SCOTTISH SEAFARMS
REPLACEMENT OF VIDLIN SHORE BASE QUAY

METHOD STATEMENT & RISK ASSESSMENT

DOC REF: ***19854***

Status	Rev	Date	Reason for Revision
A	*01*	*28/11/22*	*First Issue*

Authorisation Record			OK QHSE Manager	OK Managing Director	OK Marine Manager
A	***01***	***28/11/22***	[Redacted]	[Redacted]	[Redacted]
Status	***Rev***	***Date***	***Prepared by***	***Recommended by***	***Approved by***

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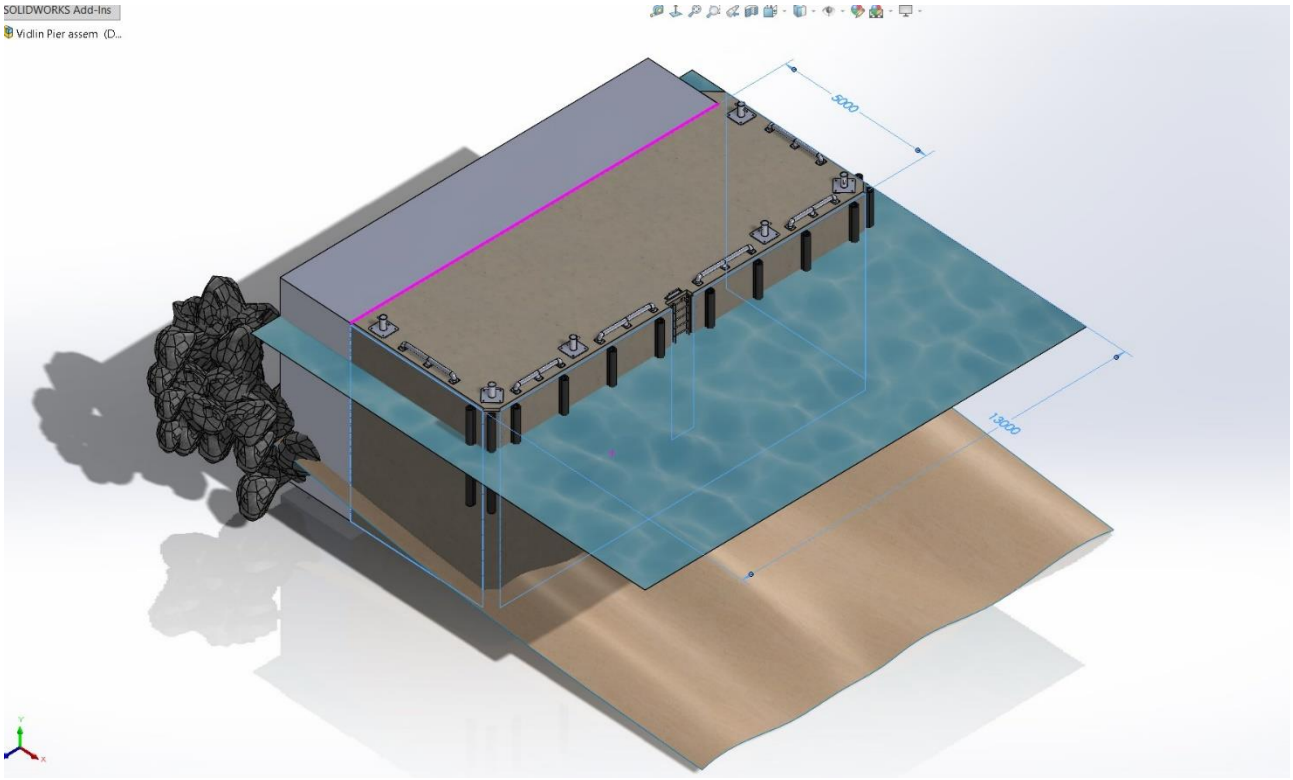
1. General Safety Points

