

## Part One

### 1/4 The Proposed Scheme

#### 1/4.1 Introduction

This section provides a description of existing traffic in the locality of the scheme, outlines both the need for the scheme and the scheme objectives, and provides a description of the proposals.

#### 1/4.2 Existing Situation

The existing A876, which includes Kincardine Bridge, is one of the most heavily used sections of single carriageway trunk road in Scotland. The percentage of heavy goods vehicles on this section of road is 17%, which is much higher than the national average (approximately 11%). The A977 to the north of Kincardine and the A985 to the east are also single carriageway trunk roads that carry significant volumes of traffic through Kincardine. Existing and projected average daily traffic flows on the road network through Kincardine are shown in Table 1/4.1 and in [Figure 1/4.1](#).

Due to the heavy traffic flows, the mini-roundabout where the A876, the A977 and the A985 meet in the centre of Kincardine is frequently congested during the day. Local access requirements are therefore compromised during these periods, and traffic rat-running through residential streets is not uncommon. This has led to concern over issues such as air quality, severance and the amenity for residents within Kincardine.

East of Kincardine, the current road layout at the properties known as The Holdings, offers a poor level of service in terms of direct access onto the A985.

**Table 1/4.1 Existing and Projected Annual Average Total Vehicles per 18hour Day, With and Without Scheme**

Road	Annual average, total vehicles per 18 hour day (%HGVs)					
	Existing	Year 2003, do minimum	Year 2003, with scheme	Year 2018, do minimum	Year 2018, with scheme	% change (2003)
<b>A876 (Bridge end)</b>	25700 (17.0)	26600 (17.5)	16700 (18.5)	32400 (19.5)	21400 (19.5)	Approx 40% reduction
<b>A876 (Mini-roundabout)</b>	24700 (17.5)	26100 (17.5)	16000 (18.5)	31700 (25.0)	20400 (25.0)	Approx 40% reduction
<b>A985</b>	12300 (16.5)	12350 (16.5)	2300 (19.0)	15000 21.5)	2600 (21.5)	Approx 80% reduction
<b>A977</b>	14000 (17.0)	14850 (17.0)	14850 (17.5)	18200 (18.5)	19200 (18.5)	No significant change
<b>Eastern Link Road</b>	0	0	13100 (14.5)	0	19200 (16.0)	N/A

#### 1/4.3 Scheme Objectives

Since 1997, all the major trunk road proposals in Scotland are routinely appraised against five criteria, comprising economy, environment, safety, accessibility and integration.

The local objectives for this scheme that reflect the five assessment criteria, are as

follows:

- Economy: to improve journey times, reduce vehicle operating costs and improve the level of service on the A985/ A977/ A876;
- Environment: to reduce the level of noise and air pollution currently experienced by residents of Kincardine;
- Safety: to reduce the severity and number of personal injury accidents on the approaches to and within the village of Kincardine;
- Accessibility: to maintain existing levels of accessibility in and around the bridgehead area and reduce community severance; and
- Integration: to improve journey times and reliability for local and express bus services, and to afford opportunities for consideration of development to the east of Kincardine.

#### **1/4.4 Strategy**

The strategy is intended to reduce the level of congestion within the village and the present conflict between through and local traffic. This will be achieved by constructing what is effectively in the most part a wide single carriageway by-pass, 2.2km in length, to the southeast of Kincardine. The proposal will result in the removal of traffic travelling to or from Fife from the centre of Kincardine, equating to approximately 40% of the total traffic volume on the A876 North Approach Road and approximately 80% of traffic on the A985. The junction arrangement immediately north of the bridgehead will be designed such that it does not necessitate works to the existing Kincardine Bridge, and will therefore minimise any disruption to traffic during construction. The proposed scheme will also include the provision of 1.1km of associated side roads and two at-grade junctions.

Projected daily average traffic flows on the existing and proposed road network through Kincardine are shown in Table 1/4.1 and [Figure 1/4.1](#).

#### **1/4.5 Outline of the Preferred Route**

The overall scheme details are as follows:

Length	Mainline	2.2km
	Side Roads	1.1km
Junctions	1 signalised junction	
	1 roundabout	

The scheme comprises five distinct sections as follows and as shown in [Figure 1/4.2](#):

- Section 1: West end termination junction;
- Section 2: Main link to Longannet junction;
- Section 3: Longannet Junction;
- Section 4: Eastern tie-in; and
- Section 5: the existing A876/ A985/ A977 through Kincardine.

#### **West End Termination Junction**

The west end termination junction is where the proposed road ties in to the A876 and existing Kincardine Bridge. It is key to the successful promotion of the proposed scheme as a stand-alone scheme, as the junction will have to accommodate the predicted Fife traffic both in the interim and in the longer term when a new crossing and refurbished bridge are both in operation.

The proposed layout, as shown in [Figure 1/4.3](#) is for:

- 2 lanes turning left onto Kincardine Bridge from the ELR;
- 2 lanes turning right onto the ELR and 1 lane straight ahead to the A876 from Kincardine Bridge; and
- 1 lane turning left onto the ELR and 2 lanes turning right from the A876 southbound.

