

North Somerset Local Plan

Stage 7 Interim Transport Assessment

North Somerset Council

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Quality information

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1. Introduction

Introduction

- 1.1 AECOM has been appointed by North Somerset Council (NSC, or 'the Council') to provide transport planning consultancy support to the Local Plan process. Regulation 18 took place in 2022 and the Regulation 19 Pre-Submission Plan was presented at the Councils Executive Committee on the 18th of October 2023 and consultation on the Pre-submission Plan will be between November 2023 and January 2024.
- 1.2 NSC has declared a Climate Emergency and has set itself the challenging target of reaching net zero carbon emissions by 2030. Land use planning and the transport implications thereof are one of the largest influences the Council has on the district's carbon emissions. The Local Plan requires new development to reduce the need to travel, but also to enable and support sustainable travel and assist existing communities in becoming carbon neutral.
- 1.3 A Stage 4 /5 Transport Assessment (TA) was produced to accompany the Regulation 18 'preferred options' consultation in March 2022. The consultation period on the Preferred Options Local Plan ended on 29th April 2022. Following this in December 2022, there was an announcement of the government's intention to make further changes to the planning system which includes an opportunity to depart from the government's method of calculating the housing requirement and increased protection for constrained areas including Green Belts. As such, North Somerset took the opportunity to consider the implications of this prior to progressing towards Regulation 19.
- 1.4 A Stage 7 Transport Assessment (TA) is being prepared to update the evidence base on that produced for the Preferred Options (Reg 18) Plan, to include strategic modelling of the transport network in 2039. Due to the length of time required for the modelling process, results, and examination, this will be ready for publication in Spring 2024.
- 1.5 This Interim Stage 7 Transport Assessment (TA) has been prepared to be submitted alongside publication of the Regulation 19 Pre-Submission Local Plan and will provide a partial update to the work undertaken to date. This Interim Stage 7 TA has been written as a non-technical report, accessible to those who may not have prior industry knowledge. Where appropriate, terminology has been defined to provide clarity. The additional modelling reports which will be submitted to the Local Plan Evidence Base will provide more technical detail.
- 1.6 The Local Plan process is summarised indicatively in Figure 1-1. A high-level summary of works completed at Stages 1 – 6 leading to the production of this Interim Stage 7 TA are set out **Figure 1-2**, with further information on the actions following the Regulation 18 consultation, and Stage 7 process provided in the paragraphs following.

Figure 1-1: Local Plan Process Summary

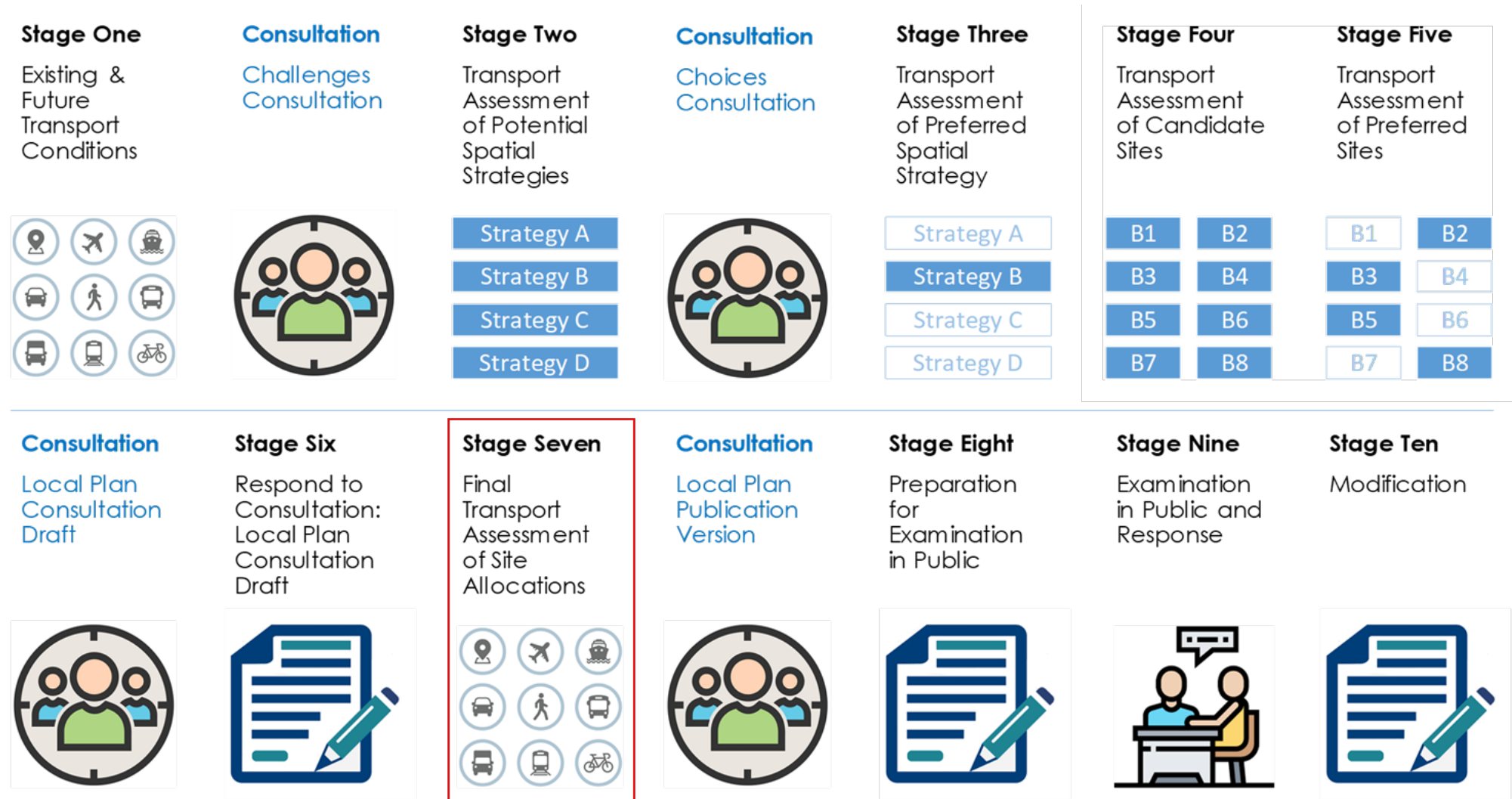
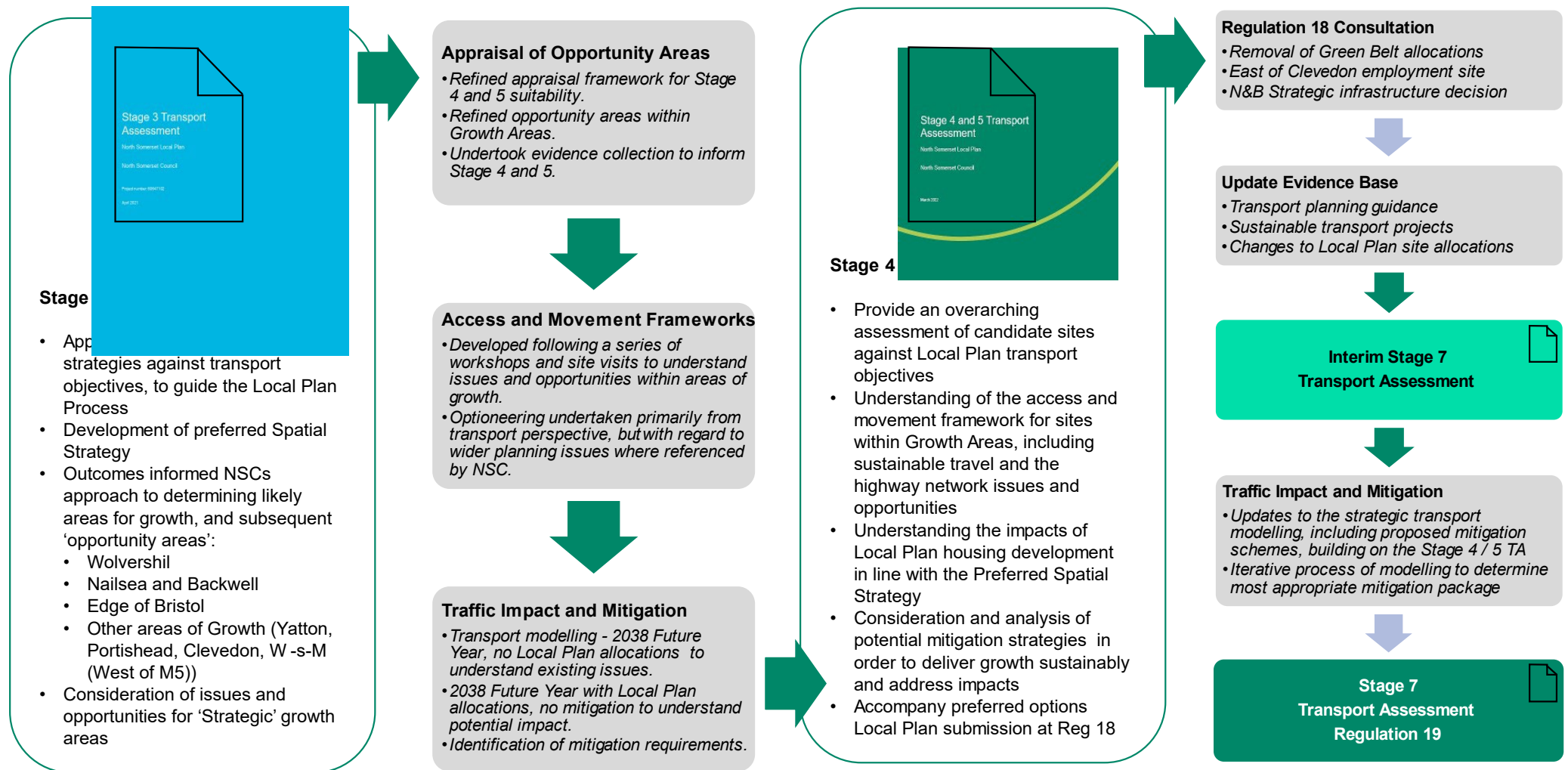


Figure 1-2: Summary of Transport Inputs to Local Plan Process



Regulation 18 Consultation

- 1.7 As referred to above, the Local Plan has been updated between the Reg 18 Preferred Options document and the Reg 19 Pre-submission Plan. This has, in part, been to respond to the Reg.18 Consultation process. From a transport perspective, the key changes are:
- The removal of three emerging allocations from the Plan due to Green Belt;
 - Inclusion of a new major employment area East of Clevedon; and
 - A strategic decision with regards to infrastructure and housing at Nailsea and Backwell.
- 1.8 North Somerset has a significant extent of Green Belt as well as other sensitive locations such as areas at risk of flooding, the Mendip Hills Area of Outstanding Natural Beauty and a range of heritage, ecological and other environmental constraints. The government consultation on the planning reforms indicated that local planning authorities should not be compelled to release Green Belt to meet housing needs. Given the importance of Green Belt, it is now longer proposed to allocate Green Belt sites at Yanley Lane (Woodspring golf course), East of Backwell or Clevedon Road, Portishead in the plan.
- 1.9 The Preferred Options proposed that Nailsea/Backwell be identified as a strategic growth location subject to the deliverability of infrastructure to address the serious constraints on the highway network, notably Backwell Crossroads. Without strategic infrastructure, the traffic impact of housing at that scale would have had significant implications for public transport services and the attractiveness of walking and cycling, as well as congestion. However, a new road either over or under the railway to better connect Nailsea to the A370 and relieve congestion at key junctions would have delivery challenges including cost, engineering, and environmental impact, and therefore may not be deliverable over the plan period. Therefore, the scale of housing proposed at Nailsea and Backwell has been revised accordingly.
- 1.10 The employment evidence used to support the Preferred Options has been refreshed and the forecasts now indicate a greater emphasis on logistics and distribution. Whereas much of the proposed supply in the Preferred Options was associated with new strategic growth locations, the Reg 19 plan has reassessed the approach. The overall supply of employment land in the Reg 19 plan is increased to around 81ha, which provides additional flexibility to meet economic needs. This includes a new major employment area south-east of Clevedon M5 Junction 20 anticipated to be delivered in the medium to longer term.

Stage 7 Process – Transport

- 1.11 Following the completion of the Regulation 18 consultation, consideration has been given the feedback and comments from the public and Members across all disciplines.
- 1.12 A revised site allocations list was subsequently provided. Access and movement frameworks are currently being revised to reflect the changes to site allocations, working alongside NSCs Active Travel and BSIP teams to ensure a cohesive and integrated approach to future planning across North Somerset.
- 1.13 The strategic modelling is being updated to reflect the Regulation 19 site allocations and ensure that all committed schemes (including those that have gained planning consent since the Regulation 18 submission) are within the Do Minimum scenario, with proposed new schemes included within the Do Something scenario.

What do the Modelling Scenarios Mean?

Do Minimum: the future situation that would occur without the Local Plan in place.

Do Something: the future situation with Local Plan development.

There will be multiple "Do Something" scenarios, with and without mitigation, and there will likely be iteration to ensure the right level of mitigation is proposed.

- 1.14 A package of sustainable transport focussed mitigation measures are being developed and included within the Do Something modelling scenario.
- 1.15 The iterative approach to Stage 7 transport works is discussed in more detail in Section 5 of this interim TA. Following refinement, a final modelling run will be undertaken, and the results presented within the full Stage 7 Transport Assessment.

Engagement and Duty to Co-operate

- 1.16 The duty to co-operate was introduced by the Localism Act in 2011. This puts a legal duty upon local planning authorities to engage actively, constructively and on an ongoing basis. This allows the effectiveness of the local plan preparation to be maximised, relating to strategic cross boundary matters.
- 1.17 NSC has engaged with relevant partners on transport issues including National Highways (NH), Bristol City Council (BCC), Bath and North East Somerset Council (B&NES), and Somerset County Council (SCC). This has included engagement on site allocations, transport projects and assessment methodology.

Document Structure

- 1.18 This Interim Stage 7 Transport Assessment builds upon the work previously done at Stages 3, and 4 and 5. It is intended to be readable as a standalone document, but readers may wish to refer to the previous documents if further context is required. A Full Stage 7 Transport Assessment will be produced by Spring 2024 and will provide the additional details on traffic impact of the proposed site allocations and the mitigation needed to reduce their impacts and assist the Council in meeting its Net Zero targets.
- 1.19 Following this introduction, the document includes the following sections:
- **Section 2** details the methodology used, and the approach taken, including how transport evidence fed into site selection, an overview of NSCs transport network, a transport policy context, an overview of transport modelling methodology, consideration of Covid and mitigation;
 - **Section 3** outlines the sustainable transport strategy, summarising the NSC strategy, the public transport approach, and the active travel masterplan;
 - **Section 4** provides details on the identified growth areas, and summarises the analysis undertaken for each; and
 - **Section 5** discusses the next steps, including a discussion on the modelling work and iteration with more detailed mitigation proposals, an outcome to refine the details of the mitigation and the policy requirements and a timescale which is developed alongside the submission draft in Spring 2024.

2. Approach and Methodology

Transport Policy Context

- 2.1 Since the previous Stage 4 / 5 Transport Assessment in March 2022 there have been a few changes in transport policy and guidance. However, the focus largely remains creating modal shift from cars to active and public transport in support of net zero, climate change, providing more options to get around, and wider health and wellbeing targets.
- 2.2 Documents of note include National Highways (NH) Circular 01/2022 (December 2022), National Planning Policy Framework (September 2023), and at the local level North Somerset's revised Travel Plan SPD (February 2023).
- 2.3 The rest of this section provides an update on the changes made to key policy documents. A more detailed review of the policy documentation at a national level is provided in Appendix A. The purpose of which is to highlight the relevant themes that sets out the Government's requirements for sustainable development and which demonstrates that the ambitions for the Local Plan align closely with overarching desires for development set at national level.
- 2.4 It is important to note that as part of any planning application for sites coming forwards in line with this Local Plan, a full review will be required of relevant local, regional, and national policy, to demonstrate compliance with their requirements.

Key Policy Documents

National Planning Policy Framework (2023)¹

- 2.5 The NPPF was updated in September 2023, but does not make any substantial changes to the content and tone of the transport paragraphs, from those included in the 2021 revision. The update stresses the importance of meeting the challenge of climate change and places greater emphasis as to how the planning system can support the transition to a low carbon future. It still outlines that significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes. This means that proposed development sites should be located close to existing high frequency high quality public transport corridors/interchanges and sustainable transport facilities.
- 2.6 An overarching aim is to achieve "inclusive and safe spaces which promote social interaction through mixed-use developments, strong neighbourhood centres and street layouts that allow for easy pedestrian and cycle connections within and between neighbourhoods".
- 2.7 The nature of North Somerset as an area is that there are relatively few locations available for development which could be classified as highly sustainable, in comparison with more urban Local Authorities. The Local Plan seeks to maximise the sustainability of development locations through site selection, and requires sustainable transport led access and movement solutions for the sites themselves, whilst balancing a variety of other constraints. As an Authority, we need to work hard to ensure that we take the opportunities available to maximise the sustainability of the allocations.

Strategic Road Network and the delivery of sustainable development: Circular 01/2022 (2022)

- 2.8 The Strategic Road Network and the Delivery of Sustainable Development document sets out the way in which National Highways (NH) will engage with the development industry, public bodies and communities to deliver sustainable development and, thus, economic growth, whilst safeguarding the primary function and purpose of the strategic road network (SRN).

¹ National Planning Policy Framework (publishing.service.gov.uk)

- 2.9 The Circular "...seeks to make the most efficient use of capacity within the overall transport network, improve health and wellbeing, and support government policies, strategies and guidance that aim to reduce the negative environmental impacts of development".
- 2.10 Key policy aims and applications are as follows:
- New development should be facilitating a reduction in the need to travel by private car and focused on locations that are or can be made sustainable. In this regard, recent research on the location of development found that walking times between new homes and a range of key amenities regularly exceeded 30 minutes, reinforcing car dependency. Developments in the right places and served by the right sustainable infrastructure delivered alongside or ahead of occupancy must be a key consideration when planning for growth in all local authority areas.
 - As set out in the Transport Decarbonisation Plan, Gear Change, Bus Back Better and the second Cycling and Walking Investment Strategy, walking, wheeling, cycling and public transport must be the natural first choice for all who can take it. However, where developments are located, how they are designed and how well delivery and public transport services are integrated has a huge impact on people's mode of travel for short journeys. The company will therefore expect strategic policy-making authorities and community groups responsible for preparing local and neighbourhood plans to only promote development at locations that are or can be made sustainable and where opportunities to maximise walking, wheeling, cycling, public transport and shared travel have been identified.
 - The Transport Decarbonisation Plan and the Future of Freight Plan also recognise that local planning and highway authorities need help when planning for sustainable transport and developing innovative policies to reduce car dependency. This includes moving away from transport planning based on predicting future demand to provide capacity ('predict and provide') to planning that sets an outcome communities want to achieve and provides the transport solutions to deliver those outcomes (vision-led approaches including 'vision and validate,' 'decide and provide' or 'monitor and manage'). Support will be given to local authorities in achieving this aim through its engagement with their plan-making and decision-taking stages, while recognising the varying challenges that will be presented by certain sites based on their land use, scale and/or location.
- 2.11 In the context of achieving sustainable development, the creation of high-quality, beautiful, and sustainable buildings and places is fundamental to what the planning and development process should achieve. The NPPF is clear that design quality should be considered throughout the evolution and assessment of development proposals. Plan-making and decision-taking should ensure that developments optimise the potential of sites to support local facilities and sustainable transport networks.
- 2.12 Successful development depends upon a movement network that makes connections to destinations, places and communities, both within the site and beyond its boundaries. The company will support development promoters and local authorities in applying the principles of Manual for Streets, the National Design Guide on Movement, inclusive mobility and local transport note 1/20 to ensure priority is given to pedestrian and cycle movements, and that well-considered parking, servicing and utilities infrastructure for all users is incorporated into development proposals.
- 2.13 Where the company is requested to do so, it will engage with local planning authorities and development promoters at the pre-application stage on the scope of transport assessments/statements and travel plans. This process should determine the inputs and methodology relevant to establishing the potential impacts on the SRN and net zero principles that will inform the design and use of the scheme. Development promoters are strongly encouraged to engage with the company to resolve any potential issues and maximise opportunities for walking, wheeling, cycling, public transport and shared travel, as early as possible.
- 2.14 Where a transport assessment is required, this should start with a vision of what the development is seeking to achieve and then test a set of scenarios to determine the optimum

design and transport infrastructure to realise this vision. Where such development has not been identified in an up-to-date development plan (or an emerging plan that is at an advanced stage[footnote 19]), developers should demonstrate that the development would be located in an area of high accessibility by sustainable transport modes[footnote 20] and would not create a significant constraint to the delivery of any planned improvements to the transport network or allocated sites.

- 2.15 Paragraph 15 is particularly important from both a strategy and assessment perspective and aligns well with NSC’s Local Plan approach. The Local Plan Transport Vision and Objectives have been established at an early stage in the Plan-making process, first published in the Stage 3 TA at Spatial Strategy stage. It is important that the Transport Strategy focuses on sustainable modes. However, it is also key that the assessment work does not fall into the trap of forecasting a “worst case” scenario and mitigating on that basis. Instead, ambitious but realistic mode shift and internalisation needs to be embedded into the modelling parameters. NSC and AECOM are liaising closely with National Highways on this exercise.
- 2.16 As is apparent from the above policy aims and applications, Circular 01/2022 is in line with NPPF and other key Government Strategies and Plans by looking to support developments in locations which are or can be made sustainable through mitigation. Figure 2-1 summarises the key themes emerging from Government policy relating to transport and place.

