

## POPE of Major Schemes Summary Report

Scheme Title	<b>A590 High and Low Newton Bypass</b>
Opening Date	April 2008
POPE Stage	One Year After

### Scheme Description

The A590 High and Low Newton Bypass is a Major Highways Agency scheme to improve the A590 to the east of Barrow-in-Furness. The scheme opened in April 2008 and includes the following key features:

- 2.4 miles of dual two lane carriageway;
- Five structures for crossing the bypass;
- Two grade-separated junctions at the northern and southern tie-ins;
- False-cutting and earth mounding to mitigate the visual intrusion; and
- Wildlife mitigation measures.

### Objectives (Roads Review, 1998 & Environmental Statement)

### Objective Achieved?

- |   |     |
|---|-----|
| • To provide a route to modern design standards to replace the existing section of severely sub-standard trunk road | Yes |
| • To improve the accessibility of the Barrow Peninsula which has Assisted Area status                               | Yes |
| • To cater for predicted future traffic growth  | Yes |
| • Reduce the number of accidents  | Yes |
| • Improve the environment by removing through traffic from unsuitable roads in towns and villages                   | Yes |

### Key Findings

- The objectives of A590 High and Low Newton bypass have been met.
- The observed number of accidents has been reduced compared to before the scheme.
- Although the monetary safety benefits were less than predicted, this was offset by the journey time benefits which were higher than predicted. This combined with the fact that the scheme costs were lower than predicted, resulted in a better than forecast benefit-cost ratio (BCR).
- Analysis of long term traffic data in the immediate vicinity of the scheme indicates that volumes of traffic may not have witnessed the same reductions observed at a national level as a result of the current economic climate. Nevertheless observed trends in local traffic published by the DfT, indicates that volumes of traffic in Cumbria have witnessed reductions.
- Traffic flows on the old A590 are lower than predicted with traffic flows on the new bypass being higher than predicted. This suggests that more traffic than anticipated has re-routed onto the bypass following the improvement.
- Bus services have benefited from reduced traffic on the A590. However, the view of the main bus operator in the area is that the scheme to downgrade the old A590 (road narrowing) has resulted in difficult driving conditions for larger vehicles.

## Summary of Scheme Impacts

### Traffic

- Traffic flows on the old A590 have reduced by 97% from 17700 to 580;
- Traffic flows on the new bypass are slightly less than the before opening flows on the old A590 which can be accounted for by the fact that some traffic remains on the old road for access to High and Low Newton;
- Traffic flows on the old A590 are lower than predicted with traffic flows on the new bypass being higher than predicted. This suggests that more traffic than anticipated has re-routed onto the bypass following the improvement;
- On the A590 between A5087 and A592 (west of bypass) traffic has increased by 5% whilst between B5277 and A6 (east of bypass) traffic has increased by 4%;
- As DfT observed national trends suggest that there will be no traffic growth it suggests that some traffic may have re-assigned to the A590 from other routes following the improvements however this is not considered to be significant;
- Journey time savings have been observed in all time periods with the greatest saving in the AM peak period where journey times using the new bypass as opposed to the old A590 have improved over the whole route by around 4 minutes in each direction; and
- The forecast journey time saving between the old route and the new route is less than observed in all periods. This was a result of a combination of an underestimate of Do Minimum journey times and an overestimate of Do Something journey times.

### Safety

- No accidents have been recorded in the studied area of the old and new roads and nearby link roads since the opening of the scheme.
- This represents an annual saving in the opening year of 5.4 Personal Injury Accidents (PIAs) compared to the five years before the scheme was built.
- Accident savings in the opening year are less than predicted because the observed number of accident before scheme construction was less than used in the forecasting. This may in part be due to a change in speed limit along the section of the A590 in 2001.
- The changes in accident numbers are too small at this one year after stage to be able to evaluate the statistical significance of the change, and hence at this stage we cannot confidently state that the data provides a reliable indication of the improvement to safety in the long term.

### Environment

- Noise and Air Quality Traffic flows on the old A590 have reduced significantly with local noise and air quality benefits for residents in the villages of High and Low Newton;
- The provision of the bypass has relocated traffic into the countryside and there has been a worsening of noise and air quality for the few properties close to the route corridor;
- Heavy prolonged rain during the first winter of construction led to sedimentation of local watercourses and this has been commented on by consultees; and
- Apart from Water all other sub-objectives are considered to be in line with expectations.

### Accessibility

- The reduction of through traffic on the former A590 has reduced severance in High and Low Newton however the scheme to downgrade the old A590 (road narrowing) has resulted in difficult driving conditions for larger vehicles.

### Integration

- Reduced traffic volumes on the former A590 have facilitated improvements for public transport interchange; and
- The scheme integrates well with the objectives set out in local and sub-regional policies.

## Summary of Scheme Economic Performance

	Pre Scheme Forecast (2002 Prices)	Post Opening Reforecast (2002 Prices)
Journey Time benefits	£68.2m	£84.2m
Safety Benefits	£24.2m	£19.8m
Total 60 year Benefits	£92.4m	£104m
Costs	£22.74m	£21.56m
Benefit Cost Ratio (BCR)	<b>4.1</b>	<b>4.8</b>

- The re-forecast accident benefits are slightly less than predicted (although evaluation only undertaken using one year's worth of observed data);
- The re-forecast journey time benefits are higher than predicted due to journey time savings being underestimated;
- The outturn scheme cost is within 3% of that predicted; and
- The forecast BCR is lower than the POPE re-forecast BCR, primarily due to the higher than predicted journey time savings.

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