34	6	57	891	1		28	5
4		Circulating arm	84	1453	25	4	61	1050	12	2	83	1436	-1		23	4	60	1042	-1		12	2	83	1429	-1		23	4	60	1041	-1		12	2
5	Bridge Road / Church Lane	Bridge Road SB	72	1459	3	0	81	1548	5	0	73	1502	1		3	0	81	1553	0		5	0	75	1538	3		4	0	83	1593	2		6	0
5		Church Lane	90	131	84	3	20	58	14	0	88	139	-2		73	3	20	59	0		13	0	83	151	-7		55	2	20	59	0		13	0
5		Bridge Road NB	65	1417	2	0	62	1344	2	0	61	1324	-4		2	0	60	1308	-2		2	0	62	1340	-3		2	0	60	1309	-2		2	0
6	M27 J8 WB off slip to roundabout	M27 off slip WB	72	858	260	42	68	1078	129	21	73	861	1		267	44	68	1078	0		129	21	72	857	0		257	42	68	1073	0		121	18
6		Circulating arm (left hand lane)	79	775	18	2	52	381	14	1	79	779	0		18	2	53	388	1		14	1	78	771	-1		18	2	53	393	1		14	1
6		Circulating arm	20	386	18	2	22	321	14	1	20	393	0		18	2	22	327	0		14	1	19	372	-1		17	2	22	331	0		14	1
7	Dodwell Lane / Dodwell Lane	Dodwell Lane WB	73	1521	3	0	61	1238	2	0	81	1669	8		5	0	64	1279	3		2	0	81	1654	8		4	0	67	1336	6		3	0
7		Dodwell Lane EB	42	635	12	2	62	1006	9	2	43	679	1		11	2	59	1005	-3		8	1	43	674	1		11	2	65	1006	3		11	2
7		Dodwell Lane NB	86	499	21	5	74	326	58	5	72	424	-14		26	3	73	327	-1		55	4	102	461	16	Sev	101	12	98	329	24	Sev	61	8
8	M27 J8 EB off slip to roundabout	M27 off slip EB	45	1380	36	5	76	1478	106	16	47	1429	2		37	5	76	1491	0		121	22	46	1416	1		36	5	76	1480	0		108	16
8		Circulating arm (left hand lane)	0	0	15	0	6	42	9	0	1	1	1		15	0	6	42	0		9	0	1	4	1		15	0	6	43	0		9	0
8		Circulating arm	77	948	32	5	49	761	12	2	77	952	0		32	5	48	755	-1		11	2	74	920	-3		30	5	49	765	0		12	2
9	Hamble Lane approach to Windhover roundabout	Hamble Lane Approach	70	1681	140	43	53	1264	18	5	70	1680	0		143	44	55	1311	2		19	5	70	1674	0		138	42	55	1307	2		19	5
9		Circulating arm (left hand lane)	88	508	43	3	89	511	44	3	88	506	0		42	3	89	515	0		45	3	86	498	-2		40	3	90	519	1		47	3
9		Circulating arm	77	886	39	5	66	753	43	4	76	875	-1		39	4	64	738	-2		44	4	73	843	-4		38	4	64	740	-2		46	4
10	A3025 Hamble Lane / Portsmouth Road	Hamble Lane NB	57	1242	2	0	42	922	1	0	58	1274	1		2	0	45	996	3		2	0	59	1295	2		2	0	46	999	4		2	0
10		A3025 Portsmouth Road EB	89	436	41	4	90	574	31	4	90	422	1		42	4	92	550	2		39	5	90	412	1		43	4	92	546	2		38	4
10		A3025 Hamble Lane SB	111	1552	250	82	108	1722	188	69	110	1607	-1		228	77	109	1698	1		210	76	111	1621	0		242	82	110	1703	2		213	78
11	Maypole Roundabout	Woodhouse Lane SB	85	329	27	2	93	263	53	4	102	714	17	Sev	73	14	102	724	9	Sig	73	14	82	1080	-3		10	1	90	1147	-3		13	2
11		B3033Lower Northam Road EB	102	28	300	2	91	396	35	3	104	28	2		336	3	86	413	-5		25	2	76	511	-26		16	1	64	521	-27		11	1
11		Kings Copse Avenue NB	108	423	194	22	93	463	27	3	107	490	-1		178	23	92	497	-1		23	2	71	627	-37		12	1	51	452	-42		10	0
11		A334 Grange Road SB	92	907	10	1	101	736	50	9	90	870	-2		9	1	101	721	0		56	10	89	843	-3		15	2	91	880	-10		16	2
11		A334 Grange Road WB	101	929	37	8	101	955	36	8	76	384	-25		18	1	72	388	-29		15	1	38	208	-63		14	0	42	171	-59		17	1
12	Bubb Lane / New link to Burnetts Lane	New link road from Burnetts Lane EB	22	167	5	0	16	131	5	0	29	201	7		6	0	16	129	0		5	0	22	183	0		5	0	16	128	0		5	0
12		Bubb Lane NB	80	929	3	0	71	830	3	0	85	990	5	Sig	3	0	75	873	4		3	0	70	819	-10		3	0	75	875	4		3	0
12		Bubb Lane SB	64	696	4	0	50	554	3	0	54	584	-10		4	0	55	611	5		3	0	86	936	22	Sig	4	0	60	666	10		3	0
13	Denhams Corner Roundabout	B3354 Winchester Road NB	100	1042	16	3	80	785	7	1	102	1036	2		54	15	101	976	21	Sev	38	9	99	1477	-1		13	4	76	1073	-4		6	1
13		Snakemoor Lane WB	62	233	16	1	92	268	47	3	86	233	24	Sig	40	2	98	304	6	Sig	61	5	63	252	1		15	1	81	356	-11		20	2
13		B3342 Bubb Lane EB	68	745	7	0	63	676	7	0	85	838	17	Sig	11	1	75	731	12		9	1	74	676	6		9	1	78	724	15		10	1
13		B3354 Botley Road SB	81	871	8	1	80	906	8	1	89	968	8	Sig	11	2	78	904	-2		7	1	79	999	-2		7	1	65	806	-15		6	0
14	Grange Road / Locke Road Roundabout	Locke Road SB	98	641	26	4	76	528	8	1	101	688	3		53	9	80	575	4		8	1	92	625	-6		14	2	88	580	12	Sig	12	1
14		A334 Grange Road NB	81	823	6	0	64	663	5	0	79	791	-2		6	0	61	632	-3		5	0	84	852	3		6	1	70	727	6		5	0
14		A334 Grange Road SB	91	782	5	0	88	753	4	0	85	725	-6		4	0	81	695	-7		4	0	84	716	-7		5	0	97	827	9	Sig	6	0
15	Botley Road / Tollbar Way Roundabout	B3342 Tollbar Way SB	102	860	59	13	95	841	16	3	102	880	0		71	17	97	855	2		19	4	102	877	0		67	16	94	831	-1		14	2
15		B3035 Botley Road EB	105	733	119	23	109	698	201	37	105	734	0		118	23	110	702	1		209	39	103	761	-2		88	18	109	710	0		191	36
15		B3035 Botley Road WB	83	677	11	1	101	875	39	8	83	667	0		11	1	101	869	0		49	11	73	590	-10		9	1	101	877	0		41	9
15		B3342 Tollbar wWay NB	48	577	6	0	39	467	6	0	47	569	-1		6	0	39	475	0		6	0	44	546	-4		6	0	36	441	-3		6	0
16	M27 EB between J5 and J7	M27 EB	86	7526	16	0	97	8573	25	0	86	7597	0		16	0	98	8657	1		26	0	86	7585	0		16	0	98	8631	1		26	0
17	Peter Cooper Roundabout	Wildern Lane NB	106	265	199	14	66	184	27	1	107	265	1		212	15	57	174	-9		22	1	98	258	-8		70	5	67	144	1		34	1
17		A334 Grange Road WB	102	1198	58	18	99	1037	24	6	102	1187	0		58	18	97	996	-2		20	4	102	1187	0		58	18	100	1064	1		28	7
17		A334 Charles Watts Way EB	97	1207	22	4	86	1143	14	1	97	1220	0		22	4	83	1115	-3		13	1	95	1235	-2		19	3	91	1237	5	Sig	16	2
17		B3035 Botley Road EB	70	759	8	1	101	1011	47	12	68	750	-2		7	0	101	1055	0		40	10	68	755	-2		7	0	103	967	2		87	22
18	Charles Watts Way / Tollbar Way / Turnpike Way Roundabout	A334 Charles Watts Way SB	95	1129	17	3	103	1145	80	24	97	1147	2		19	4	104	1132	1		96	29	101	1197	6	Sig	43	13	101	1205	-2		49	15
18		B3342 Tollbar Way SB	96	752	31	5	102	721	73	14	98	742	2		37	7	102	716	0		80	15	100	733	4		49	9	102	692	0		85	16
18		Turnpike Way NB	103	25	319	3	41	7	156	1	104	25	1		337	3	43	7	2		158	1	87	20	-16		228	2	41	6	0		156	1
18		A334 Charles Watts Way NB	105	1817	105	49	113	1958	240	118	106	1829	1		118	56	113	1963	0		246	121	104	1806	-1		91	42	113	1968	0		251	124
