

Capital Project Business Case

MEDWAY CITY ESTATE: CONNECTIVITY IMPROVEMENTS (UPDATED TO INCLUDE REVISION OF SCOPE)

The template

This document provides the business case template for projects seeking funding which is made available through the **South East Local Enterprise Partnership**. It is therefore designed to satisfy all SELEP governance processes, approvals by the Strategic Board, the Accountability Board and also the early requirements of the Independent Technical Evaluation process where applied.

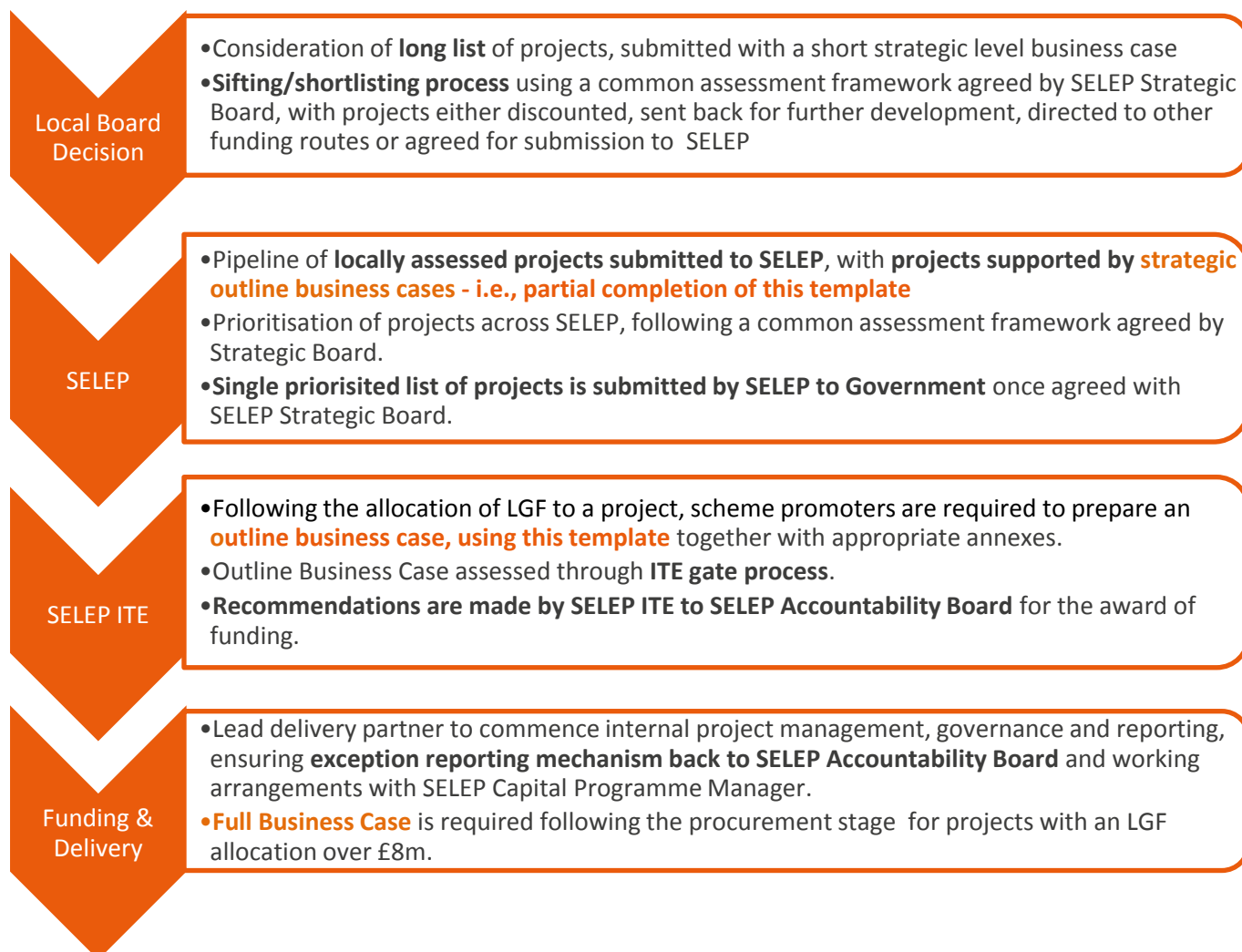
It is also designed to be applicable across all funding streams made available by Government through SELEP. It should be filled in by the scheme promoter – defined as the final beneficiary of funding. In most cases, this is the local authority; but in some cases the local authority acts as Accountable Body for a private sector final beneficiary. In those circumstances, the private sector beneficiary would complete this application and the SELEP team would be on hand, with local partners in the federated boards, to support the promoter.

Please note that this template should be completed in accordance with the guidelines laid down in the HM Treasury's Green Book. <https://www.gov.uk/government/publications/the-green-book-appraisal-and-evaluation-in-central-government>

As described below, there are likely to be two phases of completion of this template. The first, an 'outline business case' stage, should see the promoter include as much information as would be appropriate for submission though SELEP to Government calls for projects where the amount awarded to the project is not yet known. If successful, the second stage of filling this template in would be informed by clarity around funding and would therefore require a fully completed business case, inclusive of the economic appraisal which is sought below. At this juncture, the business case would therefore dovetail with SELEP's Independent Technical Evaluation process and be taken forward to funding and delivery.

The process

This document forms the initial SELEP part of a normal project development process. The four steps in the process are defined below in simplified terms as they relate specifically to the



LGF process. Note – this does not illustrate background work undertaken locally, such as evidence base development, baselining and local management of the project pool and reflects the working reality of submitting funding bids to Government. In the form that follows:

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Authorised by	R HICKS
Date authorised	July 2019

1. PROJECT OVERVIEW

1.1. Project name:

Medway City Estate – Connectivity Improvements (revision of original scope)

1.2. Project type:

Integrated package

1.3. Federated Board Area:

Kent & Medway

1.4. Lead County Council / Unitary Authority:

Medway

1.5. Development location:

The Medway City Estate (MCE), Chatham ME2 4DZ.

1.6. Project Summary:

It is proposed that the interventions set out within this Business Case are considered as a “change in scope” to the original Medway City Estate Connectivity Business Case, as previously approved by the South East Local Enterprise Partnership (SELEP).

Medway City Estate is the largest employment site in Medway, attracting circa 6000 employees. During the evening peak, people experience long delays when leaving the Estate at Anthony’s Way roundabout, due to the volume of traffic approaching the site from the Medway Tunnel. The original Outline Business Case proposed traffic and modal shift improvements, targeted at reducing the significant levels of congestion experienced by visitors and employees.

The scheme definition, as summarised under the “Do Something” option in the original Outline Business Case, was to “**deliver a package of measures that improve movement from, to and within the site**” by addressing existing barriers.

The five main objectives of the Project were to achieve:

- **Economic benefits** to local businesses through improving the accessibility for businesses to undertake their activities;
- **Connectivity improvements** – Removal of congestion hotspot to improve connectivity with markets;
- **Improved public realm and connectivity** between Chatham railway station and the centre of Chatham;
- **Reputational improvements** to Medway City Estate as a thriving business community and
- **Addressing interdependence** with other related growth projects.

Interventions already successfully implemented under Phase 1 of the Project include:

- the installation of manually controlled ramp metering (traffic signals) on the westbound entrance to Medway Tunnel to generate gaps in traffic and enable easier egress from MCE;
- average speed cameras to ensure installed ramp metering measures are as efficient as possible at providing gaps in traffic;
- extension of existing traffic lanes on Anthony's Way onto the A289/Anthony's Way roundabout to facilitate easier traffic movements out of the Estate;
- provision of a web based CCTV system allowing staff on the Estate to see the extent of congestion and make informed judgements as to when to depart work.

In the original Business Case, Phase 2 of the Project included the delivery of infrastructure for a river taxi to support better links with Chatham town centre and other sustainable modes of travel, to support modal shift of up to 500 people.

This alteration in scope takes further the improvements provided in Phase 1 and builds upon more recent assessments and consultations to propose further traffic related interventions to ease congestion on the Estate and the wider strategic network.

In developing options for the delivery of Phase 2, a survey of businesses and employees was carried out to seek their views on further easing congestion on the Estate at peak times. The results of the survey concluded that the river taxi proposal and sustainable travel elements had minimal support from the MCE community as they do not meet their needs. A summary of the survey results can be found at Appendix I. It is likely that the delivery of such interventions, would therefore provide a minimal effect on congestion. Alternative interventions, that better meet the needs of the Estate, have been investigated in preparation of the revised Phase 2 scope.

In response to user demands, Phase 2 of the Project will provide direct journey time improvements for users of the Estate by introducing a free flow slip road from Anthony's Way on Medway City Estate onto Berwick Way. The delivery of the slip road retains the transport theme of the original Business Case and will be in line with the majority of the Project's original objectives as it specifically addresses the issue of congestion at the entrance and exit to the Estate.

The objective to improve the disconnect in public realm between Chatham railway station and the centre of Chatham has been addressed through the LGF Chatham Town Centre place-making and public realm Project.

In developing options for Phase 2, the interdependence with the LGF A289 Four Elms roundabout to Medway Tunnel journey time and network improvement Project has also been considered, to deliver the maximum benefit to users of the wider road network.

1.7. Delivery partners:

[List all delivery partners and specify the lead applicant and nature of involvement, as per the table below.]

Partner	Nature of involvement (financial, operational etc.)
SELEP	Primary funder.
Medway Council	Responsible for the development and implementation of outputs as indicated in this Business Case (scope change) as well as financial and programme management of LGF projects in the Authority.
Kent and Medway Economic Partnership	Business engagement, project prioritisation, linkage with other projects and initiatives

1.8. Promoting Body:

Medway Council

1.9. Senior Responsible Owner (SRO):

Michael Edwards – Head of Integrated Transport, Medway Council

1.10. Total project value and funding sources:

[Specify the total project value, how this is split by funding sources, and any flexibility in funding scale and profile and any constraints, dependencies or risks on the funding sources, as per the table below.]

The level of funding and Project value has increased by £235,000 when referenced to the previously approved Business Case – with £200,000 being sourced via the Strood Town Centre LGF Project and a further £35,000 from Medway LTP budget.

The transfer of funding from Strood Town Centre LGF has been determined not to impact on the delivered benefits of that scheme as stated within its funding requirements.

Funding source	Amount (£)	Flexibility of funding scale or profile	Constraints, dependencies or risks and mitigation
LGF	£2m	None	Dependent upon Accountability Board approval of Business Case – revised scope.
LGF – Strood Town Centre Improvement Project	£0.200m	None	Transfer of 10% of recipient project permitted under the SELEP assurance framework
LTP	£0.094m £0.035m TOTAL: £0.129m	None	Secure contribution towards delivery of Phase 1 (£94,000) and development of Phase 2 (£35,000)
Total project value	£2.329m		

1.11. SELEP funding request, including type (LGF, GPF etc.):

Medway Council affirms the previous value of funding from SELEP of £2million (less funding spent to date on delivery of Phase 1, the cost benefit of which is outlined later in this document) Local Growth Funding is required in order to deliver the project, including the adjusted project outputs outlined under the change of scope in this Business Case.

The additional £235,000, as outlined above, is from an existing LGF and Council LTP budgets and are within the permitted tolerances for inter-project transfers as outlined under the LGF funding agreement.

In the case of this grant application, state resources are involved as the project will be funded by the Local Growth Fund. However, the project will be compatible with the EU rules on state aid and any assistance given to any undertakings as part of the project will not constitute unlawful state aid.

1.12. Exemptions:

[Specify if this scheme business case is subject to any Value for Money exemptions (and provide details of these exemptions) as per the SELEP Assurance Framework 2017, Section 5.7.4 and 5.7.5]

This Business Case is not subject to any Value for Money exemptions as per the SELEP Assurance Framework 2017.

1.13. Key dates:

The project programme currently specifies the following key dates:

April 2015 – October 2017	Commencement of expenditure on Phase 1 of the Project.
November 2020	Construction start date
March 2021	Scheme completion/opening date

In order to deliver the Medway City Estate slip road in sequence with the LGF A289 Four Elms roundabout to Medway Tunnel Project, an extension of one financial year beyond the original LGF Medway City Estate delivery programme of 2019/2020 is necessary. An extension of one year will be formally requested from the SELEP Accountability Board by the LGF Programme Management team.

The project programme will be evaluated and updated throughout the project life cycle.

1.14. Project development stage:

The following table refers to the project development stages associated with Phase 2 of the project:

Project development stages completed to date			
Task	Description	Outputs achieved	Timescale
Option selection	Option appraisal to determine preferred optimum solution	Business engagement	Complete
Detailed Design	Detailed design of slip road intervention for taking forward to Business Case approval.	Detailed Design to RIBA4, costings and tender package for slip road design. Internal stakeholder consultation and Member and Board sign off of proposals. Modelling to ascertain interaction with the LGF A289 Four Elms roundabout to Medway Tunnel project.	Complete
Updated Business Case submission	Updated Business Case (change of scope) submitted to secure LGF funding to allow commencement of Phase 2 of project delivery	Updated Business Case	Complete – for 5 July 2019 submission to ITE
Project development stages to be completed			
Task	Description	Timescale	
Ground Investigation for retaining wall	Detail GI to finalise section and depth of retaining wall, leading into resolution of land requirements.	July through September 2019	
Landowner engagement	Preparation and submission of either purchase or access agreement for construction	July 2019 to March 2020	
Competitive Tender and Contractor appointment	Competitive public procurement tender exercise to appoint Contractor to deliver slip road works	April to July 2020	
Implementation	Delivery of project	November 2020 to March 2021 (including one month float)	

1.15. Proposed completion of outputs:

[Include references to previous phases/tranches of the project (link to the SELEP website) and to future projects to be funded by SELEP. Please see SELEP Programme for more information]

A revision to the Project specific outputs, as identified in the Benefit Realisation Plan of the original Business Case, is required. The original outputs were:

- Total length of resurfaced roads
- Total length of new cycle ways
- Type of infrastructure – cycle parking, benches and a landing stage to facilitate the operation of a river taxi

Successful outputs already delivered under Phase 1 include:

- Manually controlled ramp metering (traffic signals) on the westbound entrance to Medway Tunnel to generate gaps in traffic and enable easier egress from MCE;
- Average speed cameras to ensure installed ramp metering measures are as efficient as possible at providing gaps in traffic;
- Extension of existing traffic lanes on Anthony's Way onto the A289/Anthony's Way roundabout to facilitate easier traffic movements out of the Estate;
- A web based CCTV system allowing staff on the Estate to see the extent of congestion and make informed judgements as to when to depart work.

On completion of Phase 1, the total length of resurfaced roads was reported as 0.23km.

In response to user demand the revised output of Phase 2, will be a free flow slip road from Anthony's Way on Medway City Estate onto A289 Berwick Way to provide journey time improvements for the users of the Estate. This replaces the proposal for infrastructure to support modal shift.

In developing options for Phase 2, the interdependence with the LGF A289 Four Elms roundabout to Medway Tunnel journey time and network improvement Project has also been considered. The two Projects are geographically closely linked; the A289 Project focuses on two key points along the A289 corridor (Four Elms roundabout and Sans Pareil roundabout) which joins with the Medway Tunnel. Careful consideration has been given to ensure the proposed slip road links with the aspirations and delivery programme of the A289 scheme.

The A289 scheme is also included within Medway Council's Housing Infrastructure Fund (HIF) bid, of which at the time of writing, the outcome is awaited. If Medway Council are granted HIF funding, the A289 improvements will be delivered using the HIF funding stream and the LGF A289 funds will be returned. Irrespective of the HIF outcome, A289 interventions will either be completed by July 2022 (positive HIF outcome) or constructed by March 2023 via LGF, subject to approval of Full Business Case approval.

2. STRATEGIC CASE

The Strategic Case should present a robust case for intervention, and demonstrate how the scheme contributes to delivering the SELEP Strategic Economic Plan (SEP) and SELEP's wider policy and strategic objectives. It includes a rationale of why the intervention is required, as well as a clear definition of outcomes and the potential scope for what is to be achieved.

The outlook and objectives of the Strategic Case need should, as far as possible, align with the Monitoring and Evaluation and Benefits Realisation Plan in the Management Case.

2.1. Scope / Scheme Description:

[Outline the strategic context for intervention, by providing a succinct summary of the scheme, issues it is addressing and intended benefits; max. 2 pages.]

Medway City Estate is a key employment area in Medway, however, it has been designed with only two access points. As a result, during the evening peak there is high demand from vehicles exiting the Estate. Due to the high volume of traffic approaching through the Medway Tunnel, vehicles trying to exit Medway City Estate have historically struggled to join the roundabout. Under Phase 1 of the LGF Medway City Estate Connectivity Improvements Project, traffic signals were introduced which were designed to create gaps in the traffic flow through the Medway Tunnel to allow vehicles to leave the Estate during the evening peak. These, and other measures outlined in 1.15, were completed by November 2017.

The traffic signals are operational and testing has identified the most effective manual operation of the signals to offer the most benefit to users of Medway City Estate while minimising disruption to the remainder of the road network. Traffic monitoring data indicates that the signals are successful in generating gaps in traffic, when they are in operation and it has been calculated that the traffic signals provide an average time saving benefit of 39 seconds per vehicle over the pm peak hour period. However, gap generation cannot always be guaranteed by the operation of the signals. Given the volume of traffic on Medway's roads at peak times, a single incident can have a significant impact on traffic flow on the network and greater resilience is needed to minimise these delays.

The success of Phase 1 will be further built upon through the delivery of Phase 2 and the proposed improvements to the A289. The aim of the LGF A289 Four Elms to Medway Tunnel Project is to provide a highway network between the M2 junction 1 and the Medway Tunnel which can cater for the likely housing growth on the Hoo Peninsula that has been identified in Medway's emerging Local Plan. The A289 scheme focuses on increasing capacity at Four Elms roundabout and the introduction of free flow slip roads at Four Elms roundabout and Sans Pareil roundabout.

Under Phase 2, the construction of a free flow slip road, from Anthony's Way on Medway City Estate onto Berwick Way, will reduce vehicle congestion at the exit to the Estate at PM peak time, resulting in improvements to journey time reliability in this area of the highway network. Reduced journey times (through reduced delays) will also contribute to maintaining continued growth on Medway City Estate, a key employment area for the Medway Towns and beyond. It is anticipated that the free flow slip road will also have a positive impact on reducing the number of accidents at the roundabout.

2.2. Location description:

[Describe the location (e.g. characteristics, access constraints etc.) and include at least one map; max. 1 page excluding map.]

Medway City Estate is surrounded by the River Medway on two sides and by Parsonage Lane (on top of the cliffs) and A289 Berwick Way / Vanguard Way. The Estate is a large industrial park made up of established individual businesses as well as relatively new developments of Business Estates and Parks providing units for smaller businesses. These businesses are mainly companies involved with building materials, computer support, furniture, general engineering, manufacturing, storage and printing.

