

FULL BUSINESS CASE (STRATEGIC CASE)



TRANSPORTING BEDFORD 2020

FULL BUSINESS CASE

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1. INTRODUCTION

1.1 Overview

1.1.1 This report forms part of the Final Transport Business Case for the proposed Bedford Town Centre Transport Strategy. The overarching business case sets out the evidence base in favour of the scheme, following the Department for Transport's (DfT) guidance on The Transport Business Cases by considering each of the five business cases in turn:

- Strategic Case;
- Economic Case;
- Financial Case;
- Commercial Case; and
- Management Case.

1.1.2 Bedford Borough Council has been awarded two funding packages from the Local Growth Fund for separate but co-located projects, the Bedford Town Centre Study and the Bedford Southern Gateway. The purpose of the Business Case is to explain how and why the Council is seeking to combine these two Local Growth Fund streams into one single project.

1.1.3 This report focuses specifically upon the **Strategic Case** and sets out how the original rationale for both projects developed and the additional benefits which will result from a combined approach .

1.2 Background to Bedford and the Transport Strategy

1.2.1 Bedford is the largest settlement within the Borough of Bedford with a population of around 80,000 out of a total of around 160,000.

1.2.2 The River Great Ouse passes through the town centre and is lined with public greenspace known as the Embankment and St Mary's Gardens. Bedford Castle Mound is the remnant of Bedford's medieval castle, located off the Embankment and close to the centre of the modern town, less than a hundred metres from the High Street. St Paul's Church sits within the square of the same name at the southern end of the High Street, providing a link between the River and Castle and the main pedestrianised retail core.

1.2.3 The recently completed Riverside Bedford development provides another connection from St Paul's Square through to the river, with a range of new leisure facilities, including a cinema. This also connects in to the established Harpur Centre Shopping Centre across Horne Lane.

1.2.4 Bedford has a legacy of previous trunk roads passing through the town. In recent years de-trunking and the completion of the Western bypass have removed all primary routes from the urban area, and there is no longer a need to cater for long-distance traffic through the town.

1.2.5 At the same time the constraints of the road network, in particular a river and rail lines with limited crossing points, continues to lead to traffic congestion arising a concentration of traffic on key junctions and particular routes.

1.2.6 The core town centre highway network operates on a one-way system, with southbound traffic along the High Street, westbound traffic along the south side of St. Paul's Square

and Horne Lane, and northbound traffic up River Street. The High Street and St. Paul's Square are both two lanes, creating a significant barrier to pedestrian movements across these routes. This has the impact of dissecting the town, reducing permeability between the retail quarter, the cultural quarter and the river.

- 1.2.7 Economic data indicates this is having a significant impact upon the value of property in different parts of the town centre. Business rate data indicates that equivalent rateable values on the High Street are around 40% of those within the heart of the pedestrianised area on Silver Street and Midland Road.
- 1.2.8 The Borough Council has been undertaking a Transport Strategy Development process over the last three years to support enhancements to the town centre, as well as to integrate with wider issues, such as the Local Plan Process, the One Public Estate programme, the Oxford to Cambridge Corridor (including the Expressway and East West Rail) and enhancement to the Midland Mainline (these are discussed in more detail in section 2.2.10).
- 1.2.9 A wide range of transport policy, strategy and scheme options has been considered for Bedford town centre, using the data collected in 2014, and a set of measures focused upon enhancing accessibility to and within the core town centre and extending out to the key A6 corridors to the north and south of the town has been developed. These measures represent the project.

1.3 The need for change

- 1.3.1 Public realm and transport and traffic management projects are highway authority matters. Unless infrastructure improvements are associated with a particular development, there is no mechanism (and little incentive) for the private sector to deliver traffic management improvements.
- 1.3.2 Within this restricted context, the Borough Council has been seeking to continually enhance the public realm within the town centre and to minimise the impact of traffic on pedestrian and cycling movements. The town centre retail offer faces an increasingly competitive market against not only other town centres, but out-of-town retail offers, and on-line shopping.
- 1.3.3 The draft Local Plan identified considerable development growth across the borough up to 2035, with up to 8,500 new dwellings. In addition to this, there is the potential for considerable higher growth up to 2045. Establishing an effective traffic management system in advance of higher demand will provide the Borough Council with a mechanism with which effectively influence travel choices going forward and mitigate against the impacts of growth.
- 1.3.4 Parts of the former A6 corridor are specifically identified as potential risks for future constraint, recognising the importance of the connectivity this corridor provides for Bedford. Furthermore, reducing the impact of traffic on local communities, such as through the removal of traffic from town centres and the increasing the provision of alternatives to the car, is also recognised as key to creating conditions conducive to growth and in attracting investors to the area.
- 1.3.5 This is, therefore, a critical time to maximise the natural strengths of the town, including the River and Cultural Quarter, and ensure the on-going economic viability of the town. This Strategic Case sets out to demonstrate that the combined scheme offers benefits over and above those of the separate schemes.

2. THE STRATEGIC CASE

2.1 Introduction

2.1.1 Any new publicly funded major infrastructure project should be set within the context of, and measured against, local (and national) objectives. For this project, The South East Midlands Local Enterprise Partnership (SEMLEP) provides the context to development and is committed to supporting business investment, driving economic success and to creating the necessary infrastructure to develop new homes and jobs for the South East Midlands. The LEP will contribute to this through the delivery of a Strategic Economic Plan (SEP), which has eight strategic objectives designed to enhance:

- Business productivity
- Skills
- Markets
- Infrastructure

2.1.2 The SEP identified four principle areas for intervention to deliver growth:

- Transport
- Housing
- Jobs
- Growth and Skills

2.1.3 While this Strategic Case conforms to the DfT guidance, there is a particular focus on the strategic objectives of SEMLEP. As a project based around infrastructure provision and increased economic activity, it is well placed to create conditions conducive to growth and to attract inward investment. The opportunities resulting from reduced congestion and enhanced transport connectivity are recognised in providing a competitive advantage to firms and local authorities. In relation to delivering sustainable transport, the challenge is identified of managing congestion to ensure that it is not detrimental to local economic growth.

2.1.4 Within this context, this section provides an assessment of the strategic case for the scheme by setting out the following,

- The history of the project: two schemes into one
- The impact of 'do nothing'
- A description of the project; what will be delivered
- The evolution of the project from concept to objectives
- How the project meets the strategic aims of the delivery and funding partners
- How the project will be assessed and measured

2.2 History of the project: two schemes into one

2.2.1 Bedford Borough Council (BBC) submitted a Local Growth Fund Round 2 (LGF2) bid to SEMLEP at the end of 2014. This original project bid centred on a new town centre road bridge at Batts Ford to the west of the town centre, as well as a range of public realm enhancement to the town centre.

2.2.2 The main objectives were to reduce traffic congestion within the town centre and enable the High Street to achieve traffic relief and improve the attractiveness of this part of town, thus supporting regeneration. The overall cost of the infrastructure

needed was estimated at the time to be circa £30 million (£25 million LGF2 and £5 million local contributions).

2.2.3 Within the overall grant awarded to SEMLEP for LGF2 of £46.7 million, £11m was allocated towards the Bedford Town Centre Transport Strategy. This was significantly short of the resources need to deliver the promoted scheme. Subsequent informal advice suggested that it would not be prudent to submit a further bid for the shortfall.

2.2.4 As well as the original project being unaffordable, further evaluation since then has concluded that the original strategy might not provide the best value for money. Concerns have also been raised over its deliverability. Further technical assessment indicated that the transport benefits would be localised and that there were potential negative environmental impacts within the immediate area.

2.2.5 At the time of the LGF2 allocation, DfT indicated that this project would be included in their national programme of transport projects as a 'Portfolio' scheme and managed directly by them. Quarterly reports on the project to DfT since the allocation have simply indicated that the project details remain to be agreed.

2.2.6 The need for improvements to Bedford town centre traffic remains as pressing as ever and since the original decision in 2014 by the Borough Council to develop and deliver a new transport strategy for the centre of Bedford, the following key actions have been undertaken:

- Procurement of external consultant support to assist with technical aspects
- Commissioning comprehensive travel surveys of the town centre area
- Developing the tools needed to enable transport strategy options and schemes to be tested, including an update to the Borough-wide SATURN traffic model and a VISSIM micro-simulation model of the core town centre area
- Testing a variety of alternative transport strategy options
- Supplementary work on transport issues to inform the Local Plan review

2.2.7 Bedford Borough Council recognised that further funds were required if all the objectives of the Town Centre Strategy which were originally included in the LGF2 scheme were to be delivered, and a bid was made to LGF3 in June 2016. This was for enhancements to a critical corridor between Bedford Town Centre and the strategic road network at the A421 junction with the A6. The proposal was referred to as Bedford Southern Gateway in recognition of its importance to economic activity within the town. The bid for LGF3 was successful and the Council received £4.5m from the Local Enterprise Partnership to be topped up by £0.6m from local funds. The main objectives of the proposal include deliverables to,

- Improve journey time reliability
- Improve technology and integration between systems and signals to provide a linked signal solution which responds to demand pressures
- Improve capacity at key junctions for all users
- Minimise the impact of traffic on residents and communities
- Reduce the number, frequency and severity of accidents
- Enable development opportunities to come forward
- Safeguard existing employment opportunities and encourage new ones
- Develop a prototype technology corridor for wider roll out

2.2.8 The Council was in the position of having two funding streams for projects with similar aims in co-located areas, one managed directly by DfT and the other by the LEP. Given that the strategy being suggested for the town centre described above is conceptually

similar to that for the Southern Gateway, it has been agreed with SEMLEP that the sensible approach to project governance and management would be to merge the two projects into one overall coordinated programme.

2.2.9 Through discussions with DfT and SEMLEP it was agreed that as the total value of both LGF projects will not exceed £20 million, the DfT would support moving responsibility for the LGF2 scheme to SEMLEP for combination with the LEP managed LGF3 scheme. This would require a profile for the £11 million to be agreed and for DfT and DCLG to arrange for these sums to be added to the existing LGF3 allocation for SEMLEP.

2.2.10 In addition, the emergence of other town centre issues has helped to develop the context and opportunity for a change in emphasis from these two separate but co-located projects into one scheme. These include,

- Electrification of the Midland Main Line – the relevance of this programme of works centred on the fact that the Prebend Street corridor is one of the key pinch points in Bedford’s network, and the potential rebuilding of Ford End Road Bridge to accommodate new wires and pantographs looked for a while like it had the potential for bringing quantum change to Bedford’s transport systems.

At the time the Council was awarded the LGF2 money, both the bridges in Bedford had yet to be modified to accommodate the new wiring, and so the Council entered discussions with Network Rail to try and secure a joint approach which would enable the Ford End Road Railway Bridge to be completely reconstructed and thus provide a road bridge over the railway which would accommodate the requirements of a renewed Bedford traffic system.

However, because of the time constraints of the electrification programme, there has been insufficient time to develop a proposal which could accommodate the requirements of both parties. Also, Network Rail has been able to accommodate its own essential works by the lifting of just one arch which reduces the economic viability of a rebuild.

- One Public Estate (OPE) - BBC in partnership with other public authorities is participating in the OPE programme to ensure best use is made of land and property within public sector ownership within the town. A number of sites are being progressed around the town centre; these are the land around the railway station, the land to the west of the town centred on FER, and land to the south of the town centre (centred round Kingsway).

Some of the transport improvements which are required to release the growth potential and facilitate town centre traffic movement are of a scale which would be unviable within the normal redevelopment process. Rebuilding Ford End Road railway bridge for example to provide a relief road of Prebend Street and improved access into the Queens Park area would be outside the scope of regular development plans, and as such a wider contextual process is required.

The town centre programme of works can be developed independently of any One Public Estate programme. However, as it is anticipated that the potential development areas will require transport and highway improvements to improve accessibility, the public realm, and increase the economic uplift of these areas, the Council will continue to develop the two schemes in parallel and improve synergies between them.

- The emerging Local Plan – In addition to land use policy, there will be a need to incorporate the adopted transport strategy into the Local Plan framework for the town centre including whether to,

- Review the current policy support for Batts Ford Bridge and the existing safeguarding scheme

- Review the policy for the St John’s Relief Road and the existing safeguarding policy
 - Retain policy support and safeguarding for Prebend Street Link Road and review the safeguarding alignment in light of agreements made with Network Rail and the context of One Public Estate
 - Review general policies about principles to be adopted in delivering transport, access and parking management in the town centre
- National Infrastructure Commission (NIC) and the Oxford Cambridge Corridor, including East West Rail – whilst Bedford is expected to play an important role in the growth plan for the Oxford – Cambridge corridor, and will be influenced by the strategic road and rail schemes already being progressed, these are not expected to undermine the town centre growth strategy. Rather, the strategic agenda points towards an increasing need to deliver a Bedford Town Centre offer which supports the overall growth plan. This is reinforced by the recognised need to consider ‘first mile / last mile transport issues in strategic transport policy.
- Approval has been given for Network Rail to progress the East West Rail Central Section and preliminary options for routes will be available by Autumn 2018. The emerging results from the route evaluation work, particularly around the station and Ford End Road, will influence and inform decisions and options for the future development of the whole area.

2.2.11 Within this evolving context, a revised approach to delivery was required. Given the indicative allocations of LGF2 and LGF3, the availability of other resources and on the basis of the current position on deliverability and strategy testing, a suggested overall approach to the town centre transport strategy was developed to include:

1. Improvements in the town centre highway/public realm quality to discourage unnecessary through traffic and improve the quality of the environment for users of the town centre;
2. A widespread programme of small/medium infrastructure improvements focussed on key junction pinch-points where worthwhile increases in capacity and reliability that assist all road users are justified and deliverable
3. A major upgrade to existing traffic management systems across the whole Town Centre and Southern Gateway area to provide the maximum delay reductions possible, provide real-time information to drivers to support their decision-making, and to be ready to incorporate emerging/future technology on Cooperative Intelligent Transport Systems (C-ITS), Expressway driver information systems, autonomous vehicles and mobility as a service technology.

2.3 Impact of Do Nothing

2.3.1 Without investment at this time, there is a perception that Bedford Town Centre will not be able to benefit from the potential growth which the sub-national area expects to be delivered. The High Street will continue to underperform within the local economy, exacerbated by the narrow pavements and poor environment which will discourage higher value retail organisations from locating within the street.

2.3.2 East-west connectivity across the High Street and St. Paul’s Square will remain poor and will limited the ability to maximise the exiting historic and cultural assets of the town.

2.3.3 There is significant housing growth planned across the wider borough, with 8,500 dwellings by 2035 and a potential further 12,500 by 2045. This will have a significant impact upon the travel patterns across the borough and into the town centre and there

is a risk that, without intervention in the High Street, the levels of traffic will gradually increase, negating the benefits achieved through completion of the Western Bypass.

2.3.4 More generally traffic conditions and journey time reliability are likely to remain poor and deteriorate further over time, reducing the attractiveness of Bedford as a business and employment location. The limited functionality of the current Urban Traffic Management Control (UTMC) will soon be completed obsolete and so the Borough Council will be unable to manage the highway network effectively.

2.3.5 The scheme aims to remove unnecessary traffic from the town centre and to manage the network in response to demand so that access to the public realm can be enhanced. Alternative schemes have been considered but were discounted because they did not give the same level of benefit. An examination of these alternatives is included in the table below,

Table 1. Consideration of alternatives

ALTERNATIVE MEASURE	REASON FOR REJECTION
Focusing infrastructure and investment in one corridor (e.g. Batts Ford Bridge to the west of the town centre, Prebend Street)	Benefits were not considered to be widespread enough, or deliver mode choice
A new link road between Ampthill Road and Mile Road	High cost and only localised benefits
Widening Ampthill Road	High cost, localised benefits and environmental disbenefits (loss of mature trees).
Incremental junction and capacity improvements (dependent on development or Council resources)	No joined up programme so phased approach would be difficult. The chosen 'modular' approach allows for planned progress and minimal disruption

2.3.6 Although some elements of the scheme are included in the CIL Reg123 list (Batts Ford Bridge, Bedford Urban Traffic Control System, High Street and other public realm improvement) the contributions received to date equate to less than £1m (since 2014). Highways and public realm works are just two elements of the infrastructure list which have to be considered against other priorities, including new schools. It is therefore unlikely that there will be a reliable and sufficient source of income to deliver the Town Centre Strategy (TCS) within the desired timeframe.

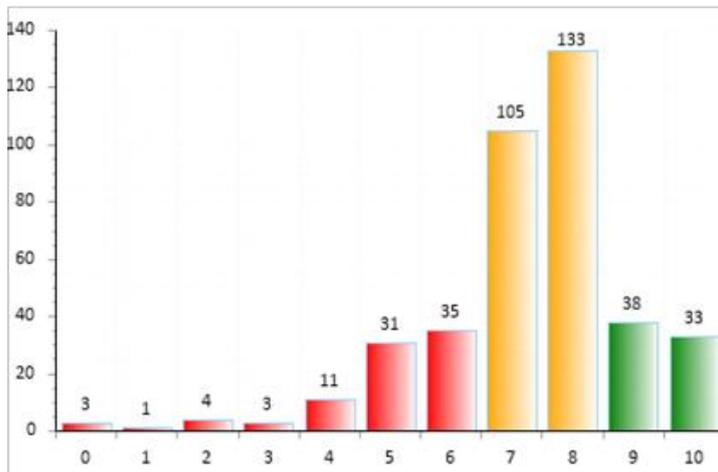
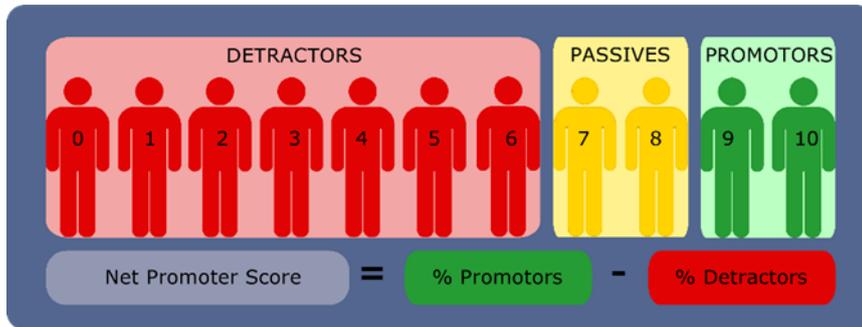
2.3.7 The Integrated Transport Programme and Structure Maintenance Programme are used to deliver Council highway priorities and stem from the strategies and actions in the Local Transport Plan. However, the combined annual value of these programmes is less than half the value of the Town Centre Strategy. While there is some allocation from these programmes as the Council's contribution to the TCS, it is not feasible to fund the scheme this way. The Council has to consider interventions Borough wide rather than concentrated in one location.

2.4 Description of the Scheme: who is affected and what are their needs.

- 2.4.1 The focus of the measures is around the heart of the town centre, alongside the northern and southern corridors (the former A6 corridors). Within this area there are five targeted elements of scheme delivery, with the High Street and St. Paul’s Square forming the primary focus. The UTMC and technology measures will encompass the whole area, but with a specific focus upon the Southern Gateway corridor, linking with the existing Park & Ride site. Elements of the central technology infrastructure will also facilitate wider traffic management controls across the whole town in the future. See figure 1. A description of the three themes is set out in section 2.5 below.
- 2.4.2 Appendix A (Workshop report) of the Public Realm Framework Technical note provides a detailed analysis of the stakeholder workshop, and identifies where the outputs of the workshop have informed the development of the Public Realm element. Appendix B of the Public Framework Technical note sets out the findings of a PERS (Pedestrian Environment Review System) Audit of the town centre, identifying where improvements to the walking environment should be made.
- 2.4.3 Retailers / businesses – retailers and local businesses will benefit from increased footfall, reduced congestion and reliable journey time. High Street detrafficking may be of concern re deliveries as some businesses only have access from the High Street, but facilities will be designed into the scheme in the form of laybys, and managed through TROs.
- 2.4.4 Town centre visitors – visitors will benefits from increased accessibility and permeability through improved public realm and better signage. Increased use of technology will provide the potential for app development to give visitors (and residents) more control of their travel choices.
- 2.4.5 In 2017 Bedford BID engaged consultants Shoppers Anonymous to study Bedford Town Centre and gain an up to date clearer understanding of visitor profiles, behaviours and attitudes amongst users of the BID zone town centre and Harpur Centre, changes in demographics, dwell time, spend, expansion of catchment, together with current perception of the town centre.
- 2.4.6 This piece of work included establishing Net Promoter scores for the town centre environment. The results as shown on table 2 below indicated a NPS score of -21 for the town centre in December 2017 – with the score declining since the initial survey carried out in June 2017.

Table 2. Net promotor scores

Survey	Detractors	Var June	Passives	Var June	Promoters	Var June	NPS	Var June
Harpur Centre	34.69%	-2.72%	53.40%	9.80%	11.90%	-7.09%	-23	-5
Town Centre	33.50%	1.30%	53.90%	5.43%	12.59%	-6.73%	-21	-8
Riverside	42.09%		43.77%		14.14%		-28	
Total	36.44%	0.68%	50.71%	5.56%	12.85%	-6.24%	-24	-7



2.4.7 The supporting analysis carried out by Bedford BID supported the PERS assessment work referenced in Appendix A (Workshop report) of the Public Realm Framework Technical note and demonstrates that there are environment challenges for users of Bedford Town Centre that will be addressed by the proposed Public Realm improvement works to be delivered as part of the Transporting Bedford 2020 proposals.

2.4.8 Car drivers – motorised vehicle users will benefit by more reliable journey time, and fewer delays at key junctions. Table 1 of the Technical note Pinch point Schemes (copied below) shows some of the delays currently experienced by motorised vehicle users at some key junctions.

LOCATION	APPROACH	AM DELAY (MINS:SECS)	PM DELAY (MINS:SECS)
Bromham Road / Greyfriars / Union St	Greyfriars (NB) Bromham Road (EB) Bromham Road (WB)	- 4:00* -	5:20* - 8:40*
Ampthill Road – Elstow Road Junction to W End Junction (SB)		2:00	2:40
Britannia Road and Cauldwell Street (NB)		3:20	2:40
Shakespeare Road / Clapham Road / Manton Lane Roundabout	Shakespeare Road (NB)	2:30	2:10
Bromham Rd / Shakespeare Rd / Ashburnham Rd Double Roundabout	Bromham Road (WB) Shakespeare Road (SB)	- 6:20*	4:30* 6:00*
Clapham Road / Tavistock Street	Union St (NB)	-	5:00*
Bromham Road – Hassett Street to Shakespeare Road double roundabout	Westbound	-	12:00*

- 2.4.9 Public transport – bus users will benefit from more reliable journey times and fewer delays. Technology will help to manage demand in favour of buses if required.
- 2.4.10 Data submitted by the Council under National Performance Indicator NI 178 (Bus Services running on time) shows that the percentage of services running on time consistently falls below the target level of 80%.
- 2.4.11 Service delivery vehicles – freight and servicing will benefit from more reliable journey times and clearly marked bays for servicing difficult to access facilities (e.g. on High Street).
- 2.4.12 Cyclists / pedestrians – non motorised users will benefit from improved access at key junctions, increased permeability and reduced traffic on key routes (High Street).
- 2.4.13 Residents – residents will benefit from improved air quality, reduced congestion, increased economic activity and improved road safety.

2.5 Theme 1: Town Centre Public Realm Scheme

2.5.1 The focus of the public realm scheme is within the core town centre, encompassing the length of the High Street, St. Paul’s Square and the Town Bridge/St Mary’s Street. It builds upon and compliments smaller scale public realm works already completed and / or planned in areas, such as the Riverside Bedford development.

2.5.2 Key features of the Public Realm scheme are:

- **High Street decluttering:** Removal of all unnecessary guardrail, signals and lines to reduce vehicle prominence and create an environment where all transport modes feel welcome.
- **High Street repaving and resurfacing:** Introduction of a cohesive materials palette to provide a visual uplift to the town and encourage walking and wider exploration. This includes both carriageway and footway surfaces, to ensure an improvement to visual amenity, the setting of heritage assets, and the introduction of features that will provide greater pedestrian priority.
- **High Street pavement widening to accommodate and encourage increased footfall and also café spill out in some locations:** To help reduce vehicle speeds and provide greater control over servicing, the High Street carriageway will be narrowed to accommodate wider pavements and spill-out spaces for businesses.
- **High Street and St Paul’s Square introduction of high quality street furniture (including seating) and soft landscape, including trees:** Introduction of a consistent street furniture palette to reduce visual clutter. This would be complemented by a soft landscape scheme designed with full consideration of CCTV requirements. Fastigate tree varieties can be used to add an element of green and verticality without hindering CCTV provision. The considered use of street furniture and tree planting will also prevent/discourage drivers from entering pedestrian-only areas in places where vehicle and pedestrian priority are deliberately blurred to promote walking and cycling.
- **High Street improvement to on-street servicing:** On-pavement service bays are proposed so that when not in use, the space given over to pedestrians is maximised. It is imperative that restrictions on loading and servicing are actively enforced.

- **St Pauls Square decluttering:** The Square is at the heart of Bedford, yet is currently overwhelmed by wide vehicle carriageways and high volumes of traffic. The important views of the Church and surrounding buildings are lost amidst the signals, guardrailing and other street clutter. Removing these elements will open up the space, and enable the statue of John Howard and Church – both Grade I Listed – to be fully appreciated. The setting of these assets will be further enhanced through minimising road markings and changes to materials that will soften the space and tie the east and west sides of the town together.
- **St Paul’s Square repaving and resurfacing:** The current paving would benefit from the introduction of natural stone over the concrete paving currently used. The area occupied by the market is currently surfaced with stone setts which provide a more appropriate setting to the buildings in this area. Carriageways will similarly be treated with pavements to help reduce traffic speeds and reduce the visual prominence of vehicle routes.
- **St Paul’s Square pavement widening:** There are opportunities as part of wider traffic management initiatives to widen pavements on each side of the Square:
 - North: The carriageway could be reduced slightly make more efficient use of the land available and reduce the impact of junctions.
 - East: The carriageway could be reduced to one lane – providing an enhanced setting to the statue of John Howard – with a small flare to enable vehicles to enter the southern section.
 - South and west: the carriageway could remain as two lanes; however, additional tracking has identified where elements of the carriageway can be reclaimed for pedestrian use, and reduce what in some locations are currently very wide crossing widths.
- **Town Bridge pavement widening:** to help reduce vehicles speeds and enhance east-west pedestrian and cyclist connections to the River Path, the carriageway over the bridge can be narrowed.
- **Rearrangement of junction layout of Cauldwell Street/St. Marys Street/St. John’s Street:** to enhance the flow of traffic from Cauldwell Street into St. John’s Street and tie-in with reduced carriageway width over the Town Bridge.
- **Wayfinding:** Introduction of a more consistent style of wayfinding infrastructure that matches other elements of street furniture. The addition of distance information, in terms of walk-times, will support aspirations to encourage walking and exploration of different parts of the town.

2.5.3 A full discussion of the public realm scheme development process is set out within the accompanying document **‘Bedford High Street - Public Realm Framework’**.

2.6 Theme 2: Alleviating Pinch-points Schemes

2.6.1 Four key areas have been identified for highway mitigation measures to facilitate improvements to the operation of the highway network and complement both the proposed changes within the town centre and the package of technology measures.

2.6.2 Features of the schemes within the Pinch-point theme are:

- Area 1: A6 Northern Gateway

- Signalisation of Clapham Road/Manton Lane/Shakespeare Road
- Enhancement to the operation of the Paula Radcliffe Way/Great Ouse Way roundabout
- Enhancement to the operation of the Manton Lane/Brickhill Drive Junction

○ Area 2: Bromham Road Eastern Gateway

- Realignment and signalisation of Bromham Road/Shakespeare Road/Ashburnham Road double mini roundabout

○ Area 3: Around Hospital

- Additional lane on northbound approach to Britannia Road/Cauldwell Street/Kempston Road junction
- Rearrangement of junction layout of Britannia Road/Amphill Road

○ Area 4: Amphill Road Southern Gateway

- Additional lane capacity at Cowbridge
- New pedestrian footbridges

2.6.3 A full discussion of the pinch-point scheme development process is set out within the accompanying document '**Bedford Town Centre Pinch-point Schemes**'.

2.7 Theme 3: Urban Traffic Management Control & Technology measures

2.7.1 The Urban Traffic Management Control (UTMC) theme incorporates a package of measures to manage the flow of vehicular traffic across the core town centre and former A6 corridor, as well as promote enhanced information provision to enable travellers to make informed choices about how and when they travel.

2.7.2 The key features of the schemes are

- UTMC Common Database
- UTMC system encompassing the extent of scheme measures (see Figure 1)
- Remote Monitoring System
- CCTV / data integration for Journey Time Management
- Traffic Data Base and Control Room Equipment
- Traffic Signal Upgrades across the extent of scheme measures (see Figure 1)
- Signing, Information and Publicity Systems
- Extended coverage of ANPR cameras for enforcement of Bus Lanes

2.7.3 The UTMC and Technology package provides an opportunity for the following:

- Improving the capability of the urban transportation infrastructure to assist with incident management, traffic advisory to network users and long-term investment planning, including use of public and 3rd party data sources;
- Improving the performance of infrastructure, and ensuring the benefits of new infrastructure are maintained, by improving the coherence of regional and corridor traffic management systems;
- Improving the awareness of network users of performance, the availability of public transport, improved trip planning, and promotion of sustainable modes through an area-wide open data strategy
- Enhanced visibility of the performance of transport service providers, ensuring compliance with existing agreed service levels and providing a basis for dialogue on

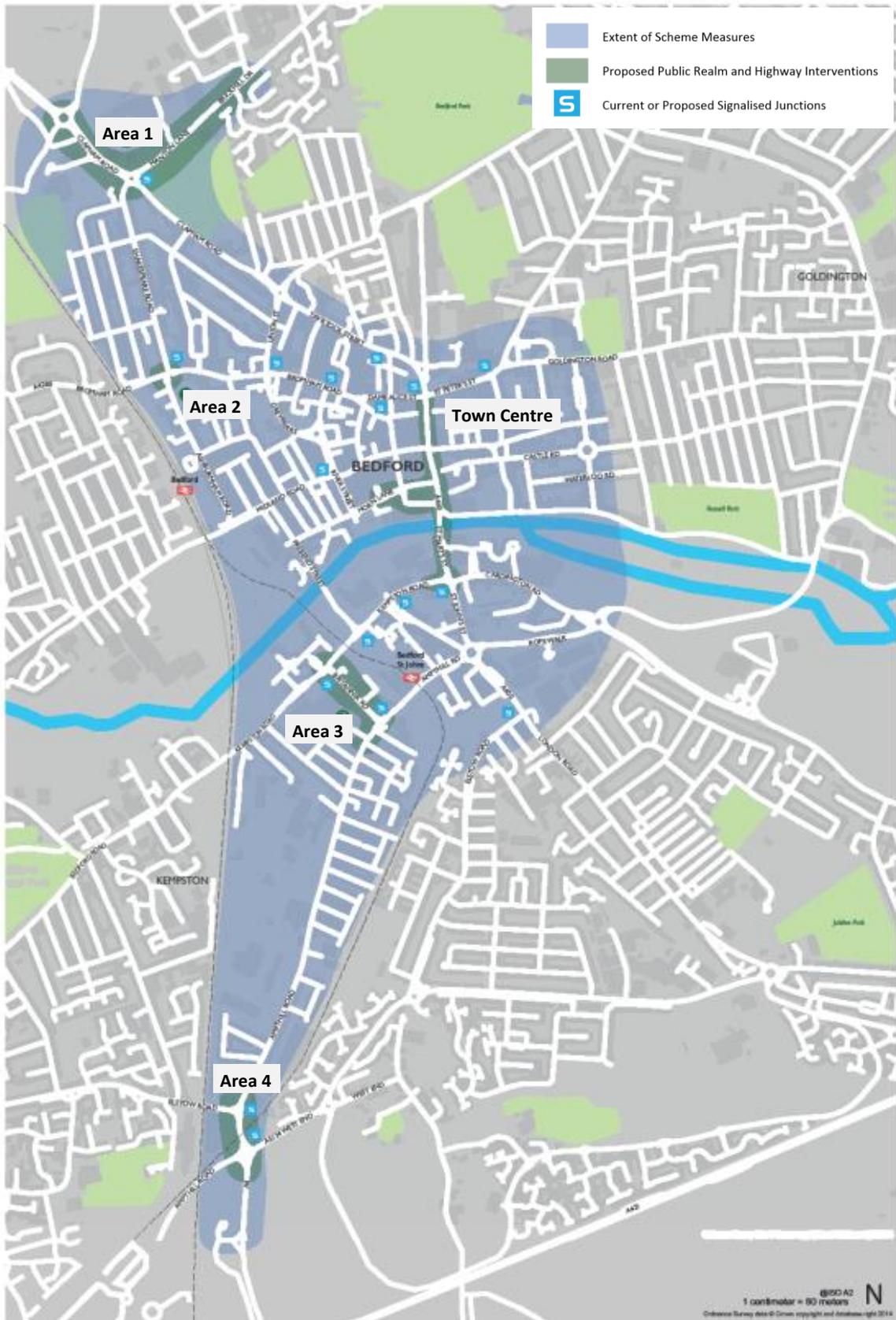
service improvements, for example to support improved connectivity with MML upgrades and sufficient capacity for the One Public Estate programme;

- Improve access for commuters and visitors by:
- increasing knowledge of parking availability: whether on-street, off-street public or privately owned, through roadside variable message signs and enabling 3rd party app development
- providing enhanced methods of payment for transport, through use of interoperable fare media
- Improved data exchange with local and regional transport operators, and adjacent regional economic hubs, including Cambridge, Milton Keynes and Northampton to advise on HazMat vehicles, other Vehicles Of Special Interest (VOSI), regional road closures, failures of the rail network or other man-made or natural events that could impact Bedford; and
- Encouraging and part-funding local innovation to improve accessibility, mobility and the sustainability of the transport network as a whole, such as establishing defined corridors for pilots of Advanced Traffic Management, including the use of Vehicle to Infrastructure (V2).

2.7.4 A full discussion of the traffic manage scheme development process is set out within the accompanying document '***Bedford Town Centre – a vision for Intelligent Mobility***'.

2.7.5 An overview of the geographic location of these scheme elements within the town centre strategy is provided in **Figure 1**.

Figure 1. Scheme Overview



2.7.6 In summary, the overarching aims of the combined package of scheme measures are to:

- Enhance the permeability of the core town centre, creating better connections between the retail quarter, the cultural quarter, and the Great River Ouse

- Enhance the management of traffic movements into and across the town to improve journey time reliability
- Provide travellers with real-time information about traffic and travel conditions to allow them to make informed decisions about the travel behaviour

2.7.7 Overall, the enhancements aim to facilitate accessibility to Bedford, improvements in road network performance and improved regional connectivity, with a specific focus upon new or upgraded infrastructure. This includes scheme measures within both the 'Town Centre Public Realm ' and the 'Alleviating Pinch-point' themes ensuring an integrated approach.

2.8 The evolution of the scheme: from concept to objectives

2.8.1 Any assessment of a scheme's value and potential effectiveness has to take account of how decisions were made. This section sets out how the evidence was collected and used, and what other influences were considered in arriving at the scheme details described above. It will consider the following,

- Data gathering
- Best practice from elsewhere
- Stakeholder involvement
- Strategic alignment

2.8.2 Table 3 below links the strategic objectives of the project with the Council's key policy documents, which are then tied in to the specific scheme objectives.

Table 3. Alignment of objectives with organisational aims

	Strategic objectives	Reflecting BBC policies within key documents	Scheme objectives
TSO1	Support the heritage, cultural and economic regeneration in the town centre through enhanced access and improved town centre permeability	Local Plan Local Transport Plan (LTP) Corporate Plan Bedford Masterplan (One Public Estate)	Detraffic High Street Improve public realm Improve accessibility and connectivity Retain existing businesses Improve journey time reliability
TSO2	Manage vehicular activity in the core town centre, in particular through movements, to enhance the pedestrian retail, night-time, and visitor economy experience, whilst ensuring adequate town centre access for traders, freight, public transport and taxis and to car parks	Town Centre Area Action Plan (TCAAP) LTP High Street Strategy	Manage congestion Improve journey time Retain existing businesses Remove constraints to developments
TSO3	Facilitate efficient cross town and end-to-end corridor movements, for all transport modes, through strategic routings, reduced congestion at network pinch-points and improved infrastructure provision	LTP (Network Management Strategy (NMS))	Improve key junctions Improve technology and integration between signals

TSO4	Enhance strategic links to the town to secure the long term position of Bedford as a regional centre, whilst reducing the volume and impact of through vehicular traffic movements that could otherwise utilise the town ring road	Economic Development Strategy NMS	Improve access to the Strategic Road Network (SRN) Improve technology and integration between signals
TSO5	Provide network resilience, across all modes, that accommodates forecast growth associated with future development aspirations of the town and changes to population demographics	Network Management Strategy Bedford Masterplan	Improve key junctions for all users Respond to demand pressures
TSO6	Create a safe and secure environment for all transport users, taking particular account the needs of vulnerable users, and reduce conflicts between vehicular and non-vehicular transport movements	LTP Road Safety Strategy Local Plan Highway Design Guide	Encourage modal choice Improve air quality Reduce casualties
TSO7	Manage the environmental impacts of transport, in particular within the air quality management area, and promote sustainable modes of travel	Air Quality Management Area and Plan LTP Public Transport Strategy, Active Travel Strategy	Encourage modal choice Improve air quality Reduce casualties
TSO8	Proactively manage access to health and educational facilities, including hospital sites, schools, the college and the university, in order to make best use of transport network capacity	LTP Area wide travel planning	Improve key junctions Improve technology and integration between signals
TSO9	Create a coherent 'sense of place' across the town quarters, ensuring clear vehicular and non-vehicular way-finding leading into and around the town centre, with a particular focus on ensuring connectivity with the river and the rail station	LTP Active Travel Strategy TCAAP	Encourage pedestrian movement Improved signage
TSO10	Ensure inclusive, resilient, long-term, and low maintenance design of transport infrastructure and operational services	LTP Asset Management Strategy Highway Design Guide	

2.9 Data gathering

- 2.9.1 An extensive assessment of access and movement issues across Bedford Town Centre has been undertaken, encompassing all the major corridors leading into and out from the centre. This is documented within the technical reports referenced within Sections 2.4 – 2.7.
- 2.9.2 In addition to general assessment of levels of highway and public transport provision the evidence base includes:
- Automatic Number Plate Recognition (ANPR) cordon survey
 - ANPR Car Park Survey
 - Manual Classified Counts (MCC) at 27 junctions across the town
 - Journey time survey on five routes across the town
 - Pedestrian Environment Review System (PERS) audit within the town centre
 - Cycle infrastructure audit within the town centre and routes leading into the centre
 - Retail data assessment
- 2.9.3 In addition strategic, microsimulation and local junction model outputs have also been available with which to assess the performance of the transport network.
- 2.9.4 These varying sources of data and models have been analysed to identify the following key issues relating to access and movement in Bedford.

Traffic Model Outputs – Key Issues

- Peak period capacity constraints through the Prebend Street / Midland Road junction (both with current peak traffic flows and forecast to become more severe with future growth)
- Peak period capacity constraints through the Bromham Road / Ashburnham Road double roundabout both with current peak traffic flows and forecast to become more severe with future growth, even with the completion of the Western Bypass)
- Peak period delays along the Ampthill Road Corridor (both with current peak traffic flows current and forecast to become more severe with future growth)
- Peak periods capacity constraints through Wilmers Corner (both with current peak traffic flows and forecast to become more severe with future growth)

Travel Survey Data – Key Issues

- There is a high volume of through trips from south of river that use the Town Bridge / Horne Lane / River Street to access the north of the town (the area to the north of Bromham Road). This equates to over half of the northbound flow across the Town Bridge in the peak periods (between 325 to 375 vehicles movements per peak hour).
- There is a high volume of through trips from north-west of the town (Clapham Road / Bromham Road) that use the High Street / Town Bridge / St. John's Street to access the area to the south of the Kings Quarter. This equates to up to half of the southbound flow over the Town Bridge in the peak periods (between 350 to 375 vehicle movements per peak hour)
- There is a notable volume of trips travelling south along High Street that subsequently turn east along Embankment that add to southbound congestion

along the High Street. This trip movement account for up to 20% of southbound trips travelling down the High Street during the peak periods (between 150 to 175 vehicle movements per peak hour).

- There is considerable journey time variation across the network on key corridors leading into the town centre, in particular along the Amphill Road Corridor with average speeds as low as 5mph on parts of the network

Car Parking Data – Key Issues

- The high volume of traffic circulating around the core town centre network to access the car parks at the Harpur Centre, River Street, and Allhallows.
- The extent of rail related traffic heading to Bedford Midland Station car park from the west of Bedford along the Bromham Road corridor

Walking & Cycling Audit Data – Key Issues

- The lack of connectivity to rail by all modes of transport, particularly in the context of rail likely to become a more prominent mode in the future.
- The current restricted role of buses within transport hierarchy, with services all highly focused on town centre, despite relatively high density of built up area.
- The dominance of motorised vehicles on corridors leading into the town centre creating adverse conditions for non-motorised modes. There is currently a 20% bus, walk, cycle mode share, whereas the benchmarking exercise indicates that a level of 25% or higher is achievable.
- Concerns around air quality in core town centre.
- The sub-optimal connection of different ‘quarters’ around the town for pedestrians and cyclists, and the opportunity to create a more coherent and integrated town centre.

Town Centre Public Realm – Key Issues

- The town suffers from poor ‘sense of arrival’ with few well defined ‘gateway’ points into the core town centre
- High quality streets and spaces contrast with vehicular dominated areas such as the High Street and St Paul’s Square
- Important buildings “disappear” in a vehicle dominated setting
- Limited greenery in the High Street and main shopping area
- Event spaces are scattered throughout the town centre but could be used for more than markets
- Opportunities to foster a cafe culture and encourage businesses to spill out into the street
- The proliferation of A4 drinking establishments make some parts of the town feel unsafe to some users
- The High Street and Midland Road generally feel unsafe, pedestrianised streets lack overlooking and feel desolate after dark
- Some parts of the town are disorientating
- Lack of legible, visual connections between some key destinations

Retail Data – Key Issues

- Business rate data indicates significant variation in rateable values across the core town centre with values on the High Street only around 40% of those within the heart of the pedestrianised area on Silver Street and Midland Road.

2.9.5 A number of background technical reports have been published, comprising:

- Report of Survey
- Benchmarking Report
- Transport Model – Local Model Validation Report
- Transport Model – Microsimulation Model Development
- Forecasting Report
- Issues and Opportunities
- Scheme Option Development
- Options Screening and Assessment
- Scheme ‘Long List’ Appraisal

2.9.6 These are available via:

http://www.bedford.gov.uk/transport_and_streets/highways/schemes_and_projects/key_transport_projects.aspx

2.10 Best Practice and Evidence

2.10.1 As previously documented, the development of the package of town centre transport measures has been achieved through establishing a wide-ranging and robust evidence base, with multiple data sources. This included a benchmarking exercise (see link above) comparing Bedford to similar UK towns to understand comparable travel behaviours and learn lessons on how Bedford could achieve better provision.

2.10.2 As part of the work developing Theme 3 traffic management measures a comprehensive assessment of available technologies has been undertaken, engaging with suppliers and learning from world-wide examples. The technical note for Theme 3 provide a full summary of the best practice review and how this has influenced the development of the package of measures.

2.11 Stakeholders

2.11.1 Bedford Borough Council has engaged with necessary stakeholders throughout the option development process and will continue to do so throughout the development of the scheme. As with most projects affecting town centres, public highways and the public realm, the range of stakeholders is wide and varied. In a sense, all residents, employees and visitors have an interest in the scheme and most will be affected by the outputs, either directly or indirectly. Eliciting qualitative and meaningful responses to stakeholder consultations depends on how each event is managed.

2.11.2 The Town Centre has been subject to a range of different studies focused on retail, cultural as well as transport that have all involved engagement with key stakeholders to understand the key issues. In particular, the issue of what measures to take on the High Street has been the subject of local consultation for some years and various projects, in particular the Local Transport Plan, the Townscape Heritage and the Citizens Panel. While views have been split, in more recent years and particularly after the opening of

the bypass, the consensus has been moving towards support for detrafficking, a view supported by the Bedford Improvement District (Bedford BID).

- 2.11.3 The Southern Gateway Corridor has been the subject of concerns raised by local businesses, specifically the Interchange Retail Park and potential occupiers of the land adjacent to Morrisons on Ampthill Road. Community representatives have also called for further investigation into the issues along the route. The owners of the Interchange Retail Park and other potential developers adjacent to the site have expressed their intention to work with the Council to look for area wide solutions. Highways England have also been consulted in relation to the A421 corridor and interchange with the A6 at the southern end of the scheme.
- 2.11.4 The Northern Gateway Corridor has been subject to a specific assessment study to examine future capacity issues, which involved engagement with key stakeholders.
- 2.11.5 A supplementary Stakeholder Management Plan has been prepared to outline how stakeholder engagement will be established and taken forward as part of the proposals.

2.12 Alignment with Bedford Strategic Aims

- 2.12.1 Bedford Borough Council has three priority areas:
- 1.** A Thriving Local Economy – providing the environment to ensure that Bedford Borough’s economy can continue to grow
 - 2.** Empowering Communities – supporting our communities and neighbourhoods
 - 3.** Supporting People – safeguarding our vulnerable residents
- 2.12.2 The package of schemes will directly support the first two priorities and contribute to delivery of the third.
- 2.12.3 The enhancement to the public realm will create an environment that promotes higher retail and leisure activity and will support the whole town centre economy. The provision of a wider transport network which offers employers reliable journey times to suppliers and customers, and employees better access to jobs, will increase the likelihood of inward investment.
- 2.12.4 The Town Centre Air Quality Management Area encompasses a specific proportion of the focus for the measures proposed. This encompasses a set of objectives for a range of pollutants that the Borough Council monitors annually. The Public Realm measures, and wider traffic management, will directly support the reduction in pollutants related to vehicular traffic within the area. There will also be wider environmental benefits in terms of noise, townscape and protection of historic assets within the town centre.
- 2.12.5 The package of measures has also been designed with specific links to future outcomes of the Local Plan process and the One Public Estate programme. The growth outlined within the draft Local Plan will have specific focus on the former A6 corridors, in particular to the north of Bedford, and so the measures outlined within this Town Centre Strategy will deliver an initial level of provision to facilitate this future growth. More specifically the proposals around Area 1 A6 Northern Gateway link with a National Productivity Funding bid to enhance accessibility to the north of town.
- 2.12.6 The emerging One Public Estate programme has a specific focus on development and associated infrastructure provision to the west and south of the town. Both elements would extend directly from the core measures proposed within this Town Centre Strategy, with potential public realm measures around Midland Road linking to the proposals for the High Street and St. Paul’s Square in a holistic manner. Similarly

potential enhancements around the Kingsway Gyrotory would extend from the improvements to St. Mary's Street, providing a fully integrated package of measures.

2.12.7 The Southern gateway corridor is a mixed use linear routes with a range of uses including residential, employment, shops, leisure and community uses. The proposed improvements to the transport network will reduce the adverse impact of traffic bringing wider aspirational benefits to the cycling and walking network, as well as the local neighbourhood.

Summary of issues identified and development of the strategy objectives

2.12.8 Based on the evidence base, consideration of best practice, issues raised by stakeholders and an examination of Council priorities, the following four key overarching issues to address were identified as:

- High traffic flows along the High Street and narrow pavement widths creating an unwelcoming environment for pedestrians that has had a clear demonstrable impact upon the value of retail property along this street.
- Lack of connectivity, permeability and legibility on the western and south-western sides of the town centre between the retail quarter and cultural quarter and River.
- Identified pinch-points across the town highway network that create specific uncertainty in journey times
- An absence of a functional traffic management system for the town to respond to incidences and inform travellers of congestion and delays

2.12.9 In response to the identification of these overarching issues to address, the Town Centre Transport Strategy development process established a set of ten strategic objectives that encompass the combined aims of the strategy. These remain the objectives against which the package of measures has been developed:

- TSO1 Support the heritage, cultural and economic regeneration in the town centre through enhanced access and improved town centre permeability.
- TSO2 Manage vehicular activity in the core town centre, in particular through movements, to enhance the pedestrian retail, night-time, and visitor economy experience, whilst ensuring adequate town centre access for traders, freight, public transport and taxis and to car parks.
- TSO3 Facilitate efficient cross town and end-to-end corridor movements, for all transport modes, through strategic routings, reduced congestion at network pinch-points and improved infrastructure provision
- TSO4 Enhance strategic links to the town to secure the long term position of Bedford as a regional centre, whilst reducing the volume and impact of through vehicular traffic movements that could otherwise utilise the town ring road.
- TSO5 Provide network resilience, across all modes, that accommodates forecast growth associated with future development aspirations of the town and changes to population demographics.
- TSO6 Create a safe and secure environment for all transport users, taking particular account the needs of vulnerable users, and reduce conflicts between vehicular and non-vehicular transport movements.
- TSO7 Manage the environmental impacts of transport, in particular within the air quality management area, and promote sustainable modes of travel.

- TSO8 Proactively manage access to health and educational facilities, including hospital sites, schools, the college and the university, in order to make best use of transport network capacity.
- TSO9 Create a coherent 'sense of place' across the town quarters, ensuring clear vehicular and non-vehicular way-finding leading into and around the town centre, with a particular focus on ensuring connectivity with the river and the rail station.
- TSO10 Ensure inclusive, resilient, long-term, and low maintenance design of transport infrastructure and operational services.

2.12.10 These ten objectives form the basis against which the package of scheme measures are evaluated. To ensure an evidence-based approach an associated set of metrics have been developed for each objective and are presented in Table 3

2.13 Developing the objectives: from scope to options

2.13.1 The original project to build Batts Ford Bridge and supplement this with some public realm improvements was developed as a response to Bedford town centre's historic transport problems with an expectation that growth would continue at previously identified levels. The construction of Batts Ford Bridge was in a sense completing a transportation plan which had initially been proposed in the 1950s. However, four critical factors began to emerge as investigations continued,

- The affordability of the project given that the awarded funding was significantly lower than the bid
- The growth and development context shifted significantly (OPE, additional local plan growth)
- The use of technology regulate traffic movements and management on an area wider basis was becoming affordable and widespread
- Changing public expectations and behaviours leading to a requirement that infrastructure (highways and public spaces) is accessible and adaptable

2.13.2 These factors guided the project to look at a wider outcome based programme that could deliver benefits across the town and facilitate levels of growth and movement based on the changing context. The Council had to redesign the project away from a single (unaffordable) piece of infrastructure with supplementary small scale improvements to a scheme which could deliver a range of benefits across all user groups and enable the town to cater for increased future demand.

2.13.3 Similarly, benchmarking with similar towns suggested that investment in the town centre public realm would improve footfall and dwell time. Coupled with detrafficking of the core heritage area, this would encourage inward investment and retention of existing businesses.

2.13.4 The evolution of the (predominantly) single scheme into a three themed approach was considered to provide a solution which would cater for and manage demand at all stages of potential journeys and cater for current and future demand. Improvements for all modes and enhanced public realm has the potential to discourage car use, improved capacity at key pinch points will ease congestion for essential travellers, and use of technology in highway infrastructure will manage demand and minimise the adverse impacts of congestion on residents and visitors.

2.13.5 The focus of the full package of schemes measures encompasses the core town centre along with the former A6 corridors to the north and south of the town (as shown in Figure 1 in Section 2). In particular, this represents the initial focus for the enhanced

UTMC and technology measures to optimise the operating of the network and provide real-time information.

2.13.6 The specific infrastructure measures are focussed around five sub-areas:

- Town Centre – High Street / St. Paul’s Square / St. Mary’s Street
- Area 1: A6 Northern Gateway – Clapham Road / Manton Lane
- Area 2: Bromham Road Eastern Gateway – Bromham Road / Shakespeare Road / Ashburnham Road
- Area 3: Around Hospital – Britannia Road / Ampthill Road
- Area 4: Southern Gateway – Ampthill Road

2.13.7 Taking account of local priorities, and available resources the scope aligns directly with the wider vision for Bedford encompassing development to the west, north and south of the town centre area.

2.14 Constraints

2.14.1 No specific constraints have been identified to delivering the scheme measures identified. As the highway authority, the Council has powers through various Highways Acts to deliver improvements to the highway. Other constraints such as the requirement for planning permission or railway possessions have been included in the risk register.

2.14.2 The potential constraints of the scheme are mostly related to its complexity and the multi strand nature of delivery. The three themed approach, the extent of the geographical locations, and the prolonged timeframe (3 years) require that planning and monitoring will be kept under constant review.

2.14.3 Other developments and works within the town will have to be integrated into the project plan. These include the major bridge works being carried out by Network Rail on the town’s two railway bridges within the delivery timeframe of the project. These works will have an adverse impact on congestion in the town as bridges are closed for up to 20 weeks at a time, and as such, the works associated with the TCS will have to demonstrate the ability to be flexible if there are delays to the bridge works.

2.14.4 Most of the powers needed to deliver highway and public realm works are contained within the Highway Acts, and the approvals process is not expected to be problematic. However, where public consultation is required, this will have to be programmed in and delivered within the set timeframe.

2.14.5 Working within the town centre is a constraint in itself because of the multiplicity of uses, users and the built environment. Any construction disruption to the highway or public realm will have an impact on visitors, travellers and businesses, all of which will be set within a relatively long timeframe. Construction Management Plans will need to demonstrate that the adverse impacts of disruption have been taken into account.

2.14.6 The town centre is an historic environment and any works will have to demonstrate sensitivity and potential improvement to the urban fabric. It is also part of a designated Air Quality Management Area and any changes to the way traffic moves around will have to address this.

2.15 Interdependencies

2.15.1 The TCS is a stand-alone project which can be delivered independently of any other projects within the town. Its objectives and outcomes are strong enough to deliver

benefits without further interventions. However, it is complemented by other initiatives which may come forward within or beyond the same timeframe, most notably, those mentioned in section 2.2 of the Strategic Case, which will continue to deliver the benefits set out in the Economic Case.

- 2.15.2 In addition to these ongoing contextual initiatives, the Council continues to seek funding and approvals for further developments to improve infrastructure and public realm in Bedford. One example is through the Housing Infrastructure Fund by which the Council has bid for around £30m of public money to bring forward high density development to the west of the railway station. This level of investment is required because the highway intervention requires the demolition and rebuild of a Victorian railway bridge in order to construction a new intersection.
- 2.15.3 Should this scheme come forward there will be interdependencies that will need to be managed, particularly in relation to procurement and availability of contractors, requirements for design resource and timetabling of works so that appropriate diversionary routes are available when the highway improvements are under construction. These interdependencies have been considered in the risk register appended to the Management Case.
- 2.15.4 Consultation on the Masterplan stage of the OPE programme ([One Public Estate](#)) has recently closed. The OPE programme sets out the three areas in Bedford where major regeneration is proposed. All three areas are independent of the TCS but the benefits of both programmes are interlinked. The infrastructure associated with the OPE programme will deliver similar interventions as the TCS particularly at key pinch points (Midland Rd / Prebend Street, Wilmer's Corner, and the Station Quarter) and public realm improvements. The extent of the Area 1 – Northern Gateway scheme measures have been revised following the successful outcome of the Borough Councils National Productivity Infrastructure Fund bid as announced by DfT in October 2017. The successful NPIF bid w permits the wider improvements across the Paula Radcliffe Way /Great Ouse Way and Manton Lane/Brickhill Drive junctions.
- 2.15.5 There is also the potential to tie in to any future improvement scheme promoted by Highways England at the A421 / A6 junction. In recognition of the potential movements between the Wixams / Wilstead and Bedford and the employment opportunities therein, Highways England is investigating the provision of signals at the A6/ A421 junction to aid non-motorised movements across the busy trunk / local slip road. Although there is no definitive proposal in place, investigations into the feasibility of a scheme have been carried out and are likely to move forward.

2.16 Risks

- 2.16.1 Project risk will be managed as an ongoing process as part of the scheme governance structure, as set out in The Management Case Section of this business case. A scheme risk register has been established and will be reviewed as a standing item at each of the two weekly Project Board meetings. Responsibility for the risk register being maintained is held by BBC's Technical Project Manager in conjunction with the Project Steering Group and is reported to the Project Board in the form of checkpoint reports.
- 2.16.2 Any high residual impact risks are then identified on the highlight report for discussion at the Programme Board meeting. Required mitigation measures are discussed and agreed at the meeting and actioned by The Technical Project Manager and Steering Group as appropriate.

