POPE of Major Schemes Summary Report

Scheme Title	**A1 Stannington Grade Separated Junction**
Opening Date	October 2004
POPE Stage	Five Year After Study

Scheme Description

A section of the A1 dual carriageway at Stannington in Northumberland was improved, through the following measures:

- Provision of a new grade separated junction comprised of an underpass for the C364 (former Great North Road) under the A1, two roundabouts (one each side of the A1), and slip roads linking with the A1 in each direction;
- Closure of four gaps in the A1 central reserve;
- Enhancements to parallel minor roads C364 and U9076 (both former Great North Road) to make them more suitable for all classes of road user; and
- On completion, the lifting of a temporary 50 mph speed limit on 5 km of the A1 in place since 2000.

Objectives (from Proof of Evidence at Public Inquiry)	Objective Achieved?
• Improve road safety	Inconclusive, as not statistically significant
• Significantly improve accessibility for local people and business	Yes
• Encourage the use of non-motorised traffic in the area	Yes
• Minimise impact on the environment	Yes

Key Findings

- Despite having a good outturn BCR, this scheme did not perform as well as expected in economic terms.
- The accident benefits have not been on the scale predicted, at least in the time period studied. However the prediction overestimated the number of accidents without the scheme in place.
- Accidents at central reserve crossings have been eliminated but other kinds of accident have increased. This is partly explained by the fact that the observed number of accidents in the period prior to construction were reduced by a 50 mph speed limit.
- The journey time benefits arise from simply increasing the speed limit, rather than from the junction layout .
- The objectives relating to accessibility and the environment were met.
- Provision of facilities as part of the scheme has increased the potential for non-motorised travel, but no data is available to identify the impact.
- Some benefits have been intangible, e.g. improvement in journey ambience, driver stress and the fear of accidents.
- In relation to horse crossings, low noise surface materials would appear to have less grip than traditional hot rolled asphalt.
- Landscape planting has been slow to establish and may take longer than expected to fulfil its screening function.
- It is possible that poor plant growth has contributed to barn owl casualties in the short term as there is good foraging within the route corridor. As trees and shrubs grow there will be less suitable open habitat and planting will help guide owls to fly higher above traffic.

Summary of Scheme Impacts

Traffic

- The traffic volume on the A1 was 33,800 vehicles per day (vpd) before the scheme, and 36,000 vpd five years after opening. This increase is in line with regional background growth.
- There have been flow changes on local roads due to the closure of A1 central reserve gaps and rerouting of turning movements. There is unlikely to have been any extra traffic brought into the area by the junction, and there have been no local developments to generate new trips.
- The greatest change on the local roads has been to the flow on the U9076 (former Great North Road, north of the junction, east of the A1), which has increased from 1,230 vpd to 4,340 vpd. This is close to the prediction.
- The flow on the C364 (former Great North Road) between Stannington village and the new junction has increased from 840 vpd to 1,760 vpd. This is greater than the predicted increase.
- However, flow on the C364 south of Stannington village has decreased from 1,010 vpd to 700 vpd. No change here was predicted.
- The numbers of vehicles using the underpass and slip roads are generally similar to predictions.
- Average speeds on the A1 have increased by about 10-12 kph after the scheme, and this is likely to be due to the lifting of the temporary speed limit which had been imposed in 2000 on safety grounds.
- The actual journey time saving is close to the forecast from the COBA model, but less than given in the AST

Safety

- Reduction in accidents less than expected due to success of preceding interim safety measures

Environment

- Noise: 13 successful Part 1 Claims indicate that some properties appear to have experienced increased noise from traffic.
- Landscape: Cuttings and earth mounding help integrate the junction into the landscape. Some planting is slow to establish and may take longer than expected to fulfil its screening function.
- Heritage impact mitigated by the programme of survey and recording.
- Water: Apart from the poor drainage at the two roundabouts which has been resolved no information has been provided which would indicate that overall the new systems are not performing as expected.

Accessibility

- A1 severance reduced for pedestrians and cyclists.

Integration

- Scheme is consistent with regional and local transport planning policies.

Summary of Scheme Economic Performance

- The outturn cost was £7.9 million (market prices, 2002 values), 28% higher than predicted.
- The main source of monetary benefit has been the time saving due to the removal of a temporary 50 mph speed limit on the A1.
- The outturn BCR is 4.6, lower than predicted but still producing a good economic return.

Costs and Benefits (2002 prices discounted at 3.5%, in market prices)	Pre-Scheme Forecast	Post-Scheme re-forecast
Benefits (30 years)	£48.4m	£36.5m
Costs	£6.1m	£7.9m
Benefit Cost Ratio (BCR)	7.9	4.6