

Tarbert Ferry Terminal Upgrade Environmental Impact Assessment Report

Volume 3

Appendices

January 2019



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The numbering of the appendices provided here relates to the Volume 2 Chapters, i.e. Appendix A relates to Chapter 1 and Appendix F relates to Chapter 6. As not all chapters have appendices, not all letters are utilised, for example Chapter 4 has no appendices so there are no Appendix D.



Appendix A.1: The Environmental Impact Assessment Team



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1 Introduction

Affric Limited have led the EIAR production, however it has been a team effort. Affric have worked closely with the client (Caledonian Marine Assets Ltd (CMAL), their engineers (Wallace Stone) and with a variety of consultants to ensure that appropriate experts have contributed relevant technical input to the assessment. Table A.1 details the lead authors for each of the chapters. Further information with regard to the experience and expertise of the various companies and personnel involved in the production of the EIAR is provided in Section 2.

Table A.1: Lead Authors

Chapter	Lead Author(s)
1: Introduction	Redacted – Affric Limited
2: Project Description	Redacted – Affric Limited
3: Methodology	Redacted – Affric Limited
4: Statutory Context & Policy	Redacted – Affric Limited
5: Air Quality	Redacted – Affric Limited
6: Biodiversity	Redacted – Affric Limited
7: Marine Mammals	Redacted – Affric Limited
8: Benthic Ecology	Redacted – Affric Limited
9: Fish Ecology	Redacted – Affric Limited
10: Noise and Vibration (In-air)	Redacted – TNEI Services Limited
11: Noise and Vibration (Underwater)	Redacted – Subacoustech Limited
12: Traffic, Access and Navigation	Redacted – Atkins Redacted – Affric Limited
13: Water Quality (Marine Environment)	Redacted – Affric Limited
14: Landscape, Seascape and Visual	Redacted – Buchan Landscape Architecture Ltd Redacted – Atmos Consulting
15: Schedule of Mitigation	Redacted – Affric Limited
16: Conclusion	Redacted – Affric Limited

2 The Companies

2.1 Affric Limited

Established in 2012, Affric are a growing and highly responsive environmental consultancy business providing a comprehensive range of environmental advice, surveys, planning support, stakeholder and project management services. With a broad and expanding portfolio of clients, they work on a diverse range of projects in the public and private sector from small and medium-sized enterprises to multi-national energy companies. Affric work with their clients to provide high quality tailored services, to ensure that any given project has the most appropriate expertise, irrespective of the sectors or regions in which they operate.

Chartered Environmentalist Redacted leads the Affric team. Her qualifications include a MSc in EIA, Auditing and Management Systems and BSc (*Hons*) in Environmental Chemistry. She previously led the Environmental Statement production for the Invergordon Service Base Phase 3 and 4 Developments and provided support through licensing, construction and into operations. Hence, she is ideally positioned to produce chapters such as water and air quality while managing the full production of the EIAR.

Senior Consultant Redacted is a Marine Biologist with specific expertise in Marine Mammals and underwater acoustics, holding an MRes in Marine Mammal Science. Having acted as the Environmental Clerk of Works (ECOW) on the Invergordon Service Base Phase 3 Development he is familiar with the construction process and the effectiveness of mitigation in practice. He has produced marine ecology chapters for a variety of projects including: the Invergordon Service Base Phase 4 Development and the NorthConnect Interconnector High Voltage Direct Current cable application. In addition to authoring EIAR Chapters, he has also had a key role in the Construction Environmental Management Document production. Jonathan also supervised the benthic survey work completed by Aspect and Apem.

Redacted has a first-class BSc (*Hons*) in Environmental Science; as a Junior Consultant, Redacted supported the Affric team on a variety of Chapters and Appendices. He was co-author on the Benthic Ecology, Fish Ecology, Air Quality and Water Quality Chapters which drew upon knowledge gained from authoring similar chapters during the EIAR production for the Invergordon Service Base Phase 4 Development and the Kilfinichen Pier Development.

2.2 Atkins

Atkins, a member of the SNC-Lavalin Group is a multinational engineering, design, planning, project management, and consulting services company with offices in 28 countries. The company has been a member of the Institute of Environmental Management and Assessment's (IEMA) EIA Quality Mark Scheme since 2011.

Atkins, led by Managing Consultant, Redacted completed the Transport Assessment and produced the Traffic and Access sections of the EIAR. Redacted has 11 years' experience in Transport Planning and is a Chartered Member of the Institute of Logistics and Transport. He has significant experience in assessing the transport impacts associated with a wide range of development proposals throughout the UK. Redacted was supported by Redacted who has 7 years' experience in Transport Planning and is a Member of the Transport Planning Society. Redacted has a wide range of experience in technical analysis in support of the preparation of Transport Assessments and Transport Chapters for EIAR's for clients in England, Scotland and Northern Ireland.

2.3 Atmos Consulting Limited & Buchan Landscape Architecture Ltd

Atmos are a modern and dynamic environmental and planning consultancy, providing cost effective and robust solutions with unquestionable integrity. The company's multi-disciplinary team have an in-depth understanding of regulatory and environmental risks. In this project Atmos worked together with Buchan Landscaping to provide the landscape and visual impact assessment. Atmos's Redacted produced the Zone of Theoretical Visibility (ZTV) maps and

photomontages, while Redacted carried out the assessment works. Redacted previously inputted to other port developments and as such had knowledge of landscape sensitivities. Reda who gained his MSc in Landscape Architecture from Harvard, has a wealth of experience in his field and has supported Scottish Natural Heritage in their landscape character assessments throughout Scotland.

2.4 Subacoustech Limited

Subacoustech are specialists in underwater acoustic research and consultancy, providing support on behalf of government and commercial organisations. The Company possesses extensive experience of undertaking underwater noise modelling from activities relating to marine construction and assessing the impacts in accordance with the latest scientific publications. They have worked on both harbour and wind farm projects giving them a detailed understanding of piling noise levels and associated ecological receptors. The team was led by Sam East who has over 15 years' experience in the sector.

2.5 TNEI Services Limited

TNEI's Planning & Environmental (P&E) Group noise team are competent in a range of acoustic disciplines with specialist knowledge of in-air environmental noise assessments, having worked on a wide variety of schemes including transportation, residential and commercial developments, oil and gas facilities, renewable energy developments (wind farms, solar, hydro and biomass) and a number of other sectors. The led author for the In-air Noise Chapter was Redacted, a Member of the Institute of Acoustics PG Dip Acoustics & Noise Control with over 15 years' experience.

2.6 Wallace Stone LLP

Wallace Stone LLP was established in 1973 and is a member of the Association of Consulting Engineers. The company is particularly experienced in maritime civil engineering infrastructure, including; piers, harbours, ferry terminals and coastal protection. Wallace Stone provided engineering and project management support to the Tarbert Ferry Terminal Development. The preliminary and detailed design works and construction input to the EIAR process has been led by Redacted. In addition, he has provided a review function to the EIAR ensuring the engineering and construction plans have been appropriately incorporated. Reda is a chartered civil engineer (BEng (Hons) CEng MICE) with 22 years of maritime civil engineering works experience on facilities that include ferry terminals, ports, harbours, piers, jetties, marinas and slipways. Most of the projects he has been involved with have been located within Scotland.



Appendix B.1: Ferry Terminal Building Specification



Proposed Ferry Terminal Building – Specification

(Prepared for Building Warrant Application)

Refer MMR Architects Dwg: T2.17-A.04.5 (Revision C), dated 04/07/2018

Foundations and Underbuilding:

Any services exposed during excavations will be protected and, where required, rerouted as appropriate.

- Foundations to structural engineer's design.
- Underbuilding to be constructed using 100mm thick dense concrete blockwork.
- Blockwork 7.0N/mm² compressive strength with min. density of 1500Kg/m³.
- Concrete slab foundation to structural engineer's specification.

Floor Construction:

Ground Floor -

- Forbo Surestep vinyl sheet floor finish, colour Cloudy 171642, black colour skirting upstand, all fitted in accordance with manufacturer's printed instructions.
- Office and Admin areas floored in carpet - Quadrant Riva, colour Capri.
- 65mm cement screed smooth finished for flooring.
- 100mm thick Kingspan K103 insulation or equal approved below slab,
- 30mm K103 insulation to perimeter of slab to eliminate cold bridging.
- Visqueen 1200 gauge damp proof membrane, lapped with D.P.C. at 150mm above ground level.
- Radon gas protection is not required.
- U value of floor to be 0.16W/m²K.
- See foundation plan for drain pop ups and services ducts.

Attic floor -

- Floor structure part of prefabricated roof truss by specialist manufacturer.
- Form floored area for plantroom and access walkway in 147x45 timbers @ 600mm centres nailed at right angles above and across truss joists, floored with 22mm V313 chipboard screwed in place.
- 12.5mm plasterboard ceiling taped & filled to underside of joists to provide short fire duration.
- Any service penetrations to be fire collared as noted in META M&E information.
- See Roof spec for insulation.

Structural design

- Waiting area has 3 No. steel portal frames with timber frame wall panels, site fixed timber rafters and glulam beams.
- Structural beams to be clad in 12.5mm thick Gyproc Firecase board or equal approved to provide 1/2hr fire resistance.

- All other areas have timber framed wall panels and prefabricated timber attic trusses. Trusses designed in sections for road & ferry transport to site.

External Wall Construction:

Outer leaf dependant on location see elevations:

- 22mm wet harled finish, mix 3 chips 4-6mm, 2 sand, 1 Snowcrete, waterproofer admix.
 - 100mm dense concrete block outer leaf with 50mm ventilated
 - cavity
 - Perpend vents at 1.2m horizontal centres below DPC, above and below intermediate floor at gable.
 - D.P.C Icopal Xtra-Load Elite or equal approved 150mm above adjacent ground level.
 - Eternit Cedral cladding boards colour C05 instead of block & harling to areas as indicated on elevations.
 - Provide 10mm ventilation gap at top and bottom of cedral panels with grey insect mesh protection.
 - Q-mark approved reflective building paper to outside face of wall frame
 - 11mm thick OSB sheathing to inside & outside faces of wall panel
 - 45x145mm timber frame wall with studs at 600mm centres (see structural engineer's information)
 - 140mm Knauf Earthwool Frametherm 32 insulation batts
 - 0.032W/mK tightly fitted between timber studs ensuring no gaps
 - Dupont Airguard Vapour control layer
 - 30mm Kingspan 0.022 PIR insulation across face of studs in continuous layer
 - 38mm vertical battens fixed on internal face of wall frame studs to form service void
 - 15mm thick Duraline plasterboard, screw fixed in accordance with manufacturer's instructions.
 - 15mm moisture resistant Duraline plasterboard in all toilet, changing and mess room areas.
-
- Wall U value to be 0.17 W/m²K.
-
- Galvanised M.S. anchor straps 1000x30x30 @ 1200mm centres
 - to be built into outer leaf of wall 2 courses below DPC.
 - Wall ties:
 - Vertically @ 450mm centres
 - Horizontally @ 600mm centres
 - Vertically at openings @ 225mm centres
-
- 38x50mm W/W cavity firestops at eaves, corners, D.P.C. level, at intermediate floor level & at 10m maximum centres.
 - Fit cavity firestop at expansion joint. and at all window / door openings
 - Firestops to be separated from outer leaf with Pitch Free

- Expansion joints to be provided at maximum of 6m centres to engineer's requirements.
- (ideally between studs) Natural bonded cork filler, finished with mastic seal to match render colour.
- Galvanised wall ties at max 375mm cts vertically.
- Tulipwood skirtings & facings with painted finish.
- Internal walls paint finish - Dulux Celestial Cloud 5 70BG 68/056.

Partitions:

- 90x45mm treated W/W studs @ 600mm max. centres with 2no. intermediate dwangs and double bottom runner for ease of skirting fixings.
- 15mm thick Duraline plasterboard of weight 13.9kg/m² each side, screw fixed, taped and filled joints.
- 100mm thick mineral wool insulation weight 10kg/m³ between studs.
- Allow for fixing 18mm plywood backing to all walls in accessible toilet and Changing Place Toilet for fixing grab rails etc.
- Allow for 15mm Duraline MR moisture resistant plasterboard to all toilets, Drying Room and around kitchen worktops.
- High level partition between attic and Waiting Area to be insulated with 30mm Kingspan across room side of frame and 140mm Frametherm 32 insulation batts between 145x45 timber framing.
- OSB sheathing across attic side of framing.

Windows:

To comply with current British Standard BS6375 and NHBC Standards Chapter 6.7

- Nordan Stormguard aluminium clad softwood double glazed windows, factory finished in colour RAL7016 anthracite grey outside, white factory finish inside.
- Solar control glazing to all external windows & doors in Waiting area.
- Etched glass to toilets, other areas clear glass.
- Ironmongery bright chrome to include for key (removeable) locking handles.
- Handles to be not more than 1.5m above floor level and at least 350mm from any internal corner.
- U value of windows & external doors to be 1.3 W/m²K or better.
- All glazing within 800mm of floor level, within a door leaf, and within 400mm of a door leaf is to be laminated safety glass to BS EN 356:2000 BS 6262: Part 4: 2000 as amended with appropriate kite markings.
- No trickle vents to be fitted as mechanical ventilation is proposed.
- Glazing in waiting area to have fixed manifestations to Client design at 900mm and 1500mm above floor level to prevent accidental collision by users.
- Windows & doors to be Secured by Design accredited or equal approved by Building Standards & have BBA certification.

- High level glazing to be cleaned from ground level using an extendable pole with hose attachment.

Doors:

- Entrance door to provide at least 1000mm clear width opening. Frame complete with all seals, weather bars, ironmongery etc.
 - Ensure unobstructed 300mm space at leading edge of entrance door to comply with Standard 4.1.7
 - Entrance threshold 15mm high max. to comply with current Building Standard 4.1.9.
 - Clear width min 800mm.
 - Slotted channel drain (slot width max 12mm) externally across width of all external doors.
 - Outward opening doors to have external rails 950mm high, project 900mm out from building, with rail at 100mm above ground level to Standard 4.8.1.
 - All glazing to doors+sidelights below 1500mm to be toughened safety glass to BS6262 & BS6206 with appropriate kite markings.
 - U value of windows & external doors to be 1.3 W/m²K or better.
 - All doors other than to Toilets & Cleaner to have vision panels to Standard 4.1.7.
 - Powered door operated by motion detector and in line with Standard 4.1.8 and guidance BS 7036-1 to 5: 1996.
-
- Internal doorways to be 926mm(w)x2000mm(h) to give 800mm clear width opening width to comply with current Building Regulations (4.2.6).
 - 965mm width leaf doors with 825mm clear width off 1200mm corridors.
 - 1000mm clear opening to CPT and accessible toilet sliding pocket doors.
 - Staff WCs and Change doors to have double action pivot hinges with emergency access release mechanism to open outward in an emergency (inward opening in normal use).
 - See door schedule.
 - Doors supplied Lederflush Shapland. Male & Female toilet doors to be from Lederflush Sentinel range with anti trap hinge edge design.
 - 30 minute fire resistant self closing doors with cold smoke seals noted on plan as FRSC.
 - Fire exit doors to be fitted with push bar single opening action ironmongery.
 - Any locks on office doors to be openable from inside by thumbturn not a key.
 - All self closing mechanisms to be adjusted to operate smoothly and set to require minimum force to open.

Air Infiltration:

- Best construction practices to be adhered to ensuring all works carried out are to acceptable tolerances as described in the Building research Establishment BRE Report 262: 2002 & the building is constructed in accordance with the Accredited Construction Details (Scotland). Thereafter all dry lining junctions between walls, ceilings and floors and at windows, doors and roof space openings to be adequately sealed. All service boxes made air tight and service

penetrations, windows and doors to have neoprene seals at all joints. All external openings to have joints sealed with mastic.