To tie-in with the existing bridge, the junction will be constructed on a 7metre high embankment and fall away from the structure on a gradient of 1% for a distance of approximately 260metres. The junction will sever vehicular access from Silver Street to Walker Street near to the existing bridge. Pedestrian access will be maintained by the inclusion of an at-grade pedestrian crossing on the ELR. It is also intended that direct access onto the A876 North Approach Road (the A876) from Silver Street will no longer be permitted. This effectively means that Silver Street will become a cul-de-sac. Access to Kincardine sewage treatment works will be from Forth Street / Keith Street beneath Kincardine Bridge and will require the construction of approximately 55 metres of new access road to maintain a direct link.

### **Main Link to Longannet Junction**

This section of the proposed road, which is the main section of road and which is approximately 1.6km in length, will be constructed to a wide single carriageway standard (WS2 + 1). There is no provision for pedestrians along this section of the route.

Constructed mainly on embankment, the line falls at an approximate 2% vertical gradient before crossing the existing Walker Street at-grade. The road then rises, initially on a 0.5% gradient beyond the adjacent properties of The Sycamores and Inch House, then more steeply on a 4% gradient and terminating at Longannet Roundabout on an approximate 9 metre high embankment.

Walker Street will be stopped up either side of the link road. Non-vehicular access along this route will be maintained by the provision of a combined footpath / cycleway / bridleway along the base of the south bank of the ELR between Walker Street and Forth Street/ Keith Street. This will maintain a direct link into Kincardine from the minor roads to the east and also provide a link to the proposed Fife Coastal Path.

### **Longannet Junction**

Longannet junction will accommodate traffic from the Eastern Link Road, the existing A985, and Longannet Road and will provide access to The Holdings.

The preferred design has resulted from consultations with affected parties. A 4-arm roundabout (70 metre inscribed circle diameter) will be constructed on a 9 metre high embankment, sited approximately 170 metres south west of the existing Longannet Road /A985 junction. The ELR, the realigned A985 west, the realigned Longannet Road and the realigned A985 east will link into the roundabout. Longannet Road will be realigned to provide a 0.24km single carriageway link rising towards the roundabout on a maximum vertical gradient of 2.5%.

Constructed mainly on embankment and approximately 0.3km in length, the single carriageway A985 west links the existing A985 to Longannet Roundabout. The maximum gradient on this section of the route is a 4% fall towards the roundabout.

Access to The Holdings will be from the realigned A985 over a length of 0.5km utilising the redundant eastbound section of the A985.

### **Eastern Tie-in**

The A985 east is approximately 0.6km in length and the only section of the route in cutting. The maximum depth of cutting is 5.5 metres. Constructed to single carriageway standard to reflect existing road standards to the east of the scheme the road rises from the roundabout at a maximum vertical gradient of 6% to the south of Inch Farm cottages and ties in to the A985 beyond the Holdings.

### **Existing A876/ A985/ A977 Through Kincardine**

There will be no change in the status of the trunk roads through Kincardine.

## **1/4.6 Road Widths**

The width of roads for the proposed scheme (excluding earthworks) will be as defined in Table 1/4.2.

**Table 1/4.2 Proposed Road Widths**

<b>Eastern Link Road</b>	11.0m carriageway, 1.0m hardstrip x 2, 2.5m verge x 2 (wide single)
<b>A985 East</b>	7.3m carriageway, 1.0m hardstrip x 2, 2.5m verge x 2 (single)
<b>A985 West</b>	7.3m carriageway, 1.0m hardstrip x 2, 2.5m verge x 2
<b>Longannet Road (D22)</b>	7.3m carriageway, 1.0m hardstrip x 2, 2.5m verge x 2
<b>Longannet Roundabout</b>	10.0m circulatory carriageway, 2.5m verge
<b>Access to Holdings</b>	5.5m carriageway, 1.8m verge x 2
<b>A876 Kincardine Bridge</b>	7.3m carriageway, 0.33m hardstrip x 2, existing footway x 2

## **1/4.7 Earthworks and Fencing**

In general, the engineering slopes for both embankments and cuttings will have slopes of 1 in 2. All associated side roads will also have slopes of 1 in 2 on both cuttings and embankments. However, there will be locations where landscape mitigation requirements will necessitate the inclusion of additional material to form less steep slopes. The tops and bottoms of slopes will be rounded to provide a fit with the surrounding landscape, where appropriate. Further details on the landscaping proposals are provided in Part Three of the Environmental Statement.

Where necessary, temporary fencing shall be erected to provide a stockproof temporary boundary fence to the site prior to work commencing. On completion, the boundary of the ELR will be formed by a combination of walls, hedges and permanent fencing (both existing and new).

Environmental barriers will be provided to reduce nuisance to residential properties from traffic-related noise at two locations. Further details are provided in [Section 2/10](#).

## **1/4.8 Construction Details**

Approximately 15.6 hectares of land will be required for the proposed scheme. The cost of the proposal is estimated at £6.4 million (2000 prices).

It is anticipated that a construction period of 78 weeks will be specified in the contract. Phasing of the construction will be at the discretion of the successful tenderer. However, a staged construction of the individual construction elements is likely, and, as

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such, many construction activities will be apparent along the length of the works during the entire construction period.

It is envisaged that all construction will take place within the site boundary. Should the Contractor wish to place the site compound, storage areas, etc., outwith the site boundary, he will consult with Fife Council regarding the need for planning permission.