ENVIRONMENTAL IMPACT ASSESSMENT REPORT

Iona Breakwater Project

Volume III – Technical Appendices

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Contents

APPENDIX 2.1

Sound of Iona Piers Development Framework and Master Plan

Sound of Iona Piers Development Framework and Master Plan

FINAL DRAFT REPORT

- Ver 1.1
- 30 October 2013

Sound of Iona Piers Development Framework and Master Plan

DRAFT REPORT

- Ver 1.1
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Contents

1. Introduction

1.1. Project Scope

1.1.1. In July 2013, the Sound of Iona Harbours Committee (SoIHC) awarded SKM a commission to undertake a master plan of the pier areas at Iona and Fionnphort in Mull and related nodes of activity.

1.1.2. In preparing this draft master plan, the SKM team has examined a series of development options in and around Fionnphort and Iona drawn from existing baseline information, the views of the communities and other key stakeholders and the analysis of socio economic target data and notes related to the Ross of Mull. Following commissioning, an Interim Report was produced on 3 October which identified and reported on lessons learned and the opportunities for future development. This report also described tow comparator studies on related areas at Lindisfarne in Northumberland north east England, and St David's in Pembrokeshire south west Wales.

1.1.3. The Interim Report identified the baseline conditions which formed the *Inventory of Findings* on which the recommendations on master plan options in and around the Piers at Fionnphort and Iona. A schedule of projects or development concepts that draws upon all the baseline work as well as responses from the communities in Iona and Fionnphort is found in Appendix 1 of this report.

1.2. Master Plan Objectives

1.2.1. The overall objective of this Master Plan is to contribute to the wider regeneration and revitalisation of the settlements on either side of the Sound. In broad terms this would be to reflect upon five principles set by the SoIHC and underlined in the Ross of Mull Development Plan, quoted as follows:

- *Creating safer landing facilities for tourists, fishermen and Cal Mac staff who currently require to use jetties at either side (which provide only the most primitive forms of landing and no berthing facilities)*
- *developing the marine heritage of the Sound in order to support higher forms of tourism activity*
- *improving the local economy by providing a wider range of facilities which build on the existing maritime activities*
- *increasing the attractiveness of the pier areas for visitors and local users*
- *contributing towards the longer term growth in population within the settlements*

1.2.2. The expectations are for a plan clearly articulated to answer a series of key questions, namely:

- What is the overall vision for the future of the area?

- Through what projects and proposals can enhanced economic buoyancy be given impetus?
- How can short listed projects be made fundable?
- How can 'buy in' from local partners be ensured?
- How can it all be made to work?

1.2.3. A framework to drive the economic agenda, bind the partners together and secure the needed public and private investment must be rooted in economic reality and realisable opportunity. From our perspective, this has three central elements:

- An economic role and rationale for the area that will sustain it long into the future, enabling it to perform well both as a place and economic unit in its own right and as a unique asset for improving the competitiveness of the wider area.
- Ensuring that physical development achieving a range of best value returns can be realistically incorporated.
- Providing investment opportunities which produce financial returns while also meeting the strategic objectives of the master-plan, and providing end user markets with property and operating conditions that give the area a competitive edge and produce positive advantages for the businesses that locate there.

1.2.4. Such a plan also requires to be properly grounded and prepared on the basis of clearly defined timescales where development options are described that can attract funding of the right scale and over a sustained period of time.

1.3. Project Proposals

1.3.1. Although many project proposals have been suggested, the purpose of the plan is to identify a range of proposals that have the ability to at least attract funding as well as a good prospect of being delivered in a timescale realistic for meeting the Plan's objectives.

1.3.2. Projects already highlighted in previous reports and development plans have ranged from the creation of new harbours and a causeway to more modest pier- side improvements. It is not the intention of this report to re-visit plans which have been the subject of exhaustive examination previously, such as for a Causeway.

1.3.3. The process of creating this master plan will be to refine likely options realisable in the current political and economic climate, and come forward with deliverable concepts based upon the objectives of the SoIHC and the Communities which SoIHC serves. However it is important to undertline that it will be for the Harbours Committee to reflect upon the range of development opitons described and set out their own preferences and priorities. Careful consideration has been given to the comments made by the communities over several sessions at inception, interim and final draft report stages where it is clear that two groups of projects – breakwaters and urban

realm and landscape improvements at Fionnphort – have generated the greatest level of interest. The final draft Master Plan provides considerable detail on each of these groups sufficient to allow both the Committee and the wider community enough evidence to determine how best to take them forward.

1.4. The Boundaries of the Study Area

1.4.1. The Master Plan studies are resolutely focused upon the operational piers in Fionnphort and Iona. A similar pier located at Bunessan in the bay at Loch na Lathaich to the east of Fionnphort also falls within an "area of interest", but while contextually relevant for the study, it is not included as part of the detailed assessment of this study. Each of the Sound of Iona piers has differing functions but both are nonetheless integral to the effective operation of fishing, transport and tourism. The piers are all owned by Argyll and Bute Council.

1.4.2. Fionnphort and Iona piers are essential for the provision of a transport link between Iona and Mull. . The ferry link is supported by Caledonian MacBrayne (CalMac) which operates daily all year round with the total number of passengers transported to and from Iona recorded in 2009 as amounting to 232,215. This figure at that time represented a 4.48% increase on the previous year's passenger numbers. Of that figure over 70% are visitors to Iona as the island and its Abbey act as the main tourist attraction in the area. In addition the Island and the Sound bring people visiting on holiday including discernible increases in the total numbers of leisure yachts, which sail around Mull and Iona in the summer season berthing within the Sound as a safe overnight mooring. This is an opportunity for these visitors to eat locally as well as stock up on supplies.

1.4.3. In addition to the transportation of tourists and local people between the Piers, the Ross of Mull and Iona benefits from the richness of its marine resources. As a result fishing contributes significantly to the local economy with around 12 vessels operating from Fionnphort and Bunessan piers. Their principal catches are brown crab, prawns, lobster, velvet crab, crayfish and scallops, much of which is now exported internationally.

1.5. Maritime Environment within the Sound of Iona

1.5.1. While Admiralty Charts are intended to be used to inform the more detailed maritime engineering options, research has identified the following information relevant to the maritime environment within the Sound of Iona.

1.5.2. A historic chart for the Sound of Iona (1857-60) identifies the following:

- Depths ranging generally from 2 to 4 fathoms (3.6 to 7.3 metres) within the Sound;
- A shoal occupying the middle of the Sound off Iona "Landing place" where depths reduce to ½ fathom (0.9 metres);

- A spring tide rise of 11 feet 8 inches (3.66 metres);
- A neap tide rise of 8 feet 9 inches (2.7 metres);
- A tide range of 4 feet 6 inches (1.4 metres);
- A maximum flood tide current of 2 knots (1.0 metres/sec); and
- A maximum ebb tide current of 2 ½ knots (1.3 metres/sec)

1.5.3. The Sailing Directions (Enroute) – Scotland 2013 (Pub. 141 by the National Geospacial Intelligence Agency, Springfield, Virginia) identify the following:

- The Sound of Iona (56°18'N 6°23'W) lies between the west side of the Ross of Mull and the east side of Iona;
- Shoals and rocks encumber the narrows of the sound. South of the narrows, the sound is clear of dangers in the fairway. However, transit is not recommended without local knowledge. A sand bank, with a least depth of 0.1m, extends across the middle of the Sound. The channel through this area has a least depth of 1.8m.

1.5.4. Other internet sources suggest mean offshore wave heights in the Mull and Islay area vary between 1.8m in the summer to 3.6m in the winter. Maximum wave heights would be anticipated to be significantly in excess of mean heights.

1.5.5. The Sound of Iona is orientated north-by-northeast to south-by-southwest, and is open to the Atlantic Ocean particularly from the southwest. Conditions within the Sound would therefore be anticipated to be most affected by storm waves and winds driven into the Sound from the southwest and northeast. Depending also on the direction of offshore waves, mean and maximum wave heights within the Sound could be expected to be greater than in offshore locations as the depth of water within the Sound is much less than offshore.

1.5.6. Other direct evidence from those regularly sailing in the sound indicates:

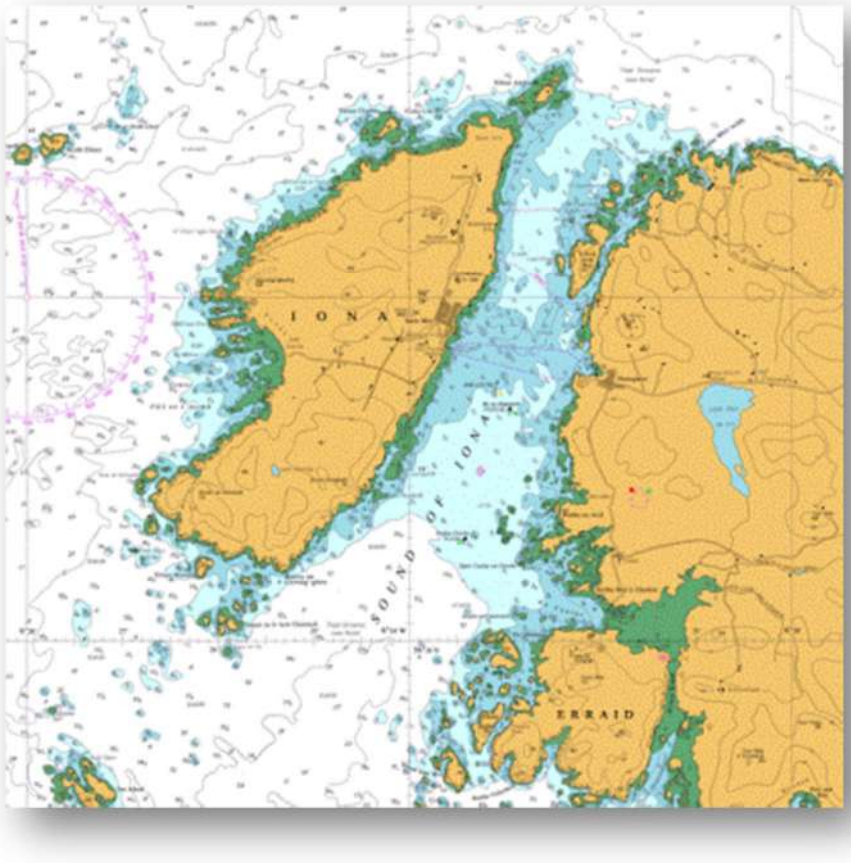
- The ferry berth at Fionnphort is exposed to swells (waves) from the southwest, gales from southwest and strong gales from the northwest.
- Iona Pier is exposed to southeast and south winds and any heavy swells (waves) setting in from the south and southwest.

1.6. Operation Constraints for Vessels

1.6.1. Discussions with local operators including the ferrymen have confirmed:

- Ferry operations at the Fionnphort are impacted by the swell and wind conditions identified and by the tidal range.
- Foot passengers and vehicles at Iona Pier are vulnerable to waves as they embark or disembark, and the ferry's ability to remain safely berthed with its ramp stationary on the slip is compromised.

- The pier at Fionnphort can become very congested as it is used by the Iona ferry, fishing vessels, tour and charter boats, and leisure boats.
- The north pier at Iona has restricted draft during low water spring tides due to a rocky patch.
- The Iona ferry (MV Loch Buie) is berthed overnight in Bull Hole, a protected anchorage to the north of Fionnphort.
- There exists no other protected anchorage within the Sound, and in particular in close proximity to Fionnphort or Iona.
- The approach to Iona for the ferry is from the southwest to avoid the shoals occupying the middle of the Sound.



1.7. Fionnphort

1.7.1. Fionnphort pier is a slipway with a relatively modest breakwater that provides some lee-side shelter from high winds for smaller yachts and other sailing vessels moored in the bay. The MV Loch Buie lands on the slipway and fishing boats and other, smaller, passenger boats can tie up on its north side depending on tidal conditions. The ferry is longer than the pier so cannot use it as a safe overnight mooring for all weather conditions

1.7.2. Limited facilities for pier users continue to present difficulties in terms of space for fishing tackle and other gear while the location of the fresh water supply situated at the top of the breakwater makes it difficult for fishing boats to use for wash down and cleaning purposes. Lighting is poorly positioned on the pier making landing difficult for fishermen and other smaller vessels in poor light. There is no electricity available on the pier to cater for alternative forms of lighting. In addition to these key factors there is limited parking for fishermen and their vehicles around the top of the pier. This often results in the pier being congested in the summer months with large number of visitors queuing for the Iona ferry and island boat trips in close proximity to fishermen landing their catches.

1.7.3. Alongside berthing is only possible in Fionnphort in good weather conditions, and so when not in service and overnight the ferry is berthed in Bull Hole alongside the island, Eilean nam Ban. While this represents a secure berthing location for the ferry and other boats it does present issues of safety for the ferrymen who require to undertake a journey in all weathers and conditions (with its attendant risks) by dinghy to transfer the ferry to the slipways. Shelter for ferry passengers at Fionnphort is limited to the small scale facilities at the coffee kiosk and hence queuing to board is generally undertaken unprotected and open to all weather conditions.

1.9. Iona

1.9.1. Iona pier on the other side of the Sound has a slipway used by the ferry without any shelter for ferry passengers in times of unfavourable weather conditions. Cars are not authorized on Iona without a permit. There is no indoor waiting area near the ferry slipway where passengers can wait with their luggage. This often presents difficulties where the weather is either wet or windy.

1.9.2. There is also a small jetty alongside the slipway (now suffering from significant structural weaknesses) used by passenger boats, which mainly visit Staffa and the Treshnish Isles. Other small vessels including the shuttle boats transporting passengers from visiting cruise ships will also use this jetty. The multiple uses present difficulties where there is little capacity at the pier for other visiting leisure boats, which are obliged as a result to moor in the bay either to the north or south of the pier.

- **Figure 1-3 Approaching the Pier at Iona**

1.10. Bunessan

1.10.1. While we understand that Bunessan pier falls out with this study it is nonetheless useful to describe the context of this pier in the wider area relative to Fionnphort. Bunessan is constructed from granite material and was built to provide a place for cargo ships and cruise ships to tie up and unload. The pier has been renovated twice in twenty years and facilities include parking, water, lighting and electricity.

- **Figure 1-4 Bunessan Pier at High Tide**

1.10.2. There is a deep water anchorage along the coast at Bendoran with a deep water channel linking the pier. Other than in very low spring tides, the pier is available for use in all tidal conditions.

1.10.3. The sheltered nature of the anchorage at Bunessan has represented a favourite berthing place of yachtsmen in previous years. However with the closure of the local boat yard in and the closure for sale of the Argyll Arms Hotel in Bunessan, the number of yachts in the bay has declined considerably.

Figure 1-5 Looking North to Bull Hole and the Sound

2. Economic Assessments

2.1. Format and Components

2.1.1. The economic and market approach of the master-plan provides an answer to a series of key socio-economic issues as follows:

- Providing the overall economic vision for the future of the area?
- Specifies a range of projects and proposals, which would enhance the economic buoyancy of the Sound of Iona hinterland;
- Specifies in what ways these projects address market weaknesses and adds economic, business and community opportunities;
- Identifies indicative funding sources; and
- Through the master-plan process of assessment, analysis and consultation aims to provide community 'buy in' from local partners by answering the needs and priorities set out by the local community.

2.1.2. The rationale for the future economy of the Sound of Iona has three central elements as follows, namely to focus upon:

a) Economic role and rational for the study area
b) Finding realistic and business development opportunities; and
c) Describing investment opportunities and financial returns.

2.1.3. Each of thse elements underpin the logical sequence of recommentations made within the master plan and are intended to provide an evidence base on which the Committee and the communities in Iona and Fionnphort can base their decisions and support for future project development.

2.2. The economic role and rationale for the area

2.2.1. The future of the area would be one of a combination to two components, the first being an improved tourism and recreation attraction with enhanced infrastructure, facilities and services increasing visitor expenditure through:

- Extending the visitor season in both Fionnphort and Iona;
- Increasing 'dwell-time' and longer stays in Fionnphort by offering an improved range of facilities and services, and improved environment;
- Retaining visitors in Fionnphort / Ross of Mull through providing opportunities and facilities to increase the numbers of overnight stays; and
- Improving the visitor offer and product on Iona through infrastructural improvements encouraging a major uplift in leisure boating expenditure through providing a series of protected moorings and improved pier-side services and

facilities thereby allowing full exploitation of the existing market in terms of numbers of visiting leisure craft and aiming to exploit the predicted shoulder season growth in the market and significantly increase visiting leisure craft numbers.

2.2.2. The second component of the economic rationale would be a continuation and consolidation of the existing basic economic activities with improvements particularly for fishing sector through:

- Providing improved slipway facilities and greater more manageable pier-side area for cost-efficient operation;
- Providing opportunities for chandlery, repair and maintenance and fuelling services for leisure and other marine vessels; and
- Attracting a more diverse range of businesses to the area

2.3. Realistic physical and business development

2.3.1. The Master-plan provides for this economic rationale and role, through:

- Addressing the weaknesses identified in the economic structure of the area;
- Providing a range of infrastructural, facility and improvement projects, which aims to answer both emerging market needs and requirements, and needs for successful business operation;
- Aiming to encourage new investment and visitor expenditure;
- Aiming to extend the visitor season and increase market activity over a longer period and into the shoulder months of Spring and Autumn; and
- Providing local business and economic opportunities to enable un-interrupted prosperity over a full calendar year, not just during the visitor season.

2.4. Investment opportunities and financial returns

2.4.1. The master-plan not only specifies physical improvement and development projects, which will enhance short, medium, and long-term economic and community prospects, but also identifies potential opportunities for business investment and development, which meet current and emerging market opportunities, providing that the necessary investor interest can be identified and ensured. Such business investment opportunities are designed to make the local Sound of Iona economy less dependent upon a concentrated four month visitor season and permit sustainable all year economic prosperity.

2.5. Rationale and Economic Options

2.5.1. The delivery of the master-plan could be implemented in a series of stages or phases as funding resources permit. Hence, major infrastructural works including breakwaters

would be defined as medium term projects within 1-5 years, with the revision of visitor management arrangements, car and bus-parking, and visitor signage etc implemented within a short term 12-18 months period.

2.5.2. In this way identifiable improvement in the onshore facilities and services can be achieved within one to two visitor seasons as can small scale environmental enhancements.

2.5.3. The attraction of new business investment will be a function of promotional and marketing activity on the part of the Project Board or Trust, whose job it will be to work together with other partners to implement the range of specified projects. Of particular value will be the improving economic conditions within the wider economy, which offer enhanced prospects of attracting such investor and entrepreneurial interest.

3. Principal Development Concepts

3.1.1. The following section reflects more detailed thinking on development options drawn from the discussions with individual stakeholders and following presentions on the draft development concepts to the communities in Iona and Fionnphort. Brief commentaries follow in this section with a detailed schedule of development concepts in Appendix A of the report. The Deveopment Schedule sets out more detailed target notes on the follow key development factors:

- Broad Range of Cost
- Feasibility and Timescales
- Advantages and Disadvantages
- Delivery
- Sources of Funding

3.1.2. These summaries are by their nature outline and intended to inform thinking and priorites at a strategic level rather than offering detailed analysis on individual development options. We have advised SoIHC of the need for further detailed study where priorities are being set and projects identified as taking precendence.

- **Figure 3-1 The MV Loch Buie arrives in good time**

3.2. Breakwaters off Fionnphort and Iona

3.2.1. As a major project activity each proposed breakwater will require a significant investment in its design, consenting, and construction. The precise location of the breakwater would be dependent on detailed technical studies includign hydrographical; bathymetric and marine geotechnical surveys in the first instance together with detailed analysis modelling to understand issues such as wave propagation and energy absorption, residual wave conditions within the protected waters, the impact on currents and the risks of any resultant erosion/accretion of mobile sands and sediments, The approaches to Fionnphort and Iona would also need careful assessment to ensure the safe navigation of vessels.

3.2.2. The form of the breakwaters would require careful consideration as ultimately, a significant environmental assessment as part of an [planning] application and marine licence would be required. In this respect, fully- or partially-submerged reef breakwaters constructed with natural rock boulders may be an option depending on factors such as the tidal range and the impacting/residual wave heights and energies. A rendered image (Figure 3-2 overleaf) provides an indication of the scale and massing of the structure.

3.2.3. In addition to these assessments and as part of a wider application for consent, the Planning Authority and statutory agencies would expect to see a Cost Benefit Analysis of improved ferry operation, frequency of sailings and tangible benefits in berthing. In particular where improved ferry operations are possible in all sea states so an analysis would expect to identify enhancements in safety for passengers and crew particularly where at present there is a reliance on Bull Hole as the sole sheltered mooring for the MV Loch Buie and Island Ferries.

- **Figure 3-2 Rendered Images of Breakwaters at Fionnphort**

3.3. Improved Ferry Berth arrangements

3.3.1. The ferry vessel is moored overnight at a berth in the sheltered waters of Bull Hole (see Figure 3-3 below) some 1.5km north of Fionnphort. Cal Mac support the construction of a solid breakwater/pier structure to provide an all-weather berth off the end of the Fionnphort slipway. This would require an engineering feasibility study on the basis of a structure of at least 60 meters reflecting a 2 times vessel length to permit fore, aft and mid-ship mooring lines.

3.3.2. In the absence of a new breakwater off Fionnphort, the new berth would need to be provided with a wave wall extending to 4m above HAT and would perhaps involve the construction of a double wall sheet pile structure with rock infill and a reinforced concrete deck and wave wall.

- **Figure 3-3 Berthing at Bull Hole**

3.4. The Fionnphort "Promenade"

3.4.1. While individual projects might be identified and taken forward in a piecemeal manner a single multifaceted and radical overhaul of the visitor experience is regarded as fundamental to a sustainable future success of the "Iona Experience". As a single area master planned redevelopment of Fionnphort including at least seven elements:

- Removal of existing visitor car and coach parking and narrowing of carriageway as a redefined and re-landscaped "promenade" from the top of the village to the edge of the pier.
- Overhauled terminal building / ticket centre with space to include toilet, changing and commercial spaces
- Turning circle at the head of the pier capable of efficient offloading of passangers direct onto the pier and reception facility
- Extended viewing deck as an integral "experience" within the Reception Facilty at the head of the pier
- Open or stepped access to the beach
- Stepped / secondary slipway access
- Construction of a new access route from the edge of the village redirecting car and coach visitor traffic to an alternate car and coach park

3.4.2. An indicative conceptual plan at Figure 3-7 Analysis of Fionnphort Figure 3-9 illustrates some of the key principles in a redefined landscaped area where car and coach parking currently exists around the bay at Fionnphort. Its intention is to highlight the potential for change drawing out the assets that exist but are currently undervalued or ignored where the imperative of quick visitor offloading (see Figure 3-5) onto the ferry pier takes precendence ovar all other activities.

