

## Part 1 Appraisal Summary Tables

Proposal Details			
Name and address of authority or organisation promoting the proposal:  (Also provide name of any subsidiary organisations also involved in promoting the proposal)		Mr Michael Craigie, 01595 744 160, <a href="mailto:michael.craigie@shetland.gov.uk">michael.craigie@shetland.gov.uk</a>  Shetland Islands Council, Development Service, Transport Planning Service, 6 North Ness, Lerwick, Shetland, ZE1 0LZ	
Proposal Name:	Option CO2: Replace the MV <i>New Advance</i> with a Ro-Ro vessel.	Name of Planner:	Stephen Canning, Peter Brett Associates
Proposal Description:	<p>This vessel would be a catamaran of approximately 20-25m length and 6m beam. This vessel would be capable of carrying approximately 50 passengers and 5 PCUs. It would operate at around 14 knots, although would have a design speed of around 18 knots.</p> <p>A new harbour would need to be built at Foula which would include a new breakwater, new piled jetty, provision of a new jetty / Ro-Ro ramp, sheltered overnight berth and dredging.</p> <p>The Ro-Ro ferry could either travel to West Burrafirth or, if it continued to go to Walls, harbour works would be needed. For the purpose of this study, it is assumed that Walls is the continued mainland terminus of the service.</p>	Estimated Total Public Sector Funding Requirement:	<i>Capital costs/grant</i> £18.1m.
			<i>Current revenue support</i> Revenue costs not available as service contracted out
			<i>Annual revenue support</i> Revenue costs not available as service contracted out
Funding Sought From: (if applicable)	Transport Scotland	Amount of Application:	<i>Present Value of Cost to Govt.</i> Costs in this study are all reported in 2016 prices only. The costs would reflect those set out above.

Background Information	
Geographic Context:	<p>The island of Foula lies 20 miles to the west of Walls on the Shetland mainland. The island, which is still lairded, is about 2.5 miles long by 3.5 miles wide.</p> <p>Transport connections are provided by the workboat MV <i>New Advance</i> and an air service from Tingwall.</p>
Social Context:	<p>The population of Foula is small but has been relatively resilient over the years, despite limited on-island opportunities. The population was recorded as 38 in the 2011 Census.</p> <p>The shortage of housing stock in Foula is a key constraint on population sustainability and growth.</p> <p>Foula retains its primary school and recently attracted a teacher to go and live on the island. The school roll has increased over the last two years.</p> <p>Health provision on Foula is limited, although this is perhaps to be expected given the remoteness of the island. The main need of the island appears to be enhanced emergency cover.</p> <p>The lack of on-island services is a challenge for Foula residents, although this is not a new issue and has not had a noticeable impact on the population level (although it may be a deterrent to in-migration).</p>
Economic Context:	<p>Employment opportunities on Foula are limited, with employment concentrated in public sector posts, small scale crofting and seasonal tourism.</p> <p>Given the geography, population and industrial base of Foula, there is unlikely to be any significant developments on the island over the period of the plan. The key for Foula is likely to be maintaining the population base, lowering the average age of residents and retaining key services.</p>
Planning Objectives	
Objective:	Performance against planning objective:
<p><i>TPO1: The capacity of the services should not act as a constraint to regular and essential personal, vehicular and freight travel between the island(s) and Shetland Mainland</i></p>	<p><b>Performance against Transport Planning Objective: Moderate Positive</b></p> <p>The provision of a Ro-Ro vessel for Foula would make a moderate positive contribution to this objective. The current MV <i>New Advance</i> can carry one small car, which has to be craned on. The proposed Ro-Ro vessel therefore offers a significant uplift in capacity, with the significant added benefit that vehicles could drive on and off the ferry.</p>

<p>TPO2a: Where an island has a 'commutable' combined ferry or drive / public transport / walk time to a main employment centre (e.g. 80 minutes), the connections provided should reliably facilitate commuting</p>	<p><b>Performance against Transport Planning Objective: Neutral</b></p> <p>This objective is not relevant for Foula.</p>
<p>TPO2b: Where an island does not have a 'commutable' combined ferry or air / drive / public transport / walk time to a main employment centre (e.g. 80 minutes), the connections provided should reliably permit at least a half day (e.g. 4 hours) in Lerwick 7 days a week, all year round.</p>	<p><b>Performance against Transport Planning Objective: Minor Positive</b></p> <p>The provision of a significantly faster vessel would make a minor contribution to this objective. Working on the basis of the same arrival / departure times to and from Foula, a materially faster vessel (average speed 14 knots) would marginally extend time on mainland. In addition, a 14 knot vessel may provide opportunities for taking greater advantage of weather windows.</p>
<p>TPO3: The scheduled time between connections should be minimised to increase flexibility for passengers and freight by maximising the number of island connections across the operating day.</p>	<p><b>Performance against Transport Planning Objective: Neutral</b></p> <p>This option would have no impact on the frequency of the service.</p>
<p>TPO4: The level of connectivity provided should minimise the variation within and between weekdays, evenings, Saturdays and Sundays.</p>	<p><b>Performance against Transport Planning Objective: Neutral</b></p> <p>This option would have no impact on the timetable.</p>
<p>TPO5: Where practicable, islanders should be provided with links to strategic onward transport connections without the need for an overnight stay on Shetland mainland.</p>	<p><b>Performance against Transport Planning Objective: Neutral</b></p> <p>This option would have no impact on strategic connectivity.</p>
<p>Rationale for Selection or Rejection of Proposal:</p>	<p>This option will not be retained for further consideration. The technical difficulties and cost of harbour works at Ham are considered to be disproportionately large to justify scaling up to a Ro-Ro solution for Foula.</p>
<p><b>Implementability Appraisal</b></p>	
<p>Technical:</p>	<p>A new harbour would be required at Foula to accommodate Ro-Ro operations and sheltered overnight berthing. This would include a new breakwater, a piled jetty, land reclamation and dredging.</p>
<p>Operational:</p>	<p>The harbour at Foula would require frequent dredging.</p>
<p>Financial:</p>	<p>Capital cost - £18.1m.</p>

