

South Gloucestershire Core Strategy

North Yate New Neighbourhood Transport Review

Client: South Gloucestershire Council

May 2012

ATKINS

Table of contents

Chapter	Pages
1. Introduction	3
Background	3
Purpose of this Document	3
Contents of this Document	4
2. Core Strategy Policies	5
3. Transport Issues	7
Existing Travel Demand	7
Future Travel Demand	7
Key Transport Issues	7
4. Transport Package	10
Introduction	10
Transport Objectives	10
Development of the Transport Package	10
Elements of the Transport Package	11
Consistency with Core Strategy Transport Policies	13
5. Assessment of Impacts	15
Introduction	15
Strategic Fit	15
Analysis of Impacts	15
6. Delivery	18
Introduction	18
Affordability of Package: Financial Case	18
Feasibility of Package: Delivery Case	19
Delivery Programme	20
7. Conclusions	21
 Tables	
Table 1. Impacts of Each Element of the Package	17

1. Introduction

Background

- 1.1. Policy CS31 (North Yate New Neighbourhood) of the South Gloucestershire Core Strategy¹ makes provision for new development at Yate. The North Yate New Neighbourhood (NYNN) is planned as a mixed use development comprising up to 2,400 dwellings in the plan period (and 3,000 dwellings total), employment opportunities and associated infrastructure. The location of the New Neighbourhood is shown in Figure 1.

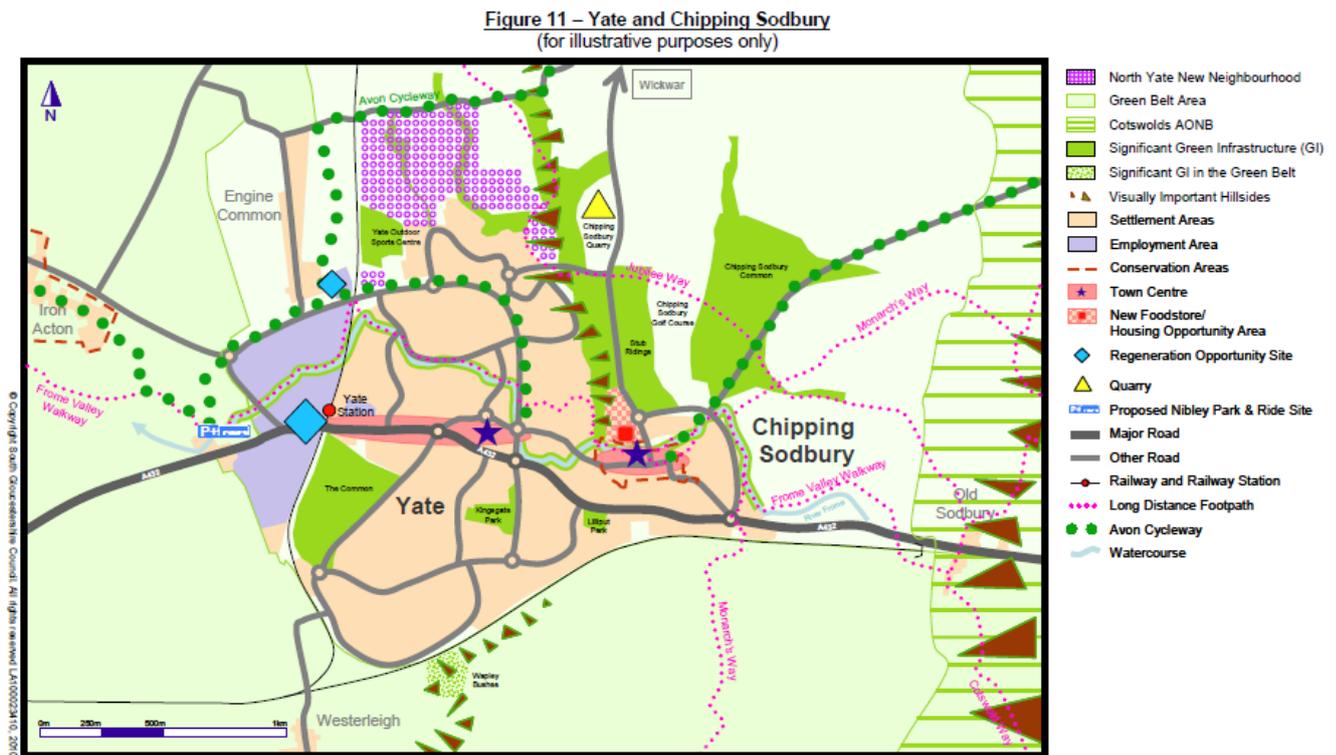


Figure 1 – Location of North Yate New Neighbourhood

Purpose of this Document

- 1.2. South Gloucestershire Council (SGC) has commissioned Atkins to undertake an independent review of the soundness of the transport case for the NYNN. This document presents the conclusions. The review has considered the following issues:
- Current and future transport problems and issues in the Yate and Chipping Sodbury area, including the additional travel demand that will be generated by the NYNN;
 - The transport measures that would be required to mitigate the transport impacts of the New Neighbourhood on the Yate and Chipping Sodbury transport network;
 - Whether the Core Strategy’s general and area specific policies related to transport are sufficient and appropriate to ensure delivery of the transport measures required; and
 - The mechanisms by which the required transport measures can be funded and delivered.
- 1.3. The review has drawn upon a range of supporting evidence including audits of current transport provision and Transport Assessments submitted to SGC in relation to development of the site².

¹ South Gloucestershire Core Strategy: December 2011. Core Strategy incorporating Post-Submission Changes.

² Land at North Yate, Transport Assessment, March 2011 and Land North of Peg Hill, Transport Assessment, December 2010.

- 1.4. A separate document (the **Review of Strategic Transport Case**) discusses the appraisal of alternative locations for development in Yate and Chipping Sodbury and assesses the relative strengths, in transport terms, of development at North Yate.

