

Appendix 4B  
Indicative Road Safety Appraisal  
(August 2004)

## **HEYSHAM/M6 LINK – INDICATIVE ROAD SAFETY APPRAISAL (AUGUST 2004)**

This appraisal was undertaken using output from the existing economic model (based on the Department for Transport's COBA program) as prepared prior to the 2001 Public Consultation. A formal assessment of accident savings will be undertaken with an up-to-date COBA-based safety model.

### **Estimated Accident Savings**

Examination of the COBA output showed that, for each scheme, a high proportion of the accident savings were generated by approximately the top third most influential model network links, in terms of accident benefit or disbenefit. A figure of 10 accidents or more saved/added (over the 30-year evaluation period) was established to identify these key links.

For each link sampled, as per the above criterion, the traffic flow input for 2001 was used to determine a flow change which could be compared with the equivalent flow change resulting from the latest opening year Do Minimum and Do Something traffic forecasts. An updated accident saving/addition could therefore result by the pro-rata scaling of the existing figure.

### **Western Route**

Using the above methodology 57, out of 201, COBA links were identified from the original (2001) model. These links generated 78% (574/735) of the 30-year accident savings. Link-by-link analysis of flow changes results in a much-reduced accident saving, from 735 down to an indicated figure of just 23 accidents. The COBA output severity split was utilised to derive a saving of around 3 fatal and seriously injured casualties, and a saving of around 24 slightly injured casualties, over the 30-year evaluation period. These are far below the casualty figures that compute from the annual savings presented at the 2001 consultation: 90 fatal and seriously injured; 750 slightly injured.

Explanation for this substantially reduced saving in accidents is given by the traffic relief comparisons detailed below:

- It is predicted that an extra 2,700 vpd will be drawn off the comparatively safe M6 Lancaster Bypass onto the all-purpose Western Route, which is predominantly WS2 in standard;
- On the A6 south of Lancaster, however, less traffic relief – around 4,000vpd at Galgate, for example – is forecast, thus providing reduced accident benefit;
- There is also significantly less traffic relief forecast for the A6 City Centre gyratory system which, again, results in a reduced accident saving.

### **Northern Route**

In this case 79, out of 196, COBA links were identified. These links generated 85% (787/929) of the 30-year accident savings. Link-by-link analysis of flow changes results in a reduced accident saving, from 929 down to an indicated figure of 715 accidents. Again, the output severity split from COBA was utilised to derive a saving of around 132 fatal and seriously injured casualties, and a saving of around 746 slight casualties, over the 30-year period. These are about 25% lower than the casualty figures that compute from the annual savings presented at the 2001 consultation: 180 fatal and seriously injured; 960 slightly injured.

Factors contributing to the reduction in accident savings are:

- On A6 between Hampson Green and the City Centre there is now between 2,000 and 5,000 vpd less traffic relief forecast;
- There is significantly less traffic reduction predicted for the A6 City Centre gyratory system.

However, by contrast, a greater traffic transfer is forecast from the A6/A5105/A589 'Coast Road' to M6/Northern Route, which provides additional accident savings and consequential moderation of the above factors.

### **Summary and Comparisons**

In conjunction with the latest traffic forecasts the existing economic (COBA) model has been used to give an early indication of the effects of each scheme on road safety.

For the Western Route only very marginal savings in casualties can now be predicted.

However, with the Northern Route, significant savings are still indicated: around 4 fatal and serious casualties per annum and around 25 slight casualties per annum.

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