3.5. Visitor Reception at Fionnphort

3.5.1. Complete redesign / rebuild of the current facility combined waiting room and viewing platform; ticket facility; shop and toilets. The proposal would require a detailed design and construction of a new larger facility suitable to accommodate summer passenger numbers. Temporary accommodation to east of current facility would exist during the construction period however the justification would be to significantly improve the experience of passengers onto the ferry through a managed system of ticket distribution on numbered basis designed to improve passenger management and counts, and reduce queuing stress during high congestion periods.

- **Figure 3-4 Award winning Ferry Shelter in Tiree**

3.6. Car and Coach Movement and Parking at Fionnphort

3.6.1. A significant measure proposed as a means of managing the flow of passengers and traffic onto the pier is the removal of a substative area of visitor car and coach parking near the pier terminal. The project would require a phased alignment with the development of a visitor reception facility with turning circle at the head of the pier to allow passangers and visitors off buses and onto the pier.

3.6.2. Resident (permitted) parking would be retained as would the setting out of a new parking area adjacent to the pier for the use of regular users of the piers such as ferrymen and fishermen.

3.6.3. The whole project requires detailed road geometry and streetscape assessment designed to improve the experience overall of visitors as well as residents and existing users of the pier.

3.6.4. It would take advantage of direct access onto the shoreline with landscaped seating areas and drop off points for a short cycle shuttle service between the Visitor Reception Facility and the pier.

3.7. Ferry Passenger management Fionnphort

3.7.1. The lack of shelter for queuing passengers points to the need for design and construction of shelter on the approach to and along part of the edge of the pier. It would require an appropriate design complying with aesthetic quality of area. It would

similarly require breaks in the structure to afford vehicular and pedestrian access to pier side houses. Alternatively a study might include the construction of a shelter nearing the upper reaches of the approach to the pier.

3.7.2. Supporting the design and construction of a shelter structure would be the installation of indicator boards with ferry timings and sea state at key point or points to the entrance of the pier and carpark

3.8. Ferry Passenger management Iona

3.8.1. As with Fionnphort a similar study should be undertaken on the design and construction of a queue shelter on Iona in which the design would demonstrate compliance with aesthetic quality of materials and scales given the sensitivity of the area. Also the study would include supporting an improvement in the indicator board systems on sea state and times of ferry crossing etc. directly linked to the tannoy/comms system on the ferry.

Figure 3-5 The Rush for the Ferry

3.9. Columba Centre

3.9.1. Redevelopment of the Columba Centre as a multi-user commercial, edicational, community and additional interpretive facility.

3.9.2. Agree with Historic Scotland new management arrangements and design and refurbish for new visitor facility. This proposal would include a requirement to negotiate land ownership for direct access road from entrance to Fionnphort south round existing built up area to Columba Centre.

3.9.3. The project would require extended and repaved car parking area at Columba Centre to accommodate additional car and coach capacity redirected from ferry pier where this car and coach parking has been removed as part of a new Fionnphort "promenade" .

- **Figure 3-6 Columba Centre Fionnphort as a Community Resource?**

- **Figure 3-7 Analysis of Fionnphort**

- **Figure 3-8 Analysis of Fionnphort**

Figure 3-9 Conceptual Design Options for the Fionnphort "Promenade"

- **Figure 3-10 Conceptual Anaysis Best Practice and Sourced Materials for the Fionnphort Promenade**

3.10. Repairs to main and lower (north side of) pier at Iona

3.10.1. Essential repairs are needed to prolong the life of the landing pier on Iona. This will require an additional concrete slab or similar over the exposed rebar on main pier landing point. In addition there is a requirement to repair a lengthy section of the supporting slipway by breaking away and replacing the longitudinally cracked part of existing pier structure.

3.11. Extension to the main pier at Iona

3.11.1. As an alternative to a breakwater off Iona, extension of the main pier in reinforced concrete could be considered in order to provide a sheltered berth for the ferry and to extend the protection to the bay where other vessels moor on swinging moorings.

- **Figure 3-11 Staffa Ferry alongside the Iona Slip**

3.12. New Fishermen's slipway and laydown area Fionnphort

3.12.1. Construct a new, widened and extended slipway over the current old slipway with a new reinforced concrete slab and provide vehicular access to head of slipway. Install hard surface area between ferry pier and old fishermen's slip as additional fishing equipment storage.

3.12.2. In the absence of a new breakwater off Fionnphort, the extended slipway would require a local breakwater in order to provide an all-weather facility.

- **Figure 3-12 Gear loaded on the pier at Fionnphort**

3.13. Land Use, Tourism and Economic policy

3.13.1. Align land use policy more closely with Fionnphort and Iona development aspirations. Argyll and Bute Council are committed to produce locally orientated, flexible and transparent plans that will:

- Provide guidance and recommendations to assist current and future planning, regulation and management of marine and coastal activities.
- Encourage a diverse, balanced mix of sectors to operate and develop sustainably with consideration of other interests and environmental capacity.

- Recognise, promote and help safeguard areas important for marine and coastal wildlife, habitats and heritage.
- Enable a better understanding of the socio-economics of the area and incorporate this into management and planning.

3.13.2. There is a policy commitment to take these principles forward through an Area Action Plan for the Ross of Mull Development Plan and Housing Opportunity Areas. The completion of a master plan for the Pier at Fionnphort and Iona is regarded as a key opportunity to address the perceived policy constraints that exist currently and the community is being encouraged to take a direct role in addressing amendments at first revision stage of the Local Development Framework.

3.13.3. Additionally A&BC is seeking to extend its representation on key policy areas in particular it is looking to support initiatives with Scottish Government, HIE, Scottish Tourism and other key stakeholders to achieve congruence of policy objectives and local aspirations.

4. Local Economy and Business Opportunities

4.1. All Season Operation

4.1.1. A number of project opportunities present themselves to provide for all-season year round economic and business activity unaffected by visitor flows. These are set out below with background high level market analysis to establish potential levels of economic benefit and impact.

4.2. Segmentation of the Tourism and Visitor Market

4.2.1. The tourism and visitor market can be sub-divided into the following segments:

- Low spend 'volume' day-trip visitors – largely bus and coach parties based;
- High spend 'value' overnight stay visitors – largely independent car borne groups;
- Lower spend day-trip visitors – cruise ship based; and
- High spend 'value' groups – largely yachts and leisure boating based

4.3. Nature of visitor markets

4.3.1. Currently, the congestion experienced on an on-going basis in Fionnphort is derived largely from the 'wave' effect of the arrival of numerous lower value spending bus-borne visitor groups, who have arrived on Mull on the Oban to Craignure Calmac ferry and make use of the Fionnphort service bus or chartered coaches. This puts pressure on the infrastructural and services' capacity of the area, without contributing major benefits to the local economy. Where expenditure has been made this is largely to off-island tour companies, coach/bus operators, and Historic Scotland at Iona Abbey. Other economic benefits naturally accrue to Calmac the ferry operator. However, there appears to be only modest amounts of spend by these visitors made in the shops and food and drink providers in Fionnphort, due to their short time spent passing through the village in each direction en route to and from Iona.

4.3.2. The average daily expenditure of day-trippers in Argyll & Bute has been estimated at £30.76 per head per day1.

4.3.3. The high spend high value visitors are generally independent travellers or groups travelling by car (sometimes service bus) who are either day trippers of overnight stays. These visitors make us of the range of commercial and retail facilities, through food and drink purchases, meals, merchandise, accommodation, trips and entrance to visitor attractions and other facilities.

[1] Tourism Destination Baseline Study to inform Scottish Enterprise Tourism Framework for Change: SQW Consulting for Scottish Enterprise (January 2008)

4.3.4. The average daily expenditure of overnight stay visitors has been estimated at £56.93 per head per day[2].

4.4. Visitor accommodation

4.4.1. Visitor accommodation on Iona is limited to two hotels, a number of B&Bs, self-catering units, and a camp-site. Information from the hotels on the island, which open for the season between March and October, indicates that these are running with room occupancy rates of 85-90% from May until September with often full occupancy during the peak months of the season. Even in April and October occupancy rates can be 70-80% or slightly lower.

4.4.2. No information is available for the Ross of Mull and Fionnphort visitor accommodation providers. However, anecdotal evidence through the consultations indicates that during the peak months of the season B&Bs and self-catering do experience high levels of occupancy, and the Fidden Farm camp-site often accommodating 2-300 tents during the high season.

4.5. Leisure boating market visitors

4.5.1. In support of the economic assessment of the master plan and development framework an detailed Leisure Boating Market Assessment was completed. A supporting paper (found in Appendix B of this report) has highlighted the scale of the opportunity open to Iona and Fionnphort with perhaps some 750-1,000 boat visits per annum. The different levels of spending of such leisure visitors is marked with day visits, which represent the vast majority calling at Iona due to the lack of protected moorings, estimated to be a similar level to onshore day trippers at approximately £30 per boat per day. However, over-night stays were protected moorings to be available are estimated to spend £130 per boat per day, a major increase in expenditure and economic benefit to the local economy.

4.5.2. In addition, while the construction of a breakwater at Iona would provide the necessary protected moorings on the Iona side of the Sound as the key attraction in the area, the construction of breakwater(s) at Fionnphort creating protested berths within a harbour would also provide a basis upon which the RYA would be likely to define the village as a stopping point / berthing point on cruising maps and guides, further encouraging leisure traffic to call at the Ross of Mull aside of the Sound.

4.5.3. This would be likely to encourage leisure boating visitors to moor at Fionnphort to take advantage of the facilities and services on offer in preference to the other mooring points at beaches around the southern point of Ross of Mull, and would add additional facilities encouraging a growth in the market in the area, complementing the protected moorings and stopping point in the bay at Bunessan.

[2] As above (4)

4.6. Cruise tourism visitors

4.6.1. Information and data on cruise tourism visitors to Iona is limited, with local consultations estimating the number of visiting cruise vessels to be approximately 17 during the 2013 season, with 50% of these visits occurring during May. These visitors are transferred by tender from the cruise vessels to Iona pier and remain on the island for only a limited period generally between 2-3 hours at most. Similar to day trip visitors arriving by the Calmac ferry, these visitors are viewed as bringing moderate levels of spend and economic benefit to the island, with the primary beneficiaries being the village shops on arrival and departure and the craft shops and retail outlets on the route to the Abbey and Iona Abbey and shop itself. No separate data for cruise visitors levels of spend are available, hence onshore day trip visitors' levels of spend are assumed to occur within this market segment.

4.7. Development of a Micro-Brewery

4.7.1. Micro-brewery – A year round economic and business activity exists in the form of development of a micro-brewery. The market for such breweries has dramatically expanded in recent years for the production and consumption of 'craft beers.' It is estimated that there are currently 600 such breweries in the UK, with over 50 in Scotland, eight having opened during 2013 alone. This market growth has been encouraged by the Progressive Beer Duty Scheme, which permits breweries producing under 5,000hectolitres per annum to pay only 50% excise duty.

4.7.2. The potential economic benefit, which derives from such limited scale business enterprises, can be extensive. Remote and rural locations are no barrier to the development of these breweries, with recently opening examples in Cromarty (2011), Shetland (2013), and other in remote locations existing successfully over a number of years – Fyne Ales (2001), Islay Ales (2003), and Colonsay (2007), amongst others.

4.7.3. Numbers of jobs generated through these businesses vary depending on production scale, but generally the starting level of output at 4-5barrels/660-825litres will employ 4-5 FTE jobs, and more were the brewery to increase production or be allied to a 'brewery tap,' pub, or shop. A two-and-a-half barrel capacity, which produces around 760 bottles per brew, is generally viewed as the appropriate level to supply local farm shops, restaurants and the occasional artisan alcohol shop in larger Scottish cities and elsewhere.

4.7.4. The comparative example of Lindisfarne making use of the Lindisfarne Castle Ale and Lindisfarne Gospels Ale, demonstrate the use of the local attractions as marketing devices. Iona and Iona Abbey, and the Isle of Staff all represent similar iconic brand attractions, which could offer potential for a business start-up. While 'Red Monk of Iona' labeled beer is currently produced by Argyll Breweries Ltd trading as Oban Bay Brewery (incorporating Isle of Mull Brewery) this would not necessarily constrain the market opportunity for a brewery start-up in the Sound of Iona area.

4.7.5. Table 4-1 below illustrates the current range of comparator micro-breweries, their output and level of employment created.

Table 4-1 Comparator Micro-Brewery Scale

Micro-Brewery Name	Location	Start Date	Production Scale	Job Numbers
Fyne Ales	Ciarndow, Argyll	2001	10bbl/1,659l	11-15FTE
Eden Brewery	Guardbridge, Fife	2012	20bbl/3,300l	8FTE
Islay Ales	Bridgend, Islay	2003	4bbl/660l	6FTE
Colonsay Brewery	Isle of Colonsay	2007	5bbl/825l	3FTE
Lerwick Brewery	Staneyhill, Shetland	2013	12bbl/1,980l	3.5FTE
Cromarty Brewery	Davidston, Cromarty	2011	10bbl/1,650l	3FTE
Oban Bay Brewery/Isle of Mull	Waterfront, Oban	2010//2005	5bbl/825l	n/a

4.7.6. The requirements for business start-up of a micro-brewery are an interest in brewing, entrepreneurial ability, marketing nous, limited scale buildings, and moderate level of funding and finance. A number of the brewery examples were originally set up making use of redundancy money from other employment. Remoteness is no impediment per se to a successful operation, given business start-up support available from HIE, and the increasing market for consumption of craft beers. Equally neither is the size of the local market an impediment to start-up and success, as while the indigenous

population of Mull is limited in scale, the number of visitor to Mull and Iona offers a major uplift, and good quality output swiftly commands interest from the mainland supermarkets, with the Cromarty Brewery, Eden Brewery, St Andrews Brewery, and Alchemy Brewery in Livingston all swiftly having their products on sale within only a short period post-start-up of production. Similarly, the scale of output from such micro-breweries is well able to be delivered by 'white van' o wider markets and is an all season year round activity.

4.8. Identification of a Hotel Investor and Operator

4.8.1. **Hotel operator** – The attraction of a sizeable hotel to the Fionnphort area would be a major boost to the local Sound of Iona economy. With visitor accommodation limited on the Ross of Mull largely to bed and breakfasts, self-catering, and camp sites, good quality hotel accommodation would fill a key gap in the local market. During the peak season, local consultations indicate that the two hotels on Iona are running at 80%+ occupancy and are often at capacity.

4.8.2. The major impediment to the attraction of hotel investment is the restricted season, with tourism largely constrained to the non-winter timetable period of the peak Calmac Oban to Craignure ferry route, which operates from early April until late October. Thereafter over the November to March period visitor numbers decline steeply. However, even on the mainland many tourism and visitor businesses operate only between March and October, unless they are in a winter sports type environment or have an all-year all season type of operation.

4.8.3. Generally the economics and viability of conventional hotels denote that the operation requires 30-40 rooms to be a viable proposition. However, specialist small scale hotels, which also provide a high quality food and drink offer are viable and economic on a much smaller basis of 10-20 rooms. Where the standard of accommodation and service is 3-star or better these generally employ two members of staff per room. However, smaller hotels will normally provide a more limited level of staffing, with perhaps a maximum of 8-10 staff only.

4.8.4. Paradoxically, the lodge type of hotel accommodation with perhaps up to 40 rooms would only employ 5-10 staff as a maximum. However, this is not the format of hotel, which would be likely to locate on the Ross of Mull, it being much more likely that should hotel investment be attracted to the area that this would be of the specialist smaller-scale variety.

4.8.5. It is difficult to see in current market conditions, and with the constrained transport arrangements of accessing Ross of Mull that there would be significant market interest. However, were the attractions of Iona together with improved facilities and visitor offer in and around Fionnphort lead to a significant increase in visitor numbers and over a prolonged season, then hotel and food and drink investor interest might be encouraged.

4.9. Creation of a Local Renewable Energy Hub

4.9.1. Renewable **energy hub –** The prospects of either Iona or Ross of Mull being promoted as a hub of renewable energy generation or production are generally constrained by limitations on the grid connection in the area, as does the environmental quality and scenic value, which would act as a constraint to any larger scale onshore wind generation. However, two aspects of renewable energy, which do perhaps offer potential to underpin the local community and its economy, are as follows:

- Improved energy efficiency through the fitting of high performance insulation in all residential and business accommodation, thereby reducing heat loss and electricity consumption, and as appropriate potential installation of solar panelling for both solar water heating and / or PV and also biomass/wood burning stoves; and
- Assessment of the potential for wave and tidal energy generation through limited scale next generation wave and tidal devices; such devices are specified to be lower cost and designed for the supply of electricity to remote coastal or island communities with a power output of 10kw – 500kw, particularly where the communities are either off-grid or have restrictions on grid capacity.

4.9.2. It might be possible to initiate a project – via the Energy Saving Trust, Resource Efficiency Scotland, the Renewable Heat Initiative, the Community and Renewable Energy Scheme, and/or other initiatives similar to the former HIE Community Renewable Energy Support Programme (CRESP). Such a comprehensive community based project would assess the individual need for increased energy efficiency, the technological opportunities, the potential benefits, the individual business cases, and the funding resources available to provide for greater energy efficiency and sustainability and hence improved economic and business performance in the area.

4.10. Renewables and Marine energy devices (tidal stream and/or wave)

Constraints on potential

4.10.1. Lack of grid capacity particularly in the Taynuilt to Inveraray section of the line

4.10.2. Generation of electricity in the Sound of Iona would be restricted by the capacity of the 132kV grid connection to the Ross of Mull. This is particularly the case with problems experienced over the Taynuilt to Inveraray section, where overheating is believed to occur. Extra power loads from Ross of Mull would n ot be capable of being accommodated until such time as this section of the grid was upgraded and reinforced. It is understood that such reinforcement is not considered to be a current priority to SSE/SHETL.

4.10.3. While the introduction of ‘smart grid’ technology might improve the capability of the grid connection to better match the demands of the consumers and the output of the generators, such technology currently is not widely operational and also its introduction would be dependent upon a detailed assessment of the overall network in

the area, the basis of demand and the potential supply. However, even with such an understanding to enable 'smart grid' technology, the ability and capacity of the Ross of Mull grid connection to accept any significant additional generation for export off Mull is compromised until such time as grid reinforcement occurs in the future.

No current designation by the Crown Estate of the Sound of Iona as a marine energy zone

4.10.4. The Sound of Iona currently does not possess the status as a Crown Estate lease area for the potential development of marine energy devices, without which such development cannot take place.

4.10.5. While Marine Scotland is currently conducting a consultation and screening exercise as to the potential of additional offshore wind and marine device zones around Scottish Territorial Waters, this will not be completed until Q1 2014. Assuming the Sound of Iona was to be selected by Marine Scotland and the Crown Estate as the location of such a zone, this would not be likely to be tendered for expressions of interest by developers for sole development rights before 2016-2017; and hence subject to the consenting process marine devices would not be in the water before 2020 at the earliest.

Concentrated energy generation versus distributed energy

4.10.6. Energy market developments and energy master-planning have seen the focus on energy generation in remote locations move towards the concept of 'distributed energy' making use of smaller scale compact energy centres based upon non-fossil fuel generation namely a combination of hydro, biomass, wind and solar, feeding local communities and hence being less dependent upon long-distance grid connection capacity. Such an approach avoids the inefficiencies and energy losses of larger scale energy generation (often 40%+) and longer distance transmission losses (generally 8-10%), hence being a more efficient and cost-effective low Co2 source of supply. Further, locally based generation and distribution also avoids the risk of bad weather damage to transmission lines and reduced the risk of 'outages'.

4.10.7. Potential does exist in the Sound of Iona for limited scale marine energy generation to provide local supply, potentially on a 'private wire' basis of dedicated user supply 'off-grid' or to supplement the main grid supply. Comparative examples of this type of approach are the SPR Sound of Islay project and the proposed DP Energy West Islay Tidal Energy project each of which has a portion of its supply targeted at usage by the local Islay malt whisky industry.

4.11. Conclusion on suitability of tidal and wave energy devices.

4.11.1. Extensive assessment and appraisal work would be required to ascertain the scale and nature of the marine energy resource in the Sound, the feasibility, and viability of undertaking such a project, and indeed the scope of technology, its specification, and

its scale of commercial output. Until such time as this is undertaken no potential project can be considered to be a feasible proposition for inclusion in the master-plan.

4.11.2. Further, until such time as the Sound is designated as being appropriate for marine energy generation device development by the Crown Estate, and the grid connection is reinforced, the prospect of such a project must be viewed as no more than a remote possibility and only in a longer term timescale.

4.11.3. Finally, the prospect of combining the proposed breakwaters at either Fionnphort or Iona with a marine device project is unlikely to be tenable given the long-term timescale involved with addressing constraints on such marine energy development and the probability of constructing the breakwaters within a much shorter timescale.

4.12. Village Environmental Improvement

4.12.1. As part of the overall environmental improvement of Fionnphort, which would include reconfiguration of the visitor management, bus and car parking, and redevelopment of pier-side facilities, to act as a focus for overall improvement in the visitor (and local indigenous community) experience, there should be an aim of achieving a **Beautiful Scotland** competition[3] prize win within 3 years through an entry in either the:

- 'Wee Village' category (up to 300 population); or
- 'Coastal Village' category (up to 2,500 population)

4.12.2. Judging criteria for this competition comprise: the range of horticultural achievement and activity, the level of environmental responsibility adopted and achieved, and the level of demonstrable community participation. This form of environmental project has essential benefits in:

- Drawing the local community together;
- Acting as a focus for environmental improvement and enhancement;
- Improving the experience of visitors;
- Being likely to promote longer 'dwell-time' in the village by visitors; and
- Low cost activity with access to a wide range of funding

4.13. Summer and Shoulder Months Operation

Columba Visitor Centre Redevelopment

4.13.1. As a new focal point of the relocation of visitor car and coach parking in Fionnphort, the redevelopment and re-opening of the Columba Centre would represent a new business opportunity for the promotion of Fionnphort and the Ross of Mull. It would

[3] http://www.keepscotlandbeautiful.org/media/169068/EntrantManual-2013.pdf

also act as a 'taster' for the attractions in and around the Sound of Iona. The concept would be one of acting as a 'sign-posting' centre in much the way that the Bowmore Visitor Centre on Islay acts as a sign-post to the wider attractions of the Isle of Islay.

4.13.2. In addition to the visitor information role, the centre should also offer showcase facility for the craft and local produce from the area, a shop retailing such goods and merchandise and a modest level of food and drink offering such as a café.

4.13.3. Subject to analysis of the business community's needs and requirements the centre could also act as a Business Point of Presence (PoP), which would provide high-speed digital and internet access to the available range of business advice and information, and hence operate as an out-reach Business Gateway portal.

