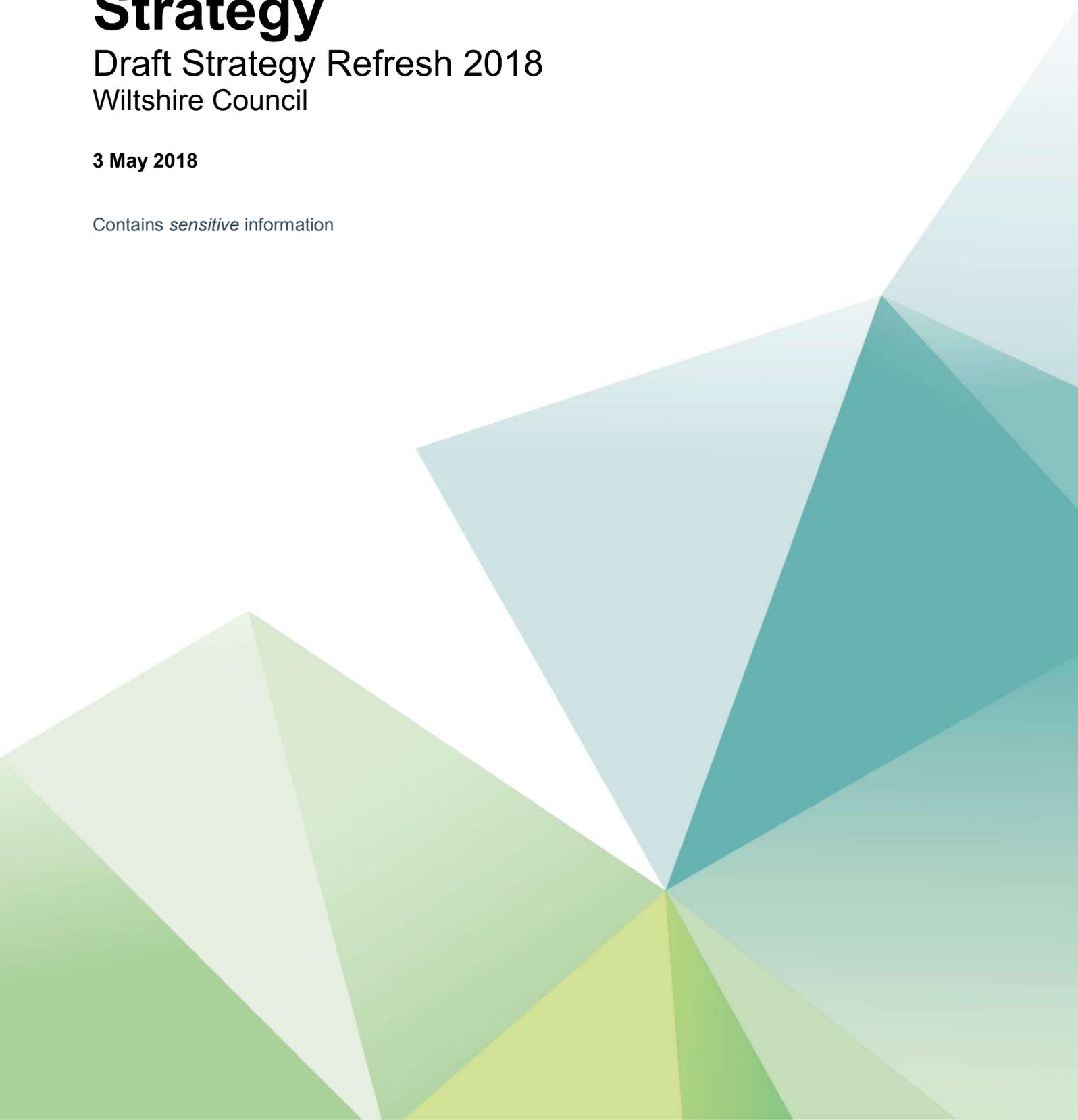


Salisbury Transport Strategy

Draft Strategy Refresh 2018
Wiltshire Council

3 May 2018

Contains *sensitive* information



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The Salisbury Transport Strategy is Wiltshire Council's proposed approach to meeting the transport needs of the city within the context of planned housing and employment growth. The strategy has been developed around three main themes:

- Providing for strategic development sites
- Improving the accessibility and attractiveness of the city centre
- Maintaining the strategic function of the A36 and key roads, including the MRN

1. Introduction

1.1. Strategy purpose

1.1.1. Future growth of Salisbury

The Wiltshire Core Strategy¹ identifies Salisbury as a Principal Settlement, indicating the city's key strategic role as a centre for tourism, retail, and employment, as well as its suitability to cater for future development. It is important that Salisbury continues to grow in a sustainable manner to meet housing and employment demand over the next few decades, whilst strengthening its position as a local and international attractor. Delivering improved infrastructure and facilities will be important in this process.

The Strategy outlines that the city will be a key delivery agent in supplying sustainable housing and employment growth over the plan period (2006-2026). Land has been identified for growth which is targeted to deliver over 5,000 new homes and 28 hectares of employment land.

CORE POLICY 1 SETTLEMENT STRATEGY – PRINCIPAL SETTLEMENTS

Wiltshire's Principal Settlements (Chippenham, Trowbridge and Salisbury) are strategically important centres and the primary focus for development.

They will provide significant levels of jobs and homes, together with supporting community facilities and infrastructure, meeting their economic potential in the most sustainable way to support better self-containment.

Source: Wiltshire Core Strategy 2015: Adopted January 2015, Core Policy 1.

CORE STRATEGY – ISSUES AND CONSIDERATIONS

Transport solutions will be delivered in accordance with the evolving Salisbury Transport Strategy, and will support growth.

Source: Wiltshire Core Strategy 2015: Adopted January 2015, Page 152.

Employment and housing growth will assist in delivering improved infrastructure through its planning contributions. This will enhance the attractiveness of Salisbury for employers to locate there, whilst strengthening Salisbury's role as a strategic employment centre for South Wiltshire, extending into Hampshire and Dorset.

Delivering essential infrastructure and growth in Salisbury is dependent on a transport network that enables visitors, residents and businesses to access opportunities, services and facilities in the city by all modes of transport. The transport network is also key to delivering planned residential/employment growth whilst achieving the vision for the city centre. To realise these aims, and to align with Core Policy 63, a transport strategy is required for Salisbury.

1.1.2. Strategy remit

The transport strategy considers existing transport issues and challenges in Salisbury, and future anticipated transport challenges associated with the planned growth of the city. This strategy refreshes the 2009 Salisbury Transport Strategy, and considers the latest growth plans for the city, until 2026. It considers the impacts of committed development at key development sites outlined in the Wiltshire Core Strategy, the Wiltshire Housing Site Allocations Development Plan Document (referred to hereon in as the 'DPD'), and the Local Plan. The strategy reflects the fact that some strategic development sites are anticipated to deliver fewer houses than

¹ Wiltshire Core Strategy, adopted January 2015

previously projected. These dwellings are to be reallocated to new allocations elsewhere in the Salisbury area, with the aim of ensuring that targets for the delivery of housing in the area are met.

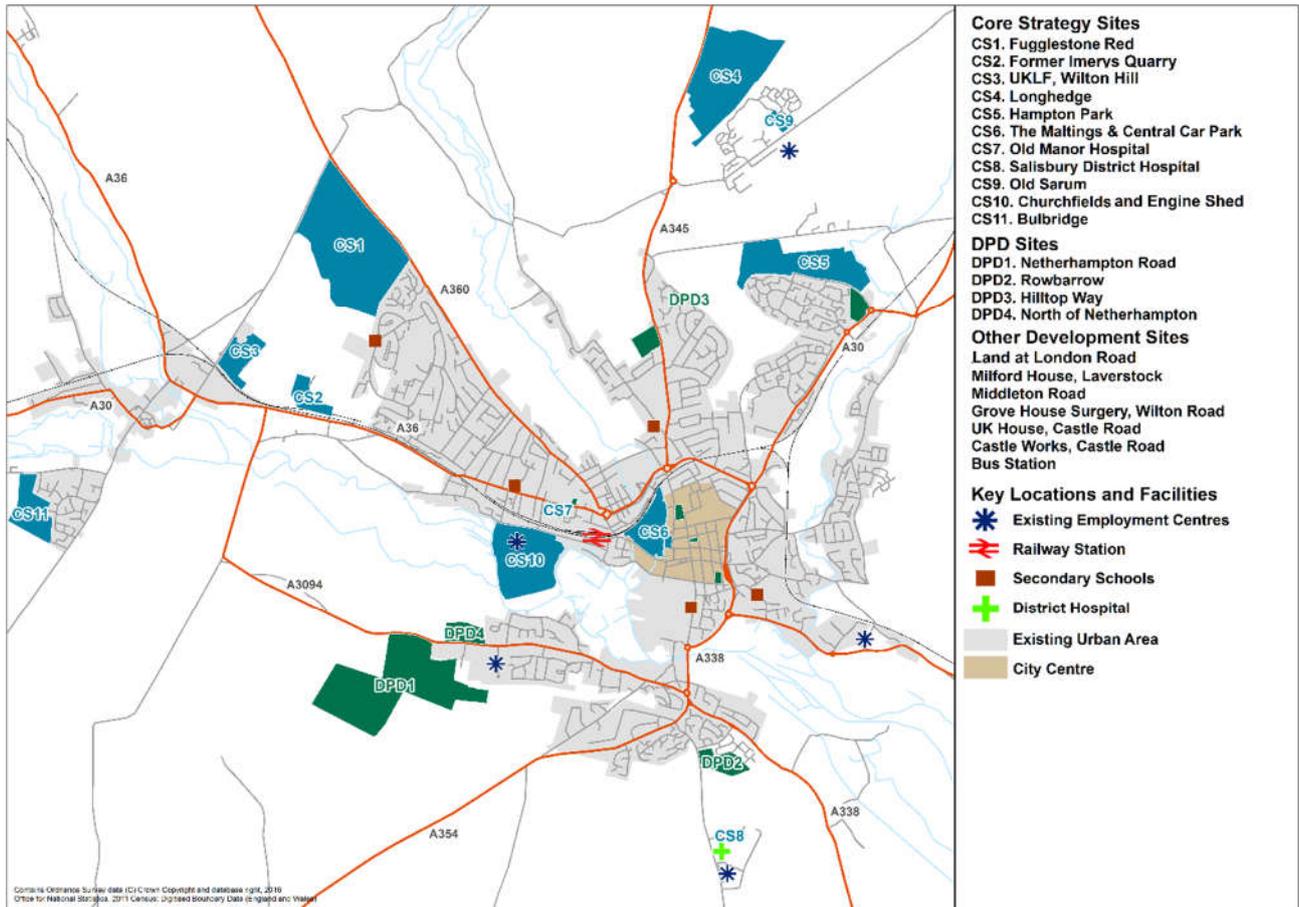
Table 1-1 outlines the development sites to deliver housing and employment growth in Salisbury up to 2026, whilst Figure 1-1 presents the location and approximate scale of these development sites.

Table 1-1 Salisbury development sites²

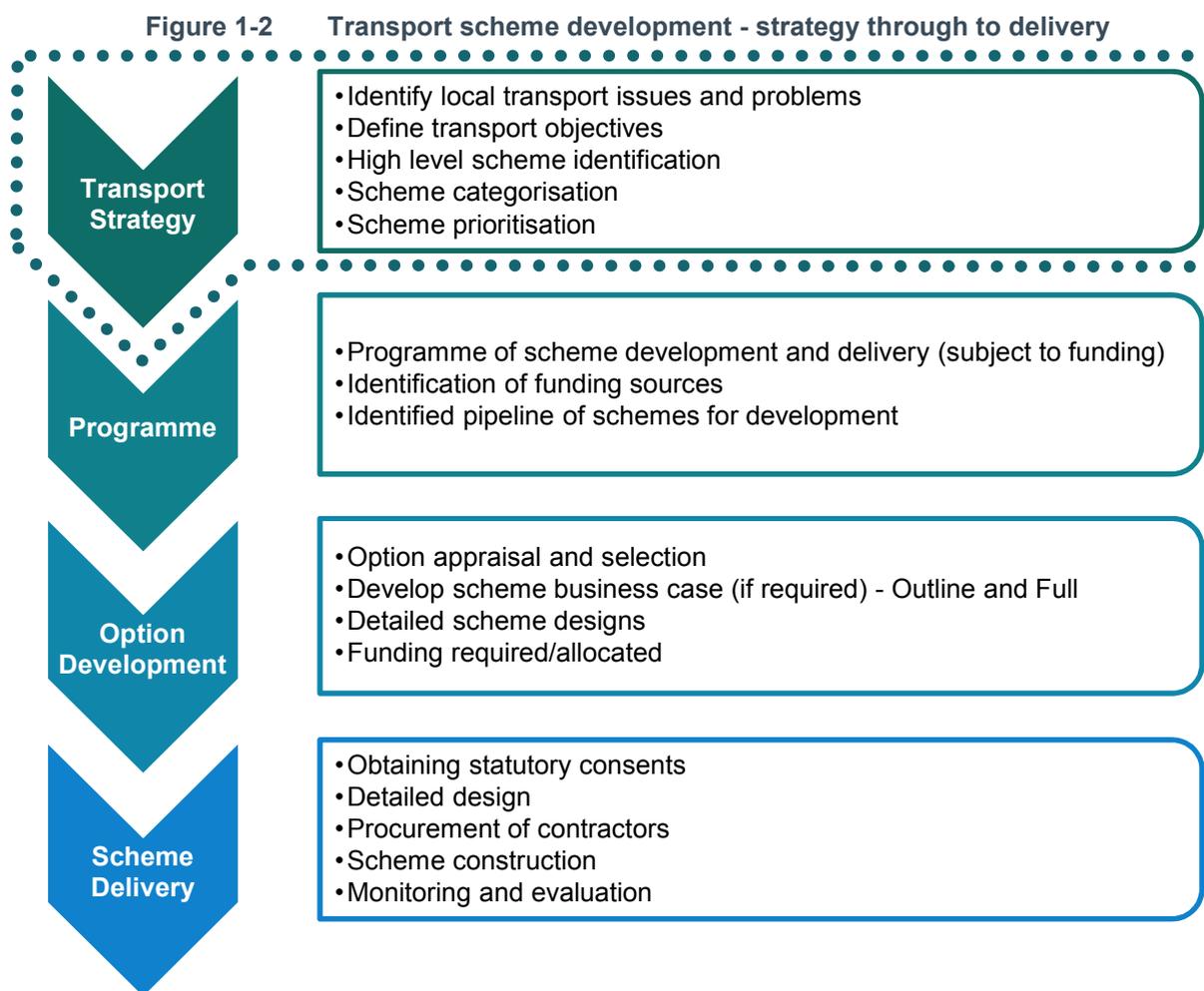
Source	Development site	2016 prediction for 2026	
		Housing (dwellings)	Employment (m ²)
Wiltshire Core Strategy	Fugglestone Red	1,110	80,000
	Land NW of Fugglestone Red	141	-
	Former Imerys Quarry	-	40,000
	UKLF, Wilton (Wilton Hill)	397	30,000
	Longhedge	673	80,000
	Hampton Park	500	-
	The Maltings & Central Car Park	100	40,000
	Old Manor Hospital	71	-
	Salisbury District Hospital	-	705
	Old Sarum	30	-
	Churchfields & Engine Shed	1,100	50,000
	Bulbridge	45	-
DPD	Netherhampton Road	640	-
	North of Netherhampton Road	100	-
	Rowbarrow	100	-
	Hilltop Way	10	-
Other development sites	Land at London Road	-	6,030
	Milford House, Laverstock	31	-
	Middleton Road	12	-
	Grove House Surgery, Wilton Road	10	-
	UK House, Castle Road	78	-
	Castle Works, Castle Road	60	-
	Bus Station	47	-
Windfall Sites	Minor Sites	425	-
Total		5,680	326,735m² (32 ha)

² Development sites and growth allocations have been set with the agreement of Wiltshire Council officers

Figure 1-1 Development sites in Salisbury



This strategy identifies transport schemes that would be required to meet the strategy objectives which are set out in section 3. The process for identifying schemes is presented in Figure 1-2. Scheme designs are not outlined in this strategy and the details of specific schemes will need to be investigated further in Transport Assessments which would be used to support planning applications and/or business cases, as appropriate. Additional mitigation measures would be identified at more detailed stages of assessment. Therefore, this strategy is not intended to be an exhaustive list of measures that are to mitigate the specific transport impacts of developments.



Strategy scheme development

The high-level schemes identified in this strategy will need to be developed in further detail, considering safety, equality, quality of life, environmental and carbon reduction needs³. This must be in accordance with relevant laws and legislation, including relevant environmental legislation and regulations, and the Equality Act (2010).

Wiltshire-wide transport initiatives

This strategy does not seek to overwrite the existing Wiltshire-wide transport initiatives that are currently being implemented, or are in operation. This includes the Connecting Wiltshire programme which promotes and facilitates sustainable travel within the county⁴. It is assumed that these existing initiatives will run alongside, and complement the Salisbury-specific schemes proposed within this strategy.

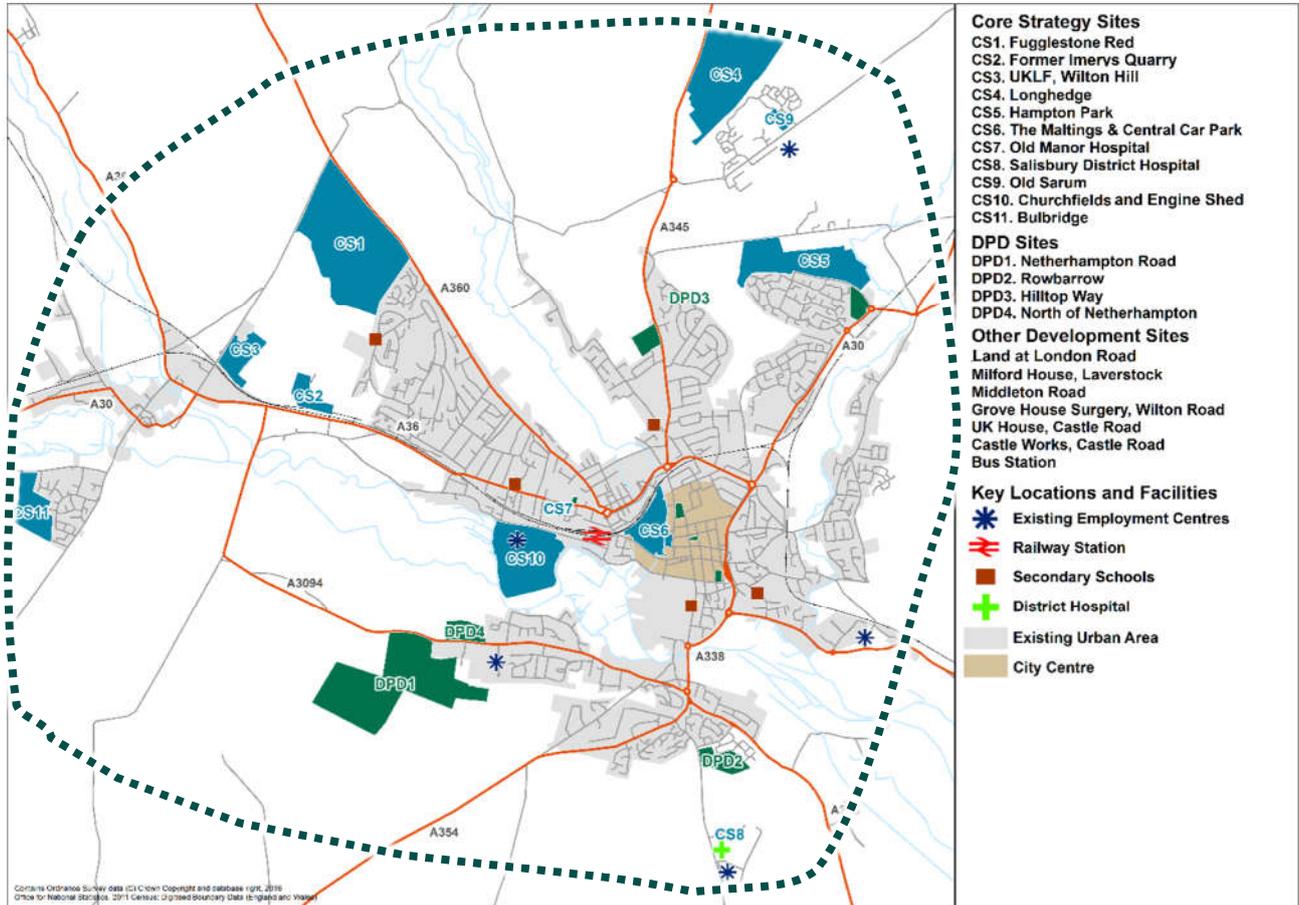
³ Underpinned by: Wiltshire Local Transport Plan 2011-2026 – Road Safety Strategy, Wiltshire and Swindon Police and Crime Plan, Wiltshire Health and Wellbeing Strategy, Wiltshire Business Plan, Wiltshire Community Plan 2011-2026.

⁴ The Connecting Wiltshire programme encompasses a number of measures designed to make travelling easier. Example measures include the TransWilts rail service and cycle route improvements.

Salisbury Transport Strategy – geographic scope

The Salisbury Transport Strategy focusses on the urban area of Salisbury within the geographical area shown in Figure 1-3. It takes in Wilton to the west, Longhedge to the north, Laverstock to the east and Salisbury District Hospital to the south.

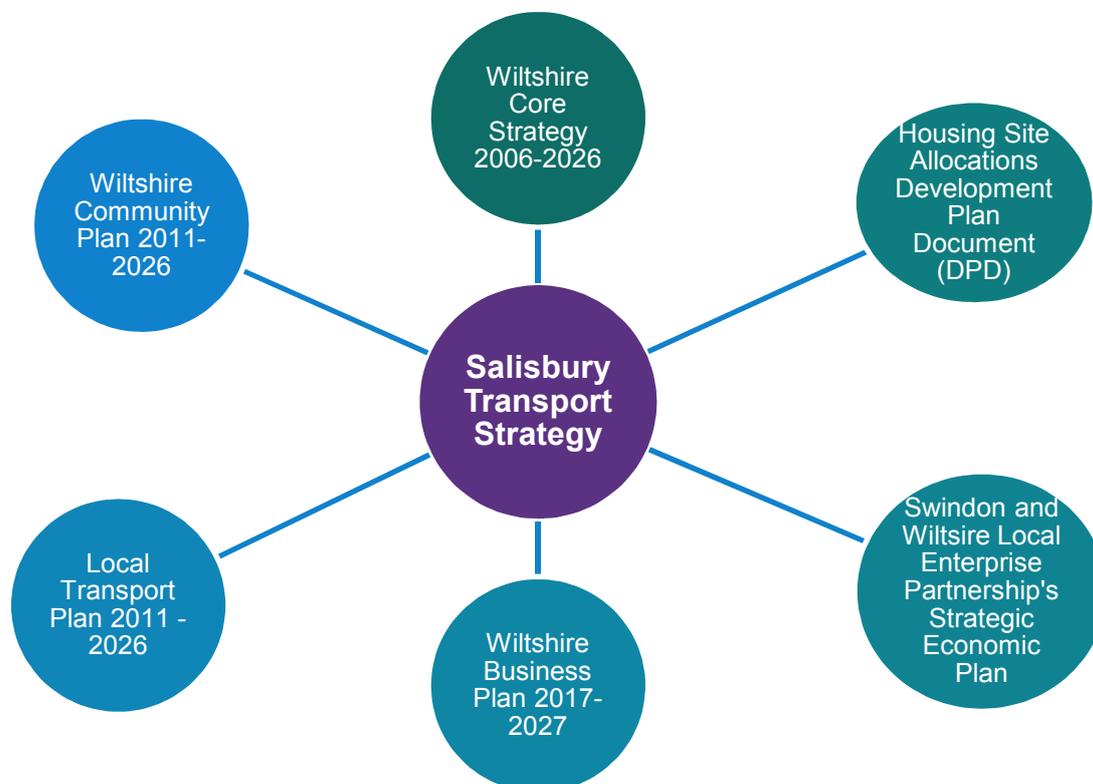
Figure 1-3 Geographic scope



1.2. Strategic framework

This transport strategy has been undertaken within the context of a strategic policy framework, as illustrated in Figure 1-4. These strategic policies have been produced to identify and address the strategic policy needs of communities across Wiltshire. The Salisbury Transport Strategy specifically relates to identifying an approach to addressing transport issues within the city and meeting transport specific objectives.

Figure 1-4 Strategic policy framework for the Salisbury Transport Strategy



Swindon & Wiltshire Local Enterprise Partnership's (SWLEP) Strategic Economic Plan 2016

The Strategic Economic Plan sets out the economic vision for Swindon and Wiltshire by delivering a programme of investment to encourage economic growth. The plan's second strategic objective is to produce a reliable, connected and resilient transport system "to support economic and planned development growth at key locations". The plan includes a number of priorities and specific priority zones, including the Salisbury-A303 Zone. The key priority actions for this objective include:

- Deliver key road junction and infrastructure improvements to support economic and planned development growth;
- Deliver a whole corridor approach to traffic management and maintenance on key routes to improve reliability and resilience; and
- Deliver packages of integrated transport schemes to support the development and regeneration plans for Salisbury.

Wiltshire Local Transport Plan 3

The Local Transport Plan (LTP) provides the overarching long-term strategy for transport across Wiltshire. The Trowbridge Transport Strategy Refresh supplements this wider strategy by focusing on objectives and schemes that are specific to Trowbridge.

The LTP3 Strategy includes Smarter Choices, Cycling, and Passenger Transport sub-strategies which contain measures to be implemented across Wiltshire. Whilst these measures may not be specific to Salisbury, they are of relevance to the city.

Wiltshire Core Strategy and Wiltshire Housing Site Allocations DPD

The Wiltshire Core Strategy identifies strategic allocations to deliver housing and employment growth in Salisbury, whilst the Housing Site Allocations DPD identifies further sites for the delivery of housing in the area. Table 1-1 outlines the sites that will be examined through the course of this transport strategy.

Wiltshire Business Plan 2017-2027

This is the ten-year plan outlining how Wiltshire Council will achieve its vision of “Creating strong communities” through its priorities for growing the economy, strong communities and protecting the vulnerable.

Wiltshire Community Plan 2011-2026

The Community Plan describes the Wiltshire Council vision to build strong and resilient communities in Wiltshire and outlines three main priorities for partnerships in Wiltshire to work to, these are:

- Creating an economy that is fit for the future
- Reducing disadvantage and inequality
- Tackling the causes and effects of climate change

Summary

The policies and outcomes for these overarching policies and objectives are summarised in Table 1-2.

Table 1-2 Strategic policies and objectives

Wiltshire Business Plan 2017-2027	Wiltshire Community Plan 2011-2026	Swindon and Wiltshire LEP Strategic Economic Plan	Wiltshire Local Transport Plan 3 (LTP3)	Wiltshire Core Strategy and Housing Site Allocations DPD
<p>Priorities:</p> <ul style="list-style-type: none"> • Growing the economy through delivering high skilled jobs, sustainable development and enhanced transport and infrastructure • Strong communities through ensuring residents feel safe where they live and work • Protecting the vulnerable 	<p>Priorities:</p> <ul style="list-style-type: none"> • Creating an economy that is fit for the future. • Reducing disadvantage and inequality. • Tackling the causes and effects of climate change. 	<p>Priorities and Priority Zones:</p> <ul style="list-style-type: none"> • Inward investment. • Supporting and stimulating existing business growth and facilitating new business set up. • Job creation, education and skills. • Economic infrastructure. • Salisbury A303 Growth Zone – Work with Highways England to ensure the A36 fulfils its strategic role and supports planned development in/around Salisbury • Invest in transport schemes/packages to support housing and employment growth in Chippenham, Trowbridge and Salisbury 	<p>18 strategic objectives for meeting the Vision:</p> <p>To develop a transport system which helps support economic growth across Wiltshire’s communities, giving choice and opportunity for people to safely access essential services. Transport solutions will be sensitive to the built and natural environment, with a particular emphasis on the need to reduce carbon emissions.</p>	<p>Wiltshire Core Strategy Objectives:</p> <ul style="list-style-type: none"> • SO1: delivering a thriving economy. • SO2: Addressing climate change. • SO4 helping to build resilient communities, • SO5 protecting and enhancing the natural, historic and built environment. • SO6: Ensuring adequate infrastructure is in place to support our communities. <p>Wiltshire Housing Site Allocations DPD:</p> <ul style="list-style-type: none"> • Objective 3: To allocate sites at the settlements in the County that support the spatial strategy of the Wiltshire Core Strategy.

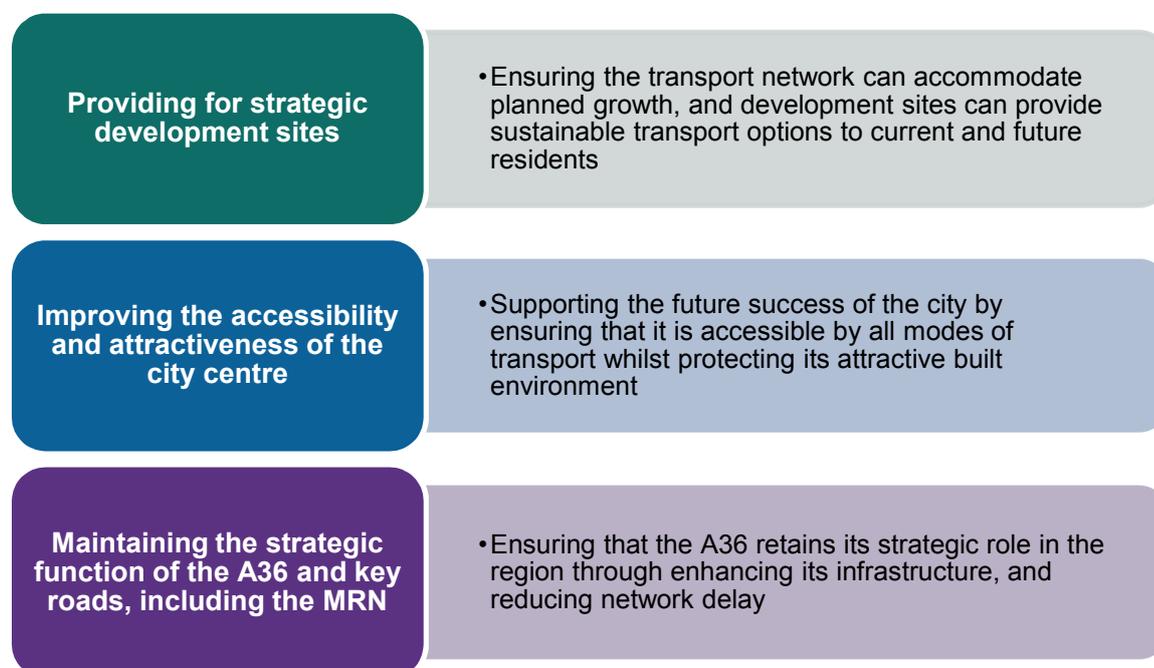
The transport strategy is set within the context of the strategic policy framework, and subsequently the objectives of the transport strategy must align with these policies. The alignment is summarised in Table 1-3. Further information on the way in which the Salisbury Transport Strategy is associated to the objectives of the strategic policy framework is provided in Appendix A.

Table 1-3 Strategic policy alignment

Strategic Policy	Salisbury Transport Strategy alignment
Swindon and Wiltshire Local Enterprise Partnership - Strategic Economic Plan (SWLEP SEP)	Developing a transport network for the economy: encourage inward investment, reduce transport costs for residents and businesses and encourage tourism.
Wiltshire Local Transport Plan 3 (LTP3)	Supporting strategic objectives and Wiltshire-wide transport initiatives (such as the Smarter Choices Strategy).
Wiltshire Core Strategy and Housing Site Allocations DPD	Supporting planned growth by identifying transport schemes required to deliver planned development.
Wiltshire Business Plan 2017-2027	An approach to transport which supports access to employment, supports housing and employment growth, accessible public transport services, walking and cycling, and regeneration of town centres.
Wiltshire Community Plan 2011-2026	Developing a transport network which facilitates travel by sustainable modes of transport and provides accessibility for all people to key services and facilities.

