

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, michael.craigie@shetland.gov.uk Shetland Islands Council, Development Service, Transport Planning Service, 6 North Ness, Lerwick, Shetland, ZE1 0LZ	
Proposal Name:	Option CO2: Replace the MV <i>Good Shepherd IV</i> with a bespoke Small Ro-Ro vessel.	Name of Planner:	Stephen Canning, Peter Brett Associates
Proposal Description:	<p>The Ro-Ro vessel would be a catamaran of approximately 20-25 metre length and 6 metre beam. This vessel would be capable of carrying approximately 50 passengers and 5 PCUs. The vessel would operate at around 14 knots, although would have a design speed of around 18 knots.</p> <p>A catamaran is the most appropriate choice of vessel for Fair Isle as it is shallow drafted, faster and a vessel of aluminium construction would be easier to take out of the water (although aluminium is weaker than steel so the vessel would likely have a lesser service life).</p> <p>A new fixed Ro-Ro ramp and slipway / hoist would be required at Fair Isle. A new fixed Ro-Ro ramp and minimal dredging would be required at Grutness.</p>	Estimated Total Public Sector Funding Requirement:	<i>Capital costs/grant</i> £5.75m.
			<i>Current revenue support</i> £315k (rounded) per annum.
			<i>Annual revenue support</i> £388k (rounded) per annum.

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:	Fair Isle lies about 20 miles south-west of the imposing Sumburgh Head. Just five kilometres long and three kilometres wide, it is mostly surrounded by cliffs, rising over 100 metres at Sheep Rock and almost 200 metres on the heavily indented west coast. The National Trust for Scotland took over ownership of the island in 1955 and prospective in-migrants must apply to the Trust for residency. Facilities include a shop & Post Office, the high quality bird observatory with accommodation, museum, pier, airfield and marina.		
Social Context:	<p>Fair Isle's population had shown relatively strong growth between 1981 and 2011, but the cumulative growth was wiped out between the 2011 and 2015, with the population now down to 55. The Fair Isle population is also both ageing and declining. Fostering population growth is a key element of the island's Development Plan</p> <p>Fair Isle is owned by the National Trust for Scotland and anyone who wishes to move there must apply to the Trust. The 2011 Census noted that Fair Isle has 26 households. The Community Profile suggests that housing in Fair Isle is in relatively low demand, although it is believed that consultation is required to identify the island's future housing need.</p> <p>Health indicators for Fair Isle are generally good, although there are concerns over various aspects of health provision consistent with other rural communities.</p> <p>The roll at Fair Isle primary school and nursery has declined in recent years, which is in keeping with the general decline and ageing of the population.</p>		
Economic Context:	<p>The economic & occupational structure of Fair Isle reflects the predominance of self-employment and cottage industries on the island.</p> <p>The Fair Isle Development Plan has set out a number of ambitious projects to secure the future of the island. The aim is to reverse the recent population decline and address the issue of an ageing population and the threat which that poses to the sustainability of services.</p> <p>The plan's proposals for developing the island include attracting up to 10 new people to the island in the next three to five years (growing the population by almost 20%), as well as creating and improving properties in the isle. There are also plans to upgrade and future-proof the island's electricity supply, whilst the islanders are working with Community Broadband Scotland to improve digital connectivity. Fair Isle will also continue to be attractive to tourists, particularly those visiting the high quality bird observatory on the island.</p> <p>Whilst there are a range of ambitious plans for Fair Isle, the Development Plan and numerous consultations over the</p>		

	years have highlighted the current transport connectivity of the island as a key constraint. The capacity limited air service coupled with the long, exposed and relatively uncomfortable ferry crossing is seen to be a deterrent to growing the population and attracting investment into the island. It can be argued that this issue requires to be resolved if the objectives of the development plan are to be delivered.
Planning Objectives	
Objective:	Performance against planning objective:
<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>	Performance against Transport Planning Objective: Moderate Positive The provision of a Ro-Ro vessel for Fair Isle would make a moderate positive contribution to this objective. The current MV <i>Good Shepherd IV</i> can carry 1-2 small cars, which have to be craned on. The proposed Ro-Ro vessel therefore offers a significant uplift in capacity, with the considerable added benefit that vehicles could drive on and off the ferry.
<i>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</i>	Performance against Transport Planning Objective: Neutral This objective is not relevant for Fair Isle.
<i>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.</i>	Performance against Transport Planning Objective: Minor Positive 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 Fair Isle, 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.
<i>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.</i>	Performance against Transport Planning Objective: Neutral This option would have no impact on the frequency of the service.
<i>TPO4: The level of connectivity provided should minimise the variation within and between weekdays, evenings, Saturdays and Sundays.</i>	Performance against Transport Planning Objective: Neutral This option would have no impact on the timetable.

