AECOM Imagine it. Delivered.

Peninsula Transport Shadow Sub-National Transport Body

Regional Evidence Base

July 2019

Peninsula Transport

Transforming the economic performance of the South West

Addendum:

Major Road Network – Pre-Strategic Outline Business Case for Glastonbury/ Pilton MRN Pinch Point

In July 2019 The Peninsula Transport Shadow Sub-National Transport Body agreed its Regional Evidence Base and priorities for investment in the Major Road Network, including the Glastonbury/ Pilton pinch points on the A361 corridor in Somerset. Somerset County Council submitted a pre-strategic outline business case for the pinch points at the same time. The scheme is referenced accordingly within this Regional Evidence Base document.

However, on 5th March 2020 the Peninsula Transport Board agreed to remove the Glastonbury and Pilton MRN scheme from its list of agreed Major Road Network investment priorities for the reasons outlined below:

In January 2020 DfT requested that MRN scheme promoters confirm local community and political support for schemes. Recent correspondence with Glastonbury Town Council, the Local MP and other residents regarding the scheme has shown that there is now local community and political concern about the notion of bypass solutions for the pinch points on this route.

The Somerset County Council considers that it is highly unlikely that the scheme can realistically progress any further or be deliverable without a high level of community and political support, and rather than leave any uncertainty or ambiguity about the situation we have taken a formal decision to withdraw the proposals.

Somerset County Council would wish to avoid a situation where any community, individual or business interest is adversely affected due to uncertainty about whether there will be a scheme and what the potential route alignments may be.

Quality information

Prepared by	Checked by	Verified by	Approved by
Nick Woollett Regional Director Transportation	Dominic Walley Director Connected Economics	Stephen Payne Principal Consultant Transportation	Nick Woollett Regional Director Transportation

Revision History

Revision	Revision date	Details	Authorised	Name	Position
0.1	12th July 2019	First Draft		Nick Woollett	Regional Director
0.2	22nd July 2019	Peninsula Transport Board Draft		Nick Woollett	Regional Director
1	29th July 2019	Final Version		Nick Woollett	Regional Director

Prepared for:

Peninsula Transport Shadow Sub-National Transport Body

Prepared by:

Nick Woollett
Regional Director
Transportation
T: +44 (0)1392 663212
E: nick.woollett@aecom.com

AECOM Limited
Belvedere House
Pynes Hill
Exeter EX2 5WS
United Kingdom

T: +44 1392 663200
aecom.com

© 2019 AECOM Limited. All Rights Reserved.

This document has been prepared by AECOM Limited ("AECOM") for sole use of our client (the "Client") in accordance with generally accepted consultancy principles, the budget for fees and the terms of reference agreed between AECOM and the Client. Any information provided by third parties and referred to herein has not been checked or verified by AECOM, unless otherwise expressly stated in the document. No third party may rely upon this document without the prior and express written agreement of AECOM.

Table of Contents

1. Executive Summary

1.1 Peninsula Transport Introduction

Peninsula Transport is the new shadow sub-national transport body for the South West Peninsula with a vision of **transforming the economic potential of the South West**.

We are committed to working collaboratively in order to:

- **Improve the strategic corridor connections between our major urban centres**; and
- **Provide rural mobility solutions to support our rural communities and businesses**.

The Peninsula has some great success stories in terms of transport investment including Roads Investment Strategy Phase 1 schemes, focusing on the Second Strategic Route, the resilience works being undertaken on the railway line at Dawlish and Teignmouth and the December 2019 rail timetable changes increasing the frequency and capacity of trains from London through to Cornwall.

Across the two LEP areas we have secured more than £155 million of Growth Deal Funding for transport schemes and successfully matched this with local public / private funding of more than £160 million.

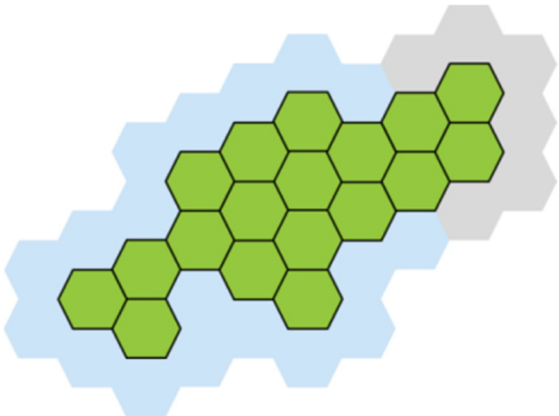
Transport spending per capita in the South West remains lower than for most parts of the UK and so we welcome the introduction of the National Roads Fund and the chance to bid for further investment to continue to deliver vital transport schemes within programme and budget.

We support the statement of the Secretary of State in Investing in the South West:

"No region can thrive without decent transport links. People across the South West rely on such links for work, education, leisure and access to essential services. Last year over 23 million people visited the South West, confirming its place as one of our greatest natural assets. But we know this is also a region with challenges. As a largely rural region with a unique geography, the consequences of poor transport can often be economic and social isolation, both for the region and its people."

1.2 Regional Challenges & Opportunities

The South West Peninsula is a geographically large area of nearly 14,500 km^2 spanning the authorities of Cornwall, Devon, Somerset, Plymouth and Torbay and with a population of around 2.3 million people.



With its extensive coastline, the Peninsula has a limited number of land transport routes connecting to other parts of the UK and many parts of the population are located a long way from key towns and access to the rest of the country.

The Peninsula is a growing economic region with strengths in defence, medical research, high-tech manufacturing, marine, clean

energy, agriculture, and tourism sectors. The Peninsula's gross value added contributes nearly £44 billion (2016) to the national economy.

However, the Peninsula has lower productivity than any other part of the south of England and there is also considerable disparity between the productivity of different parts of the region.

Distinctive Demographics

When compared with the Great Britain average, the Peninsula has a higher than average age. For all age groupings below the age of 45 the proportion of the population is lower than Great Britain as a whole and the reverse is true for all age groupings aged over 45.

Recent growth in the Peninsula has come from internal migration (organic growth is negative and international migration is low in the Peninsula with the exception of Plymouth). However, when it comes to people moving from one part of the country to another (internal migration) the Peninsula has the highest rate of any region in Great Britain:

More than any other place in Great Britain, people are choosing to move to the Peninsula to live.

Transformational Economic Growth

There are two Local Enterprise Partnerships in the Peninsula, the Heart of the South West and Cornwall and Isles of Scilly, developing strategies for growth and productivity in the region.

Two of the challenges facing the Peninsula LEPs and where transport is a key factor are:

- **Rebalancing the economy**: enabling the small and rural communities to close the gap in terms of productivity and not get left behind by growth in key locations such as Truro, Plymouth, Torbay, Exeter, and Taunton;
- **Providing the critical connectivity** (transport and digital) to support growth and gain the productivity benefits which come from better connections.

The Heart of the South West has published its three target areas for specialisation and prioritisation linked to the National Industrial Strategy: **Digital futures**, **High-tech engineering** and **Clean energy**.

Cornwall and the Isles of Scilly have developed their **10 Opportunities** document outlining the sectors which will be key contributors to growth: These are: Creative, Space, Energy, Agri-Food, Tourism, Marine, Mining, Aerospace, eHealth and the unique business environment provided by Cornwall's Location.

The Visitor Economy

The visitor economy remains important for the Peninsula accounting for nearly 4.5% of economic output and 14% of employment. The South West is the most visited region in the UK with approximately 21 million domestic visitors in 2017 contributing £4.5 billion to the UK economy. With 72% of visitors to the South West originating from outside of the region, the transport system experiences significant seasonal increases in demand which result in capacity issues and congestion on some of the Peninsula's most important corridors.

Housing Growth

There are plans for nearly 200,000 new dwellings across the Peninsula Transport area in the period to 2040.

Area	Planned Dwellings
Cornwall	52,500
Plymouth & South West Devon	26,700
North Devon & Torridge	17,200
Greater Exeter	52,000
Somerset	42,180
Torbay	8,900
Peninsula Total	**199,480**

Note: Final plan years range from 2030 to 2040.

Housing development plans are well aligned with both the Strategic Road Network and Major Road Network. Much of the development is also well aligned to the Peninsula's rail network.

Employment Growth

There are plans for more than 170,000 new jobs across the Peninsula Transport area in the period to 2040.

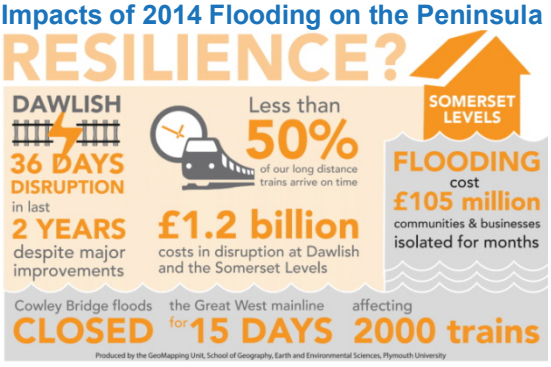
Area	New Jobs Created
Cornwall	38,000
Plymouth & South West Devon	20,410
North Devon & Torridge	11,000
Greater Exeter	40,000
Somerset	56,090
Torbay	5,500
Peninsula Total	**171,000**

Planned employment growth is well aligned with both the Strategic Road Network and Major Road Network.

Resilient Networks

Resilience of the transport networks across the Peninsula region are critical, with the region's road and rail networks being particularly vulnerable to the impacts of coastal and inland flooding and the associated impacts of climate change. Many of the Peninsula's major transport corridors also lack a reasonable alternative, meaning that the impact of incidents, maintenance or weather events are severe and cause a huge amount of disruption to travel.

Impacts of 2014 Flooding on the Peninsula



The resilience of our road and rail transport networks is also impacted by capacity constraints both within the Peninsula and outside of our boundary. Examples include:

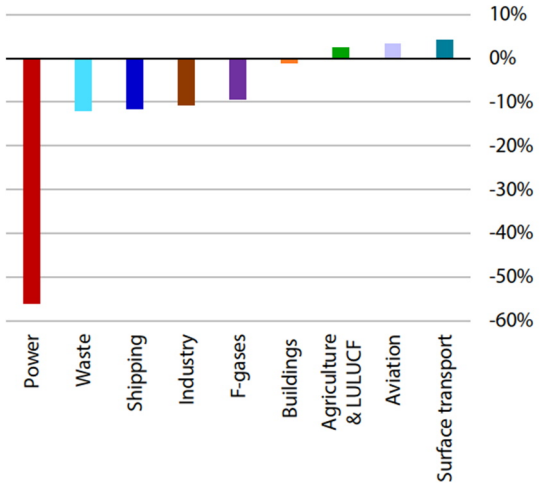
- **Road:** The capacity of the M4 / M5 interchange around Bristol and the current lack of a consistent standard Second Strategic Route (A303 / A358) into the region as an alternative to the M4 / M5 corridor;
- **Rail:** Platform capacity at Exeter St David's is a constraint on growth and plans for improvements to through services and capacity at Bristol Temple Meads is also a potential constraint on growth.

Protecting & Valuing Our Natural Environment

The Peninsula environment is unique, with an extensive coastline, two National Parks, nine Areas of Outstanding Natural Beauty, and a number of Nature Improvement Areas and Sites of Special Scientific Interest. In addition, there are also two World Heritage Sites. Protecting and preserving this environment for future generations is a shared responsibility and Peninsula Transport will play its part through the way it develops strategies and schemes.

Surface transport is the largest-emitting sector in the UK accounting for 23% of UK emissions. Some progress to reduce this is now being made with emissions falling by 2% in 2018. To sustain overall progress in emissions reduction, tackling emissions from surface transport is both critical and urgent.

Changes in Sector Emissions 2013-2018 Committee on Climate Change



A particular challenge for the Peninsula is journey distance, given the large rural

hinterland and the distances required to travel across the region and to other parts of the country. The South West, including the Peninsula, has the highest private transport mileage per person of any region in England.

Peninsula Transport authorities will meet this challenge through means such as: Promoting public transport and active mode solutions; working alongside planners to ensure development is balanced with an aspiration to reduce average commuting distances; making the best use of digital connections and trends in flexible working; and working to accelerate moves to more efficient, low emissions vehicles across the Peninsula.

Transport Connections

"We expect to see more change in the transport sector over the next 10 years than we have in the previous century" **Secretary of State for Transport at launch of the Road to Zero Strategy**

The Peninsula's growth ambitions are challenged by some of the aspects of our current transport network:

Challenges of Current Network

- **Increased traffic volumes on our strategic road networks;**
- **High visitor numbers (21m domestic visitors in 2017) place further strain on networks.**
- **High journey times within the Peninsula & beyond;**
- **Vulnerability & resilience of existing rail infrastructure.**
- **High proportion of business & population is rural;**
- **Low utilisation of bus for Travel to Work (<4% avg.).**
- **Limited connectivity to wider transport, creating reliance on car mode;**
- **Ageing port and airport infrastructure.**

Peninsula Transport is committed to making the most of opportunities provided by the rapid changes taking place in the transport industry both in terms of improving connections and productivity for the region but also in terms of reducing transport emissions towards zero. We will do this by:

Ensuring Positive Outcomes

- **Delivering resilient & reliable networks, reducing journey time to serve 98,000 businesses & encouraging inward growth.**
- **Developing future mobility solutions & inter operable networks to connect communities leading to financially viable services.**
- **Improving accessibility & capacity to encourage business & passenger growth to compete locally, nationally & globally.**
- **Supporting the planned growth in jobs and housing.**

International & Strategic Gateways

With an extensive coastline, it is no surprise that Maritime industry is an important sector in the Peninsula economy providing more than 15,000 full-time equivalent jobs and contributing close to £3 billion of GVA to the UK. Key gateway ports are Plymouth and Falmouth but there are a number of additional ports supporting important sectors including the three largest fishing harbours in England.

The Peninsula is also home to two commercial airports, Exeter International Airport and Cornwall Airport Newquay both providing national and international flights. Transport links to major hub airports, particularly those in London, are of high importance as these airports offer a wider range of destinations and choice. Just as importantly, Bristol Airport, in the neighbouring Western Gateway region, is a vital gateway and its development and expansion is supported by Peninsula Transport (around 25% of passengers originate in the Peninsula).

Brittany Ferries' Armorique in Millbay Docks, Plymouth

1.3 Transport: Corridors & Routes

Overview of Peninsula Rail Network

The Peninsula rail network is vital for both passenger and freight transport across the region and to destinations outside the South West region including Bristol, London, Birmingham, Manchester, Cardiff and Southampton. The rail network also provides critical access to domestic and international gateways. The current rail strategy focuses primarily on east-west connectivity between the Peninsula and London and there is a need for further joint work with Western Gateway to further develop the rail strategy and particularly focus on developing plans for improved rail connectivity between Exeter, Bristol, Bristol Airport and Birmingham / High Speed 2.

The Peninsula Rail Task Force (PRTF) was formed in early 2013 to coordinate partners from across the South West to build and put the case for greater investment into the rail network for the Peninsula region. A key focus for PRTF is resilience, particularly following the major disruption caused by the 2014 storms, highlighting the vulnerability of the Peninsula rail network.

In 2016, the PRTF launched 'Closing the Gap', a plan for investment needed to close the growing gap between the South West and the rest of the UK in terms of rail funding and improvements. The three main priorities were identified as **Resilience and reliability**, **Reduced journey times and improved connectivity**, and **Greater capacity and comfort**. The report outlined a number of schemes identifying what is needed and their approximate timescale for delivery.

The Network Rail South West Rail Resilience Programme focuses on identifying and implementing options to improve the resilience of the line between Dawlish and Teignmouth, notably increasing the size of the sea wall at Dawlish, to address issues which arose after the 2014 storms. Across the Western route, Network Rail also has ongoing improvement schemes including track renewal at Frome, points renewal at East Somerset Junction, and modernisation of the Great Western Mainline.

Overview of Strategic Road Network (SRN)

One of the key objectives of the MRN is to support the SRN and ensure a seamless transition between the two networks. The SRN is a key enabler of economic growth and prosperity and connects many of England's major towns and cities.

There are several sections of SRN within the Peninsula which provide crucial connections between key settlements within the region and to wider national and international locations (via the Peninsula's ports and airports):

The M5 is the only motorway in the region, ending to the south of Exeter at J31 and providing strategic connections north to Bristol, Birmingham and the North, east to London (via the M4) and west to Cardiff/South Wales (also via the M4).

The Peninsula's other SRN routes are:

- the A30 from Penzance in west Cornwall through to the M5 J31 at Exeter;
- The A30/A303 from M5 J29 at Exeter east through the Blackdown Hills then passing through Somerset into Wiltshire and on to join the M3 at Junction 8;
- The A38 running from its junction with the A30 around Bodmin through the north of Plymouth and north to the end of M5 south of Exeter; and
- The A35 starting at the junction with the A30 in Honiton and travelling east into Dorset and past Dorchester, where it joins the A31.

As part of the creation of the Second Strategic Route for the South West, there are planned schemes dualling sections of the A303 and the A358 between the M3 and M5 at Taunton with complementary smaller scale improvements to the A30 over the Blackdown Hills. The dualled A358 will then become part of the SRN network in the Peninsula.

Peninsula Major Road Network

The **MRN in the Peninsula** consists of twenty corridors providing a combination of spurs to key towns off the SRN and long corridors linking communities and serving as the main road corridor through a part of the region:

A: A30 Penzance;
B: A390 Truro;
C: A39 Truro to Falmouth;
D: A3059 Newquay;
E: A391 St Austell;
F: A39 Atlantic Highway;
G: A374/A386/A3064 Plymouth;
H: A38 Tamar Bridge;
I: A385 Totnes, Paignton;
J: A380 Exeter to Torbay;
K: A382 Newton Abbot;
L: A361 North Devon Link Road;
M: A379 Exeter;
N: A376 Exeter to Exmouth;
O: A38 Wellington to Bridgwater;
P: A358 Taunton to A303 Link;
Q: A38 to Bristol;
R: A3088/A37 Yeovil to Dorchester;
S: A37 Bristol to A303 via Shepton Mallet;
T: A39/A361 Glastonbury, Frome.

A summary of some of the general characteristics of the Peninsula MRN network is provided below.

General Characteristics of MRN Network

Level of Service (Speed & Reliability)

In general, average speeds on the Peninsula MRN corridors are not high, reflecting the fact that most corridors are single carriageways with varying speed limits. Only three corridors have a typical average speed of over 40 mph and three have a typical average speed of less than 20 mph.

Traffic Demand and Vehicle Proportions

The majority of Peninsula corridors have annual average daily traffic flows (AADFs) along their length in the 10,000 to 20,000 range, but with sections where the AADF exceeds 20,000. The corridors with the highest flows are those serving large urban areas or providing a strategic link:

The percentage of HGVs is generally higher on the MRN corridors in Somerset, the boundary of the Peninsula with Western Gateway and the rest of the country. This highlights the importance of the road links between the Peninsula and other key centres in the country for freight as well as passenger movements.

Resilience

The resilience of MRN corridors varies but alternative road routes are generally limited. Some MRN corridors such as the A379 in Exeter and the A38 from Wellington to Bridgwater provide an important function as diversion routes for the SRN network.

Connecting People & Places

Peninsula Transport has identified priority growth corridors/locations essential for supporting economic growth in the Peninsula:

- Truro – West Penwith Growth Corridor **[MRN: A, B]**;
- Falmouth Secondary Growth Area **[MRN C]**;
- Newquay Secondary Growth Area **[MRN D]**;
- Bideford Secondary Growth Area **[MRN F]**;
- Plymouth Growth Area **[MRN G, H]**;
- Torbay – Newton Abbot Growth Corridor **[MRN K]**;
- Barnstaple Secondary Growth Area **[MRN L]**;
- Exeter Growth Area **[MRN M]**;
- Taunton – Bridgwater Growth Corridor **[MRN O, P]**; and
- Yeovil Secondary Growth Area **[MRN R, S]**.

Safety

The highest rates of collisions per million vehicle kilometres are on Corridor G: A374/A386/A3064 in Plymouth.

Other corridors with higher collision rates are generally those which include urban sections.

Environment

13 of the 20 MRN corridors pass through an air quality management area.

8 of the 20 MRN corridors pass through or are adjacent to land of some environmental designation (e.g. SSSI, AONB etc.).

1.4 Priority MRN Schemes

Peninsula Transport developed a prioritisation process for scoring and ranking MRN schemes for submission with this Regional Evidence Base. The prioritisation was structured according the DfT Five Case Business Case guidance and applied the MRN objectives contained in the DfT Investment Planning guidance as well as Green Book and other government appraisal guidance.

Peninsula Transport has applied the process to produce a ranked list of six MRN schemes for consideration in the first period of the National Roads Fund (2020-2025).
The schemes have a total cost of **£254 million** with a **DfT contribution of £217 million** and an estimated **total benefit to the UK economy of £1,320 million**. A further 12 MRN schemes are being developed for consideration in the next funding window (2025-2030).

Table 1.1: Prioritised Peninsula Transport MRN Schemes in Ranked Order

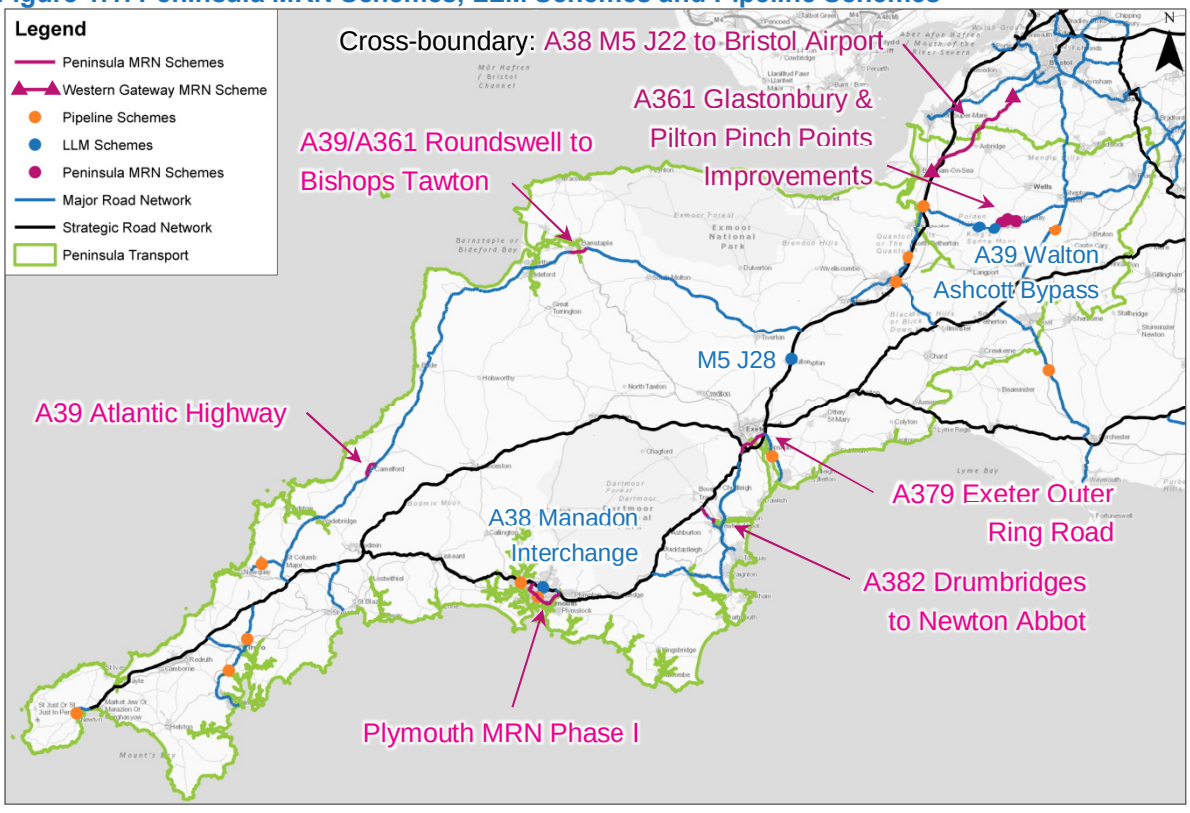
Rank	Scheme Name	Stage	Cost [DfT Ask]	Construction Start	Construction Complete
1	A382 Drumbridges to Newton Abbot	OBC	**£43.5m** [£36.9m]	Q1 2021	Q4 2024
2	A374/A386/A3064 Plymouth MRN Phase I	SOBC	**£48m** [£40.8m]	Q2 2022	Q4 2025
3	A39 Atlantic Highway	SOBC	**£42.5m** [£36.5m]	Q4 2021	Q2 2023
4	A39 /A361 Roundswell to Bishop's Tawton	Pre-SOBC	**£55.1m** [£46.8m]	Q1 2025	Q2 2028
5	A361 Glastonbury & Pilton Pinch Points Improvements	Pre-SOBC	**£20.3m** [£17.3m]	Q4 2023	Q1 2025
6	A379 Exeter Outer Ring Road	Pre-SOBC	**£45m** [£38.3m]	Q1 2025	Q2 2027

Peninsula Transport has also included three Large Local Major (LLM) schemes for consideration:

- **A38 Manadon Interchange [SOBC] | Estimated Cost: £122m;**
- **M5 Junction 28 [Pre-SOBC] | Estimated Cost: £120m;**
- **A39 Walton Ashcott Bypass [Pre-SOBC] | Estimated Cost: £60m.**

The location of the schemes is shown in Figure 1.1 together with the SRN and MRN networks in the Peninsula.

Figure 1.1: Peninsula MRN Schemes, LLM Schemes and Pipeline Schemes



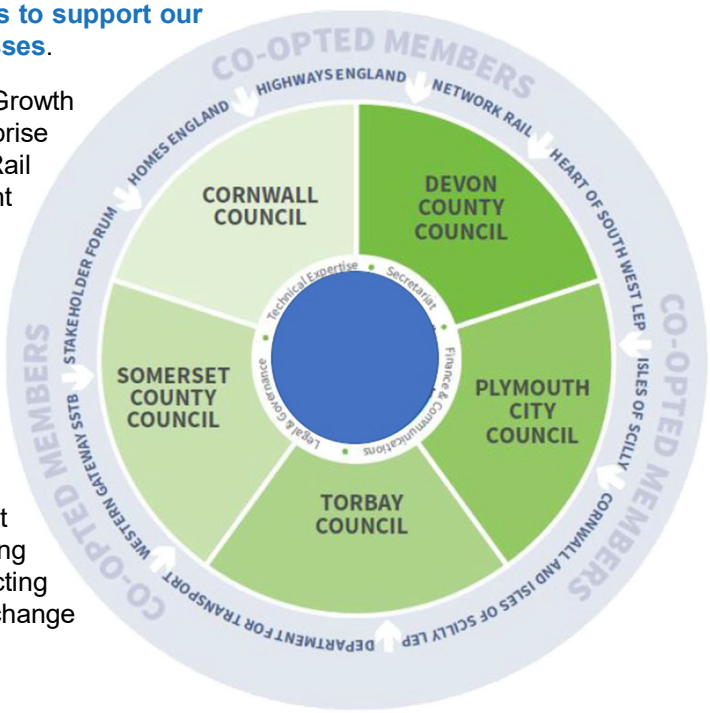
2. Peninsula Transport Introduction

Peninsula Transport

Peninsula Transport is the new shadow sub-national transport body for the South West Peninsula with a vision of **transforming the economic potential of the South West**. We represent five local authorities and two Local Enterprise Partnership areas and we are committed to working collaboratively together to:

- **Improve the strategic corridor connections between our major urban centres**; and
- **Provide rural mobility solutions to support our rural communities and businesses**.

We work well together as a region – the Growth Deal success of our two Local Enterprise Partnerships (LEPs) and the Peninsula Rail Task Force in securing rail investment demonstrates what we can achieve – and our aspiration is to continue to collaborate with partners across the Peninsula and with our neighbours in the Western Gateway STB. We are working closely with our co-opted members, getting their input into our plans and seeking their advice on the direction for the development of the Peninsula Transport Strategy. We want transport to play its vital role in delivering clean growth in the Peninsula, connecting people and adapting to the fast pace of change in our sector.



The Journey so Far

The launch of the Road Investment Strategy (RIS) in December 2014 provided real benefits to transport in the Peninsula. The long term commitment to investment in the strategic road network (SRN) and the visibility of the programme has helped us to work with Highways England in obtaining much needed investment on the first tier of our road network. The Peninsula has secured a number of important schemes through RIS1 including the A358 Taunton to Southfields Scheme, the A30 Temple to Higher Carblake (opened in 2017), the A30 Chiverton to Carland Cross and the A303 Sparkford to Ilchester. RIS1 schemes in the South West are principally focussed on improving the Second Strategic Route into the region leaving potential for further schemes to be included in the future RIS programme.

In October 2016 A Major Road Network (MRN) for England was published by The Rees Jeffrey's Road Fund[1]. The report presented the case for the creation of and investment in a MRN to represent the next tier of roads vital for supporting England's regional economies.

The subsequent creation of an MRN combined with the launch of the Transport Investment Strategy[2] has been the catalyst for the formation of Peninsula Transport and the development of this Regional Evidence Base to make the case for investment in our region.

[1] A Major Road Network for England, A Rees Jeffreys Road Fund Study, David Quarmby, Phil Carey (October 2016)
[2] Transport Investment Strategy, DfT (July 2017)

Investment in the Peninsula

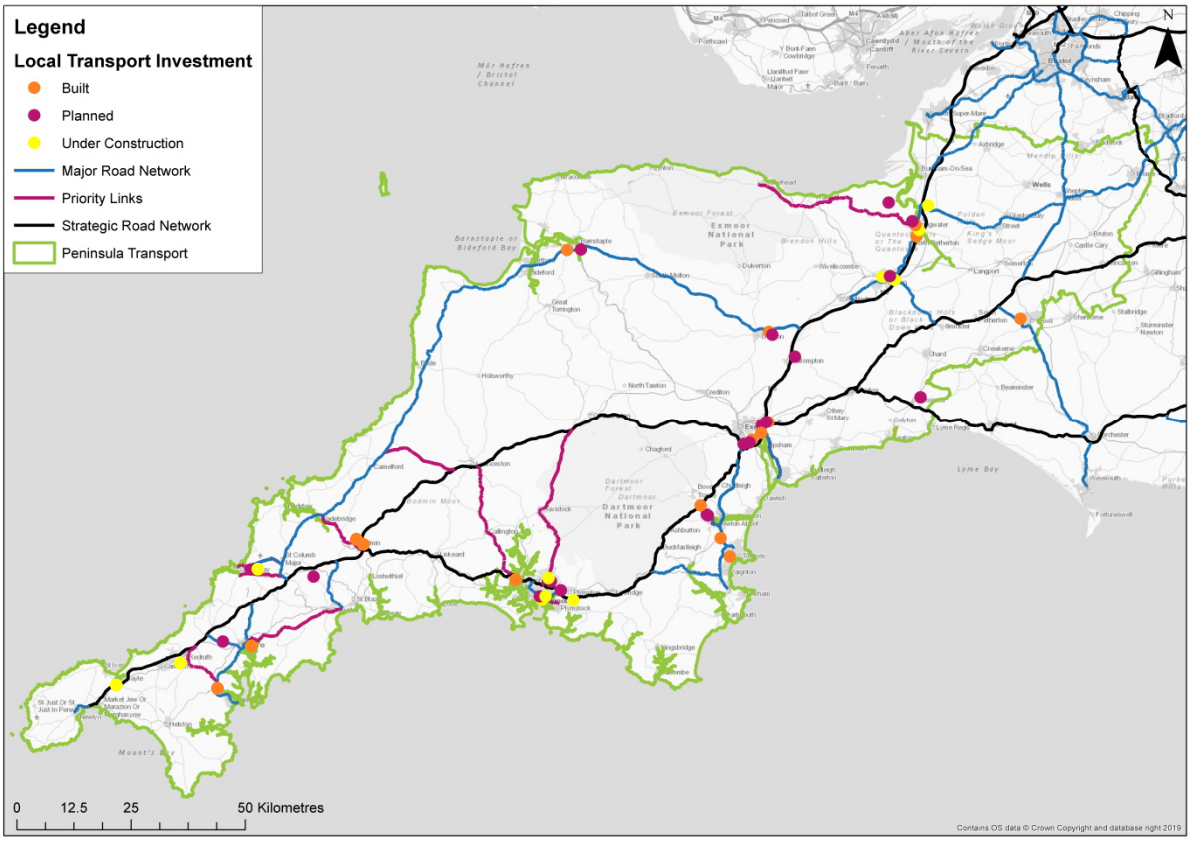
The Peninsula has some great success stories in terms of transport investment including the RIS1 schemes referred to above, the resilience works being undertaken on the railway line at Dawlish and Teignmouth and the December 2019 rail franchise changes increasing the frequency and capacity of trains from London through to Cornwall. Across the two LEP areas we have secured more than £155 million of Growth Deal Funding for transport schemes and successfully matched this with public / private funding of more than £160 million.

We also have a great track record of partnering in delivery and getting projects completed within budget and programme, three key examples are the:

- **A30 between Temple and Higher Carblake:** Cornwall Council worked in partnership with Highways England and the Department for Transport to deliver this 4.5km section of dualling of the A30, a critical pinch point on the trunk road in Cornwall, which experienced queues of up to nine miles in the peak season. The delivery was planned so that both directions of the dual carriageway were open before the school summer holidays in 2017;
- **Yeovil Western Corridor Major Scheme (£14.5m):** The works consisted of a package of improvements to transport links along the western side of the town to accommodate planned growth in the area. Somerset County Council completed the works on time and within budget in June 2019; and
- **The South Devon Highway (£115m):** opened in 2015, providing a 5.5 km dual carriageway on the A380 connecting Newton Abbot and Torbay and bypassing Kingskerswell where the original route which was one of the busiest and most congested single carriageways in the country. The scheme was delivered on programme despite extremely challenging weather conditions which impacted construction.

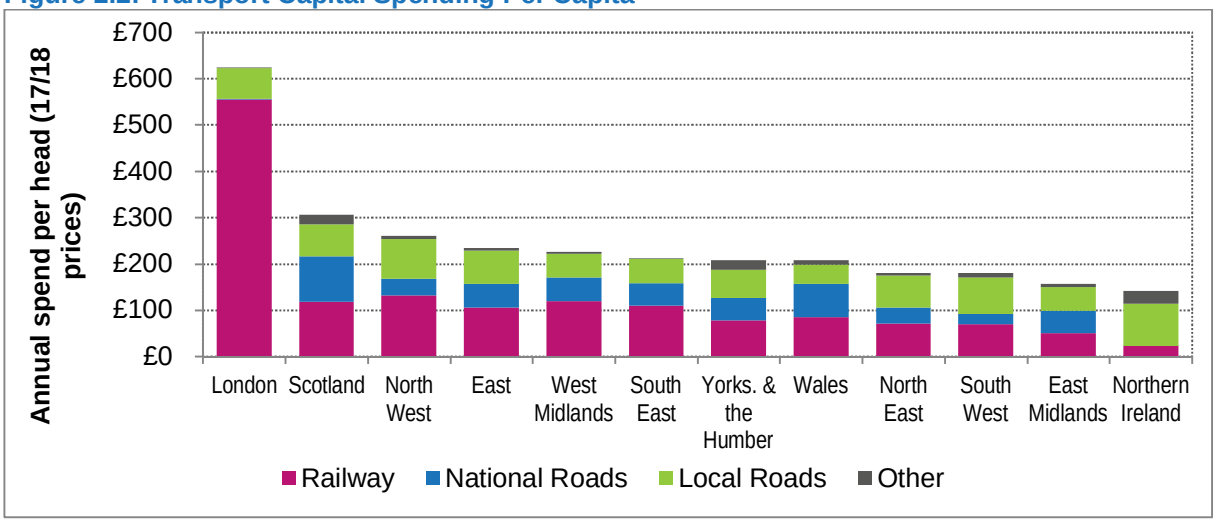
Figure 2.1 shows a range of local schemes in the Peninsula illustrating the range of places where transport investment is making a difference. The schemes displayed are either funded schemes in programmes, schemes which are currently under construction or schemes recently completed. Appendix I contains more details of these projects.

Figure 2.1: Local Transport Infrastructure Investment in the Peninsula



We welcome the introduction of the National Roads Fund and the chance to bid for further investment to continue successful scheme delivery. However, despite all the investment we have secured and the contributions we have made locally, we are at a disadvantage compared to almost all the other regions in the United Kingdom in terms of capital spending per head (see Figure 2.2). We need increased transport investment if we are to overcome the unique challenges of our geography and succeed in connecting people across the Peninsula and into the other regions.

Figure 2.2: Transport Capital Spending Per Capita[3]



[3] HM Treasury, Country and Regional Analysis 2018; ONS, Mid-year population estimates (as reported in Investment in Regional Transport Infrastructure), House of Commons Library (1 March 2019)

"No region can thrive without decent transport links. People across the South West rely on such links for work, education, leisure and access to essential services. Last year over 23 million people visited the South West, confirming its place as one of our greatest natural assets. But we know this is also a region with challenges. As a largely rural region with a unique geography, the consequences of poor transport can often be economic and social isolation, both for the region and its people."

Secretary of State for Transport, Foreword to Investing in the South West[4]

Our Ask

Peninsula Transport has prioritised six strong MRN schemes as part of the development of this Regional Evidence Base and for consideration for funding from the National Roads Fund for 2020 – 2025:

- **A39 Atlantic Highway**;
- **A39/A361 Roundswell to Bishop's Tawton**;
- **A374/A386/A3064 Plymouth MRN Phase I**;
- **A382 Drumbridges to Newton Abbot**;
- **A379 Exeter Outer Ring Road**; and
- **A361 Glastonbury & Pilton Pinch Points Improvements**.

The schemes have a total cost of £254 million with a DfT contribution of £217 million and an estimated total benefit to the UK economy of £1,320 million.