- Examples:
 - Sealing the gaps; at roof space openings, between dry linings and masonry walls at the edges of window and door openings, and at the junctions between walls, floors and ceilings.
 - Sealing vapour control membranes in timber framed and other framed panel constructions.
 - Sealing at service penetrations of the fabric or around boxing/ducting for services.
 - Fitting draught seals to the openable parts of windows, doors, access hatches and rooflights.
 - Using joist-hangers or sealing around joist ends built into the inner leaf of external cavity walls.
- Ensure DPCs are turned up behind sole plates and lap with vapour control layers; Alternatively seal with mastic or gasket between the DPC and sole plate.
- Ensure sheet vapour control layers are properly lapped at junctions and / or
- Ensure any vapour control plasterboard is jointed in accordance with manufacturer's instructions
- Always return vapour control layers into window & doors reveals, heads & sills
- Cut vapour control layers tight to electrical outlets and seal at piped service penetrations (with tape or sealant as required)
- Ensure all breather control membranes overlap each other and are stapled in place.

Internal Finishes/General - u.n.o.

- Wet wall finish to entire basin and urinal walls, all walls in CPT and Drying Room.
- Sill boards to be laminated timber to avoid warping.
- Provide Dwgans to all timber partitions for the following items:
 - Kitchen wall units top and bottom
 - W.C. cisterns
 - All wall heaters/radiator mounting
 - To all Electrical wall sockets.
- Waiting Area Seating -
 - Park Systems Pledge 4 seat beam unit. Polyprop with vinyl covering, colour Nightshade Mia Beam. Bradbury Torro in Electric. Mixture of with and without arm rests.
- Forbo Nuway Tuftiguard Classic aluminium / black clean off matting to entire draught lobby.

Roof Construction:

- Marley Edgemere Duo smooth grey concrete roof tiles proprietary 5000 Sq.mm / m ventilated ridge, Edgemere Dry Verge, all fixed in accordance with BS 5534 and manufacturer's instructions to suit location.
- 50x25 tiling battens
- 50x25 counter battens ventilated at high and low eaves with Protect VP400 LR breathable roofing membrane

- 12mm plywood sarking
- Prefabricated roof trusses by Pasquill / rafters as designed by structural engineer at 30 degree pitch, 400mm centres.
- 25,000Sq.mm continuous soffit vent at Waiting Area with rafter line insulation
- 10,000 Sq.mm / m continuous fascia vent allowing cross ventilation of Attic.
- Maintain 50mm clear air space between insulation and sarking for ventilation.
- Waiting area sloping ceiling -
 - 50mm airspace min. required between insulation and sarking
 - 150mm Kingspan TR27 between rafters
 - 500 gauge vapour control layer across underside of rafters
 - 25mm TR27 across underside of rafters in continuous layer
 - 12.5 foil backed plaster board taped & filled for decoration
 - U value 0.14
- Attic insulation (all flat ceilings outwith Waiting area):
 - Loft Roll 40 insulation at attic floor level
 - Floored areas 200mm between joists and 150mm above joists = U value 0.12.
 - Unfloored areas 200mm between joists and 200mm across joists = U value 0.11.
- Fascias & soffits clad in Eternit Oporal cement particle cladding boards, colour C60 Forest Grey.
- Design Certificate to be provided to Building Standards Department by Designer prior to construction & to structural engineer for approval.
- Roof Access - it is not anticipated that anything other than very infrequent access will be required to the roof. In such instances where work is only for a very short duration access via a Mobile Elevated Working Platform or temporary scaffold is to be used in line with HSE recommended practice. Also refer to Marley Eternit Sitework Guide.
- In all other instances full edge protection, such as designed scaffold with catch barrier, must be provided on all edges of the roof where access is needed.

Stair

- Fabricated in galvanized steel
- 1000mm min. clear width between handrails
- Handrail to be 900mm above pitch line of stair, any gaps on stair and balustrade to be small enough to prevent passage of a 100mm diameter sphere.
- Closed risers to prevent risk of trapping when ascending.
- Handrail continuous throughout flight on wall on outside of winder.
- Going 260mm contrasting anti-slip nosing to each tread
- 21 equal rises of max 167mm (check heights on site prior to manufacture max rise 170mm)
- Balustrade at first floor landing 1.1m high with glazed balustrade.
- Min. 2.0m clear headroom over entire stair and landings.

Drainage:

- Internal Drainage to be laid in strict accordance with BS EN 12056-2: 2000 BS5572 and Marley Extrusions Ltd min. installation gradients.

- External Drainage to be constructed & installed in accordance with BS EN 12056-1: 2000, BS EN 752-3:1997, BS EN 752-4: 1998 and BS EN 1610: 1998.
- All W.C. waste pipes 110mm Dia. with 6.0m max. branch length, at 18mm\m fall.
- All W.H.B waste pipes 32mm Dia. with branch length as per manufacturers recommendations, at 18mm\m fall.
- All shower waste pipes to be 110mm.
- Vent stacks to be provided with slow bends 200mm min. along centreline.
- Hand access to waste pipes 900mm above floor level with screwed hatches provided on adjacent partitions.
- SVP's continued up to ridge outlet tiles.
- Provide hand access above all changes in direction of S.V.P's with all branch connections to SVP in accordance with BS5572:1994 sections 1to10. Contractor to ensure connections will avoid crossflow.
- All hot water supply pipes are to be insulated to BS 5422:2009.
- All drainage passing through the structure to be lintolled over.
- Foul drainage to connect to local sewer system.

Rainwater Goods:

- Colour: Galvanised Steel
- 110mm Dia. Half-round Lindab Rainline.
- Rainwater goods to supplied with all fixings. Fall 1/600.
- Gutter braket fixings at 600mm max. centres.
- 75mm ext. Dia. downpipes with bossed socket adapter at base, connect into plain hopper with PVC grating from 'Osma' or equal approved, bedded in concrete base.
- Downpipe brackets screwed into masonry at 1.80m max. centres.
- All constructed and installed in accordance with recommendations described in BS EN 12056-3:2000.
- Surface and rainwater to connect to outlet to seawater.

Sanitaryware:

- All sanitaryware to be contrast visually with walls. Ware will be white, wall colour to be agreed (not white).
- Thermostatic Mixing Valves to be provided on shower where provided to limit delivery temperature to 48°C complying with BS EN 1111:1999 or BS EN 1287:1999.
- Water saving features to be provided in accordance with Standards 3.27.1 and 3.27.2 -
- All WCs to be dual flush using no more than 4.5 litres per flush.
- Wash hand basins taps to be fitted with aerators and have maximum flow rate of 6 Litres / minute.
- Bathroom Manufacturers Association list of water saving appliances & fittings to be consulted.

Fire Fighting:

- See META Consulting detailed specification of category L1 detection system.
- Certificate of commissioning to be provided prior to completion.
- Fire hydrant is on pavement opposite hotel, 25m from northern corner of building.
- Option for fire fighting appliance to pump seawater if required. Access to staff carpark at level +7.6mCD, with pedestrian access via existing steps NE of site, and at drop off parking area at level +7.0mCD.
- Lowest tide at +0.1mCD.

Heating & Ventilation

- See META Consulting spec and details for mechanical ventilation with heat recovery incorporating humidistat sensors in wet areas.
- EPC Certificate to be fixed in entrance lobby.
- Sustainability Label to be fixed in ground floor plant room.

General:

- All work to the entire satisfaction of the Local Authority
- All structural timbers to be pressure impregnated with preservative, stress graded to BS 4978 or other national certificate and so marked.
- Blockwork 7.0N/mm² compressive strength with min. density of 1500Kg/m³.
- 140mm coursing, lightweight blocks only.
- Mortar 1:4 cement/sand with plasticiser below D.P.C.
- Mortar 1:6 cement/sand with plasticiser above D.P.C.
- Concrete for foundations to be grade C35.
- Concrete for floor slabs C30/20.
- Concrete for R.C. Lintels C35/20, 30mm min. cover to reinforcement, 150mm min. rest.
- Unless otherwise stated timber grade C16.
- Double+triple timber studs spiked together with M4 Galv. Nails at 300mm staggered centres.
- Expansion joints to be provided in concrete blockwork wall longer than 6.0m in length all as per plans / elevations.

Kitchen Units:

- Kitchen units to be designed and installed by specialist manufacturer in accordance with clients requirements.
- Contractor to install adequate dwangs for fixings.

External Drainage:

- All drainage below ground to be to the entire satisfaction of the Local Authority, Environment Standard 3.6+3.7 of the current Building Standards and to comply with NHBC standards Chapter 5.3.

- Contractor to notify Building Standards department when work commences, before foundations are poured and as required under the Building warrant CCNP notification plan.
- Drains passing through or under walls to be adequately lintolled over and surrounded in pea gravel.
- Connect proposed roofwater drainage into outlet to tidal waters.
- 'Osma' circular 450mm Dia. inspection chambers bedded on 150mm concrete base and surrounded in compacted Type'2' material. (up to 1.0m invert level).
- Lightweight cover and frame to non-traffic areas, Heavy duty cover and frame otherwise.
- Any chambers with an invert level of greater than 1.2 metres to have secured lids.
- All drainage unless otherwise noted to be 110mm Dia. UPVC drains laid to 1 in 60min. fall, bedded and surrounded in Type'1' material, laid 600mm min. cover.
- External Drainage to be constructed and installed in accordance with BS EN 12056-1:2000.
- Foul Drainage to be laid in accordance with BS EN 752-3: 1997 (Amendment 2), BS EN 752-4: 1998 and BS EN 1610: 1998.
- All main sewer piping to be E.S.V.C with mechanical joints.
- Bedded to Scottish Water standards.
- Allow for stack to have a bend with min radius of 200mm along c/l of pipe.
- Disconnecting Manhole designed by Engineer, all in accordance with Scottish Water Guidance notes.

External Works

- Grade path to accessible entrance at 1:21 gradient 2m wide with 1.5m long platt at top and bottom of slope.



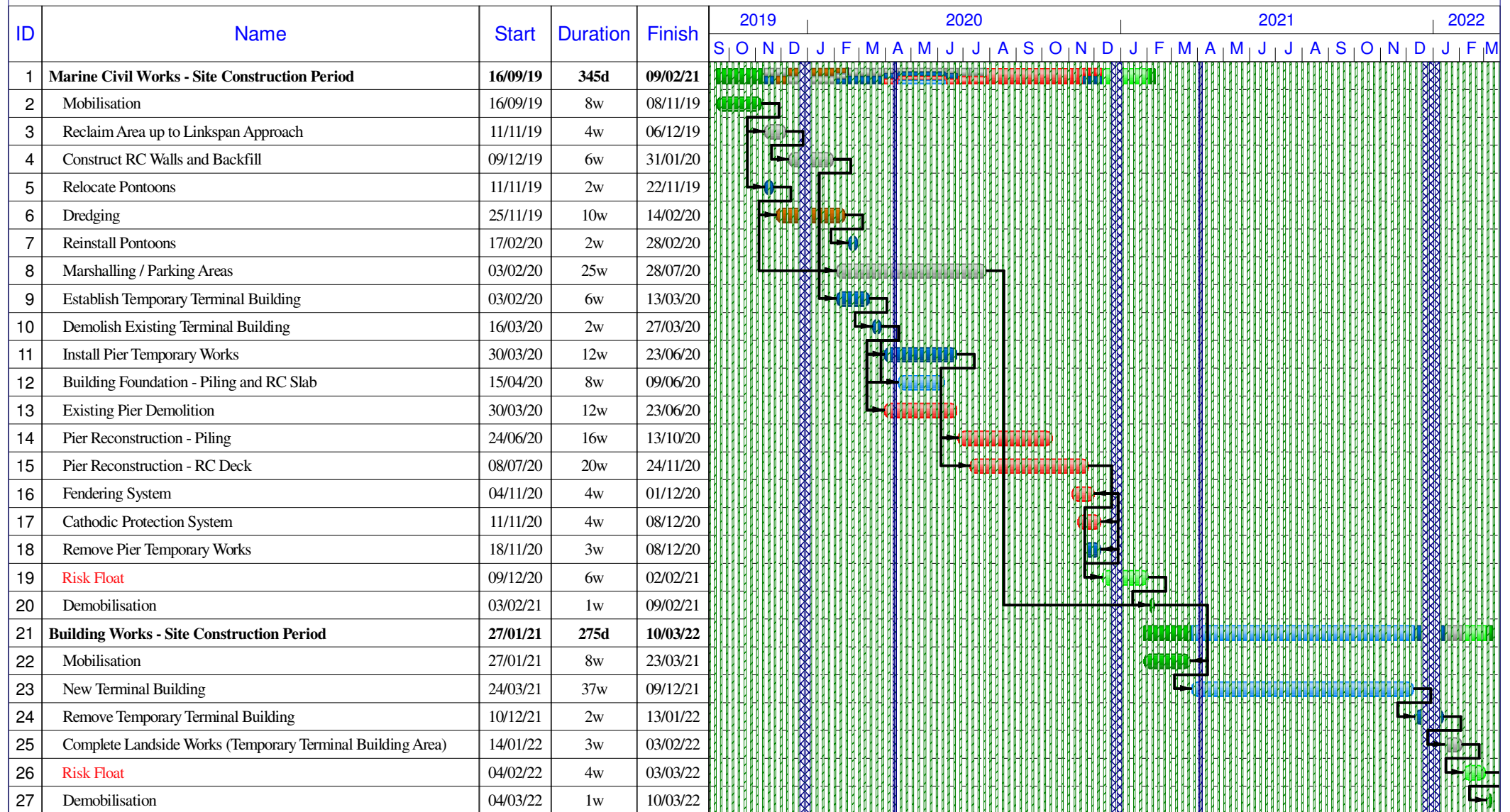
Appendix B.2: Tarbert Construction Programme



1973 - Tarbert (Harris) Ferry Terminal

Indicative Construction Programme
(Rev B)

10/01/19



Marshalling Area
 Pier Works
 Terminal Building
 Dredging
 Mobilisation / Demobilis
 Temporary / Enabling Works
 Risk



Appendix C.1: Scoping Summary Table



Scoping Summary Table

Consultee	No.	Point for consideration within ES	Response to scoping opinion
MS-LOT	7.2.1	There are no Air Quality Management Areas within the Western Isles, and there are no areas where pollutant levels have been exceeded or are close to exceeding these levels. The background air emissions levels are not expected to be high at Tarbert as there is limited urbanisation and development on Harris.	Chapter 5 – Air Quality included in Baseline (Section 5.4.1)
MS-LOT	7.2.2	Creation of dust during the earthworks and clearing required during the land reclamation works to increase the marshalling area, has the potential to impact vegetation and human health. The dust and emissions mitigation controls will be detailed in a Schedule of Mitigation (SoM) and detailed site plans (as preferred over a CEMP by SEPA), prior to the commencement of construction. No operational impacts are expected on Air Quality and so this aspect is not required as part of the EIA Report.	Chapter 5 – Air Quality details the dust mitigation in Section 5.7.1, the mitigation is also included in the SoM provided in Chapter 15: Schedule of Mitigation
MS-LOT	7.2.3	Current sources of greenhouse gas (GHG) emissions in Tarbert Harbour are likely limited to the existing ferry service and local traffic in the area. The new ferry is likely to have lower emissions due to its dual fuel capabilities. The ferry timetable and number of vessel movements is not expected to change and the GHG emissions associated with construction are not anticipated to be significant. In order to reduce GHG emissions during construction, plant and vessels will be appropriately maintained and marshalled vehicles will be requested to switch engines off while waiting. Therefore, an assessment of impacts from increased GHG emissions is not required as part of the EIA process.	Chapter 5 - Air Quality, considers GHG emissions in a proportionate manner, including the consideration of Cold Ironing. Chapter 15 – Schedule of Mitigation includes 'Marshalled vehicles will be requested to switch off engines while waiting'
MS-LOT	7.3	There are no known features of archaeological importance within site boundary and as such no significant impacts are expected during the construction or operational phases of the works. Providing no archaeological materials are discovered during benthic surveys, Archaeology and Cultural Heritage can be scoped out of the EIA Report. A protocol for archaeological discoveries will be included within the site specific SoM (either separate or contained within a CEMP) to ensure it is utilised in the event of an archaeological find.	Chapter 15 – Schedule of Mitigation includes 'A protocol for archaeological discoveries will be included within the CEMP to ensure it is utilised in the unlikely event of an archaeological find.'
MS-LOT	7.4.1	The impacts of the construction phases of the development on marine biodiversity are scoped into the EIA Report.	Chapters 6 to 9 consider Marine Biodiversity
SNH	7.4.2	The Tarbert Ferry Terminal Development is located 8.3 km from and is likely to have a significant effect on the Inner Hebrides and the Minches cSAC. The Inner Hebrides	Chapter 7 - Marine Mammals considers effects on harbour porpoise. An HRA Pre-

