



# Bradford - Shipley Route Improvement Scheme

## Appendix I

### Benefits Realisation Strategy & Monitoring and Evaluation Plan

West Yorkshire Plus Transport Fund

September 2019



3 Sovereign Square, Sovereign Street, Leeds LS1 4ER  
Tel: +44 (0)113 219 7171 Fax: +44 (0)113 278 3487  
Email: [tracey.brewer@wyg.com](mailto:tracey.brewer@wyg.com) Website: [www.wyg.com](http://www.wyg.com)

WYG Environment Planning Transport Limited, Registered in England & Wales Number: 03080797  
Registered Office: Sovereign Square, Sovereign Street, Leeds LS1 4ER



## Document control

Document:	Appendix I Benefits Realisation Strategy & Monitoring and Evaluation Plan
Project:	Bradford-Shipley Route Improvement Scheme
Client:	Bradford Council
Job Number:	A097945-31
File Origin:	



<b>Contents</b>		<b>Page No.</b>
1.0	Scheme Background and Context	3
2.0	Scheme Objectives	12
3.0	Benefits Realisation Plan	14
4.0	Monitoring and Evaluation Plan	19
5.0	Resourcing and Governance	25
6.0	Delivery Plan	27
7.0	Dissemination Plan	29

## **Tables**

Table 1	Interventions	6
Table 2	Scheme Costs	9
Table 3	SMART Objectives	10
Table 4	Scheme Objectives and Outputs	13
Table 5	Measurable Indicators of Scheme Benefits	16
Table 6	Outcomes and Metrics	18
Table 7	Data Collection Schedule	25

## **Figures**

Figure 1	Location of Interventions	5
Figure 2	Shipley and Canal Road AAP Corridor	7
Figure 3	Logic Mapping	11



## 1.0 Scheme Background and Context

### Introduction

This document serves two key purposes, setting out the Benefits Realisation Plan (BRP) and Monitoring and Evaluation Plan (MEP) for the Bradford-Shipley Route Improvement Scheme (BSRIS). This will demonstrate the extent to which scheme objectives were met, monitor performance of the scheme and ensure that any potential issues post implementation are identified and addressed.

Benefits realisation and evaluation is an integral element in understanding how well National and Local Government are delivering services and investing public finances. It can help to show how well a scheme has delivered its intended objectives, what benefits have been realised and to satisfy scrutiny from other parties. It is also beneficial in informing future scheme developments and for building the evidence base to support future decision making.

The purpose of the Benefits Realisation Plan is designed to enable benefits that are expected to be derived from the scheme to be identified, planned for, tracked and realised. The BRP summarises the principal scheme objectives and related benefits, the proposed interventions, opportunities to maximise and lock-in the benefits, their measurement and ownership.

Monitoring and evaluation of the scheme builds on the BRP and shows how the intended outcomes will be measured and assessed. Through an evaluation of the scheme, Bradford Council and the WYCA will seek to:

- Understand whether and how the scheme's main objectives have been achieved, exceeded or not reached;
- Provide transferable evidence that may be used to inform future decision making on similar transport schemes;
- Improve the efficiency and effectiveness in the delivery of future schemes based on the lessons learnt from this scheme

The Benefits Realisation Plan and Monitoring and Evaluation is currently owned by the Project Manager (PM), although ownership can be reviewed and delegated as necessary. It is the Project Manager's responsibility to ensure that the benefits are aligned with the study objectives and that appropriate monitoring processes are adopted.

This report sets out the monitoring and evaluation proposals for the BSRIS in accordance with the DfT framework for standard monitoring regime.



## Background

In response to the Leeds City Region (LCR) securing a City Deal (2012) and subsequent combined authority status (2014), a commitment to developing a Single Appraisal Framework (SAF) was approved by HM Treasury and DfT, enabling devolved investment decisions to be made. Since becoming fully operational in April 2015, the SAF enabled the LEP and WYCA effective governance of funding being made available by Central Government. The SAF is based on Green Book and WebTAG principles, proportionally applied per the nature and complexity of the scheme being assessed.

As part of the "City Deal" between West Yorkshire, York and central government, a new Transport Fund of around £1 billion has been created targeted specifically at increasing employment and economic growth across the City Region. The West Yorkshire plus Transport Fund (WY+TF) identified a 10-year core package of measures that would enable change and deliver economic growth in the short to medium term. The package was formed around five broad programmes, which are:

- Improving the highway network to support growth;
- Multi-modal corridor improvements;
- Rail and Rapid Transit;
- More efficient highway and bus networks;
- Other targeted improvements to support employment

The first schemes chosen for delivery by the West Yorkshire Combined Authorities were identified using an appraisal framework agreed by partners. All schemes were benchmarked and prioritised using the GVA return per £1 of whole life net cost to the Fund.

From an initial list of 120 schemes identified, a qualitative sifting process was used to narrow down to a medium list of 60 schemes that were appraised using the bespoke modelling tools. The best performing schemes were assembled into a Core Package that has been endorsed by senior leaders of the districts, Councillors and the Combined Authority.

The Core Package contains 33 schemes, of which the Bradford-Shipley Route Improvement Scheme is one that can be delivered before 2021.