In addition to the above MRN schemes, Peninsula Transport is supporting the **A38 M5 J22 to Bristol Airport** corridor scheme, which is being promoted by the Western Gateway STB. This cross-boundary scheme (North Somerset District Council and Somerset County Council) is expected to support growth south of Bristol and deliver improved access to Bristol Airport.

The Peninsula is submitting three Large Local Major schemes for consideration:

- **A38 Manadon Interchange**;
- **M5 Junction 28 Improvements**; and
- **A39 Walton Ashcott Bypass**.

The funding ask for these schemes is around £300 million with an estimated total benefit of around £900m.

[4] Investing in the South West, Department for Transport (2019)

3. Regional Challenges & Opportunities

Chapter Overview

Our critical transport connections are mainly east-west orientated, although there are also key north-south connections between the Peninsula and Bristol, Birmingham and the North. We have challenges in terms of:

- **Journey times to key economic centres: the speed of mainline rail travel west of Exeter is well below the national average and our large rural hinterland means distances to major roads and economic centres can be large.**
- **Resilience: both our road and rail strategic alternatives are limited with a throttle around Exeter where the A30 and A38 join the M5 and two mainline rail routes converge. In its current state the A303 corridor is not a resilient alternative strategic route into the South West.**

Our world class environment, landscape and coastline attract people to live here. We have an older population than average, but flexibility is a strength for us with a large number of small and innovative businesses and home workers contributing to our economy.

Peninsula Transport recognises the important role it has in enabling a reduction of transport emissions towards zero through making the right transport policy and strategy decisions so that our world class environment can be protected and sustained for future generations.

Our economy is a significant UK contributor, generating £44 billion of GVA; but our average productivity is low and there are notable disparities in economic opportunity across the region.

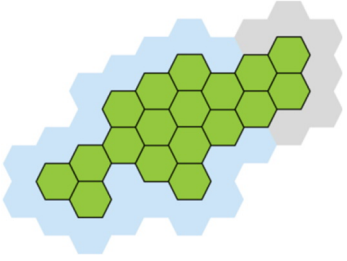
We have ambitious economic plans driven by the aspirations of our emerging Local Industrial Strategies with clean growth *a*t the heart of our future alongside investment in digital futures and high-tech engineering.

With plans for 200,000 new homes and 170,000 new jobs in the period to 2040 our transport connections need careful thought to balance need for additional capacity with the need to reduce the reliance on car trips.

We have a number of important gateways including ports at Plymouth and Falmouth and airports in Exeter and Newquay. Connections to Bristol airport in the neighbouring Western Gateway region are also vital to the Peninsula.

3.1 Introduction

The South West Peninsula is a geographically large area of nearly 14,500 km^2 spanning the authorities of Cornwall, Devon, Somerset, Plymouth and Torbay. Approximately a quarter of the region is designated as National Park, Area of Outstanding Natural Beauty (AONB) or as a Heritage Coast area. With its extensive coastline, the Peninsula has a limited number of land transport routes connecting to other parts of the UK and many parts of the population are located a long way (both in terms of distance and time) from key towns and access to the rest of the country.



In the 2011 Census, the region's population was 2.2 million, with the region's largest urban populations being Plymouth (population of

256,400), Torbay (population of 131,000) and Exeter (population of 117,800). In the national context, this is broadly equivalent to the population of West Yorkshire, and in terms of large urban areas in England, only London, the West Midlands and Greater Manchester have larger populations. Since 2011 the population of the region has continued to increase and in 2017 it was estimated to be over 2.3 million.

The Peninsula is a growing economic region with strengths in defence, medical research, high-tech manufacturing, marine, clean energy, agriculture, and tourism sectors. The Peninsula's gross value added (GVA[5]) contributes nearly £44 billion nationally (2016)[6] to the national economy. However, the Peninsula has lower productivity than any other part of the south of England and there is also considerable disparity between the productivity of different parts of the region.

This chapter provides an overview of the Peninsula in terms of the challenges and opportunities facing the region. The discussion is structured as follows:

- Distinctive Demographics;
- Transformational Economic Growth;
- Resilient Networks;
- Protecting & Valuing Our Environment;
- Transport Connections; and
- International & Strategic Gateways.

The box below sets out which elements of the DfT Investment Planning Guidance[7] are covered within this chapter.

Investment Planning Guidance
This chapter covers the following items described in the DfT guidance:

Regional Context
- Short description of the region, the transport network within the region and the main issues relevant to the MRN.

Key development areas and local economic growth aspirations
- Significant housing developments expected to be unlocked or to affect the MRN's performance (specifying approved and planned).
- Significant economic developments and employment sites expected to affect the MRN's performance (specifying approved and planned).
- Significant trade and gateways for international connectivity.

- Other relevant information from local development plans, local industrial strategies and LEPs' Strategic Economic Plans.

3.2 Distinctive Demographics

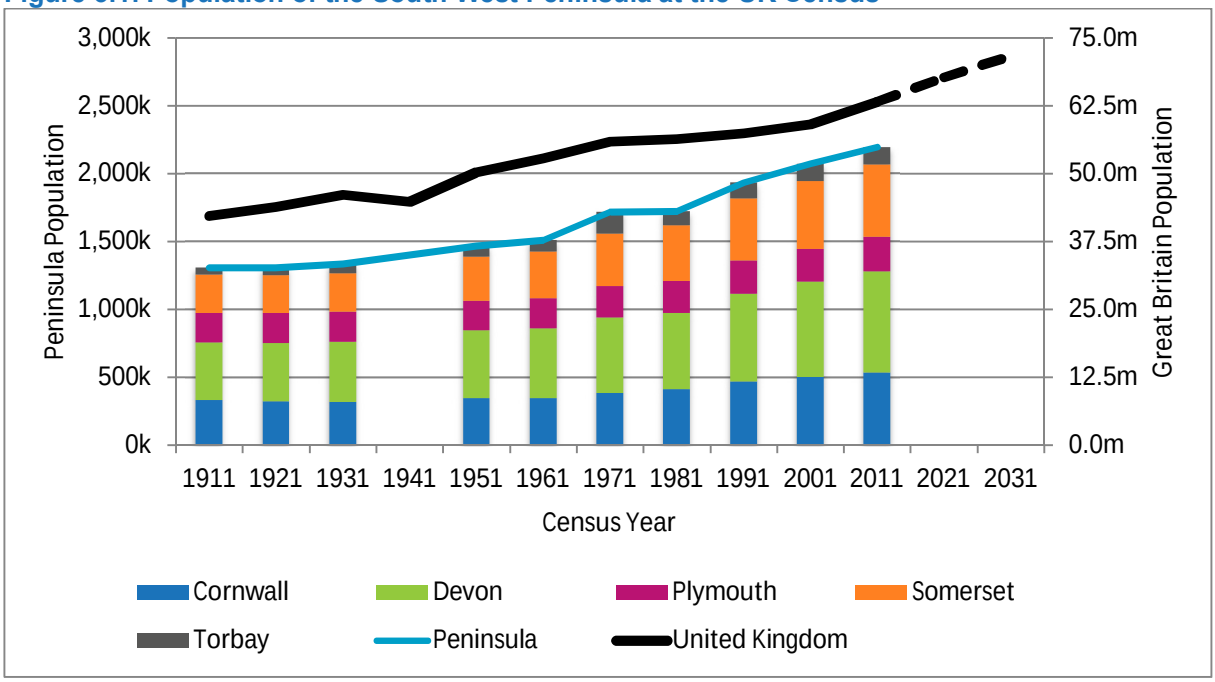
Population

The Peninsula's population grew by nearly 70% between 1911 and 2011, with an increase of nearly 500,000 people between 1981 and the most recent census in 2011. In the period from 2001 to 2011, the biggest growth has been seen in Devon, followed by Cornwall and Somerset. Figure 3.1 illustrates that over the long term the Peninsula population has grown at a faster rate than the

[5] The value generated by any unit engaged in the production of goods and services
[6] Regional GVA(I) by local authority in the UK, ONS (31 March 2017)
[7] Investment Planning Guidance For the Major Road Network and Large Local Majors Programmes, DfT (2018)

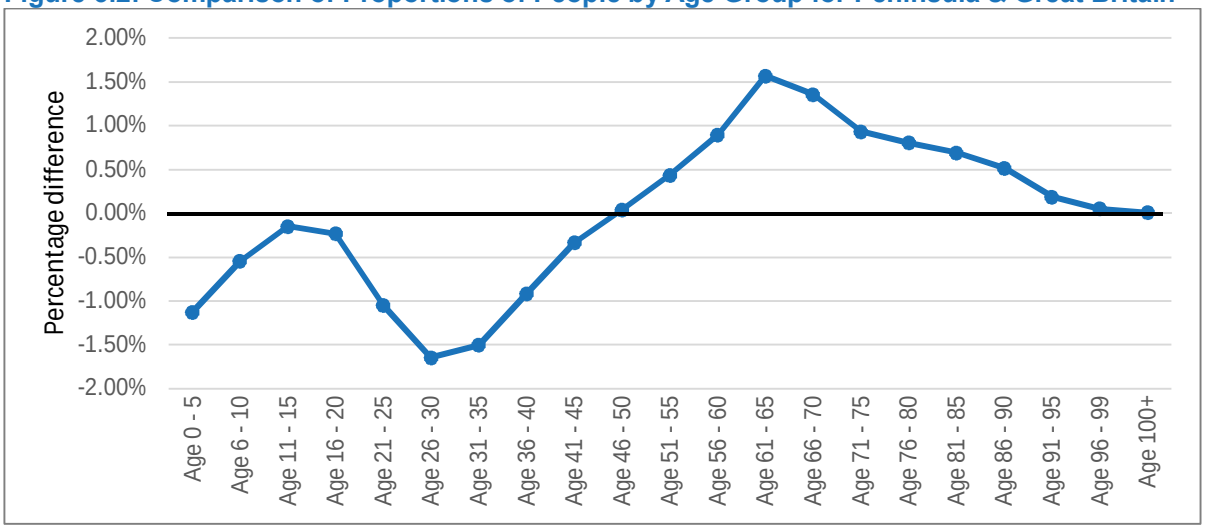
population of United Kingdom, although since 2001 it has fallen slightly behind the UK average growth rate.

Figure 3.1: Population of the South West Peninsula at the UK Census[8]



When compared with the Great Britain average, the Peninsula has a higher than average age. As illustrated in Figure 3.2, for all age groupings below the age of 45 the proportion of the population is lower than GB as a whole and the reverse is true for all age groupings aged over 45.

Figure 3.2: Comparison of Proportions of People by Age Group for Peninsula & Great Britain[9]



Recent Population Growth Trends

The composition of population growth in the Peninsula is one of its unique characteristics and an understanding of this informs some of the challenges and opportunities for this part of the South West region. Figure 3.3 displays population growth for regions of England (and the Peninsula and Western Gateway STB areas) distinguishing between organic growth (obtained by subtracting death rates from birth rates), international migration (people moving into an area from a country outside of Great Britain) and internal migration (people moving into an area from another region of Great Britain or

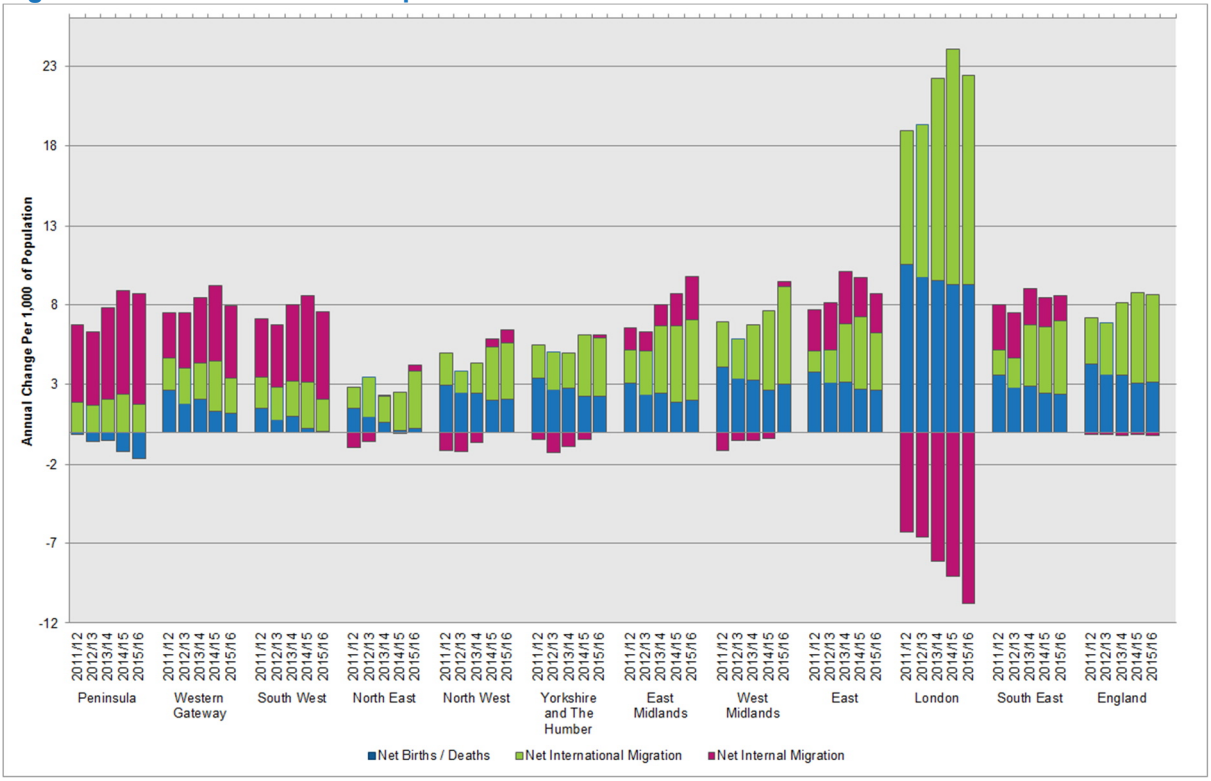
[8] Vision of Britain
[9] Population Statistics, Office for National Statistics

from Wales / Scotland). The results are shown annually for five years covering the period from 2011/12 to 2015/16.

Whilst organic population growth is declining in many places, only in the Peninsula is this declining and negative, so that apart from migration the population of the Peninsula would have declined the period shown. Rates of international migration are generally low in the South West and it is low everywhere in the Peninsula with the exception of Plymouth. However, when it comes to internal migration the South West has a significantly higher rate than any other region (and the Peninsula rate is the leading contributor to this, with a higher rate than Western Gateway). The key observation from this is that more than any other place in Great Britain, people are choosing to move to the Peninsula to live.

More than any other place in Great Britain, people are choosing to move to the Peninsula to live.

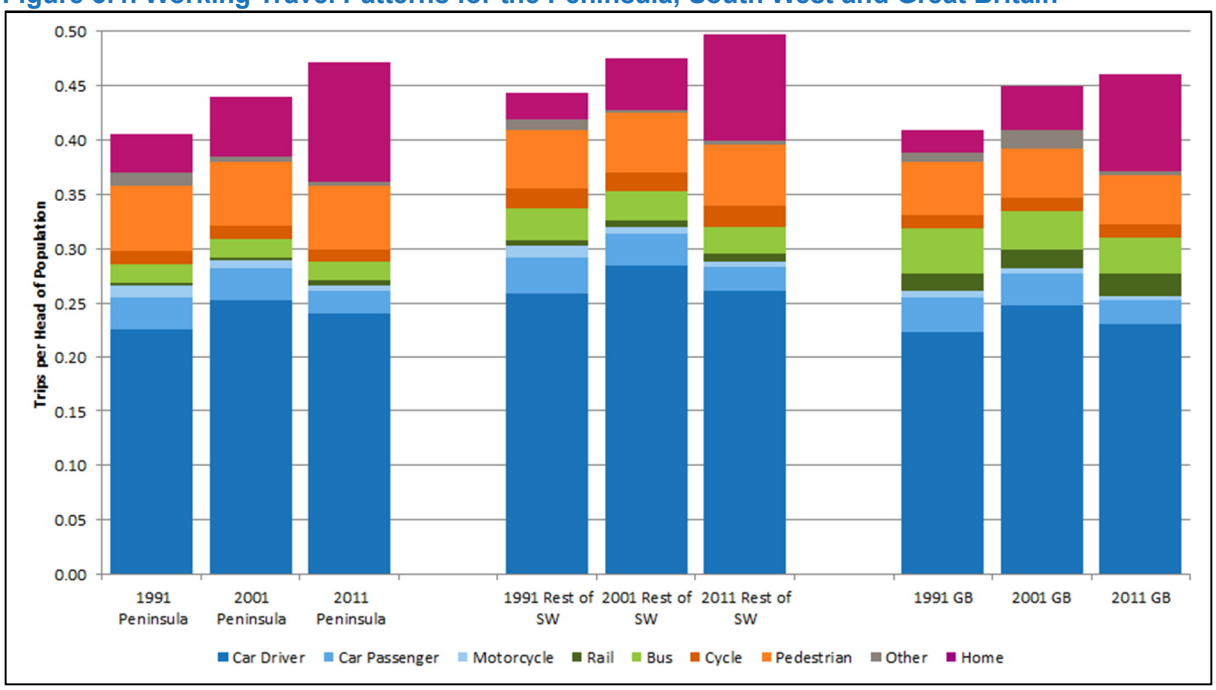
Figure 3.3: Trends in Annual Population in Great Britain[10]



The region's workforce is also uniquely flexible in the way that it works. A higher share of people work from home than in the rest of the South West or in Great Britain as a whole (see Figure 3.4), and this share has been growing more rapidly. Home workers in the Peninsula are more likely to work full time, more likely to be self-employed and more likely to be in older cohorts. The rapid rise in home working has reduced the share of people commuting by car and could have an important effect on future transport demand patterns in the Peninsula. While this trend is seen across the UK, it is particularly pronounced in the Peninsula – potentially reflecting the high quality of life that such a lifestyle on the Peninsula can offer.

[10] ONS population, internal & international migration, births & deaths data

Figure 3.4: Working Travel Patterns for the Peninsula, South West and Great Britain[11]



3.3 Transformational Economic Growth

The Peninsula is a growing economic region with competitive and cutting-edge businesses, particularly across high tech manufacturing including defence and marine, digital and clean energy as well as having recognised strengths in the agri-food, medical research and tourism sectors. The key challenge is for us to strengthen our strategic links to keep pace with the rest of the UK. We will achieve this by reinforcing connectivity and exploiting opportunities to maximise growth of our economic centres to increase productivity and ensure our rural communities are interconnected.

There are two Local Enterprise Partnerships (LEPs) in the Peninsula; the Heart of the South West and Cornwall and Isles of Scilly developing strategies for growth and productivity in the region.

heart of the south west
local enterprise partnership

"Connecting people, places, businesses and ideas to transform our economy, securing investment in infrastructure and skills to create more jobs and enable rewarding careers."

CIOS LEP

"By 2030 Cornwall and Isles of Scilly will be the place where business thrives and people enjoy an outstanding quality of life."

Two of the challenges facing the two Peninsula LEPs and where transport is a key factor are:

- Rebalancing the economy: enabling the small and rural communities to close the gap in terms of productivity and not get left behind by growth in key locations such as Truro, Exeter, Plymouth and Taunton;

[11] Nomis 1991, 2001, 2011 Census Travel-to-work & ONS populations

- Providing the critical connectivity (transport and digital) to support growth and gain the productivity benefits which come from better connections.

Both LEPs are currently developing Local Industrial Strategies (LISs) to underpin the future growth of the Peninsula and link with the foundations of the National Industrial Strategy (NIS)[12].

Industrial Strategy Growth

The National Industrial Strategy sets out five foundations as a vision for a transformed economy and Peninsula Transport has considered its response to each of these foundations showing how it can support the vision and make a valuable contribution. We also highlight where Government partnership is required to maximise growth potential in the Peninsula.

Ideas: the emerging Peninsula LISs are focussing on innovative growth in key sectors

People: the challenge is our ageing population, but the opportunity is to continue to attract skilled workers and entrepreneurs to the region

Infrastructure: our geographical location provides challenges and infrastructure investment presents an opportunity to close the productivity gap in the Peninsula with significant economic benefits for the UK. Investment in the South West region per capita is currently lower than the majority of regions.

Business environment: a combination of better transport and digital connectivity is vital to enable businesses to locate and flourish in the Peninsula

Places: the great challenge is balancing continued growth in our key centres with improving connections and opportunities for our rural locations

The HotSW LEP has published its three target areas for specialisation and prioritisation[13] across the HotSW area (which covers the entire Peninsula except Cornwall). These are:

- **Digital futures:** big data, environmental and health technologies and services, with key assets, such as the Met and Hydrographic Offices, the Universities and colleges, and NHS facilities in Exeter, East Devon, Teignbridge, Torbay, Plymouth, Taunton, Bridgwater, Yeovil and their hinterlands. This includes the range of enterprise zones, science parks and other innovation centres. **Strong synergies with the NIS Grand Challenges: especially AI & Data Economy, Clean Growth, and Ageing Society;**

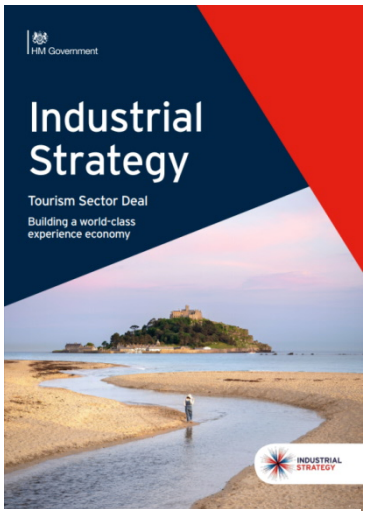
[12] Industrial Strategy Building a Britain Fit for the Future, HM Government (2017)
[13] LIS Command Paper, HotSW LEP (Feb 2019)

- **High-tech engineering:** marine and aerospace manufacturing, photonics and defence with strong interests in Plymouth, North Devon, South Somerset, Torbay and Exeter. **Direct relevance to the NIS Grand Challenges of Future of Mobility and Clean Growth;**
- **Clean energy:** associated with technical development for nuclear and offshore renewables, with an important hub at the Hinkley C power station site in West Somerset but with wider links (such as defence, construction, medicine and decommissioning) for skills, technology and potential export services elsewhere: from Bridgwater to Plymouth and Yeovil to Barnstaple. **Impact on the NIS Grand Challenges of Clean Growth and AI & Data Economy.**

The 10 Opportunities Document[14] outlines sectors which will be key contributors to the CIoS LIS which is currently being consulted on. These are: **Creative**, **Space**, **Energy**, **Agri-Food**, **Tourism**, **Marine**, **Mining**, **Aerospace**, **eHealth** and the unique business environment provided by Cornwall's **Location**. The recent announcement of funding from the UK Space Agency (June 2019) means that Cornwall will be the home to Europe's first horizontal launch Spaceport at Cornwall Airport Newquay. Alongside the Aerohub Enterprise Zone at the airport this will provide great opportunities for aerospace and technology businesses to locate and flourish.

The Visitor Economy

Tourism contributes significantly to the Peninsula economy, accounting for nearly 4.5% of economic output[15] and up to 14% of employment[16] within the region. In 2017, the South West region was the most visited region within the United Kingdom with approximately 21 million domestic[17] visitors (69% more visitors than London) contributing £4.5 billion to the UK economy[18], of which £3.6 billion originated from outside of the region. With 72% of visitors to the South West originating from outside of the region[19], the transport system experiences significant seasonal increases in demand which result in capacity issues and congestion on some of the Peninsula's most important corridors.



The Government launched its Tourism Sector Deal on the 27th June 2019

Planned Development Growth

Demand to live and work in the Peninsula is strong. High levels of migration to the Peninsula, and a growing economy supported by the Local Industrial Strategy are generating pressure for development. In this section, we describe how the Peninsula is responding to these pressures and providing the housing and employment space to support the Peninsula's growth ambitions.

Future housing and employment land allocations are set out in each respective area's local plan. The local plans and other key planning documents are summarised below:

- The Cornwall Local Plan covers the county of Cornwall and highlights the strategic importance of the road network within the region.
- Devon County is covered by a number of local planning authorities each with their own local plan. The local authorities are East Devon, Mid Devon, Teignbridge, North Devon and Torridge, and West Devon. In addition, there is an emerging Greater Exeter Strategic Plan being prepared across the local authorities of East Devon, Exeter, Mid Devon, Teignbridge

[14] 10 Opportunities Towards a Local Industrial Strategy, CIoS LEP (2018)
[15] The regional value of tourism in the UK: 2013, ONS (2016)
[16] 2014 NUTS 3 Data for Authorities within the Peninsula. Torbay was calculated to experience the highest proportion of employment in tourism related industries (14.42%), with the lowest area within the Peninsula (Somerset) calculated as 9.9%.
[17] i.e. this excludes visitors from outside Great Britain
[18] The GB Tourist 2017 Annual Report (Table 1.6.5), Visit Britain (2017)
[19] The GB Tourist 2017 Annual Report (Table 1.6.2), Visit Britain (2017)

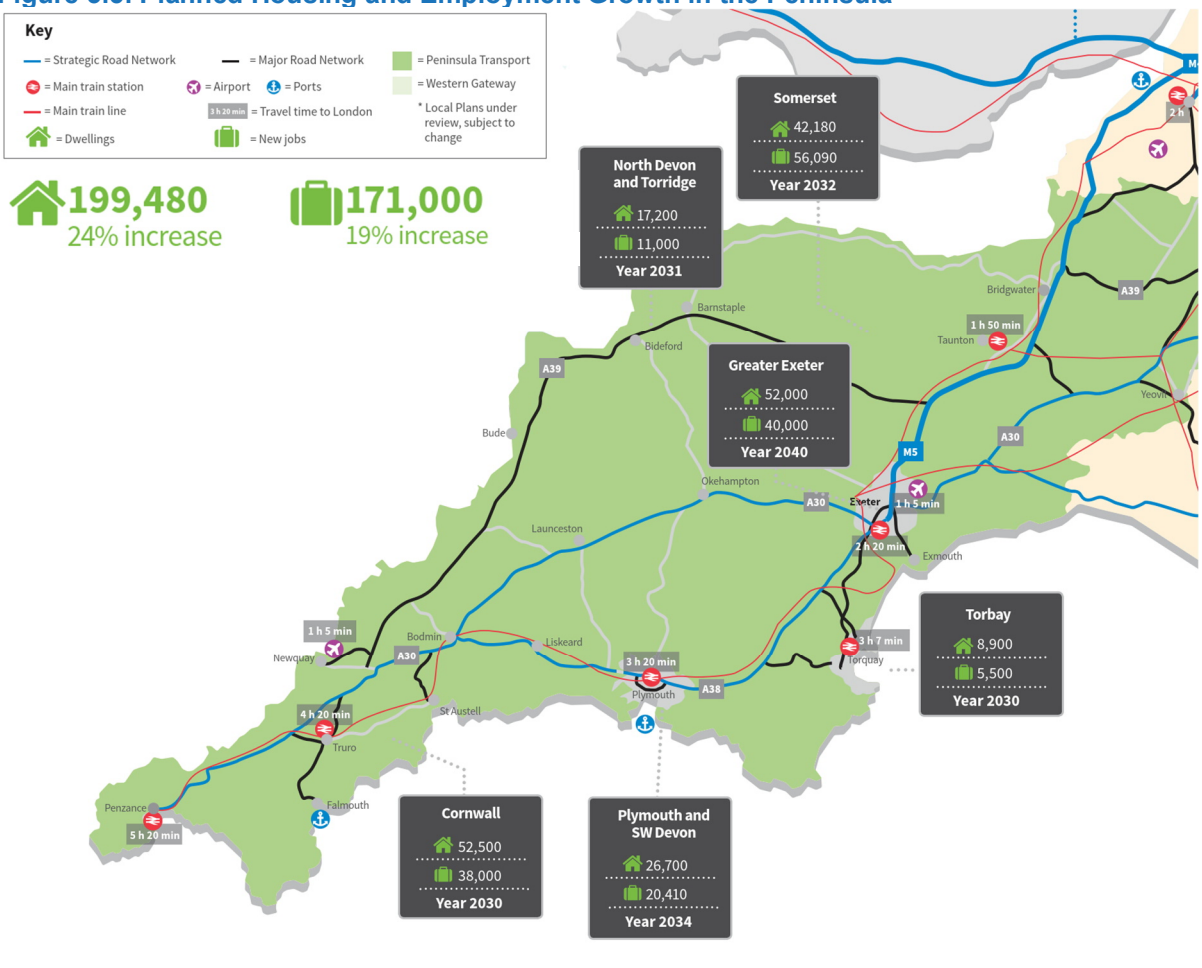
and Devon County Council to set out updated housing and employment land allocations to 2040.

- The Plymouth and South West Devon Joint Local Plan (JLP) covers the administrative regions of Plymouth City Council, South Hams District Council and West Devon Borough Council and highlights the strategic importance of the road network within the region. Alongside this, the *Plymouth Plan* incorporates Plymouth specific elements of the JLP, to drive delivery of the City's vision.
- Somerset County is covered by a number of local planning authorities each with their own local plan. The local authorities are Mendip, Somerset West and Taunton, Sedgemoor, and South Somerset. In addition the *Taunton Town Centre Action Plan* outlines the vision for Taunton Town Centre up to 2026.
- Torbay's Local Plan incorporates the three town centres of Torquay, Paignton and Brixham, all of which will be focus points for new development and urban regeneration.

Housing Growth

Across the Peninsula transport area, it is planned to deliver 200,000 dwellings by 2040. Within their respective plan period, this comprises 52,500 dwellings in Cornwall by 2030, 26,700 by 2034 in Plymouth and South West Devon, 8,900 in Torbay by 2030, 52,500 by 2040 in Greater Exeter, 17,200 in North Devon and Torridge by 2031, and 42,180 dwellings in Somerset by 2032. Figure 3.5 illustrates the planned housing and employment growth totals across the Peninsula.

Figure 3.5: Planned Housing and Employment Growth in the Peninsula[20]



Significant development is planned within and around key urban areas within the Peninsula Region, most notably in Exeter, Plymouth, Taunton and Truro.

[20] Peninsula Transport Leaflet, Peninsula Transport (March 2019)

Figure 3.6 sets out the key locations of planned new housing in the Peninsula (locations with more than 3,000 dwellings). The Peninsula is delivering several large-scale housing developments, including: a 6,300 dwelling development in Cranbrook to the North of Exeter in East Devon, a 5,500 dwelling site at Sherford on the outskirts of Plymouth, a 4,500 dwelling development at Monkton Heathfield in Taunton, 4,000 dwellings to the west of Truro in Cornwall, up to 5,000 dwellings as a new Garden Village close to Cullompton, and a 2,000 dwelling strategic urban extension at Woolwell in northern Plymouth.

Figure 3.6: Planned Housing Growth in the Peninsula (Locations with >3,000 dwellings)

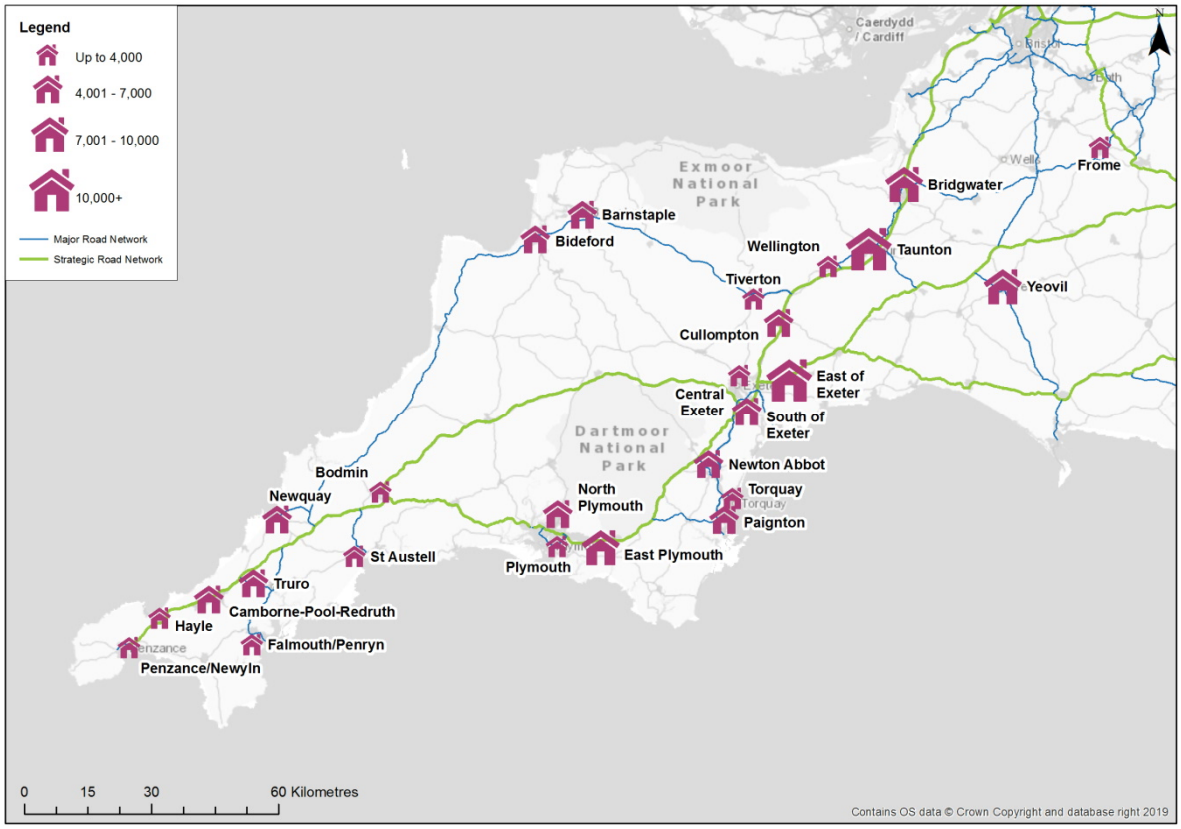


Figure 3.6 shows that housing development plans in the Peninsula are well aligned with to the SRN and MRN. Much development is also well aligned to Peninsula rail networks.

Employment and Economic Development

The growing economy, population and industrial base will bring employment growth to the Peninsula. The HotSW LEP core strategy is seeking 82,000 new jobs in the HotSW area by 2030 while the Strong Growth and Transformational scenarios predict employment growth of up to 163,000 by 2030. While Vision 2030, the CIoS Strategic Economic Plan, focuses on the productivity and wage challenges and does not make explicit employment targets, employment growth in the West of Peninsula is also expected to be strong. The Peninsula must be ready to accommodate substantial growth if it is to achieve its targets. In this section, we review the spatial plans in place to support and encourage this employment growth.

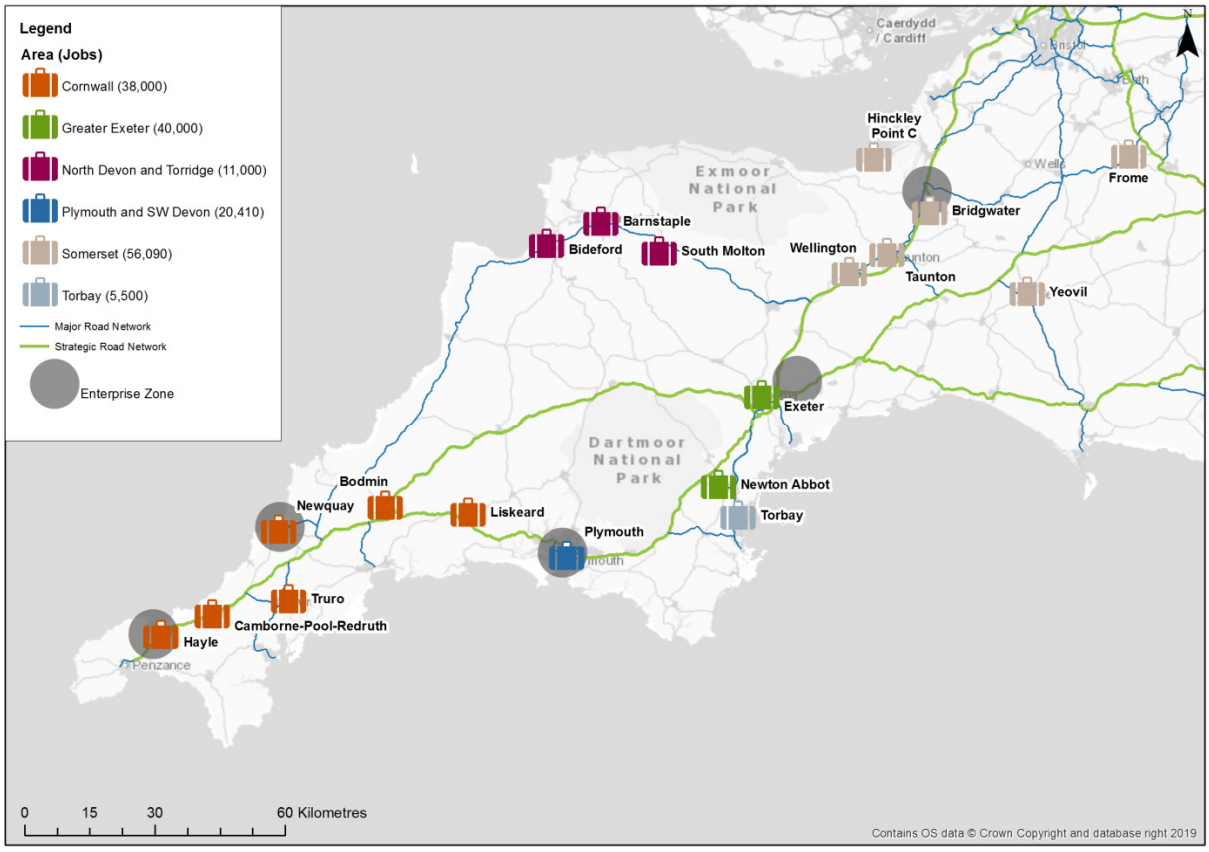
By 2040, it is planned to provide space for 171,000 new jobs across Cornwall, Devon, Plymouth, Torbay and Somerset. This compares to around 200,000 new dwellings which are being planned for. Although employment land allocations have been set out by the local authorities, the number of jobs at each site cannot be guaranteed as it will be dependent on land use. As such, analysis of sites considers the employment land allocation as opposed to jobs.

