

# Transport Strategy for the South East: Review of Major Scheme Proposals

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# 1 Introduction

## Purpose

1.1 This document summarises the key major transport schemes that are being planned for the South East and assesses how they will support the **Transport Strategy for the South East**, which has been developed by Transport for the South East, the Sub-National Transport Body for the South East of England.

1.2 Transport for the South East's mission is to grow the South East's economy by delivering a safe, sustainable, and integrated transport system that makes the South East more productive and competitive, improves the quality of life for all residents, and protects and enhances its natural and built environment. It aims to transform the quality of transport and door-to-door journeys for the South East's residents, businesses and visitors.

1.3 The Transport Strategy sets out a vision for the South East area and describes the challenges it faces. It identifies a set of responses to these challenges and outlines how they can be implemented. While some responses focus on policy initiatives, such as demand management and integrated land use planning, others call for interventions in the South East's transport networks. Many

schemes that support the Transport Strategy are already under development in the region.

## Context

1.4 The Transport Strategy for South East England supports the evolution of transport between the three different transport policy perspectives – planning for vehicles, people, and places – as shown in Figure 1. This model is based on an approach developed by Professor Peter Jones of UCL through the CREATE EU Horizon 2020 and Civitas project<sup>5</sup> to help policy makers cut road congestion in cities by encouraging a switch from cars to sustainable modes of transport. It also has a wider application in transport and land use policy development at a regional scale.

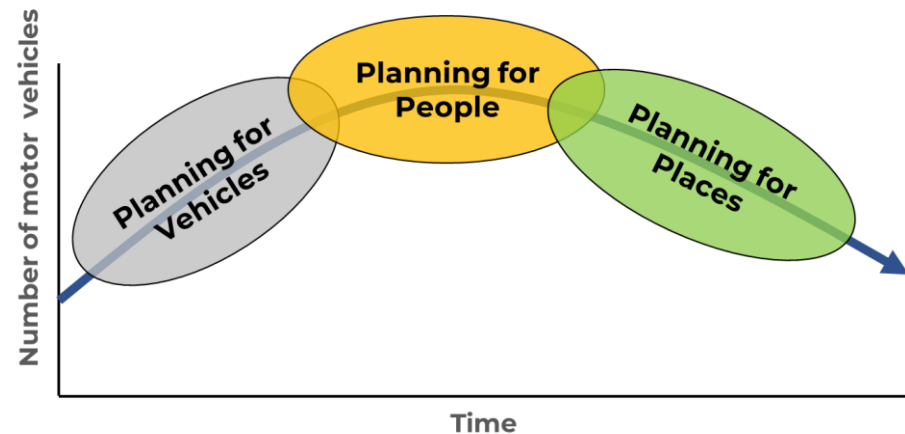
1.5 Currently, the majority of the South East is in the first stage of the process focussed on 'planning for vehicles'. The second stage of this process illustrated in Figure 1.3 – 'planning for people' – places modal shift at the heart of transport planning. This approach seeks to meet forecast future demand while minimising any adverse impacts on society and the environment by encouraging greater use of more efficient and more sustainable transport modes. The third

stage – ‘planning for places’ – goes further by encouraging integrated transport and land use planning to deliver spatial planning policies that both encourage sustainable travel choices but also minimise the need to travel at all (or, at the very least, minimise the need to travel far).

1.6 It is acknowledged that the impacts of these approaches will be applicable over different timeframes. Planning for vehicles may well prevail in the short term in some places, which is why there is a place for some targeted highways enhancements in the South East. Planning for people perhaps aligns better to medium term timelines. And planning for places, which requires integration with long term planning policy, is a much longer-term goal although every effort should be made to start the process of moving towards this approach.

1.7 The schemes identified in this document will support all three transport planning approaches outlined above, including planning for vehicles, but the emphasis will shift in the longer term towards planning for people and places.

**Figure 1:**  
Planning for  
vehicles,  
people and  
places (Peter  
Jones, UCL)



## Contents

1.8 This document starts in **Section 2** by describing the **major schemes** that – at the time of writing – are being promoted in the area. These are at different stages of development but are broadly similar in scale and impact. This is followed by a summary of other **committed** schemes, which are funded, and **funding bids** that are being developed for currently uncommitted schemes.

1.9 In **Section 3**, this document sets out how the schemes described in section 2 will address the challenges presented in the Transport Strategy.

1.10 This is presented for each of the six **journey types** described in the Transport Strategy, which are:

- Radial journeys;
- Orbital and coastal journeys;
- Inter-urban journeys;
- Local journeys;
- Freight and international gateway journeys; and
- Future journeys.

1.11 Finally, in **Section 4**, this document concludes by highlighting the opportunity for further interventions to support the delivery of the Transport Strategy.

## 2 Key Transport Interventions

### Introduction

2.1 This section describes the key transport interventions that are planned, under development or are being promoted in the South East. They are all expected to have substantial impact on the transport networks and economy of the South East area.

2.2 These transport interventions have been grouped into the three following groups, which reflect differing levels of scale and certainty of delivery:

- **Major Committed Schemes** that are being promoted in the region, which are at different stages of development but are broadly similar in scale and impact;
- **Other Large Committed Schemes**, which are funded (and presented by funding channel) and therefore have a high certainty of delivery; and
- **Funding Bids** that are being developed for currently uncommitted schemes and therefore have a lower level of certainty.

### Scheme Maps

2.3 Four maps showing the location of the schemes cited in this Technical Report are provided in **Appendix A**.

- The first map (**Appendix A.1**) shows schemes targeting the Strategic Road Network. These include committed schemes included in the government's Road Investment Strategy 1 (RIS1) and Transport for the South East's priority schemes for Road Investment Strategy 2.
- The second map (**Appendix A.2**) shows schemes targeting other highways in South East England. These include Transport for the South East's priority Major Road Network and Large Local Majors schemes.
- The third map (**Appendix A.3**) shows committed and proposed rail schemes in South East England.
- The fourth map (**Appendix A.4**) shows Transforming City Fund bids, Housing Infrastructure Fund (HIF) Forward Funding bids, and International Gateway schemes (which are essentially expansion plans based on owners' masterplans).
- Some initiatives are not shown in these maps as their geographic coverage is less distinct (or are too widespread to pin-point easily on a map). These include: Growth deals, Clean Air fund, City Deals, and HIF Marginal Viability Funding bids.

## Major Committed Schemes

2.4 Major Schemes are transport interventions that have the potential to have a significant impact on the region's transport network and economy. These are presented by transport mode and include:

- **Strategic Highway Schemes:**
  - Road Investment Strategy (RIS);
  - Lower Thames Crossing; and
  - Solution to Operation Stack.
- **Railway Schemes:**
  - Crossrail;
  - Great Western Modernisation;
  - Brighton Mainline Improvement;
  - Western Rail Access to Heathrow;
  - High Speed 2; and
  - Island Line Renewal.
- **International Gateway Schemes:**
  - Heathrow Third Runway;
  - Gatwick Airport Expansion;
  - Port of Southampton Expansion; and
  - Port of Dover Western Docks Revival.

### Strategic Highways Schemes

#### *Road Investment Strategy (RIS)*

2.5 The RIS sets out the Government's long-term approach to improve England's

motorways and major roads, which are known as the Strategic Road Network (SRN). Improvements to the SRN can be expected to deliver benefits for inter-urban journeys between economic hubs in the South East, as well as for longer radial and orbital journeys.

2.6 The first RIS (RIS1) supports a programme of schemes to upgrade the most congested part of the Strategic Road Network to Smart Motorways. Smart Motorways help relieve congestion by regulating traffic flow and by making the hard shoulder available for use by traffic. The main routes which will be converted in the South East are arterial roads which connect to the M25. These include:

- M20 Junctions 3 to 5;
- M23: Junctions 8 to 10;
- M27: Junctions 4 to 11;
- M3 Junctions 2 to 4a (delivered);
- M3: Junctions 9 to 14;
- M4: Junctions 3 to 12.