## Scheme Description

The rationale for the feasibility study is to establish the Bradford-Shipley Route Improvement Scheme which would support economic growth through the identification of interventions at key junctions focused on reducing current and forecast congestion, improving journey time reliability and widening sustainable travel opportunities.

The Bradford-Shipley Route Improvement Scheme starts at the junction of the A650 Canal Road junction with the A6181 Hamm Strasse and ends at the junction of the A6038 Otley Road with the A657 (known as Fox Corner); a corridor length of approximately 4.6km.

Running parallel to the Bradford-Shipley Route Improvement Scheme is Manningham Lane. This route starts at the junction with Drewton Road / Hamm Strasse and ends at the A650 Bradford Road / St Pauls Road; a corridor length of approximately 4.0km.

Figure 1 shows the location of the interventions and Table 1 includes the associated details. Several of the interventions have been grouped together, based on interdependencies of signalled junctions, delivery timings and operational practicalities (Network Rail bridge).

**Figure 1 – Location of Interventions**



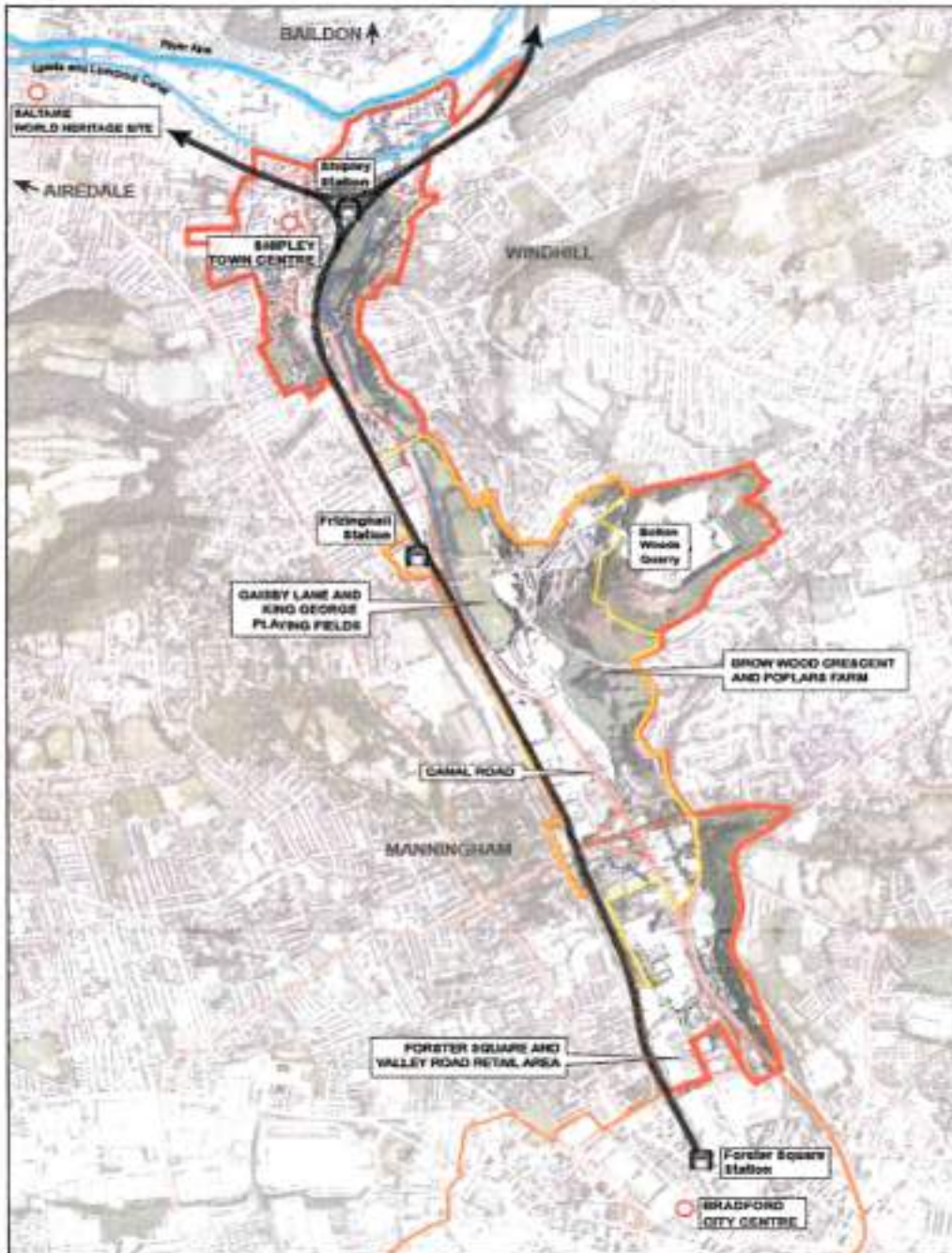






The BSRIS will support regeneration by improving access to sites allocated in the Council's Local Plan by relieving congestion in and around the corridor. As these strategic sites are developed, congestion is expected to worsen. Lack of investment in the BSRIS therefore has the potential to constrain delivery of houses and new employment opportunities. Figure 2 below shows the Shipley and Canal Road Corridor in context to the local road network.

