

City Centre Action Plan

Transport Background Paper

September 2013



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Transport Background Paper

This background document accompanies the Submission Document and outlines some background in relation to the section on the Port. This document is not on deposit for consultation and is background evidence.

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1. Introduction

1.1.1 This Background Paper provides transport evidence to support the development proposals contained within the City Centre Action Plan. It builds on and updates transport evidence developed in support of the Adopted Core Strategy, particularly to take into account the subsequent reduction in development targets for city centre office and comparison retail development. This Background Paper should be read in conjunction with the Transport Background Paper produced in support of the Adopted Core Strategy.

2. Key Strategic Policy

2.1.1 The **National Planning Policy Framework (NPPF)** provides comprehensive planning policy guidance at a national level and has replaced previous relevant guidance, such as PPG13 and PPS6. However, NPPF continues previous policy, which recognises the importance of town centres and applies a sequential approach to ensure that main town centre uses are located there.

2.1.2 In relation to transport, NPPF states:

Transport policies have an important role to play in facilitating sustainable development but also in contributing to wider sustainability and health objectives. Smarter use of technologies can reduce the need to travel. The transport system needs to be balanced in favour of sustainable transport modes, giving people a real choice about how they travel... (Paragraph 29).

Encouragement should be given to solutions which support reductions in greenhouse gas emissions and reduce congestion. In preparing Local Plans, local planning authorities should therefore support a pattern of development which, where reasonable to do so, facilitates the use of sustainable modes of transport... (Paragraph 30).

2.1.3 The City Centre Action Plan focuses office, comparison retail and leisure development in the city centre. It also allocates a significant proportion of Southampton's residential development in the city centre. This is fully consistent with NPPF in terms of *giving people a real choice about how they travel* and *facilitates the use of sustainable modes of transport*.

2.1.4 The statement in the Core Strategy Transport Background Paper in relation to Circular 02/2007 is still applicable.

3. Solent Area Transport Policies and Plans

3.1 Introduction

3.1.1 Transport for South Hampshire and the Isle of Wight (TfSHIoW) is a joint partnership of the four highway authorities in the Solent area, with the Isle of Wight joining the partnership more recently. Since the Core Strategy Background Paper was published in December 2008, transport policies and plans in the Solent area have progressed substantially.

3.2 Strategic Transport Policies

3.2.1 TfSHIoW has defined strategic transport policies for the South Hampshire, which were incorporated into the Southampton, Hampshire and Portsmouth Local Transport Plans, published in 2011.

3.3 Sub Regional Transport Model (SRTM)

3.3.1 TfSHIoW commissioned the development of a **Sub Regional Transport Model (SRTM)** by MVA Consultancy, which was completed in 2011. This is a multi-modal transport model of the South Hampshire area, which is now being expanded to the Isle of Wight, to cover the whole Solent area. The SRTM has been used as a strategic transport tool to identify transport interventions required to support economic growth across the Solent area over the period to 2026 and beyond. This is published in the **Transport Delivery Plan (TDP)**. The development of the TDP has followed the Reduce – Manage – Invest principle established by TfSHIoW and outlined in detail in the Core Strategy Transport Background Paper.

3.3.2 The SRTM has also been used to support the transport major scheme business cases for a number of funding bids, including the successful *Local Sustainable Transport Fund* and *Better Connected South Hampshire* bids.

3.4 Local Transport Body / Single Local Growth Pot

3.4.1 In 2013, the **Solent Local Transport Body (LTB)** was established. The purpose of the LTB is to prioritise and manage Local Major Transport Scheme funding, which the DfT intends to devolve to Local Enterprise Partnership areas from 2015. Membership of the LTB comprises of the four TfSHIoW constituent authorities, together with the Solent LEP.

3.4.2 Following an application and prioritisation process, the LTB identified its three priority schemes for funding over the 2015 to 2020 period in July 2013. However, further changes by Central Government mean that Local Major Transport Scheme funding will included as part of the **Single Local Growth Pot (SLGP)**, which will be prioritised and

administered by the LEP. The SLGP pools various funding sources to address transport, skills and housing skills and can be match funded against EU Structural and Investment Funding, which the LEP will also be administering. The Solent LEP will be submitting a detailed Strategic Economic Plan to Government in March 2014 and expects its funding allocation for 2015/16 to be confirmed in July 2014.

4. Proposals in the City Centre Action Plan

4.1.1 Table 1 below illustrates the quantity of development promoted by the City Centre Action Plan between 2006 and 2026 and compares this with the previous quantities in the Adopted Core Strategy. An assessment has also been made of the development that has taken place since 2006 up to 2012, to calculate the remaining development that needs to be implemented from 2012 to 2026 to meet the City Centre Action Plan target.

Table 1: Proposed Net Increase in Development in City Centre Action Plan and Adopted Core Strategy

<i>Land Use</i>	<i>City Centre Action Plan (Submission Version)</i>		<i>Adopted Core Strategy</i>
	2006 to 2026	2012 to 2026	2006 to 2026
Offices	110,000 sqm	64,843 sqm	322,000 sqm
Comparison Retail	100,000 sqm	65,680 sqm	130,000-200,000 sqm
Housing	5,450 new homes	3,844 new homes	5,450 new homes
Leisure	No fixed figure but expected to increase		No fixed figure but expected to increase

5. Dialogue with the Highways Agency

5.1.1 The City Council and Highways Agency have had an ongoing dialogue, starting with the Core Strategy process.

5.1.2 The Council historically started to examine the transport impact of the development targets defined in the Core Strategy, back in 2007 and 2008. This included the Spreadsheet Model, which has been updated for this work, together with work commissioned through Mott Macdonald. The Highways Agency agreed the methodology for this work. At the Core Strategy Examination in Public, it was agreed with the Highways Agency that further transport assessment work would need to take place to satisfy the Highways Agency and this should support subsequent Local Plan documents, including the City Centre Action Plan.

5.1.3 Since the work on the Core Strategy was undertaken, the Sub Regional Transport Model (SRTM) has been developed and is the most appropriate tool to analyse the impact of development in Southampton on the Strategic Road Network. The City Council and Highways Agency will continue dialogue to develop transport assessment work using the SRTM, in order to assess the impact of development on the Strategic Road Network and identify any necessary and appropriate interventions to address these. It is intended that this work will be completed in advance of the submission at the end of 2013.

6. Transport Assessment of City Centre Action Plan Development

6.1 Introduction

6.1.1 In order to undertake a transport assessment of the City Centre Action Plan, various pieces of evidence have been considered:

- Existing transport provision and actual trends in transport behaviour for journeys to and from Southampton city centre since 2006;
- The **Spreadsheet Transport Model**, which was originally produced as evidence for the Core Strategy and has now been updated to a base year of 2012 (formerly 2006) and with the revised city centre development targets;
- The **SRTM**, which has been developed since the Core Strategy Background Paper was produced

6.1.2 Whilst some initial data is presented within the City Centre Action Plan, work undertaken in this Background Paper provides a more up to date position on the transport impact of proposed development, looking at both the Spreadsheet Model and SRTM.

6.2 Existing Transport Provision and Examination of Travel Trends since 2006 to 2012

6.2.1 This section outlines existing transport provision and considers actual trends in travel behaviour for journeys to and from the city centre over the first period covered by the CCAP from 2006 to 2012. This includes an examination of both modal split and 12 hour count data, which is collected on an annual basis.

Net Changes in Development

6.2.2 The following net changes in city centre development occurred over the 2006 to 2012 period:

- 1,606 residential units, which has increased the city centre population in Bargate Ward by 20%
- 46,506 sqm net increase in B1 office floor space; and

- 34,320 sqm of net increase in comparison retail, including a new IKEA store
(Note that the office and retail totals plus data in Table 1 add up to slightly more than the overall 2006 to 2026 development targets)

Modal Split Data

6.2.3 Modal split data is collected annually for people arriving and departing from the city centre. This data is an essential component of the Spreadsheet Model and is presented below in the same way it used in the model. This uses a combination of Inner and Outer Cordon data and uses three year averages to minimise year on year fluctuations in the data. The 2004-06 average was used as the base data for the Core Strategy evidence. The 2010-12 average has been used as the new base data for the City Centre Action Plan evidence.