2.7 RIS1 includes a package of four schemes to reduce congestion on the A27. One of these schemes, focused on reducing congestion on the A27 Chichester bypass, was cancelled in 2017. The remaining three schemes are:

- *Arundel bypass*: a budget of between £100 to £250 million has been allocated to replace the existing single carriageway road with a dual carriageway bypass, linking together the two existing dual carriageway sections of the road. The scheme is set to start in 2022, but a further public consultation exercise is being held in the autumn of 2019 and closed on 24 October 2019.
- *East of Lewes*: a package of proposals of up to £75m, including widening Drusillas roundabout, junction improvements, improvement to pedestrian crossings and the provision of a walking and cycling path. The preferred route was published in September 2017 following consultation. Subsequently further investigations have taken place into upgrading this section of the A27 to a dual carriageway. No start date has been set for any proposals.
- *Worthing and Lancing Improvement*: a budget of between £50 to £100 million has been allocated to improve the capacity of the road and junctions along the stretch of single carriageway in Worthing and the narrow dual carriageway in Lancing. The extent and



scale of the improvements, including the option of fully dualling, are to be determined. No start date has been set for the scheme.

2.8 Transport for the South East supports these improvements. However, if they are to have a beneficial impact on the transport network of the South East, it is essential to take a holistic multi-modal approach that seeks to reduce conflict between different users on the corridor, rather than solely focusing on the needs of through traffic.

2.9 Additionally, RIS1 is supporting the following South East schemes:

- M2 Junction 5 (Stockbury);
- A2 Bean and Ebbsfleet Junctions;
- M20 Junction 10a (Ashford);
- M25 Junction 10/A3 (Wisley interchange);
- A21 Pembury Bypass (delivered);
- M3 Junctions 9 to 14 (6 schemes);
- M271/A35 Redbridge roundabout;
- M27 Junction 8 (Southampton);
- A31 Ringwood road widening; and
- A404 Bisham roundabout (Marlow).

#### *Lower Thames Crossing*

2.10 Highways England are developing plans to build a new Lower Thames Crossing between the M2 Junction 1 and the M25 in Essex. This scheme will help relieve pressure on the existing Dartford Crossing and the A2 between the M25 and the Medway Towns. It will also provide a fast, alternative route between the Port of Dover and the rest of the country. At the time of writing, its expected delivery date was 2027 (which falls outside the RIS1 timeline).

2.11 The preferred route for the Lower Thames Crossing was confirmed by the Secretary of State in 2017 and will consist of a tunnel crossing the river from East of Grinstead to Tilbury. The crossing, which will improve access to the North and Midlands via the northern part of the M25, could divert demand away from the South West Quadrant of the M25.

2.12 Although Transport for the South East supports this scheme (notably Route Option C), it acknowledges that it risks diverting traffic from the M20 to the M2/A2 corridor (as the crossing route starts at Strood). This may place additional pressure on the A229 between the

M2 and M20. Further improvements may be needed to unlock the full potential of this section, including improvements to junctions on the M2 (Blue Bell Hill/Brenley Corner) and completing the dualling of the A2 to Dover.

#### *Solutions to Operation Stack*

2.13 Highways England and Kent County Council are developing a permanent solution to Operation Stack, which will allow road capacity to be flexed as appropriate when disruptions occur. The exact details of this solution have yet to be confirmed but will likely involve the construction of lorry parks adjacent to the M20 and temporary changes to the traffic flow arrangements. No locations have yet been shortlisted for potential use as a lorry holding area facilities. This scheme – while not part of the Road Investment Strategy – is a critically important scheme for supporting freight and international journeys and for strengthening the resilience of the South East’s highway network.

## **Railway Schemes**

### *Crossrail*

2.14 Crossrail is a 117km east-west railway project that will connect Abbey Wood and Shenfield to the east of London with Reading and Heathrow Airport in the west. The service will use a new 21km underground railway between London Stratford and London Paddington. At the time of writing, it was envisaged that Crossrail services on the new central section of the route will start in 2021 (under the name “Elizabeth Line”).

### *Great Western Modernisation Programme*

2.15 Network Rail is currently delivering a major programme to electrify the Great Western Main Line (and associated branches) between London, Newbury and Cardiff. This investment also includes station improvements, structures replacements/renewals, track upgrades, and new intercity and commuter rolling stock. The programme will deliver a faster, cleaner, more frequent and more reliable railway on one of the busiest rail corridors in the South East.

### *Brighton Main Line Improvement Programme*

2.16 The Brighton Main Line railway is one of the most heavily utilised and crowded railways in the South East. It has a significant ‘capacity gap’ and regularly suffers from poor performance.

2.17 Network Rail is investing £300m in a package of improvements on the line to increase capacity and improve resilience. Part of this programme has already been delivered through the (recently completed) Thameslink programme. The remaining improvements will focus predominantly on the tunnels at the southern end of the line and the provision of better electrification and signalling infrastructure. A key bottleneck which limits the capacity of this line is on the approach of East Croydon, where the Selhurst triangle junctions causes knock-on delays across the network every time an incident occurs. Plans are underway to remodel the track layout and build new flyovers, allowing more trains to pass through the area. Network Rail also plan to deliver capacity improvements at Gatwick Airport station to allow more trains to call at this station, which is one of the busiest in the South East area.

### *Western Rail Access to Heathrow*

2.18 Network Rail is promoting a major scheme to deliver ‘Western Rail Access to Heathrow’. This scheme involves building a new 6.5km rail link between the Great Western Main Line and London Heathrow Airport. The proposed rail connection would allow passengers to travel to the airport from the South Coast, South West, South Wales and West Midlands without having to go into London Paddington. Network Rail are planning to submit a Development Consent Order in 2019, which will seek the required consent to build the new railway.

### *High Speed 2 (HS2)*

2.19 HS2 is a planned 500km high-speed railway that will connect London, Birmingham, Crewe, Manchester and Leeds with a network of dedicated high-speed lines. The UK Parliament approved plans for Phase One (from London to the West Midlands) in 2017 and construction on this phase has commenced. HS2 is scheduled to open in phases between 2026 and 2033. However, Phase One is currently facing a delay of up to five years.

2.20 The HS2 project includes a new station at Old Oak Common, which would provide direct interchange with Crossrail and Great Western Railway services. While there may be some disruption on the Great Western Main Line as Old Oak Common is developed, when completed this station will provide a key interchange for intercity movements between the Midlands, North, and Thames Valley.

2.21 In August 2019 the Government launched a review of HS2, which will consider whether and how the project should proceed. This review is expected to report towards the end of 2019. It is possible that future phases for delivery may change to enable the scheme to better integrate with Northern Powerhouse Rail project (a proposed high-speed line between Manchester and Leeds).

#### *Island Line Renewal*

2.22 In September 2019 the government announced that £26m will be invested into the Island Line to renew 13.7km line between Ryde and Shanklin on the Isle of Wight. The

investment includes infrastructure modernisation and the replacement of rolling stock. The proposals were developed in partnership with stakeholders including the Isle of Wight Council and Solent Local Enterprise Partnership (who have agreed to contribute £1 million to fund a new passing loop at Brading). Work is expected to commence later in 2019.

#### **International Gateway Schemes**

##### *Heathrow Airport Third Runway*

2.23 Heathrow Airport is the largest international gateway in the UK. This airport, which served over 80 million passengers in 2018<sup>1</sup>, is set to grow significantly as a third runway is developed to the north west of the current site. This will enable up to three aircraft to take off and/or land simultaneously, which would enable the airport to accommodate growth in excess of 35% of air traffic movements in the long term<sup>2</sup>. Plans for the third runway were granted full approval by

the House of Commons in 2018 and is set to be constructed by 2026.