Contents of this Document

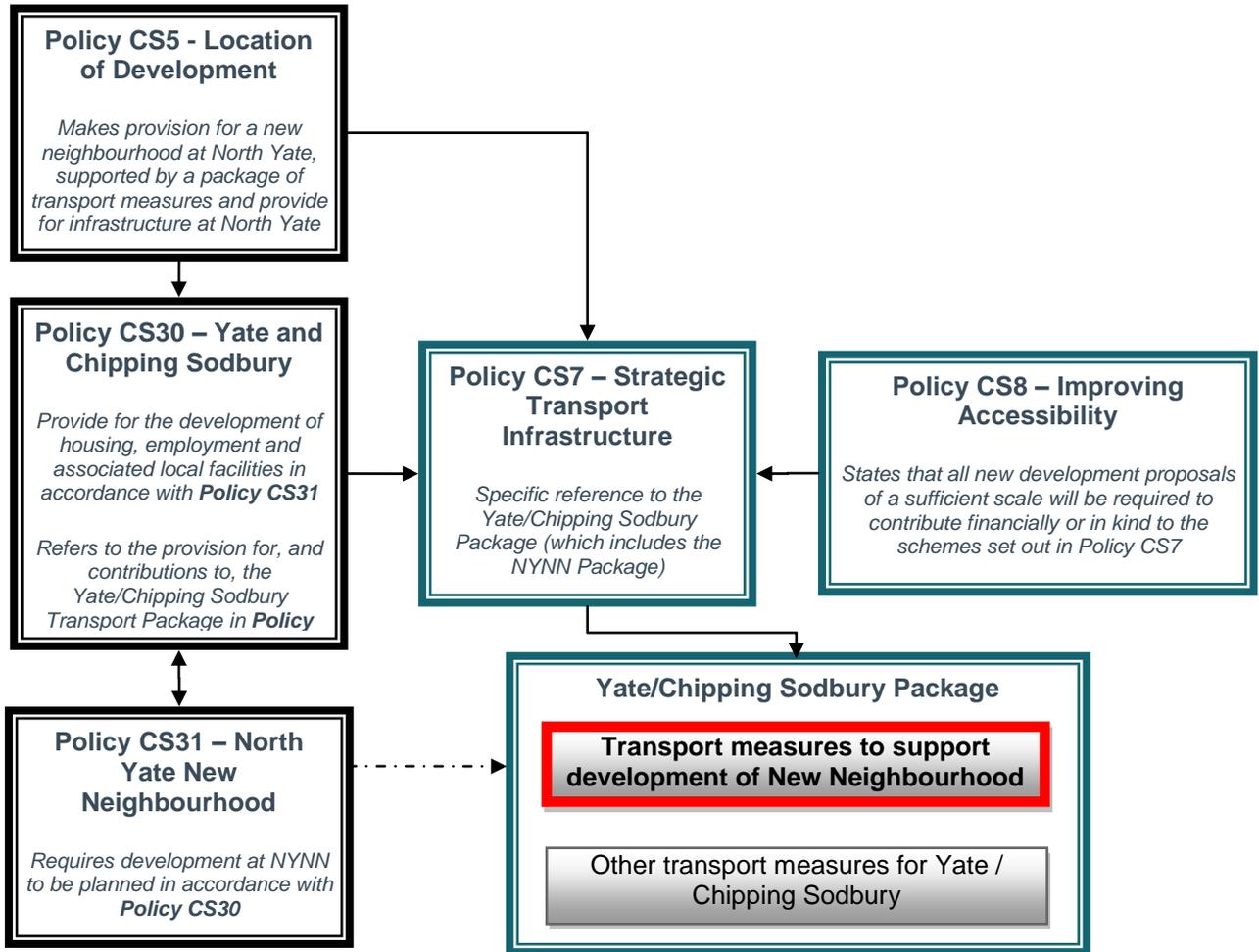
- 1.5. The remainder of this document sets out the evidence on the soundness of the transport case for development at North Yate. The document is structured as follows:
- Chapter 2 summarises the transport-related policies in the Core Strategy relevant to North Yate;
 - Chapter 3 presents an assessment of the transport issues associated with the delivery of the New Neighbourhood;
 - Chapter 4 presents evidence on the transport measures that would be required to mitigate the transport problems and issues associated with the development of the NYNN;
 - Chapter 5 presents evidence on the ability of the transport measures to mitigate the impacts of the New Neighbourhood;
 - Chapter 6 presents evidence on the affordability and deliverability of the package of transport measures; and
 - Chapter 7 sets out the conclusions from the review.

2. Core Strategy Policies

- 2.1. The Core Strategy defines policies related to transport that will enable the Council's spatial strategy to be delivered and strategic objectives to be met. The Core Strategy operates alongside other plans, including the Third Joint Local Transport Plan (JLTP3) for the West of England³.
- 2.2. The Core Strategy sets out the following policies relevant to Yate and Chipping Sodbury and the New Neighbourhood:
- Yate and Chipping Sodbury (Chapter 14 of Core Strategy):
 - **Policy CS30: Yate and Chipping Sodbury** refers to the provision for and contributions to the Yate / Chipping Sodbury Package described in Policy **CS7**; and
 - **Policy CS31: North Yate New Neighbourhood** requires development to be planned in accordance with Policy **CS30**. Policy **CS31** includes a new road within the New Neighbourhood linking Randolph Avenue and Leechpool Way to the B4060 Peg Hill.
 - Transport (Chapter 7 of Core Strategy):
 - Chapter 7 focuses on addressing the challenges associated with tackling congestion and improving accessibility and contains Policies **CS7** and **CS8**;
 - **Policy CS7: Strategic Transport Infrastructure** includes specific reference to the Yate / Chipping Sodbury Package; and
 - **Policy CS8: Improving Accessibility** refers to accessibility, off-site mitigation, provision and promotion of sustainable travel options and parking. It states that all new development proposals of a sufficient scale will be required to contribute financially or in kind to the schemes set out in Policy **CS7**.
- 2.3. This Transport Review describes the detail of a series of transport measures that have been planned to support the development of the New Neighbourhood. These transport measures form part of the Yate / Chipping Sodbury Package described in Policy CS7.
- 2.4. The relationships between these policies are presented overleaf.

