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**ANNEX B- HELIPAD REFURBISHMENT AND PLATFORM
INSTALLATION LL 620 COLCHESTER REEF
LAKE ERIE, ON- SPECIFICATIONS**

MARITIME AND CIVIL INFRASTRUCTURE

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SECTION: 011100 GENERAL INSTRUCTIONS

PART 1 - GENERAL

1.1 Minimum Standards

.1 Perform work in accordance with National Building Code of Canada (NBC) and any other code of provincial or local application. In the case of any conflict or discrepancy, the more stringent requirements shall apply.

.1 Meet or exceed requirements of:

- .1 Contract documents;
- .2 Specified standards, codes and referenced documents.

1.2 Definitions

.1 The following acronyms utilized throughout these specifications are to be interpreted as follows:

- .1 CCG : Canadian Coast Guard
- .2 DFO: Department of Fisheries and Oceans
- .3 PA: Project Authority/Technical Authority
- .4 CA: Contract Authority
- .5 ATON: Aid to Navigation
- .6 SRAN: Short Range Aid to Navigation
 - .1 Term encompassing the daymark, marine lantern, solar panel, batteries and all related appurtenances
- .7 DSL: Designated Staging Location

1.3 Background

- .1 CCG requires the removal of bird feces from the surface of the helipad located on an offshore pier that supports LL620.
- .2 CCG requires the fabrication and installation of a predesigned platform to accommodate the existing bird deterring device.
- .3 CCG requires the replacement of safety netting existing around the helipad platform.



1.4 Description of Work

.1 Work under this Contract includes; but is not limited to, the provision of all labour, materials, and equipment required to:

- .1 Mobilize to the site;
- .2 Remove accumulated debris (including bird feces) from helipad landing and walkway surfaces;
- .3 Dispose of collected waste
- .4 Fabricate and Install platform as detailed in appended drawings
- .5 Relocate bird deterring device to specified location on platform as detailed in appended drawings
- .6 Replace safety netting; and
- .7 Demobilize.

1.5 Submittals

.1 Mandatory deliverables and the related deadlines for submission are detailed below and in Appendix B2. The following identifies general requirements only. The relevant sections must be consulted for a complete listing of mandatory content.

.2 Detailed Schedule:

.1 Deadline:

- .1 No later than ten (10) working days following award.

.2 Deliverables:

.1 The Contractor shall furnish a high level schedule outlining:

- .1 Anticipated start and finish dates of the project.
- .2 Proposed submission dates for: Construction and Cleaning Plan
- .3 Anticipated onsite periods (preliminary investigations, material staging, construction).

.3 The schedule is to be updated and revised as necessary throughout the duration of the project upon reasonable request of the CCG PA.

.3 Project Participant List:

.1 Deadline: With detailed schedule.

.2 Deliverables: Contractor to identify the following:

- .1 Project Manager,



- .2 Pertinent subcontractors, specifically any firm providing marine access to the site.
 - .4 Construction and Cleaning Plan:
 - .1 Deadline:
 - .1 As identified in the Contractor's schedule.
 - .2 No less than ten [10] working days prior to mobilization.
 - .2 Deliverables:
 - .1 A written plan of sufficient detail to demonstrate that the Contractor has considered all the challenges of the project and is prepared to undertake the works in a competent and professional manner in accordance with all legislation, including:
 - .1 Project specific safety program (Section 013530);
 - .2 Project environmental protection plan (Section 013543);
- 1.6 Contractor Qualifications
- .1 The work shall be carried out under the supervision and responsibility of a sole specialized Contractor.
 - .2 Subcontractors engaged by the Contractor must possess all necessary licenses and certifications necessary to practice their trade within the Province of Ontario.
- 1.7 Site Location
- .1 The location of the site is as follows:
 - .1 Lat./Long.: 41°55'56.62"N, 82°53'31.54"W
 - .2 Site is located offshore of Colchester, ON in Lake Erie. The nearest major community is Kingsville, ON.
- 1.8 Existing Conditions
- .1 Bidders must make their own estimate of the difficulties associated with all phases of the works.
 - .2 The Contractor must include in their costs, all expenses related to the difficulties of working at the sites.
 - .3 Photographs of the existing sites are included in Appendix B1.
- 1.9 Contractor's Access to Site
- .1 Contractor is responsible for transportation of all labour, materials, and equipment to and from the sites.