The Estate is the largest employment site in the Medway area attracting circa 6000 workers a day. One of the established companies on the Estate is Veetee Rice Ltd and Veetee Foods Ltd which has at least two sites. The sites are located on Neptune Close and Sir Thomas Longley Road. The larger industrial sites tend to be off Whitewall Road and Sir Thomas Longley Road. The smaller business parks are usually made up of a number of small units each with a limited number of employees. The variety of businesses on the Estate, whether large or small, require servicing which involves a range of delivery vehicles from light vans, large pantechnicons to articulated vehicles. The majority of the Business Estates and Parks are serviced from private roads or private access roads connecting with the public highway network on the Estate. The main public highways are Anthony's Way; Commissioner's Road – Whitewall Road and Sir Thomas Longley Road.

The Estate currently has only one main road access/egress to its north side (Anthony's Way) and a smaller secondary access to the west side (Whitewall Road/Commissioner's Road) for commuter movements.

Historically there has been a number of collisions on Anthony's Way roundabout and on the approach to the roundabout from the Estate. 69% of the reported collisions between April 2015 and July 2018 occurred as vehicles attempted to travel from or towards Medway City Estate.

Table 1 summarises the number of collisions recorded at/on the approach to Anthony's Way roundabout between April 2015 and July 2018.

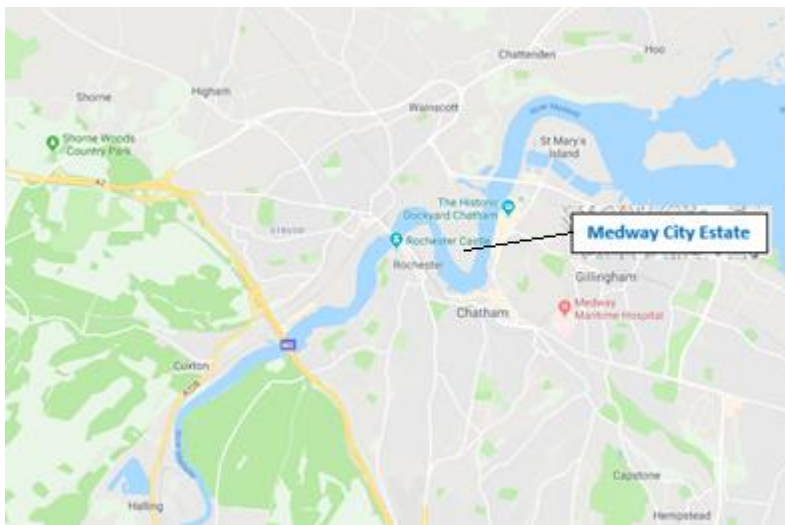
Table 1 – Number of collisions at/on the approach to Anthony's Way roundabout between April 2015-July 2018	
Severity	Number
Slight	8
Serious	4
Fatal	1

An existing vehicle width restriction gate is located at the junction of Commissioner's Road and Wingrove Road. Vehicles approaching the width restriction gate are limited in their choice of alternative route as Riverside (east of the gate) is currently restricted in use to Bus services, Private Hire Taxis and cycles only between Commissioners Road and Canal Road. Canal Road provides access to the nearest mainline station in Strood, approximately 1km to the west of the Estate.

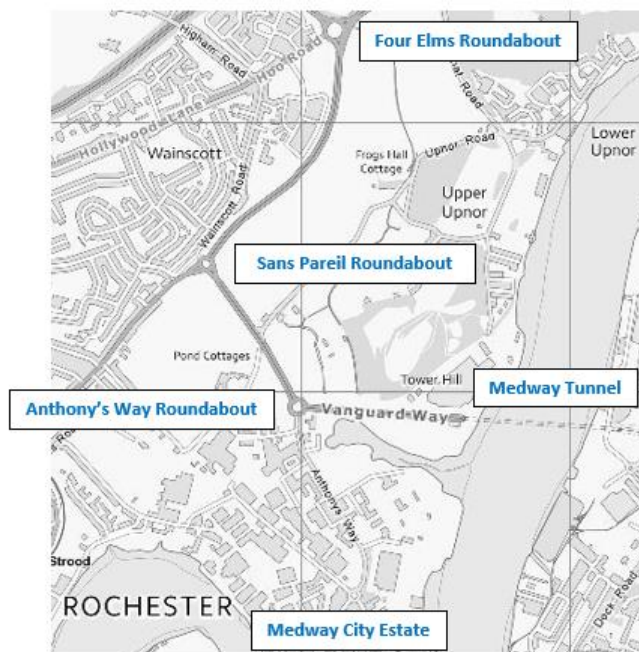
During the working week there are three bus services which serve the same route through the centre of the Estate, operating a half hour service in each direction. All three routes use Anthony's Way – Whitewall Road – Commissioner's Road with six bus stops in each direction.

For cyclists, there is a formal cycle track that enters the Estate near the junction between Maritime Way and Anthony's Way. This cycle track connects to Parsonage Way in the west and the village of Lower Upnor in the east. National Cycle Route 1 includes Canal Road, runs across Commissioner's Road along a cycle track toward Parsonage Lane. From there it connects to Berwick Way and on to Upnor.

Medway Tunnel, to the east of Anthony's Way, is a key part of the strategic road network linking Anthony's Way roundabout to the A289 in Chatham and on towards Gillingham. Pedestrians and cyclists are prohibited from accessing Medway Tunnel.



Location of Medway City Estate in local context to the A2/M2 corridor



Geographical location of Medway City Estate in relation to A289 scheme location (from Four Elms Hill to Medway Tunnel)

2.3. Policy context:

[Specify how the intervention aligns with national/regional/local planning policies and the SELEP SEP; max. 3 pages.]

Smaller schemes: (less than £2 million) are required to complete this section in line with the scale of the scheme; max. 1 page]

The strategic context for this intervention is outlined below:

National Strategy

National Infrastructure Plan

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 balance, 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 and 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.

The plan cites the importance of local infrastructure as part of economic growth.

Regional and Local Strategy

Growth Deal and 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 the Local Growth Fund (round 1), the primary source of funding for this project.

A component element of this is the Kent and Medway Growth Deal with sets out plans for the public and private sectors intention 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 businesses and residents, unlocking jobs and homes, and bringing substantial benefits to the UK economy.

Thames Gateway economic development area

The Medway City Estate is situated within the Thames Gateway economic development area. This area is identified by the Government as a key area for growth in which the focus is upon ensuring sustainable and well-integrated communities. The Thames Gateway is a designated area for the growth of new communities, with Medway highlighted in the Delivery Plan as a strategic location for investment. An allowance has been made within the scheme development for the impact of the Lower Thames Crossing.

Medway Local Plan

Delivering improved access to/from the Medway City Estate, in conjunction with improvements to the A289, will support the emerging Medway Local Plan to deliver 28,600 homes by 2035. One of the areas under consideration for delivery of a significant number of new homes is the Hoo Peninsula, an area directly served by the A289.

It also supports the Council Plan 2017 – 2020 (the Council's strategic business plan) by working towards the strategic priority of 'maximising regeneration and economic growth'.

2.4. Need for intervention:

[Specify the current and future context and articulate the underlying issues driving the need for intervention referring to a specific market failure, need to reduce externalities, Government redistribution objectives etc.; max. 2 pages.]

The current position regarding access and egress from Medway City Estate is not sustainable going forward.

During the evening peak the traffic flow off MCE is considerable, with routinely significant delays of over 30 minutes for vehicles leaving the Estate. This has a significant negative impact on workers commute time and as a result the viability of operating businesses on the Estate. Over the years interventions have been installed in an attempt to alleviate the problem including junction alterations, additional parking restrictions on main roads through the Estate and workplace travel planning, but the problem still remains.

Medway Council receives a significant level of complaints from businesses on Medway City Estate regarding traffic issues, specifically the lengthy evening commute. Businesses on the have raised concerns that they will be forced to consider relocating to alternative premises outside of the Estate if the evening congestion cannot be resolved. This problem is likely to get worse with additional residential and commercial development planned within Strood and on the Hoo Peninsula.

In March 2018, a survey of business owners was undertaken seeking views on improvements to ease congestion. The survey was open for two weeks from 26th March to 10 April 2018. A total of 439 companies were contacted of which 75 individual companies responded. Analysis of these results led to a further survey of commuters and visitors being undertaken in August 2018, to establish their views on travelling to, from and around the Estate. The survey took place between 7th August and 6th September. 403 responses were received, with two responses declining to give consent to the survey. A total of 49 questions were asked to views on existing commuting patterns and barriers to alternative modes of travel.

335 (83.5%) respondents cited work as the main reason they visited the Estate in the 12 months prior to completing the survey and 66 (16.5%) responded citing retail/ leisure as the reason for visiting. The main findings from the 335 business/ work survey responses are outlined below:

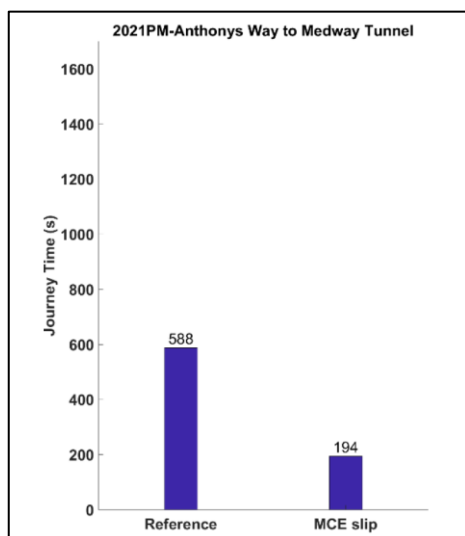
- 77.3% (259/335) are dissatisfied with their current journey to/ from the Estate. (“Very Dissatisfied” (44.5% - 149/335); “Dissatisfied” (32.8% - 110/335)).
- The main reason for the level of dissatisfaction with journeys to/from the Estate was given as journey time/congestion issues - 84.3% (257).
- 30.5% (93) respondents cited the presence of lorries parked on main roads as contributing significantly to levels of dissatisfaction.
- The majority of commuters travel in a car alone to/from the Estate (79.4% - 266/335).
- One of the main reasons people gave for being unlikely to change the way they commute to the Estate is that they need their vehicle for work during the day (24.2% - 59/341).
- There is a strong need and want to be able to travel by car or work vehicles and there is a perception that alternatives (e.g. public transport, car share etc.) are not as convenient or flexible as the car.
- A percentage of commuters would not be encouraged to cycle (26.3% - 57/217) or walk (27.8% - 64/230) to work as their most direct route, through the Medway Tunnel, prohibits them from doing so. Specifically the largest proportion of commuters travel from Gillingham with their most direct route taking them through the tunnel.

It should be noted that the margins of error for this survey are +/- 5.35% for work responses

In response to the survey results, Medway Council introduced loading restrictions on the approach to Anthony’s Way roundabout from January 2019 to reduce the number of vehicles parking on Anthony’s Way and to assist vehicles in accessing Berwick Way. Enforcement monitoring indicates that the restrictions have reduced the number of parked vehicles on Anthony’s Way significantly, however there is still a requirement to increase capacity at this junction of the network.

The results of the survey conclude that the river taxi proposal and sustainable travel elements such as improved public footpaths and cycle links, had minimal support from the Medway City Estate community as they do not meet their needs. Subsequently, it is likely that minimal uptake from users of the estate would result in minimal impact on congestion which is a key objective the LGF Medway City Estate connectivity improvement project.

As well as recorded existing excessive delays occurring on Anthony’s Way approach to the roundabout, a forecast modelling exercise was conducted which indicated that further significant deterioration of traffic conditions and increased delays would occur on Anthony’s Way without intervention. With the slip road intervention in place the modelling exercise proved that delays can be significantly reduced, particularly within the 2021 forecast year as shown in the following figure taken from the SWECO modelling report, thus validating the needed for the project.



Journey Times from Anthony's Way to Medway Tunnel

Delivering this Project will significantly improve:

- the current levels of congestion experienced on Anthony's Way at peak times; and
- the existing operational delays to businesses operating on Medway City Estate

It is clear from both the results of the survey and the traffic modelling that there is a significant demand for reduced congestion levels. Without intervention this issue is likely to impact on the viability and sustainability of businesses on the Estate unless a solution is delivered.

The annual profile of jobs and homes enabled by the scheme in the original Business Case has been retained and is summarised in Table 2.

Table 2 – Target numbers of new homes and jobs to be enabled by the scheme									
	Actual 2015/16	Actual 2016/17	Actual 2017/18	Forecast 2018/19	Forecast 2019/20	Forecast 2020/21	Forecast 2021/22 to 24/25	Forecast 2025/26 onwards	Total
No. Jobs	0	122	12	26	26	26	90	90	392
No. Homes	4	23	4	3	34	34	80	81	263

2.5. Sources of funding:

[Promoters should provide supporting evidence to show that:

- all reasonable private sector funding options have been exhausted; and
- no other public funding streams are available for or fit the type of scheme that is being proposed

Public funding is regarded as a last resort. Promoters are encouraged to think carefully about and provide strong evidence that the intervention they are proposing has exhausted all other potential sources of funding and there is a genuine need for intervention from the public sector; max. 1.5 pages.]

Local Growth Funding was originally identified and accepted, by subsequent approval of the previous business case, in order to develop and implement congestion-related interventions on Medway City Estate.

This change of scope sets out changes to the Project outputs identified during the development of options for Phase 2.

If the proposed outputs are not awarded funding it is highly unlikely that the interventions will be progressed given the financial pressures in other Council expenditures areas. Benefits outlined in 2.10 will therefore not materialise and may result in a downturn in investment and company location on Medway City Estate, with the accompanying negative economic and employment impacts that will follow.

2.6. Impact of non-intervention (do nothing):

[Describe the expected outcome of non-intervention. Promoters should clearly establish a future reference case and articulate the impacts on environment, economy and society, if applicable. The future reference case should acknowledge that market conditions are likely to change in the future, with or without any intervention. 'Do nothing' scenarios where nothing changes are unlikely; max. 1 page.]

It is expected that over the coming years the number of vehicles using the highway network in Medway will naturally increase, even with no further development. The Medway City Estate is the prime industrial estate serving Medway and its ongoing sustainability and ability to cater for a diverse range of businesses located there is severely restricted by the ability of vehicles being able to serve the Estate within reasonable and reliable journey times.

If future development is permitted, as considered likely under Medway's Local Plan, the problem will be further compounded, journey times will increase and there will be no journey time reliability. Continued congestion on the network will have significant environmental implications for Medway.

Given the natural increase in traffic flows it is expected that unless an intervention can be delivered in full the continued success of the Medway City Estate is questionable.

Businesses located on the Estate or those looking to invest in Medway may have no option but to look for alternative premises outside Medway with more effective transport links. Loss of existing businesses and potential further investment in Medway will weaken Medway's economy. Residents looking for employment will have fewer opportunities available to them. There is also the risk of higher unemployment levels due to the relocation of businesses to premises outside Medway. Higher unemployment levels will have a negative impact on society as income levels drop. This will also lead to a reduction in spending which will have a negative impact on businesses in the local area.

In summary, failure to deliver this project will have a significant impact on the environment, society and the economy.

2.7. Objectives of intervention:

[Outline the primary objectives of the intervention in the table below, and demonstrate how these objectives align with the problems presented in the Need for Intervention section:]

Project Objectives (add as required)

The objectives of Phase 2 remain unchanged from the original approved Business Case. The connectivity improvement objective has been extended to incorporate the strategic road network.

Objective 1: **Connectivity improvements** – Removal of congestion hotspot to improve connectivity with markets and the strategic road network;

Objective 2: **Economic benefits** to local businesses through improving the accessibility for businesses to undertake their activities;

Objective 3: **Reputational improvements** to Medway City Estate as a thriving business community and

Objective 4: **Addressing interdependence** with other related growth projects.

Problems or opportunities the project is seeking to address (add as required)

Problem / Opportunity 1: Repeated congestion experienced by vehicles exiting the Estate at peak times.

Problem / Opportunity 2: Unreliable journey times experienced on exiting the Estate

Problem / Opportunity 3: Significant level of dissatisfaction among road users due to delays

Problem / Opportunity 4: Existing operational delays to businesses operating on Medway City Estate resulting in businesses potentially relocating

Problem / Opportunity 5: Build on the success of Phase 1 to further improve the performance of the road network

Problem / Opportunity 6: Interdependence with A289 scheme to increase the level of benefit realised.

Map the objective to their ability to address each problem/opportunity

	Problems / opportunities identified in Need for Intervention section					
	Problem / Opp. 1	Problem / Opp. 2	Problem / Opp. 3	Problem / Opp. 4	Problem / Opp. 5	Problem / Opp. 6
Obj. 1	✓✓✓	✓✓✓	✓✓✓	✓✓✓	✓✓✓	✓
Obj. 2	✓✓✓	✓✓✓	✓✓✓	✓✓✓	✓✓✓	✓
Obj. 3	-	-	-	✓✓✓	-	-
Obj. 4	✓	✓	✓✓	✓✓	✓	✓✓

2.8. Constraints:

[Specify high level constraints or other factors such as social/environmental/financial/developments/schemes/legal consents and agreements which may affect the suitability of the Preferred Option; max. 0.5 page.]

The current design of the retaining wall for the free flow slip road shows that only minimal land take is required to deliver the improvement. The design team are progressing options to avoid land take all together so as to significantly reduce the risk associated with this constraint. In any

event, early engagement with the landowner will be necessary to secure a temporary agreement to access the extent of the site and allow working room for construction purposes.

The land to the rear of the proposed retaining wall is earmarked for future development. The construction of the retaining wall will result in an increase of useable land to the rear of the structure and so it is considered that the landowner will see the improvement as a positive one and likely increase the value of this development. For this reason, it is considered that land rental or land take costs will likely be minimal.

2.9. Scheme dependencies:

[Provide details of any related or interdependent activities that if not resolved to a satisfactory conclusion would mean that the benefits of the scheme would not be fully realised; max. 0.5 page.]

Medway City Estate is geographically adjacent to the A289. Medway Council has been allocated and part awarded LGF funding for a project on the A289 with the objective of improving journey times for vehicles using the A289 corridor between the Four Elms roundabout and the Medway Tunnel.

Whilst the projects are not directly related or interdependent, it has been necessary to consider the impact that any works on the Estate will have on the A289.

Modelling work has already been undertaken at both LGF and HIF scheme development stages to ensure that interventions introduced by the Medway City Estate LGF is not detrimental to the journey times offered by the A289, and vice versa.

The relationship between the projects has and will be carefully managed to ensure that both schemes deliver the required benefits without negatively impacting on each other.