Figure 2 – Shipley and Canal Road Corridor AAP



Ref: Shipley & Canal Road Corridor AAP



## The need for the Scheme

The overarching theme of the Leeds City Region is for the LCR to attract more inward investment and take advantage of the opportunities for economic growth, reversing the tide of industrial decline. Traffic congestion and the inadequacy of the district's road network are perceived as the main obstacles to growth.

The Bradford-Shipley Route Improvement Scheme is a key element of the strategy to provide the area with the infrastructure it needs to support growth. It will enable the A6037 Canal Road corridor to operate efficiently by reducing congestion, improving journey times and providing the capacity for growth.

There are areas along the BSRIS that face numerous economic challenges, with high levels of deprivation. The Index of Multiple Deprivation 2010 ranked Bradford the 5<sup>th</sup> most deprived out of the 326 English Local Authorities and 2<sup>nd</sup> most deprived out of the 21 in the Yorkshire and Humber Region. The most deprived areas in the district are concentrated in the inner-city areas such as Manningham.

A strong rationale exists for investing in infrastructure improvements along the corridor. As part of the new development plan for Bradford (the Bradford District Local Plan), an Area Action Plan (AAP) was adopted for the Shipley and Canal Road Corridor. This document provides the planning framework for the area bringing forward regeneration and associated infrastructure.

The Vision for the Shipley and Canal Road Corridor AAP for 2030 states:

"The Corridor has been reinforced as a strategic transport route, supported by improvements to highway infrastructure along Canal Road, the Shipley Eastern Relief Road and development of Shipley as a transport hub. Improvements to Frizinghall and Shipley railway stations, bus provision along Canal Road and completion of the Canal Road Greenway have ensured the Corridor is an integrated and sustainable location, which offers opportunities for travel by a range of sustainable transport options".

The Bradford-Shipley Route Improvement Scheme will align strongly with the economic growth aspect of the WY+TF, Leeds City Region LEP and the Transport Strategy 2040 and the Council's Local Plan overarching visions, as well as supporting specific objectives and transport investment priorities.



## Scheme Costs

Table 2 below provides a summary of the main costs of the scheme as identified in the Full Business Case dated November 2018. The total cost of the scheme is [REDACTED] to be funded by the WY+TF.

**Table 2-** Scheme Costs

Cost Element	Detailed Cost Estimate £000's
Project Development	[REDACTED]
Land Acquisition and Compensation	[REDACTED]
Construction Costs inc Utilities	[REDACTED]
Monitoring and Evaluation	[REDACTED]
<b>Total 2019 prices</b>	
Risk (from QRA)	[REDACTED]
Contingency at 10 %	[REDACTED]
Construction Inflation @ 3% for 2 years	[REDACTED]
<b>Scheme Costs</b>	[REDACTED]

## Delivery Timeframe

The anticipated start of construction is September 2021 with a build period of 2 years resulting in a completion in late 2023.



## 2.0 Scheme Objectives

The scheme is not a transport intervention for the sake of it; the analysis of issues and problems show the need for a scheme that addresses specific barriers to growth and supports the economic and housing regeneration of the Bradford-Shipley Route Improvement Scheme area.

The six SMART objectives for the Bradford-Shipley Route Improvement Scheme have been identified in Table 2 below and aligns with Regional and Local Policy objectives, the Leeds City Region, the Transport Strategy 2040, the Local Plan and Area Action Plan and the Jobs and Growth Plan. These objectives have guided the development of the scheme to ensure the deliverables are focused and present good value for money.

**Table 3 – SMART objectives**

Objectives	Bradford-Shipley Route Improvement Scheme
To increase capacity on the BSRIS to a level which can accommodate the predicted demand from the residential and employment growth around the corridor	[REDACTED]
To reduce congestion and improve journey time reliability along the A6037 Canal Road	The scheme aims to reduce future forecast congestion along the Bradford-Shipley Route Improvement Scheme
To support the proposed housing and employment allocations along the Bradford-Shipley Route Improvement Scheme through a sustainable transport network	The BSRIS will unlock the potential for the regeneration of land allocated along this corridor. It is anticipated that there are over 3200 new dwellings to be delivered along this route
To improve the safety of the Bradford-Shipley Route Improvement Scheme, with a particular focus on pedestrians and cyclists	The scheme aims to reduce the number of road safety accidents along this corridor
To support a more sustainable transport network and modal shift from private cars	Public transport, walking and cycling facilities will be significantly enhanced along the route including improvements to the rail stations at Shipley and Frizinghall
To improve air quality and environmental impacts along the corridor	The scheme aims to secure Clean Air Zone status for the corridor



## Logic Mapping

The DfT recommends Logic Mapping as a way of illustrating how the scheme will deliver the intended outcomes and outputs and to inform the monitoring and evaluation process. The logic map for the BSRIS is shown in Figure 3 below:

**Figure 2 – Logic Map**





### 3.0 Benefits Realisation Plan

#### Background

The purpose of the Benefits Realisation Plan (BRP) is designed to enable benefits that are expected to be derived from the scheme to be identified, planned for, tracked and realised. The BRP summarises the principal scheme objectives and related benefits, the proposed interventions, opportunities to maximise and lock-in the benefits, their measurement and ownership. The Plan then details the key activities that are required to manage the successful realisation of these benefits, what needs to be done, when and by whom.