4.14. Other Business Opportunities

4.14.1. **Attraction of a specialist nursery / garden centre** - This would act as both an attraction and a retail nursery. The garden of the St Columba Hotel on Iona offers a good example of a small-scale nursery garden, the produce of which is used by the hotel. Other comparative examples, each of which is open from March to October, and trade successfully on that basis include:

- Inshriach Alpine Plant Nursery[4] and Potting Shed café, Kincraig, Aviemore; and
- Benmore Gardens Nursery and café[5]

4.14.2. Such nurseries are low cost start-up businesses, but the key is to identify a market niche or specialism similar to the comparative examples above, the former in alpine plants, and the latter trading on the back of the adjacent specialism of Benmore Gardens and its Rhododendrons and Azaleas.

4.15. Leisure Boating Market – summer and shoulder months

4.15.1. The leisure boating market assessment has been presented within the master-plan report under a separate heading. However, this activity offers the greatest market potential for the Sound of Iona economy, through encouraging growth in the leisure boating market. Two options in this market present themselves:

- **Market consolidation and improvement (lower investment) option** – provision of improved onshore facilities and services providing the level of modern facilities expected by visiting yachtsmen and visitors, including the range of utilities and services as described below; and
- **Market Development and Expansion (higher investment) option** – provision of breakwater(s) at either/both Iona and Fionnphort to provide all-weather protection

[4] http://www.inshriachnursery.co.uk/
[5] http://www.rbge.org.uk/the-gardens/benmore

and facility for overnight stops; including provision of pontoons, and utilities and services as in the lower investment option.

4.15.2. Facilities and services necessary to attract the visiting leisure craft market include the following:

- Provision of protected berthing capacity and moorings, to accommodate the existing local leisure vessels and also to attract a greater number of visiting leisure boats to increase expenditure from this visitor market (higher cost investment option only);
- Provision of washing and toilet facilities;
- Improvements to the electricity supply; and
- Provision of adequate lifebuoys, throw ropes, fire fighting equipment, first aid points, signs, fuel provision, water supply, and any security required.

4.15.3. The economic and business benefits, which would accrue from this investment could easily be a doubling or quadrupling of the jobs numbers on Iona currently (estimated as 3-4FTEs) dependent on this market, and an extension of the season into the shoulder months of the Spring and Autumn.

5. Project Governance

5.1.1. While many of the projects identified in the Development Schedule are relatively straightforward to deliver by a Sound of Iona Harbours Committee, the complexity and scale of the procurement and construction of breakwaters off Fionnphort or Iona or the procurement of a new Fionnphort Promenade for example require a range of skills and resources that are currently not available to the Committee.

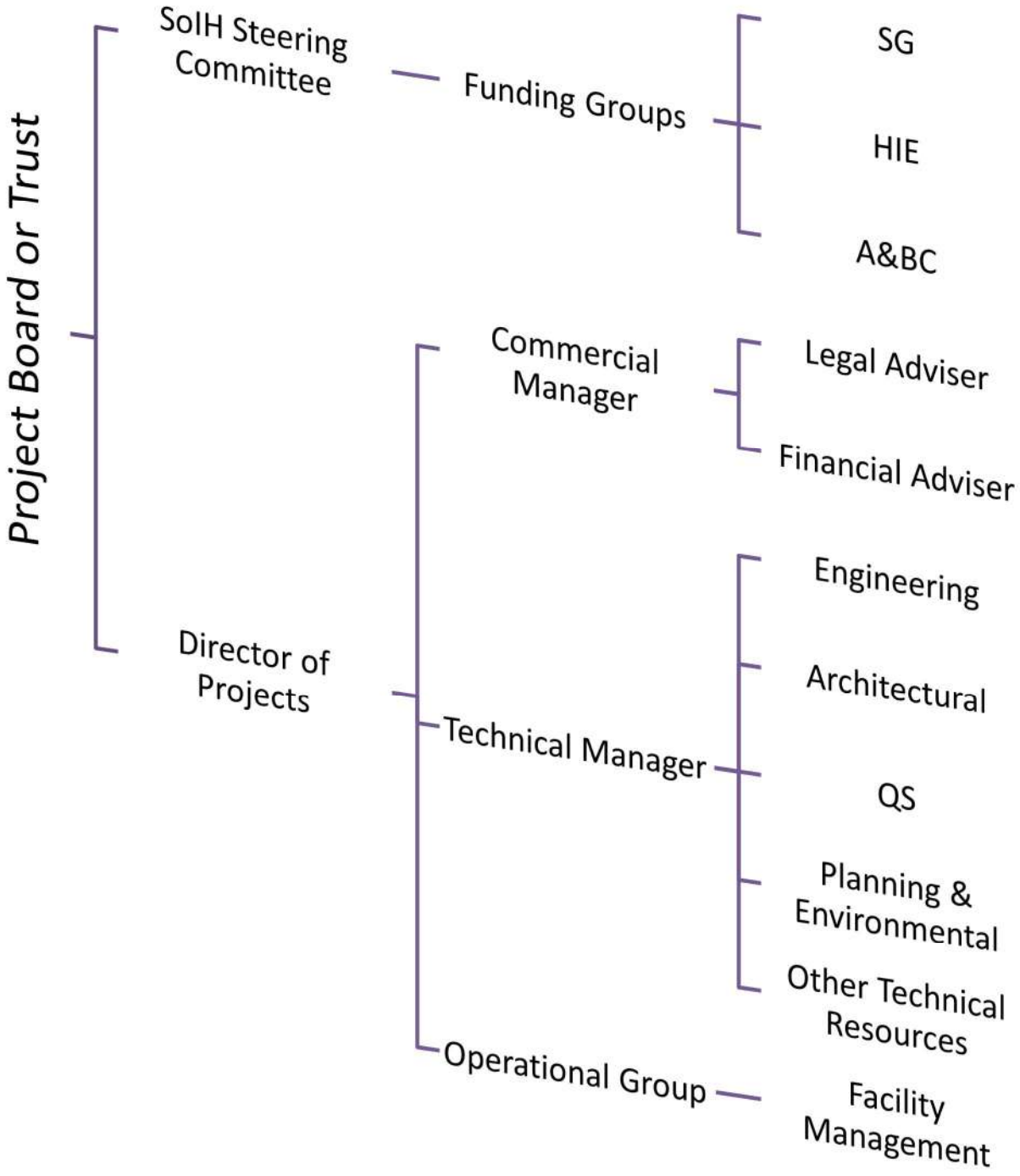
5.1.2. However a common way of implementing effective project governance for project development is by a system of boards or project committees. Different systems can be considered, but they normally include:

- A project board, or steering committee, comprising the main stakeholders and led by a senior representative responsible for delivering the project; and
- A project management team, responsible for managing the project day-to-day (including managing advisers) and reporting to the project board or committee.
- Appointing a project director is of particular importance. During the intense procurement phase, this will be a full-time job and be someone who has experience of both the public and the private sector.

5.2. Resources

5.2.1. The quality of project resources is one of the most important factors in the success of any of the projects proposed. Therefore, an appropriate team structure with clear lines of accountability should be in place.

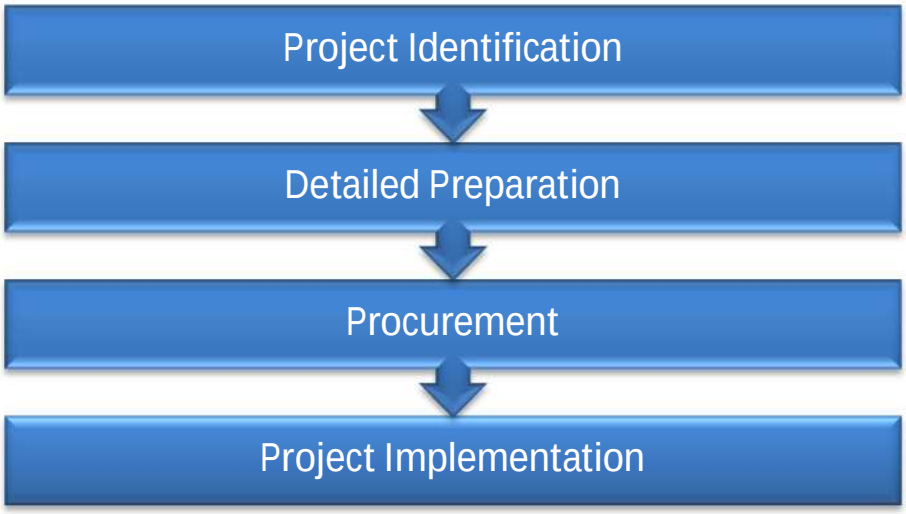
- **Table 5-1 Board Structure and Interfaces**



5.3. Project Planning

5.3.1. Where projects have been identified a key task for the project management team or teams are to develop a detailed project plans, including a timetable for project preparation and procurement. The plan needs to take into account all the key steps in the process including:

- Further detailed scoping;
- Stakeholder consultation;
- Bidding process and private sector interface; and
- Approval processes.



5.3.2. Project preparation is a complex undertaking with parallel activities feeding into critical paths. It is important that activities that are on the critical paths be initiated at the right time and monitored closely to ensure that they proceed as planned and do not cause delays to other activities.

5.4. Further Studies

5.4.1. Even though the core technical, financial and economic studies will have been carried out during the feasibility phase, there may be a need for further, updated and more focused studies prior to procurement:

- Preparing the case for appraising the project may have brought to light aspects where more detailed work is needed.
- The studies during the feasibility phase will have been geared most of all to helping a Board or Trust to take "yes/no" decisions on projects and procurement route is most appropriate.
- As project design advances, decisions about risk allocation may require additional studies. For example, with breakwaters it may be useful for the Board to carry out and ratify hydrographic or coastal modelling studies prior to any construction activity.
- The Board would also seek to maximise any sources of funding for meeting the project's financing requirement.

5.5. Concluding next steps

5.5.1. While the identification of a set of concepts is an crucial first step, the Committee will now be faced with a number of potential projects which they need to assess and prioritise. The ultimate goal of the project selection process is to ensure that the investments that will be carried out best value.

5.5.2. Experience suggests that programme or project success will best value when all or most of the following conditions are met:

- the right expertise to design and implement complex projects;
- effective management of risks associated with construction and delivery.;
- the scope is clearly defined ensuring effective and accountable delivery of services;
- risk allocation can be clearly identified and implemented;
- the value of the project is sufficiently large to ensure that procurement costs are not disproportionate; and

5.5.3. The project identification phase therefore involves an early assessment of what is feasible, deliverable and fundable, what can be afforded (and when funds will be available), the impact on the project and the service that it achieves. The best

available outcome is based on the vision and objectives of the Committee which will be the driving performance indicator that will demonstrate that account has being taken of all benefits, costs and risks of the project. In other words irrespective of which project is identified as a priority it will be for the Sound of Iona Harbours Committee to demonstrate the benefits to be derived from the project outweigh the costs.

Appendix A: Development Schedule

The following schedule of development projects are described in broad outline against a number of key headings of cost, timescales and fundability. While they are described in conceptual terms they are projects which we believe have the ability to attract funding. Both the cost and the delivery time for each are indicative at this stage in the understanding that following more detailed studies they are projects with good prospect of being delivered in a realistic timescales.

We do not intend to list projects that are either subject of exhaustive examination previously, such as for a Causeway or projects falling outwith the scope of the commission. In other words the process of creating this master plan is to present and where possible recommend options that are realisable in the current political and economic climate, and that are resolutely deliverable concepts based upon the objectives of the SoIHC.

	Ref	Project	Proposed Works	Detail of Proposal	Range of Cost	Feasibility/ Timescale	Advantages	Disadvantages	Delivery Model	Funding Sources
FIONNPHORT	**FP1**	**North and South Breakwaters**	Construct new breakwaters from shorelines north and south of the current ferry pier	• Two breakwaters located to the south (Carriag Bheigh Head) and north of the pier / bay area (possibly off the small island to the north of the FP bay) • Location to be determined via consultation, hydrographical and geotechnical survey, and detailed analysis modelling; • Conceptual designs and cost estimates prepared to inform any cost-benefit analysis in terms of improved ferry operation and frequency, plus berthing benefits • Investigation of potential sources of tidal energy as power sources for piers • Rock boulder breakwaters in order to permit tidal flows through the body of the breakwater whilst absorbing the energy of waves impacting the breakwater; or reef breakwater permitting waves and high water to pass over the top – to be determined by detailed survey and design • Complex marine and onshore consenting environment centred on Planning, Marine and Environmental Impact Regulations. • Key regulatory agencies statutory consultees would include; SG, SNH, SEPA, A&BC	High	1-5 years	• Extended/improved ferry operations in adverse sea states; especially during south westerly and northerly gales • Improved scope for berthing ferry overnight; • Safer anchorages for fishing and leisure craft. • Additional recreational / Viewing point • Navigational aid • Would obviate need for improved access arrangements for crews starting or berthing the ferry from Bull Hole mornings and evenings (e.g. improved access road between FP and Kintra)) • With addition of floating pontoons,, easier access to small fishing and leisure craft would be achieved improving appeal of FP as a berthing facility for small craft • Significant economic benefit through extended appeal to leisure craft	• Single large investment may detract from access to funds from same sources for incremental measures. • Complex consenting and potential (design, schedule, cost) constraints imposed by regulators • Requires proper survey, scoping, preliminary design and costing exercise before a funding application is possible • Additional navigation hazard as ferry will have to track further north to avoid the mid channel shoal after clearing the breakwater during low water • Navigation hazard would also affect craft tracking north or south through Sound to the east of the mid channel shoal at low water.	Project or Trust Board Formed Constituted to deliver projects with Board representation including Community Reps from Iona & FP as well as each of the funders, and technical adviser/rapporteur	HIE SG ABC
	FP2	**Southern Breakwater**	Construction of a single breakwater southern of the ferry pier	• Location to be determined via consultation, hydrographical and geotechnical survey, and detailed analysis modelling; • Conceptual designs and cost estimates prepared to inform any cost-benefit analysis in terms of improved ferry operation and frequency, plus berthing benefits • Rock boulder breakwaters in order to permit tidal flows through the body of the breakwater whilst absorbing the energy of waves impacting the breakwater or reef breakwater permitting waves and high water to pass over the top – to be determined by detailed survey and design • Investigation of potential sources of tidal energy as power sources for piers • Complex marine and onshore consenting environment centred on Planning, Marine and Environmental Impact Regulations. • Key regulatory agencies statutory consultees would include; SG, SNH, SEPA, A&BC	High	1-5 years	• Extended/improved ferry operations in adverse sea states; • Scope for berthing ferry overnight; • Safer anchorages for leisure craft. • Additional recreational / Viewing point • Navigational aid • Would obviate need for improved access arrangements for crews starting or berthing the ferry from Bull Hole mornings and evenings (e.g. improved access road between FP and Kintra)) • With addition of floating pontoons,, easier access to small fishing and leisure craft would be achieved improving appeal of FP as a berthing facility for small craft • Significant economic benefit through extended appeal to leisure craft	• Single large investment may detract from access to funds from same sources for incremental measures. • Complex consenting and potential (design, schedule, cost) constraints imposed by regulators • Requires proper survey, scoping, preliminary design and costing exercise before a funding application is possible. • Minor additional navigation hazard as ferry will have to track further north to avoid the mid channel shoal after clearing the breakwater during low water. • Navigation hazard would also affect craft tracking north or south through Sound to the east of the mid channel shoal at low water.	Project /Trust Board Structure as above	HIE SG ABC

	FP3	**Improved Ferry Berth arrangements**	Extend existing mole	• Extend to 60 metre overall length mole structure off end of existing mole • Install power and lighting as well as improved access/egress to laydown areas • Location to be determined via consultation, hydrographical and geotechnical survey, and detailed analysis modelling; • Conceptual designs and cost estimates prepared to inform any cost-benefit analysis in terms of improved ferry operation and frequency, plus berthing benefits • Complex marine and onshore consenting environment centred on Planning, Marine and Environmental Impact Regulations. • Key regulatory agencies statutory consultees would include; SG, SNH, SEPA, A&BC	High	1-5 years	• Saves berthing the ferry overnight in Bull Hole and dinghy crossing to access ferry reducing morning start up and evening berthing time; • Ferry can be secured fore and aft for loading and unloading if necessary and overnight berthing • Measure 1 will resolve need for wave wall to 4 metres above HAT • Would obviate need for improved access arrangements for crews starting or berthing the ferry from Bull Hole mornings and evenings (e.g. improved access road between FP and Kintra)) • Minor benefit for leisure craft	• High cost for temporary advantage • Requires proper survey, scoping, preliminary design and costing exercise before a funding application is possible	Project or Trust Board Formed Constituted to deliver projects with Board representation including Community Reps from Iona & FP as well as each of the funders, and technical adviser/rapporteur	HIE SG ABC
	FP4	**Visitor Reception Facility Ticket/ Toilet / Viewing Deck / Shops at FP**	Demolish current facility and re-build combined waiting room; viewing deck; ticket facility; shop and toilets.	• An integral feature of a site master plan / FP promenade • New larger facility suitable to accommodate summer passenger numbers on same site. • Temporary accommodation to east of current facility in meantime • Issue tickets on numbered basis to improve passenger management and counts, and reduce queuing stress during high congestion periods.	High	1-5 years	• Will provide better integrated ticketing/ refreshment/ toilet and waiting facility at FP • Improved street and architectural quality • Opportunity for architectural competition and sustainable building design. • Provides opportunity to have ferry and Staffa Boat passengers visit a tourism centre and have all FP and Iona facilities explained prior to ferry embarkation; • Opportunity to provide local community businesses joint food & drink and 'showcase' facility; • New focus of activity to expand commercial offering in FP; • Enables majority of ferry passengers to walk or travel past potential service offerings in FP village when accessing the ferry pier and new promenade	• Disruption during demolition and re-build • Reduces focus of ferry and Staffa boats activity in one area requiring more coordinated visitor management; • Potential minor increased retail and food & drink competition to existing FP businesses	Project Board Structure including Funder Representation	SG CMAL LEADER
	FP5	**Ferry Passenger management**	Design and Build Queue shelter and segregated queuing area	• As part of a site master plan / new promenade : • Devise appropriate design complying with aesthetic quality of area (i.e. not plexi glass!) • Allow for breaks in the structure to afford vehicular and pedestrian access to pier side houses; or start the shelter further uphill on left of road when facing the pier; • Install electric indicator board with ferry timings and sea state etc •	Medium	12 to 18 months	• Provides shelter in queue for waiting passengers; • Provides information for passengers • Improves ferry passenger safety • Improves overall visitor experience • Improves access to Iona/area of high environmental amenity	• Reduces access to pier side housing unless suitably designed. • Visual impact from pier side housing unless sensitively designed	Project Board Structure including Funder Representation	SG CMAL LEADER

	FP6	**Car Parking Proposals**	Close all car parking near ferry terminal	• As part of a site master plan / new promenade • Make available lower car parking area for full turning circle for coaches and cars; • Make available part of lower car parking area and site of temporary ticketing/ passenger toilets and waiting area facility while Measure 10 implemented; • Extend car parking at Columba Centre; • Provide road train / navette-type electric shuttle mini-bus facility for those unable or reluctant to walk	Medium	1-5 Years	• Provides opportunity to have ferry and Staffa Boat passengers visit a tourism or 'signposting' centre / TIP and have all FP and Iona facilities explained prior to ferry embarkation; • Provides food & drink business opportunity at Columba Centre • Ensures visitors walk/pass by main visitor and retail facilities in FP en route to ferry of pier; • Reduces traffic congestion near ferry pier	• Initial resistance from passengers familiar with current direct access to ferry and boat pier • Potential inconvenience / disturbance to local residents from increased traffic volumes	Project Board Structure including Funder Representation	ABC HIE SG Green Bus Fund SG Future Transport Fund
	FP7	**New Fishermen's slipway and laydown area**	Construct new and extended facility over current old slipway	• Widen and lengthen current degraded slipway and provide vehicular access to head of slipway; • Install hard surface area between ferry pier and old fishermen's slip as additional fishing equipment storage • Conceptual designs and cost estimates prepared to inform any cost-benefit analysis in terms of improved ferry operation and frequency, plus berthing benefits • Less challenging marine and onshore consenting environment, although work would nonetheless centre on Planning [Policy], Marine and Environmental Impact Regulations. • Key regulatory agencies statutory consultees would include; SG, SNH, SEPA, A&BC	Medium	1-4 years	• Segregation of fishing and ferry activity from main FP pier; • Scope for growth of fishing activity; • Improved safety of both operations • Improved operational fishing activity efficiency and economic benefit	• Will require fishermen's and fish buyers' agreement to new loading and unloading arrangements	SolHC	HIE SG European Fisheries Fund (EFF)

	Ref	Project	Proposed Works	Detail of Proposal	Range of Cost	Feasibility/ Timescale	Advantages	Disadvantages	Delivery Model	Funding Sources
IONA	**I1**	**Breakwater**	Construct new facility	• Location to be determined via consultation, hydrographical and geotechnical survey, and detailed analysis modelling; • Will probably require Cost Benefit Analysis in terms of improved ferry operation and frequency; • Conceptual designs and cost estimates prepared to inform any cost-benefit analysis in terms of improved ferry operation and frequency, plus berthing benefits • Investigation of potential sources of tidal energy as power sources for piers • Rock boulder breakwater in order to permit tidal flows through the body of the breakwater whilst absorbing the energy of waves impacting the breakwater; or reef breakwater permitting waves and high water to pass over the top – to be determined by detailed survey and design Complex marine and onshore consenting environment centred although work would nonetheless centre on Planning [Policy], Marine and Environmental Impact Regulations. • Key regulatory agencies statutory consultees would include; SG, SNH, SEPA, A&BC	High	1-5 years	• Extended/improved ferry operations in adverse sea states; Safer anchorages for leisure craft • Significant potential economic benefit derived from extended over-night stays and greater share of growing market in off-season leisure boating	• Single large investment may detract from access to funds from same sources for incremental measures	Project or Trust Board Formed Constituted to deliver projects with Board representation including Community Reps from Iona & FP as well as each of the funders, and technical adviser/rapporteur	HIE SG LEADER
	I2	**Repairs to main and lower (north side of) pier**	Repairs to prolong life of the landing pier	• Lay additional concrete slab over exposed rebar on main pier landing point; • Break away longitudinally cracked part of existing pier structure and replace; • Conceptual designs and cost estimates prepared to inform any cost-benefit analysis in terms of improved ferry operation and frequency, plus berthing benefits • Less challenging marine and onshore consenting environment centred although work would nonetheless centre on Planning [Policy], Marine and Environmental Impact Regulations. • Key regulatory agencies statutory consultees would include; SG, SNH, SEPA, A&BC	Medium	12 to 18 months	• Will extend life of existing pier	• Disruption during repair and need for temporary alternate landing point for Staffa boats	A&BC	A&BC
	I3	**Extension or re-configuration to main pier at Iona , providing a mole wall as part of southern side buttress to the pier**		• Extend pier in reinforced concrete • Hydrographical and geotechnical survey, and modelling; • Design and cost estimates already prepared and underway although it would / should be considered in any cost-benefit analysis of improved ferry operation and frequency, plus berthing benefits • Less challenging / risky marine and onshore consenting required. • Key regulatory agencies statutory consultees would include; SG, SNH, SEPA, A&BC	Medium to High	1-2 years	• Subject to design and method of coming alongside or frontally onto the pier, this could provide sheltered berth for ferry and extends protection to bay to the north where other vessels moor • Ferry could be secured fore and aft for loading and unloading if necessary and possible longer term berthing with engines off. • Alternative to measure 2	• Improvements to protection to ferry berth and bay are unlikely to be as great as measure I2	Project or Trust Board as above	HIE SG LEADER