2.10. Expected benefits:

[This section identifies scheme benefits (which will be achieved through delivering the scheme) which may not be valued in the Economic Case. Specify the extent of the scheme benefits referring to relevant economic, social, environmental, transport or other benefits. This is where any 'GVA based' estimates of benefits should be reported together with any dependent development (e.g. commercial or residential floorspace). Please reference the relevant section of the Economic Case where additional information regarding the assessment approach can be found; max. 0.5 page.]

The Economic Case primarily focuses on the improvement in journey times as a result of increased capacity, however there are other benefits offered by the scheme which are harder to quantify.

Improved accessibility to the Estate will provide existing businesses located on the Estate with better long-term security and allow them to better plan and future proof their company. It will also make Medway City Estate a more viable and attractive location for new businesses and potentially attract new businesses to the area.

Reduced congestion will reduce vehicle idling time resulting in a positive air quality impacts. In addition, reduced congestion of commuter traffic in the PM peak will results in improvements to journey time reliability. Through minimised delays at the approach to Anthony's Way roundabout, commuters and business users will have more certainty regarding their journey times. As a result of the improved journey time reliability this will improve efficiency for businesses within MCE.

The dedicated free slip road will reduce the interaction at Anthony's Way roundabout which is likely to have a positive impact on reducing the number of collisions at the roundabout.

Improved journey times for users of the Anthony's Way exit from the Estate, will result in the operation of more reliable bus services for users of the Estate and could possibly provide a future opportunity for the provision of further bus routes servicing the Estate, further increasing the uptake of public transport and provide a future opportunity for the development of additional sustainable transport modes.

2.11. Key risks:

[Specify the key risks affecting delivery of the scheme and benefit realisation e.g. project dependencies, stakeholder issues, funding etc. Information on risk mitigation is included later in the template. This section should be kept brief and refer to the main risk register in the Management Case; max. 0.5 page]

The key risks which will affect the delivery of the scheme are detailed in the table below. Refer to Appendix B for an Extended Risk Management Strategy.

Description of Risk	Likelihood of occurrence (Very Low/ Low/Med/ High/ Very High) (1/2/3/4/5) *	Impact (Very Low/ Low/ Med/ High/ Very High) (1/2/3/4/5) **	Risk Mitigation	Residual Likelihood/Impact Scores
Funding approval for Phase 2 rejected	2	5	The revised scope business case has been reworked to evidence the suitability of funding and benefits relating to the proposed intervention.	5 (1x5)
MCE slip road has an adverse impact on HIF/A289 Schemes with later delivery time	2	5	Modelling with future improvements has taken place. A289 LGF design team are also responsible for MCE LGF scheme. HIF design team have full access to MCE and A289 design to ensure compatibility at transition points	5 (1x5)
Contractor procurement exercise unsuccessful	2	5	A robust procurement process jointly managed by both Transport & Category Management Officers will ensure successful procurement outcome	5 (1x5)

Congestion on MCE remains at high pm peak levels after intervention delivered	2	5	Extensive modelling indicates that scheme will result in benefit to MCE commuters. Further engagement with Businesses and stakeholders in run up to construction and opening to further manage expectations of successful scheme delivery.	5 (1x5)
Land take to rear of retaining wall cannot be designed-out of scheme.	3	3	Further ground investigation/design being carried out to determine retaining wall dimensions based on actual conditions and final requirement for land take or rental.	4 (2x2) It is also considered that as the retaining wall will unlock additional development land availability (currently on an embankment), it is more likely that a positive response from landowner is received.
Tendered price for works comes in over available budget	2	4	Design team have estimated construction costs with contingency based on market rates. If necessary, further value engineering may need to take place to place scheme within affordability limits.	4 (1x4)

3. ECONOMIC CASE

The economic case determines whether the scheme demonstrates value for money. It presents evidence on the impact of the scheme on the economy as well as its environmental, social and spatial impacts in terms of how well they meet the spending objectives and critical success factors for the scheme. A reduced number of options are subject to a cost benefit analysis (CBA) in accordance with Green Book guidance, and qualitative costs, benefits and risks are also assessed.

The output of the Economic Case consists of an Appraisal Summary Table, risk analysis and sensitivity figures, a distributional analysis (where relevant), information on qualitative costs and benefits and information of other viable alternative options.

In addition to this application form, for schemes with a LGF funding request of more than £2.0m please provide a supporting appraisal spreadsheet (please see the [SELEP Assurance Framework 2017](#), Section 5.7.4 and 5.7.5 for schemes which are exempt from this requirement). The supporting appraisal spreadsheet should provide:

- *a calculation of Benefit-Cost Ratio (BCR) according to the most recent Government WebTAG transport analysis guidelines, with clearly identified, justified and sensitivity-tested assumptions and costs (please see [Transport Analysis Guidance: WebTAG](#) and*
- *inclusion of optimism bias and contingency linked, where appropriate, to a quantified risk assessment (please see [Green Book supplementary guidance: optimism bias](#)).*

Smaller schemes (less than £2 million) are not required to provide a supporting appraisal spreadsheet, and do not have to calculate a BCR or complete the supporting appraisal tables, detailed in Section 3.11 (Value for money).

If the project includes a package of interventions, the treatment of costs and benefits for individual benefits should be discussed with the Independent Technical Evaluator during the Gate 0 discussions.

3.1. Options assessment:

[Outline all options that have been considered, the option assessment process, and specify the rationale for discounting alternatives.

Promoters are expected to present a sufficiently broad range of options which avoid variations (scaled-up or scaled-down version) of the main options. The key to a well scoped and planned scheme is the identification of the right range of options, or choices, in the first instance. If the wrong options are appraised the scheme will be sub-optimal from the onset.

The second phase of the project was originally expected to deliver infrastructure for a river taxi. However, following extensive surveys with business owners and employees based on the estate, it was concluded that not only did the proposal for a river taxi not hold support within the MCE community, its impact on congestion would not have the intended impact on congestion for MCE, as a result this option was discarded.

Interventions already carried out under Phase 1 of the project include:

- Addition of new entry lane to Berwick Way roundabout to improve capacity;
- Ramp metering (traffic signals) to the eastern side of the Medway Tunnel to introduce controlled “gaps” in traffic, thereby enabling vehicles to exit the MCE;
- Installation of SPECS average speed camera enforcement system through Medway Tunnel in support of ramp metering intervention.

Long list of options considered:

Description of all options which have been considered to address the problem(s) identified in the Need for Intervention section above, including options which were considered at an early stage, but not taken forward.

Long list of options considered:

Since the previous Business Case in 2015, further option development has been undertaken. The options include:

- Option 1 – Do Nothing/Do Minimum
- Option 2 – Dedicated Slip Road from Anthony's Way onto Berwick Way
- Option 3 - Infrastructure to support modal shift including the provision of cycle hubs and shower facilities on the Estate and cycle racks on buses, off carriageway cycle provision
- Option 4 - Provision of a cycle "cut through" through on the Estate
- Option 5 - Bike hire on the Estate
- Option 6 - Change to bus priority through tunnel
- Option 7 - Change scope of tunnel to accommodate cyclists
- Option 8 - Pedestrian and cycle river bridge/crossing
- Option 9 - Park and ride facilities – discounted due to limited site availability and cost of operation
- Option 10 - Parking and loading restrictions on Anthony's Way to minimise the number of parked vehicles restricting the available carriageway width on the approach to Anthony's Way roundabout – implemented by Medway Council in January 2019
- Option 11 - New bus routes through residential areas/more frequent services

Other options that were considered at a preliminary stage and discarded, as they were considered detrimental to the objectives of the LGF Strood Town Centre Journey Time and Accessibility improvement project, include:

- Opening up the Riverside bus only link to all traffic;
- Encouraging more traffic to use Commissioner's Road.

Options assessment:

Describe how the long list of options has been assessed (assessment approach), rationale behind shortlisting/discarding each option.

Smaller schemes (less than £2 million) are required to complete an Options assessment which is proportionate to the size of the scheme; max. 1 page.]

Options Assessment

All the options considered were tested against the five objectives of Medway's Local Transport Plan, the overarching scheme objectives and critical success factors.

The table below provides a summary of the scheme options listed above in terms of the objectives and critical success factors for the scheme.

Summary of Scheme Option Assessment and Sifting											
Reference to:	Option DM	Option 2	Option 3	Option 4	Option 5	Option 6	Option 7	Option 8	Option 9	Option 10	Option 11
Investment objectives linked to Medway LTP Priorities											
Economic Growth	x	✓	x	x	x	x	x	x	✓	✓	✓
Connectivity	x	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Natural Environ.	x	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Equality	x	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Safety & health	x	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Investment objectives linked to overarching scheme objectives											
Economic prosperity	x	✓	x	x	x	x	x	x	✓	✓	✓
Connectivity	x	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Reputational	x	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Interdependence	x	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Critical Success Factors											
Strategic Fit		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Affordable		✓	✓	✓	✓	x	x	x	x	✓	x
Economic Prosperity/ VfM		✓	x	x	x	x	x	x	x	✓	✓

The list of options had been refined as follows:

- Option 1 - Not carried forward but used as the baseline for the appraisal
- Option 2 – The Slip Road was identified as the preferred scheme as it was deemed deliverable, affordable and has the potential to provide the largest VfM due to the journey time savings.
- Option 3 - Discounted as evidence shows minimal demand and presence of private roads limits route options
- Option 4 - Discounted as evidence shows minimal demand and presence of private roads limits route options
- Option 5 - Discounted as evidence shows minimal demand
- Option 6 - Discounted as evidence shows minimal demand and capacity limitations of tunnel
- Option 7 - Discounted as unaffordable
- Option 8 - Discounted as unaffordable
- Option 9 - Discounted due to site availability and cost of operation
- Option10 - Implemented by Medway Council in January 2019
- Option 11 – Not brought forward as considered ancillary and potential affordability issues.

Short list of options:

The 'Options Assessment' section is an opportunity to demonstrate how learning from other projects and experience has been used to optimise the proposal, and the Preferred Option is expected to emerge logically from this process; max. 2 pages.

The assessment of options against the critical success factors demonstrates that Option 2 (the slip road) scores most favourably and is therefore the preferred option that forms the basis of this Business Case (change of scope).

3.2. Preferred option:

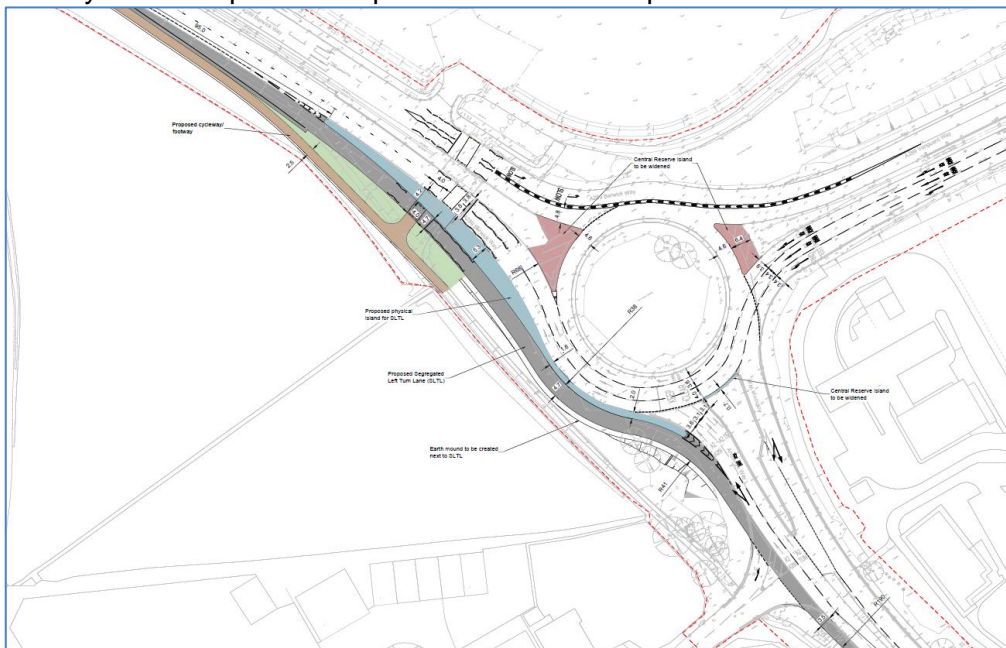
[Describe the Preferred Option and identify how the scheme aligns with the objectives. Include evidence of stakeholder support for the Preferred Option either through consultation on the scheme itself or on the strategy the scheme forms part of; max. 1 page.]

In addition to the critical success factors and investment objectives, consultation had taken place relating to the previous proposed interventions, including the river taxi. From the two surveys of Businesses based on the Estate, as well as visitors to the Estate, measures to improve vehicular movement were the overriding priority. Councillors at Medway Council are particularly in favour of providing interventions which facilitate access improvements to the Estate, in order to preserve and enhance the viability of the Estate, through a reduction in delays, which could impact on business costs directly.

The preferred “Do Something” revised option was hence finalised as the provision of a dedicated free flow slip road from the Estate at Anthony’s Way roundabout onto A289 Berwick Way. The preferred scheme aligns with the objectives as follows:

- **Objective 1:** Connectivity Improvements - the scheme will reduce delays and improve connectivity with the strategic road network.
- **Objective 2:** Economic Benefits - through the increased capacity and reduced delays, economic benefits will stem from the reduction of lost time of users exiting through Anthony’s Way.
- **Objective 3:** Reputational Improvements - with improved connectivity the MCE will become a more desirable place to do business and increase business productivity and business accessibility.
- **Objective 4:** Addressing Interdependence - unlocking capacity for further growth.

The layout of the preferred option is shown in the plan below:



Slip Road Plan

3.3. Assessment approach:

[Describe the approach used to assess the impacts of the scheme, describing both the quantitative (including reliability if appropriate) and qualitative approaches used. Describe the reference case ('Do nothing') and the Preferred Option.]

The assessment approach should be a proportionate application of Department for Transport's (DfT) modelling and appraisal guidance as set out in WebTAG (please see WebTAG: TAG guidance for the technical project manager); max. 1 page.

Smaller schemes (less than £2 million) are not required to assess Reliability in the Assessment Approach.]

Given the scale of the scheme, a proportionate approach to the appraisal has been undertaken, which provides scheme user benefits derived from an AIMSUN traffic model only. No reliability or accident benefit appraisal has been undertaken, although it can be considered that the intervention is likely to have some beneficial impact on these metrics.

Modelling the impacts of the slip road have been undertaken within an AIMSUN model representing two forecast year reference case scenarios for 2021 and 2028, forecast growth has been based on committed land use development and wider regional background trip growth using DfT's National Trip End Model software (TEMPro). The full modelling and forecasting methodology can be found within the SWECO modelling report in Appendix L.

After further review of the modelling outputs, the introduction of the slip road causes re-routing through the Medway Estate due to the San Pareil roundabout being over capacity in the future forecast 2028 model. This has a ripple effect of creating re-routing and rat – running through other areas of the modelled network in comparison to the DM.

Aside from the rat-running issues, essentially what the 2028 model highlights is that the A289 is over capacity as stated in the SWECO model forecast report (failure indicated to occur by 2026). Therefore, any minor changes to the highway network cause re-routing impacts as vehicles are willing to take long re-routing options to utilise the small increase in capacity and small decreases in journey time, which are not a direct impact of the scheme being assessed.

Assessing the scheme with 2021 level of growth only (2021 outputs are also used as a proxy for 2028 as two years are required within the TUBA Assessment), the scheme can be feasibly and conservatively assessed. In the 2021 model negligible levels of rat-running is shown to occur as a result of the scheme, which would otherwise distort and over-value the benefits of the scheme as stated above.

The micro-simulation modelling outputs are analysed through the Transport User Benefit Assessment (TUBA) program, highlighting quantitative monetary benefits of time savings caused by the preferred scheme, and extrapolated to cover a 60-year appraisal period.

Although the proposed A289 scheme has been allocated and part awarded funding, the reference case (Do Nothing) will not consist of the separate A289 LGF scheme, as the additional upstream capacity delivered through the A289 will further enhance and unlock additional journey time savings delivered by the slip road scheme, distorting the benefits of assessing the slip road in isolation.

The reference case (Do nothing) and the preferred option (Do Something) both include committed schemes within the wider strategic modelled area. The preferred option does not include any further induced development, as such travel demand will be the same as in the do-

nothing scenario, and the only difference between the two scenarios will be the MCE dedicated slip road scheme.

As it is considered unlikely that a non A289 scenario will happen, the A289 LGF has been assessed as part of a separate sensitivity test, found in section 3.6. This highlights the additional benefit the A289 LGF scheme will bring to the MCE Slip Road scheme.

The journey purpose mode share of the car user class from the model has been derived from the latest WebTAG Databook, likewise the proportion of OGV1 and OGV2 has been based on WebTAG data book estimations.

As the aim of the intervention is to improve egress journey times in the PM peak; no Inter-Peak or AM peak modelling assessment has been undertaken as it is assumed that the slip road will have minimal impact within these time periods.

Base year models, validated using traffic data collected in a 'neutral' period in accordance to WebTAG guidance (avoiding school holidays etc.), have been used to develop forecast models for the appraisal. These models represent a PM peak hour.

The PM peak modelling outputs are annualised within TUBA, covering all weekdays, equating to a total of 253 weekday peak hours.

Within the original business survey response, 81.8% of commuters stated they travel between 16:00-18:00, therefore it can be assumed that the benefits of the PM Peak hour and the resultant congestion issues can be extrapolated over a 2-hour period, this gives a total annualization factor of 506 used within the TUBA i.e. this is the number of hours for which benefits within TUBA are accrued.

3.4. Economic appraisal inputs:

[Provide details of key appraisal inputs, those which are different to the inputs defined in WebTAG A.1.1 (in terms of demand, user benefits, non-user benefits, revenue, capital costs, renewal costs and operating costs) as per the table below (expand as appropriate). Please note, not all sections of the table may require completion.]

Smaller schemes (less than £2 million) are not required to complete this section.

Modelling outputs of Origin to Destination time, distance and demand skims are input into the TUBA appraisal software in order to calculate the user benefits over a 60-year appraisal period in accordance to WebTAG guidance.

The scheme costs are estimated at £1.677million in 2019 prices before accounting for risk and optimism bias. Accounting for risk the total outturn costs equate to £1.733million. Inclusion of optimism bias at 3% in accordance to Appendix A of TAG Unit A1.2 (the 3% optimism bias is consistent with the stage of the scheme and understanding of quantified risks), gives a total cost input into the TUBA economic assessment equating to £1.785million.

With regards to inflation, no inflation assumptions have been calculated or included within the cost of the scheme. This has been deemed as a proportionate approach to the economic appraisal of a scheme less than £2 million and one which has a projected short period to point of expenditure.

