

KERRERA FERRY SERVICE: IDENTIFICATION AND ASSESSMENT OF LONG TERM OPTIONS

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EXECUTIVE SUMMARY

The research was commissioned to identify and assess longer term options for ferry provision to Kerrera. A number of specific infrastructure issues were also to be investigated. The level of work required was akin to pre-appraisal STAG and part 1 STAG.

The work was undertaken between November 2012 and February 2013. It comprised:

- Face-to-face and telephone consultations with the island community and other stakeholders.
- Review of existing documents.
- An engineering review which included an inspection of existing infrastructure.

A public meeting was held on Kerrera in early February 2013. Feedback and comment received was fed into our option assessment.

The review of the existing position identified the problems:

- Lack of financial sustainability of the two main ferry services if either were to be developed to meet the community's needs.
- Lack of a north-south road on the island.
- The ferry timetables do not meet customer needs.
- Current ferry access is largely not assured, consistent or equitable.
- The (very) tidal nature of the vehicle ferry slipway.
- Limited vehicle carrying capacity of the vehicle ferry.

There is a consensus around the main development opportunities for Kerrera, and on the potential to expand the resident population. These are based on increased visitor activity and spend on the island, and establishment of micro-businesses in sectors other than tourism. However, there are differing stakeholder views on the scale of development that is possible without changing the distinctive nature of the island.

Rather than “constraints” on the development of ferry access to Kerrera the following are better viewed as parameters within which a long term solution would operate. They are that Transport Scotland:

- See a north-south road link on Kerrera as a prerequisite to a long term solution to ferry service provision that meets the needs of the whole island.
- Will provide financial support for only one ferry service to the island.
- In line with the National Ferries Plan, are minded to strengthen and augment an existing route, rather than start up a new route.
- In the longer term, will financially support a service only if its fares are RET-based and the timetable reflects the Scottish Ferries Review methodology.

A further (community derived) parameter is retaining the current practice that only residents are able to have a car on the island.

The timetable requirements for the ferry service were established through our consultations and by applying the service methodology used in the Scottish Ferries Review. This points to a requirement for the following ferry service provision:

- Fast crossing time.
- Moderate number of crossings per day.
- Long operating day, around 14 hours.
- Seven day service.

Four transport planning objectives were developed:

- Develop community and economic links within and between Kerrera and the mainland.
- Allow all residents to benefit from improved access to mainland-based services and facilities.
- Improve the quality and accessibility of the complete journey from home to destination.
- Secure for all users affordable and assured means of access to support economic activity and quality of life.

An initial list of individual options was developed. They were assessed against the transport planning objectives and in terms of their complementarity to one another.

The outcomes were used to put together the best performing individual options into meaningful packages for the purpose of the option assessment. These were:

- Do Minimum-using existing vehicle ferry route.
- A: enhanced ferry service on existing vehicle ferry route, plus road investment on Kerrera (link road from north to middle of Kerrera and upgraded south road).
- B: enhanced ferry service on existing vehicle ferry route, no road investment.
- C: direct vehicle ferry service to Oban, plus road investment on Kerrera (link road from north to middle of Kerrera and upgraded south road).
- D: direct vehicle ferry service to Oban, no road investment.

Each package was assessed in terms of its performance against:

- Transport planning objectives.
- Each of the five STAG criteria.
- Established policy directives.

They were also assessed in terms of feasibility, affordability (cost to government) and public acceptability.

We concluded that the Do Minimum, Option B and D should be rejected. This is very largely because none would provide a north-south link road on Kerrera. As a consequence these options performed relatively poorly in terms of meeting transport planning objectives, STAG criteria and public acceptability.

The options assessment identified the strengths and weaknesses of Option A and Option C. For both, taking affordability and the level of benefits into account, forestry grade would be the most appropriate specification for a north-south road. The case for also upgrading the island's south road is less strong. This reflects that it would not be used by all island residents, while it is already used by vehicle traffic. Its cost would be significant while the level of benefits would be less than for a north-south link.

Compared to Option A, Option C potentially offers greater benefits through direct ferry access to Oban for residents and visitors. However, it includes a number of challenges. The main ones are getting long-term assured access to a slipway on the marina site and securing appropriate parking for residents' vehicles in Oban. In addition, the engineering assessment shows that the cost of marine infrastructure would be higher than under Option A.

Overall, the increase in visitor activity under Options A and C assumes that there is some form of wheeled transport provided on Kerrera, at least to allow some visitors to visit both the north and south of the island. We would expect this to be bikes for hire, and cars/minibus operated by one or more local residents or a social enterprise.

From the option appraisal we conclude that Option A *amended to exclude a south road upgrade* appears the most affordable and achievable overall solution. It would offer significant benefits and very largely meet the current transport needs of the community.

However, the clients should take into account the potential longer term benefits of a direct service into Oban-as well as deliverability and cost issues-in coming to a decision.

1. INTRODUCTION

- 1.1. The island of Kerrera has a number of ferry services. There are, however, some concerns that they do not meet the needs of the islanders; and anecdotally they are not commercial and therefore not sustainable in the medium term. Transport Scotland, working alongside the current ferry operators, the island residents and Argyll and Bute Council, are putting in place measures to ensure that the ferry services continue to operate in the short term. This includes some enhancements to existing provision.
- 1.2. There remains the issue of the most appropriate provision of ferry services to Kerrera in the longer term (i.e. more than two years hence). Therefore, Transport Scotland, along with Argyll and Bute Council, commissioned this research to identify and assess longer term options for ferry provision.
- 1.3. The level of work required was akin to pre-appraisal STAG and part 1 STAG. Thus, it was to cover:
 - Analysis of problems and opportunities.
 - Objective setting.
 - Option generation, sifting and development.
 - Assessment of options.
- 1.4. Within this the study brief identified specific issues that should be addressed:
 - A linking road, consideration of what standard of road would be appropriate for the island, including what standard would allow the road to be adopted by Argyll and Bute.
 - Where a sustainable, subsidised ferry service should be located.
 - The requirement for landing stages at the south end of the island.
 - Car parking requirements.
 - Implications for infrastructure (including slipways, others such as roads, etc.). This should include infrastructure on Kerrera and on the mainland.
 - Access arrangements (such as access to the current vehicle ferry slips for other ferry/transport providers).
 - An analysis of the development potential of the island with regard to the content of the Argyll and Bute Development Plan and with the Kerrera Community Plan that reflects local expectations.

2. RESEARCH METHODS

2.1. Chapter 2 sets out the existing position. First, it describes the main characteristics of the island of Kerrera. It then covers transportation-road provision on the island and the various ferry services that currently operate. Finally, it discusses recent moves by Transport Scotland to maintain the existing ferry services while longer-term options are considered

2.2. Consultations were held with 24 Kerrera residents, predominantly those resident on the isle, but also those who are based elsewhere but who spend some time during the year on Kerrera. These were conducted either by face-to-face interview or by telephone. The main issues covered were:

- Life on Kerrera-benefits and challenges.
- What would you like to see different in the future? How would this change affect you personally, your family and Kerrera as a whole?
- How will this change come about?
- How often and for what reasons does anyone in your household move between the north and middle/south end of Kerrera?
- How often and for what reasons does anyone in your household travel to the mainland?
- Views on the present ferry services.
- What is required from a ferry service in the future.
- Make-up of household.

2.3. The following stakeholders were consulted by telephone:

- Argyll and Bute Council.
- Dunollie Estate.
- Kerrera Ferry Limited.
- NHS Highland.
- Oban Marina & Yacht Services Ltd.
- Scottish Ambulance Service.
- Stramash.

2.4. Arch Henderson visited Kerrera to inspect the road, ferry-related and other marine shore infrastructure. The results of this inspection are reported at Appendix A.

2.5. A range of existing documents were reviewed. This informed our review of the existing position as well as the subsequent identification and appraisal of longer-term options. The main documents were:

- Community Agreement (Kerrera Ferry Ltd).
- Kerrera Community Development Plan 2008-2028 (Isle of Kerrera Development Trust).
- Kerrera Ferry Service Provision (Kerrera Ferry Ltd).
- Kerrera Scoping Study 2001 (University of Strathclyde-CADISPA Project).

- Kerrera Slipway Study (Haskoning UK Ltd., for Caledonian Maritime Assets Ltd).
- Proposed Argyll and Bute Local Development Plan-Written Statement (Argyll and Bute Council).
- Scottish Ferries Review: Routes and Services Methodology Explanatory Paper (Transport Scotland).

2.6. A public meeting was held on Kerrera in early February 2013. This was also attended by Transport Scotland and Argyll and Bute Council. At the meeting we presented our research findings, the options identified and our initial assessment of them. Feedback and comment from the meeting was fed into the options appraisal included in this report.

2.7. Transport Scotland have made grant funding available for the continued operation of the vehicle ferry service in the short term. This has resulted in changes to some fares and the timetable, and to certain other aspects. These changes are expected to be introduced in March 2013. Given the timescale for our research some of the analysis in this report reflects the position that existed before these changes to the vehicle ferry service were agreed and introduced.

3 THE EXISTING POSITION

Introduction

- 3.1. This Chapter sets out the existing position. First, it describes the main characteristics of the island of Kerrera. It then covers transportation-road provision on the island and the various ferry services that currently operate. Finally, it discusses recent moves by Transport Scotland to maintain the existing ferry services while longer-term options are considered
- 3.2. This Chapter comprises factual information, supplemented with input from the community and stakeholder consultation. It provides the context of both actual and perceived problems and opportunities, which are captured in Chapter 4. As discussed at Chapter 2, the analysis is based on the position prior to the changes made to ferry service provision in early March 2013.

The Island of Kerrera

Population

- 3.3. Kerrera's population has ranged between 30 and 40 residents in recent years. The vast majority (around 90%) live on the island all year round. The rest stay there for part of the year
- 3.4. Residents comprise a mix of those born and bred on Kerrera and those who have moved to the island either recently or many years ago. Of those who are Kerrera born and bred, several had spent time away from the island, for various reasons, but had chosen to return more recently.
- 3.5. Our consultations with the islanders indicate a reasonable age balance of residents
- Pre-school/school age: 10 residents.
 - Working age: 18.
 - Retired: 5.
- 3.6. The distribution of population across the island depends on the definition of 'north', and whether there is a 'middle' as well as 'south'. However, around half of the population are located north of the vehicle ferry slipway, and the other half to the south if it.
- 3.7. As explained later, there is no vehicle road link between the north and middle of Kerrera. Thus, in most respects there are two separate communities, divided between the north and south of the island. This was the general view of consultees-both island residents and stakeholders based elsewhere. The residents consider the island to be physically divided between the north and the south end because of the lack of proper and reliable access between the two areas.
- 3.8. It was suggested that the island seems "unable to come together", either physically through the lack of a road connection or socially or economically

due to the personality issues that can arise in a small community like Kerrera. That said, all of the residents we consulted highlighted the attraction of Kerrera as a place to live. This reflects its beautiful location and unspoilt nature.

Access to Services

- 3.9. There are very few services on the island for Kerrera residents. Access to the mainland (largely Oban) is therefore required to access shops, petrol stations, banks, post office, health services, primary and secondary schools.
- 3.10. Internet access is available on Kerrera although its quality was described as *“a bit hit and miss”*. There is no facility for posting a letter or parcel so residents have to travel over to the mainland to do so.
- 3.11. The island’s primary school closed in the late 1990s. This was due to a drop in the numbers of school age children. At present, all children of primary school age live in the north of the island. It was put to us that since the late 1990s families living at the south end of Kerrera have moved off the island when their children have reached primary school age. This is due to not being able to access the school transport ferry provided at the north of the island.
- 3.12. Residents’ frequency of travel to the mainland varies significantly by type of household. Due to the proximity to the mainland, residents are able to travel back and forth on more than one occasion per day if required. Residents tend to make either:
- Infrequent trips to Oban-i.e. less than weekly; or
 - Very frequent trips-i.e. in excess of five return journeys per week.
- 3.13. Residents travelling by ferry, via the marina boat or in their own boat tend to move their personal goods to the island in a piecemeal fashion, taking what they can accommodate on each trip. This inevitably is an inconvenience, but is considered by most to be an accepted part of living on Kerrera. As one resident put it, living on Kerrera is a “physical lifestyle, but it is a life-choice, and therefore it isn’t an issue.”
- 3.14. Responses to emergency situations on the island come from staff based on the mainland. SAS told us that their usual response is by helicopter. However, there have been occasions when this is not feasible and Oban-based staff have to go over on the ferry. The vehicle ferry service in the middle of the island cannot take a SAS ambulance and staff therefore travel across by foot or, on occasion, staff have made use of a police 4 x 4 vehicle.
- 3.15. NHS do not see current ferry service provision as constraining the delivery of health services on the island. Community nurses and midwives tend to visit the island to give care to specific residents as required rather than on a regular basis. They travel across as foot passengers. This is mostly on the

marina's passenger service at the north of the island. This is more convenient than Oban based staff having to travel to Gallanach to access the ferry there.

- 3.16. There are two NHS staff members who live on Kerrera. They arrange with other residents for the visiting nurses/midwives to get lifts around the island as required. They do not take their own vehicle to every island they serve from Oban. Thus, Kerrera is not exceptional in this regard. NHS told us that the number of visits to small islands like Kerrera cannot justify keeping a dedicated vehicle on the island.

Economic Activity

- 3.17. Our consultations indicate that slightly more residents commute to Oban than work and/or are self-employed on Kerrera. The commuters largely travel on a daily basis, Monday-Friday. In around 40% of the households we consulted at least one person commutes (largely to Oban) for work. They undertake a wide range of jobs at varying levels of seniority with their employer. Most commuters start work on the mainland at or around 0830.
- 3.18. Employment on the island is very largely in either agriculture or tourism. The former takes place on tenanted farms owned by Dunollie Estate and in the north end of the island by owner farmers. This generates direct employment for both the tenants/owners and others who live on the island.
- 3.19. Our consultations suggest that around one-third of households on Kerrera have some reliance on tourism for earning a living. This is predominantly through the provision of accommodation or in providing food and drink to visitors.
- 3.20. The marina at the north end of the island has 100 berths and 33 moorings. There is planning permission for a further 100 berths.
- 3.21. The marina employs seven people all year round. There is also a significant amount of seasonal employment. This includes staff at the bar and restaurant which are open for five months of the year.
- 3.22. The restaurant is franchised out to a Kerrera resident. It employs 10-12 people on a seasonal basis. Two of these (including the franchisee) are permanent residents of Kerrera. Overall, however, employment at the marina is very largely among people who live on the mainland and commute to Kerrera.
- 3.23. Other visitor-related employment comes from the following which are mostly based in the south end of the island:
- Bunkhouse accommodation is at the tea garden which is near the castle.
 - Parrot sanctuary, which also includes a holiday lodge.
 - Farmhouse B&B.
 - The vehicle ferry service to the middle of the island.

- 3.24. In total, the largest amount of visitor-related employment comes from the marina. However, in terms of visitor-related employment for island residents there is a broadly even balance between that in the marina and that in other businesses.
- 3.25. The bulk of visitors come to Kerrera in the summer months. The summer season is considered to last around five months (May-September), which is when, for example, the restaurant at the Marina is open. There are peaks in demand within this period. Some consultees referred to up to 200 walkers per day visiting the island. Visitor demand is based very much on exploring the island by foot as they are not permitted to bring a vehicle to Kerrera.
- 3.26. An Oban-based social enterprise company (Stramash) bring around 300 visitors a year to the island to undertake outdoor activities. Most (around 200) come across for the day. The others stay between two and four nights on Kerrera. During that time they will also make day trips from the island to the mainland to undertake activities there. Stramash visitors come largely between April and October.
- 3.27. Stramash told us that the activities on Kerrera are a big part of their overall business. They value Kerrera because it is very close to the mainland yet feels much more “remote” than this.

Existing Roads on Kerrera

- 3.28. As noted earlier, a key issue is the absence of a road suitable for vehicular travel between the north and the south of the island. The existing link between north and south is essentially a track; some parts on stone others across grass fields.
- 3.29. It can only be used by quad bikes, either for deliveries or by residents to use the vehicle ferry to collect goods from Oban. However, it is very occasionally used by a north island resident to take a vehicle on/off the island. The north-south track at present crosses a number of residents’ land, and those travelling should seek permission to cross the land if travelling by vehicle.
- 3.30. The existing roads in the south of the island are of a basic standard, akin to forest tracks. It can take around half an hour to travel from the south end of Kerrera to the vehicle ferry in the middle of the island. The two roads on the west of the island are both adopted by Argyll and Bute Council. Members of the community consistently commented on the very poor standard of the existing roads.

Existing Ferry Services

Kerrera Ferry Limited

Introduction

- 3.31. Kerrera Ferry Limited operate a vehicle ferry service. This is between a slipway in the middle of Kerrera and one at Gallanach on the mainland,

which is around two miles south of Oban. Duncan MacEachen, a Kerrera resident, is the sole shareholder and Director of the ferry company.