1.2.1. Strategy themes

A set of clear priorities for transport in Salisbury emerges from the policy review, which forms the three key overarching themes that provide the framework for the Salisbury Transport Strategy:

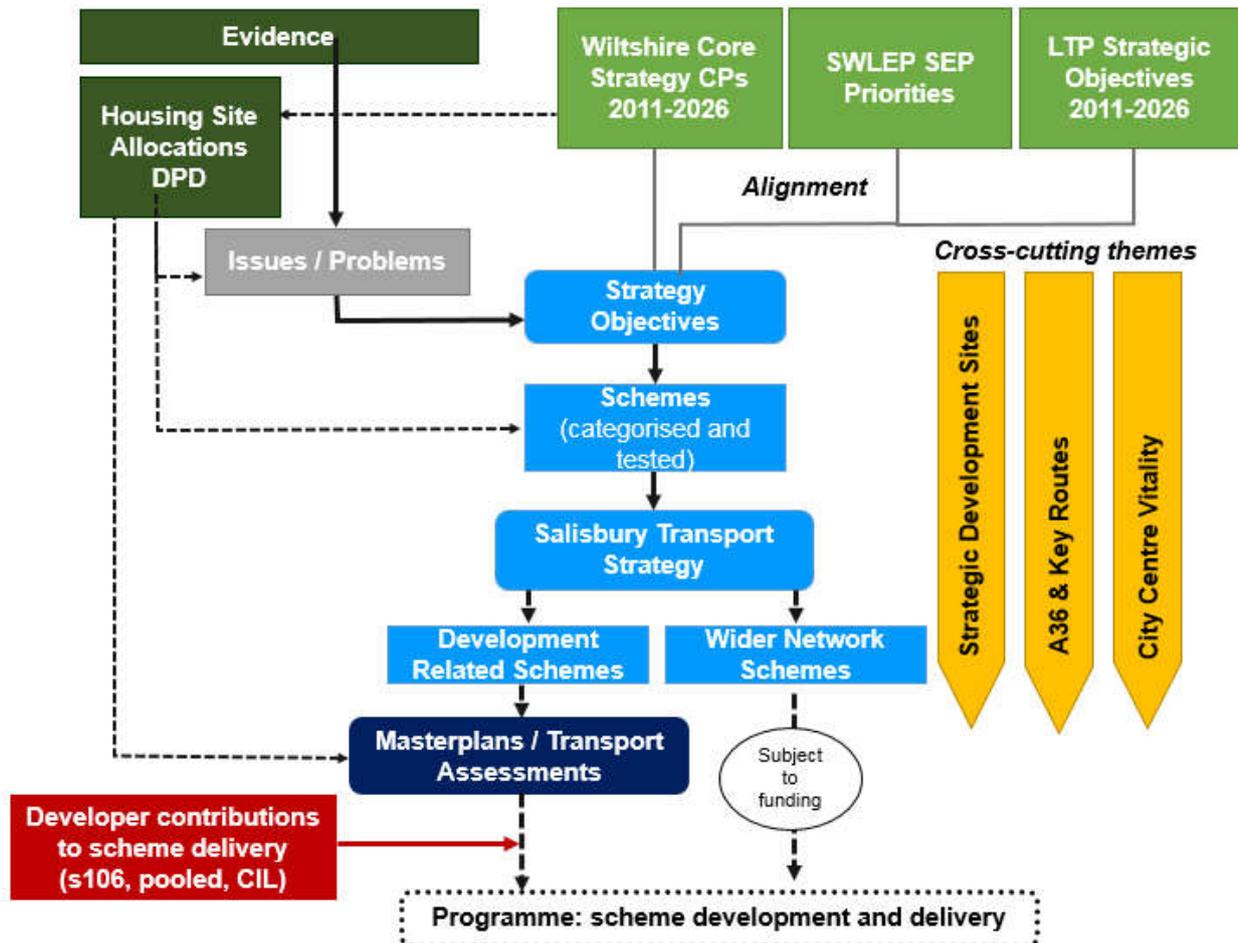


1.2.2. Strategy development framework

The Salisbury Transport Strategy outlines the approach to addressing transport issues in the city within the context of planned residential and employment growth. The strategy therefore, has a robust relationship with the Core Strategy and DPD, both of which plan for delivering growth in Salisbury.

Figure 1-5 outlines the relationship between the strategic policy framework, the Core Strategy, DPD and the delivery of planned development and transport schemes.

Figure 1-5 Strategy development framework

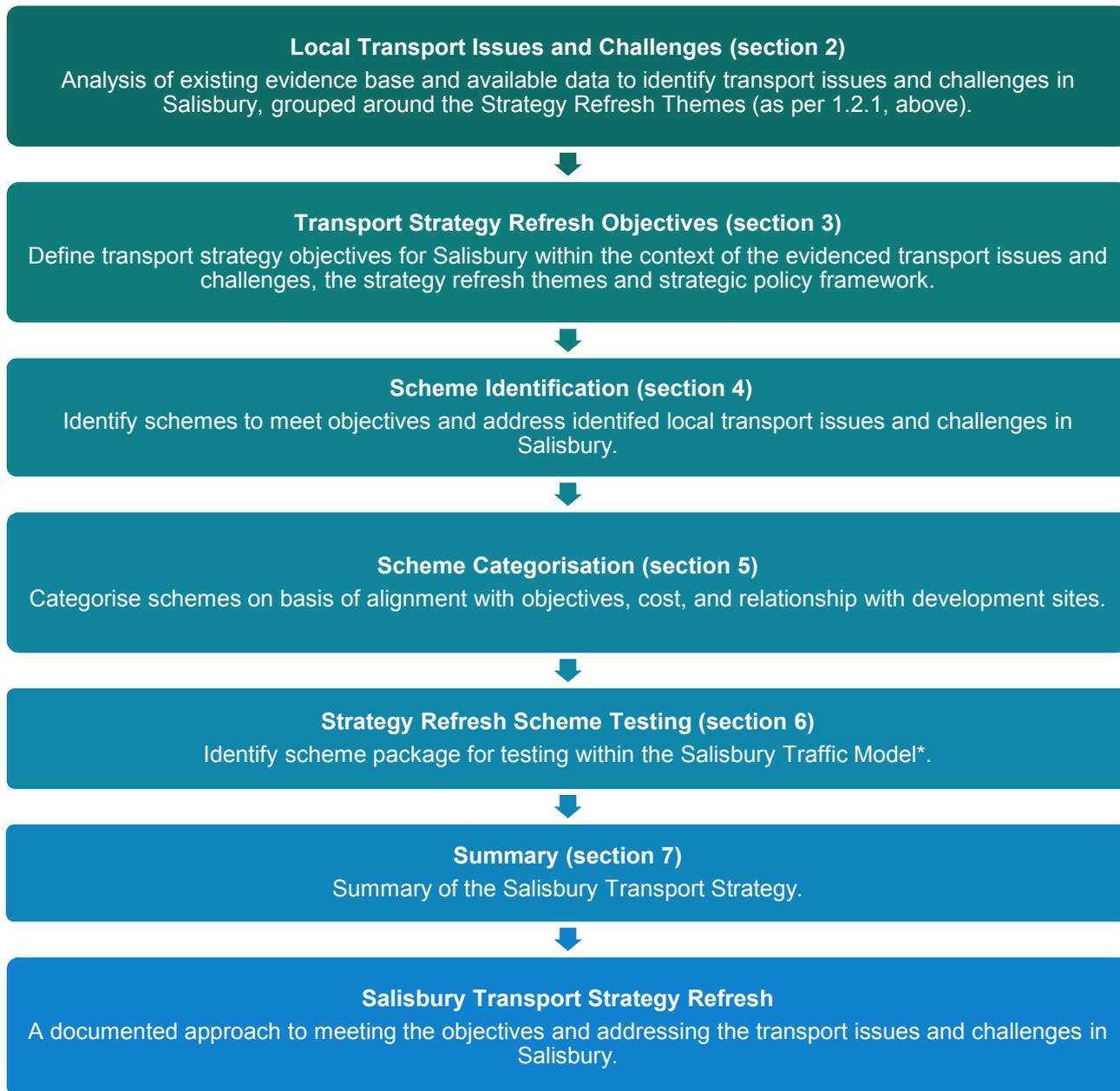


1.3. Strategy development method

The transport strategy is developed using an evidence-based approach to identify issues and challenges, setting the objectives and testing and categorising the transport schemes. The process for developing the strategy is illustrated in Figure 1-6.

The process forms the structure for the remainder of this document. Supporting technical information is provided in the appropriate appendices.

Figure 1-6 Strategy development method



2. Issues and challenges

2.1. Overview

This section identifies Salisbury's transport issues and challenges, based on an examination of existing evidence sources. The identified issues and challenges are listed in Table 2-1 and described in detail in the paragraphs following this table. The key evidence sources include:

- The previous Salisbury Transport Strategy (2010)
- Census 2011 datasets
- Department for Transport (DfT) traffic flow data
- Salisbury Transport Models
- Local public transport (bus/rail) information and studies.

A full list of evidence sources is provided in Appendix B.

Table 2-1 Salisbury Transport Strategy - summary of issues and challenges

Theme	Paragraph number/ reference	Summary of Issue	Summary of Consequence
Providing for Strategic Development Sites	2.1.1	Access to key services and facilities by sustainable modes of transport to/from some development sites is limited.	Development will generate additional car trips, and contribute to increased congestion.
	2.1.2	Increased travel demand in Salisbury from development is forecast to further impact highway network performance.	Forecast increase in delays and congestion, whilst car reliance will remain without facilitating travel in the city on foot, by bike and bus.
Maintaining the Function of the A36 and Key Roads	2.2.1	Traffic flow is constrained by poor junction performance.	Delays and congestion on key routes and access to these routes. Increased cost of transport, impact on performance of strategic routes and regional connectivity which has consequences for economic performance.
	2.2.2	Congestion and delays on Salisbury's highway network are forecast to increase.	Demand on the A36 and key routes increase as a result of planned development, resulting in further worsening highway network performance and overall accessibility.
	2.2.3	Reliance on the car for journeys within Salisbury and journeys into and through Salisbury.	Contributes to congestion and delays on the network and levels of physical inactivity which has consequences for quality of life and health for residents.
	2.2.4	There are a number of collision clusters on Salisbury's transport network.	Occurrence of collisions has a negative impact on network resilience, whilst also negatively impacting the attractiveness of walking and cycling due to negative perceptions/feelings of safety.
Improving the Accessibility and Attractiveness of the City Centre	2.3.1	Transport continues to impact on air quality in Salisbury with three Air Quality Management Areas (AQMAs) designated.	Negative impact of poor air quality on health and subsequent cost to NHS whilst also reducing the attractiveness of Salisbury as a place to visit, live and work.
	2.3.2	Historic street layout is not designed for high volumes of vehicles.	Contributes to congestion in Salisbury, resulting in poor accessibility by all modes.
	2.3.3	Poor integration, connectivity and severance of the pedestrian and cycle network for journeys to key destinations in the city including the rail station.	Health impact due to decreased attractiveness of using active modes. Contributes to high car reliance, congestion and air quality issues.
	2.3.4	Oversupply of city centre car parking and underperforming bus Park and Ride.	Travelling by car into Salisbury is more convenient and attractive due to oversupply of car parking / parking pricing. Aspects of bus Park and Ride (service times, cost) is not

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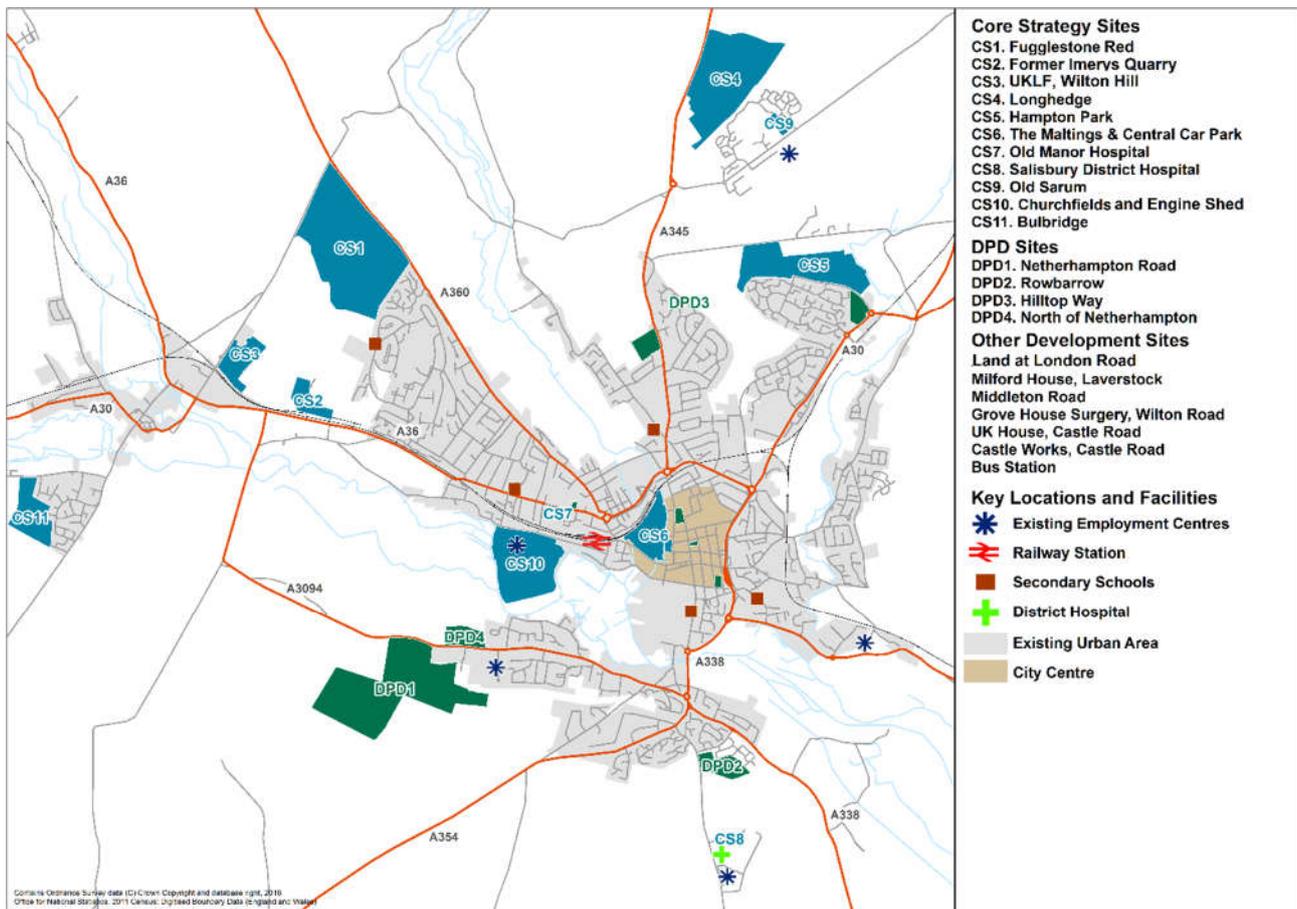
Theme	Paragraph number/ reference	Summary of Issue	Summary of Consequence
			achieving aims of abstracting car journeys into Salisbury, contributing to congestion.
	2.3.5	Salisbury's bus network is unattractive because journey times and cost do not compete with the car, whilst access to bus services is limited due to the routing of some bus services.	Bus is not considered a convenient option. Short distance car trips in Salisbury contribute to congestion and delays.
	2.3.6	Demand for rail travel to/from Salisbury rail station is forecast to increase, however poor accessibility for all modes to the station may constrain this growth in rail demand.	Increased car reliance for longer distance journeys and impact on ability to realise forecast demand
Cross-Cutting Issues	2.4.1	Ageing population in Salisbury will place changing demands on the transport network.	Accessibility of the transport network will be reduced with consequence for mobility of the resident population of Salisbury.
	2.4.2	Reduced council revenue funding for highways maintenance and bus services.	Reduced programme of highways maintenance will impact on the condition of some parts of the transport network, whilst reduced bus subsidy is likely to reduce operation of bus services with subsequent impact on accessibility.
		Technological disruption and cultural change e.g. hybrid/electric vehicles, increased internet shopping, ticketing systems, information systems (e.g. ride share), more demanding expectations of journey quality and experience by public transport users.	Transport interventions can be unpredictable. Potential for both increased car trips and reduced car trips. Increase in freight vehicles likely. Demand spreading (temporal and spatial) may reduce congestion but may undermine public transport and increase congestion.

2.2. Theme: Providing for strategic development sites

The future growth of Salisbury is planned to be provided at a number of development sites in the city. Residential and employment growth will occur at these development sites, which have been sourced from the Wiltshire Core Strategy, the Housing Site Allocations DPD, and other sources, in agreement with Wiltshire Council. Table 1-1 outlines the number of dwellings and/or the hectares of employment land to be delivered at each development site. In total, 5,680 dwellings and 32 hectares of employment are assumed to be delivered by 2026.

Figure 2-1 shows the location of development sites in Salisbury. Development will be focused to the north and west of the city centre in key strategic sites including Longhedge, Fugglestone Red, Hampton Park and Netherhampton Road. There are several sites in the city centre, such as The Maltings & Central Car Park, while there are smaller sites sporadically spread to the south of the centre, which includes development around the Salisbury District Hospital.

Figure 2-1 Planned development sites in Salisbury⁵



The delivery of development in Salisbury will increase the number of trips on the transport network in Salisbury. This will lead to an increase in the number of trips in the city and subsequent potential delay and congestion. As a result, it is important that development sites offer sustainable alternatives to the car.

⁵ Based on indicative areas provided in the Wiltshire Core Strategy, Draft DPD, and shapefiles provided by Wiltshire Council.

2.2.1. Issue: Access to key services and facilities by sustainable modes of transport to/from some development sites is limited

Walking / cycling access

The 2015 Wiltshire Housing Site Allocations DPD report produced by Wiltshire Council assessed the walking and cycling access from potential development sites to key services and facilities, based on walking distance rather than the existence of quality walking and cycling facilities. The document is relevant in assessing sustainable access from UKLF (Wilton Hill), Netherhampton Road, Salisbury District Hospital, Rowbarrow, Hilltop Way and Longhedge development sites, and at the time, did not assess the sustainable travel from other sites. A qualitative assessment of accessibility from the North of Netherhampton Road has been undertaken to establish the accessibility from all DPD sites, whilst Fugglestone and Churchfields Core Strategy sites have also been assessed as major development locations. The assessment of walking and cycle access is summarised in Table 2-2.

Table 2-2 Accessibility analysis for active modes

GIS ref	Core Strategy sites					DPD sites			
	CS1	CS3	CS4	CS8	CS10	DPD1	DPD2	DPD 3	DPD4
City Centre	Good	Weaker	Strong	Weaker	Strong	Strong	Strong	Strong	Strong
Secondary Schools	Strong	Strong	Strong	Strong	Good	Strong	Strong	Strong	Strong
Hospital	Good	Strong	Weaker	Strong	Strong	Weaker	Strong	Weaker	Weaker
Existing Employment Areas	Strong	Strong	Strong	Northern : strong; Southern : Weaker	Strong	Strong	Strong	Strong	Strong
Public Transport Corridor	Strong	Strong	Weak	Good / Strong	Good	Weak	Strong	Strong	Weak

The Rowbarrow (DPD2) development site performs the strongest with regards to accessibility to key destinations, performing strongly for all amenities. Netherhampton Road (DPD1) and Longhedge (CS4) development sites present some accessibility difficulties, and both perform weakly in accessing the hospital and public transport corridors.

The existing cycle and pedestrian network is explored in section 2.4.3, based on Sustrans' Access to Stations report and the Salisbury Town Cycle Network, highlighting where the network is of low quality and/or has gaps in coverage

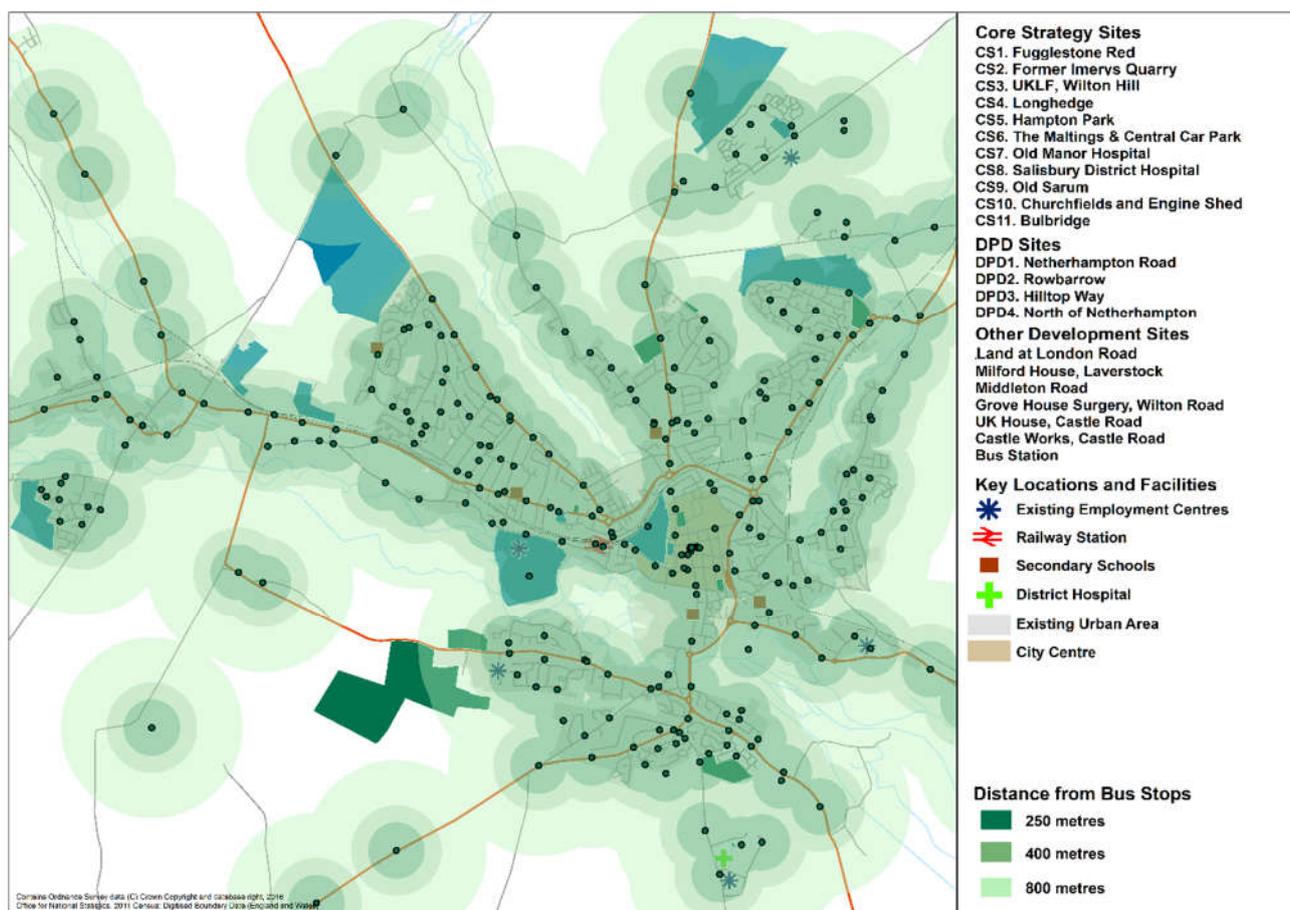
Bus access

An analysis of the access from development sites to key destinations by public transport has been undertaken. Using bus timetables, bus stop proximity mapping and Salisbury's bus network, development sites are assessed in terms of the site's proximity to bus stops and the quality of available bus routes.

Figure 2-2 highlights the following issues with regards to bus coverage:

- Parts of the Fugglestone Red development site are located over 800 metres from the nearest bus stop;
- The Netherhampton Road development site is located over 400 metres from the nearest bus stop; and
- The northern edge of the UKLF (Wilton Hill) site is located over 400 metres from the nearest bus stop.

Figure 2-2 Bus stop proximity mapping



2.2.2. Issue: Increased travel demand in Salisbury from development is forecast to further impact highway network performance

The 2016 model network has been used as a basis for building a Do Minimum model which represents the operation of the network in 2026. Traffic growth in the 10-year period from 2016 to 2026 was forecast through the addition of the specific developments outlined in Table 1-1 and Figure 1-1.

Table 2-3⁶ illustrates the 2026 forecast trip generation for each of the planned developments. It illustrates the number of development trips in the forecast year during the AM, IP and PM peak. The IP and PM peak produce higher trips compared to the AM, due to the higher retail trips generated during IP and PM peak from the Maltings and Central Car Park area which is envisaged to be a major retail development.

Table 2-3⁷ Proposed trips from development sites

Zone	Development	Total Trips					
		AM Peak		IP Peak		PM Peak	
		Arrival	Departure	Arrival	Departure	Arrival	Departure
467	Fugglestone Red	490	503	508	496	560	615

⁶ Source: Salisbury Highway Model Development and Forecasting Report V7.1 April 2018

⁷ Source: Table 9-3 Proposed Developments Trips, of the Salisbury Highway Model Development and Forecasting Report V7.1 April 2018

Zone	Development	Total Trips					
		AM Peak		IP Peak		PM Peak	
		Arrival	Departure	Arrival	Departure	Arrival	Departure
365	Former Imerys Quarry	46	29	36	39	21	36
466	UKLF, Wilton (Wilton Hill)	227	166	165	164	169	242
461	Longhedge s1063a	360	282	278	277	316	403
460	Hampton Park	68	152	104	98	170	116
463	Maltings and Central Car Park	642	382	1252	1200	698	1101
453	Netherhampton Road	101	238	150	140	267	175
455	Rowbarrow 3272	15	33	22	21	37	25
326	S61	1	3	2	2	4	2
355	Old Manor Hospital	10	23	16	15	26	18
108	Bus Station	6	9	8	7	11	9
316	Land at London road	73	46	262	251	148	199
379	Salisbury Hospital Unit	6	2	3	3	2	5
462	Old Sarum	4	10	6	6	11	7
112	Milford House (Laverstock)	4	6	5	5	7	6
341	Middleton Road	2	4	3	3	4	3
343	Grove House Surgery, Wilton Road	1	3	2	2	4	2
337	United Kingdom House, Castle Road	10	15	13	11	18	15
325	Castle Works, Castle Road	9	20	13	13	22	15
465	Bulbridge, Wilton	7	15	10	9	16	11
357/358 /454	Churchfields and engine shed	725	805	673	653	861	890
	Minor Sites*	61	129	90	84	145	101
Total		2,868	2,875	3,621	3,499	3,517	3,996

Table 2-4 summarises the growth in the number of trips on Salisbury's network from 2016 to 2026. There will be a growth of at least 20% in the number of trips on the network by 2026. LGVs are the mode providing the highest level of growth, followed by the car, whilst HGV trips grow by 6%. Development sites will contribute to placing additional trips on the network, which will impact on the highway network performance. Modelling outputs are further explored in chapter 6.

Table 2-4⁸ Matrix totals by time period

User Class	Base Year 2016	Future Year 2026	Absolute change	Change %
AM Peak				
Car	14,060	16,935	2,875	20%
LGV	1,417	1,789	373	26%
HGV	1,126	1,199	72	6%
Total	16,603	19,923	3,320	20%
IP Average Hour				

⁸ Source: Table 9-6 Matrix Totals by Time Periods, of the Salisbury Highway Model Development and Forecasting Report V7.1 April 2018

User Class	Base Year 2016	Future Year 2026	Absolute change	Change %
Car	10,431	13,298	2,868	28%
LGV	1,178	1,488	310	26%
HGV	1,133	1,206	73	6%
Total	12,742	15,992	3,250	26%
PM Peak				
Car	14,084	17,339	3,254	23%
LGV	1,093	1,380	287	26%
HGV	536	570	34	6%
Total	15,713	19,289	3,576	23%

2.3. Theme: Maintaining the strategic function of the A36 and key roads

The A36 is a key strategic route which links Salisbury to Bath, Trowbridge and Warminster in the north-west and Southampton / M27 in the south-east. As part of the government's Transport Investment Strategy, the Major Road Network (MRN) has been devised to outline the strategically important local authority A-roads⁹. These roads will sit between the Strategic Road Network (SRN) and Local Road Network. The proposed MRN outlines the following roads relating to Salisbury:

- A338 between A31 (Ringwood) and A36 (College Roundabout, Salisbury); and
- A3094 between A338 (Harnham) and A36 (Quidhampton).

Figure 2-3 shows the average annual daily flow (AADF) on Wiltshire's major roads; this is displayed according to the average number of vehicles per count site. The growth on these roads between 2006 and 2016 is outlined in Table 2-5.