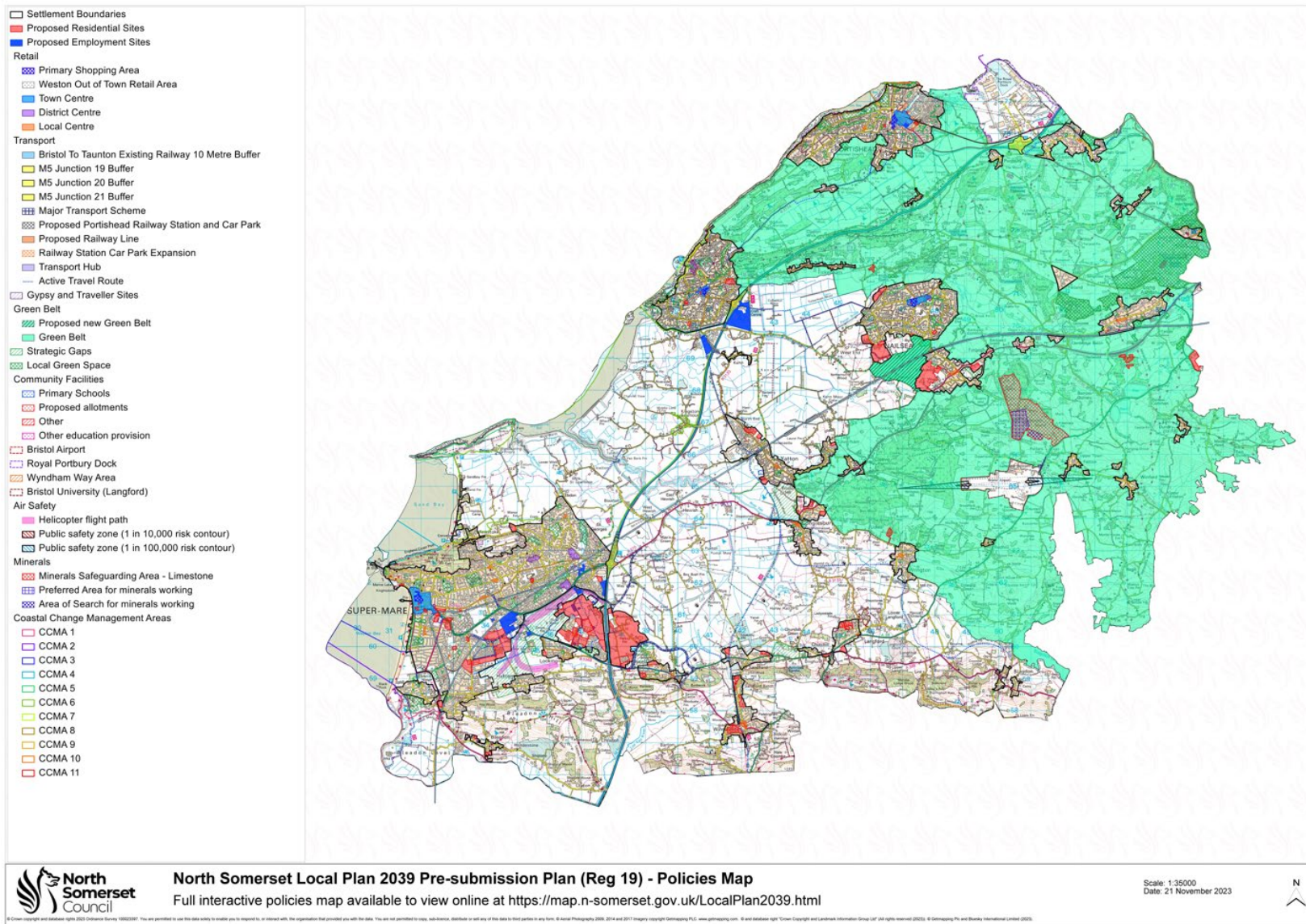
Figure 2-1: Sustainable Development Themes



Proposed Site Allocations

- 2.17 Following the Regulation 18 submission and consultation, a revised residential and employment site allocations list has been produced. The site allocations map for North Somerset can be seen at **Figure 2-2**.

Figure 2-2: North Somerset Local Plan Policies Map



- 2.18 This Transport Assessment focusses on Growth Areas at Wolvershill, and Nailsea & Backwell, as well as the strategic employment allocations at Wolvershill and Clevedon (J20).
- 2.19 The Policies Map above includes sites which are carried forwards as allocations from the current Local Plan and sites which are proposed new allocations. For the purpose of the Transport Assessment, it is important to separate allocations into those which are “committed”, i.e. those which are likely to be delivered in the absence of the Plan, and those which are proposed by the new Local Plan. Committed schemes are allocations that are carried forwards from the previous Local Plan, and sites which are proposed allocations in the new Local Plan, but already benefit from Planning Consent.
- 2.20 The modelling separates site allocations within the Local Plan into Do Minimum allocations (those that are considered committed) and Do Something allocations (new allocations). Table 2-1 sets out the residential site allocations of more than 100 dwellings, and whether they are in the DM or DS scenario. Development sites, sites smaller than 100 dwellings are accounted for within growth factor parameters.

Table 2-1: Do Minimum (DM) and Do Something (DS) Housing Site Allocations (>100 Dwellings)

DM Site	DM Capacity	DM Units Built	DS Site	DS Capacity
Parklands Village, W-s-M	2,894	1,056	Wolvershill (north of Banwell)	2,800
Winterstoke Village, W-s-M	1,356	1,194	Grove Farm, Backwell	515
Youngwood Lane, Nailsea	399	51	Former Leisuredome allocation/Parklands Site B (phase E), , W-s-M	400
Locking Road Car Park, W-s-M	230	0	Wyndham Way Broad Location, Portishead	350
Land west of Winterstoke Road, W-s-M	134	0	Land north of Colliter's Way, Edge of Bristol	215
Land at Farleigh Farm, Backwell	125	0	Weston Rugby Club, W-s-M	200
Sunnyside Road, W-s-M	120	0	Castlewood, Clevedon	120
West of Engine Lane, Nailsea	109	62	Woodspring Stadium, Winterstoke Road, W-s-M	100
Rectory Farm, Yatton	100	0		

- 2.21 Table 2-2 sets out the Employment allocations, and whether they are in the DM or DS scenario.

Table 2-2: Do Minimum and Do Something Employment Site Allocations

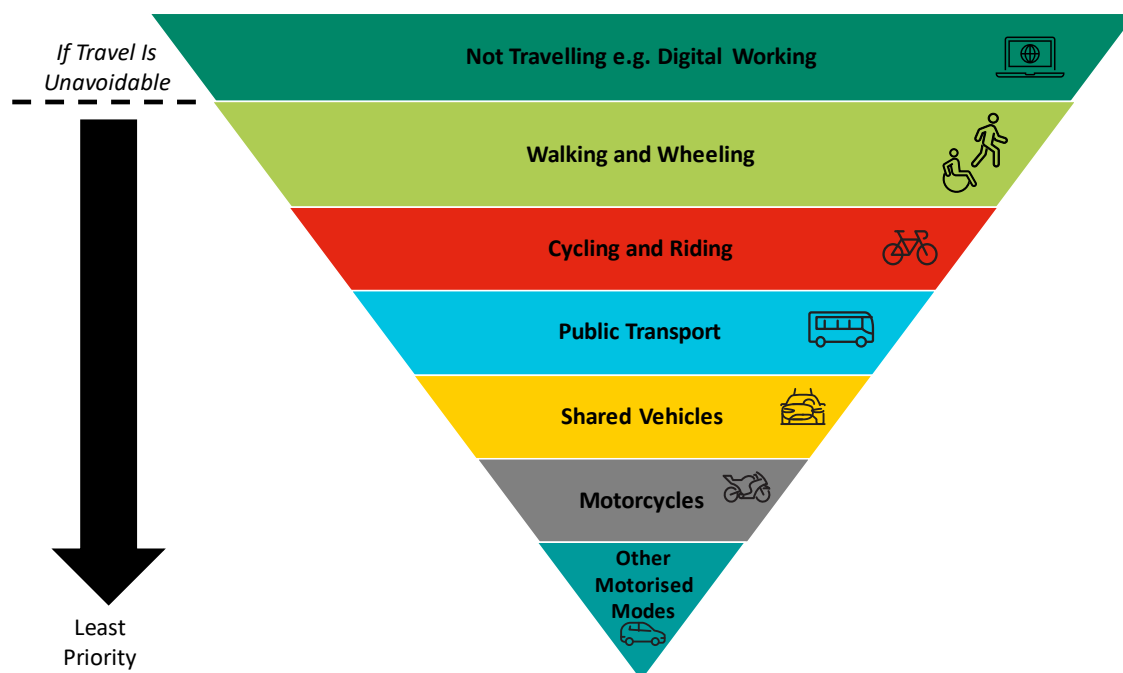
Site	Modelling Scenario	Site Area (Ha)
Land to the east of J20, Clevedon	Do Something	25.00
Haywood Village Business Quarter, Weston-Super-Mare	Do Minimum	21.50
Land to the west of Kenn Road, Clevedon	Do Minimum	8.20
Wolvershill Business Park	Do Something	6.50
West Wick Business Park, Weston-Super-Mare	Do Minimum	5.30
Wyndham Way Development Framework Area (excluding the Gordano Gate allocation)	Do Something	3.75
Summer Lane, North of A370, Weston-Super-Mare	Do Minimum	2.54
Parklands Village Site E	Do Minimum	1.82
Parklands Village Site D	Do Minimum	1.67
Moor Park, A371	Do Minimum	1.23
Gordano Gate, Portishead	Do Minimum	1.10
Parklands Village Site H	Do Minimum	0.57
Aisecombe Way, WsM	Do Minimum	0.50
Parklands Village Site F	Do Minimum	0.47
Parklands Village Site C	Do Minimum	0.37
Parklands Village Site G	Do Minimum	0.31
Parklands Village Site A	Do Minimum	0.30
Parklands Village Site I	Do Minimum	0.12

Mitigation Approach

2.22 The approach to developing mitigation options will be to consider impacts at varying scales ranging from the strategic network to a local level. A “Decide and Provide” approach to mitigation seeks to achieve this through the transport modelling process (explained in more detail at Section 5.2) where trip rates and associated trip reductions as a result of sustainable transport mitigation schemes will be used to demonstrate North Somerset’s vision to reflect a more responsible attitude to climate change and the use of resource. Highway capacity mitigation schemes are seen as a last resort within this mitigation approach.

2.23 Key mitigation principles include:

- Aiming to achieve mode shift through supporting and developing the active travel network, for example in line with the NSC Active Travel Strategy, which targets a minimum of 300% increase in walking and cycling by 2030;
- Enhance the Public Transport network, including delivery of the Bus Service Improvement Plan (BSIP); and
- To minimise impact on, and prioritise, public transport and active travel networks.

Figure 2-3: Revised modal hierarchy

- 2.24 Figure 2-3 demonstrates how the modal hierarchy prioritises investment in demand management, for example removing the need to travel in the first place, or if travel is unavoidable by prioritising walking / wheeling, cycling, public transport, followed by various forms of motor vehicle travel from shared mobility as a preference to single occupancy car trips as a last resort.
- 2.25 Options for mitigation are being developed through a collaborative process with key members of NSC, to ensure that a holistic and rounded approach is used to inform options, and to take account of previous analysis and potential projects which may be relevant for inclusion.
- 2.26 Mitigation as part of the Local Plan is just one of the ways NSC are working towards improving sustainable travel, alongside other workstreams such as the studies on the decarbonisation of transport, in line with the Climate Emergency declaration, and the Council's emerging Integrated Transport Scheme Pipeline.









Overview of Transport Network

- 2.27 North Somerset's transport network comprises active travel (walking, wheeling and cycling), public transport, and highways. Changes in the network are closely linked to the emerging Local Plan sustainable transport strategy, with more information on active travel and public transport, notably bus travel, provided in Section 3 of this report.
- 2.28 Since the production of the Stage 4 / 5 TA, a trial of a Demand Responsive Transport (DRT) service known as 'WESTlink', started operating across the West of England in April 2023. WESTlink doesn't operate on a set timetable, rather people can book minibuses via an Uber-style app, web, or phone in the eligible areas. The trial is in operation for two years and if proven to be successful and financially viable in the long term, could be rolled out on a permanent basis. WESTlink runs between 7am and 7pm Monday to Saturday and ticket prices match the recently reduced fares on West of England buses at £2 a ride. Algorithms are used to join up people's needs to combine trips. Minibuses run in zones, designed to get passengers to key transport corridors to pick up further bus or train services, with a large proportion of North Somerset covered by WESTlink South Zone. The services provide an alternative to those affected by the April and June 2023 cuts to bus services.

Banwell Bypass

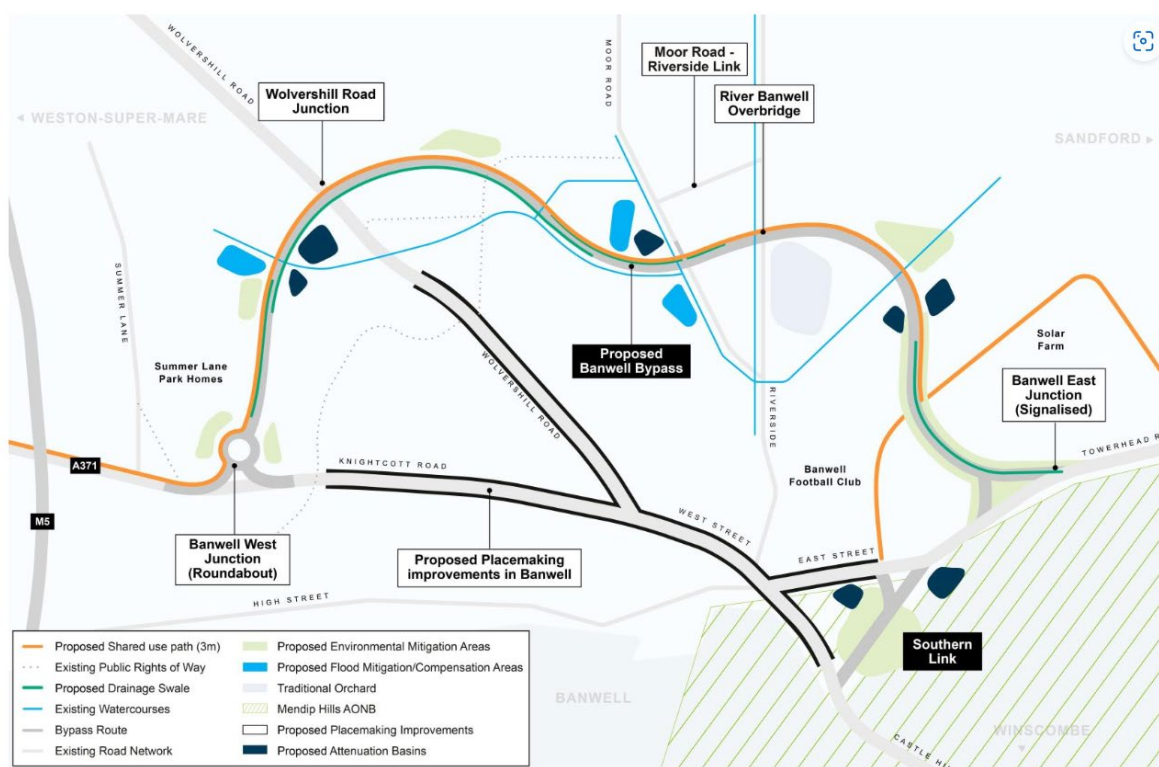
2.29 In March 2023 planning permission was granted for the Banwell Bypass. The bypass is funded through Homes England’s Housing Infrastructure Fund (HIF). The objectives of the bypass are set out in Figure 2-4, as well as facilitating access to the Wolverhill strategic allocation.

Figure 2-4: Banwell Bypass Objectives

	Improve the local road network to deal with existing congestion issues		Ensure the development respects the local area and minimises visual impact upon the surrounding countryside and Mendip hills AONB
	Improve and enhance Banwell’s public spaces by reducing traffic and improving the public realm		Be innovative and efficient in reducing and offsetting carbon from the design and construction of the project
	Provide the opportunity to increase active and sustainable travel between local villages and Weston-Super-Mare		Ensure the development provides the opportunity to increase bio-diversity net gain by at least 10%
	Provide infrastructure that can enable future housing development (subject to the Local Plan)		Proactively engage with stakeholders in a way that is both clear and transparent

2.30 Figure 2-5 provides a high-level overview of the scheme.

Figure 2-5: Overview of the Banwell Bypass



2.31 Detailed design is currently being undertaken (Autumn 2023) with works on site expected to start in early 2024 with opening anticipated by 2026.

Impact of Covid

- 2.32 The Covid-19 pandemic has influenced trip generation and trip types, as working from home has become far more widely used, and flexible working arrangements now allow more off-peak travel in some circumstances. Whilst the long-term result of this remains to be seen as these new travel behaviours evolve, this TA seeks to ensure that a range of trip types and distances can be undertaken sustainably and does not solely focus on peak hour commuting.
- 2.33 For the North Somerset Local Plan study, the base year of the model is 2018 which is pre-COVID. An assessment has been made comparing a 2023 scenario using the 2018 traffic flows in the model growthed to 2023, and with surveyed 2023 traffic flows. The purpose of this is to understand potential effects of Covid, compared with what would have been forecast to occur. This is in line with Department for Transport (DfT) Transport Appraisal Guidance.
- 2.34 The assessment found that there were variations across the network with some locations seeing an overall decrease in traffic, and others seeing an increase. The changes in traffic flow across the network ranged between -1% and 4%. Overall, the assessment concluded that there was no compelling evidence that there is a change in flows due to COVID. Given this, and that the Local Plan forecast year is 2039, it is not proposed to adjust the modelling traffic forecast process to reflect any impact from the Covid-19 pandemic.

3. Sustainable Transport Strategy

Introduction

- 3.1 This Section outlines the sustainable transport approach for the Local Plan, including public transport, the North Somerset Active Travel Masterplan, and a summary of how this approach complies with relevant Transport policies.
- 3.2 Proposed development allocations within the Local Plan are supported by North Somerset’s strategic priority to reduce the need to travel, reduce car dependency and provide more options to get around. This aligns with several of North Somerset’s key targets, as well as the National and Regional policy focus on sustainable transport as set out in Section 2 of this report:
 - North Somerset’s commitment to net zero by 2030, reducing car journeys by 40%;
 - Desire for attractive, safe, and green places to live and work / quality of life; and
 - Ambitions for active and healthy communities.
- 3.3 North Somerset’s approach to development proposals is ambitious, but not unrealistic or unreasonable. Bold steps are required to deliver development in line with national, regional, and local policy and this approach to sustainable transport underpins the Local Plan proposals and demonstrates their commitment to achieving such aims.
- 3.4 A vision led ‘Decide and Provide’ approach underpins the Local Plan from a transport perspective, as opposed to a predict and provide. This approach seeks to determine the level of trip generation that are considered acceptable for development proposals and provide mitigation in line with the transport user hierarchy, to ensure this level of trip generation is not exceeded. Wherever possible, highways capacity mitigation schemes are avoided, aiming to avoid induced demand.
- 3.5 A package of transport schemes has been identified and included within the Infrastructure Delivery Plan that will work towards achieving these sustainable transport targets.

Policy Context

- 3.6 The Local Plan embeds the importance of sustainable travel throughout its strategic policies. Table 3-1 highlights the sustainable transport theme and context through various Local Plan strategic policies.

Table 3-1: Local Plan Strategic Policy Summary – Transport Context

Strategic Policy	Transport Related Context
SP1: Sustainable Development	<ul style="list-style-type: none"> • Prioritise active travel and effective public transport to make these modes the natural choice over car use wherever possible. • Support economic development in locations that are, or will be made, accessible by sustainable modes. • Ensure active travel and public transport access to a wide range of services, facilities, jobs, and recreations opportunities and support the creation of 20-minute communities. • Deliver essential infrastructure in step with development.
SP2: Climate Change:	<ul style="list-style-type: none"> • encourage the decarbonisation of energy and transport, and support the delivery of a carbon neutral North Somerset by 2030 • Prioritise active travel and effective public transport over car use wherever possible.

Strategic Policy**Transport Related Context****SP3: Spatial Strategy**

- Priority will be given to locating new residential and mixed-use development in or close to urban areas where there is an existing or proposed wide range of facilities, services and jobs, and there are opportunities to enable active travel, particularly at locations which are currently, or have the potential to be, well served by public transport. Employment opportunities will be encouraged at accessible locations well-related to the urban areas and where sustainable transport opportunities can be maximised.

SP4: Place making

- Robust design process, appropriate collaboration.
- Contribute positively to addressing the climate and nature emergencies and future-proof against changing climatic conditions.
- Use land efficiently in terms of layout and density, as appropriate to the location, to create compact, connected, and sociable places.
- Enable healthy lifestyles and encourage active travel.
- Support the creation of socially, economically, and environmentally sustainable communities.

SP5: Towns

- Support and enable walking, cycling and improved public transport, particularly in relation to connecting residential areas to the town centre, local centres, employment areas, educational establishments, and other destinations.
- Optimise housing densities, particularly at town centres and at accessible locations such as transport hubs.
- Can be successfully served by infrastructure such as transport, education, and health facilities.
- Maintain or enhance their viability and vitality and their role and function.

SP6: Villages and rural areas

- Will not cause significant adverse impacts on local services and infrastructure, including cumulative impacts.
- The location of development maximises opportunities to reduce the need to travel and connects to local facilities by high quality walking and cycling infrastructure, with good public transport connections for longer trips.
- Uses are well related and accessible by safe walking and cycling to the communities which they serve.
- It connects to existing active travel and public transport networks.

SP9: Employment

- Contribute to sustainable patterns of development and community.
- Towns will be the main focus for employment growth given their accessibility, labour markets and range of services and facilities. Opportunities to provide business development which supports self-containment and reduces out-commuting through re-use of land and premises will be encouraged, especially where it supports the vitality and viability of town centres.

Strategic Policy

Transport Related Context

SP10: Transport

- Delivery of attractive, safe, and inclusive routes for walking and cycling which are well integrated into existing networks and provide access to effective and frequent public transport.
- Delivery of better local bus, rail and rapid transit services and infrastructure supporting uptake in public transport use for journeys to work, leisure and other purposes, within and between towns in North Somerset and further afield including, first and last mile provision, reallocation of highway space and new or improved bus stops.
- Delivery of infrastructure to facilitate the use of electric vehicles.
- Improvement of safety on the transport network for all users.