2.24 Additional growth at Heathrow, which currently has a public transport surface access mode share of 40%<sup>3</sup>, presents significant transport and environmental risks to the South East. It is critically important that viable public transport alternatives are provided, including the Western and Southern Rail Access schemes, to enable access to and from Heathrow Airport by other means than the car. This may need to be accompanied by demand management policies (e.g. parking and drop-off charges).

##### *Gatwick Airport Expansion*

2.25 Gatwick Airport has launched a Development Control Order process to seek permission for increasing the number of air traffic movements at this airport. This comes on the back of a draft Master Plan, published by Gatwick Airport in 2016, which sets out how the airport proposes to grow within its existing footprint. This will be achieved by

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<sup>1</sup> Source: [Civil Aviation Authority, "Size of UK Airports" \(2018\)](#)

<sup>2</sup> Source: [Heathrow Airport Ltd., "Heathrow Expansion: Facts and Figures" \(2019\)](#)

<sup>3</sup> Source: [Greater London Authority, "Surface Access to Heathrow Airport Presentation" \(2015\)](#)

making more use of the existing runway during the off-peak period, by bringing the emergency runway into use during peak operations, and by increasing airplane occupancy and capacity<sup>4</sup>.

2.26 Gatwick's expansion would bring significant challenges for both passenger and freight flows on corridors serving this airport. Currently, there are several gaps in public transport (and major highway) provision between the M20, M23/A23 and A3. This means road and rail traffic is forced to use the A27/East Coastway/West Coastway and M25 corridors for east-west access to Gatwick Airport. Improved east-west public transport connectivity to and from Gatwick is essential to ensure sustainable accessibility.

#### *Port of Southampton Expansion*

2.27 The Port of Southampton, which is operated by Associated British Ports, handles

the highest tonnage of freight in the South East. In 2018 around 34.5 million tonnes passed through this port<sup>5</sup>. Liquid bulk accounted for more than half of freight handled by this port in 2018<sup>6</sup>. Southampton also served 1.6 million cruise passengers in 2017<sup>7</sup>.

2.28 In 2016 the Port of Southampton published a Master Plan<sup>8</sup> that sets out an ambition to expand the port by developing a site to the south of the River Test near Fawley. This area is currently served by a railway spur and the A326 highway. Transport for the South East has identified this stretch of highway as a high priority to receive funding under the Large Local Majors (LLM) Programme. However, it will be important to ensure that any future growth at these gateways can be accommodated by more

sustainable modes, while minimising adverse impacts on the communities and environment.

#### *Dover Western Docks Revival*

2.29 The Port of Dover is the largest Roll-on-Roll-off (Ro-Ro) port in the world. In 2018, 24.9 million tonnes<sup>9</sup> passed through this port, almost all by Ro-Ro. 11.8 million passengers used the Port of Dover in 2018<sup>10</sup>. As the closest port to Europe, it has seen significant growth in traffic in recent years due to the increase in 'just-in-time' freight movements.

2.30 The port is undergoing expansion as part of the largest investment made in the Port's history, which is being co-financed by the European Union. The scheme involves significant improvements to the waterfront, expansion of space available for ferry traffic, and the construction of a new cargo terminal and distribution centre.

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<sup>4</sup> Source: [Gatwick Airport, "Gatwick Airport Draft Master Plan" \(2018\)](#)

<sup>5</sup> Source: [Department for Transport, "Port and Domestic Waterborne Freight Statistics" \(2019\)](#)

<sup>6</sup> Source: [Department for Transport, "UK Port Freight Statistics" \(2018\)](#)

<sup>7</sup> Source: [Department for Transport, "Sea Passenger Statistics" \(2019\)](#)

<sup>8</sup> Source: [Port of Southampton, "Master Plan", \(2016\)](#)

<sup>9</sup> Source: [Department for Transport "Port and domestic waterborne freight statistics: data tables \(PORT0301\)" \(2019\)](#)

<sup>10</sup> Source: [Department for Transport "Sea passenger statistics: data tables \(SPAS0101\)" \(2019\)](#)

2.31 An expansion could increase traffic on the A2/M2, which already suffers from significant congestion when disruption occurs at Dover. Addressing this bottleneck is important to make the expansion work for the South East, with improving the railway gauge into Dover (which would allow larger freight containers to use the railway rather than the road) being one potential option.

### Other Large Committed Schemes

2.32 Other Large Committed Schemes include those which have been allocated enough funding to ensure their delivery. Some may be awaiting planning permission, while others are already under construction. These schemes, which are smaller in scale than the Major Schemes described earlier, have a high level of certainty and deliverability. The schemes presented in this section are grouped by the key funding package that is supporting them. These are:

- City Deals;
- Growth Deals / Local Growth Funds;
- Housing Infrastructure Fund (HIF) Marginal Viability Funding;
- Clean Air Fund; and
- Road Investment Strategy (RIS) schemes.

### City Deals

2.33 City Deals give local areas specific powers and freedoms to help the region support economic growth, create jobs or invest in local projects (such as transport interventions to support local journeys). To date, three City Deals have been awarded in the South East. These are:

- **Brighton and Hove:** Which aims to unlock more than £170m of investment in Greater Brighton to create 8,500 jobs and grow its technology business;
- **Southampton and Portsmouth:** Which aims to provide £953m of investment into the Southampton and Portsmouth areas, creating more than 17,000 jobs; and
- **Thames Valley Berkshire:** Which aims to support 4,500 young people and create 1,500 new work experience placements, 300 additional Apprenticeships and 800 new Youth Contract Wage Incentives.

### Growth Deals / Local Growth Fund

2.34 Growth Deals provide funds to Local Enterprise Partnerships (LEPs) to help train young people, create new jobs and homes, and fund infrastructure projects. Their scope

includes transport improvements where these can be shown to support these goals. Growth Deals were awarded to all five LEPs in the South East (Coast to Capital, Enterprise M3, Solent, South East and Thames Valley Berkshire) in the first round of Growth Deals.

2.35 LEPs have committed to use the Local Growth funding to co-invest in several interventions, including transport projects that enable major developments, address existing pinch-points and congestion issues, and increase use of sustainable transport modes.

### HIF Marginal Viability Funding

2.36 The Housing Infrastructure Fund (HIF) is a government capital grant programme of up to £2.3bn for new infrastructure that unlocks sites for development in the areas of greatest housing demand. Marginal Viability Funding is used to provide the final, or missing, piece of infrastructure funding in order to ensure existing sites are unlocked quickly or ensure that new sites are allocated.

2.37 Funding is awarded to Local Planning Authorities on a competitive basis. To date, the following local authorities in the South East have been awarded funding:

- Adur (£10m);
- Brighton and Hove (£15.2m);
- Crawley (£6.4m);
- Dover (£16.0m);
- Eastbourne (£1.2m);
- Eastleigh (£10.0m);
- Fareham (£10.0m);
- Guildford (£10.0m);
- Lewes (£10.0m);
- Mid Sussex (£6.5m);
- Reading (£7.0m);
- Rother (£3.2m);
- Rushmoor (£8.4m);
- Southampton (£3.8m);
- Swale (£5.2m);
- Thanet (£5.8m);
- West Berkshire (£1.5m); and
- Woking (£9.4m).

### **Clean Air Fund**

2.38 The Clean Air Fund is a £220m fund that aims to tackle roadside emissions. It forms part of a wider £260m package aimed at improving air quality. Funding can be used for

a range of options open to local authorities, including investing in park and ride services, freight consolidation centres, concessionary travel schemes and improving the cleanliness of bus fleets. To date, the following local authorities have been awarded funding from the Clean Air Fund:

- Canterbury (£33k);
- East Sussex and partners (£106k);
- Portsmouth (£450k);
- Reading (£100k); and
- Spelthorne (£145k).