19	M27 J7 EB between on slips	M27 EB	80	7083	15	0	86	7606	29	0	82	7177	2		17	0	87	7668	1		30	0	82	7175	2		17	0	87	7661	1		30	0
20	M27 J8 EB off slip to roundabout	M27 J8 EB Diverge	80	7083	2	0	86	7606	2	0	82	7177	2		2	0	87	7668	1		2	0	82	7175	2		2	0	87	7661	1		2	0
21	M27 J8 EB off slip to roundabout	M27 J8 EB Diverge	80	7083	3	0	86	7606	4	0	82	7177	2		3	0	87	7668	1		4	0	82	7175	2		3	0	87	7661	1		4	0
22	M27 J7 EB on slip merge	M27 EB	80	7083	2	0	86	7606	2	0	82	7177	2		2	0	87	7668	1		2	0	82	7175	2		2	0	87	7661	1		2	0
22		M27 J7 EB on slip	0	0	1	0	0	0	1	0	0	0	0		1	0	0	0	0		1	0	0	0	0		1	0	0	0	0		1	0
23	M27 EB between J7 and J8	M27 EB	80	7083	0	0	86	7606	1	0	82	7177	2		0	0	87	7668	1		1	0	82	7175	2		0	0	87	7661	1		1	0
24	M27 J7 EB off slip to roundabout	M27 EB off slip	61	157	94	2	96	249	190	4	66	173	5		103	2	98	254	2		213	6	51	133	-10		76	1	98	253	2		203	5
24		Circulating arm (left hand lane)	7	92	4	0	10	129	4	0	8	110	1		4	0	10	134	0		4	0	6	75	-1		4	0	12	162	2		4	0
24		Circulating arm	64	858	10	2	55	736	6	1	64	857	0		10	1	54	725	-1		6	1	62	834	-2		9	1	53	711	-2		6	1
25	Charles Watts Way approach to M27 J7 roundabout	Circulating arm	59	255	49	2	54	280	39	2	66	285	7		54	2	57	298	3		42	2	61	264	2		53	2	59	306	5		43	2
25		Circulating arm (left hand lane)	70	148	60	1	104	267	217	8	77	163	7		68	2	104	268	0		225	8	70	148	0		60	1	104	267	0		220	8
25		A334 Charles Watts Way WB	49	1841	6	2	49	1783	7	3	50	1867	1		6	2	49	1768	0		7	3	51	1910	2		6	2	50	1813	1		7	3
26	Charles Watts Way merge with M27 J7 EB off slip	M27 EB off slip	74	1113	10	0	93	1394	28	0	76	1138	2		11	0	95	1422	2		33	0	78	1176	4		12	0	95	1420	2		32	0
26		A334 Charles Watts Way WB	61	1841	4	0	59	1783	3	0	62	1867	1		4	0	59	1768	0		3	0	64	1910	3		4	0	60	1813	1		4	0
26		A334 Charles Watts Way EB	16	703	0	0	13	564	0	0	16	691	0		0	0	12	541	-1		0	0	14	630	-2		0	0	12	548	-1		0	0
27	A7 West End Road / Saint John's Road	A27 West End Road NB	29	746	2	0	38	771	5	1	30	759	1		2	0	41	812	3		5	1	35	769	6		4	0	43	817	5		6	1
27		Saint Johns Road	106	538	158	22	97	485	39	4	107	536	1		167	23	99	487	2		47	5	104	517	-2		124	17	100	489	3		52	7
27		A27 West End Road SB	56	1010	2	0	72	1316	4	0	56	1009	0		2	0	71	1295	-1		3	0	58	1053	2		2	0	73	1320	1		4	0
28	Moorhill Road approach to Kanes Hill Roundabout	Moorhill Road SB	74	806	42	9	67	893	29	6	76	846	2		41	9	68	900	1		33	7	77	866	3		35	8	72	960	5		33	8
28		Circulating arm	6	608	0	0	7	717	0	0	6	606	0		0	0	7	701	0		0	0	7	662	1		0	0	7	710	0		0	0
28		Circulating arm (left hand lane)	11	1098	0	0	6	603	0	0	11	1051	0		0	0	6	631	0		0	0	10	986	-1		0	0	6	607	0		0	0
28		A334 EB arm	102	1216	77	25	84	1183	30	9	102	1213	0		84	27	87	1185	3		33	10	98	1278	-4		33	9	85	1182	1		32	10
29	A27 Church Hill / A27 Moorhill Road / West End Road	A27 Moorhill Road NB	39	670	2	0	40	685	2	0	48	720	9		3	0	41	698	1		2	0	38	640	-1		2	0	41	703	1		2	0
29		A27 Church Hill SB	48	949	2	0	52	982	2	0	49	983	1		2	0	52	974	0		2	0	48	952	0		2	0	51	977	-1		2	0
29		West End Rad WB	100	527	51	7	76	613	15	2	100	503	0		56	7	84	690	8		18	3	100	522	0		57	8	90	716	14	Sig	24	4
30	M27 J7 EB diverge	M27 EB	86	7526	8	0	97	8573	18	0	86	7597	0		8	0	98	8657	1		21	0	86	7585	0		8	0	98	8631	1		20	0
31	A27 Swaythling Road / High Street / Chalk Hill	A27 Swaythling Road SB	87	488	51	4	75	429	40	3	88	494	1		54	4	94	517	19	Sig	72	4	85	482	-2		49	4	78	446	3		43	4
31		B3035 High Street WB	48	521	48	4	23	279	26	2	54	586	6		41	4	24	289	1		27	2	55	619	7		53	5	26	311	3		27	2
31		Chalk Hill NB	53	413	27	3	23	182	22	1	57	437	4		28	3	27	217	4		23	1	49	380	-4		26	2	27	216	4		23	1
31		A27 Church Hill NB	32	207	28	1	15	96	26	1	27	176	-5		27	1	16	101	1		26	1	31	199	-1		28	1	17	112	2		26	1
32	B3035 High Street / West End Road	B3035 High Street WB	80	682	4	0	77	634	4	0	80	687	0		4	0	87	720	10	Sig	5	0	81	690	1		4	0	90	744	13	Sig	5	0
32		West End Road NB	49	396	4	0	74	610	5	0	56	452	7		4	0	74	612	0		5	0	50	403	1		4	0	67	554	-7		4	0
32		B3035 High Street EB	28	199	4	0	53	326	7	0	26	175	-2		5	0	54	327	1		7	0	29	206	1		4	0	51	331	-2		6	0
33	B3035 High Street / Moorgreen Road	Moorgreen Road SB	60	375	7	0	50	330	6	0	68	428	8		8	1	53	351	3		6	0	71	437	11		9	1	49	324	-1		6	0
33		B3035 Botley Road WB	92	706	8	1	73	568	5	0	92	699	0		9	1	74	573	1		5	0	93	700	1		9	1	72	565	-1		5	0
33		B3035 Hgh Street EB	100	830	18	3	101	831	29	6	100	821	0		18	3	101	829	0		30	6	100	821	0		23	4	101	827	0		24	5
34	Moorgreen Road / Chapel Road	Moorgreen Road SB	49	650	3	0	17	265	2	0	55	730	6		4	0	21	326	4		2	0	68	863	19		4	0	23	348	6		2	0
34		Chapel Road EB	53	411	4	0	81	635	7	1	58	444	5		5	0	83	653	2		7	1	57	412	4		5	0	81	650	0		7	1
34		Moorgreen Road NB	19	364	1	0	21	440	1	0	20	394	1		1	0	21	438	0		1	0	19	367	0		1	0	22	449	1		1	0
35	Allington Lane Roundabout	Allington Lane SB	61	391	8	0	31	208	6	0	88	571	27	Sig	13	1	44	280	13		7	0	53	475	-8		6	0	30	278	-1		5	0
35		A27 Swaythling Road EB	54	531	5	0	68	712	5	0	57	544	3		6	0	91	916	23	Sig	8	1	44	527	-10		5	0	55	705	-13		5	0
35		Townhill Way NB	70	531	9	1	32	326	5	0	80	598	10		11	1	41	411	9		5	0	57	551	-13		7	0	31	391	-1		5	0
35		A27 Swaythling Road WB	97	662	18	3	44	329	5	0	99	600	2		30	4	48	347	4		5	0	80	716	-17		8	1	39	378	-5		5	0
36	Horton Heath Cross Roads	Knowle Lane WB	12	14	67	0	34	40	72	1	58	67	46		87	1	56	66	22		84	1	33	38	21		73	1	30	35	-4		71	0

36	Burnetts Lane EB	33	106	48	1	18	62	43	1	56	174	23		54	2	49	167	31		50	2	47	143	14		51	2	41	139	23		48	2
36	B3354 Botley Road NB	50	536	18	2	43	453	18	2	72	783	22		24	4	62	648	19		22	3	76	829	26		26	4	65	660	22		23	3
36	B3354 Botley Road SB	49	492	20	2	64	647	25	4	65	589	16		24	3	62	578	-2		25	3	65	568	16		25	3	76	682	12		30	4
37 B3354 Botley Road / B3037 Eastleigh Road Signals	B3354 Botley Road NB	52	595	25	4	47	494	26	3	82	904	30		35	7	93	790	46	Sig	56	7	85	918	33	Sig	38	7	67	669	20		34	5
37	B3037 Eastleigh Road	71	114	81	1	77	181	75	2	82	126	11		97	2	89	201	12	Sig	94	2	84	85	13		129	1	85	223	8	Sig	78	3