This section of the document:

- Summarises the scheme objectives and associated expected outcomes, as a Benefits Realisation Plan can only be developed if there is a clear set of objectives
- Outlines the benefit measurement methods and associated data requirements; and
- Outlines the responsibilities and resources required to oversee the Plan.

The Benefits Realisation Plan is currently owned by the Project Manager (PM) although ownership can be reviewed and delegated as necessary. It is the Project Manager's responsibility to ensure that the benefits are aligned with the study objectives and that appropriate monitoring processes are adopted. The owner (s) will be responsible for tracking the benefits being realised and for reporting any exceptions to the Project Manager. This will allow early identification of any particular areas where benefits are not being realised as expected.

The objectives and desired outcomes of the scheme are set out in Section 2 and are the starting point for the BRP. As the scheme is developed, the mechanism for delivering these is designed in. The scheme is reviewed by the Project Manager and Project Board to ensure that it still fits with the objectives. As a result, the elements of the infrastructure package that delivers against the objectives can be set out. Where infrastructure has multiple benefits against different objectives, it adds significant value to the scheme.

In a number of instances, the measurement of benefits is time critical, particularly where the scheme supports economic development. It is generally expected that there will be a time lag between the infrastructure being completed and development coming to fruition.

In assessing the benefits delivered by the scheme both qualitative and quantitative data is invaluable, however, quantitative data is generally more easily obtained for highway schemes and makes the outcome and level of impact clearer.



## Expected Benefits

The Bradford-Shipley Route Improvement Scheme objectives have been used to develop the "desired outputs and outcomes" for the scheme, shown in Table 4 below. These desired outputs and outcomes are the actual benefits that are expected to be derived from the scheme and are directly linked to the original set of objectives:

- Desired Outputs – tangible effects that are funded and produced directly as a result of the scheme; and/or
- Desired Outcomes – final impacts brought about by the scheme in the short, medium and long term
- Desired Impacts – the final impacts brought about by the scheme in the short, medium and long term as a result of the outputs and outcomes

**Table 4 – Scheme objectives and Outputs**

Scheme Objectives	Desired Outputs	Desired Outcomes
<ul style="list-style-type: none"> <li>• Increase capacity on the Bradford-Shipley Route Improvement Scheme to a level which can accommodate the predicted demand from the residential and employment growth around the corridor</li> <li>• To reduce congestion and improve journey times reliability along the A6037 Canal Road corridor</li> <li>• Support the proposed housing and employment allocations along the Bradford-Shipley Route Improvement Scheme through a sustainable transport network</li> <li>• Improve the safety of the Bradford-Shipley Corridor, with a particular focus on pedestrians and cyclists</li> <li>• Support a more sustainable transport network and modal shift from private car</li> <li>• To improve air quality and environmental impacts along the corridor</li> </ul>	<ul style="list-style-type: none"> <li>• A scheme that provides additional highway capacity in the area</li> <li>• A scheme that reduces journey times by 8% (all modes), 12% buses and an increase of 7% bus frequency</li> <li>• Delivery of Residential sites along the corridor</li> <li>• A reduction in Killed and Seriously Injured (KSI) casualties</li> <li>• Reduced Greenhouse Gas emissions leading to improved air quality</li> <li>• Increases in the number of accessible jobs compared with data. Improve access by all modes</li> </ul>	<ul style="list-style-type: none"> <li>• Reduce levels of congestion</li> <li>• Reduce journey times for all modes</li> <li>• Increase journey time reliability for all modes</li> <li>• Enable 3200 new dwellings from the Local Plan site allocation</li> <li>• Creation of over 3200 new jobs</li> <li>• Improve accessibility to employment</li> <li>• Improve access by all modes</li> <li>• Improve air quality and noise levels</li> <li>• Improve levels of road safety</li> <li>• Increase levels of physical activity</li> <li>•</li> </ul>



## Benefit Measurement Methods

The expected benefits are derived from, and link directly to the scheme's stated set of objectives. The objectives have been used to develop scheme outputs (interventions) and scheme outcomes (benefits). To determine whether the scheme benefits are being realised, the desired outputs and outcomes have been converted into measurable indicators of scheme benefits, as set out in Table 5 below.

Benefits have been classed as "quantitative" or "qualitative". Quantitative benefits are those which can be measured in terms of specific numerical values on a continuous scale, whether in absolute or percentage terms, whereas qualitative benefits are measures in category based or descriptive terms. These benefits have also been linked to specific policies in the LCR Transport Strategy 2040.