Consultee	No.	Point for consideration within ES	Response to scoping opinion
		and the Minches cSAC is designated for Harbour porpoise (<i>Phocoena phocoena</i>). Information should be submitted prior to submitting the EIA Report for a Habitats Regulations Assessment. This will allow MS LOT to respond with a HRA Screening Report, so that the information for the Appropriate Assessment can be provided in the EIA Report.	Screening Report is provided as Appendix F.1.
SNH	7.4.3	Limited information is known on the benthic ecology within the area and therefore the sensitivity of the area is also an unknown. The EIA report should include some benthic habitat mapping as part of the assessment. These surveys should involve benthic video transects and grab sampling.	Chapter 8 – Benthic Ecology and Appendices H.1 and H.2 provide details of the benthic habitat surveys (video transects and grab sampling) and mapping completed to inform the EIAR.
SNH	7.4.4	The dredging works, installation of the pier extension and the land reclamation for the extension of the marshalling area will result in the loss of marine habitat for benthic organisms and fish. The pile driving has the potential to cause injury or disturbance to fish and cetaceans through underwater noise emissions. Additionally, increased boat movements to transport construction materials could cause further disturbance and could also increase the risk of non-native species being introduced into the area.	Chapters 6 to 9 consider effects of all works on marine species. Chapter 11 - Noise (Underwater) specifically considers pile driving. The risk of introduction of non-native species is considered in Chapter 13 - Water Quality, Section 13.5.1.4.
SNH	7.4.5	With underwater noise being a primary issue, impacts on marine ecology will be conducted following the completion of an underwater noise model. This will involve assessment of potential impacts to Harbour porpoise other cetaceans and fish. These surveys will allow appropriate mitigation to be developed and implemented.	Chapter 11 - Noise (Underwater) includes the noise model, the output of which has been utilised in the consideration of effects on Cetaceans in Chapter 7 - Marine Mammals and Chapter 8 - Fish. Appropriate mitigation has been identified and included within Chapter 15 - Schedule of Mitigation.
SNH	7.4.6	Operationally, as the project is an upgrade and extension of an existing harbour, boat movements are expected to remain the same and therefore there is no additional risks to marine ecology from the operation of the site. No assessment of effects on biodiversity and nature conservation during the operation phases of the work are required as part of the EIA Report.	N/A – no action required
SNH	7.4.7	It is unlikely that birds will be significantly impacted by the site preparation or construction activities as no habitat sites are expected within the proposed work areas. Birds identified during the baseline survey were not using the ferry terminal	N/A – no action required

Consultee	No.	Point for consideration within ES	Response to scoping opinion
		vicinity as a nesting habitat. No assessment of the effect upon ornithology during construction and operation are required as part of the EIA process due to the lack of sensitive features within the area and the minimal potential for construction and operational impacts of the development	
CnES	7.5.1	The Tarbert Ferry Terminal is located within the South Lewis, Harris and North Uist National Scenic Area (NSA). The Local Authority are of the opinion that Landscape, Seascape and Visuals should be scoped in, noting the designation and importance of Tarbert as a gateway to the Hebrides. The Scottish Ministers are therefore minded to agree with this opinion and therefore this topic should be scoped in.	Chapter 14 – Landscape, Seascape and Visual has been included and considers the effects on the NSA.
SEPA	7.6.1	<p>Baseline surveys indicated that the underlying bedrock in the area is the Lewisian Complex. The dredging, land reclamation and piling have the potential to affect the land and soil quality within the marine environment through changes to the till structure and sediment deposition. The dredge material will be used to infill the marshalling area extension and therefore reduces the requirement for off-site disposal. In order to minimise the potential effects, the applicant proposed the following mitigations:</p> <p>Soil Contamination</p> <ul style="list-style-type: none"> • Correct disposal of hazardous waste and contaminated water • Storage of chemicals and hydrocarbons in secondary containment, where applicable • Adequate spill response equipment on site • Installation of adequate surface water management facilities • Regular maintenance will be undertaken on equipment • Designated wash down areas for concrete contaminated equipment and tools. <p>Removal of underlying geology</p> <ul style="list-style-type: none"> • Removal of rock areas, will be minimised through design informed by ground investigation • Localised techniques to be utilised <p>The assessment of impacts to Land and Soil Quality is not required to be part of the EIA Report.</p>	Chapter 15 – Schedule of Mitigation includes the mitigation discussed. Seabed sampling has shown the material is not suitable for reuse. This is discussed in Chapter 13 - Water Quality and a separate BPEO produced to support dredge disposal.

Consultee	No.	Point for consideration within ES	Response to scoping opinion
CnES	7.7.1	The main economic sectors within the Western Isles are public services, constructions, fishing, fish farming and fish processing. The applicant proposes a local workforce to be used where possible. The workforce will require to use the amenities in the area, which will provide socio-economic benefits.	Chapter 15 – Schedule of Mitigation includes ‘employment of a local workforce will be encouraged’.
CnES	7.7.2	The project is an upgrade of an existing ferry terminal and therefore there are no additional risks to population, human health or socioeconomic changes from the current baseline. Therefore, an assessment of impacts to population human health and socioeconomics are not required as part of the EIA Report.	N/A – no action required
SNH	7.8.1	During the construction phases, underwater noise is likely to be generated during the piling, dredging, fill levelling and from vessel traffic delivering materials. This could have the potential to disturb and possibly injure marine mammals in the area. Noise and vibration associated with construction phases should be investigated further and therefore should be scoped into the EIA Report. An underwater noise model should be developed in order to predict the noise emission levels and frequencies at different ranges from the site. This model will inform the marine ecological risk assessment and if required noise mitigation should be implemented. The EIA Report should also contain information required to inform Habitats Regulations Appraisal, including broadening the scope to consider impacts to other species of cetaceans and possible EPS disturbance licence requirements (for cetaceans and potentially for Basking sharks).	Chapter 11 - Noise (Underwater) includes the noise model, the output of which has been utilised in the consideration of effects on Cetaceans in Chapter 7 - Marine Mammals and Chapter 8 - Fish. Appropriate mitigation has been identified and included within Chapter 15 - Schedule of Mitigation. An HRA Pre-Screening Report is provided as Appendix F.1.
SNH	7.8.2	The applicant should consult the Scottish EPS guidance [http://www.gov.scot/Resource/0044/00446679.pdf] which provides good practical guidelines for specific activities. It is considered that these guidelines currently represent best practice and adherence to the guidelines should reduce the risk of an injury offence.	The guidance has been taken account of in the production of Chapter 7 - Marine Mammals.
SNH	7.8.3	Operationally, it is unlikely that the noise generated from the development will increase significantly from the current baseline. Therefore, an assessment of impacts from noise and vibration during the operation phase are not required as part of the EIA Report.	N/A – no action required
SEPA	7.9.1	Details should be provided in the EIA Report of how waste generated on site will be stored and disposed of, including contaminated materials. Furthermore, although there are some natural resources on the site that will be reused as part of the	Chapter 2: Project Description, details how waste arisings will be managed during the building demolition. Chapter 13: Water

Consultee	No.	Point for consideration within ES	Response to scoping opinion
		proposed works, some materials will have to come from elsewhere. For the proposed land reclamation, given the use of sheet piles, it is likely SEPA will regulate this activity under The Waste Management Licensing (Scotland) Regulations 2011 (WML) should waste dredging spoil be utilised. SEPA will have to advise on the likely consentability of this proposal and early consultation is recommended. Mitigation measures should then be included in the CEMP or as advised by SEPA, a SoM with detailed site plans demonstrating how impacts on the environment have been minimised through site design. Waste generated during the demolition phases will be removed by a licensed waste contractor. Operationally there may be an increase in water and waste produced by passengers, however this is not anticipated to be significant.	Quality and Coastal Processes, considers waste and the need for appropriate storage. Dredge spoil is not be reused.
SEPA	7.9.2	In order to minimise the potential effects, the following mitigations should be included within a site specific SoM (either separate or contained within a CEMP) and implemented: Material and water usage: ·Reuse of dredge material, where practicable ·Waste hierarchy employed ·Existing built infrastructure will be re-used or upgraded wherever possible Incorrect waste disposal ·Limited number of construction employees on site ·Segregated bins provided ·Waste appropriately segregated ·Hazardous waste and contaminated water will be disposed of correctly	Chapter 15 – Schedule of Mitigation provides the mitigation as requested. However, it should be noted that dredge material is not suitable for reuse. This will be reflected in the Construction Environmental Management Documentation.
SEPA	7.9.3	Provided a site specific SoM (either separate or contained within a CEMP) is implemented, the assessment of impacts to Natural Resource Usage and Waste is not required as part of the EIA Report.	Chapter 15 – Schedule of Mitigation, includes mitigation associated with natural resource usage and waste.
MCA	7.10.1	During the construction phases, relocation of existing pontoons and moorings is required to accommodate the dredging activity. The EIA report should demonstrate that the issue of disturbance to other users, including, but not limited to, visiting and local recreational vessels, has been addressed and mitigation measures identified if necessary.	Chapter 12 – Traffic, Access and Navigation considers the need to move the pontoons and the associated impacts on local and visiting vessels.

Consultee	No.	Point for consideration within ES	Response to scoping opinion
MCA	7.10.2	During the operational phases, a single safety management system should be implemented, but arrangements may be required prior to the revised HRO approval.	Chapter 12 – Traffic, Access and Navigation details how safety will be ensured throughout the construction and operational phases of the project.
MCA	7.10.3	Marine Traffic and Access during the construction and operational phases should be scoped into the EIA report, demonstrating that methods which will be employed to minimise disturbance to other vessel users in the area and clearly set out what management system will be used.	Chapter 12 – Traffic, Access and Navigation considers safety management and disturbance to other vessel users.
SEPA	7.11.1	The proposed dredging and piling works, and increased surface water run-off have the potential to affect changes in the: <ul style="list-style-type: none"> • water and sediment quality through changes to the suspended sediment concentrations; • dissolved oxygen in the water column; • level of water and sediment contaminants; and • water and sediment quality from the redistribution of sediment-bound chemical contaminants. 	Chapter 13 - Water Quality & Coastal Processes considers effects associated with dredging, construction and operational phases on water quality.
SEPA	7.11.2	SEPA Guidance Note 17 should be used and a risk assessment process adopted where appropriate to evaluate significance. This will include the identification of all existing discharges within the vicinity of the construction site, for example the welfare facilities on the pier. Details of how each will be accommodated will be included in the EIA.	Chapter 13 - Water Quality & Coastal Processes has taken account of the guidance note, including the completion of a WFD assessment.
SEPA	7.11.3	<ul style="list-style-type: none"> • Seabed sampling will be undertaken in line with the Pre-Disposal Sampling Guidelines as referenced in Appendix IV. The results of this will be used to assess any potential impacts of mobilising historic contamination in the seabed. 	Pre-disposal sampling has been completed, remobilisation of historic contamination is not predicted. Chapter 13 - Water Quality and Coastal Processes.
SEPA	7.11.4	The proposed land reclamation has the potential to alter wave direction and local geomorphological characteristics, and the EIA report should demonstrate that these have been addressed and mitigation measures identified if necessary.	Chapter 13 - Water Quality and Coastal Processes, considers effects on local geomorphology.
SEPA	7.11.5	Impacts from flood / tidal surges can be scoped out (as risk is negligible) but are to be mitigated through using the Coastal Flood Boundary Levels for Scotland and updated climate change predictions in the design of the structures.	Chapter 13 - Water Quality and Coastal Processes, details how flood has been taken account of within the design.

Consultee	No.	Point for consideration within ES	Response to scoping opinion
SEPA	7.11.6	Water Quality and Coastal Processes are scoped into the EIA Report for the construction phases of the work. Operationally, no significant changes are anticipated to the current water quality and coastal processes.	Chapter 13 - Water Quality and Coastal Processes, focuses on the construction phase, potential benefits to water quality associated with operations are also considered.
SEPA	7.12.1	Impacts from major accidents and disasters were considered in the Screening and Scoping Reports within the context of the potential risk associated with the location and proposed site use. Provided use of the Operational and Safety Management System throughout construction and operation to manage any incidents and risks, severe storms and transport accidents should not have to be addressed further and are therefore scoped out of the EIA Report.	N/A – no action required



Appendix F.1: Tarbert Ferry Terminal Upgrade Habitat Regulations Appraisal Pre-Screening Report



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1 Introduction

In conjunction with submitting an Environmental Impact Assessment Report (EIAR) to support a Marine Licence application for the proposed Tarbert Ferry Terminal Upgrade, this Habitats Regulations Appraisal (HRA) Pre-Screening Report provides information required for the competent authority to carry out an HRA, and, where required, an Appropriate Assessment (AA).

This report is designed to be read in conjunction with the EIAR and directs the reader to the chapters and section of the EIAR which are relevant to the designated site or qualifying species being discussed.

1.1 Legislative Basis

An HRA is required for this development due to its proximity to multiple Natura 2000 sites, including Special Areas of Conservation (SACs) and Special Protection Areas (SPAs). The legislative context for this requirement is based on Article 6(3) of the Habitats Directive (92/43/EEC), Article 4(4) of the Birds Directive (2009/147/EC), and is implemented in Scotland through The Conservation (Natural Habitats, &c.) Regulations 1994 (the Habitats Regulations).

In Scotland, the Scottish Planning Policy document ensures that Ramsar sites, which are normally included in an HRA assessment, overlap with Natura sites and are therefore protected under the same legislation (Scottish Ministers, 2014). Therefore, Ramsar sites do not need considered separately as part of this HRA Screening report.

If a likely significant effect (Alsenoy *et al.*) is predicted on a Natura Site at the first stage of the HRA, then an Appropriate Assessment (AA) must then be carried out. The AA must demonstrate that the proposal will not adversely affect the integrity of the site (SNH, 2017a).

It is the responsibility of the competent authority to carry out the HRA based on robust, scientific information provided by the project developer about the proposed project. It is not the role of the developer to make an assessment on whether or not the proposal will have an adverse effect on any associated Natura sites.

1.2 Terminology

The terminology employed as part of the HRA process relates to LSEs. Assessment of LSEs takes a precautionary approach and asks whether a project may have an effect, or have the possibility of having an effect, on a Natura site (SNH, 2017b). A project component is said to have an LSE on a designated site if "*it cannot be excluded, on the basis of objective information, that it will have a significant effect on the site*" (European Court of Justice C-127/02, 2004). The conservation objectives of the site provide the framework for considering the potential for LSEs.

It should be noted that the terminology used as part of the ecological impact assessments in the EIAR chapters refers to significance based on a matrix system. It is important, when using these documents in conjunction with one another, to be aware that the term 'significance' has different meaning in these two different contexts. In this HRA Pre-Screening report, the use of

the word 'significant' in relation to impact assessments is not employed within the assessment to avoid confusion.

1.3 Objectives

The objectives of this HRA Pre-Screening report are to summarise:

- The proposed development details;
- The Natura 2000 sites being considered with reference to the Tarbert Ferry Terminal Upgrade, along with these sites' qualifying interests and conservation objectives;
- Details on the qualifying interests for each of the scoped-in Natura sites.

This information will aid the competent authority in carrying out an HRA. This HRA Pre-Screening Report provides a reference as to where the relevant information required to complete the HRA is located within the EIAR, and as such should be read in conjunction with the EIAR and not as a stand-alone document. An indication of whether LSEs are expected is given for each designated site, but it is ultimately up to the competent authority carrying out the HRA to ascertain whether LSEs are present, and therefore whether an AA is needed for each designated site.

