

Case Study

Hull - Stoneferry Corridor

Background

The Stoneferry Corridor is a primary route originating north of Hull, with strategic connections to the Port of Hull, City Centre, and Eastern areas of Hull. It is heavily dominated by industry, HGV activity and businesses, with pockets of residential, retail and educational buildings.

The Key Challenges

The key challenges highlighted by Hull City Council were:

Protect vulnerable cyclists - where drivers were crossing over the path of cyclists when turning into or out of a junction, changing directions, or changing lanes. The need for improvement in safety at these junctions and encourage more active travel along the Stoneferry Road were essential.

Reduce infrastructure damage and congestion due to low bridge strikes - the low bridge on Stoneferry Road was estimated to be struck by over-height vehicles approximately six times per year. Vehicle removal is time-consuming and costly, causing significant disruption locally and to the entire rail network therefore any over height vehicles needed to be intercepted before entering the Stoneferry Road.

Reduce congestion and improve air quality - road operators had no means of determining the different routes or journey times. Road operators were unable to communicate alternative routes to drivers if a road became congested resulting in constant congestion, one of the biggest challenges on our road networks today.

Collaborative Approach

Clearview actively collaborated with the Intelligent Transport Systems Manager at Hull City Council to identify and address these challenges faced on the Stoneferry Corridor and around the City of Hull.

This allowed us to;

- be engaged early and enabled us to provide our technical perspective on how deliverable the scheme was.
- have a better understanding of Hull City Council's challenges and enabled us to precisely state how and where we could add value.
- gradually work towards a solution as a team, eliminating the risk of vague understanding.
- be time efficient and cost-effective.

The project overall aimed;

- to reduce congestion, cut down collisions and improve air quality for residents and businesses in the area within the next 15 years.
- enhance the safety of cyclists and pedestrians along the Stoneferry Corridor in Hull.
- inform drivers and network operators of congested routes and alternative routes, therefore improving air quality.



The Solutions

Cyclist Awareness and Protection Scheme

Five intersections were identified on the Stoneferry Road for the cyclist protection solution. Connex Active and M680 products were deployed to provide both count and classification of pedestrians and cyclists. The detection of cyclists approaching a junction was also set-up to trigger intelligent road studs highlighting to both cyclists and drivers the possibility of conflict.

Ultimately, Illuminating Intelligent Road Studs (IRS2) were deployed at the five intersection junctions providing guidance to the cyclist and awareness to the drivers.

Journey Time Monitoring (JTM)

Journeytime information was provided to drivers, so they could make informed decisions and avoid congested areas. Our Insight platform provides the Journey Time information directly to 18 Variable Message Signs (VMS) as well as the network management team.

Overheight Vehicle Detection

To protect the low bridge on Stoneferry Road, Clearview installed five infra-red detection sensors at key locations. These are linked via point-to-point radio links to variable message signs (VMS) to actively detect and warn OHV drivers of the low bridge and to direct them to alternative routes.



Key Benefits

- Reduce collisions and congestion.
- Improved air quality, journey times and safety.
- Enhanced safety for pedestrians by detecting cyclists and alerting drivers entering and exiting the junction.
- JTM and VMS combined with our Insight Smart Mobility Platform inform drivers and network operators of congested and alternative routes.
- Targeted dynamic messaging combined with Over Height Vehicle (OHV) detection reduces the risk of bridge strikes.
- Sustainable economic growth.