⁹ Source: Wiltshire Council. Proposals for the creation of a Major Road Network. Available at: <https://cms.wiltshire.gov.uk/documents/s140984/Report%20-%20Proposals%20for%20the%20Creation%20of%20a%20Major%20Road%20Network%20-%20Consultation.pdf>

Figure 2-3 Annual Average Daily Flow (AADF) for major Wiltshire roads and Salisbury A-roads¹⁰

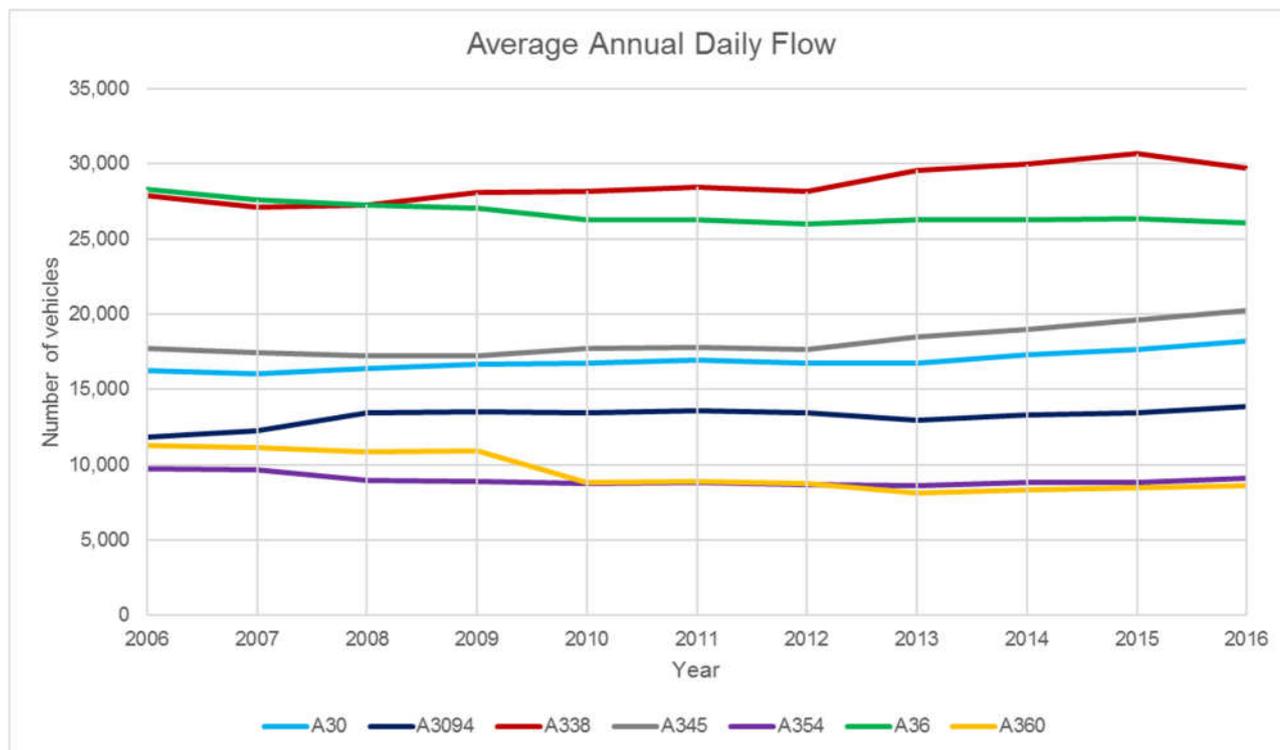


Table 2-5 AADF - traffic growth (2006 to 2016)

Road	2006 AADF	2016 AADF	% change
A30	16,245	18,171	12%
A3094	11,876	13,884	17%
A338	27,884	29,690	6%
A345	17,723	20,206	14%
A354	9,783	9,097	-7%
A36	28,305	26,063	-8%
A360	11,284	8,647	-23%

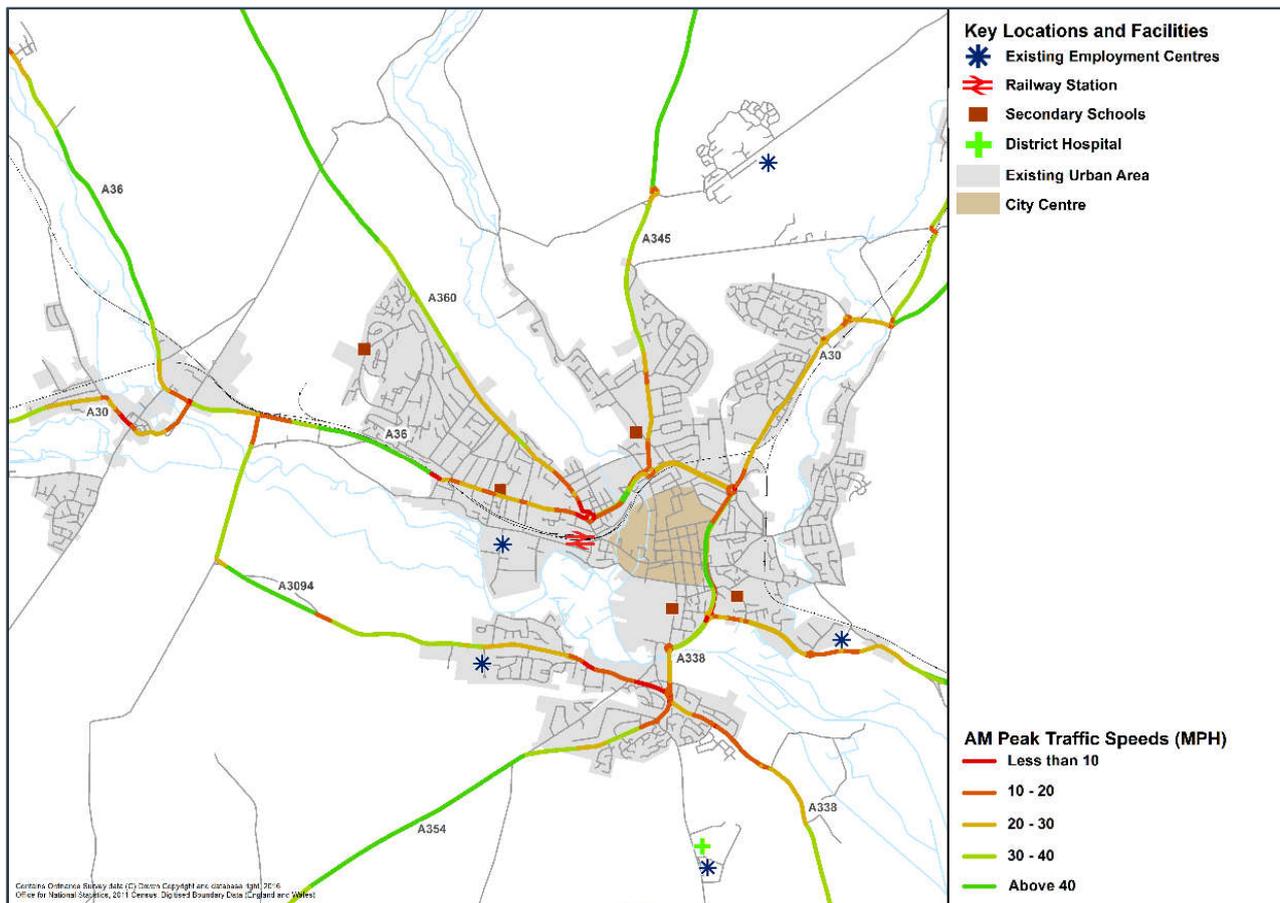
40% of Salisbury residents surveyed in the 2012 Wiltshire Council 'What Matters to You?' study were concerned with the level of traffic congestion in the city. This was ten percentage points higher than the Wiltshire average suggesting that traffic congestion is a current, prevalent issue for the city, which will be further constrained by future growth of the city, which is outlined in section 2.2.

2.3.1. Issue: Traffic flow is constrained by poor junction performance

There are several junctions and links on main routes in Salisbury that are subject to delay. These routes consist of the A36, A36, A345, A30, A338 and the A354. Figure 2-4 displays Traffic Master data which shows the average speed during the AM peak hour (08:00 – 09:00) in Salisbury. The data highlights links and junctions which experience delay. Traffic delay can affect the attractiveness of using Salisbury as a place to undertake business, leisure and retail activities, whilst it can also incur additional transport costs on residents and local businesses.

¹⁰ Source: Department for Transport Traffic Counts database. Available at: <https://www.dft.gov.uk/traffic-counts/cp.php?la=Wiltshire>

Figure 2-4 Traffic Master - delay in AM peak (08:00 – 09:00)¹¹



The key junctions with delay (defined as average AM peak traffic speed as < 10 mph) in Salisbury:

- St. Paul’s Roundabout;
- Castle Roundabout;
- St Mark’s Roundabout;
- A30/A36, Wilton;
- A3094/A36;
- Bourne Way Roundabout;
- College Roundabout;
- Harnham Gyratory; and
- Exeter Street Roundabout.

2.3.2. Issue: Congestion and delays currently on Salisbury highway network are forecast to increase

Modelling has been undertaken to support the Salisbury Transport Strategy, to assess changes to the highway network performance between 2016 and 2026. The Do Minimum scenario considers the impact of the planned proposed developments and planned highway network changes (such as the A360/The Avenue junction). Table 2-6 presents summary statistics comparing the performance of the network between the 2016 base year and the 2026 Do Minimum scenario.

¹¹ Source: Department for Transport TrafficMaster database 2015-16

Table 2-6 Network-wide statistics

Parameter	AM (08:00-09:00)		IP (10:00-16:00)		PM (17:00-18:00)	
	2016	2026	2016	2026	2016	2026
Average speed (kph)	53	52	54	52	54	52
% change	-2%		-3%		-3%	
Total delay per vehicle (mins)	3.6	4.1	2.7	3.2	3.3	3.8
% change	13%		18%		15%	

Outputs from modelling suggest that delay will be exacerbated in all time periods, increasing by up to 18%. It would therefore be important to mitigate the impact of the increased number of vehicle trips on the network.

Network performance

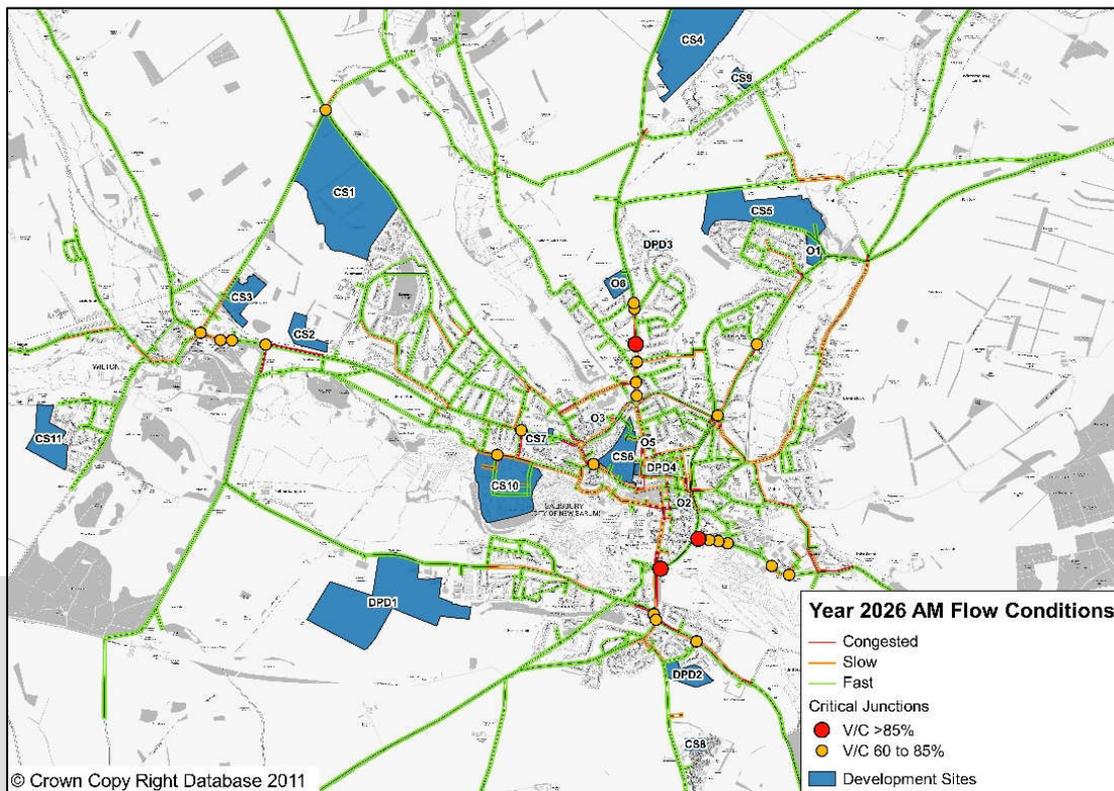
Junctions that would be operating above 85 percent volume / capacity are considered to be poorly performing junctions. Plots of the network performance, in terms of junction performance and delay hotspots, are provided in Figure 2-5 (AM) and Figure 2-6 (PM).

The following junctions were found to be performing at critical levels during the AM peak hour:

- College Roundabout (Churchill Way and A36).
- A345 and Queensberry Road.
- Exeter Street Roundabout (Churchill Way and New Bridge Road).

A number of other junctions are operating under pressure during certain periods, but are not necessarily performing at critical levels. These junctions include St Pauls roundabout, St Marks roundabout and Castle roundabout. Bourne Way roundabout also operates under pressure particularly during weekends. These junctions would struggle with additional traffic (such as during special events or in the event of an incident on an alternative route). Figure 2-5 and Figure 2-6 displays junctions operating at between 60 – 85% volume / capacity.

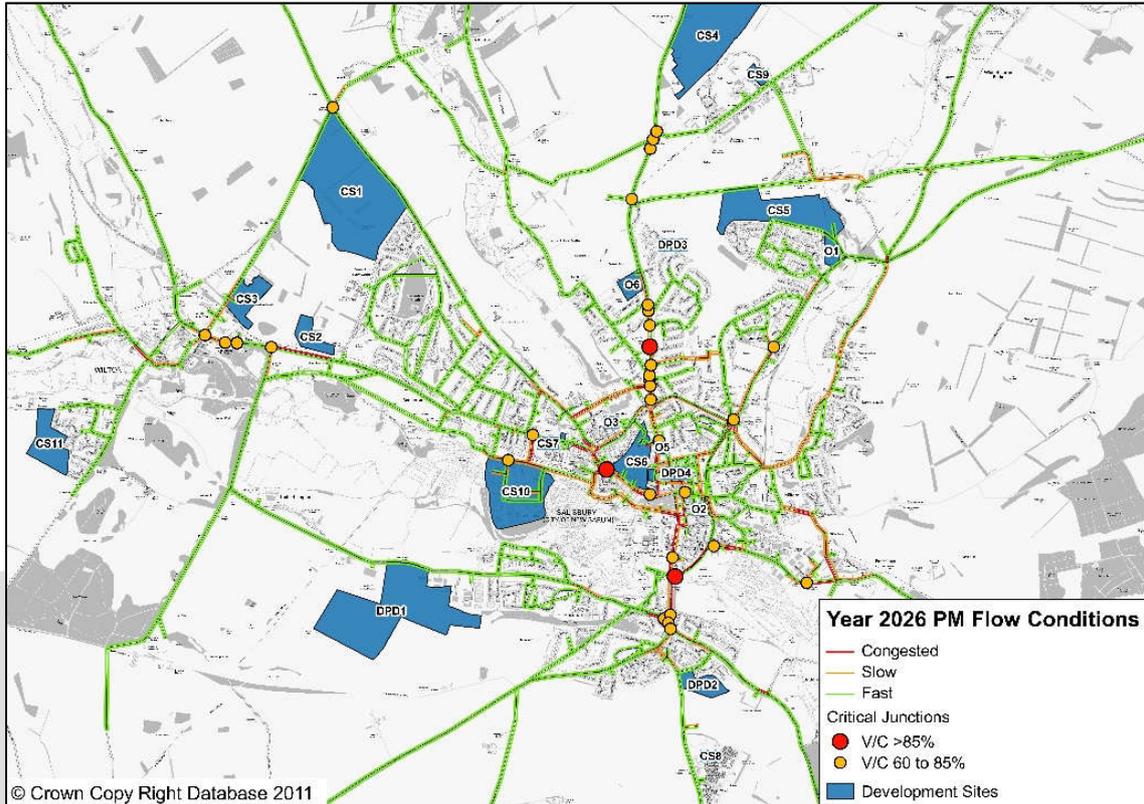
Figure 2-5 Network performance 2026 - AM (08:00-09:00)



The following junctions were found to be performing at critical levels during the PM peak hour:

- A345 and Queensberry Road.
- Exeter Street Roundabout (Churchill Way and New Bridge Road).
- Fisherton Street and S Western Road.

Figure 2-6 Network performance 2026 - PM (17:00-18:00)



2.3.3. Issue: Reliance on the car for journeys within Salisbury and journeys into and through Salisbury

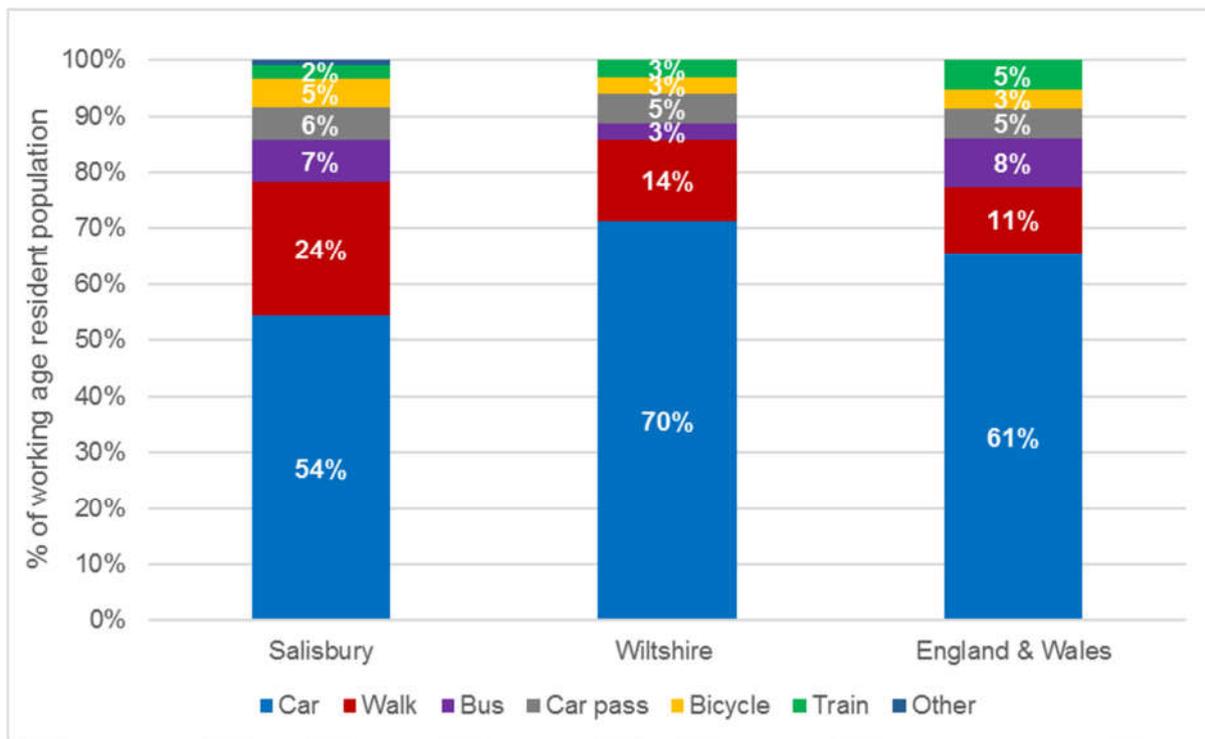
Journeys to and from Salisbury

2011 Census Travel to Work mode share data (displayed in Figure 2-7) indicates that, for all journeys to work, there are lower levels of car use (54%) for residents of Salisbury compared to Wiltshire (70%) and national (61%) averages. There are also higher levels of walking (32%) and car sharing (6%), although lower levels of bus usage compared to the national average.

Census travel to work data is based on people's primary or usual mode of travel for journeys to work, in some cases people may not necessarily respond with the expected mode. Whilst the Census data is also subject to statistical disclosure control which protects the attributes of an individual¹². This explains why in some cases in Table 2-7 and Table 2-8 that some people walk long distances to work, this however does not affect the key messages from the data presented.

¹² Office for National Statistics, Quality and methods.
<https://www.ons.gov.uk/census/2011census/2011censusdata/2011censususerguide/qualityandmethods>

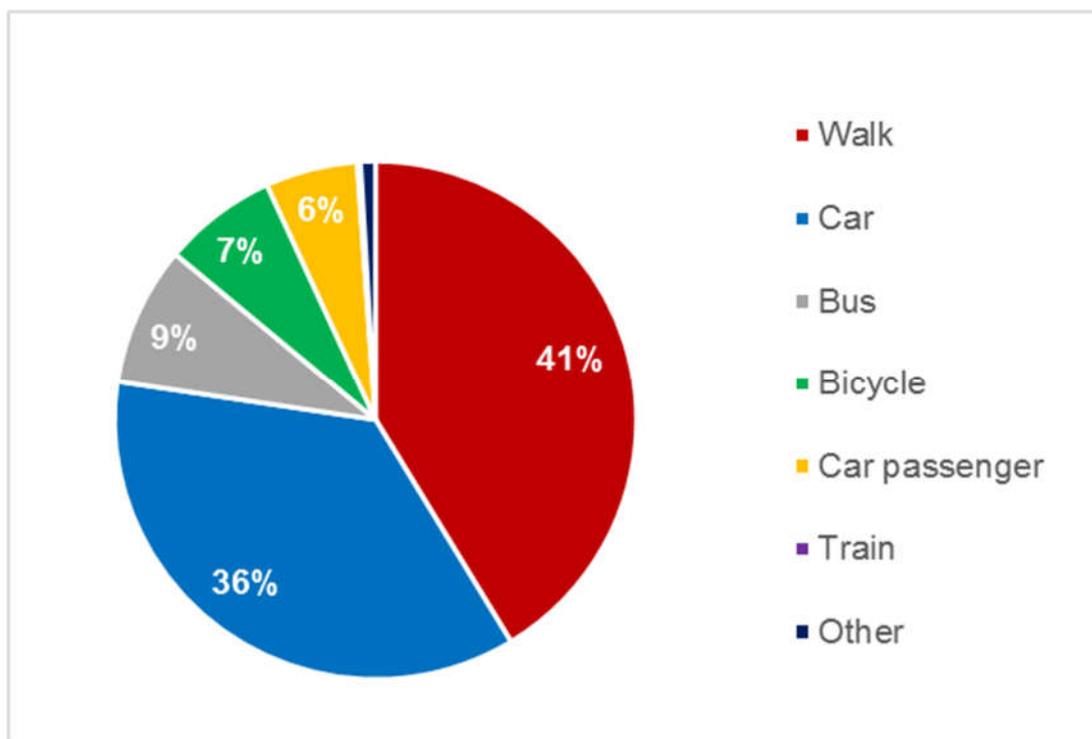
Figure 2-7 Method of travel to work



Journeys within Salisbury

Approximately half (8,994) of Salisbury’s economically active residents also work in the city. As displayed in Figure 2-8, walking is the primary commuting mode for those living and working in the city, with car the second most used mode. However, whilst the walking mode share is high, cycling accounts for only 7% of journeys, which could indicate a reluctance to cycle for those living and working in the Salisbury urban area, a relatively small city (less than 5km diameter) which likely lends itself to travel by active modes.

Figure 2-8 Mode share of those living and working in Salisbury



In-commuting

Whilst levels of car use are low for those living and working in Salisbury, Table 2-7 suggests that there is a dependency on the car for commuters travelling into Salisbury, with high proportions of car use for those commuting in from areas such as Wiltshire (7,609 journeys – 71% made by car), New Forest (85% car) and East Dorset (90% car). Many commuting origins, such as the New Forest and Test Valley are predominantly rural, indicating that there could be a high car reliance into Salisbury for employment purposes, due to a lack of alternative transport modes such as rail stations.

Table 2-7 Place of residence for Salisbury employees¹³

Usual Residence	Number of commuters into Salisbury	Commuting mode				
		% of journeys made by car	% of journeys made by rail	% of journeys made by bus	% of journeys made by cycle	% of journeys made by walking
Live and work in Salisbury	8,994	36%	0%	9%	7%	41%
Rest of Wiltshire	7,609	71%	2%	11%	2%	6%
New Forest	631	85%	1%	7%	0%	0%
Test Valley	575	79%	11%	2%	1%	1%
Southampton	408	61%	12%	4%	0%	1%
North Dorset	375	69%	19%	4%	1%	2%
East Dorset	351	90%	1%	5%	0%	1%
Bournemouth	179	86%	1%	2%	0%	3%
Eastleigh	112	86%	8%	1%	0%	0%

Out-commuting

For Salisbury residents who commute out of the city, there is a high car dependency, adding to traffic levels on strategic roads heading out of Salisbury in the AM peak, and returning in the PM peak. Table 2-8 displays the most popular places of work for Salisbury residents who commute out of Salisbury alongside the mode share of journeys.

¹³ WU03EW – Location of usual residence and place of work by method of travel to work (MSOA level). Census 2011. ONS Crown Copyright Reserved.

Table 2-8 Place of employment for Salisbury residents by mode¹⁴

Area of Employment	Number of journeys	Commuting mode				
		% of journeys made by car	% of journeys made by rail	% of journeys made by bus	% of journeys made by cycle	% of journeys made by walking
Live and work in Salisbury	8,994	36%	0%	9%	7%	41%
Rest of Wiltshire	5,614	72%	0%	8%	4%	7%
Test Valley	798	86%	4%	1%	1%	2%
New Forest	302	85%	0%	7%	1%	3%
Southampton	256	71%	20%	2%	1%	4%
Winchester	161	92%	1%	1%	1%	2%
London	133	11%	63%	3%	3%	8%
Eastleigh	121	86%	6%	0%	2%	3%
Basingstoke	115	75%	15%	1%	0%	3%

The reliance on the car leads to a high number of vehicles on the A36 and other key strategic routes into Salisbury, which contributes to congestion. Alternatives to the private car are important to increase transport sustainability and to minimise the pressure on key highway routes.

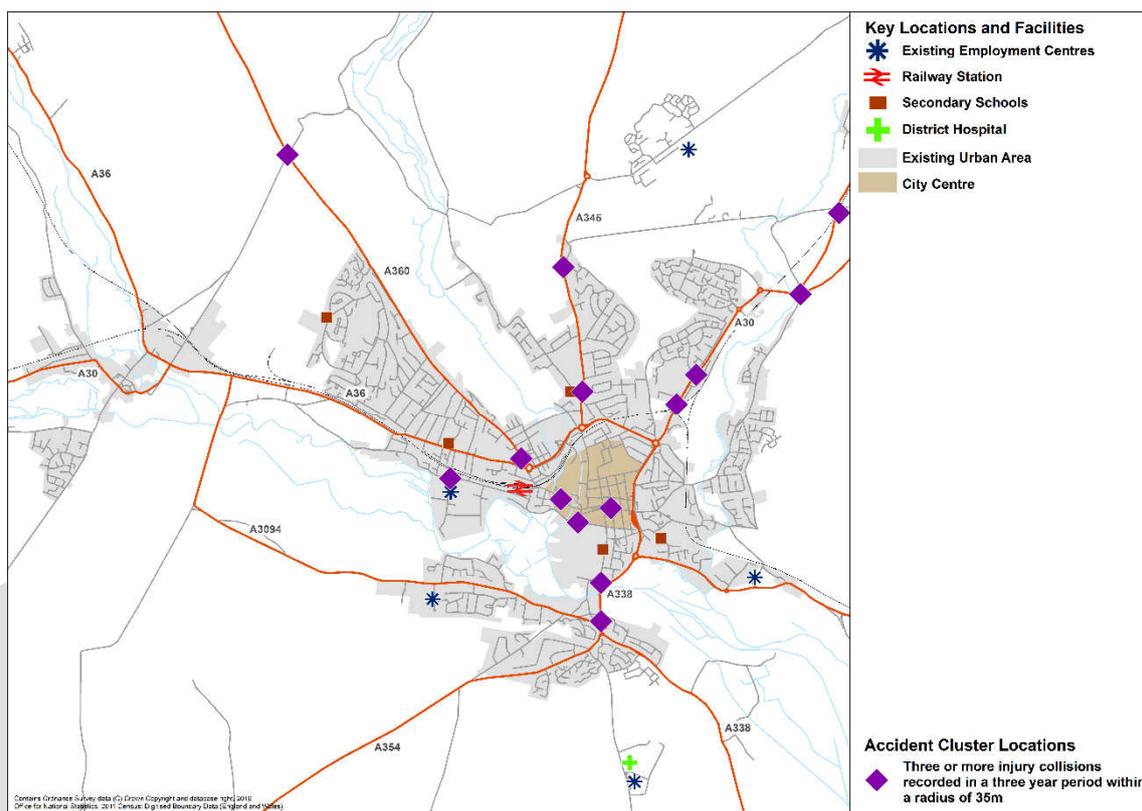
2.3.4. Issue: There are a number of collision clusters on Salisbury's transport network

Figure 2-9 demonstrates that there are several collision clusters on Salisbury's roads. Collision clusters are defined as a site that has recorded three or more collisions resulting in personal injury in a three-year period within a radius of 35 metres. There are several collisions in the city centre areas, as well as on the A30 to the north-east of the city centre.

Incidents on the highway network have a negative impact on the performance and reliability of the transport network in addition to the personal impacts on network users, whilst collisions can affect the way in which people travel, due to their actual and perceived safety concerns.

¹⁴ WU03EW – Location of usual residence and place of work by method of travel to work (MSOA level). Census 2011. ONS Crown Copyright Reserved.

Figure 2-9 Collision clusters in Salisbury¹⁵



2.4. Theme: Improving the accessibility and attractiveness of the city centre

Salisbury is defined as one of the three Wiltshire Principal Settlements alongside Chippenham and Trowbridge¹⁶. These are settlements which are “strategically important centres and the primary focus for development... They will provide significant levels of jobs and homes”. Alongside its strategic role as a delivery agent for residential and employment growth, Salisbury is regarded as an international tourist destination.

It is important that Salisbury’s transport network performs to its potential, enabling residents and businesses to access opportunities, services and facilities by all modes of transport, attracting tourists and businesses to the city, and delivering planned development. An effective transport network will be a key contributor to the long-term success of the city.

Planned development will help to deliver improved transport infrastructure and increased city centre vitality, which will enhance the attractiveness of Salisbury.

2.4.1. Issue: Transport continues to impact on air quality in Salisbury with three Air Quality Management Areas (AQMAs) designated

The city centre of Salisbury is within an Air Quality Management Area (AQMA), demonstrating that there is a prevalent air quality issue. The city’s AQMAs are displayed in Figure 2-10. The Air Quality Strategy for Wiltshire (2011-2015)¹⁷ writes that “where air quality is poor there are proven short and long-term impacts on human health and the surrounding environment”. Transport is a key contributor to the air quality problem in the city

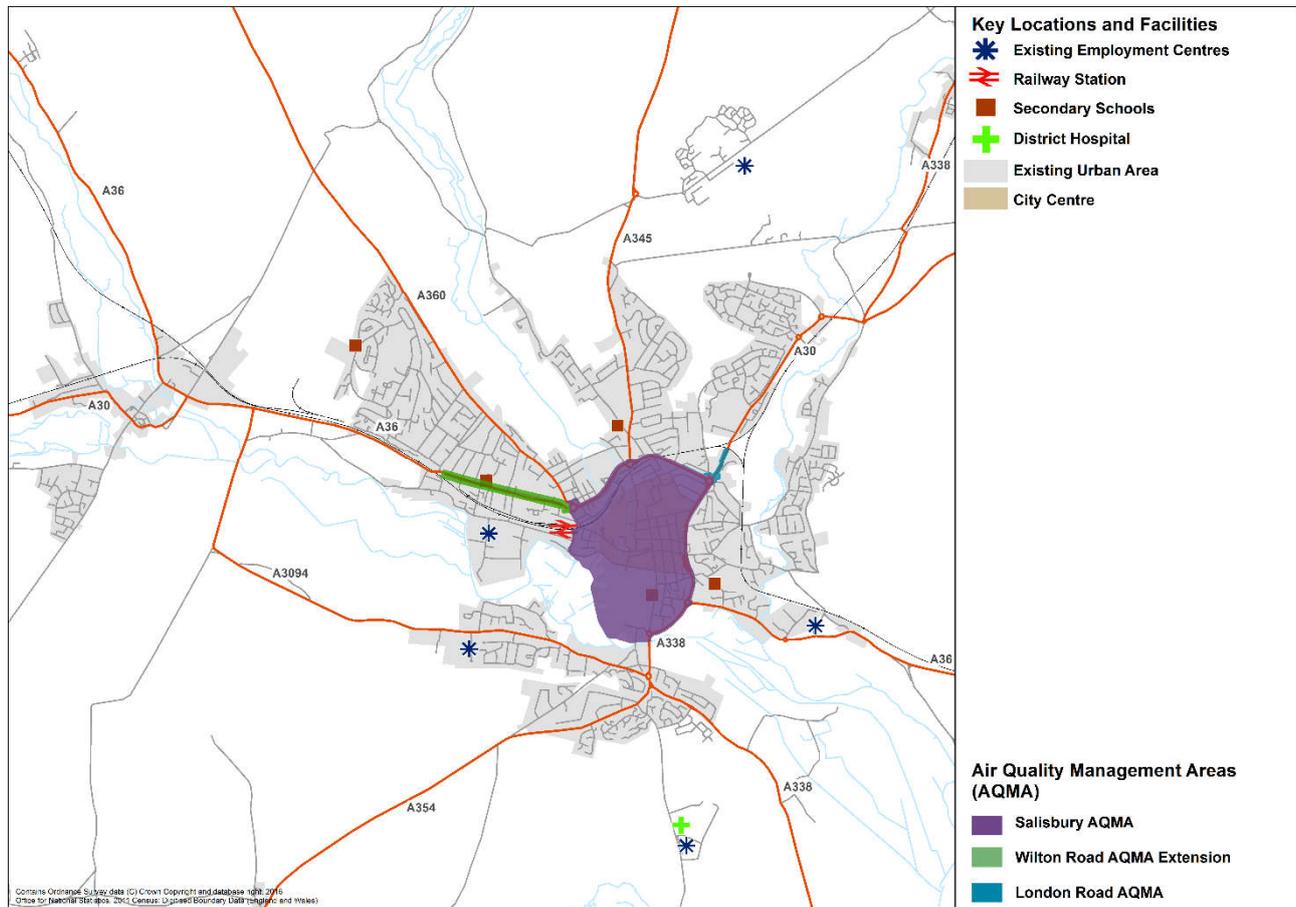
¹⁵ Source: Wiltshire Council. Cluster List 2015-16

¹⁶ Wiltshire Core Strategy, adopted January 2015.

