A629 Halifax to Huddersfield Improvements
Phase 2: Halifax Town Centre Improvements

Monitoring & Evaluation Plan
Version 4

June 2023

A629 Halifax to Huddersfield Improvements
Phase 2: Halifax Town Centre Improvements

Monitoring & Evaluation Plan
Version 4

Table of contents

Page intentionally left blank.

1.0 Introduction

1.1 Introduction

Monitoring and evaluation is an integral part to the assessment of public sector policy and project interventions in the UK. Local Government authorities have the responsibility to demonstrate that funding for local level investments in transport interventions have provided good value for money for the taxpayer. Evaluating substantial Local Government investments into major schemes can achieve the following objectives:

- Provide accountability for the investment.
- Evidence future spending decisions.
- Learn about which schemes deliver cost-effective transport solutions.
- Enhance the operational effectiveness of existing schemes or future schemes.
- Improve future initiatives based on learning.

1.2 Background

Calderdale Metropolitan Borough Council (CMBC) secured Gateway 1 (Outline Business Case) approval in early 2016 to progress with Phase 2 of the A629 Huddersfield to Halifax Corridor Scheme, which is a package of interventions valued at £120m. The scheme is part of the West Yorkshire Plus Transport Fund (WYTF) programme. Section 2 below provides a summary of the full A629 Huddersfield to Halifax corridor package, its phasing, cost profile and timescales. This monitoring and evaluation plan is wholly focused on the second phase (Phase 2) of the A629 package, valued at **£64,139,765**.

Since the bulk of the A629 corridor where interventions are required fall within Calderdale district, CMBC is acting as the lead authority in the scheme's development including monitoring and evaluation, working in close partnership with Kirklees Council, who are responsible for the delivery of Phase 5 concerning the section of the A629 between Ainley Top and Huddersfield town centre.

CMBC, with support and advice from West Yorkshire Combined Authority and in line with Department for Transport (DfT) guidance, has produced a comprehensive overarching monitoring and evaluation programme for the entire £120m A629 package. This overarching programme, dated January 2017, proposes to undertake a 'Fuller Evaluation' of the entire package, evaluating the delivery process, and the scheme's transport and economic impacts to determine whether the principal objectives of enabling economic development and job growth have been realised. This programme will be supported by a series of monitoring and evaluation plans which will be prepared for each of the key phases of the delivery, including this document.

This document sets out the proposed monitoring metrics which shall be examined for the A629 Phase 2. Ultimately, five years after completion of phase 2 further impact evaluation will be carried out to understand the wider transport and economic impacts of the scheme. It is recognised that Phase 2 is part of a wider package of works on the A629 corridor which

requires fuller evaluation of the strategic impacts. This will be undertaken in due course as part of the evaluation of the full A629 Halifax to Huddersfield Corridor Improvements package, in line with the Overarching A629 Monitoring and Evaluation Programme.

A breakdown of the estimated scheme costs for phase 2 are provided in Table 1.1 below, as set out in the scheme's accompanying Full Business Case.

Item	Cost
Project Development	£ 5,754,375
Land Assembly	£ 2,122,865
Delivery	£ 42,277,896
Benefits Realisation Reporting	£ 550,765
Risk	£ 9,373,164
Inflation	£ 4,060,700
Total	**£ 64,139,765**

Table 1.1 Breakdown of scheme costs for Phases 2

1.3 Evaluation context

In accordance with guidance detailed in the '*Monitoring & Evaluation Framework for Local Authority Major Schemes'* (DfT, 2012) and West Yorkshire Combined Authority's *Assurance Framework*, there is a requirement that Business Case submissions are accompanied by a Monitoring & Evaluation Plan to set up clear arrangements for monitoring and evaluating a scheme. Information contained within a Monitoring and Evaluation Plan will be used to inform the Benefits Realisation Plan.

The degree of monitoring and evaluation should be proportionate to the scale and cost of the scheme. In addition to 'standard' monitoring required of all schemes, 'enhanced' monitoring is specified as being necessary where scheme costs exceed £50m or is expected to have a material impact on local air quality, noise or accidents. Fuller evaluation is necessary with major schemes based on the high level of investment, complexity, scale, and the anticipated impact.

Since the outturn cost of the full A629 corridor programme equates to over £120m, 'Fuller Evaluation' is assumed to be necessary for the full A629 corridor improvement package. It is therefore proposed that a Fuller Evaluation will be undertaken for the overarching monitoring and evaluation programme for the package, encompassing all phases of the scheme's delivery. Fuller Evaluation was applied before construction commenced on phase 1a in the of Summer 2017, as part of gathering baseline evidence, and will be applied five years after delivery of the final phase of works, (estimated late 2028) in order to evaluate the overall performance of the full A629 package against the strategic objectives.

A separate document has been prepared for the overarching monitoring and evaluation programme for the entire A629 Halifax to Huddersfield scheme package. This was developed in collaboration with Kirklees Council and West Yorkshire Combined Authority. Key tasks / activities contained within this programme are aligned with those contained

within the supporting monitoring and evaluation plans for the individual phases of the scheme's delivery, including the collation of pre-construction / baseline evidence.

This Monitoring and Evaluation Plan focuses on Phase 2 (Halifax Town Centre). This phase is anticipated to have a material impact on local air quality, noise and accidents. For this reason 'enhanced' monitoring is deemed necessary and will be applied before, during, and after delivery in order to evaluate its performance.

1.4 Supporting guidance

To ensure that the Monitoring & Evaluation Plan reasonably identifies the impacts and benefits to be realised as part of this scheme, it incorporates best practice and guidance from the 'Monitoring & Evaluation Framework for Local Authority Major Schemes' (DfT, 2012) and West Yorkshire Combined Authority.

2. Scheme Background and Context

2.1 Scheme description

The A629 Halifax to Huddersfield Corridor Improvements scheme is one of the largest components of the West Yorkshire Plus Transport Fund (WYTF) programme, in terms of scale and cost. The scheme comprises a multi-modal corridor improvements scheme prioritised for delivery within the first five years of the WYTF programme, which has been allocated £120.6m to deliver economic growth by addressing transport and accessibility issues. CMBC and Kirklees Council are jointly developing the range of interventions proposed along the corridor, which include:

- Road space re-allocation (bus priority) and capacity and operational improvements (particularly to allow commercial vehicles to get to their destinations quickly and efficiently);

- Major junction improvement at the A629 / A6026 Calder & Hebble junction and other key pinch points along the corridor;

- Improvements to Junction 24 of the M62 (Ainley Top);

- Improvements to the strategic accessibility and public realm within Halifax town centre to deliver regeneration and growth aspirations;

- Introduction of express bus services between Halifax and Huddersfield; and

- Gating at strategic points along the corridor to manage access and flows.

Delivery of the full corridor scheme will take a number of years to complete due to the complexity and scope of the various components which comprise the scheme. For this reason, the scheme has been split into several delivery phases of development, with Phases 1 and 2 prioritised for early delivery due to their greater contribution to overall scheme impacts. The delivery phases are as follows:

- Phase 1a: Jubilee Road (south) to Free School Lane/Skircoat Road (north);
- Phase 1b: Elland Bypass (north of Ainley Top) to Jubilee Road, Calder & Hebble Junction;
- Phase 2: Halifax town centre
- Phase 4: Ainley Top and wider strategic interventions
- Phase 5: Ainley Top to Huddersfield

It should be noted that Phase 3 has been subsumed into phase 2 due to the strong interrelationship of with the components in this latter phase and the combined benefits.

In late 2022, an inflation review of the entire West Yorkshire Plus Transport Fund and Transforming Cities Fund (TCF) programmes was carried out in response to increased funding strains on the programmes.

On Wednesday 2 November 2022, West Yorkshire Combined Authority published papers which were discussed at its Finance, Resources and Corporate Committee meeting on Thursday 10 November 2022. These papers contained a list of transport projects to be 'paused and pipelined', and included the A629 Phase 4 - Ainley Top and wider strategic interventions, and A629 Phase 5: Ainley Top to Huddersfield. Both of these schemes are to be paused at Outline Business Case (OBC) and Full Business Case (FBC) decision points, respectively. At the time of preparing this plan, both respective authorities were pausing the workstreams and will continue to identify alternative funding opportunities so as to resume development on the two schemes.

The decision to pause and pipeline the A629 Phase 4 and 5 schemes in effect pauses wider work on the overarching A629 Monitoring and Evaluation Programme Monitoring and Evaluation Plan. Regardless, it does not inhibit the specific monitoring and evaluation activities for the current 'live' A629 projects including Phase 1B (currently under construction at the time of preparing this plan) and Phase 2, the latter of which is detailed within this document.

2.2 A629 Phase 2 - Halifax Town Centre Improvement

The Halifax town centre scheme is the second phase of the A629 corridor programme (A629 Phase 2) linking Halifax and Huddersfield. The scheme will improve pedestrian and cycle access into and around the town centre area by addressing severance, re-routing of traffic (and capitalising on placemaking opportunities through pedestrianisation and the creation of public spaces). A revised bus network around the town centre will be implemented providing greater coverage and improved connections between the rail and bus stations.

The scheme is described in detail in appendix D1 of the accompanying Full Business Case document. key features of the proposals are shown in **Error! Reference source not found.** and include:

- Gateway entry points to improve the sense of arrival into Halifax town centre from the North, (South) East and (South) West, in particular for pedestrians and cyclists;
- Public realm improvements including the pedestrianisation of Market Street and part of Northgate, and public space at the Eastern Gateway;
- Provision of electric vehicle charging points;
- Creation of an anti-clockwise 'bus loop', maximising bus penetration to the town centre core, as well as boosting access to development sites to the East (e.g. Cripplegate and the Library);

- Enhanced bus-rail interchange opportunities at the Eastern Gateway;
- Re-designation of the eastern corridor to improve the efficiency and attractiveness of the route, thereby reducing through traffic in Halifax town centre and re-balancing traffic movements on the eastern and western corridors;

- Modified A629 western corridor to improve the efficiency and attractiveness of the route, reducing through traffic in Halifax town centre.

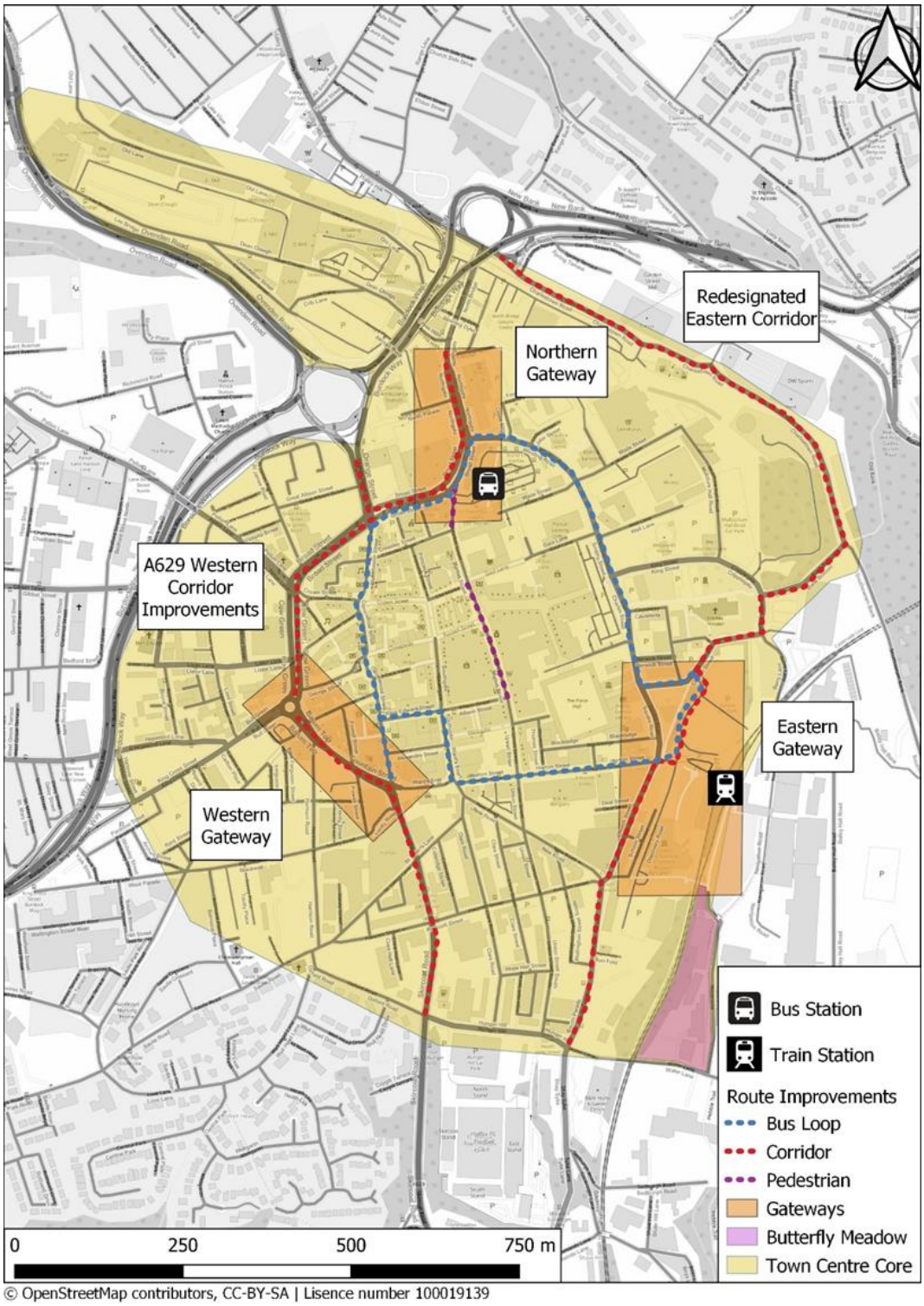

Figure 2.1 – A629 Halifax to Huddersfield Corridor: Phase 2 summary and location map

Once completed, the A629 Phase 2 scheme will:

- Encourage development and inward investment within Halifax;
- Provide enhanced pedestrian crossing facilities and reduce through traffic levels on Square Road/Winding Road and provide better connections between the town centre core and the wider area;
- Deliver enhanced cycling facilities in central Halifax, with designated cycle crossings, on highway non-segregated and segregated cycle facilities and cycle parking;
- Improve the quality of arrival experience within Halifax, through the creation of gateways into the town;
- Enhance the pedestrian environment through improved public spaces;
- Re-distribute disabled (blue badge) parking provision across the town centre with a net increase of two bays;
- Improve bus-rail interchange, through the creation of the Eastern Gateway and introduction of new bus stops;
- Improve non-motorised access to the railway station, key employment and leisure sites;
- Provide greater bus coverage around the town centre;
- Provide smart signalling throughout the town;
- Improve connectivity between the Bus Station and the Railway Station, through the revised town centre bus network and public realm enhancements.
- Help address the climate emergency on a local scale for Halifax by encouraging residents to choose lower carbon travel options through increased quality and facilities for active mode users, improvements to the bus network, infrastructure to implement electric vehicle (EV) charging points in the future and decreased car park provision

It is worth noting that the A629 Phase 2 had originally included proposals for enhancing Halifax Bus Station, however, following the Leeds City Region Transforming Cities Fund (TCF), secured in March 2020, these proposals have been de-coupled from the A629 programme. West Yorkshire Combined Authority is now developing and delivering the Halifax Bus Station project. The new Halifax Bus Station received FBC+ approval in August 2021, with construction commencing in September 2021. Construction is expected to complete in October 2023.

2.3 Context

Halifax town centre itself already has a strong identity as a sustainable and vibrant centre for the Calderdale District and has a distinctive urban core built upon its historic origins. Being the administrative centre for Calderdale, Halifax performs a range of civic functions, containing the CMBC offices, law courts and the central public library. It also provides the focus of retail and leisure activity for the district supported by other local centres, with the main focus of retailing located within the areas of the Woolshops Shopping Centre, Market Street, Cornmarket and Southgate, with the Borough Market and Russell Street connecting these areas.

Tourism and the unique and Victorian built environment are also of important to the town and there is a diverse and extensive range of social and cultural venues for sport, theatre, art, music, cinema and dance within the centre of Halifax. They are accommodated within buildings of architectural and historical significance, in particular the Piece Hall, and in new purpose-built developments. The town centre will also serve as a key education base with the Trinity Academy Sixth Form College on the former Central Library site, which opened in September 2021.

2.4 Scheme costs

The total anticipated investment cost for the scheme is **£64,139,765** with Table 1.1 above providing a summarised breakdown of this cost. A full cost plan and detailed breakdown is included in the Full Business Case document for the A629 Phase 2.

2.5 Delivery timeframe

An indicative overview of the key programme and delivery milestones is given below based on the main tasks contained in the programme. A more detailed delivery programme will be appended and summarised within the Full Business Case document, specifically section 6.2. A summary of the main milestones can be found below:

A629 Phase 2 Halifax town centre improvements scheme programme

	FBC Re-Submission		June 2020 FBC	
Key Milestone	**Start**	**Finish**	**Start**	**Finish**
FBC Submission	01/06/2023	01/06/2023	01/07/2020	01/07/2020
PAT	12/07/2023	12/07/2023	12/08/2020	12/08/2020
Approval to Proceed				
Western Corridor	???	???		
Eastern Corridor	???	???		
Central Corridor	???	???		
Tender Issue	04/07/2022	03/02/2023	30/09/2020	30/09/2020
Tender Award	03/10/2023	03/10/2023	07/04/2021	07/04/2021
Planning Application				
Submission and Approval	01/02/2020	01/06/2020	01/02/2020	01/06/2020
Planning Condition				
Submissions	04/07/2022	20/09/2024		
TRO	04/07/2022	20/09/2024	04/01/2021	20/04/2021
CPO and Land Acquisition	04/07/2022	20/09/2024	16/06/2020	06/12/2021
Delivery	04/10/2023	31/08/2027	07/04/2021	17/05/2024
Western Corridor	04/10/2023	30/11/2024	07/04/2021	09/09/2022
Eastern Corridor	15/10/2024	30/06/2026	04/06/2021	06/04/2024
Central Corridor	24/02/2026	31/08/2027	12/08/2021	17/05/2024
Financial Closure	TBC	TBC		
Project Evaluation				
Supplementary Baseline	01/06/2023	31/10/2023	TBC	TBC
One Year After	01/09/2028	31/03/2029	01/06/2025	31/12/2025
Five Years After	01/09/2032	31/03/2033	01/06/2029	31/12/2029

3. Scheme Object9ives and Outcomes

3.1 Introduction

The course of scheme delivery may be split into the four stages described below:

- **Inputs**: defined as the resources, equipment and skills which are been invested into the scheme development, as well as the activities being carried out;
- **Outputs**: expressed as the what is been delivered and how it is being used;
- **Outcomes:** defined as transitional effects resulting from the scheme; and
- **Impacts:** expressed as longer-term effects on wider economic and social outcomes.

The inputs are coordinated to deliver outputs that are shaped to address scheme objectives, with subsequent outcomes and impacts used as measures of the scheme's performance.

3.2 Scheme objectives

The A629 Halifax to Huddersfield corridor improvements will alleviate a number of issues to bring benefits to transport users, the local population, and businesses and to the wider economy within Calderdale. An expanded set of scheme objectives were identified for the A629 Phase 2 in the Full Business Case. These are presented in Table 3.1.