2 Project Summary

Caledonian Maritime Assets Limited (CMAL) is proposing to upgrade the existing Tarbert Ferry Terminal in order to accommodate a new ferry. The new ferry is currently being constructed for use on the Skye Triangle routes (Tarbert – Uig and Uig- Lochmaddy). The ferry is larger and can carry more passengers and vehicles than the existing vessel. The proposed upgrades are required to allow the safe berthing of the larger vessel, and to provide facilities for the additional passengers and vehicles. The upgrades include the following components:

- Demolition of the existing ferry pier;
- Construction of a new, longer pier structure;
- Installation of new parallel motion fendering system to the new pier structure;
- Demolition of the existing terminal building;
- Construction of new terminal building;
- Dredging works within East Loch Tarbert to allow vessel manoeuvring;
- Extension of marshalling and carpark area through land reclamation; and
- Temporary construction arrangements including temporary works, temporary fendering and installation of a temporary terminal building.

Further details on the individual components of the project can be found in the EIAR Chapter 2: Project Description.

3 Designated Sites

The designated sites which have designated features relevant to the Tarbert Ferry Terminal Upgrade are shown in Table 3.1. The sites, or species within the sites, are scoped in or out depending on the level of ecological connectivity to the proposed works. A reduced list of designated sites and features is then taken forward for further assessment. Explanations for why certain sites or qualifying features are excluded is laid out in Section 3.1.

Table 3.1: Designated Sites Relevant to the Proposed Tarbert Ferry Terminal Upgrade

Site	Distance and Direction	Qualifying Feature(s)	Included in Further Assessment?
Inner Hebrides & the Minches cSAC	8km by sea SE	Harbour porpoise (<i>Phocoena phocoena</i>)	IN
North Harris Mountains SPA	6km NW	Golden eagle (<i>Aquila chrysaetos</i>), breeding	OUT
Lewis Peatlands SPA	13km N	Black-throated diver (<i>Gavia arctica</i>), breeding Black-throated diver (<i>Gavia arctica</i>), breeding Golden eagle (<i>Aquila chrysaetos</i>), breeding Golden plover (<i>Pluvialis apricaria</i>), breeding	OUT
Shiant Isles SPA	20km E	Fulmar (<i>Fulmarus glacialis</i>), breeding Guillemot (<i>Uria aalge</i>), breeding Kittiwake (<i>Rissa tridactyla</i>), breeding Greenland barnacle goose (<i>Branta leucopsis</i>), non-breeding	OUT
North Uist Machair and Islands SPA	28km SW	Corncrake (<i>Crex crex</i>), breeding Dunlin (<i>Calidris alpina schinzii</i>), breeding Oystercatcher (<i>Haematopus ostralegus</i>), breeding Greenland barnacle goose (<i>Branta leucopsis</i>), non-breeding	OUT
Ascrib, Isay, & Dunvegan SAC	36km by sea SE	Common seal (<i>Phoca vitulina</i>)	IN
Loch nam Madadh SAC	40km by sea SW	Otter (<i>Lutra lutra</i>) Intertidal mudflats and sandflats Lagoons Reefs	OUT
North Harris SAC	60km by sea (8km direct) N	Atlantic salmon (<i>Salmo salar</i>) Acid peat-stained lakes and ponds Acidic scree Alpine and subalpine heaths	OUT
Monach Islands SAC	80km by sea (60km direct) SW	Grey seal (<i>Halichoerus grypus</i>) Dune grassland Machair Shifting dunes with marram	OUT
Sound of Barra SAC	94km by sea (94km direct) SW	Common seal (<i>Phoca vitulina</i>) Reefs Subtidal sandbanks	OUT
Langavat SAC	110km by sea NW	Atlantic salmon (<i>Salmo salar</i>)	OUT
North Rona SAC	150km by sea NE	Grey seal (<i>Halichoerus grypus</i>) Reefs Sea caves Vegetated sea cliffs	OUT
Treshnish Isles SAC	157km by sea SE	Grey seal (<i>Halichoerus grypus</i>) Reefs	OUT
South East Islay Skerries SAC	255km by sea SE	Common seal (<i>Phoca vitulina</i>)	OUT

3.1 Reasons for Designated Site or Species Exclusions

3.1.1 *Special Protected Areas Designated for Ornithological Features*

The 4 SPAs detailed in Table 3.1 are located more than 5km from the proposed Tarbert Ferry Terminal Upgrade, hence there is no potential for direct effects on these designated sites. As detailed in the Scoping Report, an initial ornithological survey was conducted in order to ascertain the avian species utilising the site, together with the value of the available habitat for breeding and non-breeding birds. None of the avian qualifying feature species associated with the 4 SPAs were recorded as being present in the area during the ornithological survey, and no valuable habitat for these species was identified (Affric, 2017). As such, there is no potential for the proposed works to affect the SPAs or their qualifying features, hence the SPAs require no further consideration.

3.1.2 *Loch mam Madadh SAC*

This site is designated for otters, together with marine benthic features including sandbanks, lagoons and reefs. Due to the distance from the proposed works, there is no connectivity between the ferry terminal upgrade and the benthic qualifying features of this site. With regard to otters, while they are a mobile species with extensive home ranges, the 'by sea' distance from Tarbert to Loch mam Madadh is 40km. In the coastal environment, otter home ranges are between 2-10km (Chanin, 2012), and as such it is very unlikely that an otter would travel from the Loch mam Madadh to the proposed works. Therefore, there is no potential for the proposed Tarbert Ferry Terminal Upgrade to negatively affect this site or its qualifying features and no further consideration is required.

3.1.3 *North Harris SAC*

The North Harris SAC is designated due to its importance to Atlantic salmon, together with terrestrial features including lake, pond, scree and heath features. The site is located 8km by land from Tarbert, and hence there is no potential for direct effects on the terrestrial features of the site. With regard to Atlantic salmon, the rivers and streams within this site all feed into the west coast of Harris, which is approximately 60km by sea from the proposed works. It is considered extremely unlikely that salmon migrating to or from the rivers within this site will be present in the waters surrounding the Tarbert Ferry Terminal, on the east coast of the island. As such, no connectivity is anticipated between the qualifying fish features of this site and the marine works at Tarbert, and hence this site is not considered further.

3.1.1 *Monach Islands SAC*

The Monach Islands SAC is designated as a grey seal (*Halichoerus grypus*) breeding colony, as well as for terrestrial features including grasslands, machair and dune systems. The islands are located to the west of North Uist, 60km in a straight line from the proposed works, hence there is no potential for direct impacts on the site's terrestrial features. The proposed ferry terminal upgrade is within foraging range of the grey seal features of the site. However, as detailed in the EIAR, Chapter 7: Marine Mammals, Section 7.4.2.3, grey seals are only rarely present in the waters surrounding the proposed works. As such it is considered extremely unlikely that the Tarbert Ferry Terminal Upgrade will result in negative effects for this site, or its qualifying features, hence no further consideration is required.

3.1.2 Sound of Barra SAC

The Sound of Barra SAC is designated due to its importance to common seals, as well as the presence of sensitive benthic features including reefs and sandbanks. The site is located 94km south of Tarbert, between the southern end of South Uist and the north coast of Barra, hence there is no connectivity between the proposed works and the reef and sandbank features (JNCC, 2018). While the site also supports a significant presence of common seals, given the relatively short foraging distances of this species (typically 50 km) (SCOS, 2017), it is considered unlikely that common seals from the Sound of Barra SAC will be in the vicinity of the proposed working areas. Therefore, there is no potential for negative effects on this site or its qualifying features resulting from the Tarbert Ferry Terminal Upgrade, and no further consideration of the Sound of Barra SAC is necessary.

3.1.3 Langavat SAC

The Langavat SAC is designated for the conservation of Atlantic salmon. This site meets the marine environment at Loch Ceann Hùlabhaig, on the west coast of Lewis. This is approximately 110km by sea, and on the opposite side of the island, from the proposed development. It is therefore considered extremely unlikely that salmon migrating to or from the Langavat SAC will be present in the waters surrounding the proposed works. As such, no connectivity is anticipated between this site and the marine works at Tarbert, hence this site is not taken forward for assessment.

3.1.4 North Rhona SAC

The North Rhona SAC is designated as a grey seal breeding colony, as well as for the presence of reefs, sea caves and vegetated sea cliffs. North Rhona is located 150km from Tarbert, so no direct effects on the reefs, cave or sea cliff features are possible. The proposed ferry terminal upgrade is within foraging range of the grey seal features of the site. However, as detailed in the EIAR, Chapter 7: Marine Mammals, Section 7.4.2.3, grey seals are only rarely present in the waters surrounding the proposed works. It is therefore extremely unlikely that negative effects will result on the grey seal features of the North Rhona SAC, hence no further consideration of this site is made.

3.1.5 Treshnish Isles SAC

The Treshnish Isles SAC is designated primarily due to its importance to breeding grey seals, but also due to the presence of reefs. The proposed ferry terminal upgrade is within range of the grey seal features of the site. However, as detailed in the EIAR, Chapter 7: Marine Mammals, Section 7.4.2.3, grey seals are only rarely present in the waters surrounding the proposed works. No connectivity exists between the Tarbert Ferry Terminal Development and the site's reef features, due to the distance between these areas. As such, no negative effects on this site, or its qualifying features are expected, and it is not taken forward for assessment.

3.1.6 South East Islay Skerries SAC

The South East Islay Skerries SAC is designated due to its support of a nationally important common seal population. The uninhabited skerries and islands of the SAC are extensively used as pupping, moulting, and haul-out sites by this species (JNCC, 2018). However, the site is located 255km from the proposed works, and hence is outwith the relatively short foraging

range of common seals, (typically 50 km) (SCOS, 2017). Therefore no ecological connectivity exists between Tarbert and the South East Islay Skerries SAC, and no further consideration of this site is required.

3.2 Designated Site Information

The Conservation Objectives of each of the designated sites taken forward is provided in the following sections, together with an appraisal of each site's qualifying features. The assessments conducted during the EIA for each site and qualifying features are summarised, and references given to the relevant material within the EIAR.

3.2.1 Inner Hebrides & the Minches cSAC

The Inner Hebrides & the Minches candidate SAC (cSAC) is designated for the conservation of harbour porpoise (*Phocoena phocoena*). The area is of key importance to the UK part of the harbour porpoise management unit, and is estimated to support approximately 5,438 individuals for at least part of the year, equating to approximately 32% of the management unit (SNH, 2016). It is suggested that the area within the cSAC, relative to the rest of the continental shelf, includes the best habitat for harbour porpoises and have been used consistently by the species over the last two decades (SNH, 2016). The site is taken forward for assessment because is situated within 8km of the proposed development, and 850m of the Stornoway dredge spoil ground, hence there is potential connectivity between the construction operations and the designated features of the cSAC.

The Conservation Objectives for the Inner Hebrides & the Minches cSAC are shown in Table 3.2 and the qualifying features shown in Table 3.3 with a summary of the assessment.

Connectivity has been identified between the Inner Hebrides and The Minches cSAC and the proposed works due to the highly mobile nature of the site's qualifying harbour porpoise features. This, combined with the techniques likely to be utilised during the construction of the Tarbert Ferry Terminal Upgrade, means that there is the potential for the works to have a LSE on the site. Therefore, it is likely an AA will be required.

Table: 3.2: Inner Hebrides & the Minches cSAC Conservation Objectives

Conservation Objective of the Designated Site	Main EIAR Chapter(s) to Inform Assessment
Overarching Conservation Objective: To maintain site integrity and ensure the site continues to make a contribution to harbour porpoise remaining at favourable conservation status in UK waters.	Chapter 7: Marine Mammals
Further Conservation Objectives: <ul style="list-style-type: none"> To avoid significant killing, injury, or disturbance of harbour porpoise; and To maintain the habitat and prey of harbour porpoise in favourable condition. 	Chapter 7: Marine Mammals In addition: Chapter 11: Noise and Vibration (Underwater)

Table 3.3: Inner Hebrides & the Minches cSAC Qualifying Features

Species	Relevant EIAR Chapter and Sections	Summary of Assessment
Harbour porpoise	Chapter 7, Sections: 7.5 and 7.6. Chapter 11, Section: 11.5.2.1.	In the absence of mitigation procedures, there is the potential to cause moderate disturbance and possible injury to the harbour porpoises designated under the cSAC. This is due to noise from impact piling operations and interactions with falling material during dredged spoil disposal at the Stornoway spoil ground. Through the implementation of a piling marine mammal protocol and a dredged spoil disposal marine mammal protocol, the resulting effects on harbour porpoise features of the Inner Hebrides & the Minches cSAC are reduced to minor. Therefore, no population level effects are expected on the Inner Hebrides and the Minches cSAC harbour porpoise, and the conservation objectives of the site will not be compromised.

3.2.2 Ascrib Isay & Dunvegan SAC

The Ascrib Isay & Dunvegan SAC is designated due to its importance to the UK common seal (*Phoca vitulina*) population. The complex of skerries, islets, undisturbed mainland shores and offshore islands in north-west Skye consistently support a breeding colony of the common seal and represents one of the larger discrete colonies in the UK, holding around 2% of the UK population (JNCC, 2018). This site is taken forward for assessment as it is within the foraging range of common seals from the development site.

The Conservation Objectives for the Ascrib Isay & Dunvegan SAC are shown in Table 3.4 and the qualifying features shown in Table 3.5 with a summary of the assessment.

Connectivity has been identified between the Ascrib Isay & Dunvegan SAC and the proposed works due to the highly mobile nature of the site's qualifying common seal features. This, combined with the techniques likely to be utilised during the construction of the Tarbert Ferry Terminal Upgrade, means that there is the potential for the works to have a LSE on the site. Therefore, it is likely an AA will be required.

Table 3.4: Ascrib Isay & Dunvegen SAC Conservation Objectives

Conservation Objective of the Designated Site	Main EIAR Chapter(s) to Inform Assessment
Overarching Conservation Objective: To avoid deterioration of the habitats of the qualifying species (listed below) or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained and the site makes an appropriate contribution to achieving favourable conservation status for each of the qualifying features.	Chapter 7: Marine Mammals
Further Conservation Objectives: To ensure for the qualifying species that the following are maintained in the long term: <ul style="list-style-type: none"> • Population of the species as a viable component of the site; • Distribution of the species within site; • Distribution and extent of habitats supporting the species; • Structure, function and supporting processes of habitats supporting the species; and • No significant disturbance of the species. 	Chapter 7: Marine Mammals In addition: Chapter 11: Noise and Vibration (Underwater)

Table 3.5: Ascrib Isay & Dunvegen SAC Qualifying Features

Species	Relevant EIAR Chapter and Sections	Summary of Assessment
Common seal	Chapter 7, Sections: 7.5 and 7.6. Chapter 11, Section: 11.5.2.1.	In the absence of mitigation procedures, there is the potential to cause moderate disturbance and possible injury to the common seal qualifying features of the SAC. This is due to noise from impact piling operations and interactions with falling material during dredged spoil disposal at the Stornoway disposal site. Through the implementation of a piling marine mammal protocol and a dredged spoil disposal marine mammal protocol, the resulting effects on common seals are reduced to minor. Therefore, no population level effects are expected on the Inner Ascrib Isay & Dunvegen SAC common seals, and the conservation objectives of the site will not be compromised.

4 Cumulative and In-combination Effects

Cumulative and in-combination effects of the Tarbert Ferry Terminal Upgrade were assessed as part of the EIA process, as detailed in Chapter 3: Methodology.

Specifically, with regard to the HRA process, cumulative and in-combination effects were assessed for the following receptors:

- Chapter 7: Marine Mammals; and
- Chapter 9: Fish.

No cumulative or in-combination effects were identified for any receptors relevant to the HRA process.

5 Conclusion

The EIAR did not predict any residual adverse impacts on any of the qualifying features of the designated sites assessed as part of this HRA Pre-Screening Report, and no cumulative or in-combination effects are anticipated. Information from this report can be used by the competent authority, in conjunction with the relevant EIAR Chapters and Sections as identified in this report, to carry out the HRA and any necessary AAs. It will be up to the competent authority to ascertain whether the proposal will adversely affect the integrity of the designated sites to be considered.