- 2.16.3 In the Commercial and Management Case Section of this business case report, the experience of BBC’s staff has been highlighted in terms of delivering major transport schemes effectively and with little adverse effect. In order to achieve successful delivery of major schemes, management policies, processes and procedures are required to be followed accurately. An important aspect of the management process is identifying risks associated with scheme delivery and funding early in the process to allow mitigation to be identified.
- 2.16.4 Risk workshops will be held prior to each design, procurement, mobilisation and construction stage as identified in Appendix 1 (Project Plan) of the Commercial and Management Case Section.
- 2.16.5 Risks that are best managed by the contractor will be allocated to be priced by the contractor accordingly. Risks best managed by BBC will be retained, so will be excluded from the contract(s).
- 2.16.6 A series of Risk workshops will be undertaken over the course of the project, with results compiled into the Risk Register included in Appendix 2 of the Commercial and Management Case Section. Risks are assessed on their likelihood and their severity, both with and without mitigation.
- 2.16.7 An initial Risk Assessment that has been carried out by the Steering Group and discussed by the Project Board to produce the Risk Register shown in Appendix 2 of the Commercial and Management Case Section. The initial Risk Assessment is to be used to develop a Quantitative Risk Assessment as part of the finalisation of the business case which will include an @risk mathematical model to produce a Monte Carlo simulation of the risk ‘costs’.
- 2.16.8 The initial Risk Assessment work has identified a total of 99 general project related and theme specific risks. A summary of the initial risk assessment is shown in the table below:

Table 4. Summary of Initial Risk Assessments

Risk Assessment Summary November 2017	Red (Critical)	Amber (Intermediate)	Green (Minor)	Mitigated (Closed)
Risk Category				
Economic / Financial/ Management	0	4	7	1
Stakeholder Management / Consultation	2	4	12	0
Statutory / Legal	0	1	0	0
Strategic / Political / Policy	0	0	3	0
Design / Technical / Preparatory	1	4	19	0
Procurement	0	3	4	0
Construction	0	11	18	0
Environmental	0	4	1	0

- 2.16.9 The three critical risks identified at the initial stage are as follows:
 - That the Network Rail works at Bromham Road delayed impacting upon the project plan
 - Engagement with Network Rail for Cowbridge Scheme
 - Detailed design of Bridge works for the Cowbridge Scheme.
- 2.16.10 In order to provide early mitigation of these critical risks High level discussions have been taking place between BBC and Network Rail over the Autumn of 2017 to clarify the requirements of each party. Additional Structural Design Engineers have also been recruited to the BBC design team to provide sufficient resource to deliver the relevant infrastructure improvements.
- 2.16.11 Other notable risks relating to the project are listed below and set out in more detail in the risk register.
 - Phasing of delivery to ensure traffic management tools are in situ prior to implementation of public realm scheme;
 - Coherent delivery with other town centre programmes; and
 - Resilience of technology.
- 2.16.12 An initial risk management strategy is presented within the ‘Management Case’, the risk management strategy was updated in March 2018, with the publication of a briefing note.

2.17 Options

- 2.17.1 The whole town centre transport strategy development process has gone through a detailed optioneering and sifting process, leading to further scheme option development and appraisal, prior to a package development & appraisal process. This then led to the identification of a combined package of scheme measures. This whole process has been undertaken applying the set of objectives outlined in Section 2.8 above, which were identified at the outset of the strategy development process and have remained the key overarching objectives for enhancing access and movement across the town.
- 2.17.2 A total of 213 scheme measures were initially identified and subject to an initial sifting process. This is outlined within the ‘Options Screening and Assessment’ report. Subsequent high-performing scheme measures were developed and then combined into packages of measures. This process initially identified three high-level packages, including on based around the proposed bridge alignment at Batts Ford (included within the initial LGF2 bid).
- 2.17.3 As detailed earlier, the Batt’s Ford bridge scheme was subsequently identified as being unaffordable; however, the public realm elements in the town centre were still recognised as a strongly performing measures. Combined with the best-performing pinch-point schemes and the measures from the LGF3 bid, these elements have been identified as the preferred package of measures that deliver against the original town centre transport strategy objectives and offer both high value for money and are deliverable.

2.18 Fit with SEMLEP strategic objectives and wider Government objectives

- 2.18.1 In section 2.1, the report made reference to the fact that SEMLEP objectives were a crucial measure for the scheme’s key deliverables and outcomes. As an additional

measure of the scheme’s strategic fit, it has been assessed against SEMLEP’s strategic objectives, and national initiatives and policy direction. The overarching SEMLEP Strategic Objectives are set out in Table 5 below.

Table 5. SEMLEP Objectives

OBJECTIVE	DESCRIPTION
Objective 1	Stimulating enterprise and enhancing the competitiveness of SMEs.
Objective 2	Strengthening and exploiting our innovation and knowledge assets.
Objective 3	Support new and existing businesses to export their goods and services.
Objective 4	Attracting domestic and international investments.
Objective 5	Developing a skilled and adaptable workforce.
Objective 6	Addressing barriers to the labour market for disadvantaged groups.
Objective 7	Delivering infrastructure to accelerate sustainable growth in jobs, housing and investment in town centres.
Objective 8	Securing long term and on-going funding to deliver the infrastructure plan.
Objective 9	Unlock and accelerate the delivery of housing

2.18.2 The set of measures promoted by this project supports the following SEMLEP strategic objectives.

Objective 1: Stimulating enterprise and enhancing the competitiveness of SMEs

2.18.3 Enhancing the town centre public realm will increase pedestrian footfall creating additional opportunities for enterprising retailers

2.18.4 Reliable journey times can lead to increased confidence for local businesses. Similarly, the local shopping environment can become more attractive if the adverse impact of stacking traffic is removed.

Objective 4: Attracting domestic and international investments

2.18.5 Enhancing the town centre public realm will increase the attractiveness of the centre for investment

2.18.6 Reliability of journey time into Bedford from the strategic road network, and clear and effective information are critical for business visitors.

Objective 7: Delivering infrastructure to accelerate sustainable growth in jobs, housing and investment in town centres

2.18.7 Enhancing the town centre public realm will create an environment that will increase confidence in investing within the town centre.

2.18.8 Improved infrastructure at local pinch points will increase confidence in the business and commercial sector, and allow planned and future developments to come forward

sooner rather than later because of increased viability of planned and future developments. The corridor leads directly into the town centre but is currently categorised as a local centre in its own right.

Objective 8: Securing long term and on-going funding to deliver the infrastructure plan

- 2.18.9 The scheme supports the delivery of the Infrastructure Investment Plan by improving links to major residential development areas, including Wixams, and major employment areas such as Medbury Farm, Bell Farm, Wixams and west of B530 Kempston.

Objective 9: unlock and accelerate the delivery of housing

- 2.18.10 Planning permission for housing exists along the Southern Gateway corridor but has not yet come forward for development. The scheme will increase the viability of the outstanding site by removing the requirement for highway improvements. In terms of the wider Government policies and strategies the scheme supports the growth agenda and fits within the initiatives described below

- National Infrastructure Commission (NIC) Growth Corridor. This strategy aims to maximise the potential of the Cambridge – Milton Keynes – Oxford corridor as a single, knowledge-intensive cluster that competes on a global stage, protecting the area's high quality environment, and securing the homes and jobs that the area needs. Bedford sits at the heart of this corridor and the scheme will facilitate growth across the town to facilitate access and movement.
- Oxford – Cambridge expressway. As part of the NIC Growth Corridor, the Oxford – Cambridge Expressway has been identified as a key major new transport requirement. The Bedford Southern Gateway scheme provides a direct link from the proposed Expressway into Bedford town centre, fulfilling a key Highways England route strategy objective.
- Improvements to cycling and walking infrastructure. The above scheme ties in with the Government's Cycling and Walking Investment Strategy which sets out a long term vision for walking and cycling to 2040, the aim being to make cycling and walking the norm for short journeys. The strategy will be progressed through a series of 5 year strategies.
- Development of technology and innovation. Intelligent Mobility is a key objective of the Government's Transport Catapult. The concept is about taking a different approach to transport challenges by using technology to enable the smarter and more efficient movement of people and goods.

- 2.18.11 As an additional test of local policy fit, Table 6 **Error! Reference source not found.** demonstrates the additional benefits as a result of combining both schemes. In addition to benefits for greater numbers of residents and visitors, the combined project has more wide reaching benefits, for example, technological opportunities, and environmental enhancements. The potential for additional investment is greater because more service areas are included within the project scope.

Table 6. Enhanced Benefits of Combined Schemes

ORIGINAL SCHEME OBJECTIVES		ENHANCED BENEFITS
Local Growth Fund 2	Local Growth Fund 3	Combined project
Decongestion for Bedford Town Centre	Improve journey time reliability Respond to demand pressure	Three themed approach targets interrelated issues rather than a single focus Potential for additionality is greater because project includes more spheres of influence for public and private sector investment
Improve other pinch points New river crossing Gateway treatments, improved signage	Improve key junction for all users	Focus on key pinch points, and development of technology infrastructure allows benefits to be spread over a wider geographical area, potentially benefiting more users Increased number of roads and junctions are improved than with individual schemes
	Improve technology and integration between signals and junctions to provide a linked signalled route	Provides the opportunity to build a digital platform and accommodate future technology developments Enables development of 'Mobility as a Service'
De-traffic High Street Improve public realm Provide new public spaces Enhance THI project and historic character		Builds on benefits provided by other initiatives (e.g. Bedford Western Bypass, Townscape Heritage Initiative, Riverside Bedford, Harpur Centre upgrade, local improvements) Provide new focal point to encourage dwell time and inward investment
Retention of existing businesses	Improve access to the SRN Enable development opportunities to be brought forward Improve access and reduce delays at key retail areas Remove constraints to development	Improves access more retail, employment and residential land within and adjacent to the key project areas Loses none of the benefits of the single schemes in terms of indirect and direct benefits to jobs and housing
Encourage pedestrian movement	Minimise impact of traffic on communities Improve air quality Reduce casualty	Increased benefits for non-vehicular transport modes COX/ NOX improvements are spread over a wider area particularly in relation to the designated Air Quality Management Area
Improve accessibility and connectivity	Encourage modal choice	Improved facilities for all transport modes Alleviate real and perceived blockages at pinch points

2.19 Measures of Success

2.19.1 In addition, the Pedestrian Environmental Review System (PERS) audit work, and associated valuing of the urban realm, along with the outputs from the strategic and local junction modelling exercises, have identified that the package of scheme measures will deliver significant enhancements to the value of the town centre, as well as improvements to journey time reliability across the wider A6 corridors.

2.19.2 In order to measure whether the scheme objectives set out above have been met, a series of specific; measurable; achievable; realistic and time-bound targets have been derived. Possible metrics are set out in Table 7 while Table 8 shows how these can be measured.

Table 7. Metrics

OBJECTIVE	METRICS
TS01	Journey times (all modes); accessibility and permeability (PERs audit); rateable values of retail properties
TS02	Town centre vehicle kms, town centre vehicles speeds
TS03	Journey times
TS04	strategic public transport services (rail routes/services; bus network kms); through traffic vehicle-trips within town centre cordon
TS05	Transport network capacity
TS06	Accident levels; security (PERS audit)
TS07	Town centre vehicle-kms;
TS08	accessibility contours to sites
TS09	qualitative assessment of design and signage (PERS audit)
TS10	qualitative assessment of design

Table 8. Measures of Success

OBJECTIVE	TARGETS
TS01 (Regeneration)	5% reduction in peak hour journey times (all modes) +2 points for PERS rating for Permeability 25% increase in rateable values
TS02 (Town Centre Traffic)	5% reduction in town centre vehicle kms 15% reduction in High Street average speeds
TS03 (Cross-town movements)	5% reduction in peak hour journey times (all modes)
TS04 (Strategic links)	5% increase in bus service levels 5% reduction in through traffic
TS05 (Network resilience)	10% increase in transport operating capacity
TS06 (Safety & Security)	10% reduction in accident levels +2 points for PERS rating for Security
TS07 (Environment)	5% reduction in town centre vehicle kms
TS08 (Access to health & education)	5% reduction in access times

TS09 (Sense of Place)	+2 points for PERS rating for Quality of Environment
TS10 (Design)	Design review

2.19.3 A full monitoring and evaluation plan which encompasses SEMLEP's requirements in is included within 'The Management Case'.

Appendix A – NI 178 Data 2017 / 18

C14 (NI 178) Bus Services Running on Time - Bedford 2017/18														TARGET		80%			
ORIGIN	APR	MAY	JUN	QTR 1	JUL	AUG	SEP	QTR2	QTR1 & 2 Cumulative	OCT	NOV	DEC	QTR 3	QTR 1,2,3 Cumulative	JAN	FEB	MAR	QTR 4	ANNUAL TOTAL
Early	66	145	178	389	81	120		201	590	0	0	0	0	590	0	0	0	0	590
On Time	5,260	7,813	8,385	21,458	6,845	8,072		14,917	36,375	0	0	0	0	36,375	0	0	0	0	36,375
Late	613	1,156	1,177	2,946	731	1,796		2,527	5,473	0	0	0	0	5,473	0	0	0	0	5,473
Compliance	88.57%	85.73%	86.09%	86.55%	89.40%	80.82%		84.54%	85.71%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	85.71%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	85.71%
TIMING POINT	APR	MAY	JUN	QTR 1	JUL	AUG	SEP	QTR2	QTR1 & 2 Cumulative	OCT	NOV	DEC	QTR 3	QTR 1,2,3 Cumulative	JAN	FEB	MAR	QTR 4	ANNUAL TOTAL
Early	361	555	533	1,449	484	445		929	2,378	0	0	0	0	2,378	0	0	0	0	2,378
On Time	7,709	11,626	12,619	31,954	10,349	12,455		22,804	54,758	0	0	0	0	54,758	0	0	0	0	54,758
Late	1,834	3,491	3,705	9,030	2,500	4,824		7,324	16,354	0	0	0	0	16,354	0	0	0	0	16,354
Compliance	77.84%	74.18%	74.86%	75.30%	77.62%	70.27%		73.43%	74.51%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	74.51%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	74.51%
NI 178	APR	MAY	JUN	QTR 1	JUL	AUG	SEP	QTR2	QTR1 & 2 Cumulative	OCT	NOV	DEC	QTR 3	QTR 1,2,3 Cumulative	JAN	FEB	MAR	QTR 4	ANNUAL TOTAL
Total	15,943	24,786	26,597	67,225	20,990	0	27,712	48,702	115,938	0	0	0	0	115,938	0	0	0	0	115,938
On Time	12,969	19,439	21,004	53,412	17,194	0	20,527	37,721	91,133	0	0	0	0	91,133	0	0	0	0	91,133
2017/18	81.86%	78.43%	78.97%	79.46%	81.92%		74.07%	77.45%	78.61%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	78.61%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	78.61%
2016/17	77.99%	77.38%	78.70%	78.00%	81.78%		71.53%	76.58%	77.62%	78.56%	71.43%	70.28%	73.39%	76.04%	79.00%	78.95%	79.51%	75.19%	77.04%
Year on Year % Change	3.87%	1.05%	0.27%	1.49%	0.14%		2.54%	0.48%	0.99%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	2.57%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	1.57%

NOTES: A

A No data for August as NI is measured during term time only

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The SYSTRA logo is rendered in a bold, red, sans-serif typeface. The letters are thick and closely spaced, with a distinctive design where the 'S' and 'Y' are connected at the top, and the 'T' has a unique, slightly curved top bar. The overall appearance is modern and professional.

FULL BUSINESS CASE (FINANCIAL CASE)



TRANSPORTING BEDFORD 2020

FULL BUSINESS CASE

IDENTIFICATION TABLE

Client/Project owner	Bedford Borough Council
Project	Transporting Bedford 2020
Study	Full Business Case
Type of document	Report
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File name	Business Case Report (Financial Case).docx
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APPROVAL

Version	Name		Position	Date	Modifications
1	Author	J Bunney	SYSTRA	22/09/17	First submission
	Checked by	B Hayward	PM	26/09/17	
	Approved by	M MacLeod	MfTP	28/09/17	
2	Author	B Hayward	PM	16/10/17	<ul style="list-style-type: none"> a) Table 1 individual elements costs changed b) Section 1.7.2 BBC funds c) Table 3 amended d) 1.2.6 NPIF e) 1.4.2 signpost to risk register f) 1.5.1 optimism bias
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4	Author	B Hayward	PM	13/11/17	Costs in S1.4 & 1.6 amended based on QRA
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	Approved by	M MacLeod	MfTP	13/11/17	

5	Author	B Hayward	PM	15/03/18	Title Sections 1.7.4. & 1.7.5 updated to confirm BBC funding contribution.
	Checked by	B Hayward	PM	15/03/18	
	Approved by	M MacLeod	MfTP	15/03/18	

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1. THE FINANCIAL CASE

1.1 Introduction

1.1.1 This section of the report presents the Financial Case for the Bedford Town Centre Strategy package of measures. It concentrates on the affordability of the proposals, the funding arrangements and technical accounting issues. The total outturn costs and expenditure profile are presented, along with an assessment of the impact on public accounts.

1.1.2 The Financial Case for the identified package of measures is based on long-standing and significant levels of scheme optioneering and development. This has led to the identification, and costing, of a preferred package of measures as part of an on-going vision to develop the accessibility and attractiveness of the town centre. The proposed funding arrangements are set out and described, including the Local Growth Fund allocation and local contributions.

1.1.3 The full scheme cost was last updated in September 2017.

1.2 Base Costs

1.2.1 Table 8 shows that the base cost estimate for the package of measures is just over £15m. The overall cost estimate is based on individual assessments of scheme costs undertaken across the last 2 years and recently reviewed by SYSTRA in September 2017. They are considered by both SYSTRA and BBC to be up-to-date, robust and complete.

1.2.2 The public realm surfacing costs have been developed by understanding the physical scale of the overall measures and applying outturn unit cost rates based upon an understanding of the palette of materials to be applied. Additional assessments of cost to declutter the street environment and replace with high quality street furniture have been undertaken, alongside the provision of way-finding infrastructure.

1.2.3 Outline scheme costings have been produced for each of the 'Alleviating Pinch-point schemes' based upon a detailed bill of quantities and applying a set of standard construction rates (LoHAC), covering:

- Site clearance;
- Fencing;
- Drainage and service ducts;
- Earthworks;
- Pavement construction;
- Kerbs footways and blocked paved areas;
- Signs signals and road markings;
- Lighting;
- Electrical work for road lighting and traffic signals;
- Landscaping & ecology;
- Retaining walls;
- Street furniture; and
- Pedestrian footbridge

1.2.4 The UTMC and Technology scheme elements have been developed in partnership with external suppliers to determine the costings for:

- UTMC Common Database;
- UTMC system encompassing the extent of scheme measures;
- Remote Monitoring System;
- CCTV / data integration for Journey Time Management;
- Traffic Data Base and Control Room Equipment;
- Traffic Signal Upgrades across the extent of scheme measures;
- Signing, Information and Publicity Systems;
- Extended coverage of ANPR cameras for enforcement of Bus Lanes; and
- Travel demand support initiative and SMART mobility roadmap.

1.2.5 An overall summary of the basic cost elements, including allowance for preliminaries, traffic management and utilities, is presented within Table 1.

Table 1. Components of Investment

COST ELEMENT	£
Location 1 - High Street (The Broadway to St. Paul's Sq.)	1,046,750
Location 2 – High Street (St. Paul's Square to Town Bridge)	1,115,650
Location 3 – St. Pauls Square (carriageway)	2,047,125
Location 4 – St. Pauls Square (Public Space)	765,850
Location 5 – Silver Street (Public Space)	185,500
Location 6 – St Mary's Street / Cauldwell Street	437,308
THEME 1 SUB TOTAL	5,598,182
Area 1 Clapham Road / Manton Lane*	1,083,538
Area 2 Bromham Road / Shakespeare Road	780,025
Area 3 Britannia Road (around Hospital)	1,417,166
Area 4 Cowbridge (Amphill Road)	1,410,839
THEME 2 SUB TOTAL	4,691,568
UTMC, Traffic Signals and Monitoring Systems	932,000
Signage, Information, and ANPR enforcement	1,208,684
TDM support initiative and SMART Mobility Roadmap	135,000
THEME 3 SUB TOTAL	2,347,684
Utilities	2,649,358
BASIC SCHEME COSTS	15,286,792
*Without NPIF funding	

1.2.6 BBC have been awarded funding under the DfT National Productivity Investment Fund (NPIF) for the 'Bedford Northern Gateway'. This additional funding will facilitate further capacity improvements at and around the Clapham Rd / Manton Lane; Great Ouse Way /Paula Radcliffe Way & the Manton Lane/Brickhill Drive junction in a more comprehensive traffic management scheme. Benefits of the wider NPIF bid aren't included in the analysis for this scheme and the interdependency of the two projects is reflected in the strategic case rather than here in the Financial Case. The delivery of the NPIF project is referenced in the Risk Strategy and the project programme contained within the Business Case (Management Case) section.

1.3 Inflation

1.3.1 An allowance for inflation has been applied to adjust the costs from September 2017 prices to April 2018 prices of @ 1.5% (£221,155).

1.4 Contingencies & Risk

1.4.1 An allowance of £2,910,000 based on the P80 outputs from the Quantitative Risk Assessment has been applied to cover contingencies and risk across all elements of the project delivery.

1.4.2 The QRA has been developed to consider, manage and mitigate risks associated with delivery of the project, including a number of financial risks. LGF funding allocations are time limited to March 2021, which does create a risk if there are delays in delivery of the project. The Business case management case section outlines the robust approach to risk mitigation, delivery programming and monitoring to ensure spend of LFG funds before end of the programme.

1.4.3 An initial risk management strategy is presented within the 'Management Case', the risk management strategy was updated in March 2018, with the publication of a briefing note.

1.5 Optimism Bias

1.5.1 Optimism bias refers to the tendency for scheme promoters to be overly optimistic about scheme costs. DfT WebTAG unit A1.2 sets out the recommended contingency which should be added to the scheme costs. However, in line with HM Treasury guidance document "Early financial cost estimates of infrastructure programmes and projects and the treatment of uncertainty and risk- March 2015" optimism bias should not be included in project funding. The risk-adjusted scheme cost estimate is, therefore, considered robust but will be reviewed as the scheme proceeds. It is applied at 44% (which is obviously high for this stage of a project) but this is considered appropriate as the risk assessment is developed, and the UTMC technology elements of the works package are refined.

1.6 Final Scheme Costs

1.6.1 Table 9 below indicates the costs associated with the proposed scheme including inflation and contingency & risk allowance.

Table 2. Summary of Final Scheme Costs (2018 Q2)

COST ELEMENT	COST (£)
Estimated Basic Scheme Costs	15,286,792
Inflation adjustment to 2019/20	221,155
Contingency & Risk	2,910,000
Total	18,417,947

1.7 Budgets and Funding Cover

1.7.1 The Bedford Town Centre Transport Strategy Scheme is a pipeline scheme planned to be delivered by BBC as part of the South East Midlands Local Enterprise Partnership (SEMLEP) Growth Deal originally agreed between SEMLEP and Government in 2014. A total of £15.5m is currently allocated to the scheme.

1.7.2 An additional £ 2,920,000 will be provided by a combination of BBC Capital budgets and CIL funding held by BBC to delivery the aims of the project. The timing of this funding will be reviewed throughout the programme in accordance with BBC Medium term financial strategy. Funding could continue after 2021 if required. A further £200,000 of funding in 2017/18 has been provided by BBC to allow design work, traffic surveys, baseline monitoring and modelling work to be undertaken.

1.7.3 The total funding for the Bedford Town Centre Transport Strategy scheme is £18,420,000. The total cost is £18,417,947.

1.7.4 At its meeting on 24 January 2017 Bedford Borough Councils Executive resolved to approve the Councils Capital Investment Programme 2017/18 to 2020/21, Draft Prudential Indicators and Minimum Revenue Provision. The Capital Programme included funding to the Transporting Bedford 2020 project in accordance with the business case as submitted to SEMLEP. The full report can be viewed on the Councils website at <http://www.councillorsupport.bedford.gov.uk/ieListDocuments.aspx?CId=116&MId=4518&Ver=4>

1.7.5 The Councils Assistant Chief Executive (Enabling Services) & S151 Officer has confirmed the Councils funding contribution in writing to SEMLEP. A copy of the letter is shown in Appendix 1

1.7.6 The spend profile for the project is shown below in Table 3.

1.7.7 The BBC contribution would be flexible, up to the maximum of £2.300M per annum allocated within the Councils forward capital budget.

1.7.8 LGF funding will be covered by a legal agreement which is expected to be finalised early in 2018.

Table 3. Outturn Spend Profile

	Total	2018/19	2019/20	2020/21
TOTAL	£18,420,000	£3,110,000	£6,710,000	£8,600,000
LGF Funding	£15,500,000	£2,800,000	£6,200,000	£6,500,000
Breakdown of LGF Funding				
LGF3	£4,500,000	£1,500,000	£1,300,000	£1,700,000
LGF2	£11,000,000	£1,300,000	£4,900,000	£4,800,000
BBC Funding	£2,920,000	£310,000	£510,000	£2,100,000

1.8 Whole Life Costs

1.8.1 Future maintenance works associated with the scheme will be added to the maintenance inventory and funded from BBCs maintenance budgets. It is anticipated that the provision of new or upgraded assets (such as drainage system and pavement/footways) could reduce some future maintenance liabilities on BBC. Overall an annual allowance of 1% of the base scheme costs (excluding traffic management, preliminaries, utilities and contingency) have been included to cover any additional maintenance costs. This equates to an undiscounted value of £83,363 pa.

1.9 Financial Risks

1.9.1 The project is conditional on the allocation of LGF monies.

1.9.2 Funding from BBC has been included in the Councils Revised Capital Programme 2017/2018 to 2020/2021, and agreed by the Councils Executive on 20 Sept 2017.

1.9.3 An initial risk management strategy is presented within the 'Management Case', the risk management strategy was updated in March 2018, with the publication of a briefing note. Subject to the availability of the LGF contribution, the financial risks are considered to be low.

1.10 Accounting Implications

1.10.1 The following implications on public accounts are expected:

- Devolved LEP funding of £15.5m (84%) of the scheme costs is requested with expenditure starting in the 2018/19 financial year;
- Maintenance costs will be added to the maintenance inventory and funded from BBC's maintenance budgets; and
- There are no state aid issues to address

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FULL BUSINESS CASE



TRANSPORTING BEDFORD 2020

FULL BUSINESS CASE

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1. THE ECONOMIC CASE

1.1 Introduction

1.1.1 The economic assessment is undertaken to ensure that the full extent of the impact of the scheme on the public account is understood and to ensure that the scheme offers value for money.

1.1.2 The overall package of scheme measures is anticipated to derive a wide range of benefits. Whilst some of the measures will engender traditional transport user benefits (such as junction infrastructure improvements), other elements (such as the High Street enhancements) are being developed to specifically enhance the town centre urban realm, so as to directly benefit the town economy, rather than purely focussing on improving overall journey times. Indeed, for certain parts of the core town centre network the proposed reduction in highway capacity may have some marginal negative impacts upon vehicular traffic, whilst at the same time improving accessibility and journey times for pedestrians.

1.1.3 Furthermore, whilst some of the benefits from the 'UTMC and Technology' package will significantly reduce journey times through enhanced network management, the package is also specifically aimed at enhancing the reliability of the transport network and improve the choices individuals have to travel, without always specifically improving overall journey times on some parts of the network.

1.1.4 This combination of benefits makes this package of measures challenging to appraise and, as such, requires a flexible approach to develop an accurate analysis of the overall impact of the scheme measures. The principles for the assessment are fundamentally based upon the DfT criteria, set out within WebTAG. Standard approaches to assessing transport user impacts have been undertaken applying the outputs from a traditional transport model. Whilst providing valuable insights into the performance of specific infrastructure measures, the modelling software has a variety of limitations for analysing some of the other key impacts of the overall package of measures. To assess some of these other impacts a range of other approaches have been adopted. These specifically include:

- Case study evidence of the impact of UTMC technology upon the efficient use of network capacity, including the potential reduction in congestion and delay
- Transport for London's Valuing Urban Realm Toolkit (VURT) to assess the pedestrian user benefits from enhance public realm
- Bedford property market assessment of rateable values and the rental market for retail units to determine the current variation in values across the town centre and the potential impact of the public realm scheme.

1.1.5 Each element of the benefits assessments process is set out in the sections below.

1.2 Direct Transport User Impacts

1.2.1 A range of elements within the overall package of measures will have a direct impact upon the operation of the transport network and result in potential changes to journey times and the user costs of travel. The 'Theme 2 Pinch-point' schemes are designed to have a positive impact upon available highway capacity to reduce congestion on key parts of the network. The 'Theme 1 Public Realm' measures include variations to the highway network within the core town centre, specifically the High Street, that will also directly impact upon the operation of the highway network. These elements of the overall package of measures have been evaluated within a traditional strategic highway network model.

1.3 Modelling Approach

1.3.1 The direct transport modelling analysis has been undertaken using Bedford Borough Councils Strategic SATURN model. This model offers the capability to assess the network wide impact of the proposed physical infrastructure elements and to determine the impact on the overall operation of the highway network.

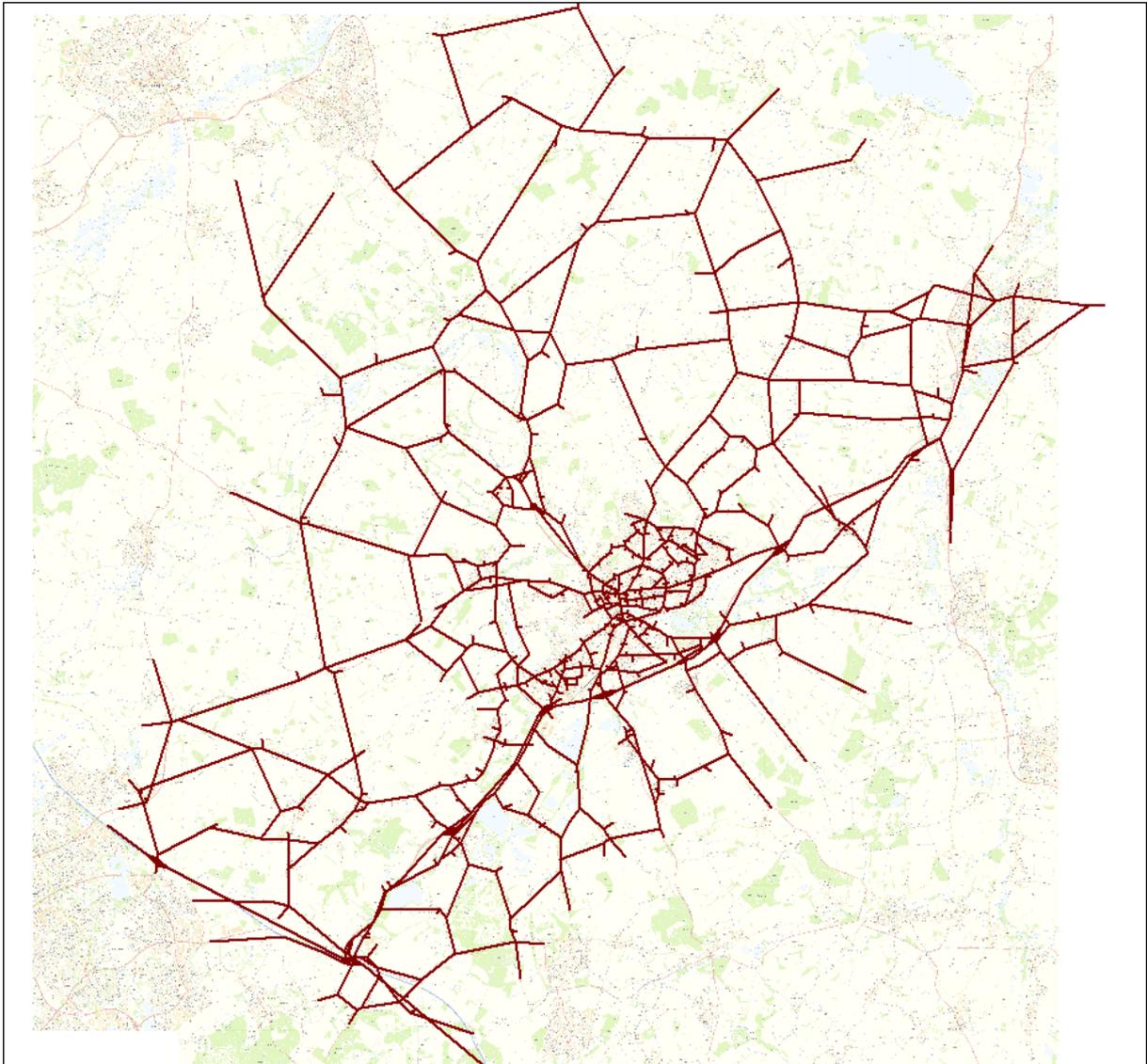
SATURN Model

1.3.2 The baseline SATURN model has the following characteristics:

- 240 zones, including 43 'dummy' zones built into the model for the purpose of forecasting in relation to proposed development locations
- The model represents the AM peak hour (0730-0830), Inter Peak hour (1000-1600 average) and PM peak hour (1700-1800).
- It includes two user classes: light vehicles (cars and light goods vehicles) and heavy goods vehicles

1.3.3 The full network coverage of the SATURN model is provided in **Figure 1 and 2**.

Figure 2. Bedford SATURN Main Study Area Network Coverage



- 1.3.4 The highway assignment model has been calibrated and validated following DMRB's and latest WebTAG guidance. This is fully documented in a Local Model Validation Report (LMVR) produced on behalf of Bedford Borough Council by JMP Consultants Ltd.
- 1.3.5 The original 2011 Bedford Base Year SATURN model was developed and validated in 2012 and covered the urban area of Bedford and the rural area in the north of the Borough. The matrices were created using the existing A421 forecast year 2011 model matrix, St. Neots base year model matrix, the 2001 Census and RSI data. The base year model was validated against 2011 observed traffic flow and journey time data.
- 1.3.6 Additional data was collected and collated in 2014/15 with which to update the model and re-calibrate and re-validate. This data included Manual Classified Counts, Traffic Master Journey Time Data, National Census Journey to Work Data from the 2011 Census, and Bus Route and Timetable Information.

- 1.3.7 Updates to the network structure were made, including node types, capacities, link distances and speed, signal timings, and zone connectors.

Calibration

- 1.3.8 Table 1 provides a summary of the high level of overall calibration achieved for the AM and PM peak models.

Table 1. Overall Calibration Statistics of the Model

MODEL	CORDON	DIRECTION	GEH <5 CALIBRATION	FLOW CALIBRATION
AM	Cordon 1	IN	✓	✓
		OUT	✓	✓
	Cordon 2	IN	✓	✓
		OUT	✓	✓
	A421	IN	✓	✓
		OUT	✓	✓
IP	Cordon 1	IN	✓	✓
		OUT	✓	✓
	Cordon 2	IN	✓	✓
		OUT	x	x
	A421	IN	✓	✓
		OUT	✓	✓
PM	Cordon 1	IN	✓	✓
		OUT	✓	✓
	Cordon 2	IN	✓	✓
		OUT	✓	x
	A421	IN	✓	✓
		OUT	✓	✓

- 1.3.9 The AM peak calibration shows that the matrix estimation ensured that the post ME matrix met the DMRB criteria for both the cordons/A421 and individual links.

- 1.3.10 The Inter peak and PM peak calibration shows that the matrix estimation ensured that the post ME matrix met the DMRB criteria for individual links. The total of the cordons/A421 is just below the 85% criteria, noting that this equates to one of the six values not quite meeting the criteria.

Validation

- 1.3.11 Table 2 presents the outputs of the validation process.

Table 2. Overall Calibration Statistics of the Model

MODEL	SCREENLINE	DIRECTION	GEH <5 CALIBRATION	FLOW CALIBRATION
AM	Screenline 1	NB	X	✓
		SB	✓	✓
	Screenline 2	NB	✓	✓
		SB	✓	✓
IP	Screenline 1	NB	x	X
		SB	✓	✓
	Screenline 2	NB	x	x
		SB	✓	✓
PM	Screenline 1	NB	✓	✓
		SB	x	✓
	Screenline 2	NB	✓	✓
		SB	✓	✓

1.3.12 The AM peak validation results shows that the model meets the GEH criteria overall, almost meeting the criteria for individual links. Conversely the model meets flow criteria for individual links, however the river screenline northbound falls just short of the 5% criteria. Overall it is considered that the AM peak model validates satisfactorily.

1.3.13 The PM peak validation results shows that the model has achieved DMRB flow and GEH criteria for individual links. GEH criteria are satisfied for all screenlines, however the river screenline does not quite meet the 5% flow criteria. Overall it is considered that the PM peak model validates satisfactorily.

1.3.14 The Inter peak validation results show that the model does not perform as well as the AM and PM models. This is considered to be due to the prior matrix construction as an average of AM and PM models, and the reduced traffic data available to inform the model. As such it was concluded that more weight be given to the AM and PM models.

1.3.15 Modelled journey times were compared with the observed journey time data across the 10 routes. Summaries of the overall modelled and observed journey time comparisons for each route are provided in Tables 5.13 to 5.15 for all the time periods. The results are summarised as

- in the AM peak 19 out of 20 routes (95%) satisfy the DMRB journey time validation criteria;
- in the Inter peak all the routes (100%) satisfy the DRMB criteria for journey time validation; and
- in the PM peak 17 out of 20 routes (85%) satisfy the DMRB journey time validation criteria

1.3.16 The LMVR report is provided in support of this submission.

Proportionality of Modelling Approach

- 1.3.17 The Guidance for Technical Project Managers in WebTAG discusses the concept of proportionality in relation to model design. Below is a summary of the salient points in that section that need to be considered.
- 1.3.18 WebTAG sets out appropriate scheme modelling approaches taking into account the circumstances, objectives, and the stage of an appraisal and decision-making process. It discusses the trade-offs between model complexity and constraints on resource, data requirements and expertise. In general, the model design will depend on: the nature of the problem and likely solutions; the size of the study area; the number of options to be tested; data availability; the need to update models and conduct new surveys; timescales for model development; and finally the required accuracy of the recommendations. The previous section has demonstrated the capabilities and robustness of the SATURN model and its appropriateness for use in appraising the scheme.
- 1.3.19 For a standard highway schemes, WebTAG recommends that the potential effects of variable demand (resulting through induced or suppressed demand) are considered. Whilst the package of measures incorporates a range of interventions that impact upon the operation of the highway network, it does not specifically seek to increase physical capacity, rather there is a balance of physical measures, some increasing and some reducing overall highway capacity. Alongside this the 'UTMC and Technology' package seeks to improve the efficiency and reliability of the network, whilst providing the information for people to make informed decisions about the way that they travel. This could engender some changes in mode of travel with the potential for lower levels of private car trips. Due to the intricacies and interrelationships of the physical and technology measures it is challenging to predict the scale of these changes, so for the purposes of the appraisal a conservative approach has been adopted with a fixed highway matrix applied.
- 1.3.20 Whilst the SATURN model covers the AM peak, inter-peak, and PM peak periods, the LMVR highlights that the inter-peak model is, effectively, a hybrid of the AM and PM peak models. Its overall performance is not as strong as either the AM or PM peak models. Given the focus of the proposed highway measures is to mitigate against peak levels of congestion on the network, the impact of the scheme will be less significant in the inter-peak period. It is anticipated that the impact of the reduction of capacity on the High Street and St. Paul's Square will have limited impact with the lower traffic flows during the inter-peak and, similarly, the benefits from the Pinchpoint and UTMC & Technology schemes will also have limited impact. Given the limitations of the inter-peak model is has therefore been concluded that there was limit benefit from utilising this time period and that the direct user impacts of the measures, whilst likely to deliver some benefits, could broadly be considered neutral. This is considered to be a conservative approach.

Adopted Modelling Approach

- 1.3.21 The adopted modelling approach incorporates a fixed highway matrix. Two forecast years have been utilised (2021 and 2032) with the modelling work carried out for two time periods (AM and PM peaks).
- 1.3.22 Model user distance, journey time and cost and costs skims have been exported from the DM and DS models to be fed into DfT's TUBA appraisal software.

1.4 UTMC and Technology Benefits

- 1.4.1 The technology package is considered to be dealing with a greenfield scheme on the basis that the current ITS equipment is fragmented and there has been limited integration to date which has rendered the provision less effective at managing the transport network than it could have been. Furthermore, the equipment has now reached end of life.
- 1.4.2 The benefits of this package of measures will cover a range of outputs and outcomes, including but not limited to: reduced congestion, long-term capacity planning, incident management, improved public transport (reduced delay), improved road safety, reduced fuel consumption and emissions, better assets management and more choice for the general public.
- 1.4.3 For the purpose of this benefit analysis we have assessed one metric, the total level of delay at each of the junctions listed below in the AM and PM peak (junction delay in seconds) in the 2021 baseline model. Local Plan growth rates have been applied to the delay savings to account for underlying growth in vehicle trips across the network.
- 1.4.4 The following junctions will be signalised, or current provision reviewed and upgraded to feed into the Urban Traffic Management and Control (UTMC) system:
- Clapham Road / Manton Lane / Shakespeare Road;
 - Bromham Road / Shakespeare Road / Ashburnham Road;
 - Midland Road / River Street;
 - Bromham Road / Union Street / Greyfriars;
 - Bromham Road / Hassett Street;
 - Dame Alice Street / The Broadway / St Peter's Street / High Street;
 - St Peter's Street / St Cuthbert's Street;
 - St Mary's Street / Cardington Road / St John's Street / Cauldwell Street;
 - Cauldwell Street / Kingsway;
 - Cauldwell Street / Prebend Street;
 - Kempston Road / Britannia Road / Cauldwell Street;
 - Britannia Road / Ampthill Road;
 - Elstow Road / London Road;
 - Elstow Road / Ampthill Road;
 - Ampthill Road / West End / A6;
 - Dame Alice Street / Harpur Street;
 - Tavistock Street / Harpur Street;
 - Ampthill Road (North of Cowbridge) ; and
 - Ampthill Road (South of Cowbridge)
- 1.4.5 The model shows 519 and 413 AM and PM peak hours of delay each weekday.
- 1.4.6 The associated 'Bedford UTMC and Technology Package Note' (submitted in support of this Business Case) sets out a range of benchmarking case studies that establish a range of benefits derived from these types of schemes. Whilst there is relatively limited recent evidence, there are some useful examples that are directly relevant to Bedford, given the

underlying basis that the current traffic management systems in the town are obsolete and so the scheme is, effectively, starting from a position with no underlying system. The evidence base indicates a range of delay reductions between 12% and 30%, with an average of 23%.

1.4.7 This evidence base has been utilised to determine the potential impact of the scheme in reducing delay across the junctions outlined above. A relatively conservative approach has been adopted as follows:

- 17.3% Central Case (75% of the average delay reduction benefits from case study schemes of 23%)
- 23% High (100% of the average delay reduction benefits)
- 11.5% Low (50% of the average delay reduction benefits)

1.4.8 The Central Case represented three quarters of the average benefits derived within the case study examples. In reality, with the continued progression of technological systems, it would be anticipated that much higher benefits are likely to be derived up to or exceeding the 30% benefits observed in the scheme in Southampton.

1.4.9 The Central Case journey time savings are forecast to be equivalent to 241 hours across a typical weekday, incorporating two 90 minute peak periods. In reality, the systems should also deliver additional benefits across other time periods in the week through better routing of traffic and phasing of traffic signals.

1.5 VURT Benefits

1.5.1 The package of transport improvements proposed for Bedford includes significant improvements to the public realm in the town centre focused on, but not exclusive to, the High Street. Although not a traditional methodology in transport appraisal, the consideration of wider benefits brought by urban realm improvements is becoming an integral part of the process. Urban realm assessment allows the monetisation of benefits associated with improved journey ambience experienced by pedestrians moving through the area.

1.5.2 This economic benefit can be quantified using the Valuing Urban Realm Toolkit (VURT) methodology developed by Transport for London (TfL). In order to capture the intrinsic value of how users assess enhanced urban realm TfL completed stated preference research to estimate respondents' willingness to pay for improvements to spaces they use. The results of this study have been applied to the Pedestrian Environment Review System (PERS) to allocate a monetary value to individual PERS scores. By completing a PERS audit before and after a scheme is implemented, and using the values proposed by TfL, it is possible to estimate the benefits derived from urban realm improvements.

1.5.3 The TfL methodology is applicable to the Bedford with some modification to accommodate the socio-economic differences between the study area and London. This approach has been chosen because through being based on PERS scores VURT allows an assessment in change in quality of a range of different factors which contribute to the perception of urban realm. This is a more nuanced approach than the simple values per

km of the introduction of seven specific aspects that are listed in the March 2017 WebTAG release.

1.5.4 The VURT methodology relies upon breaking a given area into a section of links and public spaces that can be scored using the PERS. PERS aims to be ‘a systematic process designed to assess the quality of the pedestrian environment within a framework that promotes objectivity’¹. Areas used by pedestrians are assessed on a number of criteria for which a score is generated on scale of -3 to 3. Different criteria are used to assess pedestrian environments, with environments classified as links or spaces being utilised by VURT. Any footway, footpath or highway can be classified as a link, whilst a public space is seen as an area primarily for the public to rest in and enjoy.

1.5.5 The process of using the VURT is as follows:

- Identify links and spaces within study area;
- Complete PERS audit of links and spaces under current conditions;
- Estimate likely PERS scores for each link and space for future scenario on completion of urban realm improvements;
- Establish volumes of pedestrians using each link and space currently;
- Forecast future scenario pedestrian volumes;
- Estimate time spent by pedestrians in study area by estimating average dwell time for spaces or calculating using link length and average walking speed for links;
- Enter current and future PERS scores and pedestrian counts into VURT spreadsheet, which establishes value of change in PERS scores and multiplies by number of pedestrians and time spent in environment to estimate total journey ambience benefit.

1.5.6 To take account of the difference in socio-economic conditions of the study area in comparison to London, the willingness to pay values within the VURT have been adjusted. Gross Disposable Household Income (GDHI) has been used to factor these values. The latest ONS data for 2015, estimates GDHI for London at £25,293 and for Bedford at £19,092². Therefore the forecast benefits have been reduced by 0.75 as per the ratio between these two values.

Pedestrian Environment Reviews System (PERS) Audits

1.5.7 PERS audits were originally conducted across Bedford Town Centre in 2014 by a team of three trained auditors. In 2017, a Principal Urban Designer went back out on site to review and verify the audits specifically for the High Street and St. Paul’s Square. The audit area was broken into four designated ‘links’ and one designated ‘space’. A PERS Audit was completed for each link and space

1.5.8 The Principal Urban Designer subsequently evaluated the proposed public realm scheme enhancements. This concluded that it will deliver an increase in PERS scores by +2 in all aspects for all links, excluding lighting as the maximum benefits attributable to lighting

¹ PERS Handbook Version 2, May 2006, TfL

²<https://www.ons.gov.uk/economy/regionalaccounts/grossdisposablehouseholdincome/bulletins/regionalgrossdisposablehouseholdincomegdhi/2015>

have already been achieved through completion of a DfT Challenge Fund Project to modernise street lighting across Bedford.

Pedestrian Counts

- 1.5.9 The Pedestrian counts were broken up into three sites, with each site breaking the counts up into a number of links and crossing points. These links and crossing points took counts of pedestrians travelling in North and South bound directions, as well as East and West directions, which depends on the orientation of the crossing.
- 1.5.10 The Pedestrian counts took place over a four day period, starting on a Wednesday and ending on a Saturday.
- 1.5.11 Future pedestrian numbers have been estimated by applying the underlying profile of housing growth across the whole of Bedford as a proxy for growth in retail and leisure activity within the town centre. No specific allowance for induced pedestrian trips has been included, albeit that the scheme is envisaged to encourage much higher levels of footfall across the High Street and St. Paul's Square. As such, the pedestrian numbers applied are considered to be conservative in nature.

VURT Method and Assumptions

- 1.5.12 To attain the average daily footfall through a PERS link, the weekly average was first calculated. The method to calculate this was as follows:
- The first two days of the pedestrian counts, were totalled together and divided by two to provide an average. This average is assumed to represent the average daily footfall on any day Monday to Thursday.
 - The third day of pedestrian counts were then totalled and this represented the Friday average footfall.
 - The last day of pedestrian counts that took place on a Saturday, was then totalled and is assumed to also be the Sunday average.
 - Finally, to attain a weekly average, the average footfall for a day Monday to Thursday was multiplied by four to give the four day average footfall. The average for Friday was then combined with this, as is the Saturday and Sunday figure. This gave the weekly average footfall, this was then divided by seven to provide an average daily footfall through a PERS link.
- 1.5.13 For PERS Link 1, the North and Southbound pedestrian counts from Site 1 were used.
- 1.5.14 For PERS Link 2, the North and Southbound pedestrian counts from Site 3 were used.
- 1.5.15 For PERS Link 3, the pedestrian counts from Crossing point 2 in Site 3 were used and then multiplied by 2. This was done as Crossing point 2 is not capturing all of the footfall through Link 3, because many pedestrians may not use Crossing point 2 to enter and exit the square.
- 1.5.16 For PERS Link 5, the pedestrian counts from Crossing point 2 and 3 in Site 2 were used.

- 1.5.17 For PERS Space 2, the Northbound and Southbound count on the western side of the High Street in Site 3 was used. However, when calculating the benefits of a space VURT needs the number of static users and their dwell times within the space. So, the assumption was made that only half of the daily footfall were used to represent static users within the space, with the average dwell time being set to 10 mins.

VURT Appraisal Outputs

- 1.5.18 The TfL VURT 2016 has been updated with July 2017 WebTAG Value of Time Multipliers, GDP Deflators and Discount Factors³. Through combining the PERS scores and estimates of pedestrian footfall, the following user benefits from journey ambience have been estimated from the urban realm in Bedford.

Table 3. Urban Realm Pedestrian Journey Ambience Benefits (2021 in 2010 Prices)

AREA	SINGLE YEAR SCHEME OPENING YEAR BENEFITS
Link 1	£16,475
Link 2	£9,606
Link 3	£18,122
Link 5	£5,563
Space 2	£5,452
Total	£55,219

1.6 Retail Market Benefits

- 1.6.1 A primary aim of the proposed 'Theme 1 Public Realm' package of measures is to re-balance functional space within the heart of the town centre along the High Street and St. Paul's Square, to provide improved permeability for pedestrians and create an enhanced retail and leisure environment, with wider pavements and high quality, safe and secure, urban realm.
- 1.6.2 Some of the direct benefits from this scheme have been measured through the VURT assessment (described in Section 1.5); however, the benefits will extend far beyond these to the underlying value of retail properties within the area. Whilst the VURT tool also provides a mechanism for assessing property values, a set of Bedford specific data is available that provides a direct assessment of the impact of different urban realm context upon the subsequent value for property in the town centre. This is considered to provide a significantly more robust assessment of the impacts in Bedford than the VURT tool.
- 1.6.3 The stakeholder engagement process put forward a hypothesis that there are significant variations in the rateable values for retail outlet across the core town centre. More

³ <https://www.gov.uk/government/publications/webtag-tag-data-book-july-2017>

specifically, the anecdotal evidence indicated that rateable values, and hence rental values, are considerably higher within the heart of the core pedestrianised town centre, than they are on the heavily trafficked High Street.

1.6.4 To test this hypothesis data was obtained from the Business Rate Valuation (<https://www.tax.service.gov.uk/business-rates-find/search>) service. This allows a search of rateable values by categories for different locations. Two separate searches were undertaken for 'Shop & Premises' specifically examining 'Retail Zone A' rates. One search focused upon five properties on the High Street, the other for five properties within the heart of the pedestrianised retail area in Bedford, e.g. at the junction of Silver Street, Harpur Street, Midland Road. The full set of data is presented within **Appendix B**, with the average rateable value for 'Retail Zone A' were as follows:

- High Street = £305/sqm
- Pedestrianised Core = £772/sqm

1.6.5 This demonstrates a significant variation in rateable values, with the average for the 'Pedestrianised Core' over 250% higher. There will clearly be a number of influences over this variation in value; however, fundamentally these areas are very closely, geographically located and the divergence in value can only, ultimately, be driven off the fact that Silver Street, Midland Road, and Harpur Street became part of the core pedestrianised area, and the focus for retail, whereas the High Street has remained primarily a vehicular thoroughfare, with retail a secondary function. Were this dynamic to change, there is no logical reason why the High Street could not develop into a similarly important retail centre over time. Such a change would not be immediate; rather it would develop over time as the High Street became a more prominent locality.

1.6.6 The proposed 'Theme 1 Public Realm' package, whilst not delivering full pedestrianisation, will result in a significant enhancement to the retail environment. As an example, the overall Pedestrian Environmental Review Survey (PERS) scores for the north of the High Street are currently rated at 7. The proposed improvements are forecast to increase this to a score of around 30. This compares to a maximum score for full pedestrianisation of 36. The proposed scheme is, therefore, predicted to improvement the standard of the urban realm to a level the equivalent of 83% of full pedestrianisation.

1.6.7 Applying this factor to differential in rateable values between the High Street and the 'Pedestrianised Core' would suggest the scheme could increase rateable values by up to 211%.

1.6.8 The subsequent challenge is to determine how important a factor the 'quality of the urban realm' is in terms of value placed upon a retail locality, and hence its rateable value. Putting aside the actual quality of the retail property itself (which can clearly vary whatever the locality of the premises), there are undoubtedly a range of other influences upon the rateable value, such as proximity to other retail outlets and facilities that are in the core of the pedestrianised area. It can be argued, however, that all of these could change over time if the central 'gravity' of the town retail core was extended eastwards towards the High Street. The quality of urban realm in creating attractive locations for shoppers to dwell, therefore, becomes a key element. Even so, without any specific

qualitative data with which to determine the importance of public realm, a conservative approach has been undertaken, with the following assumed proportional impact:

- Central Case = 25% of differential impact attributed to Urban Realm
- High Case = 30%
- Low Case = 20%

1.6.9 On the basis of these assumed proportional impacts, the overall assessment of the benefit generated as a result of the 'Theme 1 Public Realm' scheme would be:

- Central Case = 53% uplift in rateable value (183% * 25%)
- High Case = 63% (183% * 30%)
- Low Case = 42% (183% * 20%)

1.6.10 These uplifts have been applied to current average rateable value as follows:

- Central Case = £305/sqm * 53% = £160.89 uplift
- High Case = £305/sqm * 63% = £193.07 uplift
- Low Case = £305/sqm * 42% = £128.71 uplift

1.6.11 These uplifts in rateable value have then been applied to the estimated retail floorspace located in direct contact with the proposed public realm enhancements on the High Street and St. Paul's Square, of around 28,500 sqm. This would generate the following total uplift in rateable values:

- Central Case = £160.89 * 28,500 = £55,023,525
- High Case = £193.07 * 28,500 = £66,028,230
- Low Case = £128.71 * 28,500 = £44,018,820

1.6.12 As discussed above, it is acknowledged that these benefits are unlikely to be engendered immediately as it will both take time for the dynamic of the town centre to change but also there will be existing rental contracts in place. To account for these factors, it has been assumed that the benefits will be realised over the first 5 years, as per the following profile:

- Year 1 Benefits = 10%
- Year 2 = 25%
- Year 3 = 50%
- Year 4 = 75%
- Year 5 = 100%

1.6.13 Evidence suggests that there is strong potential for these uplifts to be achieved, with demand for retail space and evidence of pedestrian growth in the town centre. Latest footfall figures⁴ show a 5.3% increase in town centre footfall in the first six months of 2017 compared to the same period in 2016.

⁴ https://www.bedford.gov.uk/council_and_democracy/council_news/archived_news/july_2017/footfall.aspx

1.7 Appraisal Assumptions

- 1.7.1 The direct transport user benefits related to infrastructure measures have been assessed within the SATURN model, with the outputs extracted into TUBA. The latest 2017 version of TUBA has been applied, with the standard economic factors. This includes the latest Values of Time from the July 2017 WebTAG databook.
- 1.7.2 An annualisation factor of 253 has been applied, capturing the benefits across the standard number of weekdays across a year (52*5 minus 7 bank holidays).
- 1.7.3 All AM and PM benefits and disbenefits have been factored by 1.5 to reflect the observed 90 minute peak periods of traffic flow across Bedford, as documented within the 'Bedford Town Centre Transport Strategy – Report of Surveys (2015)'.
- 1.7.4 All of the measures have been appraised across a 30 year period, reflecting the range of some scheme elements in terms of technology and urban realm improvements. All benefits are discounted to 2010 prices, in line with DfT WebTAG guidance.
- 1.7.5 Development growth forecasting data is available up to 2032 and is set out within 'Bedford Forecasting Report (2015)'. This has been applied within the analysis. Absolute levels of traffic, and journey times, and hence benefits, are assumed to remain constant from 2032 onwards.
- 1.7.6 Public Transport impacts have not been quantified within the appraisal. The package of scheme measures will benefit bus services operating along the former A6 northern and southern gateway corridors, both in the potential to reduce journey times, but explicitly in terms of improving journey time reliability. In the absence of a multi-modal model, it has not been feasible to explicitly examine the impact upon public transport; however, given the improvements will impact both bus passengers and car drivers/passengers, it is not anticipated that there will be any significant mode shift resulting from the package of measures. An assessment of the impact of the measures on public transport provision is included within the qualitative assessment.

1.8 Options Appraised

Reference Scenario

- 1.8.1 A Reference Scenario has been created for both 2021 and 2032 that reflects committed development and the transport highway schemes that will be delivered in isolation of the delivery of the proposed town centre transport strategy package of measures.
- 1.8.2 Details of the future year forecasting are set out within the 'Bedford Forecasting Report (2015)', which sets out the profile of development growth to 2021 and 2032, alongside details of the TRICS-based trip generation process.

Core Scenario

- 1.8.3 The Core Scenario reflects the Reference Scenario but includes the all three elements of the proposed package of scheme measures.

High and Low Scenarios

1.8.4 High and low sensitivity tests have been undertaken to understand the impact of different underlying growth assumptions on the Core Scenario. The details of these sensitivity tests have been described in some of the sections previously but are summarised within Section 1.1. They include:

- a high and low growth assessment (+/- 7.9% for 2021 and +/- 11.5% for 2032)
- a high and low 'UTMC and Technology' impact
- a high and low 'public realm' impact

Construction Impacts

1.8.5 The public realm and highway infrastructure elements of the package of measures will require temporary traffic management measures during the construction phase; however, major works will be timed to co-inside with low levels of traffic or will be very short-term in nature. The implementation of the UTMC and Technology measures will have limited disruption to the operation of the transport network.

1.8.6 The delivery of the package of measures has been phased to ensure the implementation of some UTMC and Technology measures in advance of the highway infrastructure works to ensure the benefits of these systems are in place before major roadworks commence. Furthermore, the infrastructure schemes will be delivered in a manner that minimises the level of disruption to general traffic movements. In regards to the public realm works on the High Street and St. Paul's Square, whilst the works will require reduction in highway capacity, this will be no greater than the final scheme itself.