- .2 Access to the site is offshore. Anticipated mobilization point is Kingsville, ON.
- .3 Access is anticipated to be completed by appropriate vessel.
- .1 CCG requirements for marine access are listed in Appendix B4.

1.10 Canadian Coast Guard Access to the Site.

- .1 The Contractor must allow in their price for the proper transportation to and from the site of the CCG PA and/or designated representatives.
- .1 Transportation is to be from Kingsville, ON unless otherwise agreed upon between the Contractor and the CCG PA.
 - .1 PPE for CCG PA (/ representatives) is the responsibility of CCG. PPE provided will be in accordance with more stringent requirements of either the Contractor's or CCG's designated safety equipment.
- .2 Contractor must estimate that such services will be required throughout the field work phase while the Contractor is undertaking work at the Project Site.
 - .1 Total number of passengers will be one (1) on average; but, may increase to two or three (2-3) depending on quality assurance requirements itemized herein.

1.11 Completion, Scheduling and Planning of the Works

- .1 Work may commence as early as practical following CCGs acceptance and approval of mandatory submissions.
- .2 Work shall be completed no later than the 27th of September, 2019 unless otherwise negotiated and approved in writing by CCG PA and DFO CA.

1.12 Temporary Facilities

- .1 Arrange, pay for, and maintain temporary electrical power supply as required for construction, and water supply as required, in accordance with governing regulations and ordinances.
- .2 Maintain emergency spill kit on-site at all times.

1.13 Fees, Permits, Certificates and Information

- .1 Contractor shall provide authorities having jurisdiction with all information requested.
- .1 Contractor shall provide copies to CCG of any documentation submitted to other authorities related to the work described in this document.
 - .2 Contractor shall pay fees and obtain certificates and permits required.
 - .3 Contractor shall furnish certificates and permits when requested.



1.14 Reference Documents

- .1 The most recent publication or edition of any document referenced in this specification should be used unless stated otherwise.

1.15 Required Submissions

- .1 A summary of the minimum mandatory submissions required can be found in Appendix B2. This summary is not an exhaustive list of all submissions required for the duration of the project. Additional submissions may be required after award.

PART 2 - PRODUCTS AND METAL FABRICATIONS

2.1 Netting Requirements

- .1 Netting must be of equal to or greater performance than: Barry Cordage Product HPN-HDFN70025 possessing:
 - .1 850mm (minimum width) x Various lengths (see drawings in appendix)
 - .2 Knotless nylon with urethane UV protection coating. Nylon rope border inserted in/out around perimeter without lashing.
 - .3 Minimum 700lbs break strength.
 - .4 Minimum 10 year advertised life span.

2.2 Platform Requirements

- .1 Platform shall be fabricated to specifications as per drawings. (Appendix B3)



SECTION: 013300 SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 General

- .1 This section specifies general requirements and procedures for the Contractor's submissions of documents to CCG PA for review.
- .2 Do not proceed with the work until submitted documents or samples have been reviewed by CCG PA.
- .3 Where items or information are not produced in SI Metric units, converted values are acceptable.
- .4 Contractor's responsibility for errors and omissions in submission is not relieved by CCG PA's review of the submitted documents.
- .5 Notify CCG PA, in writing at time of submission, identifying deviations from requirements of Contract Documents stating reasons for deviations.
- .6 Contractor's responsibility for deviations in submission from requirements of Contract Documents is not relieved by CCG PA's review of submission, unless CCG PA gives written acceptance of specific deviations.
- .7 Make any changes to submissions that CCG PA may require consistent with Contract Documents and resubmit as directed by CCG PA.
- .8 Provide CCG PA with a written notice, when resubmitting, of any revisions other than those requested CCG PA.

1.2 Submission Requirements

- .1 Coordinate each submission with requirements of work and Contract Documents. Individual submissions will not be reviewed until all related information is available.
- .2 Allow at least three (3) working days, or as stipulated elsewhere in these specifications, for CCG PA to review the submission.



SECTION: 013530 HEALTH AND SAFETY REQUIREMENTS

PART 1 - GENERAL

1.1 Scope

- .1 The Contractor shall be responsible to develop, implement and enforce a safety program which addresses all elements of the work performed at the project location.

