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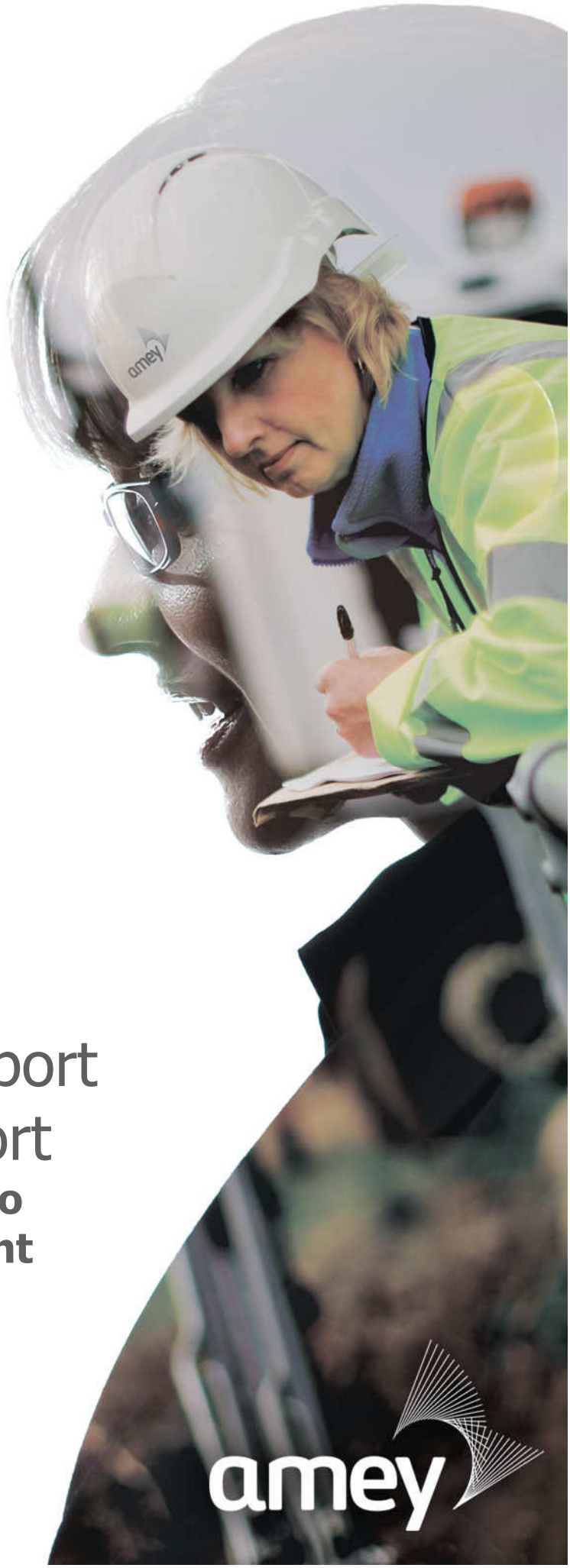

2016-21 LGF Transport Business Case Report

Kent Sustainable Access to Education and Employment

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November 2015

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1 Introduction

1.1 SELEP Schemes – Business Case Preparation

Amey have been commissioned by Kent County Council (KCC) to prepare Transport Business Cases, appropriate to the size and scope of each scheme, for each of the projects which have been allocated Local Growth Fund (LGF) funding.

1.2 Purpose of Report

The overall purpose of this report is to provide a Business Case covering the elements of the scheme programmed for LGF funding for the period 2016-21. In doing so it draws on the results of the earlier Gap Analysis exercise and on the previous transport business case report (Amey doc ref: CO04300262_025~01), which successfully unlocked funding for the scheme for the financial year 2015-16.

It also forms the basis of a brief to deliver the required elements in order to assist Kent County Council in delivering these elements or in procuring resource to deliver them.

The report broadly follows the 5-Case Model for Transport Business Case preparation, incorporating design and environmental issues as well as a summary of the overall risks in terms of project delivery and project funding approval. This includes:

- The potential for the project to be called in for review by DfT or other bodies before it is delivered
- The potential for challenge from stakeholders which may jeopardise or delay the project
- The potential that a subsequent review of the project after implementation may identify issues relating to the delivery of overall outcomes (e.g. job creation or transport modal shift)

1.3 Specific Scheme

This scheme is entitled

Kent Sustainable Access to Education and Employment

This describes the function of the proposal, though the scheme itself involves the delivery of rights of way improvements in Kent, generally complementary to housing, employment and educational developments and/or other investments such as related highway and rail schemes. Developer funding is available for many schemes of this nature and the LGF funds are designed to complement these and deliver more comprehensive and effective schemes.

2 Scheme Summary

2.1 Introduction to Project

The preparation of a Rights of Way Improvement Plan (ROWIP) is a statutory duty set out in the Countryside and Rights of Way Act 2000. Under LTP-2, the ROWIP was integrated with other local transport planning and delivery. The Kent County Council ROWIP (2013-2017) is entitled the Countryside and Coastal Access Improvement Plan and is geared towards:

- Helping the Kent economy to grow
- Tackling the disadvantaged
- Putting the citizen in control

These goals are complementary to the SELEP Strategic Economic Plan (SEP) detailed in Section 3 (Strategic Case). In order to maximise the benefit from schemes and align closely to the development of jobs and housing in Kent, ROWIP schemes are generally linked to complementary schemes and funding such as Section 106 (Town and Country Planning Act). Schemes are selected on an annual basis against criteria geared towards the strategic goals of Kent County Council, using the Intelligent Investment Tool.

Since the schemes actually funded and delivered under the ROWIP will vary from year to year, this Transport Business Case has been prepared based on the successful bid for funding from the previous submission of the Access to Education and Employment Transport Business Case which appraised the Loose Valley example scheme. Similarly, the new Transport Business Case will appraise a package of schemes which are geared towards providing sustainable access to education and employment through the delivery of various rights of way improvements in Kent. The appraisal will assess value for money based on a proportionate assessment of each improvement package which will inevitably deliver slightly different benefits due to differing strategic nature. This approach is illustrated in the Figure 2 – Scheme Causal Chain and Figure 3 - Appraisal Flowchart.

The previous submission of the Access to Education and Employment Transport Business Case scheme assessed the Loose Valley scheme to the south of Maidstone. This provided an excellent and typical example of a ROWIP scheme designed to create a network of sustainable and active travel opportunities and to generate modal shift away from motorised transport within a new development and accordingly was granted funding and commissioned to.

The new scheme consists of a series of upgrades and the provision of new routes from areas of emerging development to local schools and employment facilities, enabling users to avoid heavily trafficked corridors subject to poor air quality. Not only will this encourage healthier sustainable travel but will also enhance national public rights of way networks through the creation of new links.

The scheme will reduce the revenue costs of maintaining the existing rights of way network in the area. By shifting some trips away from car, the scheme will help address transport congestion in the targeted areas and in turn help unlock housing sites which otherwise may be unviable because of the additional traffic likely to be generated. In this the scheme complements other transport interventions in the area such as the Kent Strategic Congestion Management Programme and the West Kent LSTF Tackling Congestion Scheme.

The completed Sustainable Access to Education and Employment Scheme is scheduled for delivery during year 6 (2020/21), the component Public Rights of Way (PRoW) improvements will be scheduled for delivery on a yearly basis following the completion of the previous Loose Valley example scheme in 2015/16. Table 1 illustrates the PRoW improvements that form the subsequent Sustainable Access to Education and Employment Scheme. They have been allocated delivery dates, selected using the Intelligent Investment Tool, previously used to select the Loose example scheme for funding.

Table 1 Scheme Details and Delivery Expectations

Sustainable Access to Education and Employment Scheme	
Year	Improvement proposal
2016/17 2016/17	Sustainable links to town – New cycle route from Finberry to Ashford Access improvements at Tunbridge Wells Common
2017/18	Sustainable access links from Powder Mills, Leigh to Tonbridge

Sustainable Access to Education and Employment Scheme	
2018/19	Sustainable access improvements from Peters Village to Halling, Snodland, Aylesford and Maidstone
2019/20	Ashford cycle links to education and employment areas- Upgrades to existing paths, shelters and signage
2020/21	Sustainable access to local school at Leybourne Grange

2.2 Project Roles

Role	Name
KCC Programme Manager for SELEP schemes	Mary Gillett
KCC Commissioning Officer for specific scheme (Project Sponsor)	Colin Finch
Amey Project Manager for SELEP schemes	Stephen Whittaker
Amey Highway Design Lead	David Ward
Amey Environmental Lead	Jen Taylor
Amey contacts for specific scheme: Business Case	 Neil Anderson Sophie Best

2.3 Category of Transport Business Case

The total project cost is estimated at £1.2 million between 2016/17 and 2020/21, of which LEP funding of £0.8million is available and has been provisionally granted. This total excludes the Loose Greenway scheme as it is on target for delivery with funding secured. Other funding assumptions (£408,000) are presumed to be developer contribution.

2.4 Overall Summary of Gap Analysis Exercise

The overall scheme is fairly well advanced based on the successful process to select and deliver the example Loose scheme. Since no land acquisition or planning issues are involved, there are no significant identified gaps which would jeopardise the scheme. There are some remaining design/delivery risks, including:

- Landowners reject requests for access or rights of way or unplanned land purchase is required;

- Stakeholders reject scheme as unsuitable or inappropriate;
- Highway design issues prove costly;
- Significant habitat or other wildlife issues arise;
- Key stakeholders (e.g. LEP or DfT) insist on additional quantitative appraisal;
- Related highway scheme designs affect scheme or scheme affects these schemes;
- Unknown levels of demand;
- Benefits achieved do not match those predicted in the example used in the Business Case; and
- Anticipated developer contributions are not actually delivered.

There are some additional gaps in the business case and scheme appraisal elements, though these must be seen in the context that this 'small' scheme should only require a light touch appraisal which is generally recognised as being based on:

- A narrative argument supported where possible with existing information;
- The strategic fit of the scheme, which is already well established in this case in relation to supporting housing and employment growth in the area; and
- Complementary support for larger schemes, which in this case includes the housing developments in the area.

No traffic modelling work is required after adopting a proportionate approach in line with 'small scheme' guidance, though the demand forecasting travel elements of the scheme will be appraised using guidance contained within WebTAG Unit A5.1 'Active Mode Appraisal'. The Active Mode Appraisal Toolkit has been used to support the case.

2.5 The Transport Business Case

The UK Treasury 'Green Book' sets out a process for presenting the business case for investment schemes involving public funds. This approach involves three stages:

Strategic Outline Case (SOC)

This is the scoping stage of the investment process and is the current stage of the Kent Sustainable Access to Education and Employment proposal. The purpose of the SOC is to confirm the strategic context of the investment; to make a robust case for change; and to provide stakeholders and customers with an indication of the proposed

way forward, together with indicative costs. Since an earlier pre-feasibility review has already established that the scheme can achieve an economic benefit, the SOC in this case takes account of this in the context of the modified design. More detailed design work will be conducted as the Transport Business Case progresses.

Outline Business Case (OBC)

This is the detailed planning phase of the investment, revisiting the OBC in more detail and to identify a preferred option which demonstrably optimises value for money. It also sets out the likely approach to funding; demonstrates its affordability; and details the supporting procurement strategy, together with management arrangements for the successful rollout of the scheme.

Full Business Case (FBC)

This takes place within the procurement phase of the project, though before a formal decision to proceed has been made and prior to the formal signing of contracts and the procurement of goods and services. The purpose of the FBC is to revisit the OBC and record the findings of the subsequent procurement process. It also sets out the recommendation for an affordable solution which continues to optimise VFM, and includes detailed arrangements for the successful delivery of goods and implementation of services from the recommended supplier.

2.5.1 5-Case Model

The Transport Business Case process is designed to ensure that investments are directed at the right schemes and that these are managed and delivered in the best way. This ensures that transport investment addresses important issues in an effective way, delivering value for money.

The core of each stage of the Transport Business Case is the 5-Case Model which ensures that schemes:

- Are supported by a robust **case for change** that fits with wider public policy objectives – the 'strategic case';
- Demonstrate **value for money** – the 'economic case';
- Are **commercially viable** – the 'commercial case';
- Are **financially affordable** – the 'financial case'; and
- Are **achievable** – the 'management case'.

This document uses this 5-case model in an appropriate and proportionate way to demonstrate the merit of investing in the proposed Sustainable Access to Education and Employment Scheme.

2.6 Context of the Transport Business Case

Currently promoters of all schemes involving an investment of public funds over £5m ('major schemes') are required to prepare and submit a Transport Business Case. Previously a Business Case would be submitted to the Department for Transport (DfT).

Recent Government policy changes have involved the devolution of decision-making for smaller major schemes to Local Enterprise Partnerships (LEPs). These bodies are designed to direct investment for an area based on economic priorities set through a partnership which is private-sector led. Kent County Council is in the South East LEP (SELEP) area.

The devolved funding arrangements were put in place in July 2014 through the Local Growth Deal announcements, including devolution of funds to the SELEP.

This Transport Business Case will be submitted to the SELEP effectively forms a bid to request confirmation of the already allocated LGF funding for the scheme.

2.7 Scheme Description

The overall scheme presented in this Business Case is Kent-wide, providing complementary rights of way improvements which will enable access to employment, education or other facilities, linked to housing and other developments. The scheme will deliver substantial enhancements to pedestrian and cycle transport facilities and infrastructure, to make these modes more attractive when compared to the private car. By transferring trips from car to walk and cycle, the scheme will complement the other schemes in the wider Kent area by providing walk and cycle access which will help 'lock in' the benefits of capacity improvements.

The actual schemes funded will vary year to year, chosen using an Intelligent Investment Tool. This ensures that resources are targeted on the most effective schemes in terms of delivery of improved access to employment and education. The specific scheme packages that make up the scheme going forward from 2016/17 and beyond are:

- A new cycle route from Finberry to Ashford (2016/17);
- Access improvements at Tunbridge Wells Common (2016/17);
- Direct cycle and pedestrian route from Leigh to Tonbridge (2017/18);
- A new cycle and pedestrian route from Peters Village to Halling, Snodland, Aylesford and Maidstone (2018/19);
- Upgrades to existing paths, shelters and signage across Ashford (2019/20); and
- A direct pedestrian/cycle route between Leybourne Grange Primary School and Leybourne Chase (2020/21).

Figure 1 details the locations of the six sustainable access improvement schemes across Kent.

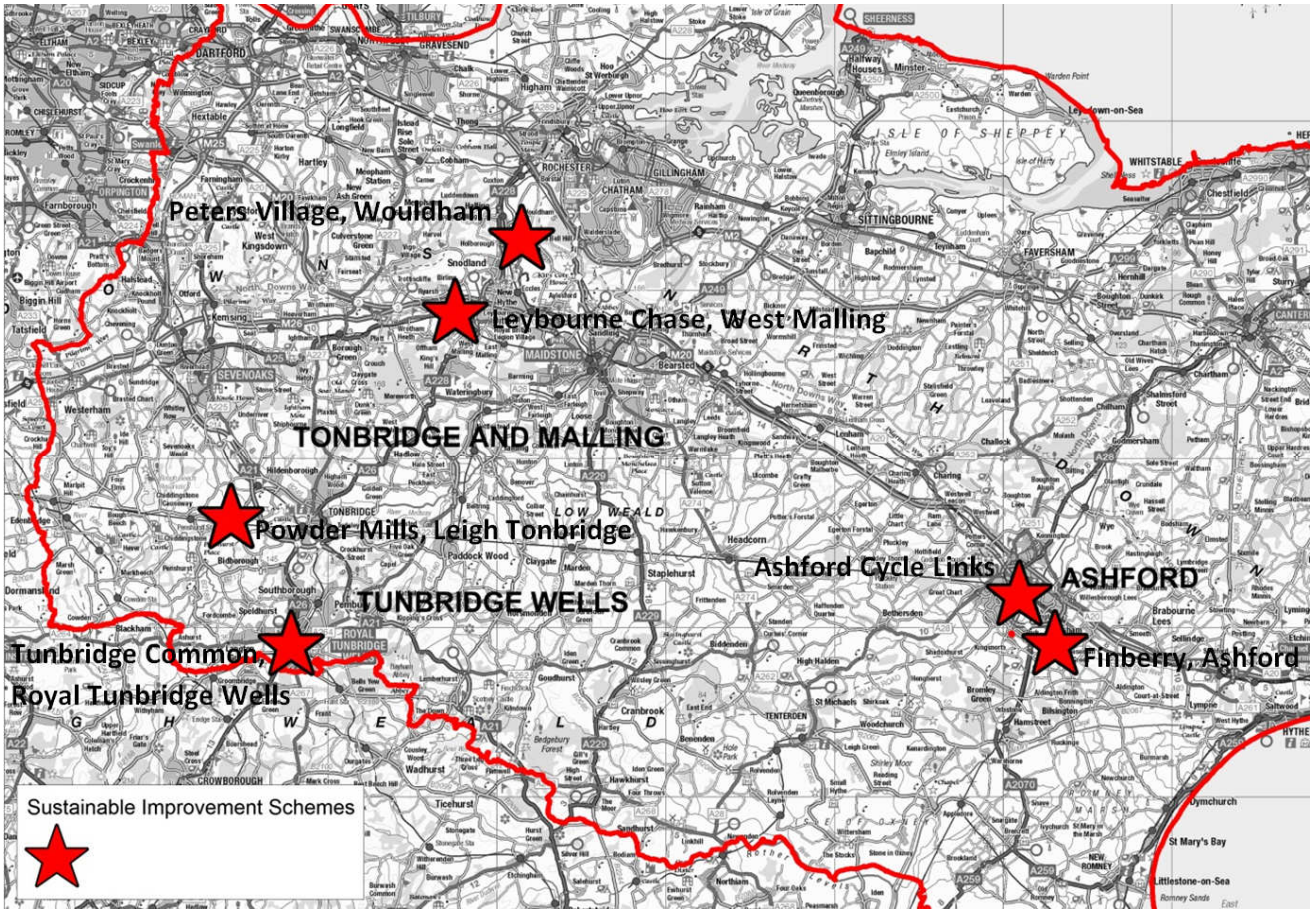


Figure 1 Improvement Scheme Locations

2.8 Existing Situation, Proposed Improvements and Options

The ROWIP sets out improvement plans for rights of way across Kent. As detailed previously, the plans are focused on improving important links, especially those providing links to employment and education. There are significant demands from communities for improvements to rights of way and there are currently approximately 2,500 requested schemes across the county. In order to prioritise schemes, an Intelligent Investment Tool (IIT) has been developed which ensures that funds are allocated to schemes most aligned to Kent strategies, including the SEP, the LTP and *Growth without Gridlock*. This process will be applied on an ongoing basis to ensure that LGF resources are applied to those schemes which contribute most to Kent's economic development. One key element of the IIT is in prioritising schemes which are linked to employment and housing development, as well as those with complementary funding (e.g. Section 106 developer funding) available.