- 3.32. The service is operated through a private lease arrangement from Dunollie Estate. The Estate provide a tied cottage and the two slipways as part of this agreement, whilst the ferry operator provides the vessels and keeps the fare revenues. The operator has to give the Estate six months' notice if they no longer want to provide the ferry service.
- 3.33. In addition to the main ferry service, the operator also provides on a separate private basis:
- A weekly service for waste disposal under contract to Argyll and Bute Council. This includes use of the Scottish Sea Farms and Oban Marina slipways in the north of the island.
 - Freight runs to the north of Kerrera, using the Scottish Sea Farms and Oban Marina slipways. These are on demand and provided at the operator's discretion.
- 3.34. The service is provided by the Gylen Lady. She is certificated to carry up to 12 passengers, which allows the ferry to be operated by just a single crew member. This can mean on occasion that passengers have to be left behind, when more than 12 want to travel. However, given the crossing time is only around 2 minutes (one way) the ferry can return immediately to clear the backlog of passengers. None of the consultees saw this arrangement as a problem.
- 3.35. There is also a back up vessel, the Gylen Maid. She is a 21 foot aluminium open boat and is certificated to carry up to six passengers.
- 3.36. The Gylen Lady has a deadweight limit of 4-5 tonnes. She can carry a single car or similar sized vehicle or trailer, but not a vehicle of the size of, say, a fire engine. When carrying a car, the driver and accompanying passengers can also be carried on the ferry. However, the total number of passengers carried on the sailing tends to be no more than five due to limited space on board.
- 3.37. The lease from Dunollie Estate precludes members of the public taking cars over to the island for non-business purposes. Only island residents, utility vehicles and work traffic are permitted vehicular access to Kerrera.
- 3.38. Significantly, island residents very rarely take a car on the ferry. They tend to have two cars/vehicles. One for use on the island where no MOT certificate is required and a second that is parked at the car park at Gallanach, which is used to travel about on the mainland (including commuting to work). The residents travel on the ferry as foot passengers, thus removing the need to pay a vehicle fare when travelling to/from the mainland. Across the island as a whole all residents appear to have a vehicle either in Oban or at Gallanach for use on the mainland.

- 3.39. The deadweight limit of the Gylen Lady means that larger loads of freight (such as animal feed and building supplies) have to be brought across on the deck in a number of loads. This requires the freight to be unloaded from a vehicle on the mainland side, carried across in a number of loads and then transported onwards on Kerrera itself. When bringing feed over, a forklift will generally be brought over from the mainland to unload on the Kerrera side.
- 3.40. This process is time consuming. It generally requires 4-6 hours to tranship one lorry load of hay. Further, the tidal nature of the slipways means livestock or freight movements are only generally possible plus or minus two hours from high tide, and via a special charter service rather than as part of the regular timetable.
- 3.41. Animal feed and livestock tend to be concentrated in certain months of the year. For example, the main period for moving livestock is September-November.
- 3.42. Some consultees told us that the movement of livestock can be a very stressful exercise. The Kerrera farmer needs to coordinate between the ferry (over the timing of the service), livestock haulier on the mainland side, and those receiving the livestock, as well as ensuring that the livestock are 'walked' to the ferry at the appropriate time. They generally travel loose on the deck of the ferry.

Shore Infrastructure

- 3.43. The Kerrera Slipway Study, referred to at Chapter 2, states that the facility on Kerrera is an old stone built slipway that was capped in concrete in the early 1990s, which was the last investment in it. A stone-built breakwater is provided along the length of the slipway. Both the slipway and this breakwater were extended during the capping works. There is an existing car park at the terminal.
- 3.44. The slipway is only accessible for vehicles at certain states of the tide. This can also occasionally be an issue for the movement of passengers at a very low tide.
- 3.45. The Study also states that that the slipway at Gallanach is an old stone built structure capped in concrete. Anecdotal evidence suggests that the capping was constructed in the early 1990s, when there was last investment in it. There is an existing car park at Gallanach. However, this has insufficient capacity to accommodate all visitors' vehicles in the height of summer.
- 3.46. There is a lack of clarity on the ownership of the Gallanach facility. Dunollie Estate do not possess a document stating that they own the slipway. However, no-one else has claimed the slipway and the Estate pays for its upkeep.

- 3.47. It is also unclear who owns the car parking space. The Estate own some of the land used. Argyll and Bute Council have upgraded some of the other car parking land but have stated that they do not own it.
- 3.48. Dunollie Estate told us that island residents' boats have free use of the jetties. To date the Estate has restricted other users because of a fear that a competing ferry service might want to use it. Kerrera Ferry Limited has also been able to charge other, non-ferry users (e.g. divers, canoeists).

Timetable

- 3.49. The Kerrera Ferry timetable is summarised at Table 3.1.

Table 3.1: Vehicle Ferry Timetable

Winter (October-Easter)			
	Monday-Friday	Saturday	Sunday
Number of return sailings	7	6	5
First/last ferry ex Kerrera	0840/1750	0845/1700	1030/1700
First/last ferry ex Gallanach	0845/1755	0850/1705	1035/1705
Summer (Easter-October)			
	Monday-Friday	Saturday	Sunday
Number of return sailings	12	12	11
First/last ferry ex Kerrera	0840/1755	0840/1755	1030/1755
First/last ferry ex Gallanach	0845/1800	0845/1800	1035/1800

Note: Excludes private freight runs and waste disposal contract

- 3.50. The summer timetable provides 11-12 scheduled return sailings per day. In addition, as noted earlier, additional runs are made to clear the backlog of passenger traffic where more than 12 want to travel at the same time.
- 3.51. Monday-Saturday the service commences at 0840, with the last sailings in each direction at around 1800. There is break in service between the 0845 sailings and 1030. Thereafter the frequency is regular during the day, apart from a break over lunch between 1230 and 1400. The Sunday schedule is the same as on other days of the week, except that service commences at 1030 rather than 0840.
- 3.52. The main differences between the winter and summer timetable is the:
- Reduced frequency-with about half of the number of sailings seen in summer.
 - Sailing day ending one hour earlier at the weekend (around 1700) than during the week.
- 3.53. Overall, the service is reasonably frequent during the day but finishes quite early. As a result some residents feel that during the daytime the island is very much like a part of Oban (due to its accessibility by ferry), whereas at night it becomes more like a remote island. In addition, the current start and end times mean that some commuters to Oban require their employer to be flexible about working hours.

Fares

3.54. Fares are shown at Table 3.2.

Table 3.2: Vehicle Ferry Fares (Return)

	Fare (£)
Passengers	
Full time resident-adults	2.50
Full time resident-children	Free
Frequent travellers	3.50
Day visitors-adults	5.00
Day visitors-children	2.50
Vehicles	
Full time resident-cars	20.00 (excluding VAT and passenger fare)
Trailers	10.00 (excluding VAT and passenger fare)
Dunollie Estate Farms	
All passenger, vehicle, freight and livestock carryings	400-1,500 per annum

3.55. The notable features of the fare structure are:

- The flat annual rates charged for all use by individual Estate farms.
- Higher passenger fares charged for non-residents.
- The application of VAT to car fares, which appear relatively high for what is a very short crossing.
- Trailers being charged lower fares than cars.

Oban Marina & Yacht Services Ltd

Introduction

3.56. Oban Marina & Yacht Services Ltd. operate a ferry service from the marina at the north end of the island. This is by two passenger only vessels, sailing between the marina's own pontoons and the North Pier at Oban. The company receives a subsidised rate from Argyll and Bute Council for the use of North Pier. That facility has no slipway.

3.57. The two vessels are berthed in Oban overnight. The crossing time is 10 minutes one way.

3.58. The service is free of charge for use by:

- Yachtsmen/women when their yacht is berthed at the marina.
- Day visitors to the bar/restaurant at the marina.
- Marina staff.
- Contractors undertaking work at the marina.

3.59. It is also free to use by island residents who have their own boat berthed at the marina. As well as free use of the ferry the residents pay only 50% of the berthing charge applied to non residents.

- 3.60. Visitors to Kerrera who do not provide the marina or any of its facilities with custom are charged to use the ferry service.
- 3.61. The vessels are used solely to move passengers to/from Kerrera. No other work is undertaken for the marina, nor any charter work for third parties. The marina expect them to each last a further ten years allowing for annual overhauls/refits and running repairs. However, they are concerned about their ability to set aside sufficient resources to allow their eventual replacement.
- 3.62. The marina also own an aluminium catamaran which they use as a workboat. Among other tasks, it brings in fuel for the marina in its tanks.
- 3.63. Previously the marina brought fuel to the island, as well as building materials, by chartering an Oban-based CalMac vessel. However, the cost of this was prohibitive (£500 per hire). As with their passenger boats the marina's catamaran uses Oban's North Pier.

Vessels

- 3.64. The two passenger vessels are certificated to carry up to 12 passengers, and operate with a single crew member. This can mean that on occasion passengers are left behind when more than 12 people want to travel at the same time. The vessels return immediately to clear the backlog. However, the marina told us that this can leave some customers dissatisfied that they have to wait. This is because they have to wait at least 20 minutes before they can be carried on the ferry service.
- 3.65. The marina have considered purchasing one larger ferry with a capacity of around 35 passengers. This would be of particular use in the main summer period (May-September) when the bulk of the passengers are carried. However, to date they have been deterred by the:
 - Capital cost of purchasing a larger vessel-whether new or second hand.
 - Additional operating costs-notably due to the need to operate with two rather than one crew member as at present.

Timetable

- 3.66. Between April and September the first sailings of the day are 0810 ex Oban and 0830 ex Kerrera. The service operates until 2300. The service is generally hourly. However, at the busiest times (1100-1500 and 1700-2000) a shuttle service is provided. The two vessels operate when demand requires.
- 3.67. During the rest of the year the first sailings are also 0810 ex Oban and 0830 ex Kerrera. Thereafter the service operates hourly on demand. The last ferry from Kerrera is at 1800, with an 1810 ex Oban sailing. During the day island residents are only able to travel at times when there is a sailing demanded by the marina's customers. However, the first and last sailings of the day are guaranteed ones that the islanders can use.

- 3.68. The start time of the marina ferry is considered too late for a number of residents. Those who commute from the north end generally do so using their own boat.

Fares

- 3.69. As noted earlier the only passengers charged for use of the service are visitors to Kerrera who do not provide the marina or any of its facilities with custom. They pay a £3 return fare.
- 3.70. The marina told us that they are unwilling to charge their customers to use the ferry. They believe that this would greatly reduce their business- especially for larger parties (e.g. a family of four). They view charging to access the marina would make the facility uncompetitive against nearby ones on the mainland (e.g. Dunstaffnage). At those locations users can drive directly in/out of the boatyard at no charge and are able to load their belongings directly to/from their boat-unlike at Kerrera where they have to be transhipped to and from the ferry.

School Pupil Transport

- 3.71. There are presently four school pupils at the north end of the island-two secondary and two primary. They travel by boat every school day between the marina and Oban North Pier. The service is solely for the transport of the pupils.
- 3.72. It is provided by a private contractor. It is procured and funded (at a cost of around £14,000 per annum) by Argyll and Bute Council. The service is required due to the lack of a road that would allow the pupils access to the vehicle ferry service.
- 3.73. In Oban the four pupils are taken between the North Pier and their schools by a minibus that also transports other pupils. Overall, the provision is seen as effective and reliable. Only a small number of schooldays are missed due to adverse weather conditions.
- 3.74. Pupils frequently make use of the Oban Marina ferry service in order to access after school sport and other activities.

Residents' Own Boats

- 3.75. In addition to travelling off Kerrera by ferry around one in four residents also use their own boat to reach the mainland. Others that don't have their own boat often aspire to do so
- 3.76. This is to travel to work, bring goods back across and access evening social and leisure activities in Oban when the ferry services have finished for the day. A number of commuters would not otherwise be able to work in Oban. This is due to the operating hours of the two ferry services.
- 3.77. That said, all recognised the vital importance of the ferry service in sustaining the future of the island and particularly in terms of moving freight

and livestock, and providing safe and reliable connections. Thus, their own transport is a complement to, rather than a substitution for, the ferry services.

- 3.78. Argyll and Bute Council told us that Kerrera is not exceptional in this regard. Some residents of other islands (e.g. Easdale, Iona and Colonsay) have their own boat which they use for travel to the mainland.

Maintaining Ferry Services in the Short Term

Introduction

- 3.79. As explained at Chapter 2, during this study Transport Scotland has intervened to maintain short term ferry service provision to Kerrera. This is pending the selection of a long-term solution to the island's ferry needs.

Community Agreement

- 3.80. A "community agreement" has been drawn up between Kerrera Ferry Limited and the community. Its development was facilitated by Transport Scotland. The agreement is on a revised service to be provided by the operator, who will receive grant funding from Transport Scotland. This was discussed at a public meeting on Kerrera in February 2013.
- 3.81. The draft community agreement was issued to the community for comment. Following agreed revisions the new arrangements were set to begin in early March.
- 3.82. The community agreement arrangements can be summarised as follows:
- 3.83. First and foremost there is the certainty of a continued service. The short term arrangements are for up to two years, by which time longer term solutions should be in place.
- 3.84. A vehicle and freight service will be provided to the north of the island, charged at the same fares as to the south of the island. The service will be available by prior booking only, with a maximum of one booking per day, and a maximum of 12 trips per calendar month.
- 3.85. The ferry service operating day will be extended from 0800 to 1900, Monday-Saturday (except Wednesday). This is through one additional return sailing in the morning-0800 ex Kerrera and 0805 ex Gallanach-and one at 1900 ex Kerrera and 1905 ex Gallanach. These will be request sailings.
- 3.86. The operating day on winter Sundays will also be extended. The last crossing will be at 1800 rather than 1705.
- 3.87. The practice of flat rate charges for all Dunollie Estate Farms traffic will no longer operate. They will be charged on a per crossing basis in the same way as other users.

- 3.88. Vehicle and freight fares will be reduced to be in line with RET fares. The cost of carrying a car will go down from £20 (excluding VAT) to £12 return (with no VAT charged).
- 3.89. The cost of carrying a trailer will rise. It will increase from £10 return (plus VAT) to £12 (plus VAT).
- 3.90. Residents' passenger fares will increase, and will be consistent for all users in line with RET fares. Following discussion with the community, it has been agreed that this alignment and the full increase in residents' fares should be phased. Instead of a single step from £2.50 to £4.00 return for residents, the increase in early March 2013 will be to £3.00 for the remainder of this year. The visitor return fare will fall from £5.00 to £4.50 until the next fare review (which is expected to be around March 2014).
- 3.91. At the time of writing Transport Scotland are also working with the Oban Marina to determine whether short-term grant funding would also be appropriate for them.

Infrastructure Investment

- 3.92. Transport Scotland have also agreed to fund the following infrastructure works at the island terminal used by Kerrera Ferry Limited:
- Resurface 10m length of the existing slipway.
 - Rebuild the eroded section of the stone-built breakwater.
 - Lift and reposition the dumb barge breakwater on a stable foundation.
- 3.93. In addition, further surveys will be carried out as recommended by the Kerrera Slipway Study referred to at Chapter 2.

Summary

- 3.94. The main points to note from this Chapter are:
- Kerrera has a very small, although apparently stable, resident population.
 - Lack of facilities and services on the island means that residents are highly dependent on access to the mainland for services and, for a significant number, for employment.
 - On-island employment is heavily concentrated in tourism and agriculture. A lot of tourism employment is generated by the marina, although this is largely taken up by mainland residents.
 - The infrastructure on the island is quite limited. There is no proper road connecting the north and south of the island, while residents see the other island roads as poor quality. There has been a lack of investment in the shore infrastructure used by the vehicle ferry.
 - The lack of a north-south road means that three ferry services are required to serve an island of fewer than 50 people. It appears to have contributed to divisions between island residents. It has also stifled the opportunity to market Kerrera's visitor attractions as a whole-e.g. the

castle and the marina each attract visitors at either end of the island but they cannot currently easily visit both.

- The operation, fares and timetables of the two main services (i.e. apart from school transport) are not assured. They are dependent on private companies to fund and provide the operations and the shore infrastructure that is used. No assured or regular vehicle/freight service is provided for those on the north of Kerrera.
- The current length of sailing day means that some residents use their own boat to access employment and services on the mainland.
- The limited passenger capacities of the vehicle ferry and (although to a lesser extent) marina services do not appear to be major constraints, given the short crossing times.
- The limited vehicle/freight capacity on the vehicle ferry does not appear to be a major constraint. The tidal limitations of the shore infrastructure appears to be a more significant issue. Most islanders do not want to travel regularly with a car. This means that parking availability on the mainland is a very important issue.
- The ferry services have some distinctive features. The vehicle ferry has flat rate fares for some users, and visitors are not able to bring a car to the island. Most passengers on the marina service travel for free.
- A number of changes are being made to the vehicle ferry operation. These include a longer sailing day, lower vehicle fares and higher resident passenger fares, plus an assured service for those moving freight to/from the north end of the island. Use of the service is likely to change somewhat as result of these innovations.