1.2 References

- .1 Work under this section shall be undertaken in strict conformance with the most recent edition of all listed references, In the case of any conflict or discrepancy the more stringent requirements shall apply.
- .1 Canada Labour Code Part II
- .2 NRC-CNRC National Building Code of Canada
- .3 Ontario Occupational Health and Safety Act and Regulations
- .4 Any and all other Provincial/Territorial Regulations and Policies; Worker's Compensation Board Policies; Local municipal regulations; pertaining to safety of the Contractors workers

1.3 Submittals

- .1 Project Specific Safety Program
- .1 Deadline: With Construction and Cleaning Plan.
- .2 Deliverables: Safety Program Document, include:
 - .1 A listing of all activities specific to this phase of the project and their Health & Safety risks or hazards.
 - .2 Detailed descriptions of how the activities are to be carried out as well as methods for mitigating hazards and risks.
 - .3 A listing of personnel responsible for health and safety measures, and Emergency procedures.
 - .4 Material Safety Data Sheets for hazardous products to be utilized in the execution of the works.

1.4 Existing Conditions

- .1 Bird feces has covered the helipad and walkway. Photos of the site conditions can be seen in Appendix B1.



SECTION: 013543 ENVIRONMENTAL PROCEDURES

PART 1 - GENERAL

1.1 Scope of Work

- .1 The Contractor must implement and enforce the following procedures throughout the duration of the work completed at the project location to mitigate potential negative impacts on the surrounding environment.

1.2 References

- .1 Work under this section shall be undertaken in strict conformance with all listed references, in the case of any conflict or discrepancy the more stringent requirements shall apply.

- .1 Canadian Environmental Protection Act

1.3 Submittals

- .1 Contractor shall submit an Environmental Protection Plan.
- .1 Deadline: With Construction and Cleaning Plan.
- .2 Deliverables: Submit a plan addressing procedures to be implemented to mitigate any negative impact on the environment. Detail:
 - .1 Staging, refueling, and cleaning areas;
 - .2 Clean-up and/or containment procedures; and
 - .3 Waste disposal methods and sites.

PART 2 - PRODUCTS

1.2 General

- .1 Avoid use of hazardous products. Use environmentally friendly products where practical.

PART 3 - EXECUTION

1.1 Project Area

- .1 Establish material storage, cleaning, and refueling areas where impacts to the surrounding environment will be negligible or readily mitigated.



3.2 Disposal of Wastes

- .1 Clean-up the site at the end of each working day.
- .2 All waste material to be disposed of in a legal manner at a site approved by local authorities. Transporter/hauler must be appropriately licensed.
- .1 Recycle or reuse materials where possible.
- .3 Fires and burning of rubbish on site is not permitted.

3.3 Pollution Control

- .1 Provide methods, means, and facilities to prevent the contamination of water, and atmosphere from the discharge of pollutants produced by cleaning operations.
- .2 Vehicles, machinery, and equipment shall be in good repair, equipped with emission controls as applicable and operated within regulatory requirements.
- .3 Abide by local noise by-laws.
- .4 Avoid unnecessary idling of vehicles.
- .5 Limit use of equipment around the shoreline where possible.
- .6 Implement and maintain dust and particulate control measures in accordance with provincial requirements:
 - .1 All bulk material haul equipment shall be appropriately tarped. Watertight vehicles shall be used to haul wet materials
 - .7 Designate a cleaning area for tools to limit water use and runoff. Do not allow deleterious materials to enter waterways. Ensure emptied containers are sealed and stored safely for disposal.
 - .8 The Contractor shall take all necessary precautions to guard against the release of any noxious substance or pollutant to the environment. In the event of any spill the Contractor shall take immediate action to contain the release and mitigate any impact.
- .1 Materials and equipment are to intercept, contain, and clean-up any spill or other release shall be maintained on site throughout the construction period and must be readily accessible at all times.
- .2 Any uncontrolled release of a known contaminant (spills, fire/smoke) shall be reported to appropriate Provincial Authority and CCG. Spills of deleterious substances are to be immediately contained and cleaned up in accordance with provincial regulatory requirements.
- .3 Provincial Authority: Ontario Spills Action Centre 1-800-1-800-265-0237



SECTION: 014500 QUALITY ASSURANCE AND CONTROL

PART 1 - GENERAL

1.1 Inspection

- .1 CCG PA or their representative shall have access to the work at all times. If parts of the work are prepared off-site or in a shop, access shall be given to such work throughout the duration of the project.
- .2 In the event the work must be submitted to special testing, inspection or approvals prescribed by these specifications or provided for in work-site regulations, the request for inspection must be made without unreasonable delay.