The total 2019 cost including optimism bias are entered into the TUBA software as factor costs. The conversion of 2019 prices into 2010 market prices has been done internally within the TUBA software, which converts the costs into a 2010 price base used to analyse the monetised benefits. The slip road scheme cost breakdown is shown in the table below in 2019 Prices. Furthermore, the total cost of the scheme (including optimism bias) discounted to a 2010 price year within TUBA is highlighted.

Cost Element	Totals (2019 Prices £)
Construction Costs (C)	£1,312,618.52
Construction Costs (C) Utilities	£50,000.00
Preparation (P) Project Management	£152,061.48
Preparation (P) GI/Design Finalisation	£72,573.56
Supervision (S)	£89,774.47
Total Costs	£1,677,028.03
Risk {Q}	£55,606.25
Total Outturn Costs (exc optimism bias)	£1,732,634.28
Total Costs (including optimism bias)	£1,784,613.31
TUBA Present Value of Costs (2010 price year)	£1.289 million (2010 price)

3.5. Economic appraisal assumptions and results

[Provide details of the key appraisal assumptions and results (BCR and sensitivity tests) as per the following tables (expand as appropriate). Please note, not all sections of the table may require completion. Also provide a supporting appraisal spreadsheet. Promoters should use their own spreadsheet to calculate qualitative costs and benefits and these should adhere to national guidelines. Please see Transport Analysis Guidance: WebTAG.]

Promoters should also include a statement which identifies other schemes which may have potentially contributed to the same benefits/impacts. Smaller schemes (less than £2 million) are not required to complete this section.]

Assumptions for the appraisal are set out in the table below.

Appraisal Assumptions	Details
WebTAG version	<i>WebTAG Databook version V1.12 (May 2019)</i>
Opening Year, Final Modelled Year and Appraisal Duration	2021 Opening Year, 2028 Final Modelled Year (2021 growth as proxy), 2083 Appraisal Year. Appraisal Period = 60 years
Price Base/GDP Deflator	A Price Base of 2010 was used. Using the GDP Deflator from WebTAG (May 2019)
Real Growth (i.e. above CPI or below)	TUBA applies real Growth applied in accordance with WebTAG
Discounting	<i>[WebTAG requires discounting to be applied at a rate of 3.5% per year for 30 years and 3.0% thereafter]</i>

The table below sets out the appraisal outputs combining the Phase 1 element of the MCE scheme and the benefits initially calculated and reported within the BCR High Level Assessment Technical Note. Phase 1 scheme costs have been updated since the submission of the BCR High Level Assessment Technical Note, now totalling £0.437million in 2010 price and combined with the Phase 2 costs (including optimism bias) which are also discounted to 2010 prices in accordance to WebTAG appraisal guidance.

MCE Phase 1 & Phase 2 Combined	£m PV (2010 price base)
Costs*	
Capital Costs	1.726
Renewal Costs	NA
Operating Costs	NA
Benefits	
Journey Time Benefits	6.260
Highway Externalities	NA
Revenue	NA
Indirect Tax	0.277
Appraisal	
Present Value of Costs (PVC)	1.726
Present Value of Benefits (PVB)	6.260
Net Present Value (NPV)	4.534
Benefit Cost Ratio (BCR)	3.63

** Costs represent total Capital Costs, Renewal Costs and Operating Costs of the specific intervention seeking funding under LGF.*

The table below sets out the appraisal outputs for Phase 2 of the MCE LGF Slip Road scheme in isolation, highlighting the high proportion of benefits derived by the Slip Road for the whole MCE LGF scheme.

MCE Slip Road (Phase 2)	£m PV (2010 price base)
Costs*	
Capital Costs	1.289
Renewal Costs	NA
Operating Costs	NA
Benefits	
Journey Time Benefits	4.262
Highway Externalities	NA
Revenue	NA
Indirect Tax	0.277
Appraisal	
Present Value of Costs (PVC)	1.289
Present Value of Benefits (PVB)	4.262
Net Present Value (NPV)	2.973
Benefit Cost Ratio (BCR)	3.31

* Costs represent total Capital Costs, Renewal Costs and Operating Costs of the specific intervention seeking funding under LGF.

3.6. Sensitivity tests:

[The Benefit Cost Ratio is based on the best estimates currently available of the benefits of the scheme. However, these are estimates and therefore it is appropriate to assess the sensitivity of the appraisal result to changes in key inputs. Provide details of the sensitivity tests undertaken as per the following table (expand as appropriate). Please note, not all sections of the table may require completion. See [WebTAG unit M4 forecasting and uncertainty](#).

To test the robustness of the economic case to different assumptions, four sensitivity tests have been undertaken as follows:

- Sensitivity Test 1 – High Growth traffic assumption
- Sensitivity Test 2 – Low Growth traffic assumption
- Sensitivity Test 3 – A289 scheme as part of 2028DM
- Sensitivity Test 4 – A higher optimism bias of 15%

These tests and their results are now discussed.

The future year scenario contains wider regional background growth using DFTs National Trip End Model. High and low growth scenarios of this element have been appraised in accordance to WebTAG guidance. Under higher demand assumptions the test aims to verify if the scheme is still effective, and under lower demand assumptions is the intervention still economically viable.

The methodology for creating the high and low growth scenarios can be found in the Medway MCE Slip Road High & Low Growth Technical Note within Appendix N. Within the report, further evaluation is given to the failure point of the A289 corridor. In summary, this highlights the high growth failing before 2028, similar to the Core Scenario. Therefore, for the High Growth scenario, 2021 High Growth outputs have been used as a proxy for 2028 in order to conservatively analyse high growth over a 60-year appraisal period.

For the low growth scenario, the same appraisal methodology of using the 2021 growth as a proxy for 2028 was maintained for consistency. Thus, low growth 2021 demand was used as a

proxy for low growth 2028. Hence the low growth sensitivity test provides a conservative estimate of benefits stemming from a low growth future scenario.

	£m PV (2010 price base)
Sensitivity Test 1	<i>High Growth</i>
Present Value of Costs (PVC)	1.289
Present Value of Benefits (PVB)	16.663
Net Present Value (NPV)	15.374
Benefit Cost Ratio (BCR)	12.93

	£m PV (2010 price base)
Sensitivity Test 2	<i>Low Growth</i>
Present Value of Costs (PVC)	1.289
Present Value of Benefits (PVB)	0.515
Net Present Value (NPV)	-0.774
Benefit Cost Ratio (BCR)	0.40

In order to support Medway's Local Plan home building targets and to accommodate the expected levels of traffic growth along the A289, the A289 LGF scheme is integral to increasing capacity along this strategic corridor and subsequently facilitate Medway's growth plans. Furthermore, the A289 LGF scheme can be deemed integral to unlocking the full benefits of the slip road. With the A289 LGF scheme implemented within the 2028 DM & DS models, the re-routing caused by the failure of the corridor is eliminated, and the slip road benefits can be captured within the 2028 micro-simulation model without any detrimental re-routing impacts happening outside of the micro simulation modelled area. The results are shown in Sensitivity Test 3 below, showing an increased BCR score of 4.58 in comparison to the core scenario.

	£m PV (2010 price base)
Sensitivity Test 3	<i>A289 LGF Scheme part of 2028 DM</i>
Present Value of Costs (PVC)	1.289
Present Value of Benefits (PVB)	5.908
Net Present Value (NPV)	4.619
Benefit Cost Ratio (BCR)	4.58

A further sensitivity test was conducted with increased optimism bias set to stage 2 (15%) in accordance to WebTAG stage identification guidance. The test follows through the same methodology of the core scenario, with the 2021 model used as a conservative proxy for 2028.

	£m PV (2010 price base)
Sensitivity Test 4	<i>15% Optimism Bias</i>
Present Value of Costs (PVC)	1.440
Present Value of Benefits (PVB)	4.262
Net Present Value (NPV)	2.822
Benefit Cost Ratio (BCR)	2.96

3.7. Environmental impacts:

[Provide details of the environmental impacts (WebTAG A3) as per the following table and provide supporting evidence if necessary. Please note, not all sections of the table may require completion; max. 0.5 pages excluding table.]

Given the scale of the scheme being appraised, the environmental impacts have been assessed qualitatively. This is deemed appropriate and proportionate in this case and the outputs are produced in the table below.

Environmental Impact	Assessment	Impact
Noise	There will be a slight improvement in noise levels as a result of a reduction in traffic congestion.	Slight Beneficial
Air Quality	There will be a slight improvement in noise levels as a result of a reduction in traffic congestion.	Slight Beneficial
Greenhouse Gases	With minimal re-routing and minimal modal shift to more sustainable modes of transport, there is negligible change in total vehicle kilometres and total vehicle emissions caused by the scheme, aside from reduced idling time.	Neutral
Landscape	The scheme will not have an impact on the landscape	Neutral
Townscape	The scheme will not have an impact on the townscape	Neutral
Heritage	The scheme will not have an impact on the Historic Environment	Neutral
Biodiversity	The scheme will not have an impact on the Biodiversity as works are within the existing highway and public realm	Neutral
Water Environment	The scheme will not have an impact on the water environment	Neutral

3.8. Social impacts:

[Provide details of the social impacts (WebTAG A4.1) as per the following table and provide supporting evidence if necessary. Please note, not all sections of the table may require completion; max. 0.5 page excluding table]

Given the scale of the scheme being appraised, the social impacts have been assessed qualitatively. This is deemed appropriate and proportionate in this case and the outputs are produced in the table below.

Social Impact	Assessment	
Accidents	Dedicated slip road reducing interaction at roundabout will have a positive impact on reducing the number of accidents at the roundabout.	<i>Slight Beneficial</i>
Physical Activity	The scheme does not encourage walking or cycling	Neutral
Security	The scheme will have no impact on security	Neutral
Severance	The scheme will have no impact on severance	Neutral
Journey Quality	The scheme will not have negligible impact on Journey Quality. The existing segregated cycle paths and provisions for pedestrians will be maintained	Neutral

Social Impact	Assessment	
Option values and non-use values	Scheme does not change the availability of transport services	Neutral
Accessibility	Scheme does not affect accessibility	Neutral
Personal Affordability	Scheme does not affect cost of travel	Neutral

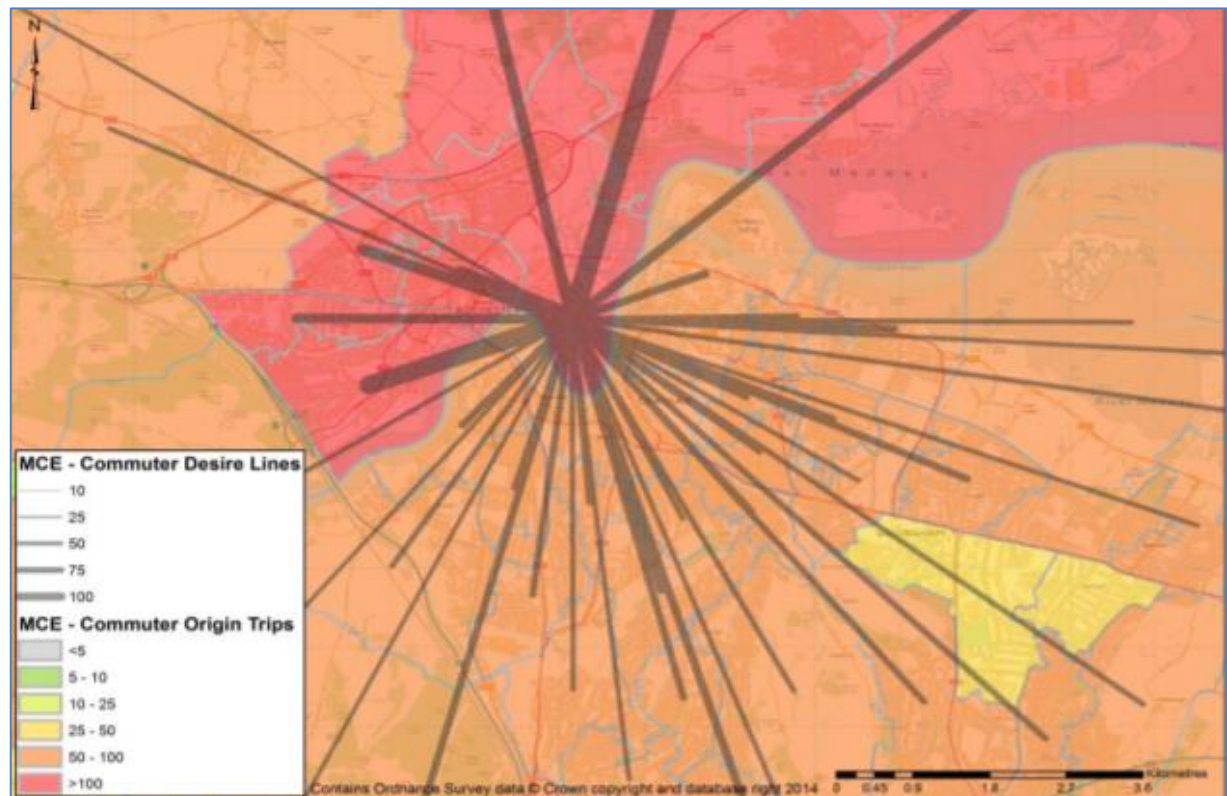
3.9. Distributional impacts:

[Evaluate the distribution of the scheme's impacts focusing on geographical location and socio-economic/demographic characteristics (WebTAG A4.2). In the absence of more recent or better quality local evidence, it is suggested that DataShine is used to inform this assessment; max. 0.5 page.]

Smaller schemes (less than £2 million) are not required to complete this section.]

Economic Impact and Journey Time Reliability

Within the preceding business case submission to SELEP for the river taxi scheme, a spatial distributional assessment was produced, highlighting commuter trips to Medway City Estate, based on Census 2011 Medium Super Output Area (MSOA). The census suggested 6000 people are currently employed on the Medway City Estate, with a very high proportion (87%) arriving via car.

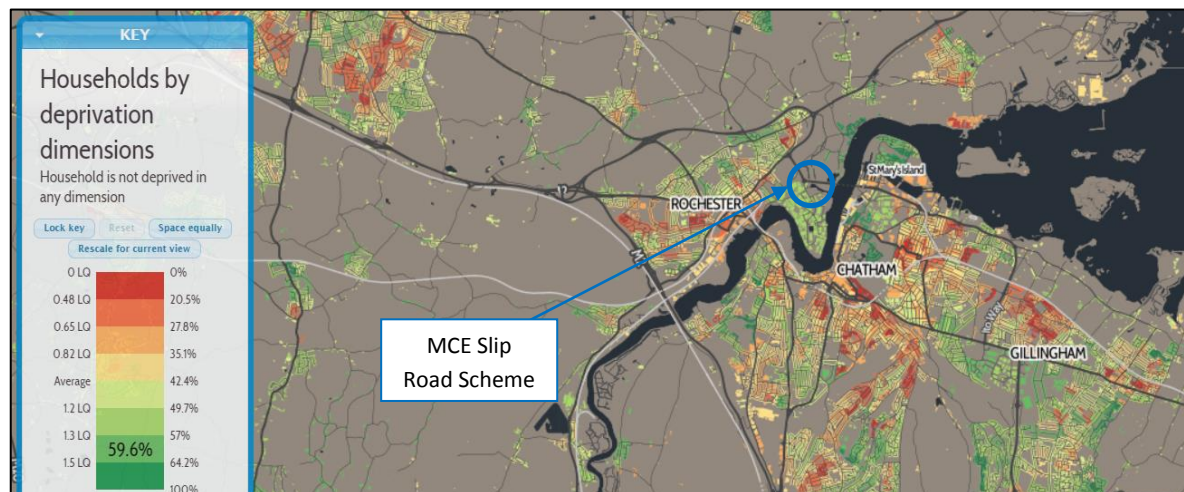


From the figure above, the predominant distribution of the commuters originate from districts North of Medway River. This shows the severance caused by the river crossing and the general tendency of employees to settle North of the river.

Datashine info, projecting 2011 census information shown in the map below, highlights the spatial distribution indices of deprivation based on quintiles segmentation.

Analysing Rochester and Chatham, there is a dispersed variety of areas with higher levels of social deprivation, therefore, using a high level assessment based on commuter desire lines shown in Figure 1, the scheme benefits and journey time reliability and consequent accessibility improvements are not weighted to areas or commuters from one segment of society and do not provide an unequal benefit to one segment of society.

Although improved accessibility from improved sustainable modes of transport are deemed to benefit lower income segments. Travel survey from the MCE found that that a large majority of employees rely on the use of private transport as part of their business, therefore such public transport schemes sustainable options have been deemed ancillary for this particular business estate. This is due to the specific nature of business types on the estate being dependent on further car usage for business throughout the working day.



Datashine Household Deprivation Spatial Distribution

Air Quality

WebTAG A4.2 makes it clear that poor air quality impacts disproportionately on those in society that are most deprived. Although the scheme is located within an industrial area, some residential areas in proximity to the scheme area are within the most deprived in England. Therefore, the reduction in congestion and therefore emissions in and around the scheme are due to reduced idle times and improved traffic flow will lead to improved air quality for those that are most deprived in Medway.

Severance

The scheme provides no improvements or deterioration of severance.

3.10. Wider impacts:

[Provide a description of the expected wider economic impacts as well as any dependent development (e.g. commercial floorspace, residential units, jobs created or safeguarded).

Smaller schemes (less than £2 million) are not required to complete this section.]

The project will have a positive impact on employment markets within Medway, with workers more attracted to MCE employment opportunities via improved transportation links and access.

Regeneration impacts are also achievable due to the improvements in accessibility to MCE providing existing MCE businesses with better long-term security and allowing them to better business plan and future proof their company. It will also make MCE a more viable and attractive location for new businesses, potentially attracting new businesses to the area and creating new job opportunities for residents in Medway who may not have previously considered working on MCE due to the transport restrictions

3.11. Value for money:

[Summarise the implications of the scheme (economic, social, environmental and distributional impacts) (DfT Value for Money Framework).

The following supporting appraisal tables (WebTAG appraisal tables) should also be provided and appended to this business case unless the scheme is subject to exemptions (detailed in the Project Overview):

- *Appraisal summary table (summarises the environmental, economic and social impacts of a scheme and is different to the supporting appraisal spreadsheet);*
- *Analysis of Monetised Costs and Benefits (AMCB) table;*
- *Public Accounts table; and*
- *Economic Efficiency of the Transport System (TEE) table.*

The tables above should be in standard WebTAG format as per the guidelines. Please note, not all sections of the table may require completion.

Max. 1 page excluding table.

Smaller schemes (less than £2 million) are not required to complete this section.]