Area Overview

Kent is a County located in the south east of the country bounded by East Sussex to the south east, Surrey to the west, Medway UA in the north and approximately 350 miles of coastline to the south and east.

Kent is made up of 12 district councils with approximately 1.5 million residents; Dartford, Gravesham, Sevenoaks, Tonbridge and Malling, Tunbridge Wells, Maidstone, Swale, Canterbury, Ashford, Shepway, Dover and Thanet in addition to the Unitary Authority of Medway.

The principal towns within the county include Maidstone, Tunbridge Wells, Canterbury, Ashford and Dartford. Outside of these principal towns, the county is predominantly rural. In 2013, the county had a population of 1,510,400 of which 926,500 were between the ages of 16 and 64[1]. Population growth across Kent is higher than the national average with the population growing by (+1.1%) between 2013 and 2014[2]. Population forecasts suggest that the total population of Kent will increase by 58,600 people between 2016 and 2021[3]. The new sustainable links to employment and education will encourage a mode shift from car; facilitate safe and healthy access to nearby schools and workplaces.

Finberry, Ashford – Sustainable Links to Town (2016/2017)

The Finberry sustainable links to town scheme is located in Ashford, specifically the Weald East ward. Currently no sustainable access routes exist to and from the emerging development. The proposal will provide a new route, suitable for year-round use for both walkers and cyclists. The route supports the large 1180 home residential development commissioned by the developer Crest and Nicholson. The land at Cheesemans Green has also been commissioned for 75,000m² of employment floorspace, shops and a primary school.

[1] kent.gov.uk, Facts-and-figures - District profiles
[2] Business Intelligence, Research & Evaluation, Kent County Council www.kent.gov.uk/research
[3] kent.gov.uk, Facts-and-figures - District profiles

The majority of the people residing in the emerging development will make trips to the local schools and workplaces in the town centre and surrounding areas. The development proposal outlines a network of sustainable transport links to adjoining residential and employment areas such as Park Farm East and Waterbrook which will enhance the proposed route.

The provision of the new direct cycle route will facilitate access to East Stour and Kingsnorth Primary Schools, approximately 1km away. The new route will link the Finberry residential housing development at Cheesemans Green to Ashford town centre and International train station, situated 2.6km north of the new development.

The route will join other strategic networks, linking national route 177 which will run south from Northfleet in Kent, via Rochester, Maidstone and Ashford, to join National Route 2 on the south coast.

Tunbridge Wells Common – Access Improvements (2016/17)

The scheme is located at Tunbridge Wells Common in Tunbridge Wells and aims to complete an unfinished section of the National Cycle Route NCN 18 between Groombridge and Tunbridge Wells Town Centre. The significant quality improvements to the existing degraded and unfinished path will promote sustainable access choices through the central open spaces of Tunbridge Wells Common.

The access improvements will increase the use of Tunbridge Wells Common for the purposes of accessing the town, areas of employment and education. Improving the quality of the existing pathway will make it attractive to target users encouraging more people to commute to employment or education via sustainable modes of transportation. The attractive off road route will facilitate trip movement from residential areas such as Ramslye to Royal Tunbridge Wells Town Centre. The provision of an all year round durable path will also encourage transport interchanges between parking at the common and Tunbridge Wells Station.

Powder Mills, Tonbridge and Malling – Sustainable Transport Links to Tonbridge (2017/18)

The scheme is located in Leigh approximately 3.5km from Tonbridge. It involves upgrading an existing public footpath to allow for cycling between existing residential developments and the emerging Powder Mills development to Tonbridge town centre, schools and Train station.

The Public Rights of Way (PRoW) improvement is a durable all year round traffic free route which will facilitate longer journeys to the Weald. The car free foot and cycle path involves the improvement of existing PRoWs SR437A and MU24 whilst creating a direct link to Tonbridge. The new cycle route will join Regional Route 12, an off road track which connects Tonbridge and Penhurst.

A total of 73 dwellings have been granted planning permission at the old GlaxoSmithKline site, a mixture of detached, semi-detached and terraced housing. Any newly built dwellings located next to existing PRoWs have been designed to face onto the route to increase visibility and surveillance, encouraging usage of the new path.

The route will encourage sustainable access to the nearby Sussex Road Community Primary school, The Hayesbrook Secondary School and West Kent and Ashford College 2km away. Whilst enabling journeys to areas and employment and Tonbridge station.

The proposal is complimentary to Tonbridge High Street Schemes and developer contribution has been secured.

Peter's Village – Sustainable Access Improvements (2018/19)

The scheme to be implemented is located in Wouldham a small village approximately 10km north of Maidstone. The scheme will complement the emerging Peter's Village development of 1000 new dwellings, linking it to Halling Primary School and nearby train stations at Halling, Snodland, Aylesford and Maidstone. Upgrades to existing PRoWs will encourage cycle trips to and from the emerging development.

The provision of new sustainable transport routes from the emerging development to local schools and employment facilities will shift some trips away from car, the improvement proposal will help address transport congestion in the targeted areas and in turn help unlock housing sites which otherwise may be unviable because of the additional traffic likely to be generated. New routes will link to the River Medway Crossing which after completion will eventually connect the A228 on the west bank with Peters Village and will be an essential access route over the Medway.

Ashford Cycle Links to Education and Employment Areas (2019/20)

The scheme will deliver various components of improvement projects identified within the Ashford cycle strategy (2011-2017), contributing towards the existing goal of creating a 'demonstration cycle town' for Kent. The component scheme consists of three improvement measures.

The first is route 3 'Godinton link to primary schools'. The proposal will upgrade existing tracks to provide a cycle link to Green Sands Way and to Orchard Heights over the railway line. The route will provide a link between Forest Avenue and Spindlewood end.

The second proposal is route 4 'The Learning Link', the proposed improvement of a bridge and footpath linking the town, new college and the parks, as well as the parking and amenities provided for in the ZedHomes development, which passes through south Ashford and into Chilmington Green. The route will extend northwards from its Chilmington Green location towards Ashford Town Centre and will further facilitate sustainable access to schools, colleges, the library and other relevant institutions along the way. The Chilmington Green development site has the potential for a total 7,000 dwellings and 1,000 jobs and is located south east of Ashford. The route has allocated section 106 contributions, although approved the section 106 is at this stage not engrossed.

The last proposal is to fund a wholesale signage scheme to create a colour coded route network. The comprehensive directional signage improvements aim to facilitate cycle routes connecting existing networks with new links and national/ regional pathways overall enhancing the National Cycle Network. The overarching scheme idea is to create map similar to that of the London Tube network and Bristol cycle network.

All three schemes will facilitate sustainable access from various residencies within Ashford to areas of employment and education. The routes specifically link to various primary and secondary schools within Ashford. The links will contribute towards a wider overarching network plan that aims to shift existing car trips towards cycle and relieve the local road network from increasing vehicle numbers.

Leybourne Grange – Sustainable Access to Education (2020/21)

The scheme to be implemented will be situated in Leybourne, West Malling and will provide access to a new local school within an emerging development with the provision of surfaced pedestrian route. The sustainable improvement will provide a new access route for residents of the Leybourne grange to access the new proposed primary school at Leybourne chase. The housing development has been granted outline planning permission for up to 702 dwellings and the emerging school will have a capacity of 210 pupils.

Currently an exist PRoW abuts to the south of the development between church Road in the west and Birling Road in the east granting people access to housing. Local PRoWs footpaths MR130 and MR154A connect the site to various other routes. The new PRoW will provide safe surfaced off road access to Leybourne Chase primary school.

Summary and Review of Options

For many of the established routes within the Kent sustainable access to employment and education scheme they are currently somewhat disjointed, poorly maintained and badly signed. Significant improvements are required to make them fit for all year round usage and to encourage modal shift to more sustainable means of transportation. The creation of new pathways and new links is a necessary at many of the emerging large housing developments. Whilst the proposals do not preclude use for leisure, a much more coherent approach is required in order to attract additional commuters and children travelling to school.

This involves:

- Improving the surface of existing off-road sections to make them more usable (including by mobility impaired users) and to reduce ongoing maintenance;
- Improving fencing and other features to address safety and accessibility issues;
- Improving links to the route from nearby housing, school and employment locations;
- The design and implementation of new key cycle and pedestrian routes;
- Improving signage along the route, including where it uses quiet roads and where it links to schools, housing and employment locations; and
- Minor road safety and access improvements on the 'quiet road' sections.

Although at a detailed level, as the project is delivered, there will be small adjustments made to the overarching scheme to take account of local feedback, there are no significant scheme options beside 'do nothing' versus 'do scheme'.

3 Strategic Case

3.1 Purpose of the Proposed Investment

The overall purpose of the investment is to encourage cycling and walking by providing attractive, direct routes for cyclists and pedestrians to access employment, education and other facilities. Following the introduction of the previous example scheme, the new case present will assess 6 new measures selected by the IIT.

By encouraging the use of active travel (cycling and walking) this will provide health benefits for existing and future resident in the area.

By attracting people to use cycling and walking, alongside complementary LSTF schemes, the scheme will help 'lock in' the benefits of highway investments and will free up road space. This in turn will enable the sustainable growth of Kent as set out in the Local Plans of the constituent local authorities. The overarching scheme is Kent wide, not only supporting the growth of the County but the component boroughs of Ashford, Tonbridge and Tunbridge Wells. The scheme supports a series of planned housing and employment growth set out in Local Plans and local development planning framework (LDF).

These goals are to be achieved with reference to other important factors such as the local environment, the safety of road users and any impact on drivers of climate change. Figure 2 sets out these elements in a Causal Chain.

3.2 Strategic Fit – National Transport Priorities

The Government has long-term objectives aimed at improving the economy, environment and society. These are the three tenets against which major transport infrastructure projects are assessed, and will continue to be assessed in future.

In its National Infrastructure Plan 2014, the Government presented its vision for the UK transport system:

- Transport infrastructure can play a vital role in driving economic growth by improving the links that help to move goods and people around and by supporting the balanced, dynamic and low-carbon economy that is essential for future prosperity;

- Local transport systems must enable suburban areas to grow. The transport network must support good value and rapid movement of goods around the country. The transport system must be efficient but also resilient and responsive to infrequent an unexpected pressures; and
- Airports and ports are the gateways to international trade and the Government will work to improve the road and rail connectivity to major ports and airports.

Local sustainable transport schemes such as those included within the Sustainable Access to Education and Employment Scheme will complement larger schemes and in themselves provide access to jobs and longer-distance routes. Sustainable transport, by transferring trips from car, also reduces carbon emissions and helps improve local air quality, both of which are important National policies. Since sustainable transport schemes 'lock in' the benefits of highway schemes and complement rail schemes, they are entirely supportive of the wider National connectivity and economic agendas.

3.3 Strategic Fit - National Planning Policy Framework

The National Planning Framework (NPPF) was published in March 2012 and is designed to set out how planning authorities are expected to enable sustainable development. In order to achieve this it sets out an overarching presumption in favour of sustainable development, taking account of the three dimensions of:

- An economic role relating to building a strong, responsive and competitive economy. In relation to the planning system this is fundamentally about ensuring that sufficient land is available to enable job creation, together with the infrastructure to support this
- A social role in supporting strong, vibrant and healthy communities, with an emphasis on the provision of housing in the context of high-quality built environment and access to local services
- An environmental role in terms of protecting and enhancing the local environment and helping mitigate and adapt to climate change

Transport and connectivity play a key role in all three of these dimensions and the NPPF contains a section which outlines this and sets out a number of key requirements in terms of planning and decision-making by local planning authorities. Much of this is about limiting the impacts of developments and improving their long-term sustainability. In relation to this project, this includes:

- The use of technology and the balancing of land use to reduce the need to travel and minimise journey lengths (e.g. walking to school and working from homes or local hubs)
- Balancing the transport system in favour of sustainable models for the movement of goods and people, including priority to pedestrian and cycle movements and access to high quality public transport
- Creating safe and secure layouts which minimise conflicts between traffic and cyclists or pedestrians, avoiding street clutter
- Encouraging the reduction of congestion and of greenhouse gas emissions
- The effective use of tools including Transport Statements (TS), Transport Assessments (TA) and Travel Plans (TP)
- Protection of sites and routes which could be critical in developing infrastructure to widen transport choice
- Inclusivity, including meeting the needs of disabled people

This should be seen in the context of the imperatives for economic growth as set out in the South East LEP Growth Deal and Strategic Economic Plan.

This proposal, involving the provision of a high-quality cycle and walk routes designed to attract commuting and other trips is clearly consistent with this National policy.

3.4 Strategic Fit – Kent Local Transport Plan

Kent is South East England's fastest recovering region and has great potential for successful economic growth. In the last 20 years, Kent has seen 100,000 more people living in the county, housing stock increase by over 60,000 homes and 130,000 more cars on roads. This pace of change is set to accelerate further over the next 20 years with a projected 8 per cent population increase, accompanied by the presence of two of the UK's four Growth Areas in Thames Gateway and Ashford.

Local growth alone is predicted to result in 250,000 extra journeys on Kent's roads by 2026. Coupled with a forecast increase in international traffic this leads to tackling congestion being regarded as one of the main priorities for Kent. KCC's framework for regeneration "Unlocking Kent's Potential" defines what Kent should look like in 20 years' time and includes as 1 of its 5 priorities "delivering growth without transport gridlock" - by designing communities that will encourage walking, cycling, and healthy leisure activities. Based on this Growth without gridlock: A transport delivery plan for Kent ***(see Section 3.5)*** establishes transport priorities for the next 20 to 30 years to support Kent's Environment Strategy target of reducing greenhouse gas emissions by 20% by 2020 and 80% by 2050.

Kent's third "Local Transport Plan (LTP3), 2011-16" sets out KCC's Strategy and Implementation Plans for local transport investment in the short term. It proposes a new approach to prioritising investment in transport infrastructure in order to support housing and employment in Kent's Growth Areas and Growth Points, make Kent a safer and healthier county, improve access to jobs and services, especially in disadvantaged areas, and cut carbon emissions. Its planned measures are prioritised under five themes: Growth Without Gridlock, A Safer and Healthier County, Supporting Independence, Tackling a Changing Climate and Enjoying Life in Kent. Under each theme the Plan prioritises a range of sustainable transport initiatives, by area and by mode. Whilst some of these initiatives have already been put in place or are in progress, a number of them provide the basis for the proposals prioritised by the SE LEP for capital investment support, including all those for sustainable transport. These initiatives have also subsequently been aligned with the local area development and regeneration plan produced or in the process of being produced by the 12 District or Borough Councils in the County.

The component proposals that form the Sustainable Access to Education and Employment scheme strongly fit with these local policies.

3.5 Strategic Fit – Growth without Gridlock

Growth without Gridlock is the delivery plan for transport investment in Kent. It was published in 2010. It sets out the priorities for transport investment and how these will be delivered in order to meet the current and future demands of the County in the context of its crucial role in the UK and European economy.

The overarching goal of Growth without Gridlock is to enable growth and prosperity for Kent and the UK as a whole. Although predating the South-East LEP Strategic Economic Plan, the key elements of both are entirely in accord. This has enabled the development of an effective package of transport schemes to be brought forward as part of the Local Growth Fund investment.

Growth without Gridlock recognises that road transport is responsible for around 30% of Kent's greenhouse gas emissions and that the way forward is to provide low carbon transport options allied with better planning to reduce the need to travel, which in turn will support economic growth, housing growth and tackle climate change.

The Plan states that: "the private car will continue to remain the most popular and dominant form of transport for our residents and these expectations and demands increase pressure on our transport network, on our environment and on us as individuals. This reliance is also the reason why our road network is congested and in response our vision is to create a high quality integrated transport network which will create opportunities for real transport choice as well as enabling economic growth and regeneration". Some of the key transport challenges identified by the Plan are:

- Transferring existing and new car trips onto public transport, walking and cycling, especially for short journeys;
- Tackling congestion hotspots;
- Integrating rail services and improving connectivity between stations; and
- Providing sufficient transport infrastructure to mitigate the impact of the planned development including walking and cycling routes.

Ashford is identified in *Growth without Gridlock* as a Growth Point, with ambitious plans for growth in housing and jobs (see 3.8 below). *Growth without Gridlock* identifies both congestion and air quality issues which will constrain the planned growth. In particular, there are congestion 'hot-spots' in and around the town centre. These will be addressed by the sustainable access to education and employment scheme and it underpinning improvements. The improvements will encourage mode shift from car with the provision of attractive, off road, direct routes to local schools and areas of employment.

A number of specific proposals are identified to address this. In relation to the schemes the relevant action, to which this scheme contributes significantly, is:

Improved walking and cycling networks, supported by travel plan requirements for major new developments

The delivery of this imperative by this scheme, in the context of wider schemes, is set out in ***Figure 2 – Scheme Causal Chain***. The component schemes are complementary to the planned improvements to the highway, public transport and rail infrastructure, including schemes which are also in receipt of Local Growth Funding through SELEP. By reducing the number of car trips made, especially at peak time, new and upgraded public rights of way (PRoWs) will help 'lock in' the benefits of these investments, providing better value from the LGF programme as a whole. The sustainable access to education and employment scheme is itself complemented by the Local Sustainable Transport Fund scheme (also LGF funded) which will encourage people to use the route, further improving its effectiveness. Similar synergies will be sought through future ROWIP schemes, as incorporated within the Intelligent Investment Tool used to select schemes.

3.6 Strategic Fit - South Eastern Local Enterprise Partnership

Local Enterprise Partnerships (LEPs) are voluntary partnerships between businesses and local authorities which are intended to determine economic priorities for an area and to take a lead in fostering economic growth and creating jobs. There are 39 LEPs in England.

The South East LEP (SELEP) is one of the biggest, encompassing Thurrock, Essex and Southend to the north of the Thames, along with East Sussex, Kent and Medway to the south.

Each of the LEPs was invited by Government to submit Strategic Economic Plans (see Section 3.7) as the basis for negotiating a portion of the Local Growth Fund (LGF) to be allocated over the period between 2015 and 2021. Although the initial amount, to be announced in July 2014, is £1.4bn, this funding stream is expected to be up to £2bn per year for the six year period. Clearly this will depend on the Government Spending Reviews and on any change of Government on 2015.

This process is linked to the devolution of local major scheme funding decisions, previously decided by DfT, to LEPs. Although the precise details are not yet clear, the application of the Transport Business Case process and the transport appraisal guidance (WebTAG) is expected to continue, though their use is intended to be 'proportionate'.

The SELEP Growth Deal and Strategic Economic Plan emphasises the importance of 'investment in our transport growth corridors/areas'. This is alongside the four other themes of 'building on our economic strengths'; 'boosting productivity',' improving skills' and 'building more houses and re-building confidence'. Clearly in each of these four themes, transport and connectivity have an additional role to play.