1.8.7 Overall, any significant negative impact during the construction phase will be very short-term in nature. By phasing the implementation of UTMC measures, the benefits of these schemes will be delivered in advance of any general disruption from highway infrastructure works. Whilst the impacts have not been quantified, there are considered to be very small in nature.

1.9 Appraisal Summary Table

1.9.1 This section sets out the qualitative and quantitative impacts of the transport scheme which will then be used to inform the Value for Money Statement (Section 1.10). The completed Appraisal Summary Table is provided in **Appendix A**.

Economy

Direct User Benefits

1.9.2 The direct user benefits have been forecast through a combination of the outputs from the TUBA model assessment, as well as the separate 'UTMC and Technology' benefits. A summary is provided in the following table.

Table 4. Transport User Benefits (£,000s) Discounted to 2010 prices

USER BENEFIT	TUBA (INFRASTRUCTURE) BENEFIT (£,000)	UTMC & TECHNOLOGY BENEFIT (£,000)	TOTAL BENEFIT (£,000)
Consumer Users (Commuting)	-3,274	8,289	5,015
Consumer Users (Other)	-1,801	4,559	2,728
Business Users and Providers	-1,874	4,745	2,871

1.9.3 The direct user benefits show the overall impact of the package of scheme measures is forecast to have a positive benefit in terms of reducing journey times and vehicle operating costs across the town centre network.

1.9.4 There are, however, a variety of impacts from individual elements of the overall package of measures. The reduction in highway capacity along the High Street and St. Paul's Square is forecast to result in some increases in journey times for certain trip movements. This, though, is part of the wider strategy to minimise the impact of vehicular traffic upon the retail centre, so whilst acting as a disbenefit to private car and freight movements, it offers significant enhancements to pedestrians within the town centre.

1.9.5 The additional 'Alleviating of Pinch-point' and 'UTMC and Technology' packages of measures has been designed to off-set the negative impact of the capacity reduction in the highway and provide more efficient movement of vehicles around the core town centre. The results demonstrate these benefits outweigh the disbenefits to private car and freight movements on the High Street.

Reliability

1.9.6 Journey time reliability is acknowledged as a key issue currently with parts of the Bedford transport network during peak periods. There is very limited contingency within the network meaning it is susceptible to significant delays as a result of relatively minor incidents.

1.9.7 Journey time reliability has been identified as a particularly key issue along the Ampthill Road corridor. Journey time surveys along the corridor indicate significant variation in times. Within the core 1.5km stretch from Cowbridge to Britannia Road, free-flow journey times are around 2.5 minutes. This increases to around 5 minutes on average, but with peak journey times reaching above 7.5 minutes.

1.9.8 In addition, the completion of the Western Bypass has resulted is a change in vehicle movements around the Clapham Road and Manton Lane area, resulting in perceived significant variability in journey times in this area, albeit detailed journey time data is not yet available.

1.9.9 The UTMC and Technology package of measures are aimed not specifically at just reducing journey times but also ensuring a more consistent journey time along the north and south former A6 corridor leading into the town centre during peak periods. The UTMC system

will aim to regulate traffic to provide more consistency, both across the peak periods but also on a day-to-day basis, increasing the resilience of the network. The benefits will accrue not just on the northern and southern approach corridors, but also within the town centre, where traffic flows into the centre can be regulated to avoid peak network congestion.

- 1.9.10 Whilst WebTAG provides a range of mechanisms to quantify these potential benefits, insufficient data on current journey time variability was available to provide a robust assessment of the current standard deviation of journey times across the corridor. No quantified assessment of benefits is, therefore, presented; however, this is considered to be a strong, positive benefit of the package of measures.

Wider Economic Impacts

- 1.9.11 Whilst that the package of measures is focused around transport provision, one of the primary objective is to engender wider economic benefits to the local town economy, focusing upon the retail core, as well as providing wider efficiencies to businesses across the town, including the former A6 northern and southern corridors.
- 1.9.12 The public realm enhancements along the High Street and St. Paul's Square are designed to significantly enhance the pedestrian environment to encourage footfall and enhance the retail economy in this part of the town. Section 1.6 sets out the scale of current differential in retail value between the High Street and the core pedestrianised retail centre of the town. The package of improvements is forecast to deliver equivalent uplifts in rental values within the High Street and St. Paul's Square of around £2.1m pa.
- 1.9.13 These are only the direct benefits to the retail properties on the High Street and St. Paul's Square. In addition, there are likely to be uplifts to other commercial properties in close proximity, such as office premises, albeit the impacts are considered likely to be significantly lower. A key element of the public realm package of measures is to increase permeability and connectivity between the current core retail area and the Cultural Quarter to the south east of the town, as well as connections to the River. This is predicted to deliver multiplier benefits to the economy by creating a more coherent town centre for visitors and so attract greater footfall, and hence economic activity.
- 1.9.14 The direct retail market benefits are, therefore, considered to be a relatively conservative quantitative estimate of the ultimate overall benefits that will be delivered to the town centre economy.
- 1.9.15 The combined package of measures will also directly support a range of short, medium and long-term developments opportunities within the former A6 northern and southern corridors leading into the town centre, as well as at sites at either ends of these corridors. Both corridors are already congested during peak period restricting access to employment and retail sites along the corridor, as well as affecting arterial travel to and from the town centre.
- 1.9.16 The proposed measures will provide some additional capacity but also enhance the efficiency of the network and manage traffic flows to make the most of the existing capacity.
- 1.9.17 Development opportunities that will indirectly benefit within the corridors themselves include:

- The development of an Aldi, DIY Store, light industrial, residential dwellings at the Morrisons and Technology House sites
- 24,500 sqm GFA of employment at Interchange Retail Park
- At the northern end of the corridor there are a wide range of potential development opportunities to the south of the River Great Ouse around Bedford Hospital and the Kingsway Gyratory. This includes a range of public assets that are subject to a One Public Estate bid to regenerate land in this area, with opportunities for residential and commercial development
- At the southern end of the corridor there, along the A6 / B530, there are a number of long-standing residential and commercial development proposals including:
 - 16,000 (all by 2021) sqm GFA employment at Coronation Business Park
 - 124,000 (80,000 by 2021) sqm GFA employment at Medbury Farm
 - Around 7,000 (3,000 by 2021) Residential Dwellings across five sites and over 12,000 (all by 2021) sqm GFA employment at Wixams
 - Access to a new supermarket development off the Great Ouse Way / Paula Radcliffe Way Roundabout

1.9.18 It is also possible that the development of a new settlement north of Bedford, with access from the A6, will have commenced by 2027.

Scheme Revenues

1.9.19 There are no specific revenue streams associated with the package of measures, although the 'Technology' package offers the potential for increased public transport patronage and, hence, associated fare revenue. For the purposes of the appraisal this has been assumed to be neutral.

Social and Distributional Impacts

1.9.20 The social and distributional impacts of the scheme have been considered using guidance set out in WebTAG Units 4.1 and 4.1. An initial screen process was undertaken to identify the potential impacts of both individual scheme elements, as well as the overall package of measures. This identified three social impacts that could be most affected by the highway scheme measures proposed, these are:

- Physical Activity;
- Accidents;
- Severance;
- Journey Quality;
- Security;
- Access to services; and
- Option and non-use values.

1.9.21 The elements of physical activity, security, option value and non-use value, accessibility and personal affordability are considered to have no, or negligible, impact.

Physical Activity

- 1.9.22 The Public Realm enhancements within the core town centre will make the town more permeable with improved east-west connections. This will encourage greater levels of pedestrian activity across the area. The wider UTMC and Technology package will facilitate greater mode choice through enhanced information provision and improved traffic management. This is forecast to deliver a small beneficial impact for this metric.

Accidents

- 1.9.23 The package of measures will offer a range of potential benefits, in terms of accidents savings, through targeted enhancements to the pedestrian with reductions in traffic speeds, as well as improvement management of the wider highway network.
- 1.9.24 The 'Theme 1 Public Realm' package of measures in the High Street and St. Paul's Square will create a greater balance in priorities between vehicular traffic and pedestrian movements. The scheme will reduce the High Street to a single lane, with wider pavements and lower traffic speeds. This is anticipated to engender notable benefits in reducing long term levels of accidents, albeit there is likely to be a period of adjustment to the new highway arrangements where the affects may be neutral in the short term.
- 1.9.25 The public realm scheme will also result in some diversion of traffic onto other routes, potentially increasing the risk of accidents on those routes.
- 1.9.26 Within the original assessment of issues and opportunities, as part of the Bedford Transport Strategy development process, the Ampthill Road corridor was identified as a having the highest level of accidents, As such a number of measures within the package are aimed specifically at reducing the level of accidents across this corridor. These include the Ampthill Road / Britannia Road Junction Enhancement providing, access to Bedford Hospital from the Ampthill Road, as well as the dedicated cycle facilities along the Ampthill Road Corridor.
- 1.9.27 Over the last five years, two serious accidents and 10 slight accidents have been recorded around the Ampthill Road entrance to the Hospital and at least one accident involving a cyclist has occurred along that corridor⁵, giving an average annual accident rate of 3.4 in the area directly impacted by this scheme.
- 1.9.28 Using DfT WebTAG values for serious and slight accident savings (WebTAG databook Table A1.1.3, July 2017), prevention of these accidents through the scheme improvements would translate to an annual benefit of £157,152, in 2010 prices.
- 1.9.29 Overall, the package of measures is forecast to deliver a Present Value of Accident Benefits of £4.198m over 30 years. These results are fed into the Analysis of Monetised Benefits (AMCB) Table as part of the Value for Money Statement (Section 3.6).
- 1.9.30 This analysis has focused on one area of the scheme proposals and has not accounted for any re-distribution in traffic flows across the town centre as a result of the wider highway/UTMC proposals. On some links where additional traffic will occur this may have modest safety disbenefits that have not been calculated.

⁵ www.crashmap.co.uk

Severance

- 1.9.31 Community severance is defined as “the separation of residents from facilities and services they use within their community”. Severance primarily concerns those using non-motorised modes, particularly pedestrians. The WebTAG guidance advises that to ensure a consistent approach, classification should be based on pedestrians only
- 1.9.32 The ‘Theme 1 Public Realm’ scheme will offer significant reduction in east-west severance for pedestrians across the town centre from the east of the town into the heart of the retail area. It will also reduce severance to and from the River, ensuring much greater connectivity across the town.
- 1.9.33 The ‘Theme 2 Alleviating Pinch-point schemes’ and ‘Theme 3 UTMC and Technology’ measures will also provide benefits to pedestrians along the former A6 northern and southern corridors. Enhanced crossing facilities will be incorporated into a number of enhanced junction layouts, as well a SMART technology for pedestrian crossing facilities along the southern gateway corridor.
- 1.9.34 Due to an absence of specific footfall data in some of these locations the direct impact has not be monetised and is presented as a qualitative assessment in the Appraisal Summary Table.

Journey Quality

- 1.9.35 The package of scheme measures will embody two elements of improvement to journey quality:
- Value of Urban Realm Enhancements
 - Traveller stress
- 1.9.36 Section 1.5 has set out the Valuing Urban Realm Toolkit (VURT) assessment that has been undertaken to demonstrate that positive impact of the Theme 1 Public Realm scheme upon the urban environment. The analysis concluded that total pedestrian journey quality benefits associated with the urban realm improvements that will accompany the scheme will be £1,381,383 in discounted 2010 prices.
- 1.9.37 Journey quality is defined within WebTAG Unit 4.1 as “*a measure of the real and perceived physical and social environment experienced while travelling*”. Many of these aspects relate to information provision and perceptions of safety but it also includes aspects relating to traveller stress, defined as “the frustration, fear of accidents and route uncertainty”.
- 1.9.38 The reductions in journey times and improved reliability will contribute a positive benefit for journey quality, by all modes, across the former A6 northern and southern corridor. As has been highlighted within Section 1.4 and 1.9.6 the impacts are anticipated to be significant in terms of reducing uncertainty and so will have a moderate positive impact upon traveller stress. The absence of quantifiable data for these benefits measure they have not been monetised.

Security

- 1.9.39 The Public Realm enhancements will improve levels of safety and security for pedestrians within the High Street and St. Paul's Square, with wider pavements and improved natural surveillance. This is forecast to deliver a small beneficial impact for this metric.

Access to services

- 1.9.40 The Public Realm enhancements will improve the permeability of the core town centre enhancing accessibility to town centre services. In particular, it will improve connections from the east of the town, including the residential areas, into the core pedestrianised centre.
- 1.9.41 The wider package of measures will improve accessibility to services throughout the former A6 northern and southern corridors. This includes the Hospital located at the northern end of the Ampthill Road corridor. The technology package will deliver a range of information and travel demand support initiatives to make it easier for individuals to travel by a range of different modes to access services.
- 1.9.42 These impact area forecast to deliver a moderate beneficial impact for this metric.

Option and non-use values

- 1.9.43 The whole package of measures will deliver improvements to all modes of travel along the former A6 northern and southern corridors. The UTMC and Technology package will include a variety of measures to enhance information provision for travellers helping them to make informed decisions about which travel options to utilise. This is forecast to deliver a small beneficial impact for this metric.

Environmental Impacts

- 1.9.44 The Assessment Matrix from the Design Manual for Roads and Bridges (Volume 11 Section 2 Part 5) has been used to identify seven environmental topics to be reviewed in the Appraisal Summary Table.

Noise

- 1.9.45 An initial scoping exercise has been undertaken to establish an appreciation of the likely noise and vibration consequences associated with the proposed scheme. DMRB Volume 11, Section 3, Part 7 – Noise and Vibration 2011 HD213/11 Revision 1 provides threshold values against which changes in noise due to the project should be compared, and assessed.
- 1.9.46 The assessment considers the impact of changes in traffic flow and speed may have upon noise levels, as well as the extent to which the study area includes noise sensitive receptors, such as dwelling, schools and community facilities. If there is clear evidence that any threshold limits are likely to be exceeded then a detailed assessment will follow.
- 1.9.47 The package of scheme measures encompasses the majority of the core town centre and so potentially affects a wide range of noise sensitive receptors; however, the impacts of

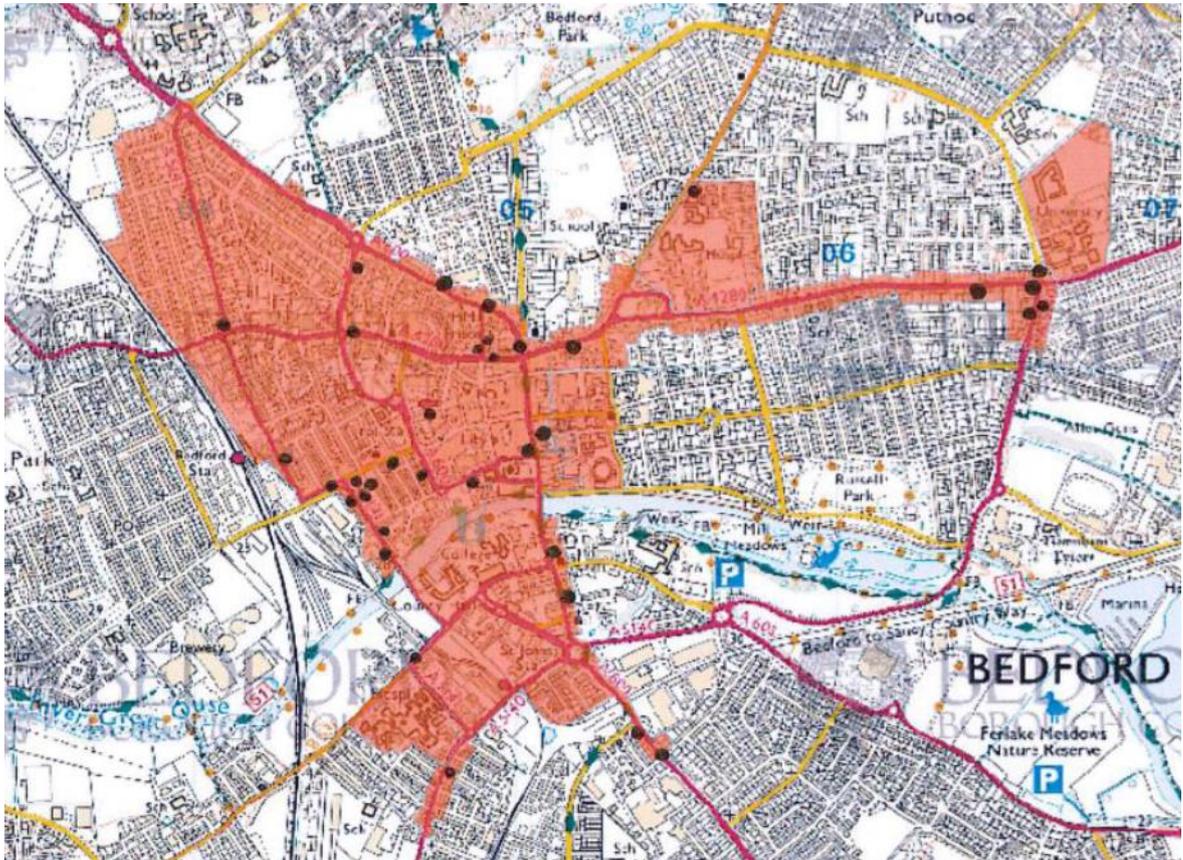
the scheme measures will incorporate some reductions and some increases in traffic flows across the town.

- 1.9.48 A key component of the 'Public Realm' and 'UTMC and Technology' package is to control vehicular speeds both in the core town centre but also the former A6 northern and southern corridors. Whilst the scheme should deliver reduced journey times, this will be through reduced congestion at junctions, without inducing higher speeds on links between junctions.
- 1.9.49 Understanding the potential changes in flows across the town is challenging, as it has not been feasible to model many of the UTMC and Technology measures. The outputs from the SATURN model do demonstrate that the Public Realm scheme along the High Street and St. Paul's Square will discourage traffic volumes along these routes. This, along with reduced speeds, will provide positive benefits in terms of noise reduction to properties all along the High Street and St. Paul's Square.
- 1.9.50 The reduced flows on the High Street will result in diverted traffic on other routes. The model outputs indicate that some of the traffic will instead utilise more strategic routes, such as the Western Bypass and the A421, which is precisely the aim to remove through traffic from the town centre and encourage it to use the bypass routes. The noise implication for these routes is minimal as they are designed to take this form of traffic and are in much less sensitive areas than the core town centre.
- 1.9.51 Some additional traffic is also forecast to utilise Greyfriars and Midland Road as an alternative route. Whilst this is clearly within the built up area of the town centre, in effect, the potential negative impacts on these roads are a direct off-set of the positive benefits engendered by the High Street and St. Paul's Square. Significantly none of the speeds on these routes will exceed the 40km/hr, the level at which the DMRB guidance states that speed has a direct influence upon noise.
- 1.9.52 Given the absence of a complete dataset on future traffic movements, a detailed noise assessment has not been undertaken at this stage; however, the individual scheme elements will be designed with any necessary mitigation measures to minimise the impact upon noise or vibration resulting from the scheme, utilising natural barriers, purpose built environmental barriers and low-noise surfaces, as required.

Air Quality

- 1.9.53 The town centre encompasses an Air Quality Management Area (AQMA), detailed within the figure below.

Figure 3. Bedford Air Quality Management Area



- 1.9.54 The Town Centre AQMA 5 was declared on 6th November 2009. The Environmental Health department carry out air quality monitoring around the Borough to assess the air quality. This includes the use of diffusion tubes, small plastic tubes that absorb pollutants, which are then sent to a laboratory for analysis. The results obtained are monthly averages and are used to give long term trends in levels of pollutants in an area. Real time analysers are also used that accurately measure levels of pollutants in the air constantly. Bedford currently uses 65 diffusion tubes to monitor nitrogen dioxide and two real time analysers to monitor nitrogen dioxide, located on the Prebend Street and Lurke Street.
- 1.9.55 The Council produces annual status report providing an overview of air quality in Bedford Borough during the previous year, fulfilling the requirements of Local Air Quality Management (LAQM) as set out in Part IV of the Environment Act (1995) and the relevant Policy and Technical Guidance documents. The authority also has an Air Quality Action Plan (AQAP) setting out measures it intends to put in place in pursuit of improving air quality within the AQMA.
- 1.9.56 Much of the area that is the focus of the proposed package of scheme measures falls within the AQMA. As such, it is a critical objective that the overall outcomes of the implemented measures will support the requirements of the AQP. The scheme measures have been developed with this firmly in mind. As such, the package does not simply seek to build additional highway capacity that could induce additional vehicular trips into the town centre, and the AQMA, rather is seeks to provide a balance of improvements to both

motorised and non-motorised modes of transport and seeks to encourage sustainable travel through enhanced information and technology provision.

- 1.9.57 The package of measures will clearly deliver specific benefits to individual geographic locations within the town centre, in terms of reduced vehicular traffic and improved air quality. This includes the High Street and St. Paul's Square. Other roads within the AQMA will have increased levels of traffic, such as Greyfriars and Midland Road, off-setting some of the benefits; however, the model outputs indicate that some diverted traffic will utilise more strategic routes, including the Western Bypass and the A421, outside of the AQMA, and so there could be some overall positive air quality impacts within the critical AQMA.
- 1.9.58 The specific requirement for an air quality assessment is determined in accordance with traffic change criteria set out in HA207/07 DMRB Volume 11 Section 3 Part 1. The traffic change criteria are:
- road alignment will change by 5m or more, or
 - daily traffic flows will change by 1,000 annual average daily traffic (AADT) or more, or
 - HGV flows will change by 200 AADT or more, or
 - daily average speed will change by 10 km/hr or more, or
 - peak hour speed will change by 20 km/hr or more
- 1.9.59 Whilst the traffic model outputs do not provide a definitive assessment of these changes, due to the inability to model many of the UTMC and Technology measures, it is not anticipated that any of these criteria will be exceeded.
- 1.9.60 This will be reviewed as and when further evidence is available during the detailed design of the UTMC and Technology measures.

Greenhouse Gases

- 1.9.61 The requirement to conduct a detailed assessment of the impact of greenhouse gases applies the same criteria as for the air quality assessment and so is challenging to undertake with the available data but is broadly considered unlikely.
- 1.9.62 The outputs from the TUBA model assessment and the UTMC and Technology benefits have been utilised to provide an assessment of potential impacts. This indicates a potential small disbenefit of £67,000 over the 30 year appraisal period, discounted to 2010 prices.

Landscape and Townscape

- 1.9.63 The Theme 1 Public Realm package of measures will deliver a clear positive benefit in terms of enhanced townscape. The concept design is outlined within the 'Bedford High Street Public Realm Framework' and details the proposed palette of materials that will be utilised to create positive public spaces and permeable streetscapes that will complement the historic buildings within the area and connect to the landscape of the River.
- 1.9.64 The other physical infrastructure elements of the package of measures will be delivered in a manner sensitive to the local environment so as to either have a neutral or positive impact upon the landscape and townscape.

Heritage and Historic Resource

- 1.9.65 The package of scheme measures will not directly impact upon any heritage or historic resources; however, as outlined within the Landscape and Townscape section, the public realm measures will be designed to complement historic buildings around St. Paul's Square, as well as providing greater connectivity to the cultural quarter and the historic Castle Mound.

Ecology and Nature Conservation

- 1.9.66 There are no Wetlands of International Importance (Ramsar), Special Protection Areas (SPA), Special Area of Conservation (SAC), Sites of Special Scientific Interest (SSSI) within the immediate vicinity of the proposed works.
- 1.9.67 The package of scheme measures will have no impact upon this criteria.

Water Environment

- 1.9.68 The package of scheme measures may impact upon drainage and water run-off as a result of the reconfiguration of junctions and highway links.
- 1.9.69 The highway engineering has been designed to mitigate against any impact upon drainage, with culverts replaced, and replicating existing run-off. The scheme does not impact upon any existing water courses.
- 1.9.70 It is, therefore, concluded that the schemes will not any have any notable impact on the water environment, particularly as design mitigation measures will be incorporated, as required.

Public Accounts

Cost to Broad Transport Budget

- 1.9.71 The capital costs of the scheme implementation are set out in detail within the Financial Case.
- 1.9.72 The base costs of implementing the package of scheme measures has been identified at £15.287m and are broken down as follows:
- | | | |
|--------------------------------------|---|--------|
| ○ Theme 1 – Public Realm | = | 5.598m |
| ○ Theme 2 – Alleviating Pinch-points | = | 4.692m |
| ○ Theme 3 – UTMC and Technology | = | 2.348m |
| ○ Utilities | = | 2.649m |
- 1.9.73 This includes an allowance of 20% traffic management costs and 12% for preliminaries.
- 1.9.74 In addition to this, a quantified risk assessment (QRA) has been undertaken using @Risk software to derive a P80 value for all risks of £2.91m. This represents 19% of total scheme costs and has been added to these base costs in the financial case and to generate the adjusted scheme cost estimate for this economic assessment.

- 1.9.75 Since the November 2017 submission of the business case, the potential for the Housing Infrastructure Fund (HIF) scheme (see 2.15.2 of the Strategic Case) to come forward has increased, with BBC having been asked to prepare a business case for this highway improvement to unlock housing development land to the west of the railway station. The exact nature of this scheme is still under consideration and no firm commitment has been given that the scheme will go ahead so it is not possible or appropriate to make a full assessment of the impacts at this stage. However, the potential risks associated with joint delivery of the HIF scheme and this Transporting Bedford 2020 package of works have been included within the risk register.
- 1.9.76 The preliminary assessment is that these risks would have a very small impact on the overall risk profile of this scheme, adding 1% to the QRA, which would therefore result in a QRA of 20% of the total scheme costs. This would have a negligible impact on the value for money assessment and therefore we have not re-run the BCR assessment at this stage. As work on the HIF develops we will review this in time for the next funding approval and undertake a sensitivity test on the impact of the HIF scheme on the BCR if required.
- 1.9.77 All costs have been adjusted for real cost inflation (6% per annum), as well optimism bias, at 44%, and input into the cost benefit analysis they have been discounted to 2010 prices.
- 1.9.78 The maintenance costs associated with the schemes have been estimated at 1% of the base scheme costs (excluding traffic management, preliminaries, utilities and contingency) and equate to a discounted value of £1.715m across the appraisal period.
- 1.9.79 The Broad Transport Budget for the scheme, including the optimism bias, is £27.791m over the 30 year period.

Indirect tax

- 1.9.80 The loss of indirect tax revenues as a result of road users making more efficient journeys, due to the scheme, is forecast using TUBA to be £0.671m over the 30 year appraisal period (discounted to 2010 prices). The impact this will have on the overall Benefit Cost Ratio (BCR) of the scheme will be discussed in the following section.

1.10 Value for Money Statement

- 1.10.1 This section provides a value for money conclusion by considering all of the evidence pulled together as part of the Appraisal Summary Table. This provides evidence to inform the final judgement on the Value for Money category of the scheme as recommended by DfT⁶. It summaries:

- The options considered and the do-nothing scenario
- Initial and adjusted BCRs
- Non-monetised benefits
- Risks and uncertainties

⁶ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/267296/vfm-advice-local-decision-makers.pdf

- 1.10.2 Sensitivity tests have also been undertaken to test the robustness of the scheme's forecasted benefits and the results of these are set out in Section 1.11.
- 1.10.3 To support the value for money assessment the following tables are provided in the following pages:
- Public Accounts (PA) Table;
 - Economic Efficiency of the Transport System (TEE) Table; and
 - Analysis of Monetised Benefits (AMBC) Table
- 1.10.4 In addition, an Appraisal Summary Table (AST) is presented within **Appendix A**.
- 1.10.5 The AMBC table provides the user benefits (TEE table) and costs (PA table) derived from TUBA, as well as the wider benefits from the public realm enhancements to the town centre economy, greenhouse gas impacts, and accident savings benefits.

Table 5. Central Case Public Accounts Table

	ALL MODES	ROAD
	TOTAL	INFRASTRUCTURE
Local Government Funding		
Revenue	0	0
Operating Costs	1715	1715
Investment Costs	26076	26076
Developer and Other Contributions	0	0
Grant/Subsidy Payments	0	0
NET IMPACT	27791 (7)	27791
Central Government Funding: Transport		
Revenue	0	0
Operating costs	0	0
Investment Costs	0	0
Developer and Other Contributions	0	0
Grant/Subsidy Payments	0	0
NET IMPACT	0 (8)	0
Central Government Funding: Non-Transport		
Indirect Tax Revenues	671.0896696 (9)	671.0896696
TOTALS		
Broad Transport Budget	27791 (10) = (7) + (8)	
Wider Public Finances	671.0896696 (11) = (9)	

Table 6. Central Case TEE Table

<u>User benefits</u>	TOTAL		Private Cars and LGVs
Travel time	4,869.4		4,869.4
Vehicle operating costs	79.9		79.9
User charges	0		0
During Construction & Maintenance	0		0
NET NON-BUSINESS BENEFITS: COMMUTING	4,949.3	(1a)	4,949.3
Non-business: Other			
	ALL MODES		ROAD
<u>User benefits</u>	TOTAL		Private Cars and LGVs
Travel time	2,691.1		2,691.1
Vehicle operating costs	67.0		67.0
User charges	0		0
During Construction & Maintenance	0		0
NET NON-BUSINESS BENEFITS: OTHER	2,758.1	(1b)	2,758.1
Business			
<u>User benefits</u>			Goods Vehicles Business Cars & LGVs
Travel time	2,494.5		1,775.1 719.4
Vehicle operating costs	376.1		237.9 138.2
User charges	0		0 0
During Construction & Maintenance	0		0 0
Subtotal	2,870.6	(2)	2,013.0 857.6
Private sector provider impacts			
Revenue	0		
Operating costs	0		
Investment costs	0		
Grant/subsidy	0		
Subtotal	0	(3)	
Other business impacts			
Developer contributions	0	(4)	
NET BUSINESS IMPACT	2,870.6	(5) = (2) + (3) + (4)	
TOTAL			
Present Value of Transport Economic Efficiency Benefits (TEE)	10,578.1	(6) = (1a) + (1b) + (5)	

numbers.

All entries are discounted present values, in 2010 prices and values

Table 7. Central Case Analysis of Monetised Costs and Benefits Table

Noise	0	(12)
Local Air Quality	0	(13)
Greenhouse Gases	-67.0	(14)
Journey Quality	1,381.4	(15)
Physical Activity	0	(16)
Accidents	4,197.9	(17)
Economic Efficiency: Consumer Users (Commuting)	4,949.3	(1a)
Economic Efficiency: Consumer Users (Other)	2,921.2	(1b)
Economic Efficiency: Business Users and Providers	2,870.6	(5)
Wider Public Finances (Indirect Taxation Revenues)	-671.1	(11) - sign changed from PA table, as PA table represents costs, not benefits
Present Value of Benefits (see notes) (PVB)	15,582.4	(PVB) = (12) + (13) + (14) + (15) + (16) + (17) + (1a) + (1b) + (5) - (11)
Broad Transport Budget	27,791.0	(10)
Present Value of Costs (see notes) (PVC)	27,791.0	(PVC) = (10)
OVERALL IMPACTS		
Net Present Value (NPV)	-12,208.6	NPV=PVB-PVC
Benefit to Cost Ratio (BCR)	0.56	BCR=PVB/PVC

Do-nothing Scenario and Options Considered

- 1.10.6 The do-nothing scenario would constitute the status quo in terms of the operation of the current highway network across the town centre, including current highway link and junction capacities and the absence of a functional UTM system.
- 1.10.7 A broad range, and extensive number, of alternative scheme measures, and packages of scheme measures, have been considered over the last three years as part of the wider Town Centre transport strategy development process. All of these have been subject to extensive appraisal processes to establish the optimum package of measures within the available funding constraints.
- 1.10.8 Within the 'Pinch-point' theme, 11 separate scheme elements were examined and appraised, with six of these taken forward for inclusion within the final preferred package of measures.
- 1.10.9 Within the 'Public Realm' package, a town centre framework was established to consider both the geographical extent of potential measures (High Street, St. Paul's Square, Embankment, Horne Lane, River Street, Greyfriars, Allhallows, Midland Road, Silver Street, Harpur Street) as well as the type of measures that could be employed (full pedestrianisation or reduced highway capacity). On the basis of detailed analysis and appraisal the preferred package of measures was identified as a reduction in highway

capacity and enhancement public realm provision along the High Street and St. Paul's Square.

- 1.10.10 Within the 'UTMC and Technology' package, the option development process has considered the wide range of current and emerging technologies available and evaluated the potential benefits from implementation of different corridors leading into the Core Town Centre, as well as across the Core Town Centre itself. The preferred package of measures identified the Southern and Northern Gateway corridors, along the former A6, as well as the Core Town Centre as the preferred option for implementing a UTMC and Technology package to enhance the efficiency of highway network operations.

Initial Benefit Cost Ratio

- 1.10.11 The Initial Net Present Value (NPV) for the scheme, encompassing the direct transport user benefits is forecast to be -£12.209m, with the expected Cost Benefit Ratio of the scheme at 0.56 to 1. This is a clear demonstration that the benefits of the scheme are not singularly about enhancing traditional transport provision.
- 1.10.12 The initial NPV represents a quantified assessment of monetised benefits in terms of a traditional set of transport scheme impacts. Not only does it exclude a range of non-monetised impacts (discussed below) but a major element of the package of measures is also designed to the enhance the town centre urban realm to support and grow the local economy. Excluding these benefits does not provide a full assessment of the impact of the scheme.

Adjusted Benefit Cost Ratio

- 1.10.13 The adjusted NPV for the scheme is forecast to be around £31.887mm with the expected Cost Benefit Ratio of the scheme at 2.15 to 1. This represents a high value for money category.
- 1.10.14 This incorporates an additional £44.2 million benefits over 30 years in relation to enhanced town centre economic retail value, as set out in Section 1.6.
- 1.10.15 As presented in section 1.16 of this Economic Case, we have taken a conservative estimate of 25% of the anticipated potential uplift in retail values as a result of the urban realm improvements. Even with this conservative estimate, these benefits are what is driving the positive BCR for this scheme and therefore we have undertaken additional sensitivity tests to account for the risk that these retail value uplifts may not be realised. Our assessment shows that a 1.85:1 BCR could be achieved if only 20% of the retail value uplift was realised.
- 1.10.16 A further sensitivity test incorporating this scenario as well as more conservative estimates on growth rates and the benefits of the UTMC package is presented in Section 1.11.

Non-monetised Impacts

- 1.10.17 In addition to the monetised benefits set out above, the package of scheme measures is forecast to deliver a range of non-monetised impact. Those criteria for which there is anticipated to be either positive or negative impacts are summarised within Table 8, with a full analysis of outcomes for all criteria, presented within the AST in **Appendix A**.

Table 8. Summary of Non-Monetised Benefits

IMPACT		DESCRIPTION	BENEFIT
Economy	Reliability impact on Business users	The proposed package of UTMC and Technology measures are anticipated to significantly enhance the reliability of journey times along the former A6 northern and southern corridors, as well as across the core town centre, in addition to reducing unpredictable variation in journey times.	High Beneficial
	Regeneration	The scheme will support local development; however, specific regeneration impacts, as defined by WebTAG guidance, will not be realised and therefore no assessment has been carried out to capture these.	Small Beneficial
Environmental	Townscape	The Public Realm package of measures will deliver a clear positive benefit in terms of enhanced townscape within the High Street and St. Paul's Square. Other physical infrastructure elements of the package of measures will be delivered in a manner sensitive to the local environment.	Moderate Beneficial
	Historic Environment	The package of scheme measures will not directly impact upon any heritage or historic resources; however, the public realm measures will be designed to complement historic buildings around St. Paul's Square, as well as providing greater connectivity to the cultural quarter and the historic Castle Mound.	Small Beneficial
Social	Reliability impact on Commuting and Other users	The proposed package of UTMC and Technology measures are anticipated to significantly enhance the reliability of journey times along the former A6 northern and southern corridors, as well as across the core town centre, in addition to reducing unpredictable variation in journey times.	High Beneficial
	Physical activity	The Public Realm enhancements within the core town centre will make the town more permeable with improved east-west connections. This will	Small Beneficial

IMPACT	DESCRIPTION	BENEFIT
	encourage greater levels of pedestrian activity across the area. The wider UTMC and Technology package will facilitate greater mode choice through enhanced information provision and improved traffic management.	
Journey quality	Journey quality within the town centre will be enhanced by the improvements to the public realm within the High Street and St. Paul's Square. The reductions in journey times and improved reliability will contribute a positive benefit for journey quality across the former A6 north and south corridor.	Moderate Beneficial
Security	The Public Realm enhancements will enhance the safety and security for pedestrians within the High Street and St. Paul's Square	Small Beneficial
Access to services	The Public Realm enhancements will improve the permeability of the core town centre enhancing accessibility to services. The wider package of measures will improve accessibility to services throughout the former A6 northern and southern corridors, including the Hospital. The technology package will deliver a range of information and travel demand initiatives to make it easier for individuals to travel by different modes to access services.	Moderate Beneficial
Severance	The Public Realm enhancements will reduce severance impacts of the High Street and St. Paul's Square providing improved permeability between the core pedestrianised retail area and the 'Cultural Quarter' and the River.	Small Beneficial
Option and non-use values	The package of measures will deliver improvements to all modes of travel along the former A6 northern and southern corridors. The UTMC and Technology package will include enhance information provision for travellers helping them to make informed decisions about travel options.	Small Beneficial

1.11 High and Low Case Scenario Tests

1.11.1 WebTAG Unit M4⁷ states that although the core scenario (of which results have been provided above) is intended to be the best basis for decision making, there is no guarantee that the outturn will match assumptions. Therefore sensitivity tests are undertaken to determine the potential impact under alternative scenario outcomes and to address the following questions:

- Under high demand assumptions, is the intervention still effective in reducing congestion or crowding, or are there any adverse effects, e.g. on safety or the environment?; and
- Under low demand assumptions, is the intervention still economically viable?

1.11.2 Section 4.2 of WebTAG Unit M4 sets out guidance on defining High and Low growth scenarios. The high growth scenario should consist of forecasts that are based on a proportion of base year demand added to the demand from the core scenario. The low growth scenario should be based on the same ranges but as a reduction to the core scenario demand.

1.11.3 The proportion of base year demand to be added/subtracted is based on a parameter **P** which varies by mode. The proportion is calculated based on the following:

⁷ Tag Unit M4: Forecasting and Uncertainty: <https://www.gov.uk/guidance/transport-analysis-guidance-webtag>

- For 1 year after the base year, proportion p of base year demand added to the core scenario;
- for 36 or more years after the base year, proportion $6 * p$ of base year demand added to the core scenario;
- between 1 and 36 years after the base year, the proportion of base year demand should rise from p to $6 * p$ in proportion with the square root of the years.

1.11.4 For highway demand at the national level, the value of **P** is 2.5%, reflecting uncertainty around annual forecasts from the National Transport Model (NTM), based on the macro-economic variables that influence the main drivers of travel demand.

1.11.5 For this scheme the base modelled year is 2011 and future year model forecasts are 2021 and 2032. For 2021, this is 10 years from the base therefore the proportion to be applied to **P** is square root of 10 = 3.163. For 2032, this is 21 years from the base therefore the proportion to be applied to **P** is square root of 10 = 4.583.

1.11.6 Therefore the high and low growth sensitivity tests are defined as:

Table 9. High and Low Sensitivity Tests

SENSITIVITY TEST	FORECAST YEAR	FORMULA	CHANGE IN DEMAND
High Growth	2021	Core demand + $3.163 * p$	+7.9%
	2032	Core demand + $4.583 * p$	+11.5%
Low Growth	2021	Core demand + $3.163 * p$	-7.9%
	2032	Core demand + $4.583 * p$	-11.5%

1.11.7 The overarching impact of the high and low growth have been assessed within the SATURN model.

1.11.8 Alongside the potential variations in underlying growth, the sensitivity tests also encompass assessments of potential variations in the levels of benefits generated from the UTMC and Technology and Public Realm packages. Both these elements have been discussed earlier in the note (in Sections 1.4 and 1.6, respectively) and simply reflect higher or lower generation of benefits for analytical elements where there is less certainty. The UTMC high and low scenarios also incorporate the high and low traffic growth scenarios in deriving the value of the forecast delay reduction.

1.11.9 It should be noted that, in both cases, the Central Case forecast is considered to be conservative in nature and so the 'High Case' outcome is perceived to be a more likely outcome than the 'Low Case'.

1.11.10 The outcomes of the three elements of sensitivity testing have been combined to present the maximum variation in the potential economic outcomes, in terms of 'High Case' maximum benefits and 'Low Case' minimum benefits.

1.11.11 A summary of the two sensitivity scenarios is as follows:

- High Case

- High growth (2021 = +7.9%, 2032 = +11.5%)
 - UTMC and Technology delay reduction = 23% of forecast delay
 - Retail benefits attributed to public realm enhancements = 30% of differential in retail values from High Street to Core Town Centre
- Low Case
 - Low growth (2021 = -7.9%, 2032 = -11.5%)
 - UTMC and Technology delay reduction = 11.5% of forecast delay
 - Retail benefits attributed to public realm enhancements = 20% of differential in retail values from High Street to Core Town Centre

1.11.12 Under the high case scenario, the assessment the appraisal outcomes are:

○ Present Value of Benefits	=	£80.535m
○ Present Value of Costs	=	£27.791m
○ Net Present Value	=	£52.744m
○ Benefit Cost Ratio	=	2.90

1.11.13 Under the low case scenario, the assessment the appraisal outcomes are:

○ Present Value of Benefits	=	£45.740m
○ Present Value of Costs	=	£27.791m
○ Net Present Value	=	£17.949m
○ Benefit Cost Ratio	=	1.65

1.12 Summary

Key Risks and Uncertainties

- 1.12.1 A comprehensive quantified risk assessment (QRA) has been undertaken and is included as part of the Management Case. This suggests a P80 value of £2.91m should be applied in considering financial risk at this stage of scheme development. This is 19% of the scheme costs (excluding optimism bias). As noted in Section 1.9.75, there is potential for a HIF scheme to come forward and the impacts of this are considered in the risk register. However, our preliminary assessment is that the quantified impacts of this will be negligible and, therefore, they have not been include in the QRA at this time. This will be reviewed and updated if required when there is further certainty around the HIF scheme and any likely impacts.
- 1.12.2 Optimism bias has been added at 44%, recognising that although considerable work has been undertaken to develop the scheme to this stage particularly on the pinch-point elements, there is further work to do and therefore greater uncertainty on the technology elements of the UTMC.
- 1.12.3 The other uncertainty to note is the level of retail value uplift that may be generated from public realm improvements. Our assessment, comparing values from similar pedestrianised areas in Bedford town centre core, is that the uplift will be significant. However, as a large proportion of the benefits of this package are derived from this anticipated we have undertaken some sensitivity tests around this to demonstrate that

even with a lower than anticipated retail value uplift, significant benefits would still be delivered as reported in the Adjusted Benefit Cost Ratio section above.

Assumptions

1.12.4 Assumptions made in line with WebTAG have been documented throughout this Economic Case. We have also made several assumptions about the impacts of various scheme elements as these cannot be fully captured in the standard transport modelling undertaken. This is reflective of the fact that the scheme itself is a broader town centre improvement package and not just a transport scheme.

1.12.5 The main assumptions made can be summarised as:

- Modelling approach:
 - Fixed matrices used
 - Impacts on Interpeak period, including Saturday, not modelled but assumed to be neutral impact
- Delay reduction generated by UTMC
 - Greenfield scheme
 - Evidence of similar schemes suggests average of 23% reduction in delay. Conservative estimate of 75% of this reduction assumed for the central case (i.e. 17.3% reduction in delay at affected junctions)
 - Local Plan growth rates applied as a proxy for increase in vehicles on the network. High and low growth rates also applied in corresponding sensitivity tests
- Rateable value uplift from public realm improvements
 - Evidence from other parts of Bedford Town Centre suggests potential for over 200% uplift in value. Conservative estimate of 25% of this uplift assumed for the central case (i.e. 53% uplift in rateable values)

Benefit Cost Ratios

1.12.6 The following table summarises the impact of these risks and sensitivity tests on the BCR.

Table 10. BCRs

SCENARIO	PVC (£M)	PVB (£M)	NPV (£M)	BCR
Initial Central Case	27.79	15.58	-12.21	0.56
Adjusted Low case	27.79	45.74	17.95	1.65
Adjust Central Case with 20% rateable value uplift	27.79	51.51	23.72	1.85
Adjusted Central case	27.79	59.68	31.89	2.15
Adjusted High Case	27.79	80.54	52.74	2.90

- 1.12.7 The initial BCR is based only on the direct transport user benefits and does not fully capture the significant benefits that will be derived from the improvement to the public realm around the High Street and the subsequent impact on retail rental values and the local economy. Furthermore, it does not include a range of non-monetised impacts, particularly in relation to improved journey time reliability generated from the pinch-point schemes and introduction of UTMC.
- 1.12.8 The adjusted BCR presented incorporates the benefits derived from the retail rental value uplift to give a fuller appreciation of the likely benefits of the scheme. Sensitivity tests have been undertaken on this core adjusted BCR that demonstrate if only 20% of the potential retail rental value uplift was achieved, the BCR for the scheme would be 1.85:1.
- 1.12.9 When considering the central case adjusted BCR of **2.15:1** and including the anticipated non-monetised benefits, we consider this scheme to represent a **High Value for Money** investment.

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VALUE FOR MONEY STATEMENT SUMMARY



BEDFORD TOWN CENTRE TRANSPORT STRATEGY

VALUE FOR MONEY STATEMENT SUMMARY

IDENTIFICATION TABLE

Client/Project owner	Bedford Borough Council
Project	Bedford Town Centre Transport Strategy
Study	Value for Money Statement Summary
Type of document	Report
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Version	Name		Position	Date	Modifications
1	Author	K. Hall	PM	09/11/17	
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2	Author	K. Hall	PM	05/06/18	Paragraphs 1.2.13 and 1.2.14 added re: HIF
	Checked by	A. Smith	PD	05/06/18	
	Approved by	A. Smith	PD	05/06/18	

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1. VALUE FOR MONEY STATEMENT

1.1 Introduction

1.1.1 This section provides a value for money conclusion by considering all of the evidence pulled together as part of the Appraisal Summary Table. This provides evidence to inform the final judgement on the Value for Money category of the scheme as recommended by DfT¹. It summaries:

- The options considered and the do-nothing scenario
- Initial and adjusted BCRs
- Non-monetised benefits
- Risks and uncertainties

1.1.2 Sensitivity tests have also been undertaken to test the robustness of the scheme's forecasted benefits and the results of these are set out in Section 1.11.

1.1.3 Supporting tables for Public Accounts (PA), Economic Efficiency of the Transport System (TEE); and Analysis of Monetised Benefits (AMBC) are provided in the full Economic Case, to which an Appraisal Summary Table (AST) is also appended.

1.2 Summary

Options Considered

1.2.1 The do-nothing scenario would constitute the status quo in terms of the operation of the current highway network across the town centre, including current highway link and junction capacities and the absence of a functional UTMC system.

1.2.2 The package of measures assessed in the do-something scenario includes:

- Improvements in the town centre highway/public realm quality to discourage unnecessary through traffic and improve the quality of the environment for users of the town centre;
- A widespread programme of small/medium infrastructure improvements focussed on key junction pinch-points where worthwhile increases in capacity and reliability that assist all road users are justified and deliverable
- A major upgrade to existing traffic management systems across the whole Town Centre and Southern Gateway area to provide the maximum delay reductions possible, provide real-time information to drivers to support their decision-making, and to be ready to incorporate emerging/future technology on Cooperative Intelligent Transport Systems (C-ITS), Expressway driver information systems, autonomous vehicles and mobility as a service technology.

1.2.3

1.2.4

¹ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/267296/vfm-advice-local-decision-makers.pdf

Initial Benefit Cost Ratio

1.2.5 The Initial Net Present Value (NPV) for the scheme, encompassing the direct transport user benefits is forecast to be -£12.209m, with the expected Cost Benefit Ratio of the scheme at 0.56 to 1. This is a clear demonstration that the benefits of the scheme are not singularly about enhancing traditional transport provision.

1.2.6 The initial NPV represents a quantified assessment of monetised benefits in terms of a traditional set of transport scheme impacts. Not only does it exclude a range of non-monetised impacts (discussed below) but a major element of the package of measures is also designed to enhance the town centre urban realm to support and grow the local economy. Excluding these benefits does not provide a full assessment of the impact of the scheme.

Adjusted Benefit Cost Ratio

1.2.7 The adjusted NPV for the scheme is forecast to be around £31.887m with the expected Cost Benefit Ratio of the scheme at 2.15 to 1. This represents a high value for money category.

1.2.8 This incorporates an additional £44.2 million benefits over 30 years in relation to enhanced town centre economic retail value, as set out in Section 1.6.

1.2.9 We have taken a conservative estimate of 25% of the anticipated potential uplift in retail values as a result of the urban realm improvements. Even with this conservative estimate, these benefits are what is driving the positive BCR for this scheme and therefore we have undertaken additional sensitivity tests to account for the risk that these retail value uplifts may not be realised. Our assessment shows that a 1.85:1 BCR could be achieved if only 20% of the retail value uplift was realised.

1.2.10 A further sensitivity test incorporating this scenario as well as more conservative estimates on growth rates and the benefits of the UTM package is presented in Section 1.11.

Non-monetised Impacts

1.2.11 In addition to the monetised benefits, the package of scheme measures is forecast to deliver a range of non-monetised impact. Those criteria for which there is anticipated to be either positive or negative impacts are summarised below, with a full analysis of outcomes for all criteria, presented within the full Economic Case.

- Economy
 - Reliability impact on Business users - High Beneficial
- Environmental
 - Regeneration - Small Beneficial
 - Townscape - Moderate Beneficial
 - Historic Environment - Small Beneficial
- Social
 - Reliability impact on Commuting and Other users - High Beneficial

- Physical activity - Small Beneficial
- Journey quality - Moderate Beneficial
- Security - Small Beneficial
- Access to services - Moderate Beneficial
- Severance - Small Beneficial
- Option and non-use values - Small Beneficial

Key Risks and Uncertainties

- 1.2.12 A comprehensive quantified risk assessment (QRA) has been undertaken and is included as part of the Management Case. This suggests a P80 value of £2.91m should be applied in considering financial risk at this stage of scheme development. This is 19% of the scheme costs (excluding optimism bias).
- 1.2.13 Since the November 2017 submission of the business case, the potential for the Housing Infrastructure Fund (HIF) scheme to come forward has increased, with BBC having been asked to prepare a business case for this highway improvement to unlock housing development land to the west of the railway station. The exact nature of this scheme is still under consideration and no firm commitment has been given that the scheme will go ahead so it is not possible or appropriate to make a full assessment of the impacts at this stage. However, the potential risks associated with joint delivery of the HIF scheme and this Transporting Bedford 2020 package of works have been included within the risk register.
- 1.2.14 The preliminary assessment is that these risks would have a very small impact on the overall risk profile of this scheme, adding 1% to the QRA, which would therefore result in a QRA of 20% of the total scheme costs. This would have a negligible impact on the value for money assessment and therefore we have not re-run the BCR assessment at this stage. As work on the HIF develops we will review this in time for the next funding approval and undertake a sensitivity test on the impact of the HIF scheme on the BCR if required.
- 1.2.15 Optimism bias has been added at 44%, recognising that although considerable work has been undertaken to develop the scheme to this stage particularly on the pinch-point elements, there is further work to do and therefore greater uncertainty on the technology elements of the UTMC.
- 1.2.16 The other uncertainty to note is the level of retail value uplift that may be generated from public realm improvements. Our assessment, comparing values from similar pedestrianised areas in Bedford town centre core, is that the uplift will be significant. However, as a large proportion of the benefits of this package are derived from this anticipated we have undertaken some sensitivity tests around this to demonstrate that even with a lower than anticipated retail value uplift, significant benefits would still be delivered as reported in the Adjusted Benefit Cost Ratio section above.

Assumptions

- 1.2.17 Assumptions made in line with WebTAG have been documented throughout this Economic Case. We have also made several assumptions about the impacts of various scheme elements as these cannot be fully captured in the standard transport modelling

undertaken. This is reflective of the fact that the scheme itself is a broader town centre improvement package and not just a transport scheme.

1.2.18 The main assumptions made can be summarised as:

- Modelling approach:
 - Fixed matrices used
 - Impacts on Interpeak period, including Saturday, not modelled but assumed to be neutral impact
 - Accident benefits cannot be captured in COBALT as it the full scheme impacts are not captured in standard appraisal. Proxy of potential accident rate reduction on key Ampt Hill Road corridor taken. However, it is noted that this analysis has focused on one area of the scheme proposals and has not accounted for any re-distribution in traffic flows across the town centre as a result of the wider highway/UTMC proposals. On some links where additional traffic will occur this may have modest safety disbenefits that have not been calculated
- Delay reduction generated by UTMC
 - Greenfield scheme
 - Evidence of similar schemes suggests average of 23% reduction in delay. Conservative estimate of 75% of this reduction assumed for the central case (i.e. 17.3% reduction in delay at affected junctions)
 - Local Plan growth rates applied as a proxy for increase in vehicles on the network. High and low growth rates also applied in corresponding sensitivity tests
- Rateable value uplift from public realm improvements
 - Evidence from other parts of Bedford Town Centre suggests potential for over 200% uplift in value. Conservative estimate of 25% of this uplift assumed for the central case (i.e. 53% uplift in rateable values)

Sensitivity Tests

1.2.19 A summary of the two sensitivity scenarios is as follows:

- High Case
 - High growth (2021 = +7.9%, 2032 = +11.5%)
 - UTMC and Technology delay reduction = 23% of forecast delay
 - Retail benefits attributed to public realm enhancements = 30% of differential in rateable values from High Street to Core Town Centre
- Low Case
 - Low growth (2021 = -7.9%, 2032 = -11.5%)
 - UTMC and Technology delay reduction = 11.5% of forecast delay
 - Retail benefits attributed to public realm enhancements = 20% of differential in rateable values from High Street to Core Town Centre

1.2.20 A further sensitivity test was conducted to assess the impact of the retail benefits only, using the low case scenario of 20% differential in rateable values.

Benefit Cost Ratios

1.2.21 The following table summarises the impact of these risks and sensitivity tests on the BCR.

Table 1. BCRs

SCENARIO	PVC (£M)	PVB (£M)	NPV (£M)	BCR
Initial Central Case	27.79	15.58	-12.21	0.56
Adjusted Low case	27.79	45.74	17.95	1.65
Adjust Central Case with 20% rateable value uplift	27.79	51.51	23.72	1.85
Adjusted Central case	27.79	59.68	31.89	2.15
Adjusted High Case	27.79	80.54	52.74	2.90

1.2.22 The initial BCR is based only on the direct transport user benefits and does not fully capture the significant benefits that will be derived from the improvement to the public realm around the High Street and the subsequent impact on retail rental values and the local economy. Furthermore, it does not include a range of non-monetised impacts, particularly in relation to improved journey time reliability generated from the pinch-point schemes and introduction of UTMC.

1.2.23 The adjusted BCR presented incorporates the benefits derived from the retail rental value uplift to give a fuller appreciation of the likely benefits of the scheme. Sensitivity tests have been undertaken on this core adjusted BCR that demonstrate if only 20% of the potential retail rental value uplift was achieved, the BCR for the scheme would be 1.85:1.

1.2.24 When considering the central case adjusted BCR of **2.15:1** and including the anticipated non-monetised benefits, we consider this scheme to represent a **High Value for Money** investment.

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FULL BUSINESS CASE (COMMERCIAL & MANAGEMENT)



TRANSPORTING BEDFORD 2020

FULL BUSINESS CASE

IDENTIFICATION TABLE

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1. THE COMMERCIAL CASE

1.1 Introduction

1.1.1 The Commercial Case for the Transporting Bedford 2020 scheme provides evidence that the proposed investment can be procured, implemented and operated in a viable and sustainable way. Adopting a commercial approach to the project is fundamental to determining that BBC gets the best deal from the market.

1.1.2 This chapter defines the current progress of the commercial aspects requirements. Areas this chapter considers include:

- Output Based Specification;
- Procurement Options
- Procurement Strategy;
- Payment Mechanisms;
- Pricing Framework and Charging Mechanisms;
- Potential for Risk Transfer;
- Contract Length; and
- Contract Management

1.2 Output Based Specification

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

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

1.2.2 The Output Based Specification for the scheme has yet to be developed, this is to be expected at this stage for the following reasons:

- The need to secure funding approval for the preferred scheme prior to undertaking this significant piece of work; and
- The tendering process has not begun.

1.2.3 BBC will use a combination of experienced in-house resources and specialist external consultants to develop the specifications for the distinct elements of the overall package of measures..

1.2.4 The specification for the package of scheme measures is broadly as follows:

- Public realm enhancements and footway widening along the High Street and around parts of St. Paul's Square and St. Mary's Street;
- Junction widening and signalisation schemes at Clapham Road / Manton Lane and Bromham Road / Shakespeare Road junctions;
- Carriageway widening along Britannia Road and across Cowbridge;
- Provision of new pedestrian and cycling footbridges at Cowbridge;
- Installation of new UTMC system across the core town centre and Northern and Southern Gateway corridors, incorporating new or upgraded signals;
- Provision of new UTMC common database, monitoring equipment, traffic database and control room equipment; and
- Installation of new signage, information and publicity systems and ANPR cameras.

