# 1 INTRODUCTION

## 1.1 General Background

The Department for Regional Development published a Regional Strategic Transport Network Transport Plan 2015 (RSTN TP) for the maintenance, management and development of Northern Ireland's transport network. The plan includes a programme of Strategic Road Improvements (SRIs) to remove bottlenecks on the road network where lack of capacity is causing serious congestion and to improve the environment by providing bypasses to some towns. An objective of the RSTN TP is to upgrade the existing route between the western end of the M22 Motorway at Randalstown and the Castledawson Roundabout to dual carriageway standard i.e. upgrade this part of the North Western Key Transport Corridor by way of a new dual carriageway from Randalstown to Toome, the recently completed Toome Bypass and a new dual carriageway from Toome to Castledawson.

Roads Service is required to carry out a detailed appraisal of each SRI proposal. The appraisal procedure requires a clear understanding of the objectives to be met, an appropriate criteria to be used, and then to decide whether a proposal meets them. The Government's five objectives for transport are pivotal to the appraisal process.

- Environmental impact: involves reducing the direct and indirect impacts of the transport facilities on the environment of both users and non users;
- Safety: is concerned with reducing the loss of life, injuries and damage to property resulting from transport incidents and crime;
- Economy: is concerned with improving the economic efficiency of transport;
- Accessibility: is concerned with the ability with which people can reach different locations and facilities by different modes; and
- Integration aims to ensure that all decisions are taken in the context of the Government's integrated transport policy.

Scheme assessment is a three-stage procedure. The level of detail and the coverage of each stage of assessment is appropriate to the type of decision that can reasonably be taken at that stage.

- Stage 1 – identifies the environmental, engineering, economic and traffic advantages, disadvantages and constraints associated with broadly defined improvement strategies. This concludes with the selection of a number of potential routes or scheme options.
- Stage 2 - identifies the factors to be taken into account in choosing alternative routes or improvement schemes and to identify the environmental, engineering, economic and traffic advantages, disadvantages and constraints associated with those routes or schemes. This concludes in the selection of a preferred route or scheme option.
- Stage 3 – identifies the advantages and disadvantages, environmental, engineering, economic and traffic terms of the preferred route option. A particular requirement at this stage is an assessment of the significant environmental effects of the project in accordance

with the requirements of Article 67A(3) of The Roads (Northern Ireland) Order 1993, implementing EC Directive 85/337 as amended by EC 97/11.

The proposed scheme comprises a 7.3 kilometre long dual carriageway between Randalstown and Toome and a 6.7 kilometre long dual carriageway between Toome and Castledawson. This Stage 3 Scheme Assessment Report (SAR) reports the detailed assessment of the Toome to Castledawson part of the 'Preferred Scheme' announced by the Minister for Regional Development in September 2005. A separate Environmental Statement predicts the environmental effects of the Toome to Castledawson part of the "Preferred Scheme" and details the measures proposed to reduce or eliminate those effects.

## 1.2 Introduction to Study Area

The existing Hillhead Road is situated within the Lower Bann Valley, where land is relatively low-lying, with a transition from shallow drumlins on the edges of the floodplains, to extensive flat pastures, bog and wet woodlands on the fringes of Lough Neagh and Lough Beg. The landscape is generally secluded, with a prominent network of hedgerows containing numerous trees, particularly oak. Farms and villages are concentrated on shallow drumlins, which often form prominent 'islands' with a relatively diverse landscape pattern with numerous trees. In recent years, the area has become increasingly overwhelmed by ribbon development along the main road, especially near Toome, experiencing extensive loss of hedgerows and general degradation of the landscape character. The rural hinterland between Toome and Castledawson has also been subjected to isolated housing and other development, making it difficult to select an alignment whilst minimising demolition and proximity impacts. Severance of farms is also inevitable.

To the southeast of Castledawson, the lower reaches of the Moyola River flows towards Lough Neagh, often hidden from view by extensive woodlands on wet, low-lying land. These carr woodlands are generally dominated by willow, alder and birch and are generally close to the river channel.

Throughout the study area, there are a number of known sites of cultural heritage significance. A number of designated ecological sites exist close to Toome, including Lough Neagh and Lough Beg Ramsar site, Lough Beg Area of Special Scientific Interest (ASSI), Lough Beg National Nature Reserve (NNR), Lough Neagh ASSI, and Lough Neagh and Lough Beg Special Protection Area (SPA), and Toome (ASSI).

The Hillhead Road and Castledawson Bypass are part of the North Western Key Transport Corridor, which connects Belfast to Londonderry via Toome, Maghera and Dungiven and is part of the Euro Route 016. Surveys carried out in 2004, recorded traffic increasing along the route from 12,000 vehicles per 12-hour day[1] east of the Castledawson Roundabout to 14,500 vehicles per 12-hour day west of Toome. With traffic levels continuing to grow and the anticipated

[1] Traffic volumes recorded between 7:00 am and & 7:00 pm.

expansion of local industry, traffic congestion will increase and road safety will deteriorate over the coming years.

