South East Hampshire Bus Rapid Transit
Fareham Gosport Eclipse
Revised Bid

Application for Local Pinch Point Funding Tranche 4
Large Project
Full Business Case
October 2013

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Economy, Transport and Environment
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Full Business Case
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1. **Planning Application/s and Supporting Documents**

   Links to related planning documentation, for South East Hampshire Bus Rapid Transit, Phase 1 Fareham to Gosport can be located at:


   Links to the October 2013 Regulatory Committee Report for the Rowner Road Bridge can be located at:


2. **Transport Assessment**

   South East Hampshire Bus Rapid Transit - Phase 1 Fareham Gosport Transport Assessment (March 2009) *Mott Gifford*

3. **Environmental Assessment**

   South East Hampshire Bus Rapid Transit - Phase 1 Fareham to Gosport Detailed Environmental Assessment : Volume 1 (March 2009) *Mott Gifford*

4. **Planning Statement**

   South East Hampshire Bus Rapid Transit - Phase 1 Fareham Gosport Planning Statement (March 2009) *Mott Gifford*

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FOREWORD TO REVISED BID

This bid is being re-submitted in light of **substantive changes** to the previous bid in February 2013. Key changes and updates are as follows:

1. The bid has been **reduced in scale** since the February 2013 submission and now relates to Phase 1B of the dedicated off road Eclipse busway/cycleway (the southern extension to Phase 1A completed in March 2012) and does not include the on road improvements previously included which are being funded from elsewhere;

2. The need to uplift the public transport offer in Gosport, to help deliver Solent Local Enterprise Partnership objectives, to bring forward economic growth and development at key sites including the **Solent Enterprise Zone**, is now even more pressing than when the bid was submitted earlier in the year. BRT is a key component of a new Strategic Transport Infrastructure Plan which will improve accessibility for all and help encourage much needed growth in the area.

3. The scheme continues to **receive support from the Solent Local Enterprise Partnership (SLEP) and First Hampshire Dorset & Berkshire**.

4. **Planning Permission is now in place**, design work is completed and contract documents are being prepared, representing a substantial amount of work prepared at risk since the bid application in February. The scheme is **DELIVERABLE, ready to be constructed** and work on site can start as soon as funding is secured.

5. The case for implementing Phase 1B of the dedicated busway is substantiated by the success of Phase 1A which has exceeded all expectations with over 1.3 million passengers carried in the first year of operation. This represents a **64% increase** on the services the Eclipse replaced. Surveys have identified that Phase 1A actually doubled the expected modal transfer predicted in the original business case and also doubled the numbers of cars that were predicted to be removed from the local road network.

6. The benefits of Phase 1B should not be considered in isolation from the impressive benefits already accrued following the implementation of Phase 1A. Phase 1B provides additional value over and above previous benefits with the BCR of 1.7 for just Phase 1B being viewed as a healthy return for a public transport scheme and emphasising the scheme importance for this area of constrained transport provision.

7. The success of Phase 1A needs to be fully recognised in order to help measure the importance of completing the busway in order to help bring forward much needed growth in this area which is currently under-performing economically. The scheme has been the recipient of several significant awards namely:
   - National Transport Awards- Transport Team Partnership October 2013
   - Institute of Civil Engineers – Engineering Excellence – July 2012
   - Chartered Institute of Logistics and Transport (CILT) Award Transport Policy, Planning and Implementation –
   - Disability Forum Award – August 2013
   - UK Bus Awards – nominated October 2013

8. The bid has a **reduced scheme cost** and is now **seeking a reduced amount of £6.259m from DfT** out of a total value of £8.942m compared to a previous request for £7,985,095 from DfT.
The **South East Hampshire Bus Rapid Transit** is a high specification, sub regionally significant public transport network designed to provide a viable alternative to the car and remove the transport barriers to economic growth and development of key sites, including Solent Enterprise Zone.

Phase 1A of the scheme, a hugely successful dedicated busway/cycleway between Redlands Lane in Fareham and Titchborne Way in Gosport, was completed in April 2012 and funding is now sought to complete Phase 1B, the southern extension of the route, to add value and help deliver another key component of the wider network.

- **Success Story** Phase 1A of the scheme was completed in 2012 and has exceeded expectations with more than 1.3 million passenger journeys made in the first year. The number of people using public transport to travel between Gosport and Fareham has risen by 11.86% overall, while 64% more people now use the Eclipse BRT service than used the services that it replaced (i.e. Services 82 and 86). We need to complete the route to build on this success.

- **Strong Local Support** - the scheme is fully supported by the Solent Local Enterprise Partnership (SLEP); Hampshire Chamber of Commerce along with Fareham and Gosport Borough Councils;

- **Supports Solent Enterprise Zone** – the scheme significantly improves public transport accessibility in the Gosport Peninsula and will encourage development at this important Enterprise Zone.

- **Provides links to new employment and housing sites** – the scheme provides links to 194,750 square meters of employment along with 9,750 new homes

- **Improves access to urban employment centres** provides direct access to existing town centre employment areas which currently experience inaccessibility through heavy congestion.

- **Partnership Working** – the scheme has been developed through Partnership working with the South Hampshire Bus Operators Association (SHBOA) and First Group Hampshire and Dorset.

- **Strong Economic Case** – the scheme provides good value for money for a public transport scheme. Whilst Phase 1A took most of the benefits Phase 1B is now needed to complete the route and to provide added value to the original asset.
- **Strong Strategic Case** - The scheme will make areas of existing and planned new strategic employment sites accessible and more attractive to business by removing transport barriers to growth. The area is suffering due to a declining employment base and the withdrawal of MOD employment. BRT is essential given limited opportunities for highway enhancement and uplifts the area by making it more accessible. Completion of the route is fundamental.

- **Deliverability** Phase 1A of the scheme was both developed and constructed over just a 3 year period from January 2009 to April 2012, which provides evidence of the Hampshire County Council capability. Phase 1B is DELIVERABLE, it is designed and ready to construct. Planning Permission has now been secured for the scheme and contract documents are being prepared. **Work on site can start immediately funding is awarded.**

- **Reduces congestion and carbon emissions** – provides a viable alternative to the private car, encouraging modal shift and reducing overall car journeys adjacent to two AQMAs in this heavily congested urban transport network.
1 INTRODUCTION  Revised

1.1 This Full Business Case is a revision of the Full Business Case submitted in February 2013 in support of an application for the Department for Transport’s Local Pinch Point Fund (LPPF) announced as part of the 2012 Autumn Statement. This revised Business Case has substantive changes and is now submitted in support of an application for Local Pinch Point Fund Tranche 4. Funding is required to help complete Phase 1B of the “South East Hampshire Bus Rapid Transit Eclipse” dedicated busway between Fareham Gosport.

1.2 The scheme is part of a high profile sub-regional Bus Rapid Transit network which will provide new and improved, critical public transport links to existing urban employment areas in Gosport and Fareham as well as proposed strategic economic and housing sites including: Welborne, North of Fareham; Solent Enterprise Zone; Gosport Waterfront and town centre, Rowner Regeneration area and Royal Haslar providing approximately: 9,750 homes and 194,750 square meters of employment in total along with retail and healthcare provision etc. The scheme will help to remove the transport barriers to growth, caused by the heavily congested, urban, highway network in this geographically constrained area and will help connect people to jobs in this area of MoD and public sector decline. The scheme builds upon the recently completed first phase of a dedicated busway.
1.3 This bid is submitted by Hampshire County as lead Authority being supported by Transport for South Hampshire (TfSH) a partnership comprising the four Local Authorities of Hampshire namely: Hampshire County Council; Southampton City Council, Portsmouth City Council along with The Isle of Wight. The Solent Local Enterprise Partnership (SLEP); Solent Transport Body, along with South Hampshire Bus Operators (SHBOA) and Hampshire Chamber of Commerce are also fully supportive of the bid. Hampshire County Council, as the lead authority for TfSH, will act as recipient for funding received from the LPPF4 and also as Delivery Agent for the scheme.

1.4 Letters of support are attached from the following at Appendix 1:

- Transport for South Hampshire revised
- Solent Local Enterprise Partnership - revised
- South Hampshire Bus Operators Association
- First Hampshire and Dorset Ltd - revised
- Hampshire Chamber of Commerce
- Gosport Borough Council - revised

1.5 Phase 1A of the ‘South East Hampshire Bus Rapid Transit Network - Fareham Gosport - Eclipse’ was completed in April 2012. The scheme provided a dedicated busway along a disused railway corridor, part of the way between Fareham and Gosport, with high specification buses running along the new route for part of their journey and on existing highway (which has yet to be improved) for the remainder of the distance between the two towns. Phase 1A has been hugely successful over the dedicated corridor, however the completion of Phase 1B, the subject of this bid, and the southern extension to the dedicated busway would provide route continuity, an extension of journey time reliability and would a enable a much more logical bus route when the Eclipse re-joins the on road highway network to continue its journey to Gosport town centre. Measures to improve the on-road sections of the route which were previously included as part of the bid have now been removed and are being and will be progressed incrementally as other sources of funding become available in order to maximise benefits and help deliver the objectives of this part of the wider network. Without further investment to complete this scheme transport issues will remain as a fundamental barrier to growth and investment and will continue to have a detrimental impact upon the local economy.
1.6 This business case supports a funding bid to extend the recently completed, dedicated busway (Phase 1A), south towards Gosport for a further 1km (Phase 1B) linking with the remaining ‘on road’ parts of three routes to Gosport town centre and ferry to Portsmouth city, through the provision of priority measures and improved infrastructure, which will be funded via other sources. Some funding has already been secured to deliver some of the on highway priority measures, through the Better Area Bus Fund and also to provide some improved infrastructure at key stops through the Local Sustainable Transport Fund and these measures will be largely completed in 2013/14.

1.7 For the purposes of the business case the scheme will be defined as follows:

- **Gosport Eclipse Phase 1B Southern Extension Off Road; and**
- **Gosport Eclipse Southern Extension On Road (removed as no longer part of this bid)**

The bid now covers the off road sections of the dedicated busway within Gosport only, (sections highlighted yellow on Figure 1 below show the dedicated busway along with the on road connections to Gosport ferry where the routes terminate) set in the context of the wider network across South East Hampshire. A brief scheme overview is provided below to help define the scheme and to provide a high level introduction to objectives of the wider network and the more specific objectives of the dedicated busway.
Wider Scheme Context

1.8 The proposed South East Hampshire Bus Rapid Transit (BRT) network is part of a new generation of transport solutions which has been identified to help meet the needs of both the existing and future communities in the sub-region. It is important to set the specific objectives and benefits relating to the Gosport Fareham routes within the context of the wider network proposition. The full benefits of the Gosport to Fareham part of this wider network will only be truly realised when the whole network has been completed, and links to all key destinations have been established. However to fund and deliver the whole network at the same time would not be possible. Therefore this business case for the Gosport Fareham dedicated busway should to be viewed as a critical part of the wider context with benefits ramping up as the network develops. The wider South East Hampshire Bus Rapid Transit (BRT) Network is shown in Figure 2.
1.8 The transport network serving the South East Hampshire Sub-Region experiences significant congestion and delay on key links, particularly during peak periods. The potential to improve the highway network is limited by the built up, urban nature of the Gosport and Portsmouth peninsulas and the linear coastal settlement pattern focused around the M27 corridor. Following lack of Government support for a Light Rail solution, in 2008 Bus Rapid Transit was identified by Transport for South Hampshire as a key transport intervention which would help provide a much needed transport solution to the areas transport issues. The BRT network which has subsequently been developed and is shown above will connect key existing towns and employment destinations in South East Hampshire including Gosport, Fareham, Portsmouth, Havant and Waterlooville.

1.9 The network will also provide new and improved links to the sub regionally significant Queen Alexandra Hospital along with the majority of proposed new strategic housing and employment sites in the area including: the Welborne New Community North of Fareham; Solent (Daedalus) Enterprise Zone, Gosport Waterfront, Tipner and Dunsbury Hill Farm (which has recently secured both Local Pinch Point Funding Tranche 3 and also Local Transport Body Funding to provide an access link and roundabout to open up the development site). Ultimately the proposed network will benefit 100,000 households (around 230,000 people who live within 1km of the scheme) giving them an attractive alternative to the car. See Figure 3.
1.10 The key wider scheme objectives seek to:

- Facilitate development and regeneration in South Hampshire particularly at key strategic economic and housing sites;
- Provide a public transport system which has a significant step up in both reliability and quality, to open up new opportunities for travel and actively encourage modal shift;
- To improve access to existing urban employment centres where congestion frustrates the business communities and remove the transport barriers to growth.
- Improve access to public health and education services at both local and sub-regional levels;
- Assist in meeting the requirements of the Air Quality Management Areas by cutting carbon emissions from travel.

1.11 The A3 ZIP Bus Priority Corridor (recently rebranded as STAR) has already been implemented as an early phase of this new generation of public transport solutions for South East Hampshire, connecting: Horndean, Waterlooville and Cosham to Portsmouth. The STAR route widens transport choice, improves connections with the Solent Transport network and provides a high quality alternative to the car. It is part of Hampshire’s Local Transport Plan approach to tackling predictions that by 2020 there will be approximately a 40% increase in traffic. The total cost of the enhancements to create the ZIP Bus Priority Corridor was £35million. This has allowed for significant improvements for bus passengers,
cyclists, pedestrians and all road users and the ZIP will form a vital part of the proposed BRT network. The expansion of the South East Hampshire BRT network will link into and add value to the A3 STAR bus priority corridor

1.12 Over **120,000 households** currently live within 1km of the proposed Gosport-Fareham-Portsmouth and the existing Waterlooville-Portsmouth corridors, therefore a large number of people are able to take advantage of the services provided by this new generation of transport solutions. A further **28,000 dwellings** are expected to be built along these routes by 2026, increasing demand for efficient and reliable public transport services. The South East Hampshire BRT will provide fast, frequent and reliable services on both dedicated express-only links and also along improved existing bus corridors, connecting with the rail and ferry services at key interchanges. A comprehensive, area wide bus-based network has the advantage of being able to combine on-street and off-street running and reduce the need for interchange between services and travel modes. Opportunities to develop through-ticketing will be explored in order to ease interchange between services. The wider BRT network will provide a transport system through a phased delivery package that will incrementally meet the needs of the currently planned growth and will also provide the flexibility and opportunity to expand with time to meet new demand as funding becomes available. The network will provide a combination of innovative systems working simultaneously to offer a safe, secure, attractive and accessible service, supported by high quality infrastructure at interchanges and stops, together with an improved specification bus vehicle fleet.

In terms of the 120,000 existing households:

- **35,000** would be within 1km of the proposed Fareham Gosport BRT and hence are considered to be directly dependent upon the proposed scheme for improving future travel choices and the sustainability of the south Hampshire growth area
- **85,000** would be within 1km of the overall south east Hampshire BRT network and hence are considered to be indirectly dependent upon the proposed scheme for improving future travel choices and the sustainability of the south Hampshire growth area.
1.13 As part of the implementation of the full South East Hampshire BRT network and its associated benefits, delivery of early phases will provide substantial benefits for existing communities and new development. Development of the network within the Fareham Gosport peninsula will begin to address existing problems related to accessibility and congestion and help remove the transport barriers to growth.

1.14 It is important to understand the transport problems on the Gosport Peninsula set within the economic and regional context to understand the need for a viable public transport option in this location. Gosport is under performing economically, there are high levels of deprivation linked to the decline of the MOD – Royal Navy - in the area over the last 15 years. Employment at Portsmouth Naval Base has fallen while several other MoD establishments on the peninsula and around the Harbour have closed. This has led to high levels of brown-field land within the Borough of Gosport waiting to be re-developed. Gosport now has the lowest business density and lowest business start up rate in the South East also being amongst the lowest in the Country with high levels of public sector job losses.

1.15 Key sites (site specific details will be provided later in the business case) which will benefit from the significant uplift in public transport which will be provided by the scheme include the following:

- **North Fareham SDA Welborne** (housing and employment)

- **Solent Enterprise Zone** (mixed use employment led Daedalus)
• The Gosport Waterfront and Town Centre – Mixed Use

• The Haslar peninsula at Royal Hospital Haslar – (mixed Use medical, health care led) and Blockhouse (mixed use leisure and maritime led)

• Rowner Regeneration Area – Alver Village (mixed use residential led)
1.17 A key barrier to new development at the above sites is lack of a viable access strategy. The Eclipse services will help overcome this by providing new and improved links from the development sites to key destinations. There is little scope for improvement to the highway in this area and a viable public transport alternative is essential not desirable. There is a clear need to address the trend of increasing out commuting for employment. In order to provide the boost to the economy that will help generate jobs thus overcoming the current problem of inaccessibility and out commuting in Gosport and Fareham the completion of the BRT Eclipse routes is critical now.

1.18 Gosport has the highest population density in Hampshire outside the two cities. The population is 82,600 with approximately 35,400 households with an urban density of 32.6 people per hectare. The Borough’s population will increase by about 1.2% over the period to 2029 with the number of households projected to increase by 7.5%. Transport improvements are needed both now and to cater for this planned growth.

1.19 The Gosport Peninsula suffers from congested and constrained access with inadequate pre-BRT public transport quality and very poor journey time reliability. Significant levels of out commuting involving nearly two thirds of employed residents now working in different locations (in 2001 Gosport had 7,610 in commuters and 18,140 out commuters). This out commuting is a result of the job losses highlighted above and compounds transport problems and exacerbate congestion on the two main access onto the peninsula. Previously Gosport had the highest work place self containment ratio within Hampshire with 74% of Gosport based jobs being filled by local residents. Poor accessibility within Gosport discourages much needed new employment from locating in the Borough and also causes retention difficulties with businesses moving out. The development of a comprehensive, reliable, public transport system linking bus, rail and ferry is essential to help overcome current congestion problems, and remove transport barriers to economic growth and development to help reverse the decline of this area.

1.20 In the context of the above and whilst not a complete panacea for all the traffic problems in the Gosport peninsula, the Gosport – Fareham BRT Phase 1A Eclipse has already significantly improved the public transport offer for people living on the peninsula, linking in with key destinations. The scheme provides reliable journey times on a dedicated busway, which were unachievable previously due to the significant congestion on the A32 and other parts of the local road network. The scheme provided a new direct link to Fareham railway station and also Fareham College. In order to build upon this we now need to seek to complete the route, extending south into Gosport, as part of the wider network proposition. The extension of the busway south will further enable buses to avoid congestion on the A32 and help enhance journey time reliability on the remainder of the route.

1.21 Phase 1A of the scheme was completed in 2012 and has been hugely successful with more than 1.3 million passenger journeys made in the first year. The number of people using public transport to travel between Gosport and Fareham has risen by 11.86% overall, while 64% more people now use the Eclipse BRT service than used the services that it replaced (ie Services 82 and 86. In terms of both the number of passengers that have transferred from the car and other modes and also the number of car trips removed from the adjoining highway network, monitoring figures...
for Phase 1A, have evidenced that these are approximately double what was estimated in the original business case, emphasising the effectiveness of the scheme. It is anticipated that completion of the route would further increase the attractiveness of the Eclipse services as a viable alternative to the car offering real end to end journey time savings and attracting additional new passengers.

1.22 The **scheme objectives** for the Gosport – Fareham routes reflect those of the wider network proposition specifically:

- **To improve access to existing and proposed employment and housing sites by public transport.** – particularly the major employment sites at North Fareham (Welborne), Solent Enterprise Zone, Gosport Waterfront and Haslar and existing businesses on the A32 corridor and northern parts of Newgate Lane, along with the respective existing urban town centre employment areas of Fareham and Gosport and via the ferry to Portsmouth. The improvement will be measured against changes in journey time for public transport users and increases in population experiencing the changes in journey time.

- **To improve access to public health services at both local and sub-regional levels by public transport** - particularly Queen Alexandra hospital, Fareham Health Centre and Gosport Health Centre which is located at Gosport War Memorial Hospital. The improvement will be measured against changes in journey time for public transport users and increases in population experiencing the changes in journey time.

- **To improve public transport access to tertiary education by public transport** - to ensure that all students can arrive at tertiary education establishments before start times, usually 9am. The establishments are: St Vincent, Gosport; Fareham College; and University of Portsmouth.

- **To improve the overall quality of public transport provision.** The objective is to produce improved quality through: enhanced vehicle quality; integrated ticketing; real time information; good bus stop environments; ease of interchange; marketing; safety and security. The objective will be measured against qualitative user surveys to demonstrate changes in perception relating to quality of service (both public transport and non public transport users) and patronage data from the key bus operator.

- **To assist in meeting the requirements of the Air Quality Management Areas.** The objective is to assist in delivering the reduction of NO2 levels in accordance with the thresholds and timescales defined in the AQMA Plans. The extension of the scheme will further enhance access by bus to the Fareham railway station, providing interconnectivity between bus and rail. Integration has been improved through Phase 1 and new Eclipse services to Fareham rail station and the investment in the new Gosport ferry pontoon and bus stop infrastructure has improved the quality of public transport services. BRT phase 1B will add to these improvements.

1.23 In relation to Phase 1A Redlands Lane to Tichborne Way, as well as the development of Phase 1B and the wider BRT network there has been and continues to be close working relationship with the **South Hampshire Bus Operators Association (SHBOA)** as well as individual bus operators. Close working with First Hampshire and Dorset (the existing predominant bus operator in Fareham and Gosport) throughout the development and delivery of the scheme was and is fundamental to
the success of this project. Specifically in relation to Phase 1A a legally-binding five year Voluntary Partnership Agreement (VPA) has been put in place between Hampshire County Council and the Bus Operators which seeks to maintain the highest standards for the customer forms part of this close working arrangement, which will deliver the aspects of the BRT service for which respective partners have responsibility, to agreed quality standards. Partnership working with the bus operators is essential to the delivery of a successful BRT scheme. It is the intention that the VPA would be extended to cover Phase 1B Tichborne Way to Rowner Road as an extension of the dedicated busway.

1.24 In terms of roles and responsibilities it is intended that those agreed in the VPA for Phase 1A would be extended to cover Phase 1B. In brief Hampshire County Council will be the infrastructure delivery agency and the Operator will be responsible for the provision of buses, and services. A copy of the VPA is attached which provides further information on roles and responsibilities along with letters of support from SHBOA and Hampshire First and Dorset.

1.25 The key benefits of the busway and on road improvements will be to enable buses to be accurately timed for their journey, thus allowing passengers to rely on the bus timetable with reduced congestion effects. Journey speeds will be improved and the quality of the stops and vehicles will make a better offer to the passenger.

1.26 Although the existing BRT services extend beyond the recently implemented Phase 1A onto the existing highway, in order to complete the route between Fareham and Gosport, these unimproved on highway routes are intended as a temporary solution only. The benefits accrued through journey time savings on the dedicated route are being reduced by the delays buses are facing on the unimproved sections where on street parking and junction delay is adding unreliability and thus negated the overall value. The on road routes also currently have unimproved infrastructure and the perception of provision for public transport is poor. Without improving the routes as a whole the scheme will not be able to achieve the objectives of providing developer confidence that a viable access strategy is in place for the peninsula. It is critical that the routes are completed to help remove the transport barriers to growth and to provide the economic boost this area needs.

1.27 The proposed route completion draws completely upon the experience of Phase 1A. A 64% increase in public transport use has been experienced on the services E1 and E2, replacing those previously operating. Perception of the Eclipse buses, bus stop infrastructure and associated information technology is extremely high compared to the perception of previous public transport provision on the peninsula which was low.

1.28 The location of the recently completed Gosport to Fareham busway and the routes used by existing services that use the busway is shown in Figure 1.4 and the proposed Gosport to Fareham busway extension and on highway sections submitted for LPPF is shown in Figure 1.5.
Figure 1.4 South East Hampshire Bus Rapid Transit (BRT) Gosport to Fareham Eclipse – Existing BRT Route and Services

Figure 1.5 South East Hampshire Bus Rapid Transit (BRT) Gosport to Fareham Eclipse (Busway extension and on road sections to Gosport ferry)
1.28 Figure 1.6 shows the existing and proposed routes in relation to the key development sites which will benefit from improved accessibility. There is a significant amount of planned development in the Gosport and Fareham area including the Strategic Development Area at North Fareham and Enterprise Zone at Fareham. Improved accessibility is critical to enable these sites to come forward.