1.3 Procurement Options; Market for procurement & Pricing Framework and Charging Mechanisms

1.3.1 BBC have identified three procurement options for the delivery of their LEP funded schemes. The alternative options are:

- Full OJEU Tender;
- Delivery through existing Minor Highways Improvement Works Contract
- Delivery through a revised Minor Highways Improvement Works Contract
- Delivery through the Crown Commercial Services Traffic Management Technology 2 Contract
- Delivery through existing framework contracts such as the Eastern Highways Alliance or
- A combination of all elements

1.3.2 The 'Full OJEU' approach would require an 'open' tender, where anyone may submit a tender, or a 'restricted' tender, where a Pre-Qualification is used to whittle down the open market to a pre-determined number of tenderers. This process would take a number of months to establish and evaluate and would then be followed up by the main tender process with at least 6 weeks for tender returns, a review process, and a period of stand-still.

1.3.3 Delivery through BBC's existing (or re-issued) highways term contract or an existing framework contract would not strictly be a procurement process as it is an existing contract. The contract is based on mini completion or an agreed schedule that is utilised to determine a bill of quantities for any specific works. This provides BBC certainty on the magnitude of costs for delivering work. Given the relatively standard nature of the schemes, in highway design terms, this approach is considered to be an appropriate approach.

1.3.4 The tendered elements of the programme delivery will require the appointed Contractor to deliver the individual work elements for a specified lump sum of money. These contracts will provide for specific risks associated with delivery of the individual work elements that will be carried by the Contractor, which would result in the lump sum being adjusted if the compensation events occur.

1.3.5 The council has various procurement options available to deliver these works, these include but are not limited to those listed below. All options have existing contractors appointed or contained within frameworks.

1. The Eastern Highways Alliance Framework – works can be awarded through this framework via direct award or mini-competition using either lot 1 (schemes with a value of up to £1.5 million) or lot 2 (schemes with a value of between £1 and £20 million).
2. The Bedford Borough Council Minor Highways Works contract an existing tendered contract with a priced schedule of rate but also allows the facility to use day works or a cost plus options.
3. The Bedford Borough Council Carriageway resurfacing contract –commenced April 2018, has a priced schedule of rates and includes the facility to use day works or cost plus options.
4. The Bedford Borough Council professional services agreement for traffic signal advice and design (currently with Kiers) and the joint Bedfordshire / Cambridgeshire traffic signals maintenance and renewal contract (currently with Dynniq)
5. The Crown Commercial Services Traffic Management Technology 2 – most appropriate for Technology elements
6. The council also has the option to use existing Eastern Shires Procurement Office frameworks where applicable.

1.3.6 The EHA contractual framework includes a number of Key Performance Indicators where performance is assessed by the client and poor performance could impact upon the contractors qualitative scoring for future competitive bids under the framework. BBC's own contracts are short term in nature and do not operate a similar performance clause however as the contract is tendered regularly and attracts local medium sized companies to tender, it is in the suppliers own interest to perform well and delivery works efficiently.

1.4 Procurement Strategy

1.4.1 The procurement process will be governed by the Council's own constitutional procurement Rules to ensure that a robust strategy is in place. The strategy will be subject to review by the Project Governance Board including the Council's Procurement Manager, senior Legal officer and senior officers from across the Council who are highly experienced in strategic procurement and contract management.

Express approval by the Project Board will oversee the release of tender documentation and secondly to enable the procurement to move to the award procedure stage following review of the award recommendation.

- 1.4.2 The Councils corporate procurement strategy can be seen on the Councils [website here](#)
 The Council operates a devolved procurement function. Service Departments are principally responsible for day-to-day procurement, including:
- Tenders, Requests for Quotations and sourcing
 - raising purchase orders (POs) and resolving invoice queries
 - managing contracts and suppliers

Procurement is co-ordinated by the Commercial Hub team, which supports Service Departments in securing best value from their procurement activity, and will also:

- manage certain corporate contracts
- provide management information on procurement expenditure and contractual commitments
- analyse our procurement activity and identify potential cost and efficiency savings
- oversee development of procurement systems so as to increase efficiency and stimulate competition for Council business

- 1.4.2 Based upon experience gained through delivering similar long term time limited projects such as the DfT Challenge fund project for street lighting upgrades, large civil engineering projects such as Phases 1 and 2 of the Bedford Western bypass, and a number of large traffic engineering schemes within the urban environment), is to use in house design capabilities to undertake detailed scheme design and to use a variety of procurement methods for construction, giving the greatest flexibility and options for the differing types of works in the pinch point, technology and public realm tranches. An initial review of delivery options has been undertaken and an initial procurement strategy overview is shown in the table 1 below. Options will be reviewed as design work progresses and informs updates to risk register and programme.

Table 1. Initial Procurement Strategy

SITE	PROPOSED PROCUREMENT STRATEGY	CURRENT PROPOSED START DATE	COMMENTS
C979.1 High Street Public Realm &	Combine projects into single tender	17/06/2020	Tendering these works will give best value over already established contracts due to the amount of bespoke items in this project, and allow risks to be identified and transferred
C979.2 Cauldwell Street Junction			
C979.3 Manton Lane BMS junction	BBC Existing Term Maintenance contract 2018-19	23/07/2018	Works do not require tendering so can be mobilised much quicker Benefits of early contractor involvement

C979.3 Manton Lane	Eastern Highways Alliance	03/01/2019	Benefits of early contractor involvement Majority of specification items covered by existing EHA rates – improves cost certainty Reduced mobilisation time
C979.4 Bromham Road	BBC Existing Term Maintenance contract 2018-19	08/05/2020	Gives more flexibility to move forward if required to co-ordinate with Network Rail Works Benefits of early contractor involvement
C979.5 Britannia Road	Eastern Highways Alliance	19/03/2019	Overlap with Manton Lane so could be co-ordination benefits Majority of specification items covered by existing EHA rates – improves cost certainty Reduced mobilisation time
C979.6 Cowbridge	Eastern Highways Alliance	30/03/2020	Benefits of early contractor involvement particularly with respect to early design of any footbridge elements Reduced mobilisation time
C979.7 Ampthill Road	Tbc	Tbc	Scope of works to be confirmed
Technology Elements	TMT2	Summer 2018	Existing framework contract appropriate in scope, item coverage and volume of technology works element

1.4.3 The Councils existing term maintenance contract has been recently tendered and has been procured to allow sufficient headroom for elements of scheme delivery. Rates are considered competitive for Highways Engineering given the bespoke item coverage and currency of the contract. The scheme design team are well versed in use of the contract which has been used frequently over the last eight years to deliver a range of highways maintenance and junction improvement schemes on time and on budget. The contractual arrangements are tailored for the type of individual projects which are similar in nature of the pinch point tranche of schemes.

1.4.4 The package of works for pinch point schemes and public realm works has also been entered onto the Eastern Highways Alliance Framework contract forward programme. Direct award or mini competition using this framework allows the Council to encourage

the most competitive tendering, and access contractors who have a proven track record of delivering similar schemes across the region. This mechanism allows the Council to quickly access a body of resource of slightly larger contractors who have the capacity and experience in delivering some of the larger pinch point schemes and the public realm works.

- 1.4.5 Schemes that require specialist construction elements (e.g. works near railway infrastructure) would be programmed for delivery later in the overall delivery programme and these schemes would be procured through individual tenders. tendered. This approach will also be taken with the technology element of works. A framework contract has already been put in place to provide the Council with an expert client / design and project management resource in this field.

1.5 Payment Mechanisms

- 1.5.1 Payment timing will be adopted to maximise the value from the contract through minimising financing and construction costs. Prompt and fair payment mechanisms will be applied throughout the supply chain. This is covered under the procurement process and will be monitored during the contract to ensure full value is delivered.

1.6 Risk Allocation and Transfer

- 1.6.1.1 Although many of the design risks can only be resolved through rigorous design and review processes, once the design options are clear and the scope of land acquisition, highway requirements, environmental requirements are fully identified; the primary risks will be related to construction. There is potential for transferring these risks through the construction procurement process. This will be explored fully as the design and procurement process progresses. Risk Transfer can be facilitated through the inclusion of standard contractual clauses covering delayed damages. Costs are derived through either mini completion (in the case of EHA) or previously competitively tendered rates (for BBC contract). Item coverage will be through bills of quantities which in turn are quantified based upon 3d design drawings/schedules and established methods of measurement. BBC resources will be used to supervise works on site and to approve design changes.

- 1.6.1.2 Marginal risks , including managing planning consent, road space, programme conflicts, demands from businesses and residents will be the responsibility of the Councils own project management team.

- 1.6.1.3 Risk allocation will be monitored against previous work carried out as part of the Quantative Risk Assessment and cost estimates on a scheme by scheme basis.

1.7 Contract Lengths

- 1.7.1 The existing BBC Minor Highways Improvements works is valid until July 2019 (at which point it will be retendered) .

- 1.7.2 The Eastern Highways Alliance Framework (Lot 2) is in place until 2021.

1.7.3 It is envisaged that individual schemes contracts will be for periods of around 6 months.

1.8 Contract Management

1.8.1 BBC will meet with external contractors on a monthly basis throughout the construction and deliver periods on each individual scheme, or more frequently if this is deemed necessary by the Project Manager.

1.8.2 All contractors will be contractually obliged to provide monthly progress and financial updates to BBC, which will include updates to the project programme.

2. THE MANAGEMENT CASE

2.1 The Introduction

2.1.1 The purpose of the Management Case is to outline how the proposed scheme and its intended outcomes will be delivered successfully. It gives assurances that the scheme content, programme, resources, impacts, problems, affected groups and decision makers, will all be handled appropriately, to ensure that the scheme is ultimately successful.

2.2 Evidence of Similar Projects

2.2.1 BBC can demonstrate a successful record of delivering public realm and highway improvements schemes across the borough network, working alongside their Highways Term Contractors and other external contractors . Previous schemes include:

- Town Centre Public Realm improvements in All Hallows; and Greyfriars Bus Station
- Bedford Western Bypass (Western Section opened 2010 & Northern section opened 2016)
- Major town centre junction/link improvements at Tavistock Street; Dame Alice Street and Goldington Road.
- Borough-wide Street lighting upgrade (DfT Challenge Fund tranche1)

2.2.2 The UTMC and Technology elements of the project are, by their very nature, innovative and new; however, the Borough Council will work with specialist agents who have previous experience of delivering these types of systems and technologies.

2.3 Project Dependencies

2.3.1 The scheme programme is relatively free from dependencies, with the exception of the require for utilities diversions, streetworks coordination and engagement with Network Rail for the Cowbridge infrastructure improvements

Utility Diversions

2.3.2 It is anticipated that some utility diversions will be required as a consequence of the scheme. These diversions could involve some engineering challenges; however, early contractor involvement will mitigate against any potential utility or construction risks. Trial holes will be undertaken to establish the location of apparatus in key areas to ensure an accurate assessment of impacts and costs can be made at this stage of the project.

Network Rail

2.3.3 One of the significant infrastructure elements is a junction improvement at Cowbridge on Ampthill road. This scheme will include a new pedestrian / cycle bridge rail overbridge on the Marston Vale branch line. In is anticipated that this element of works will take place towards the end of the project timeframe to allow sufficient engagement with network rail on design and programme considerations.

Streetworks coordination

2.3.4 There are a number of significant third party works planned for Bedford town centre over the coming years. These include Network Rail replacement of Ford End Road and Bromham Road bridges as part of the Midland Mainline electrification works, which are scheduled for spring 2018 and summer 2019 respectively.

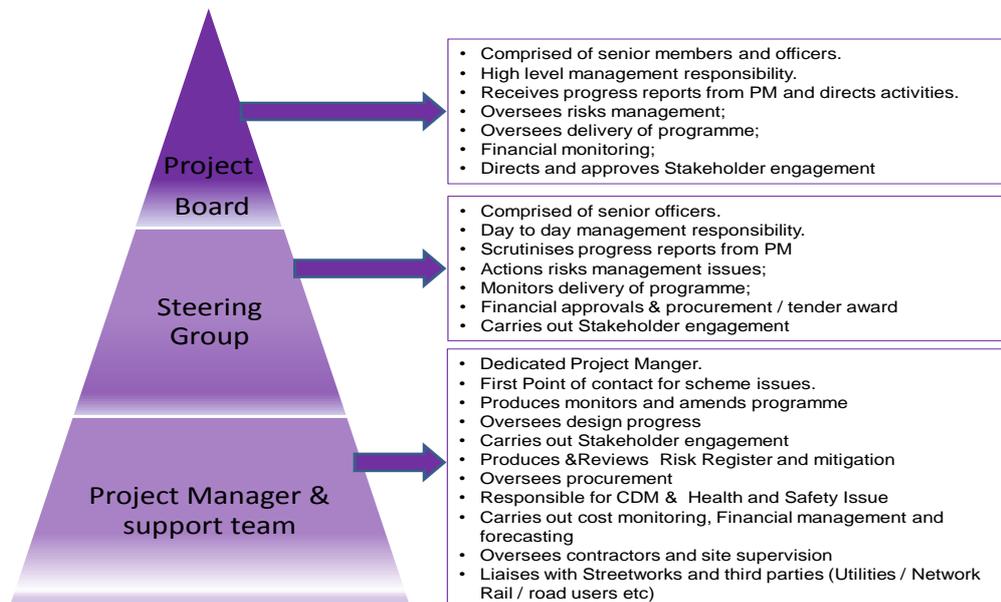
2.3.5 Cadent Gas are carrying out a number of gas main replacement works throughout the town centre. Some of this work (e.g. Bedford High street) has already been brought forward and completed so as not to impact the public realm schemes planned as part of this project.

2.3.6 Early and continued engagement through the Councils established streetworks permitting scheme will allow constraints in programming and opportunities for joint use of road space to be identified and planned.

2.4 Governance, Organisational Structure & Roles

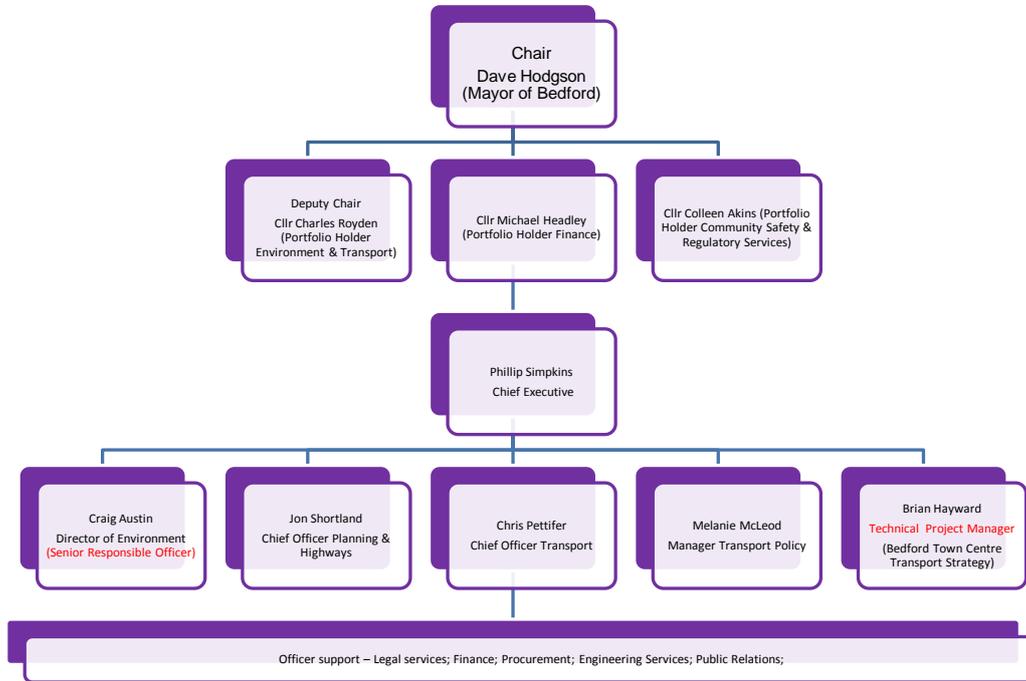
2.4.1 Ultimate responsibility for delivery of the scheme rests with BBC, who will assume an overall project management role. The hierarchy of the project management governance structure is shown in the figure below

Bedford Town Centre Transport Strategy – Governance arrangements diagram



2.4.2 The Project Board includes the Mayor; Portfolio Holders for Environment and Finance; Chief Executive; Director for Environment; Chief Officer for Transportation and the Project Manager. The Project Board structure is shown below:

Bedford Town Centre Transport Strategy – Project Governance Board



2.4.3 The Project Board will make key decisions in relation to the project and will have the final say on committing funds; awarding contracts and managing risk. The Project Board – whose membership includes the Projects Senior Responsible Officer - will receive technical input from a Steering Group (mentioned below).

2.4.4 The Board will initially meet fortnightly during the first year of the project. Standing items on the Project Board agenda will include:

- Review of programme and delivery
- Receive Checkpoint Reports
- Detailed review of scheme design progress
- Stakeholder engagement
- Review of Risk Register
- Review of Health and Safety Issues
- Procurement & approvals
- Financial management and cost monitoring
- Outcome monitoring

2.4.5 A Steering Group has been established to oversee reports made to the project board and ensure actions required by the are completed on time. The group comprises of Chief Officers, Team leaders in Traffic Management , Programme Management and Transport Policy and the Councils dedicated Project Manager. The Steering Group will meet on a weekly basis to produce and review checkpoint reports , update the risk register, and make recommendations to the project governance board for decisions. There is a deliberate overlap in membership of the two groups to ensure clarity of communication and a wider corporate responsibility.

2.4.6 The Steering Group comprises of the following and :

Chief Officer for Transport – Chris Pettifer.

Chris has over twenty five years experience working at a senior level in Transport Operations, specialising in Public and client transport policy and operations at a number of local authorities. He is the Councils lead officer for rail issues and is working with Network Rail on projects such as the Midland Mainline Electrification project and East West Rail. He recently oversaw the redevelopment of Bedford's Greyfriars bus station and has a close working relationship with bus operators in the Borough. Chris' current role includes responsibility for Parking operations and Traffic Management.

Chief Officer for Planning & Highways – Jon Shortland

Jons background is in Road safety and Transport Planning. With over 30 years experience. He is a chartered engineer with RosPA qualifications. More recently Jon has carried out a 'watchman' role on a County Council Managing Agent Contract and as Contract Manager for a multinational Civil Engineering company. His role at Bedford includes management of the Councils Engineering Services team who will be carrying out detailed design activities on this project.

Manager for Transport Policy – Melanie McLeod

Melanie is a qualified Transport Planner, has worked for Bedford Borough and County Councils for over twenty years and is the Councils lead officer on Transport Policy. Mel has been involved with this project since the initial conception stages and led the Councils work on the transport study that underlines the project. Mel has led numerous transport related stakeholder engagements through her work on developing the Councils Local Transport Plan and various strategic Transport projects.

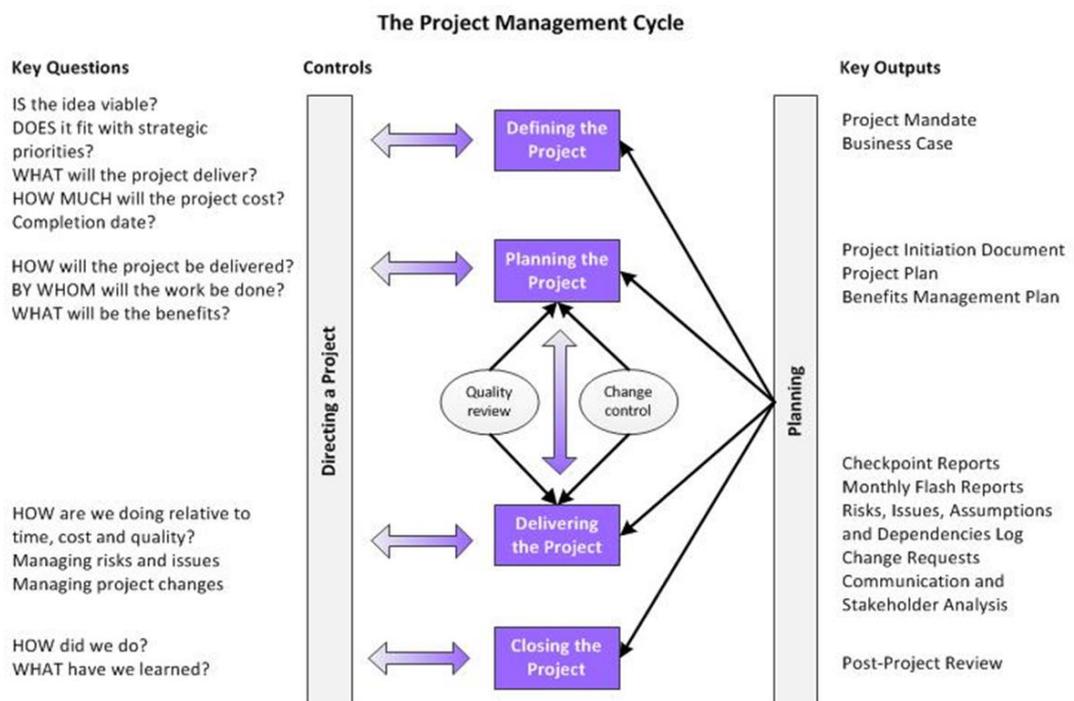
Bedford Town Centre Strategy Technical Project Manager – Brian Hayward (TPM)

Brian is a qualified Civil Engineer and Fellow of Chartered Institution of Highways & Transportation. He has a background in Highways design and site supervision and has worked as contract manager overseeing local Highways Authority contracts from the client side, has ten years experience as Head of Highways at Bedford BC overseeing capital programmes of work and managing annual budgets in excess of £12m. He has recently overseen the delivery of the Bedford Bough Council DfT challenge fund project for street lighting improvements and project managed the successful delivery of the £18M Bedford Western bypass project.

2.4.7 The day-to-day management and delivery of the project will be the responsibility of the Technical Project Manager and Engineering support staff. They will work closely with the Term Contractors and other delivery partners, and also form a point of contact for stakeholders.

2.4.8 The usual Council governance procedures will apply to all aspects of the project management, as set out in Bedford Borough Councils PMO Manual (as shown in Appendix 3) with issues being escalated in accordance with Council protocols as necessary. The Director of Environment and the Councils Project Manager will have delegated authority to take operational decisions. Financial management will be in accordance with Councils established protocols. The Project Manager will be the budget holder for the project and will have authority on all transactions up to £5000. Transactions up to £50,000 can be approved by Chief Officers and amounts about £50,000 will require Director approval. The Chief Officers and Directors are members of the Project Governance Board.

2.4.9 The Project will be managed in accordance with Bedford Borough Councils PMO Manual (as shown in Appendix 3). An extract from the PMO manual showing the overarching project management cycle is shown below.



2.4.10 Stage 3 of the PMO Manual "Delivering the Project" states how activities relating to monitoring and controlling a project will take place.

2.4.11 Monitoring and Controlling includes:

- Measuring the ongoing project activities (where we are);
- Monitoring the project variables (cost, effort, ...) against the project plan and the project baseline (where we should be);
- Identify corrective actions to properly address issues and avoid risks (How can we get on track again);

- Influencing the factors that could result in arbitrary changes to the project so only changes that have been subject to a formal change control process are implemented.

2.4.12 The methods used for this will vary for the various Tranches of work explained elsewhere in this business case, but a form of regular update reporting to both the Steering Group and Project Board to ensure robust governance is usual.

Where issues are identified which are beyond the authority of the Project Manager or Steering Group to influence or resolve, the issue will be escalated to the Project Board.

2.4.13 Checkpoint Reporting

All BBC led projects have a formal system of reporting, to ensure that progress updates are circulated and everyone is kept informed.

To enable this regular Checkpoint Reports are provided . The template for this document is in Appendix 4. Note that Checkpoint Reports will be prepared by the Technical Project Manager and submitted to the Steering Group and Project Board prior to submission to the Project Board for sign-off .

The Checkpoint Report will be completed by the Project Manager to capture the current status of the project. These reports are the source of understanding of the current progress or issues with the project. The checkpoint report summarises Project, risks, issues, assumptions and dependencies (known as RAIDs). ie items which could impact adversely on the project. The project plan will be updated to show expected and actual timeframes for the checkpoint reports / decisions.

2.5 Project Plan

2.5.1 A provisional Project Plan was been developed for the initial business case submission has been revised as stakeholder management and early design work has taken place in the Winter of 2017 and Spring of 2018. . It covers each key stage of the project and the critical path. The tasks that have a critical end date that affect the delivery timescale are highlighted on the Project Plan. The plan will be reviewed and updated on regular basis and will be considered at fortnightly Governance Board meetings. A Gantt chart of the project plan is shown in Appendix 1.

2.5.2 The Project Manager will have overall responsibility for delivering the tasks required to achieve key milestones. Key timescales are summarised below:

- Full Business Case submitted October 2017;
- Approval sought from SEMLEP: November 2017 through to May 2018
- Detailed design begins: December 2017;
- Establishment of contracting arrangements: February-May 2018;
- Works begin on ground: September 2018;
- Completion works – Pinch Points February 2021;
- Completion works – Technology October 2020;
- Completion works – Public Realm April 2021

2.5.3 The project plan has also informed a number of interim project milestones that will be used to inform scheme monitoring. These are:

2018/19 Detailed Milestones

Q1

- Vissim Traffic Modelling completed by 30 June 2018

Q2

- Manton Lane main works - Detailed Design completed by 31 July 2018
- Manton Lane – confirm programme & phasing by 31 July 2018
- Manton lane Advance works completed by 22 August 2018
- Technology Element - Tender issued by 31 August 2018
- Second information leaflet published 30 September 2018
- Manton Lane TRO completed 30 September 2018

Q3

- Manton Lane main works - Contract Award by 30 October 2018
- Britannia Road - Detailed Design completed by 30 November 2018
- Baseline Model Review completed by 30 November 2018
- Stage 2 Business Sector consultation complete by 30 November 2018
- Britannia Road – confirm works programme and phasing 30 November 2018
- Britannia Road – Land negotiation / purchase 15 December 2018

Q4

- Britannia Road TRO completed by 1 January 2019
- Britannia Road - Contract Award by 28 Feb 2019
- Review / Refresh of Business case & milestones by 1 March 2019
- Review & refresh of procurement strategy by 1 March 2019

2019/21 Preliminary Milestones

- Manton Lane main works - Site works completed by 30 June 2019
- Cowbridge - Contract Award by 30 June 2019
- Britannia Road - Works Completed by 31 August 2019
- Technology Element - UTMC base system operational by 30 September 2019
- Bromham Road - Detailed Design completed by 31 December 2019
- Bromham Road confirm works & phasing by 31 December 2019
- Bromham Road TRO completed by 31 January 2020
- Bromham Road - Contract Award by 31 March 2020
- Cowbridge - Utility works completed by 30 April 2020
- Public Realm Schemes - Design approved by Project Board by 30 April 2020
- Public Realm Schemes - Contract Award by 31 July 2020
- Bromham Road - Site works completed by 30 September 2020
- Technology element - RSI systems operational by January 2021
- Public Realm Schemes - Site works completed by 28 February 2020

- Cowbridge - Site works completed by 28 February 2020

2.6 Assurance and Approvals Plan

- 2.6.1 Project assurance and approvals are the main responsibility of the Project Board supported by the Steering Group who will also ensure the quality of the work carried out. The scheme will be managed in line with the Project Plan and the Project Board will sign off each stage and give the go/no go decision at the gateway to start the following stage. Although the different tranches of the project have subtly different requirements in design procurement, stakeholder engagement and construction the project management process will be tailored to provide a consistent format of reports allowing risks, cost implications and delivery implications to be recorded and clearly expressed at each gateway stage (ie commencement of detailed design, commencement of procurement, commencement of works etc).
- 2.6.2 Further project assurance will be undertaken in the form of the checkpoint reports which will be produced by the Technical Project Manager, agreed by the Steering Group and signed off by the Project Board. The project plan will be updated to show expected and actual timeframes for the checkpoint reports / decisions.

2.7 Communications and Stakeholder Management

- 2.7.1 BBC have a tried and tested Stakeholder Engagement process which is used on all significant projects. Effective use of the process has resulted in limited adverse feedback from the public and ensured successful delivery of schemes both from a project management and public relations perspective.
- 2.7.2 The main aim from the Stakeholder Engagement process is to ensure that stakeholders and members of the general public are kept informed throughout the development and implementation of a scheme. This can range from keeping key stakeholders updated with critical information, essential to the successful delivery of the scheme to providing information to the general public
- 2.7.3 A range of target audiences are identified, including: those who will benefit (directly or indirectly) from the scheme; those affected (directly or indirectly); those who may have an interest without being directly affected; those with a statutory role; and those involved in the funding of the scheme.
- 2.7.4 The level of information provided to each group will vary based upon the specific needs ranging from intensive consultation, general consultation, through to information provision.
- 2.7.5 A detailed stakeholder management strategy has been developed that identifies specific stakeholders and interest groups, categorises them in terms of impact, and establishes the required level of engagement.
- 2.7.6 The full Stakeholder Management Plan is contained within a separate technical note that should be read in conjunction with this document.

2.8 Contract Management

2.8.1 The project will be managed by BBC Project Delivery Manager (Brian Hayward) with officers from their in house design team and contracts team delivering the works streams with support from Transport Consultants (SYSTRA) providing additional resources where required and specialist services that cannot be provided in-house.

2.9 Project Reporting

2.9.1 Progress Reports will be produced by the Project Manager for consideration by the Project Governance Board and comprise updates on:

- Review of programme and delivery
- Detailed scheme design progress
- Stakeholder engagement
- Review of Risk Register
- Review of Health and Safety Issues
- Procurement & approvals
- Financial management and cost monitoring
- Outcome monitoring

2.9.2 The report identifies any areas of concern or where decisions are required by the Steering Group.

2.10 Risk Management Strategy

i. The Technical Project Manager will be responsible for the management of risks associated with the project, including chairing regular risk workshops and maintaining the Risk Register. The risk management process improves when responsibility for individual risks are delegated to team members, where necessary. Therefore Risk workshops will be held at regular intervals during the development of the project and will be timed to coincide with various activities shown on the programme. Typically Risk Workshops will be held at the following milestones:

- Start of detailed design for scheme elements
- Midpoint of detailed design for scheme elements
- Start of procurement for individual scheme elements
- Following award of contract for individual scheme elements
- During mobilization period
- At frequent intervals during construction period.

The Project Manager will re-issue the Risk Register as and when it is revised. Membership of the risk workshops will vary depending upon the stage of the project.

ii) The effective management of risk and uncertainty through accurate evaluation and proactive mitigation of risks is critical to the success of the project. The following guiding principles will be adhered to:

- Risk management is part of all project management board meetings and decision-making. Project risk will be managed as an on-going process as part of the scheme governance structure. A scheme risk register is maintained and updated at each of the two-weekly Project Governance Board meetings. Responsibility for the risk register being maintained is held by BBC's Technical Project Manager.
 - Risk management will be proactively and consistently applied throughout the project lifecycle
 - The management of risks is to ensure their reduction to a level as low as 'reasonably practical' or adopt appropriate mitigation strategy
 - A QRA will be initiated at the beginning of the project
 - Risk communication will be open and transparent to all stakeholders
- iii) The QRA commences at the initial stage of the project with the identification and assessment of risks in terms of their likelihood and associated cost outcomes, and follows a cyclic process as shown below.



A QRA has been undertaken for the project initially and results presented at this stage. Further reviews of QRA will be undertaken as required for this project. QRA will be reviewed in line with the WebTAG guidance on Scheme Costs. The Steering Group & Project Board will identify risks and measure their impacts on the programme. All risks will be documented in a register with the impact on programme clearly defined and the mitigation set out. The programme will take account of the 'most likely' scenario after mitigation.

The top risks and our measures to mitigate them are included in the Quantified Risk Assessment Shown in Appendix 2.

iv. QRA Process model through the life of the project

The QRA process involves four steps.



Step 1 is identification of all risks affecting the project through risk workshops and risk reviews, resulting in a risk register. Risk workshops typically include a mixture of expertise such as engineers, designers, finance officers, procurement specialists, and environmentalists.

Typically, the risk register is instigated with a list of project risks with qualitative information, then through various workshops and iterations, it will be developed to a comprehensive risk register to log the full spectrum of potential risks (also opportunities if necessary). Appropriate risk owners will be allocated for each risk, and progress on the management of the key risks will be discussed at each Project Board meeting. Periodic risk workshops will review all risks, add new risks, and close expired risks as the project progresses. The first round of workshops took place between January and March 2018.

Step 2 of the QRA process is analysis of the various risks by defining their distributions in terms of probabilities, impacts and knock-on effects. This information is gathered through risk workshops and other interactions. A qualitative risk ranking will be undertaken in the form of a standard decision matrix using the concept shown below. Each risk will be assessed using a score; High, Medium, Low, etc., for Cost, Time, Performance, and Probability to calculate an overall risk scoring and to categorise into Red, Amber, or Green.

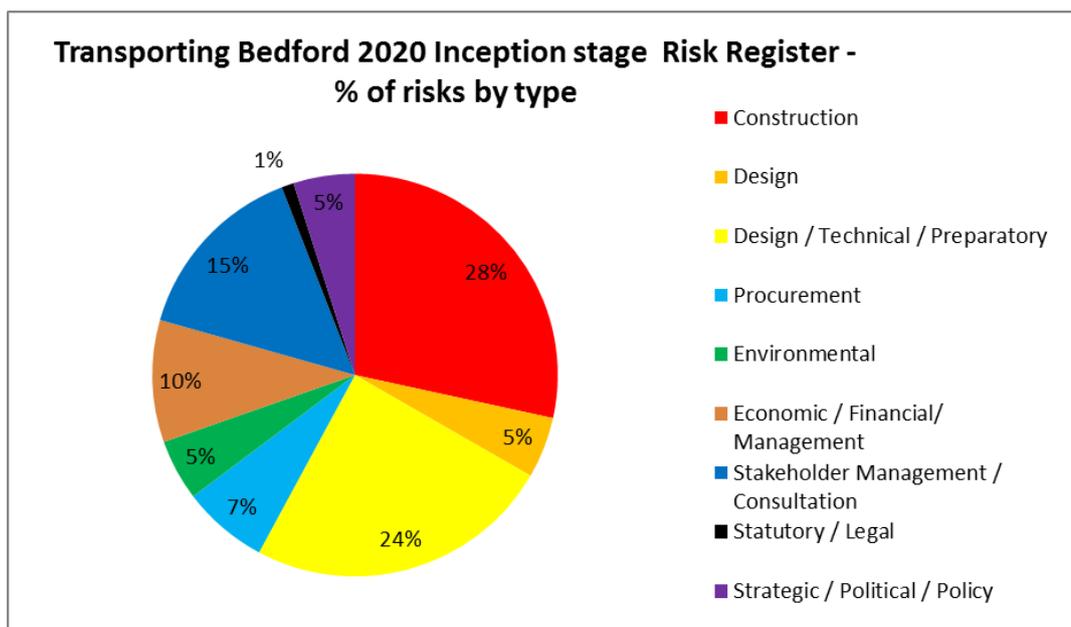
The risk matrix used is :

Risk Scoring Matrix					Probability Categories		
Impact	High/ Critical	3	3	6	9		
	Medium/ Serious	2	2	4	6		
	Low/ Marginal	1	1	2	3		
			1	2	3		
			Low/ Improbable	Medium/ Could happen	High/ Probable		
			Probability				
					Impact Categories		
Description		Prob	Scale Value				
H	Probable	>70%	3				
M	Could happen	30-70%	2				
L	Improbable	<30%	1				
Description		Guide Scenario		Scale Value			
H	Critical	Failure that involves significant rework, modification or reassessment		3			
M	Serious	Failure or setback that causes additional work and reassessment but containable		2			
L	Marginal	Impact has some effect causing rework or reassessment but easily handled		1			
Risk Category & Action							
Key/ Critical Risks		- closely monitor, manage & develop fallback plans					
Intermediate Risks		- monitor and manage to mitigate/ include specific risk allowances in cost estimate/ programme					
Minor Risks		- general allowance in base cost estimate & programme					

At the inception stage the first generation of a risk register identified 99 separate risk issues.

The register was subsequently reviews through a number of risk workshops, and the total number of risks identified rose to 102 (including 2 risks that were subsequently mitigated) . For the QRA process, monetised risk quantities has been agreed through group consensus for each individual risk for the minimum impact, maximum impact, likely impact, and likelihood/probability of occurring.

In order to help the project teams manage such a high number of risks each risk item has been categorised into a project related type as shown below. Future risk workshops will focus on one or two area, with the Project Board taking an overview. The chart purely shows numbers of risk and does not reflect the financial impact of risk arising from each category.



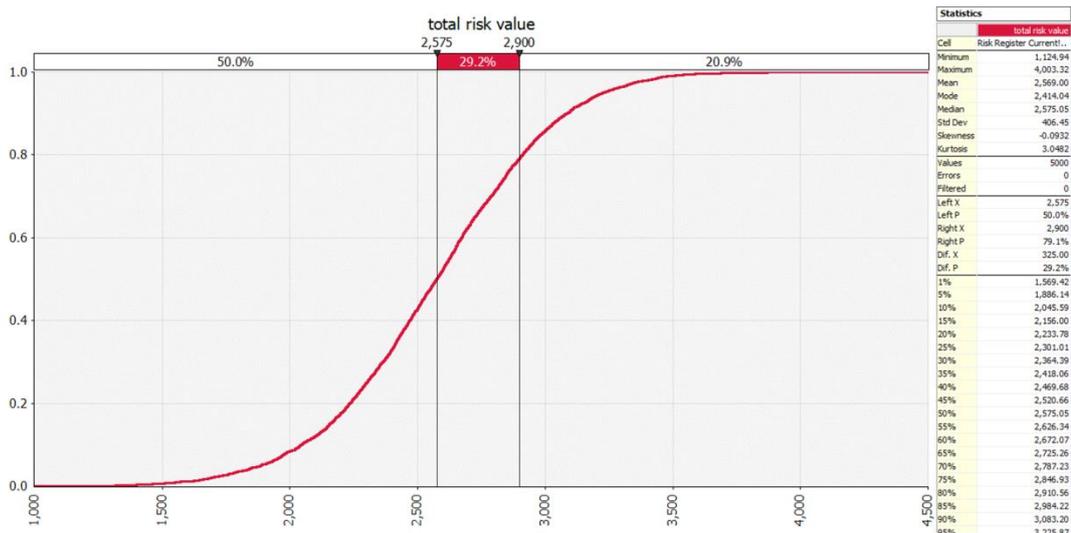
Transporting Bedford 2020 - Inception stage Risk Register	High Risk	Medium Risk	Low Risk	Managed Risks	Total Number
Construction	0	11	18	0	29
Design	0	2	3	0	5
Design / Technical / Preparatory	1	3	21	0	25
Procurement	0	3	4	0	7
Environmental	0	4	1	0	5
Economic / Financial/ Management	1	5	2	2	10
Stakeholder Management / Consultation	2	6	7	0	15
Statutory / Legal	0	1	0	0	1
Strategic / Political / Policy	0	0	5	0	5
Total	4	35	61	2	102

Step 3 A risk model has been constructed using the Microsoft Excel and @Risk® software packages. The model used the Monte-Carlo simulation theory by replicating a large number of iterations of likely project risk scenarios. Confidence levels relating to the cost of the scheme are obtained from the distribution of the averaged results produced by the simulations.

Step 4 is analysing the results against required contingency needs for the project. The 50% percentile value P(50) will be reported in line with WebTAG guidance.

The P(80) figure of £2.9m (19%) has been used in the economic case. The Project Board will use other results of the QRA, including other percentile values, to monitor and manage risks at overall project level.

Outputs are shown on the chart below, and are also included in the Risk Register appended to this document.



- v) The management strategy will enforce a systematic approach to responding to the various risks during the project lifecycle, and will continuously look to avoid, mitigate, transfer, or accept risks. In many cases, additional technical work or surveys, or early

discussions with partners will reduce or mitigate risks. Risk control measures such as preventive, corrective, directive, or detective measures will be in place to treat risks. Delivery and contractor teams will be responsible for managing their risks and reporting any newly identified risks to the Project Manager. Risks escalated to Medium or High which could impact on the progress or financial position of the project will be referred by the Project Manager to the Project Board.

2.11 Scheme Delivery Risks

- 2.11.1 Earlier in this section of the report, the experience of BBC's staff has been highlighted in terms of delivering major transport schemes effectively and with little adverse effect. This was achieved through rigorous management policies, processes and procedures that were effectively and accurately implemented. An important aspect of the management process is identifying risks associated with scheme delivery and funding early in the process to allow mitigation to be identified.
- 2.11.2 Appendix 2 shows the Project Risk Register, with risks categorised in accordance with BBC established risk management policy. The Project Governance Board will review the risk register at its fortnightly meetings and oversee mitigation measures. A collegiate approach will be taken to risk appraisals to reduce the effects of risk appetite skewing the register. The project risk register will be entered onto the BBC corporate 'JCAD' system to ensure full visibility and access to the risk register.
- 2.11.3 The risk register – including all scheme delivery risks – will also form part of the Quarterly monitoring reports to SEMLEP.
- 2.11.4 Further reference to risk management and high risk issues is made in Section 2:16 of the Strategic Case chapter of the Business Case.

2.12 Benefits Realisation and Monitoring

- 2.12.1 The purpose of benefits realisation is to plan for and track the benefits that are expected to be accrued over the lifetime of the scheme. The plan will detail the activities required to track the progress of the scheme including project milestones and responsibilities.
- 2.12.2 Monitoring will take place prior to scheme opening (baseline) and at predefined intervals upon successful delivery of the scheme, notably:
- 1 year post scheme opening;
 - 4 years post scheme opening; and
 - 9 years scheme opening.
- 2.12.3 The key scheme benefit indicators set out against the scheme objectives are shown within Table 2 below.

Table 2. Scheme Benefits Indicators

OBJECTIVE	DESIRED OUTCOMES
TS01 (Regeneration)	Support the heritage, cultural and economic regeneration in the town centre through enhanced access and improved town centre permeability.
TS02 (Town Centre Traffic)	Manage vehicular activity in the core town centre, in particular through movements, to enhance the pedestrian retail, night-time, and visitor economy experience, whilst ensuring adequate town centre access for traders, freight, public transport and taxis and to car parks
TS03 (Cross-town movements)	Facilitate efficient cross town and end-to-end corridor movements, for all transport modes, through strategic routings, reduced congestion at network pinch-points and improved infrastructure provision
TS04 (Strategic links)	Enhance strategic links to the town to secure the long term position of Bedford as a regional centre, whilst reducing the volume and impact of through vehicular traffic movements that could otherwise utilise the town ring road
TS05 (Network resilience)	Provide network resilience, across all modes, that accommodates forecast growth associated with future development aspirations of the town and changes to population demographics
TS06 (Safety & Security)	Create a safe and secure environment for all transport users, taking particular account the needs of vulnerable users, and reduce conflicts between vehicular and non-vehicular transport movements
TS07 (Environment)	Manage the environmental impacts of transport, in particular within the air quality management area, and promote sustainable modes of travel
TS08 (Access to health & education)	Proactively manage access to health and educational facilities, including hospital sites, schools, the college and the university, in order to make best use of transport network capacity
TS09 (Sense of Place)	Create a coherent 'sense of place' across the town quarters, ensuring clear vehicular and non-vehicular way-finding leading into and around the town centre, with a particular focus on ensuring connectivity with the river and the rail station
TS10 (Design)	Ensure inclusive, resilient, long-term, and low maintenance design of transport infrastructure and operational services

2.12.4 In order to ensure that the objectives are being realised, a method for measuring outputs from the scheme are classified in Table 3 below. The acceptable thresholds are deemed to be realistic and achievable, based on outputs from the PERs audit and forecast highway model for the package of scheme measures. Baseline data and

methods of measurement will be clearly set out in a monitoring and evaluation template.

Table 3. Outcome Measurement and Acceptability thresholds

MONITORING INDICATOR	MEASUREMENT	ACCEPTABLE THRESHOLD
TS01 (Regeneration)	Journey times (all modes); accessibility and permeability (PERS audit); rateable values of retail properties	5% reduction in peak hour journey times (all modes) +2 points for PERS rating for Permeability 25% increase in rateable values
TS02 (Town Centre Traffic)	Town centre vehicle kms, town centre vehicles speeds	5% reduction in town centre vehicle kms 15% reduction in High Street average speeds
TS03 (Cross-town movements)	Journey times	5% reduction in peak hour journey times (all modes)
TS04 (Strategic links)	strategic public transport services (rail routes/services; bus network kms); through traffic vehicle-trips within town centre cordon	5% increase in bus service levels 5% reduction in through traffic
TS05 (Network resilience)	Transport network capacity	10% increase in transport operating capacity
TS06 (Safety & Security)	Accident levels; security (PERS audit)	10% reduction in accident levels +2 points for PERS rating for Security
TS07 (Environment)	Town centre vehicle-kms;	5% reduction in town centre vehicle kms
TS08 (Access to health & education)	accessibility contours to sites	5% reduction in access times
TS09 (Sense of Place)	qualitative assessment of design and signage (PERS audit)	+2 points for PERS rating for Quality of Environment
TS10 (Design)	qualitative assessment of design	Design review

2.12.5 BBC will conduct a full evaluation of the impact of the package of scheme measures in the period after it is completed. The Council will prepare evaluation reports for short, medium and long term horizons ie one year (2022), four years (to 2025) and nine years (to 2030) after scheme opening, using the information to be collected as set out above to gauge the impact of the scheme on the traffic and transport network, and assess the success in meeting the scheme objectives. Unexpected effects of the scheme will be reported upon and, where appropriate, remedial measures identified.

2.12.6 BBC undertake to provide funding for short medium and long term monitoring. The form of monitoring and reporting will be as specified by SEMLEP.

2.12.7 Full details of Monitoring, Evaluation, Benefits and Contingency issues are set out in a separate Technical Note.

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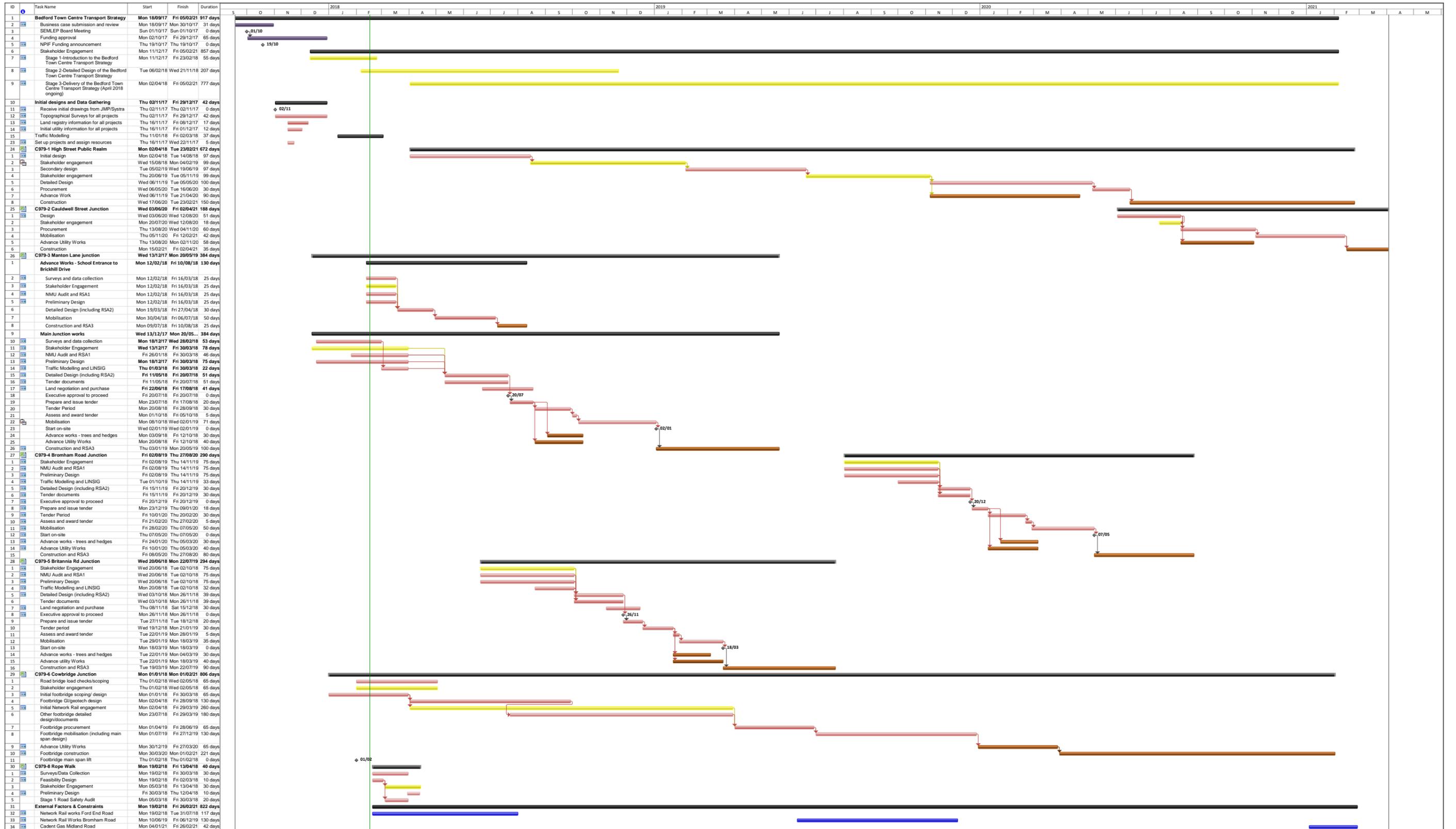
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TRANSPORTING BEDFORD 2020

Stakeholder Management Plan (including Travel Demand Management) – Technical Note

IDENTIFICATION TABLE

Client/Project owner	Bedford Borough Council
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APPROVAL

Version	Name		Position	Date	Modifications
1	Author	JB/KH	SYSTRA	16/10/17	initial
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2	Author	BH	PM	17/5/18	
	Checked by	MM	TLTP	18/5/18	
	Approved by	MM	TLTP	18/5/18	

1. Background

- 1.1. This note has been produced in support of the Business Case for improvements to Bedford Town Centre, to be submitted to the LEP.
- 1.2. The purpose of this note is to set out a Stakeholder Management Plan (SMP) to outline how wider stakeholder and community interests will be involved in the Transporting Bedford 2020 project. The aim of the SMP will be to:
 - Communicate the aims and objectives of Transporting Bedford 2020 to stakeholders and enable consultation to refine individual component projects;
 - Influence stakeholders through communication of a Travel Demand Management (TDM) strategy at the Delivery stage.
- 1.3. Regarding the second aim, TDM provides enhanced information and travel advice during construction periods to mitigate congestion and reduce customer impact. TDM uses the '4R Principle' of encouraging drivers to 'Reduce', 'Remode', 'Retime', 'Reroute'.¹
- 1.4. The SMP will therefore assist in keeping stakeholders informed, upholding the reputation of Bedford Borough Council (BBC) during the construction period and ensure wider stakeholder support for Transporting Bedford 2020 project.

2. Key Engagement Issues

- 2.1. Transporting Bedford 2020 project has three distinct themes:

Public Realm

- Improvements in the town centre public realm focused on Bedford High Street as the main area of pedestrian/vehicle conflict and on existing pedestrian areas most in need of revitalisation in Allhallows and St Paul's Square, to improve the quality of the environment for users of the town centre.

Managing Congestion

- A widespread programme of small/medium scale infrastructure improvements focussed on the most severe junction pinch-points where worthwhile increases in capacity and reliability are justified and will benefit all road users.

Intelligent Transport Corridor

- A major upgrade to existing traffic management systems across the whole Town Centre and Southern Gateway area to provide the maximum delay reductions possible, provide real-time information to drivers to support their decision-making, and to be ready to incorporate emerging/future technology on Cooperative Intelligent Transport Systems (C-ITS), Expressway driver information systems, autonomous vehicles and Mobility as a Service (MaaS) technology.

¹ Research by TfL has shown that TDM can influence around 14% of frequent drivers to change their behaviour during the time of construction because of enhanced communications resulting in up to 30% reduction in background traffic. The monetised social benefit of the behaviour change set against the cost of enhanced communications generates a BCR of more than 4:1.

- 2.2. Key stakeholder engagement has already been undertaken and is documented in supporting documents. This stakeholder engagement includes:
- Public Realm Stakeholder Engagement relating to Bedford High Street in August 2017;
 - One Public Estate (2016);
 - Citizens Panel (Ongoing);
 - Network Rail (2016 & 2017).
- 2.3. The components of the strategy are conceptually different, are spread across an area (rather than having a clear single location) and will be delivered as a series of discrete projects. There will also be the potential for confusion with other highway works, such as routine maintenance and utility repairs/upgrades. As well as these factors, elements may change because of technological changes and new funding sources becoming available.
- 2.4. Communicating the three workstreams as one coherent programme that demonstrates how they support each other will be a key narrative to give to stakeholders. In addition, communicating the construction impacts of the programme to stakeholders in advance will enable congestion to be managed during the periods of roadworks which are as a direct result of Transporting Bedford 2020 project as well as other highway works.
- 2.5. Feedback received as part of all consultation / Stakeholder engagements will be recorded by the Project Manager and reported to the Project Board. As feedback is likely to influence design, programme and risk issues updates to the stakeholder management plan will be reported in the form of an 'events and issues' log as part of routine quarterly monitoring, and due regard given to any changes in design, programme or risk that may affect the wider business case.

3. Communications Protocol

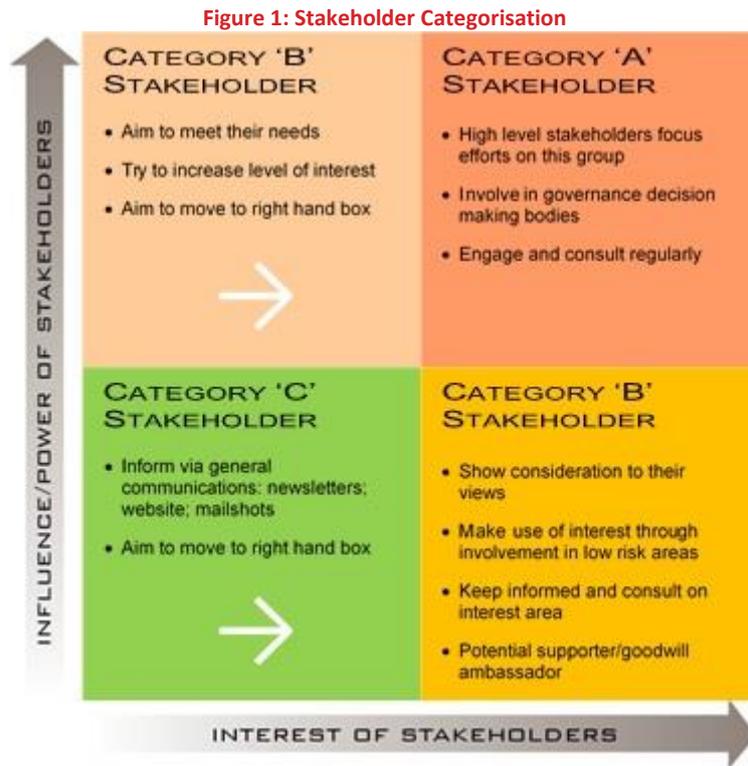
- 3.1. All publicly available information produced under this Stakeholder Management Plan will be overseen by the Communications team at BBC and will be published in accordance with the South East Midlands Local Enterprise Partnership Communications protocol (October 2017)
- 3.2. Information published will be open and accessible to encourage effective dialogue and joint working
- 3.3. Key publicity information (eg production of press releases; leaflets; updates to the Council website; newsletters and exhibition information) will be agreed in advance with SEMLEP.

4. Stakeholders

- 4.1. In order that the stakeholder engagement is efficient and effective the stakeholders have been categorised as 'A', 'B' and 'C' stakeholders to ensure that the most appropriate engagement methods are used with different stakeholders. Categorising stakeholders is crucial to the success of the Transport Strategy because there are many groups that will be influential in key decisions.
- 4.2. For example, 'Category A' stakeholders have a high political interest and are powerful enough to offer significant support with planning and delivering transport schemes, whilst stakeholders with lower levels of interest and influence need to be kept informed but require less stakeholder engagement resources.

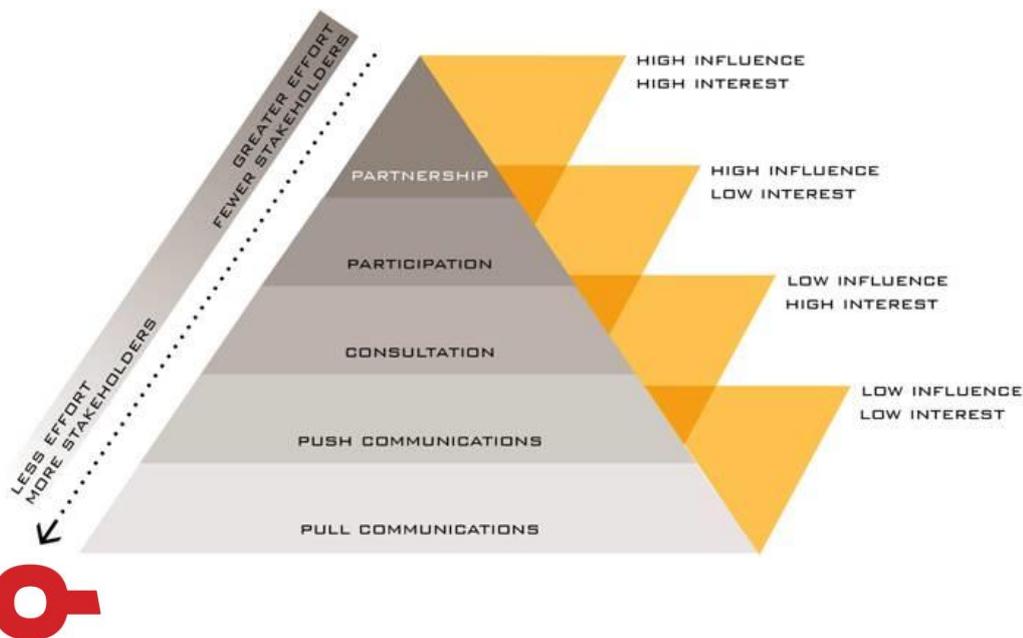


4.3. Figure 1 below shows the categorisation.



4.4. Using this approach, we have broadly categorised stakeholders based on influence and interest (see Table 1) and then applied appropriate communication methods so that the SMP is efficient and cost-effective. The diagram below (Figure 2) illustrates the relationship between stakeholder influence/power and stakeholder engagement approaches.