³ West of England JLTP3 <http://travelplus.org.uk/media/205985/jltp3%20march%202011.pdf>

Figure 2 – Key Policies



3. Transport Issues

Existing Travel Demand

- 3.1. According to data from the 2001 census, almost one third of people who live in Yate and Chipping Sodbury also work in the area, just under 20% work in the North Fringe and about 20% work in Bristol. Just under half of people who work in Yate and Chipping Sodbury also live in the area. Almost 80% of people living in Yate and Chipping Sodbury travel to work by car, 9% walk, 4% cycle, 4% travel by bus and just over 1% travel by train.
- 3.2. Major concentrations of economic activity include Yate and Chipping Sodbury town centres and a number of business parks and trading estates on the western edge of Yate.
- 3.3. The main road corridors include the A432, which extends from west to east through Yate and Chipping Sodbury, with traffic flows reflecting its importance in connecting key centres in the area. The B4059 Goose Green Way acts as a distributor road around the north of Yate, extending towards Winterbourne and the North Fringe of Bristol. This plays an important role in providing access to the residential areas in the north of Yate, as well as providing an alternative east-west route for traffic. The B4059 – together with B4060 Peg Hill – will play an important role in providing access to the future NYNN development.
- 3.4. The A432 is also the main bus corridor, connecting Chipping Sodbury to the east with the North Fringe to the west, and the bus station in Yate town centre is the primary destination for bus passengers in the town. Bus services play an important role in catering for travel to Bristol and the North Fringe. The north of Yate is served by one bus per hour, reflecting relatively low levels of existing demand for public transport. Train services are used to travel to the North Fringe, Bristol and Bath: the overall level of use is, however, limited by the hourly service frequency.
- 3.5. It is possible to walk or cycle for many journeys, including between residential areas and nearby places of work, school and for some visits to the town centre.

Future Travel Demand

- 3.6. The following points need to be taken into account in assessing future travel demand in the area:
 - Investment in walking will result in an increased number of local journeys being made on foot, including access to the local facilities to be provided within NYNN and Brimsham Green School;
 - Investment in cycling will result in an increased number of journeys within Yate and Chipping Sodbury, including travel to work to local destinations, journeys to Yate town centre and access to the railway station;
 - A more attractive bus service will increase demand for travel by bus to access destinations within Yate and beyond. There will be a need for new bus services in the north of the town – these would both serve the development and transform the quality of bus travel for the rest of the area; and
 - It will be desirable to accommodate the projected demand for rail travel from Yate to the Bristol urban area – and it will be appropriate to ensure that sustainable options exist for travel to the rail station.
- 3.7. After accounting for walking, cycling and bus travel, it will remain necessary to mitigate the impact of residual car traffic that will enter and leave the New Neighbourhood. Traffic to and from NYNN will use B4060 Peg Hill and B4059 Goose Green Way in the north of Yate.

Key Transport Issues

- 3.8. Audits of the transport networks have been undertaken, which have established that there are both challenges to be addressed and opportunities to make good use of existing transport infrastructure. These issues can be summarised under three themes:
 - Current travel choices for users of the transport network in Yate and Chipping Sodbury;

- Maximising opportunities for sustainable travel choices; and
- Tackling traffic congestion.

Current Travel Choices

Walking and Cycling

- 3.9. Walking is generally considered to be a viable travel choice for journeys up to one mile in length. Above this distance walking is unlikely to be attractive to most people making day-to-day journeys. Much of the north of Yate is located more than one mile from the town centre and walking therefore has a limited role in catering for travel needs beyond journeys to local shops and schools. Brimsham Green School is the local secondary school and can be accessed via good quality walking routes.
- 3.10. Cycling can play an increasingly important role in catering for intermediate length journeys (up to 3 miles). Many parts of Yate already benefit from off-road cycle and pedestrian routes, particularly around the north of the town. Facilities are good, with direct routes to the town centre; however, there are some specific issues that should be addressed:
- Gaps in provision at the Goose Green Way / Station Road Roundabout (north-east edge of the town centre), with crossing points limited to the eastern side of the Roundabout;
 - Poor links to the railway station and the adjacent industrial areas – there is no dedicated infrastructure and traffic conditions on routes to the station are not attractive for pedestrians and cyclists; and
 - Signage of pedestrian and cycle links is poor and does not provide directions to destinations such as the town centre and railway station. Given the nature of the area, it is therefore difficult for someone new to walking or cycling to negotiate the network comfortably.

Public Transport

- 3.11. Large parts of Yate and Chipping Sodbury benefit from good access to high frequency bus services that connect to Yate town centre and, from there, to the North Fringe and central Bristol. Bus services play an important role in enabling people to access job and tertiary education opportunities in Bristol and Yate, both within the town centre and at major employers on the western edge of the town. However, there are specific issues that need to be addressed for bus travel in the area:
- The north of Yate currently has only one bus per hour linking to the town centre; and
 - Buses to / from Bristol and the North Fringe can get delayed in peak period congestion, particularly in the East Fringe of Bristol.
- 3.12. Yate benefits from the provision of train services to Gloucester, Bristol Temple Meads, Bath and beyond. However, there are a number of issues:
- Yate station has limited passenger facilities, comprising small bus-stop style shelters, information boards, cycle stands / lockers and a car park;
 - The rail service is only hourly; and
 - Access to the station is relatively poor in terms of access to platforms, bus interchange facilities and measures for cyclists using Station Road.
- 3.13. Measures to address these challenges would help to improve the attractiveness of bus and rail services and reduce dependence on the car.

Opportunities to Promote Sustainable Travel Choices

- 3.14. It is important to maximise accessibility by sustainable travel choices, including walking, cycling and public transport, across Yate and Chipping Sodbury more generally and for the NYNN itself.

Walking and Cycling

- 3.15. In future, the development of a new community of almost 3,000 dwellings creates the opportunity to deliver a new model of mobility based on sustainable travel choices. Provision of employment

in the north of the town, together with new schools and amenity facilities provided within a one mile catchment, will encourage walking in NYNN and the surrounding area.