**Figure 1.6 South East Hampshire Bus Rapid Transit (BRT) Gosport to Fareham Eclipse – Development sites in proximity to BRT routes**
2. BUSINESS CASE FORMAT

2.1 The Business Case is structured around the Department for Transports ‘The Transport Business Case Guidance’ April 2011 to assist in decision making in line with the Treasury’s recommended five case model. WebTag guidance will be taken into account. The approach will consider:

- The Strategic Case;
- The Financial case;
- The Economic case;
- The Commercial case; and
- The Management case

Annexes are provided in Volume 2 and provide more detail and background to the various topics covered by this Business Case document (Volume 1).
3. **THE STRATEGIC CASE**

### Policy Background

3.1 It is important that the scheme aligns with national, regional and local policy objectives. These are discussed below in turn.

3.2 The **Governments Shared Objectives and the Department for Transports TaSTS goals** are summarised in the table below which shows how the scheme helps achieve these stated objectives.

Table 1 – National Policy Alignment

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<tr>
<th>Government Shared Objectives</th>
<th>TaSTs Goals</th>
<th>Scheme Objectives</th>
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<tbody>
<tr>
<td>Integration</td>
<td>Improve quality of life</td>
<td>To improve public transport access to and from planned new development sites, to local employment centres at Gosport and Fareham, education and health services</td>
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<td></td>
<td>Promote greater equality of opportunity</td>
<td>To improve the overall quality of public transport provision</td>
</tr>
<tr>
<td>Safety</td>
<td>Protect people’s safety, security and health</td>
<td>To improve access to public health services at both local and sub-regional levels by public transport</td>
</tr>
<tr>
<td>Economy</td>
<td>Maximise competitiveness and productivity</td>
<td>To improve access to future and existing employment sites by public transport, to remove the transport barrier to growth.</td>
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<tr>
<td></td>
<td>Address climate change</td>
<td>To improve public transport access to tertiary education</td>
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<tr>
<td>Environment</td>
<td>Improve Quality of Life</td>
<td>To assist in meeting the requirements of the Air Quality Management Area (AQMA) Plans</td>
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<tr>
<td>Accessibility</td>
<td>Promote greater equality of opportunity</td>
<td>To improve access to future and existing employment sites by public transport</td>
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<td></td>
<td></td>
<td>To improve access to public health services at both local and sub-regional levels by public transport</td>
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<td>To improve public transport access to tertiary education</td>
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3.3 **Transport for South Hampshire (TfSH)** is a partnership comprising the three Local Transport Authorities (LTAs) of Hampshire County Council, Portsmouth City Council and Southampton City Council and the Isle of Wight. By working collectively, TfSH provides a powerful and effective strategic force to improve transport in the area. Partners such as public transport operators, Department for Transport (DfT), Highways Agency, Network Rail, the Solent Local Enterprise Partnership (LEP), and Local Authorities, amongst others, play an important role in the success of TfSH.

3.4 ‘Towards Delivery’ was published by TfSH in 2008 as its first delivery statement identifying priorities and including the South East Hampshire Bus Rapid Transit Phase 1 based upon the overarching philosophy of ‘reduce, manage and invest’. However, since that time there has been a significant national policy shift to focus on economic growth and costs and schemes included within Towards Delivery have been reviewed using a comprehensive new evidence base in the form of the Sub-Regional Transport Model (SRTM). The SRTM has been used to identify where transport interventions will be required as a consequence of growth and changing travel patterns and to test schemes to provide an optimum multi-modal delivery blueprint that delivers economic growth. Bus Rapid Transit remains a key element of the overall transport strategy for South Hampshire.

3.5 ‘The Transport Delivery Plan’ (TDP) was produced by TfSH, based upon the above review, and covering the period 2012-2026. The TDP was ratified through the Committee process on 5 March 2013. The TDP states that establishing strong and sustainable bus services to serve new development from first occupation can play an important role in establishing travel habits that support the transport offer and BRT is highlighted as a key part of this transport forward plan. BRT will help unlock the provision of direct and indirect jobs associated with developments including approximately 11,700 new homes at the strategic sites and an estimated 10,000 or more new jobs in the wider area. The scheme is critical to help provide sustainable connectivity with key destinations, reducing journey times and helping to improve productivity whilst reducing carbon emissions.

3.6 TfSH states that the wider network proposed for BRT will play a pivotal role in the transport network to support economic growth and the delivery of strategic development in south east Hampshire. The step-change in bus travel provided by BRT is expected to play an important role in increasing the mode share of bus, improving public transport integration and reducing highway congestion. TfSH has supported the BRT project through successful funding bids for the Local Sustainable Transport Fund and Better Bus Area Fund in order to enhance the quality of bus travel in South Hampshire and improve integration across public transport modes through measures including improved interchange and smart-ticketing.
3.7 **The Solent Local Enterprise Partnership (SLEP)** was formed after the Government offered local areas the opportunity to take control of their future economic development. It is a locally owned partnership led by the business community and supported by four university partners, the further education sector, three unitary authorities, eight district councils, one county council and the voluntary and community sector all working together to secure a more prosperous and sustainable future. The LEP has worked with TfSH to input into the Delivery Plan and is content that the proposals respond to forecast transport constraints which if left unaddressed would impede economic growth.

3.8 **A Local Transport Body (LTB)** was established in February 2013 and the related Governance arrangements were sent to the Government for approval.

3.9 ‘**The Local Transport Pan 3 – Joint Strategy for South Hampshire**’ covering the period to 2031 sets out the shared approach to transport in South Hampshire. It has been developed jointly by the three Local Transport Authorities of Hampshire County Council, Portsmouth City Council and Southampton City Council, working together as TfSH. The TfSH authorities have identified seven key outcomes, which are complementary to the corporate priorities of Hampshire, Portsmouth and Southampton. These outcomes define the policy framework for delivery. All of the seven outcomes are closely inter-linked and inter-dependent. Addressing one outcome may help address other outcomes. The table below details the outcomes and which of the 14 policies help contribute to the defined outcomes. The outcomes are not listed in any order of priority.

**Table 2 - Outcomes that the Joint Strategy for South Hampshire is seeking to achieve**

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Policies that contribute</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduced dependence on the private car through an increased number of</td>
<td>H, I, J, K, L</td>
</tr>
<tr>
<td>people choosing public transport and the ‘active travel’ modes of walking</td>
<td></td>
</tr>
<tr>
<td>and cycling</td>
<td></td>
</tr>
<tr>
<td>Improved awareness of the different travel options available to people</td>
<td>H, I, J, L</td>
</tr>
<tr>
<td>for their journeys, enabling informed choices about whether people</td>
<td></td>
</tr>
<tr>
<td>travel, and how</td>
<td></td>
</tr>
<tr>
<td>Improved journey time reliability for all modes</td>
<td>A, B, C, D, F, I</td>
</tr>
<tr>
<td>Improved road safety within the sub-region</td>
<td>D, G</td>
</tr>
<tr>
<td>Improved accessibility within and beyond the sub-region</td>
<td>B, I, K,L, M, N</td>
</tr>
<tr>
<td>Improved air quality and environment, and reduced greenhouse gas</td>
<td>E, F, H, K</td>
</tr>
<tr>
<td>emissions</td>
<td></td>
</tr>
<tr>
<td>Promoting a higher quality of life</td>
<td>C, D, E, G, H, I, L, M</td>
</tr>
</tbody>
</table>
3.10 The South Hampshire BRT seeks to comply with the stated policies of the LTP3 in order to help achieve the outcomes above. In particular BRT will reduce reliance upon the private car through an increased number of people using public transport; will improve awareness of different travel options; will improve journey time reliability; will improve accessibility within and beyond the sub-region; will improve air quality and reduce emissions and will promote a higher quality of life. The significance of the scheme in that it achieves all objectives to a greater or lesser extent is highlighted below in that it assists in contributing to each policy set out below:

- **Policy A: To develop transport improvements that support sustainable economic growth and development within South Hampshire** Public transport in the area is currently not an attractive alternative to the private car for the majority of the local population. Infrastructure and vehicles are perceived as poor quality, through ticketing is not available despite a number of interchanges often being necessary between bus and bus, along with rail and ferry. Bus services are invariably affected by serious congestion at peak periods resulting in extremely poor journey time reliability. It is important to offer an attractive and viable, alternative to travelling by private car as this will promote a positive image of public transport and encourage people to make a modal switch, ultimately relieving some of the congestion on the roads. The hugely successful BRT Phase 1 has certainly helped achieve this aim and extending the scheme would provide much needed added value and would help provide improved links to economic development sites.

- **Policy B: Work with the Highways Agency, Network Rail, ports and airports to ensure reliable access to and from South Hampshire’s three international gateways for people and freight**
  The proposed extension of the Gosport Eclipse south to the town centre and ferry terminal will provide a direct connection across to Portsmouth International Gateway. A significant proportion of Gosport residents travel to Portsmouth for employment purposes and reliable public transport access as an alternative to the congested highway network is fundamental. As the BRT network extends a choice of routes to access Portsmouth will be provided. The link to the ferry is the first step.

- **Policy C: To optimise the capacity of the highway network and improve journey time reliability for all modes**
  This scheme is aimed at addressing poor accessibility on the Fareham Gosport peninsula and associated congestion problems. The proposed improvements as part of the on road sections of the scheme will provide improved operational effectiveness at a number of new and improved traffic signal junctions and priority measure where appropriate. The scheme will not compromise running space for other road users but will provide advantages for the BRT buses through advance vehicle detection technology. Real Time journey planning information will be a key feature of the scheme.

- **Policy D: To achieve and sustain a high-quality, resilient and well-maintained highway network for all**
  Improvements resulting from the scheme will help replace out dated infrastructure including traffic signals and street furniture and enhance quality of place for all.

- **Policy E: To deliver improvements in air quality**
  The proposed Gosport Eclipse will assist in improving air quality through the provision of high quality low emission buses and the reduction in the number of car trips on the highway network. There are two relevant Air Quality Management Zones in Fareham which the Eclipse services run past both of
these will benefit from overall trip reduction.

- **Policy F: To develop strategic sub-regional approaches to management of parking to support sustainable travel and promote economic growth**
  Through encouraging the use of a viable alternative to the car, connecting to key existing and proposed destinations on a sub-regional network the demand for parking will be reduced. The widening of travel choice will help achieve this aim to support sustainable travel.

- **Policy G: To improve road safety across the sub-region**
  Improving the operation of junctions on the existing highway along with the crossing provision for pedestrians will help achieve this policy. In addition the provision for cyclists along the dedicated busway helps remove the need for them to cycle on the congested A32 with associated safety disbenefits.

- **Policy H: To promote active travel modes and develop supporting infrastructure**
  Provision for cyclists along the busway will assist this policy helping reduce the dependence upon the car and providing the potential for linked trips between bus and cycle.

- **Policy I: To encourage private investment in bus, taxi and community transport solutions and where practical in better infrastructure and services**
  The provision of BRT is specifically mentioned in this policy. A ‘South Hampshire Bus Operators’ Association’ (SHBOA) has been set up to work with the local authorities in developing public transport opportunities. Working in partnership with operators, to ensure the quality of the entire system including bus stop infrastructure and buses, in association with the development of the complete network can help to attract new users with innovative fare and ticketing systems, including the widespread adoption of smart cards, new vehicle specifications, and personal security measures.
  TfSH and HCC are working closely with private bus operators and have established a Voluntary Partnership Agreement with First to ensure Phase 1 continues to be a huge success. Promoting the development of an integrated public transport system in South Hampshire that improves transport provision for existing communities and will accommodate the travel needs of new development is key. Investment in BRT by the bus operators has already proved hugely successful with 64 % increased patronage on the Eclipse services compared to the previous services. The investment in provision of new high specification buses forms part of the match funding submitted in support of this bid. South Hampshire has over 87% of its people both living and working within the area; on average over 60% of commuters both live and work in the same district. Hence the primary focus within the sub-region is to offer alternatives to car use, since journeys are likely to be relatively short, particularly journeys to work.

- **Policy J: To further develop the role of water-borne transport within the TfSH area and across the Solent**
  The scheme will provide a direct connection to Gosport ferry with links across to Portsmouth International Gateway. Linked ticketing will ultimately promote this connection. Improved interchange facilities between the Eclipse and the ferry are critical and will come about through the redevelopment of Gosport Waterfront which in turn will be encouraged through improved transport accessibility and the completion of the Eclipse routes to the ferry. The ferry is a vital transport artery in Gosport and Portsmouth and as such a multi-modal interchange will provide advantage to all and this step will follow on.
Policy K: To work with rail operators to deliver improvements to station facilities and where practical better infrastructure and services for people and freight
The first phase of the BRT scheme provided a new direct connection to the Fareham Railway Station where ultimately a multi-modal rail, BRT, bus, pedestrian, cycle interchange is planned. The scheme will enhance this connection by extending the route south. Linked ticketing is again a key part of future plans to enhance the connectivity between modes and working to reduce the dependence upon the car.

Policy L: To work with Local Planning Authorities to integrate planning and transport
The scheme will provide improved accessibility for strategic and smaller scale developments in proximity to the route. Work is underway to ensure that BRT connections form a key part of site access strategies. This relates specifically to key sites at Gosport Waterfront and North Fareham.

Policy M: To develop and deliver high-quality public realm improvements
Links to both Fareham and Gosport town centres will provide the opportunity for place enhancement. The provision of new high specification bus shelter and stop infrastructure will fit in as part of this along with aspirations to replace the run down Gosport Bus Station with new development linked to Gosport Waterfront which will provide real opportunity to deliver high quality public realm improvements.

Policy N: To safeguard and enable the future delivery of transport improvements
Safeguarding the wider network proposition will enable BRT to be rolled out as funding permits to help deliver real benefits to the residents of South East Hampshire.
3.11 Problems and Issues

The Hampshire Local Transport Plan 2006 – 2011 which applied throughout the development of BRT Phases 1A and 1B identifies key problems and issues which remain relevant in assessing the scheme in the current policy framework and these have also been covered below:

3.12 Population

The population of Gosport is 82,600 with approximately 35,400 households with an urban density of 32.6 people per hectare. Gosport is the district with the highest population density in Hampshire, outside the two cities, hence there is little scope for growth other than that planned on brown-field sites. The population of South Hampshire has grown significantly over the past 25 years, but that growth has been uneven. Southampton and Portsmouth have grown by 12% and 13% respectively, but in the County Council area the disparities are more marked. Fareham and Eastleigh have each grown by over 26%, whilst the populations of Havant and Gosport have remained static, highlighting the fact that there is little incentive for growth with urban decline and very poor accessibility compounding the problem. The Borough’s population is predicted to increase by about 1.2% over the period to 2029 with the number of households projected to increase by 7.5%. There is little scope to improve the highway network to cater for this growth due to existing constraints and congestion and a viable public transport alternative to the car is therefore essential not desirable. Transport improvements are needed both now and to cater for planned growth. Figure 6 shows the relatively high population density in Gosport, which further underlines the potential demand for high quality public transport.

Figure 6

Population Density
3.13 **Economic underperformance** – The South Hampshire area is identified in the South Hampshire Sub Regional Strategy\(^1\) (PUSH, 2004) as under-performing economically in a regional context. Whilst the aggregate performance of the sub-area classifications has been very strong (particularly in the urban boroughs) it is not necessarily the case that the strong performance has been uniform across the sub-area. The high aggregate performance seen in the urban areas, for example, has largely been driven by strong economic growth rates, whilst Gosport and Havant by contrast have grown significantly more slowly. Over the last two decades, South Hampshire’s economic growth rate was below the South East Region average. The PUSH strategy and now that of the SLEP is to achieve higher rates of economic growth, within South Hampshire, of 3 to 3.5 per cent per annum over the next twenty years. This improvement in economic performance would reduce the gap in performance within the South East region as a whole and support economic regeneration of the area. There is no doubt that in a regional context Gosport is under performing economically, there are high levels of deprivation linked to the decline of the MOD – Royal Navy - in the area over the last 15 years. Employment at Portsmouth Naval Base has fallen while several other MoD establishments on the peninsula and around the Harbour have closed. This has led to high levels of unemployment and also large amounts of brown-field land within the Borough of Gosport waiting to be re-developed. Gosport now has the lowest business density and lowest business start up rate in the South East also being amongst the lowest in the Country with high levels of public sector job losses. There are approximately 26,000 jobs in Gosport Borough which has declined from 33,000 in 2000 representing a 21% decrease in the employment base. Earnings by residence (both male and female) are lower within the Borough compared to those at national and regional level. A significant reason for the lack of forthcoming development to boost the area is related to poor accessibility and significant transport congestion. A viable public transport alternative is essential to help provide developers with confidence to invest. Overall many of the factors identified above point to an underperforming economy with an inadequate skills base. The economic-led regeneration of the Borough is therefore identified as a key priority.

3.14 **Deprivation** – Although considered relatively buoyant with a significant skilled labour supply, South Hampshire also contains pockets of high unemployment and deprivation. In particular, the coastal fringes, including Gosport, are performing significantly below regional and national average levels, with regards to education, skills and training and quality of living environment. The levels of deprivation (using the Index of Multiple Deprivation) in South East Hampshire are illustrated in Figure 1.3. It can be seen that there are areas of significant deprivation in the central corridor of the Fareham Gosport peninsula. Despite the closure of several Ministry of Defence establishments, there is still a higher than average proportion of jobs within the public administration sector (including defence, health and education) compared to that at county and regional level. Certain areas of the Borough such as the Town and Grange wards (well served by BRT) experience higher levels of employment deprivation. The 2010 Indices of Deprivation also show that two Super Output Areas within Town ward were within the top 15% of the most deprived nationally in terms of employment deprivation.

\(^1\) *South Hampshire Sub-regional Strategy, November 2004, Partnership for Urban South Hampshire (PUSH)*
3.15 **Accessibility** – An Accessibility assessment was undertaken for the scheme using Accession software and data as part of the Transport Assessment (TA) which accompanied the Planning Application for Phase 1 (A and B). Full outputs can be viewed as part of the TA documentation and a summary is presented in Appendix 2 showing Accessibility prior to the Eclipse and on completion of the Eclipse routes in the peninsula. In terms of accessibility the focus needs to be key destinations including services e.g. bus and rail stations, employment, health, education, retail and social infrastructure, particularly for Gosport. The scheme will improve access to Fareham and Gosport bus stations providing an end to end connection as well as a direct link to Fareham rail station.

3.16 There are just two main access roads into the Gosport Peninsula which are heavily congested throughout large parts of the day not just during peak periods. The current lack of accessibility driven by congestion, urban constraint and geographical limitations results in serious socio-economic implications, which can contribute towards comparatively higher levels of deprivation. For instance, the historic decline in defence related employment in Gosport, and the consequent reduction in local employment opportunities has meant that Gosport is characterised by significant levels of out-commuting, particularly to the Portsmouth and Southampton city areas, which contrasts with the average levels of containment across the south east Hampshire area. In 2001, Gosport had 7,610 in-commuters and 18,140 out-commuters giving a net loss of 10,530. The poor accessibility of Gosport serves to discourage employers from locating in Gosport and the Borough has had difficulty in retaining its employment, with evidence that poor accessibility has contributed to businesses moving out of the area and some businesses choosing to locate further north within the peninsula. A viable public transport alternative is essential to help redress this balance.
3.17 **Integration** – In order to help integrate people, goods and services more closely aligned transport and land use planning and improved connectivity is essential. A comprehensive public transport network for South East Hampshire which will assist the interchange between modes to provide direct links to key destinations will help overcome problems of land use segregation and improve connectivity.

3.18 **Congestion** – Severe peak period congestion problems on the local and strategic road network are a key issue, particularly in the Fareham Gosport peninsula. Access between Fareham town centre and Gosport is primarily along the A32. This road is mostly single carriageway and extremely congested at peak times, in particular at the A32/B3385 (Newgate Lane) junction and Quay Street Roundabout. In 2000 at the time of consideration of SHRT Phase 1, traffic flows on the road were already in excess of the Congestion Reference Flow (CRF) (PUSH, 2003). By 2011 66% of the route of the A32, was over capacity. There is little scope to improve the highway infrastructure for reasons set out previously.

3.19 **Public Transport Image** – Public transport in the area has historically not been an attractive alternative to the private car for the majority of the local population. Whilst service coverage is generally good the quality and attractiveness of the services provided is variable and infrastructure and vehicles are perceived as poor quality. Through ticketing is not available despite a number of interchanges often being necessary and bus services are invariably affected by serious congestion at peak periods. Fareham Bus Station is located in the centre of Fareham adjacent to the main commercial centre from where bus services radiate in all directions. The Eclipse
services link directly to Fareham bus Station. The Gosport Bus Station / ferry terminal is located in the centre of the Gosport commercial area and also provides a fast link via the ferry to Portsmouth The Hard Interchange and the commercial centre of Portsmouth City. The Eclipse bus services provide a direct link to Gosport Bus Station / ferry however the on road sections of the route need upgrading to provide the desired journey time reliability and improved whole journey standard. It is important to offer an attractive alternative to travelling by private car as this will promote a positive image of public transport and encourage people to make a modal switch, ultimately relieving some of the congestion on the roads.

3.20 Land Use Legacy – Gosport has a long and continuing association with the Armed Forces. The Ministry of Defence has significant landholdings which, despite recent releases, still amount to over one quarter of the Borough’s land area. The Ministry of Defence, through Defence Estates continues to undertake significant reviews of its establishment, and this has led to the disposal of significant areas of operational land for development. Particular emphasis is placed on the creation of additional employment and residential development within the Borough in order to make the most effective use of brown field land and create a more sustainable pattern of development. However, currently residential development is outweighing employment opportunities and therefore a large level of out-commuting from Gosport is occurring, as people travel for employment opportunities.

3.21 Future strategic housing and employment site developments – There is a need for an integrated land use / transport strategy to improve overall connectivity, integration and the attractiveness of public transport in South East Hampshire. Direct public transport connections are also important to reduce the overall number of car trips from development sites in already congested urban areas. The location of development sites is a key influence on how and when people travel and their destinations. The wider BRT network is designed to link into key development sites across the sub-region providing viable public transport alternatives with reliable journey times from the outset of development. The key sites in relation to Gosport and Fareham identified previously include:

- North Fareham SDA (New Community North of Fareham) 6,500-7,500 homes; 80,500 sq. m employment floorspace. A direct link to the site will be provided from the outset of the development including dedicated routes into the site, to be funded and delivered by the developer.

- Daedalus Enterprise Zone – 79,000 sq. m employment floorspace; 350 homes (will benefit from improved accessibility on the peninsula and in particular east west links to the town centre)

- The Gosport Waterfront and Town Centre – 700-900 homes; 33,000 sq. m employment floorspace and10,500 of additional retail floorspace. This site will be directly served by the Eclipse services.

- The Haslar peninsula at Royal Hospital Haslar – 300 homes; mixed use medical, health care led and Blockhouse (mixed use leisure and maritime led) This site will be directly served by the Eclipse services.

- Rownor – 700 homes + 200 homes redeveloped : 2,250 sq m retail floorspace. This site will be directly served by the Eclipse services.
In order to encourage development at these sites an alternative mode of transport to the car is essential which provides reliable journey times. In relation to the New Community North of Fareham, it is envisaged that the Fareham to Gosport Eclipse services will be extended northwards to provide a direct link from the outset of the site build out. In relation to all of the other sites listed (apart from Daedalus which will benefit from other high specification bus services linking into BRT services) a direct link will be provided as part of the output from this bid if it is successful.

3.22 **Air Quality** – Air quality monitoring and computer modelling has indicated that the current mean annual objective set by the Government for the air pollutant, nitrogen dioxide, is being exceeded in two areas of the Borough, namely, a section of the Gosport Road Fareham and Portland Street Fareham. The main source of this pollutant in the Borough of Fareham is traffic exhaust emissions and in these residential areas, regular and high levels of traffic congestion are the main cause of the pollution problems. Two Air Quality Management Areas (AQMAs) have been designated in Fareham Borough – along the Gosport Road and along Portland Street and the Council is now under a statutory obligation to produce Air Quality Action Plans to provide a range of cost effective and feasible options for improving air quality in these areas. Following the declaration of these AQMAs, an Air Quality Action Plan (AQAP) has been developed to improve air quality in the AQMAs with an associated timescale. As these two areas are located in close proximity, a joint Air Quality Action Plan (AQAP) has been developed. The AQAP include improvement actions such as, to provide a bus/rail interchange facility at Fareham railway station; to provide real time bus information at bus stops; and, the promotion of public transport. The Eclipse services seek to reduce car trips at both of these locations.
The potential air quality impacts associated with the busway extension off road Phase 1B are fully evaluated in accordance with DMRB Vol 11 Section 2 Part 1. Impacts have been appraised for the construction phase and also operational phase of the scheme. The full findings can be reviewed in the Planning Application Documentation in particular the Detailed Environmental Assessment: Volume 1 March 2009 (see list of associated documents ). In summary in relation to construction impacts Phase 1B is assumed to have a temporary adverse impact in terms of dust nuisance and air quality, however with the appropriate mitigation in place this could be reduced; and in relation to operational impacts the dispersion model results show that the annual mean NO2 and PM10 concentrations at all modelled receptors are predicted to be below the air quality objectives at the receptor locations, there will be a slight beneficial impact along the A32.