**Table 5 – Measurable Indicators of scheme benefits**

Ref	Benefit (desired Output / Outcome)	Benefit Indicator	Transport Strategy Policy / SEP Priority Indicator	Target	Type	Specific Data Required
<b>Desired Outputs</b>						
01	Provides additional highway capacity	New lengths / widened of highway	Policy 19 – We will deliver local pinch point schemes to relieve traffic congestion, and, where needed, add new roads to open up development sites	Widened / enhanced corridor	Qualitative	None
02	Integrates well with the existing road network, including any changes made as part of the adopted Local Plan	Appropriate signage and land allocations to enable safe travel by all modes along the BSRIS	Policy 19 – We will deliver local pinch point schemes to relieve traffic congestion, and, where needed, add new roads to open up development sites	No reported safety concerns. No increase in RTA's	Qualitative	None
<b>Desired Outcomes</b>						
03	Reduce journey time for all modes	Reduced journey times along the A6037 and A650 (AM and PM peak)	Policy 19 – We will deliver local pinch point schemes to relieve traffic congestion, and, where needed, add new roads to open up development sites	CIP Objective 8% reduction (all modes) 12% reduction for buses	Quantitative	Journey Time Savings
04	Increase journey time reliability for all modes	Reduced standard deviation of journey times (AM and PM peak hours)	Policy 19 – We will deliver local pinch point schemes to relieve traffic congestion, and, where needed, add new roads to open up development sites	CIP Objective 8% reduction (all modes) 12% reduction for buses	Quantitative	Journey Time Savings



Ref	Benefit (desired Output / Outcome)	Benefit Indicator	Transport Strategy Policy / SEP Priority Indicator	Target	Type	Specific Data Required
05	Reduced delays at junctions along the corridor	Reduced time spent in queued traffic	Policy 19 – We will deliver local pinch point schemes to relieve traffic congestion, and, where needed, add new roads to open up development sites	CIP Objective 8% reduction (all modes) 12% reduction for buses	Quantitative	Journey Time Savings
06	Contribute to improved business productivity	Increase GVA and GDP indicators	SEP Priority 1 – Growing Business SEP Priority 2 – Skilled People & Better Jobs	CIP Objective – additional 436 WY residents in employment	Quantitative	UDM Model
07	Enable 3200 new dwellings from the Local Plan site allocation	Delivery of residential sites in the along the AAP corridor	SEP Priority 1 – Growing Business SEP Priority 2 – Skilled People & Better Jobs	CIP Objective – completion of 650 new housing units	Quantitative	Occupancy data
08	Creation of over 1000 new jobs	Percentage increase in new jobs	SEP Priority 1 – Growing Business SEP Priority 2 – Skilled People & Better Jobs	CIP Objective – creation of over 1300 new jobs	Quantitative	Socio – economic data
09	Improve accessibility to employment	Increases in the number of accessible jobs compared with base data	SEP Priority 1 – Growing Business SEP Priority 2 – Skilled People & Better Jobs	CIP Objective – additional 436 WY residents in employment	Quantitative	Socio – economic data
10	Improve access by all modes	Increase accessibility by all modes	Policy 11 – We will provide infrastructure on and off road of the highest possible quality to provide safer and better journeys for cyclists, building on the step change achieved by the City Connect programme, including the Cycle Superhighway and canal towpath improvements	Transport 2040 objective to 2027 25% more trips made by bus 75% more trips by rail 300% more tips made by cycle	Quantitative	Modal shift surveys Bus journey time and delay surveys Counts of pedestrian / cycle usage
11	Improve Air Quality and noise levels	Reduce levels of particulate matter (PM10) and Nitrous Oxide (NO <sub>2</sub> )	Policy 7 – We will work with partners to deliver the West Yorkshire Low Emission Strategy to reduce as far as possible to zero, emissions of CO <sub>2</sub> and NO <sub>2</sub> particulates and noise from transport	Reduction in levels of pollutants to achieve legal compliance with nitrogen dioxide objectives (40µg/m <sup>3</sup> ) within 5 years or sooner	Quantitative	Air Quality surveys (pre- and post-opening)



Ref	Benefit (desired Output / Outcome)	Benefit Indicator	Transport Strategy Policy / SEP Priority Indicator	Target	Type	Specific Data Required
12	Improve levels of road safety	Reduction in Killed and Seriously Injured (KSI) casualties and other casualties	Policy 16 – We will seek to reduce isolation through improving road safety and encouraging pedestrian friendly environments	35% reduction in Killed and Seriously Injured (KSI) casualties by 2027	Quantitative	Accident Statistics
13	Increase levels of physical activity	Increase the amount of time doing physical activity	Policy 32 – We will improve our residential areas with transport and streetscape improvements, using best practice in street design. We will work with local communities to make residential areas safer, healthier and greener, with attractive environments for play, walking and cycling.	Increased levels of cycling and walking for leisure / local journeys  300% more trips made by cycle	Quantitative	Socio-economic data  Modal shift surveys  Counts of cycle / pedestrian usage
14	Enhance Green Infrastructure	Inclusion of planting / green infrastructure  "Inclusion of Healthy Streets"	Policy 10 – We will protect, and, where possible, enhance our Green Infrastructure and townscapes	Reduction in impact on highway infrastructure	Quantitative	Counts of cycle / bus pedestrian usage

### Baseline Data Requirements

Baseline data collection which will allow the pre-scheme opening situation to be quantified is required for benefit assessment indicators 03,04,05,11 and 12. Journey time data has been collected along the Bradford-Shipley Route Improvement Scheme and at key junctions and used to update the SATURN model.