¹⁷ Available at: <http://www.wiltshireairquality.org.uk/assets/documents/report-draft-air-quality-strategy-for-wiltshire-october-2011.pdf>

centre with exceedances of the annual mean for nitrogen dioxide identified at St Paul's Roundabout as well as Wilton Road.

Figure 2-10 Salisbury's Air Quality Management Areas (AQMA)¹⁸



The forecast increase in the number of car journeys across Salisbury in the future is likely to have a detrimental impact on air quality. That said, the recent focus on pollution from diesel vehicles and changes to Vehicle Excise Duty have seen a drop in sales of these vehicles and the government has set a clear long term ambition for all new cars and vans to be zero emission by 2040, and for nearly every car and van to be zero emission by 2050.

However, Wiltshire Council's focus is not just on wider improvements in vehicle technology; achieving a modal shift from private vehicles towards more sustainable modes of transport, such as walking and cycling, is a key aim of this transport strategy, contributing towards a cleaner city centre environment. The Core Strategy's fifth strategic objective relating to protecting the natural, historic and built environment and Core Policy 55 aim to make progress towards improving areas of poor air quality through the implementation of Wiltshire Council's Air Quality Action Plan and the Air Quality Strategy. This is supplemented by a locally developed Community Air Quality Action Plan¹⁹ which sets out measures to improve air quality in the city.

2.4.2. Issue: Historic street layout is not designed for high volumes of vehicles

Salisbury has a historic core with a high quality built environment which attracts a high number of visitors. This core does not necessarily lend itself accommodating for city centre traffic, with often narrow streets having low

¹⁸ Source: Defra. Available at: <https://uk-air.defra.gov.uk/aqma/maps>

¹⁹ Report available at: <http://www.wiltshireairquality.org.uk/assets/cms/salisbury-community-air-quality-action-plan-august-2015.pdf>

road capacity. Several key constraint locations are listed below which are defined as areas where the highway environment is limited, leading to reduced navigability for vehicles.

- Cherry Orchard Lane: affects access to Churchfields;
- Mill Stream Approach: affects access to Central Car Park;
- Grid of roads to the north of Blue Boar Row e.g. Chipper Lane, Endless Street, Bedwin Street: affects legibility and constrains road capacity in central Salisbury; and
- Silver Street:

2.4.3. Issue: Poor integration, connectivity and severance of the pedestrian and cycle network for journeys to key destinations in the city including the rail station

The 2013 Cycle and Pedestrian Access Study produced by Sustrans²⁰ outlined that there are a number of constraints for walking and cycling in Salisbury. These are summarised below:

- A36 is an east-west physical barrier to movements through the city;
- River Nadder and Avon separate the station and the city centre;
- Mill Road, Western Road, Fisherton Street and Churchfields Road are not appropriate for cyclists due to the heavy volume of traffic;
- Lack of cycle facilities and few crossings on Churchfields Road;
- The physical environment presents difficulties for active travel in some areas due to steep hills;
- High volumes of traffic on a number of routes, with high levels of HGVs and no cycle facilities; and
- The rail line will affect connectivity to CS1, CS3 and CS7 development sites.

The highlighted issues identify that Salisbury's pedestrian and cycle network does not necessarily provide for safe and convenient journeys across the city. As a result, this may perform as a barrier to an uptake in active travel modes, ensuring that the car travel remains an attractive travel option. This could be a factor in the relatively low cycling levels (despite high walking levels) presented in Figure 2-8. Improvements to the network should seek to address the issues constraining uptake.

Physical inactivity is a key issue in the city, with only 25% of residents getting three 30-minute periods of activity per week²¹. This statistic does not include non-recreational activities such as active travel or gardening, but includes recreational walking and cycling. Furthermore, some 63.8% of adults in Wiltshire are overweight or obese²². Planning for active travel can further assist in facilitating an improvement in the health of Wiltshire and Salisbury residents.

2.4.4. Issue: Oversupply of city centre car parking and underperforming Park and Ride

Car parking

Data on the occupancy for Wiltshire Council's car parks highlights that there is an oversupply of car parking in Salisbury²³. Table 2-9 illustrates that, for a typical midweek day during 2016 (11th May), all car parks in Salisbury operated at under 85% utilisation based on Pay and Display ticket sales. However, when season tickets are factored in, occupancy of car parks increases. But with a lack of knowledge into how often/how many season ticket holders park, a true picture of parking occupancy in Salisbury cannot be established. The shaded in cells in the table are highlighting the highest occupancy. Data on the availability of private non-residential parking spaces is not available, and whilst there are a number of residents parking zones in

²⁰ Improving Wiltshire's Rail Offer: Cycle and Pedestrian Access Study, June 2013

²¹ Further details at: <https://www.sportengland.org/research/about-our-research/active-people-survey/> (Oct 2014 – Sept 2016)

²² Public Health Outcomes Framework, 2014-16

²³ Private non-residential parking has not been included.

Salisbury the use of residential streets for car parking is also currently unknown. Information on these would need to be collected and considered as part of a car parking review for Salisbury.

Table 2-9 Car park capacity and occupancy²⁴

Car park	Spaces	07:00 - 08:00	08:00 - 09:00	09:00 - 10:00	10:00 - 11:00	11:00 - 12:00	12:00 - 13:00	13:00 - 14:00	14:00 - 15:00	15:00 - 16:00	16:00 - 17:00	17:00 - 18:00
Brown Street	194	1%	7%	11%	13%	25%	42%	46%	49%	48%	42%	26%
Central Short Stay	225	0%	2%	12%	26%	25%	28%	26%	27%	21%	20%	13%
Central Long Stay and Millstream	954	2%	10%	16%	19%	22%	25%	24%	24%	23%	21%	18%
College Street	77	4%	16%	31%	39%	38%	38%	32%	29%	30%	25%	18%
Culver Street	518	0%	3%	3%	3%	3%	3%	3%	4%	11%	15%	18%
Lush House	83	0%	22%	52%	67%	78%	57%	48%	54%	48%	30%	35%
Maltings	608	0%	6%	24%	35%	37%	30%	28%	24%	21%	15%	8%
Salt Lane	172	1%	13%	31%	44%	45%	45%	52%	40%	38%	30%	13%
Southampton Road	98	1%	1%	2%	2%	7%	5%	8%	8%	4%	3%	3%

Issue 2.3.3 highlights high car reliance for employees of Salisbury who commute in from outside the city. The oversupply of city centre car parking could be a major factor for in-commuters' reliance on the car, as parking is a convenient option to reach their employment in Salisbury. Related is the underutilisation of the city's bus Park and Ride, as driving to a city centre car park with easy-to-find spaces is a more attractive and time effective proposition than driving to a Park and Ride site and waiting/paying for a bus. The cost of city centre car parks in relation to the cost of using the Park and Ride can also be a factor influencing the uptake of Park and Ride.

It is important to note that further to the above data and considerations, at the time of writing this report car parking in Salisbury is currently free until further notice²⁵

It is likely that a high number of employees in Salisbury park at their workplaces or on-street locations due to the underutilisation of both the Park and Ride and public car parks.

Park and Ride

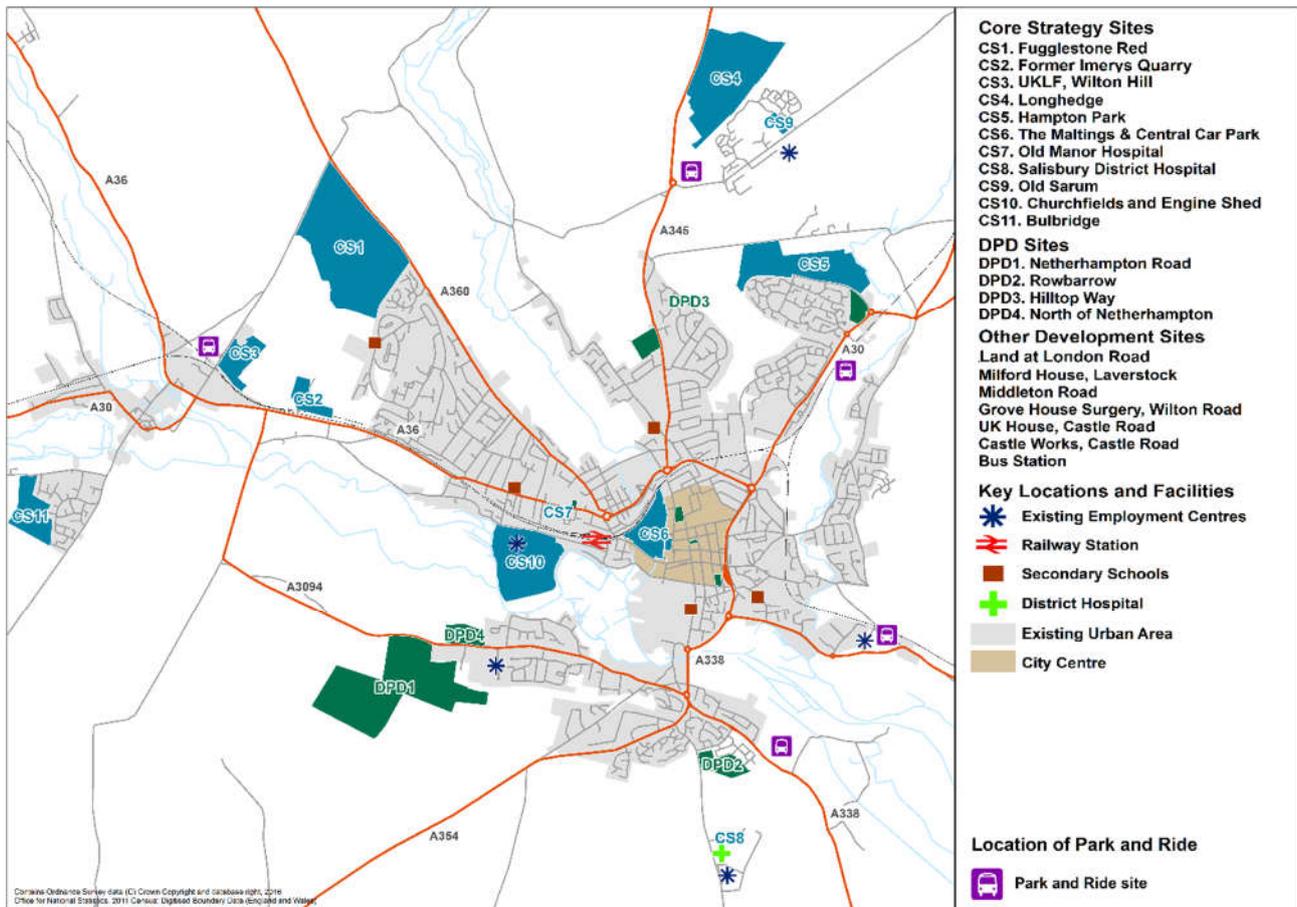
Salisbury benefits from an extensive bus Park and Ride system although it is underused. Across the five sites, mapped in Figure 2-11, there is car parking capacity for approximately 2,300 vehicles, but ridership figures indicate that there are only 1,436 daily return trips on bus services from these sites²⁶. This suggests an underutilisation of the Park and Ride sites. This is despite the high number of commuters driving into Salisbury by car from rural areas which could indicate potential demand for the services (as Issue 2.3.3 highlights).

²⁴ Source: Wiltshire Parking Technology Study

²⁵ Source: <http://www.wiltshire.gov.uk/salisbury>

²⁶ Source: <http://www.wiltshire.gov.uk/wilts-council-car-parking-bus-subsidy-data.pdf>

Figure 2-11 Park and Ride sites in Salisbury



The potential catchment of each Park and Ride site is listed below, based on 2011 Census Travel to Work data which highlights where Salisbury employees reside.

- Wilton P&R: captures journeys from the west, such as Tisbury, Wilton, and Shaftesbury;
- Beehive P&R: captures journeys from the north, such as Amesbury;
- London Road P&R: captures journeys from the north-east, such as Andover;
- Petersfinger P&R: captures journeys from the east, such as East Grimstead, Farley and Southampton; and
- Britford P&R: captures journeys from Fordingbridge and Redlynch.

This leaves gaps in P&R coverage for journeys originating from the north-west, from areas such as Chippenham and journeys from the M4. These journeys are likely to use the A360 as the quickest route. Journeys along the A354 are also not captured, which is likely to impact on travel choices for commuters heading in from areas such as Blandford Forum.

Further studies will be required in order to understand the factors influencing the use of the Park and Ride sites and their bus services. A study, commissioned by Wiltshire Council Parking Services, is currently assessing the challenges, issues and options in relation to car parking technology. This study focusses on Salisbury and Chippenham but also considers wider parking services in Wiltshire.

2.4.5. Issue: Salisbury’s bus network is unattractive because journey times and cost do not compete with the car, whilst access to bus services is limited due to the routing of some bus services

Surveys conducted by Wiltshire Council in Summer and Autumn 2014 provide information on bus reliability and journey times in Salisbury. Surveys were undertaken at the A30/Laverstock Roundabout, Laverstock Green, Odstock Hospital, New Canal, and St Marks Church. Whilst the data is now dated, the results indicate that 14% of bus services were delayed and were essentially late arriving to their designated stops. This could be influenced by the general lack of bus priority in the city, which means services are affected by congestion. Congestion has a secondary effect of increasing the cost of service operation for public transport providers, with potential implications for passing cost increases onto users through fare increases.

The lack of bus priority is likely to constrain the effectiveness of public transport, particularly the Park and Ride with its limited stop pattern of operation. There is a lack of widespread, continuous priority measures (through dedicated lanes or bus priority signals) in the city, with Wilton P&R, London Road P&R and Petersfinger P&R having no or very little bus priority, whilst city centre-bound bus lanes are provided for parts of the Beehive P&R and Britford P&R. The lack of bus priority means that buses have limited potential to make journey time savings over cars. As a result, potential users, such as the high proportion of commuters driving from Salisbury’s rural catchment, may find it more convenient, cheaper, and quicker to use their private vehicles rather than using the Park and Ride sites (due to additional time required to park and wait for a bus at the P&R site, as well as cost of ticket). This may contribute to the low ridership figures for P&R explained in Issue 2.4.4.

Desktop research indicates that during the morning peak, most bus journeys take longer than a comparable car journey along the same route. This further enhances the possible convenience of using the car over the bus for short city-scale journeys.

Table 2-10 Difference in AM Peak (08:00) journey times between car and bus

Corridor	Journey times (mins)		Bus frequency (buses per hour)		Bus service
	Car	Bus	AM inbound (08:00-09:00)	PM outbound (17:00-18:00)	
A345 (north)	6	6	9	8	PR11, Activ8, X5
Odstock Road (Hospital)	7	10 to 13	6	6	Red1
A36 (west)	9	11	12	12	PR3, Red8
Laverstock Road	10	10	1	1	Red6
A360 (north west)	8 to 14	14	8	8	Red1, Red10
A30 (north east)	4 to 7	13	8	9	Red2, PR7

Late and subsequently unreliable journey times caused by congestion has a negative impact on people’s perception of bus services’ quality and the likelihood of a person choosing to travel by bus over other transport modes. A fifth of Salisbury residents surveyed in the 2012 Wiltshire Council ‘What Matters to You?’ had concerns with the city’s public transport system.

It is also important to note that rural public bus services may be expensive to the passenger in comparison to the car (apart from concessionary journeys), and unlikely to have such a wide coverage of services, deterring potential users. Bus services are generally perceived as more expensive to the car, particularly if owning a car. However, the car owner very often fails to consider the full costs of their car journeys when comparing modes. As such, it is important to note that the cost of a bus for people without a car, may be cheaper than owning and running a car.

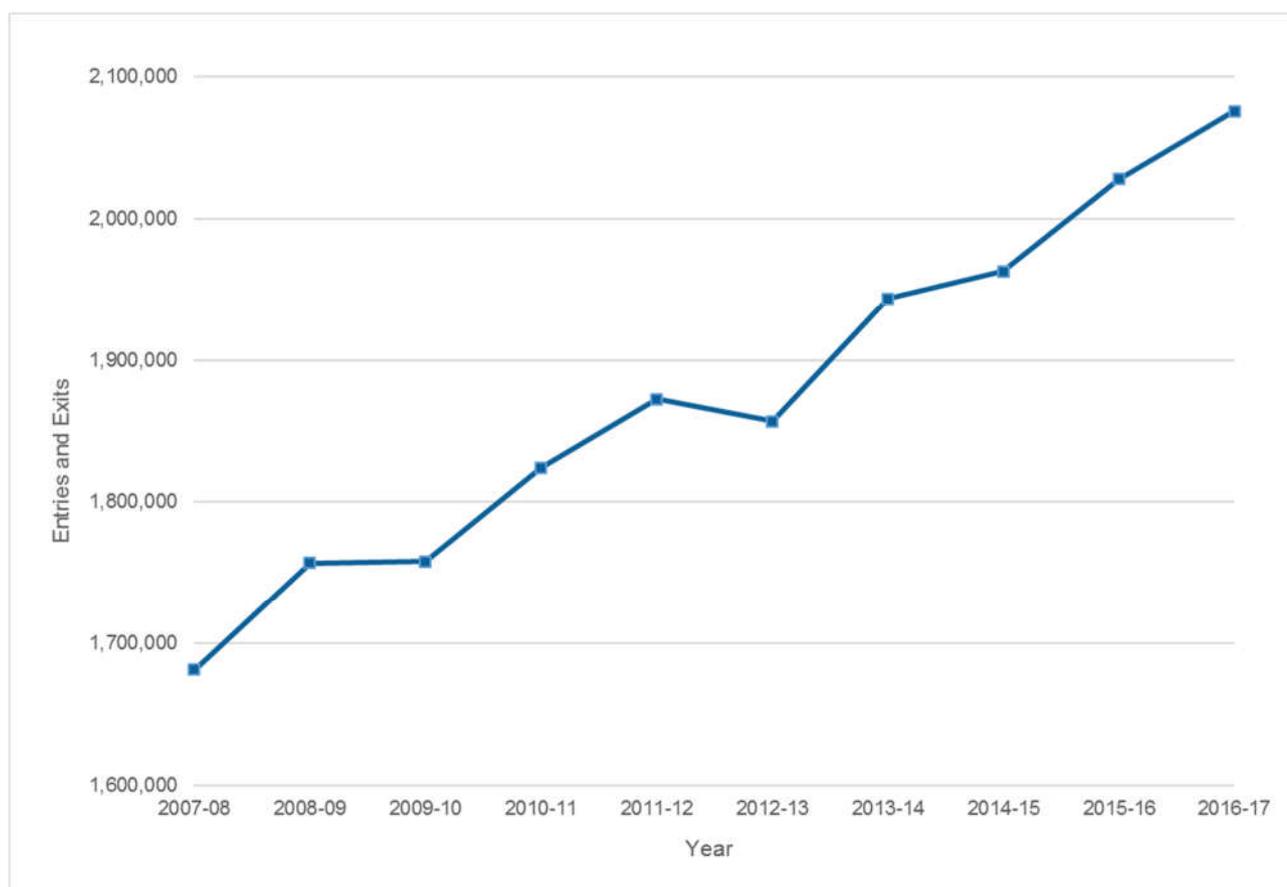
2.4.6. Issue: Demand for rail travel to/from Salisbury rail station is forecast to increase, however poor accessibility for all modes to the station will influence growth in demand

Salisbury rail station is operated by South Western Railway (SWR) with additional services from Great Western Railway (GWR). The station provides access from the city to a number of destinations, including:

- London Waterloo and Exeter St. David's on the West of England Main Line;
- Bristol Temple Meads and Southampton on the Wessex Main Line;
- Portsmouth; and
- Cardiff Central.

There has been sustained growth in passenger numbers at Salisbury rail station over the past ten years, as illustrated in Figure 2-12. The number of passengers in 2014-15 was 2,075,866 compared to 1,757,216 in 2007-8. This equates to a growth of 394,453, or 23%²⁷.

Figure 2-12 Salisbury rail station - entries and exits (2007-8 to 2014-15)



Future growth in rail demand

Forecasts for future rail demand up to the 2026 end of Core Strategy period have been produced for the Wiltshire Rail Study Strategic Analysis Report. The study indicates that rail demand from Salisbury will continue to grow. Forecasts suggest that daily demand from Salisbury rail station would increase from 1,905 daily trips to 3,394 trips by 2026. This analysis was undertaken using rail passenger data from 2004/5 as the baseline, suggesting that refreshing of the data may be required.

The key to catering for the planned growth in rail patronage is offering a rail service with enhanced capacity of the station and trains, as well as service frequency and reliability. Network Rail's Wessex Route Study

²⁷ Source: Office for Rail and Road. Station usage 2016-17 time series. Available at: <http://orr.gov.uk/statistics/published-stats/station-usage-estimates>

highlights the need to reduce the ‘generalised’ journey time for longer distance journeys, which includes Salisbury to London. Currently, services from Salisbury to London take in the region of 1 hour 30 minutes, compared to Chippenham’s 1 hour 20 minutes. Salisbury is located closer to London than Chippenham, highlighting the need to improve journey times. Timetable modelling suggests that there is the potential for performance and reliability benefits through the homogenisation of rolling stock, either through electric trains or higher performing diesel trains. This can enhance journey times and increase the number of services on the line.

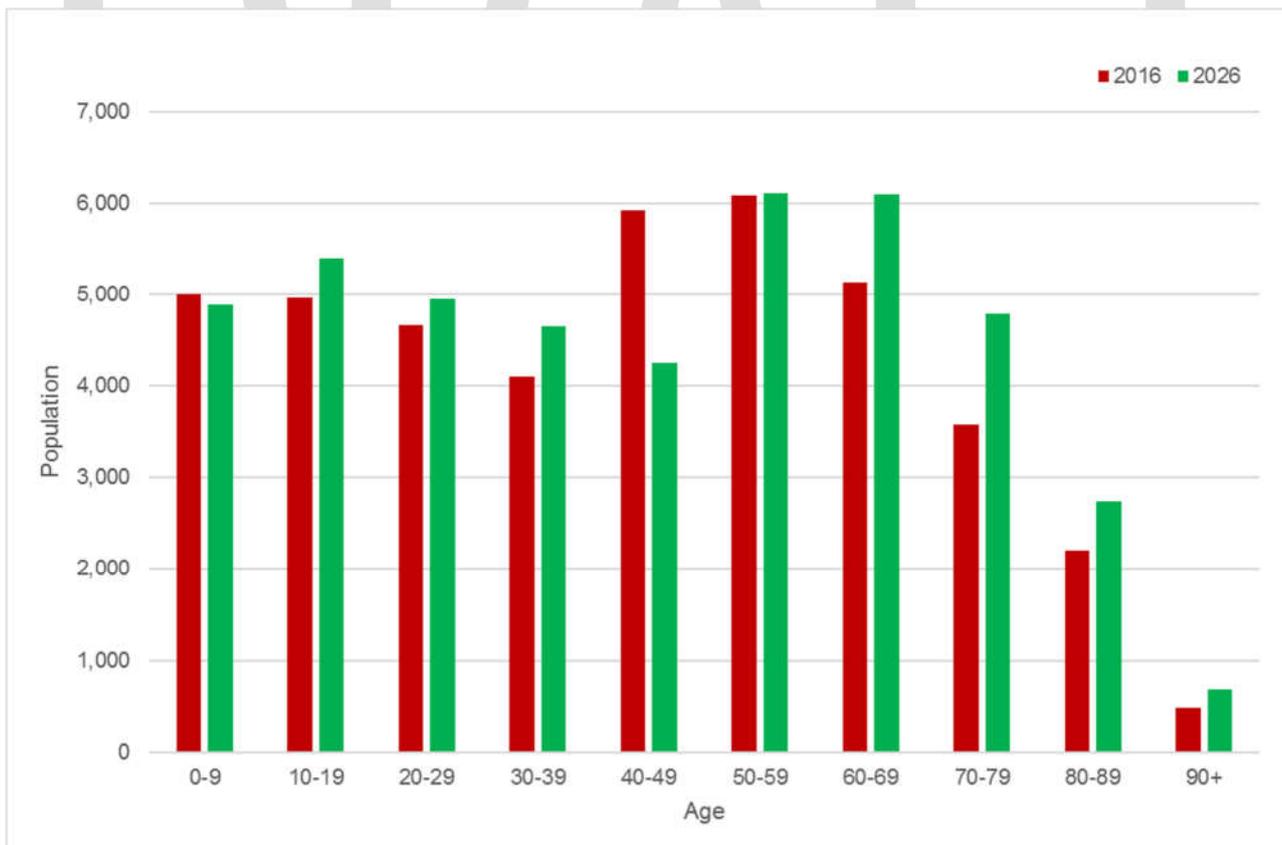
Improvements to the accessibility of Salisbury rail station are currently being explored by Atkins, Wiltshire Council and Network Rail. Enhancing accessibility will assist in achieving the rail patronage growth forecasts, through ensuring the rail station is easy to reach and is navigable across all ages and disabilities.

2.5. Cross-cutting issues

2.5.1. Issue: Ageing population in Salisbury will place changing demands on the transport network

Population projections produced by the Wiltshire Intelligence Network suggest that between 2016 and 2026 there will be a significant increase in the population of elderly residents. Figure 2-13 outlines the population for each ten-year age group in 2016 and 2026, showing that there will be a significant increase in the population of residents over the age of 60. Table 2-11 provides the percentage change in the age groups, highlighting the significant projected growth of the population above 60 years old.

Figure 2-13 Salisbury population projection (2016 to 2026)²⁸



²⁸ Wiltshire Intelligence Network: Community Area Estimates and Projections 2001 to 2026: Trend-based. Available at: <http://www.intelligencenetwork.org.uk/population-and-census/>

The population of 65 years-old and above is projected to rise from 8,840 (2016) to 11,080 (2026), representing a 25% increase. In 2016, this age group represented 21% of Salisbury's total population. By 2026, this will represent 25%.

Table 2-11 Projected population change (2016-2026)

Age group	2016	2026	% change
0 – 9	5,000	4,890	-2%
10 – 19	4,960	5,400	9%
20 – 29	4,660	4,950	6%
30 – 39	4,100	4,650	13%
40 – 49	5,920	4,250	-28%
50 – 59	6,080	6,110	0%
60 – 69	5,130	6,090	19%
70 – 79	3,580	4,790	34%
80 – 89	2,200	2,740	25%
90 and above	490	680	39%

This ageing population will place different demands on the transport network which will require mitigation. For instance, there could be an increased demand on Salisbury's public transport network, and an inferred demand for accessibility enhancements to ensure all spaces, including the city centre, rail station and bus stops, are accessible across all mobility groups and all age groups. There may also be an increase in usage of mobility vehicles on footways in Salisbury.

2.5.2. Issue: Reduced council revenue funding for highways maintenance and bus services

Wiltshire Council, like other local authorities, faces considerable budgetary pressures under the background of cuts in the grant from central government alongside increasing demand for some services. The Wiltshire Council Business Plan (2017-2027)²⁹ highlights the need to make £45million of savings by 2021. Transport will be affected in terms of revenue funding available for highways maintenance and bus services.

For bus services, the Public Transport Strategy³⁰ (part of LTP3) outlines that it is expected that total funding available for bus service support budgets will be less than in previous years. Between 2010 and 2013, there has been a decrease in revenue support to public bus service operators by approximately £500,000 per annum³¹: The Passenger Transport Review³² recommends a review of all passenger trip subsidies in order to achieve £500,000 savings from 2016.

²⁹ Available at: <http://www.wiltshire.gov.uk/news/articles/business-plan-agreed>

³⁰ Available at: <https://pages.wiltshire.gov.uk/ltp3-public-transport-strategy.pdf>

³¹ Available at: <http://www.wiltshire.gov.uk/wilts-council-car-parking-bus-subsidy-data.pdf>

³² Cabinet paper available at: <http://cms.wiltshire.gov.uk/documents/s123901/Passenger%20Transport%20Review%20Report.pdf>

3. Objectives

3.1. Salisbury Transport Strategy objectives

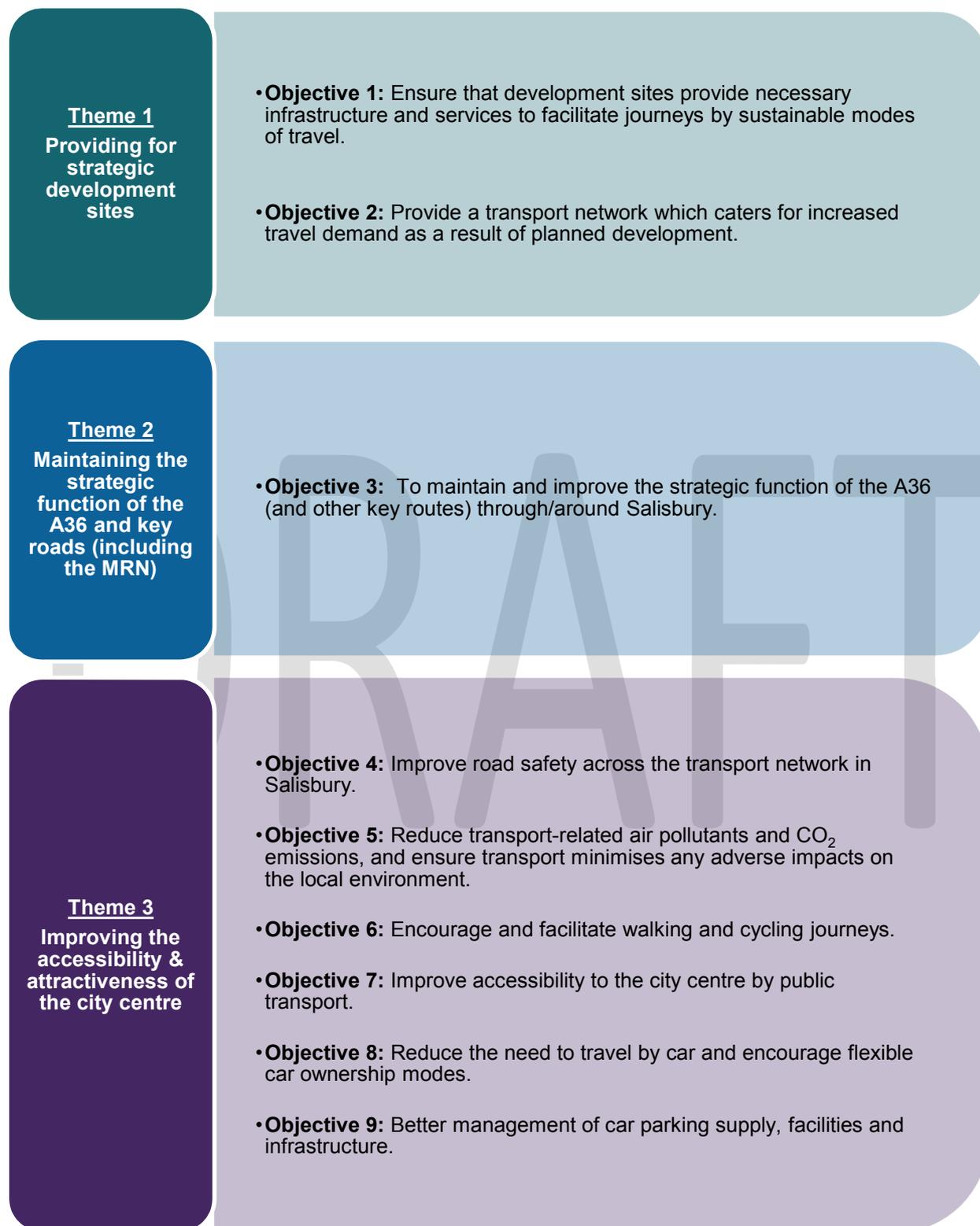
The transport issues and challenges outlined in section 2 have been used to refresh the objectives of the Salisbury Transport Strategy. The objectives, like the issues, are grouped around the three strategic themes for the city. In total, eight objectives have been set and are displayed in Figure 3-1.

The objectives have been developed within the context set out in section 1, and therefore do not include objectives contained within overarching policies. All Salisbury Transport Strategy objectives are specific to the city, with outcomes that are expected to support overarching policies. The way in which objectives are linked to specific policies is shown in Appendix A.