- 3.16. Action should be focused on improving walking facilities on links between NYNN and key destinations within a one-mile catchment (e.g. local facilities, employment, schools and bus stops), as well as tackling the specific gaps in cycling infrastructure connecting key parts of Yate and Chipping Sodbury, particularly to the town centre and links to the railway station. This should include Goose Green Way / Station Road Roundabout and the full length of Station Road to the station. Good quality crossing facilities should be provided at the junctions of the key routes into NYNN from Goose Green Way.
- 3.17. In addition, it will be important to improve the ability to navigate the town safely and comfortably, particularly using off-road pedestrian and cycle routes. This will help maximise the potential for walking and cycling to / from NYNN and the wider area.

Public Transport

- 3.18. Given the projected population of the NYNN, there is the opportunity to deliver a step-change in bus services that would transform accessibility in north Yate. The current level of bus provision (one per hour) will not provide the level of service needed to encourage greater patronage. New bus services will also help improve travel opportunities for residents elsewhere in north Yate.
- 3.19. The planned growth of Yate and Chipping Sodbury will increase the demand for travel towards the Bristol Urban Area. Buses should play a central role in accommodating this demand, which will require bus priority to ensure reliable journeys and upgraded infrastructure to provide an attractive environment while waiting for the bus.
- 3.20. It will also be important to maximise opportunities for car drivers to transfer to bus services where these can provide a viable option for travel to and from the North Fringe. Likewise, it is also important to give the option to transfer to bus services towards Yate and Chipping Sodbury, which will help to ease traffic pressures in Yate. Addressing these issues will help maximise the potential for use of buses to / from both NYNN and the wider Yate and Sodbury area.
- 3.21. In order to support sustainable growth in Yate and Chipping Sodbury, rail services could play a greater role in catering for the travel needs of the area.

Tackling Traffic Congestion

- 3.22. Traffic congestion occurs in Yate and Chipping Sodbury during the morning and evening peak periods. This includes junctions in Yate town centre and the A432 Station Road on the western approach into the town centre. This reflects the commuting from Yate and Chipping Sodbury to Bristol and the North Fringe, with heavy traffic flows along the A432 Corridor.
- 3.23. Congestion is also experienced on the A432 on the approach to the A4174 Avon Ring Road and on the B4058 through Winterbourne. Demand for travel to and from Yate and Chipping Sodbury will increase in the plan period. It will therefore be necessary to maximise the attractiveness of public transport, which will include measures to tackle localised delays where appropriate.
- 3.24. In the northern area of Yate, which will be most affected by traffic to / from the New Neighbourhood, there is peak period queuing on the B4059 Goose Green Way and Iron Acton Way at the junctions with Randolph Avenue, Greenways Road and North Road. After accounting for walking, cycling, bus and rail travel, there will still be a large demand for travel by car to and from NYNN. Traffic flows to / from NYNN will be routed via Randolph Avenue and Leechpool Way onto Goose Green Way and Peg Hill.
- 3.25. Analyses demonstrate that the local road network north of Goose Green Way has sufficient capacity to accommodate this additional traffic. However, there will be additional peak period queuing and traffic delays at junctions on Goose Green Way, Iron Acton Way and Yate Road.
- 3.26. Improvements to junctions on these routes will, therefore, be required to mitigate the impacts of traffic generated by development in Yate and Chipping Sodbury, particularly traffic generated by the New Neighbourhood.

4. Transport Package

Introduction

- 4.1. The transport measures that have been developed to support the delivery of the New Neighbourhood form part of the wider Yate and Chipping Sodbury Transport Package in Policy CS7. These take into account the transport issues identified across Yate/Chipping Sodbury which are of relevance to the New Neighbourhood, as discussed in Chapter 2.
- 4.2. This chapter describes the objectives that have informed the development of the package of measures, the key principles and elements of the package. It then demonstrates the consistency of the measures with Core Strategy transport policies, in particular the Yate / Chipping Sodbury Package.

Transport Objectives

- 4.3. The transport package has the following objectives. These draw on the objectives identified in the Review of the Strategic Transport Case and the issues discussed in the preceding chapter:
- Objective A: Improve connectivity and accessibility by sustainable modes in the north Yate area, focusing particularly on movements between NYNN and Yate town centre, Yate rail station and the area surrounding the NYNN;
 - Objective B: Provide high quality links and wayfinding for walking and cycling from north Yate to surrounding destinations;
 - Objective C: Provide high quality direct bus services to key destinations in Yate and Chipping Sodbury and the North Fringe of Bristol;
 - Objective D: Improve the quality of rail journeys from Yate for existing and new users to encourage mode shift from the car; and
 - Objective E: Mitigate the wider transport impacts of development on key traffic routes within and from Yate, including Goose Green Way, Iron Acton Way and Station Road.

Development of the Transport Package

- 4.4. The issues described in the previous chapter and objectives described above have been used to inform the development of the transport package. The package has been designed to:
- Be consistent with the goals of the JLTP3 and Core Strategy;
 - Help tackle the challenges and address the objectives described above; and
 - Ensure that the New Neighbourhood can be accommodated sustainably.
- 4.5. Transport issues in Yate and Chipping Sodbury resulting from the proposed development will be addressed through:
- Improving travel choices for all users of the network;
 - Maximising opportunities for sustainable travel in the New Neighbourhood; and
 - Mitigating the effects of additional traffic on the network.
- 4.6. The package has been designed so that the measures to maximise sustainable travel choices for the New Neighbourhood will also play a major part in helping to improve travel choices for current users of the network. These will include:
- 'Smarter choices' measures to encourage new residents and employees to travel by walking, cycling or public transport;
 - Improvements to the walking and cycling network,
 - Improvements to bus services between north Yate and key destinations;
 - Improvements to rail services between Yate and Bristol; and

- Improvements to junctions on the local road network to mitigate the impacts of additional traffic generated by the New Neighbourhood.