1.2 Procedures

- .1 Provide CCG PA with advance notice whenever testing is required in accordance with these specifications, so that all parties involved can be present.
- .2 Provide necessary manpower and installations for obtaining and handling samples and material on site.
- .3 Provide access to site if the site is of remote nature whereby the Contractor is responsible for providing access to the site

1.3 Rejected Work

- .1 Rectify defective work, whether incorporated into the work or not, which has been rejected by CCG PA as failing to comply with the contract documents. Re-execute in accordance with the Contract Documents.

1.4 Acceptance of Work

- .1 CCG PA will make acceptance visits of work executed by the Contractor at the critical milestones identified in the following sections.
- .2 The Contractor is to inform CCG PA at least three (3) working days before achieving these milestones to allow time for inspection to be coordinated.
- .3 All work shall be completed in compliance with these specifications before requesting inspection. If the work is not completed or deemed non-compliant, the Contractor shall be responsible for all costs incurred for subsequent inspections.



SECTION: 016100 COMMON PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 General

- .1 Secure CCG PA's approval of all products to be incorporated into the works. Work shall not commence until product data and/or samples have received written approval.
- .2 Supply and/or fabricate material and equipment of prescribed quality, with performance conforming to these specifications, references and industry standards.
- .3 Use new material and equipment unless otherwise specified.
- .4 Ensure replacements parts may be readily procured.
- .5 Use products from one manufacturer for material and equipment of same type or classification, unless otherwise specified.

1.2 Manufacturer's Instructions

- .1 Unless otherwise specified, comply with manufacturer's latest printed instructions for materials and installation methods.
- .2 Notify CCG PA in writing of any conflict between these specifications and manufacturer's instructions; CCG PA will designate which document is to be followed.

1.3 Compliance

- .1 When material or equipment is specified by standard or performance specifications, upon request of CCG PA, obtain an independent testing laboratory report from the manufacturer, stating that material or equipment meets or exceeds specified requirements.

1.4 Substitution

- .1 Where specific products have been specified, proposals for substitution may only be submitted after award of contract. Such requests must include statements of respective costs of items originally specified and the proposed substitution.
- .2 No substitutions will be permitted without prior written approval of CCG PA. Substitutions will be considered by CCG PA only when:
 - .1 Materials specified in Contract Documents are not available; or,
 - .2 Delivery date of materials selected from those materials specified would unduly delay completion of contract; or,
 - .3 Alternative materials to those specified which are brought to the attention of, and are considered by CCG PA as equivalent to the material specified. Where the value of such material is less than the



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material specified the difference is to be credited from the Contract amount.

.3 Should the proposed substitution be accepted either in whole or in part, the Contractor must assume full responsibility and costs when such substitution affects other work on the project including any and all design or drawing changes required as a result of substitution.

1.5 Submittals

.1 Provide product specifications and/or samples upon request from CCG PA.