Figure 2: Relationship between stakeholder influence/power and stakeholder engagement approaches



4.5. Table 1 provides an outline categorisation of known stakeholders, although this list will be refined throughout the SMP process.

Table 1: Categorisation of stakeholders

Stakeholder Category	Stakeholder Groups	Engagement Method
Category A Stakeholders (Power & Interest)	Bedford Borough Council – Environment, Transport, Planning, Economic Development One Public Estate SEMLEP officers	Partnership via meetings / workshops
Category B Stakeholders (Power)	MPs DfT and CLG contacts Network Rail BBC Environment Scrutiny Committee Ward Councillors Technology Sector	Participation via meetings / reports
Category B Stakeholders (Interest)	Highways England Town Centre Organisations: Bedford BID (and its members) Bedfordshire Chamber of Commerce Federation of small businesses Harpur Trust schools Bedford College University of Bedfordshire Bedford Hospital / NHS Trust Sainsburys Manton Lane Business Group Transport Groups: Cycle Strategy Group (and all its member groups) Bedford Commuters Association Bedford Bus Users Group Stagecoach Grant Palmer Taxi and Private Hire Associations RAC Logistics Groups	Consultation via meetings / workshops, written correspondence or telephone
Category C	Town & Parish Councils	Information provision via

Stakeholders	Residents / Public	letters, exhibition, email, brochures, webpages, newsletters, social media, adverts, digital adverts.
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5. Our Approach to Engagement

5.1. The approach to engagement set out below will involve the preparation of three strands of engagement work focused around 'Introduction', 'Detailed Design' and 'Delivery'. The first two elements will focus on the three workstreams of 'public realm', 'managing congestion' and 'intelligent transport corridor'. The 'Delivery' element will focus on 'Construction' and 'Travel Demand Management'.

Stage 1: Introduction to Transporting Bedford 2020 project (December 2017 – July 2018)

Category A Stakeholders

5.2. Initial consultation commenced with the Category A Stakeholders in December 2017. The purpose of this consultation is to:

- Explain the process to date;
- Explain the decisions taken by Bedford Borough Council and SEMLEP;
- Gather views;
- Identify the important issues for key groups;

Category B Stakeholders

5.3. The Project Board has confirmed a complete list of stakeholders who the project team will engage with during the various stages of the project.

5.4. A series of meetings, presentations, written and telephone consultation commenced early in 2018. From previous stakeholder engagement we are aware that some stakeholders (particularly the transport groups), are more interested in the 'intelligent transport corridor' workstream, key businesses near key junctions are interested in the 'managing congestion' workstream whereas retailers are interested in the 'public realm' workstream. We will tailor our conversations to cater to the interest identified

5.5. Market testing events will be held regarding the intelligent transport corridor work stream. The purpose of the event will be to identify what is possible within Bedford in terms of technological interventions. Invitees will technology providers who can offer solutions to Bedford.

Category C Stakeholders

5.6. We will utilise a range of media to communicate with Category C stakeholders to ensure maximum reach. This will include:

- Press releases
- A social media campaign to engage large audiences based on their interests (what they have previously 'liked');

- Engaging business networks to talk directly to the business community about issues that are relevant to them;
- Use of the council’s own channels to reach the public (local press, resident groups) to engage the general public.

5.7. Therefore, at Stage 1 we are :

- Issuing a press release in December to engage the general public about Transporting Bedford 2020 project;
- Attending business networking events to inform the business community;
- Develop a webpage situated on BCC website to communicate the strategy and encourage sign up to quarterly e-newsletters;
- Issue the first of a quarterly e-newsletter as an initial consultation and communication leaflet to Category C stakeholders.
- Publish a leaflet outlining the strategy
- Hold public exhibitions at key locations in the Borough
- Market testing technology elements

Stage 2: Detailed Design of Transporting Bedford 2020 project (April 2018 ongoing)

Category A Stakeholders

5.8. Regular meetings / correspondence will take place with the Category A stakeholders regarding Transporting Bedford 2020 project. The meetings will cover all the workstreams to ensure the linkages are made and communicated.

Category B Stakeholders

5.9. As the strategy moves towards implementation it will be important to engage with Category B stakeholders to reassure them of the improvements that will be made as a result of the programme. Table 2 shows some of the key messages that the SMP will focus on for these groups.

Table 2: Category B Stakeholder interests

Work packages	Stakeholders	Key Issues / Messaging
Public Realm	Town centre retailers	Footfall
	Town centre businesses	Deliveries
	Utility companies	Access to infrastructure
Managing Congestion	Businesses Schools / Colleges Hospital	Access Commuting Deliveries Journey times
Intelligent Transport Corridor	Transport groups	The effect on various modes of travel

5.10. Meetings will be held with town centre retailers and businesses and businesses located adjacent to key pinch-points. The meetings will present the developing public realm narrative and provide an update on the design of junction schemes as well as the intelligent transport corridor

approach. Illustrations of the work to be undertaken in Bedford Town Centre on the public realm, pinch-points and technology will be outlined and the timescales, costs and benefits communicated. The meetings will include an opportunity for stakeholders to provide further input into the design of the schemes. Those unable to attend the meeting will be issued with a letter summarising the meeting that will outline the developing programme of works.

Category C Stakeholders

5.11. At Stage 2 we will:

- Regularly update the webpages on BBC's website and encourage sign up to quarterly e-newsletters;
- A public exhibition will be held in a convenient and well-known town centre location, and be open for a 1 week period where people can drop in and view the exhibition materials with timeslots for when proposals can be discussed face-to-face;
- Issue quarterly e-newsletters to those signed up to update stakeholders on the design of the strategy;
- Social media campaign.

5.12. Key messages to be communicated to the Category C stakeholders will be on quality of life improvements, congestion reduction and journey time reliability.

Stage 3: Delivery of Transporting Bedford 2020 project (October 2018 ongoing)

Category A Stakeholders

5.13. Regular meetings (as outlined above) held to cover Stage 3 Delivery. A key focus of the meetings will be to discuss the Travel Demand Management strategy and how to ensure effective communication of TDM to Category B and C stakeholders.

Category B Stakeholders

5.14. A TDM programme will engage Category B stakeholders to disseminate key messages to residents and employees (Category C stakeholders). The purpose of the TDM programme is to:

- Deal with road safety risks, particularly for non-motorised users such as pedestrians and cyclists.
- Maximise the opportunities for managing travel, particularly to encourage modal shift through increased levels of walking and cycling.
- Achieve reliability and consistency of journey times across Bedford during construction of the schemes.

5.15. To maximise impact, we will:

- Engage one-to-one with businesses and educational establishments within 400m of the construction site. In addition, we will also communicate with community groups and influencers (MPs, Councillors) throughout the construction period;
- Manage the risk of congestion by creating a database of 'hotspot' junctions and routes affected by construction;
- Create weekly calendars, with a red, amber and green warning system on likely impact of construction work at key locations;



- Plan communications around construction activities and communicate to affected businesses, educational establishments and community groups in an efficient and timely manner based on the 4R's e.g. 'Remode', 'Retime', 'Reroute', 'Reduce';
- Build road safety into our messaging;
- Work with Category B stakeholders in advance of major disruption to ensure measures are introduced to support site users change journeys when disruption occurs. This may include introducing more flexible working arrangements, changing mode, etc.

5.16. The TDM strategy will be communicated to Category B stakeholders through business network meetings, schools' meetings and community groups. For key stakeholders who have significant reach, face-to-face communication will be arranged initially with subsequent information provided by email and website updates.

Category C Stakeholders

5.17. At Stage 3 we will:

- Issue quarterly e-newsletters to update Category C stakeholders on the delivery of the strategy and to communicate the 4Rs;
- Update the website with information about hotspots;
- Use social media to communicate to the public.
- Make use of on street Variable message signs (VMS) to deliver key messages

6. Summary of the SMP

6.1. The methodology of the SMP can be summarised as follows:

Table 3: Summary of SMP

Stakeholders to be involved/contacted			
	Category A	Category B	Category C
	<ul style="list-style-type: none"> • Bedford Borough Council – Environment, Transport, Planning, Economic Development • One Public Estate • SEMLEP officers 	<ul style="list-style-type: none"> • MPs • DfT and CLG contacts • Network Rail • BBC Environment Scrutiny Committee • Ward Councillors • Highways England • Technology Sector <p>Town Centre Organisations:</p> <ul style="list-style-type: none"> • Bedford BID (and its members) • Bedfordshire Chamber of Commerce • Federation of small businesses • Harpur Trust schools • Bedford College • University of Bedfordshire • Bedford Hospital / NHS Trust • Sainsburys • Manton Lane Business Group <p>Transport Groups:</p> <ul style="list-style-type: none"> • Cycle Strategy Group • Bedford Commuters Association 	<ul style="list-style-type: none"> • Town & Parish Councils • Residents / Public

		<ul style="list-style-type: none"> • Bedford Bus Users Group • Stagecoach • Grant Palmer • Taxi and Private Hire Associations • RAC • Logistics Groups 	
Stage 1	Introduction to Bedford Town Centre Transport Strategy		
Method of engagement	<ul style="list-style-type: none"> • Partnership via meetings / workshops 	<ul style="list-style-type: none"> • Meetings / workshops, • Written correspondence • Telephone • Press release • Business networking events • Webpage • First quarterly e-newsletter • Leaflet • Exhibition 	<ul style="list-style-type: none"> • Press release • PC meetings • Webpage • First quarterly e-newsletter • Leaflet • Exhibition

Stage 2	Detailed Design of Bedford Town Centre Transport Strategy		
Method of engagement	<ul style="list-style-type: none"> • Monthly meetings • Market testing of emerging technologies for Intelligent Transport Corridor 	<ul style="list-style-type: none"> • Meetings • Email • Website 	<ul style="list-style-type: none"> • Website • Exhibition • Quarterly e-newsletter • Social media



Stage 3	Delivery of Transporting Bedford 2020 project		
Method of engagement	<ul style="list-style-type: none"> • Monthly meetings 	<ul style="list-style-type: none"> • Meetings • Email • Website 	<ul style="list-style-type: none"> • Website • Quarterly e-newsletter • Social media • VMS



6. Events Log

6.1. The table below records the first and/or notable contacts for each identified stakeholder. The event log will be updated throughout the life of the project.

Table 4: Events Log

Events Log up to May 2018		
Activity	Date	Stakeholders
Category A Stakeholders		
Meeting to discuss principle of scheme	16/11/2017	OPE Project Manager
Meeting to discuss OPE position	05/12/2017	OPE Project Manager
Meeting to discuss principle of scheme	20/12/2017	BBC Internal
LGF Programme Management Board	31/01/2018	SEMLEP
LGF Programme Management Board	25/04/2018	SEMLEP
Category B Stakeholders		
Report on scheme	30/11/2017	ESCOSC
Meeting with suppliers to discuss sector developments	30/11/2017	Technology Sector
Email to introduce scheme	06/12/2017	MPs
Meeting to outline scheme	13/12/2017	Network Rail
Meeting to introduce scheme	13/12/2017	Harpur Trust Schools
Correspondence to introduce scheme	15/12/2017	Stagecoach
Correspondence to introduce scheme	15/12/2017	Grant Palmer
Email to introduce scheme	20/12/2017	Ward Councillors
Meeting with suppliers to discuss sector developments	20/12/2017	Technology Sector
Meeting to introduce scheme	08/01/2018	Stagecoach
Meeting to introduce scheme	09/01/2018	Taxi and Private Hire Associations
Site meeting	11/01/2018	ESCOSC
Meeting with suppliers to discuss sector developments	17/01/2018	Technology Sector
Meeting with suppliers to discuss sector developments	18/01/2018	Technology Sector
Meeting with suppliers to discuss sector developments	22/01/2018	Technology Sector
Correspondence to introduce scheme	22/01/2018	Bedford College
Correspondence to introduce scheme	22/01/2018	University of Bedfordshire
Introduction to scheme	23/01/2018	Bedford BID Board

Newsletter to introduce scheme	23/01/2018	Bedford CoC
Newsletter to introduce scheme	23/01/2018	Bedford Federation of Small Businesses
Newsletter to introduce scheme	23/01/2018	Manton Lane Businesses
Meeting to introduce scheme	29/01/2018	Bedford Bus Users Group
Meeting to introduce scheme	29/01/2018	Stagecoach
Meeting to introduce scheme	29/01/2018	Grant Palmer
Correspondence to introduce scheme to members	02/02/2018	Bedford CoC
Correspondence to introduce scheme to members	02/02/2018	Bedford Federation of Small Businesses
Meeting to introduce scheme and discuss design	06/02/2018	Sainsbury's
Meeting to introduce scheme	07/02/2018	Cycle Strategy Group
Correspondence to introduce scheme	07/02/2018	RAC
Meeting to discuss principle of scheme	14/02/2018	Highways England
Meeting with suppliers to discuss sector developments	14/02/2018	Technology Sector
Meeting consultants to refine scheme details	19/02/2018	Technology Sector
Meeting to outline scheme	21/02/2018	Bedford Bid wider group
Meeting to introduce scheme	12/03/2018	Bedford Commuters Association
Meeting to outline design	16/03/2018	BMS
Meeting to discuss schemes and programme	20/03/2018	Network Rail
Meeting to outline scheme	27/03/2018	DfT
Meeting consultants to refine scheme details	19/04/2018	Technology Sector
Workshop	21/06/2018	Bedford CoC
Workshop	21/06/2018	Bedford Federation of Small Businesses
TBC	TBC	Logistics Group
Category C Stakeholders		
Website Live	01/12/2017	Residents /Public
Press Release	06/12/2017	Residents /Public
Correspondence to introduce scheme	20/12/2017	Town & Parish Councils
Leaflet	27/12/2017	Residents /Public
Exhibition (with HE)	09/04/2018	Residents /Public
Correspondence to arrange further discussion	15/04/2018	Town & Parish Councils
2018/19 Q1 & Q2 planned events as at 17 May 2018		
Activity	Date	Stakeholders
Category A Stakeholders		
LGF Programme Management Board	18/07/2018	SEMLEP
Project Board (meeting with SEMLEP)	6 or 20 /07/2018	SEMLEP

Category B Stakeholders		
Scheme boards erected	22/06/2018	Technology Sector
Meeting to discuss design	20/06/2018	Cycle Strategy Group
Meeting to outline scheme	06/06/2018	Bedford Bid wider group
Meeting to discuss design	23/05/2018	BMS / Harpur Trust
Meeting to discuss scheme	04/07/2018	DfT
Meeting to discuss scheme	19/06/2018	Highways England
Presentation	06/06/2018	Manton Lane Businesses
Meeting consultants to refine scheme details	07/06/2018	Technology Sector
Workshop	21/06/2018	Bedford CoC
Workshop	21/06/2018	Bedford Federation of Small Businesses
TBC	TBC	Logistics Group
Category C Stakeholders		
Website update	01/07/2018	Residents /Public
Press Release	01/09/2018	Residents /Public
PC newsletters	Summer 2018	Town & Parish Councils
Leaflet	Aug / Sept 2018	Residents /Public
Bromham PC Meeting	02/10/2018	Town & Parish Councils
Clapham PC Meeting	17/07/2018	Town & Parish Councils
Kempston TC Meeting	05/09/2018	Town & Parish Councils
Elstow PC Meeting	tbc	Town & Parish Councils
Brickhill PC Meeting	07/06/2018	Town & Parish Councils
BBC Facebook	01/08/2018	Targetted advertising

MONITORING, EVALUATION, BENEFITS AND CONTINGENCY TECHNICAL NOTE



BEDFORD
BOROUGH COUNCIL

SYSTRA

TRANSPORTING BEDFORD 2020

MONITORING, EVALUATION, BENEFITS AND CONTINGENCY TECHNICAL NOTE

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1. INTRODUCTION

1.1 Purpose

1.1.1 This Technical Note details the monitoring and reporting activities to be undertaken for the Transporting Bedford 2020 scheme (the “Scheme”). This plan will ensure the effective management of the South East Midlands Local Enterprise Partnership (SEMLEP) funded project and to ensure the Government funding targets are met.

1.1.2 The report will provide a line of sight from strategy through to the delivery of outcomes via a consistent and integrated approach to benefits. This includes a Benefits Realisation, Monitoring and Evaluation Plan that details the activities required to track the progress of the scheme including project milestones and responsibilities.

1.1.3 This note forms part of the Transporting Bedford 2020 Business Case.

1.2 Stakeholders

1.2.1 Bedford Borough Council (BBC) has engaged with the necessary stakeholders throughout the option development process and will continue to do so throughout the development of the scheme.

1.2.2 A Stakeholder Management Plan has been developed to outline how stakeholder engagement will be established and taken forward as part of the proposals.

1.3 Structure of report

1.3.1 The overarching business case sets out the evidence base in favour of the Scheme, following the Department of Transport’s (DfT) guidance on Transport Business Cases. This report supplements the five business cases previously completed.

1.3.2 The report focuses specifically upon the Monitoring and Evaluation Plan, as well as the Benefits Realisation Plan and Contingency Plan. The report will:

- Focus on the outcomes of the Scheme
- Consolidate the benefits anticipated to be delivered by the Scheme
- Define reporting and monitoring requirements
- Define how, when and who is responsible for managing and realising the benefits.

2. SCHEME CONTEXT

2.1 Network issues and Scheme drivers

2.1.1 Following consideration of best practice, the evidence base, issues raised by stakeholders and an examination of Council priorities, four key overarching issues were identified:

- High traffic flows along the High Street and narrow pavement widths creating an unwelcoming environment for pedestrians that has had a clear demonstrable impact upon the value of retail property along this street.

- Lack of connectivity, permeability and legibility on the western and south-western sides of the town centre between the retail quarter, cultural quarter and River.
- Identified pinch-points across the town highway network that create specific uncertainty in journey times.
- An absence of a functional traffic management system for the town to respond to incidences and inform travellers of congestion and delays.

2.2 Objectives and outcomes

2.2.1 In response to the identification of these overarching issues, the Scheme development process established a set of ten strategic objectives that encompass the combined aims of the strategy. These objectives are detailed in the Strategic Case of the Full Business Case, and are summarised in Table 1.

Table 1. Transporting Bedford 2020 Scheme Objectives

OBJECTIVE	DESIRED OUTCOMES
TS01 (Regeneration)	Support the heritage, cultural and economic regeneration in the town centre through enhanced access and improved town permeability.
TS02 (Town Centre Traffic)	Manage vehicular activity in the core town centre, in particular through movements, to enhance the pedestrian retail, night-time, and visitor economy experience, whilst ensuring adequate town centre access for traders, freight, public transport and taxis, and to car parks.
TS03 (Cross-town movements)	Facilitate efficient cross town and end-to-end corridor movements, for all transport modes, through strategic routings, reduced congestion at network pinch-points and improved infrastructure provision.
TS04 (Strategic links)	Enhance strategic links to the town to secure the long term position of Bedford as a regional centre, whilst reducing the volume and impact of through vehicular traffic movements that could otherwise utilise the town ring road.
TS05 (Network resilience)	Provide network resilience, across all modes, that accommodates forecast growth associated with future development aspirations of the town and changes to population demographics.
TS06 (Safety & Security)	Create a safe and secure environment for all transport users, taking particular account of the needs of vulnerable users, and reduce conflicts between vehicular and non-vehicular transport movements.
TS07 (Environment)	Manage the environmental impacts of transport, in particular within the air quality management area, and promote sustainable modes of travel.
TS08 (Access to health & education)	Proactively manage access to health and educational facilities, including hospital sites, schools, the college and the university, in order to make best use of transport network capacity.

OBJECTIVE	DESIRED OUTCOMES
TS09 (Sense of Place)	Create a coherent ‘sense of place’ across the town quarters, ensuring clear vehicular and non-vehicular way-finding leading into and around the town centre, with a particular focus on ensuring connectivity with the river and the rail station.
TS10 (Design)	Ensure inclusive, resilient, long-term, and low maintenance design of transport infrastructure and operational services.

3. BENEFITS REALISATION STRATEGY AND PLAN

3.1 Overview

3.1.1 Benefits management is the identification, tracking, realisation and optimisation of benefits within and beyond a programme or project that will lead to improved infrastructure investment decision-making. Benefits management provides a clear line of sight from strategy through to outcomes and enables:

- A feedback loop to ensure policy outcomes have been clearly defined, are measurable, provide a compelling case for investments, and the ability to assess if outcomes are ultimately achieved.
- Assessment of the overall performance of the Scheme.

3.1.2 The benefits management strategy is intrinsically linked to the Monitoring and Evaluation Plan set out in Section 4, which describes the information that will be collected and evaluated to report on the expected outputs, outcomes and impacts of the Scheme.

3.1.3 Other key themes of benefits management include:

- Accountability, responsibility and reporting for benefits management throughout the life of the Scheme.
- Compliance with DfT’s policies, procedures and standards.
- Benefits that are measurable, with the cost of doing measurements realistic. This can be achieved by using existing data sources where appropriate and by using a manageable number of benefits.
- The key benefits are measured, not necessarily all the benefits realised.

3.2 Scheme benefits

3.2.1 The Scheme benefits have been outlined previously in Table 3 of the Strategic Case of the Business Case, and are summarised in Table 2 of this report. Note that the benefits apply to several objectives and are illustrated further in the Logic Mapping, shown in Figure 1.

Table 2. Transporting Bedford 2020 Scheme Benefits

SCHEME OBJECTIVE	SCHEME BENEFIT
TS01 (Regeneration)	Reduction in journey times
	Improve accessibility and permeability
	Improve the rateable value of retail properties
TS02 (Town Centre Traffic)	Reduction in town centre vehicle kms
	Reduction in High Street speeds
TS03 (Cross-town movements)	Reduction in journey times
TS04 (Strategic links)	Improvement in bus service levels
	Reduction in through traffic
TS05 (Network resilience)	Improve transport operating capacity
TS06 (Safety & Security)	Reduction in accident levels
TS07 (Environment)	Reduction in town centre vehicle kms
TS08 (Access to health & education)	Reduction in access times
TS09 (Sense of Place)	Encourage pedestrian movement
TS10 (Design)	-

3.2.2 The benefits outlined above correspond to the three priority areas for the Bedford Borough Council and align with the SEMLEP strategic objectives, as discussed in the Strategic Case of the Business Case and illustrated below.

3.2.3 The metrics in Figure 1 also correlate with the monetised benefits used to determine a Benefit Cost Ratio (BCR) for the Scheme, as outlined in the Economic Case of the Business Case. This includes both the direct transport user benefits and the benefits derived from the retail rental value uplift. The metrics also capture several non-monetised impacts that were not included in the BCR, such as improvement in journey time reliability and improvement to the public realm around High Street (e.g. accessibility).

3.2.4 A Logic Map has been prepared to outline the relationship between the SEMLEP Strategic Objectives and Scheme Objectives, as well as showing the expected outcomes and impacts that the Monitoring and Evaluation plan will address.

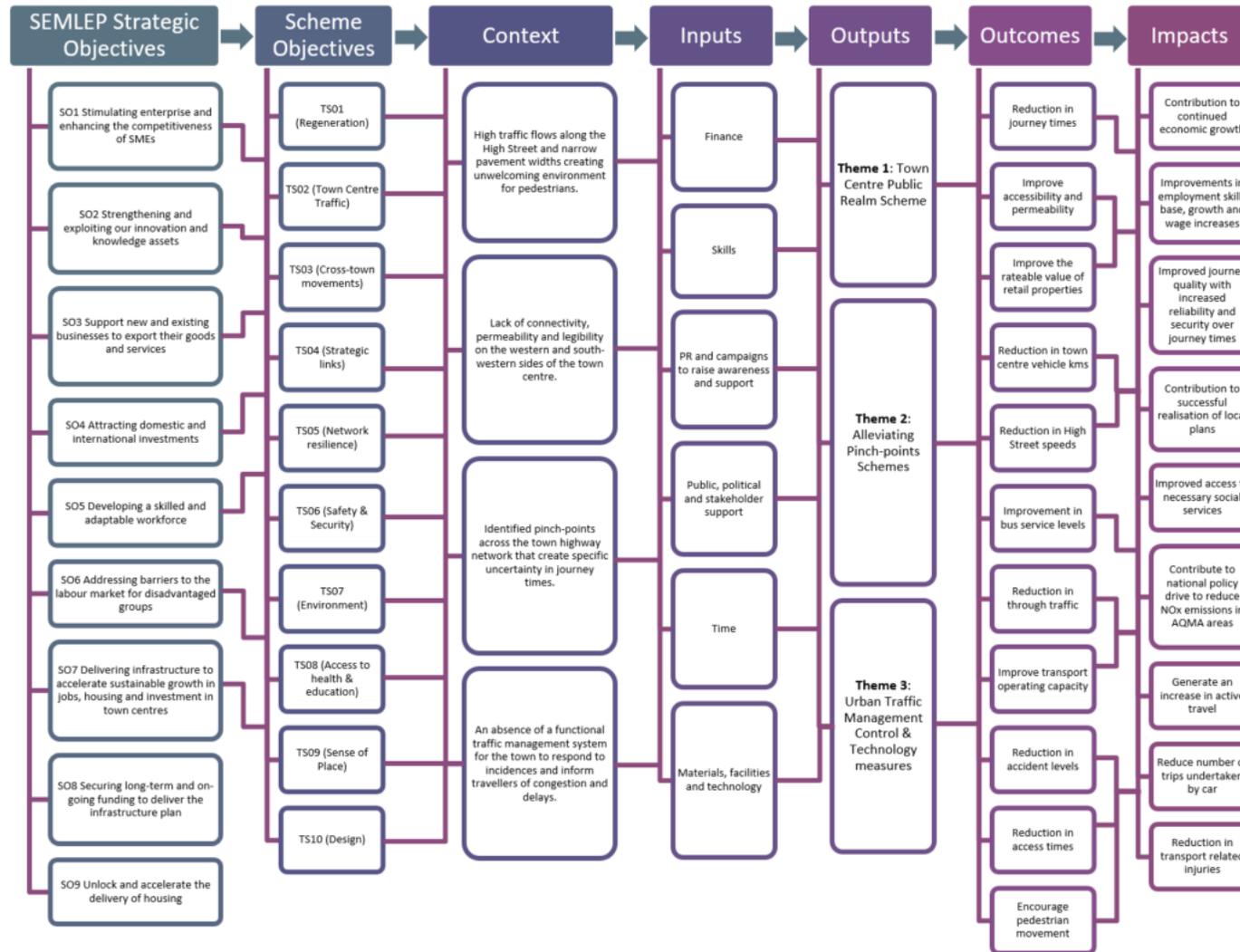


Figure 1. Transporting Bedford 2020 Logic Map

3.3 Approach

- 3.3.1 The Scheme benefits and measurements (baseline, targets, data source, responsibility for each measure, and associated costs of measurement) are detailed in Appendix 7.1. The Scheme benefit performance will be measured as part of the Monitoring Plan and evaluated against the interim and final targets in accordance with the Evaluation Plan.
- 3.3.2 The status of the Benefits Realisation Plan implementation will be included in the SEMLEP Quarterly Monitoring reports. This will include a review of the effectiveness of Scheme benefits (identifying any lessons learnt or opportunities for improvements to the benefit management process).
- 3.3.3 The Benefits Realisation Plan will be reviewed during the development of the Post Scheme Initial Monitoring Report, which is scheduled for completion in Autumn 2021. If the benefits/measures require adjustment, the Benefits Realisation Plan will be updated and re-submitted for approval.

3.4 Assumptions and constraints

- 3.4.1 The following assumptions were made in considering the realisation of the Scheme benefits:
- The proposed Scheme will achieve the Scheme benefits.
 - Resources will be available to monitor, track, review and report on the progress of benefits realisation for the Scheme.
 - The Project Manager will manage and report on the realisation of only the key benefits defined in this Plan. It will not measure and report on wider economic benefits, outside of the impact on rateable value of properties.
 - Measurement, analysis and reporting of the progress of benefit realisation for the Scheme will use existing data available where possible. Key benefits will be measured, analysed and reported by the Project Manager and supporting team.
 - Interim targets against timeframes have been established for measuring the benefits. Increasing frequency for measuring the benefits will increase the costs and may not necessarily add further value in assessing benefit performance.
 - It takes time for benefits to be realised.

3.5 Risk and opportunities

- 3.5.1 A series of risks have been identified regarding benefits management, and are summarised in Table 3. The risk score/category is a three point scale and incorporates probability and impact. These risks have been incorporated into the risk register.

Table 3. Transporting Bedford 2020 Risks and Opportunities for Benefits

SCHEME RISK	RISK SCORE	TREATMENT
Limited resources for the Project Manager to monitor, track and report on the Scheme benefits post construction.	3	To use a simplified approach that accesses existing data for benefit measurement.
Project scope variations are not aligned with the planned Scheme benefits, and the possibility of not aligning with strategic objectives.	1	Review process in place for significant project scope variations ensuring alignment with Scheme benefits.
The measurement data (for baseline measurement and ongoing measurement against targets) is limited.	2	Other potential sources for measurement data will be investigated.
The benefits proposed in the Business Case are not fully realised at the end of the Scheme due to available funding.	2	Targets (planned outcomes) are determined against the funding commitment.
The benefits do not achieve their interim targets for realisation	2	Implement contingency plan as per Section 3.6
As technology changes/improves over the life of the Scheme, the data collection methods may change and become more accurate, thereby potentially skewing the results against the baseline data.	1	Review of benefits and measures during baselining.

3.5.2 The following opportunities associated with the Scheme benefits management have been identified:

- Processing and analysis of data which may benefit the future planning of the Bedford Town Centre.
- Sharing of lessons learned to SEMLEP and DfT for future benefits management.

3.6 Governance

3.6.1 The key accountabilities for benefits are:

- Benefit Owner: identify the outputs that will achieve the benefits
- Benefit Realisation Manager: ensure the outputs are delivered in order to realise those benefits.

3.6.2 Refer to Section 4.7 for details regarding the Monitoring and Evaluation governance.

4. MONITORING AND EVALUATION

4.1 Overview

4.1.1 BBC has a responsibility to report on how funding secured for the Scheme and its expenditure represents value for money to the taxpayer and how spending aligns with SEMLEP's objectives. The SEMLEP main objectives for evaluating Growth Deals are:

- To understand whether individual Growth Deal projects have achieved their objectives and delivered good value for money, and whether they have contributed towards the successful implementation of the SEMLEP Strategic Economic Plan.
- To provide accountability for the Growth Deal investments, by testing the relationship between relevant outputs and outcomes and project investment.
- To assist in the development of more effective projects in the future and communicate any lessons that should be learned from Growth Deal project implementation.
- To review the success of the governance processes for project management and deliverability.

4.2 Approach

4.2.1 SEMLEP provides a Monitoring and Evaluation Framework for project leads regarding the intended objectives for Scheme evaluation, which includes a template for Monitoring Forms and Evaluation Forms.

4.2.2 The monitoring and reporting of performance metrics is required by SEMLEP to ensure the effective management of SEMLEP funded projects and to ensure the Government funding targets are met. The Monitoring and Evaluation Plan has been developed in accordance with this framework, as well as the SEMLEP Assurance Framework (Transport) and the Monitoring and Evaluation Framework for Local Authority Major Schemes developed by DfT.

4.2.3 In accordance with the DfT's Monitoring and Evaluation Framework, evaluation will be conducted to address the following three assessment elements:

- Process evaluation: How was the Scheme delivered? This covers the processes by which the Scheme was implemented and has been undertaken.
- Impact evaluation: What difference has the scheme made? This requires an assessment of the outcomes and impacts generated by the Scheme.
- Economic evaluation: Have the benefits justified the costs? An assessment will be made on whether the costs of the Scheme have been outweighed by the benefits.

4.3 Monitoring

4.3.1 A Monitoring Plan has been developed for the Business Case submission to detail the metric monitoring that should be undertaken as part of the Scheme, which includes monitoring both during and after funding. This centres around a Monitoring Form that will be completed quarterly, and is consistent with the SEMLEP Quarterly Monitoring Form Template. An example Monitoring Form is attached as Appendix 7.2.

- 4.3.2 The Monitoring Form will be completed by the Project Manager, and includes metrics consistent with the Benefit Realisation Plan detailed in Section 3.2. It includes a summary of activities completed in the period, as well as Project Outputs achieved to date. Once funding is complete, the Monitoring Form will be utilised to report on output delivery.
- 4.3.3 The Total Project Costs and the Forecast Project Annual Expenditure in the Financial Information of the Monitoring Form will be updated in line with the financial management of the project. Any outturn costs and cost savings will be tracked by the Project Manager and summarised in the Quarterly Monitoring form.
- 4.3.4 The Monitoring Form will be analysed and reviewed by the Programme and Assurance Manager, as well as the Local Growth Fund Programme Management Board to inform a risk assessment of each project for spend and delivery. It also includes a RAG rating system, which is designed to measure progress made towards delivery of a project and the risk associated with Scheme delivery.
- 4.3.5 The Monitoring Form supplements the Project Plan in the Management Case of the Business Case, which was developed to identify each key stage of the project and the critical path. The tasks that have a critical end date that affect the delivery timescale are highlighted in the Monitoring Form. The Project Manager will have overall responsibility for delivering the tasks to achieve the key milestones at the established timelines.

4.4 Evaluation

- 4.4.1 An Evaluation report has also been developed to review the efficiency and effectiveness of the Scheme in achieving the desired outcomes and impacts during and after project completion. This allows the funder to recognise the success of a project in achieving its original objectives.
- 4.4.2 A report template is attached as Appendix 7.3 and adheres to the guidelines for SEMLEP projects. The template lists Scheme outputs expected by specific dates, which is consistent with the Monitoring Form. The Project Manager will identify and document any changes to the Scheme since funding approval, including relevant variations.
- 4.4.3 The evaluation will take place annually and will include the metrics and timing detailed in the Benefits Realisation Plan. Baseline data will be finalised in Summer 2018. Note that the Evaluation report is generally intended to report of Scheme progress metrics during construction, and then evaluate the benefit metrics post-completion. This is reflected in the example.

4.5 Data requirements

- 4.5.1 The table in Appendix 7.1 outlines the relevant bodies within BBC for data collection. Several of the measures identified are 'Business as Usual' and will not require additional funding for collection. The teams identified in the table should be considered the Subject Matter Experts, and are the points of contact regarding the collection and evaluation of the source data.

4.5.2 The measures identified are applicable to the following stages of the Scheme as recommended in DfT’s Monitoring and Evaluation Framework for Local Authority Major Schemes:

- Inputs: Project costs and Scheme build.
- Outputs: Length of road improved, number of junctions, number of additional signs, area of townscape with physical improvements.
- Outcomes: Journey times, accessibility and permeability, town centre vehicle kms and speeds, strategic public transport services, through traffic vehicle-trips, transport network capacity, accident levels, pedestrian security, access times, town centre footfall and quality of environment.
- Impacts: Rateable value of retail properties, number of empty properties in High Street, Net Promoter Score, and air quality.

4.5.3 BBC is aware that the costs of Monitoring and Evaluation cannot be included within the Scheme costs. However, BBC are committed to ensuring that the Scheme is monitored and evaluated effectively to ensure that the objectives are met. Refer to Section 4.8 for details regarding metrics that will require additional effort and cost for sourcing/collecting and analysing the data.

4.6 Data collection methods

4.6.1 Appendix 7.1 outlines the relevant bodies within BBC for data collection. The programme benefit delivery timeframe is 2018 to 2029, based on a three year construction timeline beginning in Summer 2018.

4.6.2 Baseline data shall be collected prior to the commencement of the work on the Scheme and during Scheme construction to ensure that data is available for comparison with the post opening scenario. The method and date of benchmarking is detailed in Appendix 7.1, as well as applicable data collection locations frequency the data should be collected.

4.6.3 Benefit realisation will be formally measured on an annual basis post-completion, and reported on at the 1-year, 4-year and 9-year timeline. The benefits may continue to be realised beyond this timeframe as benefits may take longer to materialise than the life of the programme. Responsibility for measuring benefits has been identified in Table 4.

4.7 Governance

4.7.1 The ownership of the Transporting Bedford 2020 benefits is as follows:

Table 4. Benefits Ownership

BENEFITS ROLE	ROLE FULFILLED BY
Scheme Benefit Owner	SEMLEP Board
Scheme Benefit Realisation Manager	Project Manager / Senior Responsible Officer (SRO)

4.7.2 Table 5 outlines the roles and responsibility for the Monitoring and Evaluation of Transporting Bedford 2020 benefits.

Table 5. Monitoring and Evaluation Roles and Responsibilities

ACCOUNTABLE AREA	RESPONSIBILITIES
Local Growth Fund Programme Management Board	<ul style="list-style-type: none"> ● Risk assessment of each project for spend and delivery
Project Board	<ul style="list-style-type: none"> ● High level benefits management responsibility ● Receives progress reports from PM and directs activities ● Oversees benefit risks management ● Financial monitoring and assurance
Steering Group	<ul style="list-style-type: none"> ● Day to Day management responsibilities ● Scrutinises progress reports from PM ● Actions benefit risks management issues ● Financial approvals and procurement / tender award
Project Manager / SRO & Support Team	<ul style="list-style-type: none"> ● Undertakes benefits management activities and reporting ● Produces and reviews risk register and mitigation ● Oversees procurement for data collection ● Undertakes cost monitoring, Financial management & forecasting

4.8 Delivery Plan

4.8.1 The findings of the Scheme monitoring and evaluation will be reported according to the following Action Plan :

Table 6. Transporting Bedford 2020 Monitoring and Evaluation Action Plan

REPORT	FREQUENCY	OWNER	INTENT
SEMLEP Quarterly Monitoring Form	Quarterly, starting April – June 2018	Project Manager / SRO	Detail the monitoring to be undertaken both during and after funding for the Scheme
Evaluation Form	Annually	Project Manager / SRO	Review efficiency and effectiveness of the Scheme in achieving the desired outcomes and impacts during and after Scheme completion
Baseline Report	1 st year of construction	Project Manager / SRO	Baseline data requirements collected / collated before / during the scheme construction
Post Scheme Initial Monitoring	1 st year post-completion (Autumn 2021)	Project Manager / SRO	Evaluate the project outcomes in the 1 st year of Scheme completion in compliance with DfT requirements

REPORT	FREQUENCY	OWNER	INTENT
Detailed Monitoring & Evaluation Report	4 th year post-completion (Autumn 2024)	Project Manager / SRO	Evaluate the project outcomes in the 4 th year of Scheme completion in compliance with DfT requirements
Final Monitoring & Evaluation Report	9 th year post-completion (Autumn 2029)	Project Manager / SRO	Final evaluation of the Scheme impacts and benefits

4.8.2 In addition to the Quarterly Monitoring Forms, the Project Manager will produce Progress Reports for consideration by the Project Governance Board, and comprise updates on:

- Review of programme and delivery
- Detailed Scheme design progress
- Stakeholder engagement
- Review of Risk Register
- Review of Health and Safety Issues
- Procurement and approvals
- Financial management and cost monitoring.

4.8.3 Some of the metrics are ‘Business as Usual’ (BAU) and the source data is currently being collected by BBC. The metrics that will require additional effort and cost for sourcing/collecting and analysing the data are detailed in Table 7 below.

Table 7. Benefit/asures that require additional effort/cost

BENEFIT	DATA	RESOURCE	COST	COMMENT
Reduction in peak hour journey times	Journey times measured (in minutes) on 10 defined routes	ANPR Journey Time Surveys	High	Surveys to be commissioned by BBC and supplement Bluetooth data
Improved accessibility & permeability	PERS rating for Permeability	Pedestrian Environment Review System (PERS) audit	Low	-
Encourage pedestrian movement	PERS rating for Quality of Environment	As above	As above	-
Reduction in access times	Access times from TRACC analysis	TRACC analysis	Low / Medium	-

4.8.4 The cost of surveys and additional studies will be determined by the Project Manager and mostly funded through existing BBC resources for monitoring. The data will be collected in-line with the timeframes specified in Appendix 7.1 and 7.2.

4.9 Dissemination Plan

4.9.1 The Evaluation report will be disseminated to the following key partners:

- Local Growth Fund Programme Management Board
- Project Board
- Steering Group
- Programme and Assurance Manager.

4.9.2 In accordance with the SEMLEP Monitoring and Evaluation Framework, each evaluation will be promoted by SEMLEP and hosted on the SEMLEP website upon completion. BBC will seek permission from SEMLEP before promoting similar reports on their own website.

5. CONTINGENCY PLAN

5.1 Overview

5.1.1 The BBC staff are highly experienced in the delivery of major transport schemes and have completed extensive project planning to mitigate the Scheme Delivery Risks. Nevertheless, a Contingency Plan has been developed to clearly outline the risk management activities and actions to undertake if the risks eventuate.

5.2 Project risks

5.2.1 A Project Risk Register has been developed by the BBC to categorise risks in accordance with the established risk management policy. The register will be entered into the BBC corporate 'JCAD' system and a copy is attached as Appendix 7.4 for reference.

5.2.2 The Project Manager is responsible for the management of risks associated with the project, including chairing regular risk workshops and maintaining the Risk Register. Risk workshops will be held prior to each design, procurement, mobilisation and construction stage as identified in Appendix 1 of the Commercial and Management Case. Refer to the Management Case for further discussion on the risk management strategy.

5.2.3 Each risk in the risk register lists the potential impact/consequences, completed mitigation action (to date), risk assessment and remaining actions to be undertaken in an effort to mitigate the residual risk. The three critical risks identified at the initial Risk Assessment by the Steering Group are:

- Network Rail works at Bromham Road are delayed and impact the Project Plan.
- Engagement with Network Rail for Cowbridge Scheme.
- Detailed design of Bridge works for the Cowbridge Scheme.

5.2.4 The primary consequences of these risks on the delivery of the Scheme are overrun costs and delay in project delivery. These risks are incorporated into the Monitoring Form attached as Appendix 7.2.

5.3 Overrun costs

- 5.3.1 In addition to the critical risks above, there are a series of risks that could lead to the Scheme exceeding the estimated project costs. The Project Cost estimate in the Business Case has incorporated several of these risks, including optimism bias and an allowance to cover contingencies and risk across all elements of the project delivery. The allowance has been determined through a risk model using the Monte-Carlo simulation theory, which assesses a large number of iterations of likely project risk scenarios.
- 5.3.2 A detailed estimate of costs will then be completed as part of the detailed design process, with a reduction in contingency expected due to greater confidence in the cost estimate. Refer to the Financial Case of the Business Case for further details regarding the adjustment for risk in the project cost.
- 5.3.3 The financial management of the project will be monitored by the Project Manager and documented in the SEMLEP Quarterly Monitoring Form attached as Appendix 7.2. The financial management and cost monitoring will be integral to ensure that the SEMLEP funding is used within the allocated timeframes.
- 5.3.4 Any expected overruns/shortfalls will be discussed with the Steering Group to agree upon a course of action. Depending on the extent, possible mitigation measures include a reduction in scope, financial support through BBC internal funding or existing DfT capital grants, or application for additional funding. Any use of existing grants or funding commitments would have to be balanced against the need to maintain highway infrastructure and deliver other objectives. The Project Board will make key decisions in relation to the project and will have the final say on committing funds.

5.4 Project delay

- 5.4.1 Project delay is the other main impact of the Scheme risks. In order to mitigate delay, actions have been undertaken as outlined in the Risk Register, primarily surrounding the development of the programme. The programme has been established taking into account road space constraints and sequencing of projects, and certain elements of the programme have built in tolerance / contingency to account for risks identified within the risk register (which could have an impact upon the programme).
- 5.4.2 The elements of the Scheme with greatest engineering difficulty have been separated in the programme to provide long lead in times, with the simpler elements programmed for the end of the project. The programme will also be updated as part of the detailed design process, as well as throughout the Scheme delivery.
- 5.4.3 BBC will meet with external contractors on a monthly basis throughout the construction and delivery periods on each individual Scheme, or more frequently if this is deemed necessary by the Project Manager. All contractors will be contractually obliged to provide monthly progress and financial updates to BBC, which will include updates to the project programme.
- 5.4.4 If delays are expected due to residual risks occurring, the Project Manager will consult the Steering Group and agree upon the best course of action. Possible mitigation measures include reduction in scope, or rescheduling of the programme.

5.4.5 The provisional Project Plan covers each stage of the Scheme and the critical path. The tasks that have a critical end date that affect the delivery timescale are highlighted on the Project Plan. The plan will be reviewed and updated on a regular basis, and will be considered at fortnightly Governance Board meetings.

6. STAKEHOLDER ENGAGEMENT PLAN

6.1.1 The Stakeholder Management Plan has been developed to outline how wider stakeholder and community interests will be involved in the Transporting Bedford 2020 project. The Plan is in accordance with the SEMLEP Stakeholder Engagement Strategy and copy is attached as Appendix 7.5.

6.1.2 The consultation conducted as part of the Stakeholder Management Plan will be in line with the principles and standards specified in the SEMLEP Communications Protocol, as well as the BBC Consultation Strategy shown in Appendix 7.6. Consultations will also be in accordance with the Cabinet Office guidance on Consultation Principles, as follows:

- Consultations should be clear and concise
- Consultations should have a purpose
- Consultations should be informative
- Consultations are only part of a process of engagement
- Consultations should last for a proportionate amount of time
- Consultations should be targeted
- Consultations should take account of the groups being consulted
- Consultations should be agreed before publication
- Consultation should facilitate scrutiny
- Government responses to consultations should be published in a timely fashion
- Consultation exercises should not generally be launched during local or national election periods.

6.1.3 Consultation exercises will be conducted over a length of time suitable to the statutory obligations. This includes Compulsory Purchase Orders (CPOs) or Traffic Regulation Orders (TROs) relevant to the Scheme, as well as any other formal consultation associated with the planning. It is noted that several of the scheduled consultation exercises are informal in nature.

6.1.4 A Communications Plan has been included in the Monitoring Form template to outline how the project process will be communicated with key external stakeholders in the upcoming quarters. This includes key dates, activities and communication channels, such as website development, press release, social media, newsletters and/or events.

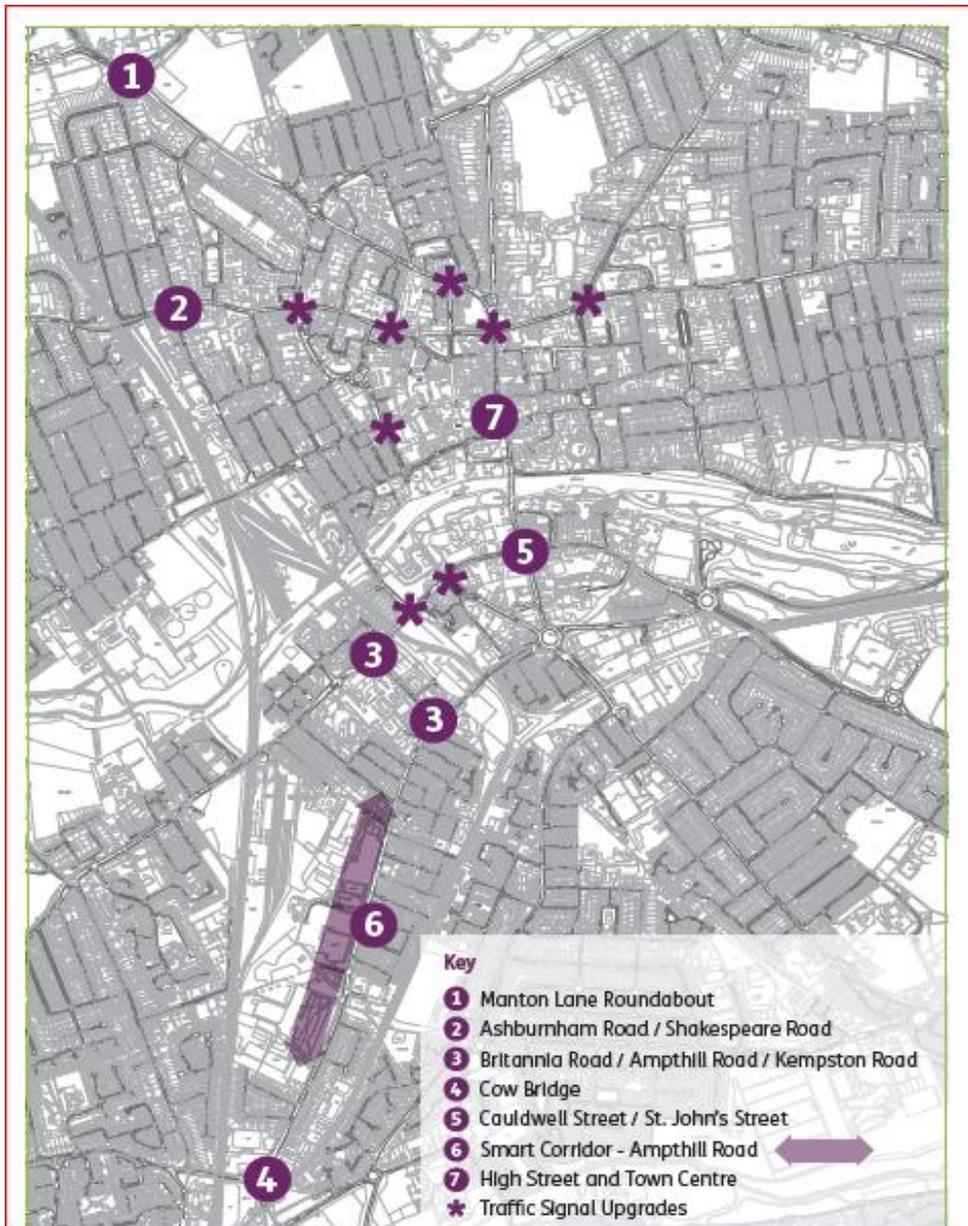
6.1.5 As stated in the Stakeholder Management Plan, Stage 1 of business sector consultation is to be completed by end of June 2018. Ongoing consultation will be conducted throughout the Detailed Design and Delivery stage as detailed in Appendix 7.5, and the Monitoring Form will be updated to reflect the upcoming consultation activities that are planned for the quarter.

6.1.6 All publicly available information produced under the Stakeholder Management Plan will be overseen by the Communications team at BBC and will be published in accordance with the SEMLEP Communications protocol.