	I4	**Ferry Passenger management Iona**	Design and Build Queue shelter	• Devise appropriate design complying with aesthetic quality of area; • Improve current electric indicator board for control from the ferry.	Low to Medium	12 to 18 months	• Provides shelter in queue for waiting passengers. Devise appropriate design to enhance aesthetic quality of area	• Reduces access to pier side housing unless suitably designed. • Limited in scale	SolHC	HIE A&BC
	I5	**Pier-side Services Upgrade**	**Provision of new and improved services at pier-side**	• Provision of pressurised water for cleaning, showers, changing facilities, improved toilets, fuelling, and other related services and facilities for leisure and other visiting craft	Low to medium	12 to 18 months	• Provides necessary standard of facilities and services for visiting leisure craft	• none	Project or Trust Board	HIE LEADER ABC

	Ref	Project	Proposed Works	Detail of Proposal	Range of Cost	Feasibility/ Timescale	Advantages	Disadvantages	Delivery Model	Funding Sources
POLICY	DP1	**Land Use policy**	Align current Land Use Plan policy with FP and Iona development aspirations	• Review and align current A&BC Area Action Plan and Ross of Mull Development Plan and Housing Opportunity Areas; • Work towards key policy support on each of the favoured development options; • Work with other key stakeholders in particular Scottish Government, HIE and Scottish Tourism to achieve congruence of policy objectives and local aspirations	Low	1-2 years	• Mobilises support for FP and Iona development in A&BC policy/Area Action Plan; • Emphasise Community nature of the plan as this is a stated priority of all such plans across A&BC • Gradual approach enables changes of emphasis to become established	• Slow process with competing areas perhaps seeking higher priority;	SolHC	HIE A&BC
	DP2	**Tourism and Economic Policy**	Align current Tourism policy with FP and Iona development aspirations; Align applications for grant funding with Scottish Govt and HIE funding criteria	• Review and align current A&BC Area Action Plan and Ross of Mull Development Plan and Housing Opportunity Areas; • Work towards key policy support on each of the favoured development options; • Work with other key stakeholders in particular Scottish Government, HIE and Scottish Tourism to achieve congruence of policy objectives and local aspirations	Low	1-2 years	• Mobilises support for FP and Iona development in A&BC policy • Emphasise Community nature of the plan as this is a stated priority of all such plans across A&BC; • Gradual approach enables changes of emphasis to become established	• Slow process with competing areas perhaps seeking higher priority;	SolHC	HIE A&BC

	Ref	Project	Proposed Works	Detail of Proposal	Range of Cost	Feasibility/ Timescale	Advantages	Disadvantages	Delivery Model	Funding Sources
LOCAL ECONOMY & BUSINESS OPPS	**EBO1**	**Visitor Accomodation**	Small speicalist (3 star) hotel (10 – 20 rooms) offering higher quality food and drink	• As a means of addressing the restricted season – visitor traffic largely constrained to the non-winter timetable period of the peak Calmac Oban to Craignure ferry route - • Specialist small scale hotels, which also provide a high quality food and drink offer on a the basis of 10-20 rooms. • Normally such hotel offers provide a more limited level of staffing, with perhaps a maximum of 8-10 staff only.	Medium	2 – 5 years	• Increase local employment opportunities by at least 10 - 15% • Extend tourism season including increases in overall visiitor numbers following the improvement of the visitor experience and encouragement to explore further into the Ross of Mull.	• Timescales extended and dependent on implementation of urban realm / landscape improvements • Singificant marketing effort requried to tackle limited season , through ticketing, etc with ferry and bus timetabling.	Private Investor	HIE
	EBO2	**Local Renewables Energy Hub**	• Energy efficient / solar panelling/biomass etc • Wave & tidal energy devices	• Improved energy efficiency through the fitting of high performance insulation in all residential and business accommodation, thereby reducing heat loss and electricity consumption, and as appropriate potential installation of solar panelling for both solar water heating and / or PV and also biomass/wood burning stoves; and • Assessment of the potential for wave and tidal energy generation through limited scale next generation wave and tidal devices; such devices are specified to be lower cost and designed for the supply of electricity to remote coastal or island communities with a power output of 10kw – 500kw, particularly where the communities are either off-grid or have restrictions on grid capacity.	Low to Medium	2 – 5 years	• Improved economic performance including job provision and cheaper / sustainable sources of local sourced power	• Constraint on Grid Capacity • No designation by the CE on Sol Marine Energy Zone • Concentrated energy generation against distributed energy provision • Technological constraints	SoiHC	• Energy Saving Trust • Resource Efficiency Scotland • Renewable Heat Initiative • Community and Renewable Energy Scheme • Other initiatives similar to the former HIE Community Renewable Energy Support Programme (CRESP)
	EBO3	**Columba Centre**	• New extended parking car andcoach parking provision in Fionnphort • Redevelopment and re-opening of the Columba Centre as a community resources	• Imporvded / extension to existing community eduction and UHI • Act as a Business Point of Presence (PoP), providing high-speed digital and internet access to the available range of business advice and information • Operate as an out-reach Business Gateway portal. • Local information role, the centre should offering showcase facility for the craft and local produce from the area, • shop retailing local goods and merchandise • Limited facilities for food and drink catering such as a small restaurant / café	Medium	2 – 5 years	• Extending visitor experience beyond Iona and into Ross of Mull • Improved showcasing of local goods and services • Removal of visitor / coach parking from the Fionnphort sea front • Improving the land scape / pedestiran accessibility • Improved community provision targetting local needs and extending the commerical / job opportunites	• Require considerable support from HS in supporting local initiatives against exisitng HS impreatives of “stone” storage and maintenacne	SolHC	HIE HS A&BC SG

LOCAL ECONOMY & BUSINESS OPPS	**EBO4**	**Leisure Boating Market**	Extending facilities and services on a reesigned pier / breakwater and harbour bay at FP	• Provision of protected berthing capacity and moorings, to accommodate the existing local leisure vessels and also to attract a greater number of visiting leisure boats to increase expenditure from this visitor market (higher cost investment option only); • Provision of washing and toilet facilities; • Improvements to the electricity supply; and • Provision of adequate lifebuoys, throw ropes, fire fighting equipment, first aid points, signs, fuel provision, water supply, and any security required.	Medium to High	2 – 5 years	• Encouraging growth in the leisure boating market. • The leisure boating market assessment (See Appendix B) presented within the master-plan report provides evidence of this activity offering the greatest market potential for the Sound of Iona economy	• FP and Iona lagging behind other visitor offers on the west coast of Scotland and beyond, gradually losing share and value	Project or Trust Board	HIE A&BC SG
	EBO5	**Micro-Brewery**	Micro-Brewery requiring small / limited scale premises conversion for vats and brew prepariton and storage.	• Starting level of output at 4-5barrels/660-825litres will employ 4-5 FTE jobs, and more were the brewery to increase production or be allied to a 'brewery tap,' pub, or shop. • A two-and-a-half barrel capacity, which produces around 760 bottles per brew, is generally viewed as the appropriate level to supply local bars, hotels, shops, restaurants and shipped further afield tp artisan alcohol shop on the mainland	Low	12 – 18 months	• A year round economic and business activity exists in the form of development of a micro-brewery • The potential economic benefit, which derives from such limited scale business enterprises, can be extensive. • Limited level of finacnce and funding necessary • Remote and rural locations no barrier to the development of a breweries. •	• Requires an investor with an interest oin brewing, entrepreneurial falir, marketing experience	Private Investor	Market growth has been encouraged by the Progressive Beer Duty Scheme, which permits breweries producing under 5,000 hectolitres per annum to pay only 50% excise duty.
	EBO6	**Nursery / Market Garden Centres**	Low start up business with Café/shop	• Supporting nursery and market garden produce grown locally (Argyll and Columba Hotels on Iona) and sold to local businesses and visitors	Low	12 – 18 months	• Encorange local busienss development support • Additional local and visitor offer • Already established uses for local hotels	• Available facilitiies are limited • Cost / resoruces and capacity limited on Iona to extend exisitng facilities • New premises required on exisitng route from ferry to Abbey needs to be found / aquired	Private Investor	HIE A&BC

Appendix B: Assessment of Leisure Boating Market

An assessment of the leisure boating market has been carried out at national, west of Scotland, and Mull and Iona level (where information has permitted). This sets the context for the identification of potential opportunities and constraints to their development.

Sailing in Scotland

Scotland's sailing tourism industry has been growing at an unprecedented rate over the last two decades. Growing demand has quickly absorbed new marina berths and extensions to existing facilities. Recent industry research[6] indicated that the sailing industry in Scotland is sufficiently strong that the recent recession and economic downturn is having little impact on the market and all indications point towards further growth.

Volume and Value

Current performance

Sailing Tourism in Scotland[7] (a Scottish Enterprise commissioned report) estimated that sailing in Scotland[8]:

Generates over £101m per year from sailing activity;

Accounts for £53m in Gross Value Added (GVA); and

Supports 2,700 jobs.

Non-Scottish

£27m is generated from non-Scottish boat owners;

Accounting for £14m in GVA; and

Supports 724 jobs.

Future potential

Planned development of the industry could:

Increase expenditure by £44m to £145m after 10 years;

Grow non-Scottish tourism by 57% from £27m to £42m; and

Increase GVA by £8.2m.

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[6] http://www.tourism-intelligence.co.uk/develop-your-business/research-summaries/sailing-tourism-in-scotland

[7] Sailing Tourism in Scotland- Scottish Enterprise and Highlands and Islands Enterprise (2010) http://www.researchonline.org.uk/sds/search/download.do;jsessionid=0BEF7EF1E3B178F4C7006078929DAA6A?ref=B15606

[8] http://www.scottish-enterprise.com/your-sector/tourism/how-we-can-help/our-top-tourism-markets/tourism-sailing.aspx

Table 1: Strengths and Weaknesses of Scotland as a Sailing Destination

Strength	Weakness
Beautiful scenery	More sailing facilities needed (berths and moorings)
Appealing sailing waters	More onshore facilities needed (restaurants, pubs, etc.)
Friendly people	Often under qualified boat owners
Abundant wildlife and wilderness	Perceived inclement weather

Customer profile

Sailing is typically an expensive activity, and hence sailing visitors are generally affluent with a high disposable income. Visitors are also typically 45 years or older. *Sailing Tourism in Scotland* reported the following age profile: 25-34 (2%), 35-44 (7%), 45-54 (26%), 55-64 (38%), and 65+ (26%). A yacht was the most popular type of boat (71%), followed by a motor cruiser (11%), motor yacht (9%), and narrow boat (1%). Most groups were made up of partners/spouse (54%), friends (54), children (18%), boating group (8%), and individuals (5%).

Infrastructure requirements

Sailing Tourism in Scotland identified berthing facilities and ancillary facilities and services as the key issues that need to be addressed to realise the full economic potential of sailing tourism in Scotland.

Berthing capacity

Resident berthing and visitor berthing and moorings are critical and essential infrastructure. Demand and supply of these facilities for residential berths is 'generally in balance' in Scotland.[9] *Sailing Tourism in Scotland* splits Scotland's key sailing areas into four geographic areas, with average occupancy for resident berths in these areas as follows: Clyde (94%), West (95%), North (97%), and East (100%).

The lack of availability for berthing for day/ longer trips is considered to be a potentially significant weakness in Scotland's waters. The report states that: "*it is not yet a major issue curtailing significant levels of demand in all locations but is of significant concern in certain locations – notably the west coast during the popular summer season and with further growth in the sector will become an issue."*

[9] Sailing Tourism in Scotland- Scottish Enterprise and Highlands and Islands Enterprise (2010)

The report also states that: "*this shortage of formal berthing is undoubtedly constraining onshore spend from boats and their crew in fragile rural economies."*

Ancillary facilities and services

Land based services, supporting infrastructure and quality were identified as issues that need to be addressed to enhance Scotland's sailing tourism product. The scale of this problem varies from region to region. The report identified Tobermory on Mull as an exemplar of good practice and wider community involvement in the delivery of facilities.

West Coast Performance

Origin

Visitors to the West Coast predominantly originate from the Clyde region, other parts of the UK, Northern Ireland, and Ireland.

Supply and Demand

Supply and demand for berthing on the west coast is generally in balance. The West Coast also accounts for a relatively high proportion of visiting berths and total boat nights spent in Scotland (see Table 2 and Table 3).

Table2: West Coast Berthing Facilities

	Pontoons	Moorings	Total	% of Scotland
Supply				
Resident Home Berths	695	2,351	3,046	28%
Visiting Berths	335	286	621	37%
Demand				
Occupied Berths	632	2,253	2,885	95%

Source: Sailing in Scotland. Scottish Enterprise & HIE (2010)

Table 3: West Coast Visiting Craft Demand

Available Berthing Stock	Current Boat Nights per Berth	Visiting Boat Nights	Anchor Boat nights	Total Boat Nights	Boat Nights as % of Scotland Total
621	65	40,496	55,474	95,970	57%

Source: Sailing in Scotland. Scottish Enterprise & HIE (2010)

Projected Demand

Sailing in Scotland also identified the West Coast as one of two areas capable of accommodating future market activity. Table 4 illustrates the level of projected demand for berths and boat nights on the west coast, which shows high demand for west coast berths. These estimates are based on growth levels that are '*commensurate with, but less ambitious than those achieved in the past'*.

Table 4: West Coast Visiting Craft Demand

To 2014				To 2019			
Resident Berths Occupied	% Increase on Current	Visiting Boat Nights	% Increase on Current	Resident Berths Occupied	% Increase on Current	Visiting Boat Nights	% Increase on Current
3,303	8%	107,407	12%	3,370	20%	137,083	43%

Value of Sailing

The West Coast area accounts for over a quarter (28%) or residential berths but over half (59%) of all visitor berths and it is also the only area in Scotland to derive more revenue from visitors than residents.

Table 5: Value of Sailing Tourism in Scotland (£million)

	ResidentsBerths	VisitorBerths	Total
Clyde	£34.0	£10.1	£44.1
West	£18.1	£21.1	£39.2
North	£6.6	£3.5	£10.1
East	£6.6	£1.3	£7.9
Total	**£65.4**	**£36.0**	**£101.3**
West as % of total	**28%**	**59%**	**39%**

These features highlight the importance of the visitor market to the West Coast and highlight the opportunities for further development (see Table 5).

The report also identifies the West Coast as one of two areas capable of accommodating future market activity.[10]

Sailing routes

Sailing Route Definitions

Figures 1.1 and 1.2 show Royal Yachting Association (RYA) sailing routes around Scotland, and the West Coast. The latter includes routes around the Sound of Mull and the Sound of Iona in terms of heavy, medium and light route classifications; and these are defined are follows:

- Heavy – very popular routes on which a minimum of six or more recreational vessels will be seen at all times during summer daylight hours.[11]
- Medium – popular route on which some recreational craft will be seen at most times during summer daylight hours
- Light – routes known to be in common use, but which do not qualify for medium or heavy classification.[12]

Scotland

Figure 1.1 shows the number and frequency of sailing routes along the West Coast relative to other areas of Scotland. The West Coast and Clyde area are the only areas with heavy sailing routes. This demonstrates the relative importance of sailing on the West of Scotland and emphasises the scale of opportunity available.

Iona and West Coast

There are no heavy sailing routes in the immediate study area. A medium sailing route passes through the Sound of Iona. Light sailing routes are evident between Iona and Coll/Tiree and Iona and Colonsay. Heavy sailing routes are visible alongside the West Coast mainland and through the Sound of Mull.

The Sound of Mull

The Sound of Mull (SOM) is a popular and well used passage route for sailing and cruising. It is also a race location used by the Western Isles Yacht Club, for the Round Mull yacht race, which is a well-attended three day event held in late June or early July. The race is considered to be one of

[10] West Coast and Clyde area identified as main focus for development. Modest levels of development needed in the North and minor development required in the East where the boating market is focused on local boating activity by Scottish residents.
[11] These also include entrances to harbour, anchorages and places of refuge
[12] It should be noted that many lightly-used routes are the only routes available and therefore have a considerable local importance.

the highlights of the West Coast yachting calendar and attracts around 40 boats split into four different handicap categories. Leg 1 is from Oban to Tobermory (24 nautical miles (nm)), Leg 2 is Tobermory to Bunessan (28 nm), and Leg 3 is Bunessan to Oban (41 nm).

Sailing activity on the SOM is increasing.[13] The sailing season is also extending as more people visit the area outside the main tourist season. Table 6 shows the range of SOM sailing facilities, and also shows that Tobermory has the largest number of moorings and associated facilities in the area.

Table 6: Sound of Mull Sailing Facilities

Location	Moorings	Anchorage	Other
Tobermory	69 associated moorings 30 visitor moorings	Yes	Public access slip way Public slipway at beach Pontoon berthing with access to fuel, water and electricity Toilet, showers and washing machine Western Isles Yacht Club base
Craignure	12 associated moorings	Yes	Public access stone pier 3 public access slipways
Salen	15 associated moorings	Yes	
Fishnish Bay	-	Yes	
Lochaline	35 associated moorings 2 private moorings	Yes	
Scallastle Bay	-	Yes	
Drimnin	-		Push ashore pontoon SOM Transport Group Public access slipway
Kilchoan	4 associated moorings		

- Source: Sound of Mull - Scottish Sustainable Marine Environment Initiative (SSMEI)

Tobermory

Tobermory has benefited from improvements in sailing technology and enhanced communication. Improvements in perceived safety arising from constant communication, better weather forecasts and bigger boats has led to increased demand to explore more distant or remote locations. This

[13] Sound of Mull - Scottish Sustainable Marine Environment Initiative (SSMEI)

has transformed Tobermory from an 'end of the line' destination into a hub from which to embark on journeys further afield.

Tobermory has over 9,000 boat night visitors per annum and is now considered to be one of the last ports of refuge for boats awaiting a weather window to venture west to: Iona, Coll, Tiree, Staffa, or North West to Skye or the Western Isles.

Planned Development

The following facilities are planned:

A new breakwater with attached pontoon attenuator to protect the existing Tobermory pontoons; and

An onshore boat servicing area.

The Tobermory Strategic Plan 2013 gives valuable insight into benefit that could accrue to the harbour area; Isle of Mull and West Coast sailing region from investment improved facilities.

Benefits and Opportunities

Tobermory Harbour

- Protection from adverse weather conditions;
- Safer and more protected harbour will extend visitor period (earlier and later in season);
- Increased facilities for local and visiting boats;
- Enhanced landing facilities for bigger boats with more passengers;
- Separation of commercial and fishing boats from leisure; and
- Protection from excessive wave motion in winter months for local and visitor boats.

Mull

Encouraging additional visitors, especially in winter months;

- Improved fishing and commercial operations with spin offs for local businesses;
- Improved landing facilities;
- Opportunity for tours and local businesses; and
- Job creation through additional retail and leisure spending from increased passengers

West Coast Sailing Region

Improved facilities would enhance commercial links between adjacent islands and mainland; and

Sheltered marine leisure hub will also encourage visitors to stay longer while awaiting clear weather

The Sound of Iona - Iona and Fionnphort

Berthing Locations

Leisure boating infrastructure, facilities and services are relatively limited in and around the Sound of Iona, with only Iona (providing limited services and facilities) and Bull Hole identified as anchorages in cruising literature, charts and maps. The RYA cruising charts show Iona as a medium cruising route anchorage and mooring point, and also the protected bays and inlets of Bàgh a' Chnoic Mhaoileanaith (to the south east of Erraid) and Rubha nam Bràithrean (to the south east of Scoor), neither of which offer any services and facilities for visiting vessels. To the north east Loch na Làthaich / Bunessan Bay is shown as an anchorage for light cruising routes (see Figure 1.3), where the services and facilities at Bunessan are available.

The Island of Iona

Iona Pier acts as the main focus for leisure boating in the Sound, due to the historic and natural attractions of the island, for both local and visiting traffic, with moorings largely to the north of the pier in St Ronan's Bay, although some boats do moor in the bay to the south of the pier. Overall, this area accommodates approximately 10-20no small local boats of <15feet and 3-4 larger local boats, the latter providing commercial trips for visitors to Staffa and other surrounding islands. The main pier acts as the landfall point and slipway for the Fionnphort – Iona Calmac ferry with a secondary smaller and parallel section of pier to the northern side of the main pier used for leisure craft purposes.

Official data on numbers of visiting leisure boats are not available, but information derived from local consultations indicate that on average during the summer peak season 3-4-5no yachts per day visit the island with up to approximately 15-16no yachts visiting on a very popular day.

Due to a lack of protected moorings most visiting yachts only stay for a limited time moored in the Bay or close to the pier at the island and generally do not stay overnight. Local insight suggests that such visiting vessels overnight for only a handful of days during the summer season. However, a number of these vessels do overnight at the protected mooring at Bull Hole at the other side of the Sound north of Fionnphort with 10-12no visiting vessels often moored there during the peak of the summer season in July and August. In recent times leisure boating sailors have become accustomed to mooring at berths and pontoons rather than sitting at anchor. Hence the preference and prevailing practice is to seek either berthing or pontoon facilities, or else a protected mooring point to reduce the risk should poor weather develop.

The Iona pier during the summer season often becomes congested with competition between the Staffa boats operating their regular trips from Iona, intermittent cruise ship tenders transferring cruise tourists to and from the island, and other visiting yachts making use of the pier to call at the

island. More extensive mooring arrangements would be likely to overcome these congestion problems.

Facilities and services are limited for visiting leisure traffic with toilets near the pier but no provision for showers, changing, washing, pressurised water supply, or power in immediate proximity of the pier. However, food and drink and other provisions can be obtained from shops and other outlets in the village of Baile More clustered around the wider pier area. Local information indicates that the economic benefit derived from such visiting craft largely accrues to the food and drink outlets, restaurants, cafes, etc, local village shops and the Abbey and Abbey visitor shop.

Fionnphort on Ross of Mull

The bay and harbour at Fionnphort is protected from the weather from the south to some extent by the main pier used by the Calmac ferry and provides facilities for approximately 5no local crab/fishing vessels and 5-6no local smaller leisure boats at a number of moorings. These moorings however are open to the prevailing swell and weather conditions and are not protected from bad or severe weather. Hence these are used during the good weather of the summer season, but little used during the winter and poor weather conditions.