With the scheme improving journey times and reliability on the corridor it will minimise delays on the network during the evening egress peak. The scheme is seen to generate net user benefits and is therefore beneficial and viable. The scheme benefits and Value for Money metrics are summarised in section 3.5. The table shows the Initial BCR of Phase 2 of the MCE scheme (Slip Road), as derived from established benefits only in line with DfT's Value for Money (VfM) Framework. The BCR score of 3.31 is classed as "high" value for money in accordance to the DfT's Value for Money (VfM) Framework. As noted, as 2021 levels of growth are used as a proxy within the 2028 forecast year, this is deemed as a conservative estimate of the overall scheme benefits.

Combining the benefits of Phase 1 & 2 of the MCE scheme, the total BCR score comes out at 3.63, which is classed as "high" value for money. This highlights the minor impact Phase 1 has on the overall VfM, and the significant impact the Slip Road has on the VfM of the MCE LGF scheme.

The scheme will improve journey time reliability and is also expected to reduce collisions around the local network although these benefits have not been explicitly quantified. Furthermore, the scheme will contribute towards unlocking development in the Hoo Peninsula.

In order to provide the necessary increase in capacity along the A289 corridor to accommodate the forecast levels of traffic growth, Sensitivity Test 3 highlights the interdependence and value of the A289 LGF scheme being implemented by 2028, not only in reducing the capacity restraints caused by future growth, but also providing more direct benefits for the MCE Slip Road scheme. The A289 LGF scheme is proven to extend the design life of direct benefits caused by the slip road scheme, whilst without the A289 LGF scheme benefits accrue from re-routing impacts that

have the potential to cause wider detrimental implications from local residents. In particular, vehicles re-routing through Commissioner's Road and through the MCE due to the breakdown of San Pareil and Four Elms roundabout. The BCR score with the inclusion of the A289 comes out at 4.58, which is classed as "very high" value for money in accordance to the DfT's Value for Money (VfM) Framework.

The Analysis of Monetised Cost table, Benefits Transport Economic Efficiency table, Public Accounts table and Appraisal Summary table of Phase 2 are appended (Appendix G & H).

Within the appended Transport Economic Efficiency summary table, total perceived vehicle operating costs increase for the commuter user class while they are decreasing for the rest of the user classes (albeit the variance is minor). This minor variance is due to the differing perceived values of non-fuel and fuel vehicle operating costs for each user classes, making the commuter user class fall into a negative value whilst other and business user classes fall into positive value.

4. **COMMERCIAL CASE**

The commercial case determines whether the scheme is commercially viable and will result in a viable procurement and well-structured deal. It sets out the planning and management of the procurement process, contractual arrangements, and the allocation of risk in each of the design, build, funding, and operational phases.

4.1. **Procurement options:**

[Present the results of your assessment of procurement and contracting route options and the supplier market, and describe lessons learned from others or experience; max. 1 page.]

Prior to submission of the previously approved Business Case, Officers engaged with the Council's own Category Management Team in order to carry out the necessary market assessment on the commercial viability of this project.

This included:

- An appraisal of the current market conditions for the delivery of all aspects of the scheme.
- Consultation with project and performance management consultants for additional guidance on scheme procurement and best contracting methods.
- An examination of the cost benefits of the scheme. The results of this analysis which provide more specific details on the commercial viability and cost benefits of the project are set out in Section 5 above.

Medway Council's Category Management Team has a proven track record of successful project delivery, both in terms of quality and value for money, recognised in March 2014 at the Excellence In Public Procurement Awards 14/15 where the Team achieved the Highly Commended Award for Innovation or Initiative, and in August 2014 being shortlisted for two major award categories in the CIPS Supply Management Awards 2014.

The Team will provide support to the Project Group throughout the life of the scheme, including pre and post-delivery phases. The Governance Arrangements set out in Appendix F provides additional detail on the Team's role in the project management structure.

4.2. **Preferred procurement and contracting strategy:**

[Define the procurement strategy and contracting strategy (e.g. traditional, (design and build, early contractor involvement) and justify, ensuring this aligns with the spend programme in the Financial Case and the project programme defined in the Management Case; max. 2 pages.]

In order to achieve the best outcome for the project, officers have considered the most appropriate procurement strategy for the interventions identified in this scope change. It is proposed that the slip road construction works will follow a traditional tender procurement route via a competitive open tender.

Officers are continuing with the necessary due diligence on the appropriateness of the approach for this project and will ensure that the final strategy:

- Enables full project mobilisation within the funding period
- Has clearly defined financial implications
- Has clearly defined risk allocations
- Specific project timescales, including implementation timeframe.
- The necessary timescales for multiple procurements if appropriate to ensure all package elements of the scheme are value engineered and delivered to timescale.

The procurement strategy is fully supported by the Council's own internal procurement governance arrangements including a comprehensive Gateway reporting process, procurement support and guidance from the Council's dedicated Category Management Team, and additional due diligence on all key scheme proposals and awards through the Council's Divisional Management Team (attended by senior Council officers and service heads), Procurement Board (attended by senior Council officers, service heads, and member portfolio holders), and if necessary full Cabinet.

4.3. Procurement experience:

[Describe promoter (and advisor) experience of the proposed approach including any lessons learnt from previous procurement exercises of a similar scale and scope; max. 0.5 pages.]

Medway Council's Procurement & Category Management Team procure the full range of requirements for the Council ranging from social services to capital projects. All members of the Team are members of the Chartered Institute of Purchasing and Supply (CIPS) which sets standards for procurement professionals globally. One of the key lessons learnt from previous procurement projects is that the right team needs to be in place to ensure that the project can deliver the objectives and outcomes within time and budget.

Medway Council also has a wide range of experience successfully tendering and contract managing traditional build contracts utilising JCT Design and Build as well as other forms of contracts such as NEC3 and PSPC.

The tender process undertaken will look to ensure that the client side technical support has the correct ethos to deliver the projects and the contractors have experience of delivering these projects working collaboratively rather than with an adversarial approach.

4.4. Competition issues:

There are no competition issues within the current supply chain partners that could adversely affect the successful delivery of this project.

4.5. Human resources issues:

Previous resource issues included the commissioning of an experienced Project Manager to oversee the MCE LGF Project. This Project Manager remains in post, along with a Project Support Officer, both of whom are fully conversant with the aspirations and issues of the project and are expected to remain in post throughout this final delivery period.

4.6. Risks and mitigation:

Specify the allocation of commercial risks (e.g. delivery body, federated area, scheme promoters) and describe how risk is transferred between parties, ensuring this is consistent with the cost estimate and Risk Management Strategy in the Management Case; max. 1 page.]

Medway Council, as scheme promoter, will carry the commercial risk associated with this project.

This risk will be managed through the procurement process. Suppliers are required to undergo a financial check to ensure that they have a sound financial background with a lower risk of failure during their period of appointment.

During the construction process, due to the chosen procurement route, the financial risk will pass to the contractor. The contractor will be presented with the full design at the start of the procurement exercise. This will allow the contractor to work out an accurate cost for delivering the scheme. Once the contract has been entered into the financial risk will be with the contractor as they will be required to deliver the scheme within the cost quoted, or be liable for the

additional costs – this is based on the assumption that no further changes are made to the design post contractor procurement.

4.7. Maximising social value:

[Where possible, provide a description of how the procurement for the scheme increases social value in accordance with the Social Value Act 2012 (e.g. how in conducting the procurement process it will act with a view of improving the economic, social and environmental well-being of the local area and particularly local businesses); max. 0.5 page.]

Within the Council's Category Managements standard tender documentation, we specifically ask prospective contractors questions around Social Value and Apprenticeship Programmes. These are weighted questions that are evaluated and scored as part of the tendering activity process.

These questions are:

"The Council has a requirement to consider the Social Value Act 2012 when it is procuring goods and services. With this in mind, please explain how you will support local companies, labour and suppliers as a result of winning the Contract. Some examples may include training of local staff, apprenticeships or the use of local transport and businesses as part of the contract, sourcing of supplies or disposal of waste and recycling materials within the borough."

And

"Please detail your apprenticeship programme and how you will illustrate that should your organisation be successful on this project what benefits this will yield"

5. FINANCIAL CASE

The Financial Case determines whether the scheme will result in a fundable and affordable Deal. It presents the funding sources and capital requirement by year, together with a Quantitative Risk Assessment (QRA), project and funding risks and constraints. All costs in the Financial Case should be in nominal values.

The profile of funding availability detailed in the Financial Case needs to align with the profile of delivery in the Commercial Case.

5.1. Total project value and funding sources:

[Specify the total project value and how this is split by funding sources by year, as per the table below (expand as appropriate). This should align with the total funding requirement described within the Project Overview section. Please include details of other sources of funding, and any conditions associated with the release of that funding. LGF can only be sought to 2020/21.]

The total project value (for both Phase 1 and 2) is £2,329,000. The out-turn value of Phase 1 was £596,365.72, of which total LGF contributions were £502,365.72. This sum accounts for the applicable interventions implemented under Phase 1 up to and including November 2017.

Phase 2 will be funded through the following sources:

Local Growth Fund	£1,497,634.28
Local Growth Fund – Strood Town Centre Improvement Project contribution	£200,000
Local Transport Fund (LTP)	£35,000

Total Phase 2 Funding Available **£1,732,634.28**

Phase 2 spend is projected to be in accordance with the table below:

£m	2018/19	2019/20	2020/21	Total
LGF	£60,868.28	£560,170.16	£876,595.84	£1,497,634.28
LGF – Strood Town Centre contribution			£200,000	£200,000
LTP		£35,000		£35,000
Total	£60,868.28	£595,170.16	£1,076,595.84	£1,732,634.28

Post project completion, Medway Council will fund the monitoring and evaluation required to establish the effectiveness of the scheme. The Council will commit up to £10,000 per annum from 2021/22 onwards to enable completion of the required monitoring and evaluation. This work will be funded through the LTP.

5.2. SELEP funding request, including type (LGF, GPF, etc.):

[Specify the amount and type of SELEP funding sought to deliver the project. This should align with the SELEP funding requirement described within the Project Overview section.]

Medway Council are seeking approval from SELEP to retain the remaining balance of the original £2,000,000 awarded from the Local Growth Fund to deliver the Medway City Estate Connectivity

Improvement project. Further to the completion of Phase 1 of the project, the remaining balance of the original award is £1,497,634.28. The full amount is required to deliver Phase 2.

5.3. Costs by type:

[Detail the cost estimates for the project by year as per the table below (expand as appropriate) and specify how the inclusion of the Quantitative Risk Assessment (QRA) and other overheads aggregate to the total funding requirement. Where conversion has been made between nominal and real cost estimates (and vice versa) please provide details of any inflation assumptions applied. The Financial Case should not include Optimism Bias. Please confirm that optimism bias has not been applied in the Financial Case. Also, include details of the agreed budget set aside for Monitoring and Evaluation, and ensure this aligns with the relevant section in the Management Case. Please note, not all sections of the table may require completion.]

Cost type	Expenditure Forecast			
	18/19 £000	19/20 £000	20/21 £000	2021+ £000
Capital – Construction	0	407.0	905.6	0
Capital – Project & Programme Management	60.9	83.17	45.6	0
Capital – Fees	0	35.0	0	0
Capital - Utilities	0	20	30	0
Capital – Construction Supervision	0	30	59.8	0
QRA**	0	20	35.6	0
Monitoring and Evaluation*	0*	0*	0*	10*
Total funding requirement	60.9	595.17	1076.6	10*

* Monitoring and evaluation costs will be funded through the Local Transport Plan.

** QRA allowance of 4.2% of the estimated construction costs for Phase Two has been determined during scheme costing phase

Optimism bias has not been applied in the Financial Case.

5.4. Quantitative risk assessment (QRA):

[Provide justification for the unit costs and a Quantitative Risk Assessment (QRA) provisions (detailed in the capital and non-capital tables above); max. 2 pages. Please provide supporting documents if appropriate.]

The costs provided in the table above have been derived from discussions with external consultants and internal teams. At this stage of the project it is not possible to give exact costs although they are deemed to be as accurate as possible and have been derived in the following way:

Design – Mott MacDonald have provided costs for further ground investigations and design work, necessary to determine the required dimensions of a proposed retaining wall on an embankment adjacent to the slip road. Mott MacDonald have substantial experience in delivering schemes of this type and therefore it is considered that these costs can be relied upon to be as accurate as possible at this stage of the project. The additional costs have been verified

by the Principal Engineer in the Highways team, who has over 30 years' experience in delivering projects of this type.

Land take/rental – There remains some uncertainty regarding the final requirement for land take or rental. Early indications are that only a minimal amount will be required. The additional design work, which seeks to “design out” the requirement for land take, will inform the level of negotiation required with the adjacent landowner and subsequent impact on the scheme budget. It is anticipated that, due to the potential improvement to land availability to the developer to the rear of the proposed retaining wall, land purchase or rental costs associated with this element will be substantially lower than would normally be expected.

Construction (including supervision) – Mott MacDonald have provided anticipated construction costs for the slip road based on RIBA4 design at market rates.. As above, they have substantial experience in delivering schemes of this type and therefore it is considered that these costs can be relied upon to be as accurate as possible. This cost may reduce further under a competitive tender.

Utilities - The Highways team have held initial discussions with statutory undertakers to determine the extent of any diversions required and the likely costs. This information has allowed for an initial estimate to be made. Further discussions with the utility company are underway to reduce the extent of works required and further reduce the cost of diversions.

Optimism bias of 3% has been applied in the Economic Case to reflect the level of uncertainty around the costs. A risk allowance of £55,606 (4.2% of Phase 2 construction costs) has been included in the Financial Case to allow for work streams which have the greatest financial uncertainty. As the project progresses, these costs will be continuously reassessed where appropriate to ensure that the project is delivered within budget.

5.5. Funding profile (capital and non-capital):

[Where possible, explain the assumed capital and non-capital funding profile, summarise the total funding requirement by year, and funding source (add rows / columns as appropriate). Please note, not all sections of the table may require completion. Also, explain the external factors which influence/determine the funding profile, describe the extent of any flexibility associated with the funding profile, and describe non-capital liabilities generated by the scheme; max. 1 page.]

Funding source	Expenditure Forecast					
	17/18 £000	18/19 £000	19/20 £000	20/21 £000	21/22 £000	22/23 £000
LGF	21.186	60.9	560.17	876.6		
LGF (Strood)	0	0		200.0		
LTP			35.0			
LTP (Monitoring and Evaluation)*	0	0	0	0	10	10
Total funding requirement	21.186**	60.9**	595.17	107.6	10*	10*

***This Phase 1 spend figure differs from the amount previously reported to SELEP via the quarterly financial monitoring returns. Following scheme determination, elements of spend in 17/18 and 18/19 were deemed not applicable for LGF scheme funding. The difference between the reported spend (£34.864k in 17/18 and £87.868k in 18/19) and the new figures will be*

returned via an LTP contribution to the scheme budget during the 19/20 and 20/21 financial years, as appropriate.

The capital funding profile has been based on the following approximate delivery timetable (Appendix C summarises the main project milestones).

2018/19 – Stakeholder Engagement and Scheme Development

2019/20 – Modelling, Business Case Development, Detailed Ground Investigation and Landowner Engagement

2020/21 – Tender and Contractor Appointment and Construction

As the delivery timetable for this project runs until the end of the LGF funding period (March 2021) there is limited flexibility with the funding profile although a one month float has been included within the project delivery programme. Depending on project progress, the expenditure in the forecast years may vary however, the project completion date (and therefore overall funding period) cannot be altered.

External factors which may influence the funding profile are captured in the risk table below.

Description of Risk	Impact of Risk	Risk Rating	Risk Mitigation	Residual Score After Mitigation
Land take to rear of retaining wall cannot be designed-out of scheme.	Negotiations with adjacent landowner may take longer and delay scheme delivery/increase cost.	9	Further ground investigation/design being carried out to determine retaining wall dimensions based on actual conditions and final requirement for land take or rental.	4
Unable to conclude land take or land rental negotiations with third party	Delay to scheme commencement	6	Design team carrying out further design iteration to remove need for land take.	2
Land rental/acquisition costs inflated by vendor	Impact on scheme cost and budget	6	Negotiation of land rental/purchase as necessary will be carried out by experienced team with knowledge of land costs and values.	2
Lead in time for utility diversion works	Delays to scheme completion due to extensive utility works lead in times	6	Engagement with utility providers to determine diversion costs carried out with discussions ongoing to reduce further requirements. Timescale allowance for utility works included within the overall programme timeline.	3
Cost of Utility diversion works	Increase in cost of works and associated impact on budget	6	Initial estimates provided and further discussions ongoing to reduce extent of works required and cost of diversions	3

Tendered price for works comes in over available budget	Delay to works as budget retained insufficient for works to be carried out	8	Design team have estimated construction costs with contingency based on market rates. If necessary, further value engineering may need to take place to place scheme within affordability limits.	4
Unforeseen ground conditions encountered during construction phase	Additional works resulting in delay and cost implications	6	Ground investigation carried out to ascertain as far as practicable conditions. Allowance for contingency in budget. Build programme includes float for delays.	4
Poor weather during construction phase	Delays resulting from poor weather, along with additional associated costs	6	Allowance for contingency in budget. Build programme includes float for delays.	3

A contribution from the LTP will be allocated to support the post scheme completion and monitoring and benefit realisation reporting.

Future maintenance of the slip road will be managed and funded using Medway Council's Highway Maintenance revenue budget.

5.6. Funding commitment:

[Provide signed assurance from the Section 151 officer to confirm the lead applicant will cover any cost overruns relating to expenditure and programme delivery, as per the template in Appendix A. Please also confirm whether the funding is assured or subject to future decision making.]

In the event that it is not possible to deliver the scheme in accordance with the Business Case, Medway Council will cover the cost overruns relating to the expenditure and programme delivery. A signed assurance from the Section 151 Officer is provided in Appendix A and a signed letter confirming Medway Council's funding commitment can be found at Appendix P.

5.7. Risk and constraints:

[Specify project and funding risks and constraints. Describe how these risks have, where appropriate, been quantified within the QRA/contingency provisions; max 0.5 pages.]

The greatest funding risk associated with the delivery of Phase 2 of the project is that LGF funding is not forthcoming. Without the LGF funding it will not be possible to deliver the proposed Phase 2 interventions given that the required funding allocation is not available through alternative sources.

If land take to the rear of the retaining wall cannot be designed out, there is a risk of extended negotiation with the adjacent landowner which could result in increased costs including inflated acquisition costs from the vendor.

There is an element of uncertainty regarding the costs associated with utility diversions. Initial estimates have been provided and further discussions are ongoing to reduce the works required and minimise the cost of diversions.

Both of these risks have been taken into account in the QRA provisions outlined in 5.3 and 5.4.

6. MANAGEMENT CASE

The management case determines whether the scheme is achievable and capable of being delivered successfully in accordance with recognised best practice. It demonstrates that the spending proposal is being implemented in accordance with a recognised Programme and Project Management methodology, and provides evidence of governance structure, stakeholder management, risk management, project planning and benefits realisation and assurance. It also specifies the arrangements for monitoring and evaluation in terms of inputs, outputs, outcomes and impacts.