37	B3354 Botley Road SB	93	700	51	5	91	690	46	5	101	726	8	Sig	117	10	101	534	10	Sev	131	8	98	734	5	Sig	81	6	79	741	-12		38	6
38 B3354 Winchester Road / B3037 Mortimers Lane	B3037 Mortimers Lane	56	467	4	0	43	317	5	0	97	884	41	Sev	32	6	42	484	-1		7	0	79	926	23		28	5	76	497	33		41	4
38	B3354 Winchester Road SB	22	431	1	0	34	678	1	0	32	611	10		1	0	50	909	16		2	0	89	513	67	Sig	50	4	96	884	62	Sev	54	5
38	B3354 Winchester Road NB	21	362	2	0	24	356	3	0	24	659	3		2	0	32	697	8		4	0	72	671	51		30	4	90	509	66	Sig	54	4
39 B3037 Fairoak Road / Sandy Lane	Sandy Lane SB	46	295	32	2	42	216	33	2	91	538	45	Sig	60	5	72	401	30		42	3	58	519	12		29	4	49	288	7		35	2
39	B3037 Fairoak Road EB	37	463	11	1	48	651	12	2	41	539	4		12	2	54	795	6		13	2	41	494	4		15	2	51	744	3		13	2
39	B3037 Fairoak Road WB	59	1189	14	3	32	639	8	1	53	1056	-6		12	2	29	558	-3		9	1	60	1052	1		17	4	37	725	5		9	1
40 B3037 Bishopstoke Rd / Riverside	Riverside SB	34	313	17	1	17	199	8	0	52	376	18		32	3	29	282	12		13	1	39	331	5		21	2	23	243	6		11	1
40	B3037 Bishopstoke Road EB	19	363	1	0	55	1073	2	0	24	461	5		1	0	64	1258	9		3	0	22	422	3		1	0	61	1201	6		2	0
40	B3037 Bishopstoke Road WB	48	1051	2	0	19	411	1	0	47	1042	-1		2	0	21	462	2		1	0	49	1072	1		2	0	22	475	3		1	0
41 Allbrook Way / M3 J12 SB roundabout	A335 Allbrook Way WB	106	844	146	33	104	799	111	24	106	1624	0		137	59	85	1447	-19		9	2	101	966	-5		46	11	93	995	-11		17	3
41	M3 J12 SB off slip	93	519	22	3	106	593	139	22	87	609	-6		10	1	105	609	-1		136	22	100	508	7	Sig	45	6	106	538	0		154	22
41	Winchester Road SB	112	796	242	50	107	837	152	34	104	1541	-8		86	35	103	1566	-4		77	32	83	1783	-29		6	1	81	1749	-26		6	1
41	A335 EB	73	599	6	0	77	637	6	0	4	30	-69		6	0	65	475	-12		7	0	94	682	21	Sig	14	2	102	755	25	Sev	62	12
42 Winchester Road / Otterbourne Hill roundabout	Winchester Road SB	57	850	5	0	48	775	4	0	76	1224	19		5	0	65	1048	17		5	0	98	1460	41	Sev	12	3	89	1419	41	Sig	6	1
42	Otterbourne Hill SB	64	619	5	0	75	738	6	0	101	707	37	Sev	61	12	100	692	25	Sev	38	7	104	476	40	Sev	133	17	103	467	28	Sev	106	14
42	Winchester Road NB	78	835	5	0	101	1056	43	12	67	744	-11		4	0	104	1157	3		82	25	101	1157	23	Sev	27	8	105	1185	4		93	30
43 M3 J12 SB on slip merge	M3 J12 SB on slip	32	707	1	0	37	813	1	0	57	1260	25		2	0	54	1187	17		2	0	62	1373	30		2	0	57	1260	20		2	0
43 M3 J12 SB on slip merge	M3 SB	71	6204	2	0	72	6370	3	0	70	6128	-1		2	0	72	6362	0		3	0	70	6128	-1		2	0	73	6395	1		3	0
44 M3 J12 SB off slip diverge	M3 SB	76	6724	1	0	80	7004	1	0	77	6737	1		1	0	80	7011	0		1	0	75	6636	-1		1	0	79	6976	-1		1	0
45 M3 J12 SB off slip diverge	M3 SB	76	6724	7	0	80	7004	8	0	77	6737	1		7	0	80	7011	0		8	0	75	6636	-1		7	0	79	6976	-1		8	0
46 B3335 Allbrook Hill / Pitmore Road Jct	New Link from A335 Allbrook Way									11	238			1	0	32	689			1	0	25	523			1	0	39	849			1	0
46	Allbrook Hill	80	645	5	0	68	549	5	0																								
46	B3336 Highbridge Road WB	67	519	5	0	76	599	5	0	44	1060	-23		2	0	21	604	-55		1	0	39	1057	-28		1	0	23	644	-53		1	0
46	Pitmore Road SB	75	482	9	1	75	519	7	1	23	187	-52		4	0	18	112	-57		5	0	22	105	-53		7	0	23	133	-52		6	0
47 A335 Twyford Rd / A335 Romsey Rd	A335 Romsey Road EB	47	539	6	0	73	693	9	1	45	564	-2		5	0	88	754	15	Sig	15	2	39	496	-8		5	0	85	741	12	Sig	13	2
47	A335 Twyford Road SB	103	961	81	21	100	741	37	7	105	927	2		109	28	100	669	0		36	6	103	935	0		72	18	101	695	1		48	9
47	Bishopstoke Road WB	97	765	22	4	70	654	7	0	88	712	-9		13	2	71	701	1		6	0	87	698	-10		12	2	71	687	1		6	0
47	A335 Station Hill NB	76	573	10	1	99	797	27	5	65	512	-11		8	1	101	805	2		43	9	56	442	-20		7	0	100	795	1		36	7
48 A335 Romsey Road / Leigh Road	A335 Romsey Road WB	87	599	53	3	47	459	16	2	88	588	1		67	3	44	436	-3		16	2	89	589	2		73	3	47	453	0		16	2
48	A335 Romsey Road EB	41	445	8	1	56	607	9	1	42	456	1		8	1	61	662	5		10	1	39	418	-2		7	1	60	650	4		9	1
48	Leigh Road	0	0	23	0	0	0	23	0	0	0	0		23	0	0	0	0		23	0	0	0	0		23	0	0	0	0		23	0
49 Passfield Avenue / Derby Road	Passfield Road NB	98	816	8	1	92	775	4	0	100	824	2		12	2	100	841	8	Sig	13	2	95	798	-3		6	0	98	825	6	Sig	7	1
49	Passfield Road SB	74	607	5	0	65	520	5	0	75	617	1		5	0	64	516	-1		5	0	75	618	1		5	0	64	511	-1		5	0
49	Derby Road WB	42	264	6	0	27	175	5	0	42	262	0		6	0	28	184	1		5	0	39	238	-3		6	0	28	184	1		5	0
50 Bournemouth Road / Templars Way / Asda roundabout	Bourenmouth Road NB	105	672	141	26	102	734	79	15	106	670	1		155	28	103	710	1		94	18	105	668	0		135	24	103	701	1		93	18
50	Templars Way EB	103	854	86	19	94	967	17	3	103	858	0		89	20	94	958	0		17	3	103	846	0		85	19	91	935	-3		15	3
50	Chestnut Avenue NB	101	1305	35	11	81	1005	8	1	100	1333	-1		22	6	83	1040	2		8	1	100	1328	-1		30	10	84	1057	3		8	1
50	Bournemouth Road SB	62	457	9	1	82	530	15	2	57	412	-5		9	0	83	539	1		15	2	58	424	-4		9	0	82	531	0		15	2
51 Chestnut Avenue / Falkland Road Roundabout	Falkland Road WB	45	360	7	0	43	305	7	0	49	385	4		7	0	44	316	1		8	0	44	349	-1		7	0	40	281	-3		7	0
51	Chestnut Avenue SB	71	814	5	0	88	979	6	0	73	836	2		5	0	89	989	1		6	0	73	830	2		5	0	90	996	2		6	0
51	Chestnut Avenue NB	76	1297	4	0	63	1079	4	0	77	1296	1		4	0	65	1106	2		4	0	78	1334	2		4	0	66	1125	3		4	0
52 B3043 Bournemouth Road / School Lane / Chalvington Road	B3043 Bournemouth Road NB	65	378	40	3	91	497	65	5	69	399	4		41	4	93	498	2		70	5	63	366	-2		39	3	90	490	-1		62	5
52	Chalvington Road WB	83	226	75	3	88	240	88	3	95	260	12	Sev	118	3	94	255	6	Sig	109	3	81	221	-2		72	3	90	245	2		94	3
52	School Lane EB	88	239	79	3	95	258	116	3	88	240	0		81	3	95	260	0		121	3	88	240	0		82	3	94	256	-1		112	3
52	B3043 Bournemouth Road SB	102	711	134	13	96	577	73	5	102	681	0		127	11	89	562	-7		44	4	101	682	-1		112	8	84	520	-12		42	4
53 B3043 Bournemouth Road / Winchester Road roundabout	B3043 Bournemouth Road NB	80	660	4	0	101	819	37	8	91	755	11	Sig	5	0	103	833	2		60	14	84	696	4		4	0	102	828	1		56	13
53	Winchester Road SB	46	312	5	0	47	338	5	0	49	340	3		5	0	46	330	-1		5	0	49	344	3		5	0	45	330	-2		5	0