In bad weather, Bull Hole to the north of Fionnphort is used as a protected mooring or anchorage and is also popular for mooring and stop-overs by vessels visiting the area. This popularity can present problem for visiting vessels as Bull Hole can become congested it being occupied by fishing boats on 'spreader chains' over the winter so restricting potential space for moorings for other vessels.

Fionnphort is not generally seen as an anchorage or identified in cruising charts or literature by cruising or visiting leisure boats so such visiting vessels generally visit or berth at Iona and pass-by Fionnphort. Neither are there any notable attractions for visitors, in and around the village to attract visiting vessels. Local knowledge derived from consultations indicates that perhaps as few as only 5-6no visiting yachts per month call in the bay over the summer season, contrasting with the attractions of Iona on the other side of the Sound. These visiting yachts do bring some limited economic benefits from expenditure in the local shop and food and drink outlets albeit at a very modest level.

Were there to be an increase in numbers of visiting leisure vessels, the pier is already often subject to congestion with competition for slipway space between the local fishing boats, the Staffa and island tour boats, and local small leisure and other working craft.

Similar to Iona, facilities and services at Fionnphort are also limited for visiting leisure traffic with toilets near the pier but no modern provision for showers, changing, washing, pressurised water supply, or power in immediate proximity of the pier. However, fuel supply is available as required,

as are food and drink and other provisions, which can be obtained from the shop and other outlets in the village at some small distance from the pier area.

Potential Economic Value of Leisure Boating in the Sound of Iona

While data on visiting yachts to the area are limited, based upon local knowledge on numbers of visiting yachts observed and their pattern of stay, it might be reasonable to assume that this market from several hundred visits per annum is potentially worth between approximately £100,000 - £130,000 per annum to local businesses, which would support between 6.0 and 8.0 full time equivalent jobs on Iona. This estimate is based upon the assumptions set out in table 7. However, this top of the range number of boat visits is only some 11% of the annual number of visits to Tobermory Harbour, illustrating the potential 'headroom' which could exist in the Sound of Iona, through infrastructural improvements.

In practice, the economic benefit is likely to be well below the bottom of this range, as the average spend of £130 per boat is based upon an overnight stay. As the vast majority of visiting boats do not stay at Iona overnight the true level of expenditure is likely to be significantly less.

Table 7: Estimation of Potential Value of Visiting Leisure Boating

Value	Shoulder Season Average	High Season Average	High Season Peak	High Season Average	High Season Peak
Season days	**70**	**120**	**9**	**120**	**18**
Yacht visits per day	**2**	**4**	**15**	**5**	**15**
Number of visits	**140**	**480**	**125**	**600**	**270**
Total number visits			**745**		**1,010**
Average spend per stay			£130		£130
Total expenditure			£96,850		£131,300
Average tourism pay per annum[14]			£16,460		£16,460
Number FTE jobs supported			6.0		8.0

What this estimation demonstrates however, is the potential value that would accrue from maximising the expenditure from these visiting boats, were the numbers of visits to be at the upper end of the range as a result of the appropriate infrastructure and facilities being provided. The number of jobs able to be supported by this market is potentially able to easily double from the likely current figure of 3-4 jobs to the estimated 6-8 jobs. Were high quality facilities including breakwaters and onshore facilities and services available at both Iona and Fionnphort, the total employment supported by leisure boating expenditure might be in the order of an additional 12-16 jobs, yet still only reaching some 20-22% of the number of visits to Tobermory Harbour.

Key Infrastructure, Facilities and Services for Market Growth

All available leisure boating and sailing market research and assessment identifies the development of leisure marine infrastructure, facilities and onshore services as key elements in expanding opportunities in the market and encouraging the growth in visiting yachts, particularly where the current level, capability and capacity of the infrastructure, facilities and services is limited. The following is required on the West Coast generally and particularly for the purposes of this assessment in the Sound of Iona, for greater economic benefit to accrue to the area:

[14] Average gross pay for leisure employee UK (£17,300), Scottish average as % of UK (98.6%), Argyll & Bute average as & of Scottish (96.5%), resulting in £16,460. - http://www.ons.gov.uk/ons/dcp171778_286243.pdf and http://www.argyll-bute.gov.uk/council-and-government/about-argyll-and-bute-local-context

Infrastructure:

- Increased number of protected anchorages, moorings and berths; and
- Increased availability of pontoons;

Facilities :

- Fuel supply and pressurised water supply;
- Showers and toilets; and
- Waste disposal;
- Services:
- Supplies and provisions;
- Transport;
- Information;
- Serviced laundry;
- Chandlery, equipment and repairs; and
- Maintenance slipway.

Comparator infrastructure

Locations in the wider surrounding area have benefited from investment in sailing and marine leisure facilities and infrastructure in attracting additional sailing visitors.

Versatile Berthing and Landing Pontoons

A new berthing and new landing pontoon has been developed at Barcaldine Marine at Loch Creran in Argyll, north of Oban. The 116m long pontoon with a 20m hammerhead significantly enhances the services available to visiting and resident yachts in the area by providing moorings, storage and service facilities for yachts. Up to six yachts can be accommodated at any one time.

Access to shore at all states of tide is significantly enhanced providing business opportunities form extra footfall. The moorings are particularly attractive to hotel operators seeking to attract leisure craft; mooring associations and yacht clubs, community associations, country estates, angling and leisure boat operators and fish farming operations.

Storage facilities

Considerable investment (£300,000) has been made in storage and pontoons at Acarsaid on the Isle of Lewis. Improved storage facilities for fishermen are designed to improve the efficiency at the previously congested port, with additional pontoons aiming to attract visitors and expenditure to the area.

Comprehensive Infrastructural Investment

Such infrastructural improvement is broadly similar to that sought by the authorities at Lindisfarne/Holy Island, identified in the Case Study. Detailed assessment of the leisure boating market at Holy Island has indicated that the economy would benefit extensively from the provision of improved infrastructure, services and facilities. The range of improvements proposed includes the:

- Extension of berthing capacity by an additional 12-20 moorings, to accommodate the existing several operational fishing vessels and also to attract a greater number of visiting leisure boats to increase expenditure from this visitor market;
- Heightening, lengthening and widening of the pier to provide greater weather protection, and which would also allow fishing boats, commercial leisure boats and cruise tenders to come alongside;
- Provision of washing and toilet facilities;
- Improvements to the electricity supply; and
- Provision of adequate lifebuoys, throw ropes, fire fighting equipment, first aid points, signs, fuel provision, water supply, and any security required.

Summary and Conclusion

The conclusion to be drawn from this brief high level market assessment are that the lack of appropriate infrastructure, facilities and services available to visiting leisure craft at both Iona and Fionnphort restricts the potential market to current levels for leisure boating and the commensurate economic benefit, which potentially can derive from this higher than average spending type of visitor. Despite the potential growth market in the wider West Coast area, without investment in these aspects economic benefit will accrue directly to other locations, where such investment has been made. In addition, the growth in the market is generally in lengthening of the season, with more boating visitors in the 'shoulder months' of the late Spring and Autumn. It is precisely these periods, which any increase in tourism and visitor numbers would most benefit Iona and Fionnphort.

Of key importance is the lack of weather protection and protected berths or moorings, without which the market for increased leisure boating visits will continue to be constrained.

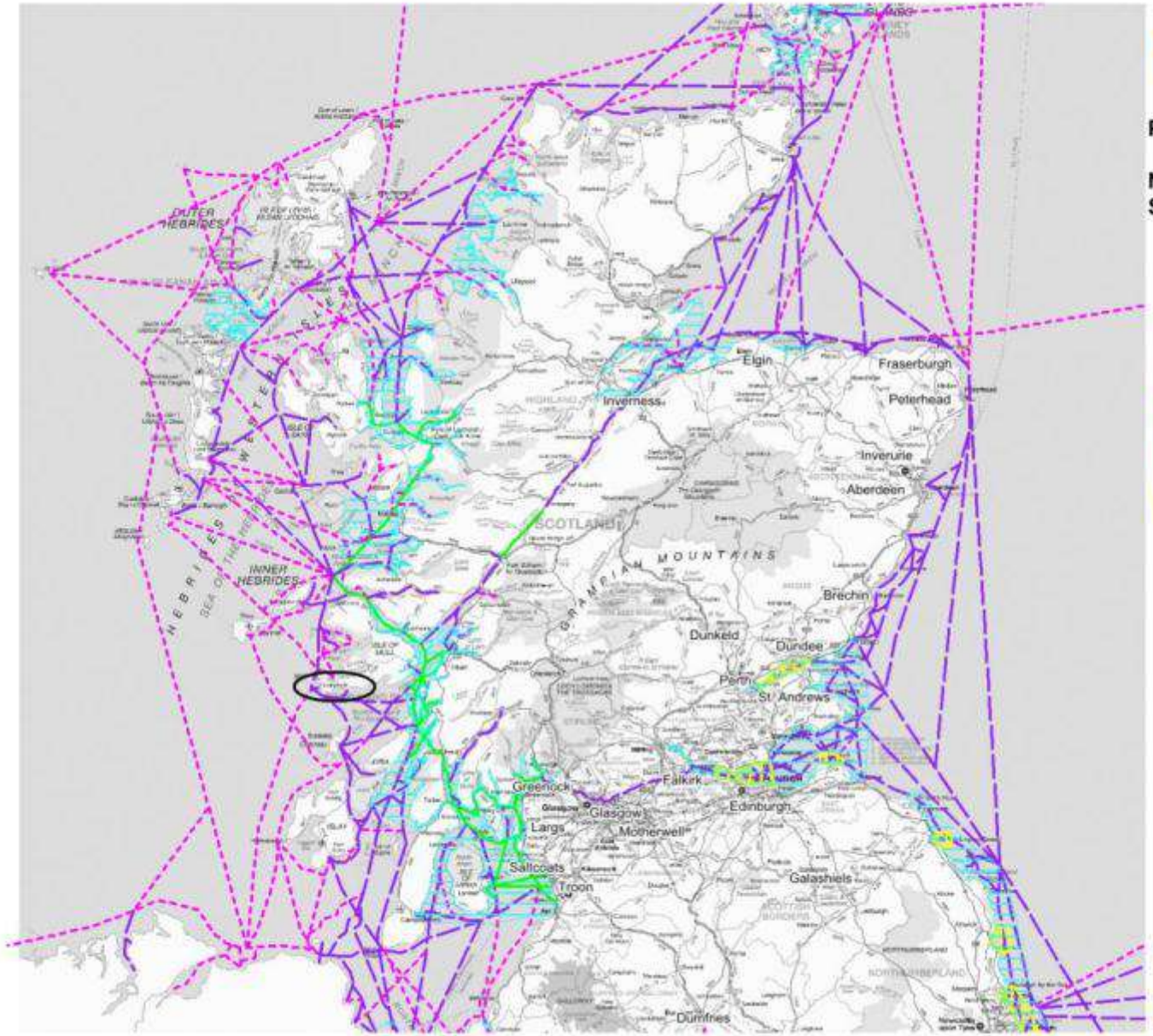
To encourage growth in the leisure boating market two options present themselves:

Market consolidation and improvement (lower investment) option – provision of improved onshore facilities and services providing the level of modern facilities expected by visiting yachtsmen and visitors, including the range of utilities and services as described in paragraph 1.36 above; and

Market Development and Expansion (higher investment) option – provision of breakwater(s) at either/both Iona and Fionnphort to provide all-weather protection and facility for overnight stops; including provision of pontoons, and utilities and services as in the lower investment option.

While, locations in the wider surrounding area have benefited from investment in sailing and marine leisure facilities and infrastructure in attracting additional sailing visitor expenditure, the lack of a range of modern good quality facilities and services and key infrastructure to provide protected overnight berthing continues to restrict potential economic benefit from this growth market in the Sound of Iona.

Should appropriate infrastructure, facilities and services be available at Iona the numbers of jobs supported by the sector would likely double from the current 3-4 jobs to 6-8 jobs. Were infrastructural investment in breakwaters and other facilities and services to be provided at both Iona and Fionnphort, the growth in numbers of visits and expenditure is very likely to support approximately a further 12 to16 full time equivalent jobs.



peterbrett | roger tym

Piers Masterplan

National Sailing Routes

Study Area

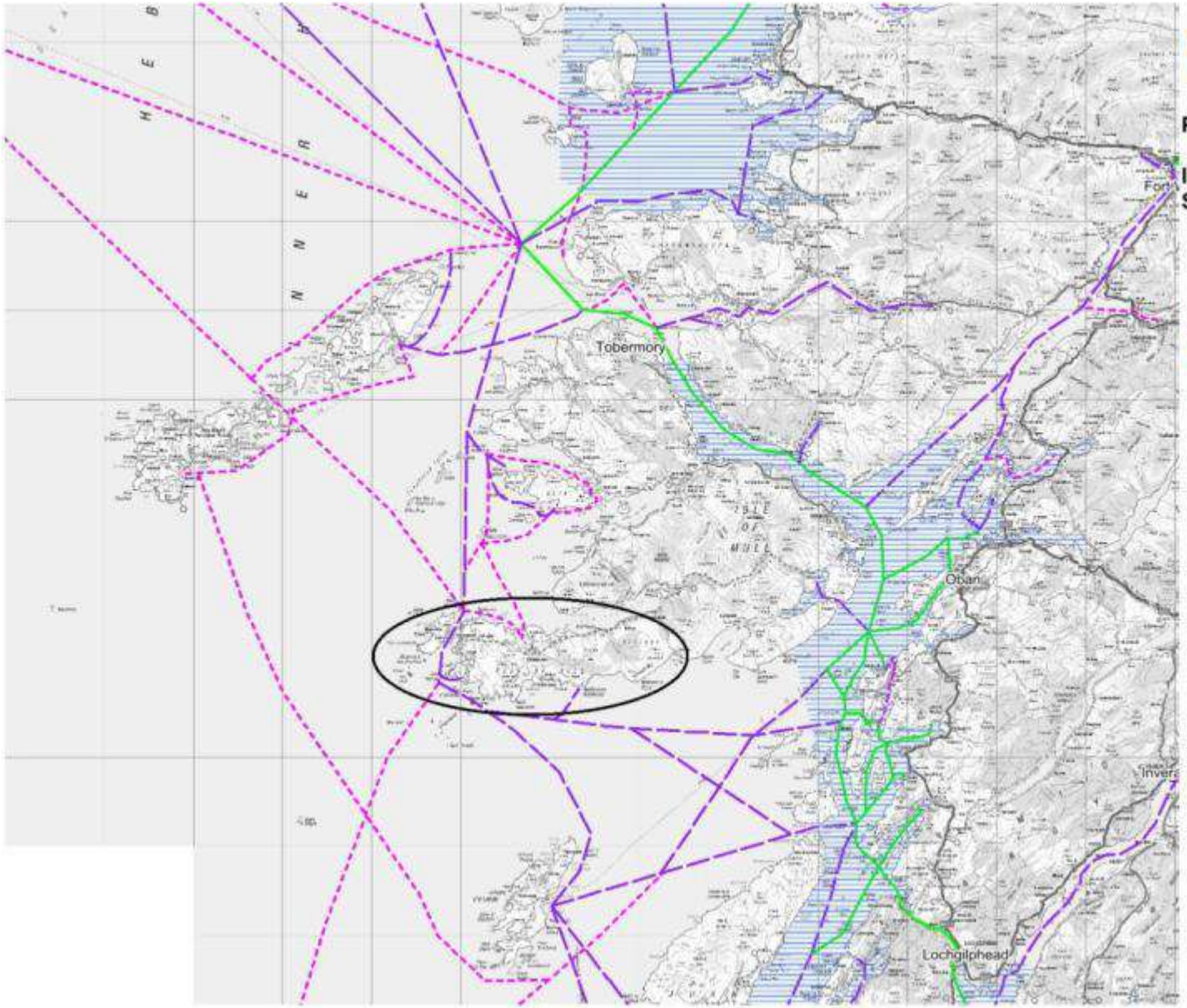
RYA Cruising Routes
- Heavy
- Medium
- Light

RYA Sailing Areas

RYA Racing Area

0 45 90

Kilometers


Tobermory
Oban
Lochgilphead
Piers Masterplan
Intermediate Area Sailing Routes
Study Area
RYA Cruising Routes
Heavy
Medium
Light
RYA Sailing Areas
0
11
22
Kilometers
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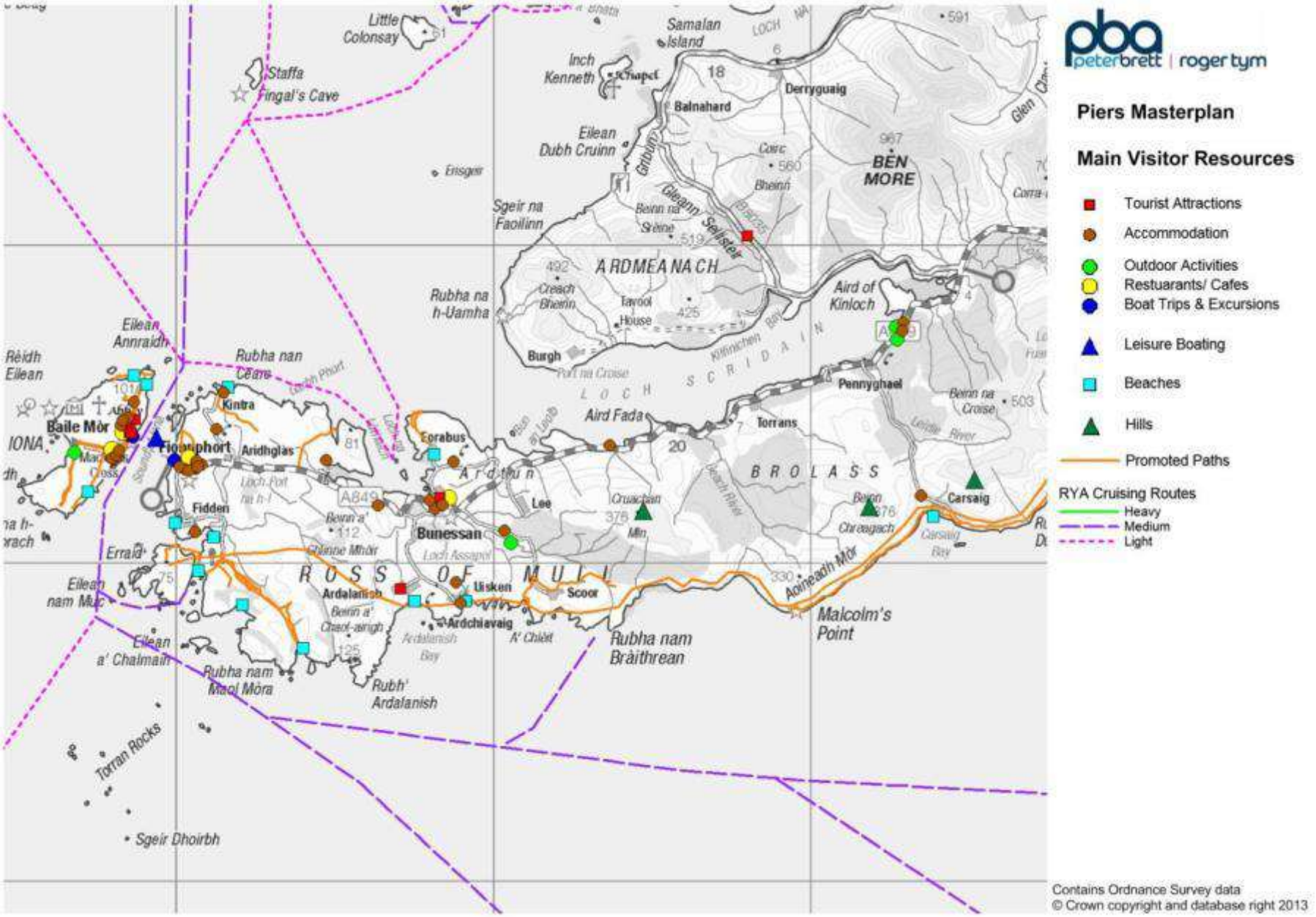
Piers Masterplan
Main Visitor Resources
Tourist Attractions
Accommodation
Outdoor Activities
Restuarants/ Cafes
Boat Trips & Excursions
Leisure Boating
Beaches
Hills
Promoted Paths
RYA Cruising Routes
Heavy
Medium
Light
Contains Ordnance Survey data
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Little Colonsay
Staffa
Fingal's Cave
Samalan Island
Inch Kenneth
Chapel
Balnahard
Derryguaig
Eilean Dubh Cruinn
BEN MORE
Sgeir na Faoilinn
ARDMEANACH
Rubha na h-Uamha
Aird of Kinloch
Eilean Annraidh
Rèidh Eilean
Rubha nan Cearc
Kintra
Baile Mòr
IONA
Fionnphort
Aridhglas
Fidden
Erraid
Eilean nam Muc
Eilean a' Chaimain
Rubha nam Maol Mòra
Torran Rocks
Sgeir Dhoirbh
Rubh' Ardalanish
Ardalanish
Ardalanish Bay
Eorabus
Bunessan
Lee
Loch Assapol
ROSS OF MULL
Lisken
Ardchiavaig
A' Chàlet
Scoor
Rubha nam Bràithrean
Malcolm's Point
Aird Fada
Torrans
Pennyghael
BROLASS
Carsaig
Carsaig Bay
Aoineadh Mòr
Burgh
Port na Croise
Tavool House
Creach Bheirin
Glenn Seilistear
Bheinn na Sgeine
Bheinn na Croise
Derryguaig
Balnahard

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Appendix C: Comparators Experiences

Holy Island of Lindisfarne Visitor Profile and Management

Background

Lindisfarne is located some 1.6km off the Northumberland coast at the village of Beal and connected to the mainland by a tarmac causeway, which is impassable due to the tides for about 5hr per day.

The island itself - in many ways similar to Iona - has been famous as a place of pilgrimage and retreat for over 1,300 years since the Priory was founded by St Cuthbert in the 7th century AD, with subsequent development of the monastery, Parish Church of St Marys in the 12th century, and the first castle built in the 16th century. The castle having fallen into disrepair was restored in the early 20th century, and the first section of tarmac causeway connecting the island to the Northumbrian mainland was built in 1954 with final completion in 1966. A further **similarity between Lindisfarne and Iona is the size of the resident population with** Lindisfarne having a resident population of 160, not dissimilar in scale to that of Iona with some 180.

Visitor Profile and Characteristics

Currently Holy Island is one of the most visited places in England and with approximately 650,000 visitors per year is by some measure the most visited location in the North East of England, significantly ahead of the 2nd placed Alnwick Gardens, which attracts some 500,000 visitors per year.

In turn individual attractions on the island record substantial numbers of visitors, making these themselves amongst the top 10 most visited attractions in North East England including the St Aiden's Lindisfarne Mead Winery, which was visited by 225,000 visitors making it the 7th most visited free attraction, and Lindisfarne Castle attracting 103,000 visitors making it the 7th most visited paid attraction in the North East.