- Any staff showing signs of Coronavirus whilst on site or after visiting site should be reported to a member of the site's management team.
- Overalls, hard hats, safety glasses, gloves and safety boots will be worn at all times as a minimum, hearing protection when required.
- Auto Inflation Lifejackets will be worn at all times whilst working over water or within 1 metre of the quayside.
- All personnel employed or subcontracted on the project shall be qualified and experienced in this type of operation. They will be aware that safety is the responsibility of everyone in the team.
- Access & Egress to job site identified and agreed before commencing works.
- All work activities must be carried out by a minimum of two persons
- Safe working practices and HSE guidelines shall be observed at all times
- No unauthorised person to be allowed within the vicinity of the works
- All debris and litter must be cleaned up immediately
- All plant and equipment when not in use shall be secured at all times
- All loose material shall be secured at all times
- Weather Forecast checked daily by Ocean Kinetics Supervisor and staff advised. Workers are reminded that should adverse weather prove problematic, then operations must be suspended until the weather improves.
- Shipping movements in the area will represent a hazard. As a minimum the supervisor shall be in contact by Marine Band VHF radio
- Good communications will be the key to a safe and efficient operation.

2. Ocean Kinetics Method

- Heras Fencing shall be established to enclose the working area, only authorised personnel shall be permitted into the working area. The works is located within an operational Shore base Harbour area. Ocean Kinetics shall in no way interfere with or obstruct the normal port operations. Close liaison with SSF shall be required. Ocean Kinetics shall contain their activities within the allocated areas unless otherwise directed by SSF.
- Prior to starting the project all personnel shall familiarise themselves with the RAMS. Details to be recorded with staff names and signatures.
- Ocean Kinetics salvage barge P4 shall be brought on site and held in position using spud legs and two anchors for added security. The P4 barge is equipped with cranes, generators, workshop and mess facilities.
- Using the onboard cranes, the existing steel framed and timber decked pier will be lifted onboard the barge P4, the steel legs shall be cut down to manageable lengths and transported by truck to a licenced scrap merchant.
- The timber deck shall be cut by chain saw and the recovered timber reused for dunnage in Ocean Kinetics yard.

- Using the onboard excavator, the seabed will be levelled, any sand or loose material will be retained onboard and reused inside new quay.
- After the seabed is cleared to the hard, steel shutters will be formed underwater to contain the concrete foundations.
- 40mm holes will be drilled at 600mm centres, 300mm deep, around the perimeter of the shutter and grout in 32mm stainless bars 600mm long to give foundations a key to bedrock.
- U/W concrete with anti-washout additive to be poured using concrete pump, divers to take care pouring concrete to ensure end of hose is kept always submerged in pour to minimise washout.
- After the concrete has set, minimum 24 hours, shutters shall be released and recovered using barge crane.
- Pre-cast concrete units will be brought to site by road and lifted from shore into place by barge crane. Each unit weights approximately 1,000kg in air and interlocks to form the main walls on three sides. Blocks will be built up to low tide, 25mm bar will be threaded through holes of units to tie blocks together, bars grouted in place.
- Using clean backfill the centre of the pier will be filled in layers and compacted every 300mm with the excavator. Any recovered material from initial seabed clearnce shall be placed inside quay and compacted.
- After the level is close to the block level the precast units will continue to be placed to 200mm below finished deck level in a similar method.
- The inside of the quay will then be backfilled again with clean fill each 300mm layer being compacted with vibrating roller. This filling will continue until 100mm below the top of the units.
- Steel shutters will then be fitted around the perimeter of the quay to form the deck. Two layers of A393 re-bar mesh will be fitted and spaced adequately.
- C35 concrete will be placed directly from a ready mix truck to form the new 200mm thick deck slab.
- Toe rails and bollards will be fitted using diamond core drill, threaded bar, and grout.
- Rubber D fenders and ladders will be fitted using diamond core drill, threaded bar, and grout.
- Site will be cleared, and security fencing removed.
- Completed quay will be inspected both underwater and above water before being handed to client.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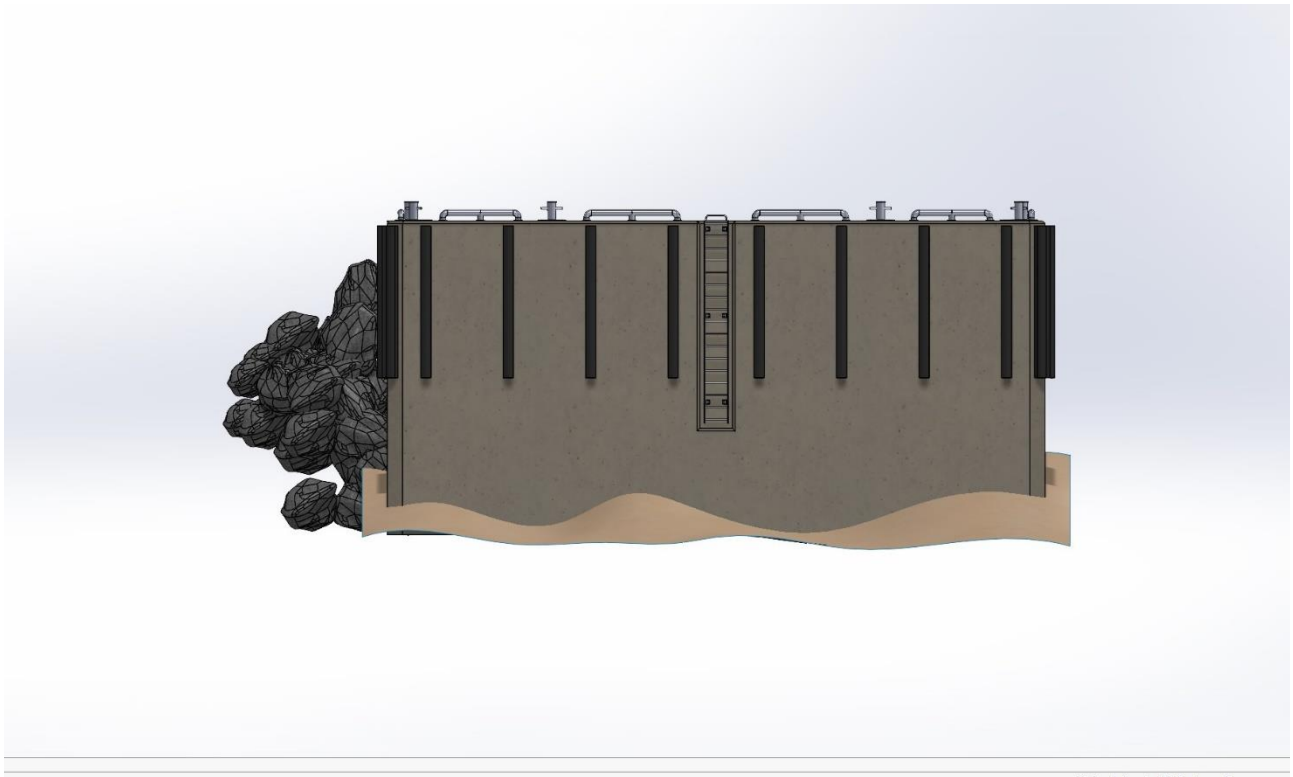