3.95. Some of these points are developed further at Chapter 4.

4 ANALYSIS OF PROBLEMS, OPPORTUNITIES AND CONSTRAINTS

Introduction

- 4.1. This Chapter builds upon the description of the current position at Chapter 3 and the research methods set out in Chapter 2 to present an analysis of problems, opportunities and constraints. Actual and perceived problems, and opportunities, underpin the development of transport objectives and options in STAG.
- 4.2. As noted earlier in the report, the analysis is based on the research conducted before March 2013: that is, before the short-term service enhancements to the vehicle ferry service were introduced.

Problems

- 4.3. There is a **lack of financial sustainability of the two main existing services**. For the vehicle ferry service it is not possible to provide a fully commercial service with a timetable that meets customers' needs or allow upgrades to the existing piers, slipways and other shore infrastructure. It is Transport Scotland's understanding that the Kerrera Ferry Limited service is now only likely to continue with public funding.
- 4.4. The marina see their current service as financially unsustainable. The operating costs greatly exceed fare income and they believe that charging all passengers would be damaging for their business. However, it is Transport Scotland's understanding that the marina would, regardless of any publicly funded service, continue to operate a free passenger only service for their customers. They would be free to make the service more widely available to other visitors and to residents. However, this position could change if, in time, a different company took over the marina, or if there ceased to be a marina on Kerrera.
- 4.5. The other key problem is the **lack of a north-south road on the island**. This leads to three ferry services being required to serve an island of less than 50 people, with very limited vehicle ferry access for those living in the north.
- 4.6. It also severely limits the interaction between residents in the north and south. Most islanders raised their concerns about a lack of community cohesion due to the lack of a road. It was felt that many tensions arose through the lack of assured access, perhaps crossing various landowners' land on occasion, which had a detrimental impact upon community togetherness and quality of life. Some respondents highlighted damage that had been caused to the existing route(s) between the north and south end of the island, which at present pass through various land owners' and Estate fields.

- 4.7. The lack of a road also means that visitors have to choose between visiting one part of the island or the other-rather than making a trip which can cover the whole of Kerrera.
- 4.8. Effectively the island is almost two separate islands, and each one has developed separately. It was felt that the lack of a road meant that the island was not socially “united”, as well as constraining business and employment opportunities.
- 4.9. The majority of islanders we consulted were in favour of developing a link road. They all felt that a forest grade road would be appropriate.
- 4.10. It was generally viewed that the **ferry timetables do not meet customer needs**. It was stated that neither the marina nor the vehicle ferry service provides an early enough departure for commuters. This was particularly the case for accessing employment in the tourism sector, which provides many of the jobs opportunities in the Oban area.
- 4.11. Due to their relatively late start the first ferry services in the morning do not allow a connection with the first train or bus to Glasgow. Also the vehicle ferry service no longer connects with a local bus service at the Gallanach slip.
- 4.12. The short length of operating day was also reported as limiting opportunities to participate in social, leisure and educational activities in the evenings. It can also necessitate nights away from home before and after hospital appointments. One respondent reported that to make on average four medical appointments (day cases) in Glasgow each year, they had to spend in total a fortnight away from home. This is not only an inconvenience for the patient. It is an additional cost to the NHS.
- 4.13. A number of residents reported that they would like to be able to attend a church service on the mainland. However, this is not possible as the first Sunday vehicle ferry does not sail until 10.30.
- 4.14. These issues reflect the very limited facilities on the island and the high degree of dependence on the mainland (and Oban in particular) for access to services and activities.
- 4.15. Residents generally felt that later ferry services would help to encourage younger people and families to move to or stay on the island, through allowing access to a range of activities.
- 4.16. In the summer the marina runs later crossings at the north end, but not in the winter. Residents see a marked difference between the winter and summer timetables. This also reflects reduced sailing frequency in the winter when there can be a wait of up to two hours to get back to the island.
- 4.17. The majority of residents reported that the length of operating day was the main problem with existing ferry provision. However, a small number took a different view. They did not feel that later services were vital, and that the

number of people on Kerrera did not perhaps justify a long operating day. Rather, they felt that the focus should be on enabling people to use their own boats by providing landing stages on both sides of the water.

- 4.18. The two ferry services **do not provide assured, consistent or equitable access**. On the vehicle ferry individual residents are charged differing rates for services or not provided with same level of service.
- 4.19. It was stated that the lack of regular freight provision to the north end of the island has the potential to negatively impact on animal welfare as the delivery of feed and movement of animals cannot be guaranteed. The high cost of moving freight to/from the north end was also highlighted.
- 4.20. The view was expressed that there is significant variance in the charges for charter sailings and for moving goods and vehicles on the vehicle ferry. There was a general consensus concern that charging could be subject to change, which presented challenges for household or business budgeting. The majority were concerned about the lack of a published freight tariff, given that all residents rely on the vehicle ferry to bring goods to the islands.
- 4.21. As the vehicle ferry is operated by an individual, there is no guaranteed service provision in case of illness or holiday. In addition, as a single handed operation there is no guaranteed emergency provision outside normal operating times.
- 4.22. Residents nearest the north end of the island value the marina service. They stressed their dependency on it given the lack of road access to the vehicle ferry. In the winter these residents' access to the mainland is dependent on demand from the marina's own customers-apart from the guaranteed first and last sailings of the day. A small number of residents reported occasional cases when some have been refused travel.
- 4.23. Residents' continuing access to the service is dependent on the marina's decisions and its continuing viability as a business. There is concern that current arrangements (including not having to pay fares) could change in the future, including if the service is not given short-term grant support by Transport Scotland.
- 4.24. The marina themselves see their future as a business as dependent on the outcome of the current proposal for a transit marina in Oban Bay. If that goes ahead, then they may review their current ferry service provision and general investment in the business. If the marina was sold to another business then it may no longer provide a ferry for use by residents or general visitors to the island.
- 4.25. A number of consultees felt that island businesses could not be developed because there was a lack of assurance that their ferry access to Oban would continue. Even at present, some are reluctant to promote the service to potential visitors. It can be very busy in the summer and there can be

delays in getting across to the island, and the marina is under no obligation to carry non-marina/non-resident passengers.

- 4.26. **The (very) tidal nature of the slipway on Kerrera** that can be used by the vehicle ferry was felt to be a barrier. Some consultees highlighted safety issues for passengers at low tides, through having to jump onto the ferry. There was reference to one recent incident where a resident passenger had fallen in the water upon getting off the ferry.
- 4.27. The tidal restrictions cause significant complications for those moving livestock. There is a need to coordinate (and be, and expect others to be, very flexible) between ferry operator, livestock haulier on the mainland and farmer. Because livestock cannot be loaded at all states of tide, they have to be held in trailers/pens for excessive periods of time. Therefore, they do not reach the market in prime condition and are likely to achieve a lower sale price.
- 4.28. The restrictions are also seen as adding cost and complexity for those employing a mainland contractor to undertake building work. The contractor cannot easily bring plant and materials backwards and forward. It was reported that this can make it difficult to get mainland companies to do work on Kerrera.
- 4.29. The tidal nature of access was also seen as leading to a **lack of resilience in emergency responses on the island**. It is not possible to get an emergency vehicle onto the island except at high states of the tide, and the same constraint also affects the lifeboat. This means that ambulance patients have to be lifted onto and off the ferry (or another boat) to be evacuated from Kerrera.
- 4.30. A number of consultees referred to the **limited vehicle carrying capacity on the current vehicle ferry**. This can present difficulties for the movement of large loads which have to be broken down across a number of ferry journeys. Overall, this issue was not seen as being as big a problem as the tidal nature of the slipway. Nevertheless, some consultees felt it was discouraging existing or potential new residents from setting up their own small-scale business on the island.
- 4.31. A number of residents identified the **lack of a communication system for alerting travellers about changes or disruption** to the vehicle ferry service. It can mean they are stranded or have to spend significant time awaiting a ferry at Gallanach which was not going to sail.
- 4.32. Despite the very short vehicle ferry crossing several residents reported that the **on-board passenger accommodation makes the journey particularly uncomfortable in inclement weather**. The only accommodation is the wheelhouse (which is a small space). It can accommodate two to three (standing) passengers in addition to the skipper, but in very close proximity. The lack of suitable passenger accommodation for anyone with reduced mobility was also highlighted.

- 4.33. Issues were also raised about **poor access to the ferry services from the shore facilities** that they use. Some respondents reported issues in boarding and disembarking the marina ferries at both ends of the journey.
- 4.34. Others consider the slipways used by the vehicle ferry service as unsafe. This was attributed to a lack of lighting (particularly an issue in winter), that they often become slippery, and that there is no life-ring at the pier. The quality of the shore infrastructure and its tidal nature were cited by some as the reason why parents would not want their children to travel to school via the vehicle ferry.
- 4.35. Some felt that the current shore infrastructure would make it increasingly difficult to provide a reliable service in the winter. A more general issue is the lack of shelters for passengers waiting for the ferry.
- 4.36. Many residents in the south end of the island highlighted the **poor standard of the existing road**. This is seen as having a detrimental impact on accessibility, reducing vehicles' lifespan and significantly increasing journey times.
- 4.37. A number of residents highlighted the **extra personal expense of having to have their own boat**, in addition to a car on the mainland and a vehicle on the island. They feel that each of these is required to be able to commute to work in Oban and make other trips.
- 4.38. There were also references to a **lack of adequate car parking spaces at Gallanach** during the peak visitor months of July and August. There were also references to a lack of parking within Oban for those using the marina service, with options of either paying what was felt to be excessive charges for parking close to the ferry or having to park at a significant distance away from the ferry for free.

Opportunities

- 4.39. Almost all consultees believe that there are sustainable development opportunities for Kerrera. This is because its highly distinctive nature could attract new residents and visitors-and related economic activity.
- 4.40. There was a general view that development should be at a level where Kerrera would **retain its distinctive sense of place**. The vision underpinning the Kerrera Community Development Plan encapsulates this:
- "A thriving and economically viable community sustaining a high quality of life for us all whilst safeguarding our unique and remarkable environment"*
- 4.41. All consultees would agree with that. However, there were differing views (largely between residents and non-residents) on the extent of development that could take place while still achieving the vision. Some consultees felt that there was scope for more development than most residents-particularly those outside the north end-would see as commensurate with the Development Plan's vision. This relates, in particular, to the amount and

nature of housing development and the scale of increase in visitor numbers.

- 4.42. Without a certain level of development proceeding, Argyll and Bute Council felt that public sector investment (and a link road in particular) would be difficult to justify. Thus, while the vision is shared, views on the means of best achieving it differ.
- 4.43. With a low-albeit stable-population, Kerrera would benefit from an **increase in population**. There is a reasonable age balance at present. Yet with such a low population it would be more beneficial if those attracted to the island were economically active and, perhaps, also had children with them. This would have the benefit of providing more people to participate in community activities and help avoid excessive “volunteer fatigue”.
- 4.44. The general view was that population growth should be “modest”. The Development Plan, for example, refers to a medium term target to increase the current population by 30%; with in the much longer term a population of 60 people being sought.
- 4.45. This would require suitable housing to be provided. The provision of four housing units is one of the medium term targets in the Development Plan. The Council were of the view that there is also potential to build a number of holiday homes.
- 4.46. The main avenue for medium term development is **tourism**. This potential reflects both Kerrera’s distinctive nature and its proximity to the major tourism hub that is Oban. A number of consultees noted that the tourism offering in Oban is limited by a lack of space for outdoor activities and its limited visitor offering (concentration on shops and restaurants).
- 4.47. Kerrera’s potential is evident in Stramash’s plans to develop a full outdoor residential centre (16-20 beds). This would lead to an increase in the number of visitors they bring to the island.
- 4.48. Many residents believe that growth in visitor numbers should be “modest” and that the exclusion of visitor cars should continue.
- 4.49. The key is that the island should increase the economic benefits of visitors through providing more or better spending opportunities (e.g. accommodation, food and drink). This would include through developing custom at the marina as well from those visiting for walking and other outdoor activities.
- 4.50. This would be facilitated by a north-south road. It would open up all rather than one part of the island to visitors, which could well encourage them to stay longer. In particular the island as a whole could benefit from the overall number of visitors that the marina generates.
- 4.51. However, this would require thought about how visitors would travel on the island if they are not able to bring their own transport. Further, there would

need to be consideration of how the island is promoted to visitors (notably those in Oban) and improving some of the island's basic infrastructure (e.g. information/orientation on walks that can be undertaken). This chimes with the Development Plan's medium term target to "make Kerrera a quality tourist destination and improve visitor satisfaction"

4.52. The second main area of development potential is the establishment of **one person or small scale businesses on the island**, beyond those in tourism. This could be by existing or new residents. A range of services (e.g. ICT, construction) plus micro-scale food and drink production is possible given the proximity to Oban. It also offers the potential to increase the island's number of economically active residents.

4.53. Importantly this would broaden the island's economic base. This is currently exposed to downturns in tourism or agriculture. For the latter, the aspiration appears to be to maintain rather than increase farming activity.

Constraints

4.54. While we have termed the following "constraints" on the development of ferry access to Kerrera they are perhaps better viewed as parameters within which a long term solution would operate. They are that Transport Scotland:

- See a north-south road link on Kerrera as a prerequisite to a long term solution to ferry service provision that meets the needs of the whole island.
- Will provide financial support for only one ferry service to the island.
- In line with the National Ferries Plan, are minded to strengthen and augment an existing route, rather than start up a new route.
- In the longer term, will financially support a service only if its fares are RET-based and the timetable reflects the Scottish Ferries Review methodology.

4.55. A further, and community derived, parameter is that the practice should continue that only residents are able to have a car on the island.

Summary

4.56. A range of problems have been identified. Six of them are most significant:

1. **Lack of financial sustainability of the two main ferry services.** This places doubt over ferry access in the medium term.
2. **Lack of a north-south road.** One of the main impacts is that three ferry services are operated for what is a very low level of population-yet there is still general dissatisfaction with what is provided. Kerrera is effectively divided into two islands. This exacerbates community divisions. It also constrains the economic benefit of tourism because one part of the island is unable to benefit from the visitors attracted to the other e.g. the

castle and the marina each attract visitors at either end of the island but they cannot currently easily visit both.

3. The **ferry timetables do not meet customer needs**. They limit the types of jobs that commuters can undertake, require some residents to own a boat, and limit access to social and leisure activities. They also lead to some poor integration with mainland public transport.
 4. **Current ferry access is largely not assured, consistent or equitable**. This constrains business development and performance, and causes ill-feeling and social disharmony.
 5. The **(very) tidal nature of the vehicle ferry slipway** leads to inefficiencies in transporting goods and vehicles, reduces the resilience of emergency responses and limits the ability to develop a timetable more suited to users' needs.
 6. **Limited vehicle carrying capacity of the vehicle ferry**. This means that certain types of vehicle cannot travel to the island. It results in time consuming, inefficient transshipment of goods and livestock and potentially discourages the establishment of new small scale businesses on the island.
- 4.57. There is a consensus around the main development opportunities for Kerrera, and on the potential to expand the resident population. However, there are differing views about the scale of development that is possible without changing the distinctive nature of the island. There is consensus that continuing to limit visitor car access to the island contributes positively to the distinctive nature of the island.
- 4.58. Proximity to Oban offers the opportunity to attract more visitors. However, this would require an overall strategy to manage the process and maximise its economic benefits. In turn, this will have benefits for Oban itself by making it a more attractive destination. Proximity to Oban also offers opportunities to establish new businesses on the island outside of the tourism sector.
- 4.59. There are parameters within which Transport Scotland will financially support a long-term solution to ferry provision. These need to be taken into account in assessing the options that are developed in the following Chapters.

5 OBJECTIVE SETTING

Introduction

- 5.1. STAG appraisals are objective-led rather than solution-led. Therefore, transport planning objectives have been developed to reflect, first the problems, opportunities and parameters analysed at Chapter 4. Second, established policy directives, which are set out in this Chapter.
- 5.2. This Chapter uses the Ferries Review Routes and Service Methodology to inform the development of the transport planning objectives through identifying gaps in current provision. The transport planning objectives are then set out, including their fit with identified problems, opportunities and parameters and with established policy directives. The transport planning objectives shown in this Chapter were ratified by the Kerrera community at the public meeting (as described at Chapter 2).

Scottish Government Ferries Review Routes and Services Methodology

Introduction

- 5.3. Based on our research, we have developed a measurement of need and dependency for ferry services to Kerrera in keeping with the prescribed Scottish Ferries Review methodology.
- 5.4. Information has been collated on the community's needs for connections to the mainland. In the Ferries Review analysis, many of the indicators for each island were measured using Census data or the Ferries Review's own household surveys. However, these data are not available for Kerrera. Therefore, the indicators have been measured based on our own consultations with Kerrera households.

Evidence Base and Need and Dependency Analysis

- 5.5. In line with the Ferries Review methodology we have used a degree of judgement in scoring the dependencies of Kerrera. A score of between A and E has been given as a measure of each of the four dependencies. The scores and the supporting evidence base are set out at Table 5.1, over.
- 5.6. This shows the highest degree of dependency and need ("A") for each of:
 - Commute and frequent business use.
 - Personal travel.
 - Tourism activity.
- 5.7. This reflects the high dependence, noted in earlier Chapters, on access to the mainland for employment and services.
- 5.8. There is less need and dependency for freight. However, this scores highly ("B") for exports and imports for the farming sector, including the movement of livestock.