Public:	There appeared to be very little appetite in Foula for a major RoRo conversion.	
STAG Criteria		
Criterion	Assessment Summary	Supporting Information
Environment:	xx	<p>The replacement of the MV <i>New Advance</i> with a more modern vessel would give rise to a potential reduction in emissions, although this could to some extent be offset by the increase in operating speed. Nonetheless, medium-speed catamarans tend to be more fuel efficient vessels than monohulls and it is therefore likely that there will be an overall reduction in emissions.</p> <p>The following impacts in relation the harbour works at Foula &amp; Walls have been identified in terms of the environmental sub-criteria:</p> <ul style="list-style-type: none"> <li>• Noise &amp; vibration: Short term impacts at closest properties and on wildlife during construction.</li> <li>• Local air quality: No significant effects predicted.</li> <li>• Water quality, drainage &amp; flood defence: Some short term impacts on marine water quality during construction and from dredging activities (if required) but unlikely to be significant in longer term.</li> <li>• Geological features: Some loss of marine sediment if dredging is required.</li> <li>• Biodiversity &amp; habitats: Potential for disturbance of qualifying features of SPA during construction which could trigger HRA, consultation required. Short term impacts on otter and/or marine mammals etc but unlikely to be significant in context of disturbance in existing harbour Impacts on marine habitats likely to be limited as new works in existing harbour</li> <li>• Landscape: New works of relatively small scale and if implemented sensitively unlikely to be significant effects on NSA</li> <li>• Visual amenity: Short term impacts during construction. Permanent works unlikely to be significant in the context of working harbour if implemented sensitively.</li> <li>• Cultural heritage: Works unlikely to be of a scale to impact on setting of listed building.</li> </ul> <p><b>Environmental Constraints</b></p> <p>The environmental constraints for the Foula route are provided below for information</p> <p>Foula Constraints</p> <ul style="list-style-type: none"> <li>• Residential properties in proximity to ferry terminal and airstrip</li> <li>• Core path CPPWS03 in proximity to pier and to the runway location</li> <li>• Foula GCR follows island coast in proximity to runway location (but at Ham Harbour)</li> <li>• Foula is entirely designated as Special Protection Area (SPA) and SSSI</li> <li>• Foula is entirely within an NSA</li> </ul>

		<ul style="list-style-type: none"> <li>• One listed building within 50m of pier</li> <li>• Coastal flooding risk</li> <li>• Good air quality</li> </ul> <p>Walls Constraints</p> <ul style="list-style-type: none"> <li>• Residential properties within 50m of the pier</li> <li>• Walls Harbour within Vaila Sound Shellfish Water Protected Area and Grunting Voe Shellfish Water Protected Area approximately 4km south of Walls</li> <li>• Scheduled monument and listed buildings in proximity to the harbour</li> <li>• Coastal flooding risk</li> <li>• Good air quality</li> </ul>
Safety:	✓	This option would have a minor safety benefit as it would convert the route to Ro-Ro, removing the risks / challenges associated with Lo-Lo operations.
Economy:	✓✓✓	<p>This option would deliver a major positive impact in terms of the economy criterion. The significant reduction in journey times associated with a 14 knot vessel would provide TEE benefits, whilst there would also be enhancements to reliability if a faster vessel can take better advantage of weather windows.</p> <p>The improved perception of the vessel (particularly the ability to drive on and drive off) and the crossing to Foula, coupled with reduced journey times, could also encourage increased sea-based travel to Foula.</p> <p>The provision of Ro-Ro could be of significant benefit to Foula overall. Evidence from a range of islands which have converted from Lo-Lo to Ro-Ro (for example in the Orkney Islands in the 1980s or the Small Isles in the early 2000s) suggests that such a transition contributes positively to economic development. Car based access to / from Foula would be beneficial, although it is important to note that the road infrastructure on the island is relatively poorly developed.</p>
Integration:	✓✓	This option would support a range of policies focussed on island sustainability and development.
Accessibility and Social Inclusion:	✓✓✓	This option would offer a major positive in terms of accessibility. As well as the enhanced access to the island & mainland (see above), accessibility to the ferry itself would be substantially improved. This would be the case for both vehicles (which could be driven rather than craned on) and passengers.