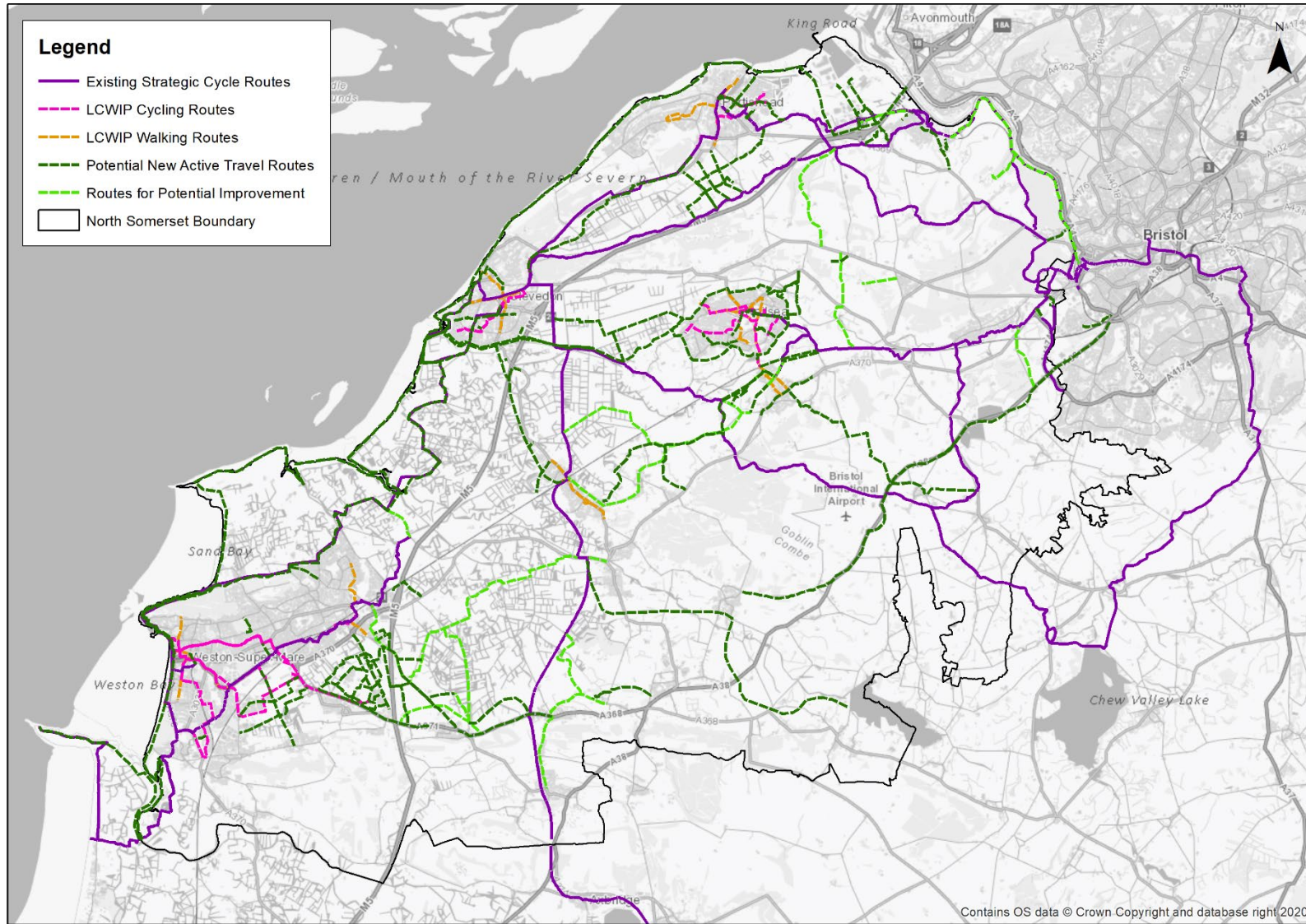
Masterplanning

- 3.7 Across all development proposals, large or small, quality masterplanning should prioritise sustainable travel. Within the strategic transport model, a blanket trip reduction of 10% has been applied (see Section 5 for more details) to introduce a strong policy hook for all development to demonstrate additional sustainable transport credentials. Each masterplan should consider how this 10% will be delivered, specific to the development proposals, but may include low traffic neighbourhoods, reduced parking levels, car clubs.
- 3.8 Alongside the masterplanning process, comprehensive and effective travel planning is considered crucial to effectively delivering this 10% reduction. Travel Plans should be delivered in line with North Somerset's Travel Plan SPD (adopted in February 2023) to ensure comprehensive measures, monitoring, implementation, and evaluation strategies are used to deliver an effective travel plan.

Active Travel

- 3.9 A comprehensive Masterplan containing schemes related to Active Travel across North Somerset is being developed as a Network Plan to understand where existing / planned / potential schemes are relevant to the development of Local Plan allocation sites. The Active Travel Masterplan includes schemes such as those identified in the LCWIP (outlined later in this section), as well as pipeline schemes that have been identified in policy such as the Joint Local Transport Plan 4 (JLTP4)
- 3.10 The Active Travel Masterplan will provide a comprehensive understanding of the existing cycle routes in North Somerset and how they interact with proposed areas for growth and Local Plan allocations. It also allows for gaps in provision to be identified, particularly where meaningful connections can be made between existing designated cycle routes. Once identified, opportunities to create new connections or improve existing routes can be delivered at a scale that is relevant to the proposed site allocations, whilst supporting the development of the wider cycling network. Development coming forwards will need to contribute positively to the enhancement of the Active Travel network through new connections and/or improvements to existing routes. An extract of the Network Plan is shown at Figure 3-1. This is a living document and is being updated regularly.

Figure 3-1: Active Travel Network Plan



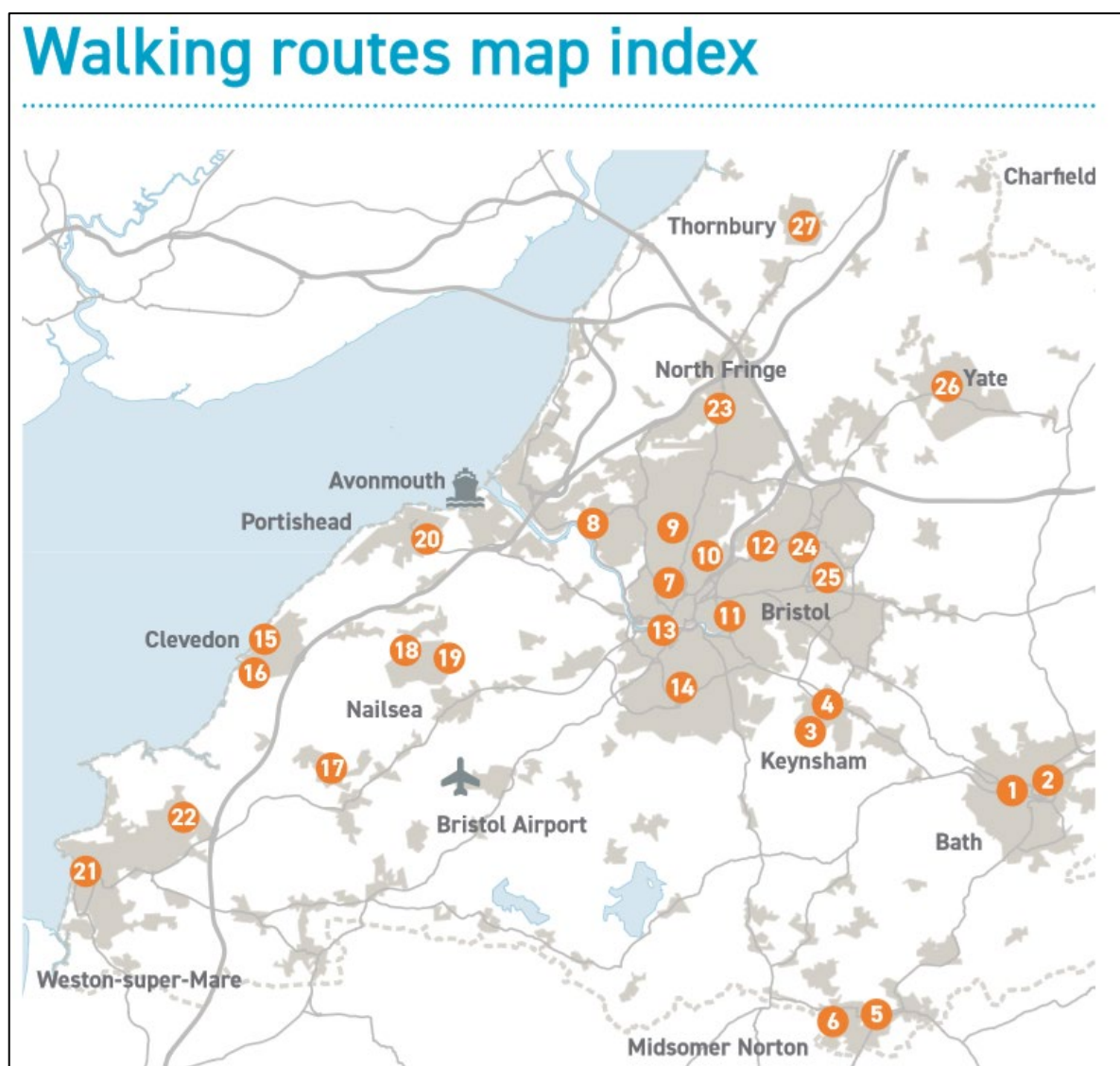
- 3.11 Officers at North Somerset are putting significant time and effort into developing and delivering sustainable travel schemes across North Somerset as a high priority. The scheme pipeline is divided into seven stages from an initial scheme request, through policy check and officer assessment, feasibility and options, scheme design and preparation, delivery and monitoring and evaluation.
- 3.12 Each scheme is identified with a theme from the following list. Although some schemes may appear to be more highway focussed, the ultimate aim is to enhance sustainable travel provisions:
- Access to School - Schools, Safer active routes to schools
 - Bus/Access to bus - First / Last Mile
 - Congestion Management - Capacity / traffic flow enhancements, congestion reduction
 - E-mobility - E-scooters, E-bikes, First / Last Mile
 - Maintenance issue - Vegetation, surfacing, drainage, street lighting, any other asset
 - Parking management - Enforcement
 - Public realm - Placemaking
 - Rail/Access to rail - First / Last Mile
 - Rural active travel - Crossings, PROW, First / Last Mile, active travel facilities, Rural Lanes, mobility hubs
 - Traffic calming - Speed, 20mph, Safety, Liveable Neighbourhoods, Rural Lanes
 - Urban active travel - Crossings, PROW, First / Last Mile, active travel facilities
- 3.13 The Infrastructure Delivery Plan (IDP) identifies a number of Active Travel infrastructure schemes that will help facilitate the delivery of local plan site allocations including the following more closely impacting Do Something site allocations:
- Scheme Reference TR25 - Wyndham Way Portishead Active Travel connections
 - between Wyndham Way and: the Marina; Old Mill Road; the Precinct
 - between new Portishead Railway Station, Harbour Road, the rhyne and onto Old Mill Road
 - North Bridge, Brampton Way
 - Scheme Reference TR27 - Weston Villages Active Travel Network: Parklands Village:
 - A371 to Grumblepill Rhyne Route
 - Grumblepill Rhyne Route
 - Locking Head Drove to A371
 - A371 to Parklands Educate Together Primary
 - Parklands east to west alignment
 - Link through Mead Fields
 - Parklands North South Link
 - Grumblepill Rhyne to Churchlands Way
 - Parklands to Wolverhill
 - Scheme Reference TR30 - Strategic cycle link between Nailsea and Clevedon via the Moors
 - Scheme Reference TR31 - Festival Way Strategic cycle route improvements (Long Ashton; Flax Bourton; Backwell, Nailsea)

- Scheme Reference TR34 - Parklands, Banwell & Sandford Active Travel improvements:
 - A371 from Locking Parklands to Banwell Bypass
 - Banwell Bypass active travel route;
 - Banwell Bypass to Sandford via Eastermead and Towerhead Brook

Local Cycling and Walking Infrastructure Plan (LCWIP)

3.14 The West of England Local Cycling and Walking Infrastructure Plan (LCWIP) identifies over £400 million of required investment into the active travel network, to be delivered through the West of England Combined Authority (WECA). As part of the plans, several improvements to walking and cycling routes are proposed within North Somerset. An overview of the walking and cycling routes contained within the LCWIP is shown in Figure 3-2.

Figure 3-2: LCWIP Walking Routes



3.15 Walking routes 15, 16, 18, 19, 21 and 22 are proposed in areas of North Somerset that are being promoted for development and could therefore supplement future plans for transport access and movement. Details of the walking routes are set out in Table 3-2.

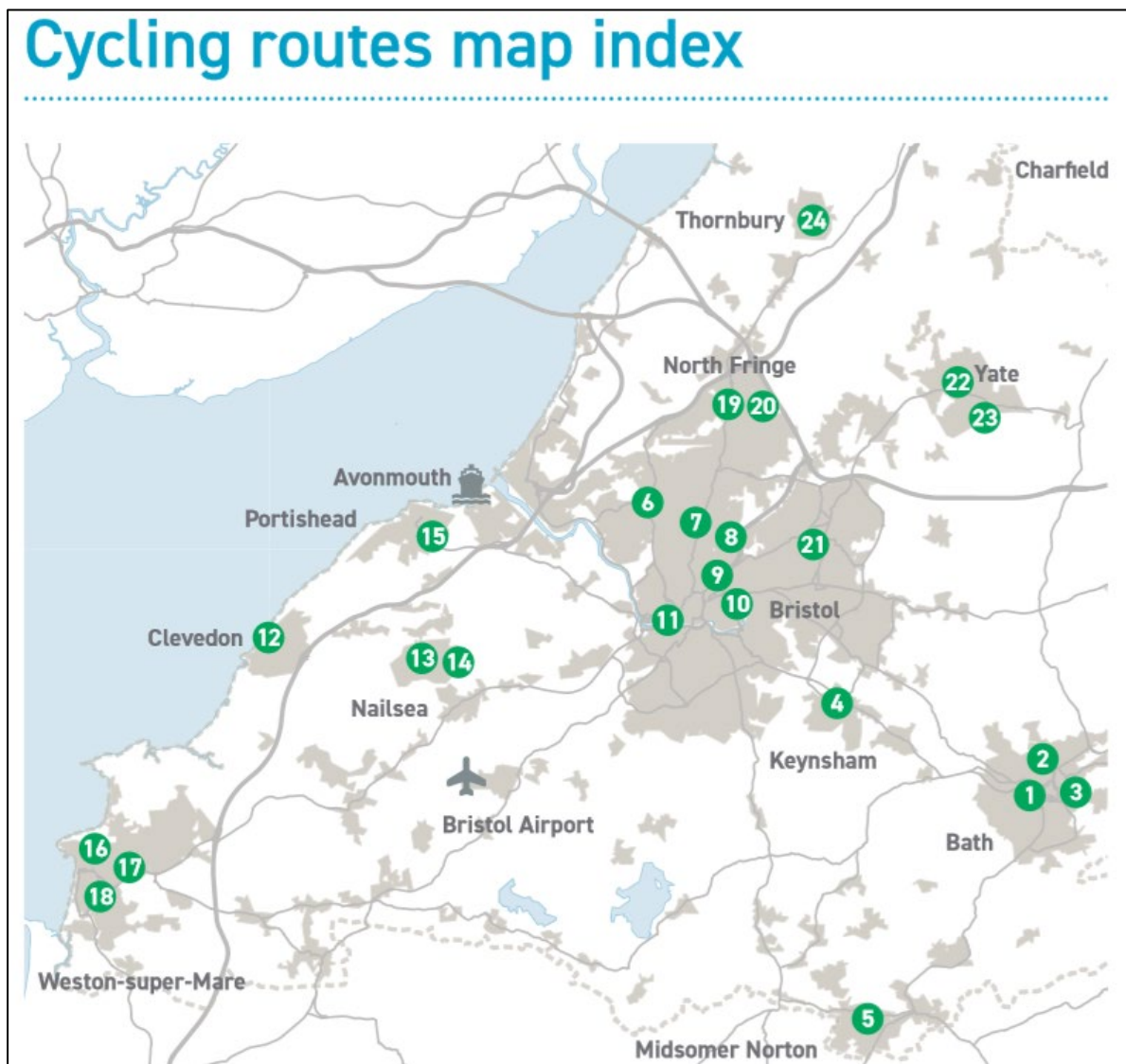
Table 3-2: LCWIP Walking Routes – North Somerset Growth Areas

LCWIP Reference	Location / Route	Status	Document Reference
LCWIP W16	Clevedon, Old Street / Linden Road	Subject to consultation responses, Detailed design work & Funding	LCWIP Page 58-59
LCWIP W18	Nailsea town centre In conjunction with cycle improvement proposals	Subject to consultation responses, Detailed design work & Funding	LCWIP Page 62-63
LCWIP W19	Nailsea town centre – Backwell In conjunction with cycle improvement proposals	Subject to consultation responses, Detailed design work & Funding	LCWIP Page 64-65
LCWIP W21	Weston-Super-Mare town centre	Subject to consultation responses, Detailed design work & Funding	LCWIP Page 68-69
LCWIP W22	Weston-Super-Mare town centre (South)	Subject to consultation responses, Detailed design work & Funding	LCWIP Page 70-71

3.16 The measures included in the walking route proposals include:

- Providing continuous footways;
- Reducing side road junction widths;
- Traffic calming measures;
- Public realm improvements;
- Footway buildouts;
- Removal of parking;
- Widening footways;
- Zebra crossings;
- Enforceable double yellow lines;
- Raised table junctions;
- Redesigned junctions; and
- Adding benches and handrails to steepest points to improve mobility for all.

Figure 3-3:LCWIP Cycling Routes



3.17 Cycling routes 13, 14, 16, 17 and 18 are proposed in areas of North Somerset that are being promoted for development and could therefore supplement future plans for transport access and movement. Details of the cycling routes are set out in Table 3-3.

Table 3-3: LCWIP Cycling Routes – North Somerset Growth Areas

LCWIP Reference	Location / Route	Status	Document Reference
LCWIP C19	Southern Way to / from Old Street, Clevedon (Routes 1 and 2)	Subject to consultation responses, Detailed design work & Funding	LCWIP Page 118-119
LCWIP C20	Southward from Nailsea town centre (Route 1)	Subject to consultation responses, Detailed design work & Funding	LCWIP Page 120-121
LCWIP C20	Westward from Nailsea town centre (Route 2)	Subject to consultation responses, Detailed design work & Funding	LCWIP Page 120-121
LCWIP C21	Westward from Nailsea town centre (Route 3)	Subject to consultation responses, Detailed design work & Funding	LCWIP Page 122-123
LCWIP C21	Eastward from Nailsea town centre (Route 4)	Subject to consultation responses, Detailed design work & Funding	LCWIP Page 122-123
LCWIP C23	Weston-Super-Mare (Route 1)	Subject to consultation responses, Detailed design work & Funding	LCWIP Page 126-127
LCWIP C23	Weston-Super-Mare (Route 2)	Subject to consultation responses, Detailed design work & Funding	LCWIP Page 126-127
LCWIP C24	Weston-Super-Mare (Route 3)	Subject to consultation responses, Detailed design work & Funding	LCWIP Page 128-129
LCWIP C24	Weston-Super-Mare (Route 4)	Subject to consultation responses, Detailed design work & Funding	LCWIP Page 128-129
LCWIP C25	Weston-Super-Mare (Route 5)	Subject to consultation responses, Detailed design work & Funding	LCWIP Page 130-131
LCWIP C25	Weston-Super-Mare (Route 6)	Subject to consultation responses, Detailed design work & Funding	LCWIP Page 130-131

3.18 The measures included in the cycle route proposals include:

- Smooth ways;
- Quiet streets' as per Weston-Super-Mare town centre SPD;
- Upgrade crossings;
- Mandatory Cycle Lanes;
- Widen footways;
- Remove barriers to cycling;
- Closure of Bridges to motor traffic;
- De-clutter paths;
- Segregated cycle paths with kerbs;
- Reducing traffic flows;
- Reduce speed limits;

- Designed roundabouts;
- Resurfacing; and
- Improve lighting.

Public Transport

3.19 As part of the overall sustainable development approach for the local plan, enhanced public transport provision and improved utilisation is a high priority. The main mechanisms for this are through:

- Bus Service Improvement Plan (BSIP);
- Integration and Mobility Hubs; and
- Infrastructure Delivery Plan.

Bus Service Improvement Plan (BSIP)

3.20 Following a successful bid to the Department for Transport (DfT), over £105m funding has been allocated for bus improvements in the West of England, with £48m earmarked for capital improvements in North Somerset alone. £57.5m will be used as a pooled revenue fund with the West of England Combined Authority (WECA) to enable delivery of the BSIP.

3.21 The West of England BSIP covers the period up to 2030 and brings together evidence in order to set ambitions for patronage growth, boost investment in buses and improve socio-economic and environmental outcomes across the region. Targets set out in the Plan include performance indicators for:

- Bus journey times – reducing on average by 2% by 2025 and 10% by 2030;
- Bus service punctuality – 95% of services to be running on time by 2030 (defined as not more than one minute early or five minutes late);
- Number of passenger journeys – a return to pre-pandemic levels by 2025, and grow patronage by at least 24% from that level by 2030;
- Customer satisfaction – increase to 89% by 2025, and 95% by 2030; and
- Bus fleet decarbonisation – Euro VI emission standard compliance for all buses by the end of 2023, 75% either zero- or low-emission by 2030, and all buses to be zero- or low-emission by 2035.
- BSIP will deliver significant benefits and fundamental improvements to the public transport infrastructure in North Somerset. This will enable a level of service improvement. New development will be expected to support and “pump-prime” additional services and service enhancement, capitalising on the infrastructure improvements delivered by BSIP itself.

BSIP Infrastructure

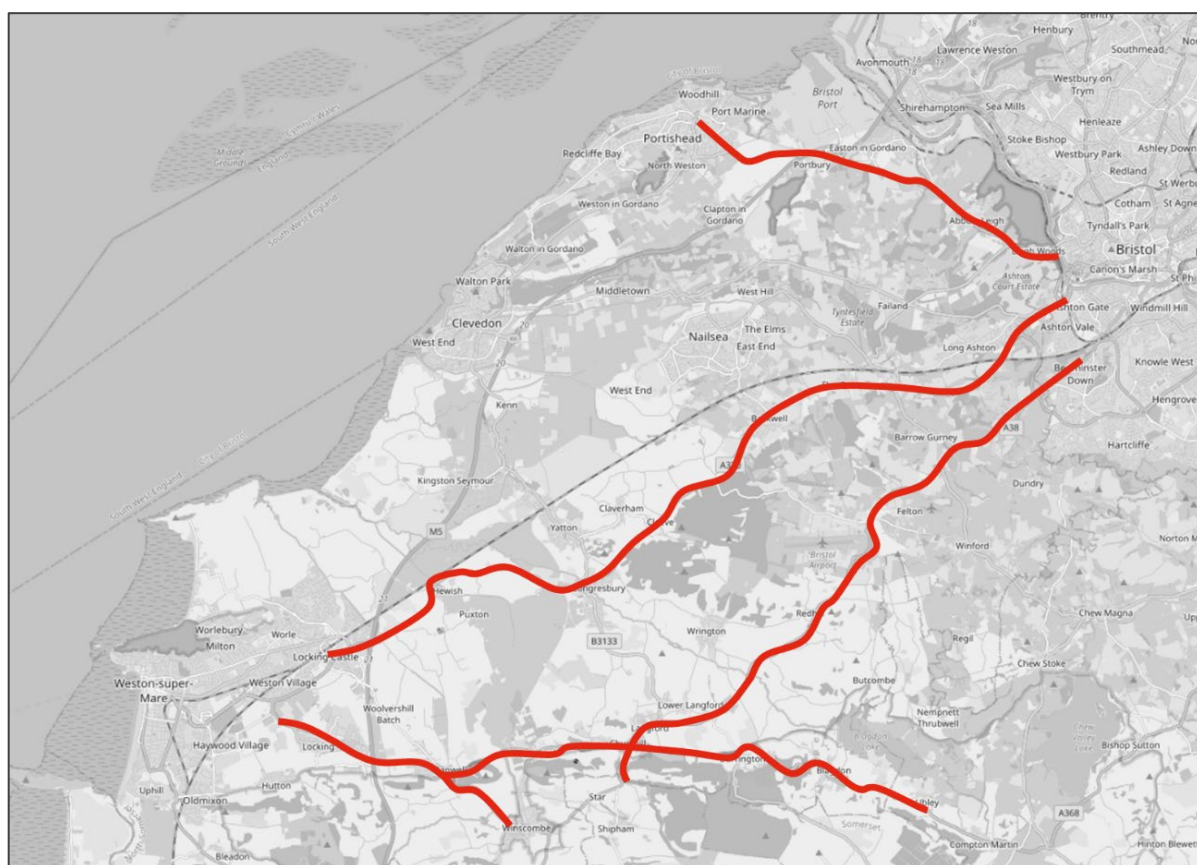
3.22 As part of the BSIP infrastructure improvements that formed part of the DfT bid, several corridors and hotspots were identified as requiring infrastructure improvements across the North Somerset network. The corridors are shown on Figure 3-4 and set out below:

- A370 including Queensway, Small way signals, Long Ashton Bypass;
- A369 including Portbury Hundred and Sheepway;
- A371 including Banwell but this is very reliant on delivery of Banwell Bypass;
- A368 including Churchill signals but this is very reliant on delivery of Banwell Bypass; and
- A38 including Lime Kiln roundabout.