Table 5.1: Evidence Base and Scoring of Need and Dependency Analysis

Dependency	Indicator 1	Indicator 2	Indicator 3	Judgement Score (A-E)
Commute and frequent business use	Crossing time = <10 mins	Commuting + high frequency users = 41% of households	Business use + high frequency users = 76% of households.	A
Personal	Population=35	Primary, secondary and tertiary healthcare on mainland. 40% of households regularly attend for secondary / tertiary care	3.6 return trips per household per week on average	A
Freight	1/3 households have involvement in freight-intensive industry			Supply chain = E Export/Import = B
Tourism	Over 1/3 households have some reliance on tourism			A

Note: Judgement score based on a range from A = “most dependent” through to E = “least dependent”.

Ferry Service Parameters

- 5.9. The next stage is to develop, broadly, a proposed service to reflect the community’s needs and dependencies in terms of: crossing time, sailings per day, length of operating day, and number of operating days per week. These are shown at Table 5.2.

Table 5.2: Proposed Ferry Service Parameters

	Crossing Time	Sailings Per Day	Operating Day	Days Per Week
High	Fast crossing time		Long operating day	7 days per week
Middling		Moderate number of crossings per day		
Low				

- 5.10. This shows that there is a general requirement for a high specification service, in particular a short crossing time and a long operating day on every day of the week. There appears, however, a requirement for a moderate-rather than high-sailing frequency.

Definition of Current Provision

- 5.11. On the same basis, we have defined the present level of provision for Kerrera. (This is taken as the level provided prior to the changes introduced in March 2013). It is contained in Table 5.3, over.

Table 5.3: Definition of Present Level of Provision

	Crossing Time	Sailings Per Day	Operating Day	Days Per Week
High	Fast crossing time	Vehicle ferry: up to every half-hour in summer Marina service: up to shuttle service in summer	Marina service: long operating day in summer	7 days per week
Middling		Vehicle ferry: moderate in the winter (hourly on demand)	Vehicle ferry: moderate year round Marina service: moderate in winter	
Low		Marina service: limited in the winter, on demand for customers, apart from guaranteed first and last sailings		

Gap Analysis

5.12. From setting out what the service should look like, and considering the present level of provision, it is possible to then identify gaps in current provision. These are presented at Table 5.4.

Table 5.4: Gap Analysis

	Crossing Time	Sailings Per Day	Operating Day	Days Per Week
Gap analysis	No change required	Greater access to crossings required for residents who live towards the north end of the island*	Longer operating day required for access by all residents, nearer 14 hours operation per day, connecting with mainland public transport	No change required; 7 days per week appropriate

* Relates to winter marina service-assumes that the marina service continues to be available to residents

5.13. The issue of number of sailings per day is slightly more nuanced than the Ferries Review methodology suggests. The current limit of 12 passengers on the vehicle ferry and the marina service means that at times a shuttle service has to operate to clear or avoid a backlog of passenger traffic.

Limitations of the Analysis

5.14. The Ferries Review methodology is not designed to account for some of the particularities of the Kerrera context that have been highlighted in this report. First, the present vehicle ferry operation is very tidal in nature. Therefore, the operating day for moving livestock and freight is significantly shorter than the timetable implies. Indeed, it varies on a day-to-day basis.

5.15. Second, the lack of a north-south road means that those in the north end do not have access to the vehicle ferry service at the middle of the island, while those elsewhere on the island do not have good access to the marina

service. Thus, the description of existing provision at Table 5.3 overstates the actual provision for individual users.

5.16. Nevertheless, the Ferries Review methodology remains useful in helping to identify gaps in service provision within the overall STAG process. It has informed the development of the transport planning objectives shown at 5.4.

Established Policy Directives

Scottish Government Economic Strategy

5.17. GES is the overarching strategy for the activities of Scottish Government and public services which are to contribute to increasing sustainable economic growth. The relevant policy directives are to be found under the GES' Strategic Priority of *Infrastructure Development And Place*. These are:

- Making connections across, within and to/from Scotland better, improving reliability and journey times, seeking to maximise the opportunities for employment, business, leisure and tourism.
- Population growth to maintain the sustainability of rural and coastal communities.
- Safeguard transport links to remote and rural communities.
- *Food and Drink* (including agriculture and fisheries) and *Sustainable Tourism* identified as sectors offering particular opportunities for growth.

HITRANS Regional Transport Strategy

5.18. Relevant policy directives from the RTS are:

- Enable people to participate in everyday life.
- Improve interconnectivity of the whole region to strategic services & destinations.
- Make travel more affordable to individuals, businesses and freight operations.
- Enhance effectiveness and efficiency of freight transport.
- Protect the environment so it remains an attraction for visitors and contributes to the quality of life and wellbeing of residents.

Argyll and Bute Council Local Development Plan-Written Statement December 2012

5.19. This provides an overall vision, objectives and strategy for how the Council wants to see Argyll and Bute develop to 2024 and beyond, including economic development and transport investment.

Based on this document the relevant policy directives are:

- Secure the economic and social regeneration of our smaller rural communities-due to an urgent need to reverse static or falling populations in some of our smaller rural communities by making them better places to live particularly for economically active families.
- Work in partnership with local communities in a way that recognises their particular needs to deliver successful and sustainable local regeneration.
- Support the continued diversification and sustainable growth of Argyll and Bute's economy with a particular focus on our sustainable assets in terms of renewables, tourism, forestry, food and drink.
- Ensure the outstanding quality of the natural, historic and cultural environment is protected, conserved and enhanced.
- Continue to improve Argyll and Bute's connectivity, transport infrastructure, integration between land use, transportation and associated networks.
- Focus investment on our road network where it can achieve the best socio/economic impact.

5.20. The document has a section covering the Oban, Lorn and the Isles Spatial Strategy. Within this the Gallanach ferry terminal is identified as one of a number of "Enhanced Vehicle Ferry Terminals".

Transport Planning Objectives

5.21. Transport planning objectives express the outcomes that are being sought from any future intervention to overcome identified problems or exploit identified opportunities. They should also reflect established policy directives.

5.22. Table 5.5, over, sets out the proposed transport planning objectives. It uses a tick box system to assess the fit of the objectives with the problems and opportunities identified through our research.

5.23. The analysis shows a good level of fit between the objectives and the problems, opportunities and planning parameters.

5.24. Our draft transport planning objectives were presented to the community meeting on Kerrera. There they were confirmed as appropriate, with some minor modifications which are reflected in Table 5.5.

Table 5.5: Fit Between Transport Planning Objectives and Problems, Opportunities and Parameters

Objectives/ Problems, Opportunities and Parameters	Develop community and economic links within and between Kerrera and the mainland	Allow all residents to benefit from improved access to mainland- based services and facilities	Improve the quality and accessibility of the complete journey from home to destination	Secure for all users affordable and assured means of access to support economic activity and quality of life
✓ some fit ✓✓ good fit ✓✓✓ strong fit / neutral x slight conflict xx conflict xxx strong conflict				
Problems				
Lack of financial sustainability of two existing ferry services		✓	✓	✓✓✓
Lack of north-south road	✓✓✓	✓✓✓	✓✓✓	✓✓
Timetable does not meet customer needs	✓✓	✓✓✓	✓✓	
Lack of assured, consistent and equitable access	✓		✓✓	✓✓
(Very) tidal nature of slipway	✓✓	✓	✓✓	✓
Lack of resilience in emergency response		✓✓✓	✓✓	✓
Limited vehicle carrying capacity on current vehicle ferry	✓	✓		✓✓
Lack of communication system for service changes			✓✓	✓
Lack of on-board passenger accommodation on vehicle ferry		✓✓✓	✓✓	
Poor access to ferry from shore	✓	✓✓✓	✓✓✓	✓✓
Poor standard of existing road	✓✓	✓✓✓	✓✓✓	✓
Extra personal cost of having own boat		✓✓✓	✓✓	✓✓✓
Lack of adequate parking		✓✓	✓✓	✓✓
Opportunities				
Retain distinctive sense of place	✓✓			
Increase population	✓	✓	✓	✓✓
Develop tourism	✓		✓✓	✓✓✓
Develop one person or small scale business	✓	✓	✓	✓✓✓
Parameters				
Road link a prerequisite	✓✓✓	✓✓✓	✓✓✓	✓✓✓
Financial support to one ferry	✓	✓	✓	✓✓
Not fund creation of new pier/ slipway				
Support service if fares are RET-based and timetable reflects Ferries Review methodology	✓✓	✓✓	✓✓	✓✓
Only residents are able to have a car on the island	✓	✓✓		✓✓✓

5.25. Table 5.6, over, also uses a tick box system to show the fit of the objectives with the identified policy directives.

Table 5.6: Fit Between Transport Planning Objectives and Policy Directives

Objectives/Policy Directives	Develop community and economic links within and between Kerrera and the mainland	Allow all residents to benefit from improved access to mainland-based services and facilities	Improve the quality and accessibility of the complete journey from home to destination	Secure for all users affordable and assured means of access to support economic activity and quality of life
✓ some fit ✓✓ good fit ✓✓✓ strong fit / neutral x slight conflict xx conflict xxx strong conflict				
Scottish Government Economic Strategy				
Making connections across, within and to/from Scotland better		✓✓✓	✓✓✓	✓✓✓
Population growth to maintain the sustainability of rural communities	✓✓✓	✓	✓	✓✓✓
Safeguard transport links to remote and rural communities	✓	✓✓✓	✓✓✓	✓✓✓
Food and Drink and Sustainable Tourism opportunities for growth	✓✓✓	✓		✓✓
Regional Transport Strategy				
Enable people to participate in everyday life.	✓✓	✓✓✓	✓✓	✓✓✓
Improve interconnectivity of the whole region to strategic services & destinations		✓✓✓	✓	✓✓
Make travel more affordable to individuals, businesses and freight operations	✓			✓✓✓
Enhance effectiveness and efficiency of freight transport	✓✓	✓	✓✓	✓✓✓
Protect the environment so it remains an attraction for visitors				
Argyll and Bute Council				
Secure the economic and social regeneration of our smaller rural communities... making them better places to live particularly for economically active families	✓✓	✓✓	✓✓	✓✓✓
Work in partnership with local communities in a way that recognises their particular needs to deliver successful and sustainable local regeneration	✓✓	✓✓		✓✓
Support the continued diversification and sustainable growth of Argyll and Bute's economy	✓✓			✓✓

Objectives/Policy Directives	Develop community and economic links within and between Kerrera and the mainland	Allow all residents to benefit from improved access to mainland-based services and facilities	Improve the quality and accessibility of the complete journey from home to destination	Secure for all users affordable and assured means of access to support economic activity and quality of life
✓ some fit ✓✓ good fit ✓✓✓ strong fit / neutral x slight conflict xx conflict xxx strong conflict				
Ensure the outstanding quality of the natural, historic and cultural environment is protected, conserved and enhanced	✓			
Continue to improve Argyll and Bute's connectivity, transport infrastructure, integration between land use, transportation and associated networks		✓✓✓		✓✓✓
Focus investment on our road network where it can achieve the best socio/economic impact		✓✓	✓✓	✓✓

5.26. This shows a good fit between transport planning objectives and the national, regional and local policy directives.

Summary

5.27. The transport planning objectives for the purposes of the initial Part 1 STAG appraisal shown in the subsequent Chapters are:

- Develop community and economic links within and between Kerrera and the mainland.
- Allow all residents to benefit from improved access to mainland-based services and facilities.
- Improve the quality and accessibility of the complete journey from home to destination.
- Secure for all users affordable and assured means of access to support economic activity and quality of life.

5.28. The analysis based on the Scottish Ferries Review points to a requirement for the following ferry service provision:

- Fast crossing time.
- Moderate number of crossings per day.
- Long operating day, around 14 hours.
- Seven day service.

6 OPTION GENERATION, SIFTING AND DEVELOPMENT

Introduction

- 6.1. The purpose of option generation, sifting and development is to derive a range of options which should satisfy the transport planning objectives and alleviate the problems or address the opportunities identified. It is important that the option generation, and the sifting and development that follows, should be carried out in a logical, transparent and therefore auditable manner.
- 6.2. Our consultations highlighted that Kerrera's accessibility has been a long running local issue. As such, the most 'obvious' options, in terms of changes to existing provision, were fairly well established at the outset. The Kerrera residents in particular had well-established views on what action was required, which were revealed through our consultations with them.
- 6.3. Nevertheless, a systematic approach was adopted to ensure all prospective options were given due consideration. Options have been derived from multiple sources:
 - The engineering review work.
 - Ideas/outputs from the community and stakeholder consultation process.
 - Ideas/proposals which have a history and which remain viable.
 - Ideas suggested by the client group for the study.
 - Ideas derived from our own experience of options that could satisfy the objectives.
- 6.4. This Chapter describes the option generation, sifting and development process. It then sets out our approach to bundling what is a wide range of individual options into meaningful packages for the purposes of the option assessment (shown at Chapter 7).

Option Generation and Sifting

- 6.5. The options that have been identified seek to address both the gaps identified through employing the Ferries Review methodology (see Chapter 5) and other gaps identified by our other research in the study. These include the: tidal nature of the present vehicle service; inaccessibility of the north end of the island to the present vehicle service; and the disparities in charging.
- 6.6. Table 6.1, over, presents our initial list of options.
- 6.7. It is surmised that none of these individual options in isolation will satisfy either the transport planning objectives or provide a good contribution to the established local and national policy directives.

Table 6.1: Initial List of Individual Options

Theme 1: Options based on the existing vehicle ferry route	Theme 2: Options based on a new vehicle ferry route	Theme 3: Other options
Longer operating day	Ferry service from north of Kerrera direct into Oban	North-south road
Non-tidal operation	Longer operating day	Upgrade existing road in south of Kerrera
Larger ferry with increased carrying capacity (people and freight)	Non-tidal operation	Creation of landing stages
Scheduled freight runs to the north of Kerrera	Larger ferry with increased carrying capacity (people and freight)	Clearly defined and consistent tariffs, timetables and carrying policies
Improved physical accessibility at slips	d	

6.8. We have addressed this by packaging together various individual options from Table 6.1 in complimentary packages. The purpose of packaging the options is to reinforce, extend and compliment the impact of individual measures.

6.9. This was done by, first, assessing each individual option's potential contribution to achieving the transport planning objectives. The analysis is presented at Tables 6.2-6.4, below and over.

Table 6.2: Options Based on Existing Vehicle Ferry Route: Fit With Transport Planning Objectives

✓ some fit ✓✓ good fit ✓✓✓ strong fit / neutral x slight conflict xx conflict xxx strong conflict	Develop community and economic links within and between Kerrera and the mainland	Allow all residents to benefit from improved access to mainland-based services and facilities	Improve the quality and accessibility of the complete journey from home to destination	Secure for all users affordable and assured means of access to support economic activity and quality of life
Ferry service from middle of Kerrera to Gallanach	✓✓	✓	X	✓
Longer operating day	✓✓	✓	✓	✓
Non-tidal operation	✓✓	✓	✓	✓✓
Larger ferry with increased carrying capacity	✓	/	✓✓	✓
Scheduled freight runs to the north of Kerrera	✓	/	/	✓✓
Improved physical accessibility at slips	✓	✓✓	✓✓✓	✓

Table 6.3: Options Based on New Vehicle Ferry Route at North of Kerrera: Fit With Transport Planning Objectives

✓ some fit ✓✓ good fit ✓✓✓ strong fit / neutral x slight conflict xx conflict xxx strong conflict	Develop community and economic links within and between Kerrera and the mainland	Allow all residents to benefit from improved access to mainland-based services and facilities	Improve the quality and accessibility of the complete journey from home to destination	Secure for all users affordable and assured means of access to support economic activity and quality of life
Ferry service from north of Kerrera direct into Oban	✓✓	✓	X	✓
With long operating day	✓✓	✓	✓	✓
With non-tidal operation	✓✓	✓	✓	✓✓
With larger ferry	✓	/	✓✓	✓

Table 6.4: Other Options: Fit With Transport Planning Objectives

✓ some fit ✓✓ good fit ✓✓✓ strong fit / neutral x slight conflict xx conflict xxx strong conflict	Develop community and economic links within and between Kerrera and the mainland	Allow all residents to benefit from improved access to mainland-based services and facilities	Improve the quality and accessibility of the complete journey from home to destination	Secure for all users affordable and assured means of access to support economic activity and quality of life
North-south road	✓✓✓	✓✓	✓✓✓	✓✓
Upgrade existing road in south of Kerrera	✓✓✓	✓✓	✓✓✓	✓✓
Creation of landing stages	✓	✓	✓✓	/
Clearly defined and consistent tariffs, timetables and carrying policies	✓	✓✓	✓	✓✓✓

6.10. A further assessment was undertaken. This looked at the complementarity of each of the individual options to one other. In effect, this assesses the extent to which the individual options when combined together might be expected to deliver more than the sum of their individual contributions. It is presented at Table 6.5, over.