Across the region, a number of significant employment developments are planned, both as part of mixed-use developments and through delivery of business and industrial parks. In Cornwall, the Aerohub Enterprise Zone development at Cornwall Airport will deliver a large parcel of employment

land including a 35 hectare business park. Substantial employment growth is concentrated in the Exeter and East Devon Enterprise Zone[21] including Exeter Science Park (25 hectares & 3,000 jobs); Skypark Business Park (40 hectares & 6,500 jobs), Cranbrook town centre (5 hectares & 500 jobs), and Airpark (7 hectares & 700 jobs). In East Plymouth, a large 24 ha employment site is planned at Langage. In Somerset near Bridgwater, a 32 ha employment site is allocated at Huntworth. The Monkton Heathfield development in Taunton is a mixed use site planned to deliver around 22.5 hectares of employment land in addition to 4,500 homes. Gravity Enterprise Zone near Bridgwater is a 90ha innovation hub focusing on clean growth technology. Nexus 25 is 25ha strategic employment site near M5 Junction 25 at Taunton. Whilst jobs at the EDF Energy Hinkley Point C construction site are temporary, there will be more than 25,000 job opportunities over this period creating a significant housing pressure.

Figure 3.7 summarises the locations where substantial employment is planned, generally representing sites with potential for more than 2,000 new jobs. The sites are colour-coded by development plan area across the Peninsula, with the total number of new jobs anticipated in each area shown in the legend.

Figure 3.7: Planned Employment Growth in the Peninsula



[21] http://www.exeterandeastdevon.com

3.4 Resilient Networks

Resilience of the transport networks across the Peninsula region are critical, with the region's road and rail networks being particularly vulnerable to the impacts of coastal and inland flooding and the associated impacts of climate change. Many of the Peninsula's major transport corridors also lack a reasonable alternative, meaning that the impact of incidents, maintenance or weather events are severe and cause a huge amount of disruption to travel.

The Peninsula's strategic network is uniquely vulnerable:

- **Incidents on the M5 disrupt almost all of the strategic traffic travelling to or from the Peninsula, with a particular vulnerability at the confluence of routes around Exeter;**
- **There is only a single mainline rail route west of Exeter, and this is particularly susceptible to weather events around Dawlish and Teignmouth, resulting in a high risk of disruption for rail travellers.**

In 2014 several successive storm events caused widespread damage to the Peninsula's rail infrastructure and service delivery:

- Extensive flooding on the Somerset levels impacted the Reading to Taunton and the Bristol to Exeter branches of the Great Western Main Line;
- Strong winds and high seas caused sections of the sea wall, rail track and railway station platforms to wash away at Dawlish;
- A controlled landslide near Teignmouth lead to material washing over the railway lines and into the sea; and
- Flooding of the River Exe at Cowley Bridge closed the Great West mainline for 15 days affecting 2,000 trains.

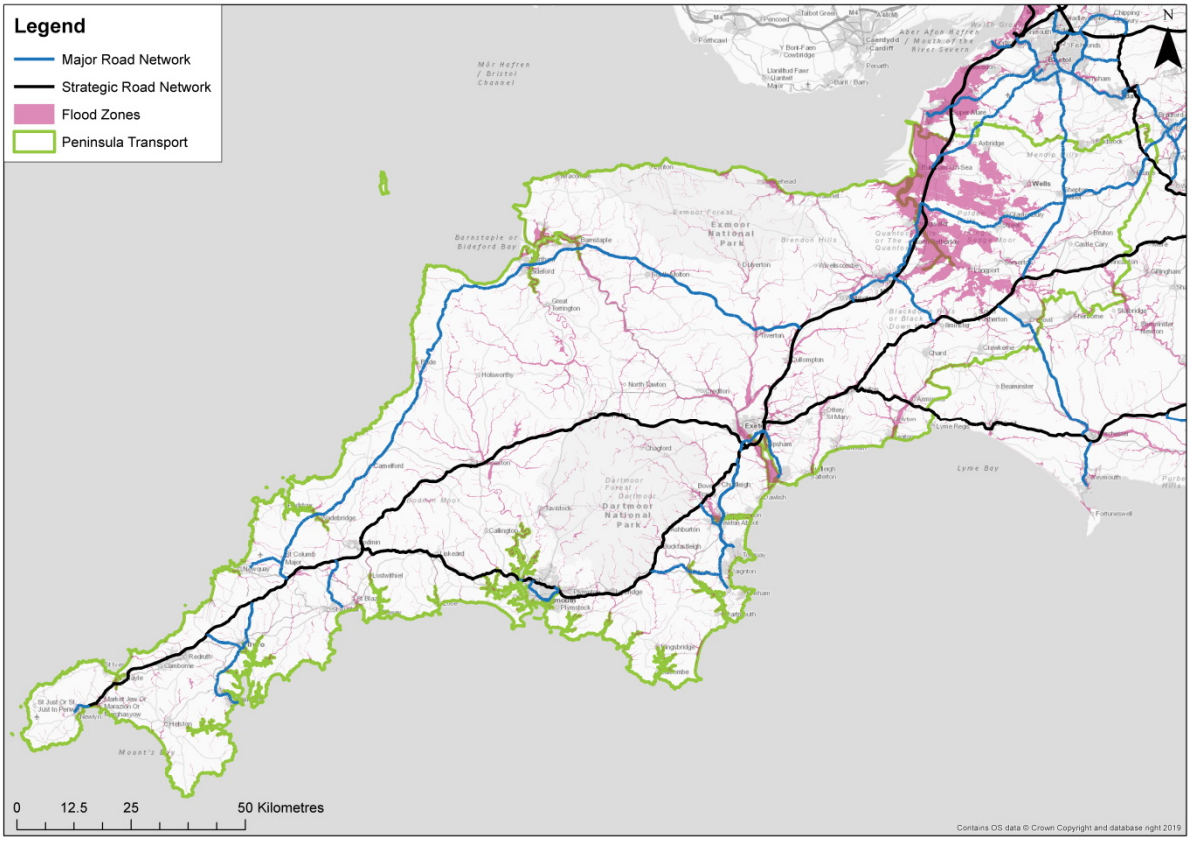
Figure 3.8 shows some key facts about the impact of the 2014 flooding, and the vulnerable points for South West rail infrastructure.

Figure 3.8: Impacts of the 2014 Flooding[22]

[22] Closing the Gap, the South West Peninsula Strategic Rail Blueprint, Peninsula Rail Task Force (2016)

Figure 3.9 shows the locations within the Peninsula region which are susceptible to flooding. This demonstrates the level of potential flooding across the Somerset levels, and from major rivers such as the River Exe (Exeter), River Taw (Near Barnstaple) and the River Teign (Newton Abbot).

Figure 3.9: Peninsula Flood Map



Across the Peninsula region's road network, there are a number of locations susceptible to environment influences such as flooding including locations on the A303, within Plymouth, east of the Launceston Tamar Valley, Crowlas and Hayle. Harsh weather conditions all cause issues on routes such as the A30 given the high road altitude across Bodmin Moor[23] and on the A380 Telegraph Hill and A38 Haldon Hill south of Exeter.

The impact of climate change, notably sea level rise and the increase in frequency and severity of weather events is forecast to cause increasing issues across the Peninsula region, including specific potential flood risks which have been identified at St Erth, Marazanvose, Indian Queens, Carland Cross, Belowda, and the A30 from Bodmin to Launceston.

As well as environmental vulnerability, the shape of the Peninsula region and resulting layout of the existing transport networks mean there are key pinch points and critical gateways, such as in Exeter where three SRN routes (the M5, A30 and A38) combine to a single link for a short distance along the M5 with enormous resilience implications if an issue occurs on the M5.

[23] South West Peninsula Route Strategy, Highways England (2015)

3.5 Protecting & Valuing Our Natural Environment

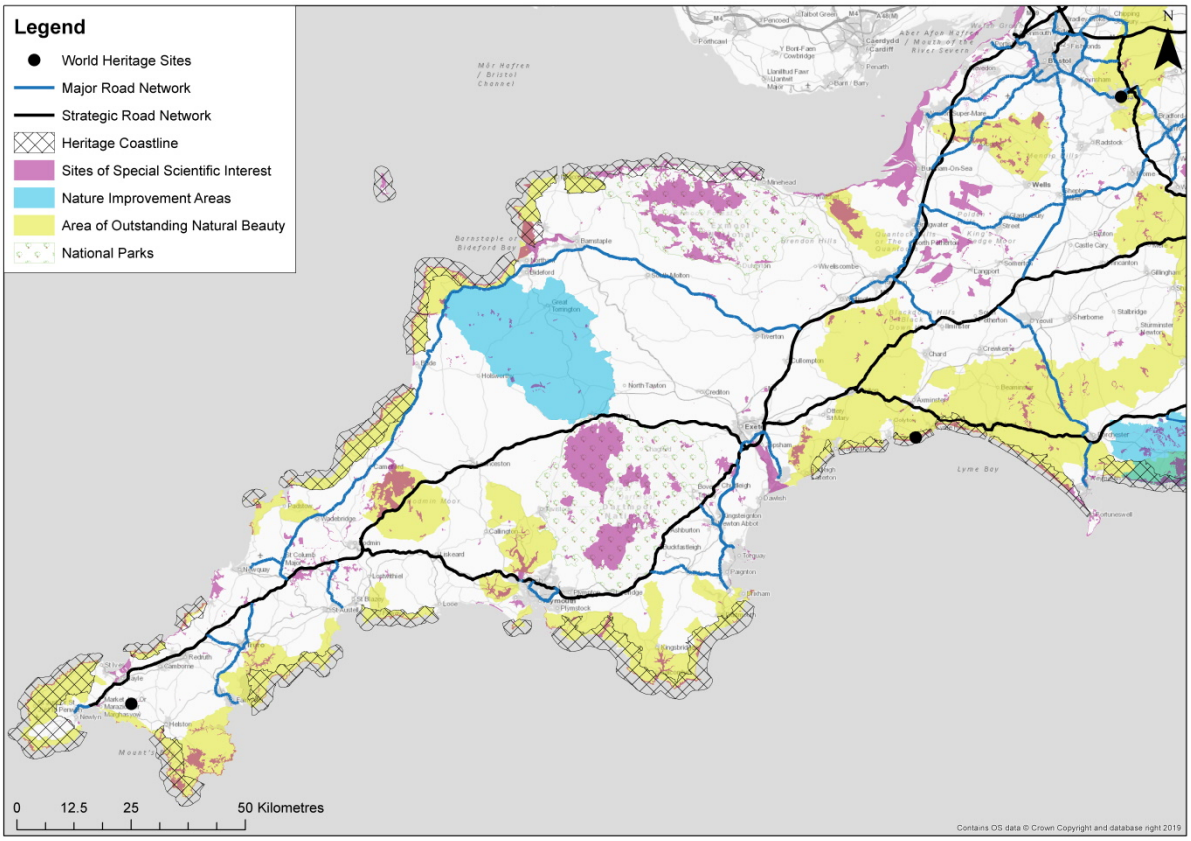
In 2018 the Government launched the Green Future[24] Plan setting out 25-year goals to help the natural world regain and retain good health. These goals are: 1. Clean air; 2. Clean and plentiful water; 3. Thriving plants and wildlife; 4. A reduced risk of harm from environmental hazards such as flooding and drought; 5. Using resources from nature more sustainably and efficiently; and 6. Enhanced beauty, heritage and engagement with the natural environment. This section discusses two ways in which transport strategy in the Peninsula can contribute towards retaining the health of our natural environment: through consideration of the impact of transport infrastructure on the environment; and consideration of the impact of transport modes using the infrastructure (emissions, noise etc.).

The impacts of climate change and major weather events on transport in the Peninsula were discussed in 3.4 Resilient Networks.

World Class Environment

The Peninsula environment is unique, with an extensive of coastline, two National Parks, nine Areas of Outstanding Natural Beauty (AONBs), and a number of Nature Improvement Areas (NIA) and Sites of Special Scientific Interest (SSSI). In addition, there are also two World Heritage Sites, the Cornwall and West Devon Mining Landscape, and the Jurassic Coast. The Jurassic Coast stretches from Exmouth in East Devon to Studland Bay in Dorset. Protecting and preserving this environment for future generations is a shared responsibility and Peninsula Transport will play its part through the way it develops strategies and schemes.

Figure 3.10: Environmental Sites in the Peninsula

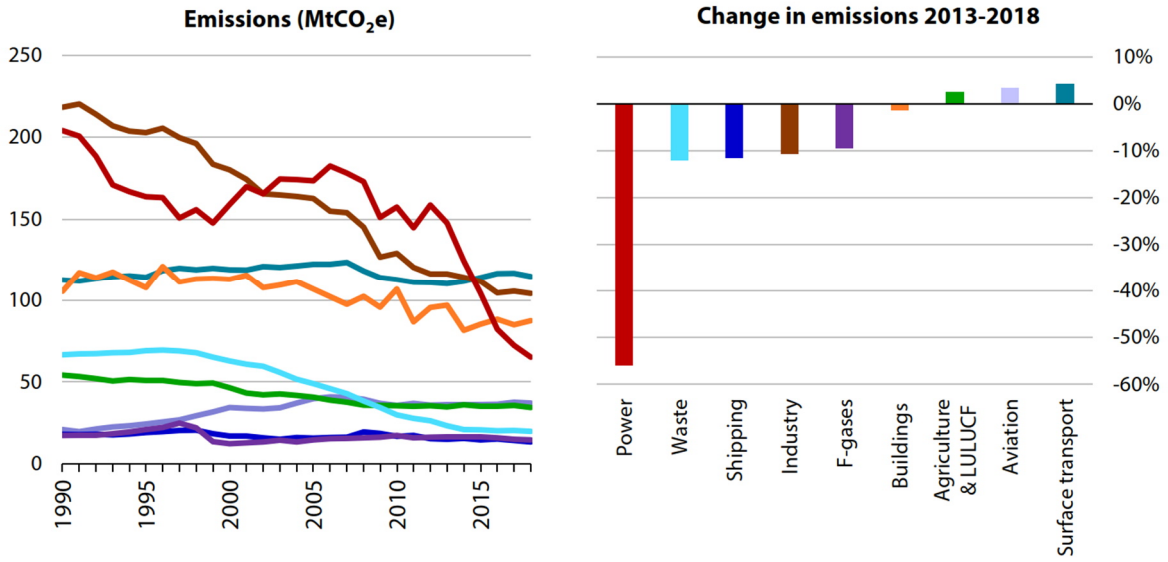


[24] Green Future: Our 25 Year Plan to Improve the Environment, Department for Environment, Food & Rural Affairs (2018)

Transport Environmental Impacts

Surface transport is the largest- emitting sector in the UK accounting for 23% of UK emissions[25]. While emissions in the power sector have reduced substantially, surface transport emissions have remained stubbornly high. However, some progress has made in the past two years: following three consecutive years of growth between 2014 and 2016 emissions were then stable in 2017 and fell by 2% in 2018. As Figure 3.11 illustrates, surface transport has an enormous task to ensure the trend of the past two years continues and accelerates towards becoming a zero-carbon sector. To sustain overall progress in emissions reduction, tackling emissions from surface transport is both critical and urgent.

Figure 3.11: Changes in Sector Emissions 1990 - 2018

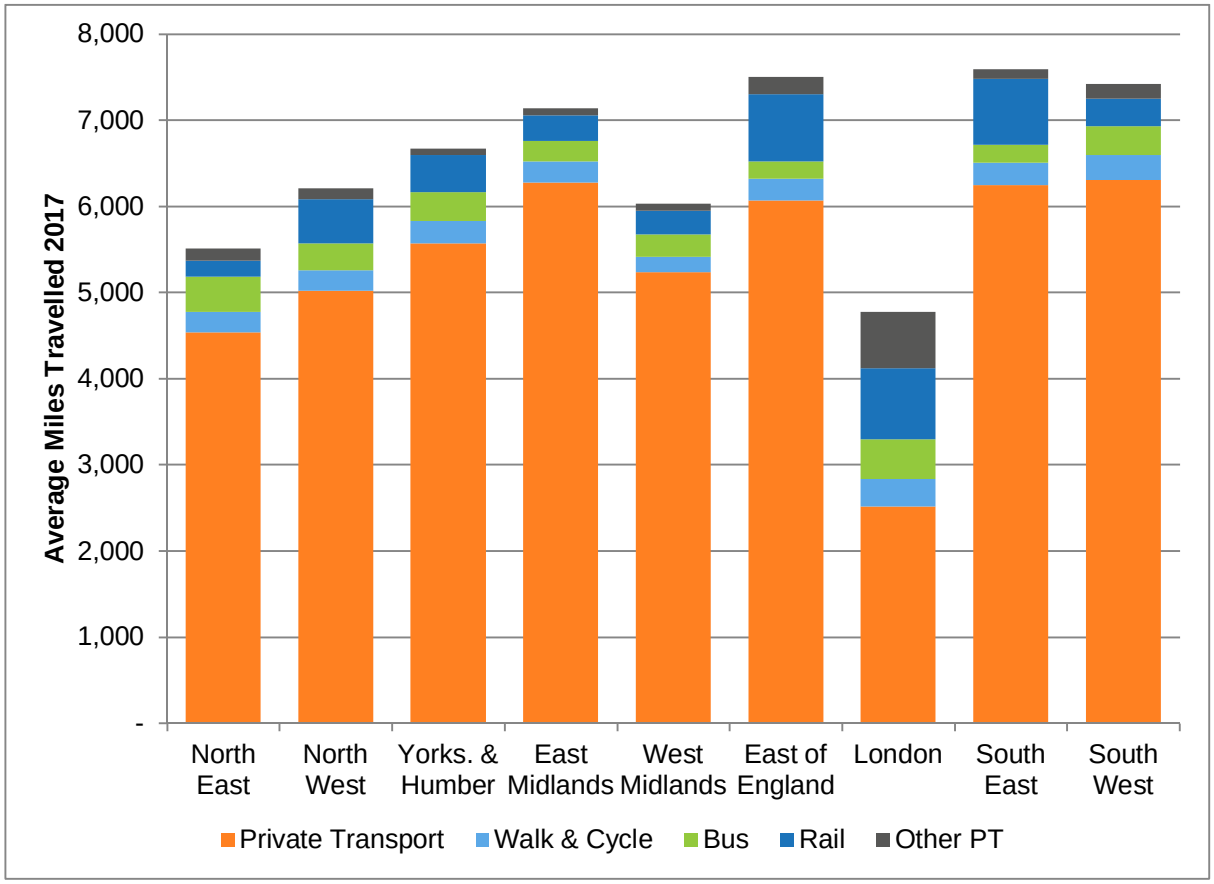


A particular challenge for the Peninsula is journey distance, given the large rural hinterland and the distances required to travel across the region and to other parts of the country. As Figure 3.12 illustrates, the South West, including the Peninsula, has the highest private transport mileage per person (car driver, car passenger, motorcycle etc.) of any region in England. The distances between places are evidently fixed and so Peninsula Transport will meet this challenge through means such as:

- Promoting and supporting public transport and active mode solutions to compete with private modes and covering corridors / movements where current provision is lacking;
- Continuing to work alongside planners to ensure development and economic growth is balanced across the region with an aspiration to reduce average commuting distances;
- Making the best use of digital connections and trends in flexible working to reduce the need for travel; and
- Working to accelerate moves to more efficient, low emissions and ultra-low emissions vehicles across the Peninsula.

[25] Reducing UK Emissions, 2019 Progress Report to Parliament, Committee on Climate Change (July 2019)

Figure 3.12: Average Miles Travelled by Mode and Region[26]



Transport also has local environmental impacts, notably the impact of emissions on local air quality and the impact of the noise of vehicles. These issues will be discussed in relation to specific MRN corridors later in the report.

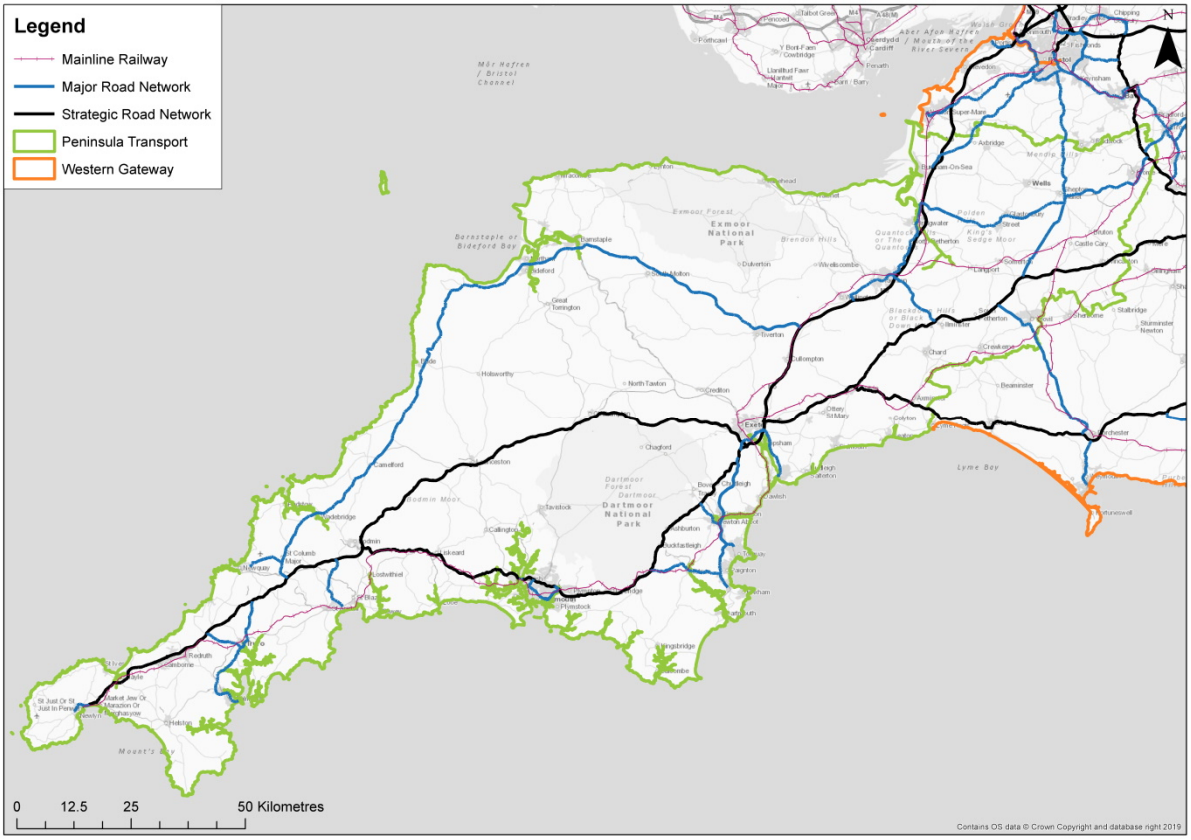
[26] National Travel Survey 2017, NTS9904, DfT

3.6 Transport Connections

Network Overview

The transport network in the Peninsula is to a large extent constrained by the geography of the region with the strategic road and rail connections generally aligned east-west providing a central spine and some additional connectivity closer the south coast and southern parts of region. There are also critically important north-south corridors linking into the West of England growth area, the Midlands and the North. The **major road network (MRN)** provides some critical spurs from the **strategic road network (SRN)** to key population / employment centres as well as some important corridors linking communities and providing a route through the region (e.g. the A361 and A39 corridors in north Cornwall and north Devon).

Figure 3.13: Peninsula Strategic Transport Connections



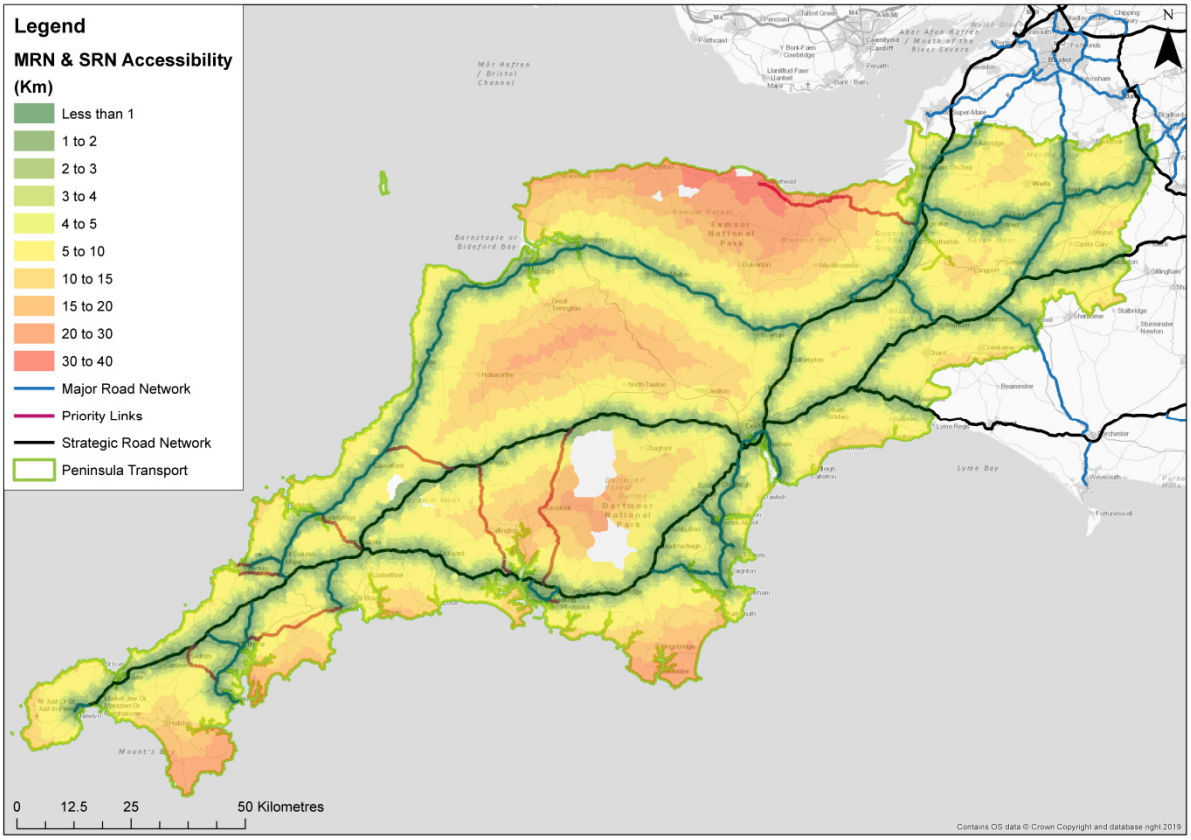
A majority of the population centres in the Peninsula are aligned to the strategic road network (SRN), major road network (MRN) and rail routes, but there are notable exceptions due to a lack of north-south MRN routes, particularly in Devon and Somerset. This is illustrated in Figure 3.14 which shows the accessibility of the SRN and MRN (in terms of distance to access the network) for all locations in the Peninsula. Whilst the majority of places are within 10km of the top two tiers of the road network (as represented by the SRN and MRN), there are a number of places with poor access, including the Lizard Peninsula (and some other south Cornwall coastal communities), the South Hams, West Devon, parts of North Devon and West Somerset.

Peninsula Transport has identified some **Priority Additional Links** which are important road routes in the region and which would make good candidates for an extension to the Peninsula MRN network in the future – providing better accessibility to some of the places which are currently poorly served (these links are illustrated in).

The M5 is the only Motorway in the region, ending to the south of Exeter but providing strategic connections to Bristol, Birmingham and London (via the M4/A303). The Peninsula's other SRN roads are the A30 (running from southern Cornwall to the Blackdown Hills in Devon, via Exeter), where it becomes the A303 and continues east through Somerset into Wiltshire; the A38 (running from

Bodmin, through Cornwall, Plymouth, Devon, Somerset and North Somerset into Bristol and beyond); and the A35 which commences in Honiton (to the north east of Exeter) and runs to the east into Dorset and past Dorchester, where it joins the A31. Strategic road connections with the rest of the country are limited with only the M5 corridor providing a continuous dual carriageway standard route. Continued investment in the A303 / A358 Second Strategic Route is therefore essential to enhance the reliability and resilience of the network for inter-regional journeys.

Figure 3.14: Accessibility of SRN and MRN



The Peninsula rail network is vital for both passenger and freight transport across the region and to destinations outside the South West region including Bristol, London, Birmingham, Manchester, Cardiff and Southampton, providing critical access to domestic and international gateways. Line speeds on the mainline west of Exeter are slow and it is not possible to get to London before 10:00 from Penzance on the same day by rail. The Peninsula Rail Task Force (PRTF) has been working with DfT, Network Rail and the train operators since 2013 to programme improvements for the Peninsula rail network. This has resulted in some real success, including the rollout of faster, higher capacity Hitachi trains, with the benefits of the new trains due to be maximised through the 'once in a generation' timetable upgrade which Great Western Railway will be introducing in December 2019. There has also been the £30m of re-signalling works in Cornwall to boost capacity and improve accessibility between Cornwall towns and Plymouth. From a resilience perspective, the 1st phase of critical works at Dawlish have commenced, which is in addition to the £50m spent improving resilience of the railway north of Exeter. Our geography impacts travel to key economic centres in other regions, for example Plymouth is as far from London as Liverpool, and Penzance a little further away than Newcastle. Whilst our inter-regional strategic road connections provide reasonable average speeds in good conditions, the fragility of our network means journey time reliability is frequently impacted. Rail travel speeds from the Peninsula are much slower than average speeds elsewhere in the country.

A more detailed discussion of the transport network including the MRN corridors is provided in chapter 4.

Transport Challenges to Growth Ambitions

The Peninsula's growth ambitions are challenged by aspects of our current transport network:

- **Increased traffic volumes of 10% (2012-2017) on our strategic road networks**
- **High visitor numbers (21 million domestic visitors in 2017) place further strain on existing infrastructure.**

- **High journey times for commuters and businesses within the Peninsula and beyond**
- **Vulnerability and resilience of the existing rail infrastructure**

- **High proportion of businesses (65%) and population (46%) located and living rurally**
- **Low utilisation of bus for Travel to Work average of less than 4%**

- **Limited connectivity to wider transport infrastructure and services, creating reliance on car mode**
- **Ageing port and airport infrastructure**

Transport Opportunities

Peninsula Transport is committed to making the most of opportunities provided by the rapid changes taking place in the transport industry both in terms of improving connections and productivity for the region, but also in terms of reducing transport emissions towards zero[27]. Several authorities within the Peninsula have already declared Climate Emergency motions and are setting targets for being carbon neutral. Transport as the largest-emitting sector in the UK, accounting for 23% of the UK total carbon emissions[28], has a vital contribution to make. Whilst technology driven changes and government policy will help the Peninsula to meet these challenges, regional policy and strategy decisions remain critical to reduce reliance on the car for transport and to encourage a higher proportion of journeys to be made by public transport and sustainable modes.

"We expect to see more change in the transport sector over the next 10 years than we have in the previous century"
Secretary of State for Transport at launch of the Road to Zero Strategy

[27] The Road to Zero, Next steps towards cleaner road transport and delivering our Industrial Strategy, HM Government (July 2018)
[28] Reducing UK Emissions, 2019 Progress Report to Parliament, Committee on Climate Change (July 2019)

We will ensure transport achieves positive outcomes for the region:

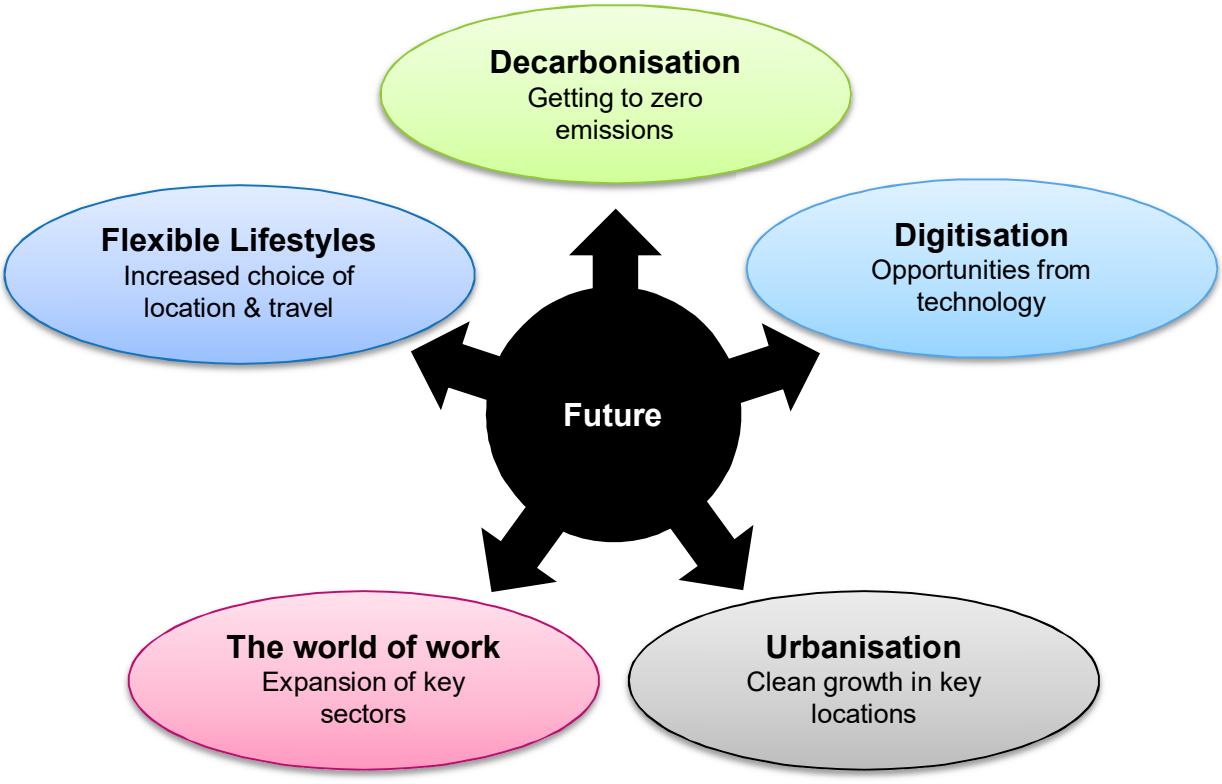
- **Delivering resilient and reliable networks reducing journey time to serve 98,000 businesses (2016) and encourage inward growth.**
- **Develop future mobility solutions and inter operable networks to connect communities to access skills, education and employment leading to financially viable services.**
- **Improved accessibility and capacity to encourage business and passenger growth to complete locally, nationally and globally.**
- **Support the planned growth in jobs and housing discussed in section 3.3.**

199,480
24% increase

171,000
19% increase

This is why the first part of Peninsula Transport's Long Term Strategy, the Economic Connectivity Study, is asking a series of challenging questions to help understand the required direction of travel and pace of change to deliver clean growth in the Peninsula. Figure 3.15 shows the scenarios the study is focussing on.

Figure 3.15: Economic Connectivity Study Scenarios



3.7 International & Strategic Gateways

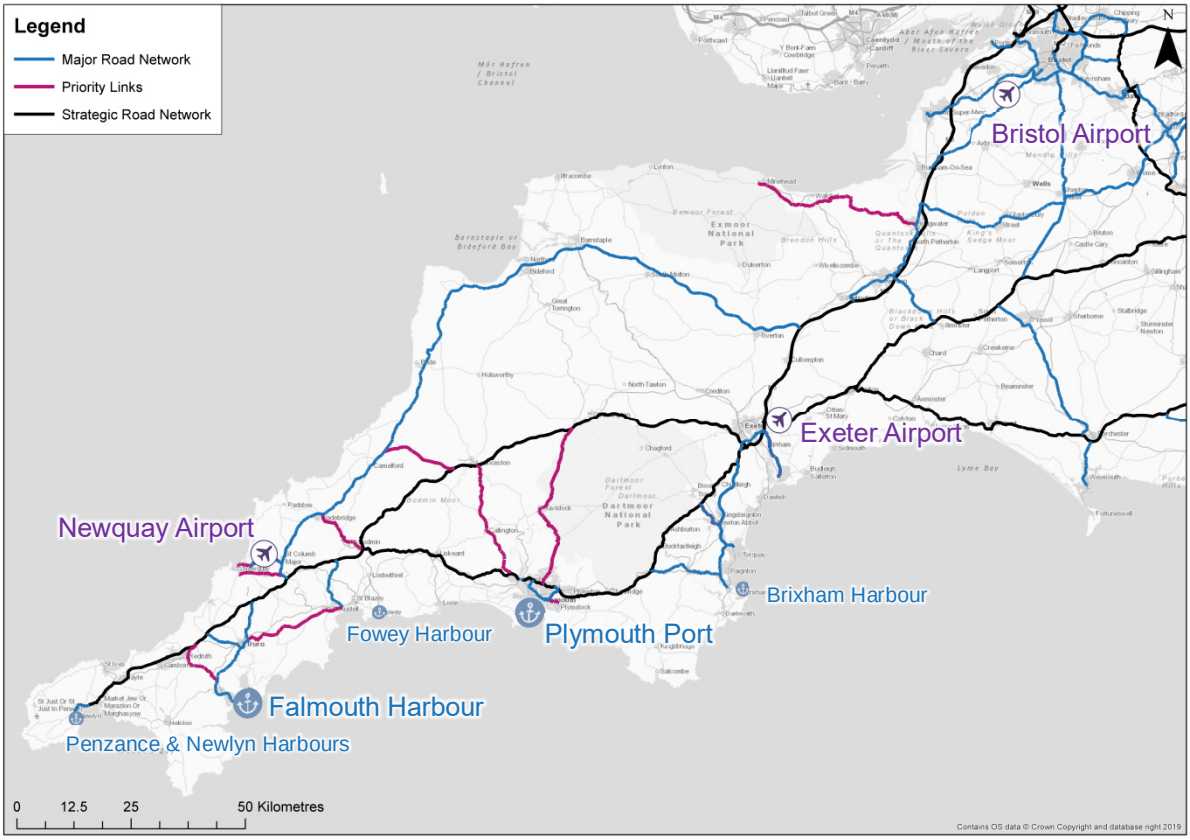
National Importance

With an extensive coastline, it is no surprise that Maritime industry is an important sector in the Peninsula economy providing more than 15,000 full-time equivalent (FTE) jobs[29] and contributing close to £3 billion of GVA to the UK[30]. There are a large number of Peninsula ports providing and undertaking a wide range of activities. This section covers the most strategically important of these locations within the Peninsula. It should also be noted that other ports, particularly Bristol and ports within the South Coast Marine Cluster (including Weymouth, Poole and Bournemouth) are also important gateways for the Peninsula. The Peninsula MRN is important for accessing all of these ports.