## 1.3 Consultants Brief – Route Selection

Civil engineering consultants Scott Wilson – Ferguson McIlveen were commissioned by Roads Service in 2003 to examine the dual carriageway proposal. The scheme specific Project Brief required the consultant to:

- Identify a preferred corridor where the construction of the road improvement would be least environmentally damaging;
- Assist with the selection of a preferred route alignment within this corridor;
- Design mitigation measures to reduce the environmental damage of the preferred alignment; and
- Support Roads Service in promoting the scheme through public consultation and statutory procedures.

### 1.3.1 Preferred Route Corridor

The Stage 1 Preferred Route Corridor Report, published in October 2004, describes the work carried out during Phases 1 to 3 of the commission. The 'Stage 1 Report – Preferred Route Corridor – Toome to Castledawson Dualling' summarised the assessment carried out on eleven Route Options between Toome and Castledawson. On-line and off-line options were developed within three distinct corridors: the North corridor lying largely to the north of the existing road, the Central corridor largely straddling the existing road and the South corridor lying largely to the south of the existing road.

The Stage 1 Report summarised the assessment of routes and corridors using the criteria defined in the Design Manual for Roads and Bridges (DMRB) and the Government's five objectives for transport. A scheme specific 'comparative route appraisal' was also formulated to complement these procedures. Appraisal of the route options, under Engineering, Economic and Environmental criteria, concluded that Route Options 1, 8, & 11 were superior in most respects.

The Stage 1 Report recommended that narrow corridors around Route Options 1, 8 & 11 were taken forward to the Stage 2 Approved Route Options stage, where a more detailed investigation of the options would be carried out.

The three Route Options 1, 8 & 11 selected at the Preliminary Options stage were renamed Red, Blue and Brown respectively for the purposes of the February 2005 Public Consultation, as shown in Figure 1.2.

### 1.3.2 Approved Route Options

The Stage 2 Approved Route Options Report examined the Stage 1 Report conclusions in greater detail. The 'Stage 2 Report – Approved Route Options – Toome to Castledawson Dualling' was published in November 2005. The body of the Stage 2 Report included the

following sections: Public Consultation; Engineering Assessment; Environmental Assessment; Traffic & Economic Assessment; and an Appraisal Framework. Following analysis of the comments from the public exhibition exercise, and the comments received during consultation with environmental bodies, a fourth Red Variant Route Option was developed around the Red Route option. Each Route Option was assessed against Engineering, Environment and Traffic and Economic criteria. The Red Variant was superior in most respects and was selected as the 'Preferred Route'. The Red Variant Route is shown in Figure 1.2.