4.7. These elements are described in more detail in the following section.

Elements of the Transport Package

Smarter Choices

4.8. These measures will be designed to encourage sustainable travel behaviours within the New Neighbourhood and will complement the investment in walking, cycling and public transport described below. The programme will draw on the good practice developed in the national Sustainable Travel Demonstration Towns and the Cycling City programme pioneered in South Gloucestershire and Bristol, together with the Local Sustainable Transport Fund project that is currently being implemented across South Gloucestershire. They comprise:

- Travel plans for the residential and employment elements of the development. The residential travel plan will set out measures to be offered to new occupants of housing including discounted bus travel, secure cycle parking, walking and cycling maps, car clubs, car share schemes and promoting the health benefits of cycling and walking;
- Information will be made available to homebuyers through a pack showing integrated options for travel (e.g. walking/cycling to bus stops), locations of cycle parking, bus stops etc;
- Travel plans for the proposed on-site primary schools, including promotional and educational measures allied to a good network of walking and cycling routes;
- Personalised travel planning for residents of the development;
- Provision and promotion of sustainable transport options; and
- Provision of appropriate telecommunications infrastructure to promote home working.

Walking and Cycling Links

New Neighbourhood

4.9. All streets within the New Neighbourhood will be designed to facilitate direct, safe and comfortable movement by pedestrians and cyclists. These streets will adopt a Homezone approach by providing social space and regulating vehicles speeds (10mph in residential areas, 20mph elsewhere). Secure cycle parking will be provided at key places throughout the New Neighbourhood.

4.10. Direct links will be provided to the existing pedestrian and cycle network as follows:

- Combined foot and cycleway on west side of Randolph Avenue;
- Footway on east side of Randolph Avenue;
- Combined foot and cycleway leading south from the boundary of NYNN between Pear Tree Hey and Dryleaze;
- Footways on the west and east sides of Leechpool Drive;
- Cycle parking at bus stops and major facilities; and
- A pedestrian/cycle route through the Peg Hill development area to connect to B4060 Peg Hill.

4.11. This will include the provision of walking and cycling links to Brimsham Green School and the Local Centre on Peg Hill.

Wider Yate and Chipping Sodbury Area

4.12. South Gloucestershire Council will promote the development of a Yate / Chipping Sodbury walking and cycling network, which will both cater for movements from the New Neighbourhood and travel needs across the wider Yate and Chipping Sodbury area.

4.13. Safe and direct links to the Yate rail station and Yate town centre will be achieved by improving the wider network at the following locations:

- A designated cycle link from the Broad Lane / Goose Green Way junction to Yate rail station;
- New cycle lane (designated or shared use) along Greenways Road – utilising the existing carriageway, and segregated via white lining where possible - in order to create a complete

cycle link from Goose Green Way to the town centre / west of the town via Church Road and Cranleigh Court Road;

- A walking and cycling route to Brimsham Green School via Yate Outdoor Sports Complex (behind the school) as an alternative to the Randolph Avenue cycleway;
- Cycle parking; and
- Signage and mapping improvements – showing where key destinations along the shared use footpath / cycleway network, e.g. bus station, town centre, local schools and Yate rail station. This would provide an important tool to promote the routes, their destinations, and the overall benefits of sustainable travel throughout Yate.

Bus Services

New Neighbourhood

- 4.14. New bus services have been identified that would follow a circular route around Yate and towards the North Fringe. These bus services have been designed to serve NYNN, providing links via Yate town centre, Yate rail station and onto the North Fringe and Bristol, and include:
- A bus route with appropriate stops within the New Neighbourhood to loop from Randolph Avenue through to Leechpool Way;
 - Reorganisation of bus services in north Yate in order to meet needs of existing and future bus users travelling to and from NYNN, with services to / from:
 - Yate town centre bus station to Bristol city centre;
 - Chipping Sodbury, Yate town centre, Yate rail station to Frenchay and Southmead Hospital; and
 - Chipping Sodbury, Yate town centre, Yate rail station to Cribbs Causeway.
 - Staff shuttle services to serve NYNN and the local area – for staff employed at the new development. These would be in addition to enhancements to the scheduled bus network.

Wider Yate and Chipping Sodbury Area

- 4.15. The new bus services around north Yate will form a key component of new 'Yate town' bus services. Whilst these will be specifically designed to improve accessibility in north Yate, they will also improve accessibility and the attractiveness of the bus network elsewhere in the town.
- 4.16. South Gloucestershire Council will promote improved bus stop and interchange facilities on the corridors between Yate and Chipping Sodbury and the North Fringe. Bus priority measures will be investigated for locations where buses are subject to traffic delays. The Council will work with bus operators to promote increased service frequencies on these corridors.
- 4.17. In order to take advantage of these improved services, South Gloucestershire Council will investigate the business case for development of a new Park & Ride facility on the A432 Corridor at Nibley. This will comprise a new car park and improved waiting facilities, which will enable mode shift from the car for journeys to the North Fringe and into Yate town centre.

Rail

- 4.18. South Gloucestershire Council is committed to seeking improvements to rail services for Yate as part of the JLTP3 Greater Bristol Metro Project, which has a high priority for securing major scheme funding in the next Spending Review period (post 2016). South Gloucestershire Council will also seek improvements to Yate rail station.
- 4.19. Phase 2 of the Greater Bristol Metro Project (potentially with delivery between 2019 and 2023) will enable doubling of train service frequencies (from one to two trains per hour) between Yate and Weston-super-Mare via Bristol Temple Meads. This will require the provision of a turn-back facility at Yate to enable half-hourly services to operate.
- 4.20. Whilst the Greater Bristol Metro would be beneficial in enhancing travel choices between Yate and Bristol, the delivery of the project is not a pre-requisite for the delivery of NYNN.
- 4.21. Immediate priorities at Yate station will include infrastructure and access improvements, including improved waiting facilities, signage, car and cycle parking, passenger information and security.

- 4.22. Improved walking and cycle routes and the reorganisation of bus services will improve access to Yate rail station without the need for driving the short journey from the New Neighbourhood and other parts of Yate and Chipping Sodbury.

Highway Improvements

- 4.23. Having maximised travel by walking, cycling and public transport, a series of highway improvements will tackle the residual traffic impacts of the New Neighbourhood. These will include improvements to the following junctions:

- Randolph Avenue / Goose Green Way Roundabout;
- Greenways Road / Goose Green Way Signalised Junction;
- North Road / Goose Green Way Signalised Junction;
- Yate Road / Iron Acton Way / Armstrong Way / Stover Road Roundabout;
- Wotton Road / Yate Road Signalised Junction;
- Latteridge Road / Yate Road / Bristol Road Signalised Junction; and
- A432 Station Road / Goose Green Way / Link Road roundabout (east of the town centre).