### **Funding Bids**

2.39 Funding bids are schemes that are applying for funding from government programmes. The key programmes are:

- Road Investment Strategy 2;
- Major Road Network priority schemes;
- Large Local Majors (LLM) programme;
- HIF Forward Funding;
- Transforming City Fund; and
- Proposed rail schemes.

### **Road Investment Strategy 2**

2.40 The Government has committed to ensure that, from 2020/21, all revenue raised from Vehicle Excise Duty (VED) in England will be allocated to a new National Roads Fund and invested directly back into the road network<sup>11</sup>. The next Road Investment Strategy (RIS2) will set a framework for the allocation of this fund between 2020 and 2025. It is estimated that £25.3bn will be invested in the SRN during this period.

2.41 In October 2018 the government has published its objectives for RIS2 and invited responses from Sub-national Transport Bodies. In its response, Transport for the South East has identified the following schemes that it would like to see included in RIS2:

- Lower Thames Crossing and associated wider network improvements:
  - M2 J7 Brenley Corner; and
  - Dualling A2 from Lydden to Dover.
- A21 improvements:

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<sup>11</sup> Source: Department for Transport, “[Major Road Network and Large Local Majors programmes investment planning](#)” (2018)



- Kippings Cross to Lamberhurst; and
- Flimwell and Hurst Green bypasses.
- A27/M27 South Coast Corridor:
  - A27 Lewes to Polegate;
  - A27 between B2123 Falmer Interchange and A293 Junctions;
  - A27 Worthing and Lancing;
  - A27 Chichester;
  - M27 J12 to A27/A3(M) Junction;
  - M27 J3 to M271/A35 Junction;
- A3 Ripley to Guildford.
- M23/A23 corridor improvements:
  - Crawley to Burgess Hill; and
  - Hooley Interchange.
- M25 South West Quadrant (J10-16) including new/improved M3-M4 link and improvements to A329/A322 corridor.

2.42 The Government's RIS2 announcement is anticipated in early 2020.

2.43 Looking further ahead, Transport for the South East wishes to work more closely with government in determining the priorities for the third Road Investment Strategy (RIS3).

#### **Major Road Network priority schemes**

2.44 In 2017 the Government set out proposals for the creation of a Major Road

Network (MRN), which will form a middle tier of the country's busiest and most economically important roads, sitting between the SRN and the rest of the local road network. The government has indicated that £3.5bn from the National Roads Fund will be available for Major Road Network and Large Local Major schemes during the RIS2 period (2020 – 25).

2.45 In summer 2019, Sub-national Transport Bodies were asked to develop a Regional Evidence Base and provide advice to DfT on the top ten priority Major Road Network schemes in their area. The priority schemes put forward by Transport for the South East were:

1. Northam Rail Bridge, Southampton;
2. A284 Lyminster Bypass, West Sussex;
3. Redbridge Causeway, Southampton;
4. A249 at M2 J5, Kent;
5. A22 Corridor Package, East Sussex;
6. A320 North Corridor, Surrey;
7. A259 King's Road Arches, Brighton and Hove;
8. A28 Birchington Relief Road, Kent;
9. A259 Bognor Regis Littlehampton, West Sussex; and

10. A259 South Coast Road Corridor, East Sussex.

2.46 The schemes that have been submitted will be assessed by the DfT. There is no firm timetable as to when announcements about the outcomes of this assessment are to be made but initial announcements are expected before the end of 2019. The first wave of funding was announced in September 2019 and A28 Birchington Relief Road was given approval to proceed to the next stage<sup>12</sup>.

#### **Large Local Majors (LLM) programme**

2.47 The LLM programme was set up by the Department for Transport in 2016 to cater for the small number of exceptionally large local highway authority transport schemes that could not be funded through the normal routes, such as Local Growth Fund or other devolved allocations. LLM schemes are not limited to roads on the MRN.

2.48 Sub-national Transport Bodies were also asked to provide advice to the Department for Transport on the priority Large Local Majors schemes in their area. The priority schemes put forward by Transport for the South East were:

1. West Quay Road Realignment, Southampton;
2. New Thames Crossing, East of Reading Thames Valley LEP and Wokingham;
3. A326 Capacity Enhancement, Hampshire;
4. City Centre Road, Portsmouth;
5. A229 Blue Bell Hill Junction Upgrades, Kent; and
6. A31 Hinkley's Corner Underpass, Farnham Surrey.

2.49 The schemes that have been submitted will be assessed by the DfT. There is no firm timetable as to when announcements about the outcomes of this assessment are to be made but initial announcements are expected before the end of 2019. The first wave of funding was announced on 30<sup>th</sup> September 2019, where the West Quay Realignment scheme has been given approval to proceed to the next stage<sup>12</sup>.

#### **HIF Forward Funding**

2.50 In addition to Marginal Variable Funding, HIF Forward Funding is available to

upper tier local authorities for a small number of strategic and high-impact infrastructure projects which will give the market confidence to provide further investment and homes.

2.51 Local authorities were invited to bid for up to £250m of funding. The following local authorities in the South East have had successful projects to go through to co-development:

- *Hampshire*: Manydown Basingstoke;
- *Kent*: Swale Transport Infrastructure;
- *Medway*: New Routes to Good Growth;
- *Surrey*: Slyfield and Woking sites;
- *Windsor and Maidenhead*: Maidenhead Golf Course and Courtlands Estate; and
- *Wokingham*: Grazeley Garden Settlement.

#### **Transforming Cities Fund**

2.52 The Transforming Cities Fund (TCF) aims to improve productivity and spread prosperity through £1.7bn investment in public and sustainable transport in some of the largest English city regions. The Fund will

be focused on improving intra-city connectivity, making it quicker and easier for people to get around and access labour markets in cities and major economic hubs.

2.53 The shortlisted city regions in the South East are Portsmouth and South East Hampshire (£4.0m) and Southampton (£5.7m).

2.54 The Government has also announced a £90m 'top up' to the TCF to create up to four Future Mobility Zones. Seven areas have been shortlisted for this funding competition, including Portsmouth and Southampton.

#### **Proposed rail schemes**

##### *Crossrail 1 Extension to Ebbsfleet*

2.55 The Thames Gateway Kent Partnership and the 'Crossrail to Ebbsfleet' campaign have submitted a Strategic Outline Business Case to the HM Treasury and Department for Transport outlining the potential benefits of an extension of the current Crossrail scheme from Abbey Wood to Ebbsfleet. This proposal, which has the support of Kent County Council,

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<sup>12</sup> Department for Transport "[18 new roads move a step closer to completion](#)" (2019)



would support housing and employment development in North West Kent (a high growth area). However, due to delays in delivering the current Crossrail scheme, it is likely to be some time before future extensions will be realised.

#### *Crossrail 2*

2.56 Transport for London is developing the business case for a second Crossrail line which would increase capacity in South West London (with some knock-on benefits for services on the South Western Mainline). This proposed North-South rail link across London, which would connect the South Western Main Line to the West Anglia Main Line, could open in the early 2030s. However, the scheme is currently unfunded and the delays to the first Crossrail line may push the delivery of the second line further back.

#### *High Speed 1 (HS1) to Hastings*

2.57 East Sussex County Council and Network Rail are developing proposals to extend High Speed domestic rail services from Ashford International to Rye, Hastings, Bexhill, and Eastbourne. Railfuture and local rail user groups are supportive and are running

campaigns that highlight the benefits of the scheme, such as faster direct journeys from the Hastings area to Central London. Hastings is one of the most deprived towns in the South East area and is also one of the most remote from London (in terms of journey times by both road and rail).

2.58 This scheme would require significant investment in the Marshlink Line to upgrade the currently unelectrified line from Ashford to Ore, just to the east of Hastings. Network Rail's Control Period 6 Delivery Plan for 2019 to 2024 does not include the scheme, suggesting its delivery date is beyond 2030.