The Peninsula is also home to two commercial airports, Exeter International Airport and Cornwall Airport Newquay both providing national and international flights. Transport links to major hub airports, particularly those in London, are of high importance as these airports offer a wider range of destinations and choice. Peninsula Transport supports the proposed Western Rail Link to Heathrow ensuring better connectivity by rail via Reading for journeys from the South West. Just as importantly, Bristol Airport, in the neighbouring Western Gateway region, is a vital gateway and its development and expansion is supported by Peninsula Transport as approximately 25% of its 8 million annual passengers originate in the Peninsula.

Despite the range of flights on offer from the three South West airports, the South West has the largest surface leakage of passengers from any one region to another in the UK: every year seven million South West and South Wales passengers fly from London airports. Strategic connectivity to facilitate these movements is vital, but we also need to improve the connections to our own airports to ensure they can attract passengers and achieve their planned growth.

Figure 3.16: Location of Peninsula International & Strategic Gateways



[29] The South Coast Marine Cluster Marine Inward Investment Evidence Study (SCMCMIIES), Wavehill Ltd. (June 2017)
[30] SCMCMIIES, direct, indirect and induced GVA by LEP for total MMS related activity

Ports

Plymouth Port and Falmouth Harbour are the two key gateway ports in the Peninsula, but there are also a number of smaller ports and harbours making an important contribution to the economy, including Brixham, Newlyn, Penzance and Fowey.

Falmouth Harbour

With the deepest natural harbour in Western Europe and a well-established marine supply chain, Falmouth is well positioned to continue as an active and leading port for offshore renewables.

Falmouth port is home to a wide range of services to commercial shipping including dry docks, bunkers, cargo handling, lay up berths, commercial moorings and underwater services. Amongst the tenants, A&P runs the largest ship repair complex in the UK with three large graving docks providing capacity for vessels up to 100,000 tonnes. The facility is a centre of excellence for Ministry of Defence vessels.

Port Access: Falmouth Harbour is accessed via single carriageway roads with parking on access roads. This causes difficulties for freight traffic and supports the need for improved port approaches for larger or awkward loads.

Port of Plymouth

Activity at the Port of Plymouth is centred on the Devonport Royal Dockyard which is the largest naval base and dockyard in Western Europe. The port is also home to Brittany Ferries' services to France and Spain, carrying around 450,000 passengers a year from Plymouth and also welcomes cruise liners to the region. More than 40% of these passengers originate outside the Peninsula, so strategic connections are important in delivering these services.

Plymouth is also a busy commercial fishing port with several scientific research vessels, charter vessels and leisure water users. It is also a cargo port; the types of traffic and cargo handled in the port include petroleum tankers, bulk dry cargo, project cargoes, timber, and fishing and recreational use.

Port Access: Due to height restrictions on the A374 through Gdynia Way (and the eastern side of the city), larger freight movements into and out of Plymouth Port from the A38 are generally made via the western side of the city. Access through Plymouth's city centre to the A38 can also be an issue and impacts on freight turnaround times.

Other Peninsula Ports

There are several other Peninsula ports, which while smaller in scale, are important contributors to the economy and rely on onward transport connections in order to distribute products efficiently.

Brixham Harbour, Newlyn and Plymouth are the three largest fishing ports in England by quantity and value. In 2017 39,000 tonnes of fish were landed with a value of £86.4 million pounds[32].

Adjacent to Newlyn is Penzance Harbour which is the mainland departure point for passenger and freight services to the Isles of Scilly.

Port Access: Access to both Brixham and Newlyn ports is by single carriageway road and their locations mean journey times out of the Peninsula are substantial.

The Port of Fowey is the largest exporting port in the Peninsula in tonnages terms with more than 75% of Cornwall's China Clay production (totalling around 1,000,0000 tonnes in 2014) exported to market through the port[33]. The clay is mainly delivered to the port by rail.

[31] Contains public sector information licensed under the Open Government Licence v3.0
[32] UK Sea Fisheries Statistics 2017, Marine Management Organisation (2018)

Airports

The three key regional airports are Exeter, Newquay and Bristol which lies outside of the Peninsula in the neighbouring Western Gateway STB.

Exeter Airport

Exeter Airport is an international airport located in Clyst Honiton, 5 miles to the west of Exeter. In 2018, over 930,000 passengers passed through the airport, an increase of 9% from 2016.[34] Passenger numbers have been forecast to increase to approximately 3.3 million by 2030 – an increase of more than 250%[35].

Exeter Airport flies to 40 different destinations in the UK, Ireland and Europe. In addition to running commercial domestic and international flights, Exeter Airport is the headquarters for the British airline, Flybe; the base for Capital Air Ambulance, the UK's largest air ambulance operator; and the Devon Air Ambulance and the National Police Air Service (NPAS) facility. The airport also provides large maintenance facilities, and is the site of two flight training organisations.

Future projects in the vicinity of Exeter Airport include a development beside the Lidl warehouse (approximately 1.2 miles from the airport) which will provide up to 1,800 new jobs and contribute up to an extra £105m to the regional economy. In addition, at Exeter Airport as part of the Exeter and East Devon Enterprise Zone a new 7 hectare business park (700 jobs) will be developed. Supporting infrastructure to deliver this will be a revised road layout with roundabout, carriageway widening and construction of a separate bus and cycle only route, which will also serve the existing business park, the Flybe Training Academy and Hampton Hilton Hotel, which are currently not able to be served by public transport.

Airport Access: Exeter Airport is easily accessible by road via the M5 (1.5 miles away) and the A30. The last half a mile of access is via the B3184 which is a moderate standard single carriageway. While there is no railway station at the airport, (the closest station, Cranbrook, is 2.2 miles away), there is a direct bus service between the airport and Exeter St. David's, the main railway station in Exeter.

[33] China Clay, Minerals Safeguarding DPD Evidence Report Submission Consultation, Cornwall Council (June 2017)
[34] Civil Aviation Authority, Airport Data 2018
[35] Exeter Airport Masterplan, Regional and City Airports (2008) planning forecast – N.B given the rate of growth since 2008 this latest official estimate is now unlikely to be realised.

Cornwall Airport, Newquay

Cornwall Airport, Newquay (announced in 2018 as the fastest growing airport in Britain by the Independent) currently offers flights to airports around the UK, Ireland, Germany, Denmark, Portugal and Spain - with additional routes in the summer season. In 2018, over 456,000 passengers travelled through Newquay, an increase of 19% from 2016.[36]

The airport is located at Mawgan-in-Pydar, 4.6 miles northeast from Newquay on Cornwall's north coast. Its runway was operated by RAF St Mawgan before 2008, and is now owned by Cornwall Council. Given its military history, the runway is able to take the largest and fastest of civil and military aircraft, and the RAF continues to use part of the site today.

The Cornwall Air Ambulance is based at the airport and, since 2012, the airport has hosted the Aerohub enterprise zone, which now supports one of the largest aerospace clusters (outside Bristol) in the West of England with a number of global businesses operating from the Airport. There are 14 companies employing 450 people on the Airport site, and in addition to the commercial airline operations, the airport makes a significant contribution to the Cornish economy in terms of Gross Value Added (GVA) output.[37]

Airport Access: The airport is accessed off the A3059 and 3 miles from the A30. There are no direct rail services to the airport, with the nearest station being in Newquay. There are however, direct bus services between Newquay and Padstow, which stop at the airport. Running parallel to the A3059, the A392 (on the MRN) provides direct access from the A30 into Newquay, but does not carry airport traffic (given the route is twice the distance of local road routes).

[36] Civil Aviation Authority, Airport Data 2018
[37] Cornwall Airport Newquay Masterplan 2015-2030

Bristol Airport

Bristol Airport is situated in North Somerset, on the A38 approximately 8 miles to the south west of Bristol and 17 miles from the M5. It is the 9th busiest airport in the UK with nearly 8.7 million passengers[38] passing through Bristol Airport in 2018, around 25% of these originate in the Peninsula. The *Bristol International Airport Master Plan* estimates passenger numbers will grow to around 10 million by 2021 and 12 million by the 2025.[39]

Bristol airport generated an estimated £1.3 billion of GVA in 2017 and supported more than 15,000 regional jobs.

Airport Access: While it is accessed from the MRN, Bristol Airport is the largest regional airport in the country with no direct access to the SRN. Other major airports (Stansted, Manchester, Birmingham, East Midlands) are all directly served by the SRN, and there is a focus in national roads policy on effective access to airports as international gateways. The A38 is the primary route connecting central Bristol to the airport and the Peninsula. As there is no direct motorway or dual carriageway access to the airport, journey time reliability can be poor.

Also unlike Bristol, most major (and several smaller) airports are also served by direct heavy or light rail links, which are important in meeting connectivity needs. Public transport to Bristol airport is currently limited to bus connections and this only makes up 13% of the total of surface access trips. Bus connections from the Peninsula include the Falcon which stops at major destinations between Plymouth to Bristol airport and uses the A38 route.

International & Strategic Gateways Summary

Ports	
Falmouth	▪ Largest ship repair dock in Western Europe; ▪ Dry dock facilities for vessels up to 100,000 tonnes.
Plymouth	▪ Largest naval base in Western Europe; ▪ Cargo, petroleum and fishing port; ▪ 450,000 passenger trips to France/Spain with Brittany Ferries. Also welcomes cruise liners.
Other	▪ Three largest fishing ports in England: Brixham, Newlyn and Plymouth; ▪ Passenger and freight service to Isles of Scilly from Penzance; ▪ Fowey exports around 750,000 tonnes of China Clay per annum.

[38] Civil Aviation Authority, Airport Data 2018
[39] Bristol Airport, Planning for the future

Airports	
Exeter	▪ 930,000 passengers in 2018. Forecast growth to 3.3 million passengers by 2030; ▪ 13,400 aircraft movements per annum; ▪ Serves 15 countries.
Newquay	▪ 460,000 passengers in 2018; ▪ 11,100 aircraft movements per annum; ▪ Serves 15 countries.
Bristol	▪ 8.7 million passengers in 2018. Forecast growth to 12 million passengers by 2025; ▪ 65,900 aircraft movements per annum; ▪ Serves 39 countries.

3.8 Challenges and Opportunities Summary

The Peninsula transport network is constrained by the Peninsula's geography. In particular, this places pressure on key locations and compromises network resilience.

The population is distributed along key routes, but there is limited north-south connectivity across the Peninsula and some areas remain remote from the SRN or MRN. The Peninsula's population is growing. It is a highly attractive location and this is reflected in a unique growth pattern driven by migration to the region – particularly from the rest of the UK.

Local authorities in the Peninsula are working to support clean growth in digital, high-tech engineering, clean energy, marine technologies, tourism, aerospace and other sectors. A flexible economy is characterised by high levels of self-employment and many home workers. Alongside this growth, investment in the transport network has the opportunity to help close the productivity gap in the Peninsula and deliver considerable economic benefit for the UK.

Across the Peninsula, development plans to accommodate growth are targeting 200,000 new homes and 171,000 new jobs aligned to existing transport provision and key corridors.

The region has several strategic gateways although few are supported by high quality surface access. Bristol Airport, outside the Peninsula also provides a key strategic link and is poorly connected.

The Peninsula's exceptional environment is an asset which brings both new residents and tourists to the region. But the climate also poses particular challenges for resilience. Preserving and enhancing the local environment must go hand in hand with urgent moves to reconfiguring the Peninsula for a carbon free future.

4. Transport: Corridors & Routes

Chapter Overview

The Peninsula rail network is critical for providing passenger connections to the rest of the UK. The Peninsula Rail Task Force has outlined three main priorities for the network: Resilience and reliability, Reduced journey times and improved connectivity, and Greater capacity and comfort.

The strategic road network (SRN) provides key links across the Peninsula and provides the most important road connections to destinations outside our boundaries. Our only motorway link is the M5, which ends at Exeter, and as with rail resilience is a critical issue with limited alternative routes when incidents occur on the SRN.

Our major road network (MRN) consists of twenty corridors, functioning to provide important links between our urban centres and the SRN for intra and inter-regional connectivity.

The majority of the MRN network in the Peninsula is single carriageway, and distances between key centres can be large and average travel speeds on the MRN are generally low. This increases the importance of reliable and resilient SRN links into the Peninsula to facilitate higher speed long distance road connections.

4.1 Introduction

This section describes the Peninsula's transport network, starting with an overview of the rail network and SRN and then taking a more detailed look at the MRN corridors and identifying how these perform against a number of criteria. This chapter also introduces Peninsula Transport's prioritised MRN schemes and LLM schemes, with a fuller treatment of these following in Chapter 5.

The chapter is structured as follows:

- Overview of Peninsula Rail Network;
- Overview of Peninsula Strategic Road Network;
- Peninsula Major Road Network, covering:
    - Overview of Peninsula Transport MRN Corridors;
    - Peninsula Strategic Transport Model Coverage;
    - Peninsula Transport MRN & LLM Schemes;
    - MRN Corridor Descriptions;
    - Level of Service (Speed & Reliability);
    - Traffic Demand & Vehicle Proportions;
    - Resilience;
    - Connecting People and Places;
    - Safety;
    - Environment; and
    - MRN Corridor Summary.

The box below sets out which elements of the DfT Investment Planning Guidance are covered within this chapter.

Investment Planning Guidance
This chapter covers the following items described in the DfT guidance:

Priority Corridors/Routes

- Overview of the MRN with explanation of the priority corridors and routes crucial for economic activity.

Network Issues

- Identify key problems, capacity issues, pinch-points and connectivity issues on the MRN in the region, and anticipated future challenges and opportunities. At a minimum this must include evidence of current traffic data.

Identification of social, safety and environmental problems relevant to the development of the MRN in the region e.g. air pollution hotspots, noise important areas and related issues.

Additional Evidence

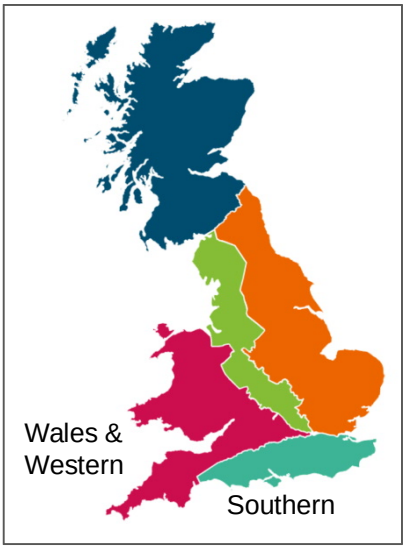
- Outline major transport investments in local transport and in the wider transport network (e.g. Highways England and Network Rail) already in programmes (i.e. have funding) (all modes) that directly affect the MRN.

Full list of schemes viable schemes proposed

- Specifying whether suggestions came from local highway authorities, LEPs, MPs, HE or a combination.

4.2 Overview of Peninsula Rail Network

The Peninsula rail network, shown in Figure 4.1, is vital for both passenger and freight transport across the region and to destinations outside the South West region including Bristol, London, Birmingham, Manchester, Cardiff and Southampton, providing critical access to domestic and international gateways. From June 2019 Network Rail has divided the national rail network into five new regions[40]. The majority of the Peninsula rail network falls within the Wales and Western region with the remainder within in the Southern region. The current rail strategy focuses primarily on east-west connectivity between the Peninsula and London and there is a need for further joint work with Western Gateway to further develop the rail strategy and particularly focus on developing plans for improved rail connectivity between Exeter, Bristol, Bristol Airport and Birmingham / High Speed 2.



There are two passenger routes in the Peninsula as defined by Network Rail Route Specifications[41]: the West of England and Wessex. These routes provide rail links along the following principal corridors:[42]

- From Penzance in the far west through Truro, Plymouth, Newton Abbot, Exeter St David's, Taunton and on to **Bristol Temple Meads**, **Birmingham New Street** and destinations further north. The Riviera Line links in with this corridor at Newton Abbot providing services to/from Torbay;
- From Penzance in the far west through Truro, Plymouth, Newton Abbot (linking with Riviera Line services), Exeter St David's, Taunton and on to **Reading** and **London Paddington**;
- From Exeter through Yeovil Junction to **London Waterloo**.
- From **Weymouth** on the south coast through **Dorchester**, Yeovil Pen Mill, Castle Cary, Frome and on to **Bath Spa** and **Bristol Temple Meads**.

[40] Network Rail Regions
[41] Network Rail Western Route Specification (2018); Network Rail Wessex Route Specification (2016)
[42] Destinations outside the Peninsula shown in **bold blue** text

There are also a number of branch lines providing important local connections: Barnstaple (Exeter to North Devon), St Ives (St Erth to St Ives), Looe (Liskeard to Looe), Exmouth (Exeter to Exmouth), Falmouth Docks (Truro to Falmouth Docks); Newquay (Par to Newquay), Gunnislake (Plymouth to Gunnislake).

Figure 4.1: Peninsula Rail Network

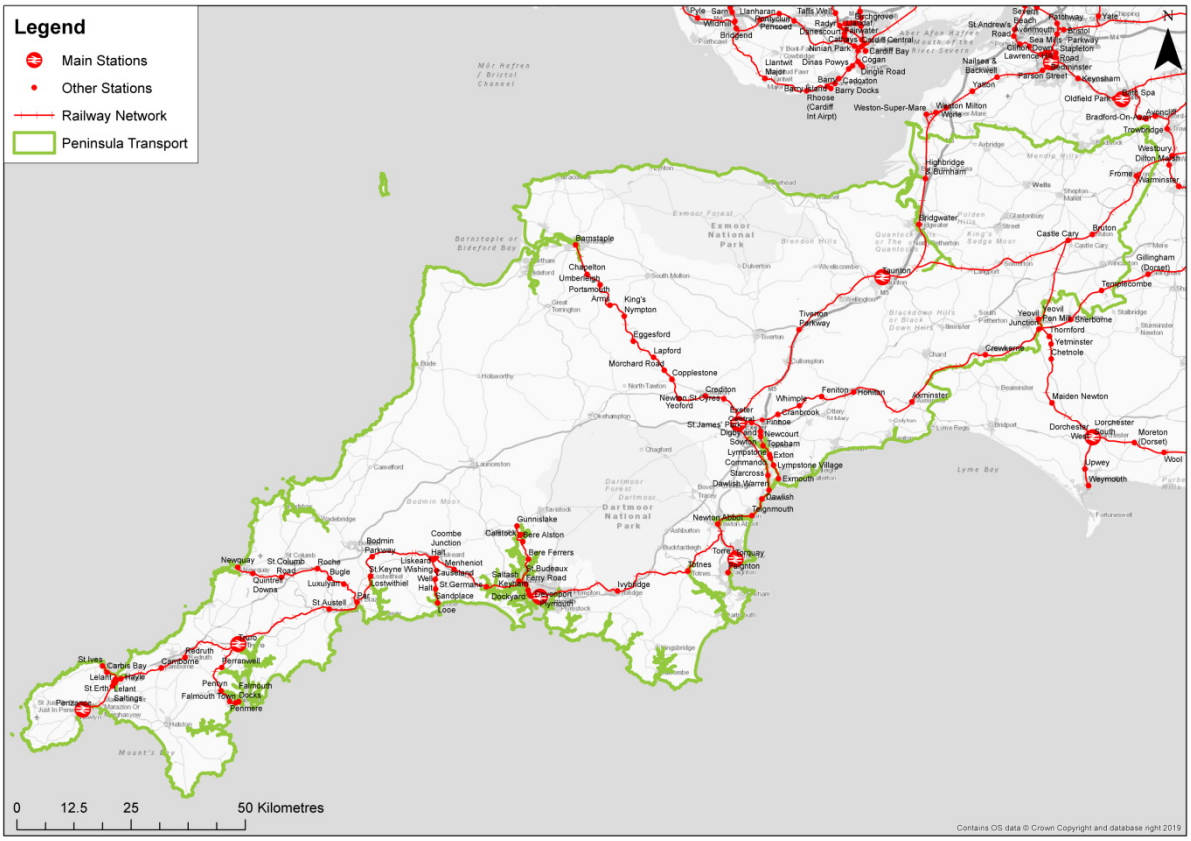


Figure 4.2 provides information on weekday morning peak journeys for key routes, reporting information about the fastest services available to key destinations. Additionally, Table 4.1 provides information on typical weekday rail journeys across the day from stations in the Peninsula to key destinations outside the Peninsula. The average journey time across all services in a day is reported, together with the average speed (based on straight line distances) and the number of services.

Both Figure 4.2 and Table 4.1 illustrate the reduction in speed which is experienced to the west of Exeter and on the route into London Waterloo compared with the routes from Exeter to Bristol and Exeter to London Paddington. However, faster travel to London comes at a cost for Peninsula travellers with the cost per mile four to five times higher for an Anytime Return ticket to London Paddington compared with a trip to Bristol Temple Meads.

Figure 4.2: Morning Peak Rail Journeys for Key Routes

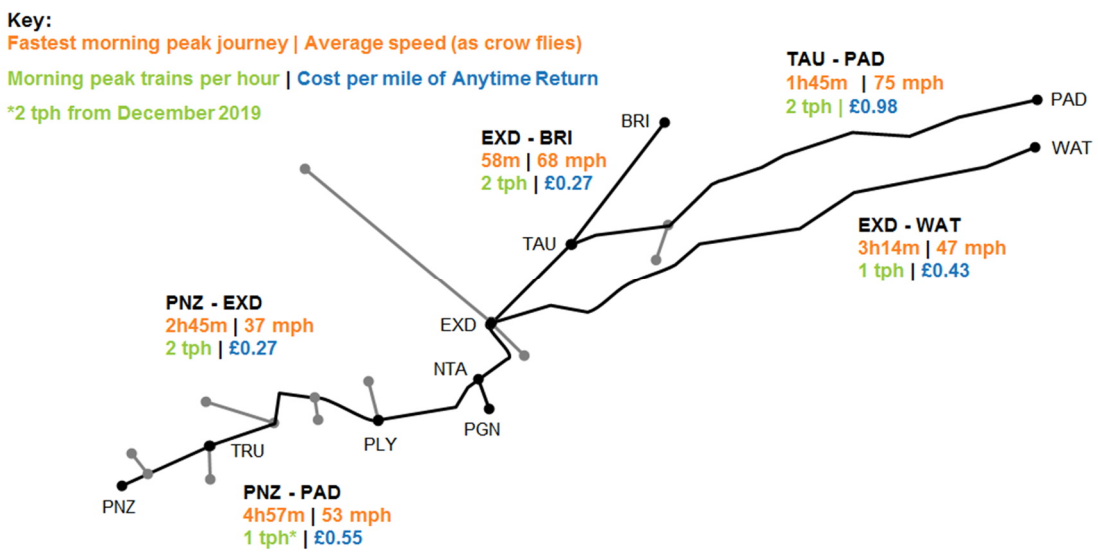


Table 4.1: Weekday Inter-Regional Rail Connections

From / to		Bristol Temple Meads	Birmingham New Street	London Paddington	London Waterloo
Penzance	Journey Time	4h11m (38mph)	5h42m (40mph)	5h28m (46mph)	6h54m (37mph)
	Services	14	13	14	13
Plymouth	Journey Time	2h6m (48mph)	3h34m (49mph)	3h31m (54mph)	4h53m (39mph)
	Services	18	16	19	15
Paignton	Journey Time	1h57m (42mph)	3h26m (46mph)	3h22m (49mph)	4h37m (36mph)
	Services	23	19	18	14
Exeter St David's	Journey Time	1h10m (56mph)	2h34m (55mph)	2h37m (60mph)	3h27m (46mph)
	Services	33	24	24	16
Taunton	Journey Time	0h49m (45mph)	2h08m (53mph)	2h17m (57mph)	N/A
	Services	44	24	28	

The Peninsula Rail Task Force (PRTF) was formed in early 2013 to coordinate partners from across the South West to build and put the case for greater investment into the rail network for the Peninsula region. A key focus for PRTF is resilience, particularly following the major disruption caused by the 2014 storms, highlighting the vulnerability of the Peninsula rail network.

In 2016, the PRTF launched 'Closing the Gap', a plan for investment needed to close the growing gap between the South West and the rest of the UK in terms of rail funding and improvements. The three main priorities were identified as **Resilience and reliability**, **Reduced journey times and improved connectivity** and **Greater capacity and comfort**. The report outlined a number of schemes identifying what is needed and their approximate timescale for delivery.

The Network Rail South West Rail Resilience Programme[43] focuses on identifying and implementing options to improve the resilience of the line between Dawlish and Teignmouth, notably increasing the size of the sea wall at Dawlish, to address issues which arose after the 2014 storms. Across the Western route, Network Rail also has ongoing improvement schemes including track renewal at Frome, points renewal at East Somerset Junction, and modernisation of the Great Western Mainline.

Table 4.2 sets out current and potential future rail schemes, identified by National Rail, the PRTF, and infrastructure schemes in CP6 to CP9 from the Exeter to Newton Abbot Resilience Strategy. These have been given a status in line with the uncertainty approach set out in the DfT's WebTAG guidance[44] .

[43] South West Rail Resilience Programme, Network Rail
[44] TAG Unit M4 Forecasting and Uncertainty guidance Table A2, Appendix A, DfT (May 2019). Scale runs as follows: Near Certain, More than Likely, Reasonably Foreseeable, Hypothetical

Table 4.2: Peninsula Rail Schemes

Scheme	Description	Programme	Status
RESILIENCE: Dawlish Sea Wall Phase 1a (Marine Parade to Colonnades) (South West Rail Resilience Programme)	Construction of new, larger sea wall. Phase 1a is first 400m. **Total cost of Phase 1a & 1b is £80m.**	Jun '19 – Jan '20	Near Certain (Under construction)
RESILIENCE: Dawlish Sea Wall Phase 1b (Colonnades to Coastguard's Ramp including Dawlish Stations) (South West Rail Resilience Programme)	Phase 1b is an additional 400m.	Anticipated Spring 2020 – Spring 2021	Reasonably Foreseeable Consultation in 2020
RESILIENCE: Parson's Tunnel to Kennaway Tunnel Phase 2 (South West Rail Resilience Programme)	New sea wall and rock fall shelters and barriers.	Unknown	Reasonably Foreseeable
CONNECTIVITY: GWR Timetable Changes	Increased capacity of up to 30% on routes. Includes half hourly service between Plymouth & Penzance.	Live from 15 Dec '19	Near Certain (Committed)
RESILIENCE, CAPACITY & CONNECTIVITY: Passing Loop between Exeter & Honiton	Enables diversionary route for GW mainline and more frequent local train services between Axminster and Exeter.	Unknown	Reasonably Foreseeable Network Rail committed to producing SOBC
CONNECTIVITY: Continuous mobile connectivity	Recognising long journey times, this would enable improved productivity while making journeys between London Paddington & Penzance.	Unknown	Reasonably Foreseeable PRTF seeking a study of 'not spots' to identify low cost solution to boost productivity
CONNECTIVITY: Discrete electrification Newton Abbot & Plymouth	To maximise benefits of bi-mode trains in decarbonising railway and improving speeds through hilly sections.	Unknown	Hypothetical Initial discussions held with private sector

4.3 Overview of Peninsula Strategic Road Network

One of the key objectives of the MRN is to support the SRN and ensure a seamless transition between the two networks[45]. The SRN consists of the motorways and major A roads within England and is a key enabler of economic growth and prosperity and connects many of England's major towns and cities[46]. Nationally, the SRN carries one third of all traffic and two thirds of all freight, despite only accounting for 2% of the road network as a whole[47]. The SRN is overseen by Highways England, who has the following aims for the network[48]:

- **ensure a free-flowing network**, where routine delays are infrequent and journeys are reliable;
- **maintain a safe and serviceable network**, where no-one should be harmed when travelling or working;
- **create an accessible and integrated network**, so people are free to choose their mode of transport and can move safely across and alongside the SRN;
- **support economic growth** with a modern and reliable road network that reduces delays, creates jobs, helps businesses and opens up new areas for development; and
- ensure Highways England's activities result in a **long-term and sustainable benefit to the environment**.

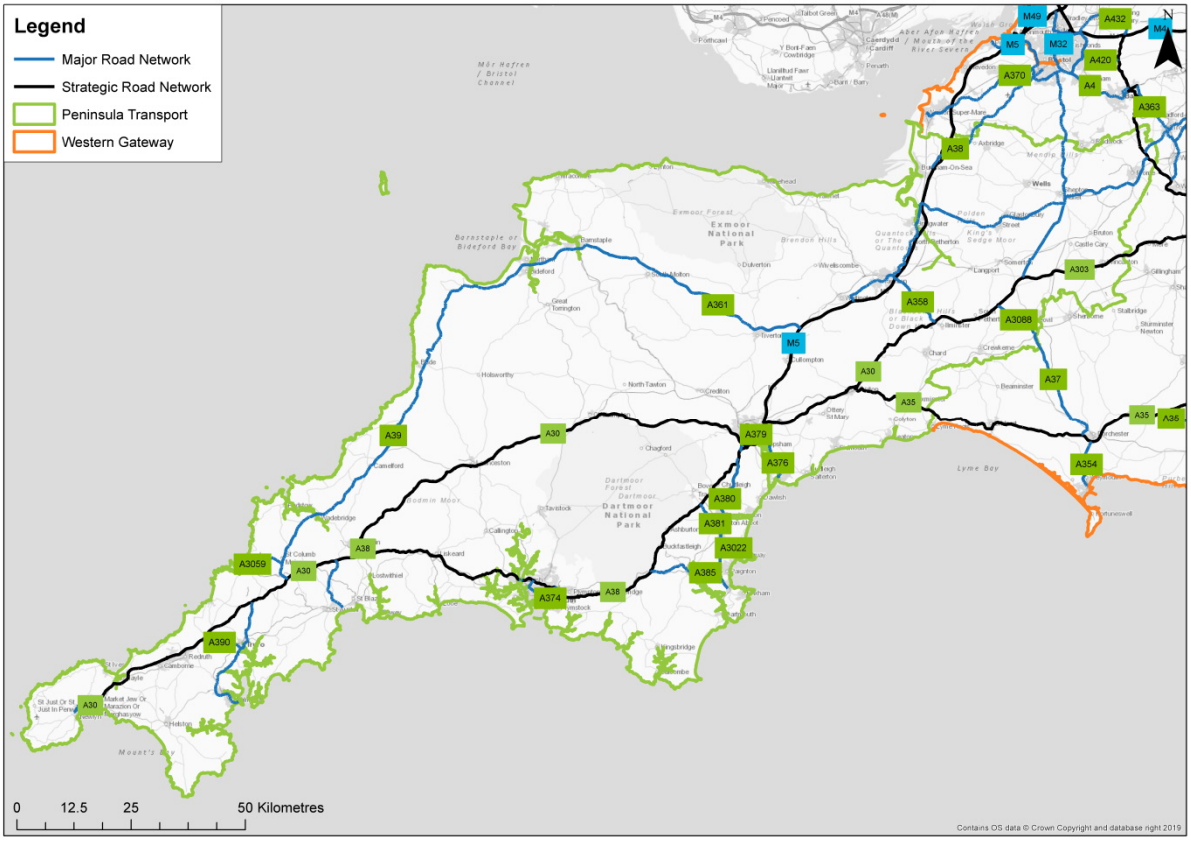
There are several sections of SRN within the Peninsula Figure 4.3 which provide crucial connections between key settlements within the region and to wider national and international locations (via the Peninsula's ports and airports).

- The M5 is the only motorway in the region, ending to the south of Exeter at J31 (with the A30/A38) and providing strategic connections north to Bristol, Birmingham and the North, east to London (via the M4) and west to Cardiff/South Wales (also via the M4). The Peninsula's other SRN routes are;
- the A30 from Penzance in west Cornwall through to the M5 J31 at Exeter;
- The A30/A303 from M5 J29 at Exeter east through the Blackdown Hills then passing through Somerset into Wiltshire and on to join the M3 J8;
- The A38 running from its junction with the A30 around Bodmin through the north of Plymouth and north to the end of M5 south of Exeter; and
- The A35 starting at the junction with the A30 in Honiton and travelling east into Dorset and past Dorchester, where it joins the A31.

As part of the creation of the Second Strategic Route for the South West, there are planned schemes dualling sections of the A303 and the A358 between the M3 and M5 at Taunton with complementary smaller scale improvements to the A30 over the Blackdown Hills. The dualled A358 will then become part of the SRN network in the Peninsula

[45] MRN Investment Guidance, DfT (2018)
[46] Highways England Strategic Business Plan 2015 – 2020
[47] Road Investment Strategy: for the 2015/16 – 2019/20 Road Period, DfT (March 2015)
[48] Highways England About Us

Figure 4.3: SRN and MRN Network in the Peninsula



Highways England have produced a number of Route Strategy reports around the country to provide a statement on the current performance of and pressures on the key road routes and inform the planning of future investment. The 2017 South West Peninsula[49] and Birmingham to Exeter[50] route strategies cover the Peninsula region and identify a range of key challenges currently facing the region. In addition, the two routes were ranked 12th and 13th (out of the 18 national routes) for customer experience, with congestion cited as the largest problem[51]. In response to some of these challenges, Highways England outlined a long-term investment plan within the Road Investment Strategy 1 (RIS 1) funding period from 2015 to 2019, further details of which can be found in Figure 4.4 and Table 4.3.

Following on from RIS 1, a second Road Investment Strategy (RIS2) will be delivered between 2020 and 2025. Highways England is currently working with the DfT, the Office of Road and Rail (ORR), and Transport Focus to gather the best evidence possible and assess value for money on possible schemes. Details of the successful funded schemes will be published in 2019.

The Peninsula's MRN schemes described in Chapter 5 have been designed and selected to help meet the objectives of the MRN as a support to the SRN, and the overall SRN objectives. A number of these schemes directly deliver enhanced SRN junctions or improved access within the RIS2 period, and those that do not will help to deliver significant economic growth and support improved SRN journey resilience.

[49] South West Peninsula Route Strategy, Highways England (March 2017)
[50] Exeter to Birmingham Route Strategy, Highways England (March 2017)
[51] Route Strategies Table 1.1. The Birmingham to Exeter Route. 43% of users surveyed experienced problems, 41% in the South West Peninsula study area.