3.23 Noise – The potential noise impacts associated with the busway extension off road Phase 1B are fully evaluated in accordance with DMRB Vol 11 Section 2 Part 1. Impacts have been appraised for the construction phase and also operational phase of the scheme. The full findings can be reviewed in the Planning Application Documentation in particular the Detailed Environmental Assessment: Volume 1 March 2009 (see list of associated documents ). Noise is recognised as an issue of increasing local concern. Ambient or environmental noise is unwanted or harmful outdoor sound created by human activities, including noise emitted by transport. The particular problems are those associated with noise generated by vehicle engines or vibration on the road surfaces, particularly at night. Therefore the public transport network, including BRT, being developed to combat congestion and traffic growth should also result in beneficial reductions in noise. Noise has also been assessed in terms of construction and operational impacts in relation to both the properties backing onto the busway and also those set to gain as traffic levels reduce on the surrounding road network. Mitigation has been identified where appropriate including noise barriers and restricted working hours.
4. Scheme Details Revised

4.1.1 The proposed scheme in this Business Case submission for Local Pinch Point Funding 4 focuses upon Phase 1B, the southern extension of the recently completed Phase 1A, a dedicated off road busway between Gosport and Fareham, as part of the wider network namely:

**Gosport Eclipse - Phase 1B Southern Extension Off Road** along the disused railway line, between Tichborne Way and Rowner Road in Gosport.

**Gosport Eclipse Southern Extension On Road**—Rowner Road to Gosport town centre and ferry—the southern extension along three on road routes—

**NOTE:** Previously included but now removed from this bid and to be funded from elsewhere.

4.2 Gosport Eclipse Phase 1B Extension Off Road

4.2.1 Alternative Schemes Considered

A wide range of public transport based options, which could improve travel choices within the South East Hampshire sub-region were considered at the time Phase 1 (A and B) were being developed, including:

- **Improved conventional bus services**, based on developing Quality Bus Partnerships (QBPs) and associated improvements in standards of service
- **On-street bus priority**, involving priority measures at or on approaches to junctions, combined with bus lanes
- **Off-street bus corridors** utilising off-street corridors to provide segregated routes for buses.
- **Guided buses**, involving buses steered on a substantial part of, or for their entire route, by external means, usually on a dedicated track. This track excludes all other traffic permitting the maintenance of reliable schedules. Again, some on-street running would be involved to reach some destinations
- **Trolley buses**, utilising electric buses powered by overhead wires on street. This is not a technology currently used for scheduled services in the UK
- **Trams or Light Rapid Transit**, comprising a form of urban rail transportation utilising electric rail cars operating mostly or partly on routes separated from all other traffic but sometimes, as necessary, mixed with other traffic on street
- **Heavy Rail**, connected to the national rail network.

4.2.2 A number of these were discounted in terms of deliverability (cost and risk). The options which were discounted are as follows:

- Guided Buses
- Trolley Buses
- Trams (on-street)
- LRT (off-street)
- Heavy Rail

4.2.3 The remaining options (QBPs, on-street bus priority and off-street bus corridor) were subsequently assessed against the scheme objectives. It was concluded that on-street bus priority and off-street bus priority performed better against the scheme objectives than a QBP alone. The off street bus priority option provides significant potential for improved access, an improved public transport image and
reductions in traffic flow on existing routes. On street bus priority can provide similar benefits, but at a lower level due to the constraints and limitations on the existing road network. In practice, an expansive off-street bus priority area-wide network would not be feasible. Hence, an off-street bus corridor option would need to be complemented by on-street bus priority measures to achieve a comprehensive, area-wide network.

4.2.4 In the context of this LPP fund submission it has been concluded that the appraisal of alternatives previously undertaken remains valid and given that Phase 1A has now been completed in accordance with the stated preferred option there is even more of a case for continuity of service through provision of the extension of the off-road busway along the disused railway corridor.

4.3 Gosport Eclipse Phase 1B Extension Off Road

**Scheme Details and Plans**

4.4.1 The proposed Tichborne Way to Rowne Road Phase 1B section of the dedicated busway will provide a 0.9km extension that will help provide a more logical terminus to the existing Phase 1A linking into the on highway bus network where routes naturally connect at Rowne Road. Phase 1A currently ends at Tichborne Way which results in the high profile buses having to run less directly through an estate to connect onto Rowne Road where routes converge on road.

4.4.2 This scheme will provide a significant enhancement to the existing bus network, further improving bus journey times and reliability. Buses using the proposed busway will avoid the queues and delays on the A32 and the B3385 and assist in providing a more direct link to Gosport town centre, ferry and Fareham railway station. The key benefits of the busway will be to enable buses to be accurately timed for their journey, thus allowing passengers to rely on the bus timetable with reduced congestion effects. Journey speeds will be improved and the quality of the stops and vehicles will make a better offer to the passenger. Further benefits will be accrued when the remaining on road sections of the routes are improved and work on these sections is now ongoing.
8.4.3 Planning Permission is already in place for the extension of the busway south from Tichborne Way to Military Road (a point further south than the current proposition to end at Rowner Road). The planning consent is secured, with conditions the majority of which have been signed off. In addition updated relevant ecological surveys have been undertaken this year. These surveys will enable mitigation strategies to be developed based on recent data. A further Planning Application was submitted in July 2013 to modify the approved Planning Permission to provide an at-grade junction, between the dedicated busway and Rowner Road, where previously the Planning Application had allowed for the busway to go under the road. The application for a modification was submitted in July 2013 and Planning Permission was approved on the 23 October 13. This represents a substantial change to the previous submission and reflects Hampshire’s commitment to deliver this scheme as soon as funding becomes available. The disused railway corridor is within the ownership of Hampshire County Council, hence all land is already assembled. Scheme plans are included below at Figures 11 and 12.
4.4.3 **Scheme details:**

Phase 1B will continue southwards in a cutting from the southern end of Phase 1A, at Tichborne Way, for an approximate distance of 0.9km to Rowner Road. The first 0.5 km of this route continues along the disused railway corridor where a single railway line track still exists. This area is currently very overgrown. **NOTE:** In order to meet critical programme dates it is necessary to undertake the first stage of vegetation clearance during advance works in January and February 2014. In order to achieve this tenders will need to be awarded around Christmas time at the latest, hence it is essential if the bid is to be supported that early notification is received. Some ecological mitigation will also be required over this section of the works.

4.4.4 The last 0.4 km of the route continues along a section that has been converted into a segregated use pedestrian / cycleway. The new busway will also provide a separate shared use pedestrian / cycleway over the length where they run beside each other. This part of the route has grass verges beside the segregated use pedestrian / cycleway and will require minimal clearance during advanced works.

4.4.5 **Rowner Road Junction** – The disused railway currently runs underneath Rowner Road. In order to form an at grade junction between the busway and Rowner Road to enable buses to rejoin the existing highway, it will be necessary to demolish the existing bridge at Rowner Road to 1 metre below formation. An at-grade signalised junction will be provided. The signalised junction will be configured in order to give priority to BRT buses using both the BRT busway and those approaching via Rowner Road. This priority will improve journey time reliability for buses, whilst seeking to minimise delays to other traffic. The new junction at Rowner Road has been designed to cater for buses travelling onto the BRT busway, from both directions, on Rowner Road. To form the at-grade junction with Rowner Road, Rowner Road will be lowered by approximately 2 metres and ground levels on the busway will have to be increased in level by approximately 2 metres, at the junction. The vertical alignment of the Busway will increase from the existing ground level, 130 metres north of the junction with Rowner Road, to approximately 2 metres above existing ground level at the junction. On the southern side of the junction, the vertical alignment will meet the existing segregated use pedestrian / cycleway approximately 130 metres south of the junction. There are numerous statutory undertakers plant at the proposed Rowner Road junction. It may be possible to divert some of these in advance works.
4.4.6 The busway will have a minimum width of 6.2m to accommodate two passing buses and will have a special road surface to minimise noise levels. The alignment is designed to accommodate a maximum speed of 64 kph (40 mph), along the main busway.

4.4.7 As part of the ongoing value engineering process two newly constructed bus shelters forming part of the temporary arrangements at Tichborne Way and the Hutfield Link will be relocated from Hutfield Link, on to the main busway, just south of the Hutfield Link. There will also be bus stops opposite the Gosport Leisure centre and on the busway at Rowner Road.

4.4.8 Small retaining walls will be required to support ground behind the bus stops on the western side of the busway at Oakdene Woods and at the Gosport Leisure centre. Bus stop infrastructure will be provided to the same high standard as phase 1a of the busway. Bus shelters will be constructed to the Eclipse specification and have real time passenger information, mini-cctv cameras and information points. A CCTV camera will also be provided at Rowner Road to assist with security of the route and the opening and closing of access control barriers that will be provided to close the busway between 11.15pm and 5.45 am. Variable Message Signs will be installed at the junction at Rowner Road to enforce the operational times of the busway. The bus stop designs have been developed in accordance with the Disability Discrimination Act 1995 providing ramped access to stops with level boarding to buses.

4.4.10 All bus stops will be lit to provide a safe environment for bus users. Lighting will be included along footpaths to and from bus stops. In order to limit light pollution, all lighting will be directional and light cut-off canopies will be provided. At the new Rowner Road traffic signal controlled junction, street lighting will be provided both along the highway and busway.

4.4.11 The scheme provides an opportunity to improve the Non Motorised User connections to the rest of the network. Where Rowner Road is being realigned, shared use pedestrian/ cycleways will be provided on either side of the road. A Toucan pedestrian /cycleway phase is also proposed at the signals on Rowner Road, on the western side of the junction. This will allow pedestrians and cyclists that use the existing segregated pedestrian/cycleway along the old railway corridor to safely cross Rowner Road. Cyclists who wish to continue to travel northwards from the segregated cycleway/footway from Military Road, directly on to the busway, will also have a set of traffic signals at the cycleway's junction with Rowner Road. These signals will detect cyclists as they approach the junction and will allow traffic on Rowner Road to be held to let them travel on to the busway.

4.4.12 The existing uncontrolled crossing on Rowner Road, just to the west of Brune Medical Centre, will be changed to a Toucan crossing as part of the Brockhurst Roundabout improvements. These signals will be linked to the signals at the junction with the BRT busway to ensure bus priority is maintained.

4.4.13 No Third party land is required to deliver the scheme. Advanced works will be required, prior to construction. The mitigation strategy of the works will be confirmed,
with reference to the recent ecological surveys that were undertaken during 2013.
The works will include the following items:

- The construction of mammal tunnels.
- Repair of an existing 300 mm diameter land drain.
- 30cm Vegetation clearance and the felling of trees in January and February 2014, required before the main works.
- Boundary fencing construction on some sections of the route.
- Advance Statutory Undertakers diversion works.

4.4.14 **Consultation** with the following Authorities has taken place throughout the design:

- The Highway Authority’s Safety Audit Team
- HCC Technical Approval Authority (TAA) – Hampshire County Council’s Chief Engineer (Structures), who is also the Technical Approval Authority (TAA) for HCC, has been consulted and has provided design input and advice on the structures along the busway.
- Gosport Borough Council
- The Environment Agency, including methods to be used for dealing with surface water drainage.
- Southern Water - To establish the method of dealing with surface water drainage flowing into their network.
- The emergency services in relation to construction, security issues, operation of the busway and its potential for use by emergency vehicles.

4.4.15 A **Project Plan** is attached at Appendix 3 (revised) which covers the outstanding tasks required to deliver this part of the scheme including appropriate environmental work etc.

4.4.16 A **headline programme** of remaining key tasks is also included in Table 4 below for reference with more comprehensive programme information covered later in this report. Please note that many of the programme items listed in the previous bid have now been completed.

4.4.17 **Scheme costs** and risks are covered in the Financial and management sections of this report respectively.
### Headline Programme Key Tasks

**Table 4**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Duration</th>
<th>Start Date</th>
<th>End Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Management to end of construction.</td>
<td>709 days</td>
<td>3/9/2012</td>
<td>01/06/2015</td>
</tr>
<tr>
<td>Risk Register</td>
<td>427 days</td>
<td>3/9/2012</td>
<td>05/05/2015</td>
</tr>
<tr>
<td>Client Management</td>
<td>709 days</td>
<td>3/9/2012</td>
<td>01/06/2015</td>
</tr>
<tr>
<td>Public Relations / Marketing</td>
<td>408 days</td>
<td>25/10/2013</td>
<td>06/01/2015</td>
</tr>
<tr>
<td>Legal Advice</td>
<td>408 days</td>
<td>25/10/2013</td>
<td>06/01/2015</td>
</tr>
<tr>
<td>Bus Stop Infrastructure, CCTV, Access Control barriers, RTPI (commissioned via framework contracts)</td>
<td>137 days</td>
<td>02/10/2013</td>
<td>23/04/2014</td>
</tr>
<tr>
<td>Project Appraisal</td>
<td>48 days</td>
<td>04/11/2013</td>
<td>21/01/2014</td>
</tr>
<tr>
<td><strong>Advance Works Contract</strong></td>
<td>80 days</td>
<td>28/10/2013</td>
<td>28/02/2014*</td>
</tr>
<tr>
<td>Tender Process – Main Works</td>
<td>98 days</td>
<td>25/10/2013</td>
<td>24/03/2014</td>
</tr>
<tr>
<td><strong>Issue Tender for the Main Works</strong></td>
<td></td>
<td></td>
<td>09/01/2014*</td>
</tr>
<tr>
<td><strong>Issuing Purchase Orders for Statutory Undertakers Diversions</strong></td>
<td></td>
<td></td>
<td>09/01/2014*</td>
</tr>
<tr>
<td>Contract Award</td>
<td></td>
<td>21/03/2014</td>
<td></td>
</tr>
<tr>
<td>Main Works</td>
<td>52 wks</td>
<td>05/05/2015</td>
<td>04/05/2015</td>
</tr>
<tr>
<td>Closure of Rowner Road</td>
<td>62 days</td>
<td>05/01/2015</td>
<td>31/03/2015</td>
</tr>
<tr>
<td>Commissioning busway</td>
<td>4 wks</td>
<td>04/05/2015</td>
<td>01/06/2016</td>
</tr>
<tr>
<td>Busway Open</td>
<td></td>
<td>01/06/2016</td>
<td></td>
</tr>
</tbody>
</table>

* Hampshire County Council will not want to commence Advanced Site Works, issue Purchase Orders for Statutory Undertakers Works or Tender the Main Works unless DfT funding has been secured. This will need to be done during January / February 2014 at the latest in order to meet ecological windows and to deliver this programme.
5. **The Financial Case Revised**

5.1 **Scheme Costs**

5.1.1 The total scheme cost is £8,942,427. The outline scheme costs are summarised below:

**Table 6: Outline Scheme Costs**

**Gosport Eclipse Phase 1B Extension Off Road**

<table>
<thead>
<tr>
<th>Outline Spend Profile</th>
<th>£</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project management</td>
<td>183,000</td>
</tr>
<tr>
<td>Site Supervision</td>
<td>470,000</td>
</tr>
<tr>
<td>Ecological Supervision</td>
<td>100,800</td>
</tr>
<tr>
<td>Advanced Works and Ecology</td>
<td>345,713</td>
</tr>
<tr>
<td>Public utility diversions and services</td>
<td>1,050,086</td>
</tr>
<tr>
<td>Preliminaries, TM, Price fluctuation and Risk</td>
<td>869,470</td>
</tr>
<tr>
<td>Civils works</td>
<td>3,772,359</td>
</tr>
<tr>
<td>Operator Costs</td>
<td>1,000,000</td>
</tr>
<tr>
<td><strong>Sub Total</strong></td>
<td><strong>7,791,428</strong></td>
</tr>
<tr>
<td>Risk Register (P50 value)</td>
<td>1,151,000</td>
</tr>
<tr>
<td><strong>Total Project Cost</strong></td>
<td><strong>8,942,427</strong></td>
</tr>
</tbody>
</table>

5.1.2 Allowances are made for inflation and risk. Hampshire County Council Quantity Surveyors have used their estimating and pricing database as the base for the unit rates. The rates are commensurate with Q4 2013 prices. An allowance for inflation of 7% increase per annum has been assumed. The risk costs are based on a comprehensive appraisal of risks and a Quantified Risk Assessment as detailed under the Management Case section of this Business Case.
5.2 Spend Profile

5.2.1 The total scheme cost is £8,942,427

5.2.2 Of this total: Third party contributions will fund £1,000,000; Hampshire County Council will fund £1,682,728 leaving £6,259,698 (which equates to 70% of the total cost) as gap funding to be sought from DfT LPP4 fund as summarised below. A high level spend profile for 2013/14 to 2015/16 is summarised below in Table 8.

Table 8: High Level Spend Profile

<table>
<thead>
<tr>
<th></th>
<th>2013/14</th>
<th>2014/15</th>
<th>2015/16</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Third Party /Operational funding</td>
<td>1,000,000</td>
<td>0</td>
<td>0</td>
<td>1,000,000</td>
</tr>
<tr>
<td>DfT funding required</td>
<td>909,155</td>
<td>5,350,543</td>
<td>0</td>
<td>6,259,698</td>
</tr>
<tr>
<td>HCC funding</td>
<td>0</td>
<td>0</td>
<td>1,682,729</td>
<td>1,682,729</td>
</tr>
<tr>
<td>TOTAL Phase 1B off road extension</td>
<td>1,909,155</td>
<td>5,350,543</td>
<td>1,682,729</td>
<td>8,942,427</td>
</tr>
</tbody>
</table>

5.2.3 More detailed spend profiles broken down by quarters and by task are provided in Tables 9 below
### Table 9  Spend Profile Tichborne Way to Rowner Road Southern Extension Off Road

<table>
<thead>
<tr>
<th>Southern Extension Off Road</th>
<th>Quarter 3</th>
<th>Quarter 4</th>
<th>Quarter 1</th>
<th>Quarter 2</th>
<th>Quarter 3</th>
<th>Quarter 4</th>
<th>Quarter 1</th>
<th>Anticipated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supervision Fees</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ECC Project management</td>
<td>£128,000</td>
<td>10,000</td>
<td>10,000</td>
<td>32,600</td>
<td>32,600</td>
<td>32,600</td>
<td>32,600</td>
<td>£183,000</td>
</tr>
<tr>
<td>Site Supervision</td>
<td>£434,000</td>
<td>10,000</td>
<td>86,800</td>
<td>86,800</td>
<td>86,800</td>
<td>86,800</td>
<td>112,800</td>
<td>£470,000</td>
</tr>
<tr>
<td>Ecological Supervision</td>
<td>£100,800</td>
<td>8,400</td>
<td>42,000</td>
<td>21,000</td>
<td>21,000</td>
<td>4,200</td>
<td>4,200</td>
<td>£100,800</td>
</tr>
<tr>
<td>Operator costs</td>
<td>1,000,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>£1,000,000</td>
</tr>
<tr>
<td>Construction Related Costs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advanced Works and Ecology</td>
<td>£345,713</td>
<td>0</td>
<td>345,712</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>£345,713</td>
</tr>
<tr>
<td>Advanced orders for equip and Stats Div</td>
<td>£1,050,086</td>
<td>525,043</td>
<td>525,043</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>£1,050,086</td>
</tr>
<tr>
<td>Preliminaries,TM, Price fluctuation and Risk</td>
<td>£869,470</td>
<td>0</td>
<td>0</td>
<td>173,894</td>
<td>173,894</td>
<td>173,894</td>
<td>173,894</td>
<td>173,894</td>
</tr>
<tr>
<td>Civils works</td>
<td>£3,772,359</td>
<td>0</td>
<td>0</td>
<td>188,618</td>
<td>377,236</td>
<td>565,854</td>
<td>1,508,944</td>
<td>1,131,708</td>
</tr>
<tr>
<td><strong>Tot anticipated spend Per Quarter</strong></td>
<td></td>
<td></td>
<td></td>
<td>10,000</td>
<td>899,155</td>
<td>1,079,017</td>
<td>691,530</td>
<td>880,148</td>
</tr>
<tr>
<td><strong>Cumulative Spend</strong></td>
<td>535,043</td>
<td>909,155</td>
<td>1,988,172</td>
<td>2,649,640</td>
<td>3,529,788</td>
<td>5,336,225</td>
<td>6,791,427</td>
<td>£6,791,427</td>
</tr>
<tr>
<td><strong>Risk Register (P50) value</strong></td>
<td>£1,151,000</td>
<td>0</td>
<td>0</td>
<td>230,200</td>
<td>230,200</td>
<td>230,200</td>
<td>230,200</td>
<td>230,200</td>
</tr>
<tr>
<td><strong>Tot Costs Incl Risk Allowance Per Quarter</strong></td>
<td></td>
<td></td>
<td></td>
<td>10,000</td>
<td>899,155</td>
<td>1,309,215</td>
<td>921,730</td>
<td>1,110,348</td>
</tr>
<tr>
<td><strong>Cumulative Costs</strong></td>
<td>1,010,000</td>
<td>1,909,155</td>
<td>3,218,372</td>
<td>4,110,040</td>
<td>5,220,388</td>
<td>7,257,025</td>
<td>8,942,427</td>
<td></td>
</tr>
</tbody>
</table>
5.3 **Hampshire County Council Funding**

Hampshire County Council will invest **£1,682,728** being approximately 19% of the total scheme cost from its capital allocation in order to help bring this scheme forward. This shows a local commitment to the scheme on top of approximately £5,000,000 already invested in Phase 1A of the dedicated busway. This commitment underlines the belief that investment in access to the Gosport Peninsula will help remove the transport barriers to growth and encourage investment at key sites including the Solent Enterprise Zone as well as helping to reduce journey times in congested urban areas.

5.4 **Third Party Funding**

First Hampshire and Dorset the local Bus Operator in Gosport and Fareham have committed a contribution of **£1,000,000** to the scheme in this assumed as the first year of opening. This is one of the largest contributions to be provided by a local operator for a single route ever. The contribution has helped provide 3 new Euro 5 high specification buses and increases the service frequency from 8 to 10 buses per hour on the busway. A letter is attached at Appendix 1 to set out this commitment.

In addition a **Partnership Agreement** between Hampshire County Council and First Hampshire and Dorset which was prepared for the dedicated busway will be extended to cover the off road extension which will allow for super annulated profit sharing to be fed back into the Gosport to Fareham BRT routes and services on an annual basis and will tie each Partner into continuing to work closely together to provide the best infrastructure and service possible. More information on this is provided later in this report.

5.5 **LPP4 Funding Required**

The GAP funding required to deliver this scheme is in the order of **£6,259,698** which equates to **70% of the total cost** and this funding is sought through this LPP4 bid to DfT.

5.6 The eligible expenditure items are listed below for information.

**Table 11: Eligible Expenditure Items**

<table>
<thead>
<tr>
<th>Procurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Repairing land Drainage to minimise disruption in Main Works</td>
</tr>
<tr>
<td>Drainage and pumping station for Main Works</td>
</tr>
<tr>
<td>Structures - Retaining Walls at bus stop platforms</td>
</tr>
<tr>
<td>Environmental - Landscaping and Ecological Mitigation</td>
</tr>
<tr>
<td>Acoustic Fencing / Close Boarded Fencing</td>
</tr>
<tr>
<td>Street Lighting</td>
</tr>
<tr>
<td>ITS Traffic Signals</td>
</tr>
<tr>
<td>CCTV</td>
</tr>
<tr>
<td>Varriable Message Signs</td>
</tr>
<tr>
<td>Access Control Barriers</td>
</tr>
<tr>
<td>Bus Shelters and associated equipment (mini cctv and RTPI)</td>
</tr>
</tbody>
</table>
5.6 Risk allowances

5.6.1 In relation to the Southern Busway Extension Off Road a detailed and quantified risk assessment (QRA) has been undertaken, which has highlighted a P50 risk value of £1,151,000 in relation to this part of the scheme. This figure has been included in the overall scheme cost and spend profile. Additional confidence in this figure is secured through the fact that it is based upon the recently completed Phase 1A scheme costs and hence has an extremely sound basis. The approach to risk management and an explanation of how HCC will mitigate financial risks and the risk appraisal and register is fully reported later on in the Management Section of this Business Case. In addition the Risk Register is included in Appendix 9.

