

Section A: Scheme Summary

Name of Scheme:	West Yorkshire Integrated Urban Traffic Management Control (UTMC) Project
PMO Scheme Code:	WYTF-PA4-037
Lead Organisation:	Kirklees Council (on behalf of West Yorkshire Combined Authority)
Senior Responsible Officer:	Richard Hadfield
Lead Promoter Contact:	David Caborn
Case Officer:	Rachel Jones with WSP
Applicable Funding Stream(s) – Grant or Loan:	West Yorkshire plus Transport Fund (Transport Fund)
Growth Fund Priority Area (if applicable):	West Yorkshire plus Transport Fund (Transport Fund)
Approvals to Date:	December 2016 – Decision Point 2
Forecasted Full Approval Date (Decision Point 5):	July 2018
Forecasted Completion Date (Decision Point 6):	April 2021
Total Scheme Cost (£):	£7.49 million
Combined Authority Funding (£):	£7.49 million: West Yorkshire plus Transport Fund (Transport Fund)
Total other public sector investment (£):	Not applicable
Total other private sector investment (£):	Not applicable
Is this a standalone Project?	Yes

Is this a Programme?	Yes
Is this Project part of an agreed Programme?	Yes - West Yorkshire Key Route Network (KRN)

Current Assurance Process Activity:



Scheme Description:

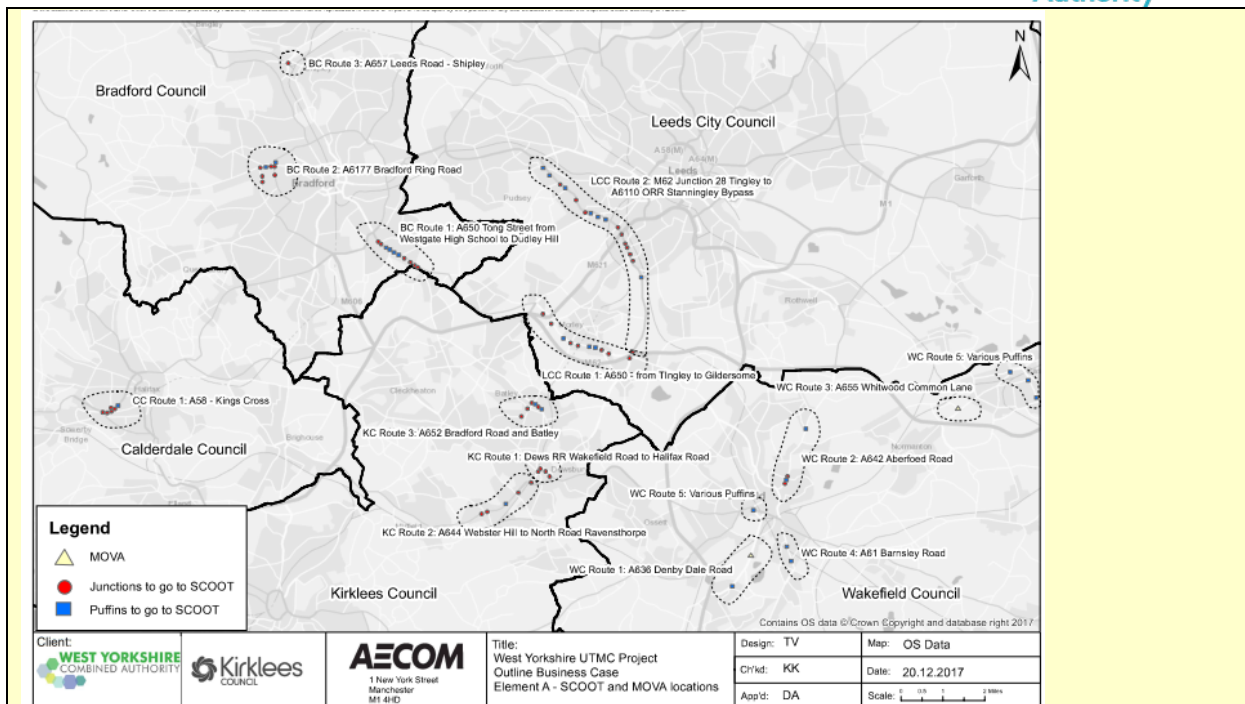
The 2015 Transport Fund submission to Government included the West Yorkshire Urban Traffic Management Control (UTMC) project. At present, there are four Urban Traffic Control (UTC) teams, which operate in West Yorkshire and they use various systems and technologies. Whilst the teams share resources where possible, the service levels and standards vary across boundaries, meaning it is not the most efficient use of resources.