This section explores the relationship between objectives and identified issues. Each objective may relate to one or more identified issues, while an issue may relate to more than one objective. Objectives are therefore shown as having a 'primary' and 'secondary' relationship with certain issues. The expected outcomes for each objective are also provided in this section.

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Figure 3-1 Objectives of the Salisbury Transport Strategy



3.2. Theme: Providing for strategic development sites

3.2.1. Objectives 1 and 2 – Relationship with issues and challenges

The successful delivery, in transport terms, of planned development in Salisbury is the focus of the first two objectives:

- **Objective 1:** Ensure that development sites provide the necessary infrastructure and services to facilitate journeys by sustainable modes of travel; and
- **Objective 2:** Provide a transport network which caters for increased travel demand as a result of planned development.

In section 2, a number of issues and challenges are identified which relate to planned development sites in Salisbury. The issues listed in Table 3-1 have informed objectives 1 and 2.

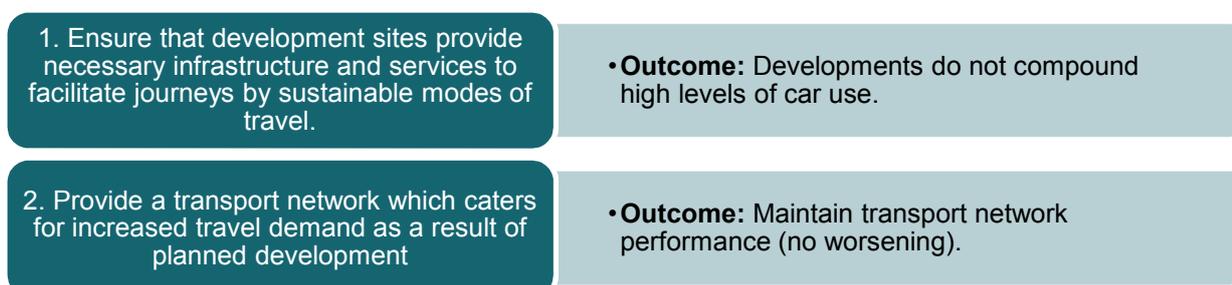
Table 3-1 Issues relating to objectives 1 and 2

	Theme	Issue
Primary Issues	Providing for strategic development sites	Access to key services and facilities by sustainable modes of transport from some development sites is limited.
		Increased population, as a result of development, may further constrain highway network performance.
Secondary Issues	Improving the accessibility and attractiveness of the city centre	Transport continues to impact on air quality in Salisbury.
		Historic street layout is not designed for high volumes of vehicles.
		Poor integration and connectivity of pedestrian/cycle network to key destinations including the rail station.
		Oversupply of city centre car parking.
		Salisbury's bus network is unattractive due to high cost of use, issues with integrated ticketing, and its infrequent network with gaps in bus coverage.

3.2.2. Objectives 1 and 2 – Outcomes

The transport specific outcomes for each objective are shown in Figure 3-2. Achieving these outcomes would represent an indicator of success in relation to meeting the objectives of the transport strategy.

Figure 3-2 Outcomes for objectives 1 and 2



3.3. Theme: Maintaining the strategic function of the A36 and key roads

3.3.1. Objective 3 – Relationship with issues and challenges

Objective 3 relates to the approach required to maintain the function of the A36 by improving connectivity across the city and wider corridor as well as addressing road safety issues which can cause disruption on these routes.

- **Objective 3:** To maintain and improve the strategic function of the A36 (and other key routes, including the MRN) through/around Salisbury.

In section 2 a number of issues and challenges are identified which relate to safeguarding the strategic role of the A36, and minimising delay. The issues listed in Table 3-2 have informed Objective 3.

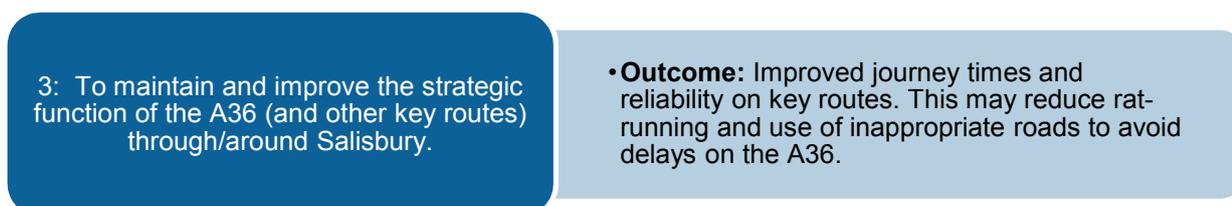
Table 3-2 Issues relating to objective 3

	Theme	Issue
Primary Issues	Maintaining the Strategic Function of the A36	Traffic flow is constrained by poor junction performance.
		Highway congestion is forecast to increase.
		High car reliance in Salisbury.
		There are a number of accident clusters on Salisbury's roads.
Secondary Issues	Improving the Accessibility and Attractiveness of the City Centre	Transport continues to impact on air quality in Salisbury.
		Historic street layout is not designed for high volumes of vehicles.
		Oversupply of city centre car parking.
		Salisbury's bus network is unattractive due to high cost of use, issues with integrated ticketing, and its infrequent network with gaps in bus coverage.
	Providing for strategic development sites	Access to key services and facilities by sustainable modes of transport from some development sites is limited.
		Increased population, as a result of development, may further constrain highway network performance.

3.3.2. Objective 3 – Outcomes

The transport specific outcomes for each objective are shown in Figure 3-3. Achieving these outcomes would represent an indicator of success in relation to meeting the transport strategy objectives.

Figure 3-3 Outcomes for objective 3



3.4. Theme: Improving the accessibility & attractiveness of the city centre

3.4.1. Objectives 4, 5, 6, 7, 8 and 9 – Relationship with issues and challenges

A successful and attractive city centre will contribute to the future success of Salisbury. Objectives 4, 5, 6, 7, 8 and 9 relate to making the city centre an accessible location by all modes of transport for current and future residents, whilst ensuring that visitors from further afield can access key locations.

- **Objective 4:** Improve road safety across the transport network in Salisbury;
- **Objective 5:** Reduce transport-related air pollutants and CO₂ emissions, and ensure transport minimises any adverse impacts on the local environment;
- **Objective 6:** Encourage and facilitate walking and cycling journeys;
- **Objective 7:** Increase public transport patronage (including P&R) and improve journey experience;
- **Objective 8:** Reduce the need to travel by car and encourage flexible car ownership modes; and
- **Objective 9:** Better management of car parking supply, facilities and infrastructure.

In section 2 a number of issues and challenges are identified which have an impact on the attractiveness of the city centre and which relate to access to the city centre by sustainable modes. The issues listed in Table 3-3 have informed Objectives 4, 5, 6, 7, 8 and 9.

Table 3-3 Issues relating to objectives 4, 5, 6, 7, 8 and 9

	Theme	Issue
Primary Issues	Improving the Accessibility and Attractiveness of the City Centre	Transport continues to impact on air quality in Salisbury with three Air Quality Management Areas (AQMAs) designated.
		Historic street layout is not designed for high volumes of vehicles.
		Poor integration and connectivity of pedestrian/cycle network to key destinations including the rail station.
		Oversupply of city centre car parking.
		Salisbury's bus network is unattractive due to high cost of use, issues with integrated ticketing, and its infrequent network with gaps in bus coverage.
		Constrained rail network impacts on connectivity to and from Salisbury as well as the attractiveness and convenience of using rail.
Secondary Issues	Maintaining the Strategic Function of the A36	Traffic flow is constrained by poor junction performance.
		Highway congestion is forecast to increase.
		High car reliance in Salisbury.
		There are a number of accident clusters on Salisbury's roads.
Providing for strategic development sites	Providing for strategic development sites	Access to key services and facilities by sustainable modes of transport from some development sites is limited.
		Increased population, as a result of development, may further constrain highway network performance.

3.4.2. Objectives 4, 5, 6, 7, 8 and 9 – Outcomes

The transport specific outcomes for each objective are shown in Figure 3-4. Achieving these outcomes would represent an indicator of success in relation to meeting the transport strategy objectives.

Figure 3-4 Outcomes for objectives 4, 5, 6, 7, 8 and 9

4. Improve road safety across the transport network in Salisbury.	<ul style="list-style-type: none">• Outcome: Increased safety/perception of safety will improve attractiveness of active modes. Fewer accidents result in a more resilient and reliable transport network. Fewer killed or seriously injured on Salisbury's roads.
5. Reduce transport-related air pollutants and CO ₂ emissions, and ensure transport minimises any adverse impacts on the local environment.	<ul style="list-style-type: none">• Outcome: AQMA is improved, improving the health of Salisbury's residents.
6. Encourage and facilitate walking and cycling journeys.	<ul style="list-style-type: none">• Outcome: Good walking/cycling access to key destinations such as schools, rail station, employment areas, development sites. Increased rates of walking and cycling in the city.
7. Improve accessibility to the city centre by public transport.	<ul style="list-style-type: none">• Outcome: Increased number of bus users, fewer people using the car for short distance trips. Increased bus frequency, serves larger area, reviewed pricing will ensure accessibility for all. Increased rail usage will reduce long distance car journeys.
8. Reduce the need to travel by car and encourage flexible car ownership modes.	<ul style="list-style-type: none">• Outcome: Increased car club and car share usage, reduced out-commuting, reduced business travel.
9. Better management of car parking supply, facilities and infrastructure.	<ul style="list-style-type: none">• Outcome: Improved efficiency of car parking operations.

4. Strategy schemes

4.1. Overview and estimated cost

This section presents the schemes that have been identified to meet the nine objectives and therefore to address the local transport issues and challenges in Salisbury. **The schemes contained in this strategy are concept schemes and will need to be subject to a full process of scheme development**, including option assessment. They will need to be developed in further detail as part of Transport Assessments or business cases as appropriate. Detailed scheme development will need to consider safety, equality, quality of life, environmental and carbon reduction implications.

4.1.1. Initial scheme sifting

Schemes have been selected from a long list, compiled from a range of existing documents, including:

- Salisbury Transport Strategy Refresh 2010;
- Sustrans Cycle and Pedestrian Access Study, published in 2013; and
- Wiltshire's Infrastructure Delivery Plan 2 (IDP2)³³.
- Discussions with Wiltshire Council officers; and
- Other Atkins' projects.

A number of events were undertaken to consult with stakeholders and the public on the schemes long list. A number of schemes were added to the long list as a result of this. The schemes in the long list have been assessed and subsequently prioritised to select schemes with the highest transport merit. The **identified schemes** for the transport strategy have been selected using the following criteria:

- Ability to overcome identified issues;
- Ability to meet any identified objectives;
- Deliverability by 2026;
- Capital cost;
- Revenue cost;
- Scheme deliverability complexity;
- Stakeholder support; and
- Public support.

The final list of 'priority' schemes is presented visually in Figure 4-4 and in Tables 4-1 to 4-4. This represents the smarter choices, walking and cycling, public transport and highways schemes in Salisbury. Not all schemes in the tables were able to be mapped onto the corresponding figures, such as smarter choice schemes or a parking strategy for example. The schemes that are mapped are shaded in the tables.

It is important to note that a reserve list and development list of schemes was also identified these are provided in Appendix C.

While this strategy has been developed specifically for Salisbury, the identified schemes would be consistent with the aims of complementary Wiltshire-wide transport initiatives.

4.1.2. Identified schemes

The schemes outlined throughout this section represent a high-level approach to addressing the identified transport issues in Salisbury and to meet the transport objectives for the city. A visual summary of the geographical coverage of schemes is shown in Figure 4-4. Further detail is provided in the remainder of this section, structured in line with the Wiltshire Core Strategy user hierarchy (as set out in Core Policy 61):

- Smarter choices – encouraging use of sustainable modes and changes in travel habits (Table 4-1);
- Pedestrian and cycle network improvements (Table 4-2 and Figure 4-1);
- Public transport network improvements (Table 4-3 and Figure 4-2); and

³³ Available at: <http://www.wiltshire.gov.uk/planninganddevelopment/planningpolicy/infrastructuredeliveryplan.htm>

- Highway and car parking schemes (Table 4-4 and Figure 4-3).

4.1.3. Indicative costs

It is estimated that the total capital cost of the Salisbury Transport Strategy Refresh is £31.57 million in current prices. Smarter choice schemes will cost approximately £0.54 million, pedestrian and cycle improvements will cost approximately £12.66 million, whilst public transport measures will cost £9.98 million, and highway improvements £8.39 million. The scheme costs are indicative estimates that have been derived based on best practice and similar schemes undertaken in previous years. The assumptions to which the costs were based are included in Appendix D.

At this stage there is no expectation that these remaining schemes would be funded in full by developments at consented or strategic sites. A range of funding options will be considered. Transport scheme funding options are summarised in Section 5.3, while for some schemes, Section 106 agreements have already been made.

4.2. Smarter choices measures

Smarter choice measures which encourage the use of sustainable modes and changes in travel behaviour, are listed in Table 4-1.

Table 4-1 Smarter choices schemes

Ref #	Smarter choices schemes	Indicative costs	Issues (Refers to Table 2-1)	Objectives (Refers to Figure 3.1)
SC01	Workplace travel planning at current employers and future employment development, including measures such as promoting public transport and P&R, walking and cycling; support for Salisbury Car club and personalised travel planning (PTP)	£150,000	2.1.2, 2.2.3, 2.3.1, 2.3.2, 2.3.4, 2.3.5	1, 6
SC02	Residential travel planning at planned development sites, including measures such as promoting public transport and P&R, walking and cycling, and personalised travel planning (PTP)	£100,000	2.1.2, 2.2.3, 2.3.1, 2.3.2, 2.3.4, 2.3.5	1, 6
SC03	School travel planning, including measures such as promoting public transport, car sharing, walking buses, incorporating into the curriculum	£90,000	2.1.2, 2.2.3, 2.3.1, 2.3.2, 2.3.4, 2.3.5	1, 6
SC04	Expand car clubs	£100,000	2.1.2, 2.2.3, 2.3.1, 2.3.2	8
SC05	Support for electric vehicles	£100,000	2.2.3, 2.3.1, 2.3.2	
Total indicative cost (first year set up costs)		£0.54m		

4.3. Pedestrian and cycle network improvements

Schemes to improve the pedestrian and cycle network in Salisbury are listed below in Table 4-2 and are outlined in Figure 4-1. Schemes will consist of introducing and enhancing infrastructure along corridors with the aim of increasing the attractiveness of using active travel modes. Particular attention has been paid to linking the proposed development sites to the town centre and employment sites. As such, schemes will need to be designed so that they are safe, direct, convenient and attractive.

Table 4-2 Pedestrian and cycle schemes

Ref #	Pedestrian and cycle schemes	Indicative costs	Issues (Refers to Table 2-1)	Objectives (Refers to Figure 3.1)
PC01	Improve pedestrian facilities and pedestrian priority in the city centre (bus routes to be maintained; pedestrianisation could be considered as part of this)	£5m	2.2.3, 2.2.4, 2.3.1, 2.3.2, 2.3.3, 2.4.1	4, 6
PC02	Imerys pedestrian and cycle routes (to Wilton Hill, Salisbury and Fugglestone)	£450,000	2.1.1, 2.1.2, 2.2.3, 2.3.1, 2.3.2, 2.3.3,	2, 4, 5, 6, 8
PC03	Wayfinding	£68,000	2.2.3, 2.3.1, 2.3.2, 2.3.3,	6
PC04	A36 pedestrian and cycle improvements ³⁴	£1.57m	2.2.2, 2.2.3, 2.3.1, 2.3.2, 2.3.3, 2.3.6	2, 4, 5, 6, 7, 8
PC05	Fugglestone to Wilton Hill pedestrian and cycle path ³⁵	£160,000	2.1.1, 2.1.2, 2.2.2, 2.2.3, 2.3.1, 2.3.2, 2.3.3	2, 4, 5, 6, 8
PC06	Wilton - Wilton Hill - Salisbury cycle and pedestrian improvements	£1.6m	2.1.1, 2.1.2, 2.2.2, 2.2.3, 2.3.1, 2.3.2, 2.3.3	2, 4, 5, 6, 8
PC07	Wilton to Netherhampton pedestrian and cycle routes	£1m	2.1.1, 2.1.2, 2.2.2, 2.2.3, 2.3.1, 2.3.2, 2.3.3	2, 4, 5, 6, 8
PC08	Netherhampton to Salisbury cycle improvements	£315,000	2.1.1, 2.1.2, 2.2.2, 2.2.3, 2.3.1, 2.3.2, 2.3.3, 2.3.6	2, 4, 5, 6, 7, 8
PC09	Netherhampton to Churchfields cycle and pedestrian improvements	£500,000	2.1.1, 2.1.2, 2.2.2, 2.2.3, 2.3.1, 2.3.2, 2.3.3, 2.3.6	2, 4, 5, 6, 7, 8
PC10	Fugglestone to Salisbury cycle and pedestrian improvements	£380,000	2.1.1, 2.1.2, 2.2.2, 2.2.3, 2.3.1, 2.3.2, 2.3.3, 2.3.6	2, 4, 5, 6, 7, 8
PC11	Fugglestone to Old Sarum/Longhedge cycle and pedestrian improvements	£300,000	2.1.1, 2.1.2, 2.2.2, 2.2.3, 2.3.1, 2.3.2, 2.3.3	2, 4, 5, 6, 8
PC12	Longhedge/Hampton Park to Salisbury pedestrian and cycle improvements ³⁶	£1.m	2.1.1, 2.1.2, 2.2.2, 2.2.3, 2.3.1, 2.3.2, 2.3.3	2, 4, 5, 6, 8

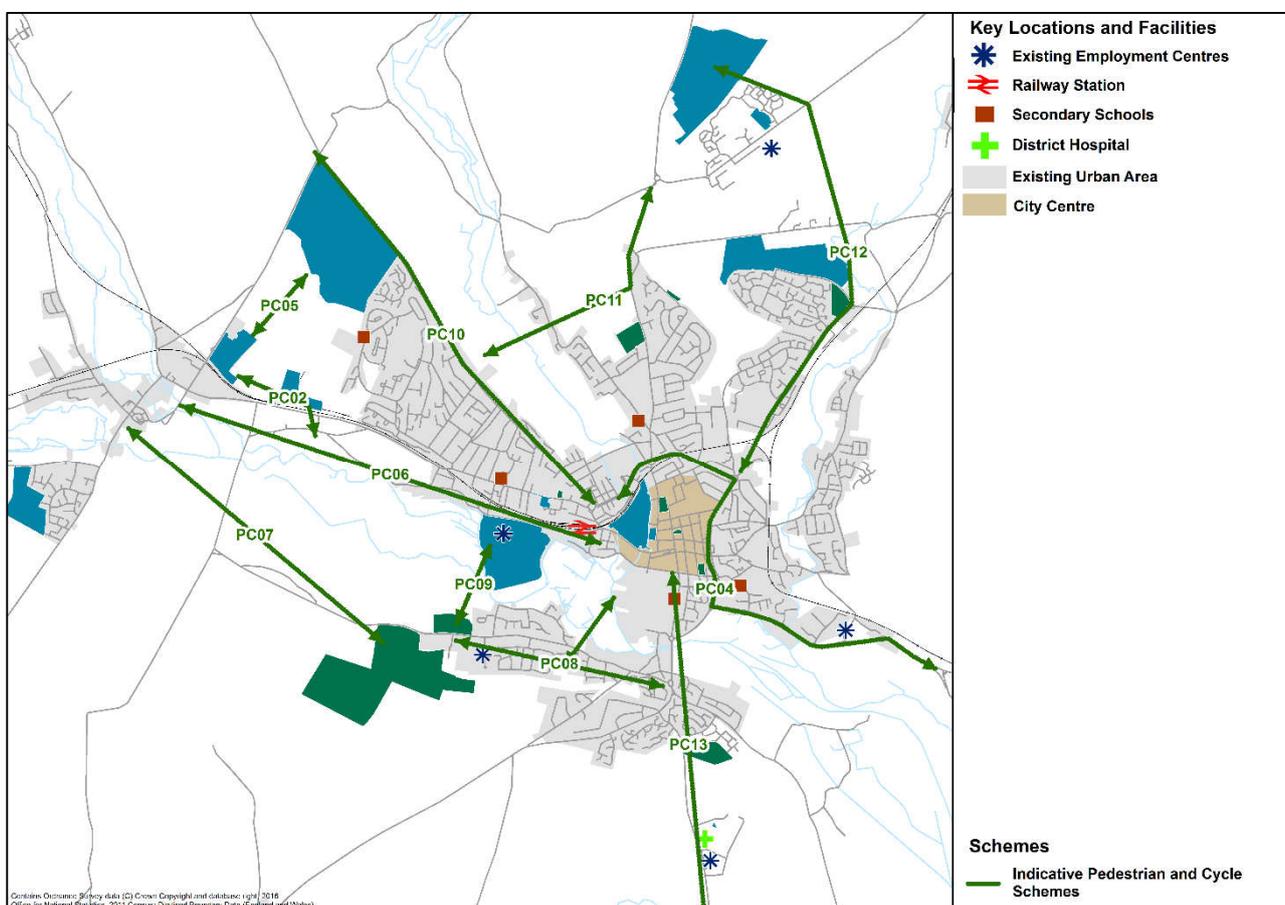
³⁴ A Section 106 agreement from the Salisbury Sixth Form College will contribute towards the delivery of this scheme.

³⁵ A Section 106 agreement from the UKLF/Fugglestone Red development site will contribute towards the delivery of this scheme.

³⁶ A Section 106 agreement from the Longhedge Old Sarum development site will contribute towards the delivery of this scheme.

Ref #	Pedestrian and cycle schemes	Indicative costs	Issues (Refers to Table 2-1)	Objectives (Refers to Figure 3.1)
PC13	Salisbury to Hospital pedestrian and cycle improvements	£200,000	2.2.2, 2.2.3, 2.3.1, 2.3.2, 2.3.3	4, 5, 6, 8
PC14	Salisbury College pedestrian and cycle improvements ³⁷	£100,000	2.2.2, 2.2.3, 2.3.1, 2.3.2, 2.3.3	4, 5, 6, 8
PC15	Maintain and increase cycle parking near key destinations and transport interchanges as set out in Wiltshire Council Cycling Strategy	£20,000	2.2.2, 2.2.3, 2.3.1, 2.3.2, 2.3.3, 2.3.6	5, 6, 7, 8
Total indicative cost		£12.66m		

Figure 4-1 Pedestrian and cycle schemes



4.4. Public transport network improvements

Public transport improvement schemes are listed in Table 4-3 and outlined in Figure 4-2. Schemes will consist of measures to enhance the user experience of the public transport network. This approach will consist of corridor upgrades, which include improving bus shelters, introducing/improving real-time passenger

³⁷ A Section 106 agreement from the Salisbury Sixth Form College will contribute towards the delivery of this scheme.

information (RTPI), enhancing information of the bus network and raising kerbs to ensure good accessibility onto buses.

Schemes will seek to enhance existing public transport corridors in the city, integrating bus priority, where possible, into existing signalised junctions. The schemes have also included the consideration of features such as new bus lanes, as necessary, without exceeding the original estimated cost category (low, medium, high). The upgrades are therefore focused on the main radials into Salisbury connecting the new housing sites or employment sites with the city centre.

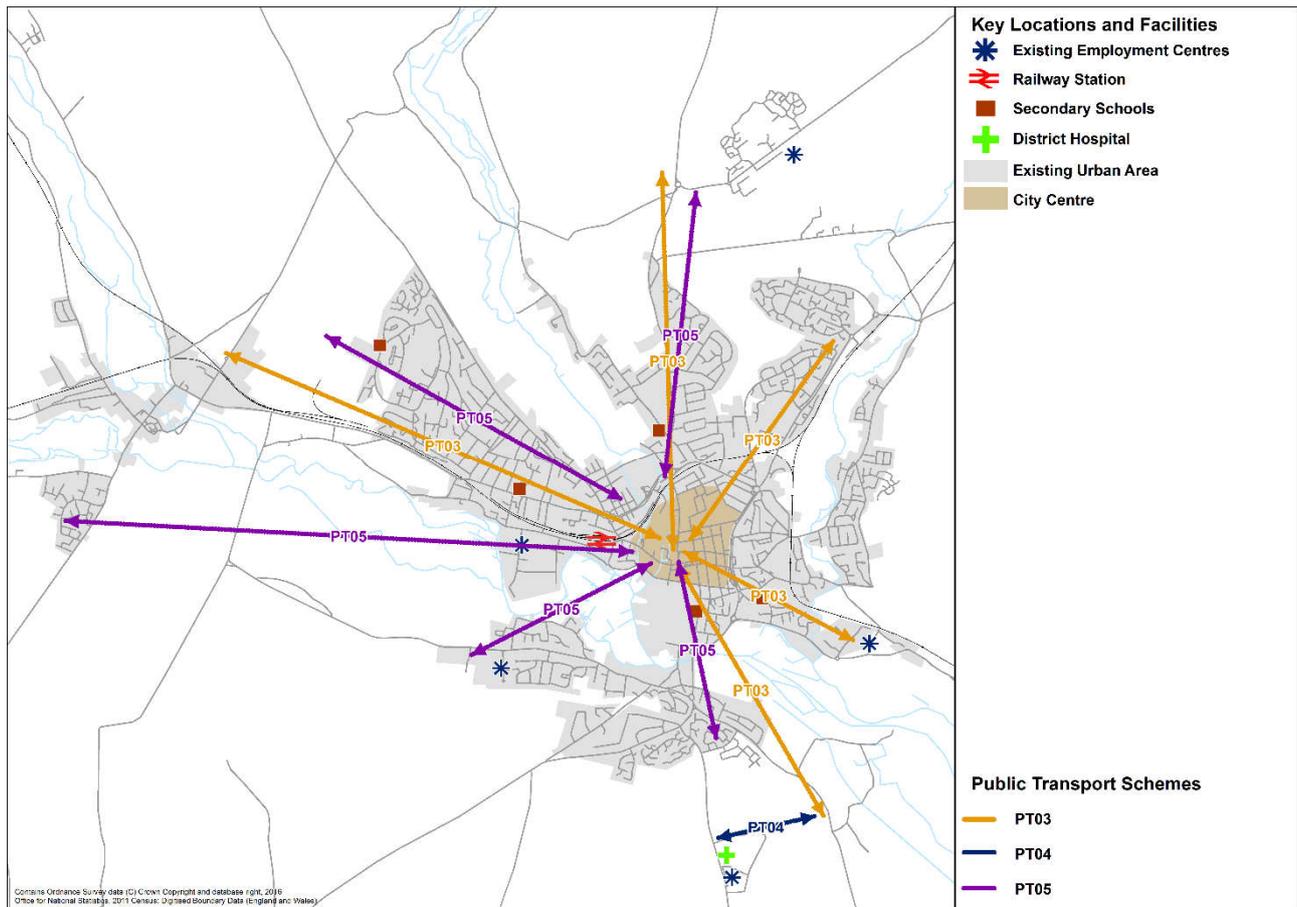
There are currently no indicative costs for the Salisbury rail station interchange project, whilst it is difficult to estimate a cost for 'improve cross-city bus connections' (PT06) and 'minor highway improvements to improve bus flow' (PT07). It is possible that these could essentially be covered within a number of the other public transport schemes.

Table 4-3 Public transport schemes³⁸

Ref #	Public transport schemes	Indicative costs	Issues (Refers to Table 2-1)	Objectives (Refers to Figure 3.1)
PT01	Maintain and improve existing bus passenger information e.g. extension of RTPI to development sites	£225,000	2.1.2, 2.2.3, 2.3.1, 2.3.2, 2.3.5, 2.3.6	2, 5, 7, 8
PT02	Bus stop infrastructure package - maintain existing bus shelters across Salisbury and look for opportunities to improve, this may include the introduction of high quality shelters, signage and cycle parking if viable	£406,000	2.1.2, 2.2.3, 2.3.1, 2.3.2, 2.3.4, 2.3.5, 2.3.6, 2.4.1	2, 5, 7, 8
PT03	Bus priority measures on Park & Ride routes (Salisbury Road/Wilton Road, Castle Road, London Road, Southampton Road, Downton Road / Exeter Street)	£1m	2.1.1, 2.1.2, 2.2.2, 2.2.3, 2.3.1, 2.3.2, 2.3.4, 2.3.5, 2.3.6, 2.4.1	2, 3, 5, 7, 8
PT04	Bus link between the hospital and Britford Park & Ride	£3.5m	2.2.3, 2.3.1, 2.3.2, 2.3.4, 2.3.5, 2.4.1	7, 8
PT05	High frequency buses serving all new development sites - at least 4 buses per hour (PR3, Red 10, PR11, PR7, Red 5)	£1m	2.1.2, 2.2.3, 2.3.1, 2.3.2, 2.3.5	1, 2, 5, 7, 8
PT06	Improve cross-city bus connections where opportunities arise	-	2.2.3, 2.3.1, 2.3.2, 2.3.5, 2.3.6, 2.4.1	7, 8
PT07	Minor highway improvements to improve bus flow	£100,000	2.2.3, 2.3.1, 2.3.2, 2.3.5	7, 8
PT08	Electric buses	£1.25m	2.2.3, 2.3.1, 2.3.2	5
PT09	Salisbury Rail Station Interchange Improvements - details subject to ongoing work being conducted in partnership between Wiltshire Council, Network Rail and public transport operators	£2.5m	2.1.2, 2.2.3, 2.3.1, 2.3.2, 2.3.5, 2.3.6	2, 7, 8
Total indicative cost		£9.98m		

³⁸ A Section 106 agreement from the London Road Retail Park development will provide contributions toward public transport schemes on the A30 London Road.

Figure 4-2 Public transport schemes



4.5. Highway and parking schemes

Highways and parking schemes, listed in Table 4-4 and outlined in Figure 4-3, aim to improve the key network locations for the benefit of all road users. The schemes seek to enhance capacity at key junctions on the A36 around Salisbury, such as St Paul’s roundabout, St Mark’s roundabout and College roundabout, along with key junctions on the MRN routes such as Harnham Gyratory and Exeter Street roundabout on the A338.