53	B3043 Hursley Road SB	65	704	4	0	51	543	4	0	56	594	-9		4	0	47	502	-4		4	0	53	554	-12		4	0	41	442	-10		4	0
54 M3 J12 NB / A335 roundabout	A335 WB	71	623	5	0	65	567	5	0	104	908	33	Sev	74	20	87	758	22	Sig	5	0	106	926	35	Sev	110	29	93	811	28	Sig	5	0
54	M3 J12 NB off slip	100	600	42	6	102	650	70	12	101	30	1		280	2	106	503	4		157	21	74	682	-26		10	1	78	755	-24		10	1
55 Wide Lane Roundabout	A335 Wide Lane WB	66	806	6	1	56	759	5	0	70	840	4		7	1	65	880	9		6	0	67	802	1		7	1	64	870	8		6	0
55	A335 Wide Lane EB	103	977	86	22	85	929	5	0	104	1010	1		91	24	85	925	0		5	0	103	1021	0		79	22	87	940	2		6	0
55	Wide Lane NB	110	1045	211	59	109	957	197	51	110	1023	0		209	57	115	925	6	Sig	297	71	109	1007	-1		192	52	111	902	2		231	56
56 M27 J5 EB on slip merge	M27 EB	83	7287	2	0	88	7777	3	0	84	7374	1		2	0	89	7796	1		3	0	84	7349	1		2	0	88	7783	0		3	0
56	M27 J5 EB on slip	11	239	1	0	36	796	1	0	10	223	-1		1	0	39	861	3		1	0	11	235	0		1	0	39	848	3		1	0
57 M27 EB between J5 and J7	M27 EB	86	7526	25	0	97	8573	53	0	86	7597	0		27	0	98	8657	1		55	0	86	7585	0		27	0	98	8631	1		54	0
58 M27 EB between J5 off and on slips	M27 EB	83	7287	1	0	88	7777	1	0	84	7374	1		1	0	89	7796	1		1	0	84	7349	1		1	0	88	7783	0		1	0
59 B3037 Fairoak Road / Allington Lane	B3037 Fairoak Road EB	42	494	68	4	41	529	60	5	44	516	2		77	4	44	571	3		75	5	42	490	0		102	4	45	579	4		63	5
59	Allington Lane NB	93	648	55	5	66	365	46	4	99	676	6	Sig	87	5	93	431	27	Sig	83	5	96	658	3		67	5	83	419	17		59	5
59	B3037 Fairoak Road WB	86	676	38	4	45	412	21	2	83	647	-3		35	4	36	321	-9		20	2	81	633	-5		34	4	54	495	9		23	3
60 B3335 Allbrook Rbt	A335 Allbrook Way SB	56	460	6	0	33	311	5	0	74	822	18		4	0	44	485	11		4	0	60	667	4		4	0	41	449	8		4	0
60	B3335 Allbrook Hill WB	65	612	6	0	59	638	4	0	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	31	232	-34		6	0	17	157	-42		5	0
60	Woodside Ave EB	94	480	33	4	58	410	8	1	72	604	-22		7	1	62	462	4		8	1	50	424	-44		6	0	55	408	-3		7	0
60	A335 Twyford Rd NB	89	878	8	1	70	726	5	0	64	679	-25		5	0	73	816	3		5	0	60	626	-29		5	0	76	825	6		5	0
61 B3037 Bishopstoke Rd/Chicken Hall Ln Mini Rbt	B3037 Bishopstoke Rd EB	40	618	4	0	72	1106	4	0	45	698	5		4	0	83	1260	11		4	0	43	663	3		4	0	79	1205	7		4	0
61	B3037 Bishopstoke Rd WB	95	1364	8	2	41	610	4	0	99	1417	4		14	4	49	744	8		4	0	98	1403	3		12	3	47	718	6		4	0
61	Chicken Hall Ln	31	243	7	0	47	596	5	0	32	241	1		8	0	51	616	4		5	0	31	234	0		8	0	51	617	4		5	0
62 A335 Leigh Rd/Passfield Ave Rbt	A335 Leigh Rd EB	56	1349	83	15	53	1162	67	8	58	1369	2		87	16	54	1183	1		69	9	51	1236	-5		86	14	50	1081	-3		68	8
62	Passfield Ave	68	631	88	9	51	508	56	7	70	647	2		71	9	51	509	0		57	7	65	605	-3		83	8	51	504	0		57	6
62	Woodside Ave	102	732	191	19	99	725	135	10	102	729	0		182	17	94	690	-5		104	10	102	726	0		175	16	96	706	-3		116	10
62	A335 Leigh Rd WB	93	660	97	9	73	556	57	8	85	656	-8		65	9	72	555	-1		57	8	86	660	-7		66	9	73	557	0		57	8
63 A335 Southampton Rd/Chestnut Ave	A335 Southampton Rd SB	51	1163	3	0	31	809	2	0	54	1217	3		3	0	33	818	2		2	0	52	1179	1		3	0	33	827	2		2	0
63	Chestnut Ave	48	555	6	0	29	353	5	0	51	584	3		6	1	30	348	1		5	0	46	559	-2		6	0	28	317	-1		6	0
63	A335 Southampton Rd NB	28	580	1	0	29	588	1	0	27	547	-1		1	0	35	715	6		1	0	25	502	-3		1	0	37	737	8		1	0
64 Chestnut Av/Passfield Av Rbt	Chestnut Ave EB	69	1004	4	0	50	721	4	0	73	1058	4		4	0	53	765	3		3	0	69	985	0		4	0	51	743	1		3	0
64	Passfaield Ave	54	656	5	0	40	525	4	0	55	656	1		5	0	40	520	0		4	0	55	664	1		5	0	39	514	-1		4	0
64	Chestnut Ave WB	40	428	5	0	26	297	4	0	40	429	0		5	0	29	334	3		4	0	43	462	3		5	0	30	354	4		4	0
65 Chestnut Av/Stoneham Ln Rbt	Chestnut Ave EB	14	906	4	0	12	876	4	0	14	928	0		4	0	13	869	1		4	0	14	906	0		4	0	12	861	0		4	0
65	Chestnut Ave WB	16	1115	4	0	12	809	4	0	16	1112	0		4	0	13	855	1		4	0	16	1144	0		4	0	13	864	1		4	0
65	Stoneham Ln	21	1546	4	0	16	1282	4	0	21	1552	0		4	0	17	1327	1		4	0	20	1522	-1		4	0	17	1318	1		4	0
66 A335 Southampton Rd/Derby Rd	A335 Southampton Rd NB	50	1074	2	0	41	797	2	0	53	1121	3		2	0	43	818	2		2	0	51	1088	1		2	0	43	821	2		2	0
66	Derby Rd	44	932	2	0	36	753	1	0	44	905	0		2	0	40	828	4		1	0	39	812	-5		1	0	39	808	3		1	0
66	A335 Southampton Rd SB	14	116	11	0	7	68	7	0	14	123	0		12	0	7	66	0		8	0	13	119	-1		10	0	7	66	0		8	0
67 Winchester St/A334 High St Botley	A334 High St Botley EB	38	825	1	0	37	801	1	0	8	174	-30		1	0	4	78	-33		1	0	9	185	-29		1	0	6	126	-31		1	0
67	A334 High St Botley WB	55	930	3	0	71	1148	4	0	10	214	-45		1	0	16	340	-55		1	0	4	74	-51		1	0	6	135	-65		1	0
67	Winchester St	69	440	9	1	46	291	6	0	1	0	-68		4	0	1	0	-45		4	0	1	0	-68		4	0	1	0	-45		4	0
68 B3043 Bournemouth Rd/A335 Leigh Rd	A335 Leigh Rd	92	644	68	8	52	370	41	4	89	652	-3		62	8	53	385	1		41	4	92	644	0		68	8	54	393	2		41	4
68	B3043 Bournemouth Rd NB	72	739	32	5	71	800	32	6	65	731	-7		30	5	73	814	2		33	6	71	728	-1		32	5	70	789	-1		32	6
68	B3043 Bournemouth Rd SB	49	258	45	3	82	125	99	2	40	222	-9		43	3	85	126	3		108	2	39	212	-10		43	2	84	125	2		106	2
69 A27 Providence Hill/Portsmouth Rd	A27 Providence Hill WB	69	1254	3	0	62	1136	3	0	70	1259	1		3	0	61	1122	-1		3	0	70	1260	1		3	0	61	1124	-1		3	0
69	A27 Providence Hill EB	20	530	2	0	21	547	2	0	20	522	0		2	0	22	571	1		2	0	20	519	0		2	0	21	546	0		2	0
69	Portsmouth Rd	106	556	145	21	64	464	20	2	105	554	-1		137	20	64	464	0		21	2	104	549	-2		121	18	64	466	0		20	2
70 Netley Hound Way/Ingleside	Ingleside	55	680	4	0	40	534	4	0	56	687	1		4	0	42	549	2		4	0	57	694	2		4	0	42	552	2		4	0
70	St Mary's Rd	15	293	1	0	9	163	1	0	16	295	1		1	0	9	164	0		1	0	16	295	1		1	0	9	164	0		1	0
70	Hound Way	23	283	3	0	39	566	3	0	23	286	0		3	0	39	567	0		3	0	23	288	0		3	0	39	569	0		3	0
71 Windhover Rbt	Northern Part between A3024 and A27 Arm	100	1123	64	4	98	802	57	2	99	1112	-1		56	4	98	804	0		58	2	96	1086	-4		42	3	98	805	0		59	2
72 A3025 Portsmouth Road / Pound Rd	A3025 Portsmouth Road EB	53	791	3	0	48	889	2	0	54	806	1		3	0	48	883	0		2	0	55	799	2		3	0	48	882	0		2	0
72	A3025 Portsmouth Road WB	28	603	1	0	33	723	1	0	29	632	1		1	0	33	720	0		1	0	29	629	1		1	0	33	722	0		1	0