3.7 Strategic Fit – Strategic Economic Plan

Published in March 2014, the SELEP Strategic Economic Plan (SEP) sets out the investment strategy for the area. This document includes the SELEP bid for Local Growth Fund, the primary source of funding for this project.

A component element of this is the Kent and Medway Growth Deal which sets out plans for the public and private sectors intend to invest over £80 million each year for the next six years to unlock our potential through:

- Substantially increasing the delivery of housing and commercial developments;
- Delivering transport and broadband infrastructure to unlock growth;
- Backing business expansion through better access to finance and support; and
- Delivering the skills that the local economy needs.

The SEP involves delivering the biggest local transport programme in the country to realise the potential of the growth corridors and sites, transforming connectivity for our businesses and residents unlocking jobs and homes, and bringing substantial benefits to the UK economy;

As part of the overall growth programme for 200,000 new private sector jobs and 100,000 new homes, there are specific plans for 7,000 jobs and 8,500 homes on the London-Maidstone-Ashford Corridor and 9,000 jobs and 7,500 homes on the London-Tonbridge-Tunbridge Wells area over a six-year period.

These plans are supported through a programme of transport investment. This in turn includes:

- A request for Government commitment to deliver specific national rail network, motorway, and national trunk road investments by agreed dates and;
- A corresponding commitment from local authorities and private developers to meet a significant proportion of the costs

These are complemented by proposals for local sustainable transport funding to ensure that growth occurs in a sustainable manner, including the 'locking in' of benefits from highway and other investments.

£154.2m of SEP Local Growth Fund investment in transport schemes over the six year period will be focused on capital investments in sustainable transport measures, and in 2015/16 this amounts to £43.6m. The ROWIP scheme (referred to as *Sustainable Access to Education and Employment*) is a part of this programme of complementary sustainable transport investment.

Appraisal and Business Case Preparation

The SEP sets out the process through which schemes will be identified, appraised and prioritised for delivery. This process if based on the HM Treasury 5-Case Model. For transport schemes, the SELEP has adopted the Assurance Framework agreed between the former Local Transport Board and the Department for Transport (DfT). For smaller schemes, this sets out a 'light touch' approach geared towards the following:

- Value for Money – based on BCR and wider Economic Benefits.
- Environmental and Community Impact – Potential benefits and adverse impacts.
- Contribution to Objectives – LTP, SE LEP and SELTB Objectives.
- Deliverability – affordability. Practicality, key risks, stakeholder and public support

This Transport Business Case is designed to conform to this process.

3.8 Strategic Fit – Local Plans (Housing and Employment Growth)

Growth plans in the Kent area are ambitious and contribute to the targets set out in the SEP. It is important that these developments take place in a sustainable manner.

Along with the National Planning Framework (see Section 3.3), the Town and Country Planning Act 2012 set out requirements for Local Planning Authorities to develop and adopt Local Plans which set out the strategic priorities for the development of the area. This process replaced the previous arrangements put in place in 2004 for Local Development Frameworks.

Housing target set between 2006-2026 in the 2009 South East plan states per annum 450 new dwellings should be expected at Tonbridge and Malling, 300 in Tunbridge Wells and 1,135 in Ashford all of which have been identified as regional hubs for economic activity and transport services.

The Local Plan for Ashford is still in preparation and some key elements, including the size and location of housing developments, have not been fully defined. The Ashford Core Strategy briefly outlines locations allocated for strategic development in housing employment and transport infrastructure. Whilst this makes it difficult to be precise about the growth in trips which will be served by the Loose scheme, it is clear that significant growth (around 1,135 homes/year) will take place in the area and that many trips generated by existing and new housing developments will terminate at employment and education sites (including in Ashford Town Centre) which are served by the route.

The Tonbridge and Malling Borough Council Local Development Framework 2007-2021 is a key planning document which details the council's vision, aims and objectives outlining patterns of development. The four major brownfield sites that have been identified for development are Holborough Lakes, Kings Hill, Leybourne Chase, and Peters Pit, which will include other major infrastructural developments such as the River Medway Crossing and new schools. The vision:

- Ensure new development occurs in a sustainable manor
- All new developments are assessed in terms of the construction of appropriate and relevant transport and community infrastructure.

The Tunbridge Wells Core Strategy (June 2010) is a saved policy as provided for in the Planning and Compulsory Purchase Act 2004. The plan sets out Tunbridge Wells Borough Council's (TWBC) master plan for development across the borough and forms part of the Local Development Framework until 2026. The plan details the provision of 6000 new dwellings, the majority of which will be located within Tunbridge Wells and Southborough the rest in smaller surrounding rural towns and villages such as Paddock Wood and Hawkhurst. Detailing various parameters to which any development should be implemented within the borough in relation to a wider range of regional and national plans.

The plan presents a series of objectives which aim to address rising economic prosperity and the predicted population increase of 16.4% between 2013 and 2033, to strategically create a sustainable, good quality environment. The strategy concludes design and maintenance improvements to the existing extension network of Public Rights of Way, is necessary to encourage sustainable travel and usage of these paths, making them safer and more attractive to the public. The Tunbridge Wells scheme proposal conforms to this objective whilst also catering for the increasing population and encouraging a shift to sustainable modes of transportation using existing PRoWs.

3.9 Strategic Fit – Cycling Strategies

Kent County Council in partnership with district councils have created a number of local cycling strategies. Tunbridge Wells borough Council are currently in the process of creating a new strategy.

The Tonbridge and Malling Cycle Strategy 2014-2019 is a collection of principles and related action plans that work together to promote cycling and the development of appropriate cycling facilities throughout the borough. Originally drafted by Sustrans working in partnership with KCC and TMBC, as well as consulting with local cyclists. The strategy seeks to join the many disparate cycle routes in the urban areas of the borough. The major principles which govern the strategy are:

- The provision of high quality, well maintained safe cycle routes; and
- The promotion of cycling, ensuring routes are fully advertised and signed throughout the borough.

The Ashford Cycling Strategy 2011-2016 highlights the importance of the future extension of cycle routes for Ashford, exemplifying the numerous health benefits of cycling and the importance of sustainable modes of transportation for the substantial growth plans. The plan also aims to tackle issues addressed in the LTP by:

- Encouraging sustainable modes of transportation;
- Increase accessibility and decrease social inclusion, access for all; and
- Reduce congestion and environmental impact.

3.10 Strategic Fit – Countryside Access Improvement Plan

Kent County Councils 'Countryside Access improvement Plan 2007-2017' which sets out a 10 year strategy for improving access to the countryside.

The countryside access service details responsibility for the protection and enhancement of Kent's Public Rights of Way network. Ensuring the management and enforcement of the following objectives for all 12 districts:

- Make appropriate path surface and drainage improvements.
- Improve signposting and waymarking, and in certain places add destination information.
- Develop multiuser routes that allow walking, cycling and horse riding from towns to the wider countryside.
- Establish a more complete rights of way network. This includes creating new links through consultation with members of the public and our partners.

This transport business case follows the objectives set out within the KCC Countryside Access Improvement plan, as the majority of the proposals will provide access to and from the countryside and nearby towns and local amenities.

3.11 Case for Change - Rationale for the Scheme

The key rationale for the overall ROWIP scheme is in its role in supporting the planned growth in housing and employment, helping ensure that this takes place in a sustainable manner. This is within the following context:

- Housing and employment growth (and resultant activities such as education and shopping) will generate additional trips in the area;
- Investment in the highway network is designed to cater for these additional trips, enabling the developments to take place;
- The benefits of these investments can be 'locked in' if a proportion of the trips can be undertaken by sustainable modes, including public transport, walking and cycling;
- This 'locking in' will ensure that growth can continue as planned and not become unsustainable through rising congestion

In order to achieve this, safe, attractive and direct routes for walkers and cyclists are required. This will attract users who would normally travel by car, especially if traffic-free routes can be designed to provide car-competitive journey times. The safe routes to school will also improve the safety and independence of children in the area.

6 schemes proposals have been identified by KCC for implementation in order to improve public rights of way and grant sustainable access to education and employment across Kent.

Existing routes at Tunbridge Wells common, Powder Mills and across Ashford are poorly signed and significantly dilapidated in places. National and regional transport networks are disjointed due to the insufficient or non-existent links. The current alignment and quality of the existing paths precludes their use for commuting, especially during the winter and parental safety concerns will discourage use by children. New routes have been proposed at Finberry, Leybourne and Peters Village, areas where significant housing developments require sufficient and sustainable access improvements between town centres, areas of employment/education and the wider local transport network. Some of these improvements are a prerequisite before any housing developments are permitted for use. The component schemes will address this by:

- Providing a high quality route which makes best of existing paths and quiet roads to avoid traffic and traffic congestion. This will provide car-competitive journey times for cyclists, attracting commuters and other users with time constraints;
- Linking into existing and planned housing, employment and education locations, including Town Centres and Stations;
- Providing an attractive, direct route for all cyclists and pedestrians, whether travelling for work, education or leisure; and
- Promoting sustainable modes of travel.

Table below identifies the number of cycle and pedestrian causalities across the selected 3 district councils. Whilst there is no discernible cluster of accidents or causation factor that is in need of further exploration, the number of accidents with vulnerable users is of concern.

Table 1 2014 Cyclist and Pedestrian Accidents

	Number of Causalities (Mid 2014 based on Kent district profiles[4])	
District	Cyclists	Pedestrians
Ashford	36	39

[4] http://www.kent.gov.uk/about-the-council/information-and-data/Facts-and-figures-about-Kent/area-profiles - District profiles

	Number of Causalities (Mid 2014 based on Kent district profiles[4])	
Tonbridge and Malling	37	40
Tunbridge Wells	32	51

There are 45 primary schools in Tonbridge and Malling and 33 in Tunbridge Wells[5]. In relation to this there are also 11 Secondary schools in Tonbridge and Malling and 9 in Tunbridge Wells. Future growth forecasts suggest that the population of Tonbridge and Malling will increase by 3,300 people forecasts between 2011-2031 and the between 2016 and 2021 the population of Tunbridge Wells will increase by 1,200 people.

Population forecasts suggest that between 2011 and 2031 the population of Ashford will increase by 16,000 people[6]. There are currently 47,787 households, 5,415 active Business's and 41 primary schools and 7 secondary schools in the area[7]. Ashford is largely flat which facilitates travel on foot and by bicycle, however the development of the existing travel network in the town has created barriers to movement.

Enhancing sustainable routes of travel will encourage healthy living and extend access to Stanhope an area of relative deprivation. Providing exercise and leisure opportunities as well safe, direct access to employment and education, enabling people to access jobs, training and other services without the need to own a car.

[5] kelsi.org.uk - education facts and figures
[6] kent.gov.uk – Data Facts and Figures, District profiles
[7] kelsi.org.uk - education facts and figures

3.12 Causal Chain

In order to present the scheme and its objectives in its overall context, a Causal Chain has been prepared.

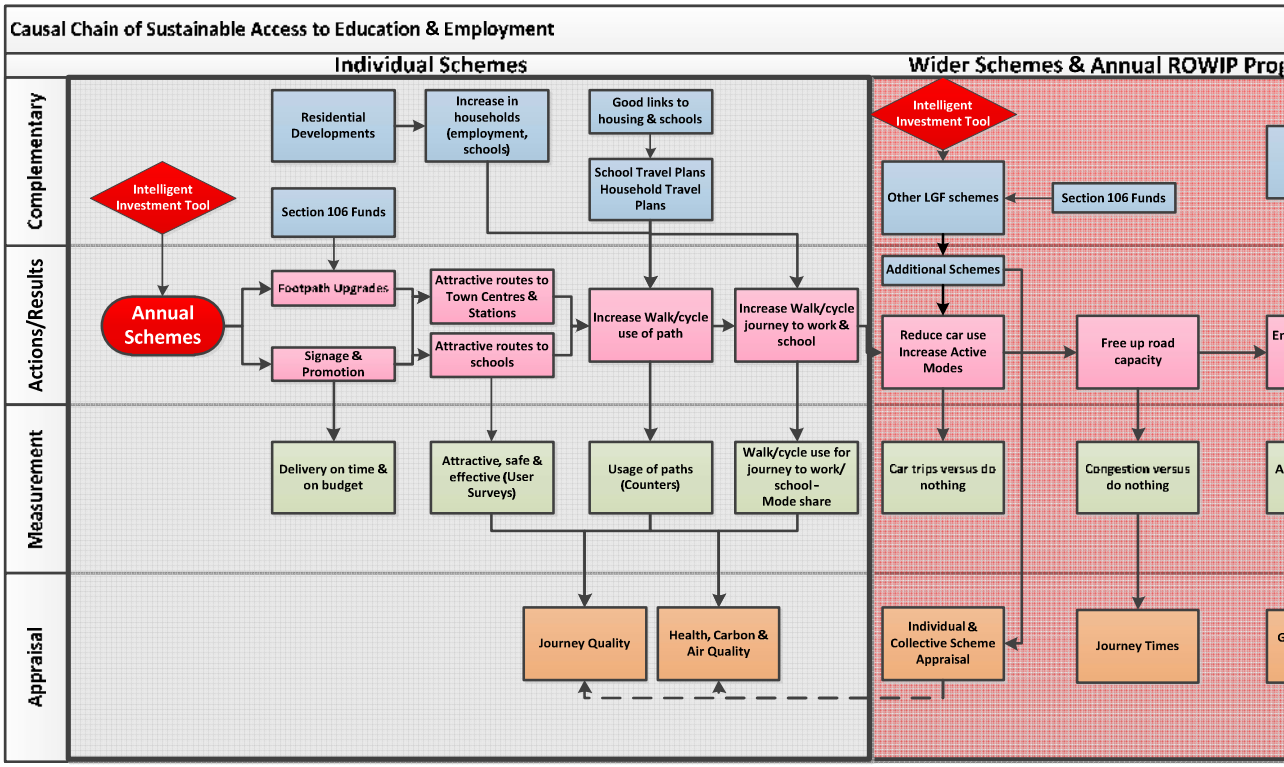


Figure 2 – Scheme Causal Chain

Table 2 - Summary of Appraisal Criteria (Assuming the 'Do Something' Option)

	Impacts	Inclusion in Example Business Case
Economy	Business users & transport providers	Journey time based. Identified as a benefit but not quantified.
	Reliability impact on Business users	Journey time reliability identified as a benefit but not quantified.
	Regeneration	Housing and employment growth taken into account in the scheme justification
	Wider Impacts	
Environmental	Noise	Estimated using the marginal external cost method by forecasting reductions in car kilometres
	Air Quality	
	Greenhouse gases	
	Landscape	Landscape issues central to design of the route
	Townscape	Linkage to Tonbridge, Ashford and Tunbridge Wells town centre will be key part of design process
	Historic Environment	Not assessed at this stage
	Biodiversity	Biodiversity issues part of design of route

	Impacts	Inclusion in Example Business Case
	Water Environment	Not a significant factor for the component schemes
Social	Commuting and Other users	Journey time based. Identified as a benefit but not quantified.
	Reliability impact on Commuting and Other users	Journey time reliability identified as a benefit but not quantified.
	Physical activity (including Absenteeism)	Key element of scheme, appraised using WHO HEAT tool, plus adjustment for other benefits
	Journey quality	Calculated based on WebTAG guidance
	Accidents	Calculated based on WebTAG guidance
	Security	Incorporated as qualitative factor and important part of design
	Access to services	Improved journey times and reliability will enhance access. Scheme will improve non-car access to services, including rail stations.
	Affordability	Indication that scheme can be funded from Local Growth Fund & S106
	Severance	Not a significant factor in each of the schemes
	Option and non-use values	Will have positive benefit, calculated as qualitative factor
Public Accounts	Cost to Broad Transport Budget	Encompassed within this Business Case
	Indirect Tax Revenues	Encompassed within this Business Case

3.13 Summary of Scheme Objectives

The scheme will provide an attractive, sustainable, direct route (on road and off road) for walkers and cyclists to travel between housing and education and employment locations. It also provides leisure routes and links to existing national routes and pathways. The component schemes run between large areas of development, town centres, stations and areas of employment and education.

Active travel will provide health benefits and the reduced car trips will reduce greenhouse gases and local air quality. The Economic Case uses DfT Active Mode Appraisal Toolkit to calculate the most significant economic benefits.

This and other sustainable initiatives (including public transport and other walk/cycle improvements) will reduce car trips and complement highway investment, freeing up road space and improving overall journey times for all road users.

This freeing-up of road space will support the plans for growth in jobs and housing in the area, contributing to overall economic growth.

The below objectives are set out in the Causal Chain (see Figure 2) and are summarised in the table below which has been used for the initial Options Appraisal set out in Section 4.4.

Table 3 - Scheme Objectives

Primary Objectives	***1. Increase cycle and walk trips through the construction of sustainable access improvements*** • Increase journey to work by cycle/walk • Increase cycle/walk for other trips, including education and leisure
Secondary Objectives (Scheme Delivery)	***2. Deliver a sustainable scheme*** • Limit long-term maintenance liabilities • Suitable for use all year round ***3. Delivery of an attractive, safe and effective scheme*** • Providing safety and security for all users • Providing safe, direct and attractive routes on the route and onto and off the PROWs at suitable points ***4. Enhance the local environment*** • Maintaining or improving the local environment around the scheme • Providing improved safe access to the environmental and historic assets in the area

Secondary Objectives (direct)	***5. Improve health and well-being through increased active travel*** • Increase in cycle/walk journeys ***6. Improve seamless travel, accessibility and quality of life for KCC residents*** • Reduce car usage • Encourage sustainable mode of transportation • Increase access to transport interchange facilities
Secondary Objectives (Indirect)	**7. Compliment other LGF capital schemes and development plans** **8. To lock in the capacity benefits of other initiatives**

Scheme Scope:

- The scheme will deliver a series of route improvements, including undertaking all necessary actions to ensure its suitability for a riparian location. This encompasses environmental aspects, flood resilience, maintainability, safety, security, attractiveness and usability.
- Links into existing rights of way (including the highway network) are included within the scheme.
- Further links to the route from within development schemes (e.g. housing, employment, healthcare, leisure, retail, education etc. developments) are not included within the scheme but will be identified through the planning and development control processes to ensure that they are identified, funded and delivered separately in order to improve connections to the route.
- The selection of routes has been undertaken in part to optimise the maintainability of the route. However, maintenance is not included in the scheme costs. Maintenance will be undertaken through established processes and budgets for highway and rights of way maintenance by Kent County Council.

3.14 Stakeholders

Stakeholders have been defined and analysed in relation to:

- All stakeholders, categorised in terms of their interest in the scheme how they will be engaged with and consulted through the design and delivery process.
- Further analysis of stakeholders benefitting from the scheme. These scheme beneficiaries have been mapped against the scheme objectives, enabling consultation to be targeted effectively and assisting in framing the Benefits Realisation Plan for the scheme.