Objective No.	Objective Overview	Objective Goal	Objective Targets
1	Town Centre prosperity	Inclusive economic growth More people in Halifax town centre Attracting and retaining business investment in Halifax Aid unlocking of development sites Enlarged town centre core Improved sense of place and pedestrian environment	Increase footfall by 20% five years after scheme delivery 5% increase in the percentage of commercial units occupied five years after scheme delivery.
2	Increased active and sustainable travel	Inclusive growth in line with equality, diversity, and inclusion (EDI) themes	Increase cyclists crossing Halifax town centre by 50% after completion of

		Improved public health Modal shift away from private car Reduced congestion	the A629 corridor programme. Increase bus mode share in Halifax town centre by 5% five years after scheme delivery
3	Environment	Contribution to climate emergency Improved public health	Air quality levels at monitoring and evaluation sites DT2P2, DT3P2, DP10P2, DP11P2 and DT12P2 will meet the relevant standards by 2029. Noise levels ($L_{A10, 18hr}$ values) at monitoring and evaluation sites ML1, ML3, ML5 & ML6 will not exceed 68dB by 2029.
4	Town Centre Highway routing	Reducing town centre severance around western corridor Improved active mode environment Reduced congestion Improved air quality	15% reduction in traffic on the western corridor five years after scheme delivery.
5	Safety	Reduced conflict in traffic movements Improved travel safety Improved public health	42% reduction in casualties, five years after scheme delivery.

Table 3.1 – A629 Phase 2 Scheme Objectives

In line with DfT guidance for the monitoring of major transport schemes, the Phase 2 objectives have been consolidated into three overlying objectives, against which scheme performance can be measured as part of this Monitoring and Evaluation Plan. The three core objectives are as follows:

- **Boost inclusive economic growth, local development and job creation in Halifax and the wider Calderdale district;**
- **Improve air quality and have a positive impact on Halifax town centre's built and natural environment, creating a better sense of place; and**
- **Improve accessibility, safety and connectivity within Halifax town centre for pedestrians, cyclists and public transport users.**

The other scheme objectives detailed within the Full Business Case submission have been reclassified as sub-objectives according to the core objective to which they most contribute,

although several would contribute towards more than one objective. These additional sub objectives are bulleted below, beneath the corresponding core objective to which they relate:

Boost inclusive economic growth, local development and job creation in Halifax and the wider Calderdale district

- Increase footfall by 20% five years after scheme delivery
- 5% increase in the percentage of commercial units occupied five years after scheme delivery

Improve air quality and have a positive impact on Halifax town centre's built and natural environment, creating a better sense of place

- Air quality levels at monitoring and evaluation sites DT2P2, DT3P2, DP10P2, DP11P2 and DT12P2 will meet the relevant standards by 2029.
- Noise levels (LA10, 18hr values) at monitoring and evaluation sites ML1, ML3, ML5 & ML6 will not exceed 68dB by 2029.

Improve accessibility, safety and connectivity within Halifax town centre for pedestrians, cyclists and public transport users.

- Increase cyclists crossing Halifax town centre by 50% after completion of the A629 corridor programme.
- Increase bus mode share in Halifax town centre by 5% five years after scheme delivery
- 15% reduction in traffic on the western corridor five years after scheme delivery.
- 42% reduction in casualties by five years after scheme delivery.

3.3 Scheme Outcomes and impacts

Phase 2, as a component of the full A629 Halifax to Huddersfield corridor package, can be considered a success if it contributes to the overall vision and desired outcomes and impacts of the corridor, which is to unlock development potential and the creation of 1,740 jobs. Phase 2 seeks to ensure alignment with the other delivery phases of the package. Unlocking development potential and creation of 1,740 jobs are specific impacts targeted by the A629 corridor package and therefore are direct measures of success which can be evaluation. However, it is proposed that this high-level strategic evaluation will be undertaken as part of the overarching monitoring and evaluation programme, which is detailed in a separate document.

It is anticipated that Phase 2 will contribute towards boosting inclusive economic growth within Halifax town centre and supporting the realisation of the Halifax Town Centre Delivery Plan through, for example, unlocking key development sites, boosting footfall and improving accessibility and connectivity for sustainable modes. All can be monitored against the baseline conditions as part of the required monitoring and evaluation process set out in this plan. Additionally, any intervention will be successful if it contributes to the impacts of the overall strategic vision for the Phase 2 component of the A629 package. However, some of these impacts will take several years to materialise as they are a large part dependent on

the delivery of other phases or the A629 package. For these reasons this monitoring and evaluation plan will be supplemented by a wider overarching programme of monitoring and evaluation which will focus on the full A629 Halifax to Huddersfield corridor improvements package in its entirety.

3.4 Logic Map

Logic mapping is considered an essential part of the evaluation process. It helps to visualise the key steps required to turn a set of resources or inputs into activities that are designed to lead to specific set of changes or outcomes. Used in this way, it guides the evaluation process by presenting the fundamental pathways across different stages of scheme delivery, demonstrating how the scheme is anticipated to achieve desired results and benefits. A logic map comprises:

- **Inputs** – what is being invested in terms of resource, finance and processes to be completed such as progression through the Assurance Framework
- **Activities** – these are involve the critical tasks and actions for creating the outputs such as construction activities, installation of infrastructure, consultation & engagement, traffic regulation orders and construction management plans;
- **Outputs –** new and modified transport infrastructure that is being constructed;
- **Outcomes** – short and medium term results, such as changes in journey time and traffic flows; and
- **Impacts** – long-term results such as economic benefits, land use development, raised quality of life and environmental improvements.

The logic map shown in Figure 3.1 below identifies how the assumptions underpinning the scheme will deliver the intended outcomes and longer-term impacts. This has been prepared using the latest logic model template used by West Yorkshire Combined Authority.

Context
What are the opportunities and/or challenges that the scheme seeks to address? What is the policy context in which the scheme sits? What economic, environmental, or social trends provide important context? The need for improved connectivity in urban areas to stimulate economic activity is arguably more relevant than ever in the post-pandemic era. The scheme will transform the centre of Halifax and promote inclusive growth by increasing its attractiveness for business investment, reducing severance, capitalising on its heritage to enhance its leisure/tourism offer, and shifting focus towards sustainable/ active travel resulting in health and environmental benefits.

Objectives	Inputs	Activities	Outputs	Outcomes
• Town centre prosperity • Increased active and sustainable travel • Environmental benefits • Better town centre highway routing • Increased safety	Scheme build: • Project plan & implementation • Process evaluation • Stakeholder management • Risk management	• Detailed design development • Land assembly • Statutory and regulatory approvals • TRO consultation • Execution of TROs • Tender exercise	• Provision of new cycling infrastructure penetrating the town core • Improved and new at-grade crossing facilities on pedestrian desire lines • Pedestrianisation of sections of Market St, Northgate and creation of Eastern Gateway • Incorporating the peripheral areas through enhanced connectivity and severance reduction	• Positive impact on travel flow, with greater use of the eastern corridor for through traffic • Growth of public transport patronage • Increase in walking and cycling trips (including increase in footfall in Halifax Town Centre) • 'Enlarged town centre' with increased connectivity to major trip attractors (eg. Dean Clough) • Increase in pedestrianised space
	Delivery process: • Changes to the scheme • Changes to mitigation measure • Staff resource and skills (CMBC, WYCA, and specialist consultants) • Securing approvals	• Communications and engagement with stakeholders during delivery • Public communications and notices • Creation of business case • Monitoring & Evaluation activities (i.e., baseline / pre-		

		installation measurements)	• Realignment of the eastern corridor • Provision of a rail bus interchange facility at the new Eastern Gateway public realm, with crossing facilities • Creation of an anti-clockwise 'bus loop' around the town centre core.	within Halifax Town Centre • Improved interchange between rail and bus • Greater percentage of bus services serving Halifax town centre (via the new 'bus box') • Reduction in road casualties (KSIs)
	Outturn costs: • Capital investment costs from WY+TF • Project risk costs • Outturn maintenance costs • Unanticipated costs	• Installation of active travel infrastructure, support crossings, and public realm treatments and green infrastructure • Bus stop removal and installation, inc shelters and RTI		

Overall Impacts

What overall impact will the scheme achieve?

Societal :

- Reduction in traffic casualties
- Contribution towards improved public health through more physical activity and better air quality

Environmental:

- Improved noise conditions in the town centre core
- Reduced carbon emissions
- Improved air quality and reduced NO2 in the town centre core

Economic:

- Job creation
- Increase in occupancy of commercial units in Halifax Town Centre
- Positive impacts on retail and businesses, and good economic growth (Gross Value Added)
- Improved accessibility, facilitating local development and inclusive growth.

Figure 3.1 – A629 Phase 2 Logic Map

4. Evaluation Objectives & Research Questions

4.1 Evaluation objectives

Monitoring and evaluation of a specific scheme aims to deliver the following objectives:

- Provide accountability for the scheme investment;
- Provide evidence for future spending decisions;
- Understand which schemes deliver cost-effective transport solutions;
- Enhance the operational effectiveness of current schemes or future schemes; and
- Improve future initiatives based on learning.

Monitoring can be defined as the collection of information and data to check the performance of a scheme against planned targets and benefits. It is the assessment of a scheme's effectiveness and efficiency during and after implementation. This exercise includes measuring the causal effects of the scheme on planned outcomes and impacts, and determining whether anticipated benefits and value for money have been realised.

4.2 Evaluation principles

Scheme evaluation is a means to justify investment into a particular endeavour (for example a major transport scheme) and therefore to assess whether the anticipated benefits have been achieved.

The headline features of the full A629 corridor scheme are to improve the accessibility and unlocking economic growth potential within the Calderdale and Kirklees districts, through tackling congestion along the A629 and investing in infrastructure, in turn unlocking strategic sites for inward investment and development. The evaluation will therefore need to focus on whether the scheme has reduced congestion and enhanced journey time reliability on the A629 for all users, facilitated local commercial and housing development and job creation. It is proposed that assessing the wider impacts of the corridor package will be done at a programme level for the full scheme, while this monitoring and evaluation plan will focus on the evaluation of the specific phase 2 element against its specific scheme objectives.

4.3 Scope of evaluation

As the A629 package in its entirety is anticipated to result in a material impact to noise, local air quality and accidents, further **enhanced measures** will apply in accordance with DfT guidance, *'Monitoring & Evaluation Framework for Local Authority Major Schemes' (DfT, 2012).* In addition to the 'standard' and 'enhanced' measures, the overarching monitoring and evaluation programme proposes '**fuller evaluation'** of the scheme to provide evidence on:

- Whether the scheme has been delivered effectively and efficiently.

- The key effect of the scheme on the anticipated outcomes and whether these have contributed to the intended impacts.
- Whether the scheme has any unintended adverse or positive effects.

The fuller evaluation will be carried out in due course once all phases of the A629 package are delivered as part of the overarching monitoring and evaluation programme, detailed in a separate document.

In the meantime, this monitoring and evaluation plan sets out the approaches for measuring the performance of Phase 2 of the A629 package, against the '**standard**' and '**enhanced**' metrics set out in the DfT guidance. Documenting the findings from this monitoring and evaluation will involve the preparation of a 'One Year After' report (Y1) to be completed 1 years after the completion of A629 Phase 2 and a 'Five Years After' report (Y5).

4.4 Research Questions

A comprehensive set of research questions are required as part of the Impact Evaluation for phase 2. A set of research questions has been designed to assess the relative success of the A629 scheme against the scheme objectives for the second phase. The research questions to be posed are summarised as follows:

- Has the scheme helped encourage development and employment generation within the town centre in line with the wider region's inclusive growth ambitions?

- How has the scheme influenced changes in the provision and occupation of commercial and retail premises within Halifax town centre?

- Is severance and poor connectivity between the town centre core, the wider town centre and adjacent communities still seen as an issue by active mode users?

- Has pedestrian and cycle access to the rail station, bus station and between key employment and leisure sites improved?

- Has the quality of the pedestrian environment, spaces, and amenity within the town centre been enhanced by the scheme?

- Has the quality of arrival into Halifax town centre from the key 'gateway' locations (e.g. Eastern gateway from Halifax rail and bus stations) improved?

- Are opportunities to interchange between rail and bus services better?

- Is wayfinding within and around Halifax town centre easier?

- Has the number of journeys made by non-motorised modes and public transport increased?

- Has there been a shift in through-traffic movement onto the eastern corridor?

- Has air quality within the core of Halifax town centre, i.e. at the key monitoring and evaluation sites identified, continued to satisfy the relevant standards by 2028?

- Have noise levels within the core of Halifax town centre, i.e. at the key monitoring and evaluation sites, remained below 68dB by 2028?

5. Outline Evaluation Approach

5.1 Process evaluation

The Process Evaluation will entail monitoring the scheme's delivery and the ultimate outputs that are realised after its completion. However, the development of this evaluation will draw upon findings from a range of sources and feedback from many stakeholders and end users, rather than relying on desk-based review of written material. A systematic engagement approach is proposed during and immediately following the delivery of the various scheme phases to receive feedback on the delivery process and the outputs achieved. Table 5.1 identifies the key stakeholders and categorises them into one of several groups.

Name of stakeholder	Primary form of engagement	Proposed engagement periods
Statutory/ Key Stakeholders		
West Yorkshire Combined Authority	Meetings and email	Pre-construction, construction, Y1 and Y5
CMBC Leader/ Portfolio Holder and Town Ward Members	Meetings and email	Pre-construction, construction, Y1 and Y5
CMBC Ward Members	Meetings and email	Pre-construction, construction, Y1 and Y5
Other Calderdale project teams	Meetings and email	Pre-construction, construction, Y1 and Y5
Halifax Minster	Meetings and email	Pre-construction, construction, Y1 and Y5
Historic England	Meetings and email	Pre-construction, construction, Y1 and Y5
Halifax Renaissance Town Team	Meetings and email	Pre-construction, construction, Y1 and Y5
Network Rail	Meetings and email	Pre-construction, construction, Y1 and Y5
Northern Rail	Meetings and email	Pre-construction, construction, Y1 and Y5
West Yorkshire Police	Meetings and email	Pre-construction, construction, Y1 and Y5
Local Businesses		
BNP Paribas/Birch Sites (Cripplegate)	Meetings and email	Pre-construction, construction, Y1 and Y5
Dean Clough (Historic Mill Building now used as Grade A office accommodation.)	Meetings and email	Pre-construction, construction, Y1 and Y5
Halifax Borough Market	Meetings and email	Pre-construction, construction, Y1 and Y5

Northgate House (including Royal Sun Alliance)	Meetings and email	Pre-construction, construction, Y1 and Y5
Matalan (retail outlet)	Meetings and email	Pre-construction, construction, Y1 and Y5
Nestle	Meetings and email	Pre-construction, construction, Y1 and Y5
Royal London owner of cleared development site	Meetings and email	Pre-construction, construction, Y1 and Y5
Royal Sun Alliance	Meetings and email	Pre-construction, construction, Y1 and Y5
Water Lane Businesses	Meetings and email	Pre-construction, construction, Y1 and Y5
Woolshops Shopping Centre	Meetings and email	Pre-construction, construction, Y1 and Y5
CMBC's Town Team	Meetings and email	Pre-construction, construction, Y1 and Y5
Business Improvement District (BID) Team (represent business)	Meetings and email	Pre-construction, construction, Y1 and Y5
Taxis		
Hackney Carriages Association	Meetings and email	Pre-construction, construction, Y1 and Y5
Private Hire Association	Meetings and email	Pre-construction, construction, Y1 and Y5
Licencing Team (taxis)	Meetings and email	Pre-construction, construction, Y1 and Y5
Car Park Operators		
Westgate Arcade Car Park	Meetings and email	Pre-construction, construction, Y1 and Y5
Cycling groups		
Calderdale Cyclist Touring Group	Meetings and email	Pre-construction, Y1 and Y5
The Halifax Imperial Cycling Club	Meetings and email	Pre-construction, Y1 and Y5
Pedalsport Cycling Club	Meetings and email	Pre-construction, Y1 and Y5
Sustrans	Meetings and email	Pre-construction, Y1 and Y5
The Tandem Club – West Yorkshire Group	Meetings and email	Pre-construction, Y1 and Y5
Calderdale Cycling Forum	Meetings and email	Pre-construction, Y1 and Y5
Bus Operators		
Arriva	Meetings and email	Pre-construction, construction, Y1 and Y5

First	Meetings and email	Pre-construction, construction, Y1 and Y5
Team Pennine	Meetings and email	Pre-construction, construction, Y1 and Y5
South Pennine Community Transport	Meetings and email	Pre-construction, construction, Y1 and Y5
Local Groups / Organisations		
Central Library and Archive Reference Group	Meetings and email	Pre-construction, Y1 and Y5
Cultural Destination Consortium (Arts Council)	Meetings and email	Pre-construction, Y1 and Y5
Transport Working Group	Meetings and email	Pre-construction, construction, Y1 and Y5
Accessibility Calderdale Disability Access Forum (ACDAF)	Meetings and email	Pre-construction, construction, Y1 and Y5
Maurice Jagger Centre	Meetings and email	Pre-construction, construction, Y1 and Y5
Meetings and email	Pre-construction, construction, Y1 and Y5	Pre-construction, Y1 and Y5
Wheelchair Enabling Society (WES)	Meetings and email	Pre-construction, Y1 and Y5
Park Ward Neighbourhood Forum	Meetings and email	Pre-construction, Y1 and Y5
Key Attractors		
Eureka! The National Children's Museum	Meetings and email	Pre-construction, construction, Y1 and Y5
Square Chapel Centre for the Arts	Meetings and email	Pre-construction, construction, Y1 and Y5
Victoria Theatre	Meetings and email	Pre-construction, construction, Y1 and Y5
Westgate Arcade Shopping Centre	Meetings and email	Pre-construction, construction, Y1 and Y5
Harveys	Meetings and email	Pre-construction, construction, Y1 and Y5
The Piece Hall	Meetings and email	Pre-construction, construction, Y1 and Y5
Trinity Sixth Form Academy	Meetings and email	Pre-construction, construction, Y1 and Y5
Other		
Utility companies	Meetings and email	Pre-construction, construction, Y1 and Y5

Table 5.1 – Key stakeholders to be engaged in the delivery and monitoring of Phase 2

The following engagement periods and abbreviations have been used in Table 5.1:

Supplementary pre-construction (2023 baseline), i.e. October 2023
Construction period, i.e.: October 2023 – September 2027
Y1 – One Year After Report (post-scheme), i.e. March 2029
Y5 – Five Years After Report (post-scheme), i.e. March 2033

By obtaining feedback from the stakeholders identified in Table 5.1 on how the scheme was delivered and the specific outputs achieved, a more objective interpretation of the process and the scheme's future ability to realise its benefits may be derived, built-upon from the views of those involved. Alongside this, the contractor's participation in the 'Considerate Constructors Scheme' should ensure that any construction-related nuisance and issues affecting surrounding communities during the delivery stages will be documented accordingly. These findings should be included in the 'One Year After' report.

5.2 Impact evaluation

The impact evaluation determines the outcomes and impacts generated by the scheme, focusing on the key question: what difference the scheme has made to the local area of influence. The impact evaluation should focus on monitoring outcomes and the long term impacts associated with the A629 Phase 2 objectives, as identified in *Section 3.2 above*, and in line with the Department for Transport's recommended measures which are detailed in *Section 6.1 below*. Specifically, the impact evaluation will focus on outcomes relating to: changes in traffic flows; changes in journey time reliability; changes in travel demand; environmental changes including changes in air quality and noise; changes in road safety (frequency and severity of road traffic collisions); and regeneration and wider economic impacts.