Table 2: Modal split data (People)

AM Peak (Inbound)	Cars	People travelling by car	Bus	Motor cycles	Cycles	Ferries	Rail	Pedestrians	TOTAL PEOPLE
2004-06 average	10263	12706	3409	216	401	449	948	2080	20210
		62.9%	16.9%	1.1%	2.0%	2.2%	4.7%	10.3%	
2010-12 average	8908	10780	2757	147	462	334	1142	2399	18060
		59.8%	15.3%	0.8%	2.6%	1.9%	6.3%	13.3%	

Off Peak (Outbound)	Cars	People travelling by car	Buses	Motor cycles	Cycles	Ferries	Rail	Pedestrians	TOTAL PEOPLE
2004-06 average	5326	7271	1607	80	118	101	867	1577	11620
		62.6%	13.8%	0.7%	1.0%	0.9%	7.5%	13.6%	
2010-12 average	4412	5814	1568	51	109	103	1044	1575	10263
		58.0%	14.7%	0.5%	1.2%	1.0%	9.8%	14.8%	

PM Peak (Outbound)	Cars	People travelling by car	Buses	Motor cycles	Cycles	Ferries	Rail	Pedestrians	TOTAL PEOPLE
2004-06 average	10005	13268	3210	260	341	380	900	2741	21099
		62.9%	15.2%	1.2%	1.6%	1.8%	4.3%	13.0%	
2010-12 average	8988	11616	2883	208	351	350	1100	3210	18935
		58.8%	14.6%	1.1%	2.0%	1.8%	5.6%	16.2%	

12 Hour Count Data

6.2.4 12 hour counts are undertaken annually on major roads in Southampton. The routes selected below cover the key radial routes to and from the city centre, to identify trends in vehicle movements on routes serving the city centre. Total vehicles are all motor vehicles, including HGVs.

Table 3: 12 Hour Count Data (motor vehicles)

AM Peak Inbound (08:00-09:00)	Millbrook Rd	Shirley Rd	Hill Lane	The Ave	Lodge Rd	Bevois Valley Rd	Northam Bridge	Itchen Bridge	TOTAL VEHS
2004-06 average	2891	674	535	1474	662	811	2137	1556	10740
2010-12 average	3129	594	505	1224	665	684	2009	1265	10076
Change	+238 +8.2%	-80 -11.9%	-30 -5.6%	-250 -17.0%	+3 +0.4%	-127 -15.6%	-128 -6.0%	-291 -18.7%	-665 -7.0%

AM Peak Outbound (08:00-09:00)	Millbrook Rd	Shirley Rd	Hill Lane	The Ave	Lodge Rd	Bevois Valley Rd	Northam Bridge	Itchen Bridge	TOTAL VEHS
2004-06 average	1646	625	566	634	442	448	773	440	5573
2010-12 average	1664	536	509	725	457	430	853	457	5631
Change	+18 +1.1%	-89 -14.2%	-57 -10.1%	+91 +14.4%	+15 +3.4%	-17 -3.9%	+80 +10.3%	+17 +3.8%	+58 +1.0%

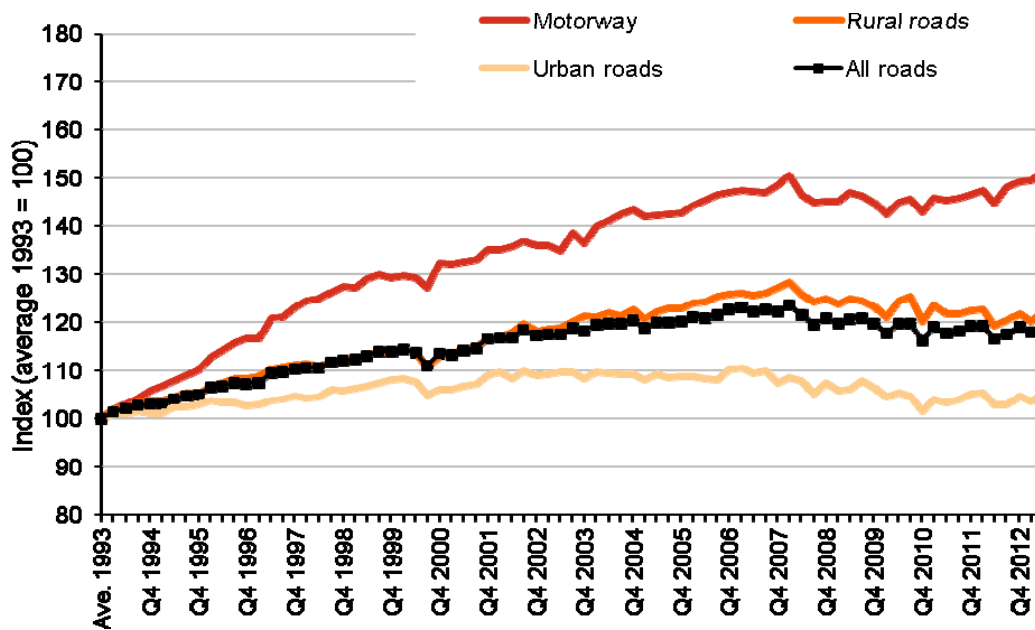
12 hour two way (07:00-19:00)	Millbrook Rd	Shirley Rd	Hill Lane	The Ave	Lodge Rd	Bevois Valley Rd	Northam Bridge	Itchen Bridge	TOTAL PEOPLE
2004-06 average	46731	14158	11028	20226	12443	15811	29707	16971	167074
2010-12 average	43248	13152	9791	19999	11668	14462	27118	15933	155371
Change	-3483 -7.5%	-1006 -7.1%	-1237 -11.2%	-226 -1.1%	-775 -6.2%	-1349 -8.5%	-2589 -8.7%	-1039 -6.1%	-11703 -7.0%

Road Access

6.2.5 The description of the road access in the Core Strategy Transport Background Paper (paras 8.2.9 to 8.2.13) is still relevant. In terms of trends, modal split data shows a decline in both the number and proportion of journeys made by car between 2006 and 2012. This is generally supported by the 12 hour count data over the whole day, which shows an overall 7% decline in numbers over 12 hours and also for inbound journeys during the AM peak. This is not evenly spread across different corridors, with some routes showing an increase, with others declining more sharply than the average. The 12 hour count data shows a slight increase in outbound traffic during the AM peak. This is probably explained by out-commuting from the increasing city centre population.

6.2.6 This data is generally consistent with national observations (Figure 1), which have also shown a similar decline in road traffic on urban roads between 2006 and 2012. 2012 flows are at a similar level to flows seen in the mid 1990s. This is despite a considerable amount of regeneration within urban areas since then, positively encouraged by planning policy and particularly the sequential test, which was introduced by PPG6 in 1996.

Figure 1: Road traffic by road class: Great Britain, quarterly from 1993 (Source: DfT)



Active Modes (Walking and Cycling)

- 6.2.7 The number and proportion of walking and cycling trips have increased during both the AM and PM peak periods. During the off peak, the number of trips has remained the same, but has increased proportionally against an overall decline in total trips. As the modal split surveys are based on a cordon around the city centre, they will not be recording internal city centre walking and cycling trips, which should be increasing due to the ever increasing city centre population.
- 6.2.8 The Core Strategy Transport Background Paper (paras 8.2.1-8.2.2) outlined the ongoing investment in walking and cycling. This has continued on a similar basis since 2006. More recently, the successful Southampton Sustainable Travel City and Better Connected South Hampshire Local Sustainable Transport Fund (LSTF) bids have recently brought in considerable investment to improve and promote walking and cycling in Southampton.