Table 4-4 Highway and parking schemes

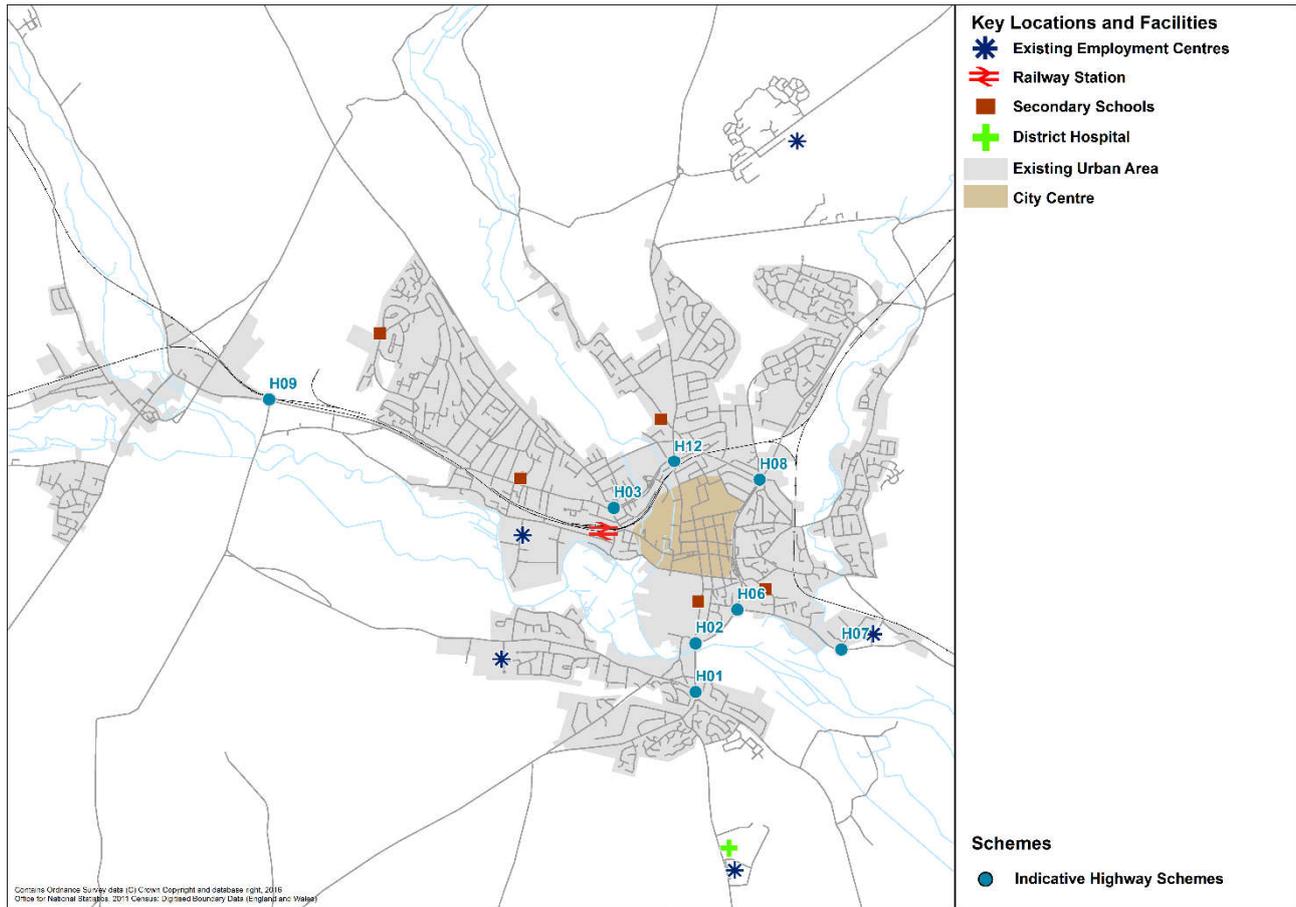
Ref #	Highway and parking schemes	Indicative costs	Issues (Refers to Table 2-1)	Objectives (Refers to Figure 3.1)
H01	Harnham Gyratory - remodelling	£1.24m	2.1.2, 2.2.2, 2.2.4, 2.3.1	2, 3, 4, 7
H02	Exeter Street roundabout enhancements	£2.97m	2.1.2, 2.2.2, 2.2.4, 2.3.1	2, 3, 4, 7
H03	St Paul's roundabout enhancements	£720,000	2.1.2, 2.2.2, 2.2.4, 2.3.1	2, 3, 7
H04	Develop a hierarchy of routes that restricts traffic movement in the city	£200,000	2.1.1, 2.1.2, 2.2.2, 2.2.3, 2.3.1, 2.3.2, 2.3.3, 2.3.5	2, 3, 5, 6, 7, 8
H05	Use and improve UTMC in accordance with the route-user hierarchy in Core Policy 61	£400,000	2.1.2, 2.2.2, 2.3.1, 2.3.3, 2.3.5	2, 3, 6, 7

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Ref #	Highway and parking schemes	Indicative costs	Issues (Refers to Table 2-1)	Objectives (Refers to Figure 3.1)
H06	College roundabout capacity enhancements	£278,000	2.1.2, 2.2.1, 2.2.2, 2.3.1	2, 3, 7
H07	A36 Bourne Way capacity enhancements (Petersfinger P&R junction)	£2,400	2.1.2, 2.2.1, 2.2.2, 2.3.1	2, 3, 7
H08	St Mark's roundabout capacity enhancements ³⁹	£720,000	2.1.2, 2.2.1, 2.2.2, 2.3.1	2, 3, 7
H09	Park Wall Junction (A36/A3094) improvements	£2,400	2.1.2, 2.2.1, 2.2.2, 2.3.1	2, 3
H10	Clear Air Zone	£250,000	2.1.2, 2.2.2, 2.2.3, 2.3.1, 2.3.2, 2.3.4, 2.3.5	2, 3, 5, 6, 8
H11	Freight Management scheme (hierarchy / routes)	£200,000	2.1.2, 2.2.2, 2.3.1, 2.3.2	2, 3, 5, 6
H12	Castle Roundabout enhancements	£720,000	2.1.2, 2.2.2, 2.2.4, 2.3.1	2, 3, 4, 7
H13	P&R strategy - parking charges (differential between city centre and P&R), high quality interchange at P&R sites inc. public toilets and marketing to maximise use of P&R sites	£500,000	2.2.2, 2.2.3, 2.3.1, 2.3.4	2, 3, 5, 7, 8, 9
H14	Maltings/Central car park redeveloped with long stay car parking replaced by multi-storey short stay car park	-	2.2.3	
H15	Adequate provision of coach parking in the city	-	2.2.3, 2.3.1, 2.3.4	7
H16	Assess appropriate parking technology to manage parking spaces efficiently and improve user experience	£200,000	2.2.2, 2.2.3, 2.3.1, 2.3.4	3, 9
Total indicative cost		£8.39m		

³⁹ A Section 106 agreement from the DSTL Porton Down development will contribute towards the funding of this scheme.

Figure 4-3 Highway schemes



4.6. All Transport Strategy schemes

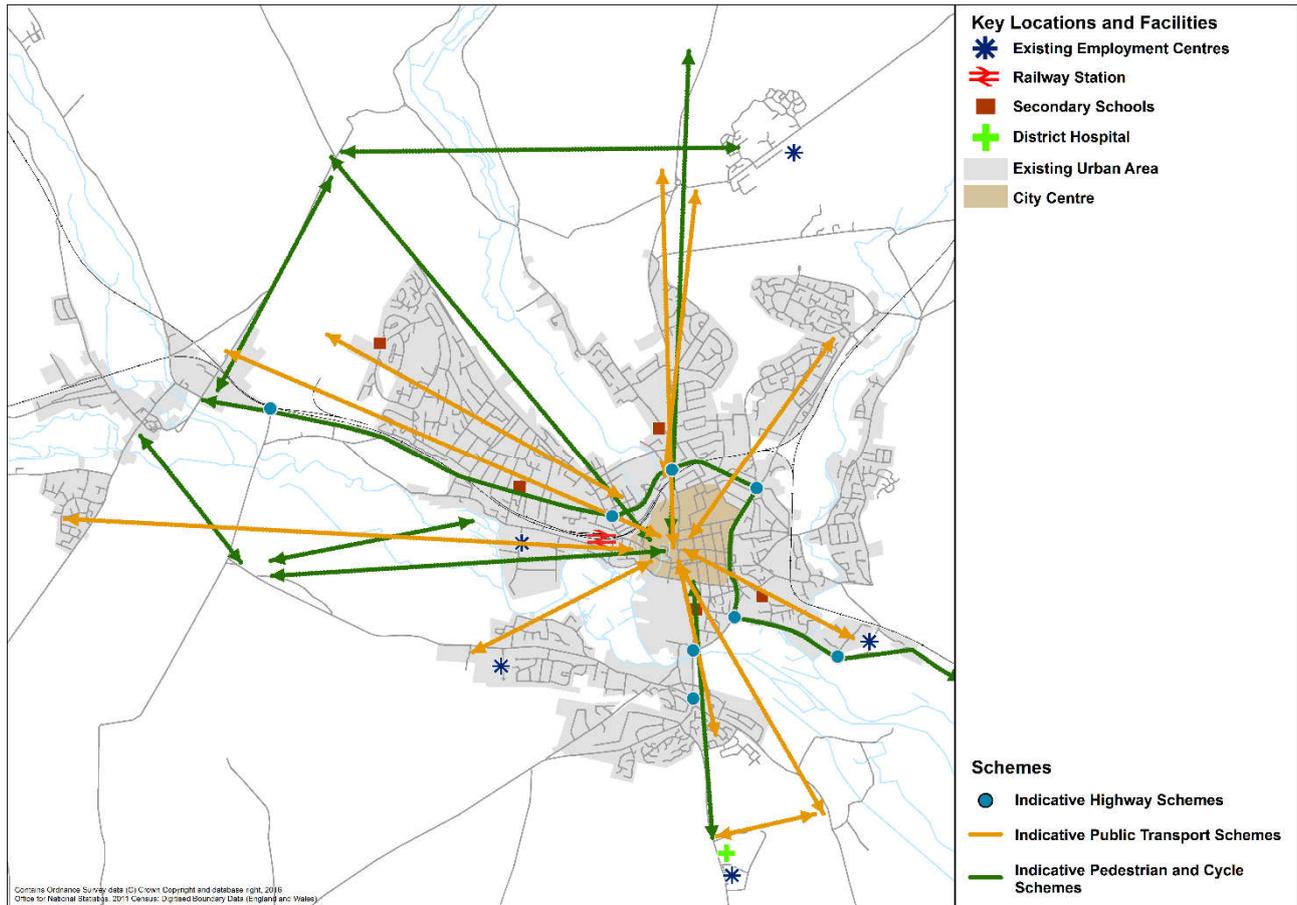
As outlined in section 2.1.3, the **Do-Minimum** model scenario (consisting of 2026 Reference Case plus additional 850 homes from the DPD), is forecast to cause increased delay across the network. This highlights the need for schemes to be devised to alleviate future congestion issues, along with supporting the objectives in section 3.

The schemes outlined throughout Section 4 will be tested (**Do-Something**) in order to forecast the extent to which the proposed schemes mitigate the impacts of the DPD sites. Testing outputs can therefore provide an indication as to whether the **'With Strategy'**⁴⁰ package of schemes proposed is likely to benefit the city in transport terms as well as successfully deliver against the issues and schemes previously mentioned. The outputs of the 'with strategy' modelling work are presented in Section 6.

Figure 4-4 presents highways, public transport and walking and cycling schemes together, displaying the scheme coverage across Salisbury.

⁴⁰ 'With Strategy' package refers to the Do-Something modelling run.

Figure 4-4 All Transport Strategy schemes



4.7. Developing Schemes for Strategy Testing

As outlined in section 2.3, the **Do-Minimum** model scenario (consisting of 2026 forecast model plus additional 5,680 homes from the DPD, the CS and other development sites), is forecast to cause increased delay across the network. This highlights the need for schemes to be devised to alleviate future congestion issues, along with supporting the objectives in section 3.

The schemes outlined throughout section 4 will be tested (**Do-Something**) in order to forecast the extent to which the proposed schemes mitigate the impacts of the DPD, CS and additional sites. Testing outputs can therefore provide an indication as to whether the **'With Strategy'**⁴¹ package of schemes proposed is likely to benefit the city in transport terms as well as successfully deliver against the issues and schemes previously mentioned. The outputs of the modelling work are presented in section 6 .

⁴¹ 'With Strategy' package refers to the Do-Something modelling run.

5. Scheme categorisation

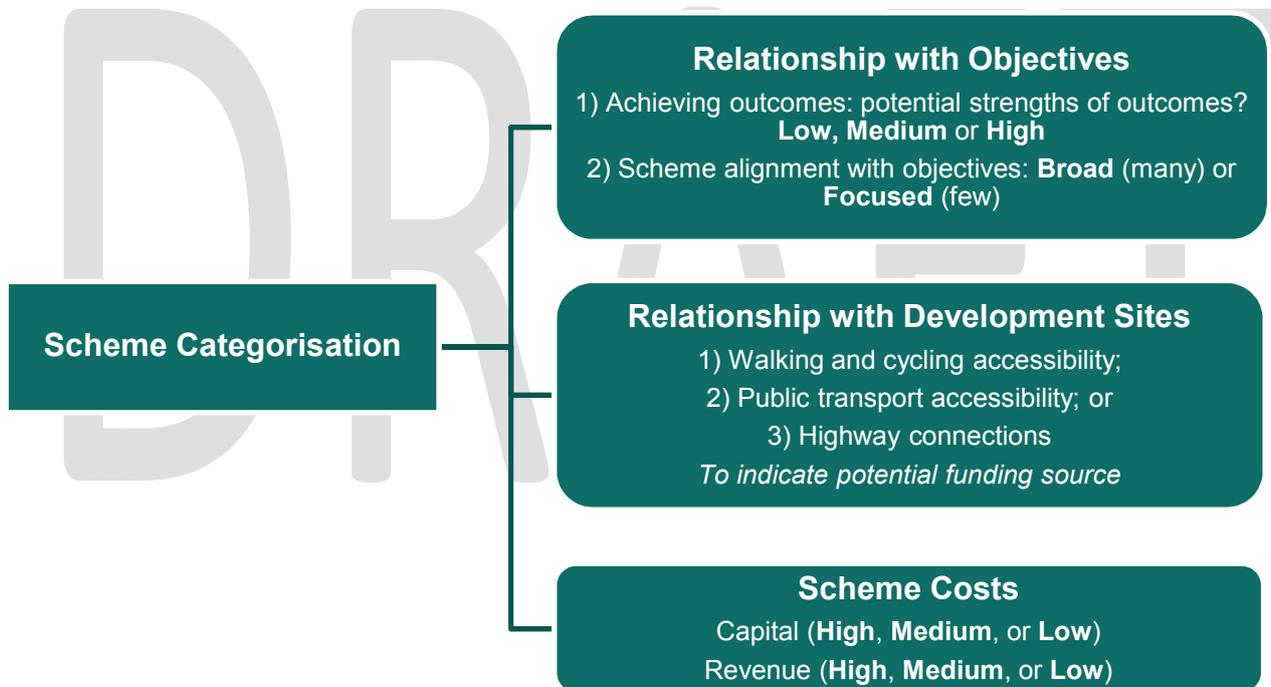
This section provides a framework for progressing from a list of concept schemes (as documented in section 4) towards a prioritised scheme delivery and funding plan. It is based on information that is currently available and will be subject to change as more detailed scheme development and impact assessment work is undertaken.

5.1. Categorisation approach

Categorisation provides a structure for understanding a scheme's potential impact, its relationship with development sites, costs, and potential funding sources. It also provides a basis on which schemes can be prioritised to reflect funding availability.

Figure 5-1 outlines the process by which schemes have been categorised. The process considers the schemes and their relationship to the strategy objectives, development sites, and (revenue and capital) costs.

Figure 5-1 Scheme categorisation



Detail on the methodology for the categorisations are provided in the remainder of this chapter.

5.2. Relationship with objectives

Assessing schemes' relationships with objectives is important for understanding their subsequent effects on the overarching Transport Strategy Refresh. Each scheme has been scored according to:

- The potential 'strength' of outcomes that are expected to result from the scheme; and
- The number of objectives to which the scheme is aligned.

Each of the schemes have been assessed separately against the transport objectives (Figure 3-1) using a straightforward scoring system which considers whether the scheme meets the objective and the potential level of contribution the scheme would make towards achieving the outcomes of that objective.

Following the scoring, schemes have been placed into a matrix to mark their ability to deliver its intended outcomes as well as its alignment: how many objectives the scheme is likely to deliver positive outcomes for. For outcomes, a scheme is either a High Outcome or Medium Outcome, with High being a scheme that will almost certainly deliver its intended outcomes and Medium having less certainty in the likelihood of delivery. For alignments, a Broad Alignment will suggest that the scheme is likely to deliver positive outcomes against more than 5.5 of the objectives, while a Focused Alignment will deliver positive outcomes for equal to or less than 5.5.

The outcome of this categorisation is provided in Table 5-1. The categorisation highlights the following notable results:

- The majority of pedestrian / cycle schemes will have a broad alignment with objectives;
- There are no public transport schemes with a high transport outcome; and
- Highway schemes vary in their relationship with objectives.

Table 5-1 Relationship with objectives

Alignment with objectives	Broad	H09, H15, H16 , PT07	H10, H11, PC01, PC02, PT05, PT09	H04, H13, PC04, PC05, PC06, PC07, PC08, PC09, PC10, PC11, PC12, PC13, PC14, PC15, SC01, SC02, SC03,
	Focused		H01, H02, H03, H05, H06, H07, H08, H12, H14, PC03, SC04, SC05, PT01, PT02, PT03, PT04, PT06, PT08	
		Low	Medium	High
		Transport outcomes		

5.3. Relationship with development sites

Categorising transport schemes with regards to their relationship with development sites is an important process in indicating which of the proposed schemes are necessary to support planned growth in specific locations.

The overall need for each scheme can be explained with reference to the transport issues outlined in Salisbury (chapter 2), the objectives established for Transport Strategy (chapter 3), and the relationships between issues, objectives and schemes (chapter 4). The purpose of this chapter is to take forward the schemes and map them to identify spatial relationships between schemes and development sites. This approach is used in determining which schemes are related to the development sites. Schemes are assessed according to their characteristics:

- Type 1: Pedestrian and cycling accessibility;
- Type 2: Public transport accessibility; and
- Type 3: Highway connections.

Although the transport strategy **does not seek to identify a specific funding source for each scheme**, the outcome of **this assessment will assist in identifying suitable funding sources**. Potential funding sources will be largely determined by whether a scheme is

- Directly related to a development;
- Necessary for a development;
- Fairly and reasonably related in scale and kind to a development; and

- Necessary to address the cumulative impacts of development.

Available funding sources for schemes can include:

- Section 106 contributions secured during the planning application process;
- Community Infrastructure Levy (CIL) payments;
- Local Growth Fund (LGF) contributions secured through business case submissions to the Swindon and Wiltshire Local Enterprise Partnership; and
- Future funding possibilities opened up by Central Government.

Schemes identified as directly related to development sites should be considered and potentially developed further as part of a transport assessment which would complement a planning application.

Smarter choices schemes will be required at all development sites and implemented in accordance with Wiltshire Council guidance.

Schemes that provide direct access from development sites to key locations can be considered 'directly related' schemes, while 'cumulative' schemes provide access to key locations but are not directly linked to a specific development site.

5.3.1. Type 1: Pedestrian and cycling accessibility

A number of necessary pedestrian and cycle network schemes (routes / corridors) have been identified within the transport strategy. The routes have been assessed to identify the key locations they provide access to and the development sites to which they connect, both directly and indirectly.

- The schemes that provide direct access from development sites to key locations or those which are within development sites can be considered 'directly related' schemes. Those schemes which provide access to key locations but which are not directly linked to a development site can be considered as 'cumulative' (indirect) schemes.
- The assessment is summarised in Table 5-2 and Figure 5-2.

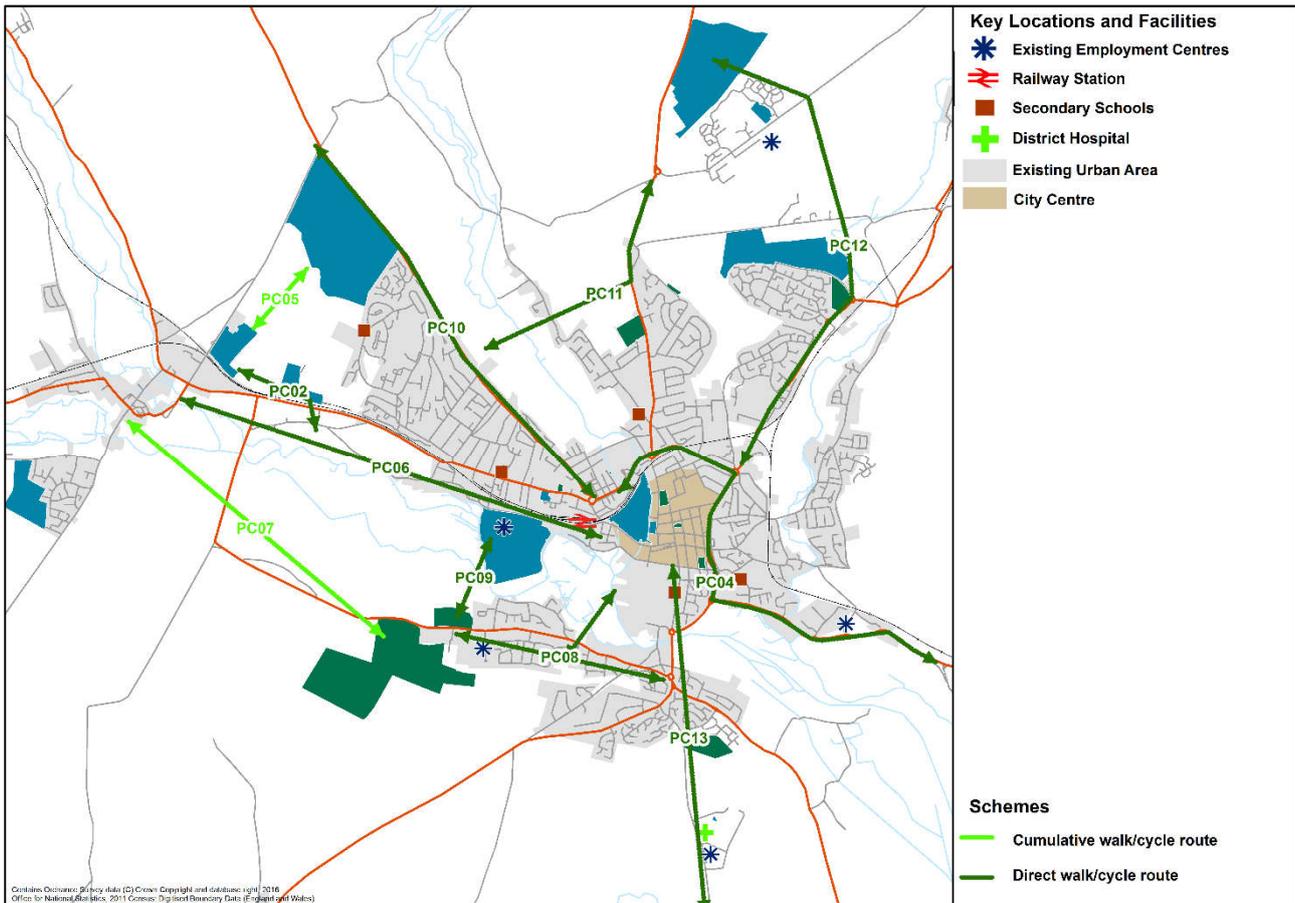
Table 5-2 Pedestrian and cycle network improvements - relationship to development sites

Scheme		Direct linkages	Cumulative linkages
PC01	Improve pedestrian facilities and pedestrian priority in the city centre (bus routes to be maintained. Pedestrianisation could be considered as part of this)	CS6 – direct route to city centre.	All development sites - cumulative route to city centre.
PC02	Imerys pedestrian and cycle routes (to Wilton Hill, Salisbury and Fugglestone)	CS2/CS3 – direct route to city centre.	
PC03	Wayfinding		-
PC04	A36 pedestrian and cycle improvements	CS6 – direct route to employment at Southampton Road.	All other development sites – cumulative route to employment at Southampton Road.
PC05	Fugglestone to Wilton Hill pedestrian and cycle path		-
PC06	Wilton - Wilton Hill - Salisbury cycle and pedestrian improvements	CS2/CS3/CS10/CS11 – direct route to city centre.	All other development sites – cumulative route to rail station.
PC07	Wilton to Netherhampton pedestrian and cycle routes		-
PC08	Netherhampton to Salisbury cycle improvements	DPD1/DPD4 – direct route to city centre.	CS1/CS4/CS11 – cumulative route to employment at Harnham

Contains *sensitive* information

Scheme		Direct linkages	Cumulative linkages
			Business Park and city centre.
PC09	Netherhampton to Churchfields cycle and pedestrian improvements	<p>DPD1/DPD4 – direct route to employment at Churchfields, Technical College and Sarum Academy.</p> <p>CS10 – direct route to employment at Harnham Business Park.</p>	CS11 – cumulative route to employment at Churchfields.
PC10	Fugglestone to Salisbury cycle and pedestrian improvements	CS1 – direct route to city centre.	
PC11	Fugglestone to Old Sarum/Longhedge cycle and pedestrian improvements	CS4/CS9 – direct route to employment at Old Sarum.	CS1/CS2/CS3 – cumulative route to employment at Old Sarum.
PC12	Longhedge/Hampton Park to Salisbury pedestrian and cycle improvements	CS4/CS5/CS9 – direct route to city centre.	
PC13	Salisbury to Hospital pedestrian and cycle improvements	CS8/DPD2 – direct route to city centre.	All other development sites – cumulative route to employment at hospital.
PC14	Salisbury College pedestrian and cycle improvements	-	All development sites – cumulative route to Salisbury College.
PC15	Maintain and increase cycle parking near key destinations and transport interchanges as set out in Wiltshire Council Cycling Strategy	-	-

Figure 5-2 Pedestrian and cycle network schemes - relationship to development sites



5.3.2. Type 2: Public transport (bus) accessibility

Issue 2.1.1 outlines issues regarding gaps in coverage to bus stops across Salisbury, in particular from its development sites, while Issue 2.3.5 demonstrates that the existing public transport service in the city may be perceived as unattractive due to outperformance by private vehicles in terms of journey times.

Schemes have been developed to enhance public transport along existing and potential public transport corridors with the aim of alleviating the issues outlined in 2.1.1 and 2.3.5.

The purpose of this chapter is to determine whether a proposed transport corridor upgrade scheme is necessary to provide direct public transport access from development sites to key destinations and thus mitigate the negative impacts associated with the public transport network. The assessment has been carried out by the following process:

- Identifying the bus corridors that would be used by potential employees / residents of the development site; and
- Identifying which schemes are on these bus corridors and would therefore improve access from the development sites to key destinations.

Existing bus service on key corridors

Table 5-3 outlines the existing public transport services which would assist in serving the development sites. Development sites will require public transport schemes on the following corridors to attain good levels of accessibility for future residents / employees of the development sites:

Table 5-3 Existing bus provision in relation to development sites

Corridor	Development site	Existing bus provision (peak service) ⁴²
A36 Wilton Road	CS2, CS3, CS7, CS11	PR3 – 5 services per hour
A360 Devizes Road	CS1	Red10 – 1 or 2 services per hour, although the bus service does not directly extend to the site.
A3094 Netherhampton Road	DPD1, DPD4	Red 5 – 2 services per hour, although the bus service does not directly extend to the DPD1.
A338 New Bridge Road	CS8, DPD2	Red 1 – 6 services per hour
A345 Castle Road	CS4, CS9, DPD3	PR11 – 5 services per hour (for CS9 and CS4) PR11, X4, X5, Activ8 – 8-10 services per hour
A30 London Road	CS5	PR7 – 4 services per hour
Churchfields Road	CS10	PR3 – 5 services in both the AM peak and PM peak

Public transport schemes – mitigation of development sites

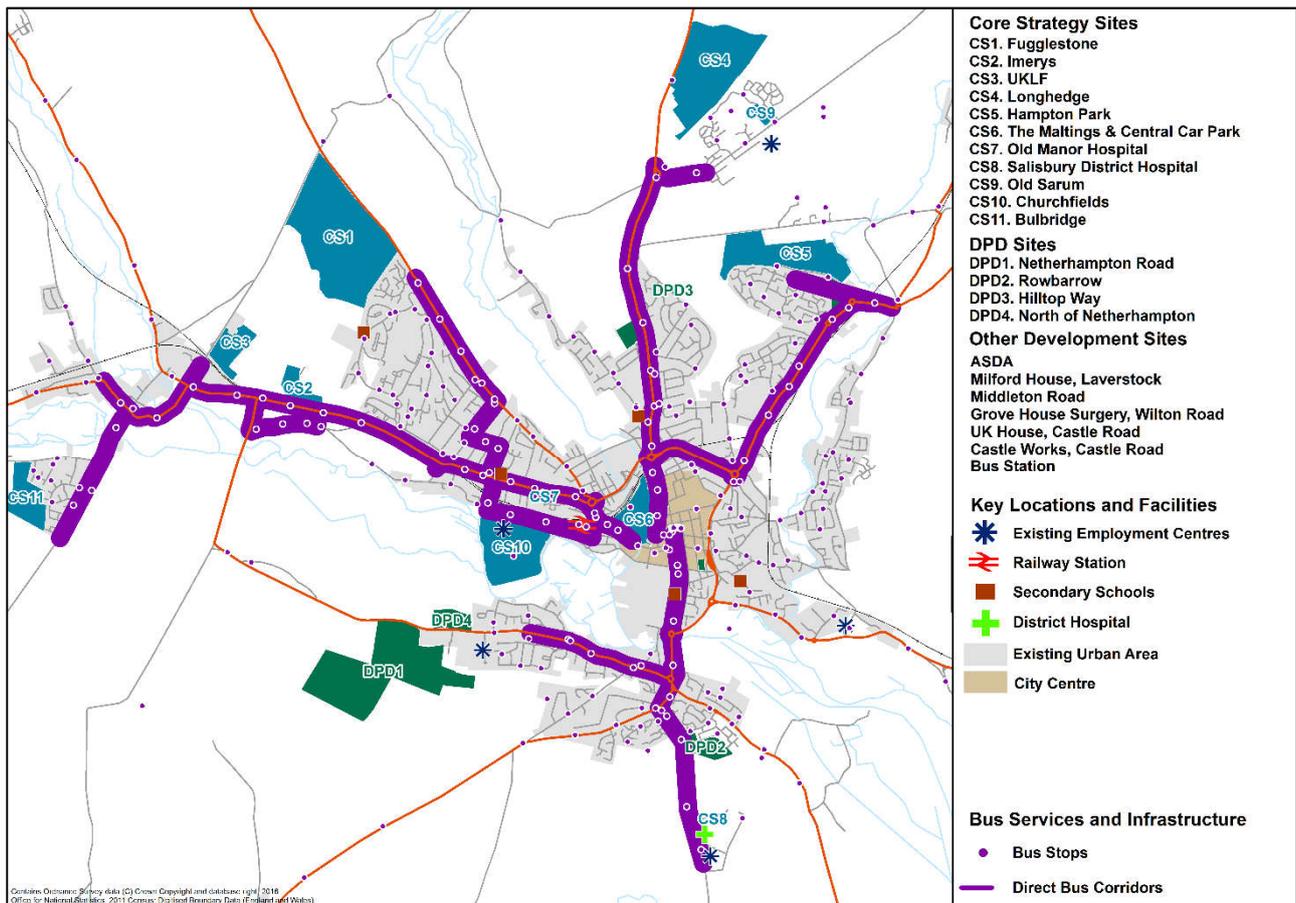
Scheme PT05 will provide enhanced bus provision serving the development sites, delivering at least four buses per hour. PT05 is the scheme directly related to serving development sites, whilst other schemes outlined in section 4.4 can provide cumulative benefits for those residents / employees of the development sites. This relationship between development sites, their public transport corridor and the strategy's public transport schemes is outlined in **Error! Reference source not found.**Figure 5-3.

Table 5-4 Public transport schemes in relation to development sites

Corridor	Bus corridor enhancement schemes for direct access	Cumulative impact schemes
A36 Wilton Road	PT05 - High frequency buses serving all new development sites - at least 4 buses per hour (PR3, Red 10, PR11, PR7, Red 5)	PT01, PT02, PT03, PT04, PT06, PT07, PT08, PT09
A360 Devizes Road		
A3094 Netherhampton Road		
A338 New Bridge Road		
A345 Castle Road		
A30 London Road		
Churchfields Road		

⁴² Service frequency data sourced from timetables at www.travelinesw.com . Accessed 10/04/2018.

Figure 5-3 Public transport schemes - relationship to development sites



5.3.3. Type 3: Highway connections

Highway schemes have been identified and developed on the basis of forecast highway network performance as a result of future development. Schemes are therefore necessary infrastructure measures for delivering the development sites.

Some of these schemes will be required to deliver a specific development site or group of sites (schemes located on a 'direct route' to a development site) while others will be required to address the cumulative impacts of a development (schemes located on a 'cumulative route'). These routes and their relationships with the development sites are illustrated in Figure 5-4. The process for identifying direct and cumulative routes is explained below:

- Identify the main access routes for each development site;
- Identify the section of highway network that is very likely / almost certain to be used by the development site's future traffic; and
- Identify the full route that development-related traffic will likely use to access the city centre, secondary schools, employment centres and the A36.

Direct and cumulative routes are listed below, along with the justification used in their identification:

Direct Route 1 (A36 Wilton Road): Route from UKLF, Wilton (Wilton Hill) and Former Imerys Quarry eastwards towards Churchill Way and the city centre. Development traffic from the sites would use the route to access the city centre and rail station.

Direct Route 2 (A360 Devizes Road): Route from Fugglestone Red south-eastwards towards Churchill Way and the city centre. Development traffic from the sites would use the route to access the city centre and rail station.