5.6.2 Cost overruns, if required will be funded through Hampshire County Council Capital resources.
The Economic Case

6.1 Appraisal Methodology and Assumptions

6.1.1 The Hampshire County Council Economic Case is carried out in line with the Pinch Point Fund Guidance. The aim is to provide an assessment of the various impacts generated by the BRT Extension submitted for the Local Pinch Point funding and demonstrate it meets the key DfT criteria, including value for money, while also providing an important next stage in the delivery of a wider BRT network in South Hampshire.

6.1.2 The analysis to support the Case has been carried out in accordance with the methodology, techniques and underlying principles of the Department's WebTAG, noting the Pinch Point Guidance and taking a proportionate approach to appraisal. The impacts assessed include those on the economy, environment and social impacts as well as other criteria important to the Department. The analysis is not limited to monetised impacts but also includes those that are assessed qualitatively and quantitatively.

6.1.3 Details of the scheme have been set out in the Strategic Case. To avoid duplication and repetition, details of the proposed interventions and results of the initial appraisal are not included here and reference should be made to the Strategic Case for information.

6.1.4 Following the Initial Appraisal, the main purpose of the Economic Case is to present the results of the detailed appraisal of the remaining options. The following section begins by providing a summary of the model used and its component tools. The next section provides a short description of the proposed whole network to be implemented in the South Hampshire area. The document then sets out the results of the economic case, beginning with a focus on the three tables ie Transport Economic Efficiency (TEE), Public Accounts (PA) and Analysis of Monetised Costs and Benefits (AMCB). This is then followed by a description of the impacts against the economic, environmental and social sub criteria.

It should be noted that while every effort has been made to provide a detailed, robust and WebTAG-compliant appraisal, in some instances a proportionate approach has been adopted to deliver the appraisal in the time available.

6.2 Modelling Approach

6.2.1 The impacts of the do-nothing option against the BRT do-something option described in the Strategic Case above have been modelled using the sophisticated Transport for South Hampshire Sub-regional Transport Model (SRTM) modelling suite. SRTM is an evidence-based, WebTAG compliant land-use and transport interaction model developed by MVA Consultancy to provide a strong analytical basis for the development of coherent, objective-led implementation plans to enable the changes in transport provision required to deliver prosperity to the area. The forecasting approach contains a suite of transport models, comprising the main demand model, the port and airport gateway demand model, the road traffic model and public
transport model. The integrated forecasting approach contains a suite of transport models and an associated Local Economic Impact Model (LEIM).

The various models and their connectivity are summarised in the figure below. The sophisticated toolkit has been developed to assist in the ongoing investigation, appraisal and assessment of different: policies; strategies; and infrastructure, management and operational interventions on land-use policies and transport provision. The model has been used to support a number of bids of transport projects in the South Hampshire area.

6.2.2 The model is updated on a regular basis to accommodate the most recent socio-economic and traffic data within the South Hampshire area.

A number of meetings have taken place between DfT analytical staff (economists and modellers), Hampshire County Council and MVA Consultancy to discuss the detail of the model and its validity / robustness. The model has been recognised as fit for purpose and webTAG compliant. It’s use has also been accepted for previous, successful bids to DfT funds for transport schemes.

**Documentation** for the SRTM can be located on the following web links or can be made available in hard copy format if required.

The Transport for South Hampshire Sub-regional Transport Model (SRTM) modelling suite is an evidence-based land-use and transport interaction model developed to provide a strong analytical basis for the development of coherent, objective-led implementation plans to enable the changes in transport provision required to deliver prosperity to the area. The integrated forecasting approach contains a suite of transport models and an associated Local Economic Impact Model (LEIM).


Data and traffic Survey Report
This report describes the transport surveys including Road Side Interviews, Automatic Traffic Counts and bus passenger surveys carried out in the data collection stage of the project, between May and July 2010.


Local Model Validation Report (LMVR)
These reports detail the calibration and validation of the SRTM the Road Traffic Model (RTM) which determines the routes taken by vehicles through the road network and journey times, accounting for congestion and the Public Transport Model (PTM) which determines routes and services chosen by public transport passengers.


Demand Model Report
The report covers the calibration and validation of the main demand model, including the standard realism tests, gateway demand model, local economic impact model and Fitness for Purpose of all three SRTM components


Forecasting Report
This report provides an important step by detailing the current and future transport related problems identified through the Evidence Base.

6.3 Economy Objectives

6.3.1 This section provides the main focus of the Economic Case. It begins with a general discussion of the results of the analysis, which briefly touches on the headlines from the Transport Economic Efficiency (TEE), Analysis of Monetised Costs and Benefits (AMCB) and Public Accounts (PA) tables. The discussion then follows the structure of the Appraisal Summary Table and sets out the findings, in terms of cost and benefit impacts and general performance, against the various headings under economy, environment and social criteria.

6.3.2 It is important to recognise that the proposed scheme is only the next phase towards a South Hampshire-wide BRT network. The scheme benefits need to first of all therefore be considered in relation to the wider network proposition, which when completed will clearly provide the greatest connectivity and have the greatest overall impacts / benefits. Hence prior to considering the Gosport to Fareham route it is necessary to evaluate the scheme within the wider context. The monetised costs and benefits have been assessed in line with WebTAG guidance 3.5.4 as part of an appraisal undertaken for the Transport Delivery Plan (to be approved on 5 March). It is important to note that public transport schemes typically have lower Benefit to Cost Ratios than highway interventions. As a much lower proportion of total transport modal share, any public transport proposal which has disbenefits for other road users will produce little or no benefits overall being weighed against the disbenefits to the higher proportion of other road users. It is important to note that the South Hampshire Bus Rapid Transit proposition is being progressed on the basis that it will improve the journey time reliability for the BRT buses without compromising the operational effectiveness of the transport provision for other road users ie, it will have a neutral impact.

6.3.3 The scheme was assessed based upon a cost of £49.7m (2011 prices) inclusive of optimism bias. The results provided a Present Value Benefit of £183.9m; a Present Value Cost of £95.9m; a Net Present Value of £87.9m and a **Benefit to Cost Ratio of 1.9.** Whilst this value is lower than 2.0 it is high for a public transport scheme in light of the issues highlighted in the previous paragraph. This is considered to represent a good BCR value for a public transport scheme. This monetary value assessment has been carried out for the scheme in isolation. It is considered important to recognise that the busway scheme is an early phase of a wider BRT network. Hence the scheme will contribute to greater benefits for the south east Hampshire area as the BRT network is further developed and is integrated with strategic development areas and other key development sites. Benefits linked to greater connectivity between bus and rail and improved pedestrian connectivity as well as the wider enhancement for all road users accrued through junction improvements have not been calculated as part of this overall assessment and it is considered that this BCR will significantly improve following more detailed analysis.
6.3.4 Headline Monetised Costs and Benefits Results of Gosport Fareham Routes

Table 12: Headline Costs and Benefits for the Gosport to Fareham BRT southern extension.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BRT Extension</td>
<td>1.72</td>
<td>£3.364m</td>
<td>£8.066m</td>
<td>£4.702m</td>
</tr>
</tbody>
</table>

The table above shows that the present value of the benefits generated by the scheme is £8.066m. The table also shows that the present value of costs amounts to £4.702m. Using these present values, the NPV of the scheme is £3.364m and the BCR is 1.72. The latter demonstrates that the discounted benefits outweigh the discounted costs and offers a relatively good value for money scheme for the UK taxpayer. It is important that these benefits are viewed as over and above those benefits already accrued following the delivery of Phase 1A which has exceeded all expectations in terms of patronage and modal transfer and which combined with which Phase 1B will provide additional value to produce an extremely viable alternative to the car.

6.4 Public Accounts

Introduction

6.4.1 The scheme has been assessed using WebTAG guidance 3.5.1. Within the NATA approach, the ‘public accounts’ impact is defined as net costs incurred by central or local government bodies. It includes investment and operating costs, grant and subsidy and changes in indirect tax and other revenues.

Impact

6.4.2 The scheme is estimated to have a present value of costs of approximately £4.7m. This is made up of a number of categories of cost, which accrue separately to either Local Government or Central Government. Local Government costs include loss in parking revenue, scheme operating costs and capital maintenance costs. Central Government costs include the initial scheme investment costs and lost fuel duty revenue. The Public Accounts Table is shown below.

Conclusion

6.4.3 The PVC for Public Accounts is estimated as £4.7 million.
### Table 13: Public Accounts

<table>
<thead>
<tr>
<th>Local Government Funding</th>
<th>ALL MODES</th>
<th>ROAD</th>
<th>PT</th>
<th>ACTIVE MODES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>24</td>
<td>24</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Operating Costs</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Investment Costs</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Developer Contributions</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Grant/Subsidy Payments</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>NET IMPACT</strong></td>
<td><strong>24</strong></td>
<td><strong>24</strong></td>
<td>0</td>
<td><strong>0</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Central Government Funding: Transport</th>
<th>ALL MODES</th>
<th>ROAD</th>
<th>PT</th>
<th>ACTIVE MODES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Operating costs</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Investment costs</td>
<td>4678</td>
<td>0</td>
<td>4678</td>
<td>0</td>
</tr>
<tr>
<td>Developer Contributions</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Grant/Subsidy Payments</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>NET IMPACT</strong></td>
<td><strong>4678</strong></td>
<td><strong>0</strong></td>
<td><strong>4678</strong></td>
<td><strong>0</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Central Government Funding: Non-Transport</th>
<th>ALL MODES</th>
<th>ROAD</th>
<th>PT</th>
<th>ACTIVE MODES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indirect Tax Revenues</td>
<td>554</td>
<td>554</td>
<td>496</td>
<td>0</td>
</tr>
</tbody>
</table>

**TOTALS**

| Broad Transport Budget                  | 4702      | 24   | 4678 | 0            |
| Wider Public Finances                   | 554       | 554  | 496  | 0            |

Note: Costs appear as positive numbers, while revenues and developer contributions appear as negative numbers.

Note: All entries are present values discounted to 2002, in 2002 prices.

### 6.5 Transport Economic Efficiency

**Introduction**

6.5.1 The scheme has been assessed in accordance with WebTAG guidance 3.5.2.

**Impact**

6.5.2 Benefits accrue separately to transport users (business and non-business) and private sector operators. User benefits include travel time savings and vehicle operating cost savings.

6.5.3 Other benefits include increased revenue to bus users and changes in bus operating costs, mainly due to increased bus operating mileage. Due to the modelling methodology adopted it has not been possible to model the private sector provider impacts. It is therefore assumed that the revenue generated is equivalent to the operating and investment costs i.e. the impact on the scheme on the operator is neutral. This is not an unreasonable assumption as it is unlikely the operator will be attracted to a proposal where the costs outweighed the revenues over the appraisal period.

6.5.4 The present value of benefits of the scheme is estimated at £8.1m. The TEE table is shown below.
Table 14: Transport Economic Efficiency

<table>
<thead>
<tr>
<th>Non-business: Commuting</th>
<th>ALL MODES</th>
<th>ROAD</th>
<th>PT</th>
<th>ACTIVE MODES</th>
</tr>
</thead>
<tbody>
<tr>
<td>User benefits</td>
<td>TOTAL</td>
<td>Private Cars &amp; LGVs</td>
<td>Passengers</td>
<td>Passengers</td>
</tr>
<tr>
<td>Travel time</td>
<td>2744</td>
<td>80</td>
<td>2644</td>
<td>0</td>
</tr>
<tr>
<td>Vehicle operating costs</td>
<td>33</td>
<td>33</td>
<td>33</td>
<td>0</td>
</tr>
<tr>
<td>User charges</td>
<td>110</td>
<td>5</td>
<td>106</td>
<td>0</td>
</tr>
<tr>
<td>During Construction &amp; Maintenance</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>NET NON-BUSINESS BENEFITS, COMMUTING</td>
<td>2887 (1a)</td>
<td>157</td>
<td>2770</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Non-business: Other</th>
<th>ALL MODES</th>
<th>ROAD</th>
<th>PT</th>
<th>ACTIVE MODES</th>
</tr>
</thead>
<tbody>
<tr>
<td>User benefits</td>
<td>TOTAL</td>
<td>Private Cars &amp; LGVs</td>
<td>Passengers</td>
<td>Passengers</td>
</tr>
<tr>
<td>Travel time</td>
<td>2911</td>
<td>5</td>
<td>2907</td>
<td>0</td>
</tr>
<tr>
<td>Vehicle operating costs</td>
<td>32</td>
<td>32</td>
<td>32</td>
<td>0</td>
</tr>
<tr>
<td>User charges</td>
<td>222</td>
<td>3</td>
<td>219</td>
<td>0</td>
</tr>
<tr>
<td>During Construction &amp; Maintenance</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>NET NON-BUSINESS BENEFITS, OTHER</td>
<td>3169 (1b)</td>
<td>39</td>
<td>3120</td>
<td>0</td>
</tr>
</tbody>
</table>

Business

<table>
<thead>
<tr>
<th>User benefits</th>
<th>Goods Vehi</th>
<th>Business Cars &amp; LGVs</th>
<th>Passengers</th>
<th>Freight</th>
<th>Active Passengers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Travel time</td>
<td>2520</td>
<td>127</td>
<td>26</td>
<td>2373</td>
<td>0</td>
</tr>
<tr>
<td>Vehicle operating costs</td>
<td>7</td>
<td>7</td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>User charges</td>
<td>16</td>
<td>3</td>
<td>0</td>
<td>13</td>
<td>0</td>
</tr>
<tr>
<td>During Construction &amp; Maintenance</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Subtotal</td>
<td>2552 (2)</td>
<td>137</td>
<td>27</td>
<td>2390</td>
<td>0</td>
</tr>
</tbody>
</table>

Private sector provider impacts

| Revenue       | 0          | 0 | 0 | 0 |
| Operating costs | 0         | 0 | 0 | 0 |
| Investment costs | 0      | 0 | 0 | 0 |
| Grant/subsidy  | 0          | 0 | 0 | 0 |
| Subtotal      | 0 (3)      | 0 | 0 | 0 |

Other business impacts

| Developer contributions | 0 (4) | 0 | 0 | 0 |
| NET BUSINESS IMPACT    | 2550 (5) = (2) + (3) + (4) | 0 | 0 | 0 |

Present Value of Transport Economic Efficiency

Benefits (TEE) | 8650 (6) = (1a) + (1b) + (5) | 0 | 0 | 0 |

Notes: Benefits appear as positive numbers, while costs appear as negative numbers. All entries are discounted present values, in 2002 prices and values.

Conclusion

6.5.5 The PVB for Transport Economic Efficiency is £8.6 million.

6.6 Analysis of Monetised Costs and Benefits

6.6.1 The monetised cost and benefit values associated with the impacts of the scheme have been calculated in accordance with WebTAG 3.5.4. The Costs and Benefits for key sub objectives are set out in the table below. It can be seen that the resulting Benefit to Cost Ratio (BCR) has a value of 1.7. This is considered to represent a good BCR value for a public transport scheme. In addition this adds to the already extremely successful Phase 1A which has already exceeded expectations so much so that Phase 1B is starting from a very high base. This monetary value assessment has been carried out for the scheme in isolation. As explained in the Strategic Case, it is considered important to recognise that the busway scheme is an early phase of a wider BRT network. Hence the scheme will contribute to greater benefits for the south east Hampshire area as the BRT network is further developed.
Table 15: Monetised Costs and Benefit

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greenhouse Gases</td>
<td>18</td>
</tr>
<tr>
<td>Economic Efficiency: Consumer Users (Commuting)</td>
<td>2887</td>
</tr>
<tr>
<td>Economic Efficiency: Consumer Users (Other)</td>
<td>3165</td>
</tr>
<tr>
<td>Economic Efficiency: Business Users and Providers</td>
<td>2550</td>
</tr>
<tr>
<td>Wider Public Finances (Indirect Taxation Revenues)</td>
<td>-554</td>
</tr>
<tr>
<td>Present Value of Benefits (PVB)</td>
<td>8066</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broad Transport Budget</td>
<td>4702</td>
</tr>
<tr>
<td>Present Value of Costs (PVC)</td>
<td>4702</td>
</tr>
</tbody>
</table>

**OVERALL IMPACTS**

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Present Value (NPV)</td>
<td>3364</td>
</tr>
<tr>
<td>Benefit to Cost Ratio (BCR)</td>
<td>1.715</td>
</tr>
</tbody>
</table>

Note: This table includes costs and benefits which are regularly or occasionally presented in monetised form in transport appraisals, together with some where monetisation is in prospect. There may also be other significant costs and benefits, some of which cannot be presented in monetised form. Where this is the case, the analysis presented above does NOT provide a good measure of value for money and should not be used as the sole basis for decisions.

6.6.2 Appraisal Summary Table AST

The Government’s ‘New Approach to Appraisal’2 (1998) set out the principles which were to be used in the assessment of all transport schemes, both road and public transport. Central to the new approach was that schemes should be measured against the five core Government objectives for transport, in accordance with the 2004 ‘Major Public Transport Scheme Appraisal in Local Transport Plans: Detailed Guidance’3, and other associated guidance available on Webtag4.

- Environment
- Safety
- Economy
- Accessibility
- Integration

The results of the appraisal are summarised in the following Appraisal Summary Table (AST). A seven-point scale ‘score’ (covering large, moderate and slight impacts, both positive and adverse, as well as neutral impacts) is then given in the form of ‘colour coding’ to assist in judging the contribution of the scheme towards each sub-objective.

---

3 Department for Transport, 2004
4 http://www.webtag.org.uk/
### Scheme Impact Proforma

A scheme impact proforma is included at Appendix 8 detailing the impacts of the scheme on the network statistics and mode shares.
6.7 Reliability

Introduction

6.7.1 Reliability is assessed in accordance with WebTAG guidance 3.5.7. This sub-objective summarises the proposal’s impact on the objective to improve journey time reliability for transport users.

Impacts

6.7.2 The proposed scheme will improve the reliability of bus services using the busway by enabling buses to by pass all or part of the more congested sections of the A32. These services however will still be subject to peak period delays on roads in and around Gosport town centre.

6.7.3 The busway will enable bus services to leave the highway before encountering links with high levels of peak hour congestion, such as on the A32 approaches to Fareham. This will not only reduce peak hour journey times by public transport but also enable a more reliable and robust bus service to be delivered particularly during the peak periods. This will enable the operators to clearly demonstrate an advantage over car based trips for peak hour travel to/from the Gosport peninsula for access to key employment, education and services.

Conclusion

6.7.4 It is considered that the scheme will have a slight/moderate beneficial impact on reliability.

6.8 Wider Economic Impacts

Introduction

6.8.1 Wider Economic Impacts are assessed using WebTAG guidance 3.5.8

Impacts

6.8.2 The proposed busway is a key component of a wider vision of integrated public transport serving the sub-region in the form of the South East Hampshire Bus Rapid Transit. In isolation, the proposed busway will enable more reliable peak hour public transport services with resultant improved access to local employment, education and services. This feature will directly contribute to the issues raised in the Strategic Case with respect to the economic impact of poor access to/from the Gosport peninsula.

6.8.3 As the network develops, building on components such as the proposed busway, these wider economic benefits will increase. The busway is envisaged to be a catalyst enabling an anticipated moderate level of benefit in terms of wider economic impact to be realised.
Conclusion

6.8.4 The scheme is considered to have a slight/moderate beneficial impact in terms of wider economic influences.
6.9 Accessibility Objective

Introduction

6.9.1 WebTAG enables the appraisal of transport options against 3 sub-objectives derived from the Government’s objectives for transport. The sub-objectives assess impacts on:

- Option Values
- Severance
- Access to the Transport System

6.10 Option Values

Introduction

6.10.1 The impact of the proposed busway scheme with respect to option value is considered with reference to WebTAG unit 3.6.1.

Impacts

6.10.2 Option value is in summary the value attached to a service or facility being available for use even if the service or facility is not used by the individual.

6.10.3 The proposed busway will be available for use by local bus services. The proposed busway scheme will therefore enable existing bus services to be enhanced. The availability of bus services for the local population will not change due to the proposed busway scheme, although it is anticipated that the bus operator response will be to adjust certain existing local bus services to take advantage of the busway.

6.10.4 It is therefore considered that the proposed scheme will provide the local community with a new bus route facility, designed to improve service reliability. The extent of the impact the busway will have on option value will depend upon how in practice the bus operators utilise the busway once opened and the discussions to date with the operator suggests that, while no new routes will be introduced, there will be an increase in frequency on existing services.

Overall Assessment Score

6.10.5 In accordance with Box 1 of WebTag unit 3.6.1, the proposed busway scheme would score strongly beneficial due to the increase in frequency on existing services.

Conclusion

6.10.6 With respect to option value, the busway is considered to score strong beneficial due to the increase in frequency on existing services as a direct consequence of scheme extension.
6.11 Severance

Introduction

6.11.1 The impact of the proposed busway scheme with respect to severance is considered with reference to WebTAG unit 3.6.2. This sub-objective relates to severance as it affects those using non-motorised modes, especially pedestrians and cyclists.

Impacts

6.11.2 Part of the proposed busway scheme will utilise an old railway corridor which passes through the main urban area on the Fareham Gosport peninsula. The railway corridor is now bordered intensively by land-use boundaries, with local transport routes focussing on several existing crossing points over/under the railway route.

6.11.3 The key changes will be where the busway route interfaces with the local highway network, where new junctions will be required. However the ability to cross the route will not be impeded.

6.11.4 It is considered that the level of severance between the existing situation with the disused railway line, and the potential situation with the proposed busway, will remain unchanged. This is due to the use of an existing unused corridor rather than the introduction of a new corridor. It is not considered that the new junctions will create any material change in severance as they will be located on the sites of existing crossing points, along the disused railway corridor.

6.11.5 On those sections where the route will not run on the old railway corridor there will be no severance impact and it is scored as neutral.

Overall Assessment Score

6.11.6 In accordance with Table 1 of WebTag unit 3.6.2, the proposed scheme would score as neutral due to the lack of change in level of severance between the existing context and the proposed busway scheme.

Conclusion

6.11.7 In terms of severance, it is not considered that severance will change as a result of the busway, due to the use of an existing albeit disused railway corridor and existing highway. For this assessment, the busway is neutral on severance.
6.12 Assessment of Social and Distributional Impacts (SDIs) of Transport Interventions

Please see below a Proforma for reporting conclusions of first screening stage (Step 0) as a qualitative assessment based on professional judgement and that of the technical specialists responsible for undertaking assessment of noise, air quality, safety, security, severance, accessibility, personal affordability and user benefits.