Additional Hotspots:

- Weston-Super-Mare, Summerhouse roundabout, Worle Terminus, M5 J21;
- Portishead;
- Clevedon including Hill Road, Town centre, Moor Lane / Ettingen Way roundabout;
- Yatton including High Street; and
- Nailsea and Backwell including Silver Street, High Street and Backwell signals.

Figure 3-4: BSIP Corridors for Improvement



3.23 An initial package of schemes has been established for further work, as set out in

3.24 Table 3-4:

Table 3-4: BSIP Package 1 Schemes

Scheme	Summary of Proposals	Benefits
A38 at Barrow Gurney (Constructed)	<ul style="list-style-type: none"> • Reallocation of road space for bus use only • New 24-hour bus lanes in both directions • Reconfiguration of traffic lights 	<ul style="list-style-type: none"> • Improved bus journey times and reliability – queue bypassing • Footway improvements at Bristol-bound bus stop
A370 Long Ashton Bypass (Constructed)	<ul style="list-style-type: none"> • New 24-hour inbound bus lane, replacing High Occupancy Vehicle Lane. 	<ul style="list-style-type: none"> • Improved bus journey times and reliability – queue bypassing
A370 at Brockley Combe	<ul style="list-style-type: none"> • New 24-hour bus lanes in both directions with bus gates 	<ul style="list-style-type: none"> • Improved bus journey times and reliability – queue bypassing
A370 at Wood Hill	<ul style="list-style-type: none"> • New traffic light junction • New 24-hour bus lane towards Bristol • New segregated cycle lane from Wood Hill onto the A370 Bristol-bound 	<ul style="list-style-type: none"> • Improved junction operation for all traffic • Reduced traffic speeds on A370. • Improved bus journey times and reliability – queue bypassing
A369 at Beggar Bush Lane junction	<ul style="list-style-type: none"> • Bus lane for M5-bound buses • Replacement left turn lane • Provision of crossing points on all arms 	<ul style="list-style-type: none"> • Improved bus journey times and reliability – queue bypassing • Enhanced permeability for pedestrians and cyclists
A369 Martcombe Road south of the M5 J19	<ul style="list-style-type: none"> • New 24-hour bus lane towards Junction 19, replacing High Occupancy Vehicle Lane 	<ul style="list-style-type: none"> • Improved bus journey times and reliability – queue bypassing

3.25 The remaining schemes will form part of the second package of work, as set out in **Table 3-5**.

Table 3-5: BSIP Package 2 Schemes

Scheme	Summary of Proposals
Churchill Gate	<ul style="list-style-type: none"> • Signalised Roundabout to address capacity constraints, with NB and SB Bus Priority on approaches to new proposed roundabout
Lime Kiln Roundabout	<ul style="list-style-type: none"> • Bus Lanes on 3 arms of roundabout
Backwell Crossroads	<ul style="list-style-type: none"> • SB Bus Lane, A370 bound traffic from Dark Lane closed. The scheme will improve operation of the junction, which will benefit buses along the A370
Portbury Hundred	<ul style="list-style-type: none"> • Bus Lane on A369 towards Junction 19
A369 Bridge Road	<ul style="list-style-type: none"> • Bus Lanes for priority on A369
B3440 Queensway	<ul style="list-style-type: none"> • Two new roundabouts in place of signals with bus priorities
B3133 South Way Central Way (Clevedon)	<ul style="list-style-type: none"> • Bus Priority at roundabout for EB and WB movements
Ettlingen Way Roundabout	<ul style="list-style-type: none"> • EB and NB bus priority

Tickenham Road Northern Way	<ul style="list-style-type: none"> • Larger Roundabout with EB and WB bus priority
West of J21 (Weston)	<ul style="list-style-type: none"> • Bus priority lanes in both directions on the slip from A370 NB onto B3440
Worle High Street	<ul style="list-style-type: none"> • Converted with a bus gate

BSIP Service Improvements

- 3.26 In addition to infrastructure improvements, the bus services themselves are being improved through BSIP, alongside other funding sources, and the attractiveness of service provision will be enhanced through measures including real time information and bus stop improvements.
- 3.27 Since April 2023, several bus service enhancements have been implemented across North Somerset as set out in Table 3-6 below:

Table 3-6: Joint BSIP and Operator Funded Service Improvements, North Somerset since April 2023²

Service No.	Route	Bus Service Improvement
W3	Worle – Weston-Super-Mare Asda	Additional evening service
W7	Haywood Village - Worle	Additional evening service
X1	Weston-Super-Mare – Bristol	Up to every 15 mins, up from 20 mins
X4	Portishead - Bristol	Up to every 20 mins, up from 30 mins
X5	Portishead – Weston-Super-Mare	Introduction of Sat & Sun service
X6	Clevedon - Bristol	Additional early and late journeys
X7	Clevedon - Bristol	Additional early and late journeys
X8	Nailsea - Bristol	Hourly Mon – Sat service between Nailsea, Backwell and Bristol.
X39	Bath - Bristol	4 buses per hour Mon-Fri, up from 4 buses only at peak times, and enhanced weekend service

- 3.28 North Somerset Council is working towards further bus service improvements across the district with an aim to deliver a minimum frequency of 15 minutes in large urban areas, and a minimum frequency of 15 minutes for inter-urban areas. In medium and large rural areas, a minimum frequency of 60 minutes is targeted. The bus service frequency should be proportional to the scale of population serviced. In smaller rural areas, it is proposed to utilise demand responsive transport and transport hubs to link passengers onto fast frequent services.
- 3.29 The delivery of service enhancements and infrastructure provision are interlinked, with each facilitating the other. Development which comes forward will be expected to contribute to the delivery of both infrastructure and service enhancements, as appropriate to the developments themselves.

Integration and Mobility Hubs

- 3.30 A key part of implementing North Somerset's sustainable transport strategy is ensuring an integrated approach. This includes addressing connectivity and missing links between travel modes, notably between public transport and active travel.
- 3.31 Mobility hubs present an opportunity to achieve this multi-modal integration. A mobility hub aims to co-locate sustainable transport opportunities in close proximity including bicycle and e-bike hire, bicycle lockers and cycle hubs including bicycle repair kits and pumps, e-car

² <https://www.westofengland-ca.gov.uk/wp-content/uploads/2023/07/West-of-England-Bus-Service-Improvement-Plan-Progress-Report-July-2023-V1.0.pdf>

sharing, ridesharing, electric vehicle charging, bus links, and may be used for freight consolidation and / or parcel lockers.

- 3.32 Mobility hubs improve legibility of services, increase confidence of the traveller, provide accurate real-time information, reduce the fear of anti-social behaviour and improve the comfort of the traveller by providing warm waiting areas, refreshments and other services. All these attributes increase the relative attractiveness of bus services compared to the car.
- 3.33 Key components to be expected from a centralised mobility hub are shown at **Figure 3-5**, based on CoMoUK guidance.

Figure 3-5: Expected components of a mobility hub³



- 3.34 NSC is working on a programme of Mobility Hubs/improved interchange connections at key points across the district. As part of the Wolverhill masterplan, a Mobility Hub is proposed. This must be centrally located, and well landscaped to fit with its surroundings. The Mobility Hub will be designed with scope for accommodating emerging and innovative future technologies, such as autonomous vehicles, delivery drones and robots, as well as collaborative and cooperative transport solutions such as freight pooling. The provision of a mobility hub will compliment North Somerset’s comprehensive active travel strategy and BSIP scheme delivery and facilitate the delivery of a climate and sustainable transport focussed development set out in North Somerset Council’s vision.

³ An Introduction to Mobility Hubs for Planners and Developers in Scotland, CoMoUK, January 2021

4. Strategic Development

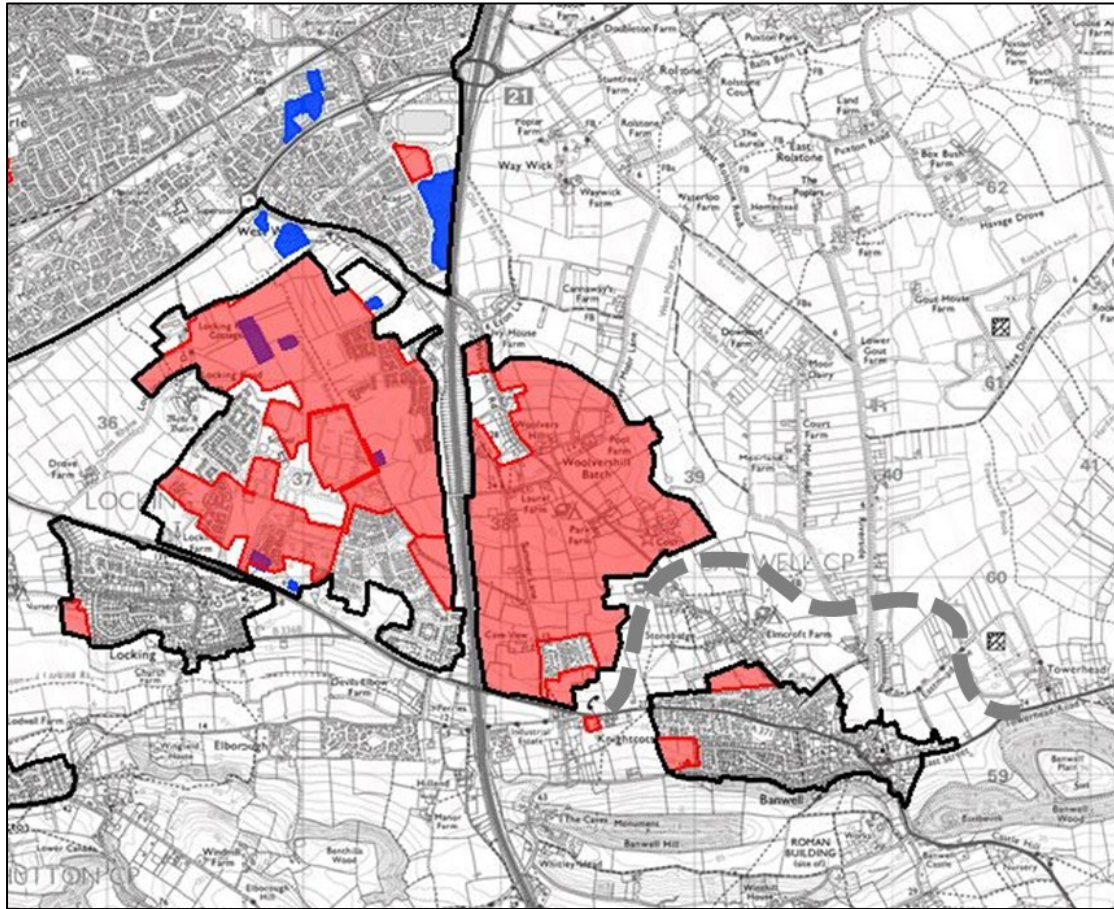
Introduction

- 4.1 The Stage 4 / 5 Transport Assessment reviewed the housing allocation in the Wolverhill, Nailsea and Backwell and Edge of Bristol Growth Areas. These areas for growth had been selected by NSC in relation to the Preferred Spatial Strategy established during Stage 3 of the Local Plan process.
- 4.2 At Stage 4 / 5, a combination of sites, referred to as 'Opportunity Areas' that would enable housing delivery were assessed against the Council's Transport Vision and Objectives. The outcome of the appraisal, alongside appraisals and assessments undertaken by other disciplines, has informed the potential site allocations that are presented in the Pre-submission Draft Local Plan (Reg 19). It is important to consider the access and movement requirements for specific growth areas which need to be established at the Plan-Making stage. The Transport Assessment has looked in detail at the following growth areas as Strategic development:
- Wolverhill (North of Banwell);
 - Nailsea and Backwell; and;
 - East of Clevedon Employment.
- 4.3 Whilst a reasonable scale of additional residential development is proposed at locations in Clevedon, Portishead, and Weston-Super-Mare, these are urban intensification sites. Access and movement parameters for these sites can be secured through the planning process.

Wolverhill (North of Banwell)

- 4.4 Policy LP1 in the Pre-Submission Local Plan covers the new mixed use growth location at Wolverhill (north of Banwell). The boundary for the growth location at 'Wolverhill' is shown in **Figure 4-1**. The site is proposed as a mixed-use development, to accommodate up to 2,800 dwellings, a minimum of 6.5ha of employment and education facilities (three primary schools with early years provision and the investigation of a new secondary school if required).

Figure 4-1: Wolvershill Site Allocation



(Source: North Somerset Council, Pre-submission Local Plan Policies Map)

Issues and Opportunities for Transport Network

- 4.5 The following high-level transport network issues and opportunities, surrounding the Wolvershill Growth Area is summarised in **Table 4-1**.

Table 4-1: Issues and Opportunities – Wolverhill

Issues	Opportunities
<ul style="list-style-type: none"> • Presence of the M5 creates severance between the Growth Area / Banwell to the east and Locking Parklands development / Weston-Super-Mare to the west. • Wolverhill Road carries existing traffic through the heart of the development area, with limited pedestrian facilities. • Severance effect of M5, potentially Banwell Bypass, and Wolverhill Road • Risk of car dominance due to potential severance and close access to major roads • Constraints on Wolverhill Road Bridge (M5 crossing point). • Collision hotspot located at Wolverhill Road / A371 Junction. • Potential traffic congestion on strategic routes. • Bus services on A370 very well used and operating close to capacity 	<ul style="list-style-type: none"> • Proximity to facilities such as schools and employment. • Potential to use existing agricultural bridge (M5 crossing point, Summer Lane, to accommodate active travel movements, connecting the Growth Area to Locking Parklands development, including the new secondary school, west of the M5. • Potential, with traffic reductions, to improve Active Travel on Wolverhill Road Bridge, linking the Growth Area to Worle railway station and the district centre at Elmham Way • Potential to link Growth Area to existing Strawberry Line cycle route. • Opportunity to benefit from BSIP funded public transport schemes. • A strategic review of bus services for network as a whole

Wolverhill Transport Framework masterplan

- 4.6 In response to the issues and opportunities a Transport Framework masterplan for Wolverhill has been prepared and been used to inform Policy LP1 of the Pre-submission Local Plan. A copy of this can be seen at Appendix B. It is understood that this will be progressed towards a Supplementary Planning Document (SPD) for the growth area. The masterplan sets out the vision for achieving sustainable development, reducing the need to travel and car dependency and assisting NSC in achieving its key targets of;
- A commitment to net zero by 2030, reducing car journeys by 40%;
 - Desire for attractive, safe, and green places to live and work / quality of life; and
 - Ambitions for active and healthy communities.
- 4.7 The overarching transport / connectivity development ambitions for Wolverhill are presented in **Figure 4-2**. They align with national ambitions to reduce the need to travel and offering a choice of travel mode. It is expected that developers will deliver the ambitions as a minimum, with opportunities to enhance the offering through well considered design, welcomed.

Figure 4-2. Wolvershill Transport / Connectivity Development Ambitions



4.8 For the Wolvershill development, there are three options for Wolvershill Road. These options, along with their pros and cons are set out in Table 4-2.

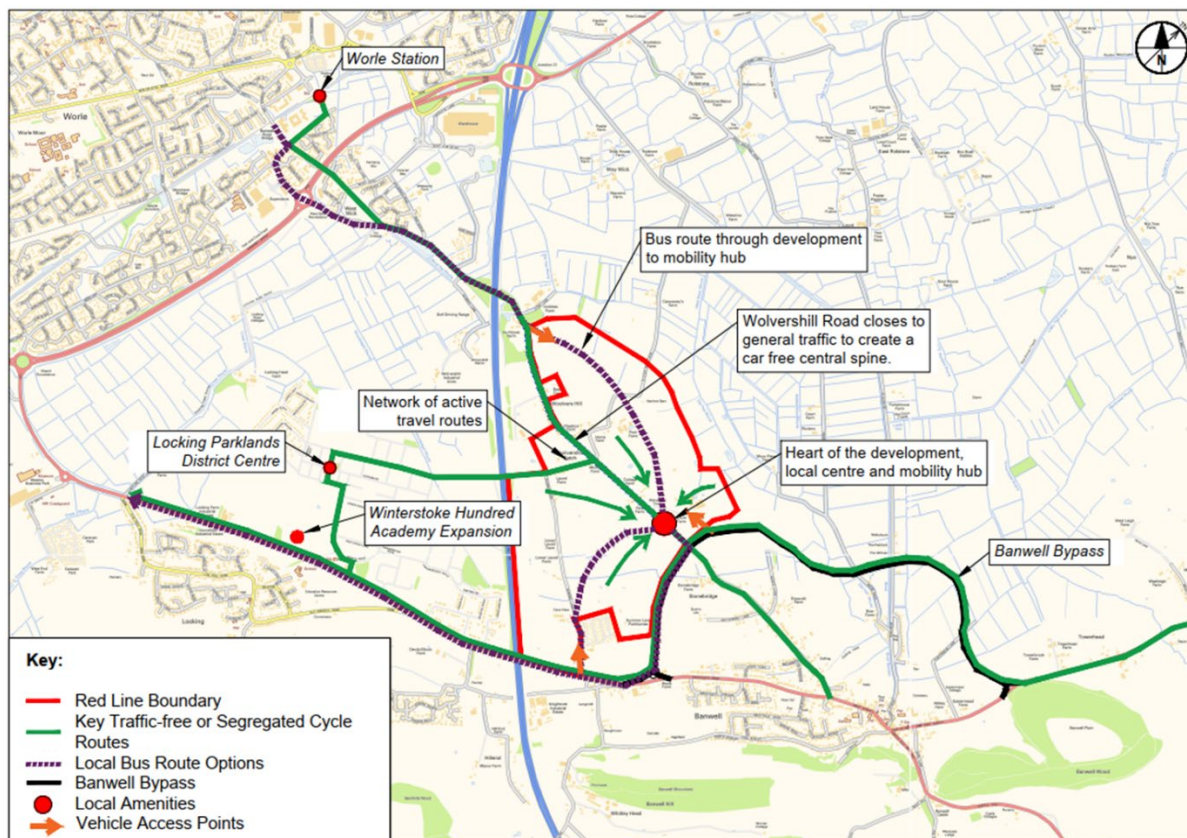
Table 4-2: Access and Movement Options – Wolverhill

Option	Pros	Cons
<p>1. Retain Wolverhill Road in current form and use as vehicle access</p>	<ul style="list-style-type: none"> Existing centrally located spine road to serve development access 	<ul style="list-style-type: none"> Increased vehicular traffic on Wolverhill Road, leading to potential congestion issues once development is in place. Access strategy prioritises vehicles – does not contribute to Mode Shift. Limits Active Travel access over M5 towards Worle, due to limited bridge width. Hinders bus provision. Compromises delivery of High-Quality Local Centre
<p>2. Close Wolverhill Road to vehicles, except for buses. No through traffic - “Open for People”</p>	<ul style="list-style-type: none"> Significantly reduces vehicle traffic on Wolverhill Road, for a safer, virtually vehicle-free environment. Fully enables active travel over M5. Prioritises the use of sustainable modes (inc PT) to move to/from and through the development. Fully aligned with Vision and Objectives, and Climate Emergency declaration 	<ul style="list-style-type: none"> Potential to increase traffic on surrounding roads / lanes, and some local trips may increase in distance (see next slides) Additional access junction required
<p>3. Closes Wolverhill Road to still allow for through-traffic, however via a less attractive route - “compromise” option.</p>	<ul style="list-style-type: none"> Retains access but encourages a reduction in vehicle through-movements due to the diversion. Improves quality of central environment for sustainable modes. 	<ul style="list-style-type: none"> Less assurance on traffic reduction or mode shift. Traffic on less appropriate routes Does not prioritise active travel and PT over car use to the same extent as Option 2. Highest level of new infrastructure needed

4.9 . From the initial assessment of options set out in Table 4-2, Option 2 appears to be the option most likely to achieve the ambition of creating a low carbon community. However, the Local Plan Policy (LP1) does not prescribe the detail of the access strategy as this will be developed through further detailed master planning and established through a Supplementary Planning Document This will form part of a thorough and in-depth masterplanning exercise and be fully consulted upon, in order to determine the optimal approach. In the event that North-South through traffic is allowed through the development, whether along Wolverhill Road or an alternative route, the principles of the Framework Masterplan and Policy LP1 of the Local Plan 2039 will need to be adhered to. This will include ensuring a reliable bus route through the development and at its access junctions, and high-quality active travel links within the site and with the surrounding area, including to nearby Parklands, and Worle.

- 4.10 The output of the Framework masterplan is a movement and access plan (**Figure 4-3**) demonstrating how Wolvershill would apply the transport / connectivity development ambitions in **Figure 4-2**.