72	Pound Rd	6	47	4	0	8	54	5	0	6	44	0		4	0	8	53	0		5	0	6	43	0		4	0	8	53	0		5	0
73 A27 Bridge Rd/Dodwell Ln	Dodwell Ln	81	648	17	3	84	649	23	3	85	677	4		21	3	84	651	0		23	3	86	655	5	Sig	23	4	85	664	1		24	4
73	A27 Bridge Rd EB	46	965	2	0	40	862	1	0	46	957	0		2	0	42	882	2		1	0	45	954	-1		2	0	41	866	1		1	0
73	A27 Bridge Rd WB	52	1499	3	0	47	1376	2	0	49	1422	-3		2	0	46	1342	-1		2	0	53	1526	1		3	0	46	1344	-1		2	0
74 A3024 Burlsedon Rd/B3033 Botley Rd	A3024 Burlsedon Rd WB	108	965	220	40	105	890	173	26	108	964	0		217	39	106	895	1		184	29	109	972	1		233	43	106	895	1		183	28
74	A3024 Burlsedon Rd EB	102	942	114	14	98	769	67	4	102	941	0		114	14	96	785	-2		58	4	102	941	0		117	15	99	785	1		76	4
74	B3033 Botley Rd NB	104	176	241	7	93	210	108	2	104	176	0		243	7	89	202	-4		90	2	104	176	0		245	7	91	203	-2		141	2
75 Windhover Rbt	Eastern Part between A27 and A3024 Arm Outer Lane	83	386	41	2	64	419	18	1	82	380	-1		40	2	64	425	0		18	1	82	379	-1		39	2	62	411	-2		18	1
76 Windhover Rbt	Eastern Part between A27 and A3024 Arm Inner Lane	69	1944	23	5	90	1746	42	6	69	1956	0		24	5	90	1759	0		43	6	68	1926	-1		22	5	91	1768	1		44	6
77 Botley A334/A3051 Rbt	A334 EB	44	1265	8	2	39	1092	4	1	44	174	0		15	1	62	78	23		53	1	69	185	25		31	1	45	126	6		22	1
77	Botley Bypass									101	1148	101	Sev	48	14	89	1156	89	Sig	6	1	102	1162	102	Sev	57	17	88	1075	88	Sig	7	1

77	A334 WB	60	1184	2	0	66	1304	3	0	100	1055	40	Sev	30	8	99	1194	33	Sev	17	4	98	1143	38	Sev	20	5	80	1099	14	6	1
77	A3051 NB	106	417	174	19	109	470	221	26	85	932	-21		9	1	100	932	-9		39	9	85	896	-21		10	1	90	942	-19	12	2
78 B3342 Tollbar Way/Maunsell Way Rbt	Maunsell Way	61	449	5	0	47	247	8	0	91	658	30	Sig	11	1	51	274	4		8	0	64	464	3		6	0	44	250	-3	7	0
78	B3342 Tollbar Way NB	48	396	4	0	58	496	4	0	59	432	11		6	0	58	497	0		4	0	43	352	-5		4	0	54	465	-4	4	0
78	B3342 Tollbar Way SB	43	371	4	0	99	826	12	2	52	448	9		4	0	99	825	0		11	2	53	455	10		4	0	100	824	1	20	4
79 A334 Grange Street/Shamblehurst Ln	Shamblehurst Ln SB	107	77	201	4	88	107	145	2	108	80	1		216	4	90	107	2		154	2	108	73	1		217	4	88	107	0	145	2
79	A334 Grange Rd EB from Rbt	39	899	17	3	43	1069	12	3	36	844	-3		15	3	40	1006	-3		11	2	36	841	-3		15	3	45	1129	2	13	3
79	A334 Grange Rd WB	95	1126	44	6	36	931	8	2	91	1113	-4		33	6	35	889	-1		8	2	100	1120	5	Sig	76	7	37	958	1	8	2
80 M27 - J7 Rbt	Southern Part between SB on slip and NB off slip (inner lane)	104	898	150	21	90	663	46	4	103	893	-1		139	19	91	669	1		48	4	104	902	0		158	23	95	700	5	61	5
81 M27 - J7 Rbt	Southern Part between SB on slip and NB off slip (outer lane)	104	899	158	23	94	688	51	4	104	893	0		145	20	94	688	0		51	4	104	900	0		160	24	97	707	3	65	4
82 M27 - J7 Rbt	SE Approach Arm from B3036	105	590	239	20	41	104	59	1	106	594	1		250	22	48	122	7		62	1	102	569	-3		173	10	55	140	14	66	1
83 M27 - J7 Rbt	Western Approach Arm from A334	95	1330	66	10	66	885	34	7	93	1304	-2		59	10	68	916	2		35	7	89	1250	-6		50	10	70	943	4	36	7
84 Kanes Hill Rbt	NB arm from A27 Kanes Hill	75	1045	11	2	57	836	11	2	75	1040	0		11	2	59	857	2		15	3	65	911	-10		11	2	58	853	1	15	3
85 A334 Thornhill Park Rd/Hinkler Rd	Hinkler Rd	99	408	99	2	87	251	61	1	99	407	0		98	2	88	254	1		64	1	101	416	2		124	4	88	253	1	63	1
85	A334 Thornhill Park Rd WB	87	770	25	2	83	837	18	2	86	758	-1		24	2	83	839	0		18	2	96	845	9	Sig	42	3	85	855	2	20	2
85	A334 Thornhill Park Rd EB	96	858	49	3	95	975	38	3	95	857	-1		45	3	95	976	0		39	3	100	879	4		72	3	95	974	0	40	3
86 A27 Moorhill Rd / Telegraph Rd	A27 Moorhill Rd NB	41	716	2	0	39	695	2	0	44	774	3		2	0	43	741	4		2	0	37	651	-4		2	0	42	725	3	2	0
86	A27 Moorhill Rd SB	56	1104	2	0	50	983	2	0	57	1121	1		2	0	52	1028	2		2	0	55	1084	-1		2	0	55	1099	5	2	0
86	Telegraph Rd	100	466	61	7	96	523	33	4	101	452	1		69	8	96	492	0		38	4	100	497	0		53	7	97	463	1	47	5
87 A27 Moorhill Rd /Church Hill / W End Rd	W End Road	13	265	1	0	13	219	1	0	15	300	2		1	0	13	252	0		1	0	13	266	0		1	0	13	219	0	1	0
87	A27 Moorhill Rd NB	102	705	66	12	101	734	43	8	102	703	0		65	12	101	735	0		42	8	102	704	0		58	11	101	729	0	43	8
87	A27 Church Hill SB	58	1013	2	0	60	1012	3	0	57	977	-1		2	0	62	1040	2		3	0	57	990	-1		2	0	62	1045	2	3	0
88 Allington Ln / Fir Tree Ln	Allington Ln NB	23	403	2	0	35	448	3	0	32	529	9		2	0	51	625	16		4	0	25	412	2		2	0	31	422	-4	3	0
88	Allington Ln SB	25	473	1	0	22	407	1	0	32	618	7		1	0	26	483	4		1	0	31	604	6		1	0	25	466	3	1	0
88	Fir Tree Ln	70	496	6	0	34	235	5	0	76	505	6		8	1	44	277	10		6	0	74	491	4		7	1	39	264	5	5	0
89 A335 / Blenheim Rd	A335 SB	102	1065	56	16	89	971	5	0	103	1065	1		68	20	93	1011	4		5	0	103	1058	1		69	20	93	1010	4	5	0
89	Blenheim Rd	22	118	8	0	13	106	5	0	17	104	-5		7	0	19	141	6		6	0	19	122	-3		7	0	18	135	5	6	0
89	A335 NB	89	988	5	0	65	694	5	0	81	913	-8		5	0	71	751	6		5	0	78	863	-11		5	0	70	739	5	5	0
90 M27 - J5 Rbt	Western Part between WB on slip and EB off slip (outer lane)	98	1139	50	4	95	1035	39	3	98	1140	0		50	4	96	1045	1		42	4	96	1113	-2		38	3	97	1051	2	45	4
91 M27 - J5 Rbt	SW Approach arm from A335 Stoneham Way	104	1323	112	39	100	1119	76	21	104	1296	0		107	36	99	1098	-1		71	20	105	1296	1		121	41	100	1104	0	75	21
92 Chestnut Ave / Nightingale Ave	Chestnut Ave EB	89	1106	25	4	98	1218	50	5	90	1126	1		27	4	98	1225	0		54	5	89	1111	0		25	4	96	1199	-2	40	5
92	Nightingale Ave	58	52	84	1	41	33	73	1	59	52	1		85	1	40	32	-1		73	1	59	52	1		85	1	40	32	-1	73	1
92	Chestnut Ave WB	82	1245	17	3	69	1046	10	2	82	1244	0		17	3	71	1074	2		11	2	85	1282	3		19	3	72	1092	3	11	2
93 A335 Leigh Rd/M3-J13	M3	41	1154	30	7	42	949	52	8	49	1393	8		55	10	46	1024	4		85	11	41	1168	0		30	7	43	963	1	52	8
93	A335 Leigh Rd EB	77	502	97	12	63	614	41	6	74	473	-3		72	8	66	628	3		41	6	72	465	-5		83	9	64	608	1	42	6
93	A335 Leigh Rd WB	47	999	25	5	23	510	16	2	42	904	-5		29	5	22	508	-1		19	2	45	963	-2		29	6	23	508	0	20	2
94 School Ln / Brickfield Ln	School Lane SB	12	270	1	0	31	653	1	0	12	269	0		1	0	31	652	0		1	0	13	288	1		1	0	32	657	1	1	0