Bus Services

- 6.2.9 The Core Strategy Transport Background Paper (paras 8.2.3-8.2.5) outlines bus services and usage. In 2005/06, annual bus patronage in Southampton was 18.4m passengers. This then increased to a maximum of 19.8m passengers in 2008/09, but more recently has declined. The most recent figure for 2012/13 is 17.6m passengers, equivalent to a decline of just over 4%. Since 2006, service levels have remained at least as good and have improved on certain key routes serving the city centre since 2006. However, despite this, modal

split data also shows a decline in the number and proportion of bus journeys since 2006.

6.2.10 Buses are recognised as an important alternative mode to the private car and there is a significant amount of recently secured investment to improve the bus offer in Southampton, in order to increase the number and proportion of journeys by bus. A number of measures being implemented through the Better Connected South Hampshire LSTF and Better Bus Area Fund programmes, including:

- A new real time information system;
- Improved bus priority;
- Improved information consistent with the Southampton Legible City programme;
- Refurbishment of buses;
- Installation of free Wifi on buses;
- Introduction of a multi-operator Smartcard

Rail Services

6.2.11 The Core Strategy Transport Background Paper (para 8.2.7) outlines rail services serving Southampton city centre through Southampton Central station.

6.2.12 Since 2006, the modal split surveys show that the number and proportion of rail journeys has increased significantly at all times of day. This is consistent with the Office for Rail Regulation data, which shows that Southampton Central station handled 6.0m passenger journeys in 2011/12, increasing from 4.8m passengers in 2005/06.

Ferry Services

6.2.13 These remain as described in the Core Strategy Transport background Paper (para 8.2.8). The modal split surveys show that the proportion of journeys made by ferry hasn't changed significantly since 2006, with a slight decline in the AM peak.

Summary

6.2.14 Between 2006 and 2012, a significant proportion of the City Centre Action Plan development has been implemented. This includes over 40% of the office targets and around a third of the retail and residential development. However, this has not generally resulted in a commensurate traffic impact on routes serving the city centre. There is some potential evidence for a slight overall increase in out-commuting from the city centre by car during the AM peak, but over the whole day, traffic flows have reduced since 2006. This is consistent with the modal split surveys, which have shown that the number and proportion of journeys made by car has decreased since 2006. It is also consistent with nationally recorded data on urban roads.

6.2.15 It is likely that a number of factors are influencing travel behaviour since 2006 and in particular the lack of increase in traffic flow despite increased levels of development:

- There is clear evidence of an overall **modal shift** away from car usage. However, this is a complex issue in itself with clear evidence of modal shift within non car modes. For example, some of the increase in walking, cycling and rail use is likely to be from buses, given its relative decline;
- Although there has been a net increase in the amount of city centre offices, a number of older office buildings are currently empty. This is no doubt partly influenced by the more recent challenging economic conditions, but also due to their low quality, with evidence of companies moving to newer facilities. It is questionable whether these will ever be reused as offices and conversion to other uses, particularly residential, is a more likely outcome;
- Perhaps most importantly, the increasing focus of a range of land uses within the small geographical area of the city centre, maximises the opportunity for linked trips and reduces the need to travel, particularly by car

6.2.16 Whatever respective influences of the above factors, it is clear that the unique characteristics of city centres are minimising the transport and particularly the traffic impact of new development, in a way that wouldn't be seen at out of town car dependent developments. It is likely that the characteristics will further suppress the transport and traffic impact of the remaining development proposed through the City Centre Action Plan.

6.3 Spreadsheet Model Data

6.3.1 The Spreadsheet Model has been the main modelling tool used to assess the impact of future development proposed in the City Centre Action Plan and was originally developed to provide transport evidence for the Core Strategy. The model still operates on exactly the same basis as before, but has been updated. At this stage, only an AM Peak model has been developed.

6.3.2 The base model has now been moved forward to 2012 from the original base year of 2006. This creates a multi-modal origin and destination matrix for journeys arriving in the city centre during the AM peak, which is created from a combination of modal split data and Census Journey to Work data. Unfortunately, the detailed 2011 Census Journey to Work has not yet been released, so the model has had to rely on the more historic 2001 data. Calculations have, however, taken account in the relative change in population from 2006 to 2012, to offset the lack of 2011 Census data.

6.3.3 The model looks forward to 2026 and considers the transport impact of the outstanding City Centre Action Plan office and residential development on journeys arriving in the city centre during the 08:00-09:00 AM peak hour. Note that the model does not include inbound trips generated by the new city centre residential development, as these would be minimal. It does however take account of how the relative increase in city centre population would impact on the origin of trips to new office and retail development.

Overall Transport Impact – AM Peak Hour

6.3.4 **Table 4** compares the overall transport impact predicted for the City Centre Action Plan development over the 2012 to 2026 period, compared to the previous modelling work for the Core Strategy, looking at the 2006 to 2026 period.

Table 4: Overall Transport Impact (08:00-09:00 inbound)

		Base Year	2026	% Change
Core Strategy (2006 Base Year)	Total trips	20296	29086	43.9%
	Cars	10263	14474	41.0%
City Centre Action Plan (2012 Base Year)	Total trips	18020	20352	12.9%
	Cars	8938	9930	11.1%

6.3.5 The revised modelling work for the City Centre Action Plan shows significantly lower overall transport impact compared to the original Core Strategy development targets. This is for the following reasons:

- The overall development targets have reduced, particularly for offices;
- A proportion of the CCAP development has already been implemented, reducing even further the additional level of development required; and
- The development implemented to date has not resulted in an increase in traffic movements inbound to the city centre during the AM peak.

Behavioural Change Scenarios

6.3.6 As illustrated in Table 4, the Core Strategy development targets predicted an increase in the busy direction peak hour travel demand and car trips in excess of 40% by 2026. The existing road network would simply not have the capacity to accommodate this level of increase.

6.3.7 The Core Strategy Transport Background Paper (Table 1) highlighted the behavioural change scenarios that were originally considered. This included a scenario proposed by SCC and an alternative scenario requested by the Highways Agency. These aimed to deliver modal shift to try and keep peak hour flows broadly at existing levels, on the

basis that these are the maximum flows that could be accommodated during the peak hour.

6.3.8 **Table 5** illustrates the original behavioural change measures proposed in the Core Strategy Transport Background Paper, together with a revised SCC Behavioural Change Scenario, which aims to address the significantly reduced levels of demand now predicted for the CCAP development targets. This scenario simply focuses on modal shift to bus, rail, walking and cycling, which are the focus of existing investment through the LSTF and BBAF programmes. The level of change has been reduced on a pro-rata basis, to reflect the fact that the Base Year has now moved forward from 2006 to 2012. It does not require the need for other more extensive infrastructure that was originally assumed for the Core Strategy development, such as Park and Ride, High Occupancy Vehicle lanes on the Northam Road corridor and Eastleigh Chord.

6.3.9 **Table 6** provides a more detailed set of outputs from the Spreadsheet Model, including the travel demand by different mode and the overall traffic impact on the radial routes serving the city centre. The following scenarios are included for comparison:

- The original 2006 Base Year data;
- The new 2012 Base Year data;
- 2026 with CCAP development (without any behavioural change applied); and
- 2026 with CCAP development (with the revised SCC Behavioural Change Scenario).

6.3.10 At this stage, no alternative revised Highways Agency scenario has been modelled at this stage. As noted in Section 5, further work is to be progressed with the HA to assess the impact of CCAP development on their network. Any alternative scenarios requested by the HA will be considered at that stage.