6 References

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The numbering of the appendices provided here relates to the Volume 2 Chapters, i.e. Appendix A relates to Chapter 1 and Appendix F relates to Chapter 6. As not all chapters have appendices, not all letters are utilised, for example Chapter 4 has no appendices so there are no Appendix D.



Appendix A.1: The Environmental Impact Assessment Team



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1 Introduction

Affric Limited have led the EIAR production, however it has been a team effort. Affric have worked closely with the client (Caledonian Marine Assets Ltd (CMAL), their engineers (Wallace Stone) and with a variety of consultants to ensure that appropriate experts have contributed relevant technical input to the assessment. Table A.1 details the lead authors for each of the chapters. Further information with regard to the experience and expertise of the various companies and personnel involved in the production of the EIAR is provided in Section 2.

Table A.1: Lead Authors

Chapter	Lead Author(s)
1: Introduction	Redacted – Affric Limited
2: Project Description	Redacted – Affric Limited
3: Methodology	Redacted – Affric Limited
4: Statutory Context & Policy	Redacted – Affric Limited
5: Air Quality	Redacted – Affric Limited
6: Biodiversity	Redacted – Affric Limited
7: Marine Mammals	Redacted – Affric Limited
8: Benthic Ecology	Redacted – Affric Limited
9: Fish Ecology	Redacted – Affric Limited
10: Noise and Vibration (In-air)	Redacted – TNEI Services Limited
11: Noise and Vibration (Underwater)	Redacted Subacoustech Limited
12: Traffic, Access and Navigation	Redacted – Atkins Fiona Henderson – Affric Limited
13: Water Quality (Marine Environment)	Redacted – Affric Limited
14: Landscape, Seascape and Visual	Redacted – Buchan Landscape Architecture Ltd Redacted Atmos Consulting
15: Schedule of Mitigation	Redacted – Affric Limited
16: Conclusion	Redacted – Affric Limited

2 The Companies

2.1 Affric Limited

Established in 2012, Affric are a growing and highly responsive environmental consultancy business providing a comprehensive range of environmental advice, surveys, planning support, stakeholder and project management services. With a broad and expanding portfolio of clients, they work on a diverse range of projects in the public and private sector from small and medium-sized enterprises to multi-national energy companies. Affric work with their clients to provide high quality tailored services, to ensure that any given project has the most appropriate expertise, irrespective of the sectors or regions in which they operate.

Chartered Environmentalist Redacted leads the Affric team. Her qualifications include a MSc in EIA, Auditing and Management Systems and BSc (*Hons*) in Environmental Chemistry. She previously led the Environmental Statement production for the Invergordon Service Base Phase 3 and 4 Developments and provided support through licensing, construction and into operations. Hence, she is ideally positioned to produce chapters such as water and air quality while managing the full production of the EIAR.

Senior Consultant Redacted is a Marine Biologist with specific expertise in Marine Mammals and underwater acoustics, holding an MRes in Marine Mammal Science. Having acted as the Environmental Clerk of Works (ECOW) on the Invergordon Service Base Phase 3 Development he is familiar with the construction process and the effectiveness of mitigation in practice. He has produced marine ecology chapters for a variety of projects including: the Invergordon Service Base Phase 4 Development and the NorthConnect Interconnector High Voltage Direct Current cable application. In addition to authoring EIAR Chapters, he has also had a key role in the Construction Environmental Management Document production. Redacted also supervised the benthic survey work completed by Aspect and Apem.

Redacted has a first-class BSc (*Hons*) in Environmental Science; as a Junior Consultant, Redacted supported the Affric team on a variety of Chapters and Appendices. He was co-author on the Benthic Ecology, Fish Ecology, Air Quality and Water Quality Chapters which drew upon knowledge gained from authoring similar chapters during the EIAR production for the Invergordon Service Base Phase 4 Development and the Kilfinichen Pier Development.

2.2 Atkins

Atkins, a member of the SNC-Lavalin Group is a multinational engineering, design, planning, project management, and consulting services company with offices in 28 countries. The company has been a member of the Institute of Environmental Management and Assessment's (IEMA) EIA Quality Mark Scheme since 2011.

Atkins, led by Managing Consultant, Redacted completed the Transport Assessment and produced the Traffic and Access sections of the EIAR. Redacted has 11 years' experience in Transport Planning and is a Chartered Member of the Institute of Logistics and Transport. He has significant experience in assessing the transport impacts associated with a wide range of development proposals throughout the UK. Redacted was supported by Redacted who has 7 years' experience in Transport Planning and is a Member of the Transport Planning Society. Redacted has a wide range of experience in technical analysis in support of the preparation of Transport Assessments and Transport Chapters for EIAR's for clients in England, Scotland and Northern Ireland.

2.3 Atmos Consulting Limited & Buchan Landscape Architecture Ltd

Atmos are a modern and dynamic environmental and planning consultancy, providing cost effective and robust solutions with unquestionable integrity. The company's multi-disciplinary team have an in-depth understanding of regulatory and environmental risks. In this project Atmos worked together with Buchan Landscaping to provide the landscape and visual impact assessment. Atmos's Tom Hartley produced the Zone of Theoretical Visibility (ZTV) maps and

photomontages, while Redacted carried out the assessment works. Redacted previously inputted to other port developments and as such had knowledge of landscape sensitivities. Reda who gained his MSc in Landscape Architecture from Harvard, has a wealth of experience in his field and has supported Scottish Natural Heritage in their landscape character assessments throughout Scotland.

2.4 Subacoustech Limited

Subacoustech are specialists in underwater acoustic research and consultancy, providing support on behalf of government and commercial organisations. The Company possesses extensive experience of undertaking underwater noise modelling from activities relating to marine construction and assessing the impacts in accordance with the latest scientific publications. They have worked on both harbour and wind farm projects giving them a detailed understanding of piling noise levels and associated ecological receptors. The team was led by Sam East who has over 15 years' experience in the sector.

2.5 TNEI Services Limited

TNEI's Planning & Environmental (P&E) Group noise team are competent in a range of acoustic disciplines with specialist knowledge of in-air environmental noise assessments, having worked on a wide variety of schemes including transportation, residential and commercial developments, oil and gas facilities, renewable energy developments (wind farms, solar, hydro and biomass) and a number of other sectors. The led author for the In-air Noise Chapter was Redacted, a Member of the Institute of Acoustics PG Dip Acoustics & Noise Control with over 15 years' experience.

2.6 Wallace Stone LPP

Wallace Stone LLP was established in 1973 and is a member of the Association of Consulting Engineers. The company is particularly experienced in maritime civil engineering infrastructure, including; piers, harbours, ferry terminals and coastal protection. Wallace Stone provided engineering and project management support to the Tarbert Ferry Terminal Development. The preliminary and detailed design works and construction input to the EIAR process has been led by Redacted. In addition, he has provided a review function to the EIAR ensuring the engineering and construction plans have been appropriately incorporated. Barry is a chartered civil engineer (BEng (Hons) CEng MICE) with 22 years of maritime civil engineering works experience on facilities that include ferry terminals, ports, harbours, piers, jetties, marinas and slipways. Most of the projects he has been involved with have been located within Scotland.



Appendix B.1: Ferry Terminal Building Specification



Proposed Ferry Terminal Building – Specification

(Prepared for Building Warrant Application)

Refer MMR Architects Dwg: T2.17-A.04.5 (Revision C), dated 04/07/2018

Foundations and Underbuilding:

Any services exposed during excavations will be protected and, where required, rerouted as appropriate.

- Foundations to structural engineer's design.
- Underbuilding to be constructed using 100mm thick dense concrete blockwork.
- Blockwork 7.0N/mm² compressive strength with min. density of 1500Kg/m³.
- Concrete slab foundation to structural engineer's specification.

Floor Construction:

Ground Floor -

- Forbo Surestep vinyl sheet floor finish, colour Cloudy 171642, black colour skirting upstand, all fitted in accordance with manufacturer's printed instructions.
- Office and Admin areas floored in carpet - Quadrant Riva, colour Capri.
- 65mm cement screed smooth finished for flooring.
- 100mm thick Kingspan K103 insulation or equal approved below slab,
- 30mm K103 insulation to perimeter of slab to eliminate cold bridging.
- Visqueen 1200 gauge damp proof membrane, lapped with D.P.C. at 150mm above ground level.
- Radon gas protection is not required.
- U value of floor to be 0.16W/m²K.
- See foundation plan for drain pop ups and services ducts.

Attic floor -

- Floor structure part of prefabricated roof truss by specialist manufacturer.
- Form floored area for plantroom and access walkway in 147x45 timbers @ 600mm centres nailed at right angles above and across truss joists, floored with 22mm V313 chipboard screwed in place.
- 12.5mm plasterboard ceiling taped & filled to underside of joists to provide short fire duration.
- Any service penetrations to be fire collared as noted in META M&E information.
- See Roof spec for insulation.

Structural design

- Waiting area has 3 No. steel portal frames with timber frame wall panels, site fixed timber rafters and glulam beams.
- Structural beams to be clad in 12.5mm thick Gyproc Firecase board or equal approved to provide 1/2hr fire resistance.

- All other areas have timber framed wall panels and prefabricated timber attic trusses. Trusses designed in sections for road & ferry transport to site.

External Wall Construction:

Outer leaf dependant on location see elevations:

- 22mm wet harled finish, mix 3 chips 4-6mm, 2 sand, 1 Snowcrete, waterproofer admix.
 - 100mm dense concrete block outer leaf with 50mm ventilated
 - cavity
 - Perpend vents at 1.2m horizontal centres below DPC, above and below intermediate floor at gable.
 - D.P.C Icopal Xtra-Load Elite or equal approved 150mm above adjacent ground level.
 - Eternit Cedral cladding boards colour C05 instead of block & harling to areas as indicated on elevations.
 - Provide 10mm ventilation gap at top and bottom of cedral panels with grey insect mesh protection.
 - Q-mark approved reflective building paper to outside face of wall frame
 - 11mm thick OSB sheathing to inside & outside faces of wall panel
 - 45x145mm timber frame wall with studs at 600mm centres (see structural engineer's information)
 - 140mm Knauf Earthwool Frametherm 32 insulation batts
 - 0.032W/mK tightly fitted between timber studs ensuring no gaps
 - Dupont Airguard Vapour control layer
 - 30mm Kingspan 0.022 PIR insulation across face of studs in continuous layer
 - 38mm vertical battens fixed on internal face of wall frame studs to form service void
 - 15mm thick Duraline plasterboard, screw fixed in accordance with manufacturer's instructions.
 - 15mm moisture resistant Duraline plasterboard in all toilet, changing and mess room areas.
-
- Wall U value to be 0.17 W/m²K.
-
- Galvanised M.S. anchor straps 1000x30x30 @ 1200mm centres
 - to be built into outer leaf of wall 2 courses below DPC.
 - Wall ties:
 - Vertically @ 450mm centres
 - Horizontally @ 600mm centres
 - Vertically at openings @ 225mm centres
-
- 38x50mm W/W cavity firestops at eaves, corners, D.P.C. level, at intermediate floor level & at 10m maximum centres.
 - Fit cavity firestop at expansion joint. and at all window / door openings
 - Firestops to be separated from outer leaf with Pitch Free

- Expansion joints to be provided at maximum of 6m centres to engineer's requirements.
- (ideally between studs) Natural bonded cork filler, finished with mastic seal to match render colour.
- Galvanised wall ties at max 375mm cts vertically.
- Tulipwood skirtings & facings with painted finish.
- Internal walls paint finish - Dulux Celestial Cloud 5 70BG 68/056.

Partitions:

- 90x45mm treated W/W studs @ 600mm max. centres with 2no. intermediate dwangs and double bottom runner for ease of skirting fixings.
- 15mm thick Duraline plasterboard of weight 13.9kg/m² each side, screw fixed, taped and filled joints.
- 100mm thick mineral wool insulation weight 10kg/m³ between studs.
- Allow for fixing 18mm plywood backing to all walls in accessible toilet and Changing Place Toilet for fixing grab rails etc.
- Allow for 15mm Duraline MR moisture resistant plasterboard to all toilets, Drying Room and around kitchen worktops.
- High level partition between attic and Waiting Area to be insulated with 30mm Kingspan across room side of frame and 140mm Frametherm 32 insulation batts between 145x45 timber framing.
- OSB sheathing across attic side of framing.

Windows:

To comply with current British Standard BS6375 and NHBC Standards Chapter 6.7

- Nordan Stormguard aluminium clad softwood double glazed windows, factory finished in colour RAL7016 anthracite grey outside, white factory finish inside.
- Solar control glazing to all external windows & doors in Waiting area.
- Etched glass to toilets, other areas clear glass.
- Ironmongery bright chrome to include for key (removeable) locking handles.
- Handles to be not more than 1.5m above floor level and at least 350mm from any internal corner.
- U value of windows & external doors to be 1.3 W/m²K or better.
- All glazing within 800mm of floor level, within a door leaf, and within 400mm of a door leaf is to be laminated safety glass to BS EN 356:2000 BS 6262: Part 4: 2000 as amended with appropriate kite markings.
- No trickle vents to be fitted as mechanical ventilation is proposed.
- Glazing in waiting area to have fixed manifestations to Client design at 900mm and 1500mm above floor level to prevent accidental collision by users.
- Windows & doors to be Secured by Design accredited or equal approved by Building Standards & have BBA certification.

- High level glazing to be cleaned from ground level using an extendable pole with hose attachment.

Doors:

- Entrance door to provide at least 1000mm clear width opening. Frame complete with all seals, weather bars, ironmongery etc.
 - Ensure unobstructed 300mm space at leading edge of entrance door to comply with Standard 4.1.7
 - Entrance threshold 15mm high max. to comply with current Building Standard 4.1.9.
 - Clear width min 800mm.
 - Slotted channel drain (slot width max 12mm) externally across width of all external doors.
 - Outward opening doors to have external rails 950mm high, project 900mm out from building, with rail at 100mm above ground level to Standard 4.8.1.
 - All glazing to doors+sidelights below 1500mm to be toughened safety glass to BS6262 & BS6206 with appropriate kite markings.
 - U value of windows & external doors to be 1.3 W/m²K or better.
 - All doors other than to Toilets & Cleaner to have vision panels to Standard 4.1.7.
 - Powered door operated by motion detector and in line with Standard 4.1.8 and guidance BS 7036-1 to 5: 1996.
-
- Internal doorways to be 926mm(w)x2000mm(h) to give 800mm clear width opening width to comply with current Building Regulations (4.2.6).
 - 965mm width leaf doors with 825mm clear width off 1200mm corridors.
 - 1000mm clear opening to CPT and accessible toilet sliding pocket doors.
 - Staff WCs and Change doors to have double action pivot hinges with emergency access release mechanism to open outward in an emergency (inward opening in normal use).
 - See door schedule.
 - Doors supplied Lederflush Shapland. Male & Female toilet doors to be from Lederflush Sentinel range with anti trap hinge edge design.
 - 30 minute fire resistant self closing doors with cold smoke seals noted on plan as FRSC.
 - Fire exit doors to be fitted with push bar single opening action ironmongery.
 - Any locks on office doors to be openable from inside by thumbturn not a key.
 - All self closing mechanisms to be adjusted to operate smoothly and set to require minimum force to open.

Air Infiltration:

- Best construction practices to be adhered to ensuring all works carried out are to acceptable tolerances as described in the Building research Establishment BRE Report 262: 2002 & the building is constructed in accordance with the Accredited Construction Details (Scotland). Thereafter all dry lining junctions between walls, ceilings and floors and at windows, doors and roof space openings to be adequately sealed. All service boxes made air tight and service

penetrations, windows and doors to have neoprene seals at all joints. All external openings to have joints sealed with mastic.

