

EAST AYRSHIRE COUNCIL

CABINET – 29 JUNE 2011

2011-12 BRIDGE AND CULVERT STRENGTHENING PROGRAMME

Report by the Depute Chief Executive/Executive Director of Neighbourhood Services

1. PURPOSE OF REPORT

- 1.1 The purpose of the report is to seek approval of Cabinet for the proposed 2011-12 Bridge and Culvert Strengthening Programme.

2. BACKGROUND

- 2.1 At its meeting on 22 April 2009 the Cabinet approved a ten year bridges investment programme amounting to £8.96M from 2009/10 to 2018/19, taking account of priorities and affordability.

- 2.2 The report to Cabinet on 22 April, 2009 described the programmes of bridge assessments and bridge inspections that are carried out and outlined how the information is used to prepare prioritised bridge strengthening and replacement programmes.

- 2.3 Bridge assessments, principal inspections and general inspections that have been carried out to date have identified an estimated total of £16M of strengthening and upgrading work. A programme of interim measures is being implemented to manage structures that have been identified as being weak or requiring upgrading and include weight restrictions, lane restrictions and / or regular monitoring. Such measures will be put in place until works are brought forward as part of the prioritised programme of Bridge and Culvert Strengthening.

3. 2011-12 BRIDGE AND CULVERT STRENGTHENING PROGRAMME

- 3.1 At its meeting on 23 June 2010 Cabinet agreed to the reprofiling of the ten year bridges capital programme to accommodate the construction of Muck Bridge and Skeldon Bridge in 2011-12.

	2009/10 – 10/11	2011/12	2012/13	2013/14 – 15/16	2016/17 – 18/19	TOTAL
	£M	£M	£M	£M	£M	£M
Approved	1.400	0.700	0.750	2.700	3.410	8.96
Proposed	1.400	1.060	0.950	2.430	3.120	8.96

Reprofiling of the budget as outlined in Table 1 would allow the programme of works detailed below to be brought forward in 2011/12 and 12/13. The programme is prioritised taking account of information from bridge assessments and inspections.

Table 2		
	2011/12	2012/13
Bridge Assessments	£55,000	£20,000
Bridge Strengthening	£700,000	£650,000
Works Identified from bridge inspections	£100,000	£150,000
Rail Incursion	£20,000	£25,000
Bridge Parapet Upgrades	£185,000	£105,000
Total	£1,060,000	£950,000

In addition it has been necessary to carry forward a sum of £429k from 2010/11 for the following committed works:-

- the finalisation of bridge assessment packages
- the completion of works that were on site at the year end.
- advance works for Muck Bridge
- weight limit signing – design being finalised.
- sum set aside for resolution of contractual claim A70 Welltrees Bridge
- A735 Woodhill Culvert upgrading – solution being determined

3.2 Bridge Assessment – The Bridge Assessment Programme is 95% complete. Three Council bridges, eleven Network Rail bridges and four boundary bridges, where East Ayrshire Council is not the maintenance authority, remain to be assessed out of a total of 352. The eleven rail bridges are owned and maintained by Network Rail. However, the Council has a statutory duty to fund their load assessment to determine their suitability to carry the 40 Tonne vehicles operating in mainland Europe. Any subsequent strengthening that is required will in most cases require to be funded by the Council. It is proposed to allocate £15,000 to complete the assessments of the Council bridges in 2011/12. Notwithstanding the Council's efforts over the last five years, Network Rail has still to carry out the assessment of 11 rail bridges. Following discussions with Network Rail it is proposed that the Council arranges for these remaining assessments to be carried out. Network Rail has indicated that a number of these bridges cross a busy rail line and that the availability of track possessions, required to allow inspection and testing of the bridges, will be severely limited. This may further delay completion of these bridge assessments.

3.3 Bridge Strengthening and Replacement – It is proposed to bring forward the following bridge strengthening and replacement projects in 2011/12 to upgrade structures that have failed the 40 tonne assessment. An allowance has been made in 2012/13 for the completion of these schemes.

- **B741 Muck Bridge Replacement (£610,000)**
This includes the provision of a temporary bridge determined following consultation.
- **U758 Skeldon Bridge Replacement, (£220,000)**
This bridge is a boundary bridge and South Ayrshire Council act as lead authority. The sum allocated is a 50% contribution to the estimated cost of the scheme.
- **B743 Slot Burn Culvert, near Muirkirk (£90,000)**
The road across this bridge is currently restricted to single lane due to the poor condition of the culvert and its substandard capacity.
- **Scheme Development, (£10,000)**
Schemes will be developed and land negotiations carried out where required for Littlemill Bridge near Rankinston; Burnfoot Bridge near Darvel; and the Whiteleeburn Bridge north of Stewarton; have all failed their bridge assessment to allow these strengthening works to be brought forward in 2012/13.