<table>
<thead>
<tr>
<th>Impact</th>
<th>Is social/distributional impact relevant to stated scheme objectives?</th>
<th>Could scheme lead to impact on low income and/or vulnerable groups?</th>
<th>Can potential negative impacts be eliminated through design or mitigation?</th>
<th>Are potential impacts, where presumed, likely to be ‘significant and concentrated’?</th>
<th>Next steps: what further screening (Step 1 to 3), or full SDI analysis (Step 1 to 5) is necessary and/or proportionate to potential impact? (Provide rationale for proposal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>User Benefits: User Benefits</td>
<td>Yes</td>
<td>Yes – positive impacts through improved accessibility to jobs, education and service provision for areas ranked in 20% most deprived in England the scheme targets deprived areas in Gosport with low levels of access to the private car and which currently have a very constrained/congested transport network. See section 3.14 Fig 7 of main bid document for Map showing Index of multiple deprivation. The scheme provides a viable alternative to the car for all social groupings, including elderly residents and children accessing school, improving accessibility and journey time reliability for all. The scheme has both social and distributional benefits..</td>
<td>(Provide details)</td>
<td>(Provide details)</td>
<td>No negative user benefits. Impacts (significant benefits) will be related to a large degree to a 400m walk distance from the BRT busway and on road routes. Assisting all the most socially deprived groupings in this corridor. As the wider network expands greater connectivity with a wider area will be achieved opening up new employment and retail opportunities for those groups without private transport.</td>
</tr>
<tr>
<td>Noise</td>
<td>Yes</td>
<td>The residential areas and social groupings which experience slight benefit and slight disbenefit are of the same type and social distribution, both including low income and vulnerable groupings. Noise and Vibration have been fully modelled and appraised in accordance with DMRB as part of the Environmental Assessment. Overall impacts are small. In summary during the construction phase of the scheme noise impacts will be more significant in relation to properties backing onto the proposed busway. During the</td>
<td>(Provide details)</td>
<td>(Provide details)</td>
<td>Construction Phase – temporary noise barriers will be employed as mitigation Operational Phase – Noise mitigation in the form of acoustic fencing and landscape planting is required at some limited locations. For the remainder of the route an appraisal is currently underway to Impacts slight benefit/ slight disbenefit will be limited to the social groups with residences directly fronting the busway and bus route, and mitigation is being put in place to address the impact.</td>
</tr>
</tbody>
</table>
**Air Quality**

<table>
<thead>
<tr>
<th>Impact</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slight during construction</td>
<td>The residential areas and social groupings which experience slight benefit and slight disbenefit are of the same type and social distribution, both including low income and vulnerable groupings. The impact on Air Quality has been fully appraised and modelled through the Environmental Assess. Process. The conclusions showed that during the construction phase of the scheme there will be high risk of temporary adverse impact in terms of dust and nuisance to those backing onto the busway. During the operational phase of the scheme annual mean Nitrogen Dioxide and PM2 concentrations at all receptors are predicted to be below levels considered within the assessment to be significant. There would be slight beneficial impacts along the A32 from car drivers transferring to the BRT services, including adjacent to 2 AQMZs in Fareham and overall there will be a Negligible impact.</td>
</tr>
</tbody>
</table>

| Operational Phase - The terms of the planning permission and CEMP agreement set out mitigation required in relation to dust and nuisance including damping down and restricted working hours. Operational Phase – In terms of buses only low emission Euro 5 high specification buses subject to Quality partnership agreement are allowed on the busway |

| Impacts | Slight benefit/ slight disbenefit will be limited to the social groups with residences directly fronting the busway and mitigation is being put in place to address the impact. |

**Accidents**

<table>
<thead>
<tr>
<th>Impact</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>Overall the scheme is forecast to have a positive impact on accident rates (see Section 5.20 of the Economic Case). No particular social or distributional impacts are anticipated</td>
</tr>
</tbody>
</table>

| N/A | N/A |

**Security**

<table>
<thead>
<tr>
<th>Impact</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>The residential areas backing onto the busway include both low income and vulnerable groupings. Reduced levels of security to rear boundaries of properties backing onto the busway is a perceived problem. Personal security on and accessing bus stops and on the buses has been assessed and taken into account.</td>
</tr>
</tbody>
</table>

| New and improved boundary fencing is proposed including acoustic fencing where appropriate, which will help address residents perceived worries regarding security. Personal security at bus stops has been addressed |

<p>| Impacts | Slight disbenefit will be limited to the social groups with residences directly backing onto the busway. Mitigation is in place to address this. |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Severance</strong></td>
<td>The residential areas within 400m of the busway and on road bus routes include both low income and vulnerable groupings. Desire lines have been built into the scheme at all known crossing points. Severance could be created by the provision of the busway however the route in part is significantly over grown and access is currently restricted along part of the route. Part of the busway is currently a cycleway hence severance is not an issue.</td>
<td>The scheme reduces existing severance for all social groups by providing access across the busway for pedestrians along desire lines. New and improved crossing facilities are built-in at junctions and appropriate locations to help assist the elderly and vulnerable social groups.</td>
<td>Impacts in terms of reducing severance will be slight beneficial and will be relatively closely concentrated to a walk distance of 400m from the busway and on road routes.</td>
</tr>
<tr>
<td><strong>Accessibility</strong></td>
<td>The residential areas within 400m of the busway and on road bus routes include both low income and vulnerable groupings. The scheme significantly improves accessibility for all social groups but particularly those without a car. Improved public transport services will assist residents getting to employment, shopping, education and recreational areas including the town centres.</td>
<td>Accessibility is improved significantly for all including vulnerable and elderly social groups. Bus stops and buses are high specification with low floor exits, raised kerbs and special seating areas for disabled, elderly and mothers with pushchairs etc. RTI is provided to ensure waiting times are reduced and destinations reached following reliable journey time.</td>
<td>Impacts will be significant and be beneficial in terms of improving accessibility for those in the most socially deprived areas and facilitating access to jobs, homes and retail areas. The impacts will be spread across the area within 400m plus of the busway and on road routes but will also benefit those at the other end of the existing E1and E2 routes.</td>
</tr>
<tr>
<td><strong>Affordability</strong></td>
<td>The residential areas within 400m of the busway and on road bus routes include both low income and vulnerable groupings. The scheme will result in no cost increases over the existing bus routes and services that they replace and which are currently affordable to lower income groups.</td>
<td>The specification of both buses and bus stops (and associated street furniture) is high bringing quality of service to those who are less well off and not able to afford private transport. The scheme provides</td>
<td>Impacts will be beneficial and concentrated to those using the services assumed as those within 400m of walk time from the busway and on road bus routes.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>excellent value with no increased passenger fares over previous provision which is perceived as poor quality and unreliable.</td>
<td></td>
</tr>
</tbody>
</table>
6.13 Integration Objectives

6.14 Land Use Policy

Introduction

6.14.1 The impact of the proposed busway scheme with respect to land use policy is considered with reference to WebTag unit 3.7.2.

Baseline

6.14.2 The following assessment is undertaken in line with the associated Worksheet 1. This sub-objective considers the extent to which the proposal is integrated with land use proposals and policies and with proposals and policies concerning transport (all modes).

Impacts

6.14.3 The assessment of the impacts of the scheme against the various policy levels is summarised below. The benefits of the scheme arise from the construction of the busway and the resulting transfer of services to the busway.

6.14.4 The impact of the proposed scheme, in terms of the benefits gained from bus services diverting to the busway and associated on road routes is assessed against National objectives in the table below.
Table 16  Alignment of Scheme Objectives with National Objectives

<table>
<thead>
<tr>
<th>Government Shared Objectives</th>
<th>TaSTS Goals</th>
<th>Proposed busway and related bus services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integration</td>
<td>Improve quality of life</td>
<td>In association with future BRT connections to the North Fareham SDA the scheme will assist access to local employment, education and health services. The scheme will contribute to improving the overall quality of public transport provision.</td>
</tr>
<tr>
<td></td>
<td>Promote greater equality of opportunity</td>
<td></td>
</tr>
<tr>
<td>Safety</td>
<td>Protect people’s safety, security and health</td>
<td>Improved access to public health services by public transport.</td>
</tr>
<tr>
<td>Economy</td>
<td>Maximise competitiveness and productivity</td>
<td>Improved access to future and existing employment sites and tertiary education by public transport</td>
</tr>
<tr>
<td>Environment</td>
<td>Address climate change</td>
<td>Contributes towards meeting the requirements of the Air Quality Management Area (AQMA) Plans</td>
</tr>
<tr>
<td></td>
<td>Improve Quality of Life</td>
<td></td>
</tr>
<tr>
<td>Accessibility</td>
<td>Promote greater equality of opportunity</td>
<td>Improved access to future and existing employment sites, public health services, shopping centres and tertiary education by public transport.</td>
</tr>
</tbody>
</table>

6.14.5 At the regional level, the core objectives of the South East Plan are to balance continuing economic and housing growth with rising standards of environmental management and reduced levels of social exclusion and natural resource consumption. The Plan’s vision for 2026 is for a healthier region, a more sustainable pattern of development and a dynamic and robust economy, the benefits of which are more widely shared. Key objectives within the Regional Transport Strategy are to:

- facilitate urban renaissance and foster social inclusion by rebalancing the structure and use of the transport system and bringing forward measures that encourage modal shift and significantly improve the attractiveness of local public transport services;
- reduce the wider environmental, health and community impacts associated with the transport system by bringing forward measures to positively manage the transport system in ways that reduce our dependence on the private car;
- improve links along the south coast to improve spatial connectivity and realise economic opportunities to reduce disparities within the region.
6.14.6 The proposed scheme is well aligned with the objectives of the South East Plan and Regional Transport Strategy by:

- assisting in providing access to employment, contributing towards measures to reduce disparities of opportunity, serving pockets of deprivation in Gosport and integrating with the Fareham North SDA as part of the wider BRT network
- improving the spatial connectivity, reducing the effects of the geographical barriers of the area
- encouraging modal shift, improving the image of public transport and hence increasing travel choices

6.14.7 At the local level, the Local Transport Plan objectives and policies are closely aligned with the Governments shared objectives. The LTP objectives are to:

- Increase accessibility to services
- Promote safety
- Reduce the impact and effect of congestion
- Widen travel choice
- Contribute towards improvements in air quality
- Support wider quality of life objectives
- Encourage value for money and efficiency asset management

6.14.8 Transport for South Hampshire (TfSH), the transport delivery agency for the south Hampshire sub region, has these stated objectives:

- The development and delivery of sub-regional transport policies, interventions and systems
- Support for the economic competitiveness of the South Hampshire sub-region
- Meeting the sub-region’s future transport needs in the most sustainable way
- Supporting a good quality of life both now and in the future
- Pursuing and securing funding for scheme delivery

6.14.9 The scheme is consistent with these local objectives by:

- Increasing accessibility to employment and services by public transport and hence also contributing towards quality of life improvements
- Increasing sustainable travel choices
- Transferring journeys from the private car to public transport and thereby contributing to measures to reduce congestion
- Representing an affordable, value for money scheme
- Seeking to secure funding for its delivery through the Pinch Point Fund

**Overall Assessment Score**

6.14.10 The scheme is therefore well aligned with and contributing towards national, regional and local objectives. As part of the wider south east Hampshire BRT network proposals in the longer term this alignment would be strengthened. Hence the impact of the busway scheme in the context of alignment with policy documents is considered to be **beneficial**.
6.15 Other Government Policies

6.15.1 It is considered that the proposed busway scheme in isolation would be consistent with but have a very slight impact on other Government policies. The wider south east Hampshire BRT network would have more significant impacts, contributing to wider policy areas relating to: employment opportunities; economic activity; accessibility for all; improvement in standards of health; reductions in car travel demands and hence contributions towards measures related to combating climate change. The proposed scheme is therefore consistent with other government policies beyond transport and is considered to be slightly beneficial.
6.16 Environment Objective

Introduction

6.16.1 WebTAG enables the appraisal of transport options against 10 environmental sub-objectives derived from the Government’s environment objective for transport. The 10 sub-objectives assess impacts on the built and natural environment and on people under following categories:

- Air Quality
- Greenhouse Gases
- Noise
- Landscape
- Townscape
- Heritage of Historic Resources
- Biodiversity
- Water Environment
- Physical Fitness
- Journey Ambience

6.16.2 For the purpose of this assessment the Landscape and Physical Fitness sub-objectives have not been included. The Fareham Gosport BRT scheme runs though a wholly urban environment, and consequently has been assessed in terms of the Townscape sub-objective only.

6.16.3 The Physical Fitness sub-objective assesses the change in the number of people involved in journeys of 30 minutes or more on foot or by bicycle as a result of a project. It is not anticipated that there will be significant change in the number of people involved in journeys of 30 minutes or more by foot or by bicycle as a result of the busway scheme, due to close proximity of the existing highway-based bus route and the proposed busway. Further assessment is therefore not required.

6.16.4 The Noise, Air Quality and Greenhouse Gases sub-objectives have assessed the proposed scheme in terms of the Do-minimum scenario (without the Scheme) and Do-something scenario (with the Scheme) with the assessment years set at 2008 (Baseline) and 2011 (Opening Year) and 2026 (Design Year).

6.16.5 Worksheets are contained in Appendix 11.

Environmental Context of the Scheme

6.16.6 The busway alignment runs within the vicinity of a number of sites designated for Nature Conservation and Heritage purposes. Figure XX below identifies environmental constraints. All significant features within 2km of the scheme have been identified.
Figure 21: Environmental Constraints Map
Air Quality Sub Objective

Introduction

The scheme has been assessed using WebTAG guidance 3.3.3 which incorporates the use of the Design Manual for Roads and Bridges (DMRB) to assess the local air quality impacts. Assessment of traffic flows and speeds have been used to complete this assessment.

Baseline

6.16.7 Local Authorities regularly assess levels of air pollution close to major emission sources. Where levels of air pollution do not meet Government guidelines an ‘Air Quality Management Area’ (AQMA) must be declared. The Local Authorities responsible for the AQMAs must prepare Air Quality Action Plans to improve air quality.

6.16.8 Two AQMAs have been declared by Fareham Borough Council (FBC) close to the proposed busway corridor due to the annual mean objective for nitrogen dioxide being exceeded at these locations. The locations are:

- Fareham AQMA, (covering the junctions of Gosport Road, Newgate Lane and Redlands Lane); and
- Portland Road AQMA (covering properties on Portland Street close to the Quay St Roundabout and Western Way).

6.16.9 Fareham AQMA is closest to the scheme (55m) and therefore will be most influenced by any changes as a result of the scheme. Portland Road AQMA is 800m from the scheme and is therefore unlikely to experience any significant change as a result of the scheme.

6.16.10 Vehicles experiencing congestion produce the highest emissions. Any scheme which can reduce congestion and provide a viable alternative to the use of private vehicles would have a positive impact on air quality.

6.16.11 The Do-Minimum and Do-Something scenarios were assessed for 2011 (Opening Year) and 2026 (Design Year – Opening Year +15 years). The WebTAG model only allows for assessments up to the year 2025, and therefore 2025 is used within this assessment as the closest assessment year and alternative. Calculations were carried out on the basis that the busway was operational and that there is likely to be a reduction in private vehicle usage. Traffic flow data was calculated for each link for each assessment year and speed limits on relevant links are used in replacement for actual speeds.

6.16.12 The following assumptions have been made for this assessment:

- The current bus timetable highlights that buses are operational between 6am and 11pm; and,
- The busway will be split into 3 sections along its route:
  
  - A – Redlands Lane to Palmerston Drive. It is assumed that 33 (two way flow) buses per hour are operational, which results in 561 buses over a 17 hour period;
  - B – Palmerston Drive to Wych Lane – It is assumed that 28 (two way) buses per hour are operational, which results in 476 buses over a 17 hour period; and
C – Wych Lane to Tichborne Way – It is assumed that 12 (two way) buses per hour are operation, which results in 204 buses over a 17 hour period.

6.16.13 The scheme is predicted to reduce stop-start driving and smooth traffic flows at congested times within the Fareham AQMA.

Impacts

6.16.14 The introduction of the busway is likely to have a positive impact on air quality, as shown in the worksheets contained in Annex F. The assessment also highlights that the scheme should help improve air quality in the Fareham AQMA. Both are primarily a result of greater bus patronage and reduction in private vehicle usage in the area.

6.16.15 **Significance Criteria** – In order to ensure that the descriptions of impacts consistent and in accordance with recent AQ guidance, definitions have been adapted from Environmental Protection UK’s (EPUK) Development Control: Planning for Air Quality document (September 2006). A magnitude descriptor will be used for calculated changes in annual mean NO₂ and PM₁₀ concentrations as a result of the development, relative to the Environmental Quality Standard (EQS).

**Overall Assessment Score**

**Table 1.2  Overall Air Quality Assessment Score for Nitrogen Dioxide**

<table>
<thead>
<tr>
<th>Nitrogen Dioxide</th>
<th>Overall Assessment Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opening Year 2011</td>
<td>-639</td>
</tr>
<tr>
<td>Design Year 2026</td>
<td>-751</td>
</tr>
</tbody>
</table>

**Table 1.3  Overall Air Quality Assessment Score for Particulate Matter**

<table>
<thead>
<tr>
<th>Particulate Matter</th>
<th>Overall Assessment Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opening Year 2011</td>
<td>-300</td>
</tr>
<tr>
<td>Design Year 2026</td>
<td>-317</td>
</tr>
</tbody>
</table>

6.16.16 The change to air quality will vary depending on the location, congestion, time of day and speed of the traffic. The scores indicated above within Table 1.2 and Table 1.3 are based on the population concentration at a fixed location within a particular distance band from the road by the number of properties within that band. The scores indicate that there will be an overall improvement in air quality with the scheme in place, mainly due to the predicted reduced congestion and use of private vehicles. The assessment however has highlighted there will be a deterioration at 1380 properties as a result of the addition of buses using the proposed busway, which currently does not carry vehicles. This increase equates to an increase of 0.33µg/m³ for NO₂ and 0.05µg/m³ for PM₁₀.

Conclusion

6.16.17 As a result, the impact of the scheme is likely to be of neutral/slight beneficial, as the overall population exposure is predicted to be low.
Greenhouse Gases

Introduction

6.16.18 The scheme has been assessed using WebTAG guidance 3.3.5 which incorporates the use of the Design manual for Roads and Bridges (DMRB) v11.03 to assess the impacts of the road scheme on greenhouse gases. A determination of the links which would experience changes to traffic flow as a result of the Scheme allows the associated impacts on carbon dioxide (CO2) emissions to be assessed.

Baseline

6.16.19 The UK Government has a legally binding target to cut greenhouse gas emissions by 12.5% below 1990 emissions between 2008 and 2012. The UK Government has also set a domestic goal to reduce CO2 emissions by 20% below 1990 levels by 2010. Road vehicles make a significant contribution to the total CO2 emissions in the UK. Therefore reducing vehicle emissions by smoothing traffic flows will help to reduce CO2 emissions.

6.16.20 The Do-Minimum and Do-Something scenarios were assessed for 2011 (Opening Year) and 2026 (Design Year – Opening Year +15). Speed and flow data has been calculated for each link for each assessment year. Calculations were carried out on the basis that the scheme was operational and that there is likely to be a reduction in private vehicle usage as a result of the scheme. Traffic flow data was calculated for each link for each assessment year. Current speed limits on assessment links are used in replacement for actual speed counts.

6.16.21 At the present time greenhouse gas emissions are increasing and can therefore be expected to increase between 2006 and 2011 when the scheme would open. However, there is expected to be a reduction in greenhouse gas emissions between 2011 and 2025 due to improvements in vehicle technology and fuels. The social cost of carbon has been calculated for a 60 year period. However, the last 30 years have been extrapolated from the design year calculations, as technologies for predicting traffic flows and vehicle emission factors to this timescale are uncertain.

Impacts

6.16.22 The introduction of the busway is likely to have a positive impact on air quality, as shown in the worksheets contained in Annex F. This will primarily be as a result of greater bus patronage and reduction in traffic congestion and private vehicle usage in the area.
Overall Assessment Score

Table 17: Social Cost of Carbon

<table>
<thead>
<tr>
<th>Net Present Value</th>
<th>Lower Bound</th>
<th>Central Estimate</th>
<th>Upper Bound</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>£1,500,564</td>
<td>£2,284,083</td>
<td>£3,851,120</td>
</tr>
</tbody>
</table>

6.16.23 In 2011, the scheme will result in an overall reduction in carbon emissions between the Do-Minimum and Do-Something scenarios. A reduction of 1,045 tonnes of Carbon is predicted in the Opening Year. The social cost of the reduction in carbon emissions over a 60 year period from the opening year (to 2070) is shown above within Table 5.4. The assessment shows that it is expected that the scheme would provide a cost saving in carbon.

Conclusion

6.16.24 This assessment indicates that the proposed scheme will result in an overall slight beneficial impact for air quality with respect to reducing greenhouse gases.
6.17 Noise

Introduction

6.17.1 The Fareham Gosport BRT scheme was assessed according to WebTAG guidance 3.3.2. “The Noise Sub-Objective”. The Noise Sub-Objective is one of a number of environmental sub-objectives collectively undertaken “to protect the built and natural environment”.

6.17.2 The TAG methodology was designed for the assessment of multi-modal transport schemes but may be applied to highway-only schemes. The assessment is based upon a comparison of the total population annoyed by traffic noise with the scheme operational, with that for the do-minimum scenario, both in the 15th year after opening. The results are entered into an Appraisal Summary Table (AST) in which the overall assessment score is the difference between the two.

6.17.3 The Noise Sub-Objective was amended in November 2006 to include an assessment of the effects on property values, and this methodology is incorporated into this assessment.

6.17.4 It should be noted that the assessment compares the existing situation with the predicted conditions with the proposed scheme. It does not take into account the earlier, previous use of the corridor as a railway.

Baseline

6.17.5 The following impact assessment is presented without at this stage site survey work and walkovers. The Environmental Statement for the South Hampshire Rapid Transit Phase 1 prepared in 1998 by ERM includes the following description of the noise conditions observed during survey work conducted at the time:

“The route from Fareham to Gosport along the disused railway is characterised by relatively low background noise levels since main roads are relatively distant from noise sensitive receptors [adjacent to the route]. However, for receptors that are close to Gosport Road or Fareham Road, ambient noise levels are high due to relatively high traffic flows on these main roads.”

Impacts

6.17.6 The proposed scheme is expected to have mostly neutral and some positive impacts on the level of noise generated by road traffic on the local highway network. However, noise due to the operation of vehicles on the busway between Redlands Lane and Tichborne Way has the potential to generate significant impacts at properties that are directly adjacent to the busway route. This is because the majority of the route is reasonably remote from significant sources of background noise (main roads) and baseline noise levels are relatively low. The increase in noise could have a severe negative impact on the adjacent residential properties.

6.17.7 The expected operating times for bus traffic on the busway route is 06:00 am to 11:00 pm. If it is assumed that the night period is defined as 11:00 pm to 07:00 am (as given in Planning Policy Guidance 24: Planning and Noise), then an objective assessment would indicate a potential for significant impacts within the 06:00 am to
6.17.8 07:00 am period. This is pertinent to residential receptors that are directly adjacent to the busway route.

**Mitigation**

6.17.9 The proposed screening by Acoustic Barriers, as included in the scheme proposal, could reduce the impact to moderate/ slight negative depending on the actual height and construction of the barriers.

**Overall Assessment Score**

6.17.10 Table 5.5 summarises the results of the WebTAG assessment of the population annoyed by noise in the Opening Year and Design Year. This shows that there is a net increase in the number of people annoyed by 90.

<table>
<thead>
<tr>
<th>Year</th>
<th>Estimated population annoyed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opening Year 2011</td>
<td>3778</td>
</tr>
<tr>
<td>Design Year 2026</td>
<td>3878</td>
</tr>
<tr>
<td>Net change population annoyed in 15th year after opening</td>
<td>+ 90</td>
</tr>
</tbody>
</table>

**Conclusion**

6.17.11 This assessment indicates a potential moderate to slight adverse impact with respect to noise.
6.18 **Biodiversity**

**Introduction**

6.18.1 The scheme was assessed using WebTAG guidance 3.3.10 with baseline collated from existing sources including Natural England, the Joint Nature Conservation Committee (JNCC) and Hampshire Biological Records Centre.

6.18.2 The ecological zone of influence considered for this study includes an examination of the following features within the areas defined below from the proposed scheme:

- 20km from any Site of International Importance (Special Protection Area (SPA), RAMEAR site or Special Areas of Conservation (SAC)) designated for the presence of bats or other migratory species;
- 2km from any European Site, any Site of International Importance (Special Protection Area, SPA, RAMSAR site or Special Areas of Conservation, SAC); and,
- 2km from any National Designation Site of Special Scientific Interest (SSSI), National Nature Reserve etc.

**Baseline**

6.18.3 The following statutory and non-statutory designations were identified within 2 km of the proposed scheme. Please refer to Figures A.1 and A.2 of Annex G:

- International Designations (statutory) - Portsmouth Harbour SPA (within 70 metres), and Portsmouth Harbour RAMSAR (70 metres);
- National Designations (statutory) - Portsmouth Harbour SSSI (70 metres), and The Wild Grounds SSSI (1km); and,
- Regional and Local Designations - The Wild Grounds and West of the River Alver Local Nature Reserves. In addition, there are a total of 35 Sites of Importance for Nature Conservation (SINCs) identified within 2 km of the proposed Scheme. Fort Fareham Grassland, The Gillies and Oakdene Wood are all located within 5m of the site.

**Impacts**

**International and National Designations**
6.18.4 **Reduction of Habitat Area** - As the scheme does not fall within the confines of the RAMSAR site, it is unlikely to have a direct impact on the designation. However, the introduction or alteration of highways corridors can result in indirect degradation in habitat area or quality through changes in hydrology or air quality or from construction associated disturbance such as noise, vibration and lighting.

6.18.5 **Water Environment: Flow** - Drainage flow will be attenuated to mimic the existing natural runoff rates and as such no change to the designated feature is anticipated as a result of changes in water flows.

6.18.6 **Water Environment: Pollutants** - It is considered that both dissolved and undissolved pollutants will be removed from the runoff, by percolation through the filter drain and by natural biodegradation to a level which is acceptable to ensure that there will be no significant change in the level of pollutants within the RAMSAR sites. Standard mitigation measures will also ensure adequate protection for the designation in the event of a pollution incident.

