

ANGUS COUNCIL

INFRASTRUCTURE SERVICES COMMITTEE

2 JUNE 2009

**PROPOSED JUNCTION IMPROVEMENT A933 FORFAR ROAD/KIRKTON ROAD,
ARBROATH**

REPORT BY THE DIRECTOR OF INFRASTRUCTURE SERVICES

ABSTRACT

This report seeks the committee's agreement to an improvement proposed at the junction of the A933 Forfar Road and Kirkton Road, Arbroath.

1 RECOMMENDATIONS

- 1.1 It is recommended that the Committee agrees to:
- (i) the implementation of a junction improvement at the A933 Forfar Road/Kirkton Road, Arbroath.
 - (ii) approve the recommended works at an estimated cost of £45,000 to be funded from the Traffic Calming Road Safety Capital Budget 2009/10

2 BACKGROUND

- 2.1 Concerns have been raised regarding traffic queuing and associated delays at the junction of Forfar Road (A933) with Kirkton Road, Arbroath, at certain times of the day.
- 2.2 These concerns highlighted delays of traffic emerging from Kirkton Road especially at the evening peak and requested that consideration be given to a junction improvement to improve the flow of traffic.
- 2.3 Kirkton Road has a single lane approach to the A933 Forfar Road. Preliminary investigations, including a peak time traffic count (08:00 -09:30 & 16:30 – 17:30) and an analysis of the accident record at the junction were carried out by the Roads division.
- 2.4 The traffic count results showed that the junction is busy with frequent queuing at peak time on Kirkton Road, especially during the pm peak when the workforce is leaving the nearby industrial estate. In addition to the vehicular traffic generated from Kirkton Industrial Estate, the increase in housing in that area has lead to an increase in residential vehicular movements. Picady, the industry standard computer program for estimating the capacity of non-signalised major/minor junctions, was used to model both the existing and the proposed layout of the junction. The results showed that the existing junction performed least well during the evening peak with an estimated maximum queue length of 34 vehicles and an average delay of 1.9min/vehicle on Kirkton Road throughout the peak hour. The junction was again modelled with the proposed left turning lane on Kirkton Road as shown in Appendix A and queues during the peak period were estimated to reduce to around three vehicles with an average delay of 0.4min/vehicle on Kirkton Road.

- 2.5 Traffic flows were then increased on all movements throughout the evening peak until a maximum ratio of flow to capacity was achieved in order to estimate the probable design life of the proposed junction. Using table 2a of the 'National Road Traffic Forecasts (Great Britain) 1997' as published by the Department of the Environment, Transport and the Regions it was estimated that the proposed junction could function satisfactorily in capacity terms until around 2021.
- 2.6 The accident statistics show that there have been six damage only accidents within the vicinity of the junction within the last four years from 1 January 2005 to 31 December 2008.

3 DETAILS

- 3.1 The traffic count confirmed that the junction is busy with queuing traffic. The delays do not merit full time signals nor a full size roundabout. A mini roundabout was also considered, however the junction is on a main route with straight approaches in each direction. From the north the speed limit is 60mph reducing to 40mph in close proximity to the junction. Due to the likelihood of relatively high approach speeds this would create the potential for vehicle conflict, and a mini roundabout is therefore not recommended.
- 3.2 It is considered that the provision of a left turn lane would improve the traffic flow and allow -traffic to turn south towards Arbroath (Appendix A) The filter lane would be approximately 3.6m wide and 35m in length.
- 3.3 The filter lane would require land to the south of Kirkton Road. This land belongs to Angus Council and is under the control of the Director of Neighbourhood Services. There are also public utilities apparatus present which would require extensive alteration locally in order for the left turn lane to be constructed.

4 FINANCIAL IMPLICATION

- 4.1 The estimated capital cost to construct the filter lane is £45,000, of which £18,000 would be required to enable the necessary public utility diversions. This scheme can be funded from the Road Safety Capital Budget 2009/10 within the Roads division current capital plan.

5 HUMAN RIGHTS IMPLICATIONS

- 5.1 There are no human rights implications arising from the proposals in this report.

6 EQUALITIES IMPLICATIONS

- 6.1 The issues dealt with in this Report have been the subject of consideration from an equalities perspective (as required by legislation). An [equalities impact assessment](#) is not required.

7 SINGLE OUTCOME AGREEMENT

- 7.1 This report contributes to the following local outcomes contained within the Single Outcome Agreement for Angus.

12. We value and enjoy our built and natural environment and protect it and enhance it for future generations

- The importance and benefits to society of the environment is recognised.

15. Our public services are high quality, continually improving, efficient and responsive to local people's needs

- Resources are used effectively.
- Services are targeted at those in greatest need.
- There is greater community involvement in the planning and delivery of services.

8 CONSULTATION

- 8.1 The Chief Executive, the Director of Corporate Services, Head of Finance, Head of Law and Administration, Director of Neighbourhood Services, Head of Planning and Transport and the Chief Constable were consulted in the preparation of this report.