Table 6.5: Option Complementarity

✓ some complementarity ✓✓ complementary ✓✓✓ strong complementarity / neutral x slight conflict xx conflict xxx strong conflict	Non-tidal operation	Larger ferry	Freight runs	Access upgrade at piers	Existing route	North of Kerrera to Oban route	Road north-south	Upgrade existing road	Landing stages	Clear fares etc.
Longer operational hours	✓✓✓	✓	✓✓	✓✓	✓	✓	✓✓✓	✓✓	/	✓
Non-tidal operation		/	✓✓✓	✓✓✓	/	/	✓✓✓	✓✓	/	✓
Larger ferry with increased carrying capacity			✓✓	✓	✓	✓	✓✓	✓✓	/	✓
Scheduled freight runs to the north of Kerrera				✓	✓✓✓	/	✓	✓	/	✓✓
Improved physical accessibility at slips					✓	✓	✓✓	✓✓	/	✓✓
Ferry service on existing route						/	✓✓✓	✓✓	/	✓✓
Ferry service from north of Kerrera direct into Oban							✓✓✓	✓✓	/	✓✓
Road north to south								✓✓✓	/	✓✓
Upgrade existing road									/	✓✓
Creation of landing stages										/
Consistent tariffs, timetables and carrying policies										

Option Development

6.11. We have used the preceding analysis to define packages of options combining a number of the individual options. This includes a Do Minimum against which the other packages can be compared. The packages must be appraised against this Do Minimum option that includes the transport improvement commitments that have policy and funding approval. In this case the Do Minimum is the existing vehicle ferry service plus the changes to fares, timetable, etc. that were introduced in March 2013-including the continuing prohibition of visitor vehicles on the island.

6.12. We also developed four other option packages. These and the Do Minimum are described at Table 6.6.

Table 6.6: Option Packages for Appraisal

Reference	Basis	Description
Do Minimum	Existing vehicle ferry route	1. Longer operating day 2. Number of freight runs to the north of Kerrera 3. Clearly defined and consistent tariff, timetable and carryings policy
A	Existing vehicle ferry route, road investment	1. Longer operating day 2. Non tidal operation 3. Clearly defined and consistent tariff, timetable and carryings policy 4. Link road from north to middle of Kerrera 5. Upgraded south road
B	Existing vehicle ferry route, no road investment	1. Longer operating day 2. Non tidal operation 3. Clearly defined and consistent tariff, timetable and carryings policy
C	Direct vehicle ferry service to Oban, road investment	1. Use of a slipway at north of Kerrera 2. Non tidal operation 3. Clearly defined and consistent tariff, timetable and carryings policy 4. Link road from north to middle of Kerrera 5. Upgraded south road
D	Direct vehicle ferry service to Oban, no road investment	1. Use of a slipway at north of Kerrera 2. Non tidal operation 3. Clearly defined and consistent tariff, timetable and carryings policy

Note: For Options A-D the “longer operating day” is longer than that for the Do Minimum. It is around 14 hours-as per the Ferries Review methodology set out at Chapter 5, rather than around 11 hours under the Do Minimum

6.13. Option B is the same as Option A, except that it would see no link road created or upgrade of the road in the south of the island. Likewise, Option D is the same as Option C, except that it would see no link road created or upgrade of the road in the south of the island.

6.14. None of the options includes a larger vehicle ferry than that which presently operates. This is because Transport Scotland have advised that the vessel to be used would be at the discretion of the operators tendering for a publicly supported service. It was also seen by stakeholders (see Chapter 4) as a lower priority than provision of an all states of the tide service.

- 6.15. Second, none of the options includes landing stages. This reflects the relatively limited fit with transport planning objectives (shown at Table 6.4) and lack of complementarity with other options for enhancement (see Table 6.5).
- 6.16. This does not mean there is no merit in providing landing stages. Rather, this would best be secured by means other than Transport Scotland providing public support to secure improved access to Kerrera for the community as a whole.

Summary

- 6.17. A wide range of options have been identified. They have been assessed against the transport planning objectives. The results were used to develop packages of options that could provide a long term ferry service solution for Kerrera. The four options, along with the Do Minimum, are appraised at Chapter 7.

7. OPTION APPRAISAL

Introduction

- 7.1. This Chapter presents our Part 1 STAG-based appraisal of the options described at Chapter 6. A Part 1 Appraisal is an initial appraisal of the options generated during Pre-Appraisal. It involves a qualitative assessment of each option's likelihood of meeting the transport planning objectives. It is usually followed where by the more detailed Part 2 STAG Appraisal.
- 7.2. STAG states that the Part 1 Appraisal should comprise an initial appraisal of the:
- Likely impacts of the options against transport planning objectives.
 - Likely impacts of the options against the five STAG criteria.
 - Options against established policy directives.
 - Feasibility, affordability and likely public acceptability of the options.
- 7.3. These four elements form the basis of this Chapter. The depth of analysis provided is proportionate to the overall scale of this study.
- 7.4. The option packages that have been appraised were defined at Chapter 6. They are reproduced at Table 7.1.

Table 7.1: Option Packages for Appraisal

Reference	Basis	Description
Do Minimum	Existing vehicle ferry route	1. Longer operating day 2. Number of freight runs to the north of Kerrera 3. Clearly defined and consistent tariff, timetable and carryings policy
A	Existing vehicle ferry route, road investment	1. Longer operating day 2. Non tidal operation 3. Clearly defined and consistent tariff, timetable and carryings policy 4. Link road from north to middle of Kerrera 5. Upgraded south road
B	Existing vehicle ferry route, no road investment	1. Longer operating day 2. Non tidal operation 3. Clearly defined and consistent tariff, timetable and carryings policy
C	Direct vehicle ferry service to Oban, road investment	1. Use of slipway at north of Kerrera 2. Non tidal operation 3. Clearly defined and consistent tariff, timetable and carryings policy 4. Link road from north to middle of Kerrera 5. Upgraded south road
D	Direct vehicle ferry service to Oban, no road investment	1. Use of slipway at north of Kerrera 2. Non tidal operation 3. Clearly defined and consistent tariff, timetable and carryings policy

7.5. As in the earlier Chapters the assessment is based on a seven point scoring scale. This is as follows:

✓✓✓	strong positive impact
✓✓	good positive impact
✓	some positive impact
/	neutral
x	slight negative impact
xx	negative impact
xxx	strong negative impact

Appraisal against Transport Planning Objectives

Introduction

7.6. This section appraises each of the option packages against the defined transport planning objectives. As noted at 7.1 each of the four option packages are assessed in respect to how much they satisfy the transport planning objectives compared to the do minimum option package.

7.7. The transport planning objectives were defined at Chapter 5. They are as follows:

- 1: *Develop community and economic links within and between Kerrera and the mainland.*
- 2: *Allow all residents to benefit from improved access to mainland-based services and facilities.*
- 3: *Improve the quality and accessibility of the complete journey from home to destination.*
- 4: *Secure for all users affordable and assured means of access to support economic activity and quality of life.*

7.8. Please note that the numbering used above is simply for reference. It does not indicate any order of priority between the four transport planning objectives.

7.9. The appraisal outputs are shown at Table 7.2, over. Overall, the “with road” options (A and C) have a high degree of fit with the transport planning objectives and notably higher than the other three options.

7.10. Each of the options would positively contribute to meeting transport planning objective 1. There is much greater improvement with options A and C which include road links in order that all residents are able to properly access the island as a whole and the scheduled vehicle ferry service to the mainland. There is no discernible difference between options A and C. This is because with road connections all are able to achieve good internal and external links regardless of where the ferry service landfall is located.

Table 7.2: Appraisal against Transport Planning Objectives

Option/Transport Planning Objective	1- Develop community and economic links...	2- Allow all residents to benefit from improved access...	3- Improve the quality and accessibility of the complete journey....	4- Secure for all users affordable and assured means of access
Do Minimum	✓	✓	/	✓✓
A: Existing vehicle ferry route, road investment	✓✓✓	✓✓✓	✓✓✓	✓✓✓
B: Existing vehicle ferry route, no road investment	✓	✓✓	✓	✓✓
C: Direct vehicle ferry service to Oban, road investment	✓✓✓	✓✓	✓✓	✓✓✓
D: Direct vehicle ferry service to Oban, no road investment	✓	✓	✓	✓✓

7.11. For transport planning objective 2 Options A and C provide the greatest ease with which any resident of Kerrera can gain access to a wider range of mainland-based opportunities. This reflects a relatively long operating day and the removal of tidal related constraints. These benefits are present under all of Options A-D. However, A and C score the highest because the road investment (including the enhanced south road) allows these benefits to be available to all residents. As a specific example, Option A and C would satisfy well residents' concerns regarding emergency resilience. This would be by providing those requiring medical attention wherever they are on Kerrera to be retrieved with a vehicle and transported off the island at any state of the tide.

7.12. Option B scores higher than Option D because the current middle island ferry terminal is closer to most of the Kerrera population than would be a terminal at the north end.

7.13. For transport planning objective 3 Option A provides the greatest improvement. All residents would have good, vehicular access to the slip on Kerrera, and then convenient access to their car on the mainland side (at Gallanach).

7.14. For those without access to a car on the mainland side, then Option C would be more attractive, providing direct access into Oban. That said, no residents were identified that did not have a vehicle either in Oban or at Gallanach for their use on the mainland. Furthermore, Option C is limited by the current lack of nearby parking within Oban that makes interchange between ferry and personal car more inconvenient than is the case at Gallanach under Option A. Hence Option C scores less well than Option A for transport planning objective 3.

7.15. Option B and D make only modest improvements in quality and accessibility. This is primarily through the operation of a non-tidal service, making journeys more reliable.

7.16. In terms of transport planning objective 4, Options A and C provide the most assured means of transport for everyone travelling to and from Kerrera. Options B and D do, however, both make a sizeable contribution however through securing sea links that are available at all states of the tide. This will provide a significant benefit compared to the Do Minimum. This is particularly in respect of moving goods and livestock and dealing with emergency situations.

7.17. Fares would be based on RET under all of the options. This would mean that they will be affordable. However, given the basis of RET it is to be expected that fares would be higher under Options C and D, reflecting the longer crossing distance between the north end of Kerrera and Oban than between the middle of Kerrera and Gallanach.

Appraisal against STAG Criteria

Environment

7.18. Table 7.3 shows our appraisal against the Environment criterion.

Table 7.3: Appraisal Against STAG Criteria: Environment

Option	Appraisal
Do Minimum	/
A: Existing vehicle ferry route, road investment	/
B: Existing vehicle ferry route, no road investment	/
C: Direct vehicle ferry service to Oban, road investment	X
D: Direct vehicle ferry service to Oban, no road investment	/

7.19. The main types of potential environmental impacts would be:

- On-island vehicle traffic-in terms of increased movements under Options A and C.
- Potential change in the character of the island in relation to increased visitor activity.
- The physical environment of the island depending on the nature of any new north-south link road.

7.20. Most of the options are expected to have a neutral impact on the environment. This largely reflects the continuing restriction on visitors bringing their cars to the island, with any increase in other's vehicle movements likely to be slight in absolute terms.

7.21. The exception is Option C. Here the number of visitors that could be attracted by a direct, well-marketed service from Oban with access across the whole of the island could change the "remote" feel of Kerrera which is a key part of its overall environment. In contrast, we would expect the increase in visitor numbers under Option A to be comparatively modest.

7.22. Overall, the increase in visitor activity under Options A and C assumes that there is some form of wheeled transport provided on Kerrera, at least to allow some visitors to visit both the north and south of the island. We would expect this to be bikes for hire, and cars/minibus operated by one or more local residents or a social enterprise.

7.23. The scores for Options A and B assume that an environmentally acceptable north-south road design can be achieved. As noted in Appendix A, for example, at least one of the routes could have “a fairly significant visual impact leaving a scar clearly obvious from the mainland”.

Safety

7.24. Table 7.4 shows our appraisal against the Safety criterion.

Table 7.4: Appraisal Against STAG Criteria: Safety

Option	Appraisal
Do Minimum	/
A: Existing vehicle ferry route, road investment	✓
B: Existing vehicle ferry route, no road investment	✓
C: Direct vehicle ferry service to Oban, road investment	✓
D: Direct vehicle ferry service to Oban, no road investment	✓

7.25. Given their nature, there is not expected to be any material impact on passenger security from any of the options. Therefore, the assessment is based solely on the likely impact of each option on accidents.

7.26. We expect a modest impact on all but the Do Minimum option. This would be through a reduction in accidents-and perhaps perceived risk of such-caused by passengers embarking or disembarking the vehicle ferry at certain states of the tide, and improvement in access compared to that currently provided for the marina services. These benefits may be of particular relevance to the young, old and/or infirm.

7.27. It is possible that Options A-D could see an increase in on-island accidents because of a greater number of vehicle movements. However, we would expect any such increase to be very modest given the overall numbers involved. The potential for this was not mentioned by consultees, unlike references to the shortcomings of current ferry accessibility.

Economy

7.28. Given the small level of economic activity on Kerrera and, indeed, the wider Oban area Wider Economic Benefits (WEBs) through agglomeration effects are not relevant.

7.29. Therefore the assessment is based on two sub-criterion. First, Transport Economic Efficiency (TEE). In this case we have considered journey time, ferry fares, ferry service reliability, cost of using other transport modes and service frequency/length of operating day.

7.30. Table 7.5 shows the scoring for the various aspects for TEE.

Table 7.5: TEE Analysis

Residents					
Option/Sub-criterion	Overall Journey Time	Ferry Fares	Reliability	Other Travel Costs	Ferry Frequency
Do Minimum	/	X	/	/	✓
A: Existing vehicle ferry route, road investment	x	X	✓	/	✓✓
B: Existing vehicle ferry route, no road investment	xxx	X	✓	x	✓✓
C: Direct vehicle ferry service to Oban, road investment	xx	xx	✓	x	✓✓
D: Direct vehicle ferry service to Oban, no road investment	xxx	xx	✓	xx	✓✓
Visitors					
Do Minimum	/	X	/	/	✓
A: Existing vehicle ferry route, road investment	xx	xx	✓	xx	✓✓
B: Existing vehicle ferry route, no road investment	xxx	xx	✓	xx	✓✓
C: Direct vehicle ferry service to Oban, road investment	x	xxx	✓	x	✓✓
D: Direct vehicle ferry service to Oban, no road investment	x	xxx	✓	x	✓✓

7.31. For residents, all options see a positive impact on ferry frequency-and particularly so for the extended operating day under Options A-D. There is also a positive impact on service reliability, through operations at all states of the tide, for Options A-D.

7.32. Under all Options passenger ferry fares for residents increase. While there is a decrease in car fares as shown at Chapter 3 very few resident car trips are made. The fares increase would be greater under Options C and D. This is because, as the fares would be RET-based, and there would be a longer crossing from Oban to north Kerrera than between the middle of the island and Gallanach.

7.33. There would be an overall negative impact on journey time. Residents towards the north end of the island would now have to travel to the middle island and then on to Oban via Gallanach, rather than direct to Oban as at present, under Options A and B. Similarly, the much greater number of residents would have to travel to the north of the island under Options C and D. The journey times would be even more extended in the absence of a north-south road-and such journeys may, in fact, not be practical.

7.34. With travel up and down the island required to access a single ferry service, there would be the costs of undertaking this by vehicle (or by some other means if no proper road is built). These costs would be offset to an extent for some residents who may use their own boat less with provision of a more frequent ferry service operating at all states of the tide.

7.35. Similar issues exist for visitors. However, there are significant impacts on ferry fares for the majority of them who presently travel from Oban for free. With most visitors currently travelling to/from the north of Kerrera, then journey times would increase if they had to route via Gallanach-particularly if no north-south road was created. Again, such journeys may, in fact, not be practical. This would also increase their other transport costs on the island-assuming they would have to pay to get some form of transport from the middle to the north end of the island.

7.36. Table 7.6 shows the overall appraisal against the Economy criterion.

Table 7.6: Appraisal against STAG Criteria: Economy

Option/Sub-criterion	TEE	EALI
Do Minimum	/	/
A: Existing vehicle ferry route, road investment	/	✓✓
B: Existing vehicle ferry route, no road investment	x	✓
C: Direct vehicle ferry service to Oban, road investment	x	✓✓✓
D: Direct vehicle ferry service to Oban, no road investment	x	✓

7.37. The TEE score is based on the scores shown at Table 7.5-by simply averaging the scores shown for both visitors and residents across the five measures used. The result is that the various positive and negative impacts largely cancel out one another. For Options B-D there is a slight negative impact, mainly reflecting increased ferry fares and extended journey times.

7.38. However, it is highly questionable as to the practicality of some current trips to/from Kerrera still being made if there was only one ferry service in operation and no north-south link road.

7.39. The scores at Table 7.6 for the Economic Activity and Location Impacts (EALIs) are, in this context, simply the net impacts for Kerrera itself. This is because it is extremely unlikely there will be net Scottish level impacts.