7. APPENDICES

7.1 Scheme Benefits, Measurement and Targets

What			When	Benchmark	How	Who	Frequency	Funding
Outputs	More info	Numbers to be achieved	Final Target measurement date	Method and date of benchmark	Standard method of measurement	Body responsible for compiling data	Frequency of data collection / reporting	
P1 Length of road improved		3.9km	May-21	0km	Area of carriageway resurfaced measured in linear metres	BBC Site supervision staff	Annual - during construction	BBC - part of supervision cost of works
P2 Number of Junctions with physical capacity improvements	here	12	May-21	0 junctions improved	Number of individual junctions forming part of pinch point element of works	BBC project manager - improvement said to be complete when site period has finished	Annual - during construction	Not required
P3 Number of additional information signs and systems		20	May-21	0 signs / systems at start of project	Number of signs installed and/or information systems in place	BBC project manager - improvement said to be complete when site period has finished	Annual - during construction	Not required
P4 Area of townscape with physical improvements		3600 sqm	May-21	0 sqm	Area of footway resurfaced measured in public realm element measured in square metres	BBC Site supervision staff	Annual - during construction	BBC - part of supervision cost of works
P5 Town centre footfall	here	+10% in High Street compared to 2018 data	Jul-21	Manual counts already undertaken as part of corporate Economic Development activities - base data sets to be provided by ED team	manual count of footfall in High Street to match previous surveys	BBC Economic Development team	Annual - during and after construction	BBC - Task already undertaken as part of existing monitoring
P6 Number of empty properties in High Street	here	10% fewer compared to 2018 data	Dec-21	Manual count of retail properties in High Street that are empty or not trading to be taken in July 2018	Manual count of retail properties in High Street recording those that are empty or not trading to be taken in July 2018	BBC Economic Development team	Annual - during and after construction	BBC - Task already undertaken as part of existing monitoring
P7 Net Promoter Score (Town Centre)	here	+10 points compared to December 2017 survey	Jul-21	Intercept survey based on 1000 responses to independent survey used to determine NPV - baseline to use survey results from 2017	Intercept survey NPV score	BBC / BID	1st year post completion	BBC / BID
P8 Air Quality	here	-10ug/m3 in annual mean levels of NO2 recorded by High Street and Prebend Street automated monitoring stations (using 3 year average to 2015 as base level)	Mar-22	Base data to take 3 year average of figures to 2015 of existing permanent air quality measurement sites	ug/m3 as recorded by monitoring equipment	BBC	Annual - during and after construction	BBC - Task already undertaken as part of existing monitoring
TS01 (Regeneration) Journey times (all modes); accessibility and permeability (PERS audit); rateable values of retail properties		a) 5% reduction in peak hour journey times (all modes)	May-22	Average peak hour journey times measured in minutes on 7 defined routes. Peak hour period defined in traffic modelling report May 2018. Base data from a combination of in-house data and external data.	nearest whole minute	BBC	Bluetooth - annual ANPR - provisional	Blue tooth data collection equipment installed as part of project. ANPR journey time surveys to be commissioned by BBC
	here	b) +2 points for PERS rating for Permeability	Jul-21	PERS assessment carried out in 2017 on 4 links and 1 space within the town centre to inform the business case.	PERS rating for permeability	BBC	1st year post completion	PERS audit to be commissioned by BBC
	here	c) 25% increase in rateable values	May-24	Rateable value assessment carried out in 2017 as part of development of business case	£/sqm for High Street properties Updated rates calculated by Valuation Office Agency (VOA) (used by local council to calculate business rates bill)	BBC Economic Development team	4th year post completion	Study to be commissioned by BBC
TS02 (Town Centre Traffic) Town centre vehicle kms, town centre vehicles speeds	here	a) 5% reduction in town centre vehicle kms	May-22	Change in AADT flow taking town centre sites counted as part of regular cordon counts. Base data stored in C2 database	average change in AADT for all town centre cordon sites	BBC Transport Policy	Annual - during and after construction	BBC - Task already undertaken as part of existing monitoring
	here	b) 15% reduction in High Street speeds	Nov-21	85%ile speed taken from automated traffic count carried out in June 2017	% reduction in daily average 85%ile speed	BBC	1st year post completion	Study to be commissioned by BBC
TS03 (Cross-town movements) Journey times		5% reduction in peak hour journey times (all modes)	May-22	As TS01a above - but using a subset of data to measure north - south journey times in inner town centre	nearest whole minute	BBC	Bluetooth - annual ANPR - provisional	Blue tooth data collection equipment installed as part of project. ANPR journey time surveys to be commissioned by BBC
TS04 (Strategic links) strategic public transport services (rail routes/services, bus network kms); through traffic vehicle-trips within town centre cordons	here	a) 5% increase in bus service levels	May-22	Increase in bus vehicle passenger km per annum. Using 2016/17 data as baseline as reported to DfT in BUS100a submission	total passenger journeys of urban services	BBC	Annual - during and after construction	BBC - Task already undertaken as part of existing monitoring
		b) 5% reduction in through traffic	May-22	Measurement of proportion of traffic in High Street that has an origin and destination outside of the town centre inner cordons. Uses benchmark data from surveys used to develop business case	% change from 2015 survey data	BBC	1st year post completion	Study to be commissioned by BBC
TS05 (Network resilience) Transport network capacity		10% increase in transport operating capacity	May-22	Theoretical analysis of ratio of flow to capacity of pinch point schemes, using appropriate software (eg Picardy; Junctions 8, Linsig) to determine theoretical present and future junction capacity based upon a weighted average of all approaches during the morning and evening peak hours	Analysis of existing junction layouts and measured traffic flows compared to redesigned junction layouts and modelled traffic flows	BBC	Once - during design process	Analysis to form part of design process.
TS06 (Safety & Security) Accident levels; security (PERS audit)	here	10% reduction in accident levels	May-24	Reduction in number of KSI & Slight accidents using 5 year period 2013-2017 as a baseline with data taken from Collision Reporting & Sharing system (CRASH) total reduction across the following sites High St / St Pauls; Marston Lane; Britania Road; Caudwell St; Bronham Road; Ampthill Road	% reduction of total volume over a 5 year period	BBC	Annual - during and after construction	BBC - Task already undertaken as part of existing monitoring
TS07 (Environment) Town centre vehicle-kms;		5% reduction in town centre vehicle kms	May-22	Volume data for High Street taken from automated traffic count carried out in June 2017	% reduction in average AADT flow	BBC	1st year and 4th year post completion	Study to be commissioned by BBC
TS08 (Access to health & education) accessibility contours to sites		5% reduction in access times	May-22	TRACC analysis of access to Bedford Hospital (South) and Bedford College baseline analysis to be carried out in September 2018	% improvement based on geographical area to measure population within a 15 minute journey time during peak hours.	BBC	Baseline 2018 and 1st year post completion	Study to be commissioned by BBC
TS09 (Sense of Place) qualitative assessment of design and signage (PERS audit)		+2 points for PERS rating for Quality of Environment	August 2021	PERS assessment carried out in 2017 on 4 links and 1 space within the town centre to inform the business case.	PERS rating for Quality of Environment in areas covered by Public Realm scheme	BBC	1st year post completion	PERS audit to be commissioned by BBC



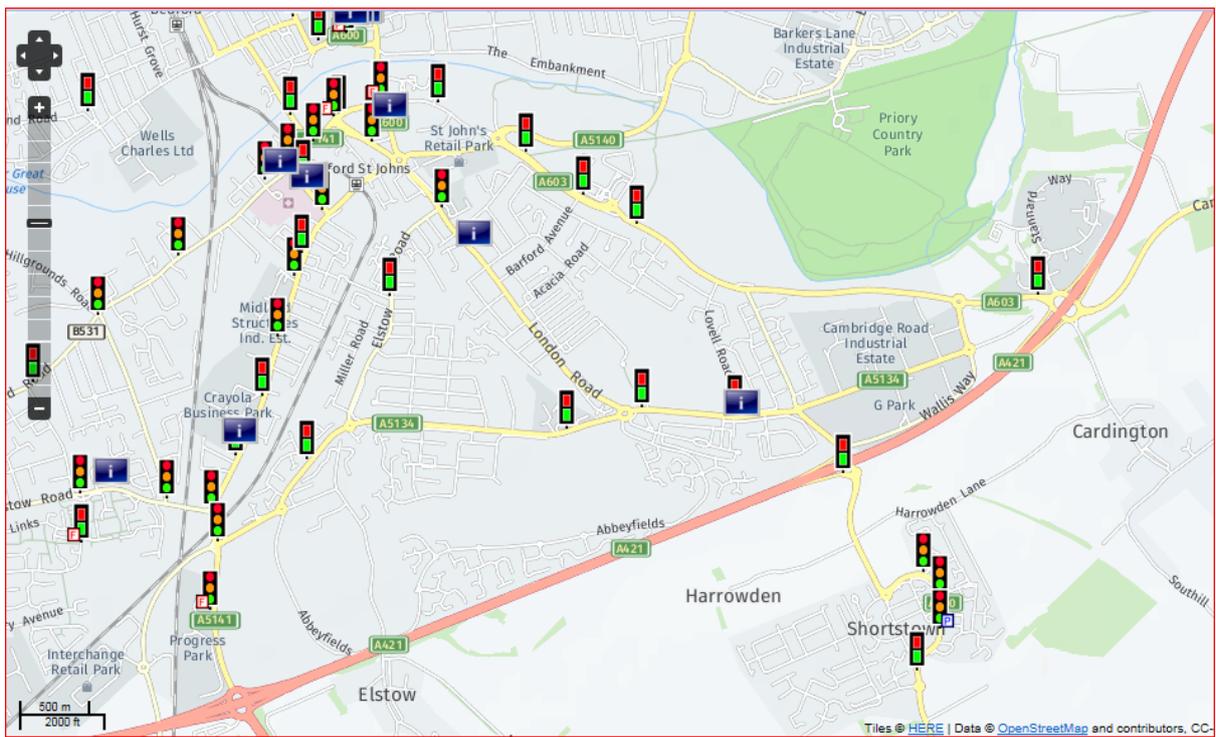
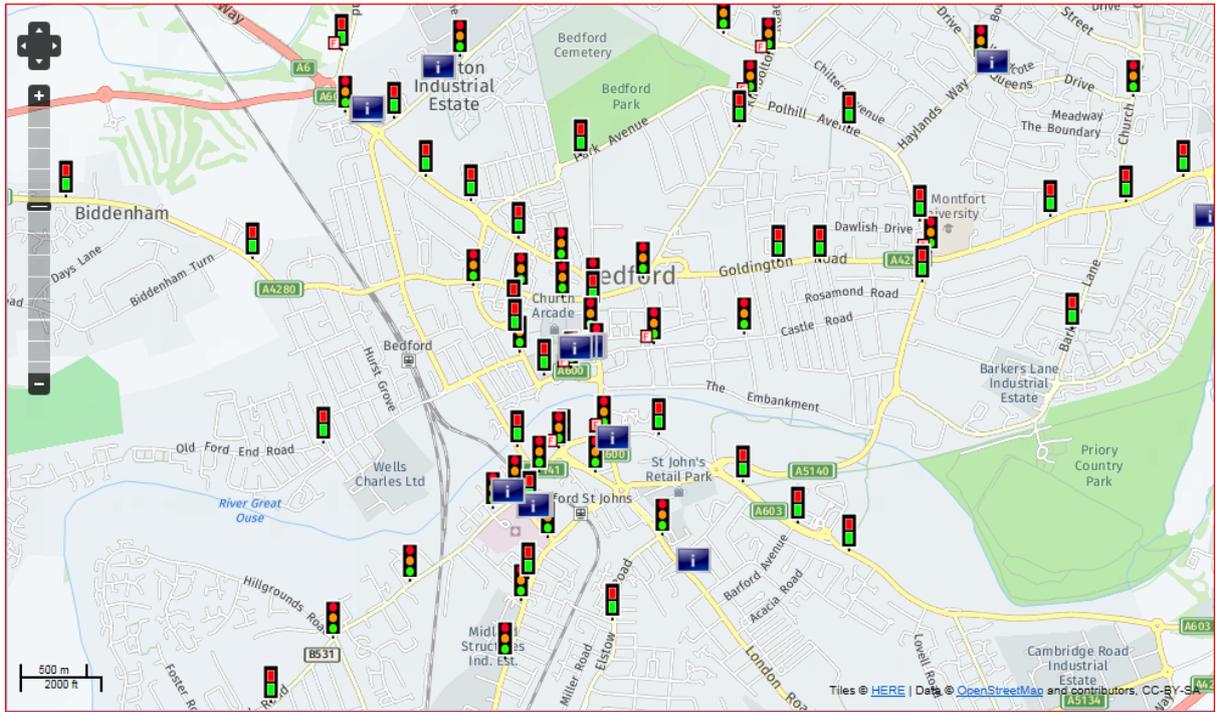
P2 Number of Junctions with physical capacity improvements

Junctions included in monitoring	
1 a	Brickhill Drive / Manton Lane
1 b	Bedford Modern School
1 c	Manton lane / Clapham Road
1 d	Sainsburys Clapham Road
1 e	Paula Radcliffe Way / Great Ouse Way
2	Bromham Road / Ashburnham Road
3 a	Britannia Road / Kempston Road
3 b	Britannia Road / Amphill Road
4	Cowbridge
5	Cauldwell Street / St Johns
6	Amphill Road / Elstow Road
7	High Street / St Pauls

TS01a – Average Peak Hour Journey Times

Journey time start and end points (AM peak)		
start ref	end ref	description
A	A'	Milton Ernest to Clapham Road
A	B2	Milton Ernest to Prebend Street
B	B2	Days Lane to Prebend Street
B	B'	Days Lane to Goldington Road
C	C'	Paula Radcliffe Way to Brickhill Drive
D	D'	Park and Ride to Britannia Road
E	E'	Tavistock Street to London Road





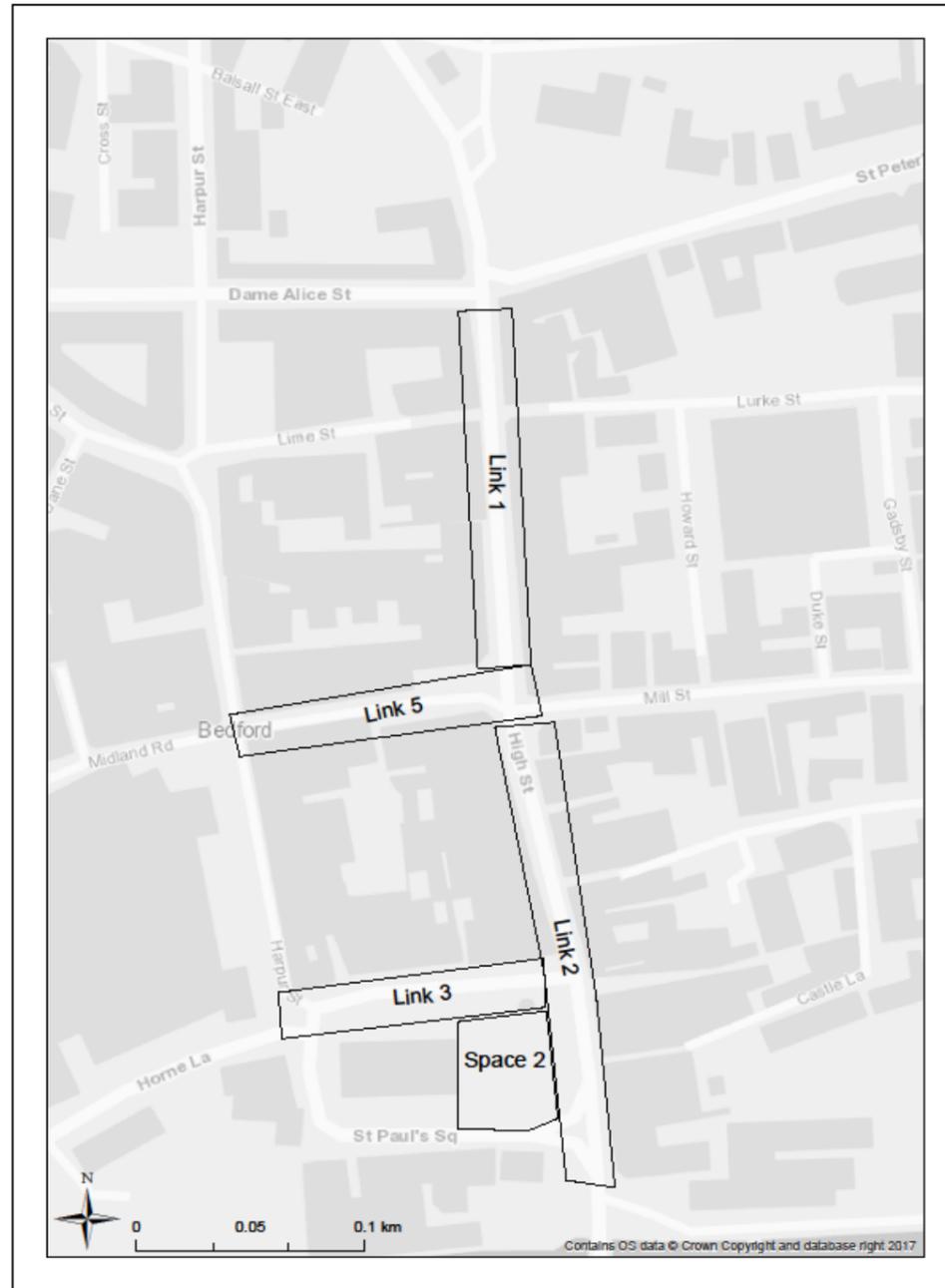
TS01b. PERS assessment carried out in 2017

Link 1		
PERS Link Attribute	Baseline	Scenario
Effective width	0	2
Dropped kerbs	1	3
Obstructions	2	3
Permeability	0	2
Legibility	-1	1
Lighting		
Personal security	1	3
Surface quality	0	2
User Conflict	0	2
Quality of environment	0	2
Maintenance	0	2

Link 3		
PERS Link Attributes	Baseline	Scenario
Effective width	0	2
Dropped kerbs	1	3
Obstructions	1	3
Permeability	-1	1
Legibility	0	2
Lighting		
Personal security	1	3
Surface quality	0	2
User Conflict	0	2
Quality of environment	1	3
Maintenance	1	3

Link 2		
PERS Link Attributes	Baseline	Scenario
Effective width	0	2
Dropped kerbs	0	2
Obstructions	1	3
Permeability	0	2
Legibility	-1	1
Lighting		
Personal security	1	3
Surface quality	0	2
User Conflict	0	2
Quality of environment	1	3
Maintenance	0	2

Link 5		
PERS Link Attributes	Baseline	Scenario
Effective width	0	2
Dropped kerbs	1	3
Obstructions	2	3
Permeability	0	2
Legibility	-1	1
Lighting		
Personal security	1	3
Surface quality	0	2
User Conflict	0	2
Quality of environment	0	2
Maintenance	0	2



Space 2		
PERS Space Attributes	Baseline	Scenario
Moving in the space	0	2
Interpreting the space	1	3
Personal safety	1	3
Feeling comfortable	-1	1
Sense of place	-1	1
Opportunity for activity	0	2

SPECIFIC PERS SCORES

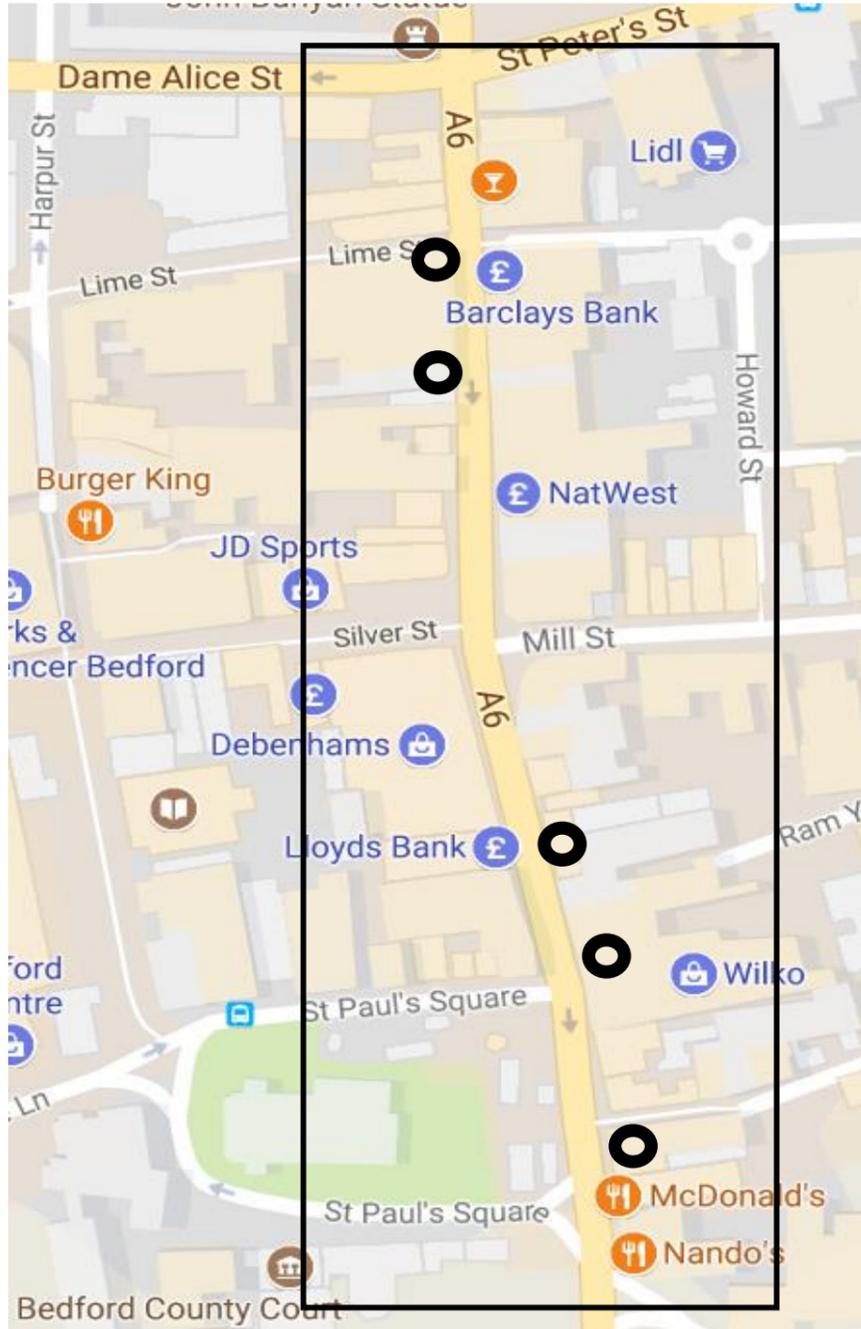
Permeability	
Link	Baseline
Link 1	0
Link 2	0
Link 3	-1
Link 5	0

Personal Security	
Link	Baseline
Link 1	1
Link 2	1
Link 3	1
Link 5	1

Quality of Environment	
Link	Baseline
Link 1	0
Link 2	1
Link 3	1
Link 5	0

TS01c. Rateable value assessment carried out in 2017 as part of development of business case

Selected High Street

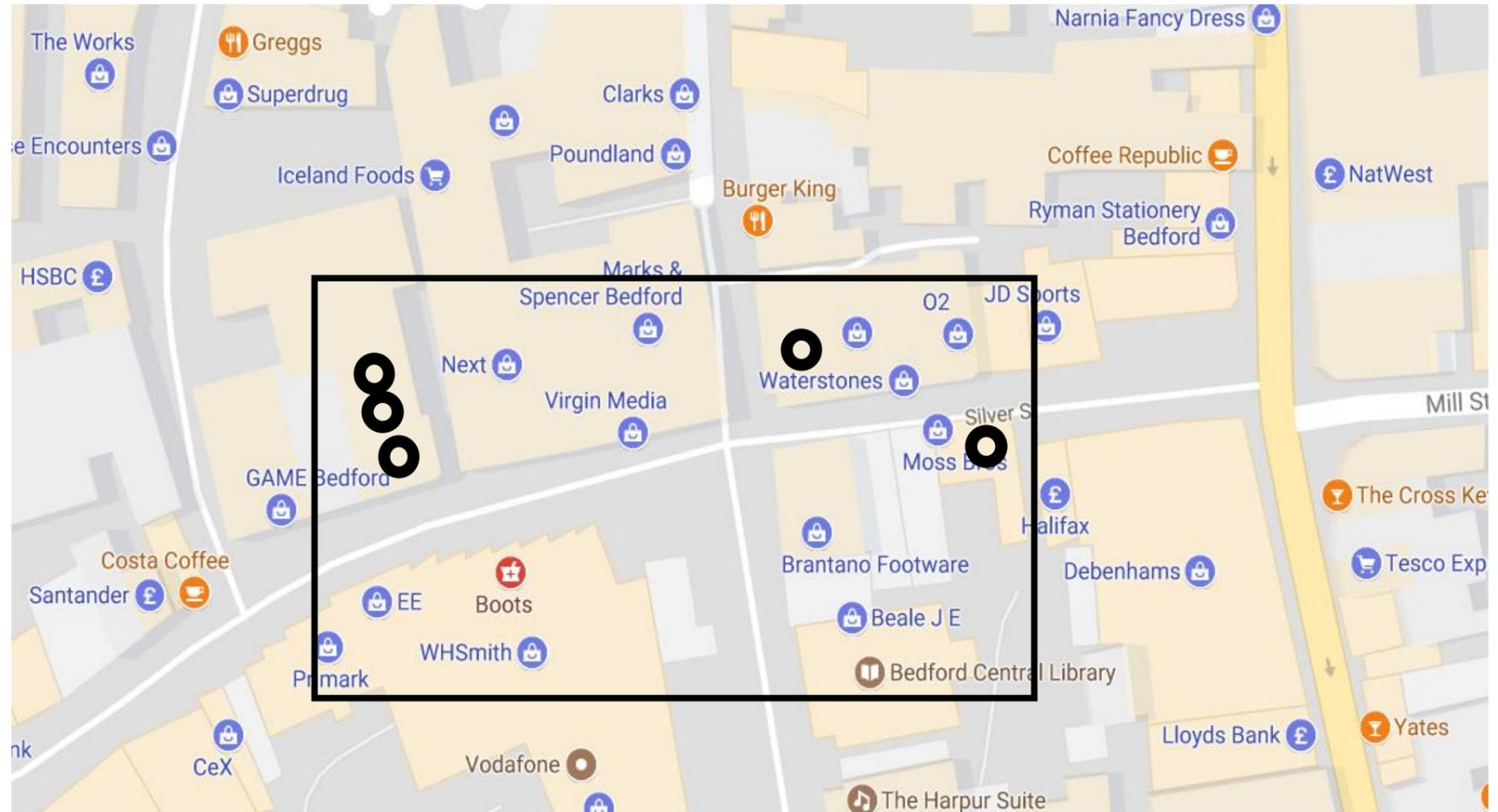


Location of chosen property.



The area properties were chosen within. (scheme area)

Pedestrianised Core



TS02 (Town Centre Traffic) Town centre vehicle kms, town centre vehicles speeds
Traffic volume base data - base data held in C2 database, uses cordon count data

tps://drakewell04.drakewell.com/multinodemap.asp?node=bedford_borough_atc

35 sites match the filter

Data set BEDFORD_BOROUGH_TEMP

Only live sites Yes

Include disabled sites No

Alerts No

Date range 01/08/2017 01/09/2017

The following filters can all be used in conjunction with the date range. The date range will be open ended if left blank.

At least weeks within date range

Data of type Volume, Class

Manual Counts --- Please select ---

Close Filter

7.2 South East Midlands LEP Quarterly Monitoring Form

South East Midlands LEP Quarterly Monitoring Form For Local Growth Fund

All Local Growth Fund funded projects are required to submit monitoring returns to SEMLEP on a quarterly basis or as required, as per the project funding agreement and published 2017 Assurance Framework. The returns should be completed and signed by the Senior Responsible Officer.

It is important the information included in the return is accurate and can be evidenced upon request. The information provided will support reporting to the SEMLEP Growth Fund Task group and Board, BEIS and MHCLG.

We will provide advance notice of the deadlines for returning forms. Please note that the reporting year starts on the 1st April and ends 31st March. For 2017/ 2018 financial year, the remaining deadlines are as follows:

- Q3 (October – December 2017) by **Friday 2nd March 2018**
- Q4 (January – March 2018) and year end by **Friday 11th May 2018**

Please complete every section of this form in full and attaching your own project risk register, and return it to Lucinda.young@semlep.com. If you have any questions please contact Lucinda Young on 01234 436100.

A: Applicant Details			
Project Name:	Transporting Bedford 2020		
Project Postcode:	MK40/2	SEMLEP Project Number:	?
Applicant Name:	Bedford Borough Council - Brian Hayward		
Applicant Contact Address:	Borough Hall, Cauldwell Street, Bedford		
Applicant Contact Email:	Brian.Hayward@bedford.gov.uk	Applicant Contact Number:	07823 363 133
Reporting Period:	Q1 (April – June 2018)	Date report submitted to SEMLEP:	
Brief Project Description:	Highways improvements works comprising of a number of 'pinch point' capacity improvements at key junctions in Bedford, the introduction of a smart transport corridor along Ampthill Road, technology improvements to modernise the towns urban traffic management and control system and road side travel information and data collection equipment, and public realm improvements in the town centre.		

B: Financial Information Overview

Total Project Costs:	£18,620,000	Total LGF Contribution:	£15,500,000
Total spend to date:	£88,000	Total claimed from LGF to date:	£0

C: Summary of activities completed this period (to be uploaded onto project page on SEMLEP website – 500 words maximum)

Conditional approval of the Transporting Bedford 2020 Business case was given by the SEMLEP Board in November 2017, final approval and an annual funding agreement is anticipated in July 2018. In anticipation of approval of the business case the first few months of 2018 has seen consultation and design work start on the project. Traffic surveys and data collection was completed in February 2018 and has been used to develop a microsimulation traffic model to help shape and bench test design works for the pinch point schemes. Initial stakeholder engagement has commenced with the publication of an information leaflet in December 2017 and a series of meetings with some of the key stakeholders (eg Bedford BID) have taken place. A series of risk workshops have been held, project governance established and BBC funding confirmed by the Councils Executive.

A programme showing work planned over the three year project time frame has also been produced and procurement methods have been broadly established.

Detailed discussions with providers in the technology sector have been held to identify opportunities for this section of work, and an initial system design for traffic control hardware and software systems has been completed.

D: Forecast Project Annual Expenditure

Funding Source	17/18	18/19	19/20	20/21	21/25	Total
LGF	0	2,800,000	6,200,000	6,500,000	N/A	£15.5M
Non LGF – Public	200,000	310,000	510,000	2,100,000	0	£3.120M
Non LGF - Private	0	0	0	0	0	0
Non LGF – Third party	0	0	0	0	0	0
Total Forecast Expenditure						£18.62M

E: Actual Project Expenditure to Date

Funding Source	15/16	16/17	17/18	18/19	19/20	20/21	21/25	Total
LGF	0	0	0					
Non LGF - Public	0	0	88,000					88,000
Non LGF - Private	0	0	0					
Non LGF – Third Party	0	0	0					
Total Actual Expenditure								88,000

F: Project Milestones

Date work on site started:	Will be July 2018	Date work on site completed:	
----------------------------	-------------------	------------------------------	--

Contracted Milestone (from current funding agreement)	Target Date	Achieved? (Y/N)	Revised Target Date (if slipped)
Detailed annual milestones 2018/19			
Stakeholder engagement – stage 2 Business sector	30/11/2018		

consultation			
Vissim Traffic Modelling completed	30/06/2018		
Baseline Model review	30/11/2018		
Manton Lane main works - Detailed Design completed	31/07/2018		
Manton Lane – confirm works programme & phasing	31/07/2018		
Manton Lane – Advance works completed	22/08/2018		
Technology Element - Tender issued	31/08/2018		
Stakeholder – 2 nd leaflet published	30/09/2018		
Manton Lane TRO	30/09/2018		
Manton Lane main works - Contract Award	30/10/2018		
Britannia Road - Detailed Design completed	30/11/2018		
Baseline Model Review completed	30/11/2018		
Stage 2 Business consultation completed	30/11/2018		
Britannia Road – confirm works programme & phasing	30/11/2018		
Britannia Road Land negotiation / purchase	15/12/2018		
Britannia Road TRO	01/01/2019		
Britannia Road - Contract Award	28/02/2019		
Review & Refresh of Business Case & milestones	01/03/2019		
Review & Refresh of Procurement strategy	01/03/2019		
Preliminary milestones 2019/20 & 2021/21			
<i>Manton Lane main works - Site works completed</i>	<i>30/06/2019</i>		
<i>Cowbridge - Contract Award</i>	<i>30/06/2019</i>		
<i>Britannia Road - Site works completed</i>	<i>31/08/2019</i>		
<i>Technology Element - UTMC system operational</i>	<i>30/09/2019</i>		
<i>Bromham Road - Detailed Design completed</i>	<i>31/12/2019</i>		
<i>Bromham Road – confirm works programme & phasing</i>	<i>31/12/2019</i>		
<i>Bromham Road TRO</i>	<i>31/01/2020</i>		
<i>Bromham Road - Contract Award</i>	<i>31/03/2020</i>		
<i>Cowbridge - Utility works completed</i>	<i>30/04/2020</i>		
<i>Public Realm Schemes - Design approved by Project Board</i>	<i>30/04/2020</i>		
<i>Public Realm Schemes - Contract Award</i>	<i>31/07/2020</i>		
<i>Bromham Road - Site works completed</i>	<i>30/09/2020</i>		
<i>Technology element - RSI systems operational</i>	<i>31/12/2020</i>		
<i>Public Realm Schemes - Site works completed</i>	<i>28/02/2021</i>		
<i>Cowbridge - Site works completed</i>	<i>28/02/2021</i>		

G: Project Outputs Achieved to Date (output metrics from funding agreement or contract variation)							
	Overall Target	20/21	21/22	22/23	23/24	24/25	25/30
P1 Length of road improved	3.9km (inc 2.4 at on Ampthill Road)						
P2 Number of Junctions with physical improvements	12						
P3 Number of additional information signs and systems	20						
P4 Area of townscape with physical improvements	3600 sqm						
P5 Town centre footfall	+5% increase in High Street						

	compared to 2018						
P6 Number of empty properties in High Street	10% fewer empty properties compared to 2018						
P7 Net Promoter Score (Town Centre)	+10 points compared to December 2017						
P8 Air Quality	-10ug/m3 in annual mean levels of NO2 recorded by High Street and Prebend Street automated monitoring stations (using 3 year average to 2015 as base level)						
TS01a(Regeneration)	5% reduction in peak hour journey times (all modes)	-					
TS01b(Regeneration)	+2 points for PERS rating for Permeability	-					
TS01c(Regeneration)	25% increase in rateable values						
TS02a (Town Centre Traffic)	5% reduction in town centre vehicle kms						
TS02b Town Centre Traffic)	15% reduction in High Street average speeds						
TS03 (Cross-town movements)	5% reduction in peak hour journey times (all modes)						
TS04a(Strategic links)	5% increase in bus service levels						
TS04b(Strategic links)	5% reduction in through traffic						
TS05 (Network resilience)	10% increase in transport operating capacity						
TS06 (Safety & Security)	10% reduction in accident levels						
TS07 (Environment)	5% reduction in town centre vehicle kms						
TS08 (Access to health & education)	5% reduction in access times						
TS09 (Sense of Place)	+2 points for PERS rating for Quality of Environment						
Date of variation							

H. Communications Plan

What is the external communications plan for this project? Please outline how the project process will be communicated with key external stakeholders, including key dates, activities and communication channels e.g. website, press release, social media, newsletters, events/openings etc.

Name of communications lead, contact telephone number and email address: Keiron Fletcher
Keiron.fletcher@bedford.gov.uk

This section should be read in conjunction with the technical note on Stakeholder Management. The table below summarises key events and acts as a log of first / notable contact with various stakeholders. The table will be expanded to show forthcoming events.

2018/19 Q1 & Q2 planned events as at 17 May 2018

Activity	Date	Stakeholders
Category A Stakeholders		
LGF Programme Management Board	18/07/2018	SEMLEP
Project Board (meeting with SEMLEP)	6 or 20 /07/2018	SEMLEP
Category B Stakeholders		
Scheme boards erected	22/06/2018	Technology Sector
Meeting to discuss design	20/06/2018	Cycle Strategy Group
Meeting to outline scheme	06/06/2018	Bedford Bid wider group
Meeting to discuss design	23/05/2018	BMS / Harpur Trust
Meeting to discuss scheme	04/07/2018	DfT
Meeting to discuss scheme	19/06/2018	Highways England
Presentation	06/06/2018	Manton Lane Businesses
Meeting consultants to refine scheme details	07/06/2018	Technology Sector
Workshop	21/06/2018	Bedford CoC
Workshop	21/06/2018	Bedford Federation of Small Businesses
TBC	TBC	Logistics Group
Category C Stakeholders		
Website update	01/07/2018	Residents /Public
Press Release	01/09/2018	Residents /Public
PC newsletters	Summer 2018	Town & Parish Councils
Leaflet	Aug / Sept 2018	Residents /Public
Bromham PC Meeting	02/10/2018	Town & Parish Councils
Clapham PC Meeting	17/07/2018	Town & Parish Councils
Kempston TC Meeting	05/09/2018	Town & Parish Councils
Elstow PC Meeting	tbc	Town & Parish Councils
Brickhill PC Meeting	07/06/2018	Town & Parish Councils
BBC Facebook	01/08/2018	Targetted advertising

Please attach a separate communications plan if this is easier and summarise key activities above.

Our Communications Manager Karen Clarke can be contacted on 01234 436100 or by email to Karen.Clarke@semlep.com

Please note the communication requirements in the Funding agreement.

I: RAG Rating – Please complete using the guidance definitions on the next page

RAG Delivery Rating:	RAG Finance Rating:	RAG Reputation Rating:	Total Score:
1	1	1	3

The Growth Deal project RAG rating system is designed to measure progress made towards delivery of a project, and risk associated with delivery.

- Please complete the ratings above using the definitions provided on the next page as a guideline.
- **INDIVIDUAL PROJECT RISK REGISTER** – please attach and return with this completed form to Lucinda.Young@semlep.com

DELIVERY	SCORE	FINANCES	SCORE	REPUTATION	SCORE
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Major issues have caused significant delays (more than 3 months); processes have been interrupted or not carried out correctly (e.g. planning permission has not been secured); or significant changes have had to be made to the aims and scope of the project. Project likely to under deliver forecast project outputs.	5	A variance of over 10% against profiled financial forecast (total expenditure) or significant changes to project finances required (increases or decreases) due to poor or delayed delivery.	5	Challenges with project are undermining LEP credibility with public or key stakeholder. This negative reputation will continue longer term and be hard to recover from.	5
Issues have arisen causing longer delays to the timetable (3 months or more) but no significant changes required to overall project aims and scope. Correct processes are not yet developed. Outputs may still be deliverable but challenging.	4	A variance of between 7% & 10% against profiled financial forecast (total expenditure). Budget changes have been required due to issues with project delivery.	4	Significant damage to LEP credibility with public or key stakeholder for sustained period or at critical point.	4
Issues have arisen causing longer delays to the timetable (less than 3 months). Correct processes will be achieved but are not yet developed. Outputs deliverable but will require re-profiling.	3	A variance of between 5% & 7% against profiled financial forecast Some budget changes have been required.	3	Undermine LEP credibility with public or key stakeholder in short term.	3
Minor issues have arisen causing small delays. Correct processes are developed. Project is on track to deliver outputs.	2	A variance of between 2% & 5% Small re-profiling changes to budget required.	2	May lead to widespread criticism.	2
No significant problems arisen in previous quarter. Correct processes are in use. Project is on track to deliver outputs.	1	A variance of up to 2%. Spend is largely on track with any minor slippage expected to be picked up by end of next quarter.	1	May lead to minor external criticism.	1

				
3	4 - 6	7 - 9	10 - 12	13 - 15

QUARTERLY REPORTING: BEIS Output Metrics for Q3 (January – March 2018)

Please add information on each field that applies to this project and has been completed/secured in this reporting period.

J. Financial Progress this Quarter		
Funding Requested	Please breakdown the funding requested in this reporting period.	£0
Total non-LGF Expenditure	This is the total funding spent by the project delivery body on the project in this reporting period. Excluding the requested funds. Expenditure will include programme funds and any non LEP funds spent by the project delivery body e.g. the amount of non LEP money that road builders have spent in total on building the road.	£88,000
Of which Public	Please enter the proportion of Public Sector non-LEP expenditure	£88,000
Of which Private	Please enter the proportion of Private Sector non-LEP expenditure	£0
Of which Third Sector	Please enter the proportion of Third Sector non-LEP expenditure	£0
Leveraged Funds	This is any additional private/public/third sector funding or wider investment that is spent in the area as a result of the LEP intervention.	£0
Of which Public	Please enter the proportion of Public Sector leverage this quarter.	£0
Of which Private	Please enter the proportion of Private Sector leverage this quarter.	£0
Of which Third Sector	Please enter the proportion of Third Sector leverage this quarter.	£0
Employment		
Jobs Created/safeguarded	The total number of newly created and safeguarded permanent full-time equivalent jobs as a direct result of the intervention at predetermined employment sites. Employment sites include occupied newly developed commercial premises, the premises of supported enterprises, and any FE space directly improved or constructed by the intervention. Created and safeguarded jobs exclude those created solely to deliver the intervention (e.g. construction). A job is deemed as permanent if it lasts at least a year.	0
Apprenticeships	Number of apprenticeship positions created as a direct result of the intervention.	0
Housing		
Housing Units Completed	At the impact site, the number of completed housing units. Complete refers to physical completion of the individual unit, or, in the case of flats, on physical completion of the block. Housing unit refers to one discrete housing unit (e.g. house, flat, live/work), regardless of size.	0
Number of new homes with new or improved fibre optic provision	Number of homes with a new or improved fibre optic provision.	0
Transport		
Length of Road Resurfaced This Period	Length of road for which maintenance works have been completed this quarter (km).	0
Length of Newly Built Road this period	Length of road for which works have been completed and now open for public use (this quarter) (km).	0
New Cycle Ways	Length of cycle way for which works have been completed and now open for public use (km).	0
Skills and Education		
Area of new or improved learning/training floor space (sqm)	The amount of "new build" training/learning floor space constructed. Figures to be provided following completion. The amount of training/learning floor space refurbished to improve building condition and/or fitness for purpose. For FE Colleges, this should be by estate grading. Figures to be provided following completion.	0
Prior Estate Grade	Condition graded by surveyor – A, B, C, D	0
Post Completion Estate Grade	Condition graded by surveyor – A, B, C, D	0
Floor space rationalisation (sqm)	The amount of overall floor space reduced following completion of the project through, for example, demolition or disposal. Figures to be provided following completion.	0
Number of New Learners Assisted (in courses leading to a full qualification)	The number of new learners assisted as a direct result of the intervention, in courses leading to a full qualification.	0
Specialist Capital Equipment	Type of new specialist equipment - Specialist equipment: Resources specific to a particular sector or industry, and which are required in connection with that sector or industry's production of goods and services. These resources will usually comprise specific mechanical devices, but may include bespoke software, or a combination. Includes resources used to produce goods and services, as well as training resources unique to the industry (e.g. simulators). Does NOT include general equipment, IT infrastructure or resources used for several curriculum areas.	0
Other Capital Equipment	Non-specialist capital equipment (see above).	0
Commercial		
Commercial Floor Space Completed	At the impact site, the area and class of commercial floor space completed. Floor areas should be measured in accordance with the RICS Code of measuring practice (6th edition) 2007. A building should be classified as completed once it is on the non-domestic rating list (sqm).	0
Commercial Floor Space Refurbished	At the impact site, the area and class of refurbished commercial floor space. Floor areas should be measured in accordance with the RICS Code of measuring practice (6th edition) 2007 (sqm).	0
Commercial Floor Space Occupied	At the impact site, the area and class of commercial floor space constructed/refurbished that is currently occupied by commercial tenants this	0

	quarter (sqm).	
Commercial Broadband Access	For broadband interventions only: number of additional commercial premises that, as a result of intervention, now have the option to access broadband of at least 30mbps (average), where this was not previously the case (this quarter) (sqm).	0
Flood Risk Prevention		
Area of Land with reduced likelihood of flooding as a result of the project (sqm)	Area of land with a reduced likelihood of flooding as a result of the project (sqm) this quarter	0
Reduced Flood Risk Homes This Period	Number of homes with a reduced likelihood of flooding as a result of the project this period	0
Reduced Flood Risk Commercial This Period	Number of commercial units with a reduced likelihood of flooding as a result of the project this period	0
Business and Enterprise		
Number of enterprises receiving grant support	Number of SMEs receiving grant funding support with the intention of improving performance (i.e. reduce costs, increase turnover/profit, innovation, exporting). To be counted where the support is at least £1,000.	0
No Number of enterprises receiving financial support other than grants	Number of SMEs receiving funding support in the form of equity or repayable loan instruments with the intention of improving performance (i.e. reduce costs, increase turnover/profit, innovation, exporting). Counted where amount of support is at least £1,000.	0
Number of enterprises receiving nonfinancial support	Number of SMEs receiving support (inc. advice and training) with the intention of improving performance (i.e. reduce costs, increase turnover/profit, innovation, exporting). Value of the support should be a minimum of £1,000, calculated at Gross Grant Equivalent (see ERDF guidance) or a minimum of 2 days of consulting advice	0
Impact		

K: Applicant declaration

Pinch point schemes	Number of junction improvements completed (Total number of major junction improvements over life of project is 8	0
Technology Theme for SMART corridor	Number of systems inputting into UTMC management system	0
Technology Theme for SMART corridor	Number of Roadside and pedestrian information displays in place	0
Technology Theme for SMART corridor	Number of output systems in place (website; Apps; in vehicle information; roadside information)	0
Public Realm	Area of Public realm improvement works completed	0

- *I certify the information in the return is true and correct;*
- *Supporting evidence of the information included in this return is readily available and can be provided to SEMLEP as and when SEMLEP deems necessary;*
- *All the funds received have been or will be spent on this project in line with the funding agreement*
- *The outputs included have been achieved and are directly attributable to the delivery of the project;*
- *The Applicant continues to comply with its obligations and terms and conditions outlined in the Funding Agreement. I recognise that if this is not the case SEMLEP reserves the right to enact the claw back clause outlined in the agreement.*

Please indicate if there are any significant changes anticipated or forecast directly by email to Judith Barker, Programme and Assurance Manager: Judith.Barker@semlep.com

Report Completed by:	Brian Hayward
Report signed off by:	Craig Austin
Signed:	
Email:	Brian.hayward@bedford.gov.uk
Date:	19 April 2018

7.3 Evaluation Form



Evaluation Plan for LGF Project

Title of Intervention

Project Description:

Brief Outline of the project

Highways improvement works at key points in the Bedford road network to reduce congestion including the creation of a ‘Smart Corridor’ on Ampthill Road; the signalisation of Shakespeare Road/Ashburnham Road junction; and increased capacity round the Hospital with modifications to the Ampthill Road/Britannia Road/Kempston Road junctions.

A number of other traffic signalled junctions will be modernised and the town’s urban traffic management and control system will be significantly expanded and modernised.

Public Realm improvements works in the High Street St Pauls Square.

Summary of the main outputs as set out in the original funding proforma and any contract variation approved by SEMLEP

Outputs	Numbers to be achieved	By when
P1 Length of road improved	3.9km	May 2021
P2 Number of Junctions with physical capacity improvements	8	May 2021
P3 Number of additional information signs and systems	20	May 2021
P4 Area of townscape with physical improvements	3600 sqm	May 2021
P5 Town centre footfall	+10% in High Street compared to 2018 data	July 2021



P6 Number of empty properties in High Street	10% fewer compared to 2018 data	December 2021
P7 Net Promoter Score (Town Centre)	+10 points compared to December 2017 survey	July 2021
P8 Air Quality	-10ug/m3 in annual mean levels of NO2 recorded by High Street and Prebend Street automated monitoring stations (using 3 year average to 2015 as base level)	March 2022
TS01 (Regeneration) Journey times (all modes); accessibility and permeability (PERs audit); rateable values of retail properties	<ul style="list-style-type: none"> a) 5% reduction in peak hour journey times (all modes) b) +2 points for PERS rating for Permeability c) 25% increase in rateable values 	<p>May 2022</p> <p>July 2021</p> <p>May 2024</p>
TS02 (Town Centre Traffic) Town centre vehicle kms, town centre vehicles speeds	<ul style="list-style-type: none"> a) 5% reduction in town centre vehicle kms b) 15% reduction in High Street average speeds 	<p>May 2022</p> <p>November 2021</p>
TS03 (Cross-town movements) Journey times	5% reduction in peak hour journey times (all modes)	May 2022
TS04 (Strategic links) strategic public transport services (rail routes/services; bus network kms); through	<ul style="list-style-type: none"> a) 5% increase in bus service levels b) 5% reduction in through traffic 	<p>May 2022</p> <p>May 2022</p>



<i>traffic vehicle-trips within town centre cordon</i>		
<i>TS05 (Network resilience) Transport network capacity</i>	<i>10% increase in transport operating capacity</i>	<i>May 2022</i>
<i>TS06 (Safety & Security) Accident levels; security (PERS audit)</i>	<i>10% reduction in accident levels</i>	<i>May 2024</i>
<i>TS07 (Environment) Town centre vehicle-kms;</i>	<i>5% reduction in town centre vehicle kms</i>	<i>May 2022</i>
<i>TS08 (Access to health & education) accessibility contours to sites</i>	<i>5% reduction in access times</i>	<i>May 2022</i>
<i>TS09 (Sense of Place) qualitative assessment of design and signage (PERS audit)</i>	<i>+2 points for PERS rating for Quality of Environment</i>	<i>August 2021</i>
Date of agreed contract variation		

Breakdown of output per year

Outputs (cumulative)	18/19	19/20	20/21	21/22	22/23	23/24	24/25
P1	0.8km	1.2km	2.5km	3.9km	-	-	-
P2	2	6	9	12	-	-	-
P3	nil	nil	10	20	-	-	-

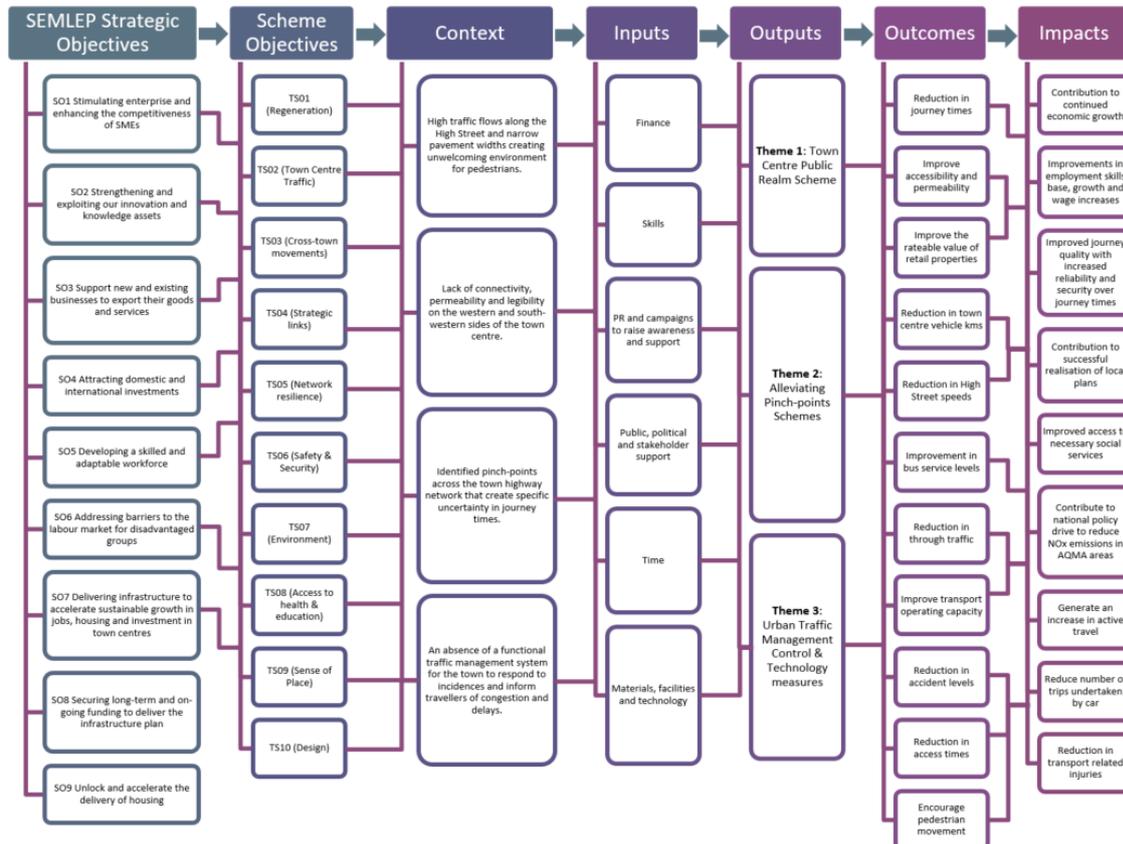


P4	nil	nil	nil	3600 sqm	-	-	-
P5	nil	nil	+10%	-	-	-	-
P6	nil	nil	-10%	-	-	-	-
P7	nil	nil	+10	-	-	-	-
P8	nil	nil	nil	nil	-10	-	-
TS01a	nil	nil	nil	-2%	-5%	-	-
TS01b	nil	nil	nil	+2	-	-	-
TS01c	nil	nil	nil	nil	+10%	+20%	+25%
TS02a	nil	nil	nil	nil	-5%	-	-
TS02b	nil	nil	nil	-15%	-	-	-
TS03	nil	nil	nil	-2%	-5%	-	-
TS04	nil	nil	nil	nil	5%	-	-
TS04	nil	nil	nil	nil	-5%	-	-
TS05	nil	nil	nil	nil	10%	-	-
TS06	nil	nil	nil	nil	nil	nil	-10%
TS07	nil	nil	nil	nil	-5%	-	-
TS08	nil	nil	nil	nil	-5%	-	-
TS09	nil	nil	nil	+2	-	-	-

Wider impacts and outcomes including indirect outputs

<i>Impacts and outcomes</i>	<i>Numbers to be achieved/description</i>	<i>By when</i>
<i>Refer to TS01c, P6, P7 and P8 above</i>		

Logic Model: Here we ask you briefly to set out the 5 elements of your project and how they follow to the delivery of outputs and outcomes. This can be presented on the diagram as a list with brief narrative to explain the diagram.



See Transporting Bedford 2020 MONITORING, AND EVALUATION, BENEFITS AND CONTINGENCY TECHNICAL NOTE REPORT for further details

Type(s) of Evaluation: Process, outcomes or impact, or a combination?

Evaluation will chiefly comprise of traffic counts, journey time analysis, network operational measures, economic activity barometers, accident studies and Pedestrian Environment analysis and Baseline data collection will be finalised in Summer 2018.

Implementation

Please set out here the type of evaluation that is planned and how it will be done, by whom, when and when SEMLEP can expect to be engaged in that evaluation process.



Timing: Please provide a basic timeline for interim and final report

Baseline data report Autumn 2018

Post scheme initial monitoring report Autumn 2021

Final monitoring report Autumn 2024

Key contact for evaluation

Name: Brian Hayward

Address: Borough Hall, Cauldwell St, Bedford Mk42 9AP

Telephone:

Email:

Summary of Analysis

Description

In accordance with the Department for Transport's Monitoring and Evaluation Framework, evaluation will be conducted to address the following three assessment elements:

- **Process Evaluation:** How was the scheme delivered? This covers the processes by which the scheme was implemented and has been undertaken.
- **Impact Evaluation:** What difference has the scheme made? This requires an assessment of the outcomes and impacts generated by the scheme.
- **Economic Evaluation:** Have the benefits justified the costs? An assessment will be made on whether the costs of the scheme have been outweighed by the benefits.

Uses of the Evaluation

(100 words)

Who is the audience for the evaluation and how will funding be used?