- 4.24. These improvements will include provision of additional roadspace at the junctions to provide sufficient capacity for the additional traffic to/from the New Neighbourhood. Improved crossing facilities will be provided, as appropriate, for pedestrians and cyclists, at junctions where roads cross key walking and cycling routes serving north Yate.

- 4.25. Improvements will also be made to the quality of the public realm on the gateways to Yate on the A432 (Badminton Road / Stover Road junction) and B4059 Yate Road / Stover Road Roundabout.

Consistency with Core Strategy Transport Policies

- 4.26. The measures described above are fully consistent with the JLTP3 goals and the Core Strategy objectives for tackling congestion and improving congestion, as they include measures to encourage walking, cycling and public transport use and they mitigate the impacts of additional traffic on the road network.

- 4.27. Policy CS7 (Strategic Transport Infrastructure) describes the proposals for strategic transport infrastructure that will reduce congestion and improve accessibility by means other than the private car. It includes proposals for Rapid Transit serving the North and East Fringe, improvements to rail services and the Yate / Chipping Sodbury Package.

- 4.28. The Yate / Chipping Sodbury Package comprises the following elements:

- Improved bus services between Chipping Sodbury and Yate and Bristol and North Fringe;
- Extension of future Rapid Transit services using the Temple Meads – Emersons Green route to Yate via Westerleigh;
- A new 'Yate town' bus service;
- A Yate / Chipping Sodbury walking and cycling network;
- New cycling routes from Chipping Sodbury and Yate to Bradley Stoke and Downend;
- Nibley Park & Ride;
- Improvements to Yate railway station, car park and passenger interchange, together with provision of a half-hourly train service to and from Bristol;
- Contributions towards the Ring Road Package, Greater Bristol Metro and extension of the A38 Showcase Bus Corridor to Thornbury; and
- Extension of smart ticketing opportunities.

- 4.29. The measures described in this chapter form an integrated part of the Yate / Chipping Sodbury Package. Walking and cycling improvements in north Yate will form key components of the wider Yate / Chipping Sodbury walking and cycling network. The bus service proposals described in this Transport Review will form the basis of the new Yate town service and improved bus links to the North Fringe. Improvements to rail services are also included as part of the wider Yate / Chipping Sodbury Package.

- 4.30. The Yate / Chipping Sodbury Package also sets out longer-term schemes, including Nibley Park & Ride and extending Rapid Transit services to Yate. Although the implementation of these

longer-term schemes will be beneficial, they are not a pre-requisite for the delivery of the New Neighbourhood.

5. Assessment of Impacts

Introduction

- 5.1. This chapter assesses the extent to which the measures would address the objectives that were defined in the previous chapter. It then provides an assessment of the extent to which the package would be able to mitigate the impact of new traffic generated by the New Neighbourhood.

Strategic Fit

- 5.2. Table 2 (overleaf) describes how the measures will address each of the transport objectives that were developed in the preceding chapter.
- 5.3. This demonstrates that the Transport Package as a whole will address all of the objectives that were identified in the previous chapter. Smarter choices will play a key role in encouraging behaviour change, whilst infrastructure and service improvements will ensure that the right conditions are in place to encourage sustainable travel choices from the outset.
- 5.4. Smarter choices measures to encourage sustainable travel to and from NYNN, walking and cycling facilities, improvements to the bus network, improvements to facilities at Yate station and highway improvements will be essential for the delivery of the New Neighbourhood.
- 5.5. Whilst the implementation of the Greater Bristol Metro (including half-hourly services) and the Nibley Park & Ride schemes will further improve travel choices between Yate and Bristol, these projects are not essential to the delivery of the New Neighbourhood.

Analysis of Impacts

- 5.6. The package of transport measures for the New Neighbourhood will play an important role in helping to reduce the demand for travel by car and in mitigating the impacts of the remaining demand on the road network.

Reducing Demand for Travel by Car

- 5.7. Forecasts have been developed of the total volume of travel that will be generated by the New Neighbourhood, which will include up to 3,000 dwellings, up to 9ha of employment space and local shopping and community facilities. The analyses take account of existing mode splits for travel to and from Yate and internalisation of travel within the New Neighbourhood resulting from opportunities to live and work within the same area.
- 5.8. On this basis, it is estimated that the total two-way traffic entering and leaving the site would be approximately 2,100 vehicles in the AM peak hour (08:00 – 09:00) and 2,300 vehicles in the PM peak hour (17:00-18:00)⁴.
- 5.9. However, following the implementation of measures to encourage sustainable travel choices, there would be a reduction in the numbers of car trips to/from the site.
- 5.10. The forecasts of mode shift (to walking, cycling, bus, rail and car sharing) have taken account of the origins and destinations of trips and the scope of the proposed measures. It is estimated that the measures could, collectively, reduce car traffic by between 500 and 550 trips in the AM and PM peak hours, equivalent to an overall reduction of 24% in car trips.
- 5.11. This is equivalent to reducing the mode share for car travel from 74% (the current average in Yate) to less than 60% in the New Neighbourhood. This would help deliver a transformation in travel behaviour in the north of the town; the improved travel choices would also help encourage reduced car dependency across the whole of Yate. This will be highly beneficial in helping to mitigate the impacts of increased travel demand in Yate resulting from the New Neighbourhood.
- 5.12. There will also be a reduction in the volume of traffic from other parts of Yate as a result of the implementation of the package of measures. The assessments have focused on the role of

⁴ Source of evidence used for assessment: Land at North Yate, Transport Assessment, March 2011.

improved rail services in delivering mode shift for journeys from Yate to Bristol and the North Fringe. They have taken a conservative approach, and have not taken account of potential shift to walking, cycling and buses for travel within the town. In total, it is estimated that a further 100 car trips (AM peak) and 130 car trips (PM peak) could be 'removed' from the road network in Yate following the introduction of improved rail services and connections to the station.