**Table 5: Modelled changes in Travel behaviour compared to 2026
Base + Development Model**

	Core Strategy		City Centre Action Plan
	Original SCC Scenario	Revised HA Scenario	Revised SCC Scenario
Bus usage	Increase by 20%	Increase by 10%	Increase by 14%
Cycling	Increase by 50%	Increase by 25%	Increase by 35%
Walking	Increase by 25%	Increase by 12.5%	Increase by 17.5%
Rail usage	Increase by 25% plus assume Eastleigh Chord implemented and 15% of car drivers and passengers from Hedge End attracted to direct rail services to Southampton	Increase by 12.5% plus assume Eastleigh Chord implemented and 7.5% of car drivers and passengers from Hedge End attracted to direct rail services to Southampton	Increase by 17.5%
Park and Ride	Implement three strategic sites west, north and east of Southampton and attract 15% of passing city centre bound car drivers and passengers.	Implement three strategic sites west, north and east of Southampton and attract 25% of passing city centre bound car drivers and passengers.	No Park and Sites implemented.
Car occupancy	Increase by 5% except on Northam Road corridor which increases from 1.21 to 1.40 (equivalent to 16% increase) to reflect provision of High Occupancy vehicle lane.	Increase by 2.5% except on Northam Road corridor which increases from 1.21 to 1.30 (equivalent to 7.4% increase) to reflect provision of High Occupancy vehicle lane.	No change in car occupancy assumed.

Table 6: Modelling Spreadsheet Summary

	2006 Base		2012 Base		2026 Base + Development (No Behavioural Change)	2026 Base + Development (Revised SCC Scenario)
	Modal Split Data	Journey to Work Data	Modal Split Data	Journey to Work Data		
Bus	3409	3409	2757	2757	3082	3513
Motor cycle	216	216	147	147	167	167
Pedal cycle	401	401	462	462	521	703
Ferry	449	449	334	334	349	349
Rail	948	948	1142	1142	1288	1507
Walk	2080	2080	2399	2399	2952	3469
NON CAR TOTAL	7504	7504	7240	7240	8359	9708
Car Passengers						
Mountbatten Way	3305	3136	2740	2622	2740	2575
Shirley Road	981	876	778	746	890	755
Hill Lane	623	489	482	413	452	390
Carlton Road	493	439	518	371	410	361
The Avenue	2124	1981	1569	1677	1749	1612
Bevois Valley Road	1003	1155	765	1004	1138	907
Northam Road	2363	2573	2261	2180	2481	2312
Itchen bridge	1814	1852	1669	1559	1824	1636
Internal city centre		205		210	309	97
TOTAL	12706	12706	10780	10780	11994	10645
TOTAL PEOPLE	20210	20210	18020	18020	20352	20352
Cars						
Mountbatten Way	2789	2647	2364	2261	2364	2222
Shirley Road	742	663	593	568	678	575
Hill Lane	478	375	387	331	362	313
Carlton Road	348	310	378	271	299	264
The Avenue	1725	1610	1325	1416	1477	1361
Bevois Valley Road	808	930	666	875	992	790
Northam Road	1953	2126	1860	1793	2041	1911
Itchen bridge	1419	1449	1337	1248	1461	1310
Internal city centre		166		173	255	80
TOTAL	10263	10275	8908	8938	9930	8826

Justification for Behavioural Change Assumptions

6.3.11 This section justifies the behavioural change assumptions used in **Table 5** for the City Centre Action Plan model run. This is an update to information provided in Appendix 1 of the Core Strategy Transport Background Paper.

6.3.12 **Table 7** looks at the rate of change required to increase the use of alternative modes to the car. This is broken down into two components. **Travel demand** is in the increase in trips that would occur in 2026 due to the overall increase in travel demand created by new development, but without any specific behavioural change applied. **Behavioural change** is the increase in trips due to the application of behavioural change to deliver modal shift and finally **Total** is the overall change combining both Travel Demand and Behavioural Change.

Table 7: Growth Rates due to Travel Demand and Behavioural Change

	Bus Usage			Rail Usage		
	Travel Demand	Behavioural change	Total	Travel Demand	Behavioural change	Total
2012 Base	2757	3082	2757	1142	1288	1142
Additional trips	3082	3513	3513	1288	1507	1507
Total Growth Rate	11.79%	13.98%	27.42%	12.78%	17.00%	31.96%
Annual Growth Rate	0.80%	0.94%	1.75%	0.86%	1.13%	2.00%
	Pedal Cycle			Walking		
	Travel Demand	Behavioural change	Total	Travel Demand	Behavioural change	Total
2012 Base	462	521	462	2399	2952	2399
Additional trips	521	703	703	2952	3469	3469
Total Growth Rate	12.77%	34.93%	52.16%	23.05%	17.51%	44.60%
Annual Growth Rate	0.86%	2.16%	3.04%	1.49%	1.16%	2.67%

Bus Usage

6.3.13 Bus usage is perhaps the most challenging of the modal shift targets, as it declined in both absolute and relative terms over the 2006 to 2012 period. However, by 2026, usage only has to increase back to a level 3% higher than was observed in 2006.

6.3.14 The annual rate of increase over the 2012 to 2026 period is equivalent to 1.75% per annum, although just under half of this (0.84%) is due to actual behavioural change.

6.3.15 There is a significant amount of secured investment for bus improvements through the Local Sustainable Transport Fund and Better Bus Area Fund and therefore these patronage increases are deliverable.

Rail Usage

6.3.16 Rail usage is required to increase at 2.0% overall between 2012 and 2026, with 1.13% of this relating to behavioural change. Usage has increased by around 3% per annum between 2006 and 2012, which demonstrates that this rate of increase is achievable.

Cycling

6.3.17 Cycling is required to increase overall by 3% per annum between 2012 and 2026, with 2.16% of this relating to behavioural change. Cycling has increased by 2.4% per annum between 2006 and 2012, which entirely relates to behavioural change and demonstrates that the assumptions over the period to 2026 are realistic. The City Council is continuing to invest in improved cycle facilities, which will increase the proportion of journeys undertaken by bike.

Walking

6.3.18 Walking is required to increase by 2.67% per annum between 2012 and 2026, with 1.16% of this relating to behavioural change. Walking actually increased by 2.4% per annum between 2006 and 2012, but as internal city centre trips are not monitored by modal split surveys, this increase will actually have been higher in practice, with the increasing city centre population. With no overall increase in travel demand, this was entirely based on behavioural change. The required increases in walking over the period to 2026 are therefore realistic.

Summary

6.3.19 There is clear evidence that the levels of behavioural change are achievable. Since 2006, the number of journeys made by rail, walking and cycling have increased at levels consistent with or better than what is required in terms of behavioural change over the period to 2026 and have the potential to do better than predicted. Bus usage is the exception to this, but significant amounts of confirmed investment are being made in bus travel to address this.

6.4 Sub Regional Transport Model (SRTM) Data

6.4.1 As a comparison with the Spreadsheet Model, data has also been extracted from the SRTM to assess the traffic impact of CCAP development. The SRTM is a multi-modal transport model covering the

whole of South Hampshire and is therefore more comprehensive than the Spreadsheet Model.

6.4.2 There are a number of differences between the data and the Spreadsheet Model and the SRTM:

- The SRTM uses 2010 as its Base Year, compared to 2012 in the Spreadsheet Model. Modal split and 12 hour count data suggests little change in traffic flow and modal split between 2010 and 2012;
- The SRTM takes account of all proposed development in the city centre, including new residential;
- The SRTM takes account of other new development across the Solent area;
- The SRTM traffic flows are pcus for all motorised traffic on each route, compared to just the car flows (light vehicles) observed in the modal split data; and
- In 2026, the SRTM includes committed transport interventions, including an assumption that the LSTF programme will continue at a maintenance level beyond 2015.

6.4.3 However, despite these differences, a reasonable comparison can be made between the inbound traffic flows on the radial routes serving Southampton city centre. The SRTM also provides information on the outbound flows and data has also been extracted for the Off Peak and PM Peak. The SRTM looks at three different scenarios:

- 2010 Base Year
- 2026 with no CCAP development (but includes other development across Solent area)
- 2026 with CCAP development (and other development across Solent area)

6.4.4 **Table 7** provides a summary of the outputs from the SRTM for the AM Peak, Off Peak and PM peak periods.