Direct Route 3 (A345 Castle Road): Route from Longhedge and Hilltop Way southbound towards Churchill Way and the city centre. Development traffic from the sites would use the route to access the city centre.

Direct Route 4 (A3094 Netherhampton Road): Route from Netherhampton Road sites eastwards towards A338 Harnham Gyratory. Development traffic from the sites would use the route to access Netherhampton Road employment area.

Direct Route 5 (Odstock Road): Route from Rowbarrow and Hospital development sites northwards towards A338 Harnham Gyratory. Development traffic from the sites would use the route to access employment at the hospital.

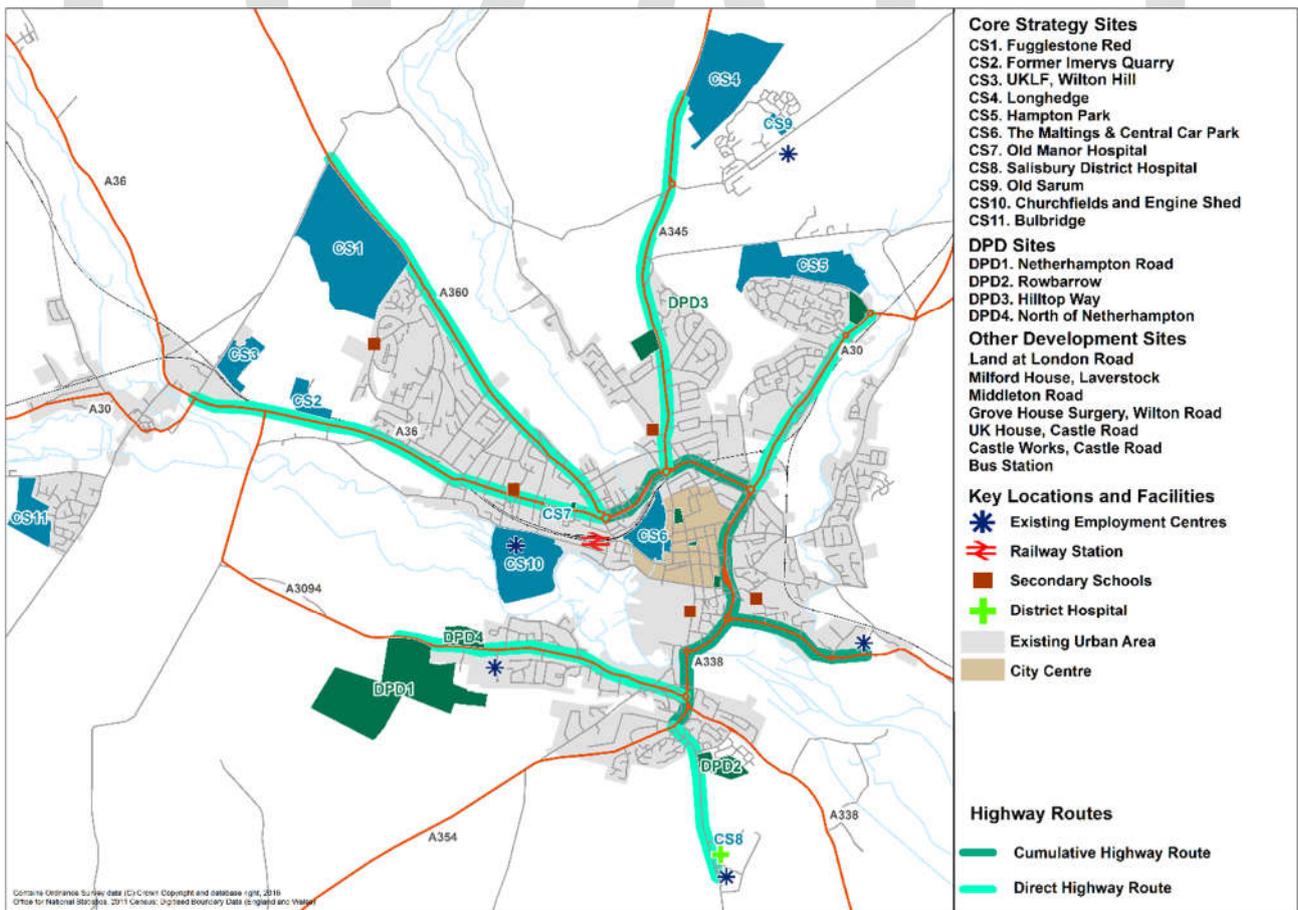
Direct Route 6 (A30 London Road): Route from Hampton Park site south-westwards towards A36 St Mark's Roundabout. Development traffic from the sites would use the route to access the city centre.

Cumulative Route 1 (City Centre): Routes where Cumulative Routes 2 and 3 and the Direct Routes 1, 2, 3 and 6 converge. Traffic crossing the city centre would be associated with traffic from all development sites.

Cumulative Route 2 (A36 Southampton Road): Route linking employment at Southampton Road with the city centre.

Cumulative Route 3 (A338 New Bridge Road): Route where Direct Routes 4 and 5 converge for access to the city centre and the hospital.

Figure 5-4 Direct and cumulative impact highway routes



5.4. Cost categorisation

High-level costings have been produced for the schemes. Schemes have been costed using reference to the costs of similar schemes which have been created and implemented across the UK.

The schemes have been assigned to the following cost categories in

Table 5-5.

- **Estimated capital cost**
 - High (£5m+);
 - Medium (£0.5m - £5m); and
 - Low (less than £0.5m).
- **Estimated revenue cost**
 - Low (less than £0.05m p.a.);
 - Medium (£0.05 to £0.1m p.a.); and
 - High (> £0.1m p.a).

Table 5-5 Cost Categorisation

Estimated capital cost	High (£5m+)			
	Medium (£0.5m - £5m)	H01, H02, H03, H08, H12, PC01, PC02, PC04 , PC06 , PC08 , PC09 , PC12 , PT03, PT08, PT09		
	Low (less than £0.5m)	H04 , H05, H06, H07, H09, H11, H13, H14, H16, PC03, PC05 , PC07 , PC10 , PC11 , PC13 , PC14 , PC15 , PT01, PT02, PT07, SC04, SC05	H10, SC02 , SC03	SC01 , PT05
		Low (less than £0.05m p.a.)	Medium (£0.05 to £0.1m p.a.)	High (> £0.1m p.a)
Estimated revenue cost				

Schemes in bold were identified as 'High Outcome' in Table 5-1.

6. Strategy testing

An effective way to forecast the likely impacts of a transport strategy is to use a transport model to compare the future situation with and without the strategy measures. Although it is not possible to represent every scheme in a model, or to assess every intended strategy outcome, the model outputs can be used to provide an indication as to whether the package of measures proposed is likely to deliver the required outcomes.

This section outlines the method used to forecast the impacts of the refreshed Salisbury Transport Strategy. The forecast impacts are then presented alongside the intended strategy outcomes.

It is not possible to use a transport model to assess strategy impacts against all of the intended outcomes. In this section, model outputs have been used to assess the strategy against the following outcomes:

- Maintain transport network performance - no worsening (Objective 2 outcome); and
- Improved journey times and reliability on key routes. This may reduce rat-running and use of inappropriate roads to avoid delays on the A36 (Objective 3 outcome).

6.1. Methodology

The Salisbury Transport (SATURN) Model has been used to forecast the impacts of the transport strategy in both the morning (08:00-09:00) and evening (17:00-18:00) peak hours, using a 2026 forecast year to align with the additional housing growth planned for in the DPD.

The Salisbury Transport Model is a strategic highway assignment model which can be used for assessing the strategic impact of highway schemes in Salisbury. The model was re-validated in 2016/17 with new data. The model has a single vehicle user class with demand represented as passenger car units (PCUs). Further details on the Salisbury Transport Model are available in the Salisbury Strategic Traffic Modelling and Forecasting Report, April 2018.

Two scenarios have been developed in agreement with Wiltshire Council transport officers, which include levels of development consistent with the Wiltshire Core Strategy strategic site allocations, planned housing growth allocated in the draft Housing Site Allocations DPD and further additional sites. The modelled scenarios have been compared, with the difference demonstrating the forecast impact of the Salisbury Transport Strategy. The forecast impact is summarised in Table 6-1.

6.1.1. 'Without Strategy' Scenario (Do-Minimum)

The 'Without Strategy' is based on the following assumptions for the 2026 forecast year:

- Development at strategic sites allocated in the **Wiltshire Core Strategy**, consisting 4,167 housing, including:
 - Fugglestone Red
 - Churchfields & Engine Shed
- 850 new dwellings allocated in the **Housing Site Allocations DPD** at a number of sites across Salisbury (as illustrated in Figure 1-1), including:
 - Netherhampton Road
- Other sites including minor (windfall) sites consisting a total of 663 houses.

6.1.2. 'With Strategy' Scenario (Do-Something)

The 'With Strategy'⁴³ scenario includes:

- All development and transport schemes included in the 'Without Strategy' scenario;
- Full package of transport strategy schemes as outlined in section 4.
 - Smarter choice schemes;

⁴³ 'With Strategy' package refers to the Do-Something modelling run.

- Pedestrian and cycle routes;
- Public transport schemes on key corridors; and
- Highway schemes including preliminary design of Harnham Gyratory and Exeter Street roundabout.

The full package of transport strategy schemes would be delivered.

6.1.3. Scheme Modelling

Using the Salisbury SATURN Transport Model it has been possible to assess the majority of highway schemes in the 'With Strategy' scenario, except those that are specifically related to road safety or parking. Pedestrian and cycle network, and bus corridor schemes have been represented by a modest reduction in car trips along the corridors where schemes are proposed. Trip reductions have been estimated using a combination of 2011 travel to work census data, National Travel Survey data, and evidence from similar schemes delivered elsewhere in England and Wales.

Given that some schemes cannot be represented in the transport model, the actual benefits of the strategy are likely to be greater than reported in this document. Similarly, many of the schemes that can be modelled are at concept stage and have not yet been optimised to achieve the best possible outcome. The forecasts contained in this section are therefore **only indicative of what the strategy might achieve.**

6.2. Strategy Impacts

Forecast impacts of the refreshed Salisbury Transport Strategy, against the outcomes for which relevant model outputs are available, are summarised in **Table 6-1**. Additional model outputs are provided in Appendix E. A reminder of the development site locations is provided in **Figure 6-1**.

Figure 6-1 Reference Map

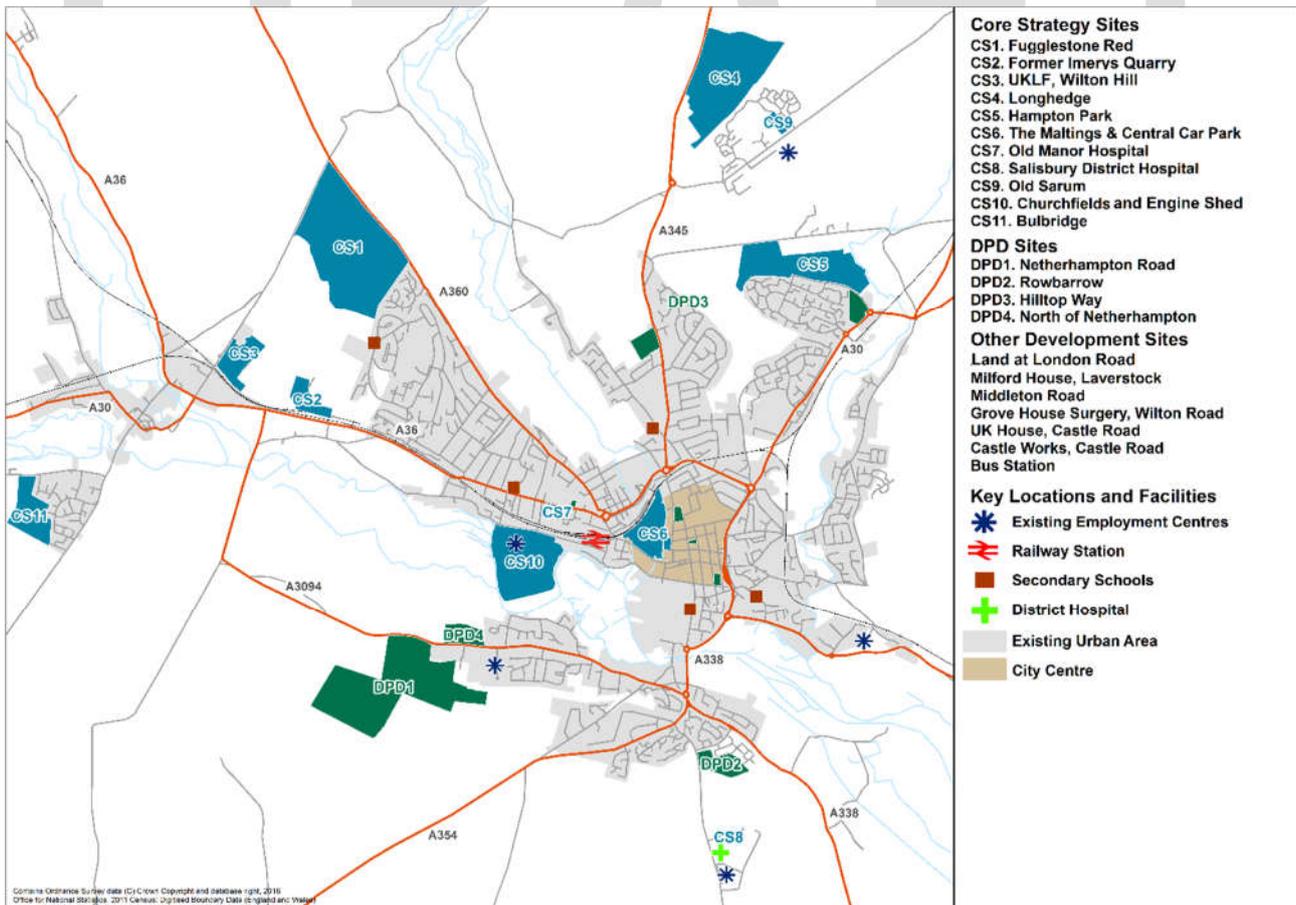


Table 6-1 Forecast Impacts of the Salisbury Transport Strategy

Desired Outcome	Forecast Outcome in 2026 (compared to 'Without Strategy' scenario)
<p>Maintain transport network performance - no worsening (Outcome for objective 2)</p>	<p><i>Salisbury City highway network:</i> Total journey times across the Salisbury highway network are forecast to reduce by 0.2% in the morning peak hour and 0.4% in the evening peak hour. 8% reduction in average queue lengths is forecast in both the morning and the evening peak hours. A 44% decrease in over-capacity queues⁴⁴ across the Salisbury highway network is forecast in the morning peak hour, with a 30% reduction in over capacity queues forecast for the evening peak hour. Overall delay on the Salisbury network is forecast to reduce by 1% in both the morning and evening peak hour.</p>
<p>Improved journey times and reliability on key routes. This may reduce rat-running and use of inappropriate roads to avoid delays on the A36 (Outcome for objective 3)</p>	<p><i>A36 West:</i> Total journey times between Wilton roundabout and just west of St Pauls roundabout forecast to reduce by 4% during the morning peak hours and 0.2% in the evening peak hour. Over capacity queues are forecast to decrease by 66% in the morning peak hour and 35% in the evening peak hour.</p> <p><i>A36 Central:</i> Total journey times between St Pauls roundabout and just north of College roundabout are forecast to increase by 3% in the morning peak hour and 8% in the evening peak hour.</p> <p><i>A36 East:</i> Total journey times between College roundabout and east of Petersfinger Park and Ride (A36/Milford Mill Road) junction are forecast to decrease by 4% in the morning peak hour and decrease by 13% in the evening peak hour.</p> <p><i>A338:</i> Total journey times between the A338 just south of College roundabout to Harnham Gyratory are forecast to reduce by 11% in both the morning peak and evening peak. Over-capacity queues are forecast to decrease by 93% in the morning peak and 58% in the evening peak. Average speed is forecast to reduce by 22% in the morning peak and 16% in the evening peak. Overall delay is forecast to reduce by 53% in the morning peak and 62% in the evening peak.</p>

Note: This table summarises the difference between the 'Without Strategy' and 'With Strategy' scenarios, therefore highlighting the forecast impact of the strategy itself.

⁴⁴ Over-capacity queues only occur for turning movements in excess of capacity where a permanent queue builds up which is unable to clear in a single cycle.

7. Summary

7.1. The Strategy

The Salisbury Transport Strategy Refresh is Wiltshire Council's proposed long-term approach to meeting the transport needs of the city (for development proposals until 2026). The purpose of the strategy refresh is to update the 2010 Salisbury Transport Strategy, using updated evidence and policy, as well as new data sources. The Strategy has been developed to confirm and address a number of current and future transport issues facing the city. The issues have been identified within the context of three transport themes which are strategically important to Salisbury:

- **Providing for strategic development sites**
- **Improving the accessibility and attractiveness of the city centre**
- **Maintaining the strategic function of the A36 and key roads, including the MRN**

Transport objectives have been established for the Strategy Refresh, and are based on the three strategic themes:

- **Providing for strategic development sites**
 - Objective 1: Ensure that development sites provide necessary infrastructure and services to facilitate journeys by sustainable modes of travel.
 - Objective 2: Provide a transport network which caters for increased travel demand as a result of planned development.
- **Maintaining the strategic function of the A36 and key routes, including the MRN**
 - Objective 3: To maintain and improve the strategic function of the A36 (and other key routes) through/around Salisbury
- **Improving the accessibility and attractiveness of the city centre**
 - Objective 4: Improve road safety across the transport network in Salisbury.
 - Objective 5: Reduce transport-related air pollutants and CO2 emissions, and ensure transport minimises any adverse impacts on the local environment.
 - Objective 6: Encourage and facilitate walking and cycling journeys.
 - Objective 7: Improve accessibility to the city centre by public transport.
 - Objective 8: Reduce the need to travel by car and encourage flexible car ownership modes.
 - Objective 9: Better management of car parking supply, facilities and infrastructure.

Transport schemes have been identified and sifted (Section 4) to address the issues and challenges and contribute towards achieving the objectives. The schemes are costed and categorised (Section 5) based on their relationship with development sites and with the strategy's objectives. The purpose of the categorisation is to provide a foundation for potential prioritisation of the transport strategy schemes, reflecting funding availability.

7.2. Strategy Context

7.2.1. Strategic Policy Framework

The Salisbury Transport Strategy Refresh is an evidence-based approach to identifying issues and challenges on the city's transport network and identifying schemes to address the issues. The Strategy:

- Outlines the approach to addressing transport issues and challenges in Salisbury.
- Supports the economic and transport objectives of the SWLEP.
- Supports the successful delivery of planned growth in the city, set out in policy documents
- Contributes to achieving the aims of the wider strategic policy framework in Wiltshire, including the Wiltshire Business Plan and the Wiltshire Community Plan.

7.2.2. Scheme Development

The schemes outlined in the strategy do not include scheme option assessment or scheme design. For the development of a scheme to progress, typical scheme development procedures will need to be followed.

Where a scheme is directly linked to a development site, a more detailed assessment of the scheme options and design would need to be undertaken as part of the planning process. A transport assessment would need to be drafted in order to support the planning application.

The next section summaries how the schemes meet the three Transport Strategy Themes

7.3. Theme: Providing for Strategic Development Sites

The issues section (section 2) identifies a number of transport issues and challenges that relate to planned development sites in Salisbury. Schemes have been identified and costed to address the challenges (section 4), which have been categorized according to their relationship with the development sites (section 5).

Table 7-1 Development sites' relationship with transport schemes

Development site	Schemes directly related to development site
CS1	PC02, PC10
CS2	PC02, PC04, PC06
CS3	PC04, PC06
CS4	PC11, PC12
CS5	PC12
CS8	PC13
CS9	PC11
CS10	PC08
CS11	PC06
DPD1	PC08
DPD2	PC13
DPD3	PC12
DPD4	PC08

H01, H02, H03, H06, H07, H08, H09, PT03 and PT05 all have cumulative impacts across the network and can be associated with all development sites.

7.4. Theme: Maintaining Strategic Function of the A36 and other key routes, including the MRN

The issues section (section 2) identifies a number of transport issues and challenges that relate to maintaining the role of the A36 through delay minimization. The A36 is the key route through Salisbury, with the highest traffic volumes on the primary route network. Issues currently experienced on the A36 in Salisbury surround the high volumes of traffic and delay at peak times. Schemes have been developed to address current issues and alleviate delays on the A36. The optimization of the signalized roundabouts (St Paul's, St Marks and Castle) will directly contribute to maintaining the strategic function of the A36. The Harnham Gyratory and Exeter Street roundabout schemes are included in the MRN and will assist in achieving the theme through reducing congestion and delay in the city centre and out towards the A338.

7.5. Theme: Improving the Accessibility and Attractiveness of the Town Centre

Reducing city centre congestion, improving access for all modes of transport, and improving the safety of all users of Salisbury city centre transport network is important for ensuring that the town remains an attractive

location to live and work in. Schemes have been developed to address current and future issues in the city centre.

Table 7-2 Transport Schemes - Improving the Accessibility and Attractiveness of the Town Centre

Scheme Type	Improving the Accessibility and Attractiveness of the city Centre
Pedestrian and Cycle (directly related)	All pedestrian/cycle schemes that lead into the city centre: PC06, PC08, PC10, PC12, PC13
Public Transport	PT03, PT05
Highway	H01, H02, H03, H08, H12

7.6. Strategy Impacts

The overall transport strategy has been assessed against the desired strategy outcomes using modelling outputs presented in Section 6. The methodology used to develop the schemes for strategy testing is outlined in Section 6.2.3.

The 'With Strategy' package of schemes, is compared against the 'Without-Strategy' – 2026 Do-Minimum scenario. It is forecast to provide the following benefits to the Salisbury highway network:

- Total journey times across the Salisbury highway network are forecast to reduce by 0.2% in the morning peak hour and 0.4% in the evening peak hour;
- 8% reduction in average queue lengths is forecast in both the morning and the evening peak hours; and
- Overall delay on the Salisbury network is forecast to reduce by 1% in both the morning and evening peak hour.

Along with achieving the transport objectives:

- Provide a transport network which caters for increased travel demand as a result of planned development (Objective 2),
- To maintain and improve the strategic function of the A36 (and other key routes) through/around Salisbury (Objective 3).

7.7. Next Steps

The results from the modelling indicate that the Park Wall junction, even with optimised signal timings, capacity and delay at this location are forecast to remain an issue. Although it is noted that there is limited scope for improvements at this junction, the recommendation of the transport strategy is that more detailed options are investigated with the use of micro-simulation transport modelling tools.

The modelling results also indicate that more detailed, micro simulation modelling is required to focus on the A36 Southampton Road as the SATURN modelling indicates that the individual junctions (College roundabout, Bourne Way roundabout and Petersfinger Park and Ride junction) are also forecast to remain an issue. It is suggested that this is further examined within the A36 Southampton Road study that is currently being undertaken by Highways England. The wider network impacts of these junction improvements (once capacity enhancements have been achieved at a local level) could later be coded into the Salisbury SATURN Transport Model to assess the wider network impacts of the junction improvements along the corridor.

Appendix A. Policy Links

A.1. Transport Strategy objectives and links to strategic policy framework

Transport Strategy Theme	Objective #	Transport Strategy Objective	Transport Strategy Outcomes	Links to Wiltshire Strategic Objectives			Links to Wiltshire Strategic Objectives		
				LTP 3	Wiltshire Core Strategy	SWLEP	LTP 3	Wiltshire Core Strategy	SWLEP
Providing for strategic development sites	1	Ensure that development sites provide necessary infrastructure and services to facilitate journeys by sustainable modes of travel.	Developments do not compound high levels of car use.	SO12	Core Policy 60, 61, 63	SO2, PZ3	SO12: To support planned growth in Wiltshire and ensure that new developments adequately provide for their sustainable transport requirements and mitigate their traffic impacts	CP60: The council will use its planning and transport powers to help reduce the need to travel particularly by private car, and support and encourage the sustainable, safe and efficient movement of people and goods within and through Wiltshire. CP61: New development should...encourage the use of sustainable transport alternatives CP63: Packages of integrated transport measures will be	SO2: Transport infrastructure improvements PZ3: Salisbury-A303 Zone: Invest in transport schemes to support housing and employment growth

Contains *sensitive* information

Transport Strategy Theme	Objective #	Transport Strategy Objective	Transport Strategy Outcomes	Links to Wiltshire Strategic Objectives			Links to Wiltshire Strategic Objectives		
				LTP 3	Wiltshire Core Strategy	SWLEP	LTP 3	Wiltshire Core Strategy	SWLEP
								identified in Trowbridge to help facilitate sustainable development growth.	
	2	Provide a transport network which caters for increased travel demand as a result of planned development.	Maintain transport network performance (no worsening)	SO12	Core Policy 60, 62	SO2, PZ3	SO12: To support planned growth in Wiltshire and ensure that new developments adequately provide for their sustainable transport requirements and mitigate their traffic impacts	CP60: The council will use its planning and transport powers to help reduce the need to travel particularly by private car, and support and encourage the sustainable, safe and efficient movement of people and goods within and through Wiltshire CP62: Developments should provide appropriate mitigating measures to offset any adverse impacts on the transport network at both the construction and operational stages.	SO2: Transport infrastructure improvements PZ3: Salisbury-A303 Zone: Invest in transport schemes to support housing and employment growth

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Transport Strategy Theme	Objective #	Transport Strategy Objective	Transport Strategy Outcomes	Links to Wiltshire Strategic Objectives			Links to Wiltshire Strategic Objectives		
				LTP 3	Wiltshire Core Strategy	SWLEP	LTP 3	Wiltshire Core Strategy	SWLEP
Maintaining the strategic function of the A36 and key roads (including the MRN)	3	To maintain and improve the strategic function of the A36 (and other key routes) through/around Salisbury.	Improved journey times and reliability on key routes. This may reduce rat-running and use of inappropriate roads to avoid delays on the A36.	SO4	Core Policy 66	SO2, PZ3	SO4: To minimise traffic delays and disruption and improve journey time reliability on key routes	CP66: Seek to develop and improve the strategic transport network.	SO2: Transport infrastructure improvements. PZ3: Salisbury-A303 Zone: Invest in transport schemes to support housing and employment growth
Improving the accessibility & attractiveness of the city centre	4	Improve road safety across the transport network in Salisbury.	Increased safety/perception of safety will improve attractiveness of active modes. Fewer accidents result in a more resilient and reliable transport network. Fewer killed or seriously injured on Salisbury's roads.	S08	Core Policy 60	SO2, SO4, PZ3	SO8: To improve safety for all road users and to reduce the number of casualties on Wiltshire's roads	CP60: The council will use its planning and transport powers to help reduce the need to travel particularly by private car, and support and encourage the sustainable, safe and efficient movement of people and goods within and through Wiltshire	SO2: Transport infrastructure improvements. SO4: Place shaping. PZ3: Salisbury-A303 Zone: Invest in transport schemes to support housing and employment growth
	5	Reduce transport-related air pollutants and CO2 emissions,	AQMA is improved, improving the health of	SO3, SO11	Core Policy 60	SO2, SO4, PZ3	SO3: Reduce impact of traffic.	CP60: The council will use its planning and transport powers to help	SO2: Transport infrastructure improvements.

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Transport Strategy Theme	Objective #	Transport Strategy Objective	Transport Strategy Outcomes	Links to Wiltshire Strategic Objectives			Links to Wiltshire Strategic Objectives		
				LTP 3	Wiltshire Core Strategy	SWLEP	LTP 3	Wiltshire Core Strategy	SWLEP
		and ensure transport minimises any adverse impacts on the local environment.	Salisbury's residents.				SO11: Reduce level of emissions from transport.	reduce the need to travel particularly by private car, and support and encourage the sustainable, safe and efficient movement of people and goods within and through Wiltshire	SO4: Place shaping. PZ3: Salisbury-A303 Zone: Invest in transport schemes to support housing and employment growth
	6	Encourage and facilitate walking and cycling journeys	Good walking/cycling access to key destinations such as schools, rail station, employment areas, development sites. Increased rates of walking and cycling in the city.	SO2, SO13, SO14	Core Policy 60	SO2, PZ3	SO2: To provide, support and promote a choice of sustainable transport alternatives. SO13: To reduce the need to travel, particularly by private car. SO14: To promote travel modes that are beneficial to health	CP60: The council will use its planning and transport powers to help reduce the need to travel particularly by private car, and support and encourage the sustainable, safe and efficient movement of people and goods within and through Wiltshire	SO2: Transport infrastructure improvements. PZ3: Salisbury-A303 Zone: Invest in transport schemes to support housing and employment growth
	7	Improve accessibility to	Increased number of bus users, fewer	SO2, SO14	Core Policy 60	SO2, PZ3	SO2: To provide, support and promote a choice	CP60: The council will use its planning and transport	SO2: Transport infrastructure improvements.

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Transport Strategy Theme	Objective #	Transport Strategy Objective	Transport Strategy Outcomes	Links to Wiltshire Strategic Objectives			Links to Wiltshire Strategic Objectives		
				LTP 3	Wiltshire Core Strategy	SWLEP	LTP 3	Wiltshire Core Strategy	SWLEP
		the city centre by public transport.	people using the car for short distance trips. Increased bus frequency, serves larger area, reviewed pricing will ensure accessibility for all. Increased rail usage will reduce long distance car journeys.				of sustainable transport alternatives. SO14: Promote travel modes beneficial to health.	powers to help reduce the need to travel particularly by private car, and support and encourage the sustainable, safe and efficient movement of people and goods within and through Wiltshire	PZ3: Salisbury-A303 Zone: Invest in transport schemes to support housing and employment growth
	8	Reduce the need to travel by car and encourage flexible car ownership modes.	Increased car club and car share usage, reduced out-commuting, reduced business travel.	SO13	Core Policy 60	SO2, PZ3	SO13: Reduce need to travel, particularly by car	CP60: The council will use its planning and transport powers to help reduce the need to travel particularly by private car, and support and encourage the sustainable, safe and efficient movement of people and goods within and through Wiltshire	SO2: Transport infrastructure improvements. PZ3: Salisbury-A303 Zone: Invest in transport schemes to support housing and employment growth

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Transport Strategy Theme	Objective #	Transport Strategy Objective	Transport Strategy Outcomes	Links to Wiltshire Strategic Objectives			Links to Wiltshire Strategic Objectives		
				LTP 3	Wiltshire Core Strategy	SWLEP	LTP 3	Wiltshire Core Strategy	SWLEP
	9	Better management of car parking supply, facilities and infrastructure.	Improved efficiency of car parking operations.	SO6	Core Policy 64	SO2, PZ3	SO6: Make best use of existing infrastructure.	CP64: Efficiently and effectively managing the car parking stock through implementation of appropriate supply, maintenance, charging and enforcement measures.	SO2: Transport infrastructure improvements. PZ3: Salisbury-A303 Zone: Invest in transport schemes to support housing and employment growth

Appendix B. Evidence of Issues

B.1. Data sources and evidence to identify issues and challenges

Theme	Ref	Summary of Issue	Evidence Source
Providing for Strategic Development Sites	2.1.1	Access to key services and facilities by sustainable modes of transport to/from some development sites is limited.	Wiltshire Housing Site Allocations DPD. Improving Wiltshire's Rail Offer, Cycle and Pedestrian access study, Sustrans. Salisbury City Centre Cycle Network
	2.1.2	Increased travel demand in Salisbury from development is forecast to further impact highway network performance.	Salisbury Highway Model Development and Forecasting Report
Maintaining the Function of the A36 and Key Roads	2.2.1	Traffic flow is constrained by poor junction performance.	Department for Transport TrafficMaster database 2015-16
	2.2.2	Congestion and delays currently on Salisbury's highway network are forecast to increase.	Salisbury Highway Model Development and Forecasting Report
	2.2.3	Reliance on the car for journeys within Salisbury and journeys into and through Salisbury.	Census 2011, WU03EW – Location of usual residence and place of work by method of travel to work (MSOA level). ONS Crown Copyright Reserved
	2.2.4	There are a number of collision clusters on Salisbury's transport network.	Wiltshire Council Accident Database
Improving the Accessibility and Attractiveness of the City Centre	2.3.1	Transport continues to impact on air quality in Salisbury with three Air Quality Management Areas (AQMAs) designated.	Air Quality Strategy for Wiltshire 2011-2015, Wiltshire Council
	2.3.2	Historic street layout is not designed for high volumes of vehicles.	Satellite mapping review, Department for Transport TrafficMaster database 2015-16
	2.3.3	Poor integration, connectivity and severance of the pedestrian and cycle network for journeys to key destinations in the city including the rail station.	Improving Wiltshire's Rail Offer, Cycle and Pedestrian access study, Sustrans
	2.3.4	Oversupply of city centre car parking and underperforming Park and Ride.	Wiltshire Parking Technology Study
	2.3.5	Salisbury's bus network is unattractive because journey times and cost do not compete with the car, whilst access to bus services is limited due to the routing of some bus services	Surveys undertaken by Wiltshire Council.