5.3 Economic evaluation

The overarching monitoring and evaluation programme for the A629 proposes to undertake a comprehensive economic evaluation of the full A629 package. The economic evaluation will concentrate on the outturn appraisal assumptions. Using findings from the Process and Impact Evaluations, the Economic Evaluation will involve a post implementation appraisal of the scheme, updating the assumptions made in the previous appraisal with nationally reported observed values and comparing forecast benefits with those realised in practice.

The specific economic evaluation approach for Phase 2 of the A629 scheme is set out in *Section 6.8* below. A key issue to be addressed when analysing the scheme's value for money will be the means to isolate economic impacts attributable to the scheme from those that are the result through interaction of other background factors. To accomplish this, a combination of proxy metrics, quantitative and qualitative evidence will be gathered from along the A629 and from the immediate impact site around Phase 2.

Identifying the non-transport economic impacts of the scheme in Halifax town centre and the wider district will be more challenging to attain. Attributing observed changes to the A629

improvements will require engagement with major employers, including new business start-ups and those that have relocated (such as Royal Sun Alliance) or expanded their businesses, to determine whether improved transport accessibility (via the A629) and the A629 phase 2 interventions was a factor for growth. This will help to ascertain the extent to which the A629 scheme has contributed to business start-ups and job creation.

Considering the time taken for evidence of the scheme's economic impacts to be realised, particularly considering the proposed phasing, reporting the economic impacts of Phase 2 will be reported in the Five Years After report. That said, the fuller economic evaluation for the full A629 scheme will be completed as part of the Final Report as part of the overarching monitoring and evaluation programme.

5.4 Completion of Monitoring and Evaluation activities after COVID-19

COVID-19 is an infectious disease that primarily affects the lungs and respiratory system. The disease is highly contagious and can be deadly for elderly people and for those with underlying health conditions. Having originated in China in late 2019, the first UK cases of the disease were detected in January 2020 and it quickly spread across the country over the following months. To slow the spread of the disease, the UK Government introduced several response measures in March 2020 including a full lockdown from 23 March 2020 followed by a series of easing lockdown easing measures and national health guidance which were issued throughout 2020 to late 2021. As of early 2022 most restrictions were lifted and the UK entered an ongoing state of 'living with the pandemic' so as to resume a degree of normality. A full timeline of the UK's response to the pandemic can be found here: timeline-coronavirus-lockdown-december-2021 (instituteforgovernment.org.uk)

It is recognised that the Covid-19 pandemic and the UK lockdown had an unprecedented impact upon the economy, people's travel patterns, the public transport network and travel behaviour in towns and cities across West Yorkshire and the UK. These impacts have had a long-lasting effect on people's travel behaviour, use of public transport services and on people's access to employment, education and training which is likely to continue for many years to come. This introduces several uncertainties and challenges into delivering projects such as the A629 Phase 2 project, and in the associated monitoring and evaluation. The project team will work with the Combined Authority's Portfolio Management and Appraisal (PMA) team to ensure compliance with emerging guidance and mandates from the DfT, and any other Government body, as part of the execution of this plan.

In considering the impacts of the COVID pandemic, it is proposed that pre-construction (baseline) data will be drawn from a range of secondary sources and those from previous surveys including the pre-existing data gathered as part of the wider A629 Programme level monitoring and evaluation baseline completed in October 2017. This captured much of primary and secondary data against key metrics set out within this Plan and the programme. Where possible, this will be supplemented with more up-to-date secondary data from reliable sources (utilising continuously or periodically collected data) against key metrics, such as the annual cordon counts and National Travel Survey. More information on this approach is set out in section 6.

5.5 Update and validation of data for A629 Phase 2

In recognition of the time which has elapsed since the original 2017 A629 programme level baseline data collection and reporting, and the lasting impacts of the Covid-19 pandemic (discussed in section 5.4), Calderdale Council sought additional guidance from West Yorkshire Combined Authority's Portfolio Management & Appraisal (PMA) and Research & Intelligence (R&I) in January 2023.

The proposed monitoring and evaluation methodology set out in this document was shared with the PMA and R&I teams, who recommended that a degree of repeat data collection be carried out as part of the A629 Phase 2 supplementary pre-construction/baseline data collection. The rationale of this repeat data collection is to revisit a select number of survey sites which were previously investigated in 2017 for validation purposes and, more critically, to identify any changes in travel behaviour and demand, as well as associated impacts. Such changes could then be factored into the analysis and reporting undertaken as part of the scheme's monitoring and evaluation.

The scope of the A629 Phase 2 pre-construction / baseline data collection was therefore widened to include an element of additional data collection across most monitoring metrics. Full details can be found in **Appendix A**. It is proposed that this will be undertaken from June 2023 (ahead of the summer holiday period) and prior to construction works commencing on the A629 Phase 2 scheme.

6. Data Requirements

6.1 Introduction and outline evaluation approach

This monitoring and evaluation plan focuses on Phase 2 of the A629 Halifax to Huddersfield corridor package and has been prepared so that it will enable robust evaluation against the DfT's appraisal objectives, as well as those agreed by West Yorkshire Combined Authority. These will be linked back to the proposed scheme objectives, as detailed in section 2 above. As set out in '*Monitoring & Evaluation Framework for Local Authority Major Schemes'* (DfT, 2012), the following 'standard' and 'enhanced' measures are required to be monitored for the Phase 2 scheme at different stages of delivery, with the level of data collection being proportionate to the scale and cost of the scheme:

- **Scheme build** (input stage);
- **Delivered schemes** (output stage);
- **Outturn costs** (input stage);
- **Scheme objectives** (output, outcome and impact stages);
- **Travel demand** (outcome stage)
- **Impact on the economy** (impact stage); and
- **Carbon** (impact stage).

Alongside the above 'standard' measures, the following 'enhanced' measures will also need to be reported for Phase 2 of the A629 scheme:

- **Noise** (impact stages);
- **Local Air Quality** (impact stage); and
- **Accidents** (impact stage).

Further to the above measures, this monitoring and evaluation plan proposes to investigate measures concerning: **Bespoke Monitoring & Evaluation** which will be involve engagement with key stakeholders. A further **Streets for People Audit** will be conducted for pre and post scheme delivery. More details on the data requirements and methodologies for executing this monitoring and evaluation plan are included within this section.

It is recognised that the specific Phase 2 objectives will be realised in the short-term following the construction of the scheme and at different timescales, while the strategic impacts of Phase 2 and the wider A629 package, such as associated job creation and economic development, will not materialise until the later stages of the package delivery. Some of the more immediate outcomes of the scheme opening of phase 2 will be the increase in pedestrianised space within Halifax town centre and improved connectivity for pedestrians and cyclists for journeys between the town centre peripheries and the core. In the short to medium term, some smaller changes in travel behaviour (e.g. modal switch) and in road safety may be noted, while the longer term scheme impacts relate to the less tangible employment generation, improvements in health and economic growth objectives. For these reasons, the monitoring and evaluation exercise will be carried out as follows:

- A629 overarching programme baseline report, completed October 2017;
- Supplementary pre-construction (2023 baseline), i.e. July 2023
- Construction period, i.e.: October 2023 – September 2027
- Y1 – One Year After Report (post-scheme), i.e. March 2029
- Y5 – Five Years After Report (post-scheme), i.e. March 2033

In late 2016 a joint decision was made by the West Yorkshire Combined Authority, Calderdale and Kirklees Councils that a baseline report will be scoped for the entire A629 package as part of the overarching monitoring and evaluation programme. The purpose of this approach is to enable the establishment of a comprehensive baseline in which to assess the strategic performance of the full A629 package following the completion of all delivery phases. Pre-construction / baseline work was undertaken between May and September 2017, prior to the start of construction on Phase 1a of the A629, with a final draft of the Overarching A629 Monitoring and Evaluation – Baseline Report (final draft) completed in October 2017. Work on the overarching A629 programme monitoring and evaluation is now paused for the reasons discussed in section 2.2 above, linked to the WYTF inflation review.

This A629 Phase 2 monitoring and evaluation plan will utilise elements of the wider October 2017 A629 programme baseline in which to monitoring performance and evaluate the impacts of the Phase 2 component. At the same time the plan will identify any further primary and secondary data collection which is needed to complement the overarching A629 baseline (Summer 2017), and reflect changes in the Phase 2 scheme design which have occurred since construction commenced on Phase 1a of the A629 scheme which was August 2017. The detail of the additional data collection is covered in section 5.5 above, with the full scope detailed in Appendix A.

It is proposed that a supplementary 'A629 Monitoring and Evaluation Phase 2 Baseline' report will be produced. This will be appended onto the A629 Monitoring and Evaluation Overarching Programme Baseline Report produced in October 2017.

A 'One Year After' report will be completed for each of the sub-phases in Phase 2 to measure the immediate outputs of the scheme, and outcomes on travel demand, journey times and the environmental impacts. A 'Five Year After' report will be completed after the completion of phase 2, providing an evaluation of longer-term impacts of Phase 2.

The following section summarise the data to be collected for each of the monitoring metrics. An overview of the data collection approaches to be executed to fulfil the requirements.

6.2 Scheme build

CMBC will collate information relating to scheme build. In reporting this information, the potential for any variance identified to impact on the scheme's ability to deliver the anticipated benefits within the desired timescales will be clearly set-out. A draft scheme programme should be included as part of the FBC submission. This provides a helpful reference for monitoring the programme/project plan during construction, with progress measured against the key delivery milestones.

The Project Manager will be responsible for managing communication and engagement with key stakeholders, which are identified in section 5.1 above. Stakeholder management will feature strongly as an important topic at Project Board to allow members to provide input on the effectiveness of the approach. The output will be a log of lessons learned.

The effectiveness of the risk management process will also be assessed through a post-construction evaluation of the risk register, to determine whether risks were correctly identified and that the mitigation methods were suitable. Any changes of the mitigation approaches will be recorded. Details of this exercise and its outputs will be included in the lessons learned log and change register. The Table 6.1 below outlines the key items that will be included in the evaluation.

Item	Description
Programme	The project plan and works programme will be reviewed and actual delivery at key milestones documented. The scheme delivery process will be compared against the proposed programme and any variation will be discussed and evaluated, including any potential impact of a change in delivery dates.
Stakeholder management	The effectiveness of engagement with stakeholders will be assessed in terms of the methods, timeliness and satisfaction. Any impacts and lessons arising from the engagement will be documented.
Risk management	The effectiveness and approach to risk management will be evaluated at the various stages of the scheme delivery
Lessons learned log	Lessons learnt and good practice as captured in the log will be evaluated.
Responsibility	The Project Board will be responsible for ensuring the details are documented and made available

Table 6.1 – Evaluation of Scheme Build

6.3 Delivered scheme

Assessment of the scheme's outputs will identify any changes to the scope and design of the original scheme, including possible changes to impact on the scheme's objectives.

The project team member responsible for completing this activity will assess actual inputs (as quantified) and measured outputs to identify any variances. Their findings will be included in the 'One Year After' Report, and fed into the Project Closure Report as part of the scheme's project closure. Measures examined will include:

- A **full description of implemented scheme** outputs, e.g. as built scheme drawings with detailed measurements to compare to baseline drawings, reflecting changes to scheme design defined through the value engineering process. Table 6.2 outlines the key items that will be included in the evaluation. This is based on scheme output information which will be collected for transport schemes across programmes such as WTYF and TCF, as currently monitored by West Yorkshire Combined Authority as of June 2023.

Delivered Scheme: Planned outputs		
Measures	**Metrics/Units**	**Potential data sources**
Kilometres of new bus lane	Km	As built drawings
Kilometre of improved bus lane	Km	As built drawings
Number of junctions where improvements have been made for buses	Number	As built drawings
Bus stop with upgraded real time information	Number	As built drawings
Number of bus stops upgraded	Number	As built drawings
Number of new bus priority lane improvements	Number	As built drawings
Number of new bus stops	Number	As built drawings
Number of improved bus shelters	Number	As built drawings
New CCTV cameras	Number	As built drawings
Number of new bus shelters	Number	As built drawings
New bus cameras	Number	As built drawings
New bus gates	Number	As built drawings
Number of stand-alone cycle hubs introduced	Number	As built drawings
New cycle parking spaces	Number	As built drawings
Number of covered cycle parking spaces created	Number	As built drawings
Kilometres of route with both pedestrian and cycle improvements	Km	As built drawings
Length of new shared lane (km)	Km	As built drawings
Kilometres of other cycle routes which have been improved, due to new cycle lanes, cycle lane improvements or junction improvements for:	Km	As built drawings
Length of new cycle lane (km)	Km	As built drawings
Number of junctions with improved cycle facilities	Number	As built drawings

Number of improved crossings for pedestrians	Number	As built drawings
Improved formal pedestrian crossing	Number	As built drawings
New formal pedestrian crossing	Number	As built drawings
Introduction or upgrading of area-wide active travel signage	Number	As built drawings
Length of new pedestrian routes (km)	Km	As built drawings
New streetlights	Number	As built drawings
Upgraded streetlights	Number	As built drawings
New signal points	Number	As built drawings
New smart, AI signal points	Number	As built drawings
Number of major area upgrade projects in city centres	Number	As built drawings
Number of other multi-modal interchanges introduced or upgraded	Number	As built drawings
New variable message signs on roads	Number	As built drawings
Length of road resurfaced	Km	As built drawings
Existing Junctions Improved	Number	As built drawings
Number of major road junctions which have been remodelled	Number	As built drawings
Alternative fuel charging points introduced (non-car club)	Number	As built drawings
Alternative fuel charging points introduced (car club)	Number	As built drawings
New traffic calming measures	Number	As built drawings
New TROs (Traffic Regulation Orders)	Number	As built drawings
Number of apprenticeships directly supported by the scheme	Number	Tender contract particulars
Number of Social Value Commitments delivered directly against this scheme	Number	Tender contract particulars and reporting

Number of Air Quality Management Areas benefitting from scheme	Number	As built drawings
Net number of new trees planted per year (on site)	Number	As built drawings
Net number of new trees planted per year (off site)	Number	As built drawings
Sqm of new greenspace created	Sq.m	As built drawings

Table 6.2 – Evaluation of Delivered Scheme

- **Changes to the scheme** that are made between the full approval and implementation. These should be recorded in a change log, with a clear description of the rationale for changes during the scheme implementation;

- Any **changes to mitigation measures** that are delivered (e.g. variance from the highway landscape mitigation plan), with a clear description of any reasons for changes;

- An **assessment of whether the scheme has reached its intended beneficiaries,** through a qualitative assessment of how the scheme is serving the intended users such as road users, pedestrians, cyclists, businesses and residents in Halifax and developers in the region; and

- A **lessons log**, identifying and investigating any unintended outcomes and any lessons learned which will be fully documented.

Findings from the delivered scheme investigation will be used to inform the scheme's Process Evaluation, to be recorded in the 'One Year After' Report. This will determine whether the scheme has delivered to the expected quality standard, with particular reference to whether the needs of stakeholders and end users have been met, and if it remains on track to deliver the intended outcomes.

6.4 Scheme costs

An account of the scheme costs and any variations during the delivery and shortly after the scheme opening will be included in a 'One Year After' and 'Five Year After' Reports. The costs to be monitored and recorded include the following:

- **Outturn investment costs (**i.e. the actual capital costs incurred from infrastructure delivery), detailed and itemised as per the full business case. This breakdown will enable individual components with overruns or savings to be clearly identified;

- The cost assumptions that were made about project risk as part of the full business case will be compared with the **manifestation of risks** as part of investment delivery, with the

main reasons for any variance clearly explained;

- Any **cost with savings** or **costs with overruns** within the investment costs will be documented, with the reasoning for the occurrence of such savings/overruns; and

- Outturn maintenance and any unanticipated costs will be recorded with any reasoning for variance from those originally envisaged.

In the longer term, **outturn operating costs** incurred when running the scheme during the first few years of operation will also be monitored. This will include investigating any reasoning for variance from the Full Business Case forecasts and will require engagement of relevant stakeholders to gather the necessary financial information.

By comparing the above measures with those submitted as part of the scheme's full business case (financial and economic cases), an actual Present Value of Costs (PVC) may be calculated. This PVC can then be used to produce an observed Benefit Cost Ratio (BCR) by comparing it against the monetised benefits of the scheme. Whilst realisation of these benefits will take several years to achieve, a comparison of observed PVC value against forecast benefits will be included in the 'One Year After' Report. It is proposed that the 'fuller evaluation' (using observed benefits and updated appraisal assumptions) will be completed as part of the overarching monitoring and evaluation for the full A629 corridor scheme. The results of this fuller evaluation will be presented in the Final Report.

6.5 Scheme objectives

The three central objectives for Phase 2 of the A629 corridor package are to:

- **Boost inclusive economic growth, local development and job creation in Halifax and the wider Calderdale district;**
- **Improve air quality and have a positive impact on Halifax town centre's built and natural environment, creating a better sense of place; and**
- **Improve accessibility, safety and connectivity within Halifax town centre for pedestrians, cyclists and public transport users.**

Through monitoring the various measures set out in this chapter, the scheme's contribution towards these core objectives can be determined. However, to establish a clear causal pathway with observed outcomes and impacts, additional data within the core metrics set out within this document will be collected from a range of sources as detailed in the following sections, thus evaluating the scheme's objectives as shown in Table 6.3 below.

Central Objective	Measure	Data to be used to inform evaluation
Boost inclusive economic growth, local development and job creation in Halifax and the wider Calderdale district	Travel demand	- Traffic counts on A629 - Cycle and pedestrian count data - Bus patronage data

		- Annual Modal Split Cordon Count survey
	Economic impacts	- Development & planning approvals data - Commercial and retail data - Employment data
	Economic Impacts	- Congestion data (traffic flow and journey time data)
Improve air quality and have a positive impact on Halifax town centre's built and natural environment, creating a better sense of place	Environmental Impacts	- Carbon emissions - Air quality data (NO^2) - Noise level data
	Delivered Scheme	- public realm created - on-street public transport infrastructure enhancements - improved green infrastructure
Improve accessibility, safety and connectivity within Halifax town centre for pedestrians, cyclists and public transport users.	Travel demand	- Traffic counts on A629 - Cycle and pedestrian count data - STATS 19 data - Bus patronage data

Table 6.3 Evaluation of scheme objectives

6.6 Impact on Travel Demand

Traffic information will be gathered at key points and routes within and into the core of Halifax town centre for Phase 2 of the A629. This data will be used to examine the change in travel patterns, usage and behaviour within the scheme's area of influence.

Data will be collated from both the original 2017 programme baseline and supplementary 2023 baseline conditions and to inform 'One Year After' and 'Five Years After' post implementation. As detailed in section 5.5, supplementary baseline data collection, analysis and reporting will be carried out in June / July 2023 to validate and/or update the original 2017 baseline data in light of the time lapse and to factor in the lasting effects of the Covid-19 pandemic. The full scope of the Travel Demand metrics for the supplementary baseline data collection can be found in **Appendix A**. Table 6.4 below summarises the main items that will be included in the assessment of Travel Demand.

Item	Description
Traffic flows	Existing traffic data (Traffic Flow Data Systems (TRADS), permanent CMBC ATC sites) will be used wherever possible to minimise survey costs.
	Where gaps are identified, traffic surveys will be commissioned and temporary Automatic Traffic Counters and Automatic Number Plate Recognition (ANPR) will be employed as appropriate.