Table 7: SRTM Outputs

AM PEAK	Inbound			Outbound		
	2010 Base	2026 No CCAP dev	2026 with CCAP dev	2010 Base	2026 No CCAP dev	2026 with CCAP dev
Mountbatten Way	2379	2609	2727	1370	1655	1722
Shirley Road	543	497	550	291	223	248
Hill Lane	174	168	168	153	182	173
Carlton Road	335	280	288	69	56	75
The Avenue	1132	1020	1027	882	1035	1159
Bevois Valley Road	473	554	604	276	290	306
Northam Bridge	1612	1669	1702	764	837	937
Itchen Bridge	1387	1409	1431	481	565	626
TOTAL	8035	8207	8496	4286	4842	5246

OFF PEAK	Inbound			Outbound		
	2010 Base	2026 No CCAP dev	2026 with CCAP dev	2010 Base	2026 No CCAP dev	2026 with CCAP dev
Mountbatten Way	1593	1965	2118	1562	1847	1998
Shirley Road	304	251	293	358	278	308
Hill Lane	151	162	167	177	242	282
Carlton Road	262	253	264	123	81	100
The Avenue	958	1040	1086	880	1201	1352
Bevois Valley Road	276	324	384	276	267	279
Northam Bridge	984	1084	1171	1046	1141	1201
Itchen Bridge	606	617	684	688	712	794
TOTAL	5135	5696	6166	5110	5769	6314

PM PEAK	Inbound			Outbound		
	2010 Base	2026 No CCAP dev	2026 with CCAP dev	2010 Base	2026 No CCAP dev	2026 with CCAP dev
Mountbatten Way	1594	1995	2164	2138	2363	2544
Shirley Road	428	355	411	594	508	538
Hill Lane	136	134	139	385	416	460
Carlton Road	197	202	184	118	116	153
The Avenue	886	935	1031	1501	1602	1705
Bevois Valley Road	306	333	364	276	310	341
Northam Bridge	812	955	1068	1412	1542	1619
Itchen Bridge	592	613	667	1308	1325	1410
TOTAL	4952	5522	6028	7732	8183	8770

6.5 Analysis of Modelling Data

6.5.1 Between them, the Spreadsheet Model and SRTM provide some useful data on the transport impact of the CCAP development.

Spreadsheet Model

6.5.2 Looking firstly at the outputs from the **Spreadsheet Model**, the summary in **Table 4** shows that CCAP traffic will result in a much lower overall increase in travel demand and car traffic. **Table 6** has provided a much more detailed breakdown of the numbers, both by mode and in terms of traffic impact, by radial corridor.

6.5.3 Looking initially at the non car modes, as was noted in sections 6.3.11 to 6.3.19, between 2006 and 2012, the proportion and number of people walking, cycling and travelling by rail all increased for inbound journeys during the AM peak. Looking forward to 2026, the further increases proposed with the Revised SCC Behavioural Change Scenario are realistic. Bus usage declined between 2006 and 2012. However, applying the Revised SCC Behavioural Change scenario would only increase this back to a level not far in excess of 2006.

6.5.4 Looking at traffic impact, the application of these achievable and realistic levels of behavioural change would reduce traffic levels broadly back to 2012 levels and these are still less than what was observed in 2006.

SRTM

6.5.5 Data has been extracted from the SRTM to look at traffic travelling in both directions on radial corridors in and out of the city centre during the AM peak, Off Peak and PM peak.

6.5.6 Looking initially at inbound journeys during the AM peak, which can be compared with the outputs from the Spreadsheet Model, the SRTM predicts that overall traffic flows will increase from 8035 pcus in 2010 to 8207 pcus in 2026 without development (an increase of 2.1%) and to 8496 pcus in 2026 with the CCAP development (an increase of 5.7%). The increase in 2026 from having the development is 3.5%. In comparison, the spreadsheet model predicts that overall traffic flows will increase from 8,938 cars in the 2012 Base Year to 9,930 in 2026 with the CCAP development (+11.1%).

6.5.7 The SRTM is predicting a lower increase in inbound traffic flow during the AM peak hour than the spreadsheet model, although the differences are not significant. As the two models operate quite differently, it is difficult to confidently interpret the different answers. One potential explanation is that the SRTM does take account of the ongoing LSTF programme, whilst the Spreadsheet Model scenario with no additional behavioural change applied does not.

- 6.5.8 During the PM peak hour, the SRTM is predicting a higher proportional level of increase in the busy outbound direction compared to the AM peak. From a base flow of 7732 pcus, this is predicted to increase to 8183 pcus in 2026 without development (+5.8%) and to 8770 pcus with development (+13.4%).
- 6.5.9 Looking in more detail at individual radial corridors and in particular, the three most important strategic corridors, the overall increase in flow predicted in the SRTM is not evenly spread, with the largest increases via the Western Approach (Mountbatten Way) and a proportionately smaller increase on Northam Road and a small decrease on The Avenue. In contrast, the Spreadsheet Model predicts more increases to and from the north and east, with fairly static flows on Western Approach.
- 6.5.10 The SRTM also provides data for the predicted changes in traffic flow during the off peak and in the non-busy peak hour direction. These flows are all predicted to increase by around 20%. Given recent trends in urban traffic flow, this level of growth may not happen in practice, but in any case, the flows would still be much lower than the busy direction peak hour flows and could therefore be accommodated on Southampton's road network. There may, however, be a more critical impact on the Strategic Road Network and this will be considered in more detail by the forthcoming transport assessment work for the Highways Agency.

6.6 Other Peak periods - Weekends

- 6.6.1 In most parts of the transport network, peak travel demands traditionally occur during weekday AM and PM peaks. This has traditionally been the period considered by transport assessments and has been an important consideration in Southampton city centre, particularly with the proposed levels of new office and residential development, which generate the greatest level of transport impact at these times.
- 6.6.2 However, Southampton city centre is also a major retail and leisure centre destination with plans for further expansion, including the recently approved Watermark West Quay development and potential re-development at Royal Pier. Peak transport impact for these developments is generally at weekends, with the retail peak generally occurring on Saturday lunchtimes.
- 6.6.3 The expanding cruise business at the Port of Southampton creates a peak of travel demand between 12:00 and 14:00, when people are arriving to embark onto the ships. Although cruise ships call throughout the week, Saturday is the busiest day for cruise calls and this coincides with the retail peak.

- 6.6.4 Finally, the football stadium also generates peaks of demand, which can partly coincide with the cruise embarkation period for matches that kick off at 15:00 on Saturdays. However, from a planning perspective, football matches have always been defined as special events, as they only occur approximately 25 times per annum and not always on a Saturday.
- 6.6.5 In overall terms, observations suggest that the most critical combination of development is the combination of retail and cruise peaks between 12:00 and 14:00. Whilst this isn't the peak for leisure development, this will also be contributing transport impact.

Weekend Data

- 6.6.6 There is a lack of available transport data at weekends. The SRTM does not model weekends at all and the City Council does not collect modal split or 12 hour count data at weekends. There are a few permanent count sites in Southampton, which continuously collect data. This is now being supplemented by one off automatic traffic count data, which is being collected across the city centre.
- 6.6.7 Observations of congestion on Saturdays indicate that this is generally focussed in the city centre, particularly around West Quay, as a key retail destination and along the routes serving the Port, on busy cruise days. This can lead to queues forming on Mountbatten Way and the Inner Ring Road. There are fewer congestion issues further out on radial routes serving the city centre.
- 6.6.8 The City Council is currently in the process of developing a microsimulation model for the whole city centre, which will include the Saturday lunchtime peak. A model was developed for the Saturday lunchtime peak covering Town Quay and Platform Road to refine the design of the improvement works here.

Previous Evidence

- 6.6.9 Whilst at this stage, a comprehensive analysis of future impacts has not been undertaken on a Saturday, it is important to note the transport impact of previous developments, which contribute to transport impacts on Saturdays.
- 6.6.10 The most significant retail development since 2006 is the Ikea store. Whilst this was widely predicted by many to cause significant levels of additional congestion, this hasn't been the outcome in reality. This is likely to be because of the unique characteristics of city centres and in particular:
- Many trips to Ikea are linked with visits to other city centre destinations (e.g. West Quay) and a proportion of these trips were already visiting the city centre;

- City centres provide a much wider range of travel choice options compared to out of town locations; and
- Extended opening hours in Ikea and the West Quay Shopping Centre, which have spread travel demand over a longer period.