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Theme	Ref	Summary of Issue	Evidence Source
	2.3.6	Demand for rail travel to/from Salisbury rail station is forecast to increase, however poor accessibility for all modes to the station will influence growth in demand.	Office for Rail and Road. Station usage 2016-17 time-series
Cross-Cutting Issues	2.4.1	Ageing population in Salisbury will place changing demands on the transport network.	Wiltshire Intelligence Network: Community Area Estimates and Projections 2001 to 2026: Trend-based
	2.4.2	Reduced council revenue funding for highways maintenance and bus services.	Wiltshire Council Business Plan, Public Transport Strategy, Wiltshire Council Car Parking Bus Subsidy Data, Passenger Transport Review

Appendix C. Reserve & Development Schemes List

C.1. Reserve List

Schemes that are not essential for new development, but may be delivered as resources allow.

Scheme description	Scheme type	Costs	Comments
Salisbury to Porton pedestrian and cycle routes	Pedestrian & Cycle	£430k+	Higher cost option possible but may not be deliverable
Laverstock pedestrian and cycle routes	Pedestrian & Cycle	£50k+	Improvements to existing ROW. Higher cost options possible but may not be deliverable
Self-service cycle hire	Pedestrian & Cycle	£100k capital plus ongoing revenue costs	
Electric bike scheme	Pedestrian & Cycle	£30k+	For a Wheels to Work loan scheme. Other options possible.
Promoting Green Tourism - marketing such as maps and working with tour operators e.g. providing grants to improve cycle storage	Smarter Choices	£100k+	Scalable
Review on-street parking provision to consider the conversion of space to alternative uses such as bus stop, cycle parking etc.	Parking	Cost of study + impact on parking income	
Review parking provision at Culver Street to consider duration of stay and number of spaces	Parking	Cost of study + impact on parking income	
Redevelopment of Salt Lane and Brown Street	Parking		Subject to development.

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Scheme description	Scheme type	Costs	Comments
Better access to bus services for wheelchair users particularly on the R1 route (highway alterations such as dropped kerbs etc)	Public transport	£50k	Scalable
Better bus service provision to help Salisbury District Hospital shift workers	Public transport	TBC	Various options possible.

C.2. Development list

Schemes that have considerable potential and local support, but may not be deliverable by 2026, have a high cost (over £5m) or high delivery risk.

Scheme description	Scheme type	Costs
A36 Southampton Road upgrades	Highway	£5 million + Dependent on Highways England.
Adjust existing services to extend the Trans-Wilts rail services to Salisbury (subject to delivery by TOCs)	Public transport	To be delivered by rail operating company at no cost to the council.
New railway station at Wilton	Public transport	£10million - £33million

Appendix D. Scheme Costs

D.1. Indicative scheme costs and associated assumptions

Schemes Costs and Assumptions				
Ref	Scheme	Cost	Comments	Additional Notes
H01	Harnham Gyrotory - remodelling	£1,230,500.00	Atkins current study proposal for construction (£1.07m). Additional 15% for detailed design and supervision costs (£160,500). Total £1,230,500	-
H02	Exeter Street roundabout enhancements	£2,967,000.00	Atkins current study proposal for construction (£2.58m). Additional 15% for detailed design and supervision costs (£387k). Total £2,967,000	-
HC03	St Pauls Roundabout enhancements	£4,023.00	To include recommendations report (may recommend further modifications to site)	Validation of fixed time plans
		£4,000.00	<i>Optional report with analysis of Inrix journey time and flow data to give figures for improvements made</i>	<i>Inrix data to measure changes (optional)</i>
		£20,000.00	Assumes working with existing highway extents, without major civil works	Preliminary design
		£25,000.00	Assumes working with existing highway extents, without major civil works	Detailed design
		£660,000.00	Approximate, utility diversions and TM highly variable. Assumes without major civil works (IE removal of subways)	Construction
		£6,680.00	Is £2657 figure for commmissioning + £4023 figure equivalent work for MOVA validation + checking of UTC control	Commisioning + Validation
		TOTAL		£719,703.00

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Schemes Costs and Assumptions				
Ref	Scheme	Cost	Comments	Additional Notes
H04	Develop a hierarchy of routes that restricts traffic movement in the city	£200,000.00	Feasibility study, consultation and TROs, works on the ground.	-
H05	Use and improve UTMC in accordance with the route-user hierarchy in Core Policy 61	£400,000.00	This would involve replacement of on street equipment as well as amendments to the central co-ordination system. Design, refurbishment and installation capital cost 400,000	-
H06	College Roundabout capacity enhancements	£10,000.00	Assumes working with existing highway extents, without major civil works (50% of large scheme cost)	Preliminary design
		£12,500.00	Assumes working with existing highway extents, without major civil works (50% of large scheme cost)	Detailed design
		£250,000.00	Approximate, utility diversions and TM highly variable. Assumes without major civil works (road realignment)	Construction
		£5,039.00	Is £2657 figure for commmisioning + £2382 figure for small site MOVA validation	Commisioning + Validation
		TOTAL	£277,539.00	
H07	A36 Bourne Way capacity enhancements (Petersfinger Park and Ride jctn)	£2,382.00	To include recommendations report (may recommend further modifications to site)	Validation of MOVA dataset
H08	St Marks Roundabout capacity enhancements	£4,023.00	To include recommendations report (may recommend further modifications to site)	Validation of fixed time plans
		£4,000.00	<i>Optional report with analysis of Inrix journey time and flow data to give figures for improvements made</i>	<i>Inrix data to measure changes (optional)</i>
		£20,000.00	Assumes working with existing highway extents, without major civil works	Preliminary design

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Schemes Costs and Assumptions				
Ref	Scheme	Cost	Comments	Additional Notes
		£25,000.00	Assumes working with existing highway extents, without major civil works	Detailed design
		£660,000.00	Approximate, utility diversions and TM highly variable. Assumes without major civil works (IE removal of subways)	Construction
		£6,680.00	Is £2657 figure for commmissioning + £4023 figure equivalent work for MOVA validation + checking of UTC control	Commisioning + Validation
		£719,703.00		
H09	Park Wall Junction (A36/A3094) improvements	£2,382.00	To include recommendations report (may recommend further modifications to site)	Validation of MOVA dataset
H10	Clean Air Zone	£250,000.00	Based on a previous CAZ feasibility study undertaken in Swindon.	-
H11	Freight Management scheme (hierarchy / routes)	£200,000.00	Data collection, consultation and TROs, works on the ground.	-
H12	Castle Roundabout capacity enhancements	£4,023.00	To include recommendations report (may recommend further modifications to site)	Validation of fixed time plans
		£4,000.00	<i>Optional report with analysis of Inrix journey time and flow data to give figures for improvements made</i>	<i>Inrix data to measure changes (optional)</i>
		£20,000.00	Assumes working with existing highway extents, without major civil works	Preliminary design
		£25,000.00	Assumes working with existing highway extents, without major civil works	Detailed design

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Schemes Costs and Assumptions				
Ref	Scheme	Cost	Comments	Additional Notes
		£660,000.00	Approximate, utility diversions and TM highly variable. Assumes without major civil works (IE removal of subways)	Construction
		£6,680.00	Is £2657 figure for commmissioning + £4023 figure equivalent work for MOVA validation + checking of UTC control	Commisioning + Validation
	TOTAL	£719,703.00		
H13	P&R strategy - parking charges (differential between city centre and P&R), high quality interchange at P&R sites inc. public toilets and marketing to maximise use of P&R sites	£500,000.00	An assumption of £100k (maximum) per site, therefore a cost of all five sites for £500k. This is based on upgrading toilets, painting, perhaps some modest re-branding etc. So tweaking what already exists rather than major new construction.	-
H14	Maltings/Central car park redeveloped with long stay car parking replaced by multi-storey short stay car park	-	-	-
H15	Adequate provision of coach parking in the city	-	-	-
H16	Assess appropriate parking technology to manage parking spaces efficiently and improve user experience	£200,000.00	-	-
SC01	Workplace travel planning at current employers and future employment development, including measures such as promoting public transport and P&R, walking and cycling; support for Salisbury Car club	£150,000.00	Based on 4 major employers (with approx. 2,500 employees) at £15 per head.	-

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Schemes Costs and Assumptions				
Ref	Scheme	Cost	Comments	Additional Notes
	and personalised travel planning (PTP)			
SC02	Residential travel planning at future development sites, including measures such as promoting public transport and P&R, walking and cycling, and personalised travel planning (PTP)	£90,000.00	Based on 3,000 households at £15 per head for PTP and a further £15 per head for additional measures/incentives such as bus tickets.	-
SC03	School travel planning, including measures such as promoting public transport, car sharing, walking buses, incorporating into the curriculum	£100,000.00	Based on 5 secondary schools and 15 primary schools at £5k per Travel Plan.	-
SC04	Expand car clubs	£100,000.00	Co Cars already operates in Salisbury (only 2 cars). Assume to expand the number of car club vehicles in Salisbury. An additional 10 car club vehicles - £9,000 per vehicle = £90,000 Assume another £10k for marketing = £100,000	-
SC05	Support for electric vehicles	£100,000.00	Assume expansion of Salisbury's network by an additional 10 public access charging points (50:50 share between slow and rapid). Costs to install rapid charging points can be £15,000 to £20,000 per charging point (dependent upon existing cabling and electricity supply). Slow charging points = £5,000 installation. Total cost = £100,000 Assume third parties take the costs of installing and maintaining EV points with no assumption for any	-

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Schemes Costs and Assumptions				
Ref	Scheme	Cost	Comments	Additional Notes
			significant maintenance costs or electricity costs (assume users to pay the latter)	
PC01	Improve pedestrian facilities and pedestrian priority in the city centre (bus routes to be maintained. Pedestrianisation could be considered as part of this).	£5,000,000.00	Based on Market Place improvements which had agreed £3m budget (2009). It is assumed that, in todays prices it is envisaged a pedestrianisation scheme in Salisbury would up to the value of £5m, subject to further definition and more detailed work.	May require updating with more appropriate costs.
PC02	Imerys pedestrian and cycle routes (to Wilton Hill, Salisbury and Fugglestone)	£450,000.00	Assume approx. £150k for the link to Quidhampton (i.e. a crossing on the A36 and TRO to restrict traffic on Foothill) and £300k for the 1km shared path from Imerys to UKLF. = £450k total (with the assumption that the Imerys S106 would contribute to this).	-
PC03	Wayfinding	£68,000.00	Totems still to be designed/installed - 2 (£8k); Fingerposts still to be designed/installed - 20 (£40k); sign replacement study (£20k).	-

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Schemes Costs and Assumptions				
Ref	Scheme	Cost	Comments	Additional Notes
PC04	A36 pedestrian and cycle improvements	£1,570,000.00	Assuming that the Victoria Road footbridge is remaining. However, in case this is not the case, a £1m contingency has been added to the scheme cost. Therefore, the costs consist of St Pauls Rbt £20k; Churchill Way West shared path £200k; Churchill Way North shared path £100k; Southampton Road (P&R to Marshmead Close) £250k. £570k total (with £1m contingency +1.57m). We are assuming that improvements between Colleg Rbt and Bourne Way are part of HE's Cycle Safety funded projects/delivered as condition on development.	-
PC05	Fugglestone to Wilton Hill pedestrian and cycle path	£160,000.00	Assume a 2.5m hoggin path across the field with fencing approx 1.5km = £160k	-
PC06	Wilton - Wilton Hill - Salisbury cycle and pedestrian improvements	£1,600,000.00	Minster St cycle path £500k; Park Walls to Quidhampton £200k; Churchfields Road £600k (although some may be delivered as condition of Churchfields redevelopment), Mill Road £300k Total £1,600k	-
PC07	Wilton to Netherhampton pedestrian and cycle routes	£1,000,000.00	Shared path on east side and associated works. £1million. This is lower priority scheme.	-
PC08	Netherhampton to Salisbury cycle improvements	£315,000.00	Netherhampton Rd/Harnham Rd paths £315k	-
PC09	Netherhampton to Churchfields cycle and pedestrian improvements	£500,000.00	Broken Bridge path improvements and path to North Netherhampton site £500k	-

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Schemes Costs and Assumptions				
Ref	Scheme	Cost	Comments	Additional Notes
PC10	Fugglestone to Salisbury cycle and pedestrian improvements	£380,000.00	This would be for cycle lanes plus various pedestrian improvements and paths through Bemerton Heath	-
PC11	Fugglestone to Old Sarum/Longhedge cycle and pedestrian improvements	£300,000.00	£300k for path improvements (this is lower priority scheme)	-
PC12	Longhedge/Hampton Park to Salisbury pedestrian and cycle improvements	£1,000,000.00	£312k for Cow Lane route; £50k for Old Sarum - Longhedge link. £50k other minor works, up to £600k for Green Lane resurfacing. So £1million total.	-
PC13	Salisbury to Hospital pedestrian and cycle improvements	£200,000.00	£60k for Odstock Rd + £140k for Downton Rd = £200k	-
PC14	Salisbury College pedestrian and cycle improvements	£100,000.00	Tollgate Road £100k	-
PC15	Maintain and increase cycle parking near key destinations and transport interchanges as set out in Wiltshire Council Cycling Strategy	£20,000.00	Assume 5 stands at 20 different sites around Salisbury (assume cost of £200 per unit).	-
PT01	Maintain and improve existing bus passenger information .e.g. extension of RTPI to development sites	£225,000.00	£4.5k for RTPI per site. Assume 50 sites (includes development sites and improvements to existing sites)	Scalable.
PT02	Bus stop infrastructure package - maintain existing bus shelters across Salisbury and look for opportunities to improve, this may include the introduction of high quality	£406,000.00	Assume 2 stops per 500m = 40 stops. Assume &9.5k per stop (new with RTPI) = £380k. Assume approx 50 signs - £10k. Assume 2 cycle parking stands at each bus stop at £200 per stand (40x2x200=£16k).	Scalable.

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Schemes Costs and Assumptions				
Ref	Scheme	Cost	Comments	Additional Notes
	shelters, signage and cycle parking if viable			
PT03	Bus priority measures on Park & Ride routes (Salisbury Road/Wilton Road, Castle Road, London Road, Southampton Road, Downton Road / Exeter Street)	£1,000,000.00	London road bus lane (700m). Bus priority measures through UTC on other routes and the centre.	-
PT04	Bus link between the hospital and Britford Park & Ride	£3,500,000.00	Physical link = £3m with an assumption of £500k for extension of PR9.	-
PT05	High frequency buses serving all new development sites - at least 4 buses per hour (PR3, Red 10, PR11, PR7, Red 5)	£1,000,000.00	We have a quote from the bus company for £500k for Fugglestone. We should assume a similar cost for Netherhampton (Red 5) i.e. £1 million in total	Scalable.
PT06	Improve cross-city bus connections where opportunities arise	-	-	-
PT07	Minor highway improvements to improve bus flow	£100,000.00	-	-

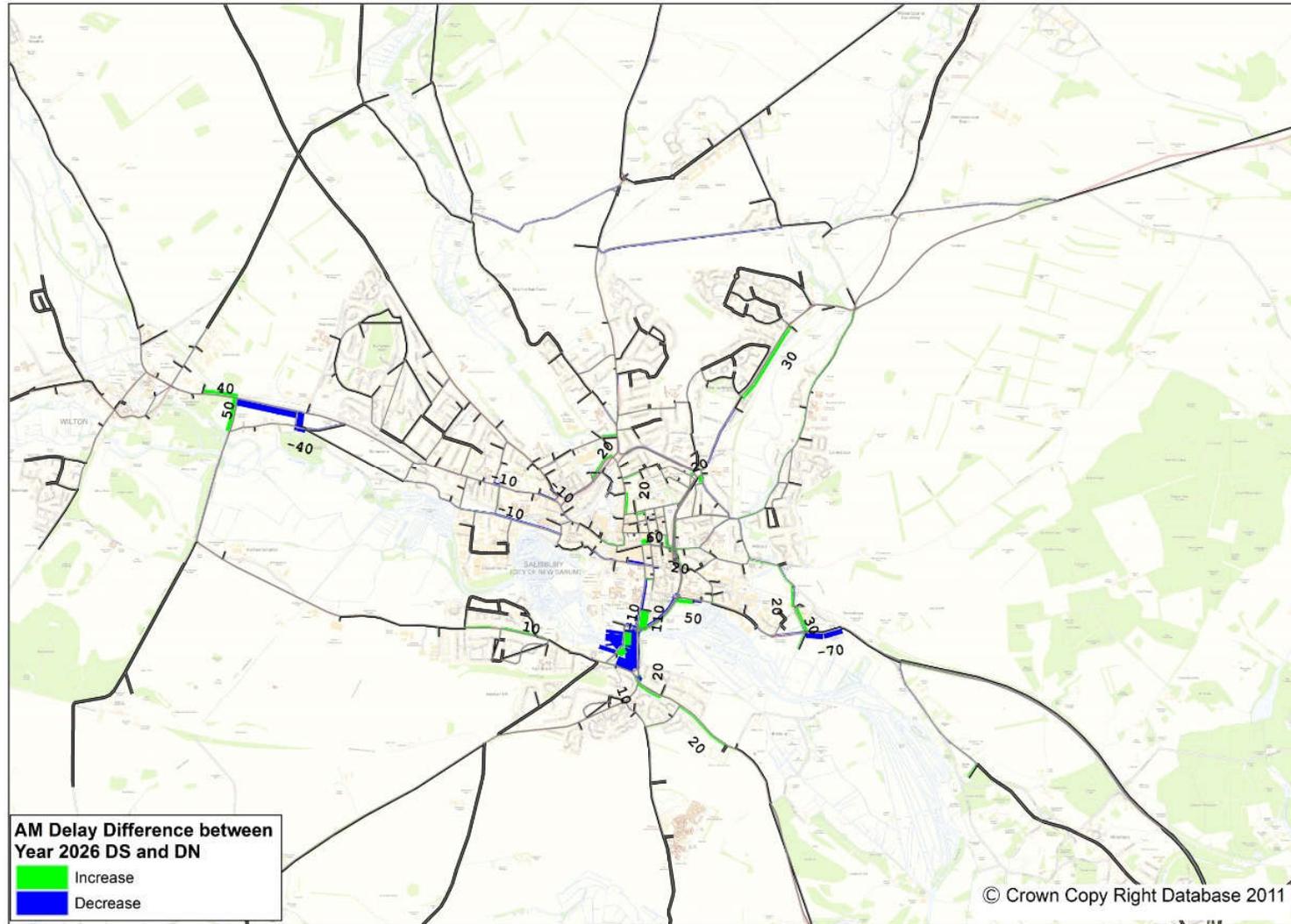
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Schemes Costs and Assumptions				
Ref	Scheme	Cost	Comments	Additional Notes
PT08	Electric buses	£1,250,000.00	<p>Wiltshire Council, along with Go South Coast (Salisbury Reds), was awarded £500,000 in 2017 under the government's Low Emission Bus Scheme to create cleaner and greener journeys. This will allow three electric buses and associated charging infrastructure to be introduced in Salisbury in 2018.</p> <p>It is WC's understanding that it would require a significant upgrade to the electricity supply to allow a larger number of electric buses to run. A provisional cost of £750k was provided which would allow up to 14 electric buses to run. Technology is evolving which could either raise or lower costs (e.g. factors such as the widespread adoption of electric vehicles for private use or the introduction of local renewable electricity generation).</p>	-
PT09	Salisbury Rail Station Interchange Improvements - details subject to ongoing work being conducted in partnership between Wiltshire Council, Network Rail and public transport operators	£2,500,000.00	£1.5m for highway improvements, £0.5m for East Goods Yard Car park, £0.5m for southern side car parks. £2.5m total	-
TOTAL SCHEME COSTS		£31,572,912.00		

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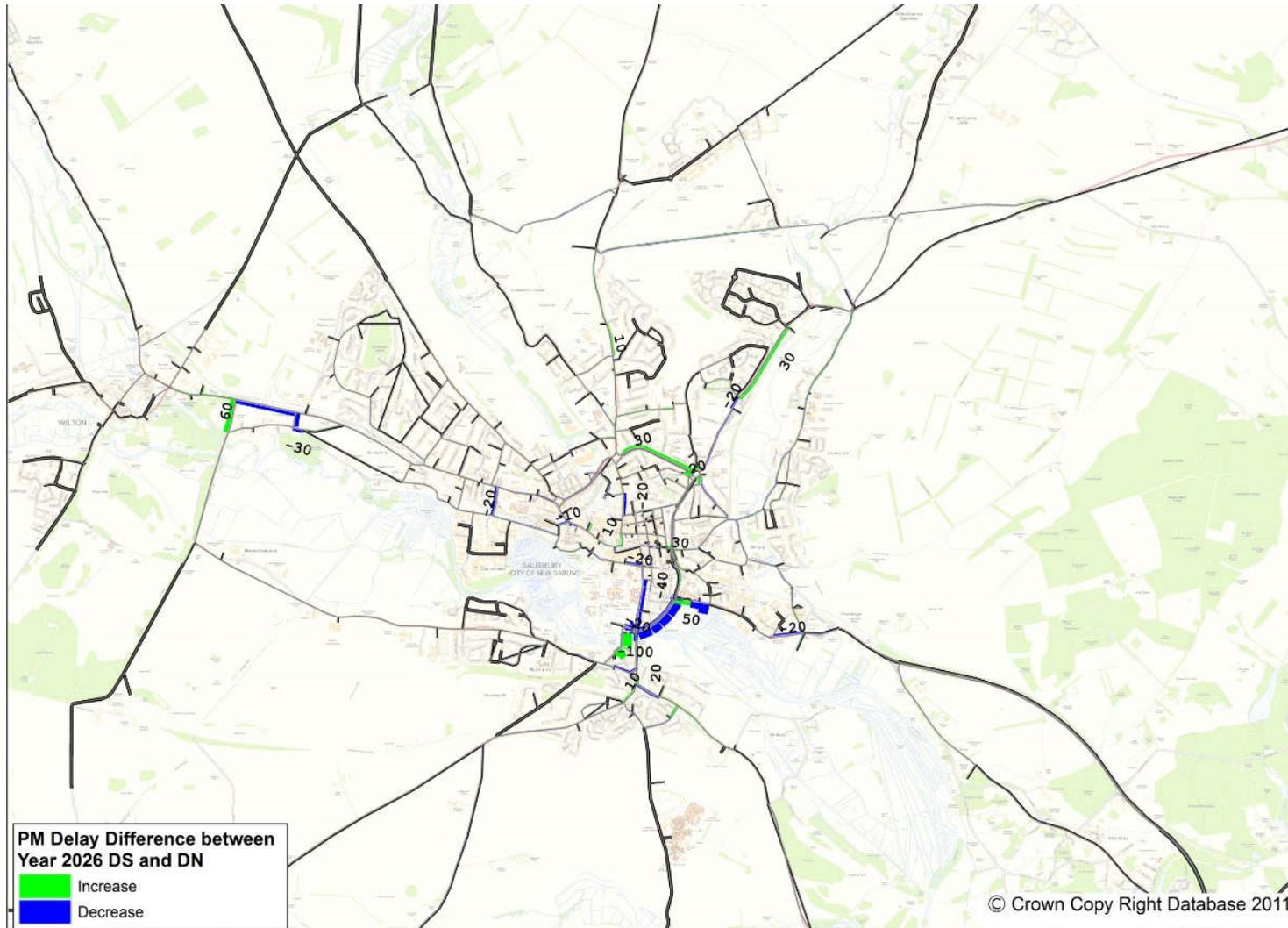
Appendix E. Model Outputs

Figure 7-1 AM - Delay difference – 2026 Do Something against Do Nothing



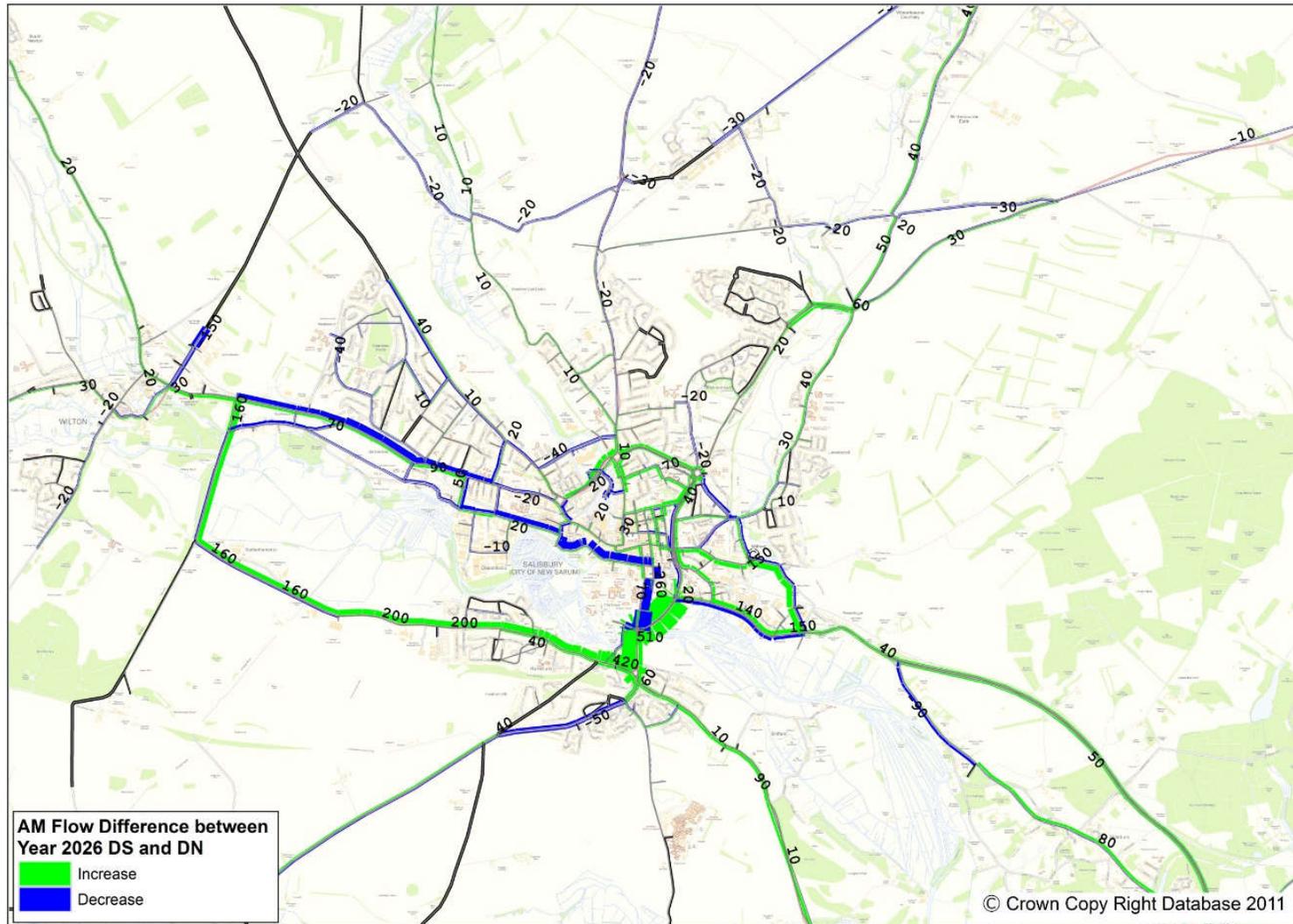
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Figure 7-2 PM - Delay difference – 2026 Do Something against Do Nothing



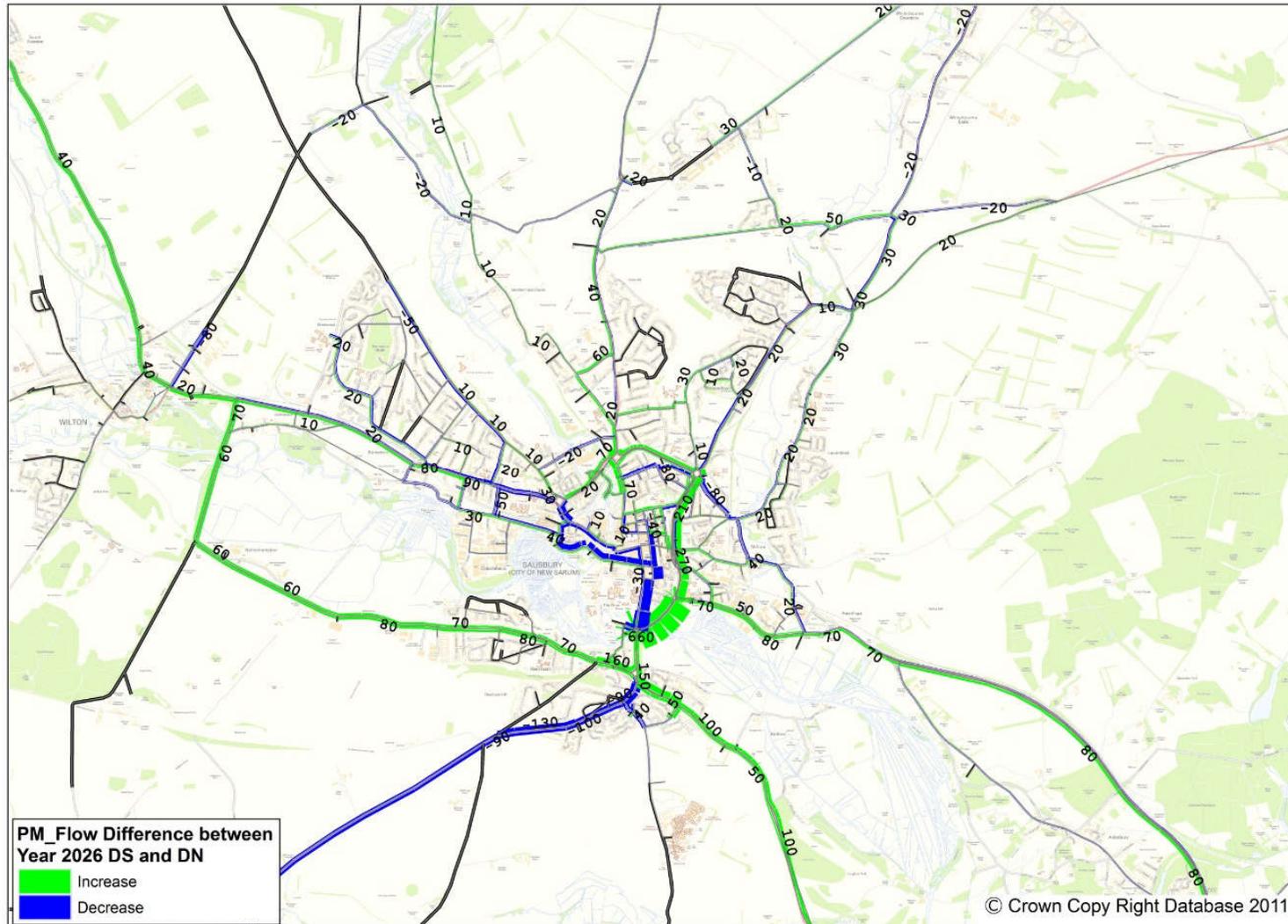
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Figure 7-3 AM - Flow difference - 2026 Do Something against Do Nothing



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Figure 7-4 PM - Flow difference – 2026 Do Something against Do Nothing



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