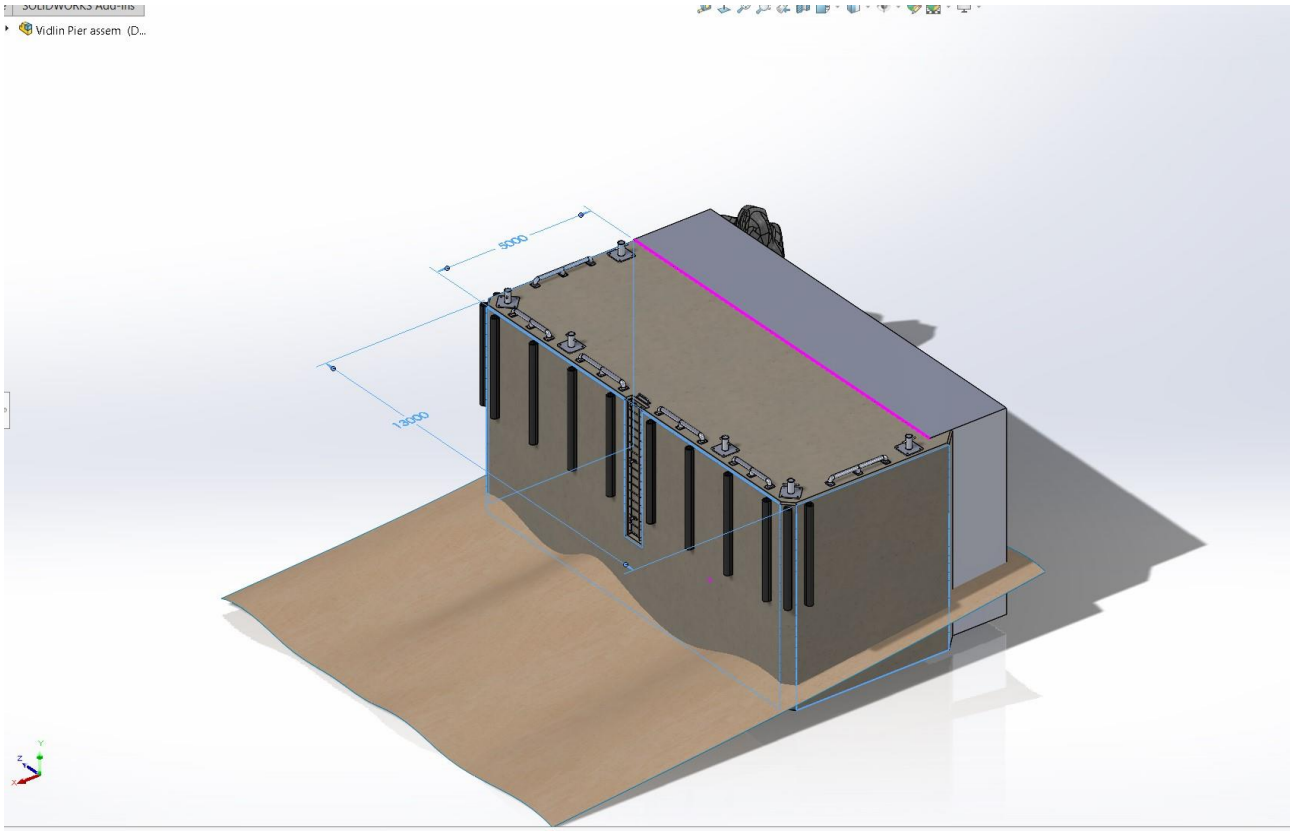
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3. Risk Assessment