3.14.1 Stakeholder Categorisation

Category	Detail
Beneficiary	Stakeholders which will receive some direct or indirect benefit from the scheme. For details see separate table
Affected	Stakeholders which are directly affected by the scheme in terms of its construction or operation
Interest	Stakeholders with some interest in the scheme though not affected directly by its construction or operation
Statutory	Stakeholders with a statutory interest in the scheme, its construction, operation or wider impacts
Funding	Stakeholders involved in the funding of the construction or operation of the scheme

3.14.2 Engagement Categories

Category	Detail
Intensive consultation	Stakeholders who are directly affected by the scheme and whose agreement is required in order for the scheme to progress. Consultation throughout the design and implementation.
Consultation	Stakeholders who are affected by the scheme and can contribute to the success of its design, construction or operation. Consultation at key stages

Category	Detail
Information	Stakeholders with some interest in the scheme or its use. Information to be provided at appropriate stages

Stakeholder Matrix

Stakeholder	Categories	Engagement and Consultation	Comments
Scheme users	Beneficiary	Consultation Information	Through established mechanisms. Focus on scheme design, construction and operation
Rights of way users	Beneficiary Affected	Consultation Information	
Other road users	Beneficiary Affected	Information	
Wildlife groups	Interest	Consultation	
Access and rights of way groups (including cycling)	Interest Beneficiary	Consultation	
Disabled access groups and individuals	Interest Affected	Consultation	
Other landowners	Affected	Intensive consultation	
Elected Members	Interest	Intensive consultation	
Local authorities	Beneficiary Statutory	Intensive consultation	County, District & Parish
Environment Agency	Statutory	Intensive consultation	Specific consultation
Recreational users	Beneficiary	Consultation	Through established mechanisms

Stakeholder	Categories	Engagement and Consultation	Comments
Local Enterprise Partnership	Beneficiary Funding	Information	Through LGF Business Cases & progress reports
Developers	Beneficiary Affected Funding	Consultation	Only as relevant to scheme
Residents adjoining route	Beneficiary Affected	Information	
Schools adjoining route	Beneficiary Affected	Information	School Travel Plan contact as part of benefit realisation plan
Businesses adjoining route	Beneficiary Affected	Information	Travel plan contact as part of benefit realisation plan
Wider business community	Beneficiary	Information	As part of wider LGF consultation
Wider community	Beneficiary	Information	
Local taxpayers	Beneficiary	Information	
Tourists and visitors	Beneficiary	Information	Through established channels

3.14.3 Benefit Stakeholders and Relationship to Scheme Objectives

Investment Objectives	Main benefits Criteria by Stakeholder
Investment Objective 1A Increase the number and proportion of trips being made to work and school by walk and cycle; **Investment Objective 1B** Increase the number and proportion of trips being made for other purposes by walk and cycle;	**Users** Health benefits through active travel Financial benefits through less need to own or use a car Improved access to employment education etc. for those without cars **Other Road Users** Reduced congestion due to fewer car trips **Local Authorities and Local Enterprise Partnership** Public health benefits of active travel Locking in the decongestion benefits of transport investment in Tonbridge, Tunbridge Wells and Ashford. Improved attractiveness of the area for inward investment and job creation Improved attractiveness of the area for housing **Developers and Employers** Ability to develop schemes without excessive planning conditions Ability to create employment and attract employees
Investment Objective 2 Deliver a financially sustainable scheme which limits long-term maintenance liability	**Local Taxpayers** Reduced demand on local taxation **Local Authority** Reduced budgetary demands
Investment Objective 3A Provide safety and security for all users	**Users and their families** Personal safety and security for users of the route and their families **Local authority & Local Enterprise Partnership** Maintaining the attractiveness of the area for jobs and housing
Investment Objective 3B Provide safe, direct and attractive routes on the route and onto and off the cycleway at suitable points	**Users** Easy, safe, off road and direct access to employment, education and services via the new PRoW **Local residents and businesses** Maintenance of the attractiveness and utility of the area **Local authority & Local Enterprise Partnership** Locking in the decongestion benefits of transport investment in Tonbridge, Tunbridge Wells and Ashford. Improved attractiveness of the area for inward investment and job creation Improved attractiveness of the area for housing

Investment Objectives	Main benefits Criteria by Stakeholder
Investment Objective 4 Maintain or improve the local environment around the scheme	**Local residents and businesses** Maintaining the attractiveness of the area Preserving and improving the natural and built environment **Local authority** Meeting statutory duties **Local Enterprise Partnership** Maintaining the attractiveness of the area for investment, jobs and housing

3.15 Interdependencies

The KCC Access to Education and Employment scheme is in essence a 'stand-alone' scheme; however, there is a relationship with other schemes in the correspondent areas such as the West Kent LSTF.

The overall scheme presented in this Business Case is Kent-wide, providing complementary rights of way improvements which will enable access to employment, education or other facilities, linked to housing and other developments.

The actual schemes funded will vary year to year, chosen using an Intelligent Investment Tool. This ensures that resources are targeted on the most effective schemes in terms of delivery of improved access to employment and education.

4 Economic Case

4.1 General KCC Approach to Scheme Economic Case

4.1.1 General Overview of Approach to Economic Case

The economic case is one of five strands of evidence required to support the scheme transport business case. Kent County Council's general approach to the economic case has been determined by the need for it to be proportionate to the scale, scope and cost of the proposed scheme and the preparation time available. This approach is fully consistent with Department for Transport advice to scheme promoters (KCC) and adjudicators (SELEP). This advice recurs in the following DfT guidelines:

- Transport Analysis Guidance (WebTAG) (The Proportionate Update Process January 2014);
- Value For Money advice note, December 2013 (sections 1.4, 1.17, 5.3);
- The Transport Business Cases, January 2013 (Sections, 1.4, 2.7, 6.2);
- LEP Assurance Framework, December 2014 (Sections 5.6, 5.7, Annex A); and
- HM Treasury The Green Book, July 2011 (Appraisal and Evaluation in Central Government).

However, none of the above guidance specifies the parameters of what constitutes a proportionate approach to appraisal. Therefore, KCC has applied best judgement to decide how much rigour there should be in the scheme economic case.

4.1.2 Quantitative and Qualitative Economic Appraisal

In line with the proportionate approach, KCC has prepared partly quantitative and partly qualitative evidence to support the scheme economic case. Generally, for a scheme with relatively large cost (>£5m), the economic appraisal has been substantiated with quantified outcomes. Conversely for a scheme with relatively small cost (<£5m), mainly qualitative evidence has been assembled.

It has also been inappropriate to calculate monetised economic impacts for certain KCC schemes for which the LGF bid is not primarily aimed at achieving transport user benefits. Here, the main scheme objective has been, for example, to enable a more prosperous economy and community by improving public realm, or to save unnecessary future expense by maintaining existing transport assets more effectively.

4.1.3 Components of Economic Case

The economic case has initially considered all aspects of scheme performance and likely impacts, in line with the TAG criteria outlined in the Appraisal Summary Table (AST), broadly:

- Economic prosperity and efficiency –
  - User travel costs; congestion; reliability; regeneration; absenteeism and wider economy;
- Environment –
  - Noise; air quality; greenhouse gases; landscape; townscape; heritage; biodiversity; water;
- Social well-being –
  - Accidents; physical activity; journey quality; value for non-users; affordable travel; security; time saving impacts; access to opportunities and door-to-door options; severance; and
- Public accounts –
  - Cost to transport budget; indirect tax; value for money (VfM).

However, many of these aspects are insignificant, or not easily assessed, in the context of the Kent Sustainable Access to Education and Employment scheme in question. Therefore, the economic case has finally focussed on economic efficiency for transport users, decongestion, accident reduction, health and absenteeism benefits, greenhouse gases, local air quality, capital cost and VfM, as the core aspects for appraisal.

4.1.4 Quantitative Evidence for Economic Case

Where the predicted economic outcomes from the scheme have been quantified and monetised, the appraisal method used in the economic case has largely followed the non-modelling approach identified in TAG. This is centred on a 2010, present value (PV), cost and benefit analysis, which weighs up the net economic savings to scheme users, against the net economic costs to public accounts, of the investment. Here, the net impacts are derived by subtracting the with-scheme outcomes from the without-scheme outcomes.

Generally, transport model outputs and economic appraisal software has not been used to assess the schemes, because of the disproportionate costs, resources and data inputs that would be entailed. This has precluded use of TUBA, COBALT, INCA, QUADRO and TfL Urban Design Toolkit.

The time period for the economic appraisal is matched to the context of the scheme, ranging from a 60-year horizon for a longer-term one-off investment, to a 1-year horizon for a shorter-term, staged or packaged investment. Intermediate appraisal terms have been used to suit the likely duration of a particular scheme's impacts.

In the quantified economic approach, Active Mode Appraisal Toolkit, has been used to assess the following scheme impacts: health benefits for active mode users, through encouraged activity; reductions in absenteeism; journey ambience and external costs borne by others including; decongestion savings for society; journey time reliability improvements for users; accident savings; air pollution; noise and the capital cost to public accounts of preparing and constructing the scheme.

Standard TAG economic appraisal summary tables have not largely been produced, owing to the limited scope of the KCC schemes and because neither the required breakdown of benefits, by user-type and journey-purpose, nor segmentation of costs by investment item, have been available. This has ruled out inclusion of Transport Economic Efficiency (TEE) and Public Accounts (PA) tables. However, a summary table for Analysis of Monetised Costs and Benefits (AMCB) has generally been included in the quantified economic case.

A recommended TAG and 'Green Book' method has been followed to convert monetised scheme economic costs and benefits from their year of occurrence to 2010 PV equivalents. In essence, this entailed the following steps:

Converting year-of-estimate capital costs to a 'base cost', by adjusting for real construction cost increase between estimate year and year of cost occurrence;

Converting base cost to 2010 prices, by adjusting for GDP deflation;

Discounting year-on-year costs and benefits to 2010 at 3.5% per annum WebTAG Unit A1.1 (November 2014); and

Adjusting 2010 PV costs and benefits from 'factor cost' to 'market prices', by allowing for indirect taxation (+19% increment).

Final summation of the scheme PV outcomes gives a quantified value for PV Benefit (PVB), PV Cost (PVC), Net Present Value PVB-PVC (NPV) and Benefit to Cost ratio PVB/PVC (BCR).

4.1.5 Qualitative Evidence for Economic Case

Where the potential economic outcomes from the scheme have been not been quantified and monetised, they have been assessed by aligning with a qualitative scale. This appraisal method for the economic case has largely followed the steps outlined in the DfT 'Value for Money' approach. The qualitative method is considered to be appropriate for schemes of modest cost and scope, which do not merit an elaborate, quantified economic case.

A sequence of six steps has been traced, to attribute a qualitative scale to the scheme's economic impacts, as follows:

- Define an initial BCR (for usually monetised impacts);
- Work out an adjustment to the BCR (for sometimes monetised impacts);
  - Both against a 5-point scale (poor/low/medium/high/very high);
- Undertake a qualitative assessment (for rarely monetised impacts), against a 7-point scale (slight/moderate/large beneficial, neutral, slight/moderate/large adverse);
- Combine items above, to give initial an VfM, against a 4-point scale (low/medium/high/very high);
- Make a risk assessment, to derive a further adjustment to the initial VfM, using the 7-point scale; and
- Finalise the overall VfM, by adjusting the initial VfM for risk, using the 4-point scale.

Qualitative evidence used to support the economic case is based around applying an order of magnitude to a likely scheme outcome, rather than by calculating a precise, quantified, impact value.

4.2 Background

The following subsections describe the scheme options, their advantages and disadvantages and whether they have shown sufficient merit to take forward for more detailed economic appraisal. A summary of the options, mapped against the scheme objectives.

Following this, the approach towards more detailed economic appraisal is described, followed by the scheme option appraisal itself.

An Appraisal Summary Table, setting out the key issues relevant to this scheme is provided. Although some aspects of this (including the economic appraisal) have been explored at this stage, other aspects will not be explored in detail until the design and delivery process moves forward.

Whilst this scheme is expected to contribute to the wider economic development for Kent, it is focused on increasing the number of trips (especially commuter trips) made between residential locations, areas of local employment and education and other services and facilities in the area. As set out in Figure 2 – Scheme Causal Chain, this will provide health and journey quality benefits for path users, reductions in absenteeism, air quality improvements and will contribute to decongestion benefits (in conjunction with complementary schemes). These in turn will enable economic growth in the area, especially in terms of jobs and housing.

4.3 Appraisal Assumptions

With devolution of major scheme approval to Local Enterprise Partnerships, it is important that an approach to appraisal is used which gives regard to local priorities (especially in enabling investment, job creation and housing construction). This must be done with due regard to standard practice, which in transport terms means the use of WebTAG guidance. Discussions with the Department for Transport have indicated that a 'proportionate' approach to WebTAG should be used. Kent County Council has held discussions with the South East Local Enterprise Partnership, in the light of Government Guidance[8], on how the appraisal of devolved small major schemes should be handled. As a result of this the following approach has been used for this Strategic Outline Case:

*All anticipated scheme design and delivery costs (as set out in Section **Error! Reference source not found.**) have been calculated as accurately as possible, given the relatively early stage of the design;*

In line with WebTAG principles, an 'optimism bias' has been added to the costs;

As the design process progresses, this 'optimism bias' will be replaced by quantified project risk estimates.

[8] Growth Deals: Initial Guidance for Local Enterprise Partnerships. HM Government July 2013

4.4 Options Considered

The nature, scope and scale of this scheme do not justify the development of multiple options, though tactical design decisions will be made in response to local stakeholder feedback. Consequently, only two options have been considered for appraisal.

Option 1.1: Do Nothing

Description

'Without Sustainable Access to Employment and Education Improvements'- The Do Nothing option would be to make no changes to the current situation and leave existing pathways unchanged. If the various improvement schemes are not applied, the existing Public Rights of Way (PRoWs) will be left to operate in their current state, thus limiting sustainable access to employment and education from emerging developments. The LEP capital grant would have to be returned.

Advantages

There will be no expenditure across all routes;

Disadvantages

There will be no sustainable access improvements for Kent;

As a result there will be no increase in the access to employment, education or other services;

This will jeopardise the long-term feasibility of the jobs and housing creation planned for the area;

The existing paths are difficult and expensive to maintain, jeopardising long-term sustainability; and

The safety of users is compromised due to maintenance issues.

Conclusion

The 'do nothing' option is rejected.

Option: Not carried forward but used as 'baseline' for appraisal

Option 1.2: Introduction of KCC Sustainable Access to Education and Employment Schemes

Description

This is KCC's preferred option. The option will provide complementary rights of way improvements which will enable access to employment, education or other facilities, linked to housing and other developments. This will be achieved through the construction of new sustainable cycle and pedestrian friendly routes from emerging developments and maintaining/upgrading existing PRoW, increasing usability and enhancing connections to nearby local amenities and other national transport networks. The routes will be sufficiently attractive to deliver the required increases in usage and proposals will avoid the need for ongoing repairs to the existing paths.

Advantages

The required scheme upgrades and new links to employment and education sites and other facilities will be achieved;

The improved routes will be sufficiently attractive to deliver the required increases in usage;

The proposal will avoid the need for ongoing repairs to the existing paths; and

Landowners and other stakeholders have agreed in principle to the proposal;

Disadvantages

Expenditure would be approximately £1.2 million, of which LGF funding of £0.8million is available and has been provisionally granted. Other funding assumptions (£408,000) are presumed to be developer contribution. See Table 4 for a detailed description of funding assumptions.

Table 4: Funding Assumptions

Funding (£000s)				**Cost (£000s)**			
Scheme	Year	LGF	Other Funds	Design	Fees	Build	**Total**
Loose Greenway[9]	15/16	200	50	10	60	148	**218**
Finberry, Ashford	16/17	100	150	40	30	180	**250**
Tunbridge Wells Common	16/17	100	8	10	10	88	**108**
Powder Mills, Leigh	17/18	150	50	20	50	130	**200**
Peters Village, Wouldham	18/19	150	50	30	50	120	**200**
Ashford Cycle Links	19/20	150	100	50	10	190	**250**
Leybourne Grange	20/21	150	50	20	10	170	**200**

Conclusion

Option 1.2 is the preferred option in terms of delivery of overall goals, management of risks and the long-term maintainability of the scheme.

Option: Preferred Option

Table 5 - Summary of Scoping Options

Reference to:	**Option 1.1**	**Option 1.2**
Description of Option:	**Do Nothing**	**KCC Sustainable Access to Employment and Education Schemes**
Investment Objectives		
1A Increased travel to work (walk/cycle)	×	✓
1B Increased travel to other (walk/cycle)	×	✓
2 Financial sustainability	×	✓

[9] Funding already committed for 2015/16 and construction in progress. Not included in total.

Reference to:	Option 1.1	Option 1.2
Description of Option:	**Do Nothing**	**KCC Sustainable Access to Employment and Education Schemes**
3A Provide safety and security for all users	×	✓
3B Safe, Direct Access	×	✓
4 Environment	×	✓
Critical Success Factors		
Strategic Fit	×	✓
Value for Money	**N/A**	✓
Potential Achievability	✓	✓
Potential Affordability	✓	✓
Timescale for Implementation	✓	✓
Summary	**Discounted**	**Preferred**

4.5 Economic Overview

As set out in the Strategic Case, this scheme (Sustainable Access to Education and Employment) represents an important complementary measure in supporting the development of jobs and housing Kent Wide. It provides a means for commuters and schoolchildren to choose to walk or cycle on an attractive, direct and safe route.

The overall scheme, at £1.2 million is too small to justify a fully WebTAG compliant economic appraisal. Since it is made up of multiple smaller schemes, it would be impossible to undertake a meaningful quantitative appraisal. In view of this, the economic appraisal focuses on:

- The direct benefits of the component schemes will be monetised including health economic benefits, absenteeism benefits, air quality and greenhouse gas emission savings and journey quality benefits all stemming from usage of the routes.

- Qualitative appraisal of the wider benefits in the context of the planned developments in the area, major transport schemes in the area and complementary sustainable transport schemes (including those being introduced as part of the Local Sustainable Transport Fund). These benefits include decongestion benefits which are impossible to attribute to individual scheme components.
- Direct scheme construction costs, not taking into account any additional measures such as travel planning or improved connectivity from new developments.

For the purposes of this small scheme, the direct employment benefits (i.e. people employed in constructing the scheme) have not been calculated, though these could be aggregated into the direct employment generated by the LGF programme as a whole.