The West Yorkshire UTMC project aims to reduce the effects of congestion and the resulting costs to the local economy. It is comprised of three distinct elements:

- Element A (On-street Improvements to UTC Equipment): Improvements to facilities at key junctions on the West Yorkshire Key Route Network (KRN), including the implementation of Split Cycle and Offset Optimisation Technique (SCOOT) and Microprocessor Vehicle Actuation (MOVA) and upgrading obsolete equipment;
- Element B (Cloud Based Combined UTC/UTMC System): The joining of all of the districts UTC and UTMC systems into one central, comprehensive system located in the "cloud" including a common database; and
- Element C (Combined UTMC Service): Reorganisation of West Yorkshire UTC services into a new Combined WY UTC service.

This new WY service will combine the existing four district UTC teams into one combined team which will be based at the Joint Services building in Morley, with Leeds CC as the Accountable Body. The new service will provide improved day-to-day management and coordination of traffic signals across our Key Route Network and be available for use by partners e.g. bus operators, emergency services and Highways England, to improve all travel co-ordination / information across the region.

The first two elements provide technical improvements to help each of the West Yorkshire districts undertake UTC processes more efficiently. Element A would carry out the necessary improvements on- street to equipment and further detail on the location of these improvements is provided below.



Element B will integrate all traffic signals in West Yorkshire within one common computer system and integrate all electronic traffic management systems across West Yorkshire.

The third element will create a single combined UTMC service for West Yorkshire, which would be more resilient and efficient than the existing structure. This would enable better management of the network across District boundaries and also enable staff to spend more time on scheme development work for other Transport Fund projects.

A phased approach to delivery is recommended with the technical improvements (Elements A and B) implemented in Phase 1 and the re-organised operations (Element C) in Phase 2. This is anticipated to include two iterations of the Full Business Case (FBC) to enable Elements A and B to be progressed in the shorter term. The phases are able to run concurrently or consecutively dependent on progress and approvals (i.e. in the event that resolution is achieved more quickly for Element C, it could be brought forward with Elements A and B).

The new combined UTMC service will enable more efficient and seamless management of the West Yorkshire highway network, which will have a number of benefits for the economy, environment and those living and working in the region:

- Consistent UTMC service across West Yorkshire;
- Better management of congestion to unlock capacity on the highway network;
- Improved journey time reliability for highway travel;
- A more resilient network able to better manage unplanned events;
- Air quality improvements; and
- An increase in employment and the promotion of economic growth by the completion of transport schemes across West Yorkshire regardless of boundaries.

The project is also an enabler to other schemes within the Transport Fund and National Productivity Investment Fund (NPIF), helping to ensure they fully meet their benefits realisation in unlocking growth. This outline business case (OBC) has been prepared for the full project with all three elements. It is proposed that a full business case is submitted for Elements A and B in June 2018 following receipt of tender prices. The full business case for

Element C is likely to follow later in 2018 given the further work that is required to develop this element of the project (date to be confirmed).

Business Case Summary:

Strategic Case	<p>The project will help deliver Priority Area 4 – Infrastructure for Growth of the Leeds City Region Strategic Economic Plan (2016).</p> <p>The proposed scheme would contribute to the following success measures identified for the ‘Infrastructure for Growth’ priority:</p> <ul style="list-style-type: none"> - Increases in GVA and job growth; - Increases in connectivity bringing people, places and jobs closer together; - Reduced delays, congestion and faster journey times across all transport modes and both within and beyond the city region; and - Reduced carbon emissions and vehicle air pollution, contributing to improved environmental quality. <p>The Strategic Case is underpinned by congestion levels on the KRN, evident on particular sections of the KRN in locations of schemes, and delays on the highway network can have a considerable impact on productivity and reliability. These impact economic growth.</p> <p>In addition, congestion on the network also has consequences for local air quality and carbon emissions – it also increases driver frustration regarding delays, raising the likelihood of accidents.</p> <p>Finally, the travel to work flows across district boundaries highlights the need for an integrated approach to highway management in order to effectively manage flows for those travelling throughout West Yorkshire delivered by the scheme- both through Element A, as well as improved co-ordination of assets and their management through Elements B and C.</p>
Commercial Case	<p>The Commercial Case details the procurement strategy, and details of initial market testing to demonstrate demand to supply the services- as well as highlighting 28 indirect jobs associated with the scheme.</p> <p>Element A (On-street improvements to UTC equipment)</p> <p>Works undertaken for Element A would be procured and carried out using specialist signal contractors from the West Yorkshire UTMC Supply and Installation Contract, supervised and managed by the West Yorkshire UTMC teams. West Yorkshire local authorities have considerable experience with the contract, with the Districts routinely using the framework to meet the procurement needs of the service with respect to the purchasing of equipment for new traffic signal projects together with their installation.</p> <p>Element B (Cloud Based Combined UTC/UTMC system)</p> <p>A procurement strategy has been developed but, as with any UTMC/UTC project, the list of suppliers for this bespoke area of works is limited. There are only a handful of suppliers for UTMC systems and only two approved suppliers for the UTC system. There is however greater choice</p>