Figure 4.4: Highways England RIS1 Schemes in Peninsula

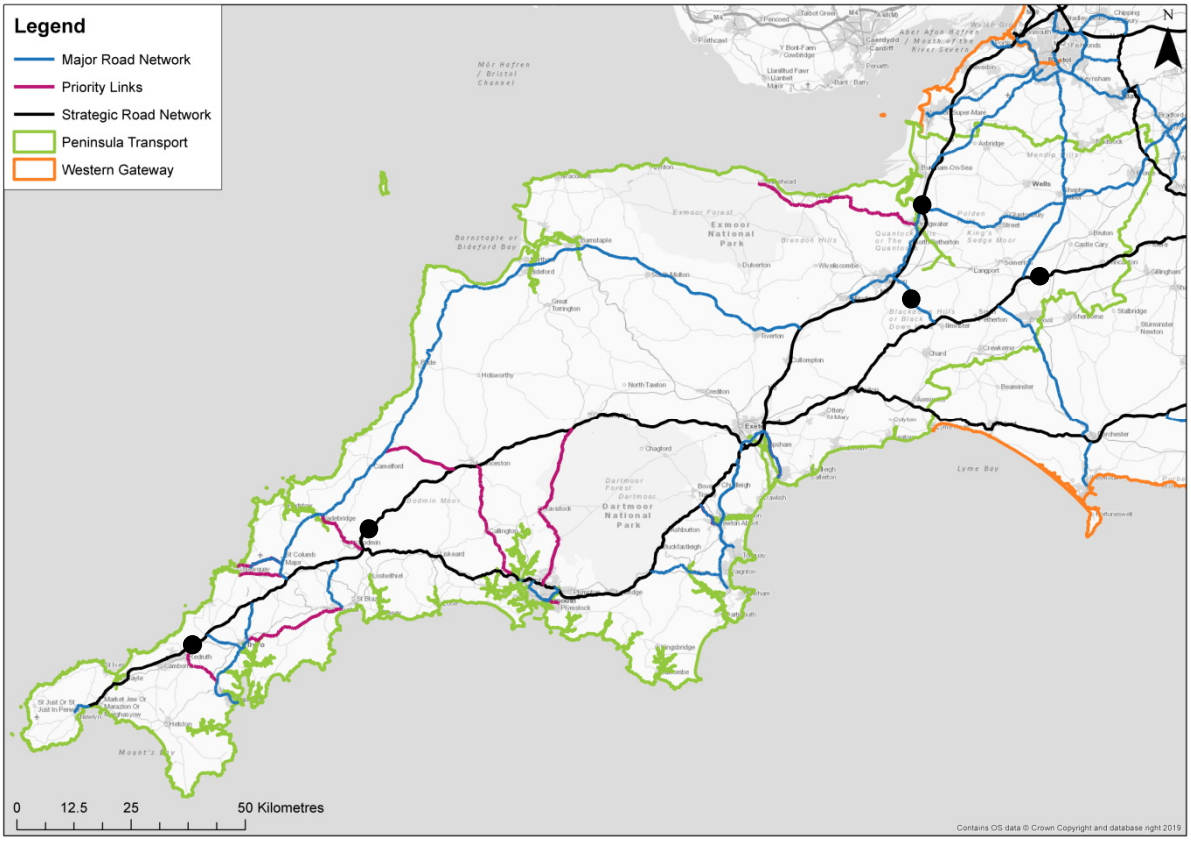


Table 4.3: Peninsula SRN Schemes[52]

Scheme	Description	Programme	Status
A358 Taunton to Southfields (RIS1)	Creating a dual carriageway link from the M5 at Taunton to the A303 incorporating upgraded stretches of the existing road into the strategic road network where appropriate. **Cost £250-500m.**	Planned- Preferred Route announced 27th June 2019	Reasonably foreseeable
A30 Chiverton to Carland Cross (RIS1 plus European Funding)	A30: Chiverton to Carland Cross - upgrading the A30 to dual carriageway north of Truro. Coupled with the Temple to High Carblake scheme with will improve the A30 to Expressway standard between Camborne and the M5. **Cost: £214-436m.**	DCO- Under Examination (Finish mid-August, decision expected Feb 2020) (RIS1) Start date: '20 End date: '22-23	More than likely
A303 Sparkford to Ilchester (RIS1)	Dualling of a single carriageway section of the A303, linking together the Sparkford and Ilchester bypasses. **Cost £100 -250m.**	DCO Completed 12/6/19, recommendation Sep 19, decision end 2019 (RIS1) Start date: '20 End date: TBC	More than likely

[52] Using TAG Unit M4, Appendix A Uncertainty Log, DfT (May 2019)

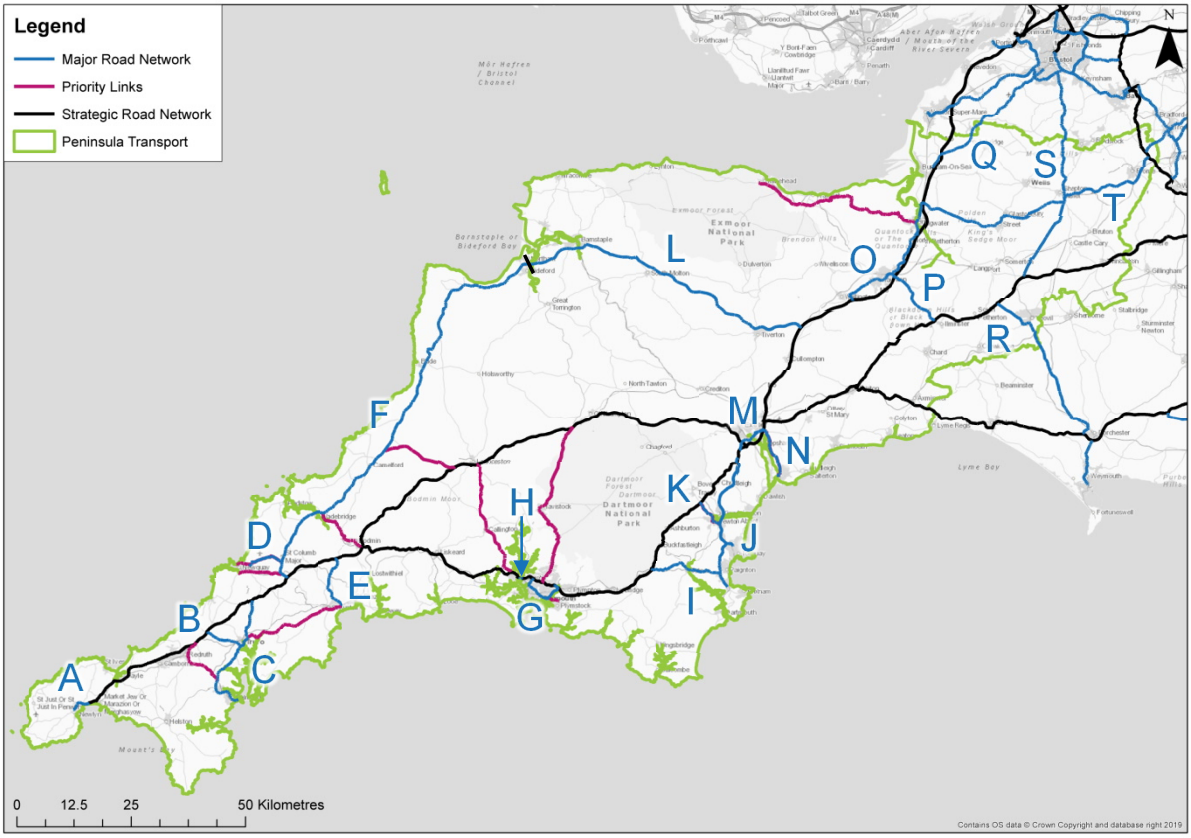
Scheme	Description	Programme	Status
A30 Temple to Higher Carblake (RIS1)	A30: Temple to Higher Carblake - upgrading the A30 to dual carriageway, replacing the current single carriageway north of Bodmin and connecting the existing high quality dual carriageway.	Scheme complete.	Completed 2017
M5 Bridgwater Junctions (Improvement scheme)	Widening the slip roads at the M5 J23 to provide better access to Hinkley Point C and Huntspill Energy Park.	Deferred	Hypothetical
A303 Amesbury to Berwick Down	Construction of a twin-bored tunnel of at least 1.8 miles as the road passes Stonehenge, coupled with a dual carriageway bypass for Winterbourne Stoke to link the existing dual carriageway section around Amesbury with the dual carriageway at Berwick Down. **Cost £1.7bn (NAO 2016 prices).**	DCO in progress. Decision in 2020.	More than likely
A30 Loggans Moor (HIF Forward Funding)	Junction improvement scheme to create a signalised through-about and reduce queuing and delays at this roundabout on the east of Hayle. Scheme submitted by Cornwall Council. **Cost £10m**		Reasonably foreseeable

4.4 Peninsula Major Road Network

Overview of Peninsula Transport MRN Corridors

The **MRN in the Peninsula** consists of twenty corridors (as shown and labelled in Figure 4.5 generally working from west to east) providing a combination of spurs to key towns off the SRN to long corridors linking communities and serving as the main road corridor through part of the region.

Figure 4.5: Peninsula Transport MRN Corridors



Peninsula Transport has identified a number of other **Priority Additional Links** which it considers are candidates for future expansion of the MRN. Whilst these are not discussed in detail in this document, they are shown on Figure 4.7 (and in some other figures) and are briefly summarised here:

- A390 from Truro to St Austell;
- A393 from Redruth to Penryn;
- A392 A39 to Newquay;
- A389 Bodmin to Wadebridge;
- A395 Launceston to A39;
- A388 Carkeel to Launceston;
- A386 Plymouth to A30;
- A3022 Riviera Way; and
- A39 Bridgwater to Minehead.

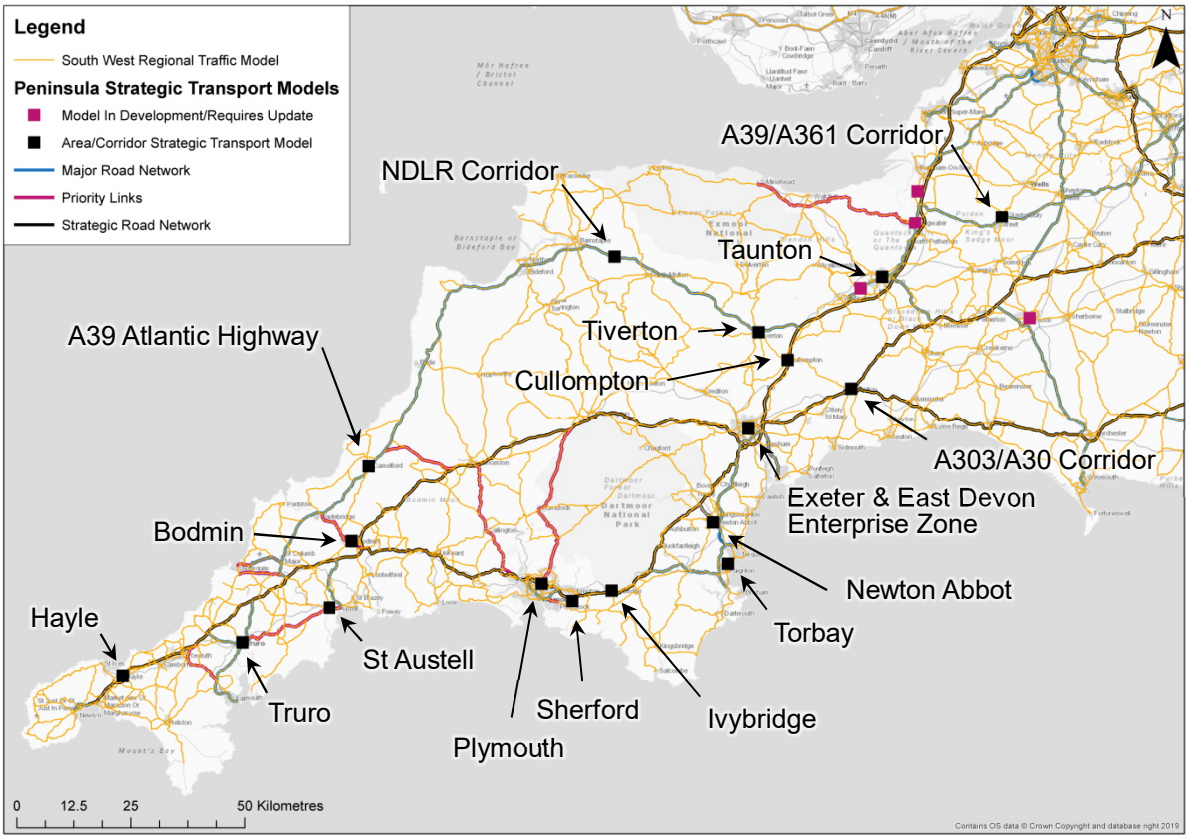
Peninsula Strategic Transport Model Coverage

As part of the development of the Peninsula Transport Evidence Base a review of the location and coverage of strategic transport models has been undertaken.

Peninsula Transport is grateful to Highways England for providing a copy of the base South West Regional Traffic Model for development by Peninsula Transport into a strategic Major Road Network model which can help support strategy / investment decisions in the future. Figure 4.6 shows the network coverage of this model which includes all of the SRN, MRN and priority additional links in the Peninsula.

The review has also included a high level audit of local authority town and corridor strategic transport models, based upon reports produced to accompany these models. Figure 4.6 illustrates the location of those models which have been constructed recently (or have been subject to a recent re-validation) and models currently being developed or which are likely to be re-validated in the near future. Models are available in the majority of the large settlements within the Peninsula and also on some of the key corridors. Transport models are available to support the appraisal of all Peninsula Transport's prioritised MRN and LLM schemes.

Figure 4.6: Location of Strategic Transport Models



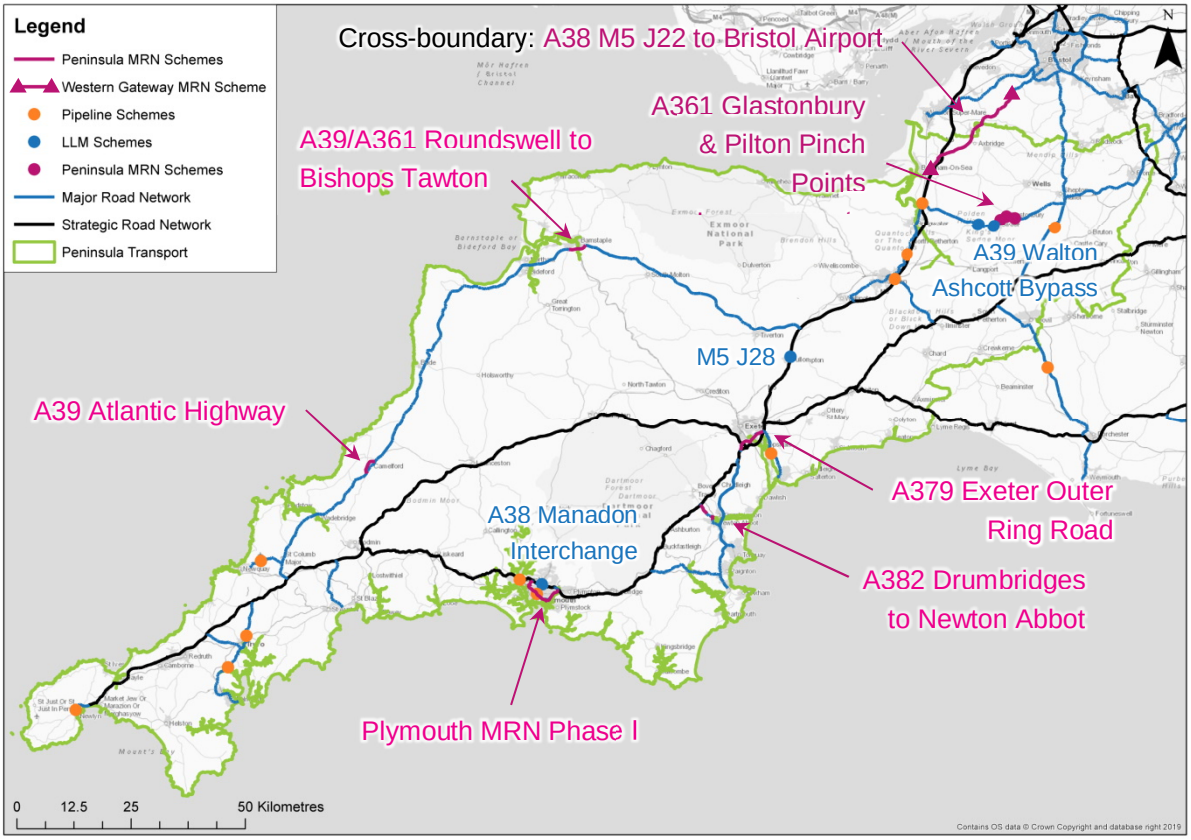
Peninsula Transport MRN & LLM Schemes

Peninsula Transport has prioritised six MRN schemes for submission with this Regional Evidence Base and put forward three **Large Local Majors (LLM) schemes**. In addition to the above MRN schemes, Peninsula Transport is also supporting the **A38 – M5 Junction 22 Bristol Airport** corridor scheme, which is being promoted by Western Gateway STB. This cross-boundary scheme (North Somerset District Council and Somerset County Council) is expected to support growth South of Bristol and delivered improved access to Bristol Airport. There are a further **twelve pipeline / tranche 2 MRN schemes** which Peninsula Transport has identified for development and consideration for future MRN investment. The schemes are introduced here (more detailed descriptions of the priority MRN and LLM schemes are provided in Chapter 5 Priority MRN Schemes). Figure 4.7 shows the location of each of the six priority MRN and three LLM schemes on the Peninsula network, the cross-boundary MRN scheme and also highlights the location of the twelve further pipeline MRN schemes.

Whilst each of these schemes covers a discrete part of the network, Peninsula Transport recognises the importance of both considering the MRN network as a whole and developing schemes which are

fit for the future. With that in mind the next phase of scheme development will also include discussions around area-wide schemes such as the first phase of a structured MRN electric vehicle charging point network.

Figure 4.7: Peninsula MRN Schemes, LLM Schemes and Pipeline Schemes



Priority MRN Schemes

- **A39 Atlantic Highway [SOBC] | Cost: £42.5m [£36.5m DfT Ask]**
  - Bypass using a realignment of the B3266 to the north of Camelford with new junctions. Will result in a journey time reliability improvement on the A39 and easing of congestion in Camelford. Tackles air quality in Camelford and will reduce collisions. Route protected by Cornwall Council and has support of Town Council;
- **A39/A361 Roundswell to Bishop's Tawton [Pre-SOBC] | Cost: £55.1m [£46.8m DfT Ask]**
  - Widening of existing road to two lanes in each direction (urban 2+2) to increase capacity, reduce congestion and the potential for accidents. Supports delivery of 17,200 homes and 85ha employment in North Devon & Torridge to 2031;
- **A374/A386/A3064 Plymouth MRN Phase I [SOBC] | Cost: £48m [£40.8m DfT Ask]**
  - Improvements at Marsh Mills Roundabout, Cattedown Roundabout, Weston Mill and Camel's Head junctions. Highway asset reconstruction and flood alleviation on Embankment Road. Supports housing delivery (26,000 homes in JLP, including 5,000 at Sherford, 2,000 at Plymstock Quarry, 500 jobs in west of city and 1,200 jobs at Ocean's Gate). Supports access to Dockyard and HM Naval Base;
- **A382 Drumbridges to Newton Abbot [OBC] | Cost: £43.5m [£36.9m DfT Ask]**
  - Realignment and widening of A382 including Jetty Marsh Phase II with walking and cycling route between Drumbridges & Newton Abbot. Supports delivery of 6,000 homes at 'Heart of Teignbridge' (including 2,500 off A382) plus 9.8ha of employment.

Will improve journey time reliability and public transport / walking and cycling offer. Planning consented for parts of scheme (and due to be submitted for Jetty Marsh Phase II, CPOs in progress and design at advanced stage;

- **A379 Exeter Outer Ring Road [Pre-SOBC] | Cost: £45m [£38.3m DfT Ask]**
    - Structural renewals on M5 diversionary route including bascule / swing bridges and carriageway strengthening to enable abnormal loads and inbound bus lane. Supports resilience of SRN and delivery of 2,500 homes at South West Exeter and 3,500 homes at Newcourt. Opportunity to carry out works alongside A379 HIF-funded highway schemes to minimise disruption.
- **A361 Glastonbury & Pilton Pinch Points Improvements [Pre-SOBC] | Cost: £20.3m [£17.3m DfT Ask]**
    - Two potential options for a bypass of Glastonbury to improve journey time reliability. A361 passes through historic town on strategic freight route (8% of flow). Bypass will enhance tourism offer in town (and Glastonbury Festival) as well as walking and cycling environment. Supports delivery of 3,600 homes in Street, Glastonbury and Shepton Mallet. Supported in Mendip Local Plan.

Large Local Major Schemes

- **A38 Manadon Interchange [SOBC] | Estimated Cost: £122m**
    - Additional lanes on A38 off-slips, on A386 (flyover and northbound) and on A38 Parkway. Will reduce severe queuing on slips and improve overall junction capacity and access to SRN. Supports housing delivery of 26,000 homes in JLP, including 4,000 in Derriford / Northern Corridor and 3,800 in Plymouth City & Waterfront.
- **M5 Junction 28 [Pres-SOBC] | Estimated Cost: £120m**
    - Options include improvements to existing junction, new bridge with south-facing slips or new junction with existing junction closed. Enables walking and cycling links. Will address queuing on northbound off slip onto M5 mainline. Improvement needed to support 1,350 homes at Cullompton and new Garden Village (up to 5,000 dwellings) and 30,000sqm of employment floor space. Supported in Mid Devon Local Plan.
- **A39 Walton Ashcott Bypass [Pre-SOBC] | Estimated Cost: £60m**
    - Will improve connectivity to SRN, removing pinch points through villages. Supports delivery of 3,600 homes in Street, Glastonbury and Shepton Mallet and Hinkley Point C access. Will remove 95% of existing traffic from village, enhancing access to local services. The land is safeguarded through the Mendip and Sedgemoor Local Plans.

Pipeline / Tranche 2 MRN Schemes

- **A3059 Trekenning to Newquay:** Improved alignment providing capacity and safety improvements over length of approx. 8.5km linking Newquay town, growth area and airport to A30 trunk road;
- **A39 Penmount to Truro:** Capacity and safety improvements on approximately 2km section of A39 corridor linking Truro to A30 trunk road;
- **A39 Truro to Penryn:** Capacity and safety improvements over approximately 7km section of A39 corridor linking Falmouth to Truro and onwards to A30 trunk road;
- **A38 Tamar Bridge:** Major structural maintenance of Tamar Road Bridge;
- **A374/A386/A3064 Plymouth MRN Phase II:** Asset reconstruction and capacity improvements to support growth in the city, including access to Dockyard / naval base;

- **A376 Exmouth to Exeter:** Scheme to address significant capacity constraints at Clyst St Mary roundabout and on approach to M5 Junction 30 and significant growth pressures on Strategic Road Network in peaks;
- **A30 West Penzance:** Safety and access measures to unlock development areas to west of Penzance;
- **A37 Yeovil to Dorset Boundary:** Scheme to address substandard road inconsistent with improved standard from Dorset Boundary to South Coast;
- **A38 Bridgwater to Taunton:** Scheme to improve key inter-urban growth corridor with narrow roads through settlements (e.g. North Petherton). This corridor is also an M5 diversionary route. There is also a plan for increased bus priority;
- **A38 Bridgwater: M5 Junction 23 to Taunton Road/Broadway:** Urban growth corridor requiring junction capacity, safety and sustainable travel improvements. Currently subject to Housing Infrastructure Fund (HIF) bid. The MRN scheme needed if the HIF bid is unsuccessful;
- **A358/A38 Taunton: M5 Junction 25 to Silk Mills Junction:** Urban growth corridor requiring junction capacity, safety and sustainable travel improvements. (Toneway Corridor section currently subject to Housing Infrastructure Bid. MRN scheme needed if HIF fails). Taunton Site Allocations Development Management Plan identifies several other locations where capacity improvements are required; and
- **A37 North-South Corridor:** Inter-urban corridor for strategic traffic and connecting medium sized communities across Somerset linking into the Strategic Road Network. End-End corridor package of smaller safety and capacity enhancements.

MRN Corridor Descriptions

A description of each of the Peninsula MRN corridors is provided below and each description includes a description of recent and planned investment, including any MRN / LLM schemes and highlights whether the corridor links with any of the Priority Growth Areas / Corridors identified by Peninsula Transport as critical for the future growth of the region.

Length: 3 mi | **Standard:** Urban single carriageway with roundabouts, largely 50mph speed limit with 30mph limit around junctions.

The A30 at Penzance in Cornwall runs from the Chy-An-Mor Roundabout in the east (where it joins the A30 SRN) around the north of Penzance to Mount Misery Roundabout.

The A30 West Penzance scheme is a pipeline / tranche 2 MRN project which would deliver safety and access improvements to unlock development areas to the west of Penzance.

The corridor is part of the Truro – West Penwith Growth Corridor

Length: 5 mi | **Standard:** Mix of single and dual carriageway sections, some rural and some urban, with both roundabouts and signalised junctions.

The A390 provides access to Truro from the A30 SRN in the west. This section of road is the busiest on the A390, as it carries through traffic to West Cornwall, and commuting traffic to and from Truro, (including providing access to the Royal Cornwall Hospital and Truro College).

Recent improvements have been made to improve capacity of the corridor at the eastern end near Truro, but congestion remains an issue here. Queues and delays also present at the A30 Chiverton Cross junction at the western end.

£45m HIF Funding was awarded in June 2019 to construct the Truro Northern Access Road to support the delivery of 4,000 houses around Threemilestone and provide additional capacity on this corridor.

The RIS1 A30 Carland to Chiverton Cross scheme will improve SRN access at the western end of this corridor and enhance journey times and reliability for journeys to the east.

The corridor is part of the Truro – West Penwith Growth Corridor

Length: 18 mi | **Standard:** Mix of single and dual carriageway sections, some rural and some urban, with both roundabouts and signalised junctions.

This corridor of the A39 runs from the A30 at Carland Cross, via Truro, to Falmouth and is 17 miles in length. This corridor has is made up of sections of both dual and single carriageway and also has a number of overtaking lanes. This section of the A39 provides access to Falmouth University, and the towns of Penryn and Falmouth.

Queuing present at peak times westbound approach the A30 Carland Cross junction and also at some of the junctions on the corridor between Truro and Falmouth.

Recent improvements at the A39/A393 Treluswell roundabout have reduced peak period queuing.

The A39 Penmount to Truro scheme is a pipeline / tranche 2 MRN project which would provide capacity and safety benefits over a 2km section of the route linking with the A30 SRN.

The A39 Truro to Penryn scheme is a pipeline / tranche 2 MRN project which would provide capacity and safety benefits over a 7km section of the route linking Falmouth and Truro.

Length: 5 mi | **Standard:** Rural single carriageway.

The A3059 is a single carriageway road which runs in an east-west direction between St Columb Major (on the A30), and St Columb Minor, near Newquay.

The A3059 Trekenning to Newquay scheme is a pipeline / tranche 2 MRN project which would improve the alignment of the route over about 8.5km providing capacity and safety benefits and linking with the Newquay town growth area, the airport and links to the A30 SRN.

Length: 8 mi | **Standard:** Largely single carriageway with several sections with overtaking lanes. Most of the corridor is rural with some urban sections where the route travels through towns.

The 8 mile A391 runs north-south from the A30 near Victoria, Cornwall, south towards St Austell, via Stenalees.

The existing road passes through a number of small communities with poor alignments and limited road widths resulting in congestion, severance and environmental issues.

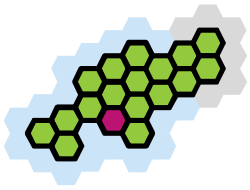
The OBC for the St Austell Link Road was approved in Spring 2019 and the FBC is being prepared for submission to summer 2019. The proposed scheme is a new 3 mile single carriageway from Victoria to Stenalees planned for construction between 2020 and 2022. This new link will improve economic growth by upgrading links to St Austell from the rest of the UK and will make it easier to access employment and development sites around St Austell.

Length: 70 mi | **Standard:** Largely single carriageway with several sections with overtaking lanes. Most of the corridor is rural with some urban sections where the route travels through towns.

This section of the A39 (known as the Atlantic Highway) runs from Barnstaple in North Devon through Bideford, Camelford, Wadebridge and St Columb Major, to Indian Queens, where it meets the A30.

The road is single carriageway, except through Camelford, when traffic signals and a priority shuttle layout cause congestion at peak times of the day and in summer, and impact on air quality and noise levels through the town.

The A39 Atlantic Highway MRN scheme is one of the six prioritised schemes in this REB and will provide a single carriageway bypass of Camelford alleviating congestion and improving air quality in the town.



Length: 7 mi | **Standard:** Urban single and dual carriageway, largely 30 mph speed limit, with a number of roundabouts and signalised junctions.

The Plymouth MRN route starts at Marsh Mills junction of the A38 where the A374 heads west into Plymouth, via the dual carriageway of Embankment Road, merging with the A379 for a short distance as it enters the city centre. At Cattedown roundabout on the edge of the city centre, the A374 runs around Charles Cross Roundabout until North Cross roundabout when it diverts south-west and crosses into Cornwall at Torpoint. From North Cross roundabout, the A386 travels north and joins the A3064 at Milehouse and continues to Camel's Head roundabout, passing by HM Naval Base at Devonport before heading east along the St Budeaux Bypass until it joins the A38.

Significant congestion and delays are present at peak times at key junctions along the length of the corridor, including the junctions and slips off the A38 at both Marsh Mills and Weston Mill. There are delays to bus services (the corridor is critical for all bus services in Plymouth) and other users on the corridor in from the east of Plymouth leading to unreliable journey times. Congestion affects access to the city centre and ports, as well as the major employment site at the Dockyard and Naval Base. The MRN forms the main route for all traffic towards these sites from both the east and the west.

The Plymouth MRN Phase 1 scheme is one of the six prioritised schemes in this REB and will provide improvements to a number of key junctions along the corridor.

Additionally, the A38 Manadon LLM scheme will make vital improvements to one of the busiest interchanges in Plymouth (vital for growth in the city centre and north of the city) improving the resilience of the SRN and MRN networks.

The Plymouth MRN Phase 2 scheme is a pipeline / tranche 2 MRN scheme which will involve asset reconstruction and capacity improvements to support growth in the city, including access to the Dockyard / naval base.

This corridor is located within the Plymouth Growth Area

Length: 0.4 mi | **Standard:** 3 lanes total crossing the bridge with 'tidal' lane system.

The Tamar Road Bridge (tolled in one direction) carries the majority of vehicular traffic between Devon and Cornwall, and has a strategic function in enabling the A38 to cross the River Tamar, linking Cornwall to Exeter and beyond. The bridge operates a 'tidal' lane system to reflect the principal demand flows; the central bridge lane is used eastbound towards Plymouth in the AM peak and outbound to Saltash in the PM peak. The bridge provides up to three lanes of capacity eastbound (including one of the cantilever lanes) and up to two lanes westbound. The road bridge carries around three quarters of trips across the River Tamar, with approximately 45,900 vehicles crossing in an average day.

Traffic flows on the bridge are approaching capacity with recent studies indicating that if demand continues to grow at predicted rates then capacity will be reached at some point in the mid-2020s.

A set of rail corridor station parking and facility improvements was included (joint working between Plymouth/Cornwall) as part of Plymouth's latest TCF2 bid with the objective of shifting commuter demand in the Plymouth TTWA from road to rail.

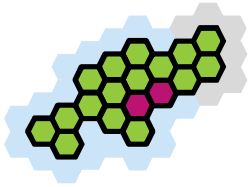
A pipeline / tranche 2 MRN project is major structural maintenance work on the Tamar Bridge.

This link is located within the Plymouth Growth Area

Length: 13 mi | **Standard:** Mostly rural single carriageway with urban sections in Totnes, Dartington and Paignton. Various speed limits up to national speed limit, with roundabouts and signalised junctions.

The A385 corridor is an east-west corridor linking A380 around Paignton, passing through Totnes and joining A38 north of Ivybridge.

Totnes experiences substantial congestion, particularly at peak times and on weekends, due to a confluence of routes in the town and the constraint of a single major river crossing.



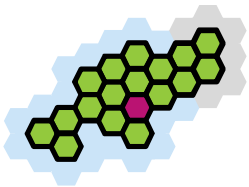
Length: 20 mi | **Standard:** Mix of urban and rural single and dual carriageway, with signalised junctions and roundabouts.

The dual carriageway A380 north-south corridor commences at the intersection with the A38 at Kennford (to the south of Exeter), and travels south for 19.5 miles, over Haldon Hill and past the towns of Kingsteignton and Newton Abbot, to Paignton. In 2015 a new dual section of the A380 was opened, bypassing Kingskerswell. To the north-west of Paignton, the A380 becomes single carriageway which runs until it meets the A385 at an intersection to the west of Paignton. At the intersection with the A385, the A3022 continues south for 2.2 miles to Riviera Way in Torquay before joining the A379; At Newton Abbot, the A380 has a flyover above the Penn Inn interchange, which connects to the A38 via A381 and A382.

In 2015 the South Devon Link Road opened, a new dual carriageway section of the route bypassing Kingskerswell, providing dual carriageway capacity on the route consistently from the northern end through to Churscombe Cross Roundabout to the west of Paignton. Prior to the construction of this scheme congestion was present through Kingskerswell on the corridor throughout most of the day.

This link is located in the Torbay – Newton Abbot Growth Area

---



Length: 4.5 mi | **Standard:** The majority of the route is rural single carriageway, with some urban sections around Newton Abbot.

The east-west single carriageway A382 starts in Newton Abbot at the junction with the A381 and runs to the A38. It includes narrow sections bordered by stone walls.

The corridor has capacity constraints partly due to the current single carriageway road standard. There is also a lack of provision for active modes.

The Phase 1 corridor improvement will be delivered through Growth Deal Funding, which will see improved access between Whitehills Roundabout and Forches Cross.

The second phase of the corridor improvement, the A382 Drumbridges to Newton Abbot MRN scheme is one of the six prioritised schemes in this REB and consists of widening and realigning of the A382 with new provision for active modes to address the capacity constraints above.

This link is located in the Torbay – Newton Abbot Growth Area

Length: 35 mi | **Standard:** The majority of the route is rural single carriageway with some sections with some sections with overtaking lanes, and some urban areas around Barnstaple.

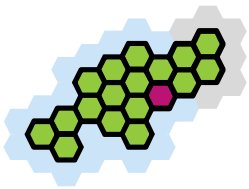
The North Devon Link Road (NDLR) provides access to Barnstaple and North Devon from the M5 at Junction 27. It serves as a gateway to North Devon, connecting the region to the rest of Devon and the country.

Along the length of this corridor there are a number of constraints / issues: only having east facing slips at Sampford Peverell means u-turns take place at M5 J27; queuing / delays at Bolham Roundabout (Tiverton); at-grade junctions on section of route between Tiverton and South Molton and Barnstaple bypass section congested during peak periods with long queues.

The NDLR Phase 1 Scheme (£93m) has secured funding and delivery is expected by 2023. The Tiverton Eastern Urban Extension (EUE) Phase 1 scheme (left in left out new junction) has been completed and the Phase 2 work (all movements) has secured HIF funding and is due for completion in 2022. These schemes will address some of the capacity constraints on the route.

The A39/A361 Roundswell to Bishop's Tawton (part of the NDLR Phase 2) MRN scheme is one of the six prioritised schemes in this REB and consists of an urban 2+2 upgrade to increase capacity and reduce congestion on the section of the corridor around Barnstaple.

This corridor links the Barnstaple and Bideford Secondary Growth Areas



Length: 5 mi | **Standard:** Rural single and dual carriageway at the outskirts of Exeter, with sections of urban dual carriageway as the route travels through Exeter. Speed limits are between 40 and 50mph.

The A379 is an east-west corridor through Exeter linking with M5 Junction 30 in the east and A38 at Kenn in the west. Within Exeter, the A379 crosses the Countess Wear bridges over the River Exe and the Exeter Canal.

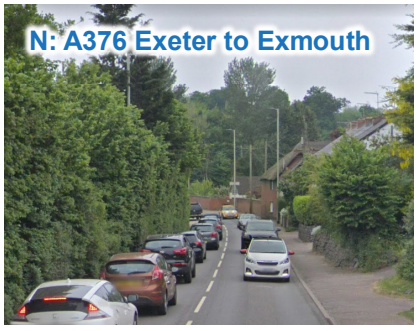
Provides one of only four vehicular crossings of the River Exe. Structures reaching the end of serviceable life and require renewal within the next decade. Currently cannot accommodate abnormal loads should the M5 close (A379 is diversionary route for the M5). Congestion is an issued at Countess Wear Roundabout particularly for eastbound movements. This junction is used by several core Exeter bus routes.

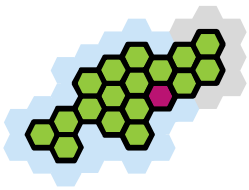
The Bridge Road section was widened in 2016/17 providing two lanes in each direction and a dedicated cycling and pedestrian path.

The A379 Southern Link Scheme will improve a 1.5km section of the A379 and unlock 2,500 homes and employment land in South West Exeter. The scheme has secured £55m HIF Forward Funding and is programmed to be delivered by 2024.

The A379 Exeter Outer Ring Road MRN scheme is one of the six prioritised schemes in this REB and consists of vital structural renewals work on the corridor, providing resilience to the SRN and supporting the delivery of 6,000 homes.

This link is within the Exeter Growth Area



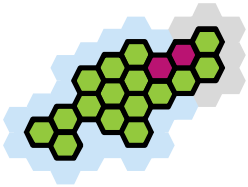


Length: 8 mi | **Standard:** Mix of single and dual carriageway sections, some rural and some urban, with both roundabouts and signalised junctions.

The A376 corridor (which is a majority single carriageway with some dual sections south of Exeter) A376 runs from M5 Junction 30 for 8 miles from the M5 J30 to the town of Exmouth on the south coast.

Heavily used commuter route from Exmouth to Exeter with unreliable journey times and congestion at peak times. Particular constraints at Clyst St Mary and M5 J30 roundabouts.

The A376 Exmouth to Exeter scheme is a pipeline / tranche 2 MRN project which would address significant capacity constraints at Clyst St Mary roundabout and on the approach to the M5 Junction 30.



Length: 20 mi | **Standard:** Mix of single and dual carriageway sections, some rural and some urban around Taunton and Bridgwater, with both roundabouts and signalised junctions.

The A38 corridor between Wellington and Bridgwater runs parallel to the M5 from Wellington (Junction 26) in the south to Junction 23 for the A39 north of Bridgwater. The route forms part of the urban road networks of Bridgwater and Taunton and plays a key role in supporting the economic growth of those settlements, forming a 'high-growth corridor'. The A38 also acts as an emergency diversionary route for the M5. Sections of the A38 route in Bridgwater form part of the Hinkley Point C freight routes running towards the site from M5 Junctions 24 and 23, and are also used to carry employees to site from dedicated park and ride sites.

The corridor links the urban centres of Taunton and Bridgwater. As such, some sections experience high volumes of traffic and congestion at peak times. There are many constraints on the A38, some of which are being addressed by localised junction improvements and bus priority infrastructure linked to new development areas and Hinkley Point C.

The Local growth fund is providing improvements at Huntworth Junction to unlock development at South Bridgwater and at Creech Castle junction (Toneway Corridor) in Taunton to help unlock development at Monkton Heathfield. A Housing Infrastructure Fund 'Forward Funding' bid has been submitted to Homes England for further localised improvements on the A38 and providing relief to the A38 to unlock 10,000 new homes in the corridor.

The A38 Bridgwater to Taunton scheme is a pipeline / tranche 2 MRN project to improve a key inter-urban growth corridor with narrow roads through settlements. There is also a plan for increased bus priority.

The A38 Bridgwater: M5 Junction 23 to Taunton Road/Broadway scheme is a pipeline / tranche 2 MRN project to improve a key urban growth corridor requiring junction capacity, safety and sustainable travel improvements. This scheme is currently subject to a HIF bid. The MRN scheme is needed if the HIF bid is unsuccessful.

This link runs through the Taunton to Bridgwater Growth Corridor

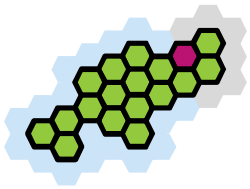
Length: 9 mi | **Standard:** Mix of single and dual carriageway sections, some rural and some urban, with both roundabouts and signalised junctions.