#### *Southern Access to Heathrow*

2.59 The Department for Transport was originally promoting a proposal for a new railway between Heathrow airport and the South Western Mainline to allow for greater connections between the international gateway and the wider South East region. Plans for this railway were announced in 2017 and it was hoped that the line will be completed between 2025 and 2027. The initial plans were to privately finance the scheme but after reviewing this, the Department for Transport have changed their stance stating

government support will be required. The Market Sounding Findings Report has recommended that the government undertake further stakeholder engagement to clarify its objectives and provide more direction to the market on a broader range of potential options which are not necessarily confined to rail.

#### *Thanet Parkway Station*

2.60 A new railway station at Thanet Parkway is proposed to be built at Cliffsend near Manston Airport, on the Ramsgate to Ashford International Line. The new station is expected to reduce journey times to London to one hour.

### 3 Alignment with the Transport Strategy for the South East

#### Introduction

3.1 This section describes the six Journey Types outlined in the Transport Strategy and assesses the extent to which the schemes summarised in Section 2 will address the challenges that have been identified for each of these Journey Types. It also identifies opportunities for better aligning schemes with the emerging Transport Strategy.

3.2 For each journey type, this section:

- Provides a **description** of the journey type;
- Summarises the **challenges** facing the journey type;
- Lists the committed and proposed **schemes** that will help address the challenges described above; and
- Outlines any **opportunities** for better aligning current and proposed schemes with the Transport Strategy, which may include considering alternatives and/or wider policy interventions.

#### Transport Strategy journey types

3.3 The Transport Strategy sets out six thematic journey types that help identify challenges and opportunities (“responses”). These journey types, which are shown in Figure 1, are described in more detail below.

Figure 1: Transport for the South East Transport Strategy – Journey Types



3.4 A table showing the results of an assessment measuring the extent to which each of the major schemes described in Section 2 will address the challenges identified for each of the journey types (and the level of impact they are likely to have) is shown in **Appendix B**. It should be noted that, in this assessment, Inter-urban and Local journeys have been combined as a single journey type as these journey types are generally addressed by similar types of scheme.

## Radial journeys

### Description

3.5 Radial journeys are longer distance passenger journeys between the South East and Greater London area and, in the case of Berkshire and Hampshire, between the South East and the South West / South Midlands. These journeys typically use the Strategic Road Network that radiates from the M25 towards the South Coast and West of England and/or Main Line railways that terminate in London.

### Challenges

3.6 The challenges for radial journeys, as identified in the Transport Strategy, are:

- Slow journey times to North East Kent, Maidstone and stations on the Reading – Waterloo Line;
- Poor A21/London to Hastings line rail corridor connectivity;
- Crowding on many rail routes, particularly on the Brighton Main Line and South Western Main Line, and particular issues with reliability / resilience on the Brighton Main Line; and
- Constraints on road corridors passing through urban areas (e.g. A3).

### Schemes

3.7 The committed schemes that help address the challenges outlined above are:

- **Road Investment Strategy (RIS1):**
  - Smart Motorways (M20 J3-5, M23 J8-10, M3 J2-4a/J9-14, and M4 J3-12);
  - A2 Bean and Ebbsfleet junction improvements;
  - M2 Junction 5 (Stockbury);
  - A21 Pembury Bypass (delivered);
- **Committed rail schemes:**
  - Great Western Modernisation Programme (almost delivered).
  - Crossrail 1 (under construction).
  - Brighton Main Line Improvement Programme (in progress).
  - Western Rail Access to Heathrow (in development).

3.8 Other proposed schemes that could also help address these challenges include:

- **Road Investment Strategy (RIS2):**  
*Transport for the South East would like to see the following included in RIS2:*
  - Lower Thames Crossing and associated junction improvements (M2 Junction 3 and Junction 7);

- A21 improvements at Chichester, Worthing, and Lewes – Polegate;
- Improvements to the M23/A23 corridor; and
- Improvements to the A3 between Ripley and Guildford.
- **Rail proposals:**  
*Transport for the South East supports the following proposed rail schemes:*
  - Crossrail 1 extension from Abbey Wood to Ebbsfleet, which would serve radial journeys on the A2/M2 corridor and support housing growth in North Kent;
  - Crossrail 2, which would release up to seven additional paths on the South Western Main Line;
  - High Speed 1 services to Hastings, which would deliver much improved connectivity to Hastings, Bexhill and Eastbourne;
  - Rail journey time improvements in North East Kent to improve connectivity to the Thanet Towns; and
  - Thanet Parkway station in Cliffsend, North East Kent.

- **Priority Major Road Network schemes identified by Transport for the South East:**
  - A249 at M2 Junction 5; and
  - A28 Birchington, Acol and Westgate-on-Sea Relief Road.
- **Priority Large Local Majors schemes identified by Transport for the South East:**
  - A229 Blue Bell Hill Junction Upgrades.

### Opportunities

3.9 Looking further ahead, Transport for the South East believes schemes and initiatives should be developed to:

- Improve connectivity between London and:
  - Maidstone;
  - North Kent;

- Thames Valley towns on the Reading – Waterloo line; and
- Hastings and Bexhill;
- Secure a longer-term solution for capacity constraints on the South Western Main Line to relieve crowding and enable faster services between London and Portsmouth; and
- Reducing human exposure to noise and poor Air Quality on radial road corridors – particularly the A3 at Guildford.

## Orbital and coastal journeys

### Description

3.10 Orbital and Coastal journeys describe longer distance passenger journeys that use corridors that run perpendicular to the radial corridors described previously. The roads and railways serving these flows are sparser and have lower capacity and speeds than most

radial corridors<sup>13</sup>. They provide important links between economic hubs across the South East but have perhaps not received the level of investment that their function warrants in recent years<sup>14</sup>.

### Challenges

3.11 The challenges for orbital and coastal journeys, as identified in the Transport Strategy, are:

- Severe congestion on the M25;
- Few long-distance orbital rail services;
- Multiple issues and challenges of M27/A27/A259/Coastway Line rail corridor;
- Connectivity gaps in Mid Sussex / Gatwick area; and
- Constraints on road corridors that pass through urban areas.

<sup>13</sup> The A27 corridor includes significant sections of single carriageway road, which limits capacity on this corridor. Most of the orbital railway corridors are two-tracked railways served by relatively infrequent services (e.g. two trains per hour on the North Downs Line). Many radial railways, on the

other hand, are four-tracked railways that are capable of providing more than 20 trains per hour (e.g. on the corridor between Gatwick Airport and East Croydon).

<sup>14</sup> Most of the major rail projects delivered in Control Periods 4 and 5 in the South East (e.g. High

Speed 1, Crossrail 1, Thameslink) serve radial corridors. The orbital rail corridors (e.g. North Downs Line, East/West Coastway Lines) have not benefitted from the same scale of investment during this period.

## Schemes

3.12 The committed schemes that help address the challenges outlined above are:

- **Road Investment Strategy (RIS1):**
  - M20 Junction 10a (delivered);
  - Smart Motorway (M27 J9-14);
  - A27 improvements/bypasses at Arundel, Worthing, Lancing and East of Lewes;
  - M25 Junction 10/A3 (Wisley interchange); and
  - A31 Ringwood road widening; and
  - A404 Bisham roundabout (Marlow).
- **Committed rail schemes:**
  - Western Rail Access to Heathrow, which should help relieve some congestion on the M25 South West Quadrant.

3.13 Other proposed schemes that could also help address these challenges include:

- **Road Investment Strategy (RIS2):**  
*Transport for the South East would like to see the following included in RIS2:*
  - Lower Thames Crossing and associated junction improvements (M2 Junction 3 and Junction 7); and

- Further studies on the M25 South West Quadrant and improved links between the M3 and M4.

