POPE of Major Schemes Summary Report

Scheme Title	**A66 Long Newton Grade Separated Junction**
Opening Date	June 2008
POPE Stage	One Year After

Scheme Description

The A66 Long Newton Grade Separated Junction (GSJ) scheme is located between Darlington and Stockton and improved a section of the A66. Key features of the scheme include:

- Closure of two at grade junctions with the A66 at Long Newton West and Elton West and provision of a new grade separated junction at Long Newton West;
- Closure of the central reserve gap at the Long Newton east junction;
- Closure of 10 gaps in the A66 central reserve and 26 private and field accesses direct onto the A66;
- Re-routing of Durham Tees Valley Airport traffic through the new junction and off local roads; and
- A link road between Long Newton and Elton villages.

Objectives (from Public Inquiry Summary of Proof of Evidence)	Objective Achieved?
Improve road safety on the A66	Yes
Reduce traffic volumes in the west end of Long Newton resulting from the re-routing of Airport traffic through the new junction	Yes
Increase provision for Public Transport facilities to both villages	Yes
Limit the impact of the improvement proposals on the surrounding environment	Yes
Provide a safer route, affecting fewer properties, to the Airport	Yes

Main Impacts

- The scheme objectives have been met and the overall economic performance of the scheme was in line with expectations.
- Based on opening year data the number of accidents has reduced at a statistically significant level and the reduction is greater than predicted.
- Accidents at central reserve crossings have been eliminated. There have been no reportable accidents in the villages since scheme opening.
- Residents reported improved safety in villages, but residents in Elton are concerned about the impacts of increased speeds.
- Predicted do-minimum flows were reasonably accurate. There were some large percentage differences between predicted do-something flows at some locations, although absolute differences were small.
- The level of re-assignment of Airport traffic through the new junction was underestimated. There was no requirement to update traffic forecasts as the scheme appraisal progressed.

- Journey time benefits are above predictions due to journey time savings being greater than forecast for the trips that use the new junction. Accident savings are higher than forecast and are the main source of monetary benefit (PVB). With the outturn costs (PVC) lower than predicted when converted to the same costs base, the outturn Benefit Cost Ratio (BCR) is better than expected.
- Impacts on environmental objectives are generally as expected and mitigation measures implemented as planned.
- The scheme has reduced severance for pedestrians and cyclists and enabled the re-instatement of bus services linking the villages.
- The scheme is consistent with, and contributes to, regional and local transport planning policies.

Summary of Scheme Impacts

Traffic

- 65% decrease in traffic accessing Long Newton from the A66 via Darlington Road (east Long Newton), showing traffic has switched to the new junction.
- Increased traffic through Elton Village but the absolute numbers remain small.
- On Mill Lane, which provides local access to Durham Tees Valley Airport, traffic has increased 46%, with traffic re-assigned from other routes. Of particular note there has been a decrease in traffic accessing the Airport from the East on the A67. At the same time as the scheme works, the Local Authority implemented a partial signing strategy to take traffic away from the A135 to re-route through the GSJ. This will account for some of the increase on Mill Lane.
- Flows on the A66 have remained relatively unchanged.
- Predicted do-minimum flows were reasonably accurate. However, there were some large percentage differences between predicted do-something flows at some locations.
- In particular, transfer from the A66 access to Long Newton via Darlington Road (east Long Newton) was underestimated by over 50%, more traffic that previously travelled through Long Newton has switched to using the improved junction than predicted. Flow on Mill Lane is almost 46% above that predicted. The Local Authority partial signing strategy will account for some of this difference, as well as other schemes that have been implemented, including speed reductions on other roads.
- In addition, traffic flow into Elton Village is around 30% above the prediction, but the absolute differences are small.
- Whilst the economic forecasts were updated as the scheme appraisal progressed, traffic forecasts were not updated and the level of re-assignment of, in particular, Airport traffic through the new junction was underestimated. The Local Authority signing strategy will have had impacts on Airport traffic.
- Journey times have improved by between 1 and 4 minutes, apart from sections on A67 and A135 south-east of the scheme. The journey time savings are generally in line with or slightly lower than the economic forecast predictions.

Safety

- The number of Personal Injury Accidents (PIA's) has fallen from an average of almost 12 per year before the scheme opened to 3.5 per year over the first 17 months since opening, a reduction of just over 8 accidents per year.
- The reduction in the number of accidents is statistically significant and greater than predicted.
- There have been no fatal accidents since opening.

- Residents in Long Newton reported improved safety due to lower traffic flows for both drivers and non-motorised users. This has resulted in increased levels of walking and cycling in Long Newton.
- However, some residents in Elton are concerned about the impacts of increased speeds.
- Residents raised some issues with the traffic calming measures introduced as part of the scheme.
- A number of other local safety concerns have been raised, in particular issues in relation to the slip roads at the new junction, which some residents viewed as too short and too close together.

Environment

- Impacts on other environmental objectives are generally as expected and mitigation measures have been implemented as planned
- Carbon emissions increased by less than 1% since scheme opening, less than the predicted increase of 13%.

Accessibility

- Severance between villages reduced by the new Elton Link Road providing an improved, safer access for Non Motorised Users (NMU's) as well as by car and bus.
- Improved conditions for NMU's within villages, but some concerns from Elton residents due to traffic speeds.
- Bus service between villages re-instated after opening providing improved links to services and facilities in Stockton.

Integration

- Improved highways access to the Airport.
- The scheme has been beneficial in achieving policy objectives at a national, regional and local level**,** including: North East Regional Transport Strategy, Stockton-on-Tees Community Strategy 2003–6, Stockton-on-Tees Local Transport Plan 2001-2006, The Stockton-on-Tees Local Plan 1997 and the Tees Valley Structure Plan 2001 and North East of England Plan Regional Spatial Strategy to 2021 (2008).

Summary of Scheme Economic Performance

	Pre Scheme Forecast (2002 Prices, discounted to 2002)	Post Opening Reforecast (2002 Prices, discounted to 2002)
Journey Time Benefit	£2.29m	£4.92m
Safety Benefit	£18.62m	£25.76m
Total 60 Year Benefits (PVB)	£20.91m	£30.68m
Costs (PVC)	£10.40m	£8.71m
Benefit Cost Ratio (BCR)	**2.0**	**3.5**

- The monetary journey time benefit is higher than forecast as a result of slightly higher than forecast journey time savings for users of the new junction.
- The majority of benefits come from accident savings, which at the one year after stage are almost 40% higher than forecast.
- The comparison between predicted and current costs shows that costs were estimated at £9.97m (2002 prices), whereas the current costs at the same price base are £10.4 million, 4.4% higher. The predicted costs, when converted to the same price base, were therefore reasonably accurate.
- The outturn PVC is around 20% less than the predicted in 2002 prices, discounted to 2002.
- The benefit to cost ratio is higher than predicted.

This document summarises the findings of the one year after post opening evaluation study completed in November 2010.