- Examples:
 - Sealing the gaps; at roof space openings, between dry linings and masonry walls at the edges of window and door openings, and at the junctions between walls, floors and ceilings.
 - Sealing vapour control membranes in timber framed and other framed panel constructions.
 - Sealing at service penetrations of the fabric or around boxing/ducting for services.
 - Fitting draught seals to the openable parts of windows, doors, access hatches and rooflights.
 - Using joist-hangers or sealing around joist ends built into the inner leaf of external cavity walls.
- Ensure DPCs are turned up behind sole plates and lap with vapour control layers; Alternatively seal with mastic or gasket between the DPC and sole plate.
- Ensure sheet vapour control layers are properly lapped at junctions and / or
- Ensure any vapour control plasterboard is jointed in accordance with manufacturer's instructions
- Always return vapour control layers into window & doors reveals, heads & sills
- Cut vapour control layers tight to electrical outlets and seal at piped service penetrations (with tape or sealant as required)
- Ensure all breather control membranes overlap each other and are stapled in place.

Internal Finishes/General - u.n.o.

- Wet wall finish to entire basin and urinal walls, all walls in CPT and Drying Room.
- Sill boards to be laminated timber to avoid warping.
- Provide Dwgans to all timber partitions for the following items:
 - Kitchen wall units top and bottom
 - W.C. cisterns
 - All wall heaters/radiator mounting
 - To all Electrical wall sockets.
- Waiting Area Seating -
 - Park Systems Pledge 4 seat beam unit. Polyprop with vinyl covering, colour Nightshade Mia Beam. Bradbury Torro in Electric. Mixture of with and without arm rests.
- Forbo Nuway Tuftguard Classic aluminium / black clean off matting to entire draught lobby.

Roof Construction:

- Marley Edgemere Duo smooth grey concrete roof tiles proprietary 5000 Sq.mm / m ventilated ridge, Edgemere Dry Verge, all fixed in accordance with BS 5534 and manufacturer's instructions to suit location.
- 50x25 tiling battens
- 50x25 counter battens ventilated at high and low eaves with Protect VP400 LR breathable roofing membrane

- 12mm plywood sarking
- Prefabricated roof trusses by Pasquill / rafters as designed by structural engineer at 30 degree pitch, 400mm centres.
- 25,000Sq.mm continuous soffit vent at Waiting Area with rafter line insulation
- 10,000 Sq.mm / m continuous fascia vent allowing cross ventilation of Attic.
- Maintain 50mm clear air space between insulation and sarking for ventilation.
- Waiting area sloping ceiling -
 - 50mm airspace min. required between insulation and sarking
 - 150mm Kingspan TR27 between rafters
 - 500 gauge vapour control layer across underside of rafters
 - 25mm TR27 across underside of rafters in continuous layer
 - 12.5 foil backed plaster board taped & filled for decoration
 - U value 0.14
- Attic insulation (all flat ceilings outwith Waiting area):
 - Loft Roll 40 insulation at attic floor level
 - Floored areas 200mm between joists and 150mm above joists = U value 0.12.
 - Unfloored areas 200mm between joists and 200mm across joists = U value 0.11.
- Fascias & soffits clad in Eternit Oporal cement particle cladding boards, colour C60 Forest Grey.
- Design Certificate to be provided to Building Standards Department by Designer prior to construction & to structural engineer for approval.
- Roof Access - it is not anticipated that anything other than very infrequent access will be required to the roof. In such instances where work is only for a very short duration access via a Mobile Elevated Working Platform or temporary scaffold is to be used in line with HSE recommended practice. Also refer to Marley Eternit Sitework Guide.
- In all other instances full edge protection, such as designed scaffold with catch barrier, must be provided on all edges of the roof where access is needed.

Stair

- Fabricated in galvanized steel
- 1000mm min. clear width between handrails
- Handrail to be 900mm above pitch line of stair, any gaps on stair and balustrade to be small enough to prevent passage of a 100mm diameter sphere.
- Closed risers to prevent risk of trapping when ascending.
- Handrail continuous throughout flight on wall on outside of winder.
- Going 260mm contrasting anti-slip nosing to each tread
- 21 equal rises of max 167mm (check heights on site prior to manufacture max rise 170mm)
- Balustrade at first floor landing 1.1m high with glazed balustrade.
- Min. 2.0m clear headroom over entire stair and landings.

Drainage:

- Internal Drainage to be laid in strict accordance with BS EN 12056-2: 2000 BS5572 and Marley Extrusions Ltd min. installation gradients.

- External Drainage to be constructed & installed in accordance with BS EN 12056-1: 2000, BS EN 752-3:1997, BS EN 752-4: 1998 and BS EN 1610: 1998.
- All W.C. waste pipes 110mm Dia. with 6.0m max. branch length, at 18mm\m fall.
- All W.H.B waste pipes 32mm Dia. with branch length as per manufacturers recommendations, at 18mm\m fall.
- All shower waste pipes to be 110mm.
- Vent stacks to be provided with slow bends 200mm min. along centreline.
- Hand access to waste pipes 900mm above floor level with screwed hatches provided on adjacent partitions.
- SVP's continued up to ridge outlet tiles.
- Provide hand access above all changes in direction of S.V.P's with all branch connections to SVP in accordance with BS5572:1994 sections 1to10. Contractor to ensure connections will avoid crossflow.
- All hot water supply pipes are to be insulated to BS 5422:2009.
- All drainage passing through the structure to be lintolled over.
- Foul drainage to connect to local sewer system.

Rainwater Goods:

- Colour: Galvanised Steel
- 110mm Dia. Half-round Lindab Rainline.
- Rainwater goods to supplied with all fixings. Fall 1/600.
- Gutter braket fixings at 600mm max. centres.
- 75mm ext. Dia. downpipes with bossed socket adapter at base, connect into plain hopper with PVC grating from 'Osma' or equal approved, bedded in concrete base.
- Downpipe brackets screwed into masonry at 1.80m max. centres.
- All constructed and installed in accordance with recommendations described in BS EN 12056-3:2000.
- Surface and rainwater to connect to outlet to seawater.

Sanitaryware:

- All sanitaryware to be contrast visually with walls. Ware will be white, wall colour to be agreed (not white).
- Thermostatic Mixing Valves to be provided on shower where provided to limit delivery temperature to 48°C complying with BS EN 1111:1999 or BS EN 1287:1999.
- Water saving features to be provided in accordance with Standards 3.27.1 and 3.27.2 -
- All WCs to be dual flush using no more than 4.5 litres per flush.
- Wash hand basins taps to be fitted with aerators and have maximum flow rate of 6 Litres / minute.
- Bathroom Manufacturers Association list of water saving appliances & fittings to be consulted.

Fire Fighting:

- See META Consulting detailed specification of category L1 detection system.
- Certificate of commissioning to be provided prior to completion.
- Fire hydrant is on pavement opposite hotel, 25m from northern corner of building.
- Option for fire fighting appliance to pump seawater if required. Access to staff carpark at level +7.6mCD, with pedestrian access via existing steps NE of site, and at drop off parking area at level +7.0mCD.
- Lowest tide at +0.1mCD.

Heating & Ventilation

- See META Consulting spec and details for mechanical ventilation with heat recovery incorporating humidistat sensors in wet areas.
- EPC Certificate to be fixed in entrance lobby.
- Sustainability Label to be fixed in ground floor plant room.

General:

- All work to the entire satisfaction of the Local Authority
- All structural timbers to be pressure impregnated with preservative, stress graded to BS 4978 or other national certificate and so marked.
- Blockwork 7.0N/mm² compressive strength with min. density of 1500Kg/m³.
- 140mm coursing, lightweight blocks only.
- Mortar 1:4 cement/sand with plasticiser below D.P.C.
- Mortar 1:6 cement/sand with plasticiser above D.P.C.
- Concrete for foundations to be grade C35.
- Concrete for floor slabs C30/20.
- Concrete for R.C. Lintels C35/20, 30mm min. cover to reinforcement, 150mm min. rest.
- Unless otherwise stated timber grade C16.
- Double+triple timber studs spiked together with M4 Galv. Nails at 300mm staggered centres.
- Expansion joints to be provided in concrete blockwork wall longer than 6.0m in length all as per plans / elevations.

Kitchen Units:

- Kitchen units to be designed and installed by specialist manufacturer in accordance with clients requirements.
- Contractor to install adequate dwangs for fixings.

External Drainage:

- All drainage below ground to be to the entire satisfaction of the Local Authority, Environment Standard 3.6+3.7 of the current Building Standards and to comply with NHBC standards Chapter 5.3.

- Contractor to notify Building Standards department when work commences, before foundations are poured and as required under the Building warrant CCNP notification plan.
- Drains passing through or under walls to be adequately lintolled over and surrounded in pea gravel.
- Connect proposed roofwater drainage into outlet to tidal waters.
- 'Osma' circular 450mm Dia. inspection chambers bedded on 150mm concrete base and surrounded in compacted Type'2' material. (up to 1.0m invert level).
- Lightweight cover and frame to non-traffic areas, Heavy duty cover and frame otherwise.
- Any chambers with an invert level of greater than 1.2 metres to have secured lids.
- All drainage unless otherwise noted to be 110mm Dia. UPVC drains laid to 1 in 60min. fall, bedded and surrounded in Type'1' material, laid 600mm min. cover.
- External Drainage to be constructed and installed in accordance with BS EN 12056-1:2000.
- Foul Drainage to be laid in accordance with BS EN 752-3: 1997 (Amendment 2), BS EN 752-4: 1998 and BS EN 1610: 1998.
- All main sewer piping to be E.S.V.C with mechanical joints.
- Bedded to Scottish Water standards.
- Allow for stack to have a bend with min radius of 200mm along c/l of pipe.
- Disconnecting Manhole designed by Engineer, all in accordance with Scottish Water Guidance notes.

External Works

- Grade path to accessible entrance at 1:21 gradient 2m wide with 1.5m long platt at top and bottom of slope.



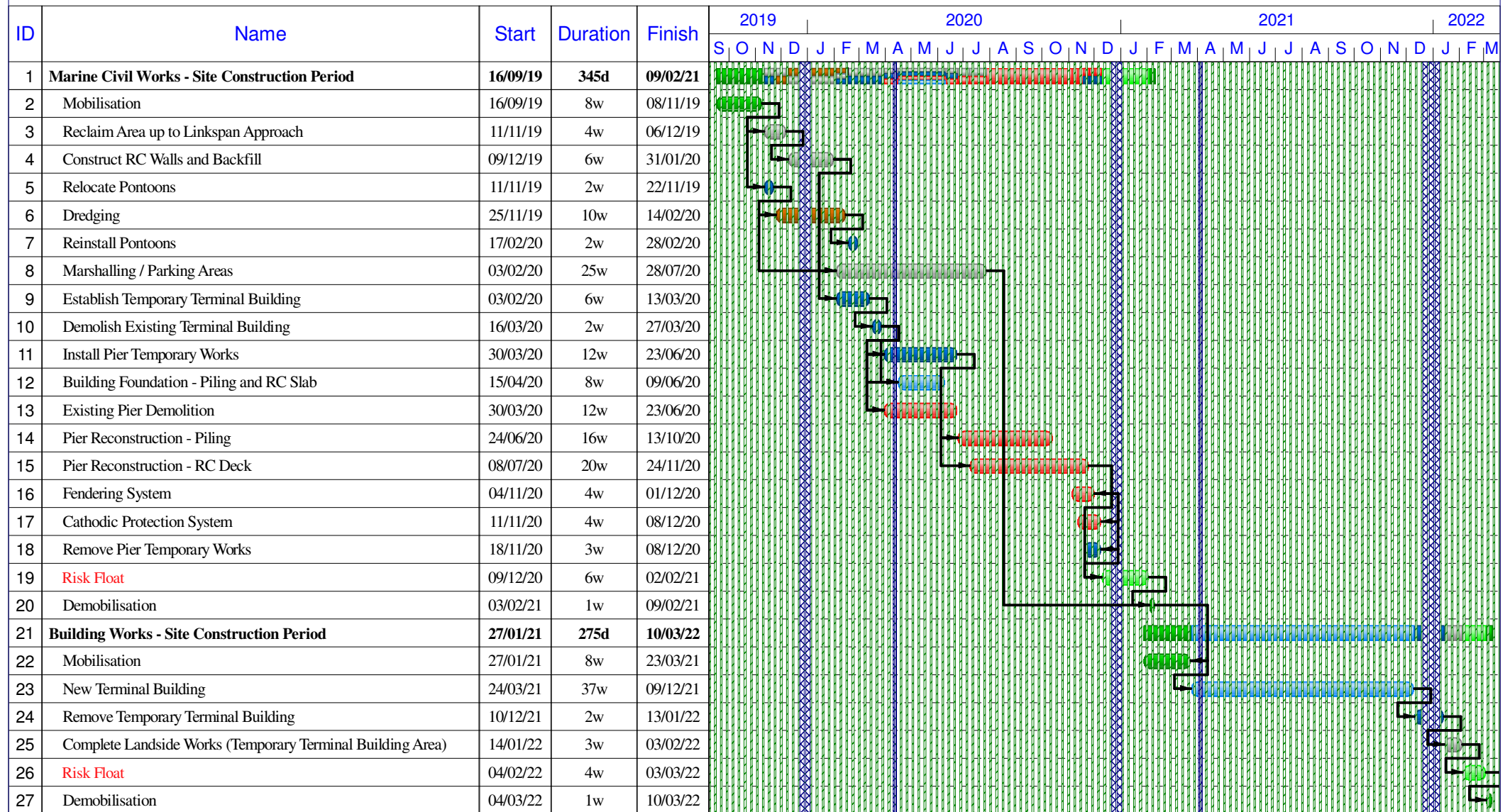
Appendix B.2: Tarbert Construction Programme



1973 - Tarbert (Harris) Ferry Terminal

Indicative Construction Programme
(Rev B)

10/01/19



Marshalling Area
 Pier Works
 Terminal Building
 Dredging
 Mobilisation / Demobilisation
 Temporary / Enabling Works
 Risk



Appendix C.1: Scoping Summary Table



Scoping Summary Table

Consultee	No.	Point for consideration within ES	Response to scoping opinion
MS-LOT	7.2.1	There are no Air Quality Management Areas within the Western Isles, and there are no areas where pollutant levels have been exceeded or are close to exceeding these levels. The background air emissions levels are not expected to be high at Tarbert as there is limited urbanisation and development on Harris.	Chapter 5 – Air Quality included in Baseline (Section 5.4.1)
MS-LOT	7.2.2	Creation of dust during the earthworks and clearing required during the land reclamation works to increase the marshalling area, has the potential to impact vegetation and human health. The dust and emissions mitigation controls will be detailed in a Schedule of Mitigation (SoM) and detailed site plans (as preferred over a CEMP by SEPA), prior to the commencement of construction. No operational impacts are expected on Air Quality and so this aspect is not required as part of the EIA Report.	Chapter 5 – Air Quality details the dust mitigation in Section 5.7.1, the mitigation is also included in the SoM provided in Chapter 15: Schedule of Mitigation
MS-LOT	7.2.3	Current sources of greenhouse gas (GHG) emissions in Tarbert Harbour are likely limited to the existing ferry service and local traffic in the area. The new ferry is likely to have lower emissions due to its dual fuel capabilities. The ferry timetable and number of vessel movements is not expected to change and the GHG emissions associated with construction are not anticipated to be significant. In order to reduce GHG emissions during construction, plant and vessels will be appropriately maintained and marshalled vehicles will be requested to switch engines off while waiting. Therefore, an assessment of impacts from increased GHG emissions is not required as part of the EIA process.	Chapter 5 - Air Quality, considers GHG emissions in a proportionate manner, including the consideration of Cold Ironing. Chapter 15 – Schedule of Mitigation includes 'Marshalled vehicles will be requested to switch off engines while waiting'
MS-LOT	7.3	There are no known features of archaeological importance within site boundary and as such no significant impacts are expected during the construction or operational phases of the works. Providing no archaeological materials are discovered during benthic surveys, Archaeology and Cultural Heritage can be scoped out of the EIA Report. A protocol for archaeological discoveries will be included within the site specific SoM (either separate or contained within a CEMP) to ensure it is utilised in the event of an archaeological find.	Chapter 15 – Schedule of Mitigation includes 'A protocol for archaeological discoveries will be included within the CEMP to ensure it is utilised in the unlikely event of an archaeological find.'
MS-LOT	7.4.1	The impacts of the construction phases of the development on marine biodiversity are scoped into the EIA Report.	Chapters 6 to 9 consider Marine Biodiversity
SNH	7.4.2	The Tarbert Ferry Terminal Development is located 8.3 km from and is likely to have a significant effect on the Inner Hebrides and the Minches cSAC. The Inner Hebrides	Chapter 7 - Marine Mammals considers effects on harbour porpoise. An HRA Pre-