3.4 Upgrading Identified from Inspections

The Principal and General Inspection programme has identified that there are now over 40 MPR4 bridges identified in the 10 Year Programme. The repairs to some of these structures will be funded via the Bridges Revenue budget. However, a number of the structures require extensive refurbishment and it is proposed to allocate £100,000 to enable some of this work to be progressed. Structures in this category, where it is not possible to strengthen with the existing budget, will be monitored regularly. If significant deterioration occurs before remedial action can be implemented, consideration will be given to closure of the bridge or weight restriction implemented

3.5 Rail Incursions

C23 Rigg Road (£10,000) Safety fence mitigation measures will be installed on the remaining approach leg. Network Rail will provide match funding for the measures at this site.

Further sites (£10,000) The works at Rigg Road will complete mitigation measures at the highest risk sites. Further works at lower risk sites will be brought forward.

3.6 Bridge Parapet Upgrades – A number of bridges have masonry parapets and other walls which are in poor condition and/or have sustained vehicle impact damage. Damage at five bridges has required the installation of temporary barriers pending repair and it is proposed to carry out works at these locations this financial year, with an allowance made in 2012/13 for completion of the works.

- **B713 Sorn New Bridge (£65,000).** This scheme was delayed from last year due to weather conditions. A tender has recently been awarded to WI & A Gilbert with works programmed to start in June 2011.
- **A735 Lainshawmill Bridge and B769 Corsehouse Bridge (£100,000)**

- **C50 Whirr Bridge and C20 Kilmaurs Mains Bridge (£60,000).** As well as rebuilding masonry parapets and spandrel walls, the opportunity is also being taken to introduce a formalised traffic control system at the narrow bridges by installing priority signs.

3.7 Individual programmes may be adjusted as necessary to take account of variations in price following tendering processes and changes in the bridge stock condition that can arise throughout the year and which necessitate urgent action being taken.

4.0 FINANCIAL IMPLICATIONS

4.1 The proposed programme of works in 2011-12 will be funded from the 10 year Roads and Transportation Capital budget. A revised 10 year bridges programme, taking account of up to date bridge assessment and inspection information will be the subject of a future report to Cabinet, on completion of the bridge assessment programme.

5.0 LEGAL IMPLICATIONS

5.1 Under the Roads (Scotland) Act 1984, Roads Authorities have a duty to manage and maintain public roads. This duty includes the proper maintenance of all structures carrying or supporting the road.

6.0 PERSONNEL IMPLICATIONS

6.1 There are no personnel implications

7.0 POLICY IMPLICATIONS

7.1 The proposed programmes are in accordance with the Council's Local Transport Strategy objectives in terms of reversing the decline in the condition of the bridge stock and completing the assessment and strengthening of those structures to cope with EC Standards.

8.0 COMMUNITY PLANNING IMPLICATIONS

8.1 The 10 year Bridge and Culvert Strengthening Programmes will contribute to Delivering Community Regeneration and Improving Community Safety and by ensuring access is maintained to all areas of East Ayrshire for economic activity, employment and educational opportunities and that bridges and culverts are in a safe condition for the travelling public.

9.0 RISK MANAGEMENT IMPLICATIONS

9.1 A delay in the delivery of the 10 year programme will expose the Council to potential risks with regard to the deteriorating condition of the bridge stock which could result in structure failure and reduced level of service and accessibility issues for the travelling public.

10.0 RECOMMENDATION

10.1 It is recommended that the Cabinet:-

- (i) Approves the 2011-12 Bridge and Culvert Strengthening Programme as set out in Section 3, above;
- (ii) Otherwise notes the report.

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15/6/11

JMB/AI

LIST OF BACKGROUND PAPERS

1. Bridges, Traffic, Transportation and Road Safety Programmes 2008-09 Cabinet – 4 June 2008
2. Roads and Transportation Capital Investment Programme 2009/10 – 2018/19 - Cabinet - 4 March 2009
3. 10 Year Bridge and Culvert Strengthening Programme - Cabinet – 22 April 2009
4. 2010-11 Bridge and Culvert Strengthening Programme - Cabinet 23 June 2010

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