Data from Strat-e-gis has been used to form the baseline journey time dataset.



#### 4.0 Monitoring and Evaluation Plan

The objective of the Monitoring and Evaluation Plan is to identify how actual service delivery, including wider scheme impacts, construction and budget management, are to be evaluated. Data will be collected before and after construction to enable the impacts of the scheme to be assessed and compared to the modelled predictions. The data will be analysed to understand causality and to identify consequences.

In accordance with the DfT guidance on monitoring and evaluation (Monitoring and Evaluation Framework for Local Authority Major Schemes 2012), the standard monitoring approach requires monitoring of the following measures:

- Scheme Build
- Delivered Scheme
- Outturn Costs
- Scheme Objectives (up to three main objectives)
- Travel demand
- Travel times and reliability
- Impacts on the Economy
- Carbon

In addition, the following metrics and outputs are to be monitored for the scheme in relation to the Growth Deal funding with the West Yorkshire Combined Authority SEP:

- Expenditure
- Funding breakdown
- Jobs connected to the intervention
- Housing unit starts
- Housing unit completed
- Total length of newly built roads
- Total length of new cycleways
- Average daily traffic (peak /off peak periods)
- Average AM and PM peak journey time on key routes
- Cycle journeys on new/existing routes

This section of the report will present proposals for how each of these measures will be monitored, including specific details of data collection where appropriate. The scheme build, delivered scheme and outturn costs will be monitored through the existing project management / PMO processes that have been in place throughout the scheme design and planning process.



The project specific metrics considered to have a measurable change as a result of each outcome is shown in Table 6 below:

**Table 6 – Outcomes and Metrics**

Outcomes	Core metrics	Project Specific Metrics
Reduced congestion and improved safety on the local road network	N/A	<ul style="list-style-type: none"> <li>• Average daily traffic by peak / non-peak periods</li> <li>• Average AM and PM peak journey times on key routes; and</li> <li>• Day to day travel time variability</li> <li>• Accident / Casualty rate</li> </ul>
Improved access to development and journey time reliability	N/A	<ul style="list-style-type: none"> <li>• Average daily traffic by peak / non-peak periods</li> </ul>
Identified employment development in the corridor coming forward	<ul style="list-style-type: none"> <li>• Jobs connected to the intervention; and</li> <li>• Commercial floor space constructed</li> </ul>	N/A
Identified housing development in the corridor coming forward	<ul style="list-style-type: none"> <li>• Housing unit starts; and</li> <li>• Housing units completed</li> </ul>	N/A
Improved public transport, walking and cycling facilities in the area	N/A	<ul style="list-style-type: none"> <li>• Annual average daily and peak hour passenger boarding; and</li> <li>• Pedestrian / cycle counts on new / existing routes</li> </ul>

## Monitoring of the Scheme Build

Information on the scheme build, delivered scheme and outturn costs will be provided and monitored by the Council's Major Project Team and Delivery Manager. Progress meetings are held monthly and Corporate Management Project Board (CMPB) meetings held quarterly. Progress on the scheme delivery, key activities, costs, risks and communications are reported at both meetings. In addition, updates are provided to WYCA through the PMO / Peer Review meetings. Monitoring will be undertaken throughout the scheme build and for a period after, in accordance with the DfT guidance and PMO processes.



The scheme build information will form part of the first "year one after" report (expected 2020) and will help assess the schemes overall project management. Reporting will include:

- Project plan assessment:** delivery of key milestones as scheduled in the Project plan
- Risk Management:** the effectiveness of risk management through the assessment of the impacts associated with the risks identified in the Risk Register
- Stakeholder Management:** lessons learned from the Communications Plan and Issues Log
- Scheme Benefits:** initial assessment of the delivery of anticipated benefits and outline of benefits already realised

### Monitoring of the Delivered Scheme

A detailed comparison of the final design and the actual delivered scheme will be undertaken as part of the "year one after" report. Any changes in the scheme will be reported at both the progress meetings and CMPB. It is envisioned that the following information will be provided:

- Implemented Scheme:** A full description of the scheme, plans and maps to identify the overall scheme and specific elements where required. This will include details of the new road and the new and diverted footpaths, cycleways and bridleways
- Changes to Scheme:** Any changes to the design of the scheme and reasons for changes, since approval such as design, scope or mitigation measures
- Service Level Provision:** Any changes in expectation of service level provision by operators, if appropriate. Specifically, traffic count data will be used as an indication of whether the local highway network has benefitted as intended
- Changes to Mitigation:** Any changes to the scheme mitigation measures introduced during construction and the reasons for change

The analysis will identify any changes to the scope and design of the original scheme and the reasons for any such changes. Data will be collected throughout the scheme build through normal project management processes such as the Risk Register and Issues Log.



## Monitoring of Outturn Costs

Details of the scheme outturn costs will be provided, which will give a comparison of the estimated scheme costs at Decision Point 5 stage, with the final scheme costs, using the same format as presented in the Financial Case section of the Full Business Case.

