Project Overview

Project Title CRSTS Network Management and	Enhancement Programme
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Main Funding Programme	City Region Sustainable Transport Settlements (CRSTS)
Current Forecast Project cost	£25,000,000
Funding Applied for from the Combined Authority now	£2,793,750
Private sector funding amounts and sources	N/A

Scheme Description

This scheme will maintain and upgrade essential traffic infrastructure, such as traffic signals and the means of controlling them. Improvements to this infrastructure will be made to enhance travel for all road users, including private cars, bus passengers, cyclists and pedestrians. These will include:

- · Traffic signals and control equipment renewal across West Yorkshire.
- Enhancement of traffic signals, communications and technology to introduce more bus/cycle detection and improve signalled pedestrian crossing facilities.
- Incorporation of the latest advancements in artificial intelligence and control techniques to enhance pedestrian, cyclist and bus user experience.

Business Case Summary

Strategic Case

At the moment, the aging traffic facilities, such as traffic lights and crossings, as well as their control and communications infrastructure, causes delay and disruption in journey times. It is not currently attractive to travel by bus, to cycle or to walk. This scheme will address this by ensuring a resilient network that reduces congestion and carbon emissions. Improvements in journey times for all road users will enable better access for travelling to places of work, education and leisure with additional benefits going to buses passengers, cyclists and pedestrians.

The Strategic Economic Framework sets out the vision for the ongoing transformation of West Yorkshire, with the priorities including:

- Boosting productivity
- Enabling inclusive growth
- Tackling the climate emergency
- Delivering 21st century transport
- Securing money and powers

The age and obsolescence of West Yorkshire's traffic signals and supporting infrastructure affects each of the five districts.

This programme will improve the levels of service for pedestrians, cyclists and buses at junctions and crossings. The use of this innovative technology will result in reduced carbon emissions and will lower the number of signal failures.

Economic Case

The economic benefits of the programme include:

- Reductions in repair and maintenance costs, with between 800 and 1,000 fewer signal faults per year.
- Reductions in energy use of over 1,100,000 kWh per year, saving at least £332,000 per year in energy costs based on 2022 electricity prices.
- Reduction in greenhouse gas emissions of 232 tonnes of CO₂ per year. This provides benefits to society of £57,000 per year.
- Reductions in road delays due to signal failures.
- Improvements in journey times and reliability.
- Safety benefits due to improved pedestrian/cycling facilities and fewer signal failures.
- Health benefits from a shift to active travel.

Commercial Case

Frameworks are in currently in place through which similar traffic signal renewal and enhancement schemes are already being delivered. These include the West Yorkshire Traffic Signal Maintenance Contract and the West Yorkshire Supply and Installation of Traffic Signal Equipment Contract.

One of the risks identified is insufficient capacity within contractors to deliver the programme. The use of existing frameworks mitigates this risk, making best use of the pre-existing relationship with the contractors. A five-year programme of CRSTS-funded works allows the five West Yorkshire local authority partners to discuss a large forward programme of work with contractor, providing contractors with more confidence to recruit and expand if needed.

Financial Case

Funding for the Network Management and Enhancement programme would be provided through the Combined Authority's CRSTS funding settlement to the five individual districts of West Yorkshire. The split between districts was based on the number of traffic control items within each district.

The costs for the CRSTS Network Management and Enhancement programme have been calculated for each Local Authority district separately over a 5-year period using 2022 prices. The full five-year allocation in CRSTS is for £25m. Year 1 of this programme (2022/23), has a total cost of £4.36m.

The funding for quarters 1 and 2 of 2022/23 were approved as part of the overall CRSTS Programme approval at the Combined Authority committee in March 2022. The approval for the remainder of 2022/23 funding is expected to be decided at the Combined Authority meeting in February 2023.

There are no third party funders. All funding is provided from the Combined Authority's CRSTS funding settlement.

Management Case

This programme of work comprises many smaller sub-schemes. These will be delivered through existing teams in each district with experience of delivering similar projects. The general approach is to deliver using existing management and governance structures.

Projects will report to a new urban traffic management and control (UTMC) Operational Board.

The five-year programme of works is being delivered between April 2022 and March 2027. An updated Strategic Outline Case will be submitted for assurance and approval annually. Each of the districts will have a project lead who will oversee delivery of their elements, with an overarching Project Manager to oversee delivery and manage the development of the Strategic Outline Case.

As there are many sub-schemes within the programme an overarching programme risk register is being actively managed throughout.