

## POPE of Major Schemes Summary Report

Scheme Title	<b>A47 Thorney Bypass</b>
Opening Date	December 2005
POPE Stage	One Year After

### Scheme Description

The A47 Thorney bypass is located to the east of Peterborough in Cambridgeshire and is a strategic route that links East Anglia with the east coast and Midlands. Key features of the scheme were:

- Construction of a new dual carriageway bypass to the north of the village of Thorney.
- Construction of new roundabouts and lay-bys on the extent of bypass.
- Provision of a new over bridge for pedestrians and cyclists.
- Extensive landscaping and environmental mitigation measures.

### Objectives (HA Statement of Case, January 2003)

### Objective Achieved?

- |   |  |
|---|--|
| • To reduce accidents on the A47  | No initial change                                |
| • To make the de-trunked route through the village safer for all users  | Yes  |
| • Improve journey times and reliability for trunk road and local traffic  | Improved journey times, no change in reliability |
| • Reduce severance and improve the local environment of the village by removing longer distance and local through traffic | Yes  |

### Key Findings

- A majority of 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 slightly. The change is not statistically significant and is less than forecast.
- The Bypass/ B1040 roundabout was noted as having an unusually high number of accidents. The situation is being addressed by the Highways Agency following completion of the Stage 4 Road Safety Audit.
- Whilst the total traffic using the old road and the bypass was accurately forecast, the volume of traffic using the bypass was higher than forecast and less than forecast on the old road. An incorrect assumption was made that no Thorney destined traffic would use the bypass.
- The reduction of traffic in Thorney has been well received. In the local residents survey, issues with speeding and parking were identified – this is responsibility of the Local Authority.
- Journey time benefits are above prediction due to journey time savings being greater than the forecast. Accident savings are less than predicted. Whilst scheme costs are slightly higher than predicted, the outturn BCR is better than expected.
- Environmental matters were given due regard and environmental mitigation measures implemented.

- Traffic noise has been introduced into the countryside which is likely to affect users of Public Rights Of Way.
- The scheme has reduced community severance in Thorney Village and improved conditions for pedestrians., cyclists and public transport users and services.
- The scheme integrates fully with regional and national policies
- Early involvement of the community and assessment of options helped to minimise objections later on in the planning process. These procedures have ensured the delivery of a well balanced scheme that has been warmly welcomed by key local stakeholders. This is particularly evident from the responses received in the residents' survey.

## Summary of Scheme Impacts

### Traffic

- Traffic volumes on the new bypass in March 2007 were just under 17,000 vehicles per day - greater than forecast.
- Traffic level through Thorney village reduced from 17,500 to 700 vehicles per day; a 96% reduction and a greater decrease than predicted.
- The total traffic level across both roads is around what was predicted.
- A local assignment issue between the bypass and old road has been identified. The forecasts assumed no traffic destined for Thorney would use the bypass, but turning counts suggest that some Thorney traffic does use the bypass. This may explain why traffic on the bypass is higher than expected and as a result lower through the village`
- The number of HGVs travelling through Thorney has reduced by over 90%.
- B1040 North/southbound traffic has increased on the south side of the B1167 and decreased on the north side of the B1167.
- Journey times for through traffic reduced by 2 minutes at peak times, which is better than predicted.
- No change in journey time reliability.

### Safety

- Slight reduction in total accidents in first year since opening. The change is not statistically significant and is less than predicted.
- However, there is a reduction in accidents along the old A47 route through Thorney, There have been around 11 fewer accidents in the first year.
- No fatal accidents in the area since opening and accidents involving cyclists and pedestrians have reduced.
- Accidents on the new roundabouts on the scheme, in particular at B1040, are of concern and being addressed by the Highways Agency following completion of the Stage 4 Road Safety Audit.

### Environment

- In Thorney Village traffic levels are lower than predicted and as a result noise and air quality may be better than expected.  
Carbon emissions have increased by 727 tonnes in the opening year, higher than the expected increase of 339. The combination of more traffic on the bypass and quicker journey times than expected results in more vehicles travelling at a less efficient speed, a possible reason for the higher than expected Carbon levels in the opening year.
- Impacts on heritage were better than expected as the investigative works found no evidence of archaeological remains and the reduction in traffic in Thorney was greater than predicted improving the setting of the Conservation Area and the Area of Historic landscape and parkland.

- Impacts on other environmental objectives are as expected and mitigation measures have been implemented as planned.

#### Accessibility

- Reduced community severance in Thorney Village due to the reduction in traffic.
- Improved travel conditions for bus passengers and operators, pedestrians and cyclists.
- Majority of residents feel it is now much easier and safer to move around the village.

#### Integration

- The scheme meets the objectives set out in a number of national and local policy documents.

### Summary of Scheme Economic Performance

	Pre Scheme Forecast (2002 Prices)	Post Opening Reforecast (2002 Prices)
Journey Time Benefit	£38.94m	£65.54m
Safety Benefit	£8.70m	£0.99m
Total 30 Year Benefits (PVB)	£47.64m	£66.53m
Costs (PVC)	£19.21m	£22.46m
<b>Benefit Cost Ratio (BCR)</b>	<b>2.48</b>	<b>2.96</b>

- The monetary journey time benefit is considerably higher than predicted as a result of 2 factors; firstly the number of vehicles using the bypass is higher than forecast meaning that a greater number of vehicles than expected are benefiting from reduced journey times. Secondly, the journey time savings on the bypass are better than expected.
- The predicted reduction in accidents has not materialised, hence the lower than forecast accident benefit.
- The outturn scheme cost is within 5% of the predicted cost.
- The benefit to cost ratio is slightly higher than predicted.

This document summarises the findings of the one year after post opening evaluation study completed in October 2009.