

A1 JUNCTION IMPROVEMENTS DROMORE ROAD, HILLSBOROUGH

DRD ROADS SERVICE, SOUTHERN DIVISION

Environmental Statement, Volume 1

November 2005

Non Technical Summary

Introduction

The Department for Regional Development (DRD) Roads Service has recognised that the A1 between Hillsborough and Loughbrickland, which forms part of the Euro Route between Belfast and Dublin, is of strategic importance and has specified specific safety improvements that it wishes to adopt along the route. These improvements include changing four junctions so that travellers do not need to cross a lane of oncoming traffic. This is achieved with what is known as a grade separated junction, which requires either an overbridge or underbridge. One of the junctions identified is at Dromore Road, Hillsborough.

This Non-Technical Summary presents a brief overview of the findings of the Environmental Statement, which reports on the environmental impacts, mitigation proposals and general effects of the A1 junction improvement at Dromore Road, Hillsborough.

Scheme Objectives

The main objectives of the Scheme are:

- To improve safety by reducing the number and severity of road accidents
- To accommodate increasing traffic flows by assisting the flow of traffic from the minor roads onto the A1

The Proposed Scheme

Five options were initially considered at the Hillsborough junction. Following the Stage 1 assessment, three of these options were rejected due to buildability issues or economic performance, for example, negative Benefit to Cost Ratios (BCR). Further assessment was carried out on the two remaining options, Options 1 and 3, during Stage 2, in which Option 1 produced the best economic benefits. The value of the benefits of Option 1 (including journey time savings, accident savings etc.) is £8.235 million, whereas the costs (construction costs, land purchase etc.) are £3.883 million. This meant that the benefits of the scheme were 2.121 times greater than the costs. The benefits of Option 3 were only 1.498 times greater than the costs.

The proposed scheme places the proposed eastern access to Hillsborough at the site of the current access whilst moving the Ballygowan Road access slightly to the north to avoid a conflict with an adjacent property. An overbridge would be sited to the north of the existing junction and the design of the junction would minimise the impact on land take. A ghost island junction is proposed at the junction with Dromore Road towards Hillsborough.

Effects of the Scheme on the Environment

Air Quality

Local air quality impacts were considered at Stage 2 of the assessment, which concluded that National Air Quality Standards will not be exceeded with regard to Carbon Monoxide, Hydrocarbons, Oxides of Nitrogen and Particulate Matter. Results for 2010 are lower than those presented for the year of opening because background concentrations for all the regulated pollutants are expected to decline in future years, as a result of Government and EU policies and legislation to reduce pollutant emissions.

It is concluded that the proposed new junction would lead to an insignificant increase in regional pollution levels when compared to the existing junction opening year and the design year. The marginal increase is attributable to the introduction of a new road link and the resultant increase in total distance travelled. Observable increases or decreases in total emission levels reflect the relative balance between traffic growth and emission forecasts inherent in the National Atmospheric Emissions Inventory.

Cultural Heritage

The alteration of the junction at Hillsborough would be unlikely to impact upon any known archaeological remains. There remains the potential for previously unrecorded archaeological sites to be found during ground excavation. If remains are discovered it is proposed that a mitigation strategy entailing trial trenching prior to construction and archaeological monitoring of topsoil during removal.

Disruption due to Construction

During the construction stage of the project, traffic using the A1 may be affected through minor road closures however this will be minimised by the introduction of temporary traffic management schemes. Over the course of the contract, removal of excavated material for disposal and import of fill will generate an increase in traffic volume along the local stretch of A1.

As with any construction scheme, there will be noise, vibration, visual and air quality impacts in the immediate vicinity of the works. Construction works will result in the excavation of grassland and woodland habitats, however these areas are of low conservation value. Significant adverse effects on features of ecological interest are likely to be limited to removal of a small number of mature trees to the north of Dromore Road. No adverse effects on sites of archaeological or historical importance are predicted. Disruption to properties caused by construction works will be minimised by contractual requirements that will encompass working hours, noise pollution, public safety, traffic management and other best working practices. All borrow pits, disposal sites and site compounds proposed by the Contractor will be subject to appropriate approval.

Ecology and Nature Conservation

The overall assessment of the scheme is slight adverse impact on the local ecology. This assessment is based largely on the impact of the loss of hedgerows and, especially, mature hedgerow trees, and on potential effects on bat roosting and feeding opportunities.