	<p>and therefore more competition for the professional services and technical support that will be needed for their installation.</p> <p>Professional Services and Technical Support</p> <p>Where possible these services will be procured using the Combined Authority Framework for Specialist Services contract awarded in 2016 (for instance business case support). In addition to price, the award of these works packages will also consider the local knowledge of suppliers.</p> <p>UTC and UTMC Systems</p> <p>These systems will have to be procured and conform to the EEC OJEU notice regulations owing to the sums involved. As the required systems are bespoke, the intention is this will be procured through the Restricted Route.</p> <p>Element C (Combined UTMC Service)</p> <p>The precise approach to procurement of Element C is unknown at this stage. However, it will be undertaken using local authority guidance.</p>
<p>Economic Case</p>	<p>Elements A and B – A single option has been identified within the short list of options for each element. The appraisal approach is set out within the Appraisal Specification Report.</p> <p>Element C – Detailed costings of the proposed location and further work on the structure of the new service is required to fully complete the Economic case, however a qualitative approach to Element C is included within the OBC.</p> <p>In 2018, the Combined Authority modelled Element A through the Urban Dynamic Model (UDM) - this resulted in a programme annual net GVA for West Yorkshire of +£2.8 million (2009 prices) and 28 West Yorkshire jobs unlocked in a reporting year of 2031, compared to the Do-Minimum. This equates to a GVA per £ ratio of 2.44 to 1 (2010 prices, 10 year appraisal, discounted).</p> <p>Journey time savings were calculated for the AM, IP and PM peak based on Trafficmaster data for defined routes. Delay at junctions was captured as the difference between the overnight period and the peak period. A 12% reduction in delay or SCOOT or 13% delay saving for MOVA upgrades was calculated at particular junctions to identify the journey time saving.</p> <p>The three elements of the scheme have been appraised at a programme level and at an individual element level to demonstrate the BCR and VfM. The programme (including Elements A, B and C) has a Medium VfM proposition with a BCR of 1.78.</p> <p>Element A accounts for approximately 90% of the total monetised benefits reported for the programme. At an individual element level, Element A has a high VfM with a BCR of 3.0.</p> <p>At OBC stage, monetised benefits for Element B are constrained to 2% of the medical and ambulance and police costs attributed to accidents in West Yorkshire on the KRN; while no monetised benefits are reported for Element C.</p>