See Transporting Bedford 2020 MONITORING, AND EVALUATION, BENEFITS AND CONTINGENCY TECHNICAL NOTE REPORT

SEMLEP

South East Midlands
Local Enterprise Partnership



7.4 Project Risk Register

Project Name:	Bedford Town Centre Strategy		No. of Risks
Project No:	Transporting Bedford 2020 PMO 040	Red (Critical)	4
Project Manager:	Brian Hayward	Amber (Intermediate)	35
Project Team :	Melanie McLeod / Brian Hayward	Green (Minor)	75
Date:	06/06/2018	Closed	4
Revision:	L		118



RISK IDENTIFICATION & MITIGATION					RISK ASSESSMENT - RESIDUAL RISK			ACTION PLAN - RESIDUAL RISK					
Ref	Category	Risk	Potential Impact	Completed Mitigation Action (to date)	Probability	Impact	Score/ Category	Action Plan	Action Owner	Action Target	Date Achieved	Risk Status	
General Risks applying to whole project													
1	Economic / Financial/ Management	BBC funding not in accordance with SEMLEP requirements	Insufficient funds to deliver project	BBC MTF5 approved Sept 2017. CIL 123 funding to be allocated	0	0	0	BBC business case approved by corporate asset working group. Exec approval of Capital Programme 24 Jan. S151 undertaking to be provided to SEMLEP board	Brian Hayward			CLOSED	
2	Economic / Financial/ Management	BBC is not able to commit enough senior management resource to the project	Poor project governance or delays to implementation programme	A Project Management Board has been formed to meet throughout the project with attendance from all of the senior BBC staff. Corporate PMO processes being used. Board is supported by Steering group comprising Chief Officers and PM.	0	0	0	BBC project Board established; Design team established. mechanism for external support established.	Brian Hayward				CLOSED
3	Economic / Financial/ Management	Changes to inflation assumptions (potentially as a result of lack of contractor capacity)	Insufficient funds to deliver project	Inflation allowance built into cost base - An allowance for inflation has been applied to adjust the costs from September 2017 prices to 2018 prices of @ 1.5% (£221,155) - procurement method uses existing frameworks where possible, relatively short duration of overall programme in terms of inflation risk	2	2	4	Further risk allowance of £181k included in overall scheme budget. Review as part of design process	Brian Hayward	01/12/18			OPEN
4	Economic / Financial/ Management	Funding approval delayed by SEMLEP Board	programme start delayed - insufficient time to complete early design & stakeholder engagement	BBC funding in place to fund project manager - Board decision in principle given in November 2017, further update to SEMLEP Task Group and Board in Feb 2018.	2	3	6	Submission timetable for business case and due diligence agreed with SEMLEP, representation of project at Feb Task Group / Board and final approval in July 2018.	Brian Hayward	31/07/18			OPEN
5	Economic / Financial/ Management	HIF Procurement	Procurement of major HIF works at same as TB2020 procurement could result in some contractors declining to bid for works on either project.	TB2020 procurement centred upon existing contract frameworks with minimal spot tendering. Difference in value of works elements is likely to mean that there is little crossover in contractors bidding for work on both schemes	1	1	1	Monitor at each procurement stage.	Brian Hayward	01/08/18			OPEN
6	Economic / Financial/ Management	HIF Design resource	A successful HIF bid may overstretch in house design resources leading to delay.	In year forward plan developed by engineering Services team to allocate resources to various projects.	1	1	1	Monitor development of HIF bid and use agency staff if required	Brian Hayward	01/08/18			OPEN
7	Economic / Financial/ Management	HIF contractor availability	Delivery of major HIF works at same time as TB2020 procurement could result in some sub contractors being unable to contribute to both projects	TB2020 procurement centred upon existing contract frameworks with minimal spot tendering. Difference in value of works elements is likely to mean that there is little crossover in contractors bidding for work on both schemes	1	1	1	Monitor at each procurement stage.	Brian Hayward	01/08/18			OPEN
8	Economic / Financial/ Management	HIF Road space / Programme conflicts	Restrictions on road space availability due to conflicts over diversion routes	TB2020 works dates notified to Streetworks team based upon available programme	1	1	1	Close liaison with HIF team and streetworks to avoid conflict	Brian Hayward	01/08/18			OPEN
9	Economic / Financial/ Management	HIF Impacts upon TB202 scheme benefits	Delivery of HIF scheme reduces TB2020 benefits in eg reducing journey time	Preliminary HIF design is consistent with strategy employed by TB2020 (eg signalling junctions) HIF modelling work shows overall benefits meeting aims of TB2020	1	1	1	Evaluation and Monitoring plans to be reviewed and sensitivity test to be carried out if HIF bid progresses.	Brian Hayward	01/08/18			OPEN
10	Economic / Financial/ Management	Local authority contribution of is not forthcoming due to pressures on other budgets	Insufficient funds to deliver project at end of project timeframe	Members are aware that the LEP have prioritised the scheme which, subject to statutory consents being obtained and design / procurement, will be affordable and delivered within the approved funding envelope. There would be considerable reputational damage if BBC decided to abandon the scheme because of a change in short term funding priorities.	0	0	0	BBC business case sets funding requirements for duration of programme - report to be considered by Executive 24/1/18. Funding to be secured as part of CIL. Review risk after 2019 elections	Brian Hayward				CLOSED
11	Economic / Financial/ Management	NPIF bid announcement delayed	programme start delayed - pinch point scheme at Clapham Rd / Manton Lane unable to proceed	Bid for funding submitted - announcement expected Autumn 2017. Design for Clapham Rd pinch point scheme can proceed as 'reduced' scheme	0	0	0		Brian Hayward		19/10/17		CLOSED
12	Economic / Financial/ Management	Scheme costs - optimism bias	Scheme costs not properly identified due to optimism bias	Overall optimism bias of 44%. Detailed estimate to be completed as part of detailed design process 15% contingency to be provided in project cost. BBC funding to cover risk and contingency.	1	2	2	Scheme estimates based on LoHAC rates. Key infrastructure elements to be procured through competitive tender or EHA mini competition to secure best rates. BBC funding to be reviewed and increased if costs base changes. Design team resource expanded to allow greater focus on cost elements.	Brian Hayward	01/12/18			OPEN
13	Economic / Financial/ Management	Scheme costs - overrun	programme overrun beyond March 2021	Programme established taking into account road space constraints and sequencing of projects. Schemes with greatest engineering difficulty separated in programme to provide long lead in times; high value but more straightforward schemes programmed for end of project; BBC funding element allows flexibility	1	3	3	Governance methodology for risk review and programme monitoring established to facilitate contingency planning	Brian Hayward	01/12/18			OPEN
14	Stakeholder Management / Consultation	Coherent delivery with other town centre projects and programmes	Project will not be delivered on time, may also impact budget	All key programmes, such as the One Public Estate, have BBC involvement and so good communication across departments will ensure coherent delivery. Through partnership working with other organisations, including utilities companies and Network Rail, opportunities for synergies between Streetworks will be identified.	2	2	4	Project Governance Board to review programme as part of corporate project plan.	Brian Hayward	01/06/18			OPEN
15	Stakeholder Management / Consultation	Network Rail works at Bromham Road delayed	Delays to programme	Discussions on work programme at an advanced stage with NR. Key infrastructure works scheduled to be completed before anticipated date of NR works. CEO has met NR	3	3	9	Continue discussions with Network Rail - Expect a need to fast track decisions and retain flexibility with schemes most affected by NR. Project Board primed to make a decision on some pinch point works running concurrently rather than sequentially.	Brian Hayward	01/06/18			OPEN
16	Stakeholder Management / Consultation	Network Rail Works at Ford End Road delayed	Delays to programme	Works commence Oct 2017, continuing on schedule into March 2018 - programme of works established.	1	2	2	Monitor progress of NR works	Brian Hayward	01/06/18			OPEN
17	Stakeholder Management / Consultation	Project programming optimistic	Project will not be delivered on time, may also impact budget	NRSWA notices issued to reserve road space; design of early start elements underway; ECI to mobilise contractors. SMP established.	2	2	4	Review Traffic Management; working hours; utility works at each detailed design stage and mobilisation stage	Brian Hayward	01/06/18			OPEN
18	Statutory / Legal	Legal agreement between BBC & SEMLEP not in place or delayed.	Financial transactions not binding or properly governed.	Early engagement with SEMLEP about form of agreement. BBC Finance and Legal teams have approved draft of legal agreement.	1	3	3	Draft agreement scheduled to be in place June / July 2018	Brian Hayward	01/08/18			OPEN
19	Strategic / Political / Policy	Equality Impact Assessments not completed	BBC not acting in accordance with Public Sector requirements on Equal Opportunity Impact Assessments	EQIAs to be carried out on each Tranche as part of detailed design process.	1	1	1	Activities not on critical path of programme, allowance for slippage in delivery programme. Evidence base to be provided to SEMLEP to ensure BBC practices align with SEMLEP requirements	Brian Hayward	01/06/18			OPEN
20	Strategic / Political / Policy	Monitoring requirements not established or completed	Incorrect governance or ability to demonstrate fulfilling of objectives	Benefits quantified in business case. Requirements for SEMLEP quarterly monitoring understood	1	2	2	Base line of monitoring requirement to be established - project governance agenda includes submission of monitoring forms and establishment of process beyond delivery period up to 2025.	Brian Hayward	01/07/18			OPEN
21	Strategic / Political / Policy	Political / Public objection to scheme preventing its progression	Delays to programme	Stakeholder Management Plan in place. Project details to be discussed by overview and scrutiny committee in November 2017. Traffic Regulation Order process allowed for in design element of programme. Comms plan shared with SEMLEP	1	1	1	Review of required TROs throughout stakeholder engagement and design steps.	Brian Hayward	01/07/18			OPEN
22	Design / Technical / Preparatory	Capacity to produce detailed design	Delays to design stages in programme	Resourcing requirements identified as part of project plan development ; specialist design resource secured through existing framework contracts.	1	2	2	Additional support available through agency or external consultants	Brian Hayward	01/07/18			OPEN
23	Procurement	Challenge from unsuccessful contractors following procurement process	Delays to programme	Diligent procurement procedure and involvement of procurement specialists in process.	1	1	1	ensure procurement methods follow corporate guidelines	Brian Hayward	01/07/18			OPEN
24	Procurement	Delays in awarding contract due to extended queries on tenders	Delays to programme	Allowance made in project plan for full review of tender documents and process	1	1	1	maximise tender periods for individual scheme packages	Brian Hayward	01/07/18			OPEN
25	Construction	Delays in construction programme resulting in increased contract administration requirements / costs	Delays to programme	Procurement uses established methods with high degree of staff familiarity	1	1	1	Review introduction of CEMAR for EHA framework in summer 2018	Brian Hayward	01/07/18			OPEN
26	Construction	Unknown major utility works during programme of scheme delivery	Disruption to programme	NRSWA notices issued. Streetworks team appraised of anticipated programme	1	3	3	advance notices to be issued once funding agreed. Draft programme coordinates with all known risks	Brian Hayward	01/06/18			OPEN
27	Economic / Financial/ Management	SEMLEP Annual funding of LGF allocation not received	Insufficient funds to deliver project	SEMLEP forward plan and funding profile established	1	3	3	Constant engagement with SEMLEP	Brian Hayward	01/01/19			OPEN
28	Strategic / Political / Policy	Elections in 2019	Delays to programme caused by approvals needed within election period or delays in establishing project board post election	programme to identify constraints arising during election period	1	1	1	Review following elections	Brian Hayward	24/01/19			OPEN
29	Strategic / Political / Policy	Legislation changes	Changes in national legislation affect funding or reporting requirements	Constant engagement with SEMLEP and DIT to identify any potential issues	1	1	1	Constant engagement with SEMLEP	Brian Hayward	24/06/18			OPEN
30	Benefits, Monitoring and Evaluation	Limited resources for the Project Manager to monitor, track and report on the Scheme benefits post construction.	Failure to comply with SEMLEP requirements on monitoring	To use a simplified approach that accesses existing data for benefit measurement.	1	3	3	PM to establish baselines for monitoring and make data available to Project Board - Quarterly monitoring reports to be submitted to SEMLEP signed by SRO	Brian Hayward	31/6/18			OPEN
31	Benefits, Monitoring and Evaluation	Project scope variations are not aligned with the planned Scheme benefits, and the possibility of not aligning with strategic objectives.	Project does not deliver intended benefits	Business case and risk register used to inform design process - PM and Project Board responsibility to sign off individual elements	1	1	1	Review process in place for significant project scope variations ensuring alignment with Scheme benefits.	Brian Hayward	31/6/18			OPEN
32	Benefits, Monitoring and Evaluation	The measurement data (for baseline measurement and ongoing measurement against targets) is limited.	Monitoring activities insufficient to demonstrate project achieves benefits	Detailed and robust monitoring plan sets out how/when/who/what details for various monitoring activities	1	2	2	Other potential sources for measurement data will be investigated	Brian Hayward	31/6/18			OPEN
33	Benefits, Monitoring and Evaluation	The benefits proposed in the Business Case are not fully realised at the end of the Scheme due to available funding.	Project does not deliver intended benefits	Business case establishes targets (planned outcomes) based upon the funding commitment.	1	2	2	Monitoring of outputs to be carried out throughout the scheme - process established for monitoring outcomes after completion.	Brian Hayward	31/6/18			OPEN
34	Benefits, Monitoring and Evaluation	The benefits do not achieve their interim targets for realisation	Project does not deliver intended benefits	Benefits, monitoring, evaluation and contingency plan established	1	2	2	implement contingency plan	Brian Hayward	31/6/18			OPEN
35	Benefits, Monitoring and Evaluation	As technology changes/improves over the life of the Scheme, the data collection methods may change and become more accurate, thereby potentially skewing the results against the baseline data.	Unable to accurately demonstrate scheme benefits	Process for data collection established, using simple factual method of measurement wherever possible. Data collection methodology uses established and repeatable data sources.	1	1	1	review during annual / quarterly monitoring	Brian Hayward	31/6/19			OPEN
Infrastructure Theme													
101	Construction	Adverse ground conditions and/or contamination delays completion of works.	Increased Costs and delays to programme	As built drawings available from recent works at Cowbridge and Caudwell St. Geotechnical surveys will be commissioned for high risk sites where information on previous site works is not available. The current cost estimate makes allowances for risks associated with unforeseen ground conditions.	1	2	2	review design following topographical and geotechnical surveys	Brian Hayward	01/06/18			OPEN
102	Construction	Disruption to public transport during the works and resulting reduction in patronage	Loss of reputation - increased congestion affects duration of works	Early discussion with stakeholders as part of SMP	1	1	1	Monitor as part of SMP, use RTI and performance indicator on bus punctuality information to assess	Brian Hayward	01/06/18			OPEN
103	Construction	Higher than expected traffic delays during construction leading to changes being required during works to TM arrangements	Loss of reputation - increased congestion affects duration of works	Advance planning with Streetworks team to agree TM proposals in relation to known traffic flows and any measures that can mitigate. SMP includes use of VMS signs to provide information on works.	1	1	1	Monitor delays using existing traffic journey time methodology; positive messages reinforced as part of SMP via social media and VMS	Brian Hayward	01/06/18			OPEN
104	Construction	Impacts during construction	Disruption to local economy; Delays to programme, negative impact upon reputation and poor perception of overall improvements.	SMP outlines process to engage with local businesses; PM to act as central point of contact.	2	1	2	Keep log of incidents / complaints and carry out positive engagement before during and after scheme delivery	Brian Hayward	01/06/18			OPEN
105	Construction	Long lead in times for permanent service diversions	Delays to programme	Programme established to allow timeframe for utility works in advance of main construction periods. Early Liaison with utility companies to ensure stats get diverted before construction	1	3	3	Review C18 returns as part of design process	Brian Hayward	01/06/18			OPEN
106	Construction	Manton Lane Rbt - Highways drainage of the existing roundabout may introduce a significant change to the highway drainage provision needing extensive works than currently foreseen	Increased scheme costs & delay to programme	Establish drainage survey of existing highways drainage that will enable this to be assessed	1	3	3	Review drainage survey results as part of detailed design	Brian Hayward	01/06/18			OPEN

Project Name:	Bedford Town Centre Strategy		No. of Risks
Project No:	Transporting Bedford 2020 PMO 040	Red (Critical)	4
Project Manager:	Brian Hayward	Amber (Intermediate)	35
Project Team :	Melanie McLeod / Brian Hayward	Green (Minor)	75
Date:	06/06/2018	Closed	4
Revision:	L		118



RISK IDENTIFICATION & MITIGATION					RISK ASSESSMENT - RESIDUAL RISK			ACTION PLAN - RESIDUAL RISK				
Ref	Category	Risk	Potential Impact	Completed Mitigation Action (to date)	Probability	Impact	Score/ Category	Action Plan	Action Owner	Action Target	Date Achieve	Risk Status
107	Construction	Poor asset condition requiring increased remedial works as part of scheme eg drainage lighting, pavement	Increased costs of scheme elements and/or further maintenance works required	Utilise existing asset management inventory and condition data during design. Establish asset condition through surveys and due diligence	1	2	2	Review need for additional BBC maintenance schemes in vicinity of works post scheme delivery	Brian Hayward	01/06/18		OPEN
108	Construction	Road space / Traffic Management Act implications if utility works present	Delays to programme	programme considers the impact of known and necessary utility works. Road space requirements arising from programme logged with streetworks team; HAUC meetings to be included as part of SMP	2	2	4	Streetworks permit conditions to be reviewed	Brian Hayward	01/06/18		OPEN
109	Construction	Roadworks coordination - own works programme	Delays to programme	Initial discussions with traffic manager, public transport operators; schools to take place having due regard to overall existing programme.	1	2	2	advance notices to be issued once funding agreed. Draft programme coordinates with all known risks. BBC own works programme to be fitted around this project.	Brian Hayward	01/06/18		OPEN
110	Construction	Tar bound materials in existing surfacing being planned out - treated as UZ material	Increased costs of scheme elements and/or further maintenance works required	Materials known at all sites apart from Manton Lane - Pre test carriage material at sites where composition is unknown. Procedures in place via DMRB for the identification and disposal of material. Design to consider recycling where appropriate.	2	2	4	Review following pre test of materials	Brian Hayward	01/06/18		OPEN
111	Construction	Unknown services struck during construction period	Increased scheme costs & delay to programme	Utility searches at pre design stage; GPR survey undertaken to establish location of statutory undertakers equipment and unmarked services. Trial holes and CAT scans in advance of works, permit to dig for main works	1	3	3	ensure trial holes carried out in advance of design stage. Consider use of specialist company to survey and locate.	Brian Hayward	01/06/18		OPEN
112	Construction	Use of sub standard material in construction resulting in earlier failure or remedial work.	Extension of scheme programme	Site supervision protocols will include material quality checks, contractors risk.	1	1	1	Ensure qualified and competent resource for site supervision	Brian Hayward	01/06/18		OPEN
113	Construction	Working restrictions as a result of the need to avoid disruption during peak periods	Delays to programme	Programme will consider seasonality the available number of hours for different works locations and phases and ensure programme allowance is sufficient. Ensure compliance requirements are included in tender documents	2	2	4	Clarify restrictions and timeframes during procurement	Brian Hayward	01/06/18		OPEN
114	Construction	Works taking place on local strategic road network - timing of works required to avoid key dates relating to Christmas / events etc.	Delays to programme	current programme of works avoids other disruptive works on network, works in this tranche phased to avoid conflict, early engagement with Streetworks team and roadworks info being provided as part of SMP	2	2	4	Clarify restrictions and timeframes during procurement	Brian Hayward	01/06/18		OPEN
115	Design	Land acquisition	Changes to scheme design	Initial meetings held between CEO and Bedford Modern School held and agreement in principle reached	1	3	3	Allowance for detailed design and land acquisition to take place in programme, and 8 month buffer until construction works commence	Brian Hayward	01/06/18		OPEN
116	Design	Planning approval required to implement schemes	Delays to programme	Works all deliverable within public highways boundary and under highways powers - possible requirement for some ancillary works at Manton Lane that may require planning permission.	1	3	3	Discussions with school regarding transfer of land to commence Jan 2018 - including possible need for retaining wall on school land.	Brian Hayward	01/06/18		OPEN
117	Design	Statutory process (inc TTRO & TRO)	Delays to programme	Traffic regulation order processes carried out in house, timescales identified and contained within design stage /mobilisation stage	1	1	1	Full suite of TROs and TTROs to be overseen by PM / Design team.	Brian Hayward	01/06/18		OPEN
118	Design / Technical / Preparatory	Changes in design standards during scheme leading to rework/delays	Changes to scheme design	Regular review of any changes to standards. Local standards well established, potential requirements of NR design standards to be reviewed during discussions with NR. Established mechanism for applying departures from standards.	1	2	2	Design team to follow DMRB and BBC Highways design guide	Brian Hayward	01/06/18		OPEN
119	Design / Technical / Preparatory	Changes to design after construction has commenced	Increased scheme costs & delay to programme	The detailed design for the contract tender documents will provide as much detail as possible on the site conditions and methods of construction; so as to avoid questions about "buildability" early contractor involvement in larger schemes	1	1	1	Sign of process as part of BBC PMO gateway requirements	Brian Hayward	01/06/18		OPEN
120	Design / Technical / Preparatory	Cowbridge - road restraint on bridge is substandard and needs upgrading	Increased scheme costs & delay to programme	Asset inventory reviewed and site assessment carried out	1	3	3	a full assessment of the existing parapets at the bridge and approach road restraint will be required and new design conducted	Brian Hayward	01/06/18		OPEN
121	Design / Technical / Preparatory	Cowbridge - the proposed widening may require strengthening of the bridge deck to adequately support the widened live loading	Increased scheme costs & delay to programme	Engagement with NR commenced	2	3	6	detailed survey of the bridge will be required to establish current bridge strength	Brian Hayward	01/06/18		OPEN
122	Design / Technical / Preparatory	Design errors/ omissions that could lead to designs being revised and could cause delay	Delay in finalising design and costs	Established check / approval process for design	1	1	1	Sign of process as part of BBC PMO gateway requirements	Brian Hayward	01/06/18		OPEN
123	Design / Technical / Preparatory	Impact upon design due to locality of utility services	Delay in finalising design and costs	Utility searches & NRSWA C18 process early in programme. Identify precise location of services and agree constraints with utility companies at earliest opportunity - arrange for trial pits during design stage.	1	2	2	Sign of process as part of BBC PMO gateway requirements	Brian Hayward	01/06/18		OPEN
124	Design / Technical / Preparatory	Inaccuracy of base mapping and land boundary information compared to that used for outline design costs	delay to programme and additional survey / design costs	Topographical surveys have been commissioned. The current cost estimate makes allowances for risk associated design changes resulting from more accurate topographical information.	1	2	2	Sign of process as part of BBC PMO gateway requirements	Brian Hayward	01/06/18		OPEN
125	Design / Technical / Preparatory	Incomplete or late delivery of outputs by design teams	Delay in finalising design and costs	Ongoing programme monitoring and checkpoint reports. Other resources available where hold ups occur.	1	1	1	weekly progress meetings to be held between design team and PM	Brian Hayward	01/06/18		OPEN
126	Design / Technical / Preparatory	Estimated scheme costs inaccurate	Cost overrun (pinch point schemes)	Detailed estimate to be completed based on site investigations, lessons learnt from previous works in vicinity. 15% contingency to be provided in project cost	1	2	2	Scheme estimates based on LqHAC rates. Key infrastructure elements to be procured through competitive tender or EHA mini competition to secure best rates.	Brian Hayward	01/06/18		OPEN
127	Environmental	Ashburnham Road / Shakespeare Road - felling of trees causes public complaints	Delays to programme	Check requirements of TPO with Tree team, early issue for discussing as part of stakeholder management strategy	2	2	4	Engagement with local members and community groups - commensurate measures to remediate effects to be identified	Brian Hayward	01/06/18		OPEN
128	Environmental	Programme delayed due to incident affecting Highways Network	Delays to programme	programme identifies critical path activities	1	2	2	Schemes to be moved off critical path if opportunity allows - if elements are significantly delayed then BBC funding to be made available for completion of project	Brian Hayward	01/06/18		OPEN
129	Environmental	Programme delayed due to inclement weather	Delays to programme	Initial programme includes extra time allowance for schemes being constructed in winter periods	2	2	4	Review programme, use forecast data from winter service activities to identify potential issues, move schemes off critical path if opportunity allows.	Brian Hayward	01/06/18		OPEN
130	Environmental	Working restrictions due to environmental constraints	Delays to programme	Programme will consider seasonality the available number of hours for different works locations and phases and ensure programme allowance is sufficient. Ensure compliance requirements are included in tender documents	1	3	3	Tender documentation to include mitigation measures on - for example - noise and dust.	Brian Hayward	01/06/18		OPEN
131	Procurement	Procurement of works	project will not be delivered on time budget will not be spent	Maximum use of existing contractual arrangement and application of robust procurement framework. Procurement options already evaluated (existing contract; in house delivery or framework contract)	1	3	3	Existing suppliers in place for technology elements: Infrastructure / public realm schemes identified on EHA framework forward plan; BBC works tender to be issued winter 2017 includes facility to deliver elements of works.	Brian Hayward	01/06/18		OPEN
132	Stakeholder Management / Consultation	Cauldwell St Jctn - Bedford College and Bedford Free school access issues delay programme	Delays to programme	College & BFS identified as a key stakeholders and will be involved in key planning discussions	1	1	1	Direct engagement from PM prior to construction period	Brian Hayward	01/06/18		OPEN
133	Stakeholder Management / Consultation	Cauldwell St Jctn - OPE development leads to a change in design	Abortive works	Design to be 'future proofed' to allow retro fit of new road layout with minimal disruption	1	2	2	PM to liaise with OPE PM	Brian Hayward	01/06/18		OPEN
134	Stakeholder Management / Consultation	Cowbridge - site on diversion route for A421	incident on A421 during works period may delay works	Incident most likely to be of short duration - VMS signs to be placed in advance of site and A421 diversion route amended with agreement of HE	1	1	1	PM to liaise with HE	Brian Hayward	01/06/18		OPEN
135	Stakeholder Management / Consultation	Cowbridge - disruption to Interchange Retail park access during works	Disruption to local economy, Delays to programme, negative impact upon reputation and poor perception of overall improvements.	IRP identified as a key stakeholders and will be involved in key planning discussions	3	1	3	Direct engagement from PM prior to construction period	Brian Hayward	01/06/18		OPEN
136	Stakeholder Management / Consultation	Engagement with Network Rail for Cowbridge Scheme	Delays to programme	Feasibility design identifies requirements. Infrastructure works scheduled at end of overall programme to provide sufficient headroom for NR engagement	2	3	6	Detailed design and engagement with NR to commence once funding agreement in place	Brian Hayward	01/06/18		OPEN
137	Stakeholder Management / Consultation	Manton Lane - Bedford Modern School access issues delay programme	Disruption to local amenity; Delays to programme, negative impact upon reputation and poor perception of overall improvements.	BMS identified as a key stakeholder and will be involved in key planning discussions	3	1	3	Direct engagement from PM prior to construction period	Brian Hayward	01/06/18		OPEN
138	Stakeholder Management / Consultation	Stakeholder engagement with Public Transport operators delayed	Lack of engagement with scheme intentions or deliverables	early engagement underway - meetings held with Stagecoach & planned for other operators.	1	2	2	PM to carry out & record consultations and liaise with design teams	Brian Hayward	01/06/18		OPEN
139	Benefits, Monitoring and Evaluation	Limited resources for the Project Manager to monitor, track and report on the Scheme benefits post construction.	Failure to comply with SEMLEP requirements on monitoring	To use a simplified approach that accesses existing data for benefit measurement.	1	3	3	PM to establish baselines for monitoring and make data available to Project Board - Quarterly monitoring reports to be submitted to SEMLEP signed by SRO	Brian Hayward	31/6/18		OPEN
140	Benefits, Monitoring and Evaluation	Project scope variations are not aligned with the planned Scheme benefits, and the possibility of not aligning with strategic objectives.	Project does not deliver intended benefits	Business case and risk register used to inform design process - PM and Project Board responsibility to sign off individual elements	1	1	1	Review process in place for significant project scope variations ensuring alignment with Scheme benefits.	Brian Hayward	31/6/18		OPEN
141	Benefits, Monitoring and Evaluation	The measurement data (for baseline measurement and ongoing measurement against targets) is limited.	Monitoring activities insufficient to demonstrate project achieves benefits	Detailed and robust monitoring plan sets out how/when/who/what details for various monitoring activities	1	2	2	Other potential sources for measurement data will be investigated	Brian Hayward	31/6/18		OPEN
142	Benefits, Monitoring and Evaluation	The benefits proposed in the Business Case are not fully realised at the end of the Scheme due to available funding.	Project does not deliver intended benefits	Business case establishes targets (planned outcomes) based upon the funding commitment.	1	2	2	Monitoring of outputs to be carried out throughout the scheme - process established for monitoring outcomes after completion.	Brian Hayward	31/6/18		OPEN
143	Benefits, Monitoring and Evaluation	The benefits do not achieve their interim targets for realisation	Project does not deliver intended benefits	Benefits, monitoring, evaluation and contingency plan established	1	2	2	implement contingency plan	Brian Hayward	31/6/18		OPEN
144	Benefits, Monitoring and Evaluation	As technology changes/improves over the life of the Scheme, the data collection methods may change and become more accurate, thereby potentially skewing the results against the baseline data.	Unable to accurately demonstrate scheme benefits	Process for data collection established, using simple factual method of measurement wherever possible. Data collection methodology uses established and repeatable data sources.	1	1	1	review during annual / quarterly monitoring	Brian Hayward	31/6/19		OPEN
Public Realm Theme												
201	Design	Planning constraints	Delays to programme	Planning approval required to implement scheme. Works contained within public Highway and deliverable under Highways powers. Area around old bank owned by BBC but not highway - boundaries clearly established.	1	1	1	ensure property team input into detailed design stage	Brian Hayward	01/07/18		OPEN
202	Design	Statutory process (inc TTRO & TRO)	Delays to programme	Traffic regulation order processes carried out in house, timescales identified and contained within design stage /mobilisation stage	1	1	1	Full suite of TROs and TTROs to be overseen by PM / Design team.	Brian Hayward	01/07/18		OPEN
203	Design / Technical / Preparatory	Changes to design of High St / Public realm after construction has commenced		SMP to include details of street furniture and material specifications. Traffic modelling required as part of design stage to give assurance on requirements for signals/crossing points etc. The detailed design for the contract tender documents will provide as much detail as possible on the site conditions and methods of construction; so as to avoid questions about "buildability" early contractor involvement in larger schemes	1	1	1	Sign of process as part of BBC PMO gateway requirements	Brian Hayward	01/07/18		OPEN

Project Name:	Bedford Town Centre Strategy		No. of Risks
Project No:	Transporting Bedford 2020 PMO 040	Red (Critical)	4
Project Manager:	Brian Hayward	Amber (Intermediate)	35
Project Team :	Melanie McLeod / Brian Hayward	Green (Minor)	75
Date:	06/06/2018	Closed	4
Revision:	L		118



RISK IDENTIFICATION & MITIGATION					RISK ASSESSMENT - RESIDUAL RISK			ACTION PLAN - RESIDUAL RISK				
Ref	Category	Risk	Potential Impact	Completed Mitigation Action (to date)	Probability	Impact	Score/ Category	Action Plan	Action Owner	Action Target	Date Achieve	Risk Status
204	Design / Technical / Preparatory	Estimated scheme costs inaccurate	cost overrun (Public Realm)	Detailed estimate to be completed based on site investigations, lessons learnt from previous works in vicinity. 15% contingency to be provided in project cost	1	2	2	Scheme estimates based on LCHAC rates. Key infrastructure elements to be procured through competitive tender or EHA mini competition to secure best rates.	Brian Hayward	01/07/18		OPEN
205	Environmental	Programme delayed due to inclement weather	Delays to programme	Initial programme includes extra time allowance for schemes being constructed in winter periods	2	2	4	Review programme, use forecast data from winter service activities to identify potential issues, move schemes off critical path if opportunity allows.	Brian Hayward	01/07/18		OPEN
206	Procurement	Contractors not interested in work on offer through framework agreements	Delays to programme	Project identified on EHA forward plan - early engagement of contractors.	2	1	2	Back up procurement options with existing contractors and/or in house delivery to be considered if necessary	Brian Hayward	01/07/18		OPEN
207	Procurement	Procurement of works	project will not be delivered on time budget will not be spent	Maximum use of existing contractual arrangement and application of robust procurement framework. Procurement options already evaluated (existing contract, in house delivery or framework contract)	1	3	3	Existing suppliers in place for technology elements; Infrastructure / public realm schemes identified on EHA framework forward plan; BBC works tender to be issued winter 2017 includes facility to deliver elements of works.	Brian Hayward	01/07/18		OPEN
208	Stakeholder Management / Consultation	Stakeholder engagement on public realm schemes delayed	Lack of engagement with scheme intentions or deliverables	Project plan in development; communication strategy and stakeholder engagement identified as early activities.	2	2	4	establish sub teams to carry out stakeholder engagement	Brian Hayward	01/07/18		OPEN
209	Stakeholder Management / Consultation	Stakeholder engagement with Public Transport operators delayed	Lack of engagement with scheme intentions or deliverables	Project plan in development; communication strategy and stakeholder engagement identified as early activities.	1	2	2	PM to carry out & record consultations and liaise with design teams	Brian Hayward	01/07/18		OPEN
210	Stakeholder Management / Consultation	Public realm schemes - Works extended due to requirement to facilitate access to shops	Delay to programme; Loss of reputation - increased congestion affects duration of works. Businesses may seek to claim rate rebate.	Programme allows facility for delivery periods - design to include buildability audit and early contractor engagement to tailor works.	1	2	2	establish sub teams to carry out stakeholder engagement. Harpur centre to be included in consultations.	Brian Hayward	01/07/18		OPEN
211	Construction	Adverse ground conditions in High St and/or contamination delays completion of works.	Increased Costs and delays to programme	Ground radar surveys will be commissioned. The current cost estimate makes allowances for risk associated with unforeseen ground conditions.	2	2	4	Carry out trial excavations before design commences.	Brian Hayward	01/07/18		OPEN
212	Construction	Disruption to public transport during the works at StPauls Square where there are a number of bus stops leading to a reduction in patronage	Loss of reputation - increased congestion affects duration of works	Early discussion with stakeholders as part of SMP - use knowledge gained from recent maintenance works in St Pauls to provide workable alternative arrangements for bus users	1	2	2	Ensure issues are picked up in SMP - make best use of comms prior to construction period	Brian Hayward	01/07/18		OPEN
213	Construction	Impacts during construction - disruption to local businesses	Delay to programme; Loss of reputation - increased congestion affects duration of works	Early discussion with stakeholders as part of SMP - use knowledge gained from recent Gas main renewal works to inform best working practices	1	2	2	Ensure issues are picked up in SMP - make best use of comms prior to construction period	Brian Hayward	01/07/18		OPEN
214	Construction	Long lead in times for permanent service diversions	Delays to programme	Programme established to allow timeframe for utility works in advance of main construction periods. Early Liaison with utility companies to ensure stats get diverted before construction	1	3	3	Review C18 returns as part of design process	Brian Hayward	01/07/18		OPEN
215	Construction	Noise pollution complaints raised during construction works affecting programme	Restrictions on working hours extend programme	Consider undertaking noise impact assessments as part of EIA	1	2	2	working hours to be reviewed and specified in tender documents	Brian Hayward	01/07/18		OPEN
216	Construction	Poor asset condition requiring increased remedial works as part of scheme eg drainage lighting, pavement	Increased costs of scheme elements and/or further maintenance works required	Utilise existing asset management inventory and condition data during design Establish asset condition through surveys and due diligence	1	2	2	Review need for additional BBC maintenance schemes in vicinity of works post scheme delivery	Brian Hayward	01/07/18		OPEN
217	Construction	Roadworks coordination - own works programme	Delays to programme	initial discussions with traffic manager; public transport operators; schools to take place having due regard to overall existing programme.	1	2	2	advance notices to be issued once funding agreed. Draft programme coordinates with all known risks. BBC own works programme to be fitted around this project.	Brian Hayward	01/07/18		OPEN
218	Construction	Shortage of specialist materials or labour for works on public realm schemes	Delays to programme	Design to be completed well in advance of construction period allowing long lead in time for sourcing materials. Materials to be non specialist wherever possible Requirements to be clearly stated in procurement phase and additional cost risks to be borne by contractor.	2	1	2	review material specification following SMP	Brian Hayward	01/07/18		OPEN
219	Construction	Unknown services struck during construction period	Increased scheme costs & delay to programme	Utility searches at pre design stage ; GPR survey undertaken to establish location of statutory undertakers equipment and unmarked services. Trial holes and CAT scans in advance of works, permit to dig for main works	1	3	3	ensure trial holes carried out in advance of design stage. Consider use of specialist company to survey and locate.	Brian Hayward	01/07/18		OPEN
220	Construction	Use of sub standard material in construction resulting in earlier failure or remedial work.	Extension of scheme programme	Site supervision protocols will include material quality checks, contractors risk .	1	1	1	Ensure qualified and competent resource for site supervision	Brian Hayward	01/07/18		OPEN
221	Construction	Works impacted by river festival	Disruption to scheme programme	Current programme set out to avoid clashes	1	1	1	dates of river festival to be added as a constraint to scheme project plan	Brian Hayward	01/07/18		OPEN
Technology Theme												
301	Design / Technical / Preparatory	statutory process (inc TTR0 & TRO) undefined for area wide delivery	Delays to programme	Traffic regulation order processes carried out in house, timescales identified and contained within design stage /mobilisation stage. Individual work areas to be viewed as self contained package with specialist delivery team	1	1	1	Full suite of TROs and TTR0s to be overseen by PM / Design team.	Brian Hayward	01/07/18		OPEN
302	Design / Technical / Preparatory	Capacity to produce detailed design	Delays to programme	initial feasibility works completed. Framework contract in place with Keir to provide specialist design resource	1	2	2	Additional support available through agency or external consultants	Brian Hayward	01/07/18		OPEN
303	Design / Technical / Preparatory	CCTV / JTMS compatibility issues	Disruption to scheme programme	Cloud based system to be used with common UTMIC protocols	1	1	1	Activities not on critical path of programme, allowance for slippage in delivery programme. Engage specialist to delivery UTMIC and Technology elements. Ensure procurement and construction procedures are sufficiently robust to minimise likelihood of construction difficulties.	Brian Hayward	01/07/18		OPEN
304	Design / Technical / Preparatory	Impact upon design due to locality of utility services	Delay in finalising design and costs	Utility searches & NRSWA C18 process early in programme. Identify precise location of services and agree constraints with utility companies at earliest opportunity - arrange for trial pits during design stage.	1	1	1	SMP to review	Brian Hayward	01/07/18		OPEN
305	Design / Technical / Preparatory	Remote Monitoring system compatibility issues	Disruption to scheme programme	Cloud based system to be used with common UTMIC protocols	1	1	1	Activities not on critical path of programme, allowance for slippage in delivery programme. Engage specialist to delivery UTMIC and Technology elements. Ensure procurement and construction procedures are sufficiently robust to minimise likelihood of construction difficulties.	Brian Hayward	01/07/18		OPEN
306	Design / Technical / Preparatory	Technology elements not properly defined or Changes to design after construction has commenced due to changes in technology	Change in scope and costs of technology tranche	Industry market testing completed. Early activities with existing partners underway to refine scope. Gateway process to determine specifications, common protocols to be used to provide future proofing in fast changing sector	2	2	4	Activities not on critical path of programme, allowance for slippage in delivery programme. Engage specialist to delivery UTMIC and Technology elements. Ensure procurement and construction procedures are sufficiently robust to minimise likelihood of construction difficulties.	Brian Hayward	01/07/18		OPEN
307	Design / Technical / Preparatory	UTMIC common database compatibility issues	Disruption to scheme programme	Cloud based system to be used with common UTMIC protocols	1	1	1	Activities not on critical path of programme, allowance for slippage in delivery programme. Engage specialist to delivery UTMIC and Technology elements. Ensure procurement and construction procedures are sufficiently robust to minimise likelihood of construction difficulties.	Brian Hayward	01/07/18		OPEN
308	Design / Technical / Preparatory	UTMIC system design delayed due to specialist resource issues	Delay in finalising design and costs	initial feasibility works completed. Framework contract in place with Keir to provide specialist design resource	1	2	2	Initial project inception meetings planned for January 2018	Brian Hayward	01/07/18		OPEN
309	Design / Technical / Preparatory	UTMIC system procurement undefined or not deliverable as single package	Delays to programme	Industry market testing completed. Early activities with existing partners underway to refine scope. Gateway process to determine specifications, common protocols to be used to provide future proofing in fast changing sector	2	1	2	Activities not on critical path of programme, allowance for slippage in delivery programme. Engage specialist to delivery UTMIC and Technology elements. Ensure procurement and construction procedures are sufficiently robust to minimise likelihood of construction difficulties.	Brian Hayward	01/07/18		OPEN
310	Design / Technical / Preparatory	Estimated scheme costs inaccurate	Cost overrun (Technology)	Detailed estimate to be completed based on site investigations, lessons learnt from previous works in vicinity. 15% contingency to be provided in project cost	1	2	2	Scheme estimates based on LCHAC rates. Key infrastructure elements to be procured through competitive tender or EHA mini competition to secure best rates.	Brian Hayward	01/07/18		OPEN
311	Procurement	Procurement of Signing & information systems	Disruption to scheme programme	Similar works recently procured through framework contract	1	1	1	Make use of previous tender specification	Brian Hayward	01/07/18		OPEN
312	Procurement	Procurement of works	Project will not be delivered on time budget will not be spent	Maximum use of existing contractual arrangement and application of robust procurement framework. Procurement options already evaluated (existing contract, in house delivery or framework contract)	1	3	3	Existing suppliers in place for technology elements with Dymiq; Infrastructure / public realm schemes identified on EHA framework forward plan; BBC works tender to be issued winter 2017 includes facility to deliver elements of works.	Brian Hayward	01/07/18		OPEN
313	Design / Technical / Preparatory	ANPR enforcement systems not compatible with existing BBC systems	Disruption to scheme programme	BBC PMO procedure to provide high level corporate project visibility and direction. Existing system specifications to be used as basis for design	1	1	1	Sign of process as part of BBC PMO gateway requirements	Brian Hayward	01/07/18		OPEN
314	Stakeholder Management / Consultation	Technology elements - Stakeholder engagement not defined	Lack of engagement with scheme intentions or deliverables	Project plan in development; communication strategy and stakeholder engagement identified as early activities.	2	2	4	establish sub teams to carry out stakeholder engagement	Brian Hayward	01/07/18		OPEN
315	Design / Technical / Preparatory	Travel demand / SMART mobility aspects undefined	Delay in finalising design and costs	Industry market testing completed. Early activities with existing partners underway to refine scope.	2	2	4	SMP to develop concept	Brian Hayward	01/07/18		OPEN
316	Design / Technical / Preparatory	UTMIC Installation and Control Room not supported by internal IT or property	Delays to programme	BBC PMO procedure to provide high level corporate project visibility and direction	1	1	1	Sign of process as part of BBC PMO gateway requirements	Brian Hayward	01/07/18		OPEN
317	Construction	Roadworks coordination	programme of scheme	initial discussions with traffic manager; public transport operators; schools.	1	2	2	advance notices to be issued once funding agreed. Draft programme coordinates with all known risks	Brian Hayward	01/07/18		OPEN
318	Construction	Traffic signals outstation upgrades delivery programme conflicts with other works	Delays to programme	initial discussions with traffic manager taken place having due regard to overall existing programme.	1	2	2	flexibility in order of delivery retained in project plan BBC own works programme to be fitted around this project.	Brian Hayward	01/07/18		OPEN

7.5 Stakeholder Engagement Plan

TRANSPORTING BEDFORD 2020

Stakeholder Management Plan (including Travel Demand Management) – Technical Note

IDENTIFICATION TABLE

Client/Project owner	Bedford Borough Council
Project	Transporting Bedford 2020
Study	Stakeholder Management Plan (including Travel Demand Management)
Type of document	Technical Note
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File name	TB2020bh17418
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Number of pages	14

APPROVAL

Version	Name	Position	Date	Modifications	
1	Author	JB/KH	SYSTRA	16/10/17	initial
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2	Author	BH	PM	17/5/18	
	Checked by	MM	TLTP	18/5/18	
	Approved by	MM	TLTP	18/5/18	

1. Background

- 1.1. This note has been produced in support of the Business Case for improvements to Bedford Town Centre, to be submitted to the LEP.
- 1.2. The purpose of this note is to set out a Stakeholder Management Plan (SMP) to outline how wider stakeholder and community interests will be involved in the Transporting Bedford 2020 project. The aim of the SMP will be to:
 - Communicate the aims and objectives of Transporting Bedford 2020 to stakeholders and enable consultation to refine individual component projects;
 - Influence stakeholders through communication of a Travel Demand Management (TDM) strategy at the Delivery stage.
- 1.3. Regarding the second aim, TDM provides enhanced information and travel advice during construction periods to mitigate congestion and reduce customer impact. TDM uses the '4R Principle' of encouraging drivers to 'Reduce', 'Remode', 'Retime', 'Reroute'.¹
- 1.4. The SMP will therefore assist in keeping stakeholders informed, upholding the reputation of Bedford Borough Council (BBC) during the construction period and ensure wider stakeholder support for Transporting Bedford 2020 project.

2. Key Engagement Issues

- 2.1. Transporting Bedford 2020 project has three distinct themes:

Public Realm

- Improvements in the town centre public realm focused on Bedford High Street as the main area of pedestrian/vehicle conflict and on existing pedestrian areas most in need of revitalisation in Allhallows and St Paul's Square, to improve the quality of the environment for users of the town centre.

Managing Congestion

- A widespread programme of small/medium scale infrastructure improvements focussed on the most severe junction pinch-points where worthwhile increases in capacity and reliability are justified and will benefit all road users.

Intelligent Transport Corridor

- A major upgrade to existing traffic management systems across the whole Town Centre and Southern Gateway area to provide the maximum delay reductions possible, provide real-time information to drivers to support their decision-making, and to be ready to incorporate emerging/future technology on Cooperative Intelligent Transport

¹ Research by TfL has shown that TDM can influence around 14% of frequent drivers to change their behaviour during the time of construction because of enhanced communications resulting in up to 30% reduction in background traffic. The monetised social benefit of the behaviour change set against the cost of enhanced communications generates a BCR of more than 4:1.

Systems (C-ITS), Expressway driver information systems, autonomous vehicles and Mobility as a Service (MaaS) technology.

- 2.2. Key stakeholder engagement has already been undertaken and is documented in supporting documents. This stakeholder engagement includes:
 - Public Realm Stakeholder Engagement relating to Bedford High Street in August 2017;
 - One Public Estate (2016);
 - Citizens Panel (Ongoing);
 - Network Rail (2016 & 2017).
- 2.3. The components of the strategy are conceptually different, are spread across an area (rather than having a clear single location) and will be delivered as a series of discrete projects. There will also be the potential for confusion with other highway works, such as routine maintenance and utility repairs/upgrades. As well as these factors, elements may change because of technological changes and new funding sources becoming available.
- 2.4. Communicating the three workstreams as one coherent programme that demonstrates how they support each other will be a key narrative to give to stakeholders. In addition, communicating the construction impacts of the programme to stakeholders in advance will enable congestion to be managed during the periods of roadworks which are as a direct result of Transporting Bedford 2020 project as well as other highway works.
- 2.5. Feedback received as part of all consultation / Stakeholder engagements will be recorded by the Project Manager and reported to the Project Board. As feedback is likely to influence design, programme and risk issues updates to the stakeholder management plan will be reported in the form of an 'events and issues' log as part of routine quarterly monitoring, and due regard given to any changes in design, programme or risk that may affect the wider business case.

3. Communications Protocol

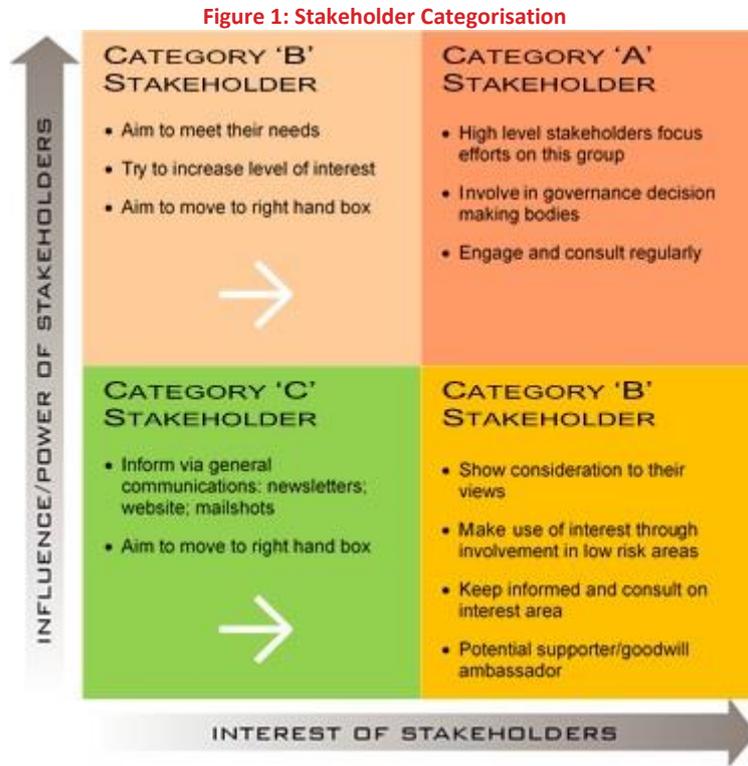
- 3.1. All publicly available information produced under this Stakeholder Management Plan will be overseen by the Communications team at BBC and will be published in accordance with the South East Midlands Local Enterprise Partnership Communications protocol (October 2017)
- 3.2. Information published will be open and accessible to encourage effective dialogue and joint working
- 3.3. Key publicity information (eg production of press releases; leaflets; updates to the Council website; newsletters and exhibition information) will be agreed in advance with SEMLEP.

4. Stakeholders

- 4.1. In order that the stakeholder engagement is efficient and effective the stakeholders have been categorised as 'A', 'B' and 'C' stakeholders to ensure that the most appropriate engagement methods are used with different stakeholders. Categorising stakeholders is crucial to the success of the Transport Strategy because there are many groups that will be influential in key decisions.

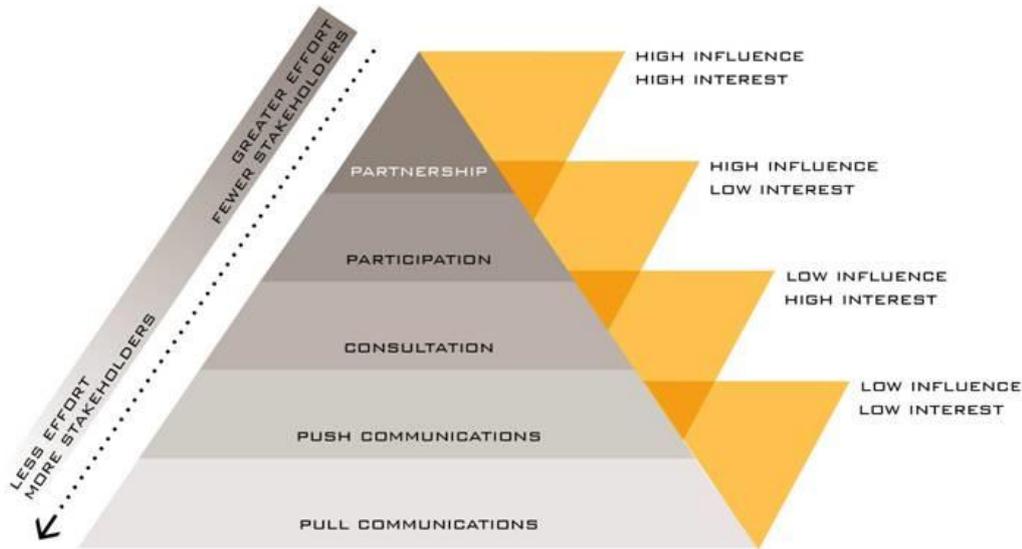
4.2. For example, 'Category A' stakeholders have a high political interest and are powerful enough to offer significant support with planning and delivering transport schemes, whilst stakeholders with lower levels of interest and influence need to be kept informed but require less stakeholder engagement resources.

4.3. Figure 1 below shows the categorisation.



4.4. Using this approach, we have broadly categorised stakeholders based on influence and interest (see Table 1) and then applied appropriate communication methods so that the SMP is efficient and cost-effective. The diagram below (Figure 2) illustrates the relationship between stakeholder influence/power and stakeholder engagement approaches.

Figure 2: Relationship between stakeholder influence/power and stakeholder engagement approaches



4.5. Table 1 provides an outline categorisation of known stakeholders, although this list will be refined throughout the SMP process.

Table 1: Categorisation of stakeholders

Stakeholder Category	Stakeholder Groups	Engagement Method
Category A Stakeholders (Power & Interest)	Bedford Borough Council – Environment, Transport, Planning, Economic Development One Public Estate SEMLEP officers	Partnership via meetings / workshops
Category B Stakeholders (Power)	MPs DfT and CLG contacts Network Rail BBC Environment Scrutiny Committee Ward Councillors Technology Sector	Participation via meetings / reports

<p>Category B Stakeholders (Interest)</p>	<p>Highways England</p> <p>Town Centre Organisations: Bedford BID (and its members) Bedfordshire Chamber of Commerce Federation of small businesses Harpur Trust schools Bedford College University of Bedfordshire Bedford Hospital / NHS Trust Sainsburys Manton Lane Business Group</p> <p>Transport Groups: Cycle Strategy Group (and all its member groups) Bedford Commuters Association Bedford Bus Users Group Stagecoach Grant Palmer Taxi and Private Hire Associations RAC Logistics Groups</p>	<p>Consultation via meetings / workshops, written correspondence or telephone</p>
<p>Category C Stakeholders</p>	<p>Town & Parish Councils Residents / Public</p>	<p>Information provision via letters, exhibition, email, brochures, webpages, newsletters, social media, adverts, digital adverts.</p>

5. Our Approach to Engagement

- 5.1. The approach to engagement set out below will involve the preparation of three strands of engagement work focused around ‘Introduction’, ‘Detailed Design’ and ‘Delivery’. The first two elements will focus on the three workstreams of ‘public realm’, ‘managing congestion’ and ‘intelligent transport corridor’. The ‘Delivery’ element will focus on ‘Construction’ and ‘Travel Demand Management’.

Stage 1: Introduction to Transporting Bedford 2020 project (December 2017 – July 2018)

Category A Stakeholders

- 5.2. Initial consultation commenced with the Category A Stakeholders in December 2017. The purpose of this consultation is to:
- Explain the process to date;



- Explain the decisions taken by Bedford Borough Council and SEMLEP;
- Gather views;
- Identify the important issues for key groups;

Category B Stakeholders

- 5.3. The Project Board has confirmed a complete list of stakeholders who the project team will engage with during the various stages of the project.
- 5.4. A series of meetings, presentations, written and telephone consultation commenced early in 2018. From previous stakeholder engagement we are aware that some stakeholders (particularly the transport groups), are more interested in the 'intelligent transport corridor' workstream, key businesses near key junctions are interested in the 'managing congestion' workstream whereas retailers are interested in the 'public realm' workstream. We will tailor our conversations to cater to the interest identified
- 5.5. Market testing events will be held regarding the intelligent transport corridor work stream. The purpose of the event will be to identify what is possible within Bedford in terms of technological interventions. Invitees will technology providers who can offer solutions to Bedford.

Category C Stakeholders

- 5.6. We will utilise a range of media to communicate with Category C stakeholders to ensure maximum reach. This will include:
- Press releases
 - A social media campaign to engage large audiences based on their interests (what they have previously 'liked');
 - Engaging business networks to talk directly to the business community about issues that are relevant to them;
 - Use of the council's own channels to reach the public (local press, resident groups) to engage the general public.
- 5.7. Therefore, at Stage 1 we are :
- Issuing a press release in December to engage the general public about Transporting Bedford 2020 project;
 - Attending business networking events to inform the business community;
 - Develop a webpage situated on BCC website to communicate the strategy and encourage sign up to quarterly e-newsletters;
 - Issue the first of a quarterly e-newsletter as an initial consultation and communication leaflet to Category C stakeholders.
 - Publish a leaflet outlining the strategy
 - Hold public exhibitions at key locations in the Borough
 - Market testing technology elements

Stage 2: Detailed Design of Transporting Bedford 2020 project (April 2018 ongoing)

Category A Stakeholders

- 5.8. Regular meetings / correspondence will take place with the Category A stakeholders regarding Transporting Bedford 2020 project. The meetings will cover all the workstreams to ensure the linkages are made and communicated.

Category B Stakeholders

- 5.9. As the strategy moves towards implementation it will be important to engage with Category B stakeholders to reassure them of the improvements that will be made as a result of the programme. Table 2 shows some of the key messages that the SMP will focus on for these groups.

Table 2: Category B Stakeholder interests

Work packages	Stakeholders	Key Issues / Messaging
Public Realm	Town centre retailers	Footfall
	Town centre businesses	Deliveries
	Utility companies	Access to infrastructure
Managing Congestion	Businesses Schools / Colleges Hospital	Access Commuting Deliveries Journey times
Intelligent Transport Corridor	Transport groups	The effect on various modes of travel

- 5.10. Meetings will be held with town centre retailers and businesses and businesses located adjacent to key pinch-points. The meetings will present the developing public realm narrative and provide an update on the design of junction schemes as well as the intelligent transport corridor approach. Illustrations of the work to be undertaken in Bedford Town Centre on the public realm, pinch-points and technology will be outlined and the timescales, costs and benefits communicated. The meetings will include an opportunity for stakeholders to provide further input into the design of the schemes. Those unable to attend the meeting will be issued with a letter summarising the meeting that will outline the developing programme of works.

Category C Stakeholders

- 5.11. At Stage 2 we will:
- Regularly update the webpages on BBC's website and encourage sign up to quarterly e-newsletters;
 - A public exhibition will be held in a convenient and well-known town centre location, and be open for a 1 week period where people can drop in and view the exhibition materials with timeslots for when proposals can be discussed face-to-face;
 - Issue quarterly e-newsletters to those signed up to update stakeholders on the design of the strategy;
 - Social media campaign.



- 5.12. Key messages to be communicated to the Category C stakeholders will be on quality of life improvements, congestion reduction and journey time reliability.

Stage 3: Delivery of Transporting Bedford 2020 project (October 2018 ongoing)

Category A Stakeholders

- 5.13. Regular meetings (as outlined above) held to cover Stage 3 Delivery. A key focus of the meetings will be to discuss the Travel Demand Management strategy and how to ensure effective communication of TDM to Category B and C stakeholders.

Category B Stakeholders

- 5.14. A TDM programme will engage Category B stakeholders to disseminate key messages to residents and employees (Category C stakeholders). The purpose of the TDM programme is to:

- Deal with road safety risks, particularly for non-motorised users such as pedestrians and cyclists.
- Maximise the opportunities for managing travel, particularly to encourage modal shift through increased levels of walking and cycling.
- Achieve reliability and consistency of journey times across Bedford during construction of the schemes.

- 5.15. To maximise impact, we will:

- Engage one-to-one with businesses and educational establishments within 400m of the construction site. In addition, we will also communicate with community groups and influencers (MPs, Councillors) throughout the construction period;
- Manage the risk of congestion by creating a database of 'hotspot' junctions and routes affected by construction;
- Create weekly calendars, with a red, amber and green warning system on likely impact of construction work at key locations;
- Plan communications around construction activities and communicate to affected businesses, educational establishments and community groups in an efficient and timely manner based on the 4R's e.g. 'Remode', 'Retime', 'Reroute', 'Reduce';
- Build road safety into our messaging;
- Work with Category B stakeholders in advance of major disruption to ensure measures are introduced to support site users change journeys when disruption occurs. This may include introducing more flexible working arrangements, changing mode, etc.

- 5.16. The TDM strategy will be communicated to Category B stakeholders through business network meetings, schools' meetings and community groups. For key stakeholders who have significant reach, face-to-face communication will be arranged initially with subsequent information provided by email and website updates.

Category C Stakeholders

- 5.17. At Stage 3 we will:

- Issue quarterly e-newsletters to update Category C stakeholders on the delivery of the strategy and to communicate the 4Rs;
- Update the website with information about hotspots;

- Use social media to communicate to the public.
- Make use of on street Variable message signs (VMS) to deliver key messages



6. Summary of the SMP

6.1. The methodology of the SMP can be summarised as follows:

Table 3: Summary of SMP

Stakeholders to be involved/contacted			
	Category A	Category B	Category C
	<ul style="list-style-type: none"> • Bedford Borough Council – Environment, Transport, Planning, Economic Development • One Public Estate • SEMLEP officers 	<ul style="list-style-type: none"> • MPs • DfT and CLG contacts • Network Rail • BBC Environment Scrutiny Committee • Ward Councillors Highways England • Technology Sector Town Centre Organisations: • Bedford BID (and its members) • Bedfordshire Chamber of Commerce • Federation of small businesses • Harpur Trust schools • Bedford College • University of Bedfordshire • Bedford Hospital / NHS Trust • Sainsburys • Manton Lane Business Group Transport Groups: • Cycle Strategy Group • Bedford Commuters Association 	<ul style="list-style-type: none"> • Town & Parish Councils • Residents / Public

		<ul style="list-style-type: none"> • Bedford Bus Users Group • Stagecoach • Grant Palmer • Taxi and Private Hire Associations • RAC • Logistics Groups 	
Stage 1	Introduction to Bedford Town Centre Transport Strategy		
Method of engagement	<ul style="list-style-type: none"> • Partnership via meetings / workshops 	<ul style="list-style-type: none"> • Meetings / workshops, • Written correspondence • Telephone • Press release • Business networking events • Webpage • First quarterly e-newsletter • Leaflet • Exhibition 	<ul style="list-style-type: none"> • Press release • PC meetings • Webpage • First quarterly e-newsletter • Leaflet • Exhibition

Stage 2	Detailed Design of Bedford Town Centre Transport Strategy		
Method of engagement	<ul style="list-style-type: none"> • Monthly meetings • Market testing of emerging technologies for Intelligent Transport Corridor 	<ul style="list-style-type: none"> • Meetings • Email • Website 	<ul style="list-style-type: none"> • Website • Exhibition • Quarterly e-newsletter • Social media



Stage 3	Delivery of Transporting Bedford 2020 project		
Method of engagement	<ul style="list-style-type: none"> • Monthly meetings 	<ul style="list-style-type: none"> • Meetings • Email • Website 	<ul style="list-style-type: none"> • Website • Quarterly e-newsletter • Social media • VMS



6. Events Log

- 6.1. The table below records the first and/or notable contacts for each identified stakeholder. The event log will be updated throughout the life of the project.

Table 4: Events Log

Events Log up to May 2018		
Activity	Date	Stakeholders
Category A Stakeholders		
Meeting to discuss principle of scheme	16/11/2017	OPE Project Manager
Meeting to discuss OPE position	05/12/2017	OPE Project Manager
Meeting to discuss principle of scheme	20/12/2017	BBC Internal
LGF Programme Management Board	31/01/2018	SEMLEP
LGF Programme Management Board	25/04/2018	SEMLEP
Category B Stakeholders		
Report on scheme	30/11/2017	ESCOSC
Meeting with suppliers to discuss sector developments	30/11/2017	Technology Sector
Email to introduce scheme	06/12/2017	MPs
Meeting to outline scheme	13/12/2017	Network Rail
Meeting to introduce scheme	13/12/2017	Harpur Trust Schools
Correspondence to introduce scheme	15/12/2017	Stagecoach
Correspondence to introduce scheme	15/12/2017	Grant Palmer
Email to introduce scheme	20/12/2017	Ward Councillors
Meeting with suppliers to discuss sector developments	20/12/2017	Technology Sector
Meeting to introduce scheme	08/01/2018	Stagecoach
Meeting to introduce scheme	09/01/2018	Taxi and Private Hire Associations
Site meeting	11/01/2018	ESCOSC
Meeting with suppliers to discuss sector developments	17/01/2018	Technology Sector
Meeting with suppliers to discuss sector developments	18/01/2018	Technology Sector
Meeting with suppliers to discuss sector developments	22/01/2018	Technology Sector
Correspondence to introduce scheme	22/01/2018	Bedford College
Correspondence to introduce scheme	22/01/2018	University of Bedfordshire
Introduction to scheme	23/01/2018	Bedford BID Board

Newsletter to introduce scheme	23/01/2018	Bedford CoC
Newsletter to introduce scheme	23/01/2018	Bedford Federation of Small Businesses
Newsletter to introduce scheme	23/01/2018	Manton Lane Businesses
Meeting to introduce scheme	29/01/2018	Bedford Bus Users Group
Meeting to introduce scheme	29/01/2018	Stagecoach
Meeting to introduce scheme	29/01/2018	Grant Palmer
Correspondence to introduce scheme to members	02/02/2018	Bedford CoC
Correspondence to introduce scheme to members	02/02/2018	Bedford Federation of Small Businesses
Meeting to introduce scheme and discuss design	06/02/2018	Sainsbury's
Meeting to introduce scheme	07/02/2018	Cycle Strategy Group
Correspondence to introduce scheme	07/02/2018	RAC
Meeting to discuss principle of scheme	14/02/2018	Highways England
Meeting with suppliers to discuss sector developments	14/02/2018	Technology Sector
Meeting consultants to refine scheme details	19/02/2018	Technology Sector
Meeting to outline scheme	21/02/2018	Bedford Bid wider group
Meeting to introduce scheme	12/03/2018	Bedford Commuters Association
Meeting to outline design	16/03/2018	BMS
Meeting to discuss schemes and programme	20/03/2018	Network Rail
Meeting to outline scheme	27/03/2018	DfT
Meeting consultants to refine scheme details	19/04/2018	Technology Sector
Workshop	21/06/2018	Bedford CoC
Workshop	21/06/2018	Bedford Federation of Small Businesses
TBC	TBC	Logistics Group
Category C Stakeholders		
Website Live	01/12/2017	Residents /Public
Press Release	06/12/2017	Residents /Public
Correspondence to introduce scheme	20/12/2017	Town & Parish Councils
Leaflet	27/12/2017	Residents /Public
Exhibition (with HE)	09/04/2018	Residents /Public
Correspondence to arrange further discussion	15/04/2018	Town & Parish Councils
2018/19 Q1 & Q2 planned events as at 17 May 2018		
Activity	Date	Stakeholders
Category A Stakeholders		
LGF Programme Management Board	18/07/2018	SEMLEP
Project Board (meeting with SEMLEP)	6 or 20 /07/2018	SEMLEP

Category B Stakeholders		
Scheme boards erected	22/06/2018	Technology Sector
Meeting to discuss design	20/06/2018	Cycle Strategy Group
Meeting to outline scheme	06/06/2018	Bedford Bid wider group
Meeting to discuss design	23/05/2018	BMS / Harpur Trust
Meeting to discuss scheme	04/07/2018	DfT
Meeting to discuss scheme	19/06/2018	Highways England
Presentation	06/06/2018	Manton Lane Businesses
Meeting consultants to refine scheme details	07/06/2018	Technology Sector
Workshop	21/06/2018	Bedford CoC
Workshop	21/06/2018	Bedford Federation of Small Businesses
TBC	TBC	Logistics Group
Category C Stakeholders		
Website update	01/07/2018	Residents /Public
Press Release	01/09/2018	Residents /Public
PC newsletters	Summer 2018	Town & Parish Councils
Leaflet	Aug / Sept 2018	Residents /Public
Bromham PC Meeting	02/10/2018	Town & Parish Councils
Clapham PC Meeting	17/07/2018	Town & Parish Councils
Kempston TC Meeting	05/09/2018	Town & Parish Councils
Elstow PC Meeting	tbc	Town & Parish Councils
Brickhill PC Meeting	07/06/2018	Town & Parish Councils
BBC Facebook	01/08/2018	Targetted advertising



7.6 BBC Consultation Strategy

Consultations Strategy

2017-2021



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1. Introduction

1.1 Bedford Borough Council is committed to delivering excellent services to all its residents. Before we make a decision about changing or modernising services, we will consult citizens and service users so that we can be sure that decisions are properly informed by public opinion. At a time of reducing resources across the whole public sector it is even more important that consultations are conducted in a professional and open way.