94	School Lane NB	18	293	2	0	10	151	2	0	17	288	-1		2	0	9	142	-1		2	0	18	298	0		2	0	9	145	-1	2	0
94	Brickfield Ln	71	580	10	1	27	308	6	0	69	571	-2		10	1	28	312	1		6	0	71	571	0		10	1	29	322	2	6	0
95 North Bishopstoke Bypass / B3345 Highbridge Rd	North Bishopstoke Bypass									66	834			13	2	39	383			13	1	73	748			4	0	35	352		4	0
95	B3345 Highbridge Rd SB	24	519	0	0	27	599	0	0	60	226	36		46	2	38	221	11		28	2	29	309	5		3	0	33	293	6	4	0
95	B3345 Highbridge Rd NB	35	758	0	0	35	762	0	0	31	402	-4		13	1	66	764	31		20	3	47	532	12		3	0	82	943	47	3	0
96 A335 Allbrook Way / Relief Road Roundabout	Allbrook Relief Road									78	797			8	1	50	605			5	0	75	791			8	1	41	486		5	0
96	A335 Allbrook Way SB	21	459	1	0	14	310	1	0	56	745	35		5	0	68	914	54		5	0	76	1047	55		5	0	84	1156	70	5	0
96	A335 Allbrook Way NB	11	844	0	0	10	800	0	0	20	201	9		5	0	17	181	7		5	0	16	138	5		6	0	14	152	4	5	0
97 M27 J8 Circulating Ring (SE Part)	M27 J8 Circulating Ring (SE Part)	88	1510	25	7	61	959	16	3	90	1542	2		27	8	61	956	0		16	3	87	1484	-1		24	7	63	984	2	16	4
98 Windhover Rbt Circulating Ring (Southern Part)	Windhover Rbt Circulating Ring (Southern Part)	82	855	18	2	97	873	47	2	83	866	1		18	2	95	854	-2		38	2	81	849	-1		17	2	96	869	-1	45	2
99 Winchester Rd/Shamblehurst Ln North	Winchester Rd SB	87	1134	11	1	94	1135	19	1	91	1202	4		16	1	97	1126	3		33	2	98	1112	11	Sev	41	1	100	1024	6	50	3
99	Winchester Rd NB	47	999	2	0	40	832	1	0	63	1260	16		2	0	53	1086	13		2	0	68	1450	21		3	0	54	1126	14	2	0
99	Shamblehurst Ln North	52	235	10	0	40	195	8	0	56	226	4		12	1	51	217	11		11	0	76	234	24		27	2	59	234	19	13	1
100 Maunsell Wey/Stroudley Way Rbt	Stroudley Way SB	54	460	3	0	83	714	4	0	74	636	20		4	0	82	707	-1		4	0	46	389	-8		4	0	82	696	-1	4	0
100	Maunsell Way EB	8	60	4	0	5	34	4	0	11	82	3		4	0	6	44	1		4	0	11	86	3		4	0	13	100	8	4	0
100	Maunsell Way WB	41	345	4	0	25	204	4	0	43	327	2		5	0	27	219	2		4	0	43	358	2		4	0	27	219	2	4	0
101 B3342 Tollbar Way/Bubb Lane Jct	Bubb Ln	47	544	5	0	80	810	11	2	52	581	5		6	0	87	851	7	Sig	15	3	42	498	-5		5	0	91	884	11	Sig	17	3
101	B3342 Toolbar Way NB	26	526	1	0	19	412	1	0	41	784	15		2	0	19	419	0		1	0	25	497	-1		1	0	16	355	-3	1	0
101	B3342 Bubb Lane SB	40	864	3	0	25	684	2	0	34	785	-6		3	0	29	740	4		2	0	62	1119	22		5	1	31	794	6	2	0
102 B3035 High Street/Botley Rd/Telegraph Rd Rbt	Botley Rd WB	101	869	26	6	80	691	4	0	101	869	0		25	5	82	704	2		4	0	101	867	0		25	5	77	664	-3	4	0
102	Botley Rd EB	64	462	5	0	72	543	5	0	63	459	-1		5	0	69	517	-3		5	0	66	489	2		5	0	72	550	0	5	0
102	Telegraph Rd NB	57	374	7	0	42	296	5	0	57	370	0		7	0	46	320	4		6	0	52	343	-5		6	0	42	287	0	6	0
103 Winchester Rd/Hocombe Rd Rbt	Winchester Rd WB	61	700	4	0	99	1147	4	0	59	684	-2		4	0	88	1025	-11		4	0	68	791	7		4	0	85	981	-14	4	0
103	Winchester Rd EB	47	487	5	0	51	450	6	0	70	726	23		5	0	68	627	17		7	0	82	826	35		6	0	82	747	31	8	1
103	Hocombe Rd	39	364	5	0	34	325	5	0	64	498	25		8	1	50	421	16		6	0	90	634	51	Sig	17	2	88	672	54	13	2
104 A335 Station Hill/B3037 Bishopstoke Rd	Bishopstoke Road WB	85	587	11	1	44	357	4	0	95	662	10	Sev	19	3	51	429	7		4	0	94	661	9	Sig	17	3	50	417	6	4	0
104	Station Hill SB	32	685	1	0	18	381	1	0	32	673	0		1	#N/A	15	302	-3		1	#N/A	31	658	-1		1	#N/A	16	319	-2	1	#N/A
104	Southampton Rd NB	26	573	0	0	36	797	0	0	23	512	-3		0	0	37	805	1		0	0	20	442	-6		0	0	36	795	0	0	0
105 M27 J5	Stoneham Lane approach SB	78	1535	23	8	92	1856	30	10	78	1526	0		23	8	91	1852	-1		29	10	78	1527	0		23	8	92	1862	0	30	10
106 Woodhouse Ln/Botley Bypass Rbt	Botley Bypass									76	1011			5	0	95	1267			7	1	97	1250			10	2	101	1268		43	14
106	Woodhouse Lane SB	11	239	0	0	9	200	0	0	77	912	66		6	1	62	672	53		6	0	80	939	69		7	1	73	803	64	7	1
106	Woodhouse Lane NB	13	282	0	0	22	476	0	0	66	777	53		7	0	98	1074	76	Sev	19	4	97	1143	84	Sev	15	3	99	1135	77	Sev	20	5
107 A335 Southampton Rd/Campbell Rd Jct	Southampton Rd SB	79	1206	11	2	60	944	6	1	83	1253	4		12	2	62	967	2		7	1	80	1227	1		11	2	62	971	2	7	1
107	Southampton Rd NB	62	858	7	1	50	694	6	1	57	777	-5		6	1	55	751	5		6	1	53	720	-9		6	1	54	739	4	6	1
107	Campbell Rd	20	130	39	1	0	0	38	0	21	137	1		39	1	0	0	0		38	0	22	143	2		39	1	0	0	0	38	0
108 Moorhill Road/ Cheriton Avenue	Cheriton Avenue NB	100	444	57	7	86	399	20	2	101	422	1		75	8	88	395	2		24	2	96	448	-4		36	4	89	376	3	26	2
108	Moorhill Road EB	37	736	2	0	33	658	2	0	39	774	2		2	0	36	710	3		2	0	35	719	-2		2	0	40	797	7	2	0
108	Moorhill Road WB	50	988	2	0	44	890	2	0	51	1016	1		2	0	45	916	1		2	0	46	913	-4		2	0	45	917	1	2	0
109 Twyford Road / Shakespeare Road	Shakespeare Road EB	74	350	13	1	66	314	11	1	61	324	-13		9	1	66	313	0		11	1	61	330	-13		8	0	66	311	0	11	1
109	Twyford Road SB	36	747	1	0	26	509	1	0	35	734	-1		1	0	22	426	-4		1	0	36	745	0		1	0	24	461	-2	1	0
109	Twyford Road NB	41	825	2	0	43	877	2	0	32	625	-9		1	0	46	926	3		2	0	30	570	-11		1	0	46	931	3	2	0
110 Bishopstoke Road / Station Hill (New Roundabout)	Station Hill SB																															
110	Bishopstoke Road WB																															
110	Station Hill NB																															
111 Allington Lane	Allington Lane SB	20	440	0	0	11	248	0	0	29	631	9		0	0	15	322	4		0	0	72	497	52		24	2	43	295	32	17	1
111	Allington Lane NB	18	403	0	0	20	448	0	0	24	529	6		0	0	28	625	8		0	0	60	412	42		20	2	61	422	41	20	2
112 Stoneham Way / Wide Lane / M27 Roundabout	Stoneham Way SB	65	638	31	4	65	1000	21	4	71	698	6		32	4	65	989	0		21	4	73	721	8		32	4	64	987	-1	22	4
112	Stoneham Way SB	50	245	28	1	26	197	15	1	55	272	5		29	2	27	204	1		16	1	55	273	5		29	2	26	196	0	15	1
112	M27 offslip WB	63	1219	13	3	78	1086	23	5	66	1264	3		13	4	82	1145	4		25	6	63	1218	0		13	3	81	1128	3	25	6
113 Botley Road / Blind Lane	Botley Rd SB	30	662	1	0	34	742	1	0	36	781	6		1	0	32	706	-2		1	0	35	760	5		1	0	35	760	1	1	0
113	Botley Rd NB	48	210	10	0	39	168	10	0	54	188	6		15	1	53	203	14		13	1	71	239	23		20	1	13	50	-26	9	0
113	Blind Ln EB	34	713	1	0	37	770	1	0	46	970	12		2	0	49	1020	12		2	0	49	1040	15		2	0	50	1030	13	2	0