	<p>The VfM assessment for the programme overall is therefore considered conservative with a number of additional benefits that have not been quantified.</p> <p>Element B will facilitate the other West Yorkshire schemes e.g. NPIF schemes (upgrades proposed in Bradford and Leeds). This element is complementary and enables the benefits on these corridors to be delivered and maximised.</p> <p>At full business case stage, there will be opportunity to monetise financial cost savings attributed to Element C.</p>																																																																														
<p>Financial Case</p>	<p>The scheme cost at outline business case stage is expected to be £7.49 million.</p> <p>The cost variation against the initial indicative allocation of £7.3 million (at Expression of Interest Stage) relates to uplift in the costs for inflation (i.e. approximately £120k for Element A and £70k for Element B).</p> <table border="1" data-bbox="453 819 1342 1111"> <thead> <tr> <th colspan="4">Summary</th> </tr> </thead> <tbody> <tr> <td>Element A</td> <td>4.12</td> <td>Total Cost inc Contingency</td> <td>55%</td> </tr> <tr> <td>Element B</td> <td>2.32</td> <td>Total Cost inc Contingency</td> <td>31%</td> </tr> <tr> <td>Element C</td> <td>1.00</td> <td>Indicative Allocation</td> <td>13%</td> </tr> <tr> <td>Monitoring and Evaluation</td> <td>0.05</td> <td></td> <td>1%</td> </tr> <tr> <td>Total</td> <td>7.49</td> <td></td> <td>100%</td> </tr> </tbody> </table> <p><i>N.B. Costs presented in 2017 values.</i></p> <p>This is profiled as follows:</p> <table border="1" data-bbox="453 1218 1358 1861"> <thead> <tr> <th colspan="6">Table 5.2: Cash Flow and Funding Profile</th> </tr> <tr> <th></th> <th>WYCA funds (£m)</th> <th>Applicants' funds (£m)</th> <th>Other public sector (£m)</th> <th>Other private sector (£m)</th> <th>Total Cost (£m)</th> </tr> </thead> <tbody> <tr> <td>Year 1 e.g. 2016/17</td> <td>0.058</td> <td>-</td> <td>-</td> <td>-</td> <td>0.058</td> </tr> <tr> <td>Year 2 e.g. 2017/18</td> <td>0.122</td> <td>-</td> <td>-</td> <td>-</td> <td>0.122</td> </tr> <tr> <td>Year 3 e.g. 2018/19</td> <td>1.46</td> <td>-</td> <td>-</td> <td>-</td> <td>1.46</td> </tr> <tr> <td>Year 4 e.g. 2019/20</td> <td>3.80</td> <td>-</td> <td>-</td> <td>-</td> <td>3.80</td> </tr> <tr> <td>Year 5 e.g. 2020/21</td> <td>2.01</td> <td>-</td> <td>-</td> <td>-</td> <td>2.01</td> </tr> <tr> <td>Future</td> <td>0.04</td> <td>-</td> <td>-</td> <td>-</td> <td>0.04</td> </tr> <tr> <td>Total (£m)</td> <td>7.49</td> <td>-</td> <td>-</td> <td>-</td> <td>7.49</td> </tr> </tbody> </table>	Summary				Element A	4.12	Total Cost inc Contingency	55%	Element B	2.32	Total Cost inc Contingency	31%	Element C	1.00	Indicative Allocation	13%	Monitoring and Evaluation	0.05		1%	Total	7.49		100%	Table 5.2: Cash Flow and Funding Profile							WYCA funds (£m)	Applicants' funds (£m)	Other public sector (£m)	Other private sector (£m)	Total Cost (£m)	Year 1 e.g. 2016/17	0.058	-	-	-	0.058	Year 2 e.g. 2017/18	0.122	-	-	-	0.122	Year 3 e.g. 2018/19	1.46	-	-	-	1.46	Year 4 e.g. 2019/20	3.80	-	-	-	3.80	Year 5 e.g. 2020/21	2.01	-	-	-	2.01	Future	0.04	-	-	-	0.04	Total (£m)	7.49	-	-	-	7.49
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	<p>Inflation and Risk have been incorporated as part of the Financial Case. However no QRA has yet been undertaken, and will be incorporated at full business case stage.</p> <p>Some remaining risks to the Financial Case include:</p> <ul style="list-style-type: none"> - Capital cost overruns: Whilst the capital costs have been informed by a market engagement event, there remains a risk that these costs could be greater than anticipated. The lack of competition can exacerbate the risk of capital cost overruns. - Additional ongoing costs: No additional ongoing costs have been included within the core appraisal but there is a risk that additional costs will be identified. Hosting costs are included within the ten year appraisal period. - Cost certainty: Element C requires further definition relating to the proposed location and arrangements to confirm costs. - Apportionment of costs: A decision is required as to how the costs for the new service are to be apportioned between the Districts (for instance, vehicle kilometres versus asset size etc.). - Agreements: An agreement between all five local authorities will be required in advance of implementation with regard to the sharing of liabilities which is to be equally distributed to ensure the host wouldn't be impacted unfairly from a financial perspective.
<p>Management Case</p>	<p>At present the project is being led by Kirklees Council on behalf of all five West Yorkshire authorities using the PRINCE2 principles of project management.</p> <p>The scheme is being managed through appropriate governance and day-to-day management of delivery, with recognised and suitable personnel.</p> <p>The overall risk management approach is owned by the SRO with day-to-day management the responsibility of the Project Manager / Business Case owner, David Caborn.</p> <p>The approach to risk in this project is managed by utilising the agreed risk register protocols supplied by the Combined Authority. This register is updated on a monthly basis and reported to the project board by the project manager.</p> <p>A Benefit Realisation Plan is to be developed, and is required, as part of the full business case to maximise benefits. It is envisaged that the Benefit Realisation Plan will identify the potential benefits of the UTMC programme including the measures, benefit profiles and reporting requirements to be considered through scheme delivery. This will also be intrinsically linked to the specific site implementation plans and monitoring and evaluation requirements for full business case.</p>