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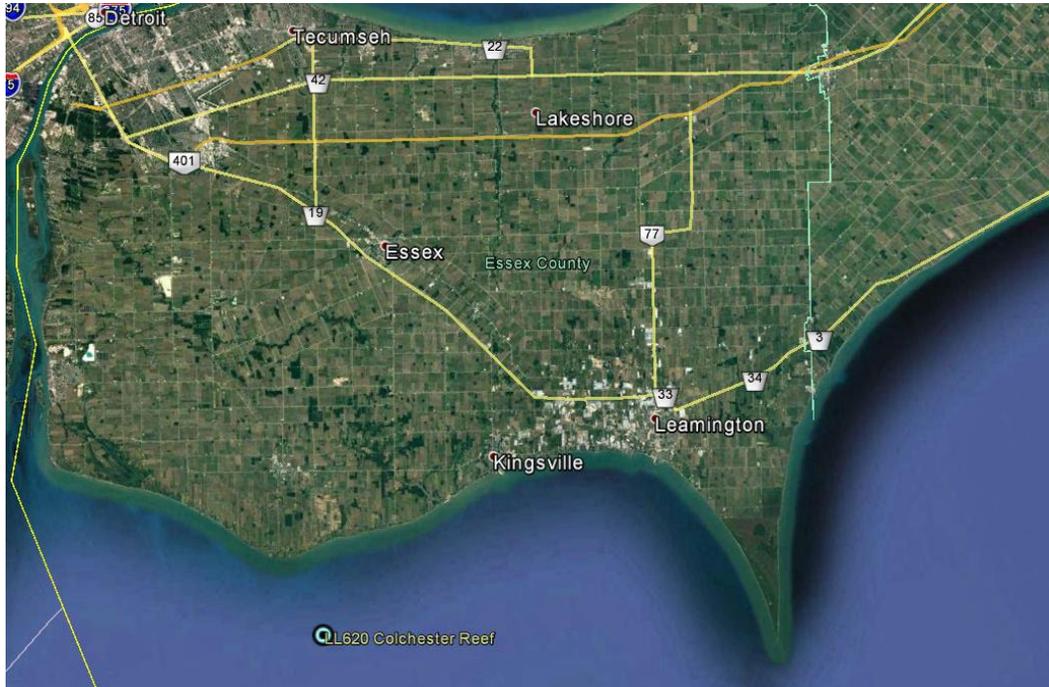
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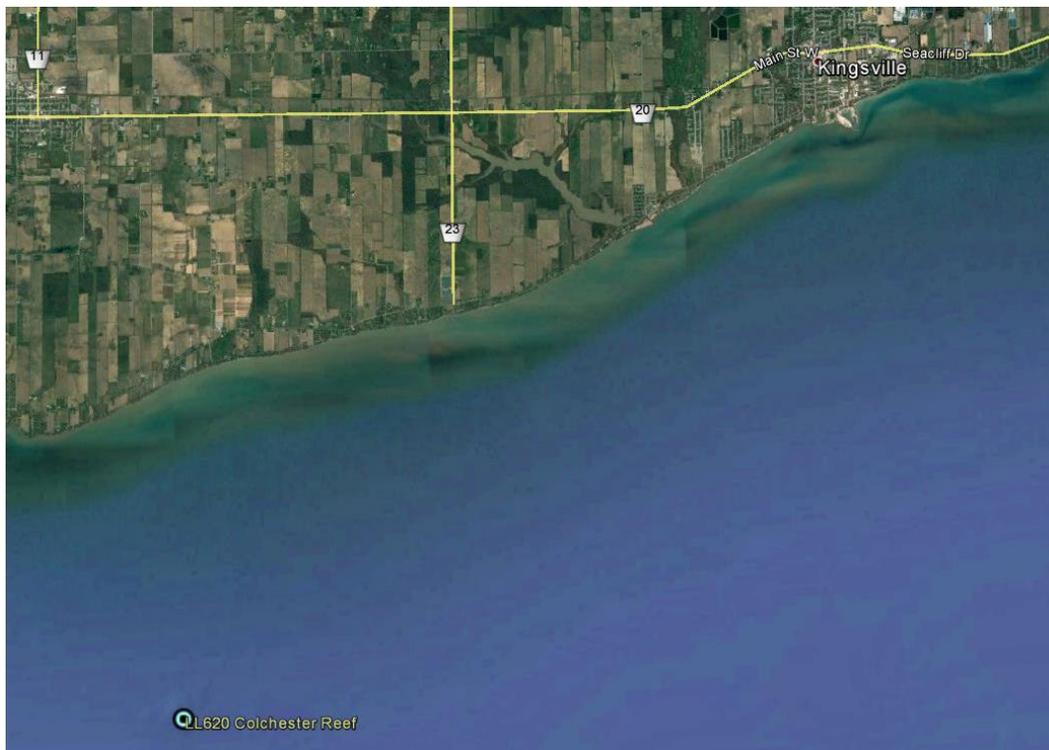
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APPENDIX B1: SITE LOCATION AND PHOTOGRAPHS