6.6.11 The first two bullet points are clearly evidenced by the high pedestrian volumes using the link between Ikea and the city centre.

6.6.12 Another good example is St Mary's Football Stadium, which opened in 2001. Whilst this does cause congestion, this is still at a manageable level. The most intense period of travel demand is after a match finishes and this leads to a congested period of about an hour. However, this has to be seen in the context of up to 32,000 people on the move. Unlike an out of town location, the stadium is located with access to public transport and within walking distance of the city centre core.

Summary

6.6.13 Whilst there is a clear lack of data, the city centre has historically accommodated additional retail and leisure development, without generally causing unmanageable levels of congestion. The city centre is the best location for this type of development to minimise overall transport impact due to the wide travel choice options and scope to link trips.

6.6.14 Further retail and leisure development will increase overall numbers of people visiting the city centre, but the leisure offer in particular, will increase the scope for people to stay longer and spread travel impacts less critically over a longer period of time.

6.7 Transport Assessment – Overall Summary

6.7.1 There are a number of key factors, which can be drawn from the Transport Assessment work:

- Since 2006, despite the implementation of a significant proportion (at least a third) of the 2006 to 2026 city centre development, this has not resulted in a commensurate increase in traffic flow on radial routes serving the city centre. This is consistent with national trends on urban roads;
- Since 2006, there has been clear evidence of modal shift with a reduced proportion of journeys made by car and noticeable increase in walking, cycling and rail usage;
- The **Spreadsheet Model** now shows a significantly reduced level of travel demand increase over the period to 2026 (12.9%), compared to the Core Strategy evidence (around 43.9%). Without any behavioural change applied, the predicted increases in traffic flow are 11.1% and 41.0%;

- Applying a realistic **behavioural change** package to increase public transport, walking and cycling would keep peak hour traffic flows on radial routes at 2012 levels in 2026; and
- The **SRTM** predicts an overall increase in busy direction peak hour radial route traffic flows of 5.7% in the AM peak and 13.4% in the PM peak between 2010 and 2026. These figures are reasonably consistent with the Spreadsheet Model.

6.7.2 There are some key conclusions that can be drawn for this information:

- In recent years, there is clear evidence that the unique characteristics of the city centre have demonstrated that it is a sustainable place to accommodate development without having a significant traffic impact;
- The levels of future travel demand over the period to 2026 have significantly reduced compared to the Core Strategy
- There is clear evidence that the current transport strategy to invest in interventions that improve access by alternative modes to the car has delivered modal shift in recent years and is the appropriate strategy to accommodate the increased travel demands of future development over the period to 2026;
- Consequently, there is less need to implement some interventions to accommodate more significant levels of growth on key radial corridors and any additional demand not addressed through modal shift could, for example, be accommodated through peak spreading

7. Transport Interventions

7.1 Introduction

7.1.1 In order to demonstrate that the City Centre Action Plan is sound, it is necessary to outline the proposed range of transport interventions that will be implemented over the period to 2026 in support of the proposed development.

7.1.2 The focus for transport investment within Southampton will be to support new development in the city centre, primarily through delivering interventions which accommodate additional travel demand through further modal shift. This section will look in more detail at the deliverability of these interventions and the implications if they are not delivered.

7.1.3 Further transport assessment work will consider in more detail the impact on the Strategic Road Network around Southampton. The City Council will work closely with the Highways Agency in relation to this prior to the Submission before the end of 2013. Reference is made in this section to known infrastructure enhancements on the Strategic Road Network.

7.1.4 Since the transport evidence was prepared for the Core Strategy, things have changed significantly. The quantum of development in Southampton city centre over the period to 2026 has reduced significantly and important development proposals outside the city have changed. For example, within Eastleigh Borough, the Hedge End SDA has disappeared, although housing growth is still proposed within Hedge End. This is reflected in the transport interventions now proposed over the period to 2026.

7.1.5 The interventions have been broken down into two main sections. The first of these looks at investment that will facilitate movement within the city to and from city centre development. A subsequent section considers proposed interventions on the Strategic Road and Rail Networks, including specific measures to enhance access to and from the Port of Southampton.

7.2 Transport Interventions within Southampton to improve access to and from the city centre

Integrated Transport Infrastructure

Description of Infrastructure	Provision of Integrated Transport infrastructure to encourage greater use of alternative modes to the private car including walking, cycling and public transport use. This includes: <ul style="list-style-type: none"> • Improved walking and cycling infrastructure; • Improved bus priority measures; • Improved bus information systems, including new Real Time Systems; • Introduction of Solent wide Smartcard for bus and ferry travel; • Refurbishment of buses and installation of free Wifi for passengers
Cost	Total cost not calculated
Funding Sources	LTP Integrated Transport Programme, Developer contributions, other one off grants
Funding availability	A number of funding sources are available to deliver Integrated Transport improvements: <ul style="list-style-type: none"> • LTP funding £2m in 2013/14 increasing to £2.8m in 2014/15. From 2015/16, only £1.6m to be given direct to SCC with remaining funding forming part of the Single Local Growth Pot controlled by the Solent LEP. • LSTF Capital Funding of £4.3m secured over 2012/13 to 2014/15 period. £100m of LSTF funding nationally added to Single Local Growth Pot in 2015/16. • Better Bus Area Fund (£6.3m total for South Hampshire) secured over 2013/14 to 2014/15 • Additional funding available from developer

	contributions and other grants.
Timescale	Ongoing to 2026
Delivery Agencies	Southampton City Council in partnership with other organisations as appropriate.
Risks to funding availability	Low
Risks to Deliverability	Low
Implications of non delivery	Failure to increase modal share of non car modes.

7.2.1 Investment in Integrated Transport Infrastructure will be a key part of achieving the modal shift required to support the growth in the city centre. This programme has already seen success increasing the number of people walking, cycling and more recently using public transport. Central government LTP funding will continue to be supplemented by developer contributions and other one off grants and prioritised towards infrastructure and other measures that will provide the greatest return. More recently, the City Council and Transport for South Hampshire have been successful at securing additional one off grant funding through the Local Sustainable Transport Fund (LSTF) and Better Bus Area Fund (BBAF).

7.2.2 Looking ahead to the future, a proportion of the LTP Integrated Transport funding will be incorporated into the Single Local Growth Pot, controlled by the Solent LEP. The LEP will be submitting its detailed Strategic Economic Plan to Government in spring 2014. This will include proposed investment in transport interventions, including Integrated Transport schemes.

Behavioural Change Initiatives (Reduce Strategy)

Description of Infrastructure	Comprehensive set of measures to reduce the demand for travel, particularly by private car by promoting alternative modes. This includes a range of measures including: <ul style="list-style-type: none"> • Marketing / Campaigns / Events • School Travel Planning • Business Travel Planning • Technology • Promoting Car clubs / Car sharing • Active Travel promotion
Cost	£5.2m in Southampton
Funding Sources	LSTF revenue funding.
Funding availability	£5.2m of LSTF funding confirmed over period to 2014/15. Government have confirmed additional LSTF revenue funding in 2015/16, which local authorities can bid for.
Timescale	Ongoing to 2015, with potential to extend as a

	“maintenance” level
Delivery Agencies	Transport for South Hampshire / Southampton City Council
Risks to funding availability	Short term low risk as funding confirmed. Medium risk in medium to longer term
Risks to Deliverability	Low
Implications of non delivery	Failure to minimise the demand for travel as part of the overall Reduce – Manage – Invest approach

7.2.3 Successful bids for LSTF funding were made by both Southampton City Council and Transport for South Hampshire in 2011. This followed the development of the Reduce Strategy, which emphasised the need to implement a range of behavioural change measures as part of the overall Reduce – Manage – Invest approach.

7.2.4 Funding is confirmed until 2015 and the Government has confirmed further funding in 2015/16, which Local Authorities can bid for.