Figure 4-3. Wolvershill Access and Movement Framework



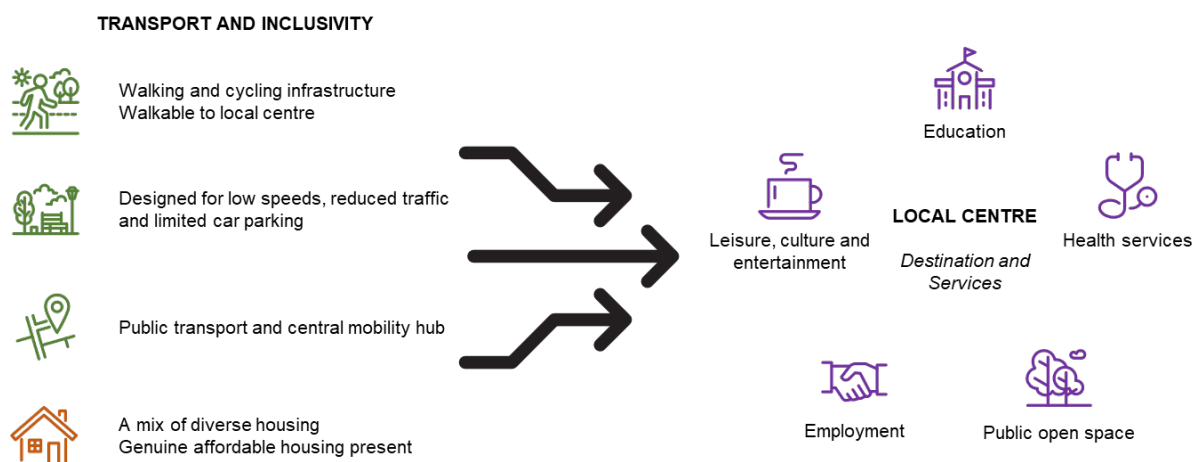
Walking & Cycling (active travel)

- 4.11 A network of active travel routes is proposed throughout the development, connecting Wolvershill with existing communities and key facilities such as the rail station at Worle, Banwell village and the various community facilities at Locking Parklands such as the district centre and the Winterstoke Hundred Academy.
- 4.12 To demonstrate that active modes of travel have the most priority at Wolvershill and reflecting the weight the Council has placed on sustainable and active travel to achieve net zero targets and wider policy goals, five traffic-free or segregated cycle route options are proposed, compared to only two general traffic access points. Although as plans evolve it may be possible to allow some vehicle access from the north, this would only be permitted if high-quality LTN1/20 compliant active travel links, along with reliable bus routes, can continue to be delivered.
- 4.13 Active travel routes are therefore more prevalent, and along key desire lines, making journeys on foot, by bike or other wheeling, quicker and easier than comparative journeys by car. Active travel will also be supported by mobility hubs which will provide multi-modal integration.
- 4.14 The Wolvershill development is expected to be delivered around the concept of a 'Liveable Neighbourhood'. This concept will deliver amenities and travel options to allow people to thrive and attend to their daily needs without the need for a car, improving quality of life for everyone through the idea of a 10-minute walk there, 10-minute walk back. It is a way of configuring places to deliver "complete, compact and connected neighbourhoods" leading to "healthier communities, cleaner air, stronger local economies and better resilience against climate change"⁴.

⁴https://tcpa.org.uk/wp-content/uploads/2021/11/final_20mnguide-compressed.pdf

- 4.15 The key principles and requirements for the Wolvershill Liveable Neighbourhood are set out in Figure 4-4.

Figure 4-4. 'Liveable Neighbourhood' Key Principles and Requirements



- 4.16 Active travel routes must be designed in line with relevant policy and best practice guidance including but not limited to:
- LTN1/20 Cycle Infrastructure Design⁵: This provides guidance and good practice for the design of cycle infrastructure, ensuring the delivery of good quality cycle networks and cycle facilities.
 - CIHT Planning for Walking⁶ and Designing for Walking⁷: These documents highlight considerations requirement for ensuring inclusive, safe and effective design for pedestrians and 'wheelers'.
 - Inclusive Mobility: A guide to best practice on Access to Pedestrian and Transport Infrastructure⁸: this a guide to best practice on access to pedestrian and transport infrastructure, ensuring inclusivity for all.

Public transport

- 4.17 The Wolvershill development must be linked by public transport to Weston town centre, Bristol and Worle Station. The framework masterplan does not state whether these would be new services or extensions to existing services for example creating circular service on route 7 which currently operates between Worle terminus and Locking via Weston-Super-Mare. The NSC Integrated Transport Unit identifies that an extension of the route 7 service is likely, along with a new route to Bristol along the A38. Development must support delivery of these services to ensure that they are an attractive alternative to the private car. Dedicated public transport priority through Wolvershill development is proposed as part of the masterplan. This would provide journey time advantage and enhance the image and status of the bus as reliable and efficient mode of transport comparable with the car.
- 4.18 Within Wolvershill, mobility hubs will be important components in providing multi-modal integrating and enhanced connectivity. The Wolvershill mobility hub should be centrally located and be well landscaped to be in-keeping with its surroundings. Key features (as set out in **Section 3.31**) should be provided as minimum level of service, and it should be designed with scope for accommodating emerging and innovative future technologies, such as autonomous vehicles, delivery drones and robots, as well as collaborative and cooperative transport solutions such as freight pooling.

⁵ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/951074/cycle-infrastructure-design-ltn-1-20.pdf

⁶ https://www.ciht.org.uk/media/4465/planning_for_walking_-_long_-_april_2015.pdf

⁷ https://www.ciht.org.uk/media/4460/ciht_-_designing_for_walking_document_v2_singles.pdf

⁸ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1044542/inclusive-mobility-a-guide-to-best-practice-on-access-to-pedestrian-and-transport-infrastructure.pdf

- 4.19 Providing bus connectivity between Wolvershill and Worle rail station would providing on access to rail services on the Bristol to Taunton line. Timetables would however need to be co-ordinated reduce interchange penalties (i.e., waiting times) and maximise patronage. Providing bus connectivity between Wolvershill and Locking Parklands would provide an alternative, no car-based option for travel between the two communities, ensuring each can benefit from the range of amenities and facilities provided.
- 4.20 As part of the West of England Bus Service Improvement Plan (BSIP) the frequency on the X1 service between Bristol and Weston-Super-Mare has been increased by 33% from three to four bus services per hour. Further service enhancements such as increasing service frequency, duration of service, integrated / smart ticketing and fare reductions are being pursued as part of the BSIP.
- 4.21 The infrastructure led improvements as part of the BSIP that would benefit future residents of Wolvershill include; bus priority measures along on the A38 and A370 corridors, for example at Lime Kiln Roundabout and Backwell crossroads. Measures include the reallocation of road space to create dedicated bus lanes and new traffic signals which will improve service reliability and increase the attractiveness of bus services in comparison to the car.
- 4.22 The delivery of a comprehensive and effective travel plan is considered crucial to effectively delivering and using a mobility hub. Travel Plans should be delivered in line with North Somerset's Travel Plan SPD⁹.

Highways / Vehicles

- 4.23 As noted in the active mode section, only two vehicle access points to / from Wolvershill are proposed, both from the Banwell Bypass. This, alongside the proposal to create a car-free central spine along Wolvershill Road, will establish the principle that active modes and public transport users have greater priority than car drivers. This is a strategic change that would mean it is not possible to drive a vehicle, other than buses, through the whole development in a north-south direction, leading to an improved quality of the development.
- 4.24 It is anticipated that modal filters will be used to achieve this, improving permeability for and the attractiveness of active travel as a mode choice over private car use for short, day to day trips for future residents and existing residents of the local area, to allow placemaking to prioritise walking and cycling over car usage.
- 4.25 Wolvershill will be designed for low traffic speeds and include a self-enforcing design, for example, narrow road widths, priority build outs, tighter junction geometry and corner radii, as well as street furniture and parking.
- 4.26 Supporting physical infrastructure measures, policy interventions will be required to create a low-car development. In line with the requirements set out in North Somerset's Parking Standards Supplementary Planning Document (SPD), low-car development will be supported in highly sustainable locations that are demonstrated to be well served by public and active travel modes and advertised as low-car developments from the outset¹⁰. Car parking will be expected to be adequate to ensure a safe environment, with a site-specific approach anticipated focussing on balancing parking restraint, peripheral locations, and sustainable opportunities, with an aim to actively discourage car ownership across the development.
- 4.27 Car parking should be well integrated but ensure it does not dominate the streetscape. It is expected that a package of demand management measures be implemented across the development such as car parking management to discourage unnecessary car use.
- 4.28 To discourage high car ownership, as is presently seen in the local area, electric car club spaces and vehicles should be provided alongside a comprehensive suite of sustainable travel provisions, including Travel Planning. This should be an affordable and preferential

⁹ <https://www.n-somerset.gov.uk/sites/default/files/2020-03/Travel%20plans%20supplementary%20planning%20document.pdf>

¹⁰ [Parking Standards Supplementary Planning Document \(n-somerset.gov.uk\)](#)

option to high car ownership across residents, with an average reduction in 20 private cars per car club vehicle seen across the UK¹¹.

Pre-submission Draft Local Plan Policy LP1

The development will create a new **low carbon community with high quality placemaking and a clear sense of identity**. It will be **designed to ensure that walking, cycling and public transport are the most convenient and attractive ways to move around the development and access services and facilities**. The development will incorporate high quality green spaces both within the built-up area and **linking it to the surrounding countryside**.

4.29 The development needs to demonstrate the following principles in relation to transport, connectivity and mobility;

Integration between Banwell village and the new community

Provision of a package of transport measures including provision of a mobility hub at the local centre, delivery of key access junctions onto the Banwell Bypass and wider network, and transport schemes connecting the development to Weston-super-Mare, Parklands and Worle

Attractive, easily accessible, safe and direct walking and cycling routes linking the new development with local facilities, within Banwell, and into Weston-super-Mare, Parklands, and Worle, including three m5 crossing points

Reliant and effectively integrated with the design and delivery of Banwell Bypass

Low traffic Liveable neighbourhoods to ensure convenient and safe walking and cycling access to the local centre and key facilities

Create distinct character areas demonstrating best practice in placemaking and high quality design solutions for access points into the site, the local centre, business sites, and the immediate vicinity of education buildings

The creation of any new access arrangements should not have an adverse severe impact on communities elsewhere, such as Banwell and areas to the west of the M5

Create effective public transport links into Weston-super-Mare, Parklands, and Worle, employment areas and other destinations including rail stations, transport hubs, including designed bus corridors and improving accessibility for existing Banwell residents

Create safe, attractive, direct walking, wheeling (wheelchairs, mobility scooters and other wheel-based mobility aids), cycling and public transport links to existing facilities at Parklands and Worle. Likely to require alterations to the future role and function of Wolverhill Road.

¹¹ www.como.org.uk/shared-cars/overview-and-benefits#car-club-survey

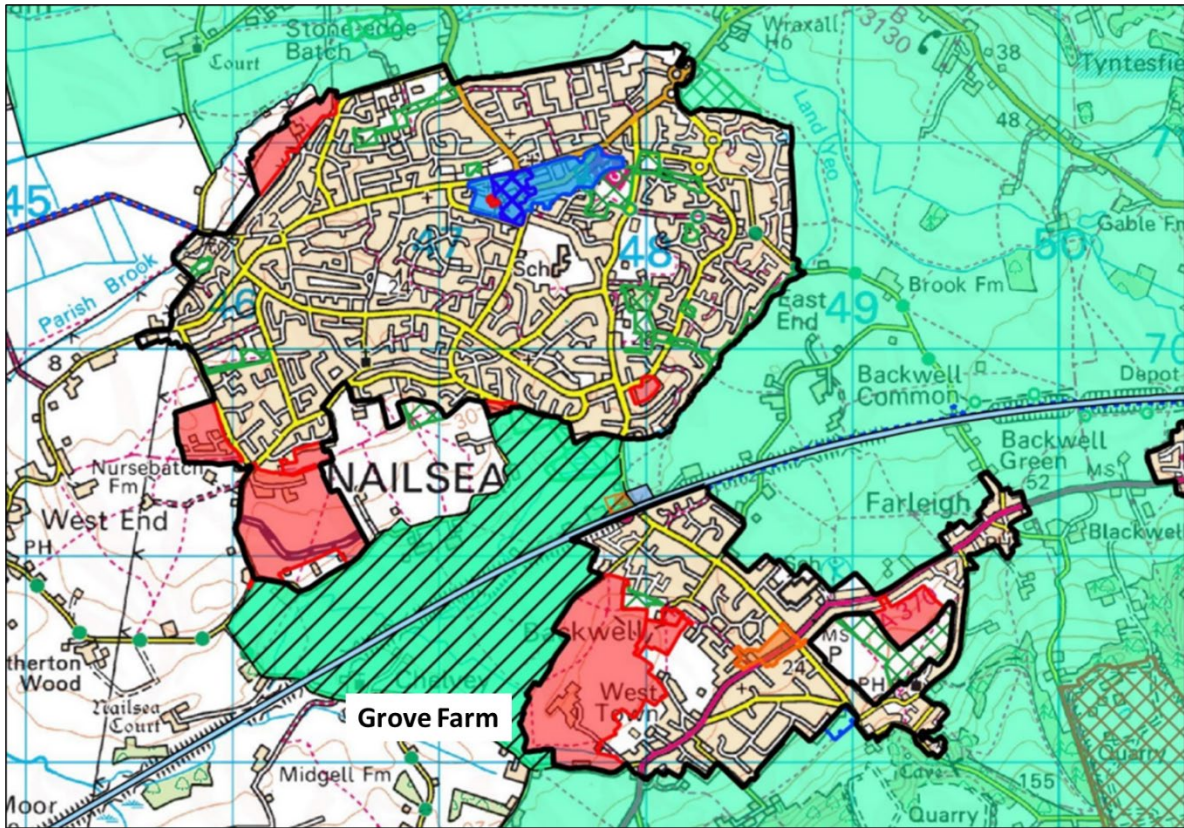
- 4.30 Policy LP1 does not prescribe the detail of the access strategy at plan-making stage. It is intended that the details of the access strategy will be worked up through the production of a subsequent Supplementary Planning Document (SPD). This will form part of a thorough and in-depth master planning exercise and be fully consulted upon to determine the optimal approach. In addition, the Pre-submission Plan requires the following plans to be produced to create a sustainable community at Wolverhill;
- Delivery plan;
 - Supporting design codes; and
 - Phasing strategy linking development parcels to infrastructure provision.
- 4.31 If north-south through traffic is allowed through the development, whether along Wolverhill Road or an alternative route, the principles of the Framework Masterplan and Policy LP1 of the Local Plan 2039 will need to be adhered to. This will include ensuring a reliable bus route through the development and at its access junctions, and high-quality active travel links within the site and with the surrounding area, including to nearby Parklands, and Worle.

Nailsea & Backwell

Introduction and Background

- 4.32 The Stage 4 / 5 TA presented several opportunity areas covering Nailsea and Backwell.
- 4.33 As part of the Stage 4 / 5 TA, it was identified that the combined impact of allocations in the Nailsea & Backwell growth area on Backwell crossroads would have been severe. Therefore, strategic infrastructure options were investigated to bypass Backwell Crossroads, including a potential new rail crossing.
- 4.34 Highway capacity modelling and discussions with a wide range of stakeholders were undertaken to aid discussions and decision making surrounding the potential provision of a rail crossing at Nailsea & Backwell. The route would have provided a useable route for double decker buses, reducing traffic impacts on Station Road, and improving walking and cycling within Backwell by removing through traffic. However, this would be a major investment which would require external funding of which there is no certainty. It would also have had notable environmental, visual and heritage impacts, with technical and stakeholder delivery challenges. Alongside this, it would have required land in the Green Belt. Whilst it may be possible to deliver such a link in Green Belt, and potentially to deliver it without development of housing in Green Belt, there would have been significant challenges associated with such an approach.
- 4.35 Following the Preferred Options (Regulation 18) consultation process, a decision was made to not release land from the Green Belt at Nailsea & Backwell. Furthermore, given the challenges with delivering strategic infrastructure, a decision was taken to propose a level of housing appropriate to the existing infrastructure constraints.
- 4.36 Full details on the reasoning for this decision are given in the Nailsea and Backwell Transport Position Statement (October 2023), which is included at Appendix C.
- 4.37 The boundary for the development site at Grove Farm, Backwell, is shown below on **Figure 4-5**.

Figure 4-5: Nailsea and Backwell Site Allocations



(Source: North Somerset Council, Pre-submission Local Plan Policies Map)

Issues and Opportunities for Transport Network

4.38 The high-level transport network issues and opportunities for the Nailsea and Backwell Opportunity Area is summarised in **Table 4-3**.

Table 4-3: Issues and Opportunities – Nailsea and Backwell

Issues	Opportunities
<ul style="list-style-type: none"> • Backwell Crossroads is a heavily congested, physically constrained junction. • Presence of railway line causes severance between Nailsea and Backwell, and currently has a limited number of vehicular and Active Travel crossing points. • Poor walking facilities on Station Road. • Station Road Rail Bridge can cause congestion due to one-way working and is a constraint on the bus network as height restrictions preclude double-decker buses. • Bus services on A370 very well used and operating close to capacity 	<ul style="list-style-type: none"> • A370 public transport corridor. • Rail Station provides access to train services to Bristol, Weston-Super-Mare, and further afield. • Potential to improve Active Travel connections to Festival Way cycle route, providing access into Bristol. • Improvement of accessibility to bus services operating between Nailsea and Backwell. • Walking improvements planned for Station Road, Clevedon Road and the B3130 as part of LCWIP (Routes W18 & W19). • Cycling improvements planned for Station Road, Festival Way and the B3130 as part of LCWIP (Routes C13 & C14). • Potential to improve facilities at Nailsea and Backwell Railway Station, particularly catered towards Active Travel users. • Bridleway upgrades between Nailsea and Clevedon as part of the mitigation package for the Youngwood Lane development • BSIP funding for bus priority measures and service enhancements. • A strategic review of bus services for network as a whole

BSIP Backwell Crossroads

- 4.39 BSIP is a committed programme of infrastructure investment designed to deliver bus journey time and journey time reliability benefits across North Somerset. It will improve passenger experience and the commercial viability of services, with the aim of increasing bus patronage and achieving mode shift away from private car trips. It is a programme of interventions across North Somerset, with multiple investments along public transport corridors. For instance, the X1 service on the A370 will benefit from a wide package of measures at different locations along the route, and therefore measures should not be seen in isolation.
- 4.40 BSIP has funding secured and is programmed to be fully delivered between September 2022 and March 2025. BSIP includes planned works to Backwell Crossroads which comprises an eastbound bus lane on the A370 and the closure of Dark Lane for outbound traffic. This will improve the operation of the junction overall through reducing the number of traffic signal stages and will introduce additional bus priority.

Active Travel

- 4.41 The following active travel improvements were included in the Stage 4 / 5 Transport Assessment;
- Improvements to active travel routes within and between Nailsea and Backwell, including access to the railway station, use of Youngwood Lane as a north-south connection, and LCWIP schemes.
 - Management of country lanes to encourage walking, cycling and horse riding, facilitating travel between existing towns and education establishments.
 - High quality extension of Festival Way active travel route along an east-west alignment between Chapel Hill and Chelvey Road, to serve new development in Backwell and better connect rural lanes to the west of Backwell with the off-road alignment along the railway towards Flax Bourton, without use of the A370 or significant diversion from desire lines.

- 4.42 Within the Pre-submission plan the following active travel infrastructure is proposed in Schedule 7, as part of Policy DP16, which would benefit the Grove Farm allocation and reduce the need to travel by car.
- Clevedon to Nailsea via the Moors. Strategic cycle link between Nailsea and Clevedon.
 - Festival Way Strategic cycle route - Long Ashton/Flax Bourton/Backwell.
- 4.43 LCWIP¹² improvements are being proposed in the Nailsea and Backwell area that would benefit the site allocation. Of particular benefit to the Grove Farm allocations would be the proposed green and active neighbourhood proposals between West Town Road and Station Road and south of the rail station and the proposals along Station Road, Bucklands Batch, Nailsea Park corridor.
- 4.44 The following schemes are identified in North Somerset's Integrated Transport Scheme Pipeline and could improve active travel infrastructure thereby benefitting the allocation at Grove Farm and satisfying policy requirements. All of the below are either subject to public consultation or have already been consulted on;
- Reducing pedestrian wait times at signal-controlled crossings across North Somerset
 - Festival Way: Crossings package
 - School Streets Phase 1: West Leigh Infants
 - Nailsea & Backwell Railway station: Access for all wayfinding and signage improvements
 - Liveable Neighbourhoods and Modal Gateway: Active Backwell (concept only at present)
 - B3310 Clevedon Road: Road safety and pedestrian crossing improvements
 - Queens Road, Nailsea: Reduce speeds to 30mph along whole length of Queens Road and improve priority at crossings (concept only at present).

Public Transport

- 4.45 The following public travel improvements were included in the Stage 4 / 5 Transport Assessment;
- Improvements to bus priority, service frequency, and interchange infrastructure on the A370 High Frequency Bus Corridor.
 - Improved public transport connections between Nailsea and the A370, enabling interchange.
- 4.46 Access improvements for Nailsea and Backwell Station, and increased provision for cycle parking, bus interchange, and car parking.
- 4.47 Within the Pre-submission plan the following public transport schemes are proposed in Schedule 7, as part of Policy LP8, which would benefit the Grove Farm allocation and reduce the need to travel by car.
- Extension of the railway station platform at Nailsea and Backwell
 - Creation of a transport hub at Nailsea and Backwell rail station.
- 4.48 Additional public transport improvements funded through the WECA BSIP¹³ would also benefit existing and potential public transport users along the A370 corridor.
- 4.49 The BSIP proposes to make Dark Lane an exit only arm and add a bus lane onto the A370 eastern arm at Backwell crossroads. This provides additional traffic capacity through reducing

¹² [Local cycling and walking infrastructure plan - West of England Combined Authority \(westofengland-ca.gov.uk\)](https://www.westofengland-ca.gov.uk)

¹³ [Bus Service Improvement Plan - West of England Combined Authority \(westofengland-ca.gov.uk\)](https://www.westofengland-ca.gov.uk)

the number of traffic stages, enabling that capacity to be given to through movements on the A370, and provides additional bus priority in the westbound direction. This is a committed scheme.