As detailed in the Causal Chain, the benefits of the scheme and the overall approach to the appraisal have been calculated using the WebTAG A5.1 Active Mode Appraisal Toolkit (January 2014) which uses the following approaches:

Table 6 - Key Appraisal Elements

Appraisal Item	Direct/ Indirect	Approach to Appraisal
Social – Health and absenteeism benefits from active travel using the individual schemes	Direct	Use of World Health Organisation HEAT tool to calculate health economic benefits, based on usage projections TAG Unit A4.1
Environmental - noise, air pollution and greenhouse gases disbenefits	Direct	The environmental benefits are associated with a transfer from car and the accompanying externalities, based on usage and modal shift projections recommended appraisal approach set out in WebTAG A5.4.
Journey Quality	Direct	Use of recommended WebTAG approach as set out in TAG A4.1
Accident	Direct	Accident benefit change in accidents generated by a change in car kilometres based on a mode shift guidance in TAG Unit A4.1
Economy - Journey time reduction on highway network (decongestion)	Indirect	Estimates based on package of schemes, including other sustainable transport schemes (including LSTF)
Economy - Wider economic benefits (GVA, productivity etc.)	Indirect	Not calculated separately – incorporated in above transport economic benefits.

In addition to these, a number of other key benefits have been taken into account and included in the Appraisal Summary Table alongside less detailed commentary on all relevant aspects:

Table 7 - Additional Appraisal Elements

Appraisal Item	Direct/ Indirect	Approach to Appraisal
Economy - Regeneration	Indirect	Narrative approach based on enabling development of the area, linked to other initiatives. Includes tourism.
Environmental – Landscape/Townscape	Direct	Narrative approach based on improvement to the local area through design, planning and consultation processes
Social - Inclusion	Direct	Narrative approach based on provision of improved access to employment, training and education without the need for a car
Social – Road Safety	Direct	Narrative approach based on design/audit of safe links into highway and rights of way network
Social – Security of users	Direct	Narrative approach based on sound design, backed by consultation with users, residents and businesses on route
Social - Accessibility	Direct	Narrative approach based on improved access to employment, education and other services for residents

4.5.1 Appraisal Flowchart

The approach to economic appraisal, using WebTAG Active Mode Appraisal Toolkit principles is shown in Figure 3 below.

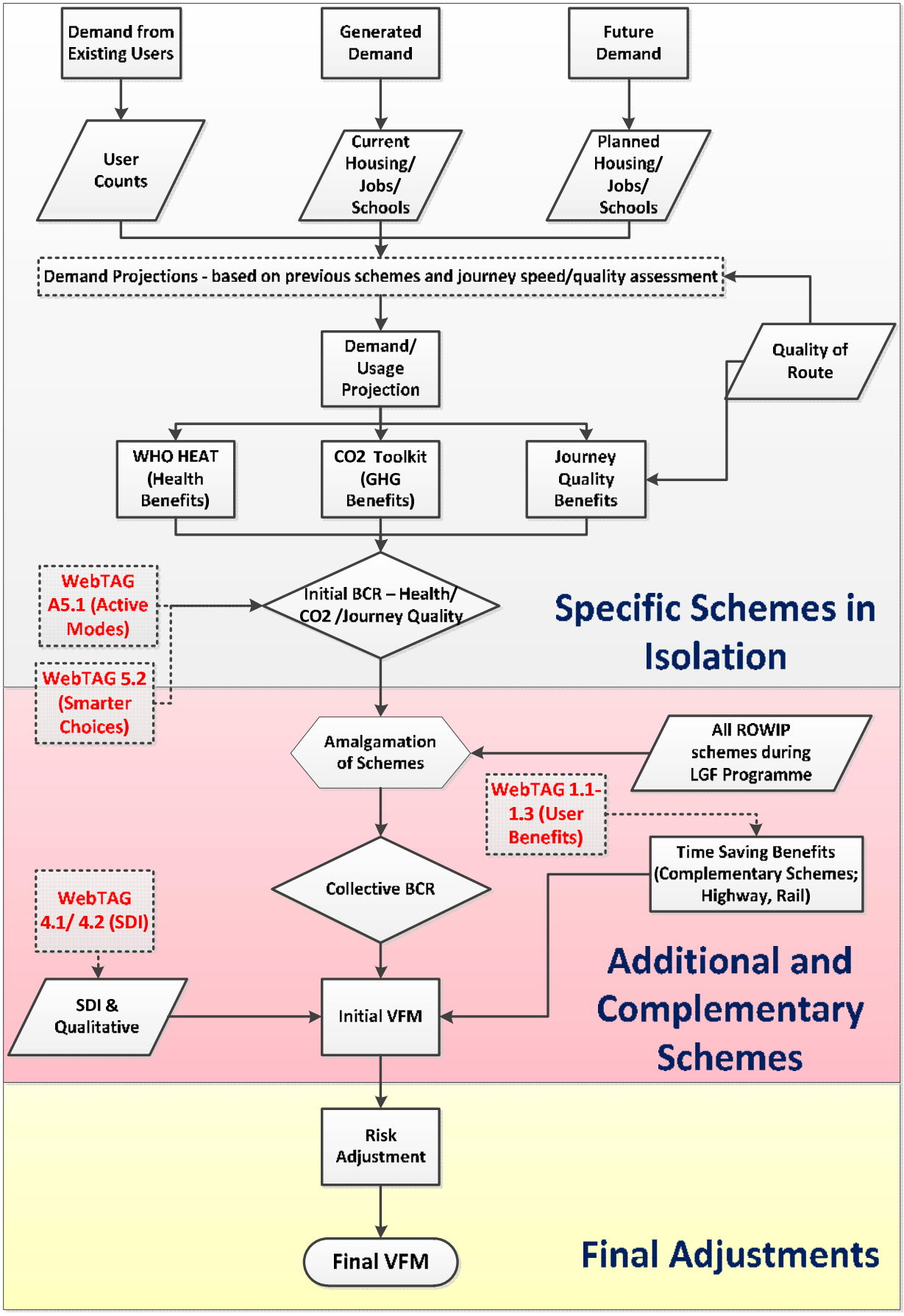


Figure 3 - Appraisal Flowchart

4.5.2 Appraisal Scenarios

In view of the small scale of the scheme (KCC Sustainable Access to Education and Employment Schemes) the only options which have been appraised are:

- Do Nothing, with the scheme not delivered; and
- Do Something, with delivery of Option 1.2 (KCC Sustainable Access to Education and Employment Schemes)

Given that the Intelligent Investment Tool (as used to select the Loose Greenway scheme from 2,500 candidates) has been used to select the individual LGF-funded ROWIP sub-schemes, the benefits previously attributed to the £142,000 example scheme will be expanded pro-rata to the £1.2m sustainable access to education and employment programme. The total excludes the previous submission of the Loose Greenway example scheme as it is on target for delivery.

4.6 Projected Scheme Usage – Demand Projections

The component schemes provided very significant improvements in the quality and attractiveness of the routes accessing areas of education and employment. As set out in Figure 3, these improvements will:

- Retain existing users;
- Attract new users travelling between existing housing, employment and education locations. Demand projections are based on similar experiences from elsewhere in Kent, the UK and Internationally where cycle/walk links have been significantly improved;
- Attract further new users as new housing and employment locations are developed; and
- Attract additional leisure users and tourists. These additional users have not been factored in at this stage meaning that the benefits accrued later in this section are likely to have been underestimated.

4.6.1 Existing Demand

As the majority of routes do not exist and for those existing, it is assumed that they are inappropriate for cycle and pedestrian use appearing severely degrading and unavailable for year round use.

In order to ascertain the likely impact cycling and pedestrian improvement schemes could have, it was first important to understand how many people could be expected to benefit from the scheme. Current usage is estimated based on comparative development assumptions and existing baseline levels of demand taken from the 2011 Census via Nomis, since there are no counters on any of the existing routes. Super output area level information for each scheme location has been interrogated to analysis existing demand and travel patterns between conurbations for employment and educational purposes only. Information includes:

- Method of travel (specifically Cycle or Walking)[10];
- Number of people currently travelling for employment purposes[11];
- Location of local schools and catchment area;
- Population Structure[12]; and
- Journey to school surveys[13].

The construction of various housing developments is to be expected across all three local authorities in the predeceasing years, the proposed developments will inevitably increase the usage of routes to areas of employment and education. Existing trip trends identified from the interrogation of census data have been applied to housing growth plans and the arrival of new residents.

If existing baseline demand for the scheme area cannot be quantified using census data, travel assumptions are based on a residential area nearby of a similar size and distance from the underlying areas of employment and education. These travel assumptions and general population statistics will be applied to the total number of residents predicted within the new development which will be assumed by development size and average household composition for each district. This specific methodology has only been applied to the Finberry, Sustainable Links to Town scheme and Peters Village Sustainable Access Improvements Scheme, as areas will experience significant development and population growth in the preceding years.

[10] QS701EW – Nomis Method of travel to work (2011)
[11] WF01BEW Nomis location of usual residence and place of work (2011)
[12] QS103EW - Age by single year (2011)
[13] Sustrans key Great Britain and England Statistic datasheet (Version 4, 2014)

Example – Finberry, Ashford (1016/17)

The Finberry housing development expected at Cheesemans Green, Ashford is comprised of various different phases, some of which are expected to be operational by 2021 (Stour Meadows, the existing Park Farm and Finberry). An assumption has been made that residents from this significant housing development will become new cyclists/pedestrians when the scheme opens in the designated year (2016-2017). As Finberry is currently unpopulated the existing proportion of residents living in Park Farm and travelling to Ashford for work (17%) has been used as a proxy for future trip assumptions for the new residents of Cheesemans Green expected to commute using the route in future years. Trip trends and age structure has then been applied the number of residents (2950) expected to be introduced at the development see Table 9. Each scheme forecast has been based on this method of data selection. See Appendix A an example of scheme trip calculations.

These figures have been subsequently adjusted to account for growth between 2011 and 2015 using the National Trip End Model (NTEM) to estimate current demand for the 'Without Scheme' scenario. The described method has been implemented for each individual improvement proposal. Data has been interrogated in reference to the strategic nature of the individual scheme proposals. Therefore data selected to analyse the existing situation is proportionate to the scheme description and objectives.

4.6.2 Increased Demand Predictions – Case Examples

The demand impact of the scheme has been estimated using the comparative study approach as outlined in WebTAG A5.1 (Active Mode Appraisal – January 2014). The increase in demand is based on a comparative scheme which witnessed considerable growth in cycle and pedestrian journeys post scheme opening.

Examples detail experience from elsewhere in Kent, other parts of the UK and across Europe demonstrates that new and improved active travel infrastructure gives rise to very significant increases in usage. These case examples have been used to help predict the usage of the various PRoW Improvement schemes. Examples include:

Lancaster to Morecambe

In the mid-1990s the Morecambe to Lancaster off-road cycle route network was surfaced, but it terminated on the north-western bank of the River Lune. Cyclists then had to use busy road bridges to cross the river into Lancaster. Few users did this. The Lune Millennium Bridge was designed to complete the 5km off-road cycle route.

This provides a high quality off-road route with car competitive journey times. Cycle counts showed a large increase in the number of cyclists using the bridge, increasing each year since it opened. 1,000 cyclists are now using the bridge every day.

Bristol and Bath

The Bristol and Bath path was built in the 1980s on a disused railway between the neighbouring West Country cities. The route was significantly improved under the *Cycling City* programme.

The improved route offers fast, safe and attractive access for commuters, shoppers and schoolchildren from the edge of the cities right into the city centres. Since it runs on an old rail line, it is segregated from traffic.

Initial assessment showed that in the summer of 2011 the path carried 3,000 cycle journeys per day and even more journeys on foot, with usage growing by 10% every year.

Royal Military Canal, Folkestone

This Kent scheme, though aimed primarily at the leisure market, provides an example of how significant improvements to the quality of a route give rise to significant increases in usage.

The route runs for approximately 10km along the length of the canal from east of Hythe past a number of tourist attractions. It links to a wider network of on-road and off-road routes in the area.

Following the provision of the route, usage rose from almost zero to around 54,000 users per year, with usage increasing year-on-year since opening.

Cycling Demonstration Towns

Six English towns were chosen to be cycling demonstration towns to promote the use of cycling as a means of transport in 2005. Each year for three years the towns received £500,000 to spend on cycling (apart from Aylesbury which received £300,000). In 2009 this was further expanded to cover 12 towns and cities.

Results from the first three years of the Cycling Demonstration Towns programme show that it has been a major success. The original six towns achieved their aim of getting more people cycling, more safely, more often. For the first time in the UK outside London, the national trend of a gradual decline in cycling levels was reversed. A comprehensive evaluation of the investment in Aylesbury, Brighton & Hove, Darlington, Derby, Exeter and Lancaster with Morecambe has shown:

- An average increase in cycling across all six towns of 27%
- The increase is the result of more people starting to cycle, or returning to cycling again, not just the result of cyclists using their bikes for more trips
- Cycling to school has more than doubled where towns invested most in children
- Cycling investment generates town-wide increases in physical activity
- These results were not found in comparable towns
- This growth matches the cycling growth rates in London
- Investment in cycling pays back at least 3:1

The Cycling Demonstration Towns programme included area-wide initiatives (such as travel planning) as well as improvements to specific routes. A similar idea has been adopted in the Ashford Cycle Plan. The Ashford cycle links scheme seeks to improve various links across Ashford, contributing towards the wider vision of a cycle demonstration town.

European Experience

Sustained investment in cycling facilities has enabled many European cities to achieve significant increases in cycling. An overall analysis of schemes[14] has established that increasing the length of dedicated cycle infrastructure gives rise to a mode shift towards cycling. Each country studied has different values for increased cycle mode share, with those with the most developed infrastructure tending to show higher values.

Specific examples in European cities bears out these predictions:

City	Investment	Impact (% Increase Cycle Trips)	Time Period (years)
Hanover	Increased infrastructure	100%	11
Munster	Upgrade to existing infrastructure	50%	11
Munich	Increased infrastructure	225%	22
Seville	Increased infrastructure. Cycle hire	165%	5
Zurich	Opening of one-way streets to 2-way cycling	43%	20
Graz	Increased infrastructure	150%	20
Vienna	Increased infrastructure	300%	20

Though these examples are in much larger cities than the towns of Tonbridge and Malling, Tunbridge Wells and Ashford, the impact of increasing the infrastructure provision is illustrated, with less significant improvements having more modest impacts. Note that these increases in cycling are overall increases rather than increased use of the improved infrastructure alone.

The expected impact of measures is identified from the experience of similar schemes elsewhere. Considering each measure in turn, for which quantitative benefits have been calculated, the table 8 below identifies the impact applied and the research source from which this has been obtained. Specifically the appraisal has drawn upon uplift established at East Lothian after the construction of a new traffic free pathway[15]. The increase in cycle and pedestrian usage has been applied to pre-established baseline data, as the ROWIP improvement schemes are of very similar strategic nature.

[15] Sustrans Scotland: Walking and cycling outcomes and monitoring report. (DfT, September 2014)

Table 8 Impact of Measures

Measure	Impact	Source
Sustainable links to town – New cycle route from Finberry to Ashford; Access improvements at Tunbridge Wells Common; Sustainable access links from Powder Mills, Leigh to Tonbridge; Sustainable access improvements from Peters Village to Halling, Snodland, Aylesford and Maidstone; Ashford cycle links to education and employment areas- Upgrades to existing paths, shelters and signage; and Sustainable access to local school at Leybourne Grange.	Cycle Use increased by 41% along pathway. Pedestrian Use increase by 75% along pathway.	East Lothian Council - Sustrans 2007. The construction of a traffic-free path, fully surfaced for both cycle and pedestrian use to nearby school and town. The total cost of the scheme was £72,000. Measures proposed in the sustainable access improvement to education and employment scheme have similar funding assumptions.

4.6.3 Housing and Employment Growth – Increased Demand

The sustainable access to education and employment scheme is inter-dependent with the housing and employment growth in the Kent area. The construction of various housing developments is to be expected across Tonbridge and Malling, Tunbridge Wells and Ashford in the predeceasing years, the proposed developments will inevitably increase the proportion of residents living in each area using existing routes to access employment and education. This has been factored into the baseline in relation to the 'do nothing' option in each case.

An assumption has been made that residents from emerging housing developments will also become new users for the proposed schemes post implementation. These users must be accounted for within the methodology therefore each housing development proposal must be assessed via the planning portal to identify the number of dwellings planned for construction and predicted occupancy rates. Table 9 below outlines new developments which will supply new users to each of the proposed pathways based on the strategic location of the paths. The population is then split into age group to categorise the potential number of persons in employment (18-64) and in education (11-16)/ (5-10). From this potential trips can be identified to areas of employment and education.

School trip mode share has been established based on the Sustrans journey to school national travel survey 2013[16] concluded that over an average distance of 3.7 miles 37% of secondary school pupils walked and 2% cycled to school. For primary schools the average distance was 1.6 miles with 46% of pupils walking and 1% cycling. These statistics have been used as a baseline for new and existing educational trip assumptions.

Table 9 Summary of New Residents

Proposal	Housing			Current Commuter Mode Share (%)	
	Number of new dwellings	Predicted occupancy rates (Residents per household)	Total number of new residents	Cycle	Walk
Finberry, Ashford	1180	2.45	2950	1.6 %	4%
Tunbridge Wells Common	56	2.39	134	1%	18%
Powder Mills	73	2.21	161	2.6%	12.3%
Peters Village	1000	2.21	2210	0.6%	6.1%
Ashford Cycle links	69	2.45	173	3%	6.6%

[16] Sustrans key Great Britain and England Statistic datasheet (Version 4, 2014)

Proposal	Housing			Current Commuter Mode Share (%)	
Leybourne Grange[17]	703	2.21	1554	-	-

4.6.4 Overall Demand Prediction

Cycling and Walking

Many of the existing routes as they stand are not really suitable for cycling or walking. The improvements planned will ensure that some key sections (especially those linking housing with schools) will be suitable for safe, convenient cycle and pedestrian access. Based on the above calculations, the projected and existing usage of the public rights of way has been presented below in Table 10; the figures include additional users from new housing developments and NTEM growth for each mode of travel.

Over time, the additional housing and employment growth in the area will generate additional trips, increasing the benefits further for commuters and pupils.

The demand impact of the scheme has been estimated using the comparative study approach as outlined in WebTAG A5.1 (Active Mode Appraisal – January 2014). The increase in demand is based on establishing one or more appropriate comparative schemes which serves a similar role, selected from a 'library' of schemes from Kent, elsewhere in the UK and more widely. For the purpose of these schemes the East Lothian County Council case study has been deemed most appropriate. The growth in walking and cycle journeys is calculated post scheme opening versus the pre-implementation demand. Pedestrian and cycle uplift has been calculated from the baseline, derived from figures mentioned previously in the above sections.

[17] Commuter assumptions not necessary as route directly links to primary school.