	Data will be gathered for baseline (pre-construction) and to inform 'One Year After' and 'Five Year After' (post construction)
	A good coverage of traffic data for Halifax town centre will be collected.
Non-motorised users	Cycle and pedestrian counts will be carried out at key sites within Halifax town centre to measure the potential changes in light of the provision of public realm improvements and active travel infrastructure.
Public Transport	Bus patronage data will be collected and examined to determine the impact of the A629 corridor improvements on public transport provision in Halifax. Additional bus stop boarding and alighting counts will be collected and analysed to further complement the above bus patronage data, focusing on bus stops within Halifax town centre. This will be completed One Year After and Five Years After implementation, giving enough time for the resolution of COVID-19 influences.
Modal Split	Modal split count data will be collated from the annual survey conducted by CMBC on key radial routes into Halifax town centre to complement the wider Travel Demand evidence base. These surveys tend to be conducted in June.
Lessons Log	Lessons in why any difference between the forecast and outturn travel demand has occurred will be discussed and documented
Responsibility	CMBC's Highways Team will be responsible for providing traffic data from the permanent CMBC count sites. The Project Evaluation Manager will be responsible for procuring all other traffic data

Table 6.4 – Evaluation of Travel Demand

6.6.1 Traffic Flows

A review of 2017 Baseline and supplementary 2023 baseline traffic flow volumes will be conducted using data gathered from the relevant Automatic Traffic Counters (ATCs) and Manual Classified Counts (MCC) within the Phase 2 scheme boundary to understand the changes in general traffic movements within Halifax town centre, against which post-scheme results can be compared at the One Year After and Five Year After stages. This will enable the evaluators to assess the impact of the scheme on traffic flows and their assignment across the network and on the western and eastern through-route corridors.

Outturn traffic flows on the A629 corridor and selected connecting links will be collated from the ATCs. ATCs are inductive loops set into the surface of the road or tubes secured to the road surface. These comprise a mixture of permanent and temporary sites. Each ATC device records traffic flows, enabling analysis of historical traffic flow trends prior to scheme delivery to be undertaken. Subsequent annual monitoring of flows following scheme

completion will also allow annual changes to be identified. There is a large quantity of data available from data sources managed by CMBC obtained from ATCs in the area of interest. These provide a good indicator of long-term change over time. By comparing changes in observed traffic flows with similar trends found in historical records.

Several Manual Classified Counts at major junctions within Halifax town centre will also be undertaken to examine the change in origin and destination patterns and to help validate ATC. Vehicles will be classified using the classification stated in the COst Benefit Analysis programme (COBA). It is proposed that Automatic Number Plate Recognition (ANPR) surveys will be carried out at 4 sites as part of the supplementary A629 Phase 2 baseline prior to the start of construction on Phase 2, and at the Year One and Five post-scheme evaluation stages. Details of the former can be found in **Appendix A**. These will be placed at strategic points on the network where route decisions are made by motorised users.

The map in Figure 6.1 below shows the location of survey sites for the ATCs and ANPRs, while the map in Figure 6.2 illustrates the locations of the MCCs. The exact position of the ATCs, MCCs and ANPRs can be found in **Appendix B**. It is important that a consistent set of data is collected prior to the start of construction (to set a Baseline), and in the future years monitoring for Year One and Five Years after. Table 6.5 provides a summary of the traffic flow data to be collected and at what stage.

Item	Overarching A629 programme Baseline (2017)	Supplementary A629 Phase 2 Baseline (2023)*	One Year After	Five Years After
ATCs	8 counts	4 sites	8 counts	8 counts
MCCs	30 counts	10 sites	30 counts	30 counts
ANPR	n/a	4 survey sites	4 sites	4 sites

* - supplementary baseline data collection is detailed in Appendix A.

Table 6.5 – Summary of Traffic Flow data to be collected for A629 Phase 2 scheme and by when

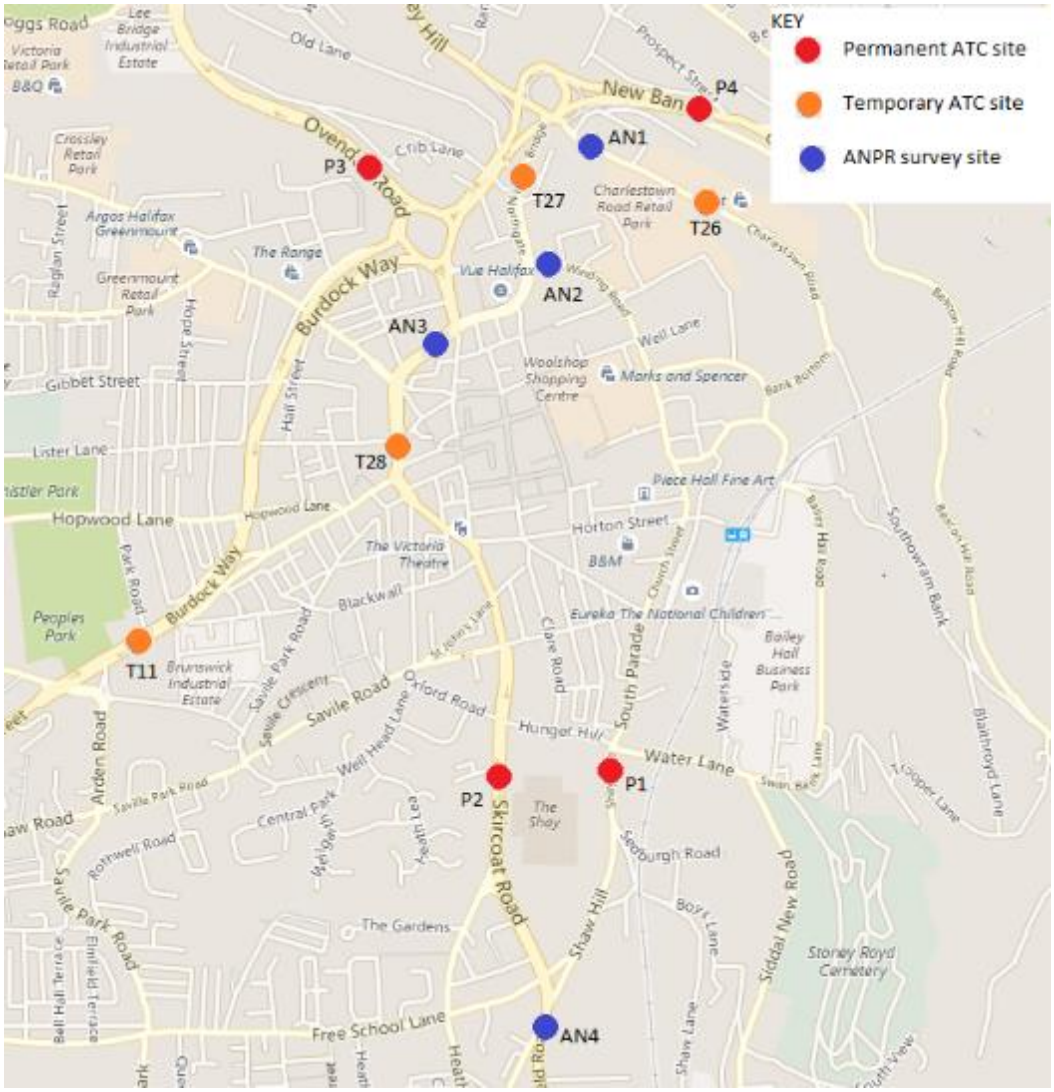

Figure 6.1 – Automatic Traffic Counter (ATC) and Automatic Number Plate Recognition (ANPR) survey sites

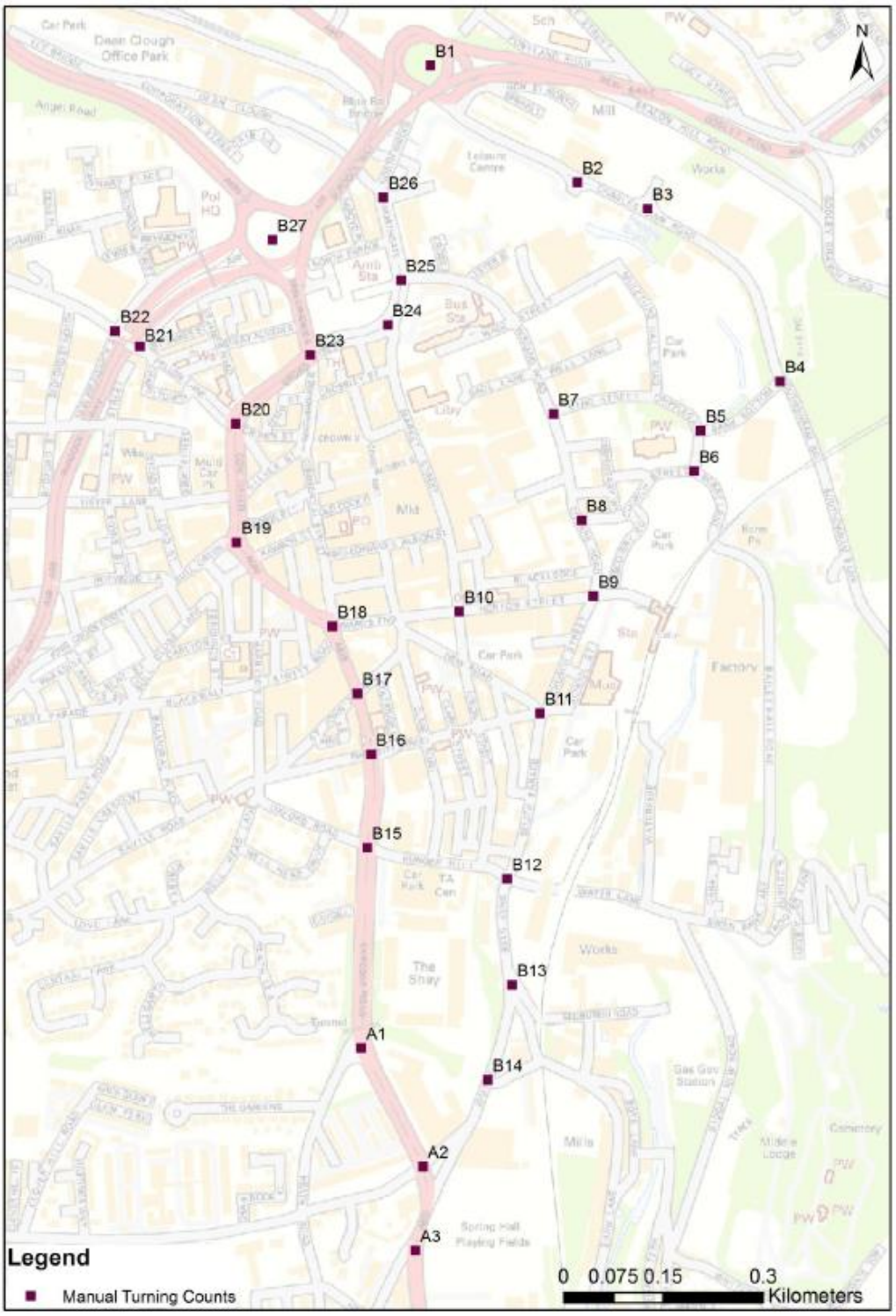

Figure 6.2 – Manual Classified Count (MCC) site locations

6.6.2 Non-Motorised Users

Place-making is a core theme of the A629 Phase 2 scheme, giving space back to people, through investment in the pedestrianisation of Market Street, creating new public spaces at gateway points across the town centre, such as the Eastern Gateway, and improving access to the peripheries of the town centre through enhanced pedestrian crossings and cycling infrastructure. Consequently, evaluation of the impacts of the scheme on the number of pedestrians, footfall and cyclists, as well as the routes they use, will be carried out.

Non-motorised user counts will be undertaken at several sites within the core of Halifax town centre, and at key entry gateways into the core from the peripheries. The majority of which will capture both pedestrian and cyclist movements. These will be collected from a combination of temporary survey sites and permanent footfall counters, the latter of which is either managed by CMBC or external partners such as The Piece Hall Trust.

The map in Figure 6.3 below indicates the location of the temporary Non-Motorised User (NMU) survey sites and permanent footfall counters at significant retail/commercial trip generators within Halifax town centre. The exact location for these sites are detailed in Appendix C.

This monitoring and evaluation plan will utilise secondary pedestrian footfall data collected by CMBC, Woolshops Centre Management Team and The Piece Hall Trust from a handful of permanent counters which will be added into the supplementary A629 Phase 2 baseline. It is also proposed that six additional NMU counts will be undertaken as part of the supplementary A629 Phase 2 2023 baseline prior to the start of construction on Phase 2. These will then be combined with the original 2017 baseline NMU counts and at the Year One and Five post-scheme evaluation stages. It is important that a consistent set of data is collected prior to the start of construction (to set a Baseline), and in the future years monitoring for Year One and Five Years after. Table 6.6 provides a summary of the NMU data to be collected.

Item	Overarching A629 programme Baseline (2017)	Supplementary A629 Phase 2 Baseline (2023)*	One Year After	Five Years After
NMU	6	10 sites	13 NMUs	13 NMUs
Permanent footfall counters	n/a	6	6	6

** - supplementary baseline data collection is detailed in Appendix A.*

Table 6.6 – Summary of Traffic Flow data to be collected for A629 Phase 2 scheme and by when

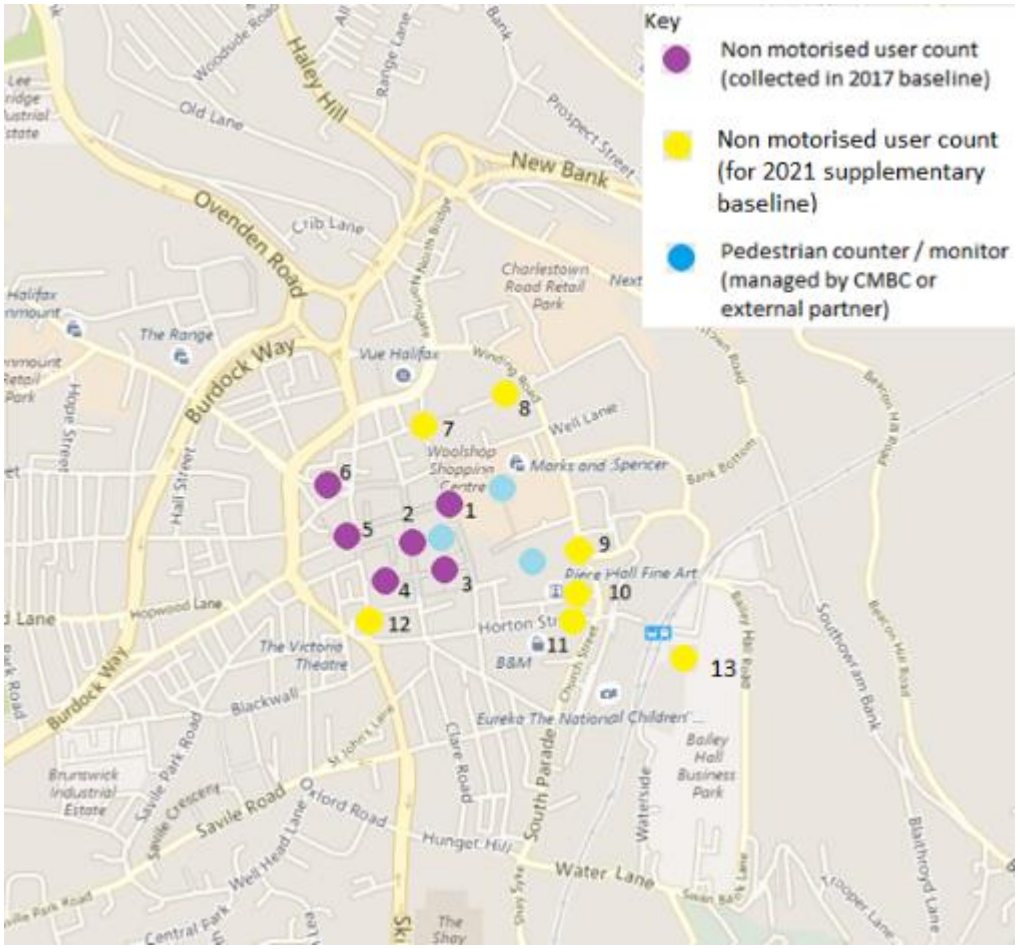

Figure 6.3 – Proposed cycle and pedestrian survey locations

6.6.3 Public Transport

The proposed improvements of the A629 Phase 2 should directly benefit public transport users through enhanced interchange opportunities between rail and bus, creation of a bus loop to serve future trip generators on the peripheries of the town centre, and improved on-street bus stop infrastructure. Bus patronage levels are indicators of the impact of the A629 scheme on public transport since one of the desired outcomes of Phase 2 is to increase bus patronage.

Bus patronage information will be requested from the bus operators under a confidentiality agreement for those bus services which operate within the A629 phase 2 scheme boundary (Halifax town centre). The specific bus services are identified in Table 6.7. This will also be complemented by boarding and alighting surveys carried out at key bus stops within Halifax town centre and at Halifax bus station.

A629 phase	Bus Services to be examined
Phase 2*	20, 21, 22, 255, 343, 501/503, 502, 508, 509, 510, 511, 512, 513, 521, 522, 523, 524, 526, 530, 532, 534, 536, 537, 541/542, 546, 548, 549, 561, 562, 563, 563A, 571, 574, 576, 577, 579, 586, 587, 590, 591, 592, 681, 682, HX1, HX2 and HX3.

** - subject to the bus services operating, and flexible for the introduction of new services or changes to existing services.*

Table 6.7 – Summary of bus services to be included in the Phase 2 M&E analysis. Bus services in operation within Halifax as of May 2023.

This plan will utilise the bus patronage data gathered in the 2017 programme baseline as well as supplementary baseline data for 2023 which will focus on the 46 bus services identified in Table 6.7. The plan will target these same bus services as part of the Phase 2 post-construction M&E for Year One and Year Five reports. The future methodology and selection of bus services may need to be adjusted to factor any future changes to the bus network between the pre and post A629 Phase 2 delivery (i.e. between June 2023 and September 2032).

It is noted that Halifax Bus Company ceased operations in March 2020, and a wider review of the Calderdale bus network was being finalised in readiness for a scheduled service change date on 2nd and 23rd July 2023 following changes to the Government's Bus Recovery Grant support which was established in response to the Covid-19 pandemic.

Alongside bus patronage data, the 2017 overarching baseline for the A629 programme conducted bus passenger boarding and alighting counts at key bus stops and stands. These focused on 37 sites across Halifax town centre, i.e. 20 within Halifax bus station and 17 at on-street bus stops within the town centre. Due to ongoing construction works at Halifax Bus Station (and the associated bus disruption plan in place within Halifax town centre) which is due to complete in October 2023, it is not deemed appropriate to repeat a boarding and alighting count of bus passengers as part of the 2023 supplementary baseline. For this reason, this A629 Phase 2 M&E plan proposes to utilise the 2017 Overarching A629 M&E baseline findings, and then target these same sites (or equivalent bus stops/sites and stands within the new Halifax Bus Station) as part of the Phase 2 post construction M&E for Year One and Year Five.

As part of this plan's **bespoke Monitoring & Evaluation** approaches (as set out in section **6.12)**, bus operators and the West Yorkshire Combined Authority will also be consulted about their views on the scheme's impact on bus services following its construction. Information of any changes to existing bus services and new ones will be reported and patronage data will be sought to understand changes in bus usage as part of the scheme's monitoring. This will be complemented by a review of changes in travel demand and travel behaviour, including changes in users' perceptions done for the wider A629 overarching monitoring and evaluation programme.