7.40. Also, net regional impacts would depend on visitors extending their stay in the region in order to visit Kerrera. However, any such impacts would be very slight at the regional level. This reflects the comparatively modest number of visitors to Kerrera even under enhanced transport provision, plus that the options are unlikely to lead to new-as opposed to slightly extended-trips to the region.

7.41. Option C scores highest in terms of EALIs. It would support commuting by offering a longer operating day, make the island more attractive as a business location by offering an all states of the tide operation. In particular, the visitor market could be well developed through a suitably marketed service direct from Oban with a road on the island that would open up the whole of Kerrera for visitors.

7.42. Option A scores slightly less well because visitors would still have to travel to Gallanach rather than the service being directly accessible from Oban. Otherwise the benefits would be same as Option C.

- 7.43. The two “without road” options provide some benefits. However, these would not equally be for all island residents. They would also leave the island not functioning as a single integrated economic unit in terms of visitor activity and access to on-island employment opportunities.

Integration

- 7.44. Table 7.7 shows our appraisal against the Integration criterion.

Table 7.7: Appraisal against STAG Criteria: Integration

Option/Sub-criterion	Transport Integration	Transport and Land-Use Integration
Do Minimum	✓	✓
A: Existing vehicle ferry route, road investment	✓✓	✓✓✓
B: Existing vehicle ferry route, no road investment	✓	✓
C: Direct vehicle ferry service to Oban, road investment	✓✓	✓✓✓
D: Direct vehicle ferry service to Oban, no road investment	✓	✓

- 7.45. In this instance we have not included the third sub-criterion of Policy Integration. This is because, in the current context, this is adequately covered in the appraisal against established policy directives.
- 7.46. Option A and C score highest under the Transport Integration sub-criterion. For Option A this reflects better opportunities for public transport connections through the extended operating day and these being available for travel to/from all points on the island given the north-south road. Option C scores well because it would offer a direct service to/from Oban with its connections with a range of bus, train and ferry services.
- 7.47. However, with the bulk of residents and visitor facilities away from the north end of the island there would still be travel involved on Kerrera itself to access a ferry terminal in the north of the island.
- 7.48. The other three options score less well because access to improved connections would not be easily available to all residents and visitors, due to the lack of a north-south road.
- 7.49. Similarly, Options B and D score highest for the Transport and Land-Use Integration sub-criterion. The north-south road, plus the improvements to the south road, make the island an integrated whole. They would allow those in the north end to access employment opportunities in the rest of the island and vice versa. They would also connect all residents to an enhanced ferry service-including a longer operating day-which would better connect with employment opportunities and leisure and social facilities that are in Oban.

Accessibility and Social Inclusion

- 7.50. Table 7.8, over, shows the assessment of the options in respect to Accessibility and Social Inclusion.

Table 7.8: Appraisal against STAG Criteria: Accessibility and Social Inclusion

Option/Sub-criterion	Public transport network coverage	Access to local services	Distribution of impacts by people group	Distribution of impacts by location
Do Minimum	✓✓	✓	✓	✓
A: Existing vehicle ferry route, road investment	✓✓✓	✓	✓✓	✓✓
B: Existing vehicle ferry route, no road investment	✓✓✓	/	✓	✓
C: Direct vehicle ferry service to Oban, road investment	✓✓✓	✓✓	✓✓	✓✓
D: Direct vehicle ferry service to Oban, no road investment	✓✓✓	✓	✓	✓

- 7.51. In terms of **community accessibility** and specifically **public transport network coverage**, all four options make a similar improvement in accessibility through providing a ferry service that is no longer constrained by tidal conditions compared to the Do Minimum option.
- 7.52. All the options-including the Do Minimum-provide significantly enhanced public transport network coverage for the community by providing early enough ferry connections to connect with first departures from Oban to Glasgow by train and coach. Also of importance is the provision of earlier and later crossings which will facilitate improved access to facilities in Oban and also employment opportunities for those who live on Kerrera. These will be more extensive under the longer operating day in Options A-D. Therefore, these are scored higher than the Do Minimum under this sub-criterion.
- 7.53. In respect to **access to local services** by walking and cycling, Options C and D provide some advantages in terms of providing a direct link into the centre of Oban. It should be highlighted however that they will generally require vehicular access on Kerrera in the first place to access the ferry, which is very restricted in Option D given that it does not include the provision of a north south road on Kerrera. Option A and B see the ferry landing at Gallanach some two miles outside of the centre of Oban, and with no bus connections requires either a car journey or a taxi ride.
- 7.54. In terms of **distribution of impacts by people group** our consultations revealed various concerns regarding the physical accessibility of vessels and access to vessels from the shore. Options A and C would particularly provide benefits for people who are older, people travelling with young children and people with mobility problems, who will all be assisted through road access to the ferry crossing. Across Options A-D, all will benefit the above mentioned people groups through easier vessel access as a result of removing the tidal constraints at the slips.

- 7.55. Any more detailed development of options should consider physical accessibility aspects for people with reduced mobility as well as people travelling with children or heavy/awkward luggage. In addition there are the issues of:
- Lighting at piers.
 - Means of communicating service changes, including delays and cancellations.
 - Seating and protection from the weather at piers and on board.
- 7.56. In terms of **distribution of impact by location** all options provide a benefit to the very small population of Kerrera, which can be considered a policy sensitive area due to its remote location and the policy focus across local and national policy to secure the sustainability of remote communities.
- 7.57. However, without improved road connections on Kerrera, some benefits will be more fully derived by those who live closer to the relevant ferry terminals. Thus, Options B and D can be considered to have a lesser benefit as fewer people within the community are able to attain a significant benefit.

Summary

- 7.58. Most options have a neutral impact on the **environment**. Option C could, however, significantly increase the number of visitors to Kerrera, which has the potential to change the “remote” feel of the environment. Options A and C assume that an environmentally sensitive design solution for a north south road could be achieved.
- 7.59. All of the options-bar the Do Minimum-are expected to deliver a modest impact on passenger **safety**.
- 7.60. In terms of **economy**, the TEE impacts are either neutral, or slightly negative because of increased fares and extended journey times. Options A and C score highest in terms of EALI impacts. The road investments in particular help to produce good positive impacts in supporting commuting and presenting opportunities for development of small-scale businesses, while a direct Oban service would have the strongest potential positive impact on visitor activity.
- 7.61. Options A and C perform best against the **integration** criterion. This reflects their providing an enhanced service by which all residents can access employment and social opportunities throughout both Kerrera and Oban.
- 7.62. All options, bar the Do Minimum, make a similar improvement in **accessibility** through removing the tidal constraint to services. All options, including the Do Minimum, provide enhanced public transport network coverage. Accessibility benefits for Kerrera will provide a positive

distribution of impact by location as Kerrera can be considered as a policy sensitive area due to its remote location.

- 7.63. Overall, Options A and C generally score highest. The plus point of Option A is that it provides a service to/from the main current location of residents and visitor facilities, plus the shortest crossing with lower fares than would pertain on an Oban service. The main plus point of Option C is direct access to the regional centre of Oban and in particular its large number of visitors.

Appraisal against Established Policy Directives

- 7.64. As shown at Chapter 5, established policy directives have been used to shape the transport planning objectives and to guide option and the construction of packages of individual options. As such, the options should provide a good degree of fit and are consistent with the relevant policy directives. The appraisal is shown at Table 7.9.

Table 7.9: Fit Between Policy Directives and Option Packages

Policy Directives / Option Packages	Do Minimum	A - Existing vehicle ferry route, road investment	B – Existing vehicle ferry route, no road investment	C - Direct vehicle ferry service to Oban, road investment	D - Direct vehicle ferry service to Oban, no road investment
Scottish Government Economic Strategy					
Making connections across, within and to/from Scotland better	✓	✓✓✓	✓	✓✓	✓✓✓
Population growth to maintain the sustainability of rural communities	✓	✓✓✓	✓	✓✓✓	✓
Safeguard transport links to remote and rural communities	✓	✓✓✓	✓✓	✓✓✓	✓✓
Food and Drink and Sustainable Tourism opportunities for growth	✓	✓✓	✓	✓✓✓	✓
Regional Transport Strategy					
Enable people to participate in everyday life	✓	✓✓✓	✓	✓✓✓	✓
Improve interconnectivity of the whole region to strategic services & destinations	✓	✓✓✓	✓	✓✓✓	✓
Make travel more affordable to individuals, businesses and freight operations	✓✓	✓✓✓	✓✓	✓✓✓	✓✓
Enhance effectiveness and efficiency of freight transport	✓	✓✓✓	✓✓	✓✓✓	✓✓
Protect the environment so it remains an attraction for visitors	✓✓	✓✓	✓✓✓	✓	✓✓✓
Argyll and Bute Council					
Secure the economic and social regeneration of our smaller rural communities...making them better places to live particularly for economically active families	✓	✓✓✓	✓✓	✓✓✓	✓✓
Work in partnership with local	✓	✓✓✓	✓	✓✓✓	✓

Policy Directives / Option Packages	Do Minimum	A - Existing vehicle ferry route, road investment	B – Existing vehicle ferry route, no road investment	C - Direct vehicle ferry service to Oban, road investment	D - Direct vehicle ferry service to Oban, no road investment
communities in a way that recognises their particular needs to deliver successful and sustainable local regeneration					
Support the continued diversification and sustainable growth of Argyll and Bute's economy	✓	✓	✓	✓	✓
Ensure the outstanding quality of the natural, historic and cultural environment is protected, conserved and enhanced	✓✓	✓✓	✓✓✓	✓	✓✓✓
Continue to improve Argyll and Bute's connectivity, transport infrastructure, integration between land use, transportation and associated networks	✓	✓✓✓	✓	✓✓✓	✓
Focus investment on our road network where it can achieve the best socio/economic impact	/	✓✓	/	✓✓	/

7.65. Options A and C generally score best. This is because of the increased accessibility for residents and visitors through the north-south road. The exception is in terms of preserving the environmental qualities. This is because the advent of the road would increase residents' vehicle movements on the island and also the number of visitors attracted to the island (particularly for Option C). However, the overall physical environmental impact would be quite limited by the continuing bans on visitors bringing a car to the island.

7.66. Option A performs better than Option C in environmental terms. However, the latter performs better in terms of opportunities for growth. This is because a direct Oban service would offer a link straight into the major tourism hub of Oban.

Feasibility

7.67. As required by STAG, Table 7.10, over provides a preliminary assessment of the feasibility of construction, implementation and operation under each of the options.

Table 7.10: Assessment of Feasibility

Option	Assessment
Do Minimum	No anticipated issues following implementation from March 2013 onwards
A: Existing vehicle ferry route, road investment	No anticipated issues regarding shore infrastructure or ferry operation. North-south road would require a design that is environmentally acceptable, and does not exacerbate drainage issues or livestock issues. The latter comment also applies to upgrade of the existing south road
B: Existing vehicle ferry route, no road investment	No anticipated issues regarding shore infrastructure or ferry operation
C: Direct vehicle ferry service to Oban, road investment	Issue of parking spaces for islanders' vehicles within Oban would have to be addressed. All livestock would have to be moved in trailers on the ferry as unloading/loading livestock on the hoof in the centre of Oban would not be practical. North-south road would require a design that is environmentally acceptable, and does not exacerbate drainage issues or livestock issues. The latter comment also applies to upgrade of the existing south road.
D: Direct vehicle ferry service to Oban, no road investment	Issue of parking spaces for islanders' vehicles within Oban would have to be addressed. All livestock would have to be moved in trailers on the ferry as unloading/loading livestock on the hoof in the centre of Oban would not be practical

Affordability-Cost to Government

Introduction

7.68. This section considers the costs of the five options that are being assessed in this Chapter. It looks in turn at the costs of investing in:

- Road infrastructure on Kerrera.
- Marine facilities.
- Operation of the ferry service.

7.69. The first two of these aspects are covered in detail at Appendix A. The information presented here is in summary form.

Road Infrastructure

7.70. As agreed with Transport Scotland and Argyll and Bute Council four standards of road construction have been considered. These are:

- **Basic:** clearance of surface organic material, sub-base layer with crushed stone/concrete surface where required and reinstatement of drainage.
- **Forestry:** this standard is the level which can be constructed using locally won quarried rock (crushed) or imported stone. Argyll and Bute Council have adopted forest grade tracks elsewhere in their area.
- **Non-sealed:** up to near adoptable standard, but without a sealed bituminous surface.
- **Single track:** an adoptable standard.

- 7.71. Argyll and Bute Council told us that they are not aware of their having adopted forest grade roads. However, they said that they do have some roads on the list of public roads that are to a forest type specification. They have been left this way due to limited budgets and the low volumes of vehicles.
- 7.72. The current Council policy requires a newly adopted road to have c15 years where only routine maintenance is required. They told us that a forest and basic specification may not achieve this.
- 7.73. The basic specifications include as a minimum: clearance of surface organic material; sub-base layer with crushed stone/concrete surface where required; and reinstatement of drainage
- 7.74. This option is not really intended as a specification for a new road but is a simple option to address the current route which has several areas which are extremely difficult to negotiate due to rutting, flooding, presence of muddy/grassy areas, etc. It is accepted that this is not a track which would reach an adoptable standard but would be suitable for simple running repairs (possibly managed locally) to provide access between the northern and southern areas of the island and simplifying the process of dealing with emergencies by overcoming the significant impediments noted during our inspection.
- 7.75. The forestry track includes:
- Clearance of surface organic material.
 - Excavation to competent foundation layer.
 - Sub-base layer with geotextile, crushed stone/concrete where required.
 - Type 1 aggregate upper layer for a 4.5m wide running surface.
 - New drainage ditches either side of the road.
 - Reinstatement of drainage.
 - Passing places accommodated on wider stretches.
- 7.76. This allows for the removal of any peat, silt or plant matter down to a suitable “hard horizon” from which any of the road options could be constructed and then making up the road structure with construction materials compatible with any road construction. Consequently, the design life is fifty years although, given that the traffic is likely to be lower than design standards usually consider there is every likelihood that this could be exceeded. The main differences from the non sealed and single track roads is in the finished surfacing materials, numbers of passing places, signage and culverting of drainage rather than the simpler ditches allowed in this option.
- 7.77. A number of routes have been assessed and costed. These reflect the findings of our consultations and the other research undertaken for the study.

- 7.78. The Council provided a copy of their Feasibility and Cost Estimate report on the North – South Proposed Road Link for the Isle of Kerrera from 2006 which contained considerable detail in relation to the importing of materials, cost of materials locally and allowances for the likely outputs per day for materials and labour. The study is extensive and we have appraised this in reference to our database of road construction to distil the road construction rates into a linear metre value. Values for surfacing have been interpreted using rates for similar works and enquiries to local suppliers with the final rate being a combination of all sources.
- 7.79. For comparison, we would highlight that the Council's estimated costs from 2006 for the Forestry Road between Kerrera Ferry and Ardantrive was £734k whereas our estimate is £893k for a similar road. Typically, values are proportionally higher due to the increase in energy costs and rising costs of construction materials experienced since 2006.
- 7.80. The routes are shown on the map at Appendix B. The costs of the various routes are shown at Table 7.11.

Table 7.11: Road Infrastructure Costs

Route	Length (m)	Cost (£000)			
		Basic	Forestry	Non-sealed	Single track
East 1 (shoreline)	1,670	590	893	1,513	2,241
East 2 (inland)	1,980	623	1,003	1,707	2,544
West coast	2,940	922	1,566	2,636	3,944
Full circuit	4,920	1,545	2,568	4,343	6,487
To north pier	1,470	265	457	966	1,503
Existing south road	3,440	661	1,137	2,341	3,652

- 7.81. The single track options are the most expensive. As a proportion of the cost of the single track specification the other options are:
- Basic: 18-26% of the single track costs.
 - Forestry: 31%-40%.
 - Non-sealed: 64-68%.
- 7.82. The first three routes at Table 7.11 would provide a north-south road link. The East 1 option would be the lowest cost. However, as noted earlier, the environmental (visual) impact of this option could rule this out. The East 2 option would be slightly more expensive: by around £30,000-£300,000 depending on the road specification. However, this option would have less of a visual impact than East 1.
- 7.83. All consultees offering a view on a north-south road felt that it should be of a forest track standard. This would be adequate for needs in terms of expected traffic volumes and vehicle types, based on the current level of economic activity on Kerrera. The cheaper basic road is considered to be inadequate in terms of quality, durability and public acceptability.

- 7.84. A route around the west of the island would be considerably more expensive. For example, over £1.5 million at forestry standard compared to at or below £1 million for the eastern options.
- 7.85. The cost of a full circuit-i.e. a figure of eight road network on the island-is also shown at Table 7.11. The figures used are the sum of the costs of the East 2 and west coast options.
- 7.86. The full circuit would cost around 2½ times the cost of the East 2 option alone. A number of residents highlighted the opportunity to create such a loop, which they stated would have economic benefits for the island in terms of encouraging more walkers to visit the island, and growing a cyclist-visitor market.
- 7.87. The road to north pier would be required in addition to the north-south road if a direct Oban service was provided from a new pier at the north of Kerrera. This would increase the cost, beyond that of the east and west options, by between around £250,000 and £1.5 million, depending on the road specification.
- 7.88. Finally, as shown earlier, Options A and C include not only a north-south road but also an upgrading of the current road in the south of the island. Table 7.11 shows that the cost of this upgrade ranges between over £660,000 and £3.6 million, again depending on the road specification. A number of the households we consulted felt that if a north-south road was being created then the south road should also be upgraded at the same time and to a similar standard to bring access to the lifeline ferry service on to a par for all residents of Kerrera. It was highlighted that this is what is provided as a minimum in other similar islands.