Table 10 Cyclists and Pedestrians Before and After Intervention (based on Census 2011 data)

	Table Cyclists and pedestrians before and after intervention (based on Census location of Usual Residence and Place of Work)		
Finberry, Ashford		**Cyclists**	**Walkers**
	2015 (usage per day) – Includes 4 years growth from 2011		
	Trips	387	21
	Individuals	194	10
	2017 (usage per day) 'without scheme' Includes 2 years growth from 2015-2017		
	Without scheme (trips)	399	21
	With scheme (trips)	688	30
	Usage difference (trips)	289	8
	Without scheme (individuals)	220	12
	With scheme (individuals)	378	16
	Usage difference (individuals)	159	5
Tunbridge Wells Common		**Cyclists**	**Walkers**
	2015 (usage per day) – Includes 4 years growth from 2011		
	Trips	118	10
	Individuals	59	5
	2017 (usage per day) 'without scheme' Includes 2 years growth from 2015		
	Without scheme (trips)	119	10
	With scheme (trips)	207	14
	Usage difference (trips)	88	4
	Without scheme (individuals)	65	6
	With scheme (individuals)	114	8
	Usage difference (individuals)	48	2
Powder Mills, Leigh		**Cyclists**	**Walkers**
	2015 (usage per day) – Includes 4 years growth from 2011		
	Trips	286	12
	Individuals	143	6
	2018 (usage per day) 'without scheme' Includes 3 years growth from 2015		
	Without scheme (trips)	292	12
	With scheme (trips)	504	17
	Usage difference (trips)	212	5

	Without scheme (individuals)	161	7
	With scheme (individuals)	277	9
	Usage difference (individuals)	117	3
Peters Village, Wouldham		**Cyclists**	**Walkers**
	2015 (usage per day) – Includes 4 years growth from 2011		
	Trips	219	7
	Individuals	109	4
	2019 (usage per day) 'without scheme' Includes 4 years growth from 2015		
	Without scheme (trips)	225	7
	With scheme (trips)	386	10
	Usage difference (trips)	161	3
	Without scheme (individuals)	124	4
	With scheme (individuals)	212	5
	Usage difference (individuals)	88	2
Ashford Cycle Links		**Cyclists**	**Walkers**
	2015 (usage per day) – Includes 4 years growth from 2011		
	Trips	606	21
	Individuals	303	10
	2020 (usage per day) 'without scheme' Includes 5 years growth from 2015		
	Without scheme (trips)	656	22
	With scheme (trips)	1078	30
	Usage difference (trips)	421	7
	Without scheme (individuals)	361	12
	With scheme (individuals)	593	16
	Usage difference (individuals)	232	4
Leybourne Grange [18]		**Cyclists**	**Walkers**
	2015 (usage per day) – Includes 3 years growth from 2011		
	Trips	435	33
	Individuals	218	16
	2021 (usage per day) 'without scheme' Includes 6 years growth from 2015		
	Without scheme (trips)	453	34

[18] Trip data is based on Leybourne Grange School Travel Plan and assumes every primary child is accompanied by an adult.

	With scheme (trips)	771	47
	Usage difference (trips)	319	13
	Without scheme (individuals)	249	19
	With scheme (individuals)	424	26
	Usage difference (individuals)	175	7

The number of individual users is based on the assumption that 90% of trips are part of a return journey using the same route, to avoid double counting in the calculation of the number of individuals affected.

4.7 Economic Benefit Calculations

The approach set out in Table 6 and Figure 3 detail the key components that are combined within the Dft Active Mode Appraisal Toolkit which has been used to appraise each of the component schemes in isolation:

- Health benefits from active travel and increased productivity, based on reduced mortality benefits and calculated using the World Health Organisation HEAT tool TAG Unit A4.1;
- Greenhouse gas emission, air quality and noise pollution benefits arising from transfer of trips from car to walk/cycle, calculated from reductions in car kilometres TAG Unit A5.1.
- Journey quality benefits, stemming from the improvement of the route and the benefit derived by users from this. This is calculated as set out in WebTAG Unit A5.1.

These benefits are in turn based on the usage of the scheme as defined in Section 4.6.

Analysis of Monetised Costs and Benefits

Table 11 shows the AMCB table for the Sustainable Access to Education and Employment Scheme.

Additional benefits, as set out in Table 7, are brought in after the calculation of a BCR, in order to provide an initial assessment of overall Value for Money. This is adjusted for risk to provide a final Value for Money category in the Value for Money Statement (Section 4.9)

Table 11 Summary of Predicted Economic Benefits

Present Values in 2010 market prices and values	Finberry, Ashford	Tunbridge Wells Common	Powder Mills, Leigh	Peters Village, Wouldham	Ashford Cycle Links	Leybourne Grange	Overall Scheme
Physical Activity (including Absenteeism)	£845,920.40	£348,931.59	£609,617.47	£455,311.19	£1,176,271.72	£542,330.80	£3,978,383.16
Journey Quality	£192,001.67	£79,515.59	£134,866.67	£99,794.42	£282,021.95	£139,194.79	£927,395.09
Decongestion	£30,774.94	£8,745.04	£16,975.28	£15,877.55	£44,154.27	£15,636.20	£132,163.27
Accident	£7,758.27	£2,241.14	£4,214.07	£3,885.67	£10,665.01	£3,776.76	£32,540.91
Local Air Quality	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00
Noise	£507.37	£144.06	£280.86	£264.36	£741.97	£262.75	£2,201.38
Greenhouse Gases	£1,762.48	£525.76	£927.66	£829.47	£2,209.49	£782.44	£7,037.30
Indirect Taxation	-£10,029.63	-£3,019.90	-£5,224.74	-£4,618.54	-£12,147.59	-£4,301.78	-£39,342.18

Present Values in 2010 market prices and values	Finberry, Ashford	Tunbridge Wells Common	Powder Mills, Leigh	Peters Village, Wouldham	Ashford Cycle Links	Leybourne Grange	Overall Scheme
User Present Value Benefit (PVB)	**£1,068,695.50**	**£437,083.27**	**£761,657.26**	**£571,344.12**	**£1,503,916.82**	**£697,681.96**	**£5,040,378.94**
Capital Present Value Cost (PVC)	**£74,157.34**	**£74,316.18**	**£107,675.13**	**£104,036.36**	**£100,298.21**	**£97,109.90**	**£557,593.11**
Scheme Net Present Value (NPV) = PVB - PVC	**£994,538.16**	**£362,767.10**	**£653,982.13**	**£467,307.77**	**£1,403,618.62**	**£600,572.06**	**£4,482,785.82**
Scheme Initial Benefit to Cost Ratio (BCR) = PVB/PVC	**14.41**	**5.88**	**7.07**	**5.49**	**14.99**	**7.18**	**9.04**

4.8 Appraisal Summary Table

The Appraisal Summary Table in Table 12 has been completed to take account of the qualitative benefits of the scheme (see Table 7) as well as those which have been monetised in Table 11.

Table 12 Appraisal Summary Table (Assuming Option 1.1, Full ROWIP Implementation)

Impacts		Summary of key impacts	Assessment	
			Quantitative Monetised	Qualitative Non-Monetised
Economy	Reliability impact on Business users	Improved journey time reliability	Not quantified	Slight beneficial
	Regeneration	Support for sustainable housing growth, job creation and inward investment in the area	Housing growth projections included in appraisal	Moderate beneficial
Environmental	Noise	Estimated using the marginal external cost method by forecasting reductions in car kilometres outlined in WebTAG A5.1 (Active Mode Appraisal)	£2,201	Slight beneficial
	Air Quality		£0	Moderate beneficial
	Greenhouse gases		£7,037	Moderate beneficial
	Landscape	Ongoing design process and consultation will enhance further	Not quantified	Moderate beneficial
	Townscape			
	Historic Environment			
	Biodiversity			
	Water Environment			
Social	Physical activity	Mortality Benefits calculated using WHO HEAT tool, based on projected usage (TAG Unit A4.1.)	£3,978,383	Moderate beneficial
	Absenteeism	Additional health benefits (reduced absenteeism, increased productivity) Moderate physical activity is seen to lead to a reduction in sick days taken from work and hence provides a benefit to the employer. (TAG Unit A4.1.)		Moderate beneficial
	Journey quality	Journey quality improved through improved/new facility(TAG Unit A4.1.)	£927,395	Moderate beneficial
	Accidents	Slight reduction in overall accidents due to reduction in car trips. Slight reduction in cycle accidents due to transfer of on-road trips to off-road (TAG Unit A4.1.)	£32,540	Assumed slight beneficial

Impacts		Summary of key impacts	Assessment	
			Quantitative Monetised	Qualitative Non-Monetised
	Security	Personal security will be a design factor in the scheme. Overall security will improve due to increase in usage and improved surveillance.	Not quantified as effects will be small	Assumed slight beneficial
	Access to services	The availability of an off-road route well connected with housing, employment, education and Maidstone Town Centre will improve accessibility, especially for low-income groups. Effects already calculated as part of usage, though SDI benefits will increase these	Not quantified beyond usage calculations, though higher positive impact on young and low-income will increase overall benefit	Moderate beneficial
	Affordability	Provision of LGF funds and local contribution	Local funding committed	Neutral
	Severance	Severance will be reduced, barriers associated with severance will be removed following the implementation of each scheme	Not quantified, though clearly a positive impact	Moderate overall benefit – significant in some cases
	Option and non-use values	The presence of the pathway will be valued by household members near the route, irrespective of whether they use it	Not quantified but anticipated that there will be a moderate benefit	Moderate beneficial
Public Accounts	Cost to Broad Transport Budget	Capital funds from LGF and Section 106 User benefits	N/A	Significantly beneficial
	Indirect Tax Revenues	Slight reduction in fuel tax due to reduction in car trips (TAG Unit A5.4)	-£39,342	Slight cost

4.9 Value for Money Statement (Applied to Full £1.2m ROWIP Scheme)

This Value for Money Statement has been prepared on the assumption that the overall Sustainable Access to Education and Employment Scheme will deliver the benefits calculated for each component scheme.

4.9.1 Initial VfM Category

The VFM Category, taking account only of the quantified benefits increased physical activity, accident reductions, greenhouse gas reductions, improvements in air quality, noise pollution and journey quality improvements (with a combined BCR of 9.04) is 'very high'.

4.9.2 Additional Benefits

There are a number of additional benefits which have not been quantified but which contribute significantly to the value for money of the scheme:

- Housing and employment development benefits in terms of encouraging people to move to Tonbridge, Tunbridge Wells and Ashford, making use of the sustainable travel facilities to travel car-free to employment and education directly or (via the rail network) further afield, including London;
- Regeneration and social benefits gained by providing car-free access to employment, education, training and other facilities in deprived areas served by the routes (part of the Intelligent Investment Tool);
- Environmental benefits in terms of active management of the routes, encouraging wildlife diversity;
- Tourism benefits in terms of improvements to the rights of way network as a whole;
- Safety benefits gained through the transfer of cycle and walk trips from on-road to off-road; and
- Security benefits gained through the increased usage of the routes.

4.9.3 Present Value of Benefits (Initial VfM Category)

The anticipated net present value of the delivery of the Sustainable Access to Education and Employment improvements provide a present value of £5.04m, based on a 10 year appraisal and discounted to 2010 values.

This represents extremely high value for money, especially when combined with the additional benefits above.

4.9.4 Risk Adjustment and Final VfM Category

The risks inherent in this project are low. In view of this, the Final VfM Category remains 'very high'.

4.9.5 Summary of Benefits and Costs

The immediate benefit from the scheme (through the various sub-schemes) will be the provision of attractive, direct routes which will facilitate a large increase in cycle and walk trips between residential areas and employment and education facilities.

In combination with the complementary LSTF scheme, the ROWIP schemes will help 'lock in' the benefits of transport investment and will facilitate the sustainable growth of housing and employment set out in the SELP Strategic Economic Plan and the Local Plans of Kent Borough and District Councils.

This in turn will encourage inward investment and enable commercial and employment growth in the area.

The primary financial benefits which have been used to calculate the value of the scheme are:

- The physical activity benefits of cycling and walking in terms of reduced mortality;
- Environmental improvements, a reduction in greenhouse gases and noise pollution and air quality improvements from the transfer of car trips to walk/cycle;
- Journey quality benefits for users of the route;
- Decongestion savings; and
- Accident reduction benefits.

In addition, there are a number of additional benefits which have not been monetised, the most important of which are:

Economy

Reliability

Reliability for commuters travelling to work by car could improve as attractive sustainable transport schemes may result in a transfer of car users to cycle or walking.

Reliability during the construction phase will be affected, however, it is not anticipated that this last long or be significant due to the small scale of each individual scheme.

Regeneration

The proposed ROWIP schemes will have no impact upon any regeneration areas designated by the UK Government or the European Union, and therefore a regeneration assessment is not deemed necessary. The proposed schemes will provide increased employment opportunities and encourage more retailers/business to locate to the area; further boosting local economic activity.

Case study evidence suggests that improving the streetscape and making it a more desirable place to visit can allow it to compete with neighbouring retail centres and attract inward investment.

Environment

Landscape

It is considered that landscape will be largely unaffected by the introduction of the ROWIP Improvement schemes. Schemes are of such small scale that they will not be visually intrusive or detract from the existing character of the neighbouring landscape.

Townscape

It is considered that townscape will be largely unaffected by the introduction of the ROWIP Improvement schemes, however, improvements are likely to increase the number of non-motorised users using the streetscape at schemes in non-rural locations which affords an opportunity to promote the character of the local area.

Historic Environment

It is considered that the historic environment will be largely unaffected by the introduction of the ROWIP Improvement schemes and hence detailed analysis is considered unnecessary.

Biodiversity

It is considered that biodiversity will be largely unaffected by the introduction of the ROWIP Improvement schemes and hence detailed analysis is considered unnecessary.

Water Environment

It is considered that the water environment will be largely unaffected by the introduction of the ROWIP Improvement schemes and hence detailed analysis is considered unnecessary.

Social

Security

Personal security is unlikely to be altered although it is anticipated that pedestrians and cyclists should feel safer in relation to road safety hazards and improved surveillance.

Severance

The construction/ refurbishment of various public rights of way across Kent will encourage sustainable travel movements between residential settlements and areas of employment and education. Barriers associated with severance will be removed following the implementation of each scheme, for example, links that may previously not exist or current links that remain unusable/ unattractive towards their targeted users.

Option Values and Non-use Values

The schemes will not 'substantially change the availability' of transport services along the scheme corridor and as such will have a negligible effect on 'Option and No Use Values'. Therefore further detailed analysis is considered unnecessary.

Accessibility

All schemes have been designed to enhance access to areas of employment and education from areas specified as key emerging residential developments. Navigation by sustainable modes of transport will become far easier as a result of each improvement. The availability of a safe, direct and attractive route for cyclists and walkers will provide significantly improved access for people of low income, the young and the elderly

Affordability

Personal affordability will not be affected by the introduction of the scheme.

The main costs of the scheme are:

- Scheme construction costs totalling £1.2m (2015 prices). Each component scheme cost varies.

4.9.6 Key Risks, Sensitivities and Uncertainties

The following key risks have been identified and mitigation approaches have been defined to address these:

- Landowners reject requests for access or rights of way or unplanned land purchase is required;
- Stakeholders reject scheme as unsuitable or inappropriate;
- Highway design issues prove costly;
- Significant habitat or other wildlife issues arise;
- Key stakeholders (e.g. LEP or DfT) insist on additional quantitative appraisal;

- Related highway scheme designs affect scheme or scheme affects these schemes;
- Unknown levels of demand;
- Benefits achieved do not match those predicted in the example used in the Business Case; and
- Anticipated developer contributions are not actually delivered.

5 Financial Case

5.1 Introduction

This chapter presents The Financial Case for the Kent Sustainable Access to Employment and Education scheme. It concentrates on the affordability of the proposal, its funding arrangements and technical accounting issues. The total outturn costs and expenditure profile are presented, along with an assessment of the impact of the proposed deal on the Department's budgets and accounts.

Capital costs have been calculated for the do-something scheme situation, only, because there are not expected to be any alternative construction costs that would be incurred in the do-nothing only and not in the do-something.

Only the costs which will be incurred subsequent to a successful funding bid have been considered. 'Sunk' costs, which represent expenditure incurred prior to funding approval and which cannot be retrieved, have not been included.

5.2 Capital Cost Component at 2015 Prices

This section considers the capital costs associated with the proposed scheme investment. The capital required to fund the project is £1.2m for the period 2015-2021. The amount requested from the LEP is £0.8m. The overall cost is broken down further below.

Breakdown and Time Profile of Project Costs

Table 13 provides an overall summary of the costs of the separate elements which make up the Sustainable Access to Education and Employment scheme.

Table 13 Cost Estimates of Scheme Components (2015)

Scheme	Year	Cost (£)
Finberry, Ashford	2016/17	193,828
Tunbridge Wells Common	2016/17	83,734
Powder Mills	2017/18	152,080
Peter's Village	2018/19	149,156
Ashford Cycle Links	2019/20	182,859

Scheme	Year	Cost (£)
Leybourne Grange	2020/21	143,474
Total Base Cost		**905,131**

5.3 Inflation

Table 14 provides a base cost estimate of the investment which incorporates real cost increases (WebTAG A1.2). General inflation is assumed to be 2% between 2014 and 2015, while construction costs are forecast to increase by 4% for the same period. Therefore the base investment costs, including real cost increases have been calculated by:

In 2015 - £905,131 (1.04/1.02)^1= £954,941

Table 14 Base Scheme Costs (2015 prices)

Scheme	Year	Cost (£)
Finberry, Ashford	2016/17	197,629
Tunbridge Wells Common	2016/17	85,376
Powder Mills	2017/18	158,102
Peter's Village	2018/19	158,103
Ashford Cycle Links	2019/20	197,628
Leybourne Grange	2020/21	158,103
Total Base Cost		**954,941**

5.4 Risk Budget

A 10% risk contingency has been applied in line with best practice for work of this nature. The projects likely risk profile will be considered further as part of the Quantified Risk Assessment (QRA) as the design elements progress further.

5.5 Contingency

WebTAG guidance states that an allowance for optimism bias should be added to the risk adjusted cost estimate, however, recent DfT advice (Growth Deal Large Transport Project Portfolio (aka "retained" schemes) November 2015) is that optimism bias is excluded but scheme costs should contain an element of contingency. Therefore, a contingency of 15% has been added.

5.6 Final Scheme Costs

Table 15 below shows the final scheme costs for the 2015/16 funding bid associated with the scheme at 2015 prices, including risk, contingency and inflation but excluding indirect taxation.