Site Location





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LL 620 Colchester Reef

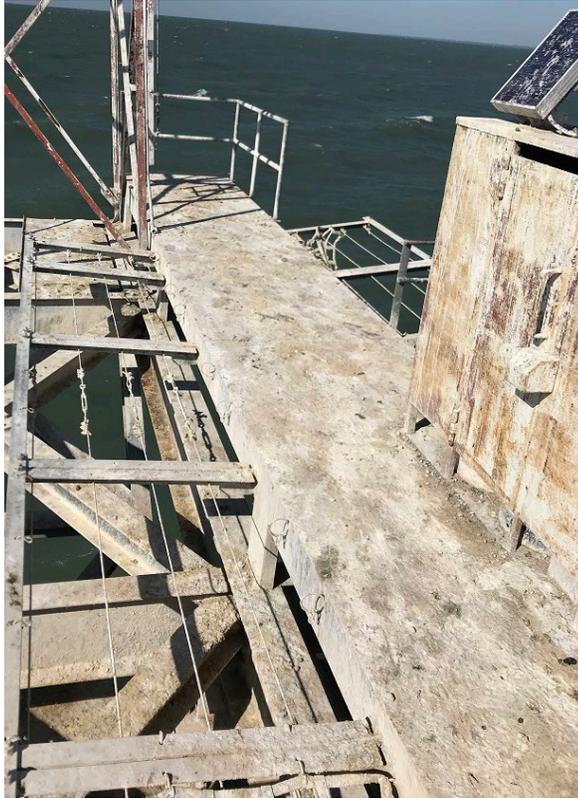


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Left: Walkway Conditions

Bottom: Helipad Conditions





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APPENDIX B2 – SUMMARY OF CONTRACT SUBMITTALS (a)

Sect 011100 General Requirements		Sect 013530 Health and Safety Requirements	Sect 013543 Environmental Procedures				
Deliverable	Deadline						
Detailed Schedule	<i>10 working days following award</i>						
Project Participants List	<i>With schedule</i>						
Preliminary Design Package	<i>As detailed in Contractor's submitted schedule</i>						
Construction/ Cleaning Plan	<i>As detailed in Contractor's submitted schedule (b)</i>	<i>Project specific safety program</i>	<i>Environmental protection plan</i>				
Maintenance Package	<i>30 days following substantial completion</i>						

- a) Requirements of Section 013300 Submittal Procedures govern all submissions
- b) Documents to be submitted 10 days prior to mobilization
- c) Submissions may be combined were feasible, for clarity electrical, foundation, and marine cable haul system drawings may be combined for each individual submittal



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APPENDIX B4 – MARINE ACCESS REQUIREMENTS

.1 Marine Access

- .1 Vessel(s) employed in the performance of the contract shall be certified as required by the Canada Shipping Act 2001 and its applicable regulations including Marine Personnel Regulation.
 - .1 The bidder shall ensure that the vessel(s) proposed for the work meets all requirements of the Canada Shipping Act 2001 and the applicable Regulations under the Canada Shipping Act.
 - .2 Bidders shall provide copies of the following documentation to facilitate evaluation and award:
 - .1 Proof of vessel registration as a commercial vessel in accordance with the Canada Shipping Act 2001. Either one of two registrations will be accepted:
 - .1 Proof of commercial vessel registration in the Small Vessel Register (SVR) if less than 15 Gross Tons or;
 - .2 Proof of commercial vessel registration in the Canadian Register of Vessels (CRV) if more than 15 Gross Tons.
 - .3 NOTE: Pleasure Craft and Fishing Vessels are not acceptable for the performance of this work – it must be a commercially registered vessel.
 - .2 Where the vessel is registered in the SVR the bidder shall also provide the following:
 - .1 Copy of vessel certification and any limitations the vessel is operating under. Where the vessel is restricted, the operator shall ensure that the vessel can be used to safely perform the work in this specification;
 - .2 Copy of inspection according to the Small Vessel Compliance Program; Bidder shall submit proof of enrolment in the compliance program and;
 - .3 Either a copy of the initial inspection report or the most recent copy of an annual inspection report and;
 - .4 Copy of the crew certification that will be operating the vessel. Crewing and certification of crew shall be in accordance with the Marine Personnel Regulations, latest edition.
 - .3 Where the vessel is registered in the CRV the bidder shall also provide the following:
 - .1 Copy of the latest Annual Inspection Certificate endorsement and;

- .2 Copy of any restrictions that the vessel is operating under and the general sailing limitations of the vessel. Where the vessel is restricted, the operator shall ensure that the vessel can be used to safely perform the work in this specification;
 - .3 Copies of the crew certification that will be operating the vessel. Crewing and certification of crew shall be in accordance with the Marine Personnel Regulations, latest edition.
- .2 Vessels and crew found to be in contravention of the act will not be permitted to be engaged in any elements of the works identified herein. In the event that a vessel or crew is found non compliant a suitable replacement vessel and/or crew will be retained by the Contractor at their sole expense.