114 Fir Tree Ln / New Access Road	Fir Tree Ln EB	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
114	NB approach	38	306	4	0	17	146	3	0	34	269	-4		4	0	16	130	-1		3	0	33	266	-5		4	0	18	149	1	3	0
114	Fir Tree Ln WB	23	190	3	0	11	89	3	0	29	236	6		3	0	18	146	7		3	0	27	225	4		3	0	14	116	3	3	0
M3 J 12	NB off	100	600	42	6	102	650	70	12	101	30	1		280	2	106	503	4		157	21	74	682	-26		10	1	78	755	-24	10	1
	NB on	28	623	1	0	26	567	1	0	40	875	12		1	0	34	758	8		1	0	40	875	12		1	0	37	811	11	1	0
	SB off	93	519	22	3	106	593	139	22	87	609	-6		10	1	105	609	-1		136	22	100	508	7	Sig	45	6	106	538	0	154	22
	SB on	32	707	1	0	37	813	1	0	57	1260	25		2	0	54	1187	17		2	0	62	1373	30		2	#N/A	57	1260	20	2	#N/A
M3 J13	NB off	26	1154	0	0	22	949	0	0	32	1393	6		0	0	23	1024	1		0	0	27	1168	1		0	0	22	963	0	0	0
	NB on	37	812	1	0	24	537	1	0	32	711	-5		1	0	22	476	-2		1	0	36	781	-1		1	0	22	489	-2	1	0
	SB off	27	599	0	0	31	692	0	0	29	634	2		0	0	36	783	5		0	0	30	649	3		0	0	39	850	8	0	0
	SB on	38	830	1	0	38	834	1	0	33	725	-5		1	0	33	734	-5		1	0	32	699	-6		1	0	33	730	-5	1	0
M27 J5	EB off	73	695	108	8	57	672	36	5	76	727	3		114	10	58	685	1		36	5	75	713	2		117	10	58	680	1	36	5
	EB on	41	1805	3	0	53	2341	2	0	40	1771	-1		3	0	55	2417	2		2	0	41	1790	0		3	0	55	2406	2	2	0
	WB off	50	2200	1	0	49	2163	1	0	50	2200	0		1	0	50	2200	1		1	0	50	2200	0		1	0	50	2197	1	1	0
	WB on	22	976	0	0	24	1052	0	0	24	1071	2		0	0	23	1032	-1		0	0	24	1075	2		0	0	23	1025	-1	0	0
M27 J7	NB off	60	1073	127	23	56	1225	46	7	61	1090	1		133	25	56	1205	0		50	7	61	1091	1		124	22	54	1178	-2	50	7
	NB on	54	2396	0	0	39	1694	0	0	54	2354	0		0	0	39	1710	0		0	0	54	2394	0		0	0	40	1743	1	0	0
	SB off	35	1271	3	0	45	1643	6	0	36	1310	1		3	0	46	1676	1		7	0	36	1309	1		3	0	46	1673	1	7	0
	SB on	38	827	1	0	31	675	1	0	41	891	3		1	0	31	688	0		1	0	41	899	3		1	0	32	703	1	1	0
M27 J8	NB off	72	858	260	42	68	1078	129	21	73	861	1		267	44	68	1078	0		129	21	72	857	0		257	42	68	1073	0	121	18
	NB on	13	1336	0	0	8	843	0	0	13	1312	0		0	0	8	843	0		0	0	13	1292	0		0	0	8	840	0	0	0
	SB off	45	1380	36	5	76	1478	106	16	47	1429	2		37	5	76	1491	0		121	22	46	1416	1		36	5	76	1480	0	108	16

	SB on	20	2043	0	0	15	1512	0	0	21	2071	1	0	0	15	1490	0	0	0	20	2008	0	0	0	15	1519	0	0	0
M27 J9	EB off	102	2496	87	33	99	2684	40	11	102	2500	0	89	34	100	2717	1	48	11	102	2504	0	92	36	100	2723	1	49	11
	EB on	34	1370	2	0	42	1671	2	0	32	1263	-2	2	0	42	1671	0	2	0	32	1284	-2	2	0	42	1671	0	2	0
	WB off	81	1830	20	8	86	1464	27	8	82	1860	1	20	8	88	1506	2	28	8	82	1857	1	20	8	88	1509	2	28	8
	WB on	32	2083	0	0	40	2654	0	0	28	1874	-4	0	0	39	2572	-1	0	0	29	1926	-3	0	0	39	2573	-1	0	0
M27 J7 Charles Watts Way westbound		49	1841	6	2	49	1783	7	3	50	1867	1	6	2	49	1768	0	7	3	51	1910	2	6	2	50	1813	1	7	3

Appendix B - Sheet 2 - Junctions Outside Eastleigh Borough

Junction approach arm statistics for identified hot spot locations outside Eastleigh Borough (Summary Sheet)

Buffer ID	Junction	Approach Arm	2036 BASELINE (DOP)								2036 DS2 (DPC)												2036 DS3 (DPP)											
			AM RFC (%)	AM Actual Flow (pcus)	AM Delay per pcu (s)	AM Average Queue Length (pcu)	PM RFC (%)	PM Actual Flow (pcus)	PM Delay per pcu (s)	PM Average Queue Length (pcu)	AM RFC (%)	AM Actual Flow (pcus)	AM RFC Difference (pcus) DPC-DOP	AM RFC Difference Severity	AM Delay per pcu (s)	AM Average Queue Length (pcu)	PM RFC (%)	PM Actual Flow (pcus)	PM RFC Difference (pcus) DPC-DOP	PM RFC Difference Severity	PM Delay per pcu (s)	PM Average Queue Length (pcu)	AM RFC (%)	AM Actual Flow (pcus)	AM RFC Difference (pcus) DPP-DOP	AM RFC Difference Severity	AM Delay per pcu (s)	AM Average Queue Length (pcu)	PM RFC (%)	PM Actual Flow (pcus)	PM RFC Difference (pcus) DPP-DOP	PM RFC Difference Severity	PM Delay per pcu (s)	PM Average Queue Length (pcu)
			DOP_AM	DOP_AM	DOP_AM	DOP_AM	DOP_PM	DOP_PM	DOP_PM	DOP_PM	DPC_AM	DPC_AM	DPC_AM	DPC_AM	DPC_AM	DPC_AM	DPC_PM	DPC_PM	DPC_PM	DPC_PM	DPC_PM	DPC_PM	DPP_AM	DPP_AM	DPP_AM	DPP_AM	DPP_AM	DPP_AM	DPP_PM	DPP_PM	DPP_PM	DPP_PM	DPP_PM	DPP_PM
B1	Knightwood Road / Templars Lane	Templars Way	68	617	33	5	77	784	35	6	67	618	-1		33	5	77	792	-1		35	6	68	613	-1		33	5	78	797	-1		35	6
B1		Castle Lane	93	609	60	5	66	537	34	4	93	587	0		64	5	65	526	0		33	4	92	608	0		59	5	64	522	0		33	4
B1		Knightwood Road	47	373	33	3	35	270	31	2	47	377	0		33	3	33	253	0		30	2	46	363	0		32	3	32	245	0		30	2
B2	Templars Way / School Lane	School Lane	63	382	9	0	91	590	14	2	63	376	0		9	0	91	596	0		14	2	65	398	0		8	0	89	592	0		12	1
B2		Templars Way WB	70	576	4	0	93	757	7	1	71	582	1		5	0	94	767	1		7	1	69	570	1		5	0	95	770	1		7	1
B2		Templars Way EB	101	843	25	5	80	658	5	0	101	842	0		23	5	77	636	0		5	0	100	835	0		13	2	76	621	0		5	0
B3	A27 Botley Road / Nutburn Road	Nutburn Road	100	228	178	4	96	218	144	3	99	226	-1		168	3	96	217	-1		142	3	100	226	-1		170	3	96	217	-1		141	3
B3		A27 Botley Road	101	821	119	13	103	916	143	21	101	817	0		115	12	103	915	0		148	22	101	817	0		123	14	103	915	0		146	22
B3		Rownhams Road	102	418	173	10	99	331	141	5	102	416	0		165	9	99	330	0		140	5	102	416	0		163	9	99	328	0		137	5
B3		A27 Botley Road	91	922	56	10	65	796	35	7	91	921	0		56	10	65	788	0		35	7	91	909	0		54	10	64	784	0		35	7
B4	A27 Bridge Road / Swanwick Lane	A27 Bridge Road NB	55	1063	11	3	50	989	10	2	52	1033	-3		11	3	50	981	-3		10	2	53	1053	-3		11	3	50	980	-3		10	2
B4		A27 Bridge Road SB	93	1531	32	8	89	1493	27	8	96	1575	3		39	9	89	1497	3		27	8	97	1588	3		42	9	91	1536	3		29	8
B4		Swanwick Lane	76	406	42	3	76	419	43	3	66	353	-10		38	3	71	394	-10		40	3	65	349	-10		37	3	71	396	-10		40	3
B5	B3354 Main Road / Church Lane	B3354 Main Road SB	60	469	5	0	88	610	10	1	60	495	0		4	0	79	637	0		5	0	52	420	0		4	0	76	598	0		5	0
B5		B3354 Main Road NB	106	922	127	32	68	589	4	0	102	876	-4		46	10	45	381	-4		4	0	102	879	-4		46	11	43	364	-4		4	0
B5		Church Lane	71	394	11	1	84	607	8	1	68	237	-3		20	1	40	299	-3		5	0	76	291	-3		21	1	50	374	-3		5	0