Information provided will include:

- Outturn Investment costs:** in a format as outlined in the FBC for easy comparison with comments on any realised identified risk
- Cost Savings / Overruns:** Identification of any cost savings / overruns and reasons
- Maintenance Costs:** Relating to regular maintenance costs

Overall scheme costs will be monitored throughout the construction phase by:

- Recording all staff hours using a time recording system and monthly checking against predicted spend
- Review of land costs if required
- Review of Utility costs with actual invoices and the comparison to cost estimates provided by utilities
- Monthly review of construction costs with monthly accounts compared to predicted costs



## Monitoring of Scheme Objectives

Monitoring of the scheme objectives - travel demand, travel times and reliability, impacts on the economy and carbon will be undertaken in accordance with the DfT guidance. In accordance with Table 6, the scheme objectives that will be monitored are:

1. Increased capacity on the Bradford-Shipley corridor
2. Improved journey time reliability
3. Support the proposed housing and employment allocations
4. Improve the safety of the Bradford-Shipley Route corridor
5. Improved public transport, walking and cycling facilities in the area
6. Improved Air Quality to Clean Air Zone status

### 1. Increased Capacity on the Bradford-Shipley Route corridor

Monitoring of traffic flows and speeds on the Bradford-Shipley Route Improvement Scheme and at key junctions will be carried out through automatic traffic counters (ATC). This data will be used to establish if the junction improvements have delivered on the predicted outcomes of scheme objective 1 (reduce congestion).

#### Junction Performance

The performance of the 22 junctions and Manningham Lane will be monitored following the scheme opening. This data will also be used to monitor the delivery of scheme objective 1 (reduce congestion).

### 2. Improved Journey Time reliability

Monitoring of journey times will be carried out on the BSRIS and on the same routes that were assessed as part of the Transport Assessment. This data will be used to monitor the delivery of scheme objective 2 (improve access to development and journey time reliability), travel times and reliability and impacts on the economy.

Baseline journey time data through the use of Strat-e-gis was collected in 2017 and 2018 and will be included within the Transport Assessment and used in the validation of the SATURN traffic model. Travel times will be assessed using Strat-e-gis journey time data.

### 3. Economy – including jobs, housing units started / completed

The economic conditions will be measured in relation to the BSRIS. Analysis of the number of residential units and number of jobs created in new employment space will be measured annually by the Council through their Annual Monitoring Report.

### 4. Improve safety

The accident records for the area within the Bradford-Shipley Route Improvement Scheme corridor were reported in the Outline Business Case and will be reported in the Transport



Assessment as the scheme develops. To calculate the impact of the scheme on road safety, monitoring of the accident records on this area following the opening of the BSRIS will be carried out. This will be used to monitor the delivery of objective 1 (Reduced congestion and improved safety on the local road network).

KeyACCIDENT data will be obtained for the five years prior the start of the scheme construction, one year post opening and five years after, applicable to the cordon area. The five years pre-scheme data will be used to provide a baseline to compare post-scheme accident rates. The one year after report will provide some indication of road safety impacts, however, the true representation of the scheme impacts will follow in the five year after evaluation.

## **5. Improved Public Transport, walking and cycling facilities in the area**

Monitoring of pedestrian and cycle usage will be carried out and this data will be used to monitor the delivery of scheme objective 3 – improved public transport, walking and cycling in the area.

Available base line data is limited on pedestrian and cycle use; this will need to be collected before the start of construction on the scheme. This will be repeated once the scheme has opened and 5 years after opening. The pedestrian and cycle counts will be undertaken at the locations identified in the Outline Business Case figures 17 and 18, over a 12 hour period.

The number of pedestrians and cyclists observed once the scheme is open will be compared with the numbers observed prior to construction. Alongside the counts, the information from the delivered scheme measure will be used to confirm whether the existing facilities for pedestrians and cyclists have been improved.

Passenger boarding on bus and rail services will also be monitored in order to establish if the improved station access and improvements to bus stops / shelters / locations have encouraged more people to use public transport.

## **6. Improved Noise and Air Quality impacts**

### **Noise**

Noise surveys will be carried out prior to construction to provide a baseline for the Part 1 Claims process. Post scheme surveys will be arranged one year and five years after scheme completion to quantify any actual changes in noise.

### **Air Quality**

Air Quality surveys will be carried out prior to construction to provide a baseline. Post scheme surveys will be arranged one year and five years after scheme completion to quantify any improvements to air quality. The Bradford-Shipley Route Improvement Scheme has recently been designated as a Clean Air Zone



## 5.0 Resourcing and Governance

### Monitoring and Evaluation Budget

Bradford Council will be responsible for the management and activities of the monitoring and evaluation work. Using the evaluation approach outlined in the previous sections, a budget estimate of [REDACTED] has been identified to undertake the monitoring and evaluation required. This is based on the pre and post scheme survey costs, data analysis and report preparation / submission. The resources required are summarised below:

**Scheme Build:** The information required is already being collected as part of the project management processes and reported monthly to the Project Meetings and quarterly to WYCA

**Traffic Flows:** Traffic counts (including pedestrian and cycle counts) will be undertaken by Bradford Council, the cost of the data and analysis has been allocated through the WYCA funding.