6.1. Governance:

[Nominate the project sponsor and Senior Responsible Officer, explain the project governance structure (ideally as a diagram with accompanying text) and describe responsibilities, project accountability, meeting schedules etc.; max. 1 page.]

The Project Sponsor is Ruth Du-Lieu, Assistant Director for Front Line Services at Medway Council.

The Senior Responsible Officer is Michael Edwards, Head of Integrated Transport at Medway Council.

Medway Council has effective governance arrangements in place to ensure successful delivery of LGF projects. The governance arrangements include both Councillors and senior officers of the council. Figure 5 (overleaf) shows the governance arrangements.

The LGF Programme Steering Group is a cross-directorate officer group that oversees and coordinates the programme of LGF funded projects. This group brings together officers responsible for project delivery and programme management. The group meet every four weeks and review the latest project dashboard reports to ensure that the programme is being managed to time, budget and agreed specification. In addition the group review project risk registers to ensure that appropriate mitigating actions are in place and discuss any change management requests that have been submitted by Project Managers. Change management requests which are considered to be medium or high risk are referred to the RCET Officer Project Board for decision.

Project dashboard reports are prepared by Project Managers in advance of the LGF Programme Steering Group meetings. The reports provide an update on project progress, finances, issues, risks and project changes. Project Managers use this report to flag up any areas of concern or decisions which need to be made at a higher level. Following the LGF Programme Steering Group meetings the project dashboard reports are updated if required before submission for consideration at RCET Officer Project Board.

The RCET Officer Project Board is a senior officer group which manages all capital projects including LGF funded projects. The Board is responsible for the strategic management of the LGF projects and has authority to commit resources to the project in accordance with the Council's Constitution. An updated dashboard report for each LGF project is a standing item on the agenda. In addition the Board are asked to consider any change management requests which are considered to be medium or high risk. The Board meets every four weeks, typically a few days after the LGF Programme Steering Group meeting.

The Member Advisory Project Board offers Members an overview of project development and delivery. The Board reviews, analyses and scrutinises progress on the directorate's capital

programme and, where relevant, specific large/complex projects. LGF update reports are regularly considered by the Board. The Board meets approximately every three months. The Board membership includes the following elected members:

- The Leader/Portfolio Holder for Finance;
- Portfolio Holder Inward Investment, Strategic Regeneration and Partnerships;
- Portfolio Holder for Frontline Services;
- Portfolio Holder for Housing and Community Services;
- Cabinet is a member group that manages council business including high value/high risk procurement and projects including LGF projects (when required).

Medway Council's Governance and Management Arrangements Protocol for LGF projects can be found in Appendix F.

6.2. Approvals and escalation procedures:
[Specify the reporting and approval process; max. 0.5 pages.]

Project managers are expected to make day to day operational decisions in order to ensure project delivery. Any issues or risks that arise which might impact on the successful delivery of the project must be reported on the monthly project dashboard report. In addition if the project manager is requesting a change to the project which will impact on budget, outcomes, outputs, delivery timetable or will signify a change in project scope or delivery approach compared to that specified in the Business Case they are required to submit a change management request for consideration at the LGF Programme Steering Group meeting.

At the LGF Programme Steering Group meeting there will be discussion regarding the issues or risks flagged up by the project manager. Advice will be given regarding how to address the risks and issues, in order to minimise the impact on project delivery. As the attendees at the LGF Programme Steering Group meeting include both Project Owners and Project Sponsors, the group is also able to consider the change management requests put forward by the project managers. The change requests will be considered from both a project and programme management perspective. A decision will then be made as to whether the LGF Programme Steering Group support the change requested. If the change supported by the Steering Group is considered to be low risk and has no budgetary implications the project manager can implement the change without further approval required. However, if the change is considered to be medium or high risk or has budgetary implications the change management request also needs to be presented to RCET Officer Project Board.

RCET Officer Project Board is attended by senior council officers including the Director of Regeneration, Culture, Environment and Transformation. This board has greater authority to approve changes which impact on the use of council resources or which could significantly impact on project delivery.

Any project changes that have been requested will be included on the dashboard reports that go to Member Advisory Project Board. At this meeting Members can challenge project progress and decisions that have been made.

If approval is needed for a change that will result in a significant change to the project Business Case the Portfolio Holder for Inward Investment, Strategic Regeneration and Partnerships, as the council's representative on the SELEP Accountability Board, will be involved in the approval process.

The LGF Programme Management team will ensure that the SELEP change management process, as set out in the SELEP Assurance Framework, is followed where required. This process ensures that project changes are reported to Accountability Board. In situations where a significant change is proposed Medway Council is required to seek approval by Accountability Board before implementing the change.

6.3. Contract management:

[Explain your approach to ensuring that outputs are delivered in line with contract scope, timescale and quality; max. 0.5 pages.]

As part of the procurement process contractors and consultants will be required to provide a programme for completing each specific work stream. A clear work specification will be issued prior to appointment which will detail the scope of the work required. When procuring a contractor to build the scheme there will be a clear indication of the quality required when considering the final output.

Once a contractor or consultant has been appointed they will be required to attend regular meetings with the project team to provide an update on progress with the work stream and to give an update on how work is progressing in accordance with the programme. At these meetings the project manager will be able to address any queries regarding the scope of the work and will provide feedback on work completed to date.

If the contractor/consultant needs to make any changes to the information submitted within their tender submission or to their programme they will be required to formally submit the details of the change and any implications in terms of programme or budget to the project manager via email.

The project manager will then consider the change being requested and will respond in writing setting out whether the change has been agreed and if there are any alternative solutions to the issue identified which may reduce the impact on the project.

It is envisaged that procurement of the Main Contractor will be via the Engineering & Construction Contract (ECC3), which has been specifically written to encourage the use of Project Management principles during the construction phase. The use of ECC3 has been endorsed by the Office of Government Commerce as an example of best practice in the procurement of services and works. The current Medway Highways Term Maintenance and Improvements Contract is also based on the ECC3 suite of contracts and so Medway have already developed a working knowledge of this contract and its management and administration requirements, further enhancing the likelihood of a successfully delivered project.

6.4. Key stakeholders:

[Describe key stakeholders, including any past or planned public engagement activities. The stakeholder management and engagement plan should be provided alongside the Business Case; max. 0.5 pages.]

The key stakeholders and interest groups associated with this project are:

- SELEP – as primary funding provider (subject to approval of the Business Case);
- Kent and Medway Economic Partnership – as the federated area board which oversees delivery of LGF projects across Kent and Medway;
- Medway Council acting as the Highway Authority;
- Local elected members and MP's – members and MP's need to be kept informed of projects which are going to impact on their constituents;

- Parish Councils – there are a number of Parish Councils in the local area and ongoing engagement with these groups is essential and may offer benefits when dealing with the local population as a whole;
- Local businesses including those based on Medway City Estate – in the long run this scheme will improve the situation for these businesses, however, it is important to engage with these companies as in the short-term, during the construction period, there will be further delays which could impact on their operation;
- Bus operators – Bus operators providing routes through the Estate and the surrounding network will be affected by both the construction and the final scheme improvements;
- Local population – The project is designed in part to benefit the local population who use the network on a regular basis, however, they will also be adversely affected during the construction period;
- Kent Messenger newspaper group;
- Land owners;
- Local Planning Authority (LPA) – the LPA have confirmed planning consent is not required for the slip road and the intervention is deemed to be permitted works;
- Utilities;
- Emergency Services

A stakeholder management and engagement plan can be found in Appendix J.

6.5. Equality Impact:

[Provide a summary of the findings of the Equality Impact Assessment (EqIA) and attach as an Appendix to the Business Case submission. If an EqIA has not yet been undertaken, please state when this will be undertaken and how the findings of this assessment will be considered as part of the project's development and implementation. The EqIA should be part of the final submission of the Business Case, in advance of final approval from the Accountability Board; max. 0.5 pages.]

A Diversity Impact Assessment (DIA) has been completed in relation to this project. The main outcomes of this assessment are that the works will advance equality and foster good relations for the following protected characteristics groups: Age, Disability and Other (Low Income).

This conclusion has been reached as it is likely that the interventions will provide the most tangible benefit for these identified groups. There was deemed to be no negative impact on all DIA groups. As a result all will benefit from the scheme being proposed through improved access to key employment sites. Increased access to employment sites will boost the employment and training opportunities available to these groups.

The findings of this assessment will be used to inform future public consultation, which will allow local residents and businesses the opportunity to provide feedback on the proposed slip road and whether they feel the initiative will offer the improvements stated with the DIA

The DIA will be reviewed continuously as the project progresses.

The Diversity Impact Assessment can be found in Appendix O.

6.6. Risk management strategy:

[Define the Risk Management Strategy referring to the example provided in Appendix B (expand as appropriate), ensuring this aligns with the relevant sections in the Financial and Commercial Case. Please provide supporting commentary here; max. 0.5 pages.]

Throughout the lifetime of this project a risk register will be maintained which will reflect all risks associated with project delivery. If any of the risks materialise they may directly impact on the project delivery programme, unless appropriate mitigation is taken.

It is acknowledged that there is little flexibility in the project programme as the spend profile runs until the end of the LGF funding period. However, Medway Council will work closely with both the design consultants and contractor to ensure that risks are identified quickly and that plans are put in place for the management of them, including review and re-profile of the programme if necessary, to ensure as little delay as possible.

As the project progresses the project manager will be required to provide an updated project budget and risk register for consideration at the monthly LGF Programme Steering Group meetings which are attended by all key personnel.

In addition a project 'deep dive' review will be conducted every six months, which will look in detail at the project outputs, programme, costs and risks.

An extensive Risk Management Strategy can be found in Appendix B.

6.7. Work programme:

[Provide a high-level work programme in the form of a Gantt Chart which is realistic and achievable, by completing the table in Appendix C (expand as appropriate). Please describe the critical path and provide details regarding resource availability and suitability here; max. 0.5 pages.]

A high-level work programme, matching the key tasks set out under the Project Development Stages at 1.14, has been developed which will allow delivery of the project within the funding period.

Critical elements for the successful delivery of the scheme are shown in the Gantt chart in Appendix C and identified in red.

These time critical dates can be summarised as:

- July 2019 – Submission of Business Case change of scope to Accountability Board;
- September 2019 – Confirmation of scheme funding decision by SELEP;
- March 2020 – Completion of land take/land access agreement with landowner;
- March 2020 – Start of competitive tender process for construction works;
- July 2020 – Award of construction contract;
- November 2020 – Commence construction;
- End March 2021 – Complete works/close project.

The in house or external procured resource required to meet these critical dates is in place and available for the projected time required.

This resource includes:

- Project Manager (external);
- Project Support Officer (internal);
- Principal Highway Engineer (internal);
- Design Engineer (external);
- Category Management (procurement) Officer (internal);

- Legal & Property Services Officer (internal);
- Finance Officer (internal).

6.8. Previous project experience:

[Describe previous project experience and the track record of the project delivery team (as specified above) in delivering projects of similar scale and scope, including whether they were completed to time and budget and if they were successful in achieving objectives and in securing the expected benefits; max. 0.5 pages.]

The project will be managed by the Integrated Transport team at Medway Council. They will work in association with other Council departments including Category Management, Highways, Finance, LGF Programme Management, Legal and Property to ensure delivery of the project in accordance with budget, programme and the terms of the Business Case.

The Integrated Transport team have been responsible for managing delivery of all the transport focused LGF projects, including the Cycling Action Plan project. This project was delivered in accordance with the Business Case, within the programme and on budget.

To support the Integrated Transport team a project manager has been seconded to Medway Council from Pell Frischmann Consultants. The project manager has over 30 years' experience of managing, co-ordinating and delivering transport projects. The works successfully delivered include:

- A work programme of more than £12m across two London Boroughs including lane improvements, bus journey time improvement works and cycle improvements. As team leader he had overall responsibility for design, implementation and CDM.
- Major improvement scheme in Tunbridge Wells and inception of the M20 junction 4 widening scheme. These projects had a combined value of more than £22m. As project manager he was heavily involved in all aspects of project delivery including design, liaison with stakeholders – both internal and external, budget and project reporting.

As has happened to date, a Project Officer will work alongside the Project Manager.

Both Project Manager and Project Officer have worked extensively on the identification and development of the Phase 2 intervention for MCE as well as the MCE Business Case (Change of Scope).

The project team will be supported by the Principal Engineer from the Highways team who has worked on numerous transport schemes across Medway and who brings invaluable experience to the project team. The Principal Engineer from the Highways team has over 30 years' experience of delivering projects of this type and size.

6.9. Monitoring and evaluation:

[SELEP are required to submit detailed quarterly project monitoring reports to the Department for Business, Energy and Industrial Strategy for schemes that have been funded through the LGF to enable ongoing monitoring and evaluation of individual projects. Monitoring and evaluation metrics should be aligned to these reporting requirements (South East Local Enterprise Partnership Assurance Framework 2017, Section 5.8 – see SELEP Business Case Resources document). A proportionate approach to Monitoring and Evaluation should be followed ensuring evaluation objectives relate back to the business case and build on assumptions used in the appraisal process.]

Specify the following:

Inputs

- *Describe what is being invested in terms of resources, equipment, skills and activities undertaken to deliver the scheme*

Funding of £1.733 m will be used to deliver the revised interventions under Phase 2.

This project will benefit from the skills offered by a range of council departments including Integrated Transport, LGF Programme Management, Highways, Category Management, Finance and Property.

All of these departments will use Medway Council premises and equipment to carry out the required work.

Outputs (delivering the scheme/project)

- *Identify what will be delivered and how it will be used*

Phase 2 of the project will deliver a free flow slip road from Anthony's Way on Medway City Estate onto Berwick Way, to provide direct journey time improvements for users of Medway City Estate.

The following outputs will be monitored to assess the successful delivery of the project:

Total planned length of newly built road 0.36km – this measure will be validated on completion of the slip road and the total completed length of newly built roads will be reported.

Total planned length of newly built footway 0.15km – this measure will be validated on completion of the slip road and the total completed length of newly built footway will be reported.

Outcomes (monitoring)

- *Identify and describe how the relevant performance indicators (KPIs) will be used to monitor the outcomes, including high-level outcomes, transport (outputs), land, property and flood protection (outputs) and business, support, innovation and broadband (outputs) (as per the table in Appendix D)*

The following performance indicators will be used to monitor the outcomes of the project:

- **Jobs and homes connected to the intervention** - The annual profile of jobs and homes enabled by the scheme in the original Business Case has been retained as an outcome for the overall scheme (Phase 1 & 2) and is summarised in 2.4. The measure of jobs will be validated by obtaining construction job figures from contractors. New businesses will also be approached regarding staff numbers one year after completion of the project and again after five years. The measure of homes will be validated by obtaining data from the Local Planning Authority on the number of completed housing units one year after completion of the project and again after five years.

A Monitoring and Evaluation Metrics form can be found at Appendix D. This will be updated as the project progresses.

Impacts (evaluation)

- *Describe how the impacts will be evaluated 2 and/or 5 years post implementation depending on the size of the project. Consider the impact of the intervention on the following Growth Deal outcomes (if relevant):*
 - *Housing unit completion*
 - *Jobs created or safeguarded*
 - *Commercial/employment floor space completed*
 - *Number of new learners assisted*
 - *Area of new or improved learning/training floor space*
 - *Apprenticeships*

Promoters should also include a statement which identifies other schemes which may have potentially contributed to the same benefits/impacts.

Max. 1 page excluding table.

Smaller schemes (less than £2 million) are required to complete Monitoring and Evaluation which is proportionate to the size of the scheme; max. 0.5 page.]

The impacts of the project will be evaluated at both one and five years post implementation, referencing the Growth Deal outcomes noted above.

In addition, project specific monitoring will be undertaken to assess the impact of Phase 2:

- Average daily traffic counts at peak periods will be collected. This, in association with the monitoring of average journey times and queue lengths for traffic exiting the Estate at peak PM times, will provide a clear indication of the impact of the free flow slip on journey time improvements.
- Day to day journey time variability will be collected over a period of 3 consecutive weekdays at peak PM time to allow for a comparison to demonstrate journey time reliability delivered by the project.
- Bus travel times at peak PM periods will be monitored to establish if the introduction of the free flow slip road has allowed bus operators to offer a more reliable service for users of the Estate and local residents.
- Bus patronage data will be monitored to establish whether the number of bus passengers boarding or disembarking on Medway City Estate has increased.
- Average annual CO² emissions will be monitored to determine whether emissions reduce as a result of reduced traffic delays.
- Annual collision/casualty rates will be monitored to determine if the introduction of the free flow slip has a positive impact on reducing the number of road traffic collisions at the exit/on the approach to the Estate.

The improvements delivered as part of the LGF A289 Four Elms roundabout to Medway Tunnel Project may potentially contribute to the benefits and impacts outlined above. Where possible the benefits offered by Phase 2 of the project have been considered separately from the LGF A289 scheme however due to the close proximity of the two projects, it may not be possible to completely isolate the benefits of each.

Further details of the proposed monitoring and evaluation metrics for the intended impacts can be found in Appendix D.

6.10. Benefits realisation plan:

[A Benefits Realisation Plan provides details of the process that will be followed to ensure that benefits are sustained and that returns on investment are maximised where possible. The Benefits Realisation Plan identifies the potential benefits and how these will be tracked and measured, the risks that may prevent benefits being realised and the critical success factors that need to be in place to ensure that benefits are realised. In many cases, benefits realisation management should be carried out as a duty separate from day to day project management. Describe the proposal for developing a Benefits Realisation Plan which should involve continuous public engagement to ensure the anticipated benefits are realised. The Benefits realisation plan should be consistent with the Strategic and Economic Case; max. 0.5 page.]

The Project Manager, in association with the Head of Integrated Transport, will be responsible for developing a Benefits Realisation Plan. This plan will clearly set out the benefits that the scheme is expected to deliver, along with a process for collecting the required information to allow assessment as to whether the benefits have been realised.

The Benefits Realisation Plan will include the following information:

- The benefits the scheme is expected to deliver and the information that is required to allow assessment of the project outcome in relation to each benefit;
- Milestones for when the benefits are expected to be delivered – some benefits may be delivered over a number of years following completion of the project;
- Planned method of collecting each piece of information needed;
- Clear approach for applying data collected to establish how effectively the benefits have been delivered;
- Timetable for collecting the required baseline data;
- Timetable for collecting data to assess benefit delivery – for some benefits this may commence during the construction process, whereas for other benefits data won't be collected until a year or more post project completion;
- Timetable for reporting on benefit realisation to the LGF Programme Steering Group and RCET Officer Project Board;
- Timetable for reporting on benefit realisation to SELEP in line with quarterly reporting requirements;
- Whilst the Head of Integrated Transport will have overall responsibility for ensuring that the benefits are realised, collection of monitoring data will be delegated to appropriate council officers. The officers will collect the information in accordance with the timetable specified in the benefits realisation plan and report back to the Head of Integrated Transport to facilitate reporting to the LGF Programme Steering Group meeting and LGF Programme Management team.