- 5.13. Taking into account these effects, it is estimated that there will be an additional 1,500-1,600 vehicles on the local road network during the morning and evening peak periods with development of the New Neighbourhood.

Mitigation of Impacts on the Road Network

- 5.14. The impacts of this additional traffic on the local road network have been assessed in detail, and proposals for junction improvements have been developed, as discussed in Chapter 4. Assessments of the junctions have been undertaken for 2026, which take into account both the traffic generated by the New Neighbourhood and background traffic growth in Yate.
- 5.15. The proposed highway improvements will increase traffic capacities at the junctions identified, which will successfully mitigate additional queuing and traffic delays on the local road network. Overall, with the proposed improvements to junctions, the review indicates that there will be a neutral impact on the highway network in Yate.

Table 1. Impacts of Each Element of the Package

Transport Objectives	Smarter Choices	Walking & Cycling Facilities	Bus Network & Infrastructure	Rail	Highway Improvements
Objective A: Improve connectivity and accessibility by sustainable modes in the north Yate area, focusing particularly on movements between NYNN and Yate town centre, Yate rail station and the area surrounding the NYNN.	++ (encourage positive attitudes, complement provision of sustainable travel choices)	+++ (improved signage and connections to the existing network)	+++ (new services will tackle existing gaps)		
Objective B: Provide high quality links and wayfinding for walking and cycling from north Yate to surrounding destinations.		+++ (improved signage)		+ (improved signage from the rail station)	
Objective C: Provide high quality direct bus services to key destinations in Yate and Chipping Sodbury and the North Fringe of Bristol.	++ (public transport information)		+++ (new bus services will tackle existing gaps)	++ (improved interchange at station)	
Objective D: Improve the quality of rail journeys from Yate for existing and new users to encourage mode shift from the car	++ (public transport information)			++ (increased rail frequencies, improved station facilities)	
Objective E: Minimise the wider transport impacts of development on key traffic routes within and from Yate, including Goose Green Way, Iron Acton Way and Station Road.	++ (encourage travel by sustainable modes)				+++ (mitigates residual impacts of car travel)
Importance of element of package to delivery of development at NYNN	Essential	Essential	New bus services: Essential Nibley Park & Ride: Beneficial	Yate station improvements: Essential Greater Bristol Metro: Beneficial	Essential

(Note: + = slightly beneficial impact, ++ = moderately beneficial impact, +++ = strongly beneficial impact)

6. Delivery

Introduction

- 6.1. Chapter 4 identified a potential package of transport measures that are considered to be required to support the sustainable development of the New Neighbourhood. A review of the deliverability of the package has been undertaken to assess how realistic it is to implement the transport measures within the Core Strategy plan period.
- 6.2. Certain elements of the package will be essential to ensure sustainable transport behaviours in the New Neighbourhood: these include the smarter choices programme, walking and cycling improvements, improvements to bus services, improvements to Yate station and highway improvements. The Greater Bristol Metro and Nibley Park & Ride projects will be beneficial but not essential.
- 6.3. This chapter sets out the issues associated with the delivery of the different elements of the package, including the affordability of the package, the feasibility of the measures and potential timescales for their delivery.

Affordability of Package: Financial Case

- 6.4. An assessment has been made of the realism of delivering the essential components of the transport package (described in Chapter 4) within the Core Strategy plan period given the current financial climate. The cost of the package, excluding those on-site and site access components that would be expected to be provided by the developer, has been estimated as part of the overall review, drawing upon cost data from a range of sources including schemes delivered in the West of England.
- 6.5. Delivery of the package would require drawing upon funding from a number of sources, as follows:
 - Developer contributions (through the use of Section 106 planning obligations and/or a Community Infrastructure Levy (CIL));
 - Major scheme funding; and
 - Other financial resources available to South Gloucestershire Council.
- 6.6. The review has concluded that there is a sufficient level of confidence that funding will be available from these sources to enable the delivery of the package during the plan period. The basis of this conclusion is set out below.

Developer Contributions

- 6.7. In addition to the costs of on-site infrastructure and any infrastructure required to connect the development site to the local network, developers will be expected to make financial contributions to the cost of the package. The level of contribution likely to be required from developers has been estimated taking a reasonable view of the funding that could be assumed available from other sources (described below). On this basis, the level of contribution expected from developers is considered affordable when benchmarked against developer contributions secured in relation to other sites in South Gloucestershire. The projected level of contribution would not therefore impact on the viability of development in the New Neighbourhood.

Major Scheme Funding from Department for Transport

- 6.8. A proportion of funding for major schemes is provided by central government, with the remainder made up a local contribution from the local authority. No further central government funding of major schemes can be expected to be available during the Current Spending Review period (up to and including 2014/15).
- 6.9. Additional funding is expected to be available for major schemes to be delivered in the next funding review period, from 2015/16 onwards which would enable delivery in the plan period.

The DfT recently completed consultation on its proposals for the devolution of funding for local major transport schemes⁵. It is highly likely that the Government will devolve funding to local transport bodies, which will be responsible for establishing a programme of local major scheme priorities for delivery beyond 2015. Funding is expected to be devolved on a formulaic basis (potentially population or other measures) which will provide a high level of certainty, avoiding the resource-intensive bidding processes that characterised major scheme development in the past.

- 6.10. In the case of South Gloucestershire, the local transport body is expected to comprise the four Unitary Authorities in the West of England: alongside South Gloucestershire these include Bristol, North Somerset and Bath & North East Somerset. The West of England Local Enterprise Partnership (LEP) is also likely to play a key role and will seek to direct funding towards projects that support sustainable economic growth. On this basis an element of government funding to support components of the transport package is considered realistic.
- 6.11. The Greater Bristol Metro is a high priority for the West of England authorities for funding and delivery from 2013 onwards. The first phase (2013-18) will include enhancement of existing services to Bath and Severn Beach and the re-opening of the Portishead line. The second phase (2019-23) will provide enhanced frequencies between Yate and Weston-super-Mare, which will include provision of a turn-back facility for trains at Yate. It has been assumed that this scheme would be funded as a major scheme during the next Spending Review period.