City Streets

Description of Infrastructure	Provision of improved infrastructure within city centre to transform the Inner Ring Road into a series of civilised <i>City Streets</i> , as identified in the City Centre Master Plan, in order to reduce severance and create a high quality environment for pedestrians, cyclists and public transport users.
Cost	To comprehensively address entire city centre, likely to be in excess of £50m
Funding Sources	Single Local Growth Pot, City Council funding, LTP Integrated Transport funding, developer contributions, one off grants.
Funding availability	£10m of RGF confirmed to deliver <i>Platform for Prosperity</i> improvements in Platform Road and Town Quay. Provisional allocation of £9m from Local Transport Body for Station Quarter improvements (see separate section for Central Station Improvements).
Timescale	Ongoing to 2026 and beyond.
Delivery Agencies	Southampton City Council / Developers through S278 agreements.
Risks to funding availability	Low. Some funding already in place and once further development takes place, additional contributions will be secured
Risks to Deliverability	Low – Schemes are generally deliverable and the City Council has a track record of delivering improvements along the QE2 Mile.
Implications of non delivery	City centre not designed to maximise opportunity for walking, cycling and public transport, which is essential to deliver modal shift and make the city centre an attractive place for further economic growth and inward investment.

7.2.5 The need for **City Streets** improvements was highlighted by the City Centre Master Plan work and the supporting Public Realm report, produced by Gehl Architects. This work identified that sections of the existing Inner Ring Road in the city centre cause significant levels of severance for pedestrian and cycle movement. In order to create a truly walkable and cycleable city, it is important that these are addressed, whilst still recognising the traffic function of these routes. This is important both for journeys to and from the city centre and also for many journeys within the city centre.

7.2.6 Data from the modal split surveys shows that walking and cycling are increasing for journeys to and from the city centre and it is important that this continues in order to minimise the impact of future increasing travel demands.

7.2.7 The *Platform for Prosperity* road improvements in Platform Road and Town Quay, which will be completed in 2014, are following these principles and these follow extensive enhancements to the QE2 Mile and London Road. However, they also have a primary function to improve access to and from the Port of Southampton, as noted in section 7.5 below.

Southampton Central Station enhancements

Description of Infrastructure	Significant improvements to Southampton Central station, including improved accessibility, high quality interchange facilities with bus services and public realm enhancements..
Cost	£8m for North Side improvements. £11m for Phase 1 works on South Side
Funding Sources	LSTF, Single Local Growth Pot, LTP Integrated Transport, Developer Contributions.
Funding availability	£2m funding package confirmed to deliver Phase 1 of North Side improvements. £9m provisionally allocated by Local Transport Body to complete North Side and deliver Phase 1 improvements on South Side with match funding from SCC.
Timescale	Ongoing.
Delivery Agencies	Network Rail, Southampton City Council and developers
Risks to funding availability	Medium / Low – Some funding confirmed and further work identified as a high priority for transport investment in the Solent area.
Risks to Deliverability	Low, but need to establish whether longer term enhancements required to station capacity, which could impact on South Side proposals.
Implications of non delivery	Reduced attractiveness of rail, bus, walking and cycling in this key part of the city centre. Less likelihood of inward investment and regeneration in the Station Quarter.

- 7.2.8 Southampton Central station is a highly accessible location, as a key focus of both rail and bus services in the city centre. The Major Development Quarter will be built around the railway station to take advantage of the opportunity for a high proportion of journeys to use public transport as an alternative to the private car. The Station Quarter itself also provides a number of opportunities to create high density development in this highly accessible location, as an early phase of the Major Development Quarter
- 7.2.9 Network Rail are currently undertaking a Long Term Planning Process (looking forward 30 years), which may require more substantive improvements to rail capacity and station facilities. However, such improvements would be costly and would only be implemented in the longer term. The City Council will continue to work with Network Rail to establish their requirements and ensure any development proposals that come forward are acceptable.

7.3 Other Transport Interventions

- 7.3.1 Due to the need to address a much more significant increase in overall travel demands, the Core Strategy Transport Background Paper identified a number of other transport interventions that are no longer a high priority for implementation prior to 2026. There is, however, a longer term aspiration to deliver the original Core Strategy development targets in the longer term and the City Centre Master Plan demonstrates that there is the physical space in the city centre to accommodate this level of growth. It is also possible that funding opportunities, which may arise for these schemes over the period to 2026, that may provide timely opportunities for earlier implementation, or the intervention may be required for another purpose.
- 7.3.2 The TfSHIoW Transport Delivery Plan has also identified some other interventions that would benefit access to and from Southampton city centre, which were not considered by the Core Strategy evidence.
- 7.3.3 This section outlines the current status of these interventions.

Strategic Park and Ride sites

- 7.3.4 The latest modelling work does not require Strategic Park and Ride to support access to the city centre over the period to 2026. This is consistent with the TfSHIoW Transport Delivery Plan, which did not identify Strategic park and Ride as a priority intervention. There may be scope in the shorter term for a site to the west of Southampton to provide a strategic function for Southampton general Hospital.

Eastern Approach to Southampton / Access to Hedge End SDA

- 7.3.5 There was a historic proposal to implement a comprehensive range of interventions along the main Eastern Access into Southampton from

M27 J8 to the city centre to address the historic large predicted increases in travel demand. Improvements considered included:

- Widening Northam Railway Bridge;
- Provision of High Occupancy Vehicle lanes along the Bursledon Road / Bitterne Road corridor;
- Provision of a Strategic Park and Ride site at Bursledon;
- Improvements at Windhover Roundabout;
- Provision of bus only priority route along Botley Road from A27 to Bursledon Road

7.3.6 The revised development targets in the city centre and the removal of the Hedge End SDA have reduced the need for these improvements, although there may still be some merit in implementing some of these if an opportunity arises, as the corridor does suffer from existing congestion problems. Hampshire County Council are currently looking at options for improvements around Windhover Roundabout. There are also maintenance issues to be addressed at Northam Railway Bridge. The structure may be affected by the Electric Spine proposals to implement overhead electrification to Southampton, although initial indications from Network Rail are that the track could be lowered under the existing structure. If a new structure is required at any stage, then it should consider longer term aspirations for this corridor in terms of traffic capacity, but also ensuring high quality bus, pedestrian and cycle access.

7.3.7 Many of these measures are still identified within the Transport Delivery Plan for delivery over the period to 2026.

Eastleigh Chord and Botley Line Rail Enhancements

7.3.8 Whilst these improvements would allow direct train service between Hedge End and Southampton, which would be an attractive public transport option, they are extremely expensive and the Chord in particular, has a number of delivery issues. It is unlikely that these schemes will be delivered in the period to 2026 and they are not identified in the TfSHIoW Transport Delivery Plan.

7.4 Transport Delivery Plan Interventions

7.4.1 The following additional interventions were identified in the TfSHIoW Transport Delivery Plan for potential implementation over the period to 2026 and would benefit access to and from Southampton city centre. These are not generally funded at this stage:

- Interchange Improvements at railway stations to improve east-West connectivity;
- Interchange improvements at Woolston;
- Cross Solent Interchange Improvements;
- Waterside Rail; and

- Portsmouth to Southampton Skip Stop

7.5 Investment to the Strategic Road and Rail Network including Access to the Port of Southampton

7.5.1 This section focuses on proposed improvements to strategic road and rail infrastructure, with particular reference to accessing both the city centre and Port of Southampton.

Platform for Prosperity

Description of Infrastructure	Provision of road improvements in Platform Road and Town Quay to improve strategic access to Port of Southampton (Eastern Docks)
Cost	£12m
Funding Sources	Regional Growth Fund plus local contributions from SCC. Abp to fund separate associated works within port estate.
Funding availability	Confirmed.
Timescale	Under construction for completion in 2014/15.
Delivery Agencies	SCC / ABP
Risks to funding availability	None.
Risks to Deliverability	Low. Scheme on site.
Implications of non delivery	Reduction in competitiveness of Port of Southampton. Insufficient infrastructure to serve city centre regeneration sites.