Table 15 Final Scheme Costs Summary (2015 prices)

Cost Type (£)	Finberry	Tunbridge	Powder Mills	Peters Village	Ashford Cycle Links	Leybourne Chase	Total Costs
Scheme Cost	193,828	83,734	152,080	149,156	182,859	143,474	905,131
Inflation	3,801	1,642	6,022	8,947	14,769	14,629	49,810
Risk Allowance	19,762.85	8,537.55	15,810.28	15,810.28	19,762.85	15,810.28	95,494
Contingency	32,608.70	14,086.96	26,086.96	26,086.96	32,608.70	26,086.96	157,565
Total	**250,000**	**108,000**	**200,000**	**200,000**	**250,000**	**200,000**	**1,208,000**

5.7 Spend Profile

The total sum requested from the Local Growth Fund is £0.8m, with other contributions (from developer contributions) being just over £408,000. The details are provided in Table 16 below:

Table 16 - Sources of Finance

Funding Source	Total £000	2015/16 £000	2016/17 £000	2017/18 £000	2018/19 £000	2019/20 £000	2020/21 £000
Local Growth Fund (SELEP)	800	150	200	150	150	150	150
Local Contribution Total (leverage) – Local Authority	**408**	**50**	**158**	**50**	**50**	**50**	**50**
Other Funding (ensure naming every institution; insert as many rows as required) – Private Sector	**0**						
TOTAL FUNDING	**1,208**	**200**[19]	**358**	**200**	**200**	**200**	**200**

5.8 Whole Life Costs

It is likely that there will be on-going revenue implications for future maintenance (as is the case with most schemes), which will be added to the general highway asset and funded as required. To date these cost implications have not been quantified.

5.9 Funding Assumptions

The total project cost is estimated at £1.2 million which will be funded from the LEP contribution of £0.8m which has provisionally been granted dependent on the business case and a contribution of £408,000m from the local authority.

5.10 Overall Affordability

The scheme design is well advanced and the costs are reasonably well defined. In view of this, with the existing committed LGF and Section 106 funds are considered adequate for delivery of the scheme.

[19] Funding already committed for 2015/16 and construction in progress. Not included in total.

6 Commercial Case

6.1 Commercial Issues

6.1.1 The commercial case provides evidence on the commercial viability of the scheme and the procurement strategy that will be used. It sets out the financial implication of the proposed procurement strategy and presents evidence on risk allocation and transfer, contract timetables and implementation timescale as well as details of the capability and skills of the team delivering the project.

6.1.2 The outcomes which the procurement strategy must deliver are to:

- Achieve cost certainty, or certainty that the scheme can be delivered within the available funding constraints;
- Minimise further preparation costs with respect to scheme design by ensuring best value, and appropriate quality;
- Obtain contractor experience and input to the construction programme to ensure the implementation programme is robust and achievable; and
- Obtain contractor input to risk management and appraisals, including mitigation measures, to capitalise at an early stage on opportunities to reduce construction risk and improve out-turn certainty thereby reducing risks to a level that is As Low As Reasonably Practicable.

6.2 Scheme Procurement Strategy

Procurement Options

KCC have identified two procurement options for the delivery of their LEP funded schemes. The alternative options are:

Full OJEU tender

This option is required for schemes with an estimated value of over £4,322,012.

KCC will then need to opt for an 'open' tender, where anyone may submit a tender, or a 'restricted' tender, where a Pre-Qualification is used to whittle down the open market to a pre-determined number of tenderers. This process takes approximately one month and the first part is a 47 day minimum period for KCC to publish a contract notice on the OJEU website.

The minimum tender period is 6 weeks but could be longer for larger schemes. Once the tenders are received they must be assessed and a preferred supplier identified. There is a mandatory 10 day 'standstill' period, during which unsuccessful tenderers may challenge the intention to award to the preferred contractor.

Delivery through existing Amey Highways Term Maintenance Contract (HTMC)

This option is strictly not procurement as the HTMC is an existing contract. The HTMC is based on a Schedule of Rates agreed at the inception of the contract. The price for each individual scheme is determined by identifying the quantities of each required item into a Bill of Quantities. Amey may price 'star' items if no rate already exists for the required item. If the scope of a specific scheme is different from the item coverage within the HTMC contract a new rate can be negotiated.

Preferred Procurement Option

The preferred procurement route for the sustainable Access to Education and Employment Improvement scheme and for other schemes within the programme is through existing Amey Highways Term Maintenance Contract (HTMC).

This option has been selected as the value of the scheme is less than the OJEU scheme value threshold.

6.3 Potential for Risk Transfer

Although many of the design risks can only be resolved through rigorous design and review processes, once the design options are clear and the scope of land acquisition, planning requirements, environmental requirements are fully identified; the primary risks will be related to construction. There is potential for transferring these risks through the construction procurement process. This will be explored fully as the design and procurement process progresses.

7 Management Case

7.1 Project Plan

The project timetable will run on an annual cycle up until completion in 2021. The programme for delivery of the Sustainable Access to Education and Employment is shown in the Project Plan (**Error! Reference source not found.**) below:

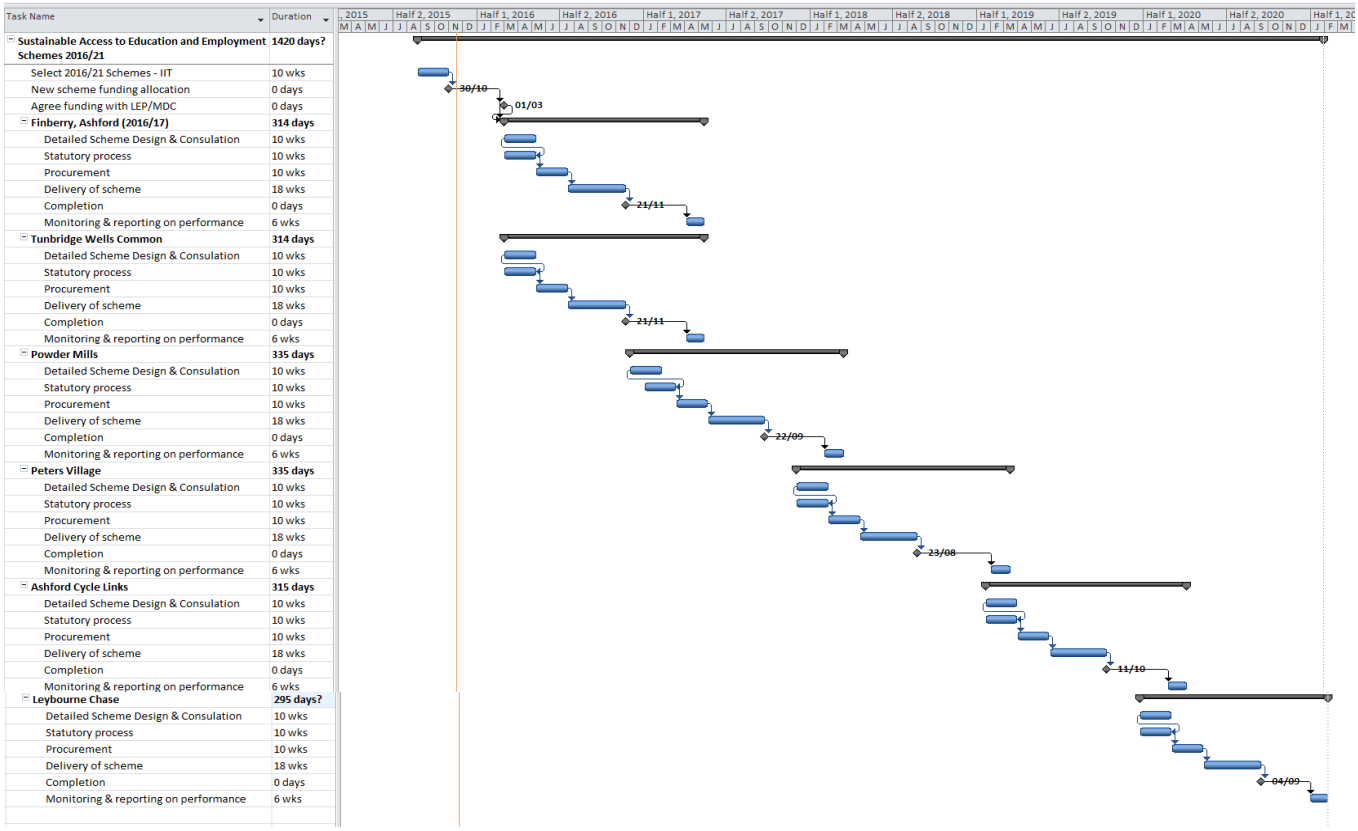


Figure 4 Project Delivery Plan

7.2 Project management arrangements

Although not fully defined at this stage, the scheme is likely to be project managed in house by PRINCE2 trained and experienced Council staff using well-established governance structure that has successfully delivered large projects across Kent.

7.3 Project Governance, Roles and Responsibilities

KCC have set up a clear and robust structure to provide accountability and an effectual decision making process for the management of the LEP funded schemes. Each scheme will have a designated project manager who will be an appropriately trained and experienced member of KCC staff.

Figure 5 overleaf provides an outline of the overall governance structure implemented to manage the delivery of each scheme.

A detailed breakdown of the meetings (along with the attendees, scope and output of each) which make up the established governance process is set out below.

Project Steering Group (PSG) Meetings

PSG meetings are held fortnightly to discuss individual progress on each scheme and are chaired by KCC Project Managers (PMs). Attendees include representatives from each stage of the LEP scheme (i.e. KCC Bid Team, KCC sponsor, KCC PMs, Amey design team and construction manager). Progress is discussed in technical detail raising any issues or concerns for all to action. A progress report, minutes of meeting and an update on programme dates are provided ahead of the Programme Board (PB) meeting for collation and production of the Highlight Report.

Highlight Report

The Progress Reports sent by the KCC PMs comprise of the following updates; general progress, project finances, issues, risks and governance meeting dates. The Highlight Report identifies any areas of concern or where decisions are required by the PB meeting or higher to the KCC LEP Programme Manager. An agreed version of the Highlight Report is issued to the PB meeting attendees during the meeting.

Figure 5 – KCC Project Governance Structure

Bid / Design / Construction	High level Agenda	Frequency	Attendees	Format	Scope	Agenda Items	Key Deliverables/Feedback	Templates
Sponsoring Group	Bid Design Construction	Monthly - Can be called in emergency if required	**Chair: TR** BC/RW/MG Supported by IPM attendees as required	Face to face meeting, rotating venue	To discuss programme (i.e. high level progress/preview next steps and discuss and resolve issues.	LEP programme (high level) progress to date Programme Financial reporting Next steps Issues/Risk/Change Actions	Minutes of Meeting Action/Decision Log Output distributed to MG	**Agenda** **Minutes** **Decision list**
Sponsoring Group Progress Report	Decisions Needed	Monthly	MG/JW	Report	To record outstanding actions/issues that require a decision made by the board		Action list ready for the Steering Group	**Action List**
Programme Board Meeting	Bid Design Construction	Monthly	**Chair: MG** MG/KCC Promoters/KCC PMs/ AQ or RC/SW/PC/JW	Face to face meeting, rotating venue	To discuss progress/preview next steps and discuss and resolve issues	LEP programme progress to date Project financial reporting Next steps Issues/Risk/Change Actions	Minutes of Meeting Action List Output distributed to all attendees	**Agenda** **Minutes**
Highlight Report	Identify key points for Programme Meeting	Monthly	JW/MG	Face to face meeting/report	JW to collate and streamline all reports highlighting areas of interest for the programme meeting. To be fed back to MG by report/meeting		Highlight report for MG to use for Programme Meeting. Highlight report shared with PR attendees.	**Highlight Report**
Steering Group Meeting	Progress Update	Monthly/Fortnightly as required	**Chair: KCC PMs** All input staff - KCC Bidding/KCC Promoters/KCC PMs/Amey Design/TMC/JW	Face to face meeting	Individual meetings per project (including each stage of the LEP process to discuss progress in detail).	LEP project progress to date/MS Programme Project financial reporting Issues/Risk/Change Actions	MS Programme Update Progress update in template for each project	**Progress Report**

List of Initials:

BC	Barbara Cooper
RW	Roger Wilkin
TR	Tim Read
MG	Mary Gillett
AQ	Andrew Quilter
RC	Richard Cowling
SW	Steve Whittaker
PC	Paul Couchman
JW	Joanne Whittaker

Programme Board (PB) Meeting

The PB meeting is held monthly and is chaired by the KCC LEP Programme Manager. Attendees include representatives from all three stages of the schemes (i.e. KCC LEP Management, KCC LEP Bidding, KCC Sponsors, KCC PMs, Amey Account Manager, Amey Technical Advisors, Amey Construction representatives). This meeting discusses project progress to date, drilling into detail if there is an issue or action (as identified in the PSG meeting), financial progress, next steps and actions. Outputs of this meeting are the Highlight Report and the minutes of meeting.

Escalation Report

A list of actions and decisions that the PB meeting was unable to resolve is prepared ready for the Sponsoring Group (SG) meeting to discuss and ultimately resolve.

Sponsoring Group (SG) Meeting

The SG is held monthly and will be chaired by Tim Read (KCC Head of Transportation). Attendees are Barbara Cooper (Corporate Director), Roger Wilkin (Director of Highways, Transportation and Waste), Tim Read and Mary Gillett (KCC Major Projects Planning Manager). This meeting discusses high-level programme progress to date, financial progress, next steps and closes out any actions from the escalation report. Output is sent to Mary Gillett for distribution. Technical advisors are invited if necessary to expand upon an issue. All actions from the start of this meeting cycle are to be closed out by the SG when they meet (i.e. no actions roll over to subsequent meetings).

7.4 Suitability and Availability of Resources

The scheme is intended to be delivered using a collaborative approach between KCC staff and their appointed support organisation Amey. KCC have identified appropriately trained and experienced staff that will be the responsible for the delivery of the scheme. The identified staff fulfilling the Project Sponsor role for the scheme has been ring-fenced to support the scheme throughout its duration and will have more junior staff available to support them.

Furthermore, the Project Sponsor and Project Manager will utilise appropriate staff from two existing contracts with Amey. Design and technical services support will be provided through the Technical and Environmental Services Contract (TESC) which is active until at least 2018. Amey have a dedicated multi-discipline team located in Maidstone to support the LGF funded schemes. KCC will also utilise dedicated Amey resource through the existing HTMC contract to undertake the construction of the scheme and also to provide early contractor involvement (ECI), where appropriate, to the design process to ensure best value.

7.5 Evidence of Previously Successful Scheme Management Strategy

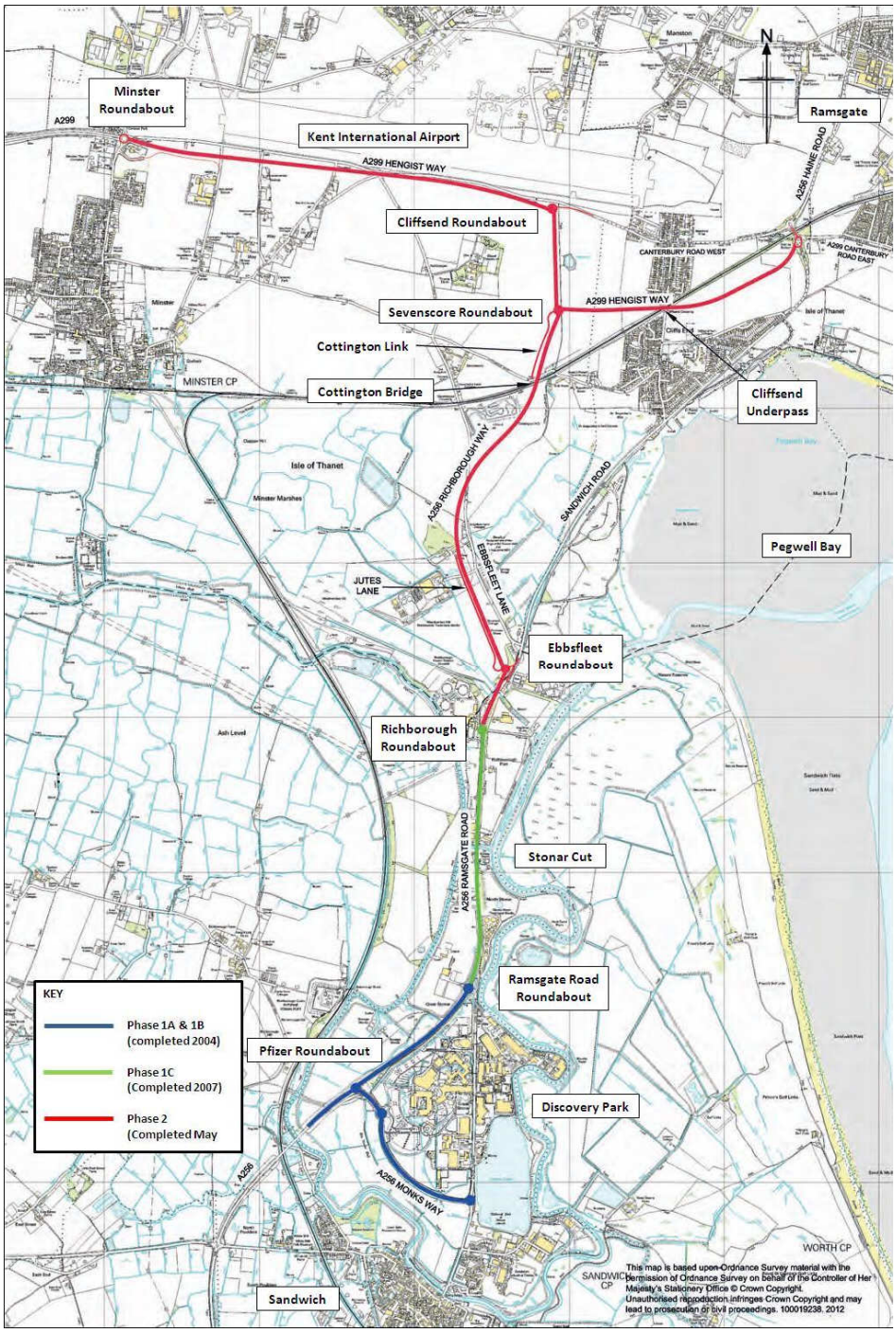
KCC have a successful track record of delivering major transport schemes within the county. The most recent of which were the East Kent Access Phase 2 (EKA2) and Sittingbourne Northern Relief Road schemes (SNRR).

The EKA2 scheme, completed in May 2012, was designed to support economic development, job creation and social regeneration, improving access with high quality connections between the urban centres, transport hubs and development sites in East Kent. The overall objectives of the scheme were to unlock the development potential of the area, attract inward investment and maximise job opportunities for local people. The extent of the scheme is shown in Figure 6 overleaf.

The scheme was successfully delivered within budget and ahead of programme through the adoption of a robust management approach similar to that set out above to deliver the ROWIP scheme. The total value of the scheme was £87.0m of which £81.25m was funded by Central Government.

The intended scheme outcomes are currently being monitored but the intended benefits of the scheme are anticipated to be realised.