6.18.7 **Disturbance to Birds** - The proposed scheme has the potential to disturb (noise, vibration and lighting) the over-wintering birds during both the operation and construction of the proposed Scheme.

6.18.8 **Air Quality** - As the proposed scheme will result in a decrease in the currently high levels of congestion increased in the area, it is anticipated that there will be an overall improvement in air quality benefiting the RAMSAR site.

6.18.9 **Habitat or species fragmentation** - Linear transport corridors such as that proposed also have the potential to fragment both terrestrial and aquatic connective corridors to the site. The impacts would be associated with vegetative reduction and the inclusion of infrastructure which can reduce available buffer and colonisation habitat which can affect the coherence of the sites ecological structure and function and its resilience to impacts such as climate change or pollution.

**Local Designations: Fort Fareham and Oakdene SINCs**

6.18.10 **Habitat Loss** - Although the extent to which habitat will be lost from the SINCs is unclear at present, the proposed scheme currently bisects the centre of the SINCs and is therefore likely to result in the direct permanent loss of a significant proportion of these features along with indirect impacts through alteration in drainage, air quality and noise and vibration to much of the adjacent retained elements of the feature.

6.18.11 **Water Environment: Flow** - Drainage flow will be attenuated to mimic the existing natural runoff rates and as such no change to the designated feature is anticipated as a result of changes in water flows.

6.18.12 **Water Environment: Pollutants** - It is considered that both dissolved and undissolved pollutants will be removed from the runoff, by percolation through the filter drain and by natural biodegradation to a level which is acceptable to ensure that there will be no significant change in the level of pollutants within the RAMSAR sites. Standard mitigation measures will also ensure adequate protection for the designation in the event of a pollution incident.

6.18.13 **Soil** - As well as landtake the proposed Scheme has the potential to result in contamination through the introduction of aggregate and pollutants of the soil structure during the construction phase.
6.18.14  **Air quality** - As the proposed scheme will result in a decrease in the currently high levels of congestion experienced in the area it is anticipated that there will be an overall improvement in air quality benefiting the SINCs.

6.18.15  **Disturbance** - The SINCs are likely to experience disturbance throughout all the life stages of the proposed scheme (construction, operation and decommissioning) from increased levels of noise, vibration, lighting from certain sections of the trafficked corridor and its ongoing management and maintenance.

6.18.16  **Habitat management** - Habitat management for nature conservation at this site will be included as part of the mitigation package for the scheme, to accommodate the management regimes of a functioning highway corridor.

6.18.17  **Public pressure** - The scheme may place increased public pressure on the areas of the SINC that are retained as other areas utilised for the works footprint are reduced.

6.18.18  **Other SINC**s - The scheme may affect other SINCs within close proximity by the cumulative fragmentation of connective corridors to the site.

6.18.19  **Non designated habitats** - The proposed scheme will result in the permanent loss and degradation of a variety of non designated habitats including woodland, scrub, water and grassland. These habitats represent an important linear and connecting habitat corridor to internationally and nationally important sites within an urban setting.

6.18.20  **Protected species** - The scheme has the potential to result in an impact upon European and nationally Protected Species through the loss or disturbance of habitat.

**Overall Assessment Score**

6.18.21  There is potential for indirect impacts on national and internationally designated sites from alterations to water quality, noise and air quality. However, the assessment identifies a neutral impact to air quality for the region, and the drainage design for the scheme will mean that there are no alterations to drainage flow resulting in no pollutants entering the designated sites. There is considerable scope to mitigate for habitat loss through replacement planting and habitat management, which will act to minimise the impact of the scheme on biodiversity features. In addition, should any European Protected Species be identified within the scheme corridor, all works will be carried out under a Natural England (NE) licence, for which specific working methodology and mitigation will be a condition, as endorsed and approved by NE.

**Conclusion**

6.18.22  The proposed scheme is likely to have an overall **neutral** effect on Biodiversity features with mitigation such as replacement planting and habitat management for habitat loss.
6.19 Heritage of Historic Resources

Introduction

6.19.1 The scheme has been assessed using WebTAG guidance 3.3.9 Heritage of Historic Resources sub-objective. The assessment is based entirely on desk-top research.

6.19.2 The WebTAG Heritage of Historic Resources guidance includes an assessment of:

- buildings (individually or in association) of architectural or historic significance;
- areas, such as parks, gardens, other designed landscapes or public spaces, remnant historic landscapes and archaeological complexes; and,
- sites such as ancient monuments, places with historical associations such as battlefields, preserved evidence of human effects on the landscape, etc.

6.19.3 Heritage also includes the sense of identity and place which the combination of these features provides.

Baseline

6.19.4 The scheme involves the utilisation of the disused railway line from Fareham to Gosport, between Redlands Lane and Tichborne Way. The existing railway is currently screened by trees and shrubs along its path and therefore if this remained in place, the majority of the surrounding Cultural Heritage receptors would not be affected by the scheme.

6.19.5 Searches for archaeological features and Listed Buildings were conducted for 500m radii around the proposed scheme. Please refer to the Figures A.1 and A.2 in Annex G for further details.

6.19.6 Collectively, the search areas surrounding the junctions of the proposed busway contains:

- A Scheduled Ancient Monuments: Fort Fareham; and,
- 29 Grade II Listed Buildings.

6.19.7 Fort Fareham and an iron bridge at the fort are Grade II Listed Buildings (HER 6144, 6145). Listed buildings were:

- Brook House (HER 5991) c.400m north-east of the north end of the Scheme;

6.19.8 There are no Conservation Areas within the search area, although the boundary is close to the boundaries of Rowner Village and Cams Hall conservation areas (c.500m south-west and c.750m north-east of the proposed busway Scheme, respectively).

6.19.9 There are no battlefield sites or historic parks and gardens within the search area, although Cams Hall historic park is located c.750m north-east of the proposed busway.

Impacts
6.19.10 The scheme would require land-take at the junctions with major roads. However, only the junctions with Redlands Lane and Tichborne Way require slip roads, where the ground is relatively untouched and archaeological remains of all periods could be present. Impacts could be reduced through mitigation to include an archaeological strategy with building recording, in advance of any works. Palmerston Drive bridge is to be demolished and could be recorded, prior to its demolition, to mitigate the loss of this heritage feature from the 19th century railway corridor.

**Overall Assessment Score**

6.19.11 An archaeological strategy including building recording, to be completed in advance of any works would result in a neutral impact.

**Conclusion**

6.19.12 The proposed scheme is likely to have a neutral impact on Heritage of Historic Resources.
6.20 **Townscape**

**Introduction**

6.20.1 The scheme has been assessed using WebTAG guidance 3.3.7 focusing on the Townscape Sub-objective.

6.20.2 The townscape sub-objective focuses upon much more than the physical streetscape. It identifies and assesses key characteristic features within the townscape; why and who the features are important to; and their relationship to overall townscape forms and patterns (WebTAG unit 3.3.8, December 2004).

**Baseline**

6.20.3 The proposed corridor is dominated by brambles, young trees and general scrub vegetation. On the outer sides of this corridor the old slopes of the embankment and cuttings are now thickly vegetated with shrubs and trees, some of which are quite mature. This vegetation currently contributes positively to the surrounding urban areas through which it passes. It provides amenity value to the surrounding residential and industrial areas as a linear green space breaking up and softening the surrounding built environment.

6.20.4 The surrounding townscape predominately comprises residential suburbs of typical, ordinary appearance and of medium density streets with a fairly uniform range of building types. The period is largely inter-war or 1950s with housing of semi-detached or terraced stock, with some 1960s blocks of flats.

**Impacts**

6.20.5 The main cause of impact would be a result of vegetation clearance to accommodate the working corridor of the Scheme. This is likely to open up views in areas where views are either currently not afforded or are restricted by the existing mature vegetation. New views as a result of the Scheme may include infrastructure, buses and environmental barriers, although replacement planting would mitigate for this loss over time.

6.20.6 The character of the surrounding townscape environment would not likely be compromised as a result of the scheme.

**Overall Assessment Score**

6.20.7 The overall impact score has been assessed as Neutral. The removal of areas of vegetation in order to accommodate the scheme will be largely mitigated by landscape planting.

**Conclusion**

6.20.8 The proposed scheme is likely to have a neutral impact on Townscape.
6.21 Water Environment

Introduction

6.21.1 The scheme has been assessed using WebTAG guidance 3.3.11 for analysing the key information of relevance to the water environment.

Baseline

Geology

6.21.2 Beneath the proposed scheme between Redlands Lane and Brewers Lane, the London Clay Formation is shown as the uppermost geological formation. The Whitecliff Sand member of the London Clay Formation is shown to be exposed at ground surface from Brewer’s Lane to where the Wittering Formation is shown to be exposed at the surface for a short distance. River Terrace and Aeolian Deposits over the Wittering Formation of the Bracklesham Beds are found to the north of Rowner Road, and for the remainder of the proposed route. These units are then underlain by the London Clay Formation, Reading Beds and Chalk Group.

Hydrology

6.21.3 There are two natural watercourses within 500m of the proposed scheme. The Hoeford Lake is a brackish watercourse that discharges into Portsmouth Harbour. River Quality (Chemistry) sampling since 1990 for this watercourse indicates that the quality may be improving and was classified as GQA Grade D – Fair in 2006. The majority of classifications prior to 2001 were GQA Grade E – Poor. The Black Brook is a watercourse approximately 300m north-west of the site that is culverted for large sections.

6.21.4 No licensed surface water abstractions are recorded within 500m of the proposed scheme.

6.21.5 A number of licensed discharge consents have been recorded into the Hoeford Lake, the Black Brook and ‘Heavy Reach’. Three current discharge consents upstream of the proposed Scheme, which discharge into the Hoeford Lake, are for surface drainage and storm sewer overflow.

6.21.6 There have been 31 pollution incidents to groundwater recorded within 500m of the proposed Scheme. Three have been recorded as Category 2, and are known as significant incidents. The remainder were Category 3 or minor incidents. Only two of the pollution incidents recorded occurred in the last 10 years (1999), and were situated approximately 300m and 450m from the proposed scheme.

Groundwater Vulnerability

6.21.7 The busway would not overlie an area of groundwater vulnerability. However, the site does traverse aquifers of varying permeability.

6.21.8 No licensed groundwater abstractions or discharge consents to groundwater have been recorded within 500m of the proposed scheme. The proposed scheme is not within an Environment Agency (EA) defined Source Protection Zone.

Flooding
6.21.9 The risk of flooding is mainly attributed to coastal/tidal flooding and pluvial flooding. There is an existing Southern Water pumping station located adjacent to the bridge at Wych Lane, and the area is subject to flooding beneath the bridge.

6.21.10 The length of the route is generally identified as being in an area at low risk of flooding. A separate Flood Risk Assessment (FRA) for the scheme will be prepared to accompany the Planning Application.

Water Quality

6.21.11 The EA have been consulted regarding current discharge consents into watercourses alongside the busway scheme. At this stage, a response from the EA regarding water quality has not been received. The water quality at Hoeford Lake has varied from between GQA river quality grade D and E.

Contamination

6.21.12 Industrial activities adjacent to the proposed route in the north and south, and the unknown materials used in the construction of the railway embankment, are identified as potential sources of contamination.

Impacts

6.21.13 Construction related pollution is of most concern for the busway scheme including leaks from site vehicles, fuel and chemical spillages, mobilisation of contaminants, vandalism of plant/stores and waste materials. Excess runoff due to temporary site offices or possible hard standing and due to the removal of vegetation, as well as temporary increase in water usage/consumption for construction would also cause impacts. There is also a risk of changes in flow pattern due to temporary diversions during construction, although the drainage flow will be attenuated during the operational phases of the scheme, to mimic the existing natural runoff rates.

Overall Assessment Score

6.21.14 WebTAG Guidance 3.3.11 states that for route based studies, the assessment score is based on a textual seven-point scale (Slight, Moderate, and Large, positive and negative impacts; and Neutral). The proposal should be classified as a whole and the potential impacts on individual features, or attributes, combined in the overall classification.

Conclusion

6.21.15 The overall impact is assessed as neutral on water quality.
6.22 Journey Ambience

Introduction

6.22.1 The appraisal of Journey Ambience follows the guidance set out in WebTAG Unit 3.3.13, building upon the assessment methodology detailed in DMRB 11.3.9. Information was collected through a desktop study.

6.22.2 The Journey Ambience sub-objective focuses on all modes of transport, including public transport as well as private vehicles. It focused on the measures under the control of the network providers and operators that improve route journey quality or journey ambience (WebTAG 3.3.13, June 2003). The appraisal guidance focuses on three main factors:

- Traveller Care – concerned with the cleanliness, general environment, facilities and information available to passengers;
- Travellers’ Views – concerned with the views afforded by travellers using the Scheme; and,
- Travellers’ Stress – concerned with the effects the scheme may have on traveller frustration, route uncertainty and fear of potential accidents.

Baseline

6.22.3 The current public transport provision could be improved, with a number of key focuses:

- Connectivity – The existing transport network is poorly integrated due to both geographic and modal constraints.
- Congestion – The area’s road network is currently heavily congested at peak times and as such results in poor journey time reliability, adding to traveller stress.
- Unattractive option – The present public transport is often regarded as an unattractive alternative to current road users.

Impacts

6.22.4 The proposed scheme would see an improvement in traveller care. The introduction of new high specification bus fleets would provide a more pleasant environment in which to travel. Well sign posted bus stops will be provided with bus shelters to protect passengers during adverse weather. Bus shelters would be of high quality, fully enclosed bus shelters, internally illuminated, with seating, and with high kerbs located at the bus entry / exit point.

6.22.5 Traveller views although greatly changed as a result of the scheme have been assessed as Neutral. Restricted views will be experienced in the most part, with stretches of the scheme affording short intermittent views into surrounding townscape. Views from the transport corridor will be more simplistic than those associated with a highway running through a busy urban environment peppered with infrastructure, signage and street furniture.

6.22.6 The scheme is exclusively designed as a public transport scheme, with frequent bus services running its length. As such, traveller stress will be much reduced, as journey reliability will be improved. In addition, congestion in the surrounding road network is expected to be reduced as a result of the scheme, which will also contribute to a decrease in traveller frustration. It is also anticipated that there would be a reduction in the number of accidents on the network, and this would combine with a lower fear of potential accidents for busway users (the corridor is essentially straight with few
intersecting junctions, which would give a real and perceived reduction in accidents when compared to the current situation).

**Overall Assessment Score**

6.22.7 The score for the Journey Ambience sub-objective has been assessed as Moderate Beneficial, based on the assumption that between 500 and 1000 travellers will benefit from the scheme on a daily basis.

**Conclusion**

6.22.8 The proposed scheme is likely to have a moderate beneficial impact on journey ambience
6.23 Safety Objective

Introduction

6.23.1 WebTAG enables the appraisal of transport options against 2 sub-objectives derived from the Government’s objectives for transport. The sub-objectives assess impacts on:

- Accidents
- Security

6.24 Accidents

Introduction

6.24.1 The scheme has been assessed using WebTAG guidance 3.4.1, and application of such guidance will provide estimates of the change in the numbers of road user accidents and of the monetised present value of accident reduction benefits.

Baseline

6.24.2 With reference to RTA data for links within the local highway network in the Fareham Gosport peninsula, since the beginning of 2003 to date, there were 1079 Road Traffic Accidents recorded by Hampshire Police data. These accidents split by severity are given by Table 5.6 below.

<table>
<thead>
<tr>
<th>Severity</th>
<th>Number of Accidents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slight</td>
<td>968</td>
</tr>
<tr>
<td>Serious</td>
<td>107</td>
</tr>
<tr>
<td>Fatal</td>
<td>4</td>
</tr>
</tbody>
</table>

6.24.3 When the accident locations are plotted, this indicates the following accident cluster sites pertinent to the proposed busway scheme.

- Brockhurst Rd (A32) arm of the Fareham Road (A32) – Rowner Road junction
- Gosport Rd (A32) approaches to Quay Street Roundabout and Newgate Lane Gyratory
- Wych Lane – Fareham Rd (A32)
- Rowner Lane – Rowner Road junction
- Various locations along Fareham Rd (A32), Newgate Lane and Rowner Rd links.

6.24.4 The above data indicates that in the current situation with respect to accidents, the vast majority of the accidents are minor and are focussed on specific junctions on the local highway network. The accident cluster sites reflect the key routes through the local highway network for traffic on and off the Fareham Gosport peninsula.

Impacts
6.24.5 The impact of the proposed scheme with respect to accidents will depend on the scale of change in flows on the local highway network. Accident cost calculations are broadly based on a relationship between vehicle flows, type of road, number of casualties and severity of accident.

6.24.6 Comprehensive analysis of accident data in accordance with DMRB Volume 13, COBA Manual, shows that the implementation of the busway scheme would be beneficial in terms of reducing the number of accidents occurring on the road network. Table 5.7 presents the conclusion to this analysis. The analysis forecasts that without the busway, the number of accidents in both 2011 and 2026 would be higher than if the busway scheme was implemented. In line with these forecasts, the proposed scheme could result in savings with regards to the cost of accidents in 2011 of £587,484.11 and in 2026 of £668,975.70. These annual figures have been factored over 60 years life of the scheme and discounted to 2002 prices in line with WebTag Unit 3.5.4 to produce a monetised value for Accidents of £13,157,659, reproduced later in Table 5.11 (Analysis of Monetised Costs and Benefits).

Table 20: Implementation of the Fareham Gosport BRT and the associated Accident Savings

<table>
<thead>
<tr>
<th></th>
<th>Total number of accidents saved</th>
<th>Value of accidents saved (£)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>15.72</td>
<td>587,484.11</td>
</tr>
<tr>
<td>2026</td>
<td>17.16</td>
<td>668,975.70</td>
</tr>
</tbody>
</table>

6.24.7 The proposed scheme will result in additional junctions on the local highway network, where the busway interfaces with the highway. Junctions are generally considered to be the points of greatest conflict on the highway and the focus for accident clusters. Clearly the proposed junctions will be designed to ensure the safety of all users in accordance with design standards.

Overall Assessment Score

6.24.8 A review has been undertaken of the existing accident data for the local area, and consideration has been given to the likely level of change in the key input parameters which influence accident rates (namely traffic flow and type of highway, as per DMRB).

6.24.9 As reflected by Table 5.7, the impact of the proposed busway scheme on accident rates on the local highway network is likely to be positive.

Conclusion

6.24.10 It is considered that the level of change in the key parameters due to the introduction of the proposed busway scheme will be positive. Therefore the impact of the proposed busway scheme on accident rates on the local highway network is predicted to be slight beneficial.
6.25 Security

Introduction

6.25.1 The scheme has been assessed using WebTAG guidance 3.4.2. For public transport passengers, the DETR Mobility Unit has produced best practice guidelines for railway stations and public transport operators. This raises a number of key security issues and gives guidance on design and management practices.

Impacts

6.25.2 In relation to security for users, the proposed busway scheme will introduce a new public transport corridor through the Fareham Gosport peninsula which will be incorporated into the local bus service network. It is expected therefore that sections of the local public transport network will benefit from new facilities focussing on the busway.

6.25.3 The following table, based on Worksheet 1, WebTag Unit 3.4.2, provides a summary of the potential impact of the proposed scheme with respect to security for users of the busway and associated bus services.
Table 21: Potential Impact of the Proposed Scheme with respect to Security for Users of the Busway and Associated Bus Services

<table>
<thead>
<tr>
<th>Security Indicator</th>
<th>Relative Importance</th>
<th>Current Score</th>
<th>Potential Busway Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site parameters, entrances and exits</td>
<td>Low</td>
<td>Poor</td>
<td>Busway will introduce new dedicated stops with defined boundaries and entry points. On-street stops will remain poor in terms of site parameters. Busway stops will be high quality.</td>
</tr>
<tr>
<td>Formal surveillance</td>
<td>High</td>
<td>Poor/Moderate</td>
<td>Busway stops will be covered by CCTV systems, but on-street stops will not change. On-street stops will remain poor/moderate. Busway stops will be good.</td>
</tr>
<tr>
<td>Informal surveillance</td>
<td>High</td>
<td>Moderate</td>
<td>Busway stops will be located generally away from other activity, off the highway. On-street stops will remain moderate. Busway stops could be poor, due to stop locations.</td>
</tr>
<tr>
<td>Landscaping</td>
<td>Medium</td>
<td>Poor</td>
<td>The busway stops will be landscaped to aid visibility and deter intruders. On-street landscape will remain as current. On-street stops will remain poor. Busway stops will be good.</td>
</tr>
<tr>
<td>Lighting and visibility</td>
<td>High</td>
<td>Moderate</td>
<td>On-street stops rely on a mixture of inbuilt shelter lighting or on-street lighting. Lighting in some passenger areas. Busway stops will include full lighting including signing, information and help points. On-street stops will remain moderate. Busway stops will be good.</td>
</tr>
<tr>
<td>Emergency call</td>
<td>High</td>
<td>Poor/Moderate</td>
<td>Busway will provide emergency contact points and emergency help/operational procedures. On-street stops will remain poor/moderate. Busway stops will be good.</td>
</tr>
</tbody>
</table>

6.25.4 In overall terms the proposed scheme will provide a benefit in terms of security for public transport passengers. The only area of deficiency relates to the inherent relative isolation of the busway stops from other activity, due to being located off the highway, and in some cases on an embankment. This is due to the alignment of the route/structure of the historical railway earthworks, which cannot be easily altered. However, the busway stops will be designed to maximise safety and security of passengers throughout their journey on the proposed busway scheme.

6.25.5 There is however a potential issue with respect to unauthorised vehicles gaining entry onto the busway, and the potential for antisocial behaviour on the busway during quiet periods. However, it is considered that this potential impact is similar to that for the provision of any highway based publicly accessible route be it a road, busway, cycleway or footpath. It will not be practical to physically close down the link due to the
number of access points and nature of the route. Therefore this potential issue will be addressed through applying the principles of Designing out Crime and Safety by Design, together with the provision of adequate security and deterrent measures along the route. In addition, as part of any enforcement policy for the busway there will be partnership working with the local highway authority, bus operators, police, local councils and communities together with on-going monitoring. This assessment therefore recognises this potential impact but also considers that the design and operation of the busway will seek to minimise this issue wherever possible.

**Overall Assessment Score**

6.25.6 Consideration has been given to the existing passenger security features of the local public transport network, and what the proposed busway scheme will offer in this regard, in accordance with the WebTAG Unit 3.4.2 criteria. Through this comparison it is considered that the proposed busway scheme will offer improvement, but only on the busway, with facilities on the majority of the existing network remaining as currently experienced (i.e. not directly improved by the proposed busway scheme)

**Conclusion**

6.25.7 The impact of the proposed busway scheme, in terms of security for users measured by the provision of facilities, will be **positive** on the busway and **neutral** for the rest of the local public transport network. Unauthorised use of the busway, potential anti social behaviour and the security of adjacent properties will be addressed through design and enforcement, in liaison with the appropriate authorities.
7 The Commercial Case

7.1 Procurement Strategy

7.1.1 The main contract will be let under NEC 3 Engineering Construction Contract. Some of the risks identified in the Quantified Risk Analysis will then be mitigated by transferring the risks to the Main Contractor to manage. This will be achieved either by the risks being part of their contractual duty to manage, or by ensuring specific additional clauses are written into the Contract to allow the Main Contractor to price as part of the scheme costs.

7.1.2 The preferred procurement route is to split the work necessary for the project into numerous separate contracts relating to both the on and off road sections of the scheme and as described below:-

- **Advanced Works** [Note: Now a critical path item]
  The first contract for the extension off road will be an Advanced Works Contract. This contract is necessary to undertake early ecological mitigation. The felling of trees outside of the bird nesting season and the initial vegetation clearance to a height of 30cm above ground level of the majority of the site. It is intended to use the regional time charge and costs reimbursable framework contract to undertake this work. This contract allows a number of framework contractors to tender their rates for time charged work. This contract is quick to let and suits the variable nature of the work.

- **Main Works Contracts**
  The Main Works will be procured under the terms and conditions of the NEC 3 Engineering and Construction Contract (June 2005 (with amendments June 2006 and September 2011)) using Option B: Priced contract with Bill of Quantities.
  
  The contract will be let under the Regional SE7 Framework Contract. This Contract is applicable to both the value and the timescales required for the scheme and is used for contracts up to £5 M. The main works contract are under £5M.