- **Priority Major Road Network schemes identified by Transport for the South East:**
  - A249 at M2 Junction 5.
- **Priority Large Local Majors schemes identified by Transport for the South East:**
  - A229 Blue Bell Hill Junction Upgrades.

## Opportunities

3.14 Looking further ahead, Transport for the South East believes schemes and initiatives should be developed to:

- Expand long-distance orbital rail services, particularly those that have been withdrawn in recent years;
- Build a consensus around a longer-term vision for the M27/A27/A259/Coastway Line rail corridor, which suffers from multiple issues (both road and rail); and
- Explore the scope for addressing connectivity gaps in Mid Sussex / Gatwick, potentially by strengthening inner orbital rail services.

## Inter-urban journeys

### Description

3.15 Inter-urban journeys primarily describe medium-distance passenger journeys between economic hubs and the Strategic Road Network. These journeys are predominantly served by the South East area's Major Road Network and any railways that mirror these corridors.

3.16 Inter-urban journeys take several forms: journeys **between economic hubs** (such as town and city centres) across the country that do not use the Strategic Road Network at all (e.g. A26/A228 (Lewes – Strood)); journeys between the Strategic Road Network and economic hubs (e.g. A264 (Horsham – M23)); and journeys that **shadow Strategic Road Corridors** and act as distributor routes for these corridors (e.g. A4 (Slough – Newbury)). The routes that serve these journeys are highly susceptible to 'spill over' from the Strategic Road Network during periods of congestion and/or disruption.

## Challenges

3.17 The challenges for inter-urban journeys, as identified in the Transport Strategy, are:

- Many routes fall below standard;
- Bus services face competition / congestion from car trips and reduced financial support;
- Gaps in rail routes on inter-urban corridors; and
- Road safety hot-spots.

## Schemes

3.18 The committed schemes that help address the challenges outlined above are:

- **Road Investment Strategy (RIS1):**
  - M3 Junctions 9 to 14 improvements (6 schemes that enable access between South Hampshire and the Strategic Road Network); and
  - M27 Junction 8 (Southampton), which enables access between Southampton and the Strategic Road Network.
- **Committed rail schemes:**
  - Crossrail, which will serve interurban flows between Reading, Maidenhead

and Slough in the lower Thames Valley; and

- Island Line Renewal, which will support public transport journeys between Ryde and Shanklin on the Isle of Wight.

- **City Deals, Growth Deals, HIF Marginal Viability Funding, HIF Forward Funding, and Clean Air Funds.**

3.19 Other proposed schemes that could also help address these challenges include:

- **Road Investment Strategy (RIS2):**  
*Transport for the South East would like to see the following included in RIS2:*
  - A21 improvements at Chichester, Worthing, and Lewes – Polegate.
- **Priority Major Road Network schemes identified by Transport for the South East:**
  - Northam Rail Bridge Replacement and Enhancement;
  - A284 Lyminster Bypass;
  - Redbridge Causeway;
  - A249 at M2 Junction 5;
  - A22 Corridor Package;
  - A320 North Corridor;

- A259 Seafront Highway Structures Renewal Programme;
- A28 Birchington, Acol and Westgate-on-Sea Relief Road;
- A259 Bognor Regis to Littlehampton Enhancement; and
- A259 South Coast Road Corridor.

- **Priority Large Local Majors schemes identified by Transport for the South East:**

- West Quay Road Realignment;
- New Thames Crossing East of Reading;
- A326 Capacity Enhancement;
- Portsmouth City Centre Road;
- A229 Blue Bell Hill Junction Upgrades; and
- A31 Hickleys Corner Underpass, Farnham.

- **Transforming City Fund bids:**
  - Portsmouth and South East Hampshire; and
  - Southampton.

## Opportunities

3.20 Looking further ahead, Transport for the South East believes schemes and initiatives should be developed to:

- Invest in bus services and corridors to enable the bus to better compete with the car;
- Fill in gaps in the railway network on inter-urban corridors to encourage more public transport on these corridors; and
- Target safety improvements at ‘hot spots’ on the highway network.

## Local journeys

### Description

3.21 Local journeys are short distance journeys that are typically undertaken at the beginning or end of an individual journey to or from a transportation hub or service to a destination. Local journeys can be undertaken by almost any mode of transport, including walking and cycling. In rural areas, where the bus network is much sparser than in urban areas, the choice of mode for these journeys may be more limited.

### Challenges

3.22 The challenges for local journeys are:

- Conflicts between different road user types;

- Poor air quality in some urban areas and along some corridors;
- Poor integration in some areas;
- Pressure on bus services, particularly in rural areas; and
- Affordability of public transport.

### Schemes

3.23 Many of the schemes that support inter-urban journeys (outlined above) also support local journeys.

3.24 In addition, the following committed schemes also help address the challenges for local journeys outlined above are:

- **Housing Infrastructure Fund Marginal Viability Funding projects:**
  - List provided in paragraph 2.37.
- **Housing Infrastructure Fund Forward Funding bids:**
  - Grazeley Garden Settlement;
  - Maidenhead Golf Course and Courtlands Estate;
  - Manydown Basingstoke;
  - Medway New Routes to Good Growth;
  - Slyfield and Woking; and
  - Swale Transport Infrastructure.

### Opportunities

3.25 Looking further ahead, Transport for the South East believes schemes and initiatives should be developed to:

- Develop better integrated transport hubs;
- Invest in highways and public spaces that better prioritise vulnerable users, especially pedestrians and cyclists, over motorists; and
- Advocate for a real term freeze in public transport fares to encourage modal shift to more sustainable transport modes.

## Freight and international gateway journeys

### Description

3.26 Journeys to and from international gateways in the South East, which is home to many of the most important and busiest international gateways in the UK. Most of the busiest international gateways are well connected to the Strategic Road Network and the railway network, although some offer better onward connectivity to the rest of the country than others. Inter-urban and local roads also support the delivery of ‘first mile /



last mile' freight services across the South East area.

### Challenges

3.27 The challenges for freight and international gateway journeys are:

- The potential impact on surface transport networks from the planned expansion of Heathrow Airport;
- Access to Port of Dover;
- Access to Port of Southampton (and proposed expansion);
- Dartford Crossing congestion;
- Rail freight mode share is relatively low;
- Freight disrupted by congestion on many strategic road corridors;
- Difficulties decarbonising Heavy Goods Vehicles; and
- The UK leaving the European Union (i.e. 'Brexit').

### Schemes

3.28 The committed schemes that help address the challenges outlined above are:

- **Road Investment Strategy (RIS1):**

- Smart Motorways (M20 J3-5, M23 J8-10, M27 J9-14, M3 J2-4a/J9-14, and M4 J3-12);
- A2 Bean and Ebbsfleet junction improvements, which support access to Ebbsfleet International rail station;
- M2 Junction 5 (Stockbury), which provides access to the A249 (for Medway Port at Sheerness);
- M3 Junctions 9 to 14 improvements (6 schemes), notably Junction 9, where the M3 and A34 merge; and
- M271/A35 Redbridge roundabout.

- **Committed rail scheme:**

- The Western Rail Access to Heathrow will apply much needed public transport connectivity and capacity to the UK's busiest airport. Transport for the South East believes this scheme is needed to support Heathrow as it is today, regardless of whether its expansion plans are delivered.

3.29 Other proposed schemes that could also help address these challenges include:

- **Road Investment Strategy (RIS2):**  
*Transport for the South East would like to see the following included in RIS2:*

- Lower Thames Crossing and associated junction improvements (M2 Junction 3 and Junction 7);
- Improvements to the M23/A23 corridor; and
- Further studies on the M25 South West Quadrant and a potential new or improved M3-M4 link, which would relieve pressure on Heathrow Airport.

- **Priority Major Road Network schemes identified by Transport for the South East:**

- Northam Rail Bridge Replacement and Enhancement;
- Redbridge Causeway; and
- A249 at M2 Junction 5 (further improvements in addition to benefits delivered by RIS1).