The Benefits Realisation Plan will be established to coincide with the start of the construction programme.

7. DECLARATIONS

<i>Has any director/partner ever been disqualified from being a company director under the Company Directors Disqualification Act (1986) or ever been the proprietor, partner or director of a business that has been subject to an investigation (completed, current or pending) undertaken under the Companies, Financial Services or Banking Acts?</i>	Yes / No
<i>Has any director/partner ever been bankrupt or subject to an arrangement with creditors or ever been the proprietor, partner or director of a business subject to any formal insolvency procedure such as receivership, liquidation, or administration, or subject to an arrangement with its creditors</i>	Yes / No
<i>Has any director/partner ever been the proprietor, partner or director of a business that has been requested to repay a grant under any government scheme?</i>	Yes / No

If the answer is "yes" to any of these questions please give details on a separate sheet of paper of the person(s) and business(es) and details of the circumstances. This does not necessarily affect your chances of being awarded SELEP funding.


I am content for information supplied here to be stored electronically, shared with the South East Local Enterprise Partnerships Independent Technical Evaluator, Steer Davies Gleave, and other public sector bodies who may be involved in considering the business case.

I understand that a copy of the main Business Case document will be made available on the South East Local Enterprise Partnership website one month in advance of the funding decision by SELEP Accountability Board. The Business Case supporting appendices will not be uploaded onto the website. Redactions to the main Business Case document will only be acceptable where they fall within a category for exemption, as stated in Appendix E.

Where scheme promoters consider information to fall within the categories for exemption (stated in Appendix E) they should provide a separate version of the main Business Case document to SELEP 6 weeks in advance of the SELEP Accountability Board meeting at which the funding decision is being taken, which highlights the proposed Business Case redactions.

I understand that if I give information that is incorrect or incomplete, funding may be withheld or reclaimed and action taken against me. I declare that the information I have given on this form is correct and complete. Any expenditure defrayed in advance of project approval is at risk of not being reimbursed and all spend of Local Growth Fund must be compliant with the Grant Conditions.

I understand that any offer may be publicised by means of a press release giving brief details of the project and the grant amount.

<i>Signature of applicant</i>	
<i>Print full name</i>	Richards Hicks
<i>Designation</i>	Director Regeneration, Culture, Environment and Transformation & Deputy Chief Executive, Medway Council

8. APPENDIX A - FUNDING COMMITMENT

Draft S151 Officer Letter to support Business Case submission

Dear Colleague

In submitting this project Business Case, I confirm on behalf of [Insert name of County or Unitary Authority] that:

- *The information presented in this Business Case is accurate and correct as at the time of writing.*
- *The funding has been identified to deliver the project and project benefits, as specified within the Business Case. Where sufficient funding has not been identified to deliver the project, this risk has been identified within the Business Case and brought to the attention of the SELEP Secretariat through the SELEP quarterly reporting process.*
- *The risk assessment included in the project Business Case identifies all substantial project risks known at the time of Business Case submission.*
- *The delivery body has considered the public-sector equality duty and has had regard to the requirements under s.149 of the Equality Act 2010 throughout their decision-making process. This should include the development of an Equality Impact Assessment which will remain as a live document through the projects development and delivery stages.*
- *The delivery body has access to the skills, expertise and resource to support the delivery of the project*
- *Adequate revenue budget has been or will be allocated to support the post scheme completion monitoring and benefit realisation reporting*
- *The project will be delivered under the conditions in the signed LGF Service Level Agreement with the SELEP Accountable Body.*

I note that the Business Case will be made available on the SELEP website one month in advance of the funding decision being taken, subject to the removal of those parts of the Business Case which are commercially sensitive and confidential as agreed with the SELEP Accountable Body.

Yours Sincerely,

SRO (Director Level)



S151 Officer



9. APPENDIX B – RISK MANAGEMENT STRATEGY

Description of Risk	Impact of Risk	Risk Owner	Risk Manager	Likelihood of occurrence (Very Low/ Low/Med/ High/ Very High) (1/2/3/4/5) *	Impact (Very Low/ Low/ Med/ High/ Very High) (1/2/3/4/5) **	Risk Rating	Risk Mitigation	Residual Likelihood/Impact Scores
Funding approval for Phase 2 rejected	Unknown duration delay to implementation of scheme developed to reduce congestion and enhance Medway City Estate resulting in reputational damage to Medway.	M Francis	M Francis	2	5	10	The revised scope business case has been reworked to evidence the suitability of funding and benefits relating to the proposed intervention.	5 (1x5)
MCE slip road has an adverse impact on HIF/A289 Schemes with later delivery time	Alterations to the delivered MCE scheme due to incompatibility at differing scheme transition/interfaces	M Francis	M Francis	2	5	10	Modelling with future improvements has taken place. A289 LGF design team are also responsible for MCE LGF scheme. HIF design team have full access to MCE and A289 design to ensure compatibility at transition points	5 (1x5)
Land take to rear of retaining wall cannot be designed-out of scheme.	Negotiations with adjacent landowner may take longer and delay scheme delivery/increase cost.	A Wilde	M Francis	3	3	9	Further ground investigation/design being carried out to determine retaining wall dimensions based on actual conditions and final requirement for land take or rental.	4 (2x2) It is also considered that as the retaining wall will unlock additional development land availability (currently on an embankment), it is more likely that a positive response from landowner is received.

Unable to conclude land take or land rental negotiations with third party	Delay to scheme commencement	A Wilde	M Francis	2	3	6	Design team carrying out further design iteration to remove need for land take.	2 (1x2) It is also considered that as the retaining wall will unlock additional development land availability (currently on an embankment), it is more likely that a positive response from landowner is received.
Land rental/acquisition costs inflated by vendor	Impact on scheme cost and budget	M Francis	M Francis	2	3	6	Negotiation of land rental/purchase as necessary will be carried out by experienced team with knowledge of land costs and values.	2 (1x2) It is also considered that as the retaining wall will unlock additional development land availability (currently on an embankment), it is more likely that a positive response from landowner is received.
Ecology survey results in requirement for scheme planning permission	Increase in time needed for planning process, delaying implementation and completion date	A Wilde	M Francis	2	2	4	Initial walk through surveys have not encountered evidence of species or ecology that will trigger the need for planning. Necessary surveys and timescales factored into timetable.	2 (1x2)
Lead in time for utility diversion works	Delays to scheme completion due to extensive utility works lead in times	A Wilde	M Francis	2	3	6	Engagement with utility providers to determine diversion costs carried out with discussions ongoing to reduce further requirements. Timescale allowance for utility works included within the overall programme timeline.	3 (1x3)

Cost of Utility diversion works	Increase in cost of works and associated impact on budget	A Wilde	M Francis	2	3	6	Initial estimates provided and further discussions ongoing to reduce extent of works required and cost of diversions	3 (1x3)
Contractor procurement exercise unsuccessful	Necessity to retender project, resulting in delay to construction programme	N Ford	M Francis	2	5	10	A robust procurement process jointly managed by both Transport & Category Management Officers will ensure successful procurement outcome	5 (1x5)
Tendered price for works comes in over available budget	Delay to works as budget retained insufficient for works to be carried out	M Francis	M Francis	2	4	8	Design team have estimated construction costs with contingency based on market rates. If necessary, further value engineering may need to take place to place scheme within affordability limits.	4 (1x4)
Unforeseen ground conditions encountered during construction phase	Additional works resulting in delay and cost implications	A Wilde	M Francis	3	2	6	Ground investigation carried out to ascertain as far as practicable conditions. Allowance for contingency in budget. Build programme includes float for delays.	4 (2x2)
Poor weather during construction phase	Delays resulting from poor weather, along with additional associated costs	A Wilde	M Francis	3	2	6	Allowance for contingency in budget. Build programme includes float for delays.	3 (3x1)
Negative public opinion on the	Reputational risk that Medway are not	M Francis	M Francis	3	2	6	Extensive engagement with	4 (2x2)

proposed intervention	responding to needs of businesses/residents in promoting the slip road						businesses already taken place and further engagement during run up to scheme implementation to outline benefits will also take place	
Congestion on MCE remains at high pm peak levels after intervention delivered	Reputational damage to both SELEP and Medway	M Francis	M Francis	2	5	10	Extensive modelling indicates that scheme will result in benefit to MCE commuters. Further engagement with Businesses and stakeholders in run up to construction and opening to further manage expectations of successful scheme delivery.	5 (1x5)
Ineffective cost management or project delivery resourcing	Delay or adverse impact on costs for successful scheme delivery	M Francis	M Francis	1	3	3	An experienced and inclusive project management and delivery team will be assigned for the final development/build phase of the project.	3 (1x3)

* Likelihood of occurrence scale: Very Low (1) more than 1 chance in 1000; Low (2) more than 1 chance in 100; Medium (3) more than 1 chance in 50; High (4) more than 1 chance in 25; Very High (5) more than 1 chance in 10.

** Impact scale: Very Low (1) likely that impact could be resolved within 2 days; Low (2) potential for a few days' delay; Medium (3) potential for significant delay; High (4) potential for many weeks' delay; Very High (5) potential for many months' delay

10. APPENDIX C – GANTT CHART

Medway City Estate	2019/20 FY												2020/21 FY												2021/2022 FY											
	2019									2020												2021												2022		
	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M
Complete RIBA 4																																				
Ground Investigation																																				
MCE Access agreement																																				
Business case																																				
Accountability Board																																				
SELEP decision																																				
Tender																																				
Mobilise																																				
Construction																																				
Float																																				

Element identified as Critical Path operation



11. APPENDIX D – MONITORING AND EVALUATIONS METRICS

Please note, it is not necessary to report against all the Monitoring and Evaluation Metrics below unless they are relevant to the scheme. There is scope to add further Monitoring and Evaluation Metrics where necessary.

Category	Key Performance Indicators	Description
High-level outcomes	Jobs connected to intervention (permanent, paid FTE)	<i>[Add description where relevant to describe how the relevant KPIs will be used to monitor the outcomes]</i>
	Commercial floorspace planned - please state sqm and class	
	Commercial floorspace constructed to date - please state sqm and class	
	Housing unit starts (forecast over lifetime)	
	Housing unit starts (to date)	
	Housing units completed (forecast over lifetime)	
	Housing units completed (to date)	
Transport (outputs)	Total planned length of resurfaced roads (km)	
	Total completed length of resurfaced roads (km)	
	Total planned length of newly built roads (km)	Phase 2 – 0.36km
	Total completed length of newly built roads (km)	
	Total planned length of new cycle ways (km)	
	Total completed length of new cycle ways (km)	
	Type of service improvement	
Land, Property and Flood Protection (outputs)	Anticipated area of site reclaimed, (re)developed or assembled (ha)	
	Actual area of site reclaimed, (re)developed or assembled (ha)	
	Length of cabling/piping planned (km) - Please state if electricity, water, sewage, gas, telephone or fibre optic	
	Length of cabling/piping completed (km) - Please state if electricity, water, sewage, gas, telephone or fibre optic	
	Anticipated area of land experiencing a reduction in flooding likelihood (ha)	
	Actual area of land experiencing a reduction in flooding likelihood (ha)	
	Follow-on investment at site (£m) - Please state whether Local Authority, Other Public Sector, Private Sector or Third Sector	
	Anticipated commercial floorspace refurbished - please state sqm and class	
	Actual commercial floorspace refurbished - please state sqm and class	
	Anticipated commercial floorspace occupied - please state sqm and class	

Category	Key Performance Indicators	Description
	Actual commercial floorspace occupied - please state sqm and class	
	Commercial rental values (£/sqm per month, by class)	
	Anticipated number of enterprises receiving non-financial support (#, by type of support)	
	Actual number of enterprises receiving non-financial support (#, by type of support)	
	Anticipated number of new enterprises supported	
Business, Support, Innovation and Broadband (outputs)	Actual number of new enterprises supported	
	Anticipated number of potential entrepreneurs assisted to be enterprise ready	
	Actual number of potential entrepreneurs assisted to be enterprise ready	
	Anticipated number of enterprises receiving grant support	
	Actual number of enterprises receiving grant support	
	Anticipated number of enterprises receiving financial support other than grants	
	Actual number of enterprises receiving financial support other than grants	
	Anticipated no. of additional businesses with broadband access of at least 30mbps	
	Actual no. of additional businesses with broadband access of at least 30mbps	
	Financial return on access to finance schemes (%)	

Impact of the Scheme - Monitoring and Evaluation Metrics

Output Description			Value	Monitoring approach	Frequency of Tracking	Source	Date
IM1	Reduced queue length for traffic exiting MCE at Anthony's Way at PM peak times	Baseline	Survey data	Queue survey carried out at project site	N/a	Traffic survey data	October 2019
		Planned/ Anticipated	General downward trend in queue lengths for traffic exiting MCE at Antony's Way at PM peak times	Queue survey to be carried out at project site	Once annually for 5 years following scheme completion	Business Case	March 2022 through to March 2026
Details: Method of Collecting Baseline Information							
Queue survey costs circa £800 each.							
IM1	Average daily traffic counts at peak PM periods	Baseline	Survey data	Traffic count survey carried out at project site	N/a	Traffic survey data	October 2019
		Planned/ Anticipated	General downward trend in queue lengths for traffic exiting MCE at Antony's Way at PM peak times	Traffic count survey to be carried out at project site	Once annually for 5 years following scheme completion	Business Case	March 2022 through to March 2026
Details: Method of Collecting Baseline Information							
Traffic count survey costs circa £600 each.							

Output Description			Value	Monitoring approach	Frequency of Tracking	Source	Date
IM1	Average daily journey times at peak PM periods for traffic exiting MCE at Anthony's Way (including bus journey times)	Baseline	Survey data	Journey time survey carried out at project site	N/a	Traffic survey data	October 2019
		Planned/ Anticipated	General downward trend in journey times for traffic exiting MCE at Antony's Way at PM peak times	Journey time survey to be carried out at project site	Once annually for 5 years following scheme completion	Business Case	March 2022 through to March 2026
Details: Method of Collecting Baseline Information							
Journey time survey costs circa £800 each.							
IM1	Day to day journey time variability for traffic exiting the Estate at peak PM periods	Baseline	Survey data	Journey time variability measured at project site	Data collected over period of 3 consecutive weekdays	Traffic survey data	October 2019
		Planned/ Anticipated	General improvement to journey time reliability for traffic exiting the Estate at Anthony's Way at PM peak times	Journey time survey to be carried out at project site	Once annually for 5 years following scheme completion	Business Case	March 2022 through to March 2026
Details: Method of Collecting Baseline Information							
Journey time variability survey costs circa £1200 each.							

Output Description			Value	Monitoring approach	Frequency of Tracking	Source	Date
IM4	Increased patronage of bus services with destination/origin located within Medway City Estate	Baseline	Bus operator data	Interrogation of bus operator passenger data	N/A	Bus operator patronage data	October 2019
		Planned/ Anticipated	General upward trend in bus passenger numbers boarding or disembarking at Medway City Estate	Interrogation of bus operator passenger data	Once one year after opening and once five years after opening	Business Case	March 2022 & March 2026
Details: Method of Collecting Baseline Information							
Service patronage data supplied by bus operators							
Output Description			Value	Monitoring approach	Frequency of Tracking	Source	Date
IM2	Improved road safety for vehicles travelling from/towards Medway City Estate using Anthony's Way roundabout	Baseline	Slight – 8 Serious – 4 Fatal – 1	STATS19 (Road Accident Statistics)	N/A	STATS19	Between April 2015 – July 2018
		Planned/ Anticipated	General downward trend in collisions at/on the approach to Anthony's Way roundabout	STATS19 (Road Accident Statistics)	Annually	Business Case	March 2022 to March 2026
Details: Method of Collecting Baseline Information							
Map STATS19 data and analyse results for project area. STATS19 data held by Medway Council Road Safety team.							

Output Description			Value	Monitoring approach	Frequency of Tracking	Source	Date
IM7	Improvement in Air Quality due to the reduction in congestion and queueing traffic	Baseline	Refer to Appendix K for baseline values	Review of Medway AQM records	Monthly and bias adjusted annually	Medway AQM/Environmental Health Service	2016-2018
		Planned/ Anticipated	General downward trend in NO ² levels	Review of Medway AQM records	Once annually for five years after scheme completion	Medway AQM/Environmental Health Service	March 2022 through to March 2026

Details: Method of Collecting Baseline Information

Air Quality data is recorded and reported as a standard metric for Medway Council

Site of existing NO₂ diffusion tubes:



12. APPENDIX E – CATEGORIES OF EXEMPT INFORMATION

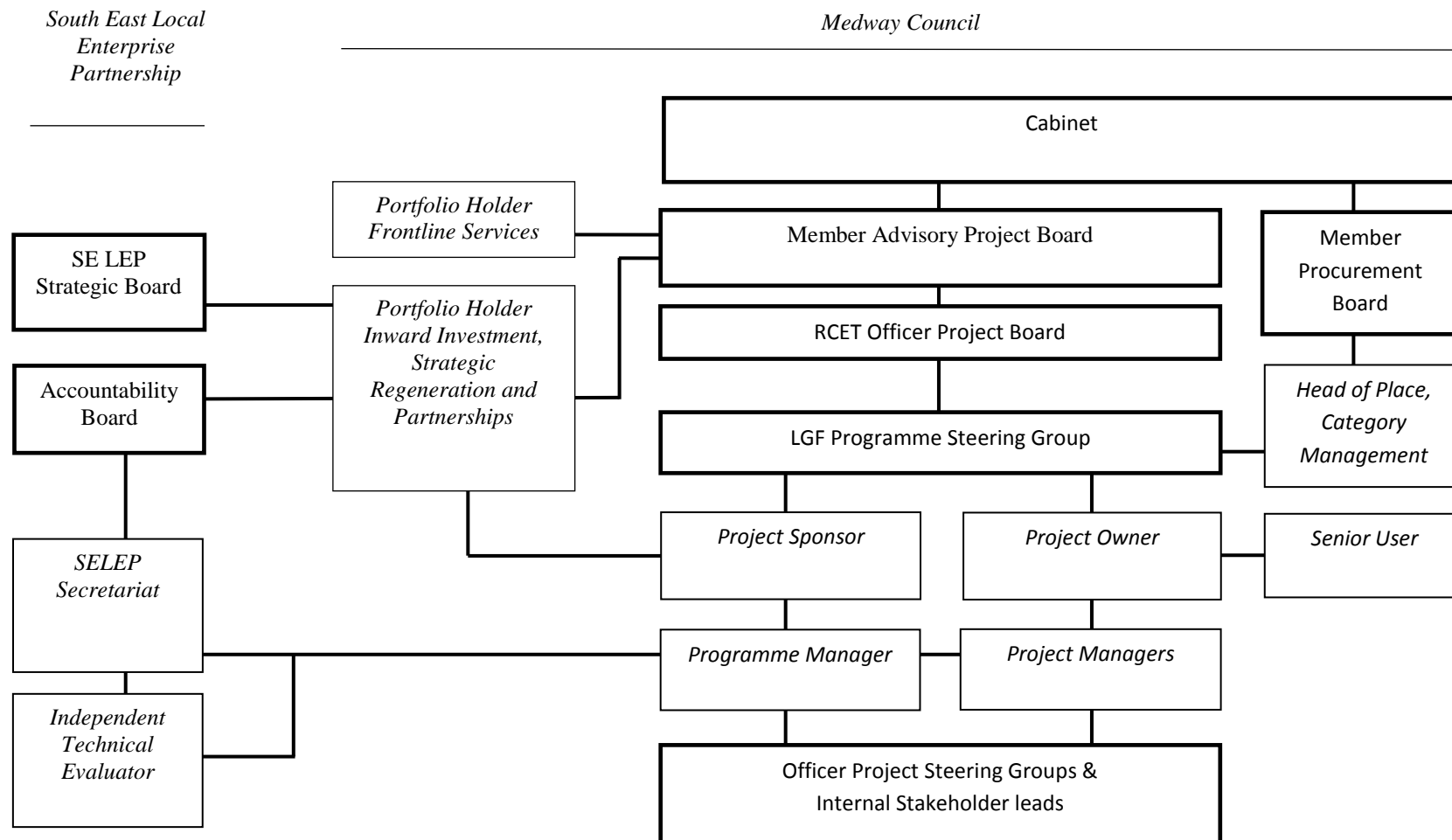
There is a clear public interest in publishing information and being open and transparent. But sometimes there is information which we can't publish because it would cause significant harm to the Council - for example by damaging a commercial deal or harming our position in a court case. Equally sometimes publishing information can harm someone who receives a service from us or one of our partners.