6.6.4 Modal Split Counts

CMBC conduct modal split counts on all main approaches into Halifax town centre on an annual basis. These are usually conducted in the neutral month of June. As a brief overview of the methodology: cars are classified by occupancy; freight vehicles are assumed as 1 occupant; for buses CMBC take a view as to the level of occupancy (empty, quarter, half, three-quarters and full); plus CMBC count motorcycles, cycles and pedestrians. This provides a useful 'snapshot' situation on the core approaches into the town centre. Figure 6.4 illustrates the locations of the counters/sites across Halifax. This monitoring and evaluation plan proposes to utilise this modal split count data which can be sourced from CMBC's Transport Policy & Strategy team to complement the wider Travel Demand data set, and to measure future changes.

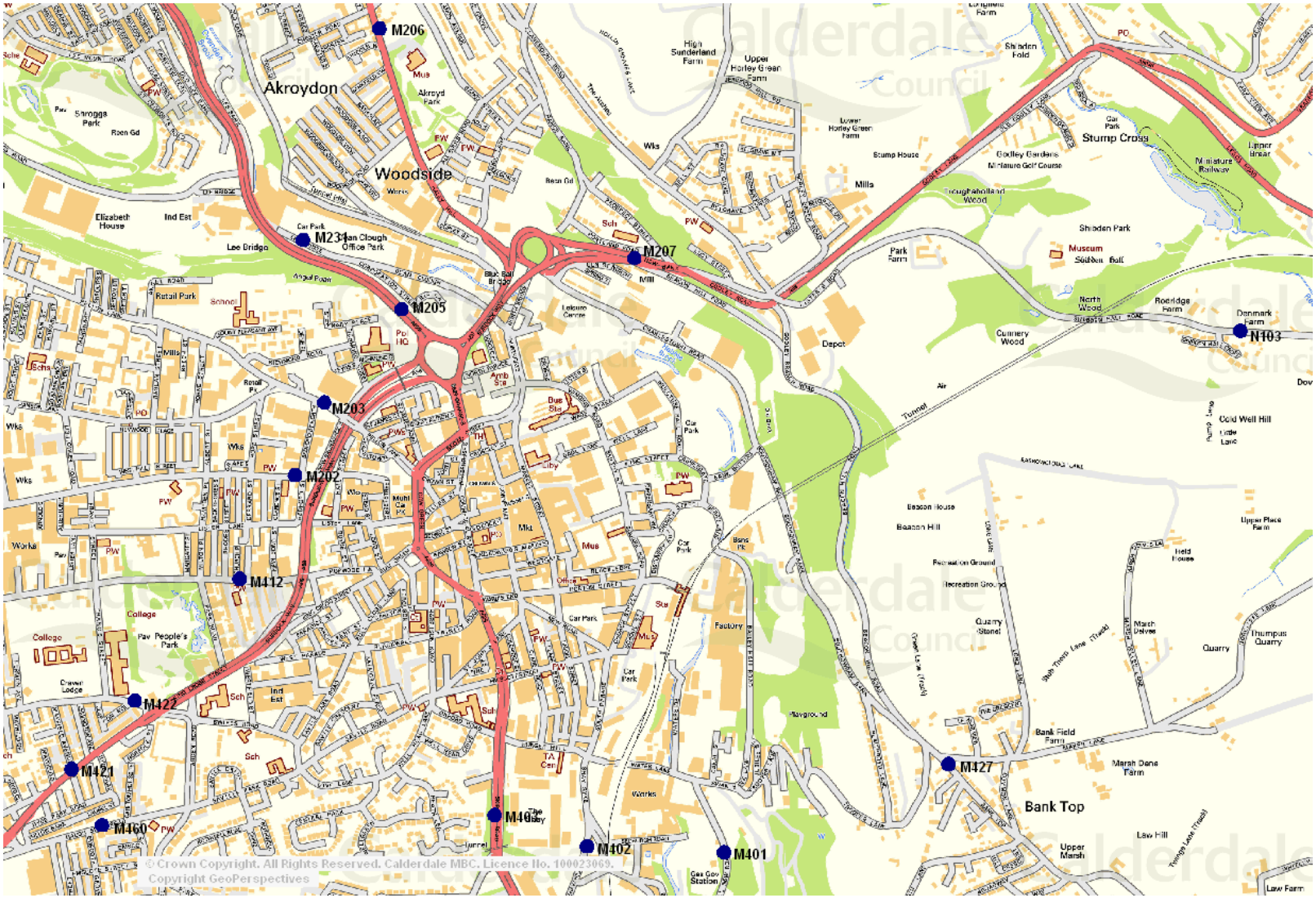

Figure 6.4 – Annual Modal Split Cordon Count survey sites in Halifax town centre

6.7 Impact on the Economy

Measuring the impact of the A629 Phase 2 on the local economy of Halifax and the wider Leeds City Region is an essential element of the monitoring and evaluation. Given the scale, programmed delivery and complexity of the A629 package, it is proposed that a comprehensive economic impact evaluation is completed after the delivery of the final phase of the works, once the full benefits of the full A629 corridor scheme are realised. Any changes will be compared against the overarching A629 baseline which was completed in the summer of 2017.This will be undertaken as part of the overarching A629 monitoring and evaluation programme.

Evaluation of the wider A629 impact on the economy will also consider the longer-term impacts of the COVID-19 lockdown, ongoing Russia – Ukraine conflict, inflationary pressures and the associated cost of living crisis on economic activity. If necessary, certain levels of robust sensitivity testing will be applied to future observed changes and impacts based upon guidance emerging from central Government and West Yorkshire Combined Authority.

The anticipated outcomes of Phase 2 of the A629 scheme will, nevertheless, contribute towards facilitating inclusive growth which will be underpinned by business development, increased retail, tourism and commercial activity, job creation and boosted investor confidence. Table 6.8 lists the main indicators covered in the economic monitoring for Phase 2 of the A629 package.

Item	Description
Built scheme	An examination of how the built A629 corridor improvements will enhance access within the region (including key development sites included in the Calderdale Local Plan and Halifax Town Centre Delivery Plan) will be documented
Development	An initial assessment of the rate of development within the proximity of the Phase 2 scheme, and changes in the type and scale of the development, will be undertaken as part of the Five Year After reporting. Progress with dependent development sites, including strategic sites identified in the emerging Calderdale Local Plan and Halifax Town Centre Delivery Plan will also be examined. Dialogue with CMBC's Planning teams will also take place.
Commercial / retail changes	The impact of Phase 2 Halifax town centre's commercial and retail market will be monitored which will gauge commercial rateable values and occupancy rates. This will be done before construction commences (supplementary A629 Phase 2 baseline 2019) and as part of the Five Year After reporting. Dialogue with CMBC's Regeneration & Strategy team will also take place.
Employment	The impact of Phase 2 on the area's employment and the types of jobs that have materialised (new start-ups, relocations, and expansions) will be monitored.

	Unemployment records will also be reviewed and engagement with the local business community will also take place. This will be done at a programme level for the full A629 corridor scheme.
Lessons log	The lessons as to why outturn employment and Gross Value Added (GVA) growth vary from forecasts will be documented.
Responsibility	The Project Evaluation Manager will be charged with gathering, and if necessary procuring, all the necessary economic data.

Table 6.8 – Evaluation of economic impacts

For the baseline, it's proposed that the Phase 2 monitoring and evaluation approach will utilise much of the existing economic data which was collected for the overarching A629 monitoring and evaluation programme in October 2017. To plug the gap between the original 2017 baseline and for added robustness, this plan proposes to undertake a fresh investigation of selected economic metrics from reliable secondary data sources as part of the supplementary baseline data collection in the summer of 2023. The details of which can be found in Appendix A. These will be reported as part of the supplementary pre-construction baseline, expected in autumn 2023.

For the future years, the overarching A629 monitoring and evaluation programme will undertake a fuller evaluation of the scheme's economic impact following the delivery of the final component. The findings from this evaluation will be reported in the Final Report, expected in the late summer 2032.

The Impact Evaluation contained within the Final Report will seek to establish the overall change in economic indicators over the overarching programmed monitoring period, and then make judgements about the role of the scheme in achieving these outcomes based on gathered quantitative and qualitative findings. This will involve a review of trends of demographics and employment, land use, labour market and business activity, through the following measures:

Economic activity;

- Local unemployment levels;
- Wage & salary levels;
- Employment and economic structure, including skills base and occupation profile;
- Levels of local deprivation (Index of Multiple Deprivation);
- Travel to work trends;
- Employment generation;
- Visitor economy activities;
- Property rental levels/values and occupation; and
- Commercial and office space availability.

6.8 Carbon

The impact of the scheme on carbon will be assessed through monitoring changes in traffic volume and speed characteristics on the A629, with a detailed investigation of the associated change in greenhouse gas emissions because of the scheme. The outturn figures will be compared with the forecasts included in the Phase 2 Full Business Case.

Table 6.9 outlines the main items to be included in the monitoring of impacts on carbon emissions.

Item	Description
Traffic volume	Traffic surveys will be undertaken for baseline (using 2017 and supplementary 2023 data), 'One Year After' and 'Five Years After' evaluation stages to identify the scale and change in traffic pattern. This data will be used to determine the greenhouse gas impact.
Vehicle speed	Vehicle speed has an impact on emissions. This data will be collected through the above traffic surveys. This data will then be used to assess the impact on greenhouse gas emissions.
Lessons log	The lessons on any variation in carbon emissions will be documented.
Responsibility	The Project Evaluation Manager will be tasked with collecting data.

Table 6.9 – Evaluation of carbon

Phase 2 of the A629 package is anticipated to deliver some carbon benefits which will be seen within Halifax town centre, including properties with direct frontages onto areas of the network which will undergo enhancement, though only slightly. On a wider scale, the impact of the A629 scheme on greenhouse gases and air quality is predicted to be broadly neutral. It is recommended that the evaluator uses existing air quality models used by CBMC.

6.9 Noise

Noise levels are largely dependent on the volume of traffic, the mix of vehicle types and the way that road users use the network. Data on these variables will be gathered from key routes within Halifax town centre as part of monitoring changes in traffic flow. In addition to this, noise data will be collected from temporary noise nuisance recorders at sites across Halifax Town Centre where there is deemed to be relevant exposure and/ or sensitive receptors (e.g. residential dwellings) as illustrated in Figure 6.5 below. This data will be used to draw conclusions about the outcomes of the scheme interventions on noise.

This Plan initially proposes to utilise noise data which was captured as part of the A629 Halifax to Huddersfield Corridor Improvement Monitoring and Evaluation Programme in the summer 2017. The original 2017 baseline noise data has been collected from six locations within Halifax town centre as part of the overarching A629 monitoring and evaluation programme in the summer of 2017. To plug the gap between the original 2017 baseline, and for added robustness, this plan proposes to undertake a fresh investigation of noise conditions at selected locations as part of the supplementary baseline data collection. The details of which can be found in Appendix A.

Table 6.10 summarises the key items that will be analysed in the evaluation of the scheme's impact on noise. Table 6.11 provides a summary of the temporary noise monitoring to be undertaken at pre and post scheme construction using temporary noise nuisance recorders. Details on the exact location of these sites can be found in Appendix D

Table 6.10 – Evaluation of noise

Item	Description
Traffic volume	Traffic surveys will be undertaken for baseline (2017 and 2023*), 'One Year After' and 'Five Years After' evaluation stages to identify the Average Annual Daily Traffic (AADT) which can be used to measure the change in traffic pattern and associated change in noise.
Vehicle speed	The speed in which vehicles travel on the highway network has an influence on the noise which is generated. Speed data which is collected as part of the traffic survey, touched on above, will also be used as a measure in the associated change in noise.
Vehicle type	The type and proportion of vehicle types, especially HGVs, also has an impact on noise generation.
Noise level	Noise monitoring at the monitoring stations identified in Figure 6.4, to calculate the noise impact. This will be undertaken periodically in line with DEFRA's *Directive 2002/49/EC – Environmental Noise Directive (END).*
Lessons log	The lessons as to why outturn noise levels vary from expected levels will be documented.
Responsibility	The Evaluation Manager will be responsible for collecting the data.

** - supplementary baseline data for 2023, more details can be found in Appendix A.*

Item	Overarching A629 programme Baseline (2017)	Supplementary A629 Phase 2 Baseline (2023)*	One Year After (m/y)	Five Years After (m/y)
Noise recorder (no. of sites)	6	5	11	11

** - supplementary baseline data for 2023, more details can be found in Appendix A.*

Table 6.11 - Summary of noise recorder data to be collected for A629 Phase 2 scheme and by when

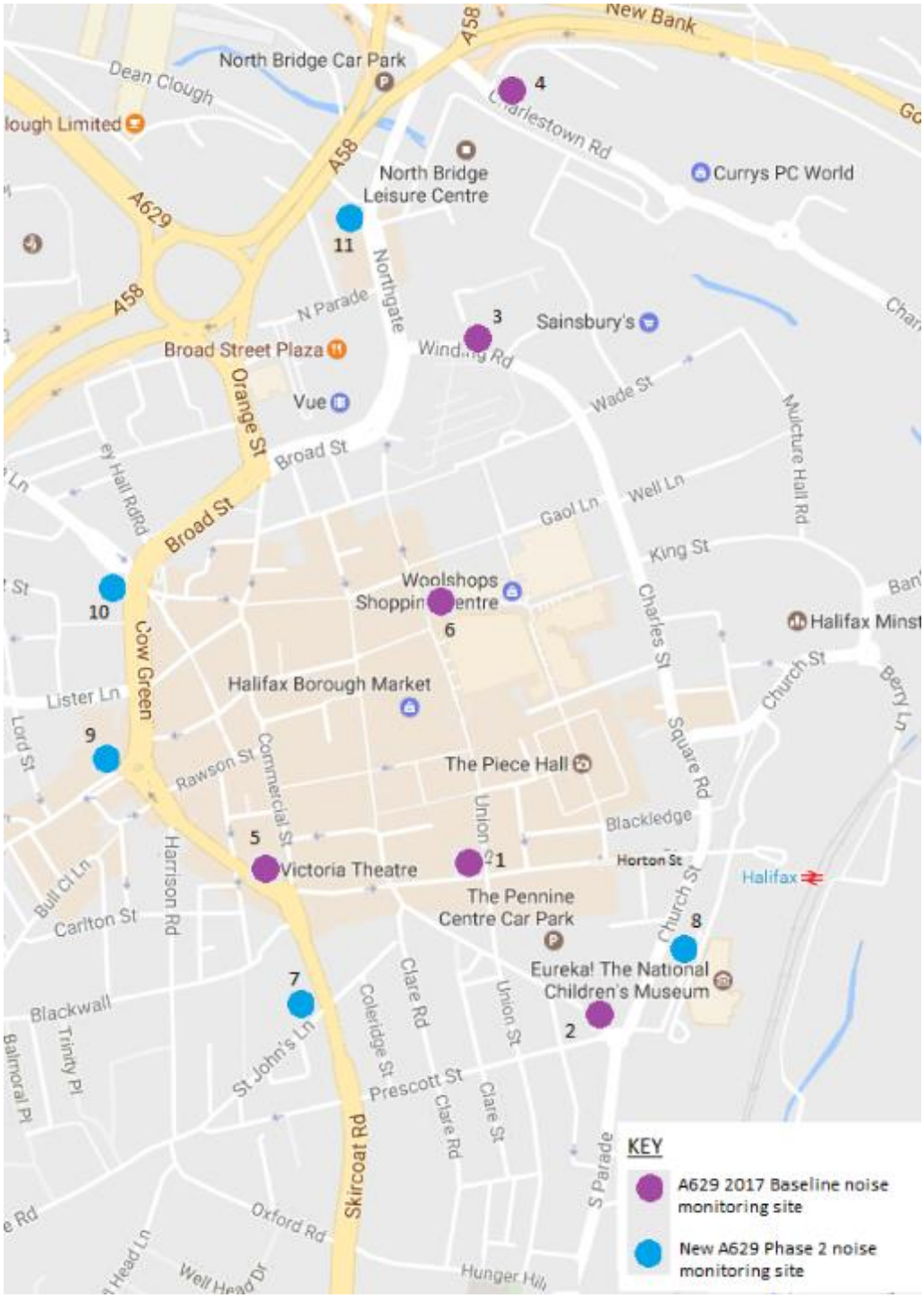

Figure 6.5 – A629 Noise Important Area plan and monitoring sites

6.10 Local Air Quality

Local air quality conditions at several locations across Halifax town centre will be monitored before and post scheme implementation. The outturn traffic characteristics will be investigated to make conclusions about the scheme's impact on local air quality within Halifax, in addition to assessing how these compare with forecasts.

According to the information extracted from Calderdale's 2016 Annual Status Report, no air quality monitoring is currently conducted on an ongoing basis within the Phase 2 study area. It can be assumed that the Council has not observed an issue with respect to air pollution at relevant receptors (e.g. residential dwellings). Nevertheless, recommendations for air quality monitoring in Halifax town centre has been suggested by The Environmental Health team within the Council. In total 12 passive diffusion tube sites were selected for inclusion in the Phase 2 monitoring and evaluation after a review of the original proposed sites in respect to the proposed development scheme by the preferred supplier of the overarching A629 monitoring and evaluation baseline of 2017. These sites are illustrated in Figure 6.6.

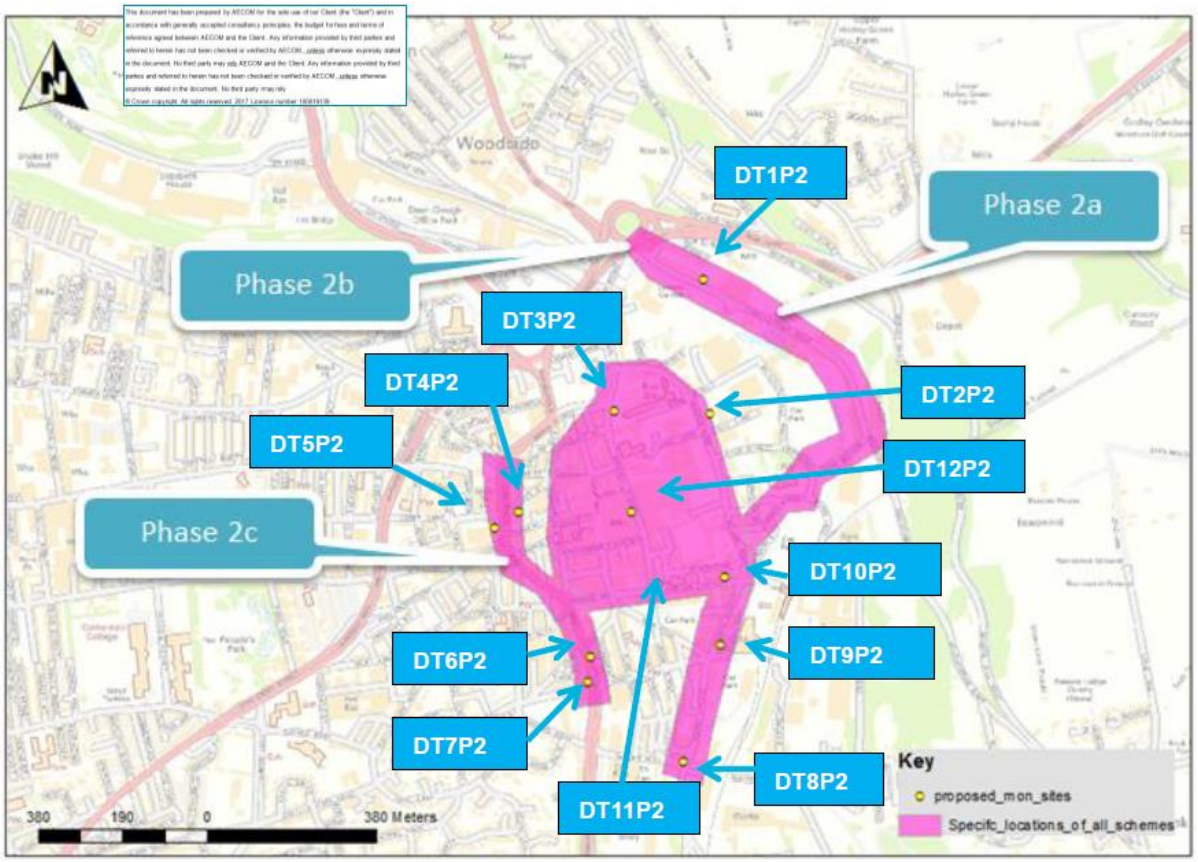

Figure 6.6 – proposed future year air quality monitoring sites in Halifax town centre.