Masterplanning

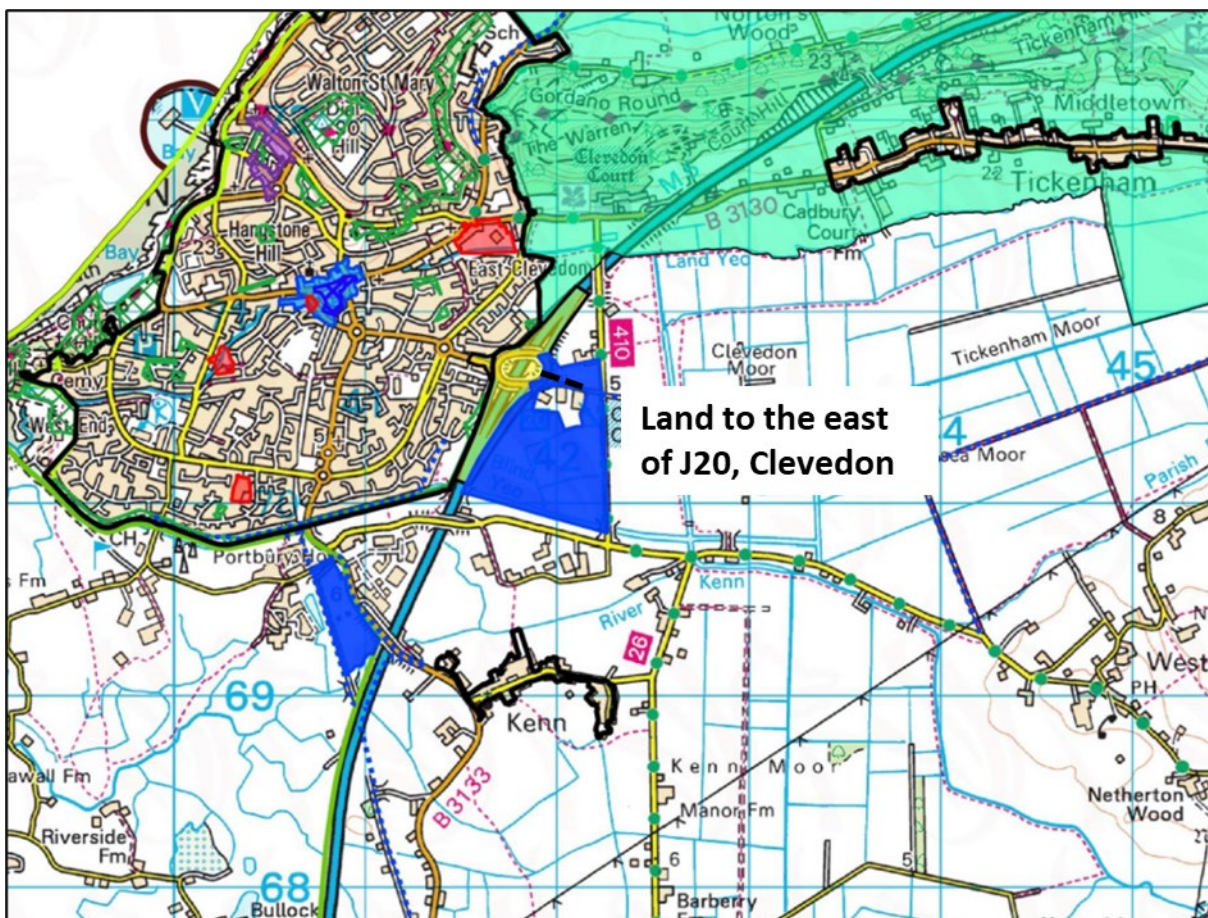
- 4.50 The measures set out above are not exhaustive, with transport modelling showing that a comprehensive sustainable transport improvement will be needed to achieve the desired mode shift away from vehicle use. This will include high quality vision led masterplanning and travel planning for development.
- 4.51 Access proposals for Grove Farm must favour sustainable travel modes. The main vehicular access will be from the A370 to the southwest of the site. An additional pedestrian, cycle, and bus only access, available to emergency vehicles, will connect the site with Station Road via Longthorn and Moor Lane. This would have the benefit of making sustainable transport connections with the rest of the village, and the rail station, more attractive than private car use. It provides greater flexibility in bus route operation in the future.

Employment Land East of J20, Clevedon

Introduction and Background

- 4.52 A new employment allocation is proposed on land to the east of M5 Junction 20 at Clevedon, comprising 25ha for distribution, logistics and warehousing to meet medium and longer term space requirements. The boundary for the allocation is shown below on **Figure 4-6**.

Figure 4-6: Land to the east of Junction 20, Clevedon



(Source: North Somerset Council, Pre-submission Local Plan Policies Map)

- 4.53 Policy SP9: Employment and Schedule 2 of the Pre-Submission Local Plan notes that the allocation area is larger than 25ha, reflecting the requirement to connect to Junction 20 and other associated works. It also acknowledges that active travel links will also be required. This is reiterated in Schedule 7 (Transport Infrastructure Schemes), under proposed major transport schemes, with the note that detailed alignments are to be confirmed.

Issues and Opportunities for Transport Network

- 4.54 The following high-level transport network issues and opportunities is summarised in Table 4-4.

Table 4-4: Issues and Opportunities – J20 Clevedon

Issues	Opportunities
<ul style="list-style-type: none"> Major highway infrastructure required to unlock development site, requiring close liaison with National Highways. Potential impact on operation of J20 with the addition of new arm required to unlock the development site. Attractive access by active travel and public transport will be needed to counter-act ease of car access. Rural lanes around the site are part of the National Cycle Network and are well used by cyclists. Increases in traffic on these routes would reduce the amenity for cycling 	<ul style="list-style-type: none"> Improved active travel connectivity towards Nailsea via PRoW. Improved active travel connectivity into Clevedon, potentially through creating a wider active travel network via a new pedestrian / cycle bridge over the M5, between south of the site and Hazell Close Opportunities to improve connectivity to public transport network as part of development and wider strategic review of bus services. Increased levels of service provision on the X6 and X7 between Clevedon and Bristol in morning and evenings to serve employment and reduce need to travel by car. Connectivity to Yatton rail station via on-road NCN or by bus Improved active travel connections to / from Tickenham Road to J20. Proximity to J20 may result in limited wider traffic impact.

Active Travel

- 4.55 There were no active travel improvements proposed in the Stage 4 / 5 Transport Assessment.
- 4.56 There are no LCWIP improvements in the immediate area which would increase accessibility by non-car modes of transport.
- 4.57 There are no active travel improvements proposed in North Somerset Council's Integrated Scheme pipeline that would benefit the allocation.
- 4.58 Schedule 7 of the Pre-Submission Plan includes the following schemes, which have the potential to improve accessibility to the site by active modes of transport and potentially reduce the traffic impact of the proposed allocation on the local and strategic highway networks;
- Strawberry Line Extension: Clevedon / Kenn / Yatton;
 - Lower Strode Road to Hazel Close: Path to connect Strawberry Line to Clevedon; and
 - Clevedon to Nailsea via the Moors. Strategic cycle link between Nailsea and Clevedon.
- 4.59 Active travel connections will be required to link the site with nearby population centres such as Clevedon, to ensure employees benefit from opportunities to travel by active modes. An active travel bridge over the M5 is being investigated to provide a direct and attractive route to Clevedon.

- 4.60 It is key that the additional arm to the east of the M5 Junction 20 does not open up additional vehicle routes to the M5 via Court Lane, Manmoor Lane, Davis Lane, Kenmoor Road and Nailsea Wall. These routes are very well used by cyclists and are part of the National Cycle Route. Increases in traffic through a shorter route to the motorway would be a significant concern, and permitted or banned traffic movements both into the site and to the motorway would need to address this to ensure active travel routes are not negatively impacted. The impact of additional traffic to and from the development itself will need to be assessed.

Public Transport

- 4.61 There were no public transport improvements proposed in the Stage 4 / 5 Transport Assessment.
- 4.62 As previously mentioned there have already been service improvements (Table 3-6) to the X6 and X7 routes, between Clevedon and Bristol, that have introduced additional morning and evening services. These routes currently run to the north of the proposed employment site on Tickenham Road, providing an opportunity to extend these routes into the site to enhance public transport access. The feasibility and viability of public transport access to the site will need to be demonstrated through the application process for the proposed site.
- 4.63 The following BSIP Package 2 infrastructure schemes (as listed in Table 3-5) have been identified as having the potential to improve public transport in the vicinity of the allocation;
- B3133 Southern Way / Central Way: Bus priority at roundabout for Eastbound and westbound movements;
 - Ettlingen Way Roundabout: Bus priority at roundabout for eastbound and westbound movements; and
 - Tickenham Road / Northern Way: larger roundabout with eastbound and westbound bus priority.
- 4.64 Schedule 7 of the Pre-Submission Plan includes the following schemes, which have the potential to improve the allocation's connectivity to the public transport network;
- Extension and re-opening of railway station platforms at Yatton railway station; and
 - Transport hub at Yatton railway station: accessible via the NCN.

Vehicle Access

- 4.65 As stated, vehicle access will be via a new eastern arm of the M5 Junction 20. Engagement is underway with National Highways and the site promoter to ensure that the right level of evidence is in place for the Examination. This includes demonstrating the acceptability and deliverability of the scheme. The site promoter is undertaking design, modelling, and costing to satisfy the evidence requirements. This will be available for the Examination.

5. Next Steps

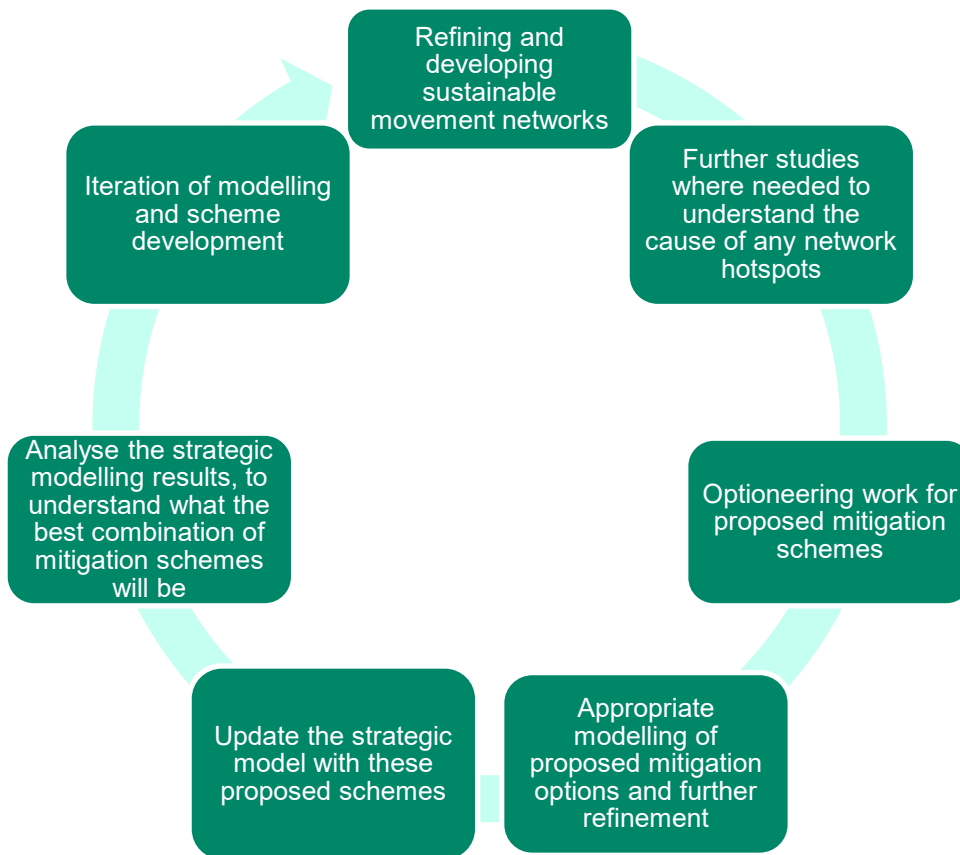
Modelling

- 5.1 Following the Preferred Options (Regulation 18) consultation, and subsequent release of the proposed site allocations for Regulation 19, an update to the strategic modelling is underway. This builds on the strategic model developed to inform the Preferred Options plan and updates the future year of the model to 2039 from 2038, to reflect the revised Plan period.
- 5.2 The Interim TA will be updated to incorporate the modelling exercise in Spring 2024. There are likely to be updates to the sustainable transport strategy as projects within the strategy are progressed, and potential updates to the mitigation summary to incorporate the modelling outcomes. The modelling will be summarised in the TA, with a technical report also submitted to provide full detail.
- 5.3 Modelling parameters are being discussed with National Highways (NH), setting out the technical specifications of the Do Something modelling scenario in terms of network loading points for each development, trip rates and associated trip reductions as a result of sustainable transport schemes. This latter point is key to ensuring that the modelling is in line with the Vision-Led approach, i.e., “Decide and Provide”, advocated both by North Somerset and paragraph 15 of the Circular 01/22. This will be published prior to submission of the Local Plan for Examination.
- 5.4 The strategic model will test 3 scenarios:
- **Do Minimum (DM):** this includes any site allocations that have been carried forward from the previous Local Plan, as well as for the delivery committed and windfall developments. These developments, whilst part of the total development required to be delivered during the plan period, would occur in the absence of the Plan itself. A series of committed transport schemes are included within the DM scenario including the M5 J21 merge scheme, Banwell bypass, N-S link road at Locking Parkland, Bus Service Improvement Plan (BSIP) schemes, and the A38 junction improvement schemes (MRN);
 - **Do Something (DS) without Mitigation:** this includes new site allocations to deliver the growth required to meet Local Plan targets. Trip rates for development sites will account for the location of the site and internalisation due to co-location of land uses as established by allocation policies, notably employment and education. This scenario will not include additional mitigation measures.
 - **Do Something (DS) with Mitigation:** this includes new site allocations to deliver the growth required to meet Local Plan targets. This scenario includes mitigation measures identified to help facilitate this growth, most notably a suite of sustainable transport mitigation measures.
- 5.5 A sustainable transport focussed mitigation approach is being taken for the Local Plan, with the aim of enabling mode shift. Three types of mitigation are being considered and applied through the modelling process:
- **Blanket Reductions:** A 10% blanket reduction is proposed in reference to each development, for trips within the modelled network under six miles (to exclude the reduction from motorway trips as requested by National Highways). Each development would need to consider how best to achieve this on a site-specific basis, but would include master planning, low traffic neighbourhoods, travel planning, reduced parking levels, car clubs etc. This introduces a strong policy hook for all development to demonstrate additional sustainable transport credentials; and
 - **Public Transport:** the benefits of public transport schemes / mitigation measures are captured through the modelling process as it can account for car – public transport mode shift.

- **Other:** the modelling process will account for other mitigation through evidenced parameters such as the use of the Propensity to Cycle online tool to quantify a mode shift to active travel modes.

- 5.6 A package of sustainable transport focussed mitigation measures are being developed and included within the DS modelling scenario.
- 5.7 The iterative approach to Stage 7 transport works is summarised in Figure 5-1. Development of the mitigation scheme options will involve decision-makers and wider stakeholders, as there are choices about the most appropriate way to manage the network. Mitigations will be developed in the context of the Council’s declarations of Climate and Nature emergencies. In developing the mitigations priority will be given to public transport, cycling, walking / wheeling, and measures to reduce the demand for travel and overall carbon emissions.
- 5.8 Following refinement, a final modelling run will be undertaken, and the results presented within the Stage 7 Transport Assessment.

Figure 5-1: Stage 7 Modelling and Mitigation Process



Appendix A Policy Review

Transport Decarbonisation Plan 2021¹⁴

The Government's Transport Decarbonisation Plan discusses the need to reduce carbon emissions through placemaking. It states that *"We will embed transport decarbonisation principles in spatial planning -- The government wants walking, cycling or public transport to be the natural first choice for journeys. Where developments are located, how they are designed and how well public transport services are integrated has a huge impact on whether people's natural first choice for short journeys is on foot or by cycle, by public transport or by private car. The planning system has an important role to play in encouraging development that promotes a shift towards sustainable transport networks and the achievement of net zero transport systems. Traffic issues have often caused opposition to housebuilding. There is a legacy of developments that give people few alternatives to driving, are difficult to serve efficiently by public transport and are laid out in ways which discourage walking and cycling. Developments which are planned to minimise car use, promote sustainable transport choices, and are properly connected to existing public transport could help make new building more publicly acceptable... Developments often do little or nothing meaningful to enable cycling and walking, or to be properly and efficiently accessible by public transport. Sometimes they make cycling and walking provision worse. We can and must do better"*.

Traffic Management Act 2004, April 2022 guidance¹⁵

This specifically set outs that *"Local authorities should continue to make significant changes to their road layouts to give more space to cyclists and pedestrians and to maintain the changes they have already made"*.

Gear Change: A bold vision for cycling and walking 2020¹⁶

The Gear Change plan describes the national vision to make England a great walking and cycling nation, and actions required at all levels of government to facilitate this through four key themes:

- "Better streets for cycling and people;
- Cycling and walking at the heart of decision-making;
- Empowering and encouraging local authorities; and
- Enabling people to cycle and protecting them when they do."

The Second Cycling and Walking Investment Strategy¹⁷

This strategy follows the production of the first Cycling and Walking strategy in 2017, and the Gear Change plan in 2020 to boost walking and cycling in England. It sets out the objectives and financial resources for the strategy between April 2021 and March 2025.

The strategy reaffirms Government's ambition to *"boost overall levels of walking, wheeling and cycling across England while undertaking targeted investment to enable more walking, wheeling and cycling"*

¹⁴ Decarbonising Transport – A Better, Greener Britain (publishing.service.gov.uk)

¹⁵ Network management duty guidance: reallocating road space - GOV.UK (www.gov.uk)

¹⁶ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/904146/gear-change-a-bold-vision-for-cycling-and-walking.pdf

¹⁷ <https://www.gov.uk/government/publications/the-second-cycling-and-walking-investment-strategy/the-second-cycling-and-walking-investment-strategy-cwis2>

in our towns and cities” through specific measurable objectives including to “deliver a world-class cycling and walking network in England by 2040”.

Framework Document: Active Travel England 2022¹⁸

The Department for Transport have set out the role of Active Travel England as part of their relationship accountability to the Department for Transport and the UK Parliament. This states that *“Active Travel England will also begin to inspect, and publish reports on, highway authorities for their performance on active travel and identify particularly dangerous failings in their highways for cyclists and pedestrians. In these regards, the commissioner and inspectorate will perform a similar role to Ofsted from the 1990s onwards in raising standards and challenging failure.*

As well as approving and inspecting schemes, ATE will help local authorities, training staff and spreading good practice in design, implementation, and public engagement. It will be a statutory consultee on major planning applications to ensure that the largest new developments properly cater for pedestrians and cyclists”.

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The West of England BSIP covers the period up to 2030 and brings together evidence in order to set ambitions for patronage growth, boost investment in buses and improve socio-economic and environmental outcomes across the region. Targets set out in the Plan include performance indicators for:

- Bus journey times;
- Bus service punctuality;
- Number of passenger journeys;
- Customer satisfaction; and
- Bus fleet decarbonisation.

Bus Back Better 2021¹⁹

The Bus Back Better document is a national strategy that sets out the vision and opportunity to deliver better bus services for passengers across England. Key extracts are set out below. It states that *“Buses are vital to ensuring the economy meets Net Zero carbon emissions and driving the green transformation... substantial modal shift away from the car will soon be needed... The only mode capable of sufficient expansion in the time available is the bus.”*

It is their ambition to *“increase patronage and raise buses’ mode share. We can only do these things by ensuring that buses are an attractive alternative to the car for far more people”* and it is set out that *“Strong bus networks connect our communities, getting people to jobs and services, giving them opportunities, and boosting economic growth and inclusion”.*

The strategy states that *“There must be significant increases in bus priority. The key to making buses more attractive is making them faster and more reliable... We expect to see plans for bus lanes on any roads where there is a frequent bus service, congestion, and physical space to install one. They should be part of a whole corridor approach, including other physical measures such as: Traffic signal priority; and Bus gates, which allow buses to enter a road that prohibits access to other traffic”.*

Local Transport Plan new guidance *originally anticipated in 2022, now anticipate post-election: “in the department’s Transport Decarbonisation Plan (2021) we committed to driving decarbonisation at a local level by requiring LTAs to make quantifiable carbon*

¹⁸ New executive agency Active Travel England launches - GOV.UK (www.gov.uk)

¹⁹ Bus service improvement plans: guidance to local authorities and bus operators (publishing.service.gov.uk)

reductions (QCRs) a fundamental part of local transport planning. LTPs will need to set out how local areas will deliver ambitious QCRs in transport. We will publish technical guidance on QCRs alongside the new LTP guidance.”

Manual for Streets (2007)²⁰ and Manual for Streets 2 (2010)²¹

The importance of achieving well designed streets and spaces to service community was highlighted in Manual for Streets, with a key focus to shift away from places that are dominated by cars²². Manual for Streets is referenced as design guidance within the draft National Model Design Code. A further version of MfS, which will advance and consolidate MfS1&2, is due for publication later in 2022.

Building for Life 12 (2012)²³

This is a government-endorsed industry standard for designing high quality new neighbourhoods and homes. The standards include the following:

1. *“Connections: Does the scheme integrate into its surroundings by reinforcing existing connections and creating new ones, while also respecting existing buildings and land uses around the development site?”*
2. *Facilities and services: Does the development provide (or is it close to) community facilities, such as shops, schools, workplaces, parks, play areas, pubs, or cafes?”*
3. *Public transport: Does the scheme have good access to public transport to help reduce car dependency?”*
4. *Meeting local housing requirements: Does the development have a mix of housing types and tenures that suit local requirements?”*
5. *Character: Does the scheme create a place with a locally inspired or otherwise distinctive character?”*
6. *Working with the site and its context: Does the scheme take advantage of existing topography, landscape features (including water courses), wildlife habitats, existing buildings, site orientation and microclimates?”*
7. *Creating well defined streets and spaces: Are buildings designed and positioned with landscaping to define and enhance streets and spaces and are buildings designed to turn street corners well?”*
8. *Easy to find your way around: Is the scheme designed to make it easy to find your way around?”*
9. *Streets for all: Are streets designed in a way that encourage low vehicle speeds and allow them to function as social spaces?”*
10. *Car parking: Is resident and visitor parking sufficient and well-integrated so that it does not dominate the street?”*
11. *Public and private spaces: Will public and private spaces be clearly defined and designed to be attractive, well managed and safe?”*
12. *External storage and amenity space: Is there adequate external storage space for bins and recycling as well as vehicles and cycles?”*

Transport for New Homes²⁴

The Transport for New Homes project involves visiting a wide range of new homes of varying scales to consider public transport, walking, and cycling provisions and permeability, to develop a suite of

²⁰https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1072722/Essex_Manual_for_Streets_Redacted.pdf

²¹<https://tsrgd.co.uk/pdf/mfs/mfs2.pdf>

²²https://tcpa.org.uk/wp-content/uploads/2021/11/final_20mnguide-compressed.pdf

²³<http://builtforlifehomes.org/go/building-for-life-12>

²⁴<https://www.transportfornewhomes.org.uk/wp-content/uploads/2018/07/transport-for-new-homes-summary-web.pdf>

themes, learning points and what can be done to ensure best practice going forwards. The themes included:

- Theme 1 Car-based living;
- Theme 2 Homes not properly connected for pedestrians, cyclists, or buses;
- Theme 3 Public transport opportunities missed;
- Theme 4 The importance of mixed land use and integrated transport;
- Theme 5 The advantages of the new urban quarter; and
- Theme 6 Insights from the Netherlands.