Consultee	No.	Point for consideration within ES	Response to scoping opinion
		and the Minches cSAC is designated for Harbour porpoise (<i>Phocoena phocoena</i>). Information should be submitted prior to submitting the EIA Report for a Habitats Regulations Assessment. This will allow MS LOT to respond with a HRA Screening Report, so that the information for the Appropriate Assessment can be provided in the EIA Report.	Screening Report is provided as Appendix F.1.
SNH	7.4.3	Limited information is known on the benthic ecology within the area and therefore the sensitivity of the area is also an unknown. The EIA report should include some benthic habitat mapping as part of the assessment. These surveys should involve benthic video transects and grab sampling.	Chapter 8 – Benthic Ecology and Appendices H.1 and H.2 provide details of the benthic habitat surveys (video transects and grab sampling) and mapping completed to inform the EIAR.
SNH	7.4.4	The dredging works, installation of the pier extension and the land reclamation for the extension of the marshalling area will result in the loss of marine habitat for benthic organisms and fish. The pile driving has the potential to cause injury or disturbance to fish and cetaceans through underwater noise emissions. Additionally, increased boat movements to transport construction materials could cause further disturbance and could also increase the risk of non-native species being introduced into the area.	Chapters 6 to 9 consider effects of all works on marine species. Chapter 11 - Noise (Underwater) specifically considers pile driving. The risk of introduction of non-native species is considered in Chapter 13 - Water Quality, Section 13.5.1.4.
SNH	7.4.5	With underwater noise being a primary issue, impacts on marine ecology will be conducted following the completion of an underwater noise model. This will involve assessment of potential impacts to Harbour porpoise other cetaceans and fish. These surveys will allow appropriate mitigation to be developed and implemented.	Chapter 11 - Noise (Underwater) includes the noise model, the output of which has been utilised in the consideration of effects on Cetaceans in Chapter 7 - Marine Mammals and Chapter 8 - Fish. Appropriate mitigation has been identified and included within Chapter 15 - Schedule of Mitigation.
SNH	7.4.6	Operationally, as the project is an upgrade and extension of an existing harbour, boat movements are expected to remain the same and therefore there is no additional risks to marine ecology from the operation of the site. No assessment of effects on biodiversity and nature conservation during the operation phases of the work are required as part of the EIA Report.	N/A – no action required
SNH	7.4.7	It is unlikely that birds will be significantly impacted by the site preparation or construction activities as no habitat sites are expected within the proposed work areas. Birds identified during the baseline survey were not using the ferry terminal	N/A – no action required

Consultee	No.	Point for consideration within ES	Response to scoping opinion
		vicinity as a nesting habitat. No assessment of the effect upon ornithology during construction and operation are required as part of the EIA process due to the lack of sensitive features within the area and the minimal potential for construction and operational impacts of the development	
CnES	7.5.1	The Tarbert Ferry Terminal is located within the South Lewis, Harris and North Uist National Scenic Area (NSA). The Local Authority are of the opinion that Landscape, Seascape and Visuals should be scoped in, noting the designation and importance of Tarbert as a gateway to the Hebrides. The Scottish Ministers are therefore minded to agree with this opinion and therefore this topic should be scoped in.	Chapter 14 – Landscape, Seascape and Visual has been included and considers the effects on the NSA.
SEPA	7.6.1	<p>Baseline surveys indicated that the underlying bedrock in the area is the Lewisian Complex. The dredging, land reclamation and piling have the potential to affect the land and soil quality within the marine environment through changes to the till structure and sediment deposition. The dredge material will be used to infill the marshalling area extension and therefore reduces the requirement for off-site disposal. In order to minimise the potential effects, the applicant proposed the following mitigations:</p> <p>Soil Contamination</p> <ul style="list-style-type: none"> • Correct disposal of hazardous waste and contaminated water • Storage of chemicals and hydrocarbons in secondary containment, where applicable • Adequate spill response equipment on site • Installation of adequate surface water management facilities • Regular maintenance will be undertaken on equipment • Designated wash down areas for concrete contaminated equipment and tools. <p>Removal of underlying geology</p> <ul style="list-style-type: none"> • Removal of rock areas, will be minimised through design informed by ground investigation • Localised techniques to be utilised <p>The assessment of impacts to Land and Soil Quality is not required to be part of the EIA Report.</p>	Chapter 15 – Schedule of Mitigation includes the mitigation discussed. Seabed sampling has shown the material is not suitable for reuse. This is discussed in Chapter 13 - Water Quality and a separate BPEO produced to support dredge disposal.

Consultee	No.	Point for consideration within ES	Response to scoping opinion
CnES	7.7.1	The main economic sectors within the Western Isles are public services, constructions, fishing, fish farming and fish processing. The applicant proposes a local workforce to be used where possible. The workforce will require to use the amenities in the area, which will provide socio-economic benefits.	Chapter 15 – Schedule of Mitigation includes 'employment of a local workforce will be encouraged'.
CnES	7.7.2	The project is an upgrade of an existing ferry terminal and therefore there are no additional risks to population, human health or socioeconomic changes from the current baseline. Therefore, an assessment of impacts to population human health and socioeconomics are not required as part of the EIA Report.	N/A – no action required
SNH	7.8.1	During the construction phases, underwater noise is likely to be generated during the piling, dredging, fill levelling and from vessel traffic delivering materials. This could have the potential to disturb and possibly injure marine mammals in the area. Noise and vibration associated with construction phases should be investigated further and therefore should be scoped into the EIA Report. An underwater noise model should be developed in order to predict the noise emission levels and frequencies at different ranges from the site. This model will inform the marine ecological risk assessment and if required noise mitigation should be implemented. The EIA Report should also contain information required to inform Habitats Regulations Appraisal, including broadening the scope to consider impacts to other species of cetaceans and possible EPS disturbance licence requirements (for cetaceans and potentially for Basking sharks).	Chapter 11 - Noise (Underwater) includes the noise model, the output of which has been utilised in the consideration of effects on Cetaceans in Chapter 7 - Marine Mammals and Chapter 8 - Fish. Appropriate mitigation has been identified and included within Chapter 15 - Schedule of Mitigation. An HRA Pre-Screening Report is provided as Appendix F.1.
SNH	7.8.2	The applicant should consult the Scottish EPS guidance [http://www.gov.scot/Resource/0044/00446679.pdf] which provides good practical guidelines for specific activities. It is considered that these guidelines currently represent best practice and adherence to the guidelines should reduce the risk of an injury offence.	The guidance has been taken account of in the production of Chapter 7 - Marine Mammals.
SNH	7.8.3	Operationally, it is unlikely that the noise generated from the development will increase significantly from the current baseline. Therefore, an assessment of impacts from noise and vibration during the operation phase are not required as part of the EIA Report.	N/A – no action required
SEPA	7.9.1	Details should be provided in the EIA Report of how waste generated on site will be stored and disposed of, including contaminated materials. Furthermore, although there are some natural resources on the site that will be reused as part of the	Chapter 2: Project Description, details how waste arisings will be managed during the building demolition. Chapter 13: Water

Consultee	No.	Point for consideration within ES	Response to scoping opinion
		proposed works, some materials will have to come from elsewhere. For the proposed land reclamation, given the use of sheet piles, it is likely SEPA will regulate this activity under The Waste Management Licensing (Scotland) Regulations 2011 (WML) should waste dredging spoil be utilised. SEPA will have to advise on the likely consentability of this proposal and early consultation is recommended. Mitigation measures should then be included in the CEMP or as advised by SEPA, a SoM with detailed site plans demonstrating how impacts on the environment have been minimised through site design. Waste generated during the demolition phases will be removed by a licensed waste contractor. Operationally there may be an increase in water and waste produced by passengers, however this is not anticipated to be significant.	Quality and Coastal Processes, considers waste and the need for appropriate storage. Dredge spoil is not be reused.
SEPA	7.9.2	In order to minimise the potential effects, the following mitigations should be included within a site specific SoM (either separate or contained within a CEMP) and implemented: Material and water usage: ·Reuse of dredge material, where practicable ·Waste hierarchy employed ·Existing built infrastructure will be re-used or upgraded wherever possible Incorrect waste disposal ·Limited number of construction employees on site ·Segregated bins provided ·Waste appropriately segregated ·Hazardous waste and contaminated water will be disposed of correctly	Chapter 15 – Schedule of Mitigation provides the mitigation as requested. However, it should be noted that dredge material is not suitable for reuse. This will be reflected in the Construction Environmental Management Documentation.
SEPA	7.9.3	Provided a site specific SoM (either separate or contained within a CEMP) is implemented, the assessment of impacts to Natural Resource Usage and Waste is not required as part of the EIA Report.	Chapter 15 – Schedule of Mitigation, includes mitigation associated with natural resource usage and waste.
MCA	7.10.1	During the construction phases, relocation of existing pontoons and moorings is required to accommodate the dredging activity. The EIA report should demonstrate that the issue of disturbance to other users, including, but not limited to, visiting and local recreational vessels, has been addressed and mitigation measures identified if necessary.	Chapter 12 – Traffic, Access and Navigation considers the need to move the pontoons and the associated impacts on local and visiting vessels.

Consultee	No.	Point for consideration within ES	Response to scoping opinion
MCA	7.10.2	During the operational phases, a single safety management system should be implemented, but arrangements may be required prior to the revised HRO approval.	Chapter 12 – Traffic, Access and Navigation details how safety will be ensured throughout the construction and operational phases of the project.
MCA	7.10.3	Marine Traffic and Access during the construction and operational phases should be scoped into the EIA report, demonstrating that methods which will be employed to minimise disturbance to other vessel users in the area and clearly set out what management system will be used.	Chapter 12 – Traffic, Access and Navigation considers safety management and disturbance to other vessel users.
SEPA	7.11.1	The proposed dredging and piling works, and increased surface water run-off have the potential to affect changes in the: <ul style="list-style-type: none"> • water and sediment quality through changes to the suspended sediment concentrations; • dissolved oxygen in the water column; • level of water and sediment contaminants; and • water and sediment quality from the redistribution of sediment-bound chemical contaminants. 	Chapter 13 - Water Quality & Coastal Processes considers effects associated with dredging, construction and operational phases on water quality.
SEPA	7.11.2	SEPA Guidance Note 17 should be used and a risk assessment process adopted where appropriate to evaluate significance. This will include the identification of all existing discharges within the vicinity of the construction site, for example the welfare facilities on the pier. Details of how each will be accommodated will be included in the EIA.	Chapter 13 - Water Quality & Coastal Processes has taken account of the guidance note, including the completion of a WFD assessment.
SEPA	7.11.3	<ul style="list-style-type: none"> • Seabed sampling will be undertaken in line with the Pre-Disposal Sampling Guidelines as referenced in Appendix IV. The results of this will be used to assess any potential impacts of mobilising historic contamination in the seabed. 	Pre-disposal sampling has been completed, remobilisation of historic contamination is not predicted. Chapter 13 - Water Quality and Coastal Processes.
SEPA	7.11.4	The proposed land reclamation has the potential to alter wave direction and local geomorphological characteristics, and the EIA report should demonstrate that these have been addressed and mitigation measures identified if necessary.	Chapter 13 - Water Quality and Coastal Processes, considers effects on local geomorphology.
SEPA	7.11.5	Impacts from flood / tidal surges can be scoped out (as risk is negligible) but are to be mitigated through using the Coastal Flood Boundary Levels for Scotland and updated climate change predictions in the design of the structures.	Chapter 13 - Water Quality and Coastal Processes, details how flood has been taken account of within the design.

Consultee	No.	Point for consideration within ES	Response to scoping opinion
SEPA	7.11.6	Water Quality and Coastal Processes are scoped into the EIA Report for the construction phases of the work. Operationally, no significant changes are anticipated to the current water quality and coastal processes.	Chapter 13 - Water Quality and Coastal Processes, focuses on the construction phase, potential benefits to water quality associated with operations are also considered.
SEPA	7.12.1	Impacts from major accidents and disasters were considered in the Screening and Scoping Reports within the context of the potential risk associated with the location and proposed site use. Provided use of the Operational and Safety Management System throughout construction and operation to manage any incidents and risks, severe storms and transport accidents should not have to be addressed further and are therefore scoped out of the EIA Report.	N/A – no action required



Appendix F.1: Tarbert Ferry Terminal Upgrade Habitat Regulations Appraisal Pre-Screening Report



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1 Introduction

In conjunction with submitting an Environmental Impact Assessment Report (EIAR) to support a Marine Licence application for the proposed Tarbert Ferry Terminal Upgrade, this Habitats Regulations Appraisal (HRA) Pre-Screening Report provides information required for the competent authority to carry out an HRA, and, where required, an Appropriate Assessment (AA).

This report is designed to be read in conjunction with the EIAR and directs the reader to the chapters and section of the EIAR which are relevant to the designated site or qualifying species being discussed.

1.1 Legislative Basis

An HRA is required for this development due to its proximity to multiple Natura 2000 sites, including Special Areas of Conservation (SACs) and Special Protection Areas (SPAs). The legislative context for this requirement is based on Article 6(3) of the Habitats Directive (92/43/EEC), Article 4(4) of the Birds Directive (2009/147/EC), and is implemented in Scotland through The Conservation (Natural Habitats, &c.) Regulations 1994 (the Habitats Regulations).

In Scotland, the Scottish Planning Policy document ensures that Ramsar sites, which are normally included in an HRA assessment, overlap with Natura sites and are therefore protected under the same legislation (Scottish Ministers, 2014). Therefore, Ramsar sites do not need considered separately as part of this HRA Screening report.

If a likely significant effect (Alsenoy *et al.*) is predicted on a Natura Site at the first stage of the HRA, then an Appropriate Assessment (AA) must then be carried out. The AA must demonstrate that the proposal will not adversely affect the integrity of the site (SNH, 2017a).

It is the responsibility of the competent authority to carry out the HRA based on robust, scientific information provided by the project developer about the proposed project. It is not the role of the developer to make an assessment on whether or not the proposal will have an adverse effect on any associated Natura sites.

1.2 Terminology

The terminology employed as part of the HRA process relates to LSEs. Assessment of LSEs takes a precautionary approach and asks whether a project may have an effect, or have the possibility of having an effect, on a Natura site (SNH, 2017b). A project component is said to have an LSE on a designated site if "*it cannot be excluded, on the basis of objective information, that it will have a significant effect on the site*" (European Court of Justice C-127/02, 2004). The conservation objectives of the site provide the framework for considering the potential for LSEs.

It should be noted that the terminology used as part of the ecological impact assessments in the EIAR chapters refers to significance based on a matrix system. It is important, when using these documents in conjunction with one another, to be aware that the term 'significance' has different meaning in these two different contexts. In this HRA Pre-Screening report, the use of

the word 'significant' in relation to impact assessments is not employed within the assessment to avoid confusion.

1.3 Objectives

The objectives of this HRA Pre-Screening report are to summarise:

- The proposed development details;
- The Natura 2000 sites being considered with reference to the Tarbert Ferry Terminal Upgrade, along with these sites' qualifying interests and conservation objectives;
- Details on the qualifying interests for each of the scoped-in Natura sites.

This information will aid the competent authority in carrying out an HRA. This HRA Pre-Screening Report provides a reference as to where the relevant information required to complete the HRA is located within the EIAR, and as such should be read in conjunction with the EIAR and not as a stand-alone document. An indication of whether LSEs are expected is given for each designated site, but it is ultimately up to the competent authority carrying out the HRA to ascertain whether LSEs are present, and therefore whether an AA is needed for each designated site.