The A358 MRN corridor links the M5 Junction 25 at Taunton to the A303 near Ilminster. The route is proposed to become part of the SRN once it has been improved to dual carriageway standard. It will then form part of the Second Strategic Route to the South West incorporating the A303 and A358 (with complementary improvements on the A30 through the Blackdown Hills.

Between Taunton and Ilminster the road is a combination of single and dual carriageway and suffers from congestion and poor journey time reliability at peak times.

The local growth fund and Highways England growth & housing fund are providing improvements to M5 Junction 25 and Toneway Corridor which are key immediate constraints to current growth on this corridor. Highways England made the Preferred Route Announcement for the A358 Taunton to Southfields RIS1 scheme in June 2019, which will upgrade the corridor to dual carriageway standard. Once this scheme is delivered the route is proposed to become part of the SRN.

The A358/A38 Taunton: M5 Junction 25 to Silk Mills Junction scheme is a pipeline / tranche 2 MRN project on an urban growth corridor requiring junction capacity, safety and sustainable travel improvements. (Toneway Corridor section currently subject to Housing Infrastructure Bid. MRN scheme needed if HIF fails). Taunton Site Allocations Development Management Plan identifies several other locations where capacity improvements are required.

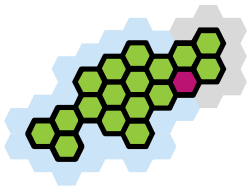


Length: 22 mi | **Standard:** A mix of rural single carriageway with some overtaking lanes, and urban dual carriageway around Bristol with a number of signalised junctions.

This MRN north-south corridor runs from the M5 at Junction 22 into the Western Gateway region and Bristol. The corridor provides an important economic link between Bristol, Somerset and the communities south of Bristol.

It is a key route to Bristol airport and forms part of the designated SRN alternative route.

The Western Gateway STB has worked collaboratively with Peninsula Transport to promote a cross-boundary project the A38: M5 Junction 22 to Bristol Airport corridor scheme in its Regional Evidence Base. The scheme will remove pinch points and provide additional capacity both close to Bristol Airport and along the A38 from South Bristol, through North Somerset, to the M5 at Junction 22 in Somerset, and to ensure the route is resilient to planned housing and economic growth.



Length: 24 mi | **Standard:** A mix of rural and urban single and dual carriageway. Various speed limits up to national speed limit.

The A3088/A37 corridor runs south from the A303 (immediately to the west of Yeovil) through the neighbouring Western Gateway STB region to join the A35 at Dorchester. It completes the A37 north-south route from Bristol to the south coast and also provides access to Dorchester and Poole / Bournemouth and the south coast ports from the west.

The local growth fund has supported a recently completed enhancement to the Yeovil Western Corridor which forms part of this route in the form of a series of junction capacity improvements and walking and cycling improvements that has enabled housing and employment development to take place. A traffic signal 'through-about' now accommodates the strategic traffic movement from the A3088 travelling onwards to Dorchester and the South Coast.

A key remaining constraint on this route is the unimproved section of the A37 just south of Yeovil to the Dorset border which is a future pipeline / tranche 2 MRN scheme.

Length: 32 mi | **Standard:** A mix of rural and urban single and dual carriageway. Various speed limits up to national speed limit. There is a give-way on this route at the junction with the A39.

The A37 is a north-south corridor passing through Somerset and providing a route into Bristol (in the neighbouring Western Gateway STB). Within the Peninsula, the route links a number of settlements including Shepton Mallet in the north and Yeovil in the south.

The route is of varying single carriageway standard with sections where buildings close to the road and other constraints lead to low average speeds.

The A37 North-South Corridor scheme is a pipeline / tranche 2 MRN project which consists of an end-end package of safety and capacity enhancements.

Length: 38 mi | **Standard:** A mix of rural and urban single and dual carriageway. Various speed limits up to national speed limit.

The A39/A361 route is a key strategic corridor for east-west movement across central Somerset linking the A36 and settlements in west Wiltshire with the M5 at Bridgwater. The route links a number of towns to the Strategic Road Network and M5 growth corridor and plays a key role in freight routing within the sub-region including heavy traffic from the Mendip quarries.

The A361 runs to the south of Glastonbury through a predominantly residential area causing noise, pollution and severance issues for the residents. The road is heavily used by pedestrians accessing Chalice Well and the Tor and forms part of the strategic freight route in the area. Key congestion pinch-points at Glastonbury and Walton/Ashcott are the subject of LLM and MRN bids.

A new 90ha enterprise zone and innovation hub known as 'Gravity' will be accessed from the A39 close to M5 Junction 23 and the access road from a new junction on the A39 is partly funded from the Local Growth fund. Constraints at M5 Junction 23 are creating a barrier to housing and economic growth in the area and an improvement scheme is included within a Housing Infrastructure Fund Forward Funding bid currently being considered by Homes England.

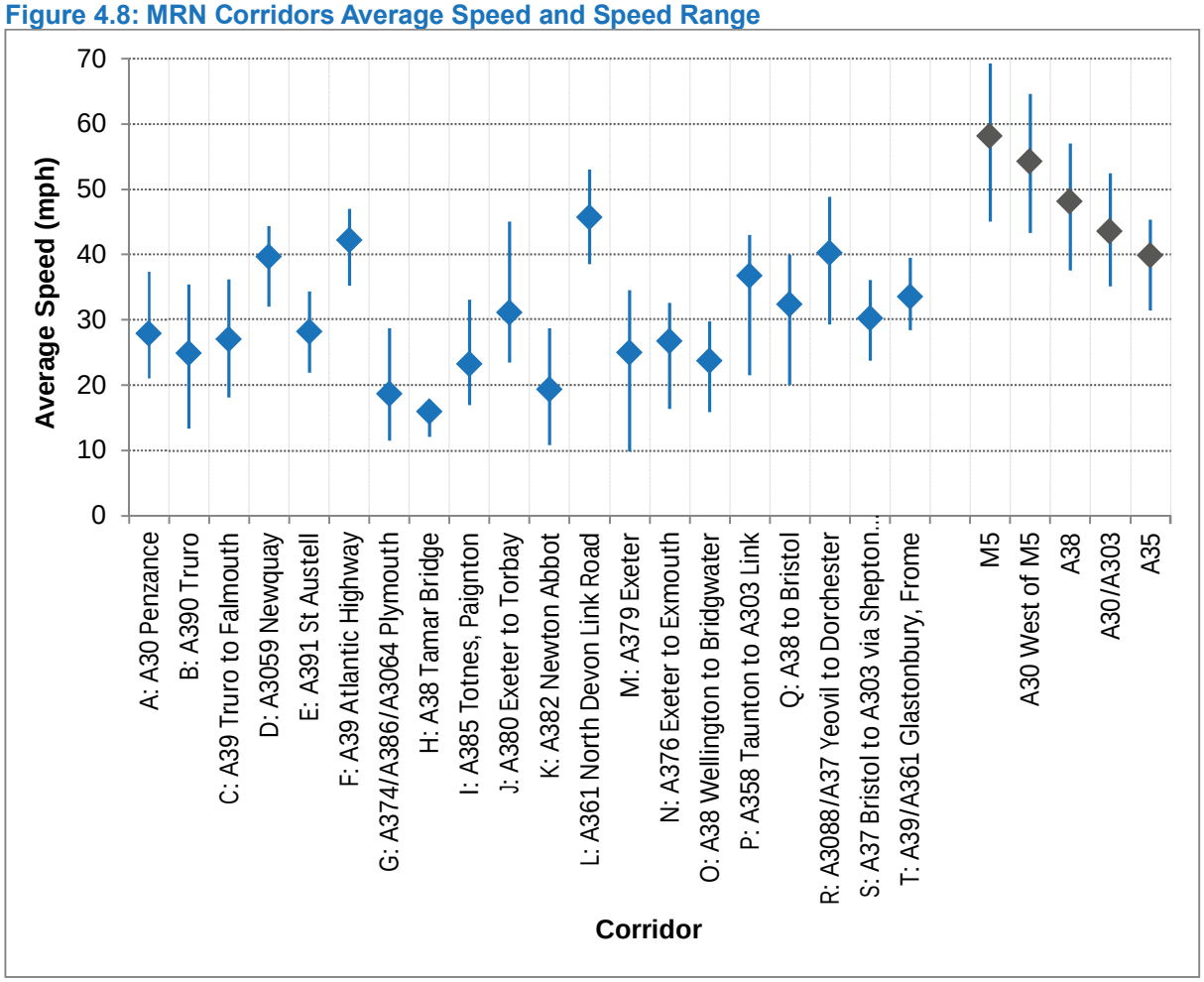
The A361 Glastonbury & Pilton Pinch Points Improvements MRN scheme is one of the six prioritised schemes in this REB and will remove through traffic from Glastonbury reducing congestion and improving journey times.

A39 Walton Ashcott Bypass LLM scheme will improve the connectivity of the corridor to the SRN and remove pinch points on the route.

Level of Service (Speed & Reliability)

This section summarises the average level of service for each of the Peninsula MRN corridors in terms of a typical average speed for a weekday journey together with an indicative range of speeds[53] providing a means of considering journey time reliability. The results are shown in Figure 4.8 and also include the Peninsula SRN corridors for comparison purposes.

Figure 4.8: MRN Corridors Average Speed and Speed Range



The key observation from journey time analysis is that average speeds on the Peninsula MRN corridors are not high, reflecting the fact that most corridors are single carriageways with varying speed limits. Only three corridors have a typical average speed of over 40 mph and three have a typical average speed of less than 20 mph. The range of speeds experienced on a typical day are also high averaging out at a difference of around 15 mph between the minimum and maximum speeds experienced. Many of the MRN corridors are on important bus routes and the reliability / punctuality of these services is therefore affected by the reliability of journey times on corridors.

The level of service offered by the SRN is generally better with typical average speeds on the M5 in the Peninsula of nearly 60mph, and average speeds on the A30 corridor west of the M5 greater than 50 mph. However, the level of service provided by the A38, A30/A303 and A35 corridors is lower and on a par with the fastest MRN corridors in the Peninsula.

[53] The analysis has been undertaken using Google Maps analysis for different times of day on a September 2018 weekday. The slowest time shown is typically based on the highest expected journey time during the AM or PM peak period and the fastest is typically based on a journey made at 2200 (or between the AM and PM peak period if this is faster). 2018 Inrix journey time data for all roads in the Peninsula is being collated as part of the data repository which supports this REB document and will be available to undertake more detailed journey time analysis for the development of the transport strategy.

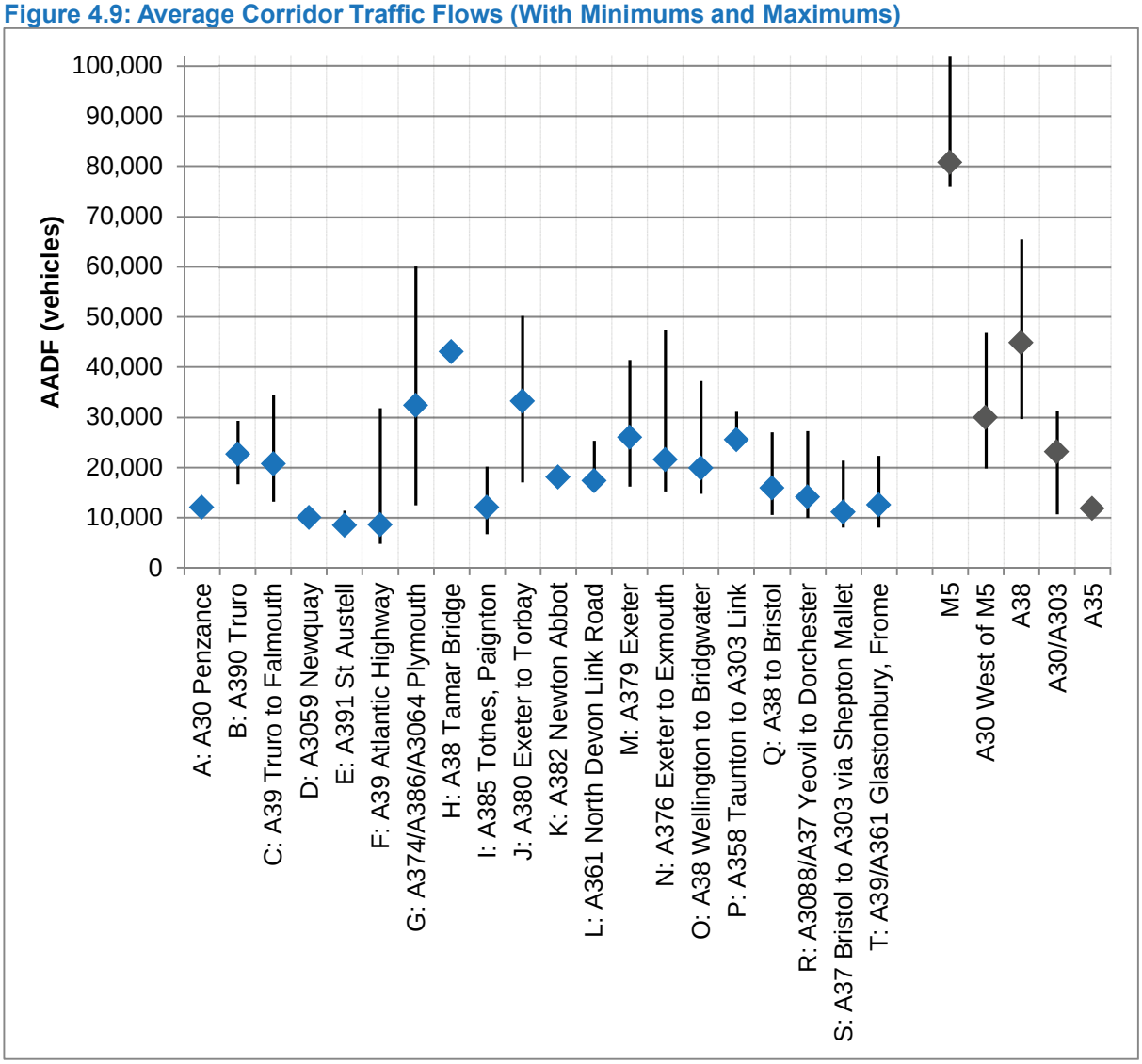
Traffic Demand & Vehicle Proportions

Quantitative criteria were applied by the DfT as a starting point for identifying the set of roads for inclusion in the initial network and these are based around annual average traffic flows (AADFs) and freight vehicle proportions. The criteria are as follows:

- Roads where traffic flow is greater than 20,000;
- Roads where traffic flow is greater than 10,000 and in addition, the proportion of heavy goods vehicles (HGVs) or large goods vehicles (LGVs) on that section of road is greater than 5% or 15% respectively;
- Links that are close to meeting several of the thresholds[54].

This section summarises the traffic flows and freight vehicle proportions for each of the Peninsula MRN corridors. Figure 4.9 shows the AADFs[55] (weighted by vehicle kilometres). The minimum and maximum AADFs on different links of a corridor are also shown as a range. Again, data for the Peninsula SRN corridors is included for comparison. Figure 4.10 shows the average LGV and HGV percentages across each of the corridors.

Figure 4.9: Average Corridor Traffic Flows (With Minimums and Maximums)



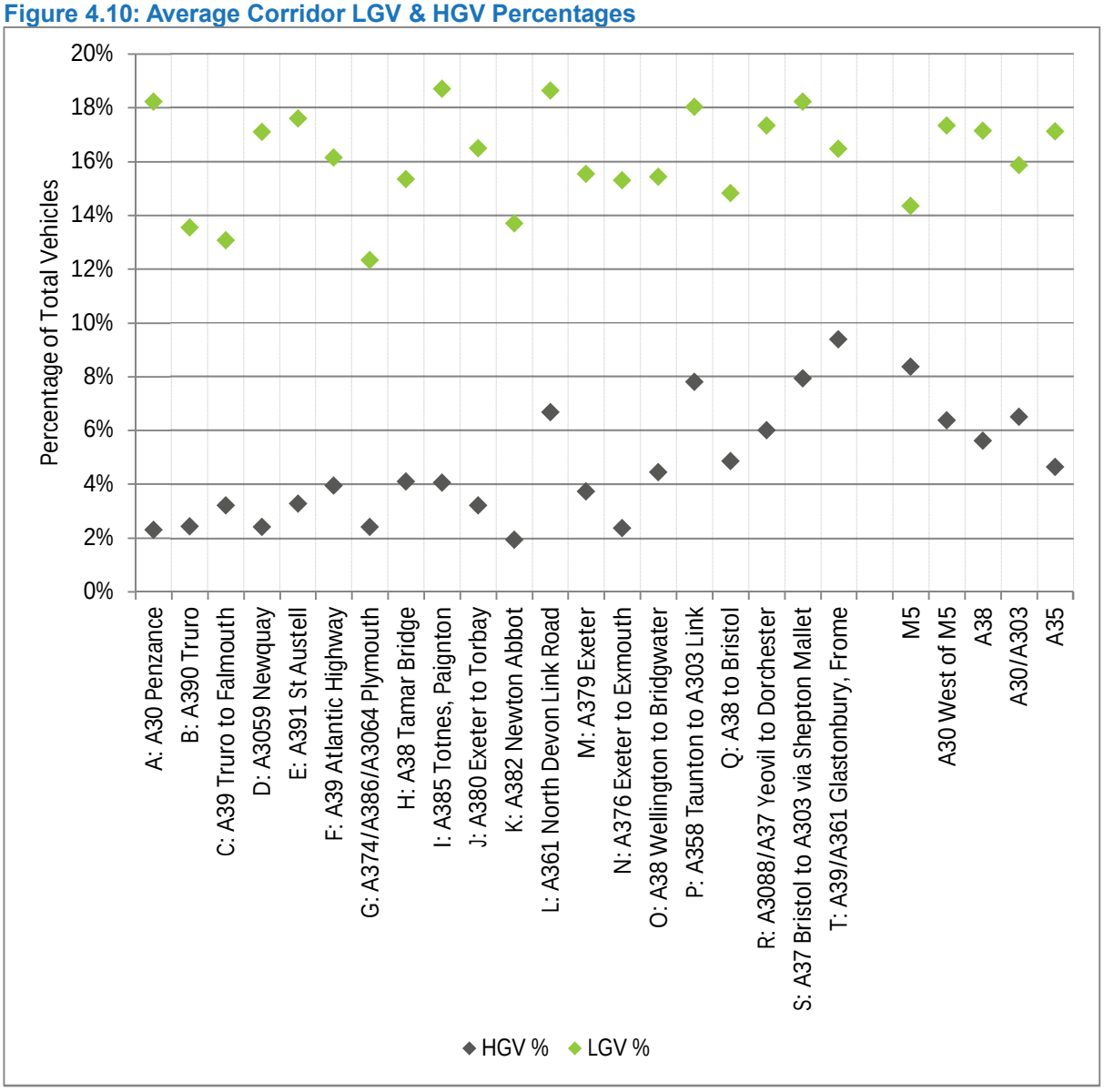
[54] As defined by (A+B+C)/3 is greater than 0.67. Where A = (AADF – 10,000)/ (20,000 – 10,000); B = HGV percentage/5%; and C = LGV percentage/15%. Creation of a Major Road Network Government Response, DfT (2018)

[55] DfT Road Traffic Statistics have been used to calculate these results. Long term automatic traffic count data from each of the Peninsula authorities has been collated as part of the development of the repository to support this evidence base report.

The majority of Peninsula corridors have AADFs along their length in the 10,000 to 20,000 range, but with sections where the AADF exceeds 20,000. The corridors with the highest flows are those serving large urban areas or providing a strategic link: the G: A374/A386/A3064 in Plymouth, H: A38 Tamar Bridge, J: A380 Exeter to Torbay, M: A379 Exeter and P: A358 Taunton to A303 Link.

Of the SRN links the M5 corridor, with an AADF of more than 80,000 carries nearly double the traffic on average than any of the other SRN corridors. The A38 corridor from Exeter through Plymouth to the A30 junction at Bodmin is the next busiest SRN link with an AADF of 44,000.

Figure 4.10: Average Corridor LGV & HGV Percentages



It is evident from Figure 4.10 that the percentage of HGVs is generally higher on the MRN corridors in Somerset the boundary of the Peninsula with Western Gateway and the rest of the country. This highlights the importance of the road links between the Peninsula and other key centres in the country for freight as well as passenger movements.

Resilience

The importance of resilience for the transport network in the Peninsula has been discussed earlier in Chapter 3.

Table 4.4 provides an indicative view of the resilience of MRN corridors based on an analysis of alternative road and rail corridors which exist and the additional time and distance for journeys in the event the MRN corridor is closed because of an incident or maintenance. This analysis only considers the full length of the corridor and does not provide a full analysis of scenarios involving localised impacts on a smaller section of the corridor or for longer journeys using multiple corridors. A qualitative resilience rating is provided for each corridor.

Table 4.4: Analysis of MRN Corridor Resilience

MRN Corridor	Alternative Road Route	Additional Time Cost Estimate	Additional Distance Cost Estimate	Rail Alternative	Resilience Rating
A: A30 Penzance	Urban	50-75%	10-25%	None	Moderate
B: A390 Truro	Rural B-road	25-50%	25-50%	None	Moderate
C: A39 Truro to Falmouth	Rural A, B-roads	0-10%	10-25%	Part	Good
D: A3059 Newquay	Rural A-road	50-75%	50-75%	Part	Moderate
E: A391 St Austell	Rural minor roads	10-25%	Zero	None	Moderate
F: A39 Atlantic Highway	Rural A-road	Zero	0-10%	None	Good
G: A374/A386/A3064 Plymouth	Multiple inc. A38	Zero	Zero	Part	Moderate
H: A38 Tamar Bridge	Rural B-road	>75%	>75%	Good	Poor
I: A385 Totnes, Paignton	Rural A-road	25-50%	>75%	None	Moderate
J: A380 Exeter to Torbay	Rural A-road	25-50%	10-25%	Good	Good
K: A382 Newton Abbot	Rural A, B-roads	50-75%	>75%	None	Moderate
L: A361/A39 North Devon Link Road	Rural Motorway, A roads	>75%	50-75%	Moderate	Poor
M: A379 Exeter	Motorway	Zero	25-50%	None	Moderate
N: A376 Exeter to Exmouth	Rural B-road	25-50%	25-50%	Good	Moderate
O: A38 Wellington to Bridgwater	Motorway	Zero	Zero	Good	Good
P: A358 Taunton to A303 Link	Rural A, B-roads	>75%	>75%	None	Poor
Q: A38 to Bristol	Rural Motorway, A-roads	10-25%	10-25%	None	Good
R: A3088/A37 Yeovil to Dorchester	Rural A, B-roads	>75%	50-75%	Moderate	Moderate
S: A37 Bristol to A303 via Shepton Mallet	Rural A-roads	Zero	0-10%	Moderate	Moderate
T: A39/A361 Glastonbury, Frome	Rural Motorway, A-roads	25-50%	>75%	None	Moderate

Connecting People and Places

This section provides information on how each of the MRN corridors connects people in existing centres, to new development and onwards to the strategic road network and important gateways. The information is summarised in Table 4.5. Figure 4.11 shows the location of the priority growth areas and corridors identified by Peninsula Transport as essential for supporting economic growth in the Peninsula. Table 4.5 highlights where an MRN corridor is linked to one of these growth areas.

Figure 4.11: Peninsula Priority Growth Areas and Corridors

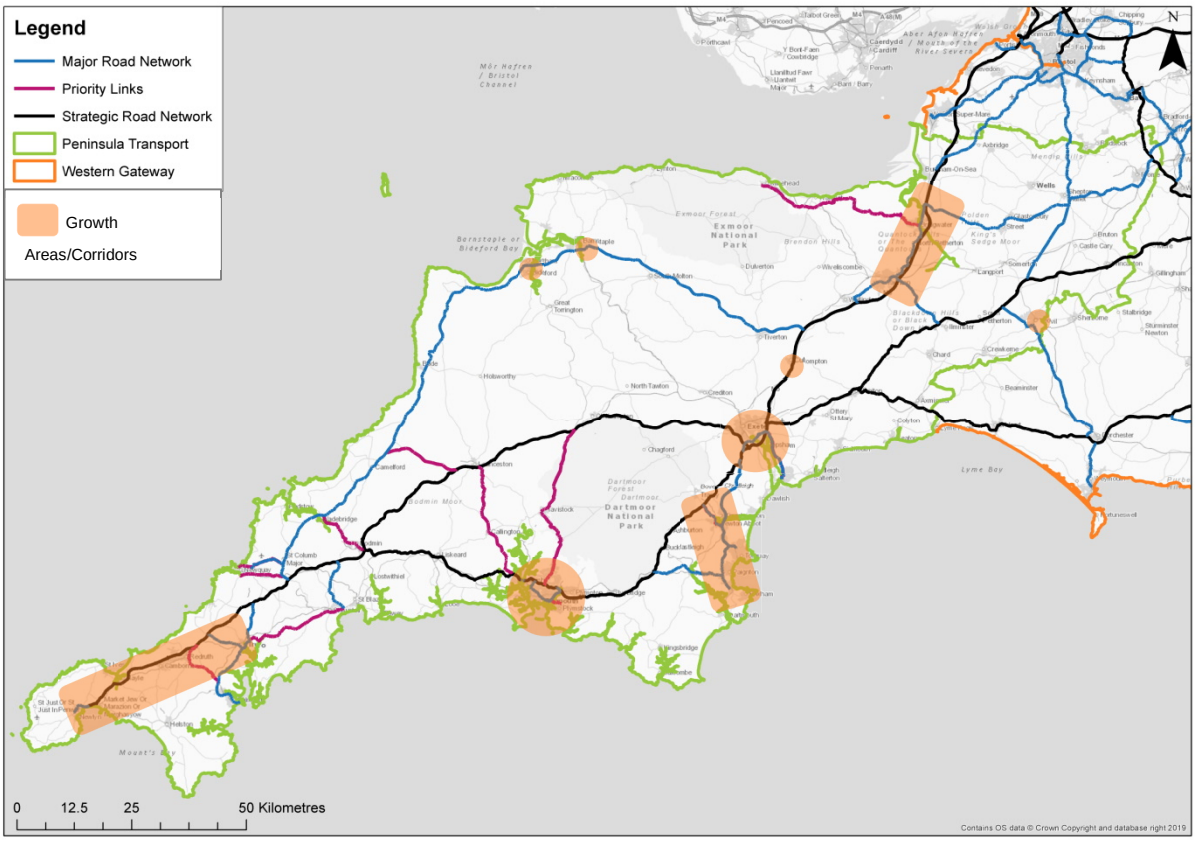


Table 4.5: MRN Links to Key Locations, Strategic Routes and Gateways

MRN Corridor	Linking Places	Linking New Development (within current plan periods)	Supporting the SRN	Connecting to Gateways
A: A30 Penzance	Penzance/Newlyn (pop. ~20k) with their hinterland	~2,000 dwellings in Penzance/Newlyn	Joins A30 east of Penzance	Newlyn Port plus Lands End for Isles of Scilly
	Truro – West Penwith Growth Corridor			
B: A390 Truro	Truro (pop. ~20k) with locations to the west	~4,000 dwellings on corridor to west of Truro	Joins A30 west of Truro	
	Truro – West Penwith Growth Corridor			
C: A39 Truro to	Truro (pop. ~19k) with	~3,000 dwellings in	Joins A30 east	Corridor to

MRN Corridor	Linking Places	Linking New Development (within current plan periods)	Supporting the SRN	Connecting to Gateways
Falmouth	Falmouth/Penryn (pop. ~29k) and locations to east.	Falmouth/Penryn	of Truro	Falmouth Harbour
	Falmouth Secondary Growth Area			
D: A3059 Newquay	Newquay (pop. ~20k) with A39 Atlantic Highway	~4,400 dwellings in Newquay		Part of corridor from A30 to Newquay Airport
	Newquay Secondary Growth Area			
E: A391 St Austell	St Austell (pop. ~21k) with locations to north and east.	~3,000 dwellings in St Austell	Joins A30 to north of St Austell	
F: A39 Atlantic Highway	Links communities of North Cornwall & North Devon, including: Newquay, Wadebridge, Bude and Bideford (total pop. ~53k)	~4,400 dwellings in Newquay	Joins A30 at western end (between Bodmin and Truro)	
	Bideford Secondary Growth Area			
G: A374/A386/A3064 Plymouth	Critical east-west corridor through Plymouth (pop. ~240k)	~26,700 dwellings in Plymouth JLP	Joins A38 at both ends of corridor	Port of Plymouth
	Plymouth Growth Area			
H: A38 Tamar Bridge	Links Saltash (pop. ~16.5k) with Plymouth (pop. ~240k)	~26,700 dwellings in Plymouth JLP plus Saltash (1,200 dwellings)	Critical link across the Tamar for A38	
	Plymouth Growth Area			
I: A385 Totnes, Paignton	Linking Totnes (pop. ~8k) with Torbay (pop. ~120k) and other locations. Providing links with Plymouth (pop, ~240k and destinations in the west	~500 dwellings in Totnes plus ~8,900 dwellings in Torbay	Joins A38 in the west (between Buckfastleigh and Ivybridge)	
J: A380 Exeter to Torbay	Exeter (pop. ~124k) in the north with Newton Abbot (pop. ~27k) and Torbay (pop. ~120k) in the south	~52,000 dwellings in Greater Exeter (including Newton Abbot) and ~8,900 dwellings in Torbay	Joins A38 in the north, just south of Exeter. Provides alternative to A38 corridor.	Brixham Harbour
K: A382 Newton Abbot	Newton Abbot (pop. ~27k) with destinations to the west including Plymouth (pop. ~240k)	~3,500 dwellings in Newton Abbot	Joins A38 in the west	

MRN Corridor	Linking Places	Linking New Development (within current plan periods)	Supporting the SRN	Connecting to Gateways
	Torbay – Newton Abbot Growth Corridor			
L: A361 North Devon Link Road	Corridor linking North Devon, including: Barnstaple, Bideford, South Molton and Tiverton in Mid Devon (total pop. ~76k) to all destinations south and east	~17,000 dwellings in North Devon & Torridge	Joins M5 at J27 in the east	
	Barnstaple Secondary Growth Area			
M: A379 Exeter	Critical corridor through south of Exeter.	~52,000 dwellings in Greater Exeter area	Joins M5 at J30 in the east and A38 in the west. Provides alternative to M5 corridor.	
	Exeter Growth Area			
N: A376 Exeter to Exmouth	Exeter (pop. ~124k) in the north with Exmouth (pop. ~35k) in the south	~52,000 dwellings in Greater Exeter area	Joins M5 at J30 in the north and connects to Exeter Growth Area	
O: A38 Wellington to Bridgwater	Links Wellington, Taunton, Bridgwater (total pop. ~126k)	~20,000 dwellings on corridor	Joins M5 at J26 in the south and J23 in the north. Provides alternative to M5 corridor	
	Taunton – Bridgwater Growth Corridor			
P: A358 Taunton to A303 Link	Taunton (pop. ~68k) with all places to east	~13,000 dwellings	Joins M5 at J25 in the north with A303 in the south	
	Taunton – Bridgwater Growth Corridor			
Q: A38 to Bristol	A38 from north of Burnham and Highbridge (pop. ~24k) through to Bristol (pop. ~460k)	~8,000 dwellings at Backwell, Nailsea, Churchill & Banwell	Joins M5 at J22 in the south	Main corridor to Bristol airport
R: A3088/A37 Yeovil to Dorchester	Yeovil (pop. ~48k) in the north with Dorchester and other south coast destinations	~7,500 dwellings in Yeovil	Joins A303 in the north	Links to Western Gateway ports (Weymouth, Poole)
	Yeovil Secondary Growth Area			

MRN Corridor	Linking Places	Linking New Development (within current plan periods)	Supporting the SRN	Connecting to Gateways
S: A37 Bristol to A303 via Shepton Mallet	Yeovil (pop. ~48k) in the south with Shepton Mallet (pop. ~11k) (and other Somerset communities) and Bristol (pop. ~460k) in the north	~7,500 dwellings in Yeovil and ~1,300 dwellings in Shepton Mallet	Joins A303 in the south	
	Yeovil Secondary Growth Area			
T: A39/A361 Glastonbury, Frome	Links Bridgwater (pop. ~44k) with Glastonbury, Shepton Mallet, Frome (total pop. ~47k) and other Somerset communities	~4,600 dwellings	Joins M5 at J23 in the west	

Safety

An analysis of all accidents in the period 2014-2018 for each of the MRN corridors has been undertaken to produce a calculation of the number of accidents per million vehicle kilometres. Whilst typical accident rates vary by road type and speed limit this provides a simple corridor base indicator as a basis for comparison. The results of the analysis are shown in Table 4.7.

Environment

Figure 4.12 shows the location of air quality management areas (AQMAs) in the Peninsula and areas where there is a noise impact from road traffic.
highlights which MRN corridors pass through (or are close to) existing AQMAs and also corridors which are in proximity to environmental sites.

Figure 4.12: Peninsula AQMAs and Noise Impact Areas

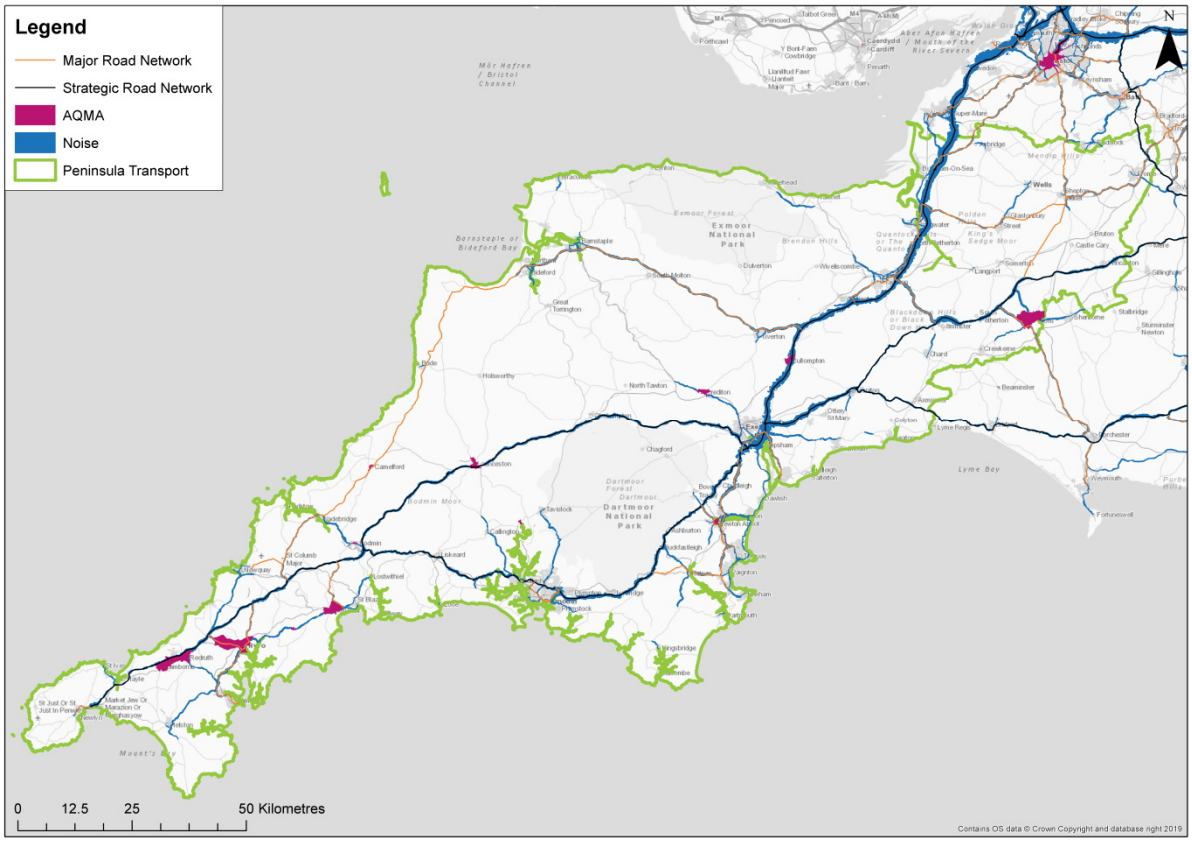
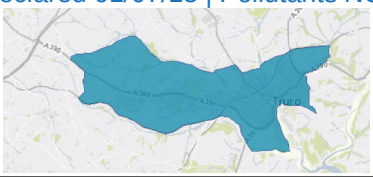
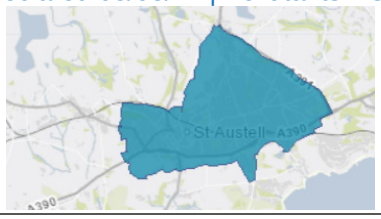
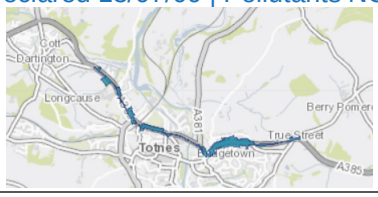
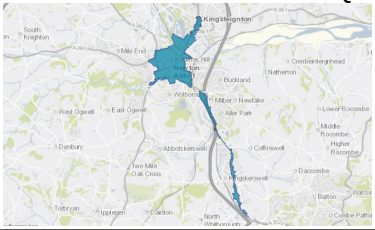
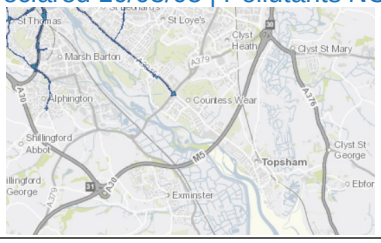
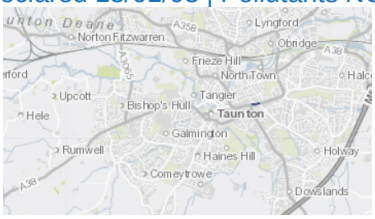
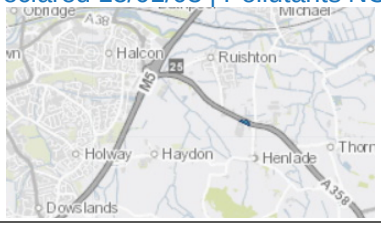
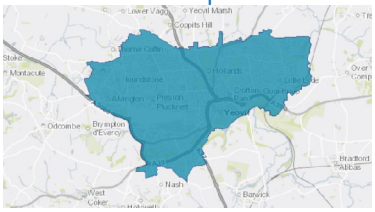


Table 4.6: Air Quality Impacts and Proximity to Environmental Sites for MRN Corridors

MRN Corridor	AQMA	Other
A: A30 Penzance	N/A	
B: A390 Truro	Runs through Truro AQMA Declared 01/07/15 | Pollutants NO_2 	
C: A39 Truro to Falmouth	Crosses the Truro AQMA (see map above).	
D: A3059 Newquay	N/A	
E: A391 St Austell	St Austell AQMA at southern end of corridor Declared 05/03/14 | Pollutants NO_2 	SSSI
F: A39 Atlantic Highway	Passes through AQMA in Camelford Declared 04/01/17 | Pollutants NO_2 	SSSI/AONB/NIA
G: A374/A386/A3064 Plymouth	Part of A374 and A386 corridors are AQMA Declared 12/11/14 | Pollutants NO_2 	
H: A38 Tamar Bridge	N/A	SSSI
I: A385 Totnes, Paignton	Passes through Totnes AQMA Declared 13/07/09 | Pollutants NO_2 	
J: A380 Exeter to Torbay	Runs parallel to Kingskerswell AQMA (overlaps on approach to Penn Inn Roundabout. Declared 02/03/07 | Pollutants NO_2 Runs close to Newton Abbot AQMA. 	SSSI at northern end of corridor

MRN Corridor	AQMA	Other
K: A382 Newton Abbot	Runs through Newton Abbot AQMA (see map above). Declared 02/03/07 | Pollutants NO_2	
L: A361 North Devon Link Road	N/A	
M: A379 Exeter	Crosses Exeter AQMA at Countess Wear Junction Declared 10/03/05 | Pollutants NO_2 	Crosses River Exe on boundary of SSSI
N: A376 Exeter to Exmouth	N/A	Runs parallel to SSSI on River Exe / Exe Estuary
O: A38 Wellington to Bridgwater	Runs through East Reach AQMA in Taunton Declared 15/01/03 | Pollutants NO_2 	
P: A358 Taunton to A303 Link	Runs through Henlade AQMA Declared 15/01/03 | Pollutants NO_2 	
Q: A38 to Bristol	N/A	AONB, SSSI
R: A3088/A37 Yeovil to Dorchester	Runs through Yeovil AQMA Declared 01/09/02 | Pollutants NO_2 	AONB
S: A37 Bristol to A303 via Shepton Mallet	N/A, but AQMA on route just north of Somerset boundary	
T: A39/A361 Glastonbury, Frome	N/A	

4.5 MRN Corridor Summary

Table 4.7 summarises much of the information on the Peninsula MRN corridors discussed in this section in a single location to allow for comparison across the corridors.