1.2 By 'consultation' we mean:

“A process through which the views of citizens and customers are sought about a particular issue, with the aim that those views should inform and influence decisions, policies, or programmes of action”

1.3 Each consultation project will be unique. However the Council has a dedicated Consultation Team who can assist, give advice, and ensure a high quality co-ordinated approach is always taken.

1.4 Bedford Borough Council like all local authorities is going through a period of significant change as we face pressure on our resources and services. We are tackling these issues through a programme called Bedford Borough 2020. As we develop new service models it is important that we consult with our residents, businesses and other service users.

2. Why Do We Consult?

A Listening Council

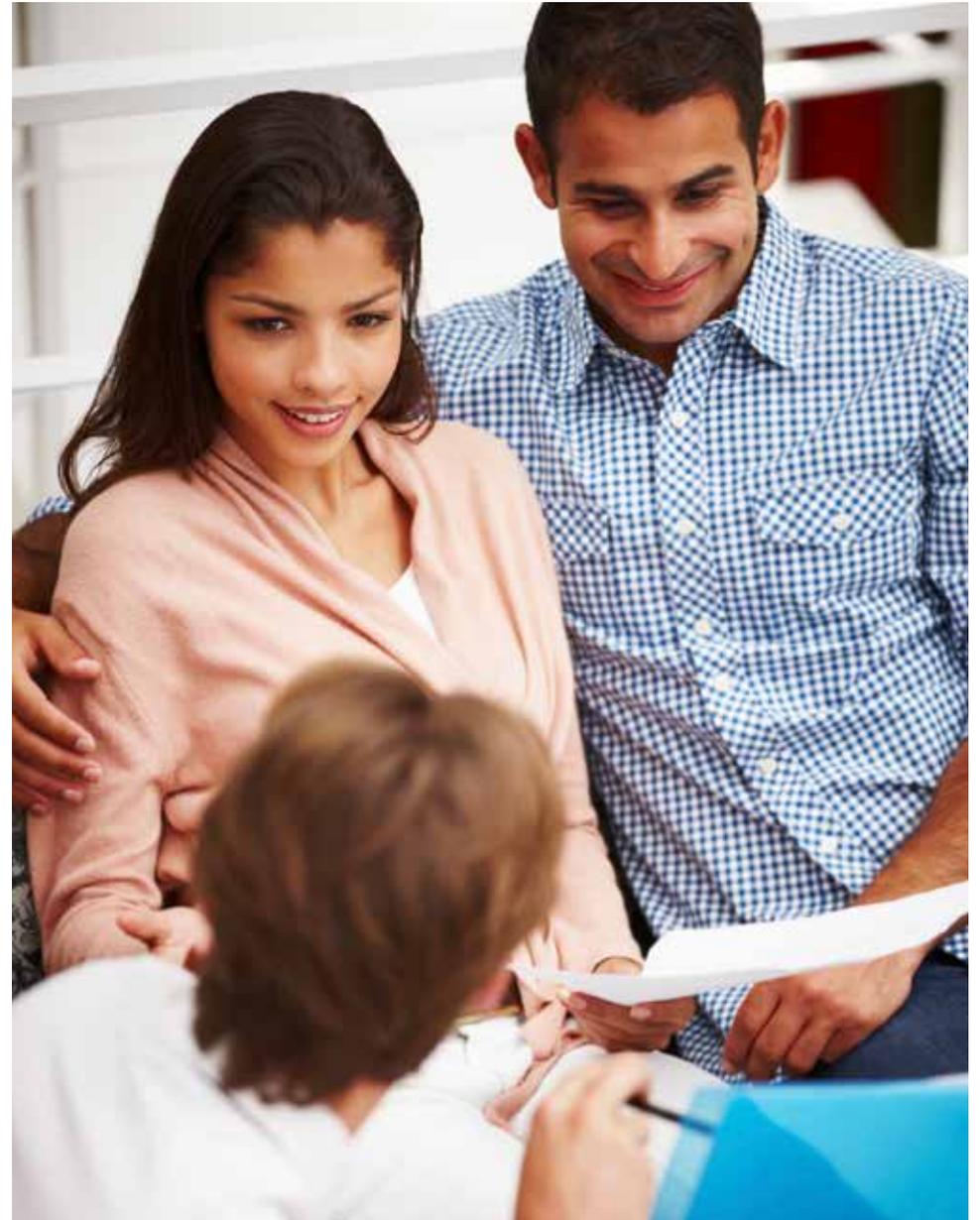
- 2.1 In order to provide services that are best suited to our customers we will listen to our citizens and stakeholders. Consultation around an issue will help tailor services, and meet the needs of our community.
- 2.2 Consultation will help garner views and preferences, help understand possible unintended consequences of a policy or decision, or to get views on implementing change. All this ensures that our decisions and policies are made from a strong evidence base.

Duty to Consult

- 2.3 There is a range of legislation and statutory guidance requiring local authorities to consult on issues connected to the services they provide. Also there have been many examples of legal challenges to public bodies on the grounds of there being inadequate consultation.
- 2.4 The Equality Act 2010 also requires that consultation is undertaken with people who have protected characteristics where they may be adversely affected – for more information on the Equality Act see page 5.

Role in the overall process

- 2.5 Consultation rarely results in a single opinion. Councillors and officers will often have to make a judgement about the weight to be given to one opinion, or another. In making final decisions Councillors and officers will often have to weigh views and opinions gathered through consultation against a range of other factors, including financial cost and environmental or social impact.
- 2.6 Consultation can never be a substitute for the democratic process. However, understanding the views of our citizens and communities will inform and improve the decision-making process, and help strengthen involvement in civic life.



3. What Do We Consult On?

Deciding whether to consult

3.1 Where an activity (e.g. policy, service procedure or potential decision) will have an impact on members of the public or stakeholders we will always consider undertaking a consultation exercise. Consultation will only happen when there is a real scope for change, and decisions have not already been made.

Equality Act 2010

3.2 The Equality Act 2010 addresses discrimination and inequalities and protects all individuals from unfair treatment. The Council has a number of statutory duties arising from the Act to better advance equality into our business planning and decision-making processes. The duties require the Council to consider how the decisions we make, and the services we deliver, affect people from different equality groups who share a 'protected characteristic'.

3.3 The key way in which the Council demonstrates compliance with this is by conducting an equality analysis. This is an evidence led process that involves using relevant information to understand and make judgements about the impact of a Council 'activity' on equality. Information from our consultation projects can form a key part of the evidence used in an equality analysis; this is particularly important where our services are specifically delivered for a protected equality group, such as older people receiving Adult Social Care services.

Providing the right information

3.4 If our consultation is to be meaningful, it is important that 'consultees' have sufficient information available to make an informed response. We aim to present information in a way that is appropriate to stakeholders and those likely to have an interest in the subject matter.

Our consultations will clearly state:

- The dates of the consultation;
- The ways in which people can take part (i.e. online, meeting etc.);
- The scope of the consultation;
- Different options that are available including the advantages and disadvantages of each;
- How and when decisions will be made, and how the consultation will inform the decision;
- How respondents and the wider public will receive feedback, and news on the decision itself. This can include any relevant possible means of appeal.

Your Voice, Your Views

4. Who Do We Consult?

Public or targeted?

4.1 Identifying who is being consulted is central to understanding how we approach the project. Many consultations are general and will be available to all residents of the Borough and all people and groups who have an interest in the area. Other consultations may be more focused, and only certain groups will be targeted.



Stakeholder Mapping

4.2 A process called stakeholder mapping will be undertaken as part of the consultation planning process. This involves looking at all those who may have an interest in the subject, and how best they can be engaged in the consultation process.

4.3 When we identify stakeholders we think widely around the issue, and not simply approach 'the usual suspects'. A decision, policy or programme of action can affect a diverse range of people and organisations and it is our duty to identify them.

4.4 There are many communities of interest covering lots of different areas, such as faith, ethnicity, politics and neighbourhood. Every effort will be made to identify groups that may have an interest in the topic, and which need to be made aware of the consultation. Special attention will be paid to the different protected equality groups covered by the Equality Act.

Voluntary and Community Sector

4.5 Consulting with the voluntary and community sector (VCS) is an integral part of the consultation process. We are signed up to the Bedfordshire & Luton Compact which highlights how best to interact with the VCS.

5. How Do We Consult?

Methods Available

5.1 There are a large number of different consultation methodologies, and it is vital that the correct types of method are used. Part of the Bedford Borough 2020 project is the development of a Digital Operating Model. This encourages the use of digital communication. The way we consult will evolve in line with the Digital Operating Model whilst ensuring all sectors of our community are heard. The methods used will depend on many factors such as the scope of the project, who we are consulting with, and the time and budget available.

Methods include:

- Public Meetings;
- Surveys (online, paper, face to face, telephone);
- Documentary (putting a document to the public for comment);
- Focus Groups;
- Exhibitions;
- Stakeholder Meetings;
- Social Media (Twitter/Facebook);
- Email Bulletins.

Making it appropriate for the audience

5.2 Different communities and stakeholders will have different levels of knowledge and experience of the service and levels of information on which to base their responses. Some methods may not be appropriate for all. The method(s) we use will account for this. For example, young people may not respond well to a postal survey but may be more receptive to social media or a workshop.

5.3 All those identified as having an interest in the issue will be able to access the information and take part in the consultation. Measures we will take include making documents available in large print and ensuring venues are accessible to people with disabilities. Providing information in other languages will also be considered.

Pre-consultation

5.4 Informal dialogue with key stakeholders about an upcoming consultation (sometimes called pre-consultation) is sometimes appropriate. The advantages are that the stakeholders may have a good idea about the methods of dialogue and the questions that should be asked and also we can gauge the volume and type of responses that will be received.

Costs

5.5 It is important that consultation projects represent value for money. We will, wherever possible, explore the possibility of joining up consultations to reduce costs and the burden on consultees.

We will use the following where possible:

- Encourage online participation;
- Using internal mail instead of the postal service;
- Hiring Council owned facilities rather than privately owned ones;
- Printing in black and white or on lower grade paper.

6. Timing a Consultation

Length of Consultation

- 6.1 An appropriate amount of time will be given for people to submit their responses. We recognise that organisations may need to conduct secondary consultation with their members before submitting a response, and this can take time.
- 6.2 The time of year that the consultation takes place is also relevant. The consultation period should be extended if it runs over Christmas or the summer holiday period. This is especially true if the consultation involves schools or other educational settings.
- 6.3 The Government Consultation Principles 2016 states:

Consulting for too long will unnecessarily delay policy development. Consulting too quickly will not give enough time for consideration and will reduce the quality of responses.

Analysing the Results

- 6.4 For a consultation to play a meaningful role in the decision-making process, enough time will be made available to analyse, interpret, and consider the data. Stakeholder mapping and pre-consultation can give an indication of the expected level of response. This can inform how much time and resource is required to analyse and report the results, and this should be factored into the timetable.

7. Getting the Message Out

Publicity

- 7.1 Good publicity is one of the best ways to get the message of a consultation out to the people and organisations that may wish to have their say. We have a dedicated Communications Team who ensure that the Council's communications with the media are done in a consistent and efficient manner.
- 7.2 Common means for publicity include: Press Releases; Newspaper Adverts; Leaflets; Internet by creating a dedicated website; Social Media; using community contacts (Equality and Diversity Network, town and parish councillors and clerks, community groups); word of mouth (via staff and service users).

Feedback

- 7.3 Feedback is a vital part of good consultation, and consideration will be given at the outset as to how people are to be informed of the results of the consultation, as well as any decisions made.

Feedback can take a number of forms including:

- Publishing the report on the internet or via email;
- Re-contacting all respondents;
- Press releases;
- Through formal meetings - e.g. Council, service users groups.

- 7.4 In providing feedback we will explain what has changed as a result of the consultation and (where appropriate) the factors, other than the consultation responses, that informed the decision made. Respondents will be made aware of how they will receive feedback.

Notes

Finding out more

If you would like further copies, a large-print copy or information about us and our services, please telephone or write to us at our address below.

Për Informacion

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A database of consultations is available at www.bedford.gov.uk/yourvoice

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Little Falls, Los Angeles, Montreal, New-York, Philadelphia,
Washington

The SYSTRA logo is displayed in a bold, red, sans-serif font. The letters are thick and closely spaced, with a modern, geometric feel. The 'S' and 'Y' are particularly prominent due to their size and shape.

Project Name:	Bedford Town Centre Strategy		No. of Risks
Project No:	Transporting Bedford 2020 PMO 040	Red (Critical)	4
Project Manager:	Brian Hayward	Amber (Intermediate)	35
Project Team :	Melanie McLeod / Brian Hayward	Green (Minor)	75
Date:	06/06/2018	Closed	4
Revision:	L		118



RISK IDENTIFICATION & MITIGATION					RISK ASSESSMENT - RESIDUAL RISK			ACTION PLAN - RESIDUAL RISK				
Ref	Category	Risk	Potential Impact	Completed Mitigation Action (to date)	Probability	Impact	Score/ Category	Action Plan	Action Owner	Action Target	Date Achieve	Risk Status

General Risks applying to whole project

1	Economic / Financial/ Management	BBC funding not in accordance with SEMLEP requirements	Insufficient funds to deliver project	BBC MTFs approved Sept 2017. CIL 123 funding to be allocated	0	0	0	BBC business case approved by corporate asset working group. Exec approval of Capital Programme 24 Jan. S151 undertaking to be provided to SEMLEP board	Brian Hayward			CLOSED
2	Economic / Financial/ Management	BBC is not able to commit enough senior management resource to the project	Poor project governance or delays to implementation programme	A Project Management Board has been formed to meet throughout the project with attendance from all of the senior BBC staff. Corporate PMO processes being used. Board is supported by Steering group comprising Chief Officers and PM.	0	0	0	BBC project Board established. Design team established. mechanism for external support established.	Brian Hayward			CLOSED
3	Economic / Financial/ Management	Changes to inflation assumptions (potentially as a result of lack of contractor capacity)	Insufficient funds to deliver project	Inflation allowance built into cost base - An allowance for inflation has been applied to adjust the costs from September 2017 prices to 2018 prices of 1.5% (£221,155) - procurement method uses existing frameworks where possible, relatively short duration of overall programme in terms of inflation risk	2	2	4	Further risk allowance of £181k included in overall scheme budget. Review as part of design process	Brian Hayward	01/12/18		OPEN
4	Economic / Financial/ Management	Funding approval delayed by SEMLEP Board	programme start delayed - insufficient time to complete early design & stakeholder engagement	BBC funding in place to fund project manager. Board decision in principle given in November 2017, further update to SEMLEP Task Group and Board in Feb 2018.	2	3	6	Submission timetable for business case and due diligence agreed with SEMLEP. representation of project at Feb Task Group / Board and final approval in July 2018.	Brian Hayward	31/07/18		OPEN
5	Economic / Financial/ Management	HIF Procurement	Procurement of major HIF works at same as TB2020 procurement could result in some contractors declining to bid for works on either project.	TB2020 procurement centred upon existing contract frameworks with minimal spot tendering. Difference in value of works elements is likely to mean that there is little crossover in contractors bidding for work on both schemes	1	1	1	Monitor at each procurement stage.	Brian Hayward	01/08/18		OPEN
6	Economic / Financial/ Management	HIF Design resource	A successful HIF bid may overstretch in house design resources leading to delay.	In year forward plan developed by engineering Services team to allocate resources to various projects.	1	1	1	Monitor development of HIF bid and use agency staff if required	Brian Hayward	01/08/18		OPEN
7	Economic / Financial/ Management	HIF contractor availability	Delivery of major HIF works at same time as TB2020 procurement could result in some contractors being unable to contribute to both projects	TB2020 procurement centred upon existing contract frameworks with minimal spot tendering. Difference in value of works elements is likely to mean that there is little crossover in contractors bidding for work on both schemes	1	1	1	Monitor at each procurement stage.	Brian Hayward	01/08/18		OPEN
8	Economic / Financial/ Management	HIF Road space / Programme conflicts	Restrictions on road space availability due to conflicts over diversion routes	TB2020 works dates notified to Streetworks team based upon available programme	1	1	1	Close liaison with HIF team and streetworks to avoid conflict	Brian Hayward	01/08/18		OPEN
9	Economic / Financial/ Management	HIF Impacts upon TB202 scheme benefits	Delivery of HIF scheme reduces TB2020 benefits in eg reducing journey time	Preliminary HIF design is consistent with strategy employed by TB2020 (eg signalling junctions) HIF modelling work shows overall benefits meeting aims of TB2020	1	1	1	Evaluation and Monitoring plans to be reviewed and sensitivity test to be carried out if HIF bid progresses.	Brian Hayward	01/08/18		OPEN
10	Economic / Financial/ Management	Local authority contribution of is not forthcoming due to pressures on other budgets	Insufficient funds to deliver project at end of project timeframe	Members are aware that the LEP have prioritised the scheme which, subject to statutory consents being obtained and design / procurement, will be affordable and delivered within the approved funding envelope. There would be considerable reputational damage if BBC decided to abandon the scheme because of a change in short term funding priorities.	0	0	0	BBC business case sets funding requirements for duration of programme - report to be considered by Executive 24/1/18. Funding to be secured as part of CIL. Review risk after 2019 elections	Brian Hayward			CLOSED
11	Economic / Financial/ Management	NPIF bid announcement delayed	programme start delayed - pinch point scheme at Clapham Rd / Manton Lane unable to proceed	Bid for funding submitted - announcement expected Autumn 2017. Design for Clapham Rd pinch point scheme can proceed as 'reduced' scheme	0	0	0		Brian Hayward		19/10/17	CLOSED
12	Economic / Financial/ Management	Scheme costs - optimism bias	Scheme costs not properly identified due to optimism bias	Overall optimism bias of 44%. Detailed estimate to be completed as part of detailed design process 15% contingency to be provided in project cost. BBC funding to cover risk and contingency.	1	2	2	Scheme estimates based on LoHAC rates. Key infrastructure elements to be procured through competitive tender or EHA mini competition to secure best rates. BBC funding to be reviewed and increased if costs base changes. Design team resource expanded to allow greater focus on cost elements.	Brian Hayward	01/12/18		OPEN
13	Economic / Financial/ Management	Scheme costs - overrun	programme overrun beyond March 2021	Programme established taking into account road space constraints and sequencing of projects. Schemes with greatest engineering difficulty separated in programme to provide long lead in times, high value but more straightforward schemes programmed for end of project; BBC funding element allows flexibility	1	3	3	Governance methodology for risk review and programme monitoring established to facilitate contingency planning	Brian Hayward	01/12/18		OPEN
14	Stakeholder Management / Consultation	Coherent delivery with other town centre projects and programmes	Project will not be delivered on time, may also impact budget	All key programmes, such as the One Public Estate, have BBC involvement and so good communication across departments will ensure coherent delivery. Through partnership working with other organisations, including utilities companies and Network Rail, opportunities for synergies between Streetworks will be identified.	2	2	4	Project Governance Board to review programme as part of corporate project plan.	Brian Hayward	01/06/18		OPEN
15	Stakeholder Management / Consultation	Network Rail works at Bromham Road delayed	Delays to programme	Discussions on work programme at an advanced stage with NR. Key infrastructure works scheduled to be completed before anticipated date of NR works. CEO has met NR	3	3	9	Continue discussions with Network Rail. Expect a need to fast track decisions and retain flexibility with schemes most affected by NR. Project Board primed to make a decision on some pinch point works running concurrently rather than sequentially.	Brian Hayward	01/06/18		OPEN
16	Stakeholder Management / Consultation	Network Rail Works at Ford End Road delayed	Delays to programme	Works commence Oct 2017, continuing on schedule into March 2018 - programme of works established.	1	2	2	Monitor progress of NR works	Brian Hayward	01/06/18		OPEN
17	Stakeholder Management / Consultation	Project programming optimistic	Project will not be delivered on time, may also impact budget	NRSWA notices issued to reserve road space; design of early start elements underway; ECI to mobilise contractors. SMP established.	2	2	4	Review Traffic Management; working hours; utility works at each detailed design stage and mobilisation stage	Brian Hayward	01/06/18		OPEN
18	Statutory / Legal	Legal agreement between BBC & SEMLEP not in place or delayed.	Financial transactions not binding or properly governed.	Early engagement with SEMLEP about form of agreement. BBC Finance and Legal teams have approved draft of legal agreement.	1	3	3	Draft agreement scheduled to be in place June / July 2018	Brian Hayward	01/08/18		OPEN
19	Strategic / Political / Policy	Equality Impact Assessments not completed	BBC not acting in accordance with Public Sector requirements on Equal Opportunity Impact Assessments	EQIAs to be carried out on each Tranche as part of detailed design process.	1	1	1	Activities not on critical path of programme, allowance for slippage in delivery programme. Evidence base to be provided to SEMLEP to ensure BBC practices align with SEMLEP requirements	Brian Hayward	01/06/18		OPEN
20	Strategic / Political / Policy	Monitoring requirements not established or completed	Incorrect governance or ability to demonstrate fulfilling of objectives	Benefits quantified in business case. Requirements for SEMLEP quarterly monitoring understood	1	2	2	Base line of monitoring requirement to be established - project governance agenda includes submission of monitoring forms and establishment of process beyond delivery period up to 2025.	Brian Hayward	01/07/18		OPEN
21	Strategic / Political / Policy	Political / Public objection to scheme preventing its progression	Delays to programme	Stakeholder Management Plan in place. Project details to be discussed by overview and scrutiny committee in November 2017. Traffic Regulation Order process allowed for in design element of programme. Comms plan shared with SEMLEP	1	1	1	Review of required TROs throughout stakeholder engagement and design steps.	Brian Hayward	01/07/18		OPEN
22	Design / Technical / Preparatory	Capacity to produce detailed design	Delays to design stages in programme	Resourcing requirements identified as part of project plan development, specialist design resource secured through existing framework contracts.	1	2	2	Additional support available through agency or external consultants	Brian Hayward	01/07/18		OPEN
23	Procurement	Challenge from unsuccessful contractors following procurement process	Delays to programme	Diligent procurement procedure and involvement of procurement specialists in process.	1	1	1	ensure procurement methods follow corporate guidelines	Brian Hayward	01/07/18		OPEN
24	Procurement	Delays in awarding contract due to extended queries on tenders	Delays to programme	Allowance made in project plan for full review of tender documents and process	1	1	1	maximise tender periods for individual scheme packages	Brian Hayward	01/07/18		OPEN
25	Construction	Delays in construction programme resulting in increased contract administration requirements / costs	Delays to programme	Procurement uses established methods with high degree of staff familiarity	1	1	1	Review introduction of CEMAR for EHA framework in summer 2018	Brian Hayward	01/07/18		OPEN
26	Construction	Unknown major utility works during programme of scheme delivery	Disruption to programme	NRSWA notices issued. Streetworks team appraised of anticipated programme	1	3	3	advance notices to be issued once funding agreed. Draft programme coordinates with all known risks	Brian Hayward	01/06/18		OPEN
23	Economic / Financial/ Management	SEMLEP Annual funding of LGF allocation not received	Insufficient funds to deliver project	SEMLEP forward plan and funding profile established	1	3	3	Constant engagement with SEMLEP	Brian Hayward	01/01/19		OPEN
23	Strategic / Political / Policy	Elections in 2019	Delays to programme caused by approvals needed within election period or delays in establishing project board post election	programme to identify constraints arising during election period	1	1	1	Review following elections	Brian Hayward	24/01/19		OPEN
23	Strategic / Political / Policy	Legislation changes	Changes in national legislation affect funding or reporting requirements	Constant engagement with SEMLEP and DfT to identify any potential issues	1	1	1	Constant engagement with SEMLEP	Brian Hayward	24/06/18		OPEN
24	Benefits, Monitoring and Evaluation	Limited resources for the Project Manager to monitor, track and report on the Scheme benefits post construction.	Failure to comply with SEMLEP requirements on monitoring	To use a simplified approach that accesses existing data for benefit measurement.	1	3	3	PM to establish baselines for monitoring and make data available to Project Board - Quarterly monitoring reports to be submitted to SEMLEP signed by SRO	Brian Hayward	31/6/18		OPEN
25	Benefits, Monitoring and Evaluation	Project scope variations are not aligned with the planned Scheme benefits, and the possibility of not aligning with strategic objectives.	Project does not deliver intended benefits	Business case and risk register used to inform design process - PM and Project Board responsibility to sign off individual elements	1	1	1	Review process in place for significant project scope variations ensuring alignment with Scheme benefits.	Brian Hayward	31/6/18		OPEN
26	Benefits, Monitoring and Evaluation	The measurement data (for baseline measurement and ongoing measurement against targets) is limited.	Monitoring activities insufficient to demonstrate project achieves benefits	Detailed and robust monitoring plan sets out how/when/who/what details for various monitoring activities	1	2	2	Other potential sources for measurement data will be investigated	Brian Hayward	31/6/18		OPEN
27	Benefits, Monitoring and Evaluation	The benefits proposed in the Business Case are not fully realised at the end of the Scheme due to available funding.	Project does not deliver intended benefits	Business case establishes targets (planned outcomes) based upon the funding commitment.	1	2	2	Monitoring of outputs to be carried out throughout the scheme - process established for monitoring outcomes after completion.	Brian Hayward	31/6/18		OPEN
28	Benefits, Monitoring and Evaluation	The benefits do not achieve their interim targets for realisation	Project does not deliver intended benefits	Benefits, monitoring, evaluation and contingency plan established	1	2	2	implement contingency plan	Brian Hayward	31/6/18		OPEN
29	Benefits, Monitoring and Evaluation	As technology changes/improves over the life of the Scheme, the data collection methods may change and become more accurate, thereby potentially skewing the results against the baseline data.	Unable to accurately demonstrate scheme benefits	Process for data collection established, using simple factual method of measurement wherever possible. Data collection methodology uses established and repeatable data sources.	1	1	1	review during annual / quarterly monitoring	Brian Hayward	31/6/19		OPEN

Infrastructure Theme

101	Construction	Adverse ground conditions and/or contamination delays completion of works.	Increased Costs and delays to programme	As built drawings available from recent works at Cowbridge and Caudwell St. Geotechnical surveys will be commissioned for high risk sites where information on previous site works is not available. The current cost estimate makes allowances for risk associated with unforeseen ground conditions.	1	2	2	review design following topographical and geotechnical surveys	Brian Hayward	01/06/18		OPEN
102	Construction	Disruption to public transport during the works and resulting reduction in patronage	Loss of reputation - increased congestion affects duration of works	Early discussion with stakeholders as part of SMP	1	1	1	Monitor as part of SMP, use RTI and performance indicator on bus punctuality information to assess	Brian Hayward	01/06/18		OPEN
103	Construction	Higher than expected traffic delays during construction leading to changes being required during works to TM arrangements	Loss of reputation - increased congestion affects duration of works	Advance planning with Streetworks team to agree TM proposals in relation to known traffic flows and any measures that can mitigate. SMP includes use of VMS signs to reroute information on works	1	1	1	Monitor delays using existing traffic journey time methodology; positive messages reinforced as part of SMP via social media and VMS	Brian Hayward	01/06/18		OPEN
104	Construction	Impacts during construction	Disruption to local economy, Delays to programme, negative impact upon reputation and poor perception of overall improvements.	SMP outlines process to engage with local businesses; PM to act as central point of contact.	2	1	2	Keep log of incidents / complaints and carry out positive engagement before during and after scheme delivery	Brian Hayward	01/06/18		OPEN
105	Construction	Long lead in times for permanent service diversions	Delays to programme	Programme established to allow timeframe for utility works in advance of main construction periods. Early Liaison with utility companies to ensure stats get diverted before construction	1	3	3	Review C18 returns as part of design process	Brian Hayward	01/06/18		OPEN
106	Construction	Manton Lane Rbt - Highways drainage of the existing roundabout may introduce a significant change to the highway drainage provision needing extensive works than currently foreseen	Increased scheme costs & delay to programme	Establish drainage survey of existing highways drainage that will enable this to be assessed	1	3	3	Review drainage survey results as part of detailed design	Brian Hayward	01/06/18		OPEN
107	Construction	Poor asset condition requiring increased remedial works as part of scheme eg drainage lighting, pavement	Increased costs of scheme elements and/or further maintenance works required	Utilise existing asset management inventory and condition data during design. Establish asset condition through surveys and due diligence	1	2	2	Review need for additional BBC maintenance schemes in vicinity of works post scheme delivery	Brian Hayward	01/06/18		OPEN

Project Name:	Bedford Town Centre Strategy		No. of Risks
Project No:	Transporting Bedford 2020 PMO 040	Red (Critical)	4
Project Manager:	Brian Hayward	Amber (Intermediate)	35
Project Team :	Melanie McLeod / Brian Hayward	Green (Minor)	75
Date:	06/06/2018	Closed	4
Revision:	L		118



RISK IDENTIFICATION & MITIGATION					RISK ASSESSMENT - RESIDUAL RISK			ACTION PLAN - RESIDUAL RISK				
Ref	Category	Risk	Potential Impact	Completed Mitigation Action (to date)	Probability	Impact	Score/ Category	Action Plan	Action Owner	Action Target	Date Achieve	Risk Status
108	Construction	Road space / Traffic Management Act implications if utility works present	Delays to programme	programme considers the impact of known and necessary utility works. Road space requirements arising from programme logged with streetworks team; HAUC meetings to be included as part of SMP	2	2	4	Streetworks permit conditions to be reviewed	Brian Hayward	01/06/18		OPEN
109	Construction	Roadworks coordination - own works programme	Delays to programme	initial discussions with traffic manager; public transport operators; schools to take place having due regard to overall existing programme.	1	2	2	advance notices to be issued once funding agreed. Draft programme coordinates with all known risks. BBC own works programme to be fitted around this project.	Brian Hayward	01/06/18		OPEN
110	Construction	Tar bound materials in existing surfacing being planned out - treated as U2 material	Increased costs of scheme elements and/or further maintenance works required	Materials known at all sites apart from Manton Lane - Pre test carriageway material at sites where composition is unknown. Procedures in place via DMRB for the identification and disposal of material. Design to consider recycling where appropriate.	2	2	4	Review following pre test of materials	Brian Hayward	01/06/18		OPEN
111	Construction	Unknown services struck during construction period	Increased scheme costs & delay to programme	Utility searches at pre design stage; GPR survey undertaken to establish location of statutory undertakers equipment and unmarked services. Trial holes and CAT scans in advance of works. permit to dig for main works	1	3	3	ensure trial holes carried out in advance of design stage. Consider use of specialist company to survey and locate.	Brian Hayward	01/06/18		OPEN
112	Construction	Use of sub standard material in construction resulting in earlier failure or remedial work.	Extension of scheme programme	Site supervision protocols will include material quality checks, contractors risk.	1	1	1	Ensure qualified and competent resource for site supervision	Brian Hayward	01/06/18		OPEN
113	Construction	Working restrictions as a result of the need to avoid disruption during peak periods	Delays to programme	Programme will consider seasonally the available number of hours for different works locations and phases and ensure programme allowance is sufficient. Ensure compliance requirements are included in tender documents	2	2	4	Clarify restrictions and timeframes during procurement	Brian Hayward	01/06/18		OPEN
114	Construction	Works taking place on local strategic road network - timing of works required to avoid key dates relating to Christmas / events etc.	Delays to programme	current programme of works avoids other disruptive works on network, works in this tranche phased to avoid conflict, early engagement with Streetworks team and roadworks info being provided as part of SMP	2	2	4	Clarify restrictions and timeframes during procurement	Brian Hayward	01/06/18		OPEN
115	Design	Land acquisition	Changes to scheme design	Initial meetings held between CEO and Bedford Modern School held and agreement in principle reached	1	3	3	Allowance for detailed design and land acquisition to take place in programme, and 8 month buffer until construction works commence	Brian Hayward	01/06/18		OPEN
116	Design	Planning approval required to implement schemes	Delays to programme	Works all deliverable within public highways boundary and under highways powers - possible requirement for some ancillary works at Manton Lane that may require planning permission.	1	3	3	Discussions with school regarding transfer of land to commence Jan 2018 - including possible need for retaining wall on school land.	Brian Hayward	01/06/18		OPEN
117	Design	Statutory process (inc TTRO & TRO)	Delays to programme	Traffic regulation order processes carried out in house, timescales identified and contained within design stage /mobilisation stage	1	1	1	Full suite of TROs and TTROs to be overseen by PM / Design team.	Brian Hayward	01/06/18		OPEN
118	Design / Technical / Preparatory	Changes in design standards during scheme leading to rework/delays	Changes to scheme design	Regular review of any changes to standards. Local standards well established, potential requirements of NR design standards to be reviewed during discussions with NR. Established mechanism for applying departures from standards.	1	2	2	Design team to follow DMRB and BBC Highways design guide	Brian Hayward	01/06/18		OPEN
119	Design / Technical / Preparatory	Changes to design after construction has commenced	Increased scheme costs & delay to programme	The detailed design for the contract tender documents will provide as much detail as possible on the site conditions and methods of construction, so as to avoid questions about "buildability" early contractor involvement in larger schemes	1	1	1	Sign of process as part of BBC PMO gateway requirements	Brian Hayward	01/06/18		OPEN
120	Design / Technical / Preparatory	Cowbridge - road restraint on bridge is substandard and needs upgrading	Increased scheme costs & delay to programme	Asset inventory reviewed and site assessment carried out	1	3	3	a full assessment of the existing parapets at the bridge and approach road restraint will be required and new design conducted	Brian Hayward	01/06/18		OPEN
121	Design / Technical / Preparatory	Cowbridge - the proposed widening may require strengthening of the bridge deck to adequately support the widened live loading	Increased scheme costs & delay to programme	Engagement with NR commenced	2	3	6	detailed survey of the bridge will be required to establish current bridge strength	Brian Hayward	01/06/18		OPEN
122	Design / Technical / Preparatory	Design errors/ omissions that could lead to designs being revised and could cause delay	Delay in finalising design and costs	Established check / approval process for design	1	1	1	Sign of process as part of BBC PMO gateway requirements	Brian Hayward	01/06/18		OPEN
123	Design / Technical / Preparatory	Impact upon design due to locality of utility services	Delay in finalising design and costs	Utility searches & NRSWA C18 process early in programme; identify precise location of services and agree constraints with utility companies at earliest opportunity - arrange for trial pits during design stage.	1	2	2	Sign of process as part of BBC PMO gateway requirements	Brian Hayward	01/06/18		OPEN
124	Design / Technical / Preparatory	Inaccuracy of base mapping and land boundary information compared to that used for outline design costs	delay to programme and additional survey / design costs	Topographical surveys have been commissioned. The current cost estimate makes allowances for risk associated design changes resulting from more accurate topographical information	1	2	2	Sign of process as part of BBC PMO gateway requirements	Brian Hayward	01/06/18		OPEN
125	Design / Technical / Preparatory	Incomplete or late delivery of outputs by design teams	Delay in finalising design and costs	Ongoing programme monitoring and checkpoint reports - Other resources available where hold ups occur.	1	1	1	weekly progress meetings to be held between design team and PM	Brian Hayward	01/06/18		OPEN
126	Design / Technical / Preparatory	Estimated scheme costs inaccurate	Cost overrun (pinch point schemes)	Detailed estimate to be completed based on site investigations, lessons learnt from previous works in vicinity. 15% contingency to be provided in project cost	1	2	2	Scheme estimates based on LoHAC rates. Key infrastructure elements to be procured through competitive tender or EHA mini competition to secure best rates.	Brian Hayward	01/06/18		OPEN
127	Environmental	Ashburnham Road / Shakespeare Road - felling of trees causes public complaints	Delays to programme	Check requirements of TPO with Tree team, early issue for discussing as part of stakeholder management strategy	2	2	4	Engagement with local members and community groups - commensurate measures to remediate effects to be identified	Brian Hayward	01/06/18		OPEN
128	Environmental	Programme delayed due to incident affecting Highways Network	Delays to programme	programme identifies critical path activities	1	2	2	Schemes to be moved off critical path if opportunity allows - if elements are significantly delayed then BBC funding to be made available for completion of project	Brian Hayward	01/06/18		OPEN
129	Environmental	Programme delayed due to inclement weather	Delays to programme	Initial programme includes extra time allowance for schemes being constructed in winter periods	2	2	4	Review programme, use forecast data from winter service activities to identify potential issues, move schemes off critical path if opportunity allows.	Brian Hayward	01/06/18		OPEN
130	Environmental	Working restrictions due to environmental constraints	Delays to programme	Programme will consider seasonally the available number of hours for different works locations and phases and ensure programme allowance is sufficient. Ensure compliance requirements are included in tender documents	1	3	3	Tender documentation to include mitigation measures on - for example - noise and dust.	Brian Hayward	01/06/18		OPEN
131	Procurement	Procurement of works	project will not be delivered on time budget will not be spent	Maximum use of existing contractual arrangement and application of robust procurement framework. Procurement options already evaluated (existing contract; in house delivery or framework contract)	1	3	3	Existing suppliers in place for technology elements: Infrastructure / public realm schemes identified on EHA framework forward plan; BBC works tender to be issued winter 2017 includes facility to deliver elements of works.	Brian Hayward	01/06/18		OPEN
132	Stakeholder Management / Consultation	Cauldwell St Jctn - Bedford College and Bedford Free school access issues delay programme	Delays to programme	College & BFS identified as a key stakeholders and will be involved in key planning discussions	1	1	1	Direct engagement from PM prior to construction period	Brian Hayward	01/06/18		OPEN
133	Stakeholder Management / Consultation	Cauldwell St Jctn - OPE development leads to a change in design	Abortive works	Design to be 'future proofed' to allow retro fit of new road layout with minimal disruption	1	2	2	PM to liaise with OPE PM	Brian Hayward	01/06/18		OPEN
134	Stakeholder Management / Consultation	Cowbridge - site on diversion route for A421	incident on A421 during works period may delay works	Incident most likely to be of short duration - VMS signs to be placed in advance of site and A421 diversion route amended with agreement of HE	1	1	1	PM to liaise with HE	Brian Hayward	01/06/18		OPEN
135	Stakeholder Management / Consultation	Cowbridge - disruption to Interchange Retail park access during works	Disruption to local economy; Delays to programme, negative impact upon reputation and poor perception of overall improvements.	IRP identified as a key stakeholders and will be involved in key planning discussions	3	1	3	Direct engagement from PM prior to construction period	Brian Hayward	01/06/18		OPEN
136	Stakeholder Management / Consultation	Engagement with Network Rail for Cowbridge Scheme	Delays to programme	Feasibility design identifies requirements. Infrastructure works scheduled at end of overall programme to provide sufficient headroom for NR engagement	2	3	6	Detailed design and engagement with NR to commence once funding agreement in place	Brian Hayward	01/06/18		OPEN
137	Stakeholder Management / Consultation	Manton Lane - Bedford Modern School access issues delay programme	Disruption to local amenity; Delays to programme, negative impact upon reputation and poor perception of overall improvements.	BMS identified as a key stakeholder and will be involved in key planning discussions	3	1	3	Direct engagement from PM prior to construction period	Brian Hayward	01/06/18		OPEN
138	Stakeholder Management / Consultation	Stakeholder engagement with Public Transport operators delayed	Lack of engagement with scheme intentions or deliverables	early engagement underway - meetings held with Stagecoach & planned for other operators.	1	2	2	PM to carry out & record consultations and liaise with design teams	Brian Hayward	01/06/18		OPEN
139	Benefits, Monitoring and Evaluation	Limited resources for the Project Manager to monitor, track and report on the Scheme benefits post construction.	Failure to comply with SEMLEP requirements on monitoring	To use a simplified approach that accesses existing data for benefit measurement.	1	3	3	PM to establish baselines for monitoring and make data available to Project Board - Quarterly monitoring reports to be submitted to SEMLEP signed by SRO	Brian Hayward	31/6/18		OPEN
140	Benefits, Monitoring and Evaluation	Project scope variations are not aligned with the planned Scheme benefits, and the possibility of not aligning with strategic objectives.	Project does not deliver intended benefits	Business case and risk register used to inform design process - PM and Project Board responsibility to sign off individual elements	1	1	1	Review process in place for significant project scope variations ensuring alignment with Scheme benefits.	Brian Hayward	31/6/18		OPEN
141	Benefits, Monitoring and Evaluation	The measurement data (for baseline measurement and ongoing measurement against targets) is limited.	Monitoring activities insufficient to demonstrate project achieves benefits	Detailed and robust monitoring plan sets out how/when/who/what details for various monitoring activities	1	2	2	Other potential sources for measurement data will be investigated	Brian Hayward	31/6/18		OPEN
142	Benefits, Monitoring and Evaluation	The benefits proposed in the Business Case are not fully realised at the end of the Scheme due to available funding.	Project does not deliver intended benefits	Business case establishes targets (planned outcomes) based upon the funding commitment.	1	2	2	Monitoring of outputs to be carried out throughout the scheme - process established for monitoring outcomes after completion.	Brian Hayward	31/6/18		OPEN
143	Benefits, Monitoring and Evaluation	The benefits do not achieve their interim targets for realisation	Project does not deliver intended benefits	Benefits, monitoring, evaluation and contingency plan established	1	2	2	implement contingency plan	Brian Hayward	31/6/18		OPEN
144	Benefits, Monitoring and Evaluation	As technology changes/improves over the life of the Scheme, the data collection methods may change and become more accurate, thereby potentially skewing the results against the baseline data.	Unable to accurately demonstrate scheme benefits	Process for data collection established, using simple factual method of measurement wherever possible. Data collection methodology uses established and repeatable data sources.	1	1	1	review during annual / quarterly monitoring	Brian Hayward	31/6/19		OPEN
Public Realm Theme												
201	Design	Planning constraints	Delays to programme	Planning approval required to implement scheme. Works contained within public Highway and deliverable under Highways powers. Area around old bank owned by BBC but not highway - boundaries clearly established.	1	1	1	ensure property team input into detailed design stage	Brian Hayward	01/07/18		OPEN
202	Design	Statutory process (inc TTRO & TRO)	Delays to programme	Traffic regulation order processes carried out in house, timescales identified and contained within design stage /mobilisation stage	1	1	1	Full suite of TROs and TTROs to be overseen by PM / Design team.	Brian Hayward	01/07/18		OPEN
203	Design / Technical / Preparatory	Changes to design of High St / Public realm after construction has commenced		SMP to include details of street furniture and material specifications. Traffic modelling required as part of design stage to give assurance on requirements for signals/crossing points etc. The detailed design for the contract tender documents will provide as much detail as possible on the site conditions and methods of construction, so as to avoid questions about "buildability" early contractor involvement in larger schemes	1	1	1	Sign of process as part of BBC PMO gateway requirements	Brian Hayward	01/07/18		OPEN
204	Design / Technical / Preparatory	Estimated scheme costs inaccurate	cost overrun (Public Realm)	Detailed estimate to be completed based on site investigations, lessons learnt from previous works in vicinity. 15% contingency to be provided in project cost	1	2	2	Scheme estimates based on LoHAC rates. Key infrastructure elements to be procured through competitive tender or EHA mini competition to secure best rates.	Brian Hayward	01/07/18		OPEN
205	Environmental	Programme delayed due to inclement weather	Delays to programme	Initial programme includes extra time allowance for schemes being constructed in winter periods	2	2	4	Review programme, use forecast data from winter service activities to identify potential issues, move schemes off critical path if opportunity allows.	Brian Hayward	01/07/18		OPEN
206	Procurement	Contractors not interested in work on offer through framework agreements	Delays to programme	Project identified on EHA forward plan - early engagement of contractors.	2	1	2	Back up procurement options with existing contractors and/or in house delivery to be considered if necessary	Brian Hayward	01/07/18		OPEN

Project Name:	Bedford Town Centre Strategy		No. of Risks
Project No:	Transporting Bedford 2020 PMO 040	Red (Critical)	4
Project Manager:	Brian Hayward	Amber (Intermediate)	35
Project Team :	Melanie McLeod / Brian Hayward	Green (Minor)	75
Date:	06/06/2018	Closed	4
Revision:	L		118



RISK IDENTIFICATION & MITIGATION					RISK ASSESSMENT - RESIDUAL RISK			ACTION PLAN - RESIDUAL RISK					
Ref	Category	Risk	Potential Impact	Completed Mitigation Action (to date)	Probability	Impact	Risk Score/ Category	Action Plan	Action Owner	Start Date	Target Date	Actual Date	Risk Status
207	Procurement	Procurement of works	project will not be delivered on time budget will not be spent	Maximum use of existing contractual arrangement and application of robust procurement framework. Procurement options already evaluated (existing contract, in house delivery or framework contract)	1	3	3	Existing suppliers in place for technology elements; Infrastructure / public realm schemes identified on EHA framework forward plan; BBC works tender to be issued winter 2017 includes facility to deliver elements of works.	Brian Hayward	01/07/18			OPEN
208	Stakeholder Management / Consultation	Stakeholder engagement on public realm schemes delayed	Lack of engagement with scheme intentions or deliverables	Project plan in development; communication strategy and stakeholder engagement identified as early activities.	2	2	4	establish sub teams to carry out stakeholder engagement	Brian Hayward	01/07/18			OPEN
209	Stakeholder Management / Consultation	Stakeholder engagement with Public Transport operators delayed	Lack of engagement with scheme intentions or deliverables	Project plan in development; communication strategy and stakeholder engagement identified as early activities.	1	2	2	PM to carry out & record consultations and liaise with design teams	Brian Hayward	01/07/18			OPEN
210	Stakeholder Management / Consultation	Public realm schemes - Works extended due to requirement to facilitate access to shops	Delay to programme; Loss of reputation - increased congestion affects duration of works. Businesses may seek to claim rate rebate.	Programme allows facility for delivery periods - design to include buildability audit and early contractor engagement to tailor works.	1	2	2	establish sub teams to carry out stakeholder engagement. Harpur centre to be included in consultations.	Brian Hayward	01/07/18			OPEN
211	Construction	Adverse ground conditions in High St and/or contamination delays completion of works.	Increased Costs and delays to programme	Ground radar surveys will be commissioned. The current cost estimate makes allowances for risk associated with unforeseen ground conditions.	2	2	4	Carry out trial excavations before design commences.	Brian Hayward	01/07/18			OPEN
212	Construction	Disruption to public transport during the works at StPauls Square where there are a number of bus stops leading to a reduction in patronage	Loss of reputation - increased congestion affects duration of works	Early discussion with stakeholders as part of SMP - use knowledge gained from recent main renewal works in St Pauls to provide workable alternative arrangements for bus users.	1	2	2	Ensure issues are picked up in SMP - make best use of comms prior to construction period	Brian Hayward	01/07/18			OPEN
213	Construction	Impacts during construction - disruption to local businesses	Delay to programme; Loss of reputation - increased congestion affects duration of works	Early discussion with stakeholders as part of SMP - use knowledge gained from recent main renewal works to inform best working practices	1	2	2	Ensure issues are picked up in SMP - make best use of comms prior to construction period	Brian Hayward	01/07/18			OPEN
214	Construction	Long lead in times for permanent service diversions	Delays to programme	Programme established to allow timeframe for utility works in advance of main construction periods. Early Liaison with utility companies to ensure stats get diverted before construction	1	3	3	Review C18 returns as part of design process	Brian Hayward	01/07/18			OPEN
215	Construction	Noise pollution complaints raised during construction works affecting programme	Restrictions on working hours extend programme	Consider undertaking noise impact assessments as part of EHA.	1	2	2	working hours to be reviewed and specified in tender documents	Brian Hayward	01/07/18			OPEN
216	Construction	Poor asset condition requiring increased remedial works as part of scheme eg drainage lighting, pavement	Increased costs of scheme elements and/or further maintenance works required	Utilise existing asset management inventory and condition data during design Establish asset condition through surveys and due diligence	1	2	2	Review need for additional BBC maintenance schemes in vicinity of works post scheme delivery	Brian Hayward	01/07/18			OPEN
217	Construction	Roadworks coordination - own works programme	Delays to programme	Initial discussions with traffic manager; public transport operators; schools to take place having due regard to overall existing programme.	1	2	2	advance notices to be issued once funding agreed. Draft programme coordinates with all known risks. BBC own works programme to be fitted around this project.	Brian Hayward	01/07/18			OPEN
218	Construction	Shortage of specialist materials or labour for works on public realm schemes	Delays to programme	Design to be completed well in advance of construction period allowing long lead in time for sourcing materials. Materials to be non specialist wherever possible. Requirements to be clearly stated in procurement phase and additional cost risks to be borne by contractor.	2	1	2	review material specification following SMP	Brian Hayward	01/07/18			OPEN
219	Construction	Unknown services struck during construction period	Increased scheme costs & delay to programme	Utility searches at pre design stage ; GPR survey undertaken to establish location of statutory undertakers equipment and unmarked services. Trial holes and CAT scans in advance of works, permit to dig for main works	1	3	3	ensure trial holes carried out in advance of design stage. Consider use of specialist company to survey and locate.	Brian Hayward	01/07/18			OPEN
220	Construction	Use of sub standard material in construction resulting in earlier failure or remedial work.	Extension of scheme programme	Site supervision protocols will include material quality checks, contractors risk	1	1	1	Ensure qualified and competent resource for site supervision	Brian Hayward	01/07/18			OPEN
221	Construction	Works impacted by river festival	Disruption to scheme programme	Current programme set out to avoid clashes	1	1	1	dates of river festival to be added as a constraint to scheme project plan	Brian Hayward	01/07/18			OPEN
Technology Theme													
301	Design / Technical / Preparatory	statutory process (inc TTR0 & TRO) undefined for area wide delivery	Delays to programme	Traffic regulation order processes carried out in house, timescales identified and contained within design stage /mobilisation stage. Individual work areas to be viewed as self contained package with specialist delivery team	1	1	1	Full suite of TROs and TTR0s to be overseen by PM / Design team.	Brian Hayward	01/07/18			OPEN
302	Design / Technical / Preparatory	Capacity to produce detailed design	Delays to programme	Initial feasibility works completed. Framework contract in place with Keir to provide specialist design resource	1	2	2	Additional support available through agency or external consultants	Brian Hayward	01/07/18			OPEN
303	Design / Technical / Preparatory	CCTV / JTMS compatibility issues	Disruption to scheme programme	Cloud based system to be used with common UTMTC protocols	1	1	1	Activities not on critical path of programme, allowance for slippage in delivery programme. Engage specialist to delivery UTMTC and Technology elements. Ensure procurement and construction procedures are sufficiently robust to minimise likelihood of construction difficulties.	Brian Hayward	01/07/18			OPEN
304	Design / Technical / Preparatory	Impact upon design due to locality of utility services	Delay in finalising design and costs	Utility searches & NRSWA C18 process early in programme; Identify precise location of services and agree constraints with utility companies at earliest opportunity - arrange for trial pits during design stage.	1	1	1	SMP to review	Brian Hayward	01/07/18			OPEN
305	Design / Technical / Preparatory	Remote Monitoring system compatibility issues	Disruption to scheme programme	Cloud based system to be used with common UTMTC protocols	1	1	1	Activities not on critical path of programme, allowance for slippage in delivery programme. Engage specialist to delivery UTMTC and Technology elements. Ensure procurement and construction procedures are sufficiently robust to minimise likelihood of construction difficulties.	Brian Hayward	01/07/18			OPEN
306	Design / Technical / Preparatory	Technology elements not properly defined or Changes to design after construction has commenced due to changes in technology	Change in scope and costs of technology tranche	Industry market testing completed. Early activities with existing partners underway to refine scope. Gateway process to determine specifications, common protocols to be used to provide future proofing in fast changing sector	2	2	4	Activities not on critical path of programme, allowance for slippage in delivery programme. Engage specialist to delivery UTMTC and Technology elements. Ensure procurement and construction procedures are sufficiently robust to minimise likelihood of construction difficulties.	Brian Hayward	01/07/18			OPEN
307	Design / Technical / Preparatory	UTMTC common database compatibility issues	Disruption to scheme programme	Cloud based system to be used with common UTMTC protocols	1	1	1	Activities not on critical path of programme, allowance for slippage in delivery programme. Engage specialist to delivery UTMTC and Technology elements. Ensure procurement and construction procedures are sufficiently robust to minimise likelihood of construction difficulties.	Brian Hayward	01/07/18			OPEN
308	Design / Technical / Preparatory	UTMTC system design delayed due to specialist resource issues	Delay in finalising design and costs	Initial feasibility works completed. Framework contract in place with Keir to provide specialist design resource	1	2	2	Initial project inception meetings planned for January 2018	Brian Hayward	01/07/18			OPEN
309	Design / Technical / Preparatory	UTMTC system procurement undefined or non deliverable as single package	Delays to programme	Industry market testing completed. Early activities with existing partners underway to refine scope. Gateway process to determine specifications, common protocols to be used to provide future proofing in fast changing sector	2	1	2	Activities not on critical path of programme, allowance for slippage in delivery programme. Engage specialist to delivery UTMTC and Technology elements. Ensure procurement and construction procedures are sufficiently robust to minimise likelihood of construction difficulties.	Brian Hayward	01/07/18			OPEN
310	Design / Technical / Preparatory	Estimated scheme costs inaccurate	Cost overrun (Technology)	Detailed estimate to be completed based on site investigations, lessons learnt from previous works in vicinity. 15% contingency to be provided in project cost	1	2	2	Scheme estimates based on LqHAC rates. Key infrastructure elements to be procured through competitive tender or EHA mini competition to secure best rates.	Brian Hayward	01/07/18			OPEN
311	Procurement	Procurement of Signing & information systems	Disruption to scheme programme	Similar works recently procured through framework contract	1	1	1	Make use of previous tender specification	Brian Hayward	01/07/18			OPEN
312	Procurement	Procurement of works	Project will not be delivered on time budget will not be spent	Maximum use of existing contractual arrangement and application of robust procurement framework. Procurement options already evaluated (existing contract, in house delivery or framework contract)	1	3	3	Existing suppliers in place for technology elements with Dynniq; Infrastructure / public realm schemes identified on EHA framework forward plan; BBC works tender to be issued winter 2017 includes facility to deliver elements of works.	Brian Hayward	01/07/18			OPEN
313	Design / Technical / Preparatory	ANPR enforcement systems not compatible with existing BBC systems	Disruption to scheme programme	BBC PMO procedure to provide high level corporate project visibility and direction. Existing system specifications to be used as basis for design	1	1	1	Sign of process as part of BBC PMO gateway requirements	Brian Hayward	01/07/18			OPEN
314	Stakeholder Management / Consultation	Technology elements - Stakeholder engagement not defined	Lack of engagement with scheme intentions or deliverables	Project plan in development; communication strategy and stakeholder engagement identified as early activities.	2	2	4	establish sub teams to carry out stakeholder engagement	Brian Hayward	01/07/18			OPEN
315	Design / Technical / Preparatory	Travel demand / SMART mobility aspects undefined	Delay in finalising design and costs	Industry market testing completed. Early activities with existing partners underway to refine scope.	2	2	4	SMP to develop concept	Brian Hayward	01/07/18			OPEN
316	Design / Technical / Preparatory	UTMTC Instation and Control Room not supported by internal IT or property	Delays to programme	BBC PMO procedure to provide high level corporate project visibility and direction	1	1	1	Sign of process as part of BBC PMO gateway requirements	Brian Hayward	01/07/18			OPEN
317	Construction	Roadworks coordination	programme of scheme	initial discussions with traffic manager; public transport operators; schools.	1	2	2	advance notices to be issued once funding agreed. Draft programme coordinates with all known risks	Brian Hayward	01/07/18			OPEN
318	Construction	Traffic signals outstation upgrades delivery programme conflicts with other works	Delays to programme	initial discussions with traffic manager taken place having due regard to overall existing programme.	1	2	2	flexibility in order of delivery retained in project plan BBC own works programme to be fitted around this project.	Brian Hayward	01/07/18			OPEN