The major residual effect of the works will be a reforming of the land surface to accommodate the new overbridge, with new species-rich grassland and woodland habitats produced as a result of mitigation planting.

Landscape and Visual Amenity

The existing A1 is a prominent feature in the area and already imposes a degree of visual impact on properties and the wider landscape. The proposals would have landscape and visual impacts and would alter current views, increasing the degree of visual impact until mitigating measures become effective.

Landscape proposals will as far as possible, reduce the predicted impacts, enhance the wider landscape and integrate the proposed junction into the surrounding landscape through the creation of ponds and new native plantings.

In visual terms the proposed development would have slight adverse impacts on the landscape.

Land Use

The junction improvement will not result in the demolition of any residential property. The existing habitat is predominantly improved grassland and through mitigation, the quality of the ecology of the area will be improved resulting in more species diversity.

All the agricultural land taken is of Best and Most Versatile (BMV) quality. The loss equates to approximately 4.75ha of land classified as BMV.

Traffic Noise and Vibration

Due to the high existing noise environment influenced by the A1, it is predicted that the proposed junction will not result in a significant contribution to the future noise environment.

Some properties located close to the A1 are currently exposed to noise levels that exceed the values used for determining eligibility for statutory sound insulation. However, none of the properties close to the proposed junction are affected by increases in noise impact which would exceed this level. Therefore, it is not necessary to provide any mitigating measures.

The potential noise impact of temporary construction noise has been assessed and a number of mitigation measures and best practice guidelines have been provided to minimise the noise impact.

Pedestrians, Cyclists, Equestrians and Community Effects

The community around Ballygowan Road will have improved non-motorised means (cycling, walking etc access to the amenities of Hillsborough through). The improvements would have a beneficial impact on the community as a whole.

Vehicle Travellers

The impact on views from the road would be neutral. Overall, driver stress levels would be significantly reduced. The overbridge would remove the requirement to cross up to 4 lanes of traffic to get on to the opposite carriageway and will relieve the build up of queues on Dromore Road and Ballygowan Road. The overall significance score for quality of journey has been assessed to be of Moderate Beneficial Effect because the number of travellers affected by the proposed scheme is between 500 and 10,000 per day.

Water Quality and Drainage

Drainage provisions will maintain a low and acceptable level of risk of serious pollution incidents arising from the junction improvement. Furthermore, the provision of improved pollution prevention and control measures within the drainage system will have a significant positive benefit for long term water quality within the area of the improved junction. The provision of retention ponds and other discharge control measures will improve the capability for local flood control.

Geology and Soils

The main effect on geology and soils of the proposed scheme is the loss of best and most versatile agricultural soils within the bounds of the new construction. The scheme will also have a localised, limited impact on regionally extensive soil, drift and bedrock structures.

Proposed mitigation measures will reduce the potential extent and degree of soil degradation and should reduce the significance of adverse effects.

Policies and Plans

The A1 is part of a Regional Strategic Transport Network identified in 'Shaping Our Future – Regional Development Strategy for Northern Ireland 2025' and any improvements to its current condition, will help to safely facilitate future growth both on the locality around Hillsborough and as part of a network covering Belfast to Dublin. Through this, the scheme complies with the national policy relating to transport. The design and development of the scheme implements mitigation measures designed to reduce the environmental impacts on the area. The scheme is therefore generally in accordance with the policies and plans of the authorities concerned. The overall impact is beneficial.

Conclusions

The Scheme supports regional and local transport planning objectives. Key benefits of the Scheme are:

- Significant improvements in safety and driver stress
- Enhanced access to amenities.
- The overbridge removes the requirement to cross four lanes of traffic to access the carriageway
- Through mitigation, the ecological quality of the area will be improved by increased botanical diversity due to the retention ponds.
- Improved pollution prevention and control measures will have a significant positive benefit for long term water quality within the area of the proposed junction

No significant adverse impacts have been identified affecting air quality, archaeology, geology, traffic noise and vibration or policies and plans.

Adverse effects identified include:

- Loss of range of habitat types, however all are of low conservation value
- Loss of 4.75ha of Best and Most Versatile land
- Potential increase in localised flooding through increased run-off, but this will be managed with retention ponds etc.
- Some disruption during the construction phase.

None of the identified adverse impacts are predicted to be significant. Mitigation measures are proposed to minimise any environmental impacts of the Scheme.