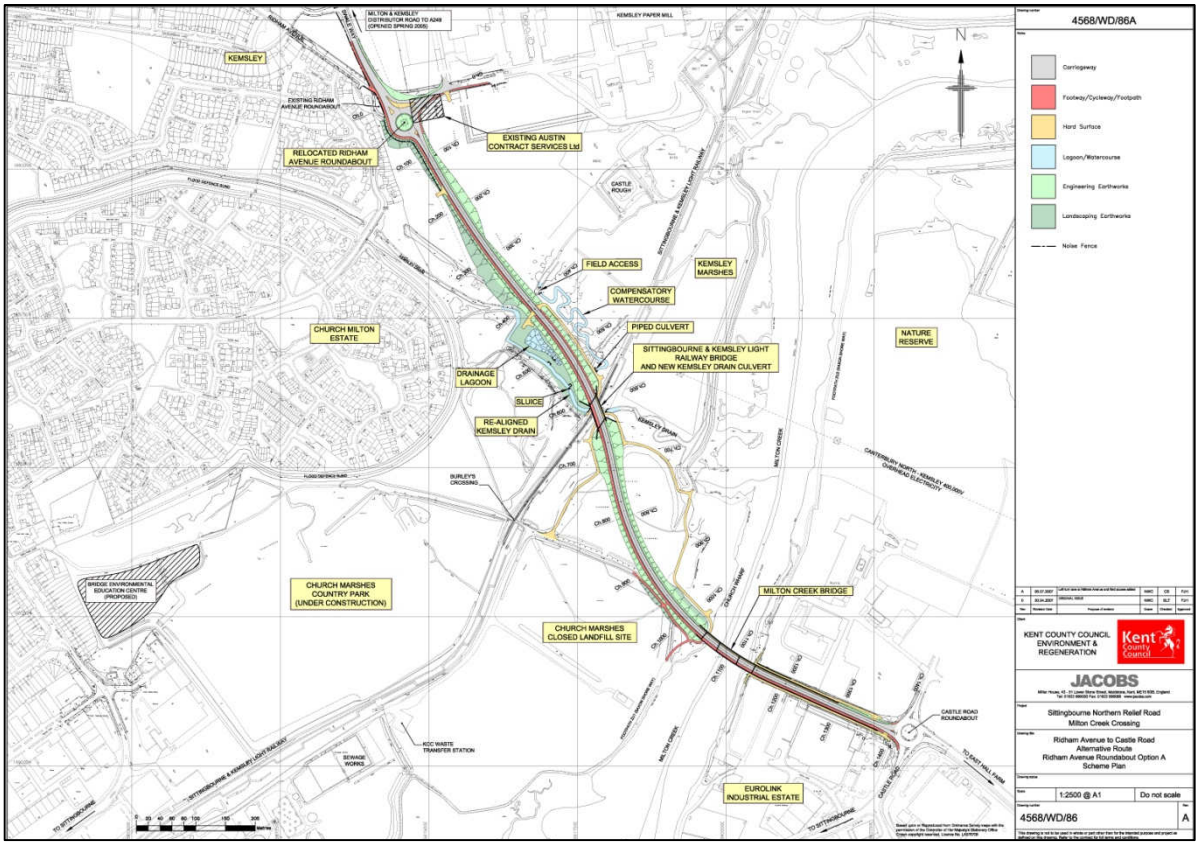
Figure 6 – EKA2 Scheme Layout



The SNRR scheme, completed in December 2011, was designed to remove the severance caused by Milton Creek and give direct access to the A249 trunk road for existing and new development areas, thereby relieving Sittingbourne town centre.

The delivered scheme is shown in Figure 7 below:

Figure 7 – SNRR Scheme Layout



The project is an excellent example of multi agencies working towards a common aim. The scheme was funded by the Homes & Communities Agency in its Kent Thameside regeneration role, by the Department of Transport in its support of local major schemes and by private sector S106 contributions. The scheme was delivered under budget and to programme.

Both the EKA2 and SNRR schemes have since been awarded regional Institute of Civil Engineers (ICE) Excellence Awards.

7.6 Project Risk Management

7.6.1 Risk Management Strategy

Project risk is managed as an on-going process as part of the scheme governance structure, as set out in section 7.3 of this report. A scheme risk register is maintained and updated at each of the two-weekly Project Steering Group meetings. Responsibility for the risk register being maintained is held by the KCC PM and is reported as part of the monthly Progress Reports.

Any high residual impact risks are then identified on the highlight report for discussion at the Programme Board (PB) meeting. Required mitigation measures are discussed and agreed at the PB meeting and actioned by the KCC PM as appropriate.

An example scheme risk register is shown in Figure 8 below:

Figure 8 – Project Delivery Programme

7.7 Project Assurance

A signed letter by KCC's Section 151 officer providing appropriate project assurances is contained as Appendix C**.**

7.8 Benefit realisation plan and monitoring

Tracking of the scheme benefits will be a key element in understanding the success of a specific intervention. The realisation of benefits is intrinsically linked to the Monitoring and Evaluation plan.

Figure 2 – Scheme Causal Chain details how the scheme benefits are derived either directly through the scheme itself or collectively with other schemes.

The scheme objectives set out in Section 3.11 have been used to develop the desired outputs and outcomes for the scheme. The desired outputs are the actual benefits that are expected to be derived from the scheme and are directly linked to the original set of objectives. The definition of outputs and outcomes are:

- **Outputs** – tangible effects that are funded and produced directly as a result of the scheme; and
- **Outcomes** – final impacts brought about by the scheme in the short and medium/long term.

Measures	Monitoring	Benefits Realisation	Comments

Measures	Monitoring	Benefits Realisation	Comments
Delivery on time	Through contract management	Through contract management	
Delivery on budget	Through contract management	Through contract management	
Delivery of safe, attractive, direct route	User satisfaction surveys	Includes key aspects of existing highway infrastructure and linked schemes	Delivery will be enhanced through use of existing partnership working
Usage	Counters on route	Requires complementary schemes; publicity and travel planning including LSTF funded elements	Key element of demonstrating secondary benefits – e.g. health & congestion reduction
Mode share	Not measured directly – part of general traffic monitoring	Realisation involves other schemes, e.g. LSTF, ROWIP and Gyratory	Delivery will be enhanced through use of existing partnership working
Health benefits	Not measured directly – derived from usage	Requires complementary schemes; publicity and travel planning including LSTF funded elements	Links with NHS monitoring could enhance this
Decongestion, air quality, noise, CO_2 emissions	Not measured directly – derived from usage	Realisation involves other schemes, e.g. LSTF and highway schemes	

Measures	Monitoring	Benefits Realisation	Comments
Growth (housing, jobs)	Not measured directly – derived from usage	Realisation involves other schemes, including non-transport (e.g. development)	Part of SELEP SEP Performance Management and Local Plan management
Wider economic benefits	Not measured directly – part of wider LGF package	Realisation involves other schemes, including non-transport (e.g. development)	Part of SELEP SEP Performance Management

KCC will conduct a full evaluation of the impact of the scheme in the period after it is completed. The Council will prepare evaluation reports one year and five years after scheme opening, using the information to be collected as set out above to gauge the impact of the scheme on the traffic network, and assess the success of the scheme in meeting the objectives of the KSCMP. Unexpected effects of the scheme will be reported upon and, where appropriate, remedial measures identified.

7.9 Key Project Risks and Risk Management Strategy

Although this business case has been developed on the basis of the most relevant and accurate information available, there will be changes to the design as the scheme progresses towards delivery. This introduces a number of risks which will require active management as the design and delivery progresses.

Table 17 - Key Project Risks

Risk	Likelihood	Impacts	Mitigation
Landowners reject requests for access or rights of way or unplanned land purchase is required	Low	Moderate	Active consultation

Risk	Likelihood	Impacts	Mitigation
Stakeholders reject scheme as unsuitable or inappropriate	Low	Moderate	Active consultation, building on existing relationships (e.g. Ramblers Association)
Highway design issues prove costly	Moderate	Moderate	Early engagement of highway design specialists
Significant habitat or other wildlife issues arise	Low	High	Early assessment of environmental issues
Key stakeholders (e.g. LEP or DfT) insist on additional quantitative appraisal	Low	Moderate	Prepare Transport Business Case with as much quantitative information as possible
Related highway scheme designs affect scheme or scheme affects these schemes	Moderate	Moderate	Co-ordination of design and explicit requirement in design brief
Unknown levels of demand	Low	Moderate	Undertake more data collection and liaise with planners at local authorities
Benefits achieved do not match those predicted in the example used in the Business Case	Moderate	Moderate	Use Intelligent Investment Tool to ensure best schemes are selected
Anticipated developer contributions are not actually delivered	Moderate	High	Ensure adequate liaison with Planning Officers and developers before schemes are committed

7.10 Gateway Review Arrangements

Since this scheme is being funded through a completely new arrangement of devolved major scheme funding, the Gateway Review arrangements are as yet undefined. As the Transport Business Case progresses, these will be fully defined and reported, in consultation with the LEP and other stakeholders.

7.11 Monitoring, Evaluation and reporting – performance management

The Causal Chain (Figure 2) sets out the primary measures which will be used to judge the success of the scheme. These will be monitored, evaluated and managed as follows:

Table 18 - Measures of Scheme Success

Measures	Monitoring	Performance Management	Comments
Delivery on time	Through contract management	Through contract management	
Delivery on budget	Through contract management	Through contract management	
Delivery of safe, attractive, direct route	User satisfaction surveys	Through existing KCC rights of way management	
Usage	Counters on route	Through existing KCC rights of way management and complementary Smarter Choices	Key element of demonstrating secondary benefits – e.g. health & congestion reduction
Mode share	Not measured directly – part of general traffic monitoring	Through existing traffic management	
Health benefits	Not measured directly – derived from usage	Through existing KCC rights of way management and complementary Smarter Choices	Links with NHS monitoring could enhance this
Decongestion, air quality, noise, CO_2 emissions	Not measured directly – derived from usage	Through existing traffic management	
Growth (housing, jobs)	Not measured directly – derived from usage	Local Plan management	

Measures	Monitoring	Performance Management	Comments
Wider economic benefits	Not measured directly – part of wider LGF package	SELEP SEP management	

8 Conclusions and Recommendation

8.1 Conclusions

The proposal to construct new and improve existing Public Rights of Way across Tunbridge Wells, Tonbridge and Malling and Ashford will enable people to commute, travel to school and undertake active leisure activities. This is exactly the kind of scheme targeted by both the ROWIP and LGF funding.

The scheme will attract significant numbers of users, all of whom will benefit from the improved health attendant on cycling and walking as part of daily life. Since the proposed routes are largely off-road, they provide an attractive and valuable leisure route as well as an effective way to travel to work, school or to access other services.

The availability of the route for commuter use will act as a significant attractor for people wishing to move to Tunbridge Wells, Tonbridge and Malling and Ashford. People will be able to use the paths for cycle and walk commuting, both within the area and further afield using the rail network, whilst routes also link to other national networks enhancing connectivity throughout Kent. The housing growth plans for the area are dependent on providing an attractive offer and also ensuring that trips generated by new residents will not cause damaging congestion, noise and air pollution.

8.2 Recommended Next Steps

Recommend that development and delivery of the scheme (Sustainable Access to Education and Employment Improvement Scheme) should be approved and should proceed.

8.3 Value for Money Statement

The value for money assessment of the proposed scheme has produced an overall qualitative outcome of Very High, on a 4-point scale.

The Value for money assessment has been undertaken from a combination of qualitative and quantitative perspectives.

The scheme has wider impacts that will benefit the town considerably more than solely from a transport perspective and further adjustments have been made with regard to this.

This VfM is based on the quantified initial BCR for the scheme of Very High with further adjustments for non-quantified BCR components, qualitative outcomes and risks/sensitivities.

8.4 Funding Recommendation

Give a recommendation that the funding stream required for the scheme from SELEP, through the LGF, should be released to Kent CC. This involves total funding of £0.8m.

Appendix A Summary of Key Calculations (Peters Village only)

	A	B	C	D	E	F	G	H	I
1	Summary of Existing Trip Patterns at Holborough Lakes				Peters Village Assumptions based on Holborough Lakes area Census Analysis				new and existing residents
2	Employment				Dwellings	1000	Total Number of Residents	2210	0
3	Commutors		% commuting to snodland & NH		Employment			Education	
4	Total Commuting from HL for work	528							
5	Total Commuting from HL for work (excluding s and NH)	473			Number of people in Employment	670		Secondary	primary including 1 parent
6	Commuting to Snodland and New Hythe	55	12%		people potentially commuting for work	549	Number of pupils	89	109
7	Method of Commute		Mode share %		Commuting to snodland	64	Walking to school (Sustrans)	0	100
8	Cycle	4	0.6%		number of people cycling to snodland	1	Cycling to school (sustrans)	0	2
9	Foot	38	6.1%		Number of people Walking to snodland	6	Already walking	0	0
10	Train	57	9.2%		Population at working age	906	Already Cycling	0	0
11	Total excluding unemployed and home workers	618							
12	Total in Employment	644			Journey increase with Case Study (East Lothian) - Work Place				
13	number of people potentially cycling to station	1			Individuals		Per Annum	Before	
14	Working age		% of Pop at working age		Cycle	1	323	201	
15	Population aged 18-64	476			Walk	6	1615	32292	
16	Total Population at PF	1,161	41%		Trips			After	Difference
17	Education				Cycle	3	646	343	142
18	School Age		% of total pop in PF		Walk	13	3231	127000	94708
19	Primary (5-10)	57	5%		With Case Study			% Change after implementation	
20	Secondary (11-16)	47	4%		Cycle trips	4	911	Cycle	41%
21					Walk trips	22	5654	Walk	75%
22									
23					Journey increase with Case Study (East Lothian) - Primary school				
24					Individuals		Per Annum	Before	
25					Cycle	2	549	201	
26	% of people in employment (aged 18-64)	74%			Walk	100	25255	32292	
27	% of people commuting for work	82%			Trips			After	Difference
28	% of people cycling to work in Snodland and New Hythe including cycling to the station	0.7%			Cycle	4	1098	343	142
29					Walk	200	50510	127000	94708
30					With Case Study			% Change after implementation	
31					Cycle trips	6	1548	Cycle	41%
32					Walk trips	349	88392	Walk	75%
33									
34	2015 (usage per day)	Pedestrians	Cyclists						
35	Trips	219	7						
36	Individuals	109	4						
37	2019 (usage per day)	Pedestrians	Cyclists						
38	Without scheme (trips)	225	7						
39	With scheme (trips)	386	10						
40	Usage difference (trips)	161	3						
41	Without scheme (individuals)	124	4						
42	With scheme (individuals)	212	5						
43	Usage difference (individuals)	88	2						
44									
45									
46									
47									
48									
49									
50									
51									

Summary | Res commuting to Snod & New H | All Res Commuting From Holborou | Method of Travel to Work PF | Ages | sustrans school travel average | travel distances

Ready

Appendix B Active Mode Appraisal Toolkit (Peters Village Assumptions)

Please answer the following questions with your best estimates to obtain a benefit cost ratio of your scheme.
By varying your answers you can test the importance of the input data on the overall value for money of your scheme.
The answers provided are for the example case study from Appendix B of WebTAG unit A5.1. This case study provides further helpful commentary that users of this tool might want to refer to.

Scheme details

When would the scheme be likely to open? 2019
What is the last year of initial funding? 2019
Decay rate (starting from last year of funding) 5.0%

WebTAG A5.1 explains - the impacts especially of revenue funded initatives such as cycle training or personalised travel planning are likely to diminish year by year following the investment. For the case study here this is likely to be conservative.

Appraisal period (should be the expected asset life, maximum 60) 10 yrs

Do Nothing scenario

This is what is most likely to happen if the scheme is not implemented.
The data could for example be from automatic or manual traffic counts.

Number of cycling journeys 7 per day, average length 2 km and speed 20 kph
Number of walking journey 225 per day, average length 1.5 km and speed 5 kph
Ideally the data is taken from 'average weekday' in spring or autumn to avoid seasonal bias.
A return trip involves two journeys and would need to be counted as such.
To identify how many individual users this implies, please estimate the share of journeys that form part of a return trip here: 100%

Do Something scenario

Once your scheme has reached it's full impact (ignoring any initial build up here), how would these figures have changed (due to the intervention)?
Number of cycling journeys 10 per day, e.g. from automatic or manual cycle count.
Number of walking journey 386 per day
For simplicity it is assumed that the length and speed of journeys is largely unaffected by the intervention.

Journey Quality impacts

WebTAG units A5.1 and A4.1 provides guidance, the Databook provides suggested values that users might place on the improvemed infrastructure your scheme provides. The values are shown in the WebTAG journey quality tab.
The improvement over the 'do nothing' scenario should be valued, rather than the absolut level.

For cyclists 7.03 pence per minute ____ pence per trip (e.g. shower facilities)
For pedestrians 9.9 pence per km
As demonstrated in the case study, these values should take account of the proportion of the average journey that would be made on the improved infrastructure.

Decongestion benefits

What proportion of new users would most likely be using a car in the do nothing scenario?
for cyclists 21.0%
for pedestrians 31.0%

Which area type from the drop down is most similar to the area your scheme is located in?
Other Urban

Additional information

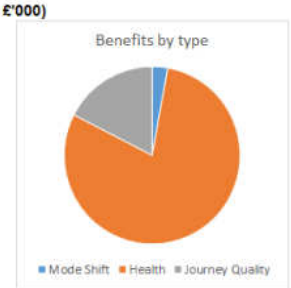
Background Growth
If you have an estimate of the growth in background use (in both scenarios), please set
the annual growth rate 0.00%
the period over which this applies 0 years

Number of days in the year that you would expect the above usage figures 253 days p.a.
In the case study this is assumed to the typical number of working days - but might more appropriately be set to the number of weekdays.

Results

Analysis of Monetised Costs and Benefits (in £'000)

Noise	0.26
Local Air Quality	0.00
Greenhouse Gases	0.83
Journey Quality	99.79
Physical Acitivity (incl. absenteeism)	455.31
Accidents	3.89
Decongestion	15.88
Indirect taxation	-4.62
Private contribution	0.00
Present Value of Benefits (PVB)	571.34
Present Value of Costs (PVC)	-0.12
Benefit Cost Ratio (BCR)	**-4913.70**



Costs

Please provide estimates for upfront costs as well as future maintenance costs in the table below. Please enter the full costs of the scheme in the first column and any private sector contribution to those costs in the second. All other funds are assumed to be from local or central Government.
Please use a constant price base and specify the year here 2010
Please refer to WebTAG unit A1.2 to set Optimism Bias

Year	Total scheme costs '000£	3rd party contributions '000£
2009		
2010		
2011		
2012		
2013		
2014		
2015		
2016		
2017		
2018		
2019		
2020		
2021		
2022		
2023		
2024		
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2068		
2069		
2070		

The case study in WebTAG unit A5.1 uses slightly different assumptions on the valuation of decongestion benefits which result in a higher estimated benefit there. This is due to the specfic nature of the case study and to fully replicate this approach here would have increased the complexity of this tool with no apparent benefit.

Appendix C Section 151 Officer Letter