7.5.2 The *Platform for Prosperity* scheme is under construction. This also forms part of the *City Streets* project, but its primary function is to improve access to and from the Port of Southampton and regeneration sites in the city centre, including Royal Pier

Redbridge Roundabout Improvements

Description of Infrastructure	Provision of “hamburger” arrangement for westbound traffic exiting Southampton onto M271.
Cost	£3.5m
Funding Sources	None currently identified. RGF bid unsuccessful in 2013.
Funding availability	None currently identified.
Timescale	TBC
Delivery Agencies	SCC / Highways Agency
Risks to funding availability	High – no funding currently identified
Risks to Deliverability	Low

Implications of non delivery	Reduction in competitiveness of Port of Southampton
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7.5.3 The Redbridge Roundabout Improvements are not currently funded, but are identified in the Transport Delivery Plan.

M27 Junction 3 Improvements

Description of Infrastructure	Capacity improvements to Junction 3 of the M27 for movements from the M27 eastbound exit to the M271.
Cost	£2.3m
Funding Sources	Pinch Point.
Funding availability	£2.3m of Pinch Point funding to complete works.
Timescale	Works to be implemented 2015-2015.
Delivery Agencies	Highways Agency
Risks to funding availability	Low.
Risks to Deliverability	Low.
Implications of non delivery	Would compromise capacity for key access route from Strategic Road Network to Southampton city centre and Port of Southampton.

7.5.4 These works will provide a benefit for this key route from the Strategic Road Network into Southampton, which is also the main route used by Port traffic.

M27 Junction 5 Improvements – Phase 2 Works

Description of Infrastructure	Capacity improvements to Junction 5 of the M27 to facilitate access to Eastleigh River Side development. Phase 1 works to provide free flow left turn lane from M27 W/B to Stoneham Way complete.
Cost	£4.9m for Phase 2 works.
Funding Sources	Pinch Point, Developer Contributions
Funding availability	£4.9m of Pinch Point funding to complete Phase 2 works to implement free flow left turn lane eastbound to M27.
Timescale	To be implemented 2015-2015.
Delivery Agencies	Highways Agency / Hampshire County Council
Risks to funding availability	Low - funding confirmed.
Risks to Deliverability	Low.
Implications of non delivery	Would compromise ability to deliver Eastleigh River Side development and access to Southampton Airport and

	Parkway station.
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7.5.5 Although Junction 5 is located outside the City boundary, it is a key location on the Strategic Road Network to access the Eastleigh River Side development (both from the M27 and Southampton) and the Airport and Parkway station.

Managed Motorways

Description of Infrastructure	Provision of Active Traffic Management on M3 and M27 Motorways including Variable Speed Limits and / or Hard Shoulder Running
Cost	To be confirmed.
Funding Sources	Highways Agency
Funding availability	Project confirmed as part of overall Highways Agency investment package in the Summer 2013 spending review.
Timescale	To be confirmed in detail, but anticipated by 2021, which is the period covered by the funding announcement.
Delivery Agencies	Highways Agency
Risks to funding availability	Low – DfT have confirmed finance is available
Risks to Deliverability	Low – Schemes should be deliverable
Implications of non delivery	Lack of enhancement in capacity of M3 and M27 Motorway network, which are key Strategic Road Network routes serving Southampton city centre and the Port of Southampton.

7.5.6 The Transport Delivery Plan considered the lower cost option for “Controlled Motorways”. However, following the Summer 2013 Spending Review, the Highways Agency is to receive a significant increase in its annual budget maintenance and improvement works. The provision of Managed Motorways on the M3 and M27 is included within the list of schemes outlined in *Action for Roads - A network for the 21st century*, published by the DfT in 2013.

M3 Junction 9 / A34 Junction Improvements

Description of Infrastructure	Capacity improvements for movements from A34 southbound to M3 southbound.
Cost	Not known, but significant. Low cost £0.4m improvements being implemented in 2013.
Funding Sources	Pinch Point funding for low cost scheme. Major improvements would be expected to be funded by Highways Agency.
Funding availability	Currently £0.4m confirmed for low cost improvements.
Timescale	Low cost improvements to be implemented by Autumn

	2013. No date for further improvements.
Delivery Agencies	Highways Agency
Risks to funding availability	Low for confirmed Pinch Point funding.
Risks to Deliverability	Low for current scheme. Higher for major improvements due to complexity of work and proximity to South Downs National Park.
Implications of non delivery	Would compromise access to Southampton and Port of Southampton from the Midlands and North.

7.5.7 This scheme is identified in the TfSHIoW Transport Delivery Plan as a priority for delivery by 2026, although costs are significant and it has not been specifically identified as a funded project over the period to 2021. However, it could still potentially be funded by 2026. Increased southbound throughput at J9 will require commensurate measures on the M3 to accommodate the higher rate of flow, which the confirmed *Managed Motorways* scheme may address.

Southampton to West Coast Main Line Freight Capacity Enhancement

Description of Infrastructure	Capacity improvements to allow 775m length trains to run between Southampton and the West Coast Main Line at Nuneaton
Cost	Not known.
Funding Sources	Network Rail
Funding availability	Some funding in place in CP4 to start some improvements (e.g. Eastleigh / Reading). Most improvements anticipated in CP5 from 2014/15 onwards.
Timescale	CP5 (2014/15 to 2019/20)
Delivery Agencies	Network Rail
Risks to funding availability	Low, but CP5 Delivery Plan to be confirmed in 2014.
Risks to Deliverability	None
Implications of non delivery	Lack of capacity to accommodate increase in container and car movements by rail to / from Port of Southampton, leading to further increase in HGV movements.

7.5.8 The now completed Southampton to West Midlands gauge enhancement project has led to an increase in containers travelling to and from the Port of Southampton by rail. There have also been significant increases in automotive traffic by rail of late. This project will provide additional capacity to accommodate ongoing increases in rail freight traffic to and from the port of Southampton.

Electric Spine

Description of Infrastructure	Provision of comprehensive electrification scheme from Southampton to West Coast Main Line and Midland Main Line
Cost	Not known.
Funding Sources	Network Rail
Funding availability	Proposed for funding in CP5 from 2014/15 onwards.
Timescale	Currently proposed in CP5 by 2019/20
Delivery Agencies	Network Rail
Risks to funding availability	Medium, but CP5 Delivery Plan to be confirmed in 2014.
Risks to Deliverability	None other than funding availability.
Implications of non delivery	Not significant in short term but important in medium / longer term as electric traction is more efficient for freight and passenger services.

7.6 Completed schemes

7.6.1 The following interventions have been implemented on the Strategic Road and Rail Networks since the Core Strategy transport evidence was produced in 2008:

- M3 J3-J4 widening;
- M27 J5 Phase 1 improvements (free flow left turn lane from M27 westbound to Stoneham Way); and
- Southampton to West Midlands Gauge Enhancement, including diversionary route via Laverstock to allow 9'6" boxes to be carried on conventional wagons.

8. Overall Summary and Conclusions

8.1.1 Southampton city centre is a fully accessible location. It is a focus for public transport services, including bus, rail and ferry links. There are good walking and cycling routes into the city centre from many other parts of Southampton. The centre also has good road access. Modal split data shows that over 40% of peak hour journeys are made in and out of the city centre by alternative modes to the private car and this has increased over recent years. Focussing a mix of development in the city centre minimises the need to travel, particularly by car. For the ever increasing city centre population, many facilities they need to access on a day to day basis are a short walk away.

8.1.2 Modelling work suggest that the levels of increase in travel demand over the period to 2026 are manageable with a package of transport interventions that continues to increase the use of alternative modes to

the private car. Evidence from the last few years shows that increasing development in the city centre does not lead to the significant increases in traffic impact that would occur in out of town locations. Further modelling work will be undertaken to assess the wider impact on the Strategic Road Network. The City Council will continue to work closely with the Highways Agency in relation to this.

- 8.1.3 A full assessment has been made of the various transport infrastructure measures proposed in support of the growth agenda. This includes an assessment of their deliverability, both from a practical and funding angle and what the implications would be if delivery did not take place.