Shore Infrastructure

- 7.89. Three types of slipway provision have been investigated and considered:
- Basic upgrade and repair.
 - Upgrade to all states of the tide operation.
 - Upgrade to receive larger vessels. These would be of the order of either a CMAL Island Class vessel (requiring a slipway of 8m width) or a CMAL Loch Class vessel (requiring a slipway of 12m width).
- 7.90. Four landing sites on Kerrera have been considered, plus two sites on the mainland. The Scottish Sea Farms slip on Kerrera has not been included. This is because its owner's requirements for use of the slipway means that a reliable service operating to a published schedule is unlikely to be achievable.
- 7.91. The costs associated with these sites and the slip types listed above are presented in Table 7.12, over. The cost figures are not cumulative, and the basic upgrades are included in each cost. Oban Marina and Gallanach can already accommodate an 8m vessel. However, this is not at all states of the tide.

Table 7.12: Marine Costs (£,000)

Site/Provision	Basic upgrade	To receive existing size of vehicle ferry at all states of tide	To receive larger vessels- 8m slipway width	To receive largest vessels- 12m slipway width	To receive larger vessels plus all states of tide	To receive largest vessels plus all states of tide
Kerrera Ferry Slip	48	265	170	215	605	660
Port na Fhearna	n/a	n/a	488	644	1,287	1,443
Oban Marina	315	1,050	n/a	451	1,050	1,209
North Pier	n/a	n/a	488	644	1,287	1,443
Gallanach Slipway	3	175-250	n/a	185	n/a	550
Lismore Slip	15	No upgrade required	No upgrade required	Operate on restricted basis	No upgrade required	Operate on restricted basis

- 7.92. The two Kerrera sites at Port na Fhearna and North Pier would be new ones. Hence no costs are shown for a basic upgrade to them, while it would also be most cost effective to build their slipways to a specification of at least 8m width.
- 7.93. The Lismore slip at Oban has been identified as the landfall for the options including a direct service from the north of Kerrera. This would not require an upgrading to operate at all states of the tide or larger vessels. However, physical constraints mean that it would not be possible to have it widened to 12m.
- 7.94. The main point to note is that upgrading the slips currently used by the vehicle ferry would be relatively cheap compared to the other sites- including the options for all states of the tide and receiving larger vessels. Moving to a non-tidal service using the two existing facilities is much cheaper than doing so at the other locations.
- 7.95. The Port na Fhearna option does not appear to offer any significant advantages over the existing vehicle ferry slipway on Kerrera-bar that it could be constructed without interrupting operation of the existing ferry during construction. However, it would be considerably more expensive than upgrading the existing facility.
- 7.96. The use of a slipway at the marina site would depend on its continuing availability for use by a scheduled ferry service. Other than this, there do not appear to be any specific operational benefits from the alternative of using a new pier elsewhere on north Kerrera-bar that it could be constructed without interrupting existing usage of the marina's slipway. Also the north pier option is more expensive. This is both in terms of slipway construction costs and through the need for a purpose built road to access it.

7.97. In terms of the marine options, the community generally prioritised the achievement of a non-tidal service over other aspects, such as having a larger vessel.

Road and Shore Infrastructure Costs

7.98. Table 7.13 presents a summary of the combined road and shore infrastructure costs of the five options. This uses the information presented in the preceding sections.

Table 7.13: Combined Infrastructure Costs (£,000)

	Forestry grade north-south road	South road to forestry grade standard	All states of tide-existing vehicle ferry size	Total
Do Minimum	0	0	n/a	0
A: Existing vehicle ferry route, road investment	893-1,003	1,137	440-515	2,470-2,655
B: Existing vehicle ferry route, no road investment	0	0	440-515	440-515
C: Direct vehicle ferry service to Oban, road investment	893-1,003	1,137	1,065	3,095-3,205
D: Direct vehicle ferry service to Oban, no road investment	0	0	1,065	1,065

7.99. For ease of comprehension, to reflect the analysis earlier in this Chapter and to focus on the most affordable variants the costings shown for the options are based on:

- Road investment to forestry standard.
- All states of the tide operation, but slipway requirements reflecting the size of the current vehicle ferry.

7.100. The inclusion of affordability means that Options A and B assume use of the existing slipways rather than a new one at Port na Fhearna. It also means that Options C and D are based on using the marina slipway on Kerrera.

7.101. The key points to note from Table 7.13 are that:

- Options C and D are around £600,000 more expensive than Options A and B.
- Total road investment costs are greater than the shore infrastructure costs.
- Upgrading the south road would be costlier than the creating a north-south link road.

7.102. Thus, the options that exclude the road investment are much less expensive (by around £2 million) than those with it. However, this is affected by the inclusion of the south road upgrade. If this is excluded from Option A then the difference between it and Option D (which has no

road investment at all) reduces to between around £250,000 and £450,000.

- 7.103. For the reasons stated above the analysis at Table 7.13 assumes no increase in the vehicle ferry size beyond that presently in operation. However, a larger slipway would give greater flexibility in the vessel to be used by operators who would bid for a Transport Scotland contract to run the service. It would also offer future proofing if over time ferry users wish to move larger vehicles and also avoid the transshipping of freight that is presently required.
- 7.104. Clearly, moving to a slipway of 8m width would be more expensive. However, in relative terms the cost difference between Options C and D and Options A and B would reduce from around the £600,000 figure state above to between £200,000 and £300,000.

Vessel Operating Costs

- 7.105. The vessel operating costs of Options C and D can be expected to be greater than those for Options A and B. This reflects, first, additional fuel costs involved in a longer crossing between north Kerrera and Oban than that between the middle of the island and Gallanach.
- 7.106. Second, the longer crossing and the additional visitor demand from a direct Oban service would mean that Options C and D are more likely to require a vessel with a certification for more than 12 passengers. This would increase costs as a greater number of crew would be required as well as other provisions.
- 7.107. It is not possible to comment in any more detail than this. This is because, we understand, Transport Scotland's tendering process would leave the specification of the vessel (in terms of passenger certificate and vehicle/freight carrying capacity) to the operator's discretion. Further, Transport Scotland would meet the net cost of operation: that is, taking account of fare revenues. This would be estimated by the tenderers themselves as part of their bid.

School Transport

- 7.108. Options A and C present the opportunity for school transport to be merged with a public, rather than privately contracted, service. These options would provide good access from across the island for school-age children through a combination of on-island road transport plus ferry crossing.
- 7.109. This would remove the current cost to Argyll and Bute Council of procuring a dedicated boat service for transporting school pupils to Oban. As noted earlier the cost of this is around £14,000 per annum. The Council would, however, need to meet the cost of the passenger fares for pupils travelling on a public ferry service, plus any on-island transport costs to get them to and from the ferry terminal. The cost of transport on the mainland would also be met by the Council. We understand that one

of their contracted school transport vehicles presently passes Gallanach slipway.

7.110. With Options B and D (i.e. with no north-south road) there would still be the requirement for a separate school boat service to meet the needs of families in the north or south of the island as appropriate.

Public Acceptability

7.111. Table 7.14 provides our assessment of the likely public response to each of the options. This is based on the consultations undertaken for the study.

Table 7.14: Public Acceptability

Option	Likely Public Response
Do Minimum	Strongly adverse reaction as it would be seen as failing to address the main transport needs of the community
A: Existing vehicle ferry route, road investment	Generally acceptable as it addresses main issues raised by the community. Most of those consulted felt that this should be the location for a supported service. Potential adverse reaction from the marina, assuming that this was the only publicly supported service. Potential adverse reaction from residents living at the northern end of the island as overall journey times would increase and fares would now have to be paid-otherwise dependent on whatever service would be provided by the marina.
B: Existing vehicle ferry route, no road investment	Most of those consulted felt that this should be the location for a supported service. However, strongly adverse reaction from community as the north-south road is seen as a key issue and one which would have wider community benefits beyond simply improving ferry access to the mainland. Adverse reaction from residents at the northern end of the island as it would not fully address their transport needs and they would remain dependent on whatever service would be provided by the marina. Potential adverse reaction from the marina, assuming that this was the only publicly supported service.
C: Direct vehicle ferry service to Oban, road investment	Adverse reaction from residents outside the northern end of the island. This would increase their journey times to Oban, have higher fares than under Options A and B, and there would be strong concerns about vehicle parking availability in Oban.
D: Direct vehicle ferry service to Oban, no road investment	Strongly adverse reaction from residents and businesses outside the northern end of the island, with no practical means of accessing the ferry service at the north end of the island. Even allowing for this, the ferry service would not be seen as having been enhanced due to increased journey times to Oban, have higher fares than under Options A and B, and there would be strong concerns about vehicle parking availability in Oban. Further, the north-south road is seen as a key issue and one which would have wider community benefits beyond simply improving ferry access to the mainland

Note: Table contents reflects consultation findings

Overall Assessment

7.112. We believe that the **Do Minimum option should be rejected**. The analysis in this Chapter has shown that it does not meet the identified transport needs of the community. It would make only a limited

contribution to achieving the transport planning objectives. Specifically it would result in:

- Social and economic fragmentation and varying access to the different ferry services on Kerrera due to the lack of a north-south road.
- A shorter operating day than that sought by the community-and implied by the Scottish Ferries Review methodology, given the island's very heavy dependence on access to the mainland.
- An inconsistent vehicle and freight service affected by tidal constraints.
- Continuing concerns about the safety of access and egress for the ferries.

7.113. As such, there would be a strongly adverse public reaction to the Do Minimum as a long term solution to the island's transport needs.

7.114. We also believe that **Options B and D should be rejected**. They would make a significant contribution to improving ferry service provision. However, the lack of a north-south road would mean that Kerrera would remain a divided community and economy.

7.115. There would remain a lack of access to employment in the north of the island by those in the south and vice versa. Some islanders would still be excluded from proper access to a supported ferry service if it was not operating from "their" part of the island. Some would continue to have to take their own boat into Oban.

7.116. The economic benefits from visitors would continue to be limited by their only being able to readily access one part of the island.

7.117. Thus, the full benefit to social integration and economic development of the island from the infrastructure investment and ongoing revenue support to the ferry service would not be realised. It could be that, despite the investment, Kerrera would continue to require three ferry services. Overall, these two options would make only a limited contribution to achieving the transport planning objectives. As such, there would be adverse public reaction to either-and particularly to Option D from residents who live outside the northern end of the island.

7.118. There are **merits in both Option A and Option C**. They would both significantly improve current ferry provision (notably longer operating day and all states of the tide working) and offer all islanders road access to a single supported ferry service.

7.119. A slipway of the width of the existing ones used by the vehicle ferry would meets most current needs for vehicle/freight movements. However, increasing the width-even if only to 8m-would future proof provision against changing demand over time. It would also open up future tendering of the service to a wider range of vessels. This would require

additional investment-although as shown earlier it would narrow the difference in costs between Option A and Option C.

7.120. The north-south road would, in itself, increase social cohesion in the island and open up employment opportunities on Kerrera for all residents- in addition to providing access to the vehicle ferry service. It would also open up opportunities for an appropriate level of economic development- e.g. in tourism. However, in terms of affordability there is an issue with also including the upgrade to the road on the south of the island. This would be more expensive than creating a north-south road link but would generate a lower level of benefit. It may be that more detailed engineering work could be undertaken to review the cost estimate for the south road that has been produced for this study.

7.121. A number of issues would have to be addressed in taking forward either Option A or Option C. These include, first, an environmentally-sensitive design for a north-south road. Second, means of transporting visitors up and down the length of the island given the presumption of a continued prohibition of visitor vehicles on Kerrera. There would also be an issue of transport of residents to the ferry terminal where this is not at “their” end of the island. However, it should be remembered that residents and visitors currently need to make their own transport arrangements to travel on the existing rough tracks. A north-south road would improve this situation, even if residents had to continue to take their own cars and visitors walk along the new road.

7.122. The main strengths of **Option A** are that:

- The landfall on Kerrera would be closest to the current main areas of population and visitor facilities.
- The cost of upgrading the existing shore infrastructure would be relatively low.
- There is relatively little prospect of a complementary commercial passenger service being provided to the middle of the island.

7.123. The main weaknesses are that:

- It is likely to generate less visitor activity than a direct Oban service.
- For some travellers, the issue of getting between Gallanach and Oban would remain.

7.124. The main strengths of **Option C** are that:

- It has the potential to generate a significant increase in the amount of visitor activity and related economic benefit.
- The service would travel directly into Oban-a regionally significant service and employment centre and a significant transport interchange.

7.125. The main weaknesses are that:

- A landfall on north Kerrera would depend on the continued availability of access to the marina site-or creating a more expensive slipway elsewhere on north Kerrera.
- The shore infrastructure costs are higher than for a middle island service.
- Ferry fares would be higher than for a middle island service given the longer crossing.
- The net revenue costs of the service to Transport Scotland could be higher given that vessel operating costs are likely to be greater than for a middle island service.
- The usefulness of the service would be limited unless a solution to the issue of residents' parking in the vicinity of the slipway in Oban could be found.
- Direct landing of livestock into Oban could require a larger vehicle ferry than the current one. This would increase the costs of the required shore infrastructure on the north of Kerrera.
- It is possible that a commercial passenger ferry could operate between Oban and north Kerrera which, at least, for part of the year could complement a vehicle ferry service to the middle of the island. This would compete against the publicly supported service and, thus, effectively increase the cost of supporting it.

Landing Stages and Car Parking at Gallanach

Landing Stages

7.126. The Kerrera Development Trust has an aspiration to install landing stages at either side of the existing vehicle ferry crossing. The landing stages would be for community use, with the intention of making the crossing in an individual's boat easier and safer than at present.

7.127. The landing stages have been costed at around £130,000. The Development Trust is in the process of sourcing funding to provide the facilities.

7.128. The engineering review for this study considered the proposal. We conclude that the costs are appropriate, dependent on being able to secure the stages to the seabed via a chain, which is subject to favourable seabed conditions. If this was not possible then costs could increase by up to 50%.

7.129. Landing stages would only offer benefit to those with access to a small boat. They would not provide significant benefit over and above that achieved by Options A and C.

Car Parking at Gallanach

7.130. The Argyll Coastal Waters project comprises the creation of a kayak trail from Helensburgh to Kerrera. Significant funding has been attracted from the Coastal Communities Fund and Leader to provide the infrastructure to facilitate safe and easy access to the water for kayakers.

7.131. The Gallanach slip is one such site. There are established car parking problems at the Gallanach slip, with usage conflicts arising between islanders and kayakers.

7.132. The present proposal is to:

- Create dedicated car park for kayakers opposite the current car parking spaces.
- Create a safe path to the water's edge at a location away from the existing slip.
- Provide a changing shelter for kayakers.
- Provide interpretative signage giving the necessary information for kayakers.

7.133. Argyll and Bute Council has funding secured for the above. Negotiations are ongoing with the owner of the land on which the car parking area would be created.

7.134. If the existing car park was to be extended under any other means, then a cost of between £8,500 and £12,000 per space should be included. This would comprise bays of 2.4m by 4.8m, with a 6m wide lane for access and egress.

8 CONCLUSIONS

- 8.1. The research developed and assessed five options for long-term provision of ferry services to Kerrera. In particular, our consultations identified the transport needs of the community which were then expressed in terms of STAG transport planning objectives. They also identified the parameters for long-term provision: notably that Transport Scotland would financially support only a single ferry service, plus the continuing prohibition of visitors' vehicles on Kerrera.
- 8.2. We conclude that the following options should be rejected:
 - Do Minimum.
 - B: Existing vehicle ferry route, no road investment.
 - D: Direct vehicle ferry service to Oban, no road investment.
- 8.3. This is very largely because none would provide a north-south link road on Kerrera. As a consequence (as shown at Chapter 7) the three options performed relatively poorly in terms of meeting transport planning objectives, the STAG criteria and public acceptability.
- 8.4. The analysis at Chapter 7 showed the strengths and weaknesses of each of the remaining two Options:
 - A: Existing vehicle ferry route with road investment.
 - C: Direct vehicle ferry service to Oban with road investment.
- 8.5. Taking affordability and the level of benefits into account, forestry grade would be the most appropriate specification for a north-south road. The case for also upgrading the island's south road is less strong. This reflects that it would not be used by all island residents, while it is already used by vehicle traffic. Its cost would be significant while the level of benefits would be less than for a north-south link.
- 8.6. Compared to Option A, Option C potentially offers greater benefits through direct ferry access to Oban for both residents and visitors. However, it includes a number of challenges. The main ones are getting long-term assured access to a slipway on the marina site and securing appropriate parking for residents' vehicles in Oban. In addition, the engineering assessment shows that the cost of marine infrastructure would be higher than under Option A. Also, Option C would have slight negative impacts in terms of Environment and TEE, while vessel operating costs would be greater than under Option A.
- 8.7. From the option appraisal we conclude that Option A *amended to exclude a south road upgrade* appears the most affordable and achievable overall solution. It would offer significant benefits and very largely meet the current transport needs of the community.