Risk Rating Matrix

	SEVERITY	Multiple Fatality	Single Fatality	Major Injury	Lost Time Injury	Minor Injury	Delay
		Env. Catastrophe	Very significant env. impact	Somewhat significant env. impact	Significant env. impact	Env. impact	Insignificant env. impact
		10	8	6	4	2	1
LIKELIHOOD							
Certain	10	D	D	D	D	NAC	AC
Very Likely	8	D	D	D	NAC	NAC	AC
Likely	6	D	D	NAC	NAC	NAC	AC
May Happen	4	D	NAC	NAC	NAC	A C	T
Unlikely	2	NAC	NAC	NAC	AC	T	T
Very Unlikely	1	AC	AC	AC	T	T	T

RISK LEVEL	ACTION AND TIMESCALE
DANGEROUS STOP WORK	**Work should not be *started or continued* until the risk has been reduced. If it is not possible to reduce the risk even with unlimited resources, work has to remain prohibited**
NOT ADEQUATELY CONTROLLED	**Health & Safety risk - work should not be started until the risk has been reduced. Environmental risk – objectives and targets MUST be set to reduce the environmental impact. Considerable resources may have to be allocated to reduce the risk.**
ADEQUATELY CONTROLLED	**No additional controls are required. Consideration may be given to a more cost-effective solution or improvement that imposes no additional cost burden. Monitoring is required to ensure that controls are maintained**
TRIVIAL	**No action is required and no documentary records need to be kept**

Hazard	**Hazard effect**	**Risk**			**Control Measures required**	**Action**		**Residual**			**Result**
Use checklist as guide	Type of Injury	Refer to APP			Include existing and proposed	Person Responsible	Date	Refer to APP			Y / N
	Damage/Env. Impact	L	S	R			Comp.	L	S	R	Result
Persons not familiar with site	Injury	6	8	48	Site induction. RAMS communicated before work starts.	All Personnel	Before work starts and during	1	8	8	AC
Coronavirus	Infection	6	8	48	Staff to wash their hands with soap and water often – do this for at least 20 seconds Staff reminded to cover their mouth and nose with a tissue or their sleeve (not their hands) when they cough or sneeze. Avoid touching your face wherever possible	All Personnel	Before work starts & during	1	8	8	AC
Use of SSF boat Hiab Working Near or Over Water whilst on the boat during all activities	Passing shipping could crash into boat. Drowning	8	6	48	Full communications with SSF at all times. VHF to be used for direct communications to the ships. Daily communications with SSF, all appropriate telephone numbers to be made available at the site. All personnel to wear lifejackets while working over or near water. Ensure means of exit from water. Life ring to be close by. In event of emergency SSF to be alerted by mobile phone so	Supervisor	Before work starts	1	6	6	AC