**Accident Records:** Can be provided in-house by Bradford Council's traffic management teams, so no additional costs will be incurred in the analysis of the data

**Noise / Air Quality:** Additional surveys will be required; the cost and data analysis has been allocated through the WYCA funding.

**Reporting:** The preparation of the evaluation reports to WYCA will be undertaken in-house by Bradford Council, so no additional costs will be incurred for reporting.

### Governance Structure

The existing project governance structure in place for the delivery of the BSRIS will be used for the delivery of the Monitoring and Evaluation Plan. The overall Benefits Realisation Plan and associated Monitoring and Evaluation Plan is owned by the Senior Responsible Owner and is responsible for ensuring appropriate resources are assigned and appropriately allocated for scheme evaluation.

The Project Manager has overall responsibility for scheme evaluation delivery, on time and within the agreed budget. The evaluation work will be provided by the scheme delivery team and the Council's Transportation team to deliver the work streams of the plan; submitting project management information (progress reports, meeting notes), arrange and undertake surveys and provision of associated data.



Technical evaluation work will be undertaken by external specialists working on the scheme delivery to utilise and interpret the evaluation results.

## **Procedures for Risk Management**

Scheme benefits and impacts will be managed through the Risk Management Strategy approach used for project delivery. A risk register has been compiled for the scheme and the register has been updated on a quarterly basis throughout the scheme design and planning stage and this will continue throughout the construction phase. Risk management is included on the agendas of both the PAG and WYCA project board meetings. At these reviews, the existing risks are assessed for any potential changes in impact, probability or control measures and any new risks are identified.

The Risk Register is a live document produced by the Project Manager which captures all risks to the project, analyses their impact and identifies mitigation strategies and owners of those risks.

The same process will be utilised for the management of risks associated with the monitoring and evaluation plan. The risk register has been updated to include the monitoring and evaluation process and these will also be reviewed alongside the other project risks.



## 6.0 Delivery Plan

### Project Plan

A detailed project plan has been developed (Appendix A) setting out the main project stages and timescale forecasts for each stage. The plan includes the tasks required for the monitoring and evaluation.

The Project Plan and Work Programmes will be measured against actual delivery at key milestones and used to inform the "one year after" report.

### Timeframe for data collection

Data was collected in 2018, to inform the Activity 3 submission. After scheme opening (2023), data will be collected up to five years after the final scheme build as outlined in Table 7 below:

**Table 7 – Data collection schedule**

Data Collection	Timescale			
	Before Construction	During Construction	One Year After	Five Years After
Classified traffic flows; providing numbers, types and speeds of vehicles	*	*	✓	✓
Strat-e-gis Journey time data	*		✓	✓
Pedestrian and cycle counts	✓		✓	✓
Accident records	*		✓	✓
New jobs and residential development levels	*		✓	✓

\*Data available

✓ Data to be collected



## Monitoring and Evaluation Findings

The evaluation reporting requirements set out in the DfT Guidance comprise a "One Year After" report (published within two years of scheme opening) and a "Final" report covering up to five years after the scheme opening (published within six years of scheme opening). It is expected that each report will monitor the extent to which the forecast benefits are being delivered by the scheme and produce outturn results that can be compared with the appraisal forecasts. They will provide:

- A quantitative and qualitative analysis of scheme impacts consistent with the scheme specific objectives, LTP objectives and LEP / National objectives;
- Identification and description of discrepancies between forecast and outturn impacts;
- Explanation or reasons for differences between forecast and outturn impacts
- Identification of key issues relating to appraisal methods to assist in ongoing improvement of appraisal techniques and processes associated with the implementation of major transport schemes



## **7.0 Dissemination Plan**

### **Communication to key stakeholders**

Community and stakeholder communication is an essential component for the successful delivery of the scheme, with its challenging timescales for delivery before 2025. A Communication Strategy has been produced to support scheme development and delivery, building on engagement with the public and key stakeholders since scheme inception.

The Strategy consists of a Communications Plan and Stakeholder Management Plan (Appendix H) identifying appropriate communication channels to be utilised to ensure all relevant stakeholders are kept informed throughout the scheme.

The agreed monitoring and evaluation reports will be reported to the Council's Corporate Management Team and Portfolio Holder member for Transportation. Once accepted, it will be presented to the WYCA PMO board.

Key stakeholders identified in the Communications Plan will be notified that the report has been published and is available on the Council's / WYCA websites. The Council will also issue a press release on publication of the Final Report.

### **Lessons Disseminated**

The Lessons Learned Log is a document containing lessons learned during the project that can be disseminated for the benefit of other projects. The log is formally published in the Lessons Learned Report at the close of the project.

The log covers management processes, tools and techniques and assesses what worked well, what did not and what should be avoided in future. Producing this information will help the Council to make savings on future project costs, time and resources.

This approach has helped with identifying effective, efficient and targeted data collection methods to assess the impacts and outcomes of the Bradford-Shipley Route Improvement Scheme.

The post opening evaluations will report on lessons learnt in line with the above approach; focus will be on how tasks, processes and work streams can be better applied on future major projects.