- **Priority Large Local Majors schemes identified by Transport for the South East:**

- West Quay Road Realignment;
- A326 Capacity Enhancement;
- Portsmouth City Centre Road; and
- A229 Blue Bell Hill Junction Upgrades (which would support the Lower Thames Crossing).



- **Proposed rail scheme:**
  - Transport for the South East strongly supports proposals to develop a Southern Rail Access to Heathrow Airport, which would provide much needed public transport connectivity between Heathrow and Woking (and potentially Guildford, Basingstoke, Southampton and Portsmouth). This scheme is also needed to support growth at Heathrow Airport and address severe congestion challenges on the M25 South West Quadrant.

### Opportunities

3.30 Looking further ahead, Transport for the South East believes schemes and initiatives should be developed to:

- Mitigate the impact of growth at Heathrow Airport, which could include additional bus lanes and/or demand management initiatives;
- Use technology to improve the efficiency of logistics chains and freight journeys; and
- Encouraging more rail freight, including through the Channel Tunnel.

3.31 Transport for the South East plans to commission a Freight, Logistics and Gateways Strategy and Action Plan in 2020.

### Future journeys

#### Description

3.32 Future journeys encompass any journey type that may be facilitated by an emerging technology. This is an exciting and rapidly developing area of transport that has the potential to deliver significant change to all aspects of mobility.

#### Challenges

3.33 The challenges for future journeys are:

- Gaps in electrical and digital infrastructure;
- Risk some parts of the South East will be ‘left behind’;
- Risk new technologies may undermine walking, cycling and public transport;
- Risk new technologies may lead to further fragmentation; and
- Alternative fuel vehicles will not solve congestion.

### Schemes

3.34 The transport interventions in this document are large schemes which are currently under development in the South East area. As a result of this, they tend to focus on improving existing infrastructure, as opposed to infrastructure that would support future journeys (e.g. road infrastructure that caters for autonomous vehicles or ride-sharing services).

3.35 Some committed funding packages (such as the Clear Air Fund) are being used to deliver innovation, such as cleaner bus vehicles.

3.36 All schemes that are being developed for other (present) journey types will need to be ‘future-proofed’ and consider how emerging technology might affect their viability. This is particularly likely to impact Fast Mile / Last Mile elements of journeys, such as access to public transport hubs.

### Opportunities

3.37 Looking further ahead, Transport for the South East believes schemes and initiatives should be developed to:

- Future proof electric and digital infrastructure (standards, etc)
- Incorporate Mobility as a Service into public transport networks; and
- Encourage consistency in roll out of smart ticketing systems.

3.38 Transport for the South East plans to commission a Future Mobility Strategy later in 2020.

### Summary

3.39 This section has assessed the extent to which the current pipeline of key schemes and transport initiatives in South East England supports the six journey types described in the Transport Strategy for the South East.

3.40 A summary of the extent to which the key funding programmes described in Section 2 support the challenges presented for each journey type in Section 3 is presented in **Appendix B**.

3.41 A high-level analysis of the table presented in Appendix B suggests:

- The near-term pipeline of schemes is relatively ‘road’ heavy and appears to be

more focussed on strategic **radial** journeys than other journey types.

- The next wave of investment planned in the pipeline (notably in the RIS2) has the potential to address more of the challenges identified for strategic and regional **orbital and coastal journeys**, although the final contents of RIS2 is yet to be published.
- Many highway schemes in RIS1 appear to support **freight and international gateway movements**, although more will be needed in RIS2 to support expansion at Southampton and enable the delivery of a new Lower Thames Crossing.
- While the **Western Rail Access for Heathrow** scheme is welcome, much more investment is needed in other, sustainable surface access schemes for Britain’s busiest airport. This is why Transport for the South East strongly supports the **Southern Rail Access to Heathrow** scheme and other public transport and demand management initiatives at this airport.
- Many current schemes and initiatives do not appear to be designed for **future journeys**, and there is a need to better

understand how these schemes could be better ‘future-proofed’.

3.42 In the medium term, Transport for the South East would like to see the emphasis shift away from highway schemes to more sustainable alternatives. This will enable South East England to move from the current transport paradigm of ‘planning for vehicles’ towards ‘planning for people’ (as described in the framework shown in Section 1). In the longer term, better integrated land use planning (which may include digital and energy networks) will also be needed to shift the South East towards ‘planning for places’.

3.43 In more concrete terms, this suggests the priorities for longer term initiatives will need to include:

- More urban transit schemes in the larger towns and cities in the South East;
- Much better public transport options for non-radial journeys;
- Better integrated land-use and transport planning, potentially at a regional level; and
- More focus on reducing the need to travel and, in particular, the need to travel long distances.

## 4 Conclusion

4.1 This study has shown that there are several schemes under development in the South East that support the Transport Strategy that has been developed by Transport for the South East. In particular, significant investment is planned for schemes that will support radial journeys to and from London, both on the Strategic Road Network and major corridors of the National Rail Network.

4.2 There are also opportunities for future investment that would further help Transport for the South East realise its vision for the area. Based on the current pipeline of schemes, there appears to be a gap in investment planned for schemes that support orbital and coastal journeys. There are also instances where some schemes could go further. For example, while the Western Rail Access to Heathrow project will provide a welcome improvement in public transport for journeys accessing Heathrow Airport (which is set to expand) from the west, there is also a need to put in place similar provision to the south of the airport. These types of challenges and opportunities will be explored further in the Area Studies that Transport for the South East plans to commission in 2020.

4.3 There will also be a need to plan for Future Journeys, which may be facilitated by an emerging technology. Although it is not feasible to adapt all existing infrastructure to emerging technology, there is a need to 'future proof' electric and digital infrastructure, incorporate Mobility as a Service into public transport networks and encourage consistency in the roll out of smart ticketing systems. These issues will be explored further in a Future Mobility Strategy for the South East, which Transport for the South East also plans to develop in 2020/2021.

4.4 It will be essential to ensure the right investment is made in the South East's key international gateways and the transport networks that serve them. This will also be explored further in a Future Freight, Logistics and Gateways Strategy and Action Plan, which will be developed by Transport for the South East in 2020/2021.

4.5 Finally, while Transport for the South East welcomes many of the schemes and initiatives that are under development in the South East, it believes the future pipeline will need to place more emphasis on sustainable alternatives to highway schemes.



## A Maps of Schemes

Appendix A.1: Strategy Road Network schemes (RIS1 committed schemes and RIS2 priority schemes)

KEY

Road Investment Strategy 1 schemes

- 1 A27 (Arundel Bypass, Worthing/Lancing, of East Lewes)
- 2 M2 Junction 5 (Stockbury)
- 3 A2 Bean and Ebbsfleet Junctions
- 4 M20 Junction 10a (Ashford)
- 5 A21 Pembury Bypass (delivered)
- 6 M25 Junction 10/A3 (Wisley Interchange)
- 7 M3 Junctions 9 to 14 Improvements (6 schemes)
- 8 M27/A35 Redbridge roundabout
- 9 M27 Junction 8 (Southampton)
- 10 A31 Ringwood road widening
- 11 A404 Bisham roundabout (Marlow).
- Smart Motorways

Road Investment Strategy 2 priorities

- 1 Lower Thames Crossing and enabling schemes
- 2 A21 Improvements
- 3 A27/M27 South Coast Corridor Improvements
- 4 A3 Ripley to Guildford
- 5 M23/A23 Corridor Improvements
- 6 M25 South West Quadrant and M3-M4 link

- Strategic Road Network
- Major Road Network





Appendix A.2: Major Road Network Priority and Large Local Major Priority schemes (Funding bids)