Table 4.7: Summary of Peninsula MRN Corridors

	Corridor	Length (miles)	Traffic Demand (AADF)	HGV %	LGV%	Typical Average Corridor Speed (mph)	Journey Time Reliability (typical daily variation in speed mph)	Qualitative Resilience Rating	Priority Growth Corridor	Gateways	Safety (Accidents per mvkm 2014-2018)	MRN / LLM Schemes
A	A30 Penzance	3	10-20k	2-5%	15-20%	20-30	15-20	Moderate	Truro – West Penwith	Penzance/ Newlyn	0.23-0.56	
B	A390: Truro West	5	20-40k	2-5%	10-15%	20-30	>20	Moderate	Truro – West Penwith		0.23-0.56	
C	A39: Truro East – Falmouth	18	20-40k	2-5%	10-15%	20-30	15-20	Good	Falmouth Growth Area	Falmouth	0.11-0.23	
D	A3059: Newquay Link	5	10-20k	2-5%	15-20%	30-40	10-15	Moderate	Newquay Growth Area	Newquay	0.23-0.56	
E	A391: St Austell	8	<10k	2-5%	15-20%	20-30	10-15	Moderate			0.23-0.56	
F	A39: Atlantic Highway	70	<10k	2-5%	15-20%	>40	10-15	Good	Bideford Growth Area		0.11-0.23	A39 Atlantic Highway MRN
G	A374/A386/A3064: Plymouth	7	20-40k	2-5%	10-15%	<20	15-20	Moderate	Plymouth Growth Area	Plymouth	>0.56	Plymouth MRN Phase I A38 Manadon Interchange LLM
H	Tamar Bridge	0.5	>40k	2-5%	15-20%	<20	<10	Poor	Plymouth Growth Area		0.11-0.23	
I	A385: Torbay – Totnes – A38	13	10-20k	2-5%	15-20%	20-30	15-20	Moderate			0.11-0.23	
J	A380/A3022: Exeter - Torbay	20	20-40k	2-5%	15-20%	30-40	>20	Good		Brixham	0.11-0.23	
K	A381/A382: Newton Abbot - A38	4	10-20k	<2%	10-15%	<20	15-20	Moderate	Torbay – Newton Abbot		0.23-0.56	A382 Drumbridges to Newton Abbot MRN
L	A361: North Devon Link Road	35	10-20k	5-10%	15-20%	>40	10-15	Poor	Barnstaple Growth Area		<0.11	A361 Roundswell to Bishop's Tawton MRN
M	A379: Exeter	5	20-40k	2-5%	15-20%	20-30	>20	Moderate	Exeter		0.23-0.56	A379 Exeter Outer Ring Road MRN
N	A376: Exeter – Exmouth	8	20-40k	2-5%	15-20%	20-30	15-20	Moderate			0.11-0.23	
O	A38: Wellington – Bridgwater	20	10-20k	2-5%	15-20%	20-30	10-15	Good	Taunton - Bridgwater		0.23-0.56	
P	A358: A303 to M5 Link	9	20-40k	5-10%	15-20%	30-40	>20	Poor			0.11-0.23	
Q	A38: Bristol Airport Link	22	10-20k	2-5%	10-15%	30-40	15-20	Good		Bristol	0.11-0.23	**A38: M5 J22 to Bristol Airport, Western Gateway MRN**
R	A37 Bristol to A303 via Shepton Mallet – A303	24	10-20k	5-10%	15-20%	>40	15-20	Moderate	Yeovil		0.11-0.23	
S	A3088/A37	32	10-20k	5-10%	15-20%	30-40	10-15	Moderate	Yeovil		0.11-0.23	
T	A39/A361: M5 - Frome	38	10-20k	5-10%	15-20%	30-40	10-15	Moderate			0.11-0.23	A361 Glastonbury & Pilton Pinch Points Improvements MRN A39 Walton Ashcott Bypass LLM

5. Priority MRN Schemes

Chapter Overview

Peninsula Transport has prioritised six strong MRN schemes as part of the development of this Regional Evidence Base and for consideration for funding from the National Roads Fund for 2020 – 2025. The total funding ask is £217m with an estimated total benefit to the UK economy of £1,320m.

The Peninsula is also submitting three LLM schemes for consideration with an ask of around £300m and an estimated total benefit of around £900m.

5.1 Introduction

This section sets out the process Peninsula Transport has taken to undertake prioritisation of the MRN schemes provided by scheme promoters in the region. It then provides a summary of each of the schemes, including tabulations of how each one supports the MRN objectives established by the DfT and emerging Local Industrial Strategies in the Peninsula.

The results of the prioritisation process are reported together with an outline programme for scheme delivery and a presentation of the scheme promoters and supporters.

The box below sets out which elements of the DfT Investment Planning Guidance are covered within this chapter.

Investment Planning Guidance
This chapter covers the following items described in the DfT guidance:

Brief analysis of priority MRN schemes and how they meet MRN objectives

- Identify list of top ten priority MRN schemes.
- Explain the criteria and methodology behind the selection of these schemes, including which bodies support the scheme e.g. local highway authorities, MP, LEP, HE or a combination.
- Explain how the priority schemes fit with strategic aims for transport in the region. At a minimum this should be based on and include:
  - Current traffic data (if no Regional or Strategic Transport Models are available).
  - Some form of economic assessment. This should include an indicative value for money category as explained in the Department's value for money framework.
- Explain how the priority schemes support the MRN objectives.
- Explain how the priority schemes takes account of other transport investments in the region that will affect roads on the MRN.
- Timetable of development, planning and construction of priority MRN schemes.

5.2 Prioritisation Approach

A prioritisation exercise was undertaken to compare the relative merits of the identified Peninsula MRN schemes based upon the latest business case submissions.

This process took into consideration amongst other things:

- The DfT Investment Planning Guidance for the MRN and LLM programmes;
- Other national guidance including WebTAG, DfT Business Case guidance and the Green Book;

- Existing processes such as the DfT's Early Assessment and Sifting Tool and tools previously applied within the Peninsula for assessing Growth Deal schemes; connections to International Gateways and alignment with Western Gateway aspirations.

To align the prioritisation process with the DfT Business Case guidance it was determined that the prioritisation should be organised around the five business cases, namely: Strategic Case, Economic Case, Financial Case, Commercial Case and Management Case.

Based on the initial review a number of themes were identified for the prioritisation. The Peninsula Transport Board reviewed the prioritisation principles and approved them with the stipulation that the following themes should be included within the process: safety, enhanced productivity, current planning status of schemes, AQMAs, confidence in the cost estimate, identify the approach to risk and the local authorities' commitment to delivering schemes and sourcing the local contribution. The Transport Board also emphasised the need for deliverability to be a key priority for schemes in the Peninsula.

A scoring matrix was developed by AECOM, in consultation with Peninsula Transport Officers and Highways England, using a seven-point qualitative scale as used in WebTAG[56] where appropriate (for other questions a simpler three-point scale or yes/no response has been applied). The scoring was weighted to reflect the importance of deliverability, the strategic fit of the scheme and the importance of the impact of the scheme in terms of delivering benefits to Peninsula communities and the economy. The resulting list of themes, organised by business case, is shown in Table 5.1. The scoring weighting applied for each business case in the prioritisation is also shown as a percentage.

A full list of the individual questions (by business case and theme) used as part of the prioritisation process can be found in Appendix II.

Table 5.1: Prioritisation Themes Organised by Business Case

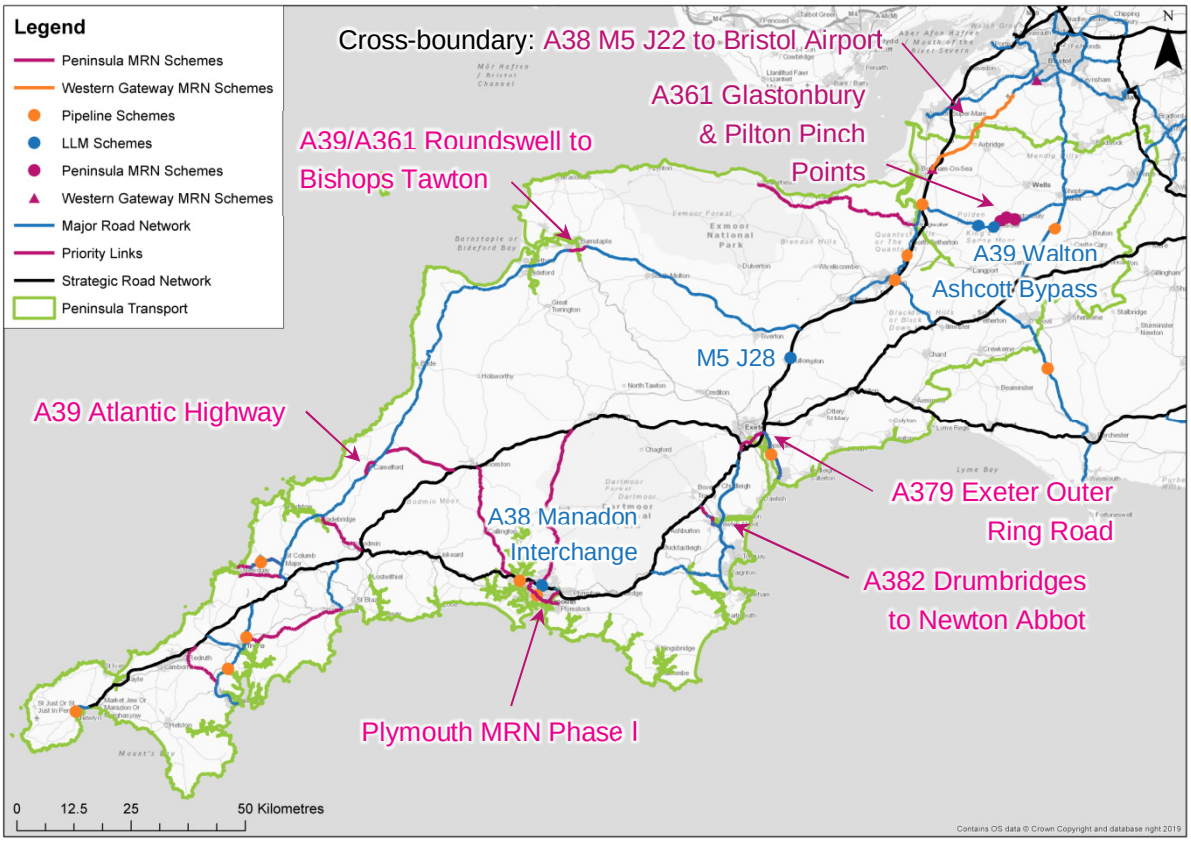
Business Case	Theme
Strategic Case [25%]	▪ Consideration of the needs of all road users; ▪ Supporting Growth Corridors & housing/employment developments; ▪ Supporting the Strategic Road Network (SRN); ▪ Connections to International Gateways; ▪ Alignment with Western Gateway aspirations; ▪ Seasonality and supporting Peninsula tourism; ▪ Industrial Strategy (enhanced productivity); ▪ Fit with local plans.
Economic Case [25%]	▪ Value for money; ▪ Congestion relief; ▪ Network resilience; ▪ Network performance and reliability; ▪ Safety; ▪ Impact on the environment (including AQMAs).
Financial Case [12.5%]	▪ Level of Local or 3rd Party funding available; ▪ Level of confidence in the cost estimate, identify approach to risk.
Commercial Case [25%]	▪ Scheme deliverability; ▪ Current planning status of schemes;
Management Case [12.5%]	▪ Stakeholder support and public acceptability; ▪ Delivery timescales; ▪ Approach to risk.
Other [pass/fail]	▪ Is the scheme eligible for MRN funding? ▪ Confirmation minimum 15% local contribution threshold has been reached.

[56]large adverse, moderate adverse, slight adverse, neutral, slight beneficial, moderate beneficial, large beneficial.

5.3 Scheme Summaries

Figure 5.1 indicates the locations of the MRN schemes assessed as part of the prioritisation process, as well as the large local major schemes currently proposed in the region.

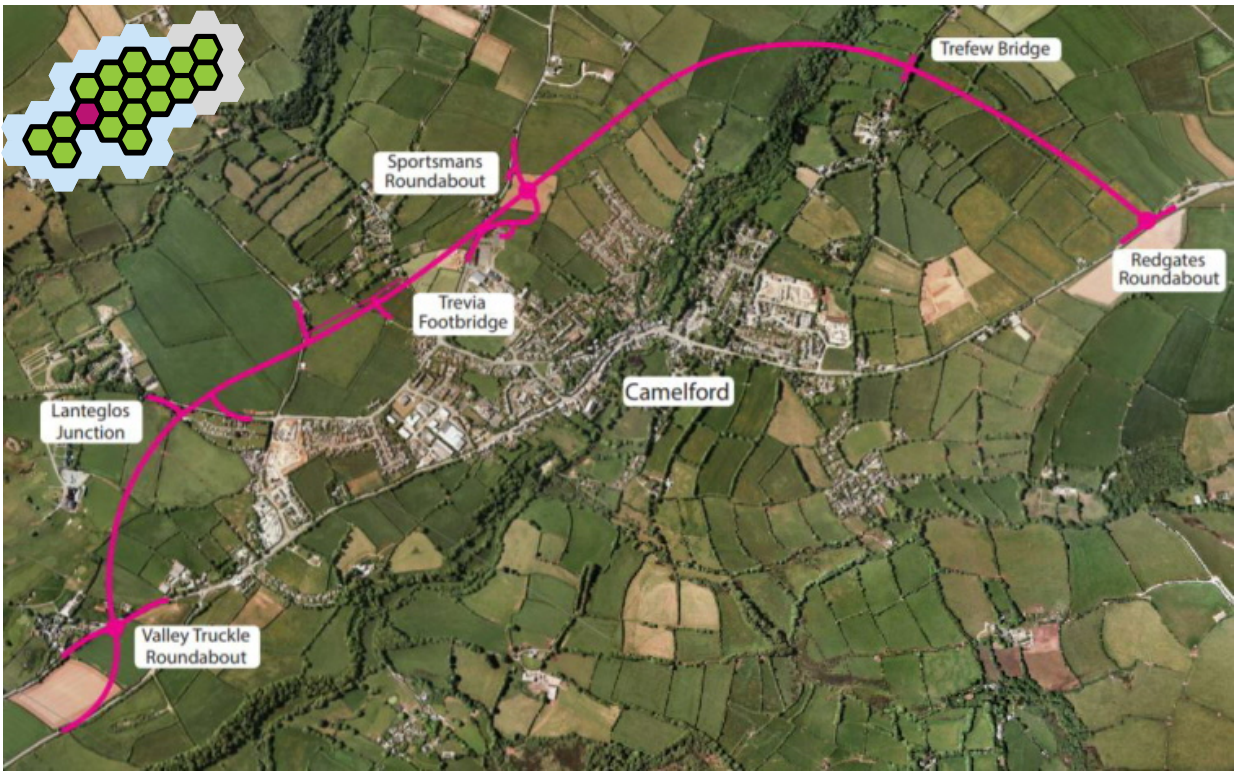
Figure 5.1: Peninsula MRN and LLM Scheme Locations



Further details regarding these schemes, their anticipated costs, ask of the DfT, value for money scores and their alignment with the DfT's objectives for the MRN can be found in Table 5.1. This table indicates that the schemes align closely with the MRN objectives, with all schemes contributing to some or all of these objectives. The below information provides a more detailed examination of each scheme's contribution to the MRN objectives and also the aims of the emerging Local Industrial Strategies in the Peninsula.

Appendices III – XI contain the pro formas and business case submissions for each of the six prioritised MRN schemes and the three LLM schemes.

A39 Atlantic Highway [SOBC] MRN



Scheme Description

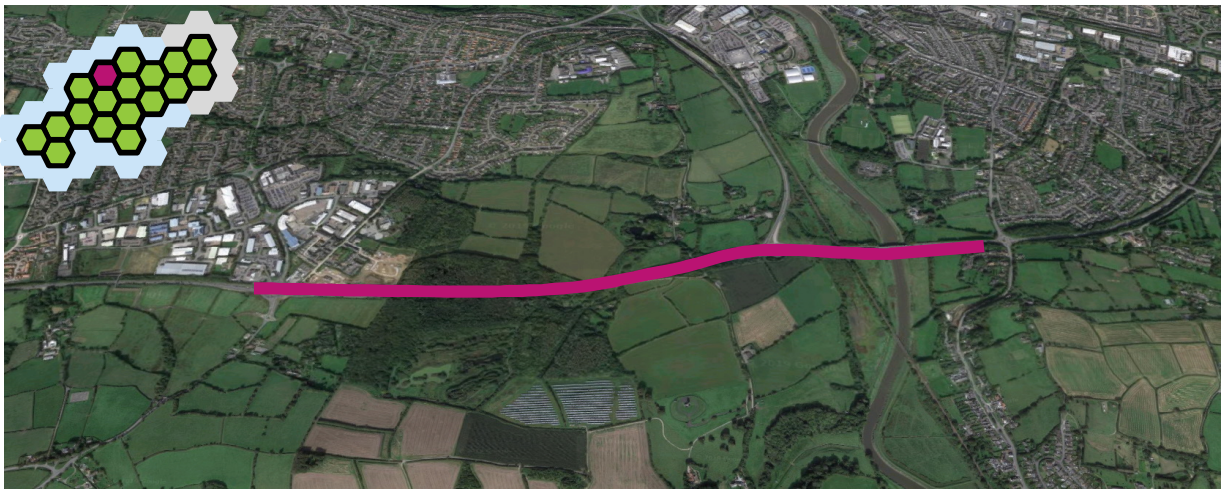
The A39 is the main route from north Cornwall to west Devon and through Camelford is congested resulting in delays, community severance and associated environmental impacts. Camelford is an Air Quality Management Area (AQMA) with a high percentage of HGV and agricultural vehicles.

Poor connectivity impacts on the economy of Camelford and surrounding area, with the current route identified in the Local Plan as a key constraint to growth. A single carriageway bypass of design speed 85kph will provide a theoretical capacity of 13,000 vehicles per day: sufficient capacity to cope with the current traffic flows (including seasonal uplifts) and the predicted increases to 2030.

- Journey time reliability will be improved on A39 and congestion eased in town;
- The scheme improves air quality in the Camelford AQMA
- Provides improved access to tourism attractions (including Boscastle and Tintagel);
- The route has previous planning permission & support from Town Council;
- Route protected by Cornwall Council.

MRN Scheme Type	Bypass / New Alignment				
Scheme Cost	£42.5m [£36.5m DfT Ask]				
Benefit Cost Ratio	1.4 [Low / Medium]				
MRN Objectives					Support LIS
Reduce Congestion	Economic Growth	Housing Delivery	All Road Users	Support the SRN	
✓	✓	✓	✓	✓	✓

A39/A361 Roundswell to Bishop's Tawton [Pre-SOBC] MRN



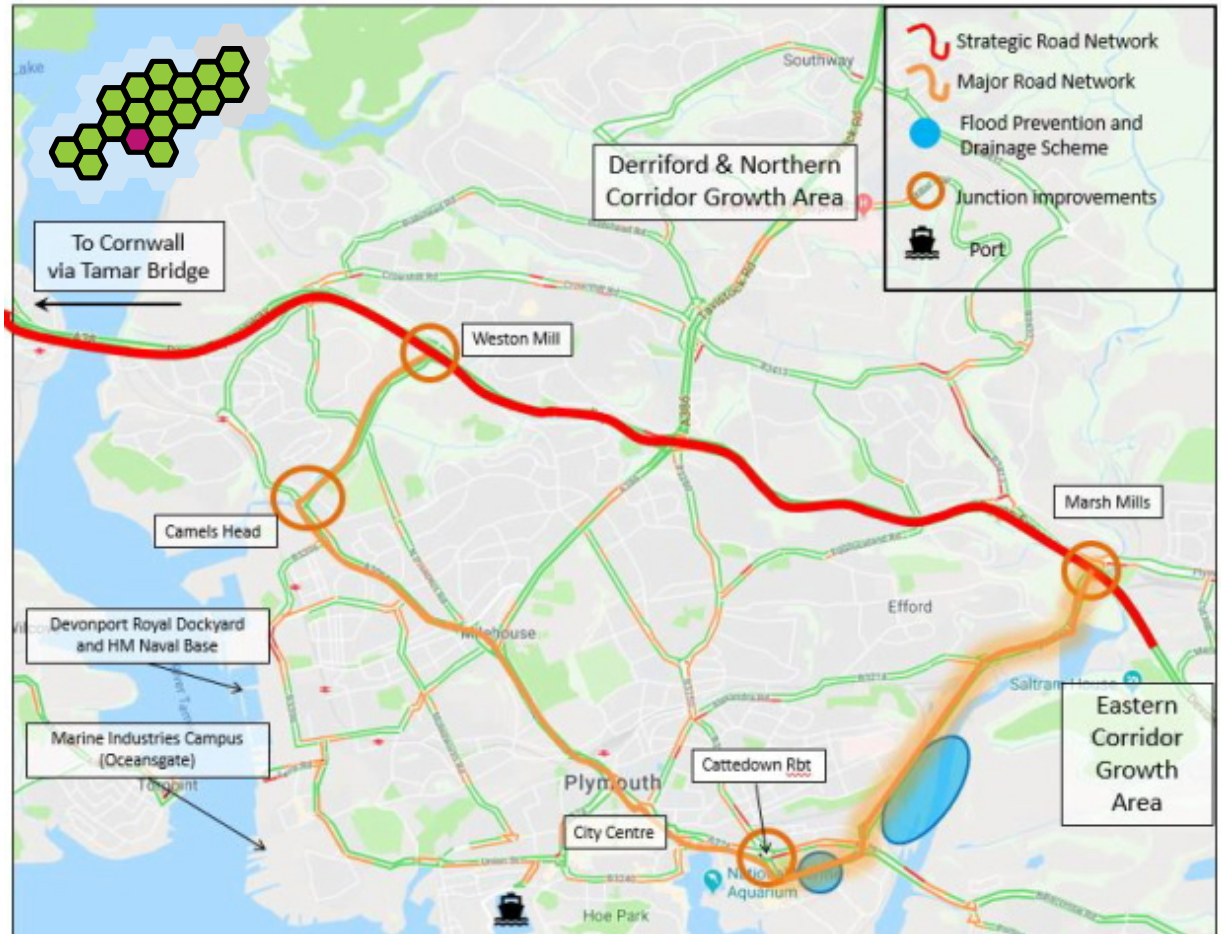
Scheme Description

The North Devon Link Road is the main road connecting northern Devon and North Cornwall to the rest of the country. Around Barnstaple it is all single carriageway but carries 28,000 vehicles a day. This causes high levels of congestion and queuing in peak periods and the situation will be made worse by the 17,000 dwellings and 85Ha of employment proposed in the area in the next decade.

Phase 1 improvements to the NDLR were approved for Large Local Majors funding in 2018 and this will improve all the junctions between South Molton and Bideford as well as additional overtaking sections between South Molton and Barnstaple. The benefits of the junction improvements will not be fully achieved unless the links connecting them are improved to carry the full capacity the junctions can accommodate. This scheme will include widening of the road to two lanes in each direction between Roundswell Roundabout and Bishop's Tawton Roundabout. This section is 2.4km long and includes a new bridge over the railway branch line and River Taw. There is insufficient room to accommodate a dual carriageway standard road because of the houses on both sides so a WS2+2 road is proposed, with a solid white line down the middle and hard standing kerbs on either side. This will require the speed limit of the road to be reduced to 50mph and average speed cameras will be installed to enforce this.

MRN Scheme Type	Widening of Existing MRN Roads				
Scheme Cost	£55.1m [£46.8m DfT Ask]				
Benefit Cost Ratio	1.6 [Medium]				
MRN Objectives					Support LIS
Reduce Congestion	Economic Growth	Housing Delivery	All Road Users	Support the SRN	
✓	✓	✓	✓		✓

A374A386/A3064 Plymouth MRN Phase I [SOBC] MRN



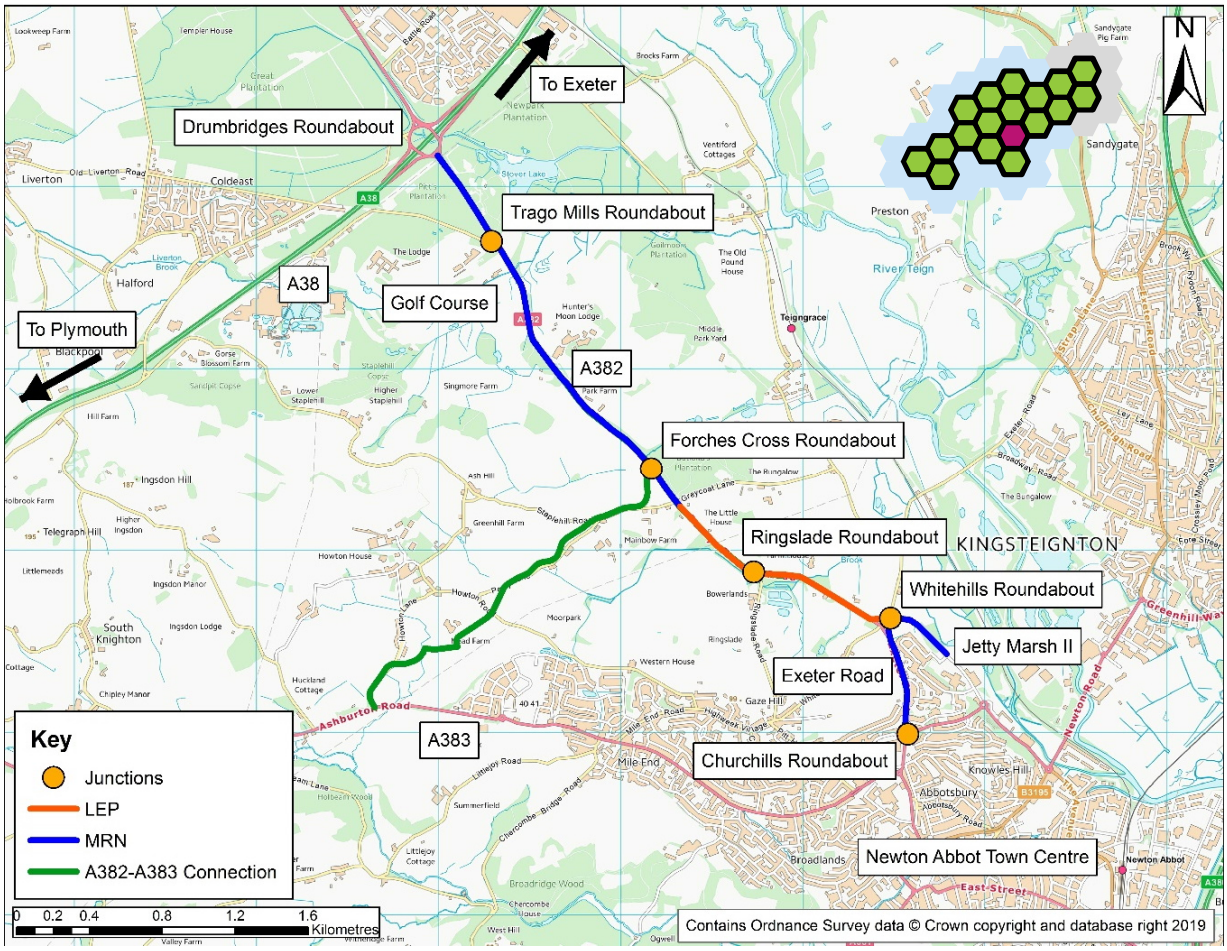
Scheme Description

Plymouth's MRN Phase 1 Scheme will deliver targeted improvements to key junctions including the A38 / Marsh Mills and Weston Mill junctions, Cattedown Roundabout and the Camels Head junction, increasing road capacity and reducing delays. Localised road widening will be undertaken to facilitate traffic flow and remove pinch-points, complemented with highway asset reconstruction and improvements for non-motorised users incorporated.

Flooding hotspots will be addressed with the implementation of the EA Arnolds Point flood defence works implemented. MRN functionality will increase through the removal of a disused rail bridge which limits the MRN as an Abnormal Load Route and as a diversion route for SRN traffic on the A38.

MRN Scheme Type	Package of Improvements				
Scheme Cost	£48m [£40.8m DfT Ask]				
Benefit Cost Ratio	6.4 [Very High]				
MRN Objectives					Support LIS
Reduce Congestion	Economic Growth	Housing Delivery	All Road Users	Support the SRN	
✓	✓	✓	✓	✓	✓

A382 Drumbridges to Newton Abbot [OBC] MRN

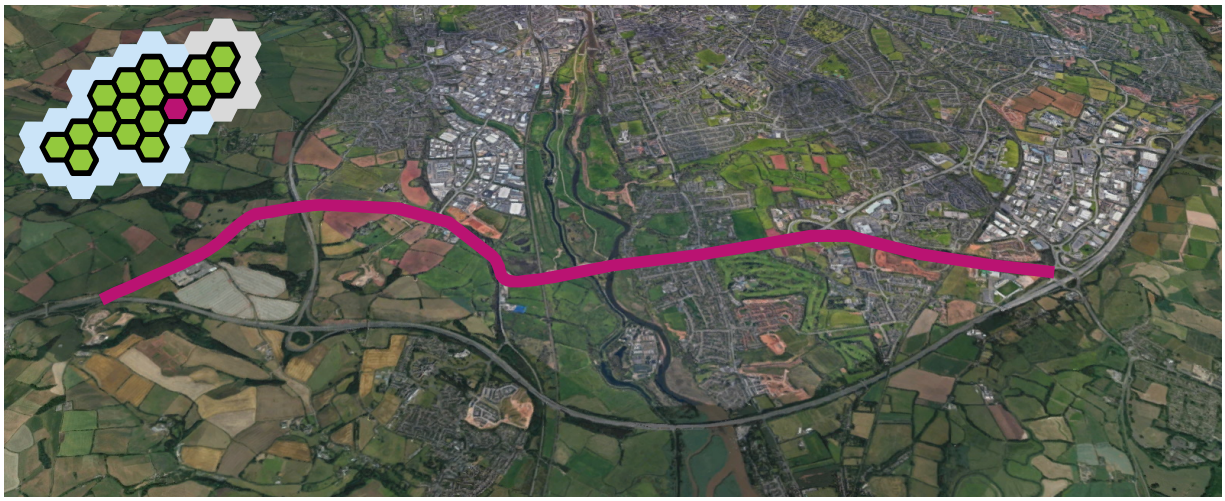


Scheme Description

The A382 (18,000 AADT, 3% HGV) links Newton Abbot to the A38, Heathfield Industrial Estate and beyond. The road is sub-standard, has a high collision rate and there are no pedestrian or cycle facilities along its length. These issues are preventing planned development in the Newton Abbot growth area. Proposed improvements include: widening to dual carriageway, Trago roundabout to Drumbridges; realignment/widening to 10-metres, Trago roundabout to Forches Cross; improving junctions at Trago, Forches Cross and Whitehill Cross; construction of Jetty Marsh II; new pedestrian/cycle path from Drumbridges to Forches Cross and along Jetty Marsh II; widening of Exeter Road to 6-metres and shared pedestrian/cycle path.

MRN Scheme Type	Package of Improvements				
Scheme Cost	£43.5m [£36.9m DfT Ask]				
Benefit Cost Ratio	3.3 [High]				
MRN Objectives					Support LIS
Reduce Congestion	Economic Growth	Housing Delivery	All Road Users	Support the SRN	
✓	✓	✓	✓	✓	✓

A379 Exeter Outer Ring Road [Pre-SOBC] MRN



Scheme Description

The A379 is a key arterial corridor in Exeter, providing one of only 4 vehicular crossings of the River Exe. It provides resilience to the Strategic Road Network through its function as a diversionary route for the M5. It carries 33,000 two-way daily vehicles and links two of Exeter's major strategic housing and employment allocations: 2,500 dwellings and 5ha of employment at South West Exeter and 3,500 dwellings and 8ha of employment at Newcourt.

The A379 has several structures crossing the River Exe. These structures are approaching the end of their serviceable life and require renewal within 10 years. Without access to significant external funding, these structural renewals will not be possible using current funding sources. Failure of the structures will cause significant disruption to the large volumes of daily users of this route, impacting the overall accessibility of Exeter.

The A379 corridor serves as an important diversionary route for the Strategic Road Network in the event of an M5 closure. This scheme would enable abnormal loads to be accommodated along the route.

MRN Scheme Type	Major Structural Renewals				
Scheme Cost	£45m [£38.3m DfT Ask]				
Benefit Cost Ratio	15 [Very High]				
MRN Objectives					Support LIS
Reduce Congestion	Economic Growth	Housing Delivery	All Road Users	Support the SRN	
✓	✓	✓	✓	✓	✓

A361 Glastonbury & Pilton Pinch Points Improvements [Pre-SOBC] MRN

Scheme Description

The scheme considers two congestion pinch-points on the A361 between Glastonbury and A37. First, a narrow section of road at A361 Chilkwell St in Glastonbury and secondly, the corner of A361 Park Hill / Whitstone Hill in Pilton. The route carries a high proportion of HGV's and is the main, East-West vehicle route across north-east Somerset; linking the M5. It also provides access to Glastonbury Festival which attracts over 400,000 workers and visitors. There is considerable variation in road standard along the route and the pinch-points are significant areas of weakness that do not meet the appropriate level for the MRN.

MRN Scheme Type	Bypass / New Alignment				
Scheme Cost	£20.3m [£17.3m DfT Ask]				
Benefit Cost Ratio	2.4 [High]				
MRN Objectives					Support LIS
Reduce Congestion	Economic Growth	Housing Delivery	All Road Users	Support the SRN	
✓	✓	✓	✓		✓

A38 Manadon Interchange [SOBC] LLM

Scheme Description

Additional lanes on A38 off-slips on the A386 (flyover and NB) and on the A38 Parkway:

- Reduces severe queuing on slips & overall junction capacity and improves access to the SRN;
- Supports housing delivery of 26,000 homes in the Joint Local Plan, including 4,000 in Derriford / Northern Corridor and 3,800 in the City and Waterfront.

Scheme Cost	Estimate £122m				
Benefit Cost Ratio	2.2 [High]				
MRN Objectives					Support LIS
Reduce Congestion	Economic Growth	Housing Delivery	All Road Users	Support the SRN	
✓	✓	✓	✓	✓	✓

M5 Junction 28 [Pre-SOBC] LLM

Scheme Description

M5 Junction 28 is a single bridge motorway junction with a 6-arm roundabout to the west and a signalised junction to the east with poor pedestrian/cyclist crossing facilities. The junction is currently close to capacity in the peak periods and queuing can extend up to 500m in the morning. Queuing in the evening also occurs on the commuting traffic return journey to Cullompton. The queue occasionally extends back onto the mainline motorway which is a serious safety concern.

An improvement to the junction is required to mitigate the impacts of proposed development within the area as allocated in the Local Plan Review. This includes the first phase of the Culm Garden Village which will accommodate up to 5,000 new dwellings to the east of Cullompton, along with over 50,000m² employment floor space.