As detailed in section 5.5, supplementary baseline data collection, analysis and reporting will be carried out in June / July 2023 to validate and/or update the original 2017 baseline data in light of the time lapse and to factor in the lasting effects of the Covid-19 pandemic. This includes an element of air quality monitoring based on advice received from West Yorkshire Combined Authority. The full scope of the air quality monitoring metrics for the supplementary baseline data collection can be found in Appendix A**.** Where possible, and for efficiency and cost-savings as part of executing this plan Calderdale Council will utilise supplementary air quality data which has been collected since the original 2017 A629 overarching baseline data as discussed in the remainder of this section.

The baseline data set will be expanded using air quality data which was collected in summer 2019 at six locations in Market Street. This was at the request of the Project Manager for A629 Phase 2 as part of the project's ongoing development. These additional sites are mapped in Figure 6.7. Use of this additional 2019 air quality data for Market Street will be clearly labelled and caveated in the supplementary baseline report for A629 Phase 2.

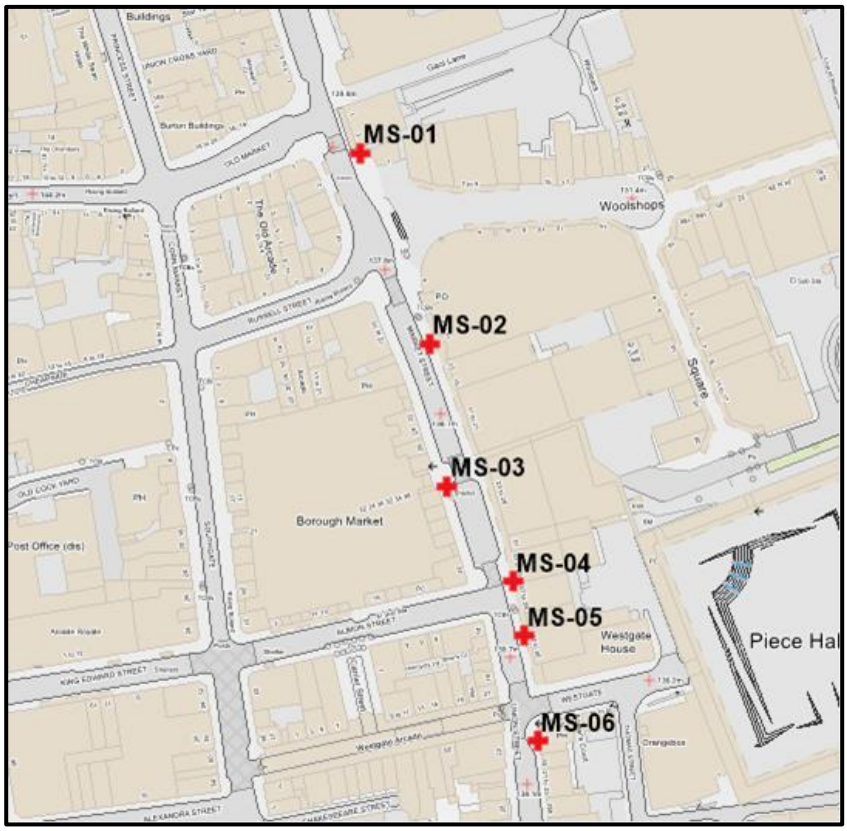

Figure 6.7 – further air quality monitoring sites in Market Street, Halifax, 2019.

Furthermore, in October 2022 the A629 Phase 2 project team commissioned additional air quality monitoring within Halifax town centre and elsewhere on the A629 corridor as part of informing the Full Business Case development with updated air quality data. In total 14 sites were surveys, 12 of which are located within the area of interest. These locations can be found in Figure 6.8 below.

To ensure consistency, the Evaluation Manager is recommended to seek advice from West Yorkshire Combined Authority and Calderdale Council's Environmental Services team in the selection of survey sites and data to be used for air quality monitoring. One potential approach to ensure consistency is to focus supplementary baseline and future year air quality data collection for the A629 Phase 2 on the 12 survey sites detailed in Figure 6.8, plus the 6 locations in Market Street displayed in Figure 6.7, so 18 sites in total. Or alternatively, revisiting select sites examined as part of the 2017 overarching baseline (Figure 6.6). Table 6.12 provides more detail. The exact survey locations can be found in Appendix E according to the site codes displayed in Figures 6.6, 6.7 and 6.8.

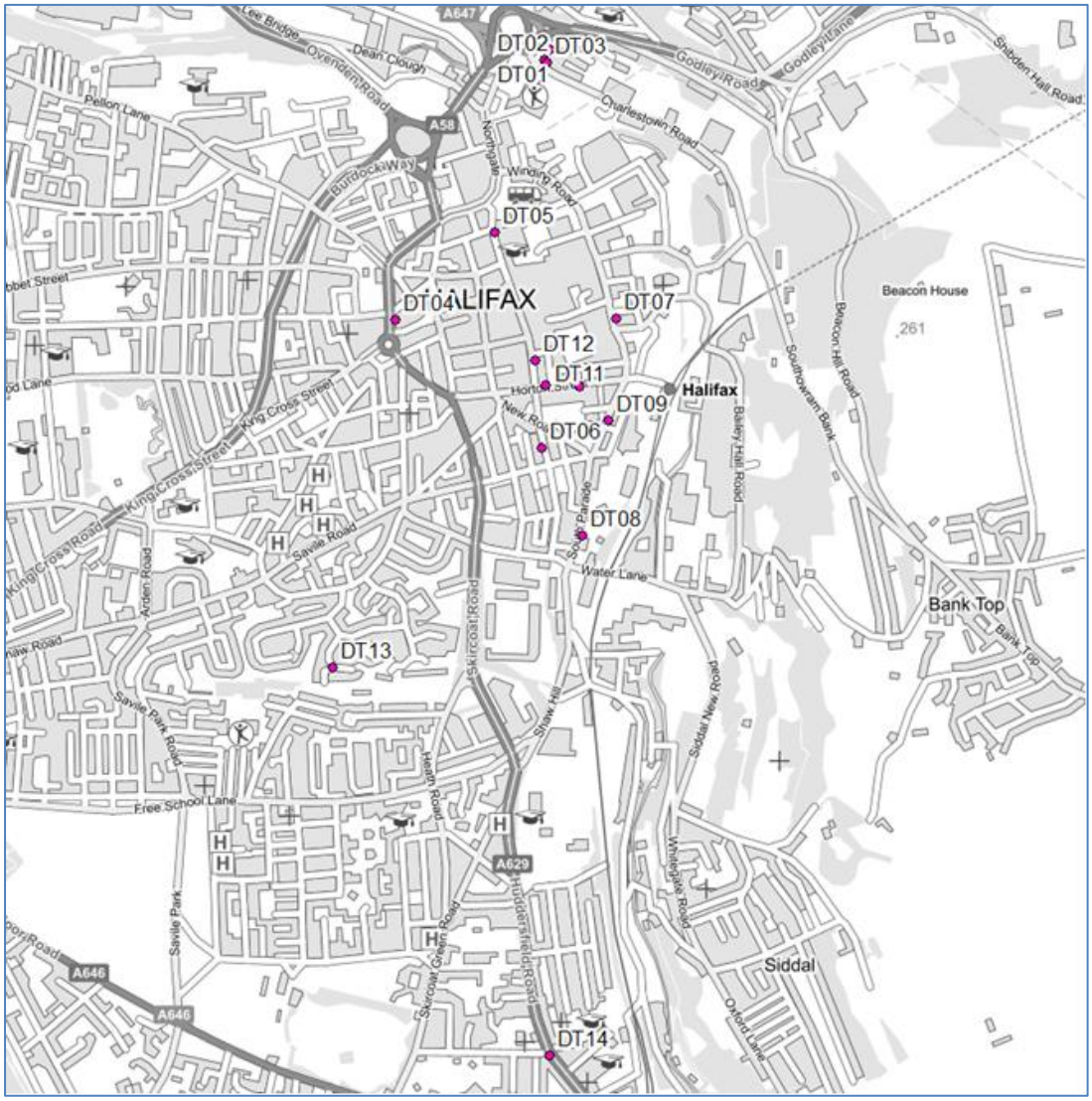

Figure 6.8 – Further air quality monitoring sites in across Halifax in October 2022

Item	Description
NO^2	NO^2 monitoring data will be sourced from the pre and post-scheme completion through active diffusion tubes placed at the 18 survey locations illustrated in Figures 6.6 and 6.7, detailed in Appendix E. These may complemented by additional surveys undertaken by CMBC at the A58 New Bank as part of the AQMA monitoring undertaken by CMBC.
Lessons Log	The lessons as to why the outturn emissions are dissimilar to the forecasts will be documented.
Responsibility	The Project Evaluation Manager will be responsible for collecting the data.

Table 6.12 – Evaluation of Local Air Quality

New Bank Air Quality Management Area

Following a 2018 investigation of nitrogen dioxide emissions data (NO^2) at a number of sensitive receptors located on or around the A58 New Bank / Charlestown Road junction which has been identified as an area of concern in terms of NO^2 emissions, CMBC declared this an Air Quality Management Area (AQMA). The area of study falls just outside of the A629 Phase 2 scheme boundary, as illustrated in Figure 6.9 below, but the data gathered from ongoing air quality monitoring in this area could be used to complement the A629 Phase 2 monitoring and evaluation.

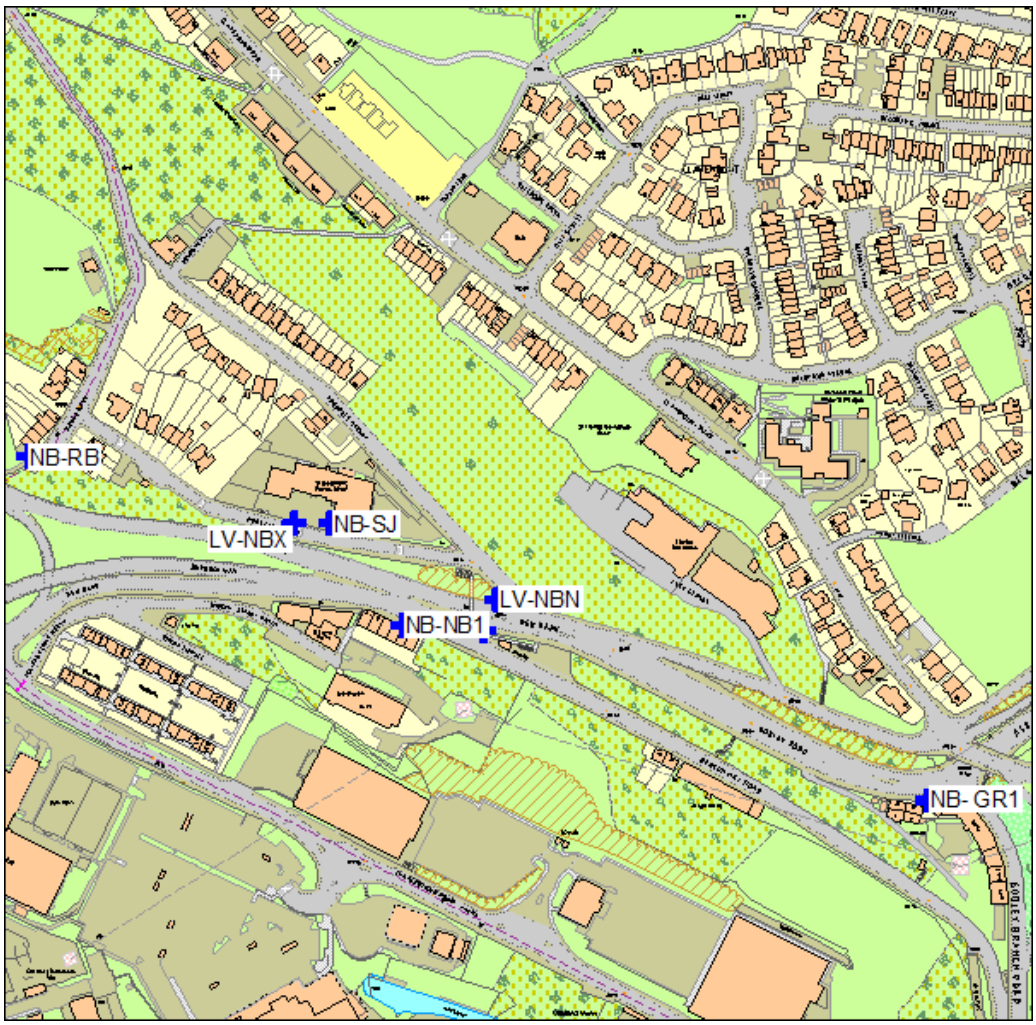

Figure 6.9 – A58 New Bank AQMA diffusion tube locations

6.11 Accidents

This monitoring and evaluation plan will undertake comparisons between the outturn and forecast accident levels in order to assess the road safety impact of the Phase 2 interventions. This analysis will focus wholly on Halifax town centre within 1km of the Phase 2 interventions to ensure consistency with the approach taken as part of the overarching

A629 monitoring and evaluation programme baseline. Table 6.13 summarises the key items that will be included in the analysis of safety impacts.

Item	Description
Accidents on the highway (including footways)	Accident data will be collated from the STATS19 and/or road safety records collected by CMBC. This will be used to calculate the outturn accident benefits for 'Five Year After' evaluation.
Lessons Log	The lessons as to why the outturn accident benefits are dissimilar to the forecasts will be documented.
Responsibility	The Project Evaluation Manager will be responsible for sourcing accident data from internal CMBC records and/or those held by West Yorkshire Police Constabulary.

Table 6.13 – Evaluation of Safety

So as to ensure accident data is as up-to-date as possible, it is proposed that the Phase 2 monitoring and evaluation plan will undertake a fresh round of accident data collection and analysis that covers the most complete three-year period up to the start of construction. This will form the phase's monitoring and evaluation baseline and will be used as a basis to measure changes which occur post scheme completion.

6.12 Bespoke Monitoring & Evaluation

CMBC will engage with key stakeholder groups through a series of meetings and or/focus group sessions to understand their views, as users and beneficiaries of the Phase 2 scheme, to measure the performance of the scheme against the desired outputs, outcomes and impacts. This approach will also provide a mechanism to establish and/or reinforce the correlation between any observed changes with the implementation of the A629 Phase 2. The findings from this exercise will also inform the scheme's wider lessons learned and be used as a basis for developing future transport schemes.

Section 5.1, in particular Table 5.1, summarises the key stakeholders who were involved in the development of the A629 Phase 2. The selection of the stakeholders who could be involved in the execution of this bespoke monitoring & evaluation, along with the overall execution of this engagement, ultimately rests with the responsible scheme evaluation. Nevertheless, this should include representatives from:

- Statutory stakeholders (in particular West Yorkshire Combined Authority);
- Local businesses;
- Transport users (cyclist groups, bus operators, taxis, and car park operators);
- Local groups / organisations;
- Key attractors (such as The Piece Hall); and
- Affected landowners and tenants (including those within Halifax bus station)

This monitoring and evaluation plan proposes to conduct the stakeholder engagement at the pre-construction and post-construction stages for Phase 2, the latter of which will be both One Year After and Five Years After construction. The qualitative evidence gathered from this engagement will be reported in the baseline, Year One and Year Five reports.

In relation to conducting a pre-construction baseline survey, and with consideration to the COVID-19 pandemic, detailed in section 5.4, this Plan initially proposes to utilise initial stakeholder feedback which was collected as part of the A629 Halifax to Huddersfield. If suitable, and day-to-day activities and trading isn't hindered by the influences of Covid-19 prior construction, then the 2017 baseline information will be supplemented by follow up engagement for 2021 where gaps in the data set exist. For example, with management of Piece Hall, Northgate House, Trinity Sixth Form Academy, and Royal Sun Alliance. CMBC will liaise with West Yorkshire Combined Authority on the most suitable approach.

6.13 Streets for People Audit

At the time of preparing this monitoring and evaluation plan, West Yorkshire Combined Authority were developing a 'West Yorkshire Streets for People Designers Audit Toolkit.' The Streets for People approach is a system of policies and strategies to deliver healthier, more inclusive places where people choose to walk, cycle and use public transport.

Streets for People projects tie into the 'Inclusive Growth, Environment, Health and Well-being' and 'Places' core themes of the Transport Strategy, with a focus on creating safe and healthy street environments, which work well for all people and help them live active, healthy lives in areas of good air quality. To support practitioners in delivering this approach, a Designers Audit Tool has been developed to:

- Support scheme designers to ensure their proposed designs for new schemes deliver improvements against the 12 indicators (compared with the existing conditions on that street).

- Inform the public how changes to the way streets are laid out and used are delivering improvements in line with the approach.

- The Check holds no formal status in guidance and decision making, but advises designers and decision makers on the alignment of a project with the Streets for People approach.

The tool can be applied to any scheme and at different stages of a scheme's development and delivery including post evaluation. It provides the greatest value when applied to schemes that expect to make a significant change to people's experience of the street environment. Given the extensive public realm and place-making features of the A629 Phase 2 scheme, the project is considered highly appropriate to apply the toolkit as a pilot exercise for pre and post delivery of the A629 Phase 2. This will be carried out as part of the delivery of this monitoring and evaluation plan for the supplementary baseline (2021) and

One Year After reporting. CMBC will liaise with West Yorkshire Combined Authority's Policy & Strategy team on the execution of the toolkit.

The toolkit comprises an excel spreadsheet of 36 technical metrics against which a street can be scored. To complete the Streets for People Check, the implementers will need the following data/material:

- Highway layout drawings which can be printed to scale or with dimensions on them.
- Urban design layout with material choice.
- Classified traffic counts, including turning movements.
- Pedestrian data to estimate pedestrian level of service and pedestrian desire lines.
- 85th percentile traffic speed data.
- Traffic light stages and timing.
- NO2 concentrations

The toolkit template for Streets for People can be found in Appendix G.

7. Data collection methods

7.1 Introduction

CMBC and West Yorkshire Combined Authority already collects a large volume of data that will be very useful in carrying out the evaluation for the A629 Phase 2 scheme. By utilising existing data as much as possible, the scheme evaluators should ensure that the monitoring and evaluation is consistent with CMBC's other ongoing monitoring processes as possible, so as to minimise the cost and requirement to the collection of additional data.