Both Lindisfarne and Iona / Fionnphort experience a 'tidal surge' effect of visitor arrivals and departures, with Iona dependent upon the frequent Calmac ferry, but visitors also constrained for time by the scheduling of ferries from Craignure to Oban and the mainland; while Lindisfarne experiences a similar peak and trough depending upon the tides and the ability of visitors to arrive and depart across the tidal causeway.

Both locations also have a constrained scale of infrastructure and visitor facilities to deal with large numbers of visitor arrivals with Lindisfarne having only 40 letting bedrooms for visitors, being less than those available on Iona, which has 43 letting hotel bedrooms alone, not including B&Bs, hostel accommodation, and those facilities provided by the Iona Community. In addition, there is no hotel accommodation available in Fionnphort, although numerous B&Bs, self-catering facilities, and a camp site are available for overnight staying visitors.

Constrained Infrastructure Capacity and Visitor Management

One major difference between the islands is the ability to drive across the causeway to Lindisfarne, while vehicle access is restricted to permitted vehicles via the ferry to Iona. Hence the problems of vehicle management and car parking capacity experienced on Lindisfarne largely addressed at the Chare Ends car park is equivalent to the car and bus parking issues experienced in and around the pier and its hinterland of Fionnphort. On Lindisfarne bus parking is provided closer to the village centre and the castle at Green Lane.


Chare Ends main car park


Coach parking at Green Lane

On Lindisfarne, the majority of vehicles other than those belonging to residents are directed into the large Chare Ends car park at the entry to the village. From there the alternatives are either to walk to the centre or catch the transfer mini-bus. While regarded by the authorities as not being ideal either for sign-posting or operation, in general the management of visitor arrivals appears to work reasonably well. The car park charges a nominal pay and display charge (£2.40 for 3 hours and

£4.40 for all day)15, which is similar to the £0.80 per hour charged at the pier car park at Fionnphort16, although not on an all-day basis. There are also extensive warning signs cautioning visitors on being marooned on the island following the incoming tide, and also the dangers of being caught on the causeway mid-tide.

There are current plans to address the issues of car parking and visitor management and develop the visitor car parking, and entry to the village through a series of physical measures, which are set out in detail in the recent report for the Holy Island Partnership 'Holy Island of Lindisfarne - Village Life and Visitor Access: Maintaining a Balance'.17

[15] http://www.northumberland.gov.uk/default.aspx?page=1520

[16] http://www.argyll-bute.gov.uk/sites/default/files/car-parks/car%20parks.pdf

[17] http://www.peregrinilindisfarne.org/wp-content/uploads/2012/11/BHB-Village-Traffic-and-Parking-Report-Final.pdf

The distance to walk from the main car park to the main focus of the centre of the village, where the Lindisfarne Priory, Museum and Exhibition, Lindisfarne Heritage Centre,18 and the St Aiden's Lindisfarne Mead Winery19 each of which offers interpretation facilities, retail outlets and craft shops, and other food and drink outlets and shops are located is approximately 0.5km, with a further walk to reach the castle of approximately 1.2km. A castle shuttle bus service operates to transport those less mobile. All along the approach road (Green Lane) into the village are occasional opportunities to purchase local produce from stalls, cafes, and the post office on arrival in the centre.

Despite the constrained supply of visitor accommodation, opportunities for day-visitor spending are relatively extensive particularly at the Lindisfarne Heritage Centre, the Priory Museum and Exhibition, and St Aiden's Winery, as well as a limited number of other small scale retail outlets, retailing high quality gifts, crafts, food and drink, and souvenirs. With the main Chare Ends car park and bus-park at Green Lane at the northern edge of the village, and the priory and harbour to the south along with the Castle and new visitor centre to the south east, visitors have numerous opportunities to spend money in a variety of locations. Essentially the majority of visitors are directed past or through the points where retail services are present in and around the village.

[18] http://www.lindisfarne-centre.com/shop.html
[19] http://www.lindisfarne-mead.co.uk//Shops.aspx

The Holy Island Partnership, which is made up of the community and other organisations operating on the island recognises that tourism brings a significant economic and cultural benefit to the Island, which has developed an international reputation as a destination of historic, cultural and environmental importance. The Partnership is made up of the Holy Island Community Development Trust, a charitable company which manages the Lindisfarne Centre, inner harbour as well as a number of properties providing affordable housing for local people; the Holy Island Parish Council; Natural England, which manages Lindisfarne National Nature Reserve; English Heritage, which manages the Priory and museum; the National Trust, which owns and manages the Castle; Northumberland Coast Area of Outstanding Natural Beauty Partnership who guide the conservation and enhancement of 39 miles of coastline between Berwick and Amble, including Holy Island; and Northumberland County Council.

A priority for the Partnership is to create a visitor management strategy, which will develop long term solutions across the following areas:

- Visitor services and experience;
- Visitor flow and access;
- Car parking and toilets; and
- Whole island interpretation.

Each of these strategy areas has a resonance for the visitor management and development challenges faced by the tourism and related economy of the Sound of Iona.

Markets for Visitor Expenditure

Leisure Boating and Marine Activities

In addition, there are other parallels between Lindisfarne and Iona / Fionnphort for in both locations each has potential for exploiting the leisure boating market and improving facilities for the existing fishing industry and related activities, and improving their compatibility at pier-side.

Currently Lindisfarne offers a limited number of moorings in the harbour (the 'Ouze') for both operational fishing boats and leisure craft, whether the latter are based on the island or are visitors. There are estimated to be approximately 30 small leisure boats kept at the harbour, 60% of which are believed to be owned by people not permanently resident on the island. However, there are plans to extend this capacity and capability20 by an additional 12-20 moorings, to accommodate the existing several operational fishing vessels and also to attract a greater number of visiting leisure boats to increase expenditure from this visitor market, through a phased Harbour Development Business Plan extending to a capital cost of £0.75million. The scope of works envisaged through this plan provides for heightening, lengthening and widening of the pier to provide greater weather protection, and which would also allow fishing boats, commercial leisure boats and cruise tenders to come alongside, provision of washing and toilet facilities, improvements to the electricity supply, and provision of adequate lifebuoys, throw ropes, fire fighting equipment, first aid points, signs, fuel provision, water supply, and any security required.

[20] http://www.peregrinilindisfarne.org/wp-content/uploads/2012/11/Holy-Island-Harbour-Business-Plan-FINAL.pdf

The key leisure boating markets targeted through the Plan would include the following:-

- Commercial sightseeing boat trips from nearby harbours;
- Small diving groups and clubs;
- Sea Kayaks and canoe clubs;
- Outdoor activity operators;
- Visiting Yachts;
- Cruise companies operating smaller ships with a maximum of 100 passengers on board; and
- Commercial film crews.

There is potentially much that can be drawn from the Holy Island's experience and future plans, which is potentially of benefit to the future development of Iona and Fionnphort's leisure boating and fishing facilities and operational capabilities.

Merchandising and Retailing of 'Local' Products

In terms of merchandise and products available for purchase, a number of the items available labelled as being in some way from Lindisfarne are made elsewhere in the North East. This includes a variety of drinks including Lindisfarne Castle Ale (brewed in Whitley Bay), Farne Island Ale (brewed in Tweedmouth), and Insular Art of Lindisfarne Gospels Ale (brewed in Coxhoe, County Durham) amongst others, although the famous Lindisfarne Mead and other fruit wines are made locally.

This illustrates the selling power of the Holy Island or Lindisfarne 'brand' with goods made elsewhere on the mainland (due to the limited production capacity on the island) able to be marketed and sold as being from Holy Island itself.

Such an approach might well offer opportunities to businesses in both Iona and Fionnphort to produce locally made items or have them produced elsewhere, and have them labelled as being produced in the area. This enables retail sales out of peak season, when visitor numbers decline but on-line sales and exporting of locally made or branded goods are a means of maintaining cash-flow for indigenous local businesses during the off-peak visitor season.

Conclusions on Comparative Assessment

There are broad similarities between Lindisfarne and Iona/Fionnphort in terms of the tidal surge' effect of visitor arrivals and departures experience in both locations, and each having a constrained infrastructure and supply of facilities to deal with these visitor flows.

Clearly, with 650,000 visitors per annum Holy Island has a much greater market draw than the perhaps 80,000-100,000 visitors attracted to Iona. In addition, the season is much more prolonged for Lindisfarne being almost all-year, whereas Iona/Fionnphort experiences a peak season of some four months – June to September – and hence Holy Island has a more evenly spread and much more extensive visitor market to sustain individual businesses year round. Such a scale of visitor market on the ground provides a critical mass for businesses on Holy Island, which is lacking in Iona/Fionnphort.

Nevertheless, much can be drawn from the Lindisfarne example and experience for the Iona / Fionnphort assessment in identifying the key challenges of visitor management particularly of high throughput in a short space of time and options for how these can be addressed. In addition, the nature of customer markets are not dissimilar between the islands with retail sales, enhancing visitor expenditure opportunities, providing the broadest possible but sustainable range of expenditure opportunities, merchandising and products, and the leisure boating market all being of relevance in each location.

St David's Cathedral and Visitors Centre

St David's is Britain's smallest city (pop 1,500) situated on the south west coast of Wales, in the centre of the northern of two peninsulas comprising the main coastal features of Pembrokeshire. The Cathedral lies to the west of the urban area hidden in a valley and sheltered from the sea about a mile away to the south, west and north.

Pembrokeshire and St David's share many characteristics with Scotland's western Isles, a strong sense of local pride and separateness from metropolitan influences (Cardiff as well as London) as well as independence of spirit beyond merely political or linguistic expression. St David's is usually 6 hours by road from London and about 3 from Cardiff.

The population of the city and county (120,000) are slowly growing thanks to incomers and a slowly reviving farming economy, but the prevailing local economic mood remains depressed 5 years after the onset of its worst recession in living memory. The fishing industry used to be strong out of Milford Haven but is much reduced, replaced with oil refining from the 1960's and '70's, partly replaced with LNG processing and storage during the last decade. There are two ferry services to southern Ireland, from Pembroke to Rosslare with Irish Ferries; and Fishguard to Rosslare with Stena. The county town of Haverfordwest is the largest locally at 15,000, some 17 miles (and hills) south east of St David's.

The coasts of Pembrokeshire were designated as Britain's only coastal National Park in 1952 and the Park is the physical and management focus of a thriving tourist industry, the largest direct or indirect income generator in the county for several decades.

St David's Cathedral

St David is patron saint of Wales and lived in a monastic community on the site of the cathedral in the 6th century. He died in 589. Viking and Flemish settlement added to the Welsh and, post Norman Conquest, English and French influences, all still evidenced today through place names, castles and fortified houses across the county. The Nordic termed Landsker line still sharply separates Welsh and 'English' place names and settlement patterns from west to east across the middle of the county.

The cathedral has been a focus of pilgrimage since it was founded in 1181, and now receives over 270,000 visitors each year. The pattern of visits is highly seasonal, normally in excess of 50,000 per peak summer month and less than 5,000 in most Januarys. This is a consistent pattern observed from over 10 years of detailed data collated by the cathedral administrator (Moyra Skenfield), though it is not published.

The original 12th century structure was added to progressively through the 14th century before becoming a victim of monastic clearances in 1538 under the first Tudor king Henry VIIth, then subsequently anti-clerical theft of building materials under Cromwell during the 17th century civil war.

Recent refurbishment of the cathedral's most precious shrine includes a triptych to the 3 principal Celtic saints, David, Andrew and Patrick.

Oriel y Parc Visitor Centre

The Pembrokeshire Coast National Park Authority in conjunction with Amgueddfa - National Museum of Wales obtained Objective one funding , to extend the visitor centre in 2008 on the eastern entrance to the city, together with parking for over 200 vehicles 135,000 visitors pass through the centre annually, the great majority of them accessing the cathedral on foot along the city's High Street. There is restricted visitor parking elsewhere in the city's centre and at the OK supermarket, but only limited parking including disabled access around the cathedral itself at Quickwell Hill.

Oriel y Parc visitors centre has won many awards for both design and build quality but principally the sheer diversity of its offer. Apart from the usual gift shop and a locally sourced home food café, it provides a discovery centre for both children and adults, a museum of local artefacts; in and outdoor lectures on sheep farming, local archaeology etc. The Amgueddfa Cymru – National Museum Wlaes is a major feature of the building which was builty to house changing exhibitions for the national collection which include Graham Sutherland works bequeathed to Pembrokeshire The centre accommodates an artist in residence programme. There are theatre, concerts, poetry readings and social events throughout the year, both in and outdoor in the sheltered inner courtyard, aimed at Pembrokeshire residents as much as longer distance visitors.

The centre manager (Paula Ellis) was recruited from the private sector tourist sector and she has herself recruited reception and catering staff with the same 'can do' attitude as her own. Over the last 10 years, Oriel y Parc has become a beating heart of the community, city and county wide.

Its location is crucial, not only to its own success but to the way visitors to St David's are managed through the whole destination. On the principal entrance to the city from the east, it is the natural stopping point to have the whole St. David's Peninsula explained and put into context. Road signage to the centre could be more prominent for car borne visitors but coach drivers know the car park as the only practical stopping off point in the city.

Most of the Cathedral visitors walk through the city from the Visitor Centre car park to reach the Cathedral, passing on the way a wide range of tea shops, pubs and clothing outlets, together with boat trip vendors to nearby Ramsey Island and wetsuit and surfboard hire shops for Whitesands and Caerfai Bays. 8 large cruise liners dock at Milford Haven annually and most run coach trips to St David's with their usually high spending clientele being much encouraged both by the centre and Cathedral authorities, provided they have ample warning.

There is a high level of coordination for planning, management and operation of tourist business in Pembrokeshire between the National Park Authority, Pembrokeshire County Council, Milford Haven Port Authority, and local bus companies. The local Chamber of Commerce in which local hoteliers and Bed and Breakfast operators are well represented are also involved closely in planning events and improvements to the management of a steadily growing tourist demand. These authorities all agree things could be improved, but there is broad consensus that the physical infrastructure of the area lends itself well to catering to the tourist demand and its anticipated future growth.

Contrasts and Comparisons with Iona and Lindisfarne

We have deliberately chosen St David's and Lindisfarne as suitable comparators for Iona for several reasons:-

- All three are relatively remote locations from major population centres;
- They are all iconic destinations with strong spiritual and religious connotations as well as natural beauty;
- The above factors pre-select the type of visitors who choose to go to all three destinations – people who accept that 'getting there' will require a degree of tolerance of remoteness expressed through the length and complexity of the journey;
- Visitors to such destinations have a high degree of interest in the social and physical context of the location and take a holistic interest in understanding it;
- Such visitors are not a 'populist' demographic, but they are one which will spend money wisely on good products and services related to the destination and means of travel.

We also found a range of contrasts between Iona and the other two destinations. The rest of this section explores those where St David's compares well with FP and Iona in terms of making a 'whole destination' offer to the visitor:-

The juxtaposition of St David's Visitor Centre at Oriel y Parc to the city's main attraction the cathedral provides the key to traffic management throughout St David's – both vehicular and pedestrian.Visitor vehicle parking other than limited disabled access is not banned throughout the city,but parking facilities are restricted other than at Oriel y Parc. Coaches do drive down the High Street to drop off and pick up passengers, but they cannot park in the centre. , So although the Pembrokeshire County Council road authority has not banned city centre access, many visitors who visit both Oriel y Parc and the cathedral walk past most commercial outlets in the city's main street, having little other choice in terms of easy vehicular access.

These outlets include a range of hotels, public houses B&B's and teashops providing a full range of refreshments and accommodation to visitors. However as St David's is also the centre of Pembrokeshire's northern coastal peninsula, with sea coast within a mile to the north, west and south, there are also a wide range of coastal and maritime leisure offers available on the main street, via wet suit, surfing, sailing and fishing equipment sale and hire, together with boat, canoe and kayaking charters for trips round Ramsey and the smaller Islands, and along the immediate coast itself. The TYF maritime adventure centre immediately south of Oriel y Parc has been credited as one of the UK's foremost promoters of 'coasteering' an activity which was almost non-existent until about 25 years ago - walking, and swimming, along rocky portions of coast just above the tide level. This is made possible not only through use of marine clothing and safety kit which was too expensive or otherwise not available 2 decades ago, but through focused marketing at schools and sports clubs on a national level. All these facilities both sedentary and physically demanding provide scope for leisure from the most reflective to the most active, but all are contributing to wide ranging income opportunities for local businesses.

The second apparent variant between St David's and Iona is the degree to which public authorities seem currently to be collaborating in delivering coherent tourism and land use policy and activity. This was not always the case and previous differences in strategic emphases between the National Park (NP) and Pembrokeshire County Council (PCC) authorities have been well documented. However the NP was the key initiator of the St David's visitor centre and continues as its key funding source,. The Port of Authority at Milford Haven also shares its strategy for attracting cruise ships to the county by way of on shore visit planning to key locations such as St David's and Tenby. This emphasis on the operational period beyond the installation of key built infrastructure is a key to current success of the tourist offer at St David's.

Case Study Conclusions

Both St David's and Lindisfarne have well developed facilities providing visitor information about their respective destinations. This may be both cause and effect of a more evolved business focus around the commercial opportunities presented by significant visitor numbers. This is perhaps not so marked yet in Fionnphort and on Iona. There may be many reasons for this, such as the greater remoteness of the Ross of Mull to centres of political decision making, local response to date to pursuit of funding, and the availability of land or property to provide the right visitor welcoming

facilities. However there is no reason why FP and Iona cannot exploit the potential of Iona to become a 21st century destination worthy of the 15 centuries of the location's history which have preceded it.

Appendix D: Community Presentations

Draft Master Plan

Appendix E: Visitor Survey & Questionnaire

The Sound of Iona Harbours Committee is undertaking an assessment and master plan of the pier areas at Iona and Fionnphort in Mull, which aims to improve and increase the attractiveness of the pier areas for both visitors and local users.

We wonder if you would spend five minutes filling in this brief survey form and provide your views and opinions of your visitor experience. Your answers will be used to help the Committee inform the master plan process and improve the pier areas' facilities. On completion please return this form to ……

Please tell us your opinion of your experience of visiting and travelling between Fionnphort and Iona?

Q1: Fionnphort/Mull - Iona Ferry information (If only or also visiting Staffa please go to Question 3)

Please tick a box for each (√)	Yes	No
Is there clear and adequate passenger information available?		
Would more information be helpful?		
Would illuminated ferry times signs at Fionnphort be helpful?		
Is the illuminated ferry information sign at Iona satisfactory?		

Q2: Buying tickets for the Fionnphort/Mull- Iona ferry

Please tick a box for each (√)	Yes	No	Requires Improvement	If improvement required briefly please state how?
Is buying tickets easy and straightforward ?				
Is sign-posting for ferry tickets clear and simple to follow?				

Q3a: Car parking at Fionnphort Pier /Mull

Please tick a box for each (√)	Yes	No	Requires Improvement	If improvement required please state how?
Is sign-posting for car parking clear and understandable?				
Is there sufficient car parking available?				
Is the principle of parking near the pier satisfactory?				
Could the car parking space near the ferry pier be put to more effective use?				

Q3b: Car parking at Fionnphort Columba Centre (Visitor facility at the entrance to the village) /Mull

Please tick a box for each (√)	Yes	No	Requires Improvement	If improvement required please state how?
Is parking at the Columba Centre car park satisfactory?				
Is the Columba Centre car park close enough to walk to the ferry or for assisted access for disabled passengers?				
Would you be prepared to pay to park at the Columba Centre car park?				

Q4: Bus parking at Fionnphort/Mull

Please tick a box for each (√)	Yes	No	Requires Improvement	If improvement required please state how?
Is bus and coach parking at the pier satisfactory?				
Could a coach drop off at the Columba Centre (Visitor facility at the entrance to the village) and pick up near the ferry pier work more effectively?				

Q5: What is your opinion of the range of visitor facilities at the piers at Fionnphort/Mull and Iona?

	Fionnphort Pier Area			Iona Pier Area			
Please tick a box for each (√)	Very Good	Acceptable	Requires Improvement	Very Good	Acceptable	Requires Improvement	If improvement required please state how?
Range of food and drink facilities							
Quality of food and drink facilities							
Range and quality of shopping							
Visitor and tourist information							
Visitor waiting facilities							

Toilets and baby changing facilities							
Rubbish and litter bins							
Standard of cleanliness of the area							
Appearance of the pier area							
Safety of passengers and visitors							
Comfort of passengers and visitors							
Seating for passengers and visitors							
Children's play facilities							

Q6: Visitor Information - Please tick a box (√)

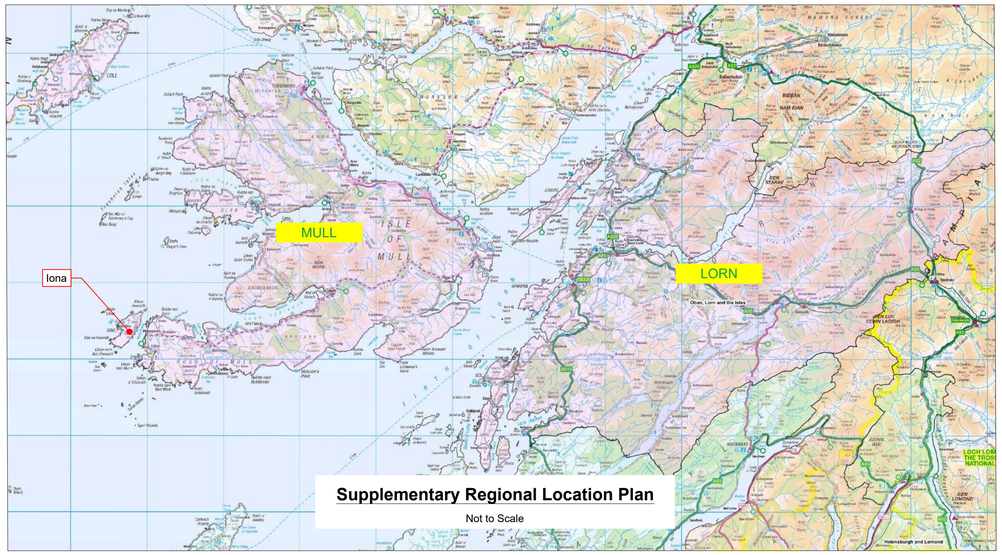
Where are you from?	Scotland		Other UK		Non-UK (Please state)	
Are you staying overnight on Iona or Mull?	Yes		No			

APPENDIX 3.1

Proposed Development – Detailed Drawings

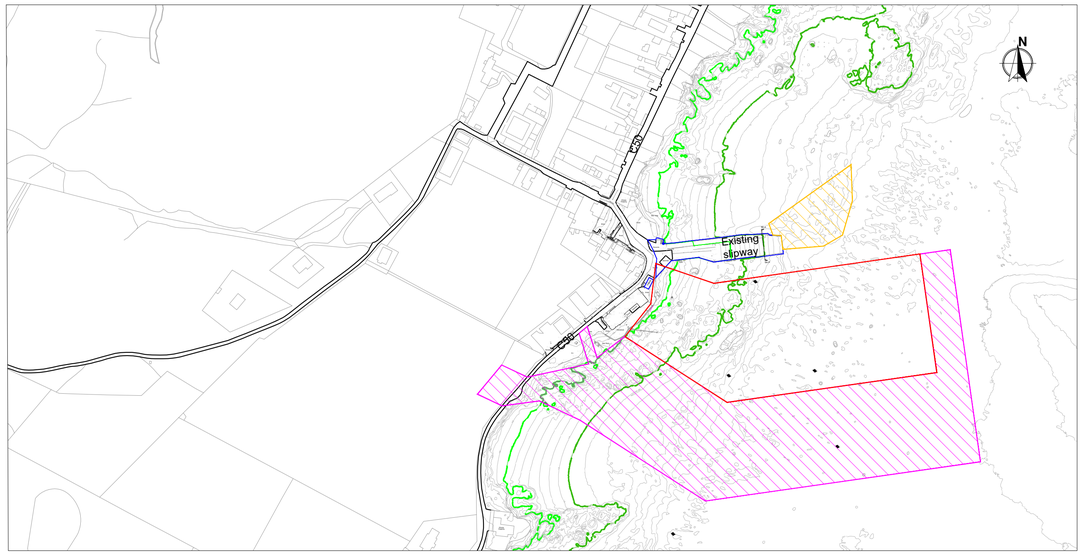
- 00040-33-01E Iona location plan, ownership boundary and site boundary;
- 00040-33-02F Iona existing general arrangement and elevation;
- 00040-33-03F Iona proposed general arrangement and elevation;
- 00040-33-04G Iona proposed sections and typical details; and
- 00040-33-102A Proposed dredge deposit location.