Scheme Cost	Estimate £120m				
Benefit Cost Ratio	4.5 [Very High]				
MRN Objectives					Support LIS
Reduce Congestion	Economic Growth	Housing Delivery	All Road Users	Support the SRN	
✓	✓	✓	✓	✓	✓

A39 Walton Ashcott Bypass [Pre-SOBC] LLM

Scheme Description

The scheme will mitigate congestion pinch-points on the A39 between Street and west of Ashcott village. This is a narrow winding section of the A39 that goes through the villages of Walton and Ashcott and includes a difficult junction with the A361 to Taunton at The Pipers Inn.

The route carries a high proportion of HGV traffic as well as being the main vehicle route in an East – West direction across north Somerset linking with the M5. There is considerable variation in road standard along the route and the pinch-points are areas of weakness that do not meet the appropriate level for the MRN.

Scheme Cost	Estimate £60m				
Benefit Cost Ratio	2.1 [High]				
MRN Objectives					Support LIS
Reduce Congestion	Economic Growth	Housing Delivery	All Road Users	Support the SRN	
✓	✓	✓	✓	✓	✓

Table 5.2: Alignment of MRN / LLM Schemes to MRN Objectives and Emerging Local Industrial Strategies

MRN Schemes	Alignment with MRN Objectives					Local Industrial Strategy Fit
	Reduce Congestion	Support Economic Growth & Rebalancing	Support Housing Delivery	Support All Road Users	Support the Strategic Road Network	
A382 Drumbridges to Newton Abbot	Road widening, realignment and junction improvements will increase capacity and speeds. Majority of scheme has full planning permission. Scheme subjected to environmental scrutiny throughout with mitigation measures identified.	Scheme will facilitate development and travel along A382, enabling housing and employment sites to be brought forward. Improved access to Newton Abbot and SRN, linking to key locations such as Exeter, Plymouth and Bristol.	The scheme will support the delivery of 2,500 homes and 20 hectares of employment development on the A382 corridor, west of Newton Abbot. Further opportunities for longer term growth are currently being considered through the Greater Exeter Strategic Plan and Local Plan Review.	Reduced congestion will improve the bus service reliability. Currently no provision for non-motorised users (NMUs) - new shared use path will open up access to the A382 for NMUs, enabling safe and sustainable travel. Road realignment and segregated pedestrian/cycle path will improve safety.	Scheme supports the SRN by improving journey times for trips using the A38 to/from Newton Abbot; the A382 is a vital corridor connecting the town to the SRN and beyond. Increased road capacity will reduce congestion and improve journey time reliability for trips using the A38 to/from Newton Abbot.	Important to protect the A382 and A38 corridors to connect Newton Abbot and the marine cluster of businesses in Plymouth, and enviro-technology, agri-tech and data analytics in Exeter. In addition, quarrying represents a significant industry in the area. Improvements to the A382 corridor will provide a catalyst for economic growth through guaranteeing long-term reliability and accessibility.
A374/A386/A3064 Plymouth MRN Phase 1	The scheme will reduce congestion/delays through targeted junction capacity upgrades. Improved traffic management at key decision points The removal of the rail bridge will allow HGVs to re-route away from Noise Important Areas in Pomphlett. Resurfacing works will also reduce noise in other NIAs.	Plymouth has two IS exemplar sites (Oceansgate Enterprise Zone and Thales); both of these would benefit directly from the access improvements that the scheme will provide. Peninsula Transport has identified Plymouth as a growth corridor providing 27,000 new dwellings and 19,000 new jobs by 2034. Significant growth areas to the east and west of Plymouth will benefit from the Plymouth MRN scheme. The scheme improves access to Plymouth port as well as onward routes to Exeter, Newquay and Bristol airports.	The Plymouth & South West Devon Joint Local Plan ambition is for 26,700 new homes by 2034, including 5,000 at Sherford and 2,000 at Plymstock Quarry both which are to the east of the city. The scheme is critical to delivering this growth. The delivery of around 1,240 new homes would be adversely affected if the scheme does not go ahead.	Scheme provides new pedestrian and cycle crossing facilities at junctions. The flood protection works will prevent flooding of the rail main line, including the Network Rail Laira Traction & Rolling Stock Maintenance Depot. Bus journey times and reliability will also be improved via the scheme. The A374 is included within Plymouth's AQMA. Smoother traffic flows with reduced congestion will lead to reduced particulates, helping to mitigate the impacts of general traffic growth.	Congestion and delay reductions will significantly improve day to day journey time reliability on the MRN. The reductions in queuing on A38 off-slips will reduce the likelihood of blocking back to the A38, therefore improving journey time reliability on the SRN. In addition, flood protection, low bridge removal and carriageway reconstruction works will reduce incidents of disruption, improving journey time reliability. The removal of the rail bridge facilitating use of the A374 as a diversion route for the A38.	Plymouth performs well in the sectors identified in LIS aspirations, with key strengths in advanced engineering, marine technology, and defence-related nuclear expertise. The scheme will enhance accessibility to the city, and in turn facilitate ongoing growth of these sectors through increased journey reliability for both workers and industry resources, and could encourage new businesses to set up in the city.
A39 Atlantic Highway	The scheme will alleviate congestion/delays in Camelford and deliver much improved journey time reliability on the corridor.	The Atlantic Highway links communities in North Cornwall including Wadebridge, Camelford and Bude, with around 6,700 new jobs planned for these locations. The scheme will support economic through improved journey times and journey time reliability.	Around 10,800 houses are planned around the A39 Atlantic Highway corridor, and the scheme will improve connections between these locations.	The scheme will improve access and the environment for pedestrians and cyclists through Camelford. Air quality will also be improved in the town. The scheme will provide a more suitable route for freight trips.	The scheme provides an opportunity to divert traffic at an earlier point off the A30to access the north coast, improving resilience of the SRN and the wider network.	The scheme links with a number of the opportunities included in the emerging CIoS LIS, including improving links to tourist sites, agri-food businesses and as part of some routes to Newquay airport and the Aerohub Enterprise Zone / Space Port.

MRN Schemes	Alignment with MRN Objectives					Local Industrial Strategy Fit
	Reduce Congestion	Support Economic Growth & Rebalancing	Support Housing Delivery	Support All Road Users	Support the Strategic Road Network	
A39/A361 Roundswell to Bishop's Tawton	There is currently congestion on the NDLR around Barnstaple in the peak periods which will be made worse by the proposed development within the area. A number of dwellings are located close to the NDLR. The reduction in congestion and delays will improve noise and air quality for these residents.	The NDLR is the main road connecting the region to the rest of the UK and abroad. Improving journey times will make it more attractive for businesses to move into the area. Main route to Bristol and Exeter airports and London is the NDLR. Reducing journey times along the NDLR will therefore improve access to international gateways.	The Local Plan allocates 4,163 dwellings in Barnstaple and improvements to the NDLR will make the area more attractive to house builders to develop. Some sites have been stalled and will likely come forward quicker if the transport network is improved.	Improved journey time reliability for public transport using NDLR. The scheme will also divert some traffic onto the NDLR, making the local roads quieter and better for walking and cycling. Safer overtaking opportunities will reduce accident risk.	Reducing congestion on the NDLR will improve journey times and journey time reliability, both for local trips and for longer distance trips.	The scheme will help bring forward employment sites in the northern Devon area.
A361 Glastonbury & Pilton Pinch Points Improvements	Scheme bypasses several pinch-points on key corridor through Somerset. These pinch-points severely reduce capacity due to the carriageway width struggling to accommodate HGV traffic, this has a substantial impact on journey time and reliability. Chilkwell St is narrow, has a high number of local accesses and very limited pedestrian provision. The route carries a high proportion of HGVs which has increased yearly and now stands at 7.5% of total vehicle movements.	The scheme will facilitate development and travel along the A39/A361 route which links Mendip communities to the Strategic Road Network and is also a vital link for freight distribution across Somerset. More reliable journey times will significantly benefit business productivity. This is a key route for the quarry industry which supplies aggregates to support development across the UK. Supports current plans for over 3,500 jobs in Mendip improving access to employment areas.	The scheme will support current planned delivery of 3,600 homes in Mendip and could potentially unlock a further 1,000 – 2,300 additional homes depending on the final route option identified.	The scheme will include improved facilities for pedestrians and cyclists and will improve bus journey times and reliability. Glastonbury attracts hundreds of thousands of visitors every year to its historic sites which are close to the town centre but have very limited dedicated parking. Most visitors use town centre car parks and walk to the important sites along the narrow footpaths on Chilkwell St.	Provides an alternative East-West route to the A303; improving the resilience of the wider SRN.	The scheme will provide improved access to employment sites supporting the local industrial strategy. The scheme forms part of the whole-route improvement for the A39/ A361 route across central Somerset which improves access to the 'Gravity' innovation hub which is a key transformational project to deliver clean growth technology.
A379 Exeter Outer Ring Road	Preventing structures reaching the end of their serviceable life failing and the resultant significant disruption on the A379 and M5. Anticipated small improvement to air quality in the Exeter AQMA.	A379 links two of Exeter's major strategic allocations at South West Exeter. The A379 corridor is not currently able to accommodate abnormal loads should the M5 close. Should the structures fail, the accessibility of nearby ports and airports will be significantly affected.	A379 is a key growth corridor with strategic allocations at South West Exeter (2,500 dwellings) and Newcourt (3,500 dwellings). Ensuring the corridor is future-proofed, as demand along the corridor is expected to increase, will be an important element to improving access to the development.	Delivery of inbound bus lane along Bridge Road, encouraging sustainable travel and improving bus journey time reliability. Facilities for pedestrians and cyclists will be explored through the new bridge design, with the potential to improve crossing safety in this location.	Failure of the structures will cause significant disruption to the large volumes of daily users of this route, impacting the overall accessibility of Exeter which could have knock on effects to the SRN. Additional resilience will be provided to the M5, as the diversionary route will be able to accommodate abnormal loads.	The A379 is important to ensure that the 'digital futures' potential at Exeter is not impacted through poor connectivity. In addition, the diversionary route potential for abnormal loads will offer resilience to the M5 around Exeter. This will ensure 'high-tech engineering' and 'clean energy' sites remain accessible, even when incidents occur.

LLM Schemes	Reduce Congestion	Support Economic Growth & Rebalancing	Support Housing Delivery	Support All Road Users	Support the Strategic Road Network	Local Industrial Strategy Fit
A38 Manadon Interchange	Relieve bottleneck at Manadon junction through road widening, which causes congestion back onto the A38. Additional capacity on A38 off slips and roundabout through road widening. Improvements to the merge south of Manadon roundabout increase capacity. Reduced congestion likely to improve air quality in AQMA and reduce noise from idling queued vehicles.	Providing additional capacity required to allow significant growth planned within the Plymouth Northern Corridor Growth Area to come forward. Better access for business, improved access to job opportunities and wider skills base. Improves access to Plymouth City Centre including key employment sites. Improved access to the A38 providing access to Exeter and Newquay Airports.	The scheme is critical to the delivery of the development allocations within the JLP (26,700 new homes by 2034), which could not fully come forward without the improvements at Manadon Junction.	New cycle lanes and improved cycle crossings at Manadon Junction, enhancing the north-south cycle route. Junction improvements will reduce bus journey times and reliability. The scheme will reduce queuing which regularly extends back onto the A38 - a major safety risk which will be significantly improved by the scheme.	Manadon Junction is a major contributor to poor performance of the A38 between Forder Valley Interchange and Manadon Junction. Improved capacity and reduced queuing from Manadon Junction extending back onto the mainline A38 will improve journey time reliability on the SRN through Plymouth. The scheme will also allow better access to the local road network and appropriate diversionary routes, if incidents occur on the A38.	Plymouth performs well in the sectors identified in LIS aspirations, with key strengths in advanced engineering, marine technology, and defence-related nuclear expertise. The scheme will enhance accessibility to the city, and in turn facilitate ongoing growth of these sectors through increased journey reliability for both workers and industry resources, and could encourage new businesses to set up in the city.
M5 J28	Existing congestion at J28 of the M5 will be exacerbated with proposed developments nearby. Scheme will address congestion and reduce queuing which currently extends into AQMA.	Improving the junction will provide direct access between new employment areas and the SRN, encouraging new businesses to move to the area. It will also improve access between the SRN and the existing Kings Mill Industrial Estate, as well as international gateways.	The junction improvement is required to unlock 1250 dwellings in the Local Plan and to enable the Garden Village to grow to the 5000-dwelling potential.	Improved crossing facilities for pedestrians and cyclists across the M5. Improved bus time reliability through reducing queuing and congestion. Decreased likelihood of queues extending back onto the M5 mainline, which would be a serious safety concern. Reducing congestion is also likely to improve safety as people will be less stressed and therefore less likely to carry out a dangerous manoeuvre.	The scheme will reduce congestion in accessing and egressing the M5 at Junction 28, providing an improvement to journey times and journey time reliability. Prevent queuing on slip road, which would reduce the capacity of the SRN.	The scheme will help unlock and deliver new employment sites and improve access to existing ones. This will encourage people to move their businesses to Cullompton, or set up new ones in the area.
A39 Walton-Ashcott Bypass	Bypass of Ashcott Walcott will reduce congestion at current pinch points where the carriageway width is insufficient for HGVs to pass (HGVs currently represent 7.5% of total traffic).	The scheme will facilitate development and travel along the A39/A361 route which links Mendip communities to the Strategic Road Network and is also a vital link for freight distribution across Somerset. More reliable journey times will significantly benefit business productivity. This is a key route for the quarry industry which supplies aggregates to support development across the UK. Supports development of 5.9ha of land to deliver up to 250,000 sq. ft. of commercial floor space at Street Business.	The scheme supports between 400 and 500 houses at the Walton Parish Housing site identified in the emerging Somerset Growth Plan 2014-2020 and in the longer-term the scheme enables the delivery of an additional 1,000 homes. Therefore the total number of homes linked to the delivery of the scheme is 1,500.	The proposed route of the bypass schemes would remove freight traffic from less suitable routes. Vehicle journey times, ambience and reliability between Loxley Wood and Street for all traffic would improve. By removing through traffic from Walton and Ashcott severance will be reduced and conditions for walking and cycling will be improved. Traffic noise will be reduced and air quality and townscape in the villages of Ashcott will be improved. The number of accidents along the A39 between Loxley Wood and Street is likely to reduce given that the route would bypass accident location cluster sites.	Provides an alternative East-West route to the A303; improving the resilience of the wider SRN.	The scheme will provide improved access to employment sites supporting the local industrial strategy. The scheme forms part of the whole-route improvement for the A39/ A361 route across central Somerset which improves access to the ‘Gravity’ innovation hub which is a key transformational project to deliver clean growth technology.

5.4 Prioritisation Ranking & Delivery Timetable

The initial prioritisation process was undertaken by AECOM in an independent capacity. The final list of prioritised schemes was moderated and approved by the Peninsula Officer Group and Board.

Table 5.3 indicates the summary scores given against each of the five business case areas, as well as identified pass/fail criteria in relation to the scale of local contribution and the scheme type (as specified in the DfT MRN guidance). This indicates that all six identified schemes meet the local contribution threshold criteria, with predominantly high and medium scores across the five assessed cases.

High or medium scores were given to all of the schemes in relation to the strategic, economic and management case requirements. Financial case requirements were scored highly, with the exception of the A379 Exeter Outer Ring Road, which scored lower due to a lower level of detail in the cost estimation and quantification of risks. Commercial cases were generally scored as high or medium, with the exception of the schemes at pre-SOBC stage, where commercial arrangements were naturally less fully developed.

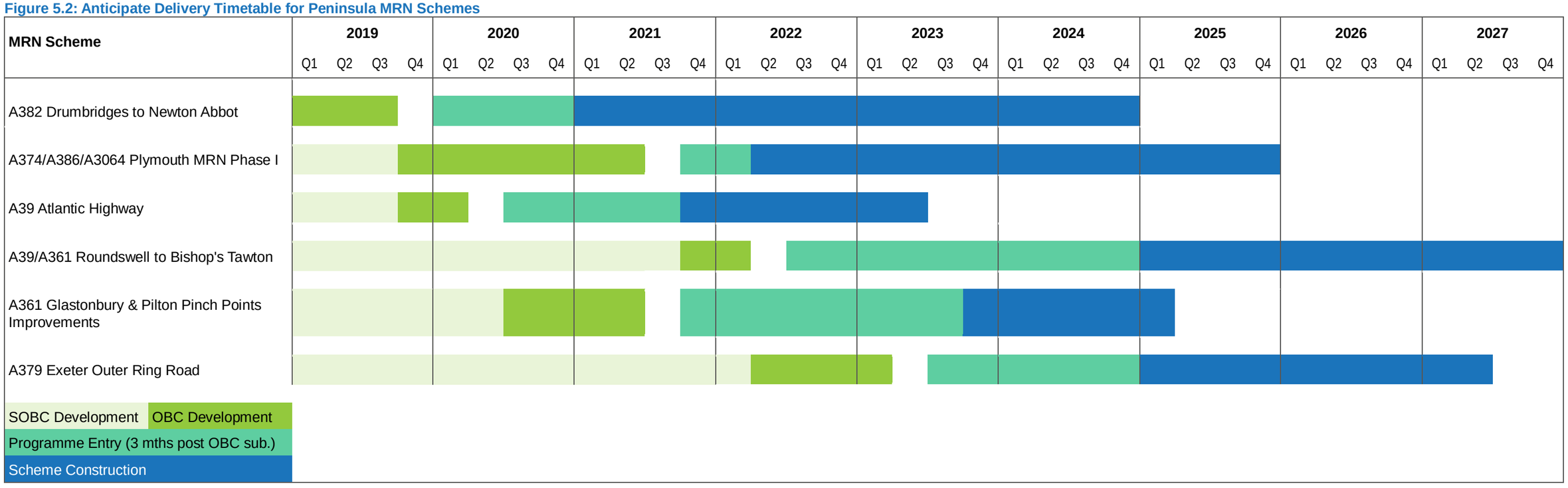
The A382 Drumbridges to Newton Abbot scheme was ranked highest due to its high scores against all five cases including a well development commercial case. The lowest ranked schemes were the A361 Glastonbury & Pilton Pinch Points Improvements and A379 Exeter Outer Ring Road, largely reflecting the lower levels of scheme maturity of these projects at this point.

Figure 5.2 shows the anticipated delivery timetable for each of the MRN schemes. This indicates that construction is anticipated to commence on the first scheme (A39 Atlantic Highway) in 2021, with construction complete in 2023. The full programme of schemes is anticipated to be complete in 2027.

Table 5.3: Scheme Prioritisation Scores

Rank	Scheme Name	Stage	Weighted Scores					Local Contribution (15%) Pass/Fail	MRN Scheme Type Pass/Fail
			Strategic Case (25%)	Economic Case (25%)	Financial Case (12.5%)	Commercial Case [scheme maturity] (25%)	Management Case (12.5%)		
1	A382 Drumbridges to Newton Abbot	OBC	High	High	High	High	High	PASS	PASS
2	A374/A386/A3064 Plymouth MRN Phase I	SOBC	High	High	High	Medium	High	PASS	PASS
3	A39 Atlantic Highway	SOBC	Medium	Medium	High	Medium	High	PASS	PASS
4	A39/A361 Roundswell to Bishop's Tawton	Pre-SOBC	Medium	Medium	High	Medium	Medium	PASS	PASS
5	A361 Glastonbury & Pilton Pinch Points Improvements	Pre-SOBC	Medium	Medium	High	Low	Medium	PASS	PASS
6	A379 Exeter Outer Ring Road	Pre-SOBC	Medium	High	Low	Low	Medium	PASS	PASS

Figure 5.2: Anticipate Delivery Timetable for Peninsula MRN Schemes



5.5 Scheme Promoters and Support

In addition to the local stakeholder consultation processes undertaken by scheme promoters, Peninsula Transport has consulted widely on the prioritisation process and the schemes included in this process over the past six months. Transport Board meetings have been used as an opportunity to present the schemes to the Board and the co-opted members including both LEPS in the region. Local planning authorities in the two-tier authorities (Devon and Somerset) have also been consulted. A Transport Forum was held in May to present the schemes and the prioritisation approach to a wider group of stakeholders including representatives from the business and transport sectors across the Peninsula. Feedback on the MRN/LLM schemes and strategic transport issues across the Peninsula were sought and recorded at this event.

Table 5.4 indicates the planned scheme promoter for each MRN scheme and supporters who have provided written backing for the MRN schemes.

Table 5.4: Scheme Promoters and Supporters

Scheme Name	Scheme Promoter	Supporters
A382 Drumbridges to Newton Abbot	Devon County Council	Anne-Marie Morris MP, Kevin Foster MP, Mel Stride MP, Teignbridge District Council, Plymouth City Council, Newton Abbot Town Council, HotSW LEP, Baker Estates, Charles Darrow Ltd, Devon and Cornwall Police, Dawes Accountants, Imerys Minerals, LiveWest, Ogwell Antiques, Quarry House Vets, Royale Life, Sibelco, South Devon College, Stover School. Stuart Properties.
A374/A386/A3064 Plymouth MRN Phase 1	Plymouth City Council	Luke Pollard MP, Gary Streeter MP, Johnny Mercer MP, Plymouth Citybus, Environment Agency, HotSW LEP, Devon & Plymouth Chamber, Royal Navy, Cllr Mark Coker, Stagecoach South West, Highways England.
A39 Atlantic Highway	Cornwall Council	CIoS LEP, Scott Mann MP, Camelford Town Council, Cornwall Council Members, Community Network Panel, Camelford Clean Air Group.
A39/A361 Roundswell to Bishop's Tawton	Devon County Council	Peter Heaton-Jones MP, Rt. Hon. Geoffrey Cox QC MP, North Devon District Council, Torridge District Council, HotSW LEP.
A361 Glastonbury & Pilton Pinch Points Improvements	Somerset County Council	James Heappy MP, 77% of Glastonbury residents (results of 2018 Glastonbury Town Council survey), Lighten the Load Glastonbury Campaign Group.
A379 Exeter Outer Ring Road	Devon County Council	HotSW LEP, Inland Waterways, Friends of Exeter Ship Canal.

Appendices

Appendix I: Local Transport Infrastructure Investment

Local Transport Network Investment

This appendix contains information about transport investments in local transport as part of the Peninsula Transport response to the Additional Evidence heading in the Minimum Expectations for the Regional Evidence Base section of the DfT Investment Planning Guidance[57]

Table I.2 summarises local transport schemes in the Peninsula which impact the MRN network. This table includes recently completed schemes and those under construction. A status has been provided using the principles of TAG Unit M4[58], set out in Table I.1

Table I.1 TAG Unit M4 Classification

Probability of the Input	Status
Near Certain: The outcome will happen or there is a high probability that it will happen.	Intent announced by proponent to regulatory agencies. Approved development proposals. Projects under construction
More than Likely: The outcome is likely to happen but there is some uncertainty.	Submission of planning or consent application imminent. Development application within the consent process.
Reasonably Foreseeable: The outcome may happen, but there is significant uncertainty.	Identified within a development plan. Not directly associated with the transport strategy /scheme, but may occur if the strategy/scheme is implemented. Development conditional upon the transport strategy/scheme proceeding. Or, a committed policy goal, subject to tests (e.g. of deliverability) whose outcomes are subject to significant uncertainty.
Hypothetical: There is considerable uncertainty whether the outcome will ever happen.	Conjecture base upon currently available information. Discussed on a conceptual basis. One of a number of possible inputs in an initial consultation process. Or, a policy aspiration.

Table 5.8: Local Transport Investment Impacting the MRN

Scheme	Description	Programme	Status
A379 Bridge Road Improvements, Exeter (LTP, Growth Deal, S106)	Widening on 1.5km section of route, enables development and alleviates congestion. Cost £14.6m	Construction complete	Complete
A379 Newcourt Junction, Exeter (CIL, Growth Deal, LTP)	Signalisation of junction to allow all movements. Cost £2.2m	Construction complete	Complete

[57] Investment Planning Guidance For the Major Road Network and Large Local Majors Programmes, DfT (2018)
[58] TAG Unit M4 Forecasting and Uncertainty Table A2, DfT (May 2019)

Scheme	Description	Programme	Status
A38 Cornwall Gateway (Carkeel) (Growth Deal [£4.8m])	New signalised roundabout junction with enhanced capacity. Cost £5.4m	Construction complete	Complete
A38 Drumbridges Roundabout, Newton Abbot (Highways England Pinch Point Fund, LTP, S106)	Improvements to junction. Cost £6.0m	Construction complete	Complete
A38 Huntworth Junction Improvement, Bridgwater (Growth Deal 1, SCC, S106)	Traffic signal improvement to unlock Bridgwater Gateway employment development site. Cost £4m	Construction complete	Complete
A39 Roundswell Pedestrian/Cycle Bridge, Barnstaple (Growth Deal, S106)	Provision of pedestrian / cycle bridge to link future development to the town. Cost £2.3m	Construction complete	Complete
Bodmin Callywith (Growth Deal [£1m], S106 [£0.8m])	Scheme includes: new roundabout junction at termination of A30. Cost £3.3m	Construction complete	Complete
Bodmin Cornwall's Cycling Town (Growth Deal [£6m])	Comprehensive, high quality pedestrian and cycle network plus additional measures including junction improvements. Cost £8.2m	Construction complete	Complete
Bridgwater Walking & Cycling Improvements (LSTF)	Package of walking & cycling improvements. Cost £3m	Construction complete	Complete
South Devon Highway (LTP, DfT)	Dual carriageway bypass of Kingskerswell between Newton Abbot and Torbay. Cost £120m	Construction complete	Complete

Scheme	Description	Programme	Status
Tithebarn Link Road, Exeter **(**Highways England GHF, S106)	60-metre span pedestrian and cycle bridge and link road to access new development. Cost £6.2m	Construction complete	Complete
Tiverton Eastern Urban Extension Phase 1 (Growth Deal)	New left in-left out access junction onto A361. Cost £4.5m	Construction complete	Complete
Torbay Western Corridor Capacity Improvements (Growth Deal funding [£8.25m])	Provides capacity improvements on the A3022 and A380 from Churscombe Cross to Windy Corner, with pedestrian and cycle enhancement along the route. Cost £16.5m	Construction complete	Complete
Treluswell (Falmouth Gateway) (Growth Deal [£0.8m])	Treluswell junction improvement with new roundabout providing enhanced capacity and safety. Cost £3.1m	Construction complete	Complete
Truro: housing and employment link (Growth Deal [£1.0m])	Includes: seven new high quality single deck bus vehicles (Including RTPI and extended warranties) linking the two Park and Ride sites across the city. Cost £1.1m	Delivery complete	Complete
Yeovil Western Corridor (Growth Deal 1, SCC, S106)	Series of traffic signal capacity improvements, walking and cycling facilities. Cost £14.1m	Construction complete	Complete
Charles Cross Transport Improvement Scheme, Plymouth (LEP, S106)	Improvements to significant signalised roundabout junction on the MRN in Plymouth. Cost £7.4m	Under construction Start date: Feb 2019 End Date: October 2019	Near Certain

Scheme	Description	Programme	Status
Colley Lane Southern Access Road, Bridgwater (NPIF, Developer, SCC)	Provides relief to the A38 MRN route through Bridgwater and unlocks new development areas, accommodates Hinkley Point C traffic. Cost £18m	Under construction End date: Autumn 2019	Near Certain
Eastern corridor and city centre, Walking & Cycling Improvements, Plymouth (Growth Deal 1, S106)	Over 5km of planned Strategic Cycle Network on Eastern corridor and city centre, plus walking and cycling improvements. Cost £4.91m	Under construction (some improvements completed) Planned completion of all schemes by 2021.	Near Certain
Exeter Eastern Growth Package DfT National Productivity Investment Fund (NPIF), S106	Capacity upgrades for major elements of the E4 strategic Exeter cycle route, a new Park and Change site at Exeter Science Park and a major expansion of Exeter's electric bicycle network Cost £7.2m	E4 Cycle route extension: Consented Park and Change at Exeter Science Park : RM application consented	Near Certain
Forder Valley Interchange, Plymouth (NPIF, CIL)	Extension of NB merge, additional lanes on approach and circulatory, improved walking & cycling facilities. Cost £8.8m	Start date: 2020 End date: 2022/23	Near Certain
Forder Valley Link Road, Plymouth **(DfT, Highways England GHF, S106)**	New road linking Derriford with A38 at Forder Valley junction. Cost £54.8m	Funding announced Feb 2019 Start date: Winter 2019 End date: 22/23	Near Certain
Gravity (Huntspill) Access Road, Bridgwater (Growth Deal 3, Developer funding)	Access to 90ha enterprise zone/ innovation campus. Accessed from the A39 MRN. Cost £10.3m	Start date: Jun 2019 End date: Oct 2020	Near Certain
M5 Junction 25, Taunton (LEP & Highways England Funding)	Full signalisation and enlarging of roundabout. Cost £19.2m	Under construction Start date: May 2019 End date: Summer '21	Near Certain

Scheme	Description	Programme	Status
Moor Lane Roundabout, Exeter (Highways England GHF, NPIF, S106)	Improvements to Moor Lane Roundabout. Cost £2.2m	Construction approved May 2019	Near Certain
Newquay Growth Area (Growth Deal [£2m]	New roundabout on the A392 and new 350m section of Newquay Strategic Route. Cost £3.2m	Construction in progress (roundabout complete)	Near Certain
Northern Corridor Walking & Cycling Improvements, Plymouth (DfT, PCC, S106)	4.5km of planned Strategic Cycle Network on Northern corridor, plus walking and cycling improvements. Cost £3.51m	Phase 1 completed 2018. Planned completion of all schemes by 2021.	Near Certain
North Devon Link Road Phase 1 (DfT Large Local Major, S106, LTP)	Widening the road between South Molton and Barnstaple and junction improvements between South Molton and Bideford. Cost £93m	Central Government Funding Commitment Full Business Case Submission: 2020 Start date: 2023	Near Certain
One Public Transport System for Cornwall (Growth Deal [£8m])	A package of improvements to the bus network to facilitate the access to employment, skills and services required by a growing economy. Cost £10.4m	Project in Progress	Near Certain
Redruth: strategic employment growth (Growth Deal [£5.0m])	Scheme includes: improved permeability of A3047 between Tolgus Place and Blowinghouse roundabout. Cost £7.8m	Under Construction	Near Certain
Sherford Main Street Phase 2, East of Plymouth DfT National Productivity Investment Fund (NPIF)	Delivery of the main street link road connecting the Sherford new community with the A38 at the Deep Lane Junction. Cost £8m	Under Construction Start date: Mar 2019 End date: 2020	Near Certain
St Austell to A30 Link Road	New 4 mile single carriageway link from St Austell to A30. Cost £87m	Central Government Funding Commitment Full business Case Submission mid-late 2019	Near Certain

Scheme	Description	Programme	Status
St Erth Multi Modal Hub (Growth Deal [£5.2m])	Scheme includes: Parkway Station with 752 park and ride spaces, improved A30 junction. Cost £15.7m	Under Construction	Near Certain
Taunton Station enhancement scheme (Growth Deal 1, Rail franchise funding)	Provides a new multi storey car park, transport interchange, forecourt enhancement & moves the ticket office to the south side to improve access between the station and Taunton town centre. Improve rail access to Taunton and reduce pressure on the MRN. Cost circa £12m	Under Construction Start date: May 2019 End date: Mar 2020	Near Certain
Truro Western Corridor (Growth Deal [£4.6m])	Scheme includes: signalisation and capacity improvements at Threemilestone roundabout, delivery of a 'bus gate' & inbound bus lanes. Cost £13.5m	Most Elements Complete	Near Certain
A382 Phase 1 and 2 (Growth Deal 1 and 3, CIL, S106)	Improvements to A382 corridor between A38 and Newton Abbot. Cost Phase 1 £13m Cost Phase 2 £5m	Funding secured Start date: 2019 (P1) Start date: 2021 (P2)	Phase 1: Near Certain Phase 2: More than Likely
Axminster North-South Relief Road (HIF Marginal Viability)	HIF Funding £10m	Funding announced Feb 2018	More than Likely
Cullompton Town Centre Relief Road (HIF Marginal Viability, S106)	Relief Road to remove traffic from congested High Street HIF Funding £10m	Funding announced Feb 2018	More than Likely
Eastern Corridor Junction Improvement Scheme, Plymouth (DfT, S106)	Upgrade to junctions on Plymouth Road adjacent to the MRN at Marsh Mills. Also includes dedicated slip road on Marsh Mills Roundabout. Cost £4.6m	Construction planned for late 2019.	More than Likely

Scheme	Description	Programme	Status
Hinkley Point C Mitigation Package (S106)	Various highway improvements in Bridgwater and £10m walking, cycling, road safety & travel demand package. Cost >£10m	Part of HPC DCO	More than Likely
Newquay Strategic Route Phase 2 and 3 (Developer funding, CC Economic Development Fund)	Connecting phase 1 to support new development. Cost £24.4m	Cabinet approved May 2018 Start date: 2020 End date: Autumn '21	More than Likely
South West Exeter HIF (HIF Forward Funding)	3 new signalised junctions and associated infrastructure for new development HIF Funding £55.1m	Funding announced Feb 2019	More than Likely
Tiverton Eastern Urban Extension Phase 2 (Housing Infrastructure Fund, S106)	Full movement junction onto A361. Cost £9.2m	Funding announced Feb 2018 Start date: 2022	More than Likely
Toneway Corridor, Taunton (Growth Deal 3, SCC, S106)	Traffic signal improvement to enable growth at Monkton Heathfield. Cost £7.4m	Start date: Mar 2020 End date: Mar 2021	More than Likely
Truro North Access Road (Housing Infrastructure Fund Forward Funding)	New road to west of Truro to unlock development and provide additional capacity. HIF Funding £47.5m	Funding announced Jun 2019	More than Likely
Hinkley Housing Zone Package (HIF Forward Funding)	Funding package to unlock 10,000 dwellings in the A38 Priority Growth Corridor. Cost £95m	Under assessment by Homes England	Reasonably Foreseeable
Plymouth Railway Station & Rail Investment (LEP, private investment)	Redevelopment project directly adjacent to the MRN in the city centre. Cost estimated at >£40m	£26m Council funding approved.	Reasonably Foreseeable

Appendix II: MRN Prioritisation Process Questions

	Theme	Question
Strategic Case	Consideration of the needs of all road users;	Would the scheme benefit users of active modes?
		Would the scheme benefit public transport users?
		Would the scheme benefit mobility impaired users or improve accessibility?
	Supporting Growth Corridors and housing/employment developments;	Does the scheme provide improved access to a growth corridor? (see the attached map for the location of these). Please specify
		Does the scheme facilitate the delivery of any specific housing or employment developments? Please specify
		Please indicate the scale of development which is **dependent** upon this intervention (no. of households or no. jobs created)
	Supporting the Strategic Road Network (SRN);	Does the scheme provide relief or access to the Strategic Route Network? Please specify the SRN routes which would benefit
		Will the scheme improve journey time reliability on the SRN?
		Will the scheme improve the resilience of the SRN?
	Connections to International Gateways	Would the scheme improve access to Exeter, Newquay or Bristol Airports? Please specify which
		Would the scheme improve access to international shipping (e.g. via Plymouth or Falmouth Ports)
	Alignment with Western Gateway aspirations.	Does the scheme benefit an objective identified by the Western Gateway STB? Please specify
	Seasonality and supporting tourism;	Does the scheme help to provide additional capacity which is required seasonally (e.g. during the school holidays)?
		Does the scheme provide improved access to any key tourist areas/attractions? Please specify
	Industrial Strategy	Does the scheme facilitate one or more of the core areas identified for special investment in the IS?/Does the scheme align with the key objectives outlined in the IS?
	Fit with local plans	Is the scheme explicitly mentioned in the Local Plan (or Local Transport Plan) for the region?
		Does the scheme facilitate development identified in the local plan?
Economic Case	Value for money;	What is the currently indicated Value for Money score for the proposed scheme?
		What is the potential Value for Money score for the proposed scheme? (including other factors such as collisions, wider economics)
	Congestion relief;	Does the scheme benefit an existing congestion hotspot?
		What level of congestion relief is provided at this/these locations?
	Network resilience;	Does the scheme improve the resilience of the network to maintenance and unplanned incidents?
	Network performance and reliability;	Does the scheme improve day to day journey time reliability?

	Theme	Question
	Safety;	Does the scheme benefit an existing safety blackspot?
		What change in Killed or Seriously Injured (KSI) accidents is anticipated as a result of the scheme?
	Impact on the environment;	What are the impacts of the scheme on AQMA's? (see the attached map for the location of these).
		What are the impacts of the scheme on Noise Important and other environmentally designated areas? (see the attached map for the location of these).
Financial Case	Level of Local or 3rd Party funding available	What proportion of the anticipated scheme costs are planned to be funded locally or by 3rd party contributions (e.g. s106 funds)?
		Has a detailed cost estimate been provided?
		Is the level of quantified risk appropriate to the cost of the scheme?
Commercial Case	Scheme deliverability;	How mature is the scheme design/concept?
		Are statutory processes required and outstanding? (e.g. Planning approval/DCO, TRO)
		Are any land purchases required and outstanding? (including Compulsory Purchase Orders)
		Have required public and statutory consultation activities been commenced/completed?
Management Case	Stakeholder support and public acceptability;	Level of support amongst the public?
		Level of support amongst statutory consultees?
	Delivery timescales	Can the scheme be delivered within the MRN timeframe?
		Can the scheme be commenced within the next 2 yrs?
	Risk	Has a detailed risk register been produced for the scheme?

Appendix III: Letter of Support

Appendix IV: MRN/LLM Pro Formas & Business Case Documents

Nick Woollett
Regional Director
Transportation
T: +44 (0)1392 663212
E: nick.woollett@aecom.com

AECOM Limited
Belvedere House
Pynes Hill
Exeter EX2 5WS
United Kingdom

T: +44 1392 663200
aecom.com