- **Supply of Specialist Equipment**
  The project requires specialist equipment that for operational and maintenance reasons has to be compatible with that already procured under Phase 1A of BRT Eclipse busway Fareham to Gosport. Items include CCTV cameras, Access Control Rise Arm Barriers, Real Time Passenger Information, and Variable Message Signs at the entrance to the busway. HCC have a number of framework contracts for the supply, operation and maintenance of these items which will be used for this contract.

7.1.3 Evidence to show the risk allocation and transfer between the promoter and contractor, contract timescales and implementation timescales is contained within the following documentation detailed in the following section regarding the management case., and Appendix 9 on Risk Assessment.

7.1.4 The Project Plan explains the work necessary to deliver the project and is included at Appendix 3 and a detailed project programme gant chart showing the contract and implementation timescales is included at Appendix 4. NOTE: The majority of the work
outlined in the original Project Plan has now been completed. An updated Project Plan
detailing remaining work has been provided.

7.1.4 Section 151 Letter

7.1.5 A joint letter from the County Council’s Section 151 Officer and Head of Procurement
confirming that a strategy is in place that is legally compliant and likely to achieve the
best value for money outcome is included at Appendix 1.

7.1.6 Operator Agreement

7.1.6 The current Eclipse services are operated under a legally-binding five year partnership
agreement between Hampshire County Council and First. The extensive agreement
covers items such as quality and age of vehicles, punctuality and reliability,
maintenance of bus stop infrastructure, enforcement of bus lanes, passenger growth
targets, passenger feedback, the Real Time Information system and financial
contributions by operators to future BRT infrastructure (triggered by hitting passenger
growth targets). The partnership is overseen by a Board comprising representatives of
First and Hampshire County Council. The Board meets bi-monthly to proactively
manage ongoing BRT operations and to develop action plans in response to reliability
statistics, traffic delays and passenger feedback.

7.1.7 Both parties have delivered on the original aspirations for BRT. First operate brand
new accessible buses with euro 5 emissions, individual leather seats, free on-board wi-
fi, passenger ‘Infotainment’ system, next-stop announcements and branding specific to
Eclipse. The County Council in return maintains the busway and the associated
passenger facilities to a very high specification and has delivered significant bus
priorities within Fareham and Gosport to the benefit of Eclipse services. The scheme
includes a ground-breaking Real Time Passenger information system, where all bus
stops on the busway not only display next bus departure times, they include instant
messaging, local news headlines, weather, live Gosport Ferry running information and
real time rail departure information from Fareham and Portsmouth Harbour rail stations.
This level of technology will be extended onto phase 1B, and will add further value to
the real time information screens that are being implemented on the Eclipse routes as
part of the LSTF project. This truly integrated approach to passenger information has
made interchange between bus, rail and ferry much easier and the patronage figures
are backing this up.

7.1.8 The partnership so far has delivered outstanding results. Passenger growth has
exceeded the targets in the partnership agreement and has contributed to a significant
growth in use of the whole Fareham and Gosport bus network. Passengers are
satisfied too. Before the implementation of Eclipse, over 1,000 passenger interviews
were carried out to set a base level of satisfaction with existing bus services, bus stop
infrastructure, vehicles, driver attitude etc. ‘After’ interviews have been carried out and
these surveys are showing very high levels of passenger satisfaction with all aspects of
the service, significant numbers of people have been attracted out of their cars onto
Eclipse services, more people are using Eclipse for their daily commute, and more
passengers are transferring to rail at Fareham rail station. A particular area of growth
has been in the student market for journeys to Fareham College. Independent
passenger surveys have also been carried out on Eclipse by Passenger Focus and
these consistently show higher than average user-satisfaction ratings. Phase 1A of the dedicated busway has exceeded expectations with over 1.3 million passengers carried in the first year of operation. This represents a 64% increase on the services the Eclipse replaced. Surveys have identified that Phase 1A actually doubled the expected modal transfer and also doubled the numbers of cars that were predicted to be removed from the local road network.

7.1.9 As we progress towards delivering the next phase of the busway, First have committed to increasing the frequency of Eclipse services to every six minutes in each direction, facilitating this by providing 3 additional brand new buses to the same high specification. When the route was opened in April 2012 Eclipse services operated every 7/8 minutes and it is very encouraging that only nine months after the service started, First made commercial decisions to purchase more new buses to meet the growing passenger demand. The legally-binding partnership will be extended to cover the new facilities to be provided on the southern extension of the busway, the new vehicles and increased frequency.
8 The Management Case

8.1 Scheme Programme and Project Plan

The headline programmes for the scheme are set out previously at Tables in Section 4. Scheme construction dates are provided below.

Table 22: Construction Dates

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Start of Works</th>
<th>Completion of Works</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tichborne Way to Rowner Road - Southern Extension Off Road</td>
<td>May 2014</td>
<td>May 2015</td>
</tr>
</tbody>
</table>

8.2 A Gant chart showing the detailed programme is included at Appendix 4. The gant chart illustrates the work required from submission of the bid to scheme completion. The resource allocation has also been provided in the electronic version of the programme.

8.2 A Project Plan is included at Appendix 3 which outlines the work, resources and timescales required for the implementation and construction of the project. The project plan describes key milestones and tasks start and finish dates for the project.

8.3 Evidence of Major Scheme Delivery

Hampshire County Council has successfully delivered Phase 1A of the Fareham to Gosport BRT (Redlands Lane to Tichborne Way) dedicated busway within the last 5 years. Phase 1A, costing £25m was delivered to budget within an extremely rapid timescale (see timescales in Table 13 below) given the nature of scheme complexities and legal opposition. This demonstrates the ability of the County Council to work to programme and deliver complex major schemes. The project faced legal opposition on environmental grounds and was ultimately taken to the Supreme Court where the final Appeal was dismissed and Objections overturned. In addition the County Council faced two separate Village Green Applications one of which was rejected the other partly accommodated. The culmination of the legal challenges were a 9 month delay to construction programme, disruption and heavy legal costs, but the scheme was still delivered with relatively little disruption to the overall programme.
An outline work programme showing the scale of adversity and the efficient way in which this was dealt with is set out below to evidence capability of delivery.

Table 23  BRT Phase 1A Works Programme and Legal Challenge Timescales

<table>
<thead>
<tr>
<th>Month</th>
<th>BRT Construction</th>
<th>Funding, Planning Application, Objections and Legal action</th>
<th>TVillageGreen1 (The Corridor)</th>
<th>TVillage GreenG2 (The Triangle)</th>
</tr>
</thead>
<tbody>
<tr>
<td>October 2008</td>
<td></td>
<td>Scheme commenced and bid for CIF funding submitted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>January 2009</td>
<td></td>
<td>CIF2 Funding Approved</td>
<td></td>
<td></td>
</tr>
<tr>
<td>March 2009</td>
<td></td>
<td>Planning Application submitted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>July 2009</td>
<td>Main Contract Awarded</td>
<td>Planning Approved (14 delegations from objectors overcome)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>August 2009</td>
<td>Environmental Works underway</td>
<td>Pre-action protocol served by objectors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>September 2009</td>
<td>Injunction stopped all works</td>
<td>Judicial Review application &amp; ex-parte injunction served on 9th</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Month</td>
<td>Event</td>
<td>Decision</td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------</td>
<td>-----------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>October 2009</td>
<td>Expedited High Court Hearing held 14th-15th</td>
<td>Application to Register as TVG received by CRA on 30th</td>
<td></td>
<td></td>
</tr>
<tr>
<td>November 2009</td>
<td>Environmental Works recommenced</td>
<td>Judgment handed down on 17th Injunction lifted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>December 2009</td>
<td>Injunction stopped all works</td>
<td>Application to Court of Appeal &amp; ex-parte injunction served on 2nd</td>
<td></td>
<td></td>
</tr>
<tr>
<td>January 2010</td>
<td>Expedited Injunctive Hearing held on 28th &amp; injunction varied</td>
<td>Reg Committee on 11th agreed as CRA to hold Public Inquiry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>February 2010</td>
<td>Limited works permitted</td>
<td>Reg Committee on 11th agreed as CRA to hold Public Inquiry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>March 2010</td>
<td>Expedited Court of Appeal Hearing held on 10th/11th</td>
<td>Public Inquiry held 22nd to 26th</td>
<td></td>
<td></td>
</tr>
<tr>
<td>May 2010</td>
<td></td>
<td>Inspector’s Report recommends non-registration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>June 2010</td>
<td>Works recommence</td>
<td>Judgment handed down on 10th &amp; Injunction lifted</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Application formally rejected by CRA on 30th</td>
<td></td>
<td></td>
</tr>
<tr>
<td>July 2010</td>
<td>Application to Supreme Court &amp; Injunction</td>
<td>Public Inquiry held on 1st to 7th</td>
<td></td>
<td></td>
</tr>
<tr>
<td>September 2010</td>
<td>Main Works Start</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>October 2010</td>
<td></td>
<td>Inspector’s report recommends partial registration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>November 2010</td>
<td>Supreme Court Hearing held on 8th</td>
<td>Development of alternative strategies to resolve potential registration, including preparation of alternative design &amp; planning application, and potential statutory exchange of land</td>
<td></td>
<td></td>
</tr>
<tr>
<td>January 2011</td>
<td>Judgment issued on 19th Appeal dismissed</td>
<td>Landowner registers concerns on point of law</td>
<td></td>
<td></td>
</tr>
<tr>
<td>February 2011</td>
<td></td>
<td>2nd Legal Opinion obtained by CRA on Inspector’s Report</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Date</td>
<td>Event Description</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>------------</td>
<td>------------------------------------------------------------------------------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>April 2011</td>
<td>Application formally rejected by CRA on 11th May 2011</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>May 2011</td>
<td>Pre-action protocol served</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>June 2011</td>
<td>Dialogue opened with residents to consider exchange land options</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>July 2011</td>
<td>Agreement reached with residents to informally provide exchange land</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>End of Judicial Review window on 11th April 2012</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>April 2012</td>
<td>Opening Ceremony on 25th April</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 8.4 Statutory Powers and Consents

#### 8.4.1 Planning Permission
Planning Permission is already in place for the extension of the busway south to Military Road (a point further south than the current proposition to end at Rowner Road). The planning consent is secured, with conditions the majority of which have been signed off. In addition updated relevant ecological surveys have been undertaken this year. These surveys will enable mitigation strategies to be developed based on recent data. A further planning application was submitted in July 2013 to modify a small section of the approved planning permission to provide an at-grade junction, between the dedicated busway and Rowner Road, where previously the Planning Application had allowed for the busway to go under the road. The application for a modification was submitted in July 2013 and Planning Permission was approved on the 23rd October 13.

The disused railway corridor is within the ownership of Hampshire County Council, hence all land is already assembled.

#### 8.4.2 Traffic Regulation Orders
Traffic Regulation Orders will be required in relation to the off and on road sections of the scheme and proposed changes to parking restrictions. The following Traffic Orders associated with the project will be processed during the construction period:

- restricting the use of the busway to cyclists and Hampshire County Council authorised buses during the hours 5.45 am to 11.15 pm
- closing the busway to all traffic and pedestrians (except along the existing shared use pedestrian/cycleway) between the hours of 11.15pm to 5.45 am.
- No Waiting and No Loading Restrictions along Rowner Road to ensure smooth operation of the bus service.
- No left turn or no right turn restrictions on Rowner Road to control access onto the busway
- speed limit orders along the busway
- amendments to on street parking arrangements

#### 8.4.3 Variable message signs
Variable message signs at the entrance to the busway and on Rowner Road will be used to supplement the Traffic Orders. HCC has already obtained authorisation from the Department for Transport for these non prescribed signs. HCC may also protect the busway in accordance with the New Roads and Street Works Act.
8.5 Governance, Delivery Structure and Partnership Arrangements

8.5.1 The governance and project board arrangements for the South East Hampshire BRT network were revised following the opening of Phase 1A of the wider network. The current governance structures relate to firstly the overarching project and secondly the operational aspects of Phase 1A and thirdly the development of future parts of the network. The completion of the Fareham to Gosport routes fall under the first and third parts of this structure but are also intrinsically linked to the second part in relation to essential feedback on operational issues etc.

8.5.2 The Governance Structure for the Bus Rapid Transit Project is included at Appendix 8 for information. The governance structures are expected to be maintained throughout the development of the wider scheme, being intended to oversee the longer term development of the whole network.

8.5.3 The Governance Structure highlights the close partnership working arrangements between Hampshire County Council, Portsmouth City Council, Transport for South Hampshire and the South Hampshire Bus Operators association (SHBOA) all of whom are represented on the main Board. The bus operators within the South Hampshire sub-region have come together to form the South Hampshire Bus Operators’ Association, whose primary objective is to act as an interface between the bus industry and TfSH. All bus operators are keen to fulfil their potential within this new organisation and endorse the broad objectives of the scheme. SHBOA wishes to engage fully as a legitimate single industry voice with TfSH on a range of fronts with a view to making as rapid progress as possible in delivering the TfSH goals, including the BRT network.

8.5.4 The Senior Responsible Officer is: Keith Willcox – Head of Strategic Transport.

The Client Manager for the project is: Heather Walmsley Major Schemes Project Manager.

The project will be delivered by Hampshire County Council.

Partnership Arrangements The current Eclipse services are operated under a legally-binding five year partnership agreement between Hampshire County Council and First. The extensive agreement covers items such as quality and age of vehicles, punctuality and reliability, maintenance of bus stop infrastructure, enforcement of bus lanes, passenger growth targets, passenger feedback, the Real Time Information system and financial contributions by operators to future BRT infrastructure (triggered by hitting passenger growth targets). The partnership is overseen by a Board (reflected in the governance structure) comprising representatives of First and Hampshire County Council. The Board meets bi-monthly to proactively manage ongoing BRT operations and to develop action plans in response to reliability statistics, traffic delays and passenger feedback. Both parties have delivered on the original aspirations for BRT.

The Partnership Agreement is by nature commercially sensitive but a copy can be made available in a confidential respect if required.
8.6 Risk Management

8.6.1 In line with the LPP guidance this section of the Business Case considers:

- The risk management process and strategy
- The Risk Register, Risk Management Strategy and Quantified Risk Assessment

8.6.2 Purpose of Risk Analysis

8.6.3 The risk management process for the Fareham Gosport BRT has been undertaken in line with the Department for Transport’s Estimation and Treatment of Scheme Costs TAG Unit 3.5.9 and HM Treasury Office of Government Commerce (OGC) Management of Risk (2007) guidance.

8.6.4 Risk management is seen as a key process underpinning good scheme governance and achievement of scheme objectives in a cost effective manner. Accordingly an appropriate framework (comprising managing reporting, process and responsibilities) has been implemented as part of scheme management arrangements as set out below.

8.6.5 In the context of the Fareham Gosport BRT, risk has been defined as the potential for future events which have a negative impact on the achievement of scheme objectives. Events which provide a potential opportunity to impact positively on objectives have not been addressed. It should be noted also that risks relating to the operational management of the scheme have been excluded although technical performance risks shall be addressed through compliance with appropriate design standards and codes of practice.

8.7 Risk Management Process

8.7.2 An HM Treasury OGC model approach has been adopted based on four primary processes as shown below.
8.7.3 These processes are broadly cyclical (plan-do-review), requiring ongoing review and update to ensure effective controls are put in place and operated during scheme development and delivery. The process is underpinned by appropriate communication and reporting arrangements to ensure visibility at the relevant management level. The process will be reviewed on a regular basis to ensure proper operation and it remains effective in supporting achievement of the scheme objectives. The evaluation process for ensuring the benefits of the scheme is outlined later in this report.

8.7.4 The primary risk management processes are outlined below

**Identifying Risks**

8.7.5 The identification process has been informed through inclusion of relevant scheme team technical specialists, Project Manager, Client Manager and Project Director. Risks have been identified in view of known causes and the source of these at three levels:
- Strategic (external to the scheme)
- Project management activities
- Technical (design and construction activities)

8.7.6 The initial risk review will be updated on a regular basis and as a minimum at key review points. Each risk has been described in view of its impact on project performance, cost, time, objectives and compliance with health and safety and environmental regulatory requirements.

8.7.7 The risk description, causes and consequences have been established in order to allow assessment of the likelihood of occurrence and direct and indirect impacts. It should be noted that catastrophic risks, which arise from extraordinary events and result in exceptional consequences to the achievement of scheme outcomes and objectives, have not been included.

**Assessment of Risks**

8.7.8 The purpose of this step is to establish and evaluate the net effect of the identified risks. Five point scales have been used to assess both probability of occurrence during the scheme lifecycle and impact. Subsequently, a systematic approach was used to estimate the probability of occurrence and cost (direct and indirect e.g. associated with delays and clean up) impact in order to determine the risk cost (in line with WebTAG Unit 3.5.9 The Estimation and Treatment of Scheme Costs). At this stage, the cost range associated with the consequences of each risk was estimated, where the mean is the most likely value. The estimates have been derived following consultation with the Project Manager, scheme team technical specialists and quantity surveyor, to ensure estimates of probability and cost are complete and accurate, and consistent with the basis of the base cost estimate.

8.7.9 It was assumed when estimating risk costs that all risk events are independent and therefore no correlation exists between the occurrence of one event and another. The mean value of all risk costs has been calculated and has been added to the scheme base cost to provide a total risk adjusted baseline investment cost. The total investment cost excludes operating costs and risks following completion of construction and commissioning.
8.7.10 No adjustment is proposed for optimism bias on the basis that base costs reflect most likely values and risk costs have been added to reflect possible additional costs associated with provisional works and risk events. The estimate excludes potential savings associated with events which result in a cost reduction.

**Response Planning**

8.7.11 Following assessment and evaluation of risks a systematic approach was adopted to respond to risks and allocate responsibility to the most appropriate party in line with the governance arrangements set out previously.

8.7.12 One of four strategies has been adopted in developing a suitable response plan:

- Accept or tolerate the consequences in the event that the risk occurs
- Manage the risk through improvements in controls for management or technical processes
- Transfer or escalate the risk
- Terminate the activity giving rise to the risk.

8.7.13 Development of response plans to manage risk have been undertaken only where the likelihood of occurrence and impact can be reduced in a cost effective manner. A combined strategy has been considered where a mix of the above options would be the most appropriate option.

8.7.14 Risks should be transferred to a third party e.g. insurer or escalated to HCC for consideration only where they can be more cost effectively controlled. If this is not possible then either the activity giving rise to the risk should be terminated or the potential consequences accepted by the Project Director and scheme sponsor.

8.7.15 The initial assessment of risk probability and consequences was reviewed in line with proposed strategies and response plans.

**Implementation and Review**

8.7.16 As stated above, the response plans shall be proportional to the risks they are to manage. Furthermore, their effectiveness is dependent on proper implementation and review of the residual risk (including any secondary risks associated with implementation). Reviews of the status of scheme risk assessments and their related response plans (as part of project reporting) will be an integral part of weekly progress meetings during progression of detailed design and the construction period. All key risks will be formally reviewed and costed at gateways and key decision points in the scheme lifecycle.
8.8 Risk Reporting

8.8.2 Risk reporting is key to providing visibility of threats to the scheme at the appropriate level and to ensure controls are being properly operated to provide governance and protect achievement of scheme objectives.

8.8.3 A risk register has been established to record all risk information relevant to the risk management processes outlined above. This will provide the data required for analysis and management reporting/review. The reports will set out the current risk profile and how this has changed during the reporting period. It will also set out the status of response plans and highlight plans for near term risks where response plans have not been properly implemented or residual risk exposure remains high.

8.8.4 The scheme Project Manager will be responsible for maintaining the risk register and ensuring the information is up-to-date, accurate and complete. Line of reporting shall be in line with the governance arrangements set out earlier. This process will enable senior managers to consider budget requirements in a timely manner to deal with any cost overruns.

8.9 Risk Review, Risk Register and Cost Results

As part of developing the Business Case and the scheme costs, a full review of scheme risks was undertaken in January 2013. This was then reviewed and amended on 6 February 2013 by members of the Project Team and the Quantity Surveyor and Assistant Resident Engineer who worked on Phase 1 of the BRT busway – Redlands Lane to Tichborne Way.

8.9.2 A copy of the Updated Risk Register and Quantified Risk Assessment is included at Appendix 9. The register contains risk information, analysis and risk costs estimates. The main risks relate to:

- Action from objectors to the scheme
- Diversions of Statutory Undertakers Plant
- Ecological Risks
- Meeting the programme
- Design and information requirements
- Construction arrangements and impacts
- Costs
- Impact on the existing highway network

8.9.3 Tasks to be undertaken as part of Response Plans to address and mitigate the identified risks are identified in the Risk Register. The key response tasks involve:

- Making the Project Director and legal team aware of the proposed works so they can pre-empt and mitigate against any potential legal actions
- Updating ecological surveys to minimise the risk of legal action being successful on environmental grounds
- Undertaking fencing of sections of the disused corridor to minimise the risk that the action group could be successful with a Village Green Application. Review
the progress of the Growth and Infrastructure Bill that may prevent a Village Green Application being submitted for this project.