Appendix B Wolverhill Framework Masterplan

Technical Note

Project	North Somerset Local Plan
Subject	Wolvershill Transport Framework Masterplan
Job No	60647102
Version	1.0
Prepared by	Lucy Cooper (Senior Consultant) - 03/08/2022
Checked by	Chris Carter (Regional Director) - 04/08/2022
Approved by	Chris Carter (Regional Director) - 04/08/2022

1. Introduction

This Framework Masterplan has been produced to guide evolving development plans at Wolvershill, allocated as a Strategic Growth Area in the North Somerset Local Plan 2038 (Policy LP1) at Regulation 18 stage. It is anticipated that this will remain an allocation within the Regulation 19 submission of the 2038 Local Plan.

A strategic priority for development across North Somerset is to **reduce the need to travel and car dependency**. This aligns with a number of key targets:

- North Somerset's commitment to net zero by 2030, reducing car journeys by 40%;
- Desire for attractive, safe and green places to live and work / quality of life; and
- Ambitions for active and healthy communities.

This framework masterplan will set out **how development at Wolvershill should seek to work towards achieving these targets**, and provide an outline of **what developers will need to deliver as part of proposed development at Wolvershill** to fit in with North Somerset's wider vision for the Local Plan.

2. National Policy and Guidance

This section provides an overview of relevant themes and extracts from national policy and guidance that sets out the requirements by Government for sustainable development. This demonstrates that the ambitions for the Wolvershill development align closely with overarching desires for development set at national level.

As part of any planning application, a full review will be required of relevant local, regional and national policy, to demonstrate compliance with their requirements.

National Planning Policy Framework (2021)¹

The NPPF outlines that **significant development should be focused on locations which are or can be made sustainable**, through limiting the need to travel and offering a genuine choice of transport modes. This means that proposed development sites should be located close to existing high frequency high quality public transport corridors/interchanges and sustainable transport facilities.

An overarching aim is to achieve **"inclusive and safe spaces** which promote social interaction through mixed-use developments, **strong neighbourhood centres** and street layouts that allow for **easy pedestrian and cycle connections** within and between neighbourhoods".

The nature of North Somerset as an area is that there are relatively few locations available for development which could be classified as highly sustainable, in comparison with more urban Local Authorities. Our Spatial Strategy seeks to **maximise the sustainability of development locations whilst balancing a variety of other constraints**. As an Authority, we need to work hard to ensure that we take the opportunities available to maximise the sustainability of the allocations.

¹ National Planning Policy Framework (publishing.service.gov.uk)

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Transport Decarbonisation Plan 2021²

The Government's Transport Decarbonisation Plan discusses the need to **reduce carbon emissions through placemaking**. It states that *"We will embed transport decarbonisation principles in spatial planning -- The government wants walking, cycling or public transport to be the natural first choice for journeys. Where developments are located, how they are designed and how well public transport services are integrated has a huge impact on whether people's natural first choice for short journeys is on foot or by cycle, by public transport or by private car. The planning system has an important role to play in encouraging development that promotes a shift towards sustainable transport networks and the achievement of net zero transport systems. Traffic issues have often caused opposition to housebuilding. There is a legacy of developments that give people few alternatives to driving, are difficult to serve efficiently by public transport and are laid out in ways which discourage walking and cycling. Developments which are planned to minimise car use, promote sustainable transport choices, and are properly connected to existing public transport could help make new building more publicly acceptable... Developments often do little or nothing meaningful to enable cycling and walking, or to be properly and efficiently accessible by public transport. Sometimes they make cycling and walking provision worse. We can and must do better"*.

Traffic Management Act 2004, April 2022 guidance³

This specifically set outs that *"Local authorities should continue to make significant changes to their road layouts to give more space to cyclists and pedestrians and to maintain the changes they have already made"*.

Gear Change: A bold vision for cycling and walking 2020⁴

The Gear Change plan describes the national vision to make England a great walking and cycling nation, and actions required at all levels of government to facilitate this through four key themes:

- "Better streets for cycling and people;
- Cycling and walking at the heart of decision-making;
- Empowering and encouraging local authorities; and
- Enabling people to cycle and protecting them when they do."

The Second Cycling and Walking Investment Strategy⁵

This strategy follows the production of the first Cycling and Walking strategy in 2017, and the Gear Change plan in 2020 to boost walking and cycling in England. It sets out the objectives and financial resources for the strategy between April 2021 and March 2025.

The strategy reaffirms Government's ambition to *"boost overall levels of walking, wheeling and cycling across England while undertaking targeted investment to enable more walking, wheeling and cycling in our towns and cities"* through specific measurable objectives including to *"deliver a world-class cycling and walking network in England by 2040"*.

Framework Document: Active Travel England 2022⁶

The Department for Transport have set out the role of Active Travel England as part of their relationship accountability to the Department for Transport and the UK Parliament. This states that *"Active Travel*

² Decarbonising Transport – A Better, Greener Britain (publishing.service.gov.uk)

³ Network management duty guidance: reallocating road space - GOV.UK (www.gov.uk)

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https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/904146/gear-change-a-bold-vision-for-cycling-and-walking.pdf

⁵ <https://www.gov.uk/government/publications/the-second-cycling-and-walking-investment-strategy/the-second-cycling-and-walking-investment-strategy-cwis2>

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Technical Note

England will also begin to inspect, and publish reports on, highway authorities for their performance on active travel and identify particularly dangerous failings in their highways for cyclists and pedestrians. In these regards, the commissioner and inspectorate will perform a similar role to Ofsted from the 1990s onwards in raising standards and challenging failure.

As well as approving and inspecting schemes, ATE will help local authorities, training staff and spreading good practice in design, implementation and public engagement. It will be a statutory consultee on major planning applications to ensure that the largest new developments properly cater for pedestrians and cyclists”

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- Bus journey times;
- Bus service punctuality;
- Number of passenger journeys;
- Customer satisfaction; and
- Bus fleet decarbonisation.

Following a recent funding bid, NSC have been successful in securing almost £60m (£48m capital, £10m revenue) to deliver BSIP schemes over the next three years, demonstrating a strong commitment to improving bus provision across the region.

Bus Back Better 2021⁷

The Bus Back Better document is a national strategy that sets out the vision and opportunity to deliver better bus services for passengers across England. Key extracts are set out below. It states that “*Buses are vital to ensuring the economy meets Net Zero carbon emissions and driving the green transformation... substantial modal shift away from the car will soon be needed... The only mode capable of sufficient expansion in the time available is the bus.*”

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The strategy states that “*There must be significant increases in bus priority. The key to making buses more attractive is making them faster and more reliable... We expect to see plans for bus lanes on any roads where there is a frequent bus service, congestion, and physical space to install one. They should be part of a whole corridor approach, including other physical measures such as: Traffic signal priority; and Bus gates, which allow buses to enter a road that prohibits access to other traffic*”.

Local Transport Plan new guidance anticipated in 2022: “in the department’s Transport Decarbonisation Plan (2021) we committed to driving decarbonisation at a local level by requiring LTAs to make quantifiable carbon reductions (QCRs) a fundamental part of local transport planning. LTPs will need to set out how local areas will deliver ambitious QCRs in transport. We will publish technical guidance on QCRs alongside the new LTP guidance.”

Manual for Streets (2007)⁸ and Manual for Streets 2 (2010)⁹

⁷ Bus service improvement plans: guidance to local authorities and bus operators (publishing.service.gov.uk)

⁸https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1072722/Essex_Manual_for_Streets_Redacted.pdf

⁹ <https://tsrgd.co.uk/pdf/mfs/mfs2.pdf>

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-
- Public transport: Does the scheme have **good access to public transport** to help reduce car dependency?
- Meeting local housing requirements: Does the development have a mix of housing types and tenures that suit local requirements?
- Character: Does the scheme **create a place** with a locally inspired or otherwise distinctive character?
- Working with the site and its context: Does the scheme take advantage of existing topography, landscape features (including water courses), wildlife habitats, existing buildings, site orientation and microclimates?
- Creating **well defined streets and spaces**: Are buildings designed and positioned with landscaping to define and enhance streets and spaces and are buildings designed to turn street corners well?
- Easy to find your way around: Is the scheme designed to make it **easy to find your way around**?
- Streets for all: Are streets designed in a way that **encourage low vehicle speeds** and allow them to function as social spaces?
- Car parking: Is **resident and visitor parking sufficient and well integrated so that it does not dominate the street**?
- Public and private spaces: Will public and private spaces be clearly defined and designed to be attractive, well managed and safe?
- External storage and amenity space: Is there **adequate external storage** space for bins and recycling as well as **vehicles and cycles**?”

Transport for New Homes¹²

The Transport for New Homes project involves visiting a wide range of new homes of varying scales to consider public transport, walking and cycling provisions and permeability, to develop a suite of themes, learning points and what can be done to ensure best practice going forwards. The themes included:

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Wolvershill Development Ambitions reflecting National Policy

¹⁰ https://tcpa.org.uk/wp-content/uploads/2021/11/final_20mnguide-compressed.pdf

¹¹ <http://builtforlifehomes.org/go/building-for-life-12>

¹² <https://www.transportfornewhomes.org.uk/wp-content/uploads/2018/07/transport-for-new-homes-summary-web.pdf>

Technical Note

North Somerset Council’s development ambitions are outlined for the Wolverhill development within this framework masterplan, summarised below and covered in detail in **Section 4** of this document:

- 20 minute neighbourhood;
- Public transport, cycling, walking focused;
- Centralised mobility hub;
- No through traffic;
- Low car neighbourhoods;
- Reduce car parking provision;
- Car club provision

A key message for this framework masterplan is that these ambitions are not unreasonable or unrealistic, but are the bold steps required to deliver development in-line with national, as well as regional and local policy. This framework masterplan ensures that developers are clear on how the requirements for development at Wolverhill align with national policy.

Table 1 sets out a matrix to show the overarching national policy requirements and messages , and how these align with the various development aspirations for Wolverhill.

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Table 1 National Policy Requirements and Wolverhill Development Ambitions

Key Policy Requirements and Ambitions	Public transport, walking and cycling focussed	20 minute neighbourhood	Centralised mobility hub	No through traffic	Car club	Reduced car parking provision
NPPF						
Limiting the need to travel	◆	◆				
Offering a genuine choice of transport modes	◆	◆	◆		◆	
Transport Decarbonisation Plan 2021						
Reduce carbon emissions through placemaking	◆	◆	◆	◆	◆	◆
Walking, cycling or public transport to be the natural first choice for journeys	◆	◆	◆	◆		◆
Traffic Management Act 2004, April 2022 guidance						
Give more space to cyclists and pedestrians	◆	◆	◆	◆		
The Second Cycling and Walking Investment Strategy						
Boost walking and cycling	◆	◆	◆	◆		
Gear Change: A bold vision for cycling and walking 2020						
Better streets for cycling and people	◆	◆		◆		
Cycling and walking at the heart of decision making	◆	◆	◆	◆	◆	◆
Active Travel England 2022						
Properly cater for pedestrians and cyclists	◆		◆	◆		
Bus Service Improvement Plan 2021 and Bus Back Better 2021						
Increase bus priority and patronage	◆		◆	◆		◆
Bus gates, which allow buses to enter a road that prohibits access to other traffic	◆		◆	◆		
Significant increases in bus priority	◆		◆	◆		
Manual for Streets and Manual for Streets 2						
Shift away from places that are dominated by cars	◆		◆	◆		◆
Building for Life 12 standards	◆	◆	◆	◆	◆	◆

Technical Note

3. Development Aspirations

The Wolverhill allocation aims to deliver a highly sustainable development through bold and ambitious schemes, aligning with the overarching national ambitions for reducing the need to travel and offering a choice of travel mode. The overarching development aspirations are set out in **Figure 1**. It is expected that developers deliver these as a minimum, with opportunities to enhance the offering through well considered design welcomed. In turn, NSC will view development proposals that meet and exceed these expectations favourable through the development management process. More information on each aspiration is detailed within the following text.

Figure 1 Overarching Wolverhill Development Aspirations



Development proposals should align with relevant national and local policy, as well as North Somerset's emerging *'Place and Movement Framework'* which designates roads within the district to one of nine categories (see **Figure 2**), setting out their respective features and providing design codes to shape new and improved active travel infrastructure including for new development.

Technical Note

Figure 2 North Somerset Council's Place and Movement Classifications

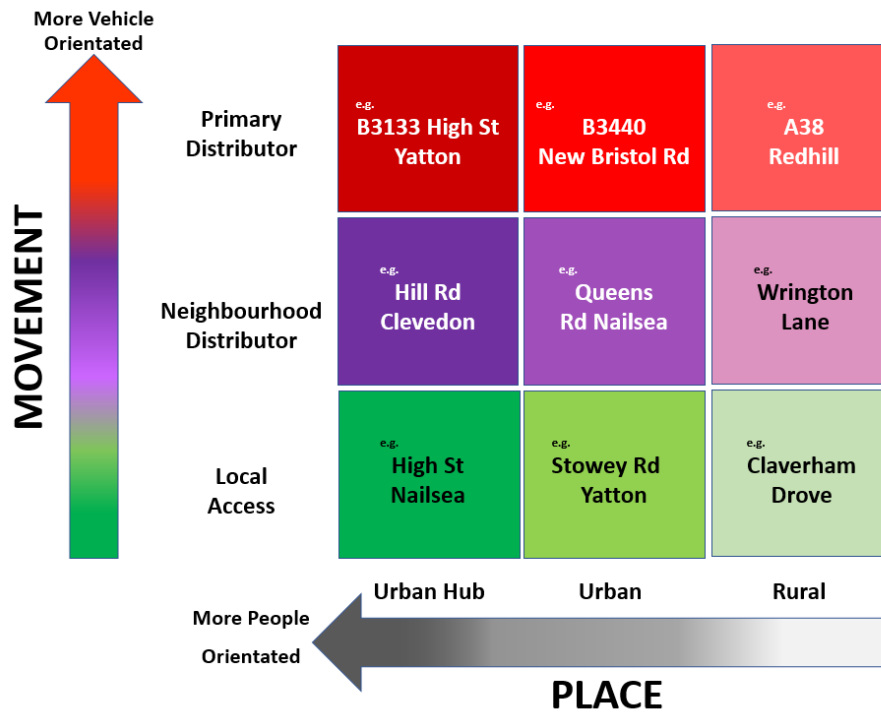
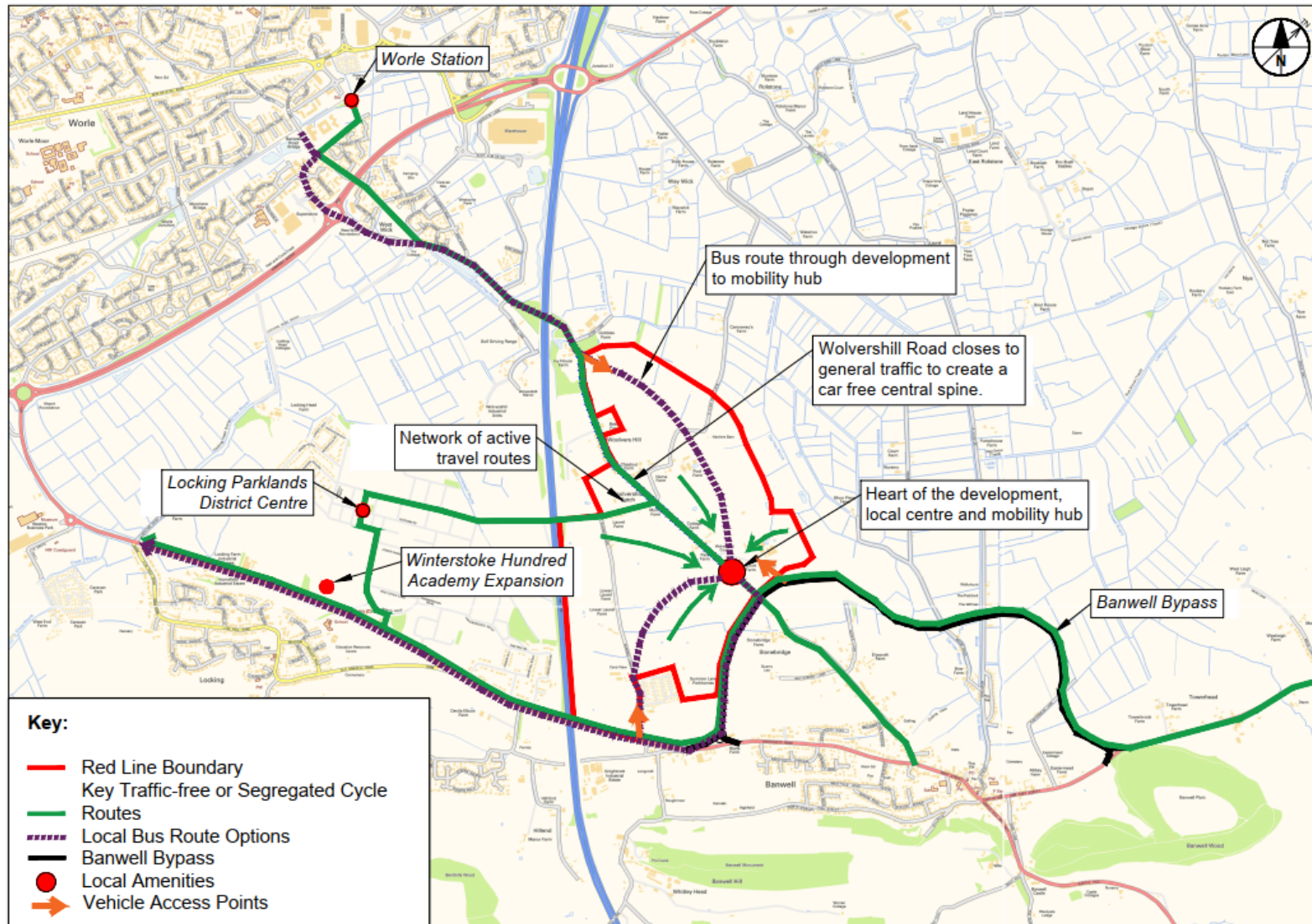


Figure 3 shows the access and movement framework for the Wolverhill development, and demonstrates how these development aspirations should translate spatially across the site allocation. These indicate the key routes, however multiple other routes will be needed at a local granular scale, and taking into account other local bus services.

Technical Note

Figure 3 Wolverhill Development Access and Movement Framework



Technical Note

FOCUS PLACEMAKING DESIGN ON WALKING, CYCLING AND PUBLIC TRANSPORT

The access and movement strategy for Wolverhill focuses on a car-free local centre with buses passing through, no through route on Wolverhill Road (see separate section for more details) and radial cycle & walking routes feeding into the local centre and commercial heart of the development – a Mobility Hub (see separate section for more details). Development at Wolverhill should be designed in line with the Manual for Streets user hierarchy as reproduced at **Figure 4**.

Figure 4 Manual for Streets User Hierarchy

Consider first ↓ Consider last	Pedestrians
	Cyclists
	Public transport users
	Specialist service vehicles (e.g. emergency services, waste, etc.)
	Other motor traffic

Sustainable transport provisions should provide exemplary connectivity both within the development itself, and between the development and surrounding facilities; including but not limited to the new Locking Parklands District Centre, Winterstoke Hundred Academy Expansion, Banwell village amenities, Worle Station, and the Strawberry Line.

Developers should ensure that proposed new sustainable travel routes link seamlessly with existing provisions, and effective wayfinding is provided across the network in and immediately surrounding the Wolverhill development. In addition, the development should facilitate the delivery of BSIP proposals for improved bus service provision.

Sustainable transport routes should be designed in line with relevant policy and best practice guidance including but not limited to:

- LTN1/20 Cycle Infrastructure Design¹³: This provides guidance and good practice for the design of cycle infrastructure, ensuring the delivery of good quality cycle networks and cycle facilities.
- CIHT Planning for Walking¹⁴ and Designing for Walking¹⁵: These documents highlight considerations requirement for ensuring inclusive, safe and effective design for pedestrians and ‘wheelers’.
- Inclusive Mobility: A guide to best practice on Access to Pedestrian and Transport Infrastructure¹⁶: this a guide to best practice on access to pedestrian and transport infrastructure, ensuring inclusivity for all.

¹³

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/951074/cycle-infrastructure-design-ltn-1-20.pdf

¹⁴ https://www.ciht.org.uk/media/4465/planning_for_walking_-_long_-_april_2015.pdf

¹⁵ https://www.ciht.org.uk/media/4460/ciht_-_designing_for_walking_document_v2_singles.pdf

¹⁶

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1044542/inclusive-mobility-a-guide-to-best-practice-on-access-to-pedestrian-and-transport-infrastructure.pdf

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The requirements from the Wolverhill development in terms of focussing on walking, cycling and public transport first are:

- Design the Wolverhill development to prioritise walking and cycling first, followed by public transport and finally private vehicles;
- Ensure the sustainable transport network provides continuity through an attractive and integrated provision within the development, to surrounding local amenities and beyond; and
- Ensure highway design facilitates a safe, frequent and efficient bus service provision.

DELIVER A 20 MINUTE NEIGHBOURHOOD¹⁷

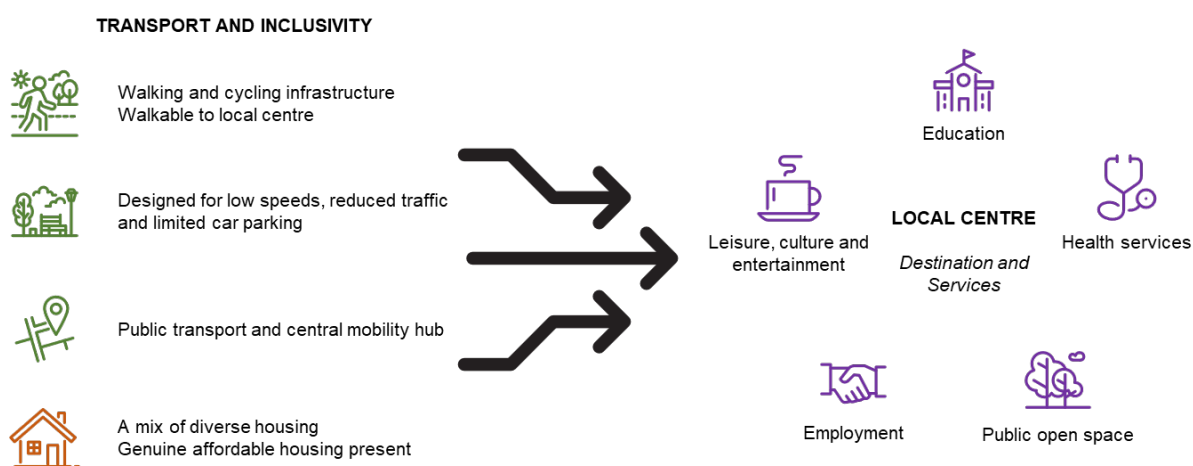
What is a 20 minute neighbourhood? 10 minute walk there, 10 minute walk back

- Delivering amenities and travel options to allow people to thrive and attend to their daily needs without the need for a car, improving quality of life for everyone
- A way of configuring places to deliver “complete, compact and connected neighbourhoods” leading to “healthier communities, cleaner air, stronger local economies and better resilience against climate change”¹⁸

The Wolverhill development is expected to be delivered around the concept of a '20 minute neighbourhood'. Strong demonstration is required that the masterplan for the site delivers a thriving and varied local centre, potentially with additional hubs, to tend to the daily needs of residents, accessible through a network of sustainable transport infrastructure at the heart of design, making it easy to travel on foot or by bicycle. The key principles and requirements for the Wolverhill 20 minute neighbourhood are set out in **Figure 5**.