B6	B3335 Highbridge Road - River Itchen Crossing	B3335 Highbridge Road NB	35	758	0	0	35	762	0	0	31	402	-4		13	1	66	764	-4		20	3	47	532	-4		3	0	82	943	-4		3	0
B6		B3335 Highbridge Road SB	24	519	0	0	27	599	0	0	60	226	36		46	2	38	221	36		28	2	29	309	36		3	0	33	293	36		4	0
B7	A3051 Botley Road / New Road to Whiteley Development	A3051 Botley Road SB	69	1004	17	4	59	774	14	3	136	1118	67	Sev	736	153	96	785	67	Sev	60	5	92	1140	67	Sig	35	6	92	771	67	Sig	45	5
B7		New Road	32	306	16	1	46	411	18	2	69	646	37		24	3	89	756	37	Sig	39	4	68	638	37		24	3	89	762	37	Sig	61	5
B7		A3051 Botley Road NB	19	137	36	1	14	67	43	1	42	303	23		58	3	38	181	23		61	2	38	275	23		50	2	38	185	23		63	2
B8	A334 Station Hill / A3051 Botley Road	A334 Station Hill SB	60	1184	2	0	66	1304	3	0	100	1055	40	Sev	30	8	99	1194	40	Sev	17	4	98	1143	40	Sev	20	5	80	1099	40		6	1
B8		A3051 Botley Road	106	417	174	19	109	470	221	26	85	932	-21		9	1	100	932	-21		39	9	85	896	-21		10	1	90	942	-21		12	2
B8		A334 Station Hill NB	44	1265	8	2	39	1092	4	1	44	174	0		15	1	62	78	0		53	1	69	185	0		31	1	45	126	0		22	1
B9	B2177 Winchester Road / B3035 Corhampton Road	B2177 Winchester Road	70	583	6	0	61	519	5	0	98	804	28	Sev	11	1	67	565	28		6	0	99	811	28	Sev	14	2	65	549	28		6	0
B9		B3035 Corhampton Road	37	258	7	0	34	249	6	0	46	260	9		9	0	38	267	9		7	0	45	257	9		9	0	38	272	9		7	0
B9		B2177 Coppice Hill	60	486	5	0	45	371	5	0	89	718	29	Sig	7	1	77	620	29		6	0	88	710	29	Sig	7	0	74	601	29		6	0
B10	B2177 Coppice Hill / Shore Lane	B2177 Winchester Road	48	964	4	0	16	468	2	0	51	1049	3		4	0	24	672	3		2	0	50	1033	3		4	0	23	650	3		2	0
B10		B2177 Coppice Hill	22	451	1	0	19	379	1	0	33	686	11		1	0	21	424	11		1	0	32	661	11		1	0	20	412	11		1	0
B10		Shore Lane	74	507	7	1	93	755	10	1	74	445	0		9	1	96	744	0		18	2	75	452	0		9	1	95	744	0		14	2
B11	B3035 Lower Lane / Free Street	B3035 Lower Lane SB	26	457	1	0	42	725	2	0	24	421	-2		1	0	41	705	-2		2	0	24	427	-2		1	0	41	706	-2		2	0
B11		Free Street	81	775	7	1	18	274	4	0	69	704	-12		6	1	19	297	-12		4	0	69	699	-12		6	1	19	297	-12		4	0
B11		B3035 Lower Lane NB	18	237	3	0	17	190	3	0	20	295	2		2	0	18	211	2		3	0	23	320	2		3	0	18	212	2		3	0
B12	Hoe Road / Shore Lane	Hoe Road	28	462	2	0	25	402	1	0	28	449	0		2	0	27	438	0		2	0	27	445	0		2	0	27	440	0		2	0
B12		Shore Lane	86	697	7	1	47	299	6	0	79	630	-7		6	1	46	280	-7		6	0	78	620	-7		6	0	46	282	-7		6	0
B12		Free Street	40	454	4	0	63	707	5	0	36	424	-4		3	0	64	706	-4		5	0	37	445	-4		3	0	63	695	-4		5	0
B13	B2177 Winchester Road / B3037 Mortimers Lane	B2177 Winchester Road SB	15	437	2	0	19	538	2	0	15	411	0		3	0	23	561	0		3	0	18	478	0		3	0	26	627	0		3	0
B13		B2177 Winchester Road NB	28	528	1	0	21	395	1	0	36	674	8		2	0	38	649	8		2	0	36	663	8		2	0	37	636	8		2	0
B13		B3037 Mortimers Lane	36	494	4	0	14	191	4	0	88	838	52	Sig	12	2	27	332	52		5	0	88	842	52	Sig	12	2	23	298	52		5	0
B14	B3335 St Cross Road / A3090 Hockley Link	B3335 St Cross Road	85	603	19	2	102	692	75	13	82	592	-3		17	1	102	705	-3		73	13	80	588	-3		16	1	101	722	-3		66	12
B14		A3090 Hockley Link	105	1108	107	29	101	1075	50	12	105	1118	0		108	30	102	1077	0		58	14	105	1120	0		108	30	102	1085	0		55	13
B14		Otterbourne Road	52	331	14	0	41	266	15	0	61	394	9		14	1	34	217	9		15	0	56	356	9		14	0	34	220	9		15	0
B14		A3090 Badger Farm Road	79	1079	13	1	78	1047	13	1	78	1067	-1		13	1	76	1031	-1		13	1	74	1011	-1		12	1	73	981	-1		13	1
B15	A3090 Hockley Link / M3 Roundabout	A3090 Hockley Link SB	74	1442	3	0	84	1595	4	1	74	1426	0		3	0	84	1569	0		5	1	71	1374	0		3	0	84	1565	0		4	1
B15		A3090 Hockley Link - Roundabout	3	268	0	0	1	139	0	0	4	386	1		0	0	2	243	1		0	0	3	303	1		0	0	2	229	1		0	0
B15		A3090 Hockley Link - Roundabout	12	1157	0	0	12	1174	0	0	12	1191	0		0	0	12	1217	0		0	0	12	1173	0		0	0	12	1210	0		0	0
B16	A3090 / B3335 / M3 Onslip	A3090	77	528	54	4	42	979	9	2	81	557	4		54	4	41	957	4		9	2	76	523	4		51	4	41	939	4		9	2
B16		B3335	55	1329	21	3	65	487	71	4	49	1187	-6		15	3	63	472	-6		65	4	54	1294	-6		17	3	63	476	-6		65	4
B17	B3335 Highbridge Road / B3354 Main Road	B3335 High Street	42	646	3	0	79	1159	5	0	43	639	1		3	0	74	1106	1		4	0	41	586	1		3	0	73	1087	1		4	0
B17		B3354 Main Road	29	644	1	0	16	356	1	0	36	792	7		1	0	15	335	7		1	0	36	779	7		1	0	15	318	7		1	0
B17		B3335 Highbridge Road	85	614	10	1	15	127	4	0	62	408	-23		7	1	12	100	-23		4	0	75	497	-23		9	1	13	110	-23		4	0
B18	B3335 High Street / Hazeley Road	Finchs Lane	55	44	93	1	73	88	100	1	53	45	-2		89	1	70	83	-2		96	1	49	41	-2		87	1	90	64	-2		139	1
B18		B3335 Searles Hill	81	796	18	2	86	1179	18	3	75	814	-6		14	2	81	1165	-6		15	3	77	745	-6		15	1	80	1152	-6		14	3
B18		Hazeley Road	100	81	250	1	62	77	86	1	99	78	-1		136	1	63	77	-1		86	1	100	81	-1		253	1	60	61	-1		91	1
B18		B3335 High Street	91	1257	24	4	47	482	8	1	86	1200	-5		18	3	38	435	-5		6	0	92	1276	-5		26	4	37	428	-5		6	0
B19	M3 Offslip / B3334 Cox's Hill	M3 Offslip	90	819	6	1	109	805	199	40	93	828	3		8	1	109	808	3		198	40	86	776	3		5	1	109	819	3		195	40
B19		B3335 Cox's Hill WB	61	1329	0	0	22	487	0	0	54	1187	-7		0	0	22	472	-7		0	0	59	1294	-7		0	0	22	476	-7		0	0
B19		B3335 Cox's Hill EB	10	222	1	0	28	623	1	0	12	262	2		1	0	28	614	2		1	0	11	228	2		1	0	27	589	2		1	0
B20	Poles Lane / Otterbourne Hill	Poles Lane	21	143	7	0	41	323	7	0	25	177	4		7	0	38	306	4		7	0	10	66	4		6	0	15	122	4		6	0
B20		Otterbourne Hill SB	76	637	6	0	74	573	7	0	81	668	5		6	0	79	610	5		7	0	77	658	5		5	0	69	579	5		5	0
B20		Otterbourne Hill NB	74	595	7	0	40	327	6	0	63	503	-11		7	0	31	250	-11		6	0	76	615	-11		7	0	32	265	-11		6	0
B21	North Whiteley New Road	New Road NB	24	268	3	0	53	611	3	0	52	583	28		3	0	80	931	28		3	0	50	568	28		3	0	81	938	28		3	0
B21		New road SB	63	726	3	0	43	464	3	0	52	606	-11		3	0	47	514	-11		3	0	73	846	-11		3	0	47	512	-11		3	0
B22	North Whiteley New Road	New Road NB	16	179	3	0	50	581	3	0	39	437	23		3	0	77	885	23		3	0	38	417	23		3	0	78	892	23		3	0
B22		New road SB	81	947	3	0	42	495	3	0	69	805	-12		3	0	46	537	-12		3	0	88	1029	-12		3	0	46	536	-12		3	0