KEY

Major Road Network schemes

- 1 Northam Rall Bridge Replacement and Enhancement
- 2 A284 Lymlnster Bypass
- 3 Redbridge Causeway
- 4 A249 at M2 Junction 5
- 5 A22 Corridor Package
- 6 A320 North Corridor
- 7 A259 Seafront Highway Structures Renewal Programme
- 8 A28 Birchington, Acol and Westgate-on-Sea Relief Road
- 9 A259 Bognor Regis to Littlehampton Enhancement
- 10 A259 South Coast Road Corridor

Large Local Majors schemes

- 1 West Quay Road Reallignment
- 2 New Thames Crossing East of Reading
- 3 A326 Capacity Enhancement
- 4 Portsmouth City Centre Road
- 5 A229 Blue Bell Hill Junction Upgrades
- 6 A31 Hickleys Corner Underpass, Farnham

Strategic Road Network

Major Road Network



Appendix A.3: Rail schemes (committed and proposed schemes)

KEY

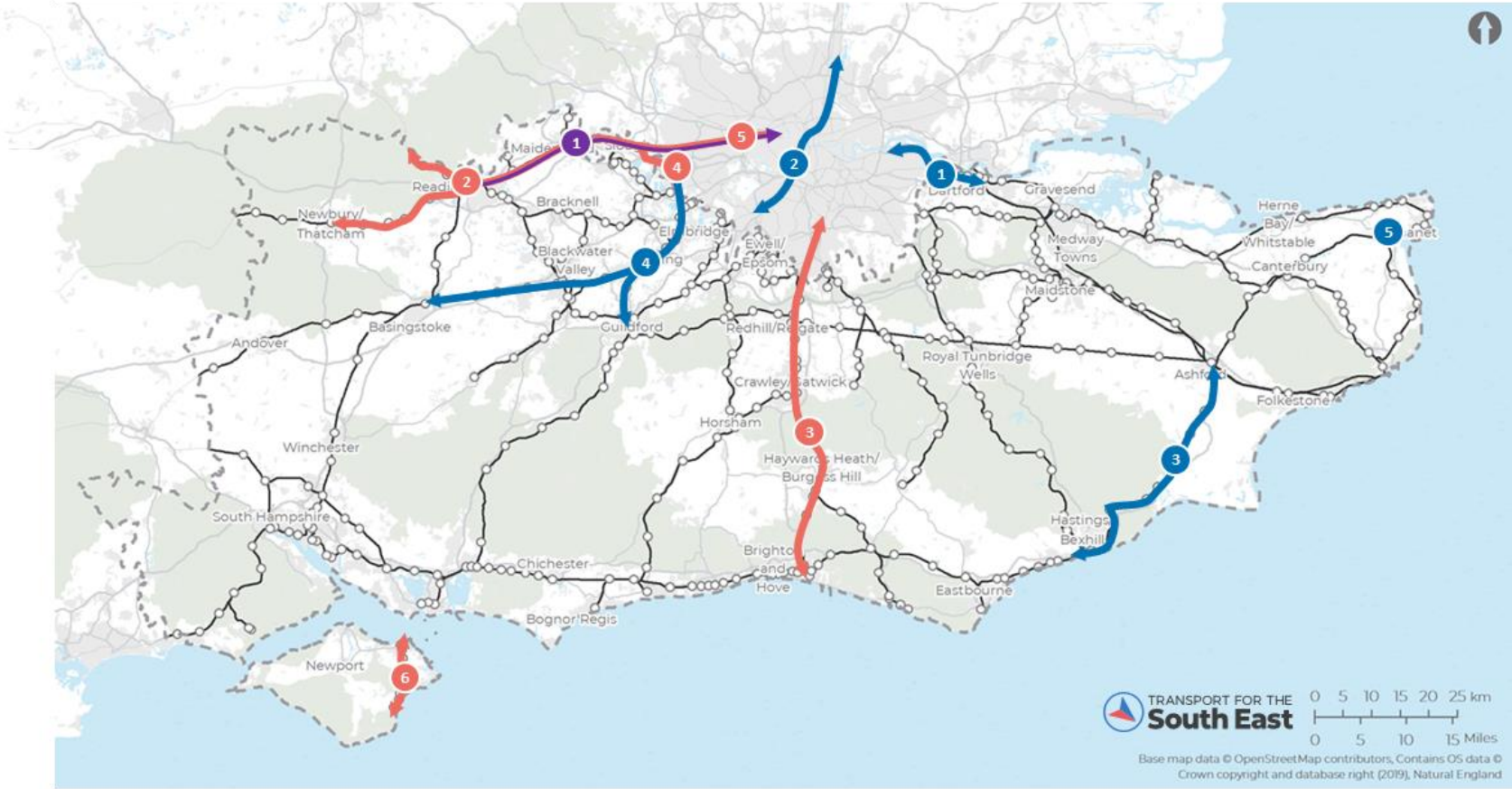
Committed rail schemes

- 1 Crossrail
- 2 Great Western Modernisation Programme
- 3 Brighton Main Line Programme
- 4 Western Rail Access to Heathrow
- 5 High Speed 2 (Old Oak Common station)
- 6 Island Line Renewal

Proposed rail schemes

- 1 Crossrail extension to Ebbsfleet
- 2 Crossrail 2
- 3 High Speed 1 services to Hastings (and beyond)
- 4 Southern Rail Access to Heathrow
- 5 Thanet Parkway

—○— Rail network





Appendix A.4: Transforming City Fund bids, HIF Forward Funding bids, and International Gateway expansion plans

KEY

Transforming City Fund bids

- 1 Portsmouth and South East Hampshire
- 2 Southampton

HIF Forward Funding bids

- 1 Grazeley Garden Settlement
- 2 Maidenhead Golf Course and Courtlands Estate
- 3 Manydown Basingstoke
- 4 Medway New Routes to Good Growth
- 5 Slyfield and Woking
- 6 Swale Transport Infrastructure

International Gateway expansion plans

- 1 Heathrow expansion (Runway 3)
- 2 Gatwick growth
- 3 Port of Dover Western Docks revival
- 4 Port of Southampton expansion

Strategic Road Network

Major Road Network



## B Mapping of Schemes to Journey Types

Key to assessment: ✓ = Moderate impact ✓✓ = High impact ✓✓✓ = Very high impact

Group		Scheme	Radial Journeys	Orbital & Coastal Journeys	Inter-urban / Local Journeys	International Gateways	Journeys in the future
Major Committed Schemes	Road	Road Investment Strategy 1	✓✓✓	✓✓	✓	✓✓	
		Lower Thames Crossing	✓✓	✓✓			
		Solutions to Operation Stack	✓✓			✓✓✓	
	Rail	Great Western Modernisation Programme	✓✓✓	✓			
		Brighton Main Line Programme	✓✓	✓		✓✓	
		Western Rail Access to Heathrow	✓			✓✓✓	
		High Speed 2	✓				
	International Gateways	Heathrow Airport Third Runway				✓✓✓	
		Gatwick Airport Expansion				✓✓	
		Southampton Port Expansion				✓✓	
		Dover Western Docks Revival				✓	
Other Large Committed Schemes		City Deals			✓✓		
		Growth Deals / Local Growth Fund			✓✓		✓
		HIF Marginal Viability Funding			✓✓		
		Clean Air Fund			✓✓		✓
Funding Bids		Road Investment Strategy 2	✓	✓✓✓	✓	✓✓✓	
		Major Road Network Priority Schemes	✓	✓✓	✓✓		
		Large Local Majors Programme	✓	✓✓	✓✓	✓✓✓	
		Housing Infrastructure Fund	✓	✓	✓		
		Transforming Cities Fund			✓		
		Crossrail 1 extension to Ebbsfleet	✓✓	✓			
		Crossrail 2	✓✓				
		High Speed 1 services to Hastings	✓✓				
		Southern Rail Access to Heathrow	✓			✓✓✓	

## Control Information

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### Client contract/project number

### Reviewer/approver

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Client: TfSE

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