The Town and Country Planning Association have produced a guidance document for Council Planners in England on 20-minute neighbourhoods¹⁹ which should be referenced as part of the design process.

Figure 5 '20 Minute Neighbourhood' Key Principles and Requirements



The Local Centre should be delivered as an 'Urban Hub - local access' route based on North Somerset's Place and Movement Framework categorisation. An Urban Hub typically features a destination of a

¹⁷https://www.sustrans.org.uk/our-blog/get-active/2020/in-your-community/what-is-a-20-minute-neighbourhood/?fbclid=IwAR2Pr-dDaL2B8zSey-RIK3Bsn_do1uwzLhXc-Saz2sk6pDyk1Ra6gbQxbsg

¹⁸ https://tcpa.org.uk/wp-content/uploads/2021/11/final_20mnguide-compressed.pdf

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Technical Note

journey where people can be expected to meet and linger. Examples of Urban Hub Local Access locations are shown in **Figure 6**, extracted from NSC’s Place and Movement Framework.

Figure 6 Urban Hub – Local Access Route Examples

<p>Waltham Forest Key Features:</p> <ul style="list-style-type: none">• Pedestrian / cycle priority• Local buses permitted through restricted local centre• Level access• Street furniture / planting	<p>Bristol Key Features:</p> <ul style="list-style-type: none">• Wide footways• Traffic calming measures• Street furniture / planting• Wayfinding signs

DELIVER A LOW CAR NEIGHBOURHOOD

The Wolverhill development is required to deliver a low car neighbourhood, which comprises two complimentary elements:

- **No through traffic** through the development; and
- **Low-car design** within the development.

No Through Route

A car-free local centre is required to be delivered, which will be a direct benefit of development including Wolverhill Road being closed to through traffic. This is a strategic change that would mean it is not possible to drive a vehicle, other than buses, through the whole development in a north-south direction, leading to an improved quality of the development overall.

It is anticipated that modal filters will be used to enforce this, whilst improving permeability and attractiveness for active travel as a mode choice over private car use for day to day trips for future residents and existing residents of the local area. This is a deliberate move, which is expected to be supported and facilitated by developers, to allow placemaking to prioritise walking and cycling over car usage.

Low-Car Design within the Development

The development is expected to be delivered as a low-car development. In line with the requirements set out in North Somerset’s Parking Standards Supplementary Planning Document, low-car development will be supported in highly sustainable locations that are demonstrated to be well served by public and active travel modes, and advertised as low-car developments from the outset²⁰. Car parking will be expected to be adequate to ensure a safe environment, with a site specific approach anticipated focussing on balancing parking restraint, peripheral locations, and sustainable opportunities, with an aim to actively discourage car ownership across the development.

²⁰ <https://www.n-somerset.gov.uk/sites/default/files/2021-11/Parking%20Standards%20SPD.pdf>

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North Somerset Parking SPD – low-car development policy considerations:

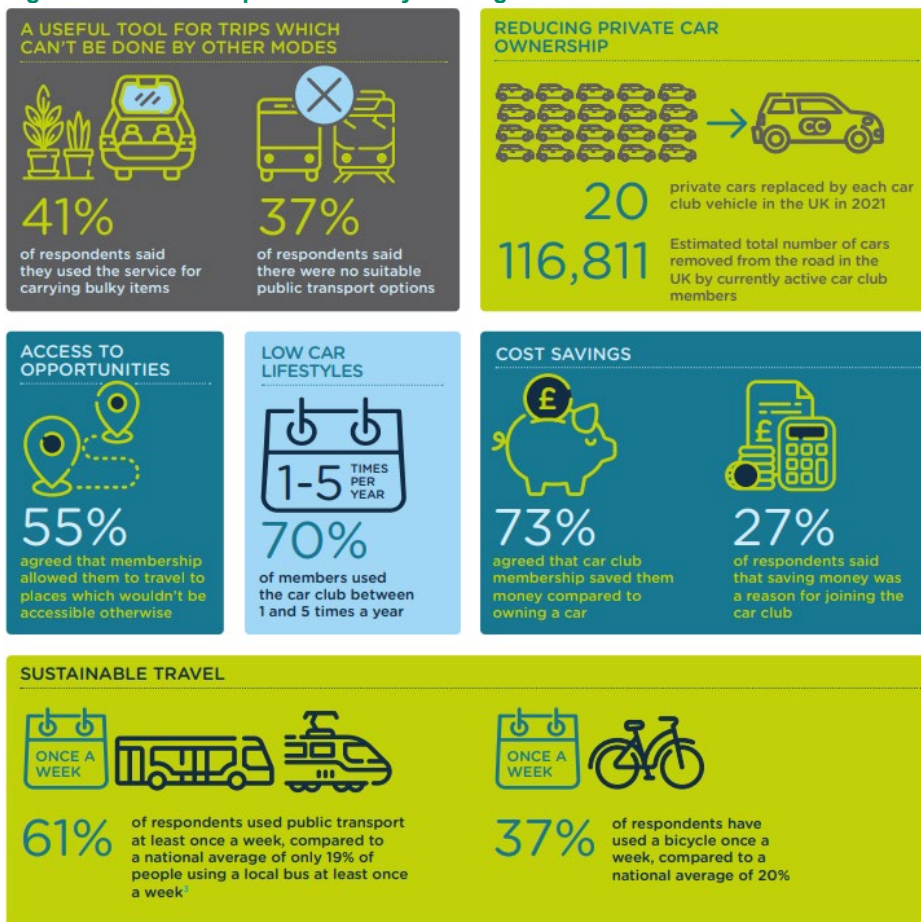
Using the North Somerset Parking SPD Parking Needs Assessment, residential parking standards have the potential to be discounted from the minimum quantum listed based on proximity to facilities and accessibility.

Principle 4: *“In line with the Parking Needs Assessment included within this SPD as Appendix B, the council will be supportive of low-car development in highly sustainable locations, well served by public and active modes of travel”*

- *...it is essential that a sufficient number of disabled parking bays are included to ensure the development remains accessible and attractive to all users. This should also be accompanied by a number of loading/unloading only bays to ensure suitable access to delivery vehicles.*
- *Similarly, to ensure safe access for emergency vehicles it is imperative that adequate measures be taken to prevent vehicles parking in a way that may obstruct necessary access”.*

Car parking should be well integrated, but ensuring it does not dominate the streetscape. It is expected that a package of demand management measures be implemented across the development such as car parking management to discourage unnecessary car use.

Figure 7 Car Club Report 2021 - Key Findings²¹



To discourage high car ownership, as are seen at present in the local area, Electric car club spaces and vehicles should be provided alongside a comprehensive suite of sustainable travel provisions. This should

²¹ www.como.org.uk/shared-cars/overview-and-benefits#car-club-survey

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be an affordable and preferential option to high car ownership across residents, with an average reduction in 20 private cars per car club vehicle seen across the UK (see **Figure 7**). More information is provided under the 'mobility hub' section of this framework masterplan.

The Wolverhill development should be designed for low traffic speeds and include a self-enforcing design, to include consideration of lane widths / build outs, junction geometry and corner radii from a highway perspective, as well as street furniture and parking.

The requirements from the Wolverhill development in terms of being a low car neighbourhood are:

- Support and facilitate the development (including Wolverhill Road) being closed to through traffic, and maximise on the benefits of this strategic intervention.
- To provide a low car neighbourhood, where an environment encouraging sustainable transport dominates, and vehicle travel is a secondary placemaking provision.
- Ensure car parking is minimal but adequate, and is in-keeping with the streetscape environment. Deliver car demand management measures from the outset across the development.
- Provide a car club within the development to actively discourage car ownership.

PROVIDE A CENTRALISED MOBILITY HUB

A mobility hub aims to co-locate sustainable transport opportunities in close proximity including bicycle and e-bike hire, bicycle lockers and cycle hubs including bicycle repair kits and pumps, e-car sharing, ridesharing, electric vehicle charging, bus links, and may be used for freight consolidation and / or parcel lockers.

Mobility Hubs improve legibility of services, increase confidence of the traveller, provide accurate real-time information, reduce the fear of anti-social behaviour and improve the comfort of the traveller by providing warm waiting areas, refreshments and other services. All these attributes increase the relative attractiveness of bus services compared to the car.

The Wolverhill mobility hub should be centrally located, and be well landscaped to be in-keeping with its surroundings. It should be designed with scope for accommodating emerging and innovative future technologies, such as autonomous vehicles, delivery drones and robots, as well as collaborative and cooperative transport solutions such as freight pooling.

Key components that are expected of the Wolverhill centralised mobility hub are shown at **Figure 8**, based on CoMoUK guidance.

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Figure 8 Expected minimum components of Wolverhill Mobility Hub22



The delivery of a comprehensive and effective travel plan is considered crucial to effectively delivering and using a mobility hub. Travel Plans should be delivered in line with North Somerset’s Travel Plan SPD²³ alongside consideration of the emerging updated North Somerset Travel Plan SPD²⁴ (*released for consultation Summer 2022*) to ensure comprehensive measures, monitoring, implementation and evaluation strategies are used to deliver an effective travel plan. As a relatively modern concept, particularly in the context of new strategic developments, the successful marketing of the benefits of the mobility hub, along with travel plan measures to encourage use, will help ensure the full benefits of a local mobility hub are felt across the development. A comprehensive Travel Plan will be required to be submitted as part of any planning application for the Wolverhill development, demonstrating how developers will work to ensure the ambitions for the site are achieved.

4. Case Studies

Eddington, Cambridge²⁵

Key message: Highly sustainable developments, with features aligned to the aspirations for Wolverhill, are already being successfully delivered within the UK.

The Scheme:

1,500 homes for University of Cambridge and College staff; 1,500 private houses, accommodation for 2,000 postgraduate students, 100,000 sq/m academic and R&D space, community facilities including primary school, health centre, supermarket and local shops, a hotel, care village, sustainable transport provision including cycleways, sports facilities and public open space.

²² An Introduction to Mobility Hubs for Planners and Developers in Scotland, CoMoUK, January 2021
²³ <https://www.n-somerset.gov.uk/sites/default/files/2020-03/Travel%20plans%20supplementary%20planning%20document.pdf>

²⁴ <https://n-somerset-pp.inconsult.uk/gf2.ti/-/1400770/133504165.1/PDF/-/May%202022%20Consultation%20draft%20-%20Revised%20North%20Somerset%20Travel%20Plans%20SPD.pdf>

²⁵ <https://eddingon-cambridge.co.uk/>

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Figure 9 - Eddington, Cambridge sustainable development



Key features:

- Co-ordinated, integrated and sustainable transport strategy that delivers an accessible, pedestrian friendly site with good connectivity to surrounding areas. Connecting with existing public transport facilities, footways and cycleways;
- Reducing the need to travel through provision of range of land-uses within the development;
- Delivering a comprehensive public transport system to maximise opportunities for non-car travel;
- Vehicle demand management through low car parking provision and car ownership restrictions for students, alongside provision of a car club; and
- Reducing travel to work distance by locating accommodation and employment land-uses in reasonable proximity.

Progress:

- Multi-award winning development including for masterplanning, design, planning, sustainability, construction, and operations.
- Phase 1 delivery in progress, including first residents (key workers and postgraduate students in 2017, followed by private residents in 2018)
- Eddington Travel Team - E-Car club operating on site, 'Get Active at Eddington' initiative, Eddington Number Challenge launched (cycling campaign).
- 2018 survey indicated 47% of trips are currently made by walking or cycling²⁶.

Waltham Forest, Outer London²⁷

Key message: Delivery of good walking and cycling provisions results in increased active travel

The Scheme:

Mini-holland programme investing £27m to improving walking and cycling since 2015 – including 26km segregated cycle lanes, 104 improved road crossings, 37 modal filters, speed limits reduced to 20mph, 395 bike hangars, and free cycle training delivered to over 10,000 people.

Progress (as at 2021):

- Residents found to be walking an extra 37 minutes a week, and cycling an extra 9 minutes
- Over a decade, life expectancy increased by seven months

Figure 10 - Waltham Forest Mini-Holland programme scheme

²⁶ <https://eddingon-cambridge.co.uk/news-and-updates/eddingon-number-challenge-launched>

²⁷ <https://townsfund.org.uk/resources-collection/an-introduction-to-20-minute-neighbourhoods>

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Ghent, Belgium

Key message: car-free city scheme successfully increase cycling and car share users

The Scheme:

As part of an action plan for a car-free city, shared transport has been encouraged alongside banning city centre traffic except for residents and deliveries²⁸.

Figure 11 - Ghent, Belgium car-free centre



Progress:

Ghent enforced its new car-free centre and traffic circulation system over one weekend in 2017.

The overall action plan has resulted in cycling increase from 22% to 37%; 18% reduction in air pollution, and 6,000 car share users in 2017, increasing to 13,500 in 2019.

5. Summary and Conclusion

This framework masterplan sets out how development at Wolverhill should be designed to deliver a site that works to achieving targets to reduce the need to travel and car dependency across North Somerset. It sets out the extensive national policy context that supports the delivery of a highly sustainable development. A series of design ambitions are set out for the Wolverhill development, and this masterplan highlights how these ambitions are not unreasonable or unrealistic, but are the bold steps required to deliver development in-line with national, as well as regional and local policy.

This framework masterplan provides an outline of what developers will need to deliver as part of proposed development at Wolverhill to fit in with North Somerset's wider vision for the Local Plan, under three main areas:

- Focus placemaking design on walking, cycling and public transport
- Deliver a 20 minute neighbourhood
- Provide a centralised mobility hub

For each focus area, the rationale and context is provided, along with summaries of the delivery requirements for Wolverhill to address each element. Focus is drawn to specific policy and best practice guidance that should be referenced (at the time of writing) where relevant.

²⁸ https://como.org.uk/wp-content/uploads/2021/01/CoMoUK_Mobility-Hubs_Ghent-Case-Study-A4.pdf

Appendix C Nailsea and Backwell Position Statement

Nailsea and Backwell Transport Position Statement

September 2023, updated 31 October 2023

This Position Statement is prepared collaboratively by the NSC Strategic Transport Policy Team and its advisors, AECOM. It is intended to succinctly summarise the position on the level of development for allocation in the Local Plan which would be considered acceptable in transport terms. It was first issued in June 2023, to inform the Reg 19 site allocation decision making process. It has been updated in September 2023 to reflect the increased size of the Grove Farm emerging allocation, from 370 to 515 dwellings. This statement is supported by a technical evidence base including transport modelling¹. A minor update is made (31/10/23) to provide clarity that this position statement only relates to sites in the Nailsea and Backwell area, and to update links and references.

The issue

Backwell Crossroads is a known capacity constraint on the A370. It experiences congestion at peak times at present, which is likely to be exacerbated to an unacceptable level with future development. Congestion in this location can result in traffic queues which extend along the A370, Station Road and Dark Lane. The A370 is a key bus corridor in North Somerset, linking Weston-super-Mare, Yatton/Congresbury, Backwell, Flax Bourton and Bristol. Congestion at Backwell Crossroads is likely to introduce delay to bus services, impacting on the quality of service and the commercial ability to improve service frequency. Traffic impact at Backwell Crossroads is a limiting factor on the cumulative level of development that should be allocated in the Nailsea and Backwell area through the Local Plan, without substantial mitigation. This statement is made without prejudice to the potential that other impacts and local issues may require mitigation, and/or may make individual development proposals unacceptable in transport terms.

Transport Interventions

The West of England Bus Service Improvement Plan² submission has been successful and the funding accepted³ by the North Somerset Council Executive. BSIP proposes to make Dark Lane an exit only arm and add a bus lane onto the A370E arm at Backwell crossroads. This provides additional traffic capacity through reducing the number of traffic stages, enabling that capacity to be given to through movements on the A370, and provides additional bus priority in the westbound direction. This is a committed scheme.

All development in Nailsea and Backwell, and indeed North Somerset as a whole, will be expected to promote a sustainable transport-led strategy, as defined in the emerging Local Plan transport policies, including demonstrating how future residents will benefit from opportunities to travel by sustainable modes to key destinations. This will require an appropriate level of investment.

¹ <https://n-somerset.gov.uk/sites/default/files/2023-10/Backwell%20Crossroads%20BSIP%20Modelling%20Sensitivity%20Test%20Results%20-%20Summary.pdf>

² [West of England Bus Service Improvement Plan \(n-somerset.gov.uk\)](https://n-somerset.gov.uk)

³ [09 Bus Service Improvement Plan Enhanced Partnership adoption Executive.pdf \(modern.gov.co.uk\)](https://modern.gov.co.uk)

The housing numbers proposed at Nailsea Backwell in the Reg 18 draft Local Plan were such that their combined impacts upon Backwell Crossroads would have been severe. Therefore, we investigated a strategic mitigation that would have provided a “Backwell Crossroads Bypass”. This included a potential additional rail crossing to enable an alternative route between Nailsea and the A370 to be provided. This would have the benefit of alleviating congestion at Backwell Crossroads, providing a useable route for double decker buses, reducing traffic impacts on Station Road, and improving walking and cycling within Backwell by removing through traffic. However, this would be a major investment which would require external funding of which there is no certainty. It would also have had notable environmental, visual and heritage impacts, with technical and stakeholder delivery challenges. Further discussions have been held with internal stakeholders within the Council following the Preferred Options (Reg18) Consultation stage with regards these potential challenges. With the reduced housing allocations now being proposed for the Reg19 draft Local Plan in the Nailsea Backwell area this intervention will not be required or be desirable. This Position Statement is made on the basis of this intervention **not** being delivered.

Impact Assessment

Transport modelling has been based on observed conditions in 2022, with industry-standard approaches to future forecasting. A validated 2022 Base Linsig Model has been used to create an updated baseline model with committed development to incorporate the BSIP changes. The assessment assumes a forecast year of 2030. This is appropriate given the scale of housing and likely build out rates.

The model has been used to assess a number of sites in the Reg 18 Local Plan, both in isolation and in combination. This includes Grove Farm, west of Backwell (Taylor Wimpey, originally 370 homes, increased to 515 homes in this iteration of the Position Statement), South Nailsea (Gleeson and others, 600 homes), and East of Backwell (M7, 350 homes), based on capacity numbers provided by NSC Planning Policy. Whilst East of Backwell is understood to not be proposed for allocation as it is in the Green Belt, in transport terms it is a reasonable site to be considered for allocation.

Trip rates used are consistent for all development options and are appropriate for a strategic approach to modelling the cumulative transport impacts of a Local Plan. Planning applications will be required to provide site-specific Transport Assessments, which will be assessed on their own merits by the NSC Highways & Transport Development Management Team.

The acceptability of a development in transport terms will come down to whether the residual cumulative impact is severe, in line with the NPPF. Whilst there is no set quantitative definition of “severe”, it is based on the forecast performance of the junction in capacity terms, and the degree to which this is caused by the proposed development. There is a requirement for housing to be delivered across North Somerset, and the Spatial Strategy seeks to focus this on main towns and service villages. There is therefore a need for a level of housing to be allocated in Nailsea and Backwell, albeit with highways constraints, and therefore there will be a level of impact which will need to be accepted up to the point of it being “severe” and reduced through measures to enable mode shift. Clearly there is a level of subjectivity in determining the definition of “severe” and each development will be expected to reduce its impact by achieving mode shift through investing in sustainable transport, which would lessen the modelled impact on the junction. However, at this stage it is reasonable to draw the following conclusions on the acceptability of sites delivered in isolation or combination, in transport terms.

- East of Backwell Only: This is likely to be **acceptable** as the junction will operate within capacity in AM and PM peaks. However, this site is not proposed to be allocated as it is in Greenbelt.
- Delivering both Grove Farm and South of Nailsea would be **unacceptable** in combination due to substantial impact on both A370 S and Station Road arms in the AM peak, and all arms of the junction in the PM peak. It is unlikely that measures to achieve mode shift would have sufficient benefit to deliver effective mitigation for this scale of impact.
- Delivering one of Grove Farm or South of Nailsea would result in capacity impacts on the A370 S and Station Road in the AM peak, albeit the impact of Grove Farm is marginally lower than South of Nailsea. This would necessitate significant investment in measures to achieve mode shift to mitigate that impact to a level that would be acceptable.
- Grove Farm will have a lower impact on the junction than South of Nailsea in the PM peak. A370 S will exceed 90%, but not 100%, saturation with Grove Farm, whereas with South of Nailsea, both Station Road and A370 N will exceed 100% saturation.
- With reference to the Appraisal Framework included within the Stage 5 Transport Assessment, Grove Farm better aligns with the transport objectives of the Local Plan than South of Nailsea. It should also be noted that the BSIP project provides the infrastructure to improve bus journey times along the A370, and Grove Farm is better placed to facilitate improved service frequency through patronage and contributions.
- A choice has needed to be made between Grove Farm and South of Nailsea as allocating both sites would not be acceptable in transport terms without strategic mitigation. **It is NSC Transport's position that Grove Farm should be allocated** for the following reasons:
 - o Marginally lower impact on A370 Backwell Crossroads in the AM peak
 - o Substantially lower impact on A370 Backwell Crossroads in the PM peak
 - o Better alignment with Local Plan Transport objectives
 - o Better alignment with the BSIP programme and greater opportunity to improve bus services.
- A planning application for Grove Farm will need to demonstrate a robust approach to sustainable transport as there will be a requirement to achieve mode shift for the development to be acceptable in terms of impact on Backwell Crossroads. Substantial investment in bus services and high quality masterplanning and supporting facilities will be needed to reduce car travel to lessen the capacity impact.

Other Options

NSC Strategic Transport Policy appreciates that there is a level of housing to deliver to meet the requirements of the Local Plan and is seeking to find solutions which enable housing to be delivered without unacceptable transport and traffic impact. As previously stated in the initial potential site assessments presented in the Reg18 transport assessment, Strategic Transport Policy considers that the North Nailsea site is likely to be an acceptable alternative to South of Nailsea. It is noted that both North Nailsea, and East of Backwell, are within the Green Belt which has prevented their inclusion as allocations at Reg19.

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