

POPE of Major Schemes Summary Report

Scheme Title	A27 Southerham to Beddingham improvement
Opening Date	August 2008
POPE Stage	One Year After

Scheme Description

The A27 Southerham to Beddingham Improvement is a major Highways Agency scheme to improve the A27 near Lewes in East Sussex and remove the existing half barrier level crossing at Beddingham. The scheme opened in August 2008 and includes the following key features:

- Grade separation involving the construction of a new bridge carrying the A27 trunk road over the Lewes to Eastbourne railway line at Beddingham, replacing the existing level crossing;
- Widening of the westbound carriageway to two lanes along its 1.4 mile length between Southerham and Beddingham roundabouts;
- Widening of the entries with segregated left hand turns at Southerham and Beddingham roundabouts; and
- Extension of the existing combined footpath and cycleway running along the northern edge of the A27, to just east of Beddingham roundabout.

Objectives (at entry into Major Schemes programme)

Objective Achieved?

- | | |
|---|-----|
| • To make the crossing of the A27 over the railway line safer | Yes |
| • To reduce delays for motorists | Yes |
| • To cater more effectively for traffic using the route | Yes |
| • To provide better facilities for cyclists and pedestrians | Yes |

Key Findings

- Journey time improvements have almost entirely been derived from the removal of the level crossing rather than the other elements of the scheme;
- Safety impacts have been better than expected over the wider modelled area. This may in part be due to other local improvements in the area and possible reduced traffic flows on a wider scale due to the economic climate. However, it may also be due to the broad assumptions that were made during the appraisal process in the manual calculations of the accident rates across the wider modelled area, which did not derive actual accident rates for particular roads;
- There were inaccuracies in the forecast traffic flows and journey times for several of the key routes in the model area, and these seem to stem primarily from incorrect base year data, although the forecast traffic flows on the improved section of the A27 were relatively accurate;
- The impact of the current economic climate should not be overlooked however, analysis of long term traffic data in the vicinity of the scheme, and of observed trends in local traffic published by the DfT, indicates that volumes of traffic in East Sussex have not witnessed the same reductions observed at a national level; and
- Feedback from stakeholders has indicated low usage of the extended footpath/cycleway which runs along the northern edge of the scheme. Some concerns have also been raised with regards to the narrowing of 400m of the path where an approved departure from current standard was required because of its close proximity to the Ranscombe chalk face. Stakeholders have also questioned the decision to end the path just east of the Beddingham roundabout and not continue it eastwards to the Firle Straight.

Summary of Scheme Impacts

Traffic

- There are 33,900 vehicles per weekday using the improved section of the A27. This represents an increase of 8% compared to pre-opening levels;
- Traffic flows on the A259 and B2192/A22 (parallel routes) have reduced since the scheme opened indicating likely reassignment from these routes to the A27;
- Traffic flows on local roads in the vicinity of the scheme have also reduced indicating that the scheme is likely to have attracted traffic away from using less appropriate routes;
- Journey time savings along the improved section of A27 have been observed in all time periods, with the largest time savings being westbound in the AM peak. Over a route between Brighton and Polegate, time savings have been as large as 6.5 minutes when compared to times observed before scheme construction which were affected by level crossing delays;
- Journey time savings have also been observed on the parallel A259 (south of the scheme) and also on the B2192 (north of the scheme) with the most significant savings being in the westbound direction; and
- One year after scheme opening, average journey speeds have increased from around 30mph to 45mph in the westbound direction and have remained broadly the same (at 30mph) in the eastbound direction with a slight improvement in the inter-peak

Safety

- Annual saving in the opening year of 27 Personal Injury Accidents (PIAs) across the wider modelled area likely to be due to traffic reassigning from other routes as a result of the scheme, and a saving of five accidents on the scheme section of the A27;
- Removing the level crossing has improved safety for both road and rail users; and
- Accident savings over the wider area in the opening year are greater than predicted.
- While the accident savings over the wide area are statistically significant, changes in accident numbers on the scheme section on the A27 are too small at this one year after stage to be able to establish the statistical significance of the change.

Environment

- Some widely spaced mitigation planting may not achieve screening requirements;
- Based on traffic flows, noise and air quality impacts are likely to be as expected, although complaints about noise have been made;
- Biodiversity, cultural heritage, journey ambiance and physical fitness as expected.

Accessibility

- The extension of the footpath/cycleway and links with existing cycle network and footpaths have increased opportunity for cycling and walking in the area.

Integration

- The scheme has achieved policy objectives at a national, regional and local level by reducing congestion, providing improved transport links and safety for road and rail users;
- Adverse impacts on policy objectives relating to the Area of Outstanding Natural Beauty (AONB), and the proposed South Downs National Park, however mitigation measures have minimised the impact.

Summary of Scheme Economic Performance

	Pre Scheme Forecast (2002 Prices)	Post Opening Reforecast (2002 Prices)
Journey Time Benefit	£359.1m	£273.7m
Safety Benefit	£66m	£109.6m
Total 60 Year Benefits (PVB)	£425.1m	£383.3m
Costs (PVC)	£51.9m	£100.4m
Benefit Cost Ratio (BCR)	8.2	3.8

Note: Forecast Benefits based on EAR. Actual benefits include saving of 27 accidents over wider modelled area, and vehicle hour savings over available observed routes. Forecast costs based on latest available before construction. Note: higher than expected indirect tax losses which increase the cost of the scheme to Government, formed more than half of the PVC for this scheme. This higher cost is the reason for the outturn BCR being below forecast.

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