ARGYLL & BUTE COUNCIL --- DEVELOPMENT AND INFRASTRUCTURE SERVICES



Supplementary Regional Location Plan

Not to Scale

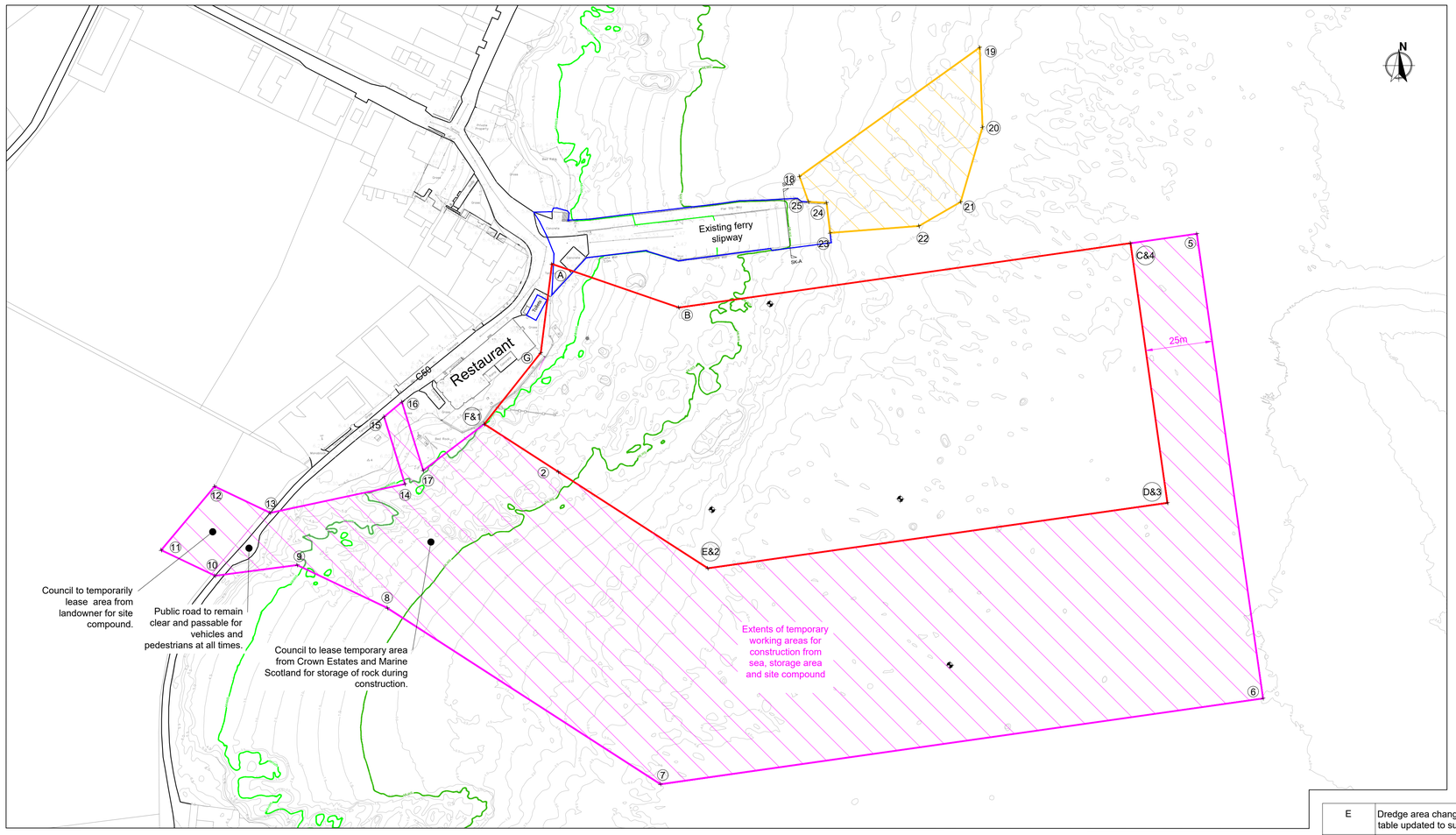


Location Plan

Scale 1:2500

metres - scale = 1:2500

0.0m 25m 50m 75m 100m



Site Plan

Scale 1:1000

metres - scale = 1:1000

0m 10m 20m 30m 40m 50m

Surface area of proposed development / Site Boundary

Point	Easting	Northing	Latitude	Longitude
A	128593	723990	56°19'49"N	006°23'32"W
B	128640	723973	56°19'49"N	006°23'30"W
C	128809	723997	56°19'50"N	006°23'20"W
D	128822	723901	56°19'47"N	006°23'19"W
E	128651	723876	56°19'45"N	006°23'28"W
F	128568	723930	56°19'47"N	006°23'34"W
G	128589	723957	56°19'48"N	006°23'32"W

Proposed site compound / storage areas

Point	Easting	Northing	Latitude	Longitude
1	128568	723930	56°19'47"N	006°23'34"W
2	128651	723876	56°19'45"N	006°23'28"W
3	128822	723901	56°19'47"N	006°23'19"W
4	128809	723997	56°19'50"N	006°23'20"W
5	128833	724001	56°19'50"N	006°23'15"W
6	128858	723828	56°19'44"N	006°23'16"W
7	128633	723796	56°19'43"N	006°23'29"W
8	128532	723861	56°19'45"N	006°23'35"W
9	128498	723878	56°19'45"N	006°23'37"W
10	128467	723874	56°19'45"N	006°23'39"W
11	128447	723883	56°19'45"N	006°23'40"W
12	128467	723907	56°19'46"N	006°23'39"W
13	128488	723897	56°19'46"N	006°23'34"W
14	128538	723908	56°19'46"N	006°23'35"W
15	128530	723933	56°19'47"N	006°23'36"W
16	128537	723938	56°19'47"N	006°23'35"W
17	128545	723913	56°19'47"N	006°23'31"W

Proposed dredging areas

Point	Easting	Northing	Latitude	Longitude
18	128685	724022	56°19'50"N	006°23'27"W
19	128752	724070	56°19'52"N	006°23'24"W
20	128753	724041	56°19'51"N	006°23'23"W
21	128745	724013	56°19'50"N	006°23'24"W
22	128730	724004	56°19'50"N	006°23'25"W
23	128697	724001	56°19'50"N	006°23'26"W
24	128695	724012	56°19'50"N	006°23'23"W
25	128689	724013	56°19'50"N	006°23'27"W

Legend:-

- Surface area of proposed development / Site Boundary (Breakwater area = 2.18 ha)
- Extents of temporary working areas for construction from sea, storage area and site compound
- Argyll & Bute Council Land Ownership
- Dredging Working Area
- Mean High Water Spring (MHWS) +4.00m CD
- Mean Low Water Spring (MLWS) +0.50m CD
- Existing ground level / seabed contour to Chart Datum

Note: Chart Datum is 1.82m below Ordnance Datum

NOTES:

1) Do not scale from this drawing
2) To be read in conjunction with drawing series 00040-33
3) All levels are in metres relative to a Chart Datum.
4) Indicative safety buoys to be deployed by the contractor at approximately 10m centres to delineate site boundary and temporary working areas.

SUFFIX	REVISION	INIT.	DATE	INIT.	DATE
		DESIGNED BY		APPROVED BY	
E	Dredge area changed to an orange outline, key and table updated to suit.	SAJG	20/02/22	ES	20/02/22
D	Site compound added, coordinates updated and viewport scales amended.	SAJG	10/12/21	ES	10/12/21
C	Site Boundaries and coordinates updated.	SAJG	24/11/21	ES	25/11/21
B	Footprint of breakwater, dredging area, site boundary and coordinates amended, breakwater toe added and piles removed.	SAJG	15/11/21	ES	15/11/21
A	Drawing reassembled, legend and notes amended.	SAJG	08/07/21	SAJG	08/07/21

Head of Roads and Infrastructure Services
Jim Smith

DESIGN OFFICE, MANSE BRAE,
LOCHGILPHEAD, ARGYLL, PA31 8RD

TITLE

Iona Breakwater

Location Plan, Ownership and Site Boundaries

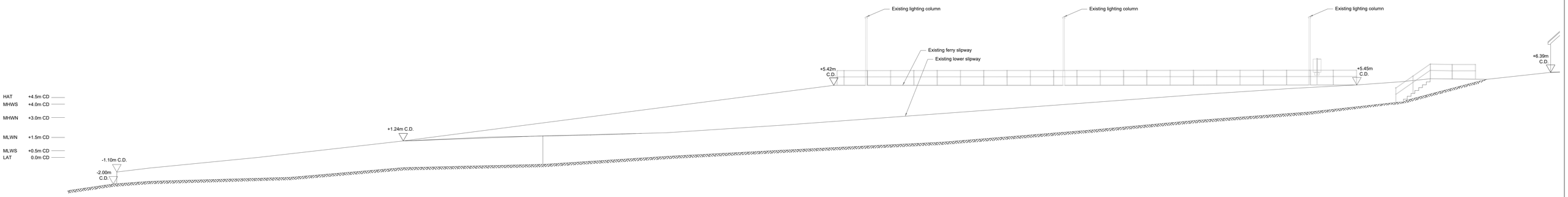
SCALES: As Shown @ A1

DESIGNED BY	JS
DRAWN BY	ST
CHECKED BY	ES
APPROVED BY	ES
DATE	16/10/2020

DRAWING No. 00040-33-01E

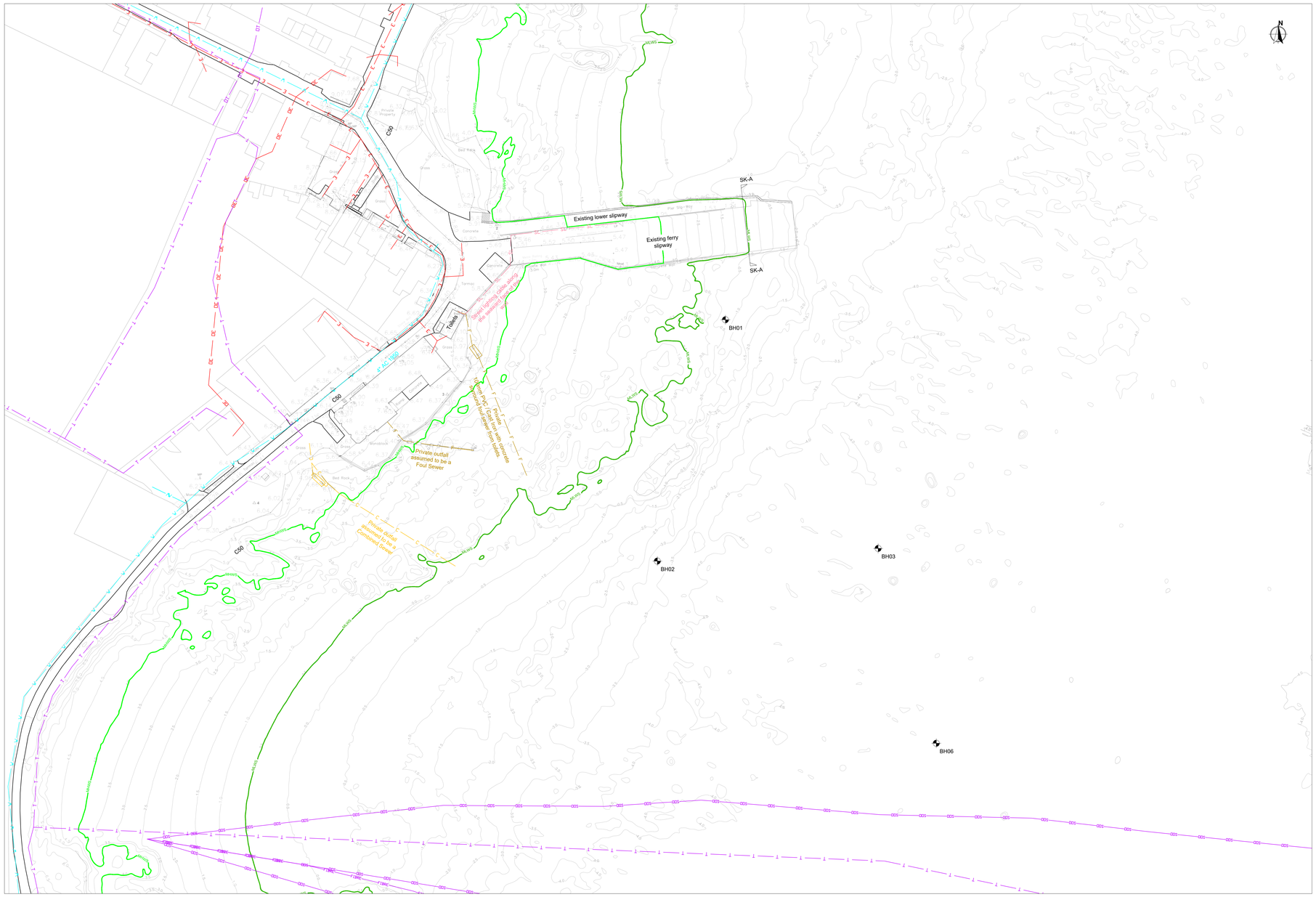
Argyll Bute COUNCIL

ARGYLL & BUTE COUNCIL --- DEVELOPMENT AND INFRASTRUCTURE SERVICES



Elevation A-A - Existing

Scale 1:100



Existing General Arrangement Plan

Scale 1:500

Legend:-

- Mean High Water Spring (MHWS) +4.00m CD
- Mean Low Water Spring (MLWS) +0.50m CD
- Existing ground level / seabed contour to Chart Datum
- BH01 Borehole Location and number from Causeway Geotech 2018 GI

Note: Chart Datum is 1.82m below Ordnance Datum

Public Utility Legend:

- S — Surface water sewer
- F — Foul sewer
- C — Combined sewer
- OT — Telecom overhead
- T — Telecom underground from Openreach online search tool.
- W — Water main
- W — Abandoned water main
- G — Gas main
- E — Electricity underground
- OE — Electricity overhead
- T (BT) — BT Fibre Cable from document "TS_Cables_Sound_Of_Iona.shp"
- OOS — BT OOS Cable from document "OOS_Cables_Sound_Of_Iona.shp"

Notes:

1) All levels are given in metres, relative to Chart Datum.
2) Do not scale from this drawing.
3) Topographic data extracted from Drawing: A7482 Topographic & Bathymetric Survey Fionnphort to Iona Ferry Route Sound of Iona Scotland by Aspect Land + Hydrographic Surveys dated 9th November 2020.
4) Public Utility locations are shown indicatively from utility plans only, the contractor must confirm the exact locations on site prior to the commencing of the works by undertaking CAT and GENI scans or equivalent.

F	Full Fibre and OOS cables added across the sound from BT files BT Fibre Cable from document "TS_Cables_Sound_Of_Iona.shp" and "OOS_Cables_Sound_Of_Iona.shp".	SAJG	02/06/22	ES	02/06/22
E	Dredge area changed to an orange outline, key updated to suit.	SAJG	20/02/22	ES	20/02/22
D	Site compound / storage areas added.	SAJG	10/12/21	ES	10/12/21
C	Site boundary and Legend amended and Borehole locations added.	SAJG	26/11/21	ES	26/11/21
B	Site boundary amended, toilet foul outfall and public utility legend added.	SAJG	15/11/21	ES	15/11/21
A	Drawing reassembled, Public Utilities added, Legend and Notes amended.	SAJG	08/07/21	SAJG	08/07/21
SUFFIX	REVISION	INIT.	DATE	INIT.	DATE
		DESIGNED BY		APPROVED BY	

Head of Roads and Infrastructure Services
Jim Smith

DESIGN OFFICE,
MANSE BRAE, LOCHGILPHEAD, ARGYLL, PA31 8RD

TITLE

Iona Breakwater

Existing General Arrangement Plan and Elevation

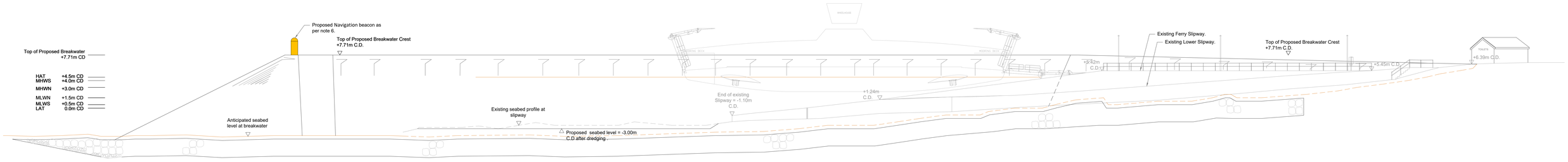
SCALES: As Shown @ A0

DESIGNED BY	JS
DRAWN BY	ST
CHECKED BY	ES
APPROVED BY	ES
DATE	16/10/2020

DRAWING No. 00040-33-02F

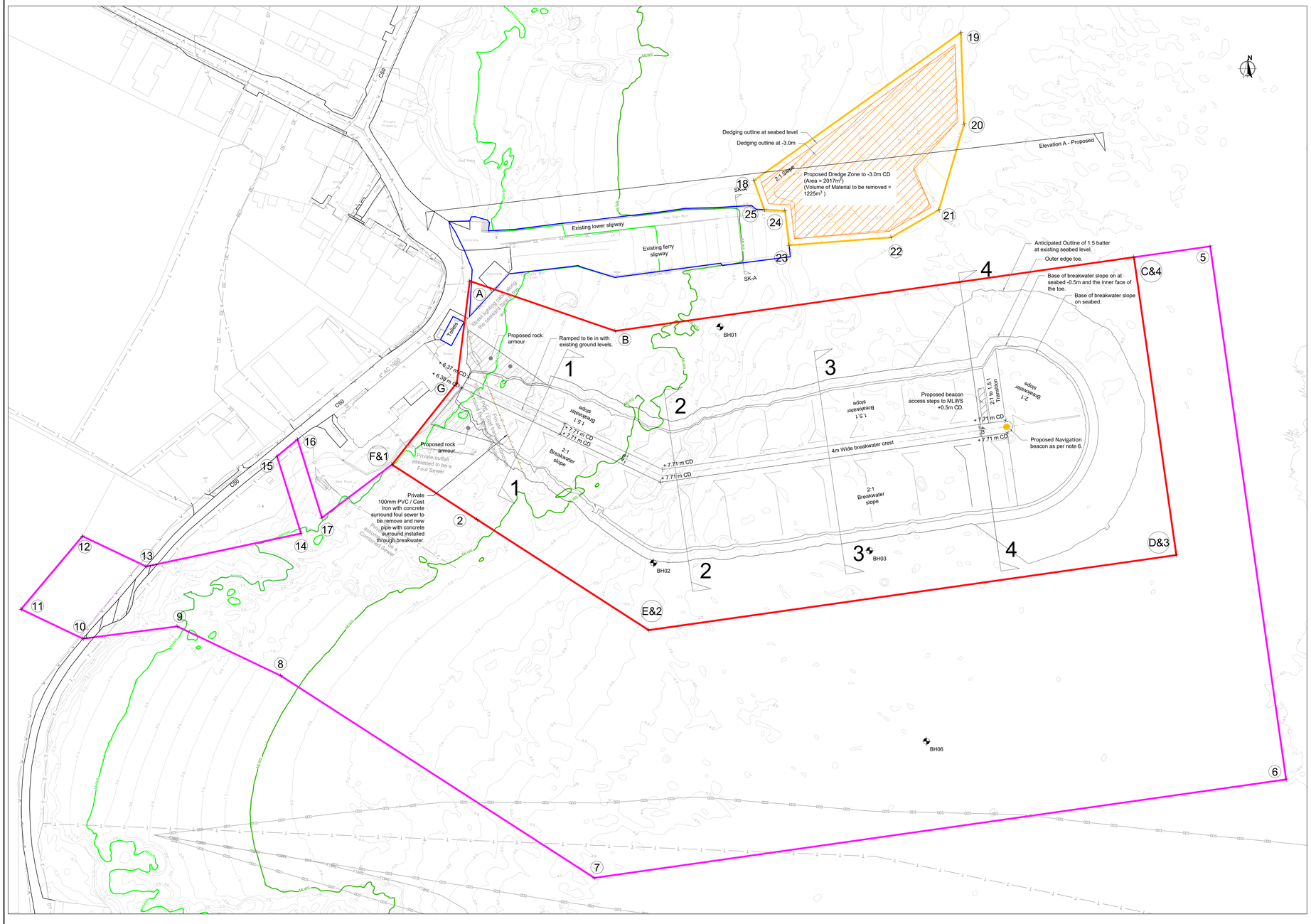
Argyll & Bute COUNCIL

ARGYLL & BUTE COUNCIL --- DEVELOPMENT AND INFRASTRUCTURE SERVICES



Elevation A-A - Proposed

Scale 1:200



General Arrangement Plan

Scale 1:500

Legend:-

- Dredge area
- Breakwater beacon
- Surface area of proposed development / Site Boundary (Breakwater area = 2.18 ha).
- Extents of temporary working areas for construction from sea, dredging , storage area and site compound.
- Argyll & Bute Council Land Ownership
- Mean High Water Spring (MHWS) +4.00m CD
- Mean Low Water Spring (MLWS) +0.50m CD
- Existing ground level / seabed contour to Chart Datum
- BH01 Borehole Location and number from Causeway Geotech 2018 GI

Note: Chart Datum is 1.82m below Ordnance Datum

Public Utility Legend:

- S — Surface water sewer
- F — Foul sewer
- C — Combined sewer
- BT — Telecom overhead
- T — Telecom underground from Openreach online search tool.
- W — Water main
- W — Abandoned water main
- G — Gas main
- E — Electricity underground
- OE — Electricity overhead
- FIBRE — BT Fibre Cable from document "IS_Cables_Sound_Of_Iona.shp"
- OOS — BT OOS Cable from document "OOS_Cables_Sound_Of_Iona.shp"

Notes:

1) All levels are given in metres, relative to Chart Datum.
2) Do not scale from this drawing.
3) Topographic data extracted from Drawing A5314: Multibeam Bathymetric Survey Proposed Breakwater Iona Slipway by Aspect Land + Hydrographic Surveys dated 13th June 2014.
4) Bathymetric data extracted from Drawing: A6099: Multibeam Bathymetric Survey Iona by Aspect Land + Hydrographic Surveys dated 6th June 2017.
5) Public Utility locations are shown indicatively from utility plans, the contractor must confirm the exact locations on site prior to the commencing of the works by undertaking CAT and GENI scans or equivalent.
6) The proposed breakwater must to be marked with an Aid to Navigation (AtoN) at the most seaward extent; the breakwater should be marked with a red light flashing twice every six seconds [Fl(2)R6s 2M] and the light should have a nominal range of 2 miles and be at least 2 metres above the surface of the breakwater.
7) Indicative safety buoys to be deployed by the contractor at approximately 10m centres to delineate site boundary.