- 8.8. However, the clients should take into account the potential longer term benefits of a direct service into Oban-as well as deliverability and cost issues-in coming to a decision.

APPENDIX A – INSPECTION AND REVIEW OF EXISTING INFRASTRUCTURE

Introduction

An inspection of existing facilities was undertaken to inform this overview statement of the relevant assets referred to in the brief and their present condition. This has aided the understanding of prospective problems, constraints and opportunities-from an engineering perspective, and has been fundamental to the optioneering exercise that has been undertaken as described at Chapter 6.

This overview statement describes the results from the review of marine infrastructure and road infrastructure, and presents outline costs associated with a range of infrastructure upgrades.

For marine infrastructure different upgrade options are considered together with a statement on the current state of the infrastructure and any alternate site considerations.

Marine infrastructure

Three types of slip service provision have been investigated and considered, as follows:

- **Basic upgrade:** repair of cracked surfaces, reinstatement of missing concrete, remediating damaged joints, and allowing for a 30m long, 8m wide concrete slipway extending to Mean Low Water Springs following a natural beach gradient where this is close to 1:8 where in the case of any sites where no such slipway exists at present.
- **Upgrade to all states of the tide:** as per basic upgrade plus extension and reprofiling of slipway to a 1:8 gradient, to achieve a 40m long slipway extending to 1m below Chart Datum and dredging a pocket at the toe of the slipway.
- **Upgrade to receive larger vessel:** as per basic upgrade plus allowing for a 30m long, 8m or 12m wide slipway extending to Mean Low Water Springs following a natural beach gradient where this is close to 1:8. An 8m slipway would allow for use by landing class similar to the Gylen Lady as well as for vessels such as the MV Eigg and MV Raasay, whereas a 12m slipway would allow access for the larger CMAL Loch class vessels.

While the upgrade to all states of the tide and upgrade to receive larger vessels are both enhancements on the basic upgrade described above, both these upgrades could be provided together to provide a slipway that could receive a larger vessel at all states of the tide.

Kerrera Ferry slip

The existing slipway is in a reasonably serviceable condition although the loose stone breakwater is considered to be something of a hazard. To retain the structure in good serviceable condition the surface should be repaired, the breakwater rebuilt and the dumb barge (which forms part of the submerged breakwater) repositioned. There is an existing car park at Kerrera which anecdotal evidence suggests is adequate and no expansion would be proposed. The creation of a temporary livestock pen would be possible in the car park but it is understood that most livestock is herded onto the road and directly onto the vessel.

Port na Fhearna

This site is known to offer some natural shelter and could offer an alternative location for a new slipway in preference to upgrading the existing facilities. An advantage would be that the existing slipway service would be uninterrupted by construction work on the new site.

Scottish Sea farm slip

No information is available on the Scottish Sea Farm slipway's form of construction. However, it is understood that Scottish Sea Farm require access to the facility on demand and, consequently, would be unwilling to work around any scheduled service.

Oban Yachts slip

The existing Oban Yacht slip is extremely shallow, with substantial damage and deterioration in the upper areas and completely missing any concrete surfacing at the lower end. This is perfectly acceptable for yachts and dinghies but not satisfactory for the operation of a scheduled ferry service or freight service. For a basic upgrade the whole of the surface would require to be reconstructed with reinforced concrete and, even so, it would not be competent for most of the vessels which could operate a service due to its shallow gradient. For any further upgrade at this site the whole slipway would require to be demolished and reconstructed with a much steeper gradient. There is a large area for boat storage and parking at the marina and it is not considered necessary to create a new area for parking as this would be out with the slipway site.

North Pier (new pier on Kerrera)

This site benefits from the shelter of the pier and could offer an alternative location for a new slipway in preference to upgrading the existing facilities. An advantage would be that the existing slipway service would be uninterrupted by construction work on the new site although the slip could only be accessed if a purpose built road were constructed.

Gallanach slip

The existing slipway is in a reasonably serviceable condition although the loose stone breakwater is considered something of a hazard. There is an existing car park at Gallanach which anecdotal evidence suggests is regularly full and creates issues for ferry users and freight.

Lismore slip (Oban)

The slipway at Oban Ferry Terminal is slightly narrower than CMAL require for their larger landing craft vessels (Loch Class) but they are able to operate from there on an unrestricted basis using the MV Eigg/Raasay vessels. The Loch Class vessels can use the slipway but it is not their first preference – these vessels can also use the main linkspans but only at higher tides.

The geometry at Oban is such that it is not possible to widen the slipway at this location as it is locked at its present width by the structures either side of it. Consequently, the only option considered is its routine maintenance after which it will be competent for most vessels at all states of the tide.

Road infrastructure

Four forms of road construction have been considered, which comprise as follows:

- **Basic:** clearance of surface organic material, sub-base layer with crushed stone/concrete surface where required and reinstatement of drainage.
- **Forestry standard:** this standard is the level which can be constructed using locally won quarried rock (crushed) or imported stone, comprising: Clearance of surface organic material, excavation to competent foundation layer, sub-base layer with geotextile, crushed stone/concrete where required, type 1 aggregate upper layer for a 4.5m wide running surface, new drainage ditches either side of the road, reinstatement of drainage and passing places accommodated on wider stretches. Argyll and Bute Council have adopted forest grade tracks elsewhere in their area.
- **Non-sealed road:** this standard takes the road up to near adoptable standard, but without a sealed bituminous surface. It is highly durable and requires only occasional maintenance, but its construction makes it suitable for most road vehicles subject to signage, bend radii and gradients. Make-up comprises: clearance of surface organic material, excavation to competent foundation layer or introduction of capping layer, sub-base layer with geotextile, crushed stone where required, type 1 aggregate layer or base course for a 4.5m wide running surface, new drainage ditches either side of the road, upgrade of existing drainage with culverts and new pipework, passing places at regular intervals and road signs.

- **Single track road:** This standard takes the road up to an adoptable standard. It is highly durable and requires only occasional maintenance, but its construction makes it suitable for all but the largest road vehicles subject to signage, bend radii and gradients. Make-up comprises: clearance of surface organic material, excavation to competent foundation layer or introduction of capping layer, sub-base layer with geotextile, crushed stone where required, type 1 aggregate layer or base course for a 4.5m wide running surface, asphalt wearing course, new drainage ditches either side of the road with new pipework and road drainage where required, upgrade of existing drainage with new road standard culverts and new pipework, passing places at regular intervals and road signs.

There are three possible routes from the existing ferry terminal to link in with the existing road at Ardantyne, two of which pass close to Port ne Fhearna (which is a potential site for a new slipway as described above).

These routes are shown in the map at Appendix B.

Option 1: East route 1

The route is from the Kerrera Ferry slipway directly around the shore north through Port ne Fhearna and up over a small hill to join the road at Ardantyne. This option involves the removal of a large rock outcrop just northwest of the Kerrera Ferry slipway round to join the quad bike track south Port an Fhearna. From Port an Fhearna the road would follow the track up to Ardantyne .

The attraction of this route is that there is no requirement to scale the hill to Ballinmore. Furthermore, the excavation of the rock would generate a substantial proportion of quarried stone which would largely support the requirement for construction. However, the significant drawback of this route is that the removal of the rock outcrop would have a fairly significant visual impact leaving a scar clearly obvious from the mainland. There are also concerns in relation to the sightlines available in such close proximity to the existing road and whether this would only be alleviated by additional rock removal.

Previous studies have also commented on the concerns in relation to planning implications which have been considered to be sufficiently significant to have largely ruled this out.

Option 2: East route 2

This route follows the existing U57 from the Kerrera Ferry terminal to Ballinmore, where it turns north following the quad bike track down into Port an Fhearna and then up the track to Ardantyne.

Since it follows an established, if undeveloped, track the issues relate largely to upgrading the track and ensuring that adequate drainage is provided to

allow existing water crossings to be maintained but also to ensure that groundwater run-off from the hills doesn't pond against the road.

This route will also have some visual impact but this is lesser compared to Option 1 as the road follows the existing track and will not be significantly apparent from the mainland.

Noted issues include the junction with the U57 which will have sightline issues for a junction on a reasonably steep incline. Signage may suffice to alleviate this issue.

Option 3: West coast route

An acceptable west coast route would commence at the Slaterich junction of the U57 (which will require to be upgraded) travelling east down the grassy track to the level ground and then joining the more established eastern track north over the culverted stream and into Ardantrive. The Slaterich junction is narrow and tight and will require careful consideration during any upgrade.

This route is a kilometre longer than the longest east coast route and is, consequently, more expensive. In addition, the existing track has several drainage issues which require to be addressed as well as a number of water crossings.

Ground conditions are generally more of an identified issue on this route, where there are various known soft spots which will require improvements, and any road improvement will need to address the impact of surface run-off ensuring that no impenetrable barriers are created.

However, the west coast is not visible from the mainland and so visual impact from this receptor is minimised. The impact from sea would be little more than at present where the track is hidden behind stone walls for much of its length.

Other roads on Kerrera

It is worth noting that there is no reason why the above options cannot be combined to achieve a **single route around the hills on Kerrera**. The developed concepts have been prepared to ensure that these can stand together whether the east coast option 1 or 2 is selected and linking into the western route.

A potential new site for a slipway has been identified opposite the North Pier close to Hutcheson's Monument. If this site were to become live then it would be necessary to **link the existing road at the marina and Ardantrive to the new slipway**.

Most of the new route would follow the present track to Hutcheson's Monument before turning east to the proposed slipway. The existing track is of a considerably higher standard generally than most of the other paths on

the island. There are no noted water crossings and junction design is limited to joining with the existing road network. It is worth noting that upgrading will have implications in relation to power lines and drainage which are relatively simple but not trivial issues.

The **existing road between the Kerrera Ferry slip and Gylen Park** is generally in a serviceable condition, but an upgrade has been assessed and costed to improve the route to the same prospective standards as the other routes being considered on the island. The route runs north south and doesn't extend west to the tracks there although it could easily do so.

Estimates have been informed by measurement from maps and drawings. The road appears to be of a basic standard (with sound sub-base) in need of repair. There would be no significant planning issues with this upgrade although, as with most of the island, road improvements require to be undertaken sensitively to ensure that these do not exacerbate drainage issues or livestock issues.

Outline costs

Costs have been prepared based on the above options and conditions, utilising the inspection of the existing infrastructure and other sites considered.

Table A1: Marine options

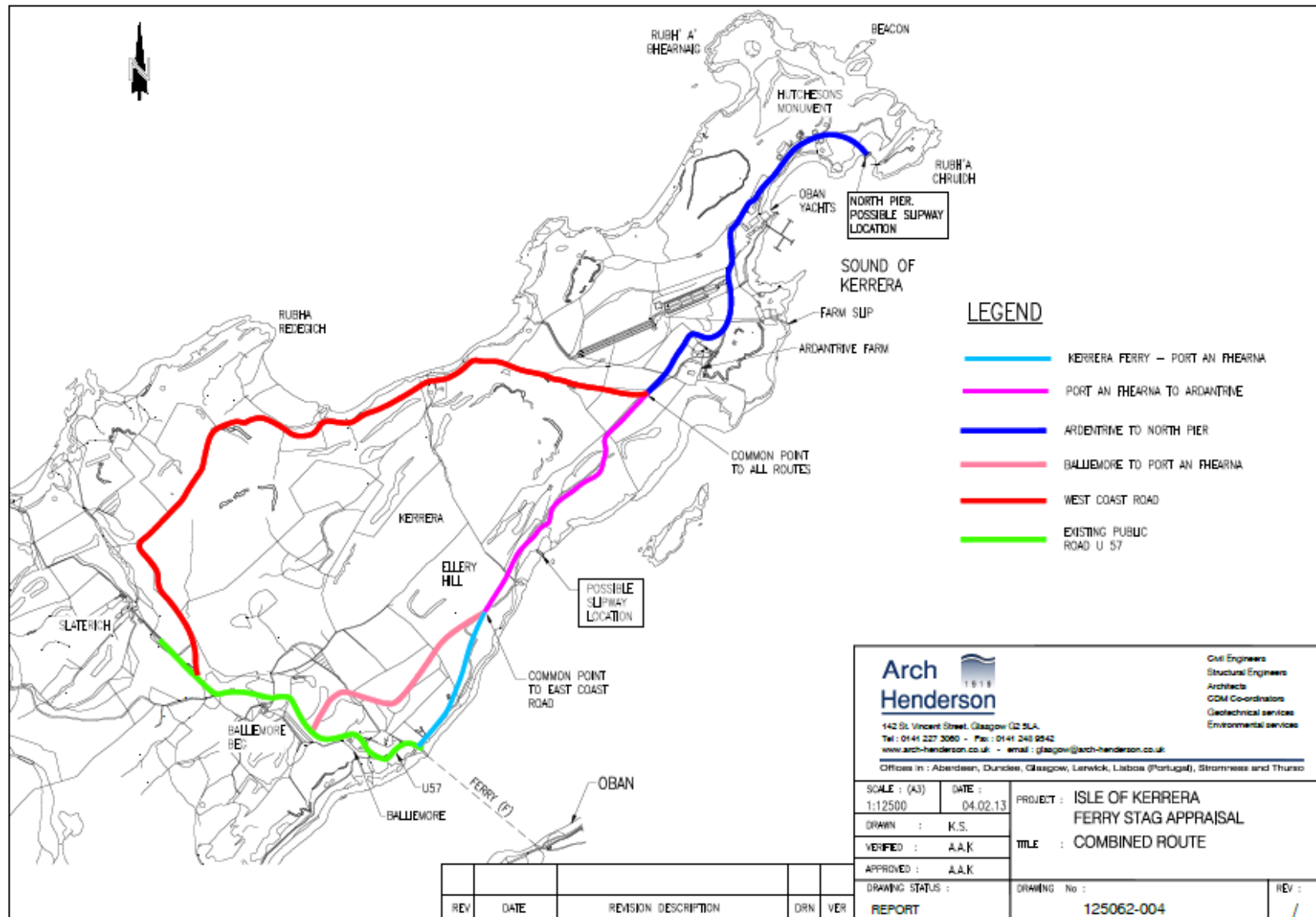
Site	Basic Upgrade	Operate existing at all states of tide	To receive Larger Vessels 8m	To receive Larger Vessels 12m	8m vessel plus all states of tide	12m vessel plus all states of tide
Kerrera Ferry Slip	48k	265k	170k	215k	605k	660k
Port na Fhearna	n/a	n/a	488k	644k	1,287k	1,443k
Oban Marina	315k	1,050k	n/a	451k	1,050k	1,209k
North Pier	n/a	n/a	488k	644k	1,287k	1,443k
Gallanach Slipway	3k	175k-250k	n/a	185k	n/a	550k
Lismore Slip	15k	No further upgrade required	No further upgrade required	Operate on restricted basis	No further upgrade required	Operate on restricted bas

Table A2: Road options

Route	Length (m)	Basic	Forestry	Non-sealed	Single track
East 1 (shoreline)	1,670	590k	893k	1,513k	2,241k
East 2 (inland)	1,980	623k	1,003k	1,707k	2,544k
West coast	2,940	922k	1,566k	2,636k	3,944k

Route	Length (m)	Basic	Forestry	Non- sealed	Single track
Full circuit	4,920	1,545k	2,568k	4,343k	6,487k
To north pier	1,470	265k	457k	966k	1,503k
Existing south road	3,440	661k	1,137k	2,341k	3,652k

APPENDIX B – ROAD ROUTE OPTIONS



Further copies of this document are available, on request, in audio and large print formats and in community languages (Urdu; Bengali; Gaelic; Hindi; Punjabi; Cantonese; Arabic; Polish).

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Gheibhear lethbhreacan a bharrachd ann an cruth ris an èistear, ann an clò mòr agus ann an cànan coimhearsnachd. Cuir fios gu:

इस दस्तावेज़/कागज़ात की और प्रतियाँ, माँगे जाने पर, ऑडियो टेप पर और बड़े अक्षरों में तथा कम्युनिटी भाषाओं में मिल सकती हैं, कृपया संपर्क करें:

ਇਸ ਦਸਤਾਵੇਜ਼/ਕਾਗਜ਼ਾਤ ਦੀਆਂ ਹੋਰ ਕਾਪੀਆਂ, ਮੰਗੇ ਜਾਣ 'ਤੇ, ਆਡੀਓ ਟੇਪ ਉੱਪਰ ਅਤੇ ਵੱਡੇ ਅੱਖਰਾਂ ਵਿਚ ਅਤੇ ਕੰਮਿਊਨਿਟੀ ਭਾਸ਼ਾਵਾਂ ਦੇ ਵਿਚ ਮਿਲ ਸਕਦੀਆਂ ਹਨ, ਕ੍ਰਿਪਾ ਕਰਕੇ ਸੰਪਰਕ ਕਰੋ:

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