- Early and effective communication and liaison with the Client, Statutory Undertakers and other key stakeholders
- Early more detailed site investigations as part of detailed design
- An effective consultation strategy
- Clear methods for addressing statutory processes
- Adequate construction supervision and management
Table 24: Probability and Impact Scales Used for the Quantified Risk Assessment

<table>
<thead>
<tr>
<th>Description</th>
<th>Probability</th>
<th>Commercial Impact</th>
<th>Product/Service Delivery Impact</th>
<th>Environmental</th>
<th>Regulatory Impact</th>
<th>Health &amp; Safety</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very High</td>
<td>&gt;70%</td>
<td>&gt;£1m</td>
<td>&gt;4 mths delay</td>
<td>Extreme</td>
<td>Major environmental incident resulting in irreversible or extensive damage. National media coverage, public enquiry, prosecution.</td>
<td>Death, National media coverage, public enquiry, prosecution.</td>
</tr>
<tr>
<td>High</td>
<td>50-70%</td>
<td>£50k-1m</td>
<td>1-4 mths</td>
<td>Major</td>
<td>Major environmental incident resulting in severe impact requiring response by external authorities. Long term local industry media coverage, legal action.</td>
<td>Irreversible health effect/ major injury. Medium term local industry media coverage, legal action.</td>
</tr>
<tr>
<td>Low</td>
<td>10-30%</td>
<td>£50k-200k</td>
<td>1wk-2wks</td>
<td>Minor</td>
<td>Minor environmental impact requiring response but natural recovery. Significant short term Council/DfT correspondence, warning from authorities.</td>
<td>Mild health effect. Limited short term correspondence, recommendations from authorities.</td>
</tr>
<tr>
<td>Very Low</td>
<td>&lt;10%</td>
<td>&lt;£50k</td>
<td>&lt;1 wk</td>
<td>Negligible</td>
<td>Negligible environmental impact.</td>
<td>Negligible health and safety impact.</td>
</tr>
</tbody>
</table>

*Commercial Impact: Financial (£), Time.*

*Product/Service Delivery Impact: Performance.*

*Environmental Impact: Extreme environmental incident resulting in irreversible or extensive damage. National media coverage, public enquiry, prosecution.*

*Regulatory Impact: Major environmental incident resulting in severe impact requiring response by external authorities. Long term local industry media coverage, legal action.*

*Health & Safety: Death, National media coverage, public enquiry, prosecution.*
### Table 25: Risk Probability and Impact Grid (Used in the 2nd step for assisting produce the Qualified Risk Assessment)

<table>
<thead>
<tr>
<th>Probability</th>
<th>Very Low</th>
<th>Low</th>
<th>Medium</th>
<th>High</th>
<th>Very High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very High</td>
<td>5</td>
<td>10</td>
<td>15</td>
<td>20</td>
<td>25</td>
</tr>
<tr>
<td>High</td>
<td>4</td>
<td>3</td>
<td>12</td>
<td>15</td>
<td>20</td>
</tr>
<tr>
<td>Medium</td>
<td>3</td>
<td>5</td>
<td>9</td>
<td>12</td>
<td>15</td>
</tr>
<tr>
<td>Low</td>
<td>2</td>
<td>4</td>
<td>6</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>Very Low</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>ID</td>
<td>Source</td>
<td>Cause</td>
<td>Risk Event Description</td>
<td>Consequences</td>
<td>Estimated Cost Impact £000’s</td>
</tr>
<tr>
<td>-----</td>
<td>-------------------</td>
<td>------------------------------------------------</td>
<td>---------------------------------------------</td>
<td>--------------------------------------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>D43</td>
<td>Project Management</td>
<td>Village green application</td>
<td>Application for village green</td>
<td>Delay to contract &amp; legal fees</td>
<td>500 1000 20% 450</td>
</tr>
<tr>
<td>D44</td>
<td>Project Management</td>
<td>Objection to scheme on environmental grounds.</td>
<td>Application for judicial review.</td>
<td>Delay to contract and legal fees</td>
<td>300 700 30% 150</td>
</tr>
<tr>
<td>D45</td>
<td>Project Management</td>
<td>Delay to Statutory Undertaker services on Rowner Road</td>
<td>Delay to Contract</td>
<td>Rowner Road closed for longer resulting in delay to contract and poor PR.</td>
<td>300 700 40% 200</td>
</tr>
<tr>
<td>D46</td>
<td>Project Management</td>
<td>Dormice or other protected species found on site and results in design changes.</td>
<td>Delay to contract.</td>
<td>Delay to contract resulting in additional costs.</td>
<td>500 1000 10% 75</td>
</tr>
<tr>
<td>D47</td>
<td>Project Management</td>
<td>Existing / New badger setts</td>
<td>Programme delay during construction due to working constraints</td>
<td>Delay to contract resulting in cost over-runs.</td>
<td>200 500 15% 53</td>
</tr>
<tr>
<td>D32</td>
<td>Management</td>
<td>Risk of Public Safety during Construction (4 Km long scheme)</td>
<td>Injuries/ fatalities to members of the public</td>
<td>Injury compensation costs + poor local and national PR</td>
<td>50 100 20% 15</td>
</tr>
<tr>
<td>D48</td>
<td>Project Management</td>
<td>Poor soil conditions within planting areas.</td>
<td>Existing soil conditions are not suitable for proposed landscape planting.</td>
<td>Soil improvement required.</td>
<td>1 100 60% 30</td>
</tr>
<tr>
<td>ID</td>
<td>Source</td>
<td>Cause</td>
<td>Risk Event Description</td>
<td>Consequences</td>
<td>Estimated Cost (£000’s)</td>
</tr>
<tr>
<td>-----</td>
<td>---------</td>
<td>----------------------------------------------------------------------</td>
<td>----------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------</td>
<td>-------------------------</td>
</tr>
<tr>
<td>D33</td>
<td>Management</td>
<td>Difficulty of accurately pricing contract. Market forces affecting tender prices</td>
<td>Tender price exceeds cost budget</td>
<td>Additional funding required - poor PR for HCC</td>
<td>1 500 30% 75</td>
</tr>
<tr>
<td>E2</td>
<td>Technical</td>
<td>Combination of limited topographical survey/site information and inaccuracies in design</td>
<td>Excess fill requiring removal from site with license or need to retain fill on site</td>
<td>Redesign to accommodate excess fill on site. Additional cost and delay associated with approvals</td>
<td>1 100 20% 10</td>
</tr>
<tr>
<td>C18</td>
<td>Strategic</td>
<td>TRO’s are required to be re-advertised due to need to mitigate legal challenge</td>
<td>Possible delay to contract award</td>
<td>Reduced timescale for construction and higher unit costs.</td>
<td>1 50 10% 3</td>
</tr>
<tr>
<td>D15</td>
<td>Technical</td>
<td>Site is bounded by fences which are overgrown and condition is uncertain</td>
<td>Possible need to replace boundary fencing</td>
<td>Extra cost to Client</td>
<td>1 50 10% 3</td>
</tr>
<tr>
<td>D2</td>
<td>Management</td>
<td>Lack of access to full length of site. Inadequate site investigations and survey information to confirm if land encroached by 3rd parties</td>
<td>Adjacent property owners may need to be advised and legal action taken to take possession of land</td>
<td>Extra cost to the client and late delivery of the scheme</td>
<td>10 50 10% 3</td>
</tr>
<tr>
<td>ID</td>
<td>Source</td>
<td>Cause</td>
<td>Risk Event Description</td>
<td>Consequences</td>
<td>Estimated Cost (Impact £000’s)</td>
</tr>
<tr>
<td>----</td>
<td>--------</td>
<td>--------------------------------------------</td>
<td>----------------------------------------------------------------------------------------</td>
<td>-------------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Risk that un-chartered statutory undertakers services will be encountered during excavation (see also D9)</td>
<td>Delay to contract</td>
<td>15</td>
</tr>
<tr>
<td>D25</td>
<td>Management</td>
<td>Statutory service providers are known to use the busway corridor</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E17</td>
<td>Technical</td>
<td>Surface water runoff will be exacerbated following site clearance.</td>
<td>Inadequate temporary drainage during construction causing localised flooding.</td>
<td>Environmental prosecution, interruption to works and associated delays and 3rd party claims</td>
<td>20</td>
</tr>
<tr>
<td>E14</td>
<td>Strategic</td>
<td>Legislative and policy changes during design and construction period 1 yr+</td>
<td>Possible changes to design standards and construction methodology. Restrictions affecting Planning Application</td>
<td>Delay to programme key dates and related increase in costs and performance compromises</td>
<td>50</td>
</tr>
<tr>
<td>E6</td>
<td>Technical</td>
<td>Archaeological remains are not known to exist on this section of the site</td>
<td>Extent sub-surface archaeological remains of value may be found during construction</td>
<td>Regulatory involvement leading to evaluation, delay and additional cost.</td>
<td>50</td>
</tr>
<tr>
<td>ID</td>
<td>Source</td>
<td>Cause</td>
<td>Risk Event Description</td>
<td>Consequences</td>
<td>Estimated Cost Impact (£000’s)</td>
</tr>
<tr>
<td>----</td>
<td>--------</td>
<td>-------</td>
<td>------------------------</td>
<td>--------------</td>
<td>--------------------------------</td>
</tr>
<tr>
<td>D35</td>
<td>Strategic</td>
<td>Long site on which CDM regulations need to be addressed as part of design</td>
<td>Design may need to change to address safety issues</td>
<td>Poor local PR, Health and Safety issues</td>
<td>20 100 20% 12</td>
</tr>
<tr>
<td>E8</td>
<td>Management</td>
<td>Construction noise expected from machinery during site hours</td>
<td>Stop notice may be issued by Local Authority, Section 61 requirements restricting activities.</td>
<td>Delay and additional costs during construction</td>
<td>25 200 10% 11</td>
</tr>
<tr>
<td>D34</td>
<td>Management</td>
<td>Some specialist products are required for the scheme e.g. bus stops, kerbs</td>
<td>There may be difficulties securing and acquiring specialist products</td>
<td>Delay of delivery of materials to Contractor</td>
<td>1 50 10% 3</td>
</tr>
<tr>
<td>D41</td>
<td>Project Technical</td>
<td>High Water Table</td>
<td>May affect installation of drainage and structures</td>
<td>Delays to overall contract</td>
<td>200 500 30% 105</td>
</tr>
<tr>
<td>D42</td>
<td>Project Management</td>
<td>Delay to programme causes works to extend beyond funding window.</td>
<td>Outside DfT funding window</td>
<td>HCC need to find additional funding.</td>
<td>200 500 10% 35</td>
</tr>
<tr>
<td>D40</td>
<td>Technical</td>
<td>Impact of temporary works (e.g. road closure Rowner Road) on existing highway network.</td>
<td>Long traffic delays on highway network.</td>
<td>Poor PR for HCC and additional costs to provide extra temp traffic management systems</td>
<td>5 20 20% 3</td>
</tr>
</tbody>
</table>

Notes: Cost estimates and probability are based on engineering and QS judgement using scheme base cost estimate. Total Cost Estimate £1,208
8.10 Risk Analysis

Analysis of all scheme risk costs has been undertaken in compliance with WebTAG unit 3.5.9. The risk register provides the mean risk cost. Generally the mean risk cost is used for reporting risk costs to the Project Board.

The Risk Analysis was undertaken by using @Risk software available from www.palisade.com.

The results of the analysis are displayed in Tables 27 and 28 below.

The following results were obtained.

- Mean cost = £1.208m
- P50 (50 percentile cost) = £1,151m
- P90 (90 percentile cost) = £2,075m

The P50 value highlighted above has been used to calculate the overall scheme cost.

Table 27 @Risk Output Report for Risk Cost Total
Table 28 – Probability against – Risk Cost Total

**Summary Statistics for Risk Cost Total**

<table>
<thead>
<tr>
<th>Statistics</th>
<th>Percentile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum</td>
<td>0% 5%</td>
</tr>
<tr>
<td>Maximum</td>
<td>4,228 10% 451</td>
</tr>
<tr>
<td>Mean</td>
<td>1,229 16% 646</td>
</tr>
<tr>
<td>Std Dev</td>
<td>658 20% 849</td>
</tr>
<tr>
<td>Variance</td>
<td>0.257 25% 750</td>
</tr>
<tr>
<td>Skewness</td>
<td>0.482 30% 523</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>3.909 36% 914</td>
</tr>
<tr>
<td>Median</td>
<td>1,551 40% 996</td>
</tr>
<tr>
<td>Mode</td>
<td>0 45% 1,572</td>
</tr>
<tr>
<td>Left X</td>
<td>287 60% 1,581</td>
</tr>
<tr>
<td>Left P</td>
<td>5% 65% 2,237</td>
</tr>
<tr>
<td>Right X</td>
<td>2,315 60% 1,322</td>
</tr>
<tr>
<td>Right P</td>
<td>84% 66% 1,410</td>
</tr>
<tr>
<td>Diff X</td>
<td>2,028 70% 1,261</td>
</tr>
<tr>
<td>Diff P</td>
<td>95% 75% 1,566</td>
</tr>
<tr>
<td>Ferror</td>
<td>0 80% 1,729</td>
</tr>
<tr>
<td>Filter Min</td>
<td>0 85% 2,066</td>
</tr>
<tr>
<td>Filter Max</td>
<td>0 90% 2,078</td>
</tr>
<tr>
<td>#filtered</td>
<td>0 95% 2,316</td>
</tr>
</tbody>
</table>

Value at Risk (P90) = P90 value - P50 value = £923,442

**Note:** whilst the P50 risk cost is used to calculate the overall scheme cost it is also useful to record the difference of this value compared with the 90% probability risk cost value. This provides an at risk value of £923,442.
8.10 Stakeholder Management

8.10.2 Numerous key stakeholders have an interest in the proposed South East Hampshire BRT network including: The Solent LEP, MPs; County and Local Councillors; Local Borough/City Councils; Public Transport Operators; road, bus and rail users; the business community; local residents; statutory consultees and Emergency Services. Letters of support from key stakeholders are attached at Appendix A.

8.10.3 Public consultation in relation to BRT Phase 1 (A and B) originally took place during October 2008 to provide timely, factual and relevant information about the BRT network and busway proposals via a range of communication activities, for the key stakeholders mentioned above, local residents and users of the transport networks. Feedback from the consultation was collated and analysed in order to establish key concerns, issues and opportunities and to inform the subsequent stages of design and implementation. A second public consultation was undertaken in January 2009 which sought to address the concerns raised at the previous consultation and provide greater details as design work had progressed in the interim. Further statutory consultation was undertaken as part of the formal Planning process commencing in March 2009.

8.10.4 The emergency services, disability groups and transport user groups, in addition to statutory consultees were all consulted on the detailed design of the busway scheme and through the Planning Application process in March 2009.

8.10.5 Consultation with the Environmental Health officers at Fareham and Gosport Borough Councils continued throughout scheme development with regard to contaminated land and Air Quality and to discuss the Fareham AQMAs and the proposed methodology for carrying out Air Quality assessments.

8.10.6 Consultation has been undertaken with the Inspector of Ancient Monuments for English Heritage, Archaeologists for Hampshire County Council and the Head of Conservation and Design for Gosport Borough Council concerning Cultural Heritage issues. The main areas of concern were the exposure of the setting of Fort Fareham. There were no concerns regarding impacts on the below-ground archaeological remains.

8.10.7 Other Statutory Environmental Bodies (Natural England, Environment Agency) were contacted in relation to appraisal requirements regarding Habitat Regulation requirements for SPAs, suitable mitigation for Nature Conservation impacts and for licence applications.

8.10.8 Operational Interests are fully represented by the South Hampshire Bus Operators Association and in relation to the Gosport to Fareham corridor First Hampshire and Dorset being the sole operator are working in partnership with the County Council to both develop and deliver the scheme.
8.10.9 Stakeholder Objections

8.10.10 Stakeholder objections have been managed through the Planning Application process and the subsequent Appeals and Legal Action. However the County Council is mindful that environmental issues remain extremely sensitive in this area particularly in relation to the protected species badgers and bats and every endeavour is being made to ensure these matters and others continue to be dealt with in the best way possible in accordance with all guidance and appropriate standards.

8.10.11 Communications Plan

8.10.12 An outline Marketing and Communications plan is included below at Table 29 for information. This builds upon the extremely active marketing campaign which took place as part of the build up to the opening of Phase 1A in April 2012 and has continued since the opening. The outline Marketing and Communications Plan is also backed up by a more robust strategy. The approach to and mechanisms for communications and marketing for the BRT scheme are already well established and completion of the Gosport Fareham routes would draw upon the experiences so far but would take advantage of the processes already in place to enable the effective marketing to be undertaken.

Table 29 Communications Plan

<table>
<thead>
<tr>
<th>PLANNED START DATES</th>
<th>TO RUN</th>
<th>ACTIVITY</th>
<th>RESPONSIBLE</th>
<th>COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oct 2012</td>
<td>Oct 2012</td>
<td>Awards – CILT, National Transport (press release)</td>
<td>First and HCC</td>
<td>-</td>
</tr>
<tr>
<td>Dec 2012</td>
<td>Dec/Jan 2013</td>
<td>1 millionth passenger (press release)</td>
<td>First, with HCC, quote and data</td>
<td>-</td>
</tr>
<tr>
<td>Jan – March 2013</td>
<td>Easter</td>
<td>Tourism tie-in. Offer on family tickets, promoted in attractions’ newsletters, online, authority publications, etc</td>
<td>First and HCC</td>
<td>Banner for website, cost of tickets</td>
</tr>
<tr>
<td>Jan/Feb 2013</td>
<td>Spring</td>
<td>Tie in with launch of My Journey travel planning website</td>
<td>First and HCC</td>
<td>-</td>
</tr>
<tr>
<td>Jan – March 2013</td>
<td>Mar/April 2013</td>
<td>Spring photography competition. Best landmark in Gosport/Fareham, winner to get their photo of bus back, social media promotion, press release</td>
<td>First and HCC</td>
<td>6.5k</td>
</tr>
<tr>
<td>Jan – March 2013</td>
<td>April 2013</td>
<td>First birthday – promote with Wave FM, competition, direct mail, social media, offers, website, town centre days</td>
<td>First and HCC</td>
<td>20k</td>
</tr>
<tr>
<td>Jan – March 2013</td>
<td>22 April 2013</td>
<td>First birthday press release, stakeholder news, authority publications</td>
<td>First and HCC</td>
<td>-</td>
</tr>
<tr>
<td>March/April 2013</td>
<td>Spring</td>
<td>Business and college travel planning – inc, car park ticketing!</td>
<td>First and HCC (My Journey)</td>
<td>TBC</td>
</tr>
</tbody>
</table>
8.10.13 An example of the type of active marketing that was being undertaken for the first birthday celebration of Phase 1A Eclipse is set out below.

- ‘AnniversaFree’ promotion (free travel on Eclipse on Monday 22 April for listeners registering via the Wave 105 website – limited to first 2,000 to register). Rick Jackson will drive one of the buses on the day, which will help raise the profile of the promotion because he’ll be talking about it on air in the days leading up to the birthday.

- Town centre promotion days in Fareham and Gosport, with the Wave 105 street team. This will include a prize draw with the chance to win an iPad or runners-up prizes of free bus travel.

The total cost for the radio promotion is now £15,031.69 to be jointly funded by, Hampshire County Council and First Group.

8.11 **Assurance and Project Approval**

The National Procurement Strategy for Local Government (NPSLG) recommends a Gateway Review Process (GRP) is adopted for all new procurement projects. Hampshire County Council has a Gateway process set up as a mechanism to enable projects to be assessed at critical stages in its lifecycle prior to commencing the next stage.

The use of the Gateway process enables:

- Realistic and achievable targets
- Deployment of relevant skills and competencies to a project
- Stakeholders understanding of a project and issues involved
- Less chance of a project failing
- Identification of issues within a project and lessons learnt
- Compliance and governance of standing orders and best practice
Visibility of the procurement process

Provision of a comprehensive audit trail

8.12 Project Appraisals are currently being produced as part of the Gateway process.
8.13 Monitoring and Evaluation

Evaluation during Construction and Implementation

8.13.1 In line with the Projects in Controlled Environments (PRINCE2) Project Management methodology lessons learned from the implementation of the scheme will be documented at the end of key stages. The evaluation team, identified to carry out Post Project Evaluation (PPE), will audit performance against aims and objectives in relation to activity performance, financial projections, construction and commissioning. Project managers will oversee the maintenance of a Lessons Learned Log from which will derive a Lessons Learned Report at project closure. This information will be shared with stakeholders and other authorities as appropriate.

Post Opening Scheme Evaluation

8.13.2 A Monitoring and Evaluating Plan to assess the benefits of the BRT Phase 1A scheme was developed to provide evidence of its effectiveness, determine which benefits have come to fruition and also to assess the risks of non-delivery of the benefits. This plan will be extended to cover the southern scheme extension with the objective of assessing benefit realisation against the Business Case, and identifying any unanticipated disbenefits. The data from the Phase 1A monitoring work will be drawn upon and expanded to cover the southern extension.

8.13.3 The core evaluation objectives are to:
- Measure the success of the scheme against the identified scheme objectives
- Demonstrate that the scheme has achieved value for money by meeting key indicators linked to the scheme objectives

8.13.4 The key benefits sought are:
- Improved bus journey times and reliability
- Increased bus patronage
- Improved public transport image

8.13.5 Existing traffic count data as well as updated survey data will be used to establish the baseline for the scheme prior to its construction. Monitoring (data collection) will also take place at regular intervals after the scheme has opened. This will allow a full before and after comparison to be made and allow judgment of whether the scheme has met its objectives. In addition Patronage and perception surveys are being undertaken for Phase 1A which will be extended to cover the southern extension. The following key post-opening time periods will be considered:
- After a period of one and two years post opening to establish initial travel patterns, and
- After a period of five years post opening when travel patterns should have fully settled down. This review period may be varied to fit in with progress on the rest of the south east Hampshire BRT network.

8.13.6 The plan will assess the performance of the proposal against the scheme objectives, as set out in Table 30, based on the indicators and methodologies shown. This assessment will also enable evaluation in terms of delivering the key benefits and minimising the possible disbenefits.
### Table 30: Monitoring and Evaluation Plan

<table>
<thead>
<tr>
<th>Metric</th>
<th>Objective/Key Benefit</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Outline Evaluation Plan Indicators</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Survey public transport journey times along specific corridors prior and post opening of the scheme</td>
<td>• Improve bus journey times and reliability</td>
<td>Timed runs between Gosport and Fareham undertaken by surveyors. Comprehensive ‘before’ data collected. Surveys are undertaken 2-3 days per weeks.</td>
</tr>
<tr>
<td>Bus usage surveys using ticketing data from the operator. In addition a comparison will also be made of reliability and time table accuracy</td>
<td>• Improve bus journey times and reliability • Increase bus patronage</td>
<td>Passenger numbers on Eclipse and other local services - Data from bus companies</td>
</tr>
<tr>
<td>Passengers boarding and alighting at bus stops</td>
<td>• To measure the number of bus passengers going to Fareham railway station and college</td>
<td>RTI data for Eclipse service Boarding and alighting at: • new bus stop near to railway station (0700-1900 hours) • Redlands Lane bus stop (students accessing tertiary education AM peak)</td>
</tr>
<tr>
<td>Qualitative user surveys and patronage data</td>
<td>• Improve public transport image</td>
<td>Perception questionnaire for bus passengers. (&gt;1,000 before questionnaires completed) Qualitative data will also be collected on passenger behaviour to include an indication of modal shift</td>
</tr>
<tr>
<td>Monitor NO2 levels in accordance with the thresholds and timescales defined in the AQMA plans</td>
<td>• To assist in meeting the requirements of the AQMA Plans</td>
<td>Air quality data collected by Fareham Borough Council at the AQMAs on A32 Gosport Road and Portland Street.</td>
</tr>
<tr>
<td><strong>Travel Pattern/Congestion Indicators</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vehicle counts and queue lengths – indication of scheme impact on traffic/ congestion</td>
<td>• To measure if there is any change in travel patterns and volumes on the local road network</td>
<td>Traffic Volumes; • Permanent traffic counters • ATC • MCC Turning Counts</td>
</tr>
<tr>
<td>Route journey times and congestion</td>
<td>• To measure if there is any change in journey times and congestion on the local road network</td>
<td>Strat-e-gis® outputs of Trafficmaster journey time data which also includes delay and speed information</td>
</tr>
<tr>
<td>Cycle Volumes</td>
<td>• To measure the number of cyclists using the busway and if this has had an impact on</td>
<td>Permanent cycle count sites on the road network • MCC - cyclists using BRT route</td>
</tr>
</tbody>
</table>
1. As previously explained Monitoring and Evaluation is currently underway for Phase 1A. The study findings are at this stage incomplete however it is worth noting that the results are extremely positive and more information can be provided if required. Extending the scheme will build upon the early successes of the first phase. Phase 1A of the dedicated busway has exceeded expectations with over 1.3 million passengers carried in the first year of operation. This represents a 64% increase on the services the Eclipse replaced. Surveys have identified that Phase 1A actually doubled the expected modal transfer and also doubled the numbers of cars that were predicted to be removed from the local road network. This reinforces the substantive case for Phase 1B which is needed to complete the southern section of the busway to maximise the already significant benefits from Phase 1A and to provide a more logical connection point between the dedicated busway and the existing highway.
9. CONCLUSIONS / SUMMARY

This bid is for the extension of the South East Hampshire Bus Rapid Transit Gosport to Fareham Eclipse dedicated off road busway linked by the improved on road services which will now be funded from elsewhere to Gosport town centre and ferry terminal. The scheme forms part of a high specification, sub regionally significant public transport network designed to provide a viable alternative to the car and remove the transport barriers to economic growth and development of key sites.

Phase 1A of the scheme between Redlands Lane in Fareham and Tichborne Way in Gosport was completed in April 2012 and has proved a huge success. Funding is now sought to complete Phase 1B, the southern extension to the dedicated busway as part of the much wider network.

- **Success Story** Phase 1A of the scheme was completed in 2012 and has exceeded expectations with more than 1.3 million passenger journeys made in the first year. The number of people using public transport to travel between Gosport and Fareham has risen by 11.86% overall, while 64% more people now use the Eclipse BRT service than used the services that it replaced (ie Services 82 and 86). Phase 1B is needed now to build on this success.

- **Strong Local Support** - the scheme is fully supported by the Solent Local Enterprise Partnership (SLEP); Hampshire Chamber of Commerce along with Fareham and Gosport Borough Councils;

- **Supports Solent Enterprise Zone** – the scheme significantly improves public transport accessibility in the Gosport Peninsula and will encourage development at this important Enterprise Zone.

- **Provides links to new employment and housing sites** – the scheme provides links to 194,750 square meters of employment along with 9,750 new homes.

- **Improves access to urban employment centres** provides direct access to existing town centre employment areas which currently experience inaccessibility through heavy congestion.

- **Partnership Working** – the scheme has been developed through Partnership working with the South Hampshire Bus Operators Association (SHBOA) and First Group Hampshire and Dorset.

- **Strong Economic Case** – the scheme provides good value for money for a public transport scheme which will always score lower than highway schemes which generally offer benefits to a wider range of users. Whilst Phase 1A took most of the benefits Phase 1B is now needed to complete the route.
• **Strong Strategic Case** - The scheme will make areas of existing and planned new strategic employment sites accessible and more attractive to business by removing transport barriers to growth. The area is suffering due to a declining employment base and the withdrawal of MOD employment. BRT is essential given limited opportunities for highway enhancement and uplifts the area by making it more accessible. Completion of the route is fundamental.

• **Deliverability** Phase 1A of the scheme was both developed and constructed over just a 3 year period from January 2009 to April 2012, which provides evidence of the Hampshire capability. Phase 1B is designed and ready to construct. Planning Permission has now been secured for the scheme and contract documents are being prepared. **Work on site can start immediately funding is awarded.**

• **Reduces congestion and carbon emissions** – provides a viable alternative to the private car, encouraging modal shift and reducing overall car journeys adjacent to two AQMAs in this heavily congested urban transport network.