The law recognises this and allows us to place information in a confidential appendix if:

- (a) it falls within any of paragraphs 1 to 7 below; and*
- (b) in all the circumstances of the case, the public interest in maintaining the exemption outweighs the public interest in disclosing the information.*

- 1. Information relating to any individual.*
- 2. Information which is likely to reveal the identity of an individual.*
- 3. Information relating to the financial or business affairs of any particular person (including the authority holding that information)*
- 4. Information relating to any consultations or negotiations, or contemplated consultations or negotiations, in connection with any labour relations matter arising between the authority or a Minister of the Crown and employees of, or office holders under, the authority.*
- 5. Information in respect of which a claim to legal professional privilege could be maintained in legal proceedings.*
- 6. Information which reveals that the authority proposes— (a) to give under any enactment a notice under or by virtue of which requirements are imposed on a person; or (b) to make an order or direction under any enactment.*
- 7. Information relating to any action taken or to be taken in connection with the prevention, investigation or prosecution of crime.*

13. APPENDIX F – GOVERNANCE AND MANAGEMENT ARRANGEMENTS FOR LGF PROJECTS



Roles on LGF Programme Steering Group		
Roles on LGF Programme Steering Group	Officers forming the LGF Programme Steering Group	
Project Sponsor (Chair) – non transport projects	Assistant Director, Physical and Cultural Regen	Dawn Hudd
Project Sponsor – transport projects	Assistant Director, Front Line Services	Ruth Du-Lieu
Senior User (Highway Projects)	Head of Highways & Parking	Simon Swift
Project Owner (Transport Projects)	Head of Integrated Transport	Michael Edwards
Project Owner (Non-transport projects) (Vice Chair)	Head of Regeneration Delivery	Sunny Ee
Programme Manager	LGF Programme Manager	Joanne Cable
Finance	Senior Accountant	Lwazi Ndlovu
Category management	Head of CM Place	Nigel Ford
Property	Senior Manager - Property	Noel Filmer
Facilitator	Senior LGF Programme Co-ordinator	Jessica Jagpal
Project Manager	LGF Project Manager	Mike Francis
Transport project support	LGF Project Officer	Vicki Emrit
Notes: <ul style="list-style-type: none"> - Project Managers report directly to the LGF Project Owners - Project Owners report project progress to LGF Programme Steering Group 		

14. APPENDIX G – Appraisal Summary Table

Name of scheme:		Medway City Estates:Connectivity Improvements			Name	Mike Francis/Vicki Emrit
Description of scheme:		The scheme promotes increased capacity through the development of a dedicated slip road from Anthony's Way onto Berwick Way NB, bypassing the MCE roundabout, and thus is designed to reduce delay and congestion of MCE outbound traffic, in particular in the PM Peak.			Organisation	Medway Council
					Role	Promoter/Official
Impacts		Summary of key impacts				
			Qualitative	Monetary	Distributional	
				£(NPV)	7-pt scale/ vulnerable grp	
Economy	Business users & transport providers	A decrease in traffic congestion and travel times as a result of the increased capacity at the MCE roundabout and the removal of interaction between vehicles from Anthony's way previously having to give way to vehicles approaching the roundabout from the A289 Medway tunnel up to the Sans Pareil roundabout.		£0.176mil	Not assessed	
	Reliability impact on Business users	An improvement in journey time reliability and reduction in congestion will improve journey time reliability and improve efficiency for businesses within MCE	Slight Beneficial			
	Regeneration	Improvements in accessibility to MCE will provide existing MCE businesses with better long term security and allow them to better business plan and future proof their company. It will also make MCE a more viable and attractive location for new businesses, potentially attracting new businesses to the area and creating new job opportunities for residents in Medway who may not have previously considered working on MCE due to the transport restrictions	Large Beneficial			
	Wider Impacts	The project may have a slight positive impact on employment markets outside of Medway, with workers attracted to MCE employment opportunities via improved transportation links and access.	Slight Beneficial			
Environmental	Noise	There will be a slight improvement in noise levels as a result of a reduction in traffic congestion.	Slight Beneficial		Not assessed	
	Air Quality	There will be a slight improvement in air quality levels as a result of reduced congestion and vehicle idling time at the MCE roundabout	Slight Beneficial		Not assessed	
	Greenhouse gases	With minimal re-routing and minimal modal shift to more sustainable modes of transport, there is negligible change in total vehicle kilometres and total vehicle emissions caused by the scheme, aside from reduced idling time.	Neutral			

	Landscape	The scheme will not have an impact on the landscape	Neutral		
	Townscape	The scheme will not have an impact on the townscape	Neutral		
	Historic Environment	The scheme will not have an impact on the Historic Environment	Neutral		
	Biodiversity	The scheme will not have an impact on biodiversity as works are within the existing highway and public realm	Neutral		
	Water Environment	The scheme will not have an impact on the water environment as the works are within the existing highway boundary.	Neutral		
Social	Commuting and Other users	A decrease in traffic congestion and travel times as a result of the increased capacity at the MCE roundabout and the removal of interaction between vehicles from Anthony's way previously having to give way to vehicles approaching the roundabout from the A289 Medway tunnel up to the Sans Pareil roundabout.		£3.921mil	Not assessed
	Reliability impact on Commuting and Other users	Reduce congestion of exiting vehicle in the PM Peak will result in improved journey time reliability and highway network resilience to varied levels of traffic flow.	Moderate Beneficial		
	Physical activity	The scheme will not have no impact on Physical Activity	Neutral		
	Journey quality	The scheme will not have negligible impact on Journey Quality. The existing segregated cycle paths and provisions for pedestrians will be maintained	Neutral		
	Accidents	Dedicated slip road reducing interaction at roundabout will have a positive impact on reducing the number of accidents at the roundabout.	Moderate Beneficial		Not assessed
	Security	The scheme will have no impact on security	Neutral		Not assessed
	Access to services	The scheme will have no impact on access to services	Neutral		Not assessed
	Affordability	The scheme will have no impact on affordability	Neutral		Not assessed
	Severance	The scheme will have no impact on severance	Neutral		Not assessed
	Option and non-use values	NA			
Public Accounts	Cost to Broad Transport Budget	Investment cost have been estimated at £1.289 million at 2010 prices. This does not include any S106 developer contributions or any maintenance/renewal cost of the scheme which is a cost to the public sector.		£1.289 million	
	Indirect Tax Revenues	For the slip road that has been assessed in TUBA over a 60 year period, this has been estimated to fall by - £0.227m as a result of reduced congestion and improved fuel efficiency.		£0.227 million	

15. APPENDIX H – Economic Tables

Economic Efficiency of the Transport System (TEE)						
Non-business: Commuting	ALL MODES	ROAD	BUS and COACH	RAIL	OTHER	
<u>User benefits</u>	TOTAL	Private Cars and LGVs	Passengers	Passengers		
Travel time	2124	2124				
Vehicle operating costs	-10	-10				
User charges						
During Construction & Maintenance						
COMMUTING	2114 (1a)	2114				
Non-business: Other	ALL MODES	ROAD	BUS and COACH	RAIL	OTHER	
<u>User benefits</u>	TOTAL	Private Cars and LGVs	Passengers	Passengers		
Travel time	1801	1801				
Vehicle operating costs	6	6				
User charges						
During Construction & Maintenance						
NET NON-BUSINESS BENEFITS: OTHER	1807 (1b)	1807				
Business		Goods Vehicles	Business Cars & LGVs	Passengers	Freight	Passengers
<u>User benefits</u>						
Travel time	53	-466	519			
Vehicle operating costs	123	32	91			
User charges						
During Construction & Maintenance						
Subtotal	176 (2)	-434	610			
Private sector provider impacts				Freight	Passengers	
Revenue						
Operating costs						
Investment costs						
Grant/subsidy						
Subtotal	0 (3)					
Other business impacts						
Developer contributions	0 (4)					
NET BUSINESS IMPACT	176 (5) = (2) + (3) + (4)					
TOTAL						
Present Value of Transport Economic Efficiency Benefits (TEE)	4097 (6) = (1a) + (1b) + (5)					

Notes: Benefits appear as positive numbers, while costs appear as negative numbers.
All entries are discounted present values, in 2010 prices and values

Public Accounts (PA) Table

	ALL MODES	
<u>Local Government Funding</u>	TOTAL	
Revenue		
Operating Costs		
Investment Costs	1289	
Developer and Other Contributions		
Grant/Subsidy Payments		
NET IMPACT	1289	(7)
<u>Central Government Funding: Transport</u>		
Revenue		
Operating costs		
Investment Costs		
Developer and Other Contributions		
Grant/Subsidy Payments		
NET IMPACT		(8)
<u>Central Government Funding: Non-Transport</u>		
Indirect Tax Revenues	-277	(9)
<u>TOTALS</u>		
<u>Broad Transport Budget</u>	1012	(10) = (7) + (8)
<u>Wider Public Finances</u>	-277	(11) = (9)

Analysis of Monetised Costs and Benefits

Noise	0	(12)
Local Air Quality	0	(13)
Greenhouse Gases	-112	(14)
Journey Quality	0	(15)
Physical Activity	0	(16)
Accidents	0	(17)
Economic Efficiency: Consumer Users (Commuting)	2114	(1a)
Economic Efficiency: Consumer Users (Other)	1807	(1b)
Economic Efficiency: Business Users and Providers	176	(5)
Wider Public Finances (Indirect Taxation Revenues)	277	- (11) - sign changed from PA table, as PA table represents costs, not benefits
Present Value of Benefits (see notes) (PVB)	4262	(PVB) = (12) + (13) + (14) + (15) + (16) + (17) + (1a) + (1b) + (5) - (11)
Broad Transport Budget	1289	(10)
Present Value of Costs (see notes) (PVC)	1289	(PVC) = (10)
OVERALL IMPACTS		
Net Present Value (NPV)	2973	NPV=PVB-PVC
Benefit to Cost Ratio (BCR)	3.31	BCR=PVB/PVC

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

16. APPENDIX I – Medway City Estate Sustainable Transport Survey – Summary of results

Medway City Estate Sustainable Transport Survey – Summary of Results

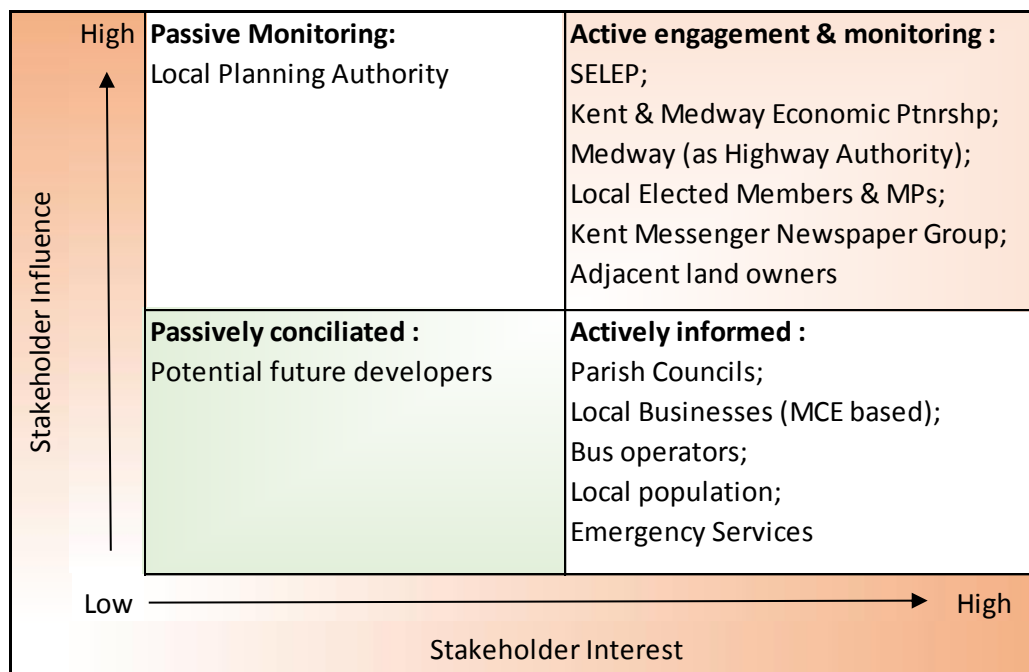
In August 2018 Medway Council issued a survey regarding travelling to, from and around the Medway City Estate (MCE) for work or retail/leisure. Businesses located on the Estate were contacted and asked to promote the survey to employees and it was also promoted via social media. The survey took place between 7 August 2018 and 6 September 2018.

403 responses were received. A total of 49 questions were asked, which were broken down into different aspects, giving a total count of 103 questions over both elements of the survey. Of these, 54 questions encouraged the responder to use free text to deliver their views. Each free text comment has been reviewed, assessed and categorised to calculate overall percentages.

You told us:

- 335 (83.5%) commute to Medway City Estate for work and 66 (16.5%) visit for retail or leisure.
- The top three places that people travel to work from are:
 - Gillingham (11.6%)
 - Chatham (10.7%)
 - Strood (10.4%)
- The majority of commuters travel in a car alone to/from MCE (79.4% - 266/335).
- The top three reasons for commuters not wishing to car share is due to:
 - start/finish times varying (26.3% - 88/335)
 - needing their vehicle to get around during the day for work (17.6% - 59/335)
 - not knowing anyone to car share with (14.3% - 48/335)
- Generally, there is a strong need and want to be able to travel by car/work vehicles. One of the main reasons people gave for being unlikely to change the way they commute to MCE is that they need their vehicle for work during the day (24.2% - 59/341).
- There is a perception that alternative travel (e.g. public transport and car share) is not as convenient or flexible as the private car. The top three reasons commuters gave for choosing their current method of travel are:
 - it is the quickest way to travel (54.6% - 194/335)
 - public transport alternatives are not available/realistic (45.6% - 162/335)
 - it is most convenient/flexible (36.9% - 131/355)
- A percentage of commuters would not be encouraged to cycle or walk to work as their most direct route, through the Medway Tunnel, prohibits them from doing so.
 - Walking (27.8% - 64/230)
 - Cycling (26.3% - 57/217)
- 77.3% (259/335) of commuters are dissatisfied with their current journey to/from MCE.
- The main reasons for the level of dissatisfaction with journeys to/from MCE are:
 - journey time/traffic/congestion - 84.3% (257)
 - lorries parking on main roads/inconsiderate parking/parking regulations - 30.5% (93)

17. APPENDIX J – Stakeholder Engagement Plan



18. APPENDIX K – Air Quality – NO2 Diffusion Tube Results 2016-2018

Results in ug/m3

Year	Site Location	Grid	Reference	Jan	Feb	Mar	Apr	May	June	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean	Site	Bias	Corrected
2016	Lamp post Anthony's Way	575237	169407		51.9	25.3	23.6	23.0	38.8	40.8	38	50.2	43.8	49	53.9	39.8	Roadside	0.77	30.7
2016	Lamp post Anthony's Way	575237	169407		59.9		19.2	24.6	40.3	41.8	39.3	50.6	49.4	52.3	66.6	44.4	Roadside	0.77	34.2
2016	Lamp post Anthony's Way	575237	169407		51.2	20.3	23.4	25.3	41.9	42.8	38.2	49	45.1	49.4	57.9	40.4	Roadside	0.77	31.1
2016	Lamp post Anthony's Way	575237	169407		54.3	22.8	22.1	24.3	40.3	41.8	38.5	49.9	46.1	50.2	59.5	40.9	Roadside	0.77	31.5
2017	Lamp post Anthony's Way	575237	169407	81.2	50.2	49.0	47.7	43.0	37.5	37.5	40.9	44.4	45.1	60.2	48.4	48.8	Roadside	0.77	37.5
2017	Lamp post Anthony's Way	575237	169407	84.7	52.9	49.5	47.1	41.2	33.9	39.9	45.2	36.4	44.8	61.8	45	48.5	Roadside	0.77	37.4
2017	Lamp post Anthony's Way	575237	169407	85.2	51.0	49.7	52.7	35.1	40.8	36.9	40.5	46	50.6	66.5	47.2	50.2	Roadside	0.77	38.6
2018	Lamp post Anthony's Way	575237	169407	51.2	45.1	56.4	42.9	36.3	31.2	42.5	44.1	47.5	57.1	50.3	54.1	46.6	Roadside	0.76	35.4
2018	Lamp post Anthony's Way	575237	169407	51.1	41.1	56.2	45.8	35.1	28.3	38.3	39.7	41.1	51.7	57.5	45.5	44.3	Roadside	0.76	33.7
2018	Lamp post Anthony's Way	575237	169407	56.8	28.3	55.4	42.8	35.9	30.1	40.7	43.9	48.2	56.9	57.2	43.4	45	Roadside	0.76	34.2