Data availability may change between the completion of this report and the 'Pre-construction' or the 'One Year After' or the 'Five Years After' stages of the evaluation. The scheme's evaluators should utilise any suitable newer data that may become available in this time period, as well as seek to fill any gaps in data which may occur from existing sources.

7.2 Data requirements and data collection methods

Tables 7.1, 7.2 and 7.3 below detail the data that is required for the evaluation of the impacts of Phase 2 of the A629 Corridor Improvement Scheme. Section 6 above provides a greater level of detail on the data and information to be collated against each of the monitoring and evaluation metrics.

Measure	Data to be collections	Rationale for inclusion	Data collection methods	Data collection frequency
Carriageway	Road length & width measurements, and surfacing	Key scheme output	Data supplied by contractor; As Built Drawings & Report; Site visit(s); and Road Safety Audit Report	At scheme completion/open
Surfacing, highway markings and signage	Photographs and drawings	Key scheme output	Data supplied by contractor; As Built Drawings & Report; Site visit(s); and Road Safety Audit Report	At scheme completion/open
Halifax town centre (incl eastern and western corridors) junction alterations	Road length & width, reports, drawings and photographs	Key scheme output	Data supplied by contractor; As Built Drawings & Report; Site visit(s); and Road Safety Audit Report	At scheme completion/open
Public realm improvements (inc Eastern Gateway)	Detailed design drawing, as built drawings and photographs	Key scheme output	Data supplied by contractor; As Built Drawings & Report; Site visit(s); and	At scheme completion/open

			Road Safety Audit Report	
Street electricals (lighting and ped crossings)	Photographs and drawings	Key scheme output	Data supplied by contractor; As Built Drawings & Report; Site visit(s); and Road Safety Audit Report	At scheme completion/open
Drainage	Number and location of SUDS	Key scheme output	Data supplied by contractor; As Built Drawings & Report; Site visit(s); and Road Safety Audit Report	At scheme completion/open
Cycleway and footway	Length & width measurements, and surfacing	Key scheme output	Data supplied by contractor; As Built Drawings & Report; Site visit(s); and Road Safety Audit Report	At scheme completion/open
Public transport infrastructure (e.g. shelters, RTI)	Photographs and drawings	Key scheme output	Data supplied by contractor; As Built Drawings & Report; Site visit(s); and Road Safety Audit Report	At scheme completion/open
Landscaping	Reports, drawings and photographs	Key scheme output	Data supplied by appointed; As Built Drawings & Report; and Site visit(s);	At scheme completion/open

Table 7.1 – Scheme outputs to be evaluated

Measure	**Data to be collections**	**Rationale for inclusion**	**Data collection methods**	**Data collection frequency**
Project cost	Actual project expenditure	Key input	Cost reports/invoices, spreadsheets	Monthly through delivery process
Resources and staff	Resources, staff available and needed (skill set and gaps)	Key input	Timesheets, WYCA & CMBC Programme reports and invoices (e.g. consultants' fees)	Monthly through delivery process
Project programme	Milestones, slippage and delays	Key process	Assessment of programme variants	Monthly through delivery process
Delivery plan	Outturn deliver with planned delivery	Key process	End of project report	At scheme completion/open

Decisions and approvals	Decision making process, approval process (CMBC) and Combined Authority's Assurance Pathway	Key process	CMBC Programme Board and Project Manager(s) reports and interviews	Monthly through delivery process
Change management	Issues raised, changes approved	Key process	Project risk register, Project Manager(s) feedback	Monthly through delivery process
Risk Management	Risks, risk ownership, mitigation measures, effectiveness of measures	Key process	Project risk register, Project Manager(s) feedback	Monthly through delivery process
Assurance	Audit report, tolerances	Key process	Desktop assessment, CMBC Programme Board and Project Manager(s) feedback	Bi-monthly
Stakeholder engagement	Meeting minutes, correspondence, newsletters, consultation events & workshops, and Calderdale 'Next Chapter' website	Key process	Desktop analysis, Project Manager(s) feedback, WYCA Consultation Advisor(s) feedback, third party feedback (e.g. Creative Concern) and stakeholder / consultee survey and feedback	As agreed in Comms Plan

Table 7.2 – Scheme process measures

An overview of the data requirements to be collected for each indicator is provided in Table 7.3 below. This details the methods to be used in capturing the data, the frequency of data collection and the rationale for including each component within this Monitoring and Evaluation Plan.

The following abbreviations have been used in Table 7.3:
Y1 – One Year After Report (post-scheme), i.e. March 2029 for Phase 2
Y5 – Five Years After Report (post-scheme), i.e. March 2033 for Phase 2

Measure	Data to be used	Data collection methods	Frequency of data collection	Rationale for Inclusion
Scheme Build	Construction programme	Programme/project plan	During the delivery period (monthly)	Accountability & knowledge
	Stakeholder feedback	Lessons learned log		
	Risk Register	Risk change register		
Delivered Scheme	Scheme outputs	As-built drawings; change log	Post construction	Accountability
	User feedback	User and stakeholder feedback.		
Outturn costs	Construction costs	Capital spend budget	Post construction	Accountability
	Outturn maintenance costs	Operating accounts	Annual	
	Outturn operating costs	Operating accounts	Annual	
Impact on Travel Demand	Traffic flows on key links in Halifax town centre	ATCs, TRADS and manual classified counts, and ANPR surveys.	Pre-construction*, Y1 and Y5	Inform outcome evaluation and inform contribution towards Scheme Objectives
	Public transport	Bus patronage data (e.g. patronage data obtained from the bus operators) and bus stop boarding and alighting counts	Pre-construction*, Y1 and Y5	
	Non-motorised users (pedestrians and cyclists)	Non-motorised user counts (cycle and pedestrian counts) and annual cordon counts.	Pre-construction*, Y1 and Y5	

Carbon	Traffic flows for vehicles on the A629	ATC s, TRADS, and manual classified counts on A629	Pre-construction*, Y1 and Y5	Inform outcome evaluation
	Vehicle speeds	Observed journey times extracted from Trafficmaster (GPS) data	Pre-construction*, Y1 and Y5	Inform outcome evaluation
	Carbon outputs from TUBA and/or Carbon Impact Assessment (CIA)	Desktop analysis using traffic flow data	Pre-construction*, Y1 and Y5	
Impact on economy	Facilitation of local development (commercial and residential)	Planning approvals from CMBC Planning Committee Records and engagement with respective Planning teams.	Pre-construction*, Y1 and Y5	Inform impact evaluation and inform contribution towards Scheme Objectives
	Commercial / retail changes	Effects on commercial and retail property market and rents, utilising CoStar, Land Registry and ONS data	Pre-construction*, Y1 and Y5	
	Employment levels	Employment statistics (sourced from ONS Labour Market Stats), Jobs seeker allowance claims, and business engagement.	Pre-construction* and Y5	

Air quality	Localised air quality measurement data collected at sites within Halifax town centre	NO^2 data collected from diffusion tubes within Halifax town centre	Pre-construction*, Y1 and Y5	Inform outcome and impact evaluation; Accountability & Knowledge
Noise	Noise monitoring and traffic data	Vehicle Speeds and type, noise monitoring from temporary noise nuisance monitoring stations.	Pre-construction*, Y1 and Y5	Accountability & Knowledge
Accidents	Accident data	CMBC road accident records, STATS19.	Pre-construction*, and Y5	Accountability & Knowledge
Bespoke Monitoring & evaluation	Engagement with key stakeholders	Meetings / focus groups / workshops	Pre-construction*, Y1 and Y5	Accountability & Knowledge
Streets for People Audit	Audit template	Street Audit / workshop	Pre-construction* and Y1	Accountability & Knowledge
Delivery Process	Context changes, scheme inputs, risk manifestation	Scheme build	End of Y1/end of Y5	Inform Process and Economic Evaluations

* ***The Phase 2 A629 pre-construction (baseline) will utilise a combination of the overarching 2017 baseline data and supplementary baseline data (2023) to be collected prior to the construction of Phase 2, according to the details set out in this plan and Appendix A.***

Table 7.3 – Scheme outcome measures

8. Resourcing and governance

8.1 Monitoring and evaluation budget

It is recommended that CMBC assign a budget of approximately **£550,765** for the completion of the monitoring and evaluation activities for phase 2 of the A629 corridor, as set out in this plan. Table 8.1 below provides a comprehensive breakdown of the indicative costs for the monitoring and evaluation tasks based within this plan. A detailed plan can also be found in Appendix I.

Please note Table 8.1 does **not** include costs for activities associated with the Overarching Monitoring and Evaluation Programme for the full A629 scheme. This was previously budgeted and completed in October 2017 and its data and findings will form a large part of the Phase 2 pre-construction baseline. Nevertheless, the further supplementary baseline data collection and analysis proposed during the summer of 2023 as part of this monitoring & evaluation plan (detailed in section 5.5 and scoped out in Appendix A) will reflect changes in the scheme design (made since 2017), and will be used to complement the wider baseline for the A629 package as a whole. CMBC will continue to liaise with West Yorkshire Combined Authority on the most suitable approach.

A629 Halifax to Huddersfield corridor improvements: Phase 2 Monitoring & Evaluation plan cost breakdown (June 2023)

ID	Item	Supplementary Baseline (2023)				Construction period			One Year After (Y1) Post Construction			Five Years After (Y5) Post Construction			Total
		Survey Design & Preparation	Surveys & data collection	Analysis & Reporting	Sub-Total	Surveys & data collection	Analysis, Reporting & Project Mgt	Sub-total	Surveys & data collection	Analysis, Reporting & Project Mgt	Sub-total	Surveys & data collection	Analysis, Reporting & Project Mgt	Sub-total	
1	Scheme Build		£1,500	£750	£2,250	£1,500	£500	£2,000	£1,739	£522	£2,261				£6,511
2	Delivered Scheme		£1,500	£750	£2,250	£1,500	£500	£2,000	£1,739	£522	£2,261				£6,511
3	Outturn scheme costs		£750	£375	£1,125	£1,500	£450	£1,950	£1,739	£522	£2,261	£1,957	£587	£2,544	£7,880
4	Scheme objectives & benefits realisation							£0	£1,739	£522	£2,261	£1,957	£587	£2,544	£4,805
5	Impact on Travel Demand												£0		£0
5a	Traffic surveys (ATC, ANPR, MCC, ANPR)		£21,000	£10,500	£31,500				£43,474	£13,042	£56,516	£48,930	£14,679	£63,609	£151,625
5b	Non-motorised user (inc cordons)		£7,500	£3,750	£11,250				£11,303	£3,391	£14,694	£12,722	£3,817	£16,539	£42,483
5c	Public transport		£3,225	£1,613	£4,838				£12,694	£3,808	£16,502	£14,288	£4,286	£18,574	£39,914
6	Travel Time and Reliability														£0
6a	Travel time														£0
6b	Journey time reliability														£0
7	Impact on Economy														£0
7a	Developments		£1,500	£750	£2,250				£1,739	£522	£2,261	£1,957	£587	£2,544	£7,055
7b	Employment and labour market		£3,000	£1,500	£4,500							£3,914	£1,174	£5,088	£9,588
7c	Socio & Economic activity		£6,000	£3,000	£9,000							£7,829	£2,349	£10,178	£19,178
7d	Accessibility		£1,500	£750	£2,250							£1,957	£587	£2,544	£4,794
7e	Business and Tourism		£4,500	£2,250	£6,750				£1,739	£522	£2,261	£5,872	£1,762	£7,634	£16,644
7f	Property & land changes		£3,000	£1,500	£4,500				£3,478	£1,043	£4,521	£3,914	£1,174	£5,088	£14,110
8	Carbon		£3,000	£1,500	£4,500				£3,478	£1,043	£4,521	£3,914	£1,174	£5,088	£14,110
9	Noise		£6,000	£3,000	£9,000				£9,564	£2,869	£12,433	£10,765	£3,230	£13,995	£35,428
10	Local Air Quality		£1,350	£675	£2,025				£4,695	£1,409	£6,104	£5,284	£1,585	£6,869	£14,998
11	Accidents		£1,500	£750	£2,250					£0	£0	£1,957	£587	£2,544	£4,794
12	Travel Behaviour				£0				£8,869	£2,661	£11,530	£9,982	£2,995	£12,977	£24,506
13	Bespoke monitoring & evaluation		£9,000	£4,500	£13,500				£15,651	£4,695	£20,346	£11,743	£3,523	£15,266	£49,112
14	Streets for People Audit		£5,000	£2,500	£7,500				£5,796	£1,739	£7,535				£15,035
Sub - Total		£0	£80,825		**£121,238**	£4,500		**£5,950**	£129,436		**£168,267**	£148,942	£44,683	£193,625	£489,079
M & E Contingency (10%)		£0.0	£8,082.5		£12,123.8	£450.0		£595.0	£12,943.6		£16,826.7	£14,894.2	£4,468.3	£19,362.5	£48,908
Project Management costs (5%)*					£6,061.9										£6,062
Preliminary Gap analysis (5%)*					£6,061.9										£6,062
TOTAL		£0.0	£88,907.5		**£145,485.0**	£5,445.0		**£7,199.5**	£142,379.6		**£185,093.5**	£163,836.2	£49,150.9	**£212,987.1**	**£550,765**

* - applied at supplementary baseline 2023 stage only

Amended 08/06/23 by AKW

Table 8.1 A629 Phase 2 Monitoring and Evaluation Indicative Cost Estimate

8.2 Governance structure

The effective delivery of this Monitoring and Evaluation Plan is a fundamental task of CMBC's West Yorkshire Plus Transport Fund (WYTF) Programme Board. It is recommended that CMBC appoint or delegate an officer(s) to be responsible for undertaking the activities set out within this monitoring and evaluation plan for Phase 2, and reporting these back to the A629 Programme Evaluation Manager and A629 Steering Panel. This individual would act as the Phase 2 Evaluation Manager and will be responsible for assigning data collection and analysis to relevant colleagues across different teams within CMBC, as well as seeking support from third parties, where necessary. The Evaluation Manager will be responsible for delivery of the outputs and reporting the findings of the monitoring and evaluation to the A629 Steering Group, via the Project Board, before being disseminated to the CMBC WYTF Programme Board and WYCA.

Figure 8.1 diagrammatically presents this suggested governance structure.

The key stakeholders and delivery partners (identified in Section 5.1 above) will be involved in the development and delivery of the A629 corridor improvements and Calderdale's other components in the WYTF programme. It is important that these links and working relationships are maintained for the evaluation process by means of consultation. It is also recommended that face to face meetings and other such engagement opportunities are carried out with key stakeholders as part of the evaluation process to gauge their perceptions as either users or beneficiaries, or both. The approaches and methodology for stakeholder engagement methodology is detailed in the supporting Communications Plan.

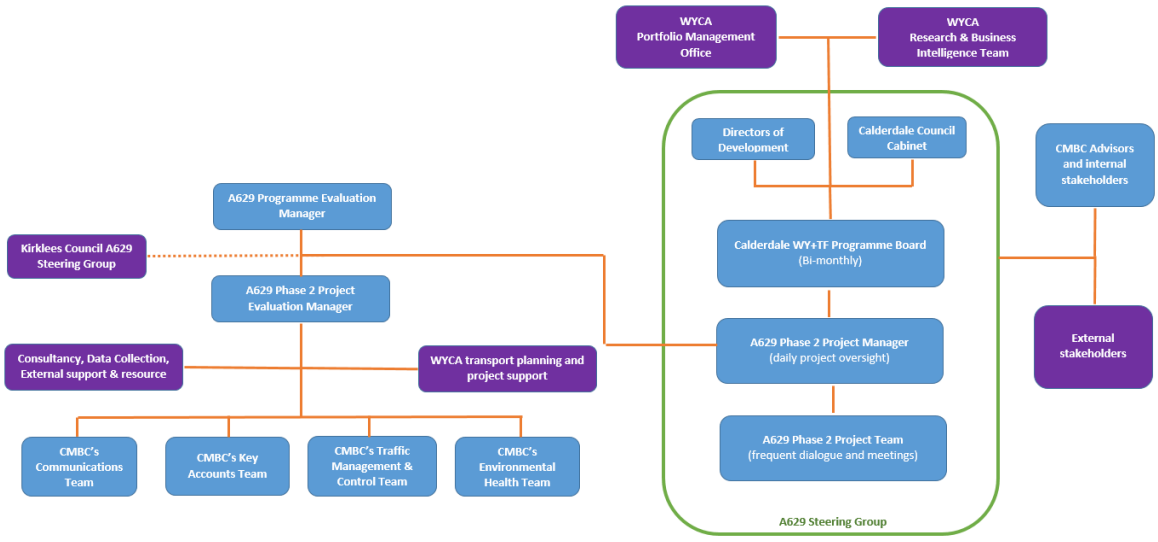

Figure 8.1 – Governance Structure

8.3 Data collection requirements

CMBC and West Yorkshire Combined Authority will be able to provide much of the basic monitoring data needed via their existing internal data collection processes and sources. However, these will also need to be supplemented by data gathered and managed by external parties, in addition to new data collected specifically for the scheme's baseline and final year reporting.

The appointed Evaluation Manager will take overall responsibility for all aspects of the data collection, commissioning surveys to capture bespoke data requirements (as detailed in the Evaluation Programme) and procuring consultancy support, if necessary.

8.4 Risk management

A risk register to identify the key risks associated with the development of the Evaluation and Monitoring Plan, along with possible mitigation strategies has been developed and is incorporated within the scheme's wider Risk Management Strategy, included in **Appendix F**. Reliance on multiple interfaces and interested parties for delivery of the Plan and provision of monitoring data creates the potential for complexity and manifestation of risk which should be controlled by the A629 Programme Evaluation Manager.

Risk management is a specific role for the Programme Board. The Programme Board represents all the main players contributing to the scheme's delivery and subsequent evaluation. The governance structure therefore facilitates effective communication and regular meetings, enabling all partners to be made aware of monitoring and evaluation requirements, progress and issues encountered on a regular basis.

8.5 Quality assurance

Overtime the Plan's approaches and methodology may need to adapt in response to external facts that influence the quality of the findings derived during its implementation. The appointed Project Evaluation Manager should work closely with the A629 Programme Evaluation Manager to ensure that any changes to the Monitoring and Evaluation Plan are sufficiently robust to maintain the quality of the evaluation. All monitoring outputs will require prior approval by the Project Board before circulation to the WYTF Programme Board. WYCA and other stakeholders.

9. Delivery Plan

9.1 Evaluation milestones and outputs

The monitoring and evaluation phase of the scheme will cover five years post construction. The governance, risk and quality assurance is described in detail in section 8.

It is proposed that the supplementary baseline data collection, analysis and reporting shall be undertaken before construction commences on Phase 2. This is scheduled to be carried out in June – July 2023. This will supplement part of the wider baseline work for the overarching A629 monitoring and evaluation programme which was completed in Autumn 2017, as discussed within this plan. The construction period is planned to be from October 2023 to September 2027.

