

EAST AYRSHIRE COUNCIL

DEVELOPMENT SERVICES COMMITTEE - 11 APRIL 2000

STRUCTURAL ASSESSMENT AND STRENGTHENING OF ROAD BRIDGES

Report by Director of Development Services

1. PURPOSE OF REPORT

- 1.1 To ask the Committee to approve a strategy for future capital repairs and replacements of bridges and other highway structures.

2. BACKGROUND

- 2.1. The report on the Structural Assessment and Strengthening of Road Bridges submitted to the Development Services Committee on 3 August 1999 indicated that there was a requirement to increase the levels of both Capital and Revenue budgets to avoid a significant deterioration in the condition of bridges and other highway structures.
- 2.2. Following the visual inspections carried out in the latter part of 1998, rough assessments were carried out to ascertain an order of priority in which their full assessments should be carried out.
- 2.3. During November and December 1999 further visual appraisals were carried out on the outstanding structures still requiring an assessment. The findings of these inspections indicated that there are now 48 structures requiring priority treatment. 8 structures that were considered to be satisfactory in 1998 revealed a significant deterioration over the year.

3. CONDITION OF STRUCTURES

- 3.1. Appendix A shows the list of highway structures that require major repair or replacement in up to five years and between five and ten years. Average costs of capital repair or replacement if £100,000.
- 3.2. Many structures are in a poor condition of repair; this even includes structures that have successfully passed their structural assessment. Lack of maintenance could mean that these structures would fail any future assessment requirement which may necessitate the imposition of restrictive weight limits or even in extreme cases bridge closures. This will seriously effect the business and farming communities who use many of these roads.

- 3.3.** In order to stop deterioration, routine maintenance should also be carried out. This includes re-waterproofing, pointing masonry structures and painting steel ones. About ½% of the value of the structure should be set aside for this each year. With a total replacement value of structures being £87M this equals to £435,000 per year.

4. PROPOSALS

- 4.1.** Appendix A shows the list of structures which it would be desirable to replace or carry out major repairs in up to five years and in the subsequent five years. Quite clearly resources will not be available to carry out all this work within this timescale. Priorities will be allocated which will reflect the use made of the road, the opportunities for weight limits and the absolute condition of the structure.
- 4.2** It is proposed that larger schemes of over £50,000 be referred to future Committees for approval and that the smaller schemes £50,000 or less be carried out within the minor structures allowance of the Capital Programme.

5. FINANCIAL IMPLICATIONS

- 5.1.** Over the recent five years £1,350,000 was required to carry out major repairs and replacements. This averages at £270,000 per annum. The next five years programme will require £6,500,000 at an average of £1,300,000 per annum.
- 5.2.** Routine revenue repairs should be £435,000 per annum, compared to the current years £150,000.

6. LEGAL IMPLICATIONS

- 6.1** Roads Authorities have a duty to "...manage and maintain..." public roads (RSA 1984 Section 1 (1)) and to "...secure the...safe movement of traffic..." (RTRA 1984 Section 122 (1)). This duty must include a concern for all structures carrying the road.

7. RECOMMENDATIONS

- 7.1** It is recommended that the Committee approve the strategy detailed in 4.1 for repair and replacement of bridges and other highway structures.

Stephen Chorley
Director of Development Services

PL
March 2000

LIST OF BACKGROUND PAPERS

1. **Roads Capital Programme 1997-1998, Bridge Strengthening. Development Services Committee – 3 June 1997.**
2. **Structural Assessment of Road Bridges owned by Railtrack. Development Services Committee – 3 June 1997.**
3. **Structural Assessment and Strengthening of Road Bridges. Development Services Committee – 26 January 1999.**
4. **Structural Assessment and Strengthening of Road Bridges. Development Services Committee – 3 August 1999.**

For further information please contact P. Longman on 01563 576310.

AGENDA