SUFFIX	REVISION	INIT.	DATE	INIT.	DATE
		DESIGNED BY		APPROVED BY	
F	Full Fibre and OOS cables added across the sound from BT files BT Fibre Cable from document "IS_Cables_Sound_Of_Iona.shp" and "OOS_Cables_Sound_Of_Iona.shp". BW Footprint updated based on new tidied 3D model. Foul sewer (toilet septic tank pipe) note amended.	SAJG	02/06/22	ES	02/06/22
E	Breakwater termination slope start point moved seaward, Ferry updated, steps added.	SAJG	02/02/22	ES	02/02/22
D	Breakwater toe and outline amended, coupound / storage area added.	SAJG	09/12/21	ES	09/12/21
C	Breakwater toe lowered 0.5m into the seabed, 5:1 toe batter slope and borehole locations added, Site boundary and Legend amended, beacon note added.	SAJG	18/11/21	ES	18/11/21
B	Breakwater, Dredge Area and Site boundary amended, beacon, toilet foul outfall and public utility legend added.	SAJG	18/11/21	ES	18/11/21
A	Drawing reassembled, Public Utilities added, Legend and Notes amended.	SAJG	08/07/21	SAJG	08/07/21

Head of Roads and Infrastructure Services
Jim Smith

DESIGN OFFICE,
MANSE BRAE, LOCHGILPHEAD, ARGYLL, PA31 8RD

TITLE

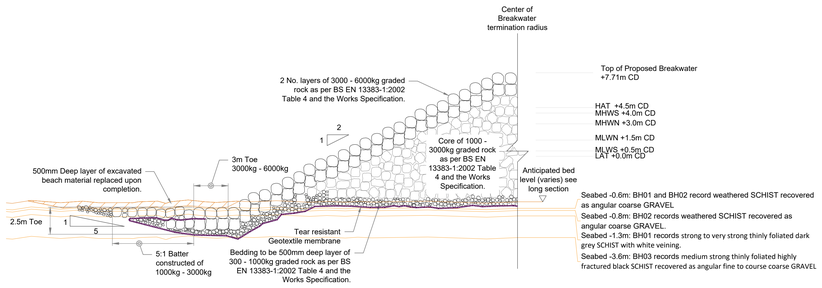
Iona Breakwater

Proposed General Arrangement and Elevation

SCALES	As Shown @ A0
DESIGNED BY	JS
DRAWN BY	ST
CHECKED BY	ES
APPROVED BY	ES
DATE	16/10/2020

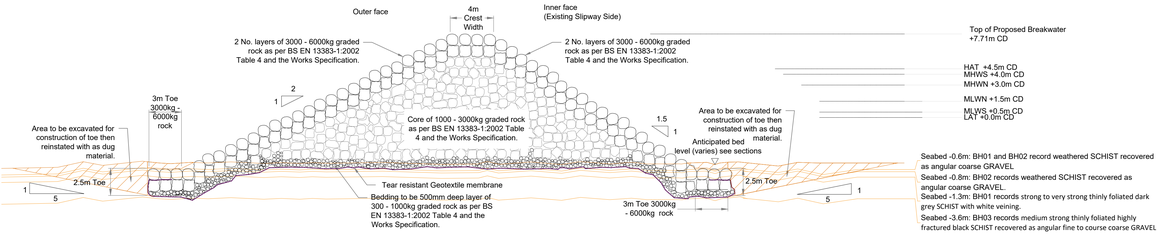
DRAWING No. 00040-33-03F

Argyll & Bute COUNCIL



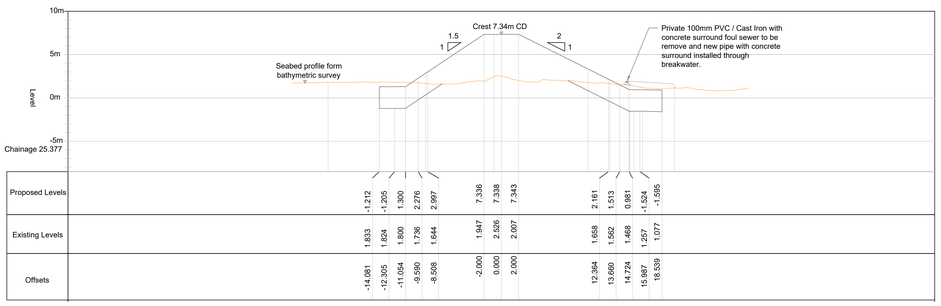
Typical Detail Through Proposed Breakwater at Radios Termination

Scale1:200



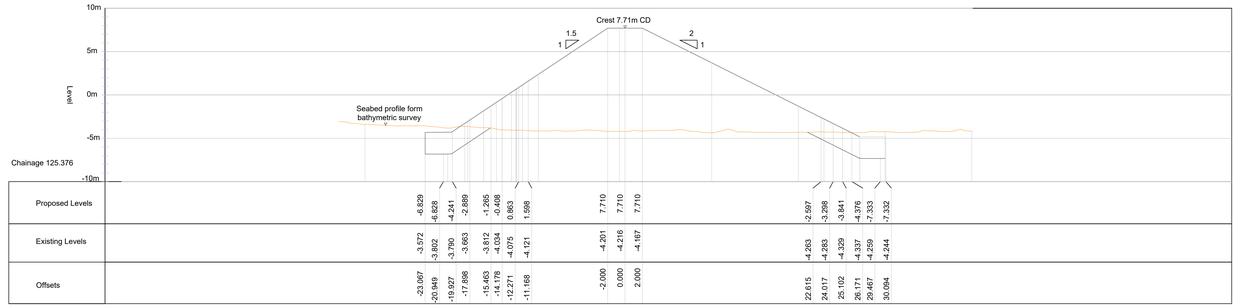
Typical Detail Through Proposed Breakwater With Toe

Scale1:200



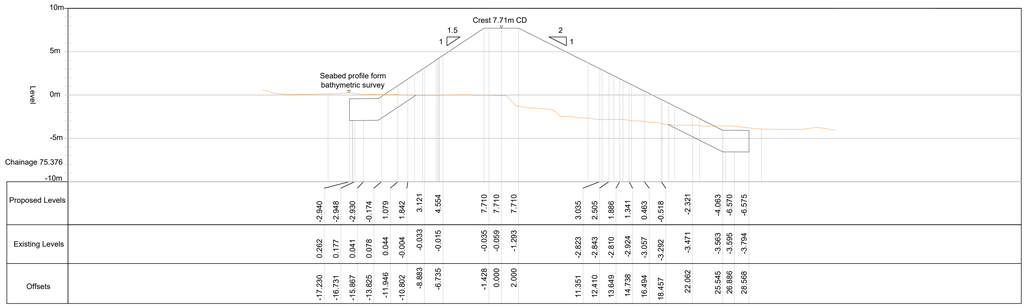
Section 1-1

Scale1:250



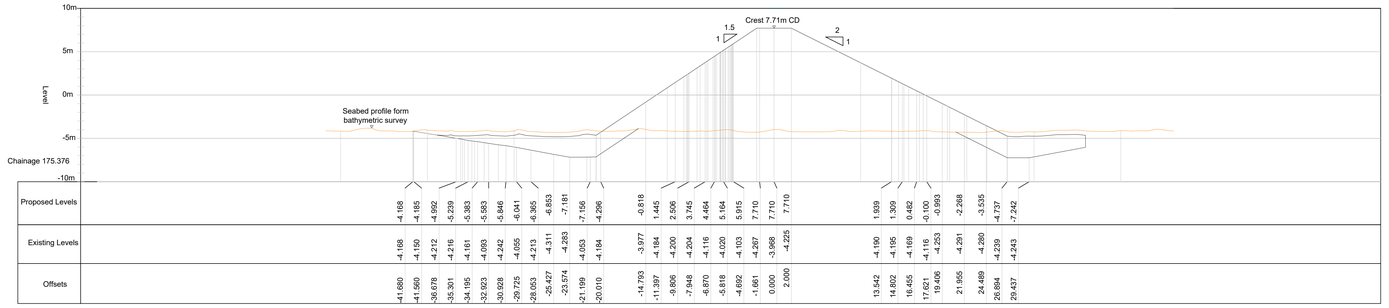
Section 3-3

Scale1:250



Section 2-2

Scale1:250



Section 4-4

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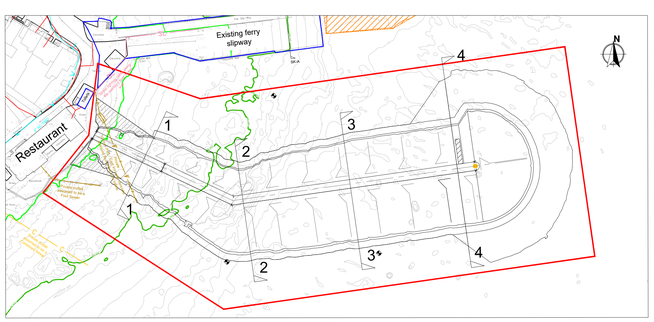


Plan

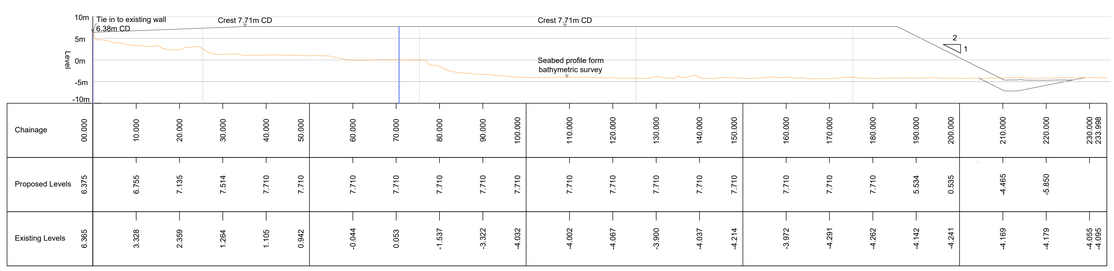
Scale 1:1000

Legend:-

- Dredge area
- Breakwater beacon
- Surface area of proposed development / Site Boundary
- Argyll & Bute Council Land Ownership
- Mean High Water Spring (MHWS) +4.00m CD
- Mean Low Water Spring (MLWS) +0.50m CD
- Existing ground level / seabed contour to Chart Datum
- BH01 Borehole Location and number from Causeway Geotech 2018 GI

Public Utility Legend:

- S — Surface water sewer
- F — Foul sewer
- C — Combined sewer
- OT — Telecom overhead
- T — Telecom underground from Openreach online search tool.
- W — Water main
- W — Abandoned water main
- G — Gas main
- E — Electricity underground
- OE — Electricity overhead
- FIBRE — BT Fibre Cable from document "IS_Cables_Sound_Of_Iona.shp"
- QOS — BT QOS Cable from document "OOS_Cables_Sound_Of_Iona.shp"



Long Section Through Breakwater

Scale1:500

NOTES:

1) Do not scale from this drawing
2) All levels are in metres relative to Chart Datum.
3) To be read in conjunction with drawing series 00040-33
4) Public Utility locations are shown indicatively from utility plans, the contractor must confirm the exact locations on site prior to the commencing of the works by undertaking CAT and GENI scans or equivalent.

SUFFIX	REVISION	INIT.	DATE	INIT.	DATE
		DESIGNED BY		APPROVED BY	
G	BW Sections and footprint updated to match new tidied 3D model. Levels and chainages added to sections. Page up-sized to A0 and rearranged. foul sewer (toilet septic tank pipe) and note added to Section 1-1.	SAJG	02/06/22	ES	02/06/22
F	Section 1-1 updated to new crest level as per plan.	SAJG	04/04/22	ES	04/04/22
E	Toe batter rock size amended, Breakwater transmission slope start point mover seaward.	SAJG	02/02/22	ES	02/02/22
D	Toe batter remover from sections 1 -1 to 4 - 4 and detail, BW footprint amended.	SAJG	09/12/21	ES	09/12/21
C	Plan and typical section updated, sections and long profile added.	SAJG	26/11/21	ES	26/11/21
B	Breakwater and Site boundary amended, beacon, toilet foul outfall, public utility legend and Typical Section added. Piles removed.	SAJG	18/11/21	ES	18/11/21
A	Drawing reassembled, Public Utilities added, Legend and Notes amended.	SAJG	08/07/21	SAJG	08/07/21

Head of Roads and Infrastructure Services
Jim Smith

DESIGN OFFICE, MANSE BRAE, LOCHGILPHEAD, ARGYLL, PA31 8RD

TITLE

Iona Breakwater

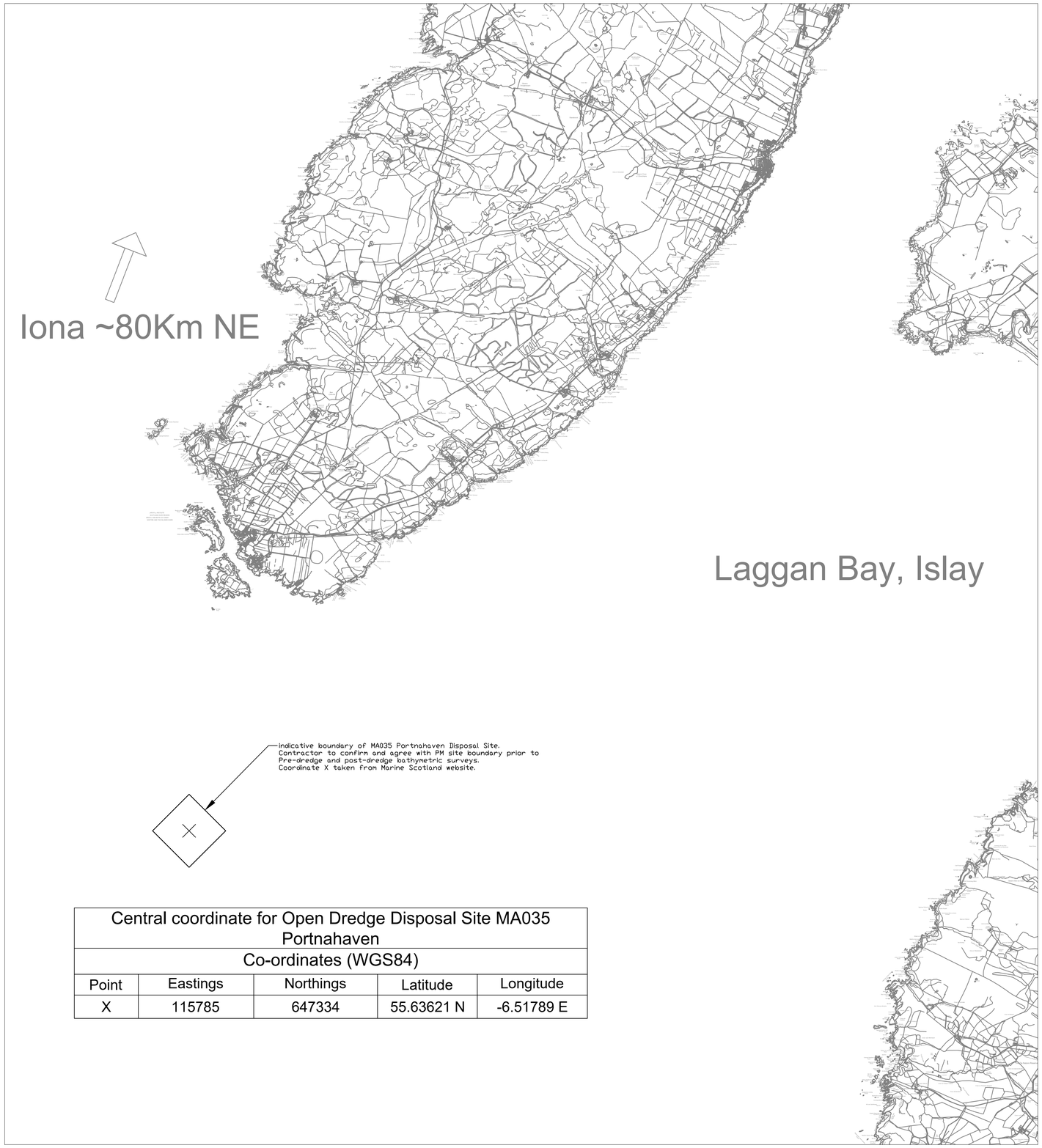
Proposed Sections and Typical Details

SCALES: As Shown @ A0

DESIGNED BY	JS
DRAWN BY	ST
CHECKED BY	ES
APPROVED BY	ES
DATE	16/10/2020

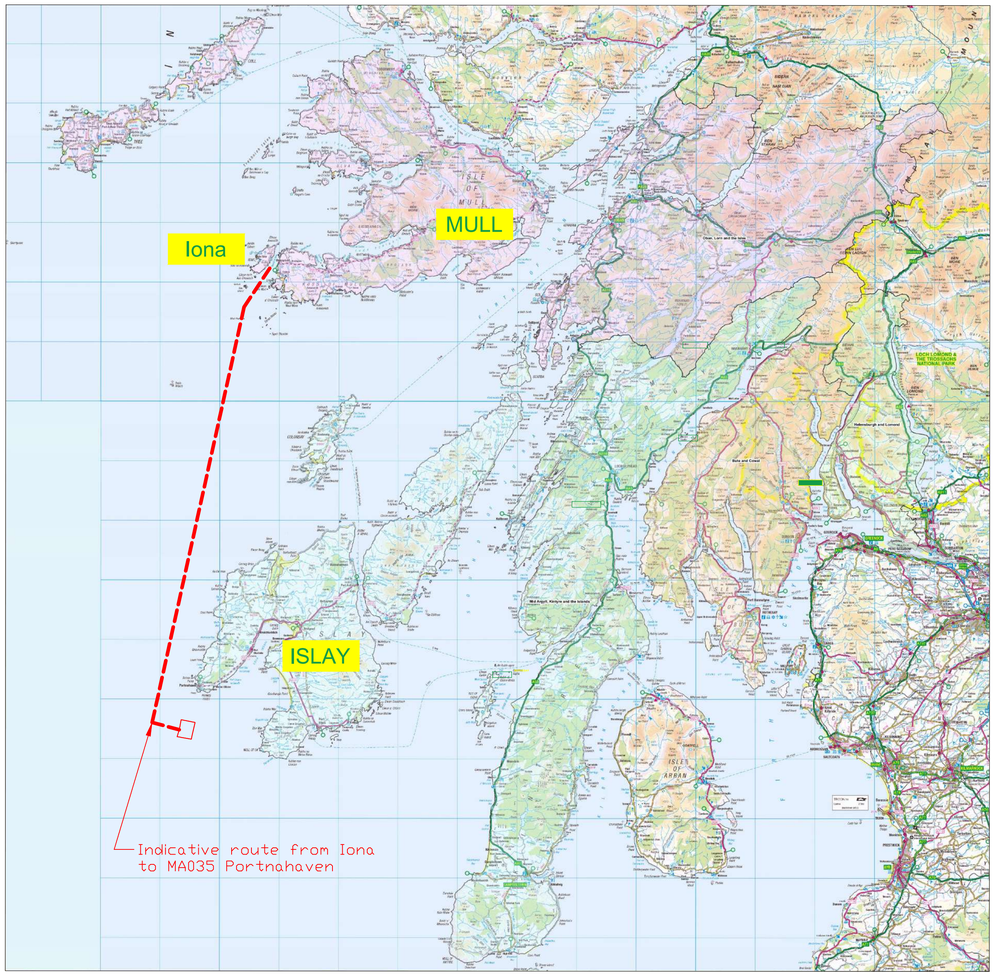
DRAWING No. 00040-33-04G

Argyll & Bute COUNCIL



Central coordinate for Open Dredge Disposal Site MA035 Portnahaven				
Co-ordinates (WGS84)				
Point	Eastings	Northings	Latitude	Longitude
X	115785	647334	55.63621 N	-6.51789 E

Proposed Dredge Disposal Site
MA035 Portnahaven, Isle of Islay
Not to Scale



Supplementary Location Plan
Not to Scale

NOTES:
1. All dimensions are in millimetres unless noted otherwise.
2. All levels are in metres relative to Chart Datum / OS Grid (OSTN02).
3. Do not scale from this drawing.

To be read in conjunction with Drawing Series 00040-33

Head of Roads and Infrastructure Services
Jim Smith

DESIGN OFFICE, MANSE BRAE,
LOCHGILPHEAD, ARGYLL, PA31 8RD

TITLE

Iona and Fionnphort

Proposed Dredge Deposit Location

SCALES: As Shown @ A1

SUFFIX	REVISION	INIT.	DATE	INIT.	DATE
A	Amended Dredge Disposal area to MA035 Portnahaven, Islay	NC	25/07/2023	ES	25/07/2023
–	–	–	–	–	–
–	–	–	–	–	–
		DESIGNED BY		APPROVED BY	

DESIGNED BY	NC
DRAWN BY	NC
CHECKED BY	ES
APPROVED BY	ES
DATE	18/11/2021

DRAWING No.
00040-33-102A

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