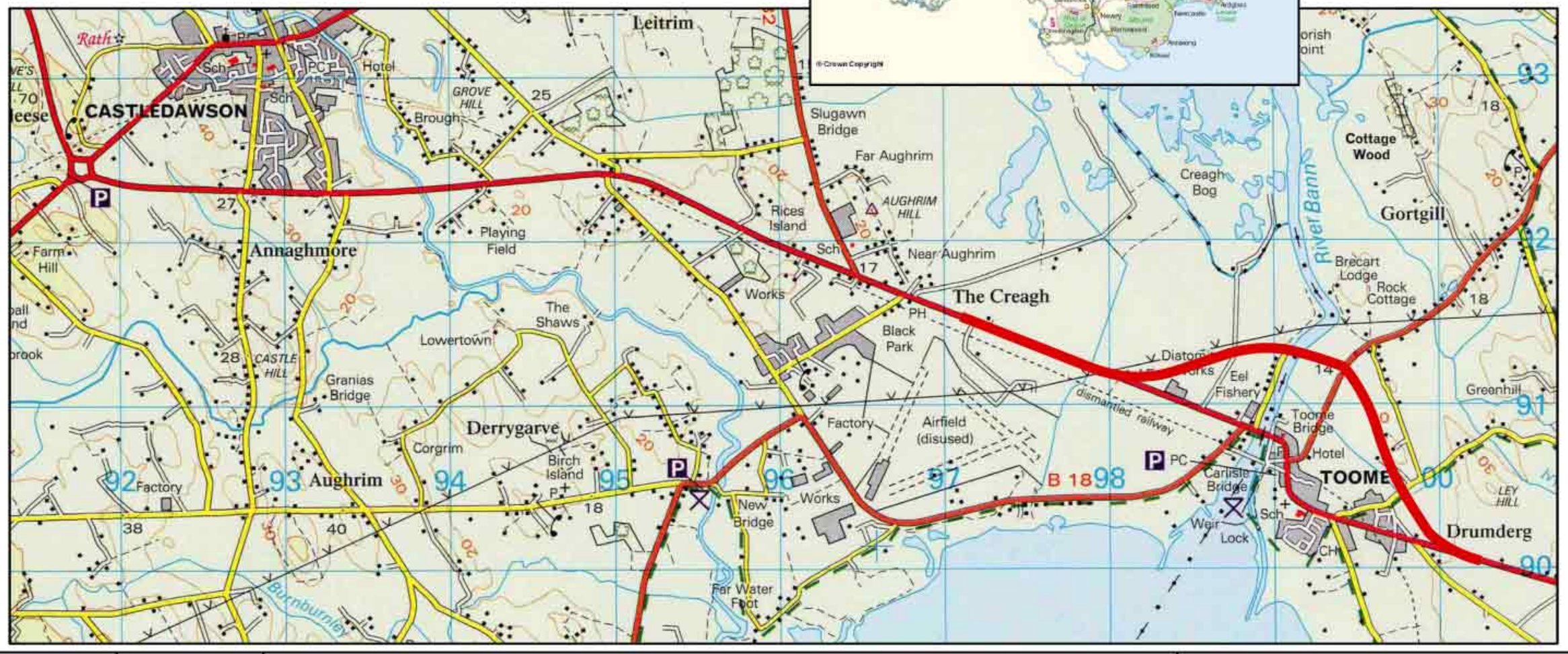
## 1.4 Preferred Route Option

This report examines the 'Preferred Route Option' for the Toome to Castledawson improvement. The Stage 3 Scheme Assessment comprehensively examines the Preferred Route Option and includes an in-depth environmental, archaeological, engineering, geotechnical, economic and traffic assessment. Stage 3 Scheme Assessment also includes a land-use assessment which examines the effects on agriculture of land-take, type of husbandry and severance, and considers the options for major accommodation works to provide access, water supply and drainage etc.

Stage 3 Scheme Assessment is reported in two publications, an Environmental Statement and a Stage 3 Scheme Assessment Report (SAR). The Environmental Statement is a detailed report of the findings of the environmental assessment of the scheme and, in particular, it predicts the environmental effects the scheme will have and details of the measures proposed to reduce or eliminate them. The Stage 3 SAR describes all other aspects of the assessment not included in the Environmental Statement such as:

- Existing conditions within the study area;
- Detailed scheme description;
- Cost estimates;
- Engineering information including geotechnical and drainage issues, structures within the scheme, geometric Departures from Standard and constructability issues;
- Traffic and Economic information including a summary of the traffic modelling, forecasting and economical appraisal; and
- Appraisal Framework.



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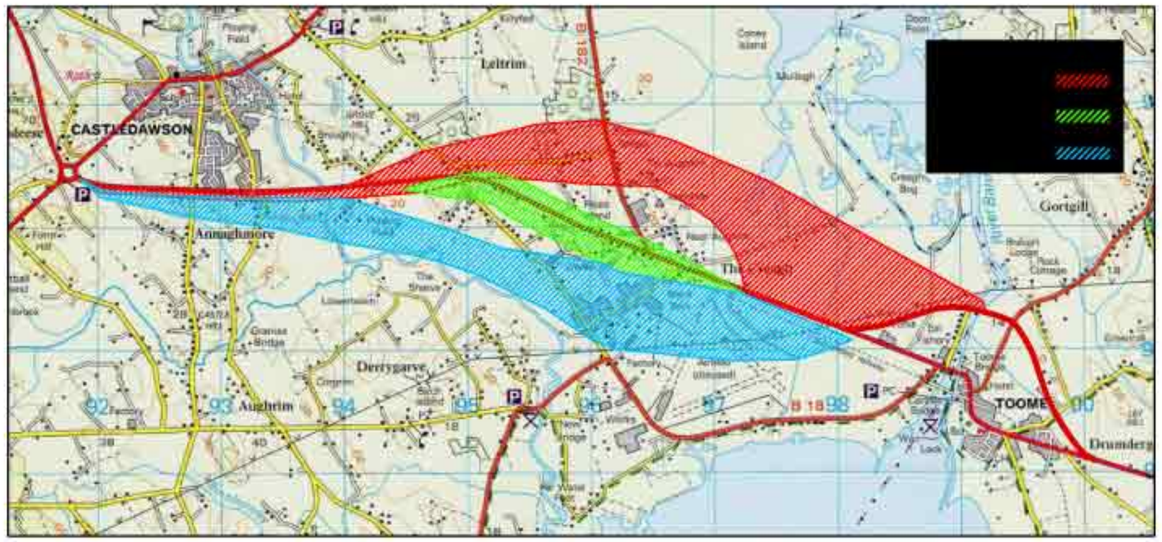
**A6 Toome to Castledawson Dualling**

**Location Plan**

**Figure 1.1**









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**Development of Preliminary Route Options to Preferred Route**

**Figure 1.2**