9 CONCLUSION

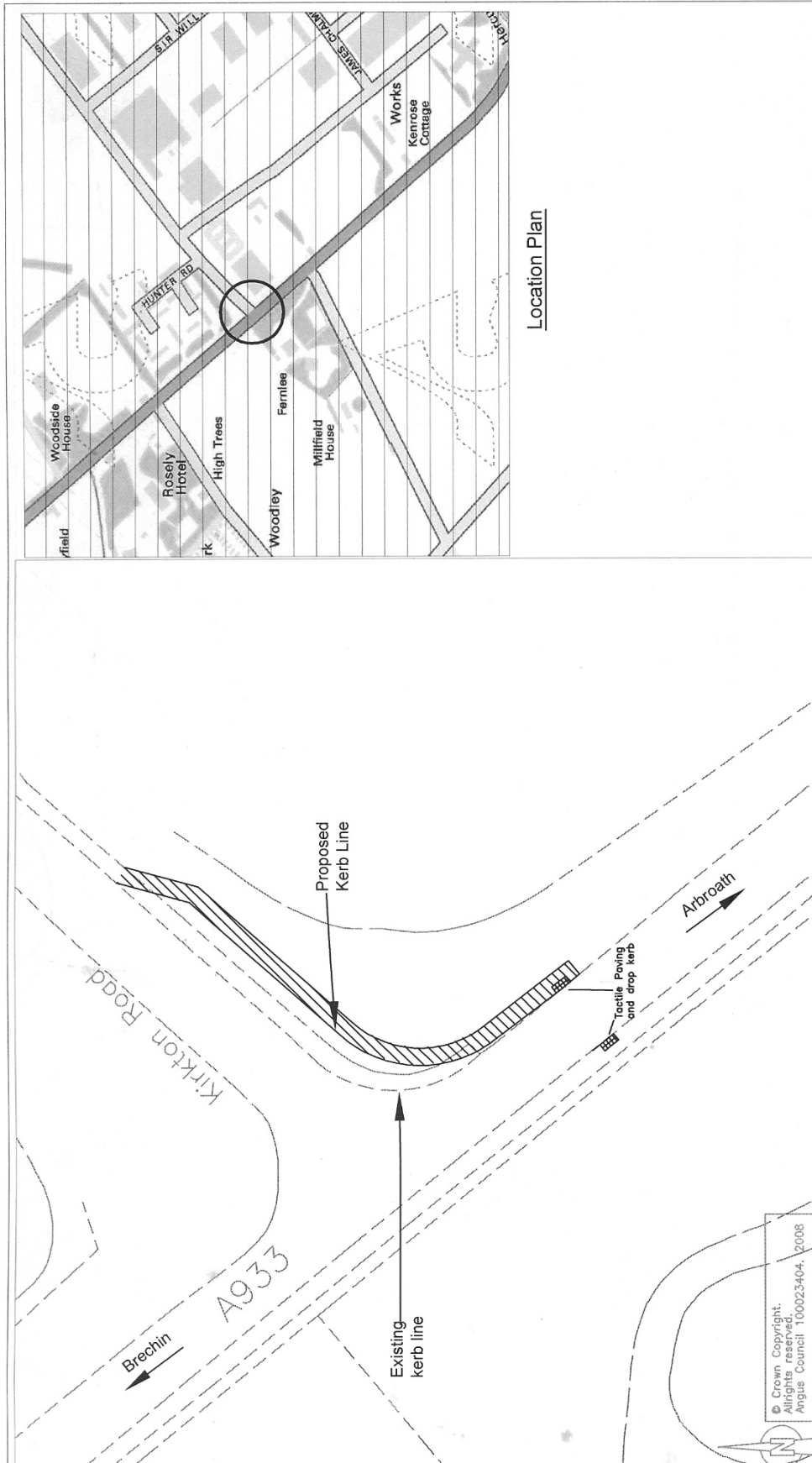
- 9.1 Delays frequently occur at the junction at peak times and these can be resolved by the provision of a left turn lane in Kirkton Road.

ERIC S LOWSON
DIRECTOR OF INFRASTRUCTURE SERVICES

NOTE:

The following background papers, as defined by Section 50D of the Local Government (Scotland) Act 1973 (other than any containing confidential or exempt information), were relied on to any material extent in preparing this Report:-

APPENDIX 1



Location Plan

v.	Date	Description	Drawn	Checked	Approved	<p>Information</p> <p>Issue:</p>	<p>Drawing Size:</p> <p>Drawn by:</p> <p>Date:</p>	<p>Plotting Scale:</p> <p>Checked By:</p> <p>Date:</p>	<p>Status:</p> <p>Approved By:</p> <p>Date:</p>	<p>Angus Council</p> <p>INFRASTRUCTURE SERVICES DEPARTMENT</p> <p>Engineer-in-charge of Roads, Angus Council</p> <p>TRAFFIC SECTION</p> <p>County Buildings</p> <p>Market Street</p> <p>ROBEY</p> <p>DD8 3WR</p> <p>Path & Filename: u:\Arbroath\Kirkton Road.dwg</p>	<p>Drawing Title:</p> <p>Location Plan and Details</p>	<p>Project Title:</p> <p>A933 Forfar Road Junction Improvement, Kirkton Road, Arbroath</p>	<p>Project No:</p> <p>-</p>	<p>Drawing No:</p> <p>Appendix A</p>	<p>Revision:</p> <p>-</p>

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