A One Year After report, and supporting data collection and analysis, shall be undertaken for Phase 2. The One Year After Report will be completed by **March 2029**. Finally, a Five Years After Report shall be prepared which shall assess the full impact of Phase 2 against the indicators identified in this document. This shall be completed by **March 2033**. The full project programme can be found below:

	FBC Re-Submission		**June 2020 FBC**	
Key Milestone	**Start**	**Finish**	**Start**	**Finish**
FBC Submission	01/06/2023	01/06/2023	01/07/2020	01/07/2020
PAT	12/07/2023	12/07/2023	12/08/2020	12/08/2020
Approval to Proceed				
Western Corridor	???	???		
Eastern Corridor	???	???		
Central Corridor	???	???		
Tender Issue	04/07/2022	03/02/2023	30/09/2020	30/09/2020
Tender Award	03/10/2023	03/10/2023	07/04/2021	07/04/2021
Planning Application Submission and Approval	01/02/2020	01/06/2020	01/02/2020	01/06/2020
Planning Condition Submissions	04/07/2022	20/09/2024		
TRO	04/07/2022	20/09/2024	04/01/2021	20/04/2021
CPO and Land Acquisition	04/07/2022	20/09/2024	16/06/2020	06/12/2021
Delivery	04/10/2023	31/08/2027	07/04/2021	17/05/2024
Western Corridor	04/10/2023	30/11/2024	07/04/2021	09/09/2022
Eastern Corridor	15/10/2024	30/06/2026	04/06/2021	06/04/2024
Central Corridor	24/02/2026	31/08/2027	12/08/2021	17/05/2024
Financial Closure	TBC	TBC		
Project Evaluation				
Supplementary Baseline	01/06/2023	31/10/2023	TBC	TBC
One Year After	01/09/2028	31/03/2029	01/06/2025	31/12/2025
Five Years After	01/09/2032	31/03/2033	01/06/2029	31/12/2029

10. Dissemination Plan

10.1 Dissemination strategy to stakeholders

The project is supported by a full Communications Strategy titled ‘Next Chapter Stakeholder Engagement and Communications Strategy’ which has been prepared by CMBC and endorsed by the WYTF Programme Board. This document accompanies the Full Business Case for the A629 Phase 2. It sets out a number of protocols that will largely focus on the A629 Phase 2 project and its monitoring & evaluation, including:

- Dates when key communication activities must occur;
- What information needs to be communicated and to what level of detail; and
- The officer(s) or person(s) responsible for communicating that information, together with details of all the recipients who need to receive it.

The responsibility for communicating evaluation outputs rests with the appointed Project Manager. Once approval is granted by the Project Board, the outputs from the Monitoring and Evaluation Plan will be disseminated to the wider stakeholder groups and interested parties.

As part of the WYTF package, WYCA and its partners are very keen to share the knowledge and understanding developed through Monitoring and Evaluation process to other promoters developing schemes within the WYTF programme and other interested transport bodies.

Appendix A – A629 Phase 2 Monitoring and Evaluation supplementary baseline data collection scope for June 2023

Metric / measure	Item	Description (inc sites)
Impact on Travel Demand	Automatic Traffic Counter (ATC) – capturing two way movements	4 sites – 1) Charlestown Road between Pollard Street N and Sainsbury's roundabout 2) North Bridge between Bowling Dyke and Cross Hills 3) A58 Kings Road between Arden Road and Burdock Way 4) A629 Cow Green between Bull Green and George St
	Automatic Number Plate Recognition (ANPR)	4 sites – 1) Charlestown Road between Pollard Street North and Retail Park roundabout 2) Winding Road between Northgate and Cross Street 3) A629 Broad Street between St James Road and Orange Street 4) Huddersfield Road between Heath Lane and Skircoat Green Road
	Classified Turning Counts at key junctions	10 sites/junctions – 1) A629 Skircoat Road/Free School Lane/Shaw Hill 2) A629 Skircoat Road/Huddersfield Road 3) A58 New Bank Road/A58 Burdock Way/A647 Haley Hill/North Bridge/Charlestown Road 4) Charlestown Road/Bank Bottom/Southowram Bank 5) Square Road/Church Street/Horton Street/Railway Station 6) Horton Street/Union Street/Market Street 7) A629 /Commercial Street/Wards End/Trinity Road 8) A629/Bull Green 9) A629 Broad Street/A629 Orange Street 10) Northgate/Winding Road
	Bus patronage data from bus operators	Baseline will draw on bus patronage data for 44 bus services operating into Halifax town centre
	Bus boarding and alighting counts	Don't run this because of the disruption plan in place with Halifax Bus Station works

	Non-motorised user counts (NMU)	10 sites – 1) Market Street, Halifax 2) Corn Market, Halifax 3) Albion Street, Halifax 4) King Edward Street, Halifax 5) George Street, Halifax 6) Northgate (adjacent to Crossley Street and Halifax Bus Station) 7) Square Road (just north of Alfred Street) 8) Blackledge (between Square Road and Cross Street) 9) Horton Street (just west of the Church Street junction) 10) Commercial Street (south of Alexandra Street and north of the Wards End junction)
Economic metrics	Developments; employment; economic activity; local employment pools; local employment profile; accessibility; levels of deprivation; business/employment engagement; local property rental uptake; tourism and visitor economy.	A fresh desktop study of secondary data sources for socio-economic metrics to supplement the 2017 A629 baseline data. For example, planning approvals, Nomis, Census, Land Registry, and CoStar data. A supporting TRACC analysis to determine changes in local accessibility, and accessibility from areas of high deprivation within Calderdale district. Targeted engagement with the business community within Halifax town centre, through one to one meetings or focus group sessions.
Carbon	Assessment based on traffic flows	An analysis of traffic volume and vehicle speed will be done to determine changes in carbon emissions utilising traffic flow information collated from the Overarching A629 M&E baseline. This can be ascertained from the four new ATC counters above, together with the permanent ATCs within
Local Air Quality	NOx and particulates (PM10) monitoring through diffusion tubes	Installation of temporary diffusion tubes for 3 months at 6 sites: 1) Horton Street between Cross Street and Church Street (DT10P2) 2) South Parade just north of the Hunger Hill / Water Lane roundabout (DT8P2 3) Winding Road/Smithy Street between Well Lane and Wade Street (DT2P2) 4) Cow Green between George Street and Silver Street (DT4P2) 5) Skircoat Road just north of Prescott Street junction (DT7P2) 6) Northgate between Crossley Street and Broad Street (DT3P2)
Noise	Noise survey	Temporary installation of acoustic recording equipment to capture roadside acoustics at 8 sites:

		1) Halifax – northwest corner of Fountain Street and Commercial Street 2) Halifax – corner of Charlestown Road, Pollard Street North and A58 Slip Road 3) Outside the entrance of Woolshops on Market Street 4) On the corner of St Johns Street and Commercial Street / Portland Place 5) Church Street – on eastern side of the road outside block of terraced houses opposite Deal Street and Deal Street Mill. 6) Halifax – Bull Green on the northern side of the road on the corner of Cow Green opposite the Bull Green 7) Halifax – Pellon Lane on the southern corner of the Cow Green junction 8) Halifax – Western side of Northgate on the Cross Hills junction corner
Accident data	Sourcing data from STATS19	Collating road safety and accident area for the scheme area for the last five years (i.e. 2018 – 2022) from secondary data sources, including STATS 19.
Travel behaviour	Bus passenger surveys	The 2017 baseline outputs will be used for bus passenger surveys as bus services are impacted by the bus disruption plan from the Halifax Bus Station works.
Bespoke monitoring	Engagement with Transport User Groups and Equality groups	Completion of engagement with key transport user groups, stakeholders and equality groups via one to one meetings or focus groups sessions. Key stakeholders include: • Statutory stakeholders (e.g. West Yorkshire Combined Authority); • Accessibility groups (e.g. ACDAF and Calderdale Disability Partnership) • Transport users (cyclist groups, bus operators, taxis, and car park operators); • Local groups / organisations (such as Trinity Sixth Form Academy); • Key attractors (such as The Piece Hall); and • Affected landowners & tenants
Streets for People	Streets for People audit	Completion of a Streets for People baseline audit of Halifax town centre (broken into sections or quadrants based on scheme interventions for the A629 Phase 2) – This can be done By WYCA's Transport Planning team

Appendix B - Automatic Traffic Counter (ATC) and Manual Classified Count (MCC) locations

This appendix details the location of ATCs and MCCs in and around the section of A629 and Halifax town centre corridor covered by Phase 2. These include temporary ATCs and MCCs which were laid down for the purpose of gathering data for the Calderdale Strategic Model update in 2014, supplementing existing data gathered from existing permanent ATCS. Data from temporary and permanent sites is available from Calderdale Metropolitan Borough Council, via http://c2trafficdata.co.uk. This will be supported by further Automatic Number Plate Recognition (ANPR) surveys at 4 sites.

Table A1 and A2 below lists the permanent ATC sites and Temporary ATC sites, respectively. The sites are geographically illustrated in Figure 6.1 according to their Reference number. Table A3 lists the location of the ANPR survey sites and Table A4 lists the location of the Manual Classified Counts (MCCs) as displayed in Figure 6.2.

Please cross-reference the corresponding ATC and MCC site reference locations in the A629 Monitoring and Evaluation Baseline Report, October 2017.

Ref	Description	Direction	Classification
P1	Shay Syke, Halifax	North and Southbound	Volumetric
P2	A629 Skircoat Road	North and Southbound	Volumetric
P3	A629 Ovenden Road	North and Southbound	Volumetric
P4	A58 New Bank - Halifax	East and Westbound	Volumetric

Table B1 - Permanent ATC sites along the A629 Corridor and nearby links

Ref	*Description*	*Direction*	*Classification*
T11	A58 Kings Cross Road between Arden Road and Burdock Way	North and Southbound	Volumetric
T26	Charlestown Road	North and Southbound	Volumetric
T27	North Bridge	North and Southbound	Volumetric
T28	A629 Cow Green	East and Westbound	Volumetric

Table B2 - Temporary ATC sites along the A629 Corridor and nearby links

Ref	***Description***	***Direction***
AN1	Charlestown Road between Pollard Street North and Retail Park roundabout	North and Southbound
AN2	Winding Road between Northgate and Cross Street	North and Southbound
AN3	A629 Broad Street between St James Road and Orange Street	North and Southbound
AN4	Huddersfield Road between Heath Lane and Skircoat Green Road	East and Westbound

Table B3 - Temporary ANPR sites within and around Halifax town centre

Reference	Location
A1	A629 Skircoat Road/Heath Road
A2	A629 Skircoat Road/Free School Lane/Shaw Hill
A3	A629 Skircoat Road/Huddersfield Road
B1	A58 New Bank Road/A58 Burdock Way/A647 Haley Hill/North Bridge/Charlestown Road
B2	Charlestown Road/Sainsbury's Access
B3	Charlestown Road/Retail Park Access
B4	Charlestown Road/Bank Bottom/Southowram Bank
B5	Lower Kirkgate/Crlpplegate/Bank Bottom
B6	Lower Kirkgate/Church Street/Berry Lane
B7	Smithy Street/Charles Street/King Street
B8	Square Road/Alfred Street East
B9	Square Road/Church Street/Horton Street/Railway Station
B10	Horton Street/Union Street/Market Street
B11	Church Street/South Parade/Prescott Street/New Road
B12	Shay Syke/South Parade/Hunger Hill/Water Lane

B13	Shaw Hill/Sedburgh Road/Gaukroger Lane
B14	Shaw Hill/Simmonds Lane
B15	A629 Skircoat Road/Hunger Hill
B16	A629 Skircoat Road/Prescott Street
B17	A629 Skircoat Road/St John's Lane
B18	A629 /Commercial Street/Wards End/Trinity Road
B19	A629/Bull Green
B20	A629 Broad Street/Pellon Lane/Crown Street/Central Street
B21	Pellon Lane/A58 southbound off-slip
B22	Pellon Lane/Burdock Way
B23	A629 Broad Street/A629 Orange Street
B24	Broad Street/Northgate/Bus Station
B25	Northgate/Winding Road
B26	Northgate/North Bridge/Cross Hills
B27	A58/A629 Ovenden Road/A629 Orange Street

Table B4 - Manual Classified Counts sites along the A629 Corridor and nearby links

Appendix C Non-Motorised User Count Survey sites

Table B1 below details the locations of the Non-motorised user count survey sites as illustrated in Figure 6.3. Please cross-reference the corresponding NMUs site reference locations in the A629 Monitoring and Evaluation Baseline Report, October 2017.

Ref	***Description***
1	Market Street, Halifax
2	Corn Market, Halifax
3	Albion Street, Halifax
4	King Edward Street, Halifax
5	George Street, Halifax
6	Crown Street, Halifax
7	Northgate (adjacent to Crossley Street and Halifax Bus Station)
8	Wade Street (just west of the Winding Road junction)
9	Square Road (just north of Alfred Street)
10	Blackledge (between Square Road and Cross Street)
11	Horton Street (just west of the Church Street junction)
12	Commercial Street (south of Alexandra Street and north of the Wards End junction)
13	Hebble Trail North (just south of the new Navigation Way link under Halifax Rail Station).

Table C1 – No-motorised user count survey sites

Appendix D Noise survey locations

Table C1 below details the locations of the noise survey sites as illustrated in Figure 6.5. Please cross-reference the corresponding noise monitoring site reference locations in the A629 Monitoring and Evaluation Baseline Report, October 2017.

Ref	Location	2017 Baseline reference
1	Halifax town centre – north west corner of Union & Horton Street	ML1
2	Halifax town centre – north side of the roundabout connecting South Parade, Church Street, Prescott Street and New Road	ML2
3	Halifax town centre – opposite Halifax bus station on Winding Road	ML3
4	Halifax – corner of Chalestown Road, Pollard Street North and A58 Slip Road	ML4
5	Halifax – northwest corner of Fountain Street and Commercial Street	ML5
6	Outside the entrance of Woolshops on Market Street	ML6
7	On the corner of St Johns Street and Commercial Street / Portland Place	n/a
8	Church Street – on eastern side of the road outside block of terraced houses opposite Deal Street and Deal Street Mill.	n/a
9	Halifax – Bull Green on the northern side of the road on the corner of Cow Green opposite the Bull Green	n/a
10	Halifax – Pellon Lane on the southern corner of the Cow Green junction	n/a
11	Halifax – Western side of Northgate on the Cross Hills junction corner	n/a

Table D1 – location of the noise survey sites

Appendix E Air Quality Monitoring survey sites

Table E1 below details the locations of the air quality monitoring survey sites as illustrated in Figure 6.6, 6.7 and 6.8. Please cross-reference the corresponding air quality site reference locations in the A629 Monitoring and Evaluation Baseline Report, October 2017.

Ref (2017 Baseline reference)	**Location**
DT1P2*	Charlestown Road between Pollard Street N and Sainsbury's roundabout
DT2P2*	Winding Road/Smithy Street between Well Lane and Wade Street
DT3P2*	Northgate between Crossley Street and Broad Street
DT4P2*	Cow Green between George Street and Silver Street
DT5P2*	Cow Green between Bull Green and Lister Lane
DT6P2*	Portland Place just south of the St John's Lane junction
DT7P2*	Skircoat Road just north of Prescott Street junction.
DT8P2*	South Parade just north of the Hunger Hill / Water Lane roundabout
DT9P2*	Church Street just north of the Lilly Lane / Prescott Street / New Road roundabout
DT10P2*	Horton Street between Cross Street and Church Street
DT11P2*	Union Street just north of the Horton Street / Wards End junction
DT12P2*	Market Street between Russel Street and Old Market
MS-01**	Market Street between Old Market and Russell Street, outside Café Cali
MS-02**	Market Street between Russell Street and Albion Street, outside Boots
MS-03**	Market Street between Russell Street and Albion Street, opposite Tesco
MS-04**	Market Street opposite Albion Street, outside Dorothy Perkins
MS-05**	Market Street between Westgate Arcade and Albion Street, outside Iceland
MS-06**	Market Street just south of Westgate, outside The Westgate PH

DT01***	Pollard Street North, HX3 6AD
DT02***	Charlestown Road, HX3 6AA
DT03***	Charlestown Road, HX3 6AA
DT04***	Bull Green, HX1 5AB
DT05***	Market Street, HX1 1UN
DT06***	Union Street South, HX1 2LW
DT07***	Berwick Street, HX1 1QW
DT08***	South Parade, HX1 2LY
DT09***	Church Street, HX1 1QY
DT10***	Horton Street, HX1 1QE
DT11***	Horton Street, HX1 1QE
DT12***	Westgate, HX1 1PW
DT13***	Wellgarth, HX1 2BJ
DT14**	Huddersfield Road, HX3 0PG

Table E1 – location of the air quality monitoring survey sites

*sites correspond with the 2017 baseline air quality sites as shown in Figure 6.6
**sites correspond with the air quality monitoring done on Market Street in 2019, as shown in Figure 6.7
***sites correspond with the air quality monitoring done across Halifax in 2022, as show in Figure 6.8.

Appendix F Risk Management Strategy

A629 Halifax to Huddersfield Corridor Improvement Scheme – Risk Management Strategy

Summary

The management of risks is a specific task which lies with the Project Team, with the Project Board having responsibility for the project. The Risk Management Strategy should be owned by the Board which comprises senior officers, strategic partners and key user representatives. This should ensure that all the main parties of the project are able to contribute to the identification of key risks and approaches to managing risks.

Effective communication throughout the scheme's delivery (through the regular Project Board) ensures that all parties are informed on the progress of the scheme implementation, address issues as they arise and discuss risks on a frequent basis.

This Risk Management Strategy follows the principles given in the HM Treasury Orange Book and is supported by a comprehensive Risk Register/log for the individual sub-phases of Phase 2 of the A629 scheme.

Project risks – risks and issues log

- A Risk Register is used to record all identified risks and issues of the project, as identified by the Project Board;

- The Risk Register is a live document which shall be frequently updated throughout the development and delivery of the scheme. Any new risks which are identified by the Project Board and/or relevant stakeholders, strategic partners and user groups shall be inputted into the Risk Register. The document shall be modified and stored by the appointed Project Manager. Each risk will be allocated to an owner who will be in charge of the management and mitigation of the risk;

- The Project Manager shall schedule regular risk reviews for the project, whether these are standalone workshops or included in the agenda of the monthly Project Board meetings is at the discretion of the Project Manager. The Risk Review should involve staff from a number of key disciplines from within CMBC such as Finance and Corporate Risk, as well as other experienced Project Managers, to allow for a robust risk review;

- A summarised version of the Risks and Issues Register should be shared with all members of the Project Board prior to each monthly meeting, where risks and mitigation actions are highlighted and agreed;

- An initial examination of potential mitigation measures is incorporated into the Risk and Issues Log. Monitoring of risks and development of mitigation approaches will be

carried out as part of the risk review. This will also draw up an action plan and individual risk owners;

Calderdale Metropolitan District Council and Economy & Environment Directorate Risks

- The corporate and directorate risks should be recorded in line with CMBC's corporate risk protocols, and these should reflect the long-term risks that the council faces. For instance, the management of communications and relationships with key stakeholders and the local business community is something which affects the Economy and Environment Directorate over the longer term and doesn't necessarily begin and end with the project.

Scale

- The scale of likelihood and impact of scoring risks should be undertaken in line with CMBC's corporate risk management procedures

Risk Budget

- The A629 Halifax to Huddersfield Corridor Improvement Scheme Full Business Case submission for Phase 2 included a total budget of **£9,373,164** towards risk, based on a QRA exercise. This accounts for roughly 15% of the total A629 Phase 2 budget;

- The risk budget for the scheme needs to be finalised once the tender prices are known for each of the scheme components; and

- Any expenditure against the risk layer in the budget should be approved by the Project Manager, and be authorised by the budget controller, and accounted for using financial management protocols operated by CMBC and WYCA.

Appendix G – Streets for People audit toolkit.

WY Streets for People Designers Aud

Appendix I – Monitoring and Evaluation cost plan and profile.

Monitoring and evaluation cost overvi