					they can halt shipping movements/alert emergency services						
Use of barge crane for all lifting activities	Severe Injury Damage to pier/other vessels	8	6	48	Only SSF trained operatives to use crane. Tested lifting equipment to be used. Crane used in accordance with manufacturers guidelines. Don't overload crane. All equipment to be lifted is below SWL of crane. Ensure barge crane is stowed away properly	Supervisor	Before work starts	1	6	6	AC
Manual handling operations	Musculoskeletal disorders and other injuries	6	4	24	Manual Handling instruction, environment walk-through identifying hazards. All operatives moving materials experienced and mindful of their capabilities. Operatives fully aware of current regulations, and their own abilities	All Personnel	Before work starts and during	1	4	4	AC
Gas on site	Gas cylinders falling over, explosion, burns, fire hazard	4	8	32	Clean work area, no combustible material, secure all cylinders, use proper gloves, all equipment tested, good ventilation, fire extinguisher, cylinders segregated from other gases and any hot works. All cylinders stored in suitable cage.	All personnel	Before work starts and during operations	1	8	8	AC
Using heat torch	Hot matter. Severe Burns, property damage, respiratory damage	6	8	48	Face screen to be worn at all times. Heavy duty gloves to be worn. Fire proof overalls to be worn. First aid kit available on site for use. Gloves and	All Personnel	Before work starts and during	1	8	8	AC

					fire proof overalls to be worn. FBA's shall be fitted. Valves, Regulators & hoses to be checked for any damage/leaks before use.						
Use of hand tools	Cuts and abrasions Personal injury	4	8	32	The correct type of hand tool should be selected for the task assigned. Ensure grip is controlled. Supervisors to ensure that appropriate tools are made available for use. All tools to be inspected prior to use and any defects must be reported to your supervisor. Wear the correct PPE for the specific tool. All tools to comply with site standards. Hand tools fitted with lanyards to prevent dropped objects	All Personnel	Before work starts and during	1	8	8	AC
Ensure immediate area is safe Poor ventilation, slippery surfaces, moving Machinery	Personal injury, down time, financial loss, possible injury, production loss	4	8	32	Working area should be well ventilated. User to ensure that floor / footwall is relatively clean for safe operation and required clearances are maintained	Operator	Before work starts	1	8	8	AC
Ensure required equipment is available for task to be performed	Personal injury, sub standard installation, falls of ground, property damage, financial loss	4	8	32	User to ensure all required equipment for work is available, such as gas burning equipment, grinders etc	Operator	Before work starts	1	8	8	AC

Power Tools	Electrocution. Broken or damaged leads.	6	8	48	All power tools to be 110v where possible. All tools inspected visually before use. All tools to have in date PAT test label attached. All tools to be maintained at regular intervals by trained and competent operatives.	All Personnel	Before work starts and during	1	8	8	AC
Plant and vehicle movement	Contact by Major injury	6	6	36	Controlled operations with use of banksman as necessary. Clear and reasonable access/egress for plant. Well-maintained construction plant.	All Personnel		1	6	6	AC
Slips, trips and falls. Wet Slippery conditions	Injury slips, trips and falls	6	6	36	Good housekeeping to avoid potential trip hazards, correct manual handling. Only personnel carrying out work to access site. Monitor weather forecast every day and assess the working area such as slippery surfaces. No work will be permitted in high winds or wet conditions if considered unsafe by Supervisor.	All personnel	Before work starts and during	1	6	6	AC
Plant and Equipment	Severe injury	6	6	36	Equipment to be inspected prior to use, used in accordance with manufacturers recommendations and to be used for intended purpose only	Site supervisor	Before work starts and during operations	1	6	6	AC