<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>Performance against Transport Planning Objective: Neutral</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 be retained for further consideration. The provision of a small Ro-Ro vessel contributes to a number of objectives and the STAG criteria and merits further analysis.</p>	
<p>Implementability Appraisal</p>		
<p>Technical:</p>	<p>A new fixed Ro-Ro ramp and slipway / hoist would be required at Fair Isle. A new fixed Ro-Ro ramp and minimal dredging would be required at Grutness,</p>	
<p>Operational:</p>	<p>There would be no operational feasibility issues associated with this option.</p>	
<p>Financial:</p>	<p>The capital cost would be £5.75m, with annual revenue support estimated at £388k, an increase of £73k per annum on the current day figure.</p>	
<p>Public:</p>	<p>A faster and higher capacity RoRo vessel would be acceptable to the public.</p>	
<p>STAG Criteria</p>		
<p>Criterion</p>	<p>Assessment Summary</p>	<p>Supporting Information</p>
<p>Environment:</p>	<p>✓</p>	<p>The replacement of the MV <i>Good Shepherd</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 Fair Isle and Grutness have been identified in terms of the environmental sub-criteria:</p> <ul style="list-style-type: none"> • Noise & vibration: Short term impacts at closest properties and on wildlife during construction but unlikely to be significant in context of existing harbour operations • Local air quality: No significant effects predicted • Water quality, drainage & flood defence: Some short term impacts on marine water quality during construction and from dredging activities (if required at Grutness) but unlikely to be significant in longer term. • Geological features: Some loss of marine sediment if dredging is required (at Grutness). • Biodiversity & habitats: Potential for disturbance of qualifying features of SPA during

		<p>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</p> <ul style="list-style-type: none"> • Landscape: New works of small scale and if implemented sensitively unlikely to be significant effects on NSA Visual amenity; • Visual amenity: Short term impacts during construction. Permanent works unlikely to be significant in the context of working harbour if implemented sensitively <p>Environmental Constraints The environmental constraints for the Fair Isle route are provided below for information</p> <p>Fair Isle Constraints</p> <ul style="list-style-type: none"> • Residential properties within 200m to the west of the harbour and Bird Observatory within 400m of harbour • Core path CPPD06 Fair Isle Circular adjacent to harbour • Sloagar GCR site located within 200m east of harbour • Fair Isle is entirely within a National Scenic Area (NSA) • Harbour located within Fair Isle Special Protection Area (SPA) and Special Area of Conservation (SAC) • One listed building within 250m of harbour • Coastal flooding risk • Generally good air quality <p>Grutness Constraints</p> <ul style="list-style-type: none"> • Residential properties within 200m of the harbour • Core paths CPPD01 & 02 within 100m of harbour • Sumburgh Head Special Protection Area (SPA) boundary adjacent to harbour • Sumburgh Head SSSI within 50m to the east (seabird assemblage) • Easter Rova Head Geological SSSI approximately 4km north • Listed buildings within 400m of harbour
Safety:	✓	This replacement of the MV <i>Good Shepherd IV</i> with a more modern vessel would give rise to a minor safety benefit as it is assumed that any new tonnage would be twin-screwed. The vessel would also be Ro-Ro, which would remove the risks / challenges associated with Lo-Lo operations.
Economy:	✓✓✓	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

		<p>windows.</p> <p>The improved perception of the vessel (particularly the ability to drive on and drive off) and the crossing to Fair Isle (particularly for tourists), coupled with reduced journey times, could also encourage increased sea-based travel to Fair Isle.</p> <p>The provision of Ro-Ro could be of significant benefit to Fair Isle 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 Fair Isle would be beneficial, particularly for tourists, although it is important to note that the road infrastructure on the island is relatively poorly developed.</p>
Integration:	✓✓	This option would support the Fair Isle Development Plan through significantly enhancing accessibility to the island & mainland, reducing journey times and potentially improving reliability.
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.