2 Project Summary

Caledonian Maritime Assets Limited (CMAL) is proposing to upgrade the existing Tarbert Ferry Terminal in order to accommodate a new ferry. The new ferry is currently being constructed for use on the Skye Triangle routes (Tarbert – Uig and Uig- Lochmaddy). The ferry is larger and can carry more passengers and vehicles than the existing vessel. The proposed upgrades are required to allow the safe berthing of the larger vessel, and to provide facilities for the additional passengers and vehicles. The upgrades include the following components:

- Demolition of the existing ferry pier;
- Construction of a new, longer pier structure;
- Installation of new parallel motion fendering system to the new pier structure;
- Demolition of the existing terminal building;
- Construction of new terminal building;
- Dredging works within East Loch Tarbert to allow vessel manoeuvring;
- Extension of marshalling and carpark area through land reclamation; and
- Temporary construction arrangements including temporary works, temporary fendering and installation of a temporary terminal building.

Further details on the individual components of the project can be found in the EIAR Chapter 2: Project Description.

3 Designated Sites

The designated sites which have designated features relevant to the Tarbert Ferry Terminal Upgrade are shown in Table 3.1. The sites, or species within the sites, are scoped in or out depending on the level of ecological connectivity to the proposed works. A reduced list of designated sites and features is then taken forward for further assessment. Explanations for why certain sites or qualifying features are excluded is laid out in Section 3.1.

Table 3.1: Designated Sites Relevant to the Proposed Tarbert Ferry Terminal Upgrade

Site	Distance and Direction	Qualifying Feature(s)	Included in Further Assessment?
Inner Hebrides & the Minches cSAC	8km by sea SE	Harbour porpoise (<i>Phocoena phocoena</i>)	IN
North Harris Mountains SPA	6km NW	Golden eagle (<i>Aquila chrysaetos</i>), breeding	OUT
Lewis Peatlands SPA	13km N	Black-throated diver (<i>Gavia arctica</i>), breeding Black-throated diver (<i>Gavia arctica</i>), breeding Golden eagle (<i>Aquila chrysaetos</i>), breeding Golden plover (<i>Pluvialis apricaria</i>), breeding	OUT
Shiant Isles SPA	20km E	Fulmar (<i>Fulmarus glacialis</i>), breeding Guillemot (<i>Uria aalge</i>), breeding Kittiwake (<i>Rissa tridactyla</i>), breeding Greenland barnacle goose (<i>Branta leucopsis</i>), non-breeding	OUT
North Uist Machair and Islands SPA	28km SW	Corncrake (<i>Crex crex</i>), breeding Dunlin (<i>Calidris alpina schinzii</i>), breeding Oystercatcher (<i>Haematopus ostralegus</i>), breeding Greenland barnacle goose (<i>Branta leucopsis</i>), non-breeding	OUT
Ascrib, Isay, & Dunvegan SAC	36km by sea SE	Common seal (<i>Phoca vitulina</i>)	IN
Loch nam Madadh SAC	40km by sea SW	Otter (<i>Lutra lutra</i>) Intertidal mudflats and sandflats Lagoons Reefs	OUT
North Harris SAC	60km by sea (8km direct) N	Atlantic salmon (<i>Salmo salar</i>) Acid peat-stained lakes and ponds Acidic scree Alpine and subalpine heaths	OUT
Monach Islands SAC	80km by sea (60km direct) SW	Grey seal (<i>Halichoerus grypus</i>) Dune grassland Machair Shifting dunes with marram	OUT
Sound of Barra SAC	94km by sea (94km direct) SW	Common seal (<i>Phoca vitulina</i>) Reefs Subtidal sandbanks	OUT
Langavat SAC	110km by sea NW	Atlantic salmon (<i>Salmo salar</i>)	OUT
North Rona SAC	150km by sea NE	Grey seal (<i>Halichoerus grypus</i>) Reefs Sea caves Vegetated sea cliffs	OUT
Treshnish Isles SAC	157km by sea SE	Grey seal (<i>Halichoerus grypus</i>) Reefs	OUT
South East Islay Skerries SAC	255km by sea SE	Common seal (<i>Phoca vitulina</i>)	OUT

3.1 Reasons for Designated Site or Species Exclusions

3.1.1 *Special Protected Areas Designated for Ornithological Features*

The 4 SPAs detailed in Table 3.1 are located more than 5km from the proposed Tarbert Ferry Terminal Upgrade, hence there is no potential for direct effects on these designated sites. As detailed in the Scoping Report, an initial ornithological survey was conducted in order to ascertain the avian species utilising the site, together with the value of the available habitat for breeding and non-breeding birds. None of the avian qualifying feature species associated with the 4 SPAs were recorded as being present in the area during the ornithological survey, and no valuable habitat for these species was identified (Affric, 2017). As such, there is no potential for the proposed works to affect the SPAs or their qualifying features, hence the SPAs require no further consideration.

3.1.2 *Loch mam Madadh SAC*

This site is designated for otters, together with marine benthic features including sandbanks, lagoons and reefs. Due to the distance from the proposed works, there is no connectivity between the ferry terminal upgrade and the benthic qualifying features of this site. With regard to otters, while they are a mobile species with extensive home ranges, the 'by sea' distance from Tarbert to Loch mam Madadh is 40km. In the coastal environment, otter home ranges are between 2-10km (Chanin, 2012), and as such it is very unlikely that an otter would travel from the Loch mam Madadh to the proposed works. Therefore, there is no potential for the proposed Tarbert Ferry Terminal Upgrade to negatively affect this site or its qualifying features and no further consideration is required.

3.1.3 *North Harris SAC*

The North Harris SAC is designated due to its importance to Atlantic salmon, together with terrestrial features including lake, pond, scree and heath features. The site is located 8km by land from Tarbert, and hence there is no potential for direct effects on the terrestrial features of the site. With regard to Atlantic salmon, the rivers and streams within this site all feed into the west coast of Harris, which is approximately 60km by sea from the proposed works. It is considered extremely unlikely that salmon migrating to or from the rivers within this site will be present in the waters surrounding the Tarbert Ferry Terminal, on the east coast of the island. As such, no connectivity is anticipated between the qualifying fish features of this site and the marine works at Tarbert, and hence this site is not considered further.

3.1.1 *Monach Islands SAC*

The Monach Islands SAC is designated as a grey seal (*Halichoerus grypus*) breeding colony, as well as for terrestrial features including grasslands, machair and dune systems. The islands are located to the west of North Uist, 60km in a straight line from the proposed works, hence there is no potential for direct impacts on the site's terrestrial features. The proposed ferry terminal upgrade is within foraging range of the grey seal features of the site. However, as detailed in the EIAR, Chapter 7: Marine Mammals, Section 7.4.2.3, grey seals are only rarely present in the waters surrounding the proposed works. As such it is considered extremely unlikely that the Tarbert Ferry Terminal Upgrade will result in negative effects for this site, or its qualifying features, hence no further consideration is required.

3.1.2 Sound of Barra SAC

The Sound of Barra SAC is designated due to its importance to common seals, as well as the presence of sensitive benthic features including reefs and sandbanks. The site is located 94km south of Tarbert, between the southern end of South Uist and the north coast of Barra, hence there is no connectivity between the proposed works and the reef and sandbank features (JNCC, 2018). While the site also supports a significant presence of common seals, given the relatively short foraging distances of this species (typically 50 km) (SCOS, 2017), it is considered unlikely that common seals from the Sound of Barra SAC will be in the vicinity of the proposed working areas. Therefore, there is no potential for negative effects on this site or its qualifying features resulting from the Tarbert Ferry Terminal Upgrade, and no further consideration of the Sound of Barra SAC is necessary.

3.1.3 Langavat SAC

The Langavat SAC is designated for the conservation of Atlantic salmon. This site meets the marine environment at Loch Ceann Hùlabhaig, on the west coast of Lewis. This is approximately 110km by sea, and on the opposite side of the island, from the proposed development. It is therefore considered extremely unlikely that salmon migrating to or from the Langavat SAC will be present in the waters surrounding the proposed works. As such, no connectivity is anticipated between this site and the marine works at Tarbert, hence this site is not taken forward for assessment.

3.1.4 North Rhona SAC

The North Rhona SAC is designated as a grey seal breeding colony, as well as for the presence of reefs, sea caves and vegetated sea cliffs. North Rhona is located 150km from Tarbert, so no direct effects on the reefs, cave or sea cliff features are possible. The proposed ferry terminal upgrade is within foraging range of the grey seal features of the site. However, as detailed in the EIAR, Chapter 7: Marine Mammals, Section 7.4.2.3, grey seals are only rarely present in the waters surrounding the proposed works. It is therefore extremely unlikely that negative effects will result on the grey seal features of the North Rhona SAC, hence no further consideration of this site is made.

3.1.5 Treshnish Isles SAC

The Treshnish Isles SAC is designated primarily due to its importance to breeding grey seals, but also due to the presence of reefs. The proposed ferry terminal upgrade is within range of the grey seal features of the site. However, as detailed in the EIAR, Chapter 7: Marine Mammals, Section 7.4.2.3, grey seals are only rarely present in the waters surrounding the proposed works. No connectivity exists between the Tarbert Ferry Terminal Development and the site's reef features, due to the distance between these areas. As such, no negative effects on this site, or its qualifying features are expected, and it is not taken forward for assessment.

3.1.6 South East Islay Skerries SAC

The South East Islay Skerries SAC is designated due to its support of a nationally important common seal population. The uninhabited skerries and islands of the SAC are extensively used as pupping, moulting, and haul-out sites by this species (JNCC, 2018). However, the site is located 255km from the proposed works, and hence is outwith the relatively short foraging

range of common seals, (typically 50 km) (SCOS, 2017). Therefore no ecological connectivity exists between Tarbert and the South East Islay Skerries SAC, and no further consideration of this site is required.

3.2 Designated Site Information

The Conservation Objectives of each of the designated sites taken forward is provided in the following sections, together with an appraisal of each site's qualifying features. The assessments conducted during the EIA for each site and qualifying features are summarised, and references given to the relevant material within the EIAR.

3.2.1 Inner Hebrides & the Minches cSAC

The Inner Hebrides & the Minches candidate SAC (cSAC) is designated for the conservation of harbour porpoise (*Phocoena phocoena*). The area is of key importance to the UK part of the harbour porpoise management unit, and is estimated to support approximately 5,438 individuals for at least part of the year, equating to approximately 32% of the management unit (SNH, 2016). It is suggested that the area within the cSAC, relative to the rest of the continental shelf, includes the best habitat for harbour porpoises and have been used consistently by the species over the last two decades (SNH, 2016). The site is taken forward for assessment because is situated within 8km of the proposed development, and 850m of the Stornoway dredge spoil ground, hence there is potential connectivity between the construction operations and the designated features of the cSAC.

The Conservation Objectives for the Inner Hebrides & the Minches cSAC are shown in Table 3.2 and the qualifying features shown in Table 3.3 with a summary of the assessment.

Connectivity has been identified between the Inner Hebrides and The Minches cSAC and the proposed works due to the highly mobile nature of the site's qualifying harbour porpoise features. This, combined with the techniques likely to be utilised during the construction of the Tarbert Ferry Terminal Upgrade, means that there is the potential for the works to have a LSE on the site. Therefore, it is likely an AA will be required.

Table: 3.2: Inner Hebrides & the Minches cSAC Conservation Objectives

Conservation Objective of the Designated Site	Main EIAR Chapter(s) to Inform Assessment
Overarching Conservation Objective: To maintain site integrity and ensure the site continues to make a contribution to harbour porpoise remaining at favourable conservation status in UK waters.	Chapter 7: Marine Mammals
Further Conservation Objectives: <ul style="list-style-type: none"> To avoid significant killing, injury, or disturbance of harbour porpoise; and To maintain the habitat and prey of harbour porpoise in favourable condition. 	Chapter 7: Marine Mammals In addition: Chapter 11: Noise and Vibration (Underwater)

Table 3.3: Inner Hebrides & the Minches cSAC Qualifying Features

Species	Relevant EIAR Chapter and Sections	Summary of Assessment
Harbour porpoise	Chapter 7, Sections: 7.5 and 7.6. Chapter 11, Section: 11.5.2.1.	In the absence of mitigation procedures, there is the potential to cause moderate disturbance and possible injury to the harbour porpoises designated under the cSAC. This is due to noise from impact piling operations and interactions with falling material during dredged spoil disposal at the Stornoway spoil ground. Through the implementation of a piling marine mammal protocol and a dredged spoil disposal marine mammal protocol, the resulting effects on harbour porpoise features of the Inner Hebrides & the Minches cSAC are reduced to minor. Therefore, no population level effects are expected on the Inner Hebrides and the Minches cSAC harbour porpoise, and the conservation objectives of the site will not be compromised.

3.2.2 Ascrib Isay & Dunvegan SAC

The Ascrib Isay & Dunvegan SAC is designated due to its importance to the UK common seal (*Phoca vitulina*) population. The complex of skerries, islets, undisturbed mainland shores and offshore islands in north-west Skye consistently support a breeding colony of the common seal and represents one of the larger discrete colonies in the UK, holding around 2% of the UK population (JNCC, 2018). This site is taken forward for assessment as it is within the foraging range of common seals from the development site.

The Conservation Objectives for the Ascrib Isay & Dunvegan SAC are shown in Table 3.4 and the qualifying features shown in Table 3.5 with a summary of the assessment.

Connectivity has been identified between the Ascrib Isay & Dunvegan SAC and the proposed works due to the highly mobile nature of the site's qualifying common seal features. This, combined with the techniques likely to be utilised during the construction of the Tarbert Ferry Terminal Upgrade, means that there is the potential for the works to have a LSE on the site. Therefore, it is likely an AA will be required.

Table 3.4: Ascrib Isay & Dunvegen SAC Conservation Objectives

Conservation Objective of the Designated Site	Main EIAR Chapter(s) to Inform Assessment
Overarching Conservation Objective: To avoid deterioration of the habitats of the qualifying species (listed below) or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained and the site makes an appropriate contribution to achieving favourable conservation status for each of the qualifying features.	Chapter 7: Marine Mammals
Further Conservation Objectives: To ensure for the qualifying species that the following are maintained in the long term: <ul style="list-style-type: none"> • Population of the species as a viable component of the site; • Distribution of the species within site; • Distribution and extent of habitats supporting the species; • Structure, function and supporting processes of habitats supporting the species; and • No significant disturbance of the species. 	Chapter 7: Marine Mammals In addition: Chapter 11: Noise and Vibration (Underwater)

Table 3.5: Ascrib Isay & Dunvegen SAC Qualifying Features

Species	Relevant EIAR Chapter and Sections	Summary of Assessment
Common seal	Chapter 7, Sections: 7.5 and 7.6. Chapter 11, Section: 11.5.2.1.	In the absence of mitigation procedures, there is the potential to cause moderate disturbance and possible injury to the common seal qualifying features of the SAC. This is due to noise from impact piling operations and interactions with falling material during dredged spoil disposal at the Stornoway disposal site. Through the implementation of a piling marine mammal protocol and a dredged spoil disposal marine mammal protocol, the resulting effects on common seals are reduced to minor. Therefore, no population level effects are expected on the Inner Ascrib Isay & Dunvegen SAC common seals, and the conservation objectives of the site will not be compromised.

4 Cumulative and In-combination Effects

Cumulative and in-combination effects of the Tarbert Ferry Terminal Upgrade were assessed as part of the EIA process, as detailed in Chapter 3: Methodology.

Specifically, with regard to the HRA process, cumulative and in-combination effects were assessed for the following receptors:

- Chapter 7: Marine Mammals; and
- Chapter 9: Fish.

No cumulative or in-combination effects were identified for any receptors relevant to the HRA process.

5 Conclusion

The EIAR did not predict any residual adverse impacts on any of the qualifying features of the designated sites assessed as part of this HRA Pre-Screening Report, and no cumulative or in-combination effects are anticipated. Information from this report can be used by the competent authority, in conjunction with the relevant EIAR Chapters and Sections as identified in this report, to carry out the HRA and any necessary AAs. It will be up to the competent authority to ascertain whether the proposal will adversely affect the integrity of the designated sites to be considered.

6 References

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