Exposure to noise and vibration	Short term and long term hearing damage. Loss of communications or distraction due to high noise levels. Nuisance in the environment.	6	4	24	Reduce noise at source, and release gas slowly. Wear PPE. HAV's Books. Regular breaks to be taken when operating vibration equipment. Workers to work a rota system to avoid exposure to loud and vibration equipment/plant. Vibration assessments to be carried out in accordance with Ocean Kinetics own policy	All personnel	Before work starts and during	1	4	4	AC
Trailing Leads/electrical cables	Trip Hazard. Personnel injury	6	6	36	Tidy all trailing leads. Plan route before lift. Keep work area as tidy as possible.	All Personnel	Before work starts and during	1	6	6	AC
Electrical	Electrical shock. Fire. Misconnecting Earth Clamp	6	8	48	Staff instructed to double check Earth Clamp connection. Fire watcher. Regular maintenance of welding equipment	All Personnel	Before work starts and during	1	8	8	AC
Working Near or Over Water	Drowning	4	8	32	All personnel to wear lifejackets while working over or near water. Ensure means of exit from water. Life ring to be close by.	Operator	Before work starts	1	8	8	AC
Vehicle/pedestrian movements on the quay and adjacent areas	Being run over, crushed, severe injury.	6	8	48	Operator must be trained in the use of the particular machine and hold a recognised certificate of training. Ensure good all round visibility from operator's position. All mirrors, CCTV, etc should be fitted, adjusted	Diving supervisor and operator	Before work starts	1	8	8	AC

					and maintained to provide a clear and optimum field of view. Workers to wear Hi Vis at all times						
High Winds – Wet Weather Conditions	Materials / equipment being blown from high-level. Damage to scaffolding / edge protection. Wet Slippery conditions	6	8	48	Monitor weather forecast every day and assess the working area such as slippery surfaces and any damage or movement to the scaffold. No work will be permitted in high winds or wet conditions if considered unsafe by Chargehand/Supervisor. Secure storage of materials / equipment. All materials to be removed from storage area as and when required. No equipment to be left insecure overnight.	All Personnel	Before work starts and during	1	8	8	AC
Use of air operated power tools	Burst hoses, high pressure, hoses entanglement with diver	6	6	36	All hoses checked for leaks and damage before use. No excess hose to be lowered into the water.	All personnel	Before work starts	1	6	6	AC
Cement Concrete	Fumes and Dust from cement, concrete burns	6	6	36	Wear dust/face mask, gloves	Site supervisor	Before work starts and during operations	1	6	6	AC

Working with grout	Personal injury, Shortage of equipment, incorrect PPE, insufficient storage place	6	6	36	No skin contact with the grout. User to ensure all required equipment for setting up of the pump is available, such as water, sufficient storage space, hoses, valves and connecters.	Diving Supervisor & Operator	Before work starts	1	6	6	AC
Use of hammer drill	Fumes and dust can cause breathing problems. Hair & clothing could become entangled.	4	4	8	Competent person to use drill. Ventilate area and wear suitable dust masks where required. Keep long hair tied back. No loose clothes to be worn Only 110v equipment permitted on site	All Personnel	Before work starts and during operations	1	8	8	AC
Use of chainsaw	Severe injury to operator & other persons	6	6	36	Competent person to use saw. Safety glasses & earplugs to be worn whilst operating saw. The blade will be inspected for damage prior to each use. Do not overload the saw Operator to stop saw if someone approaches Kevlar/cut resistant gloves to be worn	All Personnel	Before work starts and during	1	6	6	AC
Welding all material	Welding flash. Hot matter. Burns. Fire. Fumes	6	8	48	Fast reacting air fed welding screen to be worn at all times. Welding gloves to be worn. Fire proof overalls to be worn. Competent welder to be used.	All Personnel	Before work starts and during	1	8	8	AC

Air Emissions Particle matter and / or dust. Fumes. Carbon monoxide fumes	Damage to health. Damage to health, pollution of air. Damage to health, pollution of air	5	3	15	Control all grinding and cutting; ensure all plant is well maintained. Plant to be maintained, do not cut or weld coated materials. Service plant effectively, reduce petrol engine use, ensure discharge is downwind of any air intakes.	All personnel	Before work starts and during.	1 2 1	4 4 4	4 8 4	AC AC AC
Energy and Utilities. Over use of natural resources	Depletion of natural resources	5	2	10	Use minimum of natural resources, switch off machines, auto idle, reduce wastage and recycle spent materials.	All personnel.	Before and during works	4	2	8	AC
Waste Production of waste on site	Waste on site, packaging, messy if left.	5	2	10	Reduce materials on site, re-use where possible. Only landfill as a last resort, re-cycle steel.	All personnel.	Before and during works	3	2	6	AC

4. Toolbox Talk

To be signed by each member of the team.
Project: SSF Pier Repairs at Vidlin Shorebase
I confirm that I have read and understood the attached Method Statement, Risk Assessment and Hazard Identification documents:

PRINT NAME	SIGNATURE	DATE
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