Other Financial Resources

- 6.12. South Gloucestershire is also able to draw on other resources, which include Integrated Transport Block funding, as well as the Local Sustainable Transport Fund and the application of the Council's own resources for the delivery of transport improvements. Future funding through the New Homes Bonus could also be used to support the delivery of improved transport infrastructure in Yate and Chipping Sodbury. SGC has confirmed that a contribution to the cost of the package could be made from its own resources.

Feasibility of Package: Delivery Case

- 6.13. In assessing the ability to deliver the transport package, it is important to take into account the following factors:
- Technical issues associated with delivering each element of the package;
 - Public acceptability of the different elements;
 - Complexity of the package; and
 - The ability of different agencies to deliver each element of the package.

Technical Issues

- 6.14. There are no specific technical challenges that have been highlighted with any of the schemes included in the transport package. Highway improvements at key junctions can be delivered within the existing highway boundary. Traffic management would be required during construction works, but there is no evidence that improvements could not be delivered.

Public Acceptability

- 6.15. There is no evidence to suggest that the proposed measures would attract strong opposition from the general public. It is possible that there could be some opposition to highway improvements proposed along Goose Green Way. South Gloucestershire Council should therefore consult closely with local residents and stakeholders to take into account specific concerns and to develop acceptable solutions.
- 6.16. There is evidence of strong support from different groups for rail improvements in the Greater Bristol area. Whilst there may be issues associated with infrastructure in particular areas, it is considered that there could, overall, be strong support for the Greater Bristol Metro project.

⁵Consultation Paper: Devolving local major transport schemes, Department for Transport, 31 January 2012 (consultation closed 2nd April 2012).

Complexity of the Package

- 6.17. The transport package comprises a number of different elements that will be required to mitigate the impacts of development at the New Neighbourhood. Whilst these will work together to encourage sustainable forms of travel, they could be delivered as discrete elements. Planning obligations would be used to ensure that critical infrastructure is in place to encourage sustainable travel options from the outset.
- 6.18. There is no evidence that delays in delivering certain schemes would undermine the viability of the remainder of the transport package.

Delivery Agencies

- 6.19. The transport package will be delivered through a number of different agencies. The Developers at the New Neighbourhood will be responsible for the provision of on-site infrastructure, which will be adopted by South Gloucestershire Council.
- 6.20. Off-site infrastructure improvements will be delivered by South Gloucestershire Council or by the Developers through appropriate contractual mechanisms. The new bus route serving the New Neighbourhood will initially be delivered as subsidised services, supported by pump-priming delivered through planning obligations, following which services will operate on a commercial basis.
- 6.21. The proposals for the Greater Bristol Metro have been included in the response by the West of England authorities to the recent DfT consultation on the Great Western Franchise. Improvements to rail services would be delivered by the future operator of the Great Western franchise, working with Network Rail and with support from the West of England Partnership.
- 6.22. There is, therefore, strong evidence that the proposed elements of the package could be delivered by the different agencies.

Delivery Programme

- 6.23. The review indicates that the transport package could be delivered within the plan period. A phased approach would be taken to the delivery of the different elements of the package, in line with development at the New Neighbourhood. Planning obligations will be used to ensure that appropriate measures are in place as development comes forward.
- 6.24. The delivery programme for the Greater Bristol Metro project would be subject to the availability of funding and through working with the rail industry. The Nibley Park & Ride is identified in the supporting documentation for the JLTP3 2011-2026. However, neither project is a pre-requisite for the delivery of the New Neighbourhood, although there is a high probability that both projects could be delivered during the plan period.

7. Conclusions

- 7.1. The review has concluded that the New Neighbourhood can be delivered in a way that is consistent with SGC's sustainable transport policies and plans, as set out in the Core Strategy and the Third Joint Local Transport Plan (JLTP3) for the West of England.
- 7.2. The additional travel demand generated by the New Neighbourhood can reasonably be accommodated by the Yate and Chipping Sodbury transport network without adversely impacting on the local economy, environment, road safety and quality of life, provided that:
- The New Neighbourhood is planned and designed with an appropriate balance of housing, shops, services and employment to minimise the need for travel by car;
 - The New Neighbourhood is planned and designed in accordance with Policy CS1 (High Quality Design) with density and overall layout that is well integrated with existing adjacent development and connected to the wider network of foot, cycle and public transport links;
 - A sustainable transport package is implemented, comprising measures to encourage and maximise opportunities for walking, cycling and public transport use to, from and within the New Neighbourhood;
 - Appropriate highway infrastructure is provided within the New Neighbourhood to enable access on to the local road network at least two appropriately defined locations; and
 - Improvements are provided at key locations on the local highway network.
- 7.3. The review has concluded that the proposals for the New Neighbourhood are consistent with and will be supported by Policy CS7 (Strategic Transport Infrastructure), specifically improvements to rail services (including the Greater Bristol Metro Project) and the Yate / Chipping Sodbury Package. The measures described in this statement form a key element of the Yate / Chipping Sodbury Package.
- 7.4. The evidence indicates that the transport measures described in this statement would provide the level of mitigation needed to ensure that the additional travel generated by the New Neighbourhood can be accommodated by the Yate / Chipping Sodbury transport network.
- 7.5. Delivery of the other strategic transport infrastructure measures – over and above the measures described in this statement – would make a significant contribution to further improving network performance. The remainder of the Yate / Chipping Sodbury Package would provide for more sustainable travel choices for travel to, from and within Yate / Chipping Sodbury.
- 7.6. The North Fringe Hengrove Package (NFHP) and Ring Road Package would also encourage sustainable travel choices for travel to and from Yate and Chipping Sodbury. Future improvements to the A432/A4174 Roundabout, delivered through the Ring Road Package, would help reduce congestion on the A432 corridor, which is important to the strategic connectivity of Yate / Chipping Sodbury.
- 7.7. The review has concluded that the transport measures described in this statement can be delivered within the timescale of the Core Strategy plan period through existing delivery and funding mechanisms, including contributions from the developers of the New Neighbourhood via Section 106 obligations and/or a Community Infrastructure Levy. The review has also concluded that the likely costs of the Package measures are realistic and affordable within